Architectural and Engineering Specifications

GV-Target Bullet Camera

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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-EBL4711

The Target Bullet Camera is a lightweight camera designed for outdoor environments. The camera adheres to the IP67 standard and has full protection against dust and jets of water. The camera can support H.265 video codec to achieve better compression ratio while maintaining high quality pictures at reduced network bandwidths. The camera is capable of providing a color live view not only in near darkness but also under contrasting light intensities with its super low lux CMOS image sensor and WDR Pro. The camera offers an entry-level surveillance solution with all the essential features and excellent image quality.

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

GV-Target Bullet Camera

A. General Requirements

1. The camera shall be a dual-stream, day/night, network camera equipped with the 1/3” progressive scan super low lux CMOS sensor.
2. The main stream shall utilize H.265 or H.264 video compression methods with the maximum resolution and frame rate as below:

Models	Max. Resolution & Frame Rate
GV-EBL4711	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 numbers 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-EBL4711	8

Note when the camera is connected to GV-DVR / NVR / VMS or 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 have E-mail and FTP ability for alert notification. When motion is detected, a captured sill image will be sent by E-mail or to the FTP server.
   5. 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 Pro, defog, low lux enhancement, denoise and metering.
6. The camera shall be equipped with a super low lux CMOS sensor to display color live view in near darkness.
7. The camera shall have the minimum illumination as described below.

Models	Minimum Illumination
GV-EBL4711	0.03 lux in color mode 0.02 lux in B/W mode 0 lux in B/W mode with IR on

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

GV-EBL4711	**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

9. The S/N ratio for the camera shall be 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-EBL4711	Motorized varifocal lens with 4.4x optical zoom and P-iris	2.7 ~ 12 mm

2. The camera shall contain an IR-cut filter to switch the camera 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-EBL4711	F/1.6

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

Models	Image Format
GV-EBL4711	1/2.7 inch

6. The camera shall support automatic gain control.
7. The camera shall be equipped with a WDR Pro sensor to process scenes with contrasting intensity of lights.
8. The dynamic range for the camera shall be up to 120 dB.

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

Models	Horizontal FOV
GV-EBL4711	103° ~ 37°

10. The camera shall be equipped with 6 IR LEDs with the maximum IR distance of 30 m (98.4 ft).

G. Mechanical Requirements

1. The camera shall adopt a 2-axis design and be able to pan (0° ~ 360°) and tilt (90° ~ 180°)
2. The camera shall have a dimension of 144.14 x 77.72 x 102.75 mm (5.67” x 3.06” x 4.05”)
3. The camera shall have a weight of 880 g (1.94 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.

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 13.12 W.

I. Environmental Requirements

1. The camera shall be able to tolerate between -20°C ~ 50°C (-4°F ~ 122°F) at start-up and during operation.
2. The humidity shall be within the range of 10% to 90% with no condensation.
3. The ingression protection rating for the camera shall be IP67
4. The vandal resistance rating (IK code) shall be IK10 for metal casing.

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-Recording Server, GV-Backup Center
   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 Bullet Camera
   2. Sun-Shield Cover
   3. Screw for Sun-Shield Cover x 2
   4. Screw for Supporting Rack x 3
   5. Screw Anchor x 3
   6. Silica Gel Bag x 2
   7. Washer x 2
   8. Terminal Block
   9. Screw for Mounting Kit x 3
   10. Nut for Mounting Kit x 3
   11. Hex Wrench
   12. Download Guide
   13. Warranty Card

N. Certifications and Approvals

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