

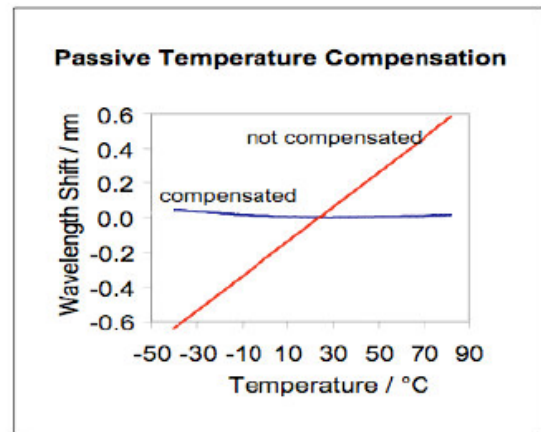
1. Product Overview

This document presents the generic specification for the 41-channel 100GHz AWG MUX/DEMUX component supplied for use in DWDM system.

Hiph's Dense Wavelength Division Mux/Demultiplexer

Modules are part of a series of high performance products based on silica-on-silicon planar technology and a unique athermal packaging design requiring no electrical power, software or temperature control for a completely passive DWDM solution. This product range offers a combination of very low loss and high channel isolation along with long term reliability and low cost per channel for 41 channel, 100GHz solutions. Each module can perform Mux and Demux functions.

Different input and output fibers, such as SM fibers, MM fibers and PM fiber can be selected to meet different applications.



2. 极限条件/Absolute Maximum Ratings (unless otherwise specified)

参数/Parameters	条件/Conditions	规格/Specifications		单位/Units
		最小/Min.	最大/Max.	
工作温度/Operating Temperature	产品正常工作时/Operating	-5	65	°C
工作湿度/Operating Humidity	产品正常工作时/Operating	5	95	%RH
存储温度/Storage Temperature	产品不工作时/Non_Operating	-40	+85	°C
存储湿度/Storage Humidity	产品不工作时/Non_Operating	5	95	%RH

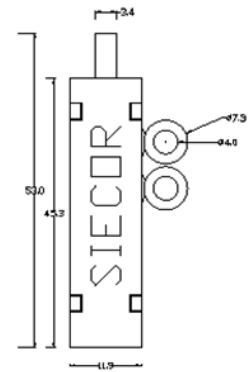
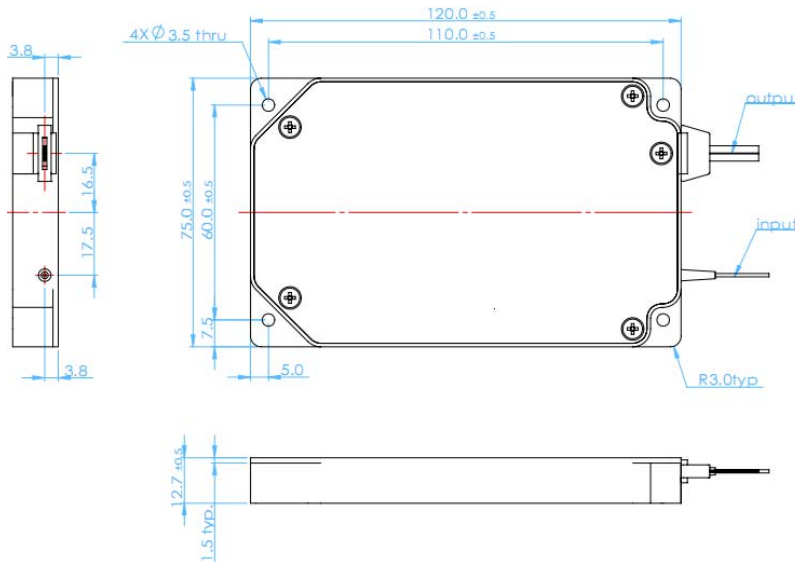
光性能/Optical Specification (高斯 AWG/ Gaussian Athermal AWG)

参数/Parameters	条件/Condition	规格/Specs			单位/Units
		Min	Typ	Max	
通道数/Number of Channels		41			
通道间距/Number Channel Spacing	100GHz	100			GHz
中心波长/Cha. Center Wavelength	ITU 频率/ITU frequency.	C -band			nm
通带频率/Clear Channel Passband		±12.5			GHz
波长精度/Wavelength Stability	Maximum range of the wavelength error of all channels and temperatures in average polarization.	±0.05			nm
-1 dB 带宽/-1 dB Channel Bandwidth	Clear channel bandwidth defined by passband shape. For each channel	0.24			nm
-3 dB 带宽/-3 dB Channel Bandwidth	Clear channel bandwidth defined by passband shape. For each channel	0.43			nm
插损/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
相邻通道隔离度 /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
非相邻通道隔离度 /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.	29			dB
总隔离度/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
插损一致性/Insertion Loss Uniformity	Maximum range of the insertion loss variation within ITU across all channels, polarizations and temperatures.			1.5	dB
方向性/ Directivity(Mux Only)	Ratio of reflected power out of any channel(other than channel n)to power in from the input channel n	40			dB
插损平坦度/Insertion Loss Ripple	Any maxima and any minima of optical loss across ITU band, excluding boundary points, for each channel at each port			1.2	dB
回损/Optical Return loss	Input & output ports	40			dB
PDL/Polarization Dependent Loss in Clear Channel Band	Worst-case value measured in ITU band		0.3	0.5	dB
偏振模式色散 /Polarization Mode Dispersion				0.5	ps
最大承受光功率/Maximum Optical Power				23	dBm
功率监控范围/MUX/DEMUX input/ output Monitoring range		-35		+23	dBm

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.

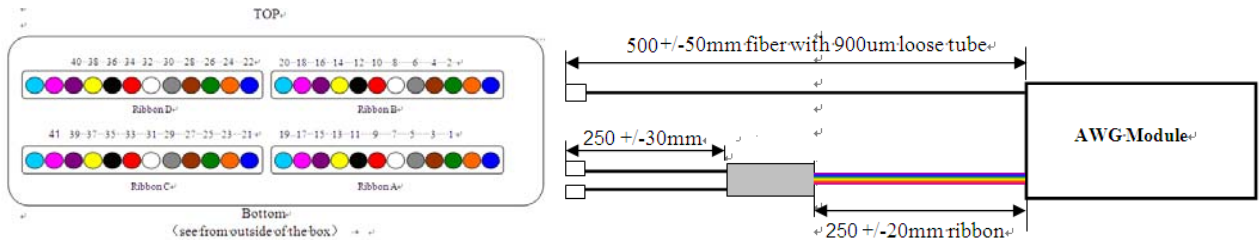
3. 机械尺寸/Mechanical Schematic and Dimensions

尺寸/Dimensions	120 x 75 x 12.7		mm									
安装孔/ Space between space between screws	110×60		mm									
光纤类型/Fiber Type	公共端 Common G657A fiber with 900μm loose tube, 加 900μm 套管, 通道端 G652D Ribbons Channels											
光纤编排/Fiber Format	4x 12 带纤/4x 12-fiber ribbons											
光纤长度/Fiber Length	输入端/Common	500mm ± 50mm with 900um loose tube/输入线长 500mm ± 50mm 带 900um 套管										
	输出端/Channels	Ribbon 250mm ± 20 mm and Fan out 250mm ± 30mm with 900um loose tube /输出带纤 250mm ± 20 mm, 加分支器线长 250mm ± 30mm										
公共端/Common	颜色/Color	白/white										
带纤标识/Ribbon Identification	带纤末端贴数码贴标识 /Label with ribbon number to be placed midway between ribbon end-points											
连接器类型/Connector Options	Common	LC/UPC										
	Channels	LC/UPC										
带纤光纤标识/Fiber Identification in Ribbon	1	蓝/Blue	2	橙/Orange	3	绿/Green	4	褐/Brown	5	灰/Grey	6	白/White
	7	红/Red	8	黑/Black	9	黄/Yellow	10	紫/Purple	11	粉/Pink	12	水/Aqua



Fanout

*可以按客户要求使用其他结构/Also available in other configuration



4. 可靠性说明/Reliability Specifications

The planar DWDM components described within this datasheet are fully qualified according to Telcordia reliability assurance requirements for fiber optic and opto-electronic components (GR-1221-CORE/UNC, Generic Reliability Assurance Requirements for Fiber Optic Branching Components, and Telcordia TR-NWT-000468, Reliability Assurance Practices for Opto-electronic Devices). The reliability report is available for request.

5. 订购信息/Ordering Part Code Sequence

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=Customize	48=48-CH	X=Special	H58=H58	F=Flat Top		4=2m	3=SC/APC
		XX=Special		XXX=special			5=2.5m	4=SC/PC
							6=3m	5=LC/APC
							S=Specify	6=LC/PC
								7=ST/UPC
								S=Specify