

HIGH PRECISION LASER MODULE



*Driver installed in the field without heat sink over 6 months, the butterfly laser was not shown in the picture

FEATURES

Butterfly laser powered with Ultra Low Noise Current Source ± 50 ppm across the temperature range

Bi-Directional TEC control, fast response in seconds from no laser power to full power, efficient power design

16bit Digital to Analog Controlled Laser Power, Digital controlled laser On/Off

MSP430 FRAM microcontroller controlled, power efficient design

Main Power: Tactical Switch ON / OFF

Battery Powered Module with on board Charger, Charging/Powering at the same time

USB/RS232 serial port control

Serial Port Control, USB/RS232 driver can support both Windows, Linux, Mac OS, Win CE

On board USB hub, spare ports can recognize USB thumb drive and other USB devices

Trigger outputs

On board auxiliary power supplies: 12V, 5V, ultra low noise 5V, LED indicator 3.3V

Modular Design, easily integrated into your system, Laser can be mounted anywhere

Fanless, heatsink integrated

Affordable price

SPECIFICATIONS

Constant Current	0-1.5A, 50ppm across the working range
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TEC	± 2 A upto 5V
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Wavelength	Varies
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CW Fiber Laser Output Power	0 mW to 1000 mW
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Spectrum Width	0.2nm, 2nm, 3nm, see order string
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Laser Package Type	14 pin butterfly fiber laser, 100um core fiber output, FC/PC connector
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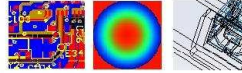
Laser Head Operating Temperature	0 - 50C
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Power Supply Included	+12V / 4A DC
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Full Power Operating Time	>5 hours
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Software	Control Software for windows OS, RS232 commands available for customers development for various systems, drivers support Windows, Linux, Mac OS, Win CE
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Dimensions (battery's dimension not counted)	210mm x 128mm x 30mm
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SMART SENSING INSTRUMENTS
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Driver Board Operating Temperature

-40 – 60C

ORDER STRING: HPL-(XXXABC)-(F)

(XXXABC): laser wavelength and power

785SAA	785nm, single mode, FWHM 0.5nm, Power 1Watt
830SAA	830nm, single mode, FWHM 0.5nm, Power 100 mW
915SAA	915nm, single mode, FWHM 0.5nm, Power 180 mW
940SAA	940nm, single mode, FWHM 0.5nm, Power 200 mW
975SAA	975nm, single mode, FWHM 0.5nm, Power 180 mW
975SBA	975nm, single mode, FWHM 0.5nm, Power 220 mW
975SCA	975nm, single mode, FWHM 0.5nm, Power 250 mW
975SDA	975nm, single mode, FWHM 0.5nm, Power 300 mW
1064SA	1064nm, single mode, FWHM 0.5nm, Power 100 mW
1064SB	1064nm, single mode, FWHM 0.5nm, Power 180 mW
1064SC	1064nm, single mode, FWHM 0.5nm, Power 200 mW
785MAA	785nm, multi mode, FWHM 2nm, Power 1Watt
785MAB	785nm, multi mode, FWHM 0.2nm, Power 500mW
808MAA	808nm, multi mode, FWHM 2nm, Power 1.5Watt
915MAA	915nm, multi mode, FWHM 2nm, Power 1Watt
980MAA	980nm, multi mode, FWHM 3nm, Power 1Watt
Other wavelengths OR power ratings	Contact SSI

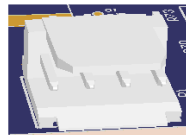
(F): S: with breakout board;

N: without breakout board, motherboard only



3 2 1

Power Supply Press In Terminal Block: pin 1: +12V; pin 2: +12V RTN; pin 3: Chassis GND

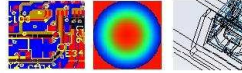


1 2 3 4

Battery Charger Connector: pin 1: V+; pin 2: RTN; pin 3/4: Thermistor (recommended Thermistor 103AT-4-80025)



USB: Main: to PC; #1: USB, 5V/1A; #2/#3: 5V/0.5A (recommended 350mA Derating Use)



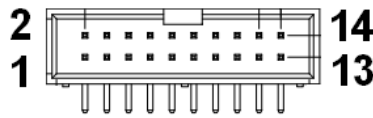
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18 PIN PRESS IN CONNECTOR PINOUT (mating with standard 14 pin IDC cable)

1/5: NC	3: Digital Output, SW ON/OFF	7: Main PWR Tactile SW	9: 5V/1.5A Low Noise, SW ON/OFF
11: 5V/2A, SW ON/OFF	13: 5V/2A, shared with pin 11, SW ON/OFF	15: 12V/1A or Less, w/ Load SW	17: Laser ON LED Anode
18: Laser ON LED Cathode	2/4/6/8/10/12/14/16: GND		



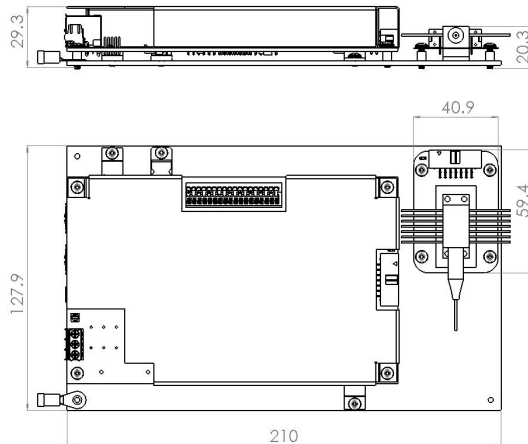
14 PIN CONNECTOR PINOUT (mating with standard 14 pin IDC cable)

1/3: Laser Diode +	2/4: Laser Diode -	5: Photo Diode -	6: Photo Diode +
7/8: Thermistor	9/10: GND	11/13: TEC -	12/14: TEC +

Current Rating Per Pin with Cable (not shown): 3A Derating Recommended

Operating Temperature: -40 – 60C

(unit: mm)



To Send Quotation:

Email: smartsensinginternational@gmail.com

Telephone: 978-494-0802

Warning: CLASS IIIb LASER PRODUCT AVOID DIRECT EXPOSURE TO BEAM