

# VB-H651VE

Tough outdoor dome camera with a wide angle of view designed for extreme environments

This all-weather protected dome camera offers Full HD image capture with an ultra wide angle lens and reliable low temperature operation.



- See more of the scene with a wide 122.1° angle of view
- IK10, IP66, and NEMA250 Type 4X rated: ready for tough, extreme conditions
- Motion Adaptive Noise Reduction and Area-Specific Data Size Reduction (ADSR) to reduce data size while optimising image quality
- On-board analytics functions for advanced alarm detection
- Live monitoring and configuration on supported web browsers and mobile devices
- Support for ONVIF® Profile S and Profile G

## Product Range

- VB-H652LVE
- VB-H651VE**
- VB-H630VE
- VB-M641VE
- VB-M640VE
- VB-M620VE



# Technical Specifications

# VB-H651VE

<b>CAMERA</b>	
<b>Image Sensor</b>	1/3 type CMOS (primary color filter)
<b>Number of Effective Pixels</b>	Approx. 2.1 million pixels
<b>Scanning Method</b>	Progressive
<b>Lens</b>	2.4x optical zoom (4x digital zoom) lens (electric drive)
<b>Focal Length</b>	2.55 (W) - 6.12 mm (T)
<b>F-number</b>	F1.2 (W) - F1.8 (T)
<b>Viewing Angle</b>	<b>For 16:9 aspect ratios:</b> Horizontal: 122.1° (W) - 50.1° (T) Vertical: 65.8° (W) - 28.2° (T)  <b>For 4:3 aspect ratios</b> Horizontal: 89.2° (W) - 37.6° (T) Vertical: 65.8° (W) - 28.2° (T)
<b>Day / Night Switch</b>	Auto / Day Mode / Night Mode
<b>Min. Subject Illumination</b>	Day Mode (colour): 0.035 lux (F1.2, shutter speed 1/30 sec., SSC off, 50IRE)  Night Mode (monochrome): 0.002 lux (F1.2, shutter speed 1/30 sec., SSC off, 50IRE)  Somoked Dome fitted (sold separately) Day Mode (colour): 0.07 lux (F1.2, shutter speed 1/30 sec., SSC off, 50IRE)  Night Mode (monochrome): 0.004 lux (F1.2, shutter speed 1/30 sec., SSC off, 50IRE)
<b>Focus</b>	Auto / One-shot AF / Manual / Fixed at infinity
<b>Shooting Distance</b> (from front of lens)	Day Mode: 0.3 m (12 in.) - infinity Night Mode: 0.3 m (12 in.) - infinity
<b>Shutter Speed</b>	1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000, 1/16000 sec.
<b>Exposure</b>	Auto / Auto (Flickerless) / Auto (Shutter-priority AE) / Auto (Aperture-priority AE) / Manual (Shutter Speed, Aperture, Gain)
<b>White Balance</b>	Auto / Light Source / Manual Light Source: Daylight Fluorescent / White Fluorescent / Warm Fluorescent / Mercury Lamp / Sodium Lamp / Halogen Lamp Manual: One-shot WB / R Gain / B Gain
<b>Metering Mode</b>	Center-Weighted / Average / Spot
<b>Exposure Compensation</b>	9 levels
<b>Smart Shade Control</b>	Auto / Manual / Disable Auto: 3 levels Manual: 7 levels - Brightens shaded areas of a video
<b>Haze Compensation</b>	Auto / Manual / Disable Auto: 3 levels Manual: 7 levels
<b>AGC Limit</b>	6 levels
<b>Image Stabilizer</b>	2 levels (digital)
<b>Motion-Adaptive NR (Noise Reduction)</b>	Available
<b>Pan Angle Range</b>	350° (±175°)
<b>Tilt Angle Range</b>	150° (±75°)
<b>Rotation Angle Range</b>	350° (±175°)
<b>Moving Speed</b>	Pan: 20.1°/sec. Tilt: 20.7°/sec. Rotation: 40.0°/sec. - When using the camera angle in the Setting Page
<b>SERVER</b>	
<b>Video Compression Method</b>	JPEG, H.264
<b>Video Size</b>	JPEG, H.264: 1920 x 1080, 960 x 540, 480 x 270 1280 x 720, 640 x 360, 320 x 180 1280 x 960, 640 x 480, 320 x 240
<b>Video Quality</b>	JPEG, H.264: 10 levels
<b>Frame Rate</b>	JPEG: 0.1 - 30 fps H.264: 1/2/3/5/6/10/15/30 fps - Values represent streaming performance from the camera. - The frame rate may be reduced due to Viewer computer's specs, the number of clients accessing at the same time, network loads, video quality setting, type or movement of the subject or other reasons.  Maximum frame rate when used in the following combinations: When streaming H.264(1) (1920 x 1080) and H.264(2) (all sizes) simultaneously: 15 fps When streaming H.264(1) (all sizes) and H.264(2) (1920 x 1080) simultaneously: 15 fps When streaming H.264(1) (1280 x 960) and H.264(2) (1280 x 960) simultaneously: 15 fps When streaming H.264(1) (1280 x 720) and H.264(2) (1280 x 720) simultaneously: 15 fps
<b>I-Frame Interval</b>	0.5/1/1.5/2/3/4/5 sec.
<b>Simultaneous Client Access</b>	Max. 30 Clients + 1 Admin Client - H.264: Max. 10 Clients
<b>Bit Rate Control</b>	Target Bit Rate: 64/128/256/384/512/768/1024/1536/2048/3072/4096/6144/8192/10240/12288/14336/16384 kbps
<b>ADSR: Area-specific Data Size Reduction</b>	Number of Specified Areas: Max. 8 areas Data Size Reduction Level: 3 levels
<b>Security</b>	Camera Control: Administrator, Authorized user, Guest user (level of control varies depending on user) Access Control: User authority (user name and password), Host Access Restrictions (IPv4, IPv6) IEEE802.1X: EAP-MD5, EAP-TLS, EAP-TTLS, EAP-PEAP Encrypted Communications: SSL/TLS, IPsec

<b>Protocol</b>	IPv4, IPv6, TCP/IP, UDP, HTTP, FTP, SNMPv1/v2c/v3 (MIB2), DHCP, DNS, AutoIP, mDNS, ARP, ICMP, POP3, NTP, SMTP, RTP/RTCP, RTSP, SSL/TLS, IPsec, ONVIF, WV-HTTP (Canon proprietary)
<b>Audio Compression Method</b>	G.711 $\mu$ -law (64 kbps)
<b>Audio Communication Method</b>	Full-duplex (two-way) - Echo cancellation function compliant RTP, Sound Transfer Protocol by Canon
<b>Audio File Playback</b>	Available (audio files can be played back when an event is triggered by the intelligent function or external device input) - A third-party amplifier speaker is necessary
<b>Privacy Mask</b>	Number of registration: Max. 8 places, Number of mask colors: 1 (select from 9 colors)
<b>Preset</b>	Number of registers: Max. 20 positions (+Home Position) Number of Preset Tour Route: Max. 1
<b>Intelligent Function (Video)</b>	Moving Object Detection, Abandoned Object Detection, Removed Object Detection, Camera Tampering Detection, Passing Detection, and Intrusion Detection Detection Settings: Max. 15 Non-detection Area Settings: Available
<b>Intelligent Function (Audio)</b>	Volume Detection, Scream Detection
<b>Event Trigger Type</b>	External Device Input, Intelligent Function (Video), Intelligent Function (Audio), Timer, Day/Night Switch Number of Linked Events: 2 Linked Event Conditions: OR, AND (whether or not there is a sequence to events)
<b>Image Upload</b>	FTP / HTTP / SMTP (e-mail)
<b>Event Notification</b>	HTTP / SMTP (e-mail)
<b>Log Notification</b>	SMTP (e-mail)
<b>Image Cropping Function</b>	Digital PTZ Cropping sizes: 640 x 360 / 512 x 288 / 384 x 216 / 256 x 144 / 128 x 72 640 x 480 / 512 x 384 / 384 x 288 / 256 x 192 / 128 x 96
<b>On-Screen Display</b>	Available English / Chinese (Simplified) / Japanese
<b>Daylight Saving Time</b>	Available
<b>INTERFACE</b>	
<b>Network Terminal</b>	LAN x 1 (RJ45, 100Base-TX (auto / full-duplex / half-duplex))
<b>Audio Input Terminal (common for LINE IN &amp; MIC IN)</b>	$\phi$ 3.5 mm ( $\phi$ 0.14 in.) mini-jack connector (monaural) LINE IN (connect to an amplifier microphone) or MIC IN (connect to a microphone w/o amplifier) - Switch LINE IN/MIC IN in the Setting Page.
<b>Audio Output Terminal (LINE OUT)</b>	$\phi$ 3.5 mm ( $\phi$ 0.14 in.) mini-jack connector (monaural) LINE OUT (connect to an amplifier speaker)
<b>External Device I/O Terminal</b>	Input x 2, Output x 2
<b>Memory Card</b>	microSD Memory Card, microSDHC Memory Card, microSDXC Memory Card Compatible. Recorded Content: Log, Video (Event, Manual, ONVIF, Timer, Upload) Frame Rate: Max. 1 fps (JPEG) Max. 30 fps (H.264)  - To insure reliability in the recording speed, it is recommended to use CLASS 10 rated products. Even when using CLASS 10 products, reliability cannot be guaranteed during heavy access loads (e.g., when recording and deleting data at the same time).
<b>OTHER</b>	
<b>Operating Environment</b>	Temperature When the heater unit (sold separately) is installed Operating Temperature Range: AC: -40°C - +55°C (-40°F - +131°F) Start-up Temperature Range: AC: -30°C - +55°C (-22°F - +131°F) - Sunshade cover (sold separately) necessary when under direct sun exposure  When the heater unit (sold separately) is not installed AC, DC, PoE: -10°C - +55°C (+14°F - +131°F) - Sunshade cover (sold separately) necessary when under direct sun exposure  Humidity 5% - 85% (without condensation)
<b>Installation Method</b>	Ceiling mount / Surface mount
<b>Power Supply</b>	PoE: PoE power supply via LAN connector (IEEE802.3at Type1 compliant) AC Adapter: PA-V18 (100 - 240 V AC) (sold separately) External power source: 24 V AC/12 V DC
<b>Power Consumption</b>	PoE: Max. approx. 8.9 W*1 AC Adapter PA-V18: Max. approx. 10.2 W (100 V AC) Max. approx. 10.4 W (240 V AC) DC: Max. approx. 9.3 W AC: Max. approx. 8.7 W Max. approx. 21.7 W*2  *1 Class O power sourcing equipment (requests 15.4 W) *2 When the heater unit (sold separately) is installed
<b>Dimensions</b>	( $\phi$ x H) $\phi$ 180 x 135 mm ( $\phi$ 7.09 x 5.31 in.) - Camera only (excluding Ceiling Plate)
<b>Weight</b>	Approx. 1710 g (3.77 lb.)
<b>Impact Resistance</b>	IK10 (20J)
<b>Dust-resistant/Waterproof Specification</b>	IP66
<b>International Standard</b>	EN55032 Class A, FCC part15 subpart B Class A, ICES-003 Class A, VCCI Class A, RCM AS/NZS EN55032 Class A, EN55024, EN50581  IEC/UL/EN 60950-1, IEC/UL/EN 60950-1/-22, EN50130-4, IEC/UL/EN 60529 IP66, IEC/UL/EN 62262 IK10, NEMA 250 Type 4X

# Technical Specifications

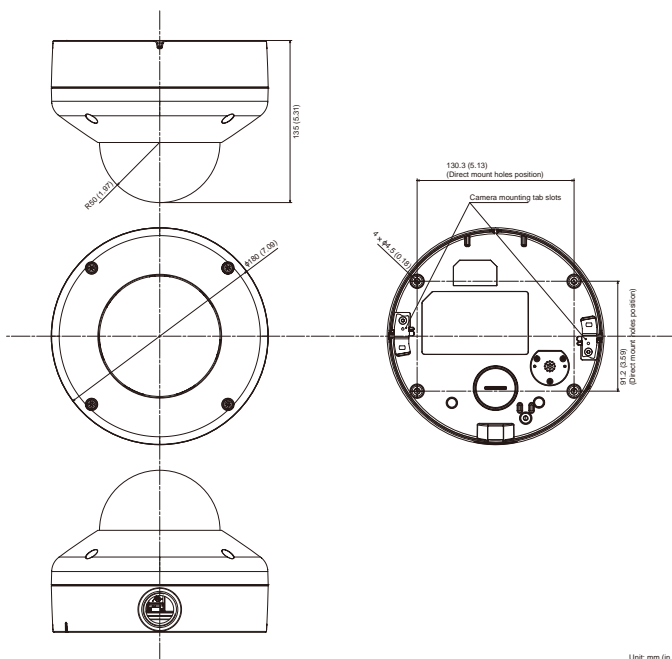
# VB-H651VE

APPLICATION	
<b>Viewer</b>	Camera Viewer - Supports Video Display Rotation Mobile Camera Viewer
<b>Included Software</b>	Camera Management Tool RM-Lite Recorded Video Utility
<b>Language</b>	German / English / Spanish / French / Italian / Polish / Russian / Thai / Turkish/Chinese (Simplified) / Japanese
<b>Operating System/ Compatible Browser</b>	Windows Vista, Internet Explorer 9 Windows 7, Internet Explorer 11/Chrome 54 Windows 8.1, Internet Explorer 11/Chrome 54 Windows 10, Internet Explorer 11/Microsoft Edge/Chrome 54 Windows Server 2008, Internet Explorer 9 Windows Server 2008 R2, Internet Explorer 11/Chrome 54 Windows Server 2012, Internet Explorer 10/Chrome 54 Windows Server 2012 R2, Internet Explorer 11/Chrome 54 Windows Server 2016, Internet Explorer 11/Chrome 54
<b>Verified Mobile Devices</b>	Surface, iPad, iPhone, Nexus, Galaxy

### What's in the box?

- VB-M651VE Main Unit
- Setup CD-ROM
- Ceiling Plate
- Safety Wire
- Fixing Screw & Safety Wire Screw
- Wrench
- Template
- Power Connector
- I/O Interface Cable
- Audio Interface Cable
- Installation Guide
- Warranty Card
- Leaflet of Warranty Card

### Dimensions



### Compatible Accessories



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Sales Start Date: October 2016



#### Product Details:

Product Name	Mercury Code	EAN Code
Network Camera VB-H651VE	1384C001AB	4549292077322

#### Optional Accessories:

Product Name	Mercury Code	EAN Code
Heater Unit HU641-VB	0724C001AA	4549292043587
Smoked Dome Unit DU640-S-VB	0722C001AA	4549292043563
Pendant Mounting Kit PC640-VB	0719C001AA	4549292043532
Sunshade Cover SC640-VB	0723C001AA	4549292043570
AC Adapter PA-V18 (E)	8362B002AA	4960999986791
AC Adapter PA-V18 (GB)	8362B003AA	4960999986319

#### Measurement / Logistic Information:

Product Name	Mercury code	Pack type	Pack description	Quantity per pack	Length (mm)	Width (mm)	Height (mm)	Net Weight (kg)	Gross Weight (kg)
Network Camera VB-H651VE	1384C001AB	EA	Each	1	248	248	257	1.7	3.3
		CT	Carton	2	277	518	284	3.4	
		EP	Euro Pallet	18				30.8	

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