

Attachment 1C



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Transmission systems and media, digital systems and networks

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- [G.123](#) *[Withdrawn] Circuit noise in national networks*
The content of this Recommendation is now covered by ITU-T G.120
- [G.125](#) *[Withdrawn] Characteristics of national circuits on carrier systems*
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- [G.126](#) Listener echo in telephone networks
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- [G.132](#) *[Withdrawn] Attenuation distortion*
The content of this Recommendation is now covered by ITU-T G.120
- [G.133](#) *[Withdrawn] Group-delay distortion*
The content of this Recommendation is now covered by ITU-T G.120
- [G.134](#) *[Withdrawn] Linear crosstalk*
The content of this Recommendation is now covered by ITU-T G.120
- [G.135](#) *[Withdrawn] Error on the reconstituted frequency*
The content of this Recommendation is now covered by ITU-T G.120
- [G.136](#) Application rules for Automatic Level Control Devices
Covering note, May 2000: Erratum
- [G.141](#) *[Withdrawn] Attenuation distortion*
The content of this Recommendation is now covered by ITU-T G.120
- [G.142](#) Transmission characteristics of exchanges
- [G.143](#) *[Withdrawn] Circuit noise and the use of compandors*
Deleted because it deals with compandor transmission aspects, which use is no more recommended in networks
- [G.151](#) *[Withdrawn] General performance objectives applicable to all modern international circuits and national extension circuits*
The content of this Recommendation is now covered by ITU-T G.120
- [G.152](#) *[Withdrawn] Characteristics appropriate to long-distance circuits of a length not exceeding 2500 km*
The content of this Recommendation is now covered by ITU-T G.120
- [G.153](#) *[Withdrawn] Characteristics appropriate to international circuits more than 2500 km in length*
The content of this Recommendation is now covered by ITU-T G.120
- [G.160](#) Voice enhancement devices
- [G.161](#) Interaction aspects of signal processing network equipment
- [G.161.1](#) Do-no-harm testing
- [G.162](#) *[Withdrawn] Characteristics of compandors for telephony*
Deleted because it deals with compandor transmission aspects, which use is no more recommended in networks
- [G.163](#) *[Withdrawn] Call concentrating systems*
Deleted after its content became technically out of date
- [G.164](#) Echo suppressors
- [G.165](#) Echo cancellers
- [G.166](#) *[Withdrawn] Characteristics of syllabic compandors for telephony on high capacity long distance systems*
Deleted because it deals with compandor transmission aspects, which use is no more recommended in networks

G.167	<i>[Withdrawn] Acoustic echo controllers</i>
G.168	Digital network echo cancellers
G.Imp168	Implementors' Guide for ITU-T Recommendation G.168
G.169	Automatic level control devices
G.171	<i>[Withdrawn] Transmission plan aspects of privately operated networks Deleted because it refers to obsolete Recommendations. For guidance on transmission planning or on private/public network interconnection, refer to ITU-T G.175 and G.108</i>
G.172	Transmission plan aspects of international conference calls
G.173	Transmission planning aspects of the speech service in digital public land mobile networks
G.174	Transmission performance objectives for terrestrial digital wireless systems using portable terminals to access the PSTN
G.175	Transmission planning for private/public network interconnection of voice traffic
G.176	Planning guidelines for the integration of ATM technology into networks supporting voiceband services
G.177	Transmission planning for voiceband services over hybrid Internet/PSTN connections
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G.181	Characteristics of 1 + 1 type restoration systems for use on digital transmission links
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G.212	Hypothetical reference circuits for analogue systems
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G.222	Noise objectives for design of carrier-transmission systems of 2500 km
G.223	Assumptions for the calculation of noise on hypothetical reference circuits for telephony
G.224	Maximum permissible value for the absolute power level (power referred to one milliwatt) of a signalling pulse <i>This Recommendation was formerly also included in Q series under number Q.16</i>
G.225	Recommendations relating to the accuracy of carrier frequencies
G.226	Noise on a real link
G.227	Conventional telephone signal
G.228	Measurement of circuit noise in cable systems using a uniform-spectrum random noise loading
G.229	Unwanted modulation and phase jitter

- [G.230](#) Measuring methods for noise produced by modulating equipment and through-connection filters
- [G.231](#) Arrangement of carrier equipment
- [G.232](#) 12-channel terminal equipments
- [G.233](#) Recommendations concerning translating equipments
- [G.234](#) *[Withdrawn] 8-channel terminal equipments*
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- [G.235](#) *[Withdrawn] 16-channel terminal equipments*
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- [G.241](#) Pilots on groups, supergroups, etc.
- [G.242](#) Through-connection of groups, supergroups, etc.
- [G.243](#) Protection of pilots and additional measuring frequencies at points where there is a through-connection
- [G.311](#) *[Withdrawn] General characteristics of systems providing 12 carrier telephone circuits on an open-wire pair*
Deleted after its content became technically out of date
- [G.312](#) *[Withdrawn] Intermediate repeaters for open-wire carrier systems conforming to Recommendation G.311*
Deleted after its content became technically out of date
- [G.313](#) *[Withdrawn] Open-wire lines for use with 12-channel carrier systems*
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- [G.314](#) *[Withdrawn] General characteristics of systems providing eight carrier telephone circuits on an open-wire pair*
Deleted after its content became technically out of date
- [G.322](#) General characteristics recommended for systems on symmetric pair cables
- [G.323](#) *[Withdrawn] A typical transistorized system on symmetric cable pairs*
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- [G.324](#) *[Withdrawn] General characteristics for valve-type systems on symmetric cable pairs*
Deleted after its content became technically out of date
- [G.325](#) General characteristics recommended for systems providing 12 telephone carrier circuits on a symmetric cable pair [(12 + 12) systems]
- [G.326](#) *[Withdrawn] Typical systems on symmetric cable pairs [(12 + 12) systems]*
Deleted after its content became technically out of date
- [G.327](#) *[Withdrawn] Valve-type systems offering 12 carrier telephone circuits on a symmetric cable pair [(12 + 12) systems]*
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- [G.332](#) 12 MHz systems on standardized 2.6/9.5 mm coaxial cable pairs
- [G.333](#) 60 MHz systems on standardized 2.6/9.5 mm coaxial cable pairs
- [G.334](#) 18 MHz systems on standardized 2.6/9.5 mm coaxial cable pairs
- [G.337](#) *[Withdrawn] General characteristics of systems on 2.6/9.5 mm coaxial cable pairs*
Deleted after its content became technically out of date
- [G.338](#) *[Withdrawn] 4 MHz valve-type systems on standardized 2.6/9.5 mm coaxial cable pairs*
Deleted after its content became technically out of date

- [G.339](#) *[Withdrawn] 12 MHz valve-type systems on standardized 2.6/9.5 mm coaxial cable pairs*
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- [G.341](#) 1.3 MHz systems on standardized 1.2/4.4 mm coaxial cable pairs
- [G.343](#) 4 MHz systems on standardized 1.2/4.4 mm coaxial cable pairs
- [G.344](#) 6 MHz systems on standardized 1.2/4.4 mm coaxial cable pairs
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- [G.346](#) 18 MHz systems on standardized 1.2/4.4 mm coaxial cable pairs
- [G.352](#) Interconnection of coaxial carrier systems of different designs
- [G.356](#) *[Withdrawn] (120 + 120) channel systems on a single coaxial pair*
Deleted after its content became technically out of date
- [G.361](#) *[Withdrawn] Systems providing three carrier telephone circuits on a pair of open-wire lines*
Deleted after its content became technically out of date
- [G.371](#) *[Withdrawn] FDM carrier systems for submarine cable*
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- [G.411](#) Use of radio-relay systems for international telephone circuits
- [G.412](#) *[Withdrawn] Terminal equipments of radio-relay systems forming part of a general telecommunication network*
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- [G.421](#) Methods of interconnection
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- [G.423](#) Interconnection at the baseband frequencies of frequency-division multiplex radio-relay systems
- [G.431](#) Hypothetical reference circuits for frequency-division multiplex radio-relay systems
- [G.433](#) *[Withdrawn] Hypothetical reference circuit for trans-horizon radio-relay systems for telephony using frequency-division multiplex*
Deleted after its content became technically out of date
- [G.434](#) *[Withdrawn] Hypothetical reference circuit for systems using analogue transmission in the fixed-satellite service*
Deleted after its content became technically out of date
- [G.441](#) Permissible circuit noise on frequency-division multiplex radio-relay systems
- [G.442](#) Radio-relay system design objectives for noise at the far end of a hypothetical reference circuit with reference to telegraphy transmission
- [G.444](#) *[Withdrawn] Allowable noise power in the hypothetical reference circuit of trans-horizon radio-relay systems for telephony using frequency-division multiplex*
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- [G.445](#) *[Withdrawn] Allowable noise power in the hypothetical reference circuit for frequency-division multiplex telephony in the fixed-satellite service*
Deleted after its content became technically out of date
- [G.451](#) Use of radio links in international telephone circuits
- [G.453](#) *[Withdrawn] Improved transmission system for HF radio-telephone circuits*
Deleted after its content became technically out of date

- [G.464](#) *[Withdrawn] Principles of the devices used to achieve privacy in radiotelephone conversations*
Deleted after its content became technically out of date
- [G.473](#) *[Withdrawn] Interconnection of a maritime mobile satellite system with the international automatic switched telephone service; transmission aspects*
Withdrawn because it provided transmission planning information that was obsolete and no longer used
- [G.511](#) Test methodology for Group 3 facsimile processing equipment in the Public Switched Telephone Network
This Recommendation was renumbered as ITU-T Rec. T.5 on 2002-02-15 without further modification
- [G.541](#) *[Withdrawn] Specification of factory lengths of loaded telecommunication cable*
Deleted after its content became technically out of date
- [G.542](#) *[Withdrawn] Specification of loading coils for loaded telecommunication cables*
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- [G.543](#) *[Withdrawn] Specification for repeater sections of loaded telecommunication cable*
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- [G.544](#) *[Withdrawn] Specifications for terminal equipment and intermediate repeater stations*
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- [G.601](#) Terminology for cables
- [G.602](#) Reliability and availability of analogue cable transmission systems and associated equipments
- [G.611](#) Characteristics of symmetric cable pairs for analogue transmission
- [G.612](#) Characteristics of symmetric cable pairs designed for the transmission of systems with bit rates of the order of 6 to 34 Mbit/s
- [G.613](#) Characteristics of symmetric cable pairs usable wholly for the transmission of digital systems with a bit rate of up to 2 Mbit/s
- [G.614](#) Characteristics of symmetric pair star-quad cables designed earlier for analogue transmission systems and being used now for digital system transmission at bit rates of 6 to 34 Mbit/s
- [G.621](#) Characteristics of 0.7/2.9 mm coaxial cable pairs
- [G.622](#) Characteristics of 1.2/4.4 mm coaxial cable pairs
- [G.623](#) Characteristics of 2.6/9.5 mm coaxial cable pairs
- [G.631](#) Types of submarine cable to be used for systems with line frequencies of less than about 45 MHz
- [G.640](#) Co-location longitudinally compatible interfaces for free space optical systems
- [G.641](#) *[Withdrawn] Waveguide diameters*
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- [G.650](#) Definition and test methods for the relevant parameters of single-mode fibres
- [G.650.1](#) Definitions and test methods for linear, deterministic attributes of single-mode fibre and cable
- [G.650.2](#) Definitions and test methods for statistical and non-linear related attributes of single-mode fibre and cable
- [G.650.3](#) Test methods for installed single-mode optical fibre cable links
- [G.651](#) Characteristics of a 50/125 µm multimode graded index optical fibre cable
ITU-T G.651 was withdrawn on 2008-08-16, its content having been obsoleted by the new ITU-T G.651.1 on multimode fibre applications in optical access networks

- [G.651.1](#) Characteristics of a 50/125 μm multimode graded index optical fibre cable for the optical access network
- [G.652](#) Characteristics of a single-mode optical fibre and cable
- [G.653](#) Characteristics of a dispersion-shifted, single-mode optical fibre and cable
- [G.654](#) Characteristics of a cut-off shifted single-mode optical fibre and cable
- [G.655](#) Characteristics of a non-zero dispersion-shifted single-mode optical fibre and cable
- [G.656](#) Characteristics of a fibre and cable with non-zero dispersion for wideband optical transport
- [G.657](#) Characteristics of a bending-loss insensitive single-mode optical fibre and cable
- [G.661](#) Definitions and test methods for the relevant generic parameters of optical amplifier devices and subsystems
- [G.662](#) Generic characteristics of optical amplifier devices and subsystems
- [G.663](#) Application-related aspects of optical amplifier devices and subsystems
- [G.664](#) Optical safety procedures and requirements for optical transmission systems
- [G.665](#) Generic characteristics of Raman amplifiers and Raman amplified subsystems
- [G.666](#) Characteristics of polarization mode dispersion compensators and of receivers that compensate for polarization mode dispersion
- [G.667](#) Characteristics of adaptive chromatic dispersion compensators
- [G.671](#) Transmission characteristics of optical components and subsystems
- [G.672](#) Characteristics of multi-degree reconfigurable optical add/drop multiplexers
- [G.680](#) Physical transfer functions of optical network elements
- [G.681](#) *[Withdrawn] Functional characteristics of interoffice and long-haul line systems using optical amplifiers, including optical multiplexing*
- [G.691](#) Optical interfaces for single channel STM-64 and other SDH systems with optical amplifiers
- [G.692](#) Optical interfaces for multichannel systems with optical amplifiers
Covering note, 07.01.2000: Corrigendum 1
- [G.693](#) Optical interfaces for intra-office systems
- [G.694.1](#) Spectral grids for WDM applications: DWDM frequency grid
- [G.694.2](#) Spectral grids for WDM applications: CWDM wavelength grid
- [G.695](#) Optical interfaces for coarse wavelength division multiplexing applications
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- [G.698.3](#) Multichannel seeded DWDM applications with single-channel optical interfaces

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G.701	Vocabulary of digital transmission and multiplexing, and pulse code modulation (PCM) terms
G.702	Digital hierarchy bit rates
G.703	Physical/electrical characteristics of hierarchical digital interfaces
G.704	Synchronous frame structures used at 1544, 6312, 2048, 8448 and 44 736 kbit/s hierarchical levels
G.705	Characteristics of plesiochronous digital hierarchy (PDH) equipment functional blocks
G.706	Frame alignment and cyclic redundancy check (CRC) procedures relating to basic frame structures defined in Recommendation G.704
G.707	Network node interface for the synchronous digital hierarchy (SDH) <i>Replaces 1993 versions of ITU-T G.707, G.708, G.709.</i>
G.Imp707	Implementers' Guide for Recommendation ITU-T G.707/Y.1322 (07/2007) - Definitions and terms found in Recommendation ITU T G.707/Y.1322
G.708	Sub STM-0 network node interface for the synchronous digital hierarchy (SDH)
G.709	Interfaces for the optical transport network
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G.709.2	OTU4 long-reach interface
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G.709.20	Overview of fine grain OTN
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G.711.0	Lossless compression of G.711 pulse code modulation
G.711	Pulse code modulation (PCM) of voice frequencies <i>Corresponding ANSI-C code is available in the G.711 module of the ITU-T G.191 Software Tools Library.</i>
G.711.1	Wideband embedded extension for ITU-T G.711 pulse code modulation
G.Imp712	Implementers' Guide for Recommendation ITU-T G.712
G.712	Transmission performance characteristics of pulse code modulation channels <i>Replaces G.712, G.713, G.714, G.715</i>
G.713	<i>[Withdrawn] Performance characteristics of PCM channels between 2-wire interfaces at voice frequencies The content of this Recommendation is now covered by ITU-T G.712</i>

- [G.714](#) *[Withdrawn] Separate performance characteristics for the encoding and decoding sides of PCM channels applicable to 4-wire voice-frequency interfaces*
The content of this Recommendation is now covered by ITU-T G.712
- [G.715](#) *[Withdrawn] Separate performance characteristics for the encoding and decoding side of PCM channels applicable to 2-wire interfaces*
The content of this Recommendation is now covered by ITU-T G.712
- [G.718](#) Frame error robust narrow-band and wideband embedded variable bit-rate coding of speech and audio from 8-32 kbit/s
- [G.719](#) Low-complexity, full-band audio coding for high-quality, conversational applications
- [G.720](#) Characterization of low-rate digital voice coder performance with non-voice signals
- [G.720.1](#) Generic sound activity detector
- [G.721](#) *[Withdrawn] 32 kbit/s adaptive differential pulse code modulation (ADPCM)*
The content of this Recommendation is now covered by ITU-T G.726
- [G.722](#) 7 kHz audio-coding within 64 kbit/s
- [G.722.1](#) Low-complexity coding at 24 and 32 kbit/s for hands-free operation in systems with low frame loss
- [G.722.2](#) Wideband coding of speech at around 16 kbit/s using Adaptive Multi-Rate Wideband (AMR-WB)
- [G.Imp722.1](#) Implementors' Guide for G.722.1 Main Body and Annex B: (Coding at 24 and 32 kbit/s for hands-free operation in systems with low frame loss)
- [G.Imp722.2](#) Implementors' Guide for G.722.2: (Wideband coding of speech at around 16 kbit/s using Adaptive Multi-rate Wideband, AMR-WB)
- [G.723](#) *[Withdrawn] Extensions of Recommendation G.721 adaptive differential pulse code modulation to 24 and 40 kbit/s for digital circuit multiplication equipment application*
The content of 1988 edition of ITU-T G.723 is now covered by ITU-T G.726
- [G.723.1](#) Dual rate speech coder for multimedia communications transmitting at 5.3 and 6.3 kbit/s
- [G.Imp723.1](#) Implementors' Guide for G.723.1: (Dual rate speech coder for multimedia communications transmitting at 5.3 & 6.3 kbit/s)
- [G.724](#) Characteristics of a 48-channel low bit rate encoding primary multiplex operating at 1544 kbit/s
- [G.725](#) System aspects for the use of the 7 kHz audio codec within 64 kbit/s
- [G.726](#) 40, 32, 24, 16 kbit/s Adaptive Differential Pulse Code Modulation (ADPCM)
Corresponding ANSI-C code is available in the G.726 module of the ITU-T G.191 Software Tools Library
- [G.727](#) 5-, 4-, 3- and 2-bit/sample embedded adaptive differential pulse code modulation (ADPCM)
- [G.728](#) Coding of speech at 16 kbit/s using low-delay code excited linear prediction
- [G.Imp728](#) Implementors' Guide for ITU-T Recommendation G.728 ("Coding of speech at 16 kbit/s using low-delay code excited linear prediction")
- [G.Imp729](#) Implementors' Guide for Recommendation ITU-T G.729 (2012) "Coding of speech at 8 kbit/s using CS-ACELP"
- [G.729](#) Coding of speech at 8 kbit/s using conjugate-structure algebraic-code-excited linear prediction (CS-ACELP)
- [G.729.1](#) G.729-based embedded variable bit-rate coder: An 8-32 kbit/s scalable wideband coder bitstream interoperable with G.729

- [G.731](#) Primary PCM multiplex equipment for voice frequencies
- [G.732](#) Characteristics of primary PCM multiplex equipment operating at 2048 kbit/s
- [G.733](#) Characteristics of primary PCM multiplex equipment operating at 1544 kbit/s
- [G.734](#) Characteristics of synchronous digital multiplex equipment operating at 1544 kbit/s
- [G.735](#) Characteristics of primary PCM multiplex equipment operating at 2048 kbit/s and offering synchronous digital access at 384 kbit/s and/or 64 kbit/s
- [G.736](#) Characteristics of a synchronous digital multiplex equipment operating at 2048 kbit/s
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- [G.738](#) Characteristics of primary PCM multiplex equipment operating at 2048 kbit/s and offering synchronous digital access at 320 kbit/s and/or 64 kbit/s
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- [G.741](#) General considerations on second order multiplex equipments
- [G.742](#) Second order digital multiplex equipment operating at 8448 kbit/s and using positive justification
- [G.743](#) Second order digital multiplex equipment operating at 6312 kbit/s and using positive justification
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- [G.746](#) Characteristics of second order PCM multiplex equipment operating at 6312 kbit/s
- [G.747](#) Second order digital multiplex equipment operating at 6312 kbit/s and multiplexing three tributaries at 2048 kbit/s
- [G.751](#) 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
- [G.752](#) Characteristics of digital multiplex equipments based on a second order bit rate of 6312 kbit/s and using positive justification
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- [G.755](#) Digital multiplex equipment operating at 139 264 kbit/s and multiplexing three tributaries at 44 736 kbit/s
- [G.761](#) General characteristics of a 60-channel transcoder equipment
- [G.762](#) General characteristics of a 48-channel transcoder equipment
- [G.763](#) Digital circuit multiplication equipment using G.726 ADPCM and digital speech interpolation
This Recommendation includes 2 diskettes. The first one contains A-Law and m-Law test vectors for DCME verification. The second one contains example transmit/receive SDLs. Covering note, May 2000: Erratum
- [G.Imp763](#) Implementor's Guide for Recommendation G.763

G.764	Voice packetization - Packetized voice protocols
G.765	Packet circuit multiplication equipment
G.766	Facsimile demodulation/remodulation for digital circuit multiplication equipment
G.767	Digital circuit multiplication equipment using 16 kbit/s LD-CELP, digital speech interpolation and facsimile demodulation/remodulation
G.Imp767	Implementor's Guide for Recommendation G.767
G.768	Digital circuit multiplication equipment using 8 kbit/s CS-ACELP
G.769	Circuit multiplication equipment optimized for IP-based networks
G.771	<i>[Withdrawn] Q-interfaces and associated protocols for transmission equipment in the TMN Deleted after its content became technically out of date</i>
G.772	Protected monitoring points provided on digital transmission systems
G.773	Protocol suites for Q-interfaces for management of transmission systems
G.Imp773	Implementers' Guide for Recommendation ITU-T G.773
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G.774.10	Synchronous digital hierarchy (SDH) - Multiplex Section (MS) shared protection ring management for the network element view

- [G.775](#) Loss of Signal (LOS), Alarm Indication Signal (AIS) and Remote Defect Indication (RDI) defect detection and clearance criteria for PDH signals
- [G.776.1](#) Managed objects for signal processing network elements
This Recommendation includes one diskette containing the information model of Signal Processing Network Elements (SPNE).
- [G.776.2](#) SPNE mechanisms/auxiliary functions
- [G.776.3](#) ADPCM DCME configuration map report
- [G.776.4](#) Signal processing network equipment
- [G.Imp776.1](#) Implementor's Guide for Recommendation G.776.1
- [G.780](#) Terms and definitions for synchronous digital hierarchy (SDH) networks
- [G.781](#) Synchronization layer functions for frequency synchronization based on the physical layer
- [G.781W](#) *[Withdrawn] Structure of Recommendations on equipment for the synchronous digital hierarchy (SDH)
Merged with ITU-T Rec. G.783 in 1997*
- [G.781.1](#) Synchronization layer functions for packet-based synchronization
- [G.782](#) *[Withdrawn] Types and general characteristics of synchronous digital hierarchy (SDH) equipment
Merged with ITU-T G.783 in 1997*
- [G.783](#) Characteristics of synchronous digital hierarchy (SDH) equipment functional blocks
- [G.784](#) Management aspects of synchronous digital hierarchy (SDH) transport network elements
- [G.785](#) Characteristics of a flexible multiplexer in a synchronous digital hierarchy environment
- [G.791](#) General considerations on transmultiplexing equipments
- [G.792](#) Characteristics common to all transmultiplexing equipments
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- [G.794](#) Characteristics of 24-channel transmultiplexing equipments
- [G.795](#) Characteristics of codecs for FDM assemblies
- [G.796](#) Characteristics of a 64 kbit/s cross-connect equipment with 2048 kbit/s access ports
- [G.797](#) Characteristics of a flexible multiplexer in a plesiochronous digital hierarchy environment
- [G.798](#) Characteristics of optical transport network hierarchy equipment functional blocks
- [G.798.1](#) Types and characteristics of optical transport network equipment
- [G.Imp798](#) Implementers' Guide
- [G.799.1](#) Functionality and interface specifications for GSTN transport network equipment for interconnecting GSTN and IP networks
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- [G.799.3](#) Signal processing functionality and performance of an IP-to-IP voice gateway optimised for the transport of voice and voiceband data
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G.800	Unified functional architecture of transport networks
G.801	Digital transmission models
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G.803	Architecture of transport networks based on the synchronous digital hierarchy (SDH)
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G.805	Generic functional architecture of transport networks
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G.807	Generic functional architecture of the optical media layer
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G.808	Terms and definitions for network protection and restoration
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G.809	Functional architecture of connectionless layer networks
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G.812	Timing requirements of slave clocks suitable for use as node clocks in synchronization networks
G.813	Timing characteristics of SDH equipment slave clocks (SEC)
G.820	Relationships among ISDN, IP-based network and physical layer performance Recommendations Formerly ITU-T Rec. I.351/Y.801/Y.1501
G.821	Error performance of an international digital connection operating at a bit rate below the primary rate and forming part of an Integrated Services Digital Network
G.822	Controlled slip rate objectives on an international digital connection
G.823	The control of jitter and wander within digital networks which are based on the 2048 kbit/s hierarchy
G.824	The control of jitter and wander within digital networks which are based on the 1544 kbit/s hierarchy
G.825	The control of jitter and wander within digital networks which are based on the synchronous digital hierarchy (SDH)
G.826	End-to-end error performance parameters and objectives for international, constant bit-rate digital paths and connections
G.827	Availability performance parameters and objectives for end-to-end international constant bit-rate digital paths

- [G.827.1](#) *[Withdrawn] Availability performance objectives for end-to-end international constant bit-rate digital paths at or above the primary rate*
- [G.828](#) Error performance parameters and objectives for international, constant bit-rate synchronous digital paths
- [G.829](#) Error performance events for SDH multiplex and regenerator sections
- [G.831](#) Management capabilities of transport networks based on the synchronous digital hierarchy (SDH)
- [G.832](#) Transport of SDH elements on PDH networks - Frame and multiplexing structures
- [G.841](#) Types and characteristics of SDH network protection architectures
- [G.842](#) Interworking of SDH network protection architectures
- [G.Imp850](#) G.850-Series TMN Implementors' Guide - Defects and Resolutions
- [G.851.1](#) Management of the transport network - Application of the RM-ODP framework
- [G.852.1](#) Enterprise viewpoint for simple subnetwork connection management
- [G.852.2](#) Enterprise viewpoint description of transport network resource model
- [G.852.3](#) Enterprise viewpoint for topology management
- [G.852.6](#) Enterprise viewpoint for trail management
- [G.852.8](#) Enterprise viewpoint for pre-provisioned adaptation management
- [G.852.10](#) Enterprise viewpoint for pre-provisioned link connection management
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- [G.852.16](#) Enterprise viewpoint for pre-provisioned route discovery
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G.861	Principles and guidelines for the integration of satellite and radio systems in SDH transport networks
G.870	Terms and definitions for optical transport networks
G.871	Framework of Optical Transport Network Recommendations
G.Imp871	Implementers' Guide for Recommendation ITU-T G.871/Y.1301 (10/2000)
G.872	Architecture of the optical transport network
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G.873.1	Optical transport network: Linear protection
G.873.2	ODUk shared ring protection
G.873.3	Optical transport network - Shared mesh protection
G.Imp873.1	Implementers' Guide
G.874	Management aspects of optical transport network elements
G.874.1	Optical transport network: Protocol-neutral management information model for the network element view
G.Imp874	Implementers' Guide
G.Imp874.1	Implementers' Guide for Recommendation ITU-T G.874.1 (01/2002)
G.875	Optical transport network: Protocol-neutral management information model for the network element view
G.876	Management requirements and information model for the optical media network
G.901	General considerations on digital sections and digital line systems
G.902	Framework Recommendation on functional access networks (AN) - Architecture and functions, access types, management and service node aspects
G.911	Parameters and calculation methodologies for reliability and availability of fibre optic systems
G.921	Digital sections based on the 2048 kbit/s hierarchy
G.931	<i>[Withdrawn] Digital line sections at 3152 kbit/s</i>
G.941	Digital line systems provided by FDM transmission bearers
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G.953	Digital line systems based on the 1544 kbit/s hierarchy on coaxial pair cables
G.954	Digital line systems based on the 2048 kbit/s hierarchy on coaxial pair cables
G.955	Digital line systems based on the 1544 kbit/s and the 2048 kbit/s hierarchy on optical fibre cables

- [G.956](#) *[Withdrawn] Digital line systems based on the 2048 kbit/s hierarchy on optical fibre cables*
The content of this Recommendation is now covered by ITU-T G.955
- [G.957](#) Optical interfaces for equipments and systems relating to the synchronous digital hierarchy
- [G.958](#) *[Withdrawn] Digital line systems based on the synchronous digital hierarchy for use on optical fibre cables*
- [G.959.1](#) Optical transport network physical layer interfaces
- [G.960](#) Access digital section for ISDN basic rate access
- [G.961](#) Digital transmission system on metallic local lines for ISDN basic rate access
Covering note, 1st August 2000: Corrigendum 1
- [G.962](#) Access digital section for ISDN primary rate at 2048 kbit/s
- [G.963](#) Access digital section for ISDN primary rate at 1544 kbit/s
- [G.964](#) V-Interfaces at the digital local exchange (LE) - V5.1 interface (based on 2048 kbit/s) for the support of access network (AN)
- [G.965](#) V-interfaces at the digital local exchange (LE) - V5.2 interface (based on 2048 kbit/s) for the support of access network (AN)
- [G.966](#) Access digital section for B-ISDN
- [G.967.1](#) V-interfaces at the service node (SN) : VB5.1 reference point specification
This Recommendation includes one diskette containing the SDL process diagrams corresponding to the VB5.1 reference point.
- [G.967.2](#) V-interfaces at the service node (SN) : VB5.2 reference point specification
This Recommendation includes one diskette containing the SDL process diagrams corresponding to the VB5.2 reference point.
- [G.967.3](#) V-interfaces at the service node (SN) : Protocol implementation conformance statements for interfaces at VB5 reference points
- [G.971](#) General features of optical fibre submarine cable systems
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- [G.973](#) Characteristics of repeaterless optical fibre submarine cable systems
- [G.973.1](#) Longitudinally compatible DWDM applications for repeaterless optical fibre submarine cable systems
- [G.973.2](#) Multichannel DWDM applications with single channel optical interfaces for repeaterless optical fibre submarine cable systems
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- [G.976](#) Test methods applicable to optical fibre submarine cable systems
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- [G.981](#) PDH optical line systems for the local network
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- [G.983.1](#) Broadband optical access systems based on Passive Optical Networks (PON)
- [G.983.2](#) ONT management and control interface specification for B-PON
- [G.Imp983.2](#) Implementers' Guide for Recommendation ITU-T G.983.2 (07/2005)
- [G.983.3](#) A broadband optical access system with increased service capability by wavelength allocation
- [G.983.4](#) A broadband optical access system with increased service capability using dynamic bandwidth assignment
- [G.983.5](#) A broadband optical access system with enhanced survivability
- [G.983.6](#) *[Withdrawn] ONT management and control interface specifications for B-PON system with protection features Deleted on 2006-05-22, the material of ITU-T Recs G.983.6, G.983.7, G.983.8, G.983.9 and G.983.10 having been incorporated in ITU-T Rec. G.983.2 (2005)*
- [G.983.7](#) *[Withdrawn] ONT management and control interface specification for Dynamic Bandwidth Assignment (DBA) B-PON system Deleted on 2006-05-22, the material of ITU-T Recs G.983.6, G.983.7, G.983.8, G.983.9 and G.983.10 having been incorporated in ITU-T Rec. G.983.2 (2005)*
- [G.983.8](#) *[Withdrawn] B-PON OMCI support for IP, ISDN, video, VLAN tagging, VC cross-connections and other select functions Deleted on 2006-05-22, the material of ITU-T Recs G.983.6, G.983.7, G.983.8, G.983.9 and G.983.10 having been incorporated in ITU-T Rec. G.983.2 (2005)*
- [G.983.9](#) *[Withdrawn] B-PON ONT management and control interface (OMCI) support for wireless Local Area Network interfaces Deleted on 2006-05-22, the material of ITU-T Recs G.983.6, G.983.7, G.983.8, G.983.9 and G.983.10 having been incorporated in ITU-T Rec. G.983.2 (2005)*
- [G.983.10](#) *[Withdrawn] B-PON ONT management and control interface (OMCI) support for Digital Subscriber Line interfaces Deleted on 2006-05-22, the material of ITU-T Recs G.983.6, G.983.7, G.983.8, G.983.9 and G.983.10 having been incorporated in ITU-T Rec. G.983.2 (2005)*
- [G.984.1](#) Gigabit-capable passive optical networks (GPON): General characteristics
- [G.984.2](#) Gigabit-capable Passive Optical Networks (G-PON): Physical Media Dependent (PMD) layer specification
- [G.984.3](#) Gigabit-capable passive optical networks (G-PON): Transmission convergence layer specification
- [G.984.4](#) Gigabit-capable passive optical networks (G-PON): ONT management and control interface specification
- [G.Imp.984.4](#) Implementers' Guide for Recommendation ITU-T G.984.4
- [G.984.5](#) Gigabit-capable passive optical networks (G-PON): Enhancement band
- [G.984.6](#) Gigabit-capable passive optical networks (GPON): Reach extension
- [G.984.7](#) Gigabit-capable passive optical networks (GPON): Long reach
- [G.Imp984.3](#) Implementers' Guide for ITU-T Rec. G.984.3 (02/2004)
- [G.985](#) 100 Mbit/s point-to-point Ethernet based optical access system

G.986	1 Gbit/s point-to-point Ethernet-based optical access system
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G.987.2	10-Gigabit-capable passive optical networks (XG-PON): Physical media dependent (PMD) layer specification
G.987.3	10-Gigabit-capable passive optical networks (XG-PON): Transmission convergence (TC) layer specification
G.987.4	10-Gigabit-capable passive optical networks (XG-PON): Reach extension
G.988	ONU management and control interface (OMCI) specification
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G.989.3	40-Gigabit-capable passive optical networks (NG-PON2): Transmission convergence layer specification
G.991.1	High bit rate digital subscriber line (HDSL) transceivers
G.991.2	Single-pair high-speed digital subscriber line (SHDSL) transceivers
G.992.1	Asymmetric digital subscriber line (ADSL) transceivers
G.992.2	Splitterless asymmetric digital subscriber line (ADSL) transceivers
G.992.3	Asymmetric digital subscriber line transceivers 2 (ADSL2)
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G.992.5	Asymmetric digital subscriber line 2 transceivers (ADSL2)- Extended bandwidth ADSL2 (ADSL2plus)
G.993.1	Very high speed digital subscriber line transceivers (VDSL)
G.993.2	Very high speed digital subscriber line transceivers 2 (VDSL2)
G.993.5	Self-FEXT cancellation (vectoring) for use with VDSL2 transceivers
G.994.1	Handshake procedures for digital subscriber line transceivers
G.995.1	Overview of digital subscriber line (DSL) Recommendations This Recommendation was deleted on 2011-12-16. The material contained in Recommendation ITU-T G.995.1 (2001) is now considered obsolete and this material needs to be updated. Due to the non-normative nature of the revised text, the updated material was agreed as a new Supplement 50 to ITU-T G-series Recommendations.
G.995.2	Enhanced common mode limits and measurement methods for customer premises equipment operating on copper pairs
G.996.1	Test procedures for digital subscriber line (DSL) transceivers
G.996.2	Single-ended line testing for digital subscriber lines
G.997.1	Physical layer management for digital subscriber line transceivers
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<u>G.998.1</u>	ATM-based multi-pair bonding
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<u>G.998.4</u>	Improved impulse noise protection for digital subscriber line (DSL) transceivers
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<u>G.1010</u>	End-user multimedia QoS categories
<u>G.1011</u>	Reference guide to quality of experience assessment methodologies
<u>G.1020</u>	Performance parameter definitions for quality of speech and other voiceband applications utilizing IP networks
<u>G.1021</u>	Buffer models for development of client performance metrics
<u>G.1022</u>	Buffer models for media streams on TCP transport
<u>G.1023</u>	Framework for capacity assessment of packet data services in mobile networks
<u>G.1027</u>	Quality of service metrics for the assessment of the impact of fixed geographic structures on telephony quality and call stability
<u>G.1028</u>	End-to-end quality of service for voice over 4G mobile networks
<u>G.1028.1</u>	End-to-end quality of service for video telephony over 4G mobile networks
<u>G.1028.2</u>	Assessment of the LTE circuit switched fall back - Impact on voice quality of service
<u>G.Imp1028</u>	Implementers' Guide for ITU-T Rec. G.1028 (06/2016)
<u>G.1029</u>	Voice service diagnosis framework
<u>G.1030</u>	Estimating end-to-end performance in IP networks for data applications
<u>G.1031</u>	QoE factors in web-browsing
<u>G.1032</u>	Influence factors on gaming quality of experience
<u>G.1033</u>	Quality of service and quality of experience aspects of digital financial services
<u>G.1034</u>	Quality of experience metrics for mobile telephony communication during rail travel
<u>G.1035</u>	Influencing factors on quality of experience for virtual reality services
<u>G.1036</u>	Quality of experience influencing factors for augmented reality services
<u>G.1040</u>	Network contribution to transaction time
<u>G.1050</u>	Network model for evaluating multimedia transmission performance over Internet Protocol
<u>G.1051</u>	Latency measurement and interactivity scoring under real application data traffic patterns
<u>G.1052</u>	Testbed framework for mobile application quality of service and quality of experience evaluation
<u>G.1070</u>	Opinion model for video-telephony applications
<u>G.1071</u>	Opinion model for network planning of video and audio streaming applications

G.1072	Opinion model predicting gaming quality of experience for cloud gaming services
G.1080	Quality of experience requirements for IPTV services
G.1081	Performance monitoring points for IPTV
G.1082	Measurement-based methods for improving the robustness of IPTV performance
G.1091	Quality of Experience requirements for telepresence services
G.1092	Taxonomy of telemeetings from a quality of experience perspective
G.7041	Generic framing procedure
G.Imp7041	Implementer's Guide for ITU-T Rec. G.7041
G.7042	Link capacity adjustment scheme (LCAS) for virtual concatenated signals
G.7043	Virtual concatenation of plesiochronous digital hierarchy (PDH) signals
G.7044	Hitless adjustment of ODUflex(GFP)
G.7701	Common control aspects
G.7702	Architecture for SDN control of transport networks
G.7703	Architecture for the automatically switched optical network ITU-T G.8080/Y.1304 was renumbered as ITU-T G.7703 (consented in April 2021 and approved in May 2021) to group it with the other architecture Recommendations that share common control aspects described in G.7701.
G.7710	Common equipment management function requirements
G.7711	Generic protocol-neutral information model for transport resources
G.7712	Architecture and specification of data communication network
G.7713	Distributed call and connection management (DCM)
G.7713.1	Distributed Call and Connection Management (DCM) based on PNNI
G.Imp7713.1	Implementers' Guide for Recommendation ITU-T G.7713.1/Y.1704.1 (03/2003)
G.Imp7713.2	Implementers' Guide for Recommendation ITU-T G.7713.2/Y.1704.2 (03/2003)
G.7713.2	Distributed Call and Connection Management: Signalling mechanism using GMPLS RSVP-TE
G.7713.3	Distributed Call and Connection Management: Signalling mechanism using GMPLS CR-LDP
G.Imp7713.3	Implementers' Guide for Recommendation ITU-T G.7713.3/Y.1704.3 (03/2003)
G.Imp7713	Implementers' Guide
G.7714	Generalized automatic discovery for transport entities
G.7714.1	Protocol for automatic discovery in transport networks
G.Imp7714.1	Implementers' Guide
G.Imp7715	Implementers' Guide for Recommendation ITU-T G.7715/Y.1706 (06/2002)
G.7715	Architecture and requirements for routing in the automatically switched optical networks

- [G.Imp7715.1](#) Implementers' Guide for Recommendation ITU-T G.7715.1/Y.1706.1 (02/2004)
- [G.7715.1](#) ASON routing architecture and requirements for link state protocols
- [G.Imp7715.2](#) Implementers' Guide for Recommendation ITU-T G.7715.2/Y.1706.2 (02/2007) - ASON routing architecture and requirements for remote route query
- [G.7715.2](#) ASON routing architecture and requirements for remote route query
- [G.7716](#) Architecture of management and control operations
- [G.Imp7716](#) Implementers' Guide for Recommendation ITU-T G.7716/Y.1707 (01/2010) - Architecture of control plane operations
- [G.7718](#) Framework for the management of management-control components and functions
- [G.7718.1](#) Protocol-neutral management information model for the control plane view
- [G.7719](#) Management information model for management-control components and functions
- [G.7721](#) Management requirement and information model for synchronization
- [G.7721.1](#) Data model of synchronization management
- [G.Imp8001](#) Implementer's guide (2021) for Recommendation ITU-T G.8001/Y.1354 (2016)
- [G.8001](#) Terms and definitions for Ethernet frames over transport
Recommendation G.8001/Y.1354 (2016) was superseded by Recommendations ITU-T G.8012/Y.1308 (2022) and ITU-T G.8021/Y.1341 (2022)
- [G.8010](#) Architecture of Ethernet layer networks
- [G.Imp8010](#) Implementers' Guide for ITU-T Rec. G.8010/Y.1306 (02/2004) - Architecture of Ethernet layer networks
- [G.8011](#) Ethernet service characteristics
- [G.8011.1](#) Ethernet private line service
The contents of Recommendations ITU-T G.8011.1/Y.1307.1 (2013), G.8011.2/Y.1307.2 (2013), G.8011.3/Y.1307.3 (2013), G.8011.4/Y.1307.4 (2013) and G.8011.5/Y.1307.5 (2013) have been integrated into Recommendation ITU-T G.8011/Y.1703 (2015)
- [G.8011.2](#) Ethernet virtual private line service
The contents of Recommendations ITU-T G.8011.1/Y.1307.1 (2013), G.8011.2/Y.1307.2 (2013), G.8011.3/Y.1307.3 (2013), G.8011.4/Y.1307.4 (2013) and G.8011.5/Y.1307.5 (2013) have been integrated into Recommendation ITU-T G.8011/Y.1703 (2015)
- [G.8011.3](#) Ethernet virtual private LAN service
The contents of Recommendations ITU-T G.8011.1/Y.1307.1 (2013), G.8011.2/Y.1307.2 (2013), G.8011.3/Y.1307.3 (2013), G.8011.4/Y.1307.4 (2013) and G.8011.5/Y.1307.5 (2013) have been integrated into Recommendation ITU-T G.8011/Y.1703 (2015)
- [G.8011.4](#) Ethernet private tree and Ethernet virtual private tree services
The contents of Recommendations ITU-T G.8011.1/Y.1307.1 (2013), G.8011.2/Y.1307.2 (2013), G.8011.3/Y.1307.3 (2013), G.8011.4/Y.1307.4 (2013) and G.8011.5/Y.1307.5 (2013) have been integrated into Recommendation ITU-T G.8011/Y.1703 (2015)
- [G.8011.5](#) Ethernet private LAN service
- [G.Imp8011](#) Implementers' Guide for ITU-T Rec. G.8011/Y.1307 - Ethernet service characteristics
- [G.Imp8011.1](#) Implementers' Guide for ITU-T Rec. G.8011.1/Y.1307.1 (08/2004) - Ethernet private line service

- [G.Imp8011.2](#) Implementers' Guide for ITU-T Rec. G.8011.2/Y.1307.2 (09/2005) - Ethernet virtual private line service
- [G.Imp8011.3](#) Implementers' Guide for ITU-T Rec. G.8011.3/Y.1307.3 (02/2010) - Ethernet virtual private LAN service
- [G.Imp8011.4](#) Implementers' Guide for ITU-T Rec. G.8011.4/Y.1307.4 - Ethernet virtual private rooted multipoint service
- [G.Imp8012](#) Implementers' Guide for Recommendation ITU-T G.8012/Y.1308 (08/2004) - Ethernet UNI and Ethernet NNI
- [G.8012](#) Ethernet UNI and Ethernet NNI
ITU-T G.8012/Y.1308 (02/2022) supersedes ITU-T G.8012.1/Y.1308.1 (12/2012), and together with ITU-T G.8021/Y.1341 (04/2022) also supersedes ITU-T G.8021.1/Y.1341.1 (10/2012)
- [G.8012.1](#) Interfaces for the Ethernet transport network
ITU-T G.8012.1/Y.1308.1 was superseded on 13 February 2022 by ITU-T G.8012/Y.1308 (02/2022)
- [G.8013](#) Operation, administration and maintenance (OAM) functions and mechanisms for Ethernet-based networks
- [G.8021](#) Characteristics of Ethernet transport network equipment functional blocks
- [G.8021.1](#) Types and characteristics of Ethernet transport network equipment
ITU-T G.8012/Y.1308 (02/2022) together with ITU-T G.8021/Y.1341 (04/2022) superseded ITU-T G.8021.1/Y.1341.1 on 22 April 2022
- [G.8023](#) Characteristics of equipment functional blocks supporting Ethernet physical layer and Flex Ethernet interfaces
- [G.8031](#) Ethernet linear protection switching
- [G.8032](#) Ethernet ring protection switching
- [G.Imp8032](#) Implementers' Guide for ITU-T Rec. G.8032/Y.1344 (03/2010) - Ethernet ring protection switching
- [G.8040](#) GFP frame mapping into Plesiochronous Digital Hierarchy (PDH)
- [G.8051](#) Management aspects of the Ethernet transport (ET) capable network element
- [G.Imp8051](#) Implementers' Guide for Recommendation ITU-T G.8051/Y.1345 (11/2009) - Management aspects of the Ethernet -over -Transport (EoT) capable network element
- [G.8052](#) Protocol-neutral management information model for the Ethernet transport capable network element
- [G.8052.1](#) Operation, administration, maintenance (OAM) management information and data models for the Ethernet-transport network element
- [G.8052.2](#) Resilience information/data models for the Ethernet transport network element
- [G.8080](#) Architecture for the automatically switched optical network
- [G.Imp8080](#) Implementers' Guide
- [G.8081](#) Terms and definitions for automatically switched optical networks
- [G.8101](#) Terms and definitions for MPLS transport profile
By decision of ITU-T SG15 at its plenary of 18.09.2020, Recommendation G.8101/Y.1355 is superseded by ITU-T G.8110.1 Amd.1 (2020) and G.8112 (2020).
- [G.Imp8101](#) Implementers' guide for Recommendation ITU-T G.8101/Y.1355 (2016-11)
- [G.8110](#) MPLS layer network architecture
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- [G.9942](#) High speed fibre-based in-premises transceivers - Data link layer
- [G.9951](#) Phoneline networking transceivers - Foundation
This text was first approved and published as ITU-T Rec. G.989.1 and then renumbered as G.9951 on 2005-05-27 without further modification
- [G.9952](#) Phoneline networking transceivers - Payload format and link layer requirements
This text was first approved and published as ITU-T Rec. G.989.2 and then renumbered as G.9952 on 2005-05-27 without further modification
- [G.9953](#) Phoneline networking transceivers - Isolation function
This text was first approved and published as ITU-T Rec. G.989.3 and then renumbered as G.9953 on 2005-05-27 without further modification
- [G.9954](#) Home networking transceivers - Enhanced physical, media access, and link layer specifications
- [G.9955](#) *[Withdrawn] Narrowband orthogonal frequency division multiplexing power line communication transceivers - Physical layer specification*
The contents of Recommendations ITU-T G.9955 (2011) and ITU-T G.9956 (2011) have been reorganized into Recommendations ITU-T G.9901, ITU-T G.9902, ITU-T G.9903 and ITU-T G.9904, which are technically equivalent.
- [G.9956](#) *[Withdrawn] Narrowband orthogonal frequency division multiplexing power line communication transceivers - Data link layer specification*
The contents of Recommendations ITU-T G.9955 (2011) and ITU-T G.9956 (2011) have been reorganized into Recommendations ITU-T G.9901, ITU-T G.9902, ITU-T G.9903 and ITU-T G.9904, which are technically equivalent.
- [G.9958](#) Generic architecture of home networks for energy management

- [G.9959](#) Short range narrow-band digital radiocommunication transceivers - PHY, MAC, SAR and LLC layer specifications
- [G.9960](#) Unified high-speed wireline-based home networking transceivers - System architecture and physical layer specification
- [G.9961](#) Unified high-speed wireline-based home networking transceivers - Data link layer specification
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- [G.100SerSup31](#) Principles of determining an impedance strategy for the local network
- [G.100SerSup32](#) Transmission aspects of digital mobile radio systems
- [G.Sup1](#) Calculation of the stability of international connections established in accordance with the transmission and switching plan
- [G.Sup2](#) *[Withdrawn] Talker echo on international connections*
- [G.Sup3](#) *[Withdrawn] Evaluation of echo control devices*
- [G.Sup4](#) Certain methods of avoiding the transmission of excessive noise between interconnected systems
Green Book Volume III.2, page 572
- [G.Sup5](#) Measurement of the load of telephone circuits under field conditions
Red Book Fascicle III.2, page 295
- [G.Sup6](#) *[Withdrawn] Example showing how the total value of line noise specified for the hypothetical reference circuit on open-wire lines might be broken down into its various components*
Green Book Volume III.2, page 589
- [G.Sup7](#) Loss-frequency response of channel-translating equipment used in some countries for international circuits
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- [G.Sup8](#) Method proposed by the Belgian telephone administration for interconnection between coaxial and symmetric pair systems
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- [G.Sup9](#) *[Withdrawn] Roll effect in coaxial pair systems*
Green Book Volume III.2, page 592
- [G.Sup10](#) *[Withdrawn] Application of Recommendation B.4 concerning the use of decibel*
- [G.Sup11](#) *[Withdrawn] Data on cable ships and submersible equipments of various countries*
This Supplement was withdrawn because its was no longer relevant
- [G.Sup13](#) *[Withdrawn] Noise at the terminals of the battery supply*
Orange Book Fascicle III.3, page 664
- [G.Sup14](#) *[Withdrawn] Methods for measuring regularity return loss*
- [G.Sup15](#) *[Withdrawn] Almost-differential quasi-ternary code (ADQ code)*
This Supplement was withdrawn because its was technically obsolete
- [G.Sup17](#) Group-delay distortion performance of terminal equipment
Red Book Fascicle III.2, page 311
- [G.Sup18](#) *[Withdrawn] Information on submarine cables used in deep water*
Red Book Fascicle III.2, page 313
- [G.Sup19](#) Digital crosstalk measurement (method used by the Administrations of France, the Netherlands and Spain)
Red Book Fascicle III.2, page 326
- [G.Sup20](#) *[Withdrawn] Possible combinations of basic transmission impairments in hypothetical reference connections*
- [G.Sup21](#) *[Withdrawn] The use of quantizing distortion units in the planning of international connections*
- [G.Sup22](#) Mathematical models of multiplex signals
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- [G.Sup23](#) *[Withdrawn] Explanatory notes for the information of designers of a maritime mobile satellite system*
- [G.Sup24](#) *[Withdrawn] Consideration concerning quantizing distortion units of some digital devices that process encoded signals*
- [G.Sup26](#) Estimating the signal load margin of FDM wideband amplifier equipment and transmission systems
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- [G.Sup27](#) Interference from external sources
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- [G.Sup28](#) Application of transmultiplexers, FDM codecs, data-in-voice (DIV) systems and data-over-voice (DOV) systems during the transition from an analogue to a digital network
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- [G.100SerSup29](#) Planning of mixed analogue-digital circuits (chains, connections)
- [G.Sup29](#) Objective for the mixed analogue/digital chain of 4-wire circuits
- [G.Sup30](#) *[Withdrawn] Transmission plan aspects of land mobile telephony networks*
- [G.Sup31](#) *[Withdrawn] Status of work of presently considered digital circuit multiplication equipment (DCME) documents*
- [G.Sup32](#) Transfer of alarm information on 60-channel transmultiplexing equipment

<u>G.Sup33</u>	<i>[Withdrawn] Examples of fibre design guidelines (diagrams used in Japan and in the United Kingdom) This Supplement was withdrawn because its was technically obsolete</i>
<u>G.Sup34</u>	Temperature in underground containers for the installation of repeaters
<u>G.Sup35</u>	Guidelines concerning the measurement of wander
<u>G.Sup36</u>	Jitter and wander accumulation in digital networks
<u>G.Sup37</u>	ITU-T Recommendation G.763 digital circuit multiplication equipment (DCME) tutorial and dimensioning
<u>G.Sup38</u>	Variable bit rate calculations for the ITU-T Recommendation G.767 Digital Circuit Multiplication Equipment (DCME)
<u>G.Sup39</u>	Optical system design and engineering considerations
<u>G.Sup40</u>	Optical fibre and cable Recommendations and standards guideline
<u>G.Sup41</u>	Design guidelines for optical fibre submarine cable systems
<u>G.Sup42</u>	Guide on the use of the ITU-T Recommendations related to optical fibres and systems technology
<u>G.Sup43</u>	Transport of IEEE 10GBASE-R in optical transport networks (OTN)
<u>G.Sup44</u>	Test plan to verify B-PON interoperability
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<u>G.Sup47</u>	General aspects of optical fibres and cables
<u>G.Sup48</u>	10-Gigabit-capable passive optical networks: Interface between media access control with serializer/deserializer and physical medium dependent sublayers
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<u>G.Sup50</u>	Overview of digital subscriber line Recommendations
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