



1、Description

40 channel 100G Thermal AWG(100G TAWG) is designed for use within the C -band release of DWDM system. To decrease the power dissipation of the devices in different environmental conditions, the TAWG package is special designed with selection of reliable thermal plastic with low thermal conduction, and the TAWG operating temperature is controlled by using foil resist heater or Peltier TEC with thermistor temperature sensor. Different input and output fibers, such as SM fibers, MM fibers and PM fiber can be selected to meet different applications. We can also offer different product packages, including special metal box and 19" 1U rackmount.

2、Features

- Low Insertion Loss
- Established silica-on-silicon
- Low PDL
- Low chromatic dispersion
- Telcordia GR-1221-CORE qualified

3、Specification

Parameters	Condition	Specs			Units
		Min	Type	Max	
Number of Channels			40		ch
Number Channel Spacing	100GHz		100		GHz
Cha. Center Wavelength	ITU frequency.		C-band		nm
Clear Channel			±0.1		nm

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Passband					
Wavelength Stability	Maximum range of the wavelength error of all channels and temperatures in average	±0.05			nm
-1 dB Channel Bandwidth	Clear channel bandwidth defined by passband shape. For each channel	0.4			nm
-3 dB Channel Bandwidth	Clear channel bandwidth defined by passband shape. For each channel	0.6			nm
Optical Insertion Loss at ITU grid	Defined as the minimum transmission at ITU wavelength for all channels. For each channel, at all temperatures and polarizations.		4.5	6.0	dB
Adjacent Channel Isolation	Insertion loss difference from the mean transmission at the ITU grid wavelength to the highest power, all polarizations, within the ITU band of the adjacent channels.	25			dB
Non-Adjacent, Channel Isolation	Insertion loss difference from the mean transmission at the ITU grid wavelength to the highest power, all polarizations, within the ITU band of the nonadjacent channels.	30			dB
Total Channel Isolation	Total cumulative insertion loss difference from the mean transmission at the ITU grid wavelength to the highest power, all polarizations, within the ITU band of all other channels, including adjacent channels.	22			dB
Insertion Loss Uniformity	Maximum range of the insertion loss variation within ITU across all channels, polarizations and temperatures.		1.0	1.5	dB
Directivity(Mux Only)	Ratio of reflected power out of any channel(other than channel n)to power in from the input channel	40			dB
Insertion Loss Ripple	Any maxima and any minima of optical loss across ITU band, excluding boundary points, for each channel at each port			0.5	dB
Optical Return loss	Input & output ports	40			dB
PDL/Polarization	Worst-case value measured in ITU band		0.3	0.5	dB

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Dependent Loss in Clear Channel Band					
Polarization Mode Dispersion				0.5	ps
Maximum Optical Power				23	dBm
MUX/DEMUX input/ output Monitoring range		-35		+23	dBm
Operating Temperature		-5	+25	+65	°C
Operating Humidity		5		95	%RH
Storage Temperature		-40		+85	°C
Storage Humidity		5		95	%RH
Package Size		L150 x W65 x H16			mm
Size between screws		140 x 68			mm

- 1、 IL Represents the worst case over a +/-0.01nm window around the ITU wavelength;
- 2、 PDL was measured on average polarization over a +/- 0.01nm window around the ITU wavelength.

4. Application

- DWDM transmission
- Wavelength Routing
- Optical add/drop multiplexing

5. Ordering Information:

AWG	X	XX	X	XXX	X	X	X	XX
	Band	Number of Channels	Spacing	1st Channel	Filter Shape	Package	Fiber Length	In/Out Connector
	C=C-Band	16=16-CH	1=100G	C60=C60	G=Gaussian	M=Module	1=0.5m	0=None
	L=L-Band	32=32-CH	2=200G	H59=H59	B=Broad	R=Rack	2=1m	1=FC/APC
	D=C+L-Band	40=40-CH	5=50G	C59=C59	Gaussian	X=Special	3=1.5m	2=FC/PC
	X=Special	48=48-CH	X=Special	H58=H58	F=Flat		4=2m	3=SC/APC
		XX=Special		XXX=special	Top		5=2.5m	4=SC/PC
							6=3m	5=LC/APC
							S=Specify	6=LC/PC
								7=ST/UPC
								S=Specify