TeamCast TWISTER DAB is the new generation of equipment especially designed to meet broadcasters’ expectation for updating existing DAB transmitters that need to enhance their functionalities or performances or recycle old VHF transmitters. It comes as the ideal choice for any broadcasters’ who are willing to roll-out or extend new DAB 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 DAB 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 DAB 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 DAB Digital Adaptive Precorrection
TeamCast TWISTER DAB Digital Adaptive Precorrection circuits 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 DAB technology
TeamCast TWISTER DAB inherits from the world-wide leading DAB technology designed by ENENSYS already in use in most of the DAB commercial networks today in operation in Europe. ENENSYS DAB modulation core brings unmatched standard usage flexibility supporting DAB, DAB+ and DMB standards in a single firmware. It also supports MFN and SFN networks. Its multiple stream inputs make it the most achieved DAB exciter/modulator for any upgrade scenarii.

Satellite input including GSE support
TeamCast TWISTER DAB embeds a satellite receiver compliant with DVB-S/S2 standards. It is able to receive multistreams signal and to de-encapsulate GSE protocol to retrieve EDI streams.

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

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

Benefits
- Top class of RF signal performances
- Worldwide leading and field-proven DAB 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®)
- Built-in Satellite Receiver

www.enensys.com
TeamCast TWISTER DAB

**INPUT**

2x ETI G703 input connectors - BNC 75Ω
- NI(G703), NA5376(G704), NA5592(G704) - Automatic detection
- 2048 kbps ±50ppm

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

Satellite Demodulator - Option
- 1x input (from 950 MHz to 2150 MHz) - SMA 75Ω
- Sensitivity from -62 dBm to -25 dBm
- Standards: DVB-S and DVB-S2
- GSE De-encapsulation (TS 102606)
- Sat. Loop output for daisy chaining

**OUTPUT**

Main RF output - N connector 50Ω
- Output bands: VHF Band III
- Up to 14dBm
- High MER: 40dB (typical)

Monitoring output - SMA connector 50Ω
- -30dB compare to Main RF output

1 x ETI output connector - BNC 75Ω

**FEATURES**

**Standards**
- DAB Transmission: EN 300 401 v1.4.1
- DMB Services: EN TS 102 428 v1.1.1
- ETI Interface: ETSI ETS 300 799 v1.5.1, ITU-T

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

**Clock & Synchronization**
- 10 MHz & 1 PPS input/output
- Onboard GPS (optional GLONASS)

**Stream Process and Modulation**
- DAB Mode I, II, III and IV
- MFN and SFN operation
- Test modes: 3G, In-channel PRBS, sine waveform

**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 50Ω

**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

**ORDERING CODES**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTTTR-TWD0-4422</td>
<td>TeamCast TWISTER DAB exciter +14dBm VHF band III output DAP adaptive precorrections onboard GPS</td>
</tr>
<tr>
<td>XTTTR-TWD0-4423</td>
<td>Onboard GPS + GLONASS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTTTR-TWD0-EDIP</td>
<td>EDI/IP input streaming software license for TeamCast TWISTER DAB</td>
</tr>
<tr>
<td>XTTTR-TWD0-SATI</td>
<td>Satellite/GSE input software license for TeamCast TWISTER DAB</td>
</tr>
<tr>
<td>XTTTR-TWD0-AGC</td>
<td>Automatic Gain Control software license for TeamCast TWISTER DAB</td>
</tr>
<tr>
<td>XTTTR-TWD0-SNMP</td>
<td>SNMP client software license for TeamCast TWISTER DAB</td>
</tr>
</tbody>
</table>

**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

**PHYSICAL**

ENENSYS Technologies | 4A rue des Buttes
CS 37734 | 35577 CESSION-SEVIGNE | FRANCE
Tel: +33 (0)1 70 61 76 30 | Fax: +33 (0)2 99 36 03 84

www.enensys.com