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E.800	08-1994	Terms and definitions related to quality of service and network performance including dependability
E.801	10-1996	Framework for Service Quality Agreement
E.810	10-1992	Framework of the Recommendations on the serveability performance and service integrity for telecommunication services
E.820	10-1992	Call models for serveability and service integrity performance
E.830	10-1992	Models for the specification, evaluation and allocation of serveability and service integrity
E.845	11-1988	Connection accessibility objective for the international telephone service
E.846	03-1993	Accessibility for 64 kbit/s circuit-switched international end-to-end ISDN connection types
E.850	10-1992	Connection retainability objective for the international telephone service
E.855	11-1988	Connection integrity objective for the international telephone service
E.860	06-2002	Framework of a service level agreement
E.862	06-1992	Dependability planning of telecommunication networks
E.880	11-1988	Field data collection and evaluation on the performance of equipment, networks and services
E.300 Series Supplement 1	11-1988	List of possible supplementary telephone services which may be offered to subscribers
E.300 Series Supplement 3	11-1988	North american precise audible tone plan
E.300 Series Supplement 4	11-1988	Treatment of calls considered as terminating abnormally
E.300 Series Supplement 5	10-1984	Modelling of an experimental test design for the determination of inexperienced user difficulties in setting up international calls using nationally available instructions, or to compare different sets of instructions
E.300 Series Supplement 6	11-1988	Preparation of information to customers travelling abroad
E.300 Series Supplement 7	11-1988	Description of INMARSAT existing and planned systems
E.800 Series Supplement 1	11-1988	Table of the Erlang formula

E.800 Series Supplement 2	11-1988	Curves showing the relation between the traffic offered and the number of circuits required
E.800 Series Supplement 5	11-1988	Teletraffic implications for international switching and operational procedures resulting from a failure of a transmission facility
E.800 Series Supplement 7	11-1988	Guide for evaluating and implementing alternate routing networks

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F.2	11-1988	Operational provisions for the collection of telegram charges
F.4	11-1988	Plain and secret language
F.10	11-1988	Character error rate objective for telegraph communication using 5-unit start-stop equipment
F.11	10-1991	Continued availability of traditional services
F.14	08-1992	General provisions for one-stop-shopping arrangements
F.15	08-1992	Evaluating the success of new services
F.16	02-1995	Global virtual network service
F.17	08-1992	Operational aspects of service telecommunications
F.18	03-1998	Guidelines on harmonization of international public bureau services
F.19	10-1996	Collection and dissemination of official service information
F.20	11-1988	The international gentex service
F.21	11-1988	Composition of answer-back codes for the international gentex service
F.23	11-1988	Grade of service for long-distance international gentex circuits
F.24	11-1988	Average grade of service from country to country in the gentex service
F.30	03-1993	Use of various sequences of combinations for special purposes
F.31	11-1988	Telegram retransmission system
F.32	10-1995	Telegram destination indicators
F.35	11-1988	Provisions applying to the operation of an international public automatic message switching service for equipments utilizing the International Telegraph Alphabet No. 2
F.40	03-1991	International public telemessage service
F.41	03-1991	Interworking between the telemessage service and the international public telegram service
F.59	10-1996	General characteristics of the international telex service
F.60	08-1992	Operational provisions for the international telex service
F.61	11-1988	Operational provisions relating to the chargeable duration of a telex call

F.63	03-1993	Additional facilities in the international telex service
F.64	11-1988	Determination of the number of international telex circuits required to carry a given volume of traffic
F.65	11-1988	Time-to-answer by operators at international telex positions
F.68	11-1988	Establishment of the automatic intercontinental telex network
F.69	06-1994	The international telex service – Service and operational provisions of telex destination codes and telex network identification codes
F.70	11-1988	Evaluating the quality of the international telex service
F.71	11-1988	Interconnection of private teleprinter networks with the telex network
F.72	10-1996	The international telex service – General principles and operational aspects of a store and forward facility
F.74	08-1992	Intermediate storage devices accessed from the international telex service using single stage selection – Answerback format
F.80	10-1991	Basic requirements for interworking relations between the international telex service and other services
F.82	10-1991	Operational provisions to permit interworking between the international telex service and the intex service
F.83	07-1990	Operational principles for communication between terminals of the international telex service and data terminal equipment on packet-switched public data networks
F.421	11-1988	Message handling services: Intercommunication between the IPM service and the telex service
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F.87	03-1991	Operational principles for the transfer of messages from terminals on the telex network to Group 3 facsimile terminals connected to the public switched telephone network
F.89	08-1992	Status enquiry function in the international telex service
F.100	11-1988	Scheduled radiocommunication service
F.104	10-1991	International leased circuit services – Customer circuit designations
F.105	11-1988	Operational provisions for phototelegrams
F.106	11-1988	Operational provisions for private phototelegraph calls
F.107	11-1988	Rules for phototelegraph calls established over circuits normally used for telephone traffic
F.108	11-1988	Operating rules for international phototelegraph calls to multiple destinations
F.110	07-1996	Operational provisions for the maritime mobile service
F.111	03-1991	Principles of service for mobile systems
F.112	11-1988	Quality objectives for 50-baud start-stop telegraph transmission in the maritime mobile-satellite service
F.113	08-1992	Service provisions for aeronautical passenger communications supported by mobile-satellite systems
F.115	02-1995	Service objectives and principles for future public land mobile telecommunication systems
F.116	03-2000	Service features and operational provisions in IMT-2000
E.210	11-1988	Ship station identification for VHF/UHF and maritime mobile-satellite services

F.122	11-1988	Operational procedures for the maritime satellite data transmission service
F.127	10-1996	Operational procedures for interworking between the international telex service and the service offered by the INMARSAT-C system
F.130	11-1988	Maritime answer-back codes
F.131	11-1988	Radiotelex service codes
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F.141	06-1994	International two-way multipoint telecommunication service via satellite
F.150	10-1991	Service and operational provisions for the Intex service
F.162	07-1996	Service and operational requirements of store-and-forward facsimile service
F.163	07-1996	Operational requirements of the interconnection of facsimile store-and-forward units
F.170	03-1998	Operational provisions for the international public facsimile service between public bureaux (Bureaufax)
F.171	11-1988	Operational provisions relating to the use of store-and-forward switching nodes within the bureaufax service
F.182bis	10-1996	Guidelines for the support of the communication of documents using Group 3 facsimile between user terminals via public networks
F.185	06-1998	Internet facsimile: Guidelines for the support of the communication of facsimile documents
F.190	08-1992	Operational provisions for the international facsimile service between public bureaux and subscriber stations and vice versa (bureaufax-telefax and vice versa)
F.350	11-1988	Application of Series T Recommendations
F.351	11-1988	General principles on the presentation of terminal identification to users of the telematic services
F.353	11-1988	Provision of telematic and data transmission services on integrated services digital network (ISDN)
F.400/X.400	06-1999	Message handling system and service overview
F.401	08-1992	Message handling services: Naming and addressing for public message handling services
F.410	08-1992	Message handling services: The public message transfer service
F.415	11-1988	Message handling services: Intercommunication with public physical delivery services
F.420	08-1992	Message handling services: The public interpersonal messaging service
F.421	11-1988	Message handling services: Intercommunication between the IPM service and the telex service
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F.423	08-1992	Message handling services: Intercommunication between the interpersonal messaging service and the telefax service
F.435	06-1999	Message handling services: Electronic Data Interchange messaging service
F.440	08-1992	Message handling services: The voice messaging service
F.471	08-1997	Operational requirements for the interconnection of voice-mail store-and-forward units
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F.472	08-1997	Service and operational requirements of the voice-mail store-and-forward service

F.500	08-1992	International public directory services
F.510	02-2003	Automated directory assistance – White pages service definition
F.515	04-2003	Unified Directory specification
F.581	03-1993	Guidelines for programming communication interfaces (PCIs) definition: Service Recommendation
F.600	04-2004	Service and operational principles for public data transmission service
F.700	11-2000	Framework Recommendation for multimedia services
F.701	11-2000	Guideline Recommendation for identifying multimedia service requirements
F.702	07-1996	Multimedia conference services
F.703	11-2000	Multimedia conversational services
F.720	08-1992	Videotelephony services – General
F.721	08-1992	Videotelephony teleservice for ISDN
F.723	07-1996	Videophone service in the Public Switched Telephone Network (PSTN)
F.731	07-1997	Multimedia Conference Services in the ISDN
F.732	10-1996	Multimedia conference services in the B-ISDN
F.740	08-1993	Audiovisual interactive services
F.761	11-1988	Service-oriented requirements for telewriting applications
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F.812	08-1992	Broadband connectionless data bearer service
F.813	02-1995	Virtual path service for reserved and permanent communications
F.850	03-1993	Principles of Universal Personal Telecommunication (UPT)
F.851	02-1995	Universal Personal Telecommunication (UPT) – Service description (service set 1)
F.852	03-2000	Universal Personal Telecommunication (UPT) – Service description (service set 2)
F.853	11-1998	Supplementary services in the Universal Personal Telecommunication (UPT) environment
F.901	03-1993	Usability evaluation of telecommunication services
F.902	02-1995	Interactive services design guidelines
F.910	02-1995	Procedures for designing, evaluating and selecting symbols, pictograms and icons
F.Sup1	11-1988	Definitions relating to telegraph, telematic and data transmission services
F.Sup2	11-1988	Terms and definitions for telex

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G.100.1	11-2001	The use of the decibel and of relative levels in speechband telecommunications
G.101	11-2003	The transmission plan
G.102	11-1988	Transmission performance objectives and Recommendations
G.103	12-1998	Hypothetical reference connections
G.105	11-1988	Hypothetical reference connection for crosstalk studies
G.107	03-2003	The E-model, a computational model for use in transmission planning
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G.108 Erratum 1	12-2000	
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G.108 (1999) Amendment 2	03-2004	New Appendix II – Planning examples regarding delay in packet-based networks
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G.115	02-1996	Mean active speech level for announcement and speech synthesis systems
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G.174	06-1994	Transmission performance objectives for terrestrial digital wireless systems using portable terminals to access the PSTN
G.175	05-2000	Transmission planning for private/public network interconnection of voice traffic
G.176	04-1997	Planning guidelines for the integration of ATM technology into networks supporting voiceband services
G.177	09-1999	Transmission planning for voiceband services over hybrid Internet/PSTN connections
G.180	03-1993	Characteristics of N + M type direct transmission restoration systems for use on digital and analogue sections, links or equipment
G.181	03-1993	Characteristics of 1 + 1 type restoration systems for use on digital transmission links
G.191	11-2000	Software tools for speech and audio coding standardization
G.192	03-1996	A common digital parallel interface for speech standardization activities
G.211	11-1988	Make-up of a carrier link
G.212	11-1988	Hypothetical reference circuits for analogue systems
G.213	11-1988	Interconnection of systems in a main repeater station
G.214	11-1988	Line stability of cable systems
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G.222	11-1988	Noise objectives for design of carrier-transmission systems of 2500 km
G.223	11-1988	Assumptions for the calculation of noise on hypothetical reference circuits for telephony
G.224	11-1988	Maximum permissible value for the absolute power level (power referred to one milliwatt) of a signalling pulse
G.225	11-1988	Recommendations relating to the accuracy of carrier frequencies
G.226	11-1988	Noise on a real link
G.227	11-1988	Conventional telephone signal
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G.230	11-1988	Measuring methods for noise produced by modulating equipment and through-connection filters
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G.242	11-1988	Through-connection of groups, supergroups, etc.
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G.322	11-1988	General characteristics recommended for systems on symmetric pair cables
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G.332	11-1988	12 MHz systems on standardized 2.6/9.5 mm coaxial cable pairs
G.333	11-1988	60 MHz systems on standardized 2.6/9.5 mm coaxial cable pairs
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G.631	11-1988	Types of submarine cable to be used for systems with line frequencies of less than about 45 MHz
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G.661	10-1998	Definition and test methods for the relevant generic parameters of optical amplifier devices and subsystems
G.662	10-1998	Generic characteristics of optical amplifier devices and subsystems
G.663	04-2000	Application related aspects of optical amplifier devices and subsystems
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G.691	12-2003	Optical interfaces for single channel STM-64 and other SDH systems with optical amplifiers
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G.693	12-2003	Optical interfaces for intra-office systems
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G.701	03-1993	Vocabulary of digital transmission and multiplexing, and pulse code modulation (PCM) terms
G.702	11-1988	Digital hierarchy bit rates
G.703	11-2001	Physical/electrical characteristics of hierarchical digital interfaces
G.704	10-1998	Synchronous frame structures used at 1544, 6312, 2048, 8448 and 44 736 kbit/s hierarchical levels
G.705	10-2000	Characteristics of plesiochronous digital hierarchy (PDH) equipment functional blocks
G.706	04-1991	Frame alignment and cyclic redundancy check (CRC) procedures relating to basic frame structures defined in Recommendation G.704
G.707/Y.1322	12-2003	Network node interface for the synchronous digital hierarchy (SDH)
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G.708	07-1999	Sub STM-0 network node interface for the synchronous digital hierarchy (SDH)
G.709/Y.1331	03-2003	Interfaces for the Optical Transport Network (OTN)
G.709/Y.1331 (2003) Amendment 1	12-2003	
G.711	11-1988	Pulse code modulation (PCM) of voice frequencies
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G.722	11-1988	7 kHz audio-coding within 64 kbit/s
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G.722 Annex A	03-1993	Testing signal-to-total distortion ratio for 7 kHz audio-codecs at 64 kbit/s Recommendation G.722 connected back-to-back
G.722 Appendix II	03-1987	Digital test sequences for the verification of the G.722 64 kbit/s SB-ADPCM 7 kHz codec
G.722.1	09-1999	Coding at 24 and 32 kbit/s for hands-free operation in systems with low frame loss
G.722.1 (1999) Corrigendum 1	11-2000	
G.722.1 Annex A	02-2000	Packet format, capability identifiers and capability parameters
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		Speech coders
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G.743	11-1988	Second order digital multiplex equipment operating at 6312 kbit/s and using positive justification
G.744	11-1988	Second order PCM multiplex equipment operating at 8448 kbit/s
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G.746	11-1988	Characteristics of second order PCM multiplex equipment operating at 6312 kbit/s
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G.751	11-1988	Digital multiplex equipments operating at the third order bit rate of 34 368 kbit/s and the fourth order bit rate of 139 264 kbit/s and using positive justification
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G.753	11-1988	Third order digital multiplex equipment operating at 34 368 kbit/s and using positive/zero/negative justification
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G.755	11-1988	Digital multiplex equipment operating at 139 264 kbit/s and multiplexing three tributaries at 44 736 kbit/s
G.761	11-1988	General characteristics of a 60-channel transcoder equipment
G.762	11-1988	General characteristics of a 48-channel transcoder equipment
G.763	10-1998	Digital circuit multiplication equipment using G.726 ADPCM and digital speech interpolation
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G.765	09-1992	Packet circuit multiplication equipment
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G.766	11-1996	Facsimile demodulation/remodulation for digital circuit multiplication equipment
G.767	10-1998	Digital circuit multiplication equipment using 16 kbit/s LD-CELP, digital speech interpolation and facsimile demodulation/remodulation
G.768	03-2001	Digital circuit multiplication equipment using 8 kbit/s CS-ACELP
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G.772	03-1993	Protected monitoring points provided on digital transmission systems
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G.774	02-2001	Synchronous digital hierarchy (SDH) – Management information model for the network element view
G.774.1	02-2001	Synchronous digital hierarchy (SDH) – Bidirectional performance monitoring for the network element view
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G.775	10-1998	Loss of Signal (LOS), Alarm Indication Signal (AIS) and Remote Defect Indication (RDI) defect detection and clearance criteria for PDH signals
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G.806	02-2004	Characteristics of transport equipment – Description methodology and generic functionality
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G.810	08-1996	Definitions and terminology for synchronization networks
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G.967.1	06-1998	VB5.1 reference point specification

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G.983.7	11-2001	ONT Management and Control Interface specification for Dynamic Bandwidth Assignment (DBA) B-PON system
G.983.8	03-2003	B-PON OMCI support for IP, ISDN, video, VLAN tagging, VC cross-connections and other select functions
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G.992.1 Annex H	10-2000	Specific requirements for a synchronized symmetrical DSL (SSDSL) system operating in the same cable binder as ISDN as defined in ITU-T G.961 Appendix III
G.992.2	07-1999	Splitterless asymmetric digital subscriber line (ADSL) transceivers
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G Suppl. 26	10-1984	Estimating the signal load margin of FDM wideband amplifier equipment and transmission systems
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H.130	11-1988	Frame structures for use in the international interconnection of digital codecs for videoconferencing or visual telephony
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H.200	03-1993	Framework for Recommendations for audiovisual services
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H.244	07-1995	Synchronized aggregation of multiple 64 or 56 kbit/s channels
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H.246	02-1998	Interworking of H-series multimedia terminals with H-series multimedia terminals and voice/voiceband terminals on GSTN and ISDN
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H.248.2	11-2000	Gateway control protocol: Facsimile, text conversation and call discrimination packages
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H.261	03-1993	Video codec for audiovisual services at p x 64 kbit/s
H.262	02-2000	Information technology – Generic coding of moving pictures and associated audio information: Video
H.262 (2000) Technical Cor. 1	11-2000	
H.262 (2000) Amendment 1	11-2000	Content description data
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H.263	02-1998	Video coding for low bit rate communication
H.263 Annex U	11-2000	Enhanced reference picture selection mode
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H.321	02-1998	Adaptation of H.320 visual telephone terminals to B-ISDN environments
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H.323	07-2003	Packet-based multimedia communications systems
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H.332	09-1998	H.323 extended for loosely coupled conferences

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H.450.6	05-1999	Call waiting supplementary service for H.323
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H.450.12	07-2001	Common Information Addtional Network Feature for H.323
H.460.1	03-2002	Guidelines for the Use of the Generic Extensible Framework
H.460.2	07-2001	Number Portability interworking between H.323 and SCN networks
H.460.3	11-2002	Circuit maps within H.323 systems
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H.Sup1	05-1999	Application profile – Sign language and lip-reading real-time conversation using low bit rate video communication
H.Sup2	01-2004	H.248.x sub-series packages guide – Release 5
H.Sup3	05-2003	Operator requirements for full-service VDSL in ITU-T Recommendations H.610 and H.611
H.Sup4	01-2004	Repository of generic parameters for the ITU-T Recommendations H.460.x sub-series

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		Integrated services digital network
I.112	03-1993	Vocabulary of terms for ISDNs
I.112 Appendix I	02-2002	General telecommunication terminology and definitions
I.113	06-1997	Vocabulary of terms for broadband aspects of ISDN
I.114	03-1993	Vocabulary of terms for universal personal telecommunication
I.120	03-1993	Integrated services digital networks (ISDNs)
I.121	04-1991	Broadband aspects of ISDN
I.122	03-1993	Framework for frame mode bearer services
I.130	11-1988	Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN
I.140	03-1993	Attribute technique for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN
I.141	11-1988	ISDN network charging capabilities attributes
I.150	02-1999	B-ISDN asynchronous transfer mode functional characteristics

I.200	11-1988	Guidance to the I.200-series of Recommendations
I.210	03-1993	Principles of telecommunication services supported by an ISDN and the means to describe them
I.211	03-1993	B-ISDN service aspects
I.220	11-1988	Common dynamic description of basic telecommunication services
I.221	03-1993	Common specific characteristics of services
I.230	11-1988	Definition of bearer service categories
		Circuit-mode bearer service categories
I.231.1	11-1988	Circuit-mode 64 kbit/s unrestricted, 8 kHz structured bearer service
I.231.2	11-1988	Circuit-mode 64 kbit/s, 8 kHz structured bearer service usable for speech information transfer
I.231.3	11-1988	Circuit-mode 64 kbit/s, 8 kHz structured bearer service usable for 3.1 kHz audio information transfer
I.231.4	11-1988	Circuit-mode, alternate speech / 64 kbit/s unrestricted, 8 kHz structured bearer service
I.231.5	11-1988	Circuit-mode 2 x 64 kbit/s unrestricted, 8 kHz structured bearer service
I.231.6	07-1996	Circuit-mode 384 kbit/s unrestricted, 8 kHz structured bearer service
I.231.7	07-1996	Circuit-mode 1536 kbit/s unrestricted, 8 kHz structured bearer service
I.231.8	07-1996	Circuit-mode 1920 kbit/s unrestricted, 8 kHz structured bearer service
I.231.9	03-1993	Circuit-mode 64 kbit/s 8 kHz structured multi-use bearer service
I.231.10	08-1992	Circuit-mode multiple-rate unrestricted 8 kHz structured bearer service
		Packet-mode bearer services categories
I.232.1	11-1988	Virtual call and permanent virtual circuit bearer service category
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		Frame mode bearer services
I.233.1	10-1991	ISDN frame relaying bearer service
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I.233.2	10-1991	ISDN frame switching bearer service
I.240	11-1988	Definition of teleservices
		Teleservices supported by an ISDN
I.241.1	11-1988	Telephony
I.241.2	11-1988	Teletex
I.241.3	11-1988	Telefax 4
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I.241.7	03-1993	Telephony 7 kHz teleservice
I.241.8	10-1995	Teleaction stage one service description
I.250	11-1988	Definition of supplementary services
		Number identification supplementary services
I.251.1	08-1992	Direct-dialling-In
I.251.2	08-1992	Multiple Subscriber Number
I.251.3	08-1992	Calling Line Identification Presentation
I.251.4	08-1992	Calling Line Identification Restriction
I.251.5	02-1995	Connected Line Identification Presentation (COLP)
I.251.6	02-1995	Connected Line Identification Restriction (COLR)
I.251.7	08-1992	Malicious call Identification
I.251.8	08-1992	Sub-addressing supplementary service
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		Call offering supplementary services
I.252.1	11-1988	Call Transfer
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		Call completion supplementary services
I.253.1	11-1988	Call waiting (CW) supplementary service
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		Multiparty supplementary services
I.254.1	11-1988	Conference calling (CONF)
I.254.2	08-1992	Three-Party Supplementary Service
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		Community of interest supplementary services
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I.255.3	07-1990	Multi-level precedence and preemption service (MLPP)
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I.255.5	08-1992	Outgoing call barring
		Charging supplementary services
I.256.1	11-1988	Credit card calling (CRED)
I.256.2a	03-1993	Advice of charge: charging information at call set-up time (AOC-S)
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I.256.3	08-1992	Reverse charging
		Additional information transfer supplementary services
I.257.1	10-1995	User-to-User Signalling (UUS)
		Mobility and modification supplementary services
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		Screening supplementary services
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I.310	03-1993	ISDN – Network functional principles
I.311	08-1996	B-ISDN general network aspects
I.311 (1996) Amendment 1	03-2000	
I.312/Q.1201	10-1992	Principles of intelligent network architecture
I.313	09-1997	B-ISDN network requirements
I.320	11-1993	ISDN protocol reference model
I.321	04-1991	B-ISDN protocol reference model and its application
I.322	02-1999	Generic protocol reference model for telecommunication networks
I.324	10-1991	ISDN network architecture
I.325	03-1993	Reference configurations for ISDN connection types
I.326	03-2003	Functional architecture of transport networks based on ATM
I.327	03-1993	B-ISDN functional architecture
I.328/Q.1202	09-1997	Intelligent network – Service plane architecture
I.329/Q.1203	09-1997	Intelligent network – Global functional plane architecture
I.330	11-1988	ISDN numbering and addressing principles
E.164	05-1997	The international public telecommunication numbering plan
E.164 Supplement 1	03-1998	Alternatives for carrier selection and network identification

E.164 Supplement 2	11-1998	Number Portability
I.333	03-1993	Terminal selection in ISDN
I.334	11-1988	Principles relating ISDN numbers/sub-addresses to the OSI reference model network layer addresses
I.340	11-1988	ISDN connection types
I.350	03-1993	General aspects of quality of service and network performance in digital networks, including ISDNs
G.820/I.351/Y.1501	07-2004	Relationships among ISDN, IP-based network and physical layer performance Recommendations
I.352	03-1993	Network performance objectives for connection processing delays in an ISDN
I.353	08-1996	Reference events for defining ISDN and B-ISDN performance parameters
I.354	03-1993	Network performance objectives for packet-mode communication in an ISDN
I.355	10-2000	ISDN 64 kbit/s connection type availability performance
I.356	03-2000	B-ISDN ATM layer cell transfer performance
I.356 (2000) Amendment 1	02-2004	New Appendix V – Support of Y.1541 QoS classes 0 and 2 in ATM-based networks
I.357	11-2000	B-ISDN semi-permanent connection availability
I.358	09-2003	Call processing performance for switched virtual channel connections (VCCs) in a B-ISDN
I.359	02-1999	Accuracy and dependability of ISDN 64 kbit/s circuit-mode connection types
I.361	02-1999	B-ISDN ATM layer specification
		B-ISDN ATM Adaptation Layer specification
I.363.1	08-1996	Type 1 AAL
I.363.2	11-2000	Type 2 AAL
I.363.3	08-1996	Type 3/4 AAL
I.363.5	08-1996	Type 5 AAL
I.364	02-1999	Support of the broadband connectionless data bearer service by the B-ISDN
		B-ISDN ATM adaptation layer sublayers
I.365.1	11-1993	Frame relaying service specific convergence sublayer (FR-SSCS)
I.365.2	11-1995	Service-specific coordination function to provide the connection-oriented network service
I.365.3	11-1995	Service-specific coordination function to provide the connection-oriented transport service
I.365.4	08-1996	Service-specific convergence sublayer for HDLC applications
I.366.1	06-1998	Segmentation and Reassembly Service Specific Convergence Sublayer for the AAL type 2
I.366.2	11-2000	AAL type 2 service specific convergence sublayer for narrow-band services
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I.370	10-1991	Congestion management for the ISDN frame relaying bearer service
I.371	03-2004	Traffic control and congestion control in B-ISDN
I.372	03-1993	Frame relaying bearer service network-to-network interface requirements
I.373	03-1993	Network capabilities to support universal personal telecommunication (UPT)
		Network capabilities to support multimedia services
I.375.1	06-1998	General aspects
I.375.2	06-1998	Example of multimedia retrieval service class – Video-on-demand service using an ATM-based network
I.375.3	03-2000	Example of multimedia distribution service class – Switched digital broadcasting
I.376	03-1995	ISDN network capabilities for the support of the teleaction service
I.377	10-2000	Network requirements to support charging and accounting in B-ISDN
I.378	12-2002	Traffic control and congestion control at the ATM Adaptation Layer type 2
I.378 (2002) Amendment 1	08-2003	New Appendix IV: Deriving AAL 2 traffic parameters from AAL 2 link characteristics
I.381	03-2001	ATM adaptation layer (AAL) Performance
I.410	11-1988	General aspects and principles relating to Recommendations on ISDN user-network interfaces
I.411	03-1993	ISDN user-network interfaces – Reference configurations
I.412	11-1988	ISDN user-network interfaces – Interface structures and access capabilities
I.413	03-1993	B-ISDN user-network interface
I.414	09-1997	Overview of Recommendations on layer 1 for ISDN and B-ISDN customer accesses
I.420	11-1988	Basic user-network interface
I.421	11-1988	Primary rate user-network interface
I.430	11-1995	Basic user-network interface – Layer 1 specification
I.431	03-1993	Primary rate user-network interface – Layer 1 specification
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		B-ISDN user-network interface – Physical layer specification
I.432.1	02-1999	General characteristics
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I.432.3	02-1999	1544 kbit/s and 2048 kbit/s operation
I.432.4	02-1999	51 840 kbit/s operation
I.432.5	06-1997	25 600 kbit/s operation
Q.920	03-1993	ISDN user-network interface data link layer – General aspects
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Q.921	09-1997	ISDN user-network interface – Data link layer specification

Q.921 (1997) Amendment 1	06-2000	
Q.930	03-1993	ISDN user-network interface layer 3 – General aspects
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I.460	02-1999	Multiplexing, rate adaption and support of existing interfaces
X.30	03-1993	Support of X.21, X.21 bis and X.20 bis based Data Terminal Equipments (DTEs) by an Integrated Services Digital Network (ISDN)
X.31	11-1995	Support of packet mode terminal equipment by an ISDN
V.110	02-2000	Support by an ISDN of data terminal equipments with V-series type interfaces
I.464	02-1999	Multiplexing, rate adaption and support of existing interfaces for restricted 64 kbit/s transfer capability
V.120	10-1996	Support by an ISDN of data terminal equipment with V-series type interfaces with provision for statistical multiplexing
V.120 (1996) Corrigendum 1	05-1999	
I.470	11-1988	Relationship of terminal functions to ISDN
I.480	03-2000	1+1 protection switching for cell-based physical layer
I.500	03-1993	General structure of the ISDN interworking Recommendations
I.501	03-1993	Service interworking
I.510	03-1993	Definitions and general principles for ISDN interworking
I.511	11-1988	ISDN-to-ISDN layer 1 internetwork interface
I.515	03-1993	Parameter exchange for ISDN interworking
I.520	03-1993	General arrangements for network interworking between ISDNs
I.525	08-1996	Interworking between networks operating at bit rates less than 64 kbit/s with 64 kbit/s-based ISDN and B-ISDN
I.530	03-1993	Network interworking between an ISDN and a public switched telephone network (PSTN)
X.321	10-1996	General arrangements for interworking between Circuit-Switched Public Data Networks (CSPDNs) and Integrated Services Digital Networks (ISDNs) for the provision of data transmission services
X.325	10-1996	General arrangements for interworking between Packet-Switched Public Data Networks (PSPDNs) and Integrated Services Digital Networks (ISDNs) for the provision of data transmission services
I.555	09-1997	Frame Relaying Bearer Service interworking
U.202	03-1993	Technical requirements to be met in providing the international telex service within an integrated services digital network
I.570	03-1993	Public/private ISDN interworking
I.571	08-1996	Connection of VSAT based private networks to the public ISDN
I.572	03-2000	VSAT interconnection with the PSTN

I.580	11-1995	General arrangements for interworking between B-ISDN and 64 kbit/s based ISDN
I.581	09-1997	General arrangements for B-ISDN interworking
I.601	11-1988	General maintenance principles of ISDN subscriber access and subscriber installation
I.610	02-1999	B-ISDN operation and maintenance principles and functions
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I.610 (1999) Amendment 1	03-2000	
I.630	02-1999	ATM protection switching
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I.630 (1999) Amendment 1	03-2000	
I.731	10-2000	Types and general characteristics of ATM equipment
I.732	10-2000	Functional characteristics of ATM equipment
I.741	07-1999	Interworking and interconnection between ATM and switched telephone networks for the transmission of speech, voiceband data and audio signals
I.751	03-1996	Asynchronous transfer mode management of the network element view
I.761	03-2000	Inverse multiplexing for ATM (IMA)
I.762	03-2000	ATM over fractional physical links
I.Sup1	03-1998	Generic service descriptions for ten supplementary services defined in I.250-Series Recommendations

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Series J : Cable networks and transmission of television, sound programme and other multimedia signals

Number	*Approval Date*	*Recommendation Title*
		Cable networks and transmission of television, sound programme and other multimedia signals
J.2	09-1999	Guidelines on the use of some ITU-T Recommendations in the J series
J.11	11-1988	Hypothetical reference circuits for sound-programme transmissions
J.12	11-1988	Types of sound-programme circuits established over the international telephone network
J.13	11-1988	Definitions for international sound-programme circuits
J.14	11-1988	Relative levels and impedances on an international sound-programme connection
J.15	11-1988	Lining-up and monitoring an international sound-programme connection
J.16	11-1988	Measurement of weighted noise in sound-programme circuits
J.17	11-1988	Pre-emphasis used on sound-programme circuits
J.18	11-1988	Crosstalk in sound-programme circuits set up on carrier systems

J.19	11-1988	A conventional test signal simulating sound-programme signals for measuring interference in other channels
J.21	08-1994	Performance characteristics of 15 kHz-type sound-programme circuits – Circuits for high quality monophonic and stereophonic transmissions
J.23	11-1988	Performance characteristics of 7 kHz type (narrow bandwidth) sound-programme circuits
J.24	02-1982	Modulation of signals carried by sound-programme circuits by interfering signals from power supply sources
J.25	05-1986	Estimation of transmission performance of sound-programme circuits shorter or longer than the hypothetical reference circuit
J.26	06-1990	Test signals to be used on international sound-programme connections
J.27	06-1990	Signals for the alignment of international sound-programme connections
J.41	11-1988	Characteristics of equipment for the coding of analogue high quality sound programme signals for transmission on 384 kbit/s channels
J.42	11-1988	Characteristics of equipment for the coding of analogue medium quality sound-programme signals for transmission on 384-kbit/s channels
J.51	08-1994	General principles and user requirements for the digital transmission of high quality sound programmes
J.52	07-1996	Digital transmission of high-quality sound-programme signals using one, two or three 64 kbit/s channels per mono signal (and up to six per stereo signal)
J.52 (1996) Amendment 1	09-1999	New Appendix II – Extracts from EBU specification of an ISDN Codec capable of delivering high-quality audio
J.53	05-2000	Sampling frequencies to be used for the digital transmission of studio-quality and high-quality sound-programme signals
J.54	05-1986	Transmission of analogue high-quality sound-programme signals on mixed analogue-and-digital circuits using 384 kbit/s channels
J.55	06-1990	Digital transmission of high-quality sound-programme signals on distribution circuits using 480 kbit/s (496 kbit/s) per audio channel
J.57	06-1990	Transmission of digital studio quality sound signals over H1 channels
J.61	06-1990	Transmission performance of television circuits designed for use in international connections
J.62	02-1978	Single value of the signal-to-noise ratio for all television systems
J.63	06-1990	Insertion of test signals in the field-blanking interval of monochrome and colour television signals
J.64	02-1986	Definitions of parameters for simplified automatic measurement of television insertion test signals
J.65	02-1978	Standard test signal for conventional loading of a television channel
J.66	02-1978	Transmission of one sound programme associated with analogue television signal by means of time division multiplex in the line synchronizing pulse
J.67	03-2001	Test signals and measurement techniques for transmission circuits carrying MAC/packet signals
J.68	02-1982	Hypothetical reference chain for television transmissions over very long distances
J.80	09-1993	Transmission of component-coded digital television signals for contribution-quality applications at bit rates near 140 Mbit/s
J.81	09-1993	Transmission of component-coded digital television signals for contribution-quality applications at the third hierarchical level of ITU-T Recommendation G.702
J.81 (1993) Amendment 1	10-1995	Appendix II to Annex A to Recommendation J.81 – Guidelines for implementation of a complete television codec

J.81 (1993) Corrigendum 1	10-1996	
J.81 (1993) Amendment 2	03-1998	Appendix IV to Annex A – Results of 34 Mbit/s codec interworking tests (February 1996)
J.82	07-1996	Transport of MPEG-2 constant bit rate television signals in B-ISDN
J.83	04-1997	Digital multi-programme systems for television, sound and data services for cable distribution
J.83 (1997) Erratum 1	07-1998	
J.84	03-2001	Distribution of digital multi-programme signals for television, sound and data services through SMATV networks
J.85	06-1990	Digital television transmission over long distances – General principles
J.86	06-1990	Mixed analogue-and-digital transmission of analogue composite television signals over long distances
J.87	03-2001	Use of hybrid cable television links for the secondary distribution of television into the user's premises
J.88	09-1999	Transmission of enhanced definition television signals over digital links
J.89	09-1999	Transport Mechanism for component-coded digital television signals using MPEG-2 4:2:2 P@ML including all service elements for contribution and primary distribution
J.90	05-2000	Electronic programme guides for delivery by digital cable television and similar methods – Reference operating scenario and requirements
J.91	08-1994	Technical methods for ensuring privacy in long-distance international television transmission
J.92	04-1997	Recommended operating guidelines for point-to-point transmission of television programmes
J.93	03-1998	Requirements for conditional access in the secondary distribution of digital television on cable television systems
J.94	11-1998	Service information for digital broadcasting in cable television systems
J.94 (1998) Amendment 1	10-2000	Annex B – Service information delivered out of band for digital cable television systems
J.94 (1998) Amendment 2	03-2001	Revised Annex C – Service information for digital multi-programme System C
J.95	09-1999	Copy protection of intellectual property for content delivered on cable television systems
J.96	07-2002	Technical method for ensuring privacy in long-distance international MPEG-2 television transmission conforming to ITU-T Recommendation J.89
J.97	07-2002	Metadata on cable networks
J.98	05-2003	Metadata requirements for video-on-demand in cable networks
J.100	06-1990	Tolerances for transmission time differences between the vision and sound components of a television signal
J.101	06-1990	Measurement methods and test procedures for teletext signals
J.110	04-1997	Basic principles for a worldwide common family of systems for the provision of interactive television services
J.111	03-1998	Network independent protocols for interactive systems
J.112	03-1998	Transmission systems for interactive cable television services

J.112 Annex A	03-2001	Digital Video Broadcasting: DVB interaction channel for Cable TV (CATV) distribution systems
J.112 Annex B	03-2004	Data-over-cable service interface specifications: Radio-frequency interface specification
J.112 Annex C	02-2002	Data-over-cable service interface specifications: Radio-frequency interface specification using QAM technique
J.113	03-1998	Digital video broadcasting interaction channel through the PSTN/ISDN
J.114	09-1999	Interaction channel using digital enhanced cordless telecommunications
J.115	09-1999	Interaction channel using the global system for mobile communications
J.116	05-2000	Interaction channel for local multipoint distribution systems
J.117	09-1999	Home digital network interface specification
J.118	05-2000	Access systems for interactive services on SMATV/MATV networks
J.120	05-2000	Distribution of sound and television programs over the IP network
J.121	02-2002	Quality control protocol for webcasting
J.122	12-2002	Second-generation transmission systems for interactive cable television services – IP cable modems
J.123	07-2002	Multiplexing format for webcasting on the TCP/IP network
J.124	03-2004	Multiplexing format for multimedia webcasting over TCP/IP networks
J.125	04-2004	Link privacy for cable modem implementations
J.126	04-2004	Embedded Cable Modem device specification
J.131	03-1998	Transport of MPEG-2 signals in PDH networks
J.132	03-1998	Transport of MPEG-2 signals in SDH networks
J.133	07-2002	Measurement of MPEG-2 transport streams in networks
J.140	03-1998	Subjective picture quality assessment for digital cable television systems
J.141	09-1999	Performance indicators for data services delivered over digital cable television systems
J.142	05-2000	Methods for the measurement of parameters in the transmission of digital cable television signals
J.143	05-2000	User requirements for objective perceptual video quality measurements in digital cable television
J.144	03-2004	Objective perceptual video quality measurement techniques for digital cable television in the presence of a full reference
J.145	03-2001	Measurement and control of the quality of service for sound transmission over contribution and distribution networks
J.146	07-2002	Loop latency issues in contribution circuits for conversational TV programmes
J.147	07-2002	Objective picture quality measurement method by use of in-service test signals
J.148	05-2003	Requirements for an objective perceptual multimedia quality model
J.149	03-2004	Method for specifying accuracy and cross-calibration of Video Quality Metrics (VQM)
J.150	03-1998	Operational functionalities for the delivery of digital multiprogramme television, sound and data services through multichannel, multipoint distribution systems (MMDS)

J.150 (1998) Amendment 1	09-1999	Additions to Recommendation J.150 to also encompass local multipoint distribution systems (LMDS)
J.150 (1998) Amendment 2	03-2001	
J.151	10-2000	RF remodulator interface for digital television
J.160	02-2002	Architectural framework for the delivery of time-critical services over cable television networks using cable modems
J.161	03-2001	Audio codec requirements for the provision of bidirectional audio service over cable television networks using cable modems
J.162	03-2004	Network call signalling protocol for the delivery of time-critical services over cable television networks using cable modems
J.163	03-2004	Dynamic quality of service for the provision of real-time services over cable television networks using cable modems
J.164	03-2001	Event message requirements for the support of real-time services over cable television networks using cable modems
J.165	05-2003	IPCablecom Internet signalling transport protocol (ISTP)
J.166	03-2001	IPCablecom Management Information Base (MIB) framework
J.167	03-2001	Media terminal adapter (MTA) device provisioning requirements for the delivery of real-time services over cable television networks using cable modems
J.168	03-2001	IPCablecom Media Terminal Adapter (MTA) MIB requirements
J.169	03-2001	IPCablecom network call signalling (NCS) MIB requirements
J.170	02-2002	IPCablecom security specification
J.171	02-2002	IPCablecom Trunking Gateway Control Protocol (TGCP)
J.171 (2002) Amendment 1	05-2003	TGCP Profile 2
J.172	02-2002	IPCablecom management event mechanism
J.173	02-2002	IPCablecom embedded MTA primary line support
J.174	02-2002	IPCablecom interdomain quality of service
J.175	07-2002	Audio server protocol
J.176	07-2002	IPCablecom management event mechanism MIB
J.177	05-2003	IPCablecom CMS subscriber provisioning specification
J.178	05-2003	IPCablecom CMS to CMS signalling
J.179	04-2004	IPCablecom support for multimedia
J.180	05-2000	User requirements for statistical multiplexing of several programmes on a transmission channel
J.182	03-2001	Parameter sets for analogue interface specifications for the interconnection of set-top boxes and presentation devices in the home
J.183	03-2001	Time-division multiplexing of multiple MPEG-2 transport streams over cable television systems
J.184	03-2001	Digital broadband delivery system: Out-of-band transport
J.185	02-2002	Transmission equipment for transferring multi-channel television signals over optical access networks by FM conversion

J.186	02-2002	Transmission equipment for multi-channel television signals over optical access networks by sub-carrier multiplexing (SCM)
J.187	07-2002	Transport mechanism for component-coded digital high-definition television signals using MPEG-2 video coding including all service elements for contribution and primary distribution
J.187 (2002) Corrigendum 1	04-2003	
J.188	07-2002	A framework for an efficient parallel video transmission system including codecs with functions of failure detection and picture quality evaluation
J.189	07-2002	Seamless splicing for MPEG-2 bit streams
J.189 (2002) Corrigendum 1	04-2003	
J.190	07-2002	Architecture of MediaHomeNet that supports cable-based services
J.191	03-2004	IP feature package to enhance cable modems
J.192	03-2004	A residential gateway to support the delivery of cable data services
J.200	03-2001	Worldwide common core – Application environment for digital interactive television services
J.200 (2001) Corrigendum 1	05-2004	
J.202	05-2003	Harmonization of procedural content formats for interactive TV applications
J.240	06-2004	Framework for remote monitoring of transmitted picture signal-to-noise ratio using spread-spectrum and orthogonal transform
J.280	03-2004	Digital Program Insertion: Splicing application programming interface
J.Sup1	11-1998	Example of linking options between annexes of ITU-T Recommendation J.112 and annexes of ITU-T Recommendation J.83
J.Sup2	11-1998	Guidelines for the implementation of annex A of Recommendation J.112, "Transmission systems for interactive cable television services" – Example of digital video broadcasting (DVB) interaction channel for cable television distribution
J.Sup3	11-1998	Guidelines for the implementation of Recommendation J.111 "Network independent protocols" – Example of digital video broadcasting (DVB) systems for interactive services
J.Sup5	09-1999	Guidelines on the use of some ITU-T Recommendations in the J series

Recommendation count: 140

Series K : Protection against interference

Number	*Approval Date*	*Recommendation Title*
		Protection against interference
K.5	11-1988	Joint use of poles for electricity distribution and for telecommunications
K.6	11-1988	Precautions at crossings
K.7	11-1988	Protection against acoustic shock
K.8	11-1988	Separation in the soil between telecommunication cables and earthing system of power facilities
K.9	11-1988	Protection of telecommunication staff and plant against a large earth potential due to a neighbouring electric traction line

K.10	10-1996	Low frequency interference due to unbalance about earth of telecommunication equipment
K.11	10-1993	Principles of protection against overvoltages and overcurrents
K.12	02-2000	Characteristics of gas discharge tubes for the protection of telecommunications installations
K.13	11-1988	Induced voltages in cables with plastic-insulated conductors
K.14	11-1988	Provision of a metallic screen in plastic-sheathed cables
K.18	11-1988	Calculation of voltage induced into telecommunication lines from radio station broadcasts and methods of reducing interference
K.19	11-1988	Joint use of trenches and tunnels for telecommunication and power cables
K.20	07-2003	Resistibility of telecommunication equipment installed in a telecommunications centre to overvoltages and overcurrents
K.20 (2003) Erratum 1	01-2004	Correction to table 7/K.20
K.21	07-2003	Resistibility of telecommunication equipment installed in customer premises to overvoltages and overcurrents
K.21 (2003) Erratum 1	01-2004	Correction to table 7/K.21
K.23	11-1988	Types of induced noise and description of noise voltage parameters for ISDN basic user networks
K.24	11-1988	Method for measuring radio-frequency induced noise on telecommunications pairs
K.25	02-2000	Protection of optical fibre cables
K.26	11-1988	Protection of telecommunication lines against harmful effects from electric power and electrified railway lines
K.27	05-1996	Bonding configurations and earthing inside a telecommunication building
K.28	03-1993	Characteristics of semi-conductor arrester assemblies for the protection of telecommunications installations
K.29	01-1992	Coordinated protection schemes for telecommunication cables below ground
K.30	03-1993	Positive temperature coefficient (PTC) thermistors
K.31	03-1993	Bonding configurations and earthing of telecommunication installations inside a subscriber's building
K.33	10-1996	Limits for people safety related to coupling into telecommunications system from a.c. electric power and a.c. electrified railway installations in fault conditions
K.34	07-2003	Classification of electromagnetic environmental conditions for telecommunication equipment – Basic EMC Recommendation
K.35	05-1996	Bonding configurations and earthing at remote electronic sites
K.36	05-1996	Selection of protective devices
K.37	02-1999	Low and high frequency EMC mitigation techniques for telecommunication installations and systems – Basic EMC Recommendation
K.38	10-1996	Radiated emission test procedure for physically large systems
K.39	10-1996	Risk assessment of damages to telecommunication sites due to lightning discharges
K.40	10-1996	Protection against LEMP in telecommunications centres
K.42	05-1998	Preparation of emission and immunity requirements for telecommunication equipment – General principles

K.43	07-2003	Immunity requirements for telecommunication equipment
K.44	07-2003	Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents – Basic Recommendation
K.45	07-2003	Resistibility of telecommunication equipment installed in the access and trunk networks to overvoltages and overcurrents
K.46	07-2003	Protection of telecommunication lines using metallic symmetric conductors against lightning-induced surges
K.47	12-2000	Protection of telecommunication lines using metallic conductors against direct lightning discharges
K.48	07-2003	EMC requirements for each telecommunication equipment – Product family Recommendation
K.49	02-2000	Test condition and performance criteria for voice terminal subject to disturbance from digital mobile phone
K.50	02-2000	Safe limits of operating voltages and currents for telecommunication systems powered over the network
K.51	02-2000	Safety criteria for telecommunication equipment
K.52	02-2000	Guidance on complying with limits for human exposure to electromagnetic fields
K.53	02-2000	Values of induced voltages on telecommunication installations to establish telecom and a.c. power and railway operators responsibilities
K.54	10-2000	Conducted immunity test method and level at fundamental power frequencies
K.54 (2000) Erratum 1	08-2002	
K.55	08-2002	Overvoltage and overcurrent requirements for insulation displacement connectors (IDC) terminations
K.56	07-2003	Protection of radio base stations against lightning discharges
K.57	09-2003	Protection measures for radio base stations sited on power line towers
K.58	07-2003	EMC, resistibility and safety requirements and procedures for co-located telecommunication installations
K.59	07-2003	EMC, resistibility and safety requirements and procedures for connection to unbundled cables
K.60	07-2003	Emission limits and test methods for telecommunication networks
K.61	09-2003	Guidance to measurement and numerical prediction of electromagnetic fields for compliance with human exposure limits for telecommunication installations
K.62	02-2004	System level radiated emissions compliance using mathematical modelling
K.63	02-2004	Maintaining the suitability of production telecommunications equipment to its intended electromagnetic environment
K.64	02-2004	Safe working practices for outside equipment installed in particular environments

Recommendation count: 57

Series L : Construction, installation and protection of cables and other elements of outside plant

Number	*Approval Date*	*Recommendation Title*
		Construction, installation and protection of cables and other elements of outside plant

L.1	11-1988	Construction, installation and protection of telecommunication cables in public networks
L.2	11-1988	Impregnation of wooden poles
L.3	11-1988	Armouring of cables
L.4	11-1988	Aluminium cable sheaths
L.5	11-1988	Cable sheaths made of metals other than lead or aluminium
L.6	11-1988	Methods of keeping cables under gas pressure
L.7	11-1988	Application of joint cathodic protection
L.8	11-1988	Corrosion caused by alternating current
L.9	11-1988	Methods of terminating metallic cable conductors
L.10	12-2002	Optical fibre cables for duct and tunnel application
L.11	11-1988	Joint use of tunnels by pipelines and telecommunication cables, and the standardization of underground duct plans
L.12	05-2000	Optical fibre joints
L.13	04-2003	Performance requirements for passive optical nodes: Sealed closures for outdoor environments
L.14	07-1992	Measurement method to determine the tensile performance of optical fibre cables under load
L.15	03-1993	Optical local distribution networks – Factors to be considered for their construction
L.16	03-1993	Conductive plastic material (CPM) as protective covering for metal cable sheaths
L.17	06-1995	Implementation of connecting customers into the public switched telephone network (PSTN) via optical fibres
L.17 Appendix I	02-1997	Examples of possible applications
L.18	10-1996	Sheath closures for terrestrial copper telecommunication cables
L.19	11-2003	Multi-pair copper network cable supporting shared multiple services such as POTS, ISDN and xDSL
L.20	10-1996	Creation of a fire security code for telecommunication facilities
L.21	10-1996	Fire detection and alarm systems, detector and sounder devices
L.22	10-1996	Fire protection
L.23	10-1996	Fire extinction – Classification and location of fire extinguishing installations and equipment on premises
L.24	10-1996	Classification of outside plant waste
L.25	10-1996	Optical fibre cable network maintenance
L.26	12-2002	Optical fibre cables for aerial application
L.27	10-1996	Method for estimating the concentration of hydrogen in optical fibre cables
L.28	10-2002	External additional protection for marinized terrestrial cables
L.29	01-2002	As-laid report and maintenance/repair log for marinized terrestrial cable installation
L.30	10-1996	Markers on marinized terrestrial cables

L.31	10-1996	Optical fibre attenuators
L.32	10-1998	Protection devices for through-cable penetrations of fire-sector partitions
L.33	10-1998	Periodic control of fire extinction devices in telecommunication buildings
L.34	10-1998	Installation of Optical Fibre Ground Wire (OPGW) cable
L.35	10-1998	Installation of optical fibre cables in the access network
L.36	10-1998	Single mode fibre optic connectors
L.37	10-1998	Fibre optic (non-wavelength selective) branching devices
L.38	09-1999	Use of trenchless techniques for the construction of underground infrastructures for telecommunication cable installation
L.39	05-2000	Investigation of the soil before using trenchless techniques
L.40	10-2000	Optical fibre outside plant maintenance support, monitoring and testing system
L.41	05-2000	Maintenance wavelength on fibres carrying signals
L.42	05-2003	Extending optical fibre solutions into the access network
L.43	12-2002	Optical fibre cables for buried application
L.44	10-2000	Electric power supply for equipment installed as outside plant
L.45	10-2000	Minimizing the effect on the environment from the outside plant in telecommunication networks
L.46	10-2000	Protection of telecommunication cables and plant from biological attack
L.47	10-2000	Access facilities using hybrid fibre/copper networks
L.48	03-2003	Mini-trench installation technique
L.49	03-2003	Micro-trench installation technique
L.50	11-2003	Requirements for passive optical nodes: Optical distribution frames for central office environments
L.51	04-2003	Passive node elements for fibre optic networks – General principles and definitions for characterization and performance evaluation
L.52	05-2003	Deployment of Passive Optical Networks (PON)
L.53	05-2003	Optical fibre maintenance criteria for access networks
L.54	02-2004	Splice closure for marinized terrestrial cables (MTC)
L.55	11-2003	Digital database for marine cables and pipelines
L.56	05-2003	Installation of optical fibre cables along railways
L.57	05-2003	Air-assisted installation of optical fibre cables
L.58	03-2004	Optical fibre cables: Special needs for access network

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Series M : TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits

Number	*Approval Date*	*Recommendation Title*

		TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits
M.10	10-1992	Scope and application of Recommendations for maintenance of telecommunication networks and services
M.15	11-1988	Maintenance considerations for new systems
M.20	10-1992	Maintenance philosophy for telecommunication networks
M.21	10-1992	Maintenance philosophy for telecommunication services
M.32	11-1988	Principles for using alarm information for maintenance of international transmission systems and equipment
M.34	11-1988	Performance monitoring on international transmission systems and equipment
M.35	11-1988	Principles concerning line-up and maintenance limits
M.50	11-1988	Use of telecommunication terms for maintenance
M.60	03-1993	Maintenance terminology and definitions
M.70	11-1988	Guiding principles on the general maintenance organization for telephone-type international circuits
M.75	10-1992	Technical service
M.80	11-1988	Control stations
M.85	10-1992	Fault report points
M.90	11-1988	Sub-control stations
M.100	11-1988	Service circuits
M.110	11-1988	Circuit testing
M.120	11-1988	Access points for maintenance
M.125	11-1988	Digital loopback mechanisms
M.160	11-1988	Stability of transmission
M.320	11-1988	Numbering of the channels in a group
M.330	11-1988	Numbering of groups within a supergroup
M.340	11-1988	Numbering of supergroups within a mastergroup
M.350	11-1988	Numbering of mastergroups within a supermastergroup
M.380	11-1988	Numbering in coaxial systems
M.390	11-1988	Numbering in systems on symmetric pair cable
M.400	11-1988	Numbering in radio-relay links or open-wire line systems
M.410	11-1988	Numbering of digital blocks in transmission systems
M.450	11-1988	Bringing a new international transmission system into service
M.460	11-1988	Bringing international group, supergroup, etc., links into service
M.470	11-1988	Setting up and lining up analogue channels for international telecommunication services
M.475	11-1988	Setting up and lining up mixed analogue/digital channels for international telecommunication services

M.495	11-1988	Transmission restoration and transmission route diversity: Terminology and general principles
M.496	11-1988	Functional organization for automatic transmission restoration
M.500	11-1988	Routine maintenance measurements to be made on regulated line sections
M.510	11-1988	Readjustment to the nominal value of a regulated line section (on a symmetric pair line, a coaxial line or a radio-relay link)
M.520	11-1988	Routine maintenance on international group, supergroup, etc., links
M.525	11-1988	Automatic maintenance procedures for international group, supergroup, etc., links
M.530	11-1988	Readjustment to the nominal value of an international group, supergroup, etc., link
M.535	11-1988	Special maintenance procedures for multiple destination, unidirectional (MU) group and supergroup links
M.540	11-1988	Routine maintenance of carrier and pilot generating equipment
M.556	11-1988	Setting up and initial testing of digital channels on an international digital path or block
M.560	11-1988	International telephone circuits – Principles, definitions and relative transmission levels
M.562	11-1988	Types of circuit and circuit section
M.565	11-1988	Access points for international telephone circuits
M.570	11-1988	Constitution of the circuit; preliminary exchange of information
M.580	11-1988	Setting up and lining up an international circuit for public telephony
M.585	11-1988	Bringing an international digital circuit into service
M.590	11-1988	Setting up and lining up a circuit fitted with a compandor
M.600	11-1988	Organization of routine maintenance measurements on circuits
M.605	11-1988	Routine maintenance schedule for international public telephony circuits
M.610	11-1988	Periodicity of maintenance measurements on circuits
M.620	11-1988	Methods for carrying out routine measurements on circuits
M.630	11-1988	Maintenance of circuits using control chart methods
M.650	11-1988	Routine line measurements to be made on the line repeaters of audio-frequency sections or circuits
M.660	11-1988	Periodical in-station tests of echo suppressors complying with Recommendations G.161 and G.164
M.665	11-1988	Testing of echo cancellers
M.670	11-1988	Maintenance of a circuit fitted with a compandor
M.675	11-1988	Lining up and maintaining international demand assignment circuits (SPADE)
M.710	11-1988	General maintenance organization for the international automatic and semi-automatic telephone service
M.715	11-1988	Fault report point (circuit)
M.716	11-1988	Fault report point (network)
M.717	11-1988	Testing point (transmission)
M.718	11-1988	Testing point (line signalling)

M.719	11-1988	Testing point (switching and interregister signalling)
M.720	11-1988	Network analysis point
M.721	11-1988	System availability information point
M.722	11-1980	Network management point
M.723	11-1988	Circuit control station
M.724	11-1988	Circuit sub-control station
M.725	11-1988	Restoration control point
M.726	11-1988	Maintenance organization for the wholly digital international automatic and semi-automatic telephone service
M.729	11-1988	Organization of the maintenance of international public switched telephone circuits used for data transmission
M.730	11-1988	Maintenance methods
M.731	11-1988	Subjective testing
M.732	11-1988	Signalling and switching routine maintenance tests and measurements
M.733	11-1988	Transmission routine maintenance measurements on automatic and semi-automatic telephone circuits
M.734	11-1988	Exchange of information on incoming test facilities at international switching centres
M.760	11-1988	Transfer link for common channel Signalling System No. 6
M.762	11-1988	Maintenance of common channel Signalling System No. 6
M.800	11-1988	Use of circuits for voice-frequency telegraphy
M.810	11-1988	Setting up and lining up an international voice-frequency telegraph link for public telegraph circuits (for 50, 100 and 200 baud modulation rates)
M.820	11-1988	Periodicity of routine tests on international voice-frequency telegraph links
M.830	11-1988	Routine measurements to be made on international voice-frequency telegraph links
M.850	11-1988	International time division multiplex (TDM) telegraph systems
M.880	11-1988	International phototelegraph transmission
M.900	11-1988	Use of leased group and supergroup links for wide-spectrum signal transmission (data, facsimile, etc.)
M.910	11-1988	Setting up and lining up an international leased group link for wide-spectrum signal transmission
M.1010	11-1988	Constitution and nomenclature of international leased circuits
M.1012	11-1988	Circuit control station for leased and special circuits
M.1013	11-1988	Sub-control station for leased and special circuits
M.1014	11-1988	Transmission maintenance point (international line) (TMP-IL)
M.1015	11-1988	Types of transmission on leased circuits
M.1016	11-1988	Assessment of the service availability performance of international leased circuits
M.1020	03-1993	Characteristics of special quality international leased circuits with special bandwidth conditioning

M.1025	03-1993	Characteristics of special quality international leased circuits with basic bandwidth conditioning
M.1030	11-1988	Characteristics of ordinary quality international leased circuits forming part of private switched telephone networks
M.1040	11-1988	Characteristics of ordinary quality international leased circuits
M.1045	05-1996	Preliminary exchange of information for the provision of international leased circuits and international data transmission systems
M.1050	06-1998	Lining up an international point-to-point leased circuit with analogue presentation to the user
M.1055	11-1988	Lining up an international multiterminal leased circuit
M.1060	11-1988	Maintenance of international leased circuits
M.1130	10-1992	General definitions and general principles of operation/maintenance procedures to be used in satellite mobile systems
M.1140	10-1992	Maritime mobile telecommunication services via satellite
M.1150	04-1997	Maintenance aspects of maritime/land mobile telecommunication store-and-forward services (packet mode) via satellite
M.1160	04-1997	Maintenance aspects of aeronautical mobile telecommunication service via satellite
M.1170	04-1997	Maintenance aspects of mobile digital telecommunication service via satellite
M.1230	05-1996	Method to improve the management of operations and maintenance processes in the international telephone network
M.1235	11-1988	Use of automatically generated test calls for assessment of network performance
M.1300	10-1997	Maintenance of international data transmission systems operating in the range 2.4 kbit/s to 140 Mbit/s
M.1301	01-2001	General description and operational procedures for international SDH leased circuits
M.1320	11-1988	Numbering of channels in data transmission systems
M.1340	02-2000	Performance objectives, allocations and limits for international PDH leased circuits and supporting data transmission links and systems
M.1340 (2000) Cor.1	08-2001	
M.1350	11-1988	Setting up, lining up and characteristics of international data transmission systems operating in the range 2.4 kbit/s to 14.4 kbit/s
M.1355	11-1988	Maintenance of international data transmission systems operating in the range 2.4 to 14.4 kbit/s
M.1370	06-1998	Bringing-into-service of international data transmission systems
M.1375	06-1998	Maintenance of international data transmission systems
M.1380	02-2000	Bringing-into-service of international leased circuits that are supported by international data transmission systems
M.1385	02-2000	Maintenance of international leased circuits that are supported by international data transmission systems
M.1400	01-2004	Designations for interconnections among operators' networks
M.1401	02-2004	Formalization of interconnection designations among operators’ networks
M.1510	10-1992	Exchange of contact point information for the maintenance of international services and the international network
M.1520	10-1992	Standardized information exchange between Administrations

M.1530	03-1999	Network maintenance information
M.1532	02-2000	Network maintenance service performance agreement (MSPA)
M.1535	05-1996	Principles for maintenance information to be exchanged at customer contact point (MICC)
M.1537	10-1997	Definition of maintenance information to be exchanged at customer contact point (MICC)
M.1539	03-1999	Management of the grade of network maintenance services at the Maintenance Service Customer Contact Point (MSCC)
M.1540	10-1994	Exchange of information for planned outages of transmission systems
M.1550	10-1992	Escalation procedure
M.1560	10-1992	Escalation procedure for international leased circuits
M.2100	04-2003	Performance limits for bringing-into-service and maintenance of international multi-operator PDH paths and connections
M.2101	06-2003	Performance limits for bringing-into-service and maintenance of international multi-operator SDH paths and multiplex sections
M.2102	02-2000	Maintenance thresholds and procedures for recovery mechanisms (protection and restoration) of international SDH VC trails (paths) and multiplex sections
M.2110	07-2002	Bringing into service international multi-operator paths, sections and transmission systems
M.2120	07-2002	International multi-operator paths, sections and transmission systems fault detection and localization procedures
M.2130	02-2000	Operational procedures for the maintenance of the transport network
M.2140	02-2000	Transport network event correlation
M.2201	03-2001	Performance objectives, allocations and limits for bringing-into-service and maintenance of international ATM virtual path and virtual channel connections
M.2301	07-2002	Performance objectives and procedures for provisioning and maintenance of IP-based networks
M.2401	12-2003	Error performance limits and procedures for bringing-into-service and maintenance of multi-operator international paths and sections within an optical transport network
M.3000	02-2000	Overview of TMN Recommendations
M.3010	02-2000	Principles for a telecommunications management network
M.3010 (2000) Amendment 1	12-2003	TMN conformance and TMN compliance
M.3013	02-2000	Considerations for a telecommunications management network
M.3016	06-1998	TMN Security Overview
M.3017	06-2003	Framework for the integrated management of hybrid circuit/packet networks
M.3020	02-2000	TMN Interface Specification Methodology
M.3030	08-2002	Telecommunications Markup Language (tML) framework
M.3100	07-1995	Generic network information model
M.3100 (1995) Corrigendum 1	06-1998	
M.3100 (1995) Amendment 1	03-1999	

M.3100 (1995) Amendment 2	02-2000	
M.3100 (1995) Corrigendum 2	01-2001	
M.3100 (1995) Amendment 3	01-2001	Definition of the management interface for a generic alarm reporting control (ARC) feature
M.3100 (1995) Corrigendum 3	08-2001	
M.3100 (1995) Amendment 4	08-2001	Definition of the management interface for a bridge-and-roll cross-connect feature
M.3100 (1995) Amendment 5	08-2001	Enhanced cross-connect model
M.3100 (1995) Amendment 6	03-2003	
M.3100 (1995) Amendment 7	12-2003	
M.3100 (1995) Amendment 8	08-2004	
M.3101	07-1995	Managed object conformance statements for the generic network information model
		TMN management services for dedicated and reconfigurable circuits network
M.3108.1	03-1999	Information model for management of leased circuit and reconfigurable services
M.3108.1 (1999) Corrigendum 1	01-2001	
M.3108.2	02-2000	Information model for connection management of preprovisioned service link connections to form a reconfigurable leased service
M.3108.3	01-2001	Information model for management of virtual private network service
M.3120	10-2001	CORBA generic network and network element level information model
M.3120 (2001) Amendment 1	05-2002	Protection switching
M.3120 (2001) Amendment 2	03-2003	
M.3180	10-1992	Catalogue of TMN management information
M.3200	04-1997	TMN management services and telecommunications managed areas: overview
M.3207.1	05-1996	TMN management service: Maintenance aspects of B-ISDN management
		TMN management services for dedicated and reconfigurable circuits network
M.3208.1	10-1997	Leased circuit services
M.3208.1 (1997) Corrigendum 1	02-2000	
M.3208.2	03-1999	Connection management of pre-provisioned service link connections to form a leased circuit service
M.3208.2 (1999) Corrigendum 1	01-2001	
M.3208.3	02-2000	Virtual private network service
M.3210.1	01-2001	TMN management services for IMT-2000 security management

M.3211.1	05-1996	TMN management service: Fault and performance management of the ISDN access
M.3300	06-1998	TMN F interface requirements
M.3320	04-1997	Management requirements framework for the TMN X-Interface
M.3341	12-2003	Requirements for QoS/SLA management over the TMN X-interface for IP-based services
M.3350	05-2004	TMN service management requirements for information interchange across the TMN X-interface to support provisioning of Emergency Telecommunication Service (ETS)
M.3400	02-2000	TMN management functions
M.3600	10-1992	Principles for the management of ISDNs
M.3602	10-1992	Application of maintenance principles to ISDN subscriber installations
M.3603	10-1992	Application of maintenance principles to ISDN basic rate access
M.3604	10-1992	Application of maintenance principles to ISDN primary rate access
M.3605	10-1992	Application of maintenance principles to static multiplexed ISDN basic rate access
M.3610	05-1996	Principles for applying the TMN concept to the management of B-ISDN
M.3611	04-1997	Test management of the B-ISDN ATM layer using the TMN
M.3620	10-1992	Principles for the use of ISDN test calls, systems and responders
M.3621	07-1995	Integrated management of the ISDN customer access
M.3640	10-1992	Management of the D-channel – Data link layer and network layer
M.3641	10-1994	Management information model for the management of the data link and network layer of the ISDN D-channel
M.3650	04-1997	Network performance measurements of ISDN calls
M.3660	10-1992	ISDN interface management services
M.4010	10-1992	Inter-Administration agreements on common channel Signalling System No. 6
M.4030	10-1992	Transmission characteristics for setting up and lining up a transfer link for common channel Signalling System N° 6 (analogue version)
M.4100	05-1996	Maintenance of common channel Signalling System No. 7
M.4110	05-1996	Inter-Administration agreements on common channel Signalling System No. 7

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Series N : Maintenance: international sound programme and television transmission circuits

Number	*Approval Date*	*Recommendation Title*
		Maintenance: international sound programme and television transmission circuits
N.1	03-1993	Definitions for application to international sound-programme and television-sound transmission
N.2	11-1988	Different types of sound-programme circuit
N.3	11-1988	Control circuits
N.4	11-1988	Definition and duration of the line-up period and the preparatory period

N.5	11-1988	Sound-programme control, sub-control and send reference stations
N.10	03-1993	Limits for the lining-up of international sound-programme links and connections
N.11	11-1988	Essential transmission performance objectives for international sound-programme centres (ISPC)
N.12	11-1988	Measurements to be made during the line-up period that precedes a sound-programme transmission
N.13	11-1988	Measurements to be made by the broadcasting organizations during the preparatory period
N.15	11-1988	Maximum permissible power during an international sound-programme transmission
N.16	11-1988	Identification signal
N.17	11-1988	Monitoring the transmission
N.18	11-1988	Monitoring for charging purposes, releasing
N.21	11-1988	Limits and procedures for the lining-up of a sound-programme circuit
N.23	11-1988	Maintenance measurements to be made on international sound-programme circuits
N.51	11-1988	Definitions for application to international television transmissions
N.52	11-1988	Multiple destination television transmissions and coordination centres
N.54	11-1988	Definition and duration of the line-up period and the preparatory period
N.55	03-1993	Organization, responsibilities and functions of control and sub-control international television centres and control and sub-control stations for international television connections, links, circuits and circuit sections
N.60	03-1993	Nominal amplitude of video signals at video interconnection points
N.61	11-1988	Measurements to be made before the line-up period that precedes a television transmission
N.62	03-1993	Tests to be made during the line-up period that precedes a television transmission
N.63	11-1988	Test signals to be used by the broadcasting organizations during the preparatory period
N.64	11-1988	Quality and impairment assessment
N.67	03-1993	Monitoring television transmissions – Use of the field blanking interval
N.73	11-1988	Maintenance of permanent international television circuits, links and connections

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Series O : Specifications of measuring equipment

Number	*Approval Date*	*Recommendation Title*
		Specifications of measuring equipment
O.1	02-2000	Scope and application of measurement equipment specifications covered in the O-series Recommendations
O.3	10-1992	Climatic conditions and relevant tests for measuring equipment
O.6	11-1988	1020 Hz reference test frequency
O.9	03-1999	Measuring arrangements to assess the degree of unbalance about earth

O.11	10-1992	Maintenance access lines
O.22	10-1992	CCITT automatic transmission measuring and signalling testing equipment ATME No. 2
O.27	11-1988	In-station echo canceller test equipment
O.33	07-1995	Automatic equipment for rapidly measuring stereophonic pairs and monophonic sound-programme circuits, links and connections
O.41	10-1994	Psophometer for use on telephone-type circuits
O.42	11-1988	Equipment to measure non-linear distortion using the 4-tone intermodulation method
O.61	11-1988	Simple equipment to measure interruptions on telephone-type circuits
O.62	11-1988	Sophisticated equipment to measure interruptions on telephone-type circuits
O.71	11-1988	Impulsive noise measuring equipment for telephone-type circuits
O.81	11-1988	Group-delay measuring equipment for telephone-type circuits
O.81 Appendix I	06-1998	A measuring signal (multitone test signal) for fast measurement of amplitude and phase for telephone type circuits
O.81 Appendix I Erratum1	06-2000	
O.82	11-1988	Group-delay measuring equipment for the range 5 to 600 kHz
O.91	11-1988	Phase jitter measuring equipment for telephone-type circuits
O.95	11-1988	Phase and amplitude hit counters for telephone-type circuits
O.111	11-1988	Frequency shift measuring equipment for use on carrier channels
O.131	11-1988	Quantizing distortion measuring equipment using a pseudo-random noise test signal
O.132	11-1988	Quantizing distortion measuring equipment using a sinusoidal test signal
O.133	03-1993	Equipment for measuring the performance of PCM encoders and decoders
O.150	05-1996	General requirements for instrumentation for performance measurements on digital transmission equipment
O.150 (1996) Corrigendum 1	05-2002	
O.151	10-1992	Error performance measuring equipment operating at the primary rate and above
O.151 (1992) Corrigendum 1	05-2002	
O.152	10-1992	Error performance measuring equipment for bit rates of 64 kbit/s and N x 64 kbit/s
O.153	10-1992	Basic parameters for the measurement of error performance at bit rates below the primary rate
O.161	11-1988	In-service code violation monitors for digital systems
O.162	10-1992	Equipment to perform in-service monitoring on 2048, 8448, 34 368 and 139 264 kbit/s signals
O.163	11-1988	Equipment to perform in-service monitoring on 1544 kbit/s signals
O.171	04-1997	Timing jitter and wander measuring equipment for digital systems which are based on the plesiochronous digital hierarchy (PDH)
O.172	03-2001	Jitter and wander measuring equipment for digital systems which are based on the synchronous digital hierarchy (SDH)

O.172 (2001) Amendment 1	03-2003	
O.173	03-2003	Jitter measuring equipment for digital systems which are based on the Optical Transport Network (ONT)
O.181	05-2002	Equipment to assess error performance on STM-N interfaces
O.191	02-2000	Equipment to measure the cell transfer performance of ATM connections
O.201	07-2003	Q-factor test equipment to estimate the transmission performance of optical channels

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Series P : Telephone transmission quality, telephone installations, local line networks

Number	*Approval Date*	*Recommendation Title*
		Telephone transmission quality, telephone installations, local line networks
P.10	12-1998	Vocabulary of terms on telephone transmission quality and telephone sets
P.10 (1998) Amendment 1	11-2003	New Annex A – List of psychoacoustic parameters
P.11	03-1993	Effect of transmission impairments
P.16	11-1988	Subjective effects of direct crosstalk; thresholds of audibility and intelligibility
P.32	11-1988	Evaluation of the efficiency of telephone booths and acoustic hoods
P.48	11-1988	Specification for an intermediate reference system
P.50	09-1999	Artificial voices
P.50 Erratum 1	05-2000	
P.50 Appendix I	02-1998	Test signals
P.51	08-1996	Artificial mouth
P.52	03-1993	Volume meters
O.41	10-1994	Psophometer for use on telephone-type circuits
P.54	11-1988	Sound level meters (apparatus for the objective measurement of room noise)
P.55	11-1988	Apparatus for the measurement of impulsive noise
P.56	03-1993	Objective measurement of active speech level
P.57	07-2002	Artificial ears
P.58	08-1996	Head and torso simulator for telephonometry
P.58 Erratum 1	01-2003	
P.59	03-1993	Artificial conversational speech
P.61	11-1988	Methods for the calibration of condenser microphones
P.64	09-1999	Determination of sensitivity/frequency characteristics of local telephone systems
P.64 Erratum 1	05-2000	
P.75	11-1988	Standard conditioning method for handsets with carbon microphones

P.76	11-1988	Determination of loudness ratings; fundamental principles
P.78	02-1996	Subjective testing method for determination of loudness ratings in accordance with Recommendation P.76
P.79	09-1999	Calculation of loudness ratings for telephone sets
P.79 Erratum 1	05-2000	
P.79 (1999) Corrigendum 1	10-2000	
P.79 Corrigendum 2	02-2001	
P.79 Annex G	11-2001	Wideband loudness rating algorithm
P.82	11-1988	Method for evaluation of service from the standpoint of speech transmission quality
P.85	06-1994	A method for subjective performance assessment of the quality of speech voice output devices
P.300	11-2001	Transmission performance of group audio terminals (GATs)
P.310	03-2003	Transmission characteristics for telephone band (300-3400 Hz) digital telephones
P.311	02-1998	Transmission characteristics for wideband (150-7000 Hz) digital handset telephones
P.313	05-2004	Transmission characteristics for cordless and mobile digital terminals
P.330	03-2003	Speech processing devices for acoustic enhancement
P.330 (2003) Amendment 1	09-2003	
P.340	05-2000	Transmission characteristics and speech quality parameters of hands-free terminals
P.340 (2000) Corrigendum 1	03-2004	
P.341	02-1998	Transmission characteristics for wideband (150-7000 Hz) digital hands-free telephony terminals
P.341 (1998) Corrigendum 1	09-1999	
P.342	05-2000	Transmission characteristics for telephone band (300-3400 Hz) digital loudspeaking and hands-free telephony terminals
P.350	03-2001	Handset dimensions
P.360	12-1998	Efficiency of devices for preventing the occurrence of excessive acoustic pressure by telephone receivers
P.370	08-1996	Coupling hearing aids to telephone sets
P.380	11-2003	Electro-acoustic measurements on headsets
P.501	05-2000	Test signals for use in telephonometry
P.501 Erratum 1	09-2001	
P.502	05-2000	Objective test methods for speech communication systems using complex test signals
P.502 Erratum 1	07-2001	
P.561	07-2002	In-service non-intrusive measurement device – Voice service measurements
P.561 App. III	02-1998	Digital speech recordings

P.562	05-2004	Analysis and interpretation of INMD voice-service measurements
P.563	05-2004	Single-ended method for objective speech quality assessment in narrow-band telephony applications
P.581	05-2000	Use of head and torso simulator (HATS) for hands-free terminal testing
P.800	08-1996	Methods for subjective determination of transmission quality
P.800.1	03-2003	Mean Opinion Score (MOS) terminology
P.810	02-1996	Modulated noise reference unit (MNRU)
P.830	02-1996	Subjective performance assessment of telephone-band and wideband digital codecs
P.831	12-1998	Subjective performance evaluation of network echo cancellers
P.832	05-2000	Subjective performance evaluation of hands-free terminals
P.833	02-2001	Methodology for derivation of equipment impairment factors from subjective listening-only tests
P.834	07-2002	Methodology for the derivation of equipment impairment factors from instrumental models
P.835	11-2003	Subjective test methodology for evaluating speech communication systems that include noise suppression algorithm
P.840	11-2003	Subjective listening test method for evaluating circuit multiplication equipment
P.851	11-2003	Subjective quality evaluation of telephone services based on spoken dialogue systems
P.862	02-2001	Perceptual evaluation of speech quality (PESQ): An objective method for end-to-end speech quality assessment of narrow-band telephone networks and speech codecs
P.862 (2001) Amd.1	03-2003	Revised Annex A: Source code for reference implementation and conformance tests
P.862.1	11-2003	Mapping function for transforming P.862 raw result scores to MOS-LQO
P.880	05-2004	Continuous evaluation of time-varying speech quality
P.910	09-1999	Subjective video quality assessment methods for multimedia applications
P.911	12-1998	Subjective audiovisual quality assessment methods for multimedia applications
P.911 (1998) Corrigendum 1	09-1999	
P.920	05-2000	Interactive test methods for audiovisual communications
P.930	08-1996	Principles of a reference impairment system for video
P.931	12-1998	Multimedia communications delay, synchronization and frame rate measurement
P.1010	07-2004	Fundamental voice transmission objectives for VoIP terminals and gateways
P.supp10	11-1988	Considerations relating to transmission characteristics for analogue handset telephones
P.supp16	11-1988	Guidelines for placement of microphones and loudspeakers in telephone conference rooms and for group audio terminals (GATs)
P.supp20	03-1993	Examples of measurements of handset receive-frequency responses: dependence on earcap leakage losses
P.Sup23	02-1998	ITU-T coded-speech database

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Series Q : Switching and signalling

Number	*Approval Date*	*Recommendation Title*
		Switching and signalling
Q.1	11-1988	Signal receivers for manual working
Q.2	11-1988	Signal receivers for automatic and semi-automatic working, used for manual working
Q.4	11-1988	Automatic switching functions for use in national networks
Q.5	11-1988	Advantages of semi-automatic service in the international telephone service
Q.6	11-1988	Advantages of international automatic working
Q.7	11-1988	Signalling systems to be used for international automatic and semi-automatic telephone working
Q.8	11-1988	Signalling systems to be used for international manual and automatic working on analogue leased circuits
Q.9	11-1988	Vocabulary of switching and signalling terms
E.164	05-1997	The international public telecommunication numbering plan
E.164 Supplement 1	03-1998	Alternatives for carrier selection and network identification
E.164 Supplement 2	11-1998	Number Portability
Q.12	11-1988	Overflow – alternative routing – rerouting – automatic repeat attempt
Q.14	11-1988	Means to control the number of satellite links in an international telephone connection
Q.20	11-1988	Comparative advantages of "in-band" and "out-band" systems
Q.21	11-1988	Systems recommended for out-band signalling
Q.22	11-1988	Frequencies to be used for in-band signalling
Q.23	11-1988	Technical features of push-button telephone sets
Q.24	11-1988	Multifrequency push-button signal reception
Q.25	11-1988	Splitting arrangements and signal recognition times in "in-band" signalling systems
Q.26	11-1988	Direct access to the international network from the national network
Q.27	11-1988	Transmission of the answer signal
Q.28	11-1988	Determination of the moment of the called subscriber's answer in the automatic service
Q.29	11-1988	Causes of noise and ways of reducing noise in telephone exchanges
Q.30	11-1988	Improving the reliability of contacts in speech circuits
Q.31	11-1988	Noise in a national 4-wire automatic exchange
Q.32	11-1988	Reduction of the risk of instability by switching means
Q.33	11-1988	Protection against the effects of faulty transmission on groups of circuits

E.180/Q.35	03-1998	Technical characteristics of tones for the telephone service
Q.44	11-1988	Attenuation distortion
Q.45	10-1984	Transmission characteristics of an analogue international exchange
Q.45bis	11-1988	Transmission characteristics of an analogue international exchange
Q.48	11-1988	Demand assignment signalling systems
Q.50	07-2001	Signalling between Circuit Multiplication Equipment (CME) and International Switching Centres (ISC)
Q.50.1	07-2001	Signalling between International Switching Centres (ISC) and Digital Circuit Multiplication Equipment (DCME) including the control of compression/decompression
Q.50.2	12-2002	Signalling between International Switching Centres (ISC) and Digital Circuit Multiplication Equipment (DCME) including the control of compression/decompression over an IP network
Q.52	03-2001	Signaling between international switching centers and stand-alone echo control devices
Q.55	12-1999	Signalling between signal processing network equipments (SPNE) and international switching centres (ISC)
Q.56	05-2001	Signalling between signal processing network equipment (SPNE) and international switching centres (ISC) over an IP network
Q.65	06-2000	The unified functional methodology for the characterization of services and network capabilities including alternative object oriented techniques
Q.68	03-1993	Overview of methodology for developing management services
Q.71	03-1993	ISDN circuit mode switched bearer services
Q.72	03-1993	Stage 2 description for packet mode services
Q.76	02-1995	Service procedures for Universal Personal Telecommunication – Functional modelling and information flows
Q.80	11-1988	Introduction to stage 2 service descriptions for supplementary services
		Stage 2 description for number identification supplementary services
Q.81.1	11-1988	Direct dialling-in
Q.81.2	02-1992	Multiple subscriber number
Q.81.3	09-1991	Calling line identification presentation (CLIP) and calling line identification restriction (CLIR)
Q.81.5	09-1991	Connected line identification, presentation and restriction (COLP) and (COLR)
Q.81.7	06-1997	Malicious call identification (MCID)
Q.81.8	02-1992	Sub-addressing (SUB)
		Stage 2 description for call offering supplementary services
Q.82.1	11-1988	Call transfer
Q.82.2	03-1993	call forwarding
Q.82.3	03-1993	Call deflection
Q.82.4	11-1988	Line hunting
Q.82.7	07-1996	Explicit call transfer

		Stage 2 description for call completion supplementary services
Q.83.1	09-1991	Call waiting (CW)
Q.83.2	02-1992	Call hold
Q.83.3	11-1988	Completion of call to busy subscriber
Q.83.4	09-1991	Terminal portability
		Stage 2 description for multiparty supplementary services
Q.84.1	03-1993	Conference calling (CONF)
Q.84.2	10-1995	Three-party service
		Stage 2 description for community of interest supplementary services
Q.85.1	02-1992	Closed user group
Q.85.3	02-1992	Multi-level precedence and preemption (MLPP)
Q.85.6	02-1995	Global Virtual Network Service (GVNS)
Q.85.6 Annex A	07-1996	Service procedures and information flows based on intelligent network CS-1 capabilities
		Stage 2 description for charging supplementary services
Q.86.1	11-1988	Credit card call
Q.86.2	10-1995	Advice of charge (AOC)
Q.86.3	03-1993	Reverse charging (REV)
Q.86.4	06-1997	International Freephone Service (IFS)
Q.86.7	10-1995	International Telecommunication Charge Card (ITCC)
		Stage 2 description for additional information transfer supplementary services
Q.87.1	03-1993	User-to-user signalling (UUS)
Q.87.2	11-1988	User signalling bearer services
Q.101	11-1988	Facilities provided in international semi-automatic working
Q.102	11-1988	Facilities provided in international automatic working
Q.103	11-1988	Numbering used
Q.104	11-1988	Language digit or discriminating digit
Q.105	11-1988	National (significant) number
Q.106	11-1988	The sending-finished signal
Q.107	11-1988	Standard sending sequence of forward address information
Q.107bis	03-1993	Analysis of forward address information for routing
Q.108	11-1988	One-way or both-way operation of international circuits
Q.109	11-1988	Transmission of the answer signal in international exchanges
Q.110	11-1988	General aspects of the utilization of standardized CCITT signalling systems on PCM links

Q.112	11-1988	Signal levels and signal receiver sensitivity
Q.113	11-1988	Connection of signal receivers in the circuit
Q.114	11-1988	Typical transmission requirements for signal senders and receivers
Q.115.0	12-2002	Protocols for the control of signal processing network elements and functions
Q.115.0 Erratum 1	09-2003	
Q.115.1	12-2002	Logic for the control of echo control devices and functions
Q.116	11-1988	Indication given to the outgoing operator or calling subscriber in case of an abnormal condition
Q.117	11-1988	Alarms for technical staff and arrangements in case of faults
Q.118	09-1997	Abnormal conditions – Special release arrangements
Q.118bis	11-1988	Indication of congestion conditions at transit exchanges
Q.120-Q.139	11-1988	Specifications of Signalling system No. 4
Q.140-Q.180	11-1988	Specifications of Signalling System No. 5
Q.251-Q.300	11-1988	Specifications of Signalling System No. 6
Q.310-Q.332	11-1988	Specifications of Signalling System R1
Q.400-Q.490	11-1988	Specifications of Signalling System R2
Q.500	11-1988	Digital local, combined, transit and international exchanges – Introduction and field of application
Q.511	11-1988	Exchange interfaces towards other exchanges
Q.512	02-1995	Digital exchange interfaces for subscriber access
Q.513	03-1993	Digital exchange interfaces for operations, administration and maintenance
Q.521	03-1993	Digital exchange functions
Q.522	11-1988	Digital exchange connections, signalling and ancillary functions
Q.541	03-1993	Digital exchange design objectives – General
Q.542	03-1993	Digital exchange design objectives – Operations and maintenance
Q.543	03-1993	Digital exchange performance design objectives
Q.544	11-1988	Digital exchange measurements
Q.551	01-2002	Transmission characteristics of digital exchanges
Q.552	11-2001	Transmission characteristics at 2-wire analogue interfaces of digital exchanges
Q.553	11-2001	Transmission characteristics at 4-wire analogue interfaces of digital exchanges
Q.554	11-1996	Transmission characteristics at digital interfaces of digital exchanges
Q.601	03-1993	Interworking of signalling systems – General
Q.602	03-1993	Interworking of signalling systems – Introduction
Q.603	11-1988	Events
Q.604	03-1993	Interworking of signalling systems – Information analysis tables

Q.605	11-1988	Drawing conventions
Q.606	11-1988	Logic procedures
Q.607	11-1988	Interworking requirements for new signalling systems
Q.608	11-1988	Miscellaneous interworking aspects
Q.611	11-1988	Logic procedures for incoming signalling system No. 4
Q.612	11-1988	Logic procedures for incoming signalling system No. 5
Q.613	11-1988	Logic procedures for incoming signalling system No. 6
Q.614	03-1993	Logic procedures for incoming Signalling System No. 7 (TUP)
Q.615	11-1988	Logic procedures for incoming signalling system R1
Q.616	11-1988	Logic procedures for incoming signalling system R2
Q.617	03-1993	Logic procedures for incoming signalling system No. 7 (ISUP)
Q.621	11-1988	Logic procedures for outgoing signalling system No. 4
Q.622	11-1988	Logic procedures for outgoing signalling system No. 5
Q.623	11-1988	Logic procedures for outgoing signalling system No. 6
Q.624	03-1993	Logic procedures for outgoing Signalling System No. 7 (TUP)
Q.625	11-1988	Logic procedures for outgoing signalling system R1
Q.626	11-1988	Logic procedures for outgoing signalling system R2
Q.627	03-1993	Logic procedures for outgoing Signalling System No. 7 (ISUP)
Q.634	11-1988	Logic procedures for interworking of signalling system No. 4 to R2
Q.642	11-1988	Logic procedures for interworking of signalling system No. 5 to No. 6
Q.643	11-1988	Logic procedures for interworking of signalling system No. 5 to No. 7 (TUP)
Q.644	11-1988	Logic procedures for interworking of signalling system No. 5 to R1
Q.645	11-1988	Logic procedures for interworking of signalling system No. 5 to R2
Q.646	03-1993	Logic procedures for interworking of Signalling System No. 5 to Signalling System No. 7 (ISUP)
Q.652	11-1988	Logic procedures for interworking of signalling system No. 6 to No. 5
Q.653	11-1988	Logic procedures for interworking of signalling system No. 6 to No. 7 (TUP)
Q.654	11-1988	Logic procedures for interworking of signalling system No. 6 to R1
Q.655	11-1988	Logic procedures for interworking of signalling system No. 6 to R2
Q.656	03-1993	Logic procedures for interworking of Signalling System No. 6 to Signalling System No. 7 (ISUP)
Q.662	11-1988	Logic procedures for interworking of signalling system No. 7 (TUP) to No. 5
Q.663	11-1988	Logic procedures for interworking of signalling system No. 7 (TUP) to No. 6
Q.664	11-1988	Logic procedures for interworking of signalling system No. 7 (TUP) to No. 7 (TUP)
Q.665	11-1988	Logic procedures for interworking of signalling system No. 7 (TUP) to R1

Q.666	11-1988	Logic procedures for interworking of signalling system No. 7 (TUP) to R2
Q.667	03-1993	Logic procedures for interworking of Signalling System No. 7 (TUP) to Signalling System No. 7 (ISUP)
Q.671	11-1988	Logic procedures for interworking of signalling system R1 to No. 5
Q.672	11-1988	Logic procedures for interworking of signalling system R1 to No. 6
Q.673	11-1988	Logic procedures for interworking of signalling system R1 to No. 7 (TUP)
Q.674	11-1988	Logic procedures for interworking of signalling system R1 to R2
Q.675	03-1993	Logic procedures for interworking of Signalling System R1 to Signalling System No. 7 (ISUP)
Q.681	11-1988	Logic procedures for interworking of signalling system R2 to No. 4
Q.682	11-1988	Logic procedures for interworking of signalling system R2 to No. 5
Q.683	11-1988	Logic procedures for interworking of signalling system R2 to No. 6
Q.684	11-1988	Logic procedures for interworking of signalling system R2 to No. 7 (TUP)
Q.685	11-1988	Logic procedures for interworking of signalling system R2 to R1
Q.686	03-1993	Logic procedures for interworking of Signalling System R2 to Signalling System No. 7 (ISUP)
Q.690	03-1993	Logic procedures for interworking of Signalling System No. 7 (ISUP) to No. 5
Q.691	03-1993	Logic procedures for interworking of Signalling System No. 7 (ISUP) to No. 6
Q.692	03-1993	Logic procedures for interworking of Signalling System No. 7 (ISUP) to No. 7 (TUP)
Q.694	03-1993	Logic procedures for interworking of signalling system No. 7 (ISUP) to R1
Q.695	03-1993	Logic procedures for interworking of Signalling System No. 7 (ISUP) to R2
Q.696	06-1997	Interworking between the Signalling System No. 7 ISDN User Part (ISUP) and Signalling Systems No. 5, R2 and Signalling System No. 7 TUP
Q.698	03-1993	Interworking of Signalling System No. 7 ISUP, TUP and Signalling System No. 6 using arrow diagrams
Q.699	09-1997	Interworking between ISDN access and non-ISDN access over ISDN User Part of Signalling System No. 7
Q.699 Addendum 1	12-1999	DSS1-SS7 interworking for call completion on no reply
Q.699.1	05-1998	Interworking between ISDN access and non-ISDN access over ISDN user part of signalling system No. 7: Support of VPN applications with PSS1 information flows
Q.700	03-1993	Introduction to CCITT Signalling System No. 7
Q.701	03-1993	Functional description of the message transfer part (MTP) of Signalling System No. 7
Q.702	11-1988	Signalling data link
Q.703	07-1996	Signalling link
Q.704	07-1996	Signalling network functions and messages
Q.705	03-1993	Signalling network structure
Q.706	03-1993	Message transfer part signalling performance
Q.707	11-1988	Testing and maintenance

Q.708	03-1999	Assignment procedures for international signalling point codes
Q.709	03-1993	Hypothetical signalling reference connection
Q.710	11-1988	Simplified MTP version for small systems
Q.711	03-2001	Functional description of the signalling connection control part
Q.712	07-1996	Definition and function of Signalling connection control part messages
Q.713	03-2001	Signalling connection control part formats and codes
Q.714	05-2001	Signalling connection control part procedures
Q.715	04-2002	Signalling connection control part user guide
Q.716	03-1993	Signalling System No. 7 – Signalling connection control part (SCCP) performance
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		Stage 3 description for community of interest supplementary services for B-ISDN using SS No. 7
Q.2735.1	06-1997	Closed User Group (CUG)
Q.2751.1	09-1997	Extension of Q.751.1 for SAAL signalling links
Q.2761	12-1999	Functional description of the B-ISDN user part (B-ISUP) of signalling system No. 7
Q.2761 (1999) Amendment 1	12-2002	Support for the International Emergency Preference Scheme
Q.2762	12-1999	General functions of messages and signals of the B-ISDN User Part (B-ISUP) of Signalling System No. 7
Q.2762 (1999) Amendment 1	12-2002	Support for the International Emergency Preference Scheme
Q.2763	12-1999	Signalling System No. 7 B-ISDN User Part (B-ISUP) – Formats and codes
Q.2763 (1999) Amendment 1	12-2002	Support for the International Emergency Preference Scheme
Q.2764	12-1999	Signalling System No. 7 B-ISDN User Part (B-ISUP) – Basic call procedures
Q.2764 (1999) Amendment 1	12-2002	Support for the International Emergency Preference Scheme
Q.2765	12-1999	Signalling System No. 7 B-ISDN User Part (B-ISUP) – Application transport mechanism (APM)
Q.2766.1	05-1998	Switched virtual path capability
Q.2766.1 (1998) Amendment 1	06-2000	
Q.2767.1	06-2000	Soft PVC capability
Q.2769.1	06-2000	Support of number portability information across B-ISUP
Q.2920	12-2003	Broadband integrated services digital network (B-ISDN) – Digital Subscriber Signalling System No. 2 (DSS 2): Call/connection control for the support of ATM-MPLS network interworking
Q.2931	02-1995	Digital Subscriber Signalling System No. 2 – User-Network Interface (UNI) layer 3 specification for basic call/connection control
Q.2931 (1995) Amendment 1	06-1997	
Q.2931 (1995) Amendment 2	03-1999	

Q.2931 (1995) Amendment 3	03-1999	
Q.2931 (1995) Amendment 4	12-1999	
Q.2931 (1995) Amendment 2 Corrigendum 1	06-2000	
Q.2931B	12-2000	Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS2) – User-network interface (UNI) layer 3 specification for basic call/connection control: Protocol implementation conformance statement (PICS) proform
Q.2931C	12-2000	Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS2) – User-network interface (UNI) layer 3 specification for basic call/connection control: Test suite structure and test purposes (TSS & TP) for the us
Q.2931D	12-2000	Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS2) – User-network interface (UNI) layer 3 specification for basic call/connection control: Abstract Test Suite (ATS) and partial Protocol Implementatio
Q.2931E	12-2000	Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS2) – User-network interface (UNI) layer 3 specification for basic call/connection control: Test suite structure and test purposes (TSS & TP) for the ne
Q.2931F	12-2000	Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS2) – User-network interface (UNI) layer 3 specification for basic call/connection control: Abstract Test Suite (ATS) and partial Protocol Implementatio
		Digital subscriber signalling system No. 2 – Generic functional protocol
Q.2932.1	07-1996	Core functions
Q.2933	07-1996	Digital subscriber signalling system No. 2 – Signalling specification for frame relay service
Q.2934	05-1998	Digital subscriber signalling system No. 2 – Switched virtual path capability
Q.2939.1	09-1997	Digital Subscriber Signalling System No. 2 – Application of DSS2 service-related information elements by equipment supporting B-ISDN services
Q.2941.1	09-1997	Digital Subscriber Signalling System No. 2 – Generic identifier transport
Q.2941.2	12-1999	Digital Subscriber Signalling System No. 2 – Generic identifier transport extensions
Q.2941.3	06-2000	Digital Subscriber Signalling System No. 2 – Generic identifier transport extension for support of bearer independent call control
		Stage 3 description for number identification supplementary services using B-ISDN digital subscriber signalling system No. 2 (DSS2) – Basic Call
Q.2951.1-8	02-1995	Direct-Dialling-In (DDI)
Q.2951.1-8 (1995) Corrigendum 1	05-1998	
Q.2951.1-8	02-1995	Multiple Subscriber Number (MSN)
Q.2951.1-8	02-1995	Calling Line Identification Presentation (CLIP)
Q.2951.1-8	02-1995	Calling Line Identification Restriction (CLIR)
Q.2951.1-8	02-1995	Connected Line Identification Presentation (COLP)
Q.2951.1-8	02-1995	Connected Line Identification Restriction (COLR)
Q.2951.1-8	02-1995	Sub-addressing (SUB)

Q.2951.9	12-1999	Support of ATM end system addressing format by Number identification supplementary services
		Stage 3 description for community of interest supplementary services using B-ISDN digital subscriber signalling system No. 2 (DSS2)
Q.2955.1	06-1997	Closed User Group (CUG)
		Stage 3 description for additional information transfer supplementary services using B-ISDN digital subscriber signalling system No. 2 (DSS2) – Basic call
Q.2957.1	02-1995	User-to-user signalling (UUS)
Q.2957.1 (1995) Amendment 1	12-1999	
Q.2959	07-1996	Digital subscriber signalling system No. 2 – Call priority
		Digital subscriber signalling system No. 2 – Additional traffic parameters
Q.2961B	12-2000	Digital subscriber signalling system No. 2 (DSS2) – Additional traffic parameters: Protocol implementation conformance statement (PICS) proforma
Q.2961C	12-2000	Digital subscriber signalling system No. 2 (DSS2) – Additional traffic parameters: Test suite structure and test purposes (TSS & TP) for the user
Q.2961D	12-2000	Digital subscriber signalling system No. 2 (DSS2) – Additional traffic parameters: Abstract test suite (ATS) and partial protocol implementation extra information for testing (PIXIT) proforma for the user
Q.2961E	12-2000	Digital subscriber signalling system No. 2 (DSS2) – Additional traffic parameters: Test suite structure and test purposes (TSS & TP) for the network
Q.2961F	12-2000	Digital subscriber signalling system No. 2 (DSS2) – Additional traffic parameters: Abstract test suite (ATS) and partial protocol implementation extra information for testing (PIXIT) proforma for the Network
Q.2961.1	10-1995	Additional signalling capabilities to support traffic parameters for the tagging option and the sustainable cell rate parameter set
Q.2961.2	06-1997	Support of ATM Transfer capability in the broadband bearer capability information element
Q.2961.2 (1997) Corrigendum 1	03-1999	
Q.2961.3	09-1997	Signalling capabilities to support traffic parameters for the available bit rate (ABR) ATM transfer capability
Q.2961.4	09-1997	Signalling capabilities to support traffic parameters for the ATM Block Transfer (ABT) ATM transfer capability
Q.2961.5	03-1999	Additional traffic parameters for cell delay variation tolerance indication
Q.2961.6	05-1998	Additional signalling procedures for the support of the SBR2 and SBR3 ATM transfer capabilities
Q.2962	05-1998	Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase
Q.2962B	12-2000	Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase: Protocol Implementation Conformance Statement (PICS) proforma
Q.2962C	12-2000	Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase: Test suite structure and test purposes (TSS & TP) for the user
Q.2962D	12-2000	Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase: Abstract test suite (ATS) and partial protocol implementation extra information for testing (PIXIT) proforma for the user

Q.2962E	12-2000	Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase: Test suite structure and test purposes (TSS & TP) for the network
Q.2962F	12-2000	Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase: Abstract test suite (ATS) and partial protocol Implementation extra information for testing (PIXIT) proforma for the network
		Digital subscriber signalling system No. 2 – Connection modification
Q.2963.1	12-1999	Peak cell rate modification by the connection owner
Q.2963.1B	12-2000	Peak cell rate modification by the connection owner: Protocol implementation conformance statement (PICS) proforma
Q.2963.1C	12-2000	Peak cell rate modification by the connection owner: Test suite structure and test purposes (TSS & TP) for the user
Q.2963.1D	12-2000	Peak cell rate modification by the connection owner: Abstract test suite (ATS) and partial protocol implementation extra information for testing (PIXIT) proforma for the user
Q.2963.1E	12-2000	Peak cell rate modification by the connection owner: Test suite structure and test purposes (TSS & TP) for the network
Q.2963.1F	12-2000	Peak cell rate modification by the connection owner: Abstract test suite (ATS) and partial protocol implementation extra information for testing (PIXIT) proforma for the network
Q.2963.2	09-1997	Modification procedures for sustainable cell rate parameters
Q.2963.3	05-1998	ATM traffic descriptor modification with negotiation by the connection owner
Q.2964.1	07-1996	Digital subscriber signalling system No. 2 – Basic look-ahead
Q.2965.1	03-1999	Digital subscriber signalling system No. 2 – Support of Quality of Service classes
Q.2965.1 (1999) Amendment 1	06-2000	
Q.2965.1B	12-2000	Digital subscriber signalling system No. 2 – Support of Quality of Service classes: Protocol Implementation Conformance Statement (PICS) proforma
Q.2965.2	12-1999	Digital subscriber signalling system No. 2 – Signalling of individual Quality of Service parameters
Q.2965.2B	12-2000	Digital subscriber signalling system No. 2 – Signalling of individual Quality of Service parameters: Protocol Implementation Conformance Statement (PICS) proforma
Q.2971	10-1995	Digital subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control
Q.2971 (1999) Corrigendum 1	12-1999	
Q.2971C	12-1999	Digital subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control: Test Suite Structure and Test Purposes (TSS & TP) for the user
Q.2971D	12-1999	Digital subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra information for testing (PIXIT) proforma for the
Q.2971E	12-1999	Digital subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control: Test Suite Structure and Test Purposes (TSS & TP) for the network
Q.2971F	12-1999	Digital subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the

Q.2981	12-1999	Broadband integrated services digital network (B-ISDN) and broadband private integrated services network (B-PISN) – Call control protocol
Q.2982	12-1999	Broadband integrated services sigital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS2) – Q.2931-based separated call control protocol
Q.2983	12-1999	Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS2) – Bearer control protocol
Q.2984	12-1999	Broadband integrated services digital network (B-ISDN) and broadband private integrated services network (B-PISN) – Prenegotiation
		Abstract test suite for the network integration testing for B-ISDN and B-ISDN/N-ISDN
Q.2991.1	12-1999	TSS & TP
Q.2991.2	12-1999	ICS & IXIT and ATS
Q-500 series Suppl. 1	11-1988	Definition of relative levels, transmission loss and attenuation/frequency distortion for digital exchanges with complex impedances at Z interfaces
Q-500 series Suppl. 2	11-1988	Impedance strategy for telephone instruments and digital local exchanges in the British Telecom Network
Q.Sup1	10-1995	Signalling System No. 7 testing and planning tools
Q.Sup2	09-1997	Intelligent network user's guide: Supplement for IN CS-1
Q.Sup3	05-1998	Number portability – Scope and capability set 1 architecture
Q.Sup4	05-1998	Number portability – Capability set 1 requirements for service provider portability (All call query and Onward routing)
Q.Sup5	03-1999	Number portability – Capability set 2 requirements for service provider portabilty (Query on release and Dropback)
Q.Sup7	03-1999	Technical Report TRQ.2001: General aspects for the development of unified signalling requirements
Q.Sup8	03-1999	Technical Report TRQ.2400: Transport control signalling requirements – Signalling requirements for AAL Type 2 link control capability set 1
Q.Sup9	03-2004	Technical Report TRQ.2000: Roadmap for the TRQ.2xxx-series Technical Reports
Q.Sup10	12-1999	Technical Report TRQ.2002: Information flow elements
Q.Sup11	12-1999	Technical Report TRQ.2010: B-ISDN signalling interworking requirements
Q.Sup12	12-1999	Technical Report TRQ.2100: Coordinated call control and bearer control signalling requirements – Root-party coordinated call and bearer control
Q.Sup13	12-1999	Technical Report TRQ.2110: Coordinated call control and bearer control signalling requirements – Leaf-party coordinated call and bearer control
Q.Sup14	12-1999	Technical Report TRQ.2120: Coordinated call control and bearer control signalling requirements – Third-party coordinated call and bearer control
Q.Sup15	12-1999	Technical Report TRQ.2130: Coordinated call control and bearer control signalling requirements for leaf initiated join service
Q.Sup16	12-1999	Technical Report TRQ.2140: Signalling requirements for the support of narrowband services via broadband transport technologies
Q.Sup17	12-1999	Technical Report TRQ.2200: Call control signalling requirements – Party call control
Q.Sup18	12-1999	Technical Report TRQ.2230: Call control signalling requirements – Join call service
Q.Sup19	12-1999	Technical Report TRQ.2300: Bearer control signalling requirements – Root-party bearer control
Q.Sup20	12-1999	Technical Report TRQ.2310: Bearer control signalling requirements – Leaf-party bearer control

Q.Sup21	12-1999	Technical Report TRQ.2320: Bearer control signalling requirements – Third-party bearer control
Q.Sup22	12-1999	Technical Report TRQ.3000: Operation of the bearer independant call control (BICC) protocol with digital subscriber signalling system No. 2 (DSS2)
Q.Sup23	12-1999	Supplement to ITU-T Q.1901 Recommendation – Technical Report TRQ.3010: Operation of the bearer independant call control (BICC) protocol with AAL type 2 signalling protocol (CS-1)
Q.Sup24	12-1999	Technical Report TRQ.3020: Operation of the bearer independant call control (BICC) protocol with broadband integrated services digital network user part (B-ISUP) for AAL Type 1 adaptation
Q.Sup25	12-1999	Supplement to ITU-T Q.2900 series Recommendations: Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS2) – User-network interface layer 3 – Overview of B-ISDN DSS2 signalling capabilities
Q.Sup26	12-1999	Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS2) and signalling system No. 7 (B-ISUP) – Support of services over IP-based networks
Q.Sup27	12-1999	Technical Report – Overview of Signalling and Protocol Framework for an Emerging Environment (SPFEE)
Q.Sup28	12-1999	Technical Report: Signalling and protocol framework for an emerging environment (SPFEE) – Specifications for service access
Q.Sup29	12-1999	Service Modelling: Evolution to the use of object oriented techniques
Q.Sup30	12-2000	Supplement to ITU-T Recommendation Q.1701 – Roadmap to IMT-2000 Recommendations, Standards and Technical Specifications
Q.Sup31	12-2000	Technical Report TRQ.2141.0: Signalling requirements for the support of narrow-band services over broadband transport technologies – Capability set 2 (CS-2)
Q.Sup32	11-2002	Technical Report TRQ.2141.1: Signalling requirements for the support of narrowband services via broadband transport technologies – CS-2 signalling flows
Q.Sup33	12-2000	Technical Report TRQ.2401: Transport control signalling requirements – Signalling requirements for AAL type 2 link control capability set 2
Q.Sup34	12-2000	Technical Report TRQ.2410: Signalling Requirements Capability Set 1 for the support of IP Bearer Control in BICC networks
Q.Sup35	12-2000	Technical Report TRQ.2500: Signalling Requirements for the support of the call bearer control interface (CS-1)
Q.Sup36	12-2000	Technical Report TRQ.3030: Operation of the bearer independent call control (BICC) protocol (CS-2) with IP bearer control protocol (IPBCP)
Q.Sup37	12-2000	DSS1 and DSS2 Messages and information element identifiers
Q.Sup38	05-2001	Technical Report TRQ.2600: BICC signalling transport requirements – Capability set 1
Q.Sup39	03-2002	Technical Report TRQ.2700: Requirements for signalling in access networks that support BICC
Q.Sup40	11-2002	Technical Report: Reference document on API/object interface between network control and application layer
Q.Sup41	11-2002	Technical Report TRQ.2003: Roadmap to the BICC protocol Recommendations, BICC interworking Recommendations, and BICC requirement Supplements
Q.Sup42	09-2003	Technical Report TRQ.2402: Transport control signalling requirements – Signalling requirements for AAL type 2 link control Capability Set 3
Q.Sup43	09-2003	Technical Report TRQ.2415: Transport control signalling requirements – Signalling requirements for IP connection control in radio access networks Capability Set 1
Q.Sup44	09-2003	Technical Report TRQ.2800: Transport control signalling requirements – Signalling requirements for AAL type 2 to IP interworking Capability Set 1

Q.Sup45	09-2003	Technical Report TRQ.2815: Requirements for interworking BICC/ISUP network with originating/destination networks based on Session Initiation Protocol and Session Description Protocol
Q.Sup46	09-2003	Technical Report TRQ.2830: ATM-MPLS network interworking signalling requirements
Q.Sup47	11-2003	Emergency services for IMT-2000 networks – Requirements for harmonization and convergence
Q.Sup48	03-2004	Guideline document for specifying API/object interface between network control and application layer
Q.Sup49	03-2004	Technical Report TRQ.2840: Signalling requirements to support IP telephony
Q.Sup50	03-2004	Technical Report TRQ.2145: Requirements for a Narrow-band Signalling Syntax (NSS)

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Series R : Telegraph transmission

Number	*Approval Date*	*Recommendation Title*
		Telegraph transmission
R.2	11-1988	Element error rate
R.4	11-1988	Methods for the separate measurements of the degrees of various types of telegraph distortion
R.5	03-1993	Observation conditions recommended for routine distortion measurements on international telegraph circuits
R.9	03-1993	How the laws governing distribution of distortion should be arrived at
R.11	03-1993	Calculation of the degree of distortion of a telegraph circuit in terms of the degrees of distortion of the component links
R.20	11-1988	Telegraph modem for subscriber lines
R.21	08-1996	9600 bit/s modem standardized for use in the telegraph TDM system
R.22	08-1996	Data over voice 19 200 bit/s modem standardized for use on telephone network subscriber lines
R.30	11-1988	Transmission characteristic for international VFT links
R.31	11-1988	Standardization of AMVFT systems for a modulation rate of 50 bauds
R.35	11-1988	Standardization of FMVFT systems for a modulation rate of 50 bauds
R.35bis	11-1988	50-baud wideband VFT systems
R.36	11-1988	Coexistence of 50-baud/120-Hz channels, 100-baud/240-Hz channels, 200-baud/360-Hz or 480-Hz channels on the same voice-frequency telegraph system
R.37	11-1988	Standardization of FMVFT systems for a modulation rate of 100 bauds
R.38 A	11-1988	Standardization of FMVFT system for a modulation rate of 200 bauds with channels spaced at 480 Hz
R.38B	11-1988	Standardization of FMVFT systems for a modulation rate of 200 bauds with channels spaced at 360 Hz usable on long intercontinental bearer circuits generally used with a 3-kHz spacing
R.39	11-1988	Voice-frequency telegraphy on radio circuits
R.40	11-1988	Coexistence in the same cable of telephony and super-telephone telegraphy

R.43	11-1988	Simultaneous communication by telephone and telegraph on a telephone-type circuit
R.44	11-1988	6-unit synchronous time-division 2-3-channel multiplex telegraph system for use over FMVFT channels spaced at 120 Hz for connection to standardized teleprinter networks
R.49	11-1988	Interband telegraphy over open-wire 3-channel carrier systems
R.50	11-1988	Tolerable limits for the degree of isochronous distortion of code-independent 50-baud telegraph circuits
R.51	11-1988	Standardized text for distortion testing of the code-independent elements of a complete circuit
R.51bis	11-1988	Standardized text for testing the elements of a complete circuit
R.52	11-1988	Standardization of international texts for the measurement of the margin of start-stop equipment
R.53	11-1988	Permissible limits for the degree of distortion on an international 50-baud/120-Hz VFT channel (frequency and amplitude modulation)
R.54	03-1993	Conventional degree of distortion tolerable for standardized start-stop 50-baud systems
R.55	03-1993	Conventional degree of distortion
R.56	03-1993	Telegraph distortion limits to be quoted in Recommendations for equipment and transmission plans
R.57	11-1988	Standard limits of transmission quality for planning code-independent international point-to-point telegraph communications and switched networks using 50-baud start-stop equipment
R.58	11-1988	Standard limits of transmission quality for the gentex and telex networks
R.58bis	11-1988	Limits on signal transfer delay for telegraph, telex and gentex networks
R.59	11-1988	Interface requirements for 50-baud start-stop telegraph transmission in the maritime mobile satellite service
R.60	11-1988	Conditions to be fulfilled by regenerative repeaters for start-stop signals of International Telegraph Alphabet No. 2
R.62	11-1988	Siting of regenerative repeaters in international telex circuits
R.70	11-1988	Designation of international telegraph circuits
R.70bis	11-1988	Numbering of international VFT channels
R.71	11-1988	Organization of the maintenance of international telegraph circuits
R.72	11-1988	Periodicity of maintenance measurements to be carried out on the channels of international VFT systems
R.73	11-1988	Maintenance measurements to be carried out on VFT systems
R.74	11-1988	Choice of type of telegraph distortion-measuring equipment
R.75	11-1988	Maintenance measurements on code-independent international sections of international telegraph circuits
R.75bis	11-1988	Maintenance measurements of character error rate on international sections of international telegraph circuits
R.76	11-1988	Reserve channels for maintenance measurements on channels of international VFT systems
R.77	11-1988	Use of bearer circuits for voice-frequency telegraphy
R.78	11-1988	Pilot channel for AMVFT systems
R.79	11-1988	Automatic tests of transmission quality on telegraph circuits between switching centres

R.80	11-1988	Causes of disturbances to signals in VFT channels and their effect on telegraph distortion
R.81	11-1988	Maximum acceptable limit for the duration of interruption of telegraph channels arising from failure of the normal power supplies
R.82	11-1988	Appearance of false calling and clearing signals in circuits operated by switched teleprinter services
R.83	11-1988	Changes of level and interruptions in VFT channels
R.90	11-1988	Organization for locating and clearing faults in international telegraph switched networks
R.91	11-1988	General maintenance aspects for the maritime satellite telex service
R.100	03-1993	Transmission characteristics of international TDM links
R.101	03-1993	Code and speed dependent TDM system for anisochronous telegraph and data transmission using bit interleaving
R.102	03-1993	4800 bit/s code and speed dependent and hybrid TDM systems for anisochronous telegraph and data transmission using bit interleaving
R.103	11-1988	Code and speed-dependent TDM 600 bit/s system for use in point-to-point or branch-line muldex configurations
R.105	03-1993	Duplex muldex concentrator, connecting a group of gentex and telex subscribers to a telegraph exchange by assigning virtual channels to time slots of a bit-interleaved TDM system
R.106	08-1995	Muldex unit for telegraph and low speed data transmission using TDM bit interleaving with an aggregate bit rate higher than 4800 bit/s
R.111	03-1993	Code and speed independent TDM system for anisochronous telegraph and data transmission
R.112	03-1993	TDM hybrid system for anisochronous telegraph and data transmission using bit interleaving
R.113	03-1993	Combined muldex for telegraphy and synchronous data transmission
R.114	03-1993	Numbering of international TDM channels
R.115	03-1993	Maintenance loops for TDM-systems
R.116	11-1988	Maintenance tests to be carried out on international TDM systems
R.117	03-1993	End-to-end error performance for telegraph, telex and gentex connections involving regenerative equipment
R.118	03-1993	Performance and availability monitoring in regenerative TDM
R.120	11-1988	Tolerable limits for the degree of isochronous distortion of code-independent telegraph circuits operating at modulation rates of 75, 100 and 200 bauds
R.121	11-1988	Standard limits of transmission quality for start-stop user classes of service 1 and 2 on anisochronous data networks
R.122	11-1988	Summary of transmission plans for rates up to 300 bauds
R.140	11-1988	Definitions of essential technical terms in the field of telegraph transmission
R.150	11-1988	Automatic protection switching of dual diversity bearers

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Number	*Approval Date*	*Recommendation Title*
		Telegraph services terminal equipment
S.1	03-1993	International Telegraph Alphabet No. 2
S.2	11-1988	Coding scheme using International Telegraph Alphabet No. 2 (ITA2) to allow the transmission of capital and small letters
S.3	11-1988	Transmission characteristics of the local end with its termination (ITA2)
S.4	03-1993	Special use of certain characters of the International Telegraph Alphabet No. 2
S.5	11-1988	Standardization of page-printing start-stop equipment and cooperation between page-printing and tape-printing start-stop equipment (ITA2)
S.6	11-1988	Characteristics of answerback units (ITA2)
S.7	11-1988	Control of teleprinter motors
S.8	03-1993	Intercontinental standardization of the modulation rate of start-stop apparatus and of the use of combination No. 4 in figure-shift
S.9	11-1988	Switching equipment of start-stop apparatus
S.10	11-1988	Transmission at reduced character transfer rate over a standardized 50-baud telegraph channel
S.11	11-1988	Use of start-stop reperforating equipment for perforated tape retransmission
S.12	11-1988	Conditions that must be satisfied by synchronous systems operating in connection with standard 50-baud teleprinter circuits
S.13	11-1988	Use on radio circuits of 7-unit synchronous systems giving error correction by automatic repetition
S.14	11-1988	Suppression of unwanted reception in radiotelegraph multi-destination teleprinter systems
S.15	11-1988	Use of the telex network for data transmission at 50 bauds
S.16	03-1993	Connection to the telex network of an automatic terminal using a V.24 DCE/DTE interface
S.17	11-1988	Answer-back unit simulators
S.18	11-1988	Conversion between International Telegraph Alphabet No. 2 and International Alphabet No. 5
S.19	11-1988	Calling and answering in the telex network with automatic terminal equipment
S.20	03-1993	Automatic clearing procedure for a telex terminal
S.21	03-1993	Use of display screens in telex machines
S.22	03-1993	"Conversation impossible" and or pre-recorded message in response to J/BELL signals from a telex terminal
S.23	03-1993	Automatic request of the answerback of the terminal of the calling party, by the telex terminal of the called party or by the international network
S.30	11-1988	Standardization of basic model page-printing machine using International Alphabet No. 5
S.31	11-1988	Transmission characteristics for start-stop data terminal equipment using International Alphabet No. 5
S.32	11-1988	Answer-back units for 200- and 300-baud start-stop machines in accordance with Recommendation S.30

S.33	03-1993	Alphabets and presentation characteristics for the intex service
S.34	03-1993	Intex terminals – Requirements to effect interworking with the international telex service
S.35	03-1993	Answerback coding for the Intex service
S.36	07-1996	Intex and similar services – Terminal requirements to effect interworking between terminals operating at different speeds
S.140	11-1988	Definitions of essential technical terms relating to apparatus for alphabetic telegraphy
S.supp1	11-1988	Minimal specifications for the bilingual (arabic/latin) teleprinter

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Series T : Terminals for telematic services

Number	*Approval Date*	*Recommendation Title*
		Terminals for telematic services
T.0	07-1996	Classification of facsimile terminals for document transmission over the public networks
T.1	11-1988	Standardization of phototelegraph apparatus
T.4	07-2003	Standardization of Group 3 facsimile terminals for document transmission
G.511	02-1998	Test methodology for Group 3 facsimile processing equipment in the Public Switched Telephone Network
T.6	11-1988	Facsimile coding schemes and coding control functions for Group 4 facsimile apparatus
T.10	11-1988	Document facsimile transmissions on leased telephone-type circuits
T.10bis	11-1988	Document facsimile transmissions in the general switched telephone network
T.22	03-1993	Standardized test charts for document facsimile transmissions
T.23	04-1994	Standardized colour test chart for document facsimile transmissions
T.24	06-1998	Standardized digitized image set
T.24 (1998) Amend.1	02-2000	
T.30	07-2003	Procedures for document facsimile transmission in the general switched telephone network
T.30 (2003) Erratum 1	04-2004	
T.31	08-1995	Asynchronous facsimile DCE control – Service Class 1
T.31 (1995) Amendment 1	07-1996	Annex B: Procedure for Service Class 1 support of V.34 modems
T.32	08-1995	Asynchronous facsimile DCE control – Service Class 2
T.32 (1995) Amendment 1	07-1996	
T.33	07-1996	Facsimile routing utilizing the subaddress
T.35	02-2000	Procedure for the allocation of ITU-T defined codes for non-standard facilities

T.36	07-1997	Security capabilities for use with Group 3 facsimile terminals
T.36 (1997) Amendment 1	04-1999	
T.37	06-1998	Procedures for the transfer of facsimile data via store-and-forward on the Internet
T.37 (1998) Amendment 1	09-1999	Full Mode
T.37 (1998) Amendment 2	03-2001	Replacement of reference RFC 2531 by RFC 2879
T.37 (1998) Amendment 3	11-2002	Support of image/tiff and image/tiff-fx MIME content-types
T.38	04-2004	Procedures for real-time Group 3 facsimile communication over IP networks
T.39	10-1997	Application profiles for simultaneous voice and facsimile terminals
T.42	07-2003	Continuous-tone colour representation method for facsimile
T.42 (2003) Corrigendum 1	03-2004	
T.43	07-1997	Colour and gray-scale image representations using lossless coding scheme for facsimile
T.43 (1997) Amendment 1	02-2000	Accommodation of new and future Resolutions
T.44	04-1999	Mixed Raster Content (MRC)
T.44 (1999) Amendment 1	02-2000	Accommodation of new Annex B
T.45	02-2000	Run-length Colour Encoding
T.50	09-1992	International Reference Alphabet (IRA) (Formerly International Alphabet No. 5 or IA5) – Information technology – 7-bit coded character set for information interchange
T.51	09-1992	Latin based coded character sets for telematic services
T.51 (1992) Amendment 1	08-1995	
T.52	03-1993	Non-latin coded character sets for telematic services
T.52 (1993) Amendment 1	10-1996	
T.53	04-1994	Character coded control functions for telematic services
T.62	03-1993	Control procedures for teletex and Group 4 facsimile services
T.62bis	03-1993	Control procedures for teletex and G4 facsimile services based on Recommendations X.215 and X.225
T.66	03-2002	Facsimile code points for use with Recommendations V.8 and V.8 bis
T.70	03-1993	Network-independent basic transport service for the telematic services
T.71	11-1988	Link access protocol balanced (LAPB) extended for half-duplex physical level facility
T.80	09-1992	Common components for image compression and communication – Basic principles
T.81	09-1992	Information technology – Digital compression and coding of continuous-tone still images – Requirements and guidelines
T.81 (1992) Cor.1	01-2004	Patent information update

T.82	03-1993	Information technology – Coded representation of picture and audio information – Progressive bi-level image compression
T.82 (1993) Technical Cor.1	03-1995	
T.82 (1993) Technical Cor.2	03-2001	
T.83	11-1994	Information technology – Digital compression and coding of continuous-tone still images: Compliance testing
T.84	07-1996	Information technology – Digital compression and coding of continuous-tone still images: Extensions
T.84 (1996) Amendment 1	04-1999	Provisions to allow registration of new compression types and versions in the SPIFF header
T.85	08-1995	Application profile for Recommendation T.82 – Progressive bi-level image compression (JBIG coding scheme) for facsimile apparatus
T.85 (1995) Amendment 1	10-1996	
T.85 (1995) Corrigendum 1	02-1997	
T.85 (1995) Amendment 2	10-1997	
T.86	06-1998	Information technology – Digital compression and coding of continuous-tone still images: Registration of JPEG Profiles, SPIFF Profiles, SPIFF Tags, SPIFF colour Spaces, APPn Markers, SPIFF Compression types and Registration authorities (REGAUT)
T.87	06-1998	Information technology – Lossless and near-lossless compression of continuous-tone still images – Baseline
T.88	02-2000	Information technology – Lossy/lossless coding of bi-level images
T.88 (2000) Amendment 1	06-2003	Encoder
T.88 (2000) Amendment 2	06-2003	Extension of adaptive templates for halftone coding
T.89	09-2001	Application profiles for Recommendation T.88 – Lossy/lossless coding of bi-level images (JBIG2) for facsimile
T.90	02-1992	Characteristics and protocols for terminals for telematic services in ISDN
T.90 (1992) Amendment 1	11-1994	
T.90 (1992) Amendment 2	07-1996	
T.90 (1992) Amendment 3	06-1998	Cause value for a G4 fax fallback
T.100	11-1988	International information exchange for interactive Videotex
T.101	11-1994	International interworking for Videotex services
T.102	03-1993	Syntax-based Videotex end-to-end protocols for the circuit mode ISDN
T.103	03-1993	Syntax-based Videotex end-to-end protocols for the packet mode ISDN
T.104	03-1993	Packet mode access for syntax-based Videotex via PSTN
T.105	11-1994	Syntax-based Videotex application layer protocol
T.106	03-1993	Framework of videotex terminal protocols

T.107	08-1995	Enhanced man machine interface for videotex and other retrieval services (VEMMI)
T.120	07-1996	Data protocols for multimedia conferencing
T.120 Annex C	02-1998	Lightweight profiles for the T.120 architecture
T.121	07-1996	Generic application template
T.122	02-1998	Multipoint communication service – Service definition
T.123	05-1999	Network-specific data protocol stacks for multimedia conferencing
T.124	02-1998	Generic Conference Control
T.125	02-1998	Multipoint communication service protocol specification
T.126	07-1997	Multipoint still image and annotation protocol
T.127	08-1995	Multipoint binary file transfer protocol
T.128	02-1998	Multipoint application sharing
T.134	02-1998	Text chat application entity
T.135	02-1998	User-to-reservation system transactions within T.120 conferences
T.136	05-1999	Remote device control application protocol
T.137	02-2000	Virtual meeting room management for multimedia conferencing audio-visual control
T.140	02-1998	Protocol for multimedia application text conversation
T.140 Addendum 1	02-2000	
T.150	11-1988	Telewriting terminal equipment
T.170	02-1998	Framework of the T.170-Series of Recommendations
T.171	10-1996	Protocols for interactive audiovisual services: Coded representation of multimedia and hypermedia objects
T.172	02-1998	MHEG-5 – Support for base-level interactive applications
T.173	07-1997	MHEG-3 script interchange representation
T.174	10-1996	Application programming interface (API) for MHEG-1
T.175	02-1998	Application programming interface (API) for MHEG-5
T.176	02-1998	Application programming interface (API) for digital storage media command and control (DSM-CC)
T.180	06-1998	Homogeneous access mechanism to communication services
T.190	08-1995	Cooperative Document Handling (CDH) – Framework and basic services
T.191	07-1996	Cooperative document handling (CDH) – Joint synchronous editing (point-to-point)
T.192	06-1998	Cooperative document handling – Complex services: Joint synchronous editing and joint document presentation/viewing
T.300	11-1988	General principles of telematic interworking
T.330	11-1988	Telematic access to interpersonal messaging system
T.351	11-1988	Imaging process of character information on facsimile apparatus
T.390	11-1988	Teletex requirements for interworking with the telex service

T.411	03-1993	Information technology – Open Document Architecture (ODA) and interchange format: Introduction and general principles
T.411 (1993) Technical Cor. 1	10-1997	
T.412	03-1993	Information technology – Open Document Architecture (ODA) and interchange format: Document structures
T.412 (1993) Technical Cor. 1	10-1997	
T.412 (1993) Technical Cor. 2	10-1997	
T.413	11-1994	Information technology – Open Document Architecture (ODA) and interchange format: Abstract interface for the manipulation of ODA documents
T.414	03-1993	Information technology – Open Document Architecture (ODA) and interchange format: Document profile
T.414 (1993) Technical Cor. 1	10-1997	
T.414 (1993) Technical Cor. 2	10-1997	
T.415	03-1993	Information technology – Open Document Architecture (ODA) and interchange format: Open document interchange format (ODIF)
T.415 (1993) Technical Cor. 1	10-1997	
T.415 (1993) Technical Cor. 2	10-1997	
T.416	03-1993	Information technology – Open Document Architecture (ODA) and interchange format: Character content architectures
T.416 (1993) Technical Cor. 1	10-1997	
T.417	03-1993	Information technology – Open Document Architecture (ODA) and interchange format: Raster graphics content architectures
T.417 (1993) Technical Cor. 1	10-1997	
T.417 (1993) Amendment 1	10-1997	
T.417 (1993) Amendment 2	02-2000	
T.418	03-1993	Information technology – Open Document Architecture (ODA) and interchange format: Geometric graphics content architecture
T.419	08-1995	Information technology – Open Document Architecture (ODA) and interchange format: Audio content architectures
T.421	11-1994	Information technology – Open Document Architecture (ODA) and interchange format: Tabular structures and tabular layout
T.422	08-1995	Information technology – Open Document Architecture (ODA) and interchange format: Identification of document fragments
T.424	07-1996	Information technology – Open Document Architecture (ODA) and interchange format: Temporal relationships and non-linear structures
T.431	09-1992	Document Transfer And Manipulation (DTAM) – Services and protocols – Introduction and general principles
T.432	09-1992	Document Transfer And Manipulation (DTAM) – Services and protocols – Service definition

T.432 (1992) Amendment 1	08-1995	Revisions of T.432 to support G4 colour and file transfer
T.433	09-1992	Document Transfer And Manipulation (DTAM) – Services and protocols – Protocol specification
T.433 (1992) Amendment 1	08-1995	Revisions of T.433 to support G4 colour and file transfer
T.434	04-1999	Binary file transfer format for the telematic services
T.435	08-1995	Document Transfer And Manipulation (DTAM) – Services and protocols – Abstract service definition and procedures for confirmed document manipulation
T.436	08-1995	Document Transfer and Manipulation (DTAM) – Services and protocols – Protocol specifications for confirmed document manipulation
T.441	11-1988	Document Transfer And Manipulation (DTAM) – Operational structure
T.501	03-1993	Document application profile MM for the interchange of formatted mixed mode documents
T.502	11-1994	Document application profile PM-11 for the interchange of simple structure, character content documents in processable and formatted forms
T.503	02-2000	Document application profile for the interchange of Group 4 facsimile documents
T.504	03-1993	Document application profile for videotex interworking
T.505	11-1994	Document application profile PM-26 for the interchange of enhanced structure, mixed content documents in processable and formatted forms
T.506	08-1993	Document application profile PM-36 for the interchange of extended document structures and mixed content documents in processable and formatted forms
T.510	03-1993	General overview of the T.510-Series Recommendations
T.521	11-1994	Communication application profile BT0 for document bulk transfer based on the session service
T.521 (1994) Amendment 1	08-1995	
T.522	09-1992	Communication application profile BT1 for document bulk transfer
T.523	03-1993	Communication application profile DM-1 for videotex interworking
T.541	03-1993	Operational application profile for videotex interworking
T.561	11-1988	Terminal characteristics for mixed mode of operation MM
T.562	11-1988	Terminal characteristics for teletex processable mode PM.1
T.563	10-1996	Terminal characteristics for Group 4 facsimile apparatus
T.563 (1996) Amendment 1	07-1997	
T.563 (1996) Amendment 2	10-1997	Annex C – T.30 frames for G4 facsimile
T.563 (1996) Corrigendum 1	06-1998	
T.563 (1996) Amendment 3	04-1999	
T.564	03-1993	Gateway characteristics for videotex interworking
T.571	09-1992	Terminal characteristics for the telematic file transfer within the teletex service

T.611	11-1994	Programming Communication Interface (PCI) APPLI/COM for facsimile Group 3, facsimile Group 4, teletex, telex, E-mail and file transfer services
T.800	08-2002	Information technology – JPEG 2000 image coding system: Core coding system
T.801	08-2002	Information technology – JPEG 2000 image coding system: Extensions
T.803	11-2002	Information technology – JPEG 2000 image coding system: Conformance testing
T.804	08-2002	Information technology – JPEG 2000 image coding system: Reference software
T.870	03-2002	Information technology – Lossless and near-lossless compression of continuous-tone still images: Extensions

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Series U : Telegraph switching

Number	*Approval Date*	*Recommendation Title*
		Telegraph switching
U.1	03-1993	Signalling conditions to be applied in the international telex service
U.2	11-1988	Standardization of dials and dial pulse generators for the international telex service
U.3	11-1988	Arrangements in switching equipment to minimize the effects of false calling signals
U.4	11-1988	Exchange of information regarding signals destined to be used over international circuits concerned with switched teleprinter networks
U.5	11-1988	Requirements to be met by regenerative repeaters in international connections
U.6	11-1988	Prevention of fraudulent transit traffic in the fully automatic international telex service
U.7	03-1993	Numbering schemes for automatic switching networks
U.8	11-1988	Hypothetical reference connections for telex and gentex networks
U.10	03-1993	Equipment of an international telex position
U.11	03-1993	Telex and gentex signalling on intercontinental circuits used for intercontinental automatic transit traffic (type C signalling)
U.12	03-1993	Terminal and transit control signalling system for telex and similar services on international circuits (type D signalling)
U.15	03-1993	Interworking rules for international signalling systems according to Recommendations U.1, U.11 and U.12
U.20	11-1988	Telex and gentex signalling on radio channels (synchronous 7-unit systems affording error correction by automatic repetition)
U.21	11-1988	Operator recall on a telex call set up on a radiotelegraph circuit
U.22	11-1988	Signals indicating delay in transmission on calls set up by means of synchronous systems with automatic error correction by repetition
U.23	11-1988	Use of radiotelegraph circuits with ARQ equipment for fully automatic telex calls charged on the basis of elapsed time
U.24	11-1988	Requirements for telex and gentex operation to be met by synchronous multiplex equipment described in Recommendation R.44
U.25	11-1988	Requirements for telex and gentex operation to be met by code- and speed-dependent TDM systems conforming to Recommendation R.101
U.30	11-1988	Signalling conditions for use in the international gentex network

U.31	11-1988	Prevention of connection to faulty stations and/or station lines in the gentex service
U.40	03-1993	Reactions by automatic terminals connected to the telex network in the event of ineffective call attempts or signalling incidents
U.41	11-1988	Changed address interception and call redirection in the telex service
U.43	11-1988	Follow-on calls
U.44	11-1988	Multi-address calls in real time for broadcast purposes in the international telex service
U.45	03-1993	Response to the not-ready condition of the telex terminal
U.46	03-1993	Interruption of automatic transmission and flow control in the international telex service
U.60	11-1988	General requirements to be met in interfacing the international telex network with maritime satellite systems
U.61	03-1993	Detailed requirements to be met in interfacing the international telex network with maritime satellite systems
U.62	03-1993	General requirements to be met in interfacing the international telex network with the fully automated maritime VHF/UHF radio system
U.63	11-1988	General requirements to be met in interfacing the international telex network with the maritime "direct printing" system
U.70	11-1988	Telex service signals for telex to teletex interworking
U.74	11-1988	Extraction of telex selection information from a calling telex answerback
U.75	03-1993	Automatic called telex answerback check
U.80	03-1993	International telex store and forward access from a telex subscriber
U.81	10-1996	International telex store-and-forward – Delivery to a telex subscriber
U.101	03-1993	Signalling systems for the Intex service (types E and F signalling)
U.102	07-1996	Intex and similar services – Network requirements to effect interworking between terminals operating at different speeds
U.140	11-1988	Definitions of essential technical terms relating to telegraph switching and signalling
U.200	03-1993	The international telex service – General technical requirements for interworking
U.201	03-1993	Interworking between the teletex service and the international telex service
U.202	03-1993	Technical requirements to be met in providing the international telex service within an integrated services digital network
U.203	03-1993	Technical requirements to be met when providing real-time bothway communications between terminals of the international telex service and data terminal equipments on a PSPDN or via the PSTN
U.204	03-1993	Interworking between the international telex service and the public interpersonal messaging service
U.205	03-1993	Store-and-retrieve facility for the delivery of messages from a terminal of the international telex service to a data terminal equipment which connects to a packet-switched public data network over the public switched telephone network
U.206	03-1993	Technical requirements for interworking between the international telex service and the videotex service
U.207	03-1993	Technical requirements to be met for the transfer of messages between terminals of the international telex service and Group 3 facsimile terminals connected to the PSTN
U.208	10-1996	The international telex service – Interworking with the INMARSAT C system using one-stage selection

U.210	03-1993	Intex service network requirements to effect interworking with the international telex service
U.220	03-1993	The international telex service – Technical requirements for a status enquiry function in an interworking scenario

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Series V : Data communication over the telephone network

Number	*Approval Date*	*Recommendation Title*
		Data communication over the telephone network
V.1	11-1988	Equivalence between binary notation symbols and the significant conditions of a two-condition code
V.2	11-1988	Power levels for data transmission over telephone lines
V.4	11-1988	General structure of signals of International Alphabet No. 5 code for character oriented data transmission over public telephone networks
V.7	11-1988	Definitions of terms concerning data communication over the telephone network
V.8	11-2000	Procedures for starting sessions of data transmission over the public switched telephone network
V.8bis	11-2000	Procedures for the identification and selection of common modes of operation between data circuit-terminating equipments (DCEs) and between data terminal equipments (DTEs) over the public switched telephone network and on leased point-to-point telephone-t
V.10	03-1993	Electrical characteristics for unbalanced double-current interchange circuits operating at data signalling rates nominally up to 100 kbit/s
V.11	10-1996	Electrical characteristics for balanced double-current interchange circuits operating at data signalling rates up to 10 Mbit/s
V.12	08-1995	Electrical characteristics for balanced double-current interchange circuits for interfaces with data signalling rates up to 52 Mbit/s
V.13	03-1993	Simulated carrier control
V.14	03-1993	Transmission of start-stop characters over synchronous bearer channels
V.14 (1993) Corrigendum 1	09-1998	
V.15	11-1988	Use of acoustic coupling for data transmission
V.16	11-1988	Medical analogue data transmission modems
V.17	02-1991	A 2-wire modem for facsimile applications with rates up to 14 400 bit/s
V.17 (1991) Corrigendum 1	09-1998	
V.18	11-2000	Operational and interworking requirements for DCEs operating in the text telephone mode
V.18 (2000) Amendment 1	11-2002	Harmonization with ANSI TIA/EIA-825 (2000) text phones
V.19	11-1988	Modems for parallel data transmission using telephone signalling frequencies
V.21	11-1988	300 bits per second duplex modem standardized for use in the general switched telephone network

V.22	11-1988	1200 bits per second duplex modem standardized for use in the general switched telephone network and on point-to-point 2-wire leased telephone-type circuits
V.22bis	11-1988	2400 bits per second duplex modem using the frequency division technique standardized for use on the general switched telephone network and on point-to-point 2-wire leased telephone-type circuits
V.23	11-1988	600/1200-baud modem standardized for use in the general switched telephone network
V.24	02-2000	List of definitions for interchange circuits between data terminal equipment (DTE) and data circuit-terminating equipment (DCE)
V.25	10-1996	Automatic answering equipment and general procedures for automatic calling equipment on the general switched telephone network including procedures for disabling of echo control devices for both manually and automatically established calls
V.25 (1996) Corrigendum 1	07-2001	
V.25bis	10-1996	Synchronous and asynchronous automatic dialling procedures on switched networks
V.26	11-1988	2400 bits per second modem standardized for use on 4-wire leased telephone-type circuits
V.26bis	11-1988	2400/1200 bits per second modem standardized for use in the general switched telephone network
V.26ter	11-1988	2400 bits per second duplex modem using the echo cancellation technique standardized for use on the general switched telephone network and on point-to-point 2-wire leased telephone-type circuits
V.27	11-1988	4800 bits per second modem with manual equalizer standardized for use on leased telephone-type circuits
V.27bis	11-1988	4800/2400 bits per second modem with automatic equalizer standardized for use on leased telephone-type circuits
V.27ter	11-1988	4800/2400 bits per second modem standardized for use in the general switched telephone network
V.28	03-1993	Electrical characteristics for unbalanced double-current interchange circuits
V.29	11-1988	9600 bits per second modem standardized for use on point-to-point 4-wire leased telephone-type circuits
V.31	11-1988	Electrical characteristics for single-current interchange circuits controlled by contact closure
V.31bis	11-1988	Electrical characteristics for single-current interchange circuits using optocouplers
V.32	03-1993	A family of 2-wire, duplex modems operating at data signalling rates of up to 9600 bit/s for use on the general switched telephone network and on leased telephone-type circuits
V.32bis	02-1991	A duplex modem operating at data signalling rates of up to 14 400 bit/s for use on the general switched telephone network and on leased point-to-point 2-wire telephone-type circuits
V.33	11-1988	14 400 bits per second modem standardized for use on point-to-point 4-wire leased telephone-type circuits
V.34	02-1998	A modem operating at data signalling rates of up to 33 600 bit/s for use on the general switched telephone network and on leased point-to-point 2-wire telephone-type circuits
V.36	11-1988	Modems for synchronous data transmission using 60-108 kHz group band circuits
V.37	11-1988	Synchronous data transmission at a data signalling rate higher than 72 kbit/s using 60-108 kHz group band circuits
V.38	10-1996	A 48/56/64 kbit/s data circuit-terminating equipment standardized for use on digital point-to-point leased circuits
V.41	11-1988	Code-independent error-control system

V.42	03-2002	Error-correcting procedures for DCEs using asynchronous-to-synchronous conversion
V.42 (2002) Corrigendum 1	07-2003	
V.42bis	01-1990	Data compression procedures for data circuit-terminating equipment (DCE) using error correction procedures
V.43	02-1998	Data flow control
V.44	11-2000	Data compression procedures
V.44 (2000) Corrigendum 1	03-2002	
V.50	11-1988	Standard limits for transmission quality of data transmission
M.729	11-1988	Organization of the maintenance of international public switched telephone circuits used for data transmission
V.53	11-1988	Limits for the maintenance of telephone-type circuits used for data transmission
V.54	11-1988	Loop test devices for modems
O.71	11-1988	Impulsive noise measuring equipment for telephone-type circuits
V.56	11-1988	Comparative tests of modems for use over telephone-type circuits
V.56bis	08-1995	Network transmission model for evaluating modem performance over 2-wire voice grade connections
V.56ter	08-1996	Test procedure for evaluation of 2-wire 4 kHz voiceband duplex modems
V.58	09-1994	Management information model for V-Series DCEs
V.59	11-2000	Managed objects for diagnostic information of public switched telephone network connected V-series modem DCEs
V.59 (2000) Corrigendum 1	07-2001	
V.59 (2000) Corrigendum 2	03-2002	
V.61	08-1996	A simultaneous voice plus data modem, operating at a voice plus data signalling rate of 4800 bit/s, with optional automatic switching to data-only signalling rates of up to 14400 bit/s, for use on the General Switched Telephone Network and on leased point
V.70	08-1996	Procedures for the simultaneous transmission of data and digitally encoded voice signals over the GSTN, or over 2-wire leased point-to-point telephone type circuits
V.75	08-1996	DSVD terminal control procedures
V.75 Appendix II	02-1998	Session establishment using V.75/H.245 procedures
V.76	08-1996	Generic multiplexer using V.42 LAPM-based procedures
V.80	08-1996	In-band DCE control and synchronous data modes for asynchronous DTE
V.80 (1996) Amendment 1	07-2001	Additional data signalling rate codes in support of cellular systems
V.90	09-1998	A digital modem and analogue modem pair for use on the Public Switched Telephone Network (PSTN) at data signalling rates of up to 56 000 bit/s downstream and up to 33 600 bit/s upstream
V.91	05-1999	A digital modem operating at data signalling rates of up to 64 000 bit/s for use on a 4-wire circuit switched connection and on leased point-to-point 4-wire digital circuits
V.91 (1999) Corrigendum 1	07-2001	

V.92	11-2000	Enhancements to Recommendation V.90
V.92 (2000) Amendment 1	07-2001	Update of Tables 18, 19, 31, 32, Figure 20 and Clauses 8.6.6, 8.7.6, 9.10.1, and 9.11
V.92 (2000) Amendment 2	03-2002	New interaction facilities for error-correcting procedures
V.92 (2000) Corrigendum 1	07-2003	
V.100	11-1988	Interconnection between public data networks (PDNs) and the public switched telephone networks (PSTN)
V.110	02-2000	Support by an ISDN of data terminal equipments with V-series type interfaces
V.120	10-1996	Support by an ISDN of data terminal equipment with V-series type interfaces with provision for statistical multiplexing
V.120 (1996) Corrigendum 1	05-1999	
V.130	08-1995	ISDN terminal adaptor framework
V.140	02-1998	Procedures for establishing communication between two multiprotocol audiovisual terminals using digital channels at a multiple of 64 or 56 kbit/s
V.150.0	01-2003	Modem-over-IP networks: Foundation
V.150.1	01-2003	Modem-over-IP networks: Procedures for the end-to-end connection of V-series DCEs
V.150.1 (2003) Corrigendum 1	07-2003	
V.150.1 (2003) Corrigendum 2	03-2004	
V.230	11-1988	General data communications interface layer 1 specification
V.250	07-2003	Serial asynchronous automatic dialling and control
V.250 Supplement 1	06-2001	Various extensions to V.250 basic command set
V.251	08-1996	Procedure for DTE-controlled call negotiation
V.251 (1996) Erratum 1	10-2003	
V.252	02-1998	Procedure for control of V.70 and H.324 terminals by a DTE
V.253	02-1998	Control of voice-related functions in a DCE by an asynchronous DTE
V.300	07-1999	A 128 (144) kbit/s data circuit-terminating equipment standardized for use on digital point-to-point leased circuits

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Series X : Data networks and open system communications

Number	*Approval Date*	*Recommendation Title*
		Data networks and open system communications
X.1	03-2000	International user classes of service in, and categories of access to, public data networks and Integrated Services Digital Networks (ISDNs)
X.2	03-2000	International data transmission services and optional user facilities in public data networks and ISDNs

X.3	03-2000	Packet Assembly/Disassembly facility (PAD) in a public data network
X.4	11-1988	General structure of signals of International Alphabet No. 5 code for character oriented data transmission over public data networks
X.5	10-1996	Facsimile Packet Assembly/Disassembly facility (FPAD) in a public data network
X.6	08-1997	Multicast service definition
X.6 (1997) Amendment 1	03-2000	Frame relay PVC multicast service definition
X.7	04-2004	Technical characteristics of data transmission services
X.8	07-1994	Multi-aspect PAD (MAP) framework and service definition
X.20	11-1988	Interface between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) for start-stop transmission services on public data networks
X.20bis	11-1988	Use on public data networks of Data Terminal Equipment (DTE) which is designed for interfacing to asynchronous duplex V-Series modems
X.21	09-1992	Interface between Data Terminal Equipment and Data Circuit-terminating Equipment for synchronous operation on public data networks
X.21bis	11-1988	Use on public data networks of Data Terminal Equipment (DTE) which is designed for interfacing to synchronous V-Series modems
X.22	11-1988	Multiplex DTE/DCE interface for user classes 3-6
X.24	11-1988	List of definitions for interchange circuits between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) on public data networks
X.25	10-1996	Interface between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) for terminals operating in the packet mode and connected to public data networks by dedicated circuit
X.25 (1996) Corrigendum 1	09-1998	
V.10	03-1993	Electrical characteristics for unbalanced double-current interchange circuits operating at data signalling rates nominally up to 100 kbit/s
V.11	10-1996	Electrical characteristics for balanced double-current interchange circuits operating at data signalling rates up to 10 Mbit/s
X.28	12-1997	DTE/DCE interface for a start-stop mode Data Terminal Equipment accessing the Packet Assembly/Disassembly facility (PAD) in a public data network situated in the same country
X.28 (1997) Amendment 1	03-2000	Extensions of PAD parameter settings and PAD service signals
X.29	12-1997	Procedures for the exchange of control information and user data between a Packet Assembly/Disassembly (PAD) facility and a packet mode DTE or another PAD
X.30	03-1993	Support of X.21, X.21 bis and X.20 bis based Data Terminal Equipments (DTEs) by an Integrated Services Digital Network (ISDN)
X.31	11-1995	Support of packet mode terminal equipment by an ISDN
X.32	10-1996	Interface between Data terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) for terminals operating in the packet mode and accessing a Packet-Switched Public Data Network through a public switched telephone network or an Integrated Servic
X.33	10-1996	Access to packet-switched data transmission services via frame relaying data transmission services
X.34	10-1996	Access to packet-switched data transmission services via B-ISDN
X.34 (1996) Corrigendum 1	03-2000	

X.35	11-1993	Interface between a PSPDN and a private PSDN which is based on X.25 procedures and enhancements to define a gateway function that is provided in the PSPDN
X.36	02-2003	Interface between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) for public data networks providing frame relay data transmission service by dedicated circuit
X.37	04-1995	Encapsulation in X.25 packets of various protocols including frame relay
X.38	10-1996	G3 facsimile equipment/DCE interface for G3 facsimile equipment accessing the Facsimile Packet Assembly/Disassembly facility (FPAD) in a public data network situated in the same country
X.39	10-1996	Procedures for the exchange of control information and user data between a Facsimile Packet Assembly/Disassembly (FPAD) facility and a packet mode Data Terminal Equipment (DTE) or another FPAD
X.42	10-2003	Procedures and methods for accessing a public data network from a DTE operating under control of a generalized polling protocol
X.45	10-1996	Interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) for terminals operating in the packet mode and connected to public data networks, designed for efficiency at higher speeds
X.46	09-1998	Access to FRDTS via B-ISDN
X.48	10-1996	Procedures for the provision of a basic multicast service for data terminal equipments (DTEs) using Recommendation X.25
X.49	10-1996	Procedures for the provision of an extended multicast service for data terminal equipments (DTEs) using Recommendation X.25
X.50	11-1988	Fundamental parameters of a multiplexing scheme for the international interface between synchronous data networks
X.50bis	11-1988	Fundamental parameters of a 48-kbit/s user data signalling rate transmission scheme for the international interface between synchronous data networks
X.51	11-1988	Fundamental parameters of a multiplexing scheme for the international interface between synchronous data networks using 10-bit envelope structure
X.51bis	11-1988	Fundamental parameters of a 48-kbit/s user data signalling rate transmission scheme for the international interface between synchronous data networks using 10-bit envelope structure
X.52	11-1988	Method of encoding anisochronous signals into a synchronous user bearer
X.53	03-1993	Numbering of channels on international multiplex links at 64 kbit/s
X.54	11-1988	Allocation of channels on international multiplex links at 64 kbit/s
X.55	11-1988	Interface between synchronous data networks using a 6 + 2 envelope structure and single channel per carrier (SCPC) satellite channels
X.56	11-1988	Interface between synchronous data networks using an 8 + 2 envelope structure and single channel per carrier (SCPC) satellite channels
X.57	11-1988	Method of transmitting a single lower speed data channel on a 64 kbit/s data stream
X.58	11-1988	Fundamental parameters of a multiplexing scheme for the international interface between synchronous non-switched data networks using no envelope structure
X.60	11-1988	Common channel signalling for circuit-switched data applications
X.70	11-1988	Terminal and transit control signalling system for start-stop services on international circuits between anisochronous data networks
X.71	11-1988	Decentralized terminal and transit control signalling system on international circuits between synchronous data networks
X.75	10-1996	Packet-switched signalling system between public networks providing data transmission services

X.75 (1996) Corrigendum 1	09-1998	
X.76	02-2003	Network-to-network interface between public networks providing PVC and/or SVC frame relay data transmission service
X.77	08-1997	Interworking between PSPDNs via B-ISDN
X.77 (1997) Corrigendum 1	03-2000	
X.78	06-1999	Interworking procedures between networks providing frame relay data transmission services via B-ISDN
X.78 (1999) Corrigendum 1	03-2000	
X.80	11-1988	Interworking of interexchange signalling systems for circuit-switched data services
X.81	11-1988	Interworking between an ISDN circuit-switched and a circuit-switched public data network (CSPDN)
X.82	11-1988	Detailed arrangements for interworking between CSPDNs and PSPDNs based on Recommendation T.70
X.84	03-2004	Support of frame relay services over MPLS core networks
X.85/Y.1321	03-2001	IP over SDH using LAPS
X.85/Y.1321 (2001) Amendment 1	04-2004	Bit-oriented method for LAPS
X.86/Y.1323	02-2001	Ethernet over LAPS
X.86/Y.1323 (2001) Amendment 1	04-2002	Using Ethernet flow control as rate limiting
X.87/Y.1324	10-2003	Multiple services ring based on RPR
X.92	11-1988	Hypothetical reference connections for public synchronous data networks
X.96	03-2000	Call progress signals in public data networks
X.110	04-2002	International routing principles and routing plan for Public Data Networks
X.111	02-2003	Principles for the routing of international frame relay traffic
X.115	04-1995	Definition of address translation capability in public data networks
X.115 (1995) Amendment 1	10-1996	Refinements
X.116	10-1996	Address translation registration and resolution protocol
X.121	10-2000	International numbering plan for public data networks
E.166/X.122	03-1998	Numbering plan interworking for the E.164 and X.121 numbering plans
X.123	10-1996	Mapping between escape codes and TOA/NPI for E.164/X.121 numbering plan interworking during the transition period
X.124	06-1999	Arrangements for the interworking of the E.164 and X.121 numbering plans for frame relay and ATM networks
X.125	09-1998	Procedure for the notification of the assignment of international network identification codes for public frame relay data networks and ATM networks numbered under the E.164 numbering plan
X.130	11-1988	Call processing delays in public data networks when providing international synchronous circuit-switched data services

X.131	11-1988	Call blocking in public data networks when providing international synchronous circuit-switched data services
X.134	08-1997	Portion boundaries and packet-layer reference events: basis for defining packet-switched performance parameters
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X.135 Suppl. 1	08-1997	Some test results from specific national and international portions
X.136	08-1997	Accuracy and dependability performance values for public data networks when providing international packet-switched services
X.137	08-1997	Availability performance values for public data networks when providing international packet-switched services
X.138	08-1997	Measurement of performance values for public data networks when providing international packet-switched services
X.139	08-1997	Echo, drop, generator and test DTEs for measurement of performance values in public data networks when providing international packet-switched services
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X.141	11-1988	General principles for the detection and correction of errors in public data networks
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X.144	10-2003	User information transfer performance parameters for public frame relay data networks
X.145	10-2003	Connection establishment and disengagement performance parameters for public Frame Relay data networks providing SVC services
X.146	10-2000	Performance objectives and quality of service classes applicable to frame relay
X.147	10-2003	Frame Relay network availability
X.147 (2003) Amendment 1	04-2004	Specification of availability objective values
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X.162	03-2000	Definition of management information for customer network management service for public data networks to be used with the CNMc interface
X.163	04-1995	Definition of management information for customer network management service for public data networks to be used with the CNMe interface
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X.219	11-1988	Remote Operations: Model, notation and service definition
X.220	03-1993	Use of X.200-Series protocols in CCITT applications
X.222	04-1995	Use of X.25 LAPB-compatible Data Link procedures to provide the OSI connection-mode Data Link service
X.222 (1995) Amendment 1	10-1996	Frame relay mapping
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X.223 (1993) Amendment 1	10-1996	Transit delay and other refinements
X.224	11-1995	Information technology – Open Systems Interconnection – Protocol for providing the connection-mode transport service

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