



ACION 8000 Series A8KQRR/DRR – Quad/Dual Return Receiver

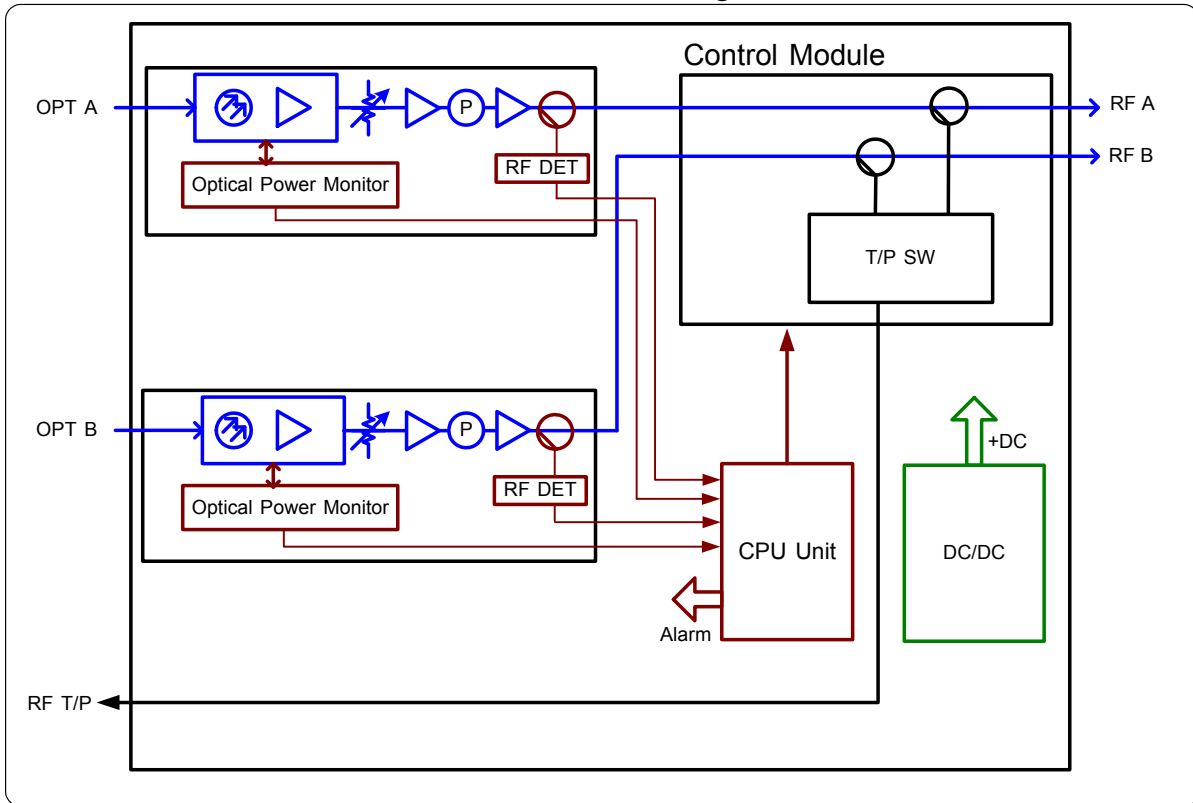


A8KQRR and A8KDRR – Quad/Dual Return Receiver is an integral part of return path system applications. 3RU in height and up to 12 modules can reside in the 19-inch high-density chassis (A8KMF3).

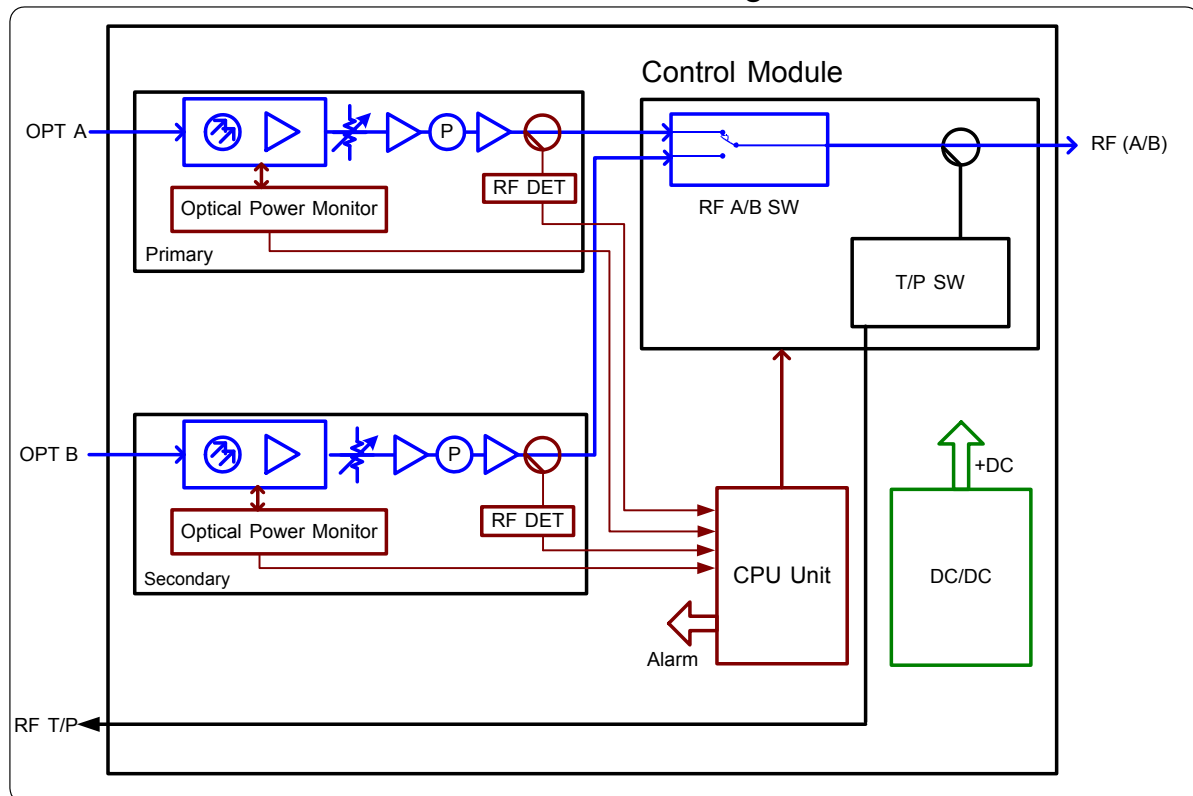
Features

- 4 Return optical inputs and 4 Return RF outputs (A8KQRR)
- 2 Return optical inputs and 2 Return RF outputs (A8KDRR)
- Maximum of 48 returns for Quad receiver modules or 24 returns for Dual receiver modules per chassis
- High output RF level (42 dBmV min)
- Wide optical input range (-15 to +2 dBm)
- Front optical inputs and rear RF outputs
- Optical wavelength: 1200 to 1600 nm
- Hot-swappable
- Remote monitor and control function by HMS or SNMP
- Stand alone receivers with no redundancy or with A/B switch for redundant receivers (optional)

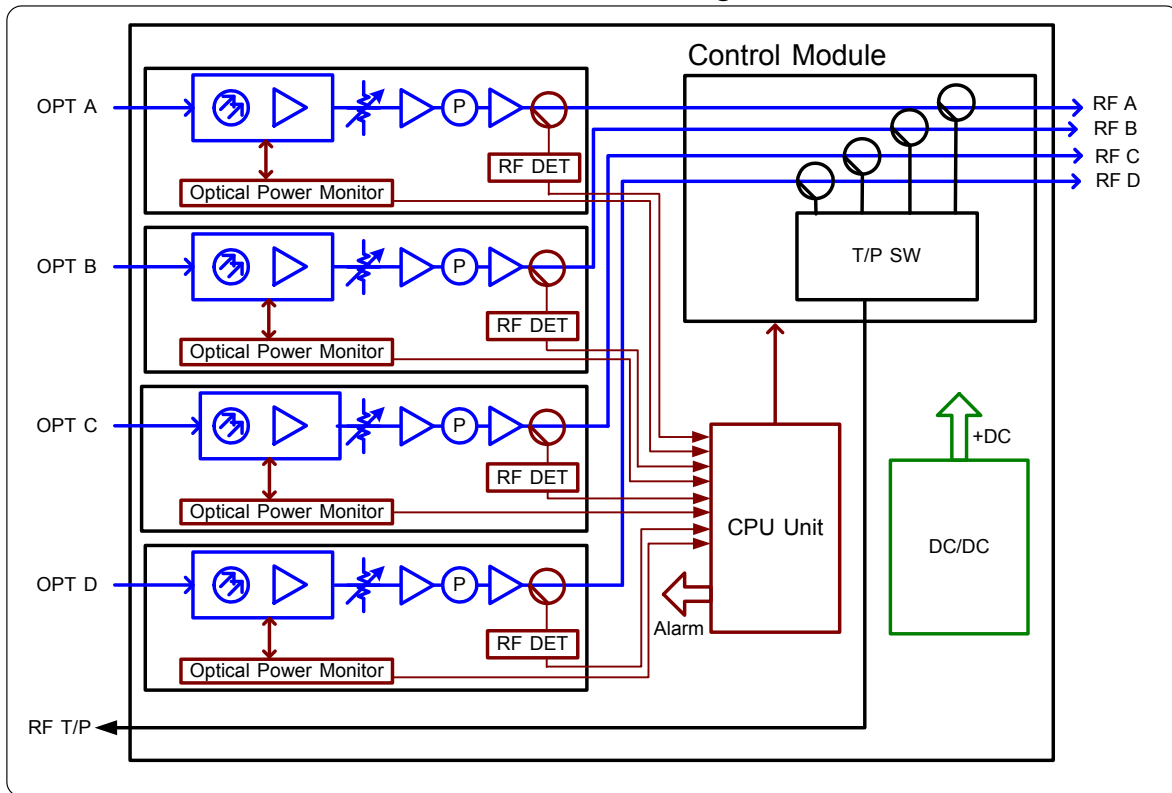
A8KDRR – Block Diagram



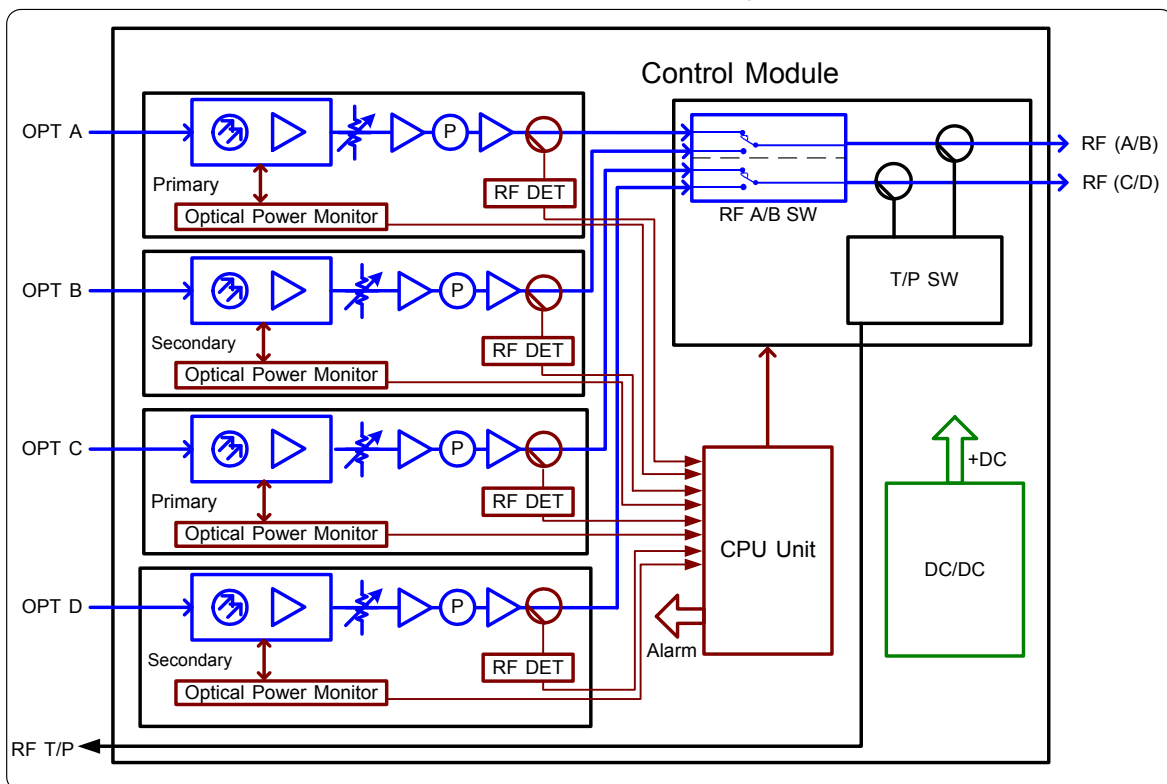
A8KDRR-AB – Block Diagram



A8KQRR – Block Diagram



A8KQRR-AB – Block Diagram



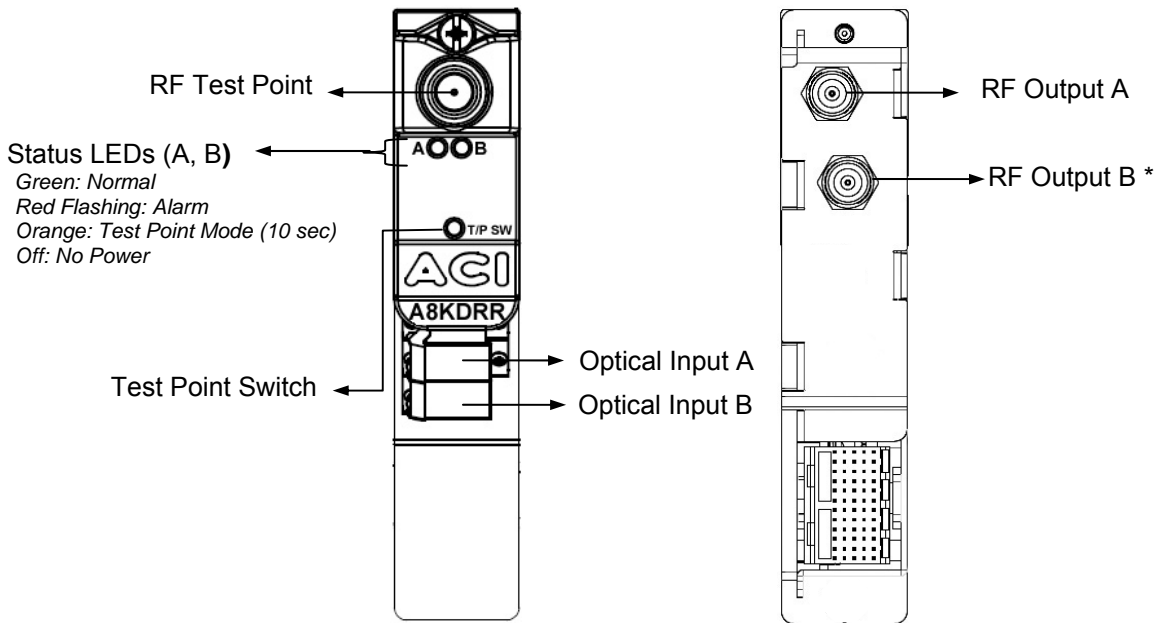
Specifications

ACI Communications, Inc.		ACION 8000 Series A8KQRR/A8KDRR Quad/Dual Return Receiver		
PARAMETERS	CONDITIONS	UNITS	SPECIFICATION	NOTES
Optical Specification				
Optical receive power		dBm	+2 ~ -15	
Wavelength		nm	1200 to 1600	
Number of receiver module			4 for QRR 2 for DRR	
A/B switching threshold		dBm	-15	QRR-AB only
RF Specifications				
Impedance		Ω	75	
Return loss	Min.	dB	-16 @ 5 - 200 MHz	
Output level	Min.	dBmV	42	Note 1
RF gain adjustment	AGC Mode Tolerance	dB	2 @ 0 ~ -10 dBm	QRR only
	RGC Mode Range			
Operating bandwidth		MHz	5 to 200	
Flatness	Peak to Valley	dB	± 0.5	
Slope		dB	+0.75 to -0.5	
Test point	Directional coupler	dB	-20 ± 0.5	
RF gain	A8KQRR/DRR	dB	54	Note 2
Redundancy switch time	Max.	ms	50	
Receiver to receiver isolation	5 to 200 MHz	dB	< -70	
Distortion				
Equivalent noise input	Max.	Pa/Hz ^{0.5}	7	
Second order distortion	Max.	dBc	-58	
Third order distortion	Max.	dBc	-52	
Environment				
Module width		slot	1	
Power consumption	Max. for A8KQRR	W	17.6	
Operating temperature		°F (°C)	32 to 122 (0 to 50)	
Relative humidity	Non-condensing	°F (°C)	0 to 95	
Optical connector			SC/UPC, SC/APC	
Dimensions	D × H × W	Inch. (mm)	16.1 x 5.0 x 1.0 (410 x 127 x 26)	

Note 1: At maximum gain with -10 dBm optical input and 10% OMI from return transmitter.

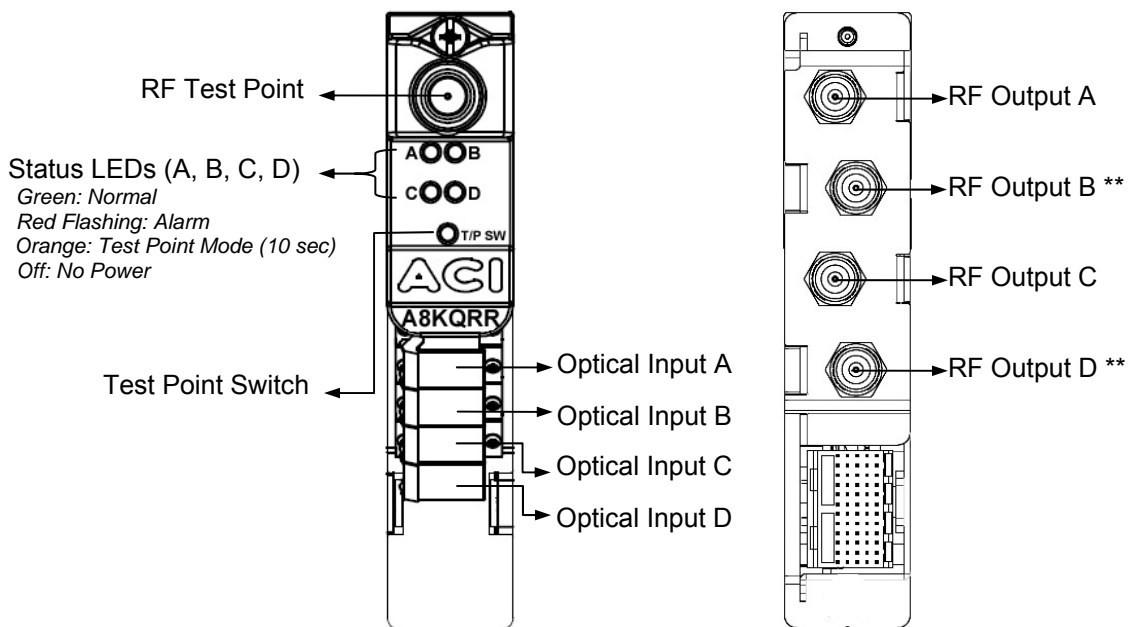
Note 2: Measured from input of first gain stage to output of module with minimum attenuation.

A8KDRR Front/Rear View:



* Note: Receivers with redundancy will not have the RF output B

A8KQRR Front/Rear View:



** Note: Receivers with redundancy will not have the RF output B and D

Ordering Information

Part number	Description
A8KDRR-SC	A8K Dual Receiver SC/APC Connectors
A8KDRR-FC	A8K Dual Receiver FC/APC Connectors
A8KDRR-AB-SC	A8K Dual Receiver SC/APC Connectors w/AB Switch
A8KDRR-AB-FC	A8K Dual Receiver FC/APC Connectors w/AB Switch
A8KQRR-SC	A8K Quad Receiver SC/APC Connectors
A8KQRR-FC	A8K Quad Receiver FC/APC Connectors
A8KQRR-AB-SC	A8K Quad Receiver SC/APC Connectors w/AB Switch
A8KQRR-AB-FC	A8K Quad Receiver FC/APC Connectors w/AB Switch

