TECHNICAL REPORT

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

CLC/TR 50083-5-1

April 2009

ICS 33.060.40

English version

Cable networks for television signals, sound signals and interactive services - Part 5-1: IP gateways and interfaces for headends

Réseaux de distribution par câbles pour signaux de télévision, signaux de radiodiffusion sonore et services interactifs - Partie 5-1: Passerelles IP et interfaces pour les têtes de réseau

Kabelnetze für Fernsehsignale, Tonsignale und interaktive Dienste - Teil 5-1: IP-Gateways und -Schnittstellen für Kopfstellen

This Technical Report was approved by CENELEC on 2009-03-13.

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CENELEC

European Committee for Electrotechnical Standardization
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Ref. No. CLC/TR 50083-5-1:2009 E

Foreword

This Technical Report was prepared by the Technical Committee CENELEC TC 209, Cable networks for television signals, sound signals and interactive services.

The text of the draft was submitted to vote in accordance with the Internal Regulations, Part 2, Subclause 11.4.3.3 (simple majority) and was approved by CENELEC as CLC/TR 50083-5-1 on 2009-03-13.

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1 Scope

1.1 General scope

Standards of the EN 60728 series deal with cable networks including equipment and associated methods of measurement for headend reception, processing and distribution of television signals, sound signals and their associated data signals and for processing, interfacing and transmitting all kinds of signals for interactive services using all applicable transmission media.

This includes

- CATV[1)]-networks,
- MATV-networks and SMATV-networks,
- individual receiving networks

and all kinds of equipment, systems and installations installed in such networks.

The extent of this standardisation work is from the antennas and/or special signal source inputs to the headend or other interface points to the network up to the terminal input.

The standardisation of any user terminals (i.e., tuners, receivers, decoders, multimedia terminals, etc.) as well as of any coaxial, balanced and optical cables and accessories thereof is excluded.

1.2 Specific scope of this Technical Report

This Technical Report is an adjunct to the EN 60728/EN 50083 standards series and describes the characteristics of equipment which is used for the connection of IP based networks to and from headends such as described in EN 60728-5. Specifications from the transmission standard ETSI TS 102 034 are taken into account where applicable. The content of the data streams can be digital video, audio or other digital data.

This Technical Report describes the necessary characteristics and parameters of equipment such as IP gateways or IP interfaces on equipment at the input of headends (Figure 1) as well as at the output of headends (Figure 2).

Equipment at the input of headends can be either IP gateways which enable the connection to a DVB-ASI headend infrastructure according EN 50083-9 or, in the case of modular headend systems can also be single equipment with IP interfaces such as DVB modulators, transcoders, multiplexers and FM radio processors as shown in Figure 1. Edge devices are also covered by this technical report.

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1) This word encompasses the HFC networks used nowadays to provide telecommunications services, voice, data, audio and video both broadcast and narrowcast.