Data Sheet



Optical Interconnection Innovator

**Dense Wavelength Division Multiplexer &**

**DeMultiplexer (DWDM Mux DeMux)**

**Features**

 Low Insertion Loss (IL)

 High isolation

 Low Polarization Dependent Loss (PDL)

 Available in 2 to 32 channels with compact design

 Good channel-to-channel uniformity

 Wide operating wavelength range

 High reliability and high stability

 Telcordia GR-1209-CORE-2001 compliant

 Telcordia GR-1221-CORE-1999 compliant

 ITU-T G.694.1 compliant

 RoHS-6 compliant (lead free)

**Applications**

 DWDM Networks

**Description**

The H&T Dense Wavelength Division Multiplexer &DeMultiplexer (DWDM Mux DeMux) is designed for ITU channel spacing applications. It is based on the Thin Film Filter (TFF) technology and operates at 100GHz or 200GHz channel spacing ITU Grid DWDM wavelengths from 1526nm to 1565nm. H&T provides a series of customized DWDM Mux DeMux within plastic ABS box, metal LGX box, or 19-inch 1U rack mount to meet different requirements on Port Configuration (2 to 32 channels, 1310nm/upgrade/monitoring ports available), Operating Wavelength, Package Type, Fiber Type, Fiber Length, Input Connector, and Output Connector.

**Specifications**

|  |  |
| --- | --- |
| **Parameters** | **Channel Options** |
| Port Configuration | 1x2 | 1x4 | 1x8 | 1x16 |
| Center Wavelength (nm) | ITU Grid |
| Operating Wavelength (nm) | 1520 to 1620 |
| Channel Space (nm) | 0.8 |
| Passband @0.5dB (nm) | 0.22 |
| Channels IL (dB) | < 1.5 | < 1.8 | < 2.6 | < 4.2 |
| Link IL (Mux+Demux) (dB) | < 2.7 | < 3.0 | < 3.8 | < 5.4 |
| Adjacent Channels Isolation (dB) | > 30 |
| Non-Adjacent Isolation (dB) | > 45 |
| Directivity (dB) | > 50 |
| Return Loss (dB) | > 45 |
| Ripple (dB) | < 0.5 |
| PDL (dB) | < 0.2 |
| PMD (ps) | < 0.1 |

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|  |  |
| --- | --- |
| Maximum Optical Power (mw) | 300 |
| Operating Temperature (℃) | -5 to +75 |
| Storage Temperature (℃) | -40 to +85 |
| Package (mm) (L×W×H) | ABS Box: 80×58×8, 100×80×10, 120×80×18, 140×115×18LGX Box: standard, 2 in 1, 4 in 119-inch 1U Rack Mount: standard |

**Notes:**

1. All specifications are based on the devices with connectors, and guaranteed over wavelength and temperature.

2. Fiber type is G657A1.

3. An additional 0.3dB loss ought to be added per adapter for LGX box and rack mount.

**Mechanical Dimensions**

ABS Box (PX: 80×58×8):

LGX Box (2 in 1):

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19-inch 1U Rack Mount:

**Structure Diagram**

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**Ordering Information**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **HTDWM-xx** | **x** | **x** | **xx** | **xx** | **x** | **xx-** | **x** | **x** |
| **Channel****Options****xx:** 02=2CH 04=4CH 08=8CH 16=16CH...32=32CH | **Channel****Space** | **MUX/DEMUX****Type** | **Initial****Wavelength** | **Package Type** | **Fiber Type** | **Fiber****Length** | **Input****Connector** | **Output****Connector** |
| X=100GHz | M=MUX | 15=15CH | PX=80×58×8ABS Box | B=250umbare fiber | 10=1.0m | 0=None | 0=None |
| Y=200GHz | D=DEMUX | 16=16CH | PS=100×80×10ABS Box | 09=0.9mmloose tube | 15=1.5m | 1=FC/UPC | 1=FC/UPC |
|  | 1=MUXwith 1310nm port | 17=17CH | PM=120×80×18ABS Box | 20=2.0mmloose tube | 20=2.0m | 2=FC/APC | 2=FC/APC |
|  | 2=DEMUXwith 1310nm port | ... | PL=140×115×18ABS Box |  | 25=2.5m | 3=SC/UPC | 3=SC/UPC |
|  | 3=MUXwith UPG port | 59=59CH | LX=StandardLGX Box |  | ... | 4=SC/APC | 4=SC/APC |
|  | 4=DEMUXwith UPG port | 60=60CH | 21=2 in 1 LGX Box |  |  | 5=LC/UPC | 5=LC/UPC |
|  | 5=MUXwith 1310nm &UPG ports | 61=61CH | 41=4 in 1 LGX Box |  |  | 6=LC/APC | 6=LC/APC |
|  | 6=DEMUXwith 1310nm &UPG ports | 62=62CH | 19=19-in 1URack Mount |  |  |  |  |
|  | 7=MUXwith 1310nm &MON ports | 63=63CH |  |  |  |  |  |
|  | 8=DEMUXwith 1310nm &MON ports | 64=64CH |  |  |  |  |  |

**Notes**:

If there is a demand for orders that are different from those described above, please contact Htopto sales.

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