

DSS4004-S2

All-in-one Security System for SMB

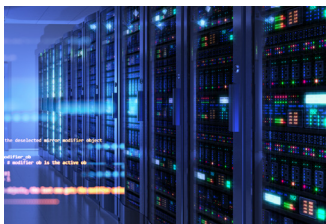


■ Introduction

DSS4004-S2 is a Plug & Play security management platform based on Linux OS and pre-installed DSS software. It provides higher performance in the low-end and mid-end market, offering a reasonably low price for a highly efficient and carefully designed system. In addition, it is easy to be integrated with access control, video intercoms and AI features such as facial recognition, ANPR, and video metadata.

It is suitable for retail stores, vehicle entrance management, and office buildings.

■ Features



Lower investment

- One-time payment for hardware and whole software capacity.
- Lower price per channel.



High Capacity

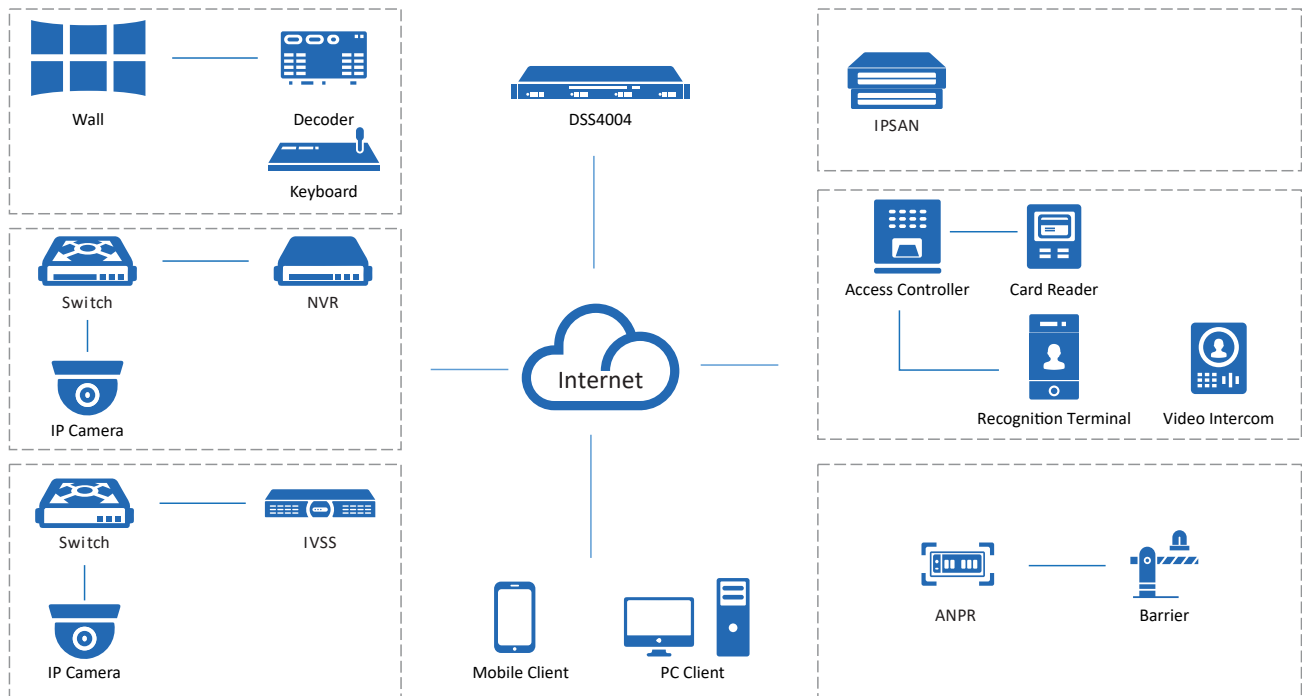
Up to 256 cameras, 64 doors, 1,000 video intercoms and 100 TB storage capacity per server.



Unified Platform

All your needs can be addressed directly in DSS4004-S2 with the comprehensive applications it can provide, including video surveillance, access control, video intercom, face recognition, and ANPR.

■ System Architecture



■ Main Functions

Monitoring Center

◆ Live View

With its easy to use live view, you can both customize and control how you view videos in real time. The layout can also be configured to display videos in different sizes, enabling you to give priority to important areas by placing them in larger windows. You can also remotely control certain devices to perform various actions such as talking to people through the camera, and unlocking the barrier of a turnstile to grant access to people. If an emergency occurs, manual recording is just a click away, so that you can quickly save that particular part of the video for evidence.

◆ Playback

The playback function allows you to play recorded videos stored on the server and devices in multiple windows. To help you efficiently wade through tons of videos, you can play them 64X faster than the normal speed, skipping parts that you are not interested in, or you can slow them down to 1/64X, to focus on important sections. To control the data in the videos, you can add tags to mark relevant content, and you can even lock them to prevent them from being overwritten when the disk space is full. The filter function can also be very helpful when you only need to deal with a specific type of video, or a type of target that appeared in one or more areas.

◆ Video Wall

Video wall is used to display videos on a large screen that consists of many smaller screens. Highly customizable, you can not only configure the layout of the video wall, but you can also display recorded videos and real-time videos to zero in on important details in the video. With the task function, you can schedule videos from different channels to be displayed on the video wall at specified times or in a loop.

◆ *Map*

The map is a very useful function that allows you to keep track of devices and events through their location information. With it, you can mark a device and immediately know the location of an event when the device triggers an alarm and flashes red on the map. You can also add submaps to different areas. For example, a plan view of a public square can be added to a map to reveal the exact location of people who are inside the public square.

DeepXplore

Powered by AI technology, you can easily search for targets, and look for records on them with simple search conditions. Detailed information is displayed for you to keep track of a target.

Event Management

You can monitor and process over 200 types of alarms right from the event center. In addition to a selection of predefined alarm types that are triggered by devices, you have the option to create your own alarm, which can be manually triggered to take snapshots, send emails, and more for important events.

Access Management

◆ *Access Control*

Doors in different zones can all be effectively controlled for added security. A zone-based management model is used, which maintains maps for each zone to make it easy for you to locate access points. Through the use of access rules, you can quickly grant and deny access to people with great efficiency, strengthening the security of each zone. From the access panel, you can also view and control door channels across different zones at the same time to manage access.

◆ *Video Intercom*

All video intercom devices can be managed based on different in one single interface. With two-way communication and remote access control, you have the ability to secure access to your premises. Also, residents will be able to call and report emergencies quickly, allowing you to take immediate actions. To make building management easier, messages that a lot of people should know, such as the electricity will be out for a few hours for maintenance purposes, can be sent to their indoor monitors with only a few steps.

◆ *Visitor*

DSS4004-S2 offers a complete process to manage visitors, including appointment, registration, access permission authorization, and ending visit with all permissions canceled. A complete, detailed record of all visits is available for your review at any time.

Intelligent Analysis

To help build your profits and strengthen your services, the platform provides invaluable information on people on your premises through performing a variety of intelligent analysis and generating heat maps. Through it, you can know the number of people in an area at any given time, where they frequent the most, and precisely when the highest peak in numbers occur.

Parking Lot Management

You can remotely manage your parking lot by customizing the passing rules and monitoring the real time video from the entrance or exit. Complete records with detailed information of vehicles are generated for your review.

Hardware Specification

Item	Description	
System	Main Processor	X86 Processor Core i3-6100
	Operation System	Embedded Linux
	Memory	8 GB
	System Disk	Seagate 7200 RPM Enterprise Class HDD 2 TB
	Motherboard	Embedded board (7 x 24)
	Hard Disk Compatibility	SAS/SATA disk
Interface	Network Ports	4 Ethernet ports (10/100/1000 Mbps)
	USB	1 × USB 2.0 on front panel; 2 × USB 3.0 on rear panel
	HDMI	2 HDMI ports
	VGA	1 VGA port
Storage	HDD Installation	Supports 2 HDDs (2.5") for video or picture storage
	Storage	Up to 100 TB per server
	HDD Mode	Single
	Bandwidth of Video Storage per Server	350 Mbps
Other	Power	100 V–240 V, 47–63 Hz
	Consumption	70 W–120 W (with HDD)
	Working Environment Temperature	0 °C–45 °C (32 °F to +113 °F)
	Working Environment Humidity	5%–90% (RH), non-condensing
	Storage Environment Temperature	–20 °C to +70 °C (–4 °F to +158 °F)
	Storage Environment Humidity	5%–90% (RH), non-condensing
	Working Altitude	–60 m to 3,000 m (–196.85 ft to 9,842.52 ft)
	Weight (Without Package)	6.0 kg (13.23 lb)
	Dimension	1U, 440 mm × 398.6 mm × 43.65 mm (17.32" × 15.69" × 1.72")
Installation Method	Standard 19-inch pallet mount	

PC Client System Requirements

Item	Description	
	Recommended	Minimum
CPU	Intel® Core i7-11700 @2.50 GHz	Intel® Core i5-9500 @3.00 GHz
Memory	16 GB	
Graphics Card	NVIDIA® GeForce® RTX 3060	Intel® UHD Graphics 630
Hard Drive Capacity	100 GB Free	50 GB Free
Ethernet Port	1,000 Mbps	

■ Performance Specification

Organization, Role and User	
Roles	20
Users (PC Client and DSS Agile 8)	10 online users and 50 total users
Roles per User	32
DSS Agile VDP Users	200 online users and 2,000 total users

Recording Plan	
General Recording Plans	256
Motion Detection Recording Plans	256

Event	
Event Sources for Event Rules	256
Combined Event Rules	100
Combined Events	128

Map	
Hierarchies	8
Maximum Size of Raster Map	15 MB
Raster Maps	32
Resources per Raster Map	300 (After merging) 2,000 (Before merging)

Person and Vehicle Management	
Persons and Vehicle Groups	999
Group Levels	10
Persons	5,000
Cards	10,000
Faces	5,000
Fingerprints	10,000
Vehicles	5,000

Face and Vehicle Watch Lists ^①	
Total Faces	5,000
Face Watch Lists	50
Vehicle Watch Lists	8
Faces per Face Watch List	5,000
Vehicles per Vehicle Watch List	5,000

Intelligent Analysis

People Counting Groups	4
People Counting Rules per Group	20

Parking Lot Management

Vehicles	5,000
Vehicle Groups	8
Parking Lots	1
Entrances	6
Exits	6
Total Entrances and Exits	6
Entrance/Exit Points	6

Access Control

Persons for Door Access Rules	5,000 (1 password, 2 face images, 3 fingerprints, and 5 cards for each person)
Zones	256
Door Access Rules	50
Public Passwords	1,500

Visitor

Appointments Set and in Progress	10,000
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Notification Center

Notification Center Messages	1,000
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Data Storage

Event Records	2,000,000
Face Recognition Records	2,000,000
ANPR Records	2,000,000
Metadata Records	2,000,000
Access Records	2,000,000
Video Intercom Records	2,000,000
Historical Count Records	2,000,000
In Area Statistical Records	2,000,000
Heat Map Records	2,000,000
Visitor Records	2,000,000
Entrance Records	2,000,000
Exit Records	2,000,000

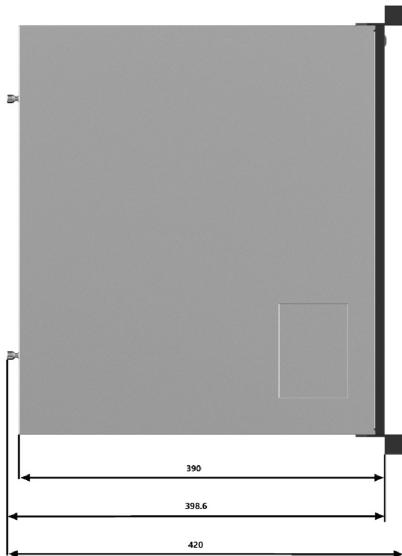
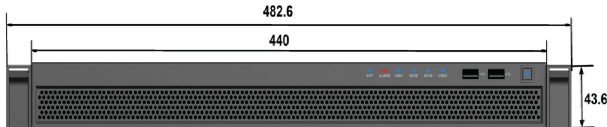
People Entering and Exit Records	2,000,000
Forced Exit Records	2,000,000
Operator Logs	2,000,000
Service Logs	2,000,000

Server Specification

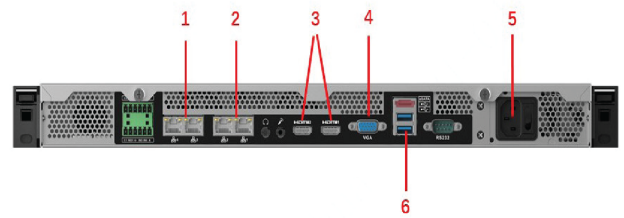
Parameter		Single Server
Total Devices	Devices ^②	1,000 devices
	Auto-registered Devices	1,000 devices
Video Devices and Channels	Video Devices and Channels ^③	256 devices; 256 channels
	P2P Devices	32 devices
	Add Devices by ONVIF	256 devices; 256 channels
	Face Recognition Devices and Channels	8 devices; 32 channels
	ANPR Channels	32 channels
	Video Metadata Channels	32 channels
Access Control Devices	Access Control Devices	64 devices; 64 doors
	Video Intercom Devices	1,000 devices
Alarm Devices	Alarm Controllers	16 devices; 160 zones
Intelligent Analysis	People Counting Channels	16 channels
	Heat Map Channels	16 channels
Media Transmission Server	Total Incoming Bandwidth	350 Mbps
	Incoming Video Bandwidth	350 Mbps
	Incoming Picture Bandwidth	50 Mbps
	Total Outgoing Bandwidth	350 Mbps
	Outgoing Video Bandwidth	350 Mbps
	Outgoing Picture Bandwidth	50 Mbps
	Total Storage Bandwidth	350 Mbps
	Video Storage Bandwidth	350 Mbps
Playback, Storage and Download	Picture Storage Bandwidth	50 Mbps
	Prerecording Bandwidth for Alarm Recordings	150 Mbps
	Maximum Capacity of Central Storage (Local)	2 TB
	Maximum Capacity of Central Storage (IPSAN)	100 TB
Events^④	Storage of Events or Alarms without Pictures ^⑤	60 per second
	Combined Events	20 per second
	Access Control Events	60 per second

- ① All the devices together cannot contain more than 10 million faces when the number of faces in the watch lists are multiplied by the number of devices. For example, if a face watch list with 200,000 faces is sent to 40 devices, you can only send another face watch list with 100,000 faces to 20 devices. Or, you can send a list with 50,000 faces to 20 devices and another list with 100,000 faces to 10 devices.
- ② The maximum number of devices, including IPC, NVR, and ITC, cannot exceed 1,000 for a single server.
- ③ When adding video channels and video devices, such as IPC, NVR and ITC, to the platform, you cannot add more than 256 devices, and 256 channels for a single server.
- ④ These values represent the maximum number of events that can be triggered at the same time. The numbers are measured based on the peak concurrency tests that were carried out 3 times a day. Each test lasted 20 minutes, with 30% of the peak concurrency being applied to the remaining day.
- ⑤ The maximum number of events that can be triggered at the same time largely depends on the concurrent write capability of the database.
- ⑥ For events with snapshots, you must take into account the ability for disks and servers to concurrently write images at the same time. For servers it is 200 Mbps.

■ Dimensions (mm) and Panels



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



- 1- Gigabit LAN Port 3-4
- 2- Gigabit LAN Port 1-2
- 3- HDMI Port1/Port2
- 4- VGA
- 5- Power Interface
- 6- USB3.0 Port

■ DSS Mobile Client Main Functions

DSS Agile 8

◆ Live View

Even when you are away from your computer, you can also ensure the safety of your area right on DSS Agile. You can watch the real-time videos remotely from up to 16 channels at the same time with 3 stream types for you to choose according to the status of your mobile network. PTZ control is also supported so that you can cover most of the area. When anything of interest happens, you can take snapshots or recordings as evidence that stores on your phone, or send a voice message to deter unwanted activities.

◆ Playback

Videos stored on devices or the server can both be played up to 8X faster or 1/8X slower on DSS Agile. You can also use the manual recording function to record important content and save it to your phone.

◆ **Access Control**

With DSS Agile, you can remotely monitor and operate all access control devices. For example, you can open a door for someone who has a proven identity, or set a door to be always closed so that no one can access.

◆ **Target Tracking**

For suspicious activities, you can locate targets directly in DSS Agile by searching for face recognition records from a period, uploading a face image of a specific target, or searching for capture records of people, non-motor vehicles, and motor vehicles by features.

◆ **Event**

You can receive and process various types of alarms. You can also receive alarms when DSS Agile is not running with a subscription button.

◆ **Video Intercom**

You can make calls to and receive calls from master stations, indoor monitors and door stations. After subscribing to offline calls, you will still receive calls even when the App is not running. Also, a complete record of incoming and outgoing calls ensure that you will not miss any important message.

◆ **File Management**

Snapshots and videos stored on devices or the server can be managed as you need, such as deleting them or exporting them to your album.

DSS Agile VDP

◆ **Visitor Management**

You can easily manage visitors by registering their information and generating visitor passes with necessary access permissions. When they arrive, they can use the passes to gain access to where you are. DSS Agile VDP will log when visitors begin and end their visits.

◆ **Intercom Monitoring**

When guests arrive, they can call you on the door station or you can verify their identities through the live video. After confirming they are who you are expecting, you can remotely open the door for them directly on DSS Agile VDP. If you spot any unwanted activities, tap and call the management center to report an emergency.

◆ **Message Center**

The unlock records and alarm messages on the indoor monitor are fully accessible on DSS Agile VDP, allowing you to identify potential threats and ensure the safety of your residence.

■ DSS Mobile Client Requirements

	iOS	Android
Model	iPhone 5S or later	-
RAM	-	2 GB and above
Resolution	-	1280 × 720 or higher
Operating System	iOS 10.0 or later	Android 8.0 or later
Language	Arabic, English (United States), French, Russian, Simplified Chinese	