

ACTi

Physical Security End-to-End Solution Provider

White Paper | Standard Cameras

STANDARD CAMERAS

A practical white paper for reliable fixed-view surveillance,
clear evidence capture, and scalable security operations

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Document purpose

This white paper explains the value of standard cameras for professional security projects and positions ACTi standard cameras as part of an integrated video surveillance ecosystem. It is written for system integrators, consultants, security managers, facility managers, and procurement teams.

1. Executive Summary

Standard cameras are the foundation of most professional video surveillance systems. They provide continuous visual coverage for entrances, corridors, offices, retail areas, warehouses, campuses, parking areas, production zones, and many other everyday security locations. A well-designed standard camera deployment does more than record video; it captures usable evidence, supports live monitoring, and connects security teams to a broader operational workflow.

For end users, the value is practical and operational: clear images, reliable coverage, easier installation, and evidence that can be reviewed when incidents occur. For system integrators and consultants, standard cameras create flexible design options because the category includes multiple form factors, lens choices, indoor and outdoor models, image enhancement technologies, analytics capabilities, and system integration paths.

ACTi describes its standard camera portfolio as dome, bullet, cube, and box cameras with high-quality fixed or vari-focal lenses and resolution up to 12 megapixels. ACTi also describes the category as general-purpose video surveillance with around 100 models grouped by form factor, and highlights features such as Extreme WDR, Extreme Low Light Sensitivity, built-in analytics, people and vehicle detection/classification/recognition, anti-corrosion and anti-explosion options, weatherproof, vandal-proof and vibration-proof designs, and compliance options such as NDAA and TAICS. [1]

Core message

Standard cameras should not be specified only as “fixed cameras.” They should be evaluated as the basic evidence layer of a security system: choose the right form factor, lens, resolution, image enhancement, analytics, environmental rating, recording platform, and operator workflow.

Key takeaways

- Standard cameras are the baseline camera category for most general-purpose surveillance deployments.
- Dome, bullet, box, cube, and turret form factors help match appearance, environment, mounting, and field-of-view requirements.
- Resolution, lens type, WDR, low-light sensitivity, IR, compression, and frame rate determine whether video becomes usable evidence.
- Built-in analytics and audio options can turn everyday camera views into more actionable security events.
- System design must confirm scene coverage, lighting, mounting height, cybersecurity, bandwidth, storage, VMS/NVR integration, and maintenance access.

Procurement principle

Do not specify standard cameras only by megapixel count. Specify the operational outcome: what must be seen, where evidence is needed, what lighting conditions apply, what events should trigger action, and how the video will be recorded, searched, and managed.

2. About ACTi Corporation

ACTi Corporation is the writer and publisher of this document. ACTi is a Taiwan-based international company founded in 2003 and serving customers in more than 100 countries. ACTi states that it has more than 20 years of security-industry experience and has been a pioneer in video-based security technology development and innovation. [2]

ACTi positions itself as a physical security end-to-end solution provider. Its ecosystem includes IP cameras, analog cameras, network video recorders, hybrid DVR, VMS software, workstation applications, web clients, access control, central management, system health management, and integration with third-party systems. This matters for standard camera projects because everyday camera coverage becomes more valuable when it can be recorded, searched, escalated, and managed from one security workflow.

ACTi also emphasizes AI-enabled security. ACTi describes its AI technology direction as helping operators understand video and support decision-making. Standard cameras can therefore be planned not only as basic video devices, but also as part of a broader intelligent security architecture that combines image capture, analytics, metadata, event management, and control center workflows. [2]

Why ACTi is relevant to standard camera projects

ACTi strength	Project relevance
End-to-end system scope	Standard cameras can be planned together with NVR/VMS, CMS, clients, access control, alarms, and third-party systems instead of being treated as isolated devices.
Security-industry experience	ACTi corporate information states more than 20 years of experience and adoption across vertical-market requirements. [2]
AI and metadata direction	General camera views become more actionable when linked with AI analytics, event metadata, and control center workflows.
Integrator-friendly portfolio	Multiple standard-camera form factors help system integrators match coverage, installation, budget, aesthetics, and environmental requirements.

3. Definition of "Standard Cameras"

A standard camera is a general-purpose video surveillance camera designed to provide reliable scene coverage for common indoor or outdoor security applications. In professional IP surveillance, the term typically refers to fixed or vari-focal dome, bullet, box, cube, and turret form factors used as the main visual layer of a security system.

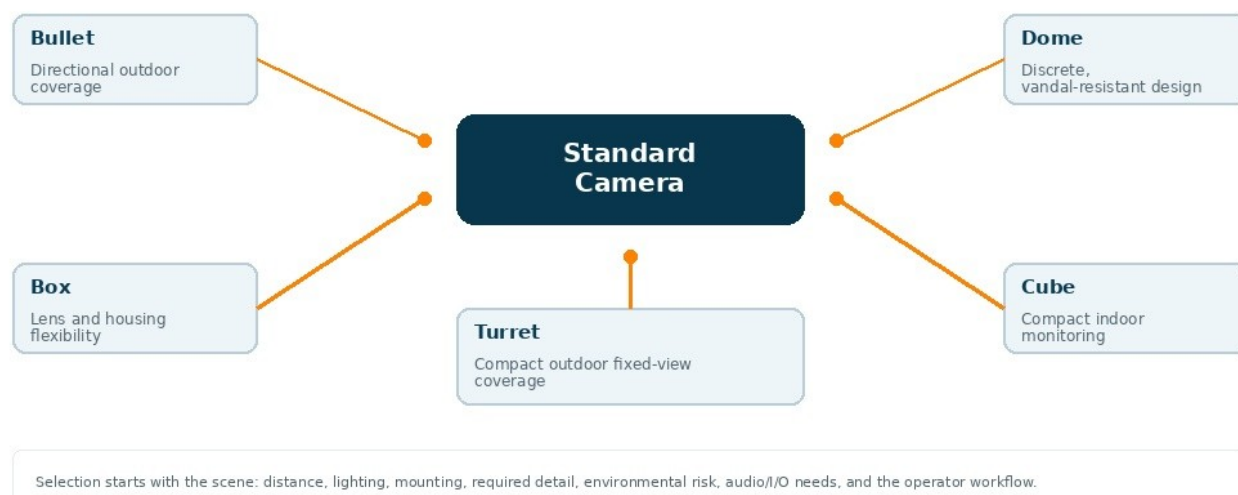
In practice, “standard” does not mean low-value or technically simple. It is a project category that combines field of view, lens type, resolution, WDR, low-light capability, IR illumination, video compression, environmental protection, audio, analytics, cybersecurity, and VMS/NVR integration. ACTi describes standard cameras as dome, bullet, cube, and box cameras with high-quality fixed or vari-focal lenses and resolution up to 12 megapixels. [1]

Standard cameras vs. related camera concepts

Term	Meaning	Common misunderstanding
Fixed camera	Camera view remains aimed at one designed scene.	Fixed does not mean inflexible; lens, resolution, mounting, and analytics still determine value.
Vari-focal lens	Lens that allows the installer to adjust field of view during setup.	It is not the same as PTZ. It is usually adjusted for installation or commissioning, not constant operator movement.
Dome camera	Low-profile form factor often used where appearance and tamper resistance matter.	A dome is a form factor, not a guarantee of indoor or outdoor rating.
Bullet camera	Directional form factor often used for outdoor perimeter or entrance views.	It is not automatically better at night; IR distance, sensor, lens, and WDR still matter.
Box camera	Flexible camera body that can be paired with lens and housing options.	It may require more design attention but can support specialized installation needs.

Visual concept

How standard cameras map to surveillance value



4. Core Technical Concepts

Standard camera selection should combine optical, imaging, environmental, network, and operational factors. The following concepts help procurement teams compare products accurately and avoid under-designed general-purpose surveillance systems.

Concept	Practical meaning
Resolution and pixels on target	Higher resolution helps capture more scene detail, but it must be matched with lens choice, viewing distance, and storage planning. ACTi lists standard-camera resolution up to 12MP. [1]
Fixed vs. vari-focal lens	Fixed lenses simplify repeatable deployments, while vari-focal lenses help installers adjust field of view for different scene sizes.
WDR / strong backlight handling	Wide Dynamic Range helps maintain visibility when bright and dark regions appear in the same scene, such as entrances, windows, and loading bays.
Low-light sensitivity and IR	Low-light enhancement and infrared illumination support nighttime and dim indoor/outdoor scenes. ACTi highlights Extreme Low Light Sensitivity and IR technology in standard-camera categories. [1]
Form factor and mounting	Dome, bullet, box, cube, and turret form factors affect appearance, deterrence, tamper resistance, installation method, and service access.
AI analytics	People and vehicle detection, classification, and recognition can help turn camera video into actionable security events. [1]
Video compression and streaming	H.265/H.264, multi-streaming, resolution, and frame rate affect bandwidth, storage, and client performance.
Environmental protection	Weatherproof, vandal-proof, vibration-proof, anti-corrosion, and anti-explosion requirements should be confirmed based on site conditions. [1]
Compliance and cybersecurity	Projects may require NDAA, TAICS, account control, firmware update policy, secure protocols, and network segmentation. [1]

Specification interpretation

A single specification rarely determines real-world performance. A 12MP camera with an unsuitable lens may not capture the required target detail. A camera with strong WDR may still need correct placement to avoid glare. A weatherproof housing may not be enough for coastal or chemical sites. Site design should validate target size, viewing angle, lighting, mounting, motion speed, storage policy, and required evidence quality.

Procurement warning

Do not compare standard cameras only by resolution. Compare the full evidence chain: form factor, lens, field of view, low-light performance, WDR, IR, analytics, audio, recording, cybersecurity, maintenance, and operator workflow.

5. High-Value Applications

Standard cameras are used wherever reliable, continuous visual coverage is needed. ACTi positions the category for general-purpose video surveillance and offers multiple form factors for different applications and projects. [1] These capabilities are most valuable when the design goal is dependable coverage, repeatable installation, and evidence capture across many everyday security scenes.

Application	Operational value	Typical locations
Entrance and lobby monitoring	Capture people movement, visitor activity, access points, and front-of-house incidents.	Building entrances, lobbies, reception areas, public counters
Retail and commercial security	Support theft deterrence, incident review, queue monitoring, and staff safety.	Shops, malls, restaurants, banks, showrooms
Office and campus surveillance	Provide everyday situational awareness across public circulation areas and shared spaces.	Offices, schools, campuses, corridors, common areas
Warehouse and logistics monitoring	Observe inventory movement, loading activity, vehicle areas, and operational incidents.	Warehouses, loading docks, logistics centers, storage rooms
Industrial and utility sites	Monitor process areas, restricted zones, maintenance access, and safety-related activity.	Factories, plants, utilities, substations, workshops
Outdoor perimeter and parking	Maintain visible coverage of boundaries, entrances, driveways, parking areas, and external assets.	Parking lots, gates, fences, yards, building exteriors

Value by stakeholder

Stakeholder	Main benefit
Security manager	Baseline situational awareness, better evidence collection, and consistent monitoring across common security areas.
Control room operator	Clear video views that can be paired with alarms, maps, event search, and playback workflows.
Facility / operations manager	Visibility over daily operations, safety events, access points, and remote areas.
System integrator	Flexible solution design using multiple form factors, lens choices, mounting accessories, and system integration paths.
Consultant / procurement team	Clearer specification language for camera placement, image quality, environmental protection, and recording requirements.

6. System Architecture

From an NVR or VMS perspective, standard cameras should be treated as part of a complete operational architecture. The camera captures the video stream and may also generate analytics events. The recording platform stores evidence, operators use clients or control center systems to view and search video, and security procedures define how to respond.

Standard camera value increases when it is connected to event triggers, map views, event search, remote clients, centralized monitoring, access control workflows, and maintenance management. The strongest deployments connect reliable image capture to a practical response workflow: observe, detect, record, search, notify, and respond.

Reference system architecture

Reference system architecture



Video streams, AI events, alarm metadata, and recorded evidence move through the architecture.

Design principle: choose the right camera form factor, preserve image quality, and support timely response.

Architecture layers

Layer	Role in standard camera surveillance
Field layer	Dome cameras, bullet cameras, box cameras, cube cameras, turret cameras, microphones, alarms, access-control devices, and sensors.
Network layer	PoE switches, fiber/uplink infrastructure, VLAN segmentation, cybersecurity controls, bandwidth planning, and remote access policy.
Recording layer	NVR/VMS receives video streams, event triggers, snapshots, and metadata; stores searchable evidence.
Management layer	CMS/control center aggregates live view, events, maps, TV wall views, maintenance status, and multi-site response workflows.
Response layer	Operator SOPs, guard dispatch, escalation, alarm outputs, access control action, third-party integration, and reporting.

7. ACTi Product Portfolio Overview

ACTi's standard camera page positions the portfolio as dome, bullet, cube, and box cameras with high-quality fixed or vari-focal lenses and resolution up to 12 megapixels. The page also describes general-purpose video surveillance models grouped by form factor and highlights technologies such as IR, WDR, low-light enhancement, analytics, audio, environmental protection, and compliance options. [1]

Portfolio categories

Category	Where it fits	Use-case fit
Bullet cameras	Directional form factor often used where the camera should visibly point toward the monitored area.	Building exteriors, entrances, parking areas, loading bays, perimeters, and outdoor corridors.
Dome cameras	Low-profile form factor with broad mounting accessory support and good fit for professional interior or exterior aesthetics.	Lobbies, corridors, public spaces, campuses, retail areas, and building perimeters.
Box cameras	Flexible body style for projects needing lens, housing, or specialized installation choices.	Industrial sites, indoor/outdoor housings, controlled environments, and custom views.
Cube cameras	Compact indoor form factor for lightweight deployment and local audio-oriented applications.	Small offices, shops, classrooms, counters, reception rooms, and indoor monitoring points.
Turret cameras	Compact form factor combining directional viewing with easier aiming and reduced reflection risk compared with some dome installations.	Entrances, corridors, small public areas, building corners, and general indoor/outdoor monitoring.
Specialized rugged options	Environmental or compliance-oriented variants depending on regional availability and project requirements.	Harsh environments, industrial facilities, coastal areas, transportation sites, and regulated projects.

Portfolio-level capabilities to confirm

- Required field of view, lens type, mounting height, installation location, and scene coverage.
- Resolution, frame rate, IR distance, WDR, low-light sensitivity, audio, video compression, and storage requirements.
- AI analytics support, event types, object classification needs, and VMS/NVR event integration.
- Indoor/outdoor rating, vandal resistance, vibration resistance, corrosion resistance, explosion-related requirements, accessories, and maintenance access.
- Cybersecurity and compliance requirements such as NDAA, TAICS, account control, firmware update policy, and secure protocols.
- Regional availability, quotation documents, latest datasheets, and firmware notes before formal project submission.

Project note

Product availability, detailed specifications, analytics support, compliance status, and regional part numbers should be confirmed from the latest ACTi product pages, datasheets, firmware release notes, and quotation documents before project submission.

8. Related Keywords and Terminology

The following keyword reference groups collect common terms related to standard cameras, fixed IP cameras, camera form factors, image quality, analytics, security operations, and project procurement.

Core topic keywords

standard cameras, standard surveillance camera, standard security camera, IP security camera, network camera, fixed camera, general purpose surveillance camera, professional security camera, video surveillance camera, indoor security camera, outdoor security camera, reliable surveillance camera, evidence capture camera

Form factor keywords

dome camera, bullet camera, box camera, cube camera, turret camera, mini dome camera, fixed dome camera, fixed bullet camera, vari-focal camera, fixed lens camera, outdoor dome camera, indoor dome camera, vandal proof camera, weatherproof camera, compact security camera

Technical specification keywords

12MP security camera, high resolution security camera, WDR security camera, Extreme WDR camera, low light security camera, IR security camera, H.265 camera, H.264 camera, multi-streaming camera, PoE IP camera, audio security camera, built-in microphone camera, video analytics camera, pixels on target, field of view camera

Application keywords

entrance security camera, lobby surveillance camera, corridor camera, retail security camera, office surveillance camera, campus security camera, warehouse camera, factory surveillance camera, parking lot camera, loading dock camera, utility site camera, perimeter camera, building exterior camera, public area monitoring

AI and VMS keywords

AI security camera, people detection camera, vehicle detection camera, object classification camera, video analytics camera, event trigger camera, VMS camera integration, NVR camera integration, central management surveillance, video metadata, event search, alarm verification, remote security client, security operations workflow

Procurement and project keywords

best standard security camera, standard camera for system integrators, standard camera for consultants, standard camera for end users, standard camera specification, camera selection for commercial security, camera selection for campus security, ACTi standard camera, ACTi dome camera, ACTi bullet camera, ACTi box camera, ACTi cube camera, standard camera white paper

Common question phrases

what is a standard camera, how to choose a security camera, dome camera vs bullet camera, fixed camera vs vari-focal camera, what resolution do I need for surveillance, how to specify security cameras, how many cameras do I need, how to improve video evidence quality, what is WDR in security cameras, what is low light sensitivity

Source notes

This white paper is based on ACTi public source pages and general video surveillance system-design practices. Product details should always be reconfirmed against the latest ACTi datasheets, firmware release notes, regional availability, and quotation documents before formal project commitment.

Ref.	Source
[1]	ACTi Corporation, "Standard Cameras," official product category page. URL: https://www.acti.com/products/standard-cameras . Accessed: June 2, 2026.
[2]	ACTi Corporation, "About ACTi," official corporate page. URL: https://www.acti.com/corporate/about . Accessed: June 2, 2026.

Revision note: This document is a marketing and technical education white paper. It is not a regulatory certification, safety standard, or final project design. Always validate camera placement, field of view, evidence quality, and operator workflow in the target scene before deployment.

Prepared by ACTi Corporation

For standard camera projects, confirm camera type selection, lens requirements, analytics capability, system integration, mounting accessories, and regional availability with your ACTi sales contact or authorized system integrator.

