

ISDBT/TB MODULATOR

OMB ISDBT/TB modulator provides a flexible and cost-effective solution to meet the most demanding requirements of today's digital Terrestrial Television Broadcasting.

The OMB ISDBT/TB modulator is designed in order to modulate an MPEG-2 /H.264 Transport Stream onto an ISDBT/TB compliant OFDM spectrum in accordance with the rules for channel coding and modulation specified in the ISDBT/TB standards. The unit includes two ASI inputs (automatic or manually user selected) and its RF output is generated by a high performance RF converter which covers an entire frequency range from 50MHz to 1GHz in steps of just 1Hz. The output level is adjustable from -10dBm to 0dBm with a step size of 0.1dB. The user can set the polarity of the spectrum to Inverted or Non-inverted as requested.



(I+D)

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

DTP3 TX3000



TECHNICAL SPECIFICATIONS	
SIGNAL PROCESSING	
MODES	1, 2 and 3 modes
GUARD INTERVAL	1/4 1/8 1/16 1/32
CODE RATES	1/2 2/3 3/4 5/6 7/8
CONSTELLATION	QPSK, 16-QAM, 64-QAM, DQPSK
HIERARCHICAL MODE (OPTIONAL)	Up to 3 layers
NETWORK MODE	MFN and SFN (IIP packets)
BANDWIDTH	6MHz
INPUTS	
	2 ASI inputs BNC Female 75Ω
CLOCK REFERENCE	Connector: BNC Female (50Ω/ >1KΩ adjustable) Frequency: 10MHz Level: 100mV – 3Vpp
TIME REFERENCE	Connector: BNC Female (50Ω / >1KΩ adjustable) Frequency: 1 PPS Level: TTL
RF OUTPUT (ISDBT/TB MODULATOR)	
FREQUENCY	50MHz ~ 1GHz adjustable (1Hz steps)
FREQUENCY STABILITY	Internal Ref. 0.3ppm
SPECTRUM POLARITY	Inverted / Non-Inverted (selectable)
GROUP DELAY RESPONSE	Center Frequency ±2.8MHz: ±10ns
AMPLITUDE FLATNESS	Center Frequency ±2.8MHz: ±0.2dB
SSB PHASE NOISE	10Hz: <60dBc/Hz 100Hz: <86dBc/Hz 1kHz: <100dBc/Hz 10kHz: <105dBc/Hz 100kHz: <110dBc/Hz 1MHz: <120dBc/Hz
MONITORING OUTPUTS	
RF MONITOR	Connector: BNC Female 50Ω Level: 30dB below RF output
REFERENCE MONITOR	Connector: BNC Female 75Ω Frequency: 10MHz Level: 2Vpp
CONTROL INTERFACES	
FRONT PANEL	LCD Display and execution keys
RS232 INTERFACE	Connector SUB-D 9 pins Male Command Protocol: Interactive CLI commands
RS485 INTERFACE	Connector SUB-D 9 pins Female
ALARM RELAY	Dry contact Alarm relay Triggered by any major alarm Contacts available on the RS485 connector
WEB INTERFACE	Internet Explorer 6.0+ Ethernet 10/100/1000 Base-T 2 RJ45 Connectors
SNMP CONTROL INTERFACE	Ethernet 10/100/1000 Base-T 2 RJ45 Connectors MIB tables provided

OMB AMERICA

teléfono (305) 477-0973 <http://www.omb.com>
(305) 477-0974 usa@omb.com
fax. (305) 477-0611
3100 NW 72nd. Ave. Unit 112
MIAMI, Florida 33122 USA

OMB EUROPA

departamento comercial **fábrica y laboratorio**
teléfono. 976 141717 teléfono. 976 141717
fax. 976 141718 fax. 976 141718
Pol. Ind. Centrovía
C/Paraguay, 6 (LA MUELA)
50198 Zaragoza, ESPAÑA

www.omb.es
europa@omb.com
comercial@omb.com

902 197 878
servicio atención al cliente

PRECORRECTION	
NON-LINEAR PRECORRECTION	Curve formats: S21 and VO/VI Amplitude scale: Linear and logarithmic Correction points: Max. 256 (user-defined position) Gain correction: Max. 12dB, subject to available headroom Phase correction: -6 to +30 degrees, subject to available headroom
LINEAR PRECORRECTION	Correction points: 61 Pint spacing: 1/60of nominal spectrum BW Amplitude correction: ± 10 dB Amplitude resolution: 0.01dB Group delay correction: ± 2000 ns Group delay resolution: 1ns Peak Power Clip Level: +17dB a +7dB (peak power relative to average RMS level)
GENERAL	
POWER SUPPLY	100-240VAC; 50/60Hz
CONSUMPTION	Max. 45VA
OPERATION TEMPERATURE	0 a 50°C
RELATIVE HUMIDITY	95%
DIMENSIONS	483x44x495mm (1 RU of 19" standard rack)
WEIGHT	6Kg

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