

GV-GDRN4800 AI 4MP H.265 Full Color AI-ISP White LED WDR Pro Mini Fixed Rugged IP Dome



- AI deep learning: AI Perimeter Protection & Classification (Human, Vehicle)
- 1/1.79" progressive scan CMOS sensor
- Triple streams from H.265, H.264 or MJPEG
- Min. illumination at 0.0001 lux
- Up to 30 fps at 2688 x 1520
- AI-ISP for superior noise reduction and vivid color images, day and night
- Smart white LED distance up to 20 m (65 ft)
- Wide Dynamic Range Pro (WDR Pro)
- Built-in microphone
- Built-in microSD card slot (SD / SDHC / SDXC) for local storage
- 3-axis mechanism (pan / tilt / rotate)
- Ingress protection (IP67)
- Vandal resistance (IK10 for metal casing)
- DC 12V / PoE (IEEE 802.3af)
- Defog
- 3D noise reduction
- Smart settings (Line Crossing, Region Entrance, Region Exiting, Target Counting, Region Intrusion, Face Detection)
- Motion detection
- Text overlay
- Privacy mask
- 20 languages supported
- ONVIF (Profile G, S, T, M) conformant

Introduction

GV-GDRN4800 is a mini fixed rugged IP dome camera equipped with AI-ISP technology and smart white LEDs for full color surveillance, even in challenging lighting conditions. The camera combines H.265 compression, PoE support, and rugged IP67/IK10 protection for reliable operation in demanding environments.

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

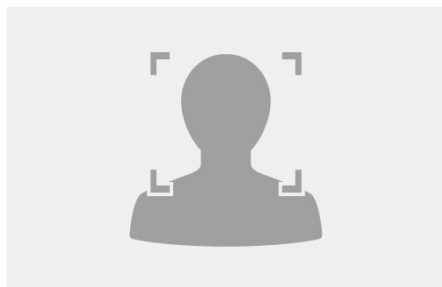
The **AI-ISP** (Artificial Intelligence Image Signal Processor) enhances image quality in low-light scenes by delivering more detail, reducing noise, and minimizing smearing issues. Optimized for environments with at least minimal ambient light—such as moonlit outdoor areas—the camera delivers superior results in outdoor installations.

Models

Model	Iris	Focal Length (mm)	Horizontal FOV	Maximum Aperture	Image Format
GV-GDRN4800-2F	Fixed	2.8 mm	112°	F/1.0	1/1.79"
GV-GDRN4800-3F		3.6 mm	96°		

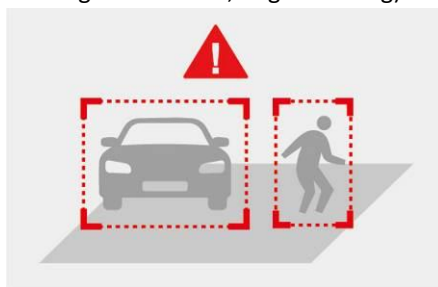
Deep Learning Function

Face Detection

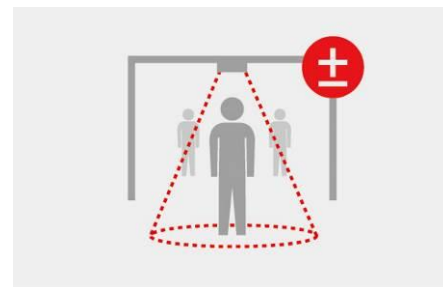


AI Perimeter Protection

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



People Counting



Specifications

Camera					
Image Sensor		1/1.79" progressive scan CMOS			
Picture Elements		2688 (H) x 1520 (V)			
Minimum Illumination	Color	0.0001 Lux (F1.0, AGC ON)			
	B/W	N/A			
	LED 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		Yes (supported in the next version)			
Dynamic Range		120 dB (supported in the next version)			
Lens		GV-GDRN4800-2F		GV-GDRN4800-3F	
Megapixel		4 MP			
Day / Night		Color			
Lens Type		Fixed			
Focal Length		2.8 mm		3.6 mm	
Maximum Aperture		F/1.0			
Mount		M12			
FOV	Horizontal	112°		96°	
	Vertical	61°		51°	
	Diagonal	132°		112°	
Operation	Focus	Auto / Manual			
	Zoom	Fixed			
	Iris	Fixed			
White LED Quantity		2 white LEDs			
Max. White LED Distance		20 m (65 ft)			
DORI		Detect	Observe	Recognize	Identify
Lens	2.8 mm	52 m (170.6 ft)	21 m (68.8 ft)	10 m (32.8 ft)	5 m (16.4 ft)
	3.6 mm	63 m (206.6 ft)	25 m (82.0 ft)	12 m (39.3 ft)	6 m (19.6 ft)
Operation					
Video Compression		H.265, H.265+, H.264, H.264+, MJPEG			
Video Streaming		Triple streams from H.265, H.264 or MJPEG			
Frame Rate		30 fps at 2688 x 1520, 2560 x 1440, 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 2688 x 1520, 2560 x 1440, 1920 x 1080, 1280 x 720, 704 x 567, 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, Sharpness, Defog, Antiflicker, 3D Noise Reduction, Image Orientation (Flip, Mirror, 0°, 90°, 180°, 270°-including Corridor format)	
Audio Compression		G.711	
Audio Support		One-way audio	
Video Resolution			
Main Stream		2688 x 1520 (Default), 2560 x 1440, 1920 x 1080	
Sub Stream		1280 x 720 (Default), 704 x 480, 704 x 567, 640 x 480, 640 x 360, 480 x 240, 352 x 240, 352 x 288	
Third Stream		1280 x 720 (Default), 704 x 480, 704 x 567, 640 x 480, 640 x 360, 480 x 240, 352 x 240, 352 x 288	
Network			
Interface		10/100 Ethernet	
Protocol		802.1X authentication (EAP-TLS, EAP-MD5), API, DDNS, DHCP, FTP, HTTP, HTTP POST, HTTPS, IPv4, IPv6, NTP, ONVIF (Profile G, S, T, M), PPPoE, QoS, RTCP, RTMP, RTP, RTSP, SMTP, SNMP, UDP, UPnP	
Deep Learning Function			
AI Perimeter Protection		Face Event: Face Detection Smart Event: Line Crossing, Region Entrance, Region Exiting, Region Intrusion, Target Counting (all with Human & Vehicle classification) *Face events and smart events cannot be enabled at the same time.	
Mechanical			
Camera Angle Adjustment	Pan	0° ~ 355°	
	Tilt	0° ~ 70°	
	Rotate	0° ~ 180°	
Connectors	Power	DC Jack	
	Ethernet	RJ-45	
		Audio	Built-in microphone
	External microphone required		Yes (Audio jack, 3.5 mm)
	Built-in speaker		No
	External speaker required		No
	* For devices with 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.		
	Digital I/O	N/A	
	Local Storage	microSD card slot (SD / SDHC / SDXC), up to 512 GB	
General			
Operation Temperature		-30 ~ 60°C (-22 ~ 140°F)	
Humidity		0% ~ 95% (no condensation)	
Power Source		DC 12V, 1.5A / PoE (IEEE 802.3af)	
Max. Power Consumption		7 W	
Dimensions		Ø 119 x 87.8 mm (Ø 4.7" x 3.46")	
Weight		0.64 kg (1.41 lb)	
Ingress Protection		IP67	
Vandal Resistance		IK10 for metal casing	
Certification		CE, FCC, RoHS compliant	
Web Interface			
Installation Management		Web-based configuration	
Maintenance		Firmware upgrade through Web Browser or GV-IP Device Utility	
Access from Web Browser		Live View, Playback, Video Recording, Image Quality, Bandwidth Control, Image Snapshot, One-way Audio, Digital Zoom, Text Overlay, Image Masking, Intelligent Mark	

Language	Czech, Dutch, English, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Spanish, Spanish (Latin America), Traditional Chinese, Turkish, Ukrainian
Applications	
Software Supported	GV-VMS (V17.4.8 / V18.3.5 / V20.0.2 + Patch or later), GV-Control Center (V4.3.0 + Patch or later), GV-Edge Recording Manager for Windows (V2.3.1.0 + Patch or later), GV-Recording Server (V2.1.1 + Patch or later), GV-IP Device Utility (V9.0.5 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:

- The AI-ISP may not perform as expected in completely dark environments. **For optimal results, outdoor installation is recommended.**
- All specifications are subject to change without notice.

Packing List

- | | |
|--------------------------|--------------------------|
| 1. GV-GDRN4800 | 4. Drill Template Paster |
| 2. Waterproof Rubber Set | 5. Download Guide |
| 3. Screw kit | |

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.		

Mounting Type

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

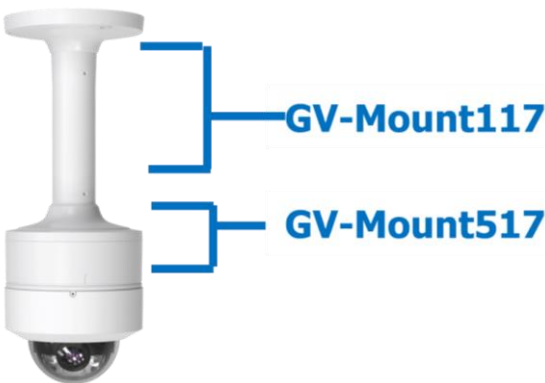
Junction Box	Wall Mount Bracket	Corner Mount Bracket
GV-Mount517	GV-Mount211-8	GV-Mount314



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



Junction Box Mount	Pendant Mount
GV-Mount517	GV-Mount117



Dimensions

