

DHI-DSS4004-S2

An Economical Surveillance System



Introduction

DSS4004-S2 is an economical general surveillance system preloaded with linux-optimized DSS Express, which improves reliability of the whole system. It supports up to 512 network cameras and integrates video, access control, video intercom and AI functions, which provides a cost-effective all-in-one solution.

Features

Cost-effective

- Preloaded with linux-optimized easy-to-use DSS Express, which makes the deployment simplified
- Pre-activated 512 video channels can save the enormous costs of projects

High Reliability

- Hot standby of two servers will keep the system 7*24h stable operation
- Long-term stability test makes the hardware, OS and software more compatible

Main Functions

•General Functions

Organization Management

- Achieve device group management through organization

Device Management

- Device initialization: Initialize Dahua's device
- Add devices via auto search, IP
- Manage Dahua's devices such as network camera, network speed dome, thermal camera, NVR, DVR, access control, etc.

Users & Authorities

- Add, edit and delete the users
- Assign different users with different permissions
- User can be restricted by the MAC and expiry data
- Set user PTZ permissions

Storage

- Central storage: local disk storage and extend storage via iSCSI

- Add, edit, delete, enable and disable the record plan
- Supports edge storage and central storage

Bind Resource

- Bind access control channels with the corresponding cameras

Playback

- Play back the record from the edge devices or central storage
- Video filter: normal, motion, alarm, video loss, tampering video
- Sync play
- Reverse playback
- Playback frame-by-frame
- Support 1X, 2X,4X,8X,16X,32X,64X, 1/2X, 1/4X, 1/8X, 1/16X, 1/32X, 1/64X playback
- Lock or mark the important record for central storage
- Support smart search
- Support searching record of POS data

Emap

- Raster map, main map and submaps
- Up to 8 levels of submap
- Add, edit and delete the hot spots (camera, alarm input) on the map
- View the live video and playback on the map
- Zoom in and zoom out the map
- Support visible range and initial angle
- Icon flashes on map when alarm occurs

Video Wall

- Add and manage the video wall
- Support screen ID on/off
- Support combining screens to one screen
- Bind decoding channel to screen
- Decode the real-time video to wall
- Decode the playback video to the video wall
- Manually/automatically decode to wall
- Control the video wall split
- Change the stream type of video channel
- Add box, screen on/off, and local display on client
- Tour the video channels in a single window
- Schedule plan: Set the running task on timeline
- Tour plan: loop display of different tasks, setting loop time
- Support NKB1000/NKB5000 to control video wall to control video wall

Live View

- Common layout and customized layout
- PTZ control
- Manual recording
- Snapshot
- Fisheye dewrapping
- Audio talk
- Set alarm window

- Turn on/off the audio in live view
- Region of interest: Divide one window into 4 or 6 parts, one for whole image, others for the details
- Save the current split as a view
- Support adding channel to favorite
- Video tour according to device, organization, favorite or view
- View map via live view window

Event Management

- Detect the device exception, video events, alarm input, access control events, etc.
- Alarm scheme: All day template, weekday template, weekend template and custom template
- Alarm priority: low, medium, high
- Linkage: snapshot, record, pop-up live video, alarm output, PTZ, access control, video wall display
- Add, edit, delete, enable and disable alarm scheme
- Display event info including alarm time, alarm name, alarm status, etc.
- View the live video or pictures from related camera
- Acknowledge the events
- Arming control for events
- Forward the alarm to relevant user
- Send email of events
- Handle the events
- Search events

Download Center

- Download record from central storage or device
- Download record by timeline, files or tags
- Supports multi-task download
- Supports dav, MP4, flv, asf, and avi format

•Intelligent Building Functions

Personnel Management

- Add, edit and delete 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 monitoring
- Door group and access level
- Access permission management
- One-key to lock/unlock the doors
- Fire alarm linkage
- Advanced door rules, such as anti-passback, first card unlock, inter-door lock, multiple card unlock, remote verification
- Extract record from device

Video Intercom

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

Attendance

- Set access control devices as attendance stations
- Attendance time period management, including fixed attendance and free attendance

- Attendance shift management and arrangement, including department shift, person shift, temporary shift
- Attendance report management, including attendance record report, abnormality report, card-swiping report, overtime report, away report

Visitor Management

- Visit registration, appointment registration
- Searching visit record and export

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
- Support daily, weekly, monthly, and annual statistics of vehicle entrance

Alarm Controller

- Display all alarm controller devices and subsystems under device
- Arm/Disarm alarm controller
- Arm, disarm, cancel alarm, normal, bypass, isolate in zone or subsystems

•Artificial Intelligence

Face Recognition

- Live face
- Similar face search
- Feature search
- Recognition records
- Structured report of gender and age
- Face library management
- Face trace
- Face alarm and event linkage

ANPR

- Real-time license plate recognition
- Search history license plate recognition result
- Search arming record

Flow Analysis

- Search and export people counting report
- Search and export heatmap report

•System Maintenance

Log

- Operator log in control client
- Door log
- Search and export log

Backup and Restore

- Back up system data automatically (daily, weekly, monthly)
- Back up system data manually
- Restore system data from server or local file

Other Functions

- FTP for alarm pictures
- Device time calibration, server time calibration

Single-Point Performance Specification

System

| | |
|------------------|----------------------------------|
| Main Processor | 64 bit 4 core CPU (CORE-I3-6100) |
| Operating System | Linux |
| Power | Support hot swap |
| Memory | 8GB(1×8GB) |
| Chassis | 1.0mm SGCC steel plate |

Interface

| | |
|------------------|--|
| Network Port | 4 Ethernet Ports (10/100/1000Mbps) |
| RS232 | Reserved |
| RS485 | Reserved |
| USB Port | Front panel: 2 × USB 3.0, Rear panel: 2 × USB 3.0 onboard panel:1 × USB 2.0 |
| HDMI | 2 HDMI, one as network config, another as spare |
| VGA | 1 VGA, as network config |
| HDD Installation | Built-in 1× 1T HDD disk (2.5") for system Support 3HDD disks (2.5") for Video &Picture storage |

Video Management

| Items | | DSS4004-S2 |
|--|-----------------------------|---|
| Client | PC Client | 100 |
| | DSS Mobile 2 | 100 |
| | DSS Mobile for VDP | 5000 |
| Org. and User | Organization | 10 hierarchies, 999 organizations per hierarchy |
| | User Group | 3 Levels |
| | User | 100 online users and unlimited users |
| Devices (Single Point Performance) | Video | 512 Channels |
| | Onvif | 64 IP, 64 Channels |
| | Access Control | 100 IP, 512 Doors |
| | VDP Devices | 1100 Devices (Unit VTO no more than 100) |
| | Facial Recognition Channels | 32 |
| | ANPR Camera | 32 |
| | Alarm Host | 64 |
| | POS Channels | 32 |
| Time Attendance | 64 | |
| Media Transmission Server | Video Input per Server | 350 Mbps |
| | Video Output per Server | 350 Mbps |

| | | |
|-----------------------------|---|--------------------|
| Record | Playback Bandwidth per Server (With Recording) | 150 Mbps |
| | Video Storage Bandwidth per Server | 150 Mbps |
| | Maximum Capacity per Storage Server | 200TB |
| | Download Task | UP to 5 per Client |
| Event | Number of event reception without Pic | 80 per Second |
| | Number of event reception with Pic | 5 per Second |
| 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 |

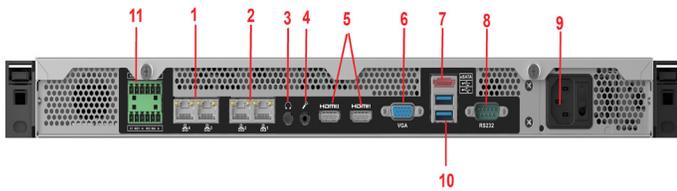
Other

| | |
|---------------------------------|--------------------------------|
| Power | 100V ~ 240V, 47 ~ 63Hz |
| Consumption | 70W ~ 120W (with HDD) |
| Working Environment Temperature | 0 C ~ 45 C |
| Working Environment Humidity | 5%~90% (non-condensation) |
| Storage Environment Temperature | -20 C ~ +70 C |
| Storage Environment Humidity | 5% ~ 90% (non-condensation) |
| Working Altitude | -60m ~ 3000m |
| Weight (Without Package) | 6.0Kg |
| Dimension | 1U, 440mm×398.6mm×43.65 mm |
| Installation Method | Standard 19" rack installation |

Physical Interface



- 1- Power Button
- 2- USB 3.0
- 3- USB 3.0
- 4- HDD Status
- 5- Alarm Indicator
- 6- Network Indicator



- 1- Giga Lan port 3~4
- 2- Giga Lan port 1~2
- 3- Audio output
- 4- Audio input
- 5- HDMI Port1/Port2
- 6- VGA
- 7- ESASA
- 8- RS232
- 9- Port Interface
- 10- USB3.0 Port
- 11- Alarm In&Out

Dimensions (mm)

