

ATSC DIGITAL TV TRANSMITTERS

MOT 450 ATSC

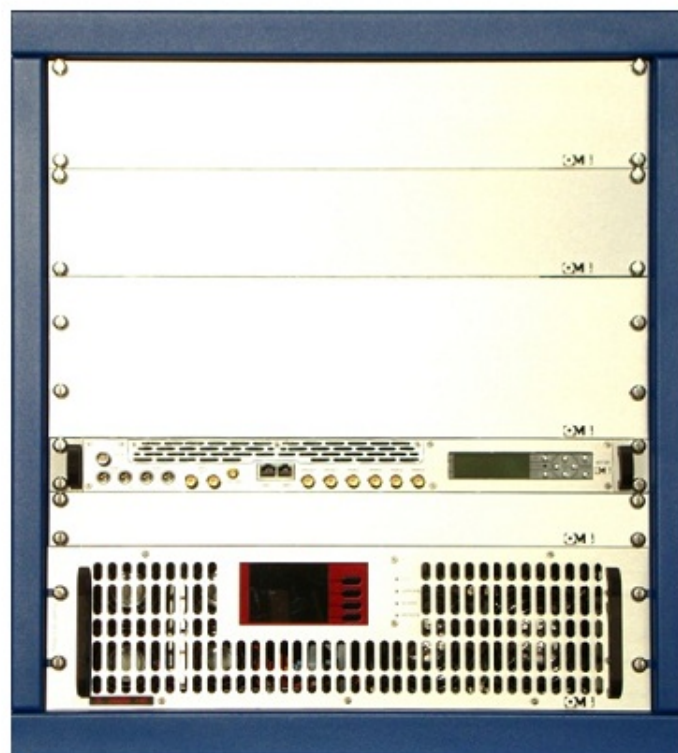
The **MOT 450 ATSC** transmitter provides a cost-effective solution to meet the most demanding requirements of today's digital Terrestrial Television Broadcasting. It is made up of the **ATSC modulator** and the **S 450 ATSC** amplifier. An intermediate external driver is included in order to improve 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

GPS CLOCK REFERENCE Connector: BNC Female
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	450Wrms

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	1.7KVA average

MECHANICAL SPECIFICATIONS (WITHOUT RACK)

COOLING	Forced Air
DIMENSIONS	8RU 19" (483x44x483mm)
WEIGHT	49Kg

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