

PRELIMINARY DATA SHEET

NEC

40 CH ARRAYED WAVEGUIDE GRATING MULTIPLEXER/DEMULTIPLEXER (HEATER TYPE)

OD-S650-40*2*-HS
SERIES

FEATURES

- COMPACT SIZE
- LOW INSERTION LOSS, PDL AND CROSS-TALK

APPLICATIONS

- OMUX/ODMUX, OADM for DWDM Systems
Wavelength selective routing
OMUX/ODMUX: Optical Multiplexer/Demultiplexer
OADM: Optical add/drop multiplexer

OPERATING CONDITIONS

PARAMETERS	CONDITIONS
Temperature	0 to 65°C
Relative Humidity	<=85%

STORAGE CONDITIONS

PARAMETERS	CONDITIONS
Temperature	-40 to 85°C
Relative Humidity	<=85%
Vibration	10 to 2000 Hz, 20 G
Mechanical Shock	500 G

OPTICAL CHARACTERISTICS

PARAMETER	GAUSSIAN TYPE	FLAT TOP TYPE
Number of channels ¹	40	
Channel Spacing (other spacing available)	100 GHz (0.8 nm)	
Wavelength Range	C-band or L-band	
Channel Wavelength, adjustable to ITU Grid	186.4 to 190.4 THz or 191.9 to 195.9 THz (1530 to 1562 nm or 1575 to 1608 nm)	
3 dB Pass Bandwidth ²	>=0.35 nm	>=0.45 nm
Insertion Loss ³	<=6 dB	<=9 dB
Polarization Dependent Loss ⁴	<=0.5 dB	<=0.5 dB
Adjacent Channel Optical Crosstalk ^{2,4}	<=-25 dB	<=-25 dB
Return Loss ^{2,4}	>=40 dB	
Optical Input Power Range	0 to 100 mW	

Notes:

1. Available other channels to MAX 48 ch.
2. Unpolarized
3. At peak wavelength unpolarized.
4. At ITU Grid wavelength.

OPTICAL FIBER CHARACTERISTICS

PARAMETERS		CHARACTERISTICS
Fiber Type		SMF
Fiber Length (Common port, Separate port)		1300 +/-100 mm
Optical Fiber Termination		Common Port: SC ferrules Separated Port: SC connectors
Fiber Diameter		Common Port: phi 0.25 mm Separated Port: phi 0.25 mm
Fiber Adhesion to Package		>=5 N
Fiber Bend Radius	Stowing	>=30 mm
	Delivering	>=30 mm

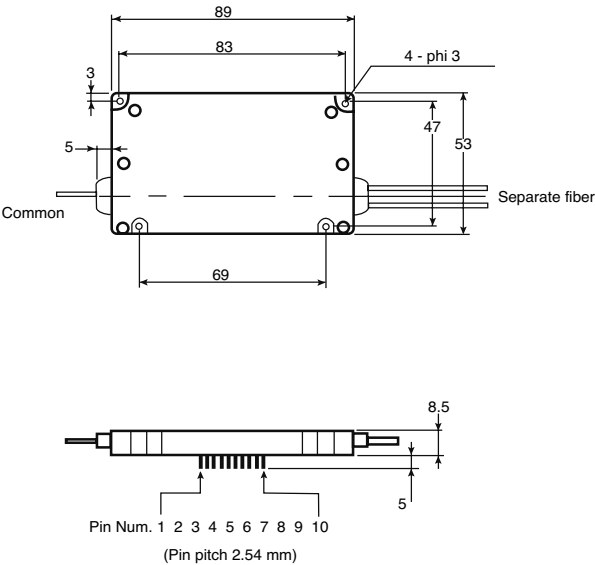
ELECTRICAL CHARACTERISTICS

PARAMETERS	HEATER TYPE
Power Consumption	<=10 W
Resistance at 25 degrees Celsius, 1 kHz	<=2.33 Ω - 3.17 Ω
RTD Resistance (calibration) at 0 degrees Celsius	93Ω - 107Ω
Coefficient of Thermal Resistance	3850 +/-50 ppm/degree

PACKAGE CHARACTERISTICS

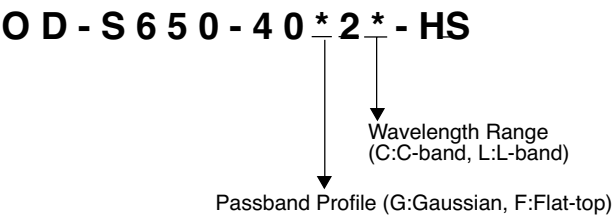
PARAMETERS	HEATER TYPE
Package Dimensions	53(W) x 89(L) x 8.5(H) mm

OUTLINE DIMENSIONS (Units in mm)



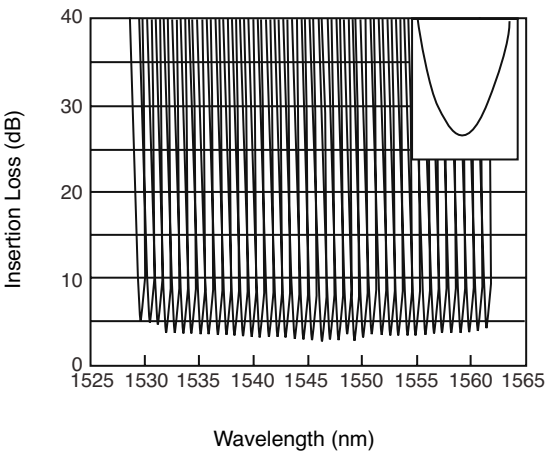
- Temperature Control Interface**
- 1. Heater
 - 2. Heater
 - 3. RTD1 (Common)
 - 4. RTD1 (Common)
 - 5. RTD1
 - 6. N.C.
 - 7. RTD2
 - 8. RTD2 (Common)
 - 9. RTD2 (Common)
 - 10. N.C.

PART NUMBERING SYSTEM



TYPICAL SPECTRA

Gaussian Type



Flat-top Type

