DSS ONEBOX

Deploy Fast, Secure Faster

V8.7.0

◼ Introduction

DSS OneBox is an all-in-one workstation with a pre-installed license that works right out of the box, requiring no installation or deployment. It is equipped with Intel 13th generation Core i7 processor and 32 GB of RAM with decoding capability and moderate amount of storage space.

With support for up to 128 video channels and built-in video surveillance, event center, video intercom, attendance, and visitor management, DSS OneBox is particularly well suited for the SMB software market, such as offices, stores, and warehouses.
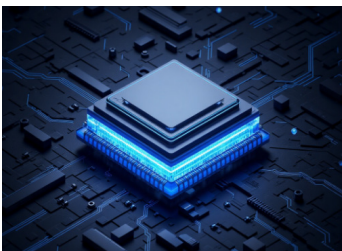
◼ Features

Compact Design

A harmonious blend of style and functionality, effortlessly fitting into the security environment.

- Designed with aluminum and glass, offering a modern look along with exceptional durability.

- Compact 0.5 L design allows for flexible deployment across various security scenarios.

Powerful Performance

A powerful core for uninterrupted monitoring.
- 1 TB SSD storage.
- Integrated GPU decoding capabilities support multiple channels of 1080P video, ensuring the smooth management of multiple video streams.
- Supports network speeds of up to 2.5 Gbps, ideal for high-bandwidth applications.

Simplified Management

Real-time monitoring with easy management.

- 4-screen 4K output delivers clear and detailed views tailored to various monitoring needs.

- Plug-and-play functionality with a pre-installed operating system and licensed software, automatically launching the client at startup for quick access.

- Mobile app allows for monitoring security status over both public and local networks, facilitating flexible system management.

- Easily restores system default settings with one key.
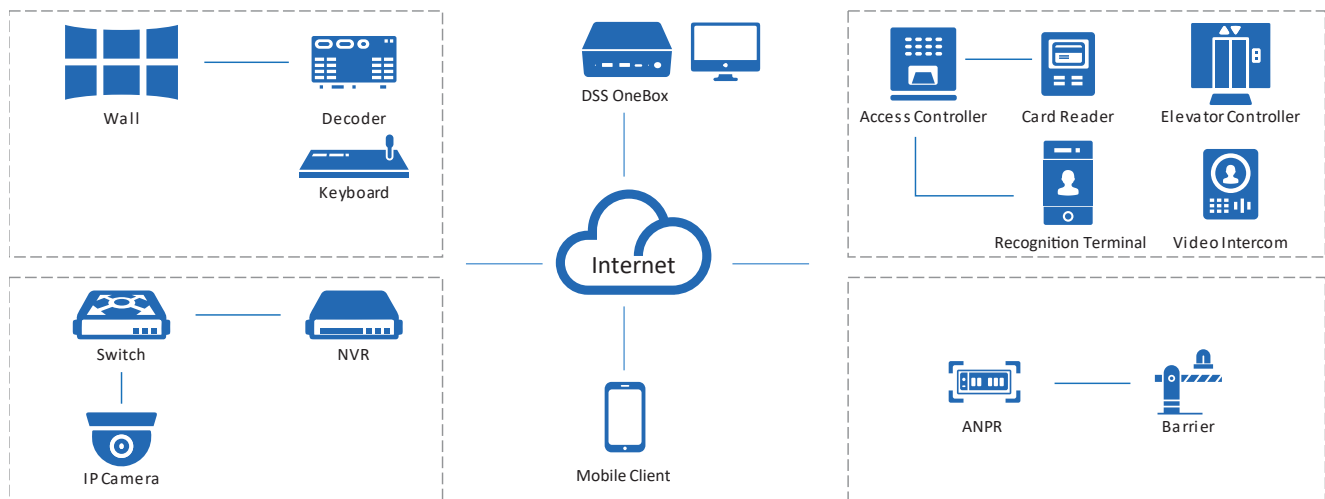
Comprehensive Solution

One-stop management for diverse security needs.

- Supports up to 128 video channels to accommodate a wide array of monitoring environments.

- Features multiple modules designed to meet diverse security requirements.
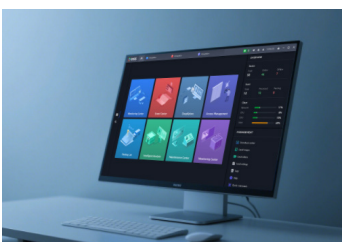
■ System Architecture

■ Main Functions

Monitoring Center

◆ *Live View*

With its ease 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, view dewarped live view of a fisheye 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 devices in multiple windows. To help you efficiently wade through tons of videos, you can play them 64X faster than the normal speed to skip parts that you are not interested in, slow them down to 1/64X to focus on important sections, or play the previous or next video clip of the most recent time to track the event easily. To control the data in the videos, you can add tags to mark relevant content. 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 through setting simple search conditions.

Event Management

You can monitor and process over 200 types of alarms right from the event center. To give you a clear picture of what is happening in your area, the alarm center also displays a variety of useful information such as the number of alarms that were processed, and the type of alarms that are triggered most frequently. Highly flexible, you also have a selection of predefined alarm types available to you, and the option to not only create your own alarm, but to also manually trigger it to take snapshots and send emails for important events.

Maintenance Center

By just visiting one page, you can stay up to date with information on devices and channels to instantly recognize issues such as offline devices and abnormal channels.

Access Management

◆ *Access Control*

Doors and lifts 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 the channels of doors and lifts at the same time across different zones to manage access.

◆ *Video Intercom*

All video intercom devices can be managed directly through one easy-to-use interface that offers two-way communication and remote access control. Through the interface, you can secure access to your premises, and receive calls and emergency reports directly from people on-site. Building management is also very convenient, as you can send group notices to all the indoor monitors, keeping people informed of important events, such as scheduled power outages.

◆ *Attendance*

The platform allows you to configure devices for check-in and check-out, tailor your attendance rules and set specific periods to track punctuality and early departures, customize shifts for departments and individuals, ensuring precise management of attendance records and insightful reporting.

◆ *Visitor*

The platform 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 peaks in numbers occurs.

Parking Lot Management

From just one platform, you can remotely manage all the devices in your parking lots, such as ANPR devices. The platform supports scenes without barriers to ensure smooth navigation for drivers, and it helps keep your parking occupancy information up-to-date with the function of resetting available parking spaces.

■ Hardware Specification

Item		Description
System Parameters	CPU	Intel i7-13620H
	Memory	32 GB
	SSD	1 TB
	GPU	Intel® UHD Graphics for 12th/13th Gen Intel® Processors
	Network Port	10/100/1000/2500 Mbps
	Operating System	Windows
I/O Port	USB 3.0	2
	USB 2.0	2
	Type-C	2
	HDMI OUT	2
	RJ45	1
	Audio Combo	1
	DCIN	1
	Power Button	1
	System Reset Button	1
	Button for Clearing CMOS	1

Item		Description
Other	Network Card	Wi-Fi: 2.4G/5G, BT: 5.2
Power	Power Supply	DC power
	Power Input	19 V
	Max Power Consumption	120 W
Dimensions and Weight	Product Dimensions	117.0 mm × 117.0 mm × 42.0 mm (4.61'' × 4.61'' × 1.65'')
	Packaging Dimensions	186.0 mm × 186.0 mm × 115.0 mm (7.32'' × 7.32'' × 4.53'')
	Net Weight	520 g (1.15 lb)
	Gross Weight	1.8 kg (3.97 lb)
Environment	Operating Temperature	0 °C to +40 °C (+32 °F to +104 °F)
	Operating Humidity	10%–90% (RH)
	Operating Altitude	$<$ 5,000 m (16,404.2 ft)
	Storage Temperature	-20 °C to -60 °C (-4 °F to -76 °F)
	Storage Humidity	10%–90% (RH)
Certification		CE
Warranty		36 months

◼ Performance Specification

Organization, Role and User	
Organizations	10 levels; 999 organizations in total
Roles (User Permission)	20
Users	50
Online Users (PC and Agile App)	10
Roles per User	32
DSS Agile VDP Users	50 online users and 500 total users
User Groups	20
Users per User Group	50

Live View and Playback	
Total Public View Folders	999
Total Public Views	1,000
Tours per User	20

Event

Event Sources for Event Rules	128
Combined Event Rules	100
Combined Events	128
Generic Event Rules	50

Map

Hierarchies	8
Raster Maps	32
Maximum Size of Raster Map	15 MB
Raster Map Resolution	8,100 × 8,100
Resources per Raster Map	300 (after merging) 2,000 (before merging)
Static Visual Range	128 channels

Person and Vehicle Management

Person and Vehicle Groups	999
Group Levels	10
Total Persons	5,000
Persons on the DSS Platform	5,000
Person Groups that a Person can Belong to	20
Cards	10,000
Faces	5,000
Fingerprints	10,000
Palm Veins	10,000
Vehicles	5,000

Face and Vehicle Arming Lists

Total Faces	5,000
Face Arming Lists	50
Face Comparison Databases	50
Faces per Face Comparison Database	5,000
Total Vehicle Arming Groups	8
Vehicles per Vehicle Arming Group	5,000

Access Control

Zones	999
Zone Levels	10
Access Rules (Doors and Lifts)	50
Persons for Door Access Rules	5,000 (1 password, 2 face images, 3 fingerprints, 2 palm veins, and 5 cards for each person)
Door Access Rules	50
Persons for Lift Access Rules	5,000
Lift Access Rules	50
Global Anti-passback Rules	4
Anti-passback Groups per Global Anti-passback Rule	2–4
Card Readers per Anti-passback Group for Global Anti-passback Rule (by Route)	32
Card Readers per Anti-passback Group for Global Anti-passback Rule (by Area)	32
Global Interlock Rules	4
Door Access Points per Group for the Rule of Global Interlock within Groups	2–4
Interlock Groups for the Rule of Global Interlock between Groups	2
Doors per Interlock Group for the Rule of Global Interlock between Groups	1–4
Total Public Passwords	1,500
Public Passwords per Device	500
Scheduled Verification Plans	64

Visitor

Appointments in Progress	50,000
Visitor Permission Groups	50

Video Intercom

Persons per Room	20
VDP Accounts per Room	20

Intelligent Analysis

People Counting Groups	4
People Counting Rules per Group	20
Channels for Extracting People Counting Data at a Time	16
Metadata Statistics Channels Searched at a Time	16
Crowd Distribution Statistics Groups	4
Rules per Crowd Distribution Statistics Group	20

Channels for Extracting Crowd Distribution Data at a Time	16
Vehicle Density Statistics Groups	4
Rules per Vehicle Density Distribution Statistics Group	20
Channels for Extracting Vehicle Density Data at a Time	16

Parking Lot Management

Parking Lot Organization Levels	10
Total Parking Lot Organizations	999
Vehicles	5,000
Vehicle Groups	8
Vehicle Groups per Parking Lot	8
Main Parking Lots	1
Entrances	4
Exits	4
Total Entrance/Exit Points	4
Total Entrances and Exits	4
Parking Overtime Rules	128
Rules for Sending Scheduled Reports	32

Notification Center

Messages	1,000

Quick Commands

Quick Commands per User	20
Commands per Quick Command	20

Data Storage

Total Database Records	10,000,000
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

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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
Hourly/Daily/Monthly Face Statistics	2,000,000
Hourly/Daily/Monthly Human Body Statistics	2,000,000
Hourly/Daily/Monthly Motor Vehicle Statistics	2,000,000
Hourly/Daily/Monthly Non-motor Vehicle Statistics	2,000,000
Visitor Records	2,000,000
Vehicle Enter Records	2,000,000
Vehicle Exit Records	2,000,000
People Entering and Exiting Records	2,000,000
Vehicle Forced Exit Records	2,000,000
Operator Logs	2,000,000
Service Logs	2,000,000

■ Server Specification

The following specifications are obtained in a server with recommended system requirements.

Parameter		Single Server
Total Devices	Devices[1]	182 devices
	Auto-registered Devices	182 devices
Video Devices and Channels[2]	Video Devices and Channels	128 devices; 128 channels
	P2P Devices	32 devices
	ANPR Channels	8 channels (4 channels for entrance)
	Face Recognition Devices and Channels	8 devices; 8 channels
	Video Metadata Channels	8 channels
Access Control Devices	Total Access Control Devices	16 devices; 16 doors
	Access Control Devices on the Platform	16 devices; 16 doors
	Visitor Terminals	10 devices
VDP Devices	Video Intercom Devices	16 devices
Alarm Devices	Alarm Controllers	8 devices; 80 zones
Intelligent Analysis	People Counting Channels	16 channels
	Heat Map Channels	16 channels

Media Transmission Server	Total Incoming Bandwidth per Server	200 Mbps
	Incoming Video Bandwidth per Server	200 Mbps
	Incoming Picture Bandwidth per Server	50 Mbps
	Total Outgoing Bandwidth per Server	200 Mbps
	Outgoing Video Bandwidth per Server	200 Mbps
	Outgoing Picture Bandwidth per Server	50 Mbps
	Picture Storage Bandwidth per Server	50 Mbps
Event[3]	Total Events[4]	60 per second
	Storage of Events or Alarms without Pictures[5]	60 per second
	Access Control Events	20 per second
	Combined Events	20 per second

① The maximum number of devices that the platform supports, including IPC, NVR, and ITC.

② When adding video channels and video devices, such as IPC, NVR and ITC, to the platform, the maximum number of devices and channels that the platform supports.

③ 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.

④ The maximum number of events that can be triggered at the same time largely depends on the concurrent write capability of the database.

⑤ For events with snapshots, you must take into account the ability for disks and servers to concurrently write images at the same time.

■ Dimensions (mm)
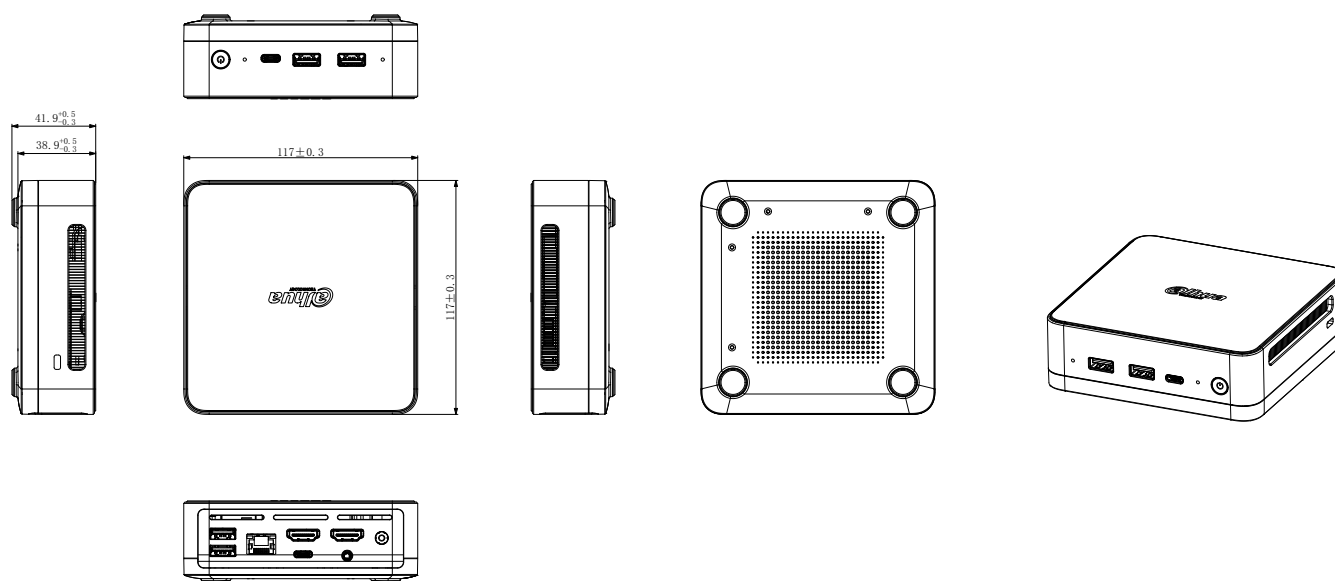
■ DSS Mobile Client Main Functions

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.

◆ *Visitor Management*

You can create visitor pass and grant access permissions for visitors, and effortlessly keep tabs on visitors' status, from visit information to end of the visit. Automatic visit and automatic leave can be set for unrivaled convenience.

◆ *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 main 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.

◆ *Alarm Control Panel*

Alarm controllers can be remotely operated through DSS Agile to protect areas. You can arm and disarm areas, bypass and isolate zones, display the status of areas and zones in real-time, and filter the status of areas and zones to display information you are specifically interested in.

◆ *File Management*

Snapshots and videos stored on devices or the server can be managed by deleting them, exporting them to albums, and more. Video downloads can be automatically and manually paused, saving you time from re-downloading them when there are connection issues.

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 or more
Resolution	-	1280 × 720 or higher
Operating System	iOS 12.0 or later	Android 8.0 or later
Language	Arabic, Bulgaria, Czechish, English (United States), French, Japanese, Korean, Latin American Spanish, Poland, Portugal, Russian, Simplified Chinese, Spanish, Traditional Chinese, Turkish, Ukrainian, Vietnamese	