

TLTR(A) series

Single-Range, Remote Mounted Test Loop Translators



TLTR600	C-Band (TX) to L-Band
TLTR642, 2225	C-Band (TX) to C-Band (RX)
TLTR585	Extended C-Band (TX) to C-Band (RX), Inverted and non-inverted spectrum available
TLTR790	X-Band (TX) to L-Band
TLTR742	X-Band (TX) to X-Band (RX)
TLTR127	Ku-Band (TX; 12.75-13.50GHz) to L-Band
TLTR137	Ku-Band (TX; 13.75-14.50GHz) to L-Band
TLTR140	Ku-Band (TX; 14.00-14.50GHz) to L-Band
TLTR1000	Ku-Band (TX) to Ku-Band (RX)
TLTR142	Ku-Band (RX) to C-Band (RX)
TLTR180	DBS-Band (TX) to L-Band
TLTR184	Extended DBS-Band (TX) to L-Band

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

For equivalent rack mount units, please see TLTR(A) & TLTH(A) series datasheets.

The **TLTR(A) Series** of Test Loop Translators are designed to take a sample of the TX signal and convert it to a frequency at which it can be monitored or analysed. Often monitoring of the Transmit signal is required at L-band, or alternatively a translation of the Transmit signal to the Receive band which is then applied to the Receive equipment in a test mode.






Normally TLT units are supplied without filtering and the output of the unit therefore contains all mixing products. Units with filtered outputs (suitable for re-transmission) are also available, but if required, please consult the factory.

These units are offered with optional electronically variable Attenuation and Ethernet for remote control (with embedded web-server and supporting SNMP Network Management). Ethernet can also be used to power the units, reducing the number of connection cables and simplifying the installation process.

The unit is housed in a rugged weatherproof chassis, suitable for either internal or external/remote locations.

These units are offered with optional electronically variable Attenuation and Ethernet for remote control (with embedded web-server and supporting SNMP Network Management).

Peak Features

-  High stability and excellent phase noise.
-  Full Alarm monitoring.
-  Rugged weatherproof housing.
-  Optional electronically variable 0 to 30dB attenuator.
-  Optional Ethernet based remote control.



TLTR(A) series – Typical Specification

Models;

TLTR600

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

TLTR2225

Input Frequency 5.85-6.425GHz
Output Frequency 3.625-4.2GHz
Spurious performance limited to -40dBc typ.

TLTR642

Input Frequency 6.425-6.725GHz
Output Frequency 3.425-3.725GHz

TLTR585

Input Frequency 5.85-6.65GHz
Output Frequency 3.4-4.2GHz
Spurious performance limited to -40dBc typ.

TLTR585I

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

TLTR790

Input Frequency 7.90-8.40GHz
Output Frequency 950-1450MHz

TLTR742

Input Frequency 7.90-8.40GHz
Output Frequency 7.25-7.75GHz

TLTR127

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

TLTR137, 140

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

TLTR1000

Input Frequency 13.75-14.50GHz
Output Frequency 11.85-12.60GHz
For other output ranges please consult the factory.

TLTR142

Input Frequency 12.25-12.75GHz
Output Frequency 3.70-4.20GHz

TLTR180

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

TLTR184

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

Variable Attenuation (Option 3)

Attenuation range 30dB nominal
Step size 0.1dB, 0.5dB or 1dB
Control Remote via Ethernet (see Option 9)

Input

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

Output

Connector 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)
Connection Separate 50Ω, TNC (f)
Level 0dBm ±3dB

Mechanical

Width 123mm (4.85")
Height 172mm (6.8"), plus connections & mounting flanges
Depth 48mm (1.89")
Construction Die-cast Aluminium, IP66 rated
Weight 1.4kgs (3lbs) approx.

Control System Interface

Alarms Summary alarm contacts
Connection 5-pin circular, weatherproof (mating part supplied)
Remote Control Ethernet option; Embedded web server & SNMP network management support (option 9)

Environmental

Operating temp. -25°C to +70°C
EMC EN 55022 part B & EN 50082-1
Safety EN 60950

Power Supply

Voltage +16.5 to +35VDC
Current 500mA nom.
Connection Fed in on 5-pin control interface connection or powered via Ethernet connection (Option 9)

Options

- 3a) Electronic Variable Attenuator, 0-30dB (1dB steps), at L-Band.
- 3b) Electronic Variable Attenuator, 0-30dB (0.1dB steps), at L-Band.
- 3c) Electronic Variable Attenuator, 0-30dB (0.5dB steps), at Ku-Band.
- 3d) Electronic Variable 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 general performance specification, factory guidance should be sought if this is thought to be critical.



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

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