

F.No63013/02/2015-Ord/BSF /MHA. Prov. 750
Bharat Sarkar/Government of India
Griha Mantralaya/Ministry of Home Affairs
PM Division

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26, Man Singh Road, Jaisalmer House
New Delhi, Dated 10th April, 2015

To,

DsG: AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPR&D.

**Subject: QRs and Trial Directive for Button Camera with Hi-Resolution
DVR.**

Sir,

The QRs and Trial Directives in respect of Button Camera with Hi-Resolution DVR as per Annexure have been accepted by the Competent Authority in MHA.

2. The CAPFs concerned will be accountable for correctness of the QRs/Trial Directives

3. Henceforth, all the CAPFs should procure the above item required by them strictly as per the laid down Technical Specifications/QRs.

4. Item being sensitive in nature and to be used for secret operations, putting detail QRs of such item on web site may not be in the interest of nation keeping in view its security. However, while floating tenders/RFP, utmost care needs to be taken to have effective transparency in the procedure, keeping in view the guidelines issued by the CVC on the subject.

Yours faithfully,

Encl: As above


10/4/15
(M.K. Chahar)

Under Secretary to the Govt of India
Tel: 23381278

Copy to: DDG (Procurement), MHA.

DIRECTOR GENERAL BORDER SECURITY FORCE
(GENERAL DIRECTORATE)

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The Sub-group of Technical Experts on surveillance equipment constituted by MHA vide their letter No. IV-24011/12/2011-Prov-I dated 13th June 2012 held its meeting at BSF Headquarters on 23 Dec 2013, 10 March 2014, 28 July 2014, 25 Aug 2014, 3rd Nov 2014, 5 Jan 2015 and 23rd Feb 2015 to finalized the QRs of 'Button Camera With Hi-Resolution DVR'.

After detailed deliberation the referred Sub-group has finalized the QRs of " Button Camera with Hi- Resolution DVR" which are as under:-

QUALITATIVE REQUIREMENT FOR BUTTON CAMERA WITH HI-RESOLUTION DVR

| S No. | SPECIFICATIONS |
|-------|--|
| 1 | Hi Resolution CCD camera in shape of a Button having a field of view of 75 Degree or better. |
| 2 | Camera Resolution should not be less than 550 TV Lines. |
| 3 | It should be able to work in Low light condition and should have a lux value of 0.05 or less |
| 4 | The device should essentially draw its power from the recorder unit. |
| 5 | The camera should have a provision of Inter changing the front appearance of camera like Shirt buttons, Blazer buttons, or screw / nuts for using in different field situations. |
| 6 | The camera should be HDMI compatible, pocket size recorder, with facility to record Audio Video Input signals from covert / hidden cameras. |
| 7 | The resolution of the recorder should not be less than 1280 x 960 pixels. |
| 8 | The Recorder should continuously record the video/ audio signals for at least 200 minutes, once battery is fully charged. |
| 9 | The recorder must have a display screen of 2.4", on which the recorded data can be replayed and viewed along with audio, without the help of PC/Laptop |
| 10 | The recorder should be operational and functionally controllable by Touch screen. |
| 11 | Memory 32 GB or better |
| 12 | Date and Time should be essentially displayed on the video footage, during playback |
| 13 | System should essentially provide Temper Proof counter- watermarked with a counter indication in each frame. |
| 14 | The serial no. of the recorder should be embedded on to the video footage. |
| 15 | The Recorder should have the input / output AV facility. |
| 16 | For critical field situations, the recorder should have time programmable recording activation mode, using which the recorder should automatically start recording at pre defined date & time and should also have provision for multiple recording timers |
| 17 | No separate power source should be required for Camera; the recorder should provide power to its compatible cameras. |
| 18 | The audio clarity should be good enough and should have 32 KHZ of recording. |
| 19 | It should essentially have feature of password protection to control the functions. |
| 20 | DVR SPECIFICATIONS |
| | i) Approx 2.4 inch TFT LCD Screen Resolution With 1280×960 Pixels HDMI |
| | ii) Cyclic recording function |
| | iii) Motion activated recording function |

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|----|-------------------------|--|
| | iv) | One key operation for startup recording |
| | v) | Vibration inform function |
| | vi) | Built – in flash memory 128 MB and should support external memory upto 32 GB |
| | vii) | Microphone built on the camera |
| | viii) | AV in/out facility |
| | ix) | Time/Date stamp on each recording |
| | x) | Records directly to removable SD card |
| | xi) | Kit includes Complete 4 Button/Screw Camera Set |
| | xii) | MPEG4 Video Encoding |
| | xiii) | Power off & LCD off |
| | xiv) | USB/mini USB 2.0 interface |
| | xv) | It should have Li-ion Battery |
| | xvi) | Main unit size: Maximum 67×55×15mm |
| 21 | CAMERA | |
| | i) | Imaging Sensor : less than 1/3 -inch CCD |
| | ii) | CCD Total Pixels : 795×596 (PAL) |
| | iii) | Horizontal Resolution : TV Lines 550 |
| | iv) | MIC : Yes |
| | v) | FOV : 75 degree |
| | vi) | FPS : Minimum 15 FPS |
| | vii) | Minimum Illumination : 0.05 Lux |
| | viii) | Range : 2-3 mtrs Video and 1-2 mtr Audio |
| | ix) | Certification : CE/FCC |
| 22 | COMPLETE PACKAGE | |
| | i) | Mini DVR × 1, Mini Camera × 1, |
| | ii) | Input / output Cable |
| | iii) | 2.0 USB Cable × 1, CD Driver × 1 |
| | iv) | User Manual × 1, Rechargeable Li-Ion Battery×1 |
| | v) | Battery Charger × 1, Remote control × 1 |
| | vi) | Interchangeable buttons and screws |

[Signature]
23.2.15
(A.K. TIWARI), Comdr, Bt

[Signature]
Rajesh K. K. A. dy-ds
DC PWD

[Signature]
(Chandrasekhar Kupras) DC, Bt, S/W

[Signature]
(A.K. Shukla), AC, CISE

[Signature]
(Hem Raj) DC, CRPF

[Signature]
23/02/2015
TAMIL NADU UPADHAYA,
ASSISTANT COMMANDANT, S.S.B

[Signature]
(Jatinder Singh)
INSPT MANTSH RAO

[Signature]
(AC Manoj P.V, NSG)

[Signature]
(KAPIL)
SSACE, BPR&D

APPROVED / NOT APPROVED

[Signature]
(D K PATHAK) IPS
DIRECTOR GENERAL
BORDER SECURITY FORCE

TRIAL DIRECTIVE FOR BUTTON CAMERA WITH HI-RESOLUTION DVR


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| S No. | Procedure suggested for trial for Board of Officers | Result expected / desired | Complied / Not Complied |
|-------|--|--|-------------------------|
| 1. | Hi-Resolution CCD camera in shape of a Button having a field of view of 75 Degree or better. | Must have Hi-Resolution CCD camera in shape of a Button having a field of view of 75 Degree or better. | |
| 2. | Camera Resolution should not be less than 550 TV Lines. | Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab. | |
| 3. | It should be able to work in Low light condition and should have a lux value of 0.05 or less. | It must be able to work in Low light condition and should have a lux value of 0.05 or less. | |
| 4. | The device should essentially draw its power from the recorder unit. | The camera must function on the power supplied from the DVR. | |
| 5. | The camera should have a provision of Inter changing the front appearance of camera like Shirt buttons, Blazer buttons, or screw / nuts for using in different field situations. | The camera must have a provision of Inter changing the front appearance of camera like Shirt buttons, Blazer buttons, or screw / nuts for using in different field situations | |
| 6. | The camera should be HDMI compatible, pocket size recorder, with facility to record Audio Video Input signals from covert / hidden cameras. | The camera must be HDMI compatible, pocket size recorder, with facility to record Audio Video Input signals from covert / hidden cameras | |














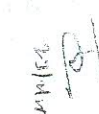









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|-----|---|---|---|
| 7. | The resolution of the recorder should not be less than 1280 x 960 pixels. | | The resolution of the recorder must not be less than 1280 x 960 pixels |
| 8. | The Recorder should continuously record the video/ audio signals for at least 200 minutes, once battery is fully charged. | Physically checked by the Board. | The Recorder must be continuously record the video/ audio signals for at least 200 minutes, once battery is fully charged |
| 9. | The recorder must have a display screen on which the recorded data can be replayed and viewed along with audio, without the help of PC/Laptop | a) Measure the screen size with the help of measuring tape. b) Physically check the replay of stored audio & video by the board. | The recorder must have be a display screen, on which the recorded data can be replayed and viewed along with audio, without the help of PC/Laptop |
| 10. | The recorder should be operational and functionally controllable by Touch screen. | Physically checked by the Board. | The recorder must be operational and functionally controllable by Touch screen |
| 11. | Memory 32 GB or better | Physically checked by the Board. | Memory must be 32 GB or better. |
| 12. | Date and Time should be essentially displayed on the video footage, during playback | Physically checked by the Board. | Date and Time must be essentially displayed on the video footage, during playback |
| 13. | System should essentially provide Temper Proof counter- watermarked with a counter indication in each frame. | Physically checked by the Board. | System must have essentially provide Temper Proof counter- watermarked with a counter indication in each frame |
| 14. | The serial no. of the recorder should be embedded on to the video footage. | Physically checked by the Board. | The serial no. of the recorder must be embedded on to the video footage |
| 15. | The Recorder should have the input / output AV facility. | Physically checked by the Board. | The Recorder must have the input / output AV facility. |
| 16. | For critical field situations, the recorder should have time programmable recording activation mode, using which the recorder should automatically start recording at pre defined date & time and should also have provision for multiple recording timers. | Physically checked by the Board. | For critical field situations, the recorder must have, time programmable recording activation mode, using which the recorder should automatically start recording at pre defined date & time and must |

(Handwritten marks and signatures)

| Camera Set | | | | |
|-------------------|---|--|--|--|
| xii) | MPEG4 Video Encoding | Physically checked by the Board | Must comply with the same | |
| xiii) | Power off & LCD off | Physically checked by the Board | Must comply with the same | |
| xiv) | USB/mini USB 2.0 interface | Physically checked by the Board | Must comply with the same | |
| xv) | It should have Li-ion Battery | Physically checked by the Board | Must comply with the same | |
| xvi) | Main unit size: Maximum 67x55x15mm | Physically checked by the Board | Main unit size must be Maximum 67x55x15mm | |
| 21. CAMERA | | | | |
| i) | Imaging Sensor: less than 1/3 -inch CCD | Check the National/International Accredited lab certificate/report submitted by the firm in respect of Imaging sensor. | Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab. | |
| ii) | CCD Total Pixels: 795x596 (PAL) | Check the National/International Accredited lab certificate/report submitted by the firm in respect of Imaging sensor. | Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab. | |
| iii) | Horizontal Resolution: TV Lines 550 | Check the National/International Accredited lab certificate/report submitted by the firm in respect of Imaging sensor. | Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab. | |
| iv) | MIC : Yes | Physically checked by the Board | Must have MIC Facility. | |
| v) | FOV :75 degree | Refer to QRs Para 1 | Must have FOV 75 degree | |
| vi) | FPS: Minimum 15 FPS | Physically checked by the Board | Must have minimum 15 FPS | |
| vii) | Minimum Illumination: 0.05 Lux | Refer to QRs Para 2 | Must comply with the same | |
| viii) | Range:2-3 mtvs Video and 1-2 mtv Audio | Physically checked by the Board | Must comply with the same | |
| ix) | Certification: CE/FCC | Physically check the certificate | The certificate must confirm the | |

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