

Twister II

DVB-T/T2 DTMB ISDB-T/TB Modulator/Exciter



TeamCast Twister II is the cost-effective solution to build world wide market DTV transmitters and/or upgrade your existing analog transmitters with Digital Standards.

TeamCast Twister II is an up-to-date and powerful modulator/exciter supporting DVB-T/T2 (Including T2-Lite), DTMB and ISDB-T/TB Terrestrial TV Standards. It meets TX Manufacturers' expectation to design performant transmitters as well as broadcasters' demand to upgrade their existing analog transmitters.

DVB-T/T2, DTMB, and ISDB-T/TB Standards

Integrating main Digital Terrestrial TV standards, TeamCast Twister II designed to be easily and quickly integrated into any TV transmitter is the ideal solution to design transmitters for the world wide market.

Optimized and High Quality Transmitters

TeamCast Twister II Digital Adaptive Precorrection circuits allows you to run your transmitters very closed to their saturation limit, with unequalled RF signal performances: allowing you significant gain in transmitter Power Efficiency.

Safe Power Amplifier Driving

TeamCast Twister II includes specific probes with advance features like AGC to drive power amplifier and ensure a perfect stability of the transmitter output power and fast power amplifier protection mechanisms to improve your reliability.

1+1 and N+1 Redundancy Management

TeamCast Twister II can manage 1+1 and N+1 redundancy configuration with up to 8 embedded profiles. Switching can be done manually, with IP protocol or using GPI for a quicker process.

Applications

- Transmitter Design for world wide market
- Update of existing Transmitters
- Upgrade of Analog Transmitters
- Test bench for TV and Set Top Boxes

Other benefits

- Support MFN and SFN networks
- Multiple PLP support
- SISO/MISO support
- Input Seamless switching

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Technical specifications

DATA I/O

ASI Interface

2 ASI input - BNC - 75 Ω
- 188/204 Bytes- 80 Mbps maxi. Packet/burst mode
1 ASI output - BNC - 75 Ω
- 188 Bytes - Burst mode

Ethernet Port

4 Ethernet ports 1GigE - RJ45
- Protocols: IP, RTP, UDP, IGMP (V2 & V3)
- VLAN ID (1 to 4094): IEEE 802.1q
- TSoIP w/o FEC decoding: SMPTE-2022

DATA PROCESSING

DTV Standards

DVB-T2/T2-Lite: EN 302 755 v1.3.1, TS 102 831, TS 102 773 (T2-MI)
DVB-T: EN 300 744, TS 101 191
ISDB-T/TB: ARIB STB-B31 and TR-B14
DTMB: GB20600-2006, GY/T 229.1-2008 (SIP)

Modulation

MFN & SFN transmissions
Specific Test modes
- PRBS, Sinus, Spectrum-Gap and Null Symbol insertion

Digital Adaptive Precorrections (DAP)

Linear DAP: Amplitude ± 3 dB, Delay 0 to 3 μ s
Non Linear DAP: Phase $\pm 180^\circ$
Crest Factor Reduction (PAPR) and Protection clipping

Input Features

Bit rate adaptation
Input redundancy switching

Automatic Gain Control (AGC)

Based on VDC (external sensor) or RF input - user selectable
User-configurable AGC high limit
Reflected Power protection mechanism

PA Monitoring

4 RF input feedback (-15 dBm ... -5 dBm) / SMA - 50 Ω
- DAP & AGC & Protection mechanisms
- Monitoring: SNR, Shoulders

RF OUPUTS

Main RF output

UHF, VHF Band I & III
0 dBm - 14dBm -20 dBm / N - 50 Ω

Monitoring RF output

Copy of Main RF output
30 dB below / SMA 50 Ω

CONTROL & MANAGEMENT

Control / Monitoring

3 Ethernet ports 1GigE - RJ45 (Web GUI & SNMP/MIB)
LCD Front Panel Display

Clock and Synchronization

* 10 MHz & 1 PPS input/output
* Onboard GPS/GLONASS

Power Amplifier Control

2 GPI / Sub-D9 (Dry Contact)
4 GPO / Sub-D9 (Dry Contact)

1+1 & N+1 Redundancy Management

Up to 8 embedded fully configurable profiles
Profile selection using GPI or IP protocol

PHYSICAL

Height x Width x Depth

44 mm / 1.7 in. x 483 mm / 19 in. x 250 mm / 98.42 in.

Format - Weight

1RU, 19" width - 4.5 kgs

Power supply

100-240VAC

Power consumption

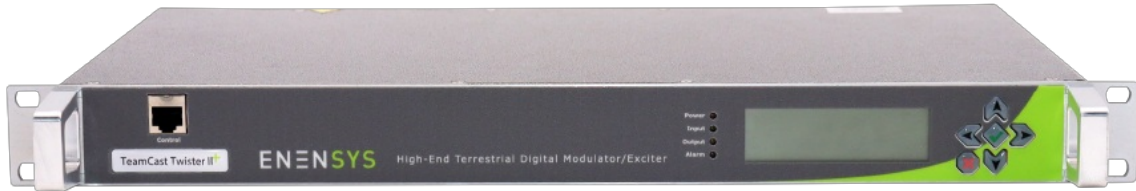
70W

Twister II

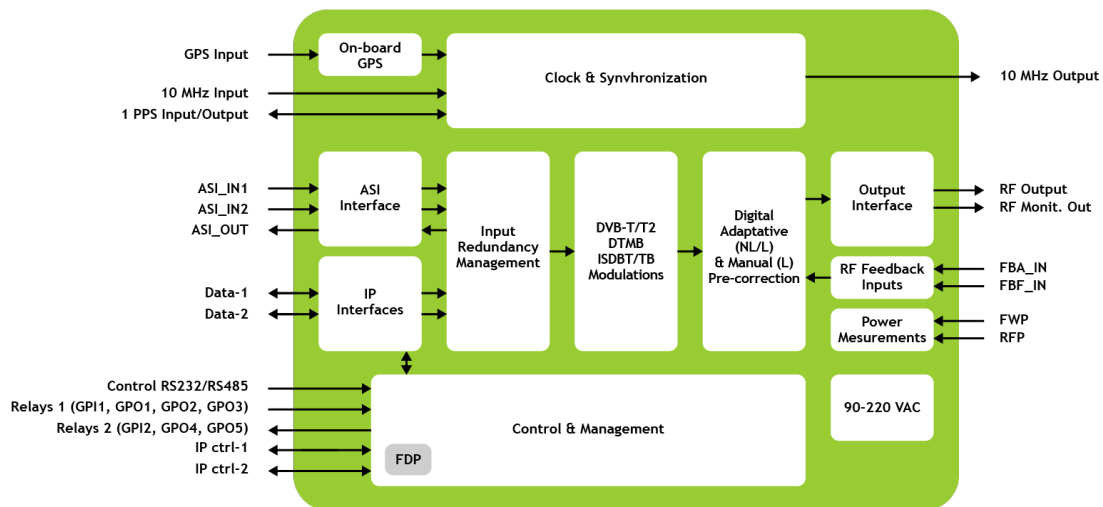
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Front



Back



Twister II

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Ordering codes

XTTR-TW20-4102

DVB-T/T2 TWISTER II exciter
+14dBm UHF, VHF band I & III output
DAP adaptive precorrections
onboard GPS and CTRL port

XTTR-TW20-xxx3

onboard GPS + GLONASS

Ordering options

XTTO-TW20-TSIP

TSolP input streaming license for TWISTER II - only for DVB-T & DVB-T2 standards

XTTO-TW20-EGAP

Green Adaptive Processing (GAP) software license for TWISTER II

XTTO-TW20-SNMP

SNMP client software license for TWISTER II

XTTO-TW20-DTMB

DTMB software license for TWISTER II

XTTR-TW20-5102

DVB-T/T2 TWISTER II exciter
+20dBm UHF, VHF band I & III output
DAP adaptive precorrections
onboard GPS and CTRL port

XTTO-TW20-SEAM

Seamless IP Switching software license for TWISTER II

XTTO-TW20-AGC0

Automatic Gain Control software license for TWISTER II

XTTO-TW20-ISDB

ISDB-T/TB software license for TWISTER II