OSICS DFB LANWDM

DISTRIBUTED FEEDBACK LASER

SPEC SHEET

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

KEY FEATURES

External and internal LF modulation

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

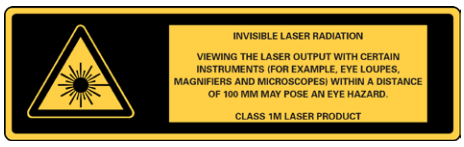
±30 pm wavelength accuracy and stability of ±5 pm over one hour

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

SPECIFICATIONS

			SMF	PM13
Models [a]	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 [a]		Grid matched	
	Tuning range (nm) [a]		1.6 (1.8 typical)	
	Accuracy (nm) [b]		±0.03	
	Stability over 1 hour (nm) [b, c, d]		±0.005	
	Stability over 24 hours (nm) [b, c, d]		±0.005 typical	
Power	Maximum (mW)		10	
	Stability over 1 hour (dB) [b, c, d]		±0.01	
	Stability over 24 hours (dB) [b, c, d]		±0.01 typical	
	Optical isolation (dB)		> 30	
	Relative intensity noise (RIN) (dB/Hz) [e]		< −130	
Spectrum	Laser line width (MHz)		< 10	
	SMSR (dB) [b]		> 30 (40 typical)	
Modulations	TTL	Internal External	1 Hz to 890 kHz 16 Hz to 890 kHz	
	Analog (external/front panel)		150 Hz to 150 MHz	
	Stimulated brillouin scattering (SBS) suppression (internal)	Waveform Frequency range (kHz) Modulation depth (%)	Sine 10 to 100 0 to 15	
Interfaces on module front panel [f]	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 3/8 in x 5 in x 9 in)	
	Weight		1.1 kg (2.43 lb)	

LASER SAFETY



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

ORDERING INFORMATION

OS-DFB-LXX-XX-58

Channel number
F = 228.2 THz + 800 GHz x channel number
001-004

Output fiber
00 = SMF28 singlemode output fiber
P = PM13 polarization maintaining fiber

Connector
58 = FC/APC

Example: OS-DFB-L004-00-58

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