

780nm 200mW NIR DPSS Single Frequency Laser



● Product Description

The 780nm Single frequency DPSS NIR laser is specifically designed for deployment in systems utilizing rubidium transitions. With outstanding beam characteristics, ultra-stable output, and an ultra-compact package, the 780 is ideal for demanding applications requiring 780 nm wavelength.

● Product features

Narrow linewidth single-frequency output; Near-infrared wavelength coverage; High beam quality; Low noise performance; Flexible modulation and control

● Part Number

MP-DPSS-780-200

● Application area

Cold atom physics | Quantum technology | Fiber optic communication and sensing | Precision measurement | Biomedicine | Industrial processing

● Core parameters

Wavelength	Output Power	Spectral Bandwidth
780nm	200mW	≤ 0.3 MHz

● General Parameters

Detailed Parameters

Parameter	MP-DPSS-3	MP-DPSS-3	MP-DPSS-53	MP-DPSS-64	MP-DPSS-7
	20-200	49-200	2-2000	0-1500	80-200
Output Power	Up to 200mW		Up to 2000mW	Up to 1500mW	Up to 200mW
Wavelength	320 nm	349 nm	532 nm	640 nm	780 nm
Spectral Width	≤ 0.5 MHz				≤ 0.3 MHz
Spatial Mode	TEM00				
Spectral Stability	± 0.2 pm (over 8 hours operation)				
Coherence Length	> 100 m				
Output Power Stability	≤ 2.0 % (over 8 hours operation)			≤ 1.0 % (over 8 hours operation)	≤ 2.0 % (over 8 hours operation)
Output	≤ 0.1 % RMS (10 Hz – 10 MHz)				

Power			
Noise			
Beam Divergence	1.0 mrad, diffraction-limited		
Beam Pointing Stability	0.6 - 1.2 mm	0.7 - 1.1 mm	0.8 - 1.2 mm
Beam Pointing Stability	≤ 5 μrad/°C		
Laser Head Dimensions	240 x 150 x 100 mm	210 x 100 x 80 mm	180 x 100 x 80 mm
L x W x H			
Beam Height	65 mm		
Environmental Conditions,	18 - 30 °C		

Ambient Tempera ture Range	
Laser Head Interface Stability	$\pm 1.5 \text{ }^{\circ}\text{C}$
Storage Tempera ture	0 - 50 $^{\circ}\text{C}$
Humidity	0 - 50 %, non-condensing

Optional Configurations