



ACION 8000 Series

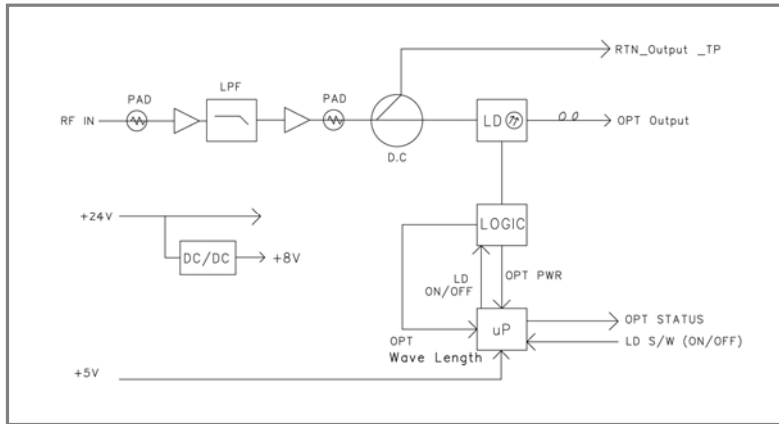
A8KRT3 CWDM Return Optical Transmitter

The A8KRT3 is an advanced CWDM Return Optical Transmitter designed for HFC network, with high reliability, scalability, wide operation frequency range (5 to 200MHz) and cost-effectiveness. The A8KRT3 CWDM Return Transmitter is available at wavelengths from 1471 to 1611 nm 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.

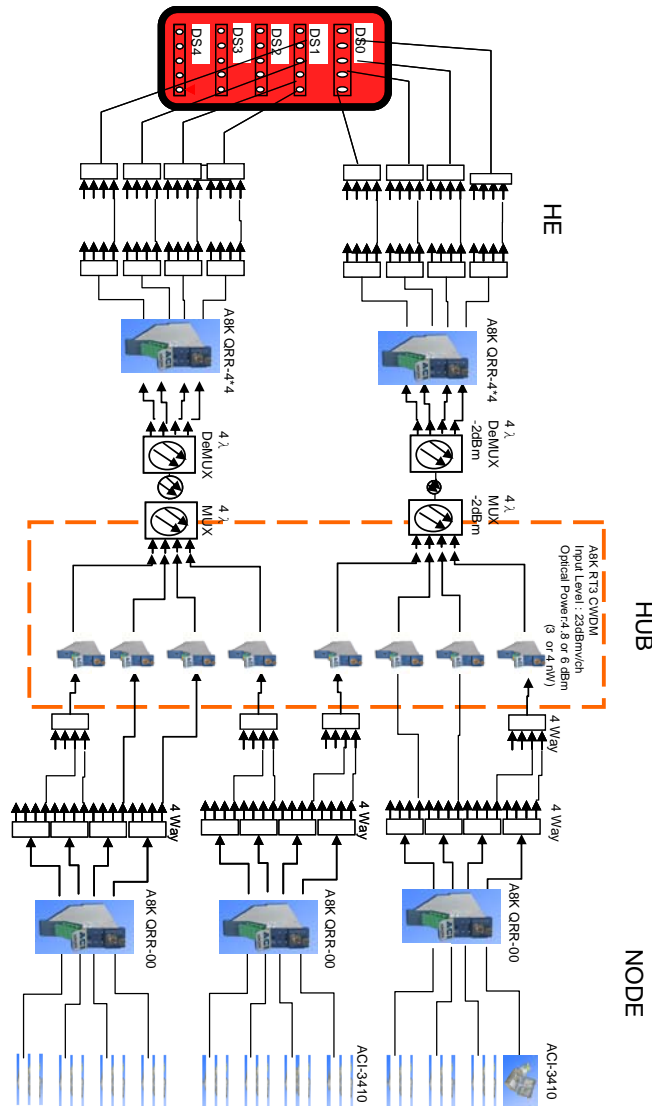
Features

- ◆ 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 Diagrams



Application



Specifications

ACI		ACION8000 Series A8KRT3 CWDM Return 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	5 to 200	
RF Input Return Loss		dB	-16	
RF Input Level		dBmV/ch	23	
Flatness (Peak-to-Valley)	5 to 200MHz	dB	± 0.5	
Test Point		dB	0 ± 0.5	Compared with RF Input
Distortion Performance				
OMI		%	10@23 dBmV	
Composite Second Order (CSO)		dBc	< -55	★1
Composite Triple Best (CTB)		dBc	< -53	★1
CNR		dBc	> 46	★1
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	6.2	

★1: Test with 4 tones, -10dBm Optical Input@A8KQRR.

Ordering Matrix

A8KRT3 Configuration Sheet																																																	
Customer: _____																																																	
Created By: _____																																																	
ORDERING MATRIX								2010/11/18																																									
Position			1	2		3	4		5	6																																							
PART NUMBER	A8KRT3	—			—		—																																										
<p>1-2. OUTPUT POWER</p> <table style="border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px 5px;">0</td> <td style="border: 1px solid black; padding: 2px 5px;">4</td> <td style="padding: 2px 5px;">= 4.8 dBm (3mW)(standard)</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px 5px;">0</td> <td style="border: 1px solid black; padding: 2px 5px;">6</td> <td style="padding: 2px 5px;">= 6 dBm (4mW)</td> </tr> </table> <p>3-4. Connector</p> <table style="border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px 5px;">S</td> <td style="border: 1px solid black; padding: 2px 5px;">C</td> <td style="padding: 2px 5px;">= SC / APC with shutter (standard)</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px 5px;">F</td> <td style="border: 1px solid black; padding: 2px 5px;">C</td> <td style="padding: 2px 5px;">= FC / APC</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px 5px;">E</td> <td style="border: 1px solid black; padding: 2px 5px;">C</td> <td style="padding: 2px 5px;">= E2000 / APC</td> </tr> </table> <p>5-6. Wavelength</p> <table style="border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px 5px;">0</td> <td style="border: 1px solid black; padding: 2px 5px;">1</td> <td style="padding: 2px 5px;">= 1471 nm</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px 5px;">0</td> <td style="border: 1px solid black; padding: 2px 5px;">2</td> <td style="padding: 2px 5px;">= 1491 nm</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px 5px;">0</td> <td style="border: 1px solid black; padding: 2px 5px;">3</td> <td style="padding: 2px 5px;">= 1511 nm</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px 5px;">0</td> <td style="border: 1px solid black; padding: 2px 5px;">4</td> <td style="padding: 2px 5px;">= 1531 nm</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px 5px;">0</td> <td style="border: 1px solid black; padding: 2px 5px;">5</td> <td style="padding: 2px 5px;">= 1551 nm</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px 5px;">0</td> <td style="border: 1px solid black; padding: 2px 5px;">6</td> <td style="padding: 2px 5px;">= 1571 nm</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px 5px;">0</td> <td style="border: 1px solid black; padding: 2px 5px;">7</td> <td style="padding: 2px 5px;">= 1591 nm</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px 5px;">0</td> <td style="border: 1px solid black; padding: 2px 5px;">8</td> <td style="padding: 2px 5px;">= 1611 nm</td> </tr> </table>											0	4	= 4.8 dBm (3mW)(standard)	0	6	= 6 dBm (4mW)	S	C	= SC / APC with shutter (standard)	F	C	= FC / APC	E	C	= E2000 / APC	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
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