# Panasonic BUSINESS



# **At the Heart of SOHO Business**

The KX-HTS824 is an advanced Hybrid IP-PBX for SOHO businesses. It has a capacity for up to 24 extensions to exactly meet the scale of SOHO businesses. Priced affordably while possessing all the necessary standard functions built-in. The KX-HTS824 is a SIP trunk ready system, and no external devices need to be purchased for IP usage.

Another unique feature is the built-in router and Wi-Fi access point.

The KX-HTS824 works as a voice processing platform and also as a network device.

A full line-up of terminals is available for the KX-HTS824, enabling optimal communication for SOHO businesses.

This system also achieves exclusive simplicity for setup and maintenance.

Even for business trends such as BYOD (Bring Your Own Devices), the KX-HTS824 brings you a solution with built-in functionality.

#### **Cost Saving**

- ► IP/Legacy Flexible Hybrid System
- ► Built-in Basic Call Handling Function
- **▶** Built-in Router
- ► Built-in Wi-Fi Access Point

### Improved Work Efficiency

- **▶** Remote IP Extension
- **▶ Video Communication**
- ► Simple Monitoring System
- **▶ Voice Mail Notification**
- **▶** Paging

#### **Easy Maintenance**

- ► Very Easy Installation (Plug and Play)
- ► Simplified Maintenance

#### IP/Legacy Flexible Hybrid System

The KX-HTS824 enables a flexible system that freely combines both IP and legacy systems to cost-effectively respond to your needs. Also, the KX-HTS824 brings you a solution as a SIP Trunk adapter for existing PBX systems. You can connect KX-HTS824 to an existing system to adopt SIP Trunk services.

You can also enjoy the features of new Panasonic IP terminals, KX-HDV series IP phones (including video phones) and KX-NTV series (IP doorphone and IP camera).

# Home Office KX-HTS824 SIP KX-HDV series Single Line Telephone

# Existing PBX PSTN PSTN

#### **All-in-One Platform**

The necessary standard call handling functions, such as CID (Caller ID), DISA (Automatic Call Routing), and AA (Auto Attendant)/VM (Voice Mail), are all built-in. Furthermore, a capacity for 6 SIP trunks and 24 SIP extensions is built-in, so there is no need to buy external devices when using the IP function.

An analogue capacity of 4 trunks and 8 extensions is also built-in, which can be maximized to 8 trunks and 24 extensions with optional cards. In addition to that, a router and Wi-Fi access point is built-in enabling you to use the KX-HTS824 as a Wi-Fi access point for PCs or smartphones. This system also has a quick phone conference feature as a built-in function.

Users simply need to dial assigned meeting room extension number and input PIN number for ioining the phone conference.



**As SIP Trunk Adapter** 

As SIP Trunk Adapter

KX-HTS824

## **Communication**





**IP Camera** and IP Doorphone

\*Auto Dialling with Sensor





KX-HDV330 4.3 inch Colour I CD KX-HDV130 2.3 inch Backlight LCD KX-HDV230 5.1 inch Self Labelling Backlight LCD

KX-HDV100

2.3 inch LCD **Stylish and Simple IP Phone** 

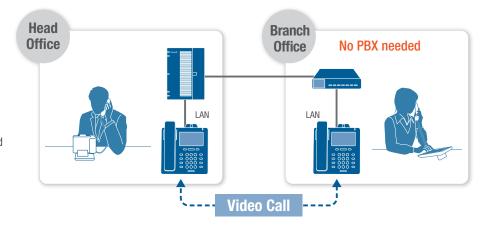
**Full Duplex Speaker IP Phone** 

**Touch Display Model** 

#### **Video Communication**

The Panasonic KX-HDV430 can be easily installed in your branch or home office (Media Relay Gateway function) and video communication is possible without a VPN. There is no need to go on a business trip for a meeting.

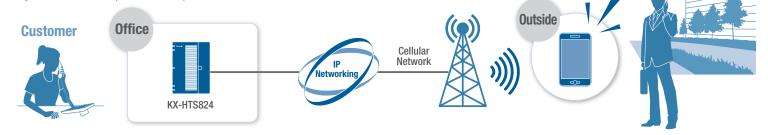
Also, it can be linked with the KX-NTV series (IP doorphone and IP camera), allowing it to be used as a simple monitoring system.





#### **Mobility**

Smartphones with software phone functionality used by mobile workers can be installed as KX-HTS824 extensions, meaning they will not miss calls as long as they are in a Wi-Fi/3G/LTE environment whether they are at the office or away. Furthermore, complicated and expensive VPN services are not needed to use this function.





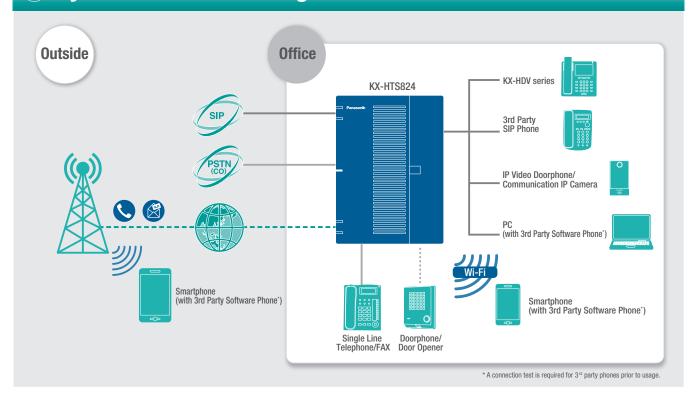
#### **Easy Setup and Maintenance**

Plug and Play



The phone can be used right away without any extra settings, as the internal/external line settings are automatically set by connecting a terminal to the KX-HTS824. Wi-Fi connection with PCs and smartphones can be easily done using the Wi-Fi setup button. Also, WEB programming is possible with the KX-HTS824. The GUI of the Web Console is really simple allowing for easy setup and maintenance. Secure Web Programming from outside is also available by using HTTPS.

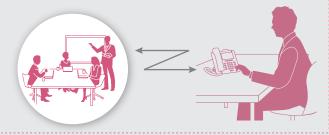
#### System Connection Diagram



#### **Usage Examples**

#### **Video Conferencing**

The KX-HDV430 enables visual communication for users spread across different locations. It provides the user with the ability to speak face-to-face, while observing the visual expressions and gestures of the other party. A paging function is also available for simultaneous broadcasting even for remote offices.



#### **Link with Mobile Devices**

Smartphones with software phone functionality can be used as PBX extensions, so that you will not miss important calls from customers even when outside the office. Voice mail messages can be transferred by e-mail to your mobile devices.

#### **Entrance Monitoring System**

The simple entrance monitoring system can be realized using the KX-NTV series (IP doorphone and IP camera), door openers, and KX-HDV430 video phone.



You can check visitors at the entrance in advance, and can control the door opening function.



#### **Simple Monitoring System**

With the motion/voice detection function of the KX-NTV series, you can set up a simple monitoring system at offices during off hours, or at near cash registers.



The KX-NTV series is able to send notifications by SIP outgoing call or by e-mail if the sensor detects something. KX-NTV series also have the Digital input and output port to integrate with external alarming devices.



#### Terminal Line-up

#### IP Phone (SIP)

#### KX-HDV430

- Video Communication
- 4.3 inch Backlight LCD Display
- Colour Touch Display
- 3 x 8 Self Labelling, Programmable Buttons
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Full Duplex Speakerphone
- Built-in Bluetooth® for Headset
- EHS support
- · Available in Black and White
- Wall Mount Kit Included
- Option: KX-HDV20
   KX-A424 (AC Adapter)



#### KX-HDV230

- 2.3 inch Backlight LCD Display
- 5.1 inch Self Labelling Backlight LCD Display
- 2 x 12 Self Labelling, Programmable Buttons
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Full Duplex Speakerphone
- EHS support
- · Available in Black and White
- Wall Mount Kit Included
- Option: KX-HDV20
   KX-A422 or KX-A424
   (AC Adapter)



#### KX-HDV330

- 4.3 inch Backlight LCD Display
- · Colour Touch Display
- 3 x 8 Self Labelling, Programmable Buttons
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Full Duplex Speakerphone
- Built-in Bluetooth® for Headset
- EHS support
- Available in Black and White
- Wall Mount Kit Included
- Option: KX-HDV20

KX-A422 or KX-A424 (AC Adapter)



#### **Option**

#### Expansion Module

#### KX-HDV20

- Up to 40 Flexible Function Keys
- Wall Mount Kit Included



#### KX-HDV130

- 2.3 inch Backlight LCD Display
- 2 Programmable Buttons
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Full Duplex Speakerphone
- Available in Black and WhiteOption: KX-A423 (AC Adapter)
- Option: KX-A423 (AC Adapter)
   KX-A440 (Wall Mount Kit)



#### KX-HDV100

- 2.3 inch LCD Display
- 2 Programmable Buttons
- 1 Ethernet Port (100 Base-TX)
- AC Adapter Included
- · Available in Black and White
- Option: KX-A440 (Wall Mount Kit)



#### IP Camera and IP Doorphone (SIP)

#### Communication IP Camera

#### KX-NTV150

- Video Communication
- Dedicated Camera for the KX-NSX/KX-NS/KX-HTS series
- Built-in Wireless LAN
- Power-over-Ethernet (PoE)/AC Adapter
- One Touch Calls
- Auto Dialling with Sensor
- Option: KX-A239 (AC Adapter)



#### IP Video Doorphone

#### KX-NTV160

- Video Communication
- Dedicated Camera for the KX-NSX/KX-NS/KX-HTS series
- IP43 Support\*
- Power-over-Ethernet (PoE) only
- One Touch Calls
- Auto Dialling with Sensor



#### Single Line Telephone

#### KX-T7716

- Caller ID Compatible
- Ringer/Message lamp
- One Touch Dial Buttons
- Speakerphone and Headset for Hands-Free Conversation
- · Available in Black and White



#### KX-T7705/KX-T7703

- 2-Line LCD display
- Caller ID Compatible
- Speakerphone for Hands-Free Conversation (KX-T7705 only)
- Batteries not needed (Power source from Telephone Line)
- Available in Black and White



#### Specifications

#### KX-HTS824 KX-HTS824 Software Version 1.0

#### **System Capacity**

| Туре                             |                        |          | Preinstalled    | Maximum         |
|----------------------------------|------------------------|----------|-----------------|-----------------|
| Maximum Trunks                   | Total Number of Trunks |          | 8 (6 if G.729a) | 8 (6 if G.729a) |
|                                  |                        | SIP      | 6 (G.711)       | 6 (G.711)       |
|                                  |                        |          | 4 (G.729a)      | 4 (G.729a)      |
|                                  |                        | Analogue | 4               | 8               |
| Maximum<br>Terminal<br>Equipment | Extensions             |          | 24              | 24              |
|                                  |                        | SIP      | 24              | 24              |
|                                  |                        | Analogue | 8               | 24              |
|                                  | DISA                   |          | 4 ch*1          | 4 ch*1          |
|                                  | Built-in VM            |          | 4 ch*1          | 4 ch*1          |
|                                  | Doorphone (Analogue)   |          | 0               | 2               |
|                                  | Door Opener (Analogue) |          | 0               | 2               |

#### **Option List** Hardware

|               | Component                                   | Model No.  |
|---------------|---|------------|
| LC0T4         | 4-Port Analogue Trunk Card                  | KX-HT82480 |
| SLC8          | 8-Port Single Line Telephone Extension Card | KX-HT82470 |
| DPH2          | 2-Port Doorphone/Door Opener Card           | KX-HT82460 |
| Battery Cable | Backup Battery Cable                        | KX-A227    |
| DPH           | Doorphone                                   | KX-T30865  |
|               | Doorphone                                   | KX-T7765   |

#### **Specifications**

|                             |                                   | Specification  |  |
|-----------------------------|-----------------------------------|--|--|
| CPU                         |                                   | MIPS 34Kc 720 MHz  |  |
| Memory                      |                                   | RAM: 128 MB NAND Flash: 512 MB                                     |  |
| Real Time Clock             |                                   | Lithium battery back up  |  |
|                             |                                   | Data retention period 7 years                                      |  |
| WAN port                    |                                   | Gigabit Ethernet 1 port RJ45 x 1                                   |  |
| WAN/LAN port                |                                   | Gigabit Ethernet 1 port RJ45 x 1                                   |  |
| LAN port                    |                                   | Gigabit Ethernet 1 port RJ45 x 1                                   |  |
| Wi-Fi                       | Interface                         | IEEE 802.11b/g/n   |  |
|                             | Security                          | WPA2 (CCMP), WPA-WPA2 (TKIP-CCMP), Basic (WEP64/128)               |  |
|                             | Multiple SSID                     | No   |  |
|                             | Automatic WLAN Channel Selection  | Yes  |  |
|                             | WLAN Associations Filtering (ACL) | ) Yes  |  |
|                             | Automatic Setup for Wi-Fi Devices |  |  |
|                             | Throughput                        | Target throughput under ideal condition                            |  |
|                             |                                   | - 802.11b: 5-6Mbps   |  |
|                             |                                   | - 802.11g: 20Mbps  |  |
|                             |                                   | - 802.11n: 70-80Mbps   |  |
|                             |                                   | QoS feature (IEEE802.11e EDCA) is supported                        |  |
| Network Core Functions      | Static Routing                    | Yes  |  |
|                             | Firewall                          | Packet Filtering (IPv4, MAC address, port numbers and protocol:    |  |
|                             | 1 ii o ii dii                     | Basic DoS Attack Prevention / Stateful Packet Inspection (SPI)     |  |
|                             |                                   | DMZ host   |  |
|                             | NAT/NAPT                          | Yes  |  |
| USB port                    | 1011/1011                         | USB 2.0 1 port Type-A connector x 1                                |  |
| LED                         |                                   | System Status, Wi-Fi Setup Status                                  |  |
| LLD                         |                                   | WAN, LAN/WAN, LAN Status   |  |
|                             |                                   | -LINK/ACT  |  |
|                             |                                   | -SPEED (RJ45 Integrated with LEDs)                                 |  |
| Button                      |                                   | Wi-Fi Setup  |  |
| Dutton                      |                                   | INITIALIZE   |  |
| LINE port (LCOT)            |                                   | 4 ports CO Line Interface RJ11 x 4                                 |  |
| LINE port (LOOT)            |                                   | Caller ID Functions are supported                                  |  |
| EXTN port (SLC)             |                                   | 8 ports SLT Interface RJ11 x 8                                     |  |
| EXTN port (SLG)             |                                   | Caller ID Functions are supported                                  |  |
| Option Card                 | SLC8                              | 8 ports SLT Interface card RJ11 x 8 max. 2 cards                   |  |
| opuon ouru                  | LCOT4                             | 4 ports CO Interface card RJ11 x 4 max. 1 card                     |  |
|                             | DPH2                              | 2 ports Doorphone Interface card RJ11 x 1 Terminal x 1 max. 1 card |  |
| Power Input                 | DITIE                             | 110 V AC to 127 V AC / 220 V AC to 240 V AC                        |  |
| Power Consumption (when     | fully mounted)                    | 60 W   |  |
| External Battery Input      | runy mountou)                     | DC 12 V  |  |
| Regulatory                  | EMC                               | CISPR32/22 Class B / FCC Class B                                   |  |
| riogulatory                 | Safety                            | EN60950, UL60950, IEC60950   |  |
|                             | Telecommunications                | TBR21, FCC Part 68   |  |
| Air-cooling Method          |                                   | Fan  |  |
| Dimension                   |                                   | 297 mm (H) x 210 mm (W) x 90.4 mm (D)                              |  |
| Weight (when fully mounted) |                                   |  |  |
| Operating Environment       | Temperature                       | Under 2.2 kg<br>0 °C to 40 °C                                      |  |
| operating Environment       | Humidity                          | 10 % to 90 % (non-condensing)                                      |  |
| Installation Environment    | Trumlulty                         | Wall mount   |  |
| Installation Environment    |                                   |  |  |
|                             |                                   | Horizontal (Desktop) installation                                  |  |

#### **System Feature Capacity**

|                            | ltem                                     | Capacity  |  |
|----------------------------|--|---|--|
| System                     | Call Park Zone                           | 24  |  |
|                            | Meet-me Conference*2                     | Maximum member: 6/room                                  |  |
|                            |  | Maximum room: 3   |  |
|                            | Extension Number                         | 2 or 3 digits   |  |
|                            | Call Detail Recording (CDR)              | 40,000 calls (Able to be exported as CSV file)          |  |
|                            | Extension Group                          | 16 Groups   |  |
|                            |  | Maximum member: 24/group                                |  |
|                            | Paging Group                             | Extension group is used as paging group                 |  |
|                            |  | Maximum paging member: 4/group*3                        |  |
|                            | Pickup Group                             | Extension group is used as pickup group                 |  |
|                            |  | Maximum pickup member: same as extension group          |  |
| Concurrent Call Conditions | Remote Extensions                        | Able to use 2 remote extensions simultaneously          |  |
|                            | Video Call                               | Able to have a max. of 2 calls between video extensions |  |
| Dialling                   | Personal Speed Dialling                  | Depends HDV series                                      |  |
|                            | System Speed Dialling                    | 200 (Max digits: 32)                                    |  |
| Call Log                   | Outgoing Call Log                        | Depends HDV series                                      |  |
|                            | Incoming Call Log                        | Depends HDV series                                      |  |
| Music on Hold (MOH)        | Music on Hold                            | WAV file (Default or Custom)                            |  |
|                            |  | MoH port is not available.                              |  |
| IVR (=AA/DISA/OGM)         | Number of Messages                       | 10  |  |
|                            | Message Length / 1 Message <sup>*4</sup> | 60 sec  |  |
| Voicemail                  | Number of Mailboxes                      | 24  |  |
|                            | Greeting Message Length / 1 Mailbox*4    | 30 sec  |  |
|                            | Number of Messages / 1 Mailbox           | 0-100 (Default: 10)                                     |  |
|                            | Message Length / 1 Message*4             | 10-300 sec (Default: 60 sec)                            |  |

- \*1 The DISA and VM has a total capacity of 4 channels.
- \*2 Meet-me Conference function for KX-HTS824 ver. 1 only accepts participants from SIP Trunks and SIP Extensions. Meet-me Conference function will support SLT from KX-HTS824 ver. 1.5 (as extension use).
- \*3 Upper 4 members of list in an extension group are assigned as paging members.
- \*4 Total Message Length: 120 minutes





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   Some models and applications are available in limited countries.
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