

# Single Frequency Lasers



**SLIM**  
**LaserBox**

UV to IR  
CW Monolithic DPSS Lasers  
Laser Diode Modules

	LBX-405S*	SLIM-473S	SLIM-532S	SLIM-550S	SLIM-561S	LBX-640S*	SLIM-660S*	LBX-730S*	LBX-785S*	LBX-830S*	Units
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### Optical specifications

Wavelengths	405*	473	532	553	561	640*	660*	730*	785*	830*	nm
Wavelength range	± 1										
Linewidth	< 150	< 1			< 100		< 1	< 100			MHz
Coherence Length	> 1	> 50			> 1		> 50	> 1			m
Laser type	LD/VBG	DPSS			LD/VBG		DPSS	LD/VBG			

### Single Mode (TEM<sub>00</sub>)

Output Power	25*	50	50 to 300	25 to 200	25 to 300	35*	50*	30*	100*	100*	mW
Power Stability over 8 hours and ±3°C, p-p	± 1										%
Optical Noise rms, 10Hz - 20MHz	< 0.5	< 0.2			< 0.5		< 0.2	< 0.5			%
Polarization Ratio Vertical +/- 3 Deg.	> 100:1										-
Beam Pointing stability	< 5										μrad/°C

### Circular Beam version

Beam Diameter (typ.) at 1/e2, at 50mm from aperture	0.4 x 0.8	0.75	0.7	0.7	1.2	1.2	0.5				mm
Beam Divergence (typ.) at 1/e2, full angle, in far field	< 10	1.0			0.6	1.0	2.5				mrad
Beam Circularity in far field	> 80	> 90			> 80	> 90	> 65				%
Beam Quality (typ.)	< 1.6	< 1.2	< 1.1		< 1.6	< 1.1	< 1.8				M <sup>2</sup>

### PM Fiber Coupling option

Output Power FC/APC connectors, 1.5m fiber length	call	35	70 - 200	17 - 140	17 - 200	call	35	call			mW
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# Lasers for Biophotonics

	LBX-375	LBX-375	LBX-405	LBX-405	LBX-445	SLIM-473	LBX-488	LBX-515	LBX-532	SLIM-532	SLIM-550	SLIM-561	LBX-638	LBX-642	LBX-660	LBX-705*	LBX-730*	LBX-785*	Units
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### Optical specifications

Wavelengths	375	375	405	405	445	473	488	515	532	532	553	561	638	642	660	705*	730*	785*	nm
Wavelength range	± 5					± 1	+2/- 5	± 5	± 1			+5/- 2	+3/- 5	± 5	± 10		± 5		
Laser type	Laser Diode					DPSS	Laser Diode		DPSS			Laser Diode							

### Single Mode (TEM<sub>00</sub>)

Output Power	16	150	100 / 120	500	50	50	50 / 100	20	50	100 to 300	25 to 200	25 to 300	100 / 150	130	100	30*	30*	130*	mW	
Power Stability over 8 hours and ±3°C, p-p	± 0.5					± 1	± 0.5		± 1			± 1	± 0.5							%
Optical Noise rms, 10Hz - 20MHz	< 0.5					< 0.2	< 0.5		< 0.2			< 0.5							%	
Polarization Ratio Vertical +/- 3 Deg.	> 100:1																		-	
Beam Pointing stability	< 5																		μrad/°C	

Beam Diameter (typ.) at 1/e2, at 50mm from aperture	1.3	1.3 x 2.4	0.9	1.2 x 2.8	1.0	0.75	1.2	1.0	0.7	0.7	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	mm
Beam Divergence (typ.) at 1/e2, full angle, in far field	0.6	2.6 x 0.4	0.6	2.6 x 0.3	0.6	1.0	0.6	0.8	1.0	1.0	0.6		0.7	1.0	1.0	1.0	1.0	1.0	mrad
Beam Circularity in far field	> 90	NA	> 90	NA	> 90														%
Beam Quality (typ.)	< 1.35	MM	< 1.25	MM	< 1.25	< 1.2	< 1.25	< 1.2	< 1.1	< 1.1	< 1.1	< 1.25							M <sup>2</sup>

### PM Fiber Coupling option

Output Power FC/APC connectors, 1.5m fiber length	8	NA	70 / 85	NA	30	35	35 / 70	14	35	70 - 200	17 to 140	17 to 200	70 / 100	90	70	20	20	40 / 90	mW
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