Unicorn

Introduction

The Unicorn is a smart integrated surveillance platform with video input, storage, transfer and device management functions designed specifically for digital surveillance applications. Unicorn has adopted audio/video compression and decompression, embedded system, storage, network, and smart technologies and it is suitable for security surveillance in industries such as finance, public security, military, telecom, transportation, energy, and education.

Key Features

Embedded system design to ensure stable operation

Support for redundant power, unique dual-OS design

Hot-swappable HDD supporting RAID1 and RAID5

512Mbps incoming bandwidth, 1000 device connections, up to 2000 channels of high-definition network videos

Adaptive H.265 and H.264

4K resolution for preview, storage and playback

Standard ONVIF

Simultaneous output from 1×VGA and 2×HDMI (4K resolution)

16×SATA interfaces with two optional miniSAS interfaces; expandable to 48 disks with 384T storage

4×1000M Ethernet interfaces, 2×1000M SFP interfaces

Network fault tolerance, multi-IP configuration

Unified management of NVR, IPC, decoder, alarm host, access control host devices; support device configuration import/export

Live view, playback, and sequence on video wall

Two-way audio

E-map

Real-time alarm, alarm plan

HTTPS, certificate creation and upload, 802.1x authentication, ARP protection

4×USB3.0

Up to 1000 users

B/S, C/S and mobile app clients

Specifications

Item		Unicorn
Video input		Max. 1000 devices and 2000 channels
Decoding	Video	H.265, H.264
	Decoding capacity	4×4K@30, 16×1080p@30, 36×720p@30, 64×D1
	Resolution	12MP/8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/2CIF/CIF/QCIF
	Display on video wall	HDMI(×2) and VGA(×1) output; HDMI output supports 4K resolution
	Audio	G.711
Network bandwidth		512M incoming bandwidth, 384M forwarding bandwidth, and 512M storage bandwidth
User management		Max 1000 users, max 300 concurrent online users
Device management		IPC, NVR, encoder, decoder(standard/expanded), network keyboard, cloud devices
Play control		1/4/5/6/8/9/10/13/16/17/25/32/36/64 window display Corridor format Up to 3 auxiliary monitors
Playback		Play NVR recordings Up to 24 channels; synchronous playback up to 16 channels
Video wall		Video wall plan Split screen Up to 9×9 monitors
HDD interface		16×SATA interfaces; total storage capacity expandable to 384T (48 HDD)
External interface	Network	4×10M/100M/1000M Base-T adaptive Ethernet interfaces 2×1000M SFP optical interfaces

	USB	4×USB3.0
	Serial	1×RS-232 (RJ45), 1×RS-485 (RJ45)
	Alarm input/output	24×alarm inputs, 8×alarm outputs
	Power output	12 V DC
	Audio	A pair of RCA audio input/output interfaces
	Audio alarm	Buzzer
	Expansion	1×eSATA interface 2×miniSAS interfaces 2×decoding card interfaces
Others	Power supply	100-240 VAC (with power on/off switch)
	Dual-power redundancy	Support
	Power consumption	≤ 50W (not including HDD) ≤ 165W (including HDD)
	Operating temperature	-10°C to 55°C (14°F to 131°F)
	Operating humidity	10% to 90% (noncondensing)
	Weight	≤ 10.0 Kg
	Dimensions (H×D×W)	Height: 3U, support mounting in standard 19" cabinet 130.5 mm × 477.1 mm × 481.6 mm (5.1"×18.8"×19") (including front panel)

B/S Client Specifications

Function	Description
Basic configuration	
Organization management	Up to 10 levels
User management	Role definition, user definition, user lock/unlock, validity period Max 1000 users; max 3s00 concurrent online users
Device management	IPC, NVR, encoder, decoder(standard/expanded), network keyboard, cloud devices Up to 1000 devices and 2000 channels Standard Onvif-based connection to third-party devices
Service configuration	
Recording schedule	Recording schedule, time template, holiday schedule Up to 8 periods per day
Alarm configuration	Alarm plan, time template, contacts Alarm-triggered actions including recording, email and buzzer
System configuration	
Basic configuration	Basic device information, system time, holiday
HDD configuration	Hard disk management, capacity configuration, storage policy, disk array (RAID1, RAID5)
Network configuration	TCP/IP, EZCloud, DDNS, port, port mapping, email

Security	HTTPS, 802.1x, ARP protection
System maintenance	Restart, restore some or all factory default settings, configuration import/export, local upgrade, diagnostic info export
Operation maintenance and statistics	
Server statistics	S.M.A.R.T test, network status, user status
Device statistics	Device status, channel status, recording status
Log query	Alarm logs, operation logs

C/S Client Specifications

Function	Description
Live View	
Play control	1/4/5/6/8/9/10/13/16/17/25/32/36/64 window display Corridor format Up to 3 auxiliary monitors
View management	Custom views Sequence operation
PTZ control	PTZ control panel (zoom, focus, rotation direction and speed, preset, patrol) Direction control using the mouse button in live view window Note: Actual PTZ control actions may vary with capabilities of NVR, IPC and external PTZ.
Function and feature	Play by saved view, snapshot, digital zoom, recording, instant playback
Recording and playback	
Playback	NVR recording playback Up to 24 channels; synchronous playback up to 16 channels MP4 recording format
Function and feature	Recording schedule, recording search by time/file/event, recording download, snapshot, digital zoom, multiple playback speeds (-16x to 16x), audio.
Alarm management	
Alarm type	Multiple service and device alarm types
Alarm plan	Support
Alarm triggered action	Alarm triggered actions including live view, alarm input/output, and preset Cross-device action triggering
Alarm records	View and acknowledge latest alarms View, acknowledge and search history alarm records
Video wall	
Video wall configuration	Video wall plan Split screen Up to 9×9 monitors
Video on wall	Play live video on video wall (supports sequence operation), recorded video on video wall

	Corridor format
	Preview and playback for decoding channels

Mobile App Specifications

| Function	Description
Device management	
Device management	Up to 2000 channels Add device by P2P or IP address Edit, delete devices Automatic cloud device synchronization when logged into cloud account
Live view	
Play control	1/4/9/16 window display Switch stream type: main, sub and third Drag to switch window Landscape display mode
PTZ control	PTZ control by gestures Focus, zoom, and preset Note: Actual PTZ control actions may vary with capabilities of NVR, IPC and external PTZ.
Playback	
Recording search	Search recording by time period Zoom in/out on timeline by 5, 30 and 60 minutes. Search by dragging timeline
Recording playback	1 channel Digital zoom Snapshot Multiple playback speeds: 1/4x, 1/2x, 1x, 2x, 4x.
Alarm management	
Alarm type	Multiple service and device alarm types
Alarm triggered action	View related live or recorded video Push alarm message in real time
Event management	View, delete events, forward event information via email Batch process events
Cloud account management	
Register/Login	Support account binding with a mobile phone number Allow use without login
Management	Allow the change of password and personal info
Operation environment	

Starlink	DATASHEET

OS	iOS (6.1 or higher)
	Android (3.0 or higher)
RAM	Min. 1 GB
Display resolution	480×800 or higher

Appearance

Dimensions
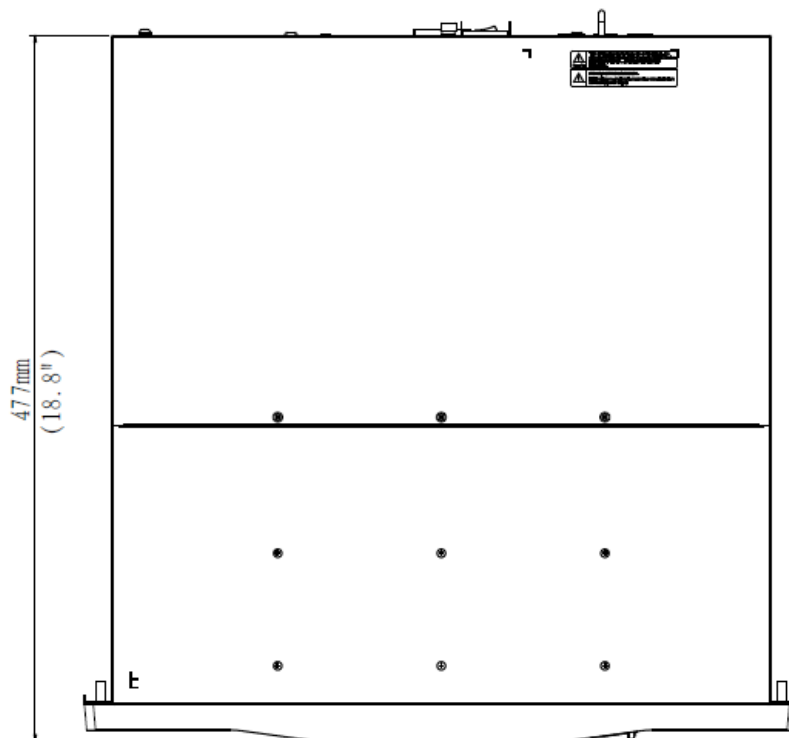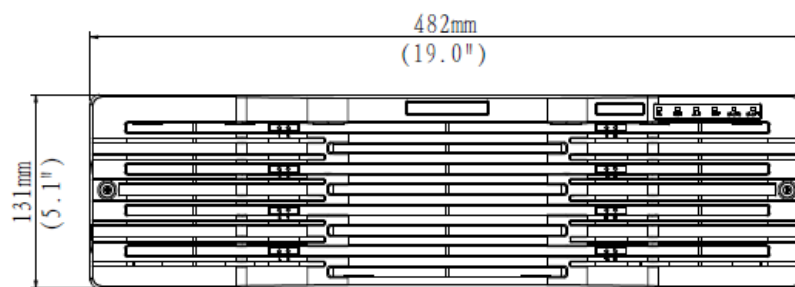
Rear Panel
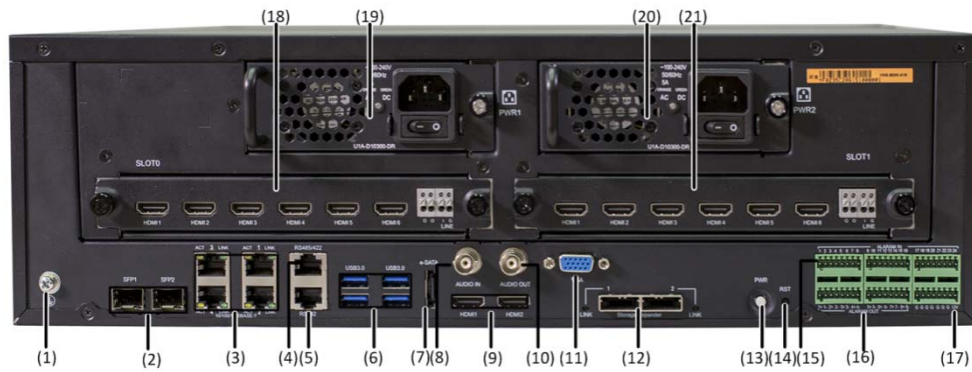
(1) Grounding	(2) 1000M SFP interface	(3) 1000M Ethernet interface
(4) RS-485/422	(5) RS-232	(6) USB3.0
(7) eSATA interface	(8) Audio input	(9) HDMI output
(10) Audio output	(11) VGA output	(12)miniSAS interface
(13) Power button	(14) Reset	(15) Alarm input
(16) Alarm output	(17) 12V power output	(18) Service socket 1
(19) AC power module 1	(20) AC power module 2 (optional)	(21) Service socket 2

Typical Application
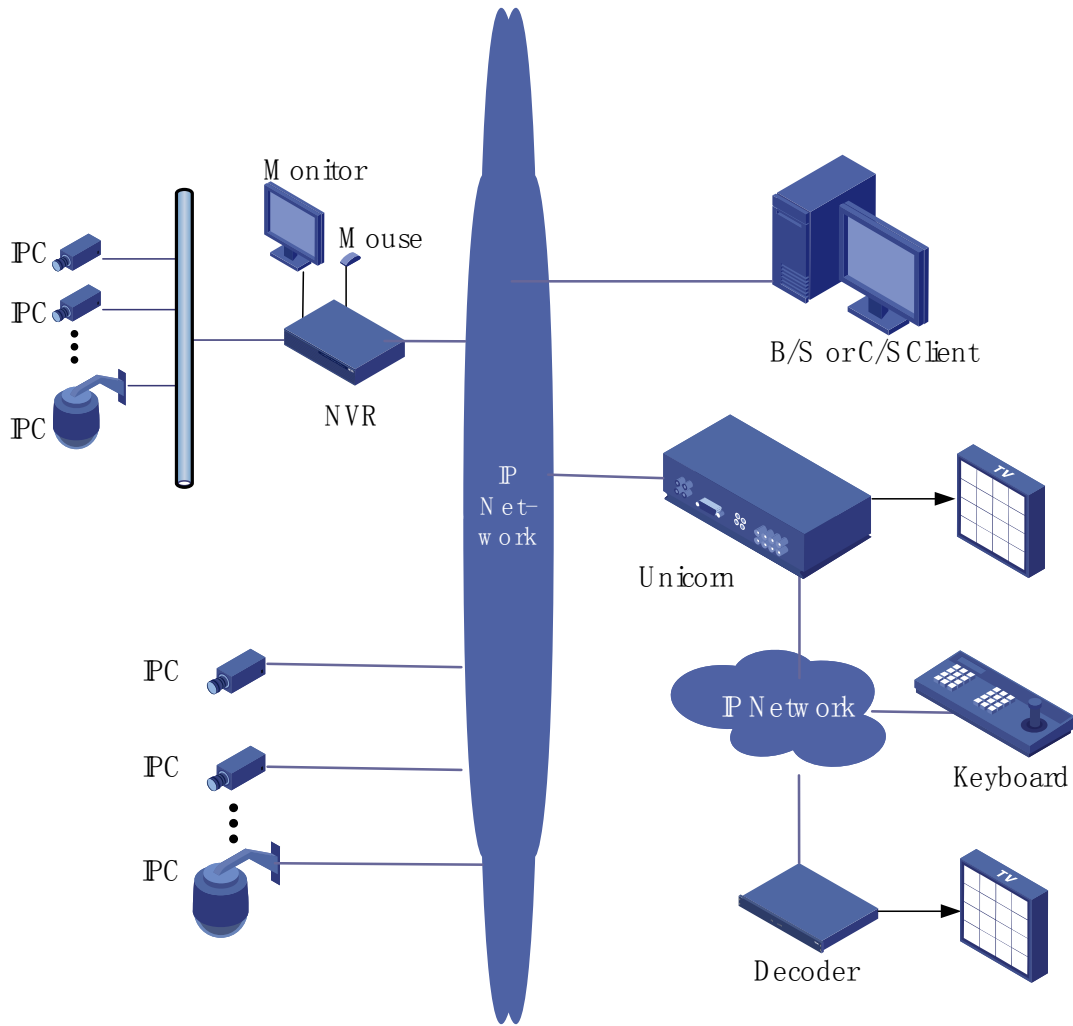
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