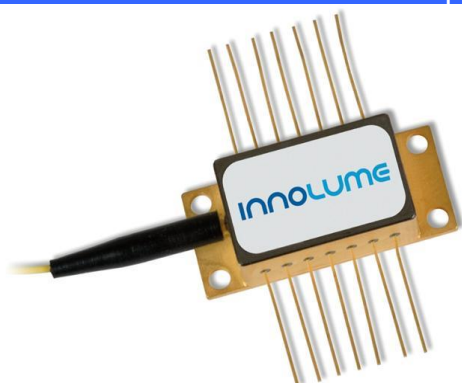
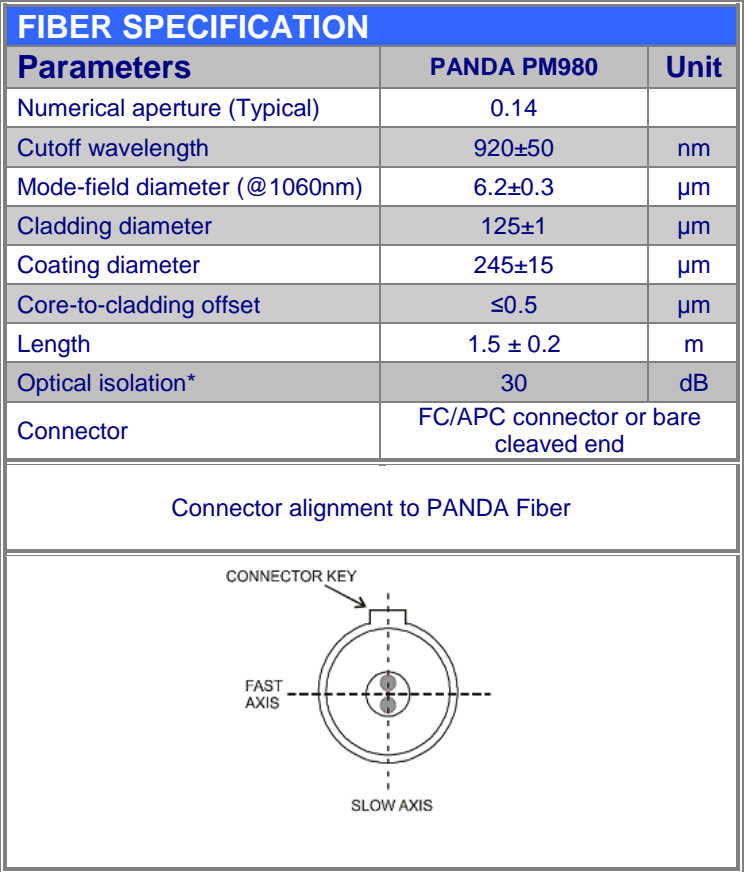
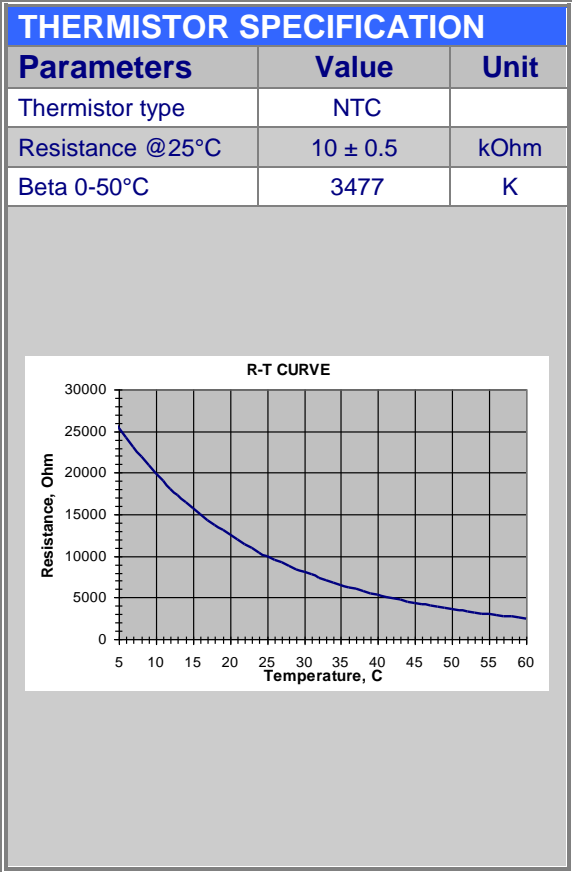


LD-1064-DBR-150 Fiber Coupled Distributed Feedback Laser	
	<p>Features:</p> <ul style="list-style-type: none"> • 150mW output power ex-single mode fiber • Highly reliable Au/Sn-technology • Polarization maintaining PM980 fiber • Optional: external fiber isolator upon request • Optional: monitor photodiode for power control <p>Application:</p> <ul style="list-style-type: none"> • Seeding • Gas sensing • Instrumentation/measurement equipment
Specification	DATE: 24 th October 2013

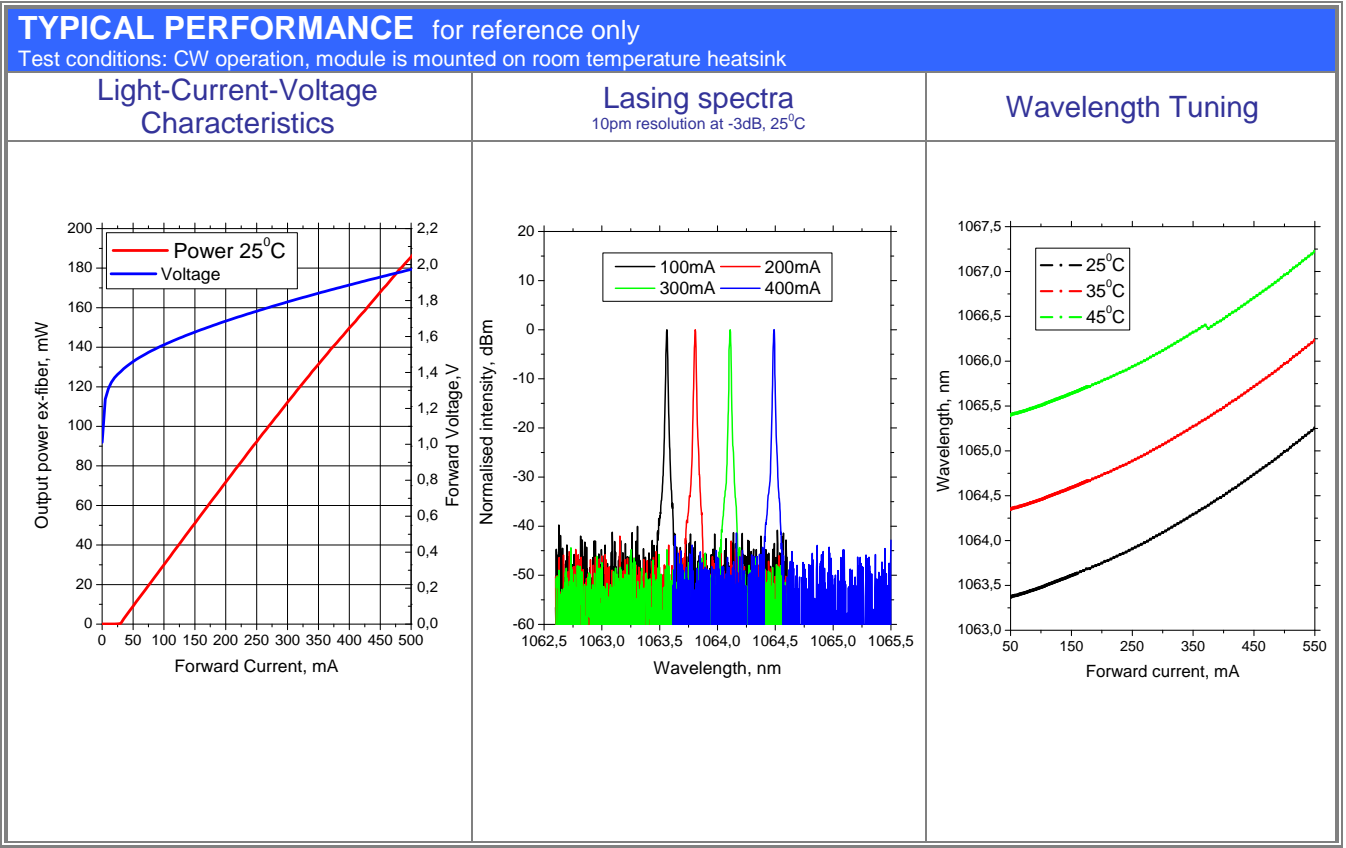
SPECIFICATIONS					
Test conditions: CW operation, chip temperature 25°C, the module is mounted on a room temperature heatsink.					
Parameters	Symb.	Min.	Typ.	Max.	Unit
Output power	P_{out}		150		mW
Central Wavelength	λ_P	1062	1064	1066	nm
*Spectral Width at P_{out}	$\Delta\lambda$		3		MHz
Wavelength Thermal Coefficient	$\Delta\lambda/\Delta T$		80	100	pm/°C
Wavelength Current Coefficient	$\Delta\lambda/\Delta I$		4	5	pm/mA
Sidemode Suppression Ratio at P_{out}	SMSR	35	40		dB
Threshold current	I_{th}		30	40	mA
Operating current at P_{out}	I_{op}		400	440	mA
Forward voltage at P_{out}	V_f		1.9	2.1	V
Polarization Extinction Ratio	PER	15	20		dB
Recommended operating chip temperature (thermistor readings)	T_{op}	15	25	40	°C

* Estimated using self-heterodyning method with 9km delay line

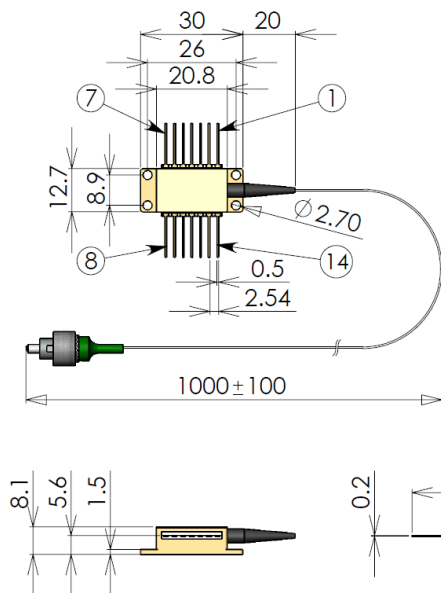
ABSOLUTE MAXIMUM RATINGS			
Parameters	Min.	Max.	Unit
Laser Diode reverse voltage		1	V
Laser Diode CW forward current		500	mA
Thermo Electric Cooler current		3	A
Thermo Electric Cooler voltage		4	V
Storage temperature range (in original sealed pack)	5	80	°C
Lead soldering temperature (max. 5 sec.)		250	°C
Case operating temperature range	10	50	°C



* For spliced optical isolator option



DIMENSIONS (All sizes are given in mm)



Pin identification:

1. TEC "+"
2. Thermistor
3. Monitor PD anode (optional)
4. Monitor PD cathode (optional)
5. Thermistor
- 6.
- 7.
- 8.
- 9.
10. Laser Diode anode "+"
11. Laser Diode cathode "-"
- 12.
13. Case
14. TEC "-"

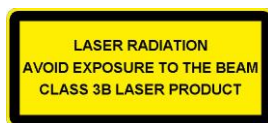
SAFETY AND OPERATING INSTRUCTIONS

The laser light emitted from this device is invisible and will be harmful to the human eye. Avoid looking directly into the output fiber or into the collimated beam along its optical axis when the device is in operation. Proper laser safety eyewear must be worn during operation.

Operating the laser diode outside of its maximum ratings may cause device failure or a safety hazard. Power supplies used with the component must be employed such that the maximum forward current cannot be exceeded. A proper heatsink for the laser diode module on thermal radiator is required. The module must be mounted on radiator with screws (bolt down in X-style fashion with initial torque set to 0.075Nm and final X-style bolt down at 0.15Nm) or clamps. The deviation from flatness of radiator surface must be less than 0.05mm. It's recommended using of In-foil or similar between bottom of the module and heatsink for thermal interface.

Carefully handle the fragile fiber, do not apply any stress, do not pull the fiber, do not bend fiber with a radius smaller than 3cm. Operate the laser module with clean fiber connector only. Periodically check and clean the connector if necessary. To clean the connector use suitable fiber cleaning tools (e.g. special cleaning tissue for optics). Perform cleaning only while the laser is switched off. Protect the fiber connector with protection cap while it's unplugged.

ESD PROTECTION – Electrostatic discharge is the primary cause of unexpected Laser Diode failure. Take extreme precaution to prevent ESD. Use wrist straps, grounded work surfaces and rigorous antistatic techniques when handling laser diodes.



NOTE: Innolume product specifications are subject to change without notice.