

DIGITAL TV COMPACT MODULATOR MOT 100A MULTICAST COMPACT

The digital TV compact modulator (50W rms) **MOT 100A MULTICAST COMPACT** can be used as an analog and digital transmitter. This device has an analog output power of 100W ps, a digital output power of 50W rms in DVB-T/T2 and ISDBT, and 80W rms in ATSC. 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
- Compatible with PAL, NTSC, DVB-T/H, DVB-T2, ISDB-T/TB and ATSC modulations.
- With Re-Multiplexer/BTS Adapter and Layer Combiner for ISDB-TB.
- Lineal, non-lineal and adaptive pre-correction.
- On-board high stability GPS receiver.
- Flexible input interfaces.
- MFN and SFN modes.
- SNMP, web interface and LC display indicator.

GENERAL CHARACTERISTICS

DIGITAL OUTPUT POWER DVB-T/T2, ISDBT-TB	50W rms
DIGITAL OUTPUT POWER ATSC	80W rms
ANALOG OUTPUT POWER	100W ps
MER	>36dB for any output power
DIMENSIONS	Standard rack unit of 19"
FREQUENCY AGILITY	Bands III-IV-V
FREQUENCY STABILITY	2*10-8@10MHz long period
AVERAGE CONSUMPTION	300VA
CONTROL	Front panel, web interface, SNMP and GPIO
OPERATING TEMPERATURE	-5 to +45°C
RF CONNECTION	N(F), 50 Ohm

POWER SUPPLY	Single phase 100-240V, 50/60Hz
MAXIMUM RELATIVE HUMIDITY	95% without condensation
APPROXIMATE WEIGHT	8Kg

MODULATOR	
DVB-T/-H/-T2	
STANDARD	EN300744, EN302304, EN302755, TS101191, TS102773 (T2-MI), TS102034
INPUTS	4xASI BNC(F), 75 Ohm & 2xRJ45 TSoIP GBE 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 GBE
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	Supported
PARTIAL RECEPTION	Supported
ATSC	
STANDARD	A/53, A/110
INPUTS	4xASI/SMPTE-310M BNC(H), 75Ohm & 2xRJ45 TSoIP GBE
MODULATION	8-VSB
INPUT BIT RATE	19.39 Mbit/s
BANDWIDTH	6 MHz
MAX PROCESSING DELAY	Up to 1 second (programmable)

ANALOG	
TV REGULATION	B, G, D, K, M, N, I
VIDEO INPUTS	CVBS, 4xSDI BNC(F), 75 Ohm
AUDIO INPUTS	Balanced audio 600 Ohm mini XLR(M), SDI embedded
COLOUR STANDARDS	PAL, NTSC
AUDIO STANDARDS	IRT dual sound, FM (-10dB)
VIDEO INPUT	0.5-1.5V
DIFFERENTIAL GAIN	±3%
DIFFERENTIAL PHASE	±3°
LOW FREQUENCY LINEARITY	8%
ICPM	±2"
S/N	>60dB
K FACTOR	2%
20T	3%
SPURIOUS AND HARMONICS	>60dB
CHANNEL INTERMODULATION	>58dB
MODULATION CAPABILITY	±120KHz
MONAURAL INPUT	Programmable 0-12dBm
PRE-EMPHASIS	50/70µs
FREQUENCY RESPONSE	±0.5dB from 30Hz-15KHz
HARMONIC DISTORTION	0.5% from 30Hz -15KHz
AM NOISE	50dB from 30Hz-15KHz
FM NOISE	60dB with de-emphasis
SYNCHRONOUS AM NOISE	>50dB

GPS

INPUT CONNECTOR	TNC(F), 50 Ohm
INPUT MONITOR/OUTPUT 10MHz	BNC(F), 75 Ohm
INPUT MONITOR/OUTPUT PPS	BNC(F), 75 Ohm
HOLD-OVER STABILITY	5µs after 5 hours (optional 1µs after 24 hours)

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.