No.IV-17017/48/02-Proc.I
Ministry of Home Affairs
Proc.I
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New Delhi the 1st June, 2004

To

The DGs/Assam Rifles/BSF/CISF/CRPF/ITBP/NSG/SSB/BPR&D

Subject: Finalization of QRs/Specifications Communication Equipment.

The Sub-Group constituted by MHA vide Memorandum No. IV.IV.17017/18/2001-Proc.I dated 5-7-2002 for laying down QRs/specifications of various items/equipments has since submitted its recommendations in respect of following communication equipment:

1. High Power Communication Jammer
2. Sweep/Barrage Jammer
3. Portable Jammer for Bomb disposal

2. These recommendations have been accepted by MHA. The QRs finalized by the Sub-Group and accepted by MHA in respect of the equipments are enclosed herewith.

3. Henceforth, all the CPMFs should procure the above items required by them to meet their operational needs strictly as per the laid down QRs/specifications.

Yours faithfully,

(Alok Mukhopadhyay)
Under Secretary(Proc.I)
Vehicle Mounted Mobile Jammer

1. Freq Range - 20 – 1000 MHz in the following 3 bands:–
   Band 1 - 20 to 100 MHz
   Band 2 - 100 to 500 MHz
   Band 3 - 500 to 1000 MHz

2. Jamming Range - Not less than 200 m.

3. Power Output - 250 W, distributed as follows:–
   (a) Band 1 : 100W
   (b) Band 2 : 100W
   © Band 3 : 50W

4. Muting Ratio - (a) 1 : 1 for Analog Devices
   (b) 1 : 0.5 for Digital Devices

5. Modulation - (a) Pure white noise to cater for all types of
    transmissions incl AM, FM, PCM.
   (b) Double Digital Sweep

6. Communication Windows - Software Configurable window facility for providing
   upto min of four such windows, In any frequency within
   a slot as specified by the user for a particular period.

7. Power Source - (a) Both AC and DC
   AC - 220 V, 50 Hz
   DC - 24 V DC nominal
   Capable of providing jamming support for a min of 4
   hrs.
   Requirement of additional SMF bts.
   (b) Vehicle engine driven inverter to support the full
   system.


9. Antenna - (a) Type - Omni directional and Log Periodic.
   (b) Retractable/flexible antenna to avoid any damage
      due to overhead obstructions during the travel.

10. Weight - Should be such that it does not affect the mobility of
     the vehicle adversely.
11. Size - Should be easily accommodated in a light vehicle of the Sumo, Ambassador or Mahindra (Armada) class. The vehicle should also accommodate two operators and a driver, besides the jammer with all its fitments.

12. Cooling - Forced Air.


14. Vehicle Platform - Tata Sumo/Armada (with hard top)/Ambassador.

15. Operational Temperature - -10 to +55 degree celsius

**Desirable OR**

16. Protection to Humans - Facility for protection of health of personal working for prolonged periods within the radiation zone of the Jammer.

**Man Portable Jammer**

17. Freq Range - 20 – 1000 MHz in the following 3 bands:
   - Band 1 - 20 to 100 MHz
   - Band 2 - 100 to 500 MHz
   - Band 3 - 500 to 1000 MHz

18. Jamming Range - Not less than 75 m.

19. Power Output - 80 W, distributed as follows:
   - (a) Band 1 : 30 W
   - (b) Band 2 : 30 W
   - (c) Band 3 : 20 W

20. Muting Ratio - (a) 1 : 1 for Analog Devices
    - (b) 1 : 0.5 for Digital Devices

21. Modulation - (a) Pure white noise to cater for all types of transmissions incl AM, FM, PCM.
    - (b) Double Digital Sweep

22. Communication Windows - Software Configurable window facility for providing up to 4 windows, in any frequency within the slots as specified by the user for a particular period.
23. Power Source
- Both AC and DC
  AC - 220 V, 50 Hz
  DC - 24 V DC nominal.
  Capable of providing jamming support for a min of 4 hrs.
  Requirement of additional SMF byys.

24. Mode of deployment
- Man Portable, should be capable of being deployed on move.

25. Antenna
- The antenna could be built in, or detached with the following characteristics:
  (a) Type - Omni directional (Whip).
  (b) Stand alone mode.

26. Weight
- Max 20 kgs including accessories.

27. Size
- Should be easily accommodated in one man portable suitcase.

28. Cooling
- Forced Air.

29. Deployment Time
- Max 10 mins.

30. Operational Temperature
- -10 to +55 degree celcius

Desirable QR

31. Protection to Humans
- Facility for protection of health of personal working for prolonged periods, within the radiation zone of the Jammer.

32. Freq Range
- To jam all presently known cell phones in all working frequencies including the following:
  (a) GSM - 900 and 1800
  (b) CDMA
  (c) MEX

33. Jamming Range
- (a) Not less than 200 m in direct line of sight.
  (b) Not less than 70 m in built up areas.

34. Power Output
- Switchable, Normal x 10

35. Power Source
- (a) 12 V DC, 300 ma.
  (b) AC Mains, 220 V, 50Hz.
36. Mode of deployment
   - Man Portable, should be capable of being deployed on move.

37. Size
   - Should be easily accommodated in one man portable suitcase.
   - Max 10 mins.

38. Deployment Time

39. Operational Temperature
   - -10 to +55 degrees Celsius

40. Weight
   - Not more than 01 Kgs.