

DHI-IVS-F7500-P

Face Recognition Server



DeepSense

DeepSense series products adopt the most advanced AI technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Dahua DeepSense series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, traffic data statistics, etc.

The complete lineup of Dahua DeepSense includes network (PTZ) cameras, network video recorders, servers, and platform management products. Beyond seeing the world, the power of AI allows devices to perceive the environment and understand the world in a better way.

System Overview

As a mass data platform of face management, Dahua IVS analyzes image as structural data and picture, and stores them in distributed database and distributed memory respectively. Boast excellent image comparison search engine technology, support fuzzy search of mass data and provide search results within seconds.

IVS belongs to the cloud center and platform. It can be clustered using cloud architecture and virtualize all IVS devices into a smart cloud. Clusters can be superimposed on faces and the common database can be compared, analyzed, and managed. For the addition and expansion of the system, it has very good compatibility and can be virtualized into the original intelligent cloud system.

- Up to 2 Intel Xeon processors, up to 20 cores per processor
- NVIDIA TESLA P4 GPU, Integer arithmetic capability up to 22TOPS
- 2 x M.2 SSD 240 GB, raid1. Boot optimized storage subsystem
- 128GB DDR4 ECC memory
- 20T, 5 x 4T SATA HDD
- Up to 100 channels face recognition
- Dynamic Database 300,000; Static Database 20,000,000
- A thousand comparisons per second
- Search by image
- Blacklist alarm
- Hot-plug Redundant Power, hot-plug Redundant fan



Functions

Face Recognition

Up to 100 channel real time face recognition, front-end face detection but back-end recognition. Model building face picture 100 times per second, and compare with 300,000 dynamic database for a second.

Comparison Mode

1 : 1 , two face picture are compared to determine whether it is the same person.

1 : N , A face picture and face database are compared to check if it is in the comparison database.

n : N , two face database are compared to check the same person.

Real-time Alarm

Support to detect the human face in the picture automatically and to compare it with the human face pictures in the enrolled database and captured database, popping up the results immediately. Dynamic database can be divided into multiple database and managed separately, including blacklist. Different database, set different alarm thresholds.

Database Management

Support to add, delete, modify and query the person information in the enrolled database, support batching import/export the pictures and compressed file.

Technical Specification

System	
Main Processor	Intel Xeon Gold 5120 × 2
GPU	NVIDIA Tesla P4
Memory	128GB, up to 512GB
Operating System	CentOS Linux release 7.2.1511 (core)

Artificial Intelligence

Channel	Up to 100 channels face recognition
Performance	8,500,000 pictures of daily processing
Detection Pixel	1080P more than 60 x 60 Pixel
Recognition Pixel	1080P more than 120 x 120 Pixel
Retrieve	Detects faces within images and compare them with the face library. Engage in multi-person search and order by similarity. Supports single or batch export.
Deflection Angle	Up and down deflection maximum 15 degrees; Left and right deflection maximum 30 degrees.
Dynamic Database	300,000
Static Database	20,000,000
Response	A thousand comparisons per second
Modeling Success Rate	More than 99%
Detection	Search the captured images according to time or location. Supports single or batch export.
Recognition	Search comparison results according to time or location. Supports single or batch export
Facial Attributes	Analysis features including gender, age, expression, glasses, moustache,mouth mask.
Library	Supports register library add, delete, edit, search, and batch import and export.
Blacklist	Blacklist can be divided into multiple database.
Duplication Check	Support single - library self - checking and multi - library cross - check.

Network

Interface	Dual gigabit port network card
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Storage

SDD	M.2 SSD 240G × 2 (Raid1)
HDD	20T, 4T SATA HDD x 5. Up to 120T.

Auxiliary Interface

USB 3.0	4
RS232	1

Display

VGA	1
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Electrical

Power Supply	AC 200-240V
Redundant Power	Hot-plug Redundant Power
Redundant Fan	Hot-plug Redundant Fan
Power Consumption	Platinum 750W

Environmental

Operating Conditions	10℃ ~ 35℃ 10% ~ 80% RH (29℃)
Storage Conditions	-40℃ ~ 65℃ 5% ~ 95% RH (33℃)

Construction

Size	681.7mm(L) x 482mm(W) x 86.8mm(H) (2U)
Weight	30kg
Installation	Standard 19-inch Rack-mounted

Certifications

CE	Yes
FCC	Yes

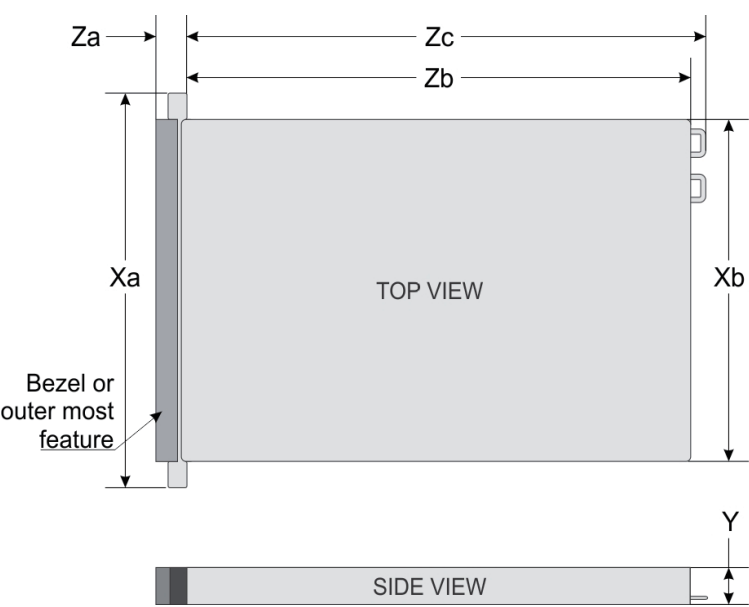
Ordering Information		
Type	Part Number	Description
IVS	DHI-IVS-F7500-P	Face Recognition Server
IPC	DH-IPC-HF8242F-FD	Face Detection Network Camera
	PLZ21C0-D	PLZ21C0-D
Platform	DSS PRO	Operation Platform

Relevant Products



DH-HF8242F-FD

Dimensions(mm)



Xa	482.0mm	Xb	434.0mm
Y	86.8mm	Za	35.84mm
Zb	647.07mm	Zc	681.755mm