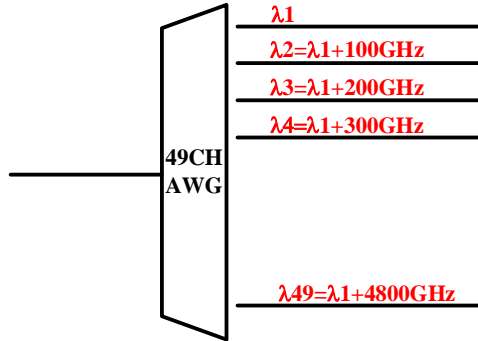


**Product: Arrayed Waveguide Grating**

Part Number	Spec Number	Version	Date
MAWGXXXXXXXXXXXX	S009	Rev 01	08/09/2024

**1 Function Diagram**



**2 Specifications**

**2.1 Environment Conditions**

Item	Parameters	Symbol	Min	Typ	Max	Units	Note
1.	Operating Temperature	Top	0		70	°C	
2.	Storage Temperature	Tstor	-40		85	°C	
3.	Operating Relative Humidity	RHop	5		95	%	[1]
4.	Storage Relative Humidity	RHstor	5		95	%	[1]

**Note:**

[1] Not to exceed industrial standard of 0.024 kg water per kg of dry air under non-condensing conditions.

**2.2 Optical Specifications**

Item	Parameters	Symbol	Min	Typ	Max	Units	Note
5.	Channel Number	CN	49 or 97			Channel	
6.	Wavelength Range of 49 Channel	WR	1527.99~1567.95			nm	[2]
7.	Channel#1 Center Wavelength	$\lambda_{1C}$	Confirm by user			nm	[3]
8.	Channel#1 Center Wavelength @25°C	$\lambda_{1C}$	1528.77 ± 0.11			nm	[3]
9.	Channel#2~49 Center Wavelength	$\lambda_{2-NC}$	$\lambda_{1C} + (N-1) \times 100G$			nm	
10.	Channel Spacing	CS	100			GHz	
11.	Passband Bandwidth	BW	$\lambda_{NC} \pm 12.5$			GHz	
12.	1dB Bandwidth	BW <sub>1</sub>	0.4			nm	
13.	Wavelength Temperature Shift @Top	WTS			0.011	nm/°C	[4]
14.	Insertion Loss	IL			5.5	dB	
15.	Insertion Loss Uniformity	UN			1.0	dB	
16.	Channel Ripple	RP			0.5	dB	
17.	Isolation	Adjacent Channel	ISO <sub>A</sub>	25		dB	
		Non-adjacent Channel	ISO <sub>N</sub>	30		dB	
18.	Polarization Dependence Loss	PDL			0.15	dB	
19.	Return Loss	RL	40			dB	
20.	Optical Power	Pop			300	mW	

**Note:**

[2] Contains a full range of 49 channels, including temperature shift.

[3] Shipping datasheet will provide the center wavelength of channel#1 @25±3°C. Before using,  $\lambda_1$  should be confirmed by user.

[4] Theoretical value. Reference item 6 and Note [2] for related parameter definitions.

## 2.3 Mechanical Specifications

### 2.3.1 Specifications

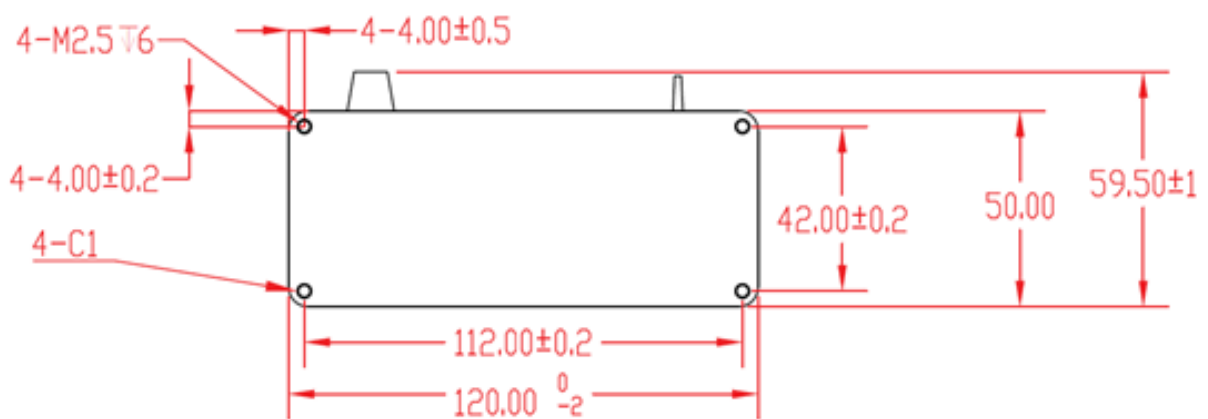
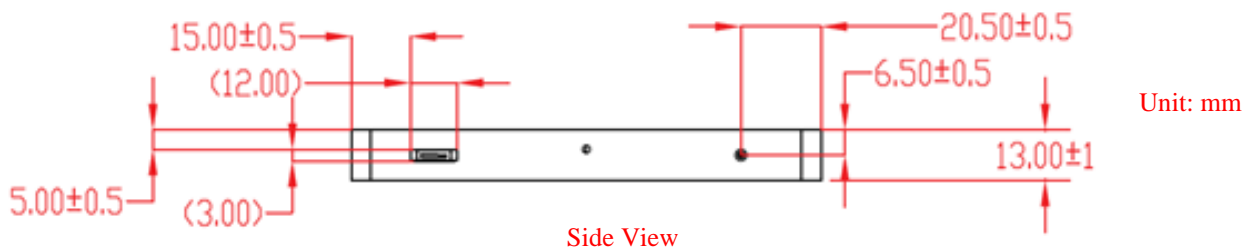
Item	Parameters	Symbol	Min	Typ	Max	Units	Note
21.	Fiber Type		G.657 A1				
22.	Fiber Jacket	Module to Fan-out	Ribbon Bare Fiber				
23.		Fan-out to Connector	900um Loose Tube				[5]
24.		Module to Connector	900um Loose Tube				[5]
25.	Fiber Length	Module to Fan-out	250~300			mm	
26.		Fan-out to Connector	400~500			mm	
27.		Module to Connector	700~850			mm	
28.	Package Dimension		120×50×13			mm	
29.	Module Material		6061 Aluminum				
30.	Connector Type		LC/APC				[6]
31.	Fiber Color		Natural				
32.	Loose Tube Color		White				

**Note:**

[5] Loose Tube Material follow UL94-V0.

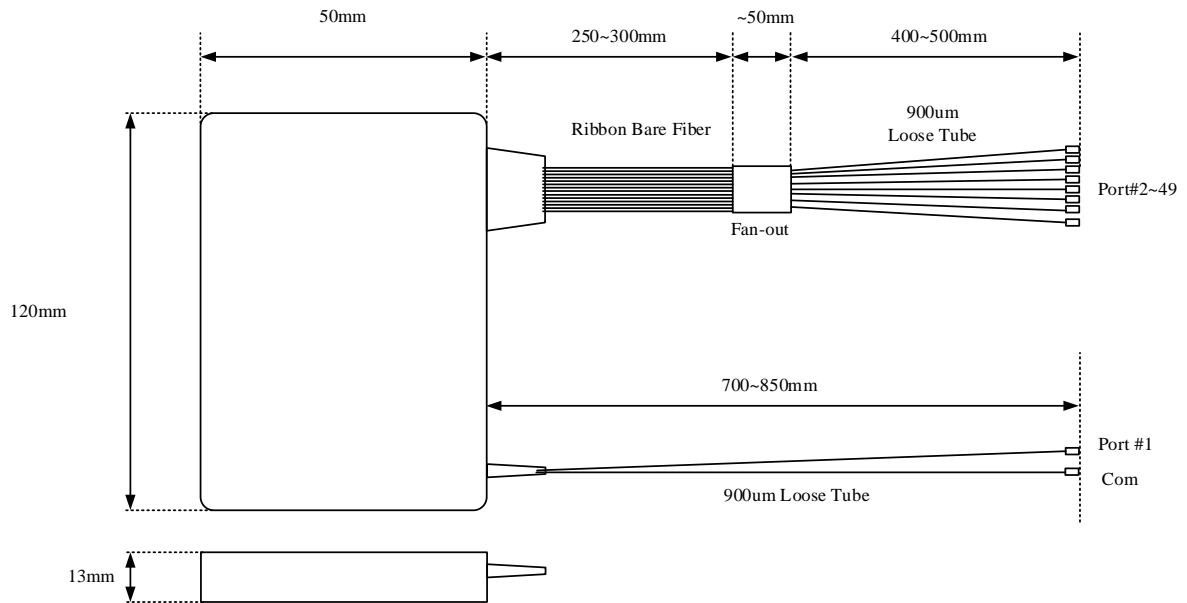
[6] Channel number label on the connector.

### 2.3.2 Drawings (Module Dimension)



Bottom View

**2.3.3 Drawings (Entirety)**



**3 Device Label, Delivery Data**

Triple-Stone standard format.

**4 RoHS**

RoHS compliant.