

LabMod-DVB-T2

DVB-T2 Lab Modulator



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



ENENSYS DVB-T2 suite already deployed in UK and other countries in Europe

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 evens 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

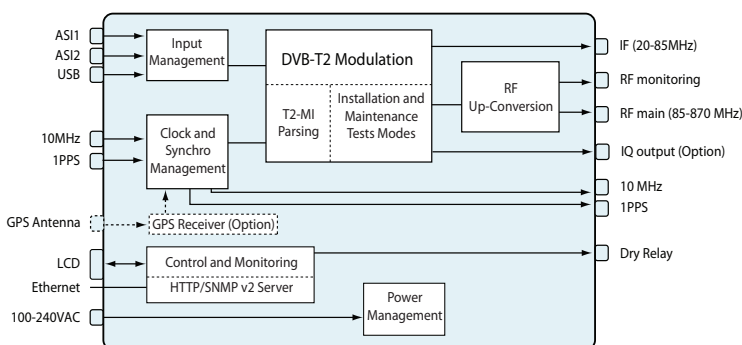
- DVB-T2 reception validation
- DVB-T2 RF and IF transmissions
- Field test operations
- R&D or factory tests and measurements
- Demonstrations and roadshows
- Chipset / Set Top Box development

Key Points

- Full mono-PLP compatibility (including MISO and PAPR reduction)
- SFN adaptation thanks to T2-MI packet parsing
- 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
- USB input with TS stream player (DiviPitch)
- Internal stream generator (PRBS and MPEG)
- Optionnal Channel Simulator
- Full Mono-PLP / SFN / MISO / PAPR / FEF
- RF and IF main and monitoring outputs
- IQ output (Option)
- Internal GPS receiver (Option)
- Noise generator and C/N control
- 10 MHz and 1PPS reference clock input + output
- Bitrate adaptation + PCR restamping
- Embedded HTTP server



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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

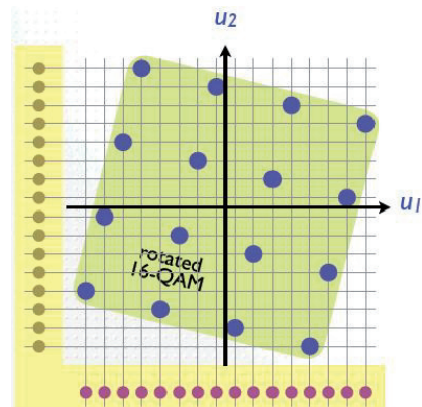
Web based (HTTP)	- 10/100 Base-T - Intuitive rich client interface with live statistics, monitoring and easy configuration - Capability to save/load settings profiles
Front panel	- Main values and IP settings

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)

Options

IQ output	Stream output over IQ
Built-in GPS Receiver	RF antenna input (TNC 50 Ω)
Channel simulator	Up to 6 paths including delay, level and phase



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, 3/5, 2/3, 3/4, 4/5, 5/6
FEC	Short (16k), Normal (64k)
Pilot pattern	from PP1 to PP8
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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