

## MOT 100 A

The digital TV compact modulator **MOT 100 A** 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 and it is suitable for DVB-T/H, DVB-T2, ISDB-T/TB and ATSC standards, in addition of PAL and NTSC on its analog version. It 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>ANALOG OUTPUT POWER</b>	100W ps
<b>DIGITAL OUTPUT POWER</b>	50W rms
<b>DVB-T/T2, ISDBT-TB</b>	
<b>DIGITAL OUTPUT POWER ATSC</b>	80W rms
<b>FREQUENCY AGILITY</b>	Bands III- IV-V
<b>FREQUENCY RESOLUTION</b>	1Hz
<b>RF CONNECTION</b>	N(F), 50 Ohm
<b>POWER SUPPLY</b>	Single phase 100-240V, 50/60Hz
<b>AVERAGE CONSUMPTION</b>	200W
<b>DIMENSIONS</b>	One 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>NUMBER OF MODULES</b>	One

## MODULATOR

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

## GPS

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

## OPTIONS

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

*\* The images and/or technical specifications are subject to change without previous notice.*

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