

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

CAMERA	
Image Sensor	1/3 type CMOS (primary color filter)
Number of Effective Pixels	Approx. 2.1 million pixels
Scanning Method	Progressive
Lens	2.4x optical zoom (4x digital zoom) lens (electric drive)
Focal Length	2.55 (W) - 6.12 mm (T)
F-number	F1.2 (W) - F1.8 (T)
Viewing Angle	For 16:9 aspect ratios: Horizontal: 122.1° (W) - 50.1° (T) Vertical: 65.8° (W) - 28.2° (T) For 4:3 aspect ratios Horizontal: 89.2° (W) - 37.6° (T) Vertical: 65.8° (W) - 28.2° (T)
Day / Night Switch	Auto / Day Mode / Night Mode
Min. Subject Illumination	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)
Focus	Auto / One-shot AF / Manual / Fixed at infinity
Shooting Distance (from front of lens)	Day Mode: 0.3 m (12 in.) - infinity Night Mode: 0.3 m (12 in.) - infinity
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, 1/10000, 1/16000 sec.
Exposure	Auto / Auto (Flickerless) / Auto (Shutter-priority AE) / Auto (Aperture-priority AE) / Manual (Shutter Speed, Aperture, Gain)
White Balance	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
Metering Mode	Center-Weighted / Average / Spot
Exposure Compensation	9 levels
Smart Shade Control	Auto / Manual / Disable Auto: 3 levels Manual: 7 levels - Brightens shaded areas of a video
Haze Compensation	Auto / Manual / Disable Auto: 3 levels Manual: 7 levels
AGC Limit	6 levels
Image Stabilizer	2 levels (digital)
Motion-Adaptive NR (Noise Reduction)	Available
Pan Angle Range	350° (±175°)
Tilt Angle Range	150° (±75°)
Rotation Angle Range	350° (±175°)
Moving Speed	Pan: 20.1°/sec. Tilt: 20.7°/sec. Rotation: 40.0°/sec. - When using the camera angle in the Setting Page
SERVER	
Video Compression Method	JPEG, H.264
Video Size	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
Video Quality	JPEG, H.264: 10 levels
Frame Rate	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
I-Frame Interval	0.5/1/1.5/2/3/4/5 sec.
Simultaneous Client Access	Max. 30 Clients + 1 Admin Client - H.264: Max. 10 Clients
Bit Rate Control	Target Bit Rate: 64/128/256/384/512/768/1024/2048/3072/4096/6144/8192/10240/12288/14336/16384 kbps
ADSR: Area-specific Data Size Reduction	Number of Specified Areas: Max. 8 areas Data Size Reduction Level: 3 levels
Security	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.IX: EAP-MD5, EAP-TLS, EAP-TTLS, EAP-PEAP IEEE802.IX: EAP-MD5, EAP-TLS, EAP-TTLS, EAP-PEAP Encrypted Communications: SSL/TLS, IPsec

Protocol	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)
Audio Compression Method	G.711 μ -law (64 kbps)
Audio Communication Method	Full-duplex (two-way) - Echo cancellation function compliant RTP, 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) - A third-party amplifier speaker is necessary
Privacy Mask	Number of registration: Max. 8 places, Number of mask colors: 1 (select from 9 colors)
Preset	Number of registers: Max. 20 positions (+Home Position) Number of Preset Tour Route: Max. 1
Intelligent Function (Video)	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
Intelligent Function (Audio)	Volume Detection, Stream Detection
Event Trigger Type	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)
Image Upload	FTP / HTTP / SMTP (e-mail)
Event Notification	HTTP / SMTP (e-mail)
Log Notification	SMTP (e-mail)
Image Cropping Function	Digital PTZ Cropping sizes: 640 x 360 / 512 x 288 / 384 x 216 / 256 x 144 / 128 x 72 640 x 480 / 512 x 384 / 384 x 288 / 256 x 192 / 128 x 96
On-Screen Display	Available English / Chinese (Simplified) / Japanese
Daylight Saving Time	Available
INTERFACE	
Network Terminal	LAN x 1 (RJ45, 100Base-TX (auto / full-duplex / half-duplex))
Audio Input Terminal (common for LINE IN & MIC IN)	ϕ 3.5 mm (ϕ 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.
Audio Output Terminal (LINE OUT)	ϕ 3.5 mm (ϕ 0.14 in.) mini-jack connector (monaural) LINE OUT (connect to an amplifier speaker)
External Device I/O Terminal	Input x 2, Output x 2
Memory Card	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).
OTHER	
Operating Environment	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)
Installation Method	Ceiling mount / Surface mount
Power Supply	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
Power Consumption	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
Dimensions	*1 Class O power sourcing equipment (requests 15.4 W) *2 When the heater unit (sold separately) is installed (ϕ x H) ϕ 180 x 135 mm (ϕ 7.09 x 5.31 in.) - Camera only (excluding Ceiling Plate)
Weight	Approx. 1710 g (3.77 lb.)
Impact Resistance	IK10 (20J)
Dust-resistant/Waterproof Specification	IP66 rated
International Standard	EN55032 Class A, FCC part15 subpart B Class A, ICES-3/NMB-3 Class A, VCCI Class A, C-tick 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

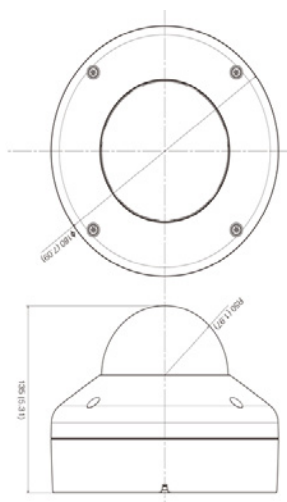
APPLICATION	
Viewer	Camera Viewer - Supports Video Display Rotation Mobile Camera Viewer
Included Software	Camera Management Tool RM-Lite Recorded Video Utility
Language	German / English / Spanish / French / Italian / Russian / Thai / Turkish/Chinese (Simplified) / Japanese
Operating Environment	(Setting page, Viewer)
PC	CPU (Recommended): Intel Core i7-2600 or higher Graphics Board (Recommended): Not specified Memory (Recommended): 2 GB or higher Viewer Display (Recommended): 1920 x 1080 or higher
Operating System	Windows Vista Ultimate / Business / Enterprise / Home Premium SP2 32/64-bit Windows 7 Ultimate / Professional / Enterprise / Home Premium SP1 32/64-bit Windows 8 / Windows 8 Pro / Windows 8 Enterprise 32/64-bit* Windows 8.1 / Windows 8.1 Pro / Windows 8.1 Enterprise 32/64-bit* Windows 10 Pro / Windows 10 Enterprise / Windows 10 Education / Windows 10 Home 32/64-bit Windows Server 2008 Standard SP2 32/64-bit Windows Server 2008 R2 Standard SP1 64-bit Windows Server 2012 Standard 64-bit* Windows Server 2012 R2 Standard 64-bit* * Can not be started from the start screen
Operating System Language	German / English / Spanish / French / Italian / Russian / Thai/Turkish/ Chinese (Simplified) / Japanese
Compatible Browser	Internet Explorer 9 32-bit Internet Explorer 10/11 Microsoft Edge* Chrome 45* * Does not support playback of Video (H.264) and audio files, reception of audio - Must be configured to allow use of JavaScript, IFRAME (html tag), and web storage. - For Camera Viewer only, cookies must be enabled - Does not support Mobile Camera Viewer
Compatible Mobile Devices	Surface, iPad, iPhone, Nexus, Galaxy
Operating Environment	Camera Management Tool, Recorded Video Utility
PC	CPU (Recommended): Intel Core i7-2600 or higher
Operating System	Windows Vista Ultimate / Business / Enterprise / Home Premium SP2 32/64-bit Windows 7 Ultimate / Professional / Enterprise / Home Premium SP1 32/64-bit Windows 8 / Windows 8 Pro / Windows 8 Enterprise 32/64-bit* Windows 8.1 / Windows 8.1 Pro / Windows 8.1 Enterprise 32/64-bit* Windows 10 Pro / Windows 10 Enterprise / Windows 10 Education / Windows 10 Home 32/64-bit Windows Server 2008 Standard SP2 32/64-bit Windows Server 2008 R2 Standard SP1 64-bit Windows Server 2012 R2 Standard 64-bit* * Can not be started from the start screen

Software	Runtime Library Camera Management Tool: .NET Framework 3.5 SP1 (When using Internet Explorer 9) .NET Framework 4.5 (When using Internet Explorer 10/11) .NET Framework 4.6 (When using Internet Explorer 11) - One of the above must be installed
Recorded Video Utility	.NET Framework 3.5 SP1 .NET Framework 4.5 .NET Framework 4.6 - One of the above must be installed
Operating System Language	German / English / Spanish / French / Italian / Russian / Thai / Turkish/Chinese (Simplified) / Japanese
Verified Mobile Devices	Settings Page, Viewer - As of February 2016
Surface 3	Operating System Windows 8.1 Professional / Windows 8.1 Enterprise 64-bit* Windows 10 Pro / Windows 10 Enterprise / Windows 10 Education / Windows 10 Home 64-bit * Can not be started from the start screen Compatible Browser Internet Explorer 11 Microsoft Edge* - Must be configured to allow use of JavaScript, and web storage - For Camera Viewer only, cookies must be enabled * Does not support playback of Video (H.264) and audio files, reception of audio
Apple Devices	iPad Mini 3/4, Air/Air2, iPhone 6/6 Plus, 6S/6S Plus Operating System iOS 8.4.1 iOS 9.2 Compatible Browser Safari - Must be configured to allow use of JavaScript, IFRAME (html tag), and web storage - For Camera Viewer only, cookies must be enabled - Does not support playback of Video (H.264) and audio files, reception of audio - Settings page and Camera Viewer is not supported on the iPhone
Android Devices	Nexus 9, Android 6.0, Chrome 47 Galaxy Tab S 8.4, S 10.5 Android 4.4.2, Chrome 47 - Does not support playback of Video (H.264) and audio files, reception of audio Nexus 6, Android 5.0.2, 6.0, Chrome 47, Galaxy S6, Android 5.0.2 - Does not support playback of Video (H.264) and audio files, reception of audio - Settings page and Camera Viewer is not supported

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



PC640-VB
Pendant Mounting Kit



SC640-VB
Sunshade Cover



DU640-S-VB
Smoked Dome Unit



HU641-VB
Heater Unit



PA-V17 / PA-V18
AC Power Supply
*Available in Euro 2-Pin
& UK 3-Pin plug

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Sales Start Date: October 2016



Product Details:

Product Name	Mercury Code	EAN Code
Network Camera VB-H651VE	1384C001AA	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	1383C001AA	EA	Each	1	248	248	257	TBD	TBD
		CT	Carton	2	277	518	284	TBD	TBD
		EP	Euro Pallet	18					

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