

DVB-T/T2 Modulator

T-Mod T/T2

The high performance modulator dedicated to DVB-T2 transmission for:

- DVB-T2 trial networks,
- Laboratory experiments.

High level of performances to meet broadcasters' requirements

Future proof platform to support evolution of the standard



Key features :

- Dual DVB-T and DVB-T2 modulation
- System A and System B (T2-MI) stream input
- MFN and SFN operations
- Multi-PLP layered modulation
- SISO/MISO transmission
- Extremely high modulation performance
- Very stable and low noise oscillator (OCXO)
- Level output range from -20 dBm to -100 dBm
- Frequency output range from 30 MHz up to 900 MHz

Description

T-MOD T/T2 is an innovative solution which provides best of class signal performance for DVB-T2 modulation or DVB-T modulation. More widely, T-Mod T/T2 addresses the applications and needs of all players in the R&D laboratories system integrators and manufacturers, who are already experimenting with this new standard.

T-MOD T/T2 provides a DVB-T2 signal including configurable MISO/SISO transmission and Multi-PLP layered modulation.

Performant & Future proof

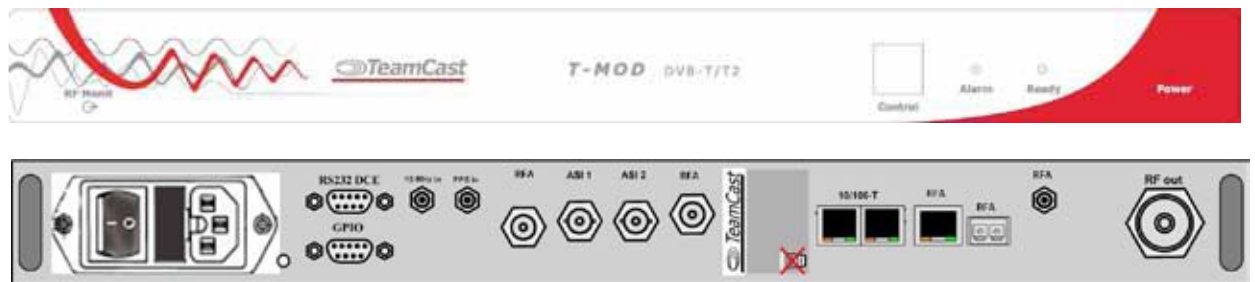
T-Mod T/T2 has been specially developed to provide equipment designers, R&D laboratories designers, with a best of class performance, and to exhibit a high MER value, excellent shoulder levels and lowest phase noise. It includes all the necessary clock and synchronization mechanisms required to operate DVB-T2 and DVB-T transmissions in Single Frequency Mode (SFN) & DVB-T2 MISO applications. A comprehensive & intuitive control software suite is provided to configure and control the unit via Ethernet local or remote connection. T-Mod T/T2 consists of a stand-alone modulator rack, with interface ASI Transport Streams ports. It is capable of delivering a RF signal output over a wide frequency band from 30MHz up to 900MHz.

The dual modulation allows to compare the performance of the DVB-T2 versus DVB-T by using only one modulator.

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Connectors



Specifications¹

■ DVB-T2 Standards

- o DVB-T2 : EN 302 755, TS 102 831, TS 102 773 (T2-MI)
- o DVB-T : EN 300 744, TS 101 191, TR 101 190

■ TS Stream Inputs

- o 2 x ASI - BNC connector - 75 Ω
- o 188/204 bytes (RS decoder)
- o Packet/burst mode - 60 Mbps max.

■ RF Outputs

- o From 30 MHz to 900 MHz (-20 dBm to -100 dBm)
- o N connector - 50 Ω
- o 5, 6, 7 or 8 MHz bandwidth
- o Low level (-20 dBm) output available for monitoring SMA connector - 50 Ω

■ Clock and Synchronization

- o High quality internal clock (OCXO)
- o 10 MHz & 1 PPS inputs

■ Modulation

- o Test modes: PRBS, Sinus, Spectrum-Gap and Null symbol insertion
- o MFN and SISO / SFN-MISO network operation
- o High MER performance (> 40 dB measured)
- o Low shoulder level (> 48 dB measured)

o DVB-T

- DVB-T all modes supported (except hierarchical)
- Constellation: QPSK, 16QAM, 64QAM
- FFT: 2k, 4k, 8k
- Guard Intervals: 1/32, 1/16, 1/8, 1/4
- FEC: 1/2, 2/3, 3/4, 5/6, 7/8

o DVB-T2

- Single PLP or multi-PLP modulation (System A or System B)
- Constellation: QPSK, 16QAM, 64QAM, 256QAM (normal or rotated)
- FFT: 1k, 2k, 4k, 8k, Extended 8k, 16k, Extended 16k, 32k, Extended 32k
- Guard Intervals: 1/128, 1/32, 1/16, 19/256, 1/8, 19/128, 1/4
- FEC: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
- Adjustable Time Interleaving
- MISO

■ Control & Monitoring

- o 1 x 10/100 base-T Ethernet port
- o Delivered with control software suite

■ Physical

- o Dimensions: 450 x 500 x 44 mm
- o Weight: 3.300 kg
- o Operating temperature range: 0 °C to 50 °C
- o Power supply: 90 to 240 VAC - 50 Hz - 100 W

Ordering Information

TMR-TMOD-BT20

DVB-T/T2 Modulator rack with RF output
Delivered with control software suite

¹ Specifications are not contractual and are subject to revision without notice.