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## MV93 Series Datasheet

This article covers the specifications, feature set, hardware, and capabilities of the MV93. MV93 offers advanced analytics and physical security with a 360° field of view. With up to 2880x2880 resolution, night vision, and compatibility with various mounting accessories, it provides comprehensive surveillance for outdoor applications, ensuring safety and security in diverse environments.

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## Overview

The Meraki MV93, part of the third-generation MV smart camera family, combines physical security and advanced analytics in a fisheye form factor. Easy to install and with a 360° field of view (FoV), MV93 provides complete visibility and intelligent security for a variety of outdoor applications.



## Security That Tells a Complete Story

With up to 2880x2880 video resolution and 360-degree views, MV93 captures the full picture, providing broad context and clear detail when needed. This panoramic overview increases situation awareness, making surveillance more efficient.

Compatible with a variety of mounting accessories, outdoor-rated MV93 series cameras can be installed in various deployment scenarios to see around every corner. The 360° field of view and IR illumination make them

ideal for improving safety and security in parking lots, warehouses, and other open spaces, even in low light.

Additionally, the MV93 series 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.

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# Product Highlights

- 360° fisheye lens camera
  - Compact form factor with 180° horizontal and vertical FoV
  - Large level of detail with up to 2880x2880 video resolution
  - Guaranteed days of video with [Smart Retention](#)
  - Night vision with IR illumination up to 20 m / 66 ft
  - IK10+ and IP67 rated for deployment in more demanding environments
  - Intelligent motion indexing with search engine
  - Built-in analytics like Motion Search, Motion Recap, and Motion Heatmaps
- Digital Pan-Tilt-Zoom (DPTZ) mode for live & historical video
  - Machine learning capability for intelligent object detection
  - Role-based user accounts provide secure video access and ensure privacy
  - 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, 1-10,000+ cameras
  - NDAA Compliant
  - EN 50155 Railway Compliance

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# MV93 Camera Specifications

Category	Specifications
Camera	<ul style="list-style-type: none"><li>• 1/2.3" 12.4MP (4072x3046) progressive CMOS image sensor</li><li>• High-performance fisheye lens</li><li>• 256GB high-endurance solid-state storage (MV93)</li><li>• 512GB high-endurance solid-state storage (MV93M)</li><li>• 1TB high-endurance solid-state storage (MV93X)</li><li>• 1.6 mm focal length</li><li>• f/2.0 aperture</li><li>• Field of view: horizontal 180°, vertical 180°</li><li>• 1/30 second to 1/32,000 second shutter speed</li><li>• Auto day/night mode switching capable</li><li>• Built-in IR illuminators, effective up to 20 m (66 ft)</li><li>• Heating elements</li></ul>
Video	<ul style="list-style-type: none"><li>• 8MP video recording (2880x2880) with H.264 Smart Codec, up to 15fps</li><li>• 4.2MP (2112x2112) 360° overview with H.264 Smart Codec, up to 24fps</li><li>• 1MP (1080x1080) 360° overview with H.264 Smart Codec, up to 24fps</li><li>• High dynamic range (HDR)</li><li>• Cloud-augmented edge storage (locally stored video; metadata in the cloud)</li><li>• Optimized retention settings (scheduling, motion-based) for variable retention</li><li>• Direct live streaming with no client software (native browser playback)*</li><li>• Stream video anywhere with automatic cloud proxy</li><li>• Audio recording supported with three (3) built-in microphones</li></ul>

Category	Specifications
<b>DORI Specifications (Maximum Resolution)</b>	<ul style="list-style-type: none"> <li>• Detect (25 ppm/ 8 ppf) <ul style="list-style-type: none"> <li>◦ 36.7 m / 120.4 ft (MV93X)</li> <li>◦ 26.9 m / 88.3 ft (MV93)</li> </ul> </li> <li>• Observe (63 ppm/ 19 ppf) <ul style="list-style-type: none"> <li>◦ 14.6 m / 47.9 ft (MV93X)</li> <li>◦ 10.7 m / 35.1 ft (MV93)</li> </ul> </li> <li>• Recognize (125 ppm/ 38 ppf) <ul style="list-style-type: none"> <li>◦ 7.3 m / 23.9 ft (MV93X)</li> <li>◦ 5.4 m / 17.7 ft (MV93)</li> </ul> </li> <li>• Identify (250 ppm/ 76 ppf) <ul style="list-style-type: none"> <li>◦ 3.7 m / 12.1 ft (MV93X)</li> <li>◦ 2.7 m / 8.9 ft (MV93)</li> </ul> </li> </ul>
<b>Networking and wireless</b>	<ul style="list-style-type: none"> <li>• 1x 10/100/1000BASE-T Ethernet (RJ45)</li> <li>• DSCP traffic marking</li> <li>• Supported frequency bands (country-specific restrictions apply):</li> <li>• 2.4 GHz 802.11b/g/n radio <ul style="list-style-type: none"> <li>◦ 2.412 - 2.484 GHz</li> </ul> </li> <li>• 5 GHz 802.11a/n/ac radio <ul style="list-style-type: none"> <li>◦ 5.150 - 5.250 GHz (UNII-1)</li> <li>◦ 5.250 - 5.350 GHz (UNII-2)</li> <li>◦ 5.470 - 5.600, 5.660 - 5.725 GHz (UNII-2e)</li> <li>◦ 5.725 - 5.825 GHz (UNII-3)</li> </ul> </li> <li>• 1x1 with one spatial stream</li> <li>• 20, 40, and 80 MHz channels (802.11ac)</li> <li>• Up to 256 QAM on 5 GHz band</li> <li>• Integrated omnidirectional antennas (6.3 dBi gain at 5 GHz)</li> <li>• MT Gateway Support for all MT sensors</li> </ul>
<b>Power</b>	Power consumption 25.5W maximum via 802.3at PoE
<b>Environment</b>	Temperature: -40°C to 50°C (-40°F to 122°F)**
<b>Data and network security</b>	<ul style="list-style-type: none"> <li>• Full disk encryption (AES-256)</li> <li>• Automatically purchased and provisioned TLS certificates (publicly signed)</li> <li>• Management encryption and two-factor authentication</li> <li>• Wireless security: <ul style="list-style-type: none"> <li>◦ WPA, WPA2-PSK, WPA2-Enterprise with 802.1X EAP-TTLS TKIP and AES encryption</li> </ul> </li> </ul>
<b>Physical characteristics</b>	<ul style="list-style-type: none"> <li>• Dimension: 137.68mm x 67.9mm (diameter x height)</li> <li>• Weight: 1050 grams</li> <li>• Fisheye lens</li> <li>• Female RJ45 Ethernet connector</li> <li>• Multicolor, multifunction status LED</li> </ul>

Category	Specifications
	<ul style="list-style-type: none"> <li>External microphone switch</li> <li>Reset button</li> </ul>
Warranty	Five-year hardware warranty with advanced replacement
Hardware	<ul style="list-style-type: none"> <li>MV93-HW: 360° fisheye lens outdoor camera with 256 GB storage</li> <li>MV93M-HW: 360° fisheye lens outdoor camera with 512 GB storage</li> <li>MV93X-HW: 360° fisheye lens outdoor camera with 1 TB storage</li> </ul>
Licensing	<p>LIC-MV-XYR: Meraki MV Enterprise license (X = 1, 3, 5, 7, 10 years)</p> <p>[Optional] LIC-MV-SEN-XYR: Meraki MV Sense license (X = 1, 3, 5, 7, 10 years)</p> <p>[Optional] LIC-MV-CA30-XY: MV Cloud Archive license (X = 1, 3, 5 years)</p> <p>[Optional] LIC-MV-CA90-XY: MV Cloud Archive license (X = 1, 3, 5 years)</p> <p>[Optional] LIC-MV-CA180-XY: MV Cloud Archive license (X = 1, 3, 5 years)</p> <p>[Optional] LIC-MV-CA365-XY: MV Cloud Archive license (X = 1, 3, 5 years)</p>
Accessories	<ul style="list-style-type: none"> <li>MA-MNT-MV-18: Mounting plate replacement kit</li> <li>MA-MNT-MV-28: Pole mount</li> <li>MA-MNT-MV-38: Wall-mount L-bracket</li> <li>MA-MNT-MV-48: Wall-mount arm bracket</li> <li>MA-MNT-MV-58: Conduit back box</li> <li>MA-MNT-MV-68: T-rail adapter</li> <li>MA-MNT-MV-88: Corner mount</li> <li>MA-MNT-MV-78: Telescopic mount</li> <li>MA-INJ-4: 802.3at power over Ethernet injector</li> <li>MA-PWR-MV-LV: Low voltage 12V DC/24V AC input PoE injector</li> </ul>
In the box	<ul style="list-style-type: none"> <li>Quick-start and installation guide</li> <li>MV camera hardware</li> <li>Ceiling/Wall mounting kit</li> </ul>



Each Meraki camera requires a license to operate.



