

DS-A810XXS-ICVS Series ICVS



Introduction

The DS-A810XXS-ICVS series ICVS is Hikvision high-end storage product. The controller architecture and no-cable design guarantee system stability. The high-end hardware design adopts one 64-bit multi-core processor for each controller, realizing high-speed cache. 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. 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 surveillance industry.

Available Model

DS-A81024S-ICVS, DS-A81048S-ICVS

Key Feature

Hardware Platform of New Generation

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

System Configuration of High Performance

- Modular and no-cable design.
- Single controller with one 64-bit multi-core processor.
- 16/24/32 GB cache.
- 6 Gigabit network interfaces.

Ultra-Fault-Tolerant Network RAID

- N + M: K redundant mechanism. ($N \in [1, 15]$, $M \in [1, 4]$, $K \in [1, 4]$)
- When there are K fault devices, data will not lose, and the business will not be interrupted.
- When the fault device number exceeds K, the business will not be interrupted.

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.

Direct Storage of Mixed Stream

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

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-A81024S-ICVS	DS-A81048S-ICVS	
Performance	Standard cluster (2 Mbps)	260-ch	300-ch	
	Standard cluster (4 Mbps)	140-ch	160-ch	
	Micro cluster (2 Mbps)	180-ch	220-ch	
	Micro cluster (4 Mbps)	100-ch	120-ch	
Controller	Processor	64-bit multi-core processors		
	Cache	16 GB	32 GB	
HDD	HDD slot	24	48	
	Interface	SAS/SATA		
	Capacity	1 TB/2 TB/3 TB/4 TB/6 TB/8 TB/10 TB/12 TB		
	Hot-swapping	Supported		
	RAID	IRAITD: N + M: K, N + M ≤ 16, M ≥ K, N ∈ [1, 15], M ∈ [1, 4], K ∈ [1, 4]		
Storage	Disk	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.		
Recording	CVA	Device access, recording schedule, and stream forwarding services		
	CVS	Data storage, video/picture access, storage space, and data R/W services		
Maintenance and Management	Management method	GUI based on web, serial port CLI, platform		
	Alarm method	Audio, indicator, GUI		
Network	Protocol	RTSP, ONVIF, PSIA, etc.		
Interfaces	Data network interface	4, 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 interface		
	COM interface	2 (1 for RS-232, 1 for RS-485)		
	USB interface	3 (2 × USB 3.0, 1 × USB 2.0)		
	VGA interface	1		
General	Power supply (rated)	Redundant 1 + 1, ≤ 550 W	Redundant 2 + 1, ≤ 800 W	
	Consumption (with HDDs)	Approx. 420 W	Approx. 710 W	
	Environment temperature	<ul style="list-style-type: none"> ● Working: +5 °C to +35 °C (+41 °F to +95 °F) ● Storage: -20 °C to +70 °C (-4 °F to +158 °F) 		
	Environment humidity	<ul style="list-style-type: none"> ● Working: 20% to 80%RH (non-condensing/frozen) ● Storage: 5% to 90%RH (non-condensing/frozen) 		
	Dimension (W × H × D)	490 x 180 x 760 mm (19.3 x 7.1 x 29.9 in)	486 x 344 x 750 mm (19.1 x 13.5 x 29.5 in)	
	Weight (without HDDs)	≤ 43 kg (90.4 lb)	≤ 70 kg (154.3 lb)	

Physical Interface

DS-A81024S-ICVS

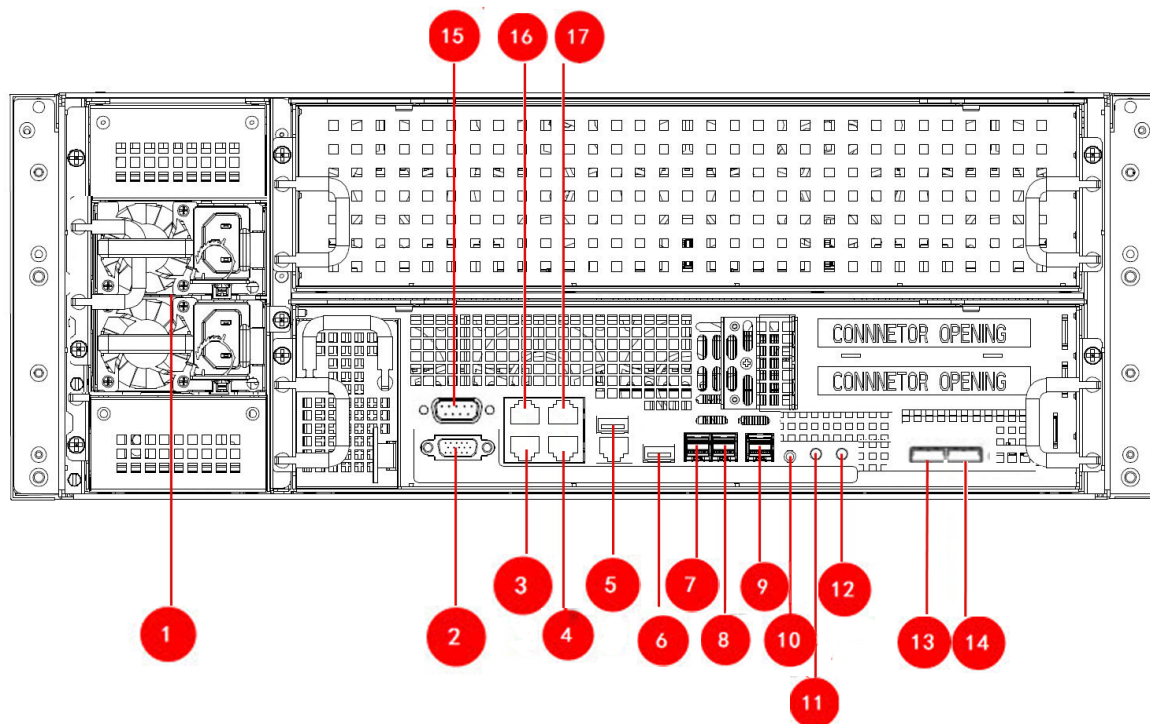


Figure 1-1 Rear Panel

Table 1-1 Rear Panel Description

No.	Name	No.	Name
1	Power module	10	COM
2	RS-232 interface	11	FN button
3	LAN 1	12	Power switch
4	LAN 2	13	Fiber interface 1
5	Management LAN and USB interface	14	Fiber interface 1
6	USB interface	15	VGA interface
7	SAS interface 1	16	LAN 3
8	SAS interface 2	17	LAN 4
9	SAS interface 3		

DS-A81048S-ICVS

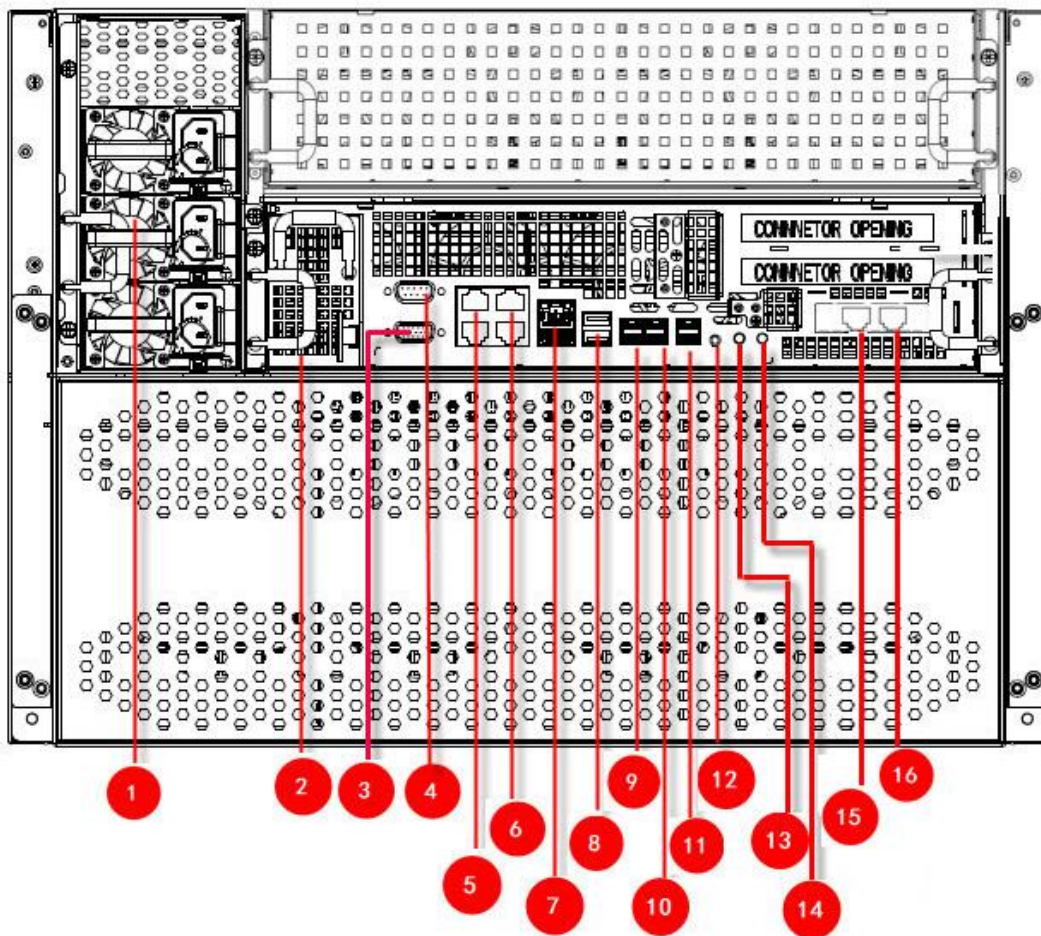


Figure 1-2 Rear Panel

Table 1-2 Rear Panel Description

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

Available HDD

Hikvision Tested and recommended HDDs:

Model	Capacity (TB)
ST12000NM0008	12
ST10000NM0086	10
ST8000NM0055	8
ST6000NM0115	6
ST4000NM0035	4
HUS726T4TALA6L4	4
HUS726T6TALE6L4	6
HKS728T8TALE-31	8
HUS728T8TALE6L4	8
HUH721212ALE-31	12

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