



Certif.n° Es01-022



Certif. n° Es01-E021

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## MOT 2400 ATSC



The **MOT 2400 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 four **S 600 ATSC** amplifiers. 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.



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## 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



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### PRE-CORRECTOR

<b>NON-LINEAR PRE-CORRECTOR</b>	<b>Gain correction: Max. 12dB</b>
	<b>Phase correction: -6 a 30°</b>
<b>PRECORRECCIÓN LINEAL</b>	<b>Amplitude correction: ±10dB</b>
	<b>Amplitude resolution: 0.01dB</b>
	<b>Group delay correction: ±2000ns</b>
	<b>Group delay resolution: 1ns</b>

### AMPLIFICATION STAGE(S)

<b>FREQUENCY RANGE</b>	<b>IV &amp; V UHF Band: 470 ~ 870MHz</b>
<b>AMPLIFICACIÓN TYPE</b>	<b>Driver: A Class</b>
	<b>Final Amplifier: AB Class</b>
<b>OUTPUT CONNECTOR</b>	<b>N Female</b>
<b>OUTPUT IMPEDANCE</b>	<b>50Ω</b>
<b>MONITOR OUTPUT CONNECTOR</b>	<b>BNC Female</b>
<b>MONITOR OUTPUT IMPEDANCE</b>	<b>50Ω</b>
<b>SPURIOUS (WITH OUTPUT FILTER)</b>	<b>&lt; -60dBc</b>
<b>HARMONICS (WITH OUTPUT FILTER)</b>	<b>&lt; -60dBc</b>
<b>SHOULDER LEVEL</b>	<b>&lt;-36dBc</b>
<b>MER</b>	<b>&gt; 36dB</b>
<b>OUTPUT POWER</b>	<b>2400Wrms</b>

### CONTROL AND VISUALIZATION INTERFACES

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

### POWER SUPPLY

<b>VOLTAGE</b>	<b>90 ~ 264V<sub>AC</sub></b>
<b>FREQUENCY</b>	<b>47 ~ 63Hz</b>
<b>TOTAL CONSUMPTION</b>	<b>10kVA</b>

### MECHANICAL SPECIFICATIONS (WITHOUT RACK)

<b>COOLING</b>	<b>Forced Air</b>
<b>DIMENSIONS</b>	<b>31RU 19" (1780x590x900mm)</b>
<b>WEIGHT</b>	<b>200Kg</b>