

■ Camera

Item		Model Name	VB-H45/VB-M44	VB-H730F Mk II	VB-S30D Mk II	VB-S31D Mk II	VB-S800D Mk II/VB-S805D Mk II	VB-S900F Mk II/VB-S905F Mk II
Image Sensor			1/3 type CMOS (primary color filter)		1/4.85 type CMOS (primary color filter)	1/3 type CMOS (primary color filter)		
Number of Effective Pixels			VB-H45: Approx. 2.1 million pixels VB-M44: Approx. 1.3 million pixels	Approx. 2.1 million pixels		VB-S800D Mk II: Approx. 2.1 million pixels VB-S805D Mk II: Approx. 1.3 million pixels		VB-S900F Mk II: Approx. 2.1 million pixels VB-S905F Mk II: Approx. 1.3 million pixels
Scanning Method			Progressive					
Lens			20x optical zoom (20x digital zoom) lens with auto focus	3x optical zoom (4x digital zoom) lens (electric drive)	3.5x optical zoom (4x digital zoom) lens with auto focus	Fixed focal length lens (4x digital zoom)		
Focal Length *1			4.7 (W) – 94 mm (T)	2.8 (W) – 8.4 mm (T)	2.25 (W) – 7.88 mm (T)	2.7 mm		
35mm Film Equivalent Focal Length (approx.) *2			33.6 (W) – 672 mm (T)	20 (W) – 60 mm (T)	30.9 (W) – 108.2 mm (T)	19.3 mm		
F-number *1			F1.6 (W) – F3.5 (T)	F1.2 (W) – F2.0 (T)	F1.4 (W) – F2.6 (T)	F1.6		
Viewing Angle *1	For 16:9 aspect ratios	Horizontal	60.4° (W) – 3.2° (T)	112.6° (W) – 36.7° (T)	77.7° (W) – 20.7° (T)	95.0°		96.0°
		Vertical	35.1° (W) – 1.8° (T)	60.8° (W) – 20.6° (T)	40.4° (W) – 11.6° (T)	60.0°		60.5°
	For 4:3 aspect ratios	Horizontal	46.3° (W) – 2.4° (T)	82.3° (W) – 27.5° (T)	55.3° (W) – 15.5° (T)	76.0°		77.0°
		Vertical	35.1° (W) – 1.8° (T)	60.8° (W) – 20.6° (T)	40.4° (W) – 11.6° (T)	60.0°		60.5°
Day/Night Switch			Auto/Day Mode/Night Mode					
Min. Subject Illumination	Day Mode (color)		0.05 lux (F1.6, shutter speed 1/30 sec., when smart shade control is off, 50IRE)	0.3 lux (F1.2, shutter speed 1/30 sec., when smart shade control is off, 50IRE)	0.95 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE)	0.45 lux (F1.6, shutter speed 1/30 sec., when smart shade control is off, 50IRE)		0.4 lux (F1.6, shutter speed 1/30 sec., when smart shade control is off, 50IRE)
	When using the indoor dome housing (Smoked) (sold separately)		0.1 lux (F1.6, shutter speed 1/30 sec., when smart shade control is off, 50IRE)	-				
	Night Mode (monochrome)		0.003 lux (F1.6, shutter speed 1/30 sec., when smart shade control is off, 50IRE)	0.015 lux (F1.2, shutter speed 1/30 sec., when smart shade control is off, 50IRE)	0.5 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE)	0.25 lux (F1.6, shutter speed 1/30 sec., when smart shade control is off, 50IRE)		0.2 lux (F1.6, shutter speed 1/30 sec., when smart shade control is off, 50IRE)
	When using the indoor dome housing (Smoked) (sold separately)		0.006 lux (F1.6, shutter speed 1/30 sec., when smart shade control is off, 50IRE)	-				
Focus			Auto/One-shot AF/Manual/Fixed at infinity	One-shot AF/Manual/Fixed at infinity	Auto/One-shot AF/Manual/Fixed at infinity	-		
Shooting Distance (from front of lens) *1	Day Mode		0.3 m (12 in.) – infinity (W) 1.0 m (3.3 ft.) – infinity (T)	0.3 m (12 in.) – infinity		0.5 m (1.6 ft.) – infinity		
	When [Enable] is selected for [Dome]		2.0 m (6.6 ft.) – infinity	-				
	Night Mode		1.0 m (3.3 ft.) – infinity (W) 1.5 m (4.9 ft.) – infinity (T)	1.0 m (3.3 ft.) – infinity	0.3 m (12 in.) – infinity	0.5 m (1.6 ft.) – infinity		
	When [Enable] is selected for [Dome]		1.0 m (3.3 ft.) – infinity (W) 2.2 m (7.2 ft.) – infinity (T)	-				
Shutter Speed			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.					
Exposure			Auto/Auto (Flickerless)/Auto (Shutter-priority AE)/Auto (Aperture-priority AE)/Manual		Auto/Auto (Flickerless)/Auto (Flickerless2)/Auto (Shutter-priority AE)/Manual			

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White Balance		Auto/Manual 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 *3		Auto/Manual/Disable Auto: 3 levels Manual: 7 levels					
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		340° (±170°)	-	350° (±175°)			-
Tilt Angle Range *4		100° (ceiling-mounted position: -90° - +10°)	-	90° (ceiling-mounted position: -90° - 0°)			-
Rotation Angle Range						180° (±90°)	-
Moving Speed	Pan	Max. 150°/sec.	-	Max. 120°/sec.			-
	Tilt	Max. 150°/sec.	-	Max. 120°/sec.			-

*1 (W): maximum wide angle, (T): maximum telephoto

*2 35mm equivalent focal length is derived by using the proportional calculation based on the diameter of the image circle. As a result, actual viewing angle may differ from the imagined angle of a 35mm equivalent focal length, depending on the properties of the lens.

*3 Brightens shaded areas of a video

*4 When the horizontal direction of the camera is 0°

■ Server

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Video Compression Method		JPEG, H.264					
Video Size		VB-H45/VB-H730F Mk II/VB-S30D Mk II/VB-S31D Mk II/VB-S800D Mk II/VB-S900F Mk II 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 VB-M44/VB-S805D Mk II/VB-S905F Mk II 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					

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Frame Rate *5		JPEG: 0.1 – 30 fps H.264: 1/2/3/5/6/10/15/30 fps Maximum frame rate when used in the following combinations VB-H45/VB-H730F Mk II/VB-S30D Mk II/VB-S31D Mk II/VB-S800D Mk II/VB-S900F Mk II 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 720) and H.264(2) (1280 x 720) simultaneously: 15 fps When streaming H.264(1) (1280 x 960) and H.264(2) (1280 x 960) simultaneously: 15 fps VB-M44/VB-S805D Mk II/VB-S905F Mk II When streaming H.264(1) (1280 x 720) and H.264(2) (1280 x 720) simultaneously: 15 fps When streaming 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: 64/128/256/384/512/768/1024/1536/2048/3072/4096/6144/8192/10240/12288/14336/16384 kbps					
ADSR *6		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)					
ONVIF Profile		Profile-S					
Audio Compression Method		G.711 μ -law (64 kbps)					
Audio Communication Method		Full-duplex (two-way)/half-duplex RTP, Sound Transfer Protocol by Canon	Full-duplex (two-way)/half-duplex – Echo cancellation function compliant RTP, Sound Transfer Protocol by Canon	Audio Reception Only			
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	-	Available	-		
View Restriction		Available	-	Available	-		
Preset	Number of registers	Max. 64 positions (+Home Position)	Max. 20 positions (+Home Position)	Max. 64 positions (+Home Position)	Max. 20 positions (+Home Position)		
	Number of Preset Tour Route	Max. 5	Max. 1	-	Max. 1		
Intelligent Function (Video)		Moving Object Detection, Abandoned Object Detection, Removed Object Detection, Camera Tampering Detection, Passing Detection, Intrusion Detection Detection Settings: Max. 15 Non-detection Area Settings: Available					
Intelligent Function (Audio)		Volume Detection, Scream Detection					
Event Trigger Type		External Device Input, Intelligent Function (Video), Intelligent Function (Audio), Timer, Day/Night Mode Switching 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)					

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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 Magnification Selection		5x/10x/15x/20x	-				
On-Screen Display		Available (English only) *7					
Daylight Saving Time		Available					
Language		German/English/Spanish/French/Italian/Polish/Russian/Turkish/Thai/Korean/Chinese (Simplified)/Japanese					

*5 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.

*6 Area-specific Data Size Reduction

*7 The following languages require the use of the On-Screen Display Assist Tool.

German/Spanish/French/Italian/Polish/Russian/Turkish/Korean/Chinese (Simplified)/Japanese

Interface

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Network Terminal		LAN x 1 (RJ45, 100Base-TX (auto/full-duplex/half-duplex))					
Audio Input Terminal (common for LINE IN & MIC IN)		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			Input x 1, Output x 1		
Memory Card *8		SD Memory Card, SDHC Memory Card, SDXC Memory Card Compatible.			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)					

*8 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

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Operating Environment	Temperature	AC, DC, PoE: -10°C – +50°C (+14°F – +122°F)			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		Ceiling mount/Desktop *9	With use of mounting pole (third party product)	Ceiling mount *9		Ceiling mount/Surface mount	With use of mounting pole (third party product)
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					

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Power Consumption	PoE	Max. approx. 9.2 W *10	Max. approx. 6.9 W *10	Max. approx. 7.8 W *10	Max. approx. 7.6 W *10	Max. approx. 4.1 W *11	Max. approx. 4.3 W *11
	AC Adapter PA-V18	Max. approx. 9.9 W (100 V AC) Max. approx. 9.4 W (240 V AC)	Max. approx. 7.5 W (100 V AC) Max. approx. 7.8 W (240 V AC)	-			
	DC	Max. approx. 8.6 W	Max. approx. 7.0 W	-			
	AC	Max. approx. 8.8 W	Max. approx. 6.5 W	-			
Dimensions		(ϕ x H) ϕ 132 x 155 mm (ϕ 5.20 x 6.10 in.) (Camera only. Excluding ceiling plate)	(H x W x D) 65 x 80 x 192 mm (2.56 x 3.15 x 7.56 in.)	(H x W x D) ϕ 120 x 54 mm (ϕ 4.72 x 2.13 in.)			(H x W x D) 54 x 32 x 114 mm (2.13 x 1.26 x 4.49 in.)
Weight		Approx. 1140 g (2.52 lb.)	Approx. 670 g (1.48 lb.)	Approx. 270 g (9.6 oz.)		Approx. 240 g (8.5 oz.)	Approx. 180 g (6.4 oz.)

*9 Canon will not guarantee proper operation if the cameras are installed on surfaces where the angle is more than $\pm 5^\circ$ from horizontal or on walls, because this will put a heavy load onto sliding mechanical parts and may affect durability.

*10 Class 0 power sourcing equipment (requests 15.4 W)

*11 Class 2 power sourcing equipment (requests 7.0 W)

The cameras described in this manual may include models not available in your country and/or region.

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