

Avanex's 200 GHz Single Channel DWDM Components allow system designers optimal configuration flexibility. These Telcordia-qualified devices can be used to correct amplifier non-linearity, suppress noise, and eliminate crosstalk. These dielectric filter-based devices offer low insertion loss and high isolation in a totally passive device. They are available using standard micro-optic technology or with MultiPort technology.¹

1. Patents pending.

FEATURES

- 200 GHz Spacing on ITU Grid
- Totally Passive
- No Epoxy in the Optical Path
- Low Insertion Loss and High Isolation
- Transport-Protocol-Independent
- Telcordia Qualified

APPLICATIONS

- Bi-Directional and Uni-Directional Networks
- Noise Suppression in Optical Amplifiers
- Filtering Non-Linearity in Optical Amplifiers
- Building Multi-Channel DWDM Systems from Modular Single-Wavelength DWDM Filters



MULTIPORT TECHNOLOGY

MultiPort technology uses innovative, submicron precision alignment to enable multiple, independent optical paths to pass through the same filter simultaneously. MultiPort technology dramatically reduces the overall installation costs of DWDM communications systems, while offering improved performance in the network.

KEY OPTICAL PARAMETERS

Parameters	Conditions
Channel Spacing	Standard 200 GHz ITU grid
Operating Wavelength Range	C-Band, L-Band
Passband	$> \pm 32.5$ GHz
Insertion Loss (Common to Drop)	< 1.0 dB
Insertion Loss (Common to Pass Through)	< 0.5 dB
Ripple (Common to Drop)	< 0.4 dB
Adjacent Channel Isolation	> 25 dB
Non-adjacent Channel Isolation	> 40 dB
Drop Channel Isolation	> 12 dB
Directivity	> 45 dB
Return Loss	> 40 dB
Polarization Dependent Loss	< 0.15 dB
Polarization Mode Dispersion	< 0.15 ps
Optical Power	< 25 dBm
Thermal Drift	< 1.2 pm/°C

KEY ENVIRONMENTAL PARAMETERS

Operating Temperature Range	-5 °C to 65 °C
Storage Temperature Range	-40 °C to 85 °C

PHYSICAL DIMENSIONS AND DESIGN

Length	33 ± 0.61 mm
Diameter	5.5 ± 0.10 mm

DESIGN

Avanex's single channel DWDM filters are cylindrical with Corning SMF-28™ optical fiber pigtailed. The standard three port component has one input, one reflect and one transmit, with a loose tube in the single fiber end. Single channel DWDM filters using MultiPort technology have two inputs, two reflects and two transmits in 900 micron tubing.