

## **GV-GDRF4800 AI 4MP H.265 Super Low Lux WDR Pro Full Color White LED IR**

### **Mini Fixed Rugged IP Dome**



- AI deep learning: AI Perimeter Protection & Classification (Human, Vehicle)
- 1/3" progressive scan CMOS sensor
- Min. illumination at 0.005 lux
- Triple streams from H.265, H.264 or MJPEG
- Up to 30 fps at 2560 x 1440
- Wide Dynamic Range Pro (WDR Pro)
- Smart white LED distance up to 30 m (100 ft)
- Intelligent IR
- IR distance up to 30 m (100 ft)
- Ingress protection (IP67)
- Vandal resistance (IK10 for metal casing)
- 3-axis mechanism (pan / tilt / rotate)
- Built-in microphone
- Built-in microSD card slot (SD / SDHC / SDXC) for local storage
- DC 12V / PoE (IEEE 802.3af)
- AI analytics (Line Crossing, Region Intrusion)
- Smart lighting switch between IR LED (for motion detection) and White LED (for people, vehicle and motorcycle detection)
- 3D noise reduction
- Motion detection
- Text overlay
- Privacy mask
- 21 languages supported
- ONVIF (Profile G, S, T, M) conformant

### **Introduction**

GV-GDRF4800 is a 4 MP outdoor mini fixed rugged IP dome camera, equipped with smart white LEDs for full color surveillance during nighttime. The camera supports H.265 video codec to achieve a better compression ratio while maintaining high-quality pictures at reduced network bandwidth. GV-GDRF4800 adheres to IP67 and IK10 standards and can be powered through PoE.

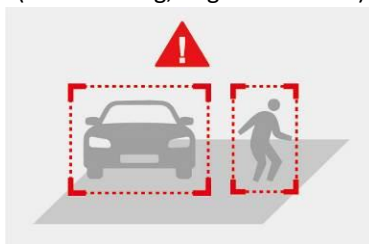
Empowered by deep learning algorithms, AI technology distinguishes humans and vehicles from other moving objects. Integrated with GeoVision Video Management Software (GV-VMS), it supports AI perimeter protection, real-time alert, playback, and more.

### **Models**

| Model          | Iris  | Focal Length (mm) | Horizontal FOV | Maximum Aperture | Image Format |
|----------------|-------|-------------------|----------------|------------------|--------------|
| GV-GDRF4800-2F | Fixed | 2.8 mm            | 94°            | F/1.6            | 1/3"         |
| GV-GDRF4800-3F |       | 3.6 mm            | 78°            |                  |              |

## Deep Learning Function

### AI Perimeter Protection (Line Crossing, Region Intrusion)



## Specifications

| Camera               |                               |                                                                                                                        |                 |                |               |
|----------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|---------------|
| Image Sensor         |                               | 1/3" progressive scan CMOS                                                                                             |                 |                |               |
| Picture Elements     |                               | 2560 (H) x 1440 (V)                                                                                                    |                 |                |               |
| Minimum Illumination | Color                         | 0.005 Lux (F1.6, AGC ON)                                                                                               |                 |                |               |
|                      | IR On                         | 0 Lux                                                                                                                  |                 |                |               |
| Shutter Speed        |                               | Auto / Manual (1 ~ 1/100000 sec)                                                                                       |                 |                |               |
| White Balance        |                               | Auto / Manual                                                                                                          |                 |                |               |
| Gain Control         |                               | Auto / Manual                                                                                                          |                 |                |               |
| S/N Ratio            |                               | 50 dB                                                                                                                  |                 |                |               |
| WDR Pro              |                               | Yes                                                                                                                    |                 |                |               |
| Dynamic Range        |                               | 120 dB                                                                                                                 |                 |                |               |
| Lens                 |                               | GV-GDRF4800-2F                                                                                                         |                 | GV-GDRF4800-3F |               |
| Megapixel            |                               | 4 MP                                                                                                                   |                 |                |               |
| Day / Night          |                               | Yes (with removable IR-cut filter)                                                                                     |                 |                |               |
| Lens Type            |                               | Fixed                                                                                                                  |                 |                |               |
| Focal Length         |                               | 2.8 mm                                                                                                                 |                 | 3.6 mm         |               |
| Maximum Aperture     |                               | F/1.6                                                                                                                  |                 |                |               |
| Mount                |                               | M12                                                                                                                    |                 |                |               |
| Image Format         |                               | 1/3"                                                                                                                   |                 |                |               |
| FOV                  | Horizontal                    | 94°                                                                                                                    |                 | 78°            |               |
|                      | Vertical                      | 50°                                                                                                                    |                 | 40°            |               |
|                      | Diagonal                      | 115°                                                                                                                   |                 | 97°            |               |
| Operation            | Focus                         | Fixed                                                                                                                  |                 |                |               |
|                      | Zoom                          | Fixed                                                                                                                  |                 |                |               |
|                      | Iris                          | Fixed                                                                                                                  |                 |                |               |
| IR LED               | Quantity                      | 2 IR LEDs                                                                                                              |                 |                |               |
|                      | Max. IR Distance              | 30 m (100 ft)                                                                                                          |                 |                |               |
| Smart Illumination   | Quantity                      | 2 White LEDs                                                                                                           |                 |                |               |
|                      | Max. White LED Light Distance | 30 m (100 ft)                                                                                                          |                 |                |               |
| DORI                 |                               | Detect                                                                                                                 | Observe         | Recognize      | Identify      |
| Lens                 | 2.8 mm                        | 62 m (203.4 ft)                                                                                                        | 25 m (82.0 ft)  | 12 m (39.3 ft) | 6 m (19.6 ft) |
|                      | 3.6 mm                        | 79 m (259.1 ft)                                                                                                        | 32 m (104.9 ft) | 16 m (52.4 ft) | 8 m (26.2 ft) |
| Operation            |                               |                                                                                                                        |                 |                |               |
| Video Compression    |                               | H.265, H.265+, H.264, H.264+, MJPEG                                                                                    |                 |                |               |
| Video Streaming      |                               | Triple streams                                                                                                         |                 |                |               |
| Video Resolution     | Main Stream                   | 2560 x 1440 (default), 2304 x 1296, 1920 x 1080, 1280 x 720                                                            |                 |                |               |
|                      | Sub Stream                    | 1280 x 720 (default), 704 x 480, 704 x 576, 640 x 480, 352 x 240, 352 x 288                                            |                 |                |               |
|                      | Third Stream                  | 704 x 480 (default), 704 x 576, 480 x 240, 352 x 240, 352 x 288                                                        |                 |                |               |
| Frame Rate           |                               | Max. 30 fps (60 Hz) at 2560 x 1440, 2304 x 1296, 1920 x 1080, 1280 x 720, 704 x 480, 640 x 480, 480 x 240, 352 x 240   |                 |                |               |
|                      |                               | Max. 25 fps (50 Hz) at 2560 x 1440, 2304 x 1296, 1920 x 1080, 1280 x 720, 704 x 576, 640 x 480, 480 x 240, 352 x 288   |                 |                |               |
|                      |                               | * The frame rate and performance may vary depending on the number of connections and data bitrates (different scenes). |                 |                |               |

|                                                                              |               |                                                                                                                                                                                                                                                                                           |                                     |
|------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Maximum Throughput                                                           |               | 36 Mbps                                                                                                                                                                                                                                                                                   |                                     |
| Maximum Streams<br>* When the total bitrate is within the maximum throughput |               | 6                                                                                                                                                                                                                                                                                         |                                     |
| Video Analytics                                                              |               | Motion Detection, Object Abandoned / Missing Detection, Video Exception                                                                                                                                                                                                                   |                                     |
| Smart Alarm                                                                  |               | Motion Detection, SD Card Error, SD Card Full, IP Address Conflict, Cable Disconnection, Scene Change Detection, Video Blur Detection, Abnormal Color Detection                                                                                                                           |                                     |
| Image Setting                                                                |               | Brightness, Contrast, Hue, Saturation, Sharpness, 3D Noise Reduction, BLC, Antiflicker, White Balance, Shutter, Gain, Image Orientation (Flip, Mirror, 0°, 90°, 180°, 270° – including Corridor format)                                                                                   |                                     |
| Audio Compression                                                            |               | G.711                                                                                                                                                                                                                                                                                     |                                     |
| Audio Support                                                                |               | One-way audio                                                                                                                                                                                                                                                                             |                                     |
| Deep Learning Function                                                       |               |                                                                                                                                                                                                                                                                                           |                                     |
| AI Analytics                                                                 |               | Line Crossing, Region Intrusion (Human & Vehicle classification)<br>* The two functions can only be enabled one at a time.                                                                                                                                                                |                                     |
| Network                                                                      |               |                                                                                                                                                                                                                                                                                           |                                     |
| Interface                                                                    |               | 10/100 Ethernet                                                                                                                                                                                                                                                                           |                                     |
| Protocol                                                                     |               | 802.1x, DDNS, DHCP, FTP, HTTP POST, HTTP, HTTPS, IPv4, IPv6, NTP, ONVIF (Profile G, S, T, M), PPPoE, QoS, RTCP, RTMP, RTP, RTSP, SMTP, SNMP, UDP, UPnP                                                                                                                                    |                                     |
| Mechanical                                                                   |               |                                                                                                                                                                                                                                                                                           |                                     |
| Camera Angle Adjustment                                                      | Pan           | 0 ~ 355°                                                                                                                                                                                                                                                                                  |                                     |
|                                                                              | Tilt          | 0 ~ 70°                                                                                                                                                                                                                                                                                   |                                     |
|                                                                              | Rotate        | 0 ~ 180°                                                                                                                                                                                                                                                                                  |                                     |
| Connectors                                                                   | Power         | DC jack                                                                                                                                                                                                                                                                                   |                                     |
|                                                                              | Ethernet      | RJ-45 connector                                                                                                                                                                                                                                                                           |                                     |
|                                                                              | Audio         | Built-in microphone                                                                                                                                                                                                                                                                       | Yes                                 |
|                                                                              |               | External microphone required                                                                                                                                                                                                                                                              | Yes (audio jack, 3.5 mm or 0.14 in) |
|                                                                              |               | Built-in speaker                                                                                                                                                                                                                                                                          | No                                  |
|                                                                              |               | External speaker required                                                                                                                                                                                                                                                                 | No                                  |
|                                                                              |               | * Choose either the built-in or external microphone.                                                                                                                                                                                                                                      |                                     |
|                                                                              |               | * The Audio In port only supports microphones with a power supply.                                                                                                                                                                                                                        |                                     |
|                                                                              | Local Storage | microSD card slot (SD / SDHC / SDXC), up to 256 GB                                                                                                                                                                                                                                        |                                     |
| General                                                                      |               |                                                                                                                                                                                                                                                                                           |                                     |
| Operating Temperature                                                        |               | -30°C ~ 60°C (-22°F ~ 140°F)                                                                                                                                                                                                                                                              |                                     |
| Humidity                                                                     |               | 0 ~ 95% (no condensation)                                                                                                                                                                                                                                                                 |                                     |
| Power Source                                                                 |               | DC 12V, 1A / PoE (IEEE 802.3af)                                                                                                                                                                                                                                                           |                                     |
| Max. Power Consumption                                                       |               | 5.5 W                                                                                                                                                                                                                                                                                     |                                     |
| Dimensions                                                                   |               | Ø 119 × 87.8 mm (Ø 4.7 × 3.5 in)                                                                                                                                                                                                                                                          |                                     |
| Weight                                                                       |               | 0.64 kg (1.41 lb)                                                                                                                                                                                                                                                                         |                                     |
| Ingress Protection                                                           |               | IP67                                                                                                                                                                                                                                                                                      |                                     |
| Vandal Resistance                                                            |               | IK10 for metal casing                                                                                                                                                                                                                                                                     |                                     |
| Certification                                                                |               | CE, FCC, RoHS, UKCA 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, Digital Zoom, Text Overlay, Image Masking, Intelligent Mark                                                                                                                                       |                                     |
| Language                                                                     |               | Chinese Traditional, Czech, Dutch, English, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Spanish, Spanish (Latin America), Turkish, Ukrainian                                                                   |                                     |
| Software Applications                                                        |               |                                                                                                                                                                                                                                                                                           |                                     |
| Software Supported                                                           |               | GV-VMS (V17.4.8 / V18.3.5 or later, patch files required / V20.0.0 or later), GV-Control Center (V4.2.1 or later, patch files required), GV-Edge Recording Manager (V2.3.0 or later), GV-Recording Server (V2.1.1 or later, patch files required), GV-IP Device Utility (V9.0.4 or later) |                                     |
| Smart Device Access                                                          |               | GV-Eye for iOS and Android (V3.4.1 or later)                                                                                                                                                                                                                                              |                                     |
| Live Viewing                                                                 |               | Web Browser (Chrome, Edge, Firefox, Safari), Mobile App                                                                                                                                                                                                                                   |                                     |

**Note:**

1. To avoid affecting IR or white LED performance, follow the cleaning guidelines below.
  - Do not touch or wipe the dome cover surface directly during installation or use, as acidic sweat may corrode the coating and degrade image quality.
  - Remove dust with an oil-free soft brush or a hair dryer. For smudges, gently wipe from the center outward with an oil-free cotton cloth or detergent-soaked paper. Always use a dry, soft cloth when wiping, and replace the cloth and repeat if needed.
  - Avoid using hard materials or alkaline cleaners, as they may damage the surface.
2. All specifications are subject to change without notice.

**Packing List**

- |                          |                          |
|--------------------------|--------------------------|
| 1. GV-GDRF4800 Mini Dome | 4. Drill Template Paster |
| 2. Waterproof Rubber Set | 5. Download Guide        |
| 3. Screw Kit             |                          |

**Accessories**

| Model No.                                                          | Name                    |                                                                                     | Details                                                                                                                     |
|--------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| GV-Mount211-4                                                      | Wall Mount Bracket      |    | Dimensions: 129.5 x 155 x 74.5 mm<br>(5.10 x 6.10 x 2.93 in)<br>Weight: 0.53 kg (1.16 lb)                                   |
| GV-Mount211-8<br>(must be used with Mount517)                      | Wall Mount Bracket      |   | Dimensions: 188.4 x 121 x 137.3 mm<br>(7.41 x 4.76 x 5.4 in)<br>Weight: 0.52 kg (1.15 lb)                                   |
| GV-Mount314<br>(must be used with Mount211-8)                      | Corner Mount Bracket    |  | Dimensions: 215 x 121.4 x 215 mm<br>(8.46 x 4.78 x 8.46 in)<br>Weight: 2.05 kg (4.52 lb)                                    |
| GV-Mount470<br>(must be used with Mount211-8)                      | Pole Mount Bracket      |  | Dimensions: 163.3 x 54.5 x 215 mm<br>(6.43 x 2.15 x 8.46 in)<br>Weight: 1.10 kg (2.43 lb)                                   |
| GV-Mount517                                                        | Junction Box            |  | Dimensions: 117.9 x 143.3 x 39 mm<br>(4.64 x 5.64 x 1.54 in)<br>Weight: 0.24 kg (0.53 lb)                                   |
| GV-Mount927<br>(for standard US single and double gang boxes only) | Power Box Mount Bracket |  | Dimensions: Ø 145 x 11.2 mm<br>(Ø 5.71 x 0.44 in)<br>Weight: 0.2 kg (0.44 lb)                                               |
| GV-PA191                                                           | PoE Adapter             |  | GV-PA191 is a Power over Ethernet (PoE) adapter designed to provide power to the IP device through a single Ethernet cable. |

GV-PA301

Gigabit PoE Adapter



GV-PA301 is a Gigabit Power over Ethernet (PoE) adapter.

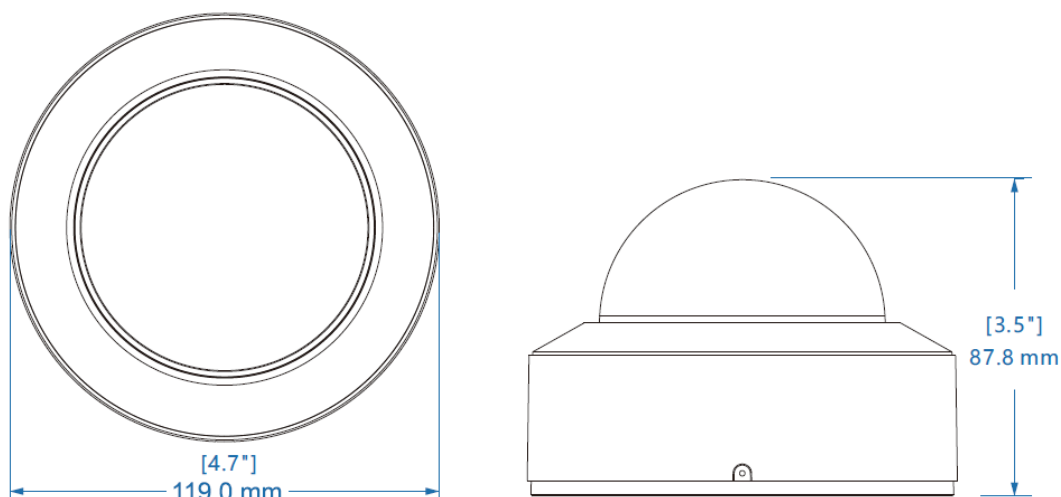
GV-POE Switch

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.

## Dimensions



## Mounting Type

| Wall Bracket Mount                                                                 | Junction Box Mount                                                                  | Junction Box Mount                                                                   | Wall Bracket Mount                                                                    |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| GV-Mount211-4                                                                      | GV-Mount517                                                                         | GV-Mount517                                                                          | GV-Mount211-8                                                                         |
|  |  |  |  |

| Junction Box Mount                                                                   | Wall Bracket Mount                                                                   | Corner Bracket Mount                                                                 |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| GV-Mount517                                                                          | GV-Mount211-8                                                                        | GV-Mount314                                                                          |
|  |  |  |

| Junction Box Mount | Wall Bracket Mount | Pole Bracket Mount |
|--------------------|--------------------|--------------------|
| GV-Mount517        | GV-Mount211-8      | GV-Mount470        |

The diagram illustrates the installation of a camera using different mounting brackets. A white dome camera is connected to a white wall bracket (GV-Mount211-8) through a white arm (GV-Mount517). The wall bracket is shown being mounted to a wall with three screws. A blue bracket (GV-Mount470) is also shown, which is used for pole mounting.