

# GV-GVD12810 AI 12MP H.265 4.3x Zoom Super Low Lux WDR IR Vandal Proof

## IP Dome



- AI deep learning: AI Perimeter Protection & Classification (Human, Vehicle)
- 1/1.7" progressive scan CMOS sensor
- Min. illumination at 0.006 lux
- Five streams from H.265, H.264 and MJPEG
- Up to 30 fps at 4000 x 3000
- Intelligent IR
- IR distance up to 50 m (165 ft)
- Day and Night function (with removable IR-cut filter)
- Two-way audio capable
- Built-in microphone
- Built-in microSD card slot (SD / SDHC / SDXC) for local storage
- Ingress protection (IP67)
- Vandal resistance (IK10 for metal casing)
- 3-axis mechanism (pan / tilt / rotate)
- DC 12V / PoE (IEEE 802.3af)
- Defog
- 3D noise reduction
- AI analytics (Line Crossing, Region Entrance, Region Exiting, Region Intrusion, Target Counting, Heat Map, Video Metadata, Loitering Detection, Illegal Parking, Face Detection)
- Motion detection
- Text overlay
- Privacy mask
- 20 languages supported
- ONVIF (Profile G, S, T, M) conformant

## Introduction

GV-GVD12810 is a 12 MP vandal proof IP dome camera, equipped with an automatic IR-cut filter and IR LEDs for day and night surveillance. The camera supports H.265 video codec to achieve a better compression ratio while maintaining high-quality pictures at reduced network bandwidth. GV-GVD12810 adheres to IP67 and IK10 standards and can be powered through PoE.

Empowered by deep learning algorithms, its 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.

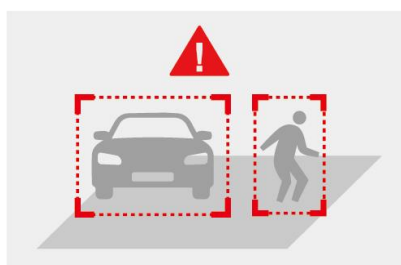
## Deep Learning Function

### Face Detection

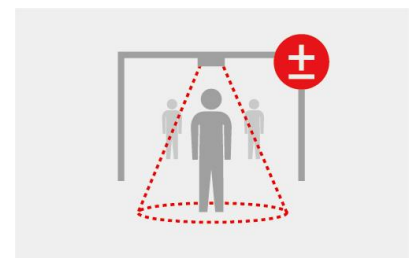


### AI Perimeter Protection

(Region Intrusion, Line Crossing, Region Entrance, Region Exiting)



### People Counting



## Specifications

Camera					
Image Sensor		1/1.7" progressive scan CMOS			
Picture Elements		4000 (H) x 3000 (V)			
Minimum Illumination	Color	0.006 Lux (F1.4, AGC ON)			
	IR On	0 Lux			
Shutter Speed		Automatic, Manual (1/3 ~ 1/100000 sec)			
White Balance		Automatic, Manual			
Gain Control		Automatic, Manual			
S/N Ratio		50 dB			
WDR Pro		No			
Dynamic Range		75 dB			
Lens					
Megapixel		12 MP			
Day/Night		Yes (with removable IR-cut filter)			
Focal Length		2.8-12 mm			
Lens Type		Motorized			
Maximum Aperture		F/1.4			
Mount		Ø14			
FOV	Horizontal	96° ~ 46°			
	Vertical	70° ~ 35°			
	Diagonal	128° ~ 58°			
Operation	Focus	Auto / Manual			
	Zoom	4.3x			
	Iris	DC			
IR LED Quantity		3 IR LEDs			
Max. IR Distance		50 m (165 ft)			
DORI		Detect	Observe	Recognize	Identify
Lens	2.8-12 mm (W)	86 m (282.1 ft)	34 m (111.5 ft)	17 m (55.7 ft)	9 m (29.5 ft)
	2.8-12 mm (T)	190 m (623.3 ft)	76 m (249.3 ft)	38 m (124.6 ft)	19 m (62.3 ft)
Operation					
Video Compression		H.265, H.265+, H.264, H.264+, MJPEG			
Video Streaming		Five streams			
Video Resolution	Main Stream	4000 x 3000 (Default), 3840 x 2160, 3200 x 1800, 2688 x 1520, 1920 x 1080			
	Sub Stream	1920 x 1080, 1280 x 720, 704 x 576, 704 x 480 (Default)			
	Third Stream	1280 x 720 (Default), 704 x 576, 704 x 480, 640 x 480, 640 x 360, 480 x 240, 352 x 288, 352 x 240			
	Fourth Stream	704 x 480 (Default), 704 x 576, 640 x 480, 640 x 360, 480 x 240, 352 x 288, 352 x 240			
	Fifth Stream	704 x 480 (Default), 704 x 576, 640 x 480, 640 x 360, 480 x 240, 352 x 288, 352 x 240			
Frame Rate		30 fps at 4000 x 3000 / 3840 x 2160 / 3200 x 1800 / 2688 x 1520 / 1920 x 1080 / 1280 x 720 / 704 x 480 / 640 x 480 / 640 x 360 / 480 x 240 / 352 x 240 (60 Hz) 25 fps at 4000 x 3000 / 3840 x 2160 / 3200 x 1800 / 2688 x 1520 / 1920 x 1080 / 1280 x 720 / 704 x 576 / 640 x 480 / 640 x 360 / 480 x 240 / 352 x 288 (50 Hz) * The frame rate and performance may vary depending on the number of connections and data bitrates (different scenes).			
Maximum Throughput		80 Mbps			
Maximum Streams * When the total bitrate is within the maximum throughput		10			
Video Analytics		Motion Detection, Video Exception Detection (Abnormal Color Detection, Scene Change, Video Blur), Object Abandoned/Missing Detection			
Smart Alarm		Audio Exception, Cable Disconnection, IP Address Conflict, SD Card Error, SD Card Full			
Image Setting		Brightness, Contrast, Hue, Saturation, WDR, Sharpness, Defog, 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		Two-way audio (external speaker required)	
Digital I/O	Input	1 Input, dry contact, NO / NC	
	Output	1 Relay Output (1A 30V DC / 0.3A 125V AC)	
<b>Deep Learning Function</b>			
AI Analytics		<p>Face Event: Face Detection</p> <p>Smart Event:</p> <ul style="list-style-type: none"> <li>- Line Crossing, Region Entrance, Region Exiting, Region Intrusion, Target Counting, Heat Map, Video Metadata (all with Human &amp; Vehicle classification)</li> <li>- Loitering Detection, Illegal Parking Detection</li> </ul> <p>*Face events and smart events cannot be enabled at the same time.            *A maximum of 2 smart detection functions is suggested at a time to ensure comprehensive detection results and optimized performance by the camera.            *Face Event and Smart Event can only be enabled one at a time.</p>	
Video Metadata	People	Gender, Age, Top / Bottom (Type, Color), Accessories (Hat, Bag, Face Mask, Glasses)	
	Vehicle	Type, Color, Brand, Model	
	Non-Motor Vehicle	Type	
<b>Network</b>			
Interface		10/100 Ethernet	
Protocol		802.1X authentication (EAP-TLS, EAP-MD5), 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	
<b>Mechanical</b>			
Camera Angle Adjustment	Pan	0 ~ 345°	
	Tilt	0 ~ 77°	
	Rotate	0 ~ 345°	
Connectors	Power	DC jack, PoE	
	Ethernet	RJ-45	
	Audio	Built-in microphone	Yes
		External microphone required	Yes (Audio jack, 3.5 mm)
		Built-in speaker	No
		External speaker required	Yes (Audio jack, 3.5 mm)
		* For devices with a microphone or speaker, choose either the built-in or external option.	
	* If equipped with an Audio In port, it only supports microphones with power supply.		
	Video Output	CVBS output (BNC connector x 1)	
	Digital I/O	4-pin terminal block pitch 3.5 mm (0.14 in)	
Local Storage	microSD card slot (SD / SDHC / SDXC), up to 512 GB		
<b>General</b>			
Operating Temperature		-30 ~ 60°C (-22 ~ 140°F)	
Humidity		0 ~ 95% (no condensation)	
Power Source		12V DC, 1.5A / PoE (IEEE 802.3af)	
Max. Power Consumption		12 W	
Dimensions		Ø 141 x 100.2 mm (Ø 5.6 x 3.9 in)	
Weight		0.93 kg (2.05 lb)	
Ingress Protection		IP67	
Vandal Resistance		IK10 for metal casing	
Certification		CE, FCC, RoHS compliant	
<b>Web Interface</b>			
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, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Spanish, Spanish (Latin America), Turkish, Ukrainian	
<b>Software Applications</b>			
Software Supported		GV-VMS (V17.4.8 / V18.3.5 / V20.0.2 or later, patch files required), GV-Edge Recording	

	Manager (V2.3.1 or later), GV-Control Center (V4.3.1 or later), GV-Recording Server (V2.1.1 or later, patch files required), GV-IP Device Utility (V9.0.7 or later)
Smart Device Access	GV-Eye for iOS and Android (V3.5.1 or later)
Live Viewing	Web Browser (Chrome, Edge, Firefox, Safari), Mobile App

**Note:**






1. Industrial-grade microSD cards are recommended to avoid event recording writing failure.
2. All specifications are subject to change without notice.

**Packing List**

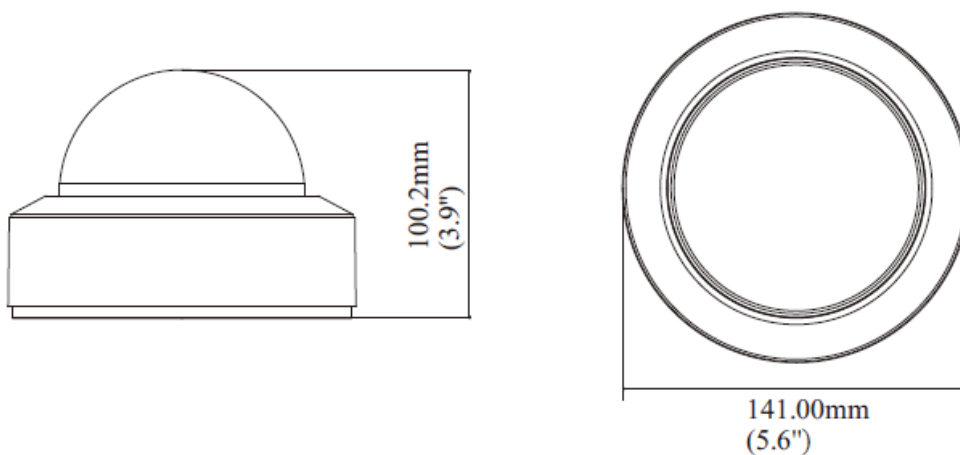
- |                                  |                          |
|----------------------------------|--------------------------|
| 1. GV-GVD12810 Vandal Proof Dome | 4. CVBS & DC IN Cables   |
| 2. Waterproof Rubber Set         | 5. Drill Template Paster |
| 3. Screw Kit                     | 6. Download Guide        |

**Accessories**



Model No.	Name		Details
GV-Mount118 (must be used with GV-Mount510)	Pendant Mount		Dimensions: $\varnothing$ 139.3 x 194.9 mm ( $\varnothing$ 5.48 x 7.67 in) Weight: 0.44 kg (0.97 lb)
GV-Mount211-6 (must be used with GV-Mount510)	Wall Mount Bracket		Dimensions: 199 x 139.3 x 140.6 mm (7.83 x 5.48 x 5.54 in) Weight: 0.56 kg (1.23 lb)
GV-Mount211-13	Wall Mount Bracket		Dimensions: 266 x 174.1 x 142.5 mm (10.47 x 6.85 x 5.61 in) Weight: 1.14 kg (2.51 lb)
GV-Mount314 (must be used with GV-Mount211-6 + GV-Mount510, or GV-Mount211-13)	Corner Mount Bracket		Dimensions: 215 x 121.4 x 215 mm (8.46 x 4.78 x 8.46 in) Weight: 2.05 kg (4.52 lb)
GV-Mount470 (must be used with GV-Mount211-6 + GV-Mount510, or GV-Mount211-13)	Pole Mount Bracket		Dimensions: 163.3 x 54.5 x 215 mm (6.43 x 2.15 x 8.46 in) Weight: 1.10 kg (2.43 lb)
GV-Mount510	Junction Box		Dimensions: 139.3 x 171.6 x 42 mm (5.48 x 6.76 x 1.65 in) Weight: 0.36 kg (0.79 lb)


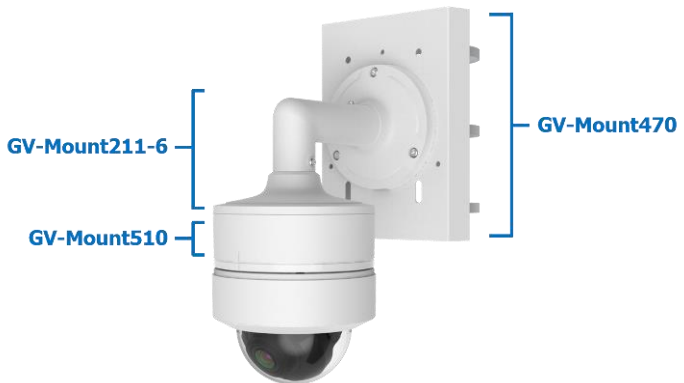
GV-Mount707 (must be used with GV-Mount118)	Extension Tube		Dimensions: Ø 37 x 515 mm (Ø 1.46 x 20.28 in) Weight: 0.8 kg (1.76 lb)
GV-Mount925	In-Ceiling Mounting Bracket		Dimensions: Ø 233 x 80.5 mm (Ø 9.17 x 3.17 in) Weight: 0.704 kg (1.55 lb)
GV-Mount927 (for standard US single and double gang boxes only)	Power Box Mount Bracket		Dimensions: Ø 145 x 11.2 mm (Ø 5.71 x 0.44 in) 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.		


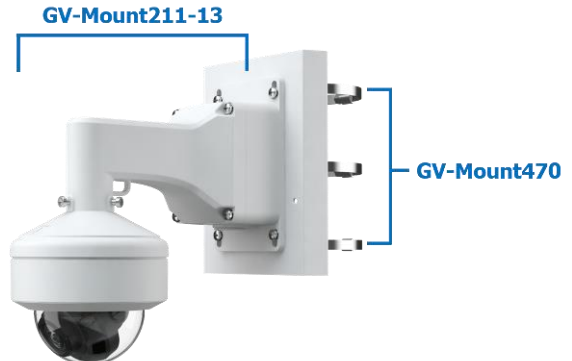
**Dimensions**

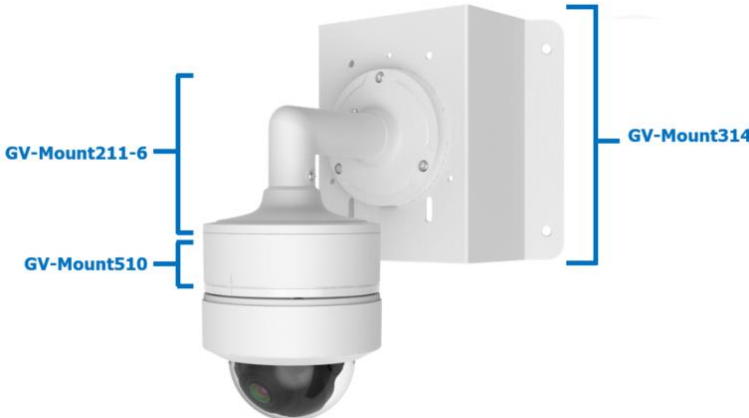


**Mounting Type**

Junction Box Mount GV-Mount510	Junction Box Mount GV-Mount510	Wall Bracket Mount GV-Mount211-6
		

In-Ceiling Mount GV-Mount925	Junction Box Mount GV-Mount510	Wall Bracket Mount GV-Mount211-6	Pole Bracket Mount GV-Mount470
			

Wall Bracket Mount GV-Mount211-13	Wall Bracket Mount GV-Mount211-13	Pole Bracket Mount GV-Mount470
		

Junction Box Mount GV-Mount510	Wall Bracket Mount GV-Mount211-6	Corner Bracket Mount GV-Mount314
		

Wall Bracket Mount GV-Mount211-13	Corner Bracket Mount GV-Mount314	Junction Box Mount GV-Mount510	Pendant Mount GV-Mount118
