2009 Communications

Panasonic ideas for life

Panasonic Telephone Systems

VoiceSonic
Panasonic
CERTIFIED DEALER

www.voicesonic.com
Phone 877-289-2829

innovative ideas.

At Panasonic, we're committed to better understanding the way people live, work and play. We never stop trying to increase our knowledge of the ways in which technology can improve people's lives. The insights we gain from these efforts make it possible to continually transform ideas into products that make our customers' lives simpler, more enjoyable, more productive and more secure.

We've engineered our latest line of DECT 6.0 digital telephones with even more innovative features that enhance the way you communicate. Choice Mail—a Panasonic first—lets you view your recorded messages and only listen to the ones you want. Talking Caller ID lets you hear who's calling from across the room and our Link-to-Cell phones let you make and receive cell phone calls on a comfortable home phone handset.

With our IP Network Cameras, you can keep an eye on your home, business or anything valuable from almost anywhere via the Internet. Our PoE cameras don't even require an electrical outlet nearby so they can be installed quickly and easily without an electrician.

Panasonic makes smart, customizable Business Telephones Systems to suit any application—from a small retail store to a multinational corporation. Our new NCP—Network Communication Platform—is an all-in-one solution for communication, collaboration, and monitoring that's cost effective, enhances productivity and can be customized to suit your business needs.

At Panasonic, you'll find smart ideas for every room, every need, every day, and everyone.

intelligent solutions.

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Panasonic ideas for life

Panasonic continues it's tradition of offering innovative communications solutions with our latest line of DECT 6.0 telephones. Designed to complement your lifestyle and improve the way you live, our 2009 line features big button handsets and larger, clearer displays in sleek, simple packages.

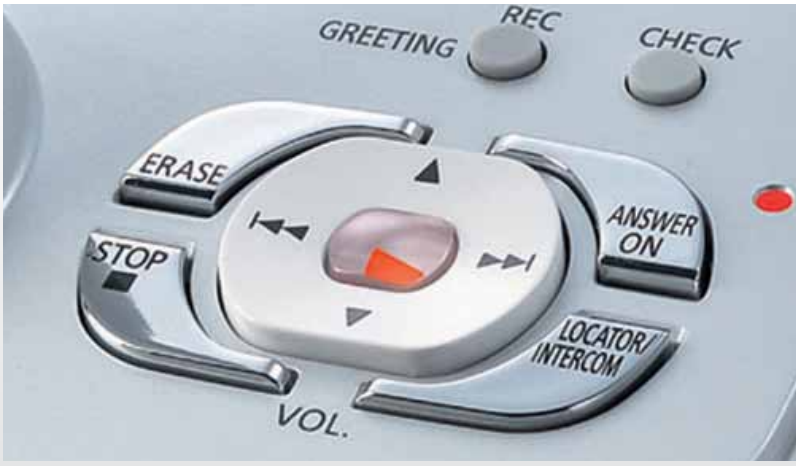
Panasonic Telephone Exclusive

Call Block

Store the Caller ID info of any and all unwanted callers into your phone's Call Block list so that you can eliminate future pesky calls from them. After their information is stored, they'll get a busy signal if they call you again.

Silent Mode

Now you can program each handset to ring or not at your discretion. For example, before you go to sleep, set the bedside handset to Silent Mode so that it won't ring for the duration of your slumber. In the meantime, the handset in another room is unaffected, and rings as usual.



Introducing Choice Mail, a Panasonic exclusive. With Choice Mail, you can quickly view and play specific, saved messages without having to listen to others. Welcome to Panasonic's 2009 telephone lineup—convenient, smart, and innovative solutions for keeping you connected.

Features

Talking Caller ID, Talking Alarm Clock, Talking Battery Alert

Now you don't have to be holding the phone to see who's calling; using text-to-speech technology, the caller ID information is announced in between rings! The phone also boasts an alarm clock that speaks to you, as in "It's time for lunch." And the phone politely tells you when your battery is low with a "Please charge phone" reminder.

Choice Mail

With Choice Mail, you can quickly view and retrieve a specific recorded message among many. No need to listen to snippets of other messages to get to the one you want. It's one more way Panasonic designs communication solutions for the way you live.

Panasonic ideas for life

KX-TG7434B

Expandable Digital Cordless Answering System with 4 Handsets

- **DECT 6.0 Technology means less Interference**
- **Call Block[2,7]**
- **Silent Mode**
- **Choice Mail Selectable Voice Messages**
- **Large, 2.1" Handset LCD**

- Talking Caller ID[2,5,6] / Talking Alarm Clock / Talking Battery Alert
- Large Text Display Mode (Multi items/ Single item)
- Expandable up to 6 Handsets[4]
- All-Digital Answering System
- Up to 4-way Conference Capability
- Ringer ID[2,6]
- Light-up Indicator with Ringer/Charge Alert
- Call Waiting Caller ID[2]
- Handset Locator
- Handset Intercom

KX-TGA740B
—Additional Digital Cordless Handset

KX-TG7433B — 3 Handsets

KX-TG7432B — 2 Handsets

KX-TG7431B — 1 Handset

KX-TG6445T

Expandable Digital Cordless Answering System with 5 Handsets

- **DECT 6.0 Technology means less Interference**
- **Call Block[2,7]**
- **Silent Mode**
- **Talking Caller ID[2,5,6] / Talking Alarm Clock / Talking Battery Alert**
- **Expandable up to 6 Handsets[4]**

- All-Digital Answering System
- Up to 4-way Conference Capability
- Ringer ID[2,6]
- Light-up Indicator with Ringer/Charge Alert
- Dial Keypad on Base
- Intercom Handset to Base
- Speakerphone on Handset & Base
- Call Waiting Caller ID[2]
- Handset Locator

KX-TGA641T
—Additional Digital Cordless Handset

KX-TG6444T — 4 Handsets

KX-TG6443T — 3 Handsets

KX-TG6442T — 2 Handsets

KX-TG6441T — 1 Handset

KX-TG6434T

Expandable Digital Cordless Answering System with 4 Handsets

- **DECT 6.0 Technology means less Interference**
- **Call Block[2,7]**
- **Silent Mode**
- **Talking Caller ID[2,5,6] / Talking Alarm Clock / Talking Battery Alert**
- **Expandable up to 6 Handsets[4]**

- All-Digital Answering System
- Up to 4-way Conference Capability
- Ringer ID[2,6]
- Light-up Indicator with Ringer/Charge Alert
- Lighted Handset Keypad
- Speakerphone on Handset
- Call Waiting Caller ID[2]
- Handset Locator
- Handset Intercom

KX-TGA641T/M
—Additional Digital Cordless Handset

KX-TG6433M — 3 Handsets

KX-TG6432M — 2 Handsets

KX-TG6431M — 1 Handset

KX-TG6423T

Expandable Digital Cordless Answering System with 3 Handsets

- **DECT 6.0 Technology means less Interference**
- **Call Block[2,7]**
- **Silent Mode**
- **Talking Caller ID[2,5,6] / Talking Alarm Clock / Talking Battery Alert**
- **Expandable up to 6 Handsets[4]**

- All-Digital Answering System
- Up to 4-way Conference Capability[4]
- Ringer ID[2,6]
- Light-up Indicator with Ringer/Charge Alert
- Speakerphone on Handset
- Call Waiting Caller ID[2]
- Handset Locator
- Handset Intercom
- Amber Backlit LCD on Handset

KX-TG6413T

Expandable Digital Cordless Phone with 3 Handsets

- **DECT 6.0 Technology means less Interference**
- **Call Block[2,7]**
- **Silent Mode**
- **Expandable up to 6 Handsets[4]**
- **Up to 3-way Conference Capability[4]**

- Ringer ID[2,6]
- Light-up Indicator with Ringer/Charge Alert
- Lighted Handset Keypad
- Call Waiting Caller ID[2]
- Handset Locator
- Handset Intercom
- White Backlit LCD on Handset

KX-TGA641T/M
—Additional Digital Cordless Handset

KX-TG6412M — 2 Handsets

KX-TG6411M — 1 Handset

KX-TG1062M

Expandable Digital Cordless Answering System with 2 Handsets

- **DECT 6.0 Technology means less Interference**
- **Call Block[2,7]**
- **Silent Mode**
- **Base unit works during power outage**
- **Expandable up to 6 Handsets[4]**

- All-Digital Answering System
- Up to 3-way Conference Capability[4]
- Ringer ID[2,6]
- Light-up Indicator with Ringer/Charge Alert
- Lighted Handset Keypad
- Speakerphone on Handset & Base
- Call Waiting Caller ID[2]
- Handset Locator
- Handset Intercom

KX-TGA106M
—Additional Digital Cordless Handset

KX-TG1061M — 1 Handset

KX-TG1034S

Expandable Digital Cordless Answering System with 4 Handsets

- **Up to 17 Hours of Talk Time**
- **Comfortable, Easy-to-Use, Large-Button Handset**
- **DECT 6.0 Technology means less Interference**
- **Spanish LCD and Voice Prompt**
- **Expandable up to 6 Handsets[4]**

- Up to 3-Way Conference Capability[4]
- Phonebook Sharing[4]
- Light-Up Indicator with Ringer/Message Alert
- Built-in Clock with Alarm on Handset
- Backlit LCD on Handset
- Digital Speakerphone on Handset
- Call Waiting Caller ID[2]
- 50-Station Phonebook and Dialer
- 16-Minute All-Digital Answering System

KX-TGA101S
—Additional Digital Cordless Handset

KX-TG1033S — 3 Handsets

KX-TG1032S — 2 Handsets

KX-TG1031S — 1 Handset

KX-TG9392T

Expandable Digital Cordless Answering System with 2 Handsets

- **2-Line Operation**
- **Corded Cordless Handset**
- **Power Outage Operation (Line 1 only)**
- **Expandable up to 6 Handsets[4]**
- **40 Minute Digital Answering System**

- White Backlit LCD on Handset and Base
- Ringer ID[2,6]
- Silent Mode
- 1 Base with Corded Handset, 2 Cordless Handsets and 2 Chargers Included

KX-TGA939T
—Additional Digital Cordless Handset

KX-TG9391T — 1 Handset

KX-TG9344T

Expandable Digital Cordless Answering System with 4 Handsets

- **DECT 6.0 Technology means less Interference**
- **Talking Caller ID[2,5,6] / Talking Alarm Clock / Talking Battery Alert**
- **Call Block[2,7]**
- **Silent Mode**
- **Expandable up to 6 Handsets[4]**

- Up to 4-way Conference Capability[4]
- Ringer ID[2,6]
- Light-up Indicator with Ringer Alert
- Lighted Handset Keypad
- Keypad and Speakerphone on Handset and Base
- All-Digital Answering System
- Call Waiting Caller ID[2]
- Handset Locator
- Handset Intercom

KX-TGA930T
—Additional Digital Cordless Handset

KX-TG9343S — 3 Handsets

KX-TG9333T

Expandable Digital Cordless Answering System with 3 Handsets

- **DECT 6.0 Technology means less Interference**
- **Talking Caller ID[2,5,6] / Talking Alarm Clock / Talking Battery Alert**
- **Call Block[2,7]**
- **Silent Mode**
- **Expandable up to 6 Handsets[4]**

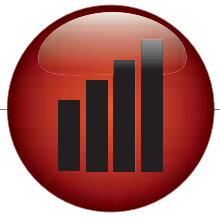
- Up to 4-way Conference Capability[4]
- Ringer ID[2,6]
- Light-up Indicator with Ringer Alert
- Lighted Handset Keypad
- Digital Handset Speakerphone
- All-Digital Answering System
- Call Waiting Caller ID[2]
- Handset Locator
- Handset Intercom

KX-TGA930T
—Additional Digital Cordless Handset

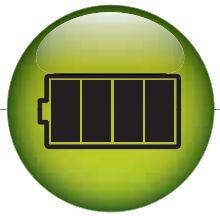
KX-TG9332T — 2 Handsets

Your cell phone is your lifeline. Now it can be your home line too.

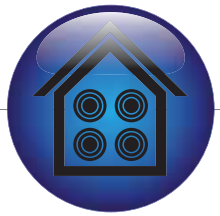
Use your cell phone as your home phone with the Bluetooth®-powered Panasonic Link-to-Cell.



STRONGER
SIGNAL



LONGER
BATTERY LIFE



CONNECT
ANYWHERE

LANDLINE
USE WITH OR WITHOUT

Bluetooth® The experience of using your cell phone at home has just been made even better with the Panasonic Link-to-Cell powered by Bluetooth[1]. The combination of Bluetooth power and Panasonic technology gives you the freedom of your cell and the comfort of extension phones in your own home. By connecting your cell phone to the Bluetooth-powered Panasonic Link-to-Cell, you can make or receive calls on all Panasonic compatible handsets—in whichever room you happen to be. The Panasonic Link-to-Cell improves on short cell phone battery life, reduces the need for carrying the cell phone around with you, and eliminates cell phone reception problems in your home. Plus, when it's hooked up to the Link-to-Cell base, you can charge your cell phone while it's in use! And the comfort and battery life of a cordless handset versus a cell phone is virtually undisputable. Great reception, immeasurable comfort, remarkable convenience—and the ability to charge your cell phone at the same time! The Panasonic Link-to-Cell—it makes your lifeline your home line.

KX-TH1212B

Expandable Bluetooth® Convergence Solution with 2 Handsets *with Landline Capability*

- **DECT 6.0 Technology means less Interference**
- **Talking Caller ID[2,5,6] / Talking Alarm Clock / Talking Battery Alert**
- **Call Block[2,7]**
- **Silent Mode**
- **Expandable up to 6 Handsets[4]**

- Up to 4-way Conference Capability[4] (PSTN only)
- Ringer ID[2,6]
- Light-up Indicator with Ringer Alert
- Lighted Handset Keypad
- Digital Handset Speakerphone
- Call Waiting Caller ID[2]
- Handset Locator
- Handset Intercom
- 50-Station Shared Phonebook

KX-TGA930T
—Additional Digital Cordless Handset

KX-TG4500B

4-Line 5.8 GHz FHSS GigaRange®
Multi-Handset Cordless Phone System

- **5.8 GHz Frequency Hopping Spread Spectrum (FHSS) Technology**
- **4-Line Operation**
- **Expandable up to 8 Cordless Handset Stations[4]**
- **All-Digital Voicemail System with Automated Attendant**
- **Up to 8 Individual Mailboxes with Separate Greeting Messages**

- 100-Minute Total Recording Time
- Time/Date Stamp
- Remote Access with Voice Prompts
- Call Transfer, Message Transfer, Deliver Message and Auto Message Delete
- Call Waiting Caller ID[2]
- 50-Station Caller ID Memory and Dialer
- 100-Station Phone Directory and Dialer

KX-TGA450B
—Additional Digital Cordless Handset

KX-TG6702B

2-Line 5.8 GHz FHSS GigaRange® Expandable Digital Cordless Answering System with 2 Handsets

- **2-Line Operation**
- **Up to 4-Way Conference Capability[4]**
- **Wireless Network Friendly**
- **5.8 GHz Frequency-Hopping Spread Spectrum (FHSS) Technology**
- **Expandable up to 8 Handset Stations[4]**

- Call Waiting Caller ID[2]
- 60-Minute All-Digital Answering System
  - Flash Memory Message Backup
  - 2-Digit LCD Message Counter on Base
  - Voice Menu and Time/Day Stamp
  - Memo Recording
- Light-Up Indicator with Ringer/Message Alert
- 50-Station Phonebook and Dialer
- 50-Station Caller ID Memory and Dialer

KX-TGA670B
—Additional Digital Cordless Handset

KX-TG6700B — 1 Handset

KX-TS4300B

4-Line Integrated Phone System (Expandable up to 16 Stations) with Call Waiting Caller ID[2], Speakerphone and 60 Minute Answering System

- 4-Line Operation
- Up to 3-Way Conference Capability
- Intercom System (Expandable up to 16 Stations)
- All-Digital Answering System with Automated Attendant (Max. 60 Min.)
- Call Waiting Caller ID[2]
- Caller ID Memory[2]
- Phonebook
- Chain Dial

KX-TS4200B

4-Line Integrated Phone System (Expandable up to 16 Stations) with Call Waiting Caller ID[2] and Speakerphone

- 4-Line Operation
- Intercom System (Expandable up to 16 Stations)
- Up to 3-Way Conference Capability
- Speakerphone
- Call Waiting Caller ID[2]
- Caller ID Memory[2]
- Phonebook
- Chain Dial

KX-TS4100B

4-Line Integrated Phone System (Expandable up to 16 Stations) with Speakerphone

- 4-Line Operation
- Intercom System (Expandable up to 16 Stations)
- Up to 3-Way Conference Capability
- Speakerphone
- 32 One-Touch Memory Buttons
- Easy Operation (Menu Driven)
- Power Outage Operation (Requires Battery)
- Base Unit Dial Keypad

KX-TS3282B/W

2-Line Integrated Intercom Phone System (Expandable up to 8 Stations)

- 2-Line Operation • Hands-Free Speakerphone with 8-Step Volume Control
- Intercom System (Expandable up to 8 Stations)
- Up to 3-Way Conference Capability • Call Waiting Caller ID[2]
- 3-Line LCD Display with 4-Level Contrast Control
- 3-Station One-Touch Dialer
- Voice Mail Message Waiting Indicator (FSK and Stutter Dial Tone Compatible)[2]
- Headset Jack (On-Hook)
- 50-Station Caller ID Memory[2]
- Handset Volume Control
- 3-Step Ringer Control
- Timed Flash Memory
- Programmable Tone/Pulse Setting
- Redial/Mute/Pause/Hold/Flash
- Data Port • Wall Mountable

KX-TS208W

2-Line Integrated Telephone System

- 2-Line Operation
- Up to 3-Way Conference Capability
- Distinctive Ring
- 16-Digit LCD with Clock
- Hands-Free Speakerphone
- 20 One-Touch Dialer Stations
- 10-Station Speed Dialer
- Hands-Free Headset Compatible
- Electronic Volume Controls for Speakerphone (8-Step), Handset and Headset (4-Step)
- Dial Lock
- 3-Step Ringer Volume Control
- Programmable Call Restriction
- Data Port
- Redial/Mute/Pause/Hold/Flash
- Ringer Indicator
- Programmable Tone/Pulse Settings
- Wall Mountable

KX-TS600B/W
Integrated Telephone System

- Speakerphone
- Call Waiting Caller ID[2]
- Redial (Last 20 numbers Dialed)
- 3 One-Touch Memory Buttons
- 3-Line Dot LCD
- Ringer Indicator (LED)
- Electronic Volume Controls for Speakerphone (8-Step) and Handset (4-Step)
- Wall Mountable
- Tone/Pulse Settings
- Programmable 3-Step Ringer Selector (Off/Low/High)
- Redial/Mute/Pause/Hold/Flash
- Headset Jack
- Data Port

KX-TS620B/W
Integrated Telephone Answering System

- All-Digital Answering System
- 2-Way Recording
- Speakerphone
- Call Waiting Caller ID[2]
- 3 One-Touch Memory Buttons
- 3-Line Dot LCD
- Ringer Indicator (LED)
- Redial (Last 20 numbers Dialed)
- Electronic Volume Controls for Speakerphone (8-Step) and Handset (4-Step)
- Wall Mountable
- Tone/Pulse Settings
- Redial/Mute/Pause/Hold/Flash
- Programmable 4-Step Ringer Selector (Off/Low/Mid/High)
- Headset Jack
- Data Port

KX-TS550B/W
Integrated Telephone System

- 10-Station Speed Dialer
- 2 One-Touch Dialer Stations
- Emergency Button
- Wall Mountable
- Switchable Tone/Pulse
- Last Number Redial
- Electronic Handset Volume Control (6-Step)
- 3-Step Ringer Selector (Off/Low/High)
- Flash

KX-TS500B/W
Integrated Telephone System

- Wall Mountable
- Switchable Tone/Pulse
- Last Number Redial
- Electronic Handset Volume Control (6-Step)
- 3-Step Ringer Selector (Off/Low/High)
- Flash

KX-TSC11B/W

Integrated Telephone System

- 50-Station Caller ID Memory and Dialer
- 50-Station Phonebook and Dialer
- Call Waiting[1]
- Phone Company Voice Mail Compatible (FSK Compatible)[2]
- Chain Dial
- Programmable Call Restriction
- 3-Step Ringer Volume Control
- Switchable Tone/Pulse Setting

KX-TS108W

Integrated Telephone System

- 16-Digit LCD with Clock
- Hands-Free Speakerphone
- 20 One-Touch Dialer Stations
- 10-Station Speed Dialer
- Hands-Free Headset Compatible
- Electronic Volume Controls for Speakerphone (8-Step), Handset and Headset (4-Step)
- Dial Lock
- 3-Step Ringer Volume Control
- Programmable Call Restriction
- Data Port
- Redial/Mute/Pause/Hold/Flash
- Ringer Indicator
- Programmable Tone/Pulse Settings
- Wall Mountable

KX-TS105B/W

Integrated Telephone System

- Hands-Free Speakerphone
- 20 One-Touch Dialer Stations
- 10-Station Speed Dialer
- Hands-Free Headset Compatible
- Electronic Volume Controls for Speakerphone (8-Step), Handset and Headset (4-Step)
- Dial Lock
- 3-Step Ringer Volume Control
- Programmable Call Restriction
- Data Port
- Wall Mountable

KX-TS710B/S
USB Speaker/Handset

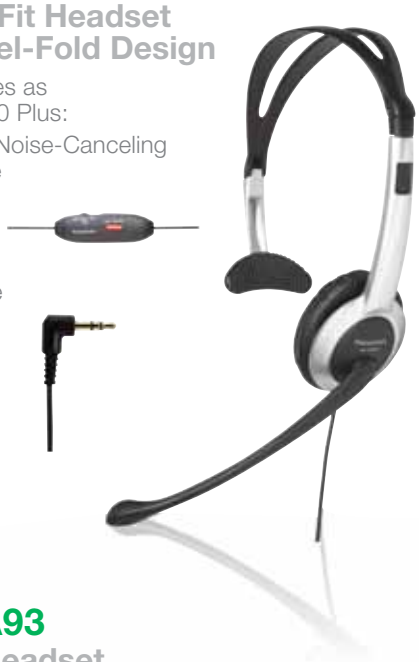
Three devices in one – Internet Speakerphone, Handset and high-quality PC speaker

- Perfect for use with Internet phone services such as Skype™
- Easy Setup: Plug & Play
- Compact Design for Mobile Use
- Available in Silver or Black

KX-TCA92
Comfort-Fit Headset with Travel-Fold Design

Same Features as the KX-TCA60 Plus:

- Adjustable Noise-Canceling Microphone
- Volume Control
- Mute
- Fashionable Design



KX-TCA60
Hands-Free Headset

- 2.5mm Connection
- Provides Hands-Free Usage
- Reversible for Use with Either Ear
- Adjustable Microphone
- 4-Foot Cord

KX-TCA93
Clip-on Headset

- 2.5mm Connection
- Provides Hands-Free Usage
- Reversible for Use with Either Ear
- Adjustable Microphone
- 4-Foot Cord
- Volume Control
- Mute

KX-TCA86
Comfort-Fit Headset with Travel-Fold Design

Same Features as the KX-TCA60 Plus:

- Fashionable Design

KX-TCA94B/W
Clip-on Headset

- 2.5mm Connection
- Provides Hands-Free Usage
- Reversible for Use with Either Ear
- Adjustable Microphone
- 4-Foot Cord
- Volume Control
- Mute

See There
When You Can't Be There™

Wouldn't you like to know™...

...what's going on at home, the office, a job site, the store or restaurant, your child's daycare, even school?

Place these Plug and Play cameras almost anywhere you'd like to keep an eye on things, with no PC required on location! Panasonic Network Cameras can be viewed and controlled from a standard web browser. They're easy to install, easy to operate, and require no additional software for viewing on your PC or cell phone.

Innovative Camera Solutions for Internet Viewing[1]

Panasonic network cameras are a great way to keep an eye on your home, business, or just about anywhere else. You can view images from a compatible PC[2], Cell Phone, PDA[2], or Television[2]. Each camera is web-enabled, so no PC is required at the camera location; all you need is a broadband connection. And Panasonic network cameras can be placed virtually anywhere, indoors or out, with wired or wireless operation (select models). View multiple local or remote cameras on your TV (with optional TV adapter) with zoom, pan and tilt control*.

No power source nearby? No problem with Panasonic PoE-ready IP Network Cameras!

Panasonic 500 series IP Network Cameras featuring PoE (Power over Ethernet) use a single standard data cable for video, data and power. You benefit from simplified installation anywhere you can run ethernet cable. Since you don't have to have AC outlets installed near your cameras(s), you eliminate electrician costs. And a PoE splitter may be installed where network cameras are not 802.3af standard compliant. There's web-based remote monitoring and resetting of network cameras and IP terminals, plus UPS backup for all network security devices by a single centralized UPS unit.

See the innovative network cameras from Panasonic.

* Not available on all models.

IP Network Cameras

Residential Applications

Peace of mind is priceless

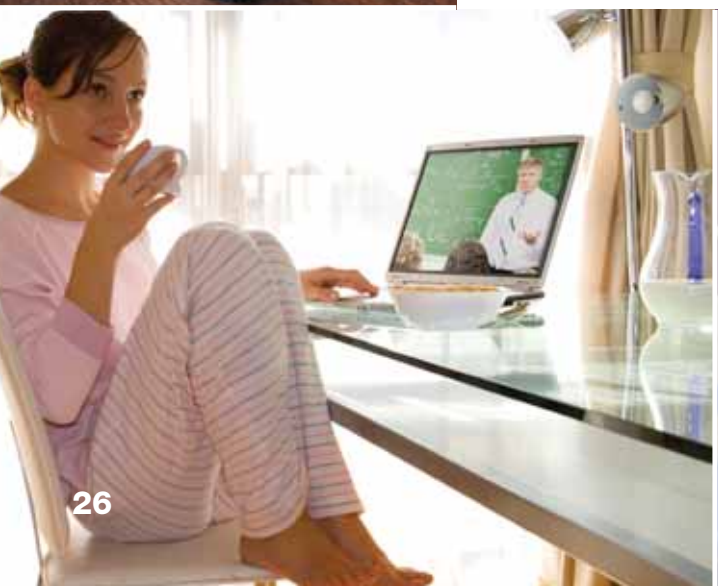
While you're away…monitor people, places and things in your home with a Panasonic Internet Remote Monitoring System.

Loved Ones

Check in from your laptop or cell phone to see how the ones you care about are managing. You can program the camera to email you a picture of the kids walking through the front door from school. Monitor the baby's room. Keep tabs on the sitter, an elderly person or one with special needs, or workers in your home. Look to see who's at the front door, watch your backyard, or keep an eye on your valuables.

Pets

Now you can watch your pets while you're at work or on vacation so you'll always feel close to them. Make sure the walker showed up as promised. Check to see if the dog is sleeping on the sofa, or if the cat is scratching your new leather chair. In either case, you can instantly communicate with your animals via the two-way audio feature available on select cameras.



2009 Lineup

Business Applications

Remote CLASSROOM Participation

Empower absent students to participate in a live lesson, or view a recorded session. Panasonic network cameras feature progressive scan, so visual aids are clear and text is legible. Easily pan around the room for an expanded view of the interior and contents of the classroom.

Remote DAYCARE Observation

Ensure peace of mind, and increase the quality of your customer service by giving parents the ability to see their children. And employee awareness of being monitored tends to lead to a higher quality of service and care. Plus the presence of cameras tends to reduce illegal activity and deter crime.

Remote RESTAURANT Evaluation

Assess customer service and staff performance, and oversee cash handling and transactions. Reduce illegal activity and vandalism with the presence of cameras, and receive email alerts if there's unusual activity.

Remote CONSTRUCTION SITE Maintenance

View and manage multiple job sites from virtually anywhere at any time. Monitor the progress of your sub-contractors and stay on schedule. Deter crime, theft and vandalism with the presence of cameras, and receive email notification if there is suspicious activity.

Remote CAR DEALERSHIP Management

Increase customer service, and improve staff performance by viewing, recording and evaluating employee activity. Help reduce crime with the presence of cameras, and receive Email notification if there is suspicious activity in your showroom(s) or on your lot(s) after hours.

Remote RETAIL/CONVENIENCE STORE Supervision

Help keep staff honest and reduce loss by overseeing cash handling and transactions. Use recorded view to educate staff and improve the level of customer service. Deter theft, and receive email alerts if there's unusual or suspicious activity.

BL-C1A

Network Camera

- 10x Digital Zoom
- 4 Lux Night View Mode
- Up to 15 Frames per Second CMOS
- Remote Monitoring from Cell phone
- 4-up and 12-up Multi-Camera Pages
- Built in Web Server/ IP Address
- Motion Sensor with Email Alert
- Password Protection
- Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- 1 Year Warranty

BL-C101A

MPEG-4 Network Camera

- 10x Digital Zoom
- Simultaneous MPEG-4 and JPEG
- 3 Lux Color Night View Mode
- Up to 30 Frames per Second CMOS
- Full Screen monitoring
- Remote Monitoring from Cell phone
- 4-up, 9-up and 16-up Multi-Camera Pages
- Built in Web Server/IP Address (IPv4/v6)
- Built-in Microphone
- Thermal Sensor
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- Power Supply via LAN Cable*
- 1 Year Warranty

*Not 802.3af compliant

BL-C111A

MPEG-4 Pan/Tilt Network Camera

- Pan/Tilt/Digital Zoom with Presets
- Simultaneous MPEG-4 and JPEG
- 3 Lux Color Night View Mode
- Up to 30 Frames per Second CMOS
- Full Screen monitoring
- Remote Monitoring from Cell phone
- 4-up, 9-up and 16-up Multi-Camera Pages
- Built in Web Server/IP Address (IPv4/v6)
- Built-in Microphone
- Thermal Sensor
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Privacy mode
- Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- 1 Year Warranty

BL-C140A

Outdoor Network Camera

- Outdoor ready
- Power Supply via LAN cable*
- Motion Detection Function
- Simultaneous MPEG-4 and JPEG
- Plug & Play Installation
- Cell phone and PC viewing
- 4-up, 9-up and 16-up Multi-Camera Pages
- Built in Web Server/IP Address (IPv4/v6)
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface • 1 Year Warranty

*Not 802.3af compliant

BL-CA51A

Network Camera Wall Mount Kit

Applicable models:
BL-C111A, C30A,
C131A Indoor use only

< Gang Box (shown) and camera sold separately.

BL-C160A

Outdoor Network Camera with Built-in LED

- Outdoor ready, splash proof, low temperature
- Power Supply via LAN cable
- Built-in LED Light
- Double Sensor (Thermal Sensor and Motion Detection Function)
- Simultaneous MPEG-4 and JPEG
- Plug & Play Installation
- Cell phone and PC viewing
- 4-up, 9-up and 16-up Multi-Camera Pages
- Built in Web Server/IP Address (IPv4/v6)
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- 1 Year Warranty

BL-C121A

Wireless Network Camera

- 802.11g/b Wireless
- 10x Digital Zoom
- Simultaneous MPEG-4 and JPEG
- 3 Lux Color Night View Mode
- Up to 30 Frames per Second CMOS
- Full Screen Monitoring
- Remote Monitoring from Cell phone
- 4-up, 9-up and 16-up Multi-Camera Pages
- Built in Web Server/IP Address (IPv4/v6)
- Built-in Microphone
- Thermal Sensor
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- 1 Year Warranty

BL-C131A

Wireless Pan/Tilt MPEG-4 Network Camera

- 802.11g/b Wireless
- Pan/Tilt/Digital Zoom with Presets
- Simultaneous MPEG-4 and JPEG
- 3 Lux Color Night View Mode
- Up to 30 Frames per Second CMOS
- Full Screen Monitoring
- Remote Monitoring from Cell phone
- 4-up, 9-up and 16-up Multi-Camera Pages
- Built in Web Server/IP Address (IPv4/v6)
- Built-in Microphone
- Thermal Sensor
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Privacy mode
- Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- 1 Year Warranty

BB-HCM581A-W

PoE Zoom MPEG-4 Network Camera

- 42x Zoom (21x Optical)
- High-Speed 350° Pan / 210° Tilt with Presets
- PoE (802.3af compliant)
- Progressive Scan • Analog Video Output
- Simultaneous MPEG-4 and JPEG
- SD Card Recording with Audio
- 0.09 Lux Color Night View Mode
- Up to 30 Frames per Second CCD
- Full Screen Monitoring
- Remote Monitoring from Cell phone
- 4-up, 9-up and 16-up Multi-Camera Pages
- Up to 30 Video Users
- Built in Web Server/IP Address (IPv4/v6)
- Audio Capability (2 Way)
- Sensor Input to Trigger Movement
- Email Triggered by Motion Detection, Sensor Alert, Timer
- Password Protection • Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- Image Date and Time Stamp • 1 Year Warranty

Optional AC Power Supply: BB-HCA3A

BB-HCM581A

BB-HCM531A

Outdoor PoE MPEG-4 Network Camera

- Outdoor (splash proof, low temperature)
- Pan/Tilt/Digital Zoom with Presets
- PoE (802.3af compliant)
- Progressive Scan • Analog Video Output
- Simultaneous MPEG-4 and JPEG
- SD Card Recording with Audio
- 0.2 Lux Color Night View Mode
- Up to 30 Frames per Second CCD
- Full Screen Monitoring
- Remote Monitoring from Cell phone
- 4-up, 9-up and 16-up Multi-Camera Pages
- Up to 30 Video Users
- Built in Web Server/IP Address (IPv4/v6)
- Audio Capability (2 Way)
- Built-in Microphone
- Dual Sensor Input to Trigger Movement
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Password Protection • Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- Image Date and Time Stamp • 1 Year Warranty

Optional AC Power Supply: BB-HCA3A

BB-HCM515A

MegaPixel PoE MPEG-4 Network Camera

The BB-HCM515A can capture images in stunning 1280 x1024 resolution for crisp, full screen viewing.

- Mega-Pixel Image Capture • Adaptive Contrast Enhancement
- Pan/Tilt/Digital Zoom with Presets • PoE (802.3af compliant)
- Progressive Scan • Analog Video Output
- Simultaneous MPEG-4 and JPEG
- SD Card Recording with Audio
- 3 Lux Color Night View Mode
- Up to 30 Frames per Second CMOS
- Full Screen Monitoring
- Remote Monitoring from Cell phone
- 4-up, 9-up and 16-up Multi-Camera Pages
- Up to 30 Video Users
- Built in Web Server/IP Address (IPv4/v6)
- Audio Capability (2 Way) • Built-in Microphone
- Dual Sensor Input to Trigger Movement
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Password Protection • Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- Image Date and Time Stamp • 1 Year Warranty

Optional AC Power Supply: BB-HCA3A

BB-HCM511A

PoE MPEG-4 Network Camera

- Pan/Tilt/Digital Zoom with Presets
- PoE (802.3af compliant)
- Progressive Scan • Analog Video Output
- Simultaneous MPEG-4 and JPEG
- SD Card Recording with Audio
- 0.2 Lux Color Night View Mode
- Up to 30 Frames per Second CCD
- Full Screen Monitoring
- Remote Monitoring from Cell phone
- 4-up, 9-up and 16-up Multi-Camera Pages
- Up to 30 Video Users
- Built in Web Server/IP Address (IPv4/v6)
- Audio Capability (2 Way) • Built-in Microphone
- Dual Sensor Input to Trigger Movement
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Password Protection • Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- Image Date and Time Stamp
- 1 Year Warranty

Optional AC Power Supply: BB-HCA3A

BB-HCM580A

MPEG-4 Network Camera

- 42x Zoom (21x Optical)
- High-Speed 350° Pan / 210° Tilt with Presets
- Progressive Scan
- Analog Video Output
- Simultaneous MPEG-4 and JPEG
- SD Card Recording
- 0.09 Lux Color Night View Mode
- Up to 30 Frames per Second CCD
- Full Screen Monitoring
- Remote Monitoring from Cell phone
- 4-up, 9-up and 16-up Multi-Camera Pages
- Up to 30 Video Users
- Built in Web Server/IP Address (IPv4/v6)
- Email Triggered by Motion Detection, Sensor Alert, Timer
- Password Protection
- Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- Image Date and Time Stamp
- 1 Year Warranty

Optional AC Power Supply: BB-HCA3A

BB-HCM527A

PoE Dome Network Camera

- Ceiling Mount • Pan/Tilt/ 2.3 Auto varifocal lens
- PoE (802.3af compliant)
- Progressive Scan • 2.3 Optical, 2x Digital Zoom
- Analog Video Output
- Simultaneous MPEG-4 and JPEG
- SD Card Recording with Audio
- 0.2 Lux Color Night View Mode
- Up to 30 Frames per Second MAICO
- Full Screen Monitoring
- Remote Monitoring from Cell phone
- 4-up, 9-up and 16-up Multi-Camera Pages
- Up to 30 Video Users
- Built in Web Server/IP Address (IPv4/v6)
- Audio Capability (2 Way)
- Built-in Microphone
- Dual Sensor Input to Trigger Movement
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Password Protection • Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- Image Date and Time Stamp • 1 Year Warranty

Optional AC Power Supply: BB-HCA3A

BB-HCA10A

NEW!
Ceiling Flush Mount Bracket for use with the Panasonic BB-HCM527A

BB-HCM547A

Outdoor PoE Dome Network Camera

- Ceiling Mount • Pan/Tilt/2.3 Auto Varifocal Lens
- PoE (802.3af compliant)
- Progressive Scan • 2.3 Optical, 2x Digital Zoom
- Analog Video Output
- Simultaneous MPEG-4 and JPEG
- SD Card Recording with Audio
- 0.2 Lux Color Night View Mode
- Up to 30 Frames per Second MAICO
- Full Screen Monitoring
- Remote Monitoring from Cell phone
- 4-up, 9-up and 16-up Multi-Camera Pages
- Up to 30 Video Users
- Built in Web Server/IP Address (IPv4/v6)
- Audio Capability (2 Way)• Built-in Microphone
- Dual Sensor Input to Trigger Movement
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Password Protection • Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- Image Date and Time Stamp • 1 Year Warranty

Optional AC Power Supply: BB-HCA3A

BB-HCM371A

Wireless, Outdoor, Pan/Tilt Network Camera with 2-Way Audio

- 802.11g/b Wireless
- Outdoor (splash proof, low temperature)
- Pan/Tilt/Digital Zoom with Presets
- SD Memory Card Recording
- 0.2 Lux Color Night View Mode
- Up to 30 Frames per Second CCD
- Remote Monitoring from Cell phone
- 4-up and 12-up Multi-Camera Pages
- Up to 30 Video Users
- Built in Web Server/IP Address (IPv4/v6)
- Audio Capability (2 Way)
- Built-in Microphone
- Dual Sensor Input to Trigger Movement
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Password Protection
- Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- Image Date and Time Stamp
- 1 Year Warranty

BB-HCM403A

PoE Dome Network Camera

- Ceiling Mount with Tilt Motion
- PoE (802.3af compliant)
- SD Memory Card Recording
- 0.2 Lux Color Night View Mode
- Up to 30 Frames per Second CCD
- Remote Monitoring from Cell phone
- 4-up and 12-up Multi-Camera Pages
- Up to 30 Video Users
- Built in Web Server/IP Address (IPv4/v6)
- Audio Capability (2 Way)
- Built-in Microphone
- Sensor Input to Trigger Movement
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Password Protection
- Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface
- Image Date and Time Stamp
- 1 Year Warranty

Optional AC Power Supply Available: BB-HCA3A

BB-HCS301A

Network Camera Server

The BB-HCS301A can convert nearly any video source to an internet video stream for viewing on a PC or cell phone with the same user interface as a regular Panasonic network camera. With motion detection, it can even send an email when the image changes.

- Analog Video Conversion to Motion JPEG
- SD Memory Card Recording
- Up to 30 Frames per Second
- Remote Monitoring from Cell phone
- 4-up and 12-up Multi-Camera Pages
- Up to 30 Video Users (Stack up to 5 units for 150 Users)
- Built in Web Server/IP Address (IPv4/v6)
- Audio Capability (2 Way) • Sensor Input
- Image Transfer by Motion Detection, Sensor Alert, Timer
- Password Protection • Plug & Play Installation
- Free Web Address like http://bob.viewnetcam.com
- Multi-Language Interface • Image Date and Time Stamp
- 1 Year Warranty

Panasonic IP Network Camera Easy Selection Guide

	Wireless	Outdoor	PoE	SD Slot	Digital Zoom Capability	Optical Zoom Capability	Maximum Resolution	MPEG4	MJPEG	Lux Rating Night View	Max. ips/fps	2-Way Audio	Spkr/ Mic Jack	Motion Sensor	Thermal Sensor	Privacy Button	Number of Presets	Simul. Viewers	Built-In Mic for One-Way Audio
BL-C1A					10		640x480		•	4	15			•				20	
BL-C101A					10		640x480			3	30			•					•
BL-C111A					10		640x480	•	•	1	30		•		•	•	10	30	•
BL-C121A					10		640x480	•	•	3	30			•					•
BL-C131A	•				10		640x480	•	•	1	30		•		•	•	10	30	•
BL-C140A		•			10		640x480	•	•	3	30			•				30	
BL-C160A		•			10		640x480	•	•	3	30			•	•			30	
BB-HCM581A/A-W			•	•	2	21	640x480	•	•	0.09	30	•	•	•			23	30	
BB-HCM580A				•	2	21	640x480	•	•	0.09	30		•	•			23	30	
BB-HCM547A		•	•	•	2	2.6	640x480	•	•	0.2	30	•	•	•			23	30	
BB-HCM531A		•	•	•	10		640x480	•	•	0.2	30	•	•	•			23	30	
BB-HCM527A			•	•	2	2.6	640x480	•	•	0.2	30	•	•	•			23	30	
BB-HCM515A			•	•	10		1280x1024	•	•	0.2	30	•	•	•			23	30	
BB-HCM511A			•	•	10		640x480	•	•	0.2	30	•	•	•			23	30	
BB-HCM403A			•	•	10		640x480		•	0.2	30	•	•	•			23	30	
BB-HCM371A	•	•		•	10		640x480		•	0.2	30	•	•	•			23	30	

Keep the camera out of view

BB-HCA1A-B (smoke)

Network Camera Cover

This cover completely covers the network camera, making the lens movement, direction, and other monitoring aspects difficult to see. Use it for situations like building entranceways or retail shops, where you need to monitor activity but also need to be sensitive to the effect that a camera may have on people.

Applicable models:
BB-HCM381A, HCE481A, HCM581A, HCM580A; KX-HCM280A

Indoor use only

Minimum illumination color change
- **Normal mode: 3 lux / 9 lux**
- **Color night view mode: 0.09 lux / 0.27 lux**

Specifications:
Dimension (HxWxD):
Approx. 6 1/16 x 6 5/8 x 6 5/8 inches (154 x 169 x 169mm)
Weight:
Approx. 0.4 lb (180 g)

3rd Party Solutions VideoLarm

Outdoor Enclosures from VideoLarm for Panasonic Network Cameras BB-HCM581A/A-W and BB-HCM580A

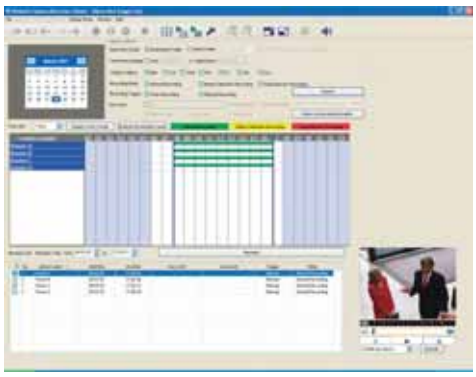
- Easy Camera Installation
- Optically Clear. 0.1" thick acrylic dome (BB-HCH280W/ BB-HCH280P). Dome of BB-HCH280CT is tinted.
- Constructed of durable engineered plastic top, 94VO, with UV protected and acrylic lower dome.
- Cast aluminum wall mount is standard on the BB-HCH280P,BBHCH280W models.
- Cast aluminum pendant mount is standard on the BB-HCH280CT model.
- 24-hour fan operation for effective heating and condensation protection (BB-HCH280P/BB-HCH280RP).
- Thermostatically controlled 24V AC heater (BB-HCH280P/BB-HCH280RP).
- Separate power input for H&B and camera power (BB-HCH280P/BB-HCH280RP).
- Operating temperature -300°F (BB-HCH280RP) or -200°F (HCH280P) to +104°F.

BB-HCH280CT tinted dome perpendicular mount

BB-HCH280P with power
BB-HCH280W basic unit

BB-HCH280RP ruggedized with power
BB-HCH280R ruggedized

Record in MPEG-4 format too



BB-HNP15A

Network Camera Recorder with Viewer Software

Images can be recorded simultaneously from up to 64 cameras. Operating comfort can also be optimized by customizing the settings and browser screens. This is ideal for boosting security or for use in market surveys.

MPEG-4 and JPEG recording

Select extended recording or enhanced-quality recording

Select MPEG-4* recording when you want smooth motion images even with limited network speeds or a smaller volume of image data, and select JPEG when you want to take beautiful images at set intervals.

*When using a camera that supports the MPEG-4 format.

Enhanced recording functions

Increased monitoring accuracy

The detection range on the PC can be limited by dividing the screen into a grid of 100 squares and masking all unnecessary squares. This suppresses the detection of motion in those squares to detect and record the desired motion with greater accuracy. Other convenient recording functions include alarm recording, manual recording, motion detection recording, and timer recording.*

*Up to 10 timer recordings can be set per camera. Motion detection recording and Alarm recording only for JPEG.

Graphic display of recorded images in list form

Higher work efficiency

Recorded images are easily displayed. Screens with graphic expressions, such as a calendar or date and time, make it easy to check images according to the camera name, recording time zone, or recording method. This also makes it easy and convenient to retrieve and play recorded images, and to convert or edit files.

Enhanced viewer functions

Work in the layout that you prefer

You can choose either of two layout modes: the full-screen mode, which fills the screen with the image, or the window mode, which also displays a title, menu, and tool bar. The multi-camera display lets you monitor up to 16 cameras or view the playback of up to 4 cameras. The order of the display images and the size of the display frames can be easily changed by drag and drop operation.

Recording format exchange

Excellent versatility

Desired parts of recorded motion images, still images, and audio can be converted to common formats for handy data exchanging.

Other features

- Search functions
- Log analysis
- Recording time display
- Sequential display function

When installing the MPEG-4 viewer program on additional PCs, please purchase additional licenses. Model No. BB-HCA5A.

BB-HNP11A

Network Camera Recorder[4]

Because sounds can be recorded together with images, the ambience of a store can be captured more accurately to help you plan effective marketing strategies. Images from up to 10 cameras can be recorded. Images can also be searched quickly using a keyword or recording date/time.

Motion detection recording and timer-recording functions

The program is equipped with a motion detection recording function that activates recording only when people or other moving objects are detected, and a timer-recording function that starts and stops recording at specified times.

Recorded image searches

Recorded images can be searched using conditions such as a preset keyword or recording type (timer recording, motion detection recording).

Recording capacity limit

The maximum amount of data to be recorded on the hard disk of the PC can be set for each camera. When the set maximum amount is reached, previously recorded data is overwritten by new data, thus allowing the hard disk space to be used more effectively.

Automatic backup

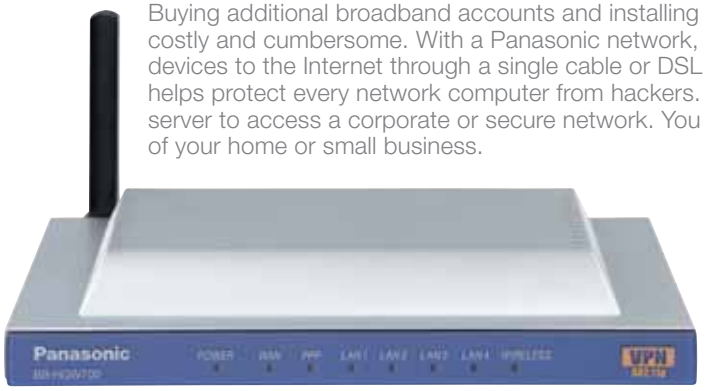
Recorded images can be saved in another memory location at a preset time.

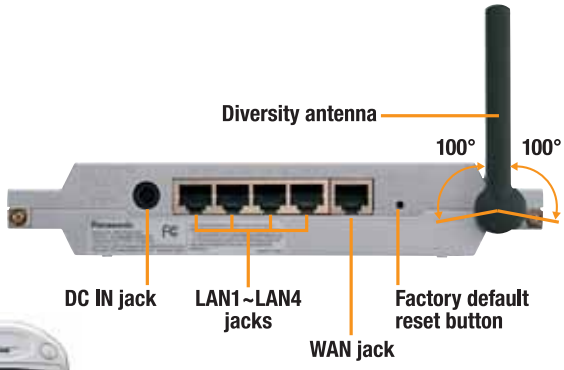
Simplified multiple network camera installation

BB-HGW700A

Camera Management System

This powerful camera management system allows you to automatically configure up to 16 Panasonic network cameras, enables Internet access, creates a custom portal page and enables multi-level security control. Buying additional broadband accounts and installing new wiring to get all of your network devices online is costly and cumbersome. With a Panasonic network, you can simplify the process by connecting multiple devices to the Internet through a single cable or DSL line. The camera management system's built-in firewall helps protect every network computer from hackers. Use the system with a Virtual Private Network (VPN) server to access a corporate or secure network. You can also customize the firewall to best suit the needs of your home or small business.





Automatic Setup

By using this product with a Panasonic network camera (Customer-provided), the camera's registration function can automatically set up wireless security (encryption, WEP setup, etc.) and camera network related settings. (port forwarding setup, etc.)

Camera Portal

By using this product with a Panasonic network camera (Customer-provided), the camera portal can list up to 16 camera names and their still images on a monitoring screen. Also, the camera portal page is set up automatically for connected cameras.

Cell Phone Camera Portal

Create a portal page to access your cameras easily from a cell phone. Cameras on location can be added automatically, and remote cameras can also be added.

Camera Status Notification

This product can send an E-mail to your PC or mobile phone if a camera disconnection is detected.

Cell Phone view

Camera Portal Page

IPv6 Compatible

This product is compatible with IPv6, the next generation Internet protocol. There are a number of merits to this, such as abundant global addresses and security improved using IPsec.

Camera Privacy Protection with VPN

This product is compatible with PPTP (IPv4) and IPsec (IPv6) for VPN. Security is enhanced by encrypting all cameras and PC data connected to this product before it is sent.

High speed wireless LAN for IEEE 802.11b/g

The wireless connection has 2 modes:
1 > the 802.11g only mode, and
2 > the 802.11g and 802.11b simultaneous mode.
Also, the wireless LAN function can be disabled.

High speed throughput

Maximum WAN-LAN wired connection speeds of 98 Mbps (IPv4/SmartBits), 77 Mbps (IPv6/SmartBits), and 16 Mbps (FTP[PPTP]).

Note:

- **LAN (Local Area Network) A computer network limited to the immediate area, usually the same building or floor of a building. LAN IP addresses, a.k.a "local IP address" typically begin with 192.168.xxx.xxx.**
- **WAN (Wide Area Network) A computer network that spans a relatively large geographical area and usually includes Internet access. In this manual "WAN" refers to your Local Area Network connected to this device as well as Internet access provided by your local Internet Service Provider (ISP).**

KX-NCP500/1000 Network Communications Platforms

Every Call Matters

Panasonic Network Communication Platforms offer businesses like yours advanced, all-in-one solutions designed to meet your challenging communication needs. Productivity applications, including call center, Communication Assistant and visual monitoring for up to 108 extensions, improve and streamline your overall business information exchange by facilitating more effective ways of communicating with your employees and your customers. NCP also allows anytime, anywhere access to a number of business communication applications through a wide range of smart and user-friendly wired and wireless devices.

KX-NCP1000
KX-NCP500

Customized communication solutions for small to mid-size businesses that leverage today's best technologies.

Using a combination of advanced telephony products along with other IP-enabled applications, Panasonic provides richer, fully-capable business communication solutions for your business today.

NCP – Reliable, Affordable, Flexible

- Cordless desk handsets allow you to communicate anywhere in your building.
- Voice mail messages can automatically be delivered to your email inbox and accessed via your PC, web-enabled cell phone or PDA.
- Seamless connection of all of your business locations to a single phone system – with fast 4-digit dialing to all employees.

Panasonic NCP provides seamless integration with mobile phones, allowing remote and mobile colleagues to stay better connected—even while on the move. NCP Systems provide innovative IP telephony features and functionalities over both local office and broadband networks.

NCP can easily connect with an ever-growing list of providers offering SIP trunking services, an excellent way to maximize savings on your long distance charges. Panasonic assures out-of-the box functionality for a complete end-to-end solution.

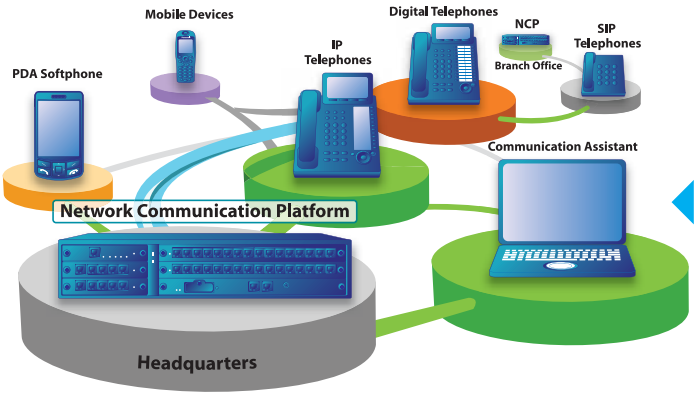
Phones for Every Need

Panasonic NCP systems give businesses a choice of the solutions that best suit their unique needs. The NCP platform supports stylish and intuitive IP telephones, SIP phones, DECT 6.0 wireless phones and digital phones, while also supporting many previous Panasonic product models.

Anytime, Anywhere Communication

Best-in-Class Wireless Solutions

Businesses are moving beyond the traditional desktop working environment with many employees going mobile—working from home, from airports and/or branch offices around the world. Panasonic NCP systems help businesses stay in touch with everyone, wherever they may be.



Access your phone system with any device.

Communication Assistant Productivity Application Suite

Communication Assistant is a highly-intuitive PC-based application suite that provides:

- Enhanced Voice Messaging (VMA)
- Instant Messaging (Chat)
- Presence
- MS Outlook Integration
- CRM Integration (TAPI)
- Softphone

Maximum System Capacities*

	Total Number of CO Lines	Total Number of Extensions
KX-NCP500	60	68
KX-NCP1000	84	108

*System capacities will vary depending on the type of interface.

NCP – Key Benefits

- Built-in voice messaging and Automated Attendant functionality
- Advanced voicemail using optional TVA50 and TVA200 voice processing systems
- Mobility applications that support mobile phones as office extensions
- Support for remote workers and remote offices
- Access to cordless handsets that work anywhere in your building
- Remote management, upgrades and monitoring for your phone system
- Desktop, network, and business application integration
- Communication Assistant call management software
- Built-in support for Advanced IP extensions, as well as SIP phones
- Integrated SIP solutions via SIP trunking providers for more affordable long-distance calling

KX-NCP500/1000 Expansion Cards

KX-TDE0110	16-Channel VOIP DSP Card
KX-TDE0111	64-Channel VOIP DSP Card
KX-NCP1170	4-Port Digital Hybrid Extension Card (DHLC4)
KX-NCP1171	8-Port Digital Extension Card (DLC8)
KX-NCP1172	16-Port Digital Extension Card (DLC16)
KX-NCP1173	8-Single Line Telephone Extension Card w/Caller ID² Card (SLC8)
KX-NCP1174	16-Single Line Telephone Extension Card w/Caller ID² Card (SLC16)
KX-NCP1180	4-Port Analog Trunk Card (LCOT4)
KX-NCP1187	T1 Trunk Card (T1)
KX-NCP1290	ISDN Primary Rate Interface Card (PRI23)
KX-NCP1190	Optional 3-Slot Base Card (OPB3)

KX-TDA0161	4-Port Doorphone Card (DPH4)
KX-TDA0164	4-Port External Input/Output Card (EIO4)
KX-TDA0166	16-Port Echo Cancellation Card (ECHO16)
KX-TDA0191	4-Channel Message Card (MSG4)
KX-TDA0194	4-Channel Voice Message Card (ESVM4)
KX-NCS21XX	Communication Assistant BASIC Activation Keys
KX-NCS22XX	Communication Assistant PRO Activation Keys
KX-NCS2301	Communication Assistant CA Supervisor
KX-NCS31XX	SIP Trunk Activation Keys
KX-NCS32XX	IP Phone Activation Keys
KX-NCS35XX	IP Softphone Activation Keys
KX-NCS37XX	SIP Extension Activation Keys

A State-of-the-Art Communications System that Grows with you.

The KX-TDE100/200 is a powerful and versatile communication system that easily adapts to any business, providing solutions that will improve the way your business communicates.

Converged Solution

The KX-TDE100/200's converged architecture is an extremely versatile, free-slot system that allows you to add cards to accommodate additional extensions, COs, or features. You can also expand the system by adding licenses to activate the system's built-in virtual IP ports, so you can grow your communications network without having to purchase a new system.

KX-TDE100/200 Converged IP-PBX System

Contains

- KX-TDE-100: 1 Cabinet with 6 Free Slots
  KX-TDE-200: 1 Cabinet with 11 Free Slots
- 1 Main Processor Unit
  (Power Supply Not Included)
- 1 SD Card
- 4 Virtual Extension Slots
- 4 Virtual CO Slots
- 2CH Simplified Voice Mail

Features (some features listed are optional)

- Multi-Cell Wireless
- VoIP Gateway with QSIG
  (Enhanced System Networking)
- Caller ID[2] (Name and Number)
- ISDN Primary Rate Interface (PRI)
  with QSIG & T1
- Networking with Centralized Voice Mail
- Voice Mail Integration
- Uniform Call Distribution (UCD)
- Direct Inward System Access (DISA)

Maximum System Capacities*

	Total Number of CO Lines	Total Number of Extensions
KX-TDE100	128	128
KX-TDE200	128	256

*System capacities will vary depending on the type of interface.

KX-TDE100/200 Optional Hardware and Expansion/Feature Cards

KX-A243X	19" Bracket for the KX-TDE100
KX-A242X	19" Bracket for KX-TDE200
KX-TDA0103	L-Type Power Supply
KX-TDA0104	M-Type Power Supply
KX-TDA0108	S-Type Power Supply
KX-TDE0101	KX-TDE MPR Card
KX-TDE0110	16-Channel VoIP DSP Card (DSP16)
KX-TDE0111	64-Channel VoIP DSP Card (DSP64)
KX-NCS4104	4-Channel IP Trunk Activation Key (SHGW4)
KX-NCS4208	8-Channel IP Softphone/IP Proprietary Telephone Activation Key (IPPTS8)
KX-NCS4508	8-Channel IP Proprietary Telephone Activation Key (IPPT8)
KX-NCS4716	16-Channel SIP Extension Activation Key (SPE16)
KX-NCS4910	Activation Key for Enhanced Features (UCAV2)
KX-TDA0143	4-Port Cell Station Interface Card (CSIF4)
KX-TDA0144	8-Port Cell Station Interface Card (CSIF8)
KX-TDA0170	8-Port Digital Hybrid Line Card (DHLC8)
KX-TDA0171	8-Port Digital Line Card (DLC8)
KX-TDA0172	16-Port Digital Line Card (DLC16)
KX-TDA0173	8-Port Single Line Card (SLC8)
KX-TDA0174	16-Port Single Line Card (SLC16)
KX-TDA0175	16-Port Single line Card with Message Waiting (MSLC16)
KX-TDA0177	16-Port SLT W/ CID CARD
KX-TDA0470	16-CHANNEL IP EXTENSION CARD (IP-EXT16)
KX-TDA0180	8-Port Loop Start CO Trunk Card (LCOT8)
KX-TDA0181	16-Port Loop Start CO Trunk Card (LCOT16)
KX-TDA0187	T1 Trunk Card (T1)
KX-TDA0290	ISDN Primary Rate Interface (PRI 23)
KX-TDA0484	4-Channel IP Gateway Card (IP-GW4)
KX-TDA0490	16-CHANNEL IP GATEWAY CARD (IP GW16)
KX-A258	Blank Slot Cover
KX-TDA0161	4-Port Doorphone Card (DPH4)
KX-TDA0164	4 EIO CARD (EIO4)
KX-TDA0166	16-Port Echo Cancellation Card (ECHO16)
KX-TDA0190	Optional 3-Slot Base Card (OPB3)
KX-TDA0191	4-Channel Message Card (MSG4)
KX-TDA0168	SINGLE LINE EXTENSION CALLER CARD (SLT CID)
KX-TDA0193	8-Port Caller ID[2] Card (CID8)
KX-TDES01	AUTHORIZED DEALER MODEL SD CARD FOR ENCRYPTION

KX-TDA50G Hybrid IP-PBX System

The Intelligent, Versatile Communications Solution

The KX-TDA50G is a truly converged communication system, designed with incredibly versatility. You can build a quick, efficient, decentralized organization under an easy-to-maintain centralized hub. State-of-the-art wireless capability is designed into the KX-TDA50G, so it's easy to stay in touch with employees that are constantly on the move or away from their desks. For businesses with multiple locations, the system can be networked together using advanced IP technology, ISDN, or basic T1 services. The KX-TDA system supports centralized voice mail, which services all locations within the extended voice mail network, and Network BLF, which allows you to view the status of extensions in other locations.

Grows with You

The KX-TDA50G's modular design and free slot architecture let you expand the system as your needs evolve. A variety of expansion let you access new features as well as expand your capabilities, without having to purchase a new system.

KX-TDA50G Control Unit

The KX-TDA50G main unit is initially configured with 4 Super Hybrid Extension Ports and 4 Loop Start CO ports (1 LCOT card), Caller ID^2 (CID4 card), Power Supply, RS232 port, USB port, MOH port, Paging port and an SD card. The system is expandable to 8 COs and 24 physical extension ports or 12 COs and 20 physical extension ports. The 28 extension ports can support a combination of 52 wired and wireless extensions. With D-PITS the system can support 48 digital KX-T7600 Series telephones.

- Multi-Cell Wireless
- PC-Based Programming
- Automatic Route Selection (ARS)
- Toll Restriction
- Supports XDP and Digital XDP on the 7600 Series Telephones
- Caller ID^2
- VoIP
- Digital Voice Mail Integration
- Compatible with KX-T7600, 7400, 7700 Series, SLT Telephones and VoIP Phones
- Direct Inward System Access (DISA)
- Model KX-A244X Optional Rack Mounting Bracket for the KX-TDA50
- 2 Year Warranty

Maximum System Capacities*

	Total Number of CO Lines	Total Number of Extensions
KX-TDA50G	4	4

*System capacities will vary depending on the type of interface.

KX-TDA50G Hybrid IP-PBX Expansion Components and Accessories

KX-TDA5105	Memory Expansion
KX-TDA5170	4 Port Hybrid Line Card (HLC4)
KX-TDA5171	4 Port Digital Line Card (DLC4)
KX-TDA5172	8 Port Digital Line Card (DLC8)
KX-TDA5173	4 Port Single Line Card (SLC4)
KX-TDA5192	In-Skin Simple Voice Mail Card
KX-TDA5470	4 Port IP Extension Card
KX-TDA5174	8 Port Single Line Card (SLC8)
KX-TDA5175	4 Port Proprietary Line Card (PLC4)
KX-TDA5180	4 Port Loop Start CO Card (LCOT 4)
KX-TDA5480	VoIP Gateway Card (IPGW4)
KX-TDA5161	4 Port Doorphone/Door Opener Card (DPH4)
KX-TDA5166	8 Channel Echo Canceller Card (ECHO8)
KX-TDA5168	Extension Caller ID^2 Card (EXT-CID)
KX-TDA5193	4 Port Caller ID^2 Card (CID4)
KX-TDA5196	Remote Card (V.90) (RMT)
KX-TDA5191	2 Channel Message Card (MSG2)
KX-A236	Additional AC Power Supply

KX-TDE600 Converged IP-PBX

The Intelligent, Versatile Communications Solution

The KX-TDE600 is a powerful and versatile communication system that will easily adapt to any business, providing solutions that will improve the way your business communicates.

Grows with You

The KX-TDE600's modular design lets you expand the system as your needs evolve. The Basic Shelf provides a maximum of 160 ports (288 ports with Digital eXtra Device Port [DXDP]). Plus with the KX-TDE600's free slot architecture, you can easily insert expansion cards and access new features as well as expand your capabilities. This expandability means you can enhance system capabilities and features to meet your changing needs, without having to purchase a new system.

KX-TDE600 Expansion Cards and Accessories

KX-TDA6110	BUS-M Card	KX-TDA6111	BUS-M Card

Station Cards

KX-TDA0143	4-Port Cell Station Interface Card (CSIF4)	KX-TDA0173	8-Port Single Line Card (SLC8)
KX-TDA0144	8-Port Cell Station Interface Card (CSIF8)	KX-TDA6174	16-Port Single Line Card (ESLC16)
KX-T0155	2-Channel DECT Cell Station	KX-TDA6175	16-Port Single Line Card w/Msg Wait. (EMSLC16)
KX-T0158	8-Channel DECT Cell Station	KX-TD0177	16-Port Single Line Card w/Caller ID^2 (CSLC16)
KX-TDA0156	4-Channel DECT Cell Station w/CSIF 4 or 8	KX-TDE6101	MPR Card for upgrade from TDA600
KX-TDA0170	8-Port Digital Hybrid Line Card (DHLC8)	KX-TDA6178	24-Port Single Line Card (ECSLC24) w/Caller ID^2
KX-TDA0171	8-Port Digital Line Card (DLC8)	KX-TDA0470	16-Channel IP Extension Card (IP-EXT16)
KX-TDA0172	16-Port Digital Line Card (DLC16)		

Central Office and IP Gateway Cards

KX-TDA6181	16-Port Loop Start CO Trunk Card (ELCOT16)	KX-TDA0484	4-Channel Card (IP-GW4)
KX-TDA0187	T1 Trunk Card (T1)	KX-TDA0490	16-Channel Gateway Card (IPGW16)
KX-TDA0290	ISDN Primary Rate Interface (PRI23)		

Resource and Feature Cards

KX-A258	Blank Slot Cover	KX-TDA0196	Remote Card (RMT)
KX-TDE0105	Memory Expansion Card (EMEC) for KX-TDE600	KX-TDA0168	Extension Caller ID^2 Card (EXT-CID)
KX-TDA0161	4-Port Doorphone Card (DPH4)	KX-TDA0193	8-Port Caller ID^2 Card (CID8)
KX-TDA0164	4-Port External Input/Out Card (EIO4)	KX-TDA0194	4-Channel Simplified Voice Message Card (ESVM4)
KX-TDA6166	16-Port Echo Cancellation Card (EECH016)	KX-NCS4104	4-Channel IP Trunk Activation Key
KX-TDA0190	Optional 3-Slot Base Card (OPB3)	KX-NCS4716	16-Channel SIP Extension Activation Key
KX-TDA0191	4-Channel Message Card (MSG4)	KX-NCS4950	Activation key for Enhanced Features
KX-TDA0410	CTI Link Card		

Mounting Hardware for KX-TDE600

KX-TDA6201	Wall Bracing Kit

Power Supplies (1 Required per Cabinet)

KX-TDA0103	L-Type Power Supply	KX-TDA0104	M-Type Power Supply

KX-TDE600

Basic Shelf (Main Unit)

Maximum Capacity 160 ports

Contains

- 1 Shelf with 10 Free Slots
- 1 Main Processor Unit (Power Supply Not Included)
- 1 SD Card
- 4 Virtual Extension Slots
- 4 Virtual CO Slots

Features

- SIP Trunk
- SIP Extension
- Multi-Cell Wireless (DECT or 2.4GHz)
- VoIP Gateway with QSIG (Enhanced System Networking)
- VoIP Extensions
- PC-Based Programming
- DXDP (Digital Extra Device Port)
- Automatic Route Selection (ARS)
- Toll Restriction
- Caller ID[2] (Name and Number)
- ISDN Primary Rate Interface (PRI) with QSIG and T1
- Voice Mail Integration
- Networking with Centralized Voice Mail
- Uniform Call Distribution (UCD)
- Direct Inward System Access (DISA)

KX-TDE620*

Expansion Shelf

Maximum Capacity 160 ports

Contains

- 1 Shelf with 11 Free Slots
- 1 BUS-S Card

A maximum of 3 KX-TDA620 or KX-TDE620 expansion shelves can be connected to the KX-TDE600 basic shelf. Requires that BUS-M (KX-TDA6110) and BUS-ME (KX-TDA6111) cards be installed in the KX-TDE600 basic shelf.
(Power Supply Not Included)

*compatible with KX-TDE600.

CO Lines:	**192**	**352**	**512**	**640**
Digital Extensions:	**368 (432*)**	**608 (736*)**	**848 (1008*)**	**992 (1152*)**

*** using DXDP**

KX-TVA50

Voice Mail Cabinet

The Basic Cabinet is configured as follows:

- 2 Ports Expandable to 6 Ports using either the KX-TVA502 or the KX-TVA503 Cards
- 4 Hours of Storage Expandable to 8 Hours using the KX-TVA524
- 64 Mailboxes
- 1 USB Port

Major Features

- Automated Attendant Service
- Email Integration
- Windows Based PC Programmable (On Site and Remote)
- Optional Remote Modem Card
- Proprietary Telephone Voice Mail Menu
- Live Call Screening
- Intercom Paging
- Interview Service
- Multi-lingual Voice Prompts
- Paging Notification with Call Back Number
- Variable playback volume/speed with pause
- Two-way record
- Personal Greeting For Caller ID[2]
- Caller ID[2] Call Routing and Name Announce

KX-TVA50
Expansion and Feature Cards

KX-TVA502	2 Port DPT/APT/SLT Interface Card
KX-TVA503	2 Port DPT Interface Card
KX-TVA524	4 Hour Memory Expansion Card
KX-TVA594	LANI/FCard
KX-TVA296	Remote Modem Card

KX-TVA50
Mounting Hardware

KX-A249	19" Rack Mount Bracket

KX-TVA200

Voice Mail Cabinet

The Basic Cabinet is initially configured as follows:

- 4 Ports Expandable to 24 Ports using KX-TVA204 Cards
- 1000 Hours of Storage
- 1024 Mailboxes
- USB and RS232 Ports

Major Features

- Automated Attendant Service
- Email Integration
- Windows Based PC Programmable (On Site and Remote)
- Optional Remote Modem Card
- Proprietary Telephone Voice Mail Menu
- Live Call Screening
- Intercom Paging
- Interview Service
- Multi-lingual Voice Prompts
- Paging Notification with Call Back Number
- Variable Playback Volume/Speed with Pause
- Two-way Record
- In-band Integration
- Personal Greeting For Caller ID[2]
- Caller ID[2] Call Routing and Name Announce

KX-TVA200
Expansion and Feature Cards

KX-TVA204	4 Port DPT Interface Card

KX-TVA200
Mounting Hardware

KX-A244X	19" Rack Mount Bracket

KX-TA824

Advanced Hybrid PBX System

Features

- PC Programmable (On Site and Remote)
- Built-in Remote Modem Card
- 3 Voice Mail Options
  (KX-TVA VPS, CO Based or Internal VM Card)
- Message Waiting Lamp Control
- Caller ID^2 with Call Waiting
  (APT and SLT Telephones)
- Caller ID^2 Logging (System and Station)
- Room Monitor
- Call Forwarding (Busy, No Answer,
  Follow Me, Outside Line and All Call)
- Direct Inward System Access (DISA) with Fax Detection and 3 Level Auto Attendant/OGM
  (180sec, 1ch)
- SMDR
- Built-in USB and RS232C Ports

KX-TA824 Optional Expansion and Feature Cards

KX-TA82483	3 x 8 Expansion Card
KX-TA82481	2 x 8 Expansion Card
KX-TA82470	8 Port Extension Card
KX-TA82461	Door Phone/Door Open Card
KX-TA82491	DISA/Auto Attendant Expansion Card
KX-TA82492	Voice Message Card
KX-TA82493	Caller ID^2 Card

KX-T7700 Series System Telephones

Complete the system with our KX-T7700 Series Hybrid System Telephones

KX-T7700 Series Features

	KX-T7750	KX-T7720	KX-T7731	KX-T7736	KX-T7737	KX-T7740
Talking Caller ID^2					•	
Programmable Keys	12	12	12	12	12	48
Transfer Key	•	•	•	•	•	
Hold Key	•	•	•	•	•	
Navigation Key			•	•	•	
Speakerphone		•	•	•	•	
Speaker Volume Control	•	•	•	•	•	
3-Position Ringer Volume Switch	•	•	•	•	•	
Message/Ringer Lamp	•	•	•	•	•	
3-Line, 16-Character Backlit LCD Display			•	•		
1-Line, 16-Character Backlit LCD Display		•				
Backlit Dial Keypad	•	•	•			
LCD Contrast Adjustment			•	•	•	
J-Type Handset	•	•	•	•	•	
2.5mm Headset Jack	•	•	•	•	•	
Colors	Black/White	Black/White	Black/White	Black/White	Black/White	Black/White

KX-NT300 Series IP Telephones

The Panasonic IP telephony solution integrates your remote employees and locations by giving them easy access to your corporation's central communication hub, letting them enjoy the feature-rich capabilities of the KX-TDE Converged IP PBX.

KX-NT303
Optional Module
- 12 Additional Programmable Key Module

KX-NT305
Optional Module
- 60 Additional Programmable Key Module (KX-NT346 & NT343 only)

KX-NT300 Series Features

KX-NT366

KX-NT346 w/ KX-NT303

KX-NT343

KX-NT303

KX-NT305 compatible with KX-NT346 and NT343 only

Programmable Keys	4 x 12	24	24	12	60
Power Over Ethernet (PoE)	•	•	•		
Ethernet Ports (100Base-T)	2	2	2		
Bluetooth Headset Compatible*	•	•	•		
Speakerphone	•	•	•		
6-Line Backlit LCD Display	•	•			
3-Line Backlit LCD Display			•		
Message/Ringer Lamp	•	•	•		
Navigator Key	•	•	•		
Next Page Key	•	•	•		
Headset Jack	•	•	•		
Colors	Black/White	Black/White	Black/White	Black/White	Black/White

*Requires KX-NT307 Adaptor

KX-T7600 Series Digital Hybrid IP-PBX Phones

Not ready to configure for IP? Our line of KX-T7700 series traditional system telephones is a fully-featured alternative to the NT360 series.

KX-T7603
Optional Module
- 12 Additional Programmable Key Module (KX-T7636 & KX-T7633 only)

KX-T7601
USB Expansion Module
- Allows connection to a PC (KX-T7636 & KX-T7633 only)

KX-T7600 Series Features

	KX-T7630	KX-T7633	KX-T7636	KX-T7667	KX-T7640	KX-T7603 compatible with KX-T7637 and KX-T7633	KX-T7601 compatible with KX-T7636 and KX-T7633
Programmable Keys	24	24	24	12	60	12	
LCD-Backlit		•	•				
Message Waiting LED	•	•	•	•			
Hands-free Speakerphone	•	•	•				
6-Line Backlit LCD Display			•				
3-Line Backlit LCD Display	•	•					
1-Line Backlit LCD Display				•			
Navigator Key	•	•	•	•			
Colors	Black/White	Black/White	Black/White	Black/White			

Cordless Extensions

Panasonic DECT mobile wireless handsets coupled with your Panasonic KX-TAW/TDA/TDE/NCP Communications Systems offer the ideal mobile communications solution. Depending on your system, you can have up to a maximum of 128 cell stations. Big buildings are no longer a big problem. The system supports greater range with the use of multiple cell antennas, which automatically hand off calls from one station to next as you move throughout your warehouse, plant, showroom or any large facility without the need for any special interface. With Panasonic DECT, multi-system registration allows you to roam across up to 4 different phone systems with one wireless handset for maximum flexibility.

Enjoy Superb Mobility No Matter Where you Work

Whether it is in an office, factory, warehouse, supermarket, or other large facility. The Panasonic Multi-Cell DECT System keeps you in constant touch with colleagues and key customers even when you have to leave your work area. Elegant, compact and convenient, these high-performance telephones put a host of advanced communication technology at your fingertips.

Stay in Touch with the Features you Need

All Panasonic DECT handsets feature easy and intuitive operation. The large, clear display and graphical icon menu show a quick overview of all system features. Whenever you get a call or touch a key, the LCD lights up in blue for easy visibility—even in the dark. Flexible keys let you quickly and conveniently access phone system features and handset functions. A graphical Feature Menu and a navigation joystick allow simple, easy access to the phone system's functions and features. Customize your DECT handset with individual ringtones so you'll instantly know who's calling or to differentiate internal versus external calls or even an internal phone group. In mute mode, the 3-color LED will show you who's on the line. Just set up a different color for each incoming call.

Blue, Backlit Display

Illuminated Keypad

Easy Menu Operation

LED Call Indicator

A Rugged Phone for Tough Environments

Need a tough phone that lets you take along all the features of your desk phone? The KX-TD7696 just might be the perfect solution. Ideal for industrial, manufacturing, healthcare, retail and warehouse settings. The KX-TD7696, with its IP54 dust and splash resistance, boasts a large, 6-line, blue backlit LCD and includes all the features you'd expect such as Caller ID[2], personal and system speed dials, and a built-in 100-entry phone book and distinct ring/LED options.

Shock-Resistant, Ruggedized Design

Dust & Splash Resistant

KX-TD7685

Standard Model

- Blue Backlit Display – Readable even in sunlight
- Illuminated Keypad – Easy operation in all lighting conditions
- Easy Menu Navigation Joystick and large icons make single-handed operation a breeze
- Programmable Keys
- Personal Telephone Directory with up to 100 entries
- Access Company Directory with up to 1000 Entries on your Panasonic Communication System
- Built-in Speakerphone
- 3 Reminder Calls / Alarm Clock

KX-TD7695

Compact Model

- Blue Backlit Display – Readable even in sunlight
- Illuminated Keypad – Easy operation in all lighting conditions
- Easy Menu Navigation Joystick and large icons make single-handed operation a breeze
- Programmable Keys
- Personal Telephone Directory with up to 100 entries
- Access Company Directory with up to 1000 Entries on your Panasonic Communication System
- Built-in Speakerphone
- 3 Reminder Calls / Alarm Clock

KX-TD7696

Ruggedized Model

- Blue Backlit Display – Readable even in sunlight
- Illuminated Keypad – Easy operation in all lighting conditions
- Easy Menu Navigation Joystick and large icons make single-handed operation a breeze
- Programmable Keys
- Personal Telephone Directory with up to 100 entries
- Access Company Directory with up to 1000 Entries on your Panasonic Communication System
- Built-in Speakerphone
- 3 Reminder Calls / Alarm Clock

Seeing is Relieving

Panasonic introduces an innovative new system for protecting your home from intruders. Combining video and intercom functions, this system lets you see and speak with visitors before opening the door. You can also integrate the telephone system to the video door intercom system for added reliability and convenience. The indoor color monitor offers a host of functions that make it easy for you and family members to see who's outside. With advanced new video intercom systems from Panasonic, protecting loved ones has never been easier.

VL-GM201A

Video Door Intercom Monitor

- Supports one monitor, one camera and one door opener connection
- Compatible with VL-GC002A-W, VL-GC001A-S and VL-GC001A-N door cameras only
- Supports one connection to most Panasonic telephone system models
- 2.5" color LCD display
- Hands-free or Press to Talk operation
- 5-step brightness control
- Wall or desk mountable

Expandable Line-Up • Door Cameras

VL-GC001A-S

VL-GC001A-N

VL-GC003A
shown with optional face panel

VL-GC002A-W

VL-GT001A
Optional Desk Mount Kit for the VL-GM201A
shown with included mounting bracket

Panasonic Telephone System

Electric Door Strike Control

VL-GM201A
Main Monitor

VL-GC003A
Door Camera
shown with optional face panel

Telephone Glossary

2-Way Paging/Automatic Intercom You can page and communicate between the handset and the base.

2-Way Radio Mode Use the Expandable handsets away from the base unit to communicate from one handset to another.

2-Way Conversation Record Use 2-way recording to save a telephone conversation for later playback.

3-Color Light-Up Indicator with Ringer/VM Alert (4 Available Options) Select from blue, green, amber or multi-color options. The light-up indicator will flash quickly to show that you have an incoming call, and it will flash slowly to let you know that you have a new message in your voice mailbox.

2.4 GHz Digital Cordless Operation Provides clear sound, reduced interference and enhanced range while deterring eavesdropping.

2.4 GHz Frequency-Hopping Spread Spectrum (FHSS) Technology This system randomly changes transmission frequency several times per second without causing cross-talk, enabling the use of multiple handsets. FHSS technology also makes eavesdrop-ping highly unlikely.

5.8 GHz Frequency-Hopping Spread Spectrum (FHSS) Technology 5.8 GHz technology operates on a different wavelength with much less traffic than the 2.4 GHz technology while maintaining the great security, incredible clarity and long range you'd get with 2.4 GHz technology.

All-Digital Answering System Messages are recorded on an advanced microchip for quiet operation and easy retrieval. The total recording time is 15 minutes for most models, but they vary up to 60 minutes of total recording time.

All-Digital Voice Mail System The digital voice mail system can contain up to 8 mailboxes, with a total recording time of up to 100 minutes. It features individual mailbox greetings, mailbox access from any cord-less station, auto attendant, voice prompts, time/day stamps and much more.

Answering Machine Interface Certain Panasonic fax machines let you connect an optional, external answering device, allowing the reception of voice and fax messages on one phone line.

Auto Attendant You can set the voice mail system to automatically answer incoming calls with a recorded greeting and route callers to a desired extension or mailbox. This feature is ideal for small offices because it eliminates the need for a receptionist. It's also a big help in busy homes, alleviating the problem of "lost" or illegible paper messages.

Auto Interrupt The answering system automatically stops recording when you pick up the handset.

Auto Message Delete You can program your mailbox to automatically delete all messages when they become one month old.

Auto Scanning Before you even remove the handset from the base, the phone will automatically scan available channels for the next clear one.

Bilingual Display The LCD language can be set to either English or Spanish.

Call Block Allows the user to block unwanted calls by entering Caller ID info into the phone's call block memory.

Caller ID The LCD readout can display the caller's name and number, so you can see at a glance who's calling. You can also enjoy the convenience of printing the list of Caller ID activity to review.

Caller ID Call Waiting Can display the name and number of incoming callers, even if you're on another call. Up to 50 names and numbers can be stored in memory for easy retrieval and direct callback.

Call Screening A monitor speaker allows you to hear incoming messages as they're being recorded.

Call Transfer You can transfer an outside call from the base unit to a cordless handset or from one cordless handset to another.

Chain Dial Search your phone book and dial a number you previously programmed during a phone call. This feature can be useful for those who frequently use "calling cards".

Choice Mail Lets you view and retrieve recorded messages without having to listen to portions of others to find the one you want.

Clarity Booster Combines two voice paths helping the handset to improve clarity in an area where there may otherwise be interference.

Customized Ringer Use this feature for unlimited free recording of your favorite songs or sounds that you can set as your telephone ringer. All you need is the included audio cable and the music or sound. (Maximum recording time is 2 minutes, depending on the model).

Data Port A phone jack built into the base lets you easily hook up a computer, modem, fax or answering machine.

DECT 6.0 (Digital Enhanced Cordless Telecommunication) Operates on the 1.9GHz frequency and offers excellent sound quality reduced interference, long range and extended battery life.

Digital Answering System Messages are recorded on a microchip. With no cassette tapes to rewind or reset, operation is quiet and messages can be easily accessed.

Digital Duplex Speakerphone Delivers crisp, natural sound without dropouts or clipping. Use the speakerphone for hands-free operation or to allow others in the room to join in your conversation.

Digital Handset Speakerphone A digital duplex speakerphone on the back of the handset enables convenient, high-quality hands-free conversations.

Diversity Antenna System Greatly improves signal sensitivity and overall performance through the use of two antennas.

Dual Keypads Lets you dial from the base so you can make calls without using the handset.

ENERGY STAR® Compliance* The ENERGY STAR® label, a symbol for energy efficiency, was created by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) to help consumers identify products that can save them money and protect the environment by saving energy. Panasonic fax systems with the ENERGY STAR® label generally consume less energy than similar standard products.

Expandable Up to seven additional handsets can be added to the phone system for a total of 8 handsets (depending on model) while using only one base unit and one phone jack.

Extension Line Transfer If you answer an incoming fax call on a phone that operates on the same line as your fax unit, you can press *9 to transfer the call to your fax unit.

Flash Memory Panasonic answering systems store recorded messages in flash memory, so that they are unaffected by power failure or interruptions.

GM Greeting Message.

Handset Locator To locate a misplaced handset, simply touch a button on the base and the handset will ring.

Handset Volume Control Lets you adjust the handset volume to your preference.

Headset Jack (and Belt Clip) A standard 2.5mm jack enables you to connect an optional headset to the unit for hands-free conversations (on the go).

High Resolution Amber-Glow Backlit LCD (1.4") Easy operation amber glow backlit LCD with icon menu.

High Resolution Full-Color Backlit LCD (1.5") Easy operation, full-color, backlit LCD that uses an icon menu to let you download picture wallpaper using the included USB cable.

ICM Incoming Message.

Icon Operation Phone operation is made easy by choosing from clearly defined icons in the menu to select and set your phone feature options.

Join In This feature allows one or more handset users to join in a conversation already in progress with another handset and an outside line.

Lighted Handset Keypad The keypad is illuminated for easy dialing in darkened rooms.

Light-Up Indicator with Ringer/Message (or VM) Alert The indicator will flash quickly to show that you have an incoming call, and it will flash slowly to let you know that you have a new message.

Light-Up ID Choose a light-up indicator color to link to your pre-programmed phone book data. The pre-programmed indicator light will occur when the corresponding Caller ID information is received from an incoming call.

Line Status LED Indicators Lets you know in a glance which line is in use.

Memo Recording Instead of leaving a note you can record memos for family or friends.

Memory Redial Use the memory redial button to recall, and dial, any one of the last five dialed phone numbers.

Message Delivery Users can send a message to another user's mailbox or to several users' mailboxes in a single operation.

Multi-Function LCD The backlit display can show multiple lines of Caller ID information at once, so there's no need for scrolling. Several models feature dual LCD readouts: one on the base and one on the handset.

Multi-Line Operation with 3-Way Conferencing Several users can make separate calls simultaneously where multiple lines are installed. It also allows you to conference two outside calls together with one system handset, or to conference two system handsets together with one outside call.

Name/Number Caller ID Displays the name and phone number of incoming callers on the LCD readout. Also, when you listen to your messages, it will show the Caller ID data for each person who left a message as their message plays.

Navigator Key Lets you easily control the handset volume and ringer level, as well as the phone directory and dialer, Caller ID memory and other advanced functions, where applicable.

New Message Playback Touch a button and the unit will play only the messages you haven't heard before.

Ni-MH Battery Included Ni-MH batteries have an advantage over Ni-Cd batteries in that they do not have memory effect, and the absence of cadmium in the Ni-MH battery makes it more environmentally friendly than the Ni-Cd battery.

One-Touch Direct Dial Button Lets you store an important phone number in memory for dialing at the touch of a button.

One-Touch Intercom Buttons You can page and communicate between the base and each extension at the touch of a button.

Personalized Caller ID The phone will automatically compare the incoming Caller ID data with your stored phone data. If you stored a personalized name or "Nickname" for a particular phone number, the personalized name will appear in the display when the corresponding phone number is received through Caller ID.

Phone Company Voice Mail Compatible (FSK and Stutter Dial Tone Compatible) An indicator on the phone lets you know if there are new messages in your phone company mailbox.

Phone Directory and Dialer Up to 50 names and telephone numbers (30 on certain models) can be stored and quickly accessed for dialing using the phone's navigator key or jog dial.

Phone Book Sharing Once you have programmed all your names and phone numbers into one of your handsets you can then share that phone book with any other handset in the system.

Picture ID Choose from a downloaded or selectable picture to link to your preprogrammed phonebook data. The preprogrammed picture will occur when the corresponding Caller ID information is received from an incoming call.

Privacy Mode Each handset in the system has the capability to manually block all other handsets from joining in on the conversation. When this feature is in use the handset and base will either display the word "PRIVACY" or an indicator button will light up, depending on the model. The privacy mode automatically shuts off when the call is ended.

Remote Operation with Tone Remote Control When checking your messages on a touch tone keypad while away from home, you can control the Greeting Message, All Message Playback and Individual Message Erase.

Reversible Handset Charging Lets you place the handset in the base, for charging, with the keypad and LCD (select models only) facing up or down.

Ringer ID Choose from a downloaded or selectable ringer to link to your preprogrammed phone book data. The preprogrammed ringer will occur when the corresponding Caller ID information is received from an incoming call.

Room Monitor By using the room monitor feature the user is able to listen in on any handset or base unit in the system from any other handset or base unit in the system using the intercom function.

Selectable Ringtones Choose from up to 7 different options when selecting what you would like to hear when your phone rings.

Silent Mode Allows the user to program individual handsets to ring or remain silent for specified time periods without affecting other handsets.

Simultaneous Base/Handset Calling The base and handset can be used on separate phone lines for two different calls.

Skip and Repeat Function Lets you selectively review your messages.

SlowTalk® Message Playback For easier listening of recorded messages, you can slow down the playback speed by 30% at the touch of a button.

Station Speed Dialer Lets you store and quickly dial as many as 10 frequently called phone numbers, depending on the model. Each station can hold up to 32 digits, giving you enough room to include your favorite long-distance access code (i.e., 10-10-XXX).

Talking Alarm Uses text-to-speech technology to make pre-programmed announcements.

Talking Battery Uses text-to-speech technology to remind the user when the handset needs charging.

Talking Caller ID When a call comes in, the phone doesn't just let you see who is calling, it actually tells you who is calling. Using text-to-speech technology the caller's name is announced in between rings if name-and-number Caller ID information is available.

Telephone Directory Navigator Lets you save and quickly recall your most important phone numbers. Up to 122 numbers can be stored, depending on the model.

Tollsaver When checking your messages from a remote location, the system will answer on the first ring if you have any new messages. If it doesn't, you can then hang up to avoid toll charges.

Transfer Message A message in your mailbox can be easily transferred to another mailbox.

True Voice Paging From the base unit or a handset, you can call any other extension in the system or simultaneously page all handsets in the system by speaking through the base unit. This feature comes in handy, whether you're announcing an impromptu meeting or calling everyone at home to the dinner table.

Telephone Glossary

USB Features Download music, pictures, wallpapers and phone book data using the included USB cable.

Voice Changer Liven up your conversations by changing your voice as you talk. Change your voice 3 different ways: HIGH/DEEP/FUN.

Voice Enhancer Technology Helps clarify and improve sound reception creating a natural sounding voice that is easy to hear and understand. It is able to simulate a band signal above and below the normal bandwidth limitations, achieving a sound that is close to the actual voice.

Voice Menu and Time/Day Stamp Digital voice prompts clearly inform you of the time and day that each message was recorded.

Voice Prompts and Time/Day Stamp A voice synthesizer will prompt callers through the messaging system, and will stamp each incoming message with the time and day it was received.

Telephone Explanatory Notes

1 Cell phone must have Bluetooth® capability and must be compatible to this cordless phone system.

2 Requires subscription to name-and-number Caller ID, Call Waiting and/or Voice Mail services offered by certain local telephone companies for a fee.

3 Ni-MH batteries have an advantage over Ni-Cd batteries in that they have high resistance to memory effect and are cadmium-free.

4 Requires optional accessory handset sold separately.

5 Name pronunciation may vary. Name pronunciation quality is based on names most commonly used in the United States.

6 Requires name and number registration in phonebook function.

7 Requires number registration in the Call Block list.

8 Optional Wall Mounting Adaptor required for the base unit.

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IP Network Camera Glossary

Adaptive contrast enhancement The camera automatically corrects the image when one part of it becomes extremely dark. It also compensates only for the dark part, so the entire image is adjusted to the proper brightness for easy viewing from corner to corner.

Bandwidth How much stuff you can send through a connection. Usually measured in bits-per-second. A full page of English text is about 16,000 bits. A fast modem can move about 57,000 bits in one second. Full-motion full-screen video would require roughly 10,000,000 bits-per-second, depending on compression.

bps (Bits-Per-Second) A measurement of how fast data is moved from one place to another. A 56K modem can move about 57,000 bits per second.

CCD (Charge Coupled Device) A chip which can be used as an image sensor. Generally higher quality sensor than CMOS capable of capturing images in lower light levels.

CMOS A low power image sensor chip.

DDNS (Dynamic Domain Name Server) A server which assigns a named URL to track to a dynamic IP Address.

DHCP Server A server on a network or the Internet which assigns IP address information based on predetermined rules.

DNS (Domain Name System) The Domain Name System is the system that translates Internet domain names into IP numbers. A “DNS Server” is a server that performs this kind of translation.

Domain Name The unique name that identifies an Internet site. Domain Names always have 2 or more parts, separated by dots. The part on the left is the most specific, and the part on the right is the most general. A given machine may have more than one Domain Name but a given Domain Name points to only one machine. For example, the domain names: matisse.net mail.matisse.net workshop.matisse.net can all refer to the same machine, but each domain name can refer to no more than one machine. Usually, all of the machines on a given Network will have the same thing as the right-hand portion of their Domain Names (matisse.net in the examples above). It is also possible for a Domain Name to exist but not be connected to an actual machine. This is often done so that a group or business can have an Internet e-mail address without having to establish a real Internet site. In these cases, some real Internet machine must handle the mail on behalf of the listed Domain Name.

DSL (Digital Subscriber Line) A method for moving data over regular phone lines. A DSL circuit is much faster than a regular phone connection, and the wires coming into the subscriber’s premises are the same (copper) wires used for regular phone service. A DSL circuit must be configured to connect two specific locations, similar to a leased line (however a DSL circuit is not a leased line. A common configuration of DSL allows downloads at speeds of up to 1.544 megabits (not megabytes) per second, and uploads at speeds of 128 kilobits per second. This arrangement is called ADSL: Asymmetric Digital Subscriber Line. Another common configuration is symmetrical: 384 Kilobits per second in both directions. DSL is now a popular alternative to Leased Lines and ISDN, being faster than ISDN and less costly than traditional Leased Lines.

Dynamic IP Address An IP address assigned by a DHCP server or ISP to a device connected to the network or Internet. In order to find a device on the Internet, typically a static IP address or a DDNS domain name (such as http://viewnetcam.com) is required.

Ethernet A very common method of networking computers in a LAN. There is more than one type of Ethernet. By 2001 the standard type was “100-BaseT” which can handle up to about 100,000,000 bits-per-second and can be used with almost any kind of computer.

Fire Wall A combination of hardware and software that separates a Network into two or more parts for security purposes.

Full screen display The system supports the full-screen display of monitor images. Even the smallest details can easily be monitored on this impressively large display screen.

IP Network Camera Glossary

Global IP Address (Also known as WAN IP address) The IP address which refers to a device directly connected to the Internet. This is assigned by an Internet Service Provider.

HTTP (HyperText Transfer Protocol) The protocol for moving hypertext files across the Internet. Requires a HTTP client program on one end, and an HTTP server program on the other end. HTTP is the most important protocol used in the World Wide Web (WWW).

Intranet A private network inside a company or organization that uses the same kinds of software that you would find on the public Internet, but that is only for internal use. Compare with extranet.

IP Address (Internet Protocol Number) Sometimes called a dotted quad. A unique number consisting of 4 parts separated by dots, e.g. 165.113.245.2 Every machine that is on the Internet has a unique IP address. If a machine does not have an IP address, it is not really on the Internet. Many machines (especially servers) also have one or more Domain Names that are easier for people to remember.

IPv4 (Internet Protocol, version 4) The most widely used version of the Internet Protocol (the "IP" part of TCP/IP.) IPv4 allows for a theoretical maximum of approximately four billion IP Numbers (technically 232), but the actual number is far less due to inefficiencies in the way blocks of numbers are handled by networks. The gradual adoption of IPv6 will solve this problem.

ISP (Internet Service Provider) An institution that provides access to the Internet in some form, usually for money

JPEG (Joint Photographic Experts Group) JPEG is most commonly mentioned as a format for image files. JPEG format is preferred to the GIF format for photographic images as opposed to line art or simple logo art.

LAN (Local Area Network) A computer network limited to the immediate area, usually the same building or floor of a building.

Local IP Address The IP Address of a device on the LAN side of the Router.

Mega-pixel The camera is capable of capturing high quality photographic images. These monitored images can then easily be printed out for various uses.

Network Any time you connect 2 or more computers together so that they can share resources, you have a computer network.

Node Any single computer connected to a network.

Pan/Tilt The ability for the camera to physically move left/right (pan) and up/down (tilt) by remote control.

Ping To check if a server is running. From the sound that a sonar systems makes in movies, you know, when they are searching for a submarine.

Port On the Internet port often refers to a number that is part of a URL, appearing after a colon (:) right after the domain name. Every service on an Internet server listens on a particular port number on that server. Most services have standard port numbers, e.g. Web servers normally listen on port 80. Services can also listen on non-standard ports, in which case the port number must be specified in a URL when accessing the server, so you might see a URL of the form: http://p.viewnetcam.com:60001 This shows a network camera running on a non-standard port (the standard port for a web server is 80).

Port Forwarding (Also known as Virtual Server) The router configuration which allows specific Internet requests to penetrate the firewall enabling access to a server running on the LAN.

Power Over Ethernet (PoE) A standard which allows power and data to be carried on the same Cat5 wire.

Preset sequence The camera can be programmed to automatically aim itself in certain directions according to a predetermined schedule. This allows for thorough monitoring of places of particular concern or interest.

Recording audio simultaneously with SD Memory Card The SD Memory Card can record audio as well as video data for an even higher level of monitoring quality. Video monitoring with sound enhances security by providing additional information that images cannot convey.

In the HCM5xx series, SD Memory Cards can be swapped even without a PC, making it possible to use a single camera unit as a monitoring device in places where a power source is available, but installation of network or other cables is problematic.

Router A special-purpose computer (or software package) that handles the connection between 2 or more Packet-Switched networks. Routers spend all their time looking at the source and destination addresses of the packets passing through them and deciding which route to send them on.

Server A computer, or a software package, that provides a specific kind of service to client software running on other computers. The term can refer to a particular piece of software, such as a WWW server, or to the machine on which the software is running, e.g. "Our mail server is down today, that's why e-mail isn't getting out." A single server machine can (and often does) have several different server software packages running on it, thus providing many different servers to clients on the network. Sometimes server software is designed so that additional capabilities can be added to the main program by adding small programs known as servlets.

Simultaneous MPEG-4 and JPEG The cameras simultaneously send three types of MPEG4 (VGA, QVGA, SCIF) data and nine types of MotionJPEG (VGA, QVGA, SCIF x favor motion, standard, favor clarity) data so you can choose the most suitable format according to the Internet connection and your viewing needs. MPEG4 is recommended for viewing smooth motion images, and MJPEG is recommended for recording higher quality images.

Static IP Address A permanent IP address assigned to a device on a Network. In order find a device on the Internet, it is usually necessary to know the IP address. A static address, since permanent, makes this easier.

TCP/IP (Transmission Control Protocol/Internet Protocol) This is the suite of protocols that defines the Internet. Originally designed for the UNIX operating system, TCP/IP software is now included with every major kind of computer operating system. To be truly on the Internet, your computer must have TCP/IP software.

UDP (User Datagram Protocol) One of the protocols for data transfer that is part of the TCP/IP suite of protocols. UDP is a "stateless" protocol in that UDP makes no provision for acknowledgement of packets received, and is typically used for audio and video streaming.

UPnP A standard protocol for automatically configuring port forwarding

URL (Uniform Resource Locator) The term URL is basically synonymous with URI. URI has replaced URL in technical specifications.

VPN (Virtual Private Network) Usually refers to a network in which some of the parts are connected using the public Internet, but the data sent across the Internet is encrypted, so the entire network is "virtually" private.

WAN (Wide Area Network) A network that covers an area larger than a single building or campus.

Wi-Fi (Wireless Fidelity) A popular term for a form of wireless data communication, basically Wi-Fi is "Wireless Ethernet".

IP Network Camera Explanatory Notes

1 An active broadband connection and a router are required at camera location. We cannot guarantee that your Internet connection will always be available.

2 Browser must be Internet Explorer 6.0 or later. Video display requires optional BL-WV10A TV Adaptor. Compatible cell phones and PDAs must be able to display JPEG images and HTML or XHTML web pages. Additional fee-based cellular services may be required.

3 Recording onto an SD Memory Card is not possible in Sequential Display mode.

4 This product can be used only when IPv4 connection is used. To use the voice and image recording program, it is necessary to complete the user registration over the Internet and obtain a password. Without the user registration, this function is restricted. Program installation requires 20 MB of hard disk space. The number of camera units allowed for simultaneous recording varies depending on the PC performance. Use of the program may cause voice transmission to be interrupted or moving images to stop in some cases, depending on the PC's performance and the network environment. The detection sensitivity level of the motion detection recording function varies depending on the camera resolution, image quality setting, subject condition, network conditions and other factors. If the free space on the hard disk runs short, the system may become unstable. Be sure to allow sufficient free space (100 MB or more).

DECT 6.0 Digital Phones Features

	MODEL >	KX-TG7434	KX-TG6445	KX-TG6434	KX-TG6423	KX-TG6413	KX-TG1062
General	Color	B (Black)	T (Black Metallic)	T (Black Metallic) M (Metallic Gray)	T (Black Metallic)	T (Black Metallic) M (Metallic Gray)	M (Metallic Gray)
	Frequency	1.9 GHz	1.9 GHz	1.9 GHz	1.9 GHz	1.9 GHz	1.9 GHz
	System	DECT 6.0	DECT 6.0	DECT 6.0	DECT 6.0	DECT 6.0	DECT 6.0
	Number of Channels	60 Channels	60 Channels	60 Channels	60 Channels	60 Channels	60 Channels
	Number of Handsets (Capability)	4 (Up to 6-Handsets)	5 (Up to 6-Handsets)	4 (Up to 6-Handsets)	3 (Up to 6-Handsets)	3 (Up to 6-Handsets)	2 (Up to 6-Handsets)
	Number of Phone Lines	1	1	1	1	1	1
	LCD Language	English / Spanish	English / Spanish	English / Spanish	English / Spanish	English / Spanish	English / Spanish
	Link to Cell*7	-	-	-	-	-	-
Advanced Feature	Call Block *1*5	Y (30-Station)	Y (30-Station)	Y (30-Station)	Y (30-Station)	Y (30-Station)	Y (30-Station)
	-Registered from Function menu	Y	Y	Y	Y	Y	Y
	-Registered from Caller list	Y	Y	Y	Y	Y	Y
	Silent Mode	Y	Y	Y	Y	Y	Y
	Talking Phone (Talking Alarm Clock/ Talking Battery Alert)	Y	Y	Y	Y	-	-
	Light-Up Indicator (Ringer / Charge Indicator)	Y (Amber)	Y (Amber)	Y (Amber)	Y (Amber)	Y (Amber)	Y (Amber)
	Light-up ID*1*2	-	-	-	-	-	-
	Ringer ID *1*2	Y	Y	Y	Y	Y	Y (9-Category Ringer)
	Picture ID						
	Icon Operation (Function menu)	Y	-	-	-	-	-
	Menu Operation	-	Y	Y	Y	Y	Y
Caller ID	Caller ID*1	Y	Y	Y	Y	Y	Y
Phonebook	Caller ID memory *1	50-Station	50-Station	50-Station	50-Station	50-Station	50-Station
	Talking Caller ID (Base) *1*2*3	Y	Y	Y	Y	-	-
	Talking Caller ID (Handset) *1*2*3	Y	Y	Y	Y	-	-
	Voice Mail *1 & Voice Mail *1 Alert (Light-Up Indicator)	Y	Y	Y	Y	Y	Y
	Handset Phonebook Memory (Name & Number)	-	-	-	-	-	100-Station (16 char / 24 digits)
	Phonebook Copy	-	-	-	-	-	Y (B/U - H/S only)
	Shared Phonebook Memory (Name & Number)	50-Station (16 char / 32 digits)	50-Station (16 char / 32 digits)	50-Station (16 char / 32 digits)	50-Station (16 char / 32 digits)	50-Station (16 char / 32 digits)	-
	Chain dial	Y	Y	Y	Y	Y	Y
Basic Function Handset	LCD (Handset)	2.1-inch Full Dot Monochrome	1.8-inch Full Dot Monochrome	1.8-inch Full Dot Monochrome	1.8-inch Full Dot Monochrome	1.8-inch Full Dot Monochrome	1.8-inch Full Dot Monochrome
	LCD Backlit Color	White	White	White	Amber	White	Amber
	Large Text Display Mode (Multi items/ Single item)*8	Y	-	-	-	-	-
	Lighted Handset Keypad	Y	Y	Y	-	Y	Y
	Ringer Pattern (Tone + Melody)	7 (3+4)	7 (3+4)	7 (3+4)	7 (3+4)	7 (3+4)	15 (5+10)
	Ringer Volume	High / Mid / Low / Off	High / Mid / Low / Off	High / Mid / Low / Off	High / Mid / Low / Off	High / Mid / Low / Off	6-Step + Off
	Redial Memory (Handset)	5-history (Name*6 & Number)	5-history (Name*6 & Number)	5-history (Name*6 & Number)	5-history (Name*6 & Number)	5-history (Name*6 & Number)	10-history (Name*2 & Number)
	Auto Redial (Handset)	-	-	-	-	-	-
	Hold	Y (Soft Key)	Y (Soft Key)	Y (Soft Key)	Y (Soft Key)	Y (Soft Key)	Y (Soft Key)
	Mute	Y (Soft Key)	Y (Soft Key)	Y (Soft Key)	Y (Soft Key)	Y (Soft Key)	Y (Soft Key)
	Flash	Y	Y	Y	Y	Y	Y
	Receiver Volume (Talk Volume)	3-Step	3-Step	3-Step	3-Step	3-Step	4-Step
	Speakerphone Volume	6-Step	6-Step	6-Step	6-Step	6-Step	6-Step
	Intercom (Handset to Base)	-	Y	-	-	-	Y
	Intercom (Handset to Handset)	Y	Y	Y	Y	Y	Y
	Conference Call with Outside Line	Up to 4-Way (H/S-H/S-H/S-LINE)	Up to 4-Way (B/U or H/S-H/S-H/S-LINE)	Up to 4-Way (H/S-H/S-H/S-LINE)	Up to 4-Way (H/S-H/S-H/S-LINE)	Up to 3-Way (H/S-H/S-LINE)	Up to 3-Way (B/U or H/S-H/S-LINE)
	Barge in (Call Share)	Y	Y	Y	Y	Y	Y
	Any Key Answer	Y	Y	Y	Y	Y	Y
	Clock	Y	Y	Y	Y	Y	Y
	Alarm	Y (Tone / Melody / Talking Alarm)	Y (Tone / Melody / Talking Alarm)	Y (Tone / Melody / Talking Alarm)	Y (Tone / Melody / Talking Alarm)	Y (Tone / Melody)	Y (Tone / Melody)
	Battery	Rechargeable Ni-MH Batteries (AAA x 2)	Rechargeable Ni-MH Batteries (AAA x 2)	Rechargeable Ni-MH Batteries (AAA x 2)	Rechargeable Ni-MH Batteries (AAA x 2)	Rechargeable Ni-MH Batteries (AAA x 2)	Rechargeable Ni-MH Batteries (AAA x 2)
	Talk Time	5 hours	5 hours	5 hours	5 hours	5 hours	12 hours
	Standby Time	11 days	11 days	11 days	11 days	11 days	6 days
	Charge Time	7 hours	7 hours	7 hours	7 hours	7 hours	7 hours
	Headset Jack	Y	Y	Y	-	Y	Y
	Belt clip	Y	Y	Y	Y	Y	Y
	Dual Keypad	-	Y	-	-	-	Y
	Corded Handset (Power Outage Operation)	-	-	-	-	-	Y
Basic Function Base	LCD (Base)	-	-	-	-	-	2.5-inch 3-Line Full Dot Monochrome
	Base Phonebook Memory (Name & Number)	-	-	-	-	-	100 Stations (16 char / 24 digits)
	Redial Memory (Base)	-	Last number	-	-	-	10-history (Name*2 & Number)
	Auto Redial (Base)	-	-	-	-	-	-
	Hold	-	Y	-	-	-	Y
	Mute	-	Y	-	-	-	Y (Soft Key)
	Flash	-	Y	-	-	-	Y
	Digital Speakerphone	-	Y	-	-	-	Y
	Speakerphone Volume	-	8-Step	-	-	-	8-Step
	Speed Dial	-	-	-	-	-	5-Station (24 digits)
	Handset Locator	Y	Y	Y	Y	Y	Y
	Ringer Pattern (Tone+ Melody)	1 (1+0)	1 (1+0)	1 (1+0)	1 (1+0)	-	6 (6+0)
	Ringer Volume	High / Mid / Low / Off	High / Mid / Low / Off	High / Mid / Low / Off	High / Mid / Low / Off	-	High / Mid / Low / Off
	Wall Mountable	-	Y	Y	Y	Y	Y
Answering System	Answering System	Y	Y	Y	Y	-	Y
	Total Recording Time (ICM + GM + Memo)	About 18 min.	About 18 min.	About 18 min.	About 18 min.	-	About 18 min.
	Massage Alert (Light-Up Indicator)	Y	Y	Y	Y	-	Y
	Choice Mail (Message list)	Y	-	-	-	-	-
	Speaker Volume (Base Unit Speaker)	Off + 8-Step	Off + 8-Step	Off + 8-Step	Off + 8-Step	-	Off + 8-Step
	Memo Recording	-	Y (MAX. 3min.)	-	-	-	-
	Recording Conversation	-	-	-	-	-	-
	Remote Operation from Handset	Y	Y	Y	Y	-	Y
	Remote Operation from outside Line (DTMF)	Y	Y	Y	Y	-	Y
	Toll saver	Y	Y	Y	Y	-	Y
	Call screening	Y	Y	Y	Y	-	Y
Optional Handset	Optional Handset	KX-TGA641/ KX-TGA740	KX-TGA641/ KX-TGA740	KX-TGA641/ KX-TGA740	KX-TGA641/ KX-TGA740	KX-TGA641/ KX-TGA740	KX-TGA106
	Base Dimensions H × W × D (in)	Approx. 2 x 3.9 x 5.9	Approx. 2.3 x 6.1 x 5.4	Approx. 2.1 x 5 x 5	Approx. 2.1 x 5 x 5	Approx. 2.1 x 5 x 5	Approx. 2.7 x 8.4 x 6.9
	Handset Dimensions H × W × D (in)	Approx. 6.3 x 1.9 x 1.3	Approx. 6.2 x 1.9 x 1.3	Approx. 6.2 x 1.9 x 1.3	Approx. 6.2 x 1.9 x 1.3	Approx. 6.2 x 1.9 x 1.3	Approx. 6.2 x 1.9 x 1.4
	Charger Dimensions H × W × D (in)	Approx. 2 x 3 x 3.4	Approx. 2 x 3 x 3.4	Approx. 2 x 3 x 3.4	Approx. 2 x 3 x 3.4	Approx. 2 x 3 x 3.4	Approx. 2 x 3 x 3.4
	Base Weight (oz)	Approx. 6.3	Approx. 9.5	Approx. 6	Approx. 6	Approx. 4.9	Approx. 15.9
	Handset Weight with Battery (oz)	Approx. 4.6	Approx. 4.6	Approx. 4.6	Approx. 4.6	Approx. 4.6	Approx. 4.6
	Charger Weight (oz)	Approx. 2.1	Approx. 2.1	Approx. 2.1	Approx. 2.1	Approx. 2.1	Approx. 2.1

ICM = Incoming Message GM = Greeting Message

1: Requires subscription to name-and-Number Caller ID, Call Waiting and/or Voice Mail service.

2: Requires name and/ or picture registration in Phonebook function.

3: Name pronunciation may vary.

4: Optional Handset required.

5: Requires number registration in the block call list.

6: Requires registration in Phonebook function. "Name" is displayed only when calling from the Phonebook or Caller List.

7: Cell phone must have Bluetooth® capability and must be compatible to this cordless phone system.

8: Available when browsing the function menu, the phonebook, the caller list, the redial list, the message list (TAM model) and the call block list.

DECT 6.0 Digital Phones Features

	MODEL >	KX-TG1034	KX-TG9392	KX-TG9344	KX-TG9333	KX-TH1212 PSTN+CELL
General	Color	Silver	T (Black Metallic)	T (Black Metallic)	T (Black Metallic)	B (Black)
	Frequency	1.9GHz	1.9GHz	1.9 GHz	1.9 GHz	1.9 GHz
	System	DECT 6.0	DECT 6.0	DECT 6.0	DECT 6.0	DECT 6.0
	Number of Channels	60 Channels	60 CH	60 CH	60 CH	60 CH
	Number of Handsets (Capability)	4 (Up to 6 Handsets)	2 (Up to 6 Handsets)	4 (Up to 6 Handsets)	3 (Up to 6 Handsets)	2 (Up to 6 Handsets)
	Number of Phone Lines	1	2	1	1	1
	LCD Language	English / Spanish	English/ Spanish	English/ Spanish	English/ Spanish	English / Spanish
	Link to Cell*7	-	-	-	-	Y (Up to 2-Cell Phone)
Advanced Feature	Call Block *1*5	-	-	Y	Y	Y
	-Registered from Function menu	-	-	Y	Y	Y
	-Registered from Caller list	-	-	Y	Y	Y
	Silent Mode	-	Y	Y	Y	Y
	Talking Phone (Talking Alarm Clock/ Talking Battery Alert)	-	-	Y	Y	Y
	Light-Up Indicator (Ringer / Charge Indicator)	Y (Amber)	Y (Amber)	Y (Amber)	Y (Amber)	Y (Amber)
	Light-up ID*1*2	-	-	-	-	-
	Ringer ID *1*2	-	Y (9-Category Ringer)	Y	Y	Y
	Picture ID	-	-	-	-	-
	Icon Operation (Function menu)	-	Y	-	-	-
	Menu Operation	Y	-	Y	Y	Y
Caller ID	Caller ID*1	Y	Y	Y	Y	Y
Phonebook	Caller ID memory *1	50-Station	50-Station	50-Station	50-Station	50-Station
	Talking Caller ID (Base) *1*2*3	-	-	Y	Y	-
	Talking Caller ID (Handset) *1*2*3	-	-	Y	Y	Y
	Voice Mail *1 & Voice Mail *1 Alert (Light-Up Indicator)	Y (FSK only)	Y	Y	Y	Y
	Handset Phonebook Memory (Name & Number)	50-Station (16 char / 24 digits)	100-Station (16 char / 24 digits)	-	-	-
	Phonebook Copy	Y (H/S-H/S)	Y (B/U-H/S only)	-	-	-
	Shared Phonebook Memory (Name & Number)	-	-	50-Station (16 char / 32 digits)	50-Station (16 char / 32 digits)	50-Station (16 char / 32 digits)
	Chain dial	Y	-	Y	Y	Y
Basic Function Handset	LCD (Handset)	Full Dot Monochrome 3-Line	1.4 inch 103 x 65 pixels 3-Line + Soft Key + Pict	1.4 inch Dot 16 digits x 3-Line	1.4 inch Dot 16 digits x 3-Line	1.4 inch Dot 16 digits x 3-Line
	LCD Backlit Color	Amber	White	White	White	White
	Large Text Display Mode (Multi items/ Single item)*8	-	-	-	-	-
	Lighted Handset Keypad	-	Y	Y	Y	Y
	Ringer Pattern (Tone + Melody)	15 (5+10)	15 (5+10)	7 (3+4)	7 (3+4)	7 (3+4)
	Ringer Volume	6-Step + Off	6-Step + OFF	High / Mid / Low / Off	High / Mid / Low / Off	High / Mid / Low / Off
	Redial Memory (Handset)	5-history (Name*2 & Number)	10-history (Name*6 & No.)	5-history (Name*6 & No.)	5-history (Name*6 & No.)	5-history (Name*6 & No.)
	Auto Redial (Handset)	-	-	-	-	-
	Hold	-	Y	Y	Y	Y
	Mute	Y	Y (Soft Key)	Y (Soft Key)	Y (Soft Key)	Y (Soft Key)
	Flash	Y	Y	Y	Y	Y
	Receiver Volume (Talk Volume)	4-Step	4-Step	3-Step	3-Step	3-Step
	Speakerphone Volume	6-Step	6-Step	6-Step	6-Step	6-Step
	Intercom (Handset to Base)	-	Y	Y	Y	-
	Intercom (Handset to Handset)	Y	Y	Y	Y	Y
	Conference Call with Outside Line	Up to 3-Way (H/S-H/S-LINE)	Up to 3way (L1-L2-H/S or Base, LINE-H/S-Base, H/S-H/S-LINE)	Up to 4way (Base or H/S-H/S-H/S-LINE)	Up to 4way (H/S-H/S-H/S-LINE)	Up to 4way (H/S-H/S-H/S-LINE)*4
	Barge in (Call Share)	-	Y	Y	Y	Y / PSTN Only
	Any Key Answer	Y	Y	Y	Y	Y
	Clock	Y	Y	Y	Y	Y
	Alarm	Y	Y	Y	Y	Y
	Battery	Rechargeable Ni-MH Batteries (AAA x 2)	Rechargeable Ni-MH Batteries (AAA x 2)	Rechargeable Ni-MH Batteries (AAA x 2)	Rechargeable Ni-MH Batteries (AAA x 2)	Rechargeable Ni-MH Batteries (AAA x 2)
	Talk Time	17 hours	12 hours	5 hours	5 hours	5 hours
	Standby Time	7.5 days	6 days	11 days	11 days	11 days
	Charge Time	7 hours	7 hours	7 hours	7 hours	7 hours
	Headset Jack	Y	Y	Y	Y	Y
	Belt clip	Y	Y	Y	Y	Y
	Dual Keypad	-	Y	Y	-	-
	Corded Handset (Power Outage Operation)	-	Y	-	-	-
Basic Function Base	LCD (Base)	-	1.9 inch 103 x 65 pixels 3 Line + SoftKey + Pict	-	-	-
	Base Phonebook Memory (Name & Number)	-	100 Stations (16 char / 24 digits)	-	-	-
	Redial Memory (Base)	-	10-history (Name*7 & No.)	1	-	-
	Auto Redial (Base)	-	-	-	-	-
	Hold	-	Y	Y	-	-
	Mute	-	Soft Key	Y	-	-
	Flash	-	Y	Y	-	-
	Digital Speakerphone	-	Y	Y	-	-
	Speakerphone Volume	-	8-Step	8-Step	-	-
	Speed Dial	-	-	-	-	-
	Handset Locator	Y	Y	Y	Y	Y
	Ringer Pattern (Tone+ Melody)	-	6 (3+3)	1 (1+0)	1 (1+0)	-
	Ringer Volume	-	High / Mid / Low / Off	High / Mid / Low / Off	High / Mid / Low / Off	-
	Wall Mountable	Y (Base Unit only)	Charger only	Y (Optional Adaptor required)	Y	Y
Answering System	Answering System	Y	Y	Y	Y	-
	Total Recording Time (ICM + GM + Memo)	About 16 min.	About 40 min.	About 18 min.	About 18 min.	-
	Massage Alert (Light-Up Indicator)	Y	Y	Y	Y	-
	Choice Mail (Message list)	-	-	-	-	-
	Speaker Volume (Base Unit Speaker)	Off + 8-Step	Off + 8-Step	Off + 8-Step	Off + 8-Step	-
	Memo Recording	-	-	Max. About 3 min.	-	-
	Recording Conversation	-	-	-	-	-
	Remote Operation from Handset	Y	Y	Y	Y	-
	Remote Operation from outside Line (DTMF)	Y	Y	Y	Y	-
	Toll saver	Y	Y	Y	Y	-
	Call screening	Y	Y	Y	Y	-
Optional Handset	Optional Handset	KX-TGA101	KX-TGA939	KX-TGA630 / TGA930 / TGA935	KX-TGA630 / TGA930 / TGA935	KX-TGA930 / TGA935
	Base Dimensions H × W × D (in)	Approx. 2.1 x 4.8 x 5.4	Approx. 5 x 8.5 x 6.1	Approx. 2.8 x 5.9 x 5.4	Approx. 2.5 x 5.5 x 4.7	Approx. 5.3 x 7 x 3
	Handset Dimensions H × W × D (in)	Approx. 6.7 x 1.9 x 1.4	Approx. 6.1 x 1.9 x 1.3	Approx. 6.1 x 1.9 x 1.3	Approx. 6.1 x 1.9 x 1.3	Approx. 6.2 x 1.9 x 1.3
	Charger Dimensions H × W × D (in)	Approx. 2 x 3.2 x 3.6	Approx. 2 x 3.2 x 3.5	Approx. 2 x 3.2 x 3.5	Approx. 2 x 3.2 x 3.5	Approx. 2 x 3.2 x 3.5
	Base Weight (oz)	Approx. 7.8	Approx. 25.4	Approx. 10.2	Approx. 7.7	Approx. 10.2
	Handset Weight with Battery (oz)	Approx. 5.1	Approx. 4.6	Approx. 4.6	Approx. 4.6	Approx. 4.6
	Charger Weight (oz)	Approx. 2.3	Approx. 2.1	Approx. 2.1	Approx. 2.1	Approx. 2.1

ICM = Incoming Message GM = Greeting Message
1: Requires subscription to name-and-Number Caller ID, Call Waiting and/or Voice Mail service.
2: Requires name and/ or picture registration in Phonebook function.
3: Name pronunciation may vary.
4: Optional Handset required.
5: Requires number registration in the block call list.
6: Requires registration in Phonebook function. "Name" is displayed only when calling from the Phonebook or Caller List.
7: Cell phone must have Bluetooth® capability and must be compatible to this cordless phone system.
8: Available when browsing the function menu, the phonebook, the caller list, the redial list, the message list (TAM model) and the call block list.

4-Line Telephone Features

ITS	MODEL >	KX-TS4100	KX-TS4200	KX-TS4300
GENERAL	Expandability	16	16	16
	Number of phone lines	4	4	4
	Language	English/Spanish	English/Spanish	English/Spanish
CALLER ID PHONEBOOK	Call Waiting Caller ID1		•	•
	Caller ID Memory1		200	200
	Phone Book		200	200
	Chain Dial		•	•
	Dialer Storage Capacity (# of digits per station)		24	24
	One Touch Operation	• (32 One Touch buttons) It should be 16 key with Lower Key.	• (32 One Touch buttons) It should be 16 key with Lower Key.	• (32 One Touch buttons) It should be 16 key with Lower Key.
ANSWERING SYSTEM	All-Digital Answering System (/ max min)			• / 60 min.
	Voice Prompts / Time Day Stamp			•
	Pre-Recorded OGM			•
	Call Screening / Intercept			•
	Remote Control from Outside Line (DTMF)			•
	Memo Record			•
BASIC FEATURES	Easy Operation (Menu Driven)	•	•	•
	Voice Mail2 Message-Waiting Indicator		•	•
	Power Outage Operation (Requires Battery)	•	•	•
	Base Unit Dial Keypad	•	•	•
	Speakerphone	•	•	•
	Hold	•	•	•
	Mute	•	•	•
	Flash	•	•	•
	Redial	•	•	•
	Ringer Tone	4-Pattern	4-Pattern	4-Pattern
	Ringer Volume Control	4-Step / OFF	4-Step / OFF	4-Step / OFF
	Talk Volume Control	•	•	•
	Do Not Disturb	•	•	•
	LCD	•	•	•
	Line Status Indicator	•	•	•
	Call Transfer	•	•	•
	Intercom	•	•	•
	Voice Paging	•	•	•
	Multi-Way Conferencing	Up to 3-way	Up to 3-way	Up to 3-way
	Barge In / Privacy	•	•	•
	Programmable Tone / Pulse	•	•	•
	Wall Mountable	•	•	•
	Headset Jack	•	•	•

CORDLESS	MODEL >	KX-TG4500
GENERAL	Color	Black
	Frequency / Technology	5.8 GHz / FHSS Digital
	Channels	TBD
	Multi Handset Capability	8
	Number of phone lines	4
	Language	English / Spanish
ADVANCED FEATURES	Easy Operation (Menu Driven)	•
	Voice Scramble (Digital Security)	•
	Power Outage Operation	20 min.
CALLER ID PHONEBOOK	Call Waiting Caller ID2	•
	Caller ID Memory2	50
	Ringer ID2	•
BASIC FEATURES	Phone Book	100
	Dialer Storage Capacity (# of digits per station)	32
	Speed Dial (Base / Handset)	10 / 10
	Phone Book Sharing4	•
ANSWERING SYSTEM	All-Digital Answering System with Automated Attendant	• / 100 max. min.
	Private Mail Boxes	1 box for each handset (max. 8)
	Different OGM for Each Line	•
	Voice Prompts / Time Day Stamp	•
	Pre-Recorded OGM	•
	Call Screening	•
	Remote Control from Handset	•
	Remote Control from Outside Line (DTMF)	•
	Toll Saver	•
	2-way Recording	•

	MODEL >	KX-TG4500
BASIC FEATURES	Base Unit Dial Keypad	•
	Speakerphone (Base / Handset)	• / •
	Headset Jack (Base)	•
	Hold (Base / Handset)	• / •
	Melody on Hold (User-Recorded Music)	•
	Mute (Base / Handset)	• / •
	Flash (Base / Handset)	• / •
	Redial (Base / Handset)	10 / 10
	Ringer Patterns	4
	Melody Ringer	6
	Ringer Tone (Base / Handset)	• / •
	Ringer Volume Control (Base / Handset)	Off, Low, Mid, Hi / Off, Low, Mid, Hi
	Talk Volume Control (Base / Handset)	Low, Mid, Hi / Low, Mid, Hi
	Speaker Phone Volume (Base / Handset)	8-Step / 8-Step
	LCD (Base Unit)	•
	Line Status Indicator	•
	Handset Locator	•
	Intercom (Handset - Handset)	•
	Intercom (Handset - Base Unit)	•
	Multi-Way Conferencing	Up to 3-way
	Barge In / Privacy	•
	Programmable Tone / Pulse	•
	Wall Mountable (Base / Charger)	- / •

Handset Model Number	For Use with these Panasonic Base Units					
BB-GTA150	BB-GT1500	BB-GT1540				
KX-TGA100N	KX-TG1000N	KX-TG1050N				
KX-TGA101	KX-TG1032	KX-TG1033	KX-TG1034			
KX-TGA106	KX-TG1063					
KX-TGA200B	KX-TG2000B					
KX-TGA230	KX-TG2352W	KX-TG2382B				
KX-TGA270S	KX-TG2700	KX-TG2720	KX-TG2730	KX-TG2740	KX-TG2750	KX-TG2770
	KX-FPG381					
KX-TGA271	KX-TG2700	KX-TG2720	KX-TG2730	KX-TG2740	KX-TG2750	KX-TG2770
	KX-FPG381					
KX-TGA272S	KX-TG2700	KX-TG2720	KX-TG2730	KX-TG2740	KX-TG2750	KX-TG2770
	KX-FPG381					
KX-TGA273S	KX-TG2700	KX-TG2720	KX-TG2730	KX-TG2740	KX-TG2750	KX-TG2770
	KX-FPG381					
KX-TGA290B	KX-TG2970B					
KX-TGA300	KX-TG3021	KX-TG3031	KX-TG3032	KX-TG3033		
KX-TGA400B	KX-TG4000B					
KX-TGA420B	KX-TG4000B					
KX-TGA430B	KX-TG4324B	KX-TG4323B	KX-TG4322B	KX-TG4314B		
KX-TGA450B	KX-TG4500B					
KX-TGA510M	KX-TG5100M	KX-TG5110M				
KX-TGA520M	KX-TG5200M	KX-TG5230M	KX-TG5202M	KX-TG5243M	KX-TG5210M	KX-TG5240M
	KX-TG5212M					
KX-TGA523M	KX-TG5200M	KX-TG5230M	KX-TG5202M	KX-TG5243M	KX-TG5210M	KX-TG5240M
	KX-TG5212M					
KX-TGA550M	KX-TG5561M	KX-TG5571M	KX-TG5583M	KX-TG5566M	KX-TG5576M	
KX-TGA551M	KX-TG5561M	KX-TG5571M	KX-TG5583M	KX-TG5566M	KX-TG5576M	
KX-TGA552M	KX-TG5561M	KX-TG5571M	KX-TG5583M	KX-TG5566M	KX-TG5576M	
KX-TGA560	KX-TG5622M	KX-TG5652M	KX-TG5672B	KX-TG5632M	KX-TG5633B	
KX-TGA570S	KX-TG5761S	KX-TG5771S	KX-TG5776S	KX-TG5777		
KX-TGA571S	KX-TG5761S	KX-TG5771S	KX-TG5776S	KX-TG5777		
KX-TGA572S	KX-TG5761S	KX-TG5771S	KX-TG5776S	KX-TG5777		
KX-TGA573S	KX-TG5761S	KX-TG5771S	KX-TG5776S	KX-TG5777		
KX-TGA575S	KX-TG5761S	KX-TG5771S	KX-TG5776S	KX-TG5777		
KX-TGA600	KX-TG6021	KX-TG6023	KX-TG6052	KX-TG6071	KX-TG6073	KX-TG6022
	KX-TG6051	KX-TG6053	KX-TG6072			
KX-TGA630	KX-TG9348T	KX-TG9344T	KX-TG9343T/S	KX-TG9342T	KX-TG9341T	KX-TG9334T
	KX-TG9333T	KX-TG9332T/S	KX-TG9331T	KX-TG9372B	KX-TG9371B	KX-TG9361B
	KX-TG6313S	KX-TG6312S	KX-TG6311S			
KX-TGA641	KX-TG7434	KX-TG6445	KX-TG6434	KX-TG6423	KX-TG6413	
KX-TGA650B	KX-TG6500B	KX-TG6502B	KX-FG6550			
KX-TGA740	KX-TG7434	KX-TG6445	KX-TG6434	KX-TG6423	KX-TG6413	
KX-TGA820B	KX-TG8232B	KX-TG8231B				
KX-TGA930	KX-TH1201B	KX-TH1211B	KX-TH1212B	KX-TG9348T	KX-TG9344T	KX-TG9343T/S
	KX-TG9342T	KX-TG9341T	KX-TG9334T	KX-TG9333T	KX-TG9332T/S	KX-TG9331T
	KX-TG9372B	KX-TG9371B	KX-TG9361B	KX-TG6313S	KX-TG6312S	KX-TG6311S
KX-TGA935	KX-TH1201B	KX-TH1211B	KX-TH1212B	KX-TG9348T	KX-TG9344T	KX-TG9343T/S
	KX-TG9342T	KX-TG9341T	KX-TG9334T	KX-TG9333T	KX-TG9332T/S	KX-TG9331T
	KX-TG9372B	KX-TG9371B	KX-TG9361B	KX-TG6313S	KX-TG6312S	KX-TG6311S
KX-TGA939	KX-TG9392					

Residential IP Network Camera Features

	Model >	BL-C121A	BL-C101A	BL-C131A	BL-C111A	BL-C160A	BL-C140A	BL-C1A
Server	Image Compression	JPEG (Motion JPEG for moving image display), MPEG-4	JPEG (Motion JPEG for moving image display), MPEG-4	JPEG (Motion JPEG for moving image display), MPEG4	JPEG (Motion JPEG for moving image display), MPEG4	JPEG (Motion JPEG for moving image display), MPEG-4	JPEG (Motion JPEG for moving image display), MPEG-4	JPEG (Motion JPEG for moving image display)
	Video Resolution	640 x 480, 320 x 240 (default), 192×144	640 x 480, 320 x 240 (default), 192×144	640 x 480, 320 x 240 (default), 192 x 144	640 x 480, 320 x 240 (default), 192 x 144	640 x 480, 320 x 240 (default), 192 x 144	640 x 480, 320 x 240 (default), 192 x 144	640 x 480, 320 x 240(default), 160 x 120
	Image Quality	JPEG (favor clarity, standard, favor motion), MPEG-4	JPEG (favor clarity, standard, favor motion), MPEG-4	JPEG (favor clarity, standard, favor motion), MPEG4	JPEG (favor clarity, standard, favor motion), MPEG4	JPEG (favor clarity, standard, favor motion), MPEG4	JPEG (favor clarity, standard, favor motion), MPEG4	3 modes (favor clarity, standard, favor motion)
	Frame Rate[1]	Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144) (AC Power source Frequency is 60 Hz)	Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144) (AC Power source Frequency is 60 Hz) Max. 25 frames/sec. (640 x 480[2], 320 x 240, 192 x 144) (AC Power source Frequency is 50 Hz)	Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144)	Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144)	Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144)	Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144)	Max. 7.5 frames/sec. (640 x 480[2]) Max. 15 frames/sec (320 x 240, 160 x 120)
	Security	User ID / Password, SSL	User ID / Password, SSL	User ID/password	User ID/password	User ID/Password, HTTPS	User ID/Password, HTTPS	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[3], RTCP, HTTPS, SSL, TLS IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NDP, NTP, RTP, RTSP[3], RTCP, HTTPS, SSL, TLS	IPv4/IPv6 Dual-Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP, HTTPS, SSL, TLS IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NDP, NTP, RTP, RTSP[3], RTCP, HTTPS, SSL, TLS	IPv4 / IPv6 Dual-Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP,[3] RTCP IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NDP, NTP, RTP, RTSP[3], RTCP	IPv4 / IPv6 Dual-Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NDP, NTP, RTP, RTSP[3], RTCP	IPv4 / IPv6 Dual- Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP, HTTPS, SSL, TLS IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP, HTTPS, SSL, TLS	IPv4 / IPv6 Dual- Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP, HTTPS, SSL, TLS IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP, HTTPS, SSL, TLS	TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™
	User Access Limit	Max. 30 simultaneous users (Max. 10 users in SSL communication)	Max. 30 simultaneous users (Max. 10 users in SSL communication)	Max. 30 simultaneous accesses	Max. 30 simultaneous accesses	Max. 30 simultaneous access (Max. 10 access in HTTPS communication)	Max. 30 simultaneous access (Max. 10 access in HTTPS communication)	Max. 20 simultaneous accesses
	Buffered Images[4]	Approx. 250 images (320 x 240) • standard image quality • with time display	Approx. 250 images (320 x 240) • standard image quality • with time display	Approx. 250 images (320 x 240) • standard image quality • with time display	Approx. 250 images (320 x 240) • standard image quality • with time display	Approx. 250 images (320 x 240) • standard image quality • with time display	Approx. 250 images (320 x 240) • standard image quality • with time display	Approx. 250 images (320 x 240) • standard image quality • with time display
	Image Transfer Method	SMTP[5], FTP, HTTP	SMTP[5], FTP, HTTP	SMTP[5], FTP, HTTP	SMTP[5], FTP, HTTP	SMTP[5], FTP, HTTP	SMTP[5], FTP, HTTP	SMTP[5], FTP
	Image Buffer / Transfer Triggers	Alarm, Timer or Motion Detection	Alarm, Timer or Motion Detection	Timer, Sensor, Motion Detection	Timer, Sensor, Motion Detection	Timer, Sensor, Motion Detection	Timer, Sensor, Motion Detection	Alarm or Motion Detection
Network Camera	Zoom	10x digital zoom (by area)	10x digital zoom (by area)	10x digital zoom (by area)	10x digital zoom (by area)	10x digital zoom (by area)	10x digital zoom (by area)	10x digital zoom (by area)
	Viewing Angle	58°horizontal, 45°vertical	58°horizontal, 45°vertical	Horizontal: 49° (total 149°), Vertical: 37° (total 87°)	Horizontal: 49° (total 149°), Vertical: 37° (total 87°)	Horizontal: 58°, Vertical: 45°	Horizontal: 58°, Vertical: 45°	Horizontal: 53°, Vertical: 41°
	Pan (Horizontal direction)	-	-	–50° up to +50°	–50° up to +50°	-	-	-
	Tilt (Vertical direction)	-	-	–40° up to +10°	–40° up to +10°	-	-	-
	Revolving Speed	-	-	Pan: max. 50°/sec Tilt: max. 50°/sec	Pan: max. 50°/sec Tilt: max. 50°/sec	-	-	-
	Sensor Type	1/4 inch CMOS sensor, approx. 320,000 pixels	1/4 inch CMOS sensor, approx. 320,000 pixels	1/6 inch CMOS sensor, approx. 320,000 pixels	1/6 inch CMOS sensor, approx. 320,000 pixels	1/4 inch CMOS sensor, approx. 320,000 pixels	1/4 inch CMOS sensor, approx. 320,000 pixels	1/4 inch CMOS sensor, approx. 320,000 pixels
	Lens Focal Point	Fixed (focal range: 0.3 m to ∞)	Fixed (focal range: 0.3 m to ∞)	Fixed (focal range: 0.3m to ∞)	Fixed (focal range: 0.3m to ∞)	Fixed (focal range: 0.3 m to ∞)	Fixed (focal range: 0.3 m to ∞)	Fixed (focal range: 0.3m to ∞)
	Lens Brightness	F2.8	F2.8	F2.8	F2.8	F2.8	F2.8	F2.8
	Required Light Intensity	5 to 10,000 lux (3 to 10,000 lx in color night view mode)	5 to 10,000 lux (3 to 10,000 lx in color night view mode)	10 to 10,000 lux (in color night view mode: 3 to 10,000 lux)	10 to 10,000 lux (in color night view mode: 3 to 10,000 lux)	5 to 10,000 lux (in color night view mode: 3 to 10,000 lux)	5 to 10,000 lux (in color night view mode: 3 to 10,000 lux)	10 to 10,000 lux (in color night view mode: 4 to 10,000 lux)
Audio	Audio Communication	One-way communication	One-way communication	Half-duplex one-way communication (transceiver system)	Half-duplex one-way communication (transceiver system)	-	-	-
	Audio Compression	ADPCM 32 kbps	ADPCM 32 kbps	ADPCM 32 kbps	ADPCM 32 kbps	-	-	-
	Audio Bandwidth	300 Hz – 3,400 Hz	300 Hz – 3,400 Hz	300 Hz-3.4 kHz	300 Hz-3.4 kHz	-	-	-
	Audio Input	Built-in microphone	Built-in microphone	Built-in microphone	Built-in microphone	-	-	-
	Audio Output	-	-	-	-	-	-	-
Wireless	Standards	IEEE 802.11b, 802.11b/g, 802.11g exclusive	-	IEEE 802.11b/g	-	-	-	-
	Antenna	Diversity	-	Diversity	-	-	-	-
	Number of Channels	BL-C121A: 11ch (1-11) BL-C121CE/E: 13ch (1-13)	-	11ch.	-	-	-	-
	Transmission Speed	Up to 54 Mbps	-	Up to 54 Mbps	-	-	-	-
	Security	SSID, WEP (64/128/152 bit), WPA-PSK (TKIP), WPA2-PSK (AES)	-	SSID, WEP (64/128/152 bit), WPA-PSK (TKIP), WPA2-PSK (AES)	-	-	-	-
Terminal	Network Interface	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)
	External I/O Connector	Input: 1 Output: 1	Input: 1	-	-	-	-	-
	Video Output15			-	-	-	-	-
	Audio Output15			-	-	-	-	-
	External Microphone Input			-	-	-	-	-
	SD Memory Card Slot			-	-	-	-	-
General	Operating Temperature	+41°F to +104°F (+5°C to +40°C)	+41°F to +104°F (+5°C to +40°C)	+41°F to +104°F (+5°C to +40°C)	+41°F to +104°F (+5°C to +40°C)	-4 °F to +122 °F (-20 °C to +50 °C)	-4 °F to +122 °F (-20 °C to +50 °C)	+41°F to +104°F (+5°C to +40°C)
	Operating Humidity	20% to 80% (No condensation)	20% to 80% (No condensation)	20% to 80% (No condensation)	20% to 80% (No condensation)	20% to 90% (No condensation)	20% to 90% (No condensation)	20% to 80% (No condensation)
	Dimensions H x W x D (mm)	3-3/8 x 3-3/8 x 1-3/8" (85 x 85 x 35.5 mm)	3-3/8 x 3-3/8 x 1-1/16" (85 x 85 x 27 mm)	3-7/8 x 2-15/16 x 2-7/8" (98 x 74 x 73 mm)	3-7/8 x 2-15/16 x 2-7/8" (98 x 74 x 73 mm)	3-7/8 x 2-15/16 x 2-7/8" (98 x 74 x 73 mm)	5-13/16 x 4-1/4 x 2-1/2" (148 x 108 x 64 mm)	3-3/8 x 3-3/8 x 1" (85 x 85 x 25 mm)
	Weight (only the unit)	0.31lb. (140 g)	0.22 lb. (100 g)	0.46 lb. (210 g)	0.4 lb. (180 g)	1.09 lb. (495 g)	0.62 lb. (280 g)	0.22 lb. (100 g)
	Power Supply (US)	AC adaptor: input 100 - 240 V AC, 50/60 Hz Output 9V DC, 750 mA	AC adaptor: input 100 - 240 V AC, 50/60 Hz Output 9V DC, 750 mA	Input: 100 - 240 V AC Output: 9 V DC	Input: 100 - 240 V AC Output: 9 V DC	Input: 120 V AC Output: 9 V DC	Input: 120 V AC Output: 9 V DC	Input: 120 V AC Output: 9 V DC
	Consmption (US)	6.8 W (During wireless communication)	2.8 W	6.0 W	4.0 W	3.2 W (8.1 W when Light is on)	3.2 W	1.7 W

1: The frame rate may slow down depending on the network environment, PC performance, image quality, when viewing dark images, etc.

2: For MPEG-4 only. Not applicable to JPEG. When viewing images at 1280 x 1024 resolution, frame rate is reduced to 7.5 fps for all users, regardless of the resolution they are using to view images.

3: Only still images in JPEG format can be displayed on a mobile phone.

4: The maximum number of images that can be buffered depends on image resolution and image quality.

5: POP Before SMTP Authentication and SMTP Authentication (PLAIN, LOGIN, and CRAM-MD5) are supported.

For information about MPEG-4 image capacity, see the Panasonic Network Camera website at http://panasonic.net/pcc support/netwkcam/support/info.html.

Business IP Network Camera Features

	Model >	BB-HCM581A BB-HCM580A	BB-HCM515A	BB-HCM531A	BB-HCM511A	BB-HCM547A	BB-HCM527A	BB-HCM371A	BB-HCM403A
Server	**Image Compression**	JPEG (3 levels), MPEG4	JPEG (3 levels), MPEG4	JPEG (3 levels), MPEG4	JPEG (3 levels), MPEG4	JPEG (Motion JPEG for moving image display), MPEG-4	JPEG (Motion JPEG for moving image display), MPEG-4	JPEG (Motion JPEG for moving image display)	JPEG (Motion JPEG for moving image display)
	Video Resolution	640 x 480, 320 x 240 (default), 192 x 144	1280 x 1024, 640 x 480, 320 x 240 (default),192 x 144	640 x 480, 320 x 240 (default), 192 x 144	640 x 480, 320 x 240 (default), 192 x 144	640 x 480, 320 x 240 (default), 192 x 144	640 x 480, 320 x 240 (default), 192 x 144	640 x 480, 320 x 240 (default), 160 x 120	640 x 480, 320 x 240 (default), 160 x 120
	Image Quality	JPEG (favor clarity, standard, favor motion), MPEG4	JPEG (favor clarity, standard, favor motion), MPEG4	JPEG (favor clarity, standard, favor motion), MPEG4	JPEG (favor clarity, standard, favor motion), MPEG4	JPEG (favor clarity, standard, favor motion), MPEG4	JPEG (favor clarity, standard, favor motion), MPEG4	JPEG (favor clarity, standard, favor motion)	JPEG (favor clarity, standard, favor motion)
	Frame Rate[1]	Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144)	Max. 7 frames/sec. (1280 x 1024[4]) Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144)	Max. 7 frames/sec. (1280 x 1024[4]) Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144)	Max. 7 frames/sec. (1280 x 1024[2]) Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144)	Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144)	Max. 30 frames/sec. (640 x 480[2], 320 x 240, 192 x 144)	Max. 12 frames/sec. (640 x 480[2]) Max. 30 frames/sec. (320 x 240, 160 x 120)	Max. 12 frames/sec. (640 x 480[2]) Max. 30 frames/sec. (320 x 240, 160 x 120)
	Security	User ID/Password	User ID/Password	User ID/Password	User ID/Password	User ID / Password, SSL	User ID / Password, SSL	User ID/Password/Ipsec	User ID/Password/Ipsec
	Supported Protocols	IPv4 / IPv6 Dual-Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NDP, NTP, RTP, RTSP[3], RTCP	IPv4 / IPv6 Dual-Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NDP, NTP, RTP, RTSP[3], RTCP	IPv4 / IPv6 Dual-Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NDP, NTP, RTP, RTSP[3], RTCP	IPv4 / IPv6 Dual-Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NDP, NTP, RTP, RTSP[3], RTCP	IPv4/IPv6 Dual-Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP, HTTPS, SSL, TLS / IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NDP, NTP, RTP, RTSP[3], RTCP, HTTPS, SSL, TLS	IPv4/IPv6 Dual-Stack IPv4: TCP, UDP, IP, HTTP, FTP, SMTP, DHCP, DNS, ARP, ICMP, POP3, NTP, UPnP™, SMTP Authentication, RTP, RTSP[3], RTCP, HTTPS, SSL, TLS / IPv6: TCP, UDP, IP, HTTP, FTP, SMTP, DNS, ICMPv6, POP3, NDP, NTP, RTP, RTSP[3], RTCP, HTTPS, SSL, TLS	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	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 simultaneous accesses (max. 10 accesses with voice reception)	Max. 30 simultaneous accesses (max. 10 accesses with voice reception	Max. 30 simultaneous accesses (max. 10 accesses with voice reception	Max. 30 simultaneous accesses (max. 10 accesses with voice reception	Max. 30 simultaneous accesses (Max. 10 accesses with SSL communication)	Max. 30 simultaneous accesses (Max. 10 accesses with SSL communication)	Max. 30 simultaneous accesses (max. 10 accesses with voice reception	Max. 30 simultaneous accesses (max. 10 accesses with voice reception
	Buffered Images	Approx 350 images (320 x 240) • standard image quality • with time display • without using SD Memory Card	Approx 350 images (320 x 240) • standard image quality • with time display • without using SD Memory Card	Approx 350 images (320 x 240) • standard image quality • with time display • without using SD Memory Card	Approx 350 images (320 x 240) • standard image quality • with time display • without using SD Memory Card	Approx. 970 images (320 x 240) • standard image quality (16KB per image) • with time display • without SD/SDHC Memory Card	Approx. 970 images (320 x 240) • standard image quality (16KB per image) • with time display • without SD/SDHC Memory Card	Approx 125 images (320 x 240) • standard image quality • with time display • without using SD Memory Card	Approx 125 images (320 x 240) • standard image quality • with time display • without using SD Memory Card
	Image Transfer Method	SMTP[5], FTP, HTTP	SMTP[5], FTP, HTTP	SMTP[5], FTP, HTTP	SMTP[5], FTP, HTTP	SMTP[5], FTP, HTTP	SMTP[5], FTP, HTTP	SMTP[5], FTP	SMTP[5], FTP
	Image Buffer / Transfer Triggers	Alarm, timer or motion detection	Alarm, timer or motion detection	Alarm, timer or motion detection	Alarm, timer or motion detection	Alarm, timer or motion detection	Alarm, timer or motion detection	Alarm, timer or motion detection	Alarm, timer or motion detection
Network Camera	**Zoom**	42x zoom (21x optical, 2x digital)	10x digital zoom (by area)	10x digital zoom (by area)	10x digital zoom (by area)	4.6x zoom (2.3x optical, 2x digital)	4.6x zoom (2.3x optical, 2x digital)	10x digital zoom (by area)	10x digital zoom (by area)
	Pan (Horizontal direction)	–175° up to +175°	–60° to +60°	–60° to +60°	–60° to +60°	-175°up to +175°	-175°up to +175°	–60° to +60°	-
	Tilt (Vertical direction)	–120° up to 0° (on a table), 0° up to +90° (on a ceiling)	–45° up to +20°	–45° up to +20°	–45° up to +20°	0°up to 82°	0°up to 82°	–45° up to +20°	0° up to +65° (administrator only)
	Sensor Type	1/4" CCD sensor, approx. 320,000 pixels	1/4" CMOS sensor, approx. 1,300,000 pixels	1/4" CCD sensor, approx. 320,000 pixels	1/4" CCD sensor, approx. 320,000 pixels	1/3.6" MOS[1] sensor, approx. 370,000 pixels	1/3.6" MOS[1] sensor, approx. 370,000 pixels	1/4" CCD sensor, approx. 320,000 pixels	1/4" CCD sensor, approx. 320,000 pixels
	Lens Focal Point	Auto/Manual (40 steps)	Fixed (focal range: 0.5 m to ∞)	Fixed (focal range: 0.5 m to ∞)	Fixed (focal range: 0.5 m to ∞)	Fixed (focal range: 0.75 m to ∞)	Fixed (focal range: 0.75 m to ∞)	Fixed (focal range: 0.5 m to ∞)	Fixed (focal range: 0.5 m to ∞)
	Lens Brightness	F1.6 (Wide) 3.6 (Tele)	F2.8	F2.8	F2.8	F1.9 (wide) - F2.8 (tele)	F1.9 (wide) - F2.8 (tele)	F3.5	F3.5
	Required Light Intensity	2 to 100,000 lux (in Color Night View Mode: 0.09 to 100,000 lux)	At 640 x 480: 10 to 100,000 lux (in Color Night View Mode: 5 to 100,000 lux) At 1280 x 1024: 7 to 100,000 lux (in Color Night View Mode: 3 to 100,000 lux)	2 to 100,000 lux (in Color Night View Mode: 0.2 to 100,000 lux)	2 to 100,000 lux (in Color Night View Mode: 0.2 to 100,000 lux)	2 to 100,000 lux (in Color Night View Mode: 0.2 to 100,000 lux)	2 to 100,000 lux (in Color Night View Mode: 0.2 to 100,000 lux)	3 to 100,000 lux (in Color Night View Mode: 0.2 to 100,000 lux)	3 to 100,000 lux (in Color Night View Mode: 0.2 to 100,000 lux)
Audio	**Audio Communication**	2-Way half duplex	2-Way half duplex	2-Way half duplex	2-Way half duplex	2-Way half duplex	2-Way half duplex	2-Way half duplex	2-Way half duplex
	Audio Compression	ADPCM 32 kbps	ADPCM 32 kbps	ADPCM 32 kbps	ADPCM 32 kbps	ADPCM 32 kbps	ADPCM 32 kbps	ADPCM 32 kbps	ADPCM 32 kbps
	Audio Bandwidth	300 Hz - 3.4 kHz	300 Hz - 3.4 kHz	300 Hz - 3.4 kHz	300 Hz - 3.4 kHz	300 Hz - 3.4 kHz	300 Hz - 3.4 kHz	300 Hz - 3.4 kHz	300 Hz - 3.4 kHz
	Audio Input	External microphone input terminal	Built-in microphone or external microphone input terminal	Built-in microphone or external microphone input terminal	Built-in microphone or external microphone input terminal	Built-in microphone or external microphone input terminal	Built-in microphone or external microphone input terminal	Built-in microphone or external microphone input terminal	Built-in microphone or external microphone input terminal
	Audio Output	Audio line output terminal for external speaker	Audio line output terminal for external speaker	Audio line output terminal for external speaker	Audio line output terminal for external speaker	Audio line output terminal for external speaker	Audio line output terminal for external speaker	Audio line output terminal for external speaker	Audio line output terminal for external speaker
Wireless	**Standards**	-	-	-	-	-	-	IEEE802.11b/g	-
	Antenna	-	-	-	-	-	-	Diversity	-
	Number of Channels	-	-	-	-	-	-	11 ch.	-
	Transmission Speed	-	-	-	-	-	-	Up to 54 Mbps.	-
	Security	-	-	-	-	-	-	WEP 64/128/152 bit	-
Terminal	**Network Interface**	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)	Ethernet (10Base-T/100Base-TX)
	External I/O Connector	Input: 2, Output: 1	Input: 2, Output: 1	Input: 2, Output: 1	Input: 2, Output: 1	Input: 2, Output: 1	Input: 2, Output: 1	Input: 2, Output: 1	Input: 2, Output: 1
	Video Output*8	Analog composite (NTSC/PAL)	Analog composite (NTSC/PAL)	Analog composite (NTSC/PAL)	Analog composite (NTSC/PAL)	Analog composite (NTSC/PAL)	Analog composite (NTSC/PAL)	-	-
	Audio Output*8	3.5 mm stereo mini jack (output is mono)	3.5 mm stereo mini jack (output is mono)	3.5 mm stereo mini jack (output is mono)	3.5 mm stereo mini jack (output is mono)	3.5 mm stereo mini jack (output is mono)	3.5 mm stereo mini jack (output is mono)	3.5 mm stereo mini jack (output is mono)	3.5 mm stereo mini jack (output is mono)
	External Microphone Input	3.5 mm mini jack	3.5 mm mini jack	3.5 mm mini jack	3.5 mm mini jack	3.5 mm mini jack	3.5 mm mini jack	3.5 mm mini jack	3.5 mm mini jack
	SD Memory Card Slot	Full size (operation guaranteed for 2GB, 1GB, 512MB, 256MB, 128MB and 64MB SD Memory Cards	Full size (operation guaranteed for 2GB, 1GB, 512MB, 256MB, 128MB and 64MB SD Memory Cards	Full size (operation guaranteed for 2GB, 1GB, 512MB, 256MB, 128MB and 64MB SD Memory Cards	Full size (operation guaranteed for 2GB, 1GB, 512MB, 256MB, 128MB and 64MB SD Memory Cards)	Full size (operation guaranteed for 8 GB and 4 GB SDHC Memory Cards, for 2 GB, 1 GB, 512 MB, 256 MB, 128 MB and 64 MB SD Memory Cards)	Full size (operation guaranteed for 8 GB and 4 GB SDHC Memory Cards, for 2 GB, 1 GB, 512 MB, 256 MB, 128 MB and 64 MB SD Memory Cards)	Full size (operation guaranteed for 2GB, 1GB, 512MB, 256MB, 128MB and 64MB SD Memory Cards	Full size (operation guaranteed for 2GB, 1GB, 512MB, 256MB, 128MB and 64MB SD Memory Cards)
General	**Operating Temperature**	+32°F to +104°F (0°C to +40°C)	+32°F to +104°F (0°C to +40°C)	+32°F to +122°F (–20°C to +50°C)	+32°F to +104°F (0°C to +40°C)	-4°F to +122°F (-20°C to +50°C)	+32°F to +104°F (0°C to +40°C)	–4°F to 122°F (–20°C to +50°C)	+32°F to 104°F (0°C to +40°C)
	Operating Humidity	20% to 80% (No Condensation)	20% to 80% (No Condensation)	20% to 90% (No Condensation)	20% to 80% (No Condensation)	20% to 90% (No Condensation)	20% to 80% (No Condensation)	20% to 90% (No condensation))	20% to 80% (No condensation)
	Dimensions H x W x D (mm)	5-1/2 x 4-13/16 x 4-13/16" (140 x 123 x 123 mm)	3-15/16 x 3-5/16 x 2-15/16" (100 x 100 x 74 mm)	3-15/16 x 3-5/16 x 2-15/16" (100 x 100 x 74 mm)	3-15/16 x 3-5/16 x 2-15/16" (100 x 100 x 74 mm)	6 x 4-1/2 x 6" (153 x 115 x 153 mm)	6 x 4-1/2 x 6" (153 x 115 x 153 mm)	3-15/16 x 3-15/16 x 3-1/8" (100 x 100 x 80 mm)	3-13/16 x 4-13/16 x 4-13/16" (97.5 x 123 x 123 mm)
	Weight (only the unit)	581A: 1.43 lb. (650 g) 580A: 1.41 lb. (640 g)	0.71 lb. (320 g)	0.74 lb. (335 g)	0.73 lb. (330 g)	1.52 lb. (690 g)	1.48 lb. (670 g)	0.78 lb. (350 g)	0.73 lb. (330 g)
	Power Supply (US)	PoE[7]: 48 V, IEEE 802.3af-compliant Power over Ethernet AC adaptor: Input 120 V AC / Output 12 V DC (Option)	PoE: 48 V, IEEE 802.3af-compliant Power over Ethernet AC adaptor: Input 120 V AC / Output 12 V DC (Option)	PoE: 48 V, IEEE 802.3af-compliant Power over Ethernet AC adaptor: Input 120 V AC / Output 12 V DC (Option)	PoE: 48 V, IEEE 802.3af-compliant Power over Ethernet AC adaptor: Input 120 V AC / Output 12 V DC (Option)	PoE: 48 V, IEEE 802.3af-2003 AC adaptor (option): input 100 - 240 V AC, 50/60 Hz Output 12 V DC, 750 mA	PoE: 48 V, IEEE 802.3af-2003 AC adaptor (option): input 100 - 240 V AC, 50/60 Hz Output 12 V DC, 750 mA	AC adaptor: Input 120 V AC Output 12 V DC	PoE: 48 V, IEEE 802.3af-compliant Power over Ethernet AC adaptor: Input 120 V AC / Output 12 V DC (Option)
	Consumption (US)	PoE[7]: approx. 9 W AC adaptor: 10.5 W	PoE: approx. 7 W AC adaptor: 7 W	PoE: approx. 6.5 W AC adaptor: 7 W	PoE: approx. 6.5 W AC adaptor: 7 W	PoE: 4.4 W (7.9 W during pan/tilt scan) AC adaptor: 4.4 W (8.5 W during pan/tilt scan)	PoE: 4.4 W (7.9 W during pan/tilt scan) AC adaptor: 4.4 W (8.5 W during pan/tilt scan)	AC adaptor: 10 W	PoE: 5.5 W AC adaptor: 5.8 W

1: The frame rate may slow down depending on the network environment, PC performance, image quality, when viewing dark images, etc.

2: For MPEG-4 only. Not applicable to JPEG. When viewing images at 1280 x 1024 resolution, frame rate is reduced to 7.5 fps for all users, regardless of the resolution they are using to view images.

3: Only still images in JPEG format can be displayed on a mobile phone.

4: The maximum number of images that can be buffered depends on image resolution and image quality.

5: POP Before SMTP Authentication and SMTP Authentication (PLAIN, LOGIN, and CRAM-MD5) are supported.

For information about MPEG-4 image capacity, see the Panasonic Network Camera website at http://panasonic.net/pcc support/netwkcam/support/info.html.

Cordless Phone Batteries

Battery Model Number	For Use with these Panasonic Base Units					
P-P201PA	KX-T3000					
P-P202PA	KX-T4000					
P-P301A	KXT-3807	KX-TCM424	KX-T3850	KX-T3945	KX-TC150	KX-T4342
	KXT-3823	KX-TCM440	KX-T3855	KX-T3950	KX-TC155	KX-T4350
	KXT-3824	KX-T3610	KX-T3860	KX-T3960	KX-TC157	KX-T4360
	KXT-3832	KX-T3620	KX-T3870	KX-T3962	KX-TC162	KX-T4365
	KXTC-185	KX-T3640	KX-T3875	KX-T3965	KX-TC170	KX-T4370
	KXTC-187	KX-T3702	KX-T3908	KX-T3967	KX-TC180	KX-T4400
	KXTCC-106	KX-T3705	KX-T3910	KX-T3968	KX-TC190	KX-T4410
	KXTCC-116	KX-T3710	KX-T3912	KX-T3980	KX-TC280	KX-T4500
	KX-TCM410	KX-T3712	KX-T3920	KX-T4108	KX-TC289	KX-T4550
	KX-TCM412	KX-T3720	KX-T3925	KX-T4109	KX-T4200	KX-T4600
	KX-TCM415	KX-T3725	KX-T3930	KX-T4168	KX-T4300	
	KX-TCM418	KX-T3730	KX-T3932	KX-T4169	KX-T4310	
	KX-TCM420	KX-T3732	KX-T3935	KX-TC100	KX-T4330	
	KX-TCM422	KX-T3848	KX-T3940	KX-TC109	KX-T4340	
P-P302PA	Fits many Cobra, General Electric, and Sanyo Cordless Phones					
P-P303PA	Fits many ATT, General Electric, Phonemate and Sharp Cordless Phones					
P-P304PA	Fits many Bell South and South Western Bell Cordless Phones					
P-P305A	KX-TC1000	KX-TC1001	KX-TC1040			
P-P507A	KX-TG2000	KX-TG4000				
P-P508A	KX-TC1801	KX-TC1831	KX-TC1861	KX-TC1871	KX-TC1891	KX-TC1868
	KX-TC1811	KX-TC1851	KX-TC1866	KX-TC1886	KX-TC1881	
P-P510A	KX-TG2401	KX-TG2451	KX-TG2503	KX-TG2553	KX-TG2563	KX-TG2583
	KX-TG2403	KX-TG2481	KX-TG2551	KX-TG2562	KX-TG2564	KX-TG2584
	KX-TG2593					
P-P543PA	KX-TC905	KX-T9500	KX-T9509	KX-T9550		
	KX-TC930	KX-T9505	KX-T9520			
P-P592A	KX-TC914	KX-TCC912	KX-TCS970	KX-TC900B	KX-TC909	KX-TC910
	KX-TCC902	KX-CC942	KX-TC900	KX-TC900W	KX-TC910	KX-TC919
HHR-P103A	KX-TGA271	KX-TGA272	KX-TG2352	KX-TG2382	KX-TG2383	KX-TGA230
HHR-P104A	KX-TG2302	KX-TG2356	KX-TG5230	KX-TG5480	KX-TG5633	KX-TGA520
	KX-TG2312	KX-TG2357	KX-TG5240	KX-TG5561	KX-TG5634	KX-TGA523
	KX-TG2313	KX-TG2386	KX-TG5243	KX-TG5566	KX-TG5651	KX-TG6500
	KX-TG2314	KX-TG2388	KX-TG5421	KX-TG5571	KX-TG5652	KX-TG6502
	KX-TG2322	KX-TG2480	KX-TG5422	KX-TG5576	KX-TG5653	KX-TGA650
	KX-TG2335	KX-TG5050	KX-TG5423	KX-TG5583	KX-TG5664	KX-TG4500
	KX-TG2336	KX-TG5055	KX-TG5431	KX-TG5621	KX-TG5671	KX-TGA450
	KX-TG2343	KX-TG5200	KX-TG5432	KX-TG5622	KX-TG5672	KX-TH111
	KX-TG2344	KX-TG5202	KX-TG5433	KX-TG5623	KX-TG5673	KX-TH112
	KX-TG2346	KX-TG5210	KX-TG5451	KX-TG5631	KX-TGA450	KX-THA19
	KX-TG2355	KX-TG5212	KX-TG5452	KX-TG5632	KX-TG4500	
HHR-P105A	KX-TG2420	KX-TG2422	KX-TG2432	KX-TG5776	KX-TGA572	KX-TG5779
	KX-TG2620	KX-TG2622	KX-TG2632	KX-TG5777	KX-TG6700	
	KX-TG2421	KX-TG2431	KX-TG5761	KX-TGA570	KX-TG6702	
	KX-TG2621	KX-TG2631	KX-TG5771	KX-TGA571	KX-TGA670	
HHH-P107A	KX-TG3021	KX-TG3032	KX-TG6021	KX-TG6051	KX-TG6054	KX-TG6073
	KX-TGA301	KX-TG3033	KX-TG6022	KX-TG6052	KX-TG6071	KX-TG6074
	KX-TG3031	KX-TG3034	KX-TG6023	KX-TG6053	KX-TG6072	KX-TGA601
HHR-P401A	KX-TG2397	KX-TG2400	KX-TG2500	KX-TG2550	KX-TG2560	KX-TG2570
HHR-P402A	KX-TG2205	KX-TG2227	KX-TG2247	KX-TG2720	KX-TG2770	KX-TG5100
replaces	KX-TG2215	KX-TG2236	KX-TG2257	KX-TG2730	KX-TGA270	KX-TG5110
P-P511A	KX-TG2217	KX-TG2237	KX-TG2267	KX-TG2740	KX-TGA273	KX-TGA510
	KX-TG2219	KX-TG2239	KX-TG2700	KX-TG2750	KX-TG2970B	KX-TGA290B
HHR-P501A	KXT-3825	KX-TC934	KX-TC1403	KX-TC1481	KX-TC1710	KX-TC1741
replaces	KXT-3835	KX-TC935	KX-TC1410	KX-TC1484	KX-TC1711	KX-TC1742
P-P501PA	KXT-3845	KX-TCM939	KX-TC1430	KX-TC1500	KX-TC1713	KX-TC1743
P-P504PA	KXT-3900	KX-TCM943	KX-TC1431	KX-TC1501	KX-TC1720	KX-TC1750
	KX-TC901	KX-TCM944	KX-TC1447	KX-TC1503	KX-TC1721	KX-TC1800
	KX-TC904	KX-TCM947	KX-TC1450	KX-TC1520	KX-TC1723	KX-TC1850
	KX-TC907	KX-TC1400	KX-TC1451	KX-TC1700	KX-TC1731	KX-TC1870
	KX-TC911	KX-TC1401	KX-TC1460	KX-TC1701	KX-TC1733	KX-TC1890
	KX-TC933	KX-TC1402	KX-TC1461	KX-TC1703	KX-TC1740	
HHR-505PA	KX-TG200	KX-TG210	KX-TGM240			
HHR-P506A	KX-TG2000	KX-TG4000	KX-TGA200	KX-TGA400	KX-TGA420	
HHR-P509A	KX-TG2650	KX-TG2670	KX-TG2680			
HHR-P546A	KX-TG1000	KX-TG1050	KX-TGA100			
HHR-P513A	KX-TG2208	KX-TG2216	KX-TG2226	KX-TG2238	KX-TG2258	
	KX-TG2214	KX-TG2224	KX-TG2235	KX-TG2248		
HHR-P516A	KX-TG4500 (Base Unit)					
HHR-4DPA	KX-TG1032	KX-TG1033	KX-TG1034	KX-TGA101		

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