

Specifications for optically pumped semiconductor Laser (488 nm)

- Preferred wavelength of the laser is 488nm (± 2 nm).
- Laser should have out power of 100 mW in TEM₀₀ Mode (essential).
- M^2 value must be <1.2
- Beam asymmetry would be less than 1.1
- Beam divergence must be <1.2 mrad.
- Beam diameter at $1/e^2$ should be less than 0.75 mm.
- Pointing stability of the laser should be <30 μ rad (over 2 hours after warm-up and $\pm 3^\circ\text{C}$).
- PremAlign technology for optimal and permanent alignment.
- Temperature should be stabilized via thermoelectric cooler.
- Noise (%)
 - 20 Hz to 2 MHz, rms : <0.30
 - 20Hz to 20 KHz, peak-to-peak : <1
- Preferred Polarization ratio would be $>100:1$, vertical.
- Power consumption should be less than <60 W.
- Ambient Temperature
 - Operating conditions : 10 to 40°C non-condensing
 - Storage condition : -10 to 50°C
- The laser should operate with air-cooling.
- Laser should have OEM and stand-alone CDRH configurations.
- Laser must have Analog, RS232 or USB interface.
- A list of references in India, where similar systems have been installed, must be provided and will be the main criteria for decision making.