

**INDIAN INSTITUTE OF TECHNOLOGY KANPUR**  
**IIT Post office, Kanpur 208016, U.P**  
**Department of Physics**

**Enquiry no.: PHY/RV/EQP/CSR/2017/1**

**Enquiry date: 02/04/2018**

**Closing date: 26/04/2018**

Sealed quotations should reach the undersigned latest by **12.00 noon on 26<sup>th</sup> April, 2018** for the following:

| <b>S.No.</b> | <b>Description</b>                      | <b>Quantity</b> |
|--------------|---|-----------------|
| 1            | Fiber-coupled intensity modulator       | One             |
| 2            | Fiber-coupled isolator                  | One             |
| 3            | Fiber-bench polarization controller kit | One             |

The above-mentioned equipment should conform to the following specifications and a page showing the extent of compliance should be attached:

1. Independent stand-alone unit with no computer control.
2. Required wavelength region for all items: **1550 nm**
3. **Fiber-coupled intensity modulator**: Lithium niobate X-cut, Y-propagating electro-optic modulator, bandwidth: 20 GHz, bit rate frequency: 25 Gb/s, optical extinction ratio: 20-40 dB, optical insertion loss < 3 dB, drive voltage of RF port (or  $V\pi$  at 10 Gbps): 5.5 V, optical return loss: 40 dB or better, DC connector: pin feed through 1.00 mm dia, input RF connector: 50 ohm Wiltron Female K, PM fiber at input end and SM fiber (SMF-28) at output end, FC/PC connector for both ends of optical fiber., maximum voltage on DC input:  $\pm 20V$ , maximum RF input power: 28 dBm, maximum optical input power: 20 dBm.
4. **Fiber-coupled isolator**: single-mode fiber, polarization-independent, minimum isolation: 30 dB, max power: 300 mW (CW), insertion loss < 1 dB, FC/PC connector on both ends.
5. **Fiber-bench manual polarization controller kit**: for precise and reproducible polarization changes on a mechanically stable bench unit, should be able to change an arbitrary polarization state into a known polarization state with the help of in-built quarter- and half-wave plates which can be independently rotated, minimum insertion loss should be specified. Both wall plates should have FC/PC connectors. The kit should be supplied in assembled condition.
6. Instruction manual with clear instructions in English and trouble-shooting tips.
7. The cost towards on-site installation may be indicated. Installation will not be required for standard units.

The supplier should be willing to supply the complete test report while shipping the item. If all three items are not available together, the supplier may quote for appropriate available items.

**Terms and conditions:**

Quotations should have a validity of a minimum of 60 days.

The equipment should be provided with a warranty of 1 to 3 years. Any pricing towards extended warranty should be clearly mentioned.

Quotations are required in duplicate in a sealed envelope with enquiry number mentioned on the envelope. Technical specifications along with the extent of compliance should be provided. The delivery period should be specifically stated.

For suppliers from outside India, the rate offered should be FOB (specify city) or FCA terms. IIT Kanpur has its own freight forwarder for shipping from outside India.

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