

## TLTR(A) series

### Single-Range, Remote Mounted Test Loop Translators



**TLTR600, 672** 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 TLTR 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

#### TLTR672

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

#### TLTR2225

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

Note; spurious performance limited to -40dBc typ.

#### TLTR642

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

#### TLTR585

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

Note; spurious performance limited to -40dBc typ.

#### TLTR585I

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

#### TLTR790

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

#### TLTR742

Input Frequency 7.9-8.4GHz  
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

Note; for other output ranges please consult the factory.

#### TLTR142

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

#### 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 or 0.5dB (frequency dependent)  
Control Remote via Ethernet (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 TNC (f), 50Ω  
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)

### Control System Interface

Alarms Summary alarm contacts  
Connection 5-pin circular, weatherproof (mating part supplied)  
Remote Control Ethernet; 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) 30dB L-Band Electronic Variable Attenuator, 0.5dB step
- 3b) 30dB L-Band Electronic Variable Attenuator, 0.1dB step
- 3c) 30dB Ku-Band Electronic Variable Attenuator, 0.5dB step
- 3d) 30dB C/ X-Band Electronic Variable Attenuator, 0.5dB step
- 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 critical



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

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