



ACI Communications, Inc. 

ACION 8000 Series

A8KFT3 QAM
CWDM QAM Forward
Optical Transmitter

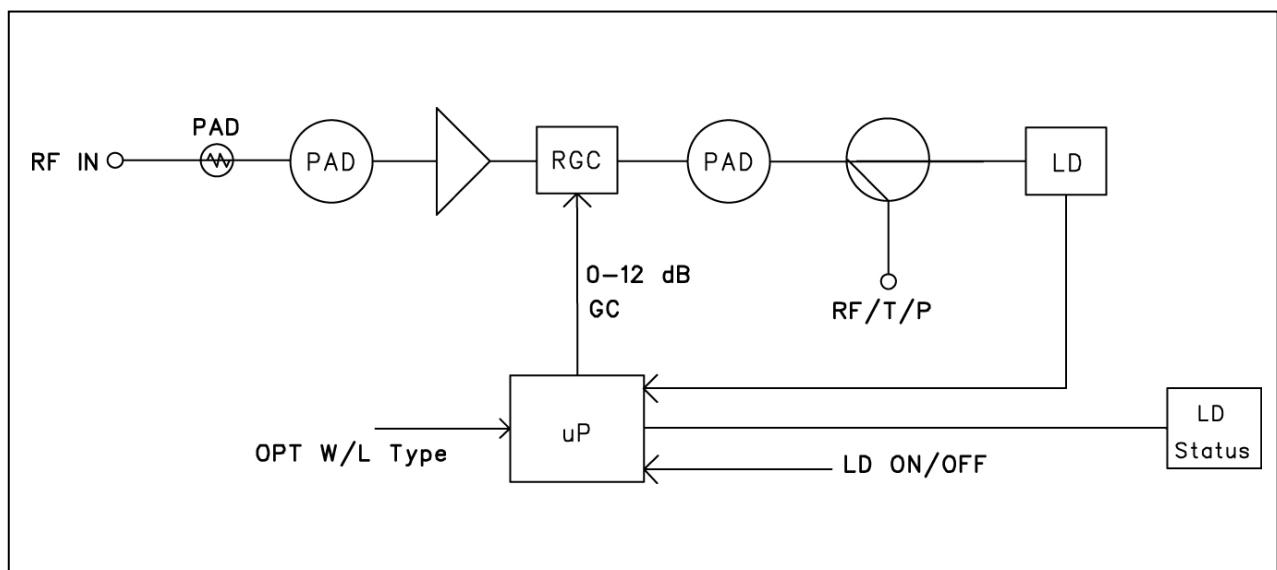
Overview

The A8KFT3 QAM is an advanced CWDM Forward Optical Transmitter designed for HFC network, with high reliability, scalability, and cost-effectiveness. The A8KFT3 QAM CWDM Forward Transmitter is available at wavelengths from 1471nm to 1611nm with 20nm interval. 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 55 MHz~870 MHz.
- CWDM ITU Grid wavelengths 1471~1611nm.
- 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



Specifications

ACI Communications, Inc.		ACION8000 Series A8KFT3 QAM CWDM QAM Forward Optical Transmitter		
PARAMETERS	CONDITIONS	UNITS	SPECIFICATION	NOTES
Optical Specification				
Laser Type			Uncooled DFB	
Optical Wavelength	@room temperature	nm	1471, 1491, 1511, 1531 1551, 1571, 1591, 1611	±3 nm CWDM
Connector Type			SC/APC(standard), FC/APC, E2000/APC (optional)	
Optical Power		dBm	4.8 or 6	Select when placing order
		mW	3 or 4	
RF Parameters				
Operating Bandwidth		MHz	55 ~ 870	
RF Input Return Loss		dB	-17	
RF Input Level		dBmV/ch	25	6ch QAM
RGC Gain Control		dB	0 ~ -20	Step 1dB
Flatness (Peak-to-Valley)	55 to 870MHz	dB	± 0.75	
Slope		dB	0 ± 1	
Test Point		dB	-20 ± 0.5	Compared with RF Input
Distortion Performance				
OMI		%	12 ± 0.5@25dBmV	
MER	6 ch QAM	dB	≥ 37, 64QAM ≥ 37, 256QAM	tested with A8KFR3 QAM ★1★2
BER	6 ch QAM	dB	< 1.0E -9, 64QAM < 1.0E -8, 256QAM	tested with A8KFR3 QAM ★1★3
Electrical/Environmental/Mechanical				
RF Connector Type	Rear Panel		F type female	
Module Width		slot	1	
Dimensions	DxHxW	in.	16.1 x 5.0 x 1.0	
		mm	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	12.7	

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

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

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

Ordering Matrix

A8KFT3 QAM Configuration Sheet

Customer: _____

Created By: _____

ORDERING MATRIX

2010/11/18

Position		1	2	3	4	5	6
PART NUMBER	A8KFT3 QAM	—		—		—	

1-2. OUTPUT POWER

0	4	= 4.8 dBm (3mW)(standard)
0	6	= 6 dBm (4mW)

3-4. Connector

S	C	= SC / APC (standard)
F	C	= FC / APC
E	2	= E2000 / APC

5-6. Wavelength

0	1	= 1471 nm
0	2	= 1491 nm
0	3	= 1511 nm
0	4	= 1531 nm
0	5	= 1551 nm
0	6	= 1571 nm
0	7	= 1591 nm
0	8	= 1611 nm

NOTES:

ACI Communications, Inc. reserves the right to discontinue the manufacture or change the specifications without prior notice on any parts illustrated in the data sheet.

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