

# Ultra High Stable PM Laser 1550nm

polarization extinction/output power stabilization, up to 5W power, up to 33dB ER



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The PMLS provides 1550nm polarization-maintaining (PM) laser light with exceptional stability in both output power and polarization extinction ratio. Unlike a directly fiber-coupled PM laser, the PMLS utilizes a randomly polarized fiber laser coupled with a specially designed high-polarization extinction ratio polarizer, offering distinct advantages. Spectral width options include broadband and 5nm. The PMLS is available in various package formats to suit different applications: component, module, and benchtop, with RS232/USB interfaces. The output fiber is PM 1550. The 10mW OEM version of the PMLS is available as a plug-and-play module, offering easy integration and immediate operation for various applications.

## Applications

- Sensor System
- Testing
- Instrument

## Features

- High Power
- Low Cost
- Constant ER
- Constant Output Power

## Specifications

Parameter	Min	Typical	Max	Unit
Wavelength	1530	1550	1580	nm
Spectral Width	0.03	5	40	nm
Max Output Power	10		5000	mW
Output Power Stability			0.15	dB
Polarization Extinction Ratio (ER)	25	26	33	dB
ER Stability			2	%
Operation Moder		CW		
Repeatability	0.5		1	dB
Operating Temperature	-5		50	°C
Storage Temperature	-40		80	°C
Input Voltage	110		230	VAC
Computer Interface		USB		

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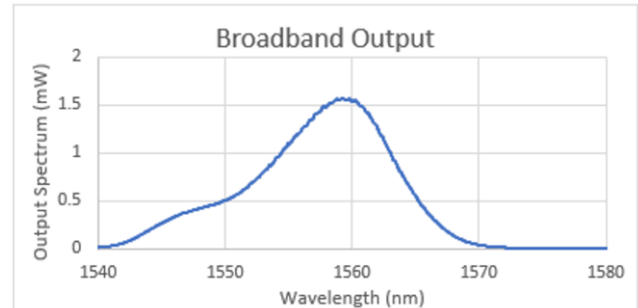
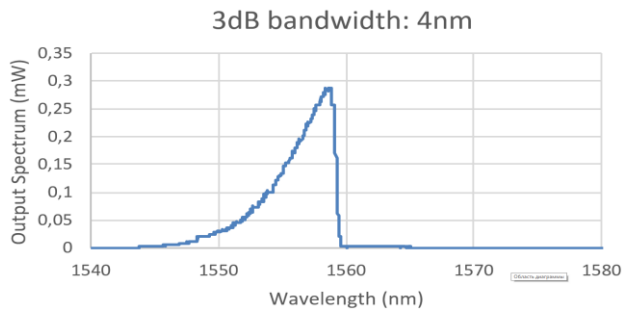
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## Typical Spectrum



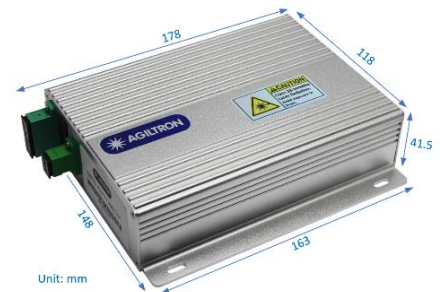
## Package Choices



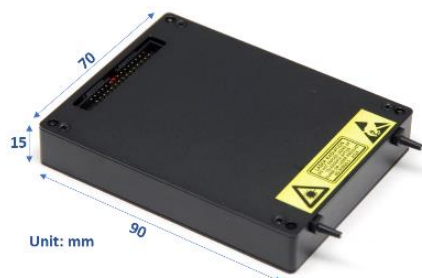
Component



Benchtop- USB/GUI



Plug-play module for 10mW



MSA



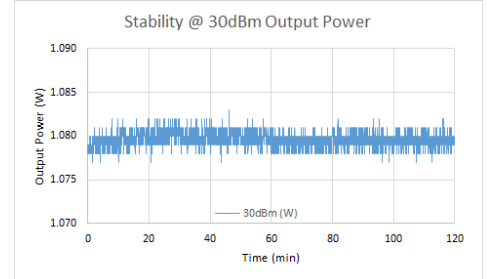
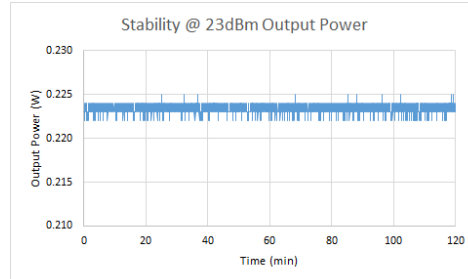
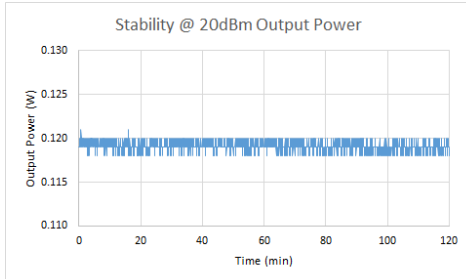
MSA USB/GUI Adapting PCB

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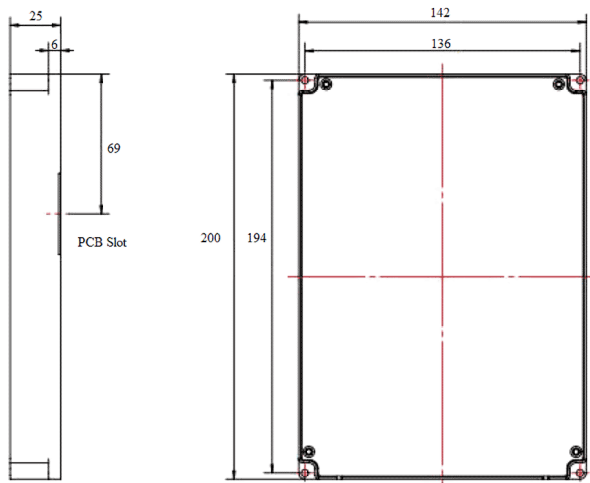
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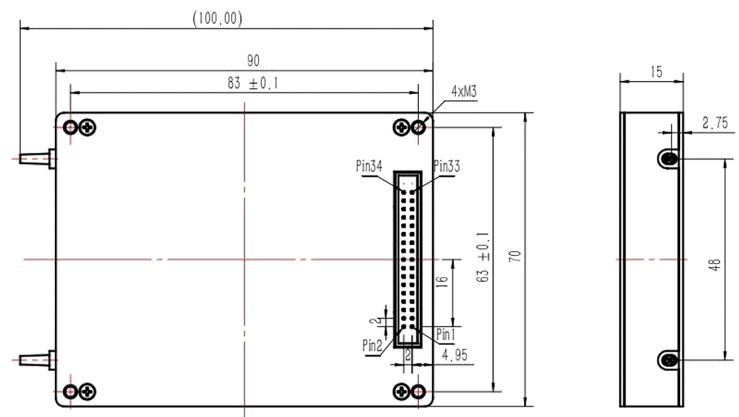
## Output Power Stability (33dBm Benchtop)



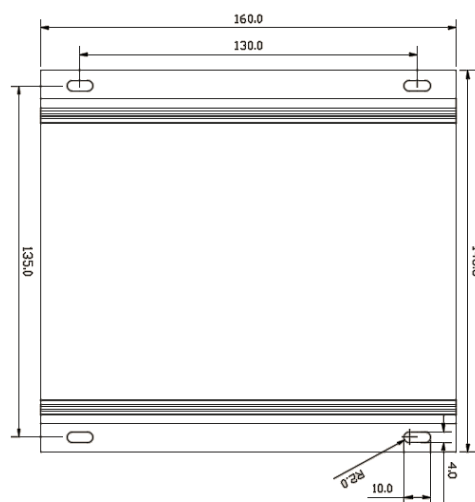
## Mechanical Dimensions (mm)



High-power: >23dBm



MSA package: 20dBm



Mini Benchtop: 17/20dBm

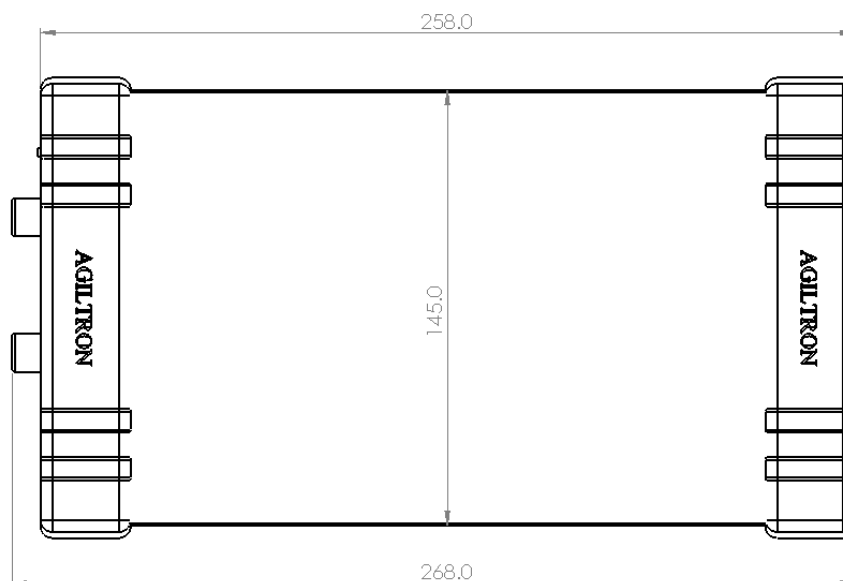
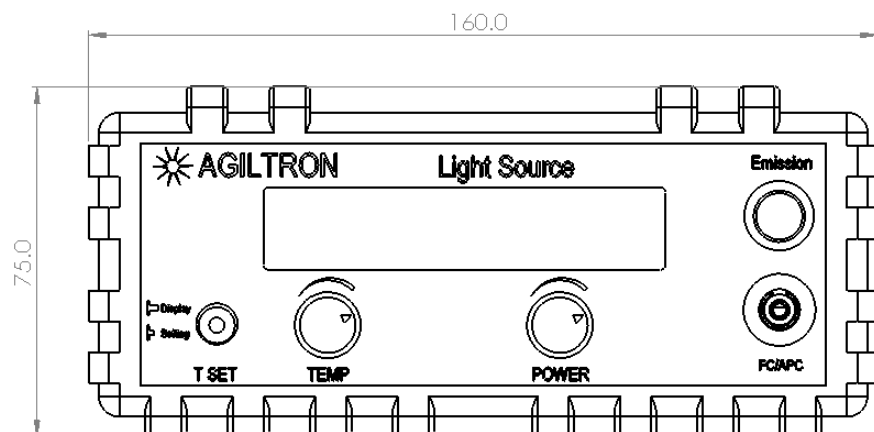
To be determined depending on the output power

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## Mechanical Dimensions (mm)



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## Ordering Information

	<input type="checkbox"/>	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prefix	Package*	Wavelength	Power **	PER	Spectral Width	Back Protector	Fiber	Connector ***
PMLS-	Module = 22 Benchtop = 11 MAS = 33 Special = 00	1550nm = 5	10mW = 1 20mW = 2 100mW = 3 500mW = 4 1W = 5 2.5W = 6 5W = 7	25dB = 1 29dB = 2 32dB = 3	Broad = 1 4nm = 2	Non = 1 Yes = 2	PM1500 = 1 Special = 0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 LC/PC = 7 LC/APC = A LC/UPC = U High Power FC/PC = H

\* The benchtop version includes a 110/220V AC input and features both USB and RS232 interfaces. The MAS includes an adaptor PCB for USB control and power supply. The 10mW OEM version is available only with a fixed output (low cost) in a plug-and-play module, which includes a power supply.

\*\* Standard fiber connectors are rated for up to 0.5W. For higher optical power up to 10W, our high-power connectors are required. These must be used in pairs (with matching connectors).

## Laser Safety

This product meets the appropriate standard in Title 21 of the Code of Federal Regulations (CFR). FDA/CDRH Class 1M laser product. This device has been classified with the FDA/CDRH under accession number 0220191. All versions of this laser are Class 1M laser products, tested according to IEC 60825-1:2007 / EN 60825-1:2007. An additional warning for Class 1M laser products. For diverging beams, this warning shall state that viewing the laser output with certain optical instruments (for example eye loupes, magnifiers, and microscopes) within a distance of 100 mm may pose an eye hazard. For collimated beams, this warning shall state that viewing the laser output with certain instruments designed for use at a distance (for example telescopes and binoculars) may pose an eye hazard.

Wavelength = 1.3/1.5  $\mu$ m.

Maximum power = 30 mW.



\*Caution - Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

\*IEC is a registered trademark of the International Electrotechnical Commission.