

ब्लॉक संख्या . 10,
सीजीओ काम्प्लेक्स,
लोधी रोड, नई दिल्ली-03

दिनांक 12 दिसम्बर 2022

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 31st 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 जिसको इस आशय से प्रेषित किया
जा रहा है कि उक्त गुणात्मक आवश्यकता/परीक्षण निर्देशों के मसौदे को गृह मंत्रालय की वैबसाइट
पर 15 दिन तक अपलोड करने का श्रम करें।

संलग्न : उपरोक्तनुसार

(दिगेन्द्र सिंह पंचार)

उप कमाण्डेंट (मोड)

प्रतिलिपि :-

1. SO (IT), North Block, MHA
(Through E-mail)
(E-mail address: soit@nic.in) : उपरोक्त समस्त गुणात्मक आवश्यकता का मसौदा
आपके सूचनार्थ एवं अग्रिम कार्यवाही हेतु।
2. IT Wing, FHQ BSF : i) उपरोक्त उक्त गुणात्मक आवश्यकता का मसौदे को
सीमा सुरक्षा बल की वैबसाइट पर 15 दिन तक
अपलोड करने का श्रम करें। आपसे अनुरोध है कि
उक्त मसौदे को गृह मंत्रालय की वैबसाइट पर भी
अपलोड करने हेतु निम्नलिखित पतों पर ई-मेल करने
का भी श्रम करें:-
(a) Technical Director, NIC, North Block, MHA
(E-mail : mpsugandhi@nic.in)
(b) SO (IT), North Block, MHA
(E-mail : soit@nic.in)

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-63013/62/2022/Mod-I/BSF/

Dated, the 15th Dec 2022

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

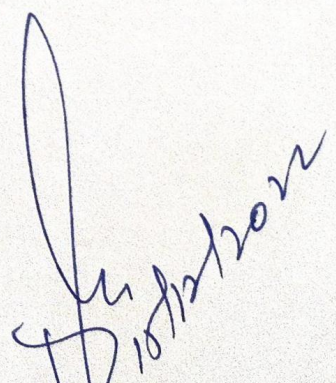
1. The revised QRs/TDs "HD Camera for Convoy Buses" is attached as Appendix 'A'. The OEMs/Vendors are requested to forward information of the product, which they can offer and also forward correct specifications of their system against each parameter. Only complied or not complied remarks will not be 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 31.12.2022.

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

3. An early response is requested.


(Digendra Singh Panwar)
Dy. Commandant (Mod)

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

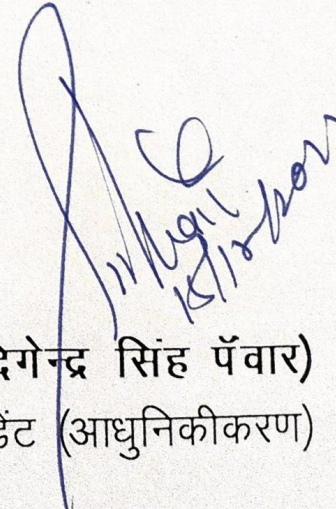
दिनांक 15 दिसम्बर 2022

विषय : कान्वाय बसों के लिए एच0डी0 कैमरा के गुणात्मक आवश्यकता/परीक्षण निर्देशों पर हितधारकों/निर्माताओं/विक्रेताओं की टिप्पणी के लिए अनुरोध।

1. कान्वाय बसों के लिए एच0डी0 कैमरा 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।
2. आवश्यक जानकारी/विवरण 31 दिसम्बर 2022 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 पॅवार)
उप कमाण्डेंट (आधुनिकीकरण)

DRAFT QRS & TDS OF HD CAMERA FOR CONVOY BUSES

QRs/Specification of IP camera:-

S. No.	Parameter	Specification	Trial Directives
IMAGE SENSOR			
01	Resolution	5 MP (2592X1944) or more	To be checked from the OEM data sheet or certificate
02	Sensor Type And Size	1/2.8" CMOS 5MP Active Pixel Progressive Scan, Back illuminated image sensor (EXMOR Technology-STARVIS series)	
LENS			
03	Minimum Illumination	Colour-0.01 Lux@F1.2 (AGC ON) Monochrome-0 Lux	To be checked from the OEM data sheet or certificate
04	Focus Range	0.3m to infinity	
05	Field of view (FOV)	HFOV-80 ⁰ VFOV-58 ⁰ DFOV-108 ⁰	
06	Lens Mount	M12	
07	Focus	Fixed focus	
08	IR Range	60 m	
09	IR Switching	Auto/Manual	
HARDWARE SPECIFICATIONS			
10	SD Card	512 GB or more	To be checked from the OEM data sheet or certificate
11	Camera Adjustment Angle	Pan: 0 ⁰ to 180 ⁰ Tilt: 0 ⁰ to 180 ⁰ Zoom: 0 ⁰ to 180 ⁰	
IMAGE AND VIDEO			
12	No of stream Profiles	3	To be checked from the OEM data sheet or certificate
13	Stream Profiles	Profile 1: 2592x1944 @ 30fps (H.264/H.265) Profile 2 : VGA @ 30FBS (H.265/H.264) Profile 3 : 2048x1536@8fps (MJPEG)	
14	Available Resolutions	2592x1944, 2592x1520, 2048x1536, 1920x1080, 720p, D1, 2CIF, VGA, CIF, QCIF	
15	Max Resolutions	2592x1944	
16	Bitrate	128kbps-16Mbps	
17	Bitrate Type	CBR, VBR	
18	Video Compression	H.265, H.264, MJPEG	

S. No.	Parameter	Specification	Trial Directives
19	Frame Rate	1-30 fps	
20	Adaptive Streaming	Yes	
21	ONVIF Profiles	Both S and G	
22	Edge Recording	Yes	
23	Alarm Recording	Pre and Post	
24	Motion Recording	Yes	
25	Video Parameters	Snapshot, Region of interest (ROI), BLC, Day/Night Settings	
26	WDR	True WDR (120db)	
27	SNR	73db or more	
28	Image Enhancement	Saturation/Contrast/Sharpness/Brightness/Auto Exposure	
29	DNR	2D & 3D	
30	Video analytics	Motion/No Motion Detection, Tamper Detection, Trip/No Trip Detection, Object Intrusion/ Zone Intrusion, IP conflict, network disconnect, Storage full , Time Triggered	
EVENTS AND ACTIONS			
31	Upload Image	SD, NAS, FTP	To be checked from the OEM data sheet or certificate
32	Upload Clip	SD, NAS , FTP	
33	Notifications	E-mail, SMS, TCP	
PROTOCOLS SUPPORTED			
34	Supported protocols	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTCP, RTSP, PPPOE, SMTP, NTP, HTTPS, TLS/SSL, FTP, ICMP, IGMP v2 & v3	To be checked from the OEM data sheet or certificate
35	Web viewer	Supported in IE 8.0-11.0 , Firefox 15.0-47.0, Chrome 20.0-54.0	
36	Plugins	IE: Matrix ActiveX Chrome: VLC Plugin(2.0.4) and Quicktime (7.7.5) Mozilla: VLC Plugin(2.0.4) and Quicktime (7.7.5)	
OPERATING PARAMETERS			
37	Power Supply	12V (DC) , 802.3AF (PoE)	To be checked from the OEM data sheet or certificate
38	Power Consumption	<6W	
39	Operating Humidity	Less than 90% RH (non-condensing)	
40	Operating Temperature	-20 ⁰ C to 50 ⁰ C	
41	Storage Temperature	-20 ⁰ to 50 ⁰ C	
PHYSICAL PARAMETERS			
42	Communication Interface	10Base-T/100BaseTX Ethernet (RJ-45)	To be checked from the OEM data sheet or certificate
43	Storage	NAS, SD Card	
44	Certifications	BIS, CE, IP66, FCC Part-15 Class-B, ONVIF S & G, IK10	

QRs/Specifications of NVR:-

Sl No.	Parameter	Specification	Trial Directives
VIDEO			
01	Input	8 IP Channels	To be checked from the OEM data sheet or certificate
02	Output	HDMI(2.0)- 1 Port (Main)	
03	Compression	H.265/H.264/Motion JPEG	
AUDIO			
04	Input	1 Channel , RCA Port (2.0 Vp-p), Range (-2dBu to 22 dBu)	To be checked from the OEM data sheet or certificate
05	Output	1 Channel, RCA port Mono. Unbalanced output, (2.0Vp-v), Range (-2dBu to 22 dBu)	
06	Compression	G.711u	
07	Two Way Audio	Yes	
THROUGHPUT			
08	Downlink Throughput	256 Mbps Following Scenarios are Considered: 1. Cameras streaming to Device 2. Cameras of Cascaded Devices being viewed on Local 3. Streaming from NAS for local/Web client	To be checked from the OEM data sheet or certificate
09	Uplink throughput	256 Mbps Following scenarios are considered: 1. Cameras Streaming to Web client 2. Storage or Backup to NAS	
10	Simultaneous Log-in	9+1 (Admin)	
DISPLAY			
11	Split (Through LAN/HDMI)	1x1, 2x2, 3x3, 4x4, 1+5 , 1+7, 3+4, 2+8, 1+12, 1C+12, 1+9, 4+9, 2+12, 5x5, 6x6, 8x8, and Sequential	To be checked from the OEM data sheet or certificate
12	Local Decoding	Rx4K/10x3MP/16x1080p/64xDI	
13	Digital Zoom on Live	Yes	
14	Snapshot	Yes(JPEG)	
15	Multiple Camera viewing	Through Cascading (upto 20 devices)	
16	OSD	Channel number and Name , Status, video Loss, Recording and disabled Channel (As per camera support)	

RECORDING			To be checked from the OEM data sheet or certificate
17	Image Resolution	12MP, 8MP, 5MP, 3MP, 2MP, 1080P, 720P, D1, CIF	
18	Pre Record	Up to 30 Sec	
19	Post Record	10-300 Sec	
20	Snapshot Format	JPEG	
21	Recording Format	AVI, Native	
22	Recording Types	Scheduled, Manual, Alarm, and COSEC	
STORAGE AND BANDWIDTH OPTIMIZATION			To be checked from the OEM data sheet or certificate
23	Adaptive recording	Automatically reduces the number of frames captured per second where there is no Motion, thereby saving storage space	
24	Bandwidth Optimization	Automatically Adapts Optimized Resolution On Local Display through HDMI	
PLAYBACK AND BACKUP			To be checked from the OEM data sheet or certificate
25	Synchronous playback	16 Channels @ 1080p (via HDMI)	
26	Search Mode	Date and Time, Camera, Recording type, Recording Drive,	
27	Playback Modes	Fast forward, Slow forward, slow reverse, fast reverse at different speed control, Next-Previous Frame	
28	Backup	Manual backup over USB and NAS, Scheduled backup over USB, NAS and FTP Scheduled backup over USB through USB 2.0 interface Manual backup over USB through USB3.0 interface Quick backup over USB, NAS and Local PC	
29	Configuration Backup	Yes	
30	Network Protocols	TCP/IP, DHCP, PPPOE, DDNS, Free Matrix DNS, FTP, SMTP, NTP, RTP/RTSP, CIFS/NFS, Network Acceleration, UDP	
31	Maximum User	120	
32	Remote Operation	Monitor, PTZ control, , Playback, system Setting, file, Download, Log Information, Upgrade	
EVENTS AND ACTION			To be checked from the OEM data sheet or certificate
33	Trigger Events	Motion Detection, View Tampering, Tripwire, object Intrusion, Audio Exception, Missing Object, suspicious Object, Loitering, Object counting, Recording Start, Recording Fail, Camera Offline, Camera Online	
34	System Events	Manual Trigger, On Boot Alarm, Storage alert, Disk Volume full, Disk Fault, Scheduled backup Fail	
35	Actions	Recording on Selected Channel , Upload Images on FTP/Email server, Email Notification with snapshot, TCP Notification, Recall PTZ Preset Position, turn On/Off alarm Outputs, Buzzer Notification, SMS Notification, Calling from Mobile App	

STORAGE INTERFACE			
36	SATA Interface	1 SATA III (10TB per port)	To be checked from the OEM data sheet or certificate
37	NAS	2 NAS (CIFS, NFS)	
38	USB	1TB USB Drive	
39	RAID	Single disk	
40	Recording/Backup Retention	Camera wise, HDD usage % wise, Day wise	

INTERFACE			
41	Network interface	1 Port Ethernet (RJ-45) 10/100/1000 Mbps	To be checked from the OEM data sheet or certificate
42	USB	3 Port (1xUSB 3.0, 2x USB2.0)	
43	LED	System Status LED, Power LED	
44	Alarm Input	2	
45	Alarm Output	1	
46	Reset Switch	Yes	
47	Buzzer	yes	

SYSTEM INTERFACE			
48	Processor	ARM Cortex A17 quad-core	To be checked from the OEM data sheet or certificate
49	RAM	2GB	
50	Flash	2GB	
51	OS	Embedded Linux	
52	Control Mode	Mouse, Device client and Mobile client	

CAMERA SUPPORT			
53	Third Party Camera support	Cameras with ONVIF 2.0 & above	To be checked from the OEM data sheet or certificate

ENVIRONMENT CONDITION			
54	Operating Temperature	-20 ⁰ C to +50 ⁰ C (32 ⁰ F to 122 ⁰ F)	To be checked from the OEM data sheet or certificate
55	Humidity Range	5% to 95% RH Non- Condensing	

ELECTRICAL AND MECHANICAL			
56	Power Input	12V DC, 5A	To be checked from the OEM data sheet or certificate

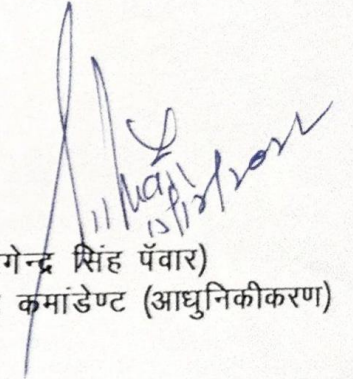
OTHER REQUIREMENTS		
01	SSD 1TB AS External Storage	-
02	PoE switch 4/8 Port	-
03	LAN/UTP Patch cable-4	-
04	Display LCD Screen (Minimum -21 inch)	-
05	HDMI Cable	-

06	Cat-6 According to cameras distance	-
07	RJ-45 Connector 1(Packet)	-
08	12 V 100 AHC Bty.	-
09	SMPS	-

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 वैबसाईट 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 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।


(दिनेन्द्र सिंह पुरी)
उप कमांडेण्ट (आधुनिकीकरण)