



INDOOR / OUTDOOR TEST LOOP TRANSLATORS



“Close the Loop” with Jersey’s TLT Series Test Loop Translators

Jersey Microwave’s TLT Series Test Loop Translators are available in variety of L, C, X, DBS, Ku, and Ka frequency bands. The unit is designed for testing the satellite communication between the up and downlink in the same band or up link to L-Band. System “Loop-back” checks are performed easily and accurately without the need of the Satellite link. All the standard bands are available and custom specifications can be considered.



Features/Options

**Low Phase Noise
Exceeds IESS 308/309 &
MIL-STD-188-164A**

Quick Delivery

High Performance

**Also available in Multi-band
solutions**

**Auto-switchover of external
reference**

90-260 VAC or 24-32 VDC

Ethernet Capability

RS-422 / RS485

Higher Output Power

Alternate Gain Options

Gain Control

Custom Frequencies

Monitor Ports

Mute Control

Standard Frequency Bands

TLT- Series

| Model Number | Input Frequency | Output Frequency | LO Frequency |
|--------------------------|-----------------|------------------|--------------|
| CTLT-585645-360420-N22 | 5850-6450 MHz | 3600-4200 MHz | 2250 MHz |
| CTLT-585665-340420-N22 | 5850-6650 MHz | 3400-4200 MHz | 2450 MHz |
| XTLT-790840-725-775-N22 | 7900-8400 MHz | 7250-7750 MHz | 650 MHz |
| XTLT-790840-095145-N22 | 7900-8400 MHz | 950-1450 MHz | 6950 MHz |
| KTLT-140145-117122-N22 | 14.00-14.50 GHz | 11.70-12.20 GHz | 2300 MHz |
| KTLT-140145-122127-N22 | 14.00-14.50 GHz | 12.25-12.75 GHz | 1750 MHz |
| KTLT-140145-127132-N22 | 14.00-14.50 GHz | 12.75-13.25 GHz | 1250 MHz |
| KTLT-137145-109117-N22 | 13.75-14.35 GHz | 10.95-11.55 GHz | 2800 MHz |
| KTLT-137145-117122-N22 | 13.75-14.35 GHz | 11.55-12.15 GHz | 2200 MHz |
| KTLT-137145-122127-N22 | 13.75-14.35 GHz | 12.15-12.75 GHz | 1600 MHz |
| DBSTLT-173181-117125-N22 | 17.30-18.10 GHz | 950-1750 MHz | 16.35 GHz |
| DBSTLT-173181-117125-N22 | 17.30-18.10 GHz | 11.70-12.50 GHz | 5.60 GHz |
| KATLT-276291-176191-N22 | 27.60-29.10 GHz | 17.60-19.10 GHz | 10.00 GHz |
| KATLT-285290-187192-N22 | 28.50-29.00 GHz | 18.70-19.20 GHz | 9.80 GHz |
| KATLT-290295-192202-N22 | 29.00-29.50 GHz | 19.20-19.70 GHz | 9.80 GHz |
| KATLT-295300-197202-N22 | 29.50-30.00 GHz | 19.70-20.20 GHz | 9.80 GHz |
| KATLT-290300-192202-0005 | 29.00-30.00 MHz | 19.20-20.20 GHz | 9.80 GHz |
| KATLT-300310-202212-N22 | 30.00-31.00 GHz | 20.20-21.20 GHz | 9.80 GHz |
| KATLT-300310-010020-005 | 30.00-31.00 GHz | 1000-2000 MHz | 29.0 GHz |
| KATLT-300310-095195-005 | 30.00-31.00 GHz | 950-1950 MHz | 29.05 GHz |

When ordering add a “-R” to the above model number for an indoor 1 RU rack solution OR add a “-ODU” for an outdoor chassis solution. For example KATLT-300310-202212-N22”-ODU”.

Custom bands and custom specifications can be provided.

Electrical Specification

| | |
|-----------------------------------|--|
| RF Characteristics | Input |
| Frequency Range | See Table |
| Impedance / Return Loss | 50 Ohms / 18 dB, min. |
| IF Characteristics | Output |
| Frequency Range | See Table |
| Impedance / Return Loss | 50 Ohms / 18 dB, min. |
| LO Characteristics | Oven Control X'tal Oscillator 5 or 10 MHz |
| – Internal Reference: Standard | |
| – External Reference: Option | |
| External Reference Input Level | 0 dBm ± 10 dB |
| External Reference Phase Noise | 10 Hz = -90 dBc/Hz / 100 Hz = -120 dBc/Hz 1 KHz = -145 dBc/Hz / 10 KHz = -145 dBc/Hz |
| Frequency Stability | Internal: ± 1 x 10E-6 over -30°C to +60°C (Higher stability option available) External: Same as reference |
| Transfer Characteristics | |
| Type / Frequency Sense | Single Conversion / Non-inversion |
| Conversion Loss | 20 ± 3 dB |
| Gain Flatness @ Maximum Gain | Over RF Output Band: ±1.25 dB, max. Any 40 MHz = ± 0.35 dB / Any 90 MHz: ±0.50 dB max. |
| Gain Adjustment | 30 dB in 1 dB step |
| Intermodulation Products | -50 dBc with two input carriers @ -15 dBm total |
| Gain versus Temperature | At Constant Temperature: ± 0.50 dB/day max. Over Operating Temperature: ± 2.0 dB max. |
| Spurious (In-Band): | Signal Independent: -30 dBm max. Signal Dependent: -40 dBc max. @ Pin = -15 dBm |
| SSB Phase Noise | 10 Hz = -36 dBc/Hz / 100 Hz = -68 dBc/Hz 1 KHz = -95 dBc/Hz / 10 KHz = -100 dBc/Hz 100 KHz = -105 dBc/Hz / 1 MHz = -120 dBc/Hz |
| Power Requirements | |
| Voltage | 90-260 VAC, Single Phase |
| Frequency | 47-63 Hz |
| Power Consumption | 25 W Typical |
| Physical Requirements | |
| Weight | 15 lbs max. |
| RF In | SMA-Female for Fin <20 GHz / 2.92mm - Female for Fin > 20 GHz |
| IF Out | SMA-Female for Fo <20 GHz / 2.92mm - Female for Fo > 20 GHz |
| External Reference Input (Option) | SMA Female |
| AC Input | PT07C12-3P (027) |
| M & C Control | PT02E-12-10P (025) |
| Environmental | |
| Temperature | Operating: 0°C to +50°C (Indoor), -30°C to +60°C (Outdoor) Non-operating: -40°C to +80°C |
| Altitude | Up to 10,000 feet |
| Humidity | Up to 90% Non-Condensing |
| Vibration | Normal Commercial Handling |

Note - Specifications may change without notice, please consult the factory for your specific needs.

