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.

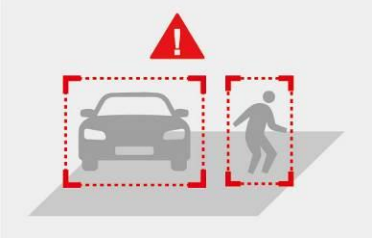
Models

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 * 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) * The two functions can only be enabled one at a time.
Network			
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
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

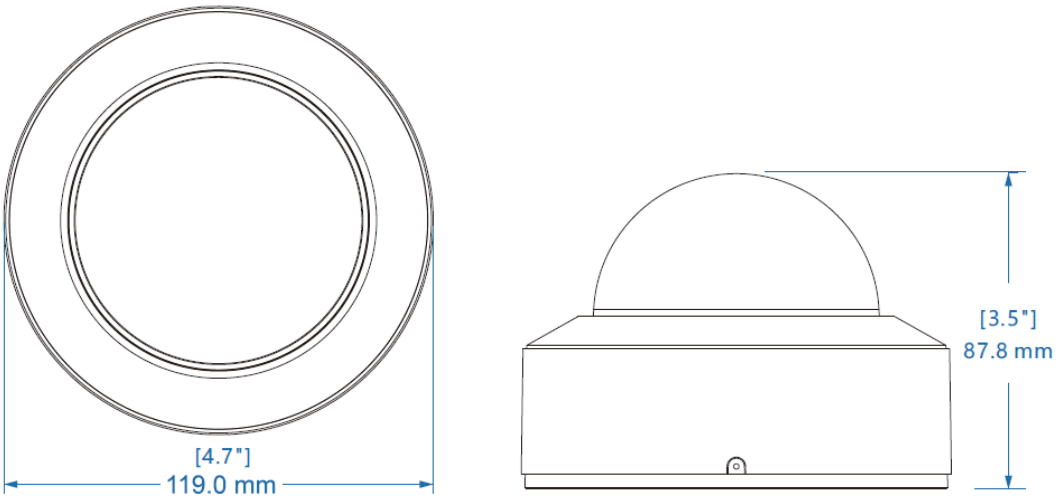
1. GV-GDRF4800 Mini Dome
2. Waterproof Rubber Set
3. Screw Kit
4. Drill Template Paster
5. Download Guide

Accessories

Model No.	Name		Details
GV-Mount117 (must be used with GV-Mount517)	Pendant Mount		Dimensions: Ø 121 x 191.4 mm (Ø 4.76 x 7.54 in) Weight: 0.4 kg (0.88 lb)
GV-Mount211-4	Wall Mount Bracket		Dimensions: 129.5 x 155 x 74.5 mm (5.10 x 6.10 x 2.93 in) Weight: 0.53 kg (1.16 lb)
GV-Mount211-8 (must be used with GV-Mount517)	Wall Mount Bracket		Dimensions: 188.4 x 121 x 137.3 mm (7.41 x 4.76 x 5.4 in) Weight: 0.52 kg (1.15 lb)
GV-Mount314 (must be used with GV-Mount211-8 + GV-Mount517)	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-Mount211-8 + GV-Mount517)	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-Mount517	Junction Box		Dimensions: 117.9 x 143.3 x 39 mm (4.64 x 5.64 x 1.54 in) Weight: 0.24 kg (0.53 lb)
GV-Mount707 (must be used with GV-Mount117)	Extension Tube		Dimensions: Ø 37 x 515 mm (Ø 1.46 x 20.28 in) Weight: 0.8 kg (1.76 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

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



Junction Box Mount	Pendant Mount
GV-Mount517	GV-Mount117

