

TLTH(A) Series

Single Band Test Loop Translators with Full User Interface & remote control.



Single Band Test Loop Translator Products;

TLTH600	C-Band (TX) to L-Band
TLTH672	Super extended C-Band (TX) to L-Band
TLTH642, 2225	C-Band (TX) to C-Band (RX)
TLTH585	Extended C-Band (TX) to C-Band (RX), Inverted and non-inverted spectrum available
TLTH790	X-Band (TX) to L-Band
TLTH742	X-Band (TX) to X-Band (RX)
TLTH127	Ku-Band (TX; 12.75 to 13.50GHz) to L-Band
TLTH137	Ku-Band (TX; 13.75 to 14.50GHz) to L-Band
TLTH140	Ku-Band (TX; 14.00 to 14.50GHz) to L-Band
TLTH1000	Ku-Band (TX) to Ku-Band (RX)
TLTH142	Ku-Band (RX) to C-Band (RX)
TLTH180	DBS-Band (TX) to L-Band
TLTH184	Extended DBS-Band (TX) to L-Band

For other 'non-standard' frequency requirements, please contact the factory.

For multiple-range TLT units please see TLTH(B) series datasheet.

For equivalent lower cost TLT units without the full user interface please see TLT(A) series datasheet.





For equivalent remote mount units, please see TLTR(A) 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. Frequency converters with the same input and output frequencies and with filtered outputs are also available.

The **TLTH(A) 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(A) 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
-  Full 'local' user interface and remote control (RS232/485 as standard, Ethernet optional)
-  Optional electronically variable attenuators



TLTH(A) series – Typical Specification

Models;

TLTH600

Input Frequency 5.85-6.65GHz
Output Frequency 950-1750MHz

TLTH672

Input Frequency 5.85-6.725GHz
Output Frequency 950-1825MHz

TLTH2225

Input Frequency 5.85-6.425GHz
Output Frequency 3.625-4.2GHz

Note; spurious performance limited to -40dBc typ.

TLTH642

Input Frequency 6.425-6.725GHz
Output Frequency 3.4-3.7GHz

TLTH585

Input Frequency 5.85-6.65GHz
Output Frequency 3.4-4.2GHz

Note; spurious performance limited to -40dBc typ.

TLTH585I

Input Frequency 5.85-6.65GHz
Output Frequency 4.2-3.4GHz (Inverted Spectrum)

TLTH790

Input Frequency 7.9-8.4GHz
Output Frequency 950-1450MHz

TLTH742

Input Frequency 7.9-8.4GHz
Output Frequency 7.25-7.75GHz

TLTH127

Input Frequency 12.75-13.50GHz
Output Frequency 950-1700MHz

TLTH137, 140

Input Frequency 13.75-14.50, 14.00-14.50GHz
Output Frequency 950-1700, 950-1450MHz

TLTH1000

Input Frequency 13.75-14.50GHz
Output Frequency 11.85-12.60GHz

Note; for other output ranges please consult the factory.

TLTH142

Input Frequency 12.25-12.75GHz
Output Frequency 3.7-4.2GHz

TLTH180

Input Frequency 17.3-18.1GHz
Output Frequency 950-1750MHz

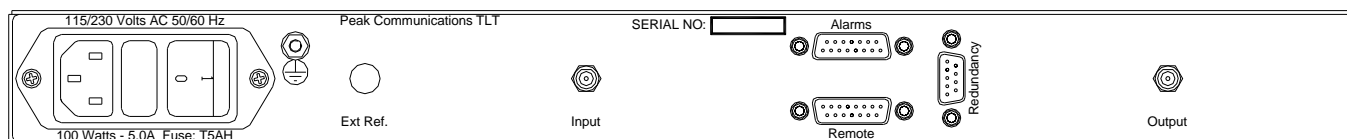
TLTH184

Input Frequency 17.3-18.4GHz
Output Frequency 950-2050MHz

Attenuation (Option 3)

Attenuation range 30dB
Step size 0.1dB or 0.5dB (frequency dependent)
Control Electronically variable via local (front panel) & remote control

Rear Panel View



Input

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

Output

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

Transfer characteristics

Conversion Loss 20dB ±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 ~400mm (15.7"), plus connectors
Construction Aluminium chassis
Weight 4.5kgs (10lbs)

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, 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

- 2a) N-type (f) Input Connection
- 2b) N-type (f) Output Connection
- 3a) Electronic Attenuator, 0-30dB (0.5dB steps), at L-Band
- 3b) Electronic Attenuator, 0-30dB (0.1dB steps), at L-Band
- 3c) Electronic Attenuator, 0-30dB (0.5dB steps), at Ku-Band
- 3d) Electronic Attenuator, 0-30dB (0.5dB steps), at C or X-Band
- 4) External 10MHz Reference input
- 9) Ethernet interface with embedded web server & SNMP

Note; some of the above options have an impact on the performance specification, for details please contact the factory if this is thought to be critical



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. TLTH(A)series-260112.

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