

532nm CW Single-frequency Narrow Linewidth DPSS Laser (100mW)



● Product Description

IdealPhotonics offers a 532nm CW single-frequency narrow linewidth DPSS laser that utilizes their proprietary self-aligning resonator technology. The AMR design integrates the resonator of the LMX series single-longitudinal-mode lasers into a compact optical component with extremely low loss. The self-aligning resonator technology ensures the long-term reliability, temperature stability, and insensitivity to mechanical vibrations of the single-longitudinal-mode laser. The 532nm single-longitudinal-mode laser has a linewidth of far less than 1 MHz, power stability of $\pm 1\%$ (can reach 0.5% if required), a beam quality of less than 1.1, and a maximum power of up to 2W. This is a highly cost-effective product for applications in Raman detection, interferometric measurement, holographic storage, biosensing, confocal microscopy, material analysis, and other fields.

● Part Number

MP-532-100-SM

● Product features

CW: Ultraviolet, Blue, Green, Red, Infrared 、 Novel proprietary design for single-mode operation、 Very low noise: <0.5%、 Power range from 10 mW to 10 W

● Application area

Laser interferometry、 Raman spectroscopy、 Holography、 Nonlinear optics、 Laser microscopy

Technical Parameters

Characteristics	Min	Max	Unit	Notes
Wavelength	532	532.5	nm	
Beam Quality	1.05	1.1	NA	
Coherence Length	300	400	m	
Noise	0.1	0.3	%	10 Hz – 1 GHz
Output Power	90	100	mW	
Power Adjustable	10	100	%	
Linewidth	300	500	KHZ	
Beam Spot Diameter	0.3	0.35	mm	
Divergence Angle	2	2.2	mrاد	
Warm-up Time	3	8	Min	
Temperature Control Range	0	50	oC	
Power Consumption		35	W	
Polarization Ratio	1:200		NA	
Vertical Pointing Stability		5	urاد/°C	
Long-term Stability	2	3	%	8 hours stability
Input Working Voltage	0	24	V	@5A current
Laser Head Size (integrated)	250x105x80		mm3	
Laser Head Size (cooling plate design)	120x65x60		mm3	