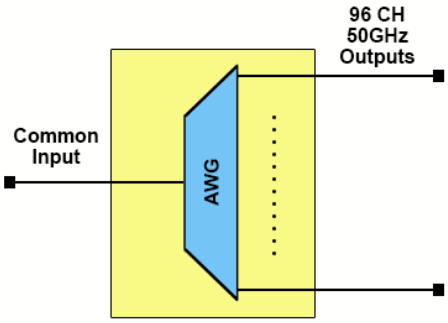
Introduction:

Fiberdyne's 50G Flat Top Athermal AWG Module, is a high performance product based on silica-on-silicon planar technology and a unique Athermal packaging design requiring no electrical power, software or temperature control for a completely passive DWDM solution.

Specifications:

Parameters	Conditions	Specifications		Units
		Min	Max	
Operating Temperature	Operating	-5	65	℃
Operating Humidity	Operating	0	90	%RH
Storage Temperature	Non_Operating	-40	+85	℃
Storage Humidity	Non_Operating	0	90	%RH

Optical signal transmission diagram



Rackmount Options:

- Single Fiber Mux/Demux or Dual Fiber Mux & Demux
- Bi-Directional Test/Monitor Ports
- Directional Dual Test Ports
- Express 1310 Port

19/23 Inch Rackmount

Optical Specifications (Flat top Athermal AWG)

Parameters	Notes	Specifications		Units
		Min	Max	
Channels		96		Ch
Channel Spacing		50		GHz
Reference Pass-band	Relative to ITU Grid	±0.05		nm
ITU Frequency	On ITU grid in C-band	196.10	191.35	THz
ITU Wavelength	On ITU grid in C-band	1528.773	1566.723	nm
Center Frequency Accuracy	Maximum of the absolute deviation of the 3 dB center wavelength from ITU grid over all channels	-0.04	+0.04	nm
Insertion Loss	Maximum of the insertion loss across the ITU pass-band over all channels		7.0	dB
Insertion Loss Uniformity	Maximum insertion loss variance across all channels		1.5	dB
Ripple	Maximum of the loss variance across the ITU pass-band over all channels		0.7	dB
1dB Bandwidth	1dB from min Insertion Loss, full width, average polarization	0.18		nm
3dB Bandwidth	3 dB from min Insertion Loss, full width, average polarization	0.28		nm
20dB Bandwidth	20 dB from min Insertion Loss, full width, average polarization		0.7	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 maximize transmission over all non-adjacent pass-bands	30		dB
Total Crosstalk	Ratio of power in channel to power in all other pass-bands	20		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		1.0	ps
Chromatic Dispersion	In Reference Passband over all channels	-35	35	ps/nm
Optical Power	at common port		23	dBm

Channels List: Passbands for 96 channel AAWG

Channel	Frequency (THz)	Wavelength (nm)	Channel	Frequency (THz)	Wavelength (nm)
1	196.05	1529.163	2	196.1	1528.773
3	195.95	1529.944	4	196	1529.553
5	195.85	1530.725	6	195.9	1530.334
7	195.75	1531.507	8	195.8	1531.116
9	195.65	1532.290	10	195.7	1531.898
11	195.55	1533.073	12	195.6	1532.681
13	195.45	1533.858	14	195.5	1533.465
15	195.35	1534.643	16	195.4	1534.250
17	195.25	1535.429	18	195.3	1535.036
19	195.15	1536.216	20	195.2	1535.822
21	195.05	1537.003	22	195.1	1536.609
23	194.95	1537.792	24	195	1537.397
25	194.85	1538.581	26	194.9	1538.186
27	194.75	1539.371	28	194.8	1538.976
29	194.65	1540.162	30	194.7	1539.766
31	194.55	1540.953	32	194.6	1540.557
33	194.45	1541.746	34	194.5	1541.349
35	194.35	1542.539	36	194.4	1542.142
37	194.25	1543.333	38	194.3	1542.936
39	194.15	1544.128	40	194.2	1543.730
41	194.05	1544.924	42	194.1	1544.526
43	193.95	1542.720	44	194	1545.322
45	193.85	1546.518	46	193.9	1546.119
47	193.75	1547.316	48	193.8	1546.917
49	193.65	1548.115	50	193.7	1547.715
51	193.55	1548.915	52	193.6	1548.515
53	193.45	1549.715	54	193.5	1549.315
55	193.35	1550.517	56	193.4	1550.116
57	193.25	1551.319	58	193.3	1550.918
59	193.15	1552.122	60	193.2	1551.721
61	193.05	1552.926	62	193.1	1552.524
63	192.95	1553.731	64	193	1553.329
65	192.85	1554.537	66	192.9	1554.134
67	192.75	1555.343	68	192.8	1554.940
69	192.65	1556.151	70	192.7	1555.747
71	192.55	1556.959	72	192.6	1556.555
73	192.45	1557.768	74	192.5	1557.363
75	192.35	1558.578	76	192.4	1558.173
77	192.25	1559.389	78	192.3	1558.983
79	192.15	1560.200	80	192.2	1559.794
81	192.05	1561.013	82	192.1	1560.606
83	191.95	1561.826	84	192.0	1561.419
85	191.85	1562.640	86	191.9	1562.232
87	191.75	1563.455	88	191.8	1563.047
89	191.65	1564.271	90	191.7	1563.863
91	191.55	1565.087	92	191.6	1564.679
93	191.45	1565.905	94	191.5	1565.496
95	191.35	1566.723	96	191.4	1566.314

Available in several Channel Configurations. Contact Fiberdyne Sales at sales@fiberdyne.com for your specific requirements.

