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.
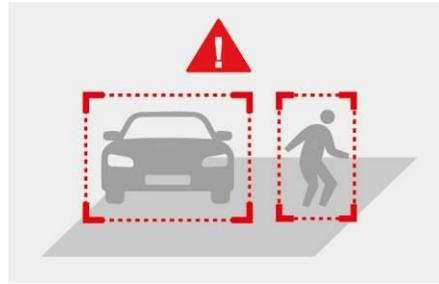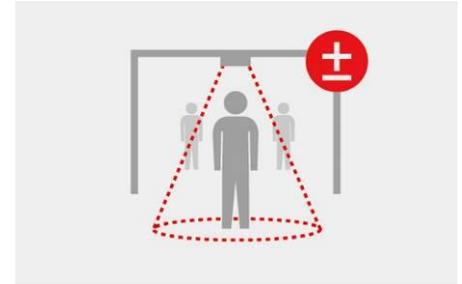
Deep Learning Function

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
Megapixel		4 MP
Day / Night		Color
Lens Type		Fixed
Focal Length		2.8 mm
Maximum Aperture		F/1.0
Mount		M12
FOV	Horizontal	112°
	Vertical	61°
	Diagonal	132°
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)

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, 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 *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	Yes
		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:

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

Packing List

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

Accessories

Model No.	Name		Details
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-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

Dimensions