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.

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

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

www.enensys.com
### INPUT

- 2 x ASI input BNC connectors - 75 Ω
- 188/204 Bytes - 80 Mbps max.
- 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

- (D x W x H) 250 x 483 x 44 mm
- 4.5 Kg
- 0°C to 50°C
- 90 to 240 VAC - 50 Hz

### FEATURES

#### Standards
- DVB-T2: EN 302 755 v1.3.1, TS 102 831, TS 102 773 (T2-Wi)
- DVB-T: EN 300 744, TS 101 191
- ISDB-T/TB: ARIB STB-B31 and TR-B14
- DTMB: GB20600-2008, 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: NFP, 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 (IMPP) 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 x 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

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTR-TW20-3102</td>
<td>DVB-T/T2 TeamCast TWISTER II exciter 0dBm UHF, VHF band I &amp; III output, DAP adaptive precorrections, onboard GPS and CTRL port</td>
</tr>
<tr>
<td>XTR-TW20-4102</td>
<td>DVB-T/T2 TeamCast TWISTER II exciter +14dBm UHF, VHF band I &amp; III output, DAP adaptive precorrections, onboard GPS and CTRL port</td>
</tr>
<tr>
<td>XTR-TW20-5102</td>
<td>DVB-T/T2 TeamCast TWISTER II exciter +20dBm UHF, VHF band I &amp; III output, DAP adaptive precorrections onboard GPS and CTRL port</td>
</tr>
<tr>
<td>XTR-TW20-xxx3</td>
<td>Onboard GPS + GLONASS</td>
</tr>
</tbody>
</table>

**Options**

- XTTO-TW20-T2IP: 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-AGCP: 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