

भारत सरकार, गृह मंत्रालय  
महानिदेशालय सीमा सुरक्षा बल  
(रसद निदेशालय: आधुनिकीकरण सैल)  
(Email-comdtord@bsf.nic.in)  
(Fax: 011-24367683)

ब्लाक संख्या . 10,  
सीजीओ काम्पलैक्स,  
लोधी रोड, नई दिल्ली-03

दिनांक 04 जुलाई 2023

**वरिष्ठ तकनीकी निदेशक**

The Senior Technical Director

राष्ट्रीय सूचना-विज्ञान केन्द्र, नोर्थ ब्लॉक,  
गृह मंत्रालय, नई दिल्ली  
NIC, North Block, MHA  
New Delhi  
(द्वारा ई-मेल)

(ई-मेल पता : mpsugandhi@nic.in)

Sub: Request for comments of stakeholders/OEM on draft QRs.

कृपया गृह मंत्रालय के पत्र संख्या IV-24011/12/2011-Prov-I(part)(CFN 3300890)-1710  
दिनांक 31<sup>st</sup> Aug 2015 के सन्दर्भ में।

2. उपरोक्त विषयान्तर्गत यह सूचित किया जाता है कि तकनीकी विशेषज्ञों के उप समूह द्वारा  
“HD Camera for Convoy Buses” के गुणात्मक आवश्यकता/परीक्षण निर्देशों का प्रारूप  
दिनांक 06 दिसम्बर 2022 में आयोजित सभा के दौरान तैयार किया गया था जिसकी इस आशय से  
प्रेषित किया जा रहा है कि उक्त गुणात्मक आवश्यकता/परीक्षण निर्देश को गृह मंत्रालय की वेबसाइट  
पर 15 दिन के लिए अपलोड करने का श्रम करें।

संलग्न : उपरोक्तनुसार

(दिगेन्द्र सिंह पवार)

उप कमाण्डेंट (मोड)

**प्रतिलिपि :-**

1. SO (IT), North Block, MHA : उपरोक्त गुणात्मक आवश्यकता का मसौदा आपके सूचनार्थ  
(Through E-mail) एवं अग्रिम कार्यवाही हेतु।  
(E-mail address: [soit@nic.in](mailto:soit@nic.in))
2. IT Wing, FHQ BSF : i) उपरोक्त गुणात्मक आवश्यकता/परीक्षण निर्देश का  
मसौदा सीमा सुरक्षा बल की वेबसाइट पर 15 दिन यानि  
04 जुलाई 2023 तक अपलोड करने के लिए प्रेषित की जा  
रही है। उक्त मसौदे को सीमा सुरक्षा बल की वेबसाइट से  
दिनांक 20 जुलाई 2023 को हटाने का श्रम करें। आपसे  
अनुरोध है कि उक्त मसौदे को निम्नलिखित पता पर  
ई-मेल करने का भी श्रम करें:-  
(a) Technical Director, NIC, North Block, MHA  
(E-mail : [mpsugandhi@nic.in](mailto:mpsugandhi@nic.in))  
(b) SO (IT), North Block, MHA  
(E-mail : [soit@nic.in](mailto:soit@nic.in))
3. ICT Dte (Equipment Section) : For information w.r.t your U.O No.8343 dtd  
FHQ BSF 03.06.2023

भारत सरकार, गृह मंत्रालय  
महानिदेशालय सीमा सुरक्षा बल  
(रसद निदेशालय: आधुनिकीकरण सैल)  
ब्लाक संख्या . 10, सीजीओ काम्पलैक्स, लोधी रोड, नई दिल्ली-03  
(Email-comdtord@bsf.nic.in)  
(Fax: 011-24367683)

संख्या. पी-63013/56/2022/मोड-1/सीसुबल

दिनांक 04 जुलाई 2023

**विषय :** “HD Camera for Convoy Buses” के गुणात्मक आवश्यकता/परीक्षण निर्देशों पर हितधारकों/निर्माताओं/विक्रेताओं की टिप्पणी के लिए अनुरोध।

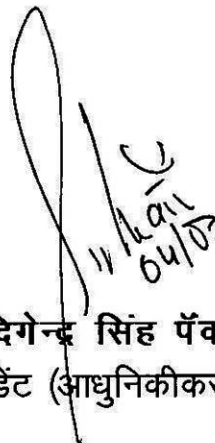
1. “HD Camera for Convoy Buses” के गुणात्मक आवश्यकता और परीक्षण निर्देशों को परिशिष्ट 'ए' के रूप में संलग्न किया गया है। हितधारकों/निर्माताओं/विक्रेताओं से अनुरोध किया जाता है कि वे उस उत्पाद की विस्तृत एवं स्टीक जानकारी दें। साथ ही प्रत्येक पैरामीटर के अनुरूप अपने उत्पाद के सही विवरणों को प्रस्तुत करें। सिर्फ 'अनुपालना' या 'अनुपालना नहीं' वाली टिप्पणी स्वीकार नहीं की जाएगी।

- क्या आप मूल उपकरण निर्माता/विक्रेता हैं?
- यदि विक्रेता मूल उपकरण निर्माता का विवरण देता है।
- मूल उपकरण निर्माता से प्राधिकरण प्रमाण पत्र।
- उत्पाद की मूल सूची।
- उत्पाद ब्रोशर एवं साहित्य रचना का ब्यौरा

2. आवश्यक जानकारी/विवरण 19 जुलाई 2023 तक निम्नलिखित पते पर भेजे जा सकते हैं।

रसद निदेशालय, सीमा सुरक्षा बल  
लेवल-8, ब्लाक-10,  
केन्द्रीय कार्यालय परिसर, लोधी रोड,  
नई दिल्ली-110003  
ईमेल:- comdtord@bsf.nic.in

3. शीघ्र प्रतिक्रिया का अनुरोध किया जाता है।

  
(दिगेन्द्र सिंह पेंवार)  
उप कमाण्डेंट (आधुनिकीकरण)

Government of India  
Ministry of Home Affairs  
Directorate General Border Security Force  
(Prov Dte: Mod Cell)  
Block No.10, CGO Complex, Lodhi Road, New Delhi-03  
(Fax: 011-24367683, Email-comdtord@bsf.nic.in)

No. P-63013/87/02/2023/Mod-I/BSF/

Dated, the 04 July 2023

**Subject : Request for comments of stakeholders/OEM/Firms on QRs (Qualitative Requirements) & TDs (Trial Directives) of "HD Camera for Convoy Buses"**

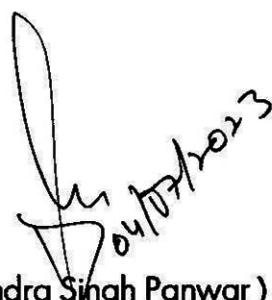
1. The revised QRs/TDs "HD Camera for Convoy Buses " is attached as Appendix 'A'. The OEMs/Vendors are requested to forward information of the product, which they can offer and also forward correct specifications of their system against each parameter. Only complied or not complied remarks will not be accepted. The firms are also requested to furnish the following details:-

- Whether you are OEM/Vendor?
- If vendor details of OEM.
- Authorization certificate from OEM.
- Original catalogue of the product
- Brochure/Literature of the product

2. The required information/details may please be forwarded at the following addresses by 19.07.2023.

Directorate General BSF,  
Level-8, Block No. 10,  
CGO Complex, Lodhi Road,  
New Delhi-110003  
Email: [comdtord@bsf.nic.in](mailto:comdtord@bsf.nic.in)

3. An early response is requested.

  
( Digendra Singh Panwar )  
Dy. Commandant (Mod)

**Draft QRs & Trial Directive of HD camera for Convoy Buses****QRs/Specification of IP camera:-**

S/No.	Parameter	Specification	Trial Directives	Complied/ Not complied
<b>IMAGE SENSOR</b>				
01	Resolution	5 MP (2560*1668) or (2592 * 1944) or more	To be checked from the OEM data sheet or certificate	
02	Sensor type and size	1/2.7" or 1/2.5" CMOS 5MP Active pixel progressive scan Sensor	To be checked from the OEM data sheet or certificate	
<b>LENS</b>				
03	Field of view (FOV)	H:80° and more V:55° and more D:80° and more	To be checked from the OEM data sheet or certificate	
04	Focus	Fixed focus	To be checked from the OEM data sheet or certificate	
05	IR Range	60 Mtr and more	To be checked from the OEM data sheet or certificate	
<b>HARDWARE SPECIFICATIONS</b>				
06	SD Card	128 GB or More	To be checked from the OEM data sheet or certificate	
07	Camera Adjustment Angle	Pan: 0° to 360° Tilt: 0° to 90° Rotation: 0° to 360°	To be checked from the OEM data sheet or certificate	
<b>IMAGE AND VIDEO</b>				
08	No of stream Profiles	3 or more	To be checked from the OEM data sheet or certificate	
09	Stream Profiles	Main stream:2688 x 1520@(1-25/30fps) or more Sub stream 1: 704 x 480 @(1-30fps) or more Sub stream 2: 1920 x 1080@(1-25/30fps) or more	To be checked from the OEM data sheet or certificate	
10	Available Resolutions	5M 2880 x 1620 or 2960 x 1668 or 2592 x 1944	To be checked from the OEM data sheet or certificate	
11	Bitrate	H.265:32 Kbps or more	To be checked from the OEM data sheet or certificate	
12	Bitrate Type	CBR, VBR	To be checked from the OEM data sheet or certificate	
13	Video Compression	H.265, H.264, mjpeg	To be checked from the OEM data sheet or certificate	
14	Frame Rate	30 fps	To be checked from the OEM data sheet or certificate	

S/No.	Parameter	Specification	Trial Directives	Complied/ Not complied
15	Adaptive Streaming	Yes	To be checked from the OEM data sheet or certificate	
16	ONVIF Profiles	S and G	To be checked from the OEM data sheet or certificate	
17	Alarm Recording	Pre and Post	To be checked from the OEM data sheet or certificate	
18	Motion Recording	Yes	To be checked from the OEM data sheet or certificate	
19	WDR	WDR (120db)	To be checked from the OEM data sheet or certificate	
20	SNR	55db or more	To be checked from the OEM data sheet or certificate	
21	DNR	2D/3D	To be checked from the OEM data sheet or certificate	
<b>PROTOCOLS SUPPORTED</b>				
22	Supported protocols	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTCP, RTSP, PPPOE, SMTP, NTP, HTTPS, TLS/SSL, FTP, ICMP, IGMP, UDP UPNP, 802.1x	To be checked from the OEM data sheet or certificate	
<b>Operating parameters</b>				
23	Power Supply	12V(DC), 802.3AF (PoE)	To be checked from the OEM data sheet or certificate	
24	Operating Temperature	-30 <sup>0</sup> C to 60 <sup>0</sup> C	To be checked from the OEM data sheet or certificate	
25	Storage Temperature	-30 <sup>0</sup> C to 60 <sup>0</sup> C	To be checked from the OEM data sheet or certificate	
<b>PHYSICAL PARAMETERS</b>				
26	Communication Interface	10 Base-T/100 Base TX Ethernet (RJ-45)	To be checked from the OEM data sheet or certificate	
27	Storage	NAS, FTP, SD Card	To be checked from the OEM data sheet or certificate	
28	Certifications	BIS, IP67, IK-10	To be checked from the OEM data sheet or certificate	

#### **QRS/SPECIFICATION OF NVR**

S/No.	Parameter	Specification	Trial Directives	Complied/Not complied
<b>Video</b>				
1	Input	8IP channels	To be checked from the OEM data sheet or certificate	
2	Output	HDMI-2 Port	To be checked from the OEM data sheet or certificate	
3	Compression	H.265/H.264/Motion JPEG	To be checked from the OEM data sheet or certificate	
<b>AUDIO</b>				
4	Input	1 Channel, RCA Port	To be checked from the OEM data sheet or certificate	
5	Output	1 Channel, RCA Port	To be checked from the OEM data sheet or certificate	
6	Two way audio	Yes	To be checked from the OEM data sheet or certificate	
<b>THROUGH PUT</b>				



7	Downlink Throughput	300 Mbps	To be checked from the OEM data sheet or certificate	
8	Uplink Throughput	300 Mbps	To be checked from the OEM data sheet or certificate	
<b>DISPLAY</b>				
9	Split (Through LAN/HDMI)	1/4/8	To be checked from the OEM data sheet or certificate	
10	Digital Zoom on Live	Yes	To be checked from the OEM data sheet or certificate	
11	Snapshot	Yes (JPEG)	To be checked from the OEM data sheet or certificate	
12	Multiple Camera Viewing	Supported	To be checked from the OEM data sheet or certificate	
<b>Recording</b>				
13	Image Resolution	8MP, 5MP, 3MP, 2MP, 1080P, 720P, DI, CIF	To be checked from the OEM data sheet or certificate	
14	Pre Record	Upto 30 Sec.	To be checked from the OEM data sheet or certificate	
15	Post Record	10-300 Sec.	To be checked from the OEM data sheet or certificate	
16	Recording Format	AVI/Native/MP4 (Any one)	To be checked from the OEM data sheet or certificate	
17	Recording Types	Scheduled, Manual, Alarm	To be checked from the OEM data sheet or certificate	
<b>STORAGE AND BANDWIDTH OPTIMIZATION</b>				
18	Adaptive recording	Automatically reduces the number of frames captured per second where there is no Motion, thereby saving storage space	To be checked from the OEM data sheet or certificate	
19	Bandwidth Optimization	Automatically Adapts Optimized Resolution on local display through HDMI	To be checked from the OEM data sheet or certificate	
<b>PLAYBACK AND BACKUP</b>				
20	Synchronous playback	08 Channels @ 1080p (via HDMI)	To be checked from the OEM data sheet or certificate	
21	Search Mode	Date and Time, Camera, Recording type	To be checked from the OEM data sheet or certificate	
22	Playback Modes	Fast forward, Slow forward, slow reverse, fast reverse.	To be checked from the OEM data sheet or certificate	
23	Backup	Manual backup over USB and local PC	To be checked from the OEM data sheet or certificate	
24	Configuration Backup	Not required	To be checked from the OEM data sheet or certificate	
25	Network Protocols	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, SNMP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP	To be checked from the OEM data sheet or certificate	
26	Maximum User	120	To be checked from the OEM data sheet or certificate	
27	Remote Operation	Monitor, PTZ control, Playback, system Setting, Download, Log Information, Upgrade	To be checked from the OEM data sheet or certificate	


<b>EVENTS AND ACTION</b>				
28	Trigger Events	Supports Motion detection, View tampering, Tripwire, intrusion, Audio exception.	To be checked from the OEM data sheet or certificate	
29	System Events	Manual Trigger, Disk Volume full, disk Fault	To be checked from the OEM data sheet or certificate	
30	Actions	Recording on Selected Channel , Email Notification with snapshot, TCP Notification, Recall PTZ Preset Position, turn On/Off alarm Outputs, Buzzer Notification.	To be checked from the OEM data sheet or certificate	
<b>STORAGE INTERFACE</b>				
31	SATA Interface	2 SATA III (10TB per port)	To be checked from the OEM data sheet or certificate	
32	NAS	FTP	To be checked from the OEM data sheet or certificate	
33	USB	500 GB USB Drive	To be checked from the OEM data sheet or certificate	
34	Recording	Camera wise, HDD usage % wise.	To be checked from the OEM data sheet or certificate	
<b>INTERFACE</b>				
35	Network interface	1 Port Ethernet (RJ-45) 10/100/1000 Mbps	To be checked from the OEM data sheet or certificate	
36	USB	2 USB Ports (1 Rear USB 3.0, 1 Front USB 3.0)	To be checked from the OEM data sheet or certificate	
37	Alarm Input	4	To be checked from the OEM data sheet or certificate	
38	Alarm Output	2	To be checked from the OEM data sheet or certificate	
39	Buzzer	Yes	To be checked from the OEM data sheet or certificate	
<b>SYSTEM INTERFACE</b>				
40	Processor	Octa-core embedded processor	To be checked from the OEM data sheet or certificate	
41	OS	Embedded Linux	To be checked from the OEM data sheet or certificate	
42	Control Mode	Mouse, Device client and mobile client	To be checked from the OEM data sheet or certificate	
<b>ENVIRONMENT CONDITION</b>				
43	Operating Temperature	-30 <sup>0</sup> to +60 <sup>0</sup> C	To be checked from the OEM data sheet or certificate	
<b>ELECTRICAL AND MECHANICAL</b>				
44	Power Input	12V DC	To be checked from the OEM data sheet or certificate	
<b>OTHER REQUIREMENTS</b>				
01	HDD/SSD 2TB AS Internal Storage		May be calculated as per camera attached.	
02	PoE Switch 8 Port		May be calculated as per camera attached.	
03	LAN/UTP Patch cable CAT-6		May be calculated as per camera attached.	
04	Display LCD Screen 4K (Minimum-21 inch)		May be calculated as per camera attached.	

05	HDMI Cable	May be calculated as per camera attached.	
06	Cat-6 According to cameras distance	May be calculated as per camera attached.	
07	RJ-45 Connectors	May be calculated as per camera attached.	
08	SMPS	May be calculated as per camera attached.	
09	12 V 100 AHC B+Y.	May be calculated as per camera attached.	

तकनीकी विशेषज्ञों के उप समूह द्वारा यह निश्चित किया गया है कि उक्त गुणात्मक आवश्यकता को अधिक बेहतर बनाने के लिए गृह मंत्रालय एवं सीमा सुरक्षा बल की वेबसाइट पर विक्रेताओं/फर्मों के सुझाव प्राप्त करने हेतु 15 दिनों के लिए अपलोड किया जाए।

**नोट** - सभी विक्रेताओं/फर्मों से निवेदन है कि अपने सुझावों के साथ निम्नलिखित कागजात संलग्न कर ई-मेल पता [comdtord@bsf.nic.in](mailto:comdtord@bsf.nic.in) पर भेजने का श्रम करें:-

1. उत्पाद की वास्तविक विवरण पुस्तिका।
2. उत्पाद की साहित्यिक रचना का ब्यौरा।
3. गुणात्मक आवश्यकताओं के उपर व्यापक टिप्पणीयों।

  
 (दिगेन्द्र सिंह पंवार)  
 उप कमांडेण्ट (आधुनिकीकरण)