

DVB-S/S2 Modulator

T-MOD S/S2

The most integrated and cost effective DVB-S/S2 modulator ready for:

- ENG applications,
- Satellite operators,
- Test system,
- VSAT applications,
- Professional satellite contributions
- LOS (Line-of-Sight)/NLOS (Non Line-of-Sight) digital data transmission.

DVB-S/S2 Full Mode
Rack form factor
Simple WEB control interface



Key features :

- Full compliance with DVB-S and DVB-S2 technologies
- CCM, VCM and ACM support
- Variable symbol rate from 0.1 to 50Mbauds with 1baud increment
- High performances
- Internal frame generator for test
- Web browser control
- Single power supply from 90 to 240 VAC

Description

The T-MOD S/S2 modulator is a state-of-the-art satellite modulator designed for distribution applications over satellite in full compliance with the DVB-S and DVB-S2 standards. Depending on the applications and the features, the T-MOD S/S2 can be used in conjunction with set-top boxes, professional IRDs or satellite demodulators such as the D-MOD S/S2.

Performance & Reliability

The T-MOD S/S2 modulator has been designed to deal with the requirements of the ETSI EN 302 307. It can operate in CCM as well as VMC and ACM modes. The core provides all the necessary processing blocks to transform a Transport stream or a Generic Stream or a BBFrame stream into RF output signal.

The T-MOD S/S2 integrates the complete technology core required to perform high quality modulation based on the TEAMCAST high level knowledge. It provides designers with a best class performance, providing a high SNR value, excellent shoulder levels and lowest phase noise. Designers can manage this equipment by using a very simple communication protocol thanks to WEB port.

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DVB-S/S2 Modulator

Connectors



Specifications¹

■ Standards

- o DVB-S2 : EN 302 307,
- o DVB-S : EN 300 421,
- o DVB-ASI : EN50083-9, ETSI TR 101 891,
- o MPEG-TS : ISO/IEC 13818-1,

■ MPEG-TS inputs

- o 2 x ASI SMA connectors, 75Ω
- o MPEG-TS (188 bytes) or Generic Stream

■ RF Outputs

- o Low BIS band: From 950 MHz to 1420 MHz,
Step less than 1 Hz
- o N connector, 50Ω
- o To - 30 dBm step 0.5 dB
- o SNR > 30 dB

■ Clock & Synchronization

- o High performance internal oscillator

■ Modulation

- o DVB-S:
 - Outer/Inner FEC: Reed Solomon/Viterbi
 - QPSK: 1/2, 2/3, 3/4, 5/6, 7/8

- Roll-off value: 0.35
- o DVB-S2:
 - Outer/Inner FEC: BCH/LDPC
 - QPSK: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
 - 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
 - 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
 - 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10
 - Supported DVB modes:
 - CCM: Constant Coding and Modulation,
 - VCM: Variable Coding and Modulation,
 - ACM: Adaptive Coding and Modulation
 - Short and long frames
 - Roll-off values: 0.20, 0.25, 0.35
 - Pilots ON or OFF
- o Variable symbol rate up to 50 Mbps

■ Control & Monitoring

- o 1 x 10 base-T Ethernet port
- o Simple control protocol GUI
- o Delivered with embedded control software suite

■ Physical

- o Power supply: 90 to 240 VAC - 50 Hz - 15 W
- o Dimensions: 450x350x44 (LxlxH)
- o Weight: 3 kg
- o Temperature: 0 °C to 50 °C

Ordering Information

TMR-DTM0-0801	DVB-S2 Modulator Rack with L-Band RF output
TMR-DTM1-0801	DVB-S Modulator Rack with L-Band RF output

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