January 26, 2015



# GV-SD220-S (20x / 30x) PoE Outdoor Full HD IP Speed Dome



- 1/2.8" progressive scan CMOS sensor
- Full HD 1080p at up to 30 fps and 720p at up to 60 fps
- 20x / 30x optical zoom and 12x digital zoom
- Wide Dynamic Range Pro (WDR Pro)
- Day and night function with IR-cut filter
- 2-way audio
- Vandal resistance (IK10 for metal and polycarbonate casing)
- Ingress protection (IP67)
- Built-in micro SD card slot (SD/SDHC) for local storage
- 4 digital inputs, 1 relay output
- DC 24V / AC 24V / High PoE (PoE++, 60 W)
- Pan 360° endlessly
- Tilt from 0° to 180°
- Preset speed at up to 460° /sec
- PTZ movement (Preset, Sequence, Auto Pan, Cruise and Tour)
- PTZ movements by schedule
- Auto and manual PTZ calibration
- Auto focus
- Backlight Compensation
- Image noise reduction
- Motion detection
- Privacy Mask
- Dual streams from H.264 and MJEPG
- Smart phones & 3GPP support
- 31 languages on Web interface
- ONVIF (Profile S) conformant
  - \* No memory card slot & local storage function for Argentina

### Introduction

The GV-IP Speed Dome (GV-SD220-S) is a network PTZ camera designed for image quality and adaptability in various environments. This camera offers image of 1080p at 30 fps, 720p at 60 fps and 20x / 30x optical zoom, capable of showing smooth live view with great detail. In low-light environments, image quality is promised with its image processing tools, such as IR-cut filter (ICR), Wide Dynamic Range Pro (WDR Pro), Backlight Compensation and noise reduction.

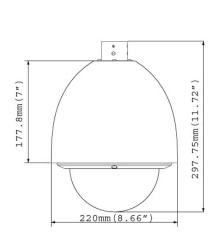
Wide surveillance coverage is made possible with 360° endless panning and 180° tilting capacity. Dome movements such as Preset, Sequence, Auto Pan, Cruise and Tour can be programmed and activated by schedule. You can create multiple dome movement modes and have different modes enabled at different time slots. The GV-IP Speed Dome provides variable pan/tilt speeds ranging from a fast patrol of 460° per second to a slow ramble of 0.5° per second with 0.2° pan accuracy for fast and accurate tracking ability.

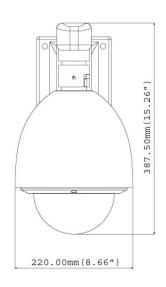
The GV-IP Speed Dome comes with an indoor model, an outdoor model and also optional mounting kits for outdoor installations on wall, ceiling and pole.

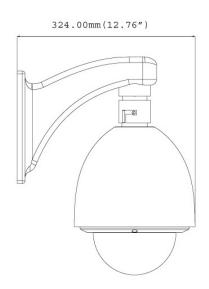
GV-SD220-S



### **Dimensions**







## **Specifications**

Specifications				
Camera				
Image Sensor		1/2.8" progressive scan CMOS		
Optical Zoom		20x / 30x		
Digital Zoom		12x		
Picture Elements		1920 (H) x 1080 (V)		
Minimum	Color	0.05 Lux at F/1.6		
Illumination	B/W	0.005 Lux at F/1.6		
Electronic Shutter		1/1 ~ 1/10000 sec.		
White Balance		Auto / Manual		
Iris Control		Auto / Manual		
AGC control		Auto / Manual		
S/N Ratio		50 dB (AGC Off)		
WDR Pro		Yes (with WDR sensor)		
Dynamic Range		Up to 100 dB		
Optical Lens				
Megapixel		Yes		
Day / Night		Yes (with removable IR-cut filter)		
Focal Length	20x	4.7 ~ 94 mm		
i ocai Lengtii	30x	4.3 ~ 129 mm		
	Focus	Auto / Manual		
Operation	Zoom	20x / 30x		
	Iris	Auto / Manual		
Video				
Video Compression	n	H.264, MJPEG		
Video Streaming		Dual streams		
Video Resolution	16:9	1920 x 1080, 1280 x 720, 640 x 360, 448 x 252		
Frame Rate		30/25 fps (60/50 Hz) at 1920 x 1080 60/50 fps (60/50 Hz) at 1280 x 720		
Audio				
Audio Compression	n	G.711, AAC (optional)		
Audio Support		Two-way Audio		
Network				
Interface		10/100M Ethernet		
Protocol		DHCP, DynDNS, FTP, HTTP, HTTPS, NTP, ONVIF (Profile S), QoS (DSCP), RTSP, SMTP, SNMP, TCP, UDP, UPnP, 3GPP/ISMA		

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Temperature	Detector	Yes		
remperature	Power	DC Jack, PoE		
	Ethernet	10/100 Base-T, RJ-45 connector		
Connectors	Audio	1 in (RCA female for microphone); 1 out (RCA female for speaker)		
	Local Storage	Micro SD card slot (SD/SDHC, SD version 2.0 only, Class 10)		
	Digital I/O	*SDXC and UHS-I card types are not supported.		
peration	Digital I/O	I/O wires		
		200° and less		
Pan Travel		360° endless 0° ~ 180°		
Tilt Travel	J			
Manual Spee	<u>'a                                    </u>	0.5° ~ 460°/s		
Calibration		Auto / Manual		
Presets	Max. Number	255		
	Accuracy	0.2°		
Sequence	Max. Number	8		
Sequence	Max. Presets Allowed	16		
Auto Pan		8		
Cruise		4		
	Max. Number	8		
Tour	Max. Number of Preset / Sequence / Auto Pan / Cruise	16		
Privacy Mask		8		
Proportional	Pan & Tilt	Auto (Pan and tilt speed proportional to zoom ratio)		
· · · · · · · · · · · · · · · · · · ·		Preset, Sequence, Auto Pan, Cruise, Tour		
Automatic Function		On / Off		
Mechanical Flip				
Digital Slow Shutter  Motion Detection		On / Off		
Wide Dynam		On / Off		
	1echanical IR Cut Filter	On / Off On / Off		
	iechanicai in Cut i iitei	On / Off		
Picture Flip		•		
Image Freeze		On / Off		
Digital Noise		On / Off		
A.I.	Input	4		
Alarm	Output	1		
	Reaction	Preset, Sequence, Auto Pan, Cruise, Tour		
ieneral		1000 - 7000 / 1007 - 10007		
Operating Te	mperature	-40°C ~ 50°C (-40°F ~ 122°F)		
Heater		Heater 1 On: 5°C (41°F); Off: 8°C (46.4°F)  Heater 2 On: -7°C (19.4°F); Off: -2°C (28.4°F)		
Fan-On				
Fan-On		45°C (113°F)		
Humidity		20% ~ 90% (non-condensing)		
Dimensions		Ø 220 x 297.75 mm (8.7" x 11.7")		
Weight		4.7 kg (10.4 lb)		
Power Source		24V AC ± 10%, 3A / 24V DC ± 10%, 3.75A / PoE++ (High Power Over Ethernet)		
Power Consu		60 W (with 30 W heater)		
Ingress Protection		IP67		
Vandal Resistance		IK10 for metal and polycarbonate casing		
Regulatory		CE, FCC, RCM, RoHS		
Veb Interface				
Installation Management		Web-based configuration		
Access from Web Browser		Remote upgrade through Web Browser, IP Device Utility included in the Software CD  Live View, Video Recording, PTZ Control, Preset, Sequence, Cruise, Auto Pan, Tour, Image Quality, Bandwidth Control, Image Snapshot, I/O Control, 2-way Audio, Picture-in-Picture (PIP), Picture-and-Picture (PAP), Text Overlay, Image Masking		

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Language	Arabic / Bulgarian / Czech / Danish / Dutch / English / Finnish / French / German / Greek / Hebrew / Hungarian / Indonesian / Italian / Japanese / Lithuanian / Norwegian / Persian / Polish / Portuguese / Romanian / Russian / Serbian / Simplified Chinese / Slovakian / Slovenian / Spanish / Swedish / Thai / Traditional Chinese / Turkish
Applications	
Network Storage	GV-NVR, GV-System, GV-Backup Center, GV-Recording Server
Smart Device Access	GV-Eye for iOS and Android
Live Viewing	Browser (IE, Chrome, Firefox, Safari), Mobile Phone
CMS Server support	GV-Control Center, GV-Center V2, GV-VSM
GV-PA901	
Power Source	High Power Over Ethernet (Max. 90 W)
PoE Power Output	DC 56V, 1.6A (Max. 90 W)
Ethernet Cable Length	Max. 100 m (328 ft) from GV-PA901 to IP device, Cat5e cable
Power Input	AC 100V ~ 240V, 2A
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)
Dimensions (L x W x H)	69 x 40 x 93 mm (2.72 x 1.57 x 3.66 in)
Weight	250 g (0.55 lb)

#### Note:

- 1. Specifications are subject to change without notice.
- 2. Do not use clothes or any ordinary material to clean the camera cover since they may result in scratches.
- 3. Mind the following when using an inserted memory card for recording:
  - Recorded data on the memory card can be damaged or lost if the data are accessed while the camera is under physical shock, power interruption, memory card detachment or when the memory card reaches the end of its lifespan. No guarantee is provided for such causes.
  - To avoid power outage, it is highly suggested to apply a battery backup (UPS).
  - For better performance, it is highly suggested to use Micro SD card of MLC NAND flash, Class 10.
  - Replace the memory card when its read/write speed is lower than 6 MB/s or when the memory card is frequently undetected by the camera.

### **Packing List**

- 1. GV-SD220-S Outdoor IP Speed Dome
- 2. Pendant Tube
- 3. Hex Key x 2
- 4. M6 Screw x 4

- 5. Desiccant Pack x 4
- 6. GV-IP Speed Dome Software DVD
- 7. GV-NVR Software DVD

 $\textbf{Note:} \ \mathsf{Power} \ \mathsf{adapters} \ \mathsf{can} \ \mathsf{be} \ \mathsf{purchased} \ \mathsf{upon} \ \mathsf{request}.$ 



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Part Number	Name	Details
GV-Mount100	Straight Tube and Junction Box Kit	Dimensions: 200 x 170 x 257.5 mm (7.9" x 6.7" x 10.1") Weight: 3.17 Kg (6.99 lb)
GV-Mount101	Straight Tube Kit	Dimensions: 219 x 125 x 332 mm (8.6" x 4.9" x 13.1") Weight: 1.8 Kg (3.97 lb)
GV-Mount203	Wall Pendant Tube and Junction Box Kit	Dimensions: 315 x 195.5 x 225 mm (12.4" x 7.7" x 8.9") Weight: 2.95 Kg (6.5 lb)
GV-Mount300	Convex Corner Adapter Kit	Dimensions: 238.6 x 409.5 mm (9.4" x 16.1") Weight: 4.27 Kg 9.41 lb)
GV-Mount310	Concave Corner Adapter Kit	Dimensions: 238.6 x 409.5 mm (9.4" x 16.1") Weight: 4.27 Kg (9.41 lb)
GV-Mount400	Pole Mount Bracket Kit (Ø 4" ~ 6")	Dimensions Bracket: 241 x 161 mm (9.5" x 6.3") Weight: 1.70 Kg (3.75 lb) Steel Strap: $\emptyset$ 4" $\sim$ 6"
GV-Mount410	Pole Mount Bracket Kit (Ø 6" ~ 7.5")	Dimensions Bracket: 241 x 161 mm (9.5" x 6.3") Weight: 1.70 Kg (3.75 lb) Steel Strap: Ø 6" ~ 7.5"

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Part Number	Name	Details		
GV-Mount702	Extension Tube	Four options are available.  Dimensions: Ø 5.4 x 10 or 20 or 30 or 50 cm (Ø 2.1" x 3.9" or 7.9" or 11.8" or 19.7")  Weight: 180 g or 390 g or 550 g or 800 g (0.4 lb or 0.86 lb or 1.21lb or 1.76 lb)		
GV-Mount908	In-Ceiling Mounting Kit for GV-SD220-S IP Speed Dome	Dimensions Mounting Plate: 227 x 286 mm (8.9" x 11.3") Weight 2.05 Kg (4.5 lb)		
GV-PA901	PoE Adapter	The GV-PA901 PoE adapter is designed to pro and network connection to GV-SD220S over a Ethernet cable.		
		Dimensions (L x W x H): 69 x 40 x 93 mm / 2.7 3.66" Weight: 250 kg / 0.55 lb High Power over Ethernet: Max. 90W	7" x 1.57" x	
	DC 24V Power Adapter 100-240V AC US	Dimensions (L x W): 132.75 x 58.6 mm (5.23" Weight: 0.39 kg (0.86 lb)	x 2.3")	
	DC 24V Power Adapter 100-240V AC AU	Input: 100 to 240V AC 2.5A 50-60Hz Output: 24V DC 3.75 A		
	DC 24V Power Adapter 100-240V AC AR	POR MARIE AND ADDRESS OF THE PARTY OF THE PA		
	DC 24V Power Adapter	(新田)		

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100-240V AC EU

DC 24V Power Adapter
100-240V AC JU

DC 24V Power Adapter
100-240V AC UK