

**Tender for supply of Different Types of
Communication Equipments and other
related items to be purchased during the
Year 2012 – 2013**

TENDER NO. : 02/2012
(Ref. Tender Publication No. ICA/T-764 (3)/2012)

CLOSING DATE : 10/4/12 at 1200 hrs

OPENING DATE : 10/4/12 & 11/4/12

Instruction to Tenderers & Terms and Conditions

TENDER NOTICE

1. Sealed tenders on behalf of the Governor of West Bengal are invited by the Additional Director General & Inspector General of Police, Telecommunication, West Bengal from bonafide original equipment manufacturers / authorized dealers / authorised vendors for supply of the items listed below.

Group	Sl. No.	Items
A	1.	Digital Radio VHF (Static/Mobile) Set
	2.	Digital Radio VHF (Handheld) Set
	3.	Digital VHF Repeater Set
B	1.	10 Watt Carryback (Manpack) VHF analog set including bag
	2.	Haversack for 10 Watt Carryback (Manpack) VHF analog set
C	1.	Communication Receiver Static Version
	2.	Communication Receiver Handheld Version
D	1.	Desktop Computer with preloaded windows software
E	1.	Satellite Phone (IsatPhone Pro)
F	1.	Mobile Phone
	2.	Mobile Phone - Samsung Hero E 2230
	3.	Mobile Phone - Nokia 101
G	1.	Digital Photocopier Machine
	2.	Fax Machine
H	1.	Solar Powerpack
I	1.	Soldering & Desoldering Station (Repair Station)
	2.	Frequency Counter
	3.	Power/SWR meter

Name and address of the Indian customers of such type of items supplied by the bidders in the previous year and particulars are required to be submitted in **Annexure - A**

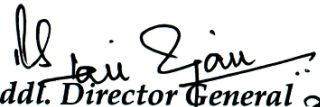
2. **Tenders will be received upto 1200 hrs. on 10 /4/2012.**
Bidders are requested to submit the sealed tender in the earmarked tender box mentioning the Group on the sealed cover.
3. Tenders will be opened by the Committee for Opening the Tender as follows at the Office of the Addl. Director General & Inspector General of Police Telecommunication, West Bengal, 3 Manik Bandyopadhyay Sarani (Moore Avenue), Tollygunge, Kolkata 700 040 :

Name of the Group	Corresponding opening time & date
A, B, C, D	1400 hrs on 10/4/2012
E, F, G, H, I	1200 hrs on 11/4/2012

Tenderers, if they so desire, may be present or send their authorised representative (not more than one) at the time of opening of tenders.

4. Only technical bids for the items under Group -A, B, C, E & F1 will be opened on the date mentioned above. The commercial bids will be finalised after field trial. Commercial bids for those have to be submitted separately in sealed cover with superscription "**NOT TO BE OPENED BEFORE FIELD TRIAL**"

Date : 27/03/2012


Addl. Director General & Inspector General of Police 270312.
Telecommunication, West Bengal

1. No erasers, alterations or over writings are permitted on the Tender. The Tender with erasures, alterations or over writings is liable to be invalidated.
2. The terms & language used in filling of tender must be clear and precise.
3. No alteration will be allowed after the Tender is received by the Office of the ADG & IGP Telecommunication W.B.
4. Prices are to be quoted both in words and figures.
5. The intending Tenderer is advised to study these tender papers carefully. Any submission of tender shall be deemed to have been done after careful study and examination of the tender papers with a full understanding of the implications thereof. The specification for the items shall be deemed to have been accepted unless otherwise specifically commented upon by the Tenderer in the Tender. Failure to adhere to anyone or all of these instructions may render their offer liable to be ignored without any reference.
6. All documents and entries in the Tender shall be either type written or in ink and in English. All prices shall be written, both in figure and in words. Tenders with rate/unit overwritten, erased or rates not expressed in words are likely to be ignored. If rate expressed in figures and words do not agree then the higher of the two rates will be ignored.
7. **Clarifications:**

Any clarifications required in regard to this Tender may be obtained from the Office of the ADG & IGP Telecommunication, West Bengal, 3, Manik Bandyopadhyay Sarani, Kolkata – 700 040.
8. **Signing of Tenders:**
 - 8.1 Any individual/s signing the Tender or other documents connected therewith should specify that he is signing:
 - i) As sole proprietor of the concern or it's attorney.
 - ii) As a partner or partners of the firm.
 - iii) As a Director, Manager or Secretary in the case of Limited Company.
 - 8.2 In case of firm not registered under the Indian Partnership Act, all the partners or the Attorney duly authorized by all of them should sign the Tender on each page and all other connected documents. The person signing the tender or any other documents in respect of the contract without disclosing his authority to do so shall be deemed to warrant his having authority to bind the supplier.
 - 8.3 Correction or over -writing in any place in the Tender Papers must be duly authenticated by the authorized signatory of the firm, otherwise the Tender Paper may be treated as invalid.

- 8.4 The Trade License, Income Tax Clearance Certificate, VAT registration certificate etc., if the tenderer is a proprietorship concern, the partnership deed, firm's registration certificate and the Power of Attorney, if any, executed by the firm, if the tenderer is a partnership firm, the Memorandum and Articles of Association, the Resolution of the Board of Directors and/or the Power of Attorney, if any, executed by the Company, if the tenderer is a company should be furnished to the Office of ADG & IGP Telecommunication, West Bengal, 3, Manik Bandhopadhyay Sarani, Kolkata – 40 for examination, if required.

9. **Tender Form:**

Tenders not submitted in the proper form is likely to be rejected. The tender should be signed by the tenderer on each page. The prices to be quoted should be in the format given in **Annexure - C** of this document.

10. **Deviation**

Tenderers must note that deviations from the tendered requirement and bid document conditions i.e. tender conditions will not normally be allowed i.e. not acceptable. If, however, they are considered necessary by the Tenderers then they must clearly indicate cogent reasons for deviations.

11. **Earnest Money**

- 11.1. The Bidders will have to deposit interest free Earnest Money of **Rs. 30,000/- for Group-A, Rs.5,000/- for Group – B, Rs.6,000/- for Group – C, Rs.10,000/- for Group-D, Rs. 10,000/- for Group-E, Rs. 2,000/- for Group-F, Rs. 2,000/- for Group-G, Rs. 50,000/- for Group – H and Rs. 5,000/- for Group I respectively only through Treasury Challan Form No. 7 under Account Code 8443-00-103-001-07 to Alipore Treasury (Alipore Treasury II, Account Code - SPB) in favour of "The Additional Director General & Inspector General of Police, Telecommunication, West Bengal", which must be submitted with the tender accompanied with Trade License, latest document relating to submission of Income Tax / Photocopy of PAN Card, Sales Tax Clearance Certificate / Submission of VAT **in a separate envelope for the item under respective Group.****
- 11.2. In case of satellite phones, the bidder should submit the import license along with the tender documents. Otherwise, the bid will be treated as invalid.
Technical brochure of the offered item to be furnished at the time of submitting the tender documents
- 11.3. When the suppliers undertake to keep the offers open for a particular period and if the offer is withdrawn or revised within the validity period, the Administration gets a right to forfeit the Earnest Money Deposit.
- 11.4. No interest will, however, be paid on Earnest Money.
- 11.5. Tenderers who are registered with S.S.I. unit, Government of West Bengal or D.G.S & D, N.S.I.C, Government of India must produce attested copies of their current registration certificate relating to S.S.I. / N.S.I.C. and copy of rate contract for D.G.S & D in support of their **getting exemption from depositing earnest money for those items in which the tenderer is registered and not for other unregistered items.**

12. Security Deposit

- 12.1. Selected Tenderers may have to execute an agreement for satisfactory performance of the product supplied and shall furnish a security deposit at the rate of 5% of the total value of the orders within 14 days of receive of the purchase order. The money has to be placed through treasury challan No. 7 **under Account Code 8443-00-103-001-07 to Alipore Treasury (Alipore Treasury II, Account Code -SPB)** in favour of "The Additional Director General & Inspector General of Police, Telecommunication, West Bengal". The money will be kept as security deposit for entire term of warranty period of the product as a guarantee against satisfactory performance.
- 12.2. Security Deposit will be forfeited unless the purchase order is executed in full and within the mentioned period.
- 12.3. If the supplier, having been called upon by the Tendering Authority to furnish security fails to make and maintain a security deposit within the specific period, it shall be lawful for the Tendering Authority:
- (a) To recover from the supplier the amount of such security deposit by deducting the amount from the pending bills of the Supplier under the contract or any other contract.
 - b) To cancel the contract or any part thereof.
- 12.4 No claim shall lie against the Tendering Authority in respect of interest on Security Deposit.
- 12.5. The Tendering Authority shall be entitled and it shall be lawful on it's part to forfeit the said security deposit, in whole or in the part in the event of any default, failure or neglect on the part of the supplier in the **fulfillment of performance**, in all respects of the contract under reference or any other contract with the Tendering Authority or any part thereof to the satisfaction of the Tendering Authority and the Tendering Authority shall also be entitled to deduct from the said deposits any loss or damage which the Tendering Authority may suffer or be put to by reason of or due to any act of other default, recoverable by the Tendering Authority from the supplier in respect of the contract under reference or any other contract with it and in either of the events aforesaid, to call upon the supplier to maintain the said security deposit at its original limit by making further deposits, provided further that the Tendering Authority shall be entitled to recover any such claim from any sum then due to which at any time thereafter may become due to the supplier under this or any other contract with the Tendering Authority.
- 12.6 The rights of tenderer to get back the security deposits arises from the date of the proper fulfillment of the contract, according to the terms and conditions incorporated in the contract.
- 12.7. In case of accepted bidders, the refund of Security Deposit will be claimed after the completion of the warranty period of the given items.
The period of limitation for refund of **Earnest Money** as well as Security Deposit is three years as contained in Article 113 of the Indian Limitation Act of 1963.
- 12.8. The claims for refund, if any, beyond this period, should be treated as time-barred claims.
13. The Tenderer should furnish Sales Tax Registration number in the Tender Schedule.
14. If the Tenderer deliberately gives wrong information in the Tender or creates circumstances in favour of acceptance of this Tender, the ADG & IGP Telecommunication, West Bengal

reserves the right for rejection of the Tender at any stage.

15. **Deviation from specification not permitted:**

The materials are required to be supplied in accordance with the description, specifications and drawings as per **Annexure-B** (contains Group A to I) enclosed with the Tender Documents.

16. **Prices**

- 16.1. The price should be quoted in the format enclosed with the Tender Document.
- 16.2. While quoting the price, the Tenderer should quote the net price showing in detail, i.e. Basic Price, Excise Duty, Sales Tax, VAT and other charges, if any.
- 16.3. It should be noted that the tenderer is responsible for the correctness of details of rates, duties etc. given in the tender and no subsequent alternations on the ground that details were wrongly furnished, will be allowed.
- 16.4. The price quoted in the Tender, unless specifically mentioned to the contrary, shall be deemed to be inclusive of all Taxes, Duties, Royalties, Dues, Freight, Surcharges, Insurance, Packing and other charges paid.
- 16.5. The Tenderer should quote F.O.R. or free to Destination price (i.e. at the Office of ADG & IGP Telecommunication, West Bengal).
- 16.6. The tenderers must quote their rate both in figures and words. In case of any difference noted in two rates or firms quoting two rates at different places in their offer form., the offer of the firms will be treated as commercially unresponsive and will be summarily rejected.

17. **Delivery**

The items will have to be supplied at the office of the under signed located at 3, Manik Bandyopadhyay Sarani (Moore Avenue), Kolkata – 700 040 at **supplier's cost** and within a stipulated period from the receipt of the order copy failing which **E.M.D. / Security Deposit** may be forfeited.

18. **Warranty:**

- 18.1. Supplier shall warrant that everything to be furnished hereunder shall be free from all defects and faults in materials, workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for materials of the type ordered and in full conformity with the contract specification, sample, drawings, if any , and shall be operable, and operate properly.
- 18.2. In case of Branded Computers, Fax, Mobile Phones, Photo-copier the bidder should quote the specific price for the items with one year, two years & three years of warranty.
- 18.3. The Supplier shall, if required, replace or repair the goods or such portion thereof as rejected by the Tendering Authority, free of cost at the ultimate destination or at the option of the Tendering Authority, the Supplier shall pay to the Tendering Authority value thereof at the Contract price and such expenditure and damages as may arise by reason of the breach of the condition herein specified.

- 18.4. All replacements and repairs that the Tendering Authority shall call upon the Supplier to deliver or perform under this warrant shall be delivered and performed by supplier promptly and satisfactorily within two weeks. If the supplier so desires, the replaced parts can be taken over by them/him or their/his representative in India for disposal as they/he deem/deems fit within a period of three months from the date of replacement of goods/parts. At the expiry of this period, no claim whatsoever shall lie on the Tendering Authority.
- 18.5. It shall be lawful for the technical persons of the department to inspect the defective machine within the period of warranty in case of a fault/improper working to ascertain the type of defect.
- 18.6. The supplier should have a system of quick complaint registration viz. (1) On-line registration or (2) through Fax or (3) both.
19. **Tendering Authority not bound to accept any Tender:**
The Tendering Authority reserves the right to cancel or to accept any Tender in respect of the whole or any portion of articles specified in the Tender papers at any time or to subdivide the quantum of supply among different Tenderers or to alter the quantum of supply or to accept any Tender for less / more than tendered quantities without assigning any reason whatsoever.
20. **"One Agent can not represent two suppliers or quote on their behalf in a particular Tender."**
21. **Material being procured from OEM or their authorized dealers.**
a. The ADG & IGP, Telecom, West Bengal reserves the right to place orders for entire or bulk quantity on OEMs or their authorized dealers having DPL (Dealer Possessions License) / OEM Authorisation letter / Distributorship License.
b. Any firm quoting on behalf of OEM must submit valid & current dealership certificate along with their offer and agree for inspection by the persons authorised by ADG & IGP, Telecom, West Bengal.
22. Where warranted, the tendered quantity may be split and tender decided in favour of one or more firms on merits of each case, having due regard to the following factor:
i) Vital/Critical nature of the items;
ii) Quantity to be procured;
iii) Delivery requirements;
23. After opening & reading out the bids the Tendering Authority will check for correctness of the unit price & the total price & if a discrepancy exists between the unit price & total price, the unit price will prevail.

24. **Withdrawal of tenders**

Bidders may withdraw a tender that has been submitted at any time upto the closing date & time of the tender. To accomplish this, a written request by an authorized representative of the tenderer must be submitted to Tendering authority.

25. **Non endorsement**

The selection of a tenderer or his product and services by the Tendering Authority is not an endorsement that the tenderer's product or his services are the best. The successful tenderer is not allowed to make any reference in any promotion of materials / Brochure / Sales presentation without the permission / written consent of the Tendering authority.

26. This tender does not create an obligation on the part of Tendering authority to place orders for procurement and reserves the rights of the tendering authority to refrain from contracting to any supplier. The release of the tender does not compel the authority to procure.

27. **Field-Trial**

If desired by the authority, participant bidders should arrange demonstration / field trial about their offered equipments at their own cost before finalization of technical bid. Actual date, time, place and field trial project description will be informed later on. No bids for such Group (for which field trial is called for) will be accepted before field trial.

28. **Cost of preparing tender**

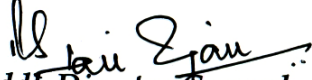
The Tendering Authority is not liable for any cost incurred by the bidders in the preparation & presentation of the tender and documents submitted in response to the tenders.

29. **Errors in Tender**

The Tendering /authority will not be liable for any errors in the bidder's Tender documents & bidders will not be allowed to alter the bid or bid document after the bid time is over. Bidders are liable for all errors or omissions contained in the bids.

30. Tender offered in response to the notice will remain valid for one year from the date of opening of the tender. In case quoted items are not available in the market due to up-gradation / improvement in terms of technology, supporting documents of the manufacturers will have to be produced for getting exemption from forfeiting of Earnest Money / Security Deposit.

31. All tenders should be addressed to the Additional Director General & Inspector General of Police, Telecommunication, West Bengal, 3, Manik Bandyopadhyay Sarani (Moore Avenue), Tollygunge, Kolkata – 700 040 in sealed cover with Superscription **"Different Types of Communication Equipments etc during the year 2012-13 "** and **"GROUP**". **Specific Group should be mentioned on the Sealed Cover.**
32. The Additional Director General & Inspector General of Police, Telecommunication, West Bengal reserves the right to reject the lowest tender rate or any / all tender and increase / decrease the quantities, at any time, without assigning any reason.


Addl. Director General 270312.
& Inspector General of Police
Telecommunication, West Bengal

ANNEXURE - A

PARTICULARS TO BE FURNISHED BY THE TENDERERS

1. Name and address of the firm :

2. Name and address of Directors / Partners / Proprietors
with contact No. :

3. Bankers :

4. Nature of Business :

5. Factory, if any, its location and size and
Short description, Number of persons
Employed. Quantity produced in a year :

6. Contracts, if any, with Government Department :

7. Sales Tax Registration Number :

8. Income Tax Registration number :

9. PAN No. :

10. Trade License No. :

11. Details of E.M.D. :

12. Name & address of the Customers : :
- (Separate set may be enclosed)

Dated

Signature of the Tenderer

ANNEXURE - B

Group - A

Sl. No. 1

**Digital Radio VHF (Static / Mobile) Set
(Quantity-20 nos)**

Technical Specification

I. General

Frequency Band: VHF 66-88 MHz, 136-174 MHz

Type of Operation: Simplex, press to talk,

Channel capacity: 128 or more,

Channel spacing: 12.5 KHz (Analog)

12.5KHz (Digital)

Power Source: 13.6 V +/- 10%

Protocol: TDMA, 2 slot (ETSI Standard for DMR Tier-II)

FM Modulation: [12.5KHz](#),

4FSK Digital Modulation

i)12.5 KHz Data only

ii)12.5 KHz Data & Voice

Antenna Impedance: 50 Ohms,

LCD Display,

Protection: Reverse polarity protection,

Protection against High VSWR

II. Transmitter

RF Power: VHF 25W

Programmable / Switchable

Audio Distortion: 3% Typical

Frequency Stability: + / - 1.5ppm (Typical),

FM Hum & Noise Level: -40dB at 12.5 KHz

Adjacent Channel Power: 60dB at 12.5 KHz

III. Receiver

Sensitivity:

(i) Analog: 0.35 μ v for 12 dB SINAD or better,

(ii) Digital: 0.3 μ v at 5% BER or better.

Hum & Noise Level: -40dB at 12.5 KHz

Selectivity (Adjacent Channel):

(i) Analog: 60 dB or better.

(ii) Digital: 60 dB or better.

Frequency Stability: + / - 1.5ppm (Typical),

Spurious & Image Rejection: 70 dB or better.

Audio Output & Distortion: 3W with 3% (Typical)
distortion

Inter Modulation: 70dB or better

IV. Features:

Caller ID Display.

Scan with priority.

Transmitter Time Out Timer (TOT) operation. .

Messaging option

Operation in Analog & Digital Mode,

GPS (Built-in) along with GPS Antenna

PC Programming

PTT ID

Encode / Decode (Individual / Group)

Service manual should be provided with the
consignment

Busy Channel Lock out

Stun & Revive

V. Accessories:

DTMF Microphone
External Power Supply Unit
GP Antenna
Mobile Whip Antenna
30 m. Co-axial Cable
User Manual.

Note: Transceiver compatible with Tier-III will be considered only for three or more valid offers are available.

Technical Specification

Group – A

Sl. No. 2

Digital Radio VHF (Handheld) Set (Quantity-30 nos)

I. General

Frequency Band: VHF 66-88 MHz, 136-174 MHz
Type of Operation: Simplex, press to talk,
Channel capacity: 128 or more,
Channel spacing: 12.5 KHz (Analog)
12.5KHz (Digital)
Power Source: Li-ion Battery, 2000mAh
Protocol: TDMA, 2 slot (ETSI Standard for DMR Tier-II)
FM Modulation, [12.5KHz](#),
4FSK Digital Modulation
i)12.5 KHz Data only
ii)12.5 KHz Data & Voice
Antenna Impedance: 50 Ohms,
LCD Display,
Protection: Reverse polarity protection,
Protection against High VSWR

II. Transmitter

RF Power: VHF 1W/5W
Programmable / Switchable
Frequency Stability: + / - 1.5ppm (Typical),
Audio Distortion: 3% Typical
FM Hum & Noise Level: -40dB at 12.5 KHz
Adjacent Channel Power: 60dB at 12.5 KHz

III. Receiver

Sensitivity:
(i) Analog: 0.35 μ v for 12 dB SINAD or better,
(ii) Digital: 0.3 μ v at 5% BER or better.
Selectivity (Adjacent Channel):
(i) Analog: 60 dB or better.
(ii) Digital: 60 dB or better.
Hum & Noise Level: -40dB at 12.5 KHz
Frequency Stability: + / - 1.5ppm (Typical),
Inter Modulation: 70dB or better
Spurious & Image Rejection: 70 dB or better.
Audio Output & Distortion: 500 mW with 3%
(Typical)distortion

IV. Features:

Caller ID Display.
Scan with priority.
Transmitter Time Out Timer (TOT) operation.
Messaging option
Operation in Analog & Digital Mode,
Facility for Key pad Locking
DTMF Front panel Key pad with Backlit LCD
Vibration Alert
GPS (Built-in)
PC Programming
Stun & Revive
Service manual should be provided with the consignment

V. Accessories:

Battery Charger (Single Position Rapid),
Belt Clip,
Helical Antenna
User Manual.

Note: Transceiver compatible with Tier-III will be considered only for three or more valid offers are available.

Group – A

Sl. No. 3

**Digital VHF Repeater Set
(Quantity – 10 nos.)**

Technical Specification

I. General

Frequency Band: VHF 66-88 MHz, 136-174 MHz
Type of Operation: Semi-Duplex
Channel capacity: 16 or more
Channel spacing: 12.5 KHz (Analog)
12.5KHz (Digital)
Power Source: 13.6 V (D.C.) +/- 10%
Protocol: TDMA, 2 slot (ETSI Standard for DMR Tier-II),
FM Modulation, [12.5KHz](#),

4FSK Digital Modulation

i)12.5 KHz Data only

ii)12.5 KHz Data & Voice

Antenna Impedance: 50 Ohms,

LCD Display,

Duty Cycle: 100%

II. TRANSMITTER

RF Power Output: 40 watts or better at 100% duty cycle.

F M Hum/noise: -40 dB at 12.5 KHz

Modulation Distortion: Less than 3% at 1 KHz

Frequency Stability: + / - 1.5ppm (Typical),

III. RECEIVER

Sensitivity

- (i) Analog: 0.30 μ v or better for 12 dB SINAD
- (ii) Digital: 0.30 μ v for 5% BER or better
- Inter Modulation: 70 dB or better
- Frequency Stability: + / - 1.5ppm (Typical),
- Hum/noise: -40 dB at 12.5 KHz
- Audio Distortion: < 5% distortion
- Adjacent Channel Selectivity: 60 dB or better.

IV. NETWORKING

IP based with capability to Network up to 12 or more Repeater stations to enable Wide - area network of user Radio sets operating in the network from one site to another without manual intervention

V. INTERFACES

- (i) Ethernet port RJ 45 to provide following: .
 - a) Wide Area IP connectivity for Voice & data up to 12 nos Repeaters

VI. ACCESSORIES

- (i) Duplexer,
- (ii) User manual with each radio set,
- (iii) Internal / External Power Supply Unit (230 V ac, +/- 10%),
- (iv) GP Antenna
- (v) 30 m. Co-axial Feeder
- (vi) Micro-phone

VII. FEATURES:

Supports Digital, Analog, Mixed Mode
Auto Detection between Digital & Analog Mode
Signal
2 slot operation in Single Carrier
Designed with Proper Heat Dissipation Capacity
PC Programming

Other Conditions:

- i) Warranty for 24 months
- ii) Should provide after sale support, supply of spares for at least 7 years after warranty period.

Group – B

Technical Specification

SI No. 1

**10 Watt Carryback (Manpack)
VHF analog set including bag
(Quantity-15 nos)**

Frequency range – 146-174MHz, Channel spacing 12.5KHz, Supply voltage —12 V DC(Nominal), No. of channels- 50 or more , Transmitter power output—10W over entire band, Frequency deviation ± 2.5 KHz Max. Modulation distortion—Less than 5% at 1 KHz Modulation --- FM Receiver sensitivity—0.30 μ V or better at threshold, Selectivity—Better than 60dB. Sets to be carried out on the back with 0dB/3 dB gain antenna, Battery for the above ,Battery charger for charging the above battery, Bag to carry the set , battery. Precaution should be taken so that antenna radiation should not affect the human body.

SI No. 2

**Haversack for 10 Watt Carryback
(Manpack) VHF analog set
(Quantity-50 nos)**

Dimension-- Height- 12.5 inch, Width- 7 inch, Depth- 3 inch. The sample of the mentioned item is available at Technical stores of WBP Telecom. Hqrs. for ready reference.

Group – C

Technical Specification

Make: iCOM, Model: IC R 8500 or equivalent

General

Frequency coverage

Frequency Coverage (MHz)	
0.10000- 823.99999 849.00001- 868.99999	894.00001- 1999.99999*

Mode: FM (normal/narrow), AM (wide/normal/narrow).
SSB (USB/LSB) CW (normal/narrow"). WFM "Optional
FL-52A is required.

Number of Memory Channels: 1000 (plus 20 scan edges
and 1 priority channel)

Antenna Connector: Below 30 MHz SO-239 (50Ω) / Phono
(500 Ω) Above 30 MHz Type-N (50 Ω)

Usable temperature range: -10°C to +50°C (+14°F to
+122°F)

Frequency stability: Below 30 MHz ± 100 Hz (± 20 Hz*)
Above 30 MHz ± 0.0003 % (± 0.00006 %) *When an optional
CR-293 is installed.

Power supply requirement: 13.8 V DC ± 15 % (negative
ground) or 230 / 240 V AC

Current drain (at 13.8 V DC): Standby 1.8 A Max. audio
2.0 A

Intermediate Frequency:

Frequency band	1st	2nd	3rd*
0.1- 29.99999	48.8	10.7	0.455
30.0 - 499.99999	778.7	10.7	0.455
500.0 - 1024.99999	266.7	10.7	0.455
1025.0 - 1999.99999	Utilizes converter method: Local freq. : 500,1000 or 1010 MHz		

Receiver:

Receive System: Superheterodyne

Sensitivity:

Frequency band (MHz)	SSB /CW	AM	AM-N	AM-W	FM	WFM
0.1-0.49999	1.0 μ v	6.3 μ v	-	-	-	-
0.5-1.79999	2.0 μ v	13.0 μ v	-	-	-	-
1.8-1.99999	0.25 μ v	3.2 μ v	2.5 μ v	-	-	-
2.0-27.99999	0.2 μ v	2.5 μ v	2.0 μ v	-	-	-
28.0-29.99999	0.2 μ v	2.5 μ v	2.0 μ v	-	0.5 μ v	-
30.0-999.99999	0.32 μ v	2.5 μ v	2.0 μ v	3.2 μ v	0.5 μ v	1.4 μ v
1240.0-1300.00000	0.32 μ v	2.5 μ v	2.0 μ v	3.2 μ v	0.5 μ v	1.4 μ v

Audio output Power: More than 2.0 W at 10% distortion
with an 8Ω load

Along with Antenna and Power Supply

Sl. No. 1.
Communication Receiver Static Version
(Quantity-1no)

Group – C

Sl. No. 2.
Communication Receiver Handheld Version
(Quantity- 6 nos)

Technical Specification

Make iCOM Model: IC R 20 or equivalent

Frequency Coverage: 0.150 – 1304.999,
1305.0 – 3304.999 MHz

Mode: LSB, USB, CW, AM, FM, WFM

No. of Memory Channels: 1250

Tuning Step: 0.01, 0.1, 5, 6.25, 8.33*, 9*, 10, 12.5, 15,
20, 25, 30, 50, 100 KHz (* Selectable depending
operating bands.)

Battery Requirement: BP – 206 or AA (R6) Alkaline
Cells

External Power Supply: 6 Volt DC +/- 5%

Antenna impedance: 50 Ω (BNC)

Receiver System: Triple conversion super
heterodyne + down converter.

Intermediate frequencies: 1st 266.7 MHz, 429.1
MHz, 2nd 19.65 MHz, 3rd 450 KHz.

Audio Output Power (at 3.7 volt DC): 100 mW
with wall charger and other accessories.

Group – E

Technical Specification

SI No. 1

Satellite Phone (IsatPhone Pro) :
(Quantity- 5 nos)

Make – Inmarsat , Model--Isat Phone Pro
The phone to be designed to work in any condition
- in rainstorm, duststorm , scaring heat to sub zero
cold , tropical humidity or freezing fog in handheld
version which operates globally over the Inmarsat-4
satellites .
Tx Frequency —1626.5 – 1660.5MHz
Rx Frequency --- 1525.0- 1559.0MHz
EIRP -- 7.3dBw
Voice rate ---- 2.4kbps
Battery ---- Lithium Ion
Stand by time --- More than 84hrs.
Bluetooth ---- Yes
U S B ---- Yes
Messaging ---- 160 characters.

Note: Dual mode Satellite / Cellular terminal for operation on the Inmarsat / Celluar Service in India must be quoted separately & may be considered provided 3 or more than 3 valid offers are available besides cost concern.

Group – F

Technical Specification

SI No. 1

Mobile Phone
(Quantity- 10 nos)

WEB based and GPS Tracking facility

SI No. 2

Mobile Phone
(Quantity- 10 nos)

Model :-SAMSUNG Hero E 2230 or equivalent

Display :TFT , Network &Data:900MHz,1800MHz
Band :GSM,EDGEBand,Batterycapacity:1000mAh
Standby time 660 Hrs or more, Blue tooth _Yes
User memory 20 MB , Messaging : SMS , MMS,
Camera Type : VGA

SI No. 3

Mobile Phone
(Quantity- 10 nos.)

Model:- NOKIA 101 or equivalent

Display :TFT , Network &Data:900MHz,1800MHz
Band :GSM,Band,Batterycapacity:1020mAh
Standby time 768 Hrs or more, Messaging : SMS.

Group – G

Sl. No. 1 Digital Photocopier Machine

Technical Specification

Make: Canon, Model: Image Runner 2318L or Equivalent

Copy speed: 18 ppm(A4),
Resolution: Reading 600x600 dpi,
Printing 600x600 dpi,
Magnification: 25 to 400% (in 1% increment)

Sl . No. 2 Fax Machine

Make: Sharp, Model: FO-P610 or equivalent (Plain paper)
Applicable Line: PSTN
Transmission Time: Approx. 15 Seconds
Modem Speed: 9600 to 2400 bps with automatic fall back
Resolution: Horizontal- 8 pels/mm (203 pel/inch)
Vertical: 14.4 lines/ mm (391 lines/ inch)
Paper size: A4
Automatic Document Feeder: 10 Sheets or more
Power consumption: Max. 110 W

Group – H

SI No.1 Solar Power pack

Technical Specification

- a) SPV Array – 2.5 KWp
- b) Battery Bank – 48 V .640 AH
- c) Inverter - 48 V, 4 KVA (Pure sine wave)
- d) Charge Controller - 48 V, 60 Amp

Group –I

SI No. 1 Soldering / Desoldering Station (Quantity- 1 no.)

Technical Specification

:Make—Weller , model- WMD 1S or equivalent ,
Line voltage – 230 v/ 50 Hz, Power input—175 W,
Protection Class – 1 & 3, glass tube fuse 5x20/T 800 mA
located at the power entry module, **Controlling**
Tolerance—Soldering /Desoldering iron $\pm 2\%$ of the final value.
Hot air pencil $\pm 30^{\circ}\text{C}$,
Temperature Control: Soldering/ Desoldering iron continuously 50°C - 450°C
Pump : Max ,low pressure 0,7bar ; max. Conveyance 20 l/min. Hot air: max. 10 l/min. ,
Potential Balance : Via 3,5 mm switch jack socket on the back of the unit along with essential accessories as specified—
a) Soldering iron set with tips for for SMD & Through hole
b) Desoldering set
c) Hot air pencil

SI No. 2

Frequency Counter

(Quantity- 1 no.)

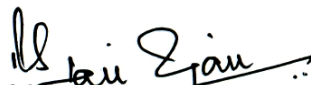
: 200 MHz or above, 2 Channel
Display: 8 Digit, 7 Segment, LED
Supply: 230 V ac +/- 10%, 50 Hz
User manual, Mains Chord, BNC-BNC

SI No.3

Power/SWR Meter

(Quantity- 6 nos.)

: Analog / Digital
Frequency range – 1.8- 200 MHz,
Power measurement range – 0 to 200 W ,
Power range—5W/20W/200W ,
Impedance — 50 ohms,
Accessories — Operation instruction.


Addl. Director General 270312.
& Inspector General of Police
Telecommunication, West Bengal

GROUP – D

Desktop Computer with preloaded Windows Softwares:

TYPE - I	
Mother board	DH61WW
Processor	i3 2120 3.3 GHz (Intel make)
RAM	2 GB
HDD	500 GB
TFT	18.5"
Ethernet card	Integrated Gigabit (10/100/1000 NIC) LAN (Support WOL / PXE / & ASF 2.0)
Mouse	2 Button USB/PS2 Optical Scroll Mouse (Same OEM make/brand as system)
Key board	104 Keys USB/PS2 keyboard (Same OEM make/brand as system) with key skin
Optical drive	Internal SATA DVD R/W Drive
Graphics	Nvidia Graphics card
Audio	On board integrated Audio controller
Operating System & Media	Genuine Windows 7 Professional edition 32 bit, with latest Service Pack Preloaded License, OEM media in form of DVD/CD containing OS and drivers, Recovery Media must be provided.
Warranty	1 yr., 2 yrs., 3yrs

TYPE - II	
Mother board	DH61WW
Processor	i3 2120 3.3 GHz (Intel make)
RAM	4 GB
HDD	500 GB
TFT	18.5"
Ethernet card	Integrated Gigabit (10/100/1000 NIC) LAN (Support WOL / PXE / & ASF 2.0)
Mouse	2 Button USB/PS2 Optical Scroll Mouse (Same OEM make/brand as system)
Key board	104 Keys USB/PS2 keyboard (Same OEM make/brand as system) with key skin
Optical drive	Internal SATA DVD R/W Drive
Graphics	Nvidia Graphics card
Audio	On board integrated Audio controller
Operating System & Media	Genuine Windows 7 Professional edition 32 bit, with latest Service Pack Preloaded License, OEM media in form of DVD/CD containing OS and drivers, Recovery Media must be provided.
Warranty	1 yr., 2 yrs., 3yrs

TYPE - III	
Mother board	DH61WW
Processor	i5 2400 3.1 GHz (Intel make)
RAM	4 GB
HDD	500 GB
TFT	18.5"
Ethernet card	Integrated Gigabit (10/100/1000 NIC) LAN (Support WOL / PXE / & ASF 2.0)
Mouse	2 Button USB/PS2 Optical Scroll Mouse (Same OEM make/brand as system)
Key board	104 Keys USB/PS2 keyboard (Same OEM make/brand as system) with key skin
Optical drive	Internal SATA DVD R/W Drive
Graphics	Nvidia Graphics card
Audio	On board integrated Audio controller
Operating System & Media	Genuine Windows 7 Professional edition 32 bit, with latest Service Pack Preloaded License, OEM media in form of DVD/CD containing OS and drivers, Recovery Media must be provided.
Warranty	1 yr., 2 yrs., 3yrs

TYPE - IV	
Mother board	DH61WW
Processor	i7 2500 3.3 GHz (Intel make)
RAM	4 GB
HDD	1 TB
TFT	18.5"
Ethernet card	Integrated Gigabit (10/100/1000 NIC) LAN (Support WOL / PXE / & ASF 2.0)
Mouse	2 Button USB/PS2 Optical Scroll Mouse (Same OEM make/brand as system)
Key board	104 Keys USB/PS2 keyboard (Same OEM make/brand as system) with key skin
Optical drive	Internal SATA DVD R/W Drive
Graphics	Nvidia Graphics card
Audio	On board integrated Audio controller
Operating System & Media	Genuine Windows 7 Professional edition 32 bit, with latest Service Pack Preloaded License, OEM media in form of DVD/CD containing OS and drivers, Recovery Media must be provided.
Warranty	1 yr., 2 yrs., 3yrs

ANNEXURE - C

Sl no.	Items including specification	Unit price mentioning Basic price & other charges separately	Warranty period	Remarks