

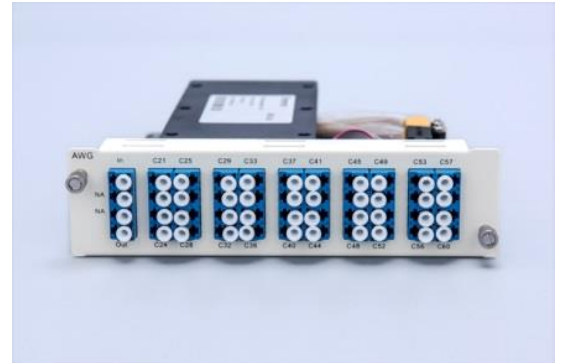
TAWG card

■ Product Description

TAWG: Thermal Arrayed-Waveguide Grating mainly is used in DWDM system. It transmits signal by making different ITU-T DWDM wavelength signals multiplex to single fiber in receiving terminal. It decomposes composite signal into different ITU-T DWDM wavelength signal. The product has a low insertion loss, high channel insertion loss consistency, Need external power supply.

■ Product features

- Low insertion loss
- High consistency channel insertion loss
- Low polarization dependent loss
- High channel isolation
- Excellent environmental reliability
- High level of integration by plug-in design



■ Performance index

Parameters	Notes	Specifications		Units
		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 Even	196.00	192.10	THz
ITU Wavelength	On ITU grid in C-band Even	1529.553	1560.606	nm
ITU Frequency	On ITU grid in C-band ODD	196.05	192.15	THz
ITU Wavelength	On ITU grid in C-band ODD	1529.163	1560.200	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		6.2	dB
Insertion Loss Uniformity	Maximum insertion loss variance across all channels		1.3	dB
Ripple	Maximum of the loss variance across the ITU pass-band over all channels		0.5	dB
0.5 dB Bandwidth	0.5 dB from min Insertion Loss, full width, worst case polarization	0.2		nm
1dB Bandwidth	1dB from min Insertion Loss, full width, average polarization	0.4		nm
3dB Bandwidth	3 dB from min Insertion Loss, full width, average polarization	0.55		nm
20 dB bandwidth	20 dB from min Insertion Loss, full width, average polarization		1.2	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	30		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		40		dB
Polarization Mode Delay (PMD)	In Reference Passband over all channels		0.5	ps
Chromatic Dispersion	In Reference Passband over all channels	-15	15	ps/nm
Consumption			3	W