

Indian Institute of Technology Kanpur
Department of Physics

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Enquiry No: IITK/PHY/2018-19/NC- 01

Enquiry date: 06/04/2018

~~26/04/2018~~

Last date: 03/05/2018

Tender Notice

Sealed quotation should reach the undersigned latest by 5.00pm on 03rd May, 2018 for the following item:

S.NO	Description of item	Quantity
1	SQUID amplifier with control electronics & accessories	01

The above –mentioned item should consist of following parts with given specifications:

Sr. No.	Quantity	Part Name	Specification
01	01	Low-Tc dc SQUID sensor (C7-X114)	Niobium based 2-stage SQUID current sensor chip with two independent 2-stage sensors per chip. Each sensor should have a shunted SQUIDs array with minimum 16 SQUID as the 1st stage and a single shunted SQUID as the 2nd stage. The final input current noise should be less than 5pA/√Hz.
02	01	chip carrier (CAR-1)	FRP chip carrier with superconducting connection to the sensor coil and compatible for above sensor chip.
03	01	Niobium shield (NC-1)	Niobium shielding can with all the holding accessories for above chip carrier and matching connector for the cold end of the cryocable (below). This should be compatible to use with above SQUID sensors and chip carrier, and cryocable.
04	01	Two channel cryocable (8 CC-1/2)	two channel vacuum compatible cryocable (with cable length ~1m or more) for use with above SQUID sensors and the electronics below. It should have a vacuum sealed socket (such as LEMO on a flange or otherwise) at room temperature end. This should be compatible with the FLL electronics below. A mounting flange of 2" dia is already available on the cryostat which can be customized to the flange provided. The other (cold) end should have two independent connectors (with a splitter into 2) for two channels compatible with the above chip carrier.
05	01	two channel dc SQUID electronics with 6 MHz FLL/open-loop bandwidth for above SQUID current sensor. (XXF-1-6/2)	General: 2 channels, optically isolated PC connection selectable noiseless 50 Ω input impedance, optional anti-alias filter: 10 kHz ±2.5 % Bias: bias current range 0-180 μA, bias voltage range 0-1300 μV Preamp: low noise bipolar/JFET input stage, input range ±2 mV, white voltage noise 0.32 nV/√Hz or better, voltage noise @ 0.1 Hz 0.8 nV/√Hz or better, white current noise 2.7 pA/√Hz or better, current noise @ 0.1 Hz 40 pA/√Hz or better

			<p>FLL Mode: maximum FLL bandwidth 20 MHz, fast external integrator reset $<1 \mu\text{s}$, output coupling ac or dc, analog output signal range $\pm 10 \text{ V}$,</p> <p>Amp Mode: adjustable gain 1100 to 2000, adjustable bandwidth 0.2-50 MHz</p> <p>Heater: voltage +13 V, maximum current 300 mA</p> <p>Accessories: All the required pc interface cables, output cable, connector box, power supplies (220VAC/50Hz), etc. should be included with the electronics.</p> <p>Software: The minimal required control software should be included with added features quoted separately. A pc with Window operating system will be provided by user. It is desirable to have some minimal reading and control modules as part of the software that can work with NI-LabView.</p>
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Terms & Conditions:

- 1) Quotations must reach undersigned by **03.05.2018, 5.00 pm**
- 2) Quotations should have a validity of minimum of 90 days.
- 3) Technical specification sheets, authorization certificate or proprietary certificate (if applicable) and Any other relevant documentation should be included with the quotation.
- 4) Quotations are required in duplicate: (1) TECHNICAL BID (2) FINANCIAL BID, in separate Sealed envelopes, both to be finally put in one single envelope with Tender Enquiry Number Mentioned clearly in all sealed envelopes.
- 5) Please specify the maximum permissible educational discount, if any.
- 6) The delivery period should be specifically stated.
- 7) The rate offered should show both F.O.B (specify city) in the country of origin and CIF (New Delhi)
- 8) Please clearly mention the tax rate (like VAT etc.) and transportation charges up to IIT Kanpur, India.
- 9) Institute is exempted for payment of Excise Duty under notification No.10/97 & partially @ 5.15% Customs Duty exemption certificate under notification 51/96 and road permit will be provided if applicable.
- 10) After sales Service in India and warranty period should be clearly mentioned.
- 11) The Institute reserves the right of accepting and rejecting any quotation without assigning any reason.
- 12) Quotations by E-mail will not be accepted.

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