NIRIKHON

SECURITY & DEFENCE TECHNOLOGY

PRODUCT BROCHURE

NVR

16 Channel 6MP NVR with Metal Body

The 16 Channel 6MP NVR by NIRIKHON (Model NKNVR3216 -V3-IQ) delivers high-density, stable video decoding across 16 simultaneous channels, engineered for institutional recording and command & control operations. Its heavy-duty metal body ensures superior heat dissipation for continuous 24/7 reliability, while H.265+ compression optimizes bandwidth efficiency. With dual SATA bays supporting up to 16TB total storage and Smart Event recording, it delivers mission-critical central command performance.



16 Channel 6MP NVR with Metal Body

Official Brochure

SOLUTION SNAPSHOT

16-Channel High-Density Recording Core	**Up to 8MP HD Camera Feed Compatibility**	**Industrial Heat-Dissipating Metal Body**
H.265+ / H.265 / H.264 Compression Standards	**Dual SATA Bays, Up to 16TB Total Storage**	**1-Year Service Warranty Coverage**

OVERVIEW

Built for Real Operations

01

The 16 Channel 6MP NVR by NIRIKHON (Model NKNVR3216 -V3-IQ) delivers high-density, stable video decoding across 16 simultaneous channels, engineered for institutional recording and command & control operations. Its heavy-duty metal body ensures superior heat dissipation for continuous 24/7 reliability, while H.265+ compression optimizes bandwidth efficiency. With dual SATA bays supporting up to 16TB total storage and Smart Event recording, it delivers mission-critical central command performance.

CAPABILITIES

Key Features & Product Modules

02

High-Processing Mainboard & SoC Core Architecture

The central processing core manages simultaneous 16-channel operations, coordinating video decoding, storage, and network functions in real time. Engineered to sustain stable, high-density performance under continuous institutional recording loads.

Multi-Channel Video Decoding & AI DSP Module

Handles real-time decoding of up to 16 concurrent 6MP HD video streams, enabling smooth, simultaneous multi-channel display and analysis. Built to process high-resolution feeds without compromising system responsiveness during full-channel operation.

Dual SATA Hard Drive Controller Interface Bay

Manages two independent SATA hard drive bays, supporting up to 16TB of total storage capacity across both drives. Provides the structural data pathway for continuous, high-volume institutional video archiving.

H.265+ Hardware Compression & Encoding Engine

Executes advanced H.265+/H.265/H.264 compression at the hardware level, significantly reducing storage consumption and network bandwidth. Ensures high-resolution footage is preserved efficiently across extended recording periods.

Network Interface Card & Input/Output Panel

Serves as the primary data pathway connecting the NVR to command center infrastructure, enabling centralized access and control. Supports stable, uninterrupted connectivity for real-time institutional monitoring.

Regulated DC Power Management & Circuitry Board

Delivers stable DC 12V/3A power distribution across all internal components, ensuring consistent performance during continuous 24/7 operation. Engineered to maintain electrical stability under sustained institutional workloads.

Active Internal Heat Sink & Thermal Dissipation Assembly

Channels heat away from high-load processing components during extended multi-channel operation, working in coordination with the metal chassis to prevent thermal buildup. Supports sustained system stability during continuous recording cycles.

Heavy-Duty Industrial Metal Chassis & Shielded Housing

A rugged metal enclosure provides structural protection and enhanced heat dissipation, safeguarding internal components during extended operational deployment. Engineered for long-term durability in demanding institutional command environments.

Software, Benefits & Outcomes

Real-Time HD Live Monitoring & Grid Display

Description: Renders live 16-channel 6MP feeds in a unified grid interface, giving operators immediate full-facility situational visibility from the command center.

- Configurable grid layouts (1/4/9/16-channel views)
- Instant channel switching and full-screen focus mode
- Live status indicators for feed connectivity per channel
- Customizable channel arrangement by operational priority
- Synchronized live timestamp display across all channels

Multi-Mode Recording Schedule Configuration

Enables operators to configure Manual, Timer, Motion, and Smart Event recording modes tailored to institutional monitoring requirements.

- Per-channel recording mode assignment
- Time-block scheduling for automated recording windows
- Motion-triggered recording sensitivity configuration
- Smart Event rule-based recording setup
- Schedule templates for rapid multi-channel deployment

Smart Synchronized Playback & Event Timeline Search

Enables rapid, timestamp-accurate retrieval of recorded 6MP footage across all 16 channels for efficient review and investigation.

- Calendar and timeline-based footage navigation
- Multi-channel synchronized playback
- Event-tagged bookmarking for rapid recall
- Variable-speed scrubbing for frame-level review
- Exportable footage segments with timestamp metadata

Centralized Dual-SATA Hard Drive Storage Management

Manages up to 16TB of total storage across dual SATA bays, giving operators full visibility and control over institutional data retention.

- Real-time storage capacity monitoring per drive
- Configurable overwrite and retention policies
- Storage health status and disk diagnostics
- Manual drive formatting and allocation control
- Low-storage automated alert notifications

AI Smart Event Motion Detection & Instant Alarm Alerting

Applies intelligent motion-based detection across all channels, triggering instant alerts for immediate operator response.

- Configurable motion-sensitivity zones per channel
- Real-time alarm notification on the command dashboard
- Alarm-linked automated recording activation
- Event log with timestamp and channel reference
- Scheduled detection sensitivity by time-of-day

Multi-Channel Remote Viewing via Mobile App & Web Browser

Extends full 16-channel visibility beyond the command center through secure mobile and web-based remote access.

- Live multi-channel viewing via mobile application
- Web browser-based remote access dashboard
- Remote playback of archived footage
- Push notification alerts on mobile devices
- Multi-user simultaneous remote session support

Bandwidth & H.265+ Video Bitrate Stream Optimization

Manages H.265+ compression settings across all 16 channels, balancing high-resolution clarity with efficient bandwidth and storage utilization.

- Configurable bitrate control per channel (VBR/CBR)
- Compression standard selection (H.265+/H.265/H.264)
- Stream quality adjustment for bandwidth-constrained environments
- Real-time bandwidth utilization monitoring
- Storage-saving preset configurations

Multi-Level User Access & Role-Based Security Control

Enforces hierarchical access permissions, ensuring only authorized personnel can access sensitive recording and system functions.

- Administrator, operator, and viewer privilege tiers
- Per-channel access permission assignment
- Session-based access logging per user
- Time-restricted access provisioning
- Instant access revocation for compromised credentials

Automated System Health, Network & Storage Diagnostics

Continuously monitors system performance, network connectivity, and storage integrity to ensure sustained 24/7 operational readiness.

- Real-time system health status reporting
- Network connectivity diagnostic checks
- Storage disk health and error detection
- Automated diagnostic report generation
- Scheduled system self-check routines

One-Click Local & Remote Firmware Backup & Recovery

Simplifies system maintenance through streamlined firmware backup and recovery, minimizing downtime during updates or system recovery.

- One-click configuration backup to local or remote storage
- Firmware update deployment with rollback capability
- Scheduled automated backup routines
- Recovery point restoration for rapid system recovery
- Update and backup history logging for audit compliance

SPECIFICATION

Technical Details

05

16-CHANNEL HIGH-DENSITY RECORDING CORE
✓ Included

UP TO 8MP HD CAMERA FEED COMPATIBILITY
✓ Included

INDUSTRIAL HEAT-DISSIPATING METAL BODY
✓ Included

H.265+ / H.265 / H.264 COMPRESSION STANDARDS
✓ Included

DUAL SATA BAYS, UP TO 16TB TOTAL STORAGE
✓ Included

1-YEAR SERVICE WARRANTY COVERAGE
✓ Included

MULTI-MODE RECORDING FLEXIBILITY
✓ Included

AUTOMATIC VIDEO STANDARD DETECTION
✓ Included

EFFICIENT POWER ARCHITECTURE
✓ Included

DUAL-BAY STORAGE REDUNDANCY
✓ Included

HIGH-DENSITY CHANNEL MANAGEMENT
✓ Included

BANDWIDTH-OPTIMIZED COMPRESSION
✓ Included

THERMAL-RESILIENT METAL CONSTRUCTION
✓ Included

CENTRALIZED SYSTEM RELIABILITY
✓ Included

QUESTIONS

Frequently Asked Questions

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Q. Can the system reliably sustain simultaneous 16-channel 6MP recording without bandwidth degradation?

A. The NVR is engineered with a dedicated processing core designed to manage 16 concurrent HD video channels, supported by H.265+ hardware compression to optimize bandwidth and storage efficiency during simultaneous multi-channel operation. Procurement teams requiring specific throughput benchmarks (e.g., total Mbps input capacity) should request supplementary confirmation during technical evaluation, as this figure was not explicitly detailed in the confirmed specification set.

Q. How does the metal body chassis manage thermal load during continuous 24/7 operation?

A. The heavy-duty metal chassis provides structural heat dissipation, working alongside internal thermal management to support sustained performance during continuous multi-channel recording. This construction is designed for long-term durability in demanding institutional command environments requiring uninterrupted operation.

Q. What storage redundancy does the dual-HDD configuration provide, and does it support RAID protection?

A. The system supports two independent SATA HDD bays, each accommodating up to 8TB, for a combined total of 16TB storage capacity. RAID configuration was not part of the confirmed specification set for this unit; procurement officers requiring RAID-based redundancy should request formal confirmation of supported RAID levels during technical evaluation to ensure alignment with institutional data-resilience requirements.

Q. How does H.265+ compression improve storage and bandwidth efficiency compared to standard formats?

A. H.265+ compression is supported alongside H.265 and H.264 standards, enabling significantly reduced file sizes and bandwidth consumption while preserving high-resolution image quality. This allows institutional deployments to extend effective storage retention periods within the same 16TB capacity compared to older compression formats.

Ready to deploy 16 Channel 6MP NVR with Metal Body?

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

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