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Title: 3GPP IPR Progress Report
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Agenda Item:

The following reports include references of IPRs, which have been notified to ETSI as being essential to 3GPP (Annex 1) and to UMTS (file 2000-133a.xls) as of 23 June 2000.

All references pertaining to essential IPRs declared to ETSI are publicly available on the ETSI web site <http://www.etsi.org/ipr/>.

Unless otherwise indicated, the owners of the IPRs listed hereafter have undertaken to grant licenses for these IPRs on fair, reasonable and non discriminatory terms as provided by Article 6.1 of the ETSI IPR Policy, Annex 6 of the ETSI Rules of Procedure.

Note:

The number of references declared by a company is not a sufficient indicator of the diversity of patents owned by the mentioned companies. A patent may have been registered in various countries resulting in one entry in the database for each country while the entries all refer to the same technology.

Annex 1

3GPP IPR Progress Report

Company	Country	Patent No.	Application No.	Title	Standard	Countries Applicable	Note
Mitsubishi Electric Corporation	JP		PCT/JP96/02154	Data Conversion Apparatus and Data Conversion Method		AU, CA, CN, JP, KR NO, SG, US, EP (BE CH, DE, DK, ES, FI, FR, GB, IT, NL, SE)	<p>This declaration (the DECLARATION) is given this 8th day of October 1999, by Suketaka Tachibana, General Manager, Corporate Licensing Department (the SIGNATORY), of Mitsubishi Electric Corporation to the EUROPEAN TELECOMMUNICATIONS STANDARDS of Sophia Antipolis France (ETSI).</p> <p>The SIGNATORY has notified ETSI that it is the proprietor of the IPRs listed in Appendix A and has informed ETSI that it believes that the IPRs may be considered ESSENTIAL to the Standards listed in Appendix A (the STANDARD).</p> <p>The SIGNATORY and/or AFFILIATES hereby declare that they are prepared to grant irrevocable licenses under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.</p> <p>The construction, validity and performance of this DECLARATION shall be governed by the laws of France.</p>
Wi-LAN Inc.	Canada	5,555,268	186,784	Multicode Direct Sequence Spread Spectrum	n/a	USA	<p>The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.</p>

Company	Country	Patent No.	Application No.	Title	Standard	Countries applicable	Notes
AirTouch Communications	US	5,479,397		CDMA Transmission Delay Method and Apparatus		US	
AirTouch Communications	US	4,932,049		Cellular Telephone System		US	
AirTouch Communications	US	5,678,186		Digital Microcells for Cellular Networks		US	
AirTouch Communications	US	5,220,680		Frequency Signal Generator Apparatus and Method for Simulating Interference in Mobile Communications Systems		US	
AirTouch Communications	US	5,349,631		In-Building Telephone Communication System		US	
AirTouch Communications	US	5,555,551		Method and Apparatus for Fraud Control in Cellular Telephone Systems		US	
AirTouch Communications	US	5,420,910		Method and Apparatus for Fraud Control in Cellular Telephone Systems Utilizing RF Signature Comparison		US	
AirTouch Communications	US	5,506,147		Microcell System for Cellular Telephone Systems		US	
AirTouch Communications	US	5,243,598		Microcell System in Digital Cellular		US	
AirTouch Communications	US	5,504,936		Microcells for Digital Cellular Telephone Systems		US	
AirTouch Communications	US	5,285,494		Network Management System		US	
AirTouch Communications	US	5,216,703		Piggy-Back Number and Routing Isolation for Cellular Telephone Switches		US	
AirTouch Communications	US	5,081,703		Satellite Mobile Communication System for Rural Service Areas		US	
AirTouch Communications	US	5,507,020		Spectral Sharing Communication System with Minimal Inter-Signal Interference		US	
AirTouch Communications	US	5,193,109		Zoned Microcell with Sector Scanning for Cellular Telephone System		US	
Alcatel Alsthom	n/a			TD-CDMA			Alcatel, Robert Bosch GmbH, Italtel Spa, Motorola Inc, Northern Telecom Ltd and Siemens AG have collectively stated that they are prepared to grant under their respective essential IPRs licenses/crosslicenses (subject to reciprocity) on fair, reasonable and non-discriminatory basis (in accordance with ETSI's IPR Policy, Clause 6.1)

Alcatel Alsthom	n/a			W-CDMA, TD-CDMA			Alcatel Alsthom, Companie Générale d'Electricité has declared that their Affiliates and themselves are prepared to grant irrevocable licenses under the IPRs they own on terms and conditions which are in accordance with clause 6,1 of the ETSI IPR Policy, to the extent that the IPRs are essential for any ETSI standard relating to the TD-CDMA proposal and the W-CDMA proposal.
Canon	n/a			UTRA			Canon (Canon Research France - CRF) has declared that, in the event the proposed standard is adopted, it is ready to grant licenses under the Essential IPR(s) of the "standard", owned by CRF, on fair, reasonable and non-discriminatory terms and conditions, and provided that a similar grant under licensee's Essential IPR(s) is made available upon request of CRF.
CCETT	n/a						CCETT (Centre Commun d'Etudes de Télédiffusion et Télécommunications) has declared that it is prepared to grant irrevocable licenses under IPRs it controls and which may be considered Essential (the IPRs) to the Standards UMTS (the Standards), granted or pending, relatively to the different technologies of the Standards as UTRA, access network, core network, SIM, etc., on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the Standard, to the extent that IPRs remain Essential.
Ericsson	SE	US-5351016	068,087	Adaptively Self-Correcting Modulation System and Method		GB, AU, IT, MX, NZ, US	
Ericsson	SE	US-5633874	332,114	Automatic Retransmission Request		US	
Ericsson	SE	US-5729531	544,490	Bandwidth Allocation		US	
Ericsson	SE	US-5499386	090,734	Best Server Selection in Layered Cellular Radio System		CO, US, TW, PH, ZA	
Ericsson	SE	US-5377183	226,470	Calling Channel in CDMA Communications System		AU, MX, NZ, TW, US	
Ericsson	SE	US-5295153	868,038	CDMA Frequency Allocation		AU, MX, NZ, TW, US	
Ericsson	SE	US-5341397	162,948	CDMA Frequency Allocation		US	
Ericsson	SE	US-5151919	628,359	CDMA Subtractive Demodulation		AU, BE, DE, DK, ES, FR, GB, AT, IT, LU, MX, MY, NL, RU, SE, TW, US, GR	
Ericsson	SE	US-5218619	739, 446	CDMA Subtractive Demodulation		AU, BE, CH, DE, DK, ES, FR, AT, GR, IT, LU, MX, MY, NL, SE, TW, US, GB	

Ericsson	SE	US-5088108	579,283	Cellular Digital Mobile Radio System and Method of Transmitting information in a Digital Cellular Mobile Radio System		US	
Ericsson	SE	US-5230003	652,544	Decoding System for Distinguishing Different Types of Convolutionally Encoded Signals		US, SG, GB	
Ericsson	SE	US-5544156	235,527	Direct Sequence CDMA Coherent Uplink Detector		US, NZ, SG	
Ericsson	SE	US-5239557	866, 555	Discontinuous CDMA Reception		MX, AU, NZ, US, TW	
Ericsson	SE	US-5321850	774,215	Diversity Radio Receiver Automatic Frequency Control		US, TW, MX, GB	
Ericsson	SE	US-5345598	866,554	Duplex Power Control System in a Communications Network		AU, NZ, TW, US	
Ericsson	SE	US-5669066	061,043	Dynamic Control of Transmitting Power at a Transmitter and Attenuation at a Receiver		AU, US, PK, TR, TW, MX, ZA	
Ericsson	SE	US-5357454	735,805	Fast Walsh Transform Processor		US, TW, SG, GB, FR	
Ericsson	SE	US-5109528	365,432	Handover Method for Mobile Radio System		US, SG, SE, NO, NL, IT, HK, GB, FR, ES, DE	
Ericsson	SE	US-5327577	071,356	Handover Method for Mobile Radio System		US	
Ericsson	SE	US-5241685	669,865	Load Sharing control for a Mobile cellular radio system		US,SE,IT,GB,FR,ES, DE	
Ericsson	SE	US-5517674	103,135	Low Capacity Mobile Assisted Handoff in a Cellular Communications Network		US	
Ericsson	SE	US-5742619	678,314	Method and Apparatus for Concatenated Coding of Mobile Radio Signals		US	
Ericsson	SE	US-5230082	604,522	Method and Apparatus for Enhancing Signalling Reliability in a Cellular Mobile Radio Telephone System		AU, US, MX, NZ, TW	
Ericsson	SE	US-5448762	159,956	Method and Apparatus for Mobile Radio Communications having Switched Dual Frequency Synthesizers		GB, US	
Ericsson	SE	US-5677930	504,339	Method and Apparatus for Spread Spectrum Channel Estimation		US	
Ericsson	SE	US-5491837	207,032	Method and System for Channel Allocation using Power Control and Mobile Assisted Handover Measurements		US, SG	

Ericsson	SE	US-5572552	187,062	Method and System for Demodulation of Downlink CDMA Signals		US	
Ericsson	SE	US-5241690	712,930	Method for Regulating Power in a Digital Mobile Telephony System		HK, AU, BE, BR, CH, CN, DE, DK, ES, FR, AT, GR, US, IT, KR, LU, MX, MY, NL, NZ, SE, SG, TW, GB	
Ericsson	SE	US-5392453	901,075	Method of Effecting Handover in a Mobile Multilayer cellular Radio System		US, TW, SE, NL, MY, IT, GB, FR, DE, AU	
Ericsson	SE	US-5182753	899,166	Method of Transmitting Signalling Messages in a Mobile Radio Communication System		US	
Ericsson	SE	US-5487174	035,797	Methods in a Cellular Mobile Radio Communications System		AU, MX, NZ, TW, US	
Ericsson	SE	US-5701585	354,779	Mobile Assisted Handoff		US	
Ericsson	SE	WO 93/21739	PCT/US93/03412	Mobile Assisted Handover Using CDMA		AU, NZ, TW	
Ericsson	SE	US-5353352	866,865	Multiple Access Coding for Radio Communications		AU, MX, NZ, TW, US	
Ericsson	SE	US-5550809	291,693	Multiple Access Coding Using Bent Sequences for Mobile Radio Communications		US	
Ericsson	SE	US-5404376	118,179	Navigation Assistance For Call Handling in Mobile Telephone Systems		AU, MX, NZ, US, TW	
Ericsson	SE	US-5670964	384,334	Navigation Assistance for Call Handling in Mobile Telephone Systems		US	
Ericsson	SE	US-5301356	804,604	Prioritization between Handoff and New call Requests in a Cellular Communications System		AU, DE, DK, ES, FR, AT, HK, IT, MX, NL, SE, TW, US, GB	
Ericsson	SE	US-5430760	222,008	Random Access in Mobile Radio Telephone Systems		AU, MX, NZ, US, TW	
Ericsson	SE	US-5506861	155,557	System and Method for Joint Demodulation of CDMA Signals		US, TW, GB, AU	
Ericsson	SE	US-5634195	411,426	System and Method for Setting of Output Power Parameters in a Cellular Mobile Telecommunications System		US	
Ericsson	SE	US-5295152	866,579	TDMA for Mobile Access in a CDMA System		AU, MX, NZ, TW, US	

Ericsson	SE	US-5539730	179,954	TDMA/FDMA/CDMA Hybrid Radio Access Methods		US, DE, IE, GB, FR, ZA, DK, ES, CH, BE, AT, GR, SE, IT, PT, NL, LU	
Ericsson	SE	WO 97/32441	PCT/US97/02857	Time-Reuse and Code-Reuse partitioning and Methods for Cellular Radiotelephone Systems		TW	
Ericsson	SE	US-5566209	195,224	Transceiver Algorithms of Antenna Arrays		US	
Ericsson	n/a			W-CDMA, TD-CDMA			Ericsson has declared that it has patent(s) and/or pending patent application(s) relating to the W-CDMA proposal and the TD-CDMA proposal Ericsson is fully prepared to grant licenses to these patents on fair, reasonable and non-discriminatory basis in accordance with the terms and conditions set forth in Clause 6.1 of the ETSI IPR Policy.
France Télécom	n/a					n/a	France Télécom has declared that it is prepared to grant irrevocable licenses under its IPRs that may be considered Essential (the IPRs) to the Standards UMTS (the Standards), granted or pending, relatively to the different technologies of the Standards as UTRA, access network, core network, SIM, etc., on terms and conditions which are in accordance with Clause 6.1 of the ETSI Interim Policy, in respect of the Standards, to the extent that the IPRs remain Essential. The above undertaking may be made subject to the condition that those seek licenses agree to reciprocate in licenses incorporating have made rights.
Fujitsu Limited	n/a			W-CDMA			Fujitsu Limited has declared that it has patent(s) and/or pending patent application(s) relating to WCDMA proposal. Fujitsu Limited is fully prepared to grant licenses to these patents on a fair, reasonable and non-discriminatory basis, in accordance with the terms and conditions set forth in Clause 6.1 of the ETSI IPR Policy.
Golden Bridge Technology (GBT)	n/a			UTRA RTT Proposal			GBT has notified ETSI that it is the proprietor of IPRs considered essential to the ETSI UTRA RTT Proposal to the ITU. GBT declared that, in respect to UTRA RTT, it is prepared to grant irrevocable licenses under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, to the extent that the IPRs remain essential.

Hitachi Ltd.	n/a	n/a	n/a	n/a	n/a	n/a	Hitachi, Ltd. Is ready to license its own Intellectual Property Right(s), which is deemed to be necessary to implement the standard IMT 2000 (or UMTS, W-CDMA) relating to the third generation public mobile telephone systems, on fair, reasonable, non-exclusive and non-discriminatory terms and conditions to a party, who accepts an equivalent undertaking with regard to this standard.
Italtel Spa	n/a			TD-CDMA			Alcatel, Robert Bosch GmbH, Italtel Spa, Motorola Inc, Northern Telecom Ltd and Siemens AG have collectively stated that they are prepared to grant under their respective essential IPRs licenses/crosslicenses (subject to reciprocity) on fair, reasonable and non-discriminatory basis (in accordance with ETSI's IPR Policy, Clause 6.1)
Lucent Technologies	n/a						Lucent Technologies Inc. has informed ETSI that it is likely to have IPRs essential to UMTS and that it is prepared to make a license relating to the ETSI UMTS Terrestrial Radio Access Interface standard available to any qualified applicant, upon reasonable, non-discriminatory terms and conditions. Representative: Mr. P. J. Crefeld (tel: +1 908 903 6262 / fax: +1 908 903 6319) for licensing matters.
Mitsubishi Electric	JP		JP10-080031			JP	Mitsubishi Electric has stated that, in accordance with the ETSI Interim IPR Policy, Article 4.1 with reference to the technical proposal identified as (1) Tdoc SMG2 UMTS-L1 13/98 (Enhanced Slotted DL transmission mode), Tdoc SMG2 UMTS-L1 14/98 (Short code reuse on slotted DL transmission mode), Tdoc SMG2 UMTS-L1 65/98 ("split" slotted transmission for UTRA FDD: Additional results), Tdoc SMG2 UMTS-L1 68/98 (Rationales for Reuse of short codes in downlink of UTRA FDD), Tdocs SMG2 UMTS-L1 249/98 (Downlink slotted transmission for UTRA FDD: Additional results (2)), Tdocs SMG2 UMTS-L1 66/98 (UTRA FDD downlink slotted transmission and GSM FCCH/SCH detection), is prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI Interim IPR policy, in respect of the Standard, to the extent that the IPRs remain essential.
Mitsubishi Electric	JP		JP9-164202	Method and Apparatus for Variable Rate Transmitter	t doc SMG2 UMTS A2/9, A3/97, A26/97, A69/97, A45/97, A46/97	JP	Mitsubishi Electric declared that they are prepared to grant licenses/cross licenses (subject to reciprocity) under the essential IPRs on fair, reasonable and non-discriminatory basis in accordance with Clause 6.1 of the ETSI IPR Policy.

Mitsubishi Electric	PCT		PCT/JP97/03225	Method and Apparatus for Variable Rate Transmitter	tdoc SMG2 UMTS A2/9, A3/97, A26/97, A69/97, A45/97, A46/97	PCT	Mitsubishi Electric declared that they are prepared to grant licenses/cross licenses (subject to reciprocity) under the essential IPRs on fair, reasonable and non-discriminatory basis in accordance with Clause 6.1 of the ETSI IPR Policy.
Mitsubishi Electric	JP		JP10-114003	Mobile radio communication system, communication apparatus for mobile communication system, and method for mobile radio communication system		JP	Mitsubishi Electric has stated that, in accordance with the ETSI Interim IPR Policy, Article 4.1 with reference to the technical proposal identified as (1) Tdoc SMG2 UMTS-L1 13/98 (Enhanced Slotted DL transmisssion mode), Tdoc SMG2 UMTS-L1 14/98 (Short code reuse on slotted DL transmisssion mode), Tdoc SMG2 UMTS-L1 65/98 ("split" slotted transmission for UTRA FDD: Additional results), Tdoc SMG2 UMTS-L1 68/98 (Rationales for Reuse of short codes in downlink of UTRA FDD), Tdocs SMG2 UMTS-L1 249/98 (Downlink slotted transmission for UTRA FDD: Additional results (2)), Tdocs SMG2 UMTS-L1 66/98 (UTRA FDD downlink slotted transmission and GSM FCCH/SCH detection), is prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI Interim IPR policy, in respect of the Standard, to the extent that the IPRs remain essential.
MOTOROLA	USA	5,359,696	n/a	Digital speech coder having improved sub-sample resolution long-term predictor	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.
MOTOROLA	USA	4,872,204	n/a	Dual Mode Radio Receiver with Scanning Capability	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.
MOTOROLA	USA	4,696,027	n/a	Handoff apparatus and method with interference reduction for a radio system	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.
MOTOROLA	USA	5,964,356	n/a	Method and apparatus for data transmission within a broadband communications system	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.

MOTOROLA	USA	5,204,876	n/a	Method and apparatus for providing high data rate traffic channels in a spread spectrum communication system	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.
MOTOROLA	USA	5,659,622	n/a	Method and apparatus for suppressing noise in a communication system	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.
MOTOROLA	USA	5,627,830	n/a	Method and apparatus for transmitting information for multiple independent users in a communication system	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.
MOTOROLA	USA	4,887,265	n/a	Packet-switched cellular phone system	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.
MOTOROLA	USA	5,029,233	n/a	Radio arrangement having two radios sharing circuitry	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.
MOTOROLA	USA	6,006,104	n/a	Radio arrangement having two radios sharing circuitry	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.
Motorola	n/a			TD-CDMA			Alcatel, Robert Bosch GmbH, Italtel Spa, Motorola Inc, Northern Telecom Ltd and Siemens AG have collectively stated that they are prepared to grant under their respective essential IPRs licenses/crosslicenses (subject to reciprocity) on fair, reasonable and non-discriminatory basis (in accordance with ETSI's IPR Policy, Clause 6.1)
MOTOROLA	USA	4,833,701	n/a	Trunked communication system with nation-wide roaming capability	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.

MOTOROLA	USA	4,644,351	n/a	Two way personal message system with extended coverage	n/a	USA	The SIGNATORY and/or its AFFILIATES hereby declare that they are prepared to grant irrevocable licences under the IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, in respect of the STANDARD, to the extent that the IPRs remain ESSENTIAL.
Motorola	n/a			W-CDMA			Motorola have stated that they have not yet finally determined whether or not their IPRs are in fact essential to the W-CDMA proposal and does not know what will be the final contents of the proposal in the event of adoption. Motorola will, however, agree to grant licenses under its IPR essential to a W-CDMA standard, if and when adopted by ETSI, on fair, reasonable, and non-discriminatory terms in accordance with Clause 6.1 of the ETSI IPR Policy, provided that those who seek licenses agree to reciprocate.
NEC Corporation	n/a			W-CDMA			NEC Corporation has declared that it owns IPRs related to the W-CDMA technology. In the event the W-CDMA technology is elected by ETSI as a standard for UMTS radio access methods, NEC is prepared to grant licenses/cross licenses (subject to reciprocity) to the patents it has, on a fair, reasonable and non-discriminatory basis, in accordance with the terms and conditions set forth in Clause 6.1 of the ETSI IPR Policy, to that extent that the IPRs remain essential to the Standard.
Nokia	n/a			W-CDMA			Nokia is prepared to grant under its respective essential IPRs licenses/crosslicenses (subject to reciprocity) on a fair, reasonable and non discriminatory basis (in accordance with ETSI's IPR Policy Clause 6.1)
NORTEL Northern Telecom Ltd.	n/a			TD-CDMA			Alcatel, Robert Bosch GmbH, Italtel Spa, Motorola Inc, Northern Telecom Ltd and Siemens AG have collectively stated that they are prepared to grant under their respective essential IPRs licenses/crosslicenses (subject to reciprocity) on fair, reasonable and non-discriminatory basis (in accordance with ETSI's IPR Policy, Clause 6.1)
NORTEL Northern Telecom Ltd.	n/a			W-CDMA			Nortel has declared that it is the owner of IPRs which might be considered essential to the W-CDMA systems standards. Nortel is prepared to grant irrevocable licenses under the IPRs, on terms and conditions which are in accordance with clause 6.1 of the ETSI IPR Policy.
NTT	n/a			W-CDMA			NTT DoCoMo is prepared to grant licenses to its essential IPRs on fair, reasonable, and non-discriminatory basis in accordance with the terms and conditions set forth in Clause 6.1 of the ETSI IPR Policy.
OKI Electric Industry Co., Ltd.	Pending	Pending	08-183593	CDMA receiver with weighted interference cancellation (UTRA)		JP	

OKI Electric Industry Co., Ltd.	Pending	Pending	97-31736	CDMA receiver with weighted interference cancellation (UTRA)		Korea	
OKI Electric Industry Co., Ltd.	Pending	Pending	883.959	CDMA receiver with weighted interference cancellation (UTRA)		US	
OKI Electric Industry Co., Ltd.	Pending	Pending	2.210.214	CDMA receiver with weighted interference cancellation (UTRA)		CA	
OKI Electric Industry Co., Ltd.	Pending	Pending	06-127933	Channel modulation for code-division multiple-access systems (UTRA)		JP	
OKI Electric Industry Co., Ltd.	US	5.579.304	07-000349	Code division multiple access receiver with sequential interference-cancelling (UTRA)		JP	Pending for Japan, Korea and EPCDI.
OKI Electric Industry Co., Ltd.	US	5.579.304	95-2360	Code division multiple access receiver with sequential interference-cancelling (UTRA)		Korea	Pending for Japan, Korea and EPCDI.
OKI Electric Industry Co., Ltd.	US	5.579.304	397.676	Code division multiple access receiver with sequential interference-cancelling (UTRA)		US	Pending for Japan, Korea and EPCDI.
OKI Electric Industry Co., Ltd.	US	5.579.304	95103484,2	Code division multiple access receiver with sequential interference-cancelling (UTRA)		EPCDI	Pending for Japan, Korea and EPCDI.
OKI Electric Industry Co., Ltd.	US	5.689.815	08-110634	Saturation prevention system for radio telephone with open and close loop power control systems (UTRA)		JP	Pending for Japan, Korea, Canada and Great Britain.
OKI Electric Industry Co., Ltd.	US	5.689.815	96-14312	Saturation prevention system for radio telephone with open and close loop power control systems (UTRA)		Korea	Pending for Japan, Korea, Canada and Great Britain.
OKI Electric Industry Co., Ltd.	US	5.689.815	434.65	Saturation prevention system for radio telephone with open and close loop power control systems (UTRA)		US	Pending for Japan, Korea, Canada and Great Britain.
OKI Electric Industry Co., Ltd.	US	5.689.815	2.175.749	Saturation prevention system for radio telephone with open and close loop power control systems (UTRA)		CA	Pending for Japan, Korea, Canada and Great Britain.
OKI Electric Industry Co., Ltd.	US	5.689.815	9609267,1	Saturation prevention system for radio telephone with open and close loop power control systems (UTRA)		GB	Pending for Japan, Korea, Canada and Great Britain.
OKI Electric Industry Co., Ltd.	US	5.631.922	06-091912	Spread code generation device for spread spectrum communication (UTRA)		JP	Pending for Japan.
OKI Electric Industry Co., Ltd.	US	5.631.922	426.254	Spread code generation device for spread spectrum communication (UTRA)		US	Pending for Japan.
OKI Electric Industry Co., Ltd.	Pending	Pending	07-192062	Spreading code generator and CDMA communication system (UTRA)		JP	

OKI Electric Industry Co., Ltd.	Pending	Pending	96-30635	Spreading code generator and CDMA communication system (UTRA)		Korea	
OKI Electric Industry Co., Ltd.	Pending	Pending	679.925	Spreading code generator and CDMA communication system (UTRA)		US	
OKI Electric Industry Co., Ltd.	Pending	Pending	2.181.637	Spreading code generator and CDMA communication system (UTRA)		CA	
OKI Electric Industry Co., Ltd.	Pending	Pending	96111548,2	Spreading code generator and CDMA communication system (UTRA)		EPC	
Omnipoint	n/a			W-CDMA, TD/CDMA			Omnipoint Corporation has declared that it holds IPRs which are Essential to the UMTS/UTRA proposals, including, without limitation, W-CDMA and TD/CDMA. Omnipoint is prepared to grant licenses/cross-licenses to Essential IPRs on a fair, reasonable and non-discriminatory basis in accordance with Clause 6.1 of ETSI IPR Policy.
Panasonic	n/a			W-CDMA			Panasonic Matsushita Communication Industrial UK Ltd. declared that they are prepared to grant licenses/cross licenses (subject to reciprocity) under the essential IPRs on fair, reasonable and non-discriminatory basis in accordance with Clause 6.1 of the ETSI IPR Policy.
Philips	n/a						Philips Electronics N.V. have declared that in case ETSI adopts an ETSI standard for UMTS radio access methods, they will be prepared to grant non-exclusive licenses in compliance with the ETSI IPR Policy under their patent rights which are deemed to be essential to this ETSI standard, to any third party on the basis of full reciprocity.
Qualcomm Inc.	n/a			n/a		n/a	QUALCOMM has agreed to support approval by the European Telecommunications Standards Institute (ETSI) of a single CDMA third generation standard that encompasses three optional modes of operation: (1) direct sequence FDD, (2) multi-carrier FDD and (3) TDD, with each mode supporting operation with both GSM MAP and ANSI-41 networks. QUALCOMM hereby commits to the European Telecommunications Standards Institute to license its essential patents for such single CDMA standard or any of its modes on a fair and reasonable basis free from unfair discrimination.

Robert Bosch GmbH	n/a			TD-CDMA			Alcatel, Robert Bosch GmbH, Italtel Spa, Motorola Inc, Northern Telecom Ltd and Siemens AG have collectively stated that they are prepared to grant under their respective essential IPRs licenses/crosslicenses (subject to reciprocity) on fair, reasonable and non-discriminatory basis (in accordance with ETSI's IPR Policy, Clause 6.1)
Robert Bosch GmbH	n/a			TD-CDMA, W-CDMA			Robert Bosch GMBH has confirmed that it is prepared to grant irrevocable licenses under its IPRs on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy, provided that the patents it has become essential for the TD-CDMA and/or the W-CDMA proposal(s).
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	AP/P/96/00779	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		ARIPO	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	2411/DEL/95	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		IN	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	PI9503918	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		MY	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	95/090	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		NA	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	PCT/GB95/02972	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		PCT	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	95941197.6	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		Europe	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	8-519339	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		JP	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	08/849.875	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		US	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	42682/96	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		AU	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	PI9510251-5	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		BR	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	95197655.9	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		CN	

Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	97-704132	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		Korea	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	297514	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		NZ	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	P972825	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		NO	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	97112107	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		RU	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	95/10789	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		ZA	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	2.208.041	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		CA	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	P952732	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		ID	
Salbu Research & Development (pty) Ltd.	ZA	ZA 94/10066	n/a	Adaptive Communication System ODMA (enhancement to WBCDMA, TDCDMA)		UA	
Salbu Research & Development (pty) Ltd.	ZA	ZA 97/1819		Enhanced Cellular Communication System ODMA (enhancement to WBCDMA, TDCDMA)		ZA	
Salbu Research & Development (pty) Ltd.	ZA	ZA 97/5022		Method of Operating a Multi-Station Network ODMA (enhancement to WBCDMA, TDCDMA)		ZA	
Salbu Research & Development (pty) Ltd.	ZA	ZA 97/1017		Method of Operating a Network ODMA (enhancement to WBCDMA, TDCDMA)		ZA	
Salbu Research & Development (pty) Ltd.	ZA	ZA 97/6885		Power Adaption in a Multi-Station Network ODMA (enhancement to WBCDMA, TDCDMA)		ZA	
Samsung Electronics Corporation (SEC)	n/a						With regard to the W-CDMA technology being elaborated by ETSI as a standard for the UMTS Terrestrial Radio Access (UTRA) FDD mode, SEC is prepared to grant licenses to its essential IPRs on a fair, reasonable, and non-discriminatory basis in accordance with the terms and conditions set forth in Clause 6.1 of the ETSI IPR Policy.
Siemens AG	DE	4 212 300		Method and arrangement for joint channel estimation in a digital multiple access communication system		DE	

Siemens AG	US	5 648 967		Method and arrangement for transmitting information in a digital radio system		US	
Siemens AG	n/a			TD-CDMA			Alcatel, Robert Bosch GmbH, Italtel Spa, Motorola Inc, Northern Telecom Ltd and Siemens AG have collectively stated that they are prepared to grant under their respective essential IPRs licenses/crosslicenses (subject to reciprocity) on fair, reasonable and non-discriminatory basis (in accordance with ETSI's IPR Policy, Clause 6.1)
Siemens AG	n/a			TD-CDMA, W-CDMA			Siemens declared that it is completely committed to the ETSI IPR policy (Clause 6.1, "...on fair, reasonable and non discriminatory terms and conditions...") for any ETSI standard relating to the TD-CDMA proposal and the W-CDMA proposal.
Telia AB	n/a	507 640				SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a	561735				BE, CH, LI, DE, FR, NL	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a	2265259				GB	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		84193			JP	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		9401948-6			SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.

Telia AB	n/a	505 006			SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		95930765.3		EPC	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		9501066-6		SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a	504 511			SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		19984179		NO	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		97904710.7		EPC	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a	505 039			SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.

Telia AB	n/a		PCT/SE97/00203			EPC, NO	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		9602399-9			SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		9602401-3			SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		9702390-7			SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		PCT/SE98/01157			EP, EE, JP, LT, LV, NO, US	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		9704863-1			SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		PCT/SE98/02357			EP, EE, JP, LT, LV, NO, US	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.

Telia AB	n/a		9801027-5			SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		9801621-5			SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Telia AB	n/a		9702266-9			SE	This statement is made 10 February 1999 by Telia AB, a Member of ETSI. In accordance with the ETSI Interim IPR Policy, Article 4.1. Telia AB hereby inform ETSI that with reference to ETSI Standards it is the belief of Telia AB that the following IPRs are, or are likely to become, Essential IPRs in relation to ETSI Standards.
Texas Instruments	n/a						Texas Instruments France has informed ETSI that, in relation to UMTS, TI (and/or affiliates) has many patents and that it would be burdensome to identify whether or not any particular patent applies to a particular proposal. TI (and/or affiliates) has a practice of filing patent applications on innovative developments in its various business areas, but cannot tell in advance the scope of the patents, if any, that may issue on such applications.