



## 200GHz Dense Wavelength Division Multiplexer MUX204/208 & DMX204/208 Series

Nanovation's 200GHz Dense Wavelength Division Multiplexer products are designed for use in DWDM transmission systems and CATV networks to multiplex or demultiplex multiple wavelength channels. These modules are made with reliable dielectric thin-film technology and offer low insertion loss, superior wavelength stability, high channel isolation, epoxy-free optical paths and completely passive operation.

### Features

- Low Insertion Loss
- High Channel Isolation
- Epoxy-free Optical Paths
- High Reliability and Durability
- Completely Passive (No Temperature Control Required)
- Data Rate and Format Independent
- Bellcore GR-1209-CORE Qualification

### Applications

- 200GHz 4- and 8-Channel Multiplexing/Demultiplexing
- Long-haul, Metro, Interoffice DWDM Transmission Networks
- Uni-directional and Bi-directional Systems
- CATV Networks





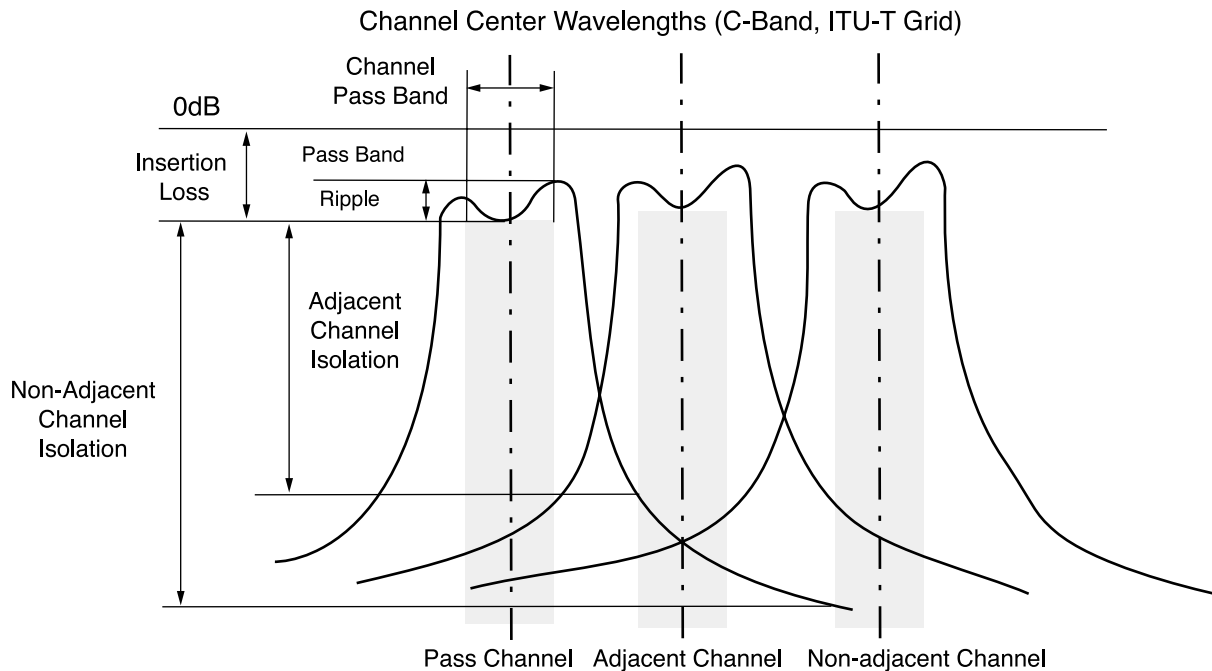
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## Optical Parameters

Channel Spacing (GHz)	200	
Center Wavelength (nm)	ITU-T Grid (C-band)	
Number of Channels	4	8
Pass Bandwidth @ 0.5 dB (nm)	≥ 0.5	≥ 0.5
Pass Bandwidth @ 1.0 dB (nm)	≥ 0.8	≥ 0.8
Pass Bandwidth @ 3.0 dB (nm)	≥ 1.0	≥ 1.0
Pass Band Ripple (dB)	≤ 0.5	≤ 0.5
Insertion Loss Uniformity (dB)	1.5 (Max.)	2.0 (Max.)
Insertion Loss (dB)	2.3 (Typ.), 3.0 (Max.)	4.0 (Typ.), 5.0 (Max.)
Adjacent Channel Isolation (dB)	≥ 25	≥ 25
Non-adjacent Channel Isolation (dB)	≥ 38	≥ 38
Wavelength Thermal Drift (nm/°C)	≤ 0.001	≤ 0.001
Insertion Loss Thermal Drift (dB/°C)	≤ 0.005	≤ 0.007
Polarization Dependent Loss (dB)	≤ 0.2	≤ 0.2
Directivity (dB)	≥ 50	≥ 50
Return Loss (dB)	≥ 45	≥ 45
Polarization Mode Dispersion (ps)	≤ 0.15	≤ 0.15
Operating Temperature (°C)	0 ~ 65	0 ~ 65
Storage Temperature (°C)	-40 ~ 85	-40 ~ 85
Max. Input Power (mW)	300	300
Package Dimensions (mm <sup>3</sup> )	130x87x13	130x87x13

Note: Specifications are without connectors.

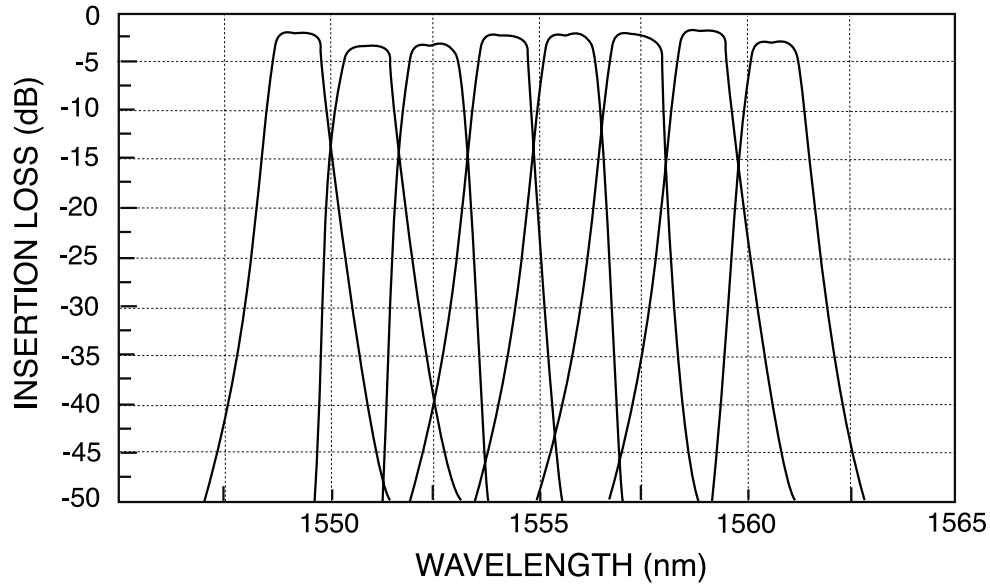
## Description of Parameters





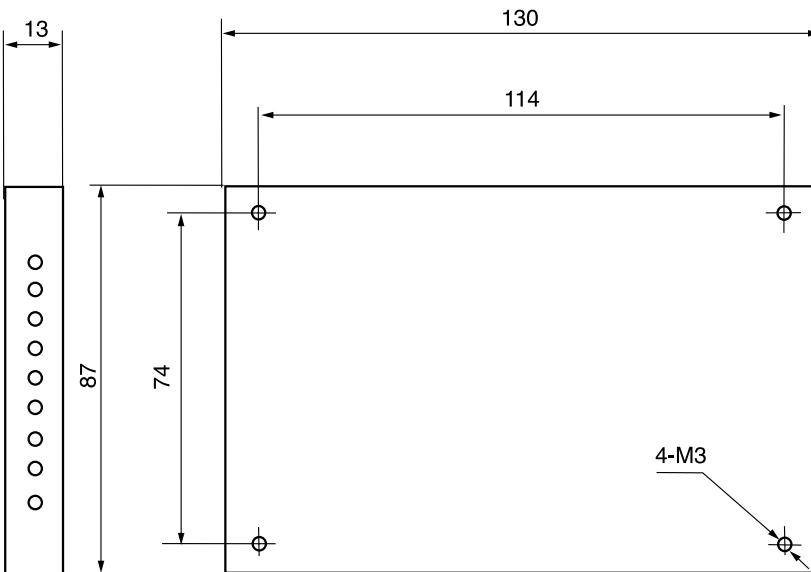
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## Example Spectrum



## Mechanical Packaging Diagram

(All dimensions are in mm; drawings are not to scale)





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## Ordering Information

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↑  
MUX = Multiplexer  
DMX = Demultiplexer

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↑  
204 = 200 GHz Channel Spacing - 4 channels  
208 = 200 GHz Channel Spacing - 8 channels

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↑  
ITU-T starting channel number:  
21 = ITU-T Channel 21  
22 = ITU-T Channel 22  
23 = ITU-T Channel 23  
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↑  
0 = standard fiber = 0.9 mm pigtail  
1 = optional pigtail fiber type

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↑  
0 = 1 meter length  
1 = optional pigtail length

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↑  
0 = no connector  
1 = FC/UPC (standard)  
2 = FC/APC  
3 = SC/UPC  
4 = SC/APC  
5 = LC

**To order or for additional information, please contact us at:**

Phone: 1-877-919-6266  
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Web: www.nanovation.com

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Nanovation reserves the right to revise or update the data sheet.  
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