# 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 | HD-SDI/CCTV/IP Cameras |
| | People Counter/Flow Counting* | Calculate the amount of objects and people passing by the predefined line bi-directionally | |
| | 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 | Specific camera models |
| | Face Detection | Can detect human faces immediately | |
| | Flame Detection Pro | Notify users while detecting flames, requires specific camera | |
| | 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**

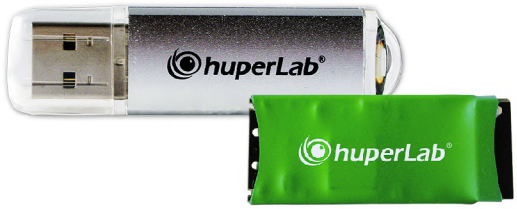
- Query counting data from multiple remote/local counters on a daily, weekly and monthly basis
- Consolidate counting data in different chart formals, including line charts,
- Export counting data in CSV format for further analysis
- Print charts and tables
- Allow up to 500 counter connections to huperReporter

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 : RH80% ; 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 |

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# STEREO VISION **3D Stereo Camera**

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

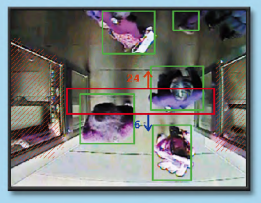
huperReporter is an easy-to-use data analyzer that generates traffic reports for huperLab counting products on a daily, weekly and monthly basis. The counting data can be presented in different chart formats, and exported as a CSV file for further analysis. huperReporter further allows up to 500 counter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

CCTV & IP Camera Support

INTERNET

Push Notification Services

## 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