7708LT
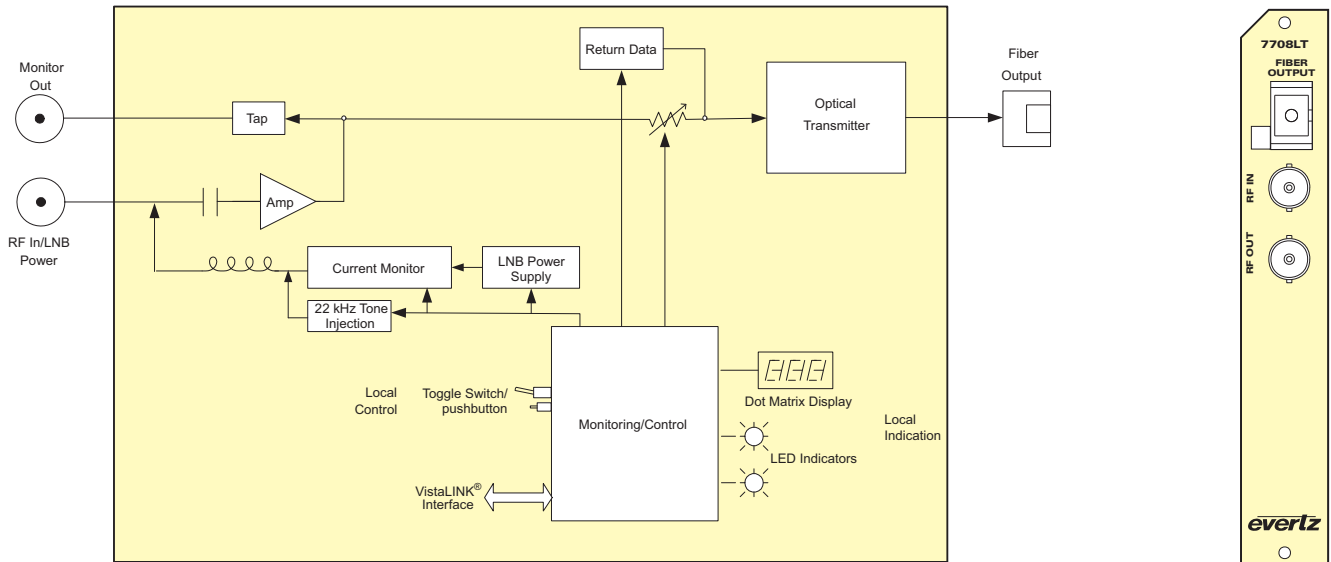## Wideband RF Fiber Transmitter with VistaLINK® Monitoring and SmartMON™

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

RF Input:

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:	> 14dB
2.3–3GHz:	> 12dB
Input Power Range:	–10dBm to –60dBm
Gain Range:	0 to +30dBm in 0.5dB steps
IMD:	< –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)

RF Monitor Output:

Number of Outputs:	1
Connector:	BNC per IEC 61169–8 Annex A (F–Type and SMA Optional)
Output Impedance:	75Ω (50Ω Optional)
Return Loss:	> 15dB
Frequency Range:	88–3000MHz
Output Level:	Within –2.0dB of input signal

Optical Output:

Number of Outputs:	1
Connector:	Female SC/UPC, ST/UPC, FC/UPC, SC/APC, FC/APC
Operating Wavelength:	
Standard:	1310nm DFB
CWDM:	1270–1610nm
DWDM:	C–Band (ITU G.694.1 compliant)
Output Power:	
Standard 1310nm:	+2dBm
CWDM:	+2dBm
DWDM:	+11dBm

RF System Performance 7708LT+7708LRA pair:

Frequency Response:

950–2150MHz:	± 1.5dB
120MHz–3GHz:	± 2dB
±0.25dB on 36MHz BW to 2.3GHz	

RF System Performance 7708LT+7708LR–H pair:

Frequency Response:

950–2150MHz:	± 1.5dB
120MHz–2.3GHz:	± 2dB
±0.25dB on 36MHz BW	

Electrical:

Voltage:	+12V DC
Power:	6W max excluding LNB Power

Physical (number of slots):

350FR:	1
7700FR–C:	1
7800FR:	1

Compliance:

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

▶Ordering Information

7708LT13	Wideband RF Fiber Transmitter, 1310nm DFB laser, SmartMON™, VistaLINK®
7708LT13−B50	Wideband RF Fiber Transmitter, 1310nm DFB laser, 50Ω BNC Connectors, SmartMON™, VistaLINK®
7708LT13−S50	Wideband RF Fiber Transmitter, 1310nm DFB laser, 50Ω SMA Connectors, SmartMON™, VistaLINK®

For CWDM, please refer to the end of the fiber section for ordering information

7708LTxx	Wideband RF Fiber Transmitter, CWDM DFB laser, SmartMON™, VistaLINK®
7708LTxxB50	Wideband RF Fiber Transmitter CWDM DFB laser, 50Ω BNC Connectors, SmartMON™, VistaLINK®
7708LTxxS50	Wideband RF Fiber Transmitter CWDM DFB laser, 50Ω SMA Connectors, SmartMON™, VistaLINK®

For DWDM, please refer to the end of the fiber section for ordering information

7708LTDxxx	Wideband RF Fiber Transmitter, DWDM DFB laser, BNC Connectors, SmartMON™, VistaLINK®
7708LTDxxx−B50	Wideband RF Fiber Transmitter, DWDM DFB laser, 50Ω BNC Connectors, SmartMON™, VistaLINK®
7708LTDxxx−S50	Wideband RF Fiber Transmitter, DWDM DFB laser, 50Ω SMA Connectors, SmartMON™, VistaLINK®

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

Connector Suffix:

+SC	SC/UPC
+AP+SC	SC/APC (Angle polished)
+ST	ST/UPC
+FC	FC/UPC
+AP+FC	FC/APC (Angle polished)
+F75	75Ω, F−Type rear connector

Rear Plate Suffix:

+3RU	3RU Rear Plate for use with 350FR, 7700FR−C or 7800FR Multiframe
+1RU	1RU Rear Plate for use with 7701FR Multiframe
+SA	Standalone Enclosure Rear Plate

Enclosures:

350FR	3RU Portable Multiframe, holds up to 7x single−slot modules
7700FR−C	3RU Multiframe, holds up to 15x single−slot modules
7800FR	3RU Multiframe, holds up to 15x single−slot modules
7801FR	1RU Multiframe, holds up to 4x single− or 2x dual−slot modules
7701FR	1RU Multiframe, holds up to 3x single− or dual−slot modules
S7701FR	Standalone Enclosure

Note: 75Ω BNC Connectors are standard
For companion receiver see the 7708LRA/7708LR−H catalogue page