

# 7708LT

## L-Band/Wideband RF Fiber Transmitter Series

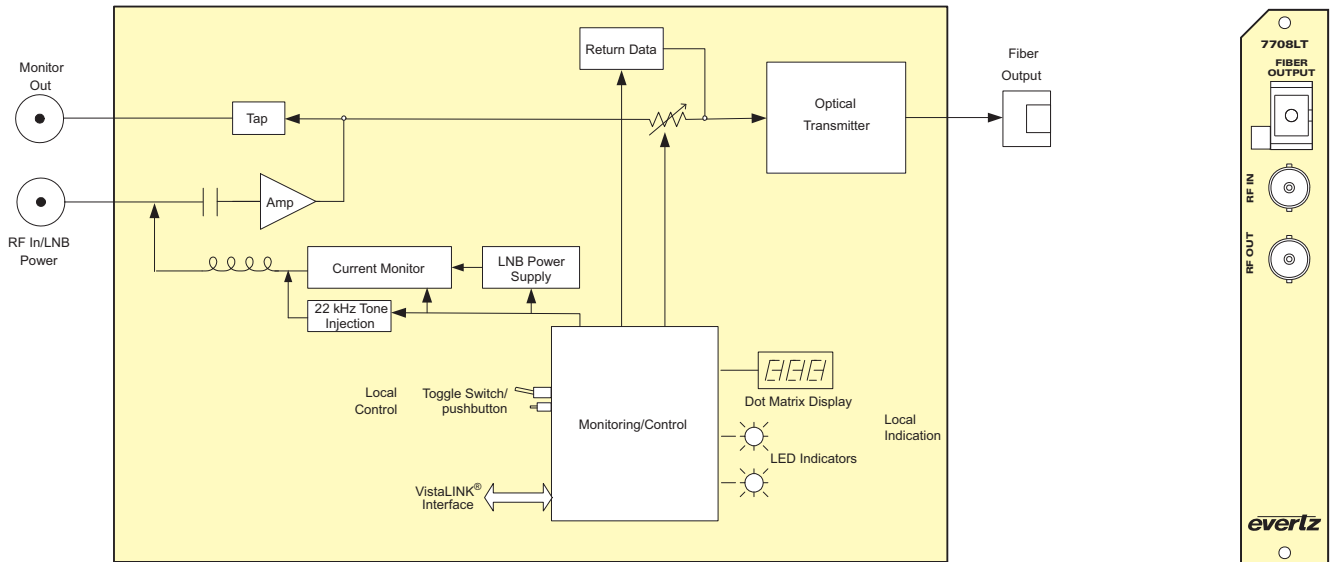


The 7708LT is a fiber optic transmitter for RF signals in the extended L-Band or wider frequency range. It accepts a single RF input on coaxial cable and provides a single output for optical transmission. An RF monitor output provides a convenient means of obtaining peak satellite signal strength, or additional signal distribution.

Gain may be adjusted manually or managed automatically via AGC. With SmartMON™, incoming RF signal strength, LNB current and other data are relayed over the fiber output for monitoring through SNMP/VistaLINK® (requires SmartMON™ capable companion fiber receiver) 13/18V DC adjustable LNB power with 22kHz tone is also provided.

### Features & Benefits

- Extended frequency response for extended L-Band, off-air DTV, and other signals
- Protocol independent design — transports all modulation formats
- LNB power with selectable 13/18V DC
- LNB current limit and short circuit protection
- LNB current monitoring for advance warning of LNB failure
- 22kHz tone on/off for LNB local oscillator control
- RF monitor output for signal peaking and signal distribution
- Manual gain and AGC modes
- Wide range adjustable gain in 0.5dB steps for fine tuning signal levels and optimizing CNR
- Available with 1310nm, CWDM (ITU-T G.694.2) and +11dBm high power DWDM (ITU-T G.694.1) laser options
- SmartMON™ capability provides remote status monitoring via SNMP without a separate data connection
- VistaLINK® capability is available for monitoring and control when modules are used in a 3RU 350FR, 7800FR frame and a 7700FC VistaLINK® frame controller is installed in Slot 1 of the frame
- Fiber link provides electrical isolation between antenna and facility, mitigating ground loop and lightning issues
- The 7708LT occupies one card slot and can be housed in a 1RU frame that will hold up to 3x modules, a 3RU frame that will hold up to 15x modules, a 350FR which will hold up to 7x modules or a standalone enclosure, which holds one module



### Specifications

<p><b>RF Input:</b> Number of Inputs: 1 Connector: BNC per IEC 61169-8 Annex A (F-Type and SMA Optional) Input Impedance: 75Ω (50Ω Optional) Frequency Range: 88-3000MHz Return Loss: 120MHz-2.3GHz: &gt; 14dB 2.3-3GHz: &gt; 12dB Input Power Range: -10dBm to -60dBm Gain Range: 0 to +30dBm in 0.5dB steps IMD: &lt; -55dBc at -15dBm input and 0dB gain Input IP3: +10dBm LNB Power: Voltage: 13V DC, 18V DC, off (selectable) Current: 400mA Protection: Short Circuit, current limited LO Control: 22kHz on/off (selectable)</p> <p><b>RF Monitor Output:</b> Number of Outputs: 1 Connector: BNC per IEC 61169-8 Annex A (F-Type and SMA Optional) Output Impedance: 75Ω (50Ω Optional) Return Loss: &gt; 15dB</p>	<p>Frequency Range: 88-3000MHz Output Level: Within -2.0dB of input signal</p> <p><b>Optical Output:</b> Number of Outputs: 1 Connector: Female SC/UPC, ST/UPC, FC/UPC, SC/APC, FC/APC</p> <p>Operating Wavelength: Standard: 1310nm DFB CWDM: 1270-1610nm DWDM: C-Band (ITU G.694.1 compliant)</p> <p>Output Power: Standard 1310nm: +2dBm CWDM: +2dBm DWDM: +11dBm</p> <p><b>RF System Performance 7708LT+7708LRA pair:</b> Frequency Response: 950-2150MHz: ± 1.5dB 120MHz-3GHz: ± 2dB ±0.25dB on 36MHz BW to 2.3GHz</p> <p><b>RF System Performance 7708LT+7708LR-H pair:</b> Frequency Response: 950-2150MHz: ± 1.5dB 120MHz-2.3GHz: ± 2dB ±0.25dB on 36MHz BW</p>	<p><b>10MHz Performance 7708T13-10MHz+7708R-10MHz pair:</b> Manual Gain Range: -5 to +10dB Input Power Range: +10 to -40dBm OIP3: +29dB Harmonic Rejection: +60dB</p> <p><b>Electrical:</b> Voltage: +12V DC Power: 6W max excluding LNB Power</p> <p><b>Physical (number of slots):</b> 350FR: 1 7700FR-C: 1 7800FR: 1</p> <p><b>Compliance:</b> Laser safety: Class 1 laser product Complies with 24 CFR 1040.10 and 1040.11, IEC 60825-1 EMI/RFI: Complies with FCC Part 15, Class A EU EMC directive</p>
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The Complete Solution Provider



### Ordering Information

<b>7708LT13</b>	Wideband RF fiber transmitter, 1310nm DFB laser, SmartMON™, VistaLINK®
<b>7708LTxx</b>	Wideband RF fiber transmitter, CWDM DFB laser, SmartMON™, VistaLINK®
<b>7708LTDxxx</b>	Wideband RF fiber transmitter, DWDM DFB laser, BNC connectors, SmartMON™, VistaLINK®
<b>7708T13-10MHz</b>	10MHz RF fiber transmitter, 1310nm DFB laser
<b>7708Txx-10MHz</b>	10MHz RF fiber transmitter, CWDM DFB laser

For companion receiver, see the 7708LRA/7708LR-H catalogue page

**Ordering Options:** rear plate and fiber connector must be specified at time of order (eg. model +3RU +SC)

**Rear Plate Suffix:**  
+3RU 3RU rear plate for use with 7800FR or 7801FR multiframe

**Enclosures:**  
7800FR 3RU multiframe, holds up to 15x single-slot modules  
7801FR 1RU multiframe, holds up to 4x single-slot modules

**Connector and Impedance Options:**

Note: standard RF connectors are 75Ω BNC

**RF Connectors:**  
+F75 75Ω F-Type connector  
-B50 50Ω BNC connector  
-S50 50Ω SMA connector

**Fiber Connectors:**  
+SC SC/UPC  
+AP+SC SC/APC (angle polished)  
+FC FC/UPC  
+AP+FC FC/APC (angle polished)

