

SHORT TENDER CALL NOTICE

Office of the D.G & I.G. of Police, Odisha, Cuttack

1. Sealed tenders are invited from the Original Equipment Manufacturers (OEM) or their Authorized Agent for Purchase of different WT equipment and related articles i.e. **GP Antenna L/B, GP Antenna H/B, Co-axial Cable RG8A/U, Computer Paper Blank Part-II, 12 V Bty. Charger, Bty. Pack, Bty. Charger, UPS (Line Inter Active) 1 KVA, Dot Matrix Printer, Micro Phone assembly, 40 feet Tubular Mast , UPS Battery 12V 7AH, Data Communication Equipment comprise of Radio Modem UPS, Printer & Desktop Computer, 80 feet Tower mast with Installation, 120 feet Tower mast with installation, Digital VHF Set H/B Static/ Mobile with accessories, Digital VHF set H/B Handheld with accessories, VHF set L/B Static/ Mobile with accessories, VHF set L/B Handheld with accessories and H.F set with accessories** etc. for Odisha Police (Signals Establishment) for the financial year, 2018-19.
2. Name of items along with detail technical specifications, probable requirements against each item may be seen from the Web site of the Govt. of Odisha i.e. www.odisha.gov.in. The quantity may vary during indent of the items depending upon budgetary allocation.
3. Date of issue of tender documents from **dtd.15.9.2018 at 10.00 AM to dtd. 10.10.2018 up to 5.00 PM.**
4. Last date for receipt of sealed tender on **dtd. 11.10.2018 up to 5.00 PM.**
5. Date for opening of sealed tenders / technical bids on **dtd.12.10.2018 at 11.30 AM** at the Office of the **Addl. D.G. of Police, Communication, Odisha, Cuttack.**

**A.I.G. of Police (Provisioning),
Odisha, Cuttack.
(Tender Calling Authority)**

SHORT TENDER CALL NOTICE
Office of the D.G & I.G. of Police, Odisha, Cuttack
Tender Call Notice No.
Tender Document No.1

1. Sealed tenders are invited from the Original Equipment Manufacturers (OEM) or their Authorized Agent for purchase of Purchase of different WT equipment and related equipment for Odisha Police (Signals Establishment) during the current financial year, 2018-19 as listed below. (List separately enclosed as Annexure-A).

Sl No	Name of the Item	Quantity
1	GP Antenna L/B	500 Nos.
2	GP Antenna H/B	500 Nos.
3	Spl. Connector	1000 Nos.
4	Spl. Adopter	800 Nos.
5	Co-axial Cable RG8A/U	15000 Mtrs.
6	Computer Paper Blank Part-II	1000 Pkts
7	Computer Printer Ribbon Cartridge	1000 Nos.
8	12 V Bty. Charger 15 AMP	100 Nos.
9	Bty. Pack for Rexion RL-328 (Handheld) VHF Set	100 Nos.
10	Bty. Charger for Rexion RL-328 (Handheld) VHF Set	50 Nos.
11	Bty. input Cable for Motorola VHF Set	100 Nos.
12	Steel Guy Rope	10000 Mtrs.
13	Morse Key	100 Nos.
14	UPS (Line Inter Active) 1 KVA	10 Nos.
15	Solder	10 Kg.
16	Crocodile Clip	5000 Pair
17	Dot Matrix Printer	10 Nos.
18	Micro Phone assembly for Rexion RM-03 N VHF Set	50 Nos.
19	Soldering Iron 100 W	50 Nos.
20	Soldering Iron 25W	50 Nos.
21	Hydrometer	100 Nos.
22	Mosfet for Motorola GM 3689	50 Nos.
23	40 feet Tubular Mast	100 Nos.
24	Power Tr. For Motorola GM 3689 VHF Set	50 Nos.
25	Power Tr. For Motorola GM 950+ VHF Set	50 Nos.
26	Power Tr. For Rexion Rx 03 N VHF set	30 Nos.
27	UPS Battery 12V 7AH	50 Nos.
28	Magnet whip L/B	50 Nos.
29	Magnet whip H/B	50 Nos.
30	Combination Plier	50 Nos.
31	Screwdriver Set	30 Nos.
32	Dot-matrix Printer Head for EPSON LQII50-II	15Nos
33	Dot-matrix Logic card for EPSON LQII50-II	10Nos
34	Audio IC For Rexion Rx 03 N VHF set	30 Nos.
35	Data Communication Equipment comprise of Radio Modem UPS, Printer & Desktop Computer	5 Nos.
36	80 feet Tower mast with Installation	5 Nos.
37	120 feet Tower mast with installation	2 Nos.
38	Digital VHF Set H/B Static/ Mobile with accessories	140 Nos.

39	Digital VHF set H/B Handheld with accessories	149 Nos.
40	VHF set L/B Static/ Mobile with accessories	550 Nos.
41	VHF set L/B Handheld with accessories	180 Nos.
42	H.F set with accessories	5 Nos.

2. Name of items along with detail technical Specifications, probable requirements against each item may be seen from the Web site of the Odisha Web site i.e. www.odisha.gov.in. The quantity may vary during indent of the items depending upon budgetary allocation.
3. The Tender Document may be obtained
 - (a) On payment of Rs.500/- (Rupees Five Hundred) only between 10 AM to 5 PM on each working day from the office of the undersigned at the address given below.
 - (b) By sending a self stamped (Rs. 80/-) envelope of size not less than 35 cm x 25 cm along with a Demand Draft non A/c payee of Rs. 500/- (Rupees Five Hundred) only payable at S.B.I. Main Branch, Cuttack drawn in favour of A.I.G.of Police (Provisioning), Odisha, Cuttack.
 - (C) By downloading from Govt. of Odisha website i.e. www.odisha.gov.in.
4. The Tender documents shall be submitted in the office of the undersigned duly signed by the authorized signatory in each page and duly authenticated with seal in token of having read, understood and accepted the terms and condition of the contract. However in case of downloaded tender documents, a non A./C payee Demand Draft of Rs.500/- (Rupees Five hundred) only payable at SBI, Cuttack drawn in favour of A.I.G. of Police (Provisioning), Odisha, Cuttack towards cost of Tender Document shall be enclosed. Bids submitted otherwise than in the manner prescribed in the Tender Document shall be rejected.
5. Tender calling authority has the right to accept or reject the Tender(s) without assigning any reason thereof.
6. This tender shall remain valid for 1year from the date of finalization of approved bidder for any of the listed items by the purchase committee or till the next tender floated by the indenter for same item whichever is earlier.
7. Date of Issue of Tender documents on dtd. **15.9.2018 at 10.00AM.**
8. Last date of Issue of Tender document on dtd. **10.10.2018 up to 5.00 PM.**
9. Last date for receipt of sealed Tender on dtd. **11.10.2018 up to 5.00 PM.**
10. Date for opening of sealed Tenders / Technical Bids on dtd. **12.10.2018 at 11.30 AM** at the Office of the **Addl. D.G. of Police, Communication, Odisha, Cuttack.**
11. The concerned bidders are required to depute their representatives to remain present during opening of the received Tenders / Technical Bids on **dtd. 12.10.2018 at 11.30 AM** at the Office of the **Addl. D.G. of Police, Communication, Odisha, Cuttack.**
12. The Tenders received after the stipulated date will not be taken into consideration and liable for rejection.
13. All disputes which may arise relating to tender are subject to judicial jurisdiction of the competent Court at Cuttack only.
14. It is to certify that this tender document **contains 49 pages.**

**A.I.G. of Police (Provisioning,)
Odisha, Cuttack.
(Tender Calling Authority)**

ANNEXURE-A

**APPROX. REQUIREMENT OF ITEMS TO BE PURCHASED UNDER NORMAL GRANT & MPF
GRANT DURING THE FINANCIAL YEAR 2018-19**

Sl. No.	Name of the Articles	Approx. Qty.
1	GP Antenna L/B	500 Nos.
2	GP Antenna H/B	500 Nos.
3	Spl. Connector	1000 Nos.
4	Spl. Adopter	800 Nos.
5	Co-axial Cable RG8A/U	15000 Mtrs.
6	Computer Paper Blank Part-II	1000 Pkts
7	Computer Printer Ribbon Cartridge	1000 Nos.
8	12 V Bty. Charger 15 AMP	100 Nos.
9	Bty. Pack for Rexion RL-328 (Handheld) VHF Set	100 Nos.
10	Bty. Charger for Rexion RL-328 (Handheld) VHF Set	50 Nos.
11	Bty. input Cable for Motorola VHF Set	100 Nos.
12	Steel Guy Rope	10000 Mtrs.
13	Morse Key	100 Nos.
14	UPS (Line Inter Active) 1 KVA	10 Nos.
15	Solder	10 Kg.
16	Crocodile Clip	5000 Pair
17	Dot Matrix Printer	10 Nos.
18	Micro Phone assembly for Rexion RM-03 N VHF Set	50 Nos.
19	Soldering Iron 100 W	50 Nos.
20	Soldering Iron 25W	50 Nos.
21	Hydrometer	100 Nos.
22	Mosfet for Motorola GM 3689	50 Nos.
23	40 feet Tubular Mast	100 Nos.
24	Power Tr. For Motorola GM 3689 VHF Set	50 Nos.
25	Power Tr. For Motorola GM 950+ VHF Set	50 Nos.
26	Power Tr. For Rexion Rx 03 N VHF set	30 Nos.
27	UPS Battery 12V 7AH	50 Nos.
28	Magnet whip L/B	50 Nos.
29	Magnet whip H/B	50 Nos.
30	Combination Plier	50 Nos.
31	Screwdriver Set	30 Nos.
32	Dot-matrix Printer Head for EPSON LQII50-II	15Nos
33	Dot-matrix Logic card for EPSON LQII50-II	10Nos
34	Audio IC For Rexion Rx 03 N VHF set	30 Nos.
35	Data Communication Equipment comprise of Radio Modem UPS, Printer & Desktop Computer	5 Nos.
36	80 feet Tower mast with Installation	5 Nos.
37	120 feet Tower mast with installation	2 Nos.
38	Digital VHF Set H/B Static/ Mobile with accessories	140 Nos.
39	Digital VHF set H/B Handheld with accessories	149 Nos.
40	VHF set L/B Static/ Mobile with accessories	550 Nos.
41	VHF set L/B Handheld with accessories	180 Nos.
42	H.F set with accessories	5 Nos.

Tender Call Notice No.
Tender Document No. II

GENERAL CONDITIONS OF THE CONTRACT

1. The bidder/Supplier shall essentially be

a) An Original Equipment Manufacturer

or

b) An Authorised Agent of the OEM having running business in the tendered item with good business track record.

The bidder in proof of he being an OEM / Authorised Agent shall submit authenticated documentary evidence in this regard. The proof submitted earlier in some other context shall not be treated as valid and sufficient.

However, the above condition for the bidder / supplier to be an OEM or an Authorised Agent of the OEM shall be relaxed to the extent as indicated in condition Sl. No.26 of Special Conditions of Contract for the selected items as indicated in it.

Provided that Tender Calling Authority may waive one or more of the above conditions for one or more of the tendered items taking into consideration the nature, availability, requirement and price of the said item (s).

2. The tenders (also called bids), not submitted in prescribed format or in the prescribed manner, shall be rejected by the Tender Committee at the risk and responsibility of the bidder.
3. 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.
4. All the crucial figures, like rates and amount should be written in figures followed by words in a bracket.
5. There shall be no over-writing in the tender document and other papers submitted. All the additions, 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.
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 this tender document. However an OEM located outside the country may quote its price in the Currency of the country to which he belongs but the same shall be converted to INR at the exchange rate prevailing on the date of opening of Tender and the same will be binding on both parties.
7. The rates quoted shall be valid for a period of one year counted from the last date of receipt of the bids or submission of 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 Corporations making the bids, the tender document shall be signed by the Managing Director. If it is otherwise, the authority to sign the tender paper 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 or 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 be either in English or in Odia and shall be authenticated under the seal and signature of the bidder unless specified otherwise in the tender document.
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 called for in this tender document. This literature should also be in English or Odia.
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 received first 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 specifications. In that case, he should submit "technical bids" 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).
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 in prescribed format and its page should be serially numbered and duly authenticated.
15. All the information submitted or supplied in the formats of this tender document shall be presumed to be true to the best of the 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 / Authorized 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 bidders of Odisha will have to submit the GST Registration Certificate issued by the competent authority of Odisha along with the GST returns (GSTR-3B and GSTR-1) filed for the last tax period. Similarly the bidder from outside state will submit the GST Registration Certificate, copy of GST returns of last tax period and the affidavit enclosed as Annexure-D at the time of submission of tender.
21. The bid security (EMD), if called for, shall either be in the form of Demand Draft/ FDR / Banker's Cheque of a Scheduled Bank payable at Cuttack or by pledging of NSC/FDR/Postal Savings Pass Book, all in favour of A.I.G. of Police (Provisioning), Odisha, Cuttack. EMD shall be returned immediately after the rejection of a bid. The DD/FDR/ Banker's Cheque 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 supplies are successfully delivered as per order or adjusted against "Performance Security" (defined on condition No.10 of Special Conditions of the Contract) as per conditions of performance security agreement.
22. **This tender document has prescribed a two-bid format for submitting the offers. It contains the "Technical" (Tender document No. V) and "Financial" (Tender document No.VI) bid formats. Both the bids shall be submitted in separate sealed covers identified as "Technical" or "Financial" bid after detaching their formats from this tender document. Both the sealed covers, the remaining part of this tender document including General Conditions of the Contract (Tender Document No. II), Special Conditions of Contract (Tender Document No.III), General Bid (Tender Document No. IV) and all Annexure A, B, C, D and E and all 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 cover shall have boldly written with the name of supplier/bidder, the tender call notice number and the last date for submission.**
23. No document as required and mentioned in the General/ Special conditions of contract shall be enclosed to the technical bid/ Financial bid documents unless otherwise specifically mentioned there in. All required documents shall be enclosed to the General bid proforma duly authenticated and serially numbered and page marked.

24. The tenders or the bids can be sent by Regd. with AD post or courier as well. However, the authorities shall not be responsible for the postal and other delays in receipt of bids.
25. If the last date for receipt of the tender/bid turns out to be a holiday, it will automatically be extended to next working day.
26. 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 dropped in a sealed box. The acknowledgement receipt shall mention, among others, the tender call notice number.
27. A bid submitted cannot 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.
28. All or any of the tenders (or bids) 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.
29. The Tenders/bids received in the prescribed time shall be opened by the tender committee at the prescribed date time and place. Any bid found incorrect or incomplete in any manner would be summarily rejected by the said committee.
30. The "Technical" bids shall be opened and scrutinized by the Technical Committee, only in respect of the bidders who have been found to fulfil all the prescribed criteria and conditions of this tender document other than technical specifications of the products. Only branded products shall be accepted unless otherwise mentioned in special conditions of the contract.
31. All the products, failing to fulfill the prescribed technical specifications, shall 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 specification offered as above, may be accepted or not at the discretion of the tender calling authority. However, no preference or extra payment shall be admissible for superior technical specifications or quality or the like.
32. The bidder shall have to submit in separate paper mentioning complied or not complied against each column of the technical specification given in the tender document.

33. Notwithstanding an offered product meeting the prescribed technical specifications, it may be rejected, if it has not been tried and tested or used in Odisha Police with satisfaction. It may also be rejected if the bidder fails to successfully demonstrate its product before the Technical Committee.
34. "Financial bids" shall be opened only in those cases, where one or more of the offered products have fulfilled the prescribed technical specifications. All financial documents like Registration Certificate issued under **GST Act** and IT Acts, VAT clearance Certificate, IT and ST returns, Audited Balance sheet, Trading a/c and P/L a/c shall be verified at the time of opening of financial bids.
35. All the prices quoted shall be F.O.R., destination i.e. **Cuttack** which means that prices shall include the cost of delivery at destination if nothing otherwise is mentioned in the Special condition of contract.
36. The Purchase Committee shall discuss and deliberate on the past performance, experience, production capacity, financial strength etc. of the bidders/suppliers as recommended by the Technical Committee, besides the rates quoted by them and select the L-1 bid in most transparent manner, taking into consideration the relevant provisions of OGFR and Circulars and notifications issued by the Government of Odisha from time to time, so as to ensure that the purchases are effected in most prudent and economical manner, without compromising the prescribed quality, from the most eligible bidder.
37. Financial negotiations with firms other than the lowest bidder shall not be held without obtaining the prior approval of Government.
38. The authorities are not bound to accept the lowest financial bid.
39. 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. It shall not be necessary for the office of the D.G. & IG of police to place a single order for the entire requirement. Order for the same item but on identical terms and conditions may be placed by different wings of the office such that the total orders placed shall roughly correspond to the quantity mentioned in the tender document. The bills for payment shall be submitted, accordingly, on different wings placing the order.
40. 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 authorities.

41. Short / Part deliveries may not be accepted. All the items ordered must be supplied in full, for claiming even the part payment.
42. All the transit risk shall be the responsibility of the supplier.
43. User manuals of the product shall be supplied without being asked for and without being mentioned in the supply order. Moreover, it should be in English.
44. The supplier have to supply the indent within the time specified in the supply order. Failure to supply the indent in full within the stipulated period as mentioned in the supply order may lead to forfeiture of EMD / Performance Security 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, however that the L.D. shall not exceed 5% of the amount of order.
45. The supplier shall submit an undertaking given by him or the OEM committing to supply spare parts for the maintenance of the supplies for a period of at least 1 (one) year from the date of delivery.
46. The supplier shall give a "Performance Warrantee" for a minimum period as mentioned at Sl.11 in the Special Conditions of Contract. The "Performance Security" may be forfeited partly or fully for failure to fulfil the terms and conditions of supply and post sales commitments/ obligations. The Bank Guarantee if furnished towards performance security should be enforceable and payable at Cuttack and shall be valid for the period of warrantee. (Performance Security has been defined on condition No.11 of Special Conditions of the Contract.)
47. 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.
48. Terms & Conditions of the tender documents can't be negotiated for variation without obtaining prior approval of Govt.
49. Entire tender document, duly filled in, shall be treated as part of the contract agreement for supplies in case of the successful bidders and shall be submitted in original.
50. All the disputes shall be subjected to the jurisdiction of civil Courts situated at Cuttack/ Bhubaneswar.
51. The bidders shall submit all required documents along with tender. Under no circumstances a bidder would be allowed to make any addition / alternation in any document related to tender or to submit required documents after receipt of tender by the tender calling authority.
52. ***Deduction of Tax at source shall be made at the appropriate rate in the applicable cases where the total value of supply of taxable goods or services or both, where the total value of such supply, under a contract, exceeds two lakhs and fifty thousand rupees.***

53. Any objection / suggestion / complaint by any bidder with regard to tender shall be intimated in writing to the tender calling authority. The Chairman / Members of Technical / Purchase Committee would not entertain any correspondence / discussion in the above matter.

Seal & Signature of the bidder.

**A.I.G. of Police (Provisioning),
Odisha, Cuttack
(Tender Calling Authority)**

SPECIAL CONDITION OF THE CONTRACT

Short Tender Call Notice No.
Tender Document No. III

1. The Special Conditions given here shall prevail over the General Conditions.
2. **Bid Security (E.M.D.):** The tender document shall accompany with a Earnest Money Deposit (EMD) at the rate noted under col-5 against each item in Sl.No.3 below without which the tender shall be rejected. The Earnest Money Deposit should be made available in the form of DD/FDR/Banker's Cheque / NSC / Postal Savings Pass Book in a separate envelop along with the sealed covers of "Technical" and "Financial" bids. However, the local MSEs registered in Odisha with respective DICs, Khadi, Village, Cottage & Handicraft Industries, OSIC and NSIC while participating in tenders shall be exempted from payment of Bid Security (Earnest Money). The bidders who are registered with NSIC for manufacturing of the tendered items are also exempted from payment of Bid Security (EMD).
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. Detailed technical specifications of each item are available in the Annexure of "Special Conditions of the Contract" enclosed herewith.

Sl. No.	Particulars of the Item	Approx. Quantity	Technical specifications	EMD (In Rs.)
1	2	3	4	5
1	GP Antenna L/B	500 Nos.	Annexure-B	8,000/-
2	GP Antenna H/B	500 Nos.	Annexure-B	8,000/-
3	Spl. Connector	1000 Nos.	Annexure-B	1,000/-
4	Spl. Adopter	800 Nos.	Annexure-B	1,000/-
5	Co-axial Cable RG8A/U	15000 Mtrs.	Annexure-B	19,000/-
6	Computer Paper Blank Part-II	1000 Pkts	Annexure-B	16,000/-
7	Computer Printer Ribbon	1000 Nos.	Annexure-B	3,000/-
8	12 V Bty. Charger	100 Nos.	Annexure-B	8,000/-
9	Bty. Pack for Raxon RL-328 (Handheld)	100 Nos.	Annexure-B	1,800/-
10	Bty. Charger for Raxon RL-328	50 Nos.	Annexure-B	300/-
11	Bty. input Cable for Motorola VHF Set	100 Nos.	Annexure-B	600/-
12	Steel Guy Rope	10000 Mtrs.	Annexure-B	4,000/-
13	Morse Key	100 Nos.	Annexure-B	1,200/-
14	UPS (Line Inter Active) 1 KVA	10 Nos.	Annexure-B	1,000/-
15	Solder	10 Kg.	Annexure-B	360/-
16	Crocodile Clip	5000 Pair	Annexure-B	1,600/-
17	Dot Matrix Printer	10 Nos.	Annexure-B	3,000/-
18	Micro Phone assembly for Raxon RM-03 N VHF Set	50 Nos.	Annexure-B	700/-
19	Soldering Iron 100 W	50 Nos.	Annexure-B	200/-

20	Soldering Iron 25W	50 Nos.	Annexure-B	200/-
21	Hydrometer	100 Nos.	Annexure-B	100/-
22	Mosfet for Motorola GM 3689	50 Nos.	Annexure-B	2,000/-
23	40 feet Tubular Mast	100 Nos.	Annexure-B	14,000/-
24	Power Tr. For Motorola GM 3689	50 Nos.	Annexure-B	2,000/-
25	Power Tr. For Motorola GM 950+	50 Nos.	Annexure-B	2,000/-
26	Power Tr. For Rexon Rx 03 N VHF set	30 Nos.	Annexure-B	2,000/-
27	UPS Battery 12V 7AH	50 Nos.	Annexure-B	700/-
28	Magnet whip L/B	50 Nos.	Annexure-B	600/-
29	Magnet whip H/B	50 Nos.	Annexure-B	600/-
30	Combination Plier	50 Nos.	Annexure-B	100/-
31	Screwdriver Set	30 Nos.	Annexure-B	400/-
32	Dot-matrix Printer Head for EPSON LQII50-II	15Nos	Annexure-B	600/-
33	Dot-matrix Logic card for EPSON LQII50-II	10Nos	Annexure-B	400/-
34	Audio IC For Rexon Rx 03 N VHF set	30 Nos.	Annexure-B	600/-
35	Data Communication Equipment comprise of Radio Modem UPS, Printer & Desktop Computer	5 Nos.	Annexure-B	22,000/-
36	80 feet Tower mast with Installation	5 Nos.	Annexure-B	40,000/-
37	120 feet Tower mast with installation	2 Nos.	Annexure-B	40,000/-
38	Digital VHF Set H/B Static/ Mobile with accessories	140 Nos.	Annexure-B	84,800/-
39	Digital VHF set H/B Handheld with accessories	149 Nos.	Annexure-B	88,100/-
40	VHF set L/B Static/ Mobile with accessories	550 Nos.	Annexure-B	1,75,000/-
41	VHF set L/B Handheld with accessories	180 Nos.	Annexure-B	43,650/-
42	H.F set with accessories	5 Nos.	Annexure-B	8,000/-

4. The quantities mentioned above are subject to variations. The rates quoted by the farms shall continue to be valid even if the quantities of items mentioned above are varied.
5. It shall not be necessary to bid for all the items mentioned above. The farms/companies may bid for one or more of the items depending on their convenience and submit E.M.D. accordingly. The items above do not necessarily consist of a single piece of equipment. It may be composition of inter-connected or inter-related appliances. Bidding is not permitted for the components obtained by splitting an item. Bidding is also not permitted for a part of the quantity of an item indicated above.
6. If any equipment/ item consists of different components, the bidder shall have to quote price for each component separately in the Financial bid in the prescribed format enclosed in the Tender document including installation charges, if any.
7. The bidder shall submit along with this tender document a list of names, complete addresses. Telephone/FAX numbers of the customers to whom, the items, for which the bid has been submitted, have been supplied and installed in last three years, if any. A clear unambiguous statement shall be made if an item has not been sold anywhere in India so far.
8. The supplies shall be delivered to the authorities at the place indicated below.

All items	Name of the Authority & his address	Quantity
	Supdt. of Police, Signals, Odisha, Cuttack	As per supply order

9. The working of the equipment shall be demonstrated successfully and expenses incurred on demonstration shall be borne by the supplier.
10. The supplier shall organise training to acquaint the employees of the Organisation regarding operation of the equipment in their own cost.
11. **Performance Security:** The successful bidder shall have to enter into an agreement with Tender calling Authority for successful completion of supply/ installation of the tendered items after proper inspection within stipulated period and also for performance warrantee of the items from the date of supply/ installation up to a period of **3 years in respect of items i.e. 12 V Bty. Charger, Dot Matrix Printer, Data Communication Equipment comprise of Radio Modem UPS, Printer & Desktop Computer, 80 feet Tower mast with Installation, 120 feet Tower mast with installation, Digital VHF Set H/B Static/ Mobile with accessories, Digital VHF set H/B Handheld with accessories, VHF set L/B Static/ Mobile with accessories, VHF set L/B Handheld with accessories and H.F set with accessories and up to a period of one year warrantee in respect of rest items.** In this regard bidder has to furnish the security deposit to be called "performance security" at the rate of 5% of the total amount of the order excluding all taxes in the form of NSC/ Post office saving bank A/C / FDR / Bank guarantee from any national bank duly pledged in favour of tender calling Authority. However, the local MSME bidder, if selected, shall be required to pay 25% of the value of performance security.
12. Not with standing anything contained in the General Conditions of contract a new / fresh brand of product / equipment not tried, tested and used in Odisha Police may be accepted subject to meeting the prescribed technical specification and approval of Technical Committee.
13. All the supplies made shall be subject to a minimum period of warrantee of 3 years in respect of items i.e. **12 V Bty. Charger, Dot Matrix Printer, Data Communication Equipment comprise of Radio Modem UPS, Printer & Desktop Computer, 80 feet Tower mast with Installation, 120 feet Tower mast with installation, Digital VHF Set H/B Static/ Mobile with accessories, Digital VHF set H/B Handheld with accessories, VHF set L/B Static/ Mobile with accessories, VHF set L/B Handheld with accessories and H.F set with accessories and up to a period of one year warrantee in respect of rest items.** The supplier shall repair or replace at his cost any component of the supplies that may go out of order during the warranty period. The repair and replacement shall as far as possible be carried out within the premises, where the equipment has been installed. If, however, it is necessary to take the equipments to the workshop of the supplier, it must be repaired and re-installed successfully in its premises within 48 hours counted from the time service call is placed. Failing so, replacement equipment in working condition shall be supplied till return of the equipment.
14. The supplier shall repair or replace at his cost any component of the supplies that may go out of order during the warranty period. The repair and replacement shall as far as possible be carried out within the premises, where the equipment has been installed. It, however, it is necessary to take the equipments to the workshop of the supplier, it must be repaired and re-installed successfully in its premises within 48 hours counted from the time service call is placed. Failing so, replacement equipment in working condition shall be supplied till return of the equipment.
15. If an equipment or supply goes out of order within the warranty period and the supplier is informed about it, it must be attended to within 48 hours counted from the time service call is placed.
16. Pre-delivery inspection: Not required.

17. PAYMENT: No advance payment shall be made. 100% of the payment will be made on delivery of supplies, successful installation and demonstration subject to clause 10 above.

18. SAMPLE / DEMONSTRATION:

(a) The Tenders are required to submit at least one sample but not more than 2 samples of the following quoted items along with the tender.

1	GP Antenna L/B
2	GP Antenna H/B
3	Spl. Connector
4	Spl. Adopter
5	Co-axial Cable RG8A/U
6	Computer Paper Blank Part-II
7	Computer Printer Ribbon
8	12 V Bty. Charger
9	Bty. Pack for Raxon RL-328 (Handheld)
10	Bty. Charger for Raxon RL-328
11	Bty. input Cable for Motorola VHF Set
12	Steel Guy Rope
13	Morse Key
14	UPS (Line Inter Active) 1 KVA
15	Solder
16	Crocodile Clip
17	Dot Matrix Printer
18	Micro Phone assembly for Raxon RM-03 N VHF Set
19	Soldering Iron 100 W
20	Soldering Iron 25W
21	Hydrometer
22	Mosfet for Motorola GM 3689
23	40 feet Tubular Mast
24	Power Tr. For Motorola GM 3689
25	Power Tr. For Motorola GM 950+
26	Power Tr. For Raxon Rx 03 N VHF set
27	UPS Battery 12V 7AH
28	Magnet whip L/B
29	Magnet whip H/B
30	Combination Plier
31	Screwdriver Set
32	Dot-matrix Printer Head for EPSON LQI150-II
33	Dot-matrix Logic card for EPSON LQI150-II
34	Audio IC For Raxon Rx 03 N VHF set

- (b) With regards to following items the farms need not submit sample along with their bid/ offer but they shall demonstrate their quoted model for inspection/ consideration by the technical committee during its meeting.

1.	Data Communication Equipment comprise of Radio Modem UPS, Printer & Desktop Computer
2.	80 feet Tower mast with Installation
3.	120 feet Tower mast with installation
4.	Digital VHF Set H/B Static/ Mobile with accessories
5.	Digital VHF set H/B Handheld with accessories
6.	VHF set L/B Static/ Mobile with accessories
7.	VHF set L/B Handheld with accessories
8.	H.F set with accessories

Whoever does not submit sample for evaluation, does not give demonstration as per our above directions, their tender shall be rejected.

19. The tenderer may also submit their samples at the place of holding of the Technical Committee Meeting on or before 10.30 AM on the date of holding of the Technical Committee Meeting. The date of holding of the Technical Committee Meeting shall be intimated to the bidders by the Chairman of the Technical Committee / Member Convener.
20. The bidders of Odisha will have to submit the GST Registration Certificate issued by the competent authority of Odisha along with the GST returns (GSTR-3B and GSTR-1) filed for the last tax period. Similarly the bidder from outside state will submit the GST Registration Certificate, copy of GST returns of last tax period and the affidavit enclosed as Annexure-D at the time of submission of tender.
21. The selected Tenderers will have to enter into an agreement with the Tender Calling Authority. The agreement bond form duly filled in indicating the amount of "Performance Security" at the required rate as mentioned above and signed by the Tenderer with the attestation and common seal affixed with special adhesive stamp **(Non-Judicial) not less than worth of Rs.10/- (Rupees Ten) only should be submitted within 15 days on receipt of information from State Police Headquarters, Odisha, Cuttack. The first page of the Tender Agreement should be written on non-judicial stamp paper of Rs.10/- if stamp paper of Rs.10/- denomination is not available, a no. of small denomination may be used in that place.**

**AIG of Police (Provisioning)
Odisha, Cuttack**

Seal and Signature of the bidder

Signature of the Tender Calling Authority
(With Seal)

ANNEXURE-B**SPECIAL CONDITIONS OF CONTRACT (REF SL. NO.3)
TECHNICAL SPECIFICATIONS**

Sl. No.	Name of the Articles	Technical Specification
1	GP Antenna L/B	0db Gain Frequency:- 66Mhz to 88Mhz Warranty :- 1 year from date of supply.
2	GP Antenna H/B	0db Gain Frequency:- 136Mhz to 174Mhz Warranty :- 1 year from date of supply.
3	Spl. Connector	PL 259A, Warranty :- 1 year from date of supply.
4	Spl. Adopter	PQ1124, Warranty :- 1 year from date of supply.
5	Co-axial Cable RG8A/U	RG8A/U, Impedance 50 Ohms Inner and outer wire should be 100% Copper, Warranty :- 1 year from date of supply.
6	Computer Paper Blank Part-II	Computer Paper Blank 10"x12", Part II 60GSM (Each packet should contains 1000 sets i.e. 2000 Sheets white paper & 1000 Sheets Carbon), Warranty :- 1 year from date of supply.
7	Computer Printer Ribbon Cartridge	Dot Matrix Printer Ribbons Cartridge for EPSON LQ 1150 II, EPSON LQ 1310 & WIPRO HQ 1070 DX , Warranty :- 1 year from date of supply.
8	12 V Bty. Charger 15 AMP	Input voltage: 150v to 240V Output voltage : -12V Transformer based with rectified diode. Transformer should be 100% copper winding. With amp. Meter, current regulating switch & off on switch indicate in the front panel. Warranty :- 3 years from date of supply.
9	Bty. Pack for Rexion RL-328(Handheld) VHF Set	7.4v Li-ion Dry fit Battery, 2200 MAH, for Rexion RL-328 Handheld VHF Set, Warranty :- 1 year from date of supply.
10	Bty. Charger Rexion RL-328(Handheld) VHF Set	Suitable for Rexion RL-328(Handheld) VHF Set Warranty :- 1 year from date of supply.
11	Bty. input Cable for Motorola VHF Set	Suitable for Motorola VHF Set Warranty :- 1 year from date of supply.
12	Steel Guy Rope	Stay Wire 6/19 gauge, Warranty :- 1 year from date of supply.
13	Morse Key	Wooden base with Copper Key in good quality, Warranty :- 1 year from date of supply.
14	UPS (Line interactive) 1KVA	Line interactive with AVR for single phase AC, 160v to 280v Input rated:- 1KVA, VAH:216 Back up time 30 minutes, Warranty :- 1 year from date of supply.
15	Solder	60/40 SN/ PB respectively, Warranty :- 1 year from date of supply.
16	Crocodile Clip	15-20 AMP temperature resistance battery charging clip, Warranty :- 1 year from date of supply.
17	Dot Matrix Printer	24-Pin, Column : 136, CPS : 10 at CPI: 300 Port: One Parallel, English & Devanagari script in- built. Warranty :- 3 years from date of supply.
18	Micro Phone Rexion RM-03 N VHF Set	Suitable for Rexion RM-03 N VHF Set Warranty :- 1 year from date of supply.
19	Soldering Iron 100 W	230V/100w, Flat bit., Warranty :- 1 year from date of supply.
20	Soldering Iron 25W	230V/25w, Pointed bit., Warranty :- 1 year from date of supply.
21	Hydrometer	To measuring the specific gravity of lead acid storage battery , Warranty :- 1 year from date of supply.

22	Mosfet for Motorola GM 3689 VHF set	1511, N28QQ, 0732, Warranty :- 1 year from date of supply.
23	40 feet Tubular Mast	<p>a) 40 feet hot dip galvanized tubular mast consists of 4/5 section, each made of 2" CRC pipes of 2.5mm wall thickness.</p> <p>b) The section at one end should dying pressed for 8 inches, so that it couples to the other corresponding section properly.</p> <p>c) One base plate hot dip galvanized of size, 1.5ft x 1.5ft x 5mm with hinges and 4 ground pegs to be provided for fixing it to the ground.</p> <p>d) Two sets of steel guy ropes (3 guys peg set) to be provided at 30ft and 60ft with suitable rope tightens and thimbles.</p> <p>e) Three sets of anchors to be provided with rings for guy rope fixing.</p> <p>f) One VHF antenna mounting bracket to be provided at the top for VHF antenna mounting.</p> <p>g) One heavy duty canvases carry bag to be provided for carrying accessories with a hammer.</p> <p>h) Warranty :- 1 year from date of supply.</p>
24	Power Tr. For Motorola GM 3689VHFset	M-1550N, Warranty :- 1 year from date of supply.
25	Power Tr. For Motorola GM 950+VHF set	M25C22, Warranty :- 1 year from date of supply.
26	Power Tr. For Raxon Rx 03 N VHF set	SRF70429821 P5480-17, Warranty :- 1 year from date of supply.
27	UPS Battery 12V 7AH	12V 7 AH, Warranty :- 1 year from date of supply.
28	Magnet whip L/B	0db Gain Frequency:- 66Mhz to 88Mhz, Warranty :- 1 year from date of supply.
29	Magnet whip H/B	0db Gain Frequency:- 136Mhz to 174Mhz, Warranty :- 1 year from date of supply.
30	Combination Plier	Length 210mm In good quality with Branded Company, Warranty :- 1 year from date of supply.
31	Screwdriver Set	Each set consist 4 Nos. screw driver (6", 8", 10", 12") with flat and star based in good quality with Branded Company., Warranty :- 1 year from date of supply.
32	Dot Matrix Printer Head	Make:- EPSON LQ1150 II, Warranty :- 1 year from date of supply.
33	Dot Matrix Printer Logic Card	Make:- EPSON LQ1150 II, Warranty :- 1 year from date of supply.
34	Audio IC For Raxon Rx 03 N VHF set	LA4600 7VRI, Warranty :- 1 year from date of supply.
35	Data Communication Equipment comprise of Radio Modem, UPS, Dot matrix Printer, Desktop Computer & HF Set with accessories	<p><u>Radio Modem:</u> (External /Internal) HF/VHF/UHF Trans receivers. It should able to work in standard HF/VHF/UHF Trans receivers. It can be integrated into the systems to provide automatic operation and data transfer, data logging etc.</p> <p>Features: Multimode Controller with support for the following modes:</p> <ul style="list-style-type: none"> * PACTOR-IV. *PACTOR-III. *PACTOR-II. *PACTOR-I. *Packet Radio with 300, 600, 1200, 9600 &19200 bauds. *AMTOR. *NAVTEX.

		<p>*RTTY. *CW. *FAX over Radio. *SSTV. *PSK31. *AUDIO-filter.</p> <ol style="list-style-type: none"> 1. Maximum throughput up to 5200bits per second including data compression in PACTOR- III Mode 2. Bandwidth for PACTOR- III: 2400Hz. 3. Automatic adaptation to the channel quality in 6 speed levels in PACTOR- III Mode & speed levels in PACTOR- III Mode 4. Freely programmable MARK & SPACE Tones. 5. Simultaneously standby in PACTOR & AMTOR. 6. Built- in Digital Signal Processor. 7. 2MB of static RAM or better with Battery buffering. 8. Built in Temperature Compensated. Crystal Oscillator (TCXO). 9. Single connector to HF/VHF/ UHF Trans receiver or all modes. 10. Tuning bar with LED Lamps. 11. RS-232 Serial Interface connection to the PC. 12. Automatic baud rate detection to the terminal between 2400 & 115200 bauds. 13. Firmware Flash ROM Upgrade via the serial port. 14. Reverse Polarity Protection with Self-resetting use on the power terminal. 15. All inputs must be suitably filtered to remove HF interference 16. License Keys for the PACTOR-III Mode must be pre-installed....
	<p>UPS (Line interactive) 1KVA</p>	<p>Line interactive with AVR for single phase AC, 160v to 280v Input rated:- 1KVA, VAH:216 Back up time 30 minutes</p>
		<p><u>Desktop computer:-</u> <u>Intel Core i5 7th Generation Configuration of Desktop computer.</u></p> <ol style="list-style-type: none"> a. CPU: Intel Core i5 7th Generation or higher version. b. Chipset: Intel MBH110 series c. Bus Architecture : 3PCI (PCI/PCI Express) or more d. Memory: 4GB, DDR4 RAM with 32 GB Expandability. e. Hard Disk Drive: 1 TB or higher. f. Monitor: 47 cm (18.5 inch) or larger TFT/LED Digital Colour, Monitor TCO -05 Certified. g. Keyboard: 104 Keys or above (Multimedia keyboard) with USB interface. h. Mouse: Optical with USB interface. i. Bays: 3Nos. or above. j. I/O Ports: USB 2.0- 4 & USB 3.0- 2 Serial Com-ports, audio ports for microphone and headphone in front. k. Cabinet: Mini Tower. l. DVD ROM Drive: 8X or better DVD ROM Drive. m. Networking facility: 10/100/1000 on board integrated Network Port. n. Operating System: Windows 8.1 Professional or higher. o. OS Certifications: Windows 7 OS and Linux certification. p. Power Management: Screen Blanking, Hard Disk and System Idle

		Mode in Power On, Set up Password, Power supply SMPS Surge protected. q. Preloaded Software: Microsoft office 2010 with Antivirus for 1 year.
	Dot Matrix Printer	24-Pin, Column : 136, CPS : 10 at CPI: 300 Port: One Parallel English & Devanagari script in- built.
		Warranty :- 3 years from date of supply / installation.
36	80 Feet Tower Mast (4 legs Self supported) As per diagram attached	Specification
		Cross Section
		Base width
		Top Width
		Wind velocity
		Material
		➤ Legs (Vertical Member)
		➤ Bracing (Horizontal/ Diagonal member)
		➤ Flanges & Gussets
		➤ Hardware
		Finish
		Ladder facility
		Platform
		Earthing
		Aviation light (twin)
		Lightening arrestor
Sundown photo switch for aviation light		
Top load		
Safety factor		
		Warranty :- 3 years from date of supply/ installation.
37	120 Feet Tower Mast (4 legs Self supported) As per diagram attached	Specification
		Cross Section
		Base width
		Top Width
		Wind velocity
		Material
		➤ Legs (Vertical Member)
		➤ Bracing (Horizontal/ Diagonal member)
		➤ Flanges & Gussets
		➤ Hardware
		Finish

		Ladder facility	Should be Provided with safety rings above 12 meter height
		Platform	Should be provided at 18 meter & 35 meter height & Top
		Earthing	Should be provided
		Aviation light (twin)	Should be provided
		Lightening arrestor	Should be provided copper strip
		Sundown photo switch for aviation light	Should be provided
		Top load	150 KG
		Safety factor	4
		Warranty :- 3 years from date of supply/ installation.	
38	Digital VHF H/B Transceiver Static/Mobile with accessories	I-GENERAL	
		Frequency Range	136 MHz to 174MHz
		Number of Channels	255 or more
		Channel Spacing	12.5 & 25 KHz
		Power Supply	10.8 to 15.6 v DC with reverse polarity protection
		Antenna Impedance	50 Ohms
		Weight	Light in weight preferable including accessories.
		Mode of Operation	Simplex and Semi-Duplex
		Frequency Stability	+/-0.5 PPM or better
		Protocol	2 Slots TDMA DMR or equivalent
		II - RECEIVER	
		Sensitivity	Analog:-0.3micro Volt or better 12dB SINAD or better Digital:- 0.2 micro volt at 5 % BER or better
		Squelch Sensitivity	0.3 micro Volt or better at threshold
		Audio Distortion	< 3 % typical
		Spurious/Image Rejection	Better than 70 dB
		Audio Out Put	Minimum 3 Watt Internal, 7.5 Watt External
		Selectivity	Analog:- 60 dB or better , Digital:- 60 dB or better
		Intermodulation	Better than 70 dB
		III - TRANSMITER	
		R F Out Put	Programmable 5Watt to 25 Watt
		Audio Response	+1, -3 dB
		Audio Distortion	< 3 %
		Modulation Limiting	+/- 5.0 @ 25 KHz , +/- 2.5 KHz @ 12.5 KHz
		Out Put Impedance	50 Ohms
		FM Modulation	12.5 KHz: 11KOF3E, 25 KHz: 16KOF3E
		4 FSK Digital Modulation	12.5 KHz Data only: 7K60FXD 12.5 KHz Data and Voice: 7K60FXW
		IV – ESSENTIAL FEATURES	
		1.	Caller ID display
		2.	Power Level Low /High front panel switchable with soft key.

		3.	Time—Out—Timer
		4.	Busy Channel Lock Out
		5.	Emergency Alarm
		6.	Radio Check
		7.	P T T-ID
		8.	SMS Texting
		9.	D T C S / C T C S Code provision
		10.	Individual Call
		11.	Protection against high VSWR
		12.	Built in Speaker and External speaker provision
		13.	Channel Scanning
		14.	Call Alert
		15.	Private Call
		16.	All Call and Radio disable
		17.	Protects the Voice and Data Communications
		18.	Easy Migration from Analog to Digital with the ability to operate in both modes
		19.	Meets US Military Standards 810 C, D, E and F
		20.	VHF sets should have in built GPS Systems encryption in digital mode
		21.	Period of Warranty of VHF set :- Warranty :- 3 years from date of supply/ installaiton.
		ACCESSORIES:- 0db Mobile whip Antenna with 3mtrs Co axial cable & connector.	
		Manuals- Technical/ service manual Hardcopy & soft copy-02 Nos., Radio Programming Hardware, cables, connector & software-02 nos.	
39	Digital VHF H/B Transreceiver Hand held with accessories	I-GENERAL	
		Frequency Range	136 MHz to 174MHz
		Number of Channels	255 or higher
		Channel Spacing	12.5 KHz & 25 KHz
		Power Supply	7.5 v DC \pm 20%
		Battery Capacity	2000 MAH or above Li-ion Batteries
		Weight	Light in weight preferable including accessories.
		Mode of Operation	Simplex and Semi-Duplex
		Protocol	2 Slots TDMA DMR or equivalent
		Frequency stability	\pm 0.5 ppm
		Antenna impedance	50 Ohm
		II - RECEIVER	
		Sensitivity	Analog :-0.3 micro V 12 dB S I N A D or better Digital:- 0.2 micro volt at 5 % BER or better
		Adjacent Channel Rejection	70 dB
		Spurious/ Image Rejection	70 dB
		Audio Out Put	0.5 watt to 1 watt (programmable)
		Selectivity	Analog:- 60 dB or better Digital:- 60 dB or better
		Inter Modulation	Better than 70 dB
		III-TRANSMITTER	
		R F Out Put	Programmable 1 to 5 Watt or

			Higher Out Put is preferable.
		Spurious / Harmonics	-36 dBm < 1GHz
		Audio Distortion	< 3 %
		Audio response	+1, -3 dB
		Modulation Limiting	±2.5 KHz @ 12.5 KHz, ±5 KHz @ 25 KHz
		FM Modulation	12.5 KHz: 11KOF3E, 25 KHz: 16KOF3E
		4FSK Digital Modulation	12.5 KHz Data only: 7K60FXD 12.5 KHz Data and Voice: 7K60FXW
		IV- ESSENTIAL FEATURES	
		Caller ID display	
		Power Level Low /High front panel switchable with soft key.	
		Time—Out—Timer	
		Busy Channel Lock Out	
		Radio Check	
		P T T-ID	
		Call Alert	
		Individual Call	
		Selective Calling	
		Protection against high VSWR	
		SMS Texting	
		D T C S / C T C S Code provision	
		Remote Radio Killing	
		All Call and Radio disable	
		Protects the Voice and Data Communication	
		Easy Migration from Analog to Digital with the ability to operate in both modes	
		Meets US Military Standards 810 C, D, E and F	
		VHF sets should have in built GPS Systems encryption in digital mode	
		Period of Warranty of VHF set with accessories :- Warranty :- 3 years from date of supply/ installation.	
		<ul style="list-style-type: none"> One Hand held set should consists of one Battery pack (2000mah li-ion/ more), one single unit desktop rapid Battery charger and one Helical Antenna. 	
		ACCESSORIES:- One Extra spare Battery pack (2000mah Li-ion/ more) & collar phone.	
		Manuals- Technical/ service manual Hardcopy & soft copy-02 Nos., Radio Programming Hardware, cables, connector & software-02 nos.	
40	VHF Set L/B (Static/ Mobile) with Accessories (including Whip Antenna with 3 mtrs. Co-axial cable fitted & connector)	General	
		Frequency Range	66~88MHz,
		Channel Capacity	250 or more
		Channel Spacing	12.5KHz/25KHz
		Operating Temperature	-10°C~ +60°C
		Operating Voltage	13.6 DC ±20%
		Frequency Stability	±5 ppm
		Transmitter	
		RF Power Output	25W or more +0.5db
		Frequency modulation	16K φ F3E / 11K φ F3E
		Antenna Impedance	50Ω

		Modulation Limiting	$\pm 2.5\text{KHz}$ 12.5KHz, $\pm 5\text{KHz}$ 25KHz
		Radiated Spurious Emission	-36dBm < 1GHz, -30dBm > 1GHz
		FM Noise	45dB 25KHz, 40dB 12.5KHz
		Modulation Distortion	< 3%
		Receiver	
		Reference Sensitivity	0.28 μV 12.5KHz, 0.25 μV 25KHz
		Adjacent channel Selectivity	60dB 12.5KHz, 70dB 25KHz
		Intermodulation Rejection	70 dB
		Spurious Response Rejection	70 dB
		Rated Audio Output	4W
		S/N	45/40
		Rated Audio Distortion	$\leq 3\%$
		Essential Features	
		Caller ID Display	
		Emergency SOS	
		Car Alarm	
		Auto Power on Scan	
		Meets US Military Standards 810 C, D, E and F	
		Manuals- Technical/ service manual Hardcopy & soft copy-02 Nos., Radio Programming Hardware, cables, connector & software-02 nos.	
		Warranty :- 3 years from date of supply/ installation.	
41	VHF Set Handheld Lower Band with Accessories	GENERAL	
		1.	Power Supply Rechargeable battery 7.2v or more
		2.	Frequency Bands 66~88MHz
		3.	Modulation Type F3E
		4.	Frequency Control PLL Synthesizer
		5.	Channel Spacing 25KHz/12.5KHz programmable
		6.	Number of Channel UP to 99 Channels
		7.	Temperature Range Operation: -30 °C~+60 °C, Storage: -30 °C~+80 °C
		8.	Frequency Stability $\pm 2.5\text{ppm}$
		9.	Humidity Operative 90%
		10.	Battery Life ≥ 8 Hours
		11.	Shock & Vibration Meet MIL STD 810 C/D/E/F
		TRANSMITTER	
		1.	RF Output Power 5W or more
		2.	Maximum Modulation $\leq 5.0\text{KHz}$ @ Channel Spacing=25KHz $\leq 2.5\text{KHz}$ @ Channel Spacing=12.5KHz
		3.	Adjacent Chanel Power $\leq -60\text{dBc}$ (12.5KHz) $\leq -70\text{dBc}$ (25KHz)
		4.	Spurious Emissions ≤ -36 dBm
		5.	Audio Distortion $\leq 3\%$
		6.	FM Noise > 35dB @ 12.5 KHz/ 40dB @ 25KHz
		RECEIVER	

		1.	Circuit Type	Double Conversion
		2.	Intermediate Frequency	1 st 45MHz /2 nd 455KHz
		3.	Sensitivity	≤0.28uV @ 12dB SINAD
		4.	Adjacent Channel Selectivity	25KHz ≥ 70 db / 12.5KHz ≥ 60 dB
		5.	Spurious Response Rejection	≥ 70 dB
		6.	Intermodulation Response Rejection	≥ 65 dB
		7.	Blocking	≥ 85 dB
		8.	Audio Distortion	≤ 5%
		9.	Audio Output Power	≥500mW @10% Distortion
		10.	Standby Current Drain	≤ 70mA
		11.	Standby with Save	≤ 25mA
		12.	Rated Audio Current Drain	≤ 200mA
		13.	FM Noise	45 dB @ 25KHz / 40 dB @ 12.5KHz
		<ul style="list-style-type: none"> • One Hand held set should consists of one Battery pack (2000mah Li-ion), one single unit desktop rapid Battery charger and one Helical Antenna. <p>ACCESSORIES:- One Extra spare Battery pack (2000mah Li-ion) & Headphone.</p> <p>Manuals- Technical/ service manual Hardcopy & soft copy-02 Nos., Radio Programming Hardware, cables, connector & software-02 nos.</p>		
		Warranty :- 3 years from date of supply/ installation.		
42	HF Transreceiver Static with accessories	GENERAL		
		1.	Frequency Range	1.6 MHz to 29.999MHz
		2.	Mode of Operation	USB, LSB, CW and AM
		3.	Power Supply	12v DC and 230 v AC
		4.	Accessories	Micro Phone, Battery Cable and Headphone, Morse Key etc.
		5.	Preset Channels	100 or more
		6.	Frequency Stability	±0.6 PPM or better
		7.	Cooling	Air cooling with built-in Fan
		8.	VSWR	Better than 1.5
		9.	Visual Display	LCD Display
		10.	Antenna impedance	50 ohms
		11.	Protection	Reserve polarity protection should be provided.
		RECEIVER		
		1.	Sensitivity (SSB/CW/AM)	0.5 μV p.d. for 10dB (S+N)/N at 1 KHz
		2.	Image Rejection	60dB minimum or better
		3.	I.F. Rejection	60dB minimum or better
		4.	Squeich	Active, Digitally coded
		5.	In Band Inter Modulation	25 dB minimum below PEP distortion
		6.	Audio Output	1 Watt across loud speaker should be >2.50 milli watt across 50 ohms or better in headphone
		7.	Audio Distortion	<5% or Better
		8.	AGC	Audio power output variation <6 dB for