

GOVERNMENT OF ARUNACHAL PRADESH  
OFFICE OF THE DIRECTOR GENERAL OF POLICE  
ITANAGAR

No. PHQ/WT/PP-04/2021

Dated Itanagar, the 25<sup>th</sup> Jan /2023

TENDER NOTICE

On behalf of the Governor of Arunachal Pradesh, Director General of Police, Arunachal Pradesh, Itanagar invites Sealed Tender under two Bid systems (Technical & Financial Bid) from the manufacturers, authorized agents/ dealers/suppliers of reputed firms for entering into contract for supply of various WT equipments for SP(Telecom) Office ,Chimpu , Arunachal Pradesh . For details please visit our web site - [www.arunpol.nic.in](http://www.arunpol.nic.in).

Sd/-  
Director General of Police  
Arunachal Pradesh  
Itanagar

(Not to be published)

No. PHQ/WT/PP-04/2021

Dated Itanagar, the 25<sup>th</sup> Jan/2023

Copy to :-

1. The Director of Information and Public Relations, Govt. of Arunachal Pradesh, Naharlagun for information and wide Circulation. He is also requested to pass necessary order for publication of the above Tender Notice in one leading News paper of Arunachal Pradesh and one news paper of National Daily based in New Delhi.
- ✓ 2. The In-charge Computer Cell, PHQ, Itanagar. The tender notice along-with lists of equipments with Specifications may be uploaded in the website of Arunachal Pradesh Police.
3. Office copy

  
Superintendent of Police(Telecom)  
Chimpu Itanagar

GOVERNMENT OF ARUNACHAL PRADESH  
OFFICE OF THE DIRECTOR GENERAL OF POLICE  
ITANAGAR

No. PHQ /WT/PP-04/2021

Dated Itanagar, the 25<sup>th</sup> Jan/2023

**TENDER NOTICE**

On behalf of the Governor of Arunachal Pradesh, Director General of Police, Arunachal Pradesh invites Sealed Tender under two Bid systems (Technical Bid & Financial Bid) from the manufacturers, authorized agents/dealers/suppliers of reputed firms for entering contract for supply of various WT Equipments for SP(Telecom) Office, Chimpu.

Sl	Name of Item	Approx amount earmark
1.	DMR VHF(HB) Hand held Radio (5W )	Rs 25,89,860/-
2.	Hands free wired Mic & PTT	Rs. 3,90,000/-
3.	DMR VHF(HB) Static Radio , 25Watt	Rs 2,55,360/-
4.	Whip Antenna	Rs 26,432/-
5.	RF Cable	Rs 51,920/-
6.	VHF(HB)GP Antenna	Rs 20,060/-
7.	Portable folding light weight Antenna Mast	Rs 70,000/-
8.	SMF Secondary Battery 12 V 100 AH	Rs 56,000/-
9.	Portable Solar Battery Charger	Rs 3,06,936/-
10.	SMF Secondary Battery Charger,12V 10 Amp.	Rs 60,000/-
11.	Digital VHF(HB) Repeater with Co-axial Cable & GP Antenna	Rs 3,68,000/-
12.	Digital HF Manpack Radio	Rs 22,00,000/-
13.	Global Positioning System (GPS )	Rs. 3,30,000/-

2. Critical Date sheet :-

Sl.	Particulars	Date	Time
1	Date of publication of Tender	28/01/2023(Saturday)	Upto 1100 Hrs.
2	Bid submission start date	From the date of publication onward	
3	Bid submission end date	21/02/2023(Monday)	1100 Hrs
4	<b>Physical submission of earnest Money deposit/Bid Money and cost of Tender Documents (Tender fee).</b>	With technical bids. However, the tenderer who want to obtain tender document from SP(Telecom) chimpu, tender fee Rs. 1000/- (Bank Draft in favour of SP(Telecom)Chimpu , payable at SBI, Itanagar) may be furnished at the time of obtaining the tender documents.	
5	Pre-bid conference at IGP(A) Chamber , PHQ	10/02/2023 (Friday)	1100 hrs.
6.	Date of Technical bid opening	21/02/2023(Tuesday)	1130 Hrs.

3. The Technical and Financial bids are to be sealed separately in two different envelopes clearly supercribing "Technical and Financial bids" and then both are to be kept in one envelope and sealed properly. The sealed tendered/ bids should be supercribed with "Tender for WT Equipments and Addressed to Superintendent of Police(Telecom) , Chimpu Itanagar , Arunachal Pradesh -791113".

**Envelope -1:-** It shall contain copies of eligibility information as under :-

- a) Technical bid along with its specification leaflets, brochure & catalogue
- b) Tender documents duly completed and signed but without indication of the rates "Quoted".
- c) Earnest Money @ 2 % of estimated cost of the items being quoted from the list of items must be attached in form of DD/TDR/FDR of Nationalized Bank/Post offices duly pledged in favour of SP(Telecom) , Chimpu Itanagar .
- d) Attested copy of PAN Card.
- e) Attested copy of firm GST Registration.
- f) Valid Trading license issued by competent authority for the tendered items.
- g) Letter of OEM Authorized Certificate.
- h) Bidder must be ISO 9001 certified manufacturer of DMR Radios and accessories and must enclosed ISO 9001 certificate for the same .
- i) The offered DMR Radios (Handheld and Mobile) must be MIL 810G approved and government Lab certificate must be attached alongwith the bid.
- j) Bidder must be in possession of valid DPL licence for the offered product and must enclosed a copy of the same with the bid.
- k) Vendors are required to submit undertaking that they will provide after sale service for next 5(five) years from the date of delivery of the item.
- l) Financially soundness certificate of firm from the concerned Branch Manager of Bank from where the firm operates(The bidder must have annual turnover of Minimum 5 crore in the last 3 years )
- m) Attested copy of last three years Income tax return of the firms.
- n) Experience certificate of firm which must contain name designation, address, Phone No. , Fax No., Mail ID (if any) of Issuing Officer. The certificate should be countersigned by concerned OFFICE HEAD/DEPT. HEAD
- o) Undertaking from firm that Items are not Made in China or any way related to any Chinese company/Vendor.
- p) Any other relevant documents which the firm wishes to submit.

**Envelope -2:-** It shall contain documents on "Financial Bid". Financial bid should indicate item wise price separately indicating the tax etc for the items mentioned in the technical bids . Financial bids shall be opened only of those bidders who have been declared technically qualified by the committee.

**GENERAL INSTRUCTION:-**


1. The bidder must be registered as Category 1 manufacturer of DMR Radios with DMR Association. The information must be available on [WWW.DMRASSOCIATION.ORG](http://WWW.DMRASSOCIATION.ORG)
2. The tenders received after scheduled date & time will not be entertained. The tenderers or their representative may remain present at the time of opening of tenders.
3. Rates must be clearly written in figures as well as in words.
4. There should not be any cutting/over writing.
5. The Tenderer/Firms who fails to fulfill the eligibility conditions will be summarily rejected.
6. The representative of the firm should present with all the original documents at the time of opening the bids .
7. In case tender opening day is declared as holiday or bandh call at Itanagar, the tenders shall be received upto next working day till 1100 hrs and opened on the same day at 1130 hrs at the official chamber of IGP(Admn) , Itanagar (A.P.)
8. The bidders should keep checking the website for any added/corrigenda to the notice/bidding documents till the date of submission of bids and the bidder should incorporate the same in his bid documents.
9. Conditional bids and the bids not meeting the qualifying criteria on the date of receipt of bids shall be summarily rejected.
10. Bids will be opened as per time & schedule mentioned.
11. Before submission of bids, bidders must ensure that all the necessary documents have been attached with the bid.

12. The department will not be responsible for delay in submission due to any reason(s).
13. All the required information for the bid must be filled and submitted.
14. Technical compliance statement should be enclosed along with technical bid clearly specifying deviation, if any for all specifications mentioned in the tender.
15. The tender papers containing full details with specifications and terms and conditions can be obtained from Superintendent of Police (Telecom) Office , Chimpu Itanagar, on payment of tender fee of Rs. 1000/- (Non refundable through a bank draft in favour of the SP(Telecom) Chimpu , Arunachal Pradesh, Itanagar payable at S.B.I. Itanagar on any working day from 0930 hrs to 1600 hrs w.e.f **28/01/2023 to 17/02/2023**. The tender documents may also be download from our website. The tenderers downloading the documents from website are also required to submit a Bank Draft of Rs. 1000/- as tender fees. No other mode of payment will be accepted.
16. All firms have to submit earnest money as mentioned above along with their Technical Bid.
17. Successful tenderers will be required to deposit 5 % of the total value of the articles to be supplied as performance security money within 15 days from the date of issue of letter of acceptance of tender. The successful tenders will have to enter into a "DEED OF AGREEMENT" stipulating the Terms and Conditions of the contract. Security deposit will be subject to forfeiture in case of non-fulfillment of any or all the Terms and Conditions of contract. Earnest Money of the successful tenderers will be forfeited to the Government in case of failure to furnish security money and execution of "DEED OF AGREEMENT". Performance security should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligation.
18. All the tenders must be accompanied with earnest money @ 2(two) percent of the estimated cost of the items being quoted from the list of items enclosed as annexure. The earnest money deposit accepted in the form of DD/TDR/FDR from any of the commercial banks in an acceptable form, safeguarding the purchaser's interest in all respects. The earnest money deposit is normally to remain valid for a period of forty-five days beyond the final bid validity period. Tenders without earnest money will be summarily rejected. The tenderers are required to pledge earnest money deposit in the name of Supdt of Police (Telecom), Chimpu.
19. Rate should be quoted F.O.R SP(Telecom) Chimpu Itanagar. Rates quoted F.O.R other than SP(Telecom) Chimpu, Itanagar shall not be accepted. No packing or forwarding charges will be allowed. The rate of GST (as applicable) may be charged/quoted by the tenderers and the amount be clearly mentioned for all items. The rate should be quoted in Indian currency both in figure and words clearly. Tenders must be eligible and clear in all respect else the tenders shall be liable to be rejected.
20. The sealed tender should be sent by Registered post or put in the Tender Box kept in the office of the undersigned SP(Telecom),Chimpu,Itanagar (A.P) on any working day from 0930 hrs to 1600 hours.
21. Successful tenderers have to supply the items within 90(ninety) days from the date of issue of Supply order failing which 5 % of Security deposited will be forfeited and supply order will be cancelled OR sum equivalent to 0.5 % of delivery price of the delayed items for each week delayed or part thereof beyond the original contract delivery period will be recovered to a maximum of 10 % as a liquidated damages .
22. Any breakage or loss of any item will be at the supplier's risk.
23. If any item is found damaged or otherwise unacceptable at the time of delivery/inspection, the supplier will be required to remove the same from SP(Telecom) office , Chimpu Itanagar, Arunachal Pradesh at their own cost within 15 days.
24. Payment will be made to the supplier directly on completion of supplies and acceptance of stores by government verification committee.

25. The Director General of Police of Arunachal Pradesh, Itanagar shall have the right to ask the firms to demonstrate their items before the opening of financial bids. Firms qualified in initial scrutiny shall provide a practical demonstration of equipment in compliance with the specification of tender for Technical evaluation .
26. List of equipments/items with description & specification is enclosed at Annexure- A.
27. Tenders will remain valid up to 31-03-2023
28. All items to be supplied shall be on warranty for a period as mentioned by the manufacturing company. Where the warranty period has not been mentioned, the minimum warranty period shall be for one year (except consumable items).
29. Vendors are required to submit undertaking that they will provide after sale service for next 5(five) years from the date of delivery of the item.
30. The Director General of Police, Arunachal Pradesh, Itanagar reserves the right to reject the lowest or all or any of the tenders without assigning any reason thereof.
31. In case of any dispute, legal jurisdiction will be at Itanagar, Arunachal Pradesh.
32. In case of any query tenderers may contact at following phone no./mail ID.

Officers	Telephone	E-mail ID
Dy.Superintendent of Police(T)/Plng , Chimpu	9436288948	sptelecomapp@gmail.com

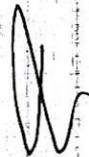

Note :- For more details visit Arunachal Police website [www.arunpol.gov.in](http://www.arunpol.gov.in)

  
Superintendent of Police (Telecom)  
Chimpu ,Itanagar (A.P)

## Technical Specifications

Sl	Name	Technical Specification	
1 & 2	DMR VHF(HB) Handheld Radio	General	Frequency VHF (HB) Full Band TDMA 2 -Slot Channel Capacity 255 or more (Set with Display) Channel Spacing 12.5 KHz Battery 2000 mAh L-ion/Li-Poly rechargeable battery or higher with BIS standard Average Duty Cycle of 5/5/9 : Digital : 10 hrs & Analog : 8hrs (or better) Frequency Stability $\pm 1.5$ PPM or better Antenna Impedance 50 Ohm Weight Less than 500 grams with battery EMI/EMC ETSI EN 301 489-1 & ETSI 489- 5/(OEM certification supported by International Recognised Laboratory) Air Interface Shall be open standard DMR Tier - II
		Transmitter	RF Power O/P 1 – 5 Watt (Programmable) FM Emission 11K0F3E,7K60FXE,7K60FXD,7K60FXW Digital Modulation : 4 FSK , Audio Distortion : Less than 3% , Digital Vocoder : AMBE +2 Modulation Limiting: $\pm 2.5$ KHz @ 12.5 KHz or better, Audio response: +1, -3dB FM & Hum & Noise : -40 dB or better , Adj. Ch. Power : -60 dB or Better,
		Security	Inbuilt software encryption commercial grade 256 Bit AES or better & also have provision to support 3 <sup>rd</sup> Party Encryption with Remote Kill/Stun/Revive the Radio
		Receiver	Sensitivity [ Analog:0.3 $\mu$ V(12 dB SINAD) , Digital : 0.30 $\mu$ V at 5% BER ] or better Adj. Ch. Selectivity 60 dB or Better Inter-modulation 70 dB or Better Audio O/P Minimum 500mW Audio Distortion Less than 3%
		Environmental (OEM Certification Supported by International recognised Laboratory)	Operating Temp. -30° C to +55° C Storage Temp. -40° C to +70° C Humidity 95% Max. at +40° C Non Condensing Vibration MIL-STD-810 F/G Shock & Drop MIL-STD-810 F/G Water Intrusion/Dust MIL-STD-810 F/G or IP-67 Salt, Rain, L/Pressure MIL-STD-810 F/G
		Battery Charger	I/P Voltage 230V $\pm$ 10% ,50Hz O/P Voltage As per the battery pack(Information to be provided by OEM/Vendor) Battery Type Li-Ion/Li-Poly Protection Reverse Polarity & Short Circuit protection Indications Visual indication for all modes of charging status Charging time Rapid Charger : 1 to 3 Hrs
		Hands free Kit	Offered Headset with mic. should be compatible with any or more of the following variants : Bone Conduction , Ear Plug ,Headphone etc. Role : Tactical Operation , Activation: Inline PTT & VOX , IP Rating : IP67 Headset Type : Single Muff with Boom Mic. with Active noise cancelling features Interface : Shall be open standard DMR Tier – II & must be compatible with the quoted VHB(HB) Radio (User Manual with each radio & Service Manual)
		Programming	Programming kit with all the necessary software & hardware required for programming of Radio independently with lifelong support with regular updates
		Literature	i) User manual with each Radio free of cost in soft as well hard copy ii) Technical Repair & Maintenance Manual in soft as well as hard copy with complete block diagram, circuit layout, components & wiring diagram etc.
		Nos. of Battery	Two Lithium-Ion or Li-Polimer batteries with each Radio
		Carry Case	Rugged Carry case with Belt Clip
		GPS	Should be built-in GPS features with following specifications: i) Time to First Fix(TTFF) cold start : < 2Minutes ii) Time to First Fix(TTFF) hot start : < 20 Seconds iii) Horizontal Accuracy : < 10 Meters

SI	Name	Technical Specification		
3	DMR VHF(HB) Static Radio	General	Frequency	VHF (HB) Full Band
			TDMA	2 -Slot
			Channel Capacity	255 or more (Set with Display)
			Operating Voltage	DC (10.8 V to 15.6 V )
			Protection	Reverse polarity & Protection against High VSWR
			Frequency Stability	± 1.5 PPM or better
			Antenna Impedance	50 Ohm
			Weight	Less than 2Kg
			EMI/EMC	ETSI EN 301 489-1 & ETSI 489- 5/(OEM certification supported by International Recognised Laboratory)
		Air Interface	Shall be open standard DMR Tier - II	
		Transmitter	RF Power O/P	5 – 25 Watt (Programmable)
			FM Emission	11K0F3E,7K60FXE,7K60FXD,7K60FXW
			Digital Modulation	4 FSK
			Modulation Limiting	± 2.5 KHz @ 12.5 KHz or better
			FM & Hum & Noise	-40 dB or better
			Adj. Ch. Power	-60 dB or Better
			Audio response	+1, -3dB
			Audio Distortion	Less than 3%
			Digital Vocoder	AMBE +2
		Security	Inbuilt software encryption commercial grade 256 Bit AES or better & also have provision to support 3 <sup>rd</sup> Party Encryption with Remote Kill/Stun/Revive the Radio	
		Receiver	Sensitivity	[ Analog:0.3µV(12 dB SINAD) , Digital : 0.30µV at 5% BER ] or better
			Adj. Ch. Selectivity	60 dB or Better
			Inter-modulation	70 dB or Better
			Audio O/P	Minimum 3W
			Audio Distortion	Less than 3%
		Environmental (OEM Certification Supported by International recognised Laboratory)	Operating Temp.	-30° C to +55° C
			Storage Temp.	-40° C to +70° C
			Humidity	95% Max. at +40° C Non Condensing
			Vibration	MIL-STD -810 F/G
			Shock & Drop	MIL-STD -810 F/G
Water Intrusion/Dust	MIL-STD-810 F/G or IP-54			
Salt, Rain/ L/Pressure	MIL-STD -810 F/G			
4	VHF(HB) Whip Antenna	Frequency : 136 MHz to 174MHz , Antenna Base : Magnetic , Antenna Gain : 3dB (Omni Directional)		
		Type : RG 58 , RF Cable Length : 3 Meter , Loss : 0 dB		
		Material : Pure Copper core & Pure Copper braid , Connector : As per users requirement		
		Impedance : 50 Ohm ,Power handling capacity : Minimum 25 watt, Wind resistance : 100km/hr or more		
5	RF Coaxial Cable	Type : RG 217 (Flexible) , Cable length : 14 Meter , Signal loss : Not more than 1 dB		
		Conductor : Pure Copper Solid inner conductor & Pure Copper braid outer conductor		
		Outer Cover : PVC , Power handling : Minimum 25 watt , Connector : As per the users requirement		
6	Antenna Mast	Type	Mono pole (Foldable & Portable)	
		Height	36 feet (Total nos. of section : 06 , Section length : 06 feet each)	
		Material	Corrosion free tubular Aluminum Pipes	
		Other Essentials	GP Antenna mounting bracket (with clamp & nut bolts) , Section couplers , Spike Anchors with supporting guy ropes , Carrying Bag	



  
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	Name	Technical Specifications		
9	Secondary Battery	Type : Sealed Maintenance free (SMF), Voltage : 12V , Capacity : 100 Ah, Warranty : 02 Years (Replacement)		
11	Solar Battery Charger	a) Solar Panel	Wattage	Thin film foldable Solar Panel with minimum of 80 Watt
			Size	Folded size : 30 x40 x 5 ( in cm ) Approx.
			Weight	Unfold Size : 120 x 40 x2 (in cm) Approx.
	b) Solar Charger Backup	Adapter	Weight of panel : 1 kg Approx.	
		DC Charging input	19.5V , 5 Amp to be put in AC supply socket of 220/230 VAC,50Hz. socket	
		Inverter	Thin Film Foldable (TFF) Solar Panel of 80 Watt	
		Output voltage	Pure Sine wave O/P 220-240 V, Total Real power : 500 Watt(Peak power 1KW)	
		Battery	a) DC 12 V / 10A (14.5A Max.) b) AC 230 V , 5 Watt	
		Charging Time	Inbuilt Lithium Ion Battery 500 Wh, 150 AH , 3.7V	
		Working temp.	09 hrs (Approx.) in bright sunlight , AC Adapter : 6 hour (Approx.)	
		Protection	-10° Celsius to 45° Celsius	
		Indicator	Over Voltage, Over Current, Under Voltage, Short ckt., Battery deep down discharge auto protection.	
		Weight	Audio Alarm / LED indicator when battery is low	
Other Essentials	All the required Cables ,Connectors & Adapters and Carrying Bag			
SMF Battery Charger	Type : SMF Battery Charger , I/P Voltage:: 230 V (AC) ± 30 % , O/P Voltage : 12V (Pure DC)			
	Ampere Rating : 10 Ampere (Adjustable) , Protection : Reverse Polarity, Overload and Short Circuit, I/P AC surge			
	Indicator : I/P AC Voltage , O/P DC Voltage , O/P Charging Current, Battery Charging Status in %			
	Cut Off : Auto Cut off when fully charged ,			
	Other essentials	O/P charging cable : 02 meter 15 Amp charging cable with Crocodile clip, I/P power cable : AC 3 Pin Plug, 15 Ampere 0 2 meter		

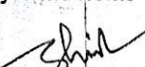
SI	Name	Technical Specifications	
7	Digital VHF(HB) Repeater ( with Coaxial Cable & GP Antenna)	<b>General :</b>	
		Frequency Range : 136MHz - 174 MHz (Full Band) , Number of Channel: 20 or more	
		Technology :Digital TDMA (2 - Slot) ,Operating Mode :Duel Standard(Digital & Analog),Channel Capacity: 52 or more	
		Operating Selection : Fully automatic for both Digital & Analog, Channel spacing: 12.5KHz	
		Operating Voltage : 11.25 VDC & 230VAC $\pm$ 10% , Frequency Stability : $\pm$ 1PPM or better, Duty cycle: 100%	
		Interface : Ethernet port for IP , Antenna Impedance : 50 $\Omega$ , VSWR : better than 1.5	
		Weight : less than 15 KG, Display : Indicator for Transmit & Receive ,Protection : Reverse polarity	
		EMI/EMC : ETSI EN 301 489-1 & ETSI 301 489-5	OEM Certification supported by International recognised laboratory
		Air Interface : Open Standard DMR Tier-II	
		<b>Transmitter :</b>	
		RF Power O/P : 25 Watt (Programmable) , FM Emission : 11K0F3E,7K60FXE , 7K60FXD , 7K60FXW	
		Digital Modulation : 4 FSK , Modulation Limiting : $\pm$ 2.5 KHz @ 12.5 KHz or better , Audio response : +1 , -3dB	
		FM & Hum & Noise : -40 dB or better , Adj. Ch. Power : -60 dB or Better , Audio Distortion: Less than 3%	
		<b>Receiver :</b>	
		Sensitivity: [ Analog:0.3 $\mu$ V(12 dB SINAD) , Digital : 0.30 $\mu$ V at 5% BER ] or better, Image Rejection : 65 dB or Better	
		Adj. Ch. Selectivity : 60 dB or Better, Inter-modulation : 70 dB or Better , Audio O/P : Minimum 3W	
		Audio Distortion : Less than 3%	
		<b>Environmental :</b>	
		Operating Temp. : -30° C to +55° C	OEM Certification
		Storage Temp. : -40° C to +70° C	Supported by International recognised Laboratory
		Humidity : 95% Max. at +40° C Non Condensing	
		<b>Accessories :</b>	
		Battery cable & mounting fixtures : To be supplied with Repeater.	
		GP Antenna : 6dB gain Omni directional antenna with 45 meter RF cable RG217 for base Station will be provided as per user's requirement.	
		Programming Kit : Programming kit with all the necessary software & hardware required for programming of Radio independently with lifelong support with regular updates.	
		Literature : i) User manual with each Radio free of cost in soft as well hard copy.	
		ii) Technical Repairing & maintenance Manual in soft as well as hard copy with complete block diagram, circuit layout, components & wiring diagram in soft as well hard copy.	

*[Handwritten signatures and initials]*

Sl	Name	Technical Specifications	
	<b>General</b>		
12	Digital HF Manpack Radio	General	Frequency Range : (2 to 29.9999 MHz with 100 Hz channel spacing and 10 Hz resolution) Modes : SSB(J3E) USB, LSB, AM/AM(E), CW/MCW, AFSK Presets : 200 Channel or more , Frequency Stability : $\pm 1$ PPM or better Built In test : Front Panel Testing , Input Power : 12V DC(Nominal 10.8V to 14.4V) EMI EMC: MIL-STD-461/462C or ETSI or CISPR 22 or IEC 61000-4 Series(TEC/EMI/TEL-001/01FEB-09 , Weight : less than 6KG with Battery, Protection : Protection against Reverse Polarity & High VSWR Headphone Impedance : 150 $\Omega$ /300 $\Omega$ /600 $\Omega$ , VSWR : better than 1.5 Roles : Manpack , Antenna : High gain Foldable Whip Antenna & Long wire Antenna Cooling : Convection from the case , Visual Display : Front panel LCD display Interface : RS-232 /USB , Antenna Tuner : Inbuilt internal fully automatic tuner Programming : PC programming software and front panel programming. Communication Security : Approved encryption (SAG) may be incorporated RF Power : 5 Watt - 25 Watt PEP (Selectable : Low ,Medium,High) Spurious emission : $\leq 40$ dB below PEP , Side Band Suppression : $\geq 70$ dB or better Carrier Suppression : $\geq 40$ dB or better , Audio response : Within 6Db from 350 Hz to 2700Hz Inter modulation distortion : 30 dB min. below PEP Side Tone Level : Better than 0.1 Mw into 150 $\Omega$ load for 5Mv of Audio input at 1KHz Modulation Sensitivity : 1 to 10 mV at 1 KHz for full power under SSB mode Sensitivity : - 111 dbm for 10 dB SINAD or better , Image Rejection : $\geq 70$ dB or better IF Rejection : $\geq 70$ dB or better , Inter modulation distortion : 35 dB min. below PEP Audio response : Within 6Db from 350 Hz to 2700Hz , Audio O/P : 1 Watt across laudspeaker or more Audio frequency Harmonic Distortion : $\leq 40$ dB or better Operating Temp. : -30° C to + 55°C, Storage Temp. : -30° C to + 60°C Humidity : 95% non - condensing ( -20°C to +60°C) Dust, Vibration, Shock, Water, intrusion, Altitude: MIL-STD-810C/D/E/F/G or JSS-5555 Selective Calling: Digital FSK coding(4/6 digit select call) Scanning: 5 Channel/Second or better, ALE(2G/3G) : Complying MIL-STD-188-141B ALE Link Quality data : 24 hours of upto 100 Stations & 100 Channels or better ALE Link Quality data resolution : ( Local : 5 bits SINAD, 5 bits BER & Remote : 5bits SINAD, 5BER) Flash Message : Predefine message , Vocoder : MELP/ACLP(1200/2400 bps) Frequency Hopping : Hop Rate : 6/12/25 hops per second (User Programmable as per regulation), Hop Set Table : 100 frequencies or better GPS : GPS : Inbuilt GPS with polling facility not as a add on accessories RS-232 Control : Radio should have capability to operate on 4800 baud rate or more Remote Kill/ Stun/Revive facility , Audio I/P Socket : Mic & External Socket Squelch : High quality Syllabic squelch, Push to Talk : Suitable rugged Mic to be provided Audio Socket : Suitable rugged Headgear to be provided Rugged backpack carry case , Battery charger & Spare Battery Literature : Operating manual with each Radio & Repair/Maintenance manual free of cost
		Transmitter	
		Receiver	
		Environmental	
		Features	
SI	Name	Technical Specifications	
13	Handheld Global Positioning System (GPS)	Screen size	3 Inch (Approx) Touchscreen
		Features	Latitude & Longitude , 3 axis Compass
		Battery: Alkaline Battery Ni-CD, Storage :	4 GB internal with MicroSD Card slot
		Battery life :	16 hours (Approx.) with Active GPS
		Weight :	200 gm (Approx.) , Waterproofing : IPX7 , Maps : preloaded
		Accessories:	Rugged carrying case with belt clip ,
		Manuals	User Manual with each device
14	Satellite Phone	Its been a proprietary item of BSNL hence specification will be as per the supplier	

Note: Warranty for the items will be as per the standard warranty period offer by the Manufacturer on individual items

  
(K.V.G Pillai)  
Dy SP(T) HQ  
(Member)

  
Milo Tanyo  
Inspr(RT)/WS  
(Member)

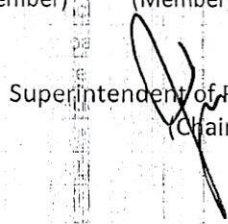
  
Michi Duri  
Inspr(RT)/PP  
(Member)

  
Subu Tani  
OC(WT) Store  
(Member)

(On leave)  
ASI(RT) K. Kumar  
Workshop  
(Member)

(Out Duty)  
ASI(RT) R.Kumar  
Workshop  
(Member)

(Out Duty)  
HC(RT) R.K Suman  
Workshop  
(Member)

  
Superintendent of Police(STF), PHQ Itanagar  
(Chairman)