

## 200W/300W rms COMPACT DIGITAL TV TRANSMITTER MOT 200/300 MULTICAST COMPACT

The 200-300W rms compact digital TV transmitter, **MOT 200/300 MULTICAST COMPACT**, can be used as an analog and digital transmitter and also as regenerative /non-regenerative repeater. The equipment has a digital output power of 200W/3000W 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 (optional).



### 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>      | 200W rms >38dB typ. (DVB, ISDB)<br>300W rms >38dB typ. (ATSC) |
| <b>ANALOG OUTPUT POWER</b>       | 500W ps                                                       |
| <b>FREQUENCY AGILITY</b>         | Bands I-III-IV-V                                              |
| <b>FREQUENCY RESOLUTION</b>      | 1Hz                                                           |
| <b>PRECORRECTION</b>             | Adaptative                                                    |
| <b>RF CONNECTION</b>             | 7/16"(F), 50 Ohm                                              |
| <b>POWER SUPPLY</b>              | Single phase 100-240V, 50/60Hz                                |
| <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                                      |

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## 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<br>Switch seamless between ASI inputs.<br>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<br>Block Short or Normal (DVB-T2)<br>DVB-T: Reed-Solomon (204, 188)<br>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).<br>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),<br>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<br>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 (OPTIONAL)

|                                   |                                                 |
|-----------------------------------|-------------------------------------------------|
| <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<br>-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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