

ATSC DIGITAL TV TRANSMITTERS

MOT 230 ATSC

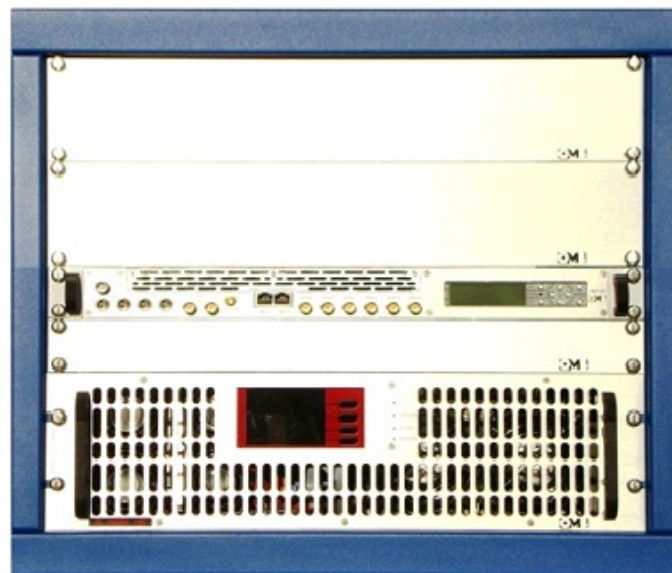
The **MOT 230 ATSC** transmitter provides a cost-effective solution to meet the most demanding requirements of today's digital Terrestrial Television Broadcasting. It is made up of the **ATSC modulator** and the **S 230 ATSC** amplifier. An intermediate external driver is included in order to improve the efficiency of the final amplifying stage. Using the complete alarm and digitalized information systems of this transmitter, the user can control and visualize the most relevant parameters of the transmission: modulation (according to the ATSC standard) and amplification quality. Digital telemetry output is included, and critical or non-critical mask filter can be supplied.



(I+D)

3MOT S1500 YAV 3DIR SGP 2-R COM LIM3 MMS 412 MIX ONE100

DTP3 TX3000



TECHNICAL SPECIFICATIONS

ATSC SIGNAL PROCESSING

SUPPORTED MODE 8VSB
BANDWIDTH 6MHz
NETWORK MODE SFN and MFN
TEST MODE CW mode, selectable from the control interface

INPUTS

DVB-ASI: IN A, IN B MPEG-2
2 ASI inputs
Connectors: BNC Female 75Ω

G.703/G.704: IN A, IN B ETI (NI) 2.048MHz short haul or ETI (NA) 2
G.703/G.704 inputs
Connectors: BNC Female 50Ω
Connector: BNC Female

GPS CLOCK REFERENCE Frequency: 10MHz
Level: 100mV-3Vpp
Impedance: 50Ω

TIME REFERENCE Connector: BNC Female
Frequency: 1PPS
Level: TTL
Trigger: Positive transition
Impedance: 50Ω

RF OUTPUT PARAMETERS

CONNECTOR N type Female
50Ω

FREQUENCY 50-1000MHz in 1Hz step

FREQUENCY STABILITY In accordance with external GPS reference
Intern reference 1ppm

LEVEL -10dBm to 0dBm in 0.1dB step (optional from 0 to 10dBm)

LEVEL STABILITY ±0.3dB

RETURN LOSS >20dB

MER ≥43dB

SHOULDER LEVEL ≤-51dBc

SPURIOUS LEVEL OUTSIDE CHANNEL ≤-60dBm at 0dBm output

PHASE NOISE SSB (MEASURED AT 474MHz)
10Hz: <-56dBc/Hz
100Hz: <-90dBc/Hz
1kHz: <-100dBc/Hz
10kHz: <-110dBc/Hz
100kHz: <-120dBc/Hz
1MHz: <-120dBc/Hz

PRE-CORRECTOR

NON-LINEAR PRE-CORRECTOR Gain correction: Max. 12dB
Phase correction: -6 a 30°

PRECORRECCIÓN LINEAL Amplitude correction: ±10dB
Amplitude resolution: 0.01dB
Group delay correction: ±2000ns
Group delay resolution: 1ns

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AMPLIFICATION STAGE(S)

| | |
|---------------------------------------|--|
| FREQUENCY RANGE | IV & V UHF Band: 470 ~ 870MHz |
| AMPLIFICACIÓN TYPE | Driver: A Class Final Amplifier: AB Class |
| OUTPUT CONNECTOR | N Female |
| OUTPUT IMPEDANCE | 50Ω |
| MONITOR OUTPUT CONNECTOR | BNC Female |
| MONITOR OUTPUT IMPEDANCE | 50Ω |
| SPURIOUS (WITH OUTPUT FILTER) | < -60dBc |
| HARMONICS (WITH OUTPUT FILTER) | < -60dBc |
| SHOULDER LEVEL | <-36dBc |
| MER | > 36dB |
| OUTPUT POWER | 230Wrms |

CONTROL AND VISUALIZATION INTERFACES

| | |
|---------------------------------|---|
| OUTPUT POWER CONTROL | Automatic or Manual (selectable) |
| PARAMETERS VISUALIZACIÓN | On LCD Display (output power, reflected power, amplifier voltage and current, temperature...) |
| RS 232 INTERFACE | Connector: 9-pin SUB-D Female |
| HW INTERFACE | Connector: 9-pin SUB-D Female |
| ETHERNET | RJ46 |

POWER SUPPLY

| | |
|--------------------------|-------------------------|
| VOLTAGE | 90 ~ 264V _{AC} |
| FREQUENCY | 47 ~ 63Hz |
| TOTAL CONSUMPTION | 0.56KVA average |

MECHANICAL SPECIFICATIONS (WITHOUT RACK)

| | |
|-------------------|------------------------|
| COOLING | Forced Air |
| DIMENSIONS | 7RU 19" (483x44x483mm) |
| WEIGHT | 33Kg |

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