



## Under Vehicle Surveillance System

### EV3300

EV3300 is under vehicle surveillance system (UVSS) for under vehicle security check. It helps detect contraband and illegal rendition under the vehicle quickly. It is faster and more accurate than the traditional under-vehicle inspection mirror, greatly improved the speed and accuracy of the vehicle safety inspection, and saved time and manpower.

EV3300 is used at the entrance of the parking lot and important government buildings, road traffic checkpoints, customs, border inspection ports, and big event venues. The system is easy to move and install.

## Product highlights

- Advanced linear CCD scanning technology
- High-resolution complete color image of under the vehicle
- Weatherproof scanning unit (IP68 the highest level)
- Anti-fog function
- Multilingual Graphical User Interface(GUI)
- Option: Automated License Plate Reader(ALPR)
- 10/100/1000 Mbps Gigabit Ethernet (GigE) Progressive Area-Scan Colour Camera

## Specifications

### General Specification

|                               |                                                             |
|-------------------------------|-------------------------------------------------------------|
| Maximum scanning rate         | 18kHz                                                       |
| Vehicle speed                 | 0-60 km/h, recommend < 30 km/h                              |
| View angle                    | 170 degrees                                                 |
| Scanner data line             | 10 meters(length customizable)                              |
| Lighting                      | 320W                                                        |
| Lighting components           | 4 single sealed LED surface light sources, life span 50000h |
| Load-bearing weight           | 50T                                                         |
| Waterproof grade              | IP68 (the highest level)                                    |
| Weight of the scanning device | 180KG                                                       |
| Size of the scanning device   | 1200*350*210mm                                              |

### Imaging system

|                           |                                                                |
|---------------------------|----------------------------------------------------------------|
| Technology                | Linear array CCD scan technology & dynamic imaging of BW/color |
| Scanning resolution       | ≥ 2048 pixels CCD / ≥ 4096 pixels CCD with 60 FPS              |
| Imaging speed             | Large-format horizontal display                                |
| Image display mode        | Standard BMP or JPEG                                           |
| Image storage format      | Can be customized                                              |
| System interface language | Network RJ45                                                   |

|                         |                                                                                                   |
|-------------------------|---------------------------------------------------------------------------------------------------|
| Scene image display     | ≥ 1 channel                                                                                       |
| Image search            | Retrieve the image by date, time, license plate number, and images.                               |
| Image resolution        | 12000 × 6144                                                                                      |
| Automatic scan          | Display the image in 1s after the vehicle passes at a speed of 1-65km/h                           |
| Automatic image storage | Save no less than 10,000 pictures and delete the expired pictures automatically                   |
| Imaging function        | Adjust saturation, contrast, balance and sharpening, zoom in and out (1-16),and local enlargement |
| Feature to magnify      | System supports zoom/magnification of live and archived composite images for detailed inspection  |

### Scanned image



| Sl. No. | Parameter              | Specification                                                                                                               |
|---------|------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 1       | Composite Imaging      | Capture high-resolution complete composite color underbody images using area scan GigE IP camera without stopping vehicles. |
| 2       | Vehicle Speed Handling | Scanning capability from 0–60 km/h with dynamic image adjustment using inductive loop sensors.                              |
| 3       | Image Quality          | Clear and undistorted undercarriage image even when vehicle is stopped over scanner.                                        |
| 4       | Image Magnification    | Zoom feature for current and historical composite images.                                                                   |
| 5       | Underbody Illumination | Long-life automatic waterproof LED lighting modules; halogen/CFL not accepted.                                              |
| 6       | Brightness Adjustment  | Automatic brightness and contrast adjustment based on ambient lighting.                                                     |
| 7       | Ramp Material          | Stainless steel hardware construction.                                                                                      |
| 8       | Driver Image Capture   | Driver-view camera for capturing driver image.                                                                              |
| 9       | Real-Time Display      | Simultaneous display of composite image, driver image, front view, and license plate.                                       |
| 10      | Diagnostics            | Built-in software diagnostics for remote troubleshooting.                                                                   |
| 11      | OS & GUI               | Windows/Linux based application with multi-user logging, events, and search facility.                                       |
| 12      | Backup & Reporting     | Backup to standard storage media and report printing capability.                                                            |

| Sl. No. | Parameter            | Specification                                                                    |
|---------|----------------------|----------------------------------------------------------------------------------|
| 14      | Operating Platform   | Windows / Linux support.                                                         |
| 15      | Structural Design    | Designed to withstand up to 55-ton load; ventilation and automatic wiper system. |
| 16      | Software Front End   | Microsoft .NET / Linux technology.                                               |
| 17      | Database             | Latest SQL Server backend.                                                       |
| 18      | Integration          | Integration with other security systems and remote monitoring support.           |
| 19      | Data Export          | Daily report export to Excel for driver and vehicle number plate data.           |
| 20      | RHS Vehicle Support  | Driver image capture for right-hand-side driven vehicles.                        |
| 21      | Image Zoom (Archive) | Zoom capability for archived composite images.                                   |
| 22      | Sensor Type          | Inductive loop sensors / IR sensors.                                             |
| 23      | Lighting Unit        | LED lighting, 220V AC.                                                           |

- Under vehicle image display area: real-time display of vehicles at the detected image, historical images, and bottom of the vehicle under body after treatment images.
- Real-time video display area: Real-time display the monitoring video, capturing vehicle plate video, and then they were saved by digital video surveillance DVR. (Customized is based on the actual usage scenarios.).
- License plate number information display area: Displaying the detected vehicle license plate capturing photos with automatic identification of the results. click [Modify] button can modify the number of recognition errors.
- Vehicle information list: Checking vehicle information in all day, including license plate number, the checking time, and vehicle surveillance results.
- Real-time logs information list: real-time display of the region need to run the process produces some log information to facilitate the use of personnel or maintenance personnel system view real-time operation of the system state.
- Image manipulation functional areas: the image to zoom; brighten, darken; edge enhancement, superenhanced, contrast enhancement, magnifying glass, real size, most suitable, such as open and save image.
- Functional operating areas: Setting attributes of license plate recognition, associated parameters of line CCD camera, DVR video attributes, video playback and registry equipment, as well as the system language, real time curve, and historical data query functions.

#### Computer and other

|               |                                                  |
|---------------|--------------------------------------------------|
| Monitor       | One 22-inch true color LCD monitor               |
| Console       | A console that can lock the display and keyboard |
| CPU           | Intel Core Quad-Core Processor                   |
| RAM           | DDR3, greater than 4GB                           |
| Disk          | 500G High-Speed Hard Disk                        |
| Graphics Card | DDR3, 192BIT Independent Graphics Card           |
| Platform      | Windows XP/ Windows 7                            |

#### Operating Environment

|                       |                         |
|-----------------------|-------------------------|
| Operating temperature | -25 ° C ~ 60 ° C        |
| Storage temperature   | -40 ° C ~ 75 ° C        |
| Power supply          | AC110-240V 50~60Hz ±3Hz |

| No. | Sub system                                       | Qty   | Hardware           |
|-----|--------------------------------------------------|-------|--------------------|
| 1   | Under vehicle scanning equipment                 | 1 set | Camera             |
|     |                                                  |       | Scanner frame      |
|     |                                                  |       | Lighting system    |
|     |                                                  |       | Vehicle sensor     |
| 2   | Operation desk                                   | 1 set | System host        |
|     |                                                  |       | 22 inch monitor    |
|     |                                                  |       | Console desk       |
| 3   | Video monitoring                                 | 1 set | Camera             |
|     |                                                  | 1 set | Tripod             |
| 4   | Control unit                                     | 1 set | Control cabinet    |
|     |                                                  |       | Ventilation system |
| 5   | Under vehicle surveillance system software       | 1 set |                    |
| 6   | License plate number recognition system (Option) | 1 set |                    |