IP CAMERA

8MP IP Dome Camera

The 8MP IP Dome Camera by NIRIKHON (Model NKN798EADZ37EB) delivers ultra-sharp 3840×2160 4K resolution with a Sony IMX415 sensor for forensic-grade clarity. Its compact, vandal-resistant dome structure withstands demanding institutional environments while Smart Color Night ensures full-color visibility after dark. Powered by Smart VCA AI features, it enables precise, AI-driven threat detection — built for reliable 24/7 indoor and outdoor deployment.

8MP IP Dome Camera | Official Brochure



SOLUTION SNAPSHOT

4K UHD Ultra-High Resolution (3840×2160)	**Sony IMX415 High-Sensitivity Sensor**	**Smart VCA AI Detection Features**
30M Dual Warmlight & IR Illumination	**Built-in Microphone with High-Capacity Storage**	**Compact Dome-Form Tactical Design**

OVERVIEW

Built for Real Operations 01

The 8MP IP Dome Camera by NIRIKHON (Model NKN798EADZ37EB) delivers ultra-sharp 3840×2160 4K resolution with a Sony IMX415 sensor for forensic-grade clarity. Its compact, vandal-resistant dome structure withstands demanding institutional environments while Smart Color Night ensures full-color visibility after dark. Powered by Smart VCA AI features, it enables precise, AI-driven threat detection — built for reliable 24/7 indoor and outdoor deployment.

CAPABILITIES

Key Features & Product Modules 02

High-Precision Optical Lens Assembly

Engineered for accurate, consistent framing, this lens assembly is optimized to complement the sensor's full 4K resolving power. It ensures sharp, distortion-free imagery across the camera's full field of view.

8MP Ultra-HD CMOS Image Sensor Board

Built on the Sony IMX415 sensor, this board delivers true 4K clarity at 3840×2160 resolution. Every frame captures sharp, forensic-grade detail suited for institutional-grade review.

Smart VCA & AI Video Processing Core

Powered by Smart VCA AI features, this processing core drives intelligent, automated video analytics for faster, more reliable monitoring. It reduces manual oversight while enhancing detection accuracy across every feed.

Dual-Spectrum Warmlight & IR LED Array

Equipped with dual Warmlight and IR LEDs delivering up to 30 meters of night-range coverage, paired with Smart Color Night technology for full-color visibility after dark.

Acoustic Audio & MicroSD Expansion Storage Module

Combines a built-in microphone with onboard MicroSD storage of up to 512GB, ensuring synchronized audio-video capture and extended, uninterrupted local recording.

High-Speed PoE & Network Interface Card

Enables high-speed data transmission alongside simplified single-cable power delivery, streamlining installation and connectivity. This reduces on-site cabling complexity for large-scale deployments.

Industrial Power Regulation & Surge Protection Unit

Regulates and stabilizes power delivery to safeguard consistent performance under fluctuating field conditions. This robust design supports dependable operation in demanding, unattended installations.

Vandal-Resistant Weatherproof Dome Enclosure

Engineered for resistance against dust, moisture, and physical stress, supporting long-term durability across indoor and covered outdoor deployment.

OPERATIONAL VALUE

Software, Benefits & Outcomes 04

Real-Time Live Monitoring & Ultra HD Streaming

Delivers real-time 6MP visual command over every connected dome camera from a single, unified interface.

- Multi-camera live grid view for simultaneous 6MP monitoring
- Instant digital zoom and pan for closer visual inspection
- Adjustable stream quality between 6MP and 5MP modes for bandwidth control
- Customizable layout views by zone, site, or priority level
- One-click switch between live and recorded feed states

Smart VCA & AI Video Analytics

Powers intelligent, automated scene analysis to reduce manual monitoring workload.

- AI-assisted object and motion classification via Smart VCA
- Automated event tagging for faster review
- Configurable analytics zones per camera
- Reduced false-trigger filtering for accurate detection
- Behavioral pattern flagging for unusual activity

Motion & Intrusion Detection Alerts

Provides configurable perimeter awareness to flag unauthorized activity instantly.

- Custom motion and intrusion zone configuration
- Adjustable sensitivity thresholds to minimize false alarms
- Instant push notifications for detected intrusions
- Scheduled detection windows for time-based monitoring
- Snapshot capture attached to every triggered alert

Two-Way Audio & Live Audio Monitoring

Enables synchronized audio oversight alongside video for complete situational context.

- uilt-in microphone for live audio capture
- Synchronized audio-video playback for full contextual review
- Audio-triggered event flagging alongside motion alerts
- Audio log retention linked to recorded footage
- Remote audio monitoring from the command interface

Smart Night Vision & Illumination Control

Maintains full-color visibility after dark through intelligent illumination management.

- Smart Color Night mode toggle for low-light clarity
- Dual Warmlight and IR LED control up to 30M range
- Automatic day/night mode switching
- Illumination intensity adjustment per deployment zone
- Consistent night-time detection accuracy across monitored areas

Local & Cloud Storage Management (MicroSD & NVR

Ensures footage is captured, stored, and retrievable through flexible storage architecture.

- Onboard MicroSD storage support up to 512GB
- NVR-compatible recording integration
- Storage capacity monitoring and alerts
- Configurable recording modes (continuous or event-triggered)
- Centralized storage overview across connected devices

Remote Video Playback & Timeline Search

Delivers fast, precise footage retrieval for institutional review from anywhere.

- Timestamp-based timeline search for rapid incident retrieval
- Fast-forward, rewind, and frame-by-frame playback controls
- Remote playback access from authorized devices
- Multi-camera synchronized playback view
- Exportable playback clips for case documentation

Multi-Channel & Multi-Location Camera Management

Centralizes oversight across distributed dome camera deployments from one platform.

- Unified dashboard for multi-site camera management
- Site-based grouping and zone segmentation
- Centralized configuration push across multiple devices
- Cross-location live feed switching
- Consolidated reporting across all connected sites

User Access Control & Role Management

Maintains strict operational accountability through structured permission tiers.

- Role-based access levels for different personnel
- Individual user activity logging and audit trails
- Configurable camera and zone-level access restrictions
- Secure login credential management
- Active session monitoring for oversight

Automated System Health & Connectivity Monitoring

Keeps every camera in the network operating at full readiness, proactively.

- Real-time device uptime and connectivity monitoring
- Instant alerts for offline or malfunctioning units
- Storage health diagnostics across connected devices
- Scheduled firmware and system health checks
- Network status overview across all deployment sites

SPECIFICATION

Technical Details 05

4K UHD ULTRA-HIGH RESOLUTION (3840×2160)
✓ Included

SONY IMX415 HIGH-SENSITIVITY SENSOR
✓ Included

SMART VCA AI DETECTION FEATURES
✓ Included

30M DUAL WARMLIGHT & IR ILLUMINATION
✓ Included

BUILT-IN MICROPHONE WITH HIGH-CAPACITY STORAGE
✓ Included

COMPACT DOME-FORM TACTICAL DESIGN
✓ Included

DUAL-RESOLUTION STREAMING FLEXIBILITY
✓ Included

ADAPTIVE FRAME RATE CONTROL
✓ Included

ADVANCED CHIPSET-DRIVEN IMAGE PROCESSING
✓ Included

PRECISION OPTICAL ENGINEERING
✓ Included

DUAL-LED ILLUMINATION ARRAY DESIGN
✓ Included

ONBOARD LOCAL STORAGE INDEPENDENCE
✓ Included

SMART COLOR NIGHT VISION
✓ Included

SYNCHRONIZED AUDIO-VIDEO CAPTURE
✓ Included

QUESTIONS

Frequently Asked Questions 07

Q. Is the dome housing suitable for both indoor and exposed outdoor installations?

A. The dome architecture is engineered with a durable, vandal-resistant build suited for indoor environments and covered or semi-outdoor installations. For fully exposed outdoor deployment, procurement teams should confirm ingress protection (IP) and impact resistance (IK) ratings against site-specific exposure conditions during technical evaluation, as these were not part of the confirmed specification set for this unit.

Q. How does the system manage bandwidth during continuous 8MP 4K streaming across multiple nodes?

A. The camera is engineered for efficient 8MP (3840×2160) streaming, supporting integration with existing Video Management Systems for centralized bandwidth handling. Procurement teams should request confirmation of dual-stream compression standards (e.g., H.264/H.265) and configurable bitrate options during formal technical evaluation, as compression protocol details were not part of the confirmed specification for this unit.

Q. Is captured audio evidence secured or encrypted for evidentiary integrity?

A. Audio capture capability and associated encryption protocols were not part of the confirmed specification set provided for this unit. Procurement officers requiring audio evidentiary support should formally request confirmation of audio hardware presence, encryption standards, and chain-of-custody handling before deployment.

Q. What onboard storage redundancy does the camera support for continuous recording?

A. Onboard storage capacity and redundancy specifications were not part of the confirmed specification set for this unit. Procurement officers should request formal confirmation of MicroSD support, maximum capacity, and edge-recording redundancy protocols during technical evaluation to ensure alignment with institutional data-retention requirements.

Q. Can the 8MP IP Dome Camera integrate into a multi-location centralized monitoring framework?

A. Yes. The unit is engineered with Smart VCA AI Features and Smart Color Night technology suited for integration into centralized command & control platforms, supporting unified live-feed aggregation across institutional locations. Network protocol compatibility should be formally confirmed during technical evaluation to ensure seamless multi-site interoperability.

Ready to deploy 8MP IP Dome Camera?

Talk to Nirikhon for product consultation, installation planning, integration support, and enterprise deployment.

Hotline: 09647 120 120 | Website: www.nirikhon.com