

AAWG Module Specifications

TAKFLY COMMUNICATIONS CO., LTD .
(Version 1.0)

Table of Contents

1. Features	1
-------------------	---

2. Applications.....	2
3. Optical Specifications	2
4. Wavelength Plan	3
5. Transmission Spectra	5
6. Absolute Maximum Rating	5
7. Mechanical Schematic and Dimensions	6
8. Fiber Connector Specifications	6
9. Ordering Part Code Sequence	7

1. Features

Multi-channel number

Low insertion loss and PDL

High channel isolation

MUX and DEMUX functionality

Qualified under Telcordia 1209/1221 and RoHS compliant

2. Applications

DWDM transmission

Metro Area Networks

Long Haul Networks

Building blocks for ROADMs

3. Optical Specifications

Parameter	Unit	Value			Other
		Min.	Typ.	Max.	
Output Number of Channels		40			
Channel Spacing	GHz	100			
Operating Band		C Band			
Center Wavelength Accuracy	pm	50		50	
1dB Bandwidth	pm	40			
3dB Bandwidth	pm	60			
Insertion Loss	dB		5.5	6.0	
Ripple	dB			0.5	
Insertion Loss Uniformity	dB			1.5	

Adjacent Channel Crosstalk	dB			23	
Non-Adjacent Channel Crosstalk	dB			30	
Total Crosstalk	dB			21	
Polarization Dependent Loss	dB			0.5	
Polarization Mode Dispersion	ps			0.5	
Chromatic Dispersion	ps/nm	-20		+20	
Return Loss	dB	40			

Remark:

1. Output Number of Channels 8, 16,32, 48 channels available;
2. IL Represents the worst case over a +/- 12.5GHz window around the ITU wavelength ;
3. PDL was measured on average polarization over a +/- 12.5GHz window around the ITU wavelength.

4. Wavelength Plan

No	C Even		C Even +		C Odd		C Odd +	
	f(THz)	λ (nm)	f(THz)	λ (nm)	f(THz)	λ (nm)	f(THz)	λ (nm)
1	196.000	1529.553	196.025	1529.358	196.050	1529.163	196.075	1528.968
2	195.900	1530.334	195.925	1530.139	195.950	1529.944	195.975	1529.748
3	195.800	1531.116	195.825	1530.920	195.850	1530.725	195.875	1530.529
4	195.700	1531.898	195.725	1531.702	195.750	1531.507	195.775	1531.311
5	195.600	1532.681	195.625	1532.485	195.650	1532.290	195.675	1532.094

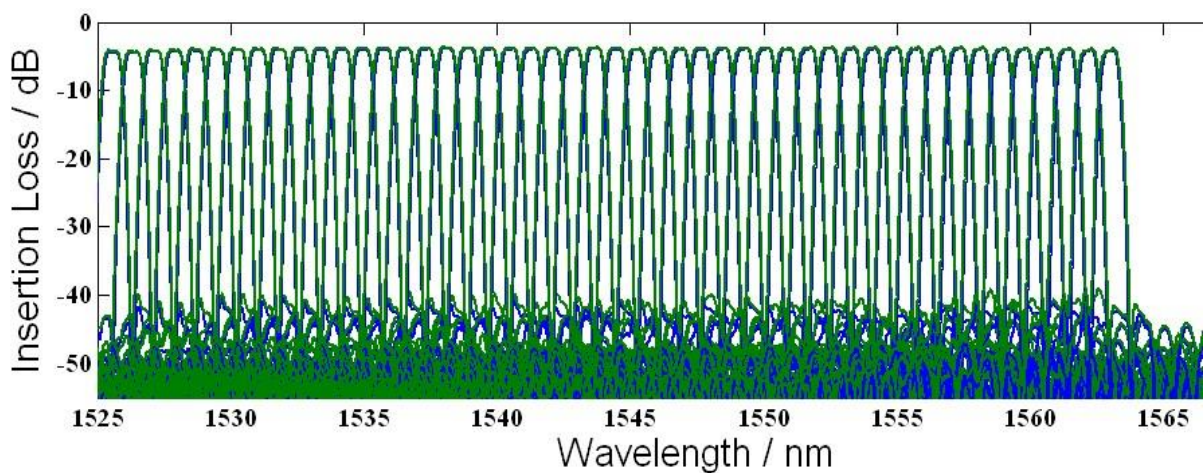
6	195.500	1533.465	195.525	1533.269	195.550	1533.073	195.575	1532.877
7	195.400	1534.250	195.425	1534.054	195.450	1533.858	195.475	1533.661
8	195.300	1535.063	195.325	1534.839	195.350	1534.643	195.375	1534.446
9	195.200	1535.822	195.225	1535.625	195.250	1535.429	195.275	1535.232
10	195.100	1536.609	195.125	1536.412	195.150	1536.216	195.175	1536.019
11	195.000	1537.397	195.025	1537.200	195.050	1537.003	195.075	1536.806
12	194.900	1538.186	194.925	1537.989	194.950	1537.792	194.975	1537.594
13	194.800	1538.976	194.825	1538.778	194.850	1538.581	194.875	1538.383
14	194.700	1539.766	194.725	1539.568	194.750	1539.371	194.775	1539.173
15	194.600	1540.557	194.625	1540.359	194.650	1540.162	194.675	1539.964
16	194.500	1541.349	194.525	1541.151	194.550	1540.953	194.575	1540.755
17	194.400	1542.142	194.425	1541.944	194.450	1541.746	194.475	1541.548
18	194.300	1542.936	194.325	1542.737	194.350	1542.539	194.375	1542.341
19	194.200	1543.730	194.225	1543.532	194.250	1543.333	194.275	1543.135
20	194.100	1544.526	194.125	1544.327	194.150	1544.128	194.175	1543.929
21	194.000	1545.322	194.025	1545.123	194.050	1544.924	194.075	1544.725
22	193.900	1546.119	193.925	1545.920	193.950	1545.720	193.975	1545.521
23	193.800	1546.917	193.825	1546.717	193.850	1546.518	193.875	1546.318
24	193.700	1547.715	193.725	1547.516	193.750	1547.316	193.775	1547.116
25	193.600	1548.515	193.625	1548.315	193.650	1548.115	193.675	1547.915
26	193.500	1549.315	193.525	1549.115	193.550	1548.915	193.575	1548.715
27	193.400	1550.116	193.425	1549.916	193.450	1549.715	193.475	1549.515
28	193.300	1550.918	193.325	1550.717	193.350	1550.517	193.375	1550.317
29	193.200	1551.721	193.225	1551.520	193.250	1551.319	193.275	1551.119
30	193.100	1552.524	193.125	1552.323	193.150	1552.122	193.175	1551.922
31	193.000	1553.329	193.025	1553.128	193.050	1552.926	193.075	1552.725
32	192.900	1554.134	192.925	1553.933	192.950	1553.731	192.975	1553.530
33	192.800	1554.940	192.825	1554.739	192.850	1554.537	192.875	1554.335
34	192.700	1555.747	192.725	1555.545	192.750	1555.343	192.775	1555.142
35	192.600	1556.555	192.625	1556.353	192.650	1556.151	192.675	1555.949
36	192.500	1557.363	192.525	1557.161	192.550	1556.959	192.575	1556.757
37	192.400	1558.173	192.425	1557.970	192.450	1557.768	192.475	1557.566
38	192.300	1558.983	192.325	1558.780	192.350	1558.578	192.375	1558.375

39	192.200	1559.794	192.225	1559.591	192.250	1559.389	192.275	1559.186
40	192.100	1560.606	192.125	1560.403	192.150	1560.200	192.175	1559.997

Remark:

Wavelength Plan is available to change by customer' s request.

5. Transmission Spectra

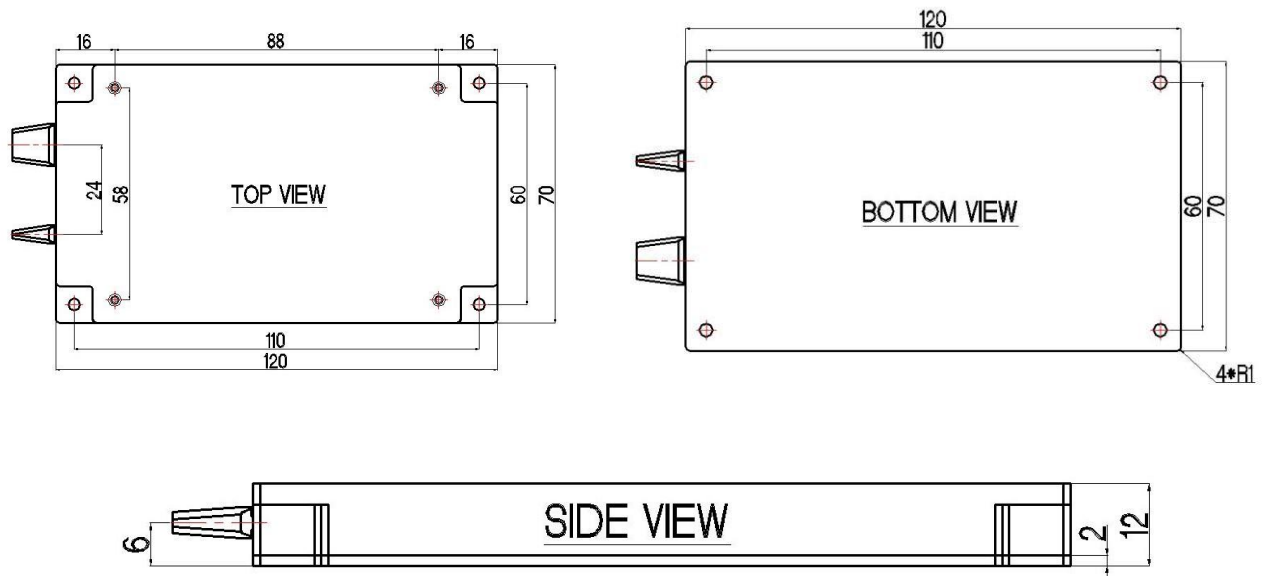


6. Absolute Maximum Rating

Parameter	Unit	Value		
		Min.	Typ.	Max.
Maximum Continuous Optical Power	mW			300
Operating Temperature	°C	-5~65		
Storage Temperature	°C	-40~85		
Operating Humidity	%RH	5~95		
Storage Humidity	%RH	5~95		

Remark: Unless otherwise specified.

7. Mechanical Schematic and Dimensions

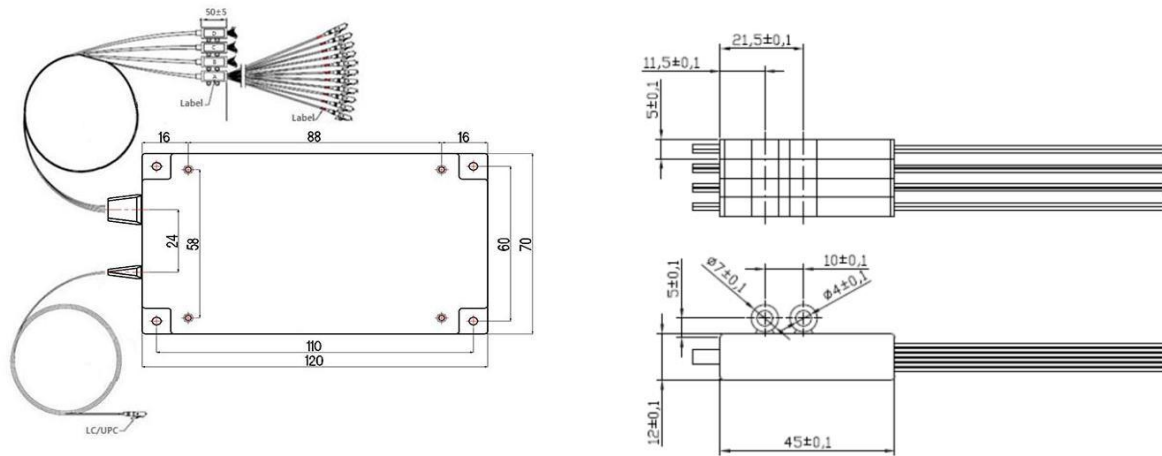


8. Fiber Connector Specifications

Parameter	Unit	Specification
Fiber Type		SMF28e with 900um Loose Tube Fiber
Fiber Format		2 x 8 + 2 x 12 -Fiber ribbons
Input Common Fiber Length	mm	1000+/-50
Ribbon Fiber	mm	1000+/-50
Fanout Fiber	mm	500+/-50
Connector Type		LC/UPC

Remark:

Fiber length and Connector Type is available to change by customer' s request.



9. Ordering Part Code Sequence

AAWG-F40-100-C21-05-1050-LU

AAWG	F40	100	C21	05	1050	LU	
	Passband Profile	Channel Number	Channel Spacing	First Channel	Common Length	Ribbon /Fan Fiber Length	Connector Type
	F=Flat-Top	16:16 Ch	100=100GHz	C21=C21	05:0.5m	05:0.5m	FU=FC/UPC
	G=Gaussian	32:32 Ch	50=50 GHz		10:1.0m	10:1.0m	FA=FC/APC
		40:40 Ch					SU=SC/UPC
		48:48 Ch					SA=SC/APC
							ST=ST/UPC
							LU=LC/UPC
							LA=LC/APC