Features

- Optical functional scheme

Description

- 75GHz 64-CH Flattop AAWG

Applications

- The specifications serve for C-band AWG Flattop MUX/DEMUX in DWDM system.

Technical parameter

Absolute Maximum Ratings

Parameters	Conditions	Specifications	Unit
Operating Temperature	Non-Condensing Environment	-5~+65	^{o}C
Storage Temperature	Device Not Powered on Heater Element	-40~+85	^{o}C

Optical Specifications

Wavelength Parameter	Wavelength Ranges	Units
Center Frequency	fc	CH
Working Bandwidth (ITU Band) -WB	fc ± 31.5	GHz
Isolation Bandwidth - IBW	fc ± 9.0	nm

Test Parameter	Channel Ports	Test Requirement	Min	Max	Units
0.5 dB net half Bandwidth	>22.5				GHz
3 dB net half Bandwidth	>36.0				GHz
Mux/Demux Insertion Loss at ITU Grid EOL	All ports at fc	To be tested	4.0	6.5	dB
Insertion Loss Variation	All ports at ITU	To be tested		1.5	dB
Return Loss	All Ports	To be tested	36		dB

Directivity	All Ports	Guaranteed by design	45		dB
PDL	All Ports over WB	To be tested		1.1	dB
	All Ports @ ITU	To be tested		0.7	dB
Differential Group Delay	All Ports over WB	Guaranteed by design		1	ps
Chromatic Dispersion (CD)	All Ports over WB	Guaranteed by design	-33	33	ps/nm
Channel Isolation	Adjacent Channel,	To be tested	13		dB
	Non-adjacent	To be tested	30		dB

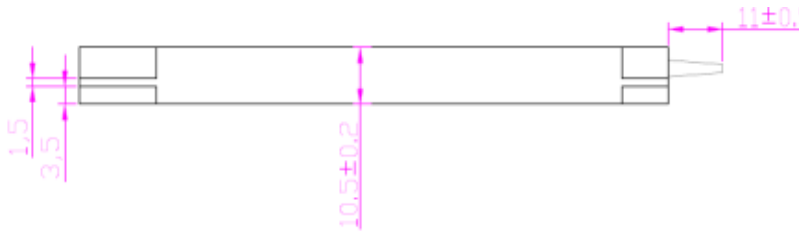
Channel Plan

ch #	Wavelength (nm)	Frequency (THz)		ch #	Wavelength (nm)	Frequency (THz)
1	1566.62	191.3625		33	1547.22	193.7625
2	1566.01	191.4375		34	1546.62	193.8375
3	1565.39	191.5125		35	1546.02	193.9125
4	1564.78	191.5875		36	1545.42	193.9875
5	1564.17	191.6625		37	1544.82	194.0625
6	1563.56	191.7375		38	1544.23	194.1375
7	1562.95	191.8125		39	1543.63	194.2125
8	1562.33	191.8875		40	1543.04	194.2875
9	1561.72	191.9625		41	1542.44	194.3625
10	1561.11	192.0375		42	1541.84	194.4375
11	1560.50	192.1125		43	1541.25	194.5125
12	1559.90	192.1875		44	1540.66	194.5875
13	1559.29	192.2625		45	1540.06	194.6625
14	1558.68	192.3375		46	1539.47	194.7375
15	1558.07	192.4125		47	1538.88	194.8125
16	1557.46	192.4875		48	1538.28	194.8875
17	1556.86	192.5625		49	1537.69	194.9625
18	1556.25	192.6375		50	1537.10	195.0375
19	1555.65	192.7125		51	1536.51	195.1125
20	1555.04	192.7875		52	1535.92	195.1875
21	1554.44	192.8625		53	1535.33	195.2625
22	1553.83	192.9375		54	1534.74	195.3375
23	1553.23	193.0125		55	1534.15	195.4125
24	1552.62	193.0875		56	1533.56	195.4875
25	1552.02	193.1625		57	1532.98	195.5625
26	1551.42	193.2375		58	1532.39	195.6375
27	1550.82	193.3125		59	1531.80	195.7125
28	1550.22	193.3875		60	1531.21	195.7875
29	1549.62	193.4625		61	1530.63	195.8625
30	1549.01	193.5375		62	1530.04	195.9375
31	1548.41	193.6125		63	1529.46	196.0125
32	1547.82	193.6875		64	1528.87	196.0875
28	1550.22	193.3875		60	1531.21	195.7875
29	1549.62	193.4625		61	1530.63	195.8625
30	1549.01	193.5375		62	1530.04	195.9375
31	1548.41	193.6125		63	1529.46	196.0125
32	1547.82	193.6875		64	1528.87	196.0875

Note: All specifications being applicable to both MUX and DEMUX

Mechanical Dimensions

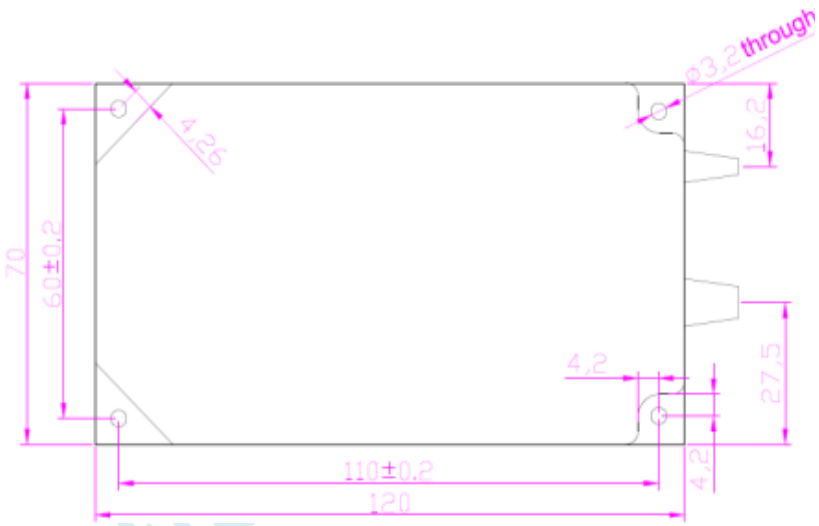
PARAMETER	SPECIFICATION	UNITS	NOTE
Packaged Size	120×70×11	mm	MUX or DEMUX

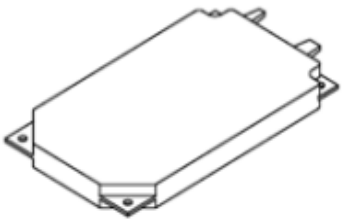


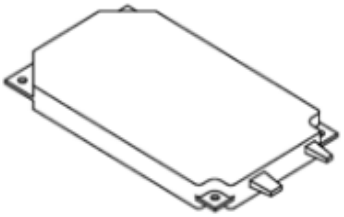
View:

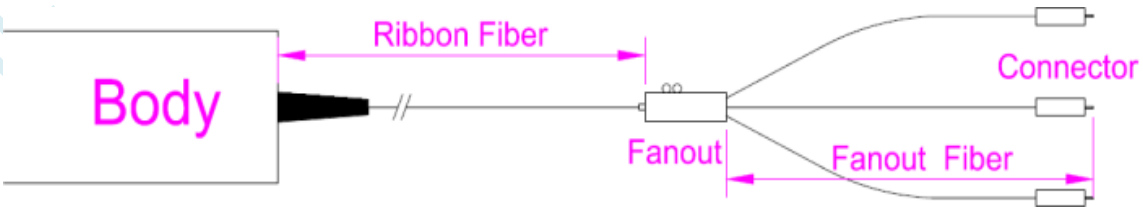
Units: mm

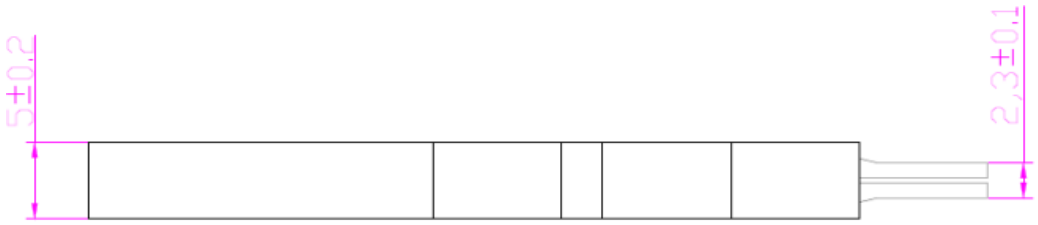
not specified tolerance:±0.3mm

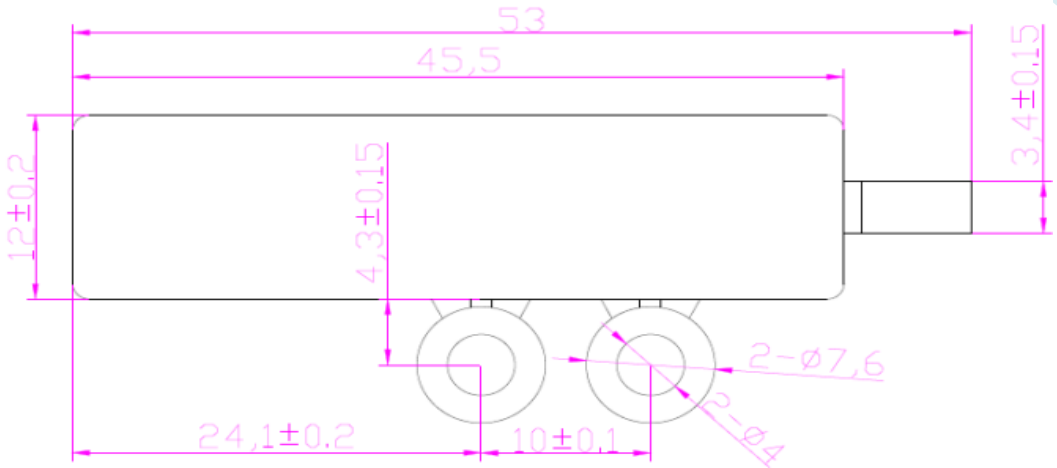












Environmental Safety

Compliant to ROHS6

Pigtail and Connector

PARAMETER	SPECIFICATION	UNIT
Pigtail Type (All ports)	SMF28e with 900um Loose tube fiber	
Common Fiber	500±50	mm
Ribbon Fiber	500±50	mm
Fanout Fiber	500±50	mm
Connector Type (All ports)	LC/UPC	

Ordering Information: HC-AWG-A-B-C-D-E-F-G-H-J

A	B	C	D	E	F	G	H	J
Type	Band	Number of Channels	Spacing	1st Channel	Chip Type	Package	Fiber Length (Total Length)	In/Out Connector
AAWG = Athermal AWG	C=C-Band L=L-Band D=C+L-Band X=Customize	16=16-CH 32=32-CH 40=40-CH 48=48-CH 96=96-CH XX=Special	1=100G 2=200G 5=50G X=Special	C62=C62 H61=H61 C60=C60 H59=H59 XXX=special	G=Gaussian F=Flat Top	M=Modul e R=Rack X=Special	1=0.5m 2=1m 3=1.5m 4=2m X=Specify	0=None 1=FC/APC 2=FC/PC 3=SC/APC 4=SC/PC 5=LC/APC 6=LC/PC 7=ST/UPC X=Specify

Note: Typical channel plan: ITU wavelengths 50G H13(1566.72nm)-C61(1528.77nm).