



**INDIAN INSTITUTE OF TECHNOLOGY, KANPUR**  
**GT ROAD, KALYANPUR, KANPUR – 208016**  
**UTTAR PRADESH, INDIA**

**TENDER REFERENCE NO.: IITK/CSE/2022-2023/8**

**BID SUBMISSION END DATE- 10-08-2022**

**TENDER DOCUMENTS**

For

**Purchase of “Software Defined Radio for Next generation Wireless  
Communications Systems”**

## Tender document

**Department of Computer Science and Engineering  
Indian Institute of Technology Kanpur  
Kanpur (UP) 208016 India**

<b>Date of Publishing</b>	15-06-2022 (17.00 hrs)
<b>Bid Submission Start Date</b>	15-06-2022 (17.00 hrs)
<b>Last Date and time of uploading of Bids</b>	10-08-2022 (16.00 hrs)
<b>Date and time of opening of Technical Bids</b>	11-08-2022 (16:00 hrs)
<b>Date and time of opening of Financial Bids</b>	Will be separately notified for Technically shortlisted/qualified bidders

Interested parties may view and download the tender document containing the detailed terms & conditions from the website <https://www.iitk.ac.in/new/tenders-notice>

Enquiry date: **15-06-2022**

Enquiry No: **IITK/CSE/2022-2023/8**

Sealed Quotations are invited under two bid system for **Software Defined Radio for Next generation Wireless Communications Systems**  
(Quantity – 01)

The detailed technical specification is described below:

### **Software Defined Radio for Next generation Wireless Communications Systems**

#### **Specifications:**

- Two wide-bandwidth RF daughterboard slots covering DC – 6 GHz with up to 160MHz bandwidth each.
- Large customizable Xilinx Kintex-7 FPGA for high performance DSP (XC7K410T)
- Multiple high-speed interfaces
- Daughterboard selection covers DC to 6 GHz
- Dual 10 Gigabit Ethernet – 2x RX at 200 MSps per channel
- Dual 10 Gigabit Ethernet – 4x RX at 80 MSps per channel
- PCIe Express (Desktop) – 200 MS/s Full Duplex
- Express Card (Laptop) – 50 MS/s Full Duplex
- Dual 1 Gigabit Ethernet – 25 MS/s Full Duplex
- Must have cross platform driver support for compatibility with supported development frameworks, reference architectures, and open-source projects.

#### **Power:**

- DC Input: 12V
- Power Consumption (2x SBX-120): 45W

**Conversion Performance and Clocks:**

- ADC Sample Rate (max): 200MS/s
- ADC Resolution: 14 bits
- DAC Sample Rate (max): 800MS/s
- DAC Resolution: 16 bits
- Host Sample Rate (16b): 200MS/s
- Internal Reference Accuracy: 2.5ppm
- Accuracy w/ GPSDO Option (not locked to GPS): 20ppb

**RF Performance (with SBX-120):**

- SSB/LO Suppression: -35/50 dBc
- Typical Noise Figure: 8dB

**Physical:**

- Dimensions (half-wide, 1U): 27.7 x 21.8 x 3.9 cm
- Weight (w/ 2x SBX-120): 1.7 Kg

**Note: Document Required**

- i. Certificate of GST and Bank details.
- ii. Work experience.
- iii. Our Technical Sheet duly signed and stamped by the firm.
- iv. Specifications/brochures & tender acceptance letter on Appendix 1.

Scanned copy of No Deviation Certificate (This certificate is to state that there shall be No Deviation in your bid as compared to what we have asked for in our tender document both technically and otherwise. This is to be written on your letter head and signed stamped as well.

- v. OEM Authorization Certificate
- vi. Past Performance
- vii. Experience Criteria
- viii. Bidder Turnover
- ix. OEM Annual Turnover

## Terms and Conditions

1. Quotation must be valid for 120 days.
2. All quotations must contain complete technical details of the product
3. All prices are to be FOR IIT Kanpur.
4. The vendor must provide official email address for communication and should notify that clearly in the quotation description, just referring to letterhead will not be accepted as sufficient proof of official email of communication.
5. **Delivery period must be within 4 weeks from purchase order date.**
6. The institute is exempted for payment of Excise duty under notification No. 10/97 & partially custom duty (@5.15%), under notification 51/96 and a road permit will be provided, if applicable. The Concessional Form 'C/D' have been abolished w. e. f. Apr 01, 2007.
7. **Our standard payment terms and conditions is 90% after installation and 10% after inspection and approval.**
8. The Penalty @1% per week or part thereof subject to max 10% of the delivery price will be deducted from the balance payment, if supply is not completed within aforesaid delivery period.
9. Preference will be given to only those vendors who have Service/ Repairing center stationed at Kanpur (Single point of contact in Kanpur for any service related issues)
10. No Call Locking will be entertained (in/out stationed). If at all it is required then it will be performed by local Maintenance Engineer.
11. Testing of the product onsite is mandatory
12. In no case, the suppliers shall be provided with remote access of the servers/machines.
13. It is mandatory to quote for optional items; else the quotation may be rejected.
14. Reporting time should not be more than 2 hours
15. Resolving time should not be more than 2 days
16. At any time prior to the deadline for submission of bid, the Institute may, for any reason, at its own initiative, modify the bid document by amendments. Such amendments shall be uploaded on the website through corrigendum and shall form an integral part of bid document. The relevant clauses of the bid document shall be treated as amended accordingly. It shall be the sole responsibility of the prospective bidders to check the website from time to time for any amendment in the tender document. In case of failure to get the amendments, if any, the Institute shall not be responsible for it.
17. Vendor is expected to submit only one best bid per tender specifications.
18. **\*\*Only original equipment manufacturer /Authorized channel partners/Authorized system integrators having letter of support from OEM are eligible to bid.**
19. A higher warranty may be given preference.
20. IIT Kanpur reserves the right for accepting and rejecting any quotation without assigning any reason thereof. Also, IIT Kanpur 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. Any discrepancy or dispute will only be settled in Kanpur Courts /Local Administration only.
21. Vendors are requested to quote only in Indian currency (Rupees). If the vendor wants to quote in an alternate currency, the vendor should seek an explicit permission from the department before sending the bid.

22. If all or any of the components of the equipment is/are to be imported, the vendor holds its full responsibility for its delivery at IIT Kanpur and that too in the stipulated time period. If for any reason the vendor does not want to deliver to IIT Kanpur, the vendor needs to seek an explicit permission from the department, before sending the bid.
23. Maximum educational discount should be offered wherever applicable.
24. IIT Kanpur is partially exempted from payment of GST (@5% only), IIT Kanpur will provide GST exemption certificate for the same. Institute is partially exempted from GST and the same should be offered in your bid as well. Items used for research & development purpose as specified in column 3 of notification no. 45/2017 & 47/2017 dated 14 Nov 17 will be partially exempted for GST.
25. Every communication must be received at IIT Kanpur within 2 business days from the date stamped on the letter if posted via conventional postal email.
26. Any communication letter if posted via conventional postal mail must also be sent on following email [purchase@cse.iitk.ac.in](mailto:purchase@cse.iitk.ac.in) and email of the PI (Project Investigator)/Head.
27. If taxes & duties are not quoted separately by the bidder, the final figure/price will deem to be inclusive of taxes & duties.
28. The basic Price/rate, GST, Packing & Forwarding charges and Freight charges must be mentioned separately & specifically. The offer quoted inclusive of Taxes, Packing & Forwarding charges and freight charges will summarily be rejected. The same is essential keeping in view the applicability of GST. The impact (%age) of GST on item,/items will be admissible as applicable on the basic rate being statutory levy only during currency of Purchase Order/Contract against party's request along with necessary documents in support of their claim/amendments.
29. **Two-bid system:**
  1. Sealed quotations are invited Technical bid & financial bid from reputed, eligible & resourceful bidders for supply, installation of item, etc. complete in all respect. The sealed envelopes with the quotes should be super scribed mentioning whether it is a technical or financial bid.
  2. If the financial Bid is included in the Technical Bid, then the quotation will be rejected.

**Quotations should be in the name of: -**

**Dr. Urbi Chatterjee**

Department of Computer Science and Engineering

Indian Institute of Technology Kanpur

Kanpur 208 016, India

**Mailing Address:**

**Nagendra Yadav**

**Contact- 0512-259-6344**

**Mailing Address: [purchase@cse.iitk.ac.in](mailto:purchase@cse.iitk.ac.in)**

**RM-410, Rajeev Motwani Building**

**Department of Computer Science & Engineering**

**Indian Institute of Technology Kanpur**

**Kanpur 208 016, India**

**TENDER ACCEPTANCE**  
**LETTER**  
**(To be given on Company Letter Head)**

Date: \_\_\_\_\_

To,

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: \_\_\_\_\_

Name of Tender / Work: -

\_\_\_\_\_

Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely: \_\_\_\_\_ as per your advertisement, given in the above mentioned website(s).
2. I/ We hereby certify that I/ we have read the entire terms and conditions of the tender documents from Page No. \_\_\_\_\_ to \_\_\_\_\_ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I/ we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.
4. I/ We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I/ We do hereby declare that our Firm has not been blacklisted/ debarred/ terminated/ banned by any Govt. Department/Public sector undertaking.
6. I/ We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

**Yours**  
**Faithfully, (Signature of the Bidder, with**  
**Official Seal)**