

VB-M50B

Compact, lightweight and innovative PTZ camera with the ultra-low-light performance required in intelligence and evidence-gathering applications.

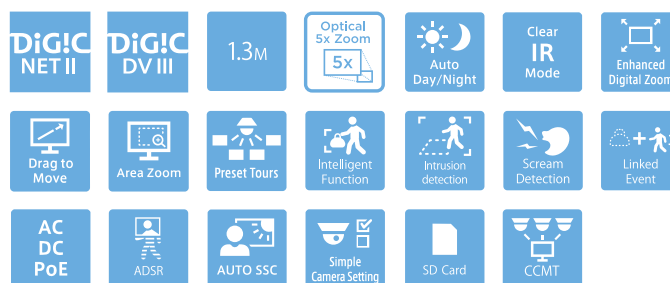
This lightweight 1.3MP PTZ camera boasts a large aperture Canon telephoto lens and a highly sensitive CMOS sensor that delivers exceptional detail in low-light conditions.



- Highly sensitive 1/3" 1.3MP CMOS sensor for exceptional low-light performance
- 5x optical wide aperture zoom lens with distortion-suppressing UD elements
- Unique Clear IR Mode and Motion-Adaptive Noise Reduction
- Enhanced Digital Zoom extends camera's zoom capabilities while maximising image quality
- 8 built-in analytics functions provide intelligent and efficient alarm detection
- Support for multiple web browsers and mobile devices
- Compact, lightweight PTZ design
- ONVIF® Profile S & G

Product Range

VB-R11
VB-H43
VB-M42



Technical Specifications

VB-M50B

	VB-M50B
CAMERA	
Image Sensor	1/3 type CMOS (primary color filter)
Number of Effective Pixels	Approx. 1.3 million pixels
Scanning Method	Progressive
Lens	5x optical zoom (20x digital zoom) auto focus lens
Focal Length	17.7 (W) - 88.5 mm (T)
F-number	F1.8 (W) - F2.4 (T)
Viewing Angle	For 16:9 aspect ratios: Horizontal: 15.6° (W) - 3.2° (T) Vertical: 8.8° (W) - 1.8° (T) For 4:3 aspect ratios: Horizontal: 15.6° (W) - 3.2° (T) Vertical: 11.7° (W) - 2.4° (T)
Day/Night Switch	Auto/Day Mode/Night Mode
Min. Subject Illumination	Day Mode (colour): 0.04 lux Night Mode (monochrome): 0.002 lux - (F1.8, 1/30 sec., SSC off, 50IRE)
Focus	Auto/One-shot AF/Manual/Fixed at infinity
Shooting Distance (from front of lens)	Day Mode: 3.0 m (9.8 ft.) - infinity (W), 5.0 m (16.4 ft.) - infinity (T) Night Mode: 3.0 m (9.8 ft.) - infinity (W), 5.0 m (16.4 ft.) - infinity (T)
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	Available
Clear IR Mode	Available
Pan Angle Range	348° (±174°)
Tilt Angle Range	105° (ceiling-mounted position: -90° - +15°) - When the horizontal direction of the camera is 0°
Moving Speed	Pan: Max. 300°/sec. Tilt: Max. 300°/sec.
SERVER	
Video Compression Method	JPEG, H.264
Video Size	JPEG, H.264: 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 streaming: H.264(1) (1280 x 720) and H.264(2) (1280 x 720) simultaneously: 15 fps H.264(1) (1280 x 960) and H.264(2) (1280 x 960) 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) IEEE802.1X: 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)
Panorama	Available
View Restriction	Available
Preset	Number of registers: Max. 64 positions (+Home Position) Number of Preset Tour Route: Max. 5
Intelligent Function	Detection Types: 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	Volume Detection, Scream 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
Enhanced Digital Zoom	Available
Maximum Digital Zoom	5x/10x/15x/20x
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	Φ3.5 mm (Φ0.14 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)	Φ3.5 mm (Φ0.14 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	SD Memory Card, SDHC Memory Card, SDXC 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 AC, DC, PoE: -10°C - +50°C (+14°F - +122°F) Humidity 5% - 85% (without condensation)
Storage Environment	Temperature -30°C - +60°C (-22°F - +140°F) Humidity 5% - 90% (without condensation)
Installation Method	Ceiling mount - Canon will not guarantee proper operation if the cameras are installed on surfaces where the angle is more than ±5° from horizontal or on walls, because this will put a heavy load onto sliding mechanical parts and may affect durability.
Power Supply	PoE: PoE power supply via LAN connector (IEEE802.3at TypeI 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. 9.8 W* AC Adapter PA-V18: Max. approx. 11.2 W (100 V AC) Max. approx. 11.2 W (240 V AC) DC: Max. approx. 10 W AC: Max. approx. 9.6 W * Class 0 power sourcing equipment (requests 15.4 W)
Dimensions	(Φ x H) Φ129 x 157 mm (Φ5.08 x 6.18 in.) - Camera only
Weight	Approx. 1170 g (2.58 lb.)

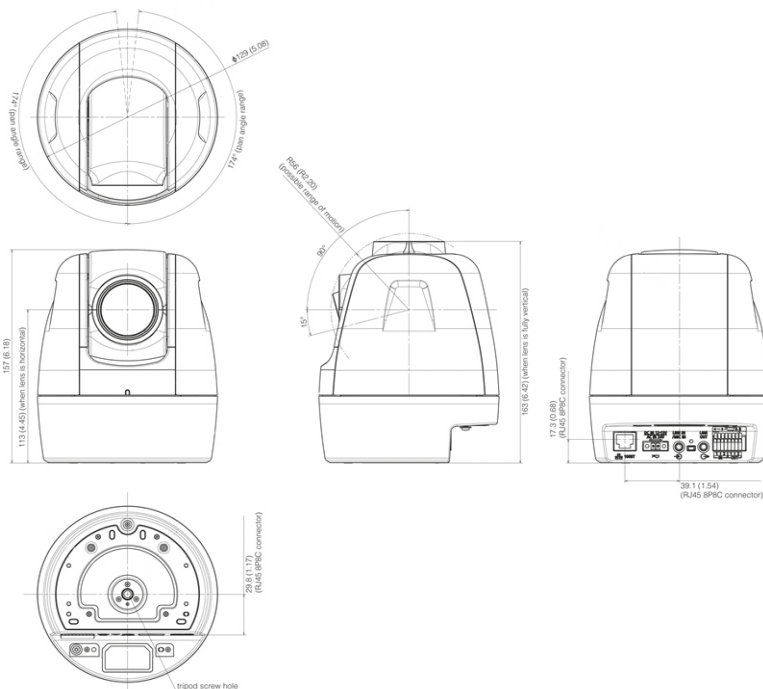
Technical Specifications

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APPLICATION	
Viewer	Camera Viewer 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 2012 Standard 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
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
iPad mini 3 / 4 iPad Air / Air 2 iPhone 6 / 6 Plus iPhone 6s / 6s Plus	Operating System iOS 8.4.1 iOS 9.1 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 46 Galaxy Tab S 8.4, Android 4.4.2, Chrome 46 Galaxy Tab S 10.5, Android 4.4.2, Chrome 46 - Does not support playback of Video (H.264) and audio files, reception of audio Nexus 6 Android 6.0, Chrome 46 Galaxy S6, Android 5.0.2, Chrome 46 - Does not support playback of Video (H.264) and audio files, reception of audio - Settings page and Camera Viewer is not supported

Dimensions (mm)



What's in the box?

- VB-M50B Main Unit
- Power Connector(L-type)
- Power Connector(Straight)
- Setup CD-ROM
- Installation Guide
- Warranty Card
- Leaflet of warranty card
- Packaging