

The MPEG2, DVB and ATSC system at a glance - MPEG2 abbreviations

Adaptation Field

Ancillary program data (especially PCR) which are uncoded and are transmitted at least every 100ms acc. to MPEG2 or 40 ms acc. to DVB specifications.

Pixel Block

8x8 pixel block, MPEG2 coded.

CA

Conditional Access

Information of whether the program is scrambled.

CAT

Conditional Access Table (PID=0x01)

Reference to scrambled programs.

Table ID 0x01

CIF

Common Intermediate Format

Picture format

CRC

Cyclic Redundance Check

DCT

Discrete Cosine Transform

DCT-1 / IDCT

Inverse Discrete Cosine Transform

DFD

Displaced Frame Indifference

Differential picture if there is motion.

DPCM

Differential Pulse Code Modulation

DTS

Decoding Time Stamp

Stamp for decoding time, only transmitted if not identical with PTS; reference to PID.

ES

Elementary Stream

Compressed data stream for video, audio or data. Preliminary stage to PES.

GOP

Group of Pictures

I, P and B pictures

Intra-coded pictures (I), predicted pictures (P) and bi-directional predicted pictures (B).

IRD

Integrated Receiver Decoder

Receiver with (MPEG) decoder.

MPEG

Motion Picture Experts Group sometimes called Moving Picture Experts Group

MUSICAM

Masking Pattern Adapted Universal Subband Integrated Coding and Multiplexing
Compression method for audio coding

PAT

Program Association Table (PID=0x00)

List of all the programs contained in TS Multiplex with reference to PID of PMT.
Table ID 0x00

Payload

Useful Data in TS

PCM

Pulse Code Modulation

PCR

Program Clock Reference

Reference in TS for the 27-MHz clock recovery. Transmitted at least every 0.1 sec

PES

Packetized Elementary Stream

Video and audio data packets and ancillary data of definable length.

PES Header

Ancillary data for an elementary stream.

PID

Packet Identifier

Identification of programs in the transport stream.

PMT

Program Map Table

Reference to packets with PCR

Name of programs, copyright, reference of the data streams with PIDs etc. belonging to the relevant program.

Table ID 0x02

Prediction

Prediction of a picture (P or B) with indication of a motion vector.

Profile

Subdivision of video coding into different resolutions.

PS

Program Stream

Multiplex of several audio and video PES using the same clock.

PSI

Program Specific Information

Data transmitted in TS for the demultiplexer in the receiver. (eg PAT, PMT, CAT)

PTS

Presentation Time Stamp

Time stamp for vision and sound, transmitted at least every 0.7 sec., integrated into PES.

Q

Quantization

Q-1

Inverse quantization

Q-1

Inverse quantization

QS

Quantization scaling

RLC

Run Length Coding

Coding of data with different number of bits. Frequently reoccurring data has the smallest number of bits, data seldom reoccurring have the highest number of bits.

Section

A table is subdivided into several sections. If there is a change, only the section affected is transmitted.

SIF

Source Input Format

SCR

System Clock Reference

27MHz Reference in ES for synchronizing the system demultiplex clock in the receiver.

STC

System Time Clock

27-MHz clock regenerated from PCR for a jitter-free readout of MPEG data.

SYNC (_byte)

Synchronization byte in TS header value 0x47

TS

Transport Stream

TS Header

The first 4 bytes of each TS packet contain the data (PID) required for the demultiplexer in addition to the sync byte (0x47). These bytes are never scrambled.

VBR

Variable Bit Rate

VLC

Variable Length Coding

Coding of data with variable number of bits (also see RLC).

ZigZag Scan

Zigzag scan of quantized DCT coefficient matrix. This gives an efficient run length coding (RLC).