

DVB-T/DVB-H Modulator

Cost effectiveness

Compact size

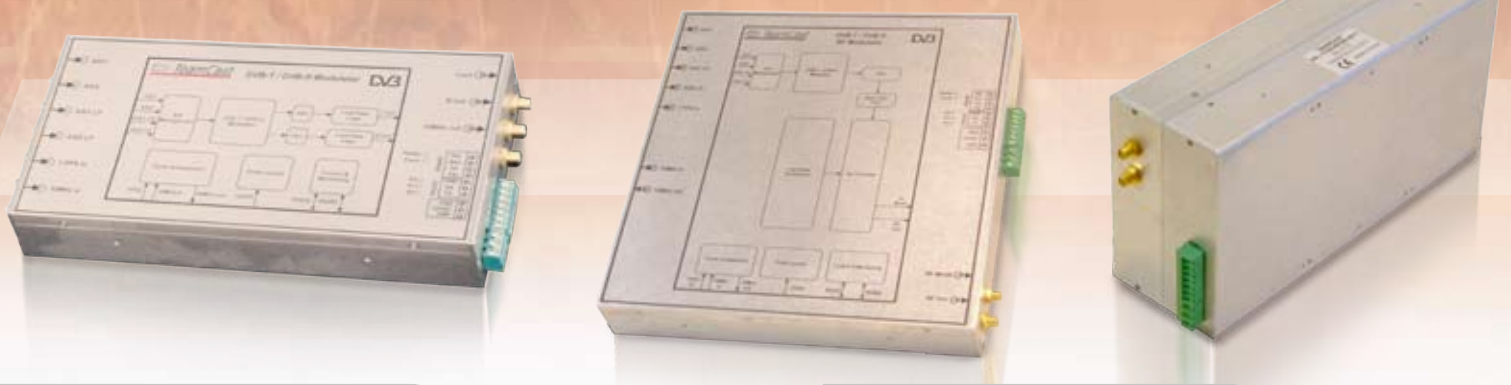
Fast time to market

**High performance
and reliability**

MOD-1000/MOD-2000:

The high performance OEM modulator dedicated to DVB-T/H applications for:

- DVB-T/H transmitters
- Integrated test systems
- MMDS⁽¹⁾
- R&D experimentation



Description

The MOD-1000/2000 is the most integrated and cost effective DVB-T/H modulator for addressing the OEM market. It provides the opportunity for transmitter manufacturers as well as for system integrators to launch their own product ranges for DVB-T, Mobile DVB-H and MMDS market segments.

Fastest Time to market

As with all TEAMCAST modules, the MOD-1000/2000 product consists of a compact and powerful unit, especially designed and developed for fast integration. Designers can elect to manage the TEAMCAST module by using the open and easy to use serial protocol, or to develop their own GUI as required.

Performance & Reliability

MOD-1000/2000 modules include all the state-of-the-art technological features for DVB-T/H modulation. They provide designers with a best of class performance, providing a high MER value, excellent shoulder levels and lowest phase noise. Simple to use linear and non-linear pre-correction circuits are incorporated to compensate for output filter and power amplifier characteristics. It fulfils both transmitter manufacturers' and system integrators' requirements producing reference test systems for the DVB-T and DVB-H standards.

Key Features

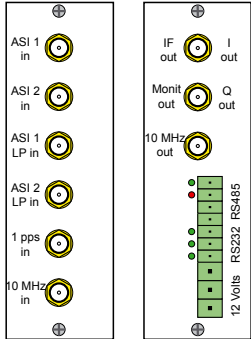
- DVB-T/H full mode implementation
- Efficient TS input management for redundancy
- PID Management for local service insertion
- MFN and SFN operation
- Optional onboard GPS
- Very high modulation performance (MER, signal stability, shoulder level, low phase noise)
- Powerful Linear and Non-linear digital pre-correction
- Compact size for easy OEM integration (three size form factors available)
- Single 12V power supply

⁽¹⁾ MMDS : Microwave Multipoint Distribution System

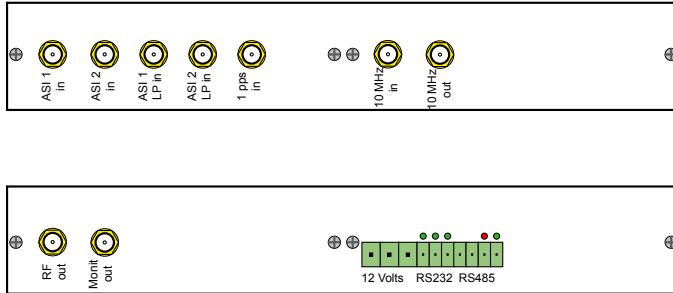
DVB-T/DVB-H Modulator

Connectors

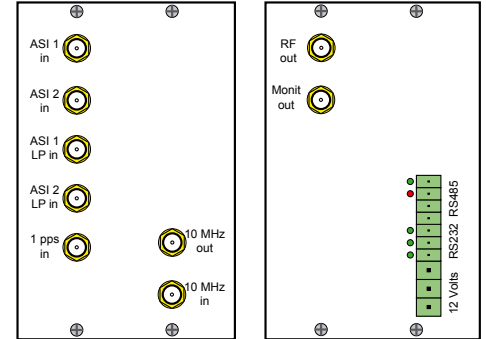
MOD-1000



MOD-2000 Size A



MOD-2000 Size B



Specifications

■ MPEG-TS Inputs

- o 4 x ASI connectors (redundant inputs and hierarchical modes)
- o 188 / 204 bytes, MIP processing, bit rate adaptation and PCR restamping

■ Outputs

- o 30 to 40 MHz IF output with 1 Hz step (0 dBm - 50 Ω) (MOD-1340)
- o VHF / UHF (0 dBm - 50 Ω) (MOD-2010)
- o L-Band frequency range: 1 400 MHz to 1 700 MHz (-10 dBm - 50 Ω) (MOD-2050)

■ Clock and Synchronization

- o High quality internal clock
- o 10 MHz and 1 PPS external reference for SFN operation
- o 10 MHz output available
- o Optional onboard GPS

■ Modulation

- o All DVB-T & DVB-H modes supported (hierarchical and non hierarchical)
- o 5, 6, 7 or 8 MHz channel supported
- o MFN or SFN network operation
- o High performance MER
- o Adjustable Signal clipping (PAPR)

■ Digital Pre-correction

- o Non-linear and linear digital pre-correction
- o Non-linear pre-correction over a 20 MHz bandwidth

■ Control & Monitoring

- o RS232 & RS485 control port with ASCII protocol

■ Physical

- o Supply voltage: 12 V
- o MOD-1000 (IF): 220 x 110 x 35 mm
- o MOD-2000 (RF): 220 x 220 x 35 mm (size A)
220 x 110 x 70 mm (size B)
- o Operating temperature range: 0°C to 50°C

Ordering Information

TCM-MOD0-1340	Modulator with 30-40 MHz IF out (TCXO)
TCM-MOD0-1341	Modulator with 30-40 MHz IF out (OCXO)
TCM-MOD0-1342	Modulator with 30-40 MHz IF out and onboard GPS
TCM-MOD0-2010	VHF/UHF Modulator
TCM-MOD0-2012	VHF/UHF Modulator and onboard GPS
TCM-MOD0-2050	L-Band Modulator