

MT2-2000

OEM DVB-T/T2 Modulator



Key Benefits

- Cost-effective, reliable and compact OEM design
- Dedicated to drive Low-Power transmitters with top class of RF performances
- World-wide leading and proven DVB-T2 technology
- Already massively deployed on DVB-T2 commercial networks!

Key features:

- Manual L/NL Digital Pre-correction
- ASI and IP inputs redundancy
- Full DVB-T2 modes
- Hybrid T2-Base + T2-Lite transmission
- Onboard GPS/GLONASS

Description

The MT2-2000 product is the most integrated and cost effective DVB-T and DVB-T2 modulator for addressing the OEM market. It comes as very compact and easy to integrate DVB-T2 OEM modulator, featuring manual Digital Linear and Non-Linear Pre-correction circuits and providing best-in-class RF signal performance. It has been specially designed to meet transmitter manufacturers' requirements to integrate reduced form factor and low cost OEM DVB-T2 modulator solutions within their Low Power transmitter designs.

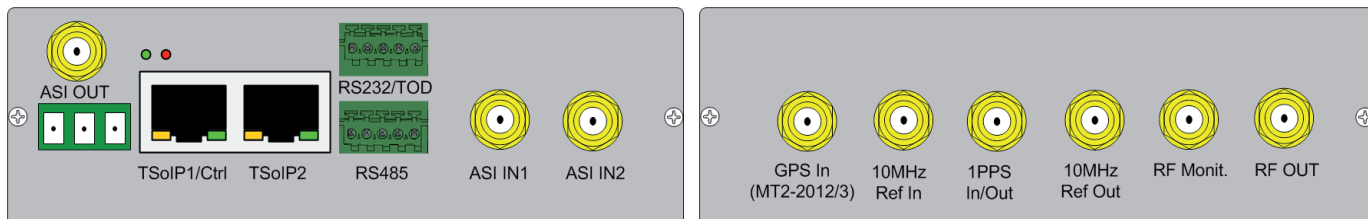
Since its introduction on the market in 2012, the MT2 modulator has been adopted by most of the players on the digital transmitter manufacturing market place, as TeamCast has met the challenge of integrating the entire DVB-T2 modulation core onto a very optimized and cost-effective hardware platform. Today the MT2 modulator has been deployed in large volume over different commercial DVB-T2 networks worldwide, and any new integrator or transmitter manufacturers will inherit of this unequal experience and renown by choosing this solution.

As with all TeamCast modules, the MT2-2000 product has been especially designed to reduce any integration phase complexity and timing. The module only requires a unique 12VDC power supply and is software controlled by using an opened and easy to implement protocol over either serial or IP connection.

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Connectors



Specifications¹

Standards

- o DVB-T2: EN 302 755, TS 102 831, TS 102 773 (T2-MI)
- o T2-Lite: DVB-T2 specification, 1.3.1 Annex 1
- o DVB-T: EN 300 744, TS 101 191

ASI Stream Interfaces

- o 2 x ASI input SMA connectors - 75 Ω
- o 1 x ASI output SMA connector - 75 Ω
- o 188/204 Bytes- 80 Mbps maxi. Packet/burst mode

Gigabit streaming inputs

- o 2 x 10/100/1000 base-T - RJ45
- o Protocols: IP, RTP, UDP, IGMP (V2 & V3)
- o VLAN ID (1 to 4094) - IEEE 802.1q
- o TS encapsulation and FEC decoding: SMPTE-2022

RF Inputs and Outputs

- o RF output from 30 MHz up to 900 MHz, 0 dBm
 - SMA connector 50 Ω
- o Bandwidth: 5 MHz, 6 MHz, 7 MHz and 8 MHz
- o Low level (-20 dB) output available for monitoring
 - SMA connector 50 Ω
- o 2 x RF feedback inputs for DAP: -15 dBm to 0 dBm
 - SMA connector 50 Ω - (MT2-3000)

Clock and Synchronization

- o High quality internal clock
- o 10 MHz & 1 PPS input/output
- o Clock and time source redundancy management
- o Optional Onboard GPS or GPS/Glonass

Stream process and modulation

- o Stream input redundancy management (primary & secondary)
- o Transmission modes: MFN, SFN-SISO, SFN-MISO
- o Modulation modes: System A, System B, Multi-PLP
- o Constellation: QPSK, 16 QAM, 64 QAM, 256 QAM (normal or rotated)
- o FFT: 1k, 2k, 4k, 8k, 16k, 32k and Extended Modes
- o Guard Intervals: 1/128, 1/32, 1/16, 19/256, 1/8, 19/128, 1/4
- o FEC: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
- o Adjustable Time Interleaving
- o Test modes: PRBS, Sinus, Spectrum-Gap and Null Symbol insertion

Digital Pre-correction

- o Linear and Non-Linear pre-correction (manual setting)
- o Signal Clipping (PAPR)

Control & Monitoring

- o 1 x 10/100/1000 base-T Ethernet port
- o 1 x RS232 + 1 x RS485 serial control ports

Physical

- o Single supply voltage (12 VDC)
- o Power Consumption: MT2-2000 < 28 W, MT2-3000 < 45 W
- o 240 x 220 x 35 mm (Size A) or 240 x 110 x 35 mm (Size C)
- o Temperature: 0°C to 50°C

Ordering Information

XTTM-MT20-201X	DVB-T modulator - DVB-T2 ready - with RF output (UHF/VHF) - Size C
XTTB-MT20-2010	DVB-T2 modulator board - no metallic cover
XTTM-MT20-XXX2	Module with onboard GPS
XTTM-MT20-XXX3	Module with onboard GPS/Glonass
XTTB-MT2E-2010	Module with onboard GPS/Glonass - no metallic cover
XTTO-MT2X-3000	Software licenses for MT2 (TSolP, DVB-T2 and T2-Lite)

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