huperVision 4000
2D&3D Intelligent Video Surveillance

Ideal for Verticals

Huper Laboratories (known as huperLab) is a leading provider of intelligent video surveillance solutions, and a technology innovator on 2D & 3D video analytics, video/audio codecs and streaming technologies. Based on huperVision 4000 high-performance platform, the solution delivers self-developed and patent granted 2D & 3D video analytics with high accuracy for multiple intelligent surveillance applications. The 3D Video Analytics, utilized exclusive 3D stereo camera, works in stereo vision as human eyes to real-time detect moving objects in-depth that can better distinguish background, noise and moving target objects and effectively reduce the influence by light and shadow changes, the overlapping of moving objects, fallen leaves, raindrops and so on. Thus, it brings higher accuracy to count people in high density area, real-time measure object heights, as well as fit the various detection scenarios with different heights both for indoor and outdoor use.

■ huperVision 2D & 3D Intelligent Video Analytics

Video Analytics	Description		Camera
3D Video Analytics	3D People Counter	Bi-directionally count people with higher accuracy and less influenced by light and shadow changes	▶ huperEyes 3D Stereo Camera
	3D Virtual Fence	Perceive intrusions with higher accuracy when suspicious objects / people pass a predefined line or proceed the wrong way, and less influenced by light and shadow changes	
2D Video Analytics	People Counter Pro	Bi-directionally count people with the advanced software settings for different scenarios	
	People Counter/Flow Counting*	Calculate the amount of objects and people passing by the predefined line bi-directionally	▶ HD-SDI/CCTV/IP Cameras
	Access Counter	Count how many times the specific area/object has been accessed	
	Occupancy Counter	Count the number of people occupying in certain areas	
	Queue Length Management	Real-time detect the number of people in queue and estimate waiting time	
	Smoke Detection	Detect smoke and outline its location in the video	
	Face Detection	Can detect human faces immediately	
	Flame Detection Pro	Notify users while detecting flames, requires specific camera	▶ Specific camera models
	Flame Detection	Alarm users while detection flames	
	Loitering Detection	Draw the moving path, and alarms when suspicious people are loitering on the scene	
	Missing & Left Object Detection*	Send notifications if an existing/unattended object is missing/left for a period of time	
	Virtual Fence Detection*	Perceive intrusions when suspicious objects/people pass a predefined line or proceed the wrong way	
	Secure Zone Detection*	Alarm when intrusions occur in one or more predefined forbidden zones	
	Scene Change Detection*	Alarm when the camera lens are covered, sprayed, defocused, or repositioned	▶ HD-SDI/CCTV/IP Camera
	License Plate Recognition	Can real-time recognize license plate numbers, and archive the video for further car plate search	
	Car Plate Detection	Detect car plates and mark their position in real-time video	
	Video Stabilization	Analyze and stabilize video when the camera installed outdoors is shaking	
	Traffic Counter	Bi-directionally counts vehicles by sizes, such as trucks, buses, bikes and pedestrians, etc	

▶ **huperReporter**	• Query counting data from multiple remote/local counters on a daily, weekly and monthly basis
	• Consolidate counting data in different chart formats, including line charts,
	• Export counting data in CSV format for further analysis
	• Print charts and tables
	• Allow up to 500 counter connections to huperReporter

Note : 1. *Free built-in video analytics in huperVision 4000.   2. huperReporter works with huperVision v1.56 and above, and People Counter Pro/People Counter. More huperLab's counters will be supported in the next version.

■ huperEyes 3D Stereo Camera

Item	Description
Mounting Height	2.6 m to 3.5 m
Detection Zone*	3 x 3 m
Camera Installation Angle	60-90 degree
Camera Type	Analog (NTSC/PAL)
Lens	2.8mm/3.6mm
Supply Voltage	12V 1A
Dimension	168(W) x 50(H) x 50(L) mm
Weight	600g

Note : 1. *Detection zone may vary depending on the camera installation angle and mounting height.

■ huperVision IVS License Key

Item	Description
PC Interface	USB 2.0 (Internal/External)
Available Channel License	1CH - 64CH
Software Platform	huperVision 4000

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■ Flame Detection IP Camera

Product Model	HN-F381
Image Sensor	1/2.7" 2.0 Megapixel Progressive CMOS Sensor
Video Resolution/Frame Rate	1920 x 1080@ 30fps, 1280 x 720 @ 30fps, 720 x 480 @ 30fps
Video Frame Rate / Compression	Up to 30fps for all videos / H.264, MPEG4, M-JPEG
Minimum Illumination	0.0001Lux (Sense-up)
Second Video Output	1.0Vp-p Composite, 75Ω (BNC)
Signal to Noise Ratio (S/N)	More than 58dB
Menu	Can be set via browser
Day & Night Mode	Color / B&W / Auto / External
Auto Electronic Shutter	1/100,000 to 1/7.5 sec.
White Balance / DNR ; Sense Up	Auto_wide / Auto_normal / Sunny / Shadow / Indoor Lamp / FL1 / FL2	— ; Yes
Language	English / Japanese / Chinese (Traditional, Simplified) / Russian / Hungarian / German / Persian / Spanish / Polish / Dutch
Image Setting	Brightness / Contrast / Saturation / Sharpness / HUE / EV Compensation / AWB / Rotation / Exposure Mode / Exposure Priority / Auto IRIS / BLC / AGC
Integrated Video Detection	Motion Detection
Time Clock	Yes
Camera Control Interface	Pelco D, Pelco-P, Customer
Ethernet	10/100m auto negotiation
Browser	IE 8.0 or above
Bit Rate Transmission	64 up to 12,000 Kbps
Supported Protocols	TCP IP, UDP, HTTP, SMTP, FTP, NTP, DNS, DHCP, PPPoE, ARP, UPnP, RTSP, RTP, SNMP, TRAP, Ethernet (RJ-45 Wired 10/100/1000M Base-TX
Video Streaming	H.264, MPEG4 and M-JPEG Dual/Triple Streaming
Users / Security	Support 9 users ID/Password Protection
Alarm Trigger	File upload via FTP and email Notification via email, HTTP
Multicast	Yes
Connector	RJ45, DC Power, BNC Reset
Lens, Angle of View (H)	F2.8 ~ 12 mm
Water Resistance	IP66
Power Supply ; Consumption	12V DC/PoE ; 4W
Operation ; Storage Temp	-10°C~50°C ; -20°C~60°C
Operation ; Storage Humidity	Maximum : RH60% ; RH90%
Dimensions / Net Weight	80(DIA) x 160(D) mm / 520g

■ Flame Detection Analog Camera

Product Model	HA-F101
TV System	PAL / NTSC
Image Sensor	1/3" Sony 960H SuperHAD CCD II
Number of Total Pixels (CCD)	1020(H)x596(V) / 1020(H)x508(V)
Resolution	Color : 720TVL
Minimum Illumination	0.03Lux@F1.2 ; Sense Up : 0.0001Lux@F1.2
Wide Dynamic Range	512X Normal Camera (54dB)
Video Output	1.0Vp-p Composite, 75Ω (BNC)
Signal to Noise Ratio (S/N)	More than 54Db (AGC off)
Gamma correction	0.45
Mechanical IR Cut Filter (ICR)	Yes
Menu	OSD Control or by RS485 Control / UTC (Up the Coax)
Title	TITLE
Synchronizing System	INTERNAL/ LINE LOCK
Electronic Shutter	AUTO (1/50(60)~1/100,000 sec)/ MANUAL : 1/50(60), FL 1/120(100), 1/200, 1/250, 1/300, 1/350, 1/400, 1/450, 1/500, 1/600, 1/750, 1/1,000, 1/1,500, 1/2,000, 1/3,000, 1/4000, 1/10,00, 1/30,000, 1/60,000, 1/100,000 sec
Automatic Gain Control	0~200 Levels (Adjustable Level Settings)
White Balance	ATW / AWB / PUSH LOCK / MANUAL / 3200K / 6300K / ANTI CR
WDR ; BLC	WDR / BLC / OFF
High Light Compensation	ON/ OFF / AUTO
Flickerless	ON / OFF
Dynamic Noise Reduction	3D / 2D
Sense Up	AUTO(Limit x2~x512) / OFF
Digital Image Stabilizer (DIS)	ON/OFF
Language	ENGLISH/ TRADITIONAL CHINESE / SIMPLIFEID CHINESE
E-Zoom	x1~x256, Pan / Tilt Adjustable
Camera Control Interface	Pelco-D
Automatic IRIS; Connector	VIDEO/DC ; D4 IRIS Jack
Lens Mount	CS / C mount (With Adaptor Ring)
Power Supply ; Consumption	Standard : 12Vdc±10% ; 1.5W, Option : 12Vdc/24Vac (10.8~39Vdc/24Vac) ; 2.5W
Operation ; Storage Temp	-10°C~50°C ; -20°C~60°C
Operation ; Storage Humidity	Maximum : RH80% ; RH90%
Dimensions	64(W)x52(H)x120(L)mm
Net Weight	350g

Exclusive Design

huperEyes 3D Stereo Camera, with dual-lens exclusive design as human eyes, can capture stereo images for 3D moving object detection, construction, tracking and analysis. It brings the high accuracy level to over 98% with high tolerance to light and shadow changes, the overlapped moving objects, falling leaves, raindrops and so on.
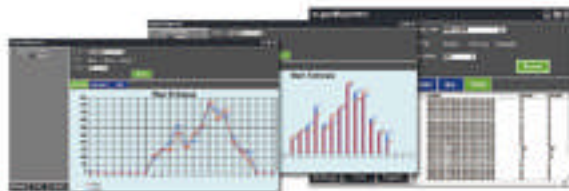
Spotlight

- Easy to Use & Setup
- Over 98% High Accuracy
- Applicable to an Indoor, Outdoor & High Density Areas
- Innovative Algorithm to be Tolerant to Light and Shadow Changes
- Real-time Height Analysis for Moving Objects
- Easy Integration & Configuration

Key Features & Benefits

• High Accurate Data for Business Intelligence

- Quickly analyze customer/visitor traffic in the store
- Identify hot zones and hot products in the store
- Evaluate in-store marketing effectiveness
- Heat Maps for customer/visitor movement analysis

• Efficient In-store Staffing

- Timely allocate on-site staffing to hot zones
- Improve sales services and marketing support
- Reduce labor waste in some areas

• Improve Customer Services & Satisfaction

- Instantly learn the in-store people flow to adjust air conditioning and lighting
- Monitor queue length to reduce customer wait time at check-out registers
- Proper staff approach to the customers/visitors who may need help

huperReporter

huperReporter is an easy-to-use data analyzer that generates traffic reports for huperLab counting products on a daily, weekly and monthly basis. The counting data can be presented in different chart formats, and exported as a CSV file for further analysis. huperReporter further allows up to 500 counter connections for data consolidation.

2D & 3D Video Analytics

Robust 2D Video Analytics

2D People Counter can handle the shadows and crowd problems caused by heavy people traffic and flow directions to maintain high accuracy level.

Flame and Smoke detection covers wide open spaces and longer distances within the camera field of view. Once events detected, the system will send alerts to operators within 15 seconds for early warning.

Innovative 3D Video Analytics

huperLab's self-developed 3D video algorithm constructs 3D objects and environments in real-time to perform stereo vision for people counting and virtual fence detection.

Strengths of Stereo Vision Analytics

The stereo vision captures three-dimensional information to better distinguish background, lights and shadows, and moving target objects. The stereo vision detection works well both for indoor and outdoor use for higher accuracy.

Various Applications

Count Restroom Users to Improve Clean Maintenance

huperLab 3D Stereo People Counter
SDK/CGI Integration Support

People Counting & Conversion in Retail Stores

Guests Count to Increase Staff Efficiency and Air-conditioning/Lighting adjustment

Bus Seats Availability & Passenger Count

Staff Optimization & Marketing Effectiveness in Shopping Malls

Flame & Smoke Detection For Perfect Early Warning

Key Features & Benefits

- Real-time Detection & Recording
- Instantly Verify Flame and Smoke Incidents
- Early Warning and Quick Alert within 10-15 Seconds
- Detection Coverage for Wide-open Detection Area
- High Accuracy with Flexible Parameter Adjustments
- Timely Activate Integrated Emergency Equipment
- View Live Video on Smartphones and Tablets
- Push Video Notifications with Event Video Playback

huperCenter

INTERNET

Push Notification Services

CCTV & IP Camera Support

Tablets

Smart Phones

Flame & Smoke Detection

Flame Detection/Flame Detection Pro

- Real-time Vision-based Detection & Recording
- Ideal for Wide-open and High Ceiling Detection
- Push Video Notification on iOS/Android Smartphones and Tablets
- Easy to Install and Integrate with Emergency Equipment

Smoke Detection

- Real-time Vision-based Detection & Recording
- Timely Verify Smoke-like Incident, and Outline the Dynamic
- Smoke in Seconds
- Push Video Notification on iOS/Android Smartphones and Tablets
- Easy to Install and Ideal to Detect Smoke Caused by High Temperature

Applicable Scenarios

- Factory & Industrial Sites
- Power Plants
- Oil Tanks
- Schools
- Warehouses and Storage Rooms
- Entertainment Places
- Museums & Art Galleries