DirectIP 64 Channel Full HD Real-time Recorder

DR-8364

- **All the benefits of DirectIP systems**
  - End to End System
  - Automatic device discovery / Automatic device configuration with DirectIP
  - Real time configuration with DirectIP
  - Little to no perceivable delay in live monitoring
- **Class No.1 Performance NVR**
  - 64ch@FHD Live/Rec/Remote
  - Total incoming throughput 900Mbps (Total: 900/Record: 400/Remote: 500Mbps)
  - Enhanced expandability up to 24 HDD (8 internal front loading HDDs&4 DA-ES1104)
  - Native RAID 1/5/10 support with Front loading HDDs
- **Server Based VMS Levels of Redundancies**
  - Power redundancy with DR-8364D
  - Storage redundancy with internal RAID1/5/10
  - Recording redundancy with Smart Failover
- **UHD/4K and H.265 Support**
- **IDIS Intelligent Codec**
  - Up to 90% storage saving via IDIS Intelligent Codec with M.A.T

IDIS One Solution. One Company.

Enterprise-level Performance on an NVR Platform

THE IDIS DR-8364 delivers enterprise-level surveillance on an NVR platform without trading performance.

This new 64 channel 4K recorder features the world-leading IDIS Intelligent Codec H.265/H.264 performance, 900Mbps throughput, redundant power, and IDIS Smart Failover technology, all providing users with perfectly designed, enterprise-level surveillance operations at an NVR platform.

All the benefits of DirectIP systems

- End to End System, Whole pipeline optimization
- Automatic device discovery / Automatic device configuration with DirectIP
- Real time configuration with DirectIP
- Little to no perceivable delay in live monitoring

Class No.1 Performance NVR

- 64 channel real-time recording and monitoring with best-in-class bandwidth (Total: 900Mbps)
- Network remote monitoring with up to 500Mbps with BRP (Boost Remote Performance) mode
- Supports native UHD/4K (Camera, Remote and Display)

Recorded Video Data with Server Based VMS Levels of Redundancies

- Power Supply Redundancy

  Redundant Power (Dual power supply): PSU failure covered (DR-8346D)
- Storage Level Redundancy

  Native RAID 1/5/10 support: HDD failure covered
- Recording Redundancy

  IDIS Smart Failover: Recording to SD Card

Purpose Built System with Security in mind

- Effective and robust data recording, searching, and management by iBank DB
- Effective detection of video tampering with chained fingerprint method

A Low Total Cost of Ownership

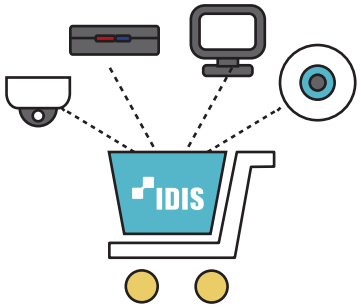
- Providing an enterprise-level of performance in a stand-alone NVR
- Up to 90% storage savings via IDIS Intelligent Codec with M.A.T (Motion Adaptive Transmission)
- 120W low power consumption

Now and the Future

- Scalability with IDIS Solution Suite
- Up to 12MP Camera
- Unparalleled Storage Capacity (Max 24HDD Expansion)

All the Benefits of DirectIP™ Systems

Simple End-to-End System



The primary goal of DirectIP is to provide customers with HD surveillance solution platform which is easy to use, simple to install and quick to configure through 'Plug-and-play' capability. DirectIP consists of IP cameras, NVRs and VMS software, all designed to be optimized within a network. And it's also pre-engineered solution that is affordable and high performing.

Beyond Plug-and-Play

Remarkably simple to install and maintain, DirectIP goes beyond mere "Plug-and Play", delivering auto Discovery and auto configuration.

IP Video Surveillance without the PC

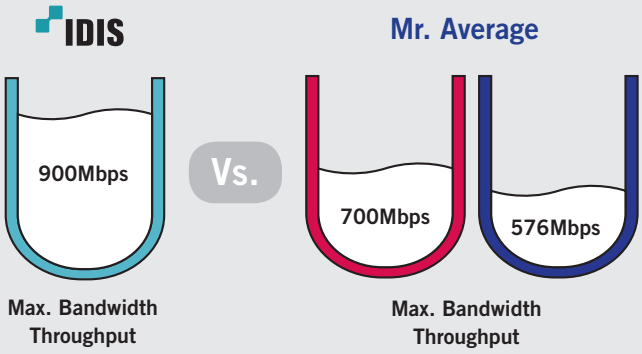
DirectIP's " IP Video Surveillance without the PC" concept permits simple installation and configuration allowing instant streaming once connected. DirectIP will auto detect and auto configure IDIS DirectIP cameras.

A Simple, High Performance, Pre-engineered, Highlys Scalable, Low Maintenance, End-to-end IP Video Surveillance Platform.

Easy Installation	**Simple**	**High Performance yet Affordable**	**Pre-engineered**
End-to-end	**Highly Scalable**	**Low Maintenance**	**Scale up with IDIS Solution Suite**

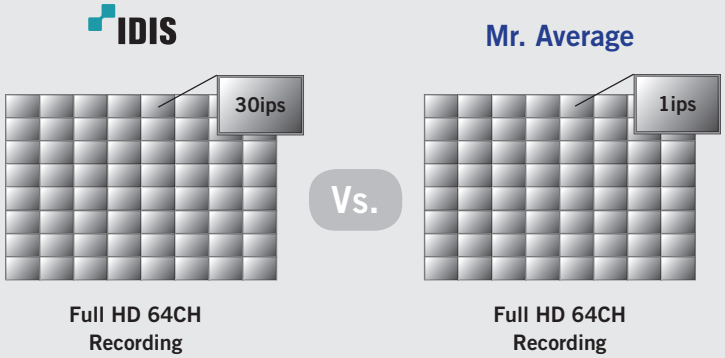
Class No.1 Performance NVR

900Mbps Max. Bandwidth Throughput

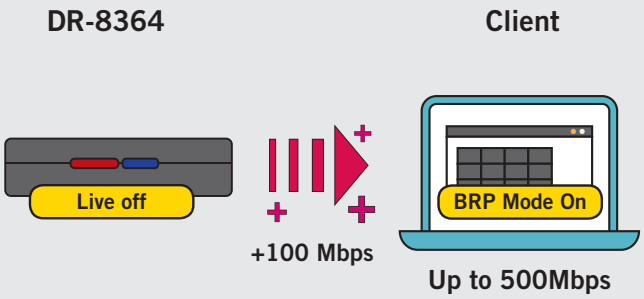


The DR-8364 provides 64 channel Full HD real-time live, recording and monitoring with best-in-class bandwidth (Max 900Mbps).

The DR-8364 provides powerful and seamless 64 channel real-time recording and monitoring features with 30ips without latency.



Up to 500Mbps Remote Performance with BRP Mode



Typically, surveillance managers will monitor from a client PC instead of an NVR. The DR-8364 supports BRP* mode, which boosts remote bandwidth performance up to 500Mbps.

*BRP Mode: Boost Remote Performance Mode
Increasing the remote bandwidth performance at the cost of NVR Live mode. Even if NVR's live function is off, recording searching function is still activating.

*Dynamic Multiple Streaming with IDIS Solution Suite
Also can be enhanced by using ISS streaming service module (1 Service = Up to 64 channel)

The Native 4K Supported NVR (Camera, Remote and Display)

The DR-8364 features native UHD/4K Support. Remote and Display which is four times larger than Full HD resolution allow greater detail and a wider field of view.

Recorded Video Data with Server Based VMS Levels of Redundancies

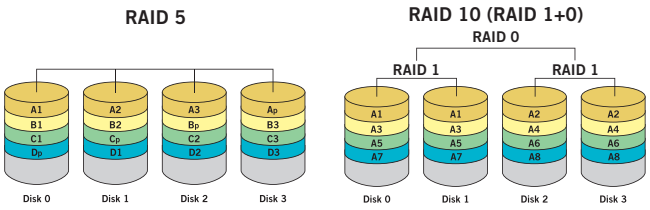
Power Supply Redundancy

Redundant Power (Dual Power Supply) : PSU failure covered (DR-8364D)

In addition to DirectIP's comprehensive system health monitoring and notification features, the DR-8364D provides a server grade auxiliary power system to guard against PSU failure.

Storage Level Redundancy

Native RAID 1/5/10 support : HDD failure covered

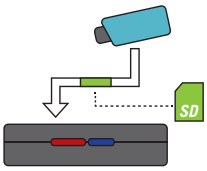


RAID 5 array distributes the data all disks, increasing performance and providing redundancy.
RAID 10, also known as RAID 1+0, combines disk mirroring and disk striping to protect data.

Recording Redundancy

IDIS Smart Failover : Recording failure covered

All DirectIP NVRs supports Failover. Developed by IDIS leading-edge recording technology, Smart Failover does now allow even a second Loss. A network failure between the camera and DR-8364 results, in recording to cameras SD card. When the network is restored, NVR Recording resumes and simultaneously, SD card recording is transferred to NVR storage. Also, for long term recovery, it's able to supports maximum 2TB SDXC type external memory. This function is providing without any cost and when you have recording failure, you don't have to any other action, it will recover automatically itself.



Seamless Recording

When the NVR and IP camera are disconnected, the camera's SD card instantly begins recording and automatically transfers the data to the NVR after recovery, leaving no incident unrecorded.

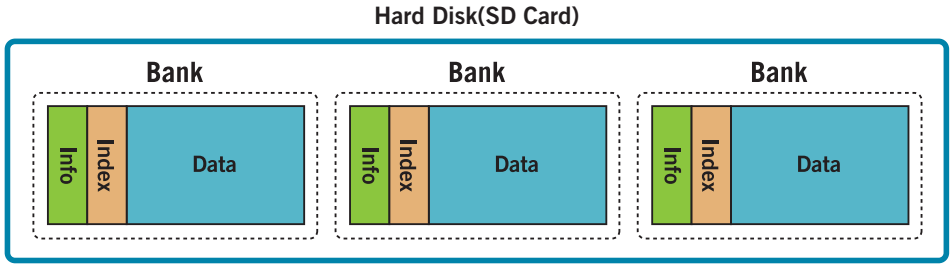
24 Hour Smart Save

A 32GB SD card will record at a pre-configured profile until 50% of the card's capacity is used, after which the IP camera automatically controls recording profiles to guarantee 24 hour recording.

Purpose Built System with Security in Mind

IDIS iBank

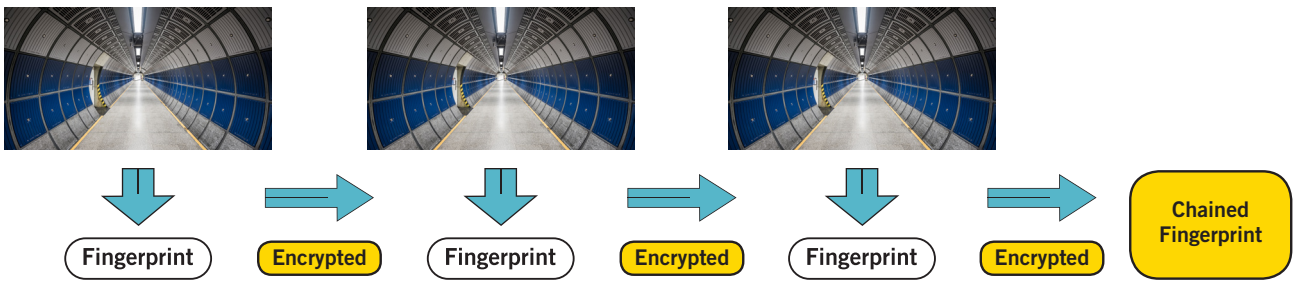
iBank DB(Data Base)



iBank DB(Data Base) is proprietary multimedia file system and database architecture.
Which is a proprietary multimedia DB, design, built and optimized for video surveillance application.

- Restore and restructure the damaged area that contains index information
- Improve multi-channel video recording and searching performance
- Effective meta data searching functionality

IDIS Chained Fingerprinting



IDIS Chained fingerprinting is a complex algorithm that maps an image to a unique identifier. The fingerprint of an image is then encrypted using the fingerprint of its neighboring images. This way every single one of each image of a camera recorded is associated with its neighboring images in a frame-by-frame manner, thus called, “chaining”. The encrypted information is also stored in the recorder and re-calculated when exported to a video clip along with the video image in Clip Player video clip format. Before playback, the video clip player scans the video decrypting the encrypted finger prints. If any part of the image is modified or changed, the finger print of the modified image won’t match the finger print recovered by decrypting the encrypted finger print of the original image. This way, we can identify if the video is tampered or not. Video clip contains the finger prints to ensure the integrity of the video clip.

Purpose Built System with Security in Mind

Network Security with DirectIP

Closed Network

Physically separate DirectIP cameras

Closed network topology provides the best performance and higher network security. IDIS network solutions including DirectIP support both closed and open network topology. User can install the surveillance devices as a closed network for transmitting data with stable frame rate and lover delays as well as minimizing data access by unauthorized user.

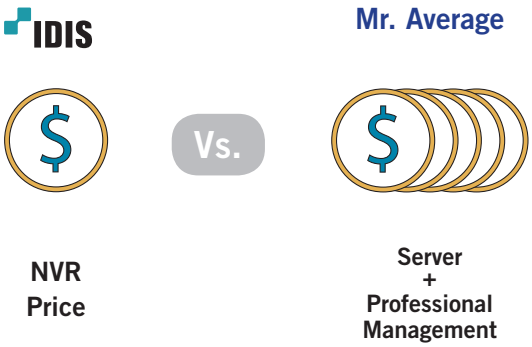
Pairing Operation between Two Devices

Implicit pairing of DirectIP devices

DirectIP camera stores connected DirectIP NVR's MAC address as well as the registration and connection information flag. Another DirectIP NVR or other devices cannot connect to the DirectIP camera that is already connected to a DirectIP NVR.

A Low Total Cost of Ownership

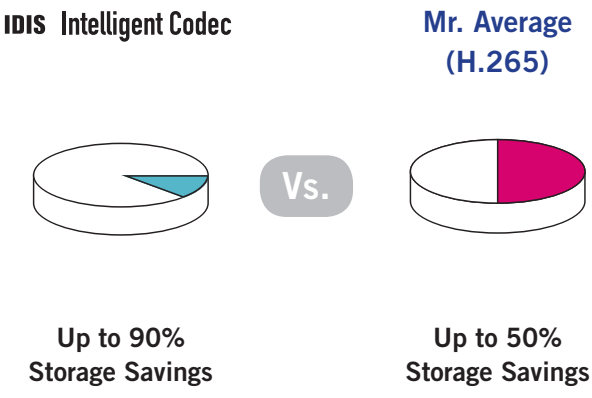
Enterprise-level Surveillance on an NVR Platform



IDIS presents a new alternative to enterprise-level surveillance, which typically requires high-cost server devices and professional management. The IDIS high performance 64 channel real-time recording NVR, the DR-8364, offers users a cost effective convenient experience.

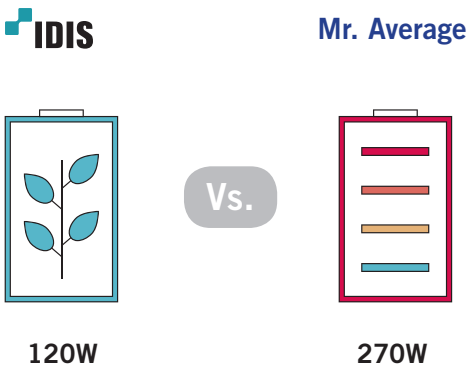
Max 90% Storage Saving with IDIS Intelligent Codec with M.A.T

Advancement on H.265 that optimizes focus points and delivers savings of up to 90% on bandwidth and storage with M.A.T compared to H.264.



120W low Power Consumption

Through industry-leading ultra-low power management, it reduces power supply cost which is one of the main burdens of recorders.



Now and the Future

Scale Up with IDIS Solution Suite

The scale of IDIS Solution Suite is not measurable because any number of services can be coupled to one solution. It means any enterprise-level solution can be covered with IDIS Solution Suite.

IDIS SOLUTION SUITE

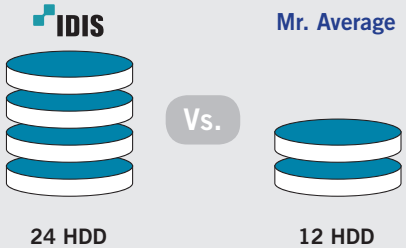
Highly scalable and fully integrated network video surveillance solution.

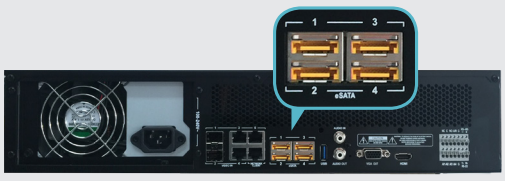
IDIS Solution Suite is suitable for both large enterprise customers as well as smaller surveillance operations for home-security and small business. IDIS Solution Suite Compact provides an intuitive GUI for the installers unfamiliar with IT networks and the powerful recording features are available without license fees.

Up to 12MP Camera

The DR-8364 supports up to 12MP Cameras, so that they can cover areas where high resolution is required, such as spacious lobbies or outside
Of a building. Best in class bandwidth offered by the DR-8364 saves massive data transferred from ultra-high resolution cameras in a reliable way.

Unparalleled Storage Capacity (Max 24 HDD Expansion)





Which is designed to detach external HDDs by opening the front, supports eight HDD drive bays ports and additionally it can be extended up to 24 HDD by adding four e-SATA.

DirectIP™ 64 Channel Full HD Real-time Recorder

DR-8364(D)

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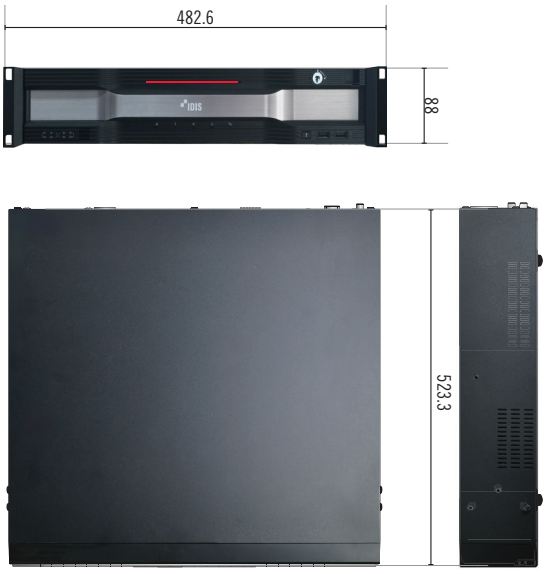
  - Native RAID 1/5/10 support with Front loading HDDs
- **Redundancies**
  - Power redundancy with DR-8364D
  - Storage redundancy with internal RAID1/5/10
  - Recording redundancy with Smart Failover
- **UHD/4K and H.265 Support**
- **IDIS Intelligent Codec**
  - Up to 90% storage saving via IDIS Intelligent Codec with M.A.T

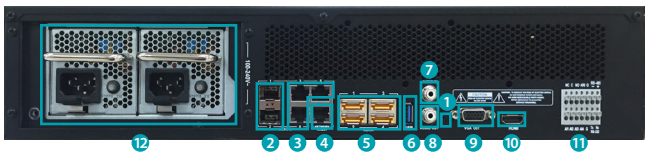
SPECIFICATIONS

VIDEO	
Video Inputs	64 IP Channels
Max. Incoming Throughput	900Mbps
Supported Camera	DirectIP, Axis, Panasonic, ONVIF
Video Outputs	1 HDMI, 1 VGA
Display Resolution	3840 x 2160, 1920 x 1200, 1920 x 1080, 1680 x 1050, 1600 x 1200
Display Speed	Up to 1920ips
Digital Zoom	x2 ~ x12
RECORDING	
Max. Throughput	400Mbps, 1920ips @ Full HD
Recording Resolution	Up to 8MP (Depending on IP Camera)
Compression	H.264, H.265
Recording Mode	Time-lapse, Event, Pre-event, Panic
Trigger Events	Alarm In, Audio Detection, Motion Detection, Trip Zone, Tampering, Video Loss
PLAYBACK	
Performance	16ch Full HD Synchronous Playback, 4ch 4K Playback
Search Mode	Time-lapse, Event Log, Thumbnail, Motion, Text-in
Digital Zoom	x2 ~ x12
STORAGE	
HDD	SATA x 8, eSATA x 4 (Up to 6TB Capacity for Each Disk), RAID 1, 5, 10 Supported
Total Capacity	144TB = 6TB x (8 (Internal) + 4 x 4 (External))
NETWORK	
Client Connection	Gigabit Ethernet (Client) x 1
Video In Connection	Gigabit Ethernet (Video In) x 3, SFP (Video In) x 2
Transmission Speed	400Mbps / 500Mbps (BRP Mode)
Camera Power	-
Remote Data Export	IDIS Player, AVI, JPG
Event Notification	Email (Attach Clip (.cbf) .MP4), Callback to Remote S/W, Push Notification (IDIS Mobile), SNS (Twitter)
Two-way Audio	Yes
Client Viewer	IDIS Center, IDIS Mobile, IDIS Web, IDIS Solution Suite
INTERFACE	
Audio In / Out	Local (NVR) : 1 RCA / 1 RCA + 1 HDMI IP Camera : 64 / 64 (Depending on IP Camera)
Alarm In / Out	Local (NVR) : 4 / 1 IP Camera : 64 / 64 (Depending on IP Camera)
Alarm Reset In	1
Serial Interface	RS232 (Terminal Block), RS485 (Terminal Block)
USB	USB 2.0 x 2, USB 3.0 x 1
User Interface	Mouse, IR Remote Control, Network Remote Keyboard
GENERAL	
Operating System	Embedded Linux
Unit Dimensions (W x H x D)	482.6mm x 88mm x 523.3mm (19" x 3.5" x 20.6")
Unit Weight	9.9kg (21.8lb) (Without HDD)
Working Temperature	0°C to 40°C (32°F ~ 104°F)
Operating Humidity	0% ~ 90%
Power Input	AC 100-240 V, 50/60Hz, 2.0 - 1.0A
Power Consumption	120W (With 8 HDDs)
Approvals	FCC, UL, CE, CB, KC

DIMENSIONS

(Unit - mm)





1. Factory Reset Button
2. Video In SFP Slots
3. Video In RJ45
4. Network Port
5. eSATA Ports
6. USB 3.0
7. Audio In
8. Audio Out
9. VGA Out Port
10. HDMI
11. Alarm Connection Ports
12. Power In Port

ACCESSORIES (OPTIONAL)

DH-2212PF

DA-ES1104

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