



- **High frequency resolution (in steps of 1 Hz)**

- **High MER**

General description of the ISDB-T/T_B modulator MO-370LE

The **MO-370LE** is a general purpose **ISDB-T/T_B** modulator contained in a 19" 1U chassis. The unit has two serial MPEG TS-ASI inputs. Either of these inputs can be used to modulate the COFDM signal.

The **MO-370LE** inputs are configured as I / F (1), point of interface 1, or I / F (2) point of interface 2.

In the first case a TS composed by packets of 188 bytes is expected. An additional test signal can be internally generated. This fact allows inserting signals that are compatible with the **ISDB-T/T_B** standard, even in the absence of a valid TS input. The bit rate must be always strictly lower than the value specified by the **ISDB-T/T_B** standard. Internally, this rate is adapted (bit rate adaptation) to the useful rate required by the **ISDB-T/T_B** signal by means of filling a TS with NULL packets. This stuffing process alters the sequence of PCR values embedded in the TS. These values will be re-stamped so that the resulting PCR will remain within the limits specified by the **ISDB-T/T_B**.

In the second case the TS input comprises 204 bytes packets where are included, in addition to the information to transmit, parameters for setting up and operating the modulator (BTS).

The modulator can be configured to generate any of the transmission modes listed in the **ISDB-T/T_B** specification.

The **MO-370LE** has been designed to work in Multi Frequency Networks (MFN). Single Frequency Network (SFN) operation is not currently supported. For uses in SFN (Single Multifrequency Networks) refer to the **MO-380** modulator.

| SPECIFICATIONS | MO-370 _{LE} |
|---|--|
| INPUTS MPEG-TS input Operating modes | Two ASI inputs, 75 Ω female BNC TS packets of length 188 or 204 bytes Support for burst and continuous packet mode Input TS bit rate strictly below the value given in the ISDB-T/T _B specification Packet stuffing for bit rate adaptation and PCR re-stamping are carried out automatically |
| BANDWIDTH IF OUTPUT Type Frequency range Spectrum polarity Power level (average) In-band amplitude ripple In-band group delay ripple Frequency stability MER | 6 MHz 50 Ω female connector Variable between 31 and 36 MHz in steps of 1 Hz; fixed at 36 MHz when RF output is off Selectable via front panel controls 0 dBm (107 dBμV) fixed < 0.5 dB < 10 ns 20 ppm > 43 dB |
| RF OUTPUT Type Frequency range Spectrum polarity Power level (average) Frequency stability MER SSB phase noise | 50 Ω N-type female connector Adjustable between 45 and 875 MHz in 1 Hz steps Selectable via front panel controls Approximately 80 dBμV with no attenuation. Variable attenuation of 0 to 60 dB in steps of 1 dB 20 ppm > 38 dB ≤ -87 dBc/Hz @ 2 kHz |
| ISDB-T/T_B PARAMETERS Carrier Mode Guard interval Code rate Constellations | Mode 1 (2k), Mode 2 (4k), Mode 3 (8k) 1/4, 1/8, 1/16, 1/32 1/2, 2/3, 3/4, 4/5, 7/8 DQPSK, QPSK, 16-QAM, 64-QAM |
| DISPLAY AND FRONT PANNEL CONTROL | Yes |
| POWER SUPPLY | 90 - 250 VAC @ 50 - 60 Hz. Consumption 20 W |
| MECHANICAL FEATURES Dimensions Weight | 19" (A.) x 1.75" (Al.) x 15" (Pr.) 6.3 kg |