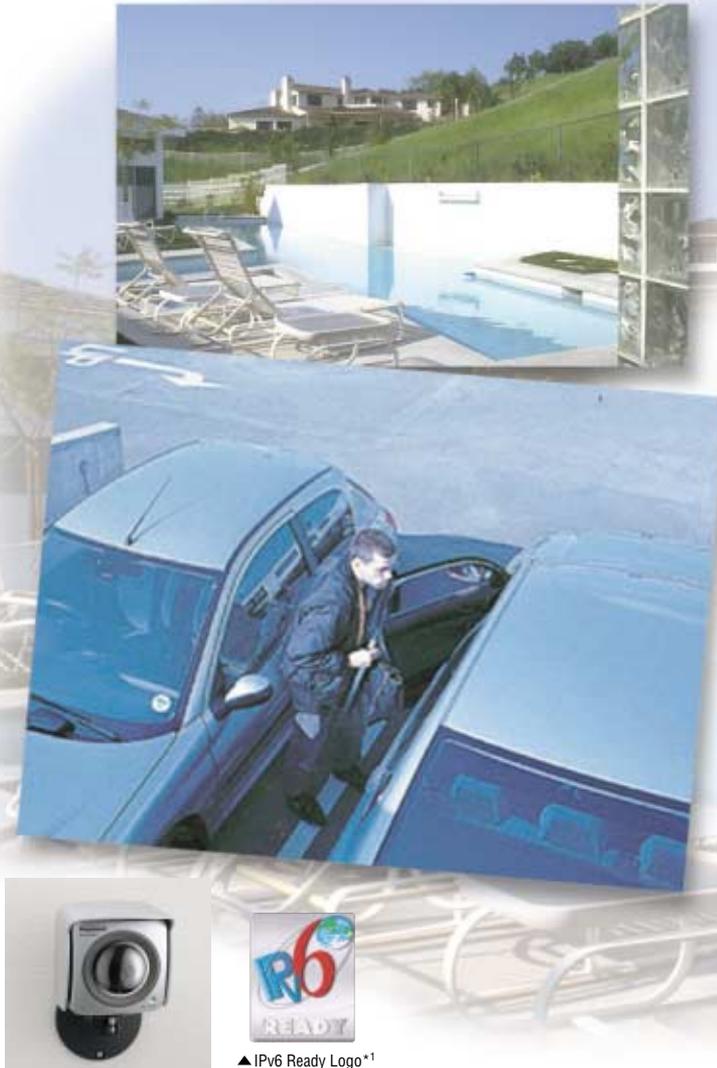


# Panasonic

## ideas for life

# BB-HCM331

IPv4/v6 Audio 2-way Type  
Outdoor Network Camera



▲ IPv6 Ready Logo\*1

### Splash Resistant body for indoor and outdoor use

Your Panasonic Network Camera has a splash resistant body. The splash resistant body allows the camera to be used indoors or outdoors.

#### Water protection level:

Compliant with JIS C 0920, protection level 4, splash-proof panel

#### Operating Temperature:

-20°C to 50°C

### Two-Way Voice Communications

Use of the built-in microphone and a separately purchased amp-equipped speaker enables two-way voice communication (transceiver system)\*2 between the network camera and a PC used to monitor the camera image. Voice transmission and reception can be switched easily from the PC used to monitor the image. For example, it allows people in a head office to provide instructions or messages to people on a sales floor while observing the image on their PC.

### Enhanced Image Expression

#### CCD Sensor

The BB-HCM331 features a CCD for sharp image expression.

#### Image Refreshing Speed

The image refreshing speed (maximum) has been increased to 30 images/sec\* for smoother displays of moving images.

\*Image Resolution: 320 x 240 or 160 x 120.

#### Color Night View Mode

The Color Night View Mode brings the minimum light requirement from 3 lx down to 0.2 lx, letting you capture images even in dimly lit places.

#### Color night view



#### Ordinary camera view



### Standard SD Memory Card Slot

#### Image recording function



Images captured by the network camera can be recorded directly onto an SD Memory Card (sold separately). \*Voices cannot be recorded.

#### • Number of Recording Files per SD Memory Card (Image Quality: Standard)

SD Memory Card Model No.	Resolution		
	640 x 480	320 x 240	160 x 120
<b>1GB</b> (RP-SDH61GU1A)	Approx. 33KB/file 29,000 Images	Approx. 16KB/file 58,000 Images	Approx. 5KB/file 180,000 Images
<b>512MB</b> (RP-SDH512U1A)	Approx. 14,000 Images	Approx. 29,000 Images	Approx. 94,000 Images
<b>256MB</b> (RP-SDH256U1A)	Approx. 7,000 Images	Approx. 14,000 Images	Approx. 47,000 Images
<b>128MB</b> (RP-SDH128U1A)	Approx. 2,000 Images	Approx. 7,000 Images	Approx. 23,000 Images
<b>64MB</b> (RP-SD64BPPA)	Approx. 1,000 Images	Approx. 3,000 Images	Approx. 11,000 Images

\*The operation of SD Memory Cards not listed above cannot be guaranteed.

### Multi-Camera Setup Supported

Simultaneous monitoring of images using up to four network cameras. Images from up to four camera units can be assigned as a group, and the monitor display can be switched to any of three image groups. This enables simultaneous display of the images from up to 12 camera units, with no audio.

### Alarm-Controlled and Timer-Controlled Image Transfer Functions

The Alarm-Controlled Image Transfer function uses a commercially available external Sensor or switch and sends the image only when there is an action such as turning on the light or opening the door. The Timer-Controlled Image Transfer function automatically transmits images according to the set time zone and the day of the week. These convenient functions eliminate your need to constantly check the image.

\*When e-mail function is used to transfer images or messages, e-mail transmission may not be possible in some cases due to the mail server authentication system (SMTP authentication, etc.) used by your Internet service provider.

\*The image transfer functions can be used only with a PC. With a cell phone, only the e-mail transmission function can be used.

### Supporting Viewnetcam.com service

Viewnetcam.com service allows you to access the camera over the Internet with your favorite domain name (e.g. bob.viewnetcam.com) instead of a global IP address. For more information on Viewnetcam.com service, Please access [www.viewnetcam.com](http://www.viewnetcam.com) for more information.



### A Wide Range of Camera Control Functions

#### Click & Center

When the mouse button is clicked at a location on the image, the camera moves so that the image is shown with the selected location at the center.

#### Preset

This function lets you preset the camera direction. You can use it to view the image captured from the preset camera position with one-touch operation.

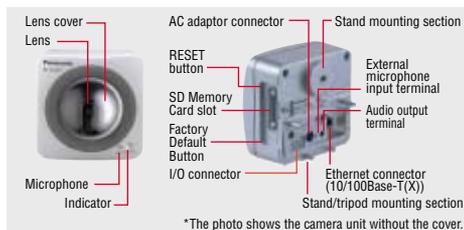
#### External Output Control

This provides ON/OFF operation of an externally connected device. For example, it can be used to turn on a light when the surrounding area becomes dark or to turn on a buzzer in case of an emergency.

#### Pan and Tilt Movement



**Pan**  
(173° maximum)  
**Tilt**  
(105° maximum)



### IPv6-Ready

Our new network cameras allow the use of a virtually unlimited number of IP addresses\*<sup>3</sup> by supporting IPv6, a next-generation protocol. The IPv4/IPv6 dual-stack feature enables you to use IPv4 at the present and switch over to IPv6 in the future.

\*1 This logo mark is issued by the IPv6 Ready Logo Program Committee, an IPv6 promotion group established mainly by the IPv6 Forum.

\*2 This function can be used with a PC only. It cannot be used with a cell phone. To hear the voice transmitted from the PC, a commercially available speaker with a built-in amp must be installed. The transceiver system does not allow simultaneous transmission and reception of voices. The BB-HCM331 may require a version upgrade to the IPv6 environment.

For the latest information, visit Panasonic's support Web site (<http://panasonic.co.jp/pcc/products/en/netwkcaml/>).

\*3 An IP address is a unique number assigned to each user so that the user can be identified on the Internet.

\*4 IPsec is an IP security protocol for data encryption standardized by IETF, an international community devoted to the standardization of Internet specifications.

### IPsec\*<sup>4</sup> Supported

IPsec is a technology used to encrypt data packets in order to prevent eavesdropping by third parties. When combined with a conventional authentication function based on user names and passwords, IPsec offers enhanced security.

### Specifications of BB-HCM331 Network Camera

Model No.	BB-HCM331
Product type	Outdoor type and voice function
Image data compression system	JPEG (Motion JPEG for moving image display)
Video Resolution	640 x 480, 320 x 240, 160 x 120
Image quality	3 modes (Favor Clarity, Standard, Favor Motion)
Frame rate* <sup>1</sup>	Max. 30 frames/sec (320 x 240, 160 x 120), Max. 12 frames/sec (640 x 480)* <sup>2</sup>
Security	User ID, password, IPsec
Encryption algorithm	DES-CBC, 3DES-CBC, AES-CBC
IPsec function* <sup>3</sup>	ESP encryption, EPS authentication, transport mode (main mode only)/tunnel mode IKE (Internet Key Exchange)
Supported protocol	IPv4/IPv6 dual stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, IPsec, UPnP IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NDP, NTP, IPsec
User access limit	Max. 30 accesses (max. 10 accesses with voice reception)
Buffered images* <sup>4</sup>	Approx. 125 images: (320 x 240), standard image quality (approx. 16 KB per image) (without using SD Memory Card)
Viewing Angle	53° horizontal (total 173°) 40° vertical (total 105°)
Pan	-60° up to +60°
Tilt	-45° up to +20°
Revolving speed	Pan: Max. 80°/sec, Tilt: Max. 80°/sec
Number of pixels	1/4 inch, approx. 320,000 pixels, CCD sensor
Lens focal point	Fixed (focal range: 0.5 m to ∞)
Lens brightness	F3.5
Required light intensity	3 to 100,000 lx (in Color Night View mode: 0.2 to 100,000 lx)
Voice direction	Half-duplex two-way communication (transceiver system)
Voice data compression system	ADPCM 32 kbps
Voice band	300 Hz ~ 3.4 kHz
Audio input	Built-in microphone or external microphone (sold separately), external microphone input terminal (3.5-mm dia. mini-jack)
Audio output* <sup>5</sup>	Audio line output terminal for external speaker (3.5-mm dia. stereo mini-jack, monaural output)
Network	Ethernet (10Base-T/100Base-TX)
I/O connector for sensor	G GND 1 External Sensor Input G GND 2 External Sensor Input 3 External Device Control Output 4 DC Power Output Terminal (10.5~13.5 V DC)
SD Memory Card slot	Full size (operation guaranteed for 1GB, 512MB, 256MB, 128MB and 64MB SD Memory Cards)
Operating temperature	-20°C to 50°C
Operating humidity	20% to 90% (No condensation)
External dimensions (WxHxD)	Approx. 100 x 100 x 73 mm (Only the unit)
Weight	300 g (Only the unit)
Power Supply	AC adaptor: Input 120V AC, Output 12V DC
Consumption	6W

\*1 This varies depending on the subject, image quality, network environment, PC performance, etc.

\*2 The image update speed may decrease when favor-motion mode is set, when images are recorded onto an SD Memory Card, and when IPsec is used, as well as due to the network environment and PC performance.

\*3 Transport mode (mode for IPsec communication between terminals, for IPv4 only) operating environment: Microsoft® Windows® XP Service Pack 1 or later only, tunnel mode (mode for IPsec between VPN routers, IPv4/IPv6)

\*4 The number of images that can be stored varies depending on the subject. \*5 Install an amp or use a speaker with a built-in amp.

### Specifications for Compatible PC

	For IPv4	For IPv6
OS	Microsoft® Windows®XP, Windows®2000, Windows®Me, Windows®98SE	Microsoft® Windows®XP, Service Pack 1 or later
CPU	<ul style="list-style-type: none"> <li>For monitoring of image from one camera unit: Pentium RIII (800 MHz or greater)</li> <li>For monitoring of images from multiple camera units: Pentium R4 (1.8 GHz or greater)</li> </ul>	
Protocol	TCP/IP (HTTP, TCP, UDP, IP, DNS, ARP, ICMP) protocol must be installed.	TCP/IP (HTTP, TCP, UDP, IP, DNS, ICMPv6, NDP) protocol must be installed.
Interface	10/100-Mbps LAN card must be installed.	
Web browser	Internet Explorer 6.0 or later	
Audio	Audio input/output function (microphone, speaker, etc.)	

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<http://panasonic.co.jp/pcc/products/en/netwkcaml/>