

DIRECTOR GENERAL BORDER SECURITY FORCE
(PROVISIONING DIRECTORATE (MOD CELL))

The Sub-group of Technical Experts on Surveillance Equipments constituted by MHA vide their letter No. IV-1017/18/2001-Prov-I dated 05 Jul 2002 held its meeting at BSF Headquarters on 21st Aug 2015, 20th Oct 2015, 23rd Dec 2015, 11th March 2016, 06th May 2016, 21st July 2017, 01st Nov 2017, 22nd October 2018 and 20th May 2019 to revise the QRs of '**Police Dog Camera**'.

After detailed deliberations the referred Sub-group has revised the QRs of '**Police Dog Camera**' on 10th July 2019 which are as under:-

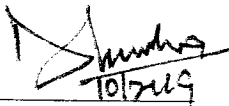
S.No	Specification
1	Camera Unit
i	Weight – Total weight of harness, head mount/back mount/chest mount, camera and transmitter should not be more than 1.850 kg (including battery)
ii	Facility for recording video & audio signals.
iii	Streaming imagery over a duplex wireless link preferably using SDR technology (Range upto 200 mtr NLOS with coding and upto 1 Km LOS with coding)
iv	The camera should have :-
a	Storage Capacity - 32 GB or more through removable SD card.
b	Fixed Focus lens with FOV 80 ^o or more.
c	Rechargeable Dry fit Lithium –Ion battery with suitable battery charger to provide minimum 5 hours power backup.
d	The camera must facilitate vision in low light/dark conditions with help of IR LED/white LEDs illumination. (To be specified by the user department at the time of indent)
e	Position of the Dog is required to be GPS tagged. (Optional- To be specified by the user department at the time of indent)
f	The camera must come with corresponding harness ergonomically designed for comfortable and effective mounting and smooth functioning.
g	Resolution: Digital 640 x 480 or better.
2	Hand Held Remote Control Unit
i	Either LED Monitor -5 to 7 inch (diagonal) or 5" (min) wrist mounted monitor tab for hands free operation. (Note :- User will have an option to choose either of the monitor or both as per operational requirement)
ii	The video being relayed to the Hand Held remote should be of resolution 640 x 480 (Min).
iii	Facility to receive video and audio signals and screening the same in the monitor and simultaneous recording with SD Card/ Hard Drive (64 GB minimum). It should have USB port to retrieve the data.
iv	Should have in-built GPS. (Optional- To be specified by the user department at the time of indent)
v	Rechargeable Battery backup with minimum 4 hours continuous use. Suitable battery charger also be provided.
vi	Provision of Digital Video Output on a suitable port.
vii	Weight – Not more than 3 kg including battery & accessories.
viii	System should have software to record audio video signal automatically with date & time.

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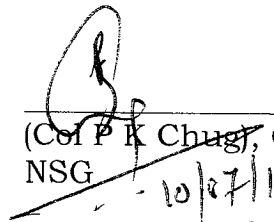
3	Head Mount / Back mounted/Chest mount unit (User to specify the type of mounting at time of indent)
i	Easy to mount & dismount.
ii	In case of Back mounted, camera neck should be spring loaded so that dogs can maneuver through tight spaces or brush without being caught or held back by the camera arm during the act of employment.
4	Operating temperature: -10 ⁰ C to +50 ⁰ C, 95% humidity.
5	Misc
i	Additional battery for camera unit and hand held remote control unit required.
ii	Heavy duty water proof, impact resistant carrying case to contain the complete equipment and accessories.
iii	Operating and technical manual be provided.
iv	01 week training



(Sanjeev Kumar Singh)
IPS, ADG (Log) BSF



(Dhananjay Mishra),
Comdt, SIW BSF



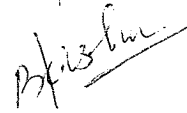
(Col P K Chugh), Comdt
NSG
10/07/19



(Lt Col S K Singh), Comdt
AR



(Dr. M M Gosal), SSO
BPR&D



(Brij Kishor), Sc 'E'
DRDO



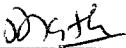
(A R Sharma), 2IC/Comn
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SIW, BSF



(SI/Tele Deepak Nath)
ITBP



(ASI/Comn Ram Kishor Swami)
SSB



(C P S Sahoo), DC
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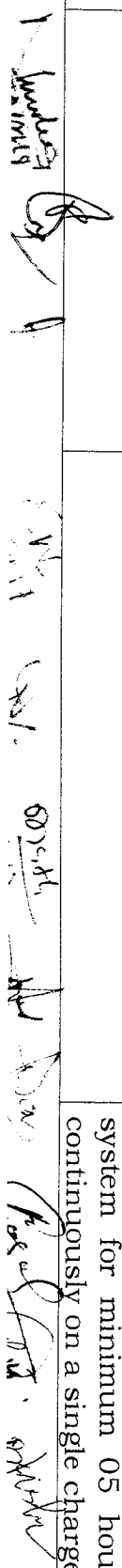
(Approved/Not Approved)



(Rajni Kant Mishra), IPS
Director General
Border Security Force

TRIAL DIRECTIVES 'POLICE DOG CAMERA'

S.No	Specification	Procedure Suggested for Trial	Result expected/desired
1	Camera Unit i Weight - Total weight of harness, head mount/back mount/chest mount, camera and transmitter should not be more than 1.850 kg (including battery). ii Facility for recording video & audio signals. iii Streaming imagery over a duplex wireless link preferably using SDR technology (Range upto 200 mtr NLOS with coding & 1 Km LOS with coding) iv The camera should have :- a Storage Capacity of Camera -32 GB or more through removable SD card. b Fixed focus lens with FOV 80° or more c Rechargeable Dry fit Lithium-Ion battery with suitable battery charger to provide minimum 5 hours power backup.	Measure the weight of the camera with the help of weighing machine Switch 'ON' the camera and start recording of Audio & Video in the system • Switch 'ON' the camera and transmit the video & audio signals. Check the transmitted video & audio on the monitor at receiver end from different distances of 0-200 meters NLOS and 0-1Km LOS.	Weight of the camera must be as per the requirement mentioned in the QRs. There must be a facility for recording video & audio signals. • The system must be capable to transmit video & audio signals wirelessly for minimum 200 meters non line of sight with coding and 1 Km LOS with coding
	a Storage Capacity of Camera -32 GB or more through removable SD card. b Fixed focus lens with FOV 80° or more c Rechargeable Dry fit Lithium-Ion battery with suitable battery charger to provide minimum 5 hours power backup.	To be physically checked by BOO Firm has to submit national/ international accredited lab certificate in respect of the same. If no such lab available in India then, firm has to submit any Indian Govt Lab/OEM certificate in respect of the same. Check the battery provided for its type and its battery charger for suitability. Switch 'ON' the system with provided rechargeable battery for 5 hours continuously.	Storage Capacity of Camera - should be 32 GB or more through removable SD card. Check the authenticity of certificate for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab. Battery provided must be rechargeable dry fit Lithium-Ion and the battery charger must be suitable to charge the battery efficiently. Battery must run the system for minimum 05 hours continuously on a single charge.


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	<p>d The camera must facilitate vision in low light/dark conditions with help of IR LED/white LEDs illumination. (To be specified by the user department at the time of indent)</p>	<p>Check the video of the camera in pitch dark night condition in a room or outside. Confirm the IR LEDs will glow during low light condition.</p>	<p>The picture of camera must have good contrast to observe the area during dark light conditions through IR LEDs.</p>
	<p>e Position of the Dog is required to be GPS tagged. (Optional- To be defined by the user department at the time of indent)</p>	<p>To be physically checked by the BOO.</p>	<p>Position of the Dog should be GPS tagged.</p>
	<p>f The camera must come with corresponding harness ergonomically designed for comfortable and effective mounting and smooth functioning.</p>	<p>Physically check by mounting it on a dog.</p>	<p>It must be easily mounted and dismounted.</p>
	<p>g Resolution : Digital 640 x 480 or better</p>	<p>Firm has to submit national/ international accredited lab certificate in respect of the same. If no such lab available in India then, firm has to submit any Indian Govt Lab/OEM certificate in respect of the same.</p>	<p>Resolution must be 640 x 480 or better.</p>
<p>2</p>	<p>Hand Held Remote Control Unit</p> <p>i Either LED Monitor -5 to 7 inch (diagonal) or 5" (min) wrist mounted monitor tab for hands free operation. (Note :- User will have an option to choose either of the monitor or both as per operational requirement)</p> <p>ii The video being relayed to the Hand Held remote should be of resolution 640 x 480 (Min).</p>	<p>• Measure the LED Monitor size diagonally with the help of measuring tape or scale.</p> <p>Firm has to submit national/ international accredited lab certificate in respect of the same. If no such lab available in India then, firm has to submit any Indian Govt Lab/OEM certificate in respect of the same.</p>	<p>• The LED Monitor size must be 5 to 7" Minimum or 5" (min) wrist mounted monitor tab for hands free operation.</p> <p>Check the authenticity of certificate for the same. In case of any doubt in the test report, the veracity of the same may be</p>

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iii	Facility to receive video and audio signals and screening the same in the monitor and simultaneous recording with SD Card/ Hard Drive (64 GB minimum). It should have USB port to retrieve the data.	<ul style="list-style-type: none"> • Switch 'ON' the system and receive the video & audio signal from the camera wirelessly. Observe the audio & video on the monitor and check the facility to record the same in the SD card/hard drive. • Check the memory provided for its capability and also check the USB port provided to retrieve the data 	checked from the concerned lab. <ul style="list-style-type: none"> • The remote control unit must have facility to receive high quality video & audio signals and screening the same in the monitor and simultaneous recording with SD card/Hard drive • The memory capacity must be 64 GB minimum and also have USB port to retrieve the data.
iv	Should have in-built GPS. (Optional- To be defined by the user department at the time of indent)	Check the control unit for in-built GPS and verify it by the display of the data or positional co-ordinates on screen.	Must have in-built GPS.
v	Rechargeable Battery backup with minimum 4 hours continuous use. Suitable battery charger also be provided.	<ul style="list-style-type: none"> • Check the remote Control Unit for type of battery provided and its battery charger for suitability. • Switch 'ON' the unit with battery provided for 4-7 hours continuously. 	<ul style="list-style-type: none"> • The Battery provided must be rechargeable and its charger must be suitable to charge the battery efficiently. • The battery must run the Remote control unit for minimum 4 hours continuously on single charge.
vi	Provision of Digital Video Output on a suitable port.	To be physically checked by the BOO.	Provision of digital Video Output on a suitable port should be there in a hand held remote control unit.
vii	Weight - Not more than 3 kg including battery & accessories.	Check the weight of the Hand Held Remote control unit with the help of weighing machine.	The weight of Hand Held Remote Control unit must not more than 3 Kg including Battery & accessories.
viii	System should have software to record audio video signal automatically with date & time.	Switch 'ON' the system and check automatic recording of the audio & video in the memory. Also Check the recorded video for automatic recording of date & time	Control unit should have software to record audio video signal automatically with date & time.

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3	<p>Head Mount / Back mounted/Chest mount unit (User to specify the type of mounting at time of indent)</p>	<p>i Easy to mount & dismount.</p> <p>ii In case of Back mounted, camera neck should be spring loaded so that dogs can manoeuvre through tight spaces or bushes without being caught or held back by the camera arm during the act of employment.</p>	<p>Physically check the Head Gear/back mounted/chest mounted Unit (as per the indent) for easy mounting and dismounting on the dog.</p> <p>Physically check by mounting it on a dog and manoeuvring through such places</p> <p>Head Gear/back mounted/chest mounted Unit (as specified) must be easy to mount & dismount.</p> <p>It must not caught or held back by the camera arm during employment.</p>
4	<p>Operating Temperature : -10° C to +50°C, 95% humidity</p>	<p>Firm has to submit national/ international accredited lab certificate in respect of the same. If no such lab available in India then, firm has to submit any Indian Govt Lab/OEM certificate in respect of the same.</p>	<p>Operating temperature must be - 10° C to +50°C, 95% humidity.</p>
5	<p>Misc (To be decided by the user department)</p> <p>i Additional battery for camera unit and hand held remote control unit.</p> <p>ii Heavy duty water proof, impact resistant carrying case to contain the complete equipment and accessories.</p>	<p>To be checked physically by the BOO.</p> <ul style="list-style-type: none"> • Check the carrying case to accommodate easily and comfortably the complete equipment and accessories. • The firm should provide nationally/internationally accredited lab certificate in respect of the heavy duty, water proof, impact resistant. 	<p>Additional battery must be as per requirement of the user.</p> <ul style="list-style-type: none"> • The carrying case must accommodate the complete equipment and accessories. • Check the nationally/ Internationally accredited lab test 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.

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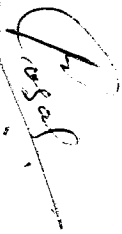
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iii	Operating and technical manual be provided.	To be checked physically by the BOO.	Operating and technical manual must as per requirement of the user.
iv	01 week Training be given on operation of the equipment.	Number of candidate be decided by the user department.	Training should be given as per the specification.

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(Col P P Chug), Comdt
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10/11/19



(Lt Col S K Singh), Comdt
AR



(Dr. M M Gosal), SSO
BPR&D



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BSF

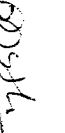


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SSB



(CPS Sahoo) DC
CAPP



(Approved/Not Approved)

(Rajni Kant Mishra), IPS

Director General
Border Security Force

10/11/19

Signature