

Technical Document

For

MegaProtect-3D

Under Vehicle Scanning System (UVSS)

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Why do we need UVSS ?

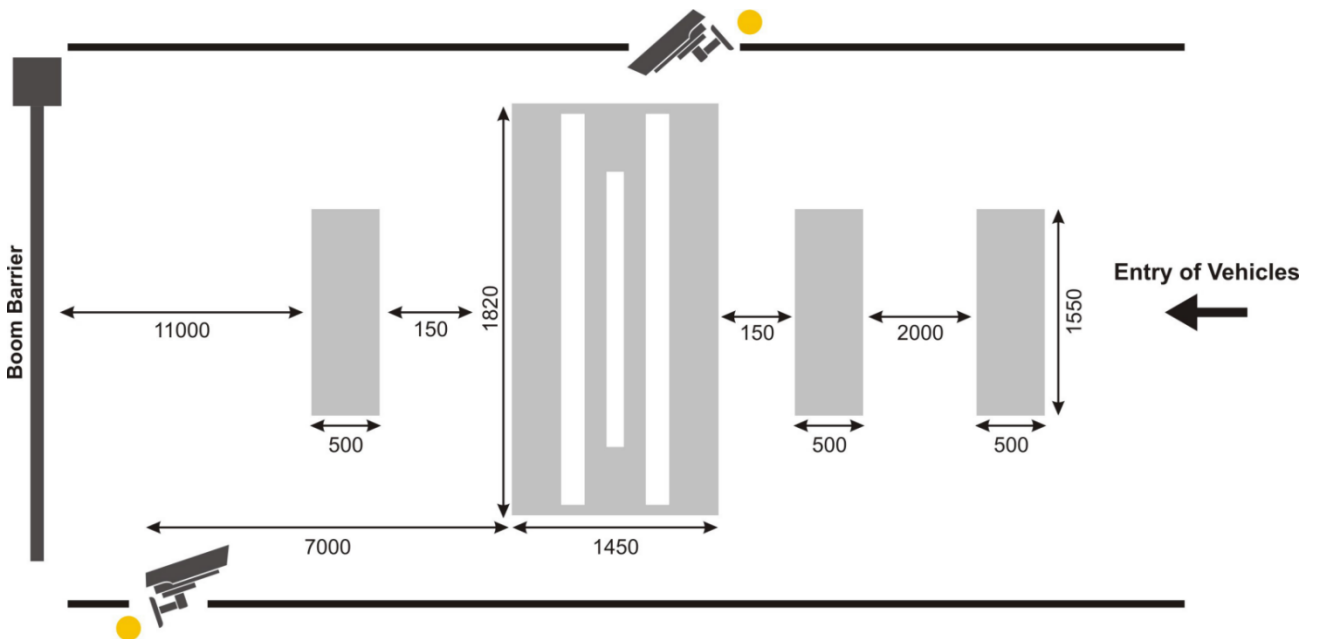
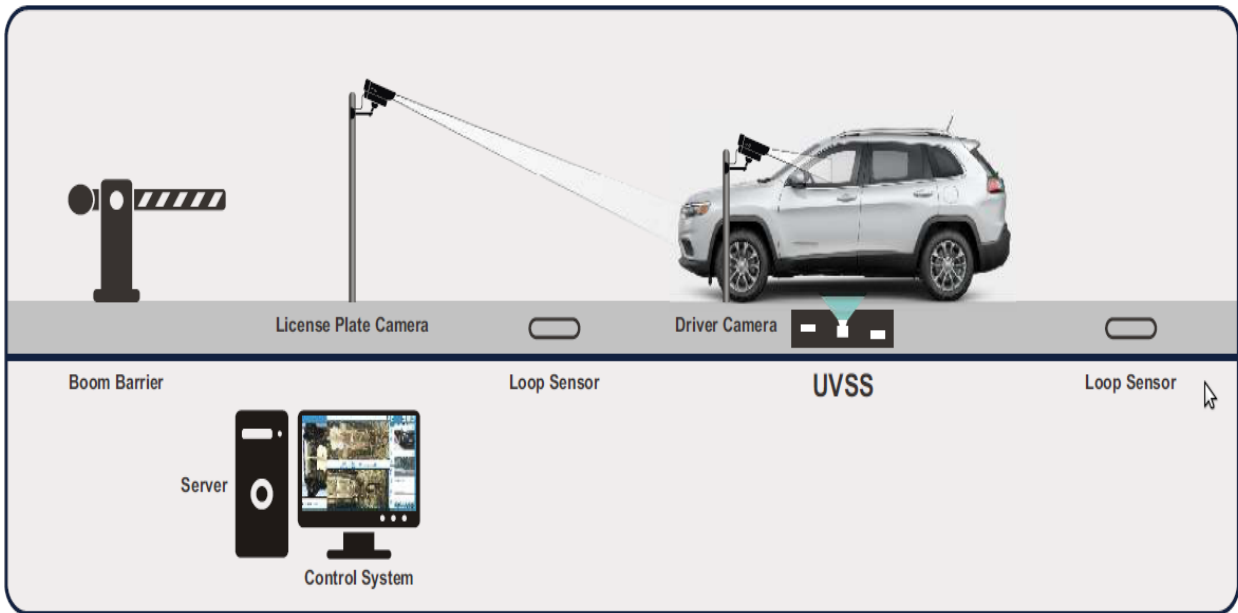
In today's world security has become a major concern for everybody. Places of importance/mass gathering like, metro stations, airports, government offices, IT Parks, residential societies etc to name a few, are prime targets for terrorist attacks. Attackers and defenders always continue security game of cat and mouse. The only winning criteria is pace of innovation. By taking better security measures and using systems equipped with latest technology premises and precious lives can be secured.

MegaProtect-3D UVSS :

MegaProtect-3D is an advanced automated 3D viewing Under Vehicle Scanning System based on the latest dual camera AreaScan imaging technology. It comes packed with some unique algorithms which enhances user experience many folds by exploiting the 3D aspect of the vehicle underbelly. In addition to the 3D visualization, one area where the new technology shines is in bringing forth hereto hidden/partially occluded objects by showing dual view of the vehicle which are not visible in the earlier generation single view systems.

MegaProtect-3D provides an optimum solution to scan, inspect and digitally document the under side of the vehicles. The system is equipped with dual high-resolution cameras that helps in visualizing the 3D color view of the underside of any vehicle passing over the scanner. Hard-to-view areas are easily scanned with this dual camera setup within fraction of seconds. Two important features available in the system are 'real time 3D view' by generating novel morph views of the underside which allows operator to visualize the objects in 3D and 'compare image' which automatically finds an image from database of reference vehicles which helps the security personnel in identifying potential threat objects in vehicle underbelly.

SYSTEM ARCHITECTURE



(a) System Layout

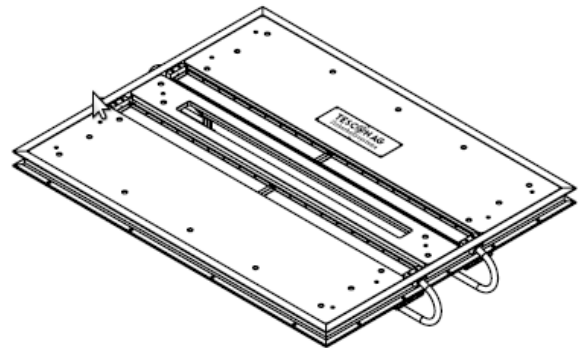
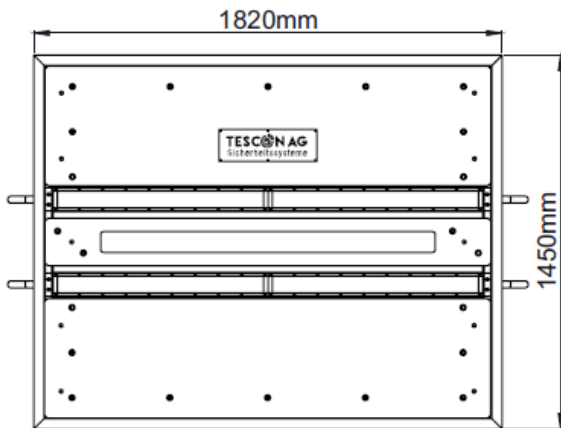
Key Features :

- Dual imaging feature (3D) from left & right view in order to identify any possible threat.
- Dual LED array for better illumination.
- High resolution left and right composite images of the vehicle's underside.
- Novel morph creation feature to see real life 3D video of the underside.
- Stop & Go Image Formation doesn't affect the image quality.
- Zoom facility upto 25x of the composite image to facilitate a closer view of niche areas.
- Capable of handling vehicles moving at different speeds ranging from Zero (0) to 75 Km/hr, however proper vehicle alignment on UVSS will ensure the quality image.
- All weather proof IP-67 certified underground enclosures.
- Air cleaner mechanism for all weather operation.
- Hard-to-view areas can be scanned easily through 3D UVSS system.
- Scans vehicles of all categories and sizes including long vehicle.
- System have ability to operate in harsh environments, including Heavy rain, dust & Temperature.
- Automatic image comparison with pre stored image (Type database) in the data base. System has a feature to add new images in the database.
- Instant/Real-time composite Images (Left & right view) of underside of Vehicle.
- Power consumption of whole UVSS system & related components is not more than 3000W.

	Display Port	1 or better
	RS-332/485 Ports	2 or better
	HDD Port	1
	Audio Port	1
	Operating Temp.	0°C to +50°C
	Humidity	≤ 95% non-condensing

Unit Dimention :

Unit Dimension	L x B x H	1820 X 1450 X 900 (in mm)
Installation and Mounting	Type	Fixed: Underground Installed
Lighting/illumination	Type	LED
Vehicle Speed Limit		Upto 75 Kmph
Load bearing capacity		78 Tones



i. Supported OS	Linux
ii. Database	SQL database
iii). Storage Capacity	525,000+ records
iv). Monitor	Single/multi configuration or better viewing options