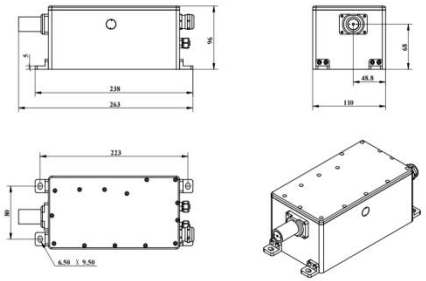
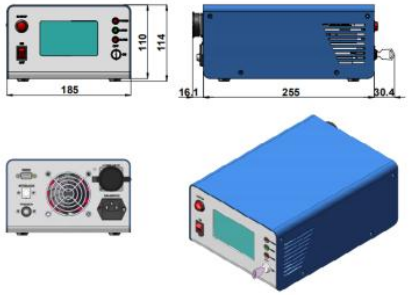
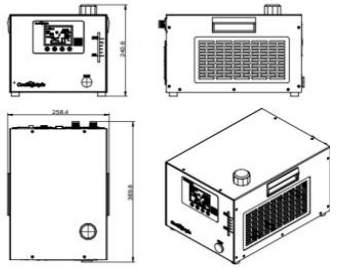
MBL-K-457-Water 1-5W

BLUE LASER AT 457nm

The MBL-K-457-Water is a water-cooled, 457 nm continuous-wave DPSS blue laser with TEM00 fundamental mode output and a power range of 1–5 W. It is primarily used for pumping high-power titanium-sapphire lasers and can also be applied in biofluorescence, flow cytometry, spectral analysis, and optical metrology.

SPECIFICATIONS

Model	MBL-K-457-Water
Wavelength (nm)	457±1
Operating mode	CW
Output power (W)[1]	1-5
Power Stability (rms, 4 hours ± 3°C)	<3%, <2%, (<1% optional)
Transverse mode	TEM00
Spectral linewidth (nm)	<0.1
M^2	<1.1
Beam divergence, full angle (mrad)	~1.0
Beam diameter at the aperture (1/e2, mm)	<2.5
Warm-up time (minutes)	<10
Pointing Stability(urad) (over 2 hours after warm-up and ±3°C)	<50
Pointing Stability Over Temperature (urad/°C)	<20
Polarization ratio	>50:1(>100:1 optional), Horizontal(Vertical optional)
Beam height from base plate (mm)	68
Cooled method	Water cooled
Operating temperature (°C)	10-35
Power supply (100-240VAC)	PSU-W-LED
Modulation option	DC-1kHz, 1kHz-10kHz, 10kHz-30kHz optional; TTL and Analog optional
Expected lifetime (hours)	>10000

LASER HEAD	POWER SUPPLY	WATER CHILLER (WCH-580)
		
263 (L) ×110 (W) ×96 (H) mm3, 4.2 kg	301.5 (L) ×185 (W) ×114 (H) mm3, 3.0 kg	369.8 (L) ×258.4 (W) ×240.6 (H) mm^3, 10.5 kg

1 Any power level can be selected in this range.