



CENTRE OF PROPULSION TECHNOLOGY (CoPT)
INDIAN INSTITUTE OF TECHNOLOGY MADRAS
CHENNAI – 600036, INDIA

Ref No.APM/COPT/133/MAHS/030

Date: 20/12/2019

Proj. No.APM/1718/133/DRDO/MAHS

Due Date: 10.01.2020

Item name: Supply of Continuous Wave Optically Pumped Semiconductor Laser

1. Quotations are invited **in two-bid system** for the item described overleaf (in Annexure I). The offers /bids should be submitted as Technical bid and Financial bid separately. The Technical bid should consist of all technical details / specifications only. The Financial bid should indicate item-wise price for each item and it should contain all Commercial Terms and Conditions including Taxes, transportation, packing & forwarding, installation, guarantee, payment terms, pricing terms etc. The Technical bid and Financial bid should be put in separate covers and sealed. Both the sealed covers should be put in a bigger cover. The words "Tender for Supply of Continuous wave Optically Pumped Semiconductor Laser" should be written on the left side of the Outer bigger cover and sealed.
2. **Earnest Money Deposit:** Earnest money deposit of Rs. 30,000 payable by Demand Draft drawn on any Nationalized Bank of India favouring "The Registrar, IIT Madras" is to be submitted along with the technical bid. Waiver of EMD for vendors with valid MSME/MSE certificate is permitted.
3. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. The total cost of the equipment in terms of CIP Chennai should be clearly mentioned.
5. Cost breakup for all modules included in the scope of supply is mandatory
6. Terms of warranty and guarantee should be explicitly mentioned. Warranty must valid for at least for 12 months from the date of commissioning.
7. Warranty service must be provided on-site at IIT, Madras for duration of warranty period.
8. Packing and delivery charges, customs and clearance duty should be clearly stated.
9. Goods shall not be supplied without an official supply order.
10. Local firms : Quotations should be for free delivery to this institute. If quotations are for ex-godown, delivery charges should be indicated separately.
11. Firms outside Chennai: Quotations should be for F.O.R. Chennai. If F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If ex-godown, packing, forwarding and freight charges must be indicated.
12. If the required good is to be imported, delivery with CIP upto Chennai airport must be made. All relevant documents for customs clearance and other import formalities have to be provided well in advance.
13. IIT Madras is eligible for concessional rate of GST 5%(for purchase of equipments, parts and consumables used in research). Concessional GST certificate will be issued after issue of purchase order.



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14. The rate of sales / general taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for sales / general taxes will be admitted at any stage and on any ground whatsoever.
15. Payment :Payment is after delivery of goods. Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later. Advance payment will be considered only in special cases.
16. IIT Madras is eligible for concessional rate of customs duty. Necessary certificate will be issued on demand.
17. Optional: Quote to be provided for 1 year and 2 year extended warranty beyond warranty period
18. Optional: Quote to be provided for AMC beyond the extended warranty
19. IIT Madras has the right to accept the whole or any part of the tender or portion of the quantity offered or reject it in full without assigning any reason. The selection of extended warranty and AMC is entirely at the discretion of the Principal Investigator/Co-Principal Investigator

The sealed quotation may be sent to
The Purchase Manager,
CoPT OFFICE, NCCRD Building
Behind Aerospace Engineering Dept., IIT Madras,
Chennai – 600036, Ph. (O) +91-44-22579863

ANNEXURE-1

Technical specifications for Continuous wave Optically Pumped Semiconductor Laser

- Wavelength: 532 ± 3 nm
- Linewidth: ≤ 30 GHz (FWHM)
- Spectral purity: $>99\%$
- Output Power: 1 W
- Spatial mode: TEM₀₀
- Beam Quality, M₂: ≤ 1.1
- Beam Circularity: $\leq 1.0 \pm 0.1$
- Beam Divergence: $\leq 0.7 \pm 0.1$ mrad (Full width)
- Beam Pointing Stability: <5 μ rad/ $^{\circ}$ C
- Polarization ratio: Linear, $>100:1$ (Direction: Vertical)
- Noise: ≤ 0.1 % rms (10 Hz to 10 MHz)
- Power Stability: $\pm <1$ % (peak-peak)
- Operating voltage: 220 V, 50 Hz
- Operating temperature: 10 – 40 deg. Celsius



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The Laser should have water cooling for better stability and performance

The Laser should be end user version only which should have proper power supply with option to control the Laser power

The Laser should have USB/RS232 interface to connect to PC/Laptop and it should also include software for controlling the Laser parameters

The Laser manufacturer should be a reputed firm having wide range of systems in their portfolio and having all the models listed in their website including the quoted system

The Laser should be of OPAL technology that eliminates thermal lensing issues and allows the power to be adjusted without affecting beam parameters, including beam diameter, beam divergence, and M2.

Contact person for technical clarifications:

1. Prof Srikrishna Sahu
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