

Introduction:

Fiberdyne's Dense Wavelength Division Multiplexer (DWDM) modules use Athermal Arrayed Waveguide (AAWG) technology. The module can also provide a splitter (i.e. tap), for sampling and monitoring link traffic.

Features:

- Established silica-on-silicon technology
- Extremely low crosstalk
- Low insertion loss
- Low PDL
- Low Chromatic Dispersion
- Telcordia GR-1221-CORE qualified
- Athermal - External Temperature Control not required



Applications:

- DWDM Transmission
- Wavelength routing
- Optical add/drop multiplexing

Specifications:

Parameter	Specifications		
	Min	Typ	Max
Number of Channels	16/32/40/44/48		
Number Channel Spacing (GHz)	100		
Channel Center Wavelength(nm)	C-band		
Clear Channel Passband	±0.1		
Wavelength Stability	±0.05		
-1dB Channel Bandwidth	0.36		
-3dB Channel Bandwidth	0.51		
Optical Insertion Loss at ITU Grid (dB)		4.5	6.0
Adjacent Channel Isolation (dB)	25		
Non-Adjacent Channel Isolation (dB)	30		
Total Channel Isolation (dB)	24		
Insertion Loss Uniformity (dB)			1.0

Parameter	Specifications		
	Min	Typ	Max
Directivity (Max Only) (dB)	40		
Insertion Loss Ripple (dB)			1.0
Optical Return Loss (dB)	40		
Polarization Dependent Loss in Clear Channel Band (dB)		0.3	0.5
Polarization Mode Dispersion (ps)			0.5
Maximum Optical Power (dBm)			23
MUX / DEMUX Input / Output Monitoring Range (dBm)	-35		+23
Operating Temperature (C°)	-5	+25	+65
Operating Humidity (%RH)	5		95
Storage Temperature (C°)	-40		+85
Storage Humidity (%RH)	5		95
Package Size (mm)	L120 x W70 x H10		
Size between Screws (mm)	110 x 60		

*IL Represents the worst case over +/-0.1nm window around the ITU wavelength.

*PDL was measured on average polarization over a +/-0.1nm window around the ITU wavelength.

*Specifications may change without notice.

Available in several Channel Configurations.

Contact Fiberdyne Sales at sales@fiberdyne.com for your specific requirements.

Note: Can be used as Mux or Demux

AWG DWDM Field Modules Blue

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1000	Arrayed waveguide grating DWDM, blue, athermal, wideband, 100GHZ, 1 meter,	1529.55	16	120x70x10.5 mm	LC/UPC
FRX-1001	Arrayed waveguide grating DWDM, blue, athermal, wideband, 100GHZ, 1 meter,	1529.55	16	120x70x10.5 mm	LC/APC
FRX-1002	Arrayed waveguide grating DWDM, blue, athermal, wideband, 100GHZ, 1 meter,	1529.55	16	120x70x10.5 mm	SC/UPC
FRX-1003	Arrayed waveguide grating DWDM, blue, athermal, wideband, 100GHZ, 1 meter,	1529.55	16	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules Red

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1020	Arrayed waveguide grating DWDM, red, athermal, wideband, 100GHZ, 1 meter,	1548.52	16	120x70x10.5 mm	LC/UPC
FRX-1021	Arrayed waveguide grating DWDM, red, athermal, wideband, 100GHZ, 1 meter,	1548.52	16	120x70x10.5 mm	LC/APC
FRX-1022	Arrayed waveguide grating DWDM, red, athermal, wideband, 100GHZ, 1 meter,	1548.52	16	120x70x10.5 mm	SC/UPC
FRX-1023	Arrayed waveguide grating DWDM, red, athermal, wideband, 100GHZ, 1 meter,	1548.52	16	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1040	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.55	40	120x70x10.5 mm	LC/UPC
FRX-1041	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.55	40	120x70x10.5 mm	LC/APC
FRX-1042	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.55	40	120x70x10.5 mm	SC/UPC
FRX-1043	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.55	40	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1060	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1530.33	40	120x70x10.5 mm	LC/UPC
FRX-1061	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1530.33	40	120x70x10.5 mm	LC/APC
FRX-1062	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1530.33	40	120x70x10.5 mm	SC/UPC
FRX-1063	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1530.33	40	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1080	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.94	40	120x70x10.5 mm	LC/UPC
FRX-1081	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.94	40	120x70x10.5 mm	LC/APC
FRX-1082	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.94	40	120x70x10.5 mm	SC/UPC
FRX-1083	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.94	40	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1100	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.16	40	120x70x10.5 mm	LC/UPC
FRX-1101	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.16	40	120x70x10.5 mm	LC/APC
FRX-1102	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.16	40	120x70x10.5 mm	SC/UPC
FRX-1103	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1529.16	40	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1120	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1530.73	40	120x70x10.5 mm	LC/UPC
FRX-1121	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1530.73	40	120x70x10.5 mm	LC/APC
FRX-1122	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1530.73	40	120x70x10.5 mm	SC/UPC
FRX-1123	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter,	1530.73	40	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1140	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter, L-Band	1569.59	40	120x70x10.5 mm	LC/UPC
FRX-1141	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter, L-Band	1569.59	40	120x70x10.5 mm	LC/APC
FRX-1142	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter, L-Band	1569.59	40	120x70x10.5 mm	SC/UPC
FRX-1143	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter, L-Band	1569.59	40	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1160	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter, L-Band	1567.95	44	120x70x10.5 mm	LC/UPC
FRX-1161	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter, L-Band	1567.95	44	120x70x10.5 mm	LC/APC
FRX-1162	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter, L-Band	1567.95	44	120x70x10.5 mm	SC/UPC
FRX-1163	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter, L-Band	1567.95	44	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1180	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.16	44	120x70x10.5 mm	LC/UPC
FRX-1181	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.16	44	120x70x10.5 mm	LC/APC
FRX-1182	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.16	44	120x70x10.5 mm	SC/UPC
FRX-1183	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.16	44	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1200	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.55	44	120x70x10.5 mm	LC/UPC
FRX-1201	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.55	44	120x70x10.5 mm	LC/APC
FRX-1202	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.55	44	120x70x10.5 mm	SC/UPC
FRX-1203	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.55	44	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1220	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1530.33	44	120x70x10.5 mm	LC/UPC
FRX-1221	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1530.33	44	120x70x10.5 mm	LC/APC
FRX-1222	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1530.33	44	120x70x10.5 mm	SC/UPC
FRX-1223	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1530.33	44	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1240	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1528.77	48	120x70x10.5 mm	LC/UPC
FRX-1241	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1528.77	48	120x70x10.5 mm	LC/APC
FRX-1242	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1528.77	48	120x70x10.5 mm	SC/UPC
FRX-1243	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1528.77	48	120x70x10.5 mm	SC/APC

AWG DWDM Field Modules

Part Number	Description	Wavelength	Channel	Size	Connector
FRX-1260	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.16	48	120x70x10.5 mm	LC/UPC
FRX-1261	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.16	48	120x70x10.5 mm	LC/APC
FRX-1262	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.16	48	120x70x10.5 mm	SC/UPC
FRX-1263	Arrayed waveguide grating DWDM, athermal, wideband, 100GHZ, 1 meter	1529.16	48	120x70x10.5 mm	SC/APC