

Specification of
50GHz C-band Gaussian
64x64 Array Wavelength Grating Router 1U Chassis

Part Number : G-AWGR-ST1G48C17-55

1. Introduction

The AWGR operate in C-band. And it meet the following specification over the operating temperature.

2. Definition Note:

All specifications should be guaranteed at the worst-case polarization state and over the entire operating environmental condition and end of life.

The Insertion Loss of a device is defined as the maximum loss at a defined wavelength, taking into account the worst-case polarization state over the full operating temperature range.

The Insertion Loss Uniformity of a device is the difference between the insertion loss of the best-case and worst-case channels. The Polarization Dependent Loss of a device is the maximum insertion loss difference between all polarization states at the defined wavelength.

The Reference Passband is defined as a band of wavelengths around each center wavelength. It is used in the definition of crosstalk.

The Adjacent Isolation of channel is the maximum insertion loss difference from the mean transmission at the ITU grid wavelength to the highest power over the all polarization and the ITU band of two adjacent channels.

The Non-adjacent Isolation of channel is the maximum insertion loss difference from the mean transmission at the ITU grid wavelength to the highest power over the all polarization and the ITU band of the non-adjacent channels.

The Total Crosstalk of channel is the total cumulative insertion loss difference from the mean transmission at the ITU grid wavelength to the highest power over the all polarization and the ITU band of all other channels including adjacent and non-adjacent channels.

The Wavelength Accuracy is defined as the maximum difference between the defined wavelength and the center of measured 3dB passband.

3. Technical Parameter

Parameter	Specification			Units	Notes
	Min	Type	Max		
Channel Spacing	50			Ghz	
Nos of Channel	64X64			Channels	
Channel Frequencies	ITU Grid			THz	
Available Channel Frequency Range	191.70		196.40	THz	
Channel Passband	-5		+5	Ghz	
	-0.10		+0.10	nm	
Center Wavelength Accuracy	-0.1		+0.1	nm	
Insertion lose		8	11	dB	Full Bandwidth
Passband Ripple		1.0	2.0	dB	Full Bandwidth
Bandwidth @1.5dB	10			GHZ	
Bandwidth @3.0dB	20			GHZ	
Bandwidth @20dB			60	GHZ	
Insertion Loss Uniformity at ITU			2.5	dB	
Polarization Dependent Loss			0.5	dB	
Adjacent Channel Isolation	18	25		dB	
Non-Adjacent Channel Isolation	25	35		dB	
Total Cross Talk	22	24		dB	
Directivity	45			dB	
Return Loss with connectors	40	45		dB	
Chromatic Dispersion	-20		+20	ps/nm	
PMD			0.5	ps	
Optical Power Handling of Common Port			24	dBm	

4. Operating Conditions

Parameter		Min		Max	Units
Temperature		-5		65	℃
Humidity	Non-condensing	0		90	% R.H.

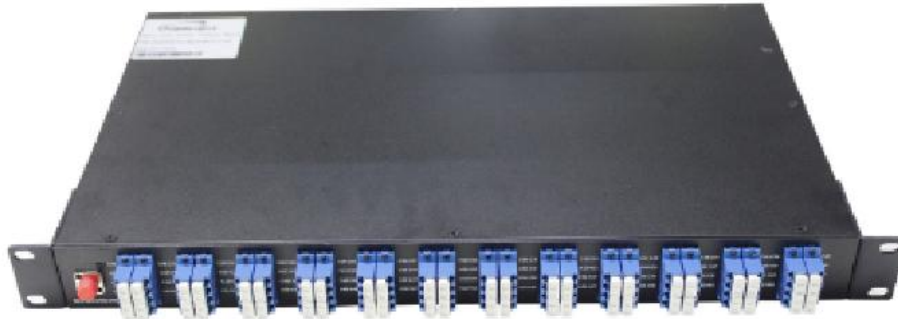
5. Storage Conditions

Parameter		Min		Max	Units
Temperature		-40		85	℃
Humidity	Non-condensing	0		90	% R.H.

6. Physical Parameters

Standart

1U RACK



7. Channel Plan 64x64 Port AWG - On grid

The AWG operate in C-band. The C-band channel allocation is based on ITU-T Grid. The channels are as follows:

100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
1550.00	1550.05	1550.10	1550.15	1550.20	1550.25	1550.30	1550.35	1550.40	1550.45	1550.50	1550.55	1550.60	1550.65	1550.70	1550.75	1550.80	1550.85	1550.90	1550.95	1551.00	1551.05	1551.10	1551.15	1551.20	1551.25	1551.30	1551.35	1551.40	1551.45	1551.50	1551.55	1551.60	1551.65	1551.70	1551.75	1551.80	1551.85	1551.90	1551.95	1552.00	1552.05	1552.10	1552.15	1552.20	1552.25	1552.30	1552.35	1552.40	1552.45	1552.50	1552.55	1552.60	1552.65	1552.70	1552.75	1552.80	1552.85	1552.90	1552.95	1553.00	1553.05	1553.10	1553.15	1553.20	1553.25	1553.30	1553.35	1553.40	1553.45	1553.50	1553.55	1553.60	1553.65	1553.70	1553.75	1553.80	1553.85	1553.90	1553.95	1554.00	1554.05	1554.10	1554.15	1554.20	1554.25	1554.30	1554.35	1554.40	1554.45	1554.50	1554.55	1554.60	1554.65	1554.70	1554.75	1554.80	1554.85	1554.90	1554.95	1555.00

8. Ordering information

G-AWGR	-	xx	x	x	xx	xxx	-	x	x
Package	Channel Space	Pass band Profile	Port Configuratio n	Start Channel	in	out			
I	1U=1U	1=100GHz	F=Flat-top	32=32x32	C17=C17	0=None		0=None	
A=Array	2U=2U	2=50GHz	G=Gauss	64=64x64	H21=C21	1=FC/UPC		1=FC/UPC	
W=Wavelength	ST=Box					2=FC/APC		2=FC/APC	
G=Grating						3=SC/UPC		3=SC/UPC	
R=Routher						4=SC/APC		4=SC/APC	
						5=LC/UPC		5=LC/UPC	
						6=LC/APC		6=LC/APC	
						7=MPO/PC		7=MPO/PC	