



Indian Institute of Technology Madras

I.I.T.P.O., MADRAS-600 036

Department of Electrical Engineering

Telephone: 044 2257 5423

Ref.No.

Date: 05/07/2018

ELE	RADA	2018	Network Switch
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Under Certificate of Posting

DUE DATE: 16/07/2018

Dear Sir/Madam,

1. Quotations are invited in duplicate for the various items shown below / overleaf / Enclosed list.
2. The Quotations duly sealed and superscribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. The Quotations should be valid for ninety days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS&D Rate contract No. and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price (Please note that we are not Direct Demanding Officers). If so please send copy of the RC.
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for, should be submitted free of charges, and collected back at the supplier's expenses.
6. Local Firms : Quotations should be for free delivery to this Institute. If Quotations for Ex-Godown delivery charges should be indicated separately.
7. Firms Outside Madras : Quotations should be for F.O.R. Madras. 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.
8. 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. The taxes leviable should take into consideration that we are entitled to have concessional Sales Tax applicable to non Government Educational

Institutions run with no profit motive for which a concession. Sales Tax Certificate will be issued at the time of final settlement of the bill.

9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. Payment : Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is late

Yours faithfully,

Head/ Project Coordinator

SFP+ Switch Unit and Transceivers

Tender Agreement

Due Date: 16.07.2018, 3:00pm

On behalf of the Indian Institute of Technology Madras, offers are invited for the supply of the following items.

- 1) **One unit** of 48 port SFP+ switch and 10 optical transceivers with appropriate accessories for the 5G lab with the technical specifications indicated below (Technical Specification Section).
(Please quote the 10 optical transceivers separately from the switch unit in different envelopes). They should not be combined. However, both the quotes should be present for the bid to be valid.
- 2) Two-bid system (i.e.,) Technical bid and Financial bid in two separate sealed envelopes. The financial bid should contain a quote for the switch unit and the optical transceivers separately.
- 3) **Delivery of the tender:** - The tender shall be sent to the below-mentioned addresses either by post or by courier so as to reach the following address before the due date and time specified in our Schedule:

Dr. Radha Krishna Ganti
ESB 208D,
Department of Electrical Engineering
IIT Madras
Chennai 36
- 4) **Opening of the tender:** - A committee duly constituted for this purpose will open the offer/Bids. The technical bids will be opened first and a technical committee, which will decide the suitability of the bid as per our specifications and requirements, will examine it.
- 5) **Prices:-** The price should be quoted in net per unit (after breakup) and must include all packing and delivery charges to the Department. The offer/bid should be exclusive of taxes and duties, which will be paid by the purchaser as applicable. However the percentage of tax & duties should be clearly indicated.

The price should be quoted without custom duty and excise duty, since I.I.T. Madras is exempt from payment of excise duty, and the custom duty will be paid at concessional rate against duty exemption certificate.

In case of import supply, the price should be quoted on EX-WORKS, CIF basis indicating the mode of shipment.

The price may be quoted in USD, Euro and/or INR. The prevailing market exchange rate on the day of bid evaluation will be used to compare bids.

- 6) **Agency Commission:** - Agency commission, if any, will be paid to the Indian agents in Rupees on receipt of the equipment and after satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances. The details should be explicitly shown in Tender even in the case of 'Nil' commission. The tenderer should indicate the percentage of agency commission to be paid to the Indian agent. The foreign Principal should indicate about the percentage of payment.
- 7) **Terms of Delivery:** - The item should be supplied to our Department as per Purchase Order. In case of import supply, the item should be delivered at the cost of the supplier to our Institution. The Installation/Commissioning should be completed within **three weeks** from the date of Purchase Order.
- 8) IIT Madras reserves the full right to accept / reject any tender at stage without assigning any reason.

Schedule

- 1) The due date for the submission of the tender is **Due Date: 16.07.2018, 3:00pm**
- 2) The offers / bids should be submitted in two bids systems (i.e.) Technical bid and Financial bid. 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.
- 3) Original catalogue (not any photocopy) of the quoted model duly signed by the principals must accompany the quotation in the Technical bid. No prices should ever be included in the Technical bid.
- 4) Documentary proof for the claimed position and repetition accuracies must be obtained from the principals and submitted along with the relevant pages of the standards.
- 5) **Validity:** Validity of Quotation not less than 90 days from the due date of tender.
- 6) **Delivery Schedule:-** The tenderer should indicate clearly the time required for **delivery (less than three weeks from the date of Purchase Order) of the item.** In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.
- 7) All Amendments, time extension, clarifications etc., will be uploaded on the website only and will not be published in newspapers. Bidders should regularly visit the above website to keep themselves updated. No extension in the bid due date/ time shall be considered on account of delay in receipt of any document by mail.
- 8) **Do not quote the optional items or additional items unless otherwise mentioned in the Tender documents / Specifications.**
- 9) **Disputes and Jurisdiction:** -

- a. **Settlement of Disputes:** Any dispute, controversy or claim arising out of or in connection with this PO including any question regarding its existence, validity, breach or termination, shall in the first instance be attempted to be resolved amicably by both the Parties. If attempts for such amicable resolution fails or no decision is reached within 30 days whichever is earlier, then such disputes shall be settled by arbitration in accordance with the Arbitration and Conciliation Act, 1996. Unless the Parties agree on a sole arbitrator, within 30 days from the receipt of a written request by one Party from the other Party to so agree, the arbitral panel shall comprise of three arbitrators. In that event, the supplier will nominate one arbitrator and the Project Coordinator of IITM shall nominate one arbitrator. The Dean IC&SR will nominate the Presiding Arbitrator of the arbitral tribunal. The arbitration proceedings shall be carried out in English language. The cost of arbitration and fees of the arbitrator(s) shall be shared equally by the Parties. The seat of arbitration shall be at IC&SR IIT Madras, Chennai..
- b. **The Applicable Law:** This Purchase Order shall be construed, interpreted and governed by the Laws of India, Court at Chennai shall have exclusive jurisdiction subject to the arbitration clause.

10) All Amendments, time extension, clarifications etc., will be uploaded on the website only and will not be published in newspapers. Bidders should regularly visit the above website to keep themselves updated. No extension in the bid due date/ time shall be considered on account of delay in receipt of any document by mail.

Acknowledgement:- It is hereby acknowledged that the tenderer has gone through all the conditions mentioned above and agrees to abide by them.

**SIGNATURE OF TENDERER
ALONG WITH SEAL OF THE
COMPANY WITH DATE**

	Technical SPECIFICATIONS		
Sl. No.	Description	Compliance	Remarks
	General Features		
1	The switch should have 48 SFP+ (10Gbe) and at least 4 QSFP+ (40 Gbe) Ethernet fixed ports in 1U rack height. Should support sfp+ optical SR transceivers.		
2	10 numbers of 10Gbps Multimode transceivers (Short range multimode transceivers) that should be interoperable with the switch should be provided.		
3	The switch should have at least 4GB DRAM		
4	The switch should have 8GB Flash RAM		
5	Minimum of 1280 Gbps Switching capacity		
6	Minimum of Forwarding rate - 909 Mpps		
7	Support for up to 32,000 MAC addresses, equal count of unicast address and 96,000 of Flexible NetFlow entries (per flow)		
8	The switch should have Jumbo frame support of 9198 bytes		
9	The switch shall have the Mean Time Between Failure of 286,900 hours.		
10	Shall be based on a Single universal Network OS Software image across all license levels, providing an easy upgrade path for software features		
11	The switch shall have Port security feature		
12	The switch shall have DHCP snooping prevention feature		
13	The switch shall have Dynamic ARP inspection (DAI) feature		
14	The switch shall have the capability of the Unicast Reverse Path Forwarding (uRPF) feature		
15	The switch should support multiple authentication mechanisms, including 802.1X, MAC authentication bypass, and web authentication using a single, consistent configuration.		
16	The switch should support Multidomain authentication to allow an IP phone and a PC to authenticate on the same switch port while placing them on appropriate voice and data VLAN.		
17	The switch shall have Port-based ACLs for Layer 2 interfaces allow security policies to be applied on individual switch ports.		
18	The switch shall have IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) provides rapid spanning-tree convergence independent of spanning-tree timers and also offers the benefit of Layer 2 load balancing and distributed processing		
19	The switch shall have comprehensive Layer 2 features, with up to 255 VLANs.		
21	The switch should be upgradable to advanced Layer 3 features such as OSPF, BGP, PIM, and IPv6 routing such as OSPFv3.		
22	Should be an OEM product and should have been used in existing data centres.		
23	Should provide installation and configuration support		
24	Warranty: 3 years		