

## 1.4KW/1.7KW rms DIGITAL TV TRANSMITTER MOT 4000 MULTICAST

The 1.4/1.7KW rms digital TV transmitter, **MOT 4000 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 1.4KW/1.7KW 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

<b>DIGITAL OUTPUT POWER</b>	1.4KW rms >38dB typ. (DVB, ISDB) 1.7KW rms >38dB typ. (ATSC)
<b>ANALOG OUTPUT POWER</b>	4KW ps
<b>FREQUENCY AGILITY</b>	Bands III-IV-V
<b>FREQUENCY RESOLUTION</b>	1Hz
<b>PRECORRECTION</b>	Adaptative
<b>RF CONNECTION</b>	EIA 1-5/8", 50 Ohm
<b>POWER SUPPLY</b>	Single phase 100-240V, 50/60Hz Three phase 380 VAC
<b>AVERAGE CONSUMPTION</b>	Up to 40% efficiency in digital
<b>DIMENSIONS</b>	Standard rack unit of 19"

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

<b>MODULATOR</b>	
<b>DVB-T/-H/-T2</b>	
<b>STANDARD</b>	EN300744, EN302304, EN302755, TS101191, TS102773 (T2-MI), TS102034
<b>INPUTS</b>	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)
<b>FFT</b>	1K (DVB-T2), 2K, 4K, 8K, 8K ext. (DVB-T2), 16K & 16K ext. (DVB-T2), 32K & 32K ext. (DVB-T2)
<b>CODE RATE</b>	All modalities available according to the standard Block Short or Normal (DVB-T2) DVB-T: Reed-Solomon (204, 188) DVB-T2: BCH, LDPC
<b>GUARD INTERVAL</b>	1/32, 1/16, 1/8, 1/4, 19/256 (DVB-T2), 19/128 (DVB-T2), 1/128 (DVB-T2)
<b>CONSTELLATION</b>	QPSK, 16QAM, 64QAM, 256QAM (DVB-T2). Rotated and non rotated (DVB-T2)
<b>MISO PROCESSING</b>	Supported
<b>ISDB-TB</b>	
<b>STANDARD</b>	ABNT NBR 15601, ABNT NBR 15603
<b>INPUTS</b>	4xASI TS/BTS BNC (F), 75 Ohm o 2xASI TS/BTS BNC (F), 75 Ohm & 2xRJ45 TS/BTS oIP 10/100/1000
<b>FFT</b>	Mode 1 (2K), Mode 2 (4K), Mode 3 (8K)
<b>CODE RATE</b>	1/2, 2/3, 3/4, 5/6, 7/8
<b>GUARD INTERVAL</b>	1/4, 1/8, 1/16, 1/32
<b>HEIRARCHICAL MODULATION</b>	Up to three layers
<b>CONSTELLATION</b>	QPSK, 16QAM, 64QAM
<b>TIME INTERLEAVER</b>	Fully supported
<b>PARTIAL RECEPTION</b>	Supported
<b>ATSC</b>	
<b>STANDARD</b>	A/53, A/110
<b>INPUTS</b>	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
<b>MODULATION</b>	8-VSB
<b>INPUT BIT RATE</b>	19.39 Mbit/s
<b>BANDWIDTH</b>	6 MHz
<b>MAX PROCESSING DELAY</b>	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.