

## 16~48CH 100G DWDM Athermal Arrayed Waveguide Grating Module

### Key Features

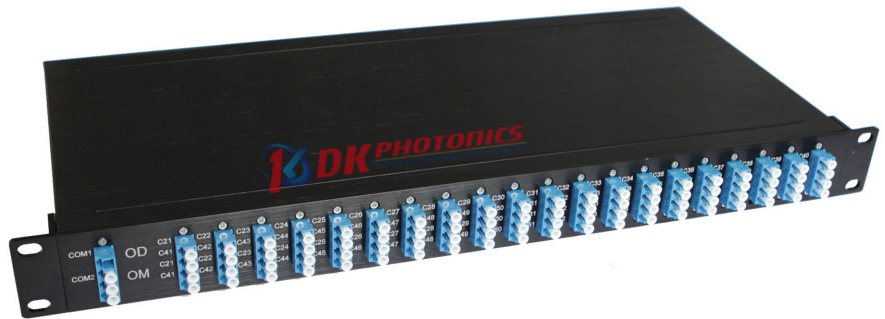
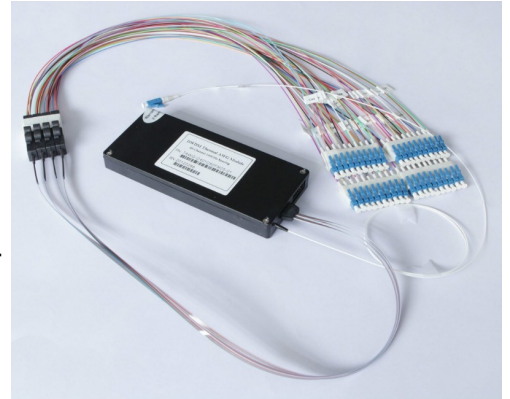
- 100GHz ITU channel spacing
- Low insertion loss
- Multi-channel number
- High channel isolation
- High stability and reliability

### Applications

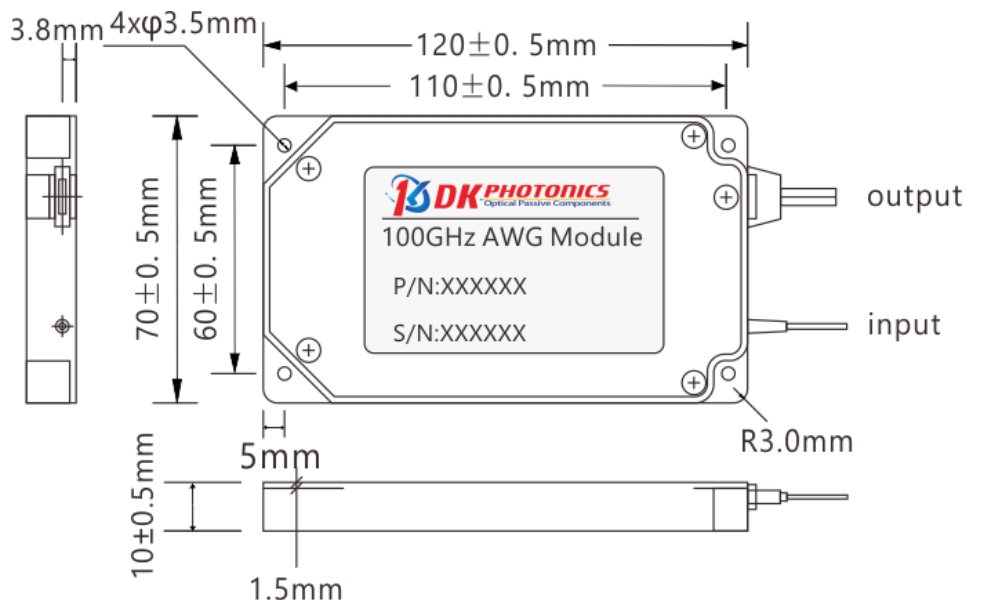
- WDM transmission
- WDM based ADM
- Metro and long-haul net works
- Wavelength selective routing
- Optical signal processing

DK Photonics Athermal AWG DWDM (Arrayed Wave-guide Grating 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. Each module can perform Mux and Demux functions. C-Band device are available with Gaussian or Flat top spectral response. Custom frequency grids, fiber types and connector or insertion options are also available. We can offer different package for different products, including compact box package and 19" 1U rack-mount.



### Package Dimension:



## For more Info

Please contact us at:

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Dahe Road, Longhua Dis.,

Shenzhen, China 518109

\*Due to ongoing design improvements, the package size is subject to change. Please contact DK Photonics for confirmation if you have special requirements.



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### Performance Specifications

Parameter	Unit	Gaussian	Flat-Top
Channel Wavelength	nm	ITU 100 GHz Grid at C Band	
Number of channels	-	16,32,40,48 or other	
Wavelength Accuracy	nm	± 0.05	
Min. Channel Pass-band (@-1dB bandwidth)	nm	0.4	
Insertion Loss	dB	< 4.5	< 6.0
Channel Passband (@-1dB bandwidth)	dB	> 0.2	> 0.3
Channel Passband (@-3dB bandwidth)	dB	> 0.4	> 0.5
Total Crosstalk	dB	> 20	> 23
Channel Ripple	dB	< 0.75	
Isolation	Adjacent	> 25	
	Non-adjacent	> 30	
Max. Uniformity	dB	1.2	
Chromatic Dispersion	ps/nm	-20~+20	
Max. Polarization Dependent Loss	dB	0.5	
Max. Polarization Mode Dispersion	ps	0.5	
Min. Directivity	dB	> 50	
Min. Return Loss	dB	> 45	
Maximum Power Handling	mW	300	
Fiber type	-	SMF-28e or other	
Operating Temperature	°C	-5 ~+70	
Storage Temperature	°C	-40 ~+85	
Dimension	mm	L120 x W70 x H12, 19" 1U Rack mount:431.5*250*44	

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. The above specification is without connector.
4. IL is 0.3 dB higher and RL is 5 dB lower for each connector and adapter added.

### Order information

P/N: AAWG-10-①-②-③-④-⑤-⑥-⑦

When you inquire, please provide the correct P/N number according to our ordering information, and attach the appropriate description would be better. If need any connector, we do not recommend choosing a 250µm bare fiber pigtail.

10	①	②	③	④	⑤	⑥	⑦
Spacing	Channel	Filter Shape	Package Type	1st Channel	Pigtails Diameter	Fiber Length	Connector
10:10GHz	32:32 Channel 40:40 Channel 48:48 Channel	G: Gaussian F: Flat-Top	C: 120x70x12 R:19" Rack	C21:1560.61nm C22:1559.79nm C23:1558.98nm	25:250µm 90:900µm XX: Others	05:0.5m 10:1.0m 15:1.5m XX: Others	00: None FP: FC/PC FA: FC/APC SP: SC/PC SA: SC/APC LP: LC/PC LA: LC/APC XX: Others

**Part Number Example:** AAWG-10-40-R-C21-90-10-FA

**Description:** 100GHz 40 Channel DWDM Athermal Arrayed Wave-guide Grating Module, C21~C60, packed in 1U 19" Rack, with FC/APC connectors at all ports.

### Ordering Information for Custom Parts

If you need to customize other specifications, please provide detailed description for your requirement.