Global Tender

This is a Request for Quote (RFQ) from all vendors for the supply and installation of high bandwidth cryogenic wiring for a dilution fridge at Department of Physics, IISc Bangalore.

Section 1 - Bid Schedule

1	Tender No	**PPH/VBSI/26-27/611**
2	Tender Date	07-May-2026
3	Item Description	High bandwidth cryogenic wiring for a dilution fridge
4	Tender Type	Two bid system (i) Technical Bid (Part A) (ii) Commercial Bid (Part B)
5	Place of tender submission	Chairperson's Office Department of Physics, Indian Institute of Science, Bangalore 560012 Attn: Dr. Vibhor Singh
6	Last Date & Time for submission of tender	29-May-2026 up to 5.00 pm
7	For further clarification	Dr. Vibhor Singh Associate Professor, Department of Physics, Bangalore 560 012 Email: vsingh@iisc.ac.in

Section 2 – Eligibility Criteria

Prequalification criteria:

1. The Bidder's firm should have existence for a minimum of 5 years. (Enclose Company Registration Certificate)

2. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4.

3. The Bidder must not be blacklisted/banned/suspended or have a record of any service- related dispute with any organization in India or elsewhere. A declaration to this effect must be given as per Annexure 3.

4. Only the Original Equipment Manufacturer or their authorized representatives across the globe shall participate in the bid.

5. The order will be placed only on the bidder who participated in the bid.

Section 3 – Terms and Conditions

A) Submission of Tender:

1. All documentations in the tender should be in English.

2. Tenders should be submitted in two envelopes (two bid systems).
   a. Technical Bid (Part-A) – Technical bid consisting of all technical details and check list for conformance to technical specifications.

The technical proposal should contain a technical compliance table with 5 columns.

i. The first column must list the technical requirements, in order that they are given in the technical requirements in section 4 below.
ii. The second column should provide specifications of the instrument against the requirement. Please provide quantitative responses wherever possible.
iii. The third column should describe your compliance with a "Yes" or "No" only. Ensure that the entries in column 2 and column 3 are consistent.
iv. The fourth column should state the reasons/explanations/context for deviations, if any.
v. The fifth column can contain additional remarks from the OEM. You can use this opportunity to highlight technical features, qualify response of previous columns, or provide additional details, compare your solution with that of your competitors or provide details as requested in the technical requirements table below.

   b. Commercial Bid (Part-B) – Indicating item wise price for the items mentioned in the technical bid, **as per the format of quotation provided in tender**, and other commercial terms and conditions.

3. The technical bid and price bid should each be placed in separate sealed covers, superscripting both the envelopes for the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No, Tender Description & Due Date.

4. The SEALED COVER superscripting tender number / due date & should reach Chairperson, Department of Physics, Indian Institute of Science, Bangalore – 560012, India on or before due date mentioned in the tender notice. In case the due date happens to be a holiday, the tender will be accepted and opened on the next working day. If the quotation cover is not sealed, it will be rejected.

5. All queries are to be addressed to the person identified in "Section 1 – Bid Schedule" of the tender notice.

6. GST/other taxes, levies, etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document (Indian Bidders only).

7. If price is not quoted in Commercial Bid as per the format provided in tender document, the bid is liable to be rejected.

8. The Institute reserves the right to accept or reject any bid and to annul the bidding

process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or Bidders.

9. Incomplete bids will be summarily rejected.

(B) Cancellation of Tender:

Notwithstanding anything specified in this tender document, the IISc purchase committee, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

a. To accept OR reject the lowest tender, any other tender or all the tenders.
b. To accept any tender in whole or in part.
c. To reject the tender, offer not confirming the tender terms.

C) Validity of the Offer:

The offer shall be valid for 90 Days from the date of opening of the commercial bid.

D) Evaluation of Offer:

1. The technical bid (Part A) will be opened first and evaluated.

2. Bidders meeting the required eligibility criteria in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.

3. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision in regard to acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and the decision in this regard shall be binding on the bidders.

4. The award of the contract will be subject to acceptance of the terms and conditions stated in this tender.

5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:

   a. Non-submission of complete offers.

   b. Receipt of bids after the due date and time or by email/fax (unless

specified otherwise).

c. Receipt of bids in open conditions.

6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the BIDDER has accepted the clauses as of the tender, and no further claim will be entertained.

7. No revision of the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
8. Lowest bid will be calculated based on the total price of all items tendered for Basic equipment along with accessories selected for installation, operation, preprocessing and post processing, optional items, recommended spares, warranty, annual maintenance contract. Also see section G.

E) Pre-requisites:

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

F) Warranty:

The complete system is to be under warranty period of minimum 1 year (year wise breakup value should be shown in the commercial bid) including free supply of consumables, spare parts and data analysis software from the date of functional installation. If the instrument is found to be defective, it must be replaced or rectified at the cost of the bidder within 30 days from the date of receipt of written communications from IISc, Bangalore. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.

G) Annual Maintenance Contract:

An annual maintenance contract for a period of at least 2 years post warranty should be provided on completion of the warranty period. If the equipment cost is A, AMC is B, the lowest bid will be calculated as L1=A+5*B

H) Purchase Order:

1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms and conditions mentioned in the tender document.

2. The quantity of the items in tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of items depending on the requirement.

3. If the quality of the product and service provided is not found satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

I) Delivery, Installation, and Training:

The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of purchase order. The system should be delivered, installed, and made functional within 3 **months** from the date of receipt of purchase order. The supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by the IISc, Bangalore. After successful installation and inspection, the date of taking over of entire system by the IISc, Bangalore shall be taken as the start of the warranty period.
No partial shipment is allowed.

The bidder should also arrange for technical training to the local facility technologists and users

J) Payment Terms:

The payments to non-domestic vendors will be through a Letter of Credit and milestone of the payment will be determined after the mutual discussions with the successful bidder. As per GFR no advance payment can be made to domestic vendors, unless an equal amount of bank guarantee is provided.

K) Statutory Variation:

Any statutory increase in the taxes and duties subsequent to the bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore, subject to the claim being supported by documentary evidence. However, if any decrease takes place, the advantage will have to be passed on to IISc, Bangalore.

L) Disputes and Jurisdiction:

Any legal disputes arising from any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located in Bangalore, India.

M) General:

1. All amendments, time extensions, clarifications, etc., within the tender's submission period will be communicated electronically. No extension of the bid due date/time shall be considered due to delay in receipt of any document(s) by mail.

2. The bidder may furnish any additional information which is necessary to establish capabilities to complete the envisaged work successfully. It is, however, advised not to provide superfluous information.

3. With prior intimation, the bidder may visit the installation site before tender submission.

4. Any information furnished by the bidder found to be incorrect, immediately or later, would render the bidder liable to be debarred from tendering/taking up work in IISc, Bangalore.

Section 4 – Technical Specifications

The technical requirements have been categorized as **input** and **output** lines with details given below. A quick summary is shown in the table below. Detailed specifications have been further divided provided in individual tables below.

Table 1: A summary table describing the integration of different parts of the cryogenic and room temperature wiring requirements.

@RT	An 8 ft long cable harness for breakout at RT. Terminated SMA-male				A 6ft long 12x cable harness. SMA-male to SMA-male
Top of cryostat	On a single ISO100 or equivalent flange. SMPM or equivalent HD connectors				On 1x or 2x KF-40 flanges. SMA
	Attenuator value (dB) and coax type				
Name	*Control*	*Read-in**	*Para-Amps*	*Fast flux*	*Read-out*
Quantity	**36**	**12**	**12**	**84**	**12**
300K					
	SCN	SCN	SCN	SCN	SCN
50K	3dB	3dB	3dB	0dB	0dB
	SCN	SCN	SCN	SCN	SCN
4K	20dB	20dB	20dB	20dB	0dB
	SCN	SCN	SCN	SCN	NbTi
700mK	10dB	10dB	10dB	0dB	0dB
	SCN	SCN	SCN	SCN	NbTi
100mK	10dB	10dB	10dB	0dB	0dB
	SCN	SCN	SCN	SCN	NbTi
10mK	20dB	30dB	0dB	0dB	0dB
LPF	LP-8GHz	LP-12GHz	LP-15GHz	LP-1GHz	LP-12GHz
IR-filters**	(3dB@10G)	(3dB@10G)	(3dB@15G)	(3dB@1G)	(3dB@10G)
* Read-In lines should be placed on the outer side of the flage for easy access.					
** Nominal values of attenuation for the IR filters.					

1. Input lines:

(a) Distribution cable (cable harness) outside cryostat.

1.	Quantity	24 channels x 6units = 144 cables
2.	Frequency range	DC - 18 GHz
3.	VSWR	< 1.25
4.	Impedance	50 Ω
5.	Phase stability	300 ppm (15-30°C, 0-18 GHz)
6.	Amplitude stability	< 0.1 dB (15-30°C, @8 GHz)
7.	Connector type	End 1 - SMA plug on electronics side End 2 - SMPM socket on fridge end or

		a high-density connector compatible with the hermetic connector on the RT flange on the cryostat (see below)
8.	Length	**8 feet**

(b) Feedthrough on the RT flange (single ISO100 on a side-loader)

1.	Quantity	24 channels x 6 units = 144 cables
2.	Connector type	SMPM socket – SMPM socket or a high-density connector compatible with the cable set above
3.	leak rate	10^-9 mbar.L/s or better

(c) Cryostat cables, attenuators, and filters from RT to MXC stage

1.	Quantity	24 channels x 6units = 144 cables
2.	Frequency range	DC - 18 GHz
3.	Coaxial	SCuNi-CuNi
4.	Connector type	SMPM plug – SMPM plug or a high-density connector compatible with hermetic feedthrough (detailed above)
5.	Diameter	0.034”
6.	Impedance	50 Ω
7.	Dielectric	PTFE
8.	Thermal contraction relief bending	Include
9.	Attenuators	1 attenuator/coax/cryo-stage. (see the values in the table)
10.	Low-pass filters	1 unit/coax See the values in the table Stop band up to 60 GHz: nominal 60 dB (supply test data) SMPM plug – SMPM socket or a high-density connector compatible with feedthrough termination at MXC stage Compatible for its operation at MXC stage
11.	Infrared filters	1 unit/coax See the values in the table Supply test data With 60 dB stop band up to 60 GHz SMPM plug – SMPM socket or

		a high-density connector compatible with feedthrough termination at MXC stage Compatible for its operation at MXC stage
12.	Mounting brackets for attenuators, low pass filter, Infrared filters	Include cryogenically compatible mounting brackets. Must have suitable plating for thermalization, corrosion-protection. Include the details of material and plating in the technical bid.

2. Output lines on 1x or 2x KF40 LOS ports

(a) Distribution cables outside cryostat

1.	Quantity	12
2.	Frequency range	DC - 18 GHz
3.	VSWR	< 1.25
4.	Impedance	50 Ω
5.	Phase stability	300 ppm (15-30°C, 0-18 GHz)
6.	Amplitude stability	< 0.1 dB (15-30°C, @8 GHz)
7.	Connector type	SMA-male to SMA-male
8.	Length	6 feet

(b) Feedthrough on various flanges

1.	Quantity	1 for each flange consisting of 12 channels
2.	Connector type	SMA at each flange
3.	RT flange	Leak rate: < 10^-9 mbar.L/s or better Material: Stainless Steel
4.	Cryo flange	50K flange: Aluminium 4K and below: Non-magnetic OFHC copper with gold plating
5.	End connector at MXC	SMA-F
6.	Impedance	50 Ohm
7.	VSWR	< 1.35

(c) Cryostat cables from RT to 4K stage

1.	Quantity	12 coax
2.	Frequency range	DC - 18 GHz
3.	Coaxial	SCuNi - CuNi
4.	Diameter	0.034”
5.	Impedance	50 Ω
6.	Dielectric	PTFE
7.	Thermal contraction relief bending	Include
8.	0 dB attenuators (SMA)	Include

(d) Cryostat cables from 4K to MXC flange

1.	Quantity	12 coax
2.	Coaxial	NbTi - NbTi
3.	Diameter	0.034”
4.	Impedance	50 Ω
5.	VSWR	< 1.3
6.	Dielectric	PTFE
7.	Thermal contraction relief bending	Include
8.	Cryogenic 0 dB attenuators (SMA)	Include

(e) Mounting brackets and intermediate cables for isolators and amplifiers

1.	For Isolators	Bracket: Gold plated non-magnetic OFHC copper Custom designed (to be specified at the PO stage) Accommodate 7 or more dual junction Isolators Cable: Cu-SCu, 50Ohm, 0.086”, SMA-plug to SMA-plug Quantity-7
2.	For Amplifiers	Bracket: Gold plated non-magnetic OFHC copper Custom designed (to be specified at the PO stage) Accommodate 7 or more dual junction Isolators Cable: Cu-SCu, 50Ohm, 0.086”, SMA-plug to SMA-plug Quantity-7

Important Notes:

1. The make of the isolators and amplifiers, and dilution fridge can be supplied against enquiry. If these choices have any bearing on final price, the bidders must provide a price matrix in their COMMERCIAL BIS.
2. DO NOT INCLUDE ANY PRICE INFORMATION IN THE TECHNICAL BID.
3. Due to the complexity of the project, the supplier must have track record of supplying high density coaxial wiring for at least two years.
4. Submit list of at least 3 customers with contact information, and details of the wiring supplied.
5. Delivery should be within 8 weeks after LC opening
6. Pre-dispatch report to be shared and shipment to be made only after acceptance of report by customer.

A. Training and demonstration

Training on usage of the machine (hardware and software) must be demonstrated by the successful bidder at bidder's cost to the end users at IISc, Bangalore.

Section 5- Technical Bid

The technical bid should furnish all requirements of the tender along with all annexures in this section and be submitted to

The Chairperson,
Attn: Dr. Vibhor Singh
Department of
Physics, Indian
Institute of Science
Bangalore – 560012,
India

Annexure-1:

Details of the Bidder

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Details of the Bidder

Sl. No	Items	Details
1.	Name of the Bidder	
2.	Nature of Bidder (Attach an attested copy of Certificate of Incorporation/ Partnership Deed)	
3.	Registration No/ Trade License, (attach attested copy)	
4.	Registered Office Address	
5.	Address for communication	
6.	Contact person- Name and Designation	
7.	Telephone No	
8.	Email ID	
9.	Website	
10.	PAN No. (attach copy)	
11.	GST No. (attach copy)	

Signature of the Bidder

Name
Designation, Seal Date:

Annexure-2:

Declaration regarding experience To,
The Chairperson,
Department of Physics,
Indian Institute of
Science, Bangalore –
560012, India

Ref: Tender No: XXXXXXXXX
Dated: XXXXX

Dear Sir/Madam

I've carefully reviewed the Terms & Conditions in the above-referred tender. I hereby declare that my company/firm has ---------- years of experience in supplying and installing the proposed equipment.

(Signature of the
Bidder) Printed
Name Designation,
Seal Date:

Annexure-3:

Declaration regarding track

record To,
The Chairperson,
Department of Physics,
Indian Institute of
Science, Bangalore –
560012, India

Ref: Tender No: XXXXXXX
Dated: XXXXX

Dear Sir/Madam,

I've carefully reviewed the Terms & Conditions in the above-referred tender. I hereby declare that my company/ firm is not currently debarred/blacklisted by any Government / Semi- Government organizations/institutions in India or abroad. I further certify that I'm a competent officer in my company/firm to make this declaration.

Or

I declare the following

Sl.No	Country in which the company is Debarred /blacklisted / case is Pending	Blacklisted/debarred by Government / Semi-Government/Organizations /Institutions	Reason	Since when and for how long

(NOTE: In case the company/firm was blacklisted previously, please provide the details regarding the period for which the company/firm was blacklisted and the reason/s for the same).

Yours faithfully (Signature
of the Bidder)

Name
Designation, Seal

Date:

Annexure – 4:

Declaration for acceptance of terms and

conditions To,
The Chairperson,
Department of Physics,
Indian Institute of
Science, Bangalore –
560012, India

Ref: Tender No:
XXXXXX Dated:
XXXX

Dear Sir/Madam,

I've carefully reviewed the Terms & Conditions mentioned in the above-referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder) Name
Designation, Seal Date:

Annexure – 5:

Details of items quoted:

a. Company Name
b. Product Name
c. Part / Catalogue number
d. Product description / main features
e. Detailed technical specifications
f. Remarks

Instructions to bidders:

1. The bidder should provide technical specifications of the quoted product in detail.
2. Bidder should attach product brochures along with the technical bid.
3. Bidders should clearly indicate compliance or non-compliance with the technical specifications provided in the tender document.

Section 6 – Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total
1.	Essential items noted in the technical specification				
1.a	(details of essential items)				
1.b	…				
2.	Optional items noted in the technical specification				
2.a	… (details of essential items)				
2.b	…				
3.	Accessories for operation and installation				
4.	All Consumables, spares and software to be supplied locally				
5.	Warranty (3 years)				
6.	AMC 3 years beyond warranty				

Any additional items

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total

Addressed to The Chairperson
Attn: Dr. Vibhor Singh
Department of Physics
Indian Institute of Science
Bangalore – 560 012 India

Section 7 – Checklist

(This should be enclosed with technical bid- Part A)
The following items must be checked before the Bid is submitted:

1. Sealed Envelope "A": Technical Bid

1. **Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:**
    a. **Annexure 1: Bidders details**
    b. **Annexure 2: Declaration regarding experience**
    c. **Annexure 3: Declaration regarding clean track record**
    d. **Annexure 4: Declaration for acceptance of terms and conditions**
    e. **Annexure 5: Details of items quoted**
2. **Copy of this tender document duly signed by the authorized signatory on every page and sealed.**

2. Sealed Envelope "B": Commercial Bid

Section 6: Commercial Bid

Your quotation must be submitted in two envelopes: **Technical Bid (Envelope A) and Commercial Bid (Envelope B)** superscribing on both the envelopes with, Tender description, Tender No. and due date and both of these in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No., Tender description & Due Date.