

GV-GDR2801 AI 2MP H.265 Super Low Lux WDR Pro IR Mini Fixed Rugged IP

Dome



- AI deep learning: AI Perimeter Protection & Classification (Human, Vehicle)
- 1/2.8" progressive scan CMOS sensor
- Min. illumination at 0.008 lux
- Triple streams from H.265, H.264 or MJPEG
- Up to 30 fps at 1920 x 1080
- Intelligent IR
- Wide Dynamic Range Pro (WDR Pro)
- IR distance up to 30 m (100 ft)
- One-way audio capable
- 3-axis mechanism (pan / tilt / rotate)
- Built-in microSD card slot (SDHC / SDXC / SDXC) for local storage
- Ingress protection (IP67)
- Vandal resistance (IK10 for metal casing)
- DC 12V / PoE (IEEE 802.3af)
- AI analytics (Line Crossing, Region Intrusion)
- 3D noise reduction
- Motion detection
- Text overlay
- Privacy mask
- 20 languages supported
- ONVIF (Profile G, S, T, M) conformant

Introduction

GV-GDR2801 is a 2 MP outdoor mini fixed rugged IP Dome. The camera supports H.265 video codec to achieve a better compression ratio while maintaining high-quality pictures at reduced network bandwidth. GV-GDR2801 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-GDR2801-2F	Fixed	2.8 mm	107°	F/1.6	1/2.8"
GV-GDR2801-3F		3.6 mm	89°		

Deep Learning Function

AI Perimeter Protection (Line Crossing, Region Intrusion)



Specifications

Camera					
Image Sensor		1/2.8" progressive scan CMOS			
Picture Elements		1920 (H) x 1080 (V)			
Minimum Illumination	Color	0.008 Lux (F1.6, AGC ON)			
	IR On	0 Lux			
Shutter Speed		Auto / Manual (1/3 ~ 1/100000 sec)			
White Balance		Automatic, Manual			
Gain Control		Automatic, Manual			
S/N Ratio		50 dB			
WDR Pro		Yes			
Dynamic Range		120 dB			
Lens		GV-GDR2801-2F		GV-GDR2801-3F	
Megapixel		2 MP			
Day / Night		Yes (with removeable IR-cut filter)			
Lens Type		Fixed			
Focal Length		2.8 mm		3.6 mm	
Maximum Aperture		F/1.6			
Mount		M12			
FOV	Horizontal	107°		89°	
	Vertical	56°		47.5°	
	Diagonal	126°		104°	
Operation	Focus	Fixed			
	Zoom	Fixed			
	Iris	Fixed			
IR LED	Quantity	1 IR LED			
	Max. IR Distance	30 m (100 ft)			
DORI		Detect	Observe	Recognize	Identify
Lens	2.8 mm	41 m (134.5 ft)	16 m (52.4 ft)	8 m (26.2 ft)	4 m (13.1 ft)
	3.6 mm	50 m (164.0 ft)	20 m (65.6 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			
Video Resolution	Main Stream	1920 x 1080 (default), 1280 x 720			
	Sub Stream	704 x 480, 704 x 576, 640 x 480, 640 x 360 (default), 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		30 fps at 1920 x 1080, 1280 x 720, 704 x 480, 640 x 480, 640 x 360, 352 x 240 (60 Hz)			
		25 fps at 1920 x 1080, 1280 x 720, 704 x 576, 640 x 480, 640 x 360, 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		36 Mbps		
Maximum Streams * When the total bitrate is within the maximum throughput		6 users		
Video Analytics		Motion Detection, Video Exception Detection (Abnormal Color Detection, Scene Change, Video Blur), Object Abandoned/Missing Detection		
Smart Alarm		Cable Disconnection, IP Address Conflict, SD Card Error, SD Card Full		
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 (external microphone required)		
Deep Learning Function				
AI Analytics		Line Crossing, Region Intrusion *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 ~ 355°		
Connectors	Power	DC Jack		
	Ethernet	RJ-45		
		Audio	Built-in microphone	No
			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.	
	N/A	Digital I/O		
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		4 W		
Dimensions		Ø110 × 83 mm (Ø 4.3" × 3.3")		
Weight		0.5 kg (1.10 lb)		
Ingress Protection		IP67		
Vandal Resistance		IK10 for metal casing		
Certification		CE, FCC, LVD, RoHS, UKCA 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, 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		
Software Applications				
Software Supported		GV-VMS (V17.4.8 / V18.3.5 or later, patch files required / V20.0 or later), GV-Edge Recording Manager (V2.3.0 or later), GV-Control Center (V4.2.1 or later, patch files required), 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 (Edge, IE mode in Edge, Chrome, 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-GDR2801 Mini Dome
2. Waterproof Rubber Set
3. Screw Kit
4. Drill Template Paster
5. Hex Key
6. Download Guide

Accessories

Model No.	Name		Details
GV-Mount211-4	Wall Mount Bracket		Dimensions: 129.8 x 154.9 x 74.4 mm (5.11" x 6.1" x 2.93") Weight: 0.527 kg (1.16 lb)
GV-Mount211-6 (must be used with GV-Mount506)	Wall Mount Bracket		Dimensions: 199 x 139.3 x 140.8 mm (7.83" x 5.48" x 5.54") Weight: 0.56 kg (1.23 lb)
GV-Mount314 (must be used with GV-Mount211-6 + GV-Mount506, or GV-Mount506)	Corner Mount Bracket		Dimensions: 215x121.4x215mm (8.46" x 4.78" x 8.46") Weight: 2.05 kg (2.31lb)
GV-Mount470 (must be used with GV-Mount211-6 + GV-Mount506, or GV-Mount506)	Pole Mount Bracket		Dimensions: 163.3 x 54.5 x 215mm (6.48" x 2.15" x 8.47") Weight: 1.1 kg (2.43 lb)
GV-Mount506	Junction Box		Dimensions: 139.3 x 171.6 x 50 mm (5.48" x 6.76" x 1.97") Weight: 0.51 kg (1.13 lb)
GV-Mount507-1	Junction Box		Dimensions: Ø 111.7 x 55 mm (Ø 4.40" x 2.17") Weight: 0.332 kg (0.73 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 Bracket Mount GV-Mount211-4	Junction Box Mount GV-Mount506	Junction Box Mount GV-Mount507-1
		

Junction Box Mount GV-Mount506	Wall Bracket Mount GV-Mount211-6	Corner Bracket Mount GV-Mount314
		

Junction Box Mount GV-Mount506	Wall Bracket Mount GV-Mount211-6	Pole Bracket Mount GV-Mount470
		

Junction Box Mount GV-Mount506	Corner Bracket Mount GV-Mount314	Junction Box Mount GV-Mount506	Pole Bracket Mount GV-Mount470
			

Dimensions

