TeamCast **TWISTER II**

High-End DVB-T DVB-T2 DTMB ISDB-T/TB Rack Exciter

TERRESTRIAL MARKET
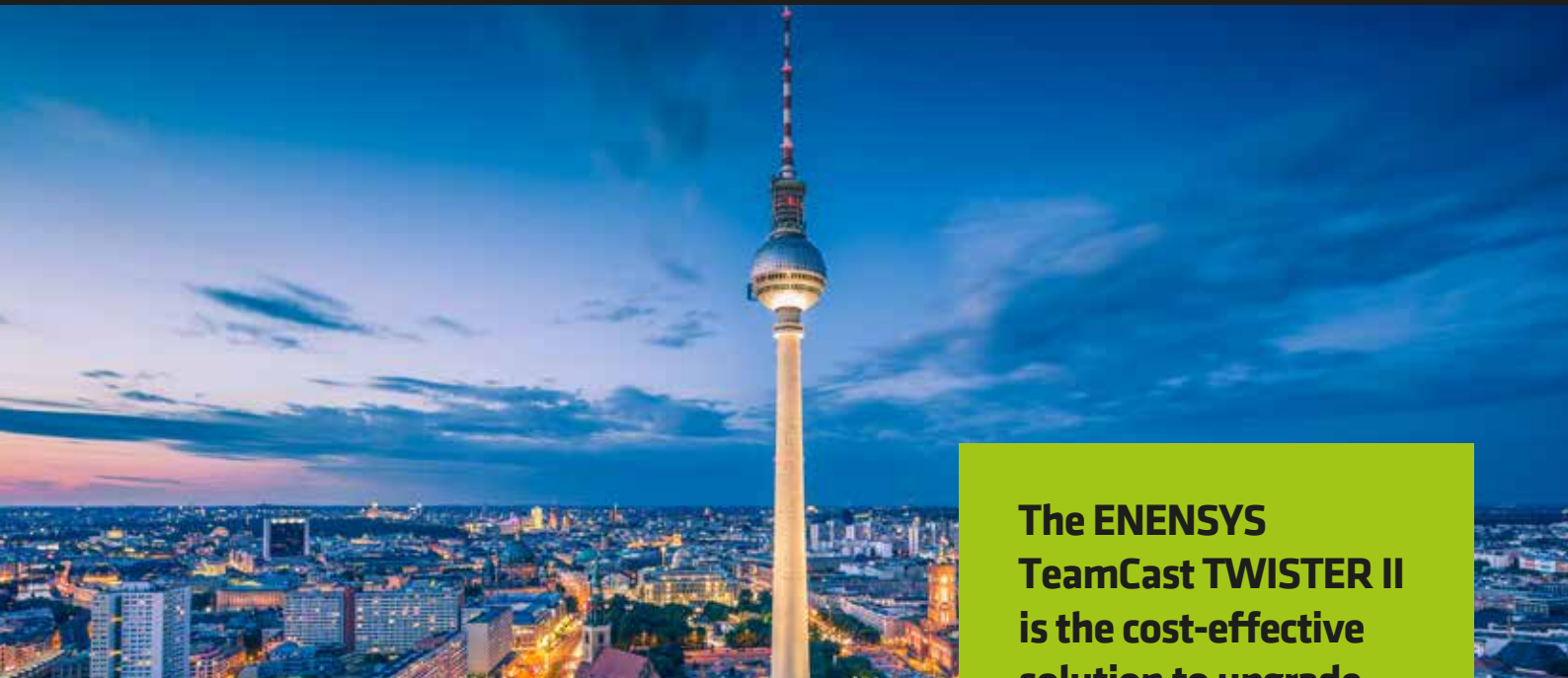
The ENENSYS TeamCast TWISTER II is the cost-effective solution to upgrade any existing transmitter.

TeamCast TWISTER II is the 2nd generation of equipment especially designed to meet broadcasters' expectation for updating existing DTV transmitters that need to enhance their functionalities or performances. It comes as the ideal choice for any broadcasters' who are willing to roll-out new DTV networks with limited investment and in a very short-time period.

It also meets transmitter manufacturers' demand for integrating a high-end and cost-effective modulator/exciter within their own transmitter design. TeamCast TWISTER II comes as the ideal choice to hit new market opportunities with limited investment and in a very short-time period.

Easy to Integrate

TeamCast TWISTER II features several key functionalities such as built-in Automatic Gain Control (AGC), embedded monitoring (SNR, Shoulder levels, forwarded & reflected power levels) as well as comprehensive WEB GUI control, to ease integration process and to drive the Power Amplifier stage in the most efficient way.

TeamCast TWISTER II Digital Adaptive Precorrection

TeamCast TWISTER II Digital Adaptive Precorrection circuits, powered by ENENSYS GAP® - Green Adaptive Processing - algorithm, permits to run transmitters very closed to their saturation limit, with unequalled RF signal performances and allowing significant gain in transmitter Power Efficiency.

World-wide leading and proven DVB-T2 technology

TeamCast TWISTER II inherits from the world-wide leading DVB-T2 technology designed by ENENSYS already in use in most of the DVB-T2 commercial networks today in operation.

ENENSYS DVB-T2 modulation core brings unmatched standard usage flexibility supporting MFN System A, SFN System B, SISO/MISO, Multi-PLP layered modulation and hybrid T2-Base & T2-Lite simultaneous transmission.

Advanced Features for Complex Configuration

TeamCast TWISTER II embeds additional hardware and software to handle complex configuration such as N+1 Redundancy transmitters architecture. Thanks to its profiles management function (up to 8 profiles that can be selected using GPI specific port), TeamCast TWISTER II can be used in any upgrade scenarios.

Applications

- Transmitter upgrade
- Transmitter manufacturing
- Labs use
- Receiver test/validation

Benefits

- Top class of RF signal performances
- Worldwide leading and field-proven DVB-T2 technology
- Up to 7 IP ports for Data & Control
- Straightforward integration within transmitter
- Ready-to-drive Power Amplifier Stages
- Cutting Edge Digital Adaptive Precorrection algorithm (GAP®)
- N+1 management using GPI and INTERLOCK inputs

ENENSYS Technologies

INPUT

2 x ASI input BNC connectors - 75 Ω
• 188/204 Bytes - 80 Mbps maxi.
• Packet/burst mode

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

OUTPUT

Main RF output – N connector 50 Ω
• Output bands: UHF, VHF Band I & III
• Up to 0 dBm (TW2x-3xxx), up to 14dBm (TW2x-4xxx), up to +20dBm (TW2x-5xxx)
• High MER: 44dB (typical)

Monitoring output - SMA connector 50 Ω
• -30dB compare to Main RF output
1 x ASI output BNC connector - 75 Ω

PHYSICAL

Dimensions	(D x W x H) 250 x 483 x 44 mm
Weight	4.5 Kg
Operating temperature range	0°C to 50°C
Power supply	90 to 240 VAC - 50 Hz

FEATURING

Standards

DVB-T2: 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)

Monitoring

• SNR, left & right shoulders, forwarded & reflected powers
2 x inputs for powers measurement
• -15 dBm to -5 dBm - SMA connector 50 Ω
• VDC (external sensor) or RF input - user selectable

Clock & Synchronization

10 MHz & 1 PPS input/output
Onboard GPS (optional GLONASS)

Stream Process and Modulation

Stream input redundancy management
Transmission modes: MFN, SFN
T2-Lite support (option)
Test modes: PRBS, Sinus, Spectrum-Gap and Null Symbol insertion

Digital Adaptive Precorrection

Linear DAP: Amplitude ±3 dB, Delay 0 to 3µs
Non-Linear DAP: Phase ±180°
Crest Factor Reduction (PAPR) and Protection clipping
2 x RF feedback inputs for DAP: -15 dBm to -5 dBm - SMA connector 50 Ω

AGC feature (Option)

User-configurable AGC high limit
Linked with forward power measurement

Control & Monitoring

2 + 1x 10/100/1000 base-T Ethernet ports
Customizable Web GUI and SNMP
LCD Front Panel Display
2 x GPI and 4 x GPO for external switch and PA control
Additional CONTROL connector for N+1 management - 8 GPI & 2 fast INTERLOCK inputs

ORDERING CODES

XTTR-TW20-3102	DVB-T/T2 TeamCast TWISTER II exciter 0dBm UHF, VHF band I & III output, DAP adaptive precorrections, onboard GPS and CTRL port
XTTR-TW20-4102	DVB-T/T2 TeamCast TWISTER II exciter +14dBm UHF, VHF band I & III output, DAP adaptive precorrections, onboard GPS and CTRL port
XTTR-TW20-5102	DVB-T/T2 TeamCast TWISTER II exciter +20dBm UHF, VHF band I & III output, DAP adaptive precorrections onboard GPS and CTRL port
XTTR-TW20-xxx3	Onboard GPS + GLONASS

Options		
	XTTO-TW20-TSIP	TSoIP input streaming license for TeamCast TWISTER II - only for DVB-T & DVB-T2 standards
	XTTO-TW20-T2LI	T2-Lite software license for TeamCast TWISTER II
	XTTO-TW20-EGAP	Green Adaptive Processing (GAP) software license for TeamCast TWISTER II
	XTTO-TW20-AGC0	Automatic Gain Control software license for TeamCast TWISTER II
	XTTO-TW20-SNMP	SNMP client software license for TeamCast TWISTER II
	XTTO-TW20-ISDB	ISDB-T/TB software license for TeamCast TWISTER II
	XTTO-TW20-DTMB	DTMB software license for TeamCast TWISTER II

ENENSYS technologies

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RoHS

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