

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

Tender for Prototype Lot Wafer Fabrication of Relay Driver ASIC

Bids to be submitted online

Tender No.: VSSC/PURCHASE UNIT II (AVN)/VS202100033301 dated 20-07-2021

A. Tender Details

Tender No : **VSSC/PURCHASE UNIT II (AVN)/VS202100033301**

Tender Date : **20-07-2021**

Tender Classification: **WORKS**

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

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

Procurement of Prototype Lot Wafer Fabrication of Relay Driver ASIC

Procurement of Prototype Lot Wafer Fabrication of Relay Driver ASIC

A.1 Tender Schedule

Bid Submission Start Date : **20-07-2021 09:58**

Bid Clarification Due Date : **23-07-2021 09:56**

Bid Submission Due Date : **23-08-2021 10:00**

Bid Opening Date : **23-08-2021 10:00**

Price Bid Opening Date : **30-09-2021 10:00**

B. Tender Attachments

Technical Write-up/Drawings

[Document : Technical Specifications Compliance Matrix](#)

[Document : Commercial Compliance Matrix](#)

[Document : Milestone Payments Timeline](#)

Instructions To Vendors

4. INSTRUCTIONS TO TENDERERS AND TERMS & CONDITIONS OF TENDER where the indent value is < `2.00 lakhs for imported stores items

1. I. INSTRUCTIONS TO TENDERERS

1.The Tenderers should submit quotations in duplicate in a sealed envelope, super scribing the Tender No. and due date of opening and complete in all respects with technical specifications, including pamphlets and catalogues.

2.A 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 Agent 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 immediately after Customs clearance of the goods in India.

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 will be paid to the Indian Agent 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 Stores.

e)Banker's name, address, telephone/fax Nos. & e-Mail ID of the Contractor.

f)The approximate net and gross weight and dimensions 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/FCA and C & F prices quoted should be inclusive of all taxes, levies, duties arising in the tenderer's country.

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

tender.

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

6.Late and delayed tenders will not be considered. Quotations by cable must be followed by detailed offers.

7.Offer made by Indian Agents on behalf of their Principals, should be supported by the proforma invoice of their Principals.

8.The details of Import Licence will be furnished in the Purchase Order.

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

10.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.

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

12.It is expressly agreed that the acceptance of the Stores Contracted for is subject to final approval in writing by the Purchaser.

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

b) As far as possible stores should be despatched by Indian Flag Vessels /Air India through any Agency nominated by us.

5. PROFORMA FOR INSTRUCTIONS TO TENDERERS AND TERMS AND CONDITIONS OF TENDER

1. c The term 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 or plant, machinery or equipment or part thereof.

2. Liquidated Damages

The Delivery Date mentioning in the Contract or Order will be the essence of the Contract. You shall strictly adhere to the delivery schedule mentioned in your quotation. Please confirm acceptance of LD clause and that you will strictly adhere to the delivery schedule.

3. Arbitration

In the event of any disputes, differences or claims arising out of or relating to the interpretation and application of the Contract, such disputes or differences or claims 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 disputes, then the unresolved disputes or differences or claims 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 Amendment Act 2015 as amended from time to time. The arbitration shall be conducted in Bengaluru

in the Arbitration and Conciliation Centre 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.

4. Force Majeure

Neither the Purchaser nor the Contractor shall be considered default of the performance of their obligations under this contract if such performance is prevented or delayed for any causes beyond the reasonable control of the parties to the contract affected, such as Acts of God, war, riots, civil commotion, illegal strikes, legal lockouts, epidemics, fire accidents, floods, earthquakes, proclamation or regulation or ordinance of any Government thereof, provided notice in writing of any such cause with necessary proof that the obligation under the contract is thereby affected or prevented or delayed, is given within 14 days from the happening of the event. As soon as the cause of force majeure has ceased to exist, the party whose ability to perform his obligation has been affected shall notify the other party of the actual delay that has occurred due to such force majeure conditions.

5. FOREIGN VENDORS ARE NOT PERMITTED TO QUOTE

- a. Only Class I and Class II Local suppliers as per Make in India Policy are eligible to participate in the bid
- b. The percentage of local content should be specifically mentioned in the offer, without which it will be summarily rejected.
- c. Preference will be given to Class I Local supplier and in their absence, Class II Local supplier will be considered.

6. Preference will be given to those tenders offering supplies from ready stocks and on the basis of FOR destination or delivery at site.

7. REJECTED STORES

Rejected stores will remain at destination at the Contractors risk and responsibility. If instructions for their disposal are not received from the Contractor within a period of 14 days from the date of receipt of the advice of rejection, the purchaser or his representative has, at his discretion, the right to scrap or sell or consign the rejected stores to Contractors address at the Contractors entire risk and expense, freight being payable by the Contractor at actuals.

8. The term Stores shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order including erection of plants & machinery and subsequent testing, should such a condition is included in the Purchase Order.

9. SECURITY DEPOSIT Wherever, the Purchase Order value is Rs. 5.00 Lakhs or more, on acceptance of the tender, the Contractor shall, at the option of the Purchaser and within the period specified by him, deposit with him, in cash or in any other form as the Purchaser may determine, security deposit not exceeding three percent of the value of the Contract as the Purchaser shall specify. If the Contractor is called upon by the Purchaser to deposit, Security and the Contractor fails to provide the security within the period specified, such failure shall constitute a breach of the Contract, and the Purchaser shall be entitled to make other arrangements for the repurchase of the stores Contracted at the risk of the Contractor in terms of Sub-Clause ii and iii of clause regarding Delivery. b hereof and or to recover from the Contractor, damages arising from such cancellation.

10. Sales Tax and or other duties or levies legally leviable and intended to be claimed should be mentioned in the price bid template. If nothing is mentioned, then it will be presumed that the rate quoted is inclusive of all taxes and duties.

11. TERMS AND CONDITIONS OF TENDER

12. TEST CERTIFICATE Wherever required, test certificates should be sent along with the despatch documents.

13. The Purchaser reserves the right to place order on the successful tenderer for additional quantity up to 25percent of the quantity offered by them at the rates quoted.

14. The authority of the person signing the tender, if called for, should be produced.

15. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the tenderers shall supply the same at the rates quoted.

16. PRICES Tender 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.

17. a Your offer should be valid for 90 days from the date of opening of the tender.

b 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 sets of units must be furnished.

18. a All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.

b Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser

shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of nonacceptance of tender, the tenderer will have to remove the samples at his own expense.

c Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.

d Specifications: Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make or Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options have been called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.

19. The tenderer should supply along with his tender, the name of his bankers as well as the latest Income Tax clearance certificate duly countersigned by the Income Tax Officer of the Circle concerned under the seal of his office, if required by the Purchaser.

20. 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 to include the Contractors successors, representative, heirs, executors and administrators unless excluded by the Contract.

21. The term Purchaser shall mean the President of India or his successors or assigns.

22. a All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.

b Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of nonacceptance of tender, the tenderer will have to remove the samples at his own expense.

c Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.

d Specifications Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make and Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options have been called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.

23. ACCEPTANCE OF STORES

a The stores shall be tendered by the Contractor for inspection at such places as may be specified by the purchaser at the Contractors own risk, expense and cost.

b It is expressly agreed that the acceptance of the stores Contracted for, is subject to final approval by

the purchaser, whose decision shall be final.

c If, in the opinion of the purchaser, all or any of the stores do not meet the performance or quality requirements specified in the Purchase Order, they may be either rejected or accepted at a price to be fixed by the purchaser and his decision as to rejection and the prices to be fixed shall be final and binding on the Contractor.

d If the whole or any part of the stores supplied are rejected in accordance with Clause No. c above, the purchaser shall be at liberty, with or without notice to the Contractor, to purchase in the open market at the expense of the Contractor stores meeting the necessary performance and quality Contracted for in place of those rejected, provided that either the purchase, or the agreement to purchase, from another supplier is made within six months from the date of rejection of the stores as aforesaid.

24. As a Government of India Department, this office is exempted from payment of Octroi and similar local levies. Tenderers shall ensure that necessary Exemption Certificates are obtained by them from the Purchase Officer concerned to avoid any payment of such levies.

25. DESPATCH The Contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods despatched. The consignment should be despatched with clear Railway Receipt or Lorry Receipt. If sent in any other mode, it shall be at the risk of the Contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on said to contain basis. Purchaser shall pay for only such stores as are actually received by them in accordance with the Contract.

26. GUARANTEE AND REPLACEMENT

a The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance.

b For a period of twelve months after the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use, arising from faulty stores design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 14 months from the date of acceptance thereof by the purchaser who shall state in writing in what respect the stores or any part thereof are faulty.

c If, in the opinion of the purchaser, it becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser, provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 14 months from the date of acceptance thereof.

d Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores.

e The decision of the Purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the Purchaser, as to whether or not the Stores supplied by the Contractor are defective or any defect has developed within the said period of 12 months or any other period or as to whether the nature of defects requires renewal or replacement, shall be final, conclusive and binding

on the Contractor.

f To fulfill guarantee conditions outlined in a to e above, the Contractor shall, at the option of the Purchaser, furnish a Bank Guarantee as prescribed by the Purchaser

27. PACKING FORWARDING AND INSURANCE 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 of the Contractor. The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

C. Bid Templates

C.1 Technical Bid - Prototype Lot Wafer Fabrication of Relay Driver ASIC

1. ASIC fabrication (Full mask set)

Item specifications for ASIC fabrication (Full mask set)

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Maximum operating voltage = 120V	YES/NO	Yes / No / Explain		
2	Number of Metal Layers = 4 Nos.	YES/NO	Yes / No / Explain		
3	Pad size = 85 μm x 85 μm	YES/NO	Yes / No / Explain		
4	Temperature Range (Tj) = -40 $^{\circ}\text{C}$ to 125 $^{\circ}\text{C}$	YES/NO	Yes / No / Explain		
5	Scope of Work: The wafer fabrication (6 wafers) of relay driver ASIC is to be carried out at ams AG, Austria in H35B4 high voltage process based on the GDSII database provided by VSSC.	YES/NO	Yes / No / Explain		
6	ams AG will provide latest update of Process Design Kit as per section 2.1 in Technical Specifications Compliance Matrix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		
7	Inputs to ams AG: Design Rule Check (DRC) clean data of relay driver ASIC in GDSII format along with DRC report	YES/NO	Yes / No / Explain		

8	Work involved at ams AG as per section 2.3 in Technical Specifications Compliance Matrix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		
9	Deliverables from ams AG as per section 2.4 in Technical Specifications Compliance Matrix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		
10	Review and Clearance Milestones as per section 3 in Technical Specifications Compliance Matrix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		
11	Acceptance Criteria as per section 4 in Technical Specifications Compliance Matrix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		
12	Technical Terms and Conditions as per section 5.1 in Technical Specifications Compliance Matrix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		

13	Delivery Terms and Conditions as per section 5.2 in Technical Specifications Compliance Matrix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		
14	General Terms and Conditions as per section 5.3 in Technical Specifications Compliance Matrix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		

Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	OEM authorisation certificate: Vendor should be a certified channel partner for ams AG, Austria. An authorisation certificate issued by ams AG, Austria should be submitted along with the quote. Otherwise the quote will be rejected.	YES/NO	Yes / No / Explain		

2	Vendor shall clearly mention the payment details including typically the milestone payments along with the techno-commercial quote as mentioned in Milestone Payments and Timeline for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		
3	The vendor should submit their responses online in the e-Procurement portal (URL:www.eproc.isro.gov.in)	YES/NO	Yes / No / Explain		
4	The responses shall be in two parts. Part 1- Technical and Commercial Bid (Techno Commercial bid). Price should not be indicated in any of the techno commercial bid documents. Part 2- Price Bid.	YES/NO	Yes / No / Explain		
5	The vendor must submit their proposals on or before the due date and due time.	YES/NO	Yes / No / Explain		

6	Initially only the Part 1- Techno Commercial bid will be opened. Price bid will be opened only for those vendors, who qualify the techno commercial bid evaluation.	YES/NO	Yes / No / Explain		
7	A vendor is eligible to submit only one Bid	YES/NO	Yes / No / Explain		
8	Liquidated Damages (LD): As mentioned in Commercial Compliance Matix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		
9	Payment terms: As mentioned in Commercial Compliance Matix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		
10	Security deposit (SD): As mentioned in Commercial Compliance Matix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		

11	Quote Validity: As mentioned in Commercial Compliance Matix for Prototype Lot Wafer Fabrication of Relay Driver ASIC document.	YES/NO	Yes / No / Explain		
12	Minimum delivery period to be specified	YES/NO	Yes / No / Explain		

Supporting Documents required from Vendor

1. Commercial Compliance Matrix

2. OEM authorisation certificate issued by ams AG, Austria

3. Milestone Payments and Timeline

4. Technical Specifications Compliance Matrix

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	Fabricated wafers to be supplied at VSSC	Yes / No / Explain	
2	Security Deposit: Successful Tenderer shall submit Security Deposit equivalent to 3% of the order value valid for a period of 60 days beyond the date for completion of the Purchase Order shall be furnished. This security deposit is collected towards the performance of the Contract. The said Security Deposit shall be submitted either in the form of Bank Guarantee or Fixed Deposit receipts from Nationalised/Scheduled Banks.	Yes / No / Explain	
3	PO ordering address in full with Contact Persons Name, E-mail id, Phone No. [also attach your Quotation in PDF format].	Yes / No / Explain	
4	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	
5	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	
6	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	
7	Delivery Terms [Normal delivery terms - FOR Destination (for Indigenous cases) & FOB/ FCA or Ex-works (for Import cases).	Yes / No / Explain	

8	Delivery Period within 100 days from the date of PO	Yes / No / Explain	
9	Payment [Within 30 days after receipt and acceptance of item at our site.	Yes / No / Explain	
10	Quote Validity: Minimum 180 days [Two Part Tender].	Yes / No / Explain	
11	Liquidated Damages @ 0.5% per week subject to maximum of 10% of order value is applicable beyond the promised delivery schedule.	Yes / No / Explain	
12	Plesae attach the soft copy of the offer in pdf format also	-	
13	Any other terms	-	
14	MODEL CERTIFICATE: I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.	-	
15	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	-	
16	This being a Two Part Tender, Technical and Commercial part and Price Part separately, the tenderers should not attach any documents containing Pricing information along with Technical &ComercialBid. 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 .	-	

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
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1	ASIC fabrication (Full mask set)	1.00 Lot		-		
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Common charges (Applicable for all items)

Freight charge	
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