

## DS-A81 Series Hybrid SAN

### Introduction

The DS-A81 series is an economical controller-structure Hybrid SAN (Storage Area Network) product. Hikvision Hybrid SAN product creates a network with access to data storage servers, and it integrates Hikvision's unique video direct streaming technology as well as supports IPSAN. This flexible, cost-effective solution features ONVIF-support to third-party cameras such as BOSCH, AXIS, SONY, Samsung etc, support for RTSP, and SIP protocols, and extended data retention. With no recording server needed, Hikvision's Hybrid SAN systems truly make applications simple, flexible, and budget-friendly.



### Features

#### Economical and Stable Hardware Platform

- Modular and no-cable design and SBB 2.0 structure.
- 64-bit multi-core processor.
- 4 GB high-speed cache.
- Four 1000M network interfaces.
- 12G SAS high-speed transmission channel.
- Redundant design for key modules.

#### HDD Detection and Repair/RAID Optimization

- Detection before operation.
- Detection in operation.
- Fault reparation.
- RAID 0, 1, 3, 5, 6, 10, 50, and VRAID.
- Global and local hot spare.
- Quick RAID building.
- Capability of cascading up to two storage enclosures behind a single SAS port.

#### Advanced Data Protection

- Synchronous backup of key information in system disk and HDD.
- RAID-based tamper-proof data technology.
- Auto data synchronization between devices.

#### Energy Efficient

- CPU load balance
- Auto fan tuning
- HDD sleeping

#### User-Friendly UI

- Quick configuration.
- Various alarm management.
- SADP protocol supported.
- SNMP supported.

#### Surveillance-Specialized Stream Media Direct Storage (Direct Streaming Mode)

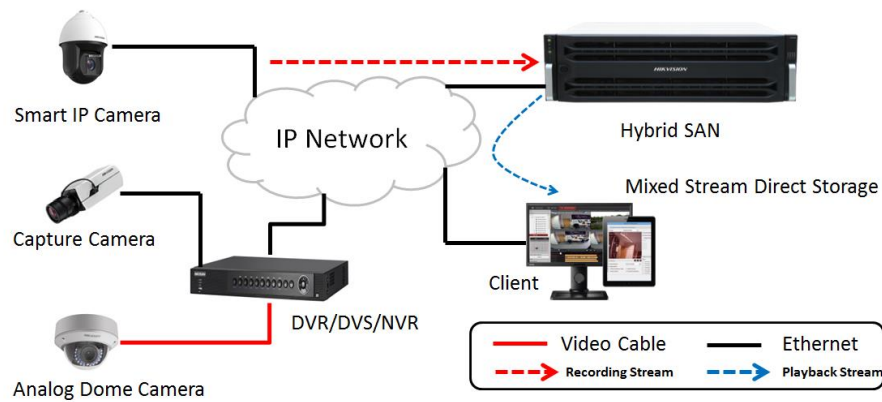
- Space pre-allocation strategy.
- Direct storage for video and picture streams.
- Supports direct IP camera/DVR/NVR streaming and recording.
- Support H264,H264+,H265,H265+.
- Support N+1.
- Supports camera access through RTSP, ONVIF, and PSIA protocol.
- Supports alarm/scheduled/manual recording.
- Automatic network replenishment (ANR), timely uploading, and video loss alarm.
- Lock key videos.
- VRAID data protection.
- Supports both Direct Streaming Mode and IPSAN Mode.
- Search, play, and download videos by video type or video time.



## Specification

Model		DS-A81016S
Performance	Direct Streaming Mode: video (2 Mbps) + picture	320-ch recording + playback
	IPSAN	180-ch recording + playback
Controller	Processor	One controller (64-bit multi-core processor)
	Cache	4 GB (extendable to 32 GB)
HDD	HDD slot	16
	Interface/capacity	SATA/1TB, 2TB, 3TB, 4TB, 6TB,8TB
	Hot-swapping	Supported
	HDD support	Single, RAID(Enterprise Hard Disk)
	RAID	RAID0, 1, 3, 5, 6, 10, 50, VRAID, JBOD, Hot-spare
Storage Management	Disk management	Disk inspection, alarm and repair
	Logical volume management	iSCSI volume, video volume management
Recording Management	Recording mode	Timing recording, manual recording, dual-stream recording, alarm recording
	Video protection	Lock key video, N+1 service protection, ANR, video loss detection and alarm
	Searching mode	Search by time and event
	Downloading mode	Quick download, batch download, download by segment, download by merging
Device Maintenance	Management mode	Web-based GUI, serial port CLI, centralized management of multiple devices
	Alarm mode	Sound, light, email, message, web page
	Log downloading	Download no web page
Network	Protocol	iSCSI, RTSP, ONVIF, PSIA
Interfaces	Data network interface	3, 1000M Ethernet interface
	Management network interface	1, 1000M Ethernet interface
	MiniSAS interface	Supported
	COM	1
	USB 3.0	2
	Alarm interface	1
	HDMI	2
General	Power supply	Redundant
	Consumption (with HDDs)	<ul style="list-style-type: none"> <li>● Working: ≤308 W (967 BTU with 16 HDDs)</li> <li>Rated: ≤ 550 W</li> </ul>
	Environment temperature	<ul style="list-style-type: none"> <li>● Working: +5 °C to +40 °C (41 °F to 104 °F)</li> <li>Storing: -20 °C to +70 °C (-4 °F to +158 °F)</li> </ul>
	Environment humidity	<ul style="list-style-type: none"> <li>● Working: 20% to 80%RH (non-condensing/frozen)</li> <li>● Storing: 5% to 90%RH (non-condensing/frozen)</li> </ul>
	Chassis	3U (19-inch height)
	Dimensions (W × H × D)	440 x 132 x 495 mm (17.3 x 5.2 x 19.5 in)
	Weight (without HDDs)	≤ 20 Kg (44.1 lb)

## Typical Application



## Available Models

DS-A81016S

## Available HDDs

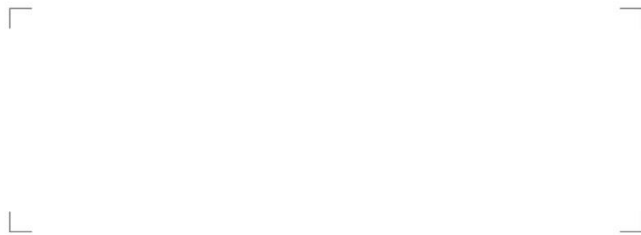
Hikvision Tested and recommended HDDs

Seagate **MAKARA Series** (eg. ST8000NM0055) / Seagate **MakaraBP Series** (eg. ST6000NM0115) / **WD RE series** (eg. WD8002FRYZ-31) /

**HGST 7k6000 series** (eg. HUH728080ALE600)

**Note:** Enterprise HDD strong recommended when used in RAID mode and ISCSI application due to more stability design features; if Surveillance HDD need to be Used, please consult with Hikvision Sales.

Distributed by



## HIKVISION®

### Headquarters

No.555 Qianmo Road, Binjiang District,  
Hangzhou 310051, China  
T +86-571-8807-5998  
overseasbusiness@hikvision.com

**Hikvision USA**  
T +1-909-895-0400  
sales.usa@hikvision.com

**Hikvision Europe**  
T +31-23-55-42-770  
info.eu@hikvision.com

**Hikvision Middle East**  
T +971-4-8816086  
salesme@hikvision.com

**Hikvision Russia**  
T +7-495-669-67-99  
saleru@hikvision.com

**Hikvision India**  
T +91-22-28469900  
sales@pramahikvision.com

**Hikvision Italy**  
T +39-0438-6902  
info.it@hikvision.com

**Hikvision France**  
T +33(0)1-85-330-450  
info.fr@hikvision.com

**Hikvision Spain**  
T +34-91-737-16-55  
info.es@hikvision.com

**Hikvision Poland**  
T +48-22-460-01-50  
poland@hikvision.com

**Hikvision UK**  
T +01628-902140  
support.uk@hikvision.com

**Hikvision Singapore**  
T +65-6684-4718  
sg@hikvision.com

**Hikvision Oceania**  
T +61-2-8599-4233  
salesau@hikvision.com

**Hikvision Canada**  
T +1-909-895-0400  
sales.usa@hikvision.com

**Hikvision Korea**  
T +82-31-731-8841  
sales.korea@hikvision.com

**Hikvision Brazil**  
T +55 11 3318-0050  
Latam.support@hikvision.com

**Hikvision Africa**  
T +27 (0) 0351172  
sale.africa@hikvision.com

**Hikvision Hong Kong**  
T +852-2151-1761