DHI-DSS7016DR-S2

A Powerful Surveillance System

Introduction

DSS7016-S2 is a powerful surveillance system preloaded with Linux-optimized DSS Pro software, which has high performance and scalability. It supports up to 2000 network cameras and extend the devices by distribution. And it supports 3.5" chassis with up to 15 hot plug hard drives for center storage which provides a very powerful all-in-one solution for projects.

Features

High Performance

· Supports 3.5" chassis with up to 15 hot plug hard drives and extend the storage via ISCSI

· Supports up to 2000 video channels per server and it can extend the devices by distribution system

High Reliability

· Redundant power option will make the system more stable

· Hot standby application of two servers will keep the system 7*24h stable operation

Main Functions

System

· Supports hot standby for master server

· Supports distributed deployment

· Supports LAN and WAN deployment

1. Web Manager

•Business Configuration

Organization Management

· Through organization to achieve device group management.

Device Management

· Device initialization: Initialize Dahua's device

· Add devices via auto search, IP, IP Segment, auto register(for 3G, 4G, DHCP device).

· Manage Dahua' s devices such as network camera, network speed dome, NVR, DVR, MDVR, etc.

· Modify Dahua device's IP address.

· Modify the added Dahua device's password.

· Bind the associated camera: it's very convenient for alarm config to link the bound cameras, and you can bind POS channel and camera for POS transaction

Role and User Management

· Manage the user's permission via role(device permission, control permissions).

· User can be assigned with the roles to obtain the corresponding permissions.

· User can be restricted by the MAC and expiry data.

· Setting PTZ permission for user.

· User can be locked.

· Supports import domain user and assign roles to the user.

Event Management

· Alarm type: device, video channel, alarm input, IVS alarm, thermal, vehicle blacklist, face arming.

· Alarm Scheme: All day template, Weekday template, Weekend template and custom template.

· Alarm Priority: Low, Medium, High.

· Linkage: record, snapshot, live video, alarm output, PTZ, video wall, E-mail, User.

Storage

· Supports edge storage and central storage.

· Central storage: Extend storage via iSCSI.

· Creates record plan by time template: All day template, Weekday template, Weekend template and custom template.

· Backup the video from the edge storage, like EVS, NVR, DVR and etc. by schedule

· Backup the video from MDVR by WiFi.

· Disk Quota: Group the disk, and cameras can be allocated to different disk groups.

Map

· Google online map, Google offline map, raster map

· Up to 8-level submap.

· Config the hot spots(camera, alarm input, intelligent channel) and sub maps on the map.

Video Wall

· Display/hide the screen ID.

· Supports screens combination.
· Bind the decode channel with the corresponding screen.

Face Database
· Face library management.
· Adding face one by one
· Import faces in batches
· Set person type for face, you can add person type by yourself.
· Send face library to face recognition devices, and config the similarity.

Vehicle Blacklist
· Vehicle Blacklist management
· Vehicle blacklist arming and disarming
· Import and export vehicle blacklist

Video Intercom
· Video intercom between VDP devices based on SIP protocol
· Video intercom between VDP devices with command center
· Releases the text information to VTH
· Address book releases to VTO

•System Maintenance

Backup and Restore
· Automatically backup system database (daily, week, month).
· Manually backup system database.
· Restore system database from server or local file.

System Dashboard
· Overview and detail system information.
· Running Status: CPU, storage, bandwidth.
· Service, device and user online information, device health report.
· Event Information Statistics: total events and processed
· Source Information: Video channel, alarm channel.

Log
· System, admin, client log.
· Search and export log.

Other Functions
· Supports https
· Device time calibration
· Setting log, alarm info, POS data, heatmap storage time

Service Management
· Delete the slave server
· Enable and disable slave server

2. Control Client

Live View
· Displays device tree. Show/hide offline device.
· Displays the device IP address or device name on the device tree
· View real-time video.
· Common layout (1,4,6,8,9,13,16,20,25,36,64) and customized layout.
· PTZ control
· Electric focus
· Manual recording(store on PC or central storage)
· Snapshot
· Instant playback
· Digital zoom
· Fisheye dewarping
· Fisheye and speed dome smart tracking
· Smart tracking for panoramic camera.
· Audio talk
· Set alarm window
· Quickly decode the video to video wall.
· Turn on/off the audio in live view
· Region of interest: Divide one window into 4 or 6 parts, one shows whole image, others show the detail.
· Display map in Live View
· Save the current live view as a view.
· Up to 4 Live View tabs.
· Supports adding channel to favorite
· Video tour by device, Org, Favorite, View.
· Quickly switch to playback.
· Supports NKB1000/NKB5000 to control camera on Live View
· POS transaction overlay
· Set POS overlay style
· Adjust the video image
· Adjust the display mode(full screen and original)

Playback
· Replay from the front-end devices or central storage
· Video filter: normal, motion, alarm
· Sync play
· Reverse playback
· Slow and fast forward (up to 64X and 1/64X)
· Playback frame-by-frame
· Lock or mark the important record for central storage.
· Download the video, supports avi, dav, flv, mp4, asf.
· Decode the video to video wall.
· Fisheye dewarping
· Adjust the video image
· Snapshot
· Quickly switch to live view
· Adjust the display mode(full screen and original)
· Common layout (1,4,6,8,9,13,16,20,25,36) and custom layout
· Supports thumbnail search
· Supports smart search
· Supports search record of POS data

Download Center

· Download record from central storage or device, supports avi, dav, flv, mp4, asf.
· Download record by timeline, files or tags.
· Supports multi-task download.

Event

· Real-time and history alarm info.
· Alarm detail info, like live video, record and pictures from related camera, alarm source location on the map.
· Acknowledge the alarm.
· Arming control for alarm source
· Forwards the alarm to relevant user
· Manually send alarm email to relevant person
· Search alarm by alarm source, alarm time, status, handle user, priority.
· Search alarm events and export the alarm list.

Video Wall

· Decode the real-time video to wall
· Manually/automatically decode to wall.
· Manage the video wall split
· Change the stream type of video channel.
· Adding box, turning on/off screen and getting the video stream to control client
· Tour the video channel in one screen.
· Schedule plan: Setting the running task on timeline.
· Tour plan: looping different tasks, and each task has duration time.
· Supports NKB1000/NKB5000 to control video wall.

Map

· View the live video and playback on the map
· Supports the area or length calculating for GIS map
· Supports visible range and initial angle(only available for part PTZ model).
· Alarm source turns red and flickers on the map when alarm occurs.

Personnel Management

· Add, edit and delete the person and department
· Issue the card, fingerprint via USB reader or devices
· Authorize by door or door group
· Private password and face authentications
· Guest, VIP and normal person management

Access Control

· Door status and door events monitor
· Door group and door level
· Access right management
· One-key to lock/unlock the doors
· Fire linkage
· Advanced door rules, such as anti-passback, first card unlock, inter-door lock, multiple card unlock, remote verification

Video Intercom

· Video intercom between VDP devices based on SIP protocol
· Video intercom between VDP devices with command center
· Releases the text information to VTH
· Address book releases to VTO

Attendance

· Set access control devices as attendance stations
· Attendance time period management
· Attendance shift management and arrangement
· Attendance report management, including attendance record report, abnormality report, card-swiping report.

Flow Analysis

· People counting: Provides daily, weekly, monthly, yearly reports
· Heatmap
· Exports the people counting and heatmap data
· Dwell time reports

Face Recognition

· Automatically captures faces in the camera field of view
· Extracts face attribute information from captured face.
· Real-time face comparison
· Quickly register face to face library
· Searching face via face attribute
· Searching face via uploading a face image
· Searching comparison records.
· Generate the track for the specific face
· Generate daily, weekly, monthly attribute report based on the gender and age

ANPR

· Real-time license plate recognition
· Vehicle passed record
· Generates vehicle trajectory based on license plate and time info.
· Search arming record

Object Detection

· Real-time snapshots captured by the cameras, including information about human, motorized vehicles, and non-motor vehicles
· Extracts attribute information from snapshots
· Searching the targets in the snapshot database quickly by setting up criteria
· Generate daily, weekly, monthly attribute report based on human, motorized vehicles, and non-motor vehicles

Thermal

· Supports plugging in monocular thermal imaging devices and binocular thermal imaging devices

· Supports taking temperature values from video frame points.
· Supports acquiring timed heatmap.
· Supports box selection, circle selection, and linear analysis on heatmap.
· Supports temperature curve analysis on heatmap.
· Supports saving, importing, and re-analyzing heatmap.

Vehicle Entrance

· Edit parking-lot, includes total and available spaces,parking name etc.
· Manage owners, vehicles and cards
· Bind LED screen with ITC or spot detector device
· Open the barriers via VTO with cards or remotely
· Force existing vehicles to leave
· Search and export the historical pass records
· Supports daily, weekly, monthly, and annual statistics of vehicle entrance

IVS Intelligent Function

· Support General IVS Analytics. Including Tripwire, Intrusion, Object Abandoned, Object Missing.

Log

· Door log.
· Search and export log.

Other Functions

· FTP for alarm pictures
· Device time calibration, server time calibration
· GPU decoding
· Connect NKB via USB

3. Mobile Client

History Record

· Show recently viewed channels, you can open live video or playback via history records.
· Up to 20 history records, then replace the oldest operation record.

Live View

· Open more than one channel at same time, up to 16 channels
· Three stream type: HD(high definition), SD(standard definition), FL(Fluency)
· Supports PTZ control
· Supports horizontal screen play
· One-key switch to playback
· Snapshot, local record, audio talk

Playback

· Replay device record and center record
· The calendar shows whether there is a video on that day
· Supports Snapshot
· Manually do local record
· Supports 1X, 2X, 4X, 8X, 1/2X, 1/4X, 1/8X playback

Access

· Display the opening record of a person
· Open door, close door and show bound video

Face Recognition

· Face library search by picture and feature
· Snapshot library search by picture and feature
· Face library management: add, edit, delete

Alarm Centre

· Subscribe the alarm
· Alarm processing
· Alarm video and alarm picture
· Alarm search

Map

· Supports Google map
· Displays the video channel on the map
· View video and do playback.

Favorite

· Add video channel to Favorite
· Preview the video channel in Favorite

Files Management

· View picture and video via local file

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System

Main Processor	Intel i5-6600, 64 bits 4 Core Processor
Operating System	Embedded Linux
Memory	8GB
Motherboard	Embedded Board (support 7×24 operation)
Hard disk hot swap	Hot swap and online replacement
Hard disk compatibility	SAS/SATA disk intermixing to use
Power Supply	Redundant Power Supply

Interface

Number of Network Ports	4 Ethernet Ports (100/1000Mbps)
RS485	Reserved
RS232	Reserved
USB	Front panel: 2× USB 2.0, Rear panel: 2 × USB 3.0
HDMI	3 HDMI
VGA	1 VGA

Storage

HDD Installation	Support 15HDD disks (3.5") for Video or Picture storage (8TB per HDD)
Storage	Up to 200TB per server
HDD Mode	Single, Raid 0/1/5/6/10
Bandwidth of Video Storage per Server	700 Mbps

Other

Power	Maximum power 315W, stable power 210W
Working Environment Temperature	0℃ ~ 40℃
Working Environment Humidity	10% ~ 80% (non-condensation)
Storage Environment Temperature	-20℃ ~ +70℃
Storage Environment Humidity	5% ~ 90% (non-condensation)
Working Altitude	0m ~ 5000m
Weight (Without Package)	19.1 Kg
Dimension	444.8mm×133.2mm×522.2mm
Installation method	Standard 19-inch rack mount
Secondary development	Provide the platform SDK

Performance Specification

Items		DSS7016DR-S2
Org. and User	Organization	10 hierarchies, 999 organizations per hierarchy
	Role(User Permission)	100
	User	200 online users and 2500 users
	User for VDP APP	500 online users and 5000 users
Devices (Single Point Performance)	Video	512 IP and 2000 channels
	Auto-Register	500 IP and 2000 channels
	ONVIF	200 IP and 200 channels
	Access Control	200 IP , 1024 Doors
	VDP Devices	2000 VTH , 200 VTO
	Attendance	200
	Facial Recognition Channels	64
	ANPR Camera	64
	Object Detection	64
	POS	64 (20 POS data per second)
Media Transmission Server	Video Input per Server	700 Mbps
	Video Output per Server	700 Mbps
Record	Maximum Capacity per Storage Server	200TB
	Download Task	UP to 5 per Client
Emap	Hierarchy of Raster Map	8 Hierarchies
	Photos of Raster Map	Up to 64 Photos
	Map size of Raster Map	Up to 14.7MB
	Channel Number	Up to 200
Personnel Management	Persons	30,000
	Cards	30,000
	Fingerprints	90,000

Distribute

Devices	Number of Connected Cameras	6000 IP and 10000 channels
	Auto-Register	1000 IP and 4000 channels
	ONVIF	1000 IP and 4000 channels
	Number of Face recognition camera	/
	ANPR	/
	Object Detection	/
	POS	/
	Access Control	500 IP and 2500 doors
	VDP	5000 VTH , 500 VTO

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Physical Interface

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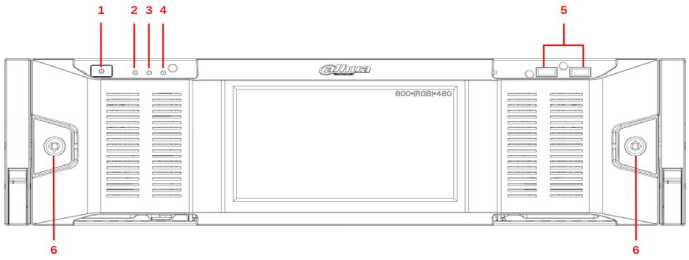
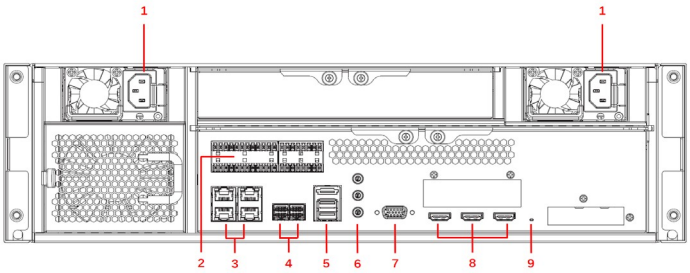
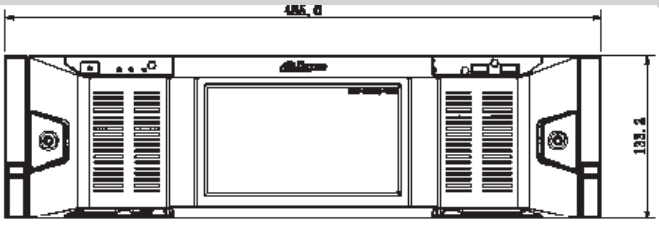
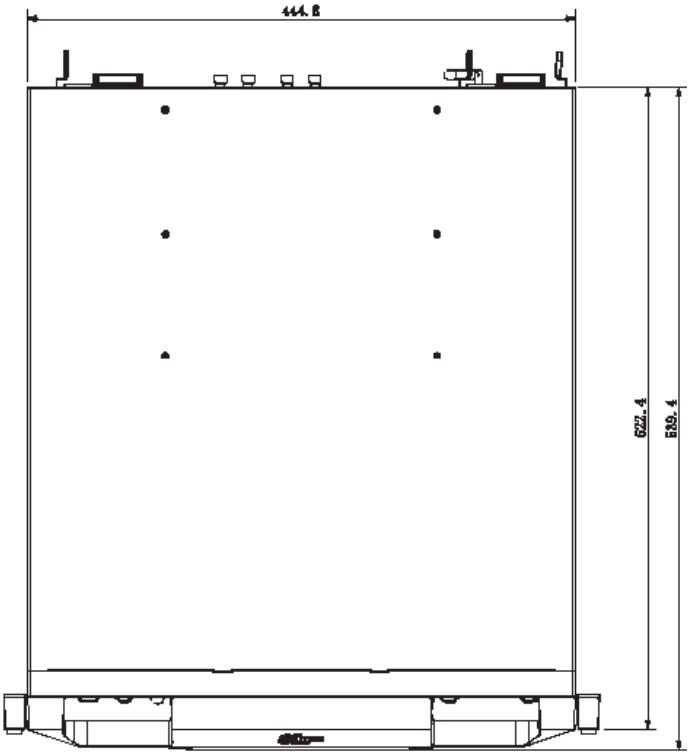


1- Power Button
2- Hard Device Light
3- Alarm Light
4- Network Light
5- USB 2.0
6- Lock



1- Power Interface
2- RS485
3- Giga Lan Port 1~4
4- SAS
5- USB 3.0
6- Audio Input/Output
7- VGA
8- HDMI Port 1~3
9- RESET(Reserve)





Dimensions (mm)