



CF-QRRX Quad Analog Return Path Receiver Modules:

Applications:

- ▶ Node segmentation
- ▶ Distribution networks
- ▶ RFoG applications
- ▶ FTTx networks

Features:

- ▶ Very low noise
- ▶ Eight modules (32 receivers) in a single 2RU ChromaFlex chassis
- ▶ Standard, high sensitivity & integrated DMux configurations
- ▶ Optional express port(s)
- ▶ Remote monitoring via SNMP v2c, Web GUI, Telnet or local CLI interface

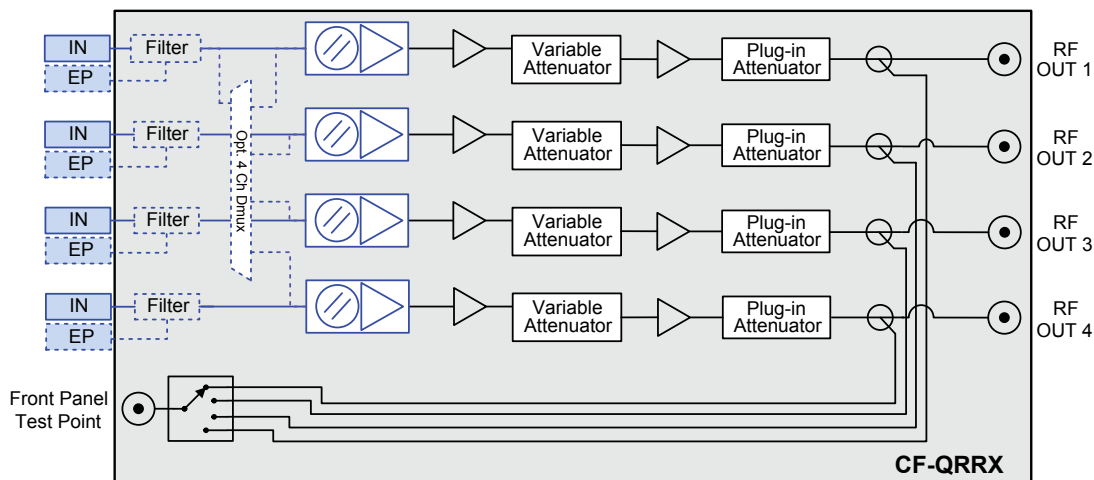
The CF-QRRX quad return path receiver is a high density, single-slot module for the ChromaFlex chassis supporting up to 32 analog return path receivers in only 2RU. Each receiver module incorporates four individual receivers with high gain & a wide RF output level range, providing up to a constant 50 dBmV RF output level over a wide optical input range.

The CF-QRRX is available in a standard sensitivity version ideal for applications with optical levels greater than -15 dBm & needing an expanded operating bandwidth to 204 MHz. A high sensitivity, very low noise version ideal for RFoG applications, utilizing very low optical input levels is also available. Integrated DMux and/or express ports to bypass PON wavelengths are also optional.

In situations where receiver output is far higher than necessary, such that variable RF attenuator is maxed out, use plug-in attenuators on initial set-up. Accessible at rear of module - must remove module from chassis. Unit ships with 9 dB attenuator installed.



Functional Schematic



CF-QRRX Quad Analog Return Path Receiver Modules:

CF-QRRX Quad Analog Receiver Specifications

SPECIFICATIONS	CF-QRRX-S	CF-QRRX-H
APPLICATION	Standard Sensitivity	High Sensitivity (RFoG)
OPTICAL PARAMETER		
INPUT POWER RANGE	0 to -20 dBm	-10 to -28 dBm
WAVELENGTH	1270-1620nm	
RESPONSIVITY	0.85A/W @ 1310nm / 0.95A/W @ 1550nm	
EQUIVALENT INPUT NOISE (Typ)	< 4 pA/√Hz	< 2 pA/√Hz
OPTICAL RETURN LOSS	> 50 dB	
OPTICAL INTERFACES	LC/APC	
RF PARAMETER		
RF PASSBAND	5-204 MHz	5-85 MHz
RF OUTPUT LEVEL ⁽¹⁾	30 dBmV	
MAXIMUM RF OUTPUT LEVEL	50 dBmV (Composite)	
RF ATTENUATION RANGE	0-30 dB in 0.5 dB Steps	
OPTICAL AGC RANGE ⁽²⁾	+3 to -12 dBm	-10 to -25 dBm
RF ISOLATION ⁽³⁾	> 50 dB (5-204 MHz)	> 50 dB (5-85 MHz)
RETURN LOSS	> 16 dB	> 16 dB
FREQUENCY RESPONSE	± 1 dB	± 1 dB
RF TEST POINT (Front Panel)	-20 dB	
MANAGEMENT	SNMP v2c, CLI, Web GUI, Telnet	
ELECTRICAL		
POWER CONSUMPTION	12W	14W
PHYSICAL		
DIMENSIONS	1.7"H x 3.7"W x 14.4"D (4.3H x 9.4W x 37.0D cm)	
WEIGHT	1.3 lbs (0.6 kg)	
ENVIRONMENTAL		
OPERATING TEMPERATURE	-20°C to +65°C (-4°F to +149°F)	
STORAGE TEMPERATURE	-40°C to +85°C (-40°F to +185°F)	
HUMIDITY	5-85% Non-condensing	
NOTES: (1) Standard receiver at -12 dBm optical input, 10% OMI on transmitter. High sensitivity receiver at -20 dBm optical input, 30% OMI on transmitter. 9 dB output plug-in pad. (2) Automatic RF attenuation change based on received optical levels (2:1 RF:Opt). (3) Measured with same optical input level on all four receivers.		

Ordering Information

ChromaFlex Quad Receiver CF-QRRX Receiver		
CF-QRRX -		
Base Model	Receiver Type & Internal DMux	Ports: Number/Reflector Port Type & Express Ports
	Receiver Type S = Standard H = High Sensitivity Internal DMux 0 = None D = 29, 31, 34, 38	Number of Express Ports 0 = None 1 = One Express Port
Accessories		
Part Number	Description	
F-75**-AATT	Plug-in RF Attenuator, ** = dB Value (00-20) (QRRX ships with 9 dB, F-7509-AATT installed)	

Specifications subject to change without notice.

