

Superseded by a more recent version



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

J.1
(03/98)

SERIES J: TRANSMISSION OF TELEVISION, SOUND
PROGRAMME AND OTHER MULTIMEDIA SIGNALS
General Recommendations

**Terminology for new services in television and
sound-programme transmission**

ITU-T Recommendation J.1
Superseded by a more recent version

(Previously CCITT Recommendation)

Superseded by a more recent version

ITU-T J-SERIES RECOMMENDATIONS

TRANSMISSION OF TELEVISION, SOUND PROGRAMME AND OTHER MULTIMEDIA SIGNALS

| General Recommendations | J.1–J.9 |
|---|----------------|
| General specifications for analogue sound-programme transmission | J.10–J.19 |
| Performance characteristics of analogue sound-programme circuits | J.20–J.29 |
| Equipment and lines used for analogue sound-programme circuits | J.30–J.39 |
| Digital encoders for analogue sound-programme signals | J.40–J.49 |
| Digital transmission of sound-programme signals | J.50–J.59 |
| Circuits for analogue television transmission | J.60–J.69 |
| Analogue television transmission over metallic lines and interconnection with radio-relay links | J.70–J.79 |
| Digital transmission of television signals | J.80–J.89 |
| Ancillary digital services for television transmission | J.90–J.99 |
| Operational requirements and methods for television transmission | J.100–J.109 |
| Interactive systems for digital television distribution | J.110–J.129 |
| Transport of MPEG-2 signals on packetised networks | J.130–J.139 |
| Measurement of the quality of service | J.140–J.149 |
| Digital television distribution through local subscriber networks | J.150–J.159 |

For further details, please refer to ITU-T List of Recommendations.

Superseded by a more recent version

ITU-T RECOMMENDATION J.1

TERMINOLOGY FOR NEW SERVICES IN TELEVISION AND SOUND-PROGRAMME TRANSMISSION

Source

ITU-T Recommendation J.1 was revised by ITU-T Study Group 9 (1997-2000) and incorporates Amendment 1 and Amendment 2 approved under the WTSC Resolution No. 1 procedure on the 22nd of April 1997 and 18 March 1998 respectively.

Superseded by a more recent version

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

INTELLECTUAL PROPERTY RIGHTS

The ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. The ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, the ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

© ITU 1998

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the ITU.

Superseded by a more recent version

CONTENTS

| | <i>Page</i> |
|-----------------------------------|-------------|
| 1 Scope | 1 |
| 2 Terms and definitions | 1 |
| 3 Abbreviations and Acronyms..... | 11 |

Superseded by a more recent version

Introduction

In the pursuit of its work aimed towards the standardization of the transmission of television and sound-programme signals and of related data signals for purposes of contribution, primary distribution and secondary distribution, including cable television, SMATV and similar services, ITU-T has often found it necessary to develop new terminology, or to adapt it from current technical parlance.

This continuing work has resulted in a small glossary of terms, acronyms and definitions that is specific to that area of activity, and that should desirably find wide recognition and application.

The purpose of this Recommendation is to formalize this small glossary of terms, acronyms and definitions, and to recommend its use in all the texts that address the services and technologies listed above.

It is expected that the glossary will continue to gradually grow over the years, as new terms are developed or adapted.

Superseded by a more recent version

Recommendation J.1

TERMINOLOGY FOR NEW SERVICES IN TELEVISION AND SOUND-PROGRAMME TRANSMISSION

(Geneva, 1998)

1 Scope

The scope of this Recommendation is to provide a glossary of terms, acronyms and definitions for application to new services related to the transmission of television and sound-programme signals and of related data signals for purposes of contribution, primary distribution and secondary distribution, including cable television, SMATV and similar services.

2 Terms and definitions

2.1 additional service: A service which consists in the sending of telecommunication signals for transmission by means of the use of the spare capacity within the signals carrying sound and/or television services to the audience.

2.2 algorithm

J.93

A mathematical process which can be used for the scrambling and descrambling of a data stream.

2.3 ancillary service: A service (e.g. subtitling for the deaf) that is ancillary to the sound and/or television programmes delivered on a given channel, and directly related to their content.

2.4 ancillary signal: A signal (e.g. the signal used for the teletext service) that carries an ancillary service and is sent on the spare capacity within the signals carrying the main sound and/or television service provided on a given channel.

NOTE – The term "ancillary signal" is also sometimes used to refer to signals that carry "additional" services rather than "ancillary" ones.

2.5 application-free

J.90

A service for which the represented media (text, still pictures, audio, video) and their information contents are specified, but not the way in which the user must select them for presentation.

2.6 Audio Alignment Signal (AS)

From N.13

Sine-wave signal at 1020 Hz at a level of 0 dBm0s, which is used to align the international sound-programme connection.

2.7 authentication

J.93

The process intended to allow the system to check with certainty the identification of a party.

2.8 basic amplitude

From J.101

The difference between the all-ones level and the all-zeros level in a digital signal.

2.9 Bit-Rate Reduction (BRR): A process that is applied to the source bit-rate to reduce the bit-rate needed to deliver digital video or digital audio.

2.10 bit-rate reduction factor: The ratio between the source bit-rate and the reduced bit-rate, in a BRR process. Note that this term should not be used interchangeably with bandwidth reduction factor.

Superseded by a more recent version

2.11 broadcast channel: A radio-frequency channel, operated by an operating agency and used for the broadcast or cable distribution of programming; it is characterized irrespective of the programme channel(s) it delivers, and it may carry a (reconfigurable) multiplex of programme channels.

2.12 broadcast network: A set of interconnectable broadcast channels, operated by an operating agency; it is characterized irrespective of the programme channels it carries, and it may carry the same programme channel in several broadcast channels.

2.13 broadcasting organization

From N.1

An organization which is concerned with either or both sound and television broadcasting.

NOTE – Most of the customers ordering facilities for sound-programme and television transmission are broadcasting organizations. For convenience, the term broadcasting organization is used to denote the activity of any user or customer and, where so used, it is equally applicable to any other customer requiring sound-programme or television transmissions.

2.14 broadcasting organization (receive)

From N.1

The broadcasting organization at the receiving end of an international sound-programme or television transmission.

2.15 broadcasting organization (send)

From N.1

The broadcasting organization at the sending end of an international sound-programme or television transmission.

2.16 cablecasting

From N.1

The distribution of programmes over a cable television network (colloquial).

2.17 capacity provider

J.90

The entity that provides the technical facilities needed to deliver a programme schedule (e.g. the common carrier).

2.18 circuit section (sound-programme)

N.1 (1993)

The unidirectional national or international sound-programme transmission path between two stations at which the programme is accessible at audio frequencies. The transmission path may be established via terrestrial or single destination satellite routing.

NOTE – See also: "permanent sound-programme or television circuit" and "temporary sound-programme or television circuit".

The various types of international sound-programme circuit or sections of such circuits should be referred to by quoting the top nominal frequency, in kHz, effectively transmitted.

Example: 10-kHz sound-programme circuit.

2.19 circuit section (television)

N.51 (1988)

The unidirectional national or international television transmission path between two stations at which the programme is accessible at video frequencies. The transmission path may be established via terrestrial or single destination satellite routing.

2.20 compression: Deprecated, the preferred term is Bit-Rate Reduction (BRR).

Superseded by a more recent version

2.21 Conditional Access system (CA)

J.93

The complete system for ensuring that cable services are accessible only to those who are entitled to receive them, and that the ordering of such services is not subject to modification or repudiation.

2.22 content provider

J.90

The entity that provides the creative content of a programme (e.g. the programme producer or the owner of its rights).

2.23 contribution: Use of a transmission channel for transferring audio and/or video information among production facilities, for further post-processing.

2.24 control circuit

From N.3

A telephone-type circuit between the point of origin of the programme and the point where it terminates (recording equipment, studio, switching centre, transmitter, etc.) used by a broadcasting organization for the supervision and coordination of a sound or television transmission.

NOTE – More than one control circuit may be used in association with the different programme connections involved in a single transmission, such as:

- a) the television connection;
- b) the international sound connection (for supervising the programme effects circuit provided for transmitting, for example, the background noises of a programme);
- c) the commentary connection (for supervising the sound-programme circuit transmitting a commentary in a given language);
- d) the complete programme connection (for supervising the sound-programme circuit transmitting the whole of the sound part of a programme).

2.25 dBm0

J.14

The absolute signal power level, in decibels, referred to a point of zero relative level. This symbol traditionally relates to telephony relative levels.

2.26 dBm0s

J.14

The absolute signal power level, in decibels, referred to a point of zero relative sound-programme level.

2.27 dBrs

J.14

The relative (power) level, in decibels, with respect to sound-programme signals. (This abbreviation is only applicable at points in a sound-programme circuit where the signals can nominally be related to the input by a simple scaling factor.)

2.28 descrambling

J.93

The process of reversing the scrambling function (see Scrambling) to yield usable pictures, sound, and data services.

2.29 dynamic bit-rate allocation: A technique by which, in a fixed-bit-rate digital transmission channel, the available data rate is allocated in a dynamic way to the different programme streams multiplexed on the channel.

2.30 encryption

J.93

The process of scrambling signals to avoid unauthorized access.

Superseded by a more recent version

2.31 Fault Reporting Centre (FRC)

N.51 (1988)

A centre in a receiving country dealing with enquiries and fault reports concerning transmission to TVROs not related to an ITC.

2.32 fibre node: A point in a cable television network, at which signals carried on optical fibre lines are switched and distributed.

2.33 Hybrid Analogue-and-Digital (HAD) link: A link capable of carrying analogue signals in some parts of its frequency band and digital signals in other parts.

2.34 Hybrid Fibre-and-Coaxial (HFC) network: A mixed fibre and coaxial network architecture used in cable television, in which fibre links are used for the main distribution path, while coaxial links are used as the final link into the users' premises.

2.35 hypothetical reference circuit (in the fixed-satellite service)

From J.61 (1990)

A reference circuit for a system in the fixed-satellite service which may form part of an international television circuit and is defined as follows:

- it consists of one Earth station satellite-Earth station system;
- it includes one pair of modulation and demodulation equipment for translation from the baseband to the radio-frequency carrier, and from the radio-frequency carrier to the baseband, respectively;
- it does not include a standards converter or a synchronizing-pulse regenerator, or equipment for the insertion of signals in the line/field blanking interval.

2.36 hypothetical reference circuit (terrestrial)

From J.61 (1990)

A reference circuit, used as an example of an international television circuit. It may be of either radio or cable type and it has the following characteristics:

- the overall length between video terminal points is 2500 km;
- two intermediate video points divide the circuit into three sections of equal length;
- the three sections are lined up individually and then interconnected without any form of overall adjustment or correction;
- the circuit does not contain a standards converter or a synchronizing pulse regenerator, or equipment for the insertion of signals in the line/field blanking interval.

2.37 integrity

J.93

The ability of a function to withstand being usurped for unauthorized use, or modified to yield unauthorized results.

2.38 interactive service: A service in which the end user navigates through the available content of the programme delivered to him, by sending messages to the service origination point.

NOTE – The definition does not cover those services in which the user locally interacts with data downloaded to him, although this may give him an impression of interactivity.

2.39 insertion gain

J.61

The ratio, expressed in decibels, of the peak-to-peak amplitude of a specified test signal at the receiving end to the nominal amplitude of that signal at the sending end, the peak-to-peak amplitude being defined as the difference between the amplitudes measured at defined points of the signal used.

Superseded by a more recent version

2.40 international centre (satellite transmission: ISTC)

N.51

A centre in a transmitting country responsible for the national extension and up-link to satellite. This term is applicable only for transmission to TVROs not related to an ITC.

2.41 international centre (sound-programme: ISPC)

N.1

A centre at which at least one international sound-programme circuit terminates and in which international sound-programme connections can be made up by the interconnection of international and national sound-programme circuits.

2.42 international centre (television: ITC)

N.51

A centre at which at least one international television circuit terminates and in which international television connections can be made up by the interconnection of international and national television circuits.

2.43 international circuit (sound-programme)

N.1

The transmission path between two ISPCs which comprises one or more sound-programme circuit sections (national or international), together with any necessary audio equipment. The transmission path may be established via terrestrial or single destination satellite routing.

NOTE – See also: "permanent sound-programme or television circuit" and "temporary sound-programme or television circuit".

The various types of international sound-programme circuit or sections of such circuits should be referred to by quoting the top nominal frequency, in kHz, effectively transmitted.

Example: 10-kHz sound-programme circuit.

2.44 international circuit (television)

N.51

The transmission path between two ITCs which comprises one or more television circuit sections (national or international) together with any necessary video equipment. The transmission path may be established via terrestrial or single destination satellite routing.

NOTE – See also: "permanent sound-programme or television circuit" and "temporary sound-programme or television circuit".

2.45 international connection (sound-programme or television)

N.1

The unidirectional transmission path between the broadcasting organization (send) and the broadcasting organization (receive) comprising the international sound-programme or television link extended at its two ends over national circuits to the broadcasting organization.

NOTE – See also: "permanent sound-programme or television circuit" and "temporary sound-programme or television circuit".

2.46 international link (sound-programme or television)

N.1

The unidirectional transmission path between the ISPCs of the two terminal countries involved in an international sound-programme or television transmission. The international sound-programme or television link comprises one or more international circuits interconnected at intermediate ISPCs (resp. ITCs). It can also include national circuits in transit countries.

NOTE – See also: "permanent sound-programme or television circuit" and "temporary sound-programme or television circuit".

Superseded by a more recent version

2.47 international multiple destination circuit (sound-programme or television)

From N.1 (1993)

The unidirectional transmission path from one ISPC to two or more other ISPCs comprising sound-programme or television circuit sections (national or international), one of which is an international multiple destination circuit section, together with any necessary audio or television equipment.

NOTE – See also: "permanent sound-programme or television circuit" and "temporary sound-programme or television circuit".

The various types of international sound-programme circuit or sections of such circuits should be referred to by quoting the top nominal frequency, in kHz, effectively transmitted.

Example: 10-kHz sound-programme circuit.

2.48 international multiple destination circuit section (sound-programme or television)

From N.1

The unidirectional sound-programme or television transmission path from one frontier station to two or more of the frontier stations at which interconnection is made at audio or video frequencies.

NOTE – See also: "permanent sound-programme or television circuit" and "temporary sound-programme or television circuit".

The various types of international sound-programme circuit or sections of such circuits should be referred to by quoting the top nominal frequency, in kHz, effectively transmitted.

Example: 10-kHz sound-programme circuit.

2.49 international multiple destination connection (sound-programme or television)

From N.1

The unidirectional transmission path between the broadcasting organization (send) and two or more broadcasting organizations (receive) comprising the international multiple destination sound-programme or television link extended at its ends over national circuits to the broadcasting organizations.

NOTE – See also: "permanent sound-programme or television circuit" and "temporary sound-programme or television circuit".

2.50 international multiple destination link (sound-programme or television)

From N.1

The unidirectional transmission path between the ISPCs of the terminal countries involved in an international multiple destination sound-programme or television transmission. The international multiple destination sound-programme or television link comprises international circuits, one of which is an international multiple destination circuit.

NOTE – See also: "permanent sound-programme or television circuit" and "temporary sound-programme or television circuit".

2.51 international transmission (sound-programme and/or television)

From N.1

The transmission of sound-programme signals and/or television signals over the international telecommunication network for the purpose of interchanging programme material between broadcasting organizations in different countries.

2.52 line-up period

From N.4

The period during which the Administrations line up the international sound-programme circuit before handing it over to the broadcasting organizations.

2.53 lossless bit-rate reduction: A BRR process that fully preserves the information content of the original bit stream, which can be reconstructed with bit-to-bit accuracy (e.g. exploiting the bit stream statistics).

2.54 lossy bit-rate reduction: A BRR process that does not fully preserve the information content of the original bit stream, which cannot be reconstructed with bit-to-bit accuracy (e.g. exploiting the image statistics).

Superseded by a more recent version

2.55 Master Antenna Television (MATV): A collective antenna installation similar to SMATV in its functionality, whose head-end is intended for reception of terrestrial television signals only. (Most current SMATV systems were originally installed as MATV and were later upgraded to also distribute satellite signals.)

2.56 Measurement Signal (MS)

N.13

Sine-wave signal at 1020 Hz at a level 12 dB below the audio alignment signal level; this level should be used for long-term measurements and for measurements at all frequencies.

2.57 multimedia service: A service in which the programme information consists of more than one type, such as text, graphics, sound, image and video, and where the information is organized to provide more than one way of access (a decision-tree access).

2.58 national centre (sound-programme: NSPC)

N.1

A centre at which two or more national sound-programme circuits terminate and at which national sound-programme circuits may be interconnected.

2.59 national centre (television: NTC)

N.51

A centre at which two or more national television circuits terminate and at which national television circuits may be interconnected.

2.60 national circuit

J.13

A circuit that connects the ISPC to the broadcasting authority; this applies both at the sending and at the receiving end. A national circuit may also interconnect two ISPCs within the same country.

2.61 net bit-rate reduction factor: The ratio between the net bit-rate at source and the reduced bit-rate, in a BRR process.

2.62 node: A point in a cable television network, at which signals are switched and distributed.

2.63 nominal video signal amplitude

J.61

The peak-to-peak amplitude of the monochrome video signal that includes the synchronizing signal and luminance signal component set to peak-white.

2.64 non-homogeneous network: A mixed analogue and digital network architecture used in cable television in which the digital links are used for the main distribution path, while analogue links are placed in tandem with them and are used, e.g., as the final link into the users' premises.

2.65 opportunistic data capacity: The spare data capacity that may become available from moment to moment in a fixed-bit-rate digital transmission channel when it carries variable-bit-rate programme streams.

2.66 opportunistic service: A service carried in the opportunistic data capacity of a digital transmission channel.

2.67 pay-per-view

J.93

A payment system whereby the subscriber can pay for an individual program or specified period of time.

2.68 peak-to-peak amplitude

J.101

The sum of basic amplitude zero overshoots and one overshoots in a two-level digital signal. It is expressed as a percentage of the basic amplitude.

Superseded by a more recent version

2.69 permanent sound-programme or television circuit

From N.1

A sound-programme or television circuit section, circuit, link or connection is considered to be permanent for maintenance purposes if it is always available for use when required, whether or not it is continuously in use.

NOTE – Such a circuit may be used for the purposes of occasional transmission, that is, transmissions of short duration, e.g. less than 24 hours, or it may be used for a long duration, i.e. one day or more. A permanent connection between broadcasting organizations' premises may be used at any time, except only for periods of maintenance as agreed between the Administrations and broadcasting organizations concerned.

2.70 Permitted Maximum Signal (PMS)

N.13

Sine-wave signal at 1020 Hz, 9 dB above the alignment signal level, equivalent to the permitted maximum programme-signal level.

2.71 piracy

J.93

The act of acquiring unauthorized access to programs, usually for the purpose of reselling such access for unauthorized reception.

2.72 preparatory period

From N.4

The period during which the broadcasting organizations do their own adjustments, tests and other work before the sound-programme or television transmission itself commences.

2.73 presentation-free

J.90

A service for which the information content is specified, but not the way in which the information must be presented on reception.

2.74 primary distribution: Use of a transmission channel for transferring audio and/or video information to one or several destination points without a view to further post-processing on reception (e.g. from a continuity studio to a transmitter network).

2.75 programme channel: A programming schedule (sequence of programmes), generally provided by a programme provider company for distribution to viewers; it is characterized irrespective of the type of broadcast channel or network used to deliver it, and it may simultaneously be delivered over several different broadcast channels or networks (terrestrial broadcasting, satellite broadcasting, cable television, etc.).

2.76 programme originator

N.51

A customer in a transmitting country needing up-linking of a transmission to television receive-only stations (TVROs) not related to an ITC.

2.77 relative power (dBr) level

From N.1

The relative power level of a point in a transmission system, where the transmission plan is based on power, is the nominal power gain at the reference frequency from a reference point to the point considered. Values of the relative power level are usually characterized by the unit designation dBr.

NOTE – For sound-programme circuits, the zero relative level point is the origin of the sound-programme connection as defined in Recommendation J.14.

Superseded by a more recent version

2.78 relative voltage (dBur) level

From N.1

The relative voltage level in a transmission system, where the transmission plan is based on voltage, is the nominal voltage gain at the reference frequency from a reference point to the point considered. Values of the relative voltage level are usually characterized by the unit designation dBur.

NOTE – For sound-programme circuits, the zero relative level point is the origin of the sound-programme connection as defined in Recommendation J.14.

2.79 return channel: A communication channel established between the end user and the service origination point, to allow the user to interact with the service origination.

2.80 schedule provider

J.90

The entity that decides the schedule in which programmes are sequenced on a delivery channel (e.g. the broadcaster).

2.81 scrambling

J.93

The process of using an encryption function to render television and data signals unusable to unauthorized parties.

2.82 secondary distribution: Use of a transmission channel for distribution of programmes to viewers at large (by over-the-air broadcasting or by cable television, including re-transmission, such as by broadcast repeaters or by SMATV).

2.83 send reference station

N.1

The transmit sub-control station of an international multiple destination sound-programme circuit section, circuit or link.

2.84 SMATV-D system

J.84

A SMATV system equipped to receive QPSK modulated digital television satellite signals and to distribute them, still in digital form, using QAM or QPSK modulation (the term "D" refers, in a generic way, to the ability to process digital television signals).

2.85 SMATV-DTM system

J.84

A SMATV-D system based on digital transmodulation performed at head-end from a QPSK-modulated satellite signal to a QAM-modulated cable signal, which is then distributed to users in the VHF/UHF bands (the approach is called "transparent", since the satellite carrier content is transferred to the cable carrier without demultiplexing or other baseband processing).

2.86 SMATV-IF

J.84

A SMATV-D system based on the direct distribution of the QPSK-modulated television satellite signal, taken from the LNB and distributed in the extended IF band (e.g. 950-2050 MHz in Europe) without further processing apart from a possible frequency conversion within the IF band.

Superseded by a more recent version

2.87 SMATV network

J.84

A Satellite Master Antenna TV network intended for the broadband distribution of television, sound and data signals received directly from one or more satellites, possibly in frequency-division multiplex with similar terrestrial VHF/UHF signals, to households located in one or more adjacent buildings. Where intended also for the distribution of new digital multiprogramme television, sound and data services, such networks are known as "Digital SMATV networks" and the digital configuration for this purpose is known as "Digital multiprogramme SMATV System".

2.88 SMATV-S

J.84

A SMATV-D system based on the direct distribution of the QPSK-modulated television satellite signal, taken from the LNB and distributed in the "Extended Superband" (e.g. 230-470 MHz in Europe) without any further processing apart from frequency conversion.

2.89 SMATV (Satellite Master Antenna Television) system: A system intended for the unattended distribution of television, sound and data signals received directly from one or more satellites, possibly in frequency-division multiplex with similar terrestrial signals, to households located in one or in a few adjacent buildings; it is characterized by the use of consumer-type equipment throughout. Also known as "community antenna installations" or as "domestic TV cable networks".

2.90 source bit-rate (video, audio or data): The bit-rate of the original digital signal (respectively video, audio or data) with no BRR applied.

2.91 source coding (video, audio or data): The encoding of the original digital signal (respectively video, audio or data) in BRR representation before protection is applied against bit errors in the channel.

2.92 source identification

From J.27

An announcement used to identify the originating point of the test signals. It should be as short as possible, and it should contain at least the following information:

- name of originating organization;
- location;
- country.

2.93 source signal (video, audio or data): The original digital signal (respectively video, audio or data).

2.94 staggercasting: The distribution of programmes in the near-video-on-demand mode, i.e. by starting the same programme at regularly spaced times over several channels (colloquial).

2.95 statistical multiplexing: In a fixed-bit-rate digital transmission channel, the application of dynamic allocation of the available bit rate to the various programmes streams carried in the multiplex, according to the quasi-instantaneous bit-rate need of each stream.

2.96 television receive-only station (TVRO)

N.51

An earth station which is used only for reception. In this respect, the term is used to denote any TVRO whose owner is authorized to receive the programme material.

2.97 temporary sound-programme or television circuit

From N.1

A sound-programme or television circuit section, circuit, link or connection is considered to be temporary for maintenance purposes when it has no existence outside the period of transmission (including line-up and testing time) for which it is required.

2.98 transparent bit-rate reduction: A BRR process that does not affect the subjective quality of sound or picture sequences (a lossless BRR is inherently transparent, but a lossy BRR can be transparent also).

Superseded by a more recent version

2.99 Transparent Digital Transmodulator (TDT)

J.84

A head-end device for SMATV-DTM systems that transparently processes the QPSK-modulated television satellite signal, just adapting its modulation and coding so that it can be fed through the SMATV system using QAM modulation.

2.100 video net bit-rate (at source): The source bit-rate that carries the active video and sync information.

2.101 webcasting: The distribution of programmes over the Internet (colloquial).

3 Abbreviations and Acronyms

| Abbreviation and Acronym | Meaning | Source Recommendation |
|--------------------------|--|-----------------------|
| AAL | ATM adaptation layer | J.82 |
| ACS | Access Control System | J.91 |
| ADSL | Asymmetric Digital Subscriber Line | J.110 |
| AES | Audio Engineering Society | J.81 |
| ATM | Asynchronous Transfer Mode | J.82 |
| ATSC | Advanced Television Systems Committee | J.83 |
| AVMMS | Audio/Visual MultiMedia Services | – |
| B-ISDN | Broadband Integrated Services Digital Network | J.82 |
| bit/s | Bits per second | J.91 |
| BB | BaseBand | J.83 |
| BCC | Binary Convolutional Coder | – |
| BER | Bit Error Ratio (also used for "bit error rate") | J.83 |
| BRR | Bit Rate Reduction | J.1 |
| BW | BandWidth | J.84 |
| C/N | Carrier-to-Noise ratio | J.83 |
| CA | Conditional Access | J.1 |
| CA | Customer Address (for conditional access) | J.91 |
| CAD | Conditional Access Device | J.91 |
| CATV | Cable Television | – |
| CBR | Constant Bit Rate | J.82 |
| CD | Controller Device (for conditional access) | J.91 |
| CDV | Cell Delay Variation | J.82 |
| CI | Command Identifier (for conditional access) | J.91 |
| CIN | Composite Intermodulation Noise | J.87 |
| CLP | Cell Loss Priority | J.82 |
| CRC | Cyclic Redundancy Check | J.82 |
| CS | Convergence Sublayer | J.82 |
| CSI | Convergence Sublayer Indication | J.82 |

Superseded by a more recent version

| Abbreviation and Acronym | Meaning | Source Recommendation |
|--------------------------|---|-----------------------|
| CSO | Composite Second Order | J.87 |
| CTB | Composite Triple Beat | J.87 |
| CW | control word (for conditional access) | J.91 |
| DAB | Digital Audio Broadcasting | J.52 |
| DAVIC | Digital Audio Visual Council | J.111 |
| DCT | Discrete Cosine Transform | J.92 |
| DSM-CC | Digital Storage Media Command and Control | J.111 |
| DTVC | Digital Television by Cable | J.83 |
| DVB | Digital Video Broadcasting | J.132 |
| EBU | European Broadcasting Union | J.84 |
| ECM | Entitlement Control Message | J.91 |
| EDTV | Extended Definition Television | – |
| EEPROM | Electrically Erasable Programmable Read-Only Memory | J.91 |
| EMM | Entitlement Management Message | J.91 |
| EPG | Electronic Programme Guide | J.90 |
| ETS | European Telecommunication Standard | J.84 |
| ETSI | European Telecommunications Standards Institute | – |
| FDM | Frequency Division Multiplex | J.87 |
| FEC | Forward Error Correction | J.82 |
| FFT | Fast Fourier Transform | J.67 |
| FIFO | First-in-First-out (shift register) | J.83 |
| FRC | Fault Reporting Centre | N.51 |
| GF | Galois field | J.83 |
| GII | Global Information Infrastructure | – |
| HAD | Hybrid Analogue-and-Digital link | J.1 |
| HDTV | High Definition Television | – |
| HEX | Hexadecimal | J.83 |
| HFC | Hybrid Fibre-and-Coaxial network | J.110 |
| HRC | Hypothetical Reference Circuit or connection | J.21 |
| ICG | Intersector Coordination Group | – |
| IDS | Insertion Data Signal | J.92 |
| IDU | Interface Data Unit | J.82 |
| IEC | International Electrotechnical Commission | J.15 |
| IEV | International Electrotechnical Vocabulary | J.61 |
| IF | Intermediate Frequency | J.83 |
| IRD | Integrated Receiver Decoder | J.83 |
| ISDN | Integrated Services Digital Network (narrow-band) | J.110 |
| ISO | International Organization for Standardization | J.82 |
| ISPC | International Sound-Programme Centre | N.1 |

Superseded by a more recent version

| Abbreviation and Acronym | Meaning | Source Recommendation |
|--------------------------------|---|--------------------------|
| ISTC | International Satellite Transmission Centre | N.51 |
| ITC | International Television Centre | N.51 |
| ITS | Insertion Test Signal | J.92 |
| JCG | Joint Coordination Group | – |
| LEO | Low-Earth Orbit satellite | J.110 |
| LFSR | Linear Feedback Shift Register | J.83 |
| LMDS | Local Multipoint Distribution System | J.110 |
| LNB | Low Noise Block (of an antenna) | J.84 |
| LSB | Least Significant Bit | J.83 |
| MAC | Media Access Control | J.110 |
| MAC | Multiplexed Analogue Components | J.80 |
| MATV | Master Antenna Television | J.111 |
| Mbit/s | Megabits per second | J.52 |
| MMDS | Multichannel Multipoint Distribution System | J.83 |
| MP@ML | Main Profile at Main Level | – |
| MPEG | Moving Pictures Expert Group | J.82 |
| MSB | Most Significant Bit | J.83 |
| Msp/s | Megasymbols per second | J.83 |
| MUX | Multiplexer | J.83 |
| NHN | Non-Homogeneous Network | – |
| NMC | Network Management Centre (for conditional access) | J.91 |
| NSPC | National Sound-Programme Centre | N.1 |
| NTC | National Television Centre | N.51 |
| NVOD | Near Video-on-Demand | – |
| PCM | Pulse Code Modulation | J.21 |
| PCMCIA | Personal Computer Memory Card International Association | J.91 |
| PCR | Programme Clock Reference | J.82 |
| PDH | Plesiochronous Digital Hierarchy | J.83 |
| PDU | Protocol Data Unit | J.82 |
| PMS | Permitted Maximum Signal | N.1 |
| PN | Pseudo-random Noise | J.83 |
| ppm | Parts per million | J.83 |
| PRBS | Pseudo-Random Binary Sequence | J.83 |
| PRG | Pseudo-Random (digital sequence) Generator | J.91 |
| PSPN | Public Switched Packet Network | J.91 |
| QAM | Quadrature Amplitude Modulation | J.83 |
| QEF | Quasi Error Free | J.83 |

Superseded by a more recent version

| Abbreviation and Acronym | Meaning | Source Recommendation |
|--------------------------|--|-----------------------|
| QOS | Quality of Service | J.82 |
| QPSK | Quaternary Phase Shift Key | J.84 |
| RF | Radio Frequency | J.83 |
| RS | Reed-Solomon (coding) | J.82 |
| SAP | Service Access Point | J.82 |
| SAR | Segmentation and Reassembly sublayer | J.82 |
| SC | Sequence Count | J.82 |
| SDH | Synchronous Digital Hierarchy | J.132 |
| SDU | Service Data Unit | J.82 |
| SI | Service Information | J.94 |
| SMATV | Satellite Master Antenna Television | J.84 |
| SMATV-DTM | SMATV system based on digital transmodulation | J.84 |
| SMATV-IF | SMATV system based on distribution at IF | J.84 |
| SMATV-S | SMATV system based on distribution at extended Superband | J.84 |
| SNG | Satellite News Gathering | J.92 |
| SNR | Signal-to-Noise Ratio | J.83 |
| sps | Symbols per second | J.83 |
| SSCS | Service Specific Convergence Sublayer | J.82 |
| sync | synchronizing signal | J.83 |
| TBD | To Be Determined | J.83 |
| TC | Technical Committee (in the IEC) | – |
| TDL | Tapped Delay Line | J.84 |
| TDM | Time Division Multiplex | J.84 |
| TDT | Transparent Digital Transmodulator | J.84 |
| TMN | Telecommunications Management Network | J.110 |
| TS | Transport Stream | J.82 |
| TSAG | Telecommunication Standardization Advisory Group | – |
| TV | Television | J.84 |
| TVRO | Television Receive-Only station | N.51 |
| UHF | Ultra High Frequency | J.84 |
| VBR | Variable Bit Rate | – |
| VHF | Very High Frequency | J.84 |
| VLSI | Very Large Scale Integration | J.83 |
| VOD | Video-on-Demand | – |
| VSB | Vestigial SideBand | J.83 |
| VTR | Video Tape Recorder | J.92 |
| WTSC | World Telecommunication Standardization Conference | J.90 |
| XOR | exclusive OR (Boolean algebra) | J.83 |

Superseded by a more recent version

ITU-T RECOMMENDATIONS SERIES

| | |
|-----------------|--|
| Series A | Organization of the work of the ITU-T |
| Series B | Means of expression: definitions, symbols, classification |
| Series C | General telecommunication statistics |
| Series D | General tariff principles |
| Series E | Overall network operation, telephone service, service operation and human factors |
| Series F | Non-telephone telecommunication services |
| Series G | Transmission systems and media, digital systems and networks |
| Series H | Audiovisual and multimedia systems |
| Series I | Integrated services digital network |
| Series J | Transmission of television, sound programme and other multimedia signals |
| Series K | Protection against interference |
| Series L | Construction, installation and protection of cables and other elements of outside plant |
| Series M | TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits |
| Series N | Maintenance: international sound programme and television transmission circuits |
| Series O | Specifications of measuring equipment |
| Series P | Telephone transmission quality, telephone installations, local line networks |
| Series Q | Switching and signalling |
| Series R | Telegraph transmission |
| Series S | Telegraph services terminal equipment |
| Series T | Terminals for telematic services |
| Series U | Telegraph switching |
| Series V | Data communication over the telephone network |
| Series X | Data networks and open system communications |
| Series Y | Global information infrastructure |
| Series Z | Programming languages |