

Green4DAB

DAB/DMB OEM Modulator



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

Green4DAB is an OEM Modulator, fully compliant to DAB & DMB Standards, targeting transmitter manufacturer requirements to design high quality terrestrial transmitters. Compact and cost effective, with its latest generation of Digital Adaptive Precorrection, Green4DAB is the ideal solution to build your high, medium and low power Digital Radio Transmitters.

DAB & DMB Standards

Green4DAB inherits from 20+ years of experience in digital radio transmissions. Integrating Green4DAB is embracing the leading DAB / DMB technology, deployed worldwide.

High RF performance

Green4DAB has been especially designed to meet transmitter manufacturers' demand for integrating a high-end digital radio modulation with top class of RF performances.

GAP® – Green Adaptive Processing

Green4DAB Digital Adaptive Precorrection circuits allows to run transmitters very close to their saturation to improve Efficiency and reduce Power Supply consumption.

Small footprint

Smallest form factor on the market, Green4DAB can be easily and quickly intergated thanks to a complete software API.

Applications

- DAB Transmitter manufacturing
- DMB Transmitter manufacturing
- Test bench system

Other benefits

- ETI, IP (EDI) and Satellite inputs
- Seamless Input Switching
- Modulator Redundancy
- Power Amplifier Monitoring

Green4DAB

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Technical specifications

DATA I/O

ETI Interface

2 G703 Input - SMA - 75
- NI(G703), NA5376(G704), NA5592(G704)
1 G703 Output - SMA - 75 Ω
- NI or NA /G703

Ethernet port

1 Ethernet port 1GigE - RJ45
Protocols: IP, UDP, IGMP (V2 & V3)
VLAN ID (1 to 4094) - IEEE 802.1q
EDI De-encapsulation (TS 102 693)

DATA PROCESSING

Input Features

Automatic NI / NA Detection
Input stream redundancy
Seamless Switching

Digital Adaptive Precorrections

Linear DAP: Amplitude ± 3 dB, Group Delay 0 to 500 ns
Non Linear DAP: Amplitude ± 6 dB, Phase $\pm 180^\circ$
Crest Factor Reduction (PAPR) and Protection clipping
Green Adaptive Precorrection (GAP): optio

Modulation & Standards

MFN/SFN DAB Mode I, II, III & IV
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,
EDI: ETSI TS 102 633

RF Monitoring

In band SNR / MER
Shoulder level (left/right)

RF INPUTS/OUTPUTS

Main RF output

VHF band III (170/240 MHz), 1Hz step
- 0 dBm / SMA - 50 Ω

RF Feedback Input

2 VHF input
-15 dBm to -5 dBm / SMA - 50 Ω

Monitoring RF output

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

Satellite Input

1 L band (950/2150) DVB-S/S2 Input - SMB - 75 Ω
- GSE (EDI) or TS (ETI) Encapsulation

CONTROL & MANAGEMENT

Control / Monitoring

1 Ethernet port 1GigE - RJ45
- IP Control with dedicated software
1 RS232 & 1 RS485 - Phoenix connector
- ASCII protocol

Clock and Synchronization

10 MHz & 1 PPS input/output
GPS option

PHYSICAL

Height x Width x Depth

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

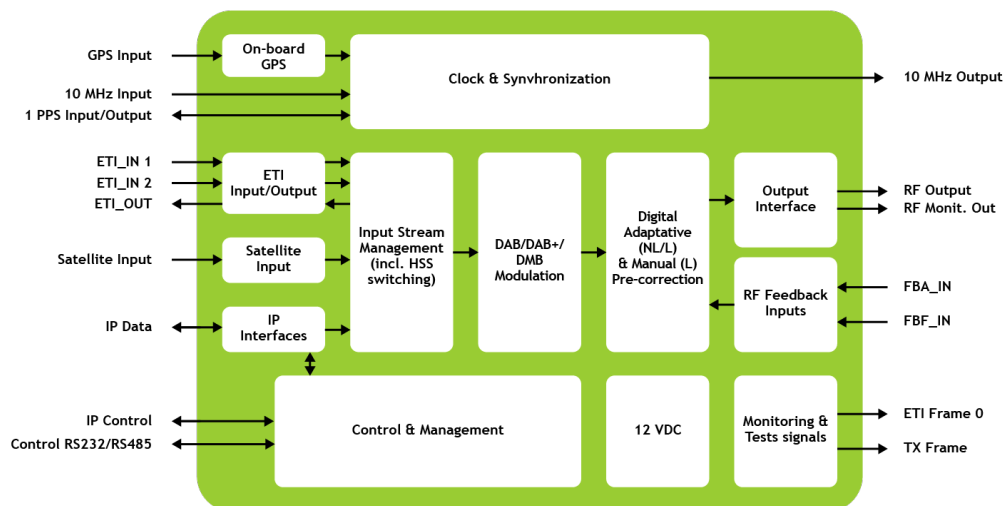
Power supply - Power consumption

12VDC - 30W

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Front



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Ordering codes

xTTM-G4D0-3320

DAB/DMB OEM modulator - ETI Inputs, VHF output, DAP

xTTM-G4D0-3322

DAB/DMB OEM modulator - ETI Inputs, VHF output, DAP with GPS

xTTM-G4D0-3323

DAB/DMB OEM modulator - ETI Inputs, VHF output, DAP with GPS/Glonass

xTTM-G4D0-3420

DAB/DMB OEM modulator - ETI / Satellite Inputs, VHF output, DAP

xTTM-G4D0-3422

DAB/DMB OEM modulator - ETI / Satellite Inputs, VHF output, DAP with GPS

xTTM-G4D0-3423

DAB/DMB OEM modulator - ETI / Satellite Inputs, VHF output, DAP with GPS/Glonass

Ordering options

xTTO-G4D0-EDIP

EDI/IP input - Software Option

xTTO-G4D0-SATI

Satellite input - Software Option for xTTM-G4D0-34xx Models