

Architectural and Engineering Specifications

GV-Target Fixed Dome

Revision Date: 09/23/2020

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-EFD2101(P-Iris model) and GV-EFD3101(P-Iris model).

The Target Fixed Dome is an indoor, fixed network camera equipped with an automatic IR-cut filter, Super Low Lux, and IR LEDs for day and night surveillance. Adjustable in 3 axis (pan, tilt and rotate), it offers a surveillance solution with all the essential features and excellent image quality.

The WDR Pro model (GV-EVD3101) can also process scenes with contrasting intensity of lights.

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

GV-Target Fixed Dome



A. General Requirements

1. The camera shall be a dual-stream, day/night, network camera equipped with the following image sensor:

Models	Image Sensor
GV-EFD2101	1/2.8" progressive scan super
GV-EFD3101	low lux CMOS

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-EFD2101	1920 x 1080 at 30 fps (60/50 Hz)
GV-EFD3101	2048 x 1536 at 30 fps (60/50 Hz)

3. The sub stream shall utilize H.264 and MJPEG video compression methods with the default resolution and frame rate as below:

Models	Resolution & Frame Rate
GV-EFD2101	640x 512 at 30 fps (60/50 Hz)
GV-EFD3101	960 x 720 at 25 fps (60/50 Hz)

4. The maximum number of streams supported for the camera over the network, using the H.264 codec is six (6) streams. When the camera is connected to video surveillance or management software, GV-DVR / NVR / VMS, it shall take up two (2) streams and when it is connected to IE browser or any other application, it shall take up one (1) stream.
5. 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 for users to specify areas 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 shall be sent when the camera is being tampered.
4. The camera shall have E-mail and FTP ability for alert notification. When motion is detected, a captured still image will be sent by E-mail or to the FTP server.
5. The camera shall be capable of integration with video surveillance/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 and upon motion detection.
2. The camera shall be capable of storing recorded data on GV-DVR / NVR / VMS, GV-Recording Server, and GV-NAS System.
3. Pre-recording and post-recording functions shall be available.
4. Users shall be able to play back recorded data over network or on a video surveillance or management software, GV-DVR / NVR / 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 and manual shutter with the speed range of 1/5 – 1/8000 seconds.
4. The camera shall support the following image adjustment on the Web interface: image brightness, contrast, saturation, sharpness, gamma, white balance, flicker-less, image orientation, shutter speed, backlight compensation, D/N sensitivity, WDR/WDR Pro and defog, low lux enhancement.
5. The camera shall support three (3) aspect ratios: 4:3, 16:9 and 5:4.

GV-EFD2101	Main Stream	4:3	1280 x 960, 640 x 480, 320 x 240
		16:9	1920 x 1080 (Default), 1280 x 720, 640 x 360, 448 x 252
		5:4	1280 x 1024, 640 x 512, 320 x 256
	Sub Stream	4:3	640 x 480, 320 x 240
		16:9	640 x 360 (Default), 448 x 252
		5:4	640 x 512, 320 x 256
GV-EFD3101	Main Stream	4:3	2048 x 1536 (Default), 1600 x 1200, 1280 x 960, 640 x 480, 320 x 240
		16:9	1920 x 1080, 1280 x 720, 640 x 360, 448 x 252
		5:4	1280 x 1024, 640 x 512, 320 x 256
	Sub Stream	4:3	960 x 720 (Default), 640 x 480, 320 x 240
		16:9	640 x 360, 448 x 252
		5:4	640 x 512, 320 x 256

6. The S/N ratio for the camera shall be as described below.

Models	S/N Ratio
GV-EFD2101	56 dB
GV-EFD3101	54 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 RCA female connectors to support one microphone and one speaker.

F. Networking Requirements

1. The camera shall be equipped with a 10/100 Ethernet, RJ-45 connector as a network interface.
2. The camera shall be built with a Web server with which the live view is accessible using Web browsers, without the need for special viewer software.
3. The camera shall support the following network protocols: DHCP, DynDNS, FTP, HTTP, HTTPS, NTP, ONVIF (Profile S), QoS (DSCP), RTSP, SNMP, SMTP, TCP, UDP, UPnP and 3GPP/ISMA.
4. Port settings shall be configurable.
5. The camera shall be able to filter or allow specific IP addresses to restrict access to the camera.
6. QoS (DSCP) shall be supported to allow differentiated bandwidth control.

G. Lens Requirements

1. The camera shall be equipped with a lens of the lens type and focal length as below.

Models	Lens Type	Focal Length
GV-EFD2101 GV-EFD3101	Varifocal lens with P-iris	3 ~ 9 mm

2. The camera shall be equipped with a removable IR-cut filter to switch from color to monochrome mode automatically by sensing the illumination level.
3. The maximum aperture of the camera shall be as below.

Models	Max. Aperture
GV-EFD2101	F/1.7
GV-EFD3101	

4. The camera shall be of Ø14 mm lens mount.
5. The camera shall have the image format as below.

Models	Image Format
GV-EFD2101	1/2.8 inch
GV-EFD3101	

6. The camera shall support automatic gain control.
7. The dynamic range for each model shall be as described below.

Models	Dynamic Range
GV-EFD2101	Up to 72 dB
GV-EFD3101	Up to 100 dB

8. The horizontal field of view for each model shall be as described below.

Models	Horizontal FOV
GV-EFD2101	102° ~ 40°
GV-EFD3101	96° ~ 36°

9. The camera shall have the minimum illumination as described below.

Models	Minimum Illumination
GV-EFD2101	0.005 lux in color mode 0.004 lux in B/W mode 0 lux with IR on
GV-EFD3101	0.01 lux in color and B/W mode 0 lux with IR on

10. The camera shall be equipped with 20 IR LEDs with the maximum IR distance of 50 m (164.04 ft).

H. Mechanical Requirements

1. The camera shall adopt a 3-axis design and be able to pan ($0^{\circ} \sim 350^{\circ}$), tilt ($0^{\circ} \sim 75^{\circ}$), and rotate ($0^{\circ} \sim 340^{\circ}$).
2. The camera shall have a dimension of \varnothing 125 (diameter) x 99.5 (height) mm (4.92" x 3.92").
3. The camera shall have a weight of 470 g (1.04 lb).
4. The camera shall have a built-in temperature detector to detect the chipset temperature inside the camera.
5. The camera shall support ceiling and wall installation with the standard package.
6. The camera shall be equipped with a BNC video output for a monitor. Live view shall be accessible during installation through a monitor to adjust the focus of the camera. The resolution for video output shall be D1.

I. Power Requirements

1. Power shall be connected using a power adapter or the Power over Ethernet (PoE).
2. The camera shall be capable of receiving power from 12V DC and IEEE802.3af Power over Ethernet (PoE).
3. The maximum power consumption shall be 5.8 W.

J. Environmental Requirements

1. The camera shall be able to tolerate between $0^{\circ}\text{C} \sim 50^{\circ}\text{C}$ ($32^{\circ}\text{F} \sim 122^{\circ}\text{F}$).
2. The humidity shall be within the range of 10% to 90% with no condensation.

K. System Requirements

1. The camera shall be accessible through Web browsers including Microsoft Internet Explorer (version 8.0 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 surveillance and management software: GV-DVR / NVR / 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. Target Fixed Dome
2. Screw x 3
3. Screw Anchor x 3
4. Torx Wrench
5. TV-Out Wire
6. Installation Sticker
7. GV-IPCAM H.264 Software DVD
8. GV-NVR Software DVD
9. Warranty Card

O. Certifications and Approvals

1. CE, FCC, RCM, RoHS Compliant