

KX-NS1000 System Capacity

Maximum Trunks

The KX-NS1000 supports the following number of trunks.

Type	KX-NS1000 Stand-alone System	KX-NS1000 with 1 Legacy Gateway				KX-NS1000 One-look Networking
		KX-NCP500/1000	KX-TDE100/TDA100	KX-TDE200/TDA200	KX-TDE600/620, KX-TDA600/620	
Total Number of Trunks	256 ch	256 ch	256 ch	256 ch	256 ch	600 ch
H.323	48 ch	48 ch	48 ch	48 ch	48 ch	96 ch
SIP ¹	256 ch	256 ch	256 ch	256 ch	256 ch	256 ch
BRI	8 ch	12 ch ² / 16 ch ³		96 ch	128 ch	160 ch
PRI23 ¹	23 ch	46 ch	92 ch	92 ch	115 ch	600 ch
PRI30 ¹	30 ch	60 ch	120 ch	120 ch	150 ch	600 ch
T1	N/A	48 ch	96 ch	96 ch	120 ch	600 ch
E1 ¹	N/A	60 ch	120 ch	120 ch	150 ch	600 ch
Analogue	2 lines	12 lines ² / 16 lines ³		96 lines	128 lines	160 lines
						600 lines

*1 When using the trunk adaptor KX-NS8188/KX-NS8290, the total number including SIP, PRI, and E1 is 256 ch. *2 When connected with the KX-NCP500 *3 When connected with the KX-NCP1000

Maximum Terminal Equipment

The following shows the number of each terminal equipment type supported by the KX-NS1000.

Type	KX-NS1000 Stand-alone System	KX-NS1000 with 1 Legacy Gateway				KX-NS1000 One-look Networking
		KX-NCP500/1000	KX-TDE100/TDA100	KX-TDE200/TDA200	KX-TDE600/620, KX-TDA600/620	
Telephone	640	640	640	640	640	1000
SLT	2	36	96	128	240	1000
KX-DT300/KX-T7600 Series DPT	N/A	40	128	256	256	1000
KX-T7560/KX-T7565DPT	N/A	36	96	128	128	1000
Other DPT	N/A	10	32	128	160	1000
APT	N/A	4	24	64	80	640
IP-PT ¹	256	256	256	256	256	1000
SIP	640	640	640	640	640	1000
SIP Phone ²	640	640	640	640	640	1000
S-PS	255	255	255	255	255	255
DSS Console	N/A	8	8	8	64	64
CS	64	64	64	64	64	128
PT-interface CS (2-channel)	N/A	11	32	32	32	128
PT-interface CS (8-channel) ³	N/A	5	16	16	16	64
IP-CS	64 (16CSs x 4 Air-sync Group)	64 (16CSs x 4 Air-sync Group)	64 (16CSs x 4 Air-sync Group)	64 (16CSs x 4 Air-sync Group)	64 (16CSs x 4 Air-sync Group)	128
SIP-CS	64 (32CSs x 2 Air-sync Group)	64 (32CSs x 2 Air-sync Group)	64 (32CSs x 2 Air-sync Group)	64 (32CSs x 2 Air-sync Group)	64 (32CSs x 2 Air-sync Group)	128
PS	512	512	512	512	512	512
Voice Processing System (VPS)	N/A	2	2	2	2	8
Doorphone	1	17	17	17	17	64
Door Opener	1	17 ⁴	17 ⁴	17 ⁴	17 ⁴	64
External Sensor	1	17	17	17	17	64
External Relay	N/A	17 ⁴	17 ⁴	17 ⁴	17 ⁴	64

*1 KX-NT500 series, KX-NT300 series, and KX-NT265 (software version 2.00 or later only). *2 KX-UT Series, KX-NT700 and third party SIP phones (SIP hardphones/SIP softphones). *3 One 8-channel PT-interface CS or IP-CS counts as 2 CSs for the total number of CSs. *4 The DOORPHONE card of the KX-NS1000 can serve as a door opener or as an external relay depending on how it is programmed.

Note: The numbers in the tables do not include Digital EXtra Device Port (Digital XDP) connection.

Contact your dealer for further information.

Communication Assistant (CA) Specification

*Software version 4.0 or later required.

	CA Basic-Express	CA PRO	CA Operator Console	CA Supervisor
Maximum users (Without CA Server/With CA Server)	240/1022	240/1022	128/128	4/128
Activation key	Preinstalled for 1022 users	60-day free trial for 128 users	60-day free trial for 1 user	
View other extensions' presence from main menu	No	Yes	Yes	Yes
Call contact/Call history	10/10		1000/1000	
ICD group login/logout	No	Yes	Yes	No
Listen-in/Busy override/Take over	No	No	Yes	Yes
ICD group supervisor	No	No	No	Yes
Conference interface	No	Yes	Yes	Yes
Multi-site communication (Networking)	No	Yes	Yes	Yes
3rd-party CRM integration (TAPI/CSTA)	No	Yes	Yes	Yes
Microsoft Exchange Server integration	No	Yes	Yes	Yes
Microsoft Outlook toolbar	Yes ¹	Yes	Yes	Yes
Thin client support	Yes	Yes	Yes	Yes

*1 Call history and presence display in Outlook are not available for Basic-Express users.



Panasonic's Environmental Efforts

Panasonic aims to become the No.1 Green Innovation Company in the Electronics Industry. We believe we can integrate contribution to the environment with business growth by driving green innovation in all aspects of our business practices, and help people lead better and greener lives.

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Important

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

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Business Communications Server
KX-NS1000



Business Communications Server
KX-NS1000

Discover a world of benefits in
one business communications solution.

An IP Platform to Deliver Business Communication Solutions

Communication servers used for business should provide solutions to current real world business requirements such as: simplifying and improving communications, lowering costs, improving productivity, supporting SOHOs and diversifying of the workplace. They should do all of these while flexibly adapting to the way each organisation works.

The KX-NS1000 Business Communications Server by Panasonic is designed to deliver these solutions by integrating hardware and software components in a modular way, allowing you to tailor a communications system to your specific needs.

Users of an existing Panasonic legacy PBX can easily migrate to an IP system by connecting a KX-NS1000. Legacy systems can also be expanded to perform partial migration according to the available budget.

Business Communications Server **KX-NS1000**



Overview of the KX-NS1000

Flexible IP Platform

With the KX-NS1000, it is possible to add activation keys to flexibly increase capacity or functionality when required according to the growth of your company. Even in the event of a failover, the Network Survivability function enables system operation to continue.

Expandable Capacity

The KX-NS1000 is an IP network communications server with a large capacity. It supports One-link Networking (full transparency), and can connect to a maximum of 16 sites and 1000 terminals. Also, existing Panasonic PBX systems can be carried over and legacy ports are supported (can be used for connections).

Enhance Productivity

With built-in voice mail, fax server, and Communication Assistant, it is easy to know who is available, and how best to contact them at any time.

Wireless Solution

The Multi-Cell DECT Wireless System and cellular phone integration means you can stay in touch, even when you're on the move.

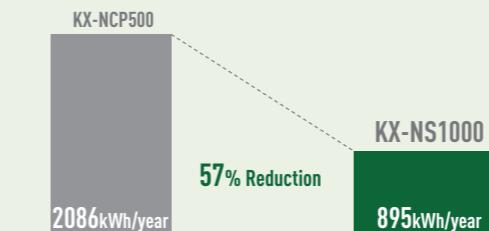
Improve Customer Responsiveness

Easy Call Centre, an integrated application for call grouping and routing, ensures the right person takes every call.

The KX-NS1000 system is an eco-conscious product helping reduce energy consumption.

Less power consumption

System power consumption is reduced by 57% (using the Eco Mode of the KX-UT136) in comparison to the KX-NCP500.



Eco Mode

The KX-UT Series SIP phones save energy even during standby mode and while calling. By using the Eco Mode, power consumption can be reduced even further.



<Measurement environment>

*Products: KX-NS1000 plus 90 terminals (KX-UT136), power source: AC adaptor
KX-NCP500 plus 90 terminals (KX-NT346), power source: AC adaptor

*Measurement span: 5 years

*Operating days: 240 days/year (running: 8 hours/day, waiting: 16 hours/day), holidays: 125 days/year

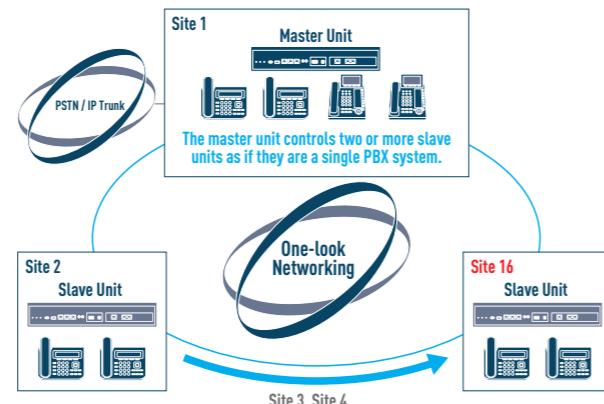


IP Networking Flexibility and Survivability

The KX-NS1000 fully supports IP, an open protocol for establishing real-time communication. Using IP effectively can result in compelling advantages such as improving user efficiency, and lowering communication costs. It also enables the network to be securely operated in the event of a system failover.

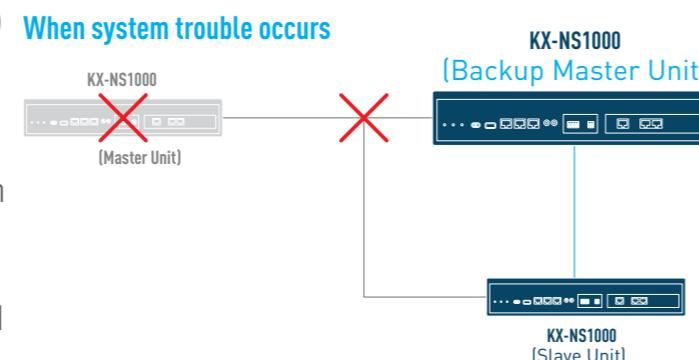
One-look Networking

One-look Networking is a system where a single KX-NS1000 works and provides PBX features even though two or more main units are networked. It is not necessary to provide additional servers. The system can be expanded easily via a web-based maintenance console. One-look Networking provides a maximum of 16 sites with the large capacity of KX-NS1000.



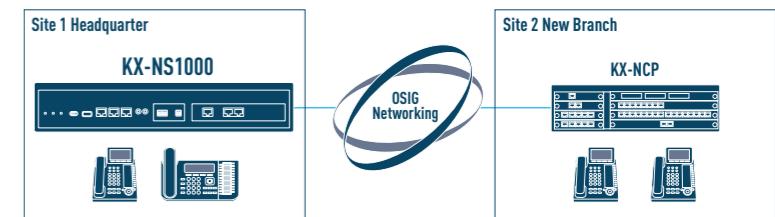
One-look Networking Survivability

With One-look Networking, the system can continue to operate even in the event of a failover due to system trouble with the master KX-NS1000. By specifying a backup master site, the backup master site will act as the master site temporarily to continue communication services when there is trouble with the master site. This enables each site to continue operating independently. IP terminals only can also be registered to another PBX.



QSIG Support

When the KX-NS1000 connects to existing PBXs such as the Panasonic KX-TDE and KX-NCP series via an ISDN private network or VoIP network (H.323), it is possible to flexibly increase capacity and to provide QSIG features. It is not necessary to renew all PBX systems when the office population increases or a new branch is opened.



IP Networking Expandable Capacity

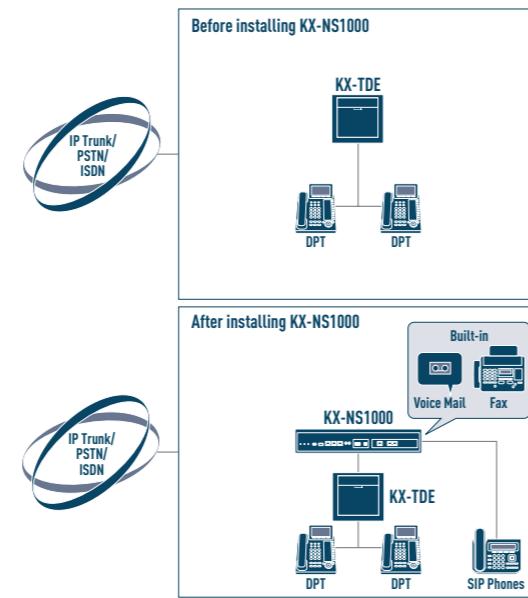
By connecting existing Panasonic PBX systems with KX-NS1000, you can efficiently obtain expandability and flexibility for legacy lines and terminals. On the other hand, if you are using existing Panasonic PBX now, you can add IP capacity and functionality at low cost using KX-NS1000.

Migration

By connecting the KX-NS1000 to an existing Panasonic PBX¹, you can expand IP lines and terminals and utilize the Unified Messaging feature of the KX-NS1000². This is also recommended for KX-NS1000 users that want to use legacy terminals and trunks for flexible system expansion. Assisted migration to an IP system, according to your budget and needs, is also available.

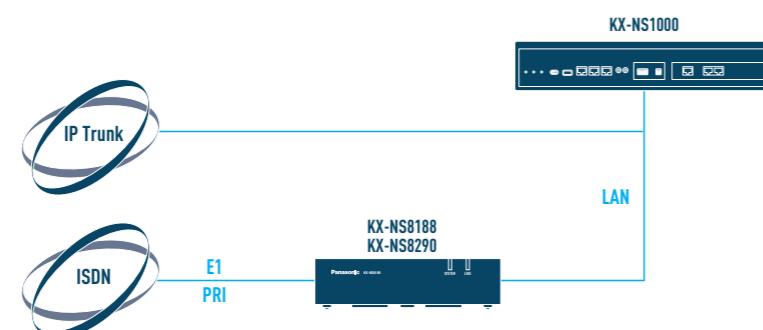
*1 An existing PBX refers to a Panasonic KX-TDE series, KX-NCP series, or KX-TDA100/200/600/620. KX-TDA100D is not included.

*2 You can connect a maximum of 2 existing PBXs for one KX-NS1000. A maximum of 8 existing PBXs can be connected for the entire One-look Network.



Scalability

Customers that mainly use a legacy trunk (E1/PRI) but want to prepare for future IP migration can use trunk adaptors (KX-NS8188/KX-NS8290) for the KX-NS1000 to increase the maximum number of legacy lines available and to enable you to use both legacy and IP trunks. Since the adaptors can be connected to a maximum of 16 units, trunks can be flexibly expanded according to the customer's budget.



With its IP platform, the KX-NS1000 is designed to deliver various solutions, such as integrating hardware and software service (Activation Keys) in a modular way. This allows you to tailor your communications system to your specific needs.

Preinstalled Activation keys

The KX-NS1000 comes with activation keys preinstalled. It is also possible to add activation keys to flexibly increase capacity or functionality when required according to the growth of your company.

Free Activation keys

IP Phone Capacity for up to 30 IP Phones¹

IP Proprietary Telephone - 8 users²

Communication Assistant Basic-Express - 1022 users

Two channel and two hour voice storage for the Unified Messaging feature

*1 Supported by the KX-NT500/KX-NT300 Series, KX-UT Series, KX-UDT131/121/111, IP softphones, third party SIP phones.

*2 Supported by the KX-NT500/KX-NT300 Series, KX-UT Series, KX-UDT131/121/111.

60-day free trial

One-look Networking Feature

Unified Messaging Features

- Automatic Two-way Recording for Manager - 1 user
- Two-way Recording/Transfer - 30 users
- UM/E-mail - 128 mailboxes
- Message Backup

Mobile Extension Feature - 30 users

Communication Assistant Features

- CA PRO - 128 users
- CA Supervisor - 1 user
- CA Operator Console - 1 user
- CA Thin Client Server
- CSTA Multiplexer

3rd Party CTI Feature



Unified Communication

The KX-NS1000 gives you great flexibility for managing messaging services. Voice and fax messages can be received using the built-in Unified Messaging system in a number of ways; as e-mail attachments, through the KX-NS1000 IMAP4 server, or using the Communication Assistant. This means you can listen to voice messages using their phone or PC, for maximum flexibility.

Built-in Voice Mail

The KX-NS1000's built-in voice mail can handle incoming calls, record messages and conversations, and manage mailboxes all from a cellular phone. Two channel two hour voice storage is preinstalled and with activation keys the number of channels can be expanded to 24 and the recording time can be expanded to 15 hours. The recording time can be further expanded to a maximum of 1000 hours by changing the storage memory.

Voice mail resources can also be shared across the network (using One-look Networking).

- Voice Mail/Mail Box Feature
- Interview Service
- Custom Service
- Automated Attendant
- Automatic Two-way Recording for Managers



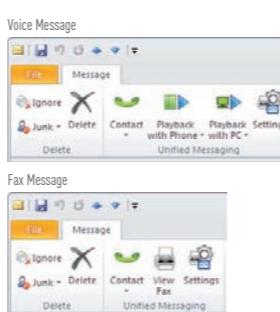
Built-in Fax Server

With its built-in fax server, the KX-NS1000 can receive, distribute, and send faxes. Received faxes can be saved in mail boxes and notify you via the message waiting lamp or e-mail, forwarded, printed, and downloaded.

E-mail Integration

KX-NS1000 sends an e-mail to notify you when you have new fax and voice messages. Fax and voice messages can also be received as attachment files.

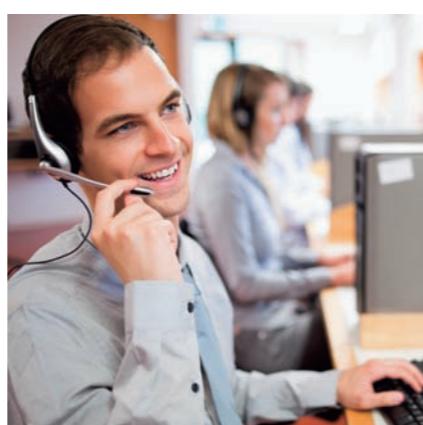
The KX-NS1000 also supports IMAP4 servers, so you can access the content of their mail boxes using a common e-mail client that supports the IMAP4 protocol, such as Microsoft Outlook.



Simple Call Centre

The KX-NS1000 includes an advanced call routing function for small to medium size call centres. This function can be used without an external CTI server. More efficient call reception enables you to effectively utilize limited resources to assist in improving customer service. Furthermore, the solutions can be expanded to suit more sophisticated call centres in combination with Voice Mail functions, the Communication Assistant and third party CTI applications.

- Uniform Call Distribution (UCD)
- Priority Routing for VIP Calls
- 1:N Ringing (Group Ringing)/Delayed Ringing
- Intercept Routing/Busy on Busy
- Call Queue Monitoring
- Listen-in by Supervisor
- Call Monitor
- Busy Override



Communication Assistant

Communication Assistant is a highly intuitive PC-based application suite with powerful point and click telephony and screen-based presence, availability, and a variety of collaboration tools. It can be used with or without a server, and supports over 1000 users with a server.

CA Basic-Express/CA PRO

For Personal Productivity

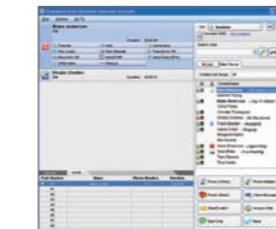
You can easily make calls by simply searching for a desired contact from a customisable contact list. You can also see the phone status and PC status of employees in remote rooms or branches from the PC on your desk.



CA Operator Console

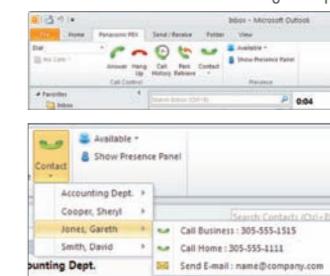
For Operators or Receptionists

You can perform call parking and call transferring with simple drag-and-drop operations in the graphical interface. Multi-site support is also available when using One-look Networking.



Microsoft Outlook Integration

Communication Assistant seamlessly integrates with Microsoft® Outlook® 2003/2007/2010 allowing you to easily dial contact phone numbers and receive incoming call pop-up alerts.



CA Supervisor

For Teams or Executive Users

Supervisors can monitor the performance of set extension groups in real-time with simple mouse operations and manage operators by listening in on telephone conversations and taking over calls.



Network Camera Integration

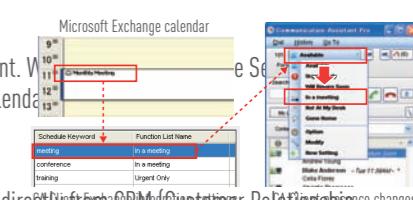
Panasonic Network Cameras can also be integrated, allowing you to answer a Doorphone and open the door after viewing the Network Camera video feed on screen.

Teleconferences with Easy Operations

Members that join a teleconference can be registered in a group using a PC drag-and-drop operation, so that teleconferences can be easily started.

Microsoft Exchange Server Integration

If CA Server is installed on your network, you can integrate a Microsoft Exchange calendar with CA Client. When you drag and drop an event with CA Client, your presence will automatically change according to the contents of your Exchange calendar.



Integrating with Business Applications

The KX-NS1000 supports IP-based CTI integration via industry standard TAPI/CSTA. You can make calls directly from CRM (Customer Relationship Management) applications using TAPI.

- Refer to the back cover for the detailed specification of CA.

Wireless Solutions

The KX-NS1000 provides solutions for linking to cellular phones for companies with many employees working outside the office or at home.

Panasonic provides two wireless systems, SIP based DECT and DECT.

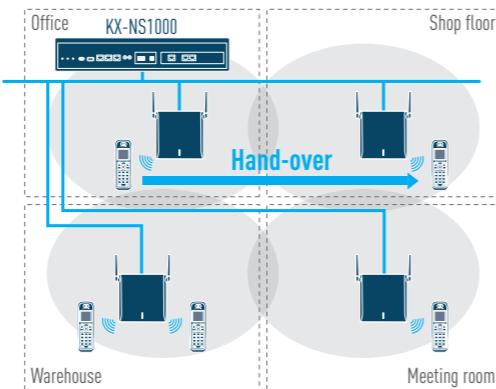
The Multi-Cell DECT Wireless System also provides various wireless solutions, by making extension phones wireless and enabling you to keep in touch with people in charge whenever and wherever they are, as long as they are within the coverage area.

Cellular Phone Integration

There is no need for you to have multiple contact numbers for people who also use a cellular phone. The KX-NS1000 includes features required to integrate cellular phones and smart phones with your office communications network, allowing cellular phones to be used just like office extensions – making and receiving calls and using system short dialling codes from mobile devices.

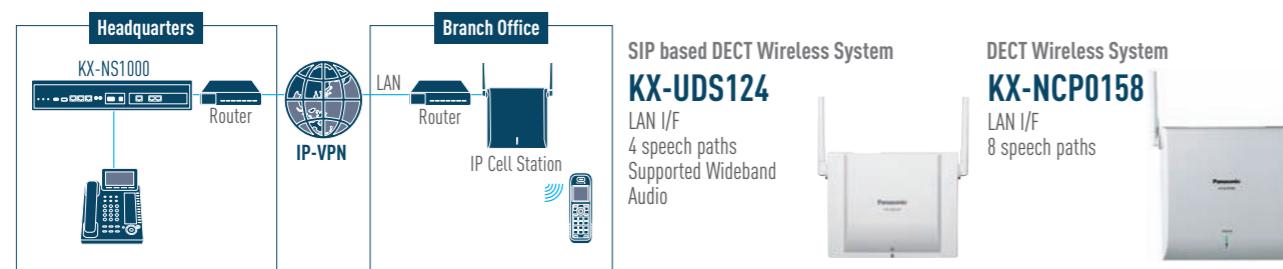
Multi-Cell DECT Wireless System

The Multi-Cell DECT Wireless System lets you carry on your conversation over lightweight, wireless extensions while you are away from your desk or moving around an office, factory, warehouse, or other large facility.



IP Cell Station

IP Cell Station allows you to connect to a KX-NS1000 main unit via LAN. If there is a LAN in your work place, you can connect to it directly and communicate with remote locations such as remote offices, increasing the efficiency of your business.



Repeater

* For DECT Wireless System only
Used with a repeater, the cell station coverage area can be extended without wiring extra cell stations to the KX-NS1000 main unit. The coverage area can be expanded as long as power is available.



KX-A405

DECT Portable Station

SIP based DECT Wireless System

These handsets can be used to conduct high audio quality conversations while on the move. They also reduce time and effort for installation, configuration, and maintenance compared to previous handsets.



IP65 Tough Model **KX-UDT131**



- Wideband Audio
- Splash and Dust Resistant^{*1}
- 12 Flexible Keys
- 1.8 inch Colour LCD
- Noise Reduction^{*2}
- 3 Soft Keys
- Call Log
- Vibration
- Built-in Bluetooth

Dimensions^{*3} (W x D x H) (mm): 55.0 x 23.0 x 151.5
Weight^{*4}: 141g



Business Slim & Light Model **KX-UDT121**



- Wideband Audio
- 12 Flexible Keys
- 1.8 inch Colour LCD
- Noise Reduction^{*2}
- 3 Soft Keys
- Call Log
- Vibration
- Built-in Bluetooth

Dimensions^{*3} (W x D x H) (mm): 48.5 x 17.9 x 127.5
Weight^{*4}: 88g



Business Standard Model **KX-UDT111**



- Wideband Audio
- 12 Flexible Keys
- 1.8 inch Colour LCD
- Noise Reduction^{*2}
- 3 Soft Keys
- Call Log
- Vibration

Dimensions^{*3} (W x D x H) (mm): 48.2 x 25.4 x 146.3
Weight^{*4}: 115g



*1 IP65 compliant: Protection against water jets projected from a nozzle from any direction and protection against dust entering the handset.

*2 Background noise into the microphone is softened and ear receiver volume is automatically turned up when in a loud environment.

*3 Without Belt Clip

DECT Wireless System

The DECT Wireless System keeps you in constant touch with colleagues and customers even when you are away from your desk and moving within the work environment.

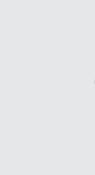
IP64 Tough Model **KX-TCA364**



- Splash and Dust Resistant^{*1}
- 1.5 inch Monochrome LCD
- Noisy Area Mode^{*2}
- 3 Soft Keys
- Group Ring
- Call Log (System)
- Vibration

Dimensions (W x D x H) (mm): 52 x 29 x 152
Weight: 171g

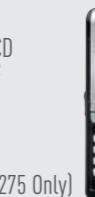
Business Compact Model **KX-TCA275**



- Flexible Keys
- 1.5 inch Colour LCD
- Noisy Area Mode^{*2}
- 3 Soft Keys
- Group Ring
- Call Log (System)
- Vibration (KX-TCA275 Only)

KX-TCA275
Dimensions (W x D x H) (mm): 45 x 23 x 123
Weight: 115g

Business Standard Model **KX-TCA175**



- 1.8 inch Monochrome LCD
- Noise Reduction^{*3}
- 3 Soft Keys
- Call Log (Handset)

KX-TCA175
Dimensions (W x D x H) (mm): 47 x 24 x 144
Weight: 125g

Business Entry Model **KX-WT115**



- 1.8 inch Monochrome LCD
- Noise Reduction^{*3}
- 3 Soft Keys
- Call Log (Handset)

KX-WT115
Dimensions (W x D x H) (mm): 48 x 33 x 160
Weight: 130g

*1 IP64 compliant: Protection against water spraying from any direction and protection against dust entering the handset.

*2 Background noise into the microphone is softened when set to ON.

*3 Background noise into the microphone is softened and ear receiver volume is automatically turned up when in a loud environment.

Conference Solutions

Various teleconferencing functions make work at or away from the company more efficient. These reduce business trip costs and speeds up decision making with smooth communication.



High Definition Voice Conference

For In-Company Staff

With the various voice processing technologies of the KX-UT series SIP phones and the KX-NT700 IP Voice conferencing phone, an IP network can be used to perform low cost and high audio quality voice conferences.

IP Conferencing Phone KX-NT700



- Full duplex acoustic echo-canceller
 - Conference recording with SD Memory Card
 - Speech speed conversion
 - Power-over-Ethernet (PoE)
 - Conferencing phone manager application (Simple video conferencing system with Panasonic Network Camera)*
- * Peer to Peer connection only

Free Location Conferences

For In-Company Staff

Even if conference rooms or meeting corners do not have telephone lines or a LAN, you can have voice conferences with the KX-NT700 IP conferencing phone as long as it is connected to a DECT portable station within range of an IP cell station.



DECT Paging

For Directions to Staff around the Premises

Conference calls can be conducted with a maximum of 32 DECT portable stations, enabling instructions to be sent to multiple people at once. Two-way calls can also be made with up to 8 DECT portable stations, enabling information to be shared in real-time.



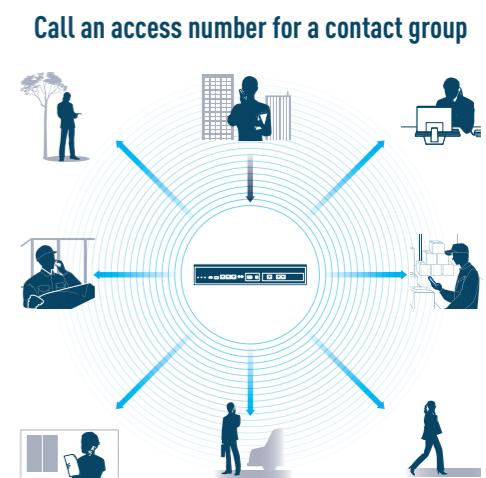
*The number of DECT portable stations that can join a conference call depends on the number of total available voice paths. KX-UDT Series and KX-WT115 cannot be used.



Conference Group Calls from Outside

For Outside Staff

Conference calls can be made simply by calling a phone number for a contact group registered in advance (up to 8 people, including the caller). This avoids using the charged voice conference services provided by telephone carriers.



Terminal Line-up

Various terminals are available to meet the needs of your office environment.

IP Proprietary Telephones

KX-NT500 series and NT300 series advanced desktop phones are designed for business people who require a range of feature-rich telephony devices to match their constantly changing business needs. The KX-NT500 series also offers HD quality audio and low power consumption.



Options

Add-on Key Module *For KX-NT346/343 only



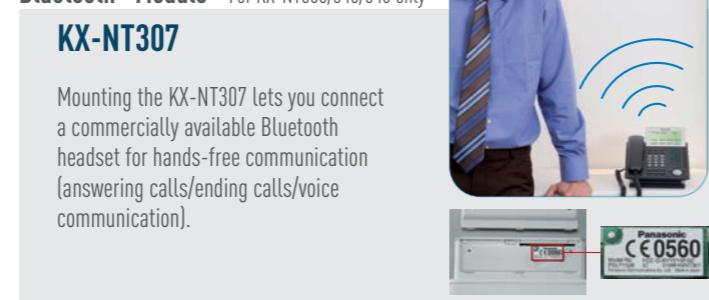
KX-NT305

Add-on 12-Key Module



Add-on 60-Key Module

Bluetooth® Module *For KX-NT366/346/343 only



KX-NT307

Mounting the KX-NT307 lets you connect a commercially available Bluetooth headset for hands-free communication (answering calls/ending calls/voice communication).

SIP Phones

These terminals enhance personal communication with excellent HD quality audio on all models in the range, combined with easy access to powerful supported features.



- For Executives and Vertical Markets**
- 7 inch Backlight LCD Display
 - Colour Touch Screen
 - 3 x 8 Self-Labelling, Flexible CO Buttons
 - 2 Ethernet Port (1000 Base-TX)
 - Power-over-Ethernet (PoE)
 - Network camera monitoring
 - Application Development (Java Supported)



- 4.4 inch Backlight LCD Display
- 3 x 8 Self-Labelling, Flexible CO Buttons
- 2 Ethernet Port (1000 Base-TX)
- Power-over-Ethernet (PoE)
- Built-in Bluetooth for Headset
- Eco Mode

KX-UT136



- 6-Line Backlight LCD Display
- 24 Flexible CO Buttons
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Eco Mode

KX-UT133



- 3-Line Backlight LCD Display
- 24 Flexible CO Buttons
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Eco Mode

KX-UT123



- 3-Line Backlight LCD Display
- 24 Flexible CO Buttons
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Eco Mode

KX-UT113



- 3-Line LCD Display
- 24 Flexible CO Buttons
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Eco Mode