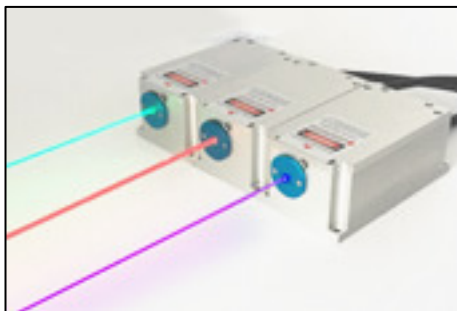


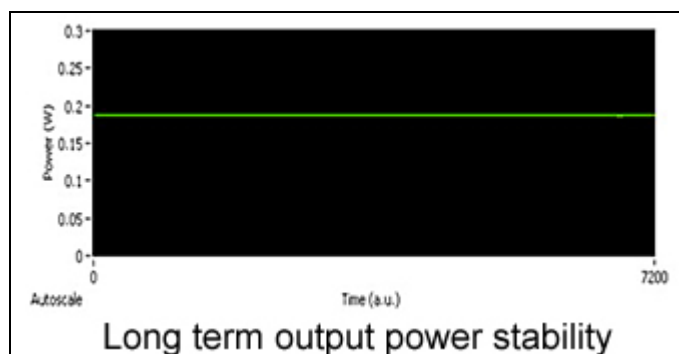
Narrow Linewidth Diode Lasers

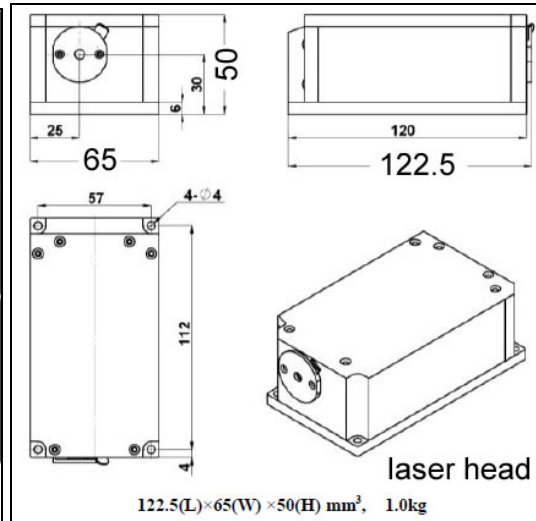
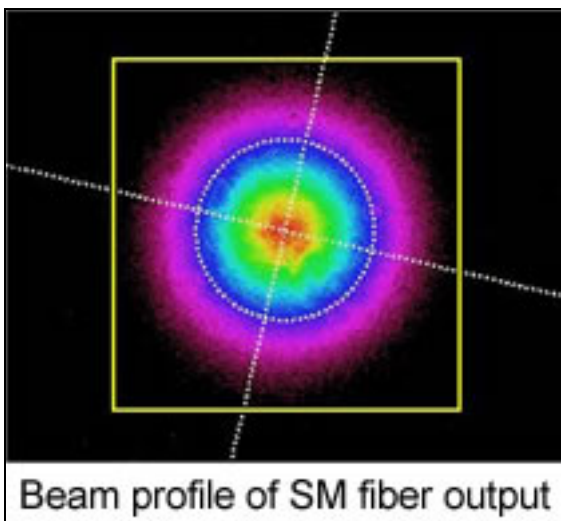
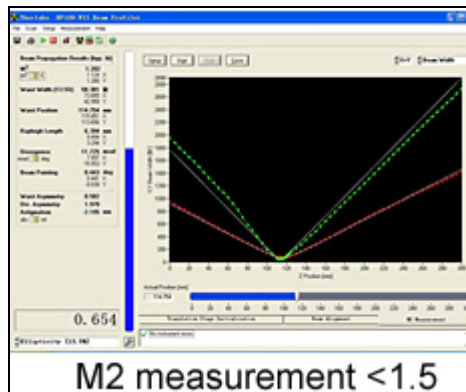
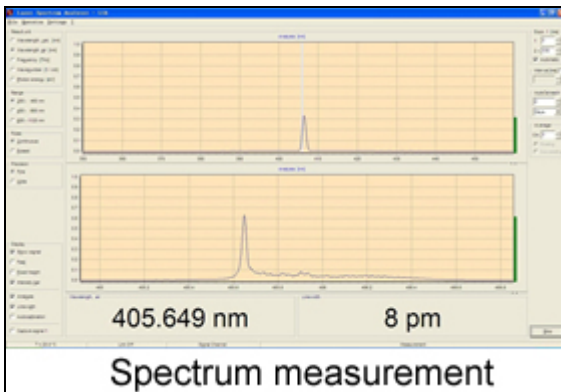
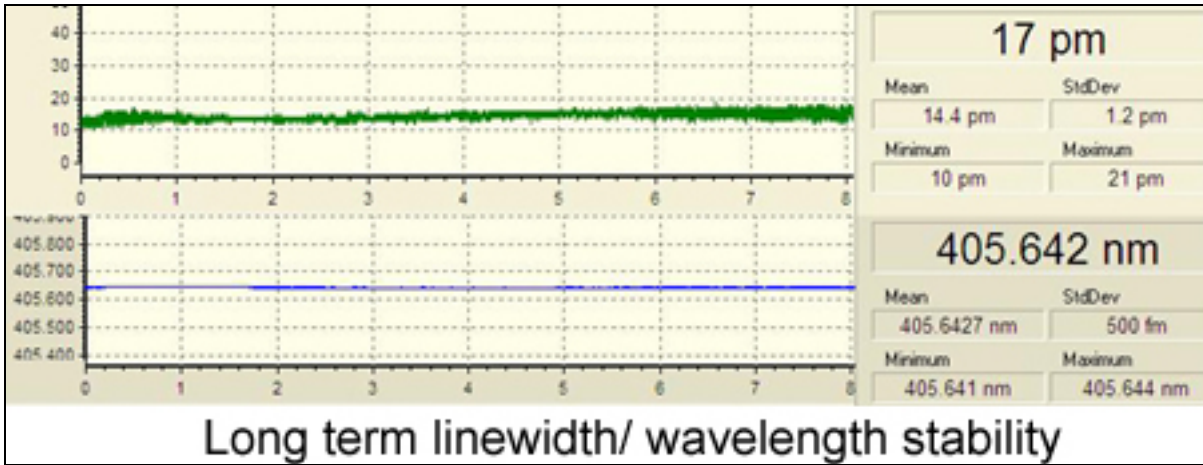


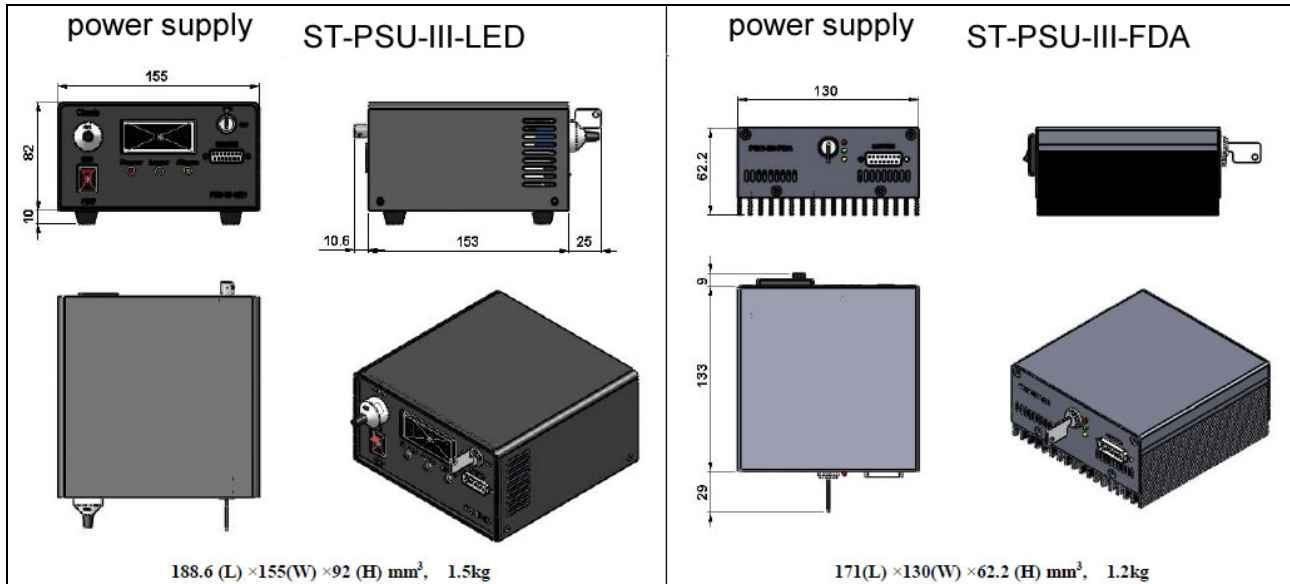
STC-MDL-E series lasers, with the characteristic of ultra narrow spectral linewidth $<0.03\text{nm}$, are ideal for application in DNA sequencing, flow cytometry, digital imaging, analytical chemistry, particle measurement, confocal microscopy, Raman spectroscopy and many other fields. Housed in ultra compact package, these lasers are the perfect choice for OEM instrumentation, systems design and integration, and also for end user applications in research and development.

Wavelength (nm)	Output power (mW)	Wavelength (nm)	Output power (mW)
375	1~20	637	1~80
400	1~50	640	1~30
405	1~150	642	1~30
410	1~150	650	1~30
415	1~150	655	1~30
442	1~30	660	1~120
445	1~30	705	1~10
447	1~30	730	1~10
450	1~30	785	1~20
454	1~30	808	1~20
457	1~30	830	1~30
460	1~100	915	1~30
488	1~70	940	1~30
514.5	1~40	975	1~30
520	1~10	980	1~30
633	1~80	1060	1~40
635	1~30		

Ordering Information: STC-MDL-E-xxxx-yyy-zzz, where xxxx means wavelength in nm, yyy means output power in mW, zzz means power stability in 1%, 2% or 3%.







375nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	375±0.5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,20
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.0
Beam divergence, full angle (mrad)	<0.5
Polarization ratio	>10:1 (>50:1, optional) Horizontal ±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

400nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	400±1
Operating mode	CW
Output power (mW)	>1, 10, 20,...,50
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
Beam diameter at the aperture (1/e ² ,mm)	~1.3
Beam divergence, full angle (mrad)	<1.5
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-LED/ ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	188.6x155x92mm / 1.5kg or

	170x130x62.2mm / 1.2kg
--	------------------------

405nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	405±1
Operating mode	CW
Output power (mW)	>1, 10, 50, ..., 150
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
Beam diameter at the aperture (1/e ² ,mm)	~1.3
Beam divergence, full angle (mrad)	<1.5
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-LED/ ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	188.6x155x92mm / 1.5kg or 170x130x62.2mm / 1.2kg

454nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	454±5
Operating mode	CW
Output power (mW)	>1, 2, 3, ..., 30
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.5
Beam divergence, full angle (mrad)	<1.0
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

488nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	488±0.5
Operating mode	CW
Output power (mW)	>1, 5, 10, ..., 30, 40, ..., 70
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~2.0
Beam divergence, full angle (mrad)	~1.5
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30

Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

514nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	514.5±0.5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,40
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e2,mm)	~2.5
Beam divergence, full angle (mrad)	<1.5
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

520nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	520±5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,10
Power stability (rms, over 4 hours)	<1%, <3%, <5%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e2,mm)	~3.0
Beam divergence, full angle (mrad)	<1.0
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

633nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	633±0.5
Operating mode	CW
Output power (mW)	>1, 10, 20, ...,80
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
Beam diameter at the aperture (1/e2,mm)	~2.0
Beam divergence, full angle (mrad)	<1.5

Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

635nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	635±5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,30
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.0
Beam divergence, full angle (mrad)	<1.0
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

637nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	637±5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,80
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.0
Beam divergence, full angle (mrad)	<1.0
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

640nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	640±5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,30

Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.0
Beam divergence, full angle (mrad)	<1.0
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

642nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	642±5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,30
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.0
Beam divergence, full angle (mrad)	<1.0
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

650nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	650±10
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,30
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.0
Beam divergence, full angle (mrad)	<1.0
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

655nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	655±10
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,30
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.0
Beam divergence, full angle (mrad)	<1.0
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

660nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	660±0.5
Operating mode	CW
Output power (mW)	>1, 10, 20, ...,120
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~1.0
Beam divergence, full angle (mrad)	~1.0
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

705nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	705±10
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,10
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.0
Beam divergence, full angle (mrad)	<1.0
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000

Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

730nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	730±3
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,10
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~2.0
Beam divergence, full angle (mrad)	<1.5
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

785nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	785±0.5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,20
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~2.0
Beam divergence, full angle (mrad)	<1.0
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

808nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	808±0.5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,20
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.0
Beam divergence, full angle (mrad)	<1.5
Polarization ratio	>50:1 (>100:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA

Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

830nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	830±0.5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,30
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.5
Beam divergence, full angle (mrad)	<1.5
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

915nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	915±5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,30
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.0
Beam divergence, full angle (mrad)	<1.0
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

940nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	940±5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,30
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.5
Beam divergence, full angle (mrad)	<1.0
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000

Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

975nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	975±5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,30
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.5
Beam divergence, full angle (mrad)	<1.0
Polarization ratio	>10:1 (>50:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

980nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	980±0.5
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,30
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
Beam diameter at the aperture (1/e ² ,mm)	~2.5
Beam divergence, full angle (mrad)	~2.5
Polarization ratio	>10:1 (>50:1, optional) Horizontal±5 degree (Vertical Optional)
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30
Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg

1060nm Narrow Linewidth Diode Lasers

Central wavelength (nm)	1060±10
Operating mode	CW
Output power (mW)	>1, 2, 3, ...,40
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	Near TEM00
Spectral linewidth (nm)	<0.06 (<0.03, optional)
M2 factor	<1.5
Beam diameter at the aperture (1/e ² ,mm)	~3.5
Beam divergence, full angle (mrad)	<1.0
Warm-up time (minutes)	<5
Beam height from base plate (mm)	30
Operating temperature (°C)	20~30

Power supply (85-264VAC)	ST-PSU-III-FDA
Expected lifetime (hours)	10000
Warranty	1 year
Laser head dimension & weight	122.5x65x50mm / 1kg
Power supply dimension & weight	170x130x62.2mm / 1.2kg