

**GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE  
U. R. RAO SATELLITE CENTRE (URSC)  
BANGALORE**

## **Tender for RF SPDT SWITCH**

**Bids to be submitted online**

**Tender No.: URSC/HS/IS202100135901 dated 07-01-2022**

## A. Tender Details

Tender No : **URSC/HS/IS202100135901**

Tender Date : **07-01-2022**

Tender Classification: **GOODS**

Purchase Entity : **HS**

Centre : **U. R. RAO SATELLITE CENTRE (URSC)**

### Procurement of RF SPDT SWITCH

- 1.URSC invites offers through e-tender portal <https://eprocure.isro.gov.in> for the supply of following items.
- 2.This is a Public Tender under Two Part Basis. Only online tenders will be accepted. No manual/Postal/e-mail/Fax Offers will be entertained.
- 3.No Tender Fees Applicable. REPEAT No Tender Fees Applicable
- 4.This is a Two Part Public Tender. Please do not attach price details along with technical details in pdf or any format. If so, your offer shall be rejected.
- 5.Tender shall be opened on the first day of the schedule. In the event of any technical snags and if the tender could not be opened on the first day, it will be opened on the second/next working day as per the schedule.
- 6.We are exempted from the Payment of Customs Duty. Only 5% GST is applicable as per notification No. 5/2018-customs, dated 25/01/2018 Sl. No. 539 A.
- 7.Strict Compliance to our Commercial Terms and Conditions will have to be followed by the Vendor(s) or otherwise, your offer will be rejected.
- 8.Please peruse Tender Conditions properly while submitting the Quotation.
- 9.Government of India has implemented Goods and Service Tax (GST) w.e.f. 01.07.2017. The Tenderer(s) should mandatorily possess a valid GSTIN along with GST Registration Certificate. Please send duly self attested certificate of GST Registration along with offer(s), in the absence of which, your offer(s) will be invalid and shall not be considered. As per Government Notification No. 47/2017-Integrated Tax (Rate), dated 14.11.2017, Concessional GST @ 5% is applicable.

### A.1 Tender Schedule

Bid Submission Start Date : **07-01-2022 16:00**

Bid Clarification Due Date : **20-01-2022 16:00**

Bid Submission Due Date : **28-01-2022 09:30**

Bid Opening Date : **28-01-2022 10:00**

Price Bid Opening Date : **28-01-2022 10:30**

## **B. Tender Attachments**

### **Technical Write-up/Drawings**

**Document : [URSC Global\\_T&C](#)**

**Document : [Specifications](#)**

### **Instructions To Vendors**

## C. Bid Templates

### C.1 Technical Bid - RF SPDT SWITCH

#### 1. RF COMPONENTS : RF SPDT SWITCH

##### Item specifications for RF COMPONENTS

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Frequency of operation	1.1 - 2.3 GHz	Yes / No / Explain		
2	Return loss	17 dB (min.)	Yes / No / Explain		
3	Insertion loss	0.25 dB (max.)	Yes / No / Explain		
4	Isolation	55 dB (min.)	Yes / No / Explain		
5	Power handling capability	150 W CW @ 2.25 GHz	Yes / No / Explain		
6	Multipaction	3 dB by test / 6 dB by Analysis (Preferred)	Yes / No / Explain		
7	Port Impedance	50 ohms	Yes / No / Explain		
8	RF Interface	TNC jack	Yes / No / Explain		
9	Shielding Effectiveness	Better than 60 dBi	Yes / No / Explain		
10	Insulation Resistance	>1 M Ohms	Yes / No / Explain		
11	Operating Voltage	28 V - 42 V range	Yes / No / Explain		
12	Switching operation	Latching	Yes / No / Explain		
13	Switching time	50 m sec (max.)	Yes / No / Explain		
14	Pulse duration	64 m sec to 2 sec	Yes / No / Explain		
15	Suppression diodes	Two diodes in series with 200V reverse breakdown	Yes / No / Explain		

16	Coil Current	500 m A Max.	Yes / No / Explain		
17	Contact arrangement	SPDT	Yes / No / Explain		
18	Contact finishin	Gold latin	Yes / No / Explain		
19	RF contacts	Break before make	Yes / No / Explain		
20	Weight	250 grams (max.)	Yes / No / Explain		
21	Life	100000 cycles (min.)	Yes / No / Explain		
22	Actuation interface	D Sub 9 pin connector	Yes / No / Explain		
23	Telemetry	Switch Position indication	Yes / No / Explain		
24	Operating Temperature	-20 to +800 C	Yes / No / Explain		
25	Storage Temperature	-40 to +85 0 C	Yes / No / Explain		
26	Seal Type	Vented	Yes / No / Explain		

[Document : compliance matrix](#)

[Document : vendor-spec](#)

## 2. LOT ACCEPTANCE TEST-LAT

### Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Telemetry	Switch Position indication	Yes / No / Explain		
2	Operating Temperature	-20 to +800 C	Yes / No / Explain		
3	Storage Temperature	-40 to +85 0 C	Yes / No / Explain		
4	Seal Type	Vented	Yes / No / Explain		

5	Frequency of operation	1.1 - 2.3 GHz	Yes / No / Explain		
6	Return loss	17 dB (min.)	Yes / No / Explain		
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9	Power handling capability	150 W CW @ 2.25 GHz	Yes / No / Explain		
10	Multipaction	3 dB by test / 6 dB by Analysis (Preferred)	Yes / No / Explain		
11	Port Impedance	50 ohms	Yes / No / Explain		
12	RF Interface	TNC jack	Yes / No / Explain		
13	Shielding Effectiveness	Better than 60 dBi	Yes / No / Explain		
14	Insulation Resistance	M Ohms	Yes / No / Explain		
15	Operating Voltage	28 V - 42 V range	Yes / No / Explain		
16	Switching operation	Latching	Yes / No / Explain		
17	Switching time	50 m sec (max.)	Yes / No / Explain		
18	Pulse duration	64 m sec to 2 sec	Yes / No / Explain		
19	Suppression diodes	Two diodes in series with 200V reverse breakdown	Yes / No / Explain		
20	Coil Current	500 m A Max.	Yes / No / Explain		
21	Contact arrangement	SPDT	Yes / No / Explain		
22	Contact finishin	Gold latin	Yes / No / Explain		
23	RF contacts	Break before make	Yes / No / Explain		
24	Weight	250 grams (max.)	Yes / No / Explain		

25	Life	100000 cycles (min.)	Yes / No / Explain		
26	Actuation interface	D Sub 9 pin connector	Yes / No / Explain		

**Supporting Documents required from Vendor**

**1. vendor specified doc.**

**2. compliance matrix**

5 additional documents can be uploaded by the vendor



## C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	item should be supplied at URSC,Bangalore	Yes / No / Explain	
2	Provide compliance for General terms and conditions which is attached as a separate sheet in a document folder.	Yes / No / Explain	
3	Taxes : Government of India has implemented Goods and Services Tax [GST] w.e.f. 01.07.2017. The Tenderer[s] should mandatorily possess a valid GSTIN along with the GST Registration Certificate. Please send duly self-attested certificate of GST Registration along with offer[s].	Yes / No / Explain	

4	<p>Custom Duty: U R Rao Satellite Centre [URSC], Bengaluru is eligible for payment of Customs Duty at the rate of 5 per cent plus Social Welfare Cess at the rate of 10 per cent on CD &amp; IGST at the rate of 5 per cent vide Notification No.12/12-Cus dated 17.03.2012 superseded by Notification No.50/17-Customs dated 30.06.2017 and as amended by Notification No. 5/2018-Customs dated 25.01.2018, Sl. No. 539A.</p> <p>The necessary Customs Duty Exemption Certificate (CDEC) shall be provided by URSC only to those bidders who claim Purchase Preference under Make in India Policy and fulfil all requirements of tender document applicable for Indigenous Manufacturer i.e., Class-I/Class-2 local supplier. Such Class-I/Class-2 local suppliers are requested to take note of this aspect and submit their Offer clearly mentioning that the quoted Price for Imported contents which includes concessional Customs Duty as per above Notification. While requesting for issue of CDEC for the imported contents, the Tenderer[s] should mention the Item Description, Quantity and Value for which CDEC is to be provided for the bought out Imported Items. The necessary proof shall be produced while requesting for issue of CDEC from URSC. However, CDEC will be issued only to those successful Class-I/Class-2 local supplier, not exceeding the limit of foreign content declared in their quote.</p>	Yes / No / Explain	
5	<p>Delivery Terms [Indigenous Supply]: Tenderer[s] are requested to quote the Price[s] on FOR, URSC/ISITE, Bengaluru. [For Import Supply]: Tenderer[s] are requested to quote the Price[s] on Ex-works/FCA(Airport/Seaport)/FOB(Seaport) or as per INCO terms.</p>	Yes / No / Explain	
6	<p>Delivery Date/Completion Date: Delivery is the essence of the Contract. Tenderer[s] is/are hereby requested to mention the Firm Delivery Date/Completion Date.</p>	Yes / No / Explain	
7	<p>Packing and Forwarding Charges if any</p>	Yes / No / Explain	
8	<p>Freight Charges if any</p>	Yes / No / Explain	

9	Insurance Coverage if any	Yes / No / Explain	
10	Mode of Despatch	Yes / No / Explain	
11	Payment Terms: Payment shall be 100 per cent payment within 30 days after receipt and acceptance of Stores at URSC, Bengaluru	Yes / No / Explain	
12	Name of Suppliers Banker & Account Number with IFSC code	Yes / No / Explain	
13	<p>Performance Bank Guarantee: The Contractor shall execute Performance Bank Guarantee for 3 per cent value of the Purchase Order for fulfilment of Warranty obligations. The PBG shall be executed through Account Payee Demand Draft/ Fixed Deposit receipts or Bank Guarantee issued by a Nationalized Bank/Schedule Bank/International Bank approved by RBI. The PBG shall be executed on a Non-Judicial Stamp Paper of Rs. 200/- value. The Performance Bank Guarantee shall be executed as per our specimen and shall be valid for a period of 60 days beyond the date of completion of all the terms and conditions of the P.O./expiry date of warranty period. The Performance Bank Guarantee shall be executed before claiming payment. The PBG will not carry any interest and shall be returned after completion of all the Contractual obligations of the Contract with a NO CLAIM CERTIFICATE issued by Contractor as per our Specimen enclosed. Adherence to this clause is compulsory or otherwise, the Tender will be rejected.</p>	Yes / No / Explain	

14	<p>Security Deposit: The Contractor shall execute Security Deposit for 3 per cent of the value of the Purchase Order to ensure Satisfactory Performance of the Contract. The Security Deposit shall be executed within 20 days after Receipt of Purchase Order or any extension thereof. The Security Deposit is to be furnished in the form of Account Payee Demand Draft or Fixed Deposit Receipt or Bank Guarantee from Nationalized Bank/Scheduled Bank/International Bank approved by RBI. The Security Deposit shall be executed on a Non-Judicial Stamp Paper of Rs. 200/- value and shall be valid for a period of 60 days beyond the date of completion of the P.O/Contract.. In case the Contractor fails to furnish the Security Deposit within 20 days or any extension thereof the Purchase Order shall be Cancelled or Terminated and appropriate penal action shall be initiated. Any breach of the Terms and Conditions of the PO including Delivery Period, Security Deposit shall be forfeited and PO shall be terminated and cancelled at the Contractors risk, cost and liability. The Security Deposit will not carry any interest and shall be returned after completely executing the order.</p>	Yes / No / Explain	
15	<p>Warranty/Guarantee: Tenderer[s] are requested the Indicate Applicable Standard Warranty/Guarantee Period. Warranty period shall commence from the date of acceptance of the goods by the purchaser. All the replacements during the Warranty period shall be carried out by the successful Tenderer[s] Free of all Cost including To &amp; fro Freight Charges.</p>	Yes / No / Explain	

16	<p>Liquidated Damages: The time and date stipulated in the contract for completion of the work shall be deemed to be the essence of the contract. If the Contractor fails to deliver the Stores within the time specified in the Contract or any extension thereof or if the Contractor fails to maintain the required progress or comply with the relevant provisions of the general conditions of contract or special conditions of contract, if any and clear the site on or before the contract or extended date of completion, the Purchaser shall, without prejudice to any other right or remedy available under the law to Purchaser on account of such breach, recover from the Contractor as Liquidated Damages a sum one-half of one percent [0.5 percent] of the Contract price of the undelivered Stores for each calendar week of delay or part thereof. The total Liquidated Damages shall not exceed Ten percent [10 percent] of the Contract price of the undelivered stores. Adherence and acceptance to this Clause is Compulsory or otherwise the Tender will be rejected.</p> <p>In case of delay in delivery of the Stores beyond the delivery date stipulated in the Purchase Order/Contract or any extension thereof, such Stores shall be received without prejudice to the right of the Purchaser to claim Liquidated Damages and without prejudice to the terms and conditions of the Purchase Order/Contract.</p>	Yes / No / Explain	
17	<p>Pre-Delivery Inspection [PDI] [if Required]: The successful Tenderer[s] has to arrange for the necessary PDI of the Stores at the Contractor Factory Premises to enable URSC Engineers to carry out PDI. The PDI is applicable wherever the RFP document/Scope of Work calls for such an inspection.</p>	Yes / No / Explain	
18	<p>Factory Acceptance Testing [FAT] [if Required]: The successful Tenderer[s] has to arrange for the necessary FAT of the Stores at the Contractor Factory Premises to enable URSC Engineers to carry out FAT. The FAT is applicable wherever the RFP document/Scope of Work calls for such as FAT.</p>	Yes / No / Explain	

19	Training if any	Yes / No / Explain	
20	Tenderer[s] are requested to mention whether Installation, Testing, Commissioning, Demonstration, Acceptance and imparting Training is necessary for the Tendered Stores. Do not mention any price under this column in case of Two-Part Tender.	Yes / No / Explain	

21	<p>Arbitration (Local suppliers): :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 together with amendments thereto or any modification thereof. 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 Tenderer during the pendency of arbitration proceedings, without prejudice to a final adjustment in the accordance with the decision of the Arbitrator unless otherwise directed in writing by the Purchaser 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. Adherence and acceptance to this Clause is Compulsory or otherwise the Tender will be rejected.</p>	Yes / No / Explain	
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22	<p>Arbitration with Overseas Supplier: In the event of any dispute or difference arising out of or in connection with this Purchase Order, such dispute or difference shall be settled amicably by mutual consultants or through the good offices of the respective parties. If such resolution is not possible, then the unresolved dispute or difference shall be referred to the Sole Arbitrator appointed in accordance with provisions of the ICADR Arbitration Rules, 1996 of the International Center for Alternative Dispute Resolution, New Delhi. The Arbitration shall be conducted in India in accordance with the Rules &amp; Procedures of the Arbitration and Conciliation Act of 1996 or any re-enactment or modification thereof. The expenses for the Arbitration shall be paid as may be determined by the Arbitrator. The Seat for Arbitration shall be Bengaluru. The applicable language for Arbitration shall be English only. Adherence and acceptance to this Clause is Compulsory or otherwise the Tender will be rejected.</p>	Yes / No / Explain	
23	<p>Arbitration with Public Sector Undertakings: In the event of any dispute or difference relating to the interpretation and application of the Contract, such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No. 4 (1)/2013 - DPE (GM) /FTS-1835 dated 22.05.2018. And/or amended thereafter.</p>	Yes / No / Explain	
24	<p>Applicable Law and Jurisdiction: Contract shall be interpreted, construed and governed by the Laws of India and the Courts in Bengaluru City alone shall have exclusive jurisdiction in this regard, to the extent permissible under the Arbitration and Conciliation Act, 1996. Non-acceptance to this Clause will amount to rejection of the Tender.</p>	Yes / No / Explain	
25	<p>Validity of Offer: The offer should be valid for a minimum period of 90 days for single part tender and 180 days for two part tender from the date of opening of the tender.</p>	Yes / No / Explain	
26	<p>Company postal address along with Email ID and Ph No.</p>	Yes / No / Explain	



27	<p>In case a bidder is an MSME, registered under NSIC and would like to avail exemptions, offer should be accompanied with necessary registration certificate with declaration to consider their offer. Quotation received without such declaration and valid registration certificate will not be considered for exemptions under the Public Procurement Policy.</p>	Yes / No / Explain	
28	<p>Do you have Unique GeM Seller ID? If YES, provide details</p> <p>If NO, As per Office Memorandum No 6/9/2020-PPD dated 24/08/2020 of Department of Expenditure, it shall be mandatory for sellers providing Goods and Services to Central Government Organizations to be registered on GeM and obtain a Unique GeM Seller ID, at the time of Placement of Order/acceptance of contract. Tenderers shall ensure the same.</p>	Yes / No / Explain	
29	<p>Please refer the following OMs/orders issued by Govt. of India while submitting the bid:</p> <p>(i) No. P-45021/2/2017-PP (BE-II) dated 16.09.2020  (ii) F.No.6/18/2019-PPD (Public Procurement No.1) dated 23.07.2020  (iii) F.No.6/18/2019-PPD (Public Procurement No.2) dated 23.07.2020 and  (iv) F.No.6/18/2019-PPD (Public Procurement No.3) dated 24.07.2020.</p> <p>All the provisions mentioned in the above OMs/orders shall be complied. If any deviation from the above OMs/order, your offer will be liable for rejection. All Bidders fulfilling the above orders, shall submit a valid registration certificate made with DPIIT, without which the offer shall not be considered.</p>	Yes / No / Explain	
30	Country of Origin of quoted items	Yes / No / Explain	

31	Based on the GOI order dated 16.09.2020 as mentioned at Sl. No. 27 above, provide declaration in Company Letter head indicating the following: a) Percentage of Local Content in the quoted items alongwith its break-up (in percentage only). It may be noted that Local Content shall not include services such as Transportation, Insurance, Installation, Commissioning, Training and after sales service support like AMC/CMC etc. b) Details of the location(s) at which the local value addition is made.	Yes / No / Explain	
32	Compliance to Sl. No. 12, 13, 15, 24, 29 and 30 above are mandatory and without which quotes are not considered for further evaluation.	Yes / No / Explain	

### C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	RF COMPONENTS	1.0 - 10.0 Nos.		-		
		11.0 - 20.0 Nos.		-		
		21.0 - 50.0 Nos.		-		
2	LOT ACCEPTANCE TEST-LAT	1.00 Nos.		-		