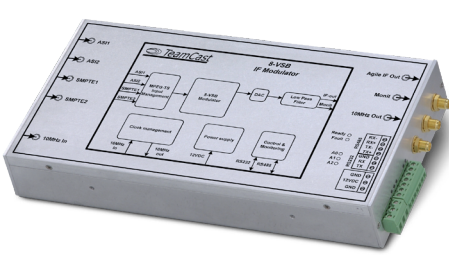
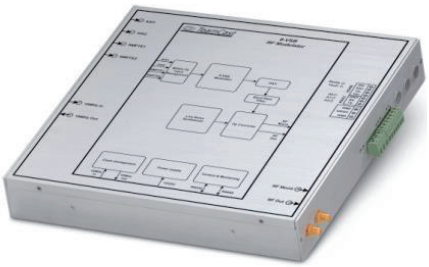
TeamCast technology

MUS-1000/2000

8-VSB Modulator





Key features:

- ATSC compliant
- Very high modulation performance (EVM, SNR,
- RF stability, shoulder level, low phase noise)
- Optional onboard GPS
- Powerful Linear and non-linear digital pre-correction circuits included
- Configurable stream inputs (SMPTE & DVB-ASI)
- Compact size for easy OEM integration
- Single 12V power supply

Description

The MUS-1000/2000 is the most integrated and cost effective 8-VSB modulator for addressing the OEM market. It provides the opportunity for transmitter manufacturers as
well as system integrators to launch their own product ranges for the US market and larger for any new marketplace where the ATSC standard is adopted.

Fastest time to market

As with all TEAMCAST modules, the MUS-1000/2000 products consist of compact and powerful units, 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

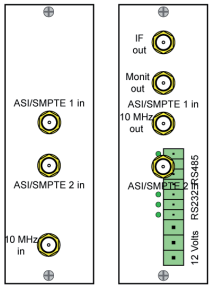
MUS-1000/2000 modules include all the state-of-the-art technological features for VSB modulation. They provide designers with a best of class performance, providing a high SNR value, excellent shoulder levels and lowest phase noise. Simple to use non-linear and linear digital pre-correction circuits are incorporated to compensate output filter and power amplifier characteristics, if required.
The product fulfils both transmitter manufacturers' and system integrators' requirements producing reference test systems for the ATSC standard. A very stable clock oscillator and the onboard GPS (optional) make the MUS-1000/2000 modulator future proof and ready for SFN network operating.

MUS-1000/2000

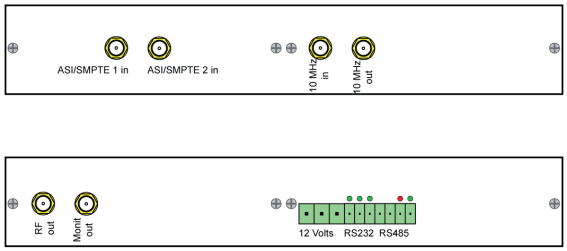
8-VSB Modulator

Connectors

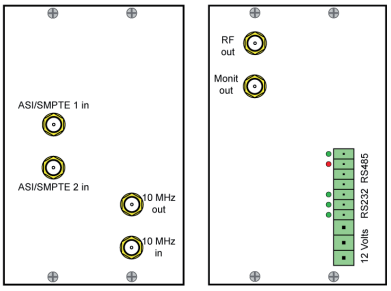
MUS-1000



MUS-2000 Size A



MUS-2000 Size B



Specifications[1]

Standards
- o ATSC: A/53, A/54, A/64, SMPTE-310M
- o DVB-ASI: EN50083-9, ETSI TR 101 891
- o MPEG-TS: ISO/IEC 13818-1

Stream Inputs (primary & secondary)
- o 1x primary & 1 x secondary input SMA connectors
- o Configurable DVB-ASI or SMPTE-310 M
- o 188/204 bytes, bit rate adaptation
- o Automatic switching for redundancy
- o PSIP VCT table update

IF/RF Outputs
- o IF from 30 MHz to 45 MHz (0 dBm - 50 Ω) - MUS-1340
- o Bandwidth: 6 MHz
- o VHF from 170 MHz to 240 MHz (0 dBm - 50 Ω) - MUS-2020
- o UHF from 470 MHz to 860 MHz (0 dBm - 50 Ω) - MUS-2030
- o Low level (-20 dB) output available for monitoring

Clock and Synchronization
- o High quality internal clock
- o External 10 MHz clock input
- o Optional onboard GPS*

Modulation
- o 8 levels VSB trellis for ATSC transmission
- o High performance (SNR > 32dB)

Digital Pre-correction circuits
- o Non-linear pre-correction circuit over a 15 MHz bandwidth
- o Linear pre-correction circuits to compensate output filter characteristics

Control & Monitoring
- o RS-232 & RS-485 control ports with ASCII protocol

Physical
- o Single power supply voltage: 12 VDC
- o MUS-1000: 220 x 110 x 35 mm (size C)
- o MUS-2000: 220 x 220 x 35 mm (size A)
or 220 x 110 x 70 mm (size B)
- o Operating temperature range: 0°C to 50°C

Ordering Information

Product references	Standards portfolio Software licence(s)
TCM-MUSO-1340	8-VSB modulator with IF output
TCM-MUSO-2020	8-VSB modulator with VHF output
TCM-MUSO-2030	8-VSB modulator with UHF output

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

* On specific request.

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