

## TLTH(B) Series

Multi-Band Test Loop Translators with full user interface & remote control.



### Test Loop Translator Products;

**TLTH1003** Ku-Band (TX) to 3-range Ku-Band (RX)

**TLTH1004** Dual-Band C & Ku (TX) to C & 3-range Ku-Band (Rx)

[For other 'non-standard' frequency requirements, please contact the factory.](#)

[For single-range TLT units please see TLTH\(A\) series datasheet.](#)






[For equivalent lower cost TLT units without the full user interface please see TLT\(B\) series datasheet.](#)

A Test Loop Translator is used to convert from one frequency to another for test purposes. No filters are included in the unit and the output of the unit contains all mixing products.

The **TLTH(B) Series** of units are designed to take a sample of the TX signal and convert it to a frequency at which it can be monitored or analysed. The optional 0 to 30dB variable attenuator control is used to balance the incoming power with the monitoring system. The unit consists of an RF strip, which is a single mixer stage and a control PCB to monitor the system and provide a stable reference for the Local Oscillator.

The **TLTH(B) Series** are housed in 19 inch 1RU rack mountable chassis and feature full user interfaces with remote control.

### Peak Features

-  High stability and excellent phase noise
-  Full alarm monitoring
-  Internal switching of multiple-bands
-  Full 'local' user interface and remote control (RS232/485 as standard, Ethernet optional)
-  Optional manual & electronically variable attenuators



## Multi-Band TLTH(B) series – Typical Specification

### Models;

#### TLTH1003

Input Frequency	
Ku-Band	13.75-14.50GHz
Output Frequency	
Ku-Band (1)	10.95-11.7GHz
Ku-Band (2)	11.70-12.25GHz
Ku-Band (3)	12.25-12.75GHz

#### TLTH1004

Input Frequency	
C-Band	5.85-6.65GHz
Ku-Band	13.75-14.50GHz
Output Frequency	
C-Band	3.4-4.2GHz
Ku-Band (1)	10.95-11.7GHz
Ku-Band (2)	11.70-12.25GHz
Ku-Band (3)	12.25-12.75GHz

### Attenuation (Option 3)

Attenuation range	30dB nominal
Step size	0.5dB (for other step sizes please consult the factory).
Control	Electronically Variable via local (front panel) & remote control

Note; Multiple output options would require multiple attenuators.

### Input (see Option 5a for multiple inputs)

Connector	50Ω, SMA (f) Option 2a; N-type (f)
Return Loss	>21dB
1dB GCP	+15dBm

### Output (see Option 5b for multiple outputs)

Connector	50Ω, SMA (f) Option 2b; N-type (f)
Return Loss	15dB

### Transfer characteristics

Conversion Loss	21dB ±2dB at 0dB attenuation
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### RF Performance

LO phase noise (typical)	-75dBc/Hz @ 100Hz
	-92dBc/Hz @ 1kHz
	-100dBc/Hz @ 10kHz
	-107dBc/Hz @ 100kHz
	-125dBc/Hz @ 1MHz

### External Reference Input (Option 4)

Frequency	10MHz (5MHz factory settable)
Level	0dBm ±3dB
Connector	50Ω, BNC (f)

### Mechanical

Width	19" standard rack mount
Height	1U (1.75")
Depth	534mm (21"), plus connectors
Construction	Stainless Steel chassis
Weight	Approx. 9.5kgs (21lbs)

### Control System Interface

Remote Control	RS232/ 485 port. Ethernet option; Embedded web server & SNMP network management support (option 9)
Redundancy	CANBUS® interface for N+1 systems In-built 1+1 & 2+1 controller
Alarms	PSU fail (form C) LO fail (form C)
Connector	D-type standard 15-way

### Environmental

Operating temp.	0°C to +50°C
EMC	EN 55022 part B & EN 50082-1
Safety	EN 60950

### Power Supply

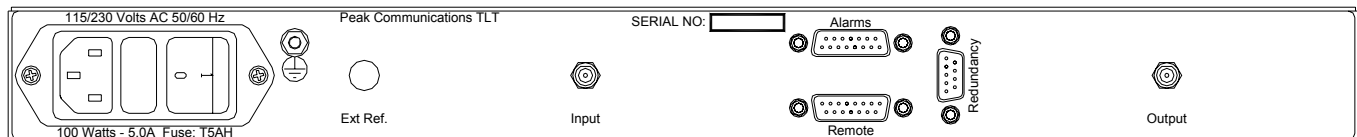
Voltage	115/230VAC±10%,
Frequency	50/60Hz
Power	30 Watts max.

### Options

- 1b) Manual Variable Attenuator, 0-30dB, at SHF (not available at Ku-Band).
- 2a) N-type (f) Input Connection.
- 2b) N-type (f) Output Connection.
- 3c) Electronic Attenuator, 0-30dB (0.5dB steps), at Ku-Band.
- 3d) Electronic Attenuator, 0-30dB (0.5dB steps), at C or X-Band.
- 3e) Wideband Electronic Attenuator, 0-30dB (0.5dB steps), covering C & Ku-Band.
- 4) External 10MHz Reference input.
- 5a) Multiple inputs for Dual-Band requirements.
- 5b) Multiple outputs for Dual-Band requirements (1x C-Band and 1x Ku-Band).
- 6) Lightweight Aluminium chassis.
- 9) Ethernet interface with embedded web server & SNMP.

Note; Some of the above options have an impact on the general performance specification, factory guidance should be sought if this is thought to be critical.

## Rear Panel View



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. TLTH(B)series-240510.

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