

MSL-FN series



SINGLE LONGITUDINAL MODE LASER

All solid state single longitudinal mode laser is made features of ultra compact, long lifetime, low cost and easy operating, which is used in DNA sequencing, flow cytometry, cell sorting, optical instrument, spectrum analysis, interference, measurement, holography, physics experiment, etc.



SPECIFICATIONS

Wavelength (nm)	360±1	457±1	473±1
Output power (mW)	1-50	1-350	1-100
Power stability (rms, over 4 hours)	<1%, <2%, <3%	<2%, <3%, <5%	<2%, <3%, <5%
Transverse mode	TEM ₀₀	Near TEM ₀₀	TEM ₀₀
Longitudinal mode	Single		
Operating mode	CW		
Spectral line width (nm)	<0.00001		
Coherent length (m)	>50		
Noise of amplitude (rms, 1Hz~20MHz)	<0.5%, <1%	<0.5%, <1%	
M ² factor	<1.5	<1.2	
Beam diameter at the aperture (1/e ² , mm)	<1.2	<2.0	
Beam divergence, full angle (mrad)	<1.0	<1.2	
Polarization Ratio	>50:1 Horizontal±5 degree (Vertical Optional)	>100:1, Horizontal±5 degree (Vertical Optional)	
Warm-up time (minutes)	<10		
Pointing stability after warm-up (mrad)	<0.05		
Beam height from base plate (mm)	27.4		
Laser head consumption(W)	15 (typical) , <25 (40°C)		
Max. Laser Head Base plate Temp (°C)	50		
Operating Temperature (°C)	10-40		
Power supply (90-264VAC)	PSU-H-FDA		
Expected lifetime (hours)	10000		
Warranty	1 year		

Note: The laser head needs to be used on a heat sink with good heat dissipation.



SPECIFICATIONS

Wavelength (nm)	522±1	523.5±1	526.5±1	532±1	
Output power (mW)	1-100	1-100	1-100	100-200	200-400
Power stability (rms, over 4 hours)	<1%, <2%, <3%	<1%, <2%, <3%	<1%, <2%, <3%	<1%, <2%, <3% (0.5% Optional)	<2%, <3%
Transverse mode	TEM ₀₀				
Longitudinal mode	Single				
Operating mode	CW				
Spectral line width (nm)	<0.00001				
Coherent length (m)	>50				
Noise of amplitude (rms, 1Hz~20MHz)	<1%		<1%	<0.5% (0.25% Optional)	
M ² factor	<1.5	<1.2		<1.2 (<1.1 Optional)	
Beam diameter at the aperture (1/e ² , mm)	~2.0	<1.5			
Beam divergence, full angle (mrad)	<1.5	<1.2			
Polarization Ratio	>100:1, Horizontal±5 degree (Vertical Optional)				
Warm-up time (minutes)	<10				
Pointing stability after warm-up (mrad)	<0.05				
Beam height from base plate (mm)	27.4				
Laser head consumption(W)	15 (typical), <25 (40°C)				
Max. Laser Head Base plate Temp (°C)	50				
Operating Temperature (°C)	10-40				
Power supply (90-264VAC)	PSU-H-FDA				
Expected lifetime (hours)	10000				
Warranty	1 year				

Note: The laser head needs to be used on a heat sink with good heat dissipation.



SPECIFICATIONS

Wavelength (nm)	543±1	552±1	556±1	561±1
Output power (mW)	1-100	1-100	1-100	1-150
Power stability (rms, over 4 hours)	<1%, <2%, <3%	<2%, <3%, <5%	<1%, <2%, <3%, <5%	<1%, <2%, <3%, <5%
Transverse mode	TEM ₀₀	Near TEM ₀₀	TEM ₀₀	
Longitudinal mode	Single			
Operating mode	CW			
Spectral line width (nm)	<0.00001			
Coherent length (m)	>50			
Noise of amplitude (rms, 1Hz~20MHz)	<1%		<0.5%, <1%	
M ² factor	<1.2	<1.2 (<1.1 Optional)		<1.2
Beam diameter at the aperture (1/e ² , mm)	<1.5		<2.0	
Beam divergence, full angle (mrad)	<1.2		<1.2	
Polarization Ratio	>100:1, Horizontal±5 degree (Vertical Optional)			
Warm-up time (minutes)	<10			
Pointing stability after warm-up (mrad)	<0.05			
Beam height from base plate (mm)	27.4			
Laser head consumption(W)	15 (typical) , <25 (40°C)			
Max. Laser Head Base plate Temp (°C)	50			
Operating Temperature (°C)	10-40			
Power supply (90-264VAC)	PSU-H-FDA			
Expected lifetime (hours)	10000			
Warranty	1 year			

Note: The laser head needs to be used on a heat sink with good heat dissipation.



SPECIFICATIONS

Wavelength (nm)	588±2	589±1		607±1	639±1
Output power (mW)	1-200	1-100	100-200	1-100	1-300
Power stability (rms, over 4 hours)	<3%, <5%, <10%	<2%, <3%	<2%, <3%, <5%	<1%, <2%, <3%	<1%, <2%, <3%
Transverse mode	TEM ₀₀				
Longitudinal mode	Single				
Operating mode	CW				
Spectral line width (nm)	<0.00001				
Coherent length (m)	>50				
Noise of amplitude (rms, 1Hz~20MHz)	<0.5%, <1%		<1%		<0.5%, <1%
M ² factor	<1.2			<1.2 (<1.1 Optional)	
Beam diameter at the aperture (1/e ² , mm)	<2.5		<1.5		
Beam divergence, full angle (mrad)	<1.2			<1.5	
Polarization Ratio	>100:1, Horizontal±5 degree (Vertical Optional)				
Warm-up time (minutes)	<10				
Pointing stability after warm-up (mrad)	<0.05			6 μ mrad/°C	
Beam height from base plate (mm)	27.4				
Laser head consumption(W)	15 (typical) , <25 (40°C)				
Max. Laser Head Base plate Temp (°C)	50				
Operating Temperature (°C)	10-40				
Power supply (90-264VAC)	PSU-H-FDA				
Expected lifetime (hours)	10000				
Warranty	1 year				

Note: The laser head needs to be used on a heat sink with good heat dissipation.



SPECIFICATIONS

Wavelength (nm)	656.5±1	660±1	671±1
Output power (mW)	1-50	1-20	300-500
Power stability (rms, over 4 hours)	<1%, <3%, <5%	<3%, <5%	<2%, <3%
Transverse mode	TEM ₀₀		
Longitudinal mode	Single		
Operating mode	CW		
Spectral line width (nm)	<0.00001		
Coherent length (m)	>50		
Noise of amplitude (rms, 1Hz~20MHz)	<0.5%, <1%		
M ² factor	<1.2		<1.2
Beam diameter at the aperture (1/e ² , mm)	<2.0		<2.0 (<1.5 Optional)
Beam divergence, full angle (mrad)	<1.2		
Polarization Ratio	>100:1, Horizontal±5 degree (Vertical Optional)		
Warm-up time (minutes)	<10		
Pointing stability after warm-up (mrad)	<0.05		
Beam height from base plate (mm)	27.4		
Laser head consumption(W)	15 (typical) , <25 (40°C)		
Max. Laser Head Base plate Temp (°C)	50		
Operating Temperature (°C)	10-40		
Power supply (90-264VAC)	PSU-H-FDA		
Expected lifetime (hours)	10000		
Warranty	1 year		

Note: The laser head needs to be used on a heat sink with good heat dissipation.



Wavelength (nm)	698±1	721±1	
Output power (mW)	1-200	1-50	50-100
Power stability (rms, over 4 hours)	<1%, <2%, <3%	<3%, <5%	<3%, <5%, <10%
Transverse mode	TEM ₀₀		
Longitudinal mode	Single		
Operating mode	CW		
Spectral line width (nm)	<0.00001		
Coherent length (m)	>10	>50	
Noise of amplitude (rms, 1Hz~20MHz)	<0.5%, <1%		
M ² factor	<1.2(<1.1 optional)	<1.2	
Beam diameter at the aperture (1/e ² , mm)	<1.5		
Beam divergence, full angle (mrad)	<1.5	<1.2	
Polarization Ratio	>100:1, Horizontal±5 degree (Vertical Optional)		
Warm-up time (minutes)	<10		
Pointing stability after warm-up (mrad)	<0.05		
Beam height from base plate (mm)	27.4		
Laser head consumption(W)	15 (typical) , <25 (40°C)		
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Expected lifetime (hours)	10000		
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LASER HEAD	LASER HEAD (MSL-FN-360)	POWER SUPPLY
<p>197(L)×70(W)×50(H) mm³, 1.5 kg</p>	<p>197(L)×70(W)×50(H) mm³, 1.5 kg</p>	<p>275(L) ×145(W) ×104(H) mm³, 2.3 kg</p>