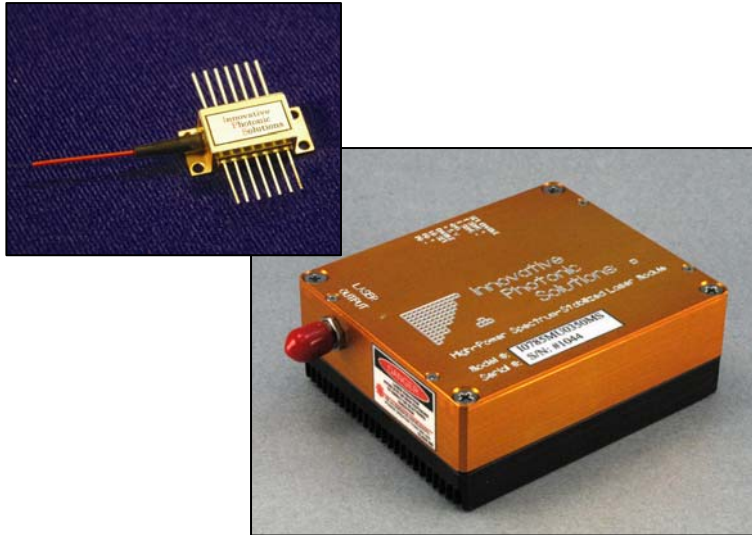


1546 nm Single Mode Spectrum Stabilized Laser Model # I1546SB0050P-IS



Features:

- High Power Single Mode Output
- Ultra-Narrow Spectral Linewidth (~100 kHz)
- Stabilized Output Spectrum ($< 0.007 \text{ nm}/^\circ\text{C}$)
- Excellent Beam Quality ($M^2 < 1.1$)
- Capable of High Speed Pulse Operation
- Integral Dual Stage Isolator

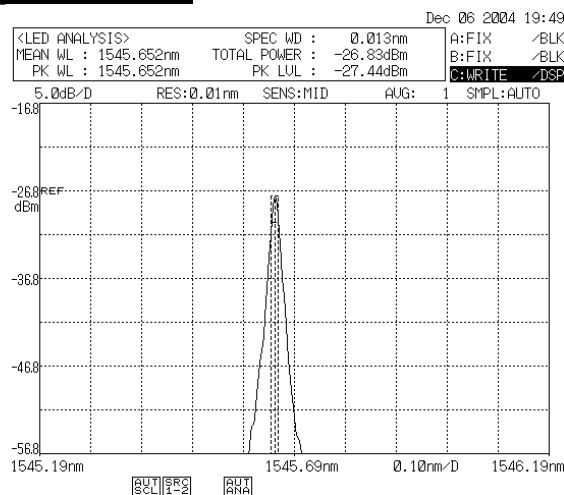
Target Applications:

- Fiber Laser Seeding
- Solid State Laser Seeding
- Interferometry
- Remote Sensing

Innovative Photonic Solution's proprietary Single-Mode Spectrum Stabilized Laser features high output power with ultra-narrow spectral bandwidth and a diffraction limited output beam. Designed to replace expensive DFB, DBR, fiber, and external cavity lasers, the Single-Mode Spectrum Stabilized Laser offers superior wavelength stability over time, temperature ($0.007 \text{ nm}/^\circ\text{C}$), and vibration, and is manufactured to meet the most demanding wavelength requirements.

The Single-Mode Spectrum Stabilized laser is available (both fiber coupled and open beam) at wavelengths ranging from 630 – 2400 nm, in a 14-Pin Butterfly package, in an integrated OEM module, or in a fully integrated module with user configurable temperature and power control electronics. Lasing wavelength can be accurately specified and repeatedly manufactured to within 0.1 nm. The laser is ideal for high performance fiber laser seeding, gas sensing, metrology and remote sensing applications.

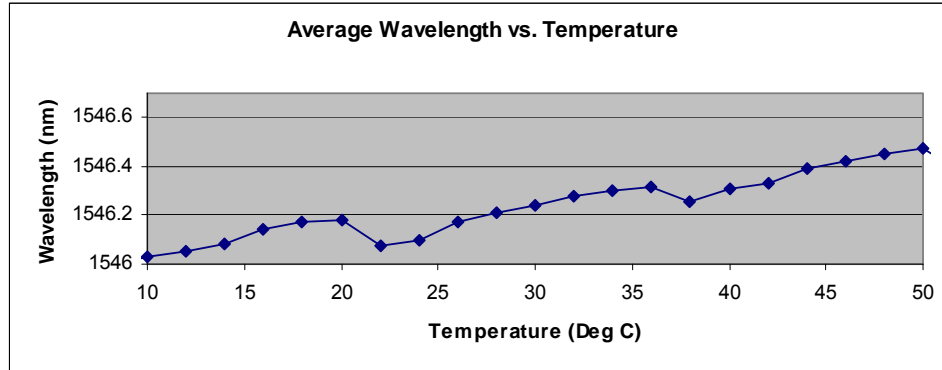
Typical Spectral Plot:



1545 nm SS Laser Spectrum @ 25 deg C

**Ultra-Stable Performance
With Spectral Linewidth
As Low As 150 KHz**

Operational Characteristics:



Laser exhibits characteristics of both DFB and ECL lasers

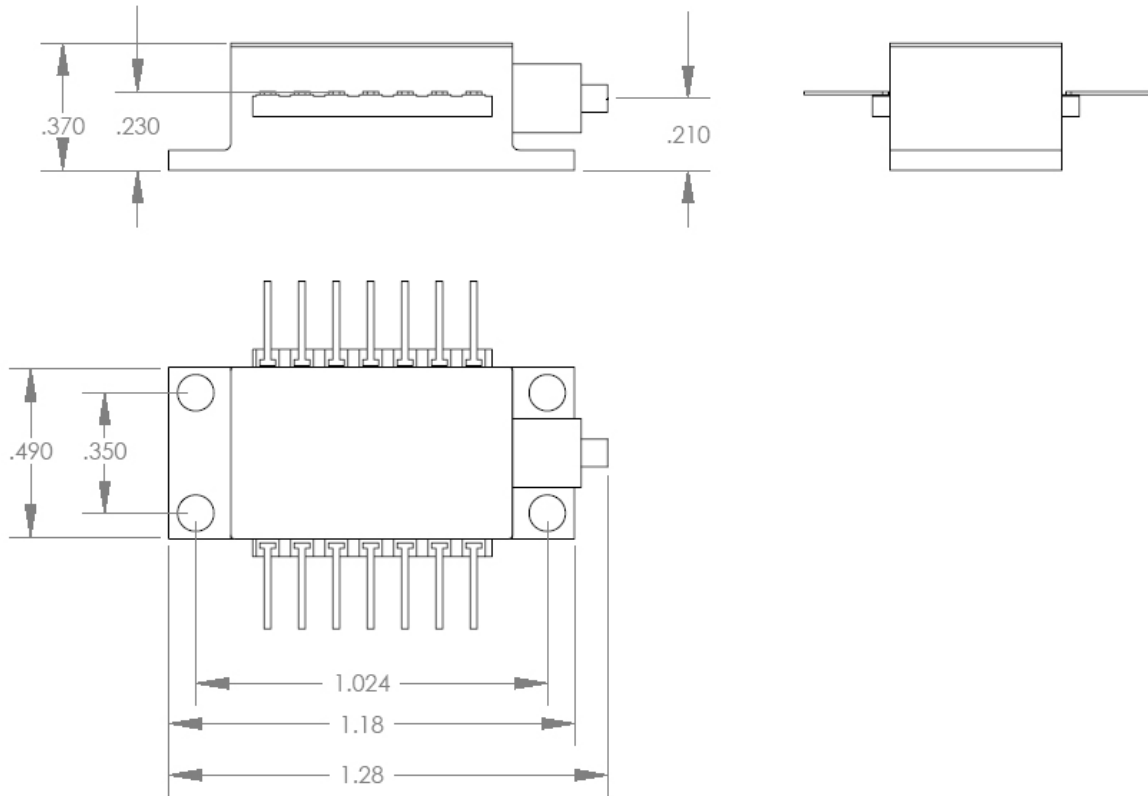
Product Specifications:

			I1546SB0050PZ-IS		
Parameter	Test Conditions	Units	Min	Typ	Max
Stabilized Lasing Wavelength	Peak λ measured in Vacuum at lop and TEC @ 25-35 deg. C	nm	1545.00	1546.00	1547.00
Spectral Width	Instantaneous FWHM at lop and TEC @ 25-35 deg. C	nm		~100 kHz	
Output power	CW Output from PM fiber at at lop and TEC @ 25-35 deg. C	mW	50		
Laser Operational Current	lop	mA			350
Laser Operational Voltage	Compliance limited	V			2.2
Polarization Extinction Ratio (PER)		dB	20		
Isolation			Integral Dual Stage Isolator		
TEC Current Limit		V			2.5
TEC Voltage Limit	Compliance limited				4.5
Operational Temperature Range		Deg C	10		50

Substitute Z in part number schema with:		Blank for No Connector
	A	For FC/APC

Custom wavelengths, power levels, & packaging configurations are available upon request.

Mechanical Specifications:



BF Module Pin-Out:

Package Pin-Out	
Pin #	Name
1	TEC +
2	THERMISTOR (10K Ohm @ 25C)
3	PD ANODE
4	PD CATHODE
5	THERMISTOR
6	NC
7	NC
8	NC
9	LASER CATHODE (-)
10	LASER ANODE (+)
11	LASER CATHODE (-)
12	NC
13	CASE GROUND
14	TEC -

