

### Preliminary



## Easy migration from analog to IP system with existing coaxial cable

The BY-HPE11KT is a coaxial - LAN converter capable of implementing long distance, high speed digital data transmission on existing coaxial cabling with low setup costs. With the built-in PoE function, the BY-HPE11KT is able to supply power to Panasonic network cameras, which eliminates the need for installing power outlets for the cameras.

### Key Features

#### PoE (Power over Ethernet) ready

The coaxial - LAN converter is compliant with PoE standards (IEEE 802.3af), and contains a power supplying device. PoE can be used to supply power to Panasonic network cameras, which eliminates the need for installing power outlets for the cameras.

#### Use over long distances

The coaxial - LAN converter can be used for distances of up to 500 m (1,640 feet 5 inches)\*1 for PoE connections, and 2 km (6,561 feet 8 inches) for non-PoE connections. (When used with RG-6/U coaxial cable.)

#### High-speed transmission

The coaxial - LAN converter is capable of transmission speeds of 35 Mbps or over for TCP\*2, and 45 Mbps or over for UDP connections. (When used with RG-6/U coaxial cable, and for distances under 2 km [6,561 feet 8 inches].)

#### No setup required

Connections can be established by simply connecting the coaxial cable to the coaxial - LAN converter.

### Standard Accessories

- Installation Guide ..... 1 pc.
- CD-ROM\*1 ..... 1 pc.
- The followings are for installation.
- AC Cord (BY-HPE11KTA) ..... 1 pc.
- AC Cord (BY-HPE11KTCE) ..... 2 pcs.
- Safety Wire ..... 1 pc.
- BNC Connector Cover ..... 2 pcs.
- Screw for the Safety Wire and BNC Connector Covers ..... 3 pcs.

\*1 Contains the documentation including the Operating Instructions.

### Optional Accessory

Rack Mount Connecting Fitting  
**BY-HCA10**  
(for mounting three or four Center Adaptor)

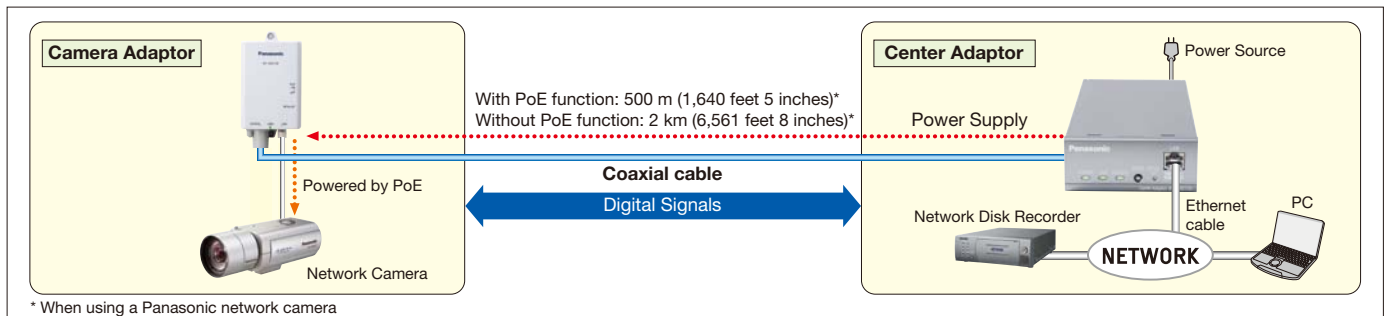
- Mounting Bracket ..... 2 pcs.
- Underside Continuous Connecting Bracket ..... 2 pcs.
- Screw (Flat-head M3 x 6) ..... 32 pcs.
- Screw (M3 x 6) ..... 6 pcs.



\*1 When connected to a Panasonic network camera. For other cameras the connection distance is 300 m (984 feet 3 inches).

\*2 Measured using Linux® FTP.

### System Example



\* When using a Panasonic network camera

Specifications

Items	Specifications
Operating Environment	Temperature: 0 °C (32 °F) to 50 °C (122 °F) Humidity: 20 %–85 % (no condensation)
Interfaces	10Base-T/100Base-TX x 1 AUTO MDI/MDI-X AC inlet BNC connector
Dimensions (W x H x D)	About 105 mm x 44 mm x 210 mm (4 1/8 inches x 1 3/4 inches x 8 1/4 inches) (main body only)
Mass (Weight)	About 570 g (1.26 lb)
Power Supply	AC 100–240 V 50/60 Hz
Power Consumption	Maximum about 28 W (including the power consumption of the camera adaptor)
Coaxial Cable Power	Maximum 22 W
Supply Capability	

Camera Adaptor

Items	Specifications
Operating Environment	Temperature: -10 °C (14 °F) to 50 °C (122 °F) Humidity: 20 %–90 % (no condensation)
Interfaces	10Base-T/100Base-TX x 1 AUTO MDI/MDI-X (PoE compatible) BNC connector
Dimensions (W x H x D)	About 80 mm x 115 mm x 35 mm (3 1/8 inches x 4 1/2 inches x 1 3/8 inches) (main unit only)
Mass (Weight)	About 165 g (0.36 lb)
Power Supply	Original power system (DC 55 V from the center adaptor via the coaxial cable)
Power Consumption	Included in the center adaptor's power consumption
PoE Power Supply Capability	Maximum 15.4 W

Coaxial Interface

Items	Specifications
Standard	Panasonic original system
Frequency Range	2 MHz–28 MHz
Data Transfer Mode	Wavelet OFDM
Access Method	CSMA/CA
Error Correction	Reed-Solomon Code + Convolutional Code (Viterbi decoding)

LAN Interface

Items	Specifications
Standard	IEEE802.3/IEEE802.3u (10Base-T/100Base-TX)
MDI/MDI-X	Cross/Straight cable automatic recognition
Transmission Rate	10 Mbps/100 Mbps (Auto-Sensing)
Number of Ports	1 (RJ-45 connector)
Protocol	TCP/IP/UDP
Access Method	CSMA/CD

Connection Specifications

Items	Specifications
Number of adaptors that can be communicated with	1 camera adaptor can be connected via coaxial cable for each center adaptor
Connectable Devices	Center adaptor: devices equipped with 10Base-T/100Base-TX interfaces Camera adaptor: Panasonic network cameras
Number of devices that can be connected	A maximum of 256 center adaptors or camera adaptors can be connected in 1 segment

Maintenance Screen Specifications

Items	Specifications
Compatible Operating Systems	Microsoft® Windows® XP, Windows Vista®, Windows® 7
Web Browser	Internet Explorer® 6.0, 7.0, 8.0 or later

Performance Specifications

Items	Specifications
Transmission Speed*1 (UDP)	45 Mbps or higher (when using an RG-6/U coaxial cable at distances under 2 km [6,561 feet 8 inches])
Transmission Speed*1 (TCP*2)	35 Mbps or higher (when using an RG-6/U coaxial cable at distances under 2 km [6,561 feet 8 inches])
Maximum Transmission Distance	Without PoE function: 2 km (6,561 feet 8 inches) With PoE function: 500 m (1,640 feet 5 inches) (when using a Panasonic network camera) / 300 m (984 feet 3 inches) (when using a Class0 standard network camera)

\*1 This value is for transmissions between the center adaptor and camera adaptor.  
The transmission speed when using an RG-6/U coaxial cable may vary depending on factors such as the coaxial cable condition and network environment. The values shown here measured in environments not affected by cable or network environment conditions.  
\*2 Measured using Linux® FTP.

Maximum Transmission Distance / PoE Power Supply (when using RG-6/U coaxial cable) Specifications

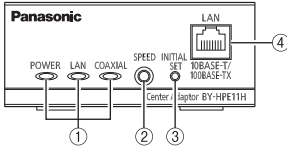
	300 m (984 feet 3 inches)	500 m (1,640 feet 5 inches)	1,000 m (3,280 feet 10 inches)	1,500 m (4,921 feet 3 inches)	2,000 m (6,561 feet 8 inches)
Power Supplied by PoE	15.4 W <sup>1</sup>	12.0 W <sup>2</sup>	Cannot supply power with PoE <sup>3</sup>		

\*1 When connecting an IEEE802.3af (Alternative B, class0) network camera to the camera adaptor.  
\*2 When connecting a Panasonic network camera to the camera adaptor.  
\*3 Turn the PoE switch [OFF] in this situation.

Part Names and Functions

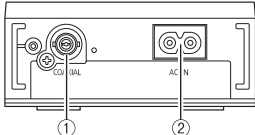
**Center Adaptor**

**Front View**



① Indicators  
② SPEED Button  
③ INITIAL SET Button  
④ Network Connector

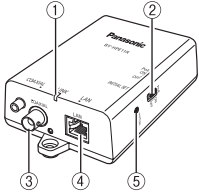
**Rear View**



① BNC Connector  
② AC IN

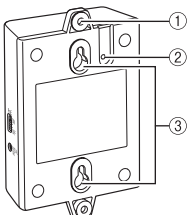
**Camera Adaptor**

**Front View**



① Indicator  
② PoE Switch  
③ BNC Connector  
④ Network Connector  
⑤ INITIAL SET Button

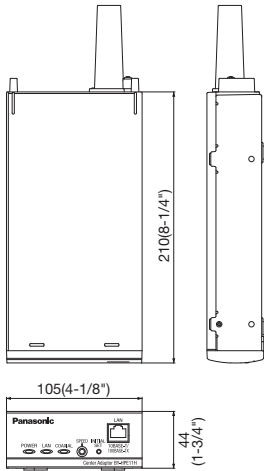
**Rear View**



① Used when attaching the camera adaptor to a ceiling or wall with screws  
② Used when attaching the safety wire  
③ Used when attaching the camera adaptor to screws inserted into a ceiling or wall

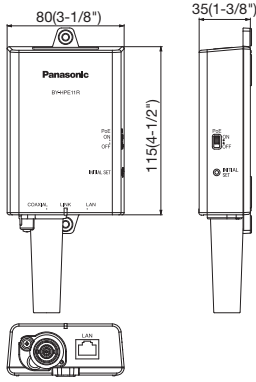
Appearance

**Center Adaptor**



210(8-1/4")  
105(4-1/8")  
44 (1-3/4")

**Camera Adaptor**



80(3-1/8")  
115(4-1/2")  
35(1-3/8")

Unit: mm (inches)

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**Important**

- Safety Precaution: carefully read the operating instructions and installation manual before using this product.
- Panasonic can not be responsible for network performance and/or other manufacturer products that reside on the network.

- All TV pictures are simulated.
- Masses and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.

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