

# GV-GPH2800 AI 2MP H.265 Super Low Lux WDR Pro IP Pinhole Camera



- AI deep learning: AI Perimeter Protection & Classification (Human, Vehicle)
- 1/2.8" progressive scan CMOS sensor
- Minimum illumination at 0.05 lux
- Triple streams from H.265, H.264 and MJPEG
- Up to 30 fps at 1920 x 1080
- Day and night function (electronic)
- Built-in micro SD card slot (SD / SDHC / SDXC / UHS-I, Class 10) for local storage
- Two-way audio capable
- Eight sensor inputs and four alarm outputs
- DC 12V / PoE (IEEE 802.3af)
- Wide Dynamic Range Pro (WDR Pro)
- Defog
- 3D noise reduction
- Motion detection
- AI analytics (Object Abandoned / Missing, Line Crossing, Region Entrance, Region Exiting, Region Intrusion, Target Counting, Face Detection, Heat Map)
- Privacy mask
- Text overlay
- IP address filtering
- 12 languages supported
- ONVIF (Profile G, S, T) conformant

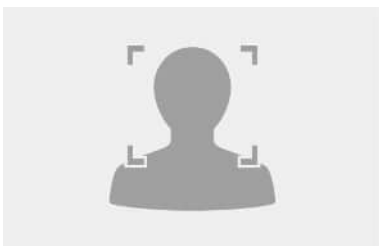
## Introduction

GV-GPH2800 pinhole camera offers an option for clandestine surveillance. The compact camera lens can be installed in surveillance sites with limited space such as behind the panel of ATM machines. The camera is also ideal for locations where discreet surveillance is desirable, such as at banks, hotels, museums, stores, and offices. The camera is equipped with 1/2.8" progressive scan super low lux CMOS, with a day and night electronic lens to provide a clear view anytime of a day.

Empowered by deep learning algorithms, AI technology distinguishes human and vehicles from other moving objects. Integrated with GeoVision Video Management Software (VMS), it supports AI perimeter protection, real time alert, events playback and more.

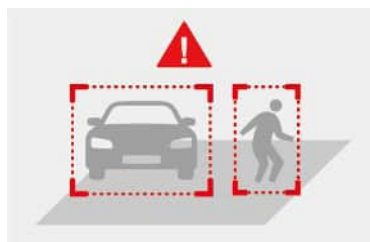
## Deep Learning Function

### Face Detection



### AI Perimeter Protection

(Intrusion, Crossing Line  
Entering Area, Leaving Area)

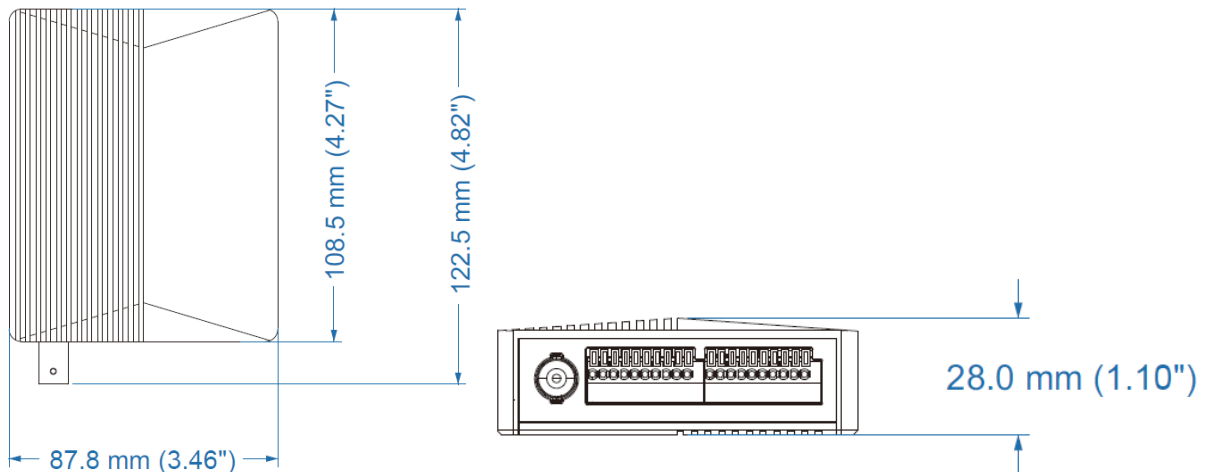


### People Counting

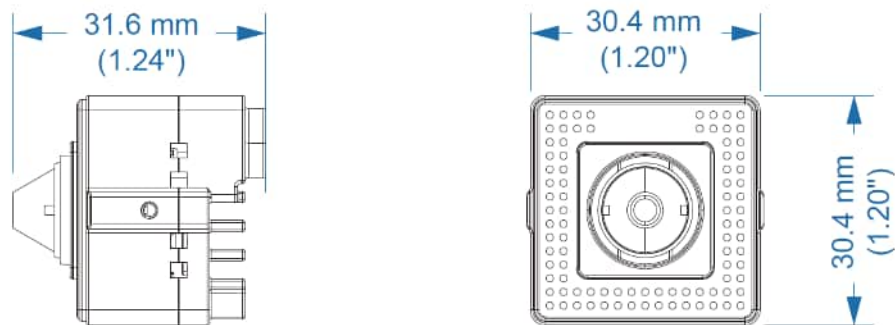


## Dimensions

- Main Body



- Camera Lens



## Specifications

| Camera               |                              |                         |
|----------------------|------------------------------|-------------------------|
| Image Sensor         | 1/2.8" progressive scan CMOS |                         |
| Picture Elements     | 1920 (H) x 1080 (V)          |                         |
| Minimum Illumination | Color                        | 0.05 Lux (F2.2, AGC ON) |
|                      | B/W                          |                         |
| Gain Control         | Automatic                    |                         |
| S/N Ratio            | 52 dB                        |                         |
| WDR Pro              | Yes                          |                         |
| Dynamic Range        | 120 dB                       |                         |
| Lens                 |                              |                         |
| Megapixel            | 2 MP                         |                         |
| Day/Night            | Yes (Electronic)             |                         |
| Iris                 | Fixed                        |                         |
| Focal Length         | 2.8 mm                       |                         |
| Maximum Aperture     | F/2.2                        |                         |
| Mount                | M12                          |                         |
| Image Format         | 1/2.8"                       |                         |
| Horizontal FOV       | 104°                         |                         |
| Operation            | Focus                        | Fixed                   |
|                      | Zoom                         | Fixed                   |
|                      | Iris                         | Fixed                   |

| Operation                     |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                             |                                                                             |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Video Compression             | H.265, H.265+, H.264, H.264+, MJPEG                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                             |                                                                             |
| Video Streaming               | Triple streams                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                             |                                                                             |
| Video Resolution              | Main Stream                                                                                                                                                                                                                                                                                                                                                                                                                     | 1920 x 1080 (Default), 1280 x 720, 704 x 480                                                                |                                                                             |
|                               | Sub Stream                                                                                                                                                                                                                                                                                                                                                                                                                      | 1280 x 720 (Default), 704 x 480, 352 x 240                                                                  |                                                                             |
|                               | Third Stream                                                                                                                                                                                                                                                                                                                                                                                                                    | 704 x 480 (Default), 480 x 240, 352 x 240                                                                   |                                                                             |
| Frame Rate                    | <ul style="list-style-type: none"> <li>- 30 fps at 1920 x 1080, 30 fps at 1280 x 720, 30 fps at 704 x 480, 30 fps at 352 x 240, 30 fps at 480 x 240 (60 Hz)</li> <li>- 25 fps at 1920 x 1080, 25 fps at 1280 x 720, 25 fps at 704 x 576, 25 fps at 352 x 288, 25 fps at 480 x 240 (50 Hz)</li> </ul> * The frame rate and the performance may vary depending on the number of connections and data bitrates (different scenes). |                                                                                                             |                                                                             |
| Video Analytics               | Motion Detection, Video Exception Detection (Scene Change, Video Blur and Abnormal Color Detection), Object Abandoned/Missing Detection                                                                                                                                                                                                                                                                                         |                                                                                                             |                                                                             |
| Smart Alarm                   | Motion Detection, Sensor Alarm, SD Card Error, SD Card Full, IP Address Conflict, Cable Disconnection                                                                                                                                                                                                                                                                                                                           |                                                                                                             |                                                                             |
| Heat Map                      | On / Off                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                             |                                                                             |
| Image Setting                 | Brightness, Contrast, Saturation, Hue, Sharpness, Image Orientation (Flip, Mirror, 0°, 90°, 180°, 270° - including Corridor format), WDR, Defog, NR                                                                                                                                                                                                                                                                             |                                                                                                             |                                                                             |
| Audio Compression             | G.711                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                             |                                                                             |
| Audio Support                 | Two-way audio capable (external speaker and microphone required)                                                                                                                                                                                                                                                                                                                                                                |                                                                                                             |                                                                             |
| Digital I/O                   | Input                                                                                                                                                                                                                                                                                                                                                                                                                           | 8 inputs, dry contact, NO / NC                                                                              |                                                                             |
|                               | Output                                                                                                                                                                                                                                                                                                                                                                                                                          | 4 relay outputs (24 V DC / 1A 125 V AC)                                                                     |                                                                             |
| Network                       |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                             |                                                                             |
| Interface                     | 100 Mbps Ethernet                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                             |                                                                             |
| Ethernet Protocol             | UDP, IPv4, IPv6, DHCP, NTP, R TSP, RTMP, PPPoE, DDNS, SMTP, FTP, SNMP, 802.1x, UPnP, HTTPS, HTTP POST, QoS, ONVIF                                                                                                                                                                                                                                                                                                               |                                                                                                             |                                                                             |
| Deep Learning Function        |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                             |                                                                             |
| AI Perimeter Protection       | -Line Crossing, Region Entrance, Region Exiting, Region Intrusion, Target Counting, Heat Map: Human & Vehicle classification<br>-Face Detection                                                                                                                                                                                                                                                                                 |                                                                                                             |                                                                             |
| Mechanical                    |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                             |                                                                             |
| Connectors                    | Power                                                                                                                                                                                                                                                                                                                                                                                                                           | Main Body                                                                                                   | Input: PoE (IEEE 802.3af) / DC 12 V;<br>Output: DC 12 V, 0.5 A (Max. 5.5 W) |
|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                 | Camera                                                                                                      | DC 12 V, 0.5 ~ 1 A (external power supply required)                         |
|                               | Ethernet                                                                                                                                                                                                                                                                                                                                                                                                                        | RJ-45                                                                                                       |                                                                             |
|                               | Audio                                                                                                                                                                                                                                                                                                                                                                                                                           | 1 In (stereo phone jack, 3.5 mm / 0.14")<br>1 Out (stereo phone jack, 3.5 mm / 0.14")                       |                                                                             |
|                               | Video Input                                                                                                                                                                                                                                                                                                                                                                                                                     | BNC connector                                                                                               |                                                                             |
|                               | Local Storage                                                                                                                                                                                                                                                                                                                                                                                                                   | Micro SD card slot (SD / SDHC / SDXC / UHS-I, Class 10), max. 256 GB<br>*UHS-II card type is not supported. |                                                                             |
| General                       |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                             |                                                                             |
| Environment Temperature       | -30 °C ~60 °C (23 °F ~ 122 °F)                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                             |                                                                             |
| Humidity                      | 0% to 95% (no condensation)                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                             |                                                                             |
| Power Source                  | PoE (IEEE 802.3af) / DC 12 V                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                             |                                                                             |
| Max. Power Consumption        | 5.5 W                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                             |                                                                             |
| Dimension                     | Main Body                                                                                                                                                                                                                                                                                                                                                                                                                       | 108.5 x 87.8 x 28 mm (4.27" x 3.46" x 1.10")                                                                |                                                                             |
|                               | Camera                                                                                                                                                                                                                                                                                                                                                                                                                          | 31.6 x 30.4 x 30.4 mm (1.24" x 1.20" x 1.20")                                                               |                                                                             |
| Weight (with main body mount) | 323.8 g (0.71 lb)                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                             |                                                                             |
| Certification                 | CE, FCC, RoHS compliant                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                             |                                                                             |
| Web Interface                 |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                             |                                                                             |
| Installation Management       | Web-based configuration                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                             |                                                                             |
| Maintenance                   | Firmware upgrade through Web Browser or Utility                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                             |                                                                             |
| Access from Web Browser       | Live View, Playback, Video Recording, Image Quality, Bandwidth Control, Image Snapshot, Two-way Audio, Digital Zoom, Text Overlay, Image Masking, Intelligent Mark                                                                                                                                                                                                                                                              |                                                                                                             |                                                                             |
| Language                      | Czech, English, French, German, Hungarian, Italian, Japanese, Polish, Portuguese, Russian, Spanish, Traditional Chinese                                                                                                                                                                                                                                                                                                         |                                                                                                             |                                                                             |

## Software Applications



|                     |                                                                                                                                                                                                                                           |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Software Supported  | GV-VMS (V17.4.7 or later, V18.3.2 or later), GV-Edge Recording Manager (Windows Version) V2.2.7 or later, GV-Edge Recording Manager (Mac Version) V1.3.0 or later, GV-Control Center V4.1.1 or later, GV-Recording Server V2.1.0 or later |
| Smart Device Access | GV-Eye for iOS / Android (V3.1.0 or later)                                                                                                                                                                                                |
| Live Viewing        | Browser (IE, Edge, Chrome, Firefox, Safari)                                                                                                                                                                                               |

**Note:** Specifications are subject to change without notice.

## Packing List

- |                    |                          |
|--------------------|--------------------------|
| 1. Pinhole Camera  | 4. Screw Kit             |
| 2. Main Body Mount | 5. Drill Template Paster |
| 3. Analog Mount    | 6. Download Guide        |

## Accessories

| Model No.     |                                                                                     | Details                                                                                                                                                                                  |
|---------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GV-PA191      |   | GV-PA191 is a Power over Ethernet (PoE) adapter designed to provide power to the IP device through a single Ethernet cable.                                                              |
| GV-PA301      |  | GV-PA301 is a Gigabit Power over Ethernet (PoE) adapter.                                                                                                                                 |
| GV-PoE Switch |                                                                                     | The GV-PoE Switch is designed to provide power along with network connection for IP devices. The GV-PoE Switch is available in various models with different numbers and types of ports. |
| Power Adapter |                                                                                     | Contact our sales representatives for the countries and areas supported.                                                                                                                 |