

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: $< 5 \text{ urad}/^{\circ}\text{C}$, 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 field

● 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

● Part Number

MP-DPSS-532-100

● Application area

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

● Core parameters

Center wavelength	Output power	Linewidth
532nm	90-100mW	$< 500 \text{ kHz}$



● General Parameters

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		mm ³	
Laser Head Size (cooling plate design)	120x65x60		mm ³	