

# VB-H610VE

Network Camera

**A full-HD fixed dome network camera able to withstand both the elements and adversaries with a vandal resistant dome. Ideal for outdoor recording and monitoring 24 hours a day.**

The Canon VB-H610VE is a fixed dome network camera with vandal-resistant and IP66 rated body ideal for harsh outdoor conditions. It is equipped with a 110.0° super wide-angle, 3x optical zoom lens and a host of intelligent features including Moving, Removed and Abandoned Object Detection and Smart Shade Control. The camera is equipped with a 2.1MP CMOS image sensor and Canon's advanced DiGiC NET II processor for simultaneous transmission of high quality 1280x960/30fps video in M.JPEG and bandwidth-saving H.264 codec.



## Key Features

### Image Quality

- Full-HD Definition (1920x1080)
- Maximum frame rate of 30 frames per second (fps)
- 3x optical zoom lens with up to 4x digital zoom for a maximum 12x zoom
- 110.0° super wide horizontal viewing angle
- Best-in-class minimum illumination with 0.008 lux for colour and 0.0005 lux for black and white<sup>7</sup>
- Day/Night function for up to 40x increased sensitivity
- 2.1 million pixels

### Smart Functions

- Intelligent detection:
  - Moving objects detection
  - Removed objects detection
  - Abandoned objects detection
  - Tampering attempts detection
  - Sound volume detection
  - Passing boundaries detection
- Privacy Mask
- High quality and compression combined
- Smart shade control

### Reliability

- Vandal resistant and IP66 rated body
- Built in SD Memory Card Slot
- Recording logs

### Connectivity

- Canon's unique Easy-Setup PTRZ Tool
- Compatible with ONVIF protocol
- Compatible with WebView protocol
- Power over Ethernet

### Easy Installation and Wide Angle Viewing

Equipped with a wide 110° horizontal viewing angle and Canon's unique Easy Setup PTRZ Tool which allows the Pan/Tilt/Rotation/Zoom and Focus to be set from a remote location after installation.

### Protected Against Dirt and Vandalism

An Ingress Protection Rating of IP66 protects the camera against dust, contact and powerful water jets. A special shock resistant exterior allows the camera to absorb impact when subjected to accidents or acts of vandalism.

### Day/Night Function with Increased Sensitivity

By combining the effect of increased sensitivity from turning off the IR cut filter and using digital gain, the day/night function of this camera can achieve up to 40 times of increased sensitivity.

### Intelligent Function with Variety of Detections

With Canon's original background differencing method, intelligent functions such as moving object detection, removed object detection, abandoned object detection, tampering detection and sound volume detection are realized. Additionally it now features Passing Detection.

### Improved Reliability with SD Memory Card Slot

With a built-in SD Memory Card slot, recording stream images and uploaded images can now be saved to the SD memory card during network troubles. High reliability is also realized by recording logs which will not be erased even when the power is turned off.

### Privacy Mask Function for Detailed Consideration

The Privacy Mask Function blocks certain areas of the camera view. In locations where surveillance is required but passwords and input operations are not to be recorded, such as ATM and apartment entrances with keypad security, fine security measures can be taken by realizing security-conscious recording.

### High Quality & High Compression Combined H.264 Streaming Compatible

Compatible with H.264, an image compression format that combines high quality and high compression rates, operation of surveillance systems streaming in high resolution with low network load is realised. Furthermore, it also features Smart Shade Control which automatically adjusts the contrast between bright and dark image areas for optimum detail display even during H.264 stream, to widely support the needs of high resolution streaming.

Subject to change without notice.

## VB-H610VE Technical Specifications

Camera		
Image Sensor	1/3 type CMOS (primary colour filter)	
Number of Effective Pixels	Approx. 2.1 million pixels	
Scanning Method	Progressive	
Lens	3x optical (4x digital) zoom lens (electric drive)	
Focal Length	2.8 (W) – 8.4 mm (T)	
F-number	F1.2 (W) – F2.0 (T)	
Viewing Angle	Horizontal: 111.0° (W) – 36.5° (T) / Vertical: 60.1° (W) – 20.5° (T)	
Day/Night Switch	Auto/Manual	
Min. Subject Illumination	Day Mode (Colour):	0.3 lux (F1.2, shutter speed 1/30 sec., when smart shade control is off, 50IRE) 0.02 lux (F1.2, shutter speed 1/2 sec., when smart shade control is off, 50IRE) 0.008 lux (F1.2, shutter speed 1/2 sec., when smart shade control is on, 50IRE)
	Night Mode (Monochrome):	0.15 lux (F1.2, shutter speed 1/30 sec., when smart shade control is off, 50IRE) 0.001 lux (F1.2, shutter speed 1/2 sec., when smart shade control is off, 50IRE) 0.0005 lux (F1.2, shutter speed 1/2 sec., when smart shade control is on, 50IRE)
Focus	One-shot AF/Manual/Fixed at infinity	
Shooting Distance (from front of lens)	Day Mode: 0.3 m (12 in.) – ∞ Night Mode: 1.0 m (3.3 ft.) – ∞	
Shutter Speed	1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/1600	
Exposure	Auto/Flickerless/Shutter-priority AE/Manual (Shutter Speed, Aperture, Gain)	
White Balance	Auto / Light Source (Daylight Fluorescent / White Fluorescent / Warm Fluorescent / Mercury Lamp / Sodium Lamp/Halogen Lamp) / Lock (One-shot WB)/Manual	
Metering Mode	Center-Weighted/Average/Spot	
Exposure Compensation	9 levels	
Smart Shade Control	7 levels (increases the brightness of shaded subjects in a video)	
AGC Limit	5 levels	
Pan Angle Range	350° (±175°)	
Tilt Angle Range	150° (±75°)	
Rotation Angle Range	350° (±175°)	
Moving Speed	Pan: 19.2°/sec., Tilt: 14.2°/sec., Rotation: 43.7°/sec. (when the Camera Angle Setting Tool is used)	
Server		
Video Compression Method	JPEG, H.264	
Video Size	JPEG: 1920 x 1080, 960 x 540, 480 x 270, 320 x 240; H.264: 1920 x 1080, 960 x 540, 480 x 270	
Video Quality	JPEG, H.264: 5 levels	
Frame Rate	JPEG: 0.1 – 30 fps / H.264: 1/2/3/5/6/10/15/30 fps	
Max. Frame Rate	1920 x 1080 (when streaming): 30 fps <sup>1</sup>	
I-Frame Interval	0.5/1/1.5/2/3/4/5 sec.	
Simultaneous Client Access	JPEG: Max. 30 Clients + 1 Admin Client; H.264: Max. 10 Clients	
Camera Control	Administrator, Authorized user, Guest user (level of control varies depending on user) Max. 50 user names and passwords registered for authorized users.	
Access Control	User authority (user name and password), Host Access Restrictions (IPv4, IPv6)	
Encrypted Communications	SSL/TLS, IPsec (Auto Key Exchange/Manual)	
Protocol	IPv4: TCP/IP, UDP, HTTP, FTP, SNMP (MIB2), SMTP (Client), DHCP (Client), DNS (Client), ARP, ICMP, POP3, NTP, SMTP authentication, RTSP, WV-HTTP (Canon proprietary), ONVIF IPv6: TCP/IP, UDP, HTTP, FTP, SMTP (Client), DHCPv6 (Client), DNS (Client), ICMPv6, POP3, NTP, SMTP authentication, RTSP, WV-HTTP (Canon proprietary), ONVIF	
AutoIP	Available	
Audio Compression Method	G.711 µ-law (64 kbps)	
Audio Communication Method	Full-duplex (two-way) – Echo cancellation function compliant / Sound Transfer Protocol by Canon	
Audio File Playback	Available (audio files can be played back when an event is triggered by the intelligent function or external device input.) <sup>2</sup>	
Privacy Mask	Number of registration: Max. 8 places, Number of mask colours: 1 (select from 9 colours)	
View Restriction	-	
Preset	Max. 20 positions (Preset Tour capable)	
Intelligent Function	Type of Detection: moving object, abandoned object, removed object, camera tampering, passing Area of Detection: Max. 15 places, Volume Detection	
Event Trigger Type	External Device Input, Intelligent Function (Video), Intelligent Function (Volume), Timer	
Image Upload	FTP/HTTP/SMTP (e-mail) Temporary storage memory in camera: Max. approx. 5 MB, Frame Rate: Max. 10 fps	
Event Notification	HTTP/SMTP (e-mail)	
Image Cropping Function	Digital PTZ; Cropping sizes: 640 x 360/512 x 288/384 x 216/256 x 144/128 x 72	
On-Screen Display	Available	
Daylight Saving Time	Available	
Interface		
Network Terminal	LAN x 1 (RJ45, 100Base-TX (auto/full-duplex/half-duplex))	
Audio Input Terminal	3.5 mm mini-jack connector (monaural) (Connect via an audio interface cable (included)) Switch LINE IN/MIC IN in the setting page.	
Audio Output Terminal	3.5 mm mini-jack connector (monaural) (Connect via an audio interface cable (included))	
External Device I/O Terminal	Input x 2, Output x 2	
Memory Card	SD Memory Card, SDHC Memory Card, SDXC Memory Card Compatible. Frame Rate: Max. 1 fps	
Other		
Operating Environment	Temperature: -10°C – +50°C (+14°F – +122°F), Humidity: 5% – 85% (without condensation) Temperature: -30°C – +50°C (-22°F – +122°F), Humidity: 5% – 85% (without condensation) <sup>3</sup>	
Power Supply / Consumption	PoE: PoE power supply via LAN connector (IEEE802.3af compliant) / Max. approx. 8.4W AC Adapter: optional PA-V17 (100 – 240 V AC) / Max. approx. 10.72W External power source: 24 V AC <sup>4</sup> Max. approx. 9.0W / 12 V DC Max. approx. 8.3W	
Dimensions	180 x 147 mm (H)	
Weight	Approx. 1920 g	
Impact Resistance	External materials: aluminium alloy, Dome: polycarbonate plastics With lens shock absorbing mechanism, estimated shock resistant: 50 J <sup>5</sup>	
Dust Resistance / Waterproof Specification	IP66-rated (IEC60529) <sup>6</sup>	



<sup>1</sup>The frame rate may be reduced due to Viewer PC's specs, the number of clients accessing at the same time, network loads, image quality setting, type or movement of the subject or other reasons.

<sup>2</sup>A third-party amplifier speaker is necessary

<sup>3</sup> Equipped with separately sold Heater Unit HU600-VB

<sup>4</sup>Heater Unit HU600-VB 24V AC only

<sup>5</sup>Based on Canon's test method

<sup>6</sup>Only applies if properly installed and adequately waterproofed

<sup>7</sup>Minimum subject illumination based on F1.2, 1/2 second shutter speed and with smart shade control (SSC)

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**Canon**

For more information visit  
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