

LightHub specifications of basic packaged lasers for Optogenetics experiment

473nm Diode laser

Wavelength (+/- 5nm)	473nm
Optical output power	100mW
Typical beam diameter (1/e ²)	1.0...1.5mm (1/e ²), (depends on wavelength) - 0.7mm (1/e ²) +/- 0.1mm with option
Beam quality M2	< 1.2
Beam ellipticity	< 1.2:1
Beam pointing stability (μ rad/ $^{\circ}$ C)	< 5
Polarisation ratio	> 100:1 vertical
Warm up time	< 3 minutes
Operation modes	
Mode 1	CW Operation - constant current (ACC)
Mode 2	CW Operation - constant power (APC)
Mode 3	Analogue Modulation (digital modulation with option.)
Analogue modulation	
Modulation bandwidth	> 1.5MHz
Laser enable input	
Modulation bandwidth	> 150kHz (complete ON/OFF)
Electrical properties	
Laser operating voltage	5.00 VDC +/- 0.50V
Computer interface	
Type	RS-232 and USB2.0

561nm/594nm DPSS laser

Wavelength (+/- 5nm)	561nm / 594nm
Optical output power	100mW
Typical beam diameter (1/e ²)	0.7mm (1/e ²) +/- 0.2mm
Beam quality M2	< 1.3
Beam ellipticity	< 1.1:1(SM)
Polarisation ratio	> 100:1
Analogue modulation	
Modulation bandwidth	> 2.5MHz
Laser enable input	
Modulation bandwidth	> 150kHz (complete ON/OFF)
Electrical properties	
Laser operating voltage	24VDC / 2Amp.
Computer interface	
Type	RS-232