AAWG 100G DWDM Mux/Demux Module

Agiltron' s Wavelength Division Multiplexer (WDM) is based on AWG technology. This proven technology offers wide channel bandwidth, flexible channel configuration, low insertion loss, and high isolation. This DWDM series modules are passive optical multiplexer/demultiplexer designed for metro access applications that represent the state of the art in fiber optics design. This Mux/Demux module multiplexes and demultiplexes multiple DWDM wavelengths of 100GHz channel spacing into a ring or point-to-point network, ideal for telecommunications and networking.
The Mux/Demux module is packaged with a 1RU, 19'' rack mount chassis for simple installation and modularity. This chassis based system offers network equipment manufacturers a more scalable and higher-density solution to add DWDM capability to their existing and new networks with simple pluggable interface.

Features

- 100 GHz Channel Spacing
- High Channel Isolation
- Low Insertion Loss
- Highly Stable & Reliable

Specifications

Parameters		Min	Typical	Max	Unit
Operation Wavelength			DWDM channels		
Insertion Loss – passband *	Gaussian		≤ 4.5		dB
	Flat top		≤ 6		dB
3dB Bandwidth (nm)	Gaussian		> 0.4		nm
	Flat top		> 0.6		nm
Center Wavelength accuracy			± 0.05		nm
Passband Ripple			≤ 0.05		dB
Isolation @Add/Drop Channel	Adjacent		≥ 30		dB
Durability	Non-adjacent		≥ 40		dB
PDL			≤ 0.5		dB
PMD			≤ 0.5		ps
Directivity			≥ 50		dB
Return Loss			≥ 45		dB
Power Handling			500		mW
Operating Temperature		0		+70	°C
Storage Temperature		-40		+85	°C

* Including connectors

Applications

- Add/Drop Channels
- Dense WDM Systems
- CATV Fiberoptic Links

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link]:

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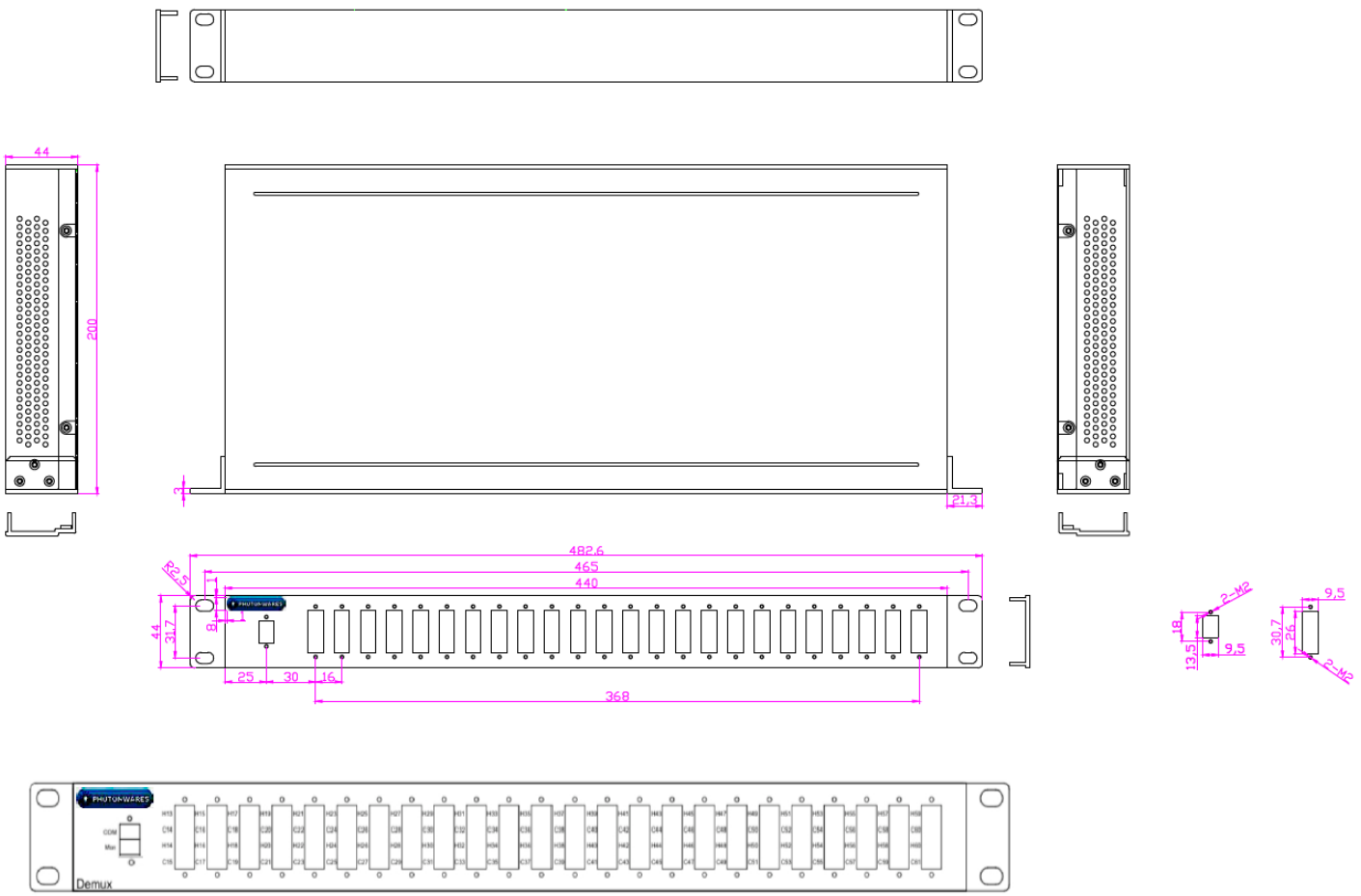
Mechanical Dimensions (mm)



*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Ordering Information

	□	□□	□	□□	□	□	8
Prefix	**Ch. Spacing**	**Number of Channels**	**Type**	**1st ITU Channel Number * (for example)**	**Configuration**	**Monitor**	**Connector**
AAWG-	100G = 1	48 Channel = 48	Flat top = 1 Gaussian = 2	1560.61nm = 21 1588.98nm = 23	MUX or DEMUX=1 MUX+DEMUX=2	NO monitor port = 1 With monitor port = 2 Special=0	LC/UPC = 8 Special = 0

* Refer ITU Channel Table

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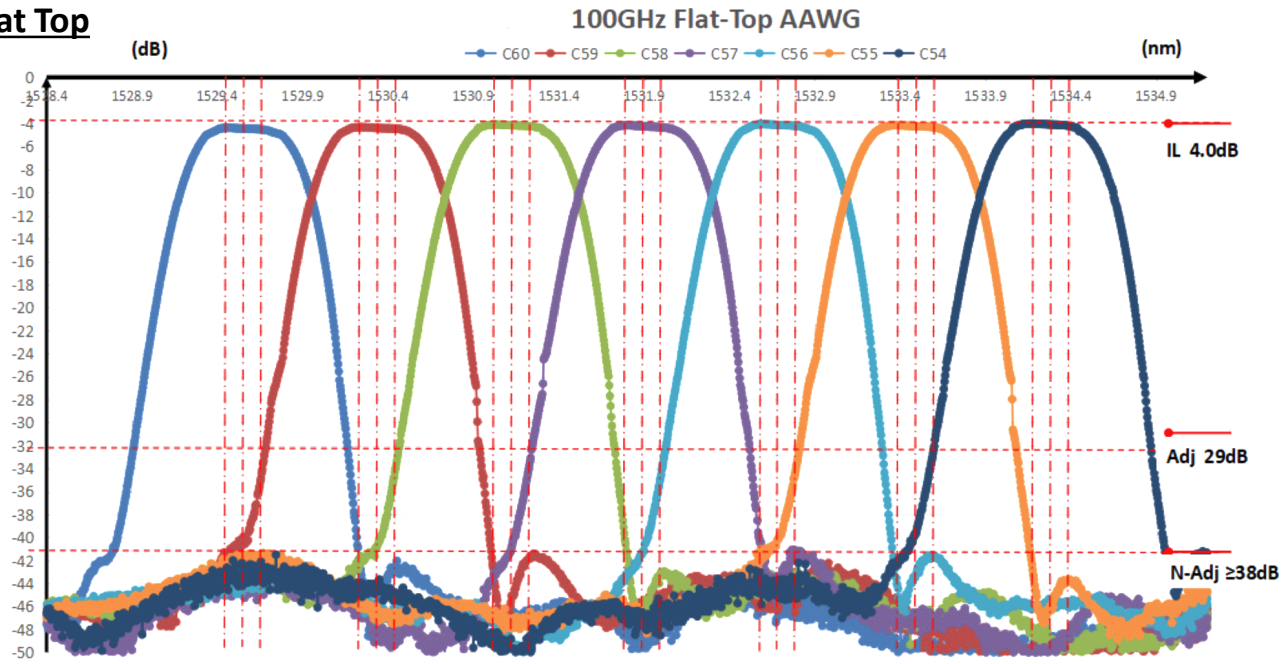
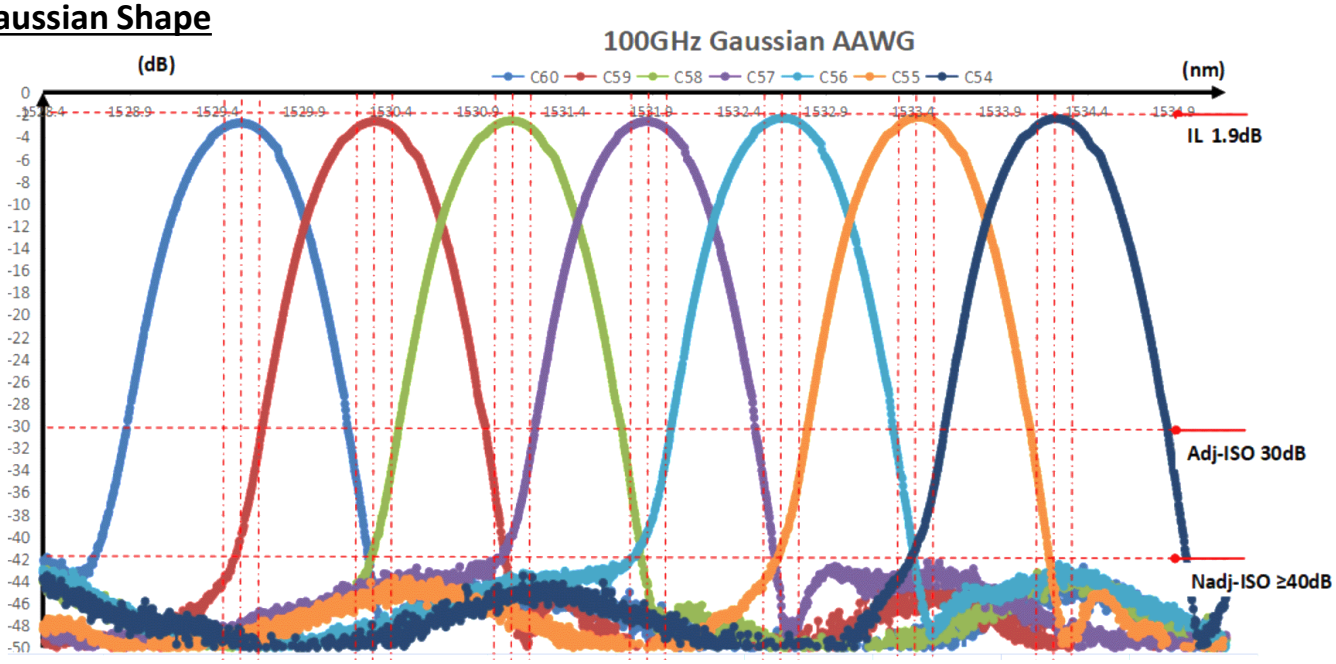
Typical Spectral

Flat Top



Gaussian Shape



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Application Notes

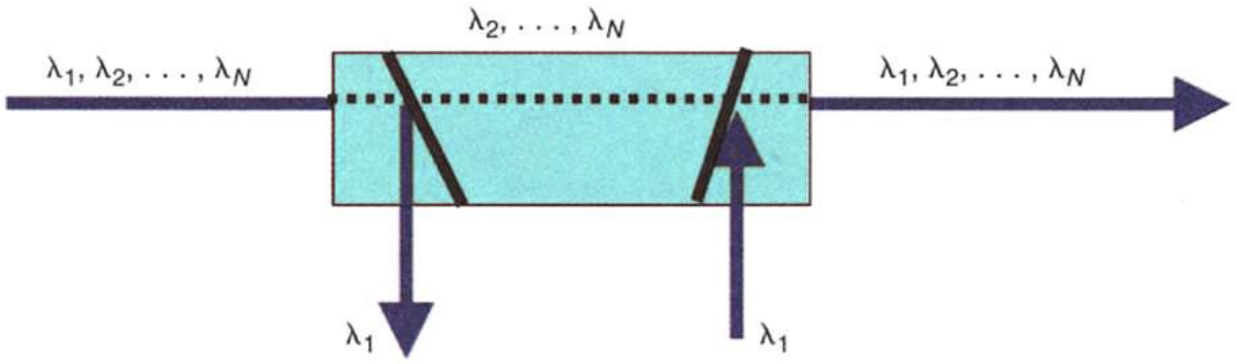
Fiber Core Alignment
Note that the minimum attenuation for these devices depends on excellent core-to-core alignment when the connectors are mated. This is crucial for shorter wavelengths with smaller fiber core diameters that can increase the loss of many decibels above the specification if they are not perfectly aligned. Different vendors' connectors may not mate well with each other, especially for angled APC.

Fiber Cleanliness
Fibers with smaller core diameters (<5 μm) must be kept extremely clean, contamination at fiber-fiber interfaces, combined with the high optical power density, can lead to significant optical damage. This type of damage usually requires re-polishing or replacement of the connector.

Maximum Optical Input Power
Due to their small fiber core diameters for short wavelength and high photon energies, the damage thresholds for device is substantially reduced than the common 1550nm fiber. To avoid damage to the exposed fiber end faces and internal components, the optical input power should never exceed 20 mW for wavelengths shorter 650nm. We produce a special version to increase the how handling by expanding the core side at the fiber ends.

Optical Function Path Illustration

Wavelength multiplexing and Demultiplexing can be illustrated below in a single-channel optical add-drop case.



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