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

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

| Models       | 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**: Grid matched
- **Tuning range (nm)**: 1.6 (1.8 typical)
- **Accuracy (nm)**: ±0.03
- **Stability over 1 hour (nm)**: ±0.005
- **Stability over 24 hours (nm)**: ±0.005 typical

### Power
- **Maximum (mW)**: 10
- **Stability over 1 hour (dB)**: ±0.01
- **Stability over 24 hours (dB)**: ±0.01 typical
- **Optical isolation (dB)**: > 30
- **Relative intensity noise (RIN) (dB/Hz)**: < -130

### Spectrum
- **Laser line width (MHz)**: < 10
- **SMSR (dB)**: > 30 (40 typical)

### Modulations
- **TTL**: Internal 1 Hz to 890 kHz, External 16 Hz to 890 kHz
- **Stimulated brillouin scattering (SBS) suppression (internal)**: Waveform sine, Frequency range (kHz) 10 to 100, Modulation depth (%) 0 to 15

### Interfaces on module front panel
- **Enable key with status LED**: Power up laser
- **Optical fiber**: SMF
- **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 in x 5 in x 9 in)
- **Weight**: 1.1 kg (2.43 lb)

### Notes
- 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

\[ F = 228.2 \text{ THz} + 800 \text{ GHz} \times \text{Channel number} \]

001-004

Output fiber

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

Connector

58 = FC/APC

Example: OS-DFB-L004-00-58