

7808RFR, 7808RFR-2

L-Band/Wideband RF over Fiber Receiver Series



The 7808RFR is a high-performance RF over fiber receiver platform available in single-channel (7808RFR) and dual-channel (7808RFR-2) configurations. This modular and hot-swappable card is designed for integration inside the 7800FR, 7801FR, 5710FR, and 350FR enclosures. It seamlessly integrates with Evertz' 7800 series RF products, such as RF splitters/combiners, RF routers, spectrum analyzers, IRDs, and demodulators.

The 7808RFR accepts a single fiber optic input and provides a single RF output, while the 7808RFR-2 accommodates two fiber optic inputs and supplies two RF outputs. Both configurations feature an RF monitoring port for each RF output, facilitating rapid monitoring or signal distribution to downstream devices. For long-haul transport applications or instances with excessive optical loss, a high-sensitivity version (-H) offers an extended optical budget. The dual-channel receiver is available with the option (-W) for an on-board fiber de-multiplexer (WDM), requiring only a single fiber between the companion transmitter (7808RFT13/15-2-W).

Gain control, essential for tuning optimal CNR performance, can be conveniently managed either locally or remotely using manual mode or the Automatic Gain Control (AGC) mode. Additionally, the system provides detailed monitoring of various parameters such as optical input power, RF output power, temperature, and more, with individualized information available for each RF input. This comprehensive monitoring capability enhances the user's ability to maintain and optimize performance, ensuring efficient and reliable operation.

The modules provide a seamless and user-friendly experience for remote monitoring and control via the WebGUI interface and/or SNMP/VistaLINK® PRO. With the integration of Evertz' innovative SmartMON™ technology, operators can efficiently monitor compatible Evertz transmitters from a distance without the need for a separate data connection. Vital information, including RF input power, gain settings, LNB current, DC input power, internal temperature, and laser status, is transmitted over fiber to the 7808RFR receiver, enabling easy access through SNMP or WebGUI. This advanced system ensures comprehensive oversight and control, enhancing operational efficiency and facilitating streamlined management of Evertz transmitters.

Features & Benefits

- Wide frequency range for extended L-Band, IF, UHF/VHF, off-air DTV and more
- Dual-Channel: Up to 28x conversions in 3RU or 8x conversions in 1RU
- Single-Channel: Up to 14x conversions in 3RU or 4x conversions in 1RU
- Protocol-independent design for support of all modulation formats
- Wide range optical inputs (1270–1610nm)
- Single-mode and multi-mode fiber support

AV SOLUTIONS

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ENCODING, TRANSMUXING & MULTIPLEXING

FACILITY LINK & FIBER TRANSPORT

INFRASTRUCTURE & CONVERSION

IP SOLUTIONS

LIVE MEDIA PRODUCTION

MEDIA ASSET MANAGEMENT & PLAYOUT

MULTIVIEWERS

RF SOLUTIONS

ROUTERS

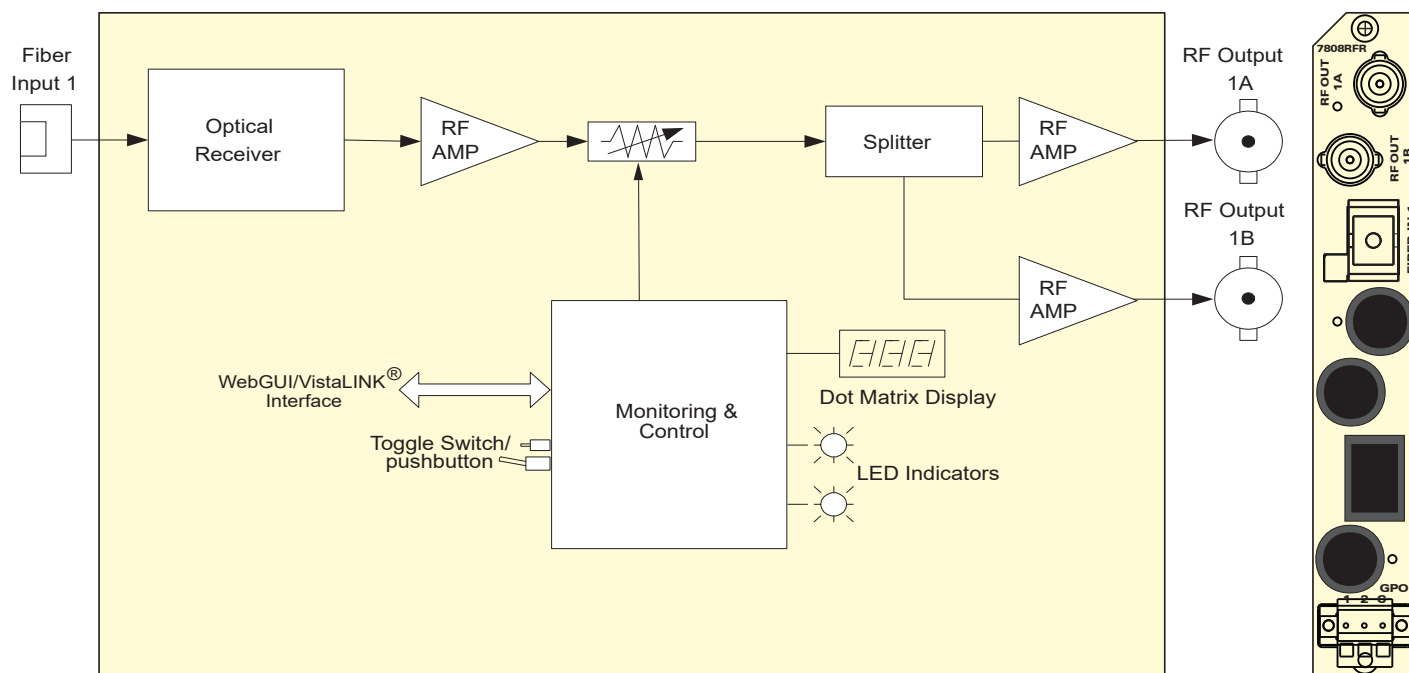
WAN TRANSPORT

7808RFR, 7808RFR-2

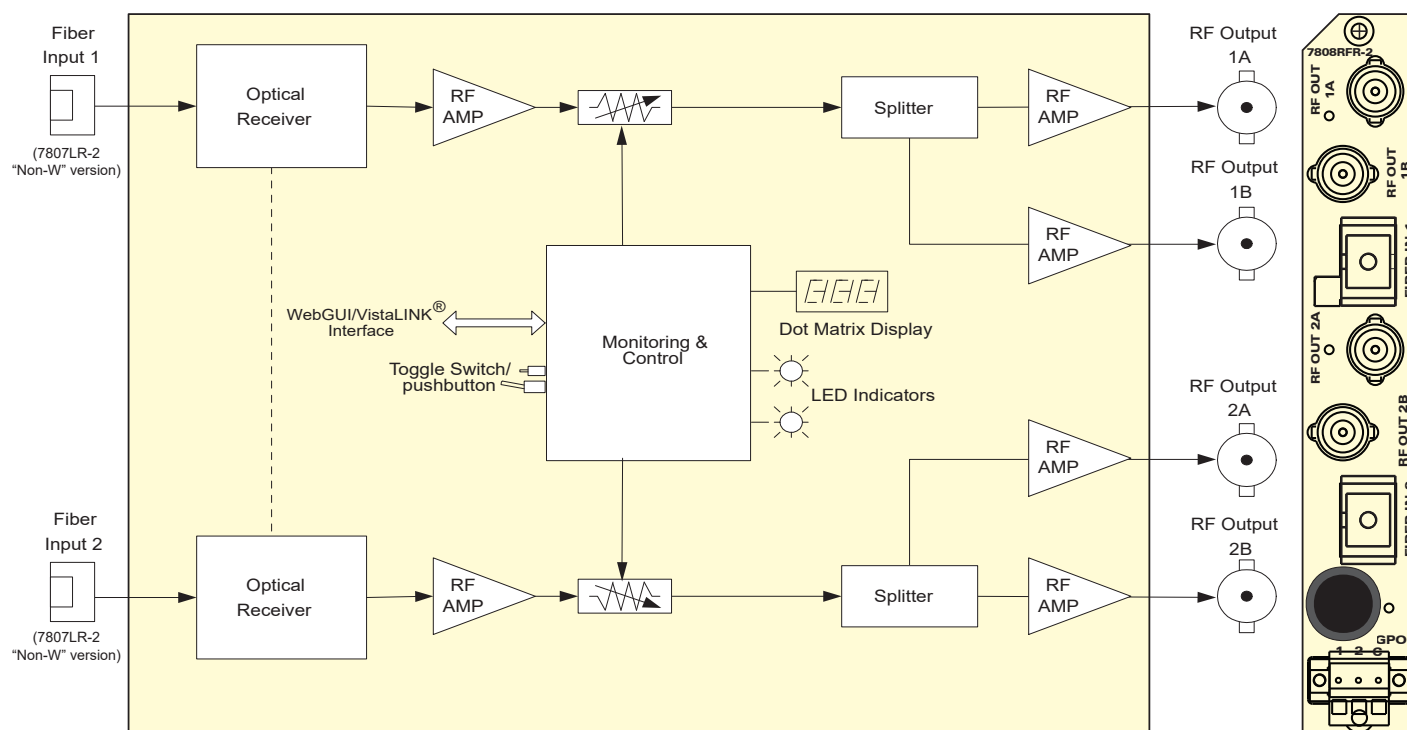
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Single Channel Receiver (7808RFR):



Dual Channel Receiver (7808RFR-2):

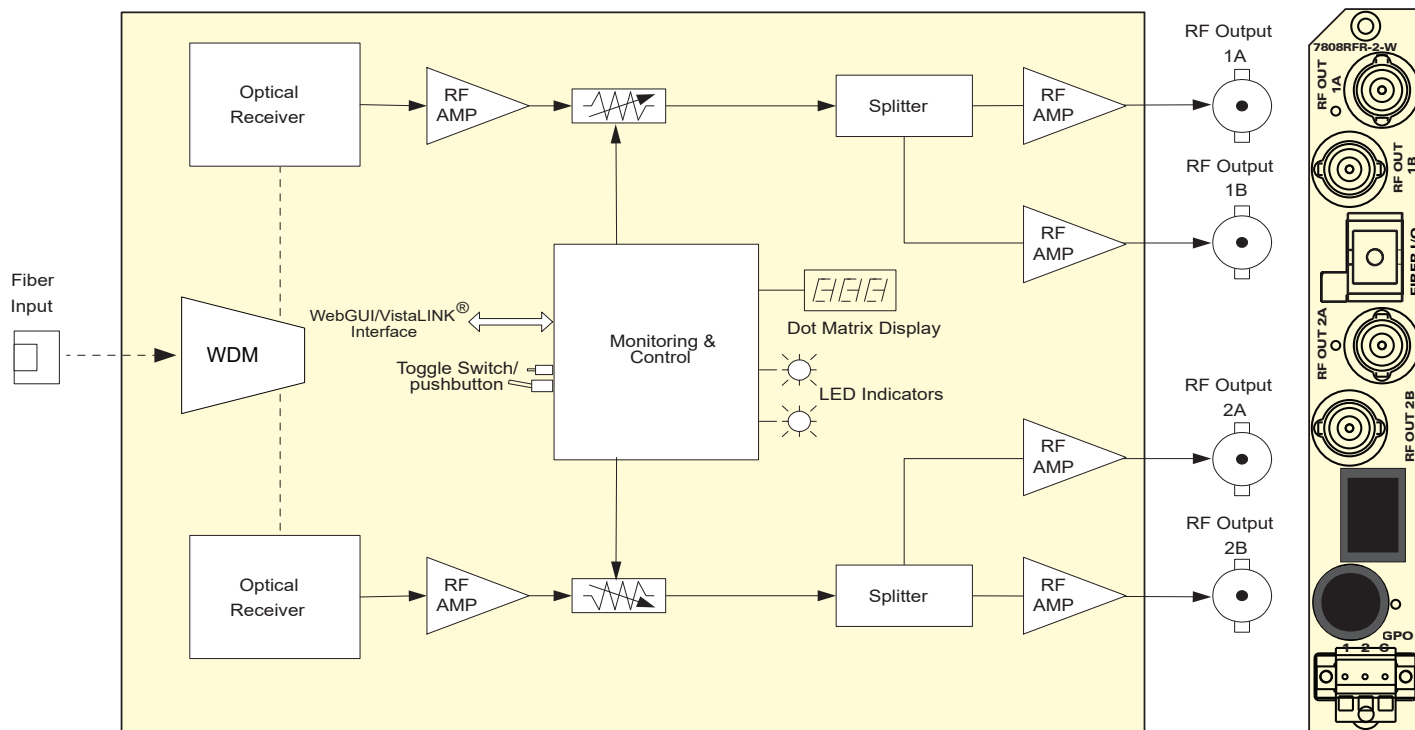


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Dual Channel Receiver with De-multiplexer (7808RFR-2-W):



Specifications

RF Outputs:

Number of Outputs:

7808RFR/7808RFR-H:

2

7808RFR-2/7808RFR-2-H:

4

7808RFR-2-W:

4

Connectors: BNC, F-Type or SMA

Output Impedance: 75Ω or 50Ω

Return Loss: > 15dB

Frequency Range:

7808RFR/7808RFR-2:

50MHz-3GHz

7808RFR-H/7808RFR-2-H:

50MHz-2.3GHz

Frequency Response:

850-2250MHz: ±1.5dB

50-3000MHz: ±2dB

Note: Please contact Evertz for more information on 10MHz transport.

Output IP3: +16dBm

AGC Gain Range: -10dB to +20dB

Output Signal Level:

Manual Gain: -10dB to +20dB

in 0.5dB steps

AGC Mode Range: 0dBm to -30dBm

RF Monitor Output:

Number of Outputs:

7808RFR:

1

7808RFR-2:

2

Connector:

BNC per IEC
61169-8 Annex A
(F-Type optional)

Ordering Information

Single Channel Receivers:

7808RFR

Single channel wideband RF fiber receiver with SmartMON, VistaLINK® and WebGUI support.

7808RFR-F75

Single channel wideband RF fiber receiver with SmartMON, VistaLINK® and WebGUI support.

75 Ohm F-Type connectors.

7808RFR-B50

Single channel wideband RF fiber receiver with SmartMON, VistaLINK® and WebGUI support.

50 Ohm BNC connectors.

7808RFR-S50

Single channel wideband RF fiber receiver with SmartMON, VistaLINK® and WebGUI support.

50-Ohm SMA RF connectors.

Dual Channel Receivers:

7808RFR-2

Dual channel wideband RF fiber receiver with SmartMON, VistaLINK® and WebGUI support.

75 Ohm BNC connectors.

7808RFR-2-F75

Dual channel wideband RF fiber receiver with SmartMON, VistaLINK® and WebGUI support.

75 Ohm F-Type connectors.

7808RFR-2-B50

Dual channel wideband RF fiber receiver with SmartMON, VistaLINK® and WebGUI support.

50 Ohm BNC connectors.

7808RFR-2-S50

Dual channel wideband RF fiber receiver with SmartMON, VistaLINK® and WebGUI support.

50 Ohm SMA connectors.

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Specifications (continued)

Output Impedance: 75Ω (50Ω optional)
Return Loss: >15dB
Frequency Range: 50MHz–3GHz
Output Level: within -2.0dB of input signal

Optical Input:

Number of Inputs:

7808RFR/7808RFR-H:

1

7808RFR-2/7808RFR-2-H:

2

7808RFR-2-W:

1

Connector: Female SC/UPC,
FC/UPC, SC/APC,
FC/APC

Operating Wavelength: 1270–1610nm

Maximum Input Power:

7808RFR/7808RFR-2:

3dBm

7808RFR-H/7808RFR-2-H:

-7dBm

7808RFR-2-W:

-6dBm

Optical Sensitivity:

7808RFR/7808RFR-2:

-14dBm @ 35dB S/N
on a 36MHz carrier

7808RFR-H/7808RFR-2-H:

-20dBm @ 35dB S/N
on a 36MHz carrier

7808RFR-2-W:

-13dBm @ 35dB S/N
on a 36MHz carrier

Electrical

Voltage: 12V DC

Power: 10W

Physical:

Number of Slots: 1

Compliance:

EMI/RFI: Complies with FCC
Part 15, Class A
EU EMC directive

Safety: IEC 62368-1, 60950-1

Ordering Information (continued)

Ordering Options:

+SC	SC fiber connector
+AP+SC	Angle Polish, SC fiber connector
+FC	FC fiber connector
+AP+FC	Angle polish, FC fiber connector

Enclosures:

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
570FR	Compact High Density Distribution Frame, includes main power supply
350FR	3RU Portable Multiframe Which Holds Up to 7 Single Slot Modules with AC Power Supply