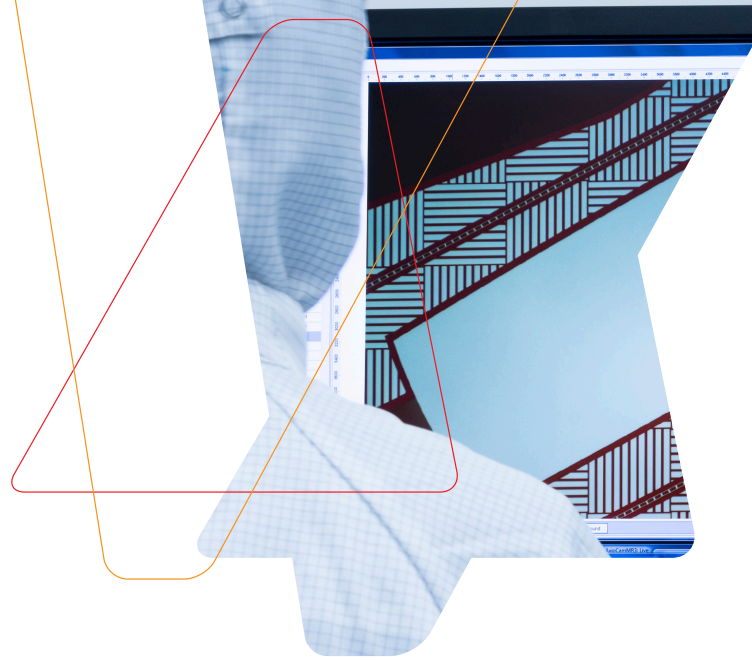
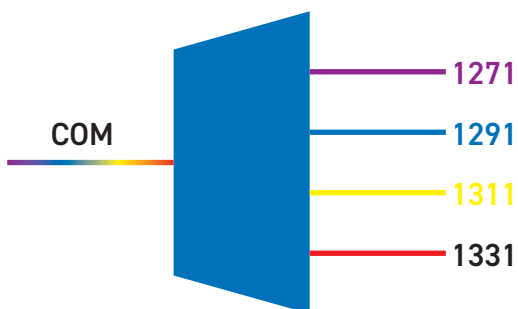




CWDM4 DEMUX CHIP on Wafer/Stripe (750pitch)

1. DESCRIPTION

Product Function:



Product Application:

The specifications serve for CWDM DEMUX in WDM system.

2. OPTIC SPECIFICATION

NO.	PARAMETER	SPECIFICATION			UNITS	NOTE
		MIN.	TYP.	MAX.		
2.1	Channels	4			Ch	
2.2	Channel Spacing	20			nm	
2.3	Center wavelength		1271		nm	at ITU grid
			1291			
			1311			
			1331			
2.4	Wavelength Accuracy	-1		1	nm	Offset from ITU grid
2.5	1dB Bandwidth	12.5			nm	1dB from peak transmission, gross bandwidth, average case polarization. For each channel.
2.6	3dB Bandwidth	15			nm	3dB from peak transmission, gross bandwidth, average case polarization. For each channel.
2.7	Insertion Loss			1.6		Defined as the average case polarization, at $\text{ITU} \pm 2\text{nm}$.
2.8	Insertion Loss Uniformity			1.0		Loss uniformity among channels at $\text{ITU} \pm 2\text{nm}$.
2.9	Polarization Dependent Loss			0.5		Maximum insertion loss difference between all polarization within $\text{ITU} \pm 1\text{nm}$.
2.10	Adjacent Channel Isolation	20				Insertion loss to the maximum transmission across $\pm 6.5\text{nm}$ around the adjacent ITU wavelength λ_{ITU} , for each port, for average polarization.

3. ABSOLUTE MAXIMUM RATINGS

NO.	PARAMETERS	SPECIFICATIONS	UNIT	NOTES
3.1	Operating Temperature	-5 ~ +75	°C	
3.3	Storage Temperature	-40 ~ +85	°C	

4. ENVIRONMENTAL SAFETY

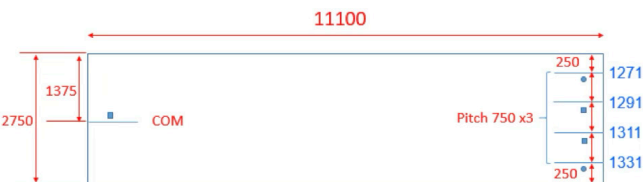
Compliant to ROHS10

5. AWG CHIP DIMENSION

TYPE	DIMENSION	PITCH
DEMUX	11.1x2.75x0.67mm	750um

NOTE

- This dimension is final size after chip dicing and polishing.
- Common port is mode-matching with SMF.
- Multi-ports are multimode waveguides. The mode field dimension is around 5um x 15um.

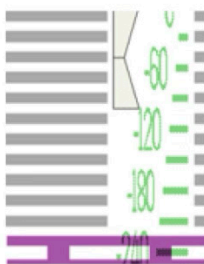


Polishing illustration:

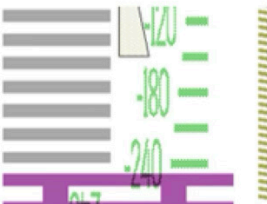
Polishing Line:

Polishing must stop before zero tick mark

COM port
(250um in total)



Multiport
(275um in total)



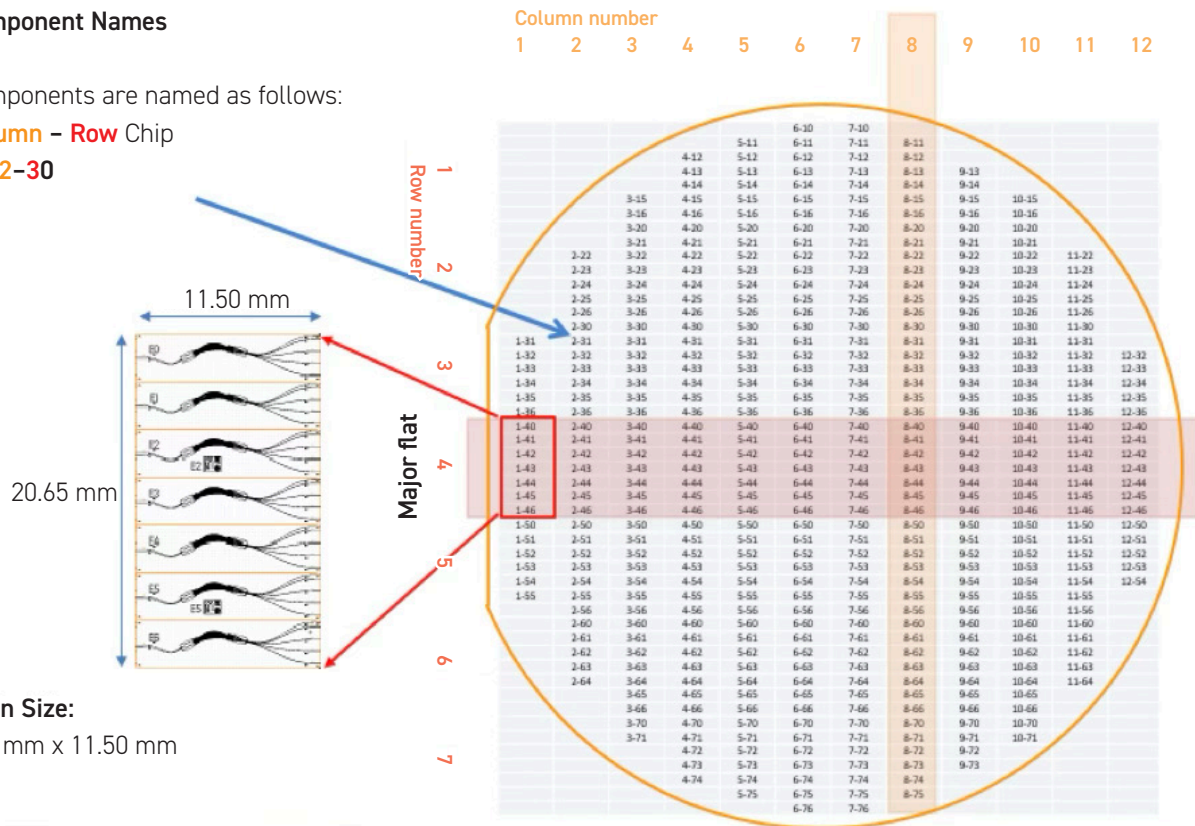
6. DEMUX Wafer Information

Component Names

Components are named as follows:

Column – Row Chip

i.e., **2-30**



Design Size:

20.65 mm x 11.50 mm

Stripe No.	1	2	3	4	5	6	7	8	9	10	11	12	Total
Number	19	31	39	45	47	49	49	47	43	39	31	17	456

7. QUALITY CONTROL

Stripes: On each Demux, there are control channels for screening. Failed Demux chips will be noted.

Wafers: In each batch a wafer will be selected for control screening. Control screening means optical measurement of through control channels in chips on at least 2 stripes. The control screening will ensure that the wafers in the batch will have yields of >90%.