New Delhi, Dated 31.03.2006

To

The DGs: Assam Rifles/BSF/CISF/CRPF/TTBP/NSG/SSB/BPR&D.

Subject: Finalization of QRs/Specifications for Weaponry/Security Equipments

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

(a) Radio Communication Test Set
(b) Distortion Meter
(c) HIF Man pack Transceiver

2. These recommendations have been accepted by MHA. The QRs finalized by the Sub-Group and accepted by MHA in respect of the above 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(Prov.I)

Copy to : DD(Procurement), MHA

Copy for information to:
1. PS to JS(PM), MHA
2. Dir(Prov), MHA
## QRs for Radio Communication Test Set

### Specification

Consisting of

1. RF Signal generator
2. AF Volt meter
3. Audio generator
4. SINAD/Distortion meter
5. RF counter
6. RF power meter
7. Oscilloscope
8. Volt-meter
9. Ampere meter
10. RF Spectrum analyzer
11. Signaling encoder/decoder

### Summary specification of inbuilt instruments

#### RF Signal Generator

<table>
<thead>
<tr>
<th>(a) Frequency range</th>
<th>250 KHz to 1 Ghz</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Level</td>
<td>-135 dbm to -40 dbm</td>
</tr>
<tr>
<td>(c) Modulating freq. range</td>
<td></td>
</tr>
<tr>
<td>(i) 20 Hz to 15 KHz for AM</td>
<td></td>
</tr>
<tr>
<td>(ii) 20 Hz to 20 KHz for FM</td>
<td></td>
</tr>
<tr>
<td>(d) AM depth</td>
<td>0 - 99%</td>
</tr>
<tr>
<td>(e) Max. Deviation range</td>
<td>100KHz or higher</td>
</tr>
</tbody>
</table>

#### AF Volt meter

<table>
<thead>
<tr>
<th>(a) Frequency range</th>
<th>20 Hz to 400 KHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Level</td>
<td>0 - 4 V or higher</td>
</tr>
</tbody>
</table>

#### Audio generator

<table>
<thead>
<tr>
<th>(a) Frequency range</th>
<th>DC to 25 KHz or higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Output level</td>
<td>0 - 30 V</td>
</tr>
</tbody>
</table>

#### SINAD/Distortion meter

<table>
<thead>
<tr>
<th>(a) Fundamental frequency</th>
<th>1Khz</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Sinad range</td>
<td>1 - 50 db or higher</td>
</tr>
</tbody>
</table>

#### RF counter

<table>
<thead>
<tr>
<th>(a) Frequency range</th>
<th>400 KHz - 1 Ghz</th>
</tr>
</thead>
</table>

#### Oscilloscope

<table>
<thead>
<tr>
<th>(a) Frequency range</th>
<th>2 Hz - 50 KHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Scale/division</td>
<td>10mv - 10 V/div</td>
</tr>
</tbody>
</table>
RF power meter
   (a) Input range      10 mw - 50 W

DC Volt meter
   (a) DC Voltage range 100 mv - 30 V

Ampere meter
   (a) DC Current range 0 - 10 A

RF Spectrum analyzer
   (a) Frequency range 400 Khz - 1 Ghz

Signaling coder/decoder  Provided

OTHER REQUIREMENTS

Warranty : 2 Years from date of receipt of store in good condition.
Spare parts : Supplier will have the responsibility to supply required spares for a span of 8 years from the date of supply of the equipment.
Manuals : User and technical manuals giving circuit and schematic details be supplied along with the equipment.
Training : Supplier will have to arrange training for a duration of 2 weeks on maintenance of equipment.
Interface : Parallel interface port for printer be provided.

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