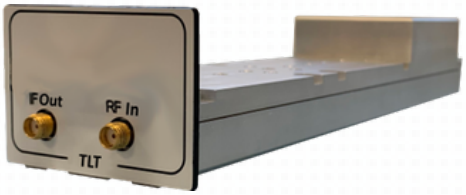
L-Band to Ku-Band Test Loop Translator Module

TLT-U-K1L1-1010-S5S5 is a L band input to Ku band output Test Loop Translator designed to be housed in the 1U GENUS chassis, with 30dB of variable attenuation and LO synthesised frequency. The 1U chassis has the capacity for up to 16 hot-swap RF modules (dependant upon module type fitted). Contact ETL for module types available.

TLT Module



TLT Module
Compact form factor allowing multiple modules to be housed in the Genus chassis. Each module occupies 4 slots in the chassis.

Hot Swap & replaceable
RF TLT modules

Frequency Conversion
Input Frequency: 950 - 2000MHz
Output Frequency: 10.7 - 12.75GHz

Variable Attenuation
30dB of available attenuation

Chassis Options

Local control & monitoring
via HMI high resolution touchscreen

Resilience
from dual redundant hot-swap power supplies & field replaceable CPU & HMI

Compact indoor & outdoor
chassis options, which can be part populated

Secure protocols
with SNMPv3 and HTTPS

Flexible Module Configurations
choose from a mixture of TLT modules with different operating frequencies.

Remote control & monitoring
via RJ45 Ethernet port with SNMP & web browser interface

Field replaceable Internal 10MHz reference source
and external reference inject port with auto detection



Indoor Chassis



Outdoor Unit

GENERAL SPECIFICATIONS		
Operating Frequency Range	Input	950 - 2000 MHz
	Output	Mode 1: 10.7 - 11.75 GHz Mode 2: 11.7 - 12.75 GHz
Instantaneous Bandwidth		1.05 GHz
Max Input Power Level		0 dBm (operational)
Absolute max Input Power Level		+15dBm (For no damage)
Conversion Gain		0 ± 3.0dB (At 0dB attenuation setting)
Attenuation control range		0 to 30 dB
Attenuation control steps		0.25 ± 0.20 dB Over full operating band
Flatness	Any 1GHz	±1.5dB
	Any 500MHz	±1.0dB
	Any 40 MHz	±0.5 dB
Input Return Loss		14 dB typ. 12 dB min
Output Return Loss		14 dB typ. 10 dB min
Spurs In-Band	Non-carrier related	< -60 dBm , (At -10 dBm input, min attenuation. Non-harmonic)
	Carrier related (> 1MHz Offset)	< -30 dBc, (At -10 dBm input, min attenuation. Non-harmonic)
Spurs Out-of-Band	Non-carrier related	< -65 dBm , (At -10 dBm input, min attenuation. Non-harmonic)
	Carrier related (>1 MHz Offset)	< -30 dBc , (At -10 dBm input, min attenuation. Non-harmonic)
Harmonics		-30dBc max, (At 0dBm input, min attenuation)
LO Breakthrough		< -60 dBm max.
Phase Noise (Typical values when supplied with a high quality reference)		100 Hz : -70 dBc/Hz 1 kHz : -80 dBc/Hz 10 kHz : -80 dBc/Hz 100 kHz : -85 dBc/Hz 1 MHz : -100 dBc/Hz
Internal Reference Stability		±0.05ppm over 0 to 50°C
External Reference (optional)		Mode 1: Input Freq 10 MHz Mode 2: Auto detection
External Reference Input Level		+3 dBm ± 3 dB
Mute / Spectral Inversion		80 dB min. / Non-inverting
Module Size		Module 4 slots wide
MTBF		>80,000 hours
Control Method		Via Chassis

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.
Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.
Note 3: All specs are for 50 Ohm connectors unless detailed otherwise.