

Test Loop Translator Bench Instrument—Manual KA

The BLT series of Ka Band Test Loop Translators are designed to replace the satellite link for test and alignment of earth station systems operating in the Ka frequency bands. Incorporating fundamental frequency phase locked oscillators and double balanced mixers, the translators block convert frequencies from uplink to either downlink or L-Band for instantaneous monitoring of frequency, power levels and modulation. The input path contains a front panel controlled continuously variable attenuator for reducing input power levels. Each unit also provides a reference frequency output and LO lock alarm.

Typical applications:

- To replace the satellite link for test and alignment of earth station systems operating in satcom frequency bands.
- SNG testing.
- Satcoms & Teleports testing.



Operating Frequency

Input: 27500-31000MHz
Output: 17700-21200MHz



Input Power

80-240V, 50-60Hz



Monitoring & Control
Front Controlled Panel



Gain

-35dB nom.
Conversion Gain



General Specification	
Maximum Input Level	+10dBm
Conversion Gain	-35dB nom
Conversion Gain Flatness	+/-2dB typ. +/-0.5dB/40MHz max
Attenuation Range	30dB Min
Impedance	50 ohms
Input VSWR	1.8:1 typical
Output VSWR	1.8:1 typical
Standard LO Frequency Stability	+/-5ppm max. over 0+50C +/-2ppm typ. over +10+40C +/-2ppm/day max.
Internal Reference Stability	50MHz or 100MHz standard
Signal Related Spurious	-25dBc typical
LO Related Spurious & Harmonics	-30dBm typical
Non Signal or LO Related Spurious	-60dBm minimum
Lock Alarm	LED, Front Panel & Ethernet
Attenuation Control	10 turn with dial, front panel
Input Connector	2.92 mm female
Output Connector	2.92 mm female
Reference Input Connector	SMA Female
Input Power	80-240V, 50-60Hz
Input Power Connector	IEC with Fuse
Operating Temperature	0 to +50C
Storage Temperature	-40 to +85C
Dimensions	260 x 150 x 420 mm

Fixed LO Phase Noise dBc/Hz (typical) (GHz)

Offset Frequency	9.80GHz	10.30GHz
100Hz	-56	-56
1KHz	-90	-90
10KHz	-100	-100
100KHz	-110	-110
1MHZ	-120	-120

General Specification

Model Number	Translation Bands	Input Frequency Range	Output Frequency Range	LO Frequency Range
BLT-9800-Ka	Ka Tx-Rx	27.5-31.0	17.7-21.2	9.80
BLT-10300-Ka	Ka Tx-Rx	28.0-31.5	17.7-21.2	10.30

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.
 Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

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