ACION 8000 Series

A8KFR3 QAM
CWDM QAM Forward
Optical Receiver

ACI Communications, Inc.®

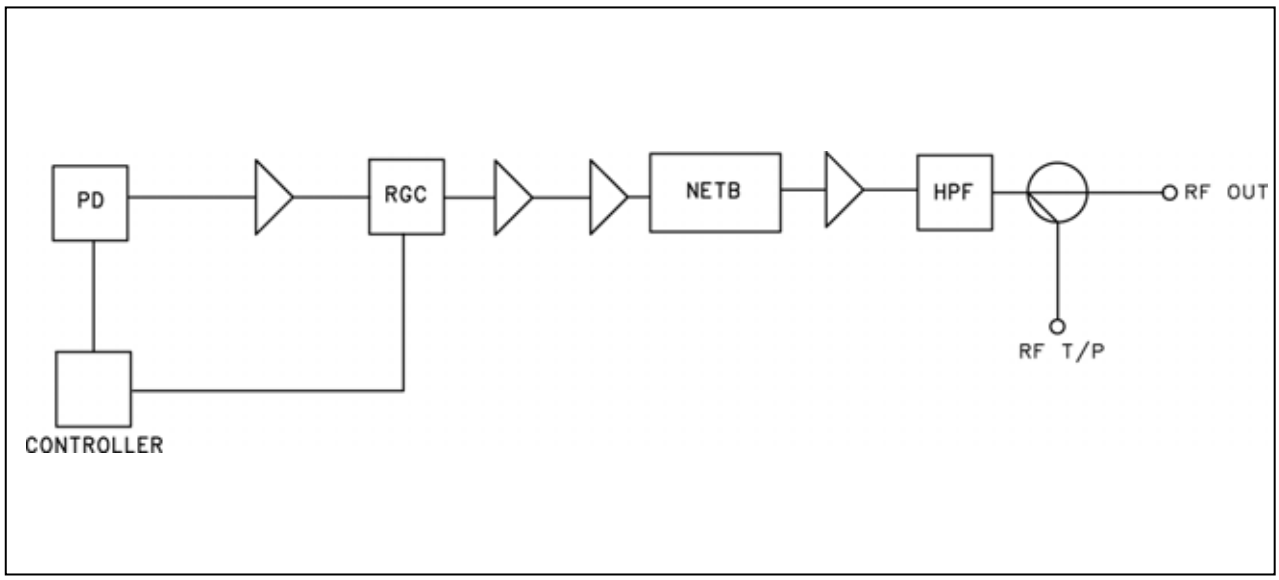
Overview

The A8KFR3 QAM is an advanced CWDM Forward Optical Receiver designed for HFC network, with high reliability, scalability, low input optical power and cost-effectiveness. The A8KFR3 QAM has wide range of operation wavelength from 1260 to 1620nm. In multi wavelength CWDM application, the capacity of the HFC network can be increased substantially without installing new optical fiber. The module is hot-swappable with integrated management through A8KPCM and remote management by HMS SNMP.

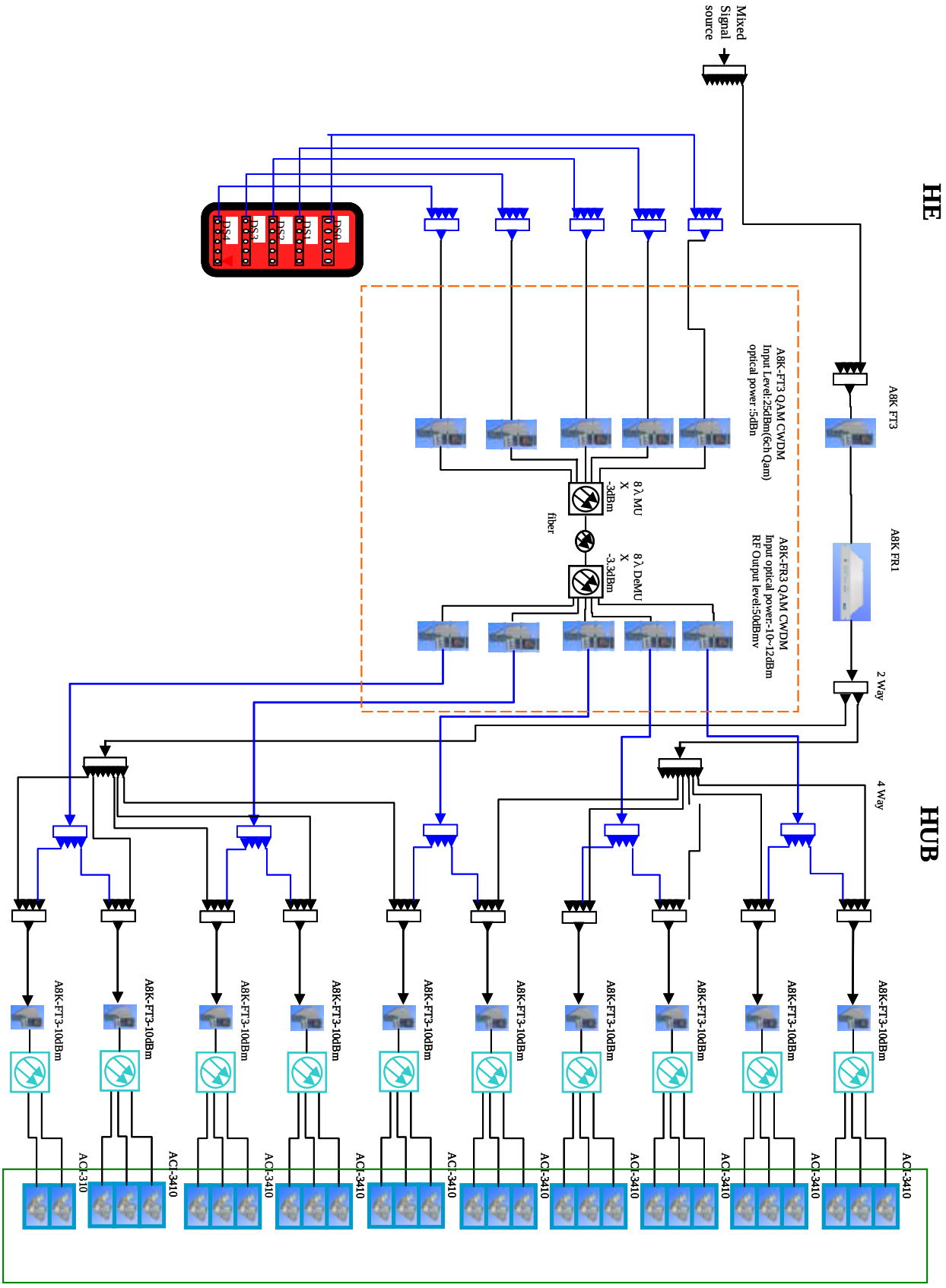
Features

- Bandwidth 55MHz~870MHz.
- Input Wavelength CWDM 1260~1620nm.
- Hot-swappable.
- Remote monitor and control function by HMS SNMP.
- RF test point on front panel.
- Optical Connector: SC/APC with shutter(standard), FC/APC or E2000/APC (optional).

Block Diagram



Application



Specifications

ACI Communications, Inc.	ACION8000 Series A8KFR3QAM CWDM QAM Forward Optical Receiver			
PARAMETERS	CONDITIONS	UNITS	SPECIFICATION	NOTES
Optical Specification				
Optical Wavelength		nm	1260 ~ 1620	
Connector Type			SC/APC(standard), FC/APC, E2000/APC (optional)	
Input Optical Power		dBm	-10 ~ -14	
RF Parameters				
Operating Bandwidth		MHz	55 ~ 870	
RF Input Return Loss		dB	17	
RF output Level	Min	dBmV/ch	45@-12dBm	★1
RGC Gain Control		dB	0 ~ -20 (±1)	Step 1 dB
Flatness (Peak-to-Valley)	55 to 870MHz	dB	± 0.75	
Slope		dB	0 ± 1	
Test Point		dB	-20 ± 0.5	
Distortion Performance				
MER	6 ch QAM	dB	≧37, 64QAM ≧37, 256QAM	tested with FT3 QAM ★2★3
BER	6 ch QAM	dB	< 1.0E -9, 64QAM < 1.0E -8, 256QAM	tested with FT3 QAM ★2★4
Electrical/Environmental/Mechanical				
RF Connector Type	Rear Panel		F type female	
Module Width		slot	1	
Dimensions	D×H×W	in. (mm)	16.1 x 5.0 x 1.0 (410.0 x 127.0 x 25.9)	
Operating Temperature		°F (°C)	32 to 122 (0 to 50)	
Storage Temperature		°F (°C)	-40 to 149 (-40 to 65)	
Storage Relative Humidity	Non-condensing	%	0 to 90	
Power Consumption	Max.	W	14.8	

★1: Forward Transmitter OMI= 12% at Optical Input Level -12 dBm.

★2: The optical fiber length is 20 Km. The RF output level of A8KFR3 should be 45 dBmV/ch at -12 dBm optical input.

★3: The MER of QAM signal source should be 40 dB (equalized) at least.

★4: The BER of signal source should be 1.0E -9 at least for 64 and 256QAM.

Ordering Matrix

A8KFR3 QAM Configuration Sheet

Customer: _____

Created By: _____

ORDERING MATRIX 2009/5/4

Position			1	2
PART NUMBER	A8KFR3 QAM	—		

1-2. Connector

S	C	= SC / APC (standard)
F	C	= FC / APC
E	C	= E2000 / APC

NOTES:

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