

## TLT(B) Series

### Multi-Band Test Loop Translators



### *Test Loop Translator Products;*

- TLT1003** Ku-Band (TX) to 3-range Ku-Band (RX)
- TLT1004** 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 TLT(A) series datasheet.





For equivalent units with full user interface, remote control and digital attenuation, please see TLTH(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 **TLT(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 **TLT(B) Series** are housed in 19 inch 1RU rack mountable chassis.

### *Peak Features*

-  High stability and excellent phase noise
-  Full alarm monitoring
-  Internal switching of multiple-bands
-  Optional Manual Continuously variable 0 to 30dB attenuator



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

### Models;

#### TLT1003

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

#### TLT1004

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 1b)

Attenuation range	30dB nominal
Control	Continuously variable from front panel.

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
1dB GCP	+15dBm

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

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

#### Transfer characteristics

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

LO phase noise	75dBc/Hz @ 100Hz
(typical)	-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

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

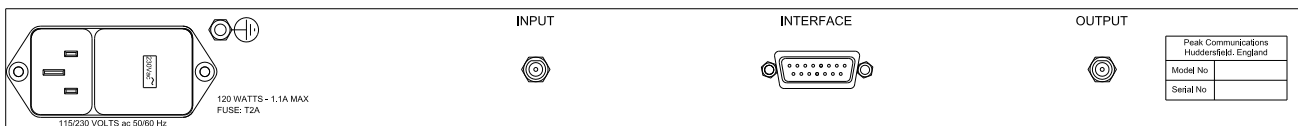
Voltage	90-264VAC
Frequency	47-63Hz
Power	30 Watts max.

### Options

- 1b) Manual Variable Attenuator, 0-30dB, at SHF
- 2a) N-type (f) Input Connection
- 2b) N-type (f) Output Connection
- 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

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. TLT(B)series-260112.

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