Cyclic AAWG

Agilecom's Cyclic Athermal Arrayed Waveguide Grating (Cyclic AAWG) is a fully passive device that does not consume electrical power. The rugged design contains no moving parts, and the optical performance is guaranteed from -5ºC to 70ºC for Central Office and from -40ºC to 70ºC for Remote Node applications. Optimized for WDM-PON applications, this Cyclic AAWG is configured for dual band operation. C-band channels and L-band channels are supported simultaneously. In the downstream direction, the device will spatially separate a stream of channels from a single mode input fiber into different output fibers, each corresponding to an individual channel in one of the specified wavelength bands. In the upstream direction, the reverse process will occur simultaneously for channels in the second wavelength band.



Features

- Based on Proven PLC Technology
- Semiconductor Style Mass Production
- MSA Compliant Packaging
- Low Insertion Loss & High Isolation

Applications

- MUX/DMUX in DWDM Systems
- Long Haul/Metro Networks
- OADM nodes Applications

Specifications

Parameters			Specifications			Units
			Min	Typ	Max	
Number of Channels				16		ch
Channel Spacing		At Reference Wavelength Band		0.8		nm
Free Spectral Range				~20		nm
Wavelength Accuracy	COT	Offset from Defined λ: -5~65 °C	-50		50	pm
	RN	Offset from Defined λ: -30~85°C	-80		80	pm
Insertion Loss(Peak)		@ Center Wavelength		3.8	4	dB
Insertion Loss (Passband)		Within Passband		4.1	4.3	dB
Insertion Loss Uniformity		Over All Channels and PDL		0.7	1	dB
Ripple		Loss Variation within PB and Unpolarized		0.5		dB
Polarization Dependent Loss		Maximum within PB			0.7	dB
0.5dB Bandwidth (Peak IL)		0.5dB Down and Unpolarized	0.26	0.31	0.36	nm
1dB Bandwidth (Peak IL)		1.0dB Down and Unpolarized	0.36	0.42	0.48	nm
1.5dB Bandwidth (Peak IL)		1.5dB Down and Unpolarized	0.43	0.48	0.53	nm
2dB Bandwidth (Peak IL)		2.0dB Down and Unpolarized	0.47	0.52	0.57	nm
3dB Bandwidth (Peak IL)		3.0dB Down and Unpolarized	0.55	0.6	0.63	nm
Adjacent Channel Isolation		Worst-Case within PB and PDL	22			dB
Non-Adjacent Channel Isolation		Worst-Case within PB and PDL	28			dB
Total Crosstalk		Cumulative Sum of All AX and NX	20			dB
Return Loss		Over All Channels and PDL			-40	dB
Operating Temperature		Operating	-30		85	℃
Operating Humidity		Operating	0		90	%
Storage Temperature		Non_Operating	-30		85	℃

Note: Specifications include connectors

Order Information

CAAWG — □ □ □ □ □ □ □ □ □ □ □ □

Code	Type
M	Mux
D	Demux
N	Normal

Code	Option
CO	COT
RN	RRH
CR	COT/RRH

Code	Wavelength Band
1B	Band 1
2B	Band 2
3B	Band 3
4B	Band 4

Code	Wavelength
1	Group#1
2	Group#2

Code	Passband Profile
W	Wide Gaussian

Code	Channel
16	16

Code	Package
M	Module
A	Chassis

Code	Fiber Length(m)
1	0.5
2	1
3	1.5
4	2
5	2.5
6	3
X	Customized

Code	Connector
0	None
1	SC/UPC
2	SC/APC
3	FC/UPC
4	FC/APC
5	LC/UPC
6	LC/APC
X	Customized