

## Athermal AWG Module

The athermal Array Waveguide Grating Module (AWG) from Sintai is based on waveguide grating technology on the silicon substrates and adopts the unique thermal-free package design, which is a completely passive DWDM solution without power, software or temperature control. Accurate channel coupling, low insertion loss, high channel isolation and high stability can be achieved. Each module has multiplexing and de-multiplexing functions and is one of the most important devices in DWDM system

### Product Feature

Low insertion loss

High channel isolation

High stability and reliability

Low polarization dependent loss

Multi-channel number

### Product Specification

| Parameter                      | Unit | characteristic             |          |
|--------------------------------|------|----------------------------|----------|
|                                |      | Gauss                      | Flat top |
| ITU                            | GHz  | ±12.5                      |          |
| Channel Spacing                | nm   | 0.8nm(100GHz)              |          |
| Channel Number                 |      | 40、48or customer specified |          |
| Wavelength accuracy            | nm   | ≤0.05                      |          |
| Channel Insertion Loss         | dB   | ≤5.0                       | ≤5.5     |
| -1dB Bandwidth                 | nm   | ≤0.2                       | ≤0.34    |
| -3dB Bandwidth                 | nm   | ≤0.4                       | ≤0.51    |
| Adjacent Channel Isolation     | dB   | ≥25                        |          |
| Non-Adjacent Channel Isolation | dB   | ≥30                        |          |
| Total isolation                | dB   | ≥22                        | ≥23      |
| Channel Ripple                 | dB   | ≤1.5                       |          |
| Return Loss                    | dB   | ≥45                        |          |
| Directivity                    | dB   | ≥50                        |          |
| PDL                            | dB   | ≤0.5                       |          |
| PMD                            | ps   | ≤0.5                       |          |
| Power Handling                 | mW   | ≤300                       |          |
| Operating Temperature          | °C   | -10~+70                    |          |
| Storage Temperature            | °C   | -40 ~+85                   |          |
| Fiber Type                     | -    | Corning SMF-28e Ultra      |          |
| Package Size                   | mm   | 120x70x12                  |          |

| Parameter                      | Unit | characteristic              |          |
|--------------------------------|------|-----------------------------|----------|
|                                |      | Gauss                       | Flat top |
| ITU                            | GHz  | ±6.25                       |          |
| Channel Spacing                | nm   | 0.4nm(50GHz)                |          |
| Channel Number                 |      | 80、96 or customer specified |          |
| Wavelength accuracy            | nm   | ≤0.05                       |          |
| Channel Insertion Loss         | dB   | ≤7.0                        | ≤8.0     |
| -1dB Bandwidth                 | nm   | ≤0.24                       | ≤0.34    |
| -3dB Bandwidth                 | nm   | ≤0.3                        | ≤0.51    |
| Adjacent Channel Isolation     | dB   | ≥18                         |          |
| Non-Adjacent Channel Isolation | dB   | ≥25                         |          |
| Total isolation                | dB   | ≥15                         | ≥16      |
| Channel Ripple                 | dB   | ≤1.5                        |          |
| Return Loss                    | dB   | ≥45                         |          |
| Directivity                    | dB   | ≥50                         |          |
| PDL                            | dB   | ≤0.5                        |          |
| PMD                            | ps   | ≤0.5                        |          |
| Power Handling                 | mW   | ≤300                        |          |
| Operating Temperature          | °C   | -10~+70                     |          |
| Storage Temperature            | °C   | -40 ~+85                    |          |
| Fiber Type                     | -    | Corning SMF-28e Ultra       |          |
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