

### ISDB-T/T<sub>B</sub>

- MO-380**  
MFN/SFN ISDB-T/T<sub>B</sub> Modulator (19" rack format)

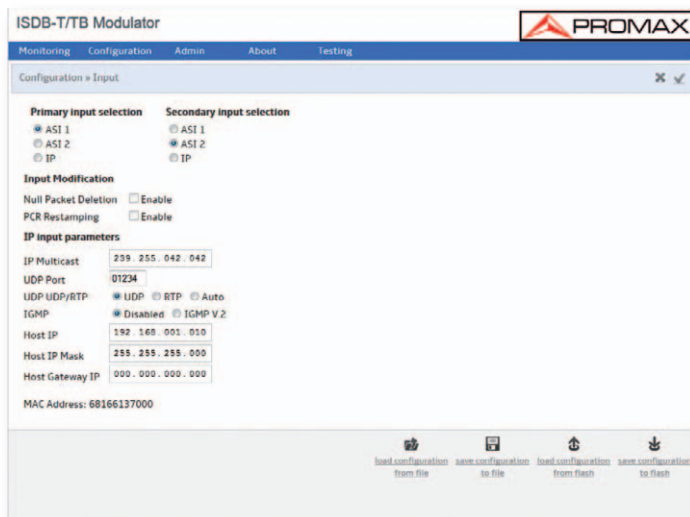
- ✓ ISDB-T/T<sub>B</sub> modulation
- ✓ MFN and SFN
- ✓ Single output 30 to 900 MHz
- ✓ High output quality
- ✓ Easy OEM integration
- ✓ Digital Pre-correction
- ✓ Webserver for programming and control
- ✓ 10 MHz/1PPS external references
- ✓ Installation and maintenance tests modes
- ✓ IP FEC correction
- ✓ IP, UDP, RTP & IGMP compatibility

The **MO-380/381** is a **ISDB-T/T<sub>B</sub>** modulator available in a standard 1U 19" rack case (**MO-380**) and also in an open frame chassis (**MO-381**) that can be used for MFN as well as SFN applications.

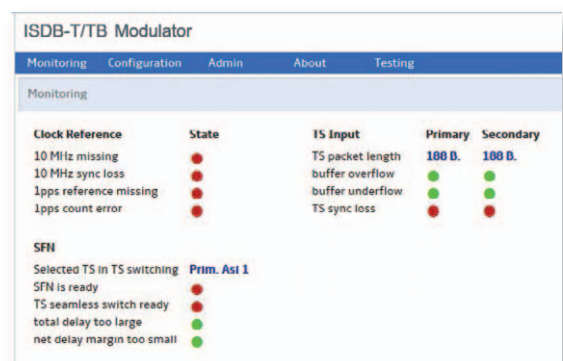
The modulator accepts TS-ASI and TS over IP inputs so that it can be easily interfaced with other existing transmission equipment. The modulator can be configured to generate any of the transmission modes listed in the **ISDB-T/T<sub>B</sub>** standard.

- MO-381**

MFN/SFN ISDB-T/T<sub>B</sub> Modulator (OEM version)



- Web server control**



SPECIFICATIONS	MO-380	MO-381
<b>INPUT STREAMS</b> Interface TS mode (188-bytes packets) BTS mode Switching	2 x ASI (EN 102 773) 1 x IP (SMPTE-2022 – UDP, RTP and FEC) Layer A only Layers A, B and C Automatic and seamless between any two BTS inputs in SFN mode. Automatic in MFN mode. In both modes the switchover may be permanent or temporary	
<b>RF OUTPUT</b> Frequency Range Output level Return Loss Spectrum Polarity Harmonics and Spurious MER	30 to 900 MHz -20 dBm to -40 dBm > 20 dB Inverted / Normal > 60 dB > 44 dB	
<b>SYNCHRONISATION</b> MFN SFN	External or Internal 10 MHz External 10 MHz and 1 pps	
<b>TRANSMISSION MODES</b> Modes Guard Interval Code Rate Constellation Time Interleaving Others	Mode 1, Mode 2 and Mode 3 1/4, 1/8, 1/16 and 1/32 1/2, 2/3, 3/4, 5/6 and 7/8 DQPSK, QPSK, 16-QAM and 64-QAM I=0,4,8,16 (Mode 1), I=0,2,4,8 (Mode 2) and I=0,1,2,4 (Mode 3) Estimates of the primary and secondary TS network delay margins	
<b>SFN DELAY INSERTION</b> Local delay	Adjustable between -50,000.0 $\mu$ s and +50,000.0 $\mu$ s with 100-ns resolution	
<b>TEST MODES</b> PRBS Blank Carrier NULL first symbol Single RMS tone	Modulates 23-bit PRBS-filled NULL packets Carriers are blanked between two configurable values First symbol of every frame is zeroed Tone at central frequency with the same RMS power as the ISDB-T/T <sub>B</sub> signal	
<b>SIGNAL PREDISTORTION</b> Crest Factor Reduction Range Resolution Non linear predistortion Number of points Table AM-AM Table AM-PM AM Resolution PM Resolution Linear predistortion Number of points Amplitude Correction Group Delay Correction Amplitude Resolution Group Delay Resolution	Enable/Disable 8 to 11 dB 0.1 dB Enable/Disable From 2 to 16. Linear interpolation Input Amplitude: -12 dB to +12 dB / Output Amplitude: -6 dB to +6 dB Input Amplitude: -12 dB to +12 dB / Output Phase: -30° to +30° 0.1 dB 0.1° Enable/Disable 72. Linear interpolation From -6 dB to +6 dB From -1500 to +1500 ns 0.01 dB 1 ns	
<b>POWER SUPPLY</b>	90 - 250 V AC @ 50 - 60 Hz Consumption 15 W	12 V DC 1.8 A
<b>MECHANICAL FEATURES</b> Dimensions Weight	482.6 (W.) x 44.4 (H.) x 381 (D.) mm 5.1 kg	116 (W.) x 61 (H.) x 258 (D.) mm 1.57 kg