

Technical Specification for Continuous wave lasers

Required specifications for the lasers:

Table 1. Laser1.

Specifications	
Wavelength	639 nm
Output power	≥ 1 W
Transverse mode	Near TEM ₀₀
Operating mode	CW (continuous wave)
Beam diameter	≥ 4 mm
Beam divergence	< 3 mrad
Adjustable power	Yes
Power source	230 V, AC
Power stability	$< 5\%$
Power supply	Should be included
Should confirm to	RoHS
Certification required	FDA, CE
Warranty	1 year

Table 2. Laser 2.

Specifications	
Wavelength	447 nm
Output power	≥ 1 W
Transverse mode	Near TEM ₀₀ (preferable)
Operating mode	CW (continuous wave)
Beam diameter	≥ 4 mm
Beam divergence	< 3 mrad
Adjustable power	Yes
Power source	230 V, AC
Power stability	$< 5\%$
Power supply	Should be included
Should confirm to	RoHS
Certification required	FDA, CE
Warranty	1 year

Table 3. Laser 3.

Specifications	
Wavelength	457 nm
Output power	≥ 1 W
Transverse mode	Near TEM ₀₀ (preferable)

Operating mode	CW (continuous wave)
Beam diameter	≥ 3 mm
Beam divergence	< 3 mrad
Adjustable power	Yes
Power source	230 V, AC
Power stability	$< 5\%$
Power supply	Should be included
Should confirm to	RoHS
Certification required	FDA, CE
Warranty	1 year

Optional items: Line generator optics for Laser 1, Laser 2, Laser 3.

1. Bidders need to quote for all 3 Laser equipment categories in the following combinations.
 - a. Laser 1 & Laser 2 with individual specification and price.
 - b. Laser 1 & Laser 3 with individual specification and price.
2. IIT Madras will decide the purchase Option either **a** or **b** as specified above.