

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
VIKRAM SARABHAI SPACE CENTRE (VSSC)
THIRUVANANTHAPURAM**

Tender for InGaP HBT 1Watt Power Amplifier (1.7 to 2.2GHz)

Bids to be submitted online

Tender No.: VSSC/PURCHASE UNIT II (AVN)/VS202100343701 dated 18-08-2021

A. Tender Details

Tender No : **VSSC/PURCHASE UNIT II (AVN)/VS202100343701**

Tender Date : **18-08-2021**

Tender Classification: **GOODS**

Purchase Entity : **PURCHASE UNIT II (AVN)**

Centre : **VIKRAM SARABHAI SPACE CENTRE (VSSC)**

Procurement of InGaP HBT 1Watt Power Amplifier (1.7 to 2.2GHz)

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A.1 Tender Schedule

Bid Submission Start Date : **30-08-2021 14:00**

Bid Clarification Due Date : **02-09-2021 10:00**

Bid Submission Due Date : **28-09-2021 10:30**

Bid Opening Date : **30-09-2021 10:30**

Price Bid Opening Date : **15-10-2021 11:00**

B. Tender Attachments

NA

Instructions To Vendors

1. PROFORMA FOR TERMS AND CONDITIONS OF TENDER for indigenous stores items

1. Where counter terms and conditions/printed or cyclostyled conditions of sale have been offered by the tenders, the same shall not be deemed to have been accepted by the Purchaser unless the Purchaser's specific written acceptance thereof is obtained.
2. The Purchaser reserves the right to accept or reject any quotation fully or partly without assigning any reason therefore.
3. The Contractor shall at all times indemnify the Purchaser against all claims which may be in respect of the stores for infringement of any right protected by Patent, Registration or design or Trade Mark and shall take all risks of accidents or damage which may cause a failure of the supply from whatever causes arising and the entire responsibility for the sufficiency of all means used by him for the fulfilment of the Contract.
4. Successful tenderer will have to furnish in the form of a Bank Guarantee or in any other form as called for by the Purchaser towards adequate security for the materials/property provided by the purchaser for the due execution for the Contract.
5. Specifications: Stores offered should strictly conform to Purchaser's specifications. Deviations, if any, shall be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotation. Test certificate, wherever necessary, should be forwarded along with supplies. Wherever options are called for in our specifications, the tenderer should address all such options, wherever specifically mentioned by us, and the tenderer could suggest changes to specifications with appropriate response for the same. Even in such case, the tenderer should state why he cannot meet our specification/s and why he is suggesting the change.
6. Sales Tax and/or other duties/levies, where legally leviable and intended to be claimed, should be distinctly shown separately in the tender
7. Price quoted should be on the basis of FORdelivery at site. The Purchaser will not pay separately for transit insurance, and the risk and cost during transit shall be exclusively the responsibility of the Contractor and the purchaser shall pay only for such stores as are actually

received in good condition in accordance with the Contract.

8. Payment terms are full payment within 30 days from the date of receipt and acceptance of material ordered. Our Bankers are State Bank of India, Branch, (place).

9. Guarantee: The stores offered should be guaranteed for a minimum period of twelve months against defective stores design, operation or manufacture. For defects noticed during the guarantee period, replacement/repair should be arranged free of cost within a reasonable period of such notification. In cases where our specifications call for a guarantee period more than 12 months specifically, then such a period shall apply.

10. Packing and Forwarding: The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air, to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense to the Contractor.

11. 5.(a) Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two systems of unit must be furnished.

(b) Corrections, if any, in the quotation must be attested. All amounts shall be indicated both in words as well as in figures. When there is difference between the amount quoted in words and figures, the amount quoted in words shall prevail.

12. The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the Contract and delivery must be completed not later than the date specified therein, and failure to do so, without adequate justification, may involve cancellation of the Contract at the discretion of the Purchaser

13. Quotation should be valid for at least 90 days from the date of opening of the tender.

14. ARBITRATION - In the event of any dispute/s, difference/s or claim/s arising out of or relating to the interpretation and application of the Contract, such dispute/s or difference/s or claim/s shall be settled amicably by mutual consultations of the good Offices of the respective Parties and recognizing their mutual interests attempt to reach a solution satisfactory to both the parties. If such a resolution is not possible, within 30 days from the date of receipt of written notice of the existence of such dispute/s, then the unresolved dispute/s or difference/s or claim/s shall be referred to the Sole Arbitrator appointed by the Parties by mutual consent in accordance with the rules and procedures of Arbitration and Conciliation Act 1996 as amended from time to time. The arbitration shall be conducted in Bengaluru in the Arbitration and Conciliation Centre â Bengaluru (Domestic and International) as per its rules and regulations. The expenses for the Arbitration shall be shared equally or as may be determined by the Arbitrator. The considered and written decision of the Arbitrator shall be final and

binding between the Parties. The applicable language for Arbitration shall be "English" only. Work under the Contract shall be continued by the CONTRACTOR during the pendency of arbitration proceedings, without prejudice to a final adjustment in accordance with the decision of the Arbitrator unless otherwise directed in writing by the DEPARTMENT or unless the matter is such that the works cannot be possibly continued until the decision (whether final or interim) of the Arbitrator is obtained.

2. INSTRUCTIONS TO TENDERERS AND TERMS & CONDITIONS OF TENDER for imported stores items

1. INSTRUCTIONS TO TENDERERS

1.The Tenderers should submit quotations before the due date of opening and complete in all respects with technical specifications, including pamphlets and catalogues.

2.Proforma Invoice may also be given which should contain the following information:

a)The FOB/FCA value, the C & F value for import by Sea freight / Air freight up to and for air parcel post up to should be separately indicated.

b) Agency Commission: The amount of commission included in the price and payable to the Indian Agent of the Contractor shall be paid directly to the Indian Agents by the Purchaser in equivalent Indian Rupees on the basis of an Invoice from him applying T.T. buying rate of exchange ruling on the date of placement of the Purchase Order and which shall not be subject to any further exchange variations. This payment will be released to the Indian Agent after the Customs Clearance and receipt of the goods by us.

c) The Contractor shall invoice only for the net amount payable to him, after deducting the amount of Agency Commission included in the invoice which would be paid to the Indian Agents directly by the Purchaser. However, the Contractor's invoice should separately reflect the amount of commission payable to his Indian Agent.

d) The earliest delivery period and country of origin of the goods / equipment.

e)The Banker's name along with SWIFT code & IBAN No. and address of the Contractor.

f)The approximate net and gross weight and dimension of packages / cases.

g)Recommended spares for satisfactory operation for a minimum period of one year.

h) Details of any technical service, if required for erection, assembly, commissioning and demonstration.

3.The FOB and C & F prices quoted should be inclusive of all taxes, levies, duties arising in the tender.

4. The offer should be valid for a minimum period 120 days from the due date of opening of the tender.

5. Samples, if called for, should be sent free of all charges.

6. Offers made by Indian Agents on behalf of their Principals, should be supported by the Proforma Invoice of their Principals.

7. We are eligible for Customs/Excise duty exemptions as per relevant notifications issued by Government of India.

8. The authority of person signing the tender, if called for, shall be produced.

9. Instructions / Operation Manual containing all assembly details including wiring diagrams should be sent wherever necessary in duplicate. All documents /correspondence should be in English language only. Wherever test etc., are called for in our specification, details of such tests as offered by the tenderer should be incorporated. He need not describe test methods; but broad details to understand what are offered and what aren't should be available.

10. The Purchaser reserves the right to accept or reject the lowest or any other offer in whole or part without assigning any reason.

TERMS AND CONDITIONS

1. DEFINITIONS:

a)The term 'Purchaser' shall mean the President of India or his successors of assignees.

b)The term 'Contractor' shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed include the Contractor's Successor's, representatives, heirs, executors and administrators unless excluded by the Contract.

c)The terms 'Purchase Order' shall mean, the communication signed on behalf of the Purchaser by an officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the Tender or offer of the Contractor for supply of stores of plant, machinery or part thereof.

d)The term 'Stores' shall mean, what the Contractor agrees to supply under the Contracts as specified in the Purchase Order.

2. 2. PRICES:

Tenders offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variations.

3. It is expressly agreed that the acceptance of the Stores Contracted for is subject to final approval in writing by the Purchaser whose decision shall be final.

4. If all or any of the Stores supplied are not as per specification, they may be rejected and suppliers should either replace or refund the money at the discretion of the Purchaser.

5. (a) Part shipment is not allowed unless specifically agreed to by us.

(b) As far as possible, Stores should be despatched by Indian Flag Vessel /Air India or through any Agency nominated by us.

6. Adequate packing to prevent damage in transit should be provided, keeping in view the mode of transport.

7. The Contractor will be held responsible for any demurrage / wharf age paid due to non-receipt of documents in time. Non-negotiable copies of despatch documents should be sent by Air mail immediately after shipment. Originals should be negotiated, through bank, soon after the despatch but not later than three days, reckoned from the date of despatch of the goods.

3. 8. Being a Department of Government of India, normal terms of payment are by Sight Draft. In exceptional cases other terms of payment may be considered by the Purchaser.

9. Insurance, wherever necessary, will be arranged by the Purchaser.

10. Inspection / Test Certificate should be provided for the goods after testing them thoroughly at the Contractor's works. If any inspection by Lloyds or any other testing agency is considered necessary, it shall be arranged by the

Contractors.

11, The Stores Contracted should be guaranteed for minimum period of 12 months from the date of acceptance against defective material, design or manufacture. For defects noticed during the

guarantee period, replacement /

rectification should be arranged free of cost within a responsible period of such notification. However, permits for export from and re-import into the purchaser's country, shall be provided.

12. Where erection or assembly or commissioning is part of the Contract it should be done immediately on notification. The Contractor shall be responsible for any loss/damages sustained due to delay in fulfilling this responsibility.

13. The time for and the date of delivery stipulated in the Purchase Order shall be essence of the Contract. Delivery must be completed within the date specified therein. If the Contractor fails to make the delivery of the stores by the due date, the Purchaser may, upon written notice of default to the Contractor, terminate the Contract in whole or in part. In that event the Purchaser reserves the right to purchase upon such terms and in such a manner as he may deem appropriate stores similar to that terminated and the Contractor shall be liable to the Purchaser for any additional cost for such similar stores and for any loss which the purchaser may sustain on that account provided that the purchase, or if there is an agreement to purchase, then such an agreement is made, within six months from the date

of such failure.

14. The Contractor shall at all times indemnify the Purchaser against all claims which may be made in respect of the Stores for infringement of any right protected by Patent, Registration of design or Trade Mark and shall take all risks of accidents or damage which may cause a failure of the supply from whatever cause arise and the entire responsibility for the sufficiency of all means used by him for the fulfilment of the Contract.

15. ARBITRATION: All disputes arising in connection with this Contract shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules. The Contract shall be interpreted, construed and governed by the laws of India

16. For items having shelf life, those with maximum shelf life should be supplied, if order is placed.

17. SHIPPING MARKS: The marks on the shipping documents such as invoice, bill of lading and on the packages should be as follows:

PURCHASE ORDER NO.:

DATE:

GOVERNMENT OF INDIA, DEPARTMENT OF SPACE

.....(name of the Centre/Unit)

..... (address)

DESTINATION :

PORT OF ENTRY Air freight to/ Sea freight to

18. REPLACEMENT: If the Stores or any portion thereof is damaged or lost during transit, the Purchaser shall give notice to the Contractor setting forth particulars of such Stores damaged or lost during transit. The replacement of such Stores shall be effected by the Contractor within a reasonable time to avoid unnecessary delay in the intended usage of the Stores. The price of replacement items shall be paid by the Purchaser on the basis of original price quoted in the tender or as reasonably worked out from the tender. The cost of damages will however be claimed by the Purchaser from the insurance company. The Import / Customs Clearance permit for the replacement will be provided by the Purchaser.

19. BANK CHARGES: While the Purchaser shall bear the Bank Charges payable to his Bankers, the Contractor shall bear the Bank Charges payable to his Bankers including the charges towards advising / amendment commissions.

20. COUNTER TERMS AND CONDITIONS OF SUPPLIERS: Where counter terms and conditions / printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the Purchaser, unless specific written acceptance thereof is obtained.

C. Bid Templates

C.1 Technical Bid - InGaP HBT 1Watt Power Amplifier (1.7 to 2.2GHz)

1. COMPONENTS - RF COMPONENTS

InGaP HBT 1Watt Power Amplifier (1.7 to 2.2GHz)

Item specifications for COMPONENTS - RF COMPONENTS

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Frequency range	1.7 to 2.2 GHz NOTE: Data sheet to provide performance characteristics for gain and return loss figures up to 3GHz and other parameters upto 2.3GHz	Yes / No / Explain		
2	Gain	22dB min	Yes / No / Explain		
3	Gain variation over temperature	0.025dB/deg C	Yes / No / Explain		
4	Input return loss	11dB	Yes / No / Explain		
5	Output return loss	5dB	Yes / No / Explain		
6	Output power for 1dB compression (P1dB)	30.5dBm	Yes / No / Explain		
7	Saturated output power	32dBm	Yes / No / Explain		
8	Supply Voltage	5.0V typical with operation from 4.5V to 5.5V	Yes / No / Explain		
9	Power Added Efficiency (PAE)	48% at 32dBm Pout	Yes / No / Explain		
10	Output 3rd order intercept (OIP3)	45dBm	Yes / No / Explain		
11	Supply current (Vs=Vpd=Vbias = 5V)	500mA typ; (400mA @4.5V to 620mA at 5.5V)	Yes / No / Explain		
12	Maximum supply voltage	+6V	Yes / No / Explain		

13	Maximum RF input power	15dBm	Yes / No / Explain		
14	Continuous power dissipation	2.78W	Yes / No / Explain		
15	Thermal resistance (junction to ground paddle)	23.3 deg C/W	Yes / No / Explain		
16	Package style	QSOP16GE 29.4mm2	Yes / No / Explain		
17	Maximum Junction temperature	150deg C	Yes / No / Explain		
18	Operating temperature	-40 to +85 deg C	Yes / No / Explain		
19	Storage temperature	-65 to +150 deg C	Yes / No / Explain		

Supporting Documents required from Vendor

1. Compliance checklist for supply conditions

2. Technical data sheet of the item

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	All parts must meet the relevant specifications as per the part number mentioned in the enquiry.	Yes / No / Explain	
2	Quote in slabs, The final quantity will be decided based on requirement at the time of recommendation.	Yes / No / Explain	
3	Date code of the item should be within 5 years at the time of shipment.	Yes / No / Explain	
4	Quote for available date code in case 5 year date code is not available.	Yes / No / Explain	
5	Quote for older date code shall be accepted only if latest date code is not available.	Yes / No / Explain	
6	CoC from manufacturer should be supplied. Stockist/Supplier COC shall not be accepted.	Yes / No / Explain	
7	Copy of COC shall be enclosed with the consignment.	Yes / No / Explain	
8	The packing style (standard packing offered by manufacturer) may be clearly specified in the quote.	Yes / No / Explain	
9	Quote will be accepted only if the source of supply is from authorized distributor/reseller. Documents with respect to authorization and source of supply to be attached failing which quote will be rejected.	Yes / No / Explain	
10	All the items shall be from the same lot/date code.	Yes / No / Explain	
11	In case the offer by a party is technically suitable consolidate lowest offer will be given preference.	Yes / No / Explain	
12	Point to Point reply to all the supply conditions are mandatory for accepting the quote.	Yes / No / Explain	
13	P & F charges, if any, please mention percentage.	Yes / No / Explain	
14	Installation Charges, if any	Yes / No / Explain	
15	Freight charges, if any. If yes ,please mention the percentage	Yes / No / Explain	
16	PO ordering address in full with Contact Persons Name, E-mail id, Phone No. [also attach your Quotation in PDF format].	Yes / No / Explain	

17	Foreign vendors are not permitted to quote 1. Only Class -I and Class-II Local suppliers as per make in India policy are eligible to participate in the bid. 2. The percentage of local content should be specifically mentioned in the offer, without which will be summarily rejected 3. Preference will be given to class-I Local Supplier and in their absence, class-II Local supplier will be considered.	Yes / No / Explain	
18	Taxes and other costs, if any. [Please Specify the rates]. Note: All Tax invoices issued by suppliers/service providers on or after July 01, 2017 shall invariably bear their GST registration number (GSTIN) and the applicable GST rates. In the absence of which, the invoices shall not be processed for payment.	Yes / No / Explain	
19	VSSC is a Public Funded Research Institution under the administrative control of Department of Space and is eligible for partial exemption of IGST @ 5% against IGST EXEMPTION CERTIFICATE.	Yes / No / Explain	
20	Delivery Terms [Normal delivery terms - FOR Destination (for Indigenous cases) & FOB/ FCA or Ex-works (for Import cases).	Yes / No / Explain	
21	Delivery Period [Please Specify the period, LD Clause applicable]	Yes / No / Explain	
22	Payment [Within 30 days after receipt and acceptance for indigenous/ Sight Draft for import cases].	Yes / No / Explain	
23	Quote Validity: Minimum 180 days [for Two Part Tender] from the date of Tender opening. [Mandatory. Otherwise offer will not be considered for evaluation].	Yes / No / Explain	
24	Liquidated Damages @ 0.5% per week subject to maximum of 10% of order value is applicable beyond the promised delivery schedule.	Yes / No / Explain	

25	<p>This is a Two-Part Tender i.e. Part 1: Technical & Commercial, Part-2: Price Bid. Hence all technical & commercial details shall be furnished in the Techno-Commercial Bid while price shall be indicated only in the Price Bid.</p> <p>2. This being a Two Part Tender, Technical & Commercial part and Price Part separately, the tenderers should not attach any documents containing Pricing information along with Technical & Commercial Bid. We do not open Part - II (Price Bid), if Part I (Technical & Commercial Offer) does not meet with our technical specification requirements. Cost split up, other price details etc. shall be uploaded as a separate documents under - Commercial Documents Solicited from the Vendor-tab.</p> <p>3. Our Tender Enquiry contains technical requirements and specification. The detailed technical specification of your offer should be covered in the technical part. The Technical documents need to be attached online as single PDF file without any price information. Technical bid containing Price details will be treated as unresponsive offers and rejected.</p> <p>4. The prices are to be mentioned only in the price Bid form attached. Any price split up regarding the item, sub-systems of other commercial conditions shall be attached as a separate document. The vendor have to compulsorily submit the compliance statement online otherwise their offer will not be considered for further evaluation. Before entering the compliance statement, vendors are advised to refer the detailed specification provided.</p> <p>5. The Technical Specification/ Drawing/ Product Catalogues/ Works Carried by vendor/ Make offered etc. as a single PDF file without any financial details has to be uploaded online mode by the vendor. This being TWO PART TENDER the PDF document uploaded should not contain any pricing details. If the attached PDF contains any pricing details the offer will be treated as unresponsive and will be summarily rejected</p>	Yes / No / Explain	
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C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	COMPONENTS - RF COMPONENTS	1.0 - 50.0 Nos.		-		
		51.0 - 100.0 Nos.		-		
		101.0 - 250.0 Nos.		-		

Common charges (Applicable for all items)

Customs Duty	
IGST	