The DVB-T2 standard allows different modulation parameters to be used for individual programs or groups of programs within a channel. This serial interface (ASI or IP) enables time division multiplex (TDM) transmission of all channel data, including PLPs and L1 information.

**T2-MI: Technical overview**

**DVB-T2 transmitter feed**

- **Mandatory**
  - TS (audio/video)
  - L1 config
  - NTP/PPS/10 MHz
  - Timestamp
  - FEF config/data
  - T2-MI config/data
  - IA config

- **T2 gateway**
  - BB frame, PLP

- **MUX**
  - T2-MI interface

- **T2 gateway**
  - T2-MI via ASI or IP

- **NTP/PPS/10 MHz**

- **TX**

**T2-MI protocol stack**

- **ASI**
  - Hyper link to ASI page

- **Headend site**

- **Transmitter site (one or more sites)**

**T2-MI packets**

- All data (BB frames, L1 data, FEF and AuxData streams) is packetized as payload into T2-MI packets. A T2-MI packet type is selected, with up to 8-bit pointer to start of payload data. The payload_length field is then added to verify error free transmission of the T2-MI packet.

**DVB data piping (T2-MI specific) single PID**

T2-MI packets are encapsulated into DVB/MPEG transport stream packets using “data piping” in line with ETSI EN 301 790-1, clause 4. The T2-MI packets are inserted, one after another, into the payload of MPEG-2 TS packets. Each new T2-MI packet is immediately followed by the previous one. A T2-MI packet type contains more than one T2-MI packet. T2-MI packets that are too big to fit into the payload of a single TS packet are to be split across multiple TS packets as required. The first byte of a T2-MI packet is signaled by the payload_unit_header field. If the packet contains a payload_unit_start_indicator_bit, a new T2-MI packet is added by the payload_unit_start_indicator_bit_set field. The value of the payload_unit_start_indicator_bit gives the offset to the start of the first T2-MI packet.

**Transport stream**

T2-MI packets in TS packets + optional PAT, PMT with T2MI descriptor

**Glossary:**

- **ASI** (Asynchronous Serial Interface)
- **BLE** (Binary Logarithmic Encoding)
- **CSI** (Channel State Information)
- **DVB** (Digital Video Broadcasting)
- **IP** (Internet Protocol)
- **L1** (Layer 1)
- **L2** (Layer 2)
- **MM** (Multi Modulator)
- **MISO** (Multiple Input Single Output)
- **NTP** (Network Time Protocol)
- **PES** (Packetized Elementary Stream)
- **PSI** (Program Specific Information)
- **PTP** (Precision Time Protocol)
- **RTSP** (Real-time Streaming Protocol)
- **RTP** (Real-time Transport Protocol)
- **SI** (System Information)
- **TS** (Transport Stream)
- **VID** (Video Interface Data)

For network operators:

- Encoding/decoding
- L1/L2 testing
- Multiple modulators

For developers and manufacturers:

- Digital signal processing
- Advanced modulation
- High performance

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T2-MI: Technical overview