MV63 Series Datasheet

This article outlines the MV63 series datasheet, highlighting its 8 MP image quality, up to 4k video Resolution, 101.3° horizontal field of view, and compact dome design rated for indoor and outdoor use, ideal for monitoring with advanced analytics, low bandwidth needs, and enhanced security features for scalable deployments.

Overview

The Meraki MV63 series offers 8MP image quality and combines physical security and advanced analytics in a powerful yet compact fixed-lens mini dome form factor. With an edge architecture that minimizes physical infrastructure and software requirements, MV63 series enables faster, easier deployments and greater scalability.

Security in High Definition

The ultra-high-performance MV63 series camera offers up to 4K resolution for high-definition video, providing the detailed clarity needed to monitor what matters most. With IK10+ and IP67 ratings, along with IR illumination, the MV63 ensures extended visibility and safety, even in outdoor and challenging environments.

Additionally, the MV63 is engineered to withstand the rigors of transportation environments, ensuring reliable performance in the face of shock and vibration with EN 50155 Railway Compliance certification.

Compact and easy to install, the MV63 series boasts a new universal mounting place compatible with various mounting accessories. It delivers the right viewing angle wherever it is placed. The MV63 series is ideal for monitoring entrances, exits, and the general perimeter from walls, ceilings, or corner-mount locations.

Using machine-learning-based computer vision, the MV63 series can perform real-time object detection, classification, and tracking of people and vehicles, as well as attribute detection and search to increase safety and provide valuable insights into activity. These smart cameras deliver powerful business intelligence without compromising physical security.

Product Highlights

- Fixed lens mini-dome camera with 8MP Image Sensor
- Compact form factor with 101.3° horizontal FoV
- More detailed information with up to 4K resolution
- Low bandwidth Consumption for recording and streaming using Smartcodec encoding
- Guaranteed days of video with Smart Retention
- Night vision with IR illumination up to 20 m (66 ft)
- IK10+ and IP67 for deployment in outdoor and demanding environments
- Intelligent motion indexing with search engine
- Built-in search tools like motion search, motion recap, motion heatmaps and Attribute Search.
- Built-in analytics like Line Crossing, Area Occupancy, MV sense and Custom Computer-Vision capabilities
- Machine-learning capability for intelligent object detection
- Secure video access to ensure privacy with role-based user accounts
- Cloud-augmented edge storage for minimal physical infrastructure
- Built-in automatic security with secure boot and signed firmware, backed by a hardware security chip
- Suitable for deployments of all sizes, from 1-10,000+ cameras
- NDAA Compliant
- EN 50155 Railway Compliance

MV63 Camera Specifications

Category	Specifications
Camera	• 1/2.8” 8.41MP (3854x2176) progressive CMOS backlit image sensor • 256 GB high-endurance solid-state storage (MV63) • 512 GB high-endurance solid-state storage (MV63M) • 1 TB high-endurance solid-state storage (MV63X) • 3.3 mm focal length • f/2.0 aperture • Field of view: Diagonal: 119.7, Horizontal:101.3, Vertical: 54.4 • 1/30 second to 1/32,000 second shutter speed • Auto day/night capable • Built-in IR illuminators, effective up to 20 m (66 ft) • Heating elements
Video	• 4K video recording (3840x2160) with H.264 Smart Codec, up to 15fps • 4MP (2560 x 1440) with H.264 Smart Codec, up to 24fps • 1080p (1920x1080) with H.264 Smart Codec, up to 24fps • High dynamic range (HDR) • Cloud augmented edge storage (locally stored video, metadata in the cloud) • Optimized retention settings (scheduling, motion-based) for variable retention • Direct live streaming with no client software (native browser playback)* • Stream video anywhere with automatic cloud proxy

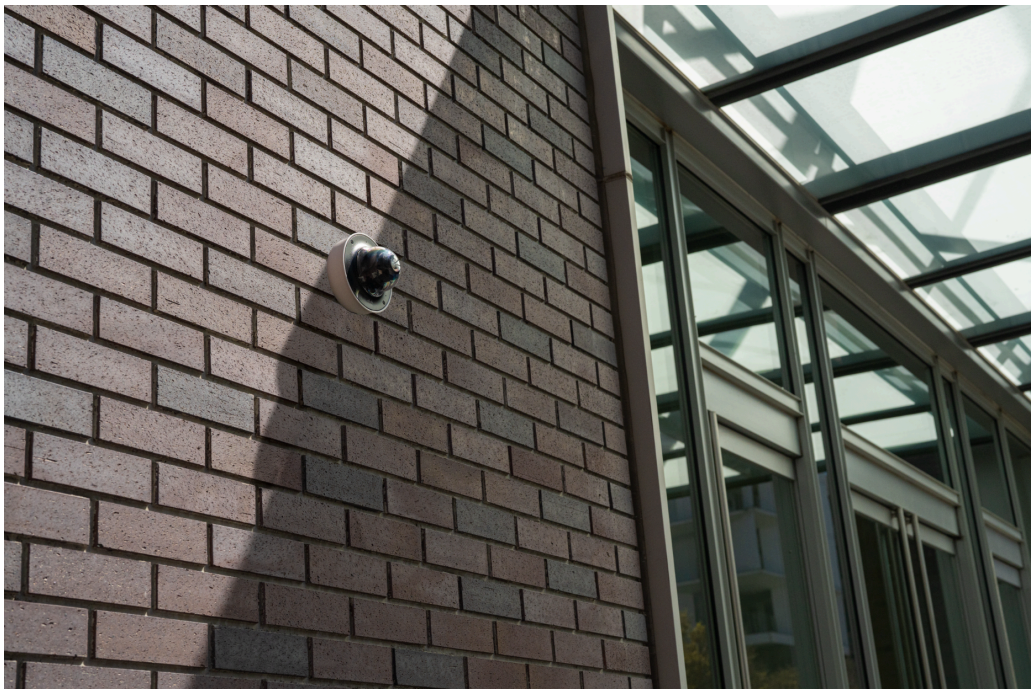
	• Audio recording supported with three (3) built-in microphones

DORI Specifications (Maximum Resolution)	• Detect (25 ppm/ 8 ppf)
	  ◦ 86.9 m / 285.1 ft (MV63X)
	  ◦ 60.8 m / 199.5 ft (MV63)
	• Observe (63 ppm/ 19 ppf)
	  ◦ 34.5 m / 113.1 ft (MV63X)
	  ◦ 24.1 m / 79.5 ft (MV63)
	• Recognize (125 ppm/ 38 ppf)
	  ◦ 17.4 m / 57.1 ft (MV63X)
	  ◦ 12.2 m / 40 ft (MV63)
	• Identify (250 ppm/ 76 ppf)
	  ◦ 8.7 m / 28.5 ft (MV63X)
	  ◦ 6.1 m / 20 ft (MV63)

Networking and wireless	• 1x 10/100/1000BASE-T Ethernet (RJ45)
	• DSCP traffic marking
	• Supported frequency bands (country-specific restrictions apply):
	• 2.4 GHz 802.11b/g/n radio
	  ◦ 2.412 - 2.484 GHz
	• 5 GHz 802.11a/n/ac radio
	  ◦ 5.150 - 5.250 GHz (UNII-1)
	  ◦ 5.250 - 5.350 GHz (UNII-2)
	  ◦ 5.470 - 5.600, 5.660 - 5.725 GHz (UNII-2e)
	  ◦ 5.725 - 5.825 GHz (UNII-3)
	• 1x1 with one spatial stream
	• 20, 40, and 80 MHz channels (802.11ac)
	• Up to 256 QAM on 5 GHz band
	• Integrated omnidirectional antennas (6.3 dBi gain at 5 GHz)
	• MT Gateway Support for all MT sensors

Power	Power consumption 25.5W maximum via 802.3at PoE
Environment	Temperature: -40°C to 50°C (-40°F to 122°F)**
Data and network security	• Full disk encryption (AES-256) • Automatically purchased and provisioned TLS certificates (publicly signed) • Management encryption and two-factor authentication • Wireless security: ◦ WPA, WPA2-PSK, WPA2-Enterprise with 802.1X EAP-TTLS TKIP and AES encryption
Physical characteristics	• Dimension: 130.98 mm x 95 mm (diameter x height) • Weight: 920 grams • Fixed lens

	• Ethernet Connector with RJ45 Interface • Multicolor, multifunction status LED • External microphone switch • Reset button
Warranty	Five-year hardware warranty with advanced replacement
Hardware	• MV63-HW: Fixed lens outdoor mini-dome camera with 256 GB storage • MV63M-HW: Fixed lens outdoor mini-dome camera with 512 GB storage • MV63X-HW: Fixed lens outdoor mini-dome camera with 1 TB storage
Licensing	LIC-MV-XYR: Meraki MV Enterprise license (X = 1, 3, 5, 7, 10 years) [Optional] LIC-MV-SEN-XYR: Meraki MV Sense license (X = 1, 3, 5, 7, 10 years) [Optional] LIC-MV-CA30-XY: MV Cloud Archive license (X = 1, 3, 5 years) [Optional] LIC-MV-CA90-XY: MV Cloud Archive license (X = 1, 3, 5 years) [Optional] LIC-MV-CA180-XY: MV Cloud Archive license (X = 1, 3, 5 years) [Optional] LIC-MV-CA365-XY: MV Cloud Archive license (X = 1, 3, 5 years)
Accessories	• MA-MNT-MV-18: Mounting plate replacement kit • MA-MNT-MV-28: Pole mount • MA-MNT-MV-38: Wall-mount L-bracket • MA-MNT-MV-48: Wall-mount arm bracket • MA-MNT-MV-58: Conduit back box • MA-MNT-MV-68: T-rail adapter • MA-MNT-MV-88: Corner mount • MA-MNT-MV-78: Telescopic mount • MA-INJ-4: 802.3at power over Ethernet injector • MA-PWR-MV-LV: Low voltage 12V DC/24V AC input
In the box	• Quick-start and installation guide • MV camera hardware • Wall-mounting kit

Each Meraki camera requires a license to operate.

EXIT