

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

Output (see Option 5b for multiple outputs)

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

Transfer characteristics

| | |
|-----------------|------------------------------|
| Conversion Loss | 21dB ±2dB at 0dB attenuation |
|-----------------|------------------------------|

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 | BNC (f), 50Ω |

Mechanical

| | |
|--------------|------------------------------|
| Width | 19" standard rack mountable |
| 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 |
| | Option 9; Ethernet; Embedded web server & SNMP network management support |
| Redundancy | CANBUS® interface for N+1 system |
| | 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

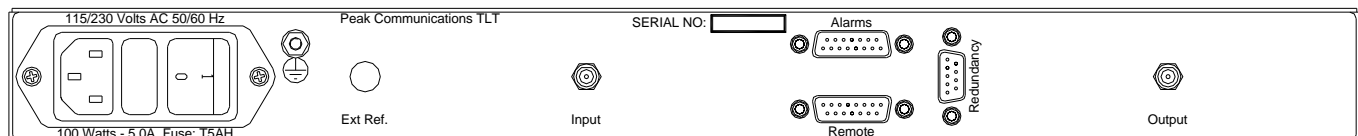
| | |
|-----------|---------------|
| Voltage | 90-264VAC |
| Frequency | 47-63Hz |
| Power | 30 Watts max. |

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 and 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-260112.

Peak Communications Ltd, 22 West Park Street, Brighouse, HD6 1DU, England.

Tel; +44 (0)1484 714200 Sales; +44 (0)1484 714229 Fax; +44(0)1484 723666 Email; sales@peakcom.co.uk Web; www.peakcom.co.uk