

बिड दस्तावेज़ / Bid Document

बिड विवरण / Bid Details	
बिड बंद होने की तारीख/समय / Bid End Date/Time	14-01-2026 15:00:00
बिड खुलने की तारीख/समय / Bid Opening Date/Time	14-01-2026 15:30:00
बिड पेशकश वैधता (बंद होने की तारीख से) / Bid Offer Validity (From End Date)	180 (Days)
मंत्रालय/राज्य का नाम / Ministry/State Name	Ministry Of Defence
विभाग का नाम / Department Name	Department Of Military Affairs
संगठन का नाम / Organisation Name	Indian Air Force
कार्यालय का नाम / Office Name	*****
कुल मात्रा / Total Quantity	4
वस्तु श्रेणी / Item Category	UNMANNED RADIO COMMUNICATION SYSTEMS
GeMARPTS में खोजी गई स्ट्रिंग्स / Searched Strings used in GeMARPTS	UNMANNED RADIO COMMUNICATION SYSTEMS
GeMARPTS में खोजा गया परिणाम / Searched Result generated in GeMARPTS	RADIO COMMUNICATION TEST SET (ANALOG / DIGITAL), Radio Communication Test Set as per MHA QR (V2), VCCS: Voice communication and control systems (AAI), Counter Communication System, HF Manpack Transceiver as per MHA QR (V2), TETRA Radio Trunking as per MHA QR, Digital Hand-held VHF Transceiver as per MHA QR, Digital UHF Hand-Held Radio Sets as per MHA QR (V2), APCO 25 Phase-II Radio Trunking as per MHA QR, DMR Tier-III Radio Trunking as per MHA QR
अधिसूचना के लिए चयनित प्रासंगिक श्रेणियाँ / Relevant Categories selected for notification	<ul style="list-style-type: none"> RADIO COMMUNICATION TEST SET (ANALOG / DIGITAL) Complete VHF communication system for airports (AAI) Counter Communication System
बिडर का न्यूनतम औसत वार्षिक टर्नओवर (3 वर्षों का) / Minimum Average Annual Turnover of the bidder (For 3 Years)	90 Lakh (s)
मूल उपकरण निर्माता का औसत टर्नओवर (गत 3 वर्षों का) / OEM Average Turnover (Last 3 Years)	700 Lakh (s)
उन्हीं/समान सेवा के लिए अपेक्षित विगत अनुभव के वर्ष / Years of Past Experience Required for same/similar service	3 Year (s)

बिड विवरण/Bid Details	
वर्षों के अनुभव एवं टर्नओवर से एमएसई को छूट प्राप्त है / MSE Relaxation for Years Of Experience and Turnover	Yes Complete
स्टार्टअप के लिए अनुभव के वर्षों और टर्नओवर से छूट प्रदान की गई है / Startup Relaxation for Years of Experience and Turnover	No
विक्रेता से मांगे गए दस्तावेज़/ Document required from seller	Experience Criteria,Past Performance,Bidder Turnover,Certificate (Requested in ATC),OEM Authorization Certificate,OEM Annual Turnover,Additional Doc 1 (Requested in ATC),Additional Doc 2 (Requested in ATC),Additional Doc 3 (Requested in ATC) *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
क्या आप निविदाकारों द्वारा अपलोड किए गए दस्तावेज़ों को निविदा में भाग लेने वाले सभी निविदाकारों को दिखाना चाहते हैं? संदर्भ में है/ Do you want to show documents uploaded by bidders to all bidders participated in bid?	Yes (Documents submitted as part of a clarification or representation during the tender/bid process will also be displayed to other participated bidders after log in)
बिड लगाने की समय सीमा स्वतः नहीं बढ़ाने के लिए आवश्यक बिड की संख्या। / Minimum number of bids required to disable automatic bid extension	2
दिनों की संख्या, जिनके लिए बिड लगाने की समय-सीमा बढ़ाई जाएगी। / Number of days for which Bid would be auto-extended	10
ऑटो एक्सटेंशन अधिकतम कितनी बार किया जाना है। / Number of Auto Extension count	1
विगत प्रदर्शन / Past Performance	10 %
बिड से रिवर्स नीलामी सक्रिय किया/ Bid to RA enabled	Yes
रिवर्स नीलामी योग्यता नियम/ RA Qualification Rule	50% Lowest Priced Technically Qualified Bidders
बिड का प्रकार/ Type of Bid	Two Packet Bid
तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय / Time allowed for Technical Clarifications during technical evaluation	3 Days
निरीक्षण आवश्यक (सूचीबद्ध निरीक्षण प्राधिकरण /जेम के साथ पूर्व पंजीकृत एजेंसियों द्वारा)/ Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
मूल्यांकन पद्धति/ Evaluation Method	Total value wise evaluation
मध्यस्थता खंड/ Arbitration Clause	No
सुलह खंड/ Mediation Clause	No

ईएमडी विवरण/EMD Detail

एडवाइजरी बैंक/Advisory Bank	State Bank of India
ईएमडी राशि/EMD Amount	897000

ईपीबीजी विवरण /ePBG Detail

एडवाइजरी बैंक/Advisory Bank	State Bank of India
ईपीबीजी प्रतिशत (%) /ePBG Percentage(%)	3.00
ईपीबीजी की आवश्यक अवधि (माह) /Duration of ePBG required (Months).	26

(a). जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित कटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज प्रस्तुत करने है। एमएसई कटेगरी के अंतर्गत केवल वस्तुओं के लिए विनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के दायरे से बाहर रखा गया है।/EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy.

(b). ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए। / EMD & Performance security should be in favour of Beneficiary, wherever it is applicable.

लाभार्थी /Beneficiary :

SENIOR LOGISTICS OFFICER, 44WING
AIR FORCE STATION SONEGAON NAGPUR, Department of Military Affairs, Indian Air Force, Ministry of Defence
(Ujjawal Kumar)

बोली विभाजन लागू नहीं किया गया/ Bid splitting not applied.

एमआईआई खरीद वरीयता / MII Purchase Preference

एमआईआई खरीद वरीयता / MII Purchase Preference	Yes
मेक इन इंडिया विक्रेताओं को खरीद में प्राथमिकता, यदि उनका मूल्य L1+X% तक की सीमा में है / Purchase Preference to MII sellers available upto price within L1+X%	20
मेक इन इंडिया खरीद में प्राथमिकता के लिए बिड की मात्रा का अधिकतम प्रतिशत / Maximum Percentage of Bid quantity for MII purchase preference	50

सार्वजनिक खरीद (मेक-इन-इंडिया को प्राथमिकता) आदेश 2017 के अनुसार केवल क्लास 1/क्लास 2 के स्थानीय आपूर्तिकर्ताओं को ही भागीदारी की अनुमति है दिनांक 16.09.2020 (समय-समय पर संशोधित एवं लागू) / Allow participation only from Class 1/Class 2 local suppliers as per the Public procurement(Preference to Make-in-india) order 2017 date 16.09.2020(as amended and applicable time to time)	Yes, in compliance with the MII ORDER : DPIIT Order(as amended and applicable time to time)
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एमएसई खरीद वरीयता/MSE Purchase Preference

एमएसई खरीद वरीयता/MSE Purchase Preference	Yes
सूक्ष्म और लघु उद्यम मूल उपकरण निर्माताओं को खरीद में प्राथमिकता, यदि उनका मूल्य L1+X% तक की सीमा में हो / Purchase Preference to MSE OEMs available upto price within L1+X%	15
सूक्ष्म और लघु उद्यम को खरीद में प्राथमिकता के लिए बिड की मात्रा का अधिकतम प्रतिशत / Maximum Percentage of Bid quantity for MSE purchase preference	25

1. If the bidder is a Micro or Small Enterprise as per latest orders issued by Ministry of MSME, the bidder shall be relaxed from the eligibility criteria of "Experience Criteria" as defined above subject to meeting of quality and technical specifications. The bidder seeking Relaxation from Experience Criteria, shall upload the supporting documents to prove his eligibility for Relaxation.
2. If the bidder is a Micro or Small Enterprise (MSE) as per latest orders issued by Ministry of MSME, the bidder shall be relaxed from the eligibility criteria of "Bidder Turnover" as defined above subject to meeting of quality and technical specifications. If the bidder itself is MSE OEM of the offered products, it would be relaxed from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. The bidder seeking Relaxation from Turnover, shall upload the supporting documents to prove his eligibility for Relaxation.
3. The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated above in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3-year-old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.
4. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM of the product offered in the bid {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU for number of Financial years as indicated above in the bid document before the bid opening date. Copies of relevant contracts and delivery acceptance certificates like CRAC to be submitted along with bid in support of having supplied some quantity during each of the Financial year. In case of bunch bids, the category of primary product having highest value should meet this criterion.
5. OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.
6. Preference to Make In India products (For bids < 200 Crore):Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document. If the bidder wants to avail the

Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate. However, eligible micro and small enterprises will be allowed to participate .The buyers are advised to refer the OM No.F.1/4/2021-PPD dated 18.05.2023.

[OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017.

7. Purchase preference will be given to MSEs having valid Udyam Registration and whose credentials are validated online through Udyam Registration portal as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail themselves of the Purchase preference, the bidder must be the manufacturer / OEM of the offered product on GeM. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises and hence resellers offering products manufactured by some other OEM are not eligible for any purchase preference. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service and Buyer will decide eligibility for purchase preference based on documentary evidence submitted, while evaluating the bid. If L-1 is not an MSE and MSE Seller (s) has / have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such MSE Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total quantity. The buyers are advised to refer the OM No. F.1/4/2021-PPD dated 18.05.2023 [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017. Benefits of MSE will be allowed only if seller is validated on-line in GeM profile as well as validated and approved by Buyer after evaluation of documents submitted.

8. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.

9. Past Performance: The Bidder or its OEM {themselves or through re-seller(s)} should have supplied same or similar Category Products for 10% of bid quantity, in at least one of the last three Financial years before the bid opening date to any Central / State Govt Organization / PSU. Copies of relevant contracts (proving supply of cumulative order quantity in any one financial year) to be submitted along with bid in support of quantity supplied in the relevant Financial year. In case of bunch bids, the category related to primary product having highest bid value should meet this criterion.

10. Reverse Auction would be conducted amongst first 50% of the technically qualified bidders arranged in the order of prices from lowest to highest. Number of sellers eligible for participating in RA would be rounded off to next higher integer value if number of technically qualified bidders is odd (e.g. if 7 bids are technically qualified, then RA will be conducted amongst L-1 to L-4). In case number of technically qualified bidders are 2 or 3, RA will be between all without any elimination. If Buyer has chosen to split the bid amongst N sellers, then minimum N sellers would be taken to RA round. In case Primary products of only one OEM are left in contention for participation in RA based on lowest 50% bidders qualifying for RA, the number of sellers qualifying for RA would be increased to get at least products of one more OEM (directly participated or through its reseller) if available. Further, if bid(s) of any seller(s) eligible for MSE preference is / are coming within price band of 15% of Non MSE L-1 or if bid of any seller(s) eligible for Make in India preference is / are coming within price band of 20% of non MII L-1, then such MSE / Make in India seller shall also be allowed to participate in the RA process.

UNMANNED RADIO COMMUNICATION SYSTEMS (4 set)

(क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक/Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively)

तकनीकी विशिष्टियाँ /Technical Specifications

क्रेता विशिष्टि दस्तावेज़ /Buyer
Specification Document

[Download](#)

परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.N o.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	*****	*****Nagpur	4	120

क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें/Buyer Added Bid Specific Terms and Conditions

1. Generic

OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates. The delivery period of quantity shall commence from the last date of original delivery order and in cases where option clause is exercised during the extended delivery period the additional time shall commence from the last date of extended delivery period. The additional delivery time shall be $(\text{Increased quantity} \div \text{Original quantity}) \times \text{Original delivery period (in days)}$, subject to minimum of 30 days. If the original delivery period is less than 30 days, the additional time equals the original delivery period. The Purchaser may extend this calculated delivery duration up to the original delivery period while exercising the option clause. Bidders must comply with these terms.

2. Forms of EMD and PBG

Bidders can also submit the EMD with Account Payee Demand Draft in favour of

AIRFORCE PUBLIC FUND ACCOUNT AIR FORCE STN SONEGAON
payable at
NAGpur

Bidder has to upload scanned copy / proof of the DD along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date / Bid Opening date.

3. Generic

Bidder financial standing: The bidder should not be under liquidation, court receivership or similar proceedings, should not be bankrupt. Bidder to upload undertaking to this effect with bid.

4. Generic

Bidders shall quote only those products (Part of Service delivery) in the bid which are not obsolete in the market and has at least 1 years residual market life i.e. the offered product shall not be declared end-of-life by the OEM before this period.

5. Buyer Added Bid Specific ATC

Buyer Added text based ATC clauses

1. Please authenticate as accepted and submit the RFP & Buyer added

Bid specific ATC as attached.

2. Supplier is to ensure compliance of Technical Specification & RFP prior to Bidding.

TECHNICAL SPECIFICATION

UNMANNED RADIO COMMUNICATION SYSTEM

Physical and Technical Characteristics	Physical and Technical Characteristics	Method of Evaluation	Method of Evaluation
Communication mode	Should work on both mobile network and SATCOM	OEM Cert	Physical
Radio Transmission Range	Should cover min 200 nm in plains LOS	OEM Cert	
Frequency	Air band	OEM Cert	Physical
Connectivity	Radio Frequency should be aircraft cleared and approved	OEM Cert	
Modification	No Modification on Aircraft	OEM Cert	
Radio Module	Should be MIL-810 compliant	OEM Cert	Physical
Number of memory channels	Min 100 channels	OEM Cert	Physical
Antennae Connector	SO-239 (50Q)	OEM Cert	Physical
Power supply requirement	Integrated Solar / Wind / Hybrid supply +220 VAC	OEM Cert	Physical
Current drain (at 13.25 VDC) Transmitting Receiving	5.0 A 4.0 A (at AF max), 0.5 A (at standby) or better	OEM Cert	

Operating Temperature Range	0 ⁰ C to +40 ⁰ C	OEM Cert	Physical
Frequency Stability	± 5ppm (0 ⁰ C to +40 ⁰ C) or better	OEM Cert	
Weight(Approx.)	Not more than 50 kg	OEM Cert	Physical
Modulation	70% to 100%	OEM Cert	
Mil Std	MIL STD 810G or better	OEM Cert	
Accessories	Mounting Antenna, all power and installation cables to be provided		Physical
Repair pt	Jagdapur	OEM Cert	
Power Backup	Minimum 24 Hrs backup at 0 ⁰ C	OEM Cert	Physical
Power Replacement	User replaceable battery pack to be provided	OEM Cert	Physical
Battery pack	As per the design. No freeze in temperature up to -5 ⁰ C	OEM Cert	Physical
Battery charging	Option of direct power supply changing after removal from the main system	OEM Cert	
Operations	Should be day and night capable	OEM Cert	Physical
Sensitivity	Should be 20 mV min	OEM Cert	
Emergency ground activation	Enabled with manual override		Physical

Ground indications	Should be available.		Physical
Hard Power off	Physical button to be provided		Physical
Display	On board battery capacity display		Physical
Portability	Air/ground portable for rapid deployment		Physical
Software upgraded	Software upgrades capable for future to be provided.	OEM Cert	Physical
Server	On premise data display and storage or better	OEM Cert	Physical
Nodes	Up to 400 nodes on single channel. or better	OEM Cert	
Calling function	Air Traffic Controller calling directly to aircraft over radio system irrespective of location.	OEM Cert	Physical
Remote relay	Individual location data transmission capability for specific area relay		Physical
Group	Should be feasible of group calling for broadcasting message	OEM Cert	Physical
Recording	Should be on premise 30 days data storage in server or better	OEM Cert	Physical
Server	Min one server for data access in each corps zone at selected loc.		Physical
Payload	1 kbps idle, 32 kbps(ADCM)/ 64 kbps (ALW) active per user or better	OEM Cert	
Latency	300 milli second or better	OEM Cert	
Network	Full duplex	OEM Cert	

Link	Auto link establishment	OEM Cert	
Images	Images over GIS	OEM Cert	
GIS	Any type of maps		Physical
Display	ATC and pilot display accessory (Min one display for ATC & Min one display for crew)	OEM Cert	Physical
Command centre	Should be available		Physical
Image direction	Hardcoded image direction over on GIS.	OEM Cert	
User creation	Direct user creation by administrator.	OEM Cert	
Data migration	Capability to migrate data points.	OEM Cert	Physical
Photo Quality	Should be High Definition	OEM Cert	Physical
Waterproof and dust proof	Should be waterproof and dust proof (IP -65)	OEM Cert	Physical
Fd of view	Minimum 240 degree (120° either side of helipad)	OEM Cert	Physical
Service/Shelf Life	60 months. or better	OEM Cert	
Warranty	Vendor to provide complete equipment warranty for minimum 24 months.	OEM Cert	

TECHNICAL SPECIFICATION FOR ALL SUB COMPONENT OF UNMANNED RADIO COMMUNICATION SYSTEM

Radio Communication Module — 01

Frequency— 118 — 136.992 Mhz,
Channel Spacing - 8.33/25kHz or better
Frequency Stability - ± 5 ppm (-30°C to $+60^{\circ}\text{C}$)
or better
Power Supply - 13.75 v/27.5 V DC
Power output - 9.0 W typical or better
Hand microphone, HM-216 or better
DC power cable
Mounting bracket kit
Microphone hanger kit
Fuses
Remote frequency control module
Remote frequency changeover software
Frequency storage module inbuilt
RF Cable — low loss airband cable, 10 meters or
more as per the installation area
Antenna — Pole mounted omnidirectional antenna

Display System - 01

Display screen- 32 inch or more
Power supply - 200 - 240 volts
Resolution - 3840 x 2160 Pixels or better
1 Unit Monitor
1 Unit Remote Controller
1 Unit Power Cable
1 Unit I-IDMI Cable
HDMI - USB interface
4K UHD Crystal clear video or better
60 Hz or better Refresh Rate
300 cd/m² or better Brightness
Contrast Ratio IHDRIO or better
4ms(GTG) or better Response Time
178⁰ or better Horizontal and Vertical Viewing Angle
72% or better Colour Gamut (NTSC)
Network connectivity port for data access
Wired keyboard & mouse attachments
Power backup 1 hour or more

<p><u>Communication Webserver - 01</u></p>	<p>Integrated webserver for radio communication routing</p> <p>Live Audio Monitoring and Recording</p> <p>Bridge between multiple Radio Channels</p> <p>Individual/ Multi-cast/ Broadcast PTT</p> <p>View/ Play Recorded Voice History</p> <p>Automatic link establishment</p> <p>IP connectivity over Internet Connectivity, LAN Connectivity, WIFI Connectivity</p> <p>VSAT Connectivity, IP Radio Connectivity, OFC Connectivity, IPV6 compliant</p> <p>Payload - 1 kbps idle, 32Kbps(ADPCM)/ 64kbps(ALAW) active per user or better</p> <p>Minimum 128kbps Network Bandwidth</p> <p>Digital modes — PTT and Carrier</p>
<p>Radio interface unit - 01</p>	<p>Full duplex configuration</p> <p>Wide Area Network Connectivity</p> <p>Remote PC connectivity to a known radio channel</p> <p>User Programmable IP Configuration</p> <p>User Programmable Port Address Configurability</p> <p>Secured Communication by using Authentication Packets</p> <p>Connection between Static IP Network and a Static/Dynamic IP Network Dynamic Ip Connectivity with domain names</p> <p>Carrier/ Vox operated Mode</p> <p>Local Repeat Mode</p> <p>Selectable CSQ or PTT priority</p> <p>Adjustable PTT Delay</p> <p>Programmable PTT Time out Timer</p> <p>Remote Channel Change</p> <p>Multi-Connection Mode for Redundant Server Configuration RJ 45 Network interface card or better</p>

DVB-S2 with Adaptive Coding Modulation (ACM), capable of upto 120 Mbps

Modulation QPSK, 8PSK, 16APSK

Dual data access cards, auto-switch cases: weak signal

data limit, no network, network denied

data connection fail

idle protection Band lock

Used band status display

Direct connection (bridge) between ISP and device on LAN

WPA2-Enterprise: PEAP, WPA2-PSK, WPA-EAP, WPA-PSK, WPA3SAE, WPA3-EAP, OWE; AES-CMP, TKIP,

Auto-cipher modes, client separation, EAP-TLS with PKCS#12 certificates, disable auto-reconnect, 802.11w Protected Management Frames (PMF)

Network protocols - TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, SFTP, FTP, SMTP, SSWTLS, ARP, VRRP, PPP, PPPoE, UPNP, SSH, DHCP, Telnet, SMPP, SNMP, MQTT, Wake On Lan (WOL)

Visual display of network topology

Static and dynamic IP allocation, DHCP relay, DHCP server configuration, status, static leases: MAC with wireless cards Balance traffic over multiple WAN connections

WAN port minimum 1

LAN ports minimum 3

Authentication - Pre-shared key, digital certificates, certificates, TACACS+, Internal & External RADIUS users authentication, IP & login attempts block, time-based login blocking, built-in random

password generator DDOS prevention (SYN flood protection, SSI-I attack prevention,

HTTP/HITPS attack prevention), port scan prevention (SYN-FIN, SYN-RST, Xmas, NULL flags, FIN scan attack

	<p>s)</p> <p>Encryption support - DES-CBC 64, RC2-CBC 128, DES-EDE-CBC 128, DESED E3-CBC 192, DESX-CBC 192 BF-CBC 128, RC2-40-CBC 40, CAST 5-CBC 128, RC2-64-CBC 64, AES128CBC 128, AES-128-CFB 128, AES-128-CFB1 128, AES-128-CFB8 128, AES-128-OFB 128, AES-128-GCM 128, AES-192-CFB 192, AES-192-CFBI 192, AES-192-CFB8 192, AES-192-OFB 192, AES-192-CBC 192, AE-S-192-GCM 192, AES-256-GCM 256, AES-256-CFB 256, AES256CFBI 256, AES-256-CFB8 256, AES-256-OFB 256, AES-256-CBC 256</p> <p>RAM - 128 MB, DDR2 or more</p> <p>Flash storage - 16 MB, SPI Flash or more</p> <p>Power 9 — 30 v</p> <p>Consumption — 7 watt max</p>
<p><u>Imaging sensors - Qty 02</u></p>	<p>IP 67 rated</p> <p>NDA compliant sensors</p> <p>resolution (2592 x 1944) or better</p> <p>Active Pixel</p> <p>Progressive Scan</p> <p>Back Illuminated Image sensor</p> <p>Color - 0.01 Lux @ Fl.o (AGC ON) or better</p> <p>0 Lux with Warm Light</p> <p>HFOV- 105.2 ° (Minimum)</p> <p>Video compression 1-1.265, 1-1264, MJPEG or better</p> <p>Frame Rates —30 fps or better</p> <p>Shutter speed 1/100000s or better</p> <p>Protocol - TCP/IP, HTTP, ARP, Qos, DHCP, DNS, DNS, RTP, RTCP, RTSp, pppoe</p> <p>Encryption - AES 256 and RSA or better</p> <p>HTTPs streaming - TLS 1.2</p>
<p><u>Edge encrypted Unit- 01</u></p>	<p>Overlay creator with distance, range and secure area hiding system</p>

Power combiner bus bar - 01	Integrated power conversion and changeover bus bar 220 v, 12 v, 13.7 v, 3.3 v, 5 v DC, -48 v or better		
Weather sensor — 01	Piezoelectric rain gauge; Ultrasonic wind speed, gust speed and wind direction; Temperature; Humidity; Solar light intensity and UV index Waterproof IPX5 or better		
Indoor sensor for housing temperature			
Measurement	Range	Accuracy	Resolution
Wind speed	0m/s to 40m/s	<10m/s, ±0.5m/s; or better ≥10m/s, ±5% or better	0.1 m/s
Wind direction	0 ° to 359 °	<2m/s, ±10 ° or better ≥2m/s, or better	
Temperature	-40 ° c to 60 ° c	±0.3 better	0.1 ° c ± 0.2 ° F
Humidity	99%	±3.5% or better	1%
Light	0Klux to 200Klux	±15% or better	0.1 Klux
UVI	1 to 15	±2 or better	1
Rain	0 to 9999	±2 or better	0.1mm

<p><u>Power supply -01</u></p>	<p>Combined power supply with wind and solar power system</p> <p>200 watts or more independent power generation capability</p> <p>Display with charging information</p> <p>Configurable battery charging mode</p> <p>Day/ night/ 24 hrs setting</p> <p>100 Ah or better power supply battery with • — 10 to + 50-degree capability</p> <p>Minimum 10 years battery life</p> <p>Three bladed vertical wind turbine</p> <p>Pole mounted solar panels</p>
<p><u>Mounting pole - 01</u></p>	<p>Mounting pole with Galvanised iron</p> <p>6 mm or more structure</p> <p>Pre-installed structures for installation of components</p> <p>Base plate with ground mounting structures</p> <p>Alignment bolts</p> <p style="padding-left: 40px;">Twin pole configuration for transportation</p> <p>Mounting structure for solar power and wind power</p>
<p><u>Data access software - 01</u></p>	<p>Real time data access over webserver</p> <p>Marking of location on map</p> <p>Satellite and Vector maps , Add to favourite for imaging sensors</p> <p>24 hrs or better data graphs</p> <p>Data Storage 12 months or more</p> <p>Data to be stored on Server based in India</p> <p>Search tool for sensors, Image Comparison display for correlation</p> <p>Individual logins — 50 or more single sign on Administrator mode for managing all sensors</p>

6. **Certificates**

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

7. **Buyer Added Bid Specific ATC**

Buyer uploaded ATC document [Click here to view the file.](#)

8. **Rate Contract**

Demurrage charges In case the rejected items are not lifted by the firm within 48 hrs, the demurrage charges at the rate of 0.5% of total contract value will be charged per day. In case the items are not lifted within a month, the same will be destroyed by the station board of officers and no claim will be admitted. Demurrage charges. In case the rejected items are not lifted by the firm within 48 hrs, the demurrage charges at the rate of 0.5% of total contract value will be charged per day. In case the items are not lifted within a month, the same will be destroyed by the station board of officers and no claim will be admitted.

9. **Rate Contract**

Packing Material The items will be supplied by the successful bidder in its original packing material and the packing material will not be returned. Weight of packing material will not be included in quantity supplied and only net weight of the items will be counted. The packing should be of standardized weights of appropriate size. Item will not be accepted in non-standardized weights. Packing Material. The items will be supplied by the successful bidder in its original packing material and the packing material will not be returned. Weight of packing material will not be included in quantity supplied and only net weight of the items will be counted. The packing should be of standardized weights of appropriate size. Item will not be accepted in non-standardized weights.

10. **Rate Contract**

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

11. **Generic**

1. The Seller shall not assign the Contract in whole or part without obtaining the prior written consent of buyer.
2. The Seller shall not sub-contract the Contract in whole or part to any entity without obtaining the prior written consent of buyer.
3. The Seller shall, notwithstanding the consent and assignment/sub-contract, remain jointly and severally liable and responsible to buyer together with the assignee/ sub-contractor, for and in respect of the due performance of the Contract and the Sellers obligations there under.

12. **OEM**

IMPORTED PRODUCTS: In case of imported products, OEM or Authorized Seller of OEM should have a registered office in India to provide after sales service support in India. The certificate to this effect should be submitted.

13. **Warranty**

Warranty period of the supplied products shall be 2 years from the date of final acceptance of goods or after completion of installation, commissioning & testing of goods (if included in the scope of supply), at consignee location. OEM Warranty certificates must be submitted by Successful Bidder at the time of delivery of Goods. The seller should guarantee the rectification of goods in case of any break down during the guarantee period. Seller should have well established Installation, Commissioning, Training, Troubleshooting and Maintenance Service group in INDIA for attending the after sales service. Details of Service Centres near consignee destinations are to be uploaded along with the bid.

14. **Rate Contract**

Non return of Hard Disk: As per Buyer organization's Security Policy, Faulty Hard Disk of Servers/Desktop Computers/ Laptops etc. will not be returned back to the OEM/supplier against warranty

replacement.

15. **Generic**

Manufacturer Authorization: Wherever Authorised Distributors/service providers are submitting the bid, Authorisation Form /Certificate with OEM/Original Service Provider details such as name, designation, address, e-mail Id and Phone No. required to be furnished along with the bid

16. **Scope of Supply**

Scope of supply (Bid price to include all cost components) : Supply Installation Testing Commissioning of Goods and Training of operators and providing Statutory Clearances required (if any)

अस्वीकरण/Disclaimer

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.
15. Buyer added ATC Clauses which are in contravention of clauses defined by buyer in system generated bid template as indicated above in the Bid Details section, EMD Detail, ePBG Detail and MII and MSE Purchase Preference sections of the bid, unless otherwise allowed by GeM GTC.
16. In a category based bid, adding additional items, through buyer added additional scope of work/ additional terms and conditions/or any other document. If buyer needs more items along with the main item, the same must be added through bunching category based items or by bunching custom catalogs or bunching a BoQ with the main category based item, the same must not be done through ATC or Scope of Work.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

All GeM Sellers/Service Providers shall ensure full compliance with all applicable labour laws, including the provisions, rules, schemes and guidelines under the four Labour Codes i.e. the Code on Wages, 2019; the Industrial Relations Code, 2020; the Occupational Safety, Health and Working Conditions Code, 2020; and the Code on Social Security, 2020 as and when notified and brought into force by the Government of India.

For all provisions of the Labour Codes that are pending operationalisation through rules, schemes or notifications, the corresponding provisions of the pre-existing labour enactments (such as The Minimum Wages Act, 1948, The Payment of Wages Act, 1936, The Payment of Bonus Act, 1965, The Equal Remuneration Act, 1976, The Payment of Gratuity Act, 1972, etc. and relevant State Rules) shall continue to remain applicable.

The Seller/ Service Providers shall, therefore, be responsible for ensuring compliance under:

- **All notified and enforceable provisions of the new Labour Codes as mentioned hereinabove; and**
- **All operative provisions of the erstwhile Labour Laws until their complete substitution.**

All obligations relating to wages, social security, safety, working conditions, industrial relations etc. and any other statutory requirements shall be strictly met by the Seller/ Service Provider. Any non-compliance shall constitute a breach of the contract and shall entitle the Buyer to take appropriate action in accordance with the contract and applicable law.

[यह बिड सामान्य शर्तों के अंतर्गत भी शासित है /This Bid is also governed by the General Terms and Conditions](#)

जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।/In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws.

---धन्यवाद/Thank You---