F.No63013/02/2015-Org/BSF /MHA-270V-1

Bharat Sarkar/Government of India Griha Mantralaya/Ministry of Home Affairs PM Division



26, Man Singh Road, Jaisalmer House New Delhi, Dated /o 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

(M.K. Chahar)

Under Secretary to the Govt of India

Tel: 23381278

Copy to: DDG (Procurement), MHA.

<u>DIRECTOR GENERAL BORDER SECURITY FORCE</u> (GENERAL DIRECTORATE)



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, 3 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 Degre 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.
4	The serial no. of the recorder should be embedded on to the video footage.
5	The Recorder should have the input / output AV facility.
6	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
7	No separate power source should be required for Camera; the recorder should provide power to its compatible cameras.
8	The audio clarity should be good enough and should have 32 KHZ of recording.
	It should essentially have feature of password protection to control the functions. 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 s	startup recording	
	V)	Vibration inform function	n	
	vi)	Built - in flash memory	128 MB and should support externa	memory
		upto 32 GB		
	vii)	Microphone built on the c	amera	
	viii)	AV in/out facility		
	ix)	Time/Date stamp on ea	nch recording	
	X)	Records directly to rem	ovable SD card	
	xi)		4 Button/Screw Camera Set	
	xii)	MPEG4 Video Encodin	g	
	xiii)	Power off & LCD off		
	xiv)	USB/mini USB 2.0 inter	face	
	XV)	It should have Li-ion Ba		
	xvi)	Main unit size: Maximu	m 67×55×15mm	
21	CAMER			
Second 2	i)	Imaging Sensor	: less than 1/3 -inch CCD	
			: 795×596 (PAL)	
	iii)	Horizontal Resolution		
	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	COMPLE	TE PACKAGE		
	i)	Mini DVR × 1, Mini Cam	era × 1,	
	·ii)	Input / output Cable		
	111)	2.0 USB Cable × 1, CD		3
	iv)	User Manual × 1, Recha	argeable Li-Ion Battery×1	7- 5-4-
	V)	Battery Charger × 1, Re	mote control × 1	
	vij)	Interchangeable buttons	and screws	

(Harrinder Kumar) (1, BG, Sid

MARY UPADHYAT,

(KAPIL)

SSA(E), BPR&D

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	Correction			1.0em 11.
	Input signals from covert / hidden		hidden cameras.	
	with facility to record Audio Video	5-21	,Audio Video Input signals from covert /	
	compatible, pocket size recorder,		pocket size recorder, with facility to record	
	The camera must be HDMI	Physically checked by the Board.	The camera should be HDMI compatible,	6.
MARINERET CONTROLLED C	different field situations			
	buttons, or screw / nuts for using in		nuts for using in different field situations.	
	of camera like Shirt buttons, Blazer	100	like Shirt buttons, Blazer buttons, or screw /	
	Inter changing the front appearance		changing the front appearance of camera	
	The camera must have a provision of	Physically checked by the board.	The camera should have a provision of Inter	Ņ
	power supplied from the DVR.	check the camera functioning.	from the recorder unit.	
El Properties	The camera must function on the	Connect the camera with the DVR and	The device should essentially draw its power	afana
	value of 0.05 or less.	light level with the help of Lux-meter.	0.05 or less.	
	condition and should have a lux	condition of 0.05 lux. Measure the	condition and should have a lux value of	
	It must be able to work in Low light	Check the camera operation in light	It should be able to work in Low light	Ç
THE ART OF THE PROPERTY OF THE	checked from the concerned lab.			
8.	the veracity of the same may be			- W
	case of any doubt in the test report,	camera resolution.		2
3	certificate / report for the same. In	submitted by the firm in respect of		
×	International accredited lab test	Accredited lab certificate/report	550 TV Lines.	mission
	Check the authenticity of National /	Check the National/International	Camera Resolution should not be less than	2.
		Hi-Resolution & CCD camera.		
		submitted by the firm in respect of		
		Accredited lab certificate/report		
		c) Check the National/International		
		physically.		
	field of view of 75 Degree or better.	b) Check the shape of the camera	or better.	
53	camera in shape of a Button having a	as per the standard procedure.	Button having a field of view of 75 Degree	
9	Must have Hi Resolution CCD	a) Check the camera FOV in the Lab	Hi Resolution CCD camera in shape of a) represents
Complied		Board of Officers	7 L C	Z
Complied / Not	Result expected / desired	Procedure suggested for trial for		S
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provision for intumple recording timers.
should automatically start recording at pre- defined date & time and should also have
should have time programmable recording
mput / output
System should essentially provide Temper Physically checked by the Board Proof counter- watermarked with a counter indication in each frame.
be essentially Physically checked by the Board footage, during
Physically checked by the Board.
The recorder should be operational and functionally controllable by Touch screen. Physically checked by the Board.
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 should continuously record the video/ audio signals for at least 200 minutes, once battery is fully charged.
less than 1280 x 960 pixels.

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parate power source made for Camera; the recovide power to its comply and base feat ord protection to control ord protection for the comply with the same	Physically checked by the Board	Physically checked by the Board	Physically checked by the Board	Physically checked by the Board	Physically checked by the Board			Physically checked by the Board	Physically checked by the Board	Physically checked by the Board		Physically checked by the Board	Physically checked by the Board	National/International Accredited lab certificate/report submitted by the firm in respect of resolution.	the help measuring tape. Check the	Physically checked by the Board with		Fliysteally checked by the board	frequency counter.	Physically checked with the help of				
	Must comply with the same	Must comply with the same	Must comply with the same	Must have AV in/out facility.	Must have Microphons built on the camera		128 MB and must support external	Must have Built - in flash memory	Must have Vibration inform function	Must comply with the same		have motion	Must have Cyclic recording function	1280×960 Pixels HDMI	Screen Resolution	The screen must have 2.4 inch TFT			 enough and must have 32 KHz of	The audio clarity must be good	cameras	required for Camera; the recorder	No separate power source must be	timers.

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A RA D	ix) Certification: CE/FCC	VIII) Kange:2-3 intrs Video and 1-2 intr		77.00	FOV :/5 degree						iii) Horizontal Resolution: LV Lines 550						ii) CCD Total Pixels: /95×596 (PAL)					September 1	i) Injaging Sensor: less than 1/3		XVI) Wain unit size: Maximum	XVI It should have Li-Ion Battery	XIV) USB/mini USB 2.0 interface	XIII) Power off & LCD off	XII) MPEG4 Video Encoding	Callicia oct
And Indown	Physically check the certificate	Physically checked by the Board	Refer to QRs Para 2	Physically checked by the Board	Refer to QRs Para 1	Physically checked by the Board		G. CABOCK	Imaging sensor	lab	ne Natio		8	linaging sensor.	submitted by the firm in respect of	ab	ne Natio		Na	ř.	by the fir	Accredited lab certificate/report	+6.2	ANTICAL TO THE PROPERTY OF THE	Physically checked by the Board	Physically checked by the Board	Physically checked by the Board	Physically checked by the Board	Physically checked by the Board	When the second of the second
Trinko Mis Jake Lead .	The certificate must confirm the	Must comply with the same	Must comply with the same	Must have minimum 15 FPS	Must have FOV 75 degree	Must have MIC Facility.	checked from the concerned lab.	the veracity of the same may be			Check the authenticity of National /	checked from the concerned lab.	the veracity of the same may be	case of any doubt in the test report,	certificate / report for the same. In		_	checked from the concerned lab.	the veracity of the same may be	case of any doubt in the test report	-			67×55×15mm	Main unit size must be Maximum	Must comply with the same	Must comply with the same	Must comply with the same	Must comply with the same	
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i) Intercha	Ba	-						
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