

Green4Cast

DVB-T/T2 & ISDB-T/TB OEM Modulator



Compact, multi-standards and cost effective OEM Modulator solution to build your world wide market TV transmitters

Green4Cast is an OEM Modulator, fully compliant to DVB-T/T2 Standards as well as ISDB-T/TB standards, targeting transmitter manufacturer requirements to design high quality terrestrial transmitters. Compact and cost effective, with its latest generation of Digital Adaptive Precorrection, Green4Cast is the ideal solution to build your high, medium and low power Digital TV Transmitters.

DVB-T/T2 & ISDB-T/TB Standards

With its multi-standards modulation core, your TV transmitters based on Green4Cast are ready for the main world wide market: no need to redesign, that's just a question of set up.

GAP® – Green Adaptive Processing

Green4Cast Digital Adaptive Precorrection circuits, powered by TeamCast, permits to run DVB-T/T2 or ISDB-T/TB TV transmitters very close to their saturation limit, with unequalled RF signal performances and allows significant gain in term of transmitting Power Efficiency.

Very compact module

With its small size, Green4Cast can be easily integrated into a transmitter. It comes with a complete software API that allows the user to integrate the control and monitoring of the module into its own control unit

MFN & SFN Transmissions

In DVB-T/T2 Mode and ISDB-T/TB Mode, Green4Cast is performing MFN & SFN Transmissions: the synchronisation can be based on 1PPS/10MHz external signal as well as on its internal GPS/Glonass Module.

Applications

- DVB-T/T2 Transmitter designs
- ISDB-T/TB Transmitter designs
- Test systems

Other benefits

- ASI and IP inputs with redundancy
- UHF and VHF Output
- Satellite Input
- RS232/RS485



Technical specifications

DATA I/O

ASI Interface

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

Ethernet Port

- 2 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

Input Features

- TS & bTS (ISDB-T/TB only)
- T2-MI: TS 102 773 (DVB-T2 only)
- Input redundancy management

DVB-T2

- System A, System B mono/multi PLP & hybrid
- MFN, SFN-SISO, SFN-MISO
- 5/6/7 and 8 MHz Channel Bandwidth

Digital Adaptive Precorrections

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

DTV Modulations

- DVB-T: EN 300 744, TS 101 191
- DVB-T2: EN 302 755, TS 102 831, DVB-T2 Lite: Version 1.3.1 Annex 1
- ISDB-T/TB: ARIB STB-B31 and TR-B14

ISDB-T/TB

- Hierarchical modulation
- up to 3 layers
- MFN or SFN network operation
- 6 MHz Channel Bandwidth

RF Monitoring

- In band SNR / MER
- Shoulder level

RF INPUTS/OUTPUTS

Main RF output

- UHF (470/862 MHz) or VHF (170/240 MHz), 1Hz step
- 0 dBm / SMA - 50 Ω

RF Feedback Input

- Frequency band: UHF / VHF according model
- 15 dBm to -5 dBm / SMA - 50 Ω

Monitoring RF output

- Copy of Main RF output
- 20 dB below / SMA - 50 Ω

CONTROL & MANAGEMENT

Control / Monitoring

- 1 Ethernet port 1GigE - RJ45
- Web GUI & SNMP/MIB
- 1 RS232 & 1 RS485 - Phoenix connector
- ASCII protocol

Clock and Synchronization

- 10 MHz & 1 PPS input/output
- GPS or GPS/Glonass option

PHYSICAL

Height x Width x Depth

35 mm / 1.378 in. x 240 mm / 9.45 in. x 110 mm / 4.33 in.

Power supply - Power consumption

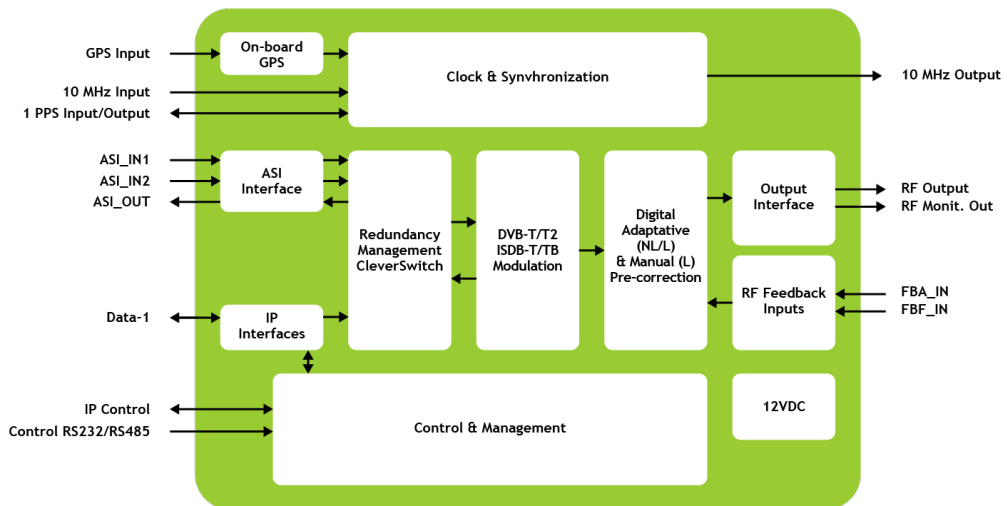
12VDC - 30W

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Front



Green4Cast

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Ordering codes

XTTM-G4C0-3030

DVB-T modulator - ISDB-T/TB / DVB-T2 (option)
- Digital Adaptive Precorrection
- UHF output

XTTM-G4C0-3033

DVB-T modulator - ISDB-T/TB / DVB-T2 (option)
- Digital Adaptive Precorrection
- UHF output
- GPS/Glonass onboard

XTTM-G4C0-3032

DVB-T modulator - ISDB-T/TB / DVB-T2 (option)
- Digital Adaptive Precorrection
- UHF output
- GPS onboard

Ordering options

XTTO-G4C0-ISDB

ISDB-T/TB software license for Green4Cast

XTTO-G4C0-TSIP

TSolP input license for Green4Cast (DVB-T/T2 only)

XTTO-G4C0-T2SW

DVB-T2 software license for Green4Cast

XTTO-G4C0-EGAP

Green Adaptive Processing (GAP) software license for Green4Cast