

# 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 White
- 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)

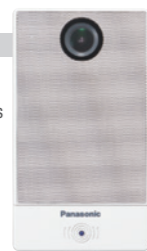


## IP Camera and IP Doorphone (SIP)

### Communication IP Camera

#### KX-NTV150

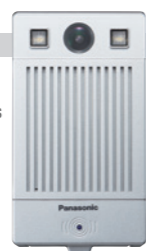
- Video Communication
- Dedicated Camera for the KX-NSX/KX-NS/KX-HTS series
- Built-in Wireless LAN
- Power-over-Ethernet (PoE)/AC Adapter
- One Touch Calls
- Auto Dialling with Sensor
- Option: KX-A239 (AC Adapter)



### 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



Photo: KX-T7705

# Specifications

## KX-HTS824 KX-HTS824 Software Version 1.0

### System Capacity

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

### 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	Yes
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 protocols) Basic DoS Attack Prevention / Stateful Packet Inspection (SPI) DMZ host
	NAT/NAPT	Yes
USB port	USB 2.0 1 port Type-A connector x 1	
LED	System Status, Wi-Fi Setup Status	
	WAN, LAN/WAN, LAN Status	
	-LINK/ACT	
	-SPEED (RJ45 integrated with LEDs)	
Button	Wi-Fi Setup INITIALIZE	
LINE port (LCOT)	4 ports CO Line Interface RJ11 x 4 Caller ID Functions are supported	
EXTN port (SLC)	8 ports SLT Interface RJ11 x 8 Caller ID Functions are supported	
Option Card	SLC8	8 ports SLT Interface card RJ11 x 8 max. 2 cards
	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	110 V AC to 127 V AC / 220 V AC to 240 V AC	
Power Consumption (when fully mounted)	60 W	
External Battery Input	DC 12 V	
Regulatory	EMC	CISPR32/22 Class B / FCC Class B
	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)	Under 2.2 kg	
Operating Environment	Temperature	0 °C to 40 °C
	Humidity	10 % to 90 % (non-condensing)
Installation Environment	Wall mount	
	Horizontal (Desktop) installation	

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**Important**  
 - Safety Precaution: carefully read the operating instructions and installation manual before using these products.

### DISTRIBUTED BY :

### Option List Hardware

	Component	Model No.
LCOT4	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

### System Feature Capacity

System	Item	Capacity
Call Park Zone	Call Park Zone	24
	Meet-me Conference <sup>2</sup>	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 <sup>2</sup>
		Extension group is used as pickup group Maximum pickup member: same as extension group
Pickup Group		Extension group is used as pickup group Maximum pickup member: same as extension 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 <sup>4</sup>	30 sec
	Number of Messages / 1 Mailbox	0-100 (Default: 10)
	Message Length / 1 Message <sup>4</sup>	10-300 sec (Default: 60 sec)

<sup>1</sup> The DISA and VM has a total capacity of 4 channels.  
<sup>2</sup> Meet-me Conference function for KX-HTS824 ver. 1.0 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).  
<sup>3</sup> Upper 4 members of list in an extension group are assigned as paging members.  
<sup>4</sup> Total Message Length: 120 minutes



For more information on Panasonic PBXs, visit  
<http://panasonic.net/pcc/products/pbx/>



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# Panasonic BUSINESS

## Compact Hybrid IP-PBX KX-HTS824



All-in-one Smart Business package



\* IP43 compliant:  
 Resistant to falling water droplets within a perpendicular range of 60 degrees (rain-proof design)  
 Wires and other solid objects thicker than 1 mm in diameter cannot penetrate the device

# At the Heart of SOHO Business Communication

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



**Touch Display Model**

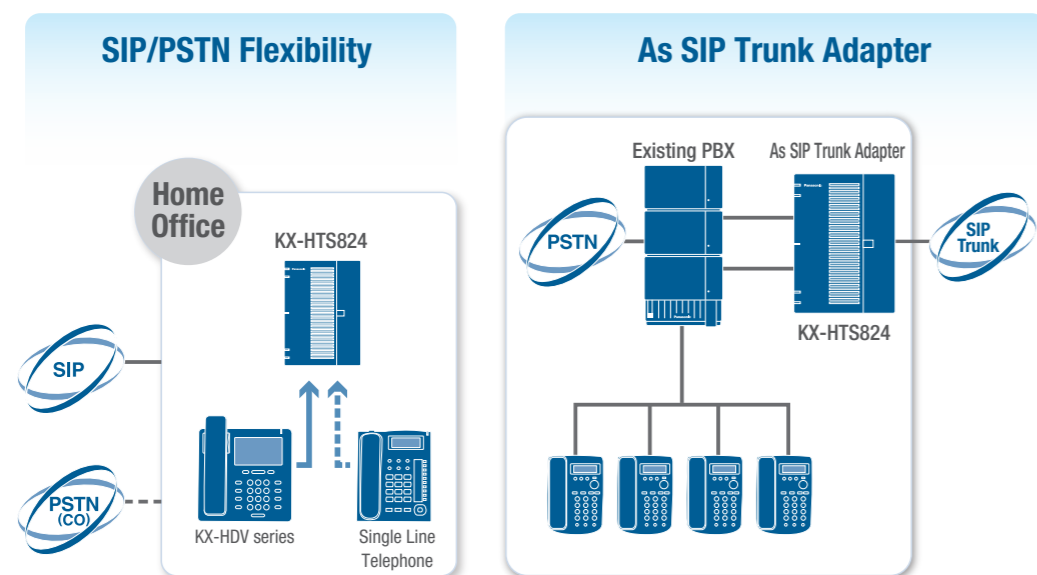
**Full Duplex Speaker IP Phone**

**Stylish and Simple IP Phone**

## 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).



## 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.

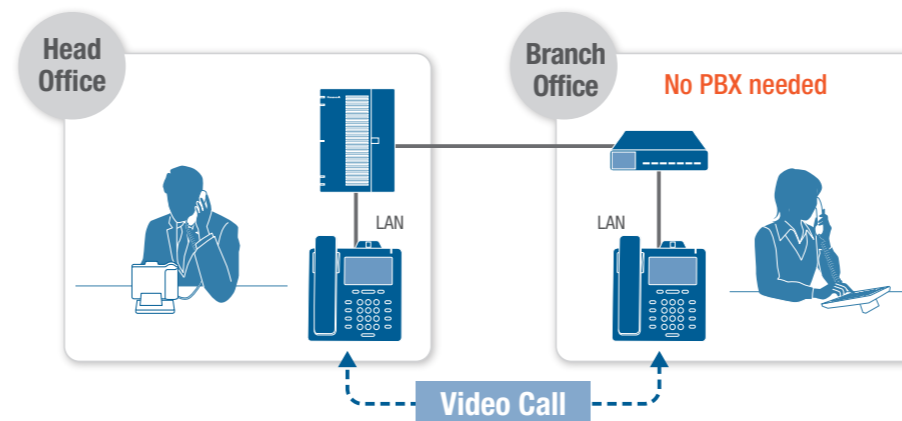
Users simply need to dial assigned meeting room extension number and input PIN number for joining the phone conference.



No external devices needed for IP usage

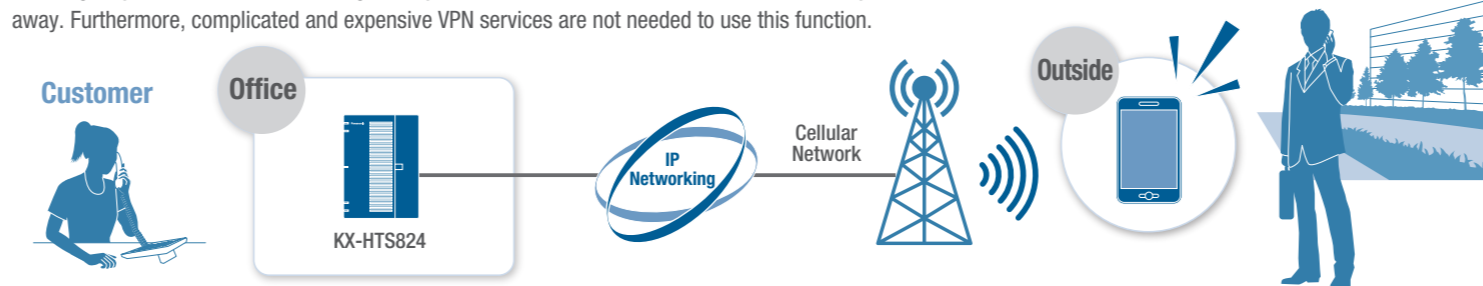
## Video Communication

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.

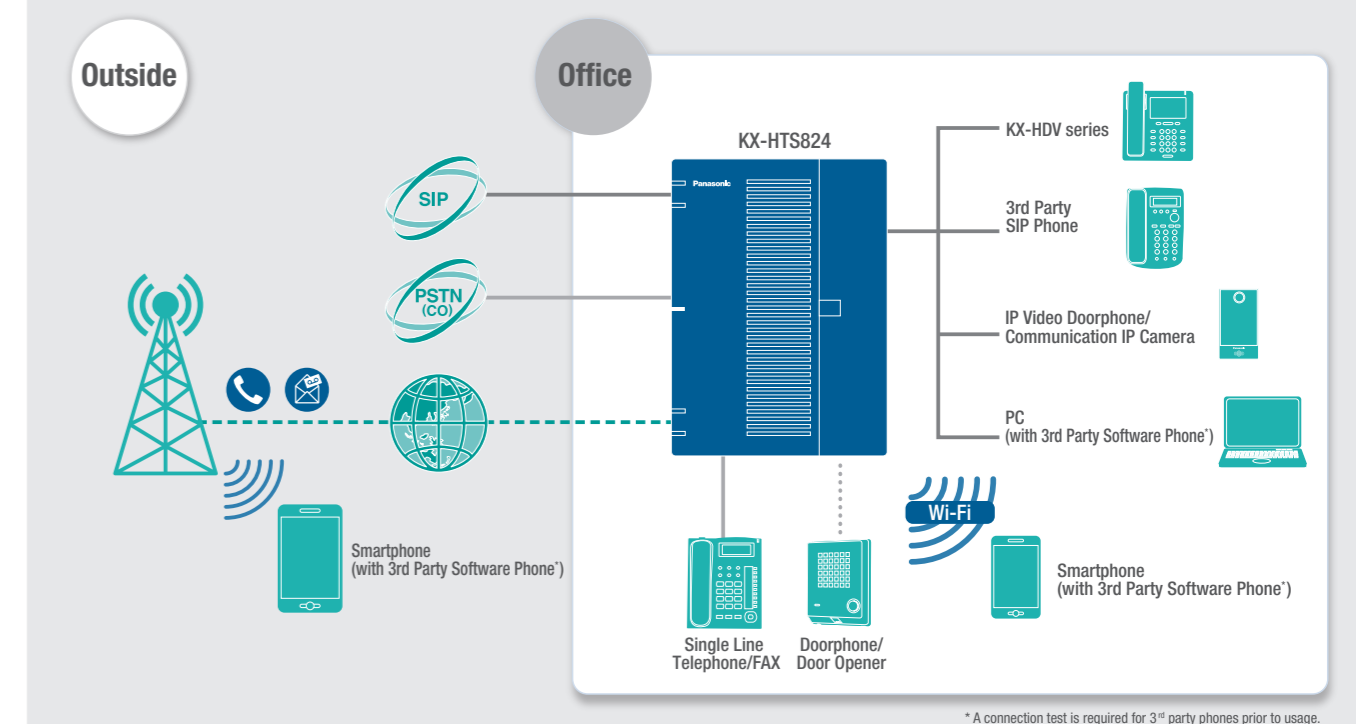


## Easy Setup and Maintenance

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

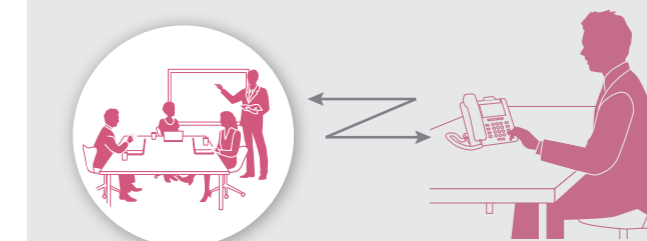


\* A connection test is required for 3<sup>rd</sup> party phones prior to usage.

## Usage Examples

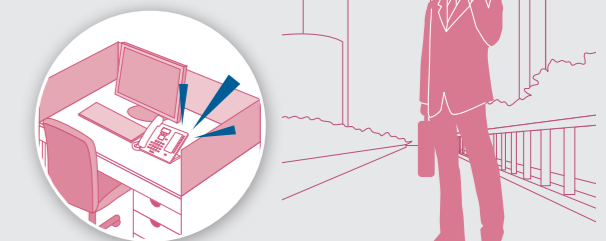
### Video Conferencing

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.



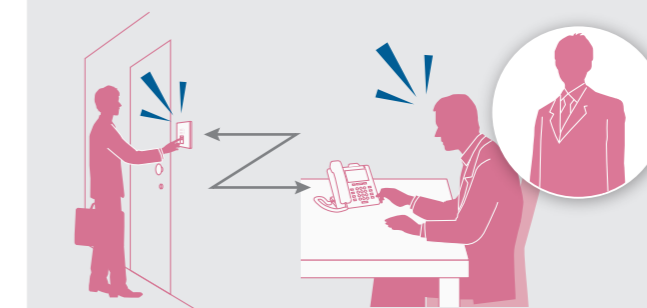
### Link with Mobile Devices

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.

