FICER Technology Co., Ltd.
明虹科技股份有限公司

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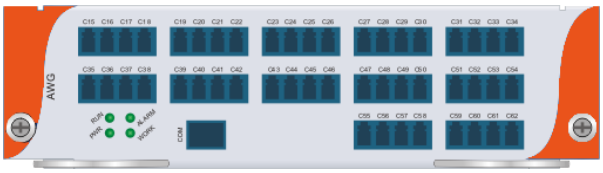
Rev.E0R3.30_20230718

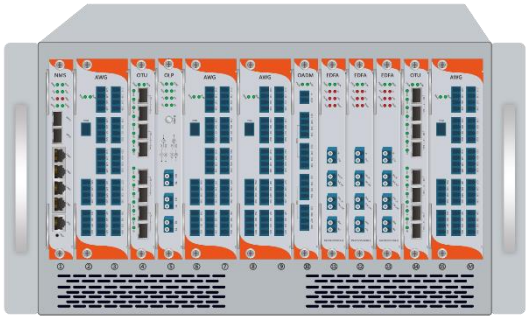
Athermal AWG DWDM 100GHz Module

Part Number: F616-AAWG40 / AAWG48



AAWG40 / AAWG48 Card

2.5U8S Chassis



6U16S Chassis

Overview

AAWG40 is a combined passive 40-channel 100GHz DWDM multiplexer and de-multiplexer (MUX & DEMUX) , It combines standard 100GHZ DWDM ITU grid channels 21 through 60, and Applies to F616 2.5U chassis and 6U chassis, occupying 2 service slots .The AAWG40 is ideal for increasing the fiber capacity between two sites without the need for installing or leasing additional fibers. The complete passive solution requires no power cabling and no configuration; it is a true plug and play solution. The AAWG40 enables separation of the active equipment from wavelength multiplexing components. It is used in conjunction with active optical devices applied in C-band wavelength range with MAX expanding up to 48 channels.

Applications

- Metro DWDM distance extension
- Long-Haul transmission system

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Features

- Channel spacing 100GHz (0.8nm) up to MAX 48 channels can be multiplexed
- High integration
- Low insertion loss ≤5dB, typical 4.5dB
- High channel isolation
- Adjacent isolation ≥25dB
- Non-adjacent isolation ≥35dB
- Perfect indicator status
- Advanced network management feature : Support SNMP, CLI, WEB approach
- Full graphical management
- Fit F616 2.5U8S & 6U16S Chassis
- All Chassis support 19" Rack

Specification

Parameters		Min	Typ	Max	Unit
Number of Channels			40/48		
Channel Spacing			100		GHz
Channel Center Wavelength			C -band		nm
Center Frequency Accuracy			±0.05		nm
1 dB Passband		0.4			nm
3 dB Passband		0.6			nm
Insertion Loss Passband			4.5	6.0	dB
Adjacent channel isolation			25		dB
Non-adjacent,channel isolation			35		dB
Total Crosstalk			25		
Insertion Loss Uniformity			1.5		dB
Directivity (Mux Only)			40		dB
Insertion Loss Ripple			0.5		dB
Optical Return Loss			40		dB
Polarization Dependent Loss (PDL)			0.3	0.5	dB
Polarization Mode Dispersion (PMD)			0.5		ps
Maximum Optical Power			24		dBm
Operating Temperature			-5 ~ +75 ˚C		˚C
Storage Temperature			-40 ~ +85 ˚C		˚C
Relative Humidity			5 to 95% maximum, non-condensing		
Size	AWG Module		26.5(W) x 195(D) x 252(H)		mm
	8-slot chassis		482.6(W) x 360(D) x 109(H)		
	16-slot chassis		482.6(W) x 360(D) x 261.6(H)		

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ITU Grid 100GHz Channels List

Channel	Central Wavelength(nm)	Frequency (THZ)
CH61	1528.77	196.1
CH60	1529.55	196.0
CH59	1530.33	195.9
CH58	1531.12	195.8
CH57	1531.90	195.7
CH56	1532.68	195.6
CH55	1533.47	195.5
CH54	1534.25	195.4
CH53	1535.04	195.3
CH52	1535.82	195.2
CH51	1536.61	195.1
CH50	1537.40	195.0
CH49	1538.19	194.9
CH48	1538.98	194.8
CH47	1539.77	194.7
CH46	1540.56	194.6
CH45	1541.35	194.5
CH44	1542.14	194.4
CH43	1542.94	194.3
CH42	1543.73	194.2
CH41	1544.53	194.1
CH40	1545.32	194.0
CH39	1546.12	193.9
CH38	1546.92	193.8
CH37	1547.72	193.7
CH36	1548.51	193.6
CH35	1549.32	193.5
CH34	1550.12	193.4
CH33	1550.92	193.3
CH32	1551.72	193.2
CH31	1552.52	193.1
CH30	1553.33	193.0
CH29	1554.13	192.9
CH28	1554.94	192.8
CH27	1555.75	192.7
CH26	1556.55	192.6
CH25	1557.36	192.5
CH24	1558.17	192.4
CH23	1558.98	192.3
CH22	1559.79	192.2
CH21	1560.61	192.1
CH20	1561.42	192.0
CH19	1562.23	191.9
CH18	1563.05	191.8
CH17	1563.86	191.7
CH16	1564.68	191.6
CH15	1565.50	191.5
CH14	1566.31	191.4

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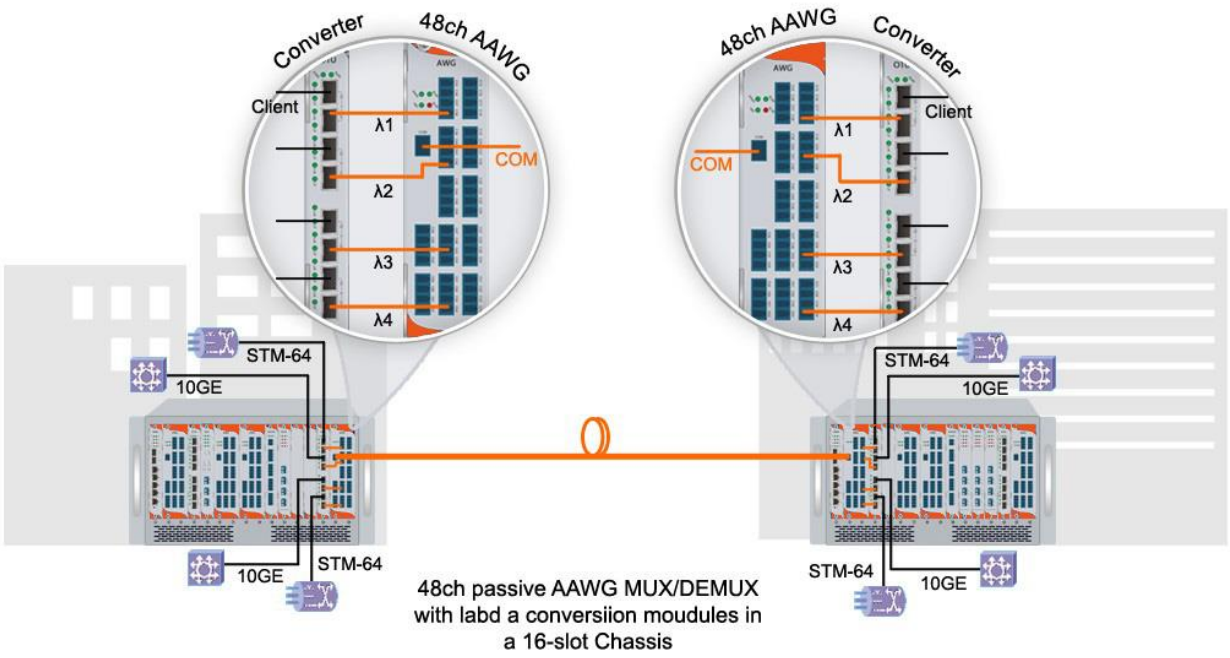
Application Scheme



Ordering Information

Part No.	Wavelength and ITU Grid 100GHz Channel
AAWG40	1560.61nm - 1529.55nm (CH21 – CH60)
AAWG48	1565.50nm - 1527.99nm (CH14 – CH61)
AAWG40S	1560.61nm - 1529.55nm (CH21 – CH60) with OSC port
AAWG48S	1565.50nm - 1527.99nm (CH14 – CH61) with OSC port

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