

7708LT

L-Band/Wideband RF Fiber Transmitter Series



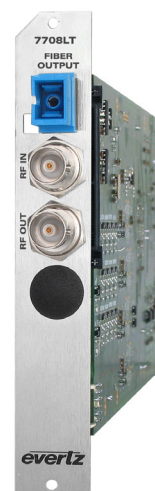
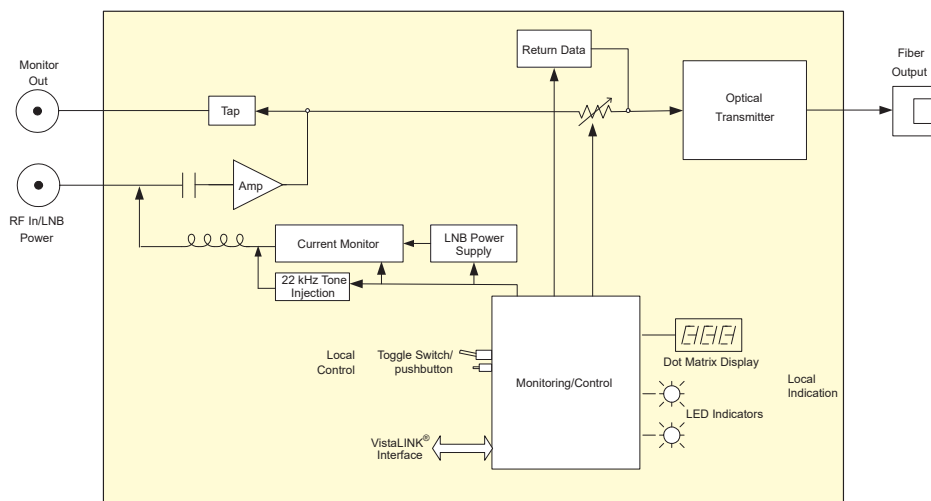
The **7708LT** is a fiber optic transmitter for RF signals in the extended L-Band or wider frequency range. It accepts a single RF input on coaxial cable and provides a single output for optical transmission. An RF monitor output provides a convenient means of obtaining peak satellite signal strength,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

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

VistaLINK® PRO 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. SmartMON™ capability provides remote status monitoring via SNMP without a separate data connection.

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 & 22kHz tone
- LNB current limit and short circuit protection
- LNB current monitoring for advance warning of LNB failure
- 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



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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: 40MHz to 3GHz
Note: 10MHz supported on specific modules. Please contact Evertz for more information on 10MHz transport.
Return Loss:
40MHz-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: 13V DC, 18V DC, off (selectable)
Current: 400mA
Protection: Short circuit, current limited
LO Control: 22kHz on/off (selectable)
GPS Power: 5V DC (on/off)
Voltage: *Note: Available on the -5V (GPS) Version Only*

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: 40MHz to 3GHz
Note: 10MHz supported on specific modules. Please contact Evertz for more information on 10MHz transport.
Output Level: Within -2.0dB of input signal

Optical Output:

Number of Outputs: 1
Connector: Female SC/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

Ordering Information

7708LT13	L-Band fiber transmitter, with SmartMON & SNMP/VistaLINK
7708LT13-5V-S50	RF Fiber transmitter with 5VDC powering for GPS antenna applications. SmartMON, VistaLINK, 1310nm DFB laser, 50 Ohm SMA connectors.
7708LT13-5V-B50	RF Fiber transmitter with 5VDC powering for GPS antenna applications. SmartMON, VistaLINK, 1310nm DFB laser, 50 Ohm BNC connectors.
7708LTxx	RF Fiber transmitter, wideband with SmartMON and VistaLINK, CWDM DFB laser, 75 Ohm (Wavelength 27 to 61)
7708LTDxxx	RF Fiber transmitter, wideband with SmartMON and VistaLINK high power + 10 dBm DWDM DFB laser
7708T13-10MHz	10Mhz RF over Fiber transmitter, 1310nm DFB laser, 75 Ohm BNC connectors.
7708Txx-10MHz	10Mhz RF over Fiber Transmitter, CWDM DFB laser, 75 Ohm BNC connectors.

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)
+3RU	3RU Rearplate

Connector and Impedance Options: (note: standard RF connectors are 75Ω F-Type)

+F75	75 Ohm, F-Type rear connector-B50 50Ω BNC connector
-B50	50 Ohm BNC connector
-S50	50 Ohm SMA connector.
+SC	SC Fiber Connector
+AP+SC	Angle Polish, SC Fiber Connector
+FC	FC Fiber Connector
+AP+FC	Angle Polish, FC Fiber Connector

Enclosure Options:

7800FR	3RU Multiframe Which Holds up to 15 Single Slot Modules with AC Power Supply
7801FR	1RU Multiframe Which Holds up to 4 Single Slot or 2 Dual Slot Modules, Requires Rear Plate Option for Modules

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Specifications (continued)

RF System Performance

7708LT+7708LRA pair:

Frequency Response:

950–2150MHz: $\pm 1.5\text{dB}$
40MHz–3GHz: $\pm 2\text{dB}$, $\pm 0.25\text{dB}$ on
36MHz BW to 2.3GHz

RF System Performance

7708LT+7708LR–H pair:

Frequency Response:

950–2150MHz: $\pm 1.5\text{dB}$
40MHz–2.3GHz: $\pm 2\text{dB}$, $\pm 0.25\text{dB}$ on
36MHz BW

10MHz Performance

7708T13–10MHz+7708R–10MHz pair:

Manual Gain Range: -5 to +10dB
Input Power Range: +10 to -40dBm
OIP3: +29dB
Harmonic Rejection: +60dB

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 Subpart
B/ICES–003
CISPR 32/EN55032,
CISPR 24/EN55024,
EN 55103–2; complies
with EU EMC directive
89/336/EEC.