

No.IV-17017/48/02.Prov.I
Ministry of Home Affairs
Prov.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 Equipments.

The Sub-Group constituted by MHA vide Memorandum No. IV.IV.17017/18/2001-Prov.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
(Alok Mukhopadhyay)
Under Secretary(Prov.I)

QRs FOR PORTABLE JAMMER FOR BOMB DISPOSAL APPLICATION

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
(c) **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 blys.
(b) Vehicle engine driven inverter to support the full system.
8. Mode of deployment - Vehicle mounted.
9. Antenna - (a) Type - Omni directional and Log Periodic.
(b) Retractable/flexible antenna to avoid any damage due to overheard 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 fittings.
- 12. Cooling
 - Forced Air.
- 13. Deployment Time
 - Max 15 mins.
- 14. Vehicle Platform
 - Tata Sumo/Armada (with hard top)/Ambassa let.
- 15. Operational Temperature
 - -10 to +55 degree celcius

Desirable QR

- 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** : 30W
 - (b) **Band 2** : 30W
 - (c) **Band 3** : 20W
- 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 upto min of four such windows, in any frequency within a slot 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 minimum of 4 hrs.
 - Requirement of additional SMF blys.
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 OR

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

Cellular 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.
- 38. Deployment Time - Max 10 mins.
- 39. Operational Temperature - -10 to +55 degree celcius
- 40. Weight - Not more than 01 Kgs.