

GV-TVD8810 AI 8MP H.265 Super Low Lux WDR Pro IR Vandal Proof IP Dome



- AI deep learning: AI Perimeter Protection & Classification (Human, Vehicle)
- 1/2.8" progressive scan CMOS sensor
- Min. illumination at 0.015 lux
- Triple streams from H.265, H.264 and MJPEG
- Up to 30 fps at 3840 x 2160
- Intelligent IR
- IR distance up to 50 m (165 ft)
- Day and Night function (with removable IR-cut filter)
- Wide Dynamic Range Pro (WDR Pro)
- Built-in microSD card slot (SDHC / SDXC / UHS-I, Class 10) for local storage
- Two-way audio capable
- Ingress protection (IP67)
- Vandal resistance (IK10)
- DC 12V / PoE (IEEE 802.3af)
- Defog
- 3D noise reduction, ROI video optimization 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 10 layers
- 19 languages supported
- ONVIF (Profile G, S, T, M) conformant ISO/IEC27001:2022, ISO 9001:2015, ISO 14001:2015, CVE/CNA, Compliance NIS2, GDPR AI ACT E Cyber Resilience ACT
- Signed Firmware & Supply Chain Security:
- Installation and update are allowed exclusively for manufacturer-signed firmware. Firmware components are documented through a Software Bill of Materials (SBOM)

EU Certification



Certificazioni CyberSecurity e presso Lab. certificati Accredia

Introduction

The GV-TVD8810 is an 8 MP motorized vandal-proof IP dome camera designed for professional video surveillance applications. Featuring a 1/2.8" progressive scan CMOS sensor, 4K resolution at 30 fps, and H.265 compression, it delivers high-quality images with efficient bandwidth usage. The camera integrates AI deep learning-based analytics for accurate human and vehicle classification and advanced perimeter protection. With intelligent IR illumination up to 50 m, Day & Night functionality, WDR Pro, and robust IP67 and IK10 protection, the GV-TVD8810 ensures reliable performance in demanding indoor and outdoor environments, while supporting PoE power, local microSD storage, and full ONVIF compliance.

Specifications

Camera					
Image Sensor		1/2.8" progressive scan CMOS			
Picture Elements		3840 (H) x 2160 (V)			
Minimum	Color	0.015 Lux (F1.4, AGC ON)			
	Black/White	0.005 Lux (F1.4, AGC ON)			
Illumination	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		YES			
Dynamic Range		120 dB			
Lens					
Megapixel		8 MP			
Day/Night		Yes (with removable IR-cut filter)			
Focal Length		2.8-12 mm			
Lens Type		Motorized			
Maximum Aperture		F/1.4			
Mount		Φ14			
Horizontal FOV / Vertical FOV		102°-32° / 57°			
Operation	Focus	Auto / Manual			
	Zoom	4.3x			
	Iris	DC / Auto			
IR LED Quantity		3 IR LEDs			
Max. IR Distance		50 m (165 ft)			
DORI		Detect	Observe	Recognize	Identify
Lens	2.8-12 mm (W)	85 m (278.8 ft)	34 m (111.5 ft)	17 m (55.7 ft)	8 m (26.2 ft)
	2.8-12 mm (T)	289 m (948.1 ft)	116 m (380.5 ft)	58 m (190.2ft)	29 m (95.1 ft)
Operation					
Video Compression		H.265, H.265+, H.264, H.264+, MJPEG			
Video Streaming		Triple streams			
Video Resolution	Main Stream	3840 x 2160 (Default), 3072x 2048, 2592 x 1944, 2592 x 1520, 2560 x 1440, 2304 x 1296, 1920 x 1080			
	Sub Stream	1920 x 1080 (Default), 1280 x 720, 704 x 576,704 x 480, 640 x 360			
	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			
Frame Rate		30 fps at 3840 x 2160, 3072x 2048, 2592 x 1944, 2592 x 1520, 2560 x 1440, 2304 x 1296, 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 at3840 x 2160, 3072x 2048, 2592 x 1944, 2592 x 1520, 2560 x 1440, 2304 x 1296, 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		12 Mbps			
Maximum Streams		* When the total bitrate is within the maximum throughput			10
Storage Recording		Recording Failover, Edge			
Video Analytics		Motion Detection, Object Abandoned / Missing Detection, Video Exception Detection			
Smart Alarm		Motion Detection, SD Card Error, SD Card Full, IP Address Conflict, Cable Disconnection, Scene Change Detection, Video Blur Detection, Abnormal Color Detection, (Tampering)			
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 capable			
Digital I/O	Input	1 Input, dry contact, NO / NC			
	Output	1 Relay Output (1A 30V DC / 0.3A 125V AC)			

Deep Learning Function		
AI Analytics	Face Event: Face Detection Smart Event: - Line Crossing, Region Entrance, Region Exiting, Region Intrusion, Target Counting, Heat Map, Video Metadata - Loitering Detection, Illegal Parking Detection *A maximum of 2 smart detection functions are suggested at a time to ensure comprehensive detection results and the optimized performance by the camera. *Face Event and Smart Event can only be enabled one at a time.	
	Video Metadata	People Gender, Age, Top / Bottom (Type, Color), Accessories (Hat, Bag, Face Mask, Glasses) Vehicle Type, Color, Brand, Model Non-Motor Vehicle Type
Network		
Interface		10/100 Ethernet
Protocol / Cybersecurity		802.1x, DDNS, DHCP, FTP, HTTP POST, HTTP (Digest), HTTPS, IPv4, IPv6, NTP, ONVIF (Profile G, S, T, M), PPPoE, QoS, RTCP, RTMP, RTP, RTSP, SMTP, SNMP, UDP, UPnP, MQTT, IP Filtering, Password Brute force protection, Sistem Log preserved
Mechanical		
Camera Angle Adjustment	Pan	0 ~ 345°
	Tilt	0 ~ 77°
	Rotate	0 ~ 345°
Connectors	Power	DC Jack
	Ethernet	Shielded RJ-45 connector
	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 (SDHC / SDXC / UHS-I, Class 10) , up to 512GB AES 128
General		
Operating 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		10.3 W
Dimensions		Ø 141 x 100.2 mm (Ø 5.55 x 3.94 in)
Weight		0.89 kg (1.96 lb)
Warranty		5 years
Vandal Resistance		IK10
Certification		CE, FCC, RoHS, UKCA compliant, UL Compliance
Web Interface		
Installation Management		Web-based configuration
Maintenance		Encrypted File System (Data at Rest), 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, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Spanish, Spanish (Latin America), Turkish
Software Applications		
Software Supported		GV-VMS (V17.4.8 with Patch or later, V18.3.4 with Patch or later), GV-Edge Recording Manager (V2.2.8 or later), GV-Control Center (V4.2.1 or later), GV-Recording Server (V2.1.1 with Patch or later)
Smart Device Access		GV-Eye for iOS and Android (V3.2.0 or later)
Live Viewing		Web Browser (Edge 120.0.2210.121, Chrome 120.0.6099.200, Firefox 121.0, Safari 11), Mobile App

Security

Advanced Security Features

- Signed Firmware & Secure Firmware Upgrade
- Secure Boot (software-based)
- Multi-User Access Management with Role-Based Permissions
- Mandatory Password Change at First Login
- Digest Authentication
- Account Lockout & Automatic IP Blocking after Failed Login Attempts
- IP Address Filtering (Whitelist / Blacklist)
- Tamper-Resistant System Logs (Preserved After Reset)
- HTTPS / TLS Encrypted Communications
- Firmware SBOM (Software Bill of Materials) available

Note:

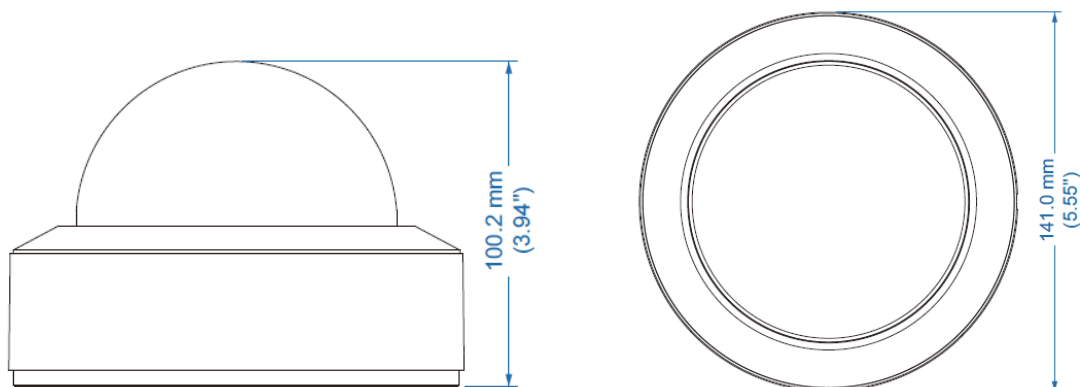
1. Industrial-grade microSD cards are recommended to avoid event recording writing failure.
2. All specifications are subject to change without notice.

Accessories

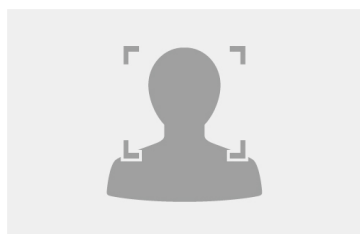
Model No.	Name		Details
GV-Mount510	Junction Box		Dimensions: 139.3 x 171.6 x 42 mm (5.48" x 6.76" x 1.65") Weight: 0.36 kg (0.79 lb)
GV-Mount925	In-Ceiling Mounting Bracket		Dimensions: Ø 233 x 80.5 mm Weight: 0.704 kg (1.55 lb)
GV-Mount211-6 (must be used with Mount510)	Wall Mount Bracket		Dimensions: 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-Mount470 (must be used with Mount211-8)	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-Mount314 (must be used with Mount211-8)	Corner Mount Bracket		Dimensions: 215x121.4x215mm (8.46" x 4.78"x 8.46") Weight: 2.05 kg (4.52lb)

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



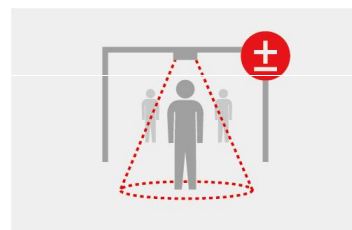
Face Detection



AI Perimeter Protection



People Counting



Packing List

- | | |
|-------------------------|-----------------------|
| 1. GV-GDR8811 Mini Dome | Drill Template Paster |
| 2. Rubber Plug | 5. Hex Key |
| 3. Screw Kit | 6. Download Guid |
| 4. CVBS & DC IN Cables | 7. |