

## 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)	240-ch			
Controller	Processor	64-bit multi-core processor			
	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/14 TB/16 TB/18 TB (enterprise HDD)			
	RAID	IRaid: 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	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 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	● Working: +5 °C to +35 °C (+41 °F to +95 °F) ● Storage: -20 °C to +70 °C (-4 °F to +158 °F)			
	Environment humidity	● Working: 20% to 80%RH (non-condensing/frozen) ● Storage: 5% to 90%RH (non-condensing/frozen)			
	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 (90.4 lb)		≤ 70 kg (154.3 lb)	

## Physical Interface

### DS-A81024S-ICVS

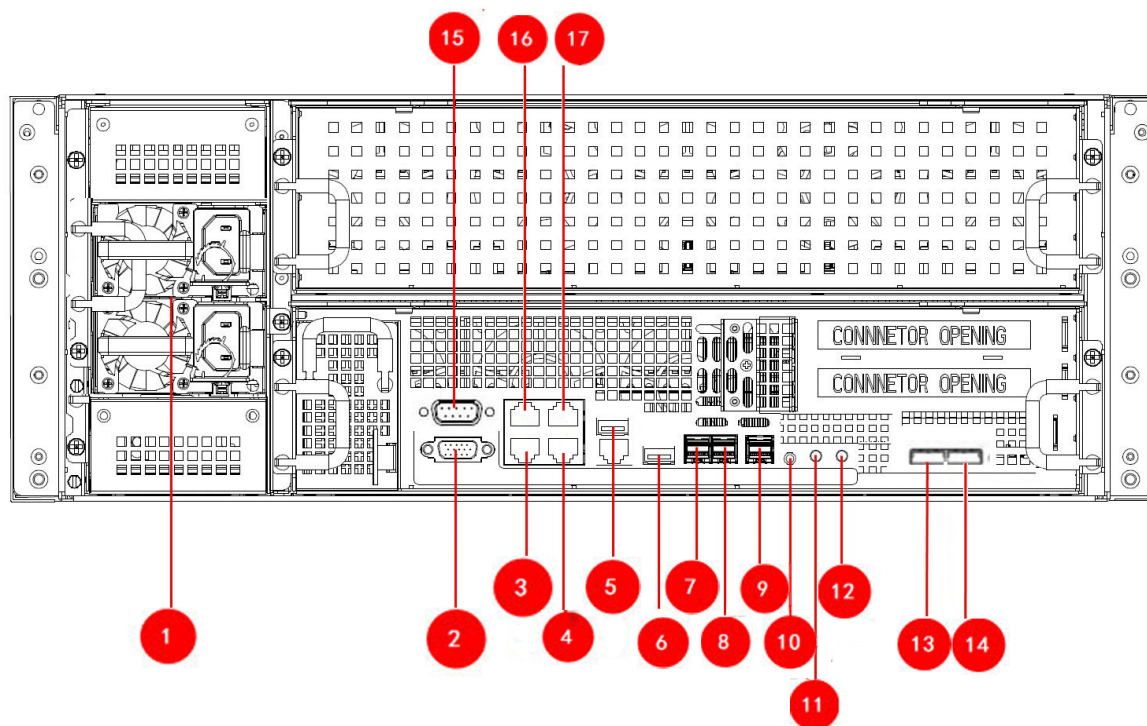


Figure 1-1 Rear Panel

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

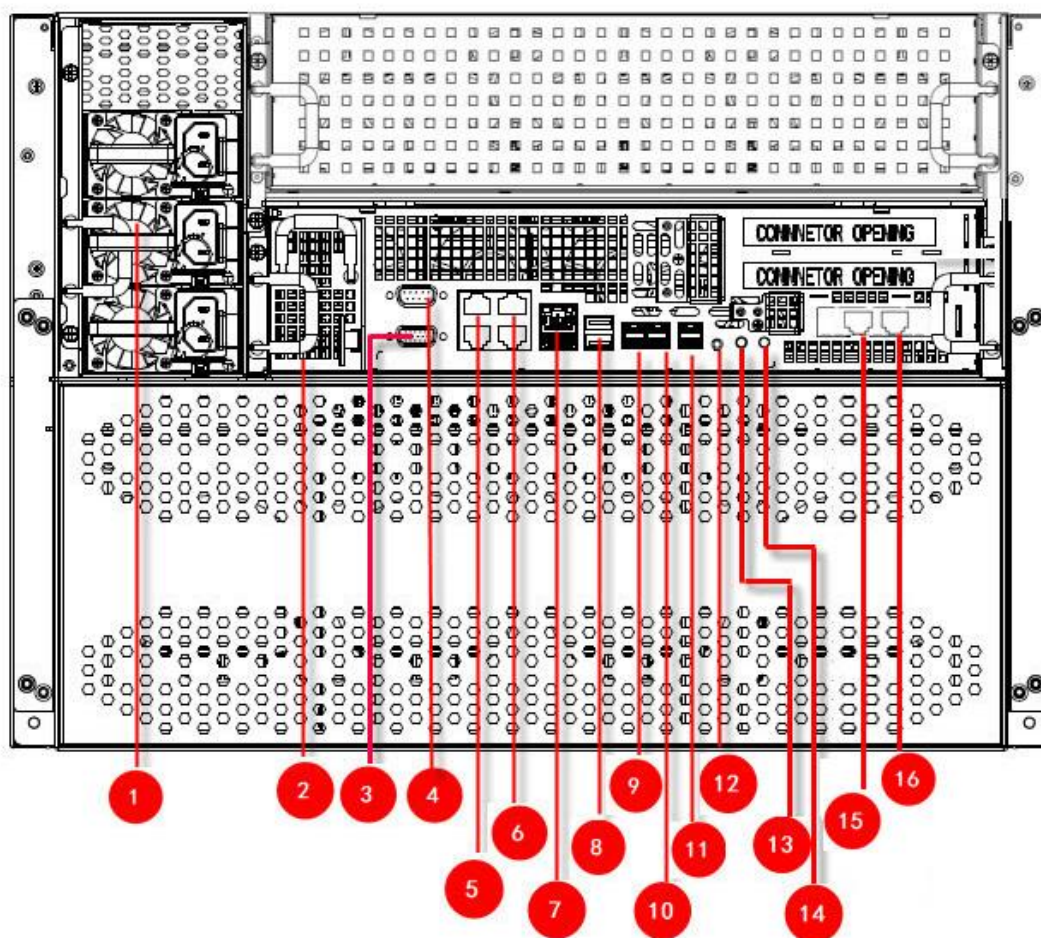


Figure 1-2 Rear Panel

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

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## 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 Australia**  
T +61-2-8599-4233  
salesau@hikvision.com

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

**Hikvision Canada**  
T +1-866-200-6690  
sales.canada@hikvision.com

**Hikvision Thailand**  
T +662-275-9949  
sales.thailand@hikvision.com

**Hikvision Europe**  
T +31-23-5542770  
sales.eu@hikvision.com

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

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

**Hikvision Turkey**  
T +90 (216)521 7070- 7074  
sales.tr@hikvision.com

**Hikvision Malaysia**  
T +601-7652-2413  
sales.my@hikvision.com

**Hikvision UK & Ireland**  
T +01628-902140  
sales.uk@hikvision.com

**Hikvision South Africa**  
Tel: +27 (10) 0351172  
sale.africa@hikvision.com

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

**Hikvision Kazakhstan**  
T +7-727-9730667  
nikia.panfilov@hikvision.ru

**Hikvision Vietnam**  
T +84-974270888  
sales.vt@hikvision.com

**Hikvision UAE**  
T +971-4-4432090  
salesme@hikvision.com

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

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

**Hikvision Tashkent**  
T +99-87-1238-9438  
uzb@hikvision.ru

**Hikvision Hong Kong**  
T +852-2151-1761  
info.hk@hikvision.com

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

**Hikvision Korea**  
T +82-[0]31-731-8817  
sales.korea@hikvision.com

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

**Hikvision Indonesia**  
T +62-21-2933759  
Sales.Indonesia@hikvision.com

**Hikvision Colombia**  
sales.colombia@hikvision.com