

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्
Council of Scientific & Industrial Research
राष्ट्रीय वांतरिक्ष प्रयोगशालाएं
National Aerospace Laboratories



CSIR - NAL Estd. 1959
ISO 9001 : 2015
Certified Organization

INVITATION FOR BIDS/NIT

Tender No. NAL/PUR/ALD/261/21-Y

Dated: 18-Oct-2021

CSIR- National Aerospace Laboratories (NAL), Bengaluru, India is one of the premier laboratories under Council of Scientific and Industrial Research (CSIR), an autonomous body under Department of Scientific and Industrial Research, Government of India, New Delhi. CSIR-NAL is a Science and Knowledge based Research, Development and Consulting Organization. It is internationally known for its excellence in Scientific Research in Aerospace Engineering.

The Director, CSIR-NAL invites online quotation for procurement of the following item(s) for day to day research work.

Sl.No.	Description of Items	Unit	Quantity
1	NexNav Mini-2 GPS CCA	Set	08
Please refer annexure for detailed specification.			

Single / Double Bid	Single	Tender Type	Open
Bid Security (EMD) (in INR)	Bid Security Declaration should be enclosed with quotation	Bid submission end date	08-Nov-2021 10.00 Hrs
Performance Security	3% of the purchase order value	Bid opening date	09-Nov-2021 11.00 Hrs

- Tender Documents may be downloaded from Central Public Procurement Portal <https://www.etenders.gov.in>. Aspiring Bidders who have not enrolled/ registered in e- procurement should enroll/ register before participating through the website <https://www.etenders.gov.in>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.
- Tenderers can access tender documents on the website (For searching in the NIC site <https://www.etenders.gov.in>, kindly go to Tender Search option, select tender type and select ' Council of Scientific and Industrial Research' in organization tab and select NAL-Bengaluru-CSIR in department type. Thereafter, Click on "Search" button to view all CSIR-NAL, Bengaluru tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://www.etenders.gov.in> as per the schedule given in the next page.
- Either the Indian Agent on behalf of the Foreign principal or the Foreign principal can bid directly in a tender but not both. However, the offer of the Indian Agent should also accompany the authorization letter from their principal. To maintain sanctity of tendering system, one Indian Agent cannot represent two different Foreign principals in one tender.
- Unsolicited / conditional / unsigned tenders (Quotations)/Quotations received after the due date and time **shall be summarily rejected**. The Bidder shall comply the terms and conditions of the tender, failing which, the offer shall be liable for rejection.
- The bids of those Bidders failing to comply with the following clauses will be summarily rejected.
 - The Bidders proposing to supply finished products directly/indirectly from vendors of countries sharing the land border with India should submit copy of registration done with the Ministry of Home Affairs and Ministry of External Affairs.
 - If the Products supplied are not from vendors of countries sharing land border with India, the Bidders have to enclose a declaration to that effect.

पी बी सं. 1779, एचएएल एयरपोर्ट रोड , कोडिहल्ली, बेंगलुरु - 560 017, भारत,
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<http://www.nal.res.in>




purchasek@nal.res.in



CSIR-National Aerospace Laboratories, Bengaluru-560 017, INDIA

06. Bidders are requested to refer to the instruction regarding Procurement Policies for Make in India issued by Ministry of Commerce and Industry, Department of Industrial Policy and Promotion dated. 28-May-2018 and 4-Jun-2020 and guidelines as and when issued.
07. **The prospective bidders are requested to refer to the Standard Terms and Conditions available on NAL Internet (www.nal.res.in) under the icon Tender-Purchase before formulating and submitting their bids**
08. The Director, CSIR- National Aerospace Laboratories, Bengaluru reserves the right to accept any or all the tenders either in part or in full or to split the order without assigning any reasons there for.


Controller of Stores & Purchase
For and on behalf of CSIR

GPS Module

S.N.	Item	Quantity (Sets)
1	NexNav Mini-2 GPS CCA (As per Technical Specifications)	08

Technical Specifications:

1	Features	
	BITE	Yes
	Baro Aiding	Yes
	SBAS	Yes
	RAIM, PRAIM	Yes
	FD, FDE	Yes
2	Physical	
	Dimensions	85.0 x 55.0 x 10.4 mm
	Weight	≤ 40 g
	Connector, I/O	14 Pin Dual Row Female
	Connector, Antenna	SMA Female
3	Electrical	
	Power Input	5.0 VDC ± 1%
	Power Consumption	1.5 W Typical, 2.0 W Maximum
	Interface Protocol	Accord Binary & NMEA 0183
	Antenna Type (TSO C190 Recommended)	Active, ≥ 26.5 dB Gain
4	Environmental	
	Temperature	-55° C to +70° C
	Altitude	110,000 MSL
5	Receiver	
	Frequency	1575.42 MHz
	Code	C/A
	Channels	12 GPS + 3 SBAS
	Sensitivity, Acquisition	-130 dBm
	Sensitivity, Tracking	-140 dBm
	Time To First Fix, Cold Start	≤ 90 s at - 130 dBm
	Accuracy, Horizontal Position ¹	3 m RMS
	Accuracy, Vertical Position ¹	5 m RMS
	Accuracy, Horizontal Velocity ¹	0.1 m/s RMS
	Accuracy, Vertical Velocity ¹	0.3 m/s RMS
	Maximum Computed Velocity	513 m/s
	Maximum Computed Altitude	33,528 m
	Dynamics (Horizontal & Vertical Acceleration, Total Jerk)	Per DO-229E Requirements
	Update Rate	5 Hz
6	Conformity	
	Functional, RTCA DO-229E	Class Beta 1
	Environmental, RTCA DO-160G	N/A
	Software, RTCA DO-178C	Level C
	Hardware, RTCA DO-254	Level C
	TSO Authorization	TSO C204a

Warranty: 12 Months

Technical Supports and Artefacts:

1. Technical support during design, development, qualification, certification integration, and testing.
2. Witnessing the qualification test and resolving any issue related to GPS.
3. Providing artefacts related to certification and supports during the certification.
4. CoC of the supplied module.
5. TSO Certificate of the supplied module.

A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke at the bottom.

BID-SECURING DECLARATION FORM

Date: _____

Bid No. _____

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

(a)	have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
(b)	having been notified of the acceptance of our Bid by the purchaser during the period of bid validity
	(i) fail or refuse to execute the contract, if required, or
	(ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown)
in the capacity of (insert legal capacity of person signing the Bid Securing Declaration).

Name: (insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of: (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing)

Corporate Seal (where appropriate)

Note:

1. In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid.
2. Bid Security declaration must be signed in by the Proprietor/CEO/MD or equivalent level of Officer of the company.