OVERNMENT OF ARUNACHAL PRADESH
OFFICE OF THE DIRECTOR GENERAL OF POLICE,
POLICE HEADQUARTERS, ITANAGAR

No. PHQ/MT-769/2024-25

Dated Itanagar, the 5<sup>th</sup> Feb/2025.

#### **TENDER NOTICE**

On behalf of the Governor of Arunachal Pradesh, Director General of Police, Arunachal Pradesh, Itanagar invites Sealed Tenders under two Bid systems (Technical & Financial Bid) from the interested manufacturers, authorized agents/ dealers/suppliers of reputed firms registered in Arunachal Pradesh for entering into contract for supply of 2 (two) nos. (Large & Small size) of vehicle mounted X-Ray Baggage Scanner and 29 (Twenty nine) nos. of Dash Cam for PCR Vans to the Arunachal Pradesh Police.

For details, please visit our web site - www. arunpol.nic.in.

Sd/-Director General of Police, Police Headquarters, Itanagar, Arunachal Pradesh.

No. PHQ/MT-769/2024-25

Dated Itanagar, the 5<sup>th</sup> Feb/2025.

Copy to :-

- The Director of Information and Public Relations, Govt. of Arunachal Pradesh, Naharlagun for information and wide Circulation. He is also requested to pass necessary order for publication of the above Tender Notice in one leading Newspaper of Arunachal Pradesh.
- 2. The In-charge Computer Cell, PHQ, Itanagar. The tender notice alongwith lists of equipments with Specifications may be uploaded in the website of Arunachal Pradesh Police.
- 3. Office copy

Superintendent of Police (MT),
PHQ, MT Unit, Itanagar,
Arunachal Pradesh
PHQ, MT, Chimpu
Itanagar
Arunachal Pradesh

TENDER NOT



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#### A. Details -

SI. No.	Description of items to be procured	Quantity	Approx. Cost of tender	2% Earnest money required	Tender Fee (Non-refundable)
1	Vehicle mounted X-Ray Baggage Scanner. (Large Size)	1	@₹ 82,60,000/-	₹ 1,65,200/-	₹ 1,000/-
2	Vehicle mounted X-Ray Baggage Scanner. (Small Size)	1	@₹59,40,000/-	1,18,800/-	₹ 1,000/-
3	Dash Cam for PCR Vans (Annexure –A)	29	@₹ 17,000/-X 29 ₹ 4,93,000/-	₹ 9,860/-	₹ 1,000/-

#### 2. Critical date sheet :-

SI.	Particulars	Date	Time
1	Date of publication of Tender	06/02/2025 (Thursday)	
2	Bid submission start date	07/02/2025 (Friday)	1000 Hrs
3	Bid submission end date	26/02/2025(Wednesday)	1600 Hrs
4	Physical submission of earnest Money deposit/Bid Money and cost of Tender Documents (Tender fee).	With technical bids. Whoever, the tenderer who want to obtain tender document from SP (MT) chimpu, tender fee ₹ 1,000/- (Bank Draft in favour of SP (MT) Chimpu, payable at SBI, Itanagar) may be furnished at the time of obtaining the tender documents from MT office.	
5	Pre-bid conference at IGP (Admn) Chamber, PHQ , Itanagar	12/02/2025(Wednesday)	1100 Hrs
6.	Date of Technical bid opening 27/02/2025 (Thursday		1100 Hrs

3. The Technical and Financial bids are to be sealed separately in two different envelopes clearly superscribing "Technical and Financial bids" and then both are to be kept in one envelope and sealed properly. The sealed tendered/ bids should be superscribed with "Tender for Dash Cam for PCR Vans and Large & Small Size of Vehicle mounted X-Ray Baggage Scanner and Addressed to Superintendent of Police (MT), PHQ, MT Unit, Chimpu, Itanagar, Arunachal Pradesh -791113".

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Figelope -1:-Technical Bids - It shall contain copies of eligibility information as under:-

- a) Tender fee should be attached, in case the documents downloaded from website tender fee in form of BD/DD should be attached along with Technical Bid.
- b) Technical bid along with its specification leaflets, brochure & catalogue.
- c) Tender documents duly completed and signed but without indication of the rates quoted.
- d) Earnest Money (EMD) must be attached in form of TDR/FDR/Demand Draft/NSC/KVP etc. of Nationalized Bank/Post office duly pledged in favour of Superintendent of Police (MT), PHQ, MT Unit, Itanagar. However, NSIC/SSI/UAM-MSME Certificate, applicable to those who are seeking exemption from EMD.
- e) Technical compliance statement should be enclosed along with technical bid clearly specifying deviation, if any for all specifications mentioned in the tender.
- f) Attested copy of PAN Card.
- g) Attested copy of firm GST Registration.
- h) Valid Trading license issued by competent authority for the tendered items.
- i) Letter of OEM Authorized Certificate, if any.
- j) Financially soundness certificate/Bank solvency of firm from the concerned Branch Manager of Bank from where the firm operates.
- k) Attested copy of last three years Income tax return of the firms.
- Experience certificate of firm which must contain name designation, address, Phone No., Fax No., Mail ID (if any) of Issuing Officer. The certificate should be countersigned by concerned OFFICE HEAD/DEPT. HEAD
- m) Any other relevant documents which the firm wishes to submit.

Envelope -2:- Financial Bid - It shall contain documents only "Financial Bid".

a) Rates must be clearly written in figures as well as in words, showing GST separately.

#### **GENERAL INSTRUCTION:**

- 1. The tenders received after schedules date & time will not be entertained. The tenderers or their representative may remain present at the time of opening of tenders.
- 2. There should not be any cutting/over writing.
- 3. The Tenderer/Firms who fail to fulfil the eligibility conditions will be summarily rejected.

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- 4. The sealed tender should be sent by Registered post or put in the Tender Box kept in the office of the undersigned SP(MT) PHQ MT Unit Chimpu, Itanagar on any working day from
- 3 1000 Hrs to 1600 Hrs.
  - 5. In case tender opening day is declared as holiday or bandh call at Itanagar, the tenders shall be opened on next working day at 1100 hrs.

#### 6. The details of Earnest Money Deposit (EMD):

- A. <u>Earnest Money Deposit.</u>
- a) The earnest Money Deposit shall be retained by the purchaser till submission of Security Deposit.
- b) No interest will be payable for the EMD and SD by the purchaser.
- c) The EMDs of unsuccessful bidder will be returned after opening the financial bids.
- B. <u>Forfeiture of Bid Security/EMD</u>:
- a) If the bidder withdraws the bid after Bid opening during the period of bid validity.
- b) In case of a successful bidder, if the bidder fails within the specified time limit to sign the Contract Agreement; or
- c) A successful bidder fails to furnish the 5% of contract value as performance Security at the time of signing the Contract Agreement.

#### 7. Performance Guarantee:

- a) Successful tendered will required to deposit 5% of the total value of the Contract price as performance security money "or" Performance Guarantee within 15 days from the date of issue of letter of acceptance of tender for the warranty period. The Performance Guarantee has to be drawn in the name of Superintendent of Police (MT), PHQ, MT Unit, Chimpu, Itanagar payable at SBI, Itanagar, O/o of the Superintendent of Police (MT), PHQ, MT Unit, Chimpu, Itanagar, Arunachal Pradesh.
- b) Conditions: If the tenderer who fails to supply the material/perform the task assigned to him in the purchase order, within the period prescribed for such delivery specified above, the Director General of Police or other competent authority, shall be entitled at his discretion to the actions as under:
  - i) Graded liquidated damages for delay in delivery of all or any good or performance of services will be liable for as under:
    - (a) For first 30 days @1% of the value of the goods.
    - (b) For next 60 days @2% of the value of the goods.
    - (c) For delay of 2 month/over & upto 4 months @4% of the value of the goods.
    - (d) Beyond 4 months and upto 6 months @5%, of the value of the goods & on expiry of 6 months the contract would automatically get nullified and Bank Guarantee would be invoked.
  - ii) If the tenderer fails to deliver the material as per terms and conditions of P.O. within the stipulated period, the P.O. will be cancelled and will forfeit the Performance Security Deposit. Further, the successful tenders will have to enter into a "DEED OF AGREEMENT" stipulated the Terms and Conditions of the contract with the Superintendent of Police (MT), PHQ, MT Unit, Chimpu, Itanagar.

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- Guarantee/Warranty: The supplier shall provide 2 (two) year Warranty or as per the prescribed periods by the company/OEM for the equipment's mentioned in the Contract from the date of installation as specified in the tender schedule.
  - During warranty period, in case of local service centres complaints should be attended within 05 days and in case of out-station service centres complaints should attended within 10 days.
  - 9. Delay in the Suppliers performance: Delivery of the Goods and performance of services shall be made by the supplier in accordance with the time schedule specified by the purchaser in its Schedule of Requirement. All unexcused delay by the supplier in the performance of its delivery obligations shall render the supplier liable to forfeiture of its performance security bank guarantee, imposition of liquidated damages and or termination of the contract for default.
- 10. The buyer will not pay for transit insurance. The bidder will be responsible until the entire consignment reached the location.
- In case of any breach of contract, Terms of Agreement and Purchase Order and its conditions, the decision of the Director General of Police, PHQ, Itanagar is final and binding on the bidder. In case of any dispute, the matter can be referred to competent Court at Itanagar only and not anywhere else.
- 12. The bill of cost should be submitted in triplicate to this office duly showing Account Numbers IFSC Code of the firm where he holds Bank Account and further showing the Tax components separately with all required documents for arranging necessary payment.
- 13. The bidders should keep checking the website for any added/corrigendum to the notice/bidding documents till the date of submission of bids and the bidder should incorporate the same in his bid documents.
- 14. Conditional bids and bids not meeting the qualifying criteria on the date of receipt of bids shall be summarily rejected.
- 15. The department will not be responsible for delay in submission due to any reason(s).
- The tender papers containing full details with specifications and terms and conditions can be obtained from office of the Superintendent of Police (MT), PHQ, MT Unit, Chimpu, Itanagar, on payment of tender fee of ₹ 1,000/- (Rupees one thousand) only (Non-refundable) through a bank draft in favour of the Superintendent of Police (MT), PHQ, MT Unit, Itanagar, Arunachal Pradesh payable at S.B.I. Itanagar on any working day from 1000 hrs. to 1600 hrs. w.e.f 07/02/2025 to 26/02/2025 except holidays. The tender documents from website are also required to submit a Bank Draft of ₹ 1,000/- (Rupees one thousand) only as tender fees. No other mode of payment will be accepted.



- Rate should be quoted F.O.R. Office of the Superintendent of Police (MT), PHQ, MT Unit, Itanagar. Rate quoted other than F.O.R. Office of the Superintendent of Police (MT), PHQ, MT Unit, Itanagar shall not be accepted. No packing or forwarding charges will be allowed. The rate of GST (as applicable) may be charged/quoted by the tenderers and amount be clearly mentioned for all items. The rate should be quoted in Indian currency both in figure and words clearly. Tenders must be eligible and clear in all respect else the tenders shall be liable to be rejected.
- Tenders should be addressed to the undersigned by designation and not by name. the separate sealed envelope containing the tender should be subscribed as "Tender for Dash Cam for PCR Vans and Small & Big Size of Vehicle mounted X-Ray Baggage Scanner for Arunachal Pradesh Police and sent by Registered Post/Speed Post/Courier Service or put in the Tender Box kept in the officer of the undersigned (SP (MT) office) on any working days from 0900 to 1700 hrs. The tenders received after scheduled date & time will not be entertained.
- 19. Delivery of stores will have to be completed within 90 days from the date of issue of the firm order. In case of failure to supply the items in time, violation of any provision of Deed of Agreement, the firm is liable to be blacklisted.
- 20. If any items found damages or otherwise unacceptable at the time of delivery/inspection, the supplier will be required to remove the same from the office of the Superintendent of Police (MT), PHQ, MT Unit, Itanagar, Arunachal Pradesh at their own cost within 15 days.
- 21. Payment will be made to the supplier directly only after receipt, installation and acceptance of items by the Board.
- 22. The firm is liable to provide after sale services for a period of 7 (seven) years.
- 23. The Director General of Police, Arunachal Pradesh, Itanagar reserve the right to reject the lowest or all or any of the tenders without assigning any reason thereof.
- 24. Tender will remain valid up to 31-03-2025.
- 25. For further query, bidders may contact the following Phone No. and mail id-

Officer	Contact Number	e-mail id
Superintendent of Police (MT),	8119971895	
PHQ, MT Unit, Itanagar.		spmt2024@gmail.com
Addl. Superintendent of Police (MT),	9436288948	
PHQ, MT Unit, Chimpu, Itanagar.		

Note: In pursuant of the Government policy of "Vocal for Local" and "Atma Nirbhar Bharat" to encourage local entrepreneurs vide No. FIN/E-30/2017/675 dated 19/08/2020, the firm registered within Arunachal Pradesh can only participate in the tender process.

For more details, visit Arunachal Police website www.arunpol.nic.in

Superintendent of Police (MT), PHQ, MT Unit, Chimpu.

Supdt. Of Police (MT)
PHQ, MT, Chimpu
Itanagar
Arunachal Pradesh



### B. TECHNICAL SPECIFICATIONS :-

### 1. VEHICLE MOUNTED X-RAY BAGGAGE SCANNER (LARGE SIZE):-

SI	Technical Specifications		
No 1	Tunnel Size-Minimum 100 cm W(width) x Minimum 100 cm H (Height)or better		
2	Conveyor belt speed should be between 0.18 and 0.3 meter per second. Conveyor movement bidirectional.		
3	All machines should operate on 230 VAC, 50 Hz power supply and should be able to withstand voltage fluctuations in the range of 170V to 260 V. Single Phase, 3 to 5 Amp.		
4	Conveyor Capacity-200 kg or more		
5	Through put should be 200 bags per hour or more		
6	Sensors>1000 diodes. L-shaped detector (Folded array type). In case of defective diode arrays, scanning should be disabled and error message should be displayed on the screen		
7	X-Ray Voltage - Maximum 160 KV to 185 KV		
8	X-Ray Source/Generator-It should be capable to operate smoothly for a period of at least six years		
9	Duty Cycle -100%		
10	The X-ray beam divergence should be such that the complete image at maximum size of bag is displayed without corner cuts.		
11			
12	The operating temperature normally should be 0 deg C to 40 deg C.		
13	Storage temperature 0 degree C to 50 degree C.		
14	Humidity-90%non-condensing		
15	Resolution: The machine should be able to display single un-insulated tinned copper wire of 42-SWG or 38-AWG.All penetration and resolution condition should be met without pressing any functional key and should be online.		
16	Penetration should be 35 mm thickness of steel or more.		
17	Continuous Electronic Zoom facility should be available to magnify the chosen area of an image eight times (8X)or more image features shall be keyboard controllable		
18	Video display-18.5"or better LCD Monitor SVGA High resolution low radiation, flicker free, resolution at least 1280x 1024.24 bit colour real time processing.		
19	The machine should have features of Multi-energy X-ray imaging facility where materials of different atomic number will be displayed in different colours to distinguish between organic and inorganic materials. With this method to distinguish high density organic materials including explosives. Machine should have variable colour or materials stripping to facilitate the operator to monitor images of organic materials for closer scrutiny. All suspicious items (Explosives, High density, material narcotics should be displayed in one mode and that should be on line.		
20	Radiation Safety The machine must comply with requirements of health and safety regulations with regard to mechanical electrical and radiation hazards. Before installation of the machine, the supplier/manufacturer should furnish relevant certificate from Atomic Energy Regulatory Board of India regarding radiation safety. The company manufacturing the equipment should have ISO certification for manufacturing and servicing of X-ray Screening machines.		





	21	<b>Film·Safety Guaranteed</b> safety for high-speed films up to ISO1600. The machines should be film safe. In other words photographic films must not be damaged due to X-Ray examination.	
	22	Machine should be properly sealed from all the sides for pest proof. Dust proof cover is to be provided for covering when system is not in use.	
	23		
	24	The machine should be so designed that software enhancement can be easily implemented to take care of new technique in image processing and pattern recognition	
ľ	25	Full diagnostic built in test facility. All models should have software controlled diagnosis report facility and system should give printout if printer is connected.	
ľ	26	All Software features of machine should be online and password protected.	
	27	Machine should be capable for recalling 15 or more previous image.	
	28	It should have the capability of archiving 2000 or more images with date &time stamp.	
	29	Control desk with security housing and locking provision should be available. The operator personal identification number can be entered the keyboard along with generation of log.	
	30	Facility of image enhancement should be available	
	All models should have online recording facility and images can be recorded in CD R/W USB and should be able to view images so recorded on stand-alone PC.		
	32.	Lead impregnated safety screens should be available at either ends of the tunnel. This should be covered by relevant AERB certificate. Idle rollers to be provided at either ends of the tunnel to facilitate placing of baggage at input and output.	
	33	All software features should be controlled from key board of machine only. Keyboard function should be user friendly. To enable/disable the software features system should not be rebooted.	
	34	If the machine fails to penetrate a particular item then an alarm video and audio both should be generated to notify the operator.	
	35	The threat image projection (TIP) system software to be incorporated in all X-Ray BIS operation.	
3	36	Copy of all software including X-Ray Software with recovery CD must be provided	
3	37	Operational Training-Operating staff has to be provided free training	
	8	Operating &service manual shall be provided with each machine	
3	9	Other Features a) Edge &variable edge enhancement. b) Inverse Video	
		c) Set up time not more than 10 minutes	
		d) Pseudo colour e) Date &Time display.	
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### TENDER NOTICE

40	Minimum Computer Configuration:			
	Processor:- Core i5/12 <sup>th</sup> Generation or higher.			
	Operating System:- Windows 10 or higher.  System Type:- 64-bit operating system, x64-based processor.			
ĺ	System Type:- 64-bit operating system, x04-based pro-			
	SSD:- 1TB (For OS).  HDD:- 1 TB (for storage)  Graphic:- 2GB or Higher.  LD:- 1 Percilal Port 1 USB Keyboard Port			
	n 4 (191) Ports (with otleast 2 in front) 1 serial Port, I Parallel I ort, I Con 1919			
	and 1 USB Mouse, Audio Ports for Microphone and Treadphone			
	CD/DVD:- Inbuilt CD/DVD Write.  Networking Facility:- 10/100/1000 on board intergraded Network Port with remote booting facility, remote system installation, remote wake up, out of band management using any standard management software.			
	Monitor Size:- 24"			
41	UPS:-3 KVA or better online with back-up time of ½ hour whole system.			
41	UPS:-3 KVA or better online with back-up time of 72 Most			
42	Generator Set:- 3 KVA Portable Generator.			
	TIPS Feature			
01	Threat Image Projection  Tin software facility shall be incorporated in the offered X-Ray machine to assist supervisors in the offered X-Ray machine to assist supervisors.			
01	Tin software facility shall be incorporated in the offered X-Ray inachine to ability in identifying testing the operator alertness and training X-ray screeners to improve their ability in identifying testing the operator alertness and training X-ray screeners to improve their ability in identifying testing the operator alertness and training X-ray screeners to improve their ability in identifying testing the operator alertness and training X-ray screeners to improve their ability in identifying testing the operator alertness and training X-ray screeners to improve their ability in identifying testing the operator alertness and training X-ray screeners to improve their ability in identifying testing the operator alertness and training X-ray screeners to improve their ability in identifying testing the operator alertness and training X-ray screeners to improve their ability in identifying testing the operator alertness and training X-ray screeners to improve their ability in identifying testing the operator alertness and training X-ray screeners to improve their ability in identifying testing the operator alertness and training X-ray screeners and the same will be superimposed.			
	testing the operator alertness and training X-ray screeners to improve their design of the superimposed specific threat object. The system will create a threat object and the same will be superimposed specific threat object. The system will create a threat object and the same will be superimposed specific threat object. The system will create a threat object and the same will be superimposed specific threat object.			
	on the monitor screen while a bag is being screened. To acknowledge that the false object, operator must press the control panel key that will cause the computer generated the false object, operator must press the control panel key that will cause the computer generated the false object, operator must press the control panel key that will cause the computer generated			
	shall be recorded in the hard disc of the computer for the auditing purpose by the supervisor or			
	other authorized person.			
	DECKEN OF THE SYSTEM.			
02	m: Grand he compatible with other X-ray technology such as automatic reject unit.			
02	Dual X-Ray screen technologies automatic treat recognition system etc. All x-ray image function			
	must be available at the same time along with the TIP.			
	IMAGE LIBRARY			
03	The image library should have an image library containing at least 100 explosives devices, 100			
03	lurives and 100 firearms in various sizes, shapes, locations and orientations. However, the			
	system shall have facility to expand the library to incorporate additional images by user without			
	assistance of the manufacture.			
	The image library should contain images of threats at different orientations both plan and end on			
04	orientation should be used. Although these will be assigned different file names and references			
	orientation should be used. Although these will be assigned different the names and references			
	it must be possible to cross-reference these as the same threat. All threat image Projection			
	images must be realistic representative and non-distinguishable from real threat items.			
05	TIME INTERVAL  Programming facility shall be available to project threat images in different intervals. The time			
05	rrogramming facility shall be available to project threat inflages in different intervals. The time			
	period for threat image as well as image mix in percentage shall be user programmable experience of the period for threat image as well as image mix in percentage shall be user programmable experience of the period for threat image as well as image mix in percentage shall be user programmable experience of the period for threat image as well as image mix in percentage shall be user programmable experience of the period for threat image as well as image mix in percentage shall be user programmable experience of the period for threat image as well as image mix in percentage shall be user programmable experience of the period for threat image as well as image mix in percentage shall be user programmable experience of the period for threat image as well as image mix in percentage shall be user programmable experience of the period for threat image as well as image mix in percentage shall be user programmable experience of the period of the peri			
	software shall select 40% images of explosive devices.35% of fire arms & 25% knives of			
	random etc.			
06	Once the screener has responded to identify the computer generated threat image, it should			
	remain on the screen for a predefined user programmatic feedback message shall be visible to			
	the screener.			



	ONOTEN ADMINISTRATION
	SYSTEM ADMINISTRATION  The threat image projection facility shall have details of user data-base such as Department  The threat image projection facility shall have details of user data-base such as Department  The threat image projection facility shall have details of user data-base such as Department
07	name, screener name, Organization User 1D Number, 1889
	administrator, Maintenance & Password etc.
08	Access to start up menu should be restricted only to the authorized individuals. A log-in procedure by means of Password" or "Security Key" could achieve restricted access to each of the comment. The log-in procedure should not take longer than 20 seconds. The system should have facility to bypass the TIP facility, if programmed so by the system administrator. It is to be ensured that the TIP software shall not be hindrance to normal functioning of x-ray machines.
09	When the operator logs-in or logs-out message should be displayed on x-ray BIS VDU Screen to confirm that the/she has been correctly logged-in or logged-out.
	FEED BACK REPORT
10	The threat image Projection should be capable of giving feedback "HIT, MISS or FALSE ALARM" message. No message will be presented if a screener correctly passed as clear bag.
11.	A"HIT" message to be presented when a screener has correctly identified a Threat image Projection Image. A "MISS": message shall be presented when screener fails to identify the TIP image image A "False Alarm" message shall be given when screener incorrectly indicate TIP image when in fact no threat image projection is present. The feedback should clearly indicate in a screen that a tip object has been correctly identified/tip object has been missed/that a TIP object has been missed/no TIP object was present. Information should be recorded in the database.
12.	Different colour coding shall be used for feedback to the Screener; it is recommended that colour code "Red for MISS Green for "HIT" and Yellow to False Alarm or interrupt" be used.
13.	The system shall automatically prepare the daily log of events for each shift and for each Screener performance. TIP log shall include particulars of Name of Screener, Time & date of threat image was successfully identified or missed etc.
14.	The report on Threat image Projection system may have date and time (From -to)as per requirement. Screener particulars and decision/out come i.e. MISS, HIT or False Alarm in percentage a well in absolute numbers, numbers of bags screened, categories such as explosives devices knife or weapon etc.
15	As a standard practice, daily/weekly /monthly report shall be retrieved. Report shall be for any given time and period, as per command.
16	All data should be stored on the system for a minimum of two months after it has been down loaded. No individual, regardless of access rights to the Threat Image Projection components would delete or amend any of threat images Projection data or time i.e. Threat Image Projection data on the actual X-Ray machine will be read only file.

Vehicle Specification-

venic	venicie Specification—			
1	Type	Medium Utility with capacity of taking load of the offered model		
2	Engine	Diesel		
3	Transmission	Manual		
4	Steering	Power		
5	Tyre	Twin tyre		
6	Air condition	Air conditioning should work on AC & DC power supply		
7	Seating Capacity	Front-Driver + one and back-2 operators or more.		
8	Floor Tyre	Anti slip and synthetic floor.		
9	CCTV	CCTV surveillance for entry and exit points.		
10	Inspection	A team will visit to the factory at the time of fabrication and minor change		
		will be made if required.		





## . VEHICLE MOUNTED X-RAY BAGGAGE SCANNER (SMALL SIZE):-

SI	Technical Specifications		
No			
1.	Tunnel Size-Minimum 60 cm W(width)x Minimum 40 cm H (Height)or better.		
2	Conveyor belt speed should be between 0.18 and 0.3 meter per second. Conveyor movement bidirectional.		
3.	1 I should be able to withstand		
4	Conveyor Capacity-160 kg or more		
5.	Through put should be 200 bags per hour or more		
6	Sensors>1000 diodes. L-shaped detector (Folded array type). In case of defective diode arrays, scanning should be disabled and error message should be displayed on the screen.		
7.	X-Ray Voltage - Maximum 160 kv		
8	X-Ray Source/Generator-It should be capable to operate smoothly for a period of at least six years.		
9.	Duty Cycle -100%		
10	The X-ray beam divergence should be such that the complete image at maximum size of bag is		
11.	The radiation level should not exceed accepted health standard (0.1m R/Hr at a distance of 5 CM from external housing) Relevant certificate from AERB.		
12.	The operating temperature normally should be 0 deg C to 40 deg C.		
13	Storage temperature 0 degree C to 50 degree C.		
14.	Humidity-90%non-condensing		
15	Resolution: The machine should be able to display single un-insulated tinned copper wire of 42-SWG or 38-AWG.All penetration and resolution condition should be met without pressing any functional key and should be online.		
16	Penetration should be 35 mm thickness of steel or more.		
17.	Continuous Electronic Zoom facility should be available to magnify the chosen area of an image eight times (8X)or more image features shall be keyboard controllable.		
18	Video display-18.5" or better LCD Monitor SVGA High resolution low radiation, flicker free, resolution at least 1280x 1024.24 bit colour real time processing.		
19.	The machine should have features of Multi-energy X-ray imaging facility where materials of different atomic number will be displayed in different colours to distinguish between organic and inorganic materials. With this method to distinguish high density organic materials including explosives. Machine should have variable colour or materials stripping to facilitate the operator to monitor images of organic materials for closer scrutiny. All suspicious items (Explosives, High density, material narcotics should be displayed in one mode and that should be on line.		
20.	Radiation Safety		
	The machine must comply with requirements of health and safety regulations with regard to mechanical electrical and radiation hazards. Before installation of the machine, the supplier/manufacturer should furnish relevant certificate from Atomic Energy Regulatory Board of India regarding radiation safety. The company manufacturing the equipment should have ISO certification for manufacturing and servicing of X-ray Screening machines.		





	21.	film safe. In other words photographic films must not be damaged due to X-kay examination	
ŀ	22	Machine should be properly sealed from all the sides for pest proof. Dust proof cover is to be	
-		provided for covering when system is not in use.	
nortion of the image		portion of the image	
+	24	The machine should be so designed that software enhancement can be easily implemented to	
	21	take care of new technique in image processing and pattern recognition	
+	25	Full diagnostic built in test facility. All models should have software controlled diagnosis report	
1	20	facility and system should give printout if printer is connected.	
1	26.	All Software features of machine should be online and password protected.	
+	27.	Machine should be capable for recalling 15 or more previous image.	
H	28.	It should have the capability of archiving 3000 or more images with date &time stamp.	
+	29.	Central deals with security housing and locking provision should be available. The operator	
l	2).	personal identification number can be entered the keyboard along with generation of log.	
H	30	Facility of image enhancement should be available.	
$\vdash$	31.	All models should have online recording facility and images can be recorded in CD R/W or/and	
	J1.	LISB and should be able to view images so recorded on stand-alone PC.	
$\vdash$	32	I and imprognated safety screens should be available at either ends of the tunnel. I his should be	
covered by relevant AERB certificate. Idle rollers to be provided at either end		covered by relevant AERB certificate. Idle rollers to be provided at either ends of the turner to	
L		facilitate placing of baggage at input and output.	
33 All software features should be controlled from key board of mac		All software features should be controlled from key board of machine only. Keyboard function	
L		should be user friendly. To enable/disable the software features system should not be rebooted.	
	34	If the machine fails to penetrate a particular item then an alarm video and audio both should be	
	2.5	generated to notify the operator.  The threat image projection (TIP) system software to be incorporated in all X-Ray BIS	
	35	operation.	
	36	Copy of all software including X-Ray Software with recovery CD must be provided	
	50		
37 Operational Training-Operating staff has to be provided free training		Operational Training-Operating staff has to be provided free training	
38 Operating &service manual shall be provided with each machine		Operating &service manual shall be provided with each machine	
3	9	Other Features	
		a) Edge &variable edge enhancement.	
		b) Inverse Video	
		c) Set up time not more than 10 minutes	
d) Pseudo colour		d) Pseudo colour	
	- 1	e) Date &Time display.	



Minimum Computer Configuration: Processor:- Core i5/12<sup>th</sup> Generation or higher. Operating System:- Windows 10 or higher. System Type:- 64-bit operating system, x64-based processor. SSD:- 1TB (For OS). HDD:- 1 TB (for storage) Graphic: 2GB or Higher. Ports:- 6 USB Ports (with atleast 2 in front), 1 serial Port, 1 Parallel Port, 1 USB Keyboard Port and 1 USB Mounse, Audio Ports for Microphone and Headphone in front. CD/DVD:- Inbuilt CD/DVD Write. Networking Facility:- 10/100/1000 on board intergrated Network Port with remote booting facility, remote system installation, remote wake up, out of band management using any standard management software. Monitor Size:- 24" UPS:-3 KVA or better online with back-up time of ½ hour whole system. 41 Generator Set: 3 KVA Portable Generator. 42 TIPS Feature Tin software facility shall be incorporated in the offered X-Ray machine to assist supervisors in Threat Image Projection testing the operator alertness and training X-ray screeners to improve their ability in identifying 01 specific threat object. The system will create a threat object and the same will be superimposed on the monitor screen while a bag is being screened. To acknowledge that the operator has seen the false object, operator must press the control panel key that will cause the computer generated threat object to disappear from x-rayed bag image on the VDU screen. Each operator's action shall be recorded in the hard disc of the computer for the auditing purpose by the supervisor or other authorized person. DESIGN OF THE SYSTEM: Tip software should be compatible with other X-ray technology such as automatic reject unit. Dual X-Ray screen technologies automatic treat recognition system etc. All x-ray image function 02 must be available at the same time along with the TIP. IMAGE LIBRARY The image library should have an image library containing at least 100 explosives devices, 100 knives and 100 firearms in various sizes, shapes, locations and orientations. However, the 03 system shall have facility to expand the library to incorporate additional images by user without assistance of the manufacture. The image library should contain images of threats at different orientations both plan and end on 04 orientation should be used. Although these will be assigned different file names and references, it must be possible to cross-reference these as the same threat. All threat image Projection images must be realistic representative and non-distinguishable from real threat items. TIME INTERVAL Programming facility shall be available to project threat images in different intervals. The time 05 period for threat image as well as image mix in percentage shall be user programmable e.g software shall select 40% images of explosive devices. 35% of fire arms & 25% knives or Once the screener has responded to identify the computer generated threat image, it should 06 remain on the screen for a predefined user programmatic feedback message shall be visible to the screener. SYSTEM ADMINISTRATION The threat image projection facility shall have details of user data-base such as Department 07 name, screener name, Organization User ID Number, level of access such screener,

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	administrator, Maintenance & Password etc.	
08	Access to start up menu should be restricted only to the authorized individuals. A log-in procedure by means of Password "or "Security Key" could achieve restricted access to each of the comment. The log-in procedure should not take longer than 20 seconds. The system should have facility to bypass the TIP facility, if programmed so by the system administrator. It is to be ensured that the TIP software shall not be hindrance to normal functioning of x-ray machines.	
09	When the operator logs-in or logs-out message should be displayed on x-ray BIS VDU Screen to confirm that the/she has been correctly logged-in or logged-out.	
	FEED BACK REPORT	
10	The threat image Projection should be capable of giving feedback "HIT, MISS or FALSE ALARM" message. No message will be presented if a screener correctly passed as clear bag.	
11	A"HIT" message to be presented when a screener has correctly identified a Threat image Projection Image. A "MISS": message shall be presented when screener fails to identify the TIP image A "False Alarm" message shall be given when screener incorrectly indicate TIP image when in fact no threat image projection is present. The feedback should clearly indicate in a screen that a tip object has been correctly identified/tip object has been missed/that a TIP object has been missed/no TIP object was present. Information should be recorded in the database.	
12	Different colour coding shall be used for feedback to the Screener; It is recommended that colour code "Red for MISS Green for "HIT" and Yellow to False Alarm or interrupt" be used.	
13	The system shall automatically prepare the daily log of events for each shift and for each Screener performance. TIP log shall include particulars of Name of Screener, Time & date of threat image, weather threat image was successfully identified or missed etc.	
14	The report on Threat image Projection system may have date and time (From -to)as per requirement. Screener particulars and decision/out come i.e. MISS. HIT or False Alarm in percentage a well in absolute numbers, numbers of bags screened, categories such as explosives devices knife or weapon etc	
15	As a standard practice, daily/weekly /monthly report shall be retrieved. Report shall be for any given time and period, as per command.	
16	All data should be stored on the system for a minimum of two months after it has been down loaded. No individual, regardless of access rights to the Threat Image Projection components would delete or amend any of threat images Projection data or time i.e. Threat Image Projection data on the actual X-Ray machine will be read only file.	

### <u>Vehicle Specifications</u>:

1	Type	Medium Utility with capacity of taking load of the offered model
2	Engine	Diesel
3	Transmission	Manual
4	Steering	Power
5	Tyre	Twin tyre
6	Air condition	Air conditioning should work on AC & DC power supply
7	Seating Capacity	Front-Driver + one and back-2 operators or more.
8	Floor Tyre	Anti slip and synthetic floor.
9	CCTV	CCTV surveillance for entry and exit points.
10	Inspection	A team will visit to the factory at the time of fabrication and minor
		change will be made if required.





#### ANNEXURE-B

Technical Specifications for Vehicle Mounted LCD Dash board Camera systems-Description Sr.No **General Specification** Storage Temperature: 50 degree Celsius 1. 3M CMOS Sensor 2. Sensor: Display Type: LCD 3. SD Card Included: Yes 4. Microphone and Speaker (AAC) Equipped Audio: 5. Continuous Loop Recording, Motion Detection Recording. Recording Format: 6. 3 Minute Video Segmentation 7. time: 3 Mega Pixels CMOS Photograph Mode: 8. JPG file format. Picture: 9. 250 gram Weight: 10. Polymer Li-on battery. Battery: 11. 128 GB Memory Capacity (GB): 12 720P 1280720,30 1080FHD 19201080,30FRAME/SEC, Recording mode 13. frame/sec, WVGA 848480,30 frame/ sec, VGA 640480,30 frame/sec. **USB 2.0 Connection Port:** 14. Number of Camera: 2 15. Device, Bracket USB Cable, Car Charger, manual, Warranty 16. Accessories: Card. 2.4 inch. Display Size: 17. HDMI, G-Sensor, MIC, Low light sensor for night recording, Anti-Shake, Parking monitoring, Motion detect recording 18 Features: function, cycle recording and section recording. 20 degree Celsius Operating Temperature 19. 12 Volt Power Consumption: 20. Ultra-wide Visual Angle (Greater than 120 degrees) Camera Type 21. Memory Card, PC Camera. USB Functdion: 22. **Dimensions** 35 milimeter Height: 23. 70 milimeter Width: 24. 65 milimeter 25. Length: Warranty of the product: 1 year Warranty **Reports & Certifications** ISO Certification Number, Issue Validity & If ISO SCK01/AEO/23/91/1254 27. certification not available may indicated  $\tilde{N}/A$ . Copies of certifications to be furnished to buyer on Yes 28. demand at time of supplies.

> (Bomge Kamduk), APPS, Superintendent of Police (MT), PHO, MT Unit, Itanagar.

