NIRIKHON

SECURITY & DEFENCE TECHNOLOGY

PRODUCT BROCHURE

DVR

DVR 16 Channels HD 4-5 MP

The DVR 16 Channels HD 4-5 MP by NIRIKHON (Model NK XVR3116G3) delivers high-density recording with 16-channel 5MP HD decoding through efficient H.265+ compression. Its heavy-duty metal chassis ensures reliable heat dissipation for continuous operation, while a single SATA HDD supports up to 10TB of storage capacity. Auto power recovery restores recording instantly after interruption—engineered for stable, mission-critical central command surveillance deployment.



DVR 16 Channels HD 4-5 MP

Official Brochure

SOLUTION SNAPSHOT

16-Channel High-Density BNC Video Input	**True 5MP High-Definition Recording & Live Decoding**	**Industrial Heat-Dissipating Heavy-Duty Metal Body**
H.265+ / H.265 / H.264 High-Efficiency Video Encoding	**High-Capacity SATA Storage Architecture — Up to 10TB**	**1-Year Full Warranty**

OVERVIEW

Built for Real Operations

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CAPABILITIES

Key Features & Product Modules

02

16-Channel 75Ω BNC High-Density Analog Video Input Module

Sixteen dedicated BNC ports, calibrated to 1.0Vp-p at 75-ohm impedance, form the physical intake layer for all incoming camera feeds. This module ensures stable, loss-minimized signal transmission across long cable runs—critical for large-perimeter and multi-building institutional deployments.

Hardware-Level H.265+ / H.265 / H.264 Video Encoding & DSP Unit

This dedicated encoding unit compresses incoming 5MP video using H.265+, H.265, or H.264 formats before it reaches storage. By handling compression at the hardware level, it drastically cuts storage consumption while preserving image detail—extending retention periods without expanding disk requirements.

Heavy-Duty Heat-Dissipating Industrial Metal Chassis

Built from reinforced metal, the chassis shields internal components from physical stress while channeling heat away from the processing core during continuous 24/7 runtime. This structural design is what allows the unit to operate reliably in dense server-room and command-center environments without thermal throttling.

High-Capacity SATA Interface & Storage Controller (Up to 10TB)

A dedicated SATA interface connects directly to a single hard drive supporting capacity up to 10TB, managing all read/write operations for continuous recording. This controller is the system's memory backbone—the longer the retention window, the further back an evaluation committee can review recorded activity.

10/100 Mbps RJ45 Fast Ethernet Network Interface Controller

The RJ45 port bridges the DVR to the broader institutional network, enabling remote access and centralized data retrieval at up to 100Mbps. This interface is what turns a standalone recorder into a networked asset—accessible from a central monitoring point rather than only on-site.

Regulated DC 12V/3A Power Management & Auto-Recovery Circuit

A stabilized 12V/3A power circuit maintains consistent voltage delivery under sustained load, while the auto-recovery function automatically restores full operation after any power interruption. Together, these ensure recording never silently stops—a critical safeguard against surveillance gaps during unstable power conditions.

Multi-Mode Event Detection & Mainboard Video Decoding Hub

The mainboard coordinates four recording modes—manual, timer, motion, and smart event—deciding in real time how and when footage is captured across all 16 channels. This hub is the operational control layer, giving procurement teams the flexibility to configure recording behavior around specific security priorities.

High-Performance 5MP Multi-Channel Video Processing SoC Core

The processing core is engineered to simultaneously manage 16 independent video channels at full 5MP resolution—handling real-time decoding and live display without frame loss. This is the system's operational brain, ensuring command-level personnel view sharp, synchronized footage across every connected channel at once.

OPERATIONAL VALUE

Software, Benefits & Outcomes 04

6-Channel Synchronous Real-Time Live Monitoring & Grid Layout

Delivers unified, simultaneous live viewing of all 16 connected channels on a single command-center display grid.

- Switch between single, quad, 9-way, and full 16-channel grid views
- Monitor all zones from one centralized operator screen
- Instantly identify the exact feed and channel number during an incident
- Maintain continuous visual coverage without channel-switching delay
- Support multi-operator viewing across command stations

Multi-Stream Live Decoding & Display Control

Processes true 5MP live video streams across all channels without compromising image clarity or frame stability.

- View high-resolution 5MP footage in real time, not compressed previews
- Zoom into live feeds for detail verification during active monitoring
- Maintain consistent decoding performance across all 16 channels simultaneously
- Adjust display stream quality per operational priority
- Preserve visual evidence integrity from the point of capture

Smart Motion Detection & Intrusion Alert Notification Engine

Monitors defined zones for motion-based activity and flags events for immediate operator attention.

- Define motion-sensitive zones within each channel's field of view
- Trigger automatic recording upon detected movement
- Reduce continuous-recording storage load through event-based capture
- Flag time-stamped motion events for rapid review
- Support faster response coordination during active monitoring

Multi-Mode Recording Scheduler (Manual, Timer, Motion & Smart Event)

Gives operators full control over how and when each of the 16 channels records, based on defined institutional protocols.

- Configure manual recording for designated high-priority zones
- Set timer-based recording windows for scheduled operational hours
- Enable motion-triggered recording to conserve storage
- Activate smart event recording for defined trigger conditions
- Apply different recording modes independently per channel

Multi-Channel Synchronized Video Playback & Timeline Search

Enables retrospective review of recorded footage across multiple channels on a single synchronized timeline.

- Search recorded footage by date, time, and channel number
- Play back multiple channels simultaneously for cross-verification
- Navigate directly to specific timestamps during evidence review
- Compare footage across zones for incident reconstruction
- Support structured, audit-ready playback sessions

High-Efficiency H.265+ / H.265 / H.264 Stream Compression Manager

Manages video compression settings across all channels to balance storage efficiency with recording quality.

- Select compression format per operational storage requirement
- Extend effective retention period through H.265+ efficiency
- Maintain 5MP image quality while reducing file size
- Reduce network bandwidth load during remote access sessions
- Standardize compression settings across all 16 channels

10TB SATA Storage Health Diagnostics & Auto-Overwrite Management

Monitors the connected SATA drive's status and manages storage capacity across the full recording cycle.

- Track available and consumed storage across the 10TB capacity
- Configure auto-overwrite behavior for continuous long-term recording
- Receive status visibility on drive health and capacity thresholds
- Plan retention cycles based on real storage consumption data
- Prevent unplanned recording interruption from storage exhaustion

Remote Network Access & Multi-Device Monitoring via RJ45

Extends command-center visibility beyond the physical installation site through the unit's dedicated network interface.

- Access live and recorded footage from networked monitoring stations
- Connect the DVR into the broader institutional network infrastructure
- Enable authorized remote viewing without on-site presence
- Support centralized oversight across distributed installations
- Maintain consistent access at up to 100Mbps network speed

Fast Evidentiary Video Export & Backup Utility (USB & Network)

Provides operators with structured tools to extract and preserve footage for review, reporting, or investigation.

- Export selected footage segments directly for evidentiary use
- Back up critical recordings via USB or network transfer
- Maintain original resolution and timestamp integrity on export
- Support rapid turnaround for time-sensitive review requests
- Preserve chain-of-custody-ready file exports

SPECIFICATION

Technical Details

05

16-CHANNEL HIGH-DENSITY BNC VIDEO INPUT
✓ Included

TRUE 5MP HIGH-DEFINITION RECORDING & LIVE DECODING
✓ Included

INDUSTRIAL HEAT-DISSIPATING HEAVY-DUTY METAL BODY
✓ Included

H.265+ / H.265 / H.264 HIGH-EFFICIENCY VIDEO ENCODING
✓ Included

HIGH-CAPACITY SATA STORAGE ARCHITECTURE — UP TO 10TB
✓ Included

1-YEAR FULL WARRANTY
✓ Included

NTSC/PAL AUTO-DETECTION VIDEO SYSTEM
✓ Included

MULTI-MODE RECORDING
Manual, Timer, Motion & Smart Event

RJ45 100MBPS ETHERNET NETWORK CONNECTIVITY
✓ Included

DC 12V/3A STABILIZED POWER SUPPLY
✓ Included

HIGH-FIDELITY 75-OHM BNC SIGNAL TRANSMISSION
✓ Included

SINGLE SATA INTERFACE STORAGE BAY ARCHITECTURE
✓ Included

AUTO SYSTEM RECOVERY AFTER POWER INTERRUPTION
✓ Included

QUESTIONS

Frequently Asked Questions

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Q. Can the system sustain simultaneous 5MP recording across all 16 channels without bandwidth degradation or frame loss?

A. Yes. The unit's processing architecture is engineered specifically to handle 16 independent channels at full 5MP resolution concurrently, for both live decoding and recording. Combined with H.265+/H.265/H.264 compression, the system maintains consistent frame integrity across all channels without requiring resolution downgrade under full load.

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

A. The unit is housed in an industrial-grade, heat-dissipating metal chassis designed to withstand sustained continuous operation. The metal body structure supports passive heat dissipation away from internal processing components, reducing thermal stress risk during extended, uninterrupted command-center deployment.

Q. What happens to recording continuity in the event of a sudden power failure, and how quickly does the system resume?

A. The system is equipped with an auto system recovery function that automatically restores full recording operation once power is restored — without requiring manual restart or reconfiguration by on-site personnel. This closes potential surveillance gaps that would otherwise result from unplanned power interruption.

Q. How does H.265+ compression optimize the 10TB SATA storage capacity for long-term evidentiary retention?

A. H.265+ compression significantly reduces file size per recorded stream compared to standard H.264, without sacrificing 5MP image fidelity. Applied across the SATA interface's up to 10TB capacity, this extends the effective retention window available for compliance timelines and post-incident review, maximizing usable storage life per drive cycle.

Ready to deploy DVR 16 Channels HD 4-5 MP?

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

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