

4KW/5KW rms DIGITAL TV TRANSMITTER MOT 12000 MULTICAST

The 4/5KW rms digital TV transmitter, **MOT 12000 MULTICAST**, can be used as an analog and digital transmitter and also as regenerative/non-regenerative repeater. The equipment has a digital output power of 4KW/5KW rms and it can be configured with different input interfaces. Furthermore, it is suitable for DVB-T/H, DVB-T2, ISDB-T/TB and ATSC standards, and includes adaptive pre-correction and a high precision GPS receiver for SFN networks.



MAIN ADVANTAGES

- High efficiency wideband amplifiers technology.
- Embedded Re-Multiplexer/Layer Combiner/TS to BTS (188 to 204 byte) converter for ISDB-TB.
- Adaptive pre-correction.
- On-board high stability GPS receiver with battery.
- Flexible input interfaces.
- SNMP, web interface and touch screen display.

GENERAL CHARACTERISTICS

DIGITAL OUTPUT POWER	4KW rms >38dB typ. (DVB, ISDB) 5KW rms >38dB typ. (ATSC)
ANALOG OUTPUT POWER	12KW ps
FREQUENCY AGILITY	Bands III-IV-V
FREQUENCY RESOLUTION	1Hz
PRECORRECTION	Adaptative
RF CONNECTION	EIA 3", 50 Ohm
POWER SUPPLY	Single phase 100-240V, 50/60Hz Three phase 380 VAC
AVERAGE CONSUMPTION	Up to 40% efficiency in digital
DIMENSIONS	Standard rack unit of 19"

CONTROL	TFT touchscreen, web GUI, SNMP y GPIO
OPERATING TEMPERATURE	-5 to 40°C
MAXIMUM RELATIVE HUMIDITY	90% without condensation

MODULATOR	
DVB-T/-H/-T2	
STANDARD	EN300744, EN302304, EN302755, TS101191, TS102773 (T2-MI), TS102034
INPUTS	4xASI BNC(F), 75 Ohm o 2xASI BNC(F), 75 Ohm & 2xRJ45 TS oIP 10/100/1000 Switch seamless between ASI inputs. Hierarchical and not hierarchical (DVB-T)
FFT	1K (DVB-T2), 2K, 4K, 8K, 8K ext. (DVB-T2), 16K & 16K ext. (DVB-T2), 32K & 32K ext. (DVB-T2)
CODE RATE	All modalities available according to the standard Block Short or Normal (DVB-T2) DVB-T: Reed-Solomon (204, 188) DVB-T2: BCH, LDPC
GUARD INTERVAL	1/32, 1/16, 1/8, 1/4, 19/256 (DVB-T2), 19/128 (DVB-T2), 1/128 (DVB-T2)
CONSTELLATION	QPSK, 16QAM, 64QAM, 256QAM (DVB-T2). Rotated and non rotated (DVB-T2)
MISO PROCESSING	Supported
ISDB-TB	
STANDARD	ABNT NBR 15601, ABNT NBR 15603
INPUTS	4xASI TS/BTS BNC (F), 75 Ohm o 2xASI TS/BTS BNC (F), 75 Ohm & 2xRJ45 TS/BTS oIP 10/100/1000
FFT	Mode 1 (2K), Mode 2 (4K), Mode 3 (8K)
CODE RATE	1/2, 2/3, 3/4, 5/6, 7/8
GUARD INTERVAL	1/4, 1/8, 1/16, 1/32
HEIRARCHICAL MODULATION	Up to three layers
CONSTELLATION	QPSK, 16QAM, 64QAM
TIME INTERLEAVER	Fully supported
PARTIAL RECEPTION	Supported
ATSC	
STANDARD	A/53, A/110
INPUTS	4 x ASI / SMPTE-310M BNC (f), 75 Ohm or 2 x ASI / SMPTE-310M, 75 Ohm and 2 x RJ45 oIP 10/100/1000
MODULATION	8-VSB
INPUT BIT RATE	19.39 Mbit/s
BANDWIDTH	6 MHz
MAX PROCESSING DELAY	Up to 1 second (programmable)

ANALOG	
STANDARD	B, G, D, K, M, N, I
INPUTS	Video BNC(F), 75 Ohm, 2*audio Tini-QG "Mini XLR", 6 Pin (M), 600 Ohm
COLOUR SYSTEM	PAL, NTSC

GPS

INPUT CONNECTOR	N(F), 50 Ohm
INPUT MONITOR/OUTPUT 10MHz	BNC(F), 75 Ohm
INPUT MONITOR/OUTPUT PPS	BNC(F), 75 Ohm
PHASE NOISE	-140dBc/Hz @ 10kHz -150dBc/Hz @ 100kHz
STABILITY	1e-12 / 24 H with disciplined OCXO
HOLD-OVER STABILITY	5µs after 5 hours (optional 1µs after 24 hours)

OPTIONS

OPTION 1	GPS/GLONASS integrated receiver
OPTION 2	26dB LNA GPS antenna kit including mounting kit and 25 metres of coaxial cable
OPTION 3	Additional input board, 4x ASI
OPTION 4	Additional input board, 2x ASI+2x GbE
OPTION 5	Additional input board, RF in
OPTION 6	Software upgrade for ISDB-Tb Remux/Layer Combiner/TS to BTS (188 to 204 byte) converter
OPTION 7	Dual-cast software option, adds DVB-T modulation
OPTION 8	Dual-cast software option, adds DVB-T2 modulation
OPTION 9	Dual-cast software option, adds ISDB-T modulation
OPTION 10	Dual-cast software option, adds ATSC modulation
OPTION 11	Dual-cast software option, adds PAL modulation
OPTION 12	Dual-cast software option, adds NTSC or PAL-M modulation

NOTE: These transmitters have to be operated with suitable filters at the RF output, so as to meet the standards and limits for the suppression of out of band emissions.