

## DS-A830XXS-ICVS/PAK Series ICVS



### Introduction

The DS-A830XXS-ICVS series ICVS is Hikvision high-end storage product. The controller architecture and no-cable design guarantee system stability. The hardware platform adopts PCI-E 3.0 bus and SAS 3.0 high-speed I/O channel technology to lay a solid foundation for the system performance. One cluster system support 300 storage devices and totally capacity can be scalable up-to 300 PB . Support fully symmetric or asymmetric and fully distributed clustered architecture, the storage have fully journaled. The product makes use of ultra-fault-tolerant network RAID technology which is based on Eraser Code. It is not only provided with multi-HDD/multi-device fault-tolerant mechanism of the traditional network RAID, but also can continue data reading and writing service when the fault HDD/device number exceeds the redundant amounts. It provides data storage service with high reliability, high stability, and high performance, widely applicable to video security industry.

### Available Model

DS-A83024S-ICVS, DS-A83048S-ICVS

### Features

#### Hardware Platform of New Generation

- PCI-E 3.0 bus.
- 12 Gb SAS 3.0 high-speed I/O channel.
- Brand new controller design.
- Redundant design for key components.

#### System Configuration of High Performance

- Modular and no-cable design.
- Single controller with two 4410 Xeon 10-core processors.
- 64 GB cache.
- 6 Gigabit network interfaces.

#### Ultra-Fault-Tolerant Network RAID

- N + M: K redundant mechanism, protection level which can protect data against simultaneous 2 disks failures or 4 storage device failure.
- When there are K fault devices, data will not lose, and the business will not be interrupted, it able to assign protection level on cluster.
- When the fault device number exceeds K, the business will not be interrupted.
- Support video lock for data protection.

#### SAS Exchange Architecture of High Availability

- When SAS is exchanging, if the controller software fails, it will not affect the HDD capacity of the current node and normal use of data.

#### Stream Data Management Structure of High Performance

- Based on the bottom layer management structure of the stream media, it can solve the problem that the damaged file system will lead to file unreadability or loss. The cyclic covering writing will not produce file fragments.
- When capacity expansion via the storage device, performance will be expand at the same time.
- The cluster system support load balance between nodes to avoid any performance hotspot.

#### Direct Storage of Mixed Stream

- Supports mixed storage of video stream and picture stream.
- Supports camera access through RTSP, ONVIF, PSIA protocol, etc.
- Supports remote backup, local backup.

#### User-Friendly Operation and Maintenance

- Centralized operation and maintenance, realizing centralized management of multi-devices.
- Supports changing disk/device in batch.
- Supports abundant alarm management methods, including alarm via indicators, mobile phone messages, emails, etc. to raise device maintenance efficiency.

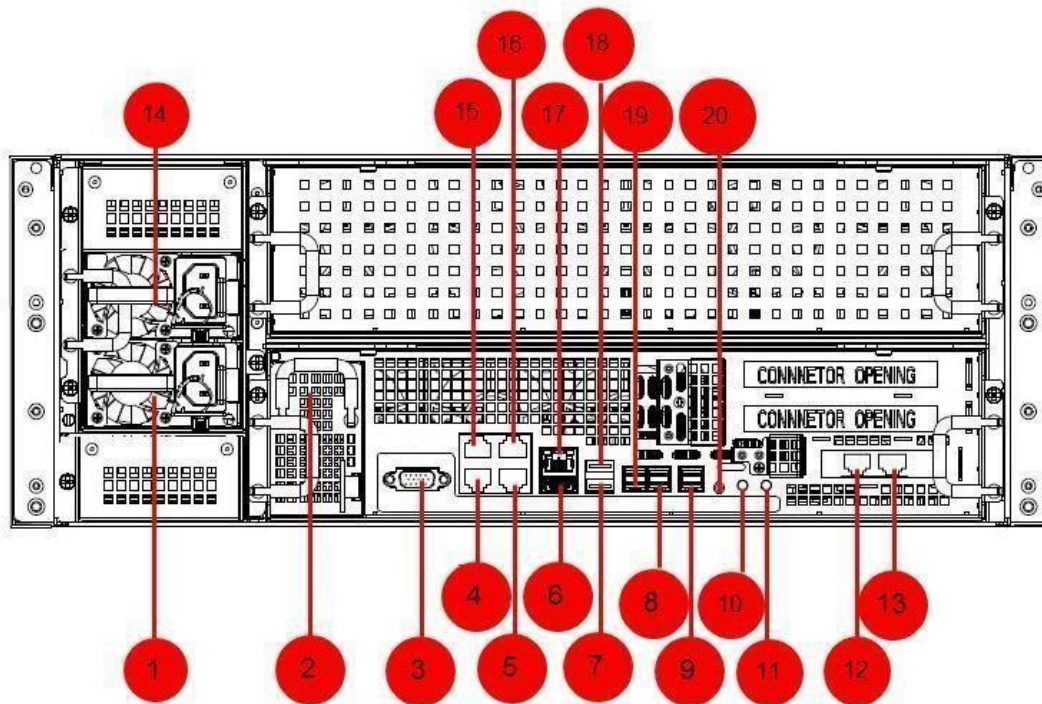


## Specification

Model		DS-A83024S-ICVS	DS-A83048S-ICVS
<b>Performance</b>	Standard cluster (2 Mbps)	600-ch	
<b>Controller</b>	Processor	2 Xeon 4410T 10-cores 20 threads 2.7GHz	
	Cache	64 GB DDR4 standard, extendable to 384 GB	
<b>HDD</b>	HDD slot	24	48
	Interface	SSD/SAS/SATA	
	Capacity	1 TB/2 TB/3 TB/4 TB/6 TB/8 TB/10 TB/12 TB/14 TB/16TB (enterprise HDD)	
	Hot-swapping	Supported	
	RAID	Network RAID: N + M: K, N + M ≤ 16, M ≥ K, N ∈ [1, 15], M ∈ [1, 4], K ∈ [1, 4]	
<b>Storage Management</b>	System	CentOS	
	Disk management	Disk detection pre-alarm and repair	
	Cache protection	Supports customizing BBU in case of unexpected power failure to protect the cache data from being lost.	
<b>Device Maintenance and Management</b>	Management method	GUI based on web, serial port CLI, management based on platform	
	Alarm method	Audio, indicator, GUI	
<b>Interfaces</b>	Data network interface	6, 1000M Ethernet interface (8 × GbE or 4 × 10GbE is extendable)	
	Management network interface	1, 1000M Ethernet interface	
	SAS extension interface	3, 12 Gbps SAS 3.0	
	COM	2: 1 for RS-232, 1 for RS-485	
	USB	3 (2 × USB 3.0, 1 × USB 2.0)	
<b>General</b>	Power supply (rated)	Redundant 1 + 1, ≤ 550 W	Redundant 2 + 1, ≤ 1600 W
	Consumption (with HDDs)	≤ 484 W	≤ 763 W
	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>	
	Dimension (W × H × D)	484 x 174 x 760 mm (19.1 x 6.9 x 29.9 inch)	487 x 345 x 751 mm (19.2 x 13.6 x 29.6 inch)
Weight (without HDDs)	≤ 43 kg (94.8 lb)	≤ 93 kg (205 lb)	

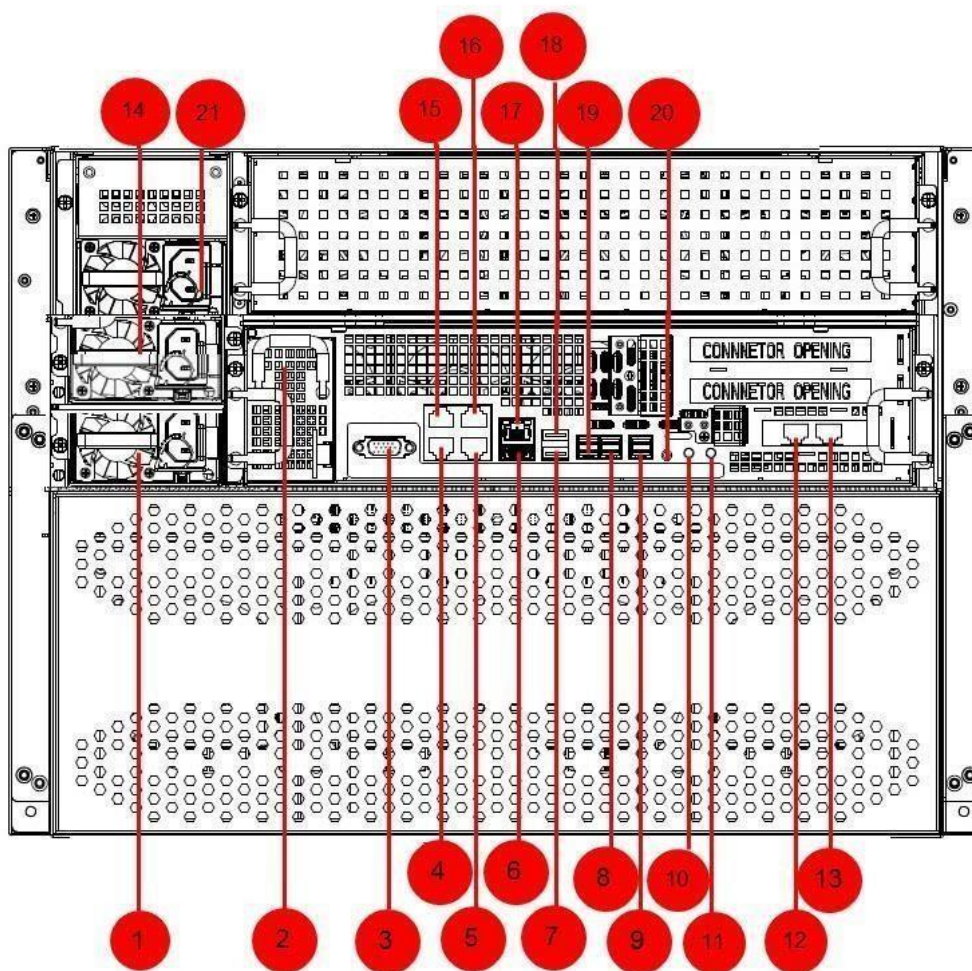
## Physical Interface

### DS-A83024S-ICVS



No.	Name	No.	Name
1	Power module 1	11	Power switch
2	BBU (optional)	12	LAN 5
3	RS-232 interface	13	LAN 6
4	LAN 1	14	Power module 2
5	LAN 2	15	LAN 3
6	USB interface 1	16	LAN 4
7	USB interface 2	17	Management LAN
8	SAS interface 2	18	USB interface 3
9	SAS interface 3	19	SAS interface 1
10	FN button	20	COM

## DS-A83048S-ICVS



No.	Name	No.	Name
1	Power module 1	12	LAN 5
2	BBU (optional)	13	LAN 6
3	RS-232 interface	14	Power module 2
4	LAN 1	15	LAN 3
5	LAN 2	16	LAN 4
6	USB interface 1	17	Management LAN
7	USB interface 2	18	USB interface 3
8	SAS interface 2	19	SAS interface 1
9	SAS interface 3	20	COM
10	FN button	21	Power module 3
11	Power switch		

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