

#### DIRECTORATE GENERAL FIRE SERVICES, HOME GUARDS & CIVIL DEFENCE, ODISHA

### SHORT RE-TENDER CALL NOTICE NO.-9/2020-21.

1. Sealed tenders are invited from the original equipment manufacturer (OEM) or their authorized agent/ dealer for purchase of equipment during 2020-21. The details of equipment with requirement as follows.

SI	Name of the item	Approximate Quantity
No.		
1	Quick Deployment Antenna	05 Nos

- 2. The tender document with detail technical specification may be seen from the state website www.odisha.gov.in and Odisha Fire Service website www.odishafshqscd.gov.in. The tender document may be obtained by depositing `300/- (Rupees three hundred) only between 11.00 A.M to 5.30 P.M each working days from the office of the undersigned at the address given below or downloading from state website and should be submitted duly signed in each page of the tender document with seal in token of having read understood and accepted the terms and conditions of the contract in the address given below. The tender should be submitted in prescribed format along with a Demand Draft Non-A/C payee of '300/-(Rupees three hundred) only payable at SBI, Main Branch, Cuttack (Code No-0059) in favour of D.D.O, Directorate General of Fire Service, Odisha, Cuttack, towards the cost of tender paper in case of firms submitted tender by downloading the tender document from website. However, the authorities shall not be responsible for postal or any other delay.
- 3. The bidder has right to quote any one of the item and it is not mandatory to quote all items mentioned in the tender.
- 4. Bids submitted other than the manner prescribed in the tender document shall be rejected.
- 5. The Tender Calling Authority has right to accept or reject the tender(s) without assigning any reason thereof. The bidder should drop the sealed tender packet in the "Tender Box" available in the office of the undersigned by the stipulated date and time at his own risk and responsibilities.

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6.	Sale of tender document w. e. f.	dt.08-03-2021.
7.	Last date for sale of tender document	dt.22-03-2021, 5.30 P.M.
8.	Last date for receipt of tender document	dt.22-03-2021, 5.30 P.M.
9.	Date for opening of tenders/Technical Bids	dt. 23-03-2021, 11.30 A.M.
	anwand	

- Date of Technical Committee for evaluation of samples dt. 23-03-2021,
   12.30 P.M onwards at this Directorate General of Fire Services, Odisha,
   Cuttack.
- 11. The bidders are required to depute their representatives to remain present during opening of Tender/ Technical Bid as per dates mentioned above.
- 12. The tenders received after the stipulated date shall not be taken in to consideration and liable for rejection.
- 13. The tender calling authority has the right to cancel or alter quantity of any of above item without assigning any reason thereof.
- 14. Address.

Directorate General of F.S, H.Gs & C.D, At-3<sup>rd</sup> Floor of Vigilance Directorate, Nuapatna, Cuttack, Pin-753001 FAX-0671-2300201/2303387.

I.G of Police, Fire Service, Home Guards & Civil Defence, Odisha, Cuttack.

E-mail: <u>dfoprov-ofs@gov.in</u>, <u>afoprov-ofs@gov.in</u>



#### DIRECTORATE GENERAL FIRE SERVICES, HOME GUARDS & CIVIL DEFENCE, ODISHA

Letter No	/Prov., Dated.	-03-2021.
То		
M/s		

#### SHORT RE-TENDER CALL NOTICE NO.-9/2020-21.

## EQUIPMENT FOR ODISHA FIRE SERVICE ORGANIZATION DURING THE FINANCIAL YEAR 2020-21.

## DIRECTORATE GENERAL FIRE SERVICES, HOME GUARDS & CIVIL DEFENCE, ODISHA

Certified that the book contains Page- 1 to 20.

Sale of tender document W.e.f

2.	Last date for sale of tender document	- dt. 22-03-2021, 5.30 P.M
3.	Last date for receipt of tender document	- dt. 22-03-2021, 5.30 P.M
4.	Date of opening of sealed Tender/ Technical Bids.	- dt. 23-03-2021, 11.30 A.M
5.	Date of Technical Committee for evaluation of samples	- dt. 23-03-2021, 12.30 P.M onwards at this Directorate General of Fire Services, Odisha, Cuttack.

- dt. 08-03-2021

## SHORT RE-TENDER CALL NOTICE NO.-9/2020-21. TENDER DOCUMENT NO-(I) GENERAL CONDITIONS OF THE CONTRACT.

- 1. The bidder/supplier should either be an Original Equipment Manufacturer (OEM) or their agent /dealers authorized to sell, supply and service their products. The latest authenticated documentary proof of this shall be submitted. The proof submitted earlier in some other context shall not be treated as valid and sufficient.
- 2. All the information as called for in the tender document should be submitted truly, clearly, legibly, transparently, unambiguously and without the use of abbreviations. It shall be submitted in English.
- 3. All the crucial figures, like, rates and amount should written in figures followed by words in a bracket.
- 4. There shall be no over writing in the tender document and other papers submitted.
  - All the addition, alterations, deletions and cuttings should be initialed with rubber stamp (or seal) by the same person, who signs the tender document. Failing so, the tender may be rejected.
- 5. The tenders (also call bids) not submitted in prescribed format or in the prescribed manner, shall be rejected at the risk and responsibility of the bidder.
- 6. All the rates and amounts shall be quoted in Indian Rupees (IR) and shall be presumed to be in Indian Rupees unless specifically permitted to be quoted otherwise in these tender documents.
- 7. The rates quoted shall be valid for a period of one year counted from last date of receipt of bids/ tenders.
- 8. Each page of this tender document should be signed by the bidder with seal in token of having read, understood and accepted the terms and conditions of this contract.
- 9. For the Companies and Corporation making the bids, the tender document shall be signed by the Managing Director. If it is otherwise, the authority to sign the tender papers on behalf of the Company/Corporation shall be enclosed. In case of partnership Firm, it shall be signed by the active partner. In case of a Proprietary Firm, the tender document shall be signed by the proprietor.
- 10. "Legal Status" of a bidder shall mean either proprietorship or partnership of private/Public limited Company or otherwise (to be specified) as the case may be.
- 11. All the documents and papers submitted with the bid should either be in English or in Oriya and shall be authenticated under the seal and signature of the bidder unless specified otherwise in this tender document. If the documents are in any other language, a true translation in English, duly certified by an independent person of repute, shall be submitted.

- 12. All the promotional and technical literature of the products intended to be supplied should be submitted for proper appreciation of the bid, whether or not specifically call for in this tender document. This literature should also be in English.
- 13. Submission of more than one competitive bid by the same firm in response to the tender call notice is prohibited. All such bids, except one, will be cancelled at the discretion of the authority calling the bids. A bidder may, however, offer in his bid more than one product of the same Original Equipment Manufacturer (OEM) if in his opinion, all such products meet the prescribed technical specification s. In that case, he should submit "Technical Bid" of all such products separately but in the same prescribed format, in the same sealed single cover. Separate "Financial Bids" should also be submitted similarly in the same sealed single cover (see below for the meaning of sealed cover).

#### NOTE

- i) A bidder can not bid the same item for more than one OEM firm.
- 14. The bidder may use separate piece of paper, where the space provided in the formats in this tender document for submission of information, is not sufficient. The information in the separate sheet of paper shall be prescribed format and each page should be serial numbered and duly authenticated.
- 15. All the information submitted or supplied in the formats in this tender document shall be presumed to be true to the best of knowledge of the bidder.
- 16. No firm/Company without valid Value GST Registration number and PAN shall be eligible for submitting bids. Firms blacklisted shall also not be eligible for participating in the bid.
- 17. Copy of Valid Registration Certificate issued by competent Authorities under the GST Act and copy of PAN shall be enclosed to the Tender document. In no case other certificates issued by authorities in lieu of such certificates shall be accepted.
- 18. Copies of income Tax return and Annual VAT and CST returns of previous year along with copies of Audited Balance Sheets, P/L a/c and Trading a/c of previous year where ever applicable need also be enclosed to the Tender document by the Original Equipment Manufacturer / Authorised Agent of OEM.
- 19. At the time of opening of Tender/Financial bid the bidder will have to satisfy the competent authority that he is not only authorised as per his Registration Certificates to deal in the tendered item but he has also a running business in such items and he has the ability to supply the tendered quantity in prescribed time limit and to meet the warrantee conditions of the product.
- 20. The Bid Security/ Earnest Money Deposit (EMD) shall either be in the form of Demand Draft/Banker's Cheque of a scheduled Bank payable at Cuttack or by pledging of NSC/FDR/Postal Saving Pass Book all in favour of D.D.O, Directorate General of Fire Service & Home Guards & Civil Defence, Odisha, Cuttack. EMD shall be returned immediately after the rejection of a Bid. The DD/Banker's

Cheque/NSC/FDR/Postal Saving Pass Book etc. shall be returned in original with or without reverse endorsement as required for the refund. EMD of the successful bidders shall be retained till the supplied materials/articles are successfully delivered as ordered or adjusted against performance security. After that it shall be returned in the same manner as in the case of unsuccessful bidders.

- 21. This tender document has prescribed a two bid format for submitting the offers. It contains the "TECHNICAL" and 'FINANCIAL' bid formats. Both the bids shall be submitted in separate sealed cover identified as 'TEHCNICAL' or 'FINANCIAL' bid after detaching their formats from this tender document. Both the sealed covers, the remaining part of this tender document and all the other papers/documents should be put inside a bigger sealed cover and shall be delivered as per conditions published in the tender call notice. All the sealed covers shall have boldly written with the name of the supplier/bidder, the tender call notice number and the last date for submission.
- 22. The tenders or the bids can be sent by Regd. Post or courier as well. However, the authorities shall not be responsible for the postal and other delays in receipt of bids. The Tenders/ Bids can also be dropped in the sealed "Tender Box" kept in the office of the Tender Calling Authority.
- 23. If the last date for submission of the tender/bid turns out to be a holiday, it will automatically be extended to next working day.
- 24. The tender calling authority shall make arrangements in his office for issuing a written acknowledgement, under proper seal and signature of the filled in tenders, provided those are submitted on or before the due date. The acknowledgement shall be issued even if the tenders are required to be dropped in a sealed box. The acknowledgement receipt shall mention, among others, the tender call notice number.
- 25. A bid submitted can not be withdrawn. The bidder or his authorized representative (one person only) will be allowed to be present at the time of opening of tenders. They will not participate in the discussions. Clarifications sought, if any, may be provided by them.
- 26. All or any of the tenders (or bid) submitted can be rejected without assigning any reason thereof. No claim, whatsoever, shall be admissible for; the alleged loss/damage suffered by the bidders on account of such rejections.
- 27. The sealed Tenders and Technical Bids shall be opened by the Technical Committee in 1<sup>st</sup> stage. The documents like EMDs, GST Regd. No. etc shall be verified to ensure that the bidders have been found to have fulfilled all the prescribed criteria and conditions of this tender document other than technical specifications of the products.
- 28. All the products, failing to fulfill the prescribed technical specifications, will be rejected. Decision of the Technical Committee in this respect shall be final and binding. A bidder can improve the technical specifications of the product offered

before the opening of 'Financial Bid'. Decision of the Technical Committee on, whether or not, the revised specification is an improvement, shall be final. Improvement in the technical specifications offered as above, may be accepted or rejected at the discretion of the Tender Calling Authority.

- 29. Not withstanding an offered product meeting the prescribed technical specifications, it may be rejected, if it has not been tried and tested or used in Orissa Fire Service with satisfaction. It may also be rejected if the bidder fails to successful demonstration before the Technical Committee.
- 30. 'Financial Bids' shall be opened only in those cases, where one or more of the offered products have fulfilled the prescribed technical specifications. No preference or extra payment shall be admissible for the superior technical specifications or quality of the like if any. All the financial documents like Registration Certificate issued under GST Act and IT Acts, IT, S.T returns, Audit Balance Sheet, Trading Account and P/L Account shall be verified at the time of opening of Financial Bids.
- 31. All the prices quoted shall be FOR Cuttack, Odisha. This means that the prices shall include the cost of delivery at Cuttack.
- 32. The authorities are not bound to accept the lowest Financial Bid.
- 33. The order for supply may be placed on the successful bidders but the technical specifications (or quality requirements) for the purpose of supply shall be those, which were offered and accepted by the Technical Committee and not those specified in the tender document.
- 34. On delivery, the supplies or products shall be inspected to verify the quantity and to see whether those are in accordance with the technical specifications (or quality requirements) for which the order was placed. If it turns out to be otherwise the acceptance of delivery shall be refused at the risk and responsibility of the supplier. Further, the articles found damaged shall not be counted as accepted until repaired or replaced to the satisfaction of the authority.
- 35. Short deliveries may not be accepted. All the items ordered must be supplied in full for claiming even the part payment.
- 36. All the transit risks shall be the responsibility of the supplier.
- 37. User manuals of the product shall be supplied without being asked for or even if it is not mentioned in the supply order. Moreover, it should be in English.
- 38. Failure to supply the order in full within the stipulated period or supply of substandard goods may lead to forfeiture of EMD and blacklisting of the suppliers. If at all the delivery is allowed to be accepted after the due date, Liquidated Damages (LD) @ 0.5% of the total amount of order (excluding taxes) per week or part thereof shall be charged from the bidder, however, that the L.D. shall not exceed 5% of the amount of order.

- 39. The supplier shall submit an undertaking given by him or the OEM committing to supply spare parts for the maintenance of the supplied items for a period at least 18 months from the date of supply.
- 40. The supplier shall give a "Performance Warranty" for a minimum period mentioned in the special condition or one year of the contract. 5% of the amount of the order (excluding taxes) as mentioned in the special conditions of the contract shall be deposited in shape of FDR/Irrevocable Bank Guarantee duly pledged in favour of Tender Calling Authority and shall be returned after the performance warranty period is over. The said amount may be forfeited partially or fully for failure to fulfill the terms and condition of supply and post sales commitment/obligations. The Bank Guarantee should be enforceable and payable at Cuttack. The Performance Security should remain valid for a period of 60 days beyond the date of completion of the obligation of the supplier including warranty obligations.
- 41. The bidder must submit in a separate paper mentioning "complied or not complied" against each column of the Tender Specification given in the Tender document.
- 42. Terms and conditions of this tender document can not be negotiated for variation without obtaining the prior approval of the Govt.
- 43. All the clarifications sought from the bidders/suppliers on technical specifications of the products or otherwise shall be promptly submitted in a transparent and unambiguous manner.
- 44. Entire tender document duly filled in shall be treated as part or the contract agreement for supplies in case of the successful bidders.
- 45. All the disputes shall be subject to jurisdiction of Civil Courts situated at Cuttack.
- 46. The bidder shall submit all required documents along with tender. Under no circumstances a bidder would be allowed to make any addition/ alteration if any, related to tender or to submit required documents after receipt of the tender by the tender calling authority.

Seal & Signature of the Bidder

I.G of Police, Fire Service

Home Guards & Civil Defence,

Odisha, Cuttack.

#### TECHNICAL BID

1	2	ONLY.	1
		YES OR NO	
		KINDLY ANSWER	
		SPECIFICATIONS	
		TECHNICAL	
		DETAILED	ANY.
		FULFILLS THE	VARIATIONS IF
		PRODUCTS	AND DETAILS OF
		OFFEREED	SPECIFICATIONS
SL.NO.	NAME OF THE ITEMS.	WHETHER	OFFERED

Signature & Seal of the Bidder.

#### FINANCIAL BID

#### SHORT RE-TENDER CALL NOTICE NO.-9/2020-21.

NAME OF THE ITEMS...... PER UNIT IN INDIAN RUPEES

Price including all the duties & levies :
 Basic Unit Price :
 IGST @ - % - :

4. *CGST* @ - % - :

5. OGST@-%-

6. Other Charges (To be specified)

7. Total Unit price of the Item :

8. Total amount payable for supply of entire quantity of the item mentioned in the tender document.

9. Name of the Original Manufacturers and
The brand name or trademark of the item

Signature & Seal of the Bidder.

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#### GENERAL BID FORM

(SHORT RE-TENDER CALL NOTICE NO.-9/2020-21)

1. Name, Full Address, Fax No.

Telephone No. & E-Mail of the firm.

- 2. Legal status of the firm
- 3. Items for which you have submitted the Bid
- 4. For which of the items above you are the ORIGINAL EQUIPMENT MANUFACTURER (OEM)
- 5. Give the location and Address of your Factory.
- 6. For the items listed at (3) above and where you have submitted the bid but you are not the O.E.M. indicate against each the names of the O.E.M
- 7. Kindly confirm by writing 'yes' or 'no' only that you have been authorized by the respective O.E.Ms either as dealer or as sale, supply and servicing agent in respect of the items you are not the (OEM)
- 8. Which of the items, you have submitted the bids for, will be fully or substantially imported. Indicate the country to be imported from.
- 9. Have you enclosed the EMD? If yes, mention the amount and its identifying details.
- 10. Have you enclosed all the documents and papers called for in this tender document? Kindly enclose a list(use a separate sheet of paper)
- If the answer to (10) above is 'No' which 11. is the documents/document have not been enclosed.(Kindly enclose a list of such documents/papers). Use a separate sheet of paper if necessary.
- 12. Do you have a post sales servicing, center in Odisha? If yes, give its name, full address, Fax and Telephone numbers.

Seal & Signature of the Bidder

I.G of Police, Fire Service, Home Guards & Civil Defence. Odisha, Cuttack.

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# SPECIAL CONDITION OF THE CONTRACT. SHORT RE-TENDER CALL NOTICE NO.-9/2020-21. TENDER DOCUMENT NO. (II)

- 1. The Special Conditions given here shall prevail over the General Conditions.
- 2. **Bid Security:** The tender document shall accompany with Earnest Money Deposit (EMD) at the rate quoted at Col-5, Para-3 without which tender shall be rejected. The EMD deposited instrument should be available outside the sealed covers of "Technical" and "Financial" Bid. (EMDs available in the Technical Bid also be accepted). However the MSEs registered in Odisha with respective DICs, Khadi Village, Cottage and Handi craft Industries, OSIC and NSIC shall pay 25% of the prescribed security deposit while participating in tender.
- 3. Quantity: Sealed Bids in this tender document have been invited for the supply of the items listed below. The approximate quantity required has been mentioned against each. The detailed technical specifications of each item are available in the Annexure-'A' to "Special Conditions of the contract" identified against each.

SI No.	Name of the item	Approximate Quantity	Technical Specification	E.M.D Value
1	2	3	4	5
1	Quick Deployment Antenna	05 Nos	Technical Specification as Annexure-A	`1,80,000/-

- 4. The quantities mentioned above are subject to variations. The rates quoted per Unit shall continue to be valid even if the quantities of items mentioned above are varied. Further, the bidder should certify that the rates quoted by it or any item listed above shall remain valid subject to variation in any Govt. Tax Structure on the some (i.e. base price of the item quoted shall remain valid irrespective of variation in the Tax Structure) for a period of one year from the date of finalization of the rate by the Purchase Committee.
- 5. It shall not be necessary to bid for all the items above.
- 6. The bidder shall submit along with this tender document a list of names, complete address, Telephone/FAX number of the customers to whom, the item, for which the bid has been submitted, have been supplied and installed in last three year, if any. A clear, unambiguous statement shall be made if an item has not been sold anywhere in India so far.

- 7. The supplies shall be delivered at Cuttack.
- 8. Working of the equipment shall also be demonstrated and the expenditure incurred thereof shall be borne by the supplier.
- 9. The supplier shall train at their cost our employees.
- 10. Performance Security: The successful bidder shall have to enter into an agreement with the Tender Calling Authority for successful completion of supply/ installation of the tendered items after proper inspection within the stipulated period and also for performance warrantee of the items from the date of supply/ installation up to a period of one year. In this regard the selected firm shall have to deposit 5% of the cost of stores excluding taxes as security deposit called as Performance Security in shape of FDR/ irrevocable Bank Guarantee duly pledged to the Tender Calling Authority which will be returned back after performance warrantee period is over. The Performance Security should remain valid for a period of 60 days beyond the date of completion of the obligation of the supplier including warranty obligations.
- 11. All the supplies made shall be subject to a minimum period of one year warrantee for all items.
- 12. OEMs/ Authorized venders should mention the price of the quoted tender items including respective period of AMC cost as mentioned in the specification. The basic price of quoted items mentioned in the Financial Bids of OEM/ Authorized Vender should be treated along with the AMC Cost.
- 13. Other things being equal, preference shall be given to a bidder, who has opened his sale and service center in Odisha.
- 14. If an equipment or supply goes out of order within the warranty period and the supplier is informed above it, It must be attended to within 48 hours counted from the time the service call is placed.
- 15. Payment: No advance shall be paid. 100% of the payment will be made on delivery of supplies after successful installation and demonstration.
- 16. The firms located outside the State of Odisha should include their transportation charges with the basic price.
- 17. Entry Taxes, if any should be clearly indicated in the tender. The amount if paid by the party should be supported with documentary evidence, failing which the said amount shall be deposited by way of Treasury challan.
- 18. The bidder must attend the Technical Committee with samples for evaluation/ demonstration purpose. Without sample the offer will be not taken into consideration.

- 19. Before under taking the final contract the successful tenders will have to enter into an agreement with the department at their own cost in Govt. stamp paper.
- 20. Sample: The tender shall accompany samples of the items quoted. No rate shall be quoted without furnishing the sample. In case the rates are quoted without samples, the tender is liable for rejection. The parcel containing samples should be freight paid. A label with seal and the details of manufacturing unit/company with trademark of the articles so tendered, if any should be affixed to the sample. The label should contain a reference to the serial number of the articles quoted/indicated in the tender. In respect of all ISI products mentioned in the tender the relevant ISI mark shall be printed on the sample. For each item not more than 2 (two) variety of samples shall be submitted by a vender.
- 21. As regards ISI marked, the attested copies relating to valid Registration of IS number of the item, if obtained from Indian Standard Bureau, New Delhi are to be enclosed.

Seal & Signature of the Bidder

I.G of Police, Fire Service, Home Guards & Civil Defence, Odisha, Cuttack.

TECHNICAL SPECIFICATION OF EQUIPMENT FOR ODISHA FIRE SERVICE ORGANIZATION VIDE SHORT RE-TENDER CALL NOTICE NO.-9/2020-21.

**<<<>>>>** 

#### 1. QUICK DEPLOYMENT ANTENNA.

	Quick deploy antenna system:-	
	Each portable Quick Deploying Manpack Flyaway system consisting of	
	various components, like Antenna, Antenna Control Unit, Complete RF	
	·	
	electronics (Power Amplifier with built in Block up converter and LNB),	
	Power supply, Satellite Modem, SIP Phone, Wireless Hot Spot, Router, IF	
	Cables (Min3 Mtr.) and Ethernet cables (min 3 Mtr).	
1	1.2 m (Maximum) Quick Deployable Antenna	
1.1	Carbon Fiber reflector with maximum size 1.2 meter with easy manual	
	pointing and peaking on a satellite.	
1.2	Frequency Range : Transmit output Range 13.75 - 14.5 GHz	
	Receive Input Frequency 10.70- 12.75 GHz	
1.3	The material used for the reflector holding assembly, Tripod assembly	
	including captive hardware and feed with assembly must be rust proof and	
	weatherproof.	
1.4	The Quick Deployable Antenna should be capable of operating with Ku Band	
	and other available HTS Hub Networks and capability per VSAT to	
	transmit (2Mbps or Higher) and Receive (2 Mbps or Higher) and should	
	be upgradable to higher bandwidth.	
1.5	The QDMFS shall be able to work with any of the identified geostationary	
	satellites visible from India.	
1.6	The antenna system should be highly portable and designed to meet IATA	
	weight and dimension requirements for checked baggage. The setup time	
	should be within 20 minutes.	
1.7	Pedestal should be elevation-over-azimuth pedestal.	
1.8	The antenna is to meet international performance specifications for	
1.0	multiple applications.	
2		
	Tripod and its assembly	
2.1	Built-in leveling bubble or equivalent should be provided on the tripod	
	assembly. Antenna Travel:	

2.2	Azimuth: +- 360 degree continuous or better (without the help of crank
	for coarse movement).
2.3	Elevation: 10 to 90 degree continuous (without the help of crank for coarse
	movement).
2.4	Polarisation: +- 90 degree
2.5	Built-in scale should be there on the tripod assembly to read Azimuth angle
	to the accuracy of 5 degree or better.
2.6	Built-in scale should be there on the tripod assembly to read Elevation
	angle to the accuracy of 1 degree or better.
2.7	Built-in scale should be there on the feed assembly to read polarization
	angle to the accuracy of 5 degrees or better.
2.8	Wind speed: Should be capable of operating up to 70 km/hr or higher with
	proper ballast. There should be provision of putting weights on the legs of
	the tripod.
3	2 PORT-Ku Band Cross polarisation feed and its assembly
3.1	Frequency : Receive 10.70 to 12.75 GHz, Transmit 13.75 to 14.5 GHz
3.2	Gain Midband : Receive > 39 dBi and Transmit > 40dBi
3.3	Cross Pole Isolation (Tx):
3.4	On Axis: 35 30dB
3.5	Within 1 dB contour: 30dB
3.6	Side lobe compliance: Should be Intelsat/FCC/ITU compliant.
3.7	The weight of the antenna along with Feed and OMT (without the case)
	should be. such that single person should be able to carry the same as
	backpack. Lower weight systems will be given preference.
3.8	VSWR: 1.30:1 for both Tx and Rx or better.
3.9	Isolation Tx/Rx : 70 dB or better
3.10	Feed Interface : WR75 for Tx and Rx or equivalent.
3.11	Side lobe compliance should comply with ITU regulations for Antenna
	radiation diagrams/patterns for small (D/ $\lambda$ ) earth station antennas used in
	fixed-satellite and broadcasting-satellite systems.
4	SSPA with BUC and LNB System or equivalent:
4.1	BUC/LNB should be covering full Ku-Band 10.7-12.75 GHz
4.2	Maximum 25 W BUC for the Quick Deployable Antenna
4.3	BUC Max: 25W @ P1 dB
4.4	PLL LNB
4.5	The BUC O/p Psat (Saturated Power) should be min 44 dBm / 25 W.

4.6	O/p Frequency: 13.75 - 14.5 GHz.	
4.7	L Band I/p Frequency: 950-1700 MHz.	
4.8	Conversion Gain: Min 55dB or equivalent.	
4.9	Gain/Attenuation Control: 30 dB 0.25 dB step.	
4.10	Noise Power Density on Rx Band : - 145dBm/Hz.	
4.11	Spurious Output (In-band) - 55dBc.	
4.12	Power DC: +22 to +54 VDC.	
4.12		
4.13	Power Consumption of BUC is Max 110W at Psat power.	
	BUC: 100% condensing, IP67.	
4.15	10MHz external from Modem to be provided for BUC.	
4.16	BUC should have M&C using Ethernet SNMPv3.	
4.17	BUC should be compliance to MIL-810F for vibration	
4.18	The weight of the BUC should not be more than 1.2 Kgs.	
4.19	Min Conversion Gain across Full Ku Band 48dB (min) and 60 dB (max) or	
	equivalent	
4.20	10MHz external from Modem to be provided for LNB.	
4.21	LNB O/p Port to be N Type.	
4.22	The terminal should have a manual assisted handheld controller in order to	
	assist the user for pointing to the satellite. The key feature of the	
	handheld terminal should be :-	
4.23	It should calculate and display the satellite	
4.24	It should power both the GPS and the compass	
4.25	The GP and Compass should be connected to assisted device.	
4.26	Provide Real-time Antenna Heading and Elevation Angles with active	
	indicators to target	
4.27	Intuitive Graphical User Interface	
4.28	Updatable Satellite database with storage for upto 30 satellites or higher	
4.29	It should pick GPS and Compass signals for the GPS and Compass and also	
	have facility to manual enter these values.	
4.30	Includes GPS and Compass	
4.31	Built In DVBS2 Receiver for Positive Satellite ID	
4.32	Provides Accurate Target Look Angles	
4.33	DC Power Supply with Cable Included	
4.34	Web Based GUI, Ethernet	
4.35	Should have option Open AMIP compatibility	
4.36	Instant on operation - Zero boot time	
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4.37	Provide power for LNB during pointing and peaking
4.38	Compatible with all web browser enabled devices. No additional PC/laptop
	and/or software is required
4.39	Most important is that it should have minimum 7 inch full color touch
	screen or equivalent arrangement
4.40	Inclinometer - Good quality Inclinometer with non-magnetic base and
	accuracy of 1 degree for measuring elevation angle during antenna
	installation.
4.41	Compass - Good quality aluminum housing liquid filled pocket survey
	compass with accuracy of 1 degree for measuring azimuth angle during
	antenna installation.
4.42	Handheld GPS - Good quality handheld, waterproof GPS with rechargeable
	battery (with 230 V AC charger), for showing longitude and latitude of any
	place in India region along with appropriate port and 30 feet cable to
	connect the GPS with serial port of the modem (IDU) to configure the
	modem with its current location.
4.43	Satellite Signal Level meter -
	Satellite signal level meter with rechargeable battery which can power the
	LNB for at least 3 Hours along with following features:
	Frequency range L-band 950 to 2150 MHz
	Satellite database to store satellites and transponders over India region.
	Capability to enter new satellite parameters manually using keypad on the
	meter. Signal lock formats DVB-S2x- QPSK/8PSK/16APSK/64APSK ACM /
	CCM
	The meter should be able to lock to DVB-S2x Hub outbound on which the
	QD's will operate.
	To measure both signal levels in dBm and signal quality levels (i.e. Eb/No)
	Audible tone for signal lock and peaking.
	Should be able to calculate azimuth, magnetic heading, elevation and
	polarization offset if satellite's Longitude and site's Latitude and Longitude
	are manually entered.
	Backlit LCD screen for operation under low light conditions. 230 Volt AC
	Charger
	USB based computer interface to download future software upgrades and
	satellite parameters.
	Rugged durable carrying case

	Good quality IFL cable of 5 meter with F type connectors at both ends to
	connect meter with LNB.
5	CARRYING CASE FOR THE QUICK DEPLOYABLE ANTENNA -
	All items of quick deployable antenna, mounting accessories along with
	LNB, BUC, GPS Receiver, Satellite meter and IDU should be packed in
	OEM supplied two or more hard, crushproof, compact, rugged, latch-able,
	comfort grip fold-down handle, watertight, wheeled carrying cases.
	Bidders should ensure that user supplied LNB and BUC should remain in
	assembled condition with OMT while packing.
6	SATELLITE MODEM
6.1	Modem should be form reputed OEM with presence in India for at least
	last 10 years and having service support across the country. The modem
	OEM should have full-fledged repair facility within India. Documentary
	evidence should be submitted.
6.2	VSAT Modem should be capable of connecting to available HTS Hub in
	India and should be able to provide minimum 2Mbps Bandwidth (full duplex,
	2Mbps Up & 2Mbps down) upgradable to 4 Mbps or higher bandwidth (full
	duplex, 4Mbps up and 4Mbps down) on request at each remote site. Modem
	should have following features for ease of operation and connectivity at
	the time of crisis:
6.3	Frequency: L-band : 950-2150 MHz
6.4	Access Scheme : Outbound: DVB-S2x with ACM
6.5	Inbound: MF-TDMA with AIS
6.6	Modulation: Outbound QPSK, 8PSK, 16-APSK, 32-APSK, 64- APSK
6.7	Inboundl: QPSK, 8PSK , 16APSK or better
6.8	Symbol rates: 256ksps to 12Msps - MF-TDMA Return
6.9	LAN Ports: 4 GigE inbuilt LAN ports
6.10	VSAT Modem with minimum 1GB RAM
6.11	The VSAT Modem should be able to access BW in CIR, BOD mode.
6.12	IP Support: RIP, BGP,NAT/PAT,VLAN tagging, Access Control List (ACL),
6.13	VRRP, DNS Caching, IPv4/IPv6 support, Static and Dynamic Addressing
6.14	Operating temperature: 0° C to +50° C
6.15	Relative humidity: 0 to 90% (non condensing)
6.16	Modem should be having service support across the country. The modem
	OEM should have full-fledged repair facility within India. Documentary
	evidence should be submitted.

6.17	The Antenna System including its parts like Reflector, OMT, Feed should	
	not be made in China.	
7	WIFI ACCESS POINT	
7.1	The WiFi Access Points should have the following features:	
7.2	It shall have dual radios for concurrent dual band (5Ghz/ 2.4 Ghz)	
	operation.	
7.3	Minimum one number of 1 Gbps Ethernet port RJ-45.	
7.4	AP along with antennas shall be IP67 certified for outdoor deployment.	
	Indoor AP inside third party enclosure/boxes shall NOT be acceptable.	
7.5	The AP shall comply with IEEE 802.11ac at a minimum and be backwards	
	compatible to IEEE 802.11a/b/g/n standards.	
7.6	AP shall operate at least in full 2x2:2 MIMO or more mode without any	
	loss of features or capabilities.	
7.8	AP shall have aggregate data rate up to 1.1Gbps.	
7.9	AP must support 20Mhz, 40Mhz and 80Mhz channels.	
7.10	Each AP must support minimum 50 (fifty) concurrent clients in total	
	(including both 2.4Ghz and 5Ghz radios).	
7.11	The AP shall provide a minimum of 32dBm EIRP for both 2.4 Ghz and 5Ghz	
	frequencies. Field deployment shall be with EIRP as per regulatory	
	guidelines (ETA from WPC to be enclosed at the time of bid submission).	
7.12	AP shall support WDS or MESH networking.	
7.13	AP shall support QoS or WMM for voice over Wi-Fi.	
7.14	AP shall support all security guidelines prescribed by government of India	
	(and updated from time to time) for APs	
7.15	AP shall support Wi-Fi Protected Access.	
7.16	AP shall have dual band Omni directional Antenna, either internal or	
	external. Field deployment shall be with EIRP as per the WPC guideline.	
7.17	AP should be compatible with 802.3 AF/AT Power over ethernet (POE)/ AC	
	adaptor.	
7.18	AP should have operating temperature in the range of -20°c to 55°c.	
7.19	Intelligent RF control plane for self-healing and self-optimization	
7.20	Overvoltage protection category I as per EN60950	
7.21	ETA and WPC Certificate for the Access Point	
7.22	AP shall support all security guidelines prescribed by government of India	
	(and updated from time to time) for APs	
7.23	AP shall support operating humidity of 10%-95% or better.	

8	IP phone
8.1	Display: 128 x 32 -pixel Graphical LCD (2.3/3.1 Inch) or better, LED for
	Call and message wait Indication and Intuitive user interface with icons
	Feature keys
8.2	Features Key: 3 Feature Keys: Headset, Mute, Hands-free speaker phone
8.3	Context Sensitive Keys : 2 Line keys
8.4	Function such as navigation, Call Appearance ,Volume Control Keys
	Interface 2 X RJ45 10/100Mbps Ethernet Ports
8.5	Power Over Ethernet (IEEE 802.3af)
8.6	1 x RJ9 Handset port
8.7	1 xRJ9 Headset port
8.8	DC Power Jack
8.9	Network & Security
8.10	Proprietary SIP Protocol
8.11	IP assignment: Static, DHCP
8.12	Transport Layer Security (TLS)
8.13	All connectors and the cables used shall be of low-loss type and suitably
	shielded.
8.14	The IP addressing scheme of VSAT shall be as decided by the purchaser.
8.15	Important Do's and Don'ts about the operation of the equipment shall be
	clearly indicated at a convenient place on the equipment.
8.16	The equipment shall be protected in case of voltage variation beyond the
	specified ranges.
9	Power supply
9.1	LNB DC from Modem
9.2	Modem AC
9.3	Wifi Hot Spot AC
9.4	IP Phone AC
9.5	Extension Board AC
9.6	Manual Assisted ACU AC
9.7	The AC operating voltage range shall be from 100 to 230VAC, 50 Hz.
9.8	UPS of suitable capacity (min 800VA) providing a backup of 30 minutes
	shall be provided by the supplier. The UPS shall have overload, over/under
	voltage and short circuit protection. The weight of UPS shall not be
	included for the purpose of deciding the weight of VSAT system.

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9.9	DG Set suitable capacity (min 800VA) running on Petrol/Gasoline shall be
	provided by the supplier.
9.10	An outdoor extension board of 3 mtr to be provided for connecting the
	power supply of the devices to the UPS.
9.11	Firm shall submit power consumption of each sub-system and the total
	power consumption of VSAT system to the purchaser.
9.12	Manuals to be provided with the system: Installation, operation and
	maintenance manual - 2 Set in Hard and Soft format, shall be provided any
	accessories required to provide the desirable power to be provided by the
	bidder to run the whole system.
9.13	The QDMFS shall be able to work with any of the identified geostationary
	satellites visible from India.
9.14	The Antenna System including its parts like Reflector, OMT, Feed should
	not be made in China.
9.15	The Antenna OEM needs to give documentary undertaking of supplying a
	minimum Qty 30 units of similar kind in the last two years. Important
	Feature Required:- Operating Temperature of Antenna, BUC and LNB
	should be $-30^{\circ}C$ to $+60^{\circ}C$ Total Weight of the system cannot be more than
	40 kgs.
9.16	The Quick Deployable Antenna should be capable of operating with Ku Band
	HTS Hub Networks and capability per VSAT to transmit 10 Mbps and
	Receive 100 Mbps.

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