DWDM Thermal Arrayed Waveguide Grating Module

Agilecom's Dense Wavelength Division Mux/Demultiplexer Thermal Arrayed Waveguide Grating Modules are designed for use within the C- or L-band release of DWDM system. To decrease the power dissipation of the devices in different environmental conditions, the AWG package is special designed with selection of reliable thermal plastic with low thermal conduction, and the AWG 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. Custom frequency grids, fiber types and connectorisation options are also available.

Key Features

- High stability and reliability
- Low Insertion Loss
- Low PDL
- High Channel Isolation
- Multi-channel number

Applications

- WDM transmission
- WDM based ADM
- Metro and long haul net works
- Wavelenth selective routing

TAWG Specification

Parameter			Unit	Specifications	
				Gaussian	Flat-Top
ITU Band			GHz	±12.5	
Channel spacing			GHz	100	
Number of channels				16、32、40、48 or customize	
Wavelength accuracy		Max	nm	0.05	
Insertion loss		Max	dB	3.5	5.5
1dB passband		Min	nm	0.2	0.4
3dB passband		Min	nm	0.4	0.6
Isolation	Adjacent channel	Min	dB	27	
	Non-adjacent channel	Min	dB	35	
Total crosstalk		Min	dB	23	23
Ripple in passband		Max	dB	1.0	
Polarization dependent loss		Max	dB	0.8	
Directivity		Min	dB	50	
Return loss		Min	dB	45	
Polarization mode dispersion		Max	ps	0.5	
Power handling		Max	mW	300	
Drive voltage (Heater)		Typ	V	5.0	
Drive current (Heater)		Typ	A	2.0	
Fiber Type				Corning SMF-28 / SMF-28e or customize	
Operating Temperature			°C	-5~70	
Storage Temperature			°C	-40~85	
Package Dimension			mm	(L)135×(W)65×(H)20	

Notes： Specifications without fiber connectors

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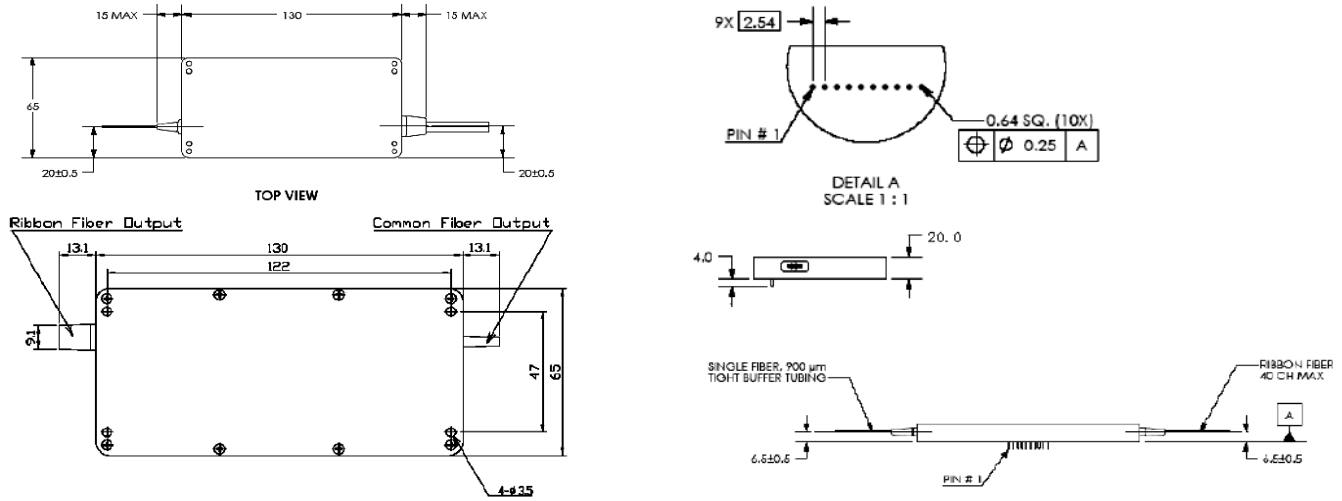
Electrical Specifications

Parameters	Conditions	Specifications MIN	Specifications MAX	Unit
Set Point Temperature of Module	Heater Based Temperature Control	68	85	°C
Temperature Sensor	Thermistor		RTD	
Temperature Sensor Resistance	25°C		10	kΩ
Heater Power Consumption	Peak Power Required to Warm Module from 0°C to Set Point Temperature with Airflow of 0.1 linear meter per second (22.5 linear ft/min) in the warm-up time .		8	W
Heater Resistance			3	Ω
Module Warm-Up Time	Time for module to be warmed up from -5°C to the set-point temperature		10	Mins

Pin Assignment		
	Pin1	Heater or TEC(+)
	Pin2	NC
	Pin3	NC
	Pin4	Thermistor A
	Pin5	NC
	Pin6	NC
	Pin7	Thermistor B
	Pin8	NC
	Pin9	NC
	Pin10	Heater or TEC(-)

Dimensions Diagram



Ordering Information

For more information on these or other products and their availability, please contact our sales department at 408-943-0815 in North America and 86-760-86781889 in China or via e-mail at info@agilecom.net.

TAWG — ☐ ☐☐ ☐ ☐☐☐ ☐ ☐ ☐

Code	Band
C	C-Band
L	L-Band
X	Customize

Code	Channel Number
16	16-ch
32	32-ch
40	40-ch
48	48-ch
X	Customize

Code	Spacing
1	100GHz
2	200GHz
5	50GHz
X	Customize

Code	Channel Number
C60	C60
H59	H59
C59	C59
H58	H58
XXX	ITU Channel

Code	Filter shape
G	Gaussian
B	Broad Gaussian
F	Flat -Top

Code	Fiber Length
1	0.5m
2	1.0m
3	1.5m
4	2.0m
5	2.5m
6	3.0m
A	1.25m
B	1.75m
C	2.25m
X	Customize

Code	Connector
0	None
1	SC/UPC
2	SC/APC
3	FC/UPC
4	FC/APC
5	LC/UPC
6	LC/APC
7	ST/UPC
8	MU
X	Customize

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