DS-16400-RM UHD Series

All-in-one Linux-embedded Standalone NVR With High Reliability & Scalability

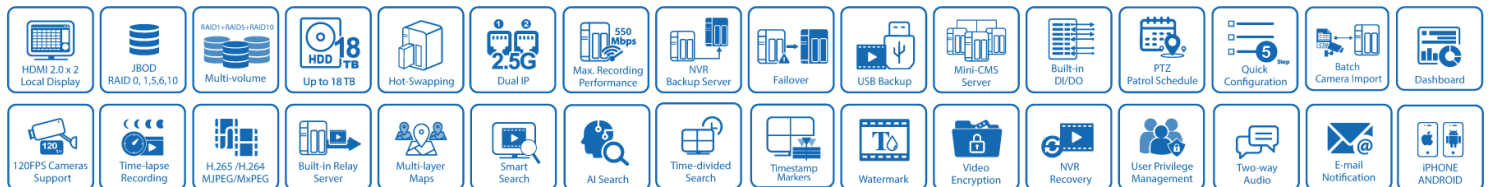**Up to 64CH**

AI Solution Inside

Linux | intel INSIDE | NDAA Compliant | TAA COMPLIANT | MADE IN TAIWAN | ONVIF® | G S T

Key Features

◆ **Support 4K UHD/Full HD/XGA Display**

◆ **Marvelous PC-less Solution: Dual/Mirror/Target/eMap Display**

◆ **Automated Monitoring：Multiple PTZ Patrol Groups & Schedules**

◆ **Multi-NVR & Multi-channel Simultaneous Playback**

◆ **Timestamp Markers for Multi-channel Playback Tracing**

◆ **Metadata Video Analytics Solution: AI Search on Playback**

◆ **NVR Dashboard: Instant Insights for Efficient System Control**

◆ **Rapid, Scalable Deployment with Batch Camera Import**

HDMI 2.0 x 2 Local Display	JBOD RAID 0, 1,5,6,10 Multi-volume	HDD 18TB Up to 18 TB	Hot-Swapping	2.5G Dual IP	550 Mbps Max. Recording Performance	NVR Backup Server	Failover	USB Backup	Mini-CMS Server	Built-in DI/DO	PTZ Patrol Schedule	Quick Configuration	Batch Camera Import	Dashboard
120FPS Cameras Support	Time-lapse Recording	H.265 /H.264 MJPEG/MxPEG	Built-in Relay Server	Multi-layer Maps	Smart Search	AI Search	Time-divided Search	Timestamp Markers	Watermark	Video Encryption	NVR Recovery	User Privilege Management	Two-way Audio	E-mail Notification	iPHONE ANDROID

Compatible Network Camera Brands and Partners

Technical Alliance

www.digiever.com

Multi-functional All-In-One DIGIEVER NVR

Monitoring · Video Backup · Management · Playback · Integration · Event Notification · Recording · Smart & AI Analysis

■ Superb 4K Hardware Decode & 4K Local Display

- Support up to 12 MP (4K UHD) IP Camera
- Dewarp Fisheye IP Cameras
- Liveview Display Modes: (both local & remote)
  1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 16, 20, 25, 30, 32, 36, 42, 49, 56, 64 & 5+1/12+1-channel, Sequential & Full screen
- Marvelous PC-less Solution:
  Dual Display, Mirror Display, Target Display, eMap Display
- Audio Out Option Between 2 Screens
- Liveview Instant Playback
- Two-way Audio via USB Type Sound Adapter
- Multiple PTZ Patrol Groups & Schedules Configuration
- Set Preset Points & Moving Speed Adjustment for ONVIF PTZ Camera
- Auto-mute Mode for Idle Cursor

■ Real-time Remote Monitoring

- 5+1/12+1-channel Focus Sequential Display Mode for Diverse Businesses Needs
- Built-in Mini-CMS Server (up to 512-channel)
- Built-in NVR Relay Server
- Liveview Instant Playback
- Multi-window Operation
- Multiple PTZ Patrol Groups & Schedules Configuration
- Quick Navigation with Dynamic E-Map
- Region of Interest (ROI): Monitor 5 or 7 Regional Images from One High-resolution Camera
- Set Preset Points & Moving Speed Adjustment for ONVIF PTZ Camera
- YouTube/Facebook Live: Live Streaming Broadcast
- Web Surveillance: Convenient Liveview/Playback Solution for World-wide Viewers without Extra Software Required

■ Megapixel Real-time Video Recording

- Up to 288TB Storage Capacity
- S.M.A.R.T HDD Health Monitoring & Report Export
- Connect up to 5 iSCSI Servers for Storage Expansion
- Up to 12 Megapixel Recording Resolution
- Support 120 FPS Camera Recording
- Camera Group Recording:
  Assign Video Keeping Days for Each Camera
- Event Smart Recording for Always Recording
- Time-lapse Recording: Flexible Capture Plans (Recording Duration/Capture Interval), Multi-channel Playback and Video Export
- Schedule Snapshot: Automatic Snapshot of All Selected Cameras
- Pre-/post-event recording duration setup for multiple cameras with up to 300 seconds' event coverage

■ Powerful Event and Action Management

- Detection of Device Connection Lost, External Events and Camera Motion/IVA
- Notification via Liveview Pop-out Window, Email, SMS, Buzzer and External Devices
- Configuration-Free Alarm Notification for HDD Error/Failed
- Chain Event to Have Accurate Event Notification
- Intuitive Event & Action Summary

■ Monitor Everywhere via iOS and Android Mobile Device

■ Multi-channel Playback

- Maximum 16-channel Playback Simultaneously
- Remote Multi-NVR Playback & Smart Search
- Event Instant Playback on Liveview and E-Map
- Bookmark: Mark Incident Moment for Quick Tracking
- Built-in AI Search (Metadata Video Analytics) for Versatile AI- Events Analysis, (Integrated AI camera & AI Box), Real-time Event Notification
- Data Search: Explore Event & Metadata in a Smarter and More Efficient Way
- Time-divided Search: Quickly Find the Key Frame to Export Related Video and Snapshot; Add Timestamp Markers for Multi-channel Playback Tracing.
- Instant Export while Playback on Remote.
- Export Video with Watermark, OSD Displayed
- Seamless Playback of Exported Files without Requiring Video Player Installation
- All Frame Playback on Single Camera

■ Advanced and Reliable Security System

- Stable and Secure Linux-embedded System
- Strong Account Security: Ensure Stronger Defense against Unauthorized Access.
- Two User-defined Storage Volume Modes:
  Multi-RAID Storage Volume & Single HDD Storage Volume
- Hot Swappable HDD Design
- 5 Steps Quick Configuration
- One-click Batch Camera Import for New NVRs, System Expansion, and Camera Replacement
- Dashboard: 7 Key System Information at a Glance, Support Report Exporting for System Analysis
- White/Black List for IP Range
- Detailed Log Information
- 4 Smart Access Ways:
  Anonymous Access, Reboot Auto Access, Timeout Auto Access, and Active Directory (AD) Access
- Flexible User Privilege Management & User Account Control (Change Password & Delete Account)
- NVR Failover and System Monitoring
- Login Security Lock: Secure and Protect System Security after 5-consecutive Login Errors
- Auto Power Resume after Power Shortage
- Built-in SNMP Server to Central Monitor NVRs' Status
- Manage and Configure DIGIEVER PoE Switches on NVR

■ Diverse Backup Methods

- NVR Edge Backup
- Become NVR Backup Server: Schedule/Manual
- 3 External Devices for Video Backup (Schedule/Manual): USB Device, NAS and FTP server
- Intelligent Schedule Backup with Resume Backup Technology and Delay Warning to Secure Backup Efficiency and Completion
- Instant Export while Playback on Remote
- Export Files from Remote and Local Playback
- Event Backup to External FTP: Video Clip & Snapshot

■ Comprehensive Compatible Ability

- Support H.265/H.264/MJPEG/M-PEG4/MxPEG
- Support 150+ Brands and 9000+ IP Cameras
- Support ONVIF Profile G/S/T, Generic RTSP & MJPEG
- Support Uninterruptible Power Supply (UPS)
- Integrated POS Terminals for Transaction Surveillance
- Integrated Access Control Server
- Integrated Modbus Analog I/O-Digital I/O Box Server
- Integrated IP Video Door Intercom Server
- Integrated AI Box for AI-related Solution

Technical Specifications

System

CPU	Intel® Quad-core High Speed CPU	**Operating System**	Linux-embedded
HDD Tray	16 (Hot-swappable)	**Disk Management**	Linear (JBOD), RAID 0/1/5/6/10
Maximum Capacity[1]	Up to 288 TB (18TB per HDD) Support 2.5"/3.5" SATA II/III or SSD	**Max. Storage Volume**	Up to 16 volumes (Global Hot Spare)
LAN Port[2]	2 x 2.5 Gigabit Ethernet	**Operating Temperature**	0~40°C (32°F~104°F)
USB Connector	6 x USB 3.2 Gen 1x1 (front 2, rear 4)	**Operating Humidity**	5%~95% R.H.
Video Output Connector	2 x HDMI 2.0a	**Power Supply**	External power adaptor, 600W Input power voltage: 100V to 240V AC
GPIO	4-in, 4-out	**Power Consumption**	152W~178W
Certification	CE, UKCA, FCC, VCCI, BSMI	**H/W Dimensions**	133.4 (H) x 430 (W) x 554 (D) mm 5.25 (H) x 16.9 (W) x 21.8 (D) inch
Operation User Interfaces	(1) Local display monitoring/playback/setting (2) Remote Client with login shortcut (3) Web Surveillance: Web Liveview/Web Playback (4) Mobile App: Android and iOS	**Supported Languages**	Bulgarian, Croatian, Czech, Dansk, Deutsch, Dutch, English, Finnish, French, Indonesian, Italian, Japanese, Korean, Hebrew, Hungarian, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish, Thai, Turkish, Traditional Chinese, Simplified Chinese, Vietnamese

Liveview

H/W Decode Max. Resolution per Channel	Resolution up to 8MP (4K UHD) (H.265 & H.264)
Display Resolution[8]	HDMI 2.0 display port (HDMI①/②): 3840 x 2160 (4K UHD), 1920 x 1080 (Full HD), 1024 x 768 (XGA)
H.265 & H.264 H/W Decode Max. FPS in Single Page	(1) In 3840 x 2160 (4K) display: 4K (8MP): 200 FPS, Full HD: 500 FPS, HD: 960 FPS, CIF: 1600 FPS (2) In 1920 x 1080 (Full HD) display: 4K (8MP): 240 FPS, Full HD: 700FPS, HD: 1080 FPS, CIF: 1920 FPS
Two-screen Display (HDMI 2.0 x 2)	(1) Mirror display: monitor the same cameras at two sites (2) Dual display: monitor more cameras on two monitors (3) Target display: focus on key areas during video playback (4) eMap display: monitor cameras with a detailed map information
Liveview Control	Set preset points (ONVIF PTZ camera), PTZ panel, PTZ patrol schedule & auto cruising, Go to preset point, Auto Focus, Digital zoom in/out, Audio, OSD settings, Snapshot, Auto/Manual stream change, Instant playback, ROI, Two-way audio[5,6], DIGI-dewarp
E-Map[3]	Multi-layer maps, Double-click to pop-out video window, Pop-out event window, Event instant playback, Modbus I/O device event management, switch event map to the top layer, Customizable camera icons
Mini-CMS Server Monitoring[3]	Up to 512 channels from multiple NVR sites
Liveview Optimization	User-defined dual stream auto switch
Web Surveillance (Web Liveview/Playback)	Supported browser: Chrome, Edge, Firefox, Opera, Safari Operating System: Windows, MacOS Video Format: H.264/H.265, Audio Format: AAC/G.711 (PCMU/PCMA), **Liveview:** Up to 64-CH, Features: Sequential, Manual recording, Snapshot, Set preset points (ONVIF PTZ camera), PTZ control, PTZ patrol schedule & auto cruising, Go to preset point, Camera event log, OSD, Liveview optimization, Digital zoom in/out, Recording status **Playback:** Up to 16-CH, Features: Export, Snapshot, OSD, Speed control, Mute, All frame playback, Start time setup, Video type (normal, event)

Recording

Max. Recording Performance[4]	550 Mbps	**File format**	AVI
Video Format[7]	H.265, H.264, MPEG4, MJPEG, MxPEG, ZIPStream	**HDD Capacity Automatic Recycle**	(1) Max. days of each camera (2) Total capacity percentage
Recording Modes	No recording, Event recording, Schedule recording, Always recording, Audio recording by event, Pre-event and Post-event recording, Manual recording, Time-lapse recording		

Playback

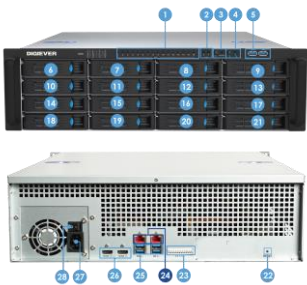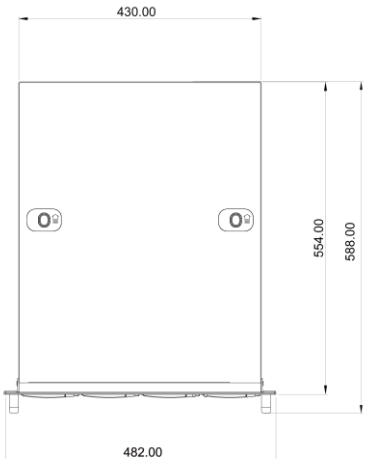|			
Multi-channel Playback	Max. 16-channel Simultaneously	**Multi-NVR Playback**	Remote playback up to 16-channel from multiple DIGIEVER NVRs
Recording Types	Normal, Event, Video clip, Recovery, Time overlap, Failover (remote), Time-lapse, USB device (local)	**Search Modes**	Date, time, channel and recording type
Smart Search[3]	Motion detection, Foreign object detection, Missing object detection, Camera tampering detection, Lose focus	**Playback Control**	Rewind, Slow motion, Fast forward, Backward/Forward playback, Advanced setting for Backward/Forward button, DIGI-dewarp, Snapshot, Export, ROI, Customized watermark, Bookmark, Data search
AI Search[5] (Metadata)	4 key attributes (People, Vehicle, Face and Event), over 50 criteria; pre-event time setup (3~100 sec)		
Backup Solutions	Export Files on remote and local playback, USB backup (FAT32 & NTFS), Become NVR backup server, Local backup to USB device, Remote backup to NAS and FTP server, NVR edge backup, Instant export while playback videos on remote, Event backup to external FTP		
Backup Methods	(1) Manual (2) Schedule: support automatic, schedule upload timing, resume backup and backup delay warning		
Video Player	(1) Installation-free NVRPlayer with multi-channel playback (default player): unique AVI (2) PC media player, such as Windows Media Player, VLC: common AVI		

Event & Action Management

Event Types	(1) **Camera Events:** Connection lost, Connection lost delay, Low FPS, Motion detection[5,9,10], Audio detection[5,9,10], Cross-line detection[5,9,10], Temperature detection[5], Human detection[5], Call button[5], People counting threshold alarm[5], Loitering detection[5,9,10], Tampering detection[5,9,10], Intrusion detection[5,9,10], Advanced motion detection[5,9,10], Foreign/Missing object detection[5,9,10], Object status change[5,9,10], Camera digital input[5,9,10], Restricted zone detection[9], Shock detection[9], Face detection[9], Social distance detection[9], Smart tracking detection[9], Running detection[9], Illegal parking detection[9], Region entrance/exiting detection[9,10], No PPE detection[10], Forklift no PPE detection[10], Stopping detection[10], Stay & Go detection[10], Crowd detection[10], Hand & Foot intrusion detection[10], Fallen person detection[10], Aggressive detection[10], Bully detection[10], Imminent treat detection[10], LPR detection[10], Animal detection[10], Fire & Smoke detection[10], Zone counting threshold detection[10], Multi zone counting threshold detection[10] (2) **NVR Events:** NVR connection lost, UPS low power warning, Storage Threshold warning, Abnormal shutdown, Time sync failed, External event (HTTP-in), NVR digital input (3) **Storage Event:** RAID Degraded/Rebuilding/Failed (4) **NVR Hardware Events:** CPU temperature warning, CPU fan warning, System fan warning, HDD error warning, HDD fail warning, Redundant power supply failure (Optional)
Action Types	Alert sound, Event log history, Video pop-out window, Highlight video window, Event recording, E-Mail notification, Video clip/ snapshot via E-Mail, SMS, Buzzer alarm, Go to preset point, Camera digital output, SNMP trap, External IO box, Stack light, Network horn speaker, Backup to external FTP and User-defined action (HTTP-out), NVR digital output
Chain Event	Precise alarms when multi-events triggered within user-defined time

Security Management

User Privilege	Administrator, Power user and User	Advanced User Management	Random password sent by Email, Account expiration by assigning a specific date, Rename "Admin" and password, Account deletion by power user & user
System Log Information	Hardware log, System log, Event log, File access log, Current user log, Historical user log	NVR Failover	Monitor up to 4 NVRs in default (Option up to 16 NVRs)
Access Control Device Management	Manage up to 4 access control devices in default (Option up to 16 devices)	External Modbus Analog I/O-Digital I/O Box	Connect up to 4 Modbus A/IO-D/IO boxes in default (Option up to 16 boxes)
IP Range Access Control	White/Black list to permit or prohibit specific IP address	External AI Box	Connect up 64-ch cameras via 4 AI Boxes
Advanced Security	Video watermark, password on exported video file, Login security lock (after 5-consecutive login errors for 300 seconds), Timeout setting (60~3600 seconds), Strong password policy		

Network Service

Protocol	HTTP, TCP/IP, DHCP, DNS, DDNS, UPnP, FTP, NTP, SMTP, IPv6 (for NVR)	File Sharing	Windows networking, FTP service (Active & Passive mode setup), FTP folder settings (ANPR images/log auto classifying)
Two LAN Port Applications	Shared IP, Separated IP, Link aggregation	Built-in Servers	Built-in DHCP/NTP server

Remote Web Browser PC Requirements

Operating System	Windows® 10/11	CPU	Intel® i7 CPU or above
Browsers in Windows OS	Microsoft® Edge, Chrome, Firefox, Opera, Safari	Memory	16G or above

Note1 The standard system is shipped without HDD.
Note2 User is advised to connect cameras and DIGIEVER NVR with gigabit switch
Note3 E-Map, Built-in Mini-CMS Server Monitoring and Smart Search are not supported on local display.
Note4 Maximum recording performance is varied in different environment.
Note5 Camera is needed to support the feature and integrated with DIGIEVER NVR.
Note6 On local site, it is necessary to prepare a USB type external audio sound adapter for connecting speaker/microphone to NVR.
Note7 DIGIEVER NVR supports H.264, MPEG4, MJPEG, MxPEG format for local display.
Note8 Dual 4K supports in mirror display mode.
Note9 AI Event supported by integrated AI camera for AI Search
Note10 AI Event supported by integrated AI Box for AI Search

*All designs and specifications are subject to change without prior notice.

Hardware Appearance

Standard Unit	Dual-power Unit (Optional Purchase)	Dimensions (3U Chassis)

1. Network LED indicator
2. Power LED indicator
3. One-touch backup button with LED indicator
4. 2 x USB3.2 Gen 1x1 (Front)
5. HDD LED indicator
6~21. HDD 1 to HDD 16

22. Reset button
23. Digital input/Digital output (4-in, 4-out)
24. 2 x 2.5 GbE ports
25. 4 x USB 3.2 Gen 1x1 (Rear)
26. 2 x HDMI 2.0a outputs
27. Power connector
28. Power switch