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**Digital Video Broadcasting (DVB);
DVB specification for data broadcasting**

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Foreword

This European Standard (EN) has been produced by Joint Technical Committee (JTC) Broadcast of the European Broadcasting Union (EBU), Comité Européen de Normalisation ELECtrotechnique (CENELEC) and the European Telecommunications Standards Institute (ETSI).

NOTE: The EBU/ETSI JTC Broadcast was established in 1990 to co-ordinate the drafting of standards in the specific field of broadcasting and related fields. Since 1995 the JTC Broadcast became a tripartite body by including in the Memorandum of Understanding also CENELEC, which is responsible for the standardization of radio and television receivers. The EBU is a professional association of broadcasting organizations whose work includes the co-ordination of its members' activities in the technical, legal, programme-making and programme-exchange domains. The EBU has active members in about 60 countries in the European broadcasting area; its headquarters is in Geneva.

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The DVB® Project is an industry-led consortium of broadcasters, manufacturers, network operators, software developers, regulators and others from around the world committed to designing open, interoperable technical specifications for the global delivery of digital media and broadcast services. DVB® specifications cover all aspects of digital television from transmission through interfacing, conditional access and interactivity for digital video, audio and data. The consortium came together in 1993.

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Modal verbs terminology

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Introduction

The DVB System provides a means of delivering MPEG-2 Transport Streams (TS) via a variety of transmission media. MPEG-2 TSs were primarily intended for the delivery of Video and Audio. The present document introduces data broadcasting as an extension to the MPEG-2 based DVB transmission standards.

Five different application areas with different requirements for the data transport are addressed. For each application area a data broadcasting profile is specified in the present document. The following is a short description of the application areas and the profiles.

Data piping:

- The data broadcast specification profile for data pipes (as defined in clause 4) supports data broadcast services that require a simple, asynchronous, end-to-end delivery of data through DVB compliant broadcast networks.

Data streaming:

- The data broadcast specification profile for data streaming supports data broadcast services that require a streaming-oriented, end-to-end delivery of data in either an asynchronous, synchronous or synchronized way through DVB compliant broadcast networks.
- Asynchronous data streaming is defined in clause 5 and allows the streaming of data without any timing requirements (e.g. RS-232 data).
- Synchronous data streaming is defined in clause 6 and allows the streaming of data with timing requirements in the sense that the data and clock can be regenerated at the receiver into a synchronous data stream.

Multiprotocol encapsulation:

- The data broadcast specification profile for multiprotocol encapsulation (as defined in clause 7) supports data broadcast services that require the transmission of datagrams of communication protocols via DVB compliant broadcast networks.
- Clause 8 further defines a standard mechanism for signalling IP/MAC services deployed within DVB networks and enables the implementation of DVB receivers that are completely self-tuning when accessing IP/MAC streams on one or more transport streams.
- Mechanisms for power-optimized reception and forward error correction for multiprotocol encapsulation are defined in clause 9.