



Network Camera

# Appendix – Specifications



**VB-S30VE**

**VB-S800VE**

**VB-S910F**

# Specifications

Explanations that differ depending on the camera model are indicated by the camera name and the following symbols.

**S30VE** VB-S30VE

**S800VE** VB-S800VE

**S910F** VB-S910F

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

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## ■ Camera

|                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor                                                          | <b>S30VE</b> <b>S910F</b><br>1/4.85 type CMOS (primary color filter)<br><b>S800VE</b><br>1/3 type CMOS (primary color filter)                                                                                                                                                                                                                                                                                                                                                  |
| Number of Effective Pixels                                            | Approx. 2.1 million pixels                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Scanning Method                                                       | Progressive                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Lens                                                                  | <b>S30VE</b> <b>S910F</b><br>3.5x optical zoom (4x digital zoom) lens with auto focus<br><b>S800VE</b><br>Fixed focal length lens (4x digital zoom)                                                                                                                                                                                                                                                                                                                            |
| Focal Length<br><br>35mm Film Equivalent<br>Focal Length (approx.) *2 | <b>S30VE</b> <b>S910F</b><br>2.25 (W) – 7.88 mm (T) *1<br><b>S800VE</b><br>2.7 mm<br><b>S30VE</b> <b>S910F</b><br>30.9 (W) – 108.2 mm (T)<br><b>S800VE</b><br>19.3 mm                                                                                                                                                                                                                                                                                                          |
| F-number                                                              | <b>S30VE</b> <b>S910F</b><br>F1.4 (W) – F2.6 (T)<br><b>S800VE</b><br>F1.6                                                                                                                                                                                                                                                                                                                                                                                                      |
| Viewing Angle<br>For 16:9 aspect ratios<br><br>For 4:3 aspect ratios  | <b>S30VE</b><br>Horizontal: 77.1° (W) – 20.6° (T)<br>Vertical: 40.2° (W) – 11.5° (T)<br><b>S800VE</b><br>Horizontal: 93.8°<br>Vertical: 58.7°<br><b>S910F</b><br>Horizontal: 78.6° (W) – 20.8° (T)<br>Vertical: 40.9° (W) – 11.6° (T)<br><b>S30VE</b><br>Horizontal: 54.9° (W) – 15.4° (T)<br>Vertical: 40.2° (W) – 11.5° (T)<br><b>S800VE</b><br>Horizontal: 75.0°<br>Vertical: 58.7°<br><b>S910F</b><br>Horizontal: 55.9° (W) – 15.5° (T)<br>Vertical: 40.9° (W) – 11.6° (T) |
| Day/Night Switch                                                      | Auto/Day Mode/Night Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                                               |                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Min. Subject Illumination<br>Day Mode (color) | <b>S30VE</b><br>1.0 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE)<br><b>S800VE</b><br>0.5 lux (F1.6, shutter speed 1/30 sec., when smart shade control is off, 50IRE)<br><b>S910F</b><br>0.95 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE) |
| Night Mode<br>(monochrome)                    | <b>S30VE</b><br>0.55 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE)<br><b>S800VE</b><br>0.3 lux (F1.6, shutter speed 1/30 sec., when smart shade control is off, 50IRE)<br><b>S910F</b><br>0.5 lux (F1.4, shutter speed 1/30 sec., when smart shade control is off, 50IRE) |
| Focus                                         | <b>S30VE</b> <b>S910F</b> Auto/One-shot AF/Manual/Fixed at infinity                                                                                                                                                                                                                                     |
| Shooting Distance<br>(from front of lens)     | <b>S30VE</b> <b>S910F</b><br>Day Mode/Night Mode: 0.3 m (12 in.) – infinity<br><b>S800VE</b><br>Day Mode/Night Mode: 0.5 m (1.6 ft.) – infinity                                                                                                                                                         |
| 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 (Flickerless2)/Auto (Shutter-priority AE)/Manual                                                                                                                                                                                                                           |
| White Balance                                 | Auto/Manual/Daylight Fluorescent/White Fluorescent/Warm Fluorescent/Mercury Lamp/Sodium Lamp/Halogen Lamp<br>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<br>Auto: 3 levels<br>Manual: 7 levels                                                                                                                                                                                                                                               |
| Haze Compensation                             | Auto/Manual/Disable<br>Auto: 3 levels<br>Manual: 7 levels                                                                                                                                                                                                                                               |
| AGC Limit                                     | 6 levels                                                                                                                                                                                                                                                                                                |
| Motion-Adaptive NR<br>(Noise Reduction)       | Available                                                                                                                                                                                                                                                                                               |
| Pan Angle Range                               | <b>S30VE</b> <b>S800VE</b> 350° (±175°)                                                                                                                                                                                                                                                                 |
| Tilt Angle Range                              | <b>S30VE</b> <b>S800VE</b> 90° (ceiling-mounted position: -90° – 0°) *4                                                                                                                                                                                                                                 |
| Rotation Angle Range                          | <b>S800VE</b> 180° (±90°)                                                                                                                                                                                                                                                                               |
| Moving Speed                                  | <b>S30VE</b><br>Pan: Max. 120°/sec.<br>Tilt: Max. 120°/sec.                                                                                                                                                                                                                                             |
| Built-in microphone                           | Omni-directional electret condenser microphone<br>Sensitivity: -40 dB (0 dB=1 V/Pa)<br>S/N Ratio: 62 dB or greater<br>Frequency Response: 50 Hz – 16 kHz                                                                                                                                                |
| Low-frequency cutoff for<br>audio input       | Available                                                                                                                                                                                                                                                                                               |

\*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 position is 0°

## Server

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video Compression Method     | JPEG, H.264                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Video Size                   | JPEG, H.264: 1920 x 1080, 960 x 540, 480 x 270<br>1280 x 720, 640 x 360, 320 x 180<br>1280 x 960, 640 x 480, 320 x 240                                                                                                                                                                                                                                                                                                                                                                 |
| Video Quality                | JPEG, H.264: 10 levels                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Frame Rate * <sup>5</sup>    | JPEG: 0.1 – 30 fps<br>H.264: 1/2/3/5/6/10/15/30 fps<br>Maximum frame rate when used in the following combinations:<br>When streaming H.264(1) (1920 x 1080) and H.264(2) (all sizes) simultaneously: 15 fps<br>When streaming H.264(1) (all sizes) and H.264(2) (1920 x 1080) simultaneously: 15 fps<br>When streaming H.264(1) (1280 x 720) and H.264(2) (1280 x 720) simultaneously: 15 fps<br>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<br>H.264: Max. 10 Clients                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Bit Rate Control             | Target Bit Rate:<br>64/128/256/384/512/768/1024/1536/2048/3072/4096/6144/8192/10240/12288/14336/16384 kbps                                                                                                                                                                                                                                                                                                                                                                             |
| ADSR * <sup>6</sup>          | Number of Specified Areas: Max. 8 areas<br>Data Size Reduction Level: 3 levels                                                                                                                                                                                                                                                                                                                                                                                                         |
| Security                     | Camera Control: Administrator, Authorized user, Guest user (level of control varies depending on user)<br>Access Control: User authority (user name and password), Host Access Restrictions (IPv4, IPv6)<br>IEEE802.1X: EAP-MD5, EAP-TLS, EAP-TTLS, EAP-PEAP<br>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 $\mu$ -law (64 kbps)                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Audio Communication Method   | Full-duplex (two-way)/half-duplex (One-way communication)<br>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)<br>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                     | <b>S30VE</b> Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| View Restriction             | <b>S30VE</b> <b>S910F</b> Available                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Preset                       | <b>S30VE</b><br>Number of registers: Max. 64 positions (+Home Position)<br><b>S800VE</b><br>Number of registers: Max. 20 positions (+Home Position)<br>Number of Preset Tour Route: Max. 1<br><b>S910F</b><br>Number of registers: Max. 20 positions (+Home Position)                                                                                                                                                                                                                  |
| Intelligent Function (Video) | Moving Object Detection, Abandoned Object Detection, Removed Object Detection, Camera Tampering Detection, Passing Detection, and Intrusion Detection<br>Detection Settings: Max. 15<br>Non-detection Area Settings: Available                                                                                                                                                                                                                                                         |
| Intelligent Function (Audio) | Volume Detection                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                         |                                                                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Event Trigger Type      | External Device Input, Intelligent Function (Video), Intelligent Function (Audio), Timer, Day/Night Switch<br>Number of Linked Events: 2<br>Linked Event Conditions: OR, AND (whether or not there is a sequence to events) |
| Image Upload            | FTP/HTTP                                                                                                                                                                                                                    |
| Event Notification      | HTTP/SMTP (e-mail)                                                                                                                                                                                                          |
| Log Notification        | SMTP (e-mail)                                                                                                                                                                                                               |
| Image Cropping Function | Digital PTZ<br>Cropping sizes: 640 x 360/512 x 288/384 x 216/256 x 144/128 x 72<br>640 x 480/512 x 384/384 x 288/256 x 192/128 x 96                                                                                         |
| On-Screen Display       | Available<br>English Only *7                                                                                                                                                                                                |
| Daylight Saving Time    | Available                                                                                                                                                                                                                   |
| Language                | German/English/Spanish/French/Italian/Polish/Russian/Turkish/Thai/Korean/<br>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

|                                  |                                                                                                                                                                                                                |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Network Terminal                 | LAN x 1 (RJ45, 100Base-TX (auto/full-duplex/half-duplex))                                                                                                                                                      |
| Audio Output Terminal (LINE OUT) | ø3.5 mm (ø0.14 in.) mini-jack connector (monaural)<br>LINE OUT (connect to an amplifier speaker)                                                                                                               |
| External Device I/O Terminal     | Input x 1, Output x 1                                                                                                                                                                                          |
| Memory Card *8                   | microSD Memory Card, microSDHC Memory Card, microSDXC Memory Card<br>Compatible.<br>Recorded Content: Log, Video (Event, Manual, ONVIF, Timer, Upload)<br>Frame Rate: Max. 1 fps (JPEG)<br>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

|                                                  |                                                                                                                                                        |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Environment<br>Temperature:            | <b>S30VE S800VE</b><br>Operating Temperature Range:<br>-25°C – +50°C (-13°F – +122°F)<br>Start-up Temperature Range:<br>-10°C – +50°C (+14°F – +122°F) |
| Humidity:                                        | <b>S910F</b><br>-10°C – +50°C (+14°F – +122°F)<br>5% – 85% (without condensation)                                                                      |
| Storage Environment<br>Temperature:<br>Humidity: | -30°C – +60°C (-22°F – +140°F)<br>5% – 90% (without condensation)                                                                                      |

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Installation                            | <b>S30VE</b><br>Ceiling mount<br>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.<br><b>S800VE</b><br>Ceiling mount/Surface mount<br><b>S910F</b><br>With use of mounting pole (third party product) |
| Power Supply                            | PoE function: PoE power supply via LAN connector (IEEE802.3af compliant)                                                                                                                                                                                                                                                                                                                                   |
| Power Consumption                       | <b>S30VE</b><br>Max. 8.1 W * <sup>9</sup><br><b>S800VE</b><br>Max. 3.9 W * <sup>10</sup><br><b>S910F</b><br>Max. 4.8 W * <sup>10</sup>                                                                                                                                                                                                                                                                     |
| Dimensions                              | <b>S30VE</b> <b>S800VE</b><br>( $\phi$ x H) $\phi 132 \times 65$ mm ( $\phi 5.20 \times 2.56$ in.) (Camera only)<br><b>S910F</b><br>(H x W x D) $54 \times 32 \times 117$ mm ( $2.13 \times 1.26 \times 4.61$ in.)                                                                                                                                                                                         |
| Weight                                  | Please refer to "Installation Guide".                                                                                                                                                                                                                                                                                                                                                                      |
| Impact Resistance                       | <b>S30VE</b> <b>S800VE</b> IK10 (20J)                                                                                                                                                                                                                                                                                                                                                                      |
| Dust-resistant/Waterproof Specification | <b>S30VE</b> <b>S800VE</b> IP66                                                                                                                                                                                                                                                                                                                                                                            |

\*<sup>9</sup> Class 0 power sourcing equipment (requests 15.4 W)

\*<sup>10</sup> Class 2 power sourcing equipment (requests 7.0 W)