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Full analysis series video cloud structured server is a professional video intelligent structured server. The server can realize the running of multiple algorithms and flexible scheduling based on algorithm group, as well as conduct structured video analysis, facial analysis, and vehicle analysis. It is widely applicable to various industries, including public security, traffic, finance, judicature, energy, culture, education, health, etc.

- Adopts full analysis to execute multiple algorithms, like facial, vehicle and video structuration for pictures or videos
- High density GPU design with high computing capacity to manage large scale projects
- Supports cluster deployment to meet balanced load, dynamic adding, and failover
- Supports algorithm group to execute grouped management of multiple algorithms like facial, vehicle, and video structuralization
- Supports intelligent analysis and application according to demands
- Adopts dynamic switching among multiple algorithms to provide flexible scheduling

▪ Specification

Model		DS-IF1032-03U/X(07)
Vehicle Analysis	Data Type	Picture
	Picture Format	JPG/JPEG, BMP, PNG, TIFF/TIF, Static GIF
	Vehicle Picture Requirement	Vehicle resolution: larger than 256 × 256 pixels (recommended) License plate width: 60 to 300 pixels (recommended) Angle deviation: less than 30°(horizontal) and 15° to 30°(vertical)
	Vehicle Attribute	Vehicle detection, vehicle modeling, vehicle attribute analysis, vehicle recognition; and the following behaviors: fasten safety belt or not, open the sunshield or not, use mobile phone or not
	Analysis Performance of Vehicle Picture	90 pieces/second (2 MP) 72 pieces/second (5 MP) 54 pieces/second (8 MP)
	Recognition Accuracy	Vehicle attribute: ≥85% (testing result)
Product Description	System Version	CentOS 7.6
	Device Type	All-in-one
	Device Version	V3.3.0
	Big Data Version	Fusion Big Data V1.6.1
	Cloud Storage Version	Micro Video Cloud V3.1.1
	Platform Version	IOT 1.6.1
Face Analysis	Data Type	Picture, video
	Facial Video Format	720P to 8 MP, standard H.264/H.265 Resolution: 1920 × 1080; head and shoulders width: 40 to 300 pixels Angle deviation: less than 60°(horizontal) and 30°(vertical) The ratio of covered to overall area should be less than 40%
	Video Frame Rate Requirement	25 fps
	Face Picture Format	JPG/JPEG, BMP, PNG, TIFF/TIF, Static GIF
	Face Picture Requirement	Resolution: 106 × 126 to 16 MP (Picture size: ≤ 8 MB) Pupil distance: 20 to 300 pixels recommended Face angle deviation: less than 45° (horizontal); 20° (vertical) Face picture angle of list library: ≤ 25° (vertical); ≤ 30° (horizontal) Clear and complete without colored-glasses and light reflection The ratio of covered to overall area should be less than 20% Pupil distance: ≥ 40 pixels
	Max. Number of Arming Lists	1 million
	Face Video Analysis and Comparison	32 channels (2 MP) 24 channels (2 MP to 5 MP) 16 channels (5 MP to 8 MP)

	Face Picture Analysis and Comparison	160 pieces per second
	Face Attribute	Smile, as well as the following behaviors: wearing a mask or glasses
	Recognition Accuracy	Detection, recognition and modelling for faces according to the second-generation ID card: ≥ 99% Detection and modelling for thumbnails of captured face pictures: ≥ 95% Proper alarm for face picture comparison: ≥ 85% (the similarity should be no less than 82%) Recognition for face attribute: ≥ 85%
Video Structuralizat ion	Data Type	Video
	Video Format	H.265,H.264
	Video Frame Rate Requirement	25 frames per second
	Picture Format	JPG/JPEG, BMP, PNG, TIFF/TIF, Static GIF
	Human Body Picture Requirement	Human body width: 80 to 300 pixels recommended Picture resolution: 256 × 256 to 9 MP recommended Clear and complete
	Vehicle Picture Requirement	Picture resolution: 256 × 256 to 9 MP Vehicle resolution: lager than 256 × 256 recommended License plate width: 80 to 180 pixels The included angle between the driving and vertical direction should be less than 45° Vertical angle deviation: 20° to 45°
	Analysis of Human Body and Vehicle Videos	32 channels (2 MP) 24 channels (5 MP) 16 channels (8 MP)
	Analysis of Human Body and Vehicle Pictures	120 pieces/second (2 MP) 48 pieces/second (5 MP) 36 pieces/second (8 MP)
	Human Body Attribute	Target direction/size/speed, coat/trousers type/color, hair style, with backpack, mask, whether carrying objects, whether riding, type of riding, number of people riding,
	Vehicle Attribute	Vehicle model, Vehicle color, license plate number, Vehicle main brand.
	Recognition Accuracy	Attribute recognition: ≥ 85%
Product Performance	Authorization Type	Device Encryption
	Algorithm Type	Vehicle picture analysis algorithm Facial picture/video analysis algorithm Video structuralization algorithm Security monitoring algorithm
	Protocol Type	ISAPI
	Cluster Capacity	Main and standby clusters available

		Mixed cluster with P4 and T4 available
		Concurrent performance: up to 3,000 channels of videos or 3,000 pictures
	Algorithm Version	Face picture: V4.5
		Vehicle: V3.5.1
		Human body: V1.6.0
Hardware Specifications	Memory Parameters	8 GB
	Hard Disk	240 GB
	CPU	1 × E3-1225 v3
	GPU Card	6 × KT2
	Chassis Height	1U
	External Interfaces	USB 3.0 × 4 + USB 2.0 × 2 + VGA × 1
	Max. Power Consumption	145 W
	Device Dimensions	439 mm (W) × 591 mm (D) × 44 mm (H) (17.28'' × 23.27'' × 1.73'')
	Package Dimensions	570 mm (W) × 780 mm (D) × 180 mm (H) (22.44'' × 30.71'' × 7.09'')
	PSU	CRPS 550 W × 2
Physical and Environmental Parameters	Storage and Transportation Temperature	-40 ℃ to 70 ℃ (-40 ℉ to 158 ℉)
	Net Weight (without package)	12 kg (26.46 lb.)
	Gross Weight (with package)	16 kg (35.27 lb.)

▪ **Available Model**

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