

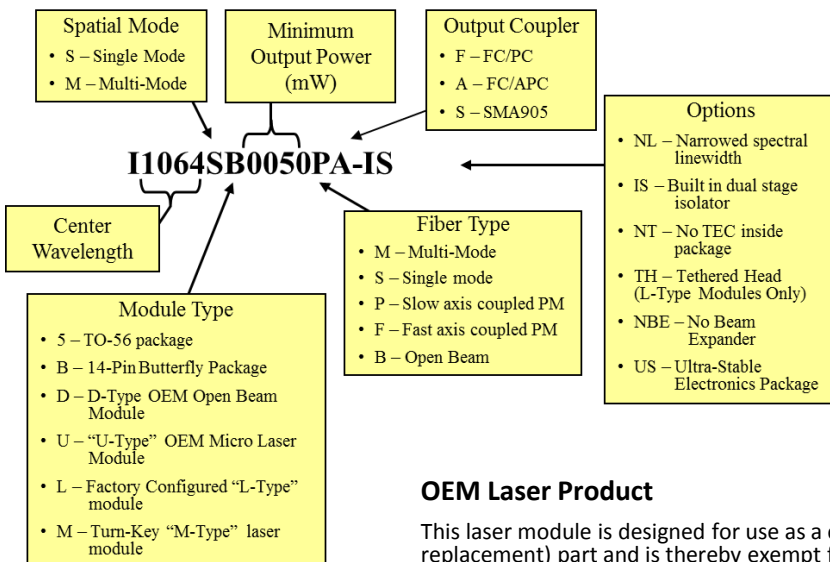
U-Type Module Pinout

Pin #	Symbol	Description
1	NC	Not Connected
2	Vset ENABLE	Enables 'LD SET' on pin 8 when connected to ground. If left open or set to 3-5 Volt, output power defaults to internally pre-set value.
3	T SENS	Not Connected
4	T SENS	
5	GND	Ground
6	+5V	4.9 to 5.1 Volt; 1 Ampere
7	ENABLE	Tie to GND to DISABLE Laser output. Leave not connected or apply 3-5 Volt to enable Laser output.
8	LD SET (See Operational Notes)	Apply 0 to 1 Volt to control optical output power. Pin 2 needs to be grounded to enable this option.
9	PD +	Photodiode anode
10	PD -	Photodiode cathode

Operational Notes

1. Do not retro-reflect beam! This can cause Catastrophic Optical Damage (COD) and is not covered under warranty.
2. To adjust power output, IPS recommends using Pulse Width Modulation (PWM) to adjust average power rather than using pin 4 (LD SET) for single-mode diode lasers. See Note 3.
3. By using PWM, user can adjust average power from 10% to 100% in digital increments by setting pulse width and duty cycle. For example, if a 50% duty cycle is selected, the laser will be on 50% of the time, and off 50% of the time, making the average power equal to 50% of the CW output power. The sample will experience a lower average power. Rise/fall time is approximately 20 microseconds.
4. IPS offers a Laser Control Unit (LCU-U) for USB control. Ask about this.
5. Heat sink and 5V power supply are not included with module

Part Numbering Schema

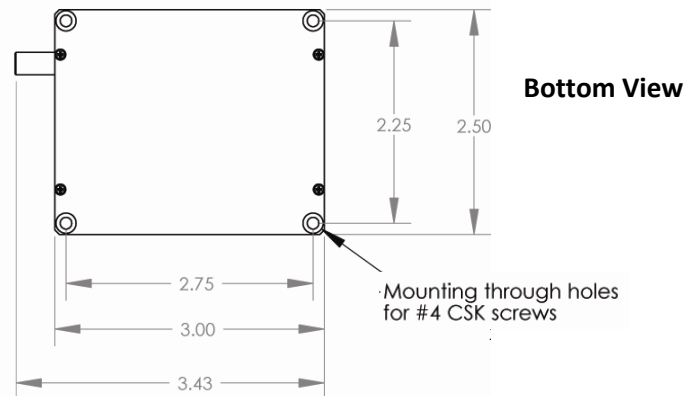


OEM Laser Product

This laser module is designed for use as a component (or replacement) part and is thereby exempt from 21 CFR1040.10 and 1040.11 provisions.

Wavelength (nm)	Min. Power (mW)	Part Number
780	50	I0780SU0050PA
785	50	I0785SU0050PA
808	50	I0808SU0050PA
830	50	I0830SU0050PA
976	220	I0976SU0220PA
1030	100	I1030SU0100PA
	280	I1030SU0280PA
1053	120	I1053SU0120PA
	300	I1053SU0300PA
1064	50 (integral dual-stage isolator)	I1064SU0050PA-IS
	120	I1064SU0120PA
	300	I1064SU0300PA

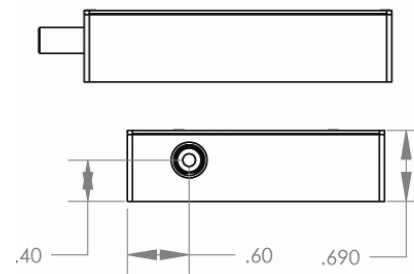
Mechanical Specifications



Side View

Molex 53014-1010, 10-circuit header
 Mating connector: 51004-1000

SMA Optical Connector
 105/125 micron fiber



Front View

**INVISIBLE LASER RADIATION
 AVOID EXPOSURE TO BEAM
 CLASS 3B LASER PRODUCT
 780 nm, 785 nm, 808 nm,
 830 nm, 1053 nm, 200 mW CW
 EN/IEC 60825-1:2007**

**INVISIBLE LASER RADIATION
 AVOID EXPOSURE TO BEAM
 CLASS 3B LASER PRODUCT
 976 nm, 1030 nm, 1064 nm,
 400 mW CW
 EN/IEC 60825-1:2007**

**INVISIBLE LASER RADIATION
 AVOID EYE OR SKIN EXPOSURE TO
 DIRECT OR SCATTERED RADIATION
 CLASS 4 LASER PRODUCT
 976 nm, 800 mW CW
 EN/IEC 60825-1:2007**