

Panasonic

ideas for life

PoE Type Network Camera
BB-HCE481

Indoor Use Only
*AC adaptor not included.



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



No AC Wiring Necessary



Now you can install a network camera even in places with no power outlet. The BB-HCE481* receives power through the Ethernet cable, so it eliminates the cost of electrical wiring and lets you install it anywhere you want. Since the BB-HCE481 also supports IPv6, you can use it with IPv4 for now, and then switch to IPv6 when it becomes available in the future.

* The BB-HCE481 works with the PoE Hub only. It has no terminal for an AC adaptor.



Bring Any Image Right Up Close



BB-HCE481



Multi-Camera Capability
Check the images from three sets of four cameras each.

Panasonic Meets Your Needs.

A Total Monitoring Solution in the BB-HCE481.

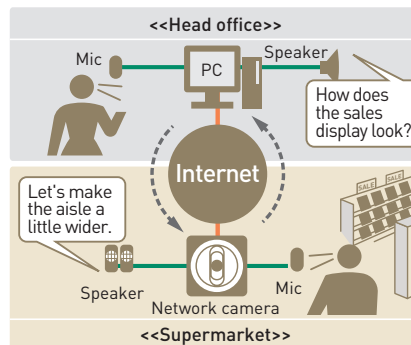


Give instructions as you watch.

Audio 2-Way Communication

By connecting the optional speaker and microphone, you can converse* while viewing the monitor screen. This allows more precise communication. For example, you can accurately troubleshoot problems in a warehouse or factory, or give instructions for urgent store display changes.

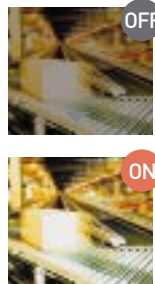
* Walkie-talkie type conversation.



Use as a security measure.

Color Night View Mode

The BB-HCE481 camera automatically adjusts the image brightness for monitoring in dark places that are difficult to see clearly, like dimly lit factories and warehouses at night. Since you can monitor down to a brightness of only 0.09 lux, you can use the BB-HCE481 as an effective security measure.



Covers a wide monitoring area.

Remote Pan/Tilt/Zoom Control

The BB-HCE481 displays a full 360° range horizontally. It pans from -175° to +175°, and tilts 158° vertically. This allows a single BB-HCE481 to cover a wide area so you need fewer cameras, which lowers equipment costs. The BB-HCE481 is also equipped with a 42x zoom function that lets you see images up close for detailed viewing.

Ceiling mounted



Table mounted



Large image storage capacity.

SD Memory Card* Recording

A 2GB SD Memory Card holds up to 115,000 images. If you use a 1-minute interval timer buffer/transfer, you can record images for about 80 days. This lets you check changes over time, in detail. The SD Memory Card can also be conveniently carried around.

* The SD Memory Card is sold separately. The camera supports 2GB, 1GB, 512MB, 256MB, 128MB and 64MB Panasonic SD Memory Cards.

Number of recording files per SD Memory Card (Image quality: Standard)

SD Memory Card	Resolution		
	640 x 480	320 x 240	160 x 120
2GB	55,000 images	115,000 images	370,000 images
1GB	28,000 images	58,000 images	180,000 images
512MB	14,000 images	29,000 images	94,000 images
256MB	7,000 images	14,000 images	47,000 images
128MB	3,000 images	7,000 images	23,000 images
64MB	1,000 images	3,000 images	11,000 images

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

[Other Features]

Motion Detection & Image Transfer Mode

The BB-HCE481 can start recording images as soon as it detects motion. Recorded images can also be sent by e-mail* or transferred via FTP for remote confirmation.

* POP before SMTP authentication and SMTP authentication (PLAIN and LOGIN) are supported. SMTP authentication (CRAM-MD5) is not supported.

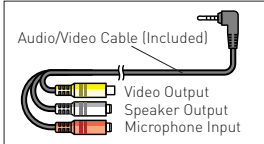
Plug & Play, Simple Ethernet Connection

The BB-HCE481 supports UPnP. Setup is extremely simple, thanks to the supplied automatic setup CD and the free DDNS service offered by Panasonic. See www.viewnetcam.com for details.



Video Output

You can connect the camera to a TV or VCR and watch or record camera images.



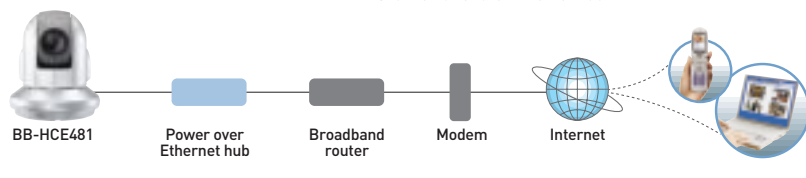
IPsec* Supported

In addition to authentication based on a conventional ID and password system, packet encryption is also used to bolster security and inhibit eavesdropping.

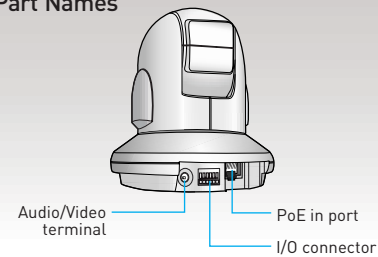
* IPsec is an IP security protocol for data encryption standardized by IETF, an international community devoted to the standardization of Internet specifications.

System diagram

To use the BB-HCE481, you also need Internet access equipment and the Power over Ethernet Hub.



Part Names



Specifications [BB-HCE481]

Server	Network camera	Terminal
Image Compression	JPEG	Network Interface
Video Streaming Format	Motion JPEG	Ethernet (10Base-T/100Base-TX)
Video Resolution	640 x 480, 320 x 240, 160 x 120	External I/O Connector
Image Quality	3 modes (Favor clarity, standard, favor motion)	2 Input / 1 Output
Frame Rate *1	Max. 12 frames/sec. (640 x 480) *2 Max. 30 frames/sec. (320 x 240 or 160 x 120)	Analog Video Output
Security	User ID/Password/IPsec	3.5 mm Mini Jack
IPsec Function *3	ESP encryption, ESP authentication, transport mode (main mode only)/tunnel mode IKE (Internet Key Exchange)	SD Memory Card Slot
Supported Protocols	IPv4/IPv6 dual stack	Full size (operation guaranteed for 2GB, 1GB, 512MB, 256MB, 128MB and 64MB SD Memory Cards)
Max User Access	Max. 30 simultaneous accesses (max. 10 accesses with voice reception)	General
Image Transfer	E-mail/FTP	Operating Temperature
		32°F to 104°F (0°C to +40°C)
		Operating Humidity
		20% to 80% (No condensation)
		Dimensions (H x W x D)
		140 x 123 x 123 mm (5-1/2 x 4-13/16 x 4-13/16 inches)
		Weight (Only the unit)
		650 g (1.43 lb)
		Power Source
		IEEE802.3af-compliant power over Ethernet
		Power Consumption
		11 W
		System requirements for viewer PC
		Operating System
		IPv4: Microsoft® Windows® 98SE, 2000, Me, XP IPv4 IPsec: Microsoft® Windows® 2000, Me, XP professional IPv6: Microsoft® Windows® XP professional Service Pack 1 or later (IPsec is not available)
		Web Browser
		Internet Explorer 6.0 or later
	Zoom	Maximum 42x (21x optical, 2x digital)
	Viewing Angle	Tele: 2.6° (Optical)/1.3° (Digital)
	Pan (Horizontal Direction)	-175° up to +175°
	Tilt (Vertical Direction)	-120° up to 0° (On the table), 0° up to +90° (On the ceiling)
	Pan/Tilt Speed	Pan: Max. 300°/sec, Tilt: Max. 200°/sec
	Image Sensor	1/4 inch, approx. 380,000 pixels, CCD sensor
	Focus	Auto/Manual (40 steps)
	Aperture	F1.6 (Wide) -3.6 (Tele)
	Illumination	3 to 100,000 lux (in color night view mode: 0.09 to 100,000 lux)
	Audio	
	2-Way Audio	Half Duplex
	Codec	ADPCM 32 kbps
	Frequency Range	300 Hz ~ 3.2 kHz
	Audio Input	Built-in microphone or external microphone (sold separately), external microphone input terminal (3.5-mm dia. mini-jack)
	Audio Output *4	Audio line output terminal for external speaker (3.5-mm dia. stereo mini-jack, monaural output)

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

*2 The image update speed may decrease when motion-priority 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 only, tunnel mode (mode for IPsec between VPN routers, IPv4/IPv6)

*4 Install an amp or use a speaker with a built-in amp.

Panasonic

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

OM1105SP-HCE481-LTL.US
All images simulated.
Design and specifications are subject to change without notice.