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## X BAND TEST LOOP TRANSLATOR

- **EXCELLENT PHASE NOISE PARAMETER**
- **HIGH INPUT / OUTPUT ISOLATION**
- **COMPACT SIZE**
- **ROBUST CONSTRUCTION**

The unit is intended to use as satellite communication test equipment. By the help of this TLT the operator can check the RF performance of uplink and downlink path without actual satellite connections. It includes a mixer, filters, amplifiers, programmable attenuators, power level detectors, local oscillator, microprocessor based control circuitry and DC power supply.



### Electrical characteristics:

<b>Input Characteristic</b>	
Input frequency range	7145 – 7235 MHz
Number of channels	1
Input level range	- 30 ... 0 dBm
Return loss	- 17 dB max.
Impedance	50 Ω
<b>Output Characteristic</b>	
Frequency range	8400 – 8500 MHz
Output level range	-80 to -40 dBm, programmable in 1dB step The output level is independent from input level, if the input signal is in the specified level range. (AGC )
Return loss	- 17 dB max.
Impedance	50 Ω
<b>Transfer Characteristic</b>	
Conversion	Without inversion
Noise figure	12 dB typ, @ minimum attenuation

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Input / Output Isolation	>80dB
Group delay variation and stability	< 5 nsec
Spurious & Harmonics	-60 dBc min
<b>Local Oscillator Performance</b>	
Operating Frequency Range	1255 – 1270 MHz
Step Frequency	1 kHz
Reference source	Internal / External, automatic change over
Internal source stability	within $\pm 1.0$ ppm
Phase noise parameter (typical value)	-85 dBc/Hz @ 100 Hz offset -93 dBc/Hz @ 1 kHz offset -100 dBc/Hz @ 10 kHz offset
External reference frequency	5 / 10 MHz, automatic selection
External reference level range	- 3 to + 3 dBm typ.,
Local oscillator test output	-5 dBm typ.
<b>General Parameters</b>	
RF connectors	N-female
IF connector	N-female
Local signal monitor port	SMA-female
External local signal connector	SMA-female
External reference input	N-female
Power Connector	MS3112E8-3P
Control & Monitor connector	RJ-45 (outdoor)
Control interface	TCP / IP
Power voltage	+ 24 V DC $\pm 10\%$
Operation temperature range	0°C to +50°C
Construction	Outdoor, IP67
Dimension	300 x 250 x 100 mm

Specifications are subject to change without notice.

**Outline Drawing**
