

**GOVERNMENT OF INDIA**  
**(Ministry of Home Affairs)**  
**DIRECTORATE GENERAL**  
**CENTRAL RESERVE POLICE FORCE**  
**EAST BLOCK-7, SEC-1, R.K. PURAM, NEW DELHI-110066**  
(Email:- [comncell@crpf.gov.in](mailto:comncell@crpf.gov.in) Tele/Fax:011-26109038)

No. B.V-7/2019-20-C (QRs)

Dated, the 07<sup>th</sup> January'2019

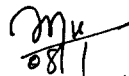
To

- |   |  |
|---|--|
| 1. DIG (Comn), ITBP<br>Block No. 2, CGO Complex<br>Lodhi Road, New Delhi-03 | 2. DIG (Comn), NSG<br>Meharam Nagar<br>Palam, New Delhi-37                       |
| 3. DIG (Comn), SSB<br>East Block-V, R.K Puram<br>New- Delhi-66              | 4. AIG (Comn), CISF<br>Block No. 13, CGO, Complex<br>Lodhi Road, New Delhi-03    |
| 5. DIG (Prov), BSF<br>Block No. 10, CGO Complex<br>Lodhi Road, New Delhi-03 | 6. Liaison Office, Assam Rifle<br>Room No-171, North Block, MHA<br>New Delhi -01 |

**Subject: Regarding approved QRs/TDs of "Digital Monitoring Receiver".**

Please find enclosed QRs/TDs of "Digital Monitoring Receiver" as Annexure-"A" duly approved by the competent authority is forwarded herewith for further necessary action.

Encl: (Approved QRs & TDs of "Digital Monitoring Receiver")

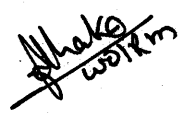
  
{P.R.Jha, DC (Comn)}  
**For DIG (Equipment)**  
**Directorate General, CRPF**

**QRs OF DIGITAL MONITORING RECEIVER**

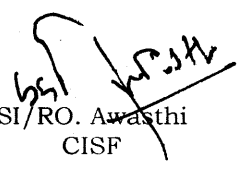
| Parameters   | Specifications   |
|--|--|
| a. Role  | Static/Mobile / Manpack version.   |
| b. Frequency Range   | 100 KHz to 1300 MHz  |
| c. No of memory channel  | Minimum 2000 memory channel  |
| d. Memory bank   | 40 or More   |
| e. Search bank   | 40 or More   |
| f. Tuning steps/ Frequency resolution  | Minimum step size 10 Hz  |
| g. Receive Mode  | Intercept both digital and analog modes:-<br>a) Digital Mode-DMR(4FSK), DPMR, NXDN, P25 (APCO25), TETRA, D-STAR ,ALINCO EJ-47U, YAESU, DIGITAL- CR etc.<br>b) Analog Mode-AM,USB,LSB,CW,NFM etc.   |
| h. Antenna Impedance   | 50 Ohm   |
| i. Selectivity   | Better than 60 dB(25KHz), better than 50dB(12.5)KHz  |
| j. Sensitivity   | 530 KHz-17.99999 MHz: 0.75 $\mu$ V(12dB) SINAD, 18 MHz-1300 MHz 0.35 $\mu$ V (12dB SINAD)  |
| k. VFO (Variable Freq. Oscillator)   | Minimum 3 Nos.(0.5-1300MHz)  |
| l. Frequency stability   | < $\pm$ 2.5 ppm  |
| m. AF Power Output   | 1 W(Approx.)   |
| n. Weight & Dimensions   | Less than 2kg and 200 mm(W)x 65mm(H)x 250mm(D)   |
| 2. Power Supply: Should operate with AC and DC Power supply                                      |  |
| a. AC 230 V $\pm$ 10%  |  |
| b. 12V DC $\pm$ 10%  |  |
| 3. Environmental Parameters  |  |
| Operating Temperature  | -10 $^{\circ}$ to +55 $^{\circ}$ C   |
| 4. Antenna with accessories. Provide suitable antenna for interception (As per user requirement) |  |
| Manpack Role   | i) VHF Tape Antenna<br>ii) UHF Tape Antenna<br>iii) Flexible Whip VHF & UHF Antenna<br>iv) Battery capacity- 7Ah & 12V<br>v) DC cable, Carry bag, Battery Charger, Head Gear (Single side).  |
| Mobile Role  | i) 0/3 dB VHF antenna with 3mtrs. Cable bracket mount.<br>ii) 0/3 dB UHF antenna with 3mtrs. Cable bracket mount.<br>iii) Flexible Whip VHF & UHF Ant. With DC cable.  |
| Static Role  | i) 0/3/6 dB VHF GP Antenna.<br>ii) 0/3/6 dB UHF GP Antenna.<br>iii) HF Broad band Dipole Ant with 30mtrs RG213.<br>iv) Discone Wide band Antenna.<br>v) HF, VHF & UHF Antenna.<br>vi) 1/2 inch Low Loss RF Cable 30mtrs (Loss-0.03dB/mtrs)<br>DC Cable, Power supply unit. |
| a. Connector jack for external speaker/ headphone  | Should be available  |
| b. Technical/operation Manual  | Should be provided by firm   |
| c. Telescopic Mast (Optional as per user requirement)  | 20 feet Telescopic mast with supporting rope(3 sections), base plate, fixing piccle  |
| d. External speaker (Optional as per user requirement)   | Yes  |
| 5. Receiver Features   |  |
| a. Display   | Alphanumeric LCD/LED display   |

The bottom of the page contains several handwritten signatures and initials in black ink. From left to right, there is a signature that appears to be 'An', followed by 'Shoko', 'A', 'MCSH', 'Raj', 'Vij', and a date '6/12/18'. There is also a small mark on the far right.

| Parameters  | Specifications  |
|---|---|
| b. Priority scanning                                    | Should be available   |
| c. Auto store of frequency                              | Should be available   |
| d. AFC(Automatic Freq Control)                          | AFC (Automatic frequency Control) function for spot on tuning                                 |
| e. Squelch  | NSQ,LSQ   |
| f. Squelch & Volume control knob                        | Should be available   |
| g. Pass frequency mode                                  | Should be available   |
| h. Multiple IF bandwidth                                | 3/6/15/30/100/200 KHz   |
| i. Audio recording(Built-in)                            | >200 Hrs  |
| j. Built in playback facility                           | Should be available   |
| k. Data clone Lead                                      | To interface with computer  |
| l. Data backup & Restore data facility via SD/SDHC card | Backup & Restore data (Memory channel/search bank/configuration) facility should be available |
| m. Real time clock                                      | Should be available   |
| n. Auto sleep, Alarm, Record Timer                      | Should be available   |
| 6. Optional system                                      | Life time online firmware update support for newly added features                             |
|   | Receiver should have facility to operate by window based PC                                   |
|   | Audio Analyzer Software   |

  
WTRM

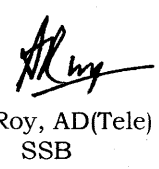
WO/RM R.S. Dhaka  
Assam Rifles

  
CISF

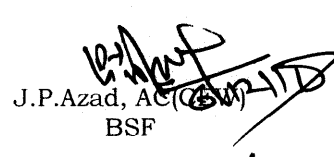
SI/RO. Awasthi  
CISF

  
NSG

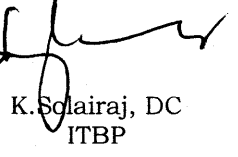
AC-I R.K. Giri  
NSG

  
SSB

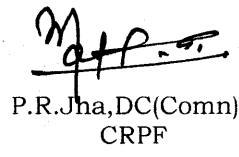
K.K.Roy, AD(Tele)  
SSB

  
BSF

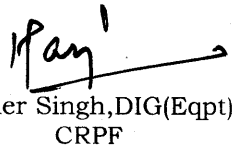
J.P. Azad, AC(Com)  
BSF

  
ITBP

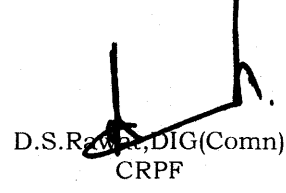
K. Solairaj, DC  
ITBP

  
CRPF

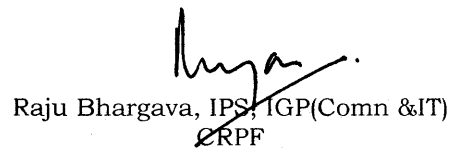
P.R. Jha, DC(Comn)  
CRPF

  
CRPF

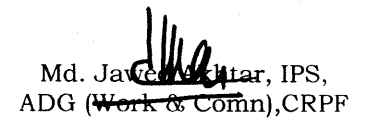
Harjinder Singh, DIG(Eqpt)  
CRPF

  
CRPF

D.S. Rana, DIG(Comn)  
CRPF

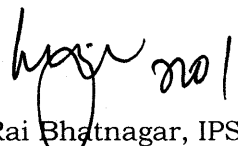
  
CRPF

Raju Bhargava, IPS, IGP(Comn &IT)  
CRPF

  
CRPF

Md. Jawed Akhtar, IPS,  
ADG (Work & Comn), CRPF

Approved/Not Approved



Rajeev Rai Bhatnagar, IPS  
DG, CRPF

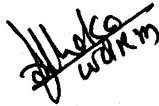
**TDs OF DIGITAL MONITORING RECEIVER**

| <b>Parameters</b>   | <b>Specifications</b>   | <b>Trial Directives</b>   |
|---|---|---|
| a. Role   | Static/Mobile / Manpack version   | Board will check practically  |
| b. Frequency Range  | 100 KHz to 1300 MHz   | Board will check practically  |
| c. No of memory channel   | Minimum 2000 memory channel   | Board will check practically  |
| d. Memory bank  | 40 or More  | Board will check practically  |
| e. Search bank  | 40 or More  | Board will check practically  |
| f. Tuning steps/ Frequency resolution   | Minimum step size 10 Hz   | Board will check practically  |
| g. Receive Mode   | Intercept both digital and analog modes:-<br>a) Digital Mode-DMR(4FSK), DPMR, NXDN, P25(APCO25), TETRA, D-STAR, ALINCO EJ-47U, YAESU, DIGITAL -CR etc.<br>b) Analog Mode-AM, USB, LSB, CW, NFM etc. | Board will check practically with available radio sets and firm will also submit OEM certificate. |
| h. Antenna Impedance  | 50 Ohm  | Firm will submit OEM certificate.   |
| i. Selectivity  | Better than 60 dB(25Khz), better than 50dB(12.5)Khz   |   |
| j. Sensitivity  | 530 Khz-17.99999 Mhz: 0.75 $\mu$ V(12dB) SINAD, 18 Mhz-1300 Mhz 0.35 $\mu$ V (12dB SINAD)   |   |
| k. VFO  | Minimum 3 Nos.(0.5-1300Mhz)   |   |
| l. Frequency stability  | $\leq \pm 2.5$ ppm  |   |
| m. AF Power Output  | 1 W(Approx.)  |   |
| n. Weight & Dimensions  | Less than 2kg and 200 mm(W)x 65mm(H)x 250mm(D)  | Board will check practically  |
| <b>2. Power Supply:</b> Should operate with AC and DC power supply.                                     |   |   |
| a. AC 230 V $\pm$ 10%   |   | Board will check practically.   |
| b. 12V DC $\pm$ 10%   |   | Board will check practically  |
| <b>3.Environmental Parameters</b>   |   |   |
| Operating Temperature   | -10 $^{\circ}$ to +55 $^{\circ}$ C  | Firm will submit certificate of any Govt. Lab or NABL or ILAC accredited laboratory.              |
| <b>4. Antenna with accessories.</b> Provide suitable antenna for interception (As per user requirement) |   |   |
| Manpack Role  | i) VHF Tape Antenna<br>ii) UHF Tape Antenna<br>iii) Flexible Whip VHF & UHF Antenna<br>iv) Battery capacity- 7Ah & 12V<br>v) DC cable, Carry bag, Battery Charger, Head Gear (Single side).         | Board will check practically  |
| Mobile Role   | i) 0/3 dB VHF antenna with 3mtrs. Cable bracket mount.<br>ii) 0/3 dB UHF antenna with 3mtrs. Cable bracket mount.<br>iii) Flexible Whip VHF & UHF Ant. With DC cable.                               |   |

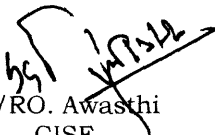
| Parameters  | Specifications  | Trial Directives             |
|---|---|------------------------------|
| Static Role   | i) 0/3/6 dB VHF GP Antenna.<br>ii) 0/3/6 dB UHF GP Antenna.<br>iii) HF Broad band Dipole Ant.<br>iv) Discone Wide band Antenna.<br>v) HF, VHF & UHF Antenna.<br>vi) ½ inch Low Loss RF Cable<br>30mtrs (Loss-0.03dB/mtrs)<br>DC Cable, Power supply unit. | Board will check practically |
| a. Connector jack for external speaker/headphone        | Should be available   | Board will check practically |
| b. Technical/operation Manual                           | Should be provided by firm  | Board will check physically  |
| c. Telescopic Mast (Optional as per user requirement)   | 20 feet Telescopic mast with supporting rope(3 sections), base plate, fixing picke  | Board will check practically |
| d. External speaker (Optional as per user requirement)  | Yes   | Board will check practically |
| <b>5. Receiver Features:</b>                            |   |                              |
| a. Display  | Alphanumeric LCD/LED display  | Board will check practically |
| b. Priority scanning                                    | Should be available   | Board will check practically |
| c. Auto store of frequency                              | Should be available   | Board will check practically |
| d. AFC  | AFC (Automatic frequency Control) function for spot on tuning   | Board will check practically |
| e. Squelch  | NSQ,LSQ   | Board will check practically |
| f. Squelch & Volume control knob                        | Should be available   | Board will check practically |
| g. Pass frequency mode                                  | Should be available   | Board will check practically |
| h. Multiple IF bandwidth                                | 3/6/15/30/100/200 KHz   | Board will check practically |
| i. Audio recording(Built-in)                            | ≥200 Hrs  | Board will check practically |
| j. Built in playback facility                           | Should be available   | Board will check practically |
| k. Data clone Lead                                      | To interface with computer software   | Board will check practically |
| m. Data backup & Restore data facility via SD/SDHC card | Backup & Restore data (Memory channel/search bank/configuration) facility should be available   | Board will check practically |
| n. Real time clock                                      | Should be available   | Board will check practically |

A series of handwritten signatures and initials are present at the bottom of the page, including names like 'Shaka', 'Ray', and 'Hary', along with various scribbles and initials.

| Parameters                         | Specifications   | Trial Directives                  |
|------------------------------------|--|-----------------------------------|
| o. Auto sleep, Alarm, Record Timer | Should be available  | Board will check practically      |
| 6. Optional System                 | Life time online firmware update support for newly added features. | Firm will submit OEM certificate. |
|                                    | Receiver should have facility to operate by window based PC.       | Board will check practically.     |
|                                    | Audio Analyzer Software  |                                   |



WO/RM R.S. Dhaka  
Assam Rifles



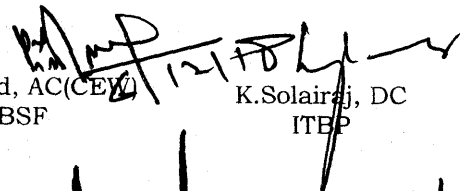
SI/RO. Awasthi  
CISF



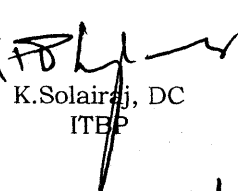
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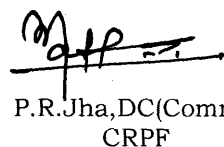
K.K. Roy, AD(Tele)  
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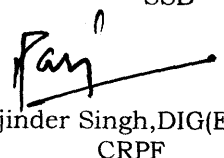
J.P. Azad, AC(CEV)  
BSF



K. Solairaj, DC  
ITBP



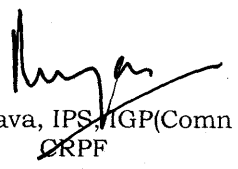
P.R. Jha, DC(Comn)  
CRPF



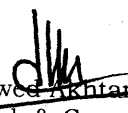
Harjinder Singh, DIG(Eqpt)  
CRPF



D.S. Rawat, DIG(Comn)  
CRPF

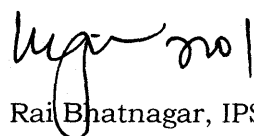


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CRPF



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ADG (Work & Comn), CRPF

Approved/Not Approved



Rajeev Rai Bhatnagar, IPS  
DG, CRPF