Delhi High Court
Telefonaktiebolaget Lm Ericsson ... vs Intex Technologies (India) ... on 13 March, 2015
Author: Manmohan Singh

* IN THE HIGH COURT OF DELHI AT NEW DELHI

% Judgment pronounced on: March 13, 2015

\+ I.A. No. 6735/2014 in CS(OS) No.1045/ 2014

TELEFONAKTIEBOLAGET LM ERICSSON (PUBL) ..... Plaintiff
Through Mr.C.S. Vaidyanathan, Sr. Adv. &
Mrs.Prathiba M. Singh, Sr. Adv.
with Mrs.Saya Choudhary Kapur,
Mr.Ashutosh Kumar, Mr.B.
Prashant Kumar, Mr.Saurabh
Anand and Mr.Vihan Dang, Advs.

versus

INTEX TECHNOLOGIES (INDIA) LIMITED ..... Defendant
Through Mr.Saikrishna Rajgopal, with Mr.J.
Sai Deepak, Ms.Savni Dutt &
Ms.Rachel Mamatha and
Mr.Subhajit Banerji, Advs.

CORAM:
HON'BLE MR.JUSTICE MANMOHAN SINGH

MANMOHAN SINGH, J.

1. The plaintiff has filed the present suit for permanent injunction restraining infringement of rights in eight patents registered in India alongwith damages/rendition of accounts and delivery up etc.

2. Alongwith the plaint the plaintiff has filed the interim application being I.A. No.6735/2014 under Order XXXIX Rule 1 and 2 read with Section 151 CPC. By this order, I propose to decide the abovementioned application.

3. The facts stated in the plaint The plaintiff, M/s Telefonaktiebolaget LM Ericsson is a company incorporated under the laws of Sweden who is the mother company of the Ericsson group, which was founded in Sweden in 1876 and it is claimed that the plaintiff is one of the largest telecommunications companies in the world.

The Ericsson group is active in more than 180 countries having annual sales of USD 35 Billion (approximately) for the year 2013. The Ericsson's main trade is to provide telecom operators with best-in- class equipment and services for telecommunications network. The Ericsson group has invested tons of billions of US dollars in the past decade on telecommunications research and development. In 2013 alone, the Ericsson group invested approximately USD 5 Billion on R&D.

The plaintiff's portfolio comprises of mobile and fixed network infrastructure, telecom services, software, broadband and multimedia solutions for operators, enterprises and the media industry. In the year 2012, the plaintiff received awards for "Top Wireless Infrastructure Company" at the prestigious CyberMedia ICT Business Awards, "Largest Telecom Equipment Manufacturer" from CMAI, "Innovative Network Management Solutions" and "Innovative Vendor Telecom Product" at the Aegis Graham Bell awards.

In the year 2013, the plaintiff won the "Challengers Award-large business" at Frost & Sullivan 'Green Manufacturing Excellence Awards 2013' and also received the "Best Managed Services Vendor" award at the "7th NTA ICT World Communication Awards 2013". Last year, i.e. on 19th March, 2014, the plaintiff won an award for its LTE Broadcast solution in the category "Best TV On The Move Service" at TV Connect in London.

4. The suit patents relate to three technologies in the field of telecommunications pertaining inter alia to 2G and 3G devices (mobile handsets, tablets etc), details of which are referred to as follows for ease of usage:

A. Adaptive Multi-Rate (AMR) speech codec - a feature that conserves use of bandwidth and enhances speech quality; (AMR) B. Features in 3G phones - Multi service handling by a Single Mobile Station & A mobile radio for use in a mobile radio communication system; (3G) C. Enhanced Data Rates for GSM Evolution (EDGE) - A transceiving unit for block automatic retransmission request; (EDGE)

5. The plaintiff has in its plaint has provided the details of the patents and their claims raised at the time of registrations. The same are as follows :

S. No.	Patent	Discussion and Analysis
AMR PATENTS		
1.	IN203034	Linear Predictive Analysis by synthesis encoding method and encoder

This patent relates to CELP (Code Excited Linear Prediction) based encoding method and encoder that is efficient at low bitrates (<8kbps) and which synchronizes its internal states with those of the decoder. The present patent decreases the number of bits required to encode a frame while maintaining the synchronization between internal states of encoder and decoder as two or more sub-frames are encoded together. Thus, it improves speech quality and compression performance.

In the conventional LPAS encoders, each speech sub- frame was encoded separately in order to ensure synchronization between encoder and decoder as a result of which the said encoders did not work efficiently for bit rates of 8kbps or lower.

Claims 1-7 relate to simultaneous coding method of two or more sub-frames and claims 8-14 relate

to the encoder that can simultaneously encode two or more sub-frames while maintaining the internal synchronization with the decoder.

2. IN203036 Apparatus for producing from an original speech signal a plurality of parameters The patent relates to improved coding criteria for accommodating noise like signals at lowered bit rates. In the conventional encoders when CELP is used, if bit rates go below 8 kbps, the ability of the encoder to do waveform matching of non-periodic noise like unvoiced speech and background noise suffers thereby affecting the efficiency. In order to overcome the same, different coding mode (e.g., energy matching) was used for unvoiced speech and background noise. The drawback with this approach was the need for mode decision, for example, choosing waveform matching mode for voiced speech and choosing energy matching mode for noise- like signals like unvoiced speech and background noise. The mode decision is sensitive and causes annoying artifacts when wrong. Also, the drastic change of coding strategy between modes can cause unwanted sounds.

The patent advantageously combines waveform matching and energy matching criteria into one criterion to improve the coding of noise-like signals at lowered bit rates without the disadvantages of multi-mode coding thereby avoiding the problem of wrong mode decisions.

Claims 1-13 relate to a speech encoding apparatus that combines the waveform and energy matching criteria as one.

3. IN234157 A method of encoding/ decoding multi-codebook fixed bitrate CELP signal block Conventionally, CELP speech coders typically use codebooks to store excitation vectors that are intended to excite synthesis filters to produce a synthetic speech signal. For high bitrates these codebooks contain a large variety of excitation vectors to cope with a large spectrum of sound types. However, at low bit rates, for example around 4-7 Kbits/ s, the number of bits available for the codebook index is limited, which means that the number of vectors to choose from must be reduced. Therefore, low bit rate coders will have a codebook structure that is a compromise between accuracy and richness. Such coders will give fair speech quality for some types of sound and barely acceptable quality for other types of sound.

The patent overcomes this drawback by using several different equal size codebooks. Each codebook is weak for some signals, but the other codebooks do not share this weakness for those signals. By deterministically (without regard to signal type) switching between these codebooks from speech block to speech block, the coding quality is significantly improved for low bitrates. Further, bandwidth is also saved as there is no need to transfer information on which codebook was selected for a particular speech block, since both encoder and decoder use the same deterministic switching algorithm.

Claims 1-11 relate to a method of encoding/ decoding a signal block as per CELP by using multiple codebooks, claims 12-18 relate to an encoder/ decoder that uses the aforesaid claimed method, claims 19-21 relate to a method for selection of appropriate codebook, claims 22-24 relates to an encoder/ decoder that uses the patented method for selection of appropriate code book whereas claim 25 relates to a codebook structure which ensures that different codebooks do not share the

same weakness.

4. IN203686 Method and system for alternating transmission of codec mode information When AMR codec is used, voice signals/ data can be transmitted at 8 different bit rates between two transceivers. In order to ensure efficient transmission and proper encoding/ decoding it is imperative that information pertaining to the coding modes which are being used is also shared/ transferred either beforehand or simultaneously by the transceivers. The present patent generally relates to mode handling in the field of communication systems and, more particularly, to handling the transmission of information associated with requesting and identifying coding modes in digital communication systems that support multiple speech/ forward error correction coding schemes.

The present patent relates to mode indicators which reflect the transmitter's currently employed speech coding/ channel coding combination and mode requests which reflect the receiver's request for a particular speech coding/ channel coding mode to be employed. For example, when channel conditions are good, the receiver may send a mode request in the uplink for a speech coding/ channel coding mode which provides for a high source coding bit rate and a relatively low degree of error protection. When the transmitter transmits information using the requested mode, it will also include a corresponding mode indicator in its downlink transmissions; Thus, mode indicators and mode requests are communicated between transmitting and receiving entities to enable variable codec mode operation.

Claims 1-25 are method claims whereas claims 26-47 are system claims.

5. IN213723 Method and apparatus for generating comfort noise in a speech decoder When a call is made on many occasions during a conversation there is silence on one end. In order to ensure that when there is a silence, the receiver of the call is informed that the source of the call is not yet disconnected, a comfort noise is generated as per the background noise at the callers end. In conventional methods, either the background noises are transmitted continuously by using lower bit rates (this leads to occupation of bandwidth) or in a conventional Discontinuous Transmission (DTX) the transmitter sends speech parameters suitable for generation of comfort noise in the decoder at regular intervals of time. These parameters for comfort noise generation (CNG) are conventionally coded into what is sometimes called Silence Descriptor (SID) frames. However, comfort noise produced in such a manner is static.

The present patent relates to speech coding wherein artificial background noise is produced during periods of speech inactivity. The aforesaid disadvantages associated with conventional comfort noise generation are overcome by modifying the comfort noise parameters at regular intervals based on properties of actual background noise experienced at the encoder. Comfort noise generated from the modified parameters is perceived as less static than conventionally generated comfort noise, and more similar to the actual background noise experienced at the encoder.

Claims 1-16 relate to the method for generating comfort noise by modifying the comfort noise parameters and claims 17-25 relate to the apparatus which produces such modified comfort noise parameters.

3G PATENTS

6. IN229632 Multi service handling by a Single Mobile Station Mobile stations have to support several different types of services such as speech, voice and file transfers simultaneously despite the fact that they have different support requirements. Prior to the present patent while supporting multi-services, either the quality pertaining to each service was compromised or huge amount of bandwidth was utilized leading to inefficient functioning of the network.

The present patent overcomes these short comings with a method for processing multiple data services over a communication link between a Mobile Station and a Base Station:

- First a plurality of radio bearer services are processed and the data within the radio bearers is separated into a plurality of data blocks;

- Separated data blocks are combined with other data blocks from services having similar Quality of Services requirement into a transmission block for transmission on a single logical/ transport channel;

- Data blocks within the transmission blocks may be prioritized such that high priority data blocks are transmitted prior to low priority data blocks;

Thus, the present patent provides flexibility in the manner in which radio bearers are mapped onto logical/ transport channels to enable the efficient management of various services mixes without exceeding the mobile stations set power levels.

Claims 1-9 relate to a mobile station that can process multiple data services simultaneously with efficiency as detailed above.

7. IN240471 A mobile radio for use in a mobile radio communication system The present patent relates to a mobile device being used for generating parameter (signal strength, signal quality etc) report which is transmitted to a radio network dependent on a trigger (happening of a certain event etc) which then processes the data inter alia to determine a suitable candidate for a handover operation between two base stations (towers) in order to ensure continuous effective transmission.

Claim 1-31 relate to a mobile radio that can inter alia electronically measure handover related parameters, prepare reports in respect of same and transmit the same to a network when a pre-determined condition or event is triggered.

EDGE PATENT

8. IN241747 A transceiving omit unit for block automatic retransmission request The present patent generally relates to error handling in the field of communication systems and, more particularly, to error handling using automatic retransmission requests (ARQ) in digital communication systems that support multiple FEC (Forward Error Correction) coding and/ or modulation schemes;

This patent overcomes the drawbacks and limitations associated with conventional methods and systems for communicating information by adjusting one or both of the modulation and FEC coding used to prepare information for blocks to be retransmitted. Thus, the probability that the retransmitted block is received erroneously is highly reduced and overall system performance is improved.

Claims 1-8 relate to a transceiving unit that handles error correction using ARQs in systems that support FEC coding/ modulation.

6. The plaintiff contends that the plaintiff's suit patents correspond to standards that have also been adopted in India as per the Department of Telecommunications. The AMR Patents (AMR Speech Codecs) and the 3G Patents correspond to mandatory portions of the 3G standard, to which 3G-enabled devices must adhere. The plaintiff has also performed testing on the defendant's representative 3G enabled devices. The said testing confirms that the defendant's 3G enabled device uses AMR speech codecs as defined in the relevant standard of ETSI for 3G technology. The EDGE Patent, also correspond to optional, but widely implemented, portions of the 2G/ EDGE standard, to which 2G-enabled devices must adhere. The plaintiff has tested representative 2G-enabled devices of the defendant for AMR functionality and found all the tested devices to be infringing in nature. The plaintiff also tested some of the EDGE compliant devices of the defendant to establish that the same are infringing in nature.

7. The defendant sells/markets multiple models of phones/ telecommunication devices (tablets, dongles etc.) in India under the brands 'INTEX'. The defendant has incorporated the suit patents in numerous of its mobile handsets/ devices in the past and continues to do the same.

8. The abovementioned patents are "Standard Essential Patents" in the field of telecommunication and are mandatorily required and used for the implementation of the concerned technologies including 2G and 3G technologies. The plaintiff, in the light of the FRAND commitment made by it to various Standard Setting Organizations including ETSI (European Telecommunication Standards Institute) fairly offered a license for its entire portfolio of patents (including the suit patents) which are essential for 2G and 3G technologies to the defendant. However, despite being put to notice since December 2008, the defendant has failed to obtain licenses from the plaintiff for its Standard Essential Patents (hereinafter SEPs) including the suit patents. The plaintiff contends that from 2008 onwards till the filing of the present suit, though the defendant has always averred and in fact continues to state that it is willing to discuss and enter into a FRAND license with the plaintiff, however the same is not reflected in the defendant's conduct inasmuch, despite repeated requests made by the plaintiff, the defendant has failed to constructively negotiate a license agreement with the plaintiff and despite admitting that the plaintiff is the owner of SEPs which are necessarily employed and used by the defendant in various telecommunication devices (handsets, tablets, dongles etc.) being sold by it under its brand, no feasible offer has been made by the defendant.

9. The plaintiff in the plaint has explained the upto date history of telecommunications - PSTN, 1G etc. which are detailed as under :

i) Prior to the 1980's, landlines were being used in India/ world for communicating via a Public Switched Telephone Network (PSTN) by which calls could be made. Wires were necessarily required for this mode of communication. Thereafter, in the 1980's wireless communication technology (cellular phones) was developed which was known as the First Generation (1G) system where analogue radio signals were used solely for voice communication.

ii) When mobile systems came to be evolved (analog cellular networks) there was no uniform standard being followed internationally, as a result of which technologies and protocols varied from country to country.

iii) In order to overcome the drawbacks of different standards and protocols, which varied from country to country, in 1982 CEPT established GSM (Global System for Mobile Communications, in French Groupe Spécial Mobile) to formulate and develop common standards for European networks. In 1987, GSM was made a mandatory standard for European Union and in 1989, GSM work was transferred from CEPT to the European Telecommunications Standards Institute (ETSI) which had been established in 1989 for defining specifications for mobile systems.

iv) In 1990, phase I of the GSM specifications were published. Those specifications laid the foundation for the Second Generation (2G) cellular system. The 2G system was the first digital system to introduce voice, SMS, and data services together. By 1998, the GSM specifications had expanded to include packet data transport through GPRS (General Packet Radio Services), and, by 1999, to include EDGE (Enhanced Data Rates for GSM Evolution, or EGPRS) as well as AMR.

v) In 1998, an Organization known as 3GPP (Third Generation Partnership Project) was established internationally to make globally- applicable, 3G mobile phone system specifications based on GSM. In 2000, UMTS/ WCDMA (Universal Mobile Telecommunications System/ Wideband Code Division Multiple Access), also popularly known as the Third Generation (3G) cellular system, was developed. In later years, enhancements to this cellular system were made through HSDPA (High Speed Downlink Packet Access), HSUPA (High Speed Uplink Packet Access), and other technologies, collectively known as 3.5G or 3G+. In 2008 and onwards, LTE (Long Term Evolution) systems and standards were developed for wireless communication of high-speed data. LTE is popularly known as the Fourth Generation (4G) cellular system.

10. It is averred in the plaint that basic difference among the aforesaid various systems/ technologies (1G, 2G, 3G, 3.5G & 4G) is the speed and ability to transfer data more efficiently. Currently, 3GPP is responsible for bringing together various standardization institutes (including ETSI), network providers, telecommunication equipment manufacturers, and service providers from across the world, to develop telecommunications standards. Those standards are imperative to maintain interoperability between mobile devices (handsets, tablets etc) and mobile networks in respect of various technologies like 2G, 3G, 3.5G, and 4G.

Technical specifications that define a particular system (for eg: 2G, 3G etc) and manner of its operation/ functioning are adopted by 3GPP through consensus amongst equipment manufacturers, service providers, telephone operators, national and international regulating authorities. Those

specifications are mandatory for that particular technology in order to ensure interoperability and are regarded as the Industry Standard.

In telecommunications, GSM/ GPRS/ EDGE standards represent 2G technology, although GPRS standards are sometimes referred to as 2.5G technology, and EGPRS or EDGE standards are sometimes referred to as 2.75G technology. UMTS/ WCDMA standards represent 3G technology. Mobile devices (handsets, tablets etc) that comply with the GSM standards are called 2G devices, mobile devices that comply with the UMTS/ WCDMA standards are called 3G devices, and so on.

The most, if not all, 3G devices comply with 2G as well, in order to interoperate with 2G networks when 3G networks are unavailable.

11. It is alleged in the plaint that if a patent covers a particular component/ element/ device/ method etc corresponding to a technical specification (TS teaches what is to be done and how it is to be performed) for a technology that forms a part of a standard, the patent is regarded as an essential patent for such standard. An essential patent can be said to be a patent that corresponds to an industry standard. The same standard is mutually agreed by various service providers, equipment manufacturers etc to be mandatorily implemented for a particular technology (such standards are recognized and implemented by the concerned government authority as well). It is meant to ensure that complete compatibility is achieved. It is impossible to claim compatibility with a technology (as defined by the concerned standards) without actually infringing the specific patent (and hence the requirement to obtain a license).

12. In order to avoid a situation whereby standards cannot be effectively implemented due to existence of such patents - patentees of such essential patents have broadly committed to FRAND (Fair, Reasonable and Non-discriminatory) licensing. FRAND is a balance between ensuring the availability of an open, global standard to a new entrant and incentivizing development of that standard by rewarding those who contributed to the standard with their R&D. The plaintiff supports FRAND licensing. The plaintiff has over 100 global license agreements with vendors in the telecom industry.

13. In support of its case the suit patents (related to AMR, EDGE and 3G technologies) are essential patents and they correspond to the standards issued by ETSI related to the aforesaid 2G and 3G technologies. The Department of Telecommunications, India has recognized ETSI standards as approved standards for GSM, WCDMA/ UMTS network and equipment providers and as a consequence the same are required to be complied with by various device importers, manufacturers, sellers etc. It is apparent from a bare perusal of the Unified Access Services License Agreement, copy of which is being filed with the present suit. Every telecom service provider in India has to enter into a UASL agreement with the Government.

14. The plaintiff has referred various documents in order to establish that suit patents are essential patents. It is alleged that as per letter dated 3rd October, 2008 issued by the Wireless Planning & Coordination Wing, Ministry of Communication & Information Technology - Department of Telecommunications, has also adopted ETSI and other international standards for GSM/WCDMA

network equipment which are to be imported in the country and as a consequence mobile devices such as handsets, tablets etc, which are imported into India are also required to be compliant with such standards.

15. The relevant standards are those issued by ITU/ TEC/ 3GPP/ 3GPP2/ ETSI/ IETF/ ANSI/ EIA/ TIA/ IS. Copy of the letter is being filed with the present suit. The relevant portion is extracted below for the sake of convenience:

> ".....
>
> > I am directed to state that while issuing import license in respect of GSM/ CDMA network equipment, Clause 2.2(d)(i) of UASL Agreement shall be applicable which states that equipments should meet the relevant International Telecommunication Union (ITU)/ Telecommunication Engineering Center (TEC)/ International Standardization bodies such as 3GPP/ 3GPP2/ ETSI/ IETF/ ANSI/ EIA/ TIA/ IS ....."

16. The plaintiff stressed in its submissions that as the aforesaid ETSI standards are mandatorily implemented in India. The suit patents correspond to these standards and are thus essential patents, any device (mobile handsets, tablets etc) that incorporates these features of AMR, EDGE or 3G - automatically infringe upon the Plaintiff's Suit Patents. Thus, any entity which is importing, making, selling, offering for sale etc any devices (handsets, tablets etc) that comply with 3G standards (as per which AMR codec is mandatory), and/ or 2G and EDGE standards (as per which AMR codec and EDGE features can be optionally implemented), ought to necessarily obtain a license from the plaintiff. Otherwise, these entities are liable to be restrained from infringing the patents.

17. The other relevant details of the suit patents in order to know the overall latest position are given as under :

S. No.	Application No.& Patent No.	Title	Filing Date	Date of Grant	Valid upto
AMR Patents					
1.	IN/ PCT/ 2001/ 00260/ MUM - IN'203034	Linear Predictive Analysis-by-Synthesis Encoding Method and Encoder"	24.08.1999	19.10.2006	23.8.2019

2.	IN/ PCT/ 2001/ 00290/ MUM - IN'203036	Apparatus of Producing from an Original Speech Signal a Plurality of Parameters	06.08.1999	19.10.2006	5.8.2019
3.	IN/ PCT/ 2001/ 00246/ MUM - IN'234157	A Method of Encoding/ Decoding Multi-Code Book Fixed Bitrate CELP Signal Block	24.08.1999	07.05.2009	23.8.2019
4.	IN/ PCT/ 2001/ 00324/ MUM - IN'203686	Method and System for Alternating Transmission of Codec Mode Information	03.09.1999	01.11.2006	2.9.2019
5.	IN/ PCT/ 2001/ 00552/ MUM - IN'213723	Method and Apparatus for Generating Comfort Noise in a Speech Decoder.	08.11.1999	10.01.2008	7.11.2019

3G Patents

1.	2818/ DEL/ 1998 - IN'229632	Multi-Service Handling by a Single Mobile Station	18.09.1998	19.02.2009	17.9.2018
2.	IN/ PCT/ 2001/ 01411/ MUM - IN'240471	A Mobile Radio for Use in a Mobile Radio Communications System.	09.05.2000	12.05.2010	8.5.202

EDGE Patent

1.	2490/ DEL/ 1998 - IN'241747	A Transceiving Omit Unit for Block Automatic Retransmission	24.08.1998	22.07.2010	23.8.201

18. Many allegations are made by the plaintiff against the defendant in the plaint that the defendant continues to market and sell various infringing mobile phones/devices. As detailed above, the AMR Patents (AMR Speech Codecs) and 3G Patents correspond to mandatory portions of the 3G standard, to which 3G-enabled devices must adhere. The said patents are employed by the defendant in its various 3G-enabled devices. The AMR Patents, as well as the EDGE Patent, also correspond to optional, but widely implemented, portions of the 2G standard and the EDGE standard, to which 2G/ EDGE-enabled devices must adhere. It is alleged that the plaintiff procured certain handsets being sold by the defendant (listed below) and performed in- house testing to gauge whether the Suit Patents are being infringed by the said handset devices or not. The test reports prove that those are infringed by the defendants.

19. In order to satisfy its claim at this stage, the plaintiff has relied upon test reports of handset models of the defendant would show that the aforesaid listed products being imported, manufactured/ assembled, offered for sale, advertised or sold by the defendant are infringing in nature. The same has been placed on record of the case. The following tests were conducted:

a. Use of AMR Codecs (Mandatory in 3G and supported by certain 2G models as well) In order to verify whether a mobile device uses AMR speech codec in a 2G network that complies with GSM standard, a lab test was conducted using the following equipment:

- Mobile device: Any GSM compliant mobile device which need to be tested;

- Shielding Box (Yokogawa 733061): It is a device which is used to isolate any test device (mobile handsets), placed inside the box, from external radio signal interference so that it doesn't affect the test results;

- 3rd Party Protocol Analyzers (Tektronix Main K15 Base Device V 2.95): views and records the corresponding control signalling as well as the content thereof;

The testing was performed internally by the plaintiff at its GSM Smartphone lab which is equipped with a complete GSM network infrastructure and provides the possibility to connect a mobile terminal to the test lab network via radio communication in a non-intrusive testing way. Thus, the said lab has a fully functional GSM network with tracing equipment to see the signalling for a specific terminal in it. In fact, certain communication characteristics (eg: usage of the AMR codec) can be set in the network and the communication with the single terminal can be logged.

Diagramatic set-up of the aforesaid testing Following steps were followed as alleged by the plaintiff to test if a mobile device complies with the AMR speech codec :

i. The AMR Active Codec Set = [4.75, 5.9, 7.95, 12.2] K Bit/ Sec was set in the network and an originating speech call from the mobile terminal was made;

ii. The Protocol including the Bearer Capability Information Element (IE) at call-setup and the Codec Mode Indication (CMI) commands during the call were logged;

The information whether the AMR-codec is supported by the mobile terminal under test (or not), can be found in the Bearer Capability IE inside the SETUP messages sent by the mobile terminal to the network at mobile terminal call as the mobile terminal reports which codec modes are supported and used. Thus, on the basis of logs captured it can be confirmed whether a handset/ device supports or uses AMR Codecs in a 2G network.

b. Use of AMR Codecs in 3G (Mandatory in 3G and supported by certain 2G models as well) As AMR Speech Codec is mandatory for a 3G compliant device, no test report is per se necessary to establish infringement by such devices. However, the plaintiff has performed in-house testing in order to confirm the use of AMR codec in a 3G network as well. The details of the testing procedure followed are as follows:

A test was set up to show that Test UEs (UE: user equipment) use "the AMR codec in 3G" as defined in the UMTS standard.

Test Set-Up The test set-up comprises a UMTS-Radio Network Controller (RNC) connected to a Mobile Switching Centre (MSC) which is connected to a phone of a party B and to a Home Location Register (HLR). The RNC controls a UMTS base station (NodeB) and is further connected with a Log- entity (RNC Logs). A UMTS capable Test UE (User Equipment) is put into the coverage area of the NodeB and a call is initiated from the Test UE via a Radio Frequency (RF) connection between the NodeB and the UE.

The RNC Logs log the communication between the RNC and the test UE, between RNC and MSC and between UE and MSC.

The test set-up is depicted in the below figure:

Test instruction used:

Equipment used One RNC One NodeB with one single cell configured (cell A) One Test UE One phone acting as B party for the test call. Procedure Action 1: Activate traces in the RNC Action 2: Setup a Speech call from the Test UE to the B party

phone Action 3: Store the traces in a log file On the basis of the captured logs it can be ascertained whether a UE supports AMR codec in a 3G technology inasmuch as a UE indicates to the network whether it supports the AMR codecs or not.

b. Use of 3G patents The same can be discerned from the product insert literature and technical specifications of all the aforesaid infringing products, which claim that they support 3G. As the 3G patents are mandatory for a 3G compliant device (mobile handsets, tablets etc) thus no tests have been conducted qua them. However, if need be, an infringement test for the same can be performed.

c. Use of EDGE patent As the EDGE patent is essential to the EDGE standard and therefore necessarily infringed by an EDGE compliant device (mobile handsets, tablets etc) - no test reports are per se required for establishing infringement if a product claims to be EDGE compliant. However, in-house testing was conducted by the plaintiff in order to gauge whether the retransmitted block (which was originally erroneously transmitted) uses a different modulation and coding scheme.

Test Environment The tests were performed in the Ericsson GSM Smartphone Lab. This lab was equipped with a complete GSM network infrastructure and provides the possibility to connect a mobile terminal to the test lab network via radio communication in a non-intrusive testing way.

The figure below illustrates the basic set-up of test equipment in the GSM Smartphone Lab:

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 Equipment Used
      One BSC
      One BTS with one cell dedicated to GSM Smartphone
Lab
      One Test UE
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BSC (Base Station Controller) manages all the radio-related functions of a GSM network. BTS (Base Transceiver Station) controls the radio interface to the MS. The BTS comprises the radio equipment such as transceivers and antennas which are needed to serve each cell in the network. It is controlled by a BSC.

Procedure Action 1: Activate Logging Action 2: Start EGPRS traffic (i.e. sending an email) Action 3: Store events in a log file The Plaintiff used an event based log tool to record all LLC PDUs sent and received in the BSC/ PCU. The logs indicate the modulation and coding scheme (MCS) that is used. Thus, upon studying the logs it is possible to gauge whether a different MCS was used for retransmission of an

erroneously transmitted block.

20. The plaintiff has also filed an affidavit of Mr.Vijay Ghate, an expert who has examined the standards, the patent specifications and the test reports & has come to the conclusion that the Suit Patents are essential in relation to all the relevant ETSI standards and the same will be necessarily infringed by any device that is compliant with the said standards. The plaintiff has placed on record the testing reports, performed in relation to the four representative mobile devices of the defendant, along with an affidavit of Mr. Max Olofsson. The said reports establish that the defendant is indeed infringing the Suit Patents. The claim mapping charts in this regard are also filed.

21. The claim of the plaintiff is that the plaintiff has spent effort, man power, money etc. on research and development in the field of telecommunication. The plaintiff on its part has been constantly committed to global licensing of such essential patents on FRAND terms in order to ensure that there are no barriers in any markets. Accordingly, the plaintiff has always fairly negotiated with different parties and also with the defendant. Major global players have executed license agreements with the plaintiff and are paying the reasonable royalty.

22. After receiving the information about the defendant who allegedly infringed the product being imported/ offered for sale/ sold in India, the plaintiff on 16th December, 2008 addressed a letter intimating the defendant about the fact that the telecommunication products being sold by it infringe various SEPs held by the plaintiff in respect of GSM and GPRS technologies, in order to give offer to negotiate & discuss a license agreement on FRAND terms for all of plaintiff's Standard Essential Patents.

In reply, the defendant, vide its e-mail dated 7th January, 2009, stated that it is not aware about any significant portfolio of plaintiff's patents in India that are essential for compliance by the defendant, however, the defendant agreed to meet on this aspect. The plaintiff thereafter gave the defendant an example list of the standard essential patents owned by the plaintiff in India. The plaintiff asked the defendant to sign a Non-Disclosure Agreement ("NDA") so as to facilitate exchange of confidential information (claim chart mapping, infringement analysis etc.) in entering into a FRAND license with the plaintiff.

23. The defendant initially refused to enter into an NDA despite which the plaintiff held various meetings with the defendant to discuss its FRAND licensing program. But despite meeting, the defendant did not enter into the NDA.

24. The plaintiff, thereafter by its letter dated 16th December, 2011, again requested the defendant to enter into a licensing agreement with the plaintiff on FRAND terms for the SEPs portfolio of the plaintiff. The defendant in its reply letter dated 19th

January, 2012, at the first instance, submitted before the plaintiff that the defendant was not a manufacturer of mobile phones as it is merely selling/ trading them under its brand name and thus cannot be held liable for infringement of patents. The plaintiff in its reply letter dated 26th January, 2012 clarified that the defendant is legally liable to obtain a license from plaintiff despite the fact that it is not manufacturing the infringing products but was selling the same and the defendant was invited to negotiate a license agreement on FRAND terms with the plaintiff. The plaintiff negotiated with the defendant under the aegis of Indian Cellular Association ("ICA"). Even after the aforesaid efforts by the plaintiff, the defendant failed to show any serious intention of entering into a patent license agreement with the plaintiff.

After repeated attempts by the plaintiff, on 11th April, 2013, the defendant finally signed the NDA (after a lapse of over four years). The plaintiff allegedly provided more information to the defendant and its liability to take license in respect of the plaintiff's SEPs. The plaintiff thereafter supplied the term sheet to the defendant vide email dated 23rd April, 2013 prior to their meeting dated 29th April, 2013. During the course of another meeting which was held between both the parties on 23rd May, 2013, the plaintiff explained its SEP portfolio, the standardization process, etc. The defendant requested the plaintiff to provide a revised patent license arrangement. Thereafter, the Plaintiff drafted a written offer based on the discussion held on 23rd May, 2013, and provided the same to the defendant. In reply, the defendant, however, proposed a counter offer which was different, as per the plaintiff, from the in-principle agreement reached in the meeting between both the parties on 23rd May, 2013.

25. It is submitted that the plaintiff alleges that on one hand the defendant continued to engage in correspondence with the plaintiff and on the other hand multifarious proceedings were initiated by the defendant against the plaintiff before the Competition Commission of India and the Intellectual Property Appellate Board (IPAB) in the months of August-September, 2013, for revocation of the plaintiff's suit patent. The net result is that the defendant did not respond positively to any of the proposals offered by the plaintiff.

26. The plaintiff became aware about the aforesaid proceedings in the month of January, 2014 which indicates that the defendant was unwilling to enter into a license agreement, the plaintiff vide its letter dated 28th March, 2014 concluded that the defendant had effectively ended the licensing talks with the plaintiff. Thereafter, certain emails/ letters have been exchanged between the parties without any fruitful outcome and the plaintiff believes that the defendant lacks the bonafide intention to execute a FRAND license.

27. The details of the revocation petition filed by the defendant before the IPAB are as follows:

Patent No. sought to be Filing Date Original Application No. revoked ORA/ 25/ 2013/ PT/ MUM/ 9896 213723 23.08.2013 ORA/ 26/ 2013/ PT/ MUM/ 9892 203036 23.08.2013 ORA/ 24/ 2013/ PT/ MUM/ 10089 203034 23.08.2013 ORA/ 27/ 2013/ PT/ MUM/ 10097 203686 23.08.2013 ORA/ 23/ 2013/ PT/ MUM/ 10085 234157 23.08.2013

28. The defendant has also filed a Complaint/Information before the Competition Commission of India ("CCI") alleging abuse of dominance by the plaintiff. The said complaint was filed by the defendant on 30th September, 2014. The said complaint is registered as Case No.76/2013. Both the aforesaid proceedings were initiated by the defendant during the period when the licensing negotiations were still on-going between the parties.

29. It is alleged by the plaintiff that the defendant has taken two different stands, i.e. as in the complaint/ information before the CCI is based that the plaintiff patents are valid and essential as a result of which the defendant is bound to seek a license from the plaintiff whereas before the IPAB the defendant has challenged the validity of five SEPs of the plaintiff. The defendant did not disclose before the CCI that it had already filed five revocation petitions before the IPAB. By its order dated 16th January, 2014 the CCI had ordered an investigation against the plaintiff on the basis of allegations made by the defendant in its complaint before the CCI. The said order dated 16th January, 2014 was challenged by the plaintiff by filing a writ petition, being W.P (C) No.1006/ 2014, before this Court on inter alia the ground that the order passed by the CCI was arbitrary in nature and without jurisdiction. That on 17th February, 2014 the Writ Court directed that whilst the Director General (D.G) of the Competition Commission of India ("CCI") may call for information from the plaintiff, no final report shall be submitted by the Director General and no final orders shall be passed by the CCI in Case No.76 of 2013. The Writ Court also directed that no officer of the plaintiff Company, stationed abroad, shall be called upon by the D.G for the purpose of investigation. The Writ Court also ordered that the observations made by the CCI in its order dated 16th January, 2014 shall not come in the way of the plaintiff negotiating with the third parties or in the adjudication proceeding filed by either of the parties.

30. Thereafter, the defendant had filed a Letters Patent Appeal i.e. LPA No.255/ 2014 challenging the Single Judge order dated 17th February, 2014. The said appeal was disposed of by the Division Bench of this Court vide its order dated 24th March, 2014 whereby the Single Judge's order was modified to the extent that the D.G. was permitted to call any officer of the plaintiff Company, stationed abroad, for the purpose of investigation in India.

The plaintiff alleges that there is an admission on the part of defendant that there are essential patents in its pleading i.e. complaint made before CCI and further

proceedings emanating thereof.

31. The portions of the said complaint have been relied upon by the plaintiff who says that the defendant has admitted that the plaintiff is the owner of SEPs which the said defendant uses in its telecommunication devices.

32. The plaintiff contends that even in the petitions filed before the IPAB, seeking revocation of the plaintiff's five SEPs, the defendant has alleged that all the said five patents "directly relates to the business of defendant".

Thus, it is alleged by the plaintiff that the defendant's infringing device models keep changing on a frequent basis. Thus, the Plaintiff's relief qua infringement of the suit patents is against such devices that incorporate the patented technology/ system/ component/ apparatus and are not limited to specific models detailed in the plaint.

33. The plaintiff has earlier initiated the proceedings against third parties related to the suit patents. In fact, it was pointed that the two suits for patent infringement being CS (OS) No.442 of 2013 & CS(OS) No.2010/ 2013 have been instituted by the plaintiff against Micromax Informatics Ltd. and Gionee Communication Equipment Co. Ltd & Anr. and the same are pending before this Court. It is submitted that a distributor of Micromax Informatics Limited has also filed six revocation petitions before the Intellectual Property Appellate Board. In CS(OS) No.442/ 2013, by virtue of an interim arrangement, the defendant No.2 has agreed to deposit royalty rates before this Court.

34. Similarly, in CS(OS) No.2010/ 2013, by virtue of an interim arrangement, this Court has directed the defendant therein to make deposit agreed royalty rates before this Court. Copies of the interim arrangement orders passed in the both the suits are being filed in the present proceeding. The plaintiff had also filed an infringement suit being CS(OS) No.68/ 2012 against Kingtech Electronics (India) Pvt. Ltd. in relation to the AMR Patents. The Defendant in the said suit has given an undertaking that it will not import in India any mobile phone using AMR Speech Codec Technology as claimed.

35. It is submitted that in view of non-cooperative attitude of the defendant, the plaintiff has been left with no recourse but to pursue the present infringement action before this Court seeking remedy of inter alia permanent injunction against the defendant in order to restrain the defendant to cease importing, manufacturing/ assembling, marketing, advertising, selling, offering for sale etc in India any product which infringes the Plaintiff's suit patents for AMR, 3G and EDGE technology/ apparatus/ devices and the defendant is liable to pay damages for all the devices (which incorporated the patented technology/ devices/ apparatus) sold by the defendant post the date of publication of the suit patent applications as per section 11A of the Patents Act, 1970 (hereinafter referred to as the "Act"). Details of 11A

publication of the suit patents are as follows:

S. No.	Patent number	Publication date U/ S 11A
1.	IN 203034	11.11.2005
2.	IN 203036	23.09.2005
3.	IN 213723	7.07.2006
4.	IN 234157	6.01.2006
5.	IN 203686	19.08.2005
6.	IN 240471	26.08.2005
7.	IN 229632	14.07.2006
8.	IN 241747	10.10.2008

36. By virtue of Section 48 of the Act till the term of validity of the suit patents, the plaintiff is entitled to prevent any third party who does not have its permission from the act of making, using, offering for sale, selling or importing for those purposes an infringing product in India. As a result, in order to prevent the defendant from infringing its patent rights, the plaintiff is instituting the present suit.

37. It is alleged by the plaintiff that sales of the defendant qua the infringing devices (handsets, tablets etc) would run into Crores of Rupees as millions of units would have been sold by the said defendant. The turnover figures of the defendant as is publicly available is as follows:

YEAR	ESTIMATED TURNOVER OF DEFENDANT
2007-08	335 Crores
2008-09 & Q1 of 2009-10	622 Crores
2009 - 10 (Q2-Q4)	443 Crores
2010 - 11	737 Crores

2011 - 12	783 Crores
2012 - 13	1074 Crores

38. It is submitted that the plaintiff does not have the exact sales figures and revenue details of the defendant qua the infringing models/ device/ handsets and is estimating the amount of damages it would be entitled to at Rs.56 Crores.

39. The other relief claimed by the plaintiff is that the defendant is also liable to render accounts of sales of all the infringing products which it has imported and sold since the date of Section 11A publication in the Patents Journal of the Suit patent Applications. The plaintiff reserves its right to claim damages as per sales revenues that may be disclosed by the defendant for the previous years and for the subsequent years, during the validity of the suit patents.

DEFENCE

40. The defendant has filed its written statement who has also challenged the validity of the suit patents in the written statement. Separate revocation petitions before the Appellate Board are also filed before filing the present suit. The main defence raised by the defendant in the written statement is that:-

(i) Under the Act, the validity of a patent must be first established before the issue of infringement is considered by the Court.

(ii) Section 13(4) of the Act has been interpreted by the Supreme Court to mean that no patent which is granted in India enjoys presumptive validity owing to the mere factum of grant.

(iii) The caveat in Section 13(4) of the Act has been interpreted as an obligation on the part of a patentee to establish the validity of his patent in the Plaint before he proceeds to address the issue of infringement.

(iv) It is submitted that the defendant's prior-filed revocation petitions and three other revocation petitions represent a serious challenge to the validity of the plaintiff's Suit patents. Thus, no relief can be granted to the Plaintiff. Therefore, until the issue of validity is not conclusively adjudicated upon, the plaintiff is not entitled to the grant of any relief by this Court.

(v) The defendant has challenged five of the Suit patents, the so-

called "AMR patents", and the other three Suit patents, the so called "EDGE/ 3G patents" are being challenged, on multiple substantive grounds under Section 64 of the Act including for lack of patentability, lack of novelty, lack of inventive step, non- compliance with Section 8 of the Act, fraud on the Indian Patent Office and insufficiency of disclosure. The violation of Section 8 is a substantive violation of the Act since it establishes breach of the duty of trust cast on the patent applicant by the Act. The violation of Section 8 is fatal to the existence of a patent. Section 8 of the Act has two sub-sections. The first sub-section requires a patent applicant to submit a statement to the Controller of Patents within the prescribed period setting out detailed particulars of contemporaneous patent applications which were filed by the patent applicant or someone deriving title from the applicant in other jurisdictions with respect to the same or substantially the same invention. Under the same sub- section, it also requires him to give an undertaking to the Controller that he would keep the Controller informed in writing, from time to time, of detailed particulars in respect of such foreign applications, if any of them is filed subsequent to the filing of the Indian application. Under the second sub-section of Section 8, whenever the Controller seeks details of examination of foreign applications, the patent applicant shall furnish them within the prescribed time period. The object of both sub- sections of Section 8 is to enable the Controller of Patents/ Indian Patent Office to have access to the material placed before foreign Patent Offices by the applicant. Every Suit patents have been obtained by suppression or non-disclosure of information under Section 8, thereby committing a fraud on the Indian Patent Office.

(vi) The defendant has given the details of challenge of each patents separately in the written statement.

41. It is alleged by the defendant that the plaintiff has not disclosed to this Court that in 2011, the plaintiff instituted a suit in the Court of Rome against Z.T.E Italy S.R.L. (Italy), a subsidiary of the ZTE Corporation (a Chinese multinational telecommunication equipment major) for alleged infringement of the plaintiff's SEPs covering GSM and EDGE technologies, the very same technologies which form the subject-matter of the plaintiff's claim in the instant Suit. The facts of the dispute between the plaintiff and Z.T.E are similar to the facts of the instant Suit. The plaintiff and ZTE had been negotiating the terms of the license for use of the plaintiff's SEPs covering GSM and EDGE technologies, however both parties could not agree on the terms of the license. Subsequently, the plaintiff sued Z.T.E for alleged infringement of its SEPs and sought an interim injunction from the Court of Rome against ZTE. The Court of Rome, in the first instance as well as in appeal, rejected all of Ericsson's claims. With specific regard to the plaintiff's prayer for

interim injunction therein, the Court of Rome challenged the very presumption of "essentiality" of the patents asserted by the plaintiff. The Court of Rome categorically observed that in order to assess the claim of essentiality, it was necessary to examine the patents, which was too complex an analysis for the purposes of interim proceedings. Further, the Court of Rome held that even if it were to be assumed that the patents asserted were indeed "essential", the plaintiff would not suffer from irreparable harm since the primary issue between the parties was essentially pecuniary in nature, which was quantifiable and compensable by way of damages. Consequently, the plaintiff's prayer for interim injunction was dismissed. In appeal too, the Court of Rome held that there would be no loss of value due to alleged infringement, and that the plaintiff could establish its case at trial. An article on the said case enumerating the above facts has been filed herewith. Ultimately, in January 2012, the plaintiff had to drop all suits instituted against ZTE and settle the matter.

42. Similarly, in yet another suit proceedings instituted by the plaintiff with respect to the same portfolio of AMR patents in France against TCT Mobile Ltd. (another Chinese multinational telecommunication equipment major) for alleged infringement of the plaintiff's alleged SEPs on the GSM technology, the French Court rejected the Plaintiff's prayer for injunction therein, on grounds that the holder of patents that are essential to the implementation of a standard, must license its technology under mandatory contractual conditions called FRAND terms i.e. Fair, Reasonable and Non-Discriminatory terms.

43. In a complaint filed by a Philadelphia-based company TruePosition Inc., it has been alleged that the Plaintiff has exerted undue influence over ETSI to block other more competent technologies from being declared as essential, and to have its own unproven technologies declared as "technology standards".

44. It is submitted that a patentee who claims that his patents are standard essential has a duty to establish his claim of essentiality. The Suit patents in the present case are inconsistent with the specificity of claim-mapping endorsed and undertaken by the Plaintiff with respect to some of its own other patents. Therefore, the Plaintiff has clearly applied double standards with respect to the Suit Patents and other patents owned by it to the detriment of the defendant. Until this onus is discharged by the plaintiff, its claim of essentiality is a mere representation which has no basis in facts.

Therefore, the plaintiff cannot rely on its assertion that its patents are standard essential to discharge its burden with respect to the allegation of infringement. In other words, since the plaintiff has not been able to establish that the Suit Patents are indeed standard essential, the defendant's compliance with ETSI standards cannot be used to prove infringement.

45. As the plaintiff's Suit patents claim computer programmes per se, which as stated earlier is ineligible subject-matter of patent protection under Section 3(k) of the Act,

the plaintiff needs to establish that the source code employed in the defendant's products is the same as the plaintiff's source code. In the plaint or supporting documents, the plaintiff has failed to discharge its burden. The entire claim of the plaintiff's rests on the alleged essentiality of its Suit patents to ETSI GSM standards, which is far from established and is based solely on the plaintiff's own averments.

46. It is submitted that the plaintiff in its plaint urging before the Court to presume that as the Department of Telecom (DoT) has recognized ETSI standards, the plaintiff's patents are essential for their compliance and that such patents are valid. The plaintiff is expected to identify the specific inventive step from its claims and establish that every essential embodiment of its claims have been used and hence infringed by the defendant. There is not a whisper of such analysis in the plaint. Merely stating that "AMR is mandatory for 3G compliance" has no meaning unless the plaintiff proves that the entire spectrum of technology standards which relate to AMR are covered by the plaintiff's patents.

47. It is the plaintiff's claim in Patent No.203686 that the 686 patent claims use of alternating frames to transmit mode request and mode information messages. The Plaintiff has failed to disclose that this is not the standard applicable for 3G-compliant devices since ETSI standard TS 126 101 V3.0.0 (2000-01) prescribes use of a single frame to transmit mode request and mode information messages. A printout of TS 126 101 V3.0.0 (2000-01) is referred in support of the arguments and it is submitted that the plaintiff's abovementioned patent is not mandatory for 3G devices. Thus, no infringement of the said patent by the defendant's 2G/ 3G products has been established.

The so-called tests on the defendant's products were conducted in-house and were restricted only to verifying the use of AMR codecs in a 2G network. Their veracity is suspect and cannot be relied upon. The test reports at best prove that different AMR codecs/ codec schemes are used in the products of the defendant. They do not in any manner prove that any of the Suit patents have been infringed. With respect to the test reports for SID frames, which appears to have been undertaken with respect to the '723 patent, there is no proof of comfort noise generation which is central thrust of the '723 patent. The use of SID frames and comfort noise generation was well-known in 1992, much before the date of priority of the '723 patent. The test reports do not establish the specific infringement of the means used in the '723 patent since use of SID frames and comfort noise generation techniques was well-known in the prior art. It is submitted that the products of the defendant do not infringe the '723 patent. The sole basis for the allegation of infringement is the self-serving claim of the plaintiff that its so-called 3G patents are mandatory for a 3G-compliant device. As essentiality has not been established, the allegation is baseless and the defendant's products do not infringe the so-called 3G patents of the plaintiff.

48. With respect to the alleged use of the EDGE patent, the alleged use of multiple transmission schemes in only 2 models of the defendant has been sought to be established, with no attempt to connect it to the claims of the plaintiff's EDGE patent. The "EDGE patent" ('747 patent), whose validity and essentiality have been challenged, contains the following embodiments as claimed in Claims 1-4:

> 1. A transceiving unit for block automatic retransmission request comprising:
>
> a receiving means (12) for receiving a negative acknowledgement signal indicating that a block was erroneously received;
>
> a dividing means (22) for selectively dividing said block into at least two blocks in response to said negative acknowledgement signal; and a retransmitting means (20) for retransmitting said at least two blocks. characterized in that said block was originally transmitted using a first modulation/ FEC coding scheme and only said at least two blocks are retransmitted using a second modulation/ FEC coding scheme different from said first modulation/ FEC coding scheme.
>
> 2. The transceiving unit as claimed in claim 1, wherein the receiving means is a mobile station or a radio base station.
>
> 3. The transceiving unit as claimed in claims 1 and 2, wherein the dividing means is a radio base station
>
> 4. The transceiving unit as claimed in claims 1 to 3, wherein the retransmitting means is a base transceiver station or a radio base station.

49. The test reports of the plaintiff speak only of presence of multiple modulation schemes, and not the specific inventive step of the '747 patent. Multiple modulation schemes existed in prior art which even the specification of the '747 patent categorically states. The relevant excerpt from the Background provided in the '747 specification is as follows:-

> "An example of a communication system employing multiple modulation schemes is found in U.S. Pat. No.5,577,087. Therein, a technique for switching between 16QAM and QPSK is described. The decision to switch between modulation types is made based on quality measurements, however this system employs a constant user bit rate which means that a change in modulation scheme also requires a change in channel bit rate, e.g., the number of timeslots used to support a transmission channel."

50. Thus, multiple modulation schemes in the defendant's products is no proof of infringement of the 747 patent. A combined reading of Claims 1-4 and the Background provided in the 747 specification establishes that the mobile station or the mobile phone is merely the receiving unit, whereas the inventive step claimed in Claim 1 is performed by the base station, which is the dividing and the retransmitting means.

51. It is submitted that the defendant has never admitted to the validity, essentiality and infringement of any of the Suit patents before any forum thus far. The plaintiff's reliance on Paragraph 8.8 of the defendant's Information is misplaced as the defendant has averred that close to 80% of the so-called "portfolio of SEPs" held by the plaintiff have been adjudged as "non-essential" by independent studies undertaken by multiple institutions, which have the expertise to analyse complex issues of essentiality. It has a bulging portfolio of SEPs, the validity or essentiality of which has not been adjudged. It has furnished no evidence to demonstrate that its asserted patents have also been adjudged to be valid and essential.

The Defendant at no point has admitted to the infringement of the Suit Patents. Even, there is no finding by an independent body or a judicial forum as to whether the Suit patents fall within the category of the over-declared SEPs. The issue of whether the claims of the asserted Indian patents truly read on ETSI technology standards has never been looked into by an independent body and is adjudicated upon by a court of law. From the Defendant's correspondence dated 29th May, 2013, 4th June, 2013, 19th June, 2013 and 14th September, 2013, it appears that there has never been admission of the infringement/ essentiality of the Plaintiff's Suit patents.

52. With regard to reliance made by the plaintiff on the affidavit of the alleged expert Mr.Vijay Ghate, the same has been challenged by the defendant in paras 42 to 44 of the written statement and it is submitted that the alleged "expert" has been tutored to parrot the stance taken by the Plaintiff. Further, despite being supplied with the test reports by the Plaintiff, Mr. Ghate has not expressed any view on the test results. In light of these facts, no value or credibility can be imputed to the affidavit filed by the so-called expert Mr. Ghate or the test reports. It is also submitted that the entire conduct of the Plaintiff with respect to the negotiations prior to the institution of the Suit falls within the meaning of "abuse of dominance" under Section 4 of the Competition Act, 2002. It is stated that all relevant facts and factors which prove abuse of dominance by the Plaintiff have been placed before the Competition Commission of India ("CCI") vide Information dated 30th September, 2013 ("Information").

53. Pursuant to the Information the CCI directed an investigation with respect to the abusive conduct of the Plaintiff vide order dated 16th January, 2014.

54. The Plaintiff has never fairly negotiated with the Defendant. The prospective licensee cannot be expected to merely accept the licensor's representation that the terms being offered to him are indeed non-discriminatory. The assertion of the patentee/ Plaintiff, that there are more than 100 licensees with whom licenses have been concluded, is of no consequence as the first requirements are that the terms offered shall be "Fair and Reasonable" and not merely "Non- discriminatory" and "fairness and reasonableness" taking into account the prevalent conditions in the relevant market and actual financial implications for licensees.

55. The correspondence establishes beyond doubt that the Defendant cannot be branded an unwilling licensee since it is the Plaintiff's burden to prove that despite the latter's conduct and terms being fair, reasonable, and non-discriminatory, the Defendant wilfully chose to be intransigent and unreasonable by not securing a license. Since the correspondence proves that the Plaintiff's conduct was far from being FRAND-compliant, it does not lie in the mouth of the Plaintiff to declare the Defendant as an "unwilling licensee". The sole objective of denying information relating to its patents, such as a complete list of applicable standard essential patents (SEPs), claim charts establishing the essentiality of such SEPs, and their alleged infringement by the Defendant, the Plaintiff demanded the Defendant to enter into a Non- Disclosure Agreement (NDA) as a condition precedent to sharing of information with the Defendant. Despite several objections and reservations, the Defendant was left with no choice but to sign the NDA. The Plaintiff's allegation that the Defendant is an unwilling licensee is categorically denied as blatant falsehood.

Thus, the claim is one for damages, which can be compensated if Plaintiff succeeds at trial. Simply put, no irreparable harm would be caused to the Plaintiff by non-grant of an interim injunction.

56. At the interim stage since mere registration is not proof of its validity. For the purposes of the instant Suit, the Defendant has invoked Section 107 of the Act and placed express reliance on its revocation petitions to challenge the validity of the Plaintiff's Suit patents. It is also submitted that in light of the prior pending revocation petitions challenging the validity of the patents asserted in the Suit, until the issue of validity is not conclusively adjudicated upon, the Plaintiff is not entitled to the grant of any relief, interim or permanent, by this Court. It is stated that the institution of revocation proceedings by the Defendant was necessitated by the fact that at no point during the negotiations between the parties was there an effort on the part of the Plaintiff to address the Defendant's repeated concerns regarding the validity of the former's patents. Consequently, in order to test the validity of the Plaintiff's patents in and by an expert forum, the Defendant had no option but to file the revocation petitions before the IPAB.

57. The credibility of the Defendant's challenge to the validity of the patents must be assessed solely on its merits as opposed to being guided by any other extraneous

consideration such as alleged delay in challenging the validity. This is because under Section 140(1)(d) of the Act, there can be no bar/estoppel against a licensee's right to challenge patent validity despite having accrued benefit out of the use of the patented invention. If such a bar does not act against a licensee, it follows that no such bar can apply against even a prospective licensee such as the Defendant solely on account of alleged delay in mounting a challenge to the validity of the patent. In this regard, reliance is placed on the decision of Lear Incorporated v. John S. Adkins (395U.S.653(1969) at Paragraphs 2-5) of the US Supreme Court, which was relied upon by the IPAB in Enercon (India) Limited v. Aloys Wobben (2013 (56) PTC 412 at Paragraphs 16-17).

Reliance is further placed on Windsurfing International Inc. v. Commission of European Committees (1986 ECR 611 at Paragraphs 89-93).

58. It is submitted by the defendant that at this stage, the law requires the Defendant to merely demonstrate the existence of a "credible challenge" to the validity of the eight patents expressly asserted in the Suit. In other words, the Court needs to satisfy itself that the challenge to the patents mounted by the Defendant is not frivolous or vexatious. This position has been settled by the Division bench of this Court in F Hoffman La Roche v. Cipla 2009 (40) PTC 125, wherein it observed as follows:

> "55. The question before this Court is when can it be said that the defendant has raised a credible challenge to the validity of a patent held by the plaintiff in an infringement action? During the course of the argument it was suggested by counsel that the challenge had to be both strong and credible. Also, the defendant resisting the grant of injunction by challenging the validity of the patent is at this stage required to show that the patent is "vulnerable" and that the challenge raises a "serious substantial question" and a triable issue. Without indulging in an exercise in semantics, the Court when faced with a prayer for grant of injunction and a corresponding plea of the defendant challenging the validity of the patent itself, must enquire whether the defendant has raised a credible challenge. In other words, that would in the context of pharmaceutical products, invite scrutiny of the order granting patent in the light of Section 3(d) and the grounds set out in Section 64 of the Patents Act 1970. At this stage of course the Court is not expected to examine the challenge in any great detail and arrive at a definite finding on the question of validity. That will have to await the trial. At the present stage of considering the grant of an interim injunction, the defendant has to show that the patent that has been granted is vulnerable to challenge. Consequently, this Court rejects the contentions of the plaintiffs on this issue and affirms the impugned judgment of the learned Single Judge."

59. The plaintiff's claim of essentiality of its patents for compliance with technology standards, the prima facie validity of the patents asserted must be established by the Plaintiff before establishing prima facie infringement on the basis of alleged essentiality. This position has been specifically upheld by the High Court of England and Wales in the matter of Vringo Infrastructure Inc v. ZTE ((2013) EWHC 1591 (Pat) Paragraphs 40-60) which too was a case pertaining to alleged telecom Standard Essential Patents wherein it was observed as follows:

> "41. Say the court decides that the terms of such a licence involve a global royalty payment, in all countries, to the patentee. It is quite possibly the kind of thing a real negotiation might produce. Then the action continues and the patents are all found invalid. It cannot be that the rate arrived at is binding on the defendant. The defendant will have established that it has no obligation to pay the patentee in this jurisdiction whatsoever."

60. It is alleged that it is impermissible for the Plaintiff to invite the Court to presume the validity of its entire portfolio by emphasizing on its own self-serving declaration of essentiality of the eight patents expressly dealt with in the plaint. It is also impermissible for the Plaintiff to rely on the grant of patents on related subject-matter outside India to support the validity of its Indian patents since this goes against the territorial nature of patent rights. After all, the validity of the Indian patents must be examined within the framework of the Indian Act. Critically, in the facts of the case, the scope of Indian Patents is significantly different from the foreign counterparts. Therefore, no parity can be drawn between them.

61. This position was reiterated in Chemtura Corporation v. Union of India, (2009 (41) PTC 260 (Del.) Paragraph 33), which is extracted below:

> "33. The case of the Plaintiff is that since till date there has been no order revoking the patent, it should be treated as valid and therefore injunction not refused. On the other hand the Defendants rely on Section 64 read with Section 107 of the Act to contend that the challenge to the validity of the patent can be raised as a defence to a suit for infringement. The mere fact that Section 48 of the Act has been amended in 2002, does not grant any higher protection to the patent. Once the defendant is able to raise a credible challenge to the validity of the patent then injunction must be refused."

The proposition laid down in Chemtura's case (supra) for denial of interim injunction on grounds of prima facie violation of Section 8 of the Act has not been altered, and has in fact been affirmed by the Division Bench in the Phillips case as follows:

> "39. In Chemtura Corporation Case (supra), this Court was dealing with grant of injunction under Order XXXIX Rule 1 and 2 of CPC. Having recorded a prima facie satisfaction that there had been a failure by the plaintiff to comply with the mandatory requirement of Section 8(1), this Court held that the interim injunction in favour of the plaintiff cannot be continued. The question whether the power conferred under Section 64(1) of the Patents Act for revocation of the patent is discretionary or mandatory neither fell for consideration nor adjudicated by the Court in the said decision. Therefore, the learned Single Judge had rightly distinguished Chemtura Corporation Case (supra) relied upon by the learned counsel for the appellants/defendants."

62. It is submitted by the defendant that the plaintiff has failed to establish the first limb since apart from its self-serving declarations of essentiality, neither the Standard Setting Organization ETSI nor any Court has verified or upheld this claim. To this end, reference may be had to the disclaimer of ETSI filed at Page No. 2817 in Volume XI of the List of Documents filed by the Defendant on April 30, 2014, and the article at Page No. 2783 of the same Volume capturing the decision of the Court of Rome denying interim injunction to the Plaintiff on the basis that "essentiality", being a complex analysis, cannot be determined at the interim stage.

63. Therefore, any presumption of essentiality of the Plaintiff's Suit patents is unfounded in facts and law.

64. The claim charts filed by the Plaintiff do not identify which portions of the technology standards are mandatory and which portions are optional. Since the Plaintiff has not been able to establish that the Suit Patents are indeed standard essential, the Defendant's compliance with ETSI standards cannot be used to prove infringement. In this regard, reliance is placed on the decision of the United States Court of Appeals for the Federal Circuit in Fujitsu Ltd. v. Netgear Inc., (620 F.3d 1321 at Page 8) which ratio has since been applied in WIAV Networks LLC v. 3Com Corp (2010) and Medsquire LLC v. Quest Diagnostics, Inc., (2011). Following were the critical observations of the Court of Appeals in Fujitsu:

"We acknowledge, however, that in many instances, an industry standard does not provide the level of specificity required to establish that practicing that standard would always result in infringement. Or, as with the '952 patent, the relevant section of the standard is optional, and standards compliance alone would not establish that the accused infringer chooses to implement the optional section. In these instances, it is not sufficient for the patent owner to establish infringement by arguing that the product admittedly practices the standard, therefore it infringes. In these cases, the patent owner must compare the claims to the accused products or, if appropriate, prove that the accused products implement any relevant optional sections of the

standard. This should alleviate any concern about the use of standard compliance in assessing patent infringement. Only in the situation where a patent covers every possible implementation of a standard will it be enough to prove infringement by showing standard compliance.

In the instant case, the district court held that compliance with the fragmentation sections of the 802.11 Standard would result in infringement of the asserted claims. However, the district court held that these sections are optional, that fragmentation is not a requirement of the standard. Specifically, the court noted that the relevant sections of the standard do not require fragmentation, they simply describe how to fragment. Therefore, someone could comply with the standard without fragmenting, and thereby not infringe the patent. The court noted the undisputed fact that the accused products are capable of fragmentation, but default to no fragmentation. In other words, the court relied on the fact that when a customer purchases the accused product, it does not fragment until and unless the customer purposely activates this option. The district court held that unless a customer activated the fragmenting option, then there was no direct infringement. Therefore, the district court held that Philips must show evidence of direct infringement by showing that customers actually use the infringing fragmentation features."

65. As the Plaintiff has failed to establish infringement based on alleged essentiality of its patents, the Plaintiff must establish infringement through the conventional time-tested approach i.e. by comparing the claims of its patents with the features of the Defendant's allegedly infringing products. In the present case, a perusal of the Plaint reveals that it fails miserably since nowhere has the Plaintiff established that the methods claimed by it in the Suit patents are being employed in the Defendant's products.

66. The Plaintiff's claim is essentially one for money recovery i.e. recovery of licence fees allegedly owed to it by the Defendant. Therefore, its claim is compensable by way of damages if it establishes its case at trial. Consequently, there is no irreparable harm caused to the Plaintiff which calls for an interim injunction, particularly when complex issues of technology and law are involved.

67. Section 41 of the Specific Relief Act 1963 clearly states that an injunction shall not be granted if there is an alternative efficacious remedy. In this regard, reliance is placed on Dalpat Kumar v. Prahlad Singh, ((1992) 1 SCC 719 at Paragraphs 4-5), Pepsi Foods vs Jai Drinks (P) Ltd., (1996 (36) DRJ 711 at Paragraph 11), S.C. Shukla and Ors. v. Delhi Development Authority and Anr. (1998 (73) DLT 131 at Paragraph 5) and Pepsi Co. Inc. and Anr. v. Hindustan Coca Cola and Ors. (2001 (94) DLT 30 at Paragraph 13). Following were the observations of the Supreme Court in Dalpat Kumar :

> "5. Therefore, the burden is on the plaintiff by evidence aliunde by affidavit or otherwise that there is "a prima facie case" in his favour which needs adjudication at the trial. The existence of thess prima facie right and infraction of the enjoyment of his property or the right is a condition for the grant of temporary injunction. Prima facie case is not to be confused with prima facie title which has to be established, on evidence at the trial. Only prima facie case is a substantial question raised, bona fide, which needs investigation and a decision on merits. Satisfaction that there is a prima facie case by itself is not sufficient to grant injunction. The Court further has to satisfy that non-interference by the Court would result in "irreparable injury" to the party seeking relief and that there is no other remedy available to the party except one to grant injunction and he needs protection from the consequences of apprehended injury or dispossession. Irreparable injury, however, does not mean that there must be no physical possibility of repairing the injury, but means only that the injury must be a material one, namely one that cannot be adequately compensated by way of damages. The third condition also is that "the balance of convenience" must be in favour of granting injunction. The Court while granting or refusing to grant injunction should exercise sound judicial discretion to find the amount of substantial mischief or injury which is likely to be caused to the parties, if the injunction is refused and compare it with that which is likely to be caused to the other side if the injunction is granted. If on weighing competing possibilities or probabilities of likelihood of injury and if the Court considers that pending the suit, the subject matter should be maintained in status quo, an injunction would be issued. Thus the Court has to exercise its sound judicial discretion in granting or refusing the relief of ad interim injunction pending the suit."

68. The damages are the appropriate and efficacious remedy to redress the plaintiff's claim, has been uniformly applied in cases involving allegations of infringement of Standard Essential Patents. In this regard, reliance is placed on the decision in Microsoft v. Motorola (2012). Following are the relevant observations of the US Court in the said case:

> "1. Irreparable Harm Harm is irreparable when it cannot be remedied except through injunctive relief. See Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd., 518 F. Supp. 2d 1197, 1210 (C.D. Cal. 2007). Economic damages are not traditionally considered irreparable because the injury can later be remedied by a damage award. As the Supreme Court explained, "the temporary loss of income, ultimately to be recovered, does not usually constitute irreparable injury . . . . The possibility that adequate compensatory or other corrective relief will

> be available at a later date, in the ordinary course of litigation, weighs heavily against a claim of irreparable harm."Sampson v. Murray, 415 U.S. 61, 90 (1974).
>
> At this stage in the litigation, and based on this court's prior rulings, the court concludes that Motorola cannot demonstrate irreparable harm. Here, the court has previously ruled that Microsoft is a third-party beneficiary of Motorola's commitments to the ITU (and the IEEE) such that Microsoft is entitled to a RAND license agreement for Motorola's H.264 (and 802.11) standard essential patents. The Motorola Asserted Patents, at issue in this litigation, are standard essential patents of the H.264 Standard and are included in Motorola's H.264 standard essential patent portfolio. Thus, Microsoft is entitled to a license to the Motorola Asserted Patents on RAND terms.

As Microsoft has committed to accept a license on RAND terms for Motorola's entire H.264 standard essential patent portfolio, and the litigation is continuing to determine the details of such a license, it is now clear that at some point in the future (either by agreement of the parties or by court adjudication) a license agreement for the Motorola Asserted Patents will become a reality. Because Microsoft will pay royalties under any license agreement from the time of infringement within the statute of limitations, this license agreement will constitute Motorola's remedy for Microsoft's use of Motorola's H.264 standard essential patent portfolio to include the Motorola Asserted Patents. Accordingly, Motorola cannot demonstrate that it has been irreparably harmed.

2. Adequate Remedy at Law For similar reasons, Motorola cannot show that it has no adequate remedy other than injunctive relief. As the court explained, Motorola's remedy is a RAND license agreement for its H.264 standard essential patent portfolio, which includes the Motorola Asserted Patents. This remedy will make Motorola whole for Microsoft's use of any and all of Motorola's H.264 standard essential patents.

Although the court is aware that injunctive relief often accompanies a finding of patent infringement, this is not a simple patent infringement action. After hearing testimony at the November 13, 2012 trial, it is clear that, from the time Motorola committed to license its H.264 standard essential patent portfolio on RAND terms, Motorola was under the obligation to grant RAND licenses to all implementers (including Microsoft) of the H.264 standard.

Motorola's obligation to grant such a RAND license to Microsoft far preceded the onset of this litigation, meaning that at all times during this litigation, the issue was not if, but when and under what terms, a license agreement would be established between Microsoft and Motorola. Thus, because Motorola has always been required

to grant Microsoft a RAND license agreement for its H.264 standard essential patents, as a matter of logic, the impending license agreement will adequately remedy Motorola as a matter of law.

In sum, Motorola has not shown it has suffered an irreparable injury or that remedies available at law are inadequate to compensate for its injury. As such, the court need not reach the other elements of the standard for permanent injunctive relief. See eBay, 547 U.S. at 391; Hadel v. Willis Roof Consulting, Inc., 2008 WL 4372783, at *3 (D. Nev. Sept. 23, 2008). Accordingly, the court grants Microsoft's motion dismissing Motorola's request for injunctive relief in this action."

69. It is submitted that grant of an injunction would in fact cause irreparable harm to the business of the defendant and to the consuming public which is dependent on the affordable mobile phones made available by the defendant. Given that the Defendant is not a fly- by-night operator and has made significant investments in its business and has a reputation worth protecting among its consumers, grant of an interim injunction would bring the entire business of the Defendant to a standstill. This result of no benefit to either party considering that the claim is ultimately pecuniary in nature. The Defendant is an entity with an annual turnover of INR 2057 crores with over 2000 employees on its payroll and a distribution network comprised of over 1100 distributors and over 50000 dealers. Further, the Defendant deals in affordable mobile phones which cater to low and mid-segment. In view of these facts, a grant of an interim injunction would result in irreparable harm to the Defendant's business and severely undermine its reputation in the market, thereby compromising its short and long term interests.

70. At the same time, the defendant has admitted the factum of negotiations between them. In answer to the same, it is alleged by the defendant that the correspondence exchanged between the parties amply demonstrates that the defendant is not an unwilling licensee and it is the Plaintiff who has not negotiated in good faith since it withheld information necessary for the Defendant to evaluate the need to secure a licence. Many requests of the defendant related to disclosures on the following:

A. Identification of the complete list of relevant patents for which the Plaintiff wanted the Defendant to obtain a licence along with proof of essentiality by way of claim charts B. Undertaking on the validity of the patents proposed to be licensed and indemnity against third party claims C. Identification of the specific components in the Defendant's mobile phones which allegedly infringed the patents of the Plaintiff D. Specifics of the commercial terms of the proposed licence E. Basis of the proposed royalty schedule and proof of the fact that the same rates have been offered to parties who are similarly situated to the Defendant.

Barring a "sample list of patents" and corresponding sample claim charts, the Plaintiff did not share any of the above enumerated information.

71. The allegations are also made by the defendant against the plaintiff that the plaintiff has violated its FRAND obligations by offering different rates to similar placed parties as follows:

> Rates offered to Rates offered to Rates offered to Intex Gionee Micromax Revised Term Order dated 31st Order dated 19th sheet dated 29th October 2013 in March 2013 in May 2013 C.S.(O.S.) C.S.(O.S.) 2010/2013 442/2013 in accordance with Ericsson's letter to Micromax dated November 5, 2012 GSM 1.5 1.25 1.25 GPRS + GSM 2.25 1.75 1.75 GSM Phones or Devices

72. It is alleged from the above that the revised offer to defendant is higher than the original rates offered to Micromax and Gionee. This is in inescapable violation of the plaintiff's FRAND Obligations. Courts have held that merely because a prospective licensee has challenged the validity of the patents, it does not ipso facto render him an unwilling licensee. This position has been settled in Vringo Infrastructure Inc (supra) (Paragraphs 40-46 and 52-58) wherein it has been held as under:

"41. Say the court decides that the terms of such a licence involve a global royalty payment, in all countries, to the patentee. It is quite possibly the kind of thing a real negotiation might produce. Then the action continues and the patents are all found invalid. It cannot be that the rate arrived at is binding on the defendant. The defendant will have established that it has no obligation to pay the patentee in this jurisdiction whatsoever.

42. That is the heart of the defendant's contingent position. In this case ZTE is not willing to be a licensee of invalid and/or not infringed patents. So ZTE is not prepared to be bound by the outcome of the determination that Vringo proposes. This raises the question of what is a willing licensee. The suggestion from Vringo was that this stance showed that ZTE was not really a willing licensee at all.

43. The concept of a willing licensee arises in this context as follows. There is what I will call a general idea (without expressing a view on whether it is right or wrong) that when a patent is an SEP, if a defendant is a willing licensee, then it may be that the patentee is not entitled to obtain an injunction against the defendant, whereas if the defendant was not a willing licensee, then the defendant may be subject to the risk of an injunction. This issue has developed in Germany and questions have been referred to the Court of Justice dealing with these issues. It arises in Germany at least in part as a result of the bifurcated procedure where a defendant in an infringement court can find itself in a position in which the patent is found to be infringed -- that is to say it covers the standard -- and is therefore facing an injunction a long time before validity has been determined by the Federal Patent Court. Any problem of this kind caused by bifurcation is not an issue here.

44. This case is a long way from having to consider whether to grant injunctive relief; after all, according to ZTE, the patents are all invalid and/or not infringed. However, in any case I reject the idea that the stance being taken by ZTE in this jurisdiction can fairly be said to mean that ZTE is not a willing licensee. ZTE has said it is willing to take a FRAND licence on any patent found valid and infringed. In my judgment, a defendant accused of patent infringement by a patentee who claims to have a standards essential patent is and must be entitled to say, "I wish to know if this patent is valid or infringed or not before I take a licence". Such a stance cannot fairly be described as unwillingness.

45. So here the defendant is entitled, in my judgment, to adopt a contingent position. In a contingent case like this, there is no basis on which the court could compel the defendants to accept a licence arrived at by approaching the matter as if the licensee was willing to take a licence without having a judicial determination of validity and/or infringement.

46. Looking at it the other way, if, once the patent trials are heard, for example, say Vringo's alleged SEPs were found invalid, it would be absurd for Vringo to say it still wanted to have a trial to determine a FRAND royalty rate applicable in the United Kingdom. The rate would be zero. Equally, say Vringo won all the patent trials hands down and then conducted a FRAND trial, it would equally be absurd for ZTE at that trial to say, "Oh but these are weak patents likely to be invalid or not infringed and the royalty should correspondingly be less.

52. The FRAND trial proposed by Vringo would be a major exercise. In my judgment, it is much heavier than Vringo suggests. Although the comparison is not exact, I note that the Nokia v IPCom FRAND trial, which was to deal with one patent, was estimated for a comparable length as the trial Mr. Green proposes here. However, the FRAND trial in this case would be about a portfolio of hundreds of patents. To make the order sought would commit the parties to very substantial costs and time.

53. Vringo is not suggesting that the court should decide the FRAND royalty on the basis that all the patents are all valid and all infringed. In other words, this is not a case of the first type. That could be done in theory but it is not what Vringo are asking for. And since ZTE says the patents are invalid, I can see there would be little point in that exercise.

54. I sympathise with Vringo to this extent. If both sides were willing one way, probably the cheapest and most cost effective way, of resolving the whole global case overall, would be if a single court were to do what was done in Microsoft v Motorola. In my judgment, if both sides were willing to be bound by the outcome, there is no reason why the English court could not do it. Nothing in the determination makes it intrinsically impossible for the court to resolve. It would be costly but that is a different matter; it would be less than the three trials proposed by the defendant, and

less than the aggregate of that plus all the various parallel cases going on elsewhere. I gather there are cases on this portfolio between Vringo and ZTE in at least France, Germany and possibly Australia. If the defendant was prepared to accept such a determination as binding, then it would at a stroke resolve the case in a time and cost efficient manner because then there would be no patent trials at all.

55. But, as I have said already, the court cannot and should not seek to compel or coerce a defendant into that position. The defendant in this case is entitled to challenge validity and infringement of the patents in suit.

56. In some ways I believe the position adopted by Vringo in this dispute confuses the true nature of its legal rights. Its rights are and are nothing more than patent rights. Although it is a truism that disputes of this kind often end up with a global licence, one needs to be careful turning that truism into something like a right to compel a defendant to enter into such a licence.

The truism does not alter the character of Vringo's underlying rights.

57. Since the defendant wishes to challenge validity, then the issues proposed by Vringo are a major distraction and are potentially misleading. They have the capacity to create the idea that the defendant owes a sum determined as if it was willing to negotiate without determining validity or infringement.

58. In my judgment, the issue before me is not simply a matter of case management and consideration of the court's resources. In this case, I think it would be wrong to schedule a trial of the various declarations sought by Vringo before the trial of the patents in this case, and I will not do so."

The above enumerated position has been recognized by the European Commission as the correct one in MEMO/13/403 dated May 6, 2013. Extracted below are the relevant portions:

> "Under what circumstances can a potential licensee be considered "willing" to enter into a FRAND licence?
>
> In the case at hand, the Commission is of the preliminary view that Apple's willingness to enter into a FRAND licence manifested itself in particular by its acceptance to be bound by a German court's determination of a FRAND royalty rate. The Commission's preliminary view is that the acceptance of binding third party determination for the terms of a FRAND licence in the event that bilateral negotiations do not come to a fruitful conclusion is a clear indication that a potential licensee is willing to enter into a FRAND licence. This process allows for adequate remuneration of the

> SEP-holder so that seeking or enforcing injunctions is no longer justified once a potential licensee has accepted such a process.
>
> By contrast, a potential licensee which remains passive and unresponsive to a request to enter into licensing negotiations or is found to employ clear delaying tactics cannot be generally considered as "willing". In addition, in the Commission's preliminary view, the fact that the potential licensee challenges the validity, essentiality or infringement of the SEP does not make it unwilling where it otherwise agrees to be bound by the determination of FRAND terms by a third party. In the case at hand, Motorola required clauses that prohibited such challenges by Apple, even after Apple had agreed to be bound by a third party determination of the FRAND terms. The Commission's preliminary view is that it is in the public interest that licensees should be able to challenge the validity, essentiality or infringement of SEPs."

73. It is submitted by the defendant that the royalty rate offered by the Plaintiff to the Defendant unreasonably its FRAND obligations since the Plaintiff insists on charging royalties on the basis of the sale price of the mobile phone as opposed to the profit margin on the sale price of the baseband processor/chipset in which its technology allegedly resides. The unfairness of such a position has been established in Microsoft v. Motorola, which was subsequently affirmed in In re Innovatio IP Ventures LLC. Consequently, in view of the unfair royalties demanded by the Plaintiff and its adamantine refusal to share necessary information with a willing licensee such as the Defendant, the Plaintiff cannot be granted any exclusionary remedies since it is in violation of its FRAND obligations.

This position has been endorsed by the European Commission in MEMO/13/403 and IP/13/406 as follows:

> "Is the Commission generally questioning the use of injunctions by patent-holders?
>
> No. Recourse to injunctive relief is generally a legitimate remedy for patent-holders in case of patent infringements. The case is therefore not about eliminating the use of injunctions by patent-holders. Rather, the Commission has reached the preliminary conclusion that the seeking and enforcing of an injunction for SEPs can constitute an abuse of a dominant position in the exceptional circumstances of this case - where the holder of a SEP has given a commitment to license these patents on FRAND terms and where the company against which an injunction is sought has shown to be willing to enter into a FRAND licence."

74. The use of exclusionary remedies by owners of alleged SEPs has been frowned upon by US Courts as well which are usually perceived as being pro-patentees. Reliance in this regard is placed on Realtek v. LSI. In this case, the Court specifically acknowledged the inequitable nature of any interim injunction and the violation of FRAND commitments which arise from the grant of such an order. Further, the serious threat posed by such orders to Public Interest has been categorically taken cognizance of by the Courts.

REPLY TO THE DEFENDANT'S CASE

75. The main case of the plaintiff is that the suit mentioned patents are "Standard Essential Patents" in the field of telecommunication and are mandatorily required and used for the implementation of the concerned technologies including 2G and 3G technologies. Plaintiff, in the light of the FRAND commitment made by it to various Standard Setting Organizations including ETSI (European Telecommunication Standards Institute) fairly offered a license for its entire portfolio of patents (including the suit patents) which are essential for 2G and 3G technologies to defendant. However, despite being put to notice since December 2008, defendant has failed to obtain licenses from plaintiff for its Standard Essential Patents (hereinafter SEPs) including the suit patents. From 2008 onwards till the filing of the present suit, though defendant has always averred and in fact continues to state that it is willing to discuss and enter into a FRAND license with plaintiff, however the same is not reflected from the conduct of the defendant, such details are given as under :

i) Despite repeated requests by the plaintiff, the defendant has failed to constructively negotiate a license agreement with plaintiff;

ii) Defendant despite admitting that plaintiff is the owner of SEPs which are necessarily employed and used by defendant in various telecommunication devices (handsets, tablets, dongles etc.) being sold by it under its brand, no feasible offer has been made by defendant;

76. In reply to the case of the defendant, it is alleged by the plaintiff that defendant has sought information in respect of how its product are infringing from plaintiff and when sample infringement details were provided to it, has sought revocation for the said patents before the Intellectual Property Appellate Board with the malafide intention of harassing Ericsson and to escape its liability. The defendant has failed to clarify or define what is the technology which is being used in its telecommunication devices (handsets, tablets, dongles etc.) and how is the same non-infringing in nature. The defendant had initially sought information related to the essentiality of Ericsson's patents and when such details were provided, an information was filed with the Competition Commission of India alleging that plaintiff is abusing its dominant position which is solely based on the ground that Ericsson being the proprietor of several valid SEPs is in a dominant position and has allegedly failed to

actively license its SEPs on reasonable terms. The defendant is selling its telecommunication devices (handsets, tablets, dongles etc.) in India without seeking any license from even a single SEP owner. As a result, defendant was never a willing licensee as it has never respected the Intellectual Property Rights of even a single SEP proprietor despite admitting that defendant is not technically competent to develop its own patented technology or to contribute to the global standards for telecommunication.

77. It is alleged by the plaintiff that after a lapse of more than 5 years of negotiations, during which defendant misled plaintiff and misused all the information and details which were provided by plaintiff to Intex (with the view to facilitate the execution of a FRAND license agreement) for the purpose of initiating frivolous legal proceedings before various forums against plaintiff solely with the intention to escape its liability as it was apparent that defendant never intended to sign any license agreement with plaintiff and thus plaintiff was left with no option but to file the present suit for infringement against defendant seeking permanent injunction. The defendant has raised mere bald averments on the subject of FRAND rates and FRAND license agreement and has conveniently failed to highlight that it is not paying any license fee to even a single SEP owner for the various telecommunication devices (handsets, tablets, dongles etc.) being sold by it in India. Thus, defendant is an infringer who is illegally earning profits to the detriment of the innovator and inventor companies in the field of telecommunication.

78. It is submitted by the plaintiff that the defendant is one of the largest mobile handset suppliers in the country. The plaintiff first time contacted defendant in 2008, it had very small market-share of the handset in India. Now the defendant has reasonable market in India in the field of mobile communication. As per plaintiff, the defendant enjoys more than 4 % market share in India. The devices (handsets, tablets, dongles etc.) which infringe all the SEPs qua a telecommunication device are being sold by defendant is not licensed to even a single SEP proprietor. Thus, it is obvious and doubtful in the contentions qua the fact that it provides 'products with high-end technology at affordable price' or that it ensures that the 'Indian consumer has access to state of the art products as per the latest global standards at affordable rates' as all the telecommunication devices (handsets, tablets, dongles etc.) which are sold by defendant.

79. During the course of negotiations, the defendant sought information from plaintiff as to how its products/devices are infringing in nature and when sample infringement details were provided to it by Ericsson - revocation petitions were filed before the Intellectual Property Appellate Board related to the patents for which proof of infringement was provided by plaintiff with the malafide intention of it and to escape its liability for infringement. Thus, incorrect averments have been raised by defendants to the effect that 'institution of revocation petitions was necessitated by the fact that at no point during the negotiations between the parties was there an

effort the part of plaintiff to address defendant's repeated concerns regarding the validity of the former's patents. Consequently, in order to test the validity of Ericsson's patents in and by an expert forum, defendant had no option but to file the revocation petitions before the IPAB'.

During the entire course of negotiations, defendant had never challenged the validity of the suit patents and negotiated with Ericsson on the royalty rates after being advised upon the validity and essentiality of the same.

80. It is submitted that throughout the period of 5 years when the parties were negotiating with each other, no questions or concerns were ever raised by defendant related to the validity of Ericsson's patents (including the suit patents) and it was only after Ericsson started asserting rights in the suit patents against other Indian Mobile Companies/Mobile Phone Vendors who were infringing plaintiff's patents that revocation petitions were filed by defendant before the IPAB.

81. The royalty demanded by plaintiff is based upon the following:-

i. The royalty base is the sale price earned by the supplier from its customer.

ii. A Percentage of the said sale price is demanded as a royalty depending upon the technology being used.

iii. Percentages are determined on the basis of the contribution of patented technology to the standard and its contributed value for the end user in the end product.

iv. Percentage/royalty is also dependent upon the amount of essential patents held compared to others who have contributed to the standard.

v. Percentage is then confirmed or revised based on what the market has found reasonable in licensing negotiations, as evidenced by the numerous signed license agreements with Ericsson.

82. The plaintiff states that merely because revocation petitions were filed by defendant prior to the filing of the present suit, does not mean that no interim relief can be granted against it. It is of interest to note that though defendant seeks to differentiate its case from that of other third parties against whom plaintiff's suits for infringement of patents are pending before this Court, however identical grounds have been raised by defendant by placing reliance on exactly the same alleged prior art documents. Therefore, the act of seeking revocation of the suit patents is nothing but an attempt on part of defendant to escape its liability for infringement under the Patents Act, 1970. The validity of plaintiff's patents has been challenged on numerous occasions by infringers and unwilling licensees in different litigations across the

globe, however, till date none of the patents of plaintiff have been revoked.

83. It is also denied by the defendant that the plaintiff has corresponded with defendant since 2008 and parties made many efforts for licensing plaintiff's patents. The complete summary of the correspondence and the events exchanged between the plaintiff and defendant since 2008 have been mentioned in the replication. The same is reproduced hereunder :

DATE	PARTICULARS
16th December, 2008	First letter addressed by Ericsson to Intex stating that Ericsson is a world leader in development of

wireless communication equipment and has a significant portfolio of patents in India which are essential in nature. Upon review of Intex's business, Ericsson believes that its essential patents are being used by Intex in more than 10 of its GSM compliant products. In the light of the same, Ericsson stated that it is willing to grant a license to Intex qua its Standard Essential Patents on FRAND terms and requested Intex for a meeting.

7th January, Reply email from Intex to Ericsson Intex denied knowledge qua Ericsson's patent portfolio in India that is essential in nature. However, Intex agreed to meet Ericsson.

12th January, Email from Ericsson to Intex Ericsson informed Intex about the fact that it has several existing licensees and it is also in negotiation with few other Indian vendors qua entering into a license agreement.

Ericsson also provided an example list of its SEPs to Intex.

Ericsson also provided a Non-Disclosure Agreement to Intex and asked Intex to execute the same so that both the parties can move forward to discuss all the issues in more detail.

22nd January, Email from Intex to Ericsson requesting for a 2009 meeting before executing the NDA.

30th January, 2009	Email from Ericsson to Intex agreeing to have a conference call on 06.02.2009.

However, it is clarified that with an NDA in place it would be easier to discuss the licensing arrangement and offer.

6th February, No one attended the conference call from Intex's 2009 side.

An email was issued by Ericsson proposing to have a conference call on 11th or 13thFebruary, 2009.

9th February, Email from Intex to Ericsson, agreeing to sign the 2009 NDA in order to learn the applicability of Ericsson's GSM/GPRS Patent. A draft NDA with some changes and comments was also forwarded by Intex along with this email.

9th February, Email from Ericsson in reply to the Intex's email 2009 dated 09.02.2009 forwarding the amended version of NDA with its inputs.

10th February, Email from Intex to Ericsson raising concerns 2009 over the jurisdiction clause of NDA on the ground that Intex is not in a position to afford costs of proceedings in Switzerland.

10th February, Email from Ericsson to Intex wherein in order to 2009 address Intex's concern on the jurisdiction of the NDA - neutral countries like England, Wales and Switzerland were proposed.

17th February, Email from Intex to Ericsson wherein it is stated 2009 that India be considered as the territory governing the jurisdiction of the NDA and New Delhi as the venue for arbitration proceedings.

17th February, Email from Ericsson to Intex wherein it is stated 2009 that it would be preferable to have a neutral venue as jurisdiction and Singapore was suggested.

24th February, Email from Ericson to Intex seeking its advise to 2009 address the issue of NDA so as to enable the parties to move forward.

27th February, Email from Ericsson to Intex wherein a 2009 conference call is proposed to discuss the issue of jurisdiction of NDA.

5th March, 2009 Email from Ericsson to Intex highlighting that Intex did not confirm its participation for the conference call on 5.3.2009. A response on the issue of jurisdiction of the NDA is requested by 6.3.2009.

8th December, Letter written on behalf of Ericsson to Intex Reference made to first letter addressed by Ericsson to Intex.

Further, in the light of the reservation expressed by Intex in reference to the governing law of the arbitration clause in NDA, a revised NDA is forwarded with laws of Singapore a neutral country being the governing law for arbitration.

Ericsson further proposed to have a meeting on 14.12.2009 at Intex's premises in New Delhi.

25th January, Email from Ericsson to Intex wherein reference is 2010 made to the 8.12.2009 letter and time is sought for further discussion.

The email is also addressed to the MD of Intex.

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28th    January, Meeting held between Ericsson's counsel and
2010             Intex. The meeting was attended by Mr. Rajesh
                 Sondhi,    Company       Secretary   and     Mr.
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NishantMukund - Legal on behalf of Intex. In the meeting the issue of Singapore as a venue along with the fact that Intex are merely importing devices from China and were not manufacturing the same were discussed.

1st September, An email addressed by Ericsson to certain 2010 officials/officers of Intex wherein reference was made to a meeting at ICA Office. Further, amended NDA was attached and comments were requested.

16th December, Letter from Ericsson to Intex It is stated by Ericsson that it has attempted to communicate with Intex since 16th December, 2008 with respect to licensing of its SEPs on FRAND terms. The factum of Ericsson being a leading mobile cellular standard contributor and owner of considerable portfolio of Essential Patents related to 2G and 3G technology was reiterated. In the light of the insincere response by Intex it was stated that Ericsson cannot be expected to continue its efforts to license its patents on FRAND terms without any serious intention on the part of Intex especially in the light of the continuing violation of Ericsson's 2G/3G SEPs.

ICA also CC'd.

28th December, Email addressed by Intex to Ericsson Reference is made to the 16th December, 2011 letter and in the light of the New Year vacation further time to reply is sought.

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19th    January, Letter from Intex to Ericsson in reply to 16th
2012             December, 2011 letter
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It is stated that as per Intex the status of its file folder pertaining to the concerned issue stands closed. It was also highlighted that there has been minimum correspondence between the parties and any grievance on the part of Ericsson suffers from substantial delay.

It was stated that Intex does not manufacture mobile phones or their components/parts. It was further highlighted that Intex does not even assemble such components as a third party supplies complete products which are then sold by Intex

under its trade mark.

It is also stated by Intex that it has entered into specific agreements with the various manufacturing sources wherein it has been specifically confirmed by such manufacturers that the various parts/components supplied by them do not infringe the IP rights of any party. Further, such agreements specifically contain indemnity clause whereby it is the responsibility of the manufacturer and not Intex to defend any infringement proceedings.

In the light of the aforesaid, plea of uninformed and innocent infringer was taken by Intex.

Identical email was also addressed to Ericsson.

ICA also CC'd.

26th January, 2012	Letter from Ericsson in reply to the 19th January, 2012 letter	

It is clarified by Ericsson that it is the company which sells infringing products under its brand that has the liability to enter into a license agreement. It was also clarified that as Ericsson has not provided any license to Intex suppliers or manufacturers, its product continue to be infringing in nature and a request for a meeting was made with Mr. Harish Sharma in February, 2012 wherein it was stated that Ericsson will explain any more details about the infringement of Ericsson's patents by Intex.

It was specifically stated that Intex has been selling GSM compliant products since many years and has at the same time refused to communicate with Ericsson on licensing matter.

30th January, An email addressed by Ericsson to Intex 2012 attaching Ericsson's reply letter dated 26th January, 2012 and a proposal for a meeting on 30th February, 2012 was extended.

7th February, Intex replies to Ericsson's 30th January, 2012 2012 email and proposes either 27th or 28th February, 2012 for a meeting.

9th February, An email addressed from Ericsson to Intex 2012 confirming the meeting on 28th February, 2012.

However, a request was made for rescheduling the time of the meeting to 4.00 PM instead of 4.30 PM.

23rd February, An email addressed on behalf of Ericsson 2012 seeking confirmation of the meeting to Intex official.

Meeting was confirmed from Intex side as well via email.

28th February, Meeting held between Intex and Ericsson where 2012 NDA was discussed. Further, physical copies of five example patents were provided by Ericsson to Intex and discussion on FRAND license was conducted.

29th February, Email addressed by Ericsson to Intex attaching 2012 the NDA and requesting that as per the discussion, the same may be signed by the week of 15th March, 2012.

15th March, Email addressed to Ericsson on behalf of Intex 2012 stating that they are still studying the patent documents provided to them by Ericsson. Further, in light of the fact that March is the closing month of financial year, further time was sought till mid of April, 2012.

17th April, 2012 A reminder email addressed by Ericsson to Intex.

23rd April, 2012 Another reminder email addressed to Intex.

In reply it was stated that Intex will revert within a week.

4th May, 2012 An email addressed by Ericsson to Intex enquiring about the NDA.

7th May, 2012 An email addressed by Intex to Ericsson In the said email it was averred that Intex does not have any clarity about the necessity of signing an NDA as there cannot be any confidentiality in complete specification and disclosure of acts of infringement. It was reiterated that Intex does not manufacture handsets, therefore, it is not aware of the full details of the circuit/technologies used in its handsets and would require such information which can be further disclosed to the various manufacturers from whom Intex is procuring various components.

8th May, 2012 Email address by Ericsson in reply to Intex's 7.5.2012 email It was clarified that the acts of infringement were duly explained to Intex on the basis of essentiality of Ericsson's patents and five example patents were also handed over to Intex for its review. As a result, Intex had claims of 5 patents which Intex was infringing. Further, it was stated that only qua claims charts, confidentiality was sought by Ericsson as these are Ericsson's proprietary documents. It was again clarified that liability to take a license lies with the brand owner.

Intex's need to discuss the matter at hand with an outside expert especially in terms of the fact that Intex is not a manufacturer was acknowledged by Ericsson as a result

of which hard copies of five patents were handed over for review and consultation with necessary technical team. Further, proposal for another meeting was made wherein Intex was asked to involve any technical person from its side to understand the technology and infringement.

14th May, 2012 Email addressed by Ericsson to Intex requesting confirmation for a meeting on 21st, 22nd or 23rd May.

15th May, 2012 Email addressed by Ericsson to Intexseeking confirmation for a meeting on 21st, 22nd or 23rd May.

16th May, 2012 Reply email from Intex stating that as the concerned officials are pre-occupied, they would not be available for a meeting on either of the three days.

In reply Ericsson requested that information of any suitable date of their availability be provided so as to finalize a meeting.

22nd May, 2012 A joint meeting held between Ericsson and eight Indian handsets manufactures under the aegis of Indian Cellular Association (ICA).

8th August, 2012 Email from Ericsson to the representative of ICA providing the proof infringement in relation to the handsets marketed by Intex.

9th August, 2012 Email from the representative of ICA forwarding the proof of infringement as provide by Ericsson to Intex.

13th August, Internal email circulated by Intex to confirm the 2012 infringement test report from an independent body as supplied by Ericsson. Further, whether the infringing technology can be disabled is asked to be looked into.

The aforesaid is again internally highlighted by Intex vide email dated 18.8.2012.

16th August, Letter from Ericsson to Intex expressing 2012 satisfaction with the meeting on 22.05.2012 and highlighting the importance of timely conclusion of relevant license agreement.

Ericsson again proposed for a meeting in the week of 27th August 2012. It was also highlighted that all the action points for Ericsson as agreed in the meeting have been completed.

13th March, Email addressed by Ericsson to Intex stating that 2013 the issue of patent license agreement is still outstanding and in order to settle the matter, a request for a meeting on 14th March, 2013 was made.

26th March, Reply from Intex to Ericsson wherein it was 2013 stated that Intex respects Ericsson's Intellectual Property including patents and is ready to obtain a patent license agreement for the same. It was also stated that despite Intex's requests for commercial terms of the PLA, the same have not been provided by Ericsson till date. Thus, a request was made that before the meeting, the terms of FRAND license be provide to Intex and a request for meeting any time after 29th March, 2013 was made.

In reply it is highlighted by Ericsson that commercial terms can only be discussed once an NDA is signed between Intex and Ericsson and a request was made for the execution of the same.

In reply thereto, a copy of NDA was requested by Intex from Ericsson and it was stated that they are willing to hold a meeting as proposed.

28th March, Email addressed by Ericsson to Intex whereby 2013 copy of the NDA was sent and it was stated that subsequent to the signing of the NDA - the term sheet will be provided to Intex by Ericsson.

30th March, Email from Intex to Ericsson whereby the 2013 scanned signed copy of the NDA was sent wherein the venue of arbitration was changed to New Delhi. In the light of the fact that the NDA was signed, request for commercial terms was made and certain clarification was sought to the following extent:

A. Total number of patents Ericsson intends to license to Intex;

B. Copies of existing license agreement between Ericsson and other parties selling handsets in India;

C. Basis for Ericsson levying the royalty rate i.e. whether it is the chipset price or the import value;

D. List of cross licensees with whom Ericsson has entered into a patent license agreement for GSM, EDGE and GPRS as a result of which Intex would not be required to enter into individual license arrangement with entities other than Ericsson.

E.

In reply, Ericsson highlights the fact that Ericsson is a Swedish Company and requests that the NDA be signed with Sweden being the country governing the law.

1st April, 2013 In reply email Intex clarifies that Intex is an Indian entity with operations in India and thus, it is not agreeable to be governed by laws of Sweden and

in turn requests Ericsson to sign the NDA with Delhi as the jurisdiction. Request for commercial details and clarifications as sought in the 30th March, email was made.

In reply, an amendment to the extent that a neutral venue i.e. Singapore being the country whose law would govern the NDA was made.

2nd April, 2013 Intex in reply again reiterated that as it is an Indian Company with Indian operations it is not agreeable for being governed by laws of Singapore and requested Ericsson to sign the NDA with Delhi being the place for arbitration.

3rd April, 2013 Reminder email sent by Intex to Ericsson seeking confirmation along with affirming the time for meeting.

In reply Ericsson reiterated its stand.

4th April, 2013 Intex again reiterated its stand on the NDA qua same being governed by Indian law.

5th April, 2013 Ericsson requests a tele-conference to clarify the issue.

10th April, 2013 Email from Intex to Ericsson stating that Intex is sending a signed copy of NDA with Singapore jurisdiction and requested that necessary information as earlier requested by them be sent to Intex. Protest on Singapore as jurisdiction governing arbitration is reiterated.

Pursuant to the tele-conversation Ericsson requests Intex to sign the NDA with Singapore jurisdiction.

11th April, 2013 A Non-Disclosure Agreement signed between

- 12th April, Intex and Ericsson. The NDA is to be governed 2013 by substantial law of Singapore and in case of any arbitration the proceedings shall also take place at Singapore.

12th April, 2013 Intex re-sends the NDA with Singapore jurisdiction. However, it reiterates its objection.

18th April, 2013 Counter-signed NDA is sent by Ericsson to Intex via email and request for a meeting on 22nd April, 2013 is made in order to clarify the various questions and concerns of Intex.

23rd April, 2013 An email addressed by Intex to Ericsson requesting them to confirm the date, time and place in the next week for a meeting.

In reply 29th April at 5.00 PM Intex Office is proposed by Ericsson. Further, the term sheet is also attached.

25th April, 2013 Meeting on 29th April is confirmed. However, reminders were sent about the query/ information sought by Intex in its 30th March email.

26th April, 2013 In reply to Intex query as contained in 30th March email, Ericsson states that:-

a. Ericsson intends to license its entire 2G and 3G Standard Essential Portfolio to Intex and an example 2G, 3G patent list is provided; b. Due to confidentiality Ericsson refused to share third party agreements with Intex;

c. Clarifies that the license shall be concluded on the net selling price and not on chipset basis;

d. Again due to confidentiality, Ericsson refused to share third party agreement with Intex. However, it is clarified that Ericsson only licenses its own 2G and 3G patent portfolio;

th 29 April, 2013 Meeting held between Ericsson and Intex along with Intex's counsel M/S Sai Krishna and Associates.

An email is addressed by Intex wherein various queries to the following effect were raised:

a. Identify total number of patents Ericsson intends to license as only a sample list has been provide and further details are required;

b. Disclose total number of Standard Essential Patents (SEPs) held by Ericsson Vs. total number of SEPs in respect of 2G and 3G technologies;

c. In light of the confidentiality pleaded by Ericsson, Intex sought advice from Ericsson qua any alternate reliable and dependable mode on the basis of which Intex can confirm for itself that the rate stated by Ericsson are FRAND in nature; d. Details of the extent to which the rates are variable were sought;

e. Concerns relating to royalty stacking were raised;

6th May, 2013 In reply it was stated by Ericsson that:

> a. As the entire 2G&3G SEP patent portfolio is licensed for a particular period - no exact number can be quoted as the same is fluid in nature;

b. Ericsson owns between 25-35% of the 2G & 3G SEPs;

c. By referring to various litigations initiated against Ericsson in which discovery proceedings have been ordered by Courts, it was stated that if there was any major discrepancy between the rates offered by the Ericsson to various parties, the same would have been brought to the forefront. Thus, the veracity of Ericsson's rates being FRAND could be gauged;

d. Ericsson has same terms for similar companies and the term sheet shared with Intex is applicable to all companies who do not have SEPs to cross license;

e. Ericsson can only license its own patents to Intex;

f. Phone/handset is the royalty base as it is the infringing product which is offered for sale in the market;

7th May, 2013 An email is addressed by Ericsson to Intex requesting them to respond on the term sheet.

In reply further time was sought.

13th May, 2013 In light of the fact that sufficient time has lapsed and Ericsson's Licensing Team would be visiting Delhi, a meeting on 22nd May, 2013 was proposed for discussing the term of GPLA.

14th May, 2013 An email in reply to 6th May, 2013 was addressed by Intex to Ericsson.

It was stated that certain queries raised by Intex remain unanswered. Further, various follow-up questions were also raised to the following extent;

Will Ericsson license cover only SEPs?

Whether, in the light of the disclosure on the ETSI website, any other independent body has determined the percentage of SEPs owned by Ericsson?

i. Evidence to support the rates being offered to Intexare FRAND or not was sought.
ii. Information and clarity with respect to arrangement between ST Ericsson and Ericsson especially whether a license has been granted by Ericsson to ST Ericsson i.e. a chipset manufacturer was sought.

iii. Alleged that as Ericsson's patents are towards baseband processor only and not other parts of mobile handset, the royalty base should be towards the chipset and not the entire phone. Example of Qualcomm, Intel, Broadcom were given.

More clarification was sought with respect to royalty stacking.

15th May, 2013 An email addressed by Ericsson to Intex stating that it would be better to have a face to face meeting for clarifying Intex's concerns and a meeting for 22nd May, was proposed as Ericsson's other IPR & Licensing team members will also be present.

16th May, 2013 In reply Intex states that 22nd May, 2013 would not be possible and request for 23rd of May.

Further via separate email of the same day it was reiterated that certain queries continue to remain outstanding and further clarifications were sought especially in the light of the fact that the financial implications involved for Intex are huge.

The meeting was confirmed by Ericsson and the following in-line response was provided to Intex's queries:

a. License would be limited to SEPs as per the terms contained in the GPLA;

b. The fact that Ericsson has executed more than 100 license agreements is evident of the fact that the rates offered by Ericsson are FRAND rates as Ericsson's patents have been proved by the market and in courts globally;

c. Due to confidentiality clauses terms and conditions of third party agreements cannot be shared with Intex in the absence of a court order;

d. Ericsson has not licensed ST-Ericsson;

f. The norm for cellular standards essential patent licensing is to license the provider of the complete product. Further, Intel and Broadcom are not involved in cellular standards essential patents licensing;

g. Ericsson plays its part in ensuring that the rates it charges are reasonable and in proportion to the contribution made by Ericson to the telecom standards;

17th May, 2013 Intex sought details of participants on behalf of Ericsson.

Same were provided by Ericsson.

18th May, 2013 Intex agreed to a meeting without counsel provided Ericsson does not bring along with them their own counsel. Further, it was reiterated that large amount of questions continue to remain unanswered.

23rd May, 2013 Meeting between Ericsson and Intex team where Intex agreed in principle to the offer made by Ericsson whereby revision was made to the payment structure.

27th May, 2013 In the light of the meeting between Intex and Ericsson, a further conference call was proposed by Ericsson to Intex.

Revised term sheet is sought by Intex on the basis of the meeting with Ericsson. It was stated that the time for conference call can be confirmed subsequent to the same.

Highlighted by Ericsson that a conference call for Thursday was agreed by Intex on the last meeting and confirmation was sought.

29th May, 2013 An email was addressed to Ericsson asking them to confirm oral revised royalty rates as proposed by Ericsson in the meeting. Further, as the revised rates would require deliberations at the Board Level, thus, the same were requested prior to the conference call. Claim Chart mapping was also requested.

30th May, 2013 Amended term sheet was provided to Intex by Ericsson. Further, as initially Intex has stated that they would not require claim chart mapping - confirmation was sought from Intex whether they are still needed.

Reply email addressed by Intex confirming receipt of the revised term sheet. However, details for claim chart were sought. It was stated that as deliberations on the revised term sheet would require certain time, therefore a conference call in the second week of June was proposed.

4th June, 2013 Request for claim chart was reiterated by Intex.

5th June, 2013 Reply email addressed by Ericsson stating that they have initiated the process gathering of information. Further, a conference call for 12th of June, 2013 was proposed.

10th June, 2013 The day and date of conference call confirmed by Intex. Request for claim charts reiterated.

11th June, 2013 Emails were exchanged between parties to change the date and time of the conference call to 12th of June. Further, it was stated by Ericsson that it is in the process of arranging claim charts and will share the same as soon as possible.

12th June, 2013 Conference call held between Ericsson and Intex.

Intex via email stated that it will provide a counter offer to Ericsson shortly and again requested for a claim chart mapping.

19th June, 2013 Counter offer was made by Intex to Ericsson and its request for claim chart mapping was reiterated.

5th July, 2013 Reminder letter sent by Intex to Ericsson stating that it had not received any reply.

10th July, 2013 Reply email by Ericsson stating that due to Ericsson's existing licensees (which include majority of the main phone vendors) and FRAND commitment it will not be possible for Ericsson to consider Intex's counter offer. It was further stated that Ericson was surprised and disappointed by Intex's offer especially after it offered Ericsson commercially sensible rates as the starting point for discussion during their face to face meeting.

However, it was stated that Ericsson continues to remain available for any further discussion keeping in view its FRAND considerations.

11th September, Reminder letter sent from Ericsson to Intex 2013 proposing further discussion as proposed in 10th July, 2013 email.

14th September, An email addressed by Intex to Ericsson It was stated that the email vide which Ericsson had declined Intex's counter offer was not received by Intex and they became aware of the same on 11th September, 2013 after perusing the trailing emails.

It was further stated that accordingly Intex's management has been apprised about the same & it was reiterated that Intex is open for further discussion and suggested timing for conference call. Another reminder was given qua the claim chart mapping.

17th September, Email addressed by Ericsson to Intex Claim charts are provided to Intex.

The time for conference call as proposed was accepted. Specific request was made to ensure that Mr. Bansal joins the conference call or in alternative an offer to meet Mr. Bansal in person at Intex's office was made so that the meeting is fruitful and the license can be executed in a time bound manner.

18th September, Reply email from Intex It is stated that claim charts for only 25 Indian Patents were received and confirmation was sought whether those were the only patents that were applicable to Intex. It was reiterated that as Intex is not a

technological company it would not be in a position to assess the total number of patents required from different parties (who claim to be SEP holders) which are relevant for Intex products. It was also stated that Intex is unaware about its own requirement qua the 2G, 3G and WCDMA portfolio of Ericsson i.e. whether they require all the patents or only few. Accordingly, a request was made to Ericsson to help Intex in order to assess the same along with the impact of the total royalty demands on Intex. It was stated that availability of Mr. Bansal is being checked and the same will be confirmed.

19th September, Email from Ericsson to Intex It is reiterated that the license which Ericsson will be granting to Intex will be for the Ericsson's 2G and 3G portfolio which will be on a term basis i.e. any new patents which are acquired by Ericsson during the term of the patent license would also be automatically licensed to Intex. As a result the 25 patents qua which the claim charts have been provided to Intex are not the only patents which will be licensed.

It was clarified that license for all Standard Essential Patents is necessary. It was further reiterated that Ericsson would be more than willing to help Intex in understanding Ericsson's licensing program. However, disability to assist qua license program of third parties was expressed.

Re Intex offer, it was again clarified that the same was unacceptable to Ericsson especially in the light of the existing FRAND licenses.

25th September, Email from Intex to Ericsson Disappointment was expressed over Ericsson's rejection of Intex's counter offer. It was stated that Intex expected a reasoned explanation from Ericsson for such rejection which Ericsson has failed to provide and has instead merely stated that it cannot consider Intex's offer on the ground that Ericsson has 100+ licenses across the world. It was stated that Ericsson has never divulged any details of such third parties with whom it has entered into FRAND license nor has provided any objective basis of the methodology adopted for arriving at the royalty rates for such parties.

It was stated that Intex cannot agree to Ericsson's proposed rates without being satisfied by the commercial reasonableness of such proposal especially the impact of such royalty quaIntex's competitors, its market standing etc. It was stated that no negotiations can fructify or be sustainable until and unless there is transparency, reasonableness and concern for each other. In the light of the same, it was stated that Intex's concern be addressed accordingly.

It was reiterated that Intex respects Ericsson's IPR and is keen to take the matter forward and asked for a time to discuss the same further.

8th October, Email addressed by Ericsson to Intex wherein the

2013 following was stated:-

A. Ericsson never rejected to discuss the counter offer made by Intex, however, the fact that the counter offer was nowhere close to the agreement in principle reached between both the parties, the same was not accepted by Ericsson; B. The basis of the methodology adopted by Ericsson by virtue of which FRAND terms are determined has been explained by Ericsson to Intex on numerous occasions;

C. Due to confidentiality clause with Ericsson's Licensees it was not permissible for Ericsson to disclose the names and terms of agreement of any third parties in absence of an order from the Court;

D. Ericsson has adopted transparency and reasonableness in its negotiations with Intex, however, Ericsson cannot be expected to forego its confidentiality liability towards its licensees and disclose confidential information; A suitable time for meeting for further discussions was requested.

29th October, Email addressed by Ericsson to Intex requesting 2013 for a meeting with Mr. Bansal especially in the light of the fact that Ericsson's Director of IPR and Licensing Mr. Max Olofsson was in Delhi.

30th October, Reply email addressed by Intex wherein the
2013 following was stated:-

A. Intex still awaits Ericsson's response to the query that the royalty rates should be based on the chipset value and not on the end product;

B. Stated that the revised offer of Ericsson was not accepted by Intex. Ericsson was requested to revisit its revised rates after taking into consideration market realities; C. It was stated that one of the major concerns for Intex was the cumulative royalty demand which may accrue towards Ericsson and other SEP holders;

D. Its request for a list of Ericsson's Indian Patents which are applicable only to Mobile phones was still awaited.

It was reiterated that Intex is willing to take a license on FRAND rate and requested Ericsson to take into account Intex's concerns.

Re the meeting request with Mr. Max Olofsson, it was stated that as the email was seen late in the day and availability of Mr. Bansal could not be confirmed and the same can be discussed after Diwali vacations.

28.03.2014 Letter from Ericsson to Intex stating that Intex's conduct has made it apparent that it is not willing to sign a license with Ericsson. Thus, Ericsson has no option but to conclude that Intex is no longer interested in sincerely negotiating a FRAND license.

08.04.2014 Email from Intex to Ericsson claiming that Intex is a willing licensee. It was further mentioned in the said email that a substantial reply to Ericsson's letter dated 28.03.2014 will be issued by Intex by the end of business on 09.04.2014.

10.04.2014 Email from Ericsson to Intex highlighting the numerous attempts made by Ericsson to offer a FRAND license to Intex and the delaying tactics adopted by Intex to avoid the execution of FRAND license which clearly shows Intex's unwillingness to take license from Ericsson.

Further, reference was also made to the various legal proceedings which had been mala fidely initiated by Intex against Ericsson during the time when bilateral negotiations were ongoing between both the parties.

14.4.2014 Reply letter from Intex wherein it is stated that Intex has always been willing to seek a license at FRAND rates with Ericsson.

Reference was made to various letters/emails which were exchanged between both the parties in the year 2013.

84. It is evident from the entire communications exchanged between the parties that the plaintiff has been continuously in touch with defendant and had held several meetings with defendant including under the aegis of ICA so as to answer the various queries raised by defendant and other indigenous mobile companies. But, despite of various meetings and revised payment offer made by the plaintiff in the meeting the license agreement could not be executed/materialized.

85. The plaintiff reiterates that its patents are essential in nature and the royalty rates proposed by it are fair and reasonable. This is based on the following factors:

Ericsson developed technologies that were presented to ETSI;

The said technologies in combination with technologies of other companies became part of the global standards;

For anyone implementing 2G, EDGE, 3G or LTE standards either in infrastructure or end user devices, the said standards have to be complied with;

If the standards are not complied with, the equipment and the devices cannot work;

The said technologies are patented technologies. The patents are thus Standard Essential Patents;

When a patented technology forms a part of a standard, the owners of such patents makes a commitment to offer licenses on FAIR, REASONABLE & NON-

DISCRIMINATORY terms to any prospective licensee qua their Standard Essential Patents;

The fact that Ericsson has executed more than 100 licenses qua its 2G and 3G technologies at broadly the same rates indicates that the license fee demanded by Ericsson is fair, reasonable, and non-discriminatory.

86. It cannot be denied that the plaintiff has over 100 license agreements entered into with several of the major handsets/device manufacturers in the world. It has been Ericsson's practice to license its technologies on fair reasonable and non-discriminatory terms (FRAND) as per its commitment to SSOs. The said fact has not been specifically denied by the defendant.

87. The plaintiff's history in India dates back to 1903 when it supplied its first manual switch boards to the Govt. of India. The plaintiff has contributed immensely to the telecom infrastructure in India. Ericsson has around 20,000 employees across 25 offices in the country. It has also established a manufacturing unit, a global service organization and state-of-the-art Research & Development facilities in India.

88. The plaintiff in its plaint has provided details pertaining to:

i. Filing of the suit patents in India;

ii. Filing and grant of corresponding patents in several countries in the world;

iii. Appropriate examination procedure having been conducted by the Indian Patent Office;

iv. The fact that no pre-grant or post-grant opposition has been filed against the suit patents;

It is the plaintiff who started asserting its SEPs against Indian mobile companies and telecommunication devices (handsets, tablets, dongles etc.) vendors such as Micromax, Gionee and the defendant who are infringing its patents.

89. Both parties have made their oral submissions and have filed their written submissions. The plaintiff has also provided the procedure about the remedy of

standard essential patents and notes on FRAND licensing commitment. Relevant details are mentioned below :

i) On 8th January, 2013 the U.S. Department of Justice, Antitrust Division (DOJ) and the U.S. Patent and Trademark Office (USPTO), an agency of the U.S. Department of Commerce, provide inter alia the following perspectives on a topic of significant interest to the patent and standards setting communities : whether injunctive relief in judicial proceedings or exclusion orders in investigations under section 337 of the Tarriff Act of 1930 are properly issued when a patent holder seeking such a remedy asserts standards-essential patents that are encumbered by a RAND or FRAND licensing commitment.

ii) The patent system promotes innovation and economic growth by providing incentives to inventors to apply their knowledge, take risks, and make investments in research and development and by publishing patents so that others can build on the disclosed knowledge with further innovations. These efforts, in turn, benefit society as a whole by disseminating knowledge and by providing new and valuable technologies, lower prices, improved quality, and increased consumer choice. The DOJ and USPTO recognize that the right of a patent holder to exclude others from practicing patented inventions is fundamental to obtaining these benefits. It is incorporated into section 337 of the Tariff Act of 1930 itself, which forbids the unlawful "importation into the United States... of articles that .... Infringe a valid and enforceable United States patent." As noted in the Administration's 2010 Joint Strategic Plan on Intellectual Property Enforcement, "strong enforcement of intellectual property rights is an essential part of the Administration's efforts to promote innovation and ensure that the U.S. is a global leader in creative and innovative industries." Accordingly, as historically has been the case, exclusion typically is the appropriate remedy when an imported good infringes a valid and enforceable U.S. patent.

iii) Standards, and particularly voluntary consensus standards set by standards-developing organizations (SDOs) have come to play an increasingly important role in our country.

90. It is mentioned there that this is not to say that consideration of the public interest factors set out in the statue would always counsel against the issuance of an exclusion order to address infringement of a FRAND-encumbered, standards-essential patent. An exclusion order may still be an appropriate remedy in some circumstances, such as where the putative licensee is unable or refuses to take a FRAND license and is acting outside the scope of the patent holder's commitment to license on FRAND terms. For example, if a putative licensee refuses to pay what has been determined to be a FRAND royalty, or refuses to engage in a negotiation to determine FRAND terms, an exclusion order could be appropriate. Such a refusal could take the form of a constructive refusal to negotiate, such as by insisting on

terms clearly outside the bounds of what could reasonably be considered to be FRAND terms in an attempt to evade the putative licensee's obligation to fairly compensate the patent holder. An exclusion order also could be appropriate if a putative licensee is not subject to the jurisdiction of a court that could award damages.

91. In the following case the scheme FRAND, FRAND obligation, ESTI Rules, IPR licensing declaration and ESTI Guide on IPR, Disputes Resolution have been Analysis and an opinion is also rendered. The details of relevant extract to the present case are reproduced as under :

> UNITED STATES INTERNATIONAL TRADE COMMISSION
> Washington, D.C.
>
> In the matter of Certain Wireless Devices With 3G and/or capabilities and components Inv. No.337-TA-868 Components thereof INITIAL DETERMINATION ON VIOLATION OF SECTION 337 AND RECOMMENDED DETERMINATION ON REMEDY AND BOND
> Administrative Law Judge Theodore R. Essex (June 13, 2014)
>
> i) FRAND - If a defendant did not infringe a valid patent or the patents are not essential to the 3G or 4G LTE standard and InterDigital's FRAND, the question of obligations does not arise. In case if the defendant infringes the asserted patents and that the asserted patents are essential to the 3G or 4G LTE standards, then the FRAND obligations are mandatory as under the standard setting organization "European Telecommunication Standards Institute." (ETSI) It is an organization that creates globally applicable standards in the information and communication technology industry.

ETSI was formed in 1988 with a goal to create a uniform telecommunications market in Europe. It is officially recognized by, the European Union for this purpose. Today, ETSI has more than 700 members including many of the world's leading companies and R&D organizations, and its standards are practiced globally. (CX-3941C.) Much of the work of ETSI is earned out by technical bodies called committees, which meet throughout the year, during which time the members work together to define ETSI's standards. The committees that ^e relevant for this matter are the TIA and ITU. TIA stands for telecommunications Industry Association. It is also a standard setting organization focused on the telecommunication industry. It currently has more than 500 members. The ITU is the International Telecommunication Union (ITU). TIA was involved in the development of CDMA2000 technology. CDMA2000 is a standard developed by the Third General Partnership Project 2, or 3GPP2, which was commissioned by the International Telecommunication Union (ITU). TIA is one of the five standard setting organisations involved in 3GPP2. The CDMA2000 standard

was also approved internationally by the ITU.

ii) InterDigital's obligations as a result of its membership in ETSI are created by the terms of the "IPR Information statement and licensing declaration" which is part of ETSI Rules of Procedure, 30 November 2011 (CX-2555C) :

> ETSI Rules of Procedure, 30 November 2011 3 Policy Objectives 3.1 It is ETSI's objective to create STANDARDS and TECHNICAL SPECIFICATIONS that are based on solutions which best meet the technical objectives of the European telecommunications sector, as defined by the General Assembly. In order to further this objective the ETSI IPR POLICY seeks to reduce the risk to ETSI, MEMBERS, and others applying ETSI STANDARDS and TECHNICAL SPECIFICATIONS, that investment in the preparation, adoption and application of STANDARDS could be wasted as a result of an ESSENTIAL IPR for a STANDARD or TECHNICAL SPECIFICATION being unavailable. In achieving this objective, the ETSI IPR POLICY seeks a balance between the needs of standardization for public use in the field of telecommunications and the rights of the owners of IPRs.
>
> 3.2 IPR holders whether members of ETSI and their AFFILIATES or third parties. should be adequately and fairly rewarded for the use of their IPRs in the implementation of STANDARDS and TECHNICAL SPECIFICATIONS.
>
> 3.3 ETSI shall take reasonable measures to ensure, as far as possible, that its activities which relate to the preparation, adoption and application of STANDARDS and TECHNICAL SPECIFICATIONS, enable STANDARDS and TECHNICAL SPECIFICATIONS to be available to potential users in accordance with the general principles of standardization.
>
> 6 Availability of Licences 6.1 When an ESSENTIAL IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Director- General ofETSI shall immediately request the owner to give within three months an irrevocable undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory terms and conditions under such IPR to at least the following extent :
>
> MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee's own design for use in MANUFACTURE;

sell, lease, or otherwise dispose of EQUIPMENT so MANUFACTURED-

repair, use, or operate EQUIPMENT; and use METHODS.

The above undertaking may be made subject to the condition that those who seek licenses agree to reciprocate. In the event a MEMBER assigns or transfers ownership of an ESSENTIAL IPR that it disclosed to ETSI, the MEMBER shall exercise reasonable efforts to notify the assignee or transferee of any undertaking it has made to ETSI pursuant to Clause 6with regard to that ESSENTIAL IPR (CX-2555C). it is important to note the ETSI Rules of Procedure is not a contract, but it contains rules to guide the parties in their interactions with the organization, other members and third parties. The first goal of the policy is that the IPR owner be "adequately and fairly rewarded for the use of their IPRs in the implementation of STANDARDS and TECHNICAL SPECIFICATIONS."

iii) It is also important to note that the IPR owner does not agree to license the intellectual property owned under FRAND terms, but only agrees to do so under certain conditions. The agreement itself does not define what "adequate and fairy rewarded" means, nor does it provide any mechanism to determine what those words mean. The agreement in paragraph 12, Law and Regulation states: "Any right granted to, and any obligation imposed on, a MEMBER which derives from French law and which are not already contained in the national or supranational law applicable to that MEMBER is to be understood as being of solely a contractual nature." Under the French law of contract, the agreement is not a contract itself, but rather an agreement in principal. (CX-393.4.) While there is French law that allows a contract to be made without including the price in the contract, (RX-0075-0077) the ETSI documents in question create many more factors that must be examined before the FRAND obligation is triggered.

iv) Complainant's obligation in this case is contingent on a condition precedent in the IPR licensing declarations it signed. In Annex 6Appendix A, the IPR Licensing Declaration Forms state: "This irrevocable undertaking is made subject to the condition that those who seek licenses agree, to reciprocate (check box if applicable)." This same condition is available on each license form offered by ETSI:

IPR licensing declaration The Declarant has notified ETSI that it is the proprietor of the IPRs listed in Annex 2and has informed ETSI that it believes that the PRs may be considered, or may come to be considered, ESSENTIAL IPRs generally in relation to 3GPP Declarant and/or its AFFILIATES hereby declare that, with respect to any of the IPRs listed in Annex 2that are ESSENTIAL IPRs and for as long as such IPRs remain ESSENTIAL IPRs, they are prepared to grant irrevocable licenses under such ESSENTIAL IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy of sufficient scope to enable a licensee to implement a

STANDARD. The Declarant and/or its AFFILIATES reserve the right to subject any license offer or grant to the condition that those who seek licenses reciprocate on terms and Conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy.

(CX-2692C CX-2695C, CX-2700C.)

v) It is noteworthy that while InterDigital has an obligation to declare its TP that might become essential, there is nothing in the agreement that requires the company that makes the declaration to confirm that a patent is essential once a standard is adopted. The Declaration is never confirmed, and often patents that are declared as perhaps reading on a standard will, at a later date, be shown not to be Standard Essential Patents. This proved to be the case in Wireless Devices with 3G Capabilities and Components Thereof, 337-TA-800. There, AU Shaw found that the asserted patents, having been declared by InterDigital, were not SEPs and were not infringed. This has happened with a certain degree of frequency in such matters.

vi) In case any party creates the situation that it is outside of the framework of the ETSI agreement a situation where they use the technology that may be covered by the patent, without-having licensed it. This puts pressure on the IPR owner to settle as the owner is not compensated during a period of exploitation of the IP by the unlicensed parties. The ETSI IPR Policy requires companies that wish to use the IPR covered by the agreements to contact the owner of the IP, and, take a license. (CX-3860C.) By skipping this step, the companies that use the IPR in violation of the policy are able to exert a pressure on the negotiations with the IPR holder to try to make the agreement in the lower range of FRAND, or perhaps even lower than a reasonable FRAND rate. They also are able to shift the risk involved in patent negotiation to the patent holder. By not paying for a FRAND license and negotiating in advance of the use of the IPR, they force the patent holder to take legal action. In this action, the patent owner can lose the IPR they believe they have, but if the patent holder wins they gets no more than a FRAND solution, that is, what they should have gotten under the agreement in the first place.

xxxx xxxx xxxx

vii) Using the "patented" technology prior to negotiating with InterDigital for a license is a violation of the ETSI Rules of Procedure as well. (CX-2555C; CX-3860C.) While this section of the ETSI rules requires the IPR holder to be prepared to offer a license, it also requires the companies that would use the technology to seek a license as well (The above undertaking may be made subject to the condition that those who seek licenses agree to reciprocate) (CX-2555C) Within the four comers of the agreement, there appears to be no provision made for companies that simply choose to infringe, and then demand FRAND status when caught.

viii) ETSI makes it clear that it will not be part of any commercial negotiations between the parties regarding IPR that has been declared:

> ETSI Guide on IPRs, 27 November 2008 2.2 Members do NOT have a duty to:
>
> Conduct IPR searches (see Clause 4.2 of the IPR Policy).
>
> disclose within the Technical Body the commercial terms for licenses for which they have undertaken to grant licenses under FRAND terms and conditions.

Any such commercial terms are a matter for discussion between the IPR holder and the potential licensee, outside of ETSI (see section 4.1 of this Guide). CX3912 However, the organization does provide steps for members to follow should they believe the negotiations are failing or the other parties are not complying with the ETSI rules:

> 4.3 Dispute Resolution ETSI Members should attempt to resolve any dispute related to the application of the IPR Policy bilaterally in a friendly manner.
>
> Should this fail, the Members concerned are invited to inform the ETSI GA case a friendly mediation can be offered by other ETSI Members and/or the ETSI Secretariat.
>
> However, it should be noted that once an IPR (patent) has been granted, in the absence of an agreement between the parties involved, the national courts of law have the sole authority to resolve IPR disputes. CX-
>
> The ETSI dispute resolution agreement does not bar any legal proceeding from the parties, but in absence of an agreement instructs the parties to look to the law of the nation where the dispute exists. When looking at this wording, it is clear that the agreement did not intend to, and does not bar any remedy as beyond the reach of the parties. Reading this paragraph in light of the previous ones makes it clear the duty required by ETSI is only one to negotiate in good faith. There are duties required under ETSI on those that would take a license as well.
>
> ix) In this case, there is no evidence that the Commission ought to go beyond the statue, and assume that the remedy of an exclusion order should be removed from the case. Neither the agreements imposed by

> ETSI, nor the law nor public policy requires us to offer the Respondents a safe haven, where they are free to avoid their own obligations under the agreements, can manufacture potentially infringing goods without license or consequence, can seek to invalidate the IPR in question, and yet are free from the risk of a remedy under 19 USC 1337. This one sided administration of law is against both the Administrative Procedure Act 5 USC 554 and Commission regulation 19 CFR 200.735-101.

92. In order to understand the procedure of Standardization and Essential Patents are referred as under :

Country 1 Country 2 Country 3 Country 4 INCOMPATIBLE TECHNOLOGIES (STANDARDIZATION NEEDED) STANDARDIZATION BODIES (e.g. ETSI) Company 1 Company 2 Company 3 Company 4 Technologies of Company 1 & 3 adopted as Standard Company 1 & 3 has Valid Granted Patents for the said technologies (Such Patents are known as Standard Essential Patents)

93. Similarly, the obligations on the parties are mentioned below :

Commitment on part of a Standard Essential Patent Holder To be prepared to grant licenses on Fair Reasonable and Non-discriminatory terms (FRAND) to manufacture, sell etc of Equipment compliant with the standard Obligations on the companies according to the Patents Act, Companies selling compliant Equipment are required to seek License from patent holder in order not to infringe:

Entity 1	Entity 2	Entity 3	Entity 4
Accept Licenses & Pay Royalties		No Royalty Paid	
No Infringement		Infringement	

94. The plaintiff has placed on record the guidelines to be adopted in respect of Standardization and Essential Patents, as per the details provided :

Technical Specifications that define a particular technology (2G, 3G etc.) and the manner of its operation/functioning are adopted by standardization bodies like ETSI through consensus;

Consensus is obtained from the members of the standardization bodies, which consist of equipment manufacturers, service provides, telephone operators, national & international regulatory authorities etc;

These specifications are then necessarily followed for operating a particular technology in order to ensure interoperability;

When a patent covers a particular component/element/device/ method etc. corresponding to the technical specification for a concerned technology, it is regarded as an essential patent for that particular technology;

It is impossible to claim compatibility with a technology or compliance to a standard, without actually infringing the said patent which is part of the standard qua a technology;

94.1 Essential Patents and Infringement 94.2 AMR Technology AMR i.e. Adaptive Multi-Rate is an audio data compression scheme optimized for speech coding.

Coder/Decoder that use AMR compression scheme are known as AMR Codec.

AMR Codec encodes narrowband (200-3400Hz) signals at variable bit rates ranging from 4.75 to 12.2 kbps.

There are a total of 14 modes of the AMR codec, 8 are available in a full rate channel (FR) and 6 on a half rate channel (HR).

AMR was adopted as the standard speech codec by 3GPP in October 1999.

95. Learned counsel for the plaintiff has been able to demonstrate before the Court that demand of the plaintiff as royalty from the defendant is not different than from other parties. It is argued that the defendant is without any valid reason confusing the issue in the mind of the Court, otherwise there is no malafide intention on the part of plaintiff in any manner. The revised rates as offered by Plaintiff to the Defendant and the rates recorded in the aforesaid interim arrangement orders passed in the other Suits are being extracted hereunder:

	Rates offered to Micromax Revised Term Sheet dated 29th May 2013	Intex Rates offered to Order dated 31st October 2013	Rates offered to Gionee in CS(OS) IN 442/2013.	Order dated dated 19th March 2013	CS(OS)2010/2013
GSM	1.5 %		1.25%	1.25%	
	1.00%	(inside India)	1.5% (Outside India)		
GPRS +GSM	2.25 %		1.75%	1.75%	

	1.25% (Inside India)	2.25% (Outside India)		
EDGE + GPRS +GSM	2.25%		2%	2%
	1.5% (Inside India)	2.25% (Outside India)		
WCDMA/HSPA Phones or Devices	2.25%		2%	2%
	1.75% (Inside India)	2.25% (Outside India)		

96. Let me now deal with the submissions of learned counsel appearing on behalf of both parties and the objections raised by the defendant in its pleadings wherein it is stated that the suit patents are invalid and the claims raised are not tenable and are liable to be revoked.

Section - 8

97. The first objection raised by the defendant is about the non compliance of Section 8 of the Act which according to the defendant is mandatory and in the absence thereto, the suit patents cannot be as considered valid patent. The defendant has given the details and documents which were provided to the patent office. Copies of the same have been filed before this Court.

98. It is alleged by the defendant that the Plaintiff has obtained each and every one of its Suit Patents by committing a fraud on the Indian Patent Office in order to secure patents over un-patentable subject- matter with unduly broad claims. As the Defendant's prior-filed pending revocation petitions, and the defences raised herein pose a credible challenge to the validity of the Suit patents, they cannot be and ought not to be enforced under the Intellectual Property Rights (Imported Goods) Enforcement Rules, 2007.

99. It is submitted by the plaintiff that it has complied with Section 8 of the Act and is not guilty of holding back any material information or detail related to foreign prosecution history or a foreign patent/filing with respect to the suit patents. Plaintiff has filed all the relevant details both at the stage of filing of the patent applications as also at the stage of examination of the suit patents in India. Thus, the present

objection is being raised in an attempt to agitate invalidity of the suit patents.

100. Both the parties have referred various documents in support of their submissions on this issue. The said details of their arguments on each patent are mentioned as under :

(A) IN IN203034 ('034 PATENT) In the case of the '034 patent, as per defendant's case, following are the violations of the Plaintiff under Section 8(1) of the Act, i.e. examination reports issued by the Japanese Patent Office in JP Application No.2000-570771 were not disclosed; examination reports issued by the US Patent Office in US Application No.09/ 396,300 on April 24, 2001, September 20, 2001, March 22, 2002 and June 20, 2002 were not disclosed; and incorrect details were submitted to the Indian Patent Office with respect to the Swedish Application No.SE9803164-4.

Under Section 8(2) of the Act, the Examination reports issued by the US Patent Office in US Application No.09/ 396,300 on April 24, 2001, September 20, 2001, March 22, 2002 and June 20, 2002 ought to have been brought to the notice of the Indian Patent Office since these reports resulted in reducing the scope of the originally filed US claims vide amendment to the claims filed by the Plaintiff on July 12, 2001, January 9, 2002, June 3, 2002 and August 21, 2002.

Reply of the Plaintiff The priority date of IN'034 Patent is 16/09/1998 and it was filed in India on 09/03/2001.

The first Form 3 disclosure was made on the date of filing of the Patent itself i.e., on 09/03/2001. In this Form 3, the details of the Swedish priority application and the PCT application filed on 24/08/1999 were duly provided. In the First Examination Report, IPO requested for details from major Patent Offices such as USPTO, EPO and JPO etc., while submitting the response to the FER, on 22/07/2005, Ericsson also submitted a second Form 3 detailing that the Patent has been granted in USA, EPO and such information regarding almost 14 other countries was provided, wherein, it was also informed that an application for grant of a patent was pending in Japan. Also, the copies of the claims as granted in USA and EPO along with the prosecution details were submitted along with the said response and Form 3 dated 22/07/2005.

The Plaintiff was indeed in possession of a corresponding Patent in Taiwan, bearing Application No. TW19990115999 (8811599), filed through PCT route in Taiwan, having priority date as 16/09/1998, published on 23/06/2001 and granted on 19/10/2001 as Patent No. TW442776.

(B) IN IN203036 ('036 Patent) Following are the violations of the Plaintiff under Section 8 with respect to the '036 Patent, i.e. the Plaintiff did not disclose the examination report issued by the US Patent Office in US Application No.09/ 144,961

on January 21, 2000 and the Plaintiff's response dated June 21, 2000 and in the Plaintiff's European application EP Application No.99946485.2, the objection report dated September 26, 2001, the Plaintiff's response dated February 6, 2002 and the amended claims filed along with the said response were not disclosed from the Indian Patent Office.

Although an express request for supply for foreign objection reports was made by the Indian Patent Office in its First Examination Report dated 14th June, 2004, none of the above objections were placed before the Indian Controller of Patents for his consideration. The Defendant has placed on record the said reports and the amendments carried out by the Plaintiff. Further, a comparative chart has been filed which clearly establishes that the finally granted Indian Claims are broader than the finally granted claims in the Plaintiff's foreign patents, which proves that the suppression before the Indian Patent office yielded a material advantage to the Plaintiff.

Reply of the Plaintiff The priority date of IN'036 Patent is 01/09/1998 and it was filed in India on 14/03/2001. The first Form 3 disclosure was made on the date of filing of the Patent itself i.e., on 14/03/2001. In this Form 3, the details of the US priority application and the PCT application filed on 06/08/1999 were duly provided. In the First Examination Report, the Patent office requested for details from major Patent Offices such as USPTO, EPO and JPO etc., while submitting the response to the FER, on 05/07/2005, Ericsson submitted a second Form 3 dated 05/07/2005 detailing that the Patent has been granted in USA, EPO, JPO and such information regarding almost 17 other countries along with the corresponding patents as granted in US and EP were provided.

(C) IN IN203686 ('686 Patent) In the case of the '686 patent, following are the violations of the Plaintiff under Section 8(1) of the Act, i.e. the examination report issued by the US Patent Office in US Application No.09/ 150,046 on July 18, 2001 and the Plaintiff's response dated October 17, 2001 were not disclosed and the examination report issued by the US Patent Office in US Application No.09/ 150,046 on January 9, 2002 and the Plaintiff's response dated April 9, 2002 were not disclosed.

Both these examination reports raised material objections to the Plaintiff's patent application, and yet the Plaintiff did not deem it necessary to place them before the Indian Patent Office. The concealment of the US office actions also amounts to violation of Section 8(2) of the Act since an express request was made by the Indian Patent Office for supply of foreign examination reports/ objections.

Reply of the Plaintiff The priority date of IN'686 Patent is 16/09/1998 and it was filed in India on 22/03/2001. The first Form 3 disclosure was made on the date of filing of the Patent itself i.e., on 22/03/2001. In this Form 3, the details of the US priority

application and the PCT application filed on 03/09/1999 were duly provided. In the First Examination Report, the Patent office requested for details from major Patent Offices such as USPTO, EPO and JPO etc. While submitting its response to the FER, on 05/05/2005, Ericsson submitted a second Form 3 detailing that a Patent has been granted in the USA and such information regarding almost 10 other countries on 05/05/2005 was also provided. Details of applications pending in Europe, Japan etc were disclosed. Also, the copy of the granted US patent (6452941) was duly submitted along with the said response and Form 3.

Further, details pertaining to US 6256487 have been incorporated by reference in US6452941 (corresponding US patent to IN '686) from which priority has been claimed by the subject patent. The details of the Priority claimed are clearly mentioned in Form 1. The referenced patent, for anyone who is familiar with Patent prosecution is the referenced patent mentioned in the US priority patent which is clearly disclosed in Form 1. In fact references to the said patent are contained in the main body of the complete specification at pages 11 & 12. A copy of the duly granted US 6452941 containing the aforesaid reference was provided by the Plaintiff to the Patent Office. Though the objective of both US '941 (IN '686) and US '487 (IN '702) is the same i.e. to develop a radio communication system and station wherein by way of improved transmission of mode information, overhead bit rates are reduced so as to optimize the usage of bandwidth efficiently. However, the radio communication system, station and method as disclosed in US '941 (IN '686) and US '487 (IN '702) are completely different inasmuch as US '941 (IN '686) discloses and teaches decimation of rate of transmission of mode information to reduce the bandwidth utilization associated therewith and/or permit heavier channel coding of the mode information;

US '487 (IN '702) discloses and teaches use of relatively weak channel coding to protect mode information transmitted over the air interface so as to minimize the overhead bit transmission thereby maximizing user data throughput for a give resource allocation;

Thus, both IN '686 and IN '702 stand on their own sound independent footing without any reliance on each other qua validity or sufficiency of disclosure.

(D) IN IN213723 ('723 Patent) In the case of the '723 patent, the Plaintiff violated Section 8(1) of the Act by not bringing to the notice of the Indian Patent Office the office actions dated February 13, 2002, September 11, 2002, May 28, 2003, December 18, 2003, June 7, 2004, December 17, 2004 and September 9, 2005 issued with respect to the US counterpart of IN'723. This also amounts to violation of Section 8(2) since they were not supplied when asked for by the Indian Patent Office. Pertinently, the claim amendments undertaken by the Plaintiff in its US application on June 13, 2002, November 11, 2002, January 9, 2003, June 9, 2003, March 22, 2004, September 7, 2004, March 11, 2005 and December 7, 2005 resulted in

narrowing down the scope of the Plaintiff's US patent claims. None of these brought to the attention of the Indian Controller of Patents.

Reply of the Plaintiff The priority date of IN 723 Patent is 23/11/1998 and it was filed in India on 11/05/2001. The first Form 3 disclosure was made on the date of filing of the Patent itself i.e., on 11/05/2001. In this Form 3, the details of both the US priority applications and the PCT application filed on 08/11/1999 were duly provided. In the First Examination Report, the Patent office requested for details from major Patent Offices such as USPTO, EPO and JPO etc. While submitting the response to the FER, on 24/04/2007, Ericsson also submitted a second Form 3 detailing that the Patent has been granted in USA, Europe and such information regarding almost 18 other countries on 24/04/2007, wherein, it was also informed that an application for grant of patent was pending in Japan. Also, copies of granted USA and EP Patents were submitted along with the said response and Form 3.

(E) IN IN234157 ('157 Patent) With respect to the '157 patent, the Plaintiff had violated Section 8(1) by concealing from the Indian Patent Office that it had filed a related application in the US, Application No.11/ 007,373 to the US counterpart, US Application No.09/ 395,909, of the '157 patent. Neither the filing of the said related application in the US nor its history was ever disclosed to the Indian Patent Office. The Plaintiff also failed to disclose to the Indian Patent Office its responses dated March 09, 2004 and December 06, 2004 to US objections dated October 9, 2003 and October 18, 2004. With respect to its EP Application No.99 951 292.4, the Plaintiff did not disclose its response dated January 28, 2005 to Examination Report dated October 12, 2004.

Reply of the Plaintiff The priority date of IN'157 Patent is 16/09/1998 and it was filed in India on 2/03/2001 via the national phase PCT route. As per the IPER (International Preliminary Examination Report) all the 25 claims of IN '157 were found to possess novelty, inventive step and industrial applicability. The first Form-3 disclosure was made on the date of filing of the Patent itself i.e., on 02/03/2001. In this Form 3, the details of the Swedish priority application and the PCT application filed on 24/08/1999 were duly provided. In the First Examination Report, the Patent office requested for details from major Patent Offices such as USPTO, EPO and JPO etc. While submitting the response to the FER, on 16/05/2005, Ericsson also submitted a second Form 3 detailing that the Patent is pending to be granted in USA, Europe and such information regarding almost 12 other countries was provided. Also, copies of the prosecution details from USPTO and EPO were submitted along with the said response and Form 3 on 16/05/2005. (F) IN IN240471 ('471 Patent) In the '471 patent, the Plaintiff has failed to disclose the information under Section 8(1) by not disclosing the statuses of multiple related foreign patent applications such as AR2000P102453, AT20000931815T, AU20000049635, BR2000PI10645, CN20008010364, DE20006040066, EP20000931815, ES20000931815T, JP20000619224T, TW20000108397, despite having had several occasions to make

the disclosure. With respect to Section 8(2), the Plaintiff chose not to deliberately disclose the objections raised by the US Patent office in its reports dated May 24, 2001, September 24, 2001 and January 08, 2002. These objections/ reports are critical since they resulted in the Plaintiff undertaking significant amendments to the scope of its claims vide its responses dated July 13, 2001, December 7, 2001 and April 8, 2002. Again with respect to its EP patent EP20000931815, the Plaintiff suppressed the objection report dated 31.01.2006. Further, the Plaintiff failed to apprise the Indian Controller of the office action dated 10.04.2003 issued with respect to its Australian Patent AU20000049635. Reply of the Plaintiff The priority date of IN'471 Patent is 19/05/1999. It was filed in India on 12/11/2001. The first Form 3 disclosure was made on the date of filing of the Patent itself i.e., on 12/11/2001. In this Form 3, the details of the US priority application and the PCT application filed on 9th May, 2000 were duly provided. In the First Examination Report, the Patent office requested for details from major Patent offices. While submitting the response to the FER, on 03/02/2005, Ericsson submitted a second Form 3 detailing that a Patent has been granted in its favour in the USA. It is most respectfully submitted that IN '471 was filed as a national phase patent application via PCT route (PCT/SE00/00914) and it is pertinent to state herein that as per the IPER (International Preliminary Examination Report) all the 63 claims (initially filed) of IN '471 were found to possess novelty, inventive step and industrial applicability. Thereafter, while prosecuting the aforesaid national phase application copy of the corresponding granted US patent was duly provided by Ericsson.

(G) IN IN229632 ('632 Patent) In the case of the '632 patent, the Plaintiff violated Section 8(1) by not supplying information with respect to the statuses of foreign patent applications AR980104755, KR87115600 and MY9804371. As regards Section 8(2), examination reports of the USPTO dated October 25, 2000 and May 18, 2001 and the Plaintiff's responses dated on March 5, 2001 and on June 27, 2001, wherein claims were narrowed down, were suppressed from the Indian Patent Office. The consequence of suppression of US reports has been explained by way of detailed comparative charts filed by the Defendant. Further, despite an express request made by the Controller in his Examination Report dated February 10, 2004, for supply of objections and finally granted claims in foreign applications, the Plaintiff chose to not supply documents relating to PCT/ SE98/ 01593, EP98945677/ 7, AR980104755, AU9286498CA2303065, CN98809427/ 4, JP2000513423, KR87115600, MY9804371, TW87115600 and ZA98/ 8426. In other words, not a single objection report with respect to any of these 10 foreign applications was supplied by the Plaintiff to the Indian Patent Office.

Reply of the Plaintiff The priority date of IN'632 Patent is 24/09/1997 and it was filed in India on 18/09/1998. The first Form 3 disclosure was made on the date of filing of the Patent itself i.e., on 18/09/1998. In this Form 3, the details of both the US priority applications were disclosed. Vide Form 4 dated 20/01/1999, further details of the PCT Application dated 08/09/1998 along with 4 other countries were duly

informed to the Patent Office in the form of a statement and undertaking under section

8. Thereafter, another Form 3 dated 26/09/2002 was filed detailing inter alia the grant of the corresponding US patent and copy of the same was duly provided to the Patent Office. In the First Examination Report, the Patent office requested for details from major Patent Offices such as USPTO, EPO and JPO etc. While submitting response to the FER, on 09/06/2005, Ericsson again submitted a third Form 3, detailing that Patents have been granted in Europe and Japan and such information regarding almost 10 other countries were provided. Copies of the granted US Patent no. 6363058, the published PCT application and the ISR report along with cited references were provided by the Plaintiff to the Controller.

(H) IN IN241747 ('747 Patent) With respect to the '747 patent, the Plaintiff has violated Section 8(1) by not bringing to the attention of the Indian Patent Office the examination reports dated April 13, 2000 and July 27, 2000 issued by the USPTO in relation to the US counterpart of the '747 patent. The suppression of these documents is also a violation of Section 8(2) since they were not supplied to the Indian Patent Office despite an express request made by the Controller of Patents. This is all the more so since the originally filed US claims were narrowed down vide amendment to the claims filed by the Plaintiff on July 10, 2000 and on October 27, 2000. The consequence of suppression of US reports has been explained by way of detailed comparative charts filed by the Defendant.

Reply of the Plaintiff The priority date of IN'747 Patent is 29/08/1997. It was filed in India on 24/08/1998. For this particular patent, the IPO was updated about the particulars of corresponding foreign patents/patent applications at least five times by making disclosures in Form 3. The very first Form 3/4 was filed on the date of filing of the Patent itself i.e., on 24/08/1998 which had the details of the US priority application. Later on, three Form 3/4 disclosures were made on 12/11/1998, 06/06/2002 and on 28/01/2005 wherein details of pending applications/granted patents in other jurisdictions, fact of grant of US & Taiwan patent and pendency of EP patent application & details of grant of patents in Australia, China etc. along with pendency of patent applications in other jurisdictions were provided respectively. Further, when in the First Examination Report, the Patent office requested for details from major Patent Offices such as USPTO, EPO and JPO etc., while submitting the response to the FER, on 27/12/2005, Ericsson provided updated information regarding patent application in almost 12 countries through another Form 3 dated 27/12/2005. Copy of the granted US patent being US 6208663 was duly provided to the Controller.

101. The decision relied upon by the defendant in the case of Chemtura Corporation vs. Union of India (UOI) and Ors. has no bearing in the facts of the present case as the claims in that case were narrowed down to restrict them only to the

"toroidal/torus shape of compression spring" in US and Europe. The argument of the plaintiff is that whereas the scope of claims of Indian patent was not narrowed down. Further, the claims as granted in US and EU were not provided to the Indian Patent Office. In fact incorrect and false statements were made in response to the FER issued by the Indian patent office "that there has been no further development subsequent to the Form 3 which was filed at the time of filing of the application in India. On the facts of the case it was found that narrowing down of the claims in US would have bearing on the scope of Indian Patent Claims. Claims as granted in US and Europe have been provided to the Indian Patent Office. Amendments made in the US were only clarificatory in nature and the scope of final granted claims India is the same as in US and Europe.

102. Even otherwise this Court in the case of Maj. (Retd.) Sukesh Behl & Anr. vs. Koninklijke Phillips Electronics passed in FAO(OS) No.16/2014 on 7th November, 2014 held in paras 37 to 40 held as under :

> "37. In the present case, it is no doubt true that it is mandatory to comply with the requirements under Section 8(1) of the Patents Act and non-compliance of the same is one of the grounds for revocation of the patents under Section 64(1)(m). However, the fact that the word "may" is used in Section 64(1) itself indicates the intention of the legislature that the power conferred thereunder is discretionary. The mere fact that the requirement of furnishing information about the corresponding foreign applications under Section 8(1) is mandatory, in our opinion, is not the determinative factor of the legislative intent of Section 64(1). We found that the language of Section 64(1) is plain and unambiguous and it clearly confers a discretion upon the authority/Court while exercising the power of revocation. The interpretation of the provisions of Section 64(1) as discretionary, in our considered opinion, does not result in absurdity nor in any way effect the rigour of the mandatory requirements under Section 8 of the Act.

38. Therefore, we are of the view that though any violation of the requirement under Section 8 may attract Section 64(1)(m) for revocation of the patent, such revocation is not automatic.

39. In Chemtura Corporation Case (supra), this Court was dealing with grant of injunction under Order XXXIX Rule 1 and 2 of CPC. Having recorded a prima facie satisfaction that there had been a failure by the plaintiff to comply with the mandatory requirement of Section 8(1), this Court held that the interim injunction in favour of the plaintiff cannot be continued. The question whether the power conferred under Section 64(1) of the Patents Act for revocation of the patent is discretionary or mandatory neither fell for consideration nor adjudicated by the

Court in the said decision. Therefore, the learned Single Judge had rightly distinguished Chemutra Corporation Case (supra) relied upon by the learned counsel for the appellants/defendants.

40. For the aforesaid reasons, we are of the view that the power to revoke a patent under Section 64(1) is discretionary and consequently it is necessary for the Court to consider the question as to whether the omission on the part of the plaintiff was intentional or whether it was a mere clerical and bonafide error."

103. Section 8 of the Act is a provision, which has been enacted in India imposing an obligation upon a patentee to disclose foreign prosecution details about the corresponding foreign applications/granted patents. The purpose and object of Section 8 is that there should be full and true disclosure and that the Indian Patent Office should be fully assisted in the examination process by the proceedings in other Patent Offices. But, it does not mean that the claims granted in every country have to be exactly the same as thee may be some differences in the patents which are ultimately granted in different countries. So long as Indian Patent Office informed of all the major jurisdictions in which patents have been granted and substantial details are placed on record, the obligation of complying with Section 8 stands satisfied unless the Controller of Patents seeks some more detail(s) in order to satisfy his own conscious in order to understand the compliance of said provision. The said Section should not be interpreted in the manner that every shred of paper filed in every foreign country has to be filed in the Indian Patent Office.

104. In the present case, the plaintiff prima facie had placed on record in Form-3 details of all the granted patents in other countries and supporting documents. From the material placed before the Controller if indicates that the substantial details are provided for the purpose of deciding the present application for interim order as at this stage the Court has only to take the prima facie view on the basis of material placed on record. The defendant in its revocation petition has already taken the same objection, therefore, final finding in this regard cannot arrived at present as there is no violation of Section 8 due to non-filing of said few details. Thus, even it is insufficient for defendant to contend that Section 8 has been violated without indicating the effect of alleged non-compliance or without showing lack of bonafide on part of plaintiff.

105. The obligation of Section 8 cannot be so stressed in an action for infringement of patent is concerned, otherwise the injunction despite of infringement cannot be granted in any matter for such a plea which appears to be false and frivolous. The same is not the scheme of the law.

106. After having gone through the reply to the objection raised by the defendant, prima facie, this Court is not inclined to refuse the injunction on this sole ground as the defendant has no serious challenge to the validity of the suit patents is evident

even otherwise from the fact that defendant has been put to notice of Ericsson's patents in December 2008. Having had knowledge of these patents for so many years, defendant never seriously questioned or disputed the validity of these patents. It was only when plaintiff started asserting its legal rights in the suit patents against third parties such as Micromax, Gionee etc. that revocation petitions were lodged by defendant before the IPAB.

Section 3(k) and Section 3(m)

107. The second plea raised by the defendant against the suit patents is that the suit patents are invalid, they are wrongly registered contrary to the provisions of Section 3(k) and Section 3(m) of Patents Act. The argument of the defendant is that the following classes of inventions are not patentable by application of section 3(k) and 3(m) of the Act :-

A. A mathematical method;

B. A business method;

C. A computer programme per se;

D. Algorithms;

G. A mere scheme of performing mental act;

H. A mere rule of performing mental act;

I. A mere method of performing mental act;

J. A mere method of playing a game;

108. It is argued by the defendant side that all the above exceptions to patentability have the common thread of being abstract in nature. These exceptions which could be new and inventive due to their mere abstract nature and lack of practical application have been specified as non-patentable i.e. they cannot be regarded as inventions within the meaning of the Act.

109. Both parties have addressed their submissions in this regard and has also filed written note on this issue. The objection raised by the defendant in its pleadings and reply given by the plaintiff of suit patents are reproduced as under :

S. No.	PATENT NO.	THE DEFENDANT'S OBJECTION	PLAINTIFF'S REPLY

1.	203686	The validity of the present patent has been challenged on the ground that the invention claimed therein is a computer programme per se. Further, it has been contended that the invention is nothing but a mathematical method of determining different frames for carrying mode indicators and mode requests. It has also been contended	The invention claimed in IN '686 relates to a novel and inventive radio communication system and station along with the method by which mode information (viz. mode indicators and mode request) is transmitted within the communication system whereby the rate of transmission of mode information is decimated to reduce the bandwidth consumption. The mere fact that certain pre-defined set of guidelines are

that the underlying invention followed by the aforesaid resides in an algorithm of hardware and network elements determining these frame to function as per the claimed numbers and no new invention - does not reduce the feature is added to the subject patent to mere existing GSM 'algorithms' or 'mathematical communication system. calculations' or 'a computer It is also the contention of program per se'. Intex that providing a frame It is pertinent to state herein that for a mode communication the claimed invention followed by a mode necessarily uses sensors and requests is a mere scheme other hardware components to of performing a task. achieve the required Further, it is not permissible improvement over the prior arts. to claim an order of Further, no details have been transmission as the same provided by the Counter- amounts to claiming a mere claimant as to how the granted scheme or a rule or a claims are related to method for performing a mathematical method etc. mental act.

2. 241747 The validity of the said The invention claimed in IN '747 patent was challenged by relates to a novel and inventive Intex on the ground that the transcieving unit for error claimed invention is nothing handling using ARQ technique but an algorithm for setting by selectively dividing the blocks a software based that were erroneously received communication protocol and retransmitting them using a between transmitter and different FEC Coding and/or receiver. modulation than the one used originally, thereby significantly Further, it has been enhancing system performance contended that all claims of and providing greater flexibility the said patent are directed to cope with changes in a towards mathematical communication system and RF methods and/or algorithm, channel conditions. making the patent having ineligible subject matter for The fact that implementation of an invention. the invention inter alia involves decoding and

analyzing the received signal block, retransmitting the data which was erroneously transmitted does not mean that the patent is nothing but an algorithm for setting a software based communication protocol between transmitter and receiver. On the contrary, the invention pertains to a highly improved transcieving unit which aids in error correction.

Further, the implementation of the claimed invention not only requires hardware components necessary for decoding and analyzing the received signal block, but also involves other components and elements used for retransmitting the data which was erroneously transmitted, apart from storage blocks which would have to register the modulation or coding scheme by which first transmission happened, so that the subsequent transmission of the erroneously transmitted block is done via different modulation or coding scheme.

3. 234157 It has been alleged by Intex The claimed invention relates to that the said patent is a multi-codebook fixed bit-rate related to Code Exited CELP signal block Linear Protection (CELP) encoding/decoding method and which is widely accepted as apparatus and a multi-codebook a speech coding algorithm. structure where the It is also stated that the encoding/decoding is improved deterministic selection by using several different equal procedure described in the size codebooks which are said patent is also an selected deterministically algorithm which could be (without regard to the signal considered as a sub- type which is being function of the patent CELP encoded/decoded) wherein algorithm. there is no explicit need to transmit coding mode Further, qua the apparatus information from the encoder to claimed by way of claims 12 the decoder.

and 22 of IN'157 patent, it has been alleged that the It is imperative to note that the same is merely a computer claimed invention employs use programme being executed of associated hardware to on a processor, i.e., a digital perform the necessary encoding signal processing chip. after selection of the codebook based on the deterministic Specific reliance has been selection procedure placed on the contention independent of signal type and that Ericsson has itself such parameters guided by the admitted that the description of the invention.

deterministic selection procedure is an algorithm Further, even the 'deterministic and the same can be selection procedure' should not implemented by use of be taken to be merely as an some kind of processor. algorithm especially in the light of the necessary technical effect and relationship it has with the associated hardware inasmuch as in order to switch between the codebooks (which in turn have been specifically designed and developed by the Plaintiff) or coding modes, the claimed codecs use hardware elements including control lines and switches which have been specifically designed and developed by the Plaintiff.

Further, the invention of IN'157 necessarily relies on a synchronized counter between the encoder and decoder. Also, a rate controller is used which enables the invention claimed in IN '157 so as to achieve higher speech quality across the network under severe network condition. IN'157 uses a codebook configurator for the analysis-by-synthesis loop on the encoder side and for synthesis loop on the decoder side.

4. 213723 It has been alleged by IntexThe IN'723 claims an apparatus that the said patent deals and method of generation of with signal processing modified comfort noise which is technically parameters on the basis of implemented in software on variability information associated algorithm provided. with the actual background noise by using a modifier that It is also alleged that the has been specifically designed claimed invention relates by the Plaintiff. merely to mathematical equations which have been detailed in the complete specification itself. It is of importance to note that for the purpose of encoding, modulating, transmitting and decoding speech/noise -

electrical signals are used wherein all the aforesaid functions are performed by various hardware and network elements (encoder, modulator, transmitter and decoder) whose operations are controlled by way of certain pre-defined sets of instructions. These instructions which may use mathematical calculations are being termed as an algorithm by the Counter Claimant.

However, it is pertinent to note herein that these instructions are not mere abstract algorithms /computer programmes but are inter alia firmware which results in a technical effect/practical output.

5. 203036 The validity of the said The patented invention patent has been challenged describes combination of by Intex on the ground that encoding techniques (for both the same relates to voiced and unvoiced segment of mathematical equation. a signal) adaptively for any given input speech signal, which invariably would employ associated hardware to perform It has also been alleged that the apparatus that has been the necessary encoding after determination of the various claimed vide claims 1 and 12 is merely a computer calculations made with respect programme being executed to the balance factor and such on a processor i.e. a digital parameters guided by the equations as discussed in the signal processing chip.

description of the invention.

Specific reliance is placed on the allegation that The invention as described by Ericsson has itself admitted IN'036 is effete per se unless the complex technical and to the fact that the speech encoder, according to the hardware components invention, can be readily /elements are used which inter implemented using a alia employ and function as per suitable programme - certain predefined guidelines, equations etc as proposed in the digital signal processing or patent are put to work in the other data

processing communication system.

		device either alone or in combination with an external logic.		The allegation by Intex that the admission in the patent description that the invention can be worked upon by means of a processor or suitably programmed digital signal processing device is misleading as the specific error criteria in IN '036 invention can also be implemented as a weighted error signal 'modifier' in an Analysis-by-Synthesis loop of a Firm/hardware encoder
6.	203034	The validity of the patent is challenged on the ground that the claimed invention is a computer programme per se or an algorithm as the same relates to linear productive analysis by synthesis encoding which is widely accepted as a speech coding algorithm. It is also alleged that determining optimum gains, vector quantization of the said optimum gains and opting internal indicator status are also algorithm which would be considered as sub-functions of the	The novelty and inventive step of IN '034 resides in a 'Linear Predictive Analysis-by-Synthesis (LPAS) encoder' specifically developed and designed by the Plaintiff and the manner in which coding of plurality of consecutiv sub-frames is performed by it. In order to perform the aforesaid function, the claimed encoder necessarily requires several hardware components to perform the 'determination of optimum gains', 'vector quantization' and 'update of internal encoder states' etc. The

patent indicating algorithm. fact that while performing the aforesaid functions inter alia certain pre-determined It is the contention of Intex guidelines are followed does not that the apparatus which mean that the claimed invention has been claimed vide is a mere algorithm or a claims 8 to 14 is merely a computer programme per se.

		computer programme executed on a processor i.e. a digital signal processing chip. Specific reliance has been placed on the allegation that Intex has itself admitted that the	It is of importance to note that the term 'algorithm' mentioned in the complete specification by the Plaintiff refers to a 'search algorithm' which is used for

functionality of the algorithm determining best combination of search block and vector codebook vectors (ca and cf) for quantizer is implemented as both fixed and adaptive one or more several micro codebooks along with gains (ga processors or micro/signal and gf) - which are thereafter processor combination. used by the various hardware elements, components etc for the purpose of producing the synthetic signal at the encoder side which is subsequently transmitted to the decoder.

It should be noted that mere reference to the use of a 'procedure' or a 'method' or an 'algorithm' in an apparatus which comprises of various network or hardware elements, components etc. so as to bring about a technical effect or to perform a technical process -

does not reduces /makes the claimed invention an algorithm or computer program per se or even a mathematical method or formula as contemplated under section 3(k).

7. 229632 The validity of the said The invention of IN '632 relates patent has been challenged to a 'novel' and 'inventive' by Intex on the ground that mobile station specifically it merely claims a type of designed and developed by the logical channel which is Plaintiff (along with its method of nothing but a mere scheme operation) for receiving multiple or a rule or a method for radio bearer services, performing a mental act processing them by dividing which is not patentable as them into separate data blocks per Section 3(m). and using a multiplexer to combine the blocks of different services as per Quality of Service Requirements, i.e., the data blocks requiring similar QoS requirements are combined together, into the transmission blocks which are then transmitted by using a single logical/transport channel in order to optimize use of bandwidth.

It is pertinent to state herein that data blocks within the transmission blocks can be prioritized for transmission.

Moreover, none of the claims of IN '632 tend to claim a 'logical channel' in any manner and it is nothing but an attempt to mislead the Hon'ble Court away from the claims of IN '632.

8. 240471 The validity of the said The invention of the IN '471 patent has been challenged patent relates to a mobile radio by Intex on the ground that station and its use in a mobile it merely claims a 'rule' and radio communication system all the claims are directed wherein the mobile radio station toward an algorithm and is acts as a flexible and adaptive nothing but a mere scheme measurement tool for radio or a rule or a method for network control so as to provide performing a mental act reporting of radio related which is not patentable as parameters based on satisfying per Sections 3(k) and 3(m) predetermined events or respectively. conditions, which enables the radio network to promptly and effectively respond to the changed

conditions and perform necessary operations.

It is pertinent to state herein that the reference to the terms like 'pre-determined conditions' or 'event triggered signaling' cannot be used to obviate the fact that the invention in fact makes use of the mobile station to measure, evaluate and signal to the radio access network the handover-related parameters for a plurality of cells which necessarily means that the mobile hardware is being used to bring about a technical effect or to perform a technical process and therefore, it is incorrect to argue by Intex that the claimed invention is an algorithm or computer program per se or even a mathematical method or formula as contemplated under section 3(k) or 3(m).

110. Ms. Pratibha M. Singh, learned Senior counsel appearing on behalf of plaintiff has referred the detailed history of many countries of the world in support of her submission and to assist the court and has referred many decisions too on this issue. The same are discussed below :

i) In the year 2002 the Patents Act, 1970 was amended to align the Indian Statute as per the provisions of TRIPS Agreement in consonance with India's international obligations. Prior to 2002, Sections 3(k) and 3(m) were absent in the Act and the said provisions were added by the Patents (Amendment) Act, 2002 [38 of 2002]. Though article 27 of the TRIPS agreement does not provide for the exclusion as contained in sections 3(k) and 3(m), however, a country is given the flexibility under sub-clause 2 of the said article to exclude subject matter from patentability in order to maintain public order etc. The said Article 27 is reproduced hereunder for the sake of convenience:- Article 27 - Patentable Subject Matter:

1. Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or process, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.

2. Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect ordre public or morality, including the protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.

3. Members may also exclude from patentability:

(a) diagnostic, therapeutic and surgical methods for the treatment of humans or animals;

(b) plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non- biological and microbiological processes.

However, Members shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement.

ii) The provisions contained in Indian statute under Sections 3(k) and 3(m) are not new in the field of patent law as equivalent provisions exist in other jurisdictions including European Union, UK etc. Such exceptions have also been read in the US Patent Law by way of judge made law. It is a consistent international practice to exclude from patentability most of the categories of inventions enumerated hereinabove as contained in sections 3(k) and 3(m) of the Act. It would be necessary to review the legal position qua these exceptions in the other jurisdictions.

iii) POSITION IN THE EUROPEAN UNION The European Patent Convention consists of exceptions to patentability under Article 52. The said Article is reproduced hereunder:-

Article 52 - Patentable inventions:

(1) European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.

(2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

(a) discoveries, scientific theories and mathematical methods;

(b) aesthetic creations;

(c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;

(d) Presentations of information.

(3) Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to extent to which a European patent application or European patent relates to such subject-matter or activities as such.

iv) A perusal of the above provision shows that the following classes of inventions are not patentable in the European Union:-

1. Mathematical methods as such;

2. Schemes, Rules and Methods for performing mental acts as such;

3. Playing games as such;

4. Doing business as such;

5. Programs for computers as such;

111. The above provision and its interpretation has been the subject matter of several judgments of the European Technical Board of Appeals. One of the earliest notable judgment, which interprets Article 52 is VICOM Systems Inc. (Case No. T 208/84), which dealt with 'a method and an apparatus for digitally processing images in form of a two dimensional data array'. The test laid down in the VICOM case is that in an invention even if the idea underlying an invention may be considered to reside in a mathematical method, a claim directed to a technical process in which the method is used does not seek protection for the mathematical method as such. The reasoning given by the Board was that the method by itself is not being patented but the technical process in which the method is used is patentable. Relevant paragraphs of the said judgment are being extracted as under:

"....

5. There can be little doubt that any processing operation on an electric signal can be described in mathematical terms. The characteristic of a filter, for example, can be expressed in terms of a mathematical formula. A basic difference between a mathematical method and a technical process can be seen, however, in the fact that a mathematical method or a mathematical algorithm is carried out on numbers (whatever these numbers may represent) and provides a result also in numerical form, the mathematical method or algorithm being only an abstract concept prescribing how to operate on the numbers. No direct technical result is produced by the method as such. In contrast thereto, if a mathematical method is used in a technical process, that process is carried out on a physical entity

(which may be a material object but equally an image stored as an electric signal) by some technical means implementing the method and provides as its result a certain change in that entity. The technical means might include a computer comprising suitable hardware or an appropriately programmed general purpose computer.

6. The Board, therefore, is of the opinion that even if the idea underlying an invention may be considered to reside in a mathematical method a claim directed to a technical process in which the method is used does not seek protection for the mathematical method as such.

.....

8. Rule 29(1) EPC requires that the claims shall be drafted "in terms of the technical features of the invention". The Board considers that this condition is met if the features mentioned in the claims will be understood by those skilled in the art as referring to the technical means for carrying out the functions specified by such features. If convenient, therefore, the use of mathematical expressions (addition, multiplication, convolution, logic conjunctions etc.) is admissible, the overriding requirements always being that the claim be clear and concise (Article 84 EPC) and that the person skilled in the art can understand what technical means are necessary from the description and/or his general knowledge of the field concerned (in order to comply with Article 83 EPC). .....

12. The Board is of the opinion that a claim directed to a technical process which process is carried out under the control of a program (be this implemented in hardware or in software), cannot be regarded as relating to a computer program as such within the meaning of Article 52(3) EPC, as it is the application of the program for determining the sequence of steps in the process for which in effect protection is sought. Consequently, such a claim is allowable under Article 52(2) (c) and (3) EPC.

14. In the view of the Board, however, Article 54 EPC leaves no room for such an interpretation. A computer of known type set up to operate according to a new program cannot be considered as forming part of the state of the art as defined by Article 54(2) EPC. ....."

The conclusion in the said judgment is "Generally speaking, an invention which would be patentable in accordance with conventional

> patentability criteria should not be excluded from protection by the mere fact that for its implementation modern technical means in the form of a computer program are used.
>
> Decisive is what technical contribution the invention as defined in the claim when considered as a whole makes to the known art.
>
> Finally, it would seem illogical to grant protection for a technical process controlled by a suitably programmed computer but not for the computer itself when set up to execute the control". (emphasis added)

112. The abovesaid judgment was followed in subsequent cases such as IBM - Computer Related Inventions (Case No.T 115/85) & IBM - Data Processor Network (Case No.T 0006/83). The Technical Board of Appeals thereafter, considered this exception again in the case of Pension Benefits System Partnership (Case No. T 931/95). In this case, the Board held that an apparatus constituting a physical entity or concrete product suitable for performing or supporting an economic activity is an invention within the meaning of Article 52(1) EPC. In this judgment the Board held that the invention should have a technical character in order to qualify for protection. The test laid down in this judgment was a departure from the VICOM test. Thereafter, the Board again considered interpretation of Article 52 in Hitachi, Ltd. (Case No. T-0258/03), reiterated the technical character/feature test) and subsequently in Microsoft - Clipboard Formats I (Case No. T 0424/03) judgment. In the Microsoft judgment the invention related to the use of clipboard for data transfer. The test of use of technical means was reiterated and it was held that a computer sytem including a memory (clipboard) is a technical means and the claimed invention has technical character. It was further observed that even though a method of operating a computer may be put into practice with the help of a computer program, a claim relating to such method does not claim a computer program in the category of computer program. As a result, the nature of the invention i.e. whether it seeks to solve a technical problem by technical means was looked into by the Board.

113. In Duns Licensing Associates (Case No. T 154/04) the technical character/feature test was reaffirmed and it was specifically clarified that while deciding the question of excludable subject matter, issues related to novelty and inventive step ought not to be considered. It was held that 'Article 52(2) EPC does not exclude from patentability any subject matter or activity having technical character, even if it is related to the items listed in this provision since these items are only excluded "as such" (Article 52(3) EPC).' The law in European Union as of today in even subsequent judgments of Fujitsu Ltd. (Case No. T 1351/04), Gameaccount Limited (Case No.T 1543/06) and SHARP Kabushiki Kaisha (Case No. T 1188/04) etc. remains that all technical features/technical characters implemented in a hardware or network are patentable in nature.

POSITION IN THE UNITED KINGDOM

114. Section 1(2) of the UK Patents Act, 1977 enumerates what are not inventions. Section 1 is being reproduced hereinbelow:-

> Section 1: Patentable Inventions (1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say - a. the invention is new;
>
> b. it involves an inventive step;
>
> c. it is capable of industrial application; d. the grant of a patent for it is not excluded by subsections (2) and (3) below;
>
> and references in this Act to a patentable invention shall be construed accordingly.
>
> (2) It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of--
>
> a. a discovery, scientific theory or mathematical method;
>
> b. a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever; c. a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer;
>
> d. the presentation of information;
>
> but the foregoing provision shall prevent anything from being treated as an invention for the purpose of this Act only to the extent that a patent or application for a patent relates to that things as such.

The above provisions follow Article 52 of the European Patent Convention with two changes. It expressly excludes copyrightable works such as literary and artistic works. Further, the words "to the extent that a patent or application" has been added, which clarifies that the nature of exclusion is extremely narrow. Thus, the excludable subject matter as defined by aforesaid provision of the UK Act is narrower as compared to exclusion contained in Art. 52 of the EPC. However, as per the case law, Article 52 and Section 1(2) have been interpreted to be of the same scope and application.

115. In UK, one of the earliest judgment which discussed the excluded inventions exception was Genentech Inc's Patent, [1989] R.P.C. 147 patent. This judgment primarily followed the principles laid down in the VICOM decision. In the Genentech Inc's Patent, the inventions related to Recombinant-DNA technology (r-DNA). Thereafter, the said provision came up for discussion in Merrill Lynch's Application, [1989] R.P.C. 561, which deals with a business method patent application. After a detailed analysis of Article 52 and Section 1(2), the Court of Appeal relied upon Genentech Inc's Patent and followed VICOM and reiterated the technical contribution test. The aforesaid approach was also adopted in subsequent cases like Gale's Application [1991 R.P.C 305], Fujitsu Limited [CHPCF 96/07/789/B], CPFH L.L.C [2005 EWHC 1589 Pat.], Aerotel Ltd. Vs. Telco Holdings Ltd. & Ors. [2006 EWCA Civ 1371] and Symbian vs. Comptroller- General of Patents [2009 R.P.C 1].

116. In the case of Halliburton Energy Services Inc., [2011 EWHC 2508 Pat], which related to a computer program which was meant to increase the drilling efficiency drill-bits and their operational life, the U.K High Court, Chancery Division (Patents Court) considered this exception in the context of computer program as well as mental act. Paragraph 28 lays down the steps of the test to be followed:

> "....
>
> 28. The modern approach to dealing with the exclusions from patentability is that laid down by the Court of Appeal in Aerotel. Jacob LJ, giving the judgment of the court, said that the court should adopt a four stage approach to dealing with issues of this kind, namely:
>
> i. Properly construe the claim;
>
> ii. Identify the actual contribution; iii. Ask whether it falls solely within the excluded subject matter;
>
> iv. Check whether the contribution is actually technical in nature."
>
> It has been further held by the Court in Paragraphs 30 & 32 that:
>
> 30. The difficulties in this area arise mostly in relation to inventions which involve the use of computers. All the Court of Appeal cases (from Merrill Lynch to Symbian) are about inventions implemented in software. The simplse problem is that computer programs (as such) are excluded by s1(2)(c) (c.f. EPC Art 52(2)(c) and 52(3)). Whether it was so clear in the past however, one thing is clear today. An invention which makes a contribution to the art which is technical in nature (to echo Kitchin J's words in Crawford) is patentable even if it is implemented entirely on a computer and even if the way it works is

entirely as a result of a computer program operating on that computer. The outcome of the Symbian case proves that. (emphasis added)

32. Thus when confronted by an invention which is implemented in computer software, the mere fact that it works that way does not normally answer the question of patentability. The question is decided by considering what task it is that the program (or the programmed computer) actually performs. A computer programmed to perform a task which makes a contribution to the art which is technical in nature, is a patentable invention and may be claimed as such. Indeed (see Astron Clinica [2008] RPC 14) in those circumstances the patentee is perfectly entitled to claim the computer program itself. (emphasis added) The technical contribution test has again been reiterated in this judgment. In so far as the mental act exception is concerned, the Court has held as under:

"...

43. The narrow construction is that the exclusion only excludes acts carried out mentally. On the narrow construction a claim to a calculation carried out on a computer could never be caught by the mental act exclusion because the claim does not encompass carrying out the calculation mentally. The fact that calculations in general are the kinds of thing which are capable of being performed as mental acts is irrelevant. This narrow interpretation is the one favoured by Jacob LJ in Aerotel, doubting the views of Aldous LJ on this point in Fujitsu. As Jacob LJ said (in paragraph 98 of Aerotel):

...we are by no means convinced that Aldous L.J.'s provisional view is correct. There is no particular reason to suppose that "mental act" was intended to exclude things wider than, for instance, methods of doing mental arithmetic (every now and then someone comes up with a trick for this, for instance Trachtenberg's system) or remembering things (e.g. in its day, Pelmanism) b. So the balance of authority in England is in favour of the narrow approach to the mental act exclusion. I will only add that, if the matter were free from authority, I would favour the narrow interpretation on its own merits. The wide construction seems to me to be uncertain in scope and I am not aware of any good reason why the exclusion needs to be interpreted widely. On the other hand I can see a logic behind the narrow interpretation, preventing patents being granted which could be infringed by a purely mental process. Allowing for the possibility of patent infringement by thought alone seems to me to be undesirable."

> 117. In the case of HTC vs. Apple, [2013] EWCA Civ 451, the Court of Appeal considered the question as to whether an invention relating to touch sensitive screens which recognized multiple touches simultaneously was excluded from patentability. Apple argued relying upon the Halliburton case that this patent was valid and patentable.

In this judgment rendered in 2013, the Court looked at the different approaches adopted by the UK Courts and the European Technical Appellate Board & decided to follow the VICOM line of authorities. The broad parameters laid down in this judgment are:-

> Whether the invention made a technical contribution; It is important to look at the substance and not at the form; Irrespective of the approach adopted either by the UK Courts or by the European Board of Appeal, the final result appears to be the same;

Further, the HTC' case (Supra) held that if the invention could solve a problem within the computer or outside the computer, in either case it can have a technical effect and hence be patentable. Further, merely because the invention is implemented in software, does not make the invention non-patentable.

From the above discussion it is clear that even the UK, like EU (from where the provisions in India have been derived from) does not reject software based inventions on the ground of excluded subject matter.

POSITIION IN THE USA

118. In the US there are no statutory exceptions to patentability. However, by Judge made law, exceptions are provided with respect to abstract ideas to laws of nature/ natural principles, natural phenomenon and natural products. In the landmark decision of Diamond vs. Diehr, 450 U.S. 175, rendered by the US Supreme Court in 1981, held that every new and useful invention would be patentable. In State Street Bank vs. Signature Financial Group, 149 F.3d 1368, it was held that ".....the transformation of data, representing discrete dollar amounts by a machine through a series of mathematical calculations into a final share price, constitutes practical application of a mathematical algorithm, formula, or calculation because it produces 'a useful, concrete and tangible result'.....". It was further observed that " ..... a process, machine, manufacture, or composition of matter employing a law of nature, natural phenomenon, or abstract idea is patentable subject matter even though a law of nature, natural phenomenon or abstract idea would not, by itself, be entitled to such protection." In AT&T Corp. vs. Excel, 172 F.3d 1352, it was held by the United States Court of Appeals, Federal Circuit that if a mathematical algorithm like Boolean principle resulted in a useful application it would be patentable. The US Supreme Court in Bilski vs. Kappos, 561 U.S. 593, has held that business methods are

patentable provided that such methods satisfy the test of 'machine or transformation' or have some practical application. Although, in that case, the question was as to whether a method of hedging [protect oneself against loss on (a bet or investment) by making balancing or compensating transactions] can be patentable - the Court held that it was merely an abstract idea which was fundamental to investment. As late as in the judgment rendered on June 19, 2014, the US Supreme Court, in the case of Alice Corp. vs. CLS Bank International, (Docket No. 13-298) while dealing with the excluded exception of 'idea', has held that any invention which add "significantly more to the abstract idea is patentable". Thus, as per Alice Corp. if there are improvements to technical fields or to the functioning of the computer they can be granted patents. From the above it clear that US in Alice Corp. has added similar test as in EU/ UK i.e. "significantly more" which is similar to technical effect and/or technical character/feature.

POSITION IN INDIA

119. In India Section 3 (k) and (m) were added by 2002 Amendment Act. The provision as proposed in the Patent (Second Amendment) Bill, 1999 reads as under:

> "4. In section 3 of the principal Act,- ...
>
> (k) a mathematical or business method or a computer program per se or algorithms:
>
> ...

(m) a mere scheme or rule or method of performing mental act or method of playing game:"s In the above provision it can be seen that the words per se in Section 3(k) were missing. In fact when this bill was referred to the Joint Parliamentary Committee, it was suggested by various experts and stake holders that India should follow the EU/UK route and not completely exclude computer program from patentability. The Parliament after accepting the aforesaid proposition, added the words per se which was introduced in section 3(k) enacted by the Patent (Amendment) Act, 2002.

120. Thus, it is appears to me prima facie that any invention which has a technical contribution or has a technical effect and is not merely a computer program per se as alleged by the defendant and the same is patentable. The objection raised by the defendant in the suit for infringement is not tenable, however, admittedly defendant's revocation petitions are pending, the same have to be considered on merit including the objection of Section3(k) and (m). At this interim stage, this court is not impress with the argument of the defendant that the injunction be refused on this ground.

121. Therefore, it is incorrect to allege that the plaintiff has obtained Suit Patents by committing a fraud on the Indian Patent Office over un- patentable subject-matter with unduly broad claims. The defendant has already filed revocation petitions prior to the filing of present suit, the defence raised herein cannot be considered as credible challenge to the validity of the Suit patents. However, it is always open to re-agitate and stress his objection before Appellate Board where the revocation petitions are pending.

122. The next objection of the defendant is that the question as to whether the asserted Suit patents of the Plaintiff are indeed "Standard Essential Patents" (SEPs) can only be adjudicated upon once the challenge to the validity of the Suit patents is determined. The said issue is yet to be examined by any independent body, including the Standard Setting Organization (SSO) in question, namely the European Telecommunications Standards Institute (ETSI). In fact, ETSI clearly states on its website that it does verify or guarantee the declaration of essentiality made by any patent owner. The said disclaimer referred by the defendant reads as follows:

> "The present database provides data that is based on information received. ETSI has not checked the validity of the information, nor the relevance of the identified patents/ patent applications to the ETSI Standards and cannot confirm, or deny, that the patents/ patent applications are, in fact, essential, or potentially essential. No investigation, or IPR searches, have been carried out by ETSI and therefore no guarantee can be given concerning the existence of other IPRs which are, or may become, essential.
>
> Potential Licensees should use the information in this database at their discretion and should contact the patent holders, for example to establish the asserted status for a disclosed patent family, prior to making a patent licensing decision."

123. It is stressed by the defendant that as ETSI has not examined the relevance or essentiality of any self-serving claim of essentiality of a patent held by its member such as the Plaintiff, no order of restraint or adjudication of infringement cannot be passed on the basis of self- serving claim of the Plaintiff who has a vested interest in the patents. Unless the alleged essentiality of the Plaintiff's patents to ETSI standards are established by a Court of law, the plaintiff should not claim the monopoly or protect the alleged standards of patents merely on declarations. The Department of Telecommunications has only adopted ETSI standards, but has not declared the Plaintiff's Suit patents as being essential for the compliance of those standards.

124. On the contrary, plaintiff claims that ETSI standards for the technologies described above have various versions which are released over the years. The Plaintiff's suit patents are ESSENTIAL for these versions of the ETSI standards and

these are correspond to the suit patents related to AMR, EDGE and 3G. The details given in the pleading are mentioned below:

S.No.	Patent Nos.	ETSI Standards
AMR PATENTS		
1-2	IN 203034 &	ETSI TS 126 090 V4.0.0 (2001-03)
	IN 203036	ETSI TS 126 090 V4.0.0 (2001-03)

incorporates technical specifications of 3GPP TS 26.090: Universal Mobile Telecommunication System (UMTS):

Mandatory Speech Codec speech processing functions; Adaptive Multi-

Rate (AMR) speech codec;

Transcoding functions (Release 4).

3 IN 234157 ETSI TS 126 090 V4.0.0 (2001-03) ETSI TS 126 090 V4.0.0 (2001-03) incorporates technical specifications of 3GPP TS 26.090: Universal Mobile Telecommunication System (UMTS):

Mandatory Speech Codec speech processing functions; Adaptive Multi-

Rate (AMR) speech codec;

Transcoding functions (Release 4).

ETSI TS 126 073 V4.1.0 (2001-12) ETSI TS 126 073 V4.1.0 (2001-12) incorporates technical specifications of 3GPP TS 26.073:Universal Mobile Telecommunications System (UMTS); ANSI-C code for the Adaptive Multi Rate speech codec (Release 4)

4. IN 203686 ETSI TS 145 009 V4.1.0 (2001-08) ETSI TS 145 009 V4.1.0 (2001-08) incorporates technical specification of 3GPP TS 48.009:Digital cellular telecommunications system (Phase 2+); Link adaptation (3GPP TS 45.009 version 4.1.0 Release 4)

5. IN 213723 ETSI TS 126 092 V4.0.0 (2001-03) ETSI TS 126 092 V4.0.0 (2001-03) incorporates technical specifications of 3GPP TS 26.092:Universal Mobile Telecommunications System (UMTS); Mandatory Speech Codec speech processing functions AMR Speech Codec - Comfort noise aspects (Release 4) ETSI TS 126 073 V4.1.0 (2001-12) ETSI TS 126 073 V4.1.0 (2001-12) incorporates technical

specifications of 3GPP TS 26.073:Universal Mobile Telecommunications System (UMTS); ANSI-C code for the Adaptive Multi Rate speech codec (Release 4) ETSI TS 126 093 V4.0.0 (2000-12) ETSI TS 126 093 V4.0.0 (2000-12) incorporates technical specifications of 3GPP TS 26.093: Universal Mobile Telecommunications System (UMTS); AMR speech Codec; Source Controlled Rate operation (Release

4) 3G PATENTS

6. IN 229632 ETSI TS 123 107 V10.1.0 (2011-06) ETSI TS 123 107 V10.1.0 (2011-06) incorporates technical specification of 3GPP TS 23.107:Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Quality of Service (QoS) concept and architecture (Release 10) ETSI TS 125 301 V6.0.0 (2003-12) ETSI TS 125 301 V6.0.0 (2003-12) incorporates technical specifications of 3GPP TS 25.301: Universal Mobile Telecommunications System (UMTS); Radio interface protocol architecture (Release 6) ETSI TS 125 302 V6.2.0 (2004-12) ETSI TS 125 302 V6.2.0 (2004-12) incorporates technical specification of 3GPP TS 25.302: Universal Mobile Telecommunications System (UMTS);Services provided by the physical layer (Release 6)

7. IN 240471 ETSI TS 125 331 V3.21.0 (2004-12) ETSI TS 125 331 V3.21.0 (2004-12) incorporates technical specifications of 3GPP TS 25.331: Universal Mobile Telecommunications System (UMTS); Radio Resource Control (RRC) protocol specification (Release 1999) EDGE PATENT

8. IN 241747 ETSI TS 101 349 V8.27.0 (2005-09) ETSI TS 101 349 V8.27.0 (2005-09) incorporates technical specifications of 3GPP TS 04.60 V8.27.0: Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); Mobile Station (MS)

- Base Station System (BSS) interface; Radio Link Control/ Medium Access Control (RLC/ MAC) Protocol (Release 1999) ETSI TS 101 350 V8.12.0 (2004-04) ETSI TS 101 350 V8.12.0 (2004-04) incorporates technical specification of 3GPP TS 03.64 V8.12.0: Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); Overall description of the GPRS radio interface; Stage 2 (Release 1999)

125. Both parties have tried to explain to the Court about technologies by using Projector on various dates. They have also provided the soft copy thereof. The defendant has also referred the prior art in order to support its averments, the plaintiff on the other hand replied to the prior art. The details of each patent referred and discussed are given as under :

A.

i) IN 203034 titled as "Linear Predictive Analysis by synthesis encoding method and encoder"

The present patent relates to an improved encoder (and method of encoding) whereby

- Optimum gains of plurality of consecutive sub-frames are determined and thereafter vector quantization of the said optimum gains is performed;

- Such vector quantized gains are used to update the internal encoder states thereby maintaining the synchronization between the internal states of the encoder and decoder.

It is the case of plaintiff that as a result, the plaintiff has been able to achieve reduction in number of bits required to encode speech frames without affecting the speech quality.

ii) The prior art cited in the patent by the defendant who submits that the conventional waveform matching procedure is known to work well at least for bit rates of say 8kb/s or more. However, when lowering the bit rate, the coding efficiency decreases as the number of bits available for each parameter decreases and quantization accuracy suffers - Thus the suit patent increases the coding efficiency at lowered bit rates and in order to overcome the said drawback, the conventional methods tend to solve the problem of reduced coding efficiency at low bit rates by collectively vector quantizing gain parameters related information over several sub-frames. But these methods do not consider the internal states of the encoder and decoder, as a result, the decoded signal at the decoder will differ from the optimal synthesized signal at the encoder, thereby adversely affecting the efficiency of the speech signal produced at the encoder end.

iii) Counsel for the plaintiff on the other hand has submitted that the argument of defendant are incorrect interpretation to the suit patent with the view to mislead this Court by stating that IN '034 relates to vector quantization of gain parameters of one sub-frame; whereas The corresponding US patent (US 6732069) relates to collective vector quantization of gain parameters of multiple subframes.

However, in the revocation petition the scope of the invention in consonance with the plaintiff's submissions has been admitted.

iv) The plaintiff itself states in the complete specification of the suit patent that collective vector quantization of gain parameters related to information over several subframes was known. However, the manner of synchronizing internal states of the encoder and decoder while collectively vector qunatizing gains parameters of several subframes was not known Vector quantization of gain parameters in several

subframes simultaneously and still maintaining the synchronization between the encoder and decoder.

The aforesaid is performed by :

Determining optimum gains of plurality of consecutive sub-frames;

Thereafter vector quantize all such gains obtained i.e. collectively or jointly vector quantize the gains;

Maintain the same internal stages at the encoder and decoder;

v) Suit patent is also registered in other countries of the world, such details are given as under :

Country	Application Number	Patent Number
Argentina	990104663	ARO21221
Australia	63757/99	756491
Brazil	9913715/1	PI9913715-1
Canada	2344302	2344302
China	99811002/7	ZL99811002-7
Finland	99951293-2	1114415
France	99951293-2	1114415
Germany	69922388.1	1114415
India	IN/PCT/2001/00260/MUM	203034
Italy	99951293-2	1114415
Japan	2000-570771	3893244
Malaysia	9903570	MY122181
Republic of Korea	2001/7003364	416363
South Africa	2001/1867	2001/1867

Sweden	9803165-1	9803165-1
United Kingdom	99951293-2	1114415
United States	09/396300	6732069

vi) Prior Art a 'A8' - WO 1996/035208 titled A gain quantization method in analysis by synthesis linear predictive speech coding Defendant's Contention Plaintiff's response A8 hits the novelty of IN '034; A8 does not anticipate IN '034 as it relates to an improved A8 discloses a method of quantization method in analysis determining optimal gains for by synthesis linear predictive plurality of subframes; speech coding;

A8 also describes vector The main inventive step in A8 is quantization of the said to predict a second gain from a optimum gains for the said first gain using linear prediction in plurality of subframes; the logarithmic domain, and quantize the resulting difference signal, wherein all gain parameters lie in the same sub-

frame;

vii) Prior Art 'A9' - US 5651090 titled Coding method and coder for coding input signals of plurality channels using vector quantization, and decoding method and decoder therefor -

Defendant's Contention Plaintiff's response A9 hits the inventive step of IN The corresponding EP patent '034; 0684705 of the aforesaid prior art has been referred to by the A9 discloses a method for plaintiff itself in the background determining optimum gains for of the complete specification; plurality of subsframes;

The 'novelty', 'inventive step' of IN '034 over A9 have been duly A9 also describes about vector explained and detailed in the quantization of the said complete specification;

optimum gains for the said plurality of subframes; A9 describe a multichannel (plural channel) coding method i.e. the problem being addressed in A9 is to efficiently encode several channels;

viii) Prior Art 'A10' - EP 0804854 titled Audiovisual encoding system with a reduced number of audio encoders -

Defendant's Contention A10 hits the inventive step of IN '034;	Plaintiff's response Teachings of an audio-video encoding system cannot be applied into speech coding

A10 discloses a system that provides quantizatino of coefficients of audio visual signal for a plurality of subframes;	systems.
A10 teaches about restoring internal encoder states after quantization of coefficients from several subframes;	A10 merely details an audio visual encoding system with a reduced number of audio encoders using which efficient and high quality offline multipass video editing and re-encoding is performed.
Despite the fact that A10 relates to digital compression of audio/video signals, it specifically states that the same is applicable to any type of coding scheme.	Paragraph 13, i.e., introductory paragraph to the invention merely discusses digital compression system in general and does not relate to 'updating the internal encoder and decoder states.

ix) Prior Art 'A11' - CA 2185745 titled Synthesis of speech

signals in the absence of the coded parameters - Defendant's Contention Plaintiff's response A11 hits the inventive step of IN The corresponding EP patent '034; 0764939 of the aforesaid prior art has been referred to by the A11 discloses a method for plaintiff itself in the background of determining of optimum gains for the complete specification; plurality of subframes;

The 'novelty', 'inventive step' of A11 teaches collective vector IN '034 over A11 have been duly quantization of gains over a explained and detailed in the plurality of subframes; complete specification;

The abstract, pages 329 and 338 A11 relates to speech were referred and relied upon; compression system called Transform Predictive Coding which uses a hearing model (based on human auditory perception) for quantizing the LP-

residual;

x) Prior Art 'A12' - Ramprashad article titled A two stage hybrid embedded speech/audio coding structure -

Defendant's Contention Plaintiff's response A12 hits the inventive step of IN A12 discloses how to build an '034; efficient second stage enhancement encoder reducing A12 talks about using gains for the error after a first stage of speech encoding; standardized LPAS encoding;

A12 describes a two stage coding approach wherein the second A12 teaches collective vector stage coder describes a closed quantization of the optimum loop Modified Discrete Cosine gains for plurality of subframes; Transform/frequency domain encoder which encodes the prediction residual after a first Pages 355 and 358 were stage synthesis of the core coded referred and relied upon; speech signal by an ITU-T standardized core LPAS speech coder (conventional coders);

B. IN 203036

i) The invention in Patent No. 203036 generally to speech coding and more particularly, to improved coding criteria for accommodating noise-like signals at lower bit rates. The patent claims a speech encoding apparatus and a transceiver apparatus that use a new speech coding criteria which softly combines the waveform matching and the energy matching. It is claimed by the plaintiff that the patented invention thus increases the coding efficiency as it reduces the problems associated with conventional multi- mode coding techniques, where different coding modes have to be used for unvoiced and background noise signals.

ii) The prior art cited in the patent by the defendant who alleges that the Conventional waveform matching procedure is known to work well at least for bit rates of say 8kb/s or more. However, when lowering the bit rate, the ability to do waveform matching of non-periodic, noise-like signals such as unvoiced speech and background noise suffers. Thus the suit patent increases the coding efficiency of even noise-like signals at lowered bit rates.

iii) In order to overcome the said drawback, the conventional methods tend to solve the above problem by using a different coding mode, e.g., energy matching for unvoiced speech and background noise i.e. multi mode coding. However, the conventional multi-mode coding suffers from the drawback of mode decision, i.e., choosing between the waveform matching and energy matching, which is a sensitive decision and causes annoying artifacts when wrong, leading to unwanted sounds and noise like bursts.

iv) The plaintiff has stated in the complete specification of the suit patent that multi-mode coding techniques for different type of speech/noise signals were known. However, the manner of adaptively and smoothly combining the waveform matching and energy matching whereby the drawback of mode decision can be overcome - was not known and the same is taught by the novel speech encoding and transceiver apparatus as claimed.

v) It is claimed by the plaintiff that the invention is a novel speech encoding and transceiver apparatus that use a new speech coding criteria which softly combines the waveform matching mode (for coding speech signals) and the energy matching mode (for coding noise-like signals) by using a suitable mixture of the two criteria, weights

or balance of which is adaptively and smoothly adjusted as per the constitution of the incoming signal, thereby solving the problems of conventional prior arts like that of noise bursts especially at lowered bit rates.

As a result, the problem of a wrong mode decision between criteria is avoided. The adaptive nature of the criterion makes it possible to smoothly adjust the balance of the waveform and energy matching. Therefore, artifacts due to drastically changing of the criterion are controlled.

vi) The suit patent corresponds to and the same is granted in other countries, the details of which are mentioned below:-

Country Application Number Patent Number Argentina 990104361 027812B1 Australia 58887/99 774998 Brazil PI9913292/3 PI9913292-3 Canada 2342353 2342353 China 99812785/X ZL99812785-X Finland 99946485/2 1114414 France 99946485/2 1114414 Germany 99946485/2 69906330-2-08 India 2001/00290/MUM 203036 Italy 99946485/2 1114414 Japan 2000-568079 3483853 Malaysia 9903552 MY-123316-A Mexico 2001/002144 232547 Republic of Korea 10/2001/7002609 0421648 Russian Federation 2001108584 2223555 Singapore 200101215-2 79451 South Africa 20011666 20011666 Taiwan 88113965 134156 United Kingdom 99946485/2 1114414 United States 09/144961 6192335

vii) With respect to Prior Art 'A10' - EP 0780832 titled Speech coding device for estimating an error of power envelopes of synthetic and input speech signals granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response A10 hits the novelty of IN '036; A10 does not anticipate IN '036 as it does not disclose or teach the use of a new speech coding criteria which softly combines the waveform and energy matching wherein on the basis of the constitution of the input signal the balance between the two factors is achieved.

A10 discloses a method of The inventive step of A10 is to combining waveform matching use an envelope error for the and energy matching; entire speech signal and further combine the envelope error with the waveform error for the entire speech signal to obtain a total error irrespective of signal type.

Abstract of EP '832 was read; In, A10 envelope signals are compared in order to compute envelope error evaluation values and the envelope error Rij, which is not an energy parameter as it is the envelope error summed up over all samples in the frame, thus still sensitive to phase (time) shifts (waveform error).

A10 does not deal with the issue of improving noise like signals at lowered bit rates without the disadvantages of multi-mode coding.

Further, A10 is extremely complex and difficult to implement and does not contain enabling disclosure qua the balancing factor'.

A10 does not anticipate IN '036 as it relates to a speech coding device that seeks to improve the quantization process by reducing the error between the original speech signal and synthetic speech signal in a different and less efficient manner.

viii) With respect to Prior Art 'A11' - Article titled "Code Excited linear Prediction CELP High Quality Speech at Very Low Bit Rates" referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's Contention Plaintiff's Response A11 renders IN '036 obvious in No details about how A11 renders nature. IN '036 obvious in nature have been provided in the revocation petition.

A11 discloses construction of A11 does not disclose, teach or optimum codebook and about enable a person skilled in the art to waveform matching to produce overcome the drawbacks synthetic speech. associated with general waveform matching qua noise segments of a signal at low bitrates.

It is a necessary requirement that A11 does not detail or even hint at waveform and energy matching using different error criteria or any have to be used for the different balancing between different error type of input signals, and hence a criteria as it discloses use of person skilled in the art would waveform matching for unvoiced obviously use a combination of signals. the same.

Thus, A11 merely discusses general codebook driven linear prediction of Speech signals and creating a difference signal based on waveform matching error.

ix) With respect to Prior Art 'A12' - Article titled "Code Excited Linear Prediction coding of Speech at 4.8 kbps referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's Contention Plaintiff's Response On the basis of mere reading of No details about how A12 the Abstract of A12, the invention renders IN '036 obvious in of IN '036 becomes obvious. nature have been provided in the revocation petition.

In light of A12, concept of A12 discusses how code balancing waveform and energy excitation prediction coding criterion is not inventive; can be used for efficient coding of speech at rates around 5kb/s.

The article discusses waveform coding criteria only and does not teach or even hint at use of energy coding criteria for noise like signals.

On the basis of mere reading of Further, the term 'residual' the Abstract of A12, the invention signal referred by the of IN '036 becomes obvious. Defendant is nothing but the waveform error signal after formant weighting, i.e. the waveform error signal itself can have energy, even though it does not represent the energy distortion as discussed by the suit patent.

A12 thus teaches how to reduce the waveform error and does not detail or even hint at using different error criteria or any balancing between the different error criteria, as claimed by IN '036 patent.

x) With respect to Prior Art 'A13' - US 5787391 titled "Speech Coding by Code-Edited Linear Prediction referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response A13 renders IN '034 obvious in A13 merely describes a nature. conventional LPAS (linear predictive analysis-by-synthesis) system where the main problem being solved by the alleged prior art is providing robustness (tolerance) to transmission bit errors where waveform coding criteria is used even for noise/unvoiced intervals in the speech.

A13 discloses a coding apparatus Unlike IN '036, which uses a for quantizing parameters such combination of coding criterions as spectral envelope information used to effectively and and power information as a unit adaptively code voice-like and of frame operation comprising a noise-like signals, A13 always plurality of samples of speech minimizes only the waveform data. error criteria.

C. IN 213723

i) The invention in Patent No. 213723 relates generally to speech coding and more particularly to speech coding wherein artificial background noise is produced during periods of speech inactivity.

ii) It claims a method and apparatus for generating comfort noise by using modified comfort noise parameters (based on properties of actual background noise) which improve the naturalness of background noise. It is submitted that the comfort noise generated from such modified parameters is perceived as less static than conventionally generated comfort noise, and more similar to the actual background noise experienced at the encoder.

iii) Plaintiff has itself admitted in the complete specification that producing comfort noise or artificial background noise was known. The plaintiff has also highlighted the

drawback of conventional comfort noise generation techniques wherein the generated comfort noise is often perceived as static and much different from the actual background.

iv) The suit invention inter alia claims an apparatus and a method of generating comfort noise from modified comfort noise parameters based on properties of actual background noise in a manner such that the comfort noise so generated is perceived as less static than the conventionally generated comfort noise and more similar to the actual background noise. It is claimed by the plaintiff that the suit patent thus improves the naturalness of background noise (with no additional bandwidth or power cost) and it makes switching between speech and non- speech modes in a speech codec more seamless and therefore more acceptable for the human ear.

v) It is also claimed that the conventionally, in the light of the fact that background noise uses lower bit rate than speech

- encoders used variable transmission rates for transmission of speech and for transmission of background noise. However, in order save bit rates used in transmission, discontinuous transmission was used i.e. when a speaker became inactive the transmitter stopped sending coded speech frames. Instead, at regular or irregular intervals (typically every 500 ms) the transmitter used to send speech parameters suitable for generation of comfort noise in the decoder and due to this discontinuous transmission of comfort noise parameters, the comfort noise generated in the decoder was perceived as being very static and much different from the background noise generated in the active mode i.e. when the speaker was talking and speech signals, along with the background noise, was being transmitted.

vi) In order to raise the objection of prior art urges that it is because the comfort noise parameters are not sent to the receiver as often as the speech frames, but rather are sent as an averaged value for several frames, which is necessary in order to save battery life by consuming lower power; and to increase system capacity by reducing the transmission of SID frames wherein comfort noise generation parameters are encoded.

vii) In order to solve the problem of 'static comfort noise', the conventional approach which existed simply increased the update rate of DTX comfort noise parameters. However, the same is undesirable since it leads to increased battery consumption and decreased system capacity. Thus, the static background noise was accepted in the prior art.

viii) It is submitted by the plaintiff that the suit patent claims a method and apparatus for generating modified comfort noise parameters (using a modifier) which are in turn used for generation of comfort noise by:

(a) providing to the modifier, plurality of comfort noise parameters that are normally used by speech decoder to generate comfort noise as the first input & providing background noise parameters (which are associated with background noise actually experienced at the encoder) as the second input;

(b) the modifier then modifies the conventional comfort noise parameters received by it as the first input based on the actual background noise parameters (which are indicative of the variability of the background noise) received by it as a second input to generate MODIFIED COMFORT NOISE PARAMETERS;

(c) these modified comfort noise parameters are then used for synthesis of comfort noise that reproduces more faithfully the actual background noise present at the speech encoder.

ix) The suit patent thus corresponds to mandatory part of standard and the same is granted in other countries, the details of which are mentioned below:-

Country Application Number Patent Number Argentina P990105964 AR028468B1 Australia 15911/00 760447 Canada 2349944 2349944 China 99813620/4 ZL99813620-4 Finland 99958572/2 1145222 France 99958572/2 1145222 Germany 99958572/2 69917677-8-08 India IN/PCT/2001/00552/MUM 213723 Italy 99958572/2 1145222 Japan 2000-584461 4659216 Mexico PA/a/2001/004906 227568 Republic of 2001-7006293 10-0675126 Korea Russian 2001117232 2237296 Federation United Kingdom 99958572/2 1145222 United States 09/391768 7124079

x) With respect to Prior Art Document A6 - Thesis titled "Source-

channel Coding of Speech" by Alexis P. Bernard, published in December, 1998 granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response A6 hits the novelty of IN '723 Publication Date (December 1998) of A6 is later than the Priority date of IN '723, i.e., 23.11.1998 - A6 cannot be regarded as prior art.

It was argued that A6 discloses Without Prejudice to the every embodiment of the suit patent, aforesaid no details about how including method of generation of A6 hits the novelty of IN '723 modified comfort noise parameters have been provided as merely using the actual background noise; certain portions have been extracted from the main body of the document.

A6 only discusses the conventional comfort noise generation method.

xi) With respect to Prior Art Document A7 - EP0843301 titled "Methods for generating comfort noise during discontinuous transmission" published on May 20, 1998 referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response A7 hits the novelty of IN '723; No details about how EP '301 hits the novelty of IN '723 have been disclosed as merely certain portions have been extracted from the main body of the document.

A7 discloses 'modifying comfort The Defendant is seeking to value parameters using mislead this Hon'ble Court by background noise' portraying its own averments and contentions as excerpts contained in EP '301. Further, there is no figure 4c in EP '301.

EP '301 does not disclose anywhere generation of modified comfort noise parameters based on the variability information of the actual background noise parameters.

EP '301 rather solves another problem generally associated with comfort noise generation, i.e., to generate a smoother enough Comfort Noise spectrum by producing extra comfort noise parameters (i.e. RESC parameters -Random Excitation Spectral Control parameters) in the encoder.

It has a disadvantage of using extra bandwidth as these additional parameters are transmitted to the decoder. S

xii) With respect to Prior Art Document A8 - WO1998048524 titled "Method and apparatus for generating noise signals from speech signals" published on Oct. 29, 1998 referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response A8 hits the novelty of IN '723 No details about how A8 hits the novelty of IN '723 are provided as merely certain portions have been extracted from the main body of the document;

A8 discloses all the features of A8 teaches generation of comfort IN '723; noise so as to suppress an echo and also simultaneously blend it with the continuing background noise, i.e., the objective of the said prior art is completely different from that of the suit patent.

It was argued that if no speech A8 describes a way of generating is detected for any frame, the replacement encoder parameters system in WO '524 calculates (LPC, energy) when speech is not the comfort noise on the basis of detected, using different

averaging the background received in the periods for cases where energy previous claims, which is same drops or energy increases have as the inventive step of the suit been observed. patent.

Thus, the method of generating comfort noise as described in WO '524 is completely different from the invention as detailed in IN '723 inasmuch as Wo '524 does not receive a plurality of conventional comfort noise parameter values which are then modified based on variability information at the decoder end.

A8 and IN '723 solve two different subjective quality problems. One makes the signal more static so as to suppress an echo and the other adds variation to make the signal less static.

D. IN 234157

i) With regard to the invention in Patent No. 234157 it has been argued by the defendant that in the field of mobile communication, it is necessary that a phone is able to distinguish between human voice and ambient noise, as individual codes have been assigned for each type of noise. Digitization of a signal takes place on the basis of such codes (that are stored in a codebook) and their selection. It was also argued that there can exist many ways of selecting codes from different codebooks which can be either probabilistic or deterministic.

In this suit patent, selection of codebook is independent of signal type i.e. the selection is not triggered or monitored by the input at the encoder side but is performed by the receiver at the decoder side. As a result, bit rates are saved as there is no need for transmission of information from encoder to decoder.

ii) The validity of the patent is challenged inter alia on the ground that:-

(a) CELP encoder is known;

(b) Existence of multiple codebooks is known;

(c) Selection of codebooks in a CELP encoder is known;

(d) The only contribution of the invention is 'deterministic selection process' which is nothing but a computer program/algorithm.

iii) The present invention relates to a multi-codebook fixed bitrate Code-Excited Linear Prediction (CELP) signal block encoding/decoding method and apparatus and a multi- codebook structure. The plaintiff submits that in the prior art CELP speech coders typically use codebooks to store excitation vectors that are intended to excite synthesis filters to produce a synthetic speech signal as instead of sending original

speech signal (which will occupy a lot of bandwidth), coded signal is sent to the decoder, which is then used to produce synthetic speech signal. However, in the present suit patent , it claims a multi-codebook fixed bitrate CELP signal block encoder/decoder along with its method of operation, a code book selection apparatus and an algebraic multi-codebook structure where the encoding/decoding is improved by using several different equal size codebooks (each having different weakness for any particular type of signal that is not shared by the others) which are selected deterministically (without regard to the signal type which is being encoded/decoded) wherein there is no explicit need to transmit coding mode information from the encoder to the decoder.

iv) In conventional CELP speech coders, that employ codebooks to store excitation vectors - for high bitrates, the codebooks contain a large variety of excitation vectors to cope with a large spectrum of sound types. But, for low bit rates, the number of bits for the codebooks is limited as a result the number of vectors to choose from is reduced. Therefore, at low bit rates, coders will have a codebook structure that is a compromise between richness and accuracy. As a result, the speech quality will be highly inconsistent.

v) In order to overcome the aforesaid drawback, the following coding methods were developed and known in the prior art:

- Variable Bit Rate Coding Methods: which used dynamic bit allocation, where the type of sound to be encoded controlled the number of bits that were used for encoding;

- Constant Bit Rate Coding Methods: which used several equal size codebooks that are optimized to different sound types, where the sound type controlled the codebook to be used for encoding;

- Constant Bit Rate Multi-mode Coding Methods:

> which used several equal size codebooks, where a previously determined adaptive codebook gain of a prior sub-frame is used to switch from one coding mode to another.

vi) The conventional solutions that depended on the sound type to be encoded, which controlled the number of bits that are used for encoding or the codebook that is to be used, required necessary transmission of mode information from encoder to decoder in order for the decoder to use the correct decoding mode thereby requiring extra bandwidth. Similarly, in the systems where such mode information was implicitly transferred as a result of adaptive codebook gain parameter, the coding in such systems/methods were sensitive to bit errors in the gain factor caused by the transfer channel. As a result, a need was felt to develop an encoder/decoder that can

overcome all the aforesaid drawbacks/disadvantages.

vii) A multi-codebook fixed bit rate CELP signal block encoder/decoder and a method of its operation consisting of: selecting, for each signal block, corresponding codebook identification in accordance with a deterministic selection procedure that is independent of signal type; and encoding/decoding each signal block by using a codebook having said selected codebook identification.

viii) The method/apparatus as disclosed and claimed by the subject patent :

- Several different equal size codebooks are used;

- Each codebook is weak for some signals and this weakness is not shared by any other codebook;

- Codebooks are selected deterministically (without regard to the signal type);

- As the same selection procedure is used at both the encoder and the decoder side, the need to transfer the mode selection information is removed and therefore, precious bandwidth is saved;

- Further, coding quality is improved;

ix) Thus, the suit patent corresponds to mandatory part of standard and the same is granted in other countries, the details of which are mentioned below:-

> Country Application Number Patent Number Argentina 990104662 AR020466B1 Australia 63756/99 756483 Brazil 9913756/9 1179273 Canada 2343191 2343191 China 99810993/2 ZL99810993-2 Finland 99951292-4 1114413 France 99951292-4 Germany 99951292-4/08 India IN/PCT/2001/00246/MUM 234157 Italy 99951292-4 1114413 Japan 2000-570770 4651195 Malaysia 9903724 MY-121083-A Mexico 2001/002654 234995 Republic of Korea 2001/7003363 416362 Singapore 200101158/4 79388 South Africa 2001/1866 2001/1866 Sweden 9803164/4 9803164-4 Taiwan 88115553 NI-169190 United Kingdom 99951292-4 1114413 United States 09/395909 7146311 United States 11/007373 7194408 (Continuity Application)
>
> x) With respect to Prior Art Document A9 - European Patent EP 0751494, titled "Sound Encoding System", filed on December 19, 1995 and published on January 02, 1997 granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:

Defendant's contention Plaintiff's response It was argued by defendant that EP EP '494 does not anticipate IN '494 anticipates IN '157 despite '157 either expressly or admitting in the revocation petition inherently; that EP '494 does not disclose selection/identification of codebook independent of signal type, though it has been contended that the same can be contemplated by a person skilled in the art. Thus, in the revocation petition it is argued that EP '494 inherently anticipates IN '157.

In EP '494, there exists a EP '494 discloses and definite/specific method of selection describes a 'pitch based' (to of code book which is based on the differentiate between male and pitch value of input voice, therefore, female voice) codebook it affects the validity of claim 1 of the selection which is not Indian patent. independent of signal type.

Defendant has itself admitted that the selection procedure of the codebook as disclosed in EP '494 is based on the input parameters of signal type EP '494 discloses a similar The requirement of sending codebook selection process as mode information/parameters claimed in IN '157; continues to persist along with the prevalence of sensitivity to bit errors in EP '494 Pages 2373-2374 were read and Thus, the solution proposed in relied upon; EP '494 is not independent of signal type and necessarily needs transmission of the signal related parameters for selection of codebook and therefore, belongs to the category of coding methods whose disadvantages are overcome by the invention of IN '157 patent;

xi) With respect to Prior Art Document A10 - Article titled "A 1.6 Kb/s MELP Coder for Wireless Communication", published in IEEE Workshop on speech Coding for Telecommunications Proceeding, held in September 1997 (McCree) granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:- Defendant's contention Plaintiff's response A10 anticipates IN '157 as it Defendant is applying the test of discloses a specific process for obviousness for arguing selection of codebook. anticipation inasmuch as it has stated that '.....although A10 is related to MELP speech coding standard, it maybe contemplated by a person skilled in the art that the teachings of MELP coding algorithm could easily be applied to CELP coding algorithm without undue experimentation.....';

A10 does not anticipate IN '157 either directly or inherently;

A10 relates to a low rate MELP coder (and not to a CELP coder) where the sound determines the codebook to be used, i.e., it belongs to the conventional arts as described in the Background of the IN '157 patent;

A10 renders IN '157 anticipated A person skilled in the art would in nature; understand by a simple reading of the document A10 that the selection of the predictor and the codebook is adaptive of the signal type and the predictor/codebook

that best fits the input signal is chosen in a closed loop fashion.

Thus, the aforesaid article clearly belongs to the category of conventional arts which have a flaw of consuming more bandwidth due to the necessity of transferring mode information bit, along with sensitivity to bit errors.

xii) With respect to Prior Art Document A11 - Article titled "High Quality Multi-Pulse based CELP Speech Coding at 6.4 Kbs and its subjective evaluation", by Ozawa and Serijawa, presented in an IEEE conference, dated May 12- 15, 1998 granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response A11 inherently anticipates IN A11 has been referred to by '157. the Plaintiff itself in the complete specification of IN '157 as a conventional art (Reference No. [5]), having the problem of 'being sensitive to bit errors'.

The 'novelty', 'inventive step' of IN '157 over A11 have been duly explained and detailed in the complete specification.

The Defendant is applying the test of obviousness for arguing anticipation where inter alia, it is being argued that the invention disclosed in A11 is equal to that of the subject patent for practical utility and thus there is inherent anticipation.

In A11, a signal type dependent adaptive codebook gain codebook selection method has been described and emphasis is laid on having different restrictions for voiced and unvoiced speech signals.

Even the Defendant has admitted that A11 discloses a codebook selection process that is dependent on signal type.

Further, the codebook selection as per A11, based on voiced and unvoiced signal, will be sensitive to voiced gain determination and to bit errors in the adaptive gain value and also to frame-error/frame-loss of the previous frame.

On the other hand, IN '157 enables selection of codebook independent of signal type and also does not involve prediction/selection of codebooks based on gains stored in previous sub-frames thereby removing any dependence on gain factors and hence in turn overcoming the sensitivity to bit errors.

xiii) With respect to Prior Art Document A12 - Article titled "Ultra-fast CELP Coding using Deterministic Multi- Codebook Innovations", published in 1992 (Daniel Lin) granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:- Defendant's contention Plaintiff's response A12 renders IN

'157 obvious in A12 is a conventional multi-

nature as it discloses CELP mode CELP coder and it does coding using multi-section not teach any of the inventive codebook of deterministic code steps of the invention as sequences; claimed in IN '157;

In A12, signal type dependent measures viz. SNR (closed loop decision) or phonetic classification are used to determine/select the final index in the codebook for the purpose of transmission;

A12 does not show how to further improve the use of structured codebook, beyond sectioning it and using signal type dependent measures to select a codebook specific section and a final multi-

section codebook index;

A12 merely teaches an improvement in the structure of codebooks and it does not detail in any manner the method of deterministic selection of a codebook from multiple codebooks for each signal block which is independent of the signal type sought to be encoded.

E IN 203686

i) The invention in patent No.203686 relates to mode handling in the field of communication systems and, more particularly, to handling the transmission of information associated with requesting and identifying coding modes in digital communication systems that support multiple speech/forward error correction coding schemes.

ii) The contention of the plaintiff is that conventionally, different modulations have been dynamically assigned to selectively take advantage of the strengths of individual modulation schemes and to provide greater user bit rates and/or increased resistance to noise and interference. Further, many different combinations of these processing techniques may be selectively employed both as between different connections supported by a radio-communication system and during the lifetime of a single connection, which have to be informed to the receiving entity from the transmitting entity which is done either explicitly i.e. by using message field within the transmitted information or implicitly i.e. by blind decoding - by analyzing the received signal.

iii) It is averred that the explicit information include (a) Mode indicators (MI): which reflect transmitter's currently employed speech coding/channel coding combination, (b) Mode requests (MR): which reflect the receiver's request for a particular speech coding/channel coding mode to be employed. These MI & MR bits are communicated

between transmitting and receiving entities to enable variable codec mode operations. Further, they are communicated continuously during the lifetime of a connection, depending on the varying channel condition.

iv) The suit patent corresponds to and the same is granted in other countries, the details of which are mentioned below:-

Country Application Number Patent Number Australia 63767/99 767613 Brazil PI9913758/5 Canada 2343057 2343057 China 99814439-8 ZL99814439-8 European Patent 99951303.9 European Patent 10181600.7 India IN/PCT/200100324/MUM 203686 Japan 2000-570931 3834477 Mexico 2001/002701 230774 Republic of Korea 2001/7003340 669271 Russian 2001110094 2231227 Federation Singapore 200101391/1 79573 South Africa 2001/1998 20011998 United States 09/154,046 6452941

v) It is averred that the following objectives are achieved by the instant patent which are mentioned herein below:

(a) Reduction in the number of overhead bits

(b) Improve in coding efficiency

(c) Reduction of bandwidth consumption Prior Art

vi) The prior art inter alia cited in the patent by the defendant stated that communication of MI and MR between the transmitting and receiving entities so as to enable variable codec mode operation was known.

vii) In reply to prior art, it is the case of the plaintiff that the subject patent claims a communication system and its method of operation wherein MI and MR are properly decoded, while minimizing the number of overhead bits that are transmitted along with reducing the delay associated with processing of mode information. By invention, the plaintiff has achieved by decimating the rate of transmission of MI & MR either by constraining the rate of change of the MI or MR bits, or by preventing the transfer of mode information (MI/MR) when there is a speech inactivity period.

This invention would help in reducing the bandwidth utilization associated with mode information and/or permit heavier channel coding of the mode information.

viii) With respect to Prior Art 'A10' - WO/1997/041549 titled "Encoding Mode Control Method and Decoding Mode Determining Apparatus granted to the plaintiff published on 6th November, 1997 referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response A10 hits the novelty of IN '686; The alleged prior art is conventional art as disclosed In view of A10, the invention as in the background of the disclosed and claimed cannot be invention wherein the receiver regarded as novel in nature; performs a 'blind decoding' by trial for all possible speech/channel coding combinations and selects the most probable one.

Thereafter, the receiver selects the same encoding mode for the return link to the transmitter. It is pertinent to state herein that in WO '549 there is no communication of mode information (mode indicators and mode requests) between the transmitter and the receiver.

Further, A10 does not discuss decimation of transmission rate of MI & MR so as to reduce overhead bits and to reduce the delay in processing mode information.

A10 discloses that exchange of mode information has the advantage of being less complex, however, A10 states that exchange of mode information has the disadvantage of taking up large part of available band width for signaling purpose The suit patent solves the above mentioned disadvantage of occupying bandwidth by decimating the rate of transmission of MR/MI.

ix) With respect to Prior Art 'A11' - WO/1995/028814 titled "Air Interface Adapting Method for a Mobile Radio System", published on 26th October, 1995 (its US family member being US6134220, published on Oct. 17, 2000) referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response A11 hits the novelty of IN '686; A11 does not deal with the issue of reducing overhead bits by In view of A11, the invention as decimating the transmission rate disclosed and claimed cannot be of MR/MI; regarded as novel in nature;

> A11 teaches how to select an optimal transmission mode (coding mode/allocation resource combination) when a call is initialized & how to change the said transmission mode during a call depending on the changing channel conditions (eg; increase in traffic in a cell, deterioration in quality of channel etc.) Its object is to limit the quantity of resources allocated in each transmission direction and/or to optimize transmission quality The invention of A11 deals with improved allocation of transmission resources, depending on the codec mode selected;
>
> A11 nowhere discloses or enables or teaches transmitting mode indication in a first frame and transmitting coding mode request in a second frame different from the first frame between a transmitter & a receiver (i.e. decimation of transmission rate of mode information) so

as to save on overhead bits while ensuring that multi-mode coding is efficiently supported by a radio communication system.

xi) With respect to Prior Art 'A13' - EP 0863682, titled "Mobile Communication System", published on Sept. 9, 1998 referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response A13 hits the novelty of IN '686; No details about how A13 anticipates IN '686 have been provided in the revocation In view of A13, the invention as petition and it has been disclosed and claimed cannot be merely argued that since the regarded as novel in nature alleged prior art teaches multi-mode coding and ability of transmitter and receiver to communicate mode information to each other, it is being argued that it anticipates the suit patent.

A13 does not disclose, enable or teach a communication system and its method of operation wherein MI and MR are properly decoded, while minimizing the number of overhead bits that are transmitted along with reducing the delay associated with processing of mode information by decimating the transmission rate of MI/MR.

The alleged prior art merely discloses a base station that selects an appropriate encoding method based on traffic conditions, surrounding environment of the mobile station etc. and encodes the transmission signal using the said encoding method and thereafter notifies a decoding method to the mobile station Sending a mode command for the uplink transmission is not the same as sending a mode request, as required by Plaintiff's claims. A mode command offers much less flexibility to the receiver than a mode request in selecting a mode. Moreover, A13 does not disclose anywhere the modified or improved or decimated transmission of MI & MR as taught by the IN '686 patent, where the MI is sent in one frame and the MR is sent in a different frame;

F 3G Patent IN 229632

i) The invention in patent No.229632 relates to mobile stations and more specifically to the ability of mobile stations to concurrently support multiple data transmission services. It claims a mobile station that processes multiple data services over a communications link between the said mobile station and a base station by grouping transmissions from various radio bearers services according to services having similar characteristics, prioritizing the services within a particular grouping and scheduling the transmission of the grouping in such a manner that set power levels are not exceeded;

As a result, services with variable BER requirements and output power requirements are easily accommodated without affecting the quality of transmission.

Therefore, the claimed mobile station processes multiple data services having substantially similar Quality of Service (QoS) requirements into a single logical channel.

ii) It is defendant's contention that the suit patent claims multiplexing simpliciter; In telecommunication multiplexing is a method by which multiple analog message signals or digital data streams are combined into one signal over a shared medium with the view to share an expensive resource i.e. bandwidth.

iii) It is submitted by the plaintiff that in the complete specification has itself admitted that multiplexing was known, thus merely mixing oil and water is not the subject matter of the invention and the Plaintiff has also highlighted the drawback of simply multiplexing two services together onto a single logic channel irrespective of their nature and Quality of Service (QoS) requirements.

The suit invention inter alia claims a mobile station that is capable of breaking down of different services into smaller data units and thereafter multiplexing portions (i.e. units of services) having substantially similar Quality of Services (QoS) requirements into transmission blocks of a single logical channel.

It is contended that (mobile station) that can support multiple varied services simultaneously are being developed on a regular basis. Such services include real time services like speech, video etc. and non real time services like file transfer etc. and problem arises in providing support for such multiple varied services due to different requirements of each service. Further, mapping of variable rate data services onto a single channel also presents a problem.

In order to enable mobile stations able to concurrently support multiple varied services, each having different requirements in terms of bit error rates, power requirements etc., the conventional means employ techniques like creating a new physical channel for each service every time a new service becomes available to the mobile station. However, the same is undesirable from a mobile station complexity point of view. Multiplexing each of the services together onto the same channel and utilizing a single code on the channel. This solution is also inefficient inasmuch as in a situation where two services have greatly differing bit error rate requirements, the coding, interleaving and power control for the two services must be performed in such a way that the service requiring the strongest requirements is supported. This in turn leads to either spectrum loss if the higher QoS requirements are supported or degradation of quality, if lower QoS requirements are supported.

iv) It is submitted by the plaintiff that there is a Development of a mobile station that is capable of:

a) Receiving and processing plurality of radio bearer services in a manner that radio bearer services having substantially similar quality of services requirements are combined into a single logical channel;

b) The radio bearer services are processed by separating the data within such services into plurality of portions;

c) Thereafter portions having similar quality of services requirements are then multiplexed into transmission blocks of a single logical channel;

d) The number of portions per transmission block is variable;

e) Portions from different radio bearer services can be prioritized such that high priority portions are transmitted prior to low priority portions without altering the transmission rate of the single logical channel

f) Further the transmission blocks are scheduled in a such a manner that the output power of the transceiver remains below the predetermined level;

g) Such predetermined level may vary in time;

v) The Suit patent corresponds to and the same is granted in other countries, the details of which are mentioned below:-

Country Application Number Patent Number Argentina 980104755 AR013662B1 Australia 9286498 751653 Canada 2303065 2303065 China 98809427/4 ZL98809427.4 Germany 98945677/7 69829392.4-08 India 2211/DEL/2005 233780 India 2818/Del/98 229632 Italy 98945677/7 1018274 Japan 2000-513423 3660245 Malaysia 9804371 MY-129869-A Republic of 2000/7003132 10-0666331 Korea South Africa 98/8426 98/8426 Taiwan 87115600 129744 United Kingdom 98945677/7 1018274 United States 09/060736 6363058

vi) With respect to Prior Art Document - Article titled "Mobiware: QoS Aware Middleware for Mobile Multimedia Communications" by Andrew T. Campbell granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response The above prior art hits the No details about how novelty of IN '632; Campbell hits the novelty of IN '632 are contained in the pleadings as merely certain portions have been extracted from the main body of the document It was argued that Campbell Further, Campbell was relied discloses the manner in which the upon to argue that it discloses services with similar QoS multiplexing which is incorrect requirements are combined and and the same is not the sent together i.e. multiplexing; subject matter of the suit patent;

Campbell hits the novelty of IN Campbell does not anticipate '632; IN '632 in any manner whatsoever inasmuch as it teaches to Monitor base stations within a cell in order to gauge whether another base station can provide a stronger signal at desired QoS requirements Subsequently, based on the availability of such a base station (on the basis of QoS parameters requested by a mobile station) initiates a handoff from one base station to another.

vii) With respect to Prior Art Document - ETSI technical report (300-1) titled "Terrestrial Trunked Radio Specification TETRA granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under: Defendant's contention Plaintiff's response The said prior art hits the No details about how ETSI report novelty of IN '632; hits the novelty of IN '632 are contained in the pleadings as merely certain portions have been extracted from the main body of the document ETSI report discloses ETSI report is related to multiplexing based on QoS Terrestrial Trunked Radio requirements and sending of (TETRA) technology, which is data on a logical channel as different from 3G technology and detailed in the suit patent; as such the said ETSI report cannot be read to assert lack of novelty in the suit patent;

ETSI report is merely a 'read me first manual' and neither discloses nor teaches the claimed invention of IN '632 The said prior art hits the Section 5.1.2 relied upon by the novelty of IN '632 Defendant merely states that the MLE (Mobile Link Entity) performs inter alia quality of service selection without providing any details as to how is the same performed or what is exactly meant by 'Quality of Service Selection Similarly, the cited excerpt from Section 5.6 of the said report provides no details/explanation of any multiplexing/ combining operation, rather discusses only about how the network layer PDUs (Protocol Data Units) are mapped onto the physical layer and does not disclose or teach the claimed invention.

viii) With respect to Prior Art Document - EP0494284 titled "Method for Prioritizing, Selectively Discarding & Multiplexing differing Traffic Type Fast Packets granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention	Plaintiff's response
EP '284 hits the novelty of IN '632;	No details about how EP '284 hits the novelty of IN '632 are contained in the pleadings as merely certain portions have been extracted from the main body of the document

EP '284 discloses multiplexing in EP '284 merely describes a an identical manner as claimed in method to control the flow of IN '632; packets by creating a queuing

discipline, on the basis of various priorities of the fast packets and not on the basis of QoS requirements EP '284 hits the novelty of IN '632 Thus, EP '284 does not relate to a mobile station which maps radio bearer services onto channels between itself and a base station after they have been processed, separated into data blocks which are then multiplexed with data blocks of other services having substantially similar QoS requirements into transmission blocks which are transmitted by using a single logical/transport channel.

ix) With respect to Prior Art Document - EP0676875 titled "Method & Apparatus for multiplexed transmission of digital data having different code rates & priorities" granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response EP '875 hits the novelty of IN '632 No details about how EP '875 hits the novelty of IN '632 are contained in the pleadings as merely certain portions have been extracted from the main body of the document;

EP '875 discloses every As per EP '875 multiplexing embodiment of claimed invention occurs after separately encoding as it discloses multiplexing of data the information streams to be and also discusses prioritizing of multiplexed, thereby providing data before transmission; different (unequal) error protection for the different streams.

Prioritization is done on the basis This multiplexing of all of available code rates. convolutional coded data (with different QoS requirements) is EP '875 hits the novelty of IN '632 the only multiplexing/combining . operation disclosed at a transmission apparatus in EP '875.It also means that EP '875 provides different (unequal) error protection for the different streams and the benefit of IN '632, i.e., of sending the data in single logical channel cannot be found in any manner in EP '875 G IN 240471

i) With regard to the invention in Patent No. 240471 it has been argued by the defendant despite lack of supporting pleading in its revocation petition, that the phrase 'add either a positive or a negative offset to the measured radio- related parameter' as contained in claim 1 of the corresponding US patent is missing in the subject Indian Patent which has been obtained by way of misrepresentation. The above phrase is the most crucial part of the patented invention and if such offset (positive or negative) value is not added, then a smooth handover is not possible.

ii) It is contended by the plaintiff that Claim 1 read with claim 12 of the IN '471 clearly indicates that the aforesaid contention raised by the defendant is false, incorrect and misleading in nature. As the present invention relates to the use of a mobile radio station as a measurement tool for a radio access network.

It claims a mobile station that has the ability to perform event-based or driven reporting of mobile station measurement, wherein:-

(a) the mobile radio station measures radio-related parameter/s for one or more cells in a radio access network;

(b) the mobile radio station evaluates the measured radio-related parameters with respect to predetermined condition/s or event/s;

(c) The mobile radio station determines whether the predetermined condition/s or event/s has been satisfied or that the event/s has occurred;

(d) Based on such evaluation, the mobile radio station sends the measurement report to the radio access network thereby allowing the network to take timely and appropriate action.

Once a report is received, the network may analyze the report information and may perform, if necessary, responsive or other desirable operations like handover or power control. The invention helps in achieving the objective of providing timely and relevant measurement reports by mobile stations without occupying large bandwidths and allowing radio network to promptly and effectively respond to changed network conditions with minimal signaling between the mobile and base stations. The radio-related parameters to be measured, the predetermined conditions/events etc. can be modified.

iii) It is alleged by the plaintiff that in cellular radio communications systems, in order to effectively manage handover, power control and other important operations, the network is required to know its current status. The status can be measured by detecting current values of various radio related parameters at different locations in the network. Such measurement can be done by suitably located sensors and monitoring equipment

- Cost of installation, maintenance etc. is prohibitive using mobile radio station for providing periodic measurement reports

- If reporting time too long, reports become outdated or too slow to changing network conditions

- If reporting time is reduced, leads to increased signaling, which in turn leads to decreased bandwidth availability, increased interference, drainage of mobile battery

iv) It is also alleged that a mobile radio station having the ability to perform event-based or driven reporting of mobile station measurement, wherein:

(a) the mobile radio station measures radio-related parameter/s for one or more cells in a radio access network;

(b) the mobile radio station evaluates the measured radio-

related parameters with respect to predetermined condition/s or event/s;

(c) The mobile radio station determines that the predetermined condition/s is satisfied or that the event/s has occurred.

Based on such evaluation, the mobile radio station sends a report to the radio access network thereby allowing the network to take timely and appropriate action.

v) Suit patent corresponds to mandatory part of standard and the same is granted in other countries, the details of which are mentioned below:-

Country	Application Number	Patent Number
Argentina	P000102453	AR025840B1
Australia	49635/00	774570
Belgium	00931815-5	1179273
Brazil	PI0010645-3	ZL98809427.4
China	00810364-X	ZL00810364.X
Germany	00931815-5	60040066.2
India	IN/PCT/2001/01411/MUM	240471
Indonesia	W-00 2001 02502	ID0017741
Italy	00931815-5	1179273
Japan	2000-619224	4567210
Malaysia	PI20002164	MY-123646-A
Netherlands	00931815-5	1179273
Republic of Korea	2001-7014745	0786910
South Africa	2001/9230	2001/9230

Spain	00931815-5	1179273
Switzerland	00931815-5	1179273
Taiwan	89108397	NI-162861
United Kingdom	00931815-5	1179273
United States	09/314019	6445917

vi) With respect to Prior Art Document 1 - Technology Standard Document TS 25.331 V1.0.0 published in April 1999 granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response TS 25.331 completely hits the Misleading and incorrect novelty of IN '471; averments raised by the Defendant.

It discloses use of mobile station Plaintiff itself disclosed and as a measuring tool, which sends contributed the said technology event triggered or event based that has been incorporated in measurement report; the aforesaid standard.

Pages 653-656 were read and Thus, TS 25.331 cannot be relied upon; relied upon as a prior art document to question the validity of IN '471 as per section 34 of the Patents Act, 1970. Without prejudice, to the aforesaid no details about publication and proof of the same has been provided, TS 25.331 establishes the essentiality of the IN '471 along with the importance of the contribution made by the Plaintiff.

vii) With respect to Prior Art Document 2 - 3GPP Specification Document, TR (Technical Report) 25.922 V.0.1.1, published in April 1999 granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response Technical Report 25.922 hits the No details about how the said novelty of IN '471 Technical Report hits the novelty of IN '471 are contained in the pleadings as merely certain portions have been extracted from the main body of the document.

It discloses soft handover, The said TR merely discusses measurement of radio-parameters handover strategy employed by Mobile Station by the network and details different types of handovers viz. hard handover, soft handover etc;

It discloses the concept of adding Merely on the ground that the offset to the measured values by term 'offset' appears in the the mobile station present document - IN '471 cannot be said to have been rendered anticipated in nature;

Pages 731&732 were relied upon Lastly, no details/proof of publication has been provided.

viii) With respect to Prior Art Document 3 - GSM Specification 3GPP TS 05.08 V3.8.0, published in January 1995 granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response GSM Specification 3GPP TS No details about how the said 05.08 hits the novelty of IN '471. GSM Specification hits the novelty of IN '471 are contained in the pleadings as merely certain portions have been extracted from the main body of the document;

It discloses overall handover The said GSM Specification process, mobile station merely discusses conventional measurement procedures, handover technique, wherein identification of neighbouring a mobile station can be used base stations for handover as a measurement tool and reporting, measurement reporting performs periodic which is event triggered etc; measurement reporting Thus, the aforesaid document relates to periodic reporting and It does not disclose any event based reporting as performed by the mobile station of the suit patent.

ix) With respect to Prior Art Document 4 - GSM Specification, TS 04.08 V3.14.0, published March 1998 granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention	Plaintiff's response
GSM Specification TS 04.08 anticipates the invention of IN '471	No details about how the said GSM Specification hits the novelty of IN '471 are contained in the pleadings as merely certain portions have been extracted from the main body of the document.
It discloses mobile station measurement reporting, control	The said GSM specification merely discusses conventional

of reporting and event triggered handover technique detailing reporting etc. the concept of hard handover.

Further, the measurement reports are sent by the mobile station on a regular basis and thus, the same is not event triggered or event based.

H Edge Patent IN 241747

i) The invention in patent No.241747 generally relates to error handling in the field of communication systems and more particularly, to error handling using automatic retransmission requests (ARQ) in digital communication systems that support multiple Forward Error Correction (FEC) Coding and/or modulation schemes.

It claims a novel and inventive transceiving unit for error handling using ARQ technique by dividing the blocks that were erroneously received and retransmitting them using a different FEC Coding and/or modulation scheme than the one used originally. As a result, it significantly enhances system performance and provides greater flexibility to cope with changes in a communication system and RF channel conditions.

ii) It is contended by the defendant that due to inter alia the tremendous increase in the number of mobile stations within the limited bandwidth available in a cellular telecommunication system - there has been an increase in interference between mobile stations operating on the same frequency in neighbouring or closely spaced cells resulting in erroneous transmission of information.

iii) Conventional digital communication systems employ various techniques to handle erroneously received information, which generally include: those which aid the receiver to correct the erroneously received information, eg: FEC i.e. Forward Error Correction techniques; and those which enable information, which was erroneously received, to be retransmitted to the receiver eg: ARQ i.e. Automatic Retransmission Request techniques, where the retransmission is performed upon a request received from the receiver.

iv) It is stated by the plaintiff that the conventionally known methods (including error correction techniques) used to improve communication quality suffered from various drawbacks such as:

(a) only the modulation scheme could be varied (US 5577087) which in turn entailed change in channel bit rate for example the number of timeslots used to support a transmission channel;

(b) In the known ARQ techniques, for retransmitting the erroneously received block, the originally selected coding scheme must be used for retransmission;

(c) In the known ARQ techniques (PCT/F196/00259), if the coding scheme is changed, then it affects the entire connection rather than only the retransmitted block;

As a result, flexibility in terms of block segmentation or user bit rate adjustment was absent whereby coding scheme or modulation of only the erroneously received block that is to be retransmitted is changed and a transcieving unit for block automatic

retransmission request, comprising:

- a receiving means that can receive a negative acknowledgement signal indicating that a block was erroneously received;

- a dividing means for selectively dividing the erroneously received block into two or more blocks whenever such negative acknowledgment is received;

- a transmitting means for retransmitting such erroneously received blocks using a second modulation/FEC coding scheme different from the FEC Coding and/or Modulation Scheme used for original transmission.

v) It is the case of the plaintiff that the drawbacks and limitations of the conventional methods are overcome by the present invention, as:

(a) Modulation and/or FEC coding is adjusted ONLY for the retransmitted blocks;

(b) Flexible re-segmentation/mapping of ONLY the information blocks to be retransmitted occurs;

(c) Thus, the overall system performance is improved as greater flexibility is provided to cope with the changes in the system and channel conditions;

vi) The Plaintiff's in the complete specification (in the Background) has itself admitted that communication systems which used different modulation schemes to communicate voice or data information were known. The Plaintiff has also admitted that use of different FEC coding schemes and Automatic Retransmission Request (ARQ) for error correction was known.

Thus, documents detailing 'use of ARQ for error correction', or 'use of FEC for error correction', or 'use of different modulation schemes for communicating voice/data' - cannot be relied upon to invalidate IN '747;

vii) The Suit patent corresponds and the same is granted in other countries, the details of which are mentioned below:-

Country Application Number Patent Number Australia 90121/98 751651 Brazil 9811429/8 751653 Canada 2301945 2301945 China 98810573 ZL98810573.X European Patent 10182150.2 69829392.4-08 Germany 98941974.2 69842640.1 Hong Kong 01104151/6 1033515 India 1998-2490/DEL 241747 India 3555/DEL/2005 3660245 Italy 98941974.2 1010287 Malaysia 98003831 MY119573-A Mexico 2000002093 217816 Republic of Korea 10-2000-7002137 0528419 Spain 98941974.2 1010287 Taiwan 87113526 115401 United Kingdom 98941974.2 1010287 United States 08/921147 6208663

viii) With respect to Prior Art Document - US 5559810, titled "Communication of Data Reception History Information", granted to Crisler et. al and published on Sep. 24, 1996 granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:- Defendant's contention Plaintiff's response The above prior art anticipates IN US '810 does not anticipate '747 as US '810 discloses each IN '747 in any manner and every element of the claimed whatsoever inasmuch as it invention detailed in IN '747. relates to an apparatus for However, during the course of and method for determining arguments, defendant changed its data reception history stand to argue that US '810 information; inherently anticipates IN '747;

Thus, US '810 discloses:

> -Storing and updating data reception history for a particular modulation scheme;
>
> -Such data reception history includes information regarding the reception of data blocks if occurred with or without any error, over a period of time;
>
> -Data reception history information is then used to determine an estimate of transmission signal quality;

US '810 inherently anticipates IN US '810 does not disclose or '747; teach the following in any manner whatsoever:

No details as to how us '810 anticipates in '747 are provided in A transcieving unit for block the revocation petition inasmuch automatic retransmission as merely certain extracts and request, comprising claims have been quoted by intex

-a receiving means that can receive a negative acknowledgement signal indicating that a block was erroneously received;

-a dividing means for selectively dividing the erroneously received block into two or more blocks whenever such negative acknowledgment is received;

-a transmitting means for retransmitting such erroneously received blocks using a second modulation/FEC coding scheme different from the FEC Coding and/or Modulation Scheme used for

original transmission;

ix) With respect to Prior Art Document - US 5487068, titled "Method for Providing Error Correction using Selective Automatic Repeat Requests in a Packet-Switched Communication System", granted to Clanton et al. and published on Jan. 23, 1996 granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response US '068 anticipates IN '747 as it Intex has merely relied upon discloses each and every certain extracts of US '068 and element of the claimed invention. has tabulated claim 1 of both US '068 and IN '747 without highlighting or explaining the alleged correlation between the elements as shown therein. The table does not show the presence of any of the claimed features of IN '747 in US '068;

Reliance placed on the fact that US '068 addresses a completely US '068 discusses ARQ; different issue related to the conventional ARQ techniques where there is a need to send feedback messages from an ARQ receiver to an ARQ transmitter, so that the ARQ transmitter can re-transmit blocks that are reported as erroneous or missing;

Claims of US '068 were read; US '068 details a solution whereby a subscriber unit transmits acknowledgement information in a packet-switched data communication system using a contention free channel access scheme in addition to providing for a base site control unit to interrupt a packet currently being transmitted in order to retransmit segments of the packet when the segments have errors with the view to save both time delay and packet delay.

US '068 anticipates the invention Thus, US '068 does not disclose as claimed in the suit patent a novel and inventive when read with US '810; transcieving unit for error handling using ARQ technique by selectively dividing the blocks that were erroneously received and retransmitting them using a different FEC Coding and/or modulation than the one used originally thereby significantly enhancing system performance and providing greater flexibility to cope with changes in a communication system and RF channel conditions - as detailed in IN '747.

x) With respect to Prior Art Document - EP 0350238(A3), titled 'Data Communicating Apparatus', published on January 10, 1990 by Toshio Azuma (deemed to be withdrawn on 04/08/1990 granted to the plaintiff referred by the

defendant and the response given by the plaintiff reads as under:

Defendant's contention Plaintiff's response EP '238 read with US '810 hits Intex has merely filed the abstract the inventive step of IN '747; related to EP '238 along with its revocation petition. As the same is incomplete in nature, Intex cannot place any reliance on EP '238;

WITHOUT PREJUDICE to the aforesaid, no details as to how EP '238 read with US '810 renders IN '747 obvious in nature are contained in the revocation petition.

As per the abstract and certain paragraphs of the EP '238 patent extracted by Intex - it is evident that EP '238 does not relate to the subject matter of IN '747 as it merely discloses that:

a) information message is sub-

divided into data blocks of predetermined length;

b) when the number of data block transmission errors exceeds a fixed value, then the data blocks to be subsequently transmitted (including blocks that are to be retransmitted) are further sub-

divided into smaller data blocks;

xi) With respect to Prior Art Document - US 4149142, titled "Signal Transmission system with an Error Control Technique", published on Apr. 10, 1979 and granted to Kageyama et al. granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response US '142 read with US '810 In the revocation petition merely renders IN '747 obvious in Claim 1 of US '142 has been nature; extracted without detailing as to how US '142 read with US '810 renders IN '747 obvious in nature;

> US '142 has been cited by Intex solely on the ground that it discusses ARQ technique despite the fact that the Plaintiff has itself admitted that use of ARQ technique for error correction was known;
>
> US '142 discloses a technique wherein after an error control signal requesting retransmission is received by the transmitter -
>
> the transmitter transmits a fresh error free data block corresponding to the error control signal received from the receiving section without determining whether the control signal so received is erroneous or

not.;

US '142 does not disclose or teach use of different FEC coding/modulation scheme for selective retransmission of only that block which was initially erroneously transmitted and not the entire data length Intex has admitted at Pg. 27 of the revocation petition that US '142 does not disclose re-

transmission of the erroneously transmitted block using a second modulation scheme;

xii) With respect to Prior Art Document - EP 0054118, titled 'Improved go-back-N Automatic Repeat Request Communication Systems', published on Jan. 9, 1985 and granted to Lin et al. granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:

Defendant's contention Plaintiff's response EP '118 read with US '810 In the revocation petition merely renders IN '747 obvious in nature; Claim 1 of EP '118 has been extracted without detailing as to how EP '118 read with US '810 renders IN '747 obvious in nature;

EP '118 discloses a modified go-back-n automatic repeat request (ARQ) communication system as opposed to the conventional Go-Back-N ARQ systems;

As per the EP '118 modified system along with the sequence of information blocks, error detecting check bits are also sent by the transmitter to the receiver where each received block is checked for apparent error and an acknowledgement signal (ACK or NAK) is sent as a result of each check. If a negative acknowledgement is sent, then the transmission sequence is interrupted by the transmitter who then retransmits the last N blocks to reestablish the sequence at the receiver to include the detected faulty block characterized in that:

EP '118 read with US '810 The detected faulty blocks are renders IN '747 obvious in nature; buffered at the receiver;

The retransmitted blocks contain not the original data but a correcting code derived therefrom;

Regenerating those received blocks, detected to have been faulty, at the receiver using retransmitted correcting code form thereof;

Further, Intex has admitted at Pg. 28 of the revocation petition that EP '118 does not disclose re-transmission only of the erroneously transmitted block using a second modulation scheme.

x) With respect to Prior Art Document - US 4149142, titled "Signal Transmission system with an Error Control Technique", published on Apr. 10, 1979 and granted to Kageyama et al. granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response US '142 read with US '810 renders In the revocation petition IN '747 obvious in nature; merely Claim 1 of US '142 has been extracted without detailing as to how US '142 read with US '810 renders IN '747 obvious in nature;

US '142 has been cited by Intex solely on the ground that it discusses ARQ technique despite the fact that the Plaintiff has itself admitted that use of ARQ technique for error correction was known;

US '142 discloses a technique wherein after an error control signal requesting retransmission is received by the transmitter - the transmitter transmits a fresh error free data block corresponding to the error control signal received from the receiving section without determining whether the control signal so received is erroneous or not.;

US '142 does not disclose or teach use of different FEC coding/modulation scheme for selective retransmission of only that block which was initially erroneously transmitted and not the entire data length Intex has admitted at Pg. 27 of the revocation petition that US '142 does not disclose re-

transmission of the erroneously transmitted block using a second modulation scheme;

xi) With respect to Prior Art Document - EP 0054118, titled 'Improved go-back-N Automatic Repeat Request Communication Systems', published on Jan. 9, 1985 and granted to Lin et al. granted to the plaintiff referred by the defendant and the response given by the plaintiff reads as under:-

Defendant's contention Plaintiff's response EP '118 read with US '810 renders In the revocation petition IN '747 obvious in nature; merely Claim 1 of EP '118 has been extracted without detailing as to how EP '118 read with US '810 renders IN '747 obvious in nature;

EP '118 discloses a modified go-back-n automatic repeat request (ARQ) communication

system as opposed to the

	conventional Go-Back-N ARQ systems; As per the EP '118 modified system along with the sequence of information blocks, error detecting check bits are also sent by the transmitter to the receiver where each received block is checked for apparent error and an acknowledgement signal (ACK or NAK) is sent as a result of each check. If a negative acknowledgement is sent, then the transmission sequence is interrupted by the transmitter who then retransmits the last N blocks to reestablish the sequence at the receiver to include the detected faulty block characterized in that:
EP '118 read with US '810 renders IN '747 obvious in nature;	The detected faulty blocks are buffered at the receiver; The retransmitted blocks contain not the original data but a correcting code derived therefrom; Regenerating those received blocks, detected to have been faulty, at the receiver using retransmitted correcting code form thereof; Further, Intex has admitted at Pg. 28 of the revocation petition that EP '118 does not disclose re-transmission only of the erroneously transmitted block using a second modulation scheme.

126. There are no specific rules about the construction of the specification except, it is always appropriate to read the specification as a whole in order to appreciate as to whether the claims raised in the patent are valid or the same offend the provisions of the Act as well as the prior art. Halsbury's Laws of England, 5th Edn. Vo. 35 point 6 in para 440 to 443 indicate about construction of specification and claim which read as under :

> 440. General rule. No special rules are applicable to the construction of the specification of a patent. As the specification is addressed to technically skilled persons, the court must be instructed as to the meaning of technical terms and the background of the art, so as to read the specification with the understanding of the technician. The question of construction is necessarily antecedent to the determination of the issue of infringement and of all issues of validity depending upon the scope of the claims.

441. Construction. A specification is construed neither in favour of nor against the proprietor of the patent. It should be so construed as not to lead to a foolish result or one which the proprietor could not have contemplated; for example, the court will tend to avoid constructions which would make the claim cover what the specification admits to be old or is the negation of the whole point of the invention.

442. Reading of specification as a whole. The specification is to be read as a whole, including any drawings; the claims are only a part of the specification (although a part having a special function), and in no sense comprise a separate document. The body of the specification should be read first. The title is part of the specification for the purposes of construction. In reading a specification, a distinction must be drawn between introductory statements as to the purpose of the invention or the class of apparatus to which it relates and the description of the invention itself.

443. Construction of claims. A claim must be read as an ordinary English sentence, without incorporating into it extracts from the body of the specification, or changing its meaning by reference to language used in the body of the specification, even the language of a consistory clause. The specification must, however, be read as a whole because thereby the necessary background of the words used in the claims may be affected or defined by what is said in the body of the specification. The specification should be given a purposive construction rather than a purely literal one, so as to determine which features are put forward by it as the essential features of the invention and, in particular, whether persons with practical knowledge and experience of the kind of work in which the invention was intended to be used would understand that strict compliance with particular words or phrases of the claim was intended by the proprietor of the patent to be essential; only where this is the

intention will the patent be avoided by variants having no material effect on the say the invention works.

The body of the specification should be referred to for the purpose of resolving difficulties of construction occasioned by the claims when read by themselves.

Where there is a statement in the specification of the advantages of an invention, or of the difficulties which it overcomes, a claim whose construction is in doubt will be read, if possible, as limited to forms having these advantages or adapted to meet these difficulties. It is not permissible, however, to use the specification of an old patent to limit the scope of claims which are themselves insufficiently or unclearly defined, nor is it permissible to construe a claim by reference to an alleged infringement.

127. Having gone through the objection raised by the defendant which is duly replied by the plaintiff and after considering the same, this Court is of the opinion that all claims of 8 subject matter of suit patents cannot be examined minutely or be interpreted in microscopically manner at the interim stage in a suit for infringement of patent. The issue of validity of patent cannot be finally determined at this stage in view of pending revocation petitions before the Tribunal. At present, only the prima facie view of the matter is to be examined as to whether grounds taken in the revocation petition are tenable or not. After having gone through the objections raised by the defendant and reply given by the plaintiff, prima facie the suit patents appear to be valid and Court does not find any plausible case of a credible defence raised by the defendant. The argument preferred by the defendant cannot be accepted at present as there are other many reasons which negate the arguments of the defendant about the validity of the suit patents. Such details are given in the subsequent paras of my judgment.

128. The defendant in the complaint filed by it before the Competition Commission of India (CCI) has alleged about abuse of dominance by plaintiff by pleading in the following manner :

> a) Plaintiff owns a large portfolio of Standard Essential Patents related to 2G, 3G technology etc. and as such enjoys a position of dominance qua the same;
>
> b) DoT requires all importers of the network equipments to abide by the various standards developed by the various Standard Setting Bodies including ETSI;
>
> c) Thus, any manufacturer/importer of telecommunication devices (mobile handsets/tablets) has to obtain licenses in respect of plaintiff's standard essential patents;

d) Defendant also is necessarily required to employ such patents in its telecommunication devices (handsets, tablets etc.);

129. In Para 3.2 of the Complaint as filed before the CCI (the Complaint), it was stated that it was completely unaware about the fact if 'the components/technology contained in the handsets (of defendant) violated the patent rights of third parties, such as Ericsson.

130. In Paragraphs 8.6 to 8.8, defendant has specifically pleaded that the Standard Essential Patents (SEPs) of plaintiff, which form a part of the 2G/3G technology, are necessarily to be applied/used by any Indian telecom/mobile phone operator, in light of the notifications by Department of Telecom and the UASL Agreement thereby leaving defendant and all such companies with 'no non-infringing alternatives' than to implement the SEPs owned by Ericsson in the domain of 2G/3G technology, including the suit patents.

Thus, it is submitted by the plaintiff that defendant has clearly admitted infringement qua plaintiff's Standard Essential Patent portfolio including the suit patents.

131. The relevant portions of the said complaint are being extracted herein below :

"……

7.12 In addition to Ericsson's patents being accepted as the industry standard by ETSI, it is also pertinent to note that in India, the Department of Telecommunications (DoT) has formally accepted the technology standards formulated by ETSI. This can be clearly seen from the "Unified Access Services License" Agreement (UASL) Agreement, enclosed as ANNXURE M that every telecom player in India is required to enter into with the DoT……

7.13 In the arena for GSM technology, ETSI standards are the only ones that are relevant, i.e. ETSI standards are not an alternate to other standards. The Wireless Planning and Coordination Wing (WPCW) of the Ministry of Communication and Information Technology letter dated October 3, 2008, which is enclosed as ANNEXURE N, mandates that network equipment for GSM and CDMA technologies for import should comply with international standards provided by bodies like 3GPP / 3GPP2/ ETSI/IETF/ANSI/ EIA/TIA/IS.

…… …… 8.4 In addition to Ericsson's patents having been declared as essential to ETSI, it is also pertinent to note that in India, the Department of Telecommunications (DoT) has formally accepted the technology standards formulated by ETSI. This can be clearly seen from the "Unified Access Services License" Agreement (UASL) Agreement that every

telecom player in India is required to enter into with the DoT. Therefore, in lndia, by virtue of DOT mandating ETSI standards for GSM and related technology, Ericsson is a dominant player in the relevant market as described above. .... 8.6 Thus, it is submitted that the only way for an Indian telecom player to comply with an ETSI/3GPP GSM standards in India is to obtain a license from each of the parties who assert their patents to be essential to the GSM technology standard and Ericsson is one such party which claims to own over 25-35% of SEPs pertaining to the GSM Standard.

As stated above, many of its SEPs are also registered under the Indian Patent Law. Therefore, in so far as the GSM technology standard is concerned, where Ericsson's patent is declared "Standard Essential", Ericsson remains unaffected by its ability to set the terms of its engagement with potential licensees. Every player in the Indian GSM market, including handset manufactures and mobile network operators who operate in GSM arena (2G, 3G and 4G) has to obtain license of Ericsson for the GSM Standard Essential Patents.

8.7 As a result of its huge portfolio of standard essential patents, for which there are NO NON-INFRINGING ALTERNATIVES, the company is in a position to operate independently of any competitive forces/ pressures in the relevant market. Based on the power of its ownership over a large pool of SEPs, Ericsson is in a position to set the terms and conditions for making its SEPs available to the customers without any constrain and thereby alter the market in its favour.

8.8 Even though Ericsson claims to own 25-35% SEPs of GSM and related technologies, the informant believes based on several studies, that Ericsson's claimed SEPs, which have a bearing on its royalty structure, may not be either valid or essential or both. However, notwithstanding the above, there cannot be any doubt that Ericsson indeed owns a large number of SEPs relevant to the standards, which is why the informant has entered into negotiations with Ericsson so as to obtain its licenses at fair terms despite not being guided either by these independent studies or Ericsson itself with respect to the specific patents which are applicable to and deemed essential for mobile devices imported by the informant. Had it not been so, neither the informant nor any other market participant would have considered it necessary to obtain the required licenses for SEPs owned by Ericsson so as to operate in the market. Thus, market participant view Ericsson as a dominant enterprise, by virtue of the fact that it owns essential SEPs and every prospective licensee has to obtain licenses from it, which enables it to operate independent of any competitive forces operating in the relevant market and thereby to affect the consumers and the market in its favour.

.....

....."

(emphasis added)

132. In its Counter Affidavit filed by defendant in the W.P(C) 1006/2014 (filed by plaintiff against the CCI's order dated 16th January ,2014) it has been specifically admitted by defendant that it requires a license in respect of plaintiff's eight standard essential patents. From the aforesaid averment of defendant inference can be drawn that the said eight patents mentioned in defendant's Counter Affidavit, are the patents which are the subject matter of the present suit as these are the same very patents against which revocation petitions have been filed by defendant before the IPAB.

The relevant extract of the said counter affidavit is being extracted herein below for convenience of this Court:

> "....
>
> (v) It was also categorically stated that the Petitioner was offering an entire bouquet of 33,000 (approx.) patgents when in fact the Respondent No. 2 only required the 8 Standard Essential Patents, registered with ETSI, thus indulging in bundling and tie in licensing." (emphasis supplied)

133. There was no disclosure made to the CCI by defendant about filing of revocation petitions before the IPAB. The entire complaint was made mainly on the plea about dominant position of the plaintiff as alleged by the defendant. Whereas, before this Court, it is being argued that none of the suit patents are either essential or valid. Thus, there is no force in the submission of the defendant that there was no admission and in fact it was merely a reiteration of the averment of the plaintiff.

134. Even in its revocation petitions filed before the IPAB for plaintiff's eight patents, the defendant has admitted that all the said eight patents "directly relates to the business of applicant".

135. Apart from the various admissions made by defendant, the plaintiff has also placed on record sufficient material in order to establish infringement, proof of essentiality of the suit patents in the form of claim chart mapping supported by an Expert Affidavit. The plaintiff has also placed on record proof of infringement in the form of test reports supported by affidavit of plaintiff's representative. On the other hand no technical/scientific material or expert affidavit has been filed on behalf of defendant to show even a prima facie case of invalidity of the Suit Patents or non-infringement of the suit patents.

136. The defendant initially did not approach the plaintiff to seek a license before commencing activities related to telecommunication devices (mobile handsets/tablets/dongles etc). It was the plaintiff who in view of its FRAND commitment approached the defendant about its portfolio of Standard Essential Patents and offered a FRAND license in December, 2008. The defendant despite of many meetings and negotiation for the purpose of execution of a FRAND license, the defendant was evidently avoiding the same and became unwilling licensee as per its overall conduct. Even during the hearing of interim application the defendant has not made any reasonable and fruitful offer to make the royalty except the suggestion is made to pay royalty on the cost of chip. But in the same breath, it was argued by the counsel on behalf of the defendant that the suit patents are not valid patents and have no standard essential patents. No satisfactory answer was given by the defendant to the effect that if the defendant was not infringing the patents of the plaintiff which are other patents and is essential patents then why the defendant was corresponding, meeting and negotiating with the plaintiff for the last five years.

137. No doubt, the defendant has initiated proceedings against the plaintiff under the provisions of the Competition Act, 2002, but it is evident that it was done solely with the view to prolong litigation by avoiding paying the royalty. The defendant imports telecommunication devices (handsets, dongles etc.) into India & does not in any manner contribute towards development and growth of the indigenous telecommunication industry. There was no due diligence conducted by defendant qua any of the devices being imported by it in India in order to ascertain whether the same are infringing patent rights of any party or not.

138. The defendant has even denied having knowledge qua plaintiff's patent portfolio in India that are essential in nature vis-à-vis 2G, 3G technologies etc. The defendant took more than 4 years in executing a Non-Disclosure Agreement which is a sine qua non in every licensing deal, particularly in patent licensing negotiations which entails exchange of various confidential business and technical information between the parties.

139. The conduct of the defendant would show that if despite of unwillingness to obtain a FRAND license, meeting held between representatives of both the parties on 23rd May, 2013 that the revised rates offered by plaintiff may be acceptable to defendant. But the defendant later on took a resile from the same and initiated proceedings before the IPAB and CCI against plaintiff during the months of August and September 2013, i.e., while the licensing negotiation were still going on between the parties. While giving the impression to the plaintiff that it is still bonafidely interested in taking a license from plaintiff. The defendant never informed plaintiff that it is initiating or has initiated any proceedings before the IPAB and the CCI.

140. On one hand defendant gave the impression to plaintiff that it wanted to obtain a license for plaintiff's essential patents which were being used by it in various

telecommunication devices (mobile handsets/tablets/dongles etc.) being imported and sold by defendant in India, and on the other hand it filed Complaint/Information before the CCI and Revocation Petition before the IPAB (taking two different self-serving stands). The said conduct of the defendant would show that there was no bonafide intention on part of defendant.

141. Before the CCI, defendant's complaint is based on the premise that plaintiff is the owner of an essential patents to be used by any entity (including defendant) involved in manufacture/import/sale/ marketing etc. of telecommunication devices. As a result, plaintiff enjoys a dominant position and is abusing the same by asking for excessive royalty rates. Before this Court in the present suit, it is alleged by defendant that the suit patents are invalid and are not essential in nature and plaintiff is not entitled to the relief. The aforesaid stand has been taken despite the fact that before the CCI it has admitted the essentiality of plaintiff's SEPs and on the same basis, the defendant has obtained an order of investigation against plaintiff by raising the main ground of dominant position of the plaintiff.

142. Therefore, it appears that the defendant is infringing the suit patents. Even otherwise, filing of complaint before CCI on the grounds of dominance position of the plaintiff amounting to admission that the plaintiff's suit patents are essential and valid, otherwise, there was no occasion to file the complaint. In fact in order to avoid execution of FRAND agreement and at the same time infringing the patents, the defendant had trapped himself in such a position by taking the contrary stand in different fora.

143. It is a well settled principle of law that an admission made by a party in a pleading, even in a different proceeding, can be used as evidence against such party in another proceeding. The aforesaid principle has been echoed in various landmark judgments of the Supreme Court of India. Reliance is placed on Basant Singh vs. Janki Singh AIR 1967 SC 341 wherein it has observed:

> "5.The High Court also observed that an admission in a pleading can be used only for the purpose of the suit in which the pleading was filed. The observations of Beaumont, C.J. in Ramabai Shriniwas v. Bombay Government (AIR 1941 Bom 144) lend some countenance to this view. But those observations were commented upon and explained by the Bombay High Court in D.S. Mohite v. S.I. Mohite A.I.R. 1960 Bom. 153. An admission by a party in a plaint signed and verified by him in a prior suit is an admission within the meaning of s. 17 of the Indian Evidence Act, 1872, and may be proved against him in other litigations. The High Court also relied on the English law of evidence. In Phipson on Evidence, 10th Edn., Art. 741, the English law is thus summarised:

> "Pleadings, although admissible in other actions, to show the institution of the suit and the nature of the case put forward, are regarded merely as the suggestion of counsel, and are not receivable against a party as admissions, unless sworn, signed, or otherwise adopted by the party himself."
>
> 6. Thus, even under the English law, a statement in a pleading sworn, signed or otherwise adopted by a party is admissible against him in other actions. In Marianski v. Cairns 1 Macq. 212 ., the House of Lords decided that an admission in a pleading signed by a party was evidence against him in another suit not only with regard to a different subject-matter but also against a different opponent. Moreover, we are not concerned with the technicalities of the English law. Section 17 of the Indian Evidence Act, 1872 makes no distinction between an admission made by a party in a pleading and other admissions. Under the Indiasn law, an admission made by a party in a plaint signed and verified by him may be used as evidence against him in other suits. In other suits, this admission cannot be regarded as conclusive, and it is open to the party to show that it is not true." (emphasis added)

144. It is equally well-settled that the party cannot be allowed to approbate or reprobate at the same time so as to take one position, when the matter is going to his advantage and another when it is operating to his detriment and more so, when there is a same matter either at the same level or at the appellate stage.

145. In the case of Dwijendra Narain Roy vs. Joges Chandra De, AIR 1924 Cal 600, The Division Bench of the Calcutta High Court has succinctly held :

> "It is an elementary rule that a party litigant cannot be permitted to assume inconsistent positions in Court, to play fast and loose, to blow hot and cold, to approbate and reprobate to the detriment of his opponent. This wholesome doctrine, the learned Judge held, applies not only to successive stages of the same suit, but also to another suit than the one in which the position was taken up, provided the second suit grows out of the judgment in the first."
>
> (Emphasis Supplied) Applying the said principles of law to the present case, it is apparent that if the defendant is allowed to re-agitate, it would also lead to allowing the party to approbate and reprobate at the same time which is clearly impermissible. The plea is thus barred by way of principle of approbate or reprobate which is a facet of estoppels as the defendant had accepted the findings of the Division Bench and Single Judge. There are no subsequent events which have changed warranting re-adjudication of the matter.

146. In view of explanation given by plaintiff coupled with the conduct of the defendant for the last five years, an inference can easily be drawn in favour of the plaintiff that the suit patents are prima facie valid and there is no credible defence raised by the defendant who is guilty of infringement of

patents. The suit patents are "Standard Essential Patents" even as per the admissions of the defendant who had been corresponding with the plaintiff for many years. From the previous conduct of the defendant at the relevant time, the defendant was aware about the rights of the plaintiff.

147. From the entire gamut of the matter, it appears to the Court that the suit patents are valid, they are corresponding patents in other countries. The defendant has infringed the same. Unless the suit patents are declared as invalid in revocation petitions filed by the defendant, the same cannot be allowed to be infringed by the defendant who is also unwilling to execute a FRAND licence.

148. For the aforesaid reasons, the Court is of the considered opinion that the defendant has prima facie acted in bad faith during the negotiations with plaintiff, it has even approached various fora and has made contrary statements in order to get monetary benefit. Illustratively:

> a) In the Counter affidavit filed by defendant in the aforesaid Writ Petition, it has been stated that the reason it was not disclosed to CCI was that the disputes in personem are of no concern to CCI which has larger responsibility to decide anti-competitive practices in rem.
>
> b) In the Written Statement filed by defendant in the present suit, it has been stated that "the institution of the revocation proceedings before the IPAB was not brought to the attention of CCI since an express clarification was sought from the Defendant from by the CCI as alleged by the plaintiff with regard to the validity of the Plaintiff's patents.
>
> c) In the Counter Affidavit filed by defendant in the W.P(C) 1006/2014 (filed by plaintiff against the CCI's order dated 16th January, 2014) it has been admitted by defendant that it requires a license in respect of plaintiff's eight standard essential patents.

149. Let me examine the matter from different angle. Had there been FRAND agreement executed between the parties after the negotiations, the question is whether the defendant still would have challenged the suit patents on the same grounds by filing of revocation petitions. The answer is obviously 'No'. The defendant did not want to give answer to this question though the defendant is aware that the answer is 'No'. But the defendant despite of failure of negotiations still using the same very patents by infringing the same. The defence raised by the defendant has thus become week defence and all pleas and judgements referred by the defendant do not help its case.

150. The Court obviously agree with the finding arrived in the case of F. Hoffmann-La Roche (supra) wherein the Division Bench of this Court has observed that the court has to see the tenability and the credible nature of defence while deciding the grant or non-grant of injunction. If there are serious questions as to validity to be tried in the suit, then the interim injunction in the case may not be granted. But the facts in the present case are different.

In the present case, however, it is necessary to refer Kerr on Law and Practice of Injunction, 6th Edition on page 320, wherein some principles which may act as guiding factors for the grant of injunction in patent cases have been discussed. The said factors are stated as follows:-

> "If one clear instance of infringement or a wrong prima facie case of infringement is made out and the plaintiff has not been guilty of laches, the court will generally grant an interlocutory injunction in following cases: (1) when the validity of the patent has already been established in a previous action, (2) when the patent is of old standing and the enjoyment under it has been uninterrupted (3) when the validity of the patent is not in issue and notwithstanding that the defendant offers to keep an account."

151. The Division Bench of this Court in the case of Telemecanique & Controls (I) Limited vs. Schneider Electric Industries SA, 2002 (24) PTC 632 (Del) (DB) has held as under :

> "30. It has to be appreciated that undoubtedly patent creates a statutory monopoly protecting the patentee against any unlicensed user of the patented device. Thus once a violation is established in case of a registered patent, subject of course, to the patent being used, it will not be permissible to contend that the said patentee is not entitled to an injunction. A monopoly of the patent is the reward of the inventor. It is also to be appreciated that law of the patent is slightly different from the law of copyright and trademark as the patent is granted only for a period of 14 years."

152. And in case, the case of infringement is made and there is no valid defence, normally in an action for infringement of patent, an injunction is not to be refused. In the case of Strix Limited vs. Maharaja Appliances Ltd., MIPR 2010 (1) 181, it was held in para 22 and 26 :

> "22. It was contended by learned counsel for the Defendant that at an interlocutory stage, the Defendant should be held to have discharged its burden of raising a credible challenge to the validity of the Plaintiffs patent by merely pointing out the existence of the European Patent. This court is unable to agree. In order to raise a credible challenge to the validity of a patent, even at an interlocutory stage, the Defendant will have to place on record some acceptable scientific material, supported or explained by the evidence of an expert, that the Plaintiff's patent is prima facie vulnerable to revocation. The burden on the Defendant here is greater on account of the fact that there was no opposition, pre-grant or post- grant, to the Plaintiff's patent. In Beecham Group Ltd. v. Bristol Laboratories Pty Ltd. (1967-68) 118 CLR 618 and Australian Broadcasting Corporation v. O'Neill (2006) 229 ALR 457 it was held that the defendant alleging invalidity bears the onus of establishing that there is "a serious question" to be tried. In Hexal Australia Pty Ltd. v. Roche Therapeutics Inc. 66 IPR 325 it was held that where the validity of a patent is raised in interlocutory proceedings, "the onus lies on the party asserting invalidity to show that want of validity is a triable question."

> 26. As regards the applicability of Section 107A of the Act, the Defendant has merely averred that it has written to Chinese supplier to give information on the patent held by it and is awaiting a reply. The Plaintiff cannot be made to wait indefinitely for an injunction just because the Defendant is awaiting information from the Chinese supplier. As long as the Defendant is not able to produce any information about the patent held by the Chinese supplier, the court will proceed on the footing that there is no such valid patent held by the Chinese supplier. In any event, it cannot delay the protection that the Plaintiff is entitled to seek on the basis of the patent registered validly granted to it."

153. In view of the exclusive and statutory rights granted under Section 48 of the Act. The effect of registered patent is defined in the statute and the same is not capable of being misunderstood. The statutory and monopoly rights cannot be reduced to a nullity till the term of validity of the suit patents. The plaintiff is entitled for an injunction against any party without its consent, permission from the act of making, using, offering for sale, selling or importing for those purposes an infringing product.

154. The plaintiff in order to establish infringement, has filed an affidavit of an expert, Mr. Vijay Ghate. As a result, the plaintiff has discharged its onus. As far as the defendant is concerned, it has not produced any technical or plausible reasons as to why its devices (handsets, tablets, dongles etc.) do not infringe plaintiff's patents. It is not the case of defendant that any other technology apart from plaintiff is being employed and used in its mobile handsets/devices. The affidavit of Mr. Vijay Ghate has been challenged on the ground that it lacks credibility without giving any reasons whatsoever. The allegation made by defendant is without any valid substance and without any basis. In the absence of even an iota of proof to the contrary, plaintiff's case of infringement is made out. The defendant has failed to provide any technical analysis or expert affidavit in support of its aforesaid contentions.

155. Learned counsel appearing on behalf of defendant during the course of hearing has agreed on behalf of his client that the defendant may be agreeable to pay the royalty on the basis of chipset price, however, the plaintiff's counsel refuted the suggestion of the defendant's counsel. Rather the learned Senior counsel appearing on behalf of the plaintiff has informed the Court that the defendant is paying royalty on the rates on the different devices, which are not of the plaintiff, to the third parties.

156. The plaintiff has already placed on record the CSIRO vs. CISCO judgment (United States District Court for the Eastern District of Texas Tyler Division) wherein the arguments were rejected that royalty should be based on chipset price. On 11th March, 2015, counsel has also informed the Court that recently, in China, the Chinese Competition Authority (National Development and Reform Commission) has directed that in respect of Qualcomm's Standard Essential Patents for 3G, 4G technologies, the following rates shall be payable :

1. 3G Patents - 5% of the net selling price of devices;

2. 4G Patents - 3.5% of the net selling price of devices. In both cases, royalty base will be 65% of the net selling price of the devices, instead of 100% of the net selling price

157. Learned counsel for the plaintiff says that effectively if calculated on 100% net selling price of device, the following rates shall be payable qua qualcomm SEPs in China.

1. 3G Patents - 3.25% of the net selling price of devices;

2. 4G Patents - 2.275% of the net selling price of devices.

158. In view of the above, the argument that defendant to pay the royalty on the chipset value cannot be accepted in view of plaintiff's practice of charging Royalty on the device price is Non-Discriminatory (FRAND).

159. The balance of convenience lies in favour of the plaintiff and against the defendant. As regard irreparable loss and injury is concerned, in case the FRAND agreement is not signed by the defendant or royalty is not paid, it would have impact of other 100 licensors who are well known companies in the world who are paying the royalty. The plaintiff would suffer irreparable loss and injury in case the arguments of the defendant are accepted.

160. It is also pertinent to mention that in similar subject matter of patents having the same issues, coordinate bench of this Court on 12th November, 2014 has passed the following order in CS(OS) No.442/2013. The relevant extract of the said order is reproduced here under :

"I.A. 3825/2013 (STAY) & I.A. 4694/2013 (O 39 R 4 = By D-2)

1. Subsequent to the last order dated, 14.10.2014, the parties have appeared and made submissions. Ericsson, as per the directions of the court and upon being asked by the court has produced 26 license agreements. Micromax has asked for agreements/offers by Ericsson with other Indian parties. After hearing submissions and perusing the rates which were contained therein, the court directs as follows:

2. The Defendants shall pending trial of the suit, pay the following rates of royalty directly to the Plaintiff for sales made in India from the date of filing of suit till 12.11.2015 :

i. For phones/ devices capable of GSM - 0.8% of net selling price;

ii. For phones/ devices capable of GPRS + GSM -

0.8% of net selling price;

iii. For phones/devices capable of EDGE + GPRS + GSM - 1% of net selling price;

iv. WCDMA/ HSPA phones/devices, calling tablets -

1% of the net selling price.

3. The Defendants shall pending trial in the suit, pay the following rates of royalty directly to the Plaintiff for sales made in India from 13.11.2015 to 12.11.2016 :

i. For phones/ devices capable of GSM - 0.8% of net selling price;

ii. For phones/ devices capable of GPRS + GSM -

0.8% of net selling price;

iii. For phones/devices capable of EDGE + GPRS + GSM - 1.1% of net selling price;

iv. WCDMA/ HSPA phones/devices, calling tablets -

1.1% of the net selling price.

4. The Defendants shall pending final trial in the suit, pay the following rates of royalty directly to the Plaintiff for sales made in India for the period from 13.11.2016 to 12.11.2020 :

i. For phones/ devices capable of GSM - 0.8% of net selling price;

ii. For phones/ devices capable of GPRS + GSM - 1% of net selling price;

iii. For phones/devices capable of EDGE + GPRS + GSM - 1.3% of net selling price;

iv. WCDMA/ HSPA phones/devices, calling tablets -

1.3% of the net selling price.

(The Net Selling Price means with respect to each company product sold by the company or any of its affiliates the Selling Price charged by the company or its affiliate for such company product unless such sale has not been made on arms length basis in which case the net selling price will be the selling price which the seller would realize from an unrelated buyer in an arms length sale of an equivalent product in an equivalent quantity and at the equivalent time and place as such sale.

Selling Price shall mean the selling price charged by the company for the company product in the form in which it is sold whether or not assembled and without excluding therefrom any components or sub-assemblies thereof (gross price) less 3% representing a deduction which shall cover usual trade discounts actually allowed to

unrelated buyers on a regular basis, actual packing costs actual costs of insurance and transportation etc.,)

5. Micromax has submitted that it has negligible operations outside India and agrees to negotiate the FRAND global rates if and when it expands internationally.

6. Both the parties agree that for the period prior to the filing of the suit, the payments, if any, by the defendant shall be as per the judgment of the court post-trial of the suit.

7. Insofar as the deposits already made by Micromax in the court, the rates specified above shall be applied from the date of filing of the suit till the present date, for all sales made by Micromax in India. Upon applying the said rates, the computation of the amounts shall be submitted jointly by the parties. Upon receipt thereof, payments shall be made to Ericsson directly by way of demand draft drawn by the Registrar, Delhi high Court, subject to Ericsson furnishing a surety bond for the exact amount in favour of Micromax, to the satisfaction of the Registrar. The banking details shall be submitted to the Registrar by counsel for Ericsson. The remaining amount shall be released to Micromax.

8. The Defendants shall continue to make payments to Ericsson as per the rates specified above on a quarterly basis for sales made after the date of this order. The defendant shall continue to give intimation to the plaintiff of the arrival of the consignments at customs and seek NOC of the Plaintiff. Post inspection, the Plaintiff will forthwith inform the Customs that it has no objection to the release of the consignment so that the consignment could immediately be handed over to the Defendants. In respect of royalty payments made by Micromax after the passing of this order, Ericsson undertakes to furnish surety bonds in favor of Micromax for the amounts received on quarterly basis with advance copies to Micromax.

9. It is made clear that the above order is purely an interim arrangement and is not a determination of the FRAND rates for the Ericsson portfolio. The defendant shall not rely upon the above rates before the competition authorities or any other forums as it is not final in nature.

10. The trial of the suit is expedited. It is directed that the trial in any event will be completed not later than 31st December, 2015. Final arguments will commence immediately thereafter. The parties have no objection to the aforesaid arrangement and shall remain bound the same."

161. The facts in the present case are similar so as the defence, rather the case of the plaintiff is on better footing in view of admissions made by the defendant before various authorities. Thus, I am also not inclined to take the different view but to take the same view which is already taken in Suit No.442/2013 and the stay order passed in the two applications i.e. I.A. No.3825/2013 (for stay) and

I.A. No.4694/2013 (for vacation of stay order). The aforesaid same royalty amount is fixed in the present matter also, but the same be paid in the following manner by disposing of the present interim application :

> i) That 50% amount of royalty in the same manner as per details mentioned in Suit No.442/2013 from the date of filing of suit till 1st March, 2015 shall be paid to the plaintiff directly by way of bank draft within four weeks from today. For the remaining 50% amount, the defendant shall furnish the bank guarantee within the same period with the Registrar General of this Court who would invest the said amount in FDR initially for a period of twelve months.
>
> ii) For future period, every six months the same terms would apply till the disposal of the suit in the same manner. The proceedings of the suit are expedited.
>
> iii) As regard the previous period i.e. prior to suit is concerned, the defendant shall furnish true accounts from the date of user till the date of suit within four weeks by filing of an undertaking that in case of decretal of suit, the defendant shall pay the amount for the said period as fixed by the Court while issuing direction at the final stage of the suit when the objection of defendant on limitation also would be considered as per law.
>
> iv) Liberty is also granted to both the parties to seek further direction or modification order in case of change of circumstances and subsequent events.

162. The defendant is granted two weeks' time to file an affidavit of compliance of directions issued at i) to iii) stating that they are agreeable to comply the said order within four weeks, otherwise, in failure to file the said affidavit about compliance, after the expiry of said two weeks it would be presumed that they are not interested to use the technology of suit patents and to pay the royalty amount fixed by the Court. Under these circumstances, the interim orders shall operate against the defendant in the following terms:-

i) the defendant, its officers, directors, agents, distributors and customers to be restrained during the pendency of the suit from manufacturing/assembling, importing, selling, offering for sale, advertising including through their and third party websites, products (telephone instruments, mobile handsets, tablets, hand-held devices, dongles etc.), including the models mentioned in paragraph 12 of this application and any future or other devices or models, that include the AMR, 3G and EDGE technology/devices/apparatus as patented by the plaintiff in suit patents IN 203034, IN 203036, IN 234157, IN 203686, 213723 (THE AMR PATENTS), IN 229632, IN 240471 (THE 3G PATENTS) and IN 241747 (THE EDGE PATENT).

ii) Issue the directions to the Central Board of Excise and Customs to issue appropriate instructions directing the customs authorities at every port including airports in India not to allow the import of mobiles, handsets, devices, tablets, etc. including the models specified in paragraph 12 of this application, by the defendant or its agents/affiliates that are infringing the plaintiff's registered

patents.

iii) A direction is also issued directing the Commissioner of Customs, New Custom House, Near IGI Airport, New Delhi not to allow the import of mobiles, handsets, devices, tablets etc. including the models specified in paragraph 12 of this application, by the defendant or its agents/affiliates that are infringing in nature of the plaintiff's registered patents.

iv) The defendant to file an affidavit of a director or other person, on behalf of the defendant duly authorized by a specific resolution of its Board of Directors, disclosing the following information :

a) Quantum of devices (handsets, tablets etc.) sold by it in India till date that are AMR, EDGE and 3G compliant thereby rendering them infringing in nature;

b) Revenue earned from the sale of mobile devices (handsets, tablets etc.) till date.

163. The application is disposed of with these directions/orders.

CS(OS) No.1045/ 2014

164. List the matter before the Joint Registrar on 13th April, 2015 for admission/denial of documents.

165. It is clarified that the finding arrived by this Court are tentative in nature and shall have no bearing when the main suit would be decided finally after the trial.

(MANMOHAN SINGH) JUDGE MARCH 13, 2015