



DAB/T-DMB Transmitter

MAIN CHARACTERISTICS:

- Compact and cost competitive
- Top-quality air cooling system
- Agile output frequency step 1Hz over VHF and L-Band
- All DAB and T-DMB modes supported
- Dynamic modulation reconfiguration
- Multi-platform remote control
- User-friendly Graphical User Interface
- Very high power efficiency thanks to accurate digital precorrection
- Easy SFN synchronization

The DAB/T-DMB TRANSMITTER is the newest and best solution for low, medium and high power DAB and T-DMB broadcasting in terms of performances and price. It represents the fundamental block to implement the RF channel modulation for Digital Audio and Multimedia Broadcasting targeting fixed, mobile and handheld receivers. In a single 19" 2U case we have concentrated the powerful digital signal processing section, the agile up-conversion module, the output filtering module, the power amplifier stage, the microprocessor-based control section and a very user-friendly LCD interface. The unit comes with two ETI inputs, enabling complete redundancy with automatic input seamless switching in case of failures on the main ETI stream. The unit is available with VHF output (174-240MHz) and with L-band output (1452-1492MHz).

The innovative design of this equipment implements the optimal compromise between physical size and long-term

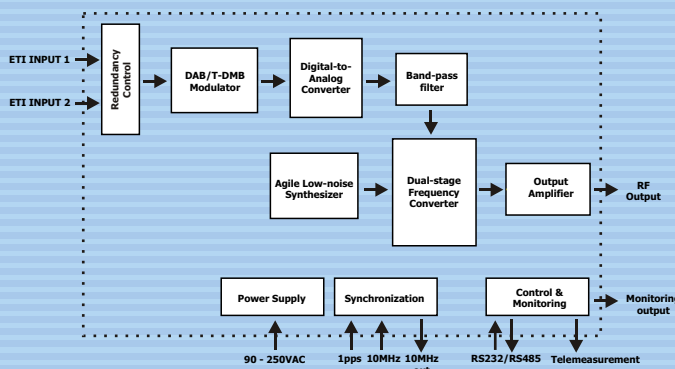
reliability.

The DAB/T-DMB TRANSMITTER has been designed for quick and cost-effective installations of VHF and L-band DAB Terrestrial networks, supporting SFN operation and T-DMB broadcasting for mobile TV services without any hardware or software modification. A complete remote control of the unit is possible by means of different cabled or wireless telecommunications networks.

A highly linear LDMOS 5W RMS amplifier stage, together with a highly advanced digital precorrection engine produce extremely high RF performances at a very competitive price.

Elettronika equipment is severely tested with highly accurate and professional laboratory testing instrumentation and is guaranteed by the ISO-9001.

Elettronika equipment for Digital Radio and TV broadcasting is currently used by valuable worldwide customers, which is the best certification for in-field performance over different operating environments.



SIGNAL PROCESSING SECTION

Reference Standard	ETSI ETS 300 401, ETS 300 799
DAB Modes	I, II, III, IV
Dynamic Reconfiguration	Supported
Constellation	D-QPSK
Network Support	MFN and SFN
Digital Pre-Correction	Linear and Non-Linear
TII Signaling	User defined or ETI-controlled
DAB Mode Selection	User defined or ETI-controlled
Test Modes	3G Test Mode, Synchronization Test Mode, Central Carriers removal

INPUT SECTION

ETI Input	2 ETI inputs with automatic switch
Bit-rate	2048kbit/s \pm 50ppm
Seamless Switching Mode	User enabled
Input ETI Format	ETI NI, ETI NA ₅₅₉₂ and ETI NA ₅₃₇₆
Frequency Reference	10MHz
Frequency Reference Interface	BNC, 50 Ω , -5dBm to +10dBm
Time Reference	1pps
Time Reference Interface	BNC, 5k Ω , TTL 0-5V
SFN Synchronization Accuracy	\pm 200ns

OUTPUT SECTION

RF Output Center Frequency	VHF: 174.928MHz - 239.200MHz step 1Hz L-band: 1452MHz - 1492MHz step 1Hz
Output Level	5W RMS
Output Interface	N-type connector, 50 Ω
Spectrum Polarity	Non-inverted and Inverted
Harmonics and Spurious	<60dB relative to the total output power
I/Q Amplitude Imbalance	< \pm 0.05%
I/Q Quadrature Error	< \pm 0.05°
MER	>40dB

GENERAL

Physical	Case 19" - 2U - 12kg
Remote Control Port	RS232/RS485
Remote Control Options	PSTN, GSM, Ethernet, SNMP (with external unit)
Front Panel User Interface	LCD Display + Rotating knob
Power Supply Voltage	90-250V ^{AC}
Power Consumption	150VA max
Operating Temperature	0 - 50°C

Specifications and characteristics are subject to change without notice Rev.1/10.12