

## See from Anywhere with a Variety of Monitoring Environments

By sending images in both MPEG-4 and JPEG formats, these cameras let you monitor with a variety of environments - a PC in the office, a cell phone around town, or a TV in a waiting room. Their PoE\*<sup>1</sup> capability allows them to be installed in places where it is difficult to provide power, like near an entranceway or elevator, or in a factory or warehouse. The BB-HCM531 can also be used outdoors\*<sup>2</sup> to further expand its range of application. Using a network resolves many of the limitations that exist for installing and using conventional analogue cameras, to greatly expand your business opportunities through Zero Distance Management\*<sup>3</sup>.

See There  
 When You Can't Be There™

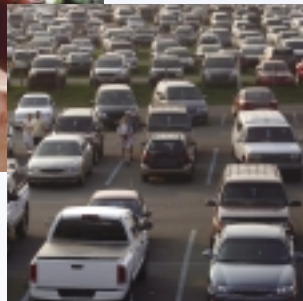


BB-HCM531

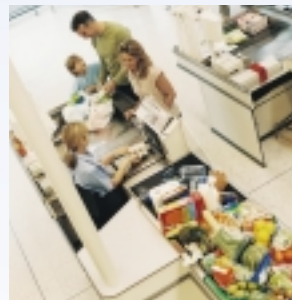
- \*1 PoE (Power over Ethernet) supplies power through an Ethernet cable. An optional AC adaptor can also be used.
- \*2 For details, see the information on the splash-resistant body on the back of this page.
- \*3 For details, see the bottom of this page.



Entrances



Parking lots



Stores



Constructions

### Zero Distance Management

Zero Distance Management is a new business style made possible by Panasonic network cameras. It allows safe, smooth, economical business management that is totally free from conventional distance and time limitations.

### System Diagram

The PoE function supplies power through an Ethernet cable\*. DDNS service and UPnP compatibility make it easy for anybody to set up and use the system over the Internet.



\*An optional AC adaptor can also be used.

# Achieving Zero Distance Management with a Variety of Functions



## Capture

### Motion Detection Function

This function detects changes by reacting to a camera threshold or sensitivity that is set in advance on the PC. Captured images can also be stored temporarily in the camera\*1 or sent to you by e-mail\*2 or FTP data transfer\*3.

## Store

### SD Memory Card\*4 Recording

A large number of images can be saved onto an SD Memory Card inserted into the camera. The images on the card can be checked over the Internet, or if no network is being used, monitoring is possible using only the camera by simply storing the images onto the card.

■ 2GB SD Memory Card Recording Capacity (Image quality: Standard) \*The values in the table are all approximate.

Format	Resolution		
	640 x 480	320 x 240	192 x 144
JPEG	35 KB/file	16 KB/file	7 KB/file
	55,000 images	115,000 images	370,000 images
MPEG-4*5	9 hours	9 hours	17 hours

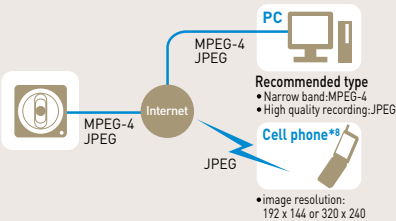
## View

### Analogue Video Output\*6

By connecting a cable directly to the camera's video output terminal, you can use your existing TV or video recorder for monitoring.

### Enjoy comfortable, versatile monitoring. Simultaneous MPEG-4 and JPEG

Cameras simultaneously send MPEG-4 images in three resolutions (VGA\*7, QVGA, and SCIF), and JPEG images in the same three resolutions in favour motion, standard, and favour clarity image-quality types. MPEG-4 is recommended for viewing smooth motion images, and JPEG is recommended for recording high quality images.



### MPEG-4 Visual License

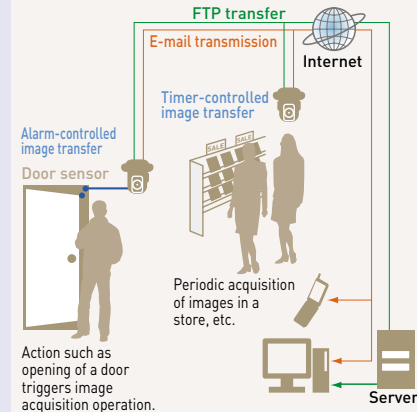
When installing the MPEG-4 viewer program on additional PCs, please purchase additional licenses (Model No. BB-HCA5A for USA, BB-HCA5CE for others).

## Connect

### Alerting yourself when motion occurs Image Transfer Function

In accordance with preset settings\*9, the camera will automatically transfer images and a data log by e-mail\*2 to an e-mail address or by FTP to a server. This allows you to check images only when necessary, and also prevents you from forgetting to check them.

■ Transfer system using timer and alarm settings



## Control

### Monitor large areas entirely. Remote Pan/Tilt and Zoom Control

The camera angle can be varied by remote control to monitor large areas. You can also use the zoom function\*10 to take a closer look at certain places.

■ 10x digital zoom

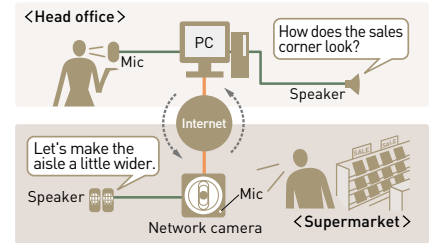


- \*1 A maximum of approximately 350 images (320 x 240 pixels) can be stored in the camera.
- \*2 PDP before SMTP authentication and SMTP authentication (PLAIN, LOGIN and CRAM-MD5) are supported.
- \*3 The sensor's detection history can also be e-mailed to you once a day at a preset time.
- \*4 The SD Memory Card is sold separately.
- \*5 The MPEG-4 recording times will vary depending on the subject and the maximum MPEG-4 frame rate (image refresh speed) and bit rate settings for image distribution.
- \*6-1 Compatible with both NTSC and PAL systems.
- \*6-2 A mini video cable (with 3.5-mm mini plug) is required.

Enjoy smooth communication.

### Audio 2-Way Communication\*11

By using the built-in microphone and a separately purchased speaker, you can speak\*12 to someone near the camera while monitoring. This gives you more precise communication to lessen the inconvenience of being in a distant location.



## Other Features

### Splash Resistant Body\*13 (Splash resistant standard: IPX4)

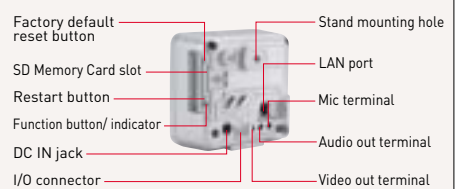
The camera can be mounted just as it is onto a store eave or other outdoor location. This allows installation in a variety of places to expand its scope of application.

## Part Names

### Front View



### Rear View



- \*6-3 The camera cannot be controlled when using analogue video output. The video image displays poorly in colour night view mode.
- \*7 When viewing in VGA, only MPEG-4 playback offers a maximum of 30 fps.
- \*8 For JPEG only. The audio feature does not work on cell phones.
- \*9 Preset settings can include timer, alarm, and motion detection. With JPEG connection only.
- \*10 This is a digital zoom function and cannot be used from a cell phone.
- \*11 The audio feature does not work with cell phones.
- \*12 Walkie-talkie type conversation.
- \*13-1 BB-HCM531 only.
- \*13-2 Complies with JIS C0920, equivalent to IPX4 splash resistance.

## Specifications [BB-HCM511/BB-HCM531]

Server	
Video Compression	JPEG [3 levels], MPEG4
Video Resolution	640 x 480, 320 x 240 [default], 192 x 144
Image Quality	JPEG (favor clarity, standard, favor motion), MPEG4
Frame Rate*1	Max. 30 frames/sec. (640 x 480*2, 320 x 240, 192 x 144)
Security	User ID/password
Supported Protocols	IPv4 / IPv6 Dual-Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP*, SMTP Authentication, RTP, RTSP, RTCP IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NTP, RTP, RTSP, RTCP
User Access Limit	Max. 30 simultaneous accesses (max. 10 accesses in MPEG-4 mode with sound playback)
Buffered Image*3	Approx. 350 images (320 x 240) •standard image quality •with time display •without using SD Memory Card
Image Transfer Method	SMTP*4, FTP, HTTP
Image Buffer/Transfer Triggers	Alarm, timer or motion detection
Camera	
Zoom	10x digital zoom (by area)
Viewing Angle	Horizontal: 54° (total 174°), vertical: 40° (total 105°)
Pan Angle	-60° up to +60°
Tilt Angle	-45° up to +20°
Revolving Speed	Pan: max. 80°/sec, tilt: max. 80°/sec

Camera	
Sensor Type	1/4 inch CCD sensor, approx. 320,000 pixels
Lens Focal Point	Fixed (focal range: 0.5 m to infinity)
Lens Brightness	F2.8
White Balance	Auto/manual/hold
Exposure	Auto
Required Light Intensity	2 to 100,000 lux (in Colour Night View mode: 0.2 to 100,000 lux)
Audio	
Audio Communication	2-Way half duplex
Audio Play Method	Play with ActiveX
Audio Encoding Method	Encoding with ActiveX
Audio Compression	ADPCM 32 kbps
Audio Bandwidth	300 Hz - 3.4 kHz
Audio Input	Built-in microphone, external microphone input terminal
Audio Output	Audio line output terminal for external speaker
Terminal	
Network Interface	Ethernet (10Base-T/100Base-TX)
External I/O Connector	Input: 2, output: 1
Video Output*5	Analog composite (NTSC/PAL)
Audio Output*5	3.5 mm stereo mini jack (output is mono)
External Microphone Input	3.5 mm mini jack
SD Memory Card Slot	Full size (operation guaranteed for 2GB, 1GB, 512MB, 256MB, 128MB and 64MB SD Memory Cards)

General	
Operating Temperature	BB-HCM511: 0°C to +40°C (+32°F to +104°F) BB-HCM531: -20°C to +50°C (-4°F to +122°F)
Operating Humidity	BB-HCM511: 20% to 80% [No Condensation] BB-HCM531: 20% to 90% [No Condensation]
Dimension [H x W x D]	100 x 100 x 74 mm [3 15/16 x 3 5/16 x 2 15/16 inches]
Weight (Only the Unit)	BB-HCM511: 330 g [0.73 lb.] BB-HCM531: 335 g [0.74 lb.]
Consumption	PoE: approx. 6.5 W, AC adaptor (option): 7 W
Power Supply	PoE: 48 V, IEEE802.3af-compliant Power over Ethernet AC adaptor (option): input 120 V AC, output 12 V DC

- \*1 Frame rate may slow down depending on the network environment, PC performance, image quality, SD memory recording, when colour night view mode is activated, etc.
- \*2 For MPEG-4 only. Not applicable to JPEG.
- \*3 The maximum number of frames changes depending on the image quality and what object you buffer.
- \*4 PDP before SMTP authentication and SMTP authentication (PLAIN, LOGIN and CRAM-MD5) are supported.
- \*5 Use only the included Audio/Video Cable when connecting an external microphone, speaker or TV.

**Panasonic**

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