

## **Specifications for supply of CW Lasers**

### **1. CW Laser system of Wavelength: 375 nm with ≥50mW output power**

- Laser Power at 375nm: ≥50mW
- Beam parameter: TEM<sub>00</sub>; M<sup>2</sup> : ≤1.2 or better
- Beam Asymmetry: ≤1:1.2
- The laser system must be based on OPSSL technology for better performance and stability
- Output Beam Diameter: ≥ 0.8 ±0.1 mm at 1/e<sup>2</sup>
- Power Stability (8 hrs., ±3°C); <2 % or better
- Beam Divergence : <1mrad at full angle
- Beam Pointing Stability: <30μrad or better over 2 hours after warm-up and ±3°C ambient temperature variation
- Beam Pointing Stability over temp : <5μrad/°C or better
- RMS Noise (20 Hz to 20 MHz): ≤0.05 % or better
- Laser operating Modes: CW, Analog Modulation, Digital Modulation and Computer Control
- Analog Modulation: Maximum Bandwidth: 500kHz
- Digital Modulation: Maximum Bandwidth: 150MHz
- Operating Condition: 10 to 50°C
- Non-operating Condition : - 20 to 60°C
- Suitable driver and controller as per Indian electrical standard.
- Suitable Heat Sink Mount with Fan must be quoted for laser system

### **2. CW Laser Head of Wavelength: 532nm with ≥20mW output power**

- Laser Power at 532nm: ≥20mW
- Beam parameter: TEM<sub>00</sub>; M<sup>2</sup> : ≤1.1 or better
- Beam Asymmetry: ≤1:1.1
- The laser system must be based on OPSSL technology for better performance and stability.
- Output Beam Diameter: 0.7 ±0.05 mm at 1/e<sup>2</sup>
- Power Stability (8 hrs., ±3°C); <2 % or better
- Beam Divergence : <1.2mrad at full angle
- Pointing Stability: <30μrad or better over 2 hours after warm-up and ±3°C ambient temperature variation
- Beam Pointing Stability over temp : <5μrad/°C or better
- RMS Noise (20 Hz to 20 MHz): ≤0.25 % or better
- Laser operating Modes: CW, Analog Modulation, Digital Modulation and Computer Control
- Analog Modulation: 100kHz or more
- Digital Modulation: 0.05MHz or more
- Operating Temperature: 15 to 40°C
- Non-operating Temperature: - 20 to 60°C

#### **Terms and condition.**

- The item should carry at least 24 month warranty.
- All the above required items must be quoted together and should be from same OEM/manufacturer.
- Valid OEM/Manufacturer authorization certificate must be provided.
- Supplier have a supplied similar items earlier to IIT or similar institutes in India.
- Partial bidding is not acceptable.

**Note: Other condition remains the same.**

**Bidder should quote price in BOQ only for above mentioned two lasers.**

