



महानिदेशालय/ DIRECTORATE GENERAL  
केन्द्रीय औद्योगिक सुरक्षा बल/ CENTRAL INDUSTRIAL SECURITY FORCE  
(गृह मंत्रालय)/(MINISTRY OF HOME AFFAIRS)

ब्लॉक 13 सी.जी.ओ. काम्प्लेक्स/ BLOCK-13, CGO COMPLEX,  
लोधी रोड, नई दिल्ली -03/ LODHI ROAD, NEW DELHI

No.W-42026/CISF/TECH/QRS-TDS/FBS/2024-101540-(E)

Dated : 05-03-2025

**फुल बॉडी स्कैनर( FULL BODY SCANNER) के गुणात्मक आवश्यकता/परीक्षण निर्देशों के मसौदे पर विक्रेताओं की टिप्पणियों का आमंत्रण ।**

आपको सूचित किया जाता है कि Full Body Scanner के गुणात्मक आवश्यकता/परीक्षण निर्देशों (QRs/TDs) के मसौदे पर फर्मो/विक्रेताओं की टिप्पणियां आमंत्रित है। सभी फर्मो से निवेदन है कि नीचे दिए गए प्रारूप में वे अपनी टिप्पणियां भरकर OEM certificate सहित भेजें ।

Qualitative Requirements(QRs)	Trial Directives (TDs)	Comments of Firms

2. आपसे अनुरोध है कि वेबसाइट पर प्रदर्शित होने की तारीख से 15 दिनों के भीतर अपनी टिप्पणियां निम्नलिखित पते पर भेजें। उप समूह कमेटी की बैठक में उपर्युक्त उपकरण के गुणात्मक आवश्यकता/परीक्षण निर्देशों को अंतिम रूप देने पर विचार किया जा रहा है।

सहायक महानिरीक्षक/तकनीकी

केन्द्रीय औद्योगिक सुरक्षा बल निदेशालय

ब्लॉक 13 सी.जी.ओ. काम्प्लेक्स, लोधी रोड, नई दिल्ली

ईमेल : [aigtech@cisf.gov.in](mailto:aigtech@cisf.gov.in)

Digitally signed by

प्रणीत चन्द्रा

PRANEET CHANDRA,

उप महानिरीक्षक/तकनीकी

DEPUTY INSPECTOR GENERAL/TECH,

FHQ NEW DELHI,

05-03-2025

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**TRIAL DIRECTIVES OF FBS (FULL BODY SCANNER)**

SN	Proposed QRs Specification	Procedure suggested for Trial for BOO.	Result expected / Desired
1.	Full Body Scanner system (FBS) will consist of body scanner & required accessories.	To be physically checked by the BOO.	As per the QR.
2.	The FBS should be capable of detecting both metallic/ Non-metallic threat objects. (Weapon, explosive, drug, liquid etc. concealed over the body of a person when passed through FBS).	To be physically checked by the BOO by passing metallic / non-metallic objects concealed in the body/ clothing of a person.	The equipment should be able to detect the objects accordingly.
3.	Should be working on Millimetre Wave (MMW)/Centimetre Wave Non- ionizing Electromagnetic Radiation	Certificate should be obtained and produced by the OEM from national accredited lab or from TSA/ ECAC confirming the QR for the same. In case of doubt the veracity of the certificate may be verified from the concerned lab/agency.	BOO should physically check the certificate and verify.
4.	It shall use Millimetre Wave (MMW) technology/Centimetre Technology to scan passengers/individuals and actively scan the subject within the scanning area between the panels	To be checked by the BOO.	As per requirement mentioned in the QRs.
5.	Should be able to detect multiple items of various size, shape and type hidden under the clothes over the skin as per the specifications of detection capability.	To be physically checked by the BOO depending on the requirement of size, shape and type to be detected by passing objects of various sizes & shapes hidden under the clothes over the skin by a person. Object size, shape and type to be specified by the buyer department at the time of tender.	The equipment should be able to detect the objects as per the QR.

A collection of handwritten signatures and initials in blue ink, including names like 'Pankaj', 'Aurh', 'Abhisam', and various initials like 'R', 'B', 'S', 'H'.

**TRIAL DIRECTIVES OF FBS (FULL BODY SCANNER)**

SN	Proposed QRs Specification	Procedure suggested for Trial for BOO.	Result expected / Desired
6.	The scan should be completed in a single sweep, not warranting change of the posture.	To be physically checked by the BOO.	As per the QR.
7.	FBS should ensure the system functions as per defined detection capability, and if required there shall be provision of: (i) Auto calibration and/or periodic calibration. (ii) Improvement in algorithm by the OEM. (iii) OEM should provide testing protocols in line with CTP/OTP.	To be physically checked by the BOO and an OEM certificate to be obtained.	As per the QR.
8.	The FBS should work in conjunction with DFMD.	To be physically checked by the BOO.	As per the QR.
9.	The detection data with zone information from the DFMD will be transmitted and integrated to the FBS data, facilitating a single digital display of alarms from both systems, on the FBS display.	To be physically checked by the BOO and an OEM certificate to be obtained.	As per the QR.
10.	The OEM of the FBS shall be responsible for integration with the DFMDs.	To be physically checked by the BOO and a written agreement to be obtained from the OEM.	As per the QR.
11.	The integrated system should have the capability of machine-generated alarm and detection reports for combined	BOO to physically verify individual machines and then verify the integrated system.	Both individual and combined results to be checked.

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→ Abhinav

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**TRIAL DIRECTIVES OF FBS (FULL BODY SCANNER)**

SN	Proposed QRs Specification	Procedure suggested for Trial for BOO.	Result expected / Desired
	system as well as for the individual systems.		
12.	<b>Operating Frequency Range:</b> - Less than 100 GHz	Requisite certificate to be obtained from the OEM.	As per the QR.
13.	<b>RF Power Density (Peak)</b> at 1-meter distance, in front of the panel: - Up to 3000nW/square cm.	Requisite certificate to be obtained from the OEM.	As per the QR.
14.	Through Put – Minimum 180 pax/hr.	To be physically checked by the BOO	As per the QR.
15.	<b>Scan and processed result time</b> less than 8 seconds.	To be physically checked by the BOO	As per the QR.
16.	<b>Detection Capability:</b> - Should be able to detect all the prohibited items listed by the regulator /user agency subject to the quantity/dimensions of the restricted item specified for detection.	To be physically checked by the BOO by passing objects/prohibited items hidden under the clothes over the skin by a person. The dimension/size/weight of the restricted items to be detected shall be specified by the user agency.	As per the QR.
17.	<b>Dimension of FBS</b> Height-2.0 to 2.75 Meters Width - 1.2 to 1.6 Meters Depth: - 2.2 to 2.6 Meters	To be physically checked by the BOO by measuring instrument.	As per the QR.
	<b>For Human Security Scanner (Walkthrough)</b> Height-2.0 to 2.75 Meters Width – 1.0 to 1.6 Meters Depth: - 0.5 to 1 Meters		
18.	<b>Electrical Power Requirement:</b> - 180 to 280 Volts with frequency 50 Hz +5% -5%	Plug the machine through electrical component and check the operation of the machine within the specified range of power supply. Applying varying inputs of AC mains supply from 180 to 280 Volt to the	As per requirement mentioned in the QR.

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**TRIAL DIRECTIVES OF FBS (FULL BODY SCANNER)**

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		equipment and check the performance of FBS or to obtain a valid testing certificate stating the same.	
19.	Average Power Consumption: - Up to 4 KVA (Supported with UPS) or requirement as specified by the user.	To be physically checked by the BOO and/ or a certificate to be produced by OEM.	As per requirement mentioned in the QR.
20.	Operating Temperature Minimum Operation Temp Range -5° to + 50°C.	Certificate from approved national/international testing agency or govt. agency in India /NABL accredited lab confirming the QR for the same shall be provided by the OEM. In case of doubt, the veracity of the certificate may be verified from the concerned lab. The user agency may also conduct testing at temperature extremes in case of doubt.	National / International accredited lab certificate provided by OEM must confirm the same.
21.	Humidity up to - 90 % non- condensing.	Certificate from approved national/international testing agency or govt. agency in India /NABL accredited lab confirming the QR for the same shall be provided by the OEM. In case of doubt, the veracity of the certificate may be verified from the concerned lab.	As per requirement mentioned in the QR.
22.	Image Display: - Touch Screen/ Workstation, capable of forwarding the display of alarms to screens at the frisking point. The number of display screens will be decided depending upon the number of frisking points (Maximum- 1+3)	To be physically checked by the BOO.	The system should work efficiently.
23.	Image Storage: - Minimum for 48 hours.	To be physically checked by the BOO.	As per requirement mentioned in the QR.

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24.	There shall be no harmful radiation emitted by the FBS. Each system shall be provided with the dosimeter by the OEM to check any harmful radiation emitted by the system. Before installation of the machine, the supply/ manufacturer should furnish relevant certificate from AERB regarding radiation safety. The company manufacturing the equipment should have valid certification/licence for manufacturing and service of FBS Machine.	Certificate from AERB regarding radiation safety shall be provided by the OEM. In case of doubt, the veracity of the certificate may be verified from the concerned lab.	As per the QR.
25.	The system should have software-controlled diagnosis report facility.	To be physically checked by the BOO/certificate to be obtained from OEM verified.	As per requirement mentioned in the QRs.
26.	All software features of machine should be cyber secure and password protected.	To be physically verified by the BOO/certificate to be obtained from OEM verified.	As per requirement mentioned in the QRs
27.	Data security: The data generated shall not be extracted without the explicit and specific consent of the authorized official of the user agency.	To be physically verified by the BOO/certificate to be obtained from OEM verified.	As per requirement mentioned in the QRs
28.	Scanned results PASS or object detected, shall be displayed on an operator panel/workstation located away from scanner. The operator shall be able to forward/transmit the alarm/detection to the screen at the frisking points. Results shall be based on a generic mannequin figure or human avatar, highlighting single	To be physically checked by the BOO.	As per requirement mentioned in the QRs.

A collection of handwritten signatures and initials in blue ink. From left to right: a small signature, an arrow pointing to a larger signature, a signature that appears to be 'Pankaj', a circular stamp or signature, the initials 'RB', a signature, the name 'Abhishek' written in a stylized font, another signature, and a final signature on the far right.



36.	OEMs should have a system in place for product support via standard warranty, extended warranty and AMCs.	Written agreement to be obtained from the OEM.	As per the QR.
37.	The company providing the FBS should have the capacity to provide spare parts, repair and maintenance, support for both, hardware and software, for 7 years which is the minimum service life of the equipment.	Written agreement to be obtained from the OEM.	As per the QR.
38.	Software/technological upgradation shall be provided by the OEM regularly.	Written agreement to be obtained from the OEM.	As per the QR.

  
**(Sandip Kumar (WO))**  
 Assam Rifles, New Delhi

  
**(Anil Rajput, Dy. Comdt.)**  
 BSF, New Delhi

  
**(Himanshu, Major)**  
 NSG, Manesar

  
**(Arvind Kumar Singh)**  
 Sr. Comdt. ASG Bengaluru  
 (Member-II)

  
**(Pankaj Sharma)**  
 ITBP, New Delhi

  
**(Anirudh Singh, DC)**  
 IGI Airport, CISF (Co-opted Member)

  
**(Rajeev Bhatt)**  
 BPR&D, New Delhi

  
**(Jose Mohan, IPS)**  
 IG, APS-II, Bengaluru  
 (Member-I)

  
**(Moti Lal, Dy. Comdt.)**  
 SSB, New Delhi

  
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 139Bn., CRPF, New Delhi

  
**(Praveer Ranjan, IPS)**  
 Special Director General/ APS  
 Chairman of the Board