

Architectural and Engineering Specifications

GV-Target Mini Fixed Rugged Dome

Revision Date: 05/17/2017

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-EDR4700 Series

The Target Mini Fixed Rugged Dome (GV-EDR) is an outdoor, fixed, mini-sized network camera equipped with an automatic IR-cut filter and IR LEDs for day and night surveillance. The camera adheres to IK10 vandal resistance and IP67 ingress protection. It supports H.265 video codec to achieve better compression ratio while maintaining high quality picture. The camera is capable of providing a color live view in near darkness, and also under contrasting light intensities, with its super low lux CMOS image sensor and WDR Pro.

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

GV-Target Mini Fixed Rugged 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-EDR4700 Series	1/3" progressive scan super low lux CMOS

2. The main stream shall utilize H.265 and H.264 video compression methods with the maximum resolution and frame rate as below:

Models	Max. Resolution & Frame Rate
GV-EDR4700 Series	2592 x 1520 at 20 fps, 2560 x 1440 at 25 fps, 2048 x 1520 at 25 fps (50 Hz)
	2592 x 1520 at 20 fps, 2560 x 1440 at 24 fps, 2048 x 1520 at 30 fps (60 Hz)

3. The sub stream shall utilize H.265, H.264 and MJPEG video compression methods with a resolution up to 1280 x 1024 at a maximum frame rate of 30 fps.

4. The maximum number of streams supported for the camera over the network, using the H.265 / H.264 codec are described as below.

Models	Max. Number of Streams
GV-EDR4700 Series	8

When the camera is connected to GV-DVR / NVR / VMS, video management software, 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 support visual automation function such that the connected output devices can be triggered by clicking its image on the live view.
5. 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.
6. 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 upon motion detection.
2. The camera shall be capable of storing recorded data on GV-DVR / NVR / VMS, and GV-Recording Server.

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 over network or on a video management software, GV-DVR / NVR / VMS.

D. Video Requirements

1. The camera shall support Smart Streaming function, with which the bitrates will be automatically reduced in static scenes, significantly maximizing bandwidth and lowering file size. It works with compatible version of GV-DVR / NVR / VMS.
2. 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.
3. 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.
4. The camera shall have an automatic and manual shutter with the speed range of 1/5 – 1/16000 seconds.
5. 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, defog, low lux enhancement, denoise and metering.
6. The camera shall have the minimum illumination as described below.

Models	Minimum Illumination
GV-EDR4700 Series	0.03 lux in color mode 0.02 lux in B/W mode 0 lux in B/W mode with IR on

7. The camera shall support three (3) aspect ratios: 4:3, 16:9 and 5:4.

GV-EDR4700 Series	Main Stream	4:3	2048 x 1520, 1600 x 1200, 1280 x 960, 640 x 480
		16:9	2592 x 1520, 2560 x 1440 (Default), 2304 x 1296, 1920 x 1080, 1280 x 720, 640 x 360
		5:4	1280 x 1024, 640 x 512
	Sub Stream	4:3	1024 x 768, 640 x 480, 320 x 240
		16:9	1280 x 720, 640 x 360 (Default), 448 x 256
		5:4	1280 x 1024, 640 x 512, 320 x 256

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

Models	S/N Ratio
GV-EDR4700 Series	50 dB

E. 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.

F. 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-EDR4700-0F	Fixed lens	2.8 mm
GV-EDR4700-2F		3.8 mm

2. The camera shall be equipped with a removable IR-cut filter.
3. The maximum aperture of the camera shall be as below.

Models	Max. Aperture
GV-EDR4700-0F	F/2.0
GV-EDR4700-2F	F/1.8

4. The camera shall be of M12 (pitch 0.5 mm) lens mount.
5. The camera shall have the image format as below..

Models	Image Format
GV-EDR4700 Series	1/2.7 inch

6. The camera shall support automatic gain control.
7. The camera shall equipped with a WDR (Wide Dynamic Range) sensor to process scenes with contrasting intensity of lights.
8. The dynamic range for each model shall be as described below.

Models	Dynamic Range
GV-EDR4700 Series	Up to 120 dB

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

Models	Horizontal FOV
GV-EDR4700-0F	96°
GV-EDR4700-2F	72°

10. The camera shall be equipped with 12 IR LEDs with the maximum IR distance of 15 m (50 ft).

G. Mechanical Requirements

1. The camera shall adopt a 2-axis design and be able to pan ($-45^{\circ} \sim 45^{\circ}$) and tilt ($0^{\circ} \sim 63^{\circ}$).
2. The camera shall have a dimension of \varnothing 114 (diameter) x 62.8 (height) mm (4.49" x 2.47").
3. The camera shall have a weight of 600 g (1.32 lb).
4. The camera shall support wall installation with the standard package.
5. The camera shall contain an IR-cut filter to switch the camera from color to monochrome mode automatically by sensing the illumination level.

H. 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 6.07 W.

I. Environmental Requirements

1. The camera shall be able to tolerate between $-20^{\circ}\text{C} \sim 50^{\circ}\text{C}$ ($-4^{\circ}\text{F} \sim 122^{\circ}\text{F}$) for start-up, and $-30^{\circ}\text{C} \sim 50^{\circ}\text{C}$ ($-22^{\circ}\text{F} \sim 122^{\circ}\text{F}$) for operation.
2. The humidity shall be within the range of 10% to 90% with no condensation.
3. The camera shall comply with IP67 protection classification.
4. The camera shall comply with IK10 vandal resistance.

J. 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.

K. 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.

L. Applications

1. The camera shall support the following software for network storage:
 - Video management software: GV-DVR / NVR / VMS
 - Backup and Recording software: GV-Backup Center, GV-Recording Server
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.

M. Packing List shall include:

1. H.265 Mini Fixed Rugged Dome
2. Screw x 2
3. Screw Anchor x 2
4. Focus Adjustment Clip
5. Installation Sticker
6. Conduit Converter
7. RJ-45 Connector
8. Waterproof Rubber Sets (for RJ-45 Cat.5 and 12V DC / for RJ-45 Cat.6)
9. Torx Wrench
10. Silica Gel Bag x 2
11. Adhesive Tape for Silica Gel Bag x 2
12. Concave hexagon Wrench
13. Ruler
14. Screw for Conduit Converter x 2
15. GV-IPCAM Software DVD
16. GV-Software DVD

17. Warranty Card

N. Certifications and Approvals

1. CE, FCC, RCM, LVD, RoHS Compliant