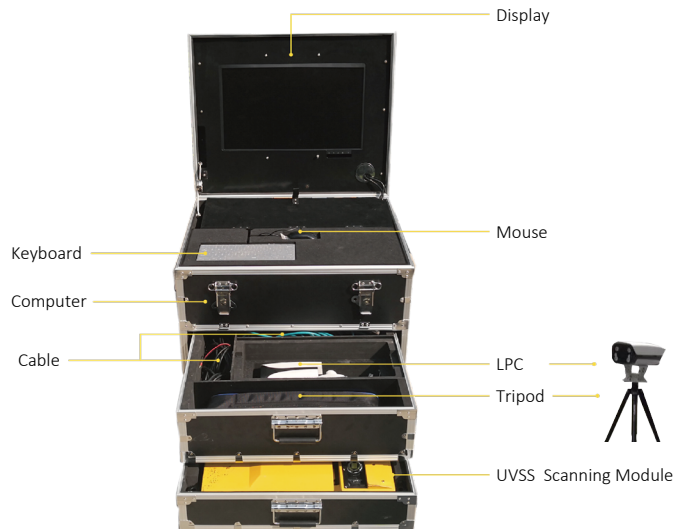


# Portable Under Vehicle Surveillance System



- High Resolution Supporting 2 K Per Line and Maximum Image Resolution up to 20 MP
- Low Image Distortion
- Supports a Maximum Vehicle Speed of 80 kph (50 mph)
- Less Than One (1) Second to Synthesize Whole Vehicle Image
- Large Field of View, up to 170°, Captures the Entire Under Vehicle Image

## System Overview

The Dahua Portable Under Vehicle Surveillance System (UVSS) uses machine vision technology to take a high-resolution image of the entire vehicle undercarriage to provide a top security solution. Portable UVSS is convenient for temporary vehicle checkpoints, such as exhibition centers, conference halls, temporary bases, and bridge checkpoints. The Portable UVSS system includes a monitor, keyboard, mouse, computer, LPC camera, scanning module, tripod, and cables.

## Functions

### Clear and Sharp Image

The UVSS scanning module adopts a high-resolution line scan camera with a low-distortion fisheye lens, and long-life LED array lights. Integrated with Dahua advanced distortion correction algorithms, it provides a clear and sharp under vehicle image regardless of tough lighting conditions.

### Wide Speed Range

The recommended typical speed is 50 kph (31 mph), and the UVSS supports up to 80 kph (50 mph) for vehicle image capture in motion. Portable UVSS detects a vehicle's undercarriage image without requiring the vehicle to stop. The UVSS synthesizes the undercarriage image in less than one (1) second.

### Professional and Accessible Software

PC-based software with an easy-to-use GUI provides linear image stitching, plate number integration, and live video on the home page. It supports quick retrieval of the history records and checking the under vehicle image details. Integrated algorithm supports images comparison of the same vehicle or recognizing suspicious areas which help operator to improve efficiency.

### High Efficiency Video Coding (H.265)

The H.265 (ITU-T VCEG) video compression standard offers double the data compression ratio at the same level of video quality, or substantially improved video quality at the same bit rate, as compared to older video compression technologies. H.265 offers such impressive compression by expanding the pattern comparison and difference-coding, improving motion vector prediction and motion region merging, and incorporating an additional filtering step called sample-adaptive offset filtering.

### Environmental

With a working temperature range from  $-35^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  ( $-31^{\circ}\text{F}$  to  $158^{\circ}\text{F}$ ), the UVSS scanning module is designed for extreme temperature environments. Subjected and certified by rigorous dust and water immersion tests, its IP68 rating makes it suitable for most harsh environments.

## Technical Specifications

### System

Resolution	20 MP, maximum
Image Type	Color Image
Field of View	170°
Imaging Time After Exit Trigger	< 1 s
Maximum Vehicle Speed	80.0 kph (49.70 mph) Recommended: <50.0 kph (31.07 mph)
Compatibility	Chassis Height: ≥ 80.0 mm (0.26 ft) Chassis Width: ≤ 4500.0 mm (14.80 ft)
Load-Bearing	10 tons (22,000 lb)
Case Material	Stainless Steel
Power Supply	100 VAC to 240 VAC
Illumination	250 W Dynamic LED Array
Weight	15.0 kg (33.07 lb)
Dimensions	490.0 mm x 398.0 mm x 88.0 mm (19.29 in. x 15.67 in. x 3.46 in. )
Operating Temperature	-35° C to +70° C (-31° F to 158° F)
Operating Humidity	< 90% RH
Ingress Protection	IP68

### Camera

Image Sensor	1/2.8-in. 2 MP STARVIS™ CMOS
Effective Pixels	1920(H) x 1080(V)
Scanning System	Progressive
Minimum Illumination	Color: 0.005 lux at F1.6 0 lux at F1.6 IR on
Focal Length	2.7 mm to 12 mm
Max Aperture	F1.6
Angle of View	Horizontal: 101° to 36° Vertical: 53° to 20°
Focus Control	Automatic
Focus Distance Range	3 m to 8 m (9.84 ft to 26.25 ft)
Video Compression	H.265, H.264M, H.264H, H.264B
Frame Rate	1080p at 30 fps
Ethernet	RJ45 (100/1000 Base-T)

### UVSS Controller

Power Input	36 V, 600 W
Power Output	Scan Camera: 36 V LED Modules: 32 V, 2.8 A, 80 W
Trigger	Input: Two (2) isolated channel signal of photoelectric input via loop sensor Output: Scan Camera, LED Modules
Communication	Scan Camera: Gigabit Ethernet (1000 Mbps), RS485 Host PC: Gigabit Ethernet (1000 Mbps)
Certification	CE, FCC, UL
Operating Temperature	-35° C to +60° C (-31° F to 140° F), Less than 95% RH Initiate Startup above -35° C (-31° F)
Storage Temperature	-40° C to +70° C (-40° F to 158° F), Less than 95% RH

### Computer

Processor	CPU: Intel Duo Core I5-4570, 3.2 GHz System Chipset: Intel H81 BIOS: AMI 64 MB SPI BIOS
Memory	8 GB DDR3L
Storage	2 TB SATA HDD
Graphics	VGA and HDMI, Maximum Resolution: 1920 x 1600, 60 Hz
Ethernet	Two (2) x 10/100/1000 Mbps; One (1) x 10/100 Mbps
Audio	Line IN: Realtek HD Audio Plus, one (1) Line OUT and one (1) MIC IN
I/O	Serial: Two (2) x RS232 USB: Four (4) x USB 3.0 and two (2) USB 2.0
Operating System	Windows Professional 7 SP1, 64-bit, English
Expansion	One (1) PCI Slot
Power Requirements	Input: 100 VAC to 240 VAC, 5 A to 3 A, 50/60 Hz Output Power Rating: 250 W
Environmental	Operating Temperature: 0° C to +60° C (32° F to 140° F) Storage Temperature: -20° C to +80° C (-4° F to 176° F) Humidity: 95% RH at 40° C (104° F), non-condensing Vibration: 1 Grms Shock: 10 G, with 11 ms duration, half sine wave EMC: CE, FCC Class A

### Monitor

Diagonal Size	20.7 in. (16:9 Aspect Ratio)
Resolution	1920 x 1080, Full HD
Backlight	LED
Brightness/Luminance	250 cd/m <sup>2</sup>
Display Colors	16.7 Million
Contrast	1000:1
Angle of View	Vertical: 130° Horizontal: 178°
Response Time	5 ms
Video Input	One (1) VGA (D-Sub); One (1) HDMI
Audio	Input: One (1) Channel Output: One (1) Speaker
Electrical	Power Input: 100 VAC to 240 VAC (±10%), 50/60 Hz Power Consumption, standard: 23 W Power Consumption, standby: ≤ 0.5 W
Operating Temperature	0° C to +40° C (32° F to 104° F)
Operating Humidity	10% to 90%

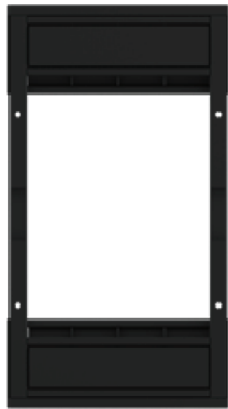
**Ordering Information**

Type	Part Number	Description
Portable UVSS	DH-MV-VDM5021E-00	
Equipment Included		Monitor Computer Keyboard Mouse Camera Scanning Module Tripod Cables
Accessories, optional		Speed Bump (two pieces) Fixed Mount (1 piece)

**Accessories**



Speed Bump x 2



Fixed Mount

**Dimensions (mm)**

