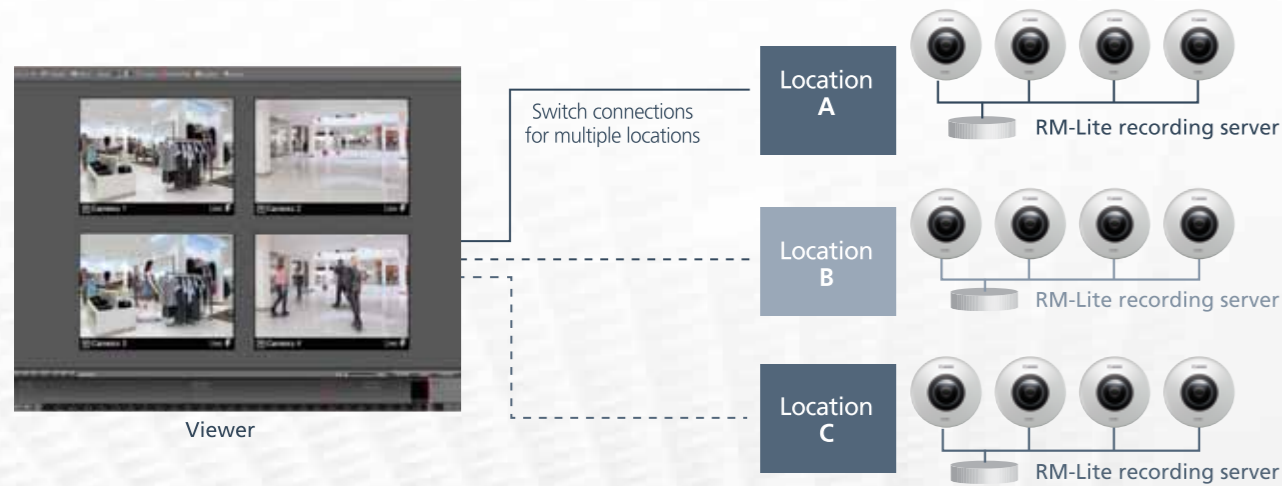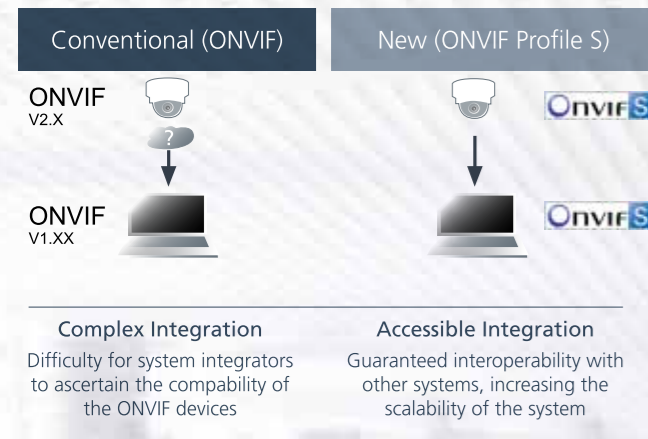## Versatile Compatibility and Efficient Installation

RM-Lite Recording Software

The RM-Lite Recording Software enables seamless recording, playback and audio recording from multiple cameras. Register up to 4 cameras for small-scale monitoring systems that can be operated at multiple locations by simply switching connections.

Switch connections for multiple locations

Location A — RM-Lite recording server
Location B — RM-Lite recording server
Location C — RM-Lite recording server

Viewer

ONVIF Profile S Support

Unlike conventional support systems that make integration and interoperability complicated, the latest ONVIF Profile S Support minimizes compatibility problems. Users can enjoy easy support identification without complex compatibility processes.

Conventional (ONVIF)	New (ONVIF Profile S)
ONVIF V2.X	
ONVIF V1.XX	
Complex Integration	Accessible Integration
Difficulty for system integrators to ascertain the compatibility of the ONVIF devices	Guaranteed interoperability with other systems, increasing the scalability of the system

Efficient Installation

The lightweight design enables easy installation without the requirements of junction boxes and other accessories, effectively reducing the amount of effort needed. Furthermore, the compact body makes flexible installation possible even in limited spaces

PoE power supply via LAN cable

Supports microSD cards

Intelligent Camera Detection Functions

These cameras are equipped with real-time smart detection capabilities that consist of six detection types and 15 detection place settings from rectangular to polygonal areas.

Abandoned Objects | Moving Objects | Camera Tampering | Volume Detection | Removed Objects | Passing Objects

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Product Specifications		VB-S30D	VB-S31D	VB-S800D	VB-S900F
Camera	Image Sensor	1/4.85 type CMOS (primary color filter)	1/3 type CMOS (primary color filter)		
	Number of Effective Pixels	Approx. 2.1 million pixels			
	Scanning Method	Progressive			
	Lens	3.5x optical (4x digital zoom) zoom lens with auto focus	Fixed focal length lens (4x digital zoom)		
	Focal Length	2.25 (W) – 7.88 mm (T)*¹	2.7 mm		
	F-Number	F1.4 (W) – F2.6 (T)	F1.6		
	Viewing Angle	Horizontal: 77.7°(W) - 20.7° (T) Vertical: 40.4° (W) – 11.6° (T)	Horizontal: 95.0° Vertical: 60.0°		Horizontal: 96.0° Vertical: 60.5°
	Day/Night Switch	Auto/Manual			
	Minimum Subject Illumination	**Day Mode (Color):** 0.95 lux (F1.4, shutter speed 1/30 sec., smart shade control off, 50IRE) 0.07 lux (F1.4, shutter speed 1/2 sec., smart shade control off, 50IRE) 0.025 lux (F1.4, shutter speed 1/2 sec., smart shade control on [7], 50IRE) **Night Mode (Monochrome):** 0.5 lux (F1.4, shutter speed 1/30 sec., smart shade control off, 50IRE) 0.04 lux (F1.4, shutter speed 1/2 sec., smart shade control off, 50IRE) 0.015 lux (F1.4, shutter speed 1/2 sec., smart shade control on [7], 50IRE)	**Day Mode (Color):** 0.45 lux [VB-S31D, VB-S800D] / 0.4 lux [VB-S900F] (F1.6, shutter speed 1/30 sec., smart shade control off, 50IRE) 0.03 lux (F1.6, shutter speed 1/2 sec., smart shade control off, 50IRE) 0.01 lux (F1.6, shutter speed 1/2 sec., smart shade control on [7], 50IRE) **Night Mode (Monochrome):** 0.25 lux [VB-S31D, VB-S800D] / 0.2 lux [VB-S900F] (F1.6, shutter speed 1/30 sec., smart shade control off, 50IRE) 0.02 lux (F1.6, shutter speed 1/2 sec., smart shade control off, 50IRE) 0.007 lux (F1.6, shutter speed 1/2 sec., smart shade control on [7], 50IRE)		
	Focus	Auto / One-shot AF / Manual / Fixed at infinity	–		
	Shooting Distance (from front of lens)	0.3 m (1.0 ft.) – infinity	0.5 m (1.6 ft.) – 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, 1/16000 sec.			
	Exposure	Auto/Auto (Flickerless)/Auto (Shutter-priority AE)/Manual (Shutter Speed, Gain)			
	White Balance	Auto/Light Source (Daylight Fluorescent/White Fluorescent/Warm Fluorescent/Mercury Lamp/ Sodium Lamp/Halogen Lamp)/Manual (One-shot WB/R Gain/B Gain)			
	Metering Modes	Center-Weighted/Average/Spot			
	Exposure Compensation	9 Levels			
	Smart Shade Control	Auto/Manual/Disable Auto: 3 levels (default setting) / Manual: 7 levels			
	AGC Limit	5 Levels			
	Image Stabilizer	-			
	Pan Angle Range	350° (±175°)	–		
	Tilt Angle Range	90° (Ceiling-mounted position: -90° to 0°) - When the horizontal direction of the camera is 0°	–		
	Rotation Angle Range	-	180° (±90°)		–
	Moving Speed	Pan: Max. 120°/sec., Tilt : Max. 120°/sec.	–		
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: 5 levels			
	Frame Rate*²	JPEG: 0.1 – 30 fps H.264: 1/2/3/5/6/10/15/30 fps			
	Max. Frame Rate	When streaming JPEG, H.264 (1920 x 1080): 30 fps 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			
	Camera Control	Administrator / Authorized User / Guest User (level of control values 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)			
	IEEE802.1X	EAP-MD5, EAP-TLS, EAP-TTLS, EAP-PEAP			
	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	Sound Transfer Protocol by Canon			
	Privacy Mask	Number of registration: Max. 8 places, Number of mask colours: 1 (select from 9 colors)			
	View Restriction	Available	-		
	Preset	Max. 20 frame positions			
	Intelligent Function	[Video] Detection Types: Moving Object Detection, Abandoned Object Detection, Removed Object Detection, Camera Tampering Detection and Passing Detection Detection Settings: Max. 15 [Volume] Volume Detection			
	Event Trigger Type	External Device Input, Timer, Intelligent Function (Video), Intelligent Function (Volume)			
	Image Upload	FTP/HTTP/SMTP (e-mail) Temporary storage memory in camera: Max. approx. 5MB Frame Rate: Max. 10 fps (JPEG) / Max. 30 fps (H.264)			
	Event Notification	HTTP/SMTP (e-mail)			
	Camera Angle Setting	-	Available		
	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			
	Daylight Saving Time	Available			
	Custom Settings	Number of registers: 4 Items to Reg.: Pan/Tilt/Zoom [Only for VB-S31D, VB-S30D], Exposure, Smart Shade Control, Focus [Only for VB-S31D, VB-S30D], White Balance, Image Quality Adjustment, Day/Night			
Interface	Network Terminal	LAN x 1 (RJ45, 100Base-TX (auto/full-duplex/half-duplex)			
	Audio Input (Common for LINE IN & MIC IN)	φ3.5mm (φ0.14 in.) mini-jack connector (monaural) Switch LINE IN/MIC IN in the Setting page LINE IN x 1 (connect to an amplifier microphone) or MIC IN x 1 (connect to a microphone w/o amplifier)			
	Audio Output Terminal (LINE OUT)	-			
	External Device I/O Terminals	Input x 1 / Output x 1			
	Memory Card	microSD Memory Card, microSDHC Memory Card, microSDXC Memory Card Compatible			
	Operating Environment	Temperature: -10°C to +50°C; Humidity: 5% – 85% (without condensation)			
	Power Supply	PoE: PoE power supply via LAN cable (IEEE802.3af compliant)			
Others	Power Consumption	Max. 7.8 W	Max. 7.6 W	Max. 4.1 W	Max. 4.3 W
	Dimensions (excluding protrusions)	(p x H) 120 x 54 mm			(H x W x D) 54 x 32 x 114 mm
	Weight	Approx. 270 g		Approx. 240 g	Approx. 180 g
	Impact Resistant	-			
	Dust Resistant/ Waterproof Specifications	-			

*¹(W): maximum wide angle, (T): maximum telephoto
*² Values represent streaming performance from the camera. The frame rate may be reduced due to Viewer PC'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.

NETWORK CAMERA

SMALL IN SIZE, HUGE ON PERFORMANCE
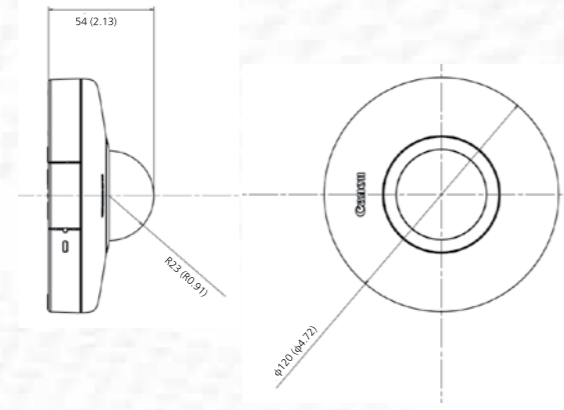
FULL HD 1080

VB-S900F
VB-S31D
VB-S800D
VB-S30D

ALWAYS SAFE & SECURE

Experience enhanced security with the world's smallest* network cameras -
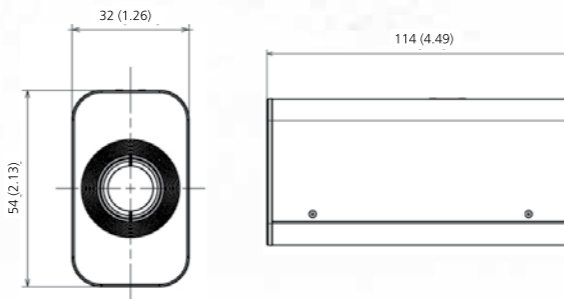VB-S30D, VB-S31D, VB-S800D and VB-S900F.

(VB-S30D, VB-S31D, VB-S800D)

54 (2.13)

62 (90.91)

4*20 (44.72)

(VB-S900F)

32 (1.26)

114 (4.49)

54 (2.13)

Canon

VB-S30D

VB-S30D

• High-performance model for stores, buildings and offices
• World's smallest*, Full HD, electric Pan Tilt Zoom (PTZ) design
• 77.7° horizontal angle view
• Excellent low light performance with 0.95 lux color and 0.5 lux monochrome
• F1.4 lens*²

VB-S31D

• Hyper-performance model for small spaces
• Compact, electric Pan Tilt (PT), Fixed-Focus design
• 95° horizontal angle view
• Excellent low light performance with 0.45 lux color and 0.25 lux monochrome
• F1.6 lens

VB-S800D

• Cost-performance dome model for business and retail settings
• Digital Pan Tilt Zoom (PTZ), compact Fixed-Dome design
• 95° horizontal angle view
• Excellent low light performance with 0.45 lux color and 0.25 lux monochrome
• F1.6 lens

VB-S900F

• High-powered security box model for warehouse and industrial units
• Unique, digital Pan Tilt Zoom (PTZ), compact box design
• 96° horizontal angle view
• Excellent low light performance with 0.4 lux color and 0.2 lux monochrome
• F1.6 lens

*Refers to compact dome cameras with PTZ function as of July 2013

Outstanding and Reliable Camera Innovations

Compact Body

Without compromising high-performance technology, Canon has created the world's smallest*, class-leading, PTZ network cameras. The palm-sized body minimizes dead space with a 61% reduction in height as compared to the previous model**, allowing installation to be done in a greater variety of areas including dropped ceilings.

*Applicable to compact dome models equipped with the PTZ function as of July 2013.
**As compared to VB-H610D.

| Full-HD Compact, Palm-Sized Models | Height is greatly reduced |

Applicable to VB-S30D, VB-S31D, VB-S800D
120mm in diameter (4.72 in)
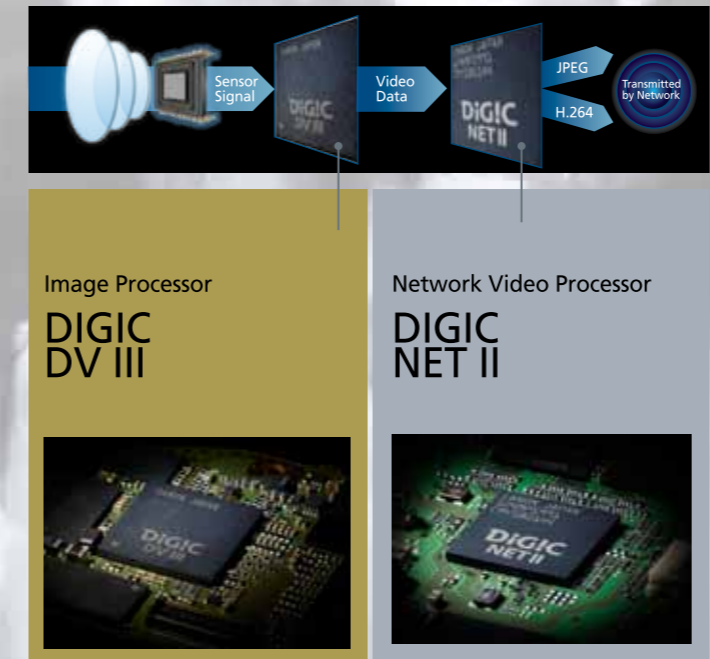
VB-H610D Height
140mm (5.11 in.)

Height 54mm
(2.13 in.)

Unparalleled Canon Lens Technology

The high-definition 3.5x optical and 4x digital zoom lens [VB-S30D] captures an accurate depiction of subjects. An F1.4 wide-angle and F2.6 telephoto lens focus portrays vivid images in low light performance. The F1.6 Fixed-Focus lens [VB-S31D, VB-S800D, VB-S900F] optimizes full wide-angle viewing through a double-sided aspherical lens, resulting in high resolution images with less distortion.

| High-definition zoom lens Clear identification of banknotes | High-performance lens with minimal distortion |

VB-S31D/ VB-S800D/ VB-S900F

VB-30D

Normal 96° wide-angle lens

Effective Illumination of Images

Low-light illumination technology effectively brightens dark areas in a video feed captured under dim conditions, enhancing visibility. 3 levels of Auto Smart Shade Control (SSC) adjusts exposure compensation when shadows or backlight are cast, optimizing images according to the surrounding conditions so that images remain sharp.

AUTO SSC — The level of automatic correction can be set at three levels- [Mild] / [Medium] / [Strong]

The face is difficult to see due to backlight

Corrects subjects and other dim areas

SSC — Seven various levels of correction strength and exposure compensation modes are available

High-Definition, High-Speed Video Transmission

Realize high-definition video output with the DIGIC DV III Image Processor's high computational processing power that enables vivid image reproduction with low noise; combined with the DIGIC NET II that provides full HD resolution at 30fps for fast, high-performance transmission capabilities.

Sensor Signal — Video Data — JPEG — H.264 — Transmitted by Network

Image Processor
DIGIC DV III

Network Video Processor
DIGIC NET II

Excellent Surveillance Capabilities

Auto Gain Control (AGC)

Auto Gain Control increases the gain if the video scene is too dim or too bright. The 5 AGC limit levels allow greater clarity and less noise on the video feed.
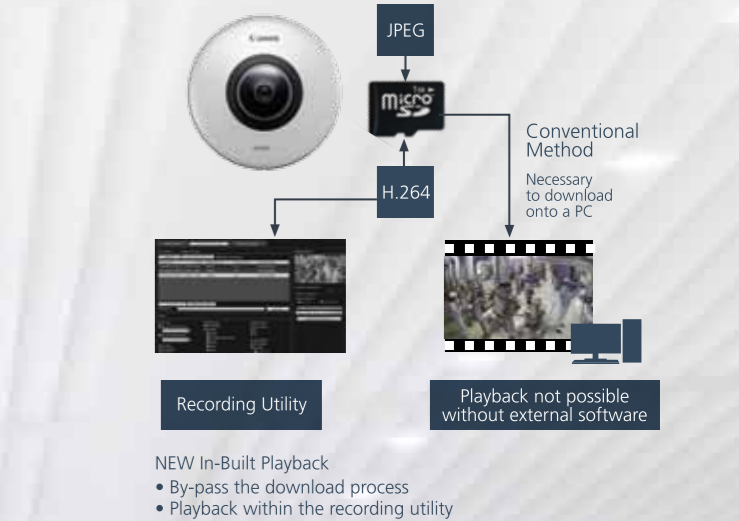
ACG limit set to OFF

ACG limit set to ON Level (1)

Level (2)

Level (3)

Level (4)

Level (5)

Customized Video Settings

Save four custom settings that are aligned to the daily light changes in the video environment. These settings can be alternated automatically with the timer, enabling the video feed to capture optimized high-quality footage around the clock.

Example of Use: In an Office

6:00: Custom Memory #1
Light adjusted to match sunlight entering
• Exposure: -1
• White balanced: Sunlight

8:00: Custom Memory #2
Adjusted for backlight and the start of the working day
• Exposure: ±0
• White balanced: Fluorescent lighting
• SSC: +1

18:00: Custom Memory #3
Light adjusted to match evening sunlight
• Exposure: +1

22:00: Custom Memory #4
Adjusted for the time the lights are switched off
• Exposure: +2
• Zoom*: Wide-angle to watch the entire room

*VB-S30D only

Efficient H.264 Multi-Streaming

Simultaneous streaming in the H.264 video format is made possible for similar and different sizes of videos in three resolution categories, 1080p, 720p and 960p. This enables users to play high-resolution videos for real-time monitoring and modest-resolution videos for extended recording.

Easy H.264 Recording Video Utility

This feature manages videos recorded on a microSD memory card that enables smooth video playback and export within the recording utility, removing the need to download videos onto a PC.

JPEG

micro

H.264

Conventional Method
Necessary to download onto a PC

Recording Utility

Playback not possible without external software

NEW In-Built Playback
• By-pass the download process
• Playback within the recording utility

Optimized Privacy Functions

The privacy mask function provides greater physical security that covers user-sensitive portions of the video feed. For example, a bar is placed over the input of ATM security codes on the feed.

Additionally, the available IEEE802.1X connection is a powerful security system that requires authorization for every connection established. The combination of both reinforces security authentication while ensuring privacy.

| Normal LAN Connection | IEEE802.1X Connection |

Network

Network

Radius Server

Only registered PCs and cameras are connected

Authorization request

Approved authorization from the server

Not incorporated onto the network

LAN Switch

LAN Switch

IDs/ Passwords

Intruder

Decryption

Blocking hackers

Camera not supporting IEEE802.1X

External PC

External PC

Vulnerable privacy where IDs and passwords can be read during the communication process.

Powerful security that requires authorization every time a connection is established and decryption key that can be changed regularly.