LabMod-DVB-T2: perfect modulator for discovering the DVB-T2 standard thanks to broadcast grade characteristics and a wide set of test features.

LabMod-DVB-T2 modulator provides a high level solution for DVB-T2 TV network setup in a lab or manufacturing environment, cumulating high quality outputs, internal stream player, various test modes and optional channel simulator.

LabMod-DVB-T2 offers several kinds of inputs (ASI and USB) allowing to play any external or internal stream (internal stream player and stream generator natively embedded). It generates high quality RF and IF signals that will fit any situation that may occur in a lab, research and development, or manufacturing site. LabMod-DVB-T2 even facilitates chipset development thanks to its optional IQ output. Last but not least, optional Channel Simulator allows to reproduce any multipath configuration wished.

Easy remote management thanks to an embedded HTTP web server, LabMod-DVB-T2 modulator has a high set of features for RF and IF corner testing such as SFN, MISO, FEF, interleaver bypass, IQ output, white noise generator, carriers cancellation, very large output level range, etc...

Applications
- DVB-T2 reception validation
- R&D or factory tests and measurements
- Chipset development
- TV / Set Top Box development
- Demonstrations and roadshows

Key Points
- Mono & Multi-PLP available
- SFN adaptation thanks to T2-MI packet parsing
- MISO and PAPR reduction
- Optionnal Channel Simulator (up to 6 independent paths)
- Internal stream player and stream generator
- Intuitive Graphical User Interface
- Special test modes for corner testing

Characteristics
- 2 ASI inputs
- USB2 input with TS & T2-MI stream player (DiviPitch)
- Internal stream generator (PRBS and MPEG)
- Optionnal Channel Simulator
- Full Mono-PLP / SFN / MISO / PAPR / FEF
- Multi-PLP available as an option
- RF and IF main and monitoring outputs
- Digital IQ output (Option)
- Internal GPS receiver (Option)
- Noise generator and L/C/N control
- 10 MHz and 1PPS reference clock input + output
- Bitrate adaptation + PCR restamping
- Embedded HTTP server

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LabMod DVB-T2  
DVB-T2 Lab Modulator

**Input interfaces**

- **Transport Stream inputs:** 2 DVB-ASI (BNC 50 Ω)
- **USB input:** Coming with MPEG2 TS player
- **Signal processing:** T2-MI control
  - Input Stream Monitoring
  - TS bit rate adaptation (MFN)
  - PCR restamping (MFN)

**Clock and Synchronization**

- **Inputs:** 10 MHz, 1PPS, Built-in GPS receiver
- **Output:** 10 MHz, 1PPS
- **Internal clock:** 10 MHz (OCXO - Oven Controlled oscillator)

**Control & management**

- **Web based (HTTP):** - 10/100 Base-T
  - Intuitive rich client interface
    - with live statistics, monitoring and easy configuration
  - Capability to save/load settings profiles
  - Predefined DTC profiles included
- **Front panel:** - Main values and IP settings

**Output interfaces**

- **RF Outputs:** 2 RF outputs (SMA 50 Ω)
  - 85 MHz - 870 MHz (step 1 Hz)
  - +2 to -80 dBm (step of 0,1dB)
- **IF Output:** 1 IF output (BNC 50 Ω)
  - 20 MHz - 85 MHz (step 1 Hz)
  - 0 to -10 dBm (step of 0,1dB)
- **IQ Output (option):** 1 Digital IQ output (mini-ribbon)

**Modulation**

- **PLP Constellations:** QPSK, 16QAM, 64QAM, 256QAM
- **L1 post constellations:** BPSK, QPSK, 16QAM, 64QAM
- **Constellation rotation:** Normal, Rotated
- **Channel bandwidth:** 1.7, 5, 6, 7 or 8 MHz
- **Guard Interval:** 1/128, 1/32, 1/16, 19/256, 1/8, 19/128, 1/4
- **FFT mode:** 1k, 2k, 4k, 8k, 16k, 32k (normal and extended)
- **Code rate:** 1/2, 3/4, 5/6, 7/8, 9/10, 11/12, 13/16, 15/16, 17/19
- **FEC:** from PP1 to PP8
- **Pilot pattern:** Normal (64k), Rotated (16k)
- **Network type:** MFN, SFN and MISO
- **Test mode:** Single tone, PRBS & MPEG generator, interleaver bypass, white noise generator

**Physical**

- **Height/Width/Depth (mm):** 43/440/263 mm
- **Format:** 1 RU, width 19"
- **Power supply:** 100-240VAC

**Environment**

- **Operating temperature:** 0 to 50°C / 0 to 122 °F
- **Storage temperature:** -20°C to 70°C / -4°F to 158°F
- **Humidity:** 0 to 95%, non condensing

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