

Contextual Intelligence

Transform Surveillance with AI-Driven Recognition

ECC Series

Overview

EnGenius AI Cloud Surveillance Solution revolutionizes security monitoring by integrating advanced edge AI and cloud analytics for instant detection and optimal local processing. Supporting a wide range of surveillance needs with high-availability storage and comprehensive ONVIF compatibility, EnGenius AI Cloud offers a flexible and scalable solution for both enterprise and personal use. Advanced Sony STARVIS sensors ensure clear imaging under various lighting conditions, while sophisticated analytical capabilities enhance scene understanding and proactive protection.

The EnGenius Cloud Surveillance series is equipped with top-tier imaging technology, including models with up to 8MP (4K) Sony Starvis sensors that deliver unparalleled clarity in a variety of lighting conditions. This series maximizes situational awareness with wide-angle views, extended infrared capabilities, and robust AI analytics. It offers an onboard storage capacity of up to 512GB, ensuring secure, continuous 24/7 recording while maintaining data privacy through local storage solutions.

Designed for resilience in diverse environments, the models come encased in IP67/IP66 weatherproof and IK10 vandal-resistant housings, ensuring robust performance under challenging conditions. Featuring advanced AI-powered functionalities, the series supports real-time facial and license plate recognition that quickly identifies and alerts unusual activities. The Smart Motion Search feature dramatically reduces historical footage review time from hours to minutes, allowing quick identification and secure sharing of relevant video clips.

Features & Benefits

Superior Image Quality and Coverage:

- High-resolution cameras up to 4K/8MP Sony Starvis sensors, ensuring sharp, clear images in any lighting.
- Extended IR range improves night vision clarity.
- HDR technology enhances contrast for better visibility.

Reliable Storage and Durability:

- Up to 512GB onboard storage for continuous 24/7 recording without reliance on NVRs.
- IP67/IK10-rated housing protects against dust, water, and vandalism.
- On-premise storage ensures data security and privacy.

AI-Powered Detection and Smart Alerts :

- AI object recognition detects and tracks people and vehicles in real-time.
- AI-enhanced metadata search speeds up footage review.
- Customizable instant alerts notify users of detected events.

Remote Monitoring and Management:

- EnGenius Cloud Dashboard streamlines multi-site management with remote configuration.
- Cloud-To-Go mobile app enables real-time monitoring and instant alerts.
- NVR-free architecture lowers costs and simplifies deployment for small to medium businesses.

AI-Powered Cloud Surveillance with Next Gen VSaaS



In-Camera Storage

- Direct video data storage
- Effortlessly scalable across any location

Upload Meta-data Only

- Securely transfer only necessary video metadata to the cloud.
- Requires minimal data transfer capacity (under 50kbps).

Object Type | Place | Attribute | Time

Build Your Own Big Data and Insights

- Optimize operations with data insights.
- Customize analytics for different needs.



Intelligent Surveillance and Extended AI Capability with Cloud

Edge AI Computing

EnGenius AI cameras feature built-in NPU processors for real-time video analysis, converting footage into lightweight metadata for instant object detection, efficient cloud streaming, and AI-driven security without bandwidth overload.

Easy Deployment & Durability

PoE-powered surveillance cameras ensure easy installation without extra power sources. The IP66/67 weatherproof and IK10 vandal-resistant casings are for durability in harsh conditions. All components comply with NDAA/TAA, meeting government safety and performance standards.

Professional Imaging

The camera offers up to 8MP (4K) resolution, featuring advanced Sony STARVIS sensors that deliver superior low-light performance and an impressive IR illumination range of up to 30 meters.

AI Cloud Analytics

EnGenius AI Cloud Analytics uses multimodal LLMs to recognize complex scenarios and behaviors, integrating visual, audio, and metadata for precise threat detection and intuitive search across all cameras.

No NVR Required

Feature onboard storage with real-time AI processing, enabling instant footage access while removing the need for traditional NVRs, reducing costs, complexity, and infrastructure dependence.

Unified Management Platform

EnGenius Cloud seamlessly enables centralized control of managed cameras and full ecosystem integration with EnGenius networking devices.

AI-Powered Surveillance with Multimodal LLM Intelligence

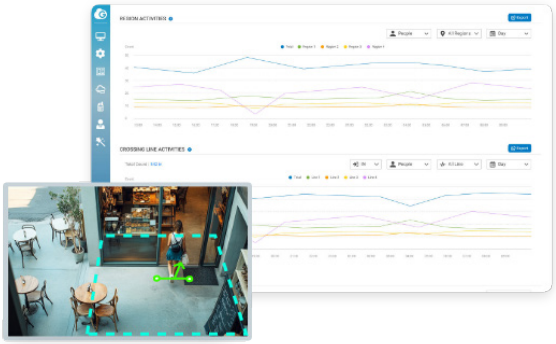
AI-Powered Context Recognition

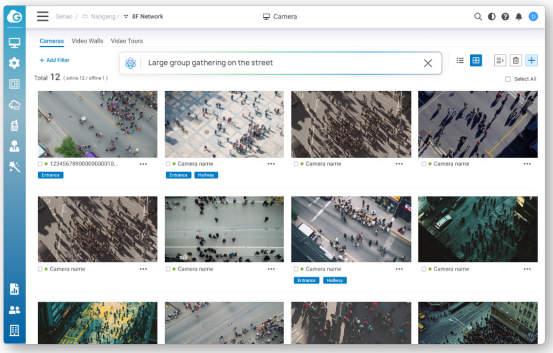
Our AI surveillance system uses advanced Multimodal LLM technology to analyze complex scenarios in real time, understanding human interactions and behaviors. It promptly detects and identifies key events such as robberies, bullying, unauthorized activities, and traffic disruptions, enabling proactive measures to prevent security threats from escalating.



Business Intelligence Analytics

The people and vehicle counting capabilities utilize ROI-based detection and cross-line counting to accurately track visitor flows and vehicle patterns, including analyzing peak-hour traffic, optimizing parking management, and monitoring entry and exit patterns. These insights are essential for improving operational efficiency and enhancing security measures.



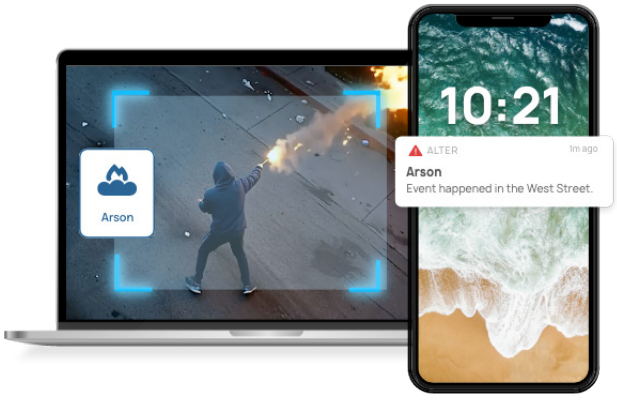


Intuitive Natural Language Search

Transform video search with AI-powered natural language processing. Simply type queries like “person wearing red jacket near entrance” or “group gathering in parking lot,” and the system instantly locates relevant footage across your entire network. This natural language search capability is available across multiple languages.

Intelligent Alert & Notification

Our comprehensive security solution delivers two levels of AI-powered alerts, combining immediate threat detection with sophisticated contextual analysis



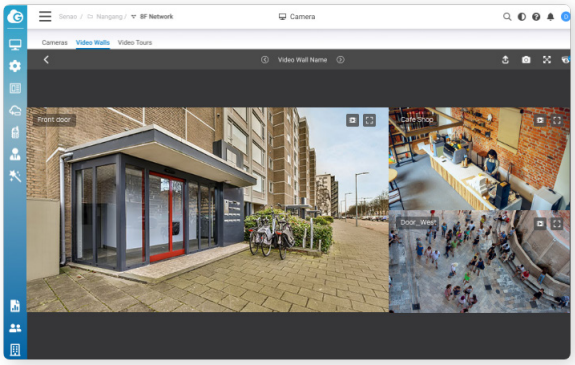
Edge-AI Camera Alerts

- Region Counting
- Crossing Line Counting
- Camera Tampering

Cloud-AI Alerts

- Workplace Safety
- SOP Violation
- Robbery
- Fights
- Bullying
- Slip & Fall
- Crowding
- Climb Fench/Wall
- Car Accident
- Traffic Jam
- Burglary
- Arson
- Crowd Panic
- Littering
- Kidnapping
- Gun/Knife
- Graffiti
- ...

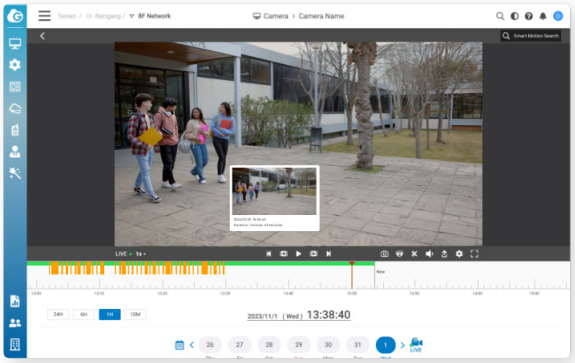
Seamless Access and Smart Features for Enhanced Surveillance



Live View

Sealess Video Wall Monitoring

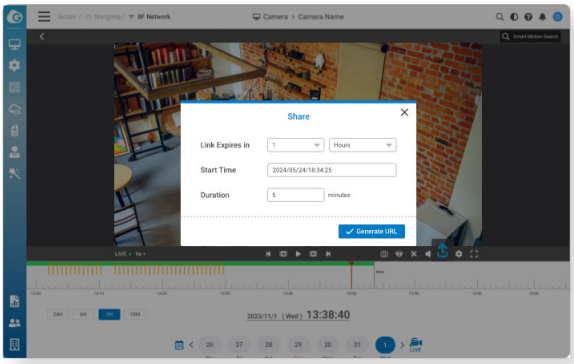
Enjoy uninterrupted live video feeds with adaptive streaming for seamless playback. Monitor multiple areas simultaneously with multi-view layouts and a video wall carousel, ensuring you never miss a moment.



Playback

Instant Access to Critical Moments

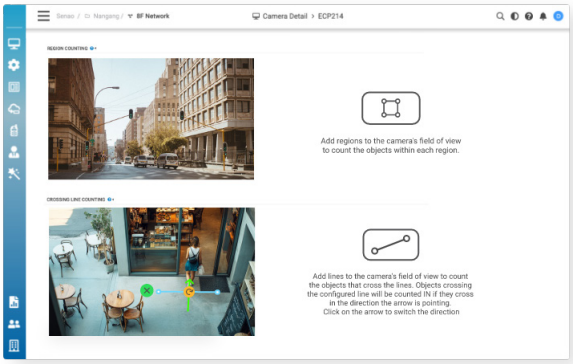
Quickly review footage with immediate local storage access. Navigate timelines efficiently using event snapshots to pinpoint incidents and retrieve essential data with ease.



Sharing

Easily Share Critical Footage Securely

Share video instantly - no clipping, no downloading, no email attachments. Just generate a secure URL or QR code and send. Whether it's sharing with law enforcement during emergencies or collaborating with your team, footage sharing is now as simple as sending a text.



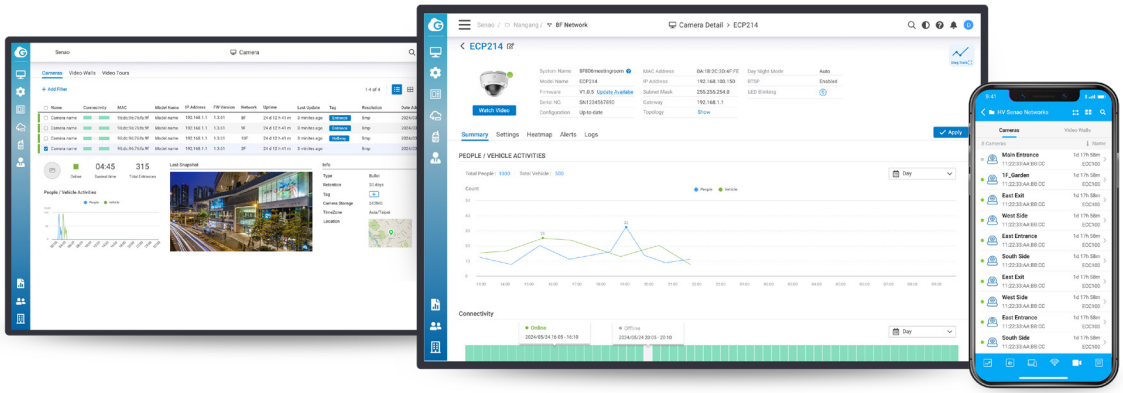
Detection

Real-Time Motion Detection

Identify humans and vehicles instantly and monitor key areas with precise region-based and cross-line detection for enhanced situational awareness.

Unified Cloud Surveillance Management

Simplify and streamline your security management with EnGenius's powerful cloud-based platform.



EnGenius offers a powerful cloud-based platform that revolutionizes surveillance management. Our intuitive solution simplifies the oversight of your entire security network, allowing you to effortlessly monitor and control cameras across multiple locations from anywhere. With advanced AI analytics, real-time monitoring capabilities, and secure video sharing, EnGenius Cloud transforms complex security operations into a streamlined, user-friendly experience. Discover how our platform can elevate your surveillance infrastructure, providing unparalleled control and insights for your business.

Instant Playback Access

Quick Retrieval:
Instantly access video footage from local storage, ensuring rapid response to security events without delay.

Intuitive Navigation:
Easily browse timelines with event snapshots, allowing for efficient review of important moments.

Flexible Quality:
Adjust video settings to suit your needs, balancing high-quality viewing and bandwidth conservation.

Effortless Sharing:
Quickly export and share video URLs for suspicious activities, facilitating swift communication with security personnel.

Dynamic Live Monitoring & Video Sharing

Multi-View Layouts:
Customize your viewing experience with the flexible video wall setup to monitor multiple cameras simultaneously.

Video Wall Carousel:
Create engaging display rotations that automatically cycle through different camera feeds, providing comprehensive coverage.

Collaborative Viewing:
Share video wall URLs for team monitoring, enabling real-time collaboration across multiple locations or departments.

Enhanced Privacy:
No cloud storage of footage is required, ensuring that sensitive video data remains securely within your local network.

Versatile Video Exporting

Precise Clip Selection:
Easily choose start and end times for video exports, ensuring you capture exactly the footage you need for analysis or reporting.

Universal Compatibility:
Export videos as .mp4 files for wide device support, guaranteeing that shared footage can be viewed on any platform.

Seamless and Enhanced Security:
Optional to export footage to your Google Drive or OneDrive account, ensuring secure, cloud-based storage and easy access to your video data anytime, anywhere.

Comprehensive Floor Plan Management

Visual Mapping:
Display exact camera locations and coverage areas on your floor plans, offering an intuitive overview of surveillance setup.

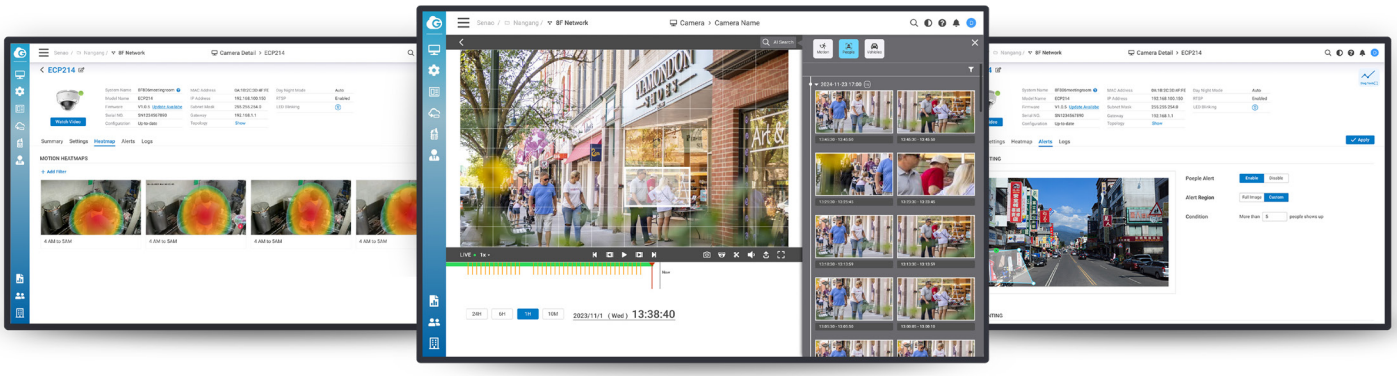
Blind Spot Detection:
Identify and address surveillance gaps ensuring comprehensive security across your entire premises.

Real-Time Alerts:
Receive instant notifications for enhanced awareness, allowing quick responses to unusual activities.

One-Click Access:
Directly view live or recorded footage via camera icons on the floor plan, streamlining navigation andreducing response times.

EnGenius AI-Enhanced Surveillance

Leverage AI for Advanced Event Analysis Tailored to Your Security Needs



EnGenius's AI-enhanced surveillance capabilities empower users to conduct detailed investigations by identifying specific attributes of people and vehicles within their security AI-powered search with natural and multiple languages to query rich information of people/vehicle features, actions, scenario happening in the video. By utilizing precise descriptions, users can efficiently track and monitor activities, enabling a deeper and more focused investigation experience, perfectly aligned with your organization's security requirements.

Intelligent Metadata Search

Advanced Search Capabilities:
Boost surveillance efficiency with advanced metadata search, allowing for quick and precise event location.

Region of Interest (ROI) Filtering:
Focus on key areas using ROI filtering, enabling targeted analysis of specific zones within camera views.

Cross-Camera Analysis:
Quickly analyze events across multiple cameras with crossing camera search powered by EnGenius Cloud AI providing a comprehensive view of security incidents.

Enhanced Area Surveillance

Crowd Management:
Effectively manage and monitor crowd congestion, ensuring optimal space utilization and safety.

Real-Time Alerting:
Receive immediate alerts for potential issues, enabling prompt response to security concerns.

Access Control:
Protect restricted areas from unauthorized access, maintaining the integrity of secure zones.

Accurate Object Tracking and Counting

Precise Monitoring:
Accurately monitor and count people and vehicles, providing valuable data for security and operational insights.

Multi-Point Alerting:
Customize alerts for multiple entrance points, ensuring comprehensive coverage of all access areas.

In-Depth AI-Driven Activity Insights

Trend Analysis:
Analyze and track counting data over time, identifying patterns and anomalies for proactive security measures.

Visual Activity Mapping:
Use heatmaps to visualize and manage activity hotspots, optimizing resource allocation and security strategies.

Technical Specifications

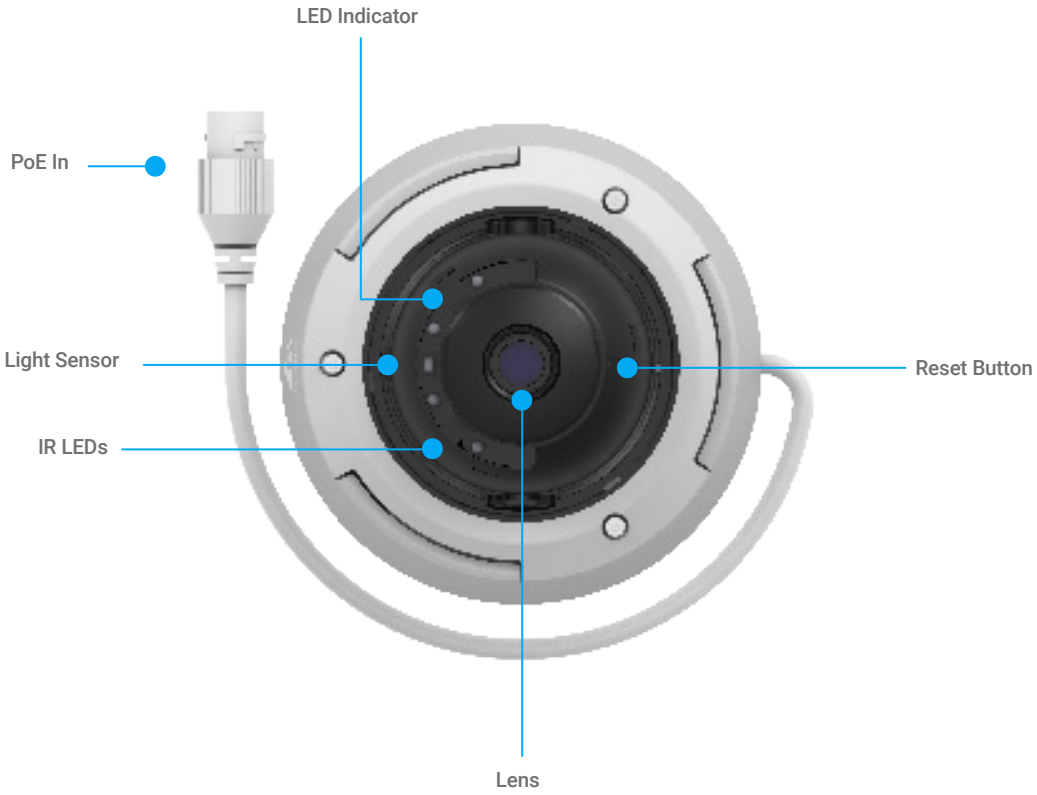
AI Cameras			
			
Model Name	**Cam5MP Dome IP67**	**Cam5MP Bullet IP66**	**Cam8MP Dome IP67**
Model	**ECC100**	**ECC120**	**ECC500**
Optics			
Sensor	1/2.8 " Sony Starvis 5MP CMOS		1/2.8 " Sony Starvis 8MP CMOS
Lens	Fixed 3.16mm	Fixed 4mm	Varifocal 3.2 ~ 10.5mm motorized zoom, Remote zoom, AF
View Angle	H: 102°, V: 71.6°, D: 132°	H: 78°, V: 56°, D: 103°	H: 97° ~ 35.3°, V: 56.1° ~ 20.3°, D: 115° ~ 41.7°
Night Vision	Built-in IR LED illumination and IR cut filter		
IR Distance	>20m / 66ft	30m / 98ft	
Lens Adjustment Range	Manual, Pan: 0° ~ 350°, Tilt: 0° ~ 90°, Roll: 0° ~ 350°	Manual, Pan: 0°~ 90°, Tilt: 0°~90°, Roll: 0°~ 180°	Manual, Pan: 0° ~ 350°, Tilt: 0° ~ 60°, Roll: 0° ~ 350°
Video			
Resolution	5MP 2592 x 1944 (4:3)		8MP 3840x2160 (16:9)
Frame Rate	20 FPS		
Video Compression	H.265, H.264		H.265, H.264, Smart Stream
Streaming Bitrate	768Kbps ~ 2.5Mbps (Optional)		600Kbps ~ 6Mbps (Optional, Adaptive)
Video Processing	AE, AWB, AGC, BLC, HLC, WDR, HDR, 3DNR, Privacy Mask, OSD, Video Orientation		AE, AWB, AGC, BLC, LDC, WDR, HDR(120dB), 3DNR, Privacy Mask, OSD, Video Orientation
Audio			
Audio Format	AAC, G.711	-	AAC, G.711
Microphone	Built-in, 5m / 15ft distance	Not supported	Built-in, 5m / 15ft distance
Speaker	Not supported		
Advanced AI Analytics			
AI NPU	Built-in		
People Detection and Tracking	History search, People counting		
Vehicle Detection and Tracking	History search, Vehicle counting		
Tampering Detection	Event alert		
Restricted Area Detection	Event alert, Object counting		
Cross Line Detection	Event alert, Object counting		
Person Attribute Detection	-		History search, Target alert
Vehicle Attribute Detection	-		History search, Target alert
Facial Recognition	-		Hisotry search, Search by Photo, Target alert
License Plate Recognitio	-		History search, Target alert
EnGenius Cloud AI	Support		

Technical Specifications

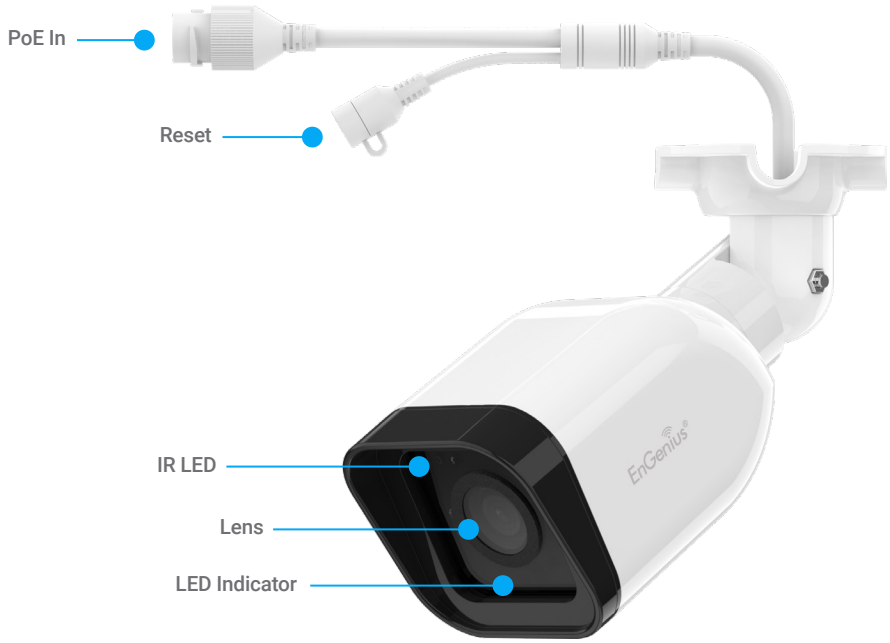
Model	ECC100	ECC120	ECC500
Storage			
Storage Size	256GB on board		512GB on board
Retention Method	24/7 seamless, Auto Recycling		
Retention Days	20 days based on video bitrate		30 days
Recording Encryption	-		AES128
Storage Redundancy	Support EnGenius NVS and Cloud storage		
System			
LED Indicator	System power and status indicator		
RTSP	Supported		
Reset Button	Internal	External line	Internal
Networking Interface	10/100 MbE RJ45 port		10/100/1000 MbE RJ45 port
Power Method	PoE 802.3af Class 2	PoE 802.3af Class 3	
Max. Power Consumption	6.1W	7.5W	12.9W
Operating Temperature	-20°C ~ 50°C / -4°F ~ 122°F		-40°C ~ 50°C / -22°F ~ 122°F
Humidity	98%		5%~90%
Certifications	CE, FCC		
Mechanical			
Enclosure Material	Aluminum alloy, Polycarbonate		
Weatherproofing	IP67	IP66	IP67
Resistance	IK10	-	IK10
Dimensions	Ø121.7 x 94.8 mm (Ø4.79 x 3.73”)	Ø76x 200 mm (Ø2.99 x 7.88”)	Ø155 x 106 mm (Ø6.10x 4.17”)
Weight	525g / 18.5oz	330g / 11.64oz	994g / 35.06oz
Management Software			
Web Browser	Chrome, Safari, Edge		
Mobile App	Cloud To-Go on iOS and Android		

Hardware Overview

ECC100 (Cam5MP Dome IP67)

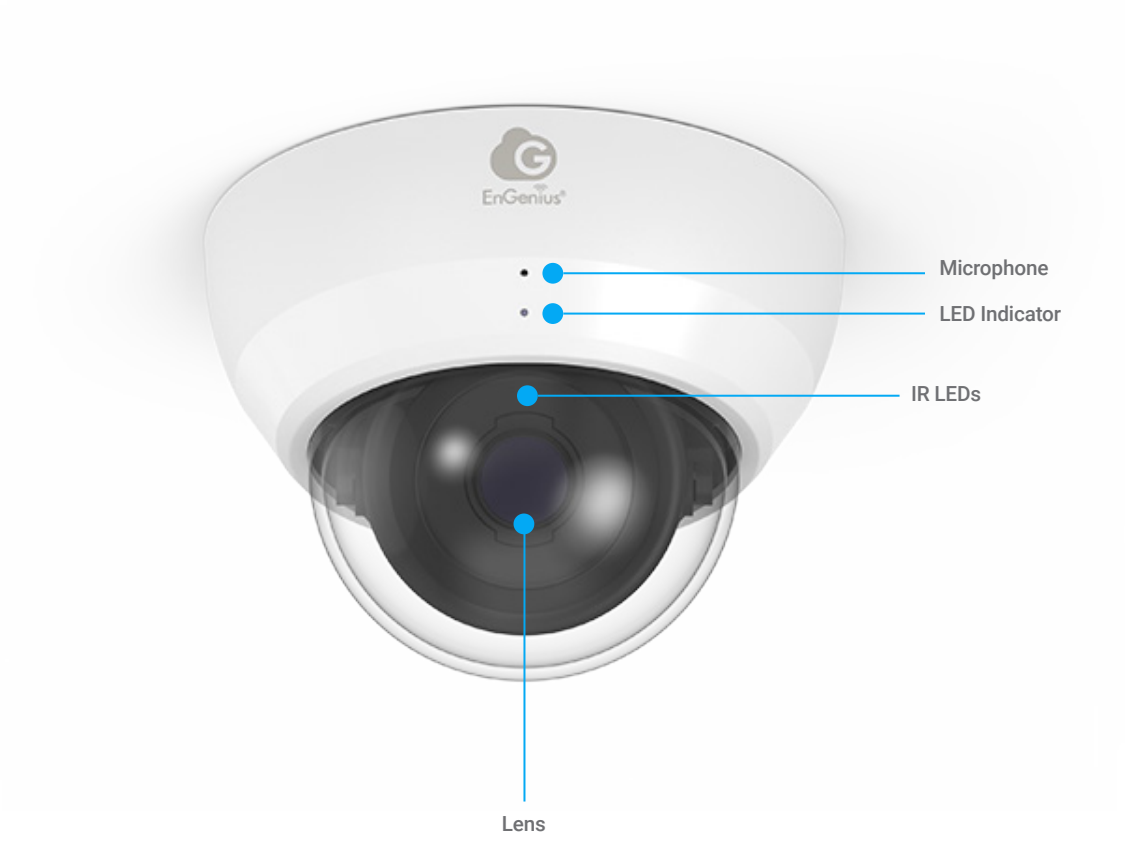


ECC120 (Cam5MP Bullet IP66)



Hardware Overview

ECC500 (Cam8MP Dome IP67)



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