

# OSICS DFB LANWDM

DISTRIBUTED FEEDBACK LASER



The OSICS LANWDM modules, based on high-performance distributed feedback laser diodes, are perfect for LR4 and ER4 testing of silicon photonics chips

SPEC SHEET

## KEY FEATURES

External and internal LF modulation

10 dBm output power from a single mode fiber with a stability of  $\pm 0.01$  dB over 1 hour

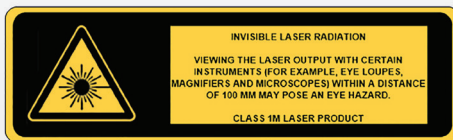
$\pm 30$  pm wavelength accuracy and stability of  $\pm 5$  pm over one hour

Wavelength grid matched to LANWDM channels with typical tuning range of 1.8 nm

## SPECIFICATIONS

		SMF	PM13
Models <sup>a</sup>	Channel 1	1309.14 nm / 229.0 THz	
	Channel 2	1304.58 nm / 229.8 THz	
	Channel 3	1300.05 nm / 230.6 THz	
	Channel 4	1295.56 nm / 231.4 THz	
Wavelength	Channel center <sup>a</sup>	Grid matched	
	Tuning range (nm) <sup>a</sup>	1.6 (1.8 typical)	
	Accuracy (nm) <sup>b</sup>	±0.03	
	Stability over 1 hour (nm) <sup>b, c, d</sup>	±0.005	
	Stability over 24 hours (nm) <sup>b, c, d</sup>	±0.005 typical	
Power	Maximum (mW)	10	
	Stability over 1 hour (dB) <sup>b, c, d</sup>	±0.01	
	Stability over 24 hours (dB) <sup>b, c, d</sup>	±0.01 typical	
	Optical isolation (dB)	> 30	
	Relative intensity noise (RIN) (dB/Hz) <sup>e</sup>	< -130	
Spectrum	Laser line width (MHz)	< 10	
	SMSR (dB) <sup>b</sup>	> 30 (40 typical)	
Modulations	TTL	Internal	1 Hz to 890 kHz
		External	16 Hz to 890 kHz
	Analog (external/front panel)		150 Hz to 150 MHz
	Stimulated brillouin scattering (SBS) suppression (internal)	Waveform	sine
		Frequency range (kHz)	10 to 100
Modulation depth (%)		0 to 15	
Interfaces on module front panel <sup>f</sup>	Enable key with status LED	Power up laser	
	Optical fiber	SMF	PM13
	Fiber alignment to connector key	n/a	Slow axis
	Polarization extinction ratio (PER) (dB)	n/a	> 17
	Optical connector	FC/APC narrow key	
	Electrical connector	Coaxial SMB – 50 Ω	
Others	Laser safety	Class 1 M	
	Dimensions (W x H x D)	35 mm x 128 mm x 230 mm (1 □ in x 5 in x 9 in)	
	Weight	1.1 kg (2.43 lb)	

## LASER SAFETY



## Notes

- Location of channel center: lower boundary of the range + 0.4 nm < channel center < upper boundary of the range -0.4 nm.
- After warm-up and at maximum power.
- At a constant temperature.
- Measured with an APC terminated jumper on a powermeter.
- RIN within the range 100 MHz-20 GHz measured at 10 dBm output power with RBW = 30 kHz.
- See OSICS mainframe specifications sheet for details on OSICS common specifications and interfaces on the rear panel.

## ORDERING INFORMATION

OS-DFB-L $XX$ - $XX$ -58**Channel number**

F = 228.2 THz + 800 GHz x Channel number

001-004

**Connector**

58 = FC/APC

**Output fiber**

00 = SMF28 singlemode output fiber

P = PM13 polarization maintaining fiber

Example: OS-DFB-L004-00-58

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