

## PROPOSED TENDER SPECIFICATION OF UNDER VEHICLE SCANNING SYSTEM (UVSS)

1. Name of the Item : Under Vehicle Scanning System (UVSS).
2. Purpose : To scan and inspect the vehicle bottoms for contraband, explosives, drugs, weapons, personal trackers etc.
3. Brand : To be mentioned.
4. Model : To be mentioned.
5. Country of Origin : USA/UK/EU Countries.
6. Country of Manufacture : To be mentioned.
7. Year of Manufacture : 2021 or later.
8. Quantity : 02 (two) in no's complete set (Including software).
9. **Scope of Supply.** Two in no's complete set Under Vehicle Scanning System with standard accessories is to be supplied including test/trial and commissioning as per the specifications enumerated in the subsequent paragraphs. Services like, installation, supervision & training, after sales service, etc are also be included in the scope of supply.
10. **System Configuration.** The bidder has to mention the major components and their quantity comprising each complete sets.
11. **System Features.**
  - a. Day/Night Operation : All the features of the UVSS must be equally available during day and night operation
  - b. Vehicle Speed : All the features of the UVSS must be equally functional for vehicle speed from 0 to 45 kmph
  - c. Load bearing capacity (Ton) : The scanning unit and other accessories must withstand minimum 20 Tons per axle without any kind of damage or performance degradation
  - d. LPR (License Plate Recognition) capabilities : The system must have LPR capabilities to record, identify and read **all the characters of the license plates** which are:
    - (1) Installed anywhere in the front or rear of Sedan Cars, Jeeps, Pickups, SUVs, All kinds of trucks specially including Lorry-trucks & Tow-trucks, Buses, Mini-buses, Micro-buses, CNG auto-rickshaw, Motorbikes etc.
    - (2) Written in Bangla & English and in any font
    - (3) Written with any font color and background color
  - e. Driver Face Capture Capabilities : The system must have driver face capture and storage capabilities for both Right-hand side and Left-hand side driven Sedan Cars, Jeeps, Pickups, SUVs, Lorry-trucks, Trucks, Mini-trucks, Buses, Mini-buses, Micro-buses, CNG auto-rickshaw, Motorbikes etc.
  - f. Library/Database creation, update/edit, printing and copying :
    - (1) Creation- Automatic, via LPR capabilities.
    - (2) Creation- Manual, via operator entry. The system must have a record of such entry by the operator.
    - (3) Update/ Edit- Automatic, via LPR capabilities.
    - (4) Update/Edit- Manual, via operator entry on LPR malfunction or unreadable number plate or manual override. The system must have a record of manual overrides.
    - (5) Printing & Copying:
      - (a) The system must facilitate the operators to take back-up on any storage media via USB ports and to print the reports.



File type of the report is to be mentioned.

(b) The bidder must mention if any interfacing software is required for taking back-up and printing. If so, the software must come pre-installed to the system with necessary calibration/updates.

(6) The system must have a multi-user logging of events and search facility

- g. Comparison options : The system must allow the operator to have a side-by-side comparison between the current image & video and previous image & video both during scanning and at a later time
- h. Image/Video options : The system must:
- (1) Allow the operator to magnify both current and previous images simultaneously for a zoomed-in view. Zoom amount is to be mentioned.
  - (2) Allow the operator to choose from monochrome or color resolution
  - (3) Automatically and dynamically adjust composite image according to vehicle speed
  - (4) Automatically and dynamically adjust brightness and contrast irrespective of external lighting conditions
- j. Image/ Video Storage : (1) Capacity to be mentioned.  
(2) Image and Video file transfer facilities to external media to be mentioned.
- k. Foreign Object Detection : (3) Image & Video file type to be mentioned.  
(1) Must be available.  
(2) Technology behind Foreign Object Detection of the offered system is to be mentioned.
- l. Options to search records in the library/database : The system must facilitate the operator to search records by:
- (1) Number Plate.
  - (2) Time.
  - (3) Alarm.
  - (4) Manual Override.
  - (5) Entry by the operator/ system.
  - (6) Other available options to be mentioned.
- m. Alarm occasions : (1) On detection of Foreign Object.  
(2) On detection of any unreadable license plate for any reason.  
(3) Mismatch between forward and rear license plate.  
(4) Failure to obtain a driver image.  
(5) Failure of any hardware/software.  
(6) Other alarms to be mentioned.
- n. Manual Override : To be available, occasions to be mentioned.
- p. Maximum Vehicle Length : To be mentioned.
- q. Integration with other security systems : The system must have an open protocol for future integration with other security systems such as barrier gate/ automatic bollard. The bidder must provide technical support (labor, consultation & supervision) in such integration works during warranty period and maintenance service period at no cost of the purchaser.
- r. Networking : The system must include networking options to facilitate remote technical support or monitoring
- s. Maximum Distance between : To be mentioned



- the Scanning Unit and the Workstation
- t. Minimum Distance required : To be mentioned  
for the vehicle to trigger the Bottom-Scanner
- u. Others : (1) The system must have provision for different hierarchy for authorization for operating the system protected with password.  
(2) The system must not require any additional auxiliary viewing device to view hard-to-sea area of the vehicle-bottoms.

## 12. Technical Specification of the Hardware.

### a. License Plate Recognition Camera.

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|-----|---------------------|---|-----------------------|
| (1) | Type                | : | IP Camera             |
| (2) | Resolution          | : | 1440*1080 or better   |
| (3) | Frame rate          | : | To be mentioned       |
| (4) | Zoom                | : | To be mentioned       |
| (5) | Angle of view       | : | To be mentioned       |
| (6) | LPR range           | : | To be mentioned       |
| (7) | Max range at 0 lux  | : | To be mentioned       |
| (8) | Vehicle speed range | : | To be mentioned       |
| (9) | Protections         | : | Minimum IP 67 & IK 10 |

### b. Driver Face Capture Camera.

- |     |                      |   |  |
|-----|----------------------|---|--|
| (1) | Type                 | : | IP Camera                              |
| (2) | Angle adjustment     | : | Any angle                              |
| (3) | Resolution           | : | 1280*720 or better                     |
| (4) | Minimum Illumination | : | 0.01 lux @ F1.2, AGC On; 0 lux with IR |
| (5) | IR Distance          | : | 98 feet or better                      |
| (6) | Protections          | : | Minimum IP 66                          |

### c. Scanning Unit.

- |      |   |   |  |
|------|---|---|--|
| (1)  | No of camera                                    | : | To be mentioned  |
| (2)  | Camera Resolution                               | : | 1600*1400 @ 7.4 micron or better                                 |
| (3)  | Camera Spectrum                                 | : | Visible (400-700 nm), Near Infrared (700-1000nm) or better       |
| (4)  | Lens type                                       | : | Hydrophobic Coated Lenses or better                              |
| (5)  | Camera Interface                                | : | To be mentioned  |
| (6)  | Camera Field of View                            | : | To be mentioned  |
| (7)  | Camera Frame Rate                               | : | Minimum 500 FPS  |
| (8)  | Camera Protection                               | : | IP 68 or better  |
| (9)  | Bi-directional scanning                         | : | To be available  |
| (10) | Scan to Screen time                             | : | To be mentioned  |
| (11) | Vehicle Scan Width                              | : | To be mentioned  |
| (12) | Vehicle Scan Length                             | : | No limits  |
| (13) | Vehicle undercarriage illumination arrangements | : | High intensity Micro Controlled white LED illumination or better |
| (14) | Construction material of the scanner            | : | To be mentioned, must be rust resistant                          |
| (15) | Installation type                               | : | Flush to Ground  |

### d. Workstation.

- |     |   |   |  |
|-----|---|---|--|
| (1) | Operating System                                | : | To be mentioned.   |
| (2) | Application Software                            | : | Must be pre-installed.   |
| (3) | Software for Remote Technical Support in future | : | a. Must be pre-installed.<br>b. Must not run until any command is given by the user.   |
| (4) | Processor                                       | : | Intel Core-i7 12 <sup>th</sup> generation 12 core, 25M cache, up to 5.0 GHz or better. |
| (5) | RAM   | : | 16GB DDR5 or better.   |



- |     |                    |   |   |
|-----|--------------------|---|---|
| (6) | Storage            | : | 512 GB PCIe M.2 class 40 SSD and 1 TB 7200 rpm HDD or better. |
| (7) | Available Ports    | : | To be mentioned.  |
| (8) | Networking options | : | To be mentioned.  |

13. **Qualification of Bidder.**

- a. The bidder must be an authorized dealer/distributor (appointed by the manufacturer) or authorized agent of all items of Under Vehicle Scanning System in this tender. Necessary proof/ certificates are to be submitted with the tender.
- b. A list of major clients preferably in defence/govt /corporate sector where the item has been supplied or presently used must be attached with the offer for reference.
- c. Bidder must have Authorized Service Engineer in Bangladesh (Certified by the Manufacturer).

14. **Accessories.** Accessories required for the Under Vehicle Scanning System should be supplied free of cost which are essential to install and operate the UVSS. **List of Accessories is to be mentioned.**

15. **Maintenance and Repair.** The bidder will give assurance for maintenance service for the next 03 (three) years after 02 (two) years of warranty period. Periodical routine checks and system tuning as recommended by the manufacturer and on demand by the user are to be carried out by the bidder to ensure smooth, efficient and continuous operation of the UVSS at free of cost during warranty period and the maintenance service period. The bidder must ensure availability of all spare parts of the offered item for at least 05 (five) years from the date of final acceptance and the statement is to be endorsed by the manufacturer.

16. **Brochure/Manual.** Original detailed brochure/catalogue of the offered model of the item in English must be provided with the tender for evaluation/assessment. Minimum 02 Sets (hardcopy) of Operation and Maintenance Manual of the UVSS and softcopy of the manuals in PDF format are to be provided during delivery of each of the items.

17. **Installation Place and Installation Material.** The Under Vehicle Scanning System is to be installed in Dhaka, Chattogram and Khulna Naval Area. Supervision during installation work, test and trial shall be done by a competent supplier representative. Transportation and other relevant expenditure (For Dhaka, Chattogram and Khulna) are to be borne by the supplier. All installation material are to be supplied at free of cost.

18. **Warranty.**

a. Minimum 24 Months warranty for trouble-free operation is to be provided by the supplier/manufacturer for all items from the date of acceptance by the buyer. If any component of the supplied items becomes defective during the warranty period, warranty for the whole item shall be extended automatically for the period of the subject component remains defective.

b. For warranty repair/replacement, the supplier will collect the defective item from respective place and deliver the same to the collecting place after warranty repair or for replacement within 10(ten) working days from the date of intimation of defect without any cost.

19. **Validity of Offer.** 120 days from opening the tender document.

20. **Delivery.** The items are to be delivered within 90 days after receipt of purchase/work order to the following address:

Officer-in-Charge  
Naval Store Sub-Depot Dhaka, Khilket Naval Area  
Namapara, Khilket, Dhaka-1219.


21. **Port of Shipment.** Shipment should be done either from country of manufacturer or country of origin.


22. **Compliance Statement.** A clear and complete compliance statement of the tender specification supported by original catalogue is to be submitted with the offer. Any deviation from




this specification is also to be clearly mentioned in the offer. Mentioning of yes/no will not be enough and detail technical data/information are to be provided.


23. **Test, Trial and Acceptance.** The installation work is to be done as per serial no. 16 above. After successful test & trial and commissioning, an acceptance certificate will be signed between the buyer and the bidder representative. Final acceptance will be given by CINS/ACINS.
24. **Source of Supply.** The bidder/supplier is to mention the name address and contact details of original manufacturing company.
25. **Price without Import Duties.** In case of imported items price to be quoted without import duties.
26. **Terms of Payment.** Payment will be made in local currency on completion of satisfactory test-trial and acceptance by the buyer.
27. **Certificate.** An original certificate from manufacturer (OEM) is to be provided along with the offer indicating the year of manufacture.
28. **Training.** Necessary training for operation and user level maintenance & troubleshooting of the UVSS for a period of minimum 05 working days for 05 BN personnel is to be provided by the OEM authorized Service Engineer of the bidder at each installation place without any additional cost.
29. **Liquidated Damage (LD).** Items have to be supplied within the stipulated time frame mentioned in the purchase order. If supplier is failed to supply the items according to above mentioned conditions, Liquidated Damage (LD) will be imposed at a rate of 1% per months but maximum 10% of the price mentioned in the purchase order.
30. **Special Note.** The supplied items must be brand new. Certification in this regard has to be provided from OEM.
31. **Other Points.** Supplier may include additional information if deemed necessary.


  
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Staff Officer (Tech & Surv)  
Naval Headquarters

  
DNW&EE/ Rep, Member  
D. N. W. & E. E. / Rep, Member  
Lt Commander BN  
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