

Intelligent AWG(Arrayed Waveguide Grating) system

Technical Specification (GRF1132)



Front view



Rear View

Version	Date	Description of Change(s)
A01	10/ 19 / 2023	First Release

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Intelligent AWG (Arrayed Waveguide Grating) system integrates athermal arrayed waveguide grating and OCM technology, with its core function being the visualization of full-port power monitoring. This feature enables network administrators to monitor the optical power distribution in the network in real time, through real-time monitoring and intelligent management, it promptly identifies and solves potential issues, reducing network failures and downtime, and ensuring the stable operation of the network.

1 Features

- ✓ Support real-time high-precision monitoring of 40CH TX/RX, 1310 TX/RX, and COM port power
- ✓ Support 1310nm 40/100G extended channels, OSC channels, and Monitor interfaces
- ✓ Device panel supports visual display of port power status and dual-color LED alarms (yellow and green)
- ✓ Achieve centralized visualization and unified management of optical power for 40 business ports
- ✓ Support Web/SNMP management

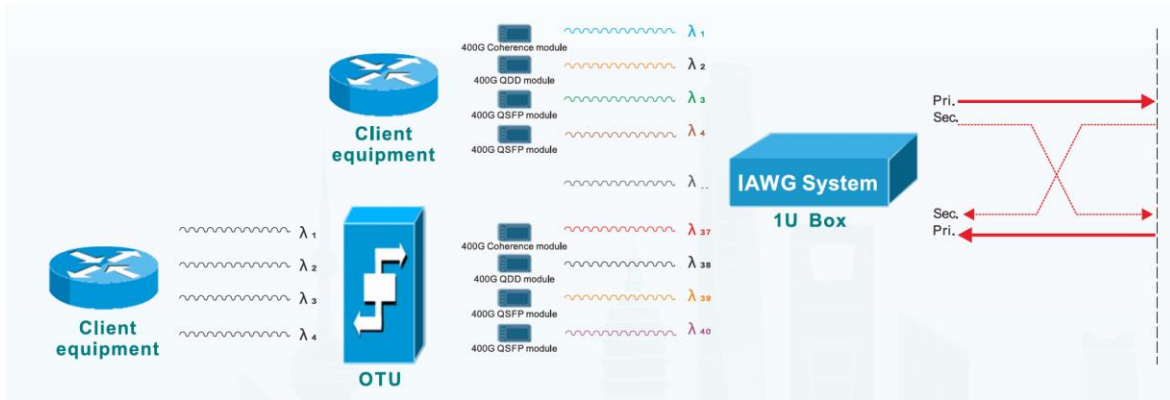
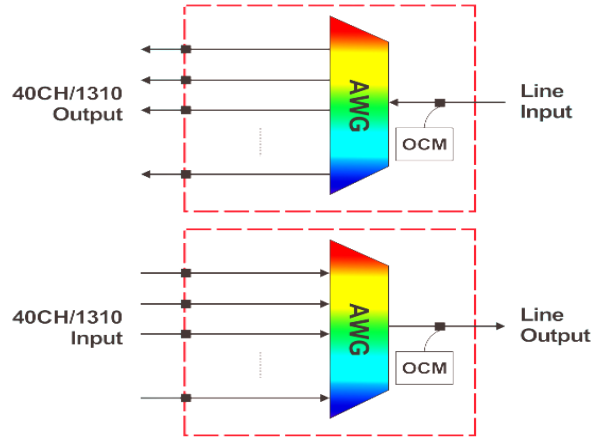
2 Applications

- ✓ Access network/metropolitan area network/backbone network optical service transmission.
- ✓ High-volume transmission for data center.
- ✓ 5G front-haul network data backhaul.

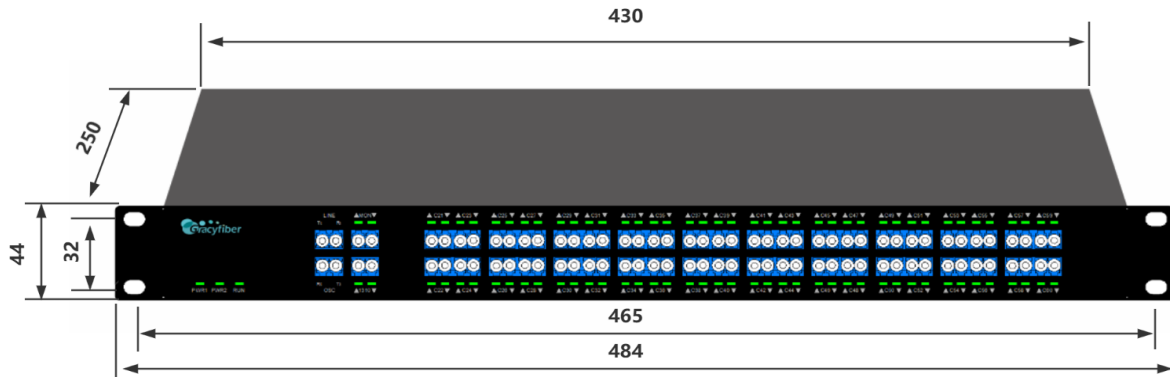
3. Specifications

Parameters		Unit	Value
Channel Number		/	40
Channel Spacing		GHz	100
Center Wavelength		nm	1529.55 ~ 1560.61
Channel Frequency		THz	192.1 ~196.0
Power monitoring range		dBm	-28~+23
Power monitoring accuracy		dB	±0.5
Reference Passband		nm	±0.1
Wavelength Accuracy		pm	±50
Insertion Loss	@ITU	dB	≤ 4.5
	Maximum within Reference Passband	dB	≤ 6.0
	1310 port	dB	≤ 2.0
	1% Mon	dB	≤ 27
Insertion Loss Uniformity		dB	≤ 1.5
Passband Ripple		dB	≤ 1.5
Bandwidth	@1dB	nm	≥ 0.2
	@3dB		≥ 0.4
Isolation	Adjacent Channels	dB	≥24
	Non-adjacent Channels		≥29
Total crosstalk		dB	≥22
Directivity		dB	≥41
PDL		dB	≤0.9
PMD		ps	≤0.5
Return Loss		dB	≥41
Chromatic Dispersion		ps/nm	±20
Power handling		mw	<500
Operating Temperature		°C	-5 to +65
Storage Temperature		°C	-40 to +85
Relative Humidity		%	5 to 90
Size		nm	482.6W×400D×44.5H
Consumption		W	≤20W

4. Structure Diagram



5. Mechanical Dimensions



6. Ordering information

IAWG	-	XX	X	XX	X	XX	-	X	X
		Channel No.	WDM Type	Initial CW	MUX/DEMUX Type	Package Type		Input Connector	Output Connector
IAWG		04= 04CH	X=100G	13= C13	M=Mux	19= 484*250*44		0=No	0=No
		Z=150G	...	D= Demux			1=FC/UPC	1=FC/UPC
		40= 40CH		61=C61	M&D= Mux&Demux			2=FC/APC	2=FC/APC
								3=SC/UPC	3=SC/UPC
								4=SC/APC	4=SC/APC
								5=LC/UPC	5=LC/UPC
								6=LC/APC	6=LC/APC

Part Number	Product Description
IAWG-40X21M&D19-55	100GHz IAWG Mux& Demux Module C21~C60, 1529.55~1560.61nm 40CH Port, 19"1U Rack Mount (484*250*44mm), COM LC/UPC, Port LC/UPC, MON LC/UPC, 1310 LC/UPC

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