DSS ONEBOX

Deploy Fast, Secure Faster

V8.8.0

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.

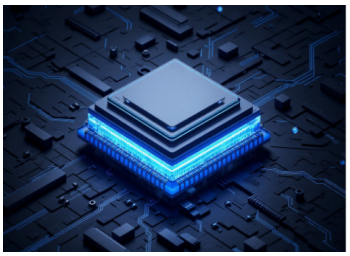
With support for up to 128 video channels and built-in video surveillance, event center, video intercom, attendance, and visitor management, DSS OneBox is particularly well suited for the SMB software market, such as offices, stores, and warehouses.

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.

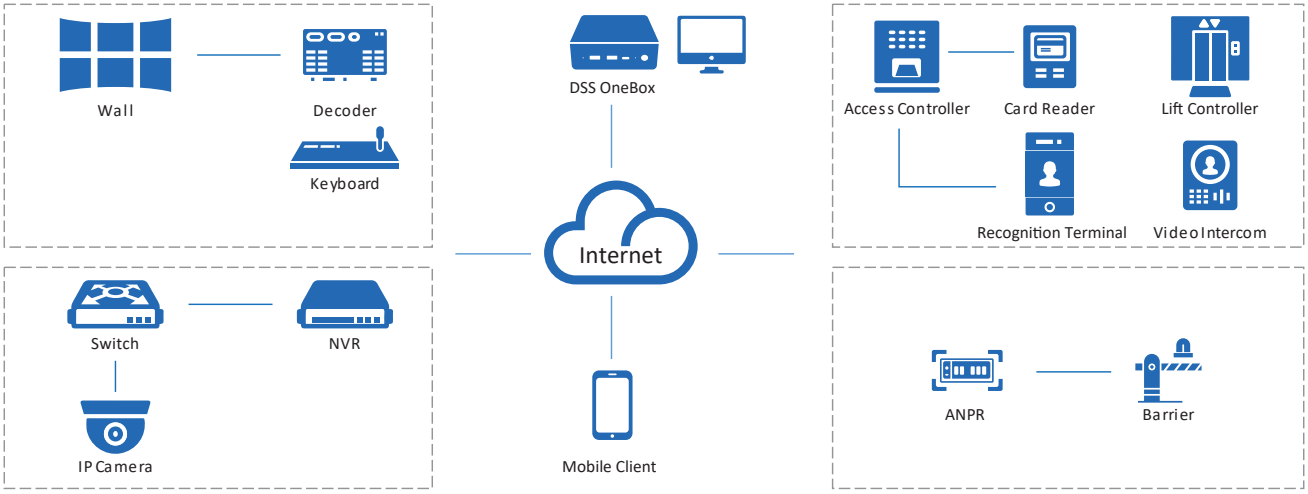
- 4-screen 4K output delivers clear and detailed views tailored to various monitoring needs.
- Plug-and-play functionality with a pre-installed operating system and licensed software, automatically launching the client at startup for quick access.
- Mobile app allows for monitoring security status over 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 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 prioritize 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, operating IP speakers (talk, broadcast, play audio, and adjust the volume), viewing dewarped live view from fisheye cameras, and unlocking turnstiles to grant access.

Visual tracking lets you follow a target across different areas or locations, without losing sight of the target, as long as the places that the target passes through are covered by the associated cameras.

With the AcuPick capability of connected devices, the platform automatically recognizes different types of objects in the video, then you can select a target, and quickly locate it in DeepXplore.

If an emergency occurs, manual recording is just a click away, so that you can quickly view the relevant footage as evidence.

Playback

The playback function allows you to play recorded videos in multiple windows. Playback speed is highly flexible. You can play fast-forward up to 64X to skip irrelevant parts, or slow down to 1/64X to focus on important moments. You can also jump to the previous or next video clip of the most recent time to track the event with reduced effort.

To control the data in the videos, you can add tags to mark relevant content. The filtering function lets you narrow results by video type or target type, so you can quickly find and handle only the footage you need.

Video Wall

Video Wall

Video wall is used to display videos on a large screen that consists of many smaller screens. Highly customizable, it supports not only flexible layouts, but also display of live and recorded videos, so you can focus on important details in the video. Also, you can use tasks to schedule videos from different channels appear on the video wall at specified times or run on a continuous loop.

Map

The map provides an intuitive way to track devices and events by location. Device icons on the map flash red when an alarm is triggered, instantly showing the event location. You can add submaps for different areas. For example, a plan view of a public square can be added to a map to pinpoint the positions of people within that square.

DeepXplore

Powered by AI technology, you can easily search for targets, look for their historical records, and even generate movement tracks, so you can observe their whereabouts through setting simple search conditions. Also, the WizSeek function enhances precision by letting you combine text with search conditions, so you can pinpoint specific targets more efficiently.

Event Management

The event center supports monitoring and handling over 200 types of alarms while continuously generating statistics. To give you a clear picture of what is happening in your area, the alarm center also shows metrics like total alarms processed and the most frequently triggered alarm types. The system is flexible. You can choose from predefined alarm types, or create custom alarm types to match your workflows. You can also manually trigger alarms to take snapshots and send email notifications, so that important events get immediate attention.

Maintenance Center

A unified dashboard gives you a single-pane view of devices and channels and more, so you can instantly spot issues like offline devices.

Access Management

Access Control

Control doors and lifts across multiple zones using a zone-based management model. Each zone maintains a map for quick location of access points, and a unified access panel lets you monitor and operate door and lift channels across zones in real time. You can create flexible access rules to grant or deny access efficiently, allowing secure access control.

Attendance

The attendance function delivers complete attendance management by supporting attendance point and rule configuration. Also, you can quickly search for attendance records, view daily details, and generate customizable statistical reports. Attendance rectification and scheduled exports ensure data integrity, providing faster and more reliable attendance tracking and reporting that scales with your organization.

Video Intercom

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

Visitor

DSS OneBox offers a full visitor management process, covering from appointment and registration to access permission granting and automatic permission revocation once a visit ends. A complete, detailed record of all visits is available for your review at any time.

Intelligent Analysis

To boost your profitability and enhance your service offerings, the platform provides valuable insights into on-premises people information through advanced intelligent analysis and heat map generation. It allows you to track the number of people in an area at any given time, identify high-frequency hotspots, pinpoint the exact times when people counts reach the peak, empowering data-driven decisions to optimize operations.

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. The platform supports scenes without barriers to ensure smooth navigation for drivers, and it supports resetting available parking spaces to ensure accuracy of your parking occupancy information.

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
	DC IN	1
	Power Button	1
	System Reset Button	1
	Button for Clearing CMOS	1
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	1.80 kg (3.97 lb)
	Gross Weight	1.97 kg (4.34 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	-60 °C to -20 °C (-76 °F to -4 °F)
	Storage Humidity	10%–90% (RH)
Certification		CE
Warranty		36 months

Server Specification

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

Parameter		Single Server
Total Devices	Devices①	246 devices
	Auto-registered Devices	246 devices
Devices and Channels②	Video Devices and Channels②	128 devices; 128 channels
	P2P Devices	32 devices
	Devices Added by ONVIF Protocol	128 devices; 128 channels
	Devices Added by Hikvision Protocol	128 devices; 128 channels
	Devices Accessed via RTSP	128 devices; 128 channels
	Face Recognition Channels	8 channels
	ANPR Channels	8 channels (4 channels for entrance)
	Video Metadata Channels	8 channels
Intelligent Analysis	People Counting Channels	16 channels
	Heat Map Channels	16 channels
Access Control Devices	Access Control Devices and Lift Control Devices	68 devices; 68 channels
	Total Access Control Devices	64 devices; 64 doors
	Access Control Devices on the DSS Platform	64 devices; 64 doors
	Lift Control Devices	4 devices; 4 channels
	Video Intercom Devices	16 devices
	Visitor Terminals	10 devices
Alarm Devices	Alarm Controllers	8 devices; 80 zones
IP Speaker	IP Speakers	16 devices
Media Transmission Server	Total Incoming Bandwidth	200 Mbps
	Incoming Video Bandwidth	200 Mbps
	Incoming Picture Bandwidth	50 Mbps
	Total Outgoing Bandwidth	200 Mbps
	Outgoing Video Bandwidth	200 Mbps
	Outgoing Picture Bandwidth	50 Mbps
	Picture Storage Bandwidth	50 Mbps
Event③	Storage of Events or Alarms without Pictures④	Average: 15 per second Peak: 60 per second (lasts 1 hour)
	Access Control Events	Average: 15 per second Peak: 60 per second (lasts 1 hour)
	Combined Events	Average: 5 per second Peak: 20 per second (lasts 1 hour)

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

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
User Groups	100
Users per User Group	50
DSS OnePass Users	50 online users and 500 total users

Live View and Playback	
Total Public View Folders	999
Total Public Views	1,000
Total Private View Folders	999 per user
Total Private Views	1,000 per user
Favorites Level	10
Total Favorites	999 per user
Device Channels for Total Favorites	2,000 per user
Tags	10,000 per user
Locked Videos	10,000 per user
Linked Tracking Channels per Channel	8
Simultaneous Video Downloads per Client	5
Tours per User	20

Video Wall	
Video Walls	32
Public Video Wall Tasks	64
Private Video Wall Tasks per User	64
Public Video Wall Tour Tasks	64
Private Video Wall Tour Tasks per User	64
Touring Videos per Video Wall Window	128

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

DeepXplore	
Channels Searched at a Time	128

Map	
Hierarchies	8
Maximum Size of Raster Map	50 MB
Raster Map Resolution	8,100 × 8,100
Raster Maps	32
Resources per Raster Map	Up to 300 (after merging) Up to 1,000 (before merging)
Static Visual Range	128

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

Arming Lists①	
Total Faces	5,000
Total Face Arming Groups	50
Face Comparison Databases	50
Faces per Face Comparison Database	5,000
People in Total Face Comparison Groups	5,000

Total Vehicle Arming Groups	8
Vehicles per Vehicle Arming Group	5,000
Vehicles in Total Vehicle Arming Groups	5,000
Total Text-Defined Alarms	100

① A face can belong to multiple face databases. All the devices together cannot contain more than 10 million faces when the number of faces in the arming lists are multiplied by the number of devices. For example, if a face arming list with 200,000 faces is sent to 40 devices, you can only send another face arming 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.

Access Control

Zones	999
Zone Levels	10
Access Rules (Doors and Lifts)	50
Door Access Rules	50
Lift Access Rules	50
Persons for Access Rules (Doors and Lifts)	5,000
Persons for Door Access Rules	5,000 (1 password, 2 face images, 3 fingerprints, 2 palm veins, 1 Bluetooth card, and 5 cards for each person)
Persons for Lift Access Rules	5,000
Persons per Rule	1,000
Person Groups per Rule	100
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

Video Intercom

Call Groups (Custom)	20
Rooms (Custom) per Call groups	16
Persons per Room	20
OnePass Accounts per Room	20

Visitor	
Appointments in Progress	10,000
Visitor Permission Groups	50

Attendance	
Total Attendance Points	64
Device Attendance Points	64
Break Periods	16
Attendance Periods	32
Attendance Shifts	50
Holiday Plans	100
Attendance Calendars	10
Overtime Rules	10
Regular Schedules	100
Temporary Schedules	2,000,000
Scheduled Report Sending Rules	32

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	
Parking Lot Organization Level	10
Total Parking Lot Organizations	999
Vehicles	5,000
Vehicle Groups	8
Vehicle Groups per Parking Lot	8
Main Parking Lots	1

Total Entrance/Exit Points	4
Total Entrances and Exits	4
Entrances	4
Exits	4
Parking Overtime Rules	128
Time Periods per Day for Each Overtime Parking Rule	6
Rules for Sending Scheduled Reports	32

Maintenance Center

Alert Rules	128

Quick Commands

Quick Commands per User	20
Commands per Quick Command	20

IP Speaker

Broadcasting Channels	16
Customized IP Speaker Groups	20

Notification Center

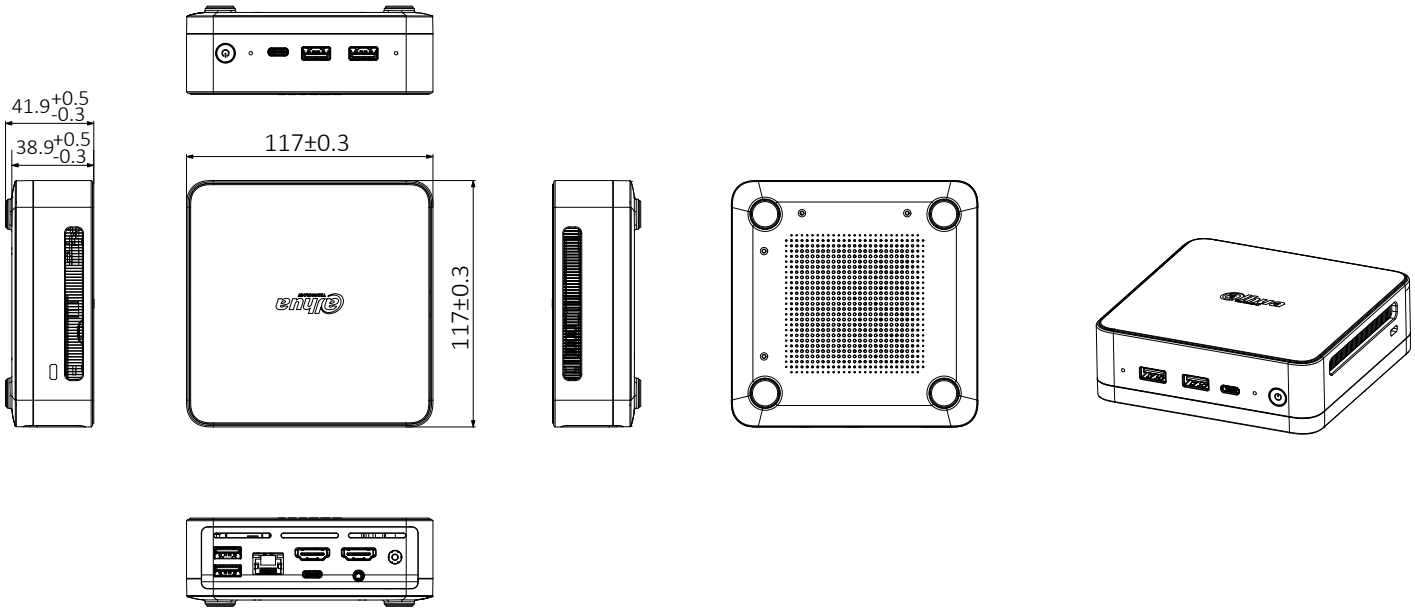
Messages	1,000

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
Analysis Records for People Enter and Exit	2,000,000
Video Intercom Records	2,000,000
Visitor Records	2,000,000
Attendance Records	2,000,000
Attendance Daily Reports	2,000,000
Request 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
Vehicle Enter Records	2,000,000
Vehicle Exit Records	2,000,000
Vehicle Forced Exit Records	2,000,000
Maintenance Alert Records	2,000,000
Maintenance Fault Records	2,000,000
Operator Logs	2,000,000
Service Logs	2,000,000

Dimensions (mm)



DSS Mobile Client Main Functions

DSS Agile 8

Live View

Even when you are away from your computer, you can keep your premises secure with DSS Agile. You can view live videos from up to 16 channels simultaneously and choose among 3 stream types to suit your mobile network conditions. PTZ control lets you pan, tilt, and zoom to cover nearly every angle. When anything of interest occurs, you can take snapshots or recordings as evidence that stores on your phone, or send a voice message to deter unwanted activities.

Playback

In DSS Agile, recorded videos can be played back at up to 8X speed or slowed down to 1/8X. You can also use manual recording to record important footage and save it directly to your phone.

Visitor Management

You can create visitor passes and grant access permissions with ease, while effortlessly tracking each visitor's status, from initial visit details through end of the visit. Automatic visit and leave can be set for unmatched convenience.

Access Control

With DSS Agile, you can remotely monitor and operate all access control devices, from remotely unlocking a door for someone with verified credentials, to setting a door to remain locked to prevent any entry.

Target Tracking

When suspicious activity occurs, DSS Agile lets you quickly locate persons of interest by searching face recognition records over a specified time range, uploading a face image to find matches, or searching captured records of people, non-motor vehicles, and motor vehicles by attributes.

Event

You can receive and manage a wide range of alarms, and subscribe to alarm notifications, so you will still get notified even when DSS Agile is not running.

Video Intercom

You can make and receive calls with 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 you never miss important messages.

Alarm Controller

You can remotely operate alarm controllers through DSS Agile to protect areas, such as arming and disarming areas, bypassing and isolating zones, viewing real-time area and zone status, and filtering displays to show only the information you care about.

File Management

You can manage snapshots and videos, including deleting them, exporting them to local albums, and more. Video downloads can be paused automatically or manually, saving your time and bandwidth from redownloading them when the download is interrupted.

DSS OnePass

Visitor Management

You can easily manage visitors by registering their details and generating visitor passes with the required access permissions. When they arrive, they can use the passes to gain access to where you are, and DSS OnePass logs when visitors begin and end their visits.

Intercom Monitoring

When guests arrive, they can call from the door station, or be verified through live video. Once you confirm their identity, you can remotely open the door in DSS OnePass. If you spot any unwanted activities, you can tap to call the management center to report an emergency.

Door Opening

You can open the door using Bluetooth, by scanning the QR code at the door station, or remotely through the app.

Attendance

You can check in and out directly in the app, and view your attendance records there.

Message Center

The unlock records and alarm messages on the indoor monitor are fully accessible in DSS OnePass, allowing you to identify potential threats and keep your residence secure.

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, Bulgarian, Czech, English (United States), French, Japanese, Korean, Spanish (Latin America), Polish, Portuguese, Russian, Chinese (Simplified), Spanish (Europe), Chinese (Traditional), Turkish, Ukrainian, Vietnamese, Malay, Romanian, Indonesian, Italian, Slovak	

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