DS-IX2002-A3U/X
Intelligent Fusion Server

Intelligent fusion server, equipped with professional GPU card, integrates deep learning-based algorithms of facial analysis, picture structuralization and video structuralization. It is a colllection of analysis, storage and application. By recognizing, analyzing, modelling and comparing pictures of faces, human bodies or vehicles, the intelligent fusion server can perform functions as list alarm, creating personnel archives, personnel trace analysis, searching by human body picture, vehicle arming, and so forth. The intelligent fusion server is widely applied in city, community, school, company, industrial area and other face recognition scenarios.

- Integrates analysis, storage and application as one, and applicable to various scenarios

- Concurrent analysis of Max. 60 channels of 1080P network cameras for a single device

- Face picture analysis and processing of Max. 340 pieces per second for a single device

- Provides Max. 50 million pieces of pictures and data storage for a single device

- Performs various functions, including list alarm, personnel archive, personnel trace analysis, search by human body picture, and vehicle arming, etc. via web application interface
- Equipped with professional GPU accelerator and integrates deep learning-based intelligent algorithms

- Supports cluster deployment to deal with balanced load, dynamic adding and failover
- Supports adding Max. 5 devices under cluster mode.

▪ Specification

Model		DS-IX2002-A3U/X
Product Performance	Algorithm Type	Faces, human bodies or vehicles
	Cluster Capacity	≤ 5
Face Analysis	Data Type	Picture, video
	Analysis Type	Supports analysis, comparison and classification of faces in pictures, real-time videos or recordings.
	Facial Video Format	Resolution: 720 P to 8 MP Real-time video stream: H.264, Hikvision H.265 Local recording: H.264, Hikvision H.265
	Video Frame Rate Requirement	12 to 30 frames per second (25 frames per second recommended)
	Face Picture Format	JPEG, BMP, TIF, PNG
	Face Picture Requirement	Face analysis target: Resolution: 48 × 48 to 4096 × 4096 (16 MP) Size: ≤ 8 MB Pupil distance: 20 to 300 pixels recommended Face angle deviation: Face analysis: ≤ 35° (vertical); ≤ 55° (horizontal) Face picture of list library: ≤ 25° (vertical); ≤ 30° (horizontal)
	Face Attribute	Gender, age, expression, smile, as well as behaviors of wearing a mask, or glasses
	Imported Video Analysis	Single video size ≤ 10 GB, and total video size ≤ 100 GB Max. 40 times accelerated analysis speed Format: MP4, AVI, TS, PS, MBF, ASF, SVAC
	Face Video Analysis and Comparison	60 channels (2 MP) 24 channels (2 MP to 5 MP) 12 channels (5 MP to 8 MP)
	Face Picture Analysis and Comparison	340 pieces/second Format: JPEG, BMP, TIF, PNG
	Max. Number of Arming Lists	3 million
	Max. Number of List Libraries	128
	Max. Number of Static Lists	10 million
	Concurrent Performance -1 V 1 Comparison	30 pairs per second
	Blocklist Alarm-Response Time	1 s
Video Structuralization	Data Type	Picture, video
	Analysis Type	Supports analysis and modelling for human bodies or vehicles in pictures, real-time videos or recordings.
	Video Format	Resolution: 720 P to 8 MP Real-time video stream: H.264, Hikvision H.265

	Analysis of Human Body and Vehicle Videos	50 channels (2 MP) 32 channels (2 MP to 5 MP) 16 channels (5 MP to 8 MP)
	Video Frame Rate Requirement	12 to 30 frames per second (25 frames per second recommended)
	Analysis of Human Body and Vehicle Pictures	120 pieces per second
	Picture Format	JPEG, BMP, TIF, PNG
	Imported Video Analysis	Single video size ≤ 10 GB, and total video size ≤ 100 GB Max. 40 times accelerated analysis speed Format: MP4, AVI, TS, PS, MBF, ASF, SVAC
	Human Body Picture Requirement	Resolution: 256 × 256 to 4096 × 2160 (8 MP) Human body width: 70 to 300 pixels recommended Completeness: the blocking area should be less than 30 percent of the target Angle deviation: the depression angle should be no greater than 45°
	Vehicle Picture Requirement	Resolution: 256 × 256 to 4096 × 2160 (8 MP) Vehicle width: 100 to 300 pixels recommended License plate width: 80 to 120 pixels recommended Angle deviation: less than 30° (horizontal) and 25° (vertical), modelling for both the front and rear
	Human Body Attribute	Gender, age, hair style, clothes type, clothes color, as well as the following behaviors: wearing a hat, a mask, or glasses; carrying a bag or luggage; driving a non-motor vehicle (the number of passengers, vehicle type, vehicle size, driving direction, driving speed)
	Vehicle Attribute	Vehicle color, vehicle type, vehicle main brand, license plate number
Data Storage	Picture and Structured Data	50 million
	Search by Face Picture-Response Time	2 s
	Search by Human Body Picture-Response Time	2 s
	Search by Vehicle Picture-Response Time	2 s
Web Application	Alarm	Blocklist, allowlist, high frequency, and license plate
	1V1 Comparison	Supports rapid and accurate comparison of 2 face pictures
	Smart Search	List library search, capture library search, alarming search
	Number of License Plate Arming Lists	≤ 1000
	Personnel Archive	Support
	Device Operation and Maintenance	Support
	CPU	Intel Xeon Gold 6230 × 2

Hardware Specification	Memory	256 GB
	GPU Card	Tesla T4 × 2
	Rated Power Consumption	1600 W
	Max. Power Consumption	750 W
	Network Interface	Gigabit Ethernet self-adaptive interface × 4
	External Interfaces	USB 2.0 × 2 + USB 3.0 × 2 + VGA × 2
	Device Dimensions	715.5 mm × 482 mm × 86.8 mm (28.2 inch × 19.0 inch × 3.4 inch)
	Package Dimensions	965 mm × 670 mm × 320 mm (38.0 inch × 29.4 inch × 12.6 inch)
	Chassis Height	87 mm (3.4 inch)
	HDD Specification	240 GB M.2 × 1 + 480 GB SSD × 3 + 8 TB SATA × 4
	PSU	Hot-plugged efficient 1 + 1 redundant power module
Physical and Environmental Parameter	Storage and Transportation Temperature	- 40 °C to 70 °C (- 40 °F to 158 °F)
	Working Temperature	5 °C to 35 °C (41 °F to 95 °F)
	Working Humidity	8 % to 90 % (without condensation)
	Net Weight (without package)	23.40 kg (51.59 lb.)
	Gross Weight (with package)	35.52 kg (78.31 lb.)

The analysis of face pictures, face videos, human body and vehicle pictures, and human body and vehicle videos are exclusive performance.

▪ **Available Model**

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