Architectural and Engineering Specifications

GV-Fixed IP Dome

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The document is written using industry standard formatting and language, and is designed for use by architects, consultants, and specifying engineers who are preparing bid specifications for security cameras, surveillance systems and access control systems.

The electronic version of these specifications may be copied into the appropriate sections of a complete bid specification by using the "cut and paste" method. They are written to highlight the features and specifications of GeoVision products. Section headings mention specific models only for clarity – these may be deleted after insertion into the complete specification.

Products covered in this document include:
GV-FD1500 Series

The Fixed IP Dome is a series of indoor camera designed with 3-axis mechanism for easy and flexible installation. The Fixed IP Dome features IR LED for infrared illumination for night surveillance.

All specifications are subject to change without prior notice. *For more information on GeoVision products, please visit www.geovision.com.tw.*

GV-Fixed IP Dome

A. General Requirements

1. The camera shall be a dual-stream, day/night, network camera utilizing a progressive scan super low lux CMOS imager with a 1/3-inch optical format.
2. The main stream shall utilize H.264 and MJPEG video compression methods with the maximum resolution and frame rate as below:

Models	Max. Resolution & Frame Rate
GV-FD1500	1280 x 1024 at 30 fps (60/50 Hz)

3. The sub stream shall utilize H.264, MPEG4 and MJPEG video compression methods with a resolution up to 640 x 512 at a maximum frame rate of 30 fps.
4. Live view shall be accessible through network and TV monitor using a video-out wire. For TV-out to work properly, the video resolution shall be set to 1280 x 1024 or lower. If both streams are enabled, the video resolution shall be set as 640 x 480.
5. Up to 8 streams shall be supported simultaneously over the network. When the camera is connected to IE browser or any other application, it shall take up one (1) stream. When the camera is connected to GV-System (GV-DVR/NVR) or GV-VMS, video management software, it shall take up two (2) streams.
6. The camera shall provide administrator and guest account settings on the Web interface. The administrator account shall have full access to all the functions, and the guest account shall only have access to camera live view and network status information.

B. Alarm and Notification Requirements

1. The camera shall be capable of motion detection.
2. A privacy mask function shall be provided to allow users to specify areas of the image to be blocked off on the camera view for privacy purpose. The function shall also be supported through ONVIF/RTSP connection.
3. The camera shall support tampering alarm such that an E-mail notification, an alarm or an output device shall be triggered when the camera is being tampered with.
4. The camera shall support visual automation function such that the connected output devices can be automated from live view.
5. The camera shall be capable of triggering an output device or sending E-mail alert when recording errors occur and when the memory card is full.
6. The camera shall have E-mail and FTP ability for alert notification. When motion is detected or when an input device is triggered, a captured still image will be sent by E-mail or to the FTP server.
7. The camera shall be capable of integration with video management software or a central monitoring station. The video or text alerts shall be sent upon alarm event.

C. Recording and Playback Requirements

1. The camera shall be capable of beginning recording according to a schedule, upon input trigger, and upon motion detection.
2. The camera shall be capable of storing recorded data on an inserted micro SD/SDHC memory card (version 2.0, Class 10), an FTP server, GV-Systems (GV-DVR/NVR), GV-Backup Center and GV-Recording Server, and GV-VMS.
3. Scheduled backup shall be supported when connected to a server installed with the GV-Backup Center program.
4. Pre-recording and post-recording functions shall be available.
5. Users shall be able to play back recorded data on a video management software, GV-System (GV-DVR/NVR) or GV-VMS.

D. Video Requirements

1. The camera shall support both constant bitrate (CBR) and variable bitrate (VBR). For variable bitrate (VBR), the maximal bit rate shall be selectable to restrict the system from exceeding a specified bit rate.
2. The following white balance settings shall be selectable on the Web interface: auto, indoor, outdoor, fluorescent and manual. The manual white balance range shall be approximately 2800 degrees to 8500 degrees Kelvin.
3. The camera shall have an automatic shutter, and also a manual shutter with a speed range of 1/5 – 1/8000 seconds.
4. The following image settings shall be adjustable from the Web interface: brightness, contrast, saturation, sharpness, gamma, white balance, flicker-less, image orientation, shutter speed, backlight compensation, D/N sensitivity, WDR, defog, super low lux, denoise and metering.
5. The camera shall support the super low lux function with which the camera can display color live views in near darkness, with minimum illumination of 0.01 lux for color and B/W and 0 lux with IR on.
6. The camera shall support three (3) aspect ratios: 4:3, 16:9 and 5:4.

Main Stream	4:3	1280 x 960 640 x 480 320 x 240
	16:9	1280 x 720 640 x 360 448 x 252
	5:4	1280 x 1024 (Default) 640 x 512 320 x 256
Sub Stream	4:3	640 x 480 320 x 240
	16:9	640 x 360 448 x 252
	5:4	640 x 512 320 x 256 (Default)

7. The S/N ratio for the camera shall be 55 dB.

E. Audio Requirements

1. The camera shall support audio codec G.711.
2. The camera shall support two-way audio transmission.
3. The camera shall be equipped with stereo phone jacks (3.5 mm / 0.14”) to support one external microphone and one speaker.

F. Networking Requirements

1. Network interface shall be via a 10/100 Ethernet, RJ-45 connector.
2. A built-in Web server shall be incorporated for the camera view to be accessible using Microsoft Internet Explorer (version 7.0 or higher required), without the need for special viewer software.
3. The camera shall support the following network protocols: HTTP, HTTPS, TCP, UDP, SMTP, FTP, DHCP, NTP, UPnP, DynDNS, 3GPP/ISMA, RTSP, PSIA, SNMP, ONVIF (Profile S), QoS (DSCP).
4. Port settings shall be configurable.
5. The camera shall be capable of setting IP filtering to restrict access to the camera.
6. QoS (DSCP) shall be supported to allow differentiated bandwidth control.

G. Lens Requirements

1. The camera shall have a varifocal lens with a DC-drive and a focal length of 3 ~ 9 mm.
2. The camera shall be equipped with a removable IR-cut filer.
3. The maximum aperture of the camera shall be F/1.2.
4. The camera shall have the image format of 1/2.7 inch.
5. The camera shall support automatic gain control.
6. The dynamic range for the camera shall be up to 72 dB.
7. The horizontal field of view for the camera shall be 90° ~ °32.
8. The camera shall have a minimum illumination of 0.01 lux in color and B/W mode; and a minimum illumination of 0 lux with IR on.
9. The camera shall be equipped with 10 IR LEDs at a maximum IR distance of 30 m / 98.4 ft.

H. Mechanical Requirements

1. The camera shall adopt a 3-axis design and be able to pan, tilt and roll.
2. The camera shall perform the following angle adjustment:

GV-Fixed IP Dome	Travel Angle
GV-FD1500	Pan: 0° ~ 350° Tilt: 10° ~ 90° Rotate: 0° ~ 340°

3. The camera shall be equipped with interface for 1 digital input (dry contact) and 1 digital output (200mA 5V DC).
4. The camera shall have a dimension of ø 155 (diameter) x 110 (height) mm / 6.1 x 4.33 in.
5. The camera shall have a weight of 580 g / 1.28 lb.
6. The camera shall have a ø 14 mm lens mount.
7. The camera shall have a built-in temperature detector to detect the chipset temperature inside the camera.
8. The camera shall support three mounting methods with the standard packing package: hard-ceiling (on the ceiling surface), in-ceiling (partially embedded in the ceiling) and wall-surface (overhung from the wall).
9. The camera shall contain an IR-cut filter to switch the camera from color to monochrome mode automatically by sensing the illumination level or via an input device.

I. Power Requirements

1. Power shall be connected using the supplied power adapter or the Power over Ethernet (PoE).
2. The camera shall be capable of receiving power from 12V DC / 24V AC and IEEE802.3af Power over Ethernet (PoE).
3. The maximum power consumption of camera shall be 12 W.

J. Environmental Requirements

1. The operating temperature shall be within the range of 0°C ~ 50°C / 32°F ~ 122 °F.
2. The humidity shall be within the range of 10% to 90% with no condensation.
3. The camera shall comply with IK7 vandal resistance.

K. System Requirements

1. The camera shall be accessible through Web browsers including Microsoft Internet Explorer (version 7.0 or later), Google Chrome, Mozilla Firefox and Safari.

L. Language Requirements

1. The camera shall support 31 languages on the Web interface, including 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 and Turkish.

M. Applications

1. The camera shall support the following software for network storage:
   - Video management software: GV-System (GV-DVR/NVR), GV-VMS
   - Backup and Recording software: GV-Recording Server
   - NAS system: GV-NAS System
2. The camera shall support smart device access using GV-Eye mobile app. for live view display and remote playback.
3. The camera shall allow remote access from central management stations, such as GV-Control Center, GV-Center V2 and GV-Vital Sign Monitor.

N. Packing List shall include:

1. Packing List for Hard-Ceiling Mount
   - Fixed IP Dome
   - Torx Wrench
   - Mounting Plate
   - Short Screw Anchor x 3
   - Ceiling Screw x 3
   - Plate Screw x 3
   - TV-out Wire
   - Sticker
   - Power Adapter

- GV-IPCAM H.264 Quick Start Guide
- GV-IPCAM H.264 Software DVD
- GV-NVR Quick Start Guide
- GV-NVR Software DVD

2. Packing List for In-Ceiling Mount
   - In-Ceiling Housing Cover
   - Mounting Plate
   - Mounting Bracket x 3
   - Copper Pillar x 3
   - Copper Pillar Screw x 6
   - Bracket Screw x 3
   - Thread Lock Screw
   - Housing Cover Thread
   - Sticker (In-Ceiling Mount)

O. Certifications and Approvals

1. CE, FCC, RCM, RoHS Compliant

Specifications are subject to change without notice.