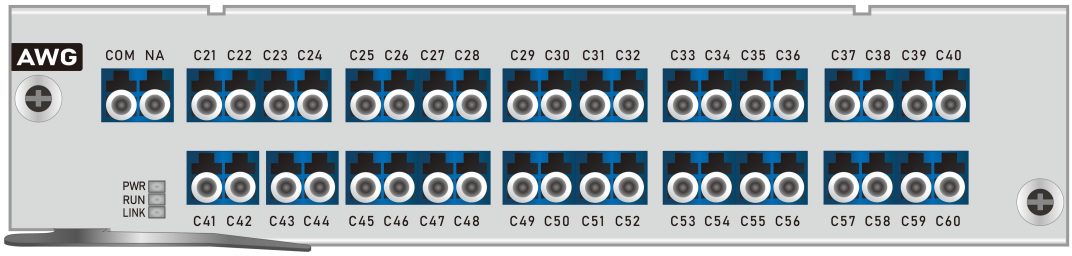
40ch DWDM MUX/DEMUX（AAWG）

The HT6000-AAWG40 from HTF is a combined passive Forty-Channel 100GHz DWDM multiplexer and de-multiplexer (MUX & DEMUX). It combines standard 100GHZ DWDM ITU grid channels 21 through 60, and applies to 1U chassis,2U chassis and 5U chassis, occupying two service slots.



Function

- 40 channel DWDM optical signal multiplexed into one fiber
- 40 channel optical signal de-multiplexer to single-wavelength signals

Highlight

- 40 Channel Multiplexer and Demultiplexer (MUX & DEMUX)
- Plug and play: requires no configuration
- Green product: completely passive, needs no power and no cooling
- Low insertion loss, insertion loss ≤6dB, typ 4.5dB
- Uniform insertion loss variation over the 40-channels - less than 1dB (typical 0.6dB)per MUX or DEMUX
- High channel isolation
  - Adjacent isolation ≥25dB
  - Non-adjacent isolation ≥35dB
- High reliability, MTBF of 100 years

The HT6000-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 AAWG enables separation of the active equipment from wavelength multiplexing components. It may be used in conjunction with active optical devices from HTF or from another DWDM-compliant manufacturers.

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Performance Parameter

Parameter	Note	Specification		Unit
		Min.	Max.	
Channels		40		Ch
Channel Spacing		100		GHz
Reference Pass-band	Relative to ITU Grid	± 0.1		nm
ITU Frequency	On ITU grid in C-band	196.0	192.1	THz
ITU Wavelength	On ITU grid in C-band	1530.33	1561.42	nm
Center Frequency Accuracy	Maximum of the absolute deviation of the 3 dB center wavelength from ITU grid over all channels	-0.05	+0.05	nm
Insertion Loss	Maximum of the insertion loss across the ITU pass-band over all channels		6.0	dB
Insertion Loss Uniformity	Maximum insertion loss variance across all channels		1.0	dB
Ripple	Maximum of the loss variance across the ITU pass-band over all channels		0.75	dB
1dB Bandwidth	1dB from min Insertion Loss, full width, average polarization	0.36		nm
3dB Bandwidth	3 dB from min Insertion Loss, full width, average polarization	0.51		nm
Adjacent Channel Isolation	Ratio of peak transmission to the maximum transmission over both adjacent pass-bands	25		dB
Non-Adjacent Channel Isolation	Ratio of peak transmission in channel pass-bands to maximum transmission over all non-adjacent pass-bands	35		dB
Total Crosstalk	Ratio of power in channel to power in all other pass-bands	21		dB
Polarization Dependent Loss	Maximum ratio of transmissions over all polarization states, over the ITU pass-band		0.5	dB
Return Loss		45		dB
Polarization Mode Delay (PMD)	In Reference Passband over all channels		0.5	ps
Chromatic Dispersion	In Reference Passband over all channels	-20	20	ps/nm
Size	AAWG40 Module	191 (W) x 253 (D) x 41 (H)		mm
Environment	Operating Temperature	-10℃～+60		℃
	Storage Temperature	-40℃～+85		℃
	Relative Humidity	5%~95% Non-condensing		

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Channels List: Pass bands for 40 channel AAWG

Channel	On ITU Grid in C-Band		Channel	On ITU Grid in C-Band	
	Frequency(THz)	Wavelength(nm)		Frequency(THz)	Wavelength(nm)
C21	192.1	1560.61	C41	194.1	1544.53
C22	192.2	1559.79	C42	194.2	1543.73
C23	192.3	1558.98	C43	194.3	1542.94
C24	192.4	1558.17	C44	194.4	1542.14
C25	192.5	1557.36	C45	194.5	1541.35
C26	192.6	1556.55	C46	194.6	1540.56
C27	192.7	1555.75	C47	194.7	1539.77
C28	192.8	1554.94	C48	194.8	1538.98
C29	192.9	1554.13	C49	194.9	1538.19
C30	193.0	1553.33	C50	195.0	1537.40
C31	193.1	1552.52	C51	195.1	1536.61
C32	193.2	1551.72	C52	195.2	1535.82
C33	193.3	1550.92	C53	195.3	1535.04
C34	193.4	1550.12	C54	195.4	1534.25
C35	193.5	1549.32	C55	195.5	1533.47
C36	193.6	1548.51	C56	195.6	1532.68
C37	193.7	1547.72	C57	195.7	1531.90
C38	193.8	1546.92	C58	195.8	1531.12
C39	193.9	1546.12	C59	195.9	1530.33
C40	194.0	1545.32	C60	196.0	1529.56

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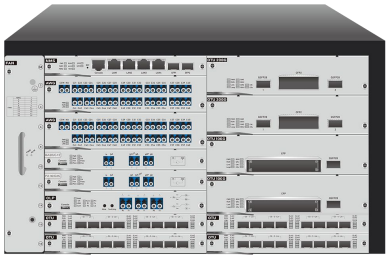
HT6000 Series Chassis

CH04 Chassis

- Standard 1U, 19", 4 slots
- Dual power supply AC/DC optional
- Multiple service card hybrid insertion
- Support 10G/100G /200G hybrid transmission

CH08 Chassis

- Standard 2U, 19", 8 slots
- Dual power supply AC/DC optional
- Multiple service card hybrid insertion
- Support 10G/100G /200G hybrid transmission



CH20 Chassis

- Standard 5U, 19", 20 slots
- Dual power supply AC/DC optional
- Multiple service card hybrid insertion
- Support 10G/100G /200G hybrid transmission

HT6000 Series Chassis is the foundation for deploying and managing the HTF multi-service mixed-media solutions.

HT6000 Series Chassis Optional			
CH04 Chassis: 482.5(W) x 350(D) x 44.5(H) mm	1U 19-inch chassis	1 network management slot	3 universal service slots
CH08 Chassis: 482.5(W) x 350(D) x 89(H) mm	2U 19-inch chassis	1 network management slot	7 universal service slots
CH20 Chassis: 482.5(W) x 350(D) x 222.5(H) mm	5U 19-inch chassis	1 network management slot	19 universal service slots
Power Consumption: 1U <120W, 2U<200W, 5U<400W			
Support SNMP, Web, CLI multiple network management modes			
Support dual power supply redundancy protection, Power supply support AC: 220V / DC: -48V optional			

HT6000 Series Chassis support multiple service intermixing:

100G Transponder	100G OEO	4/8/16/40/48 Channel DWDM MUX/DEMUX,or OADM Card
2x100G to 200G Muxponder	25G OEO	4/8/16 Channel CWDM MUX/DEMUX
4x25G to 100G Muxponder	2x10G OCP Transponder	OLP Optical Line Protection
4x10G SFP+ Transponder	8x1.25G Convergence 10G Muxponder	EDFA Card

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