

TLTH 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)






This datasheet shows the most popular Multi-Band TLT's, for other frequency requirements, please contact the factory.
For single-range TLT's please see other TLTHseries datasheet.
For lower cost TLT units without the user interface and remote control, please see TLTseries 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 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 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.
-  Optional electronically variable attenuators.



Multi-Band TLTH Series - 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	Local & remote

Note; Multiple output options would require multiple attenuators.

Input (see Option 5a for multiple inputs)

Connector	SMA (f), 50Ω (Option 2a; N-type)
Return Loss	>21dB
Max Input power	+16dBm

Output (see Option 5b for multiple outputs)

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

Transfer characteristics

Conversion Loss	21dB \pm 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
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External Reference Input – Option 4

Frequency	10MHz (5MHz factory settable)
Level	0dBm \pm 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/ RS485 port Ethernet (option 9, replaces RS232/485)
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 \pm 10%,
Frequency	50/60Hz
Power	30 Watts max.

Options

- 2a) N-type (f) Input Connection.
- 2b) N-type (f) Output Connection.
- 3b) Electronic Variable Attenuator, 0-30dB (0.5dB steps), at SHF.
- 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).
- 9) Ethernet interface, replaces RS232/485 port.

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. TLTHbseries-280807.

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