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. 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 white noise generator, carriers cancellation, interleaver bypass, 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

Key Points
- LabMod family hardware based Robustness and reliability
- Optionnal Channel Simulator (up to 6 independent paths)
- Internal stream player and stream generator
- High grade IF and RF output quality
- 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
- 2 RF outputs (main+monitoring)
  85-870 MHz frequency range
  +2 to -60 dBm level dynamics
- 1 IF output
  20-85 MHz frequency range
  0 to -10 dBm level dynamics
- Noise generator and C/N control
- 10 MHz reference clock input + output
- Bitrate adaptation + PCR restamping
- Embedded HTTP server
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
TS bit rate adaptation
PCR restamping

Clock and Synchronization

Inputs
10 MHz
Output
10 MHz
Internal clock
10 MHz (1 ppm typical)
In 0 - 50°C temperature range

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 (BNC 50 Ω)
85 MHz - 870 MHz (step 1 Hz)
+2 to -60 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)
Channel simulator (option)
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
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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Preliminary datasheet

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