

Panasonic

ideas for life



Hybrid IP PBX System

KX-TDA30

The Networked System that
Maximises Your Business Performance
in an Age of Convergence

The high-powered TDA30 system gives you the means to run your business efficiently.

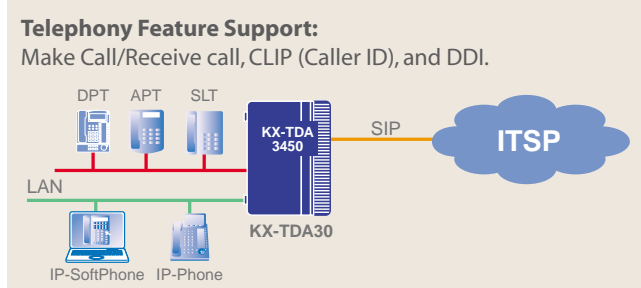
Panasonic enhances its KX-TDA30 Hybrid IP PBX support for SIP trunks, IP phone extensions, improved Call Centre, and simplified Voice Message Card, and many more - experience even more power with a feature rich Version upgrade.



Main Features

SIP Trunks for low-cost tariff VoIP calls

A new SIP protocol based gateway card called SIP-GW4 (KX-TDA3450) is available, supporting the ability to connect KX-TDA30 Hybrid IP PBXs to the growing list of SIP based Internet Telephony Service Providers (ITSP) to achieve low-cost VoIP calls over broadband IP network. The SIP-GW4 comes with 4 port SIP trunk support which can be increased further to 8-ports by installing the optional SIP-DSP4 (KX-TDA3451) module. Each port on the SIP gateway card supports 1 bi-directional voice communication. The SIP gateway card also supports web programming for easy programming and configuration.

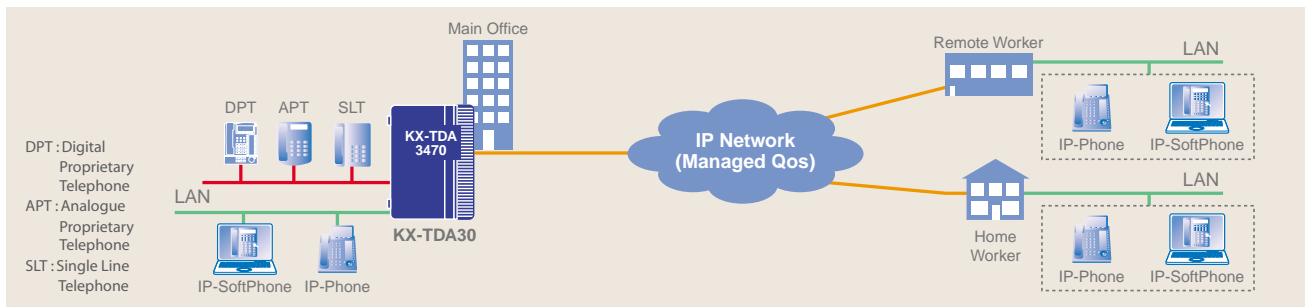


IP Phone Extension Support

A new VoIP based IP Extension card called IP-EXT4 (KX-TDA3470) is available, providing connection for Panasonic proprietary IP telephones. This provides support to remote/home workers by connecting system IP phones over VPNs or broadband internet connections. The 4 channel IP Extension card supports KX-

NT300* series IP Proprietary telephones as these phones are released. One IP-EXT4 card can be installed in TDA30 IP PBX. Additionally, other IP Telephone (KX-NT136/265) and IP Softphone (KX-NCS8102) were supported.

* KX-NT366 and NT305 are not support by TDA30.

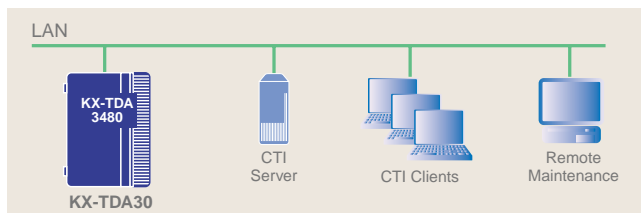


LAN Connection for CTI and Remote Maintenance

Enhanced IP-GW4 Card supports 3rd party CTI – A software enhanced IP-GW4 card (KX-TDA3480) can also be used to allow TDA30 customers to connect an external CTI server (e.g. using Panasonic TDA TSP) to provide common 3rd-party CTI solutions – e.g. Call Accounting and Reporting applications available in the market, Panasonic Phone Assistant applications, and many more.

IP-GW4 Card upgradeable – Existing IP-GW4 Cards, primarily used to establish H.323 based VoIP connection between TDA30 and other TDA PBXs – can now have their software upgraded to provide the above enhancements. It should be noted that both 3rd Party CTI and PC Maintenance Console can work simultaneously.

Enhanced IP-GW4 Card supports Remote Maintenance – The software enhanced IP-GW4 card (KX-TDA3480) allows dealers as well as system administrators to connect to a TDA30 from anywhere over an IP network to easily program and configure the phone system – reducing dealer trips and increasing easy system maintenance.



New Options for TDA30

SIP-GW4 Card (KX-TDA3450)

The New 4 channel SIP trunk card.

SIP-DSP4 Card (KX-TDA3451)

Optional 4 Channel daughter board for TDA3450 increases the maximum SIP channels available from 4 to 8.

IP-EXT4 Card (KX-TDA3470)

The New 4 channel VoIP Extension Card supporting IP Phones.

IP-GW4 (KX-TDA3480)

Enhanced KX-TDA3480 IP-GW4 card to provide:

- (a) CTI Link functions, and
- (b) Support for PC Maintenance Console for PBX Configuration/ Programming.

New IP Proprietary Telephone (KX-NT300 Series)

Panasonic's digital telephones are stylish, easy to use, and efficient. With their large, easy-to-read LCD and four tilt positions, they make life easier for their users and look great too.



Picture : KX-NT346

NT300 Series Line-up

6-Line LCD



KX-NT346

- 6-Line Backlit Display
- 24 Flexible CO Buttons
- Digital Speakerphone
- 2 Ethernet Ports (100 Base-T)
- Power-over-Ethernet (PoE)
- Bluetooth® Module (option)
- Add-on 12-Key Module (option: KX-NT303)

3-Line LCD



KX-NT343

- 3-Line Backlit Display
- 24 Flexible CO Buttons
- Digital Speakerphone
- 2 Ethernet Ports (100 Base-T)
- Power-over-Ethernet (PoE)
- Bluetooth® Module (option)
- Add-on 12-Key Module (option: KX-NT303)

1-Line LCD



KX-NT321

- 1-Line
- 8 Flexible CO Buttons
- Digital Speakerphone
- 2 Ethernet Ports (100 Base-T)
- Power-over-Ethernet (PoE)

Main Features

Hands-Free Communication with a Bluetooth® Headset

Mounting the KX-NT307 lets you connect a commercially available Bluetooth® headset for hands-free communication (Answer a call/End a call/Voice communication). This makes it possible to operate a PC during conversations and to communicate comfortably at a distance from the telephone.



Options

KX-NT303 : Add-on 12-Key Module

KX-NT307 : Bluetooth® Module

New Digital Proprietary Telephone (KX-DT300 Series)



Main Features

Hands-free Communication with a Bluetooth Headset*¹

High-visibility white backlight*¹

Double-Tilt Design*²

*¹ Not available on the DT333/321

*² Not available on the DT321

Line-up

KX-DT346

- 6-Line Backlit LCD Display
- 24 Flexible CO Buttons
- Digital Speakerphone
- Bluetooth® Module (Option : KX-NT307)
- Add-On 12-Key Module (Option : KX-NT303)
- 60-DSS Console (Option : KX-DT390)
- USB Module (Option : KX-DT301)



KX-DT343

- 3-Line Backlit LCD Display
- 24 Flexible CO Buttons
- Digital Speakerphone
- Bluetooth® Module (Option : KX-NT307)
- Add-On 12-Key Module (Option : KX-NT303)
- 60-DSS Console (Option : KX-DT390)
- USB Module (Option : KX-DT301)



KX-DT333

- 3-Line LCD Display
- 24 Flexible CO Buttons
- Digital Speakerphone
- 60-DSS Console (Option : KX-DT390)



KX-DT321

- 1-Line LCD Display
- 8 CO Buttons
- Digital Speakerphone



Options

KX-NT303 : Add-on 12-Key Module

KX-DT301 : USB Module

KX-DT390 : 60 DSS Console

KX-NT307 : Bluetooth® Module

* The Bluetooth® word mark and logos are owned by the Bluetooth® SIG, Inc. and any use of such marks by Panasonic Corporation is under license

Wireless System

More Freedom, Greater Clarity

Today's companies need to keep their employees fully accessible throughout the day. Panasonic Wireless DECT connectivity does exactly that. It also boosts customer loyalty, reduces work time and accelerates response. Wireless communication over an extended range is achieved by using multiple cell stations that boost the flexibility and mobility of your wireless handset. With the Wireless XDP, you can set your wireless telephone to have the same extension as your desk telephone, and then receive calls even when away from the desk. You're always there, ready to receive your customers' calls, and make the most of every business opportunity that comes along.



DECT



KX-TCA155, KX-TCA256 and KX-TCA355

- 6-line blue LCD backlight
- Illuminated keypad
- Multiple language display
- Speakerphone
- Programmable soft keys
- PBX functionality support
- 200 entry phonebook
- Headset compatible
- 9 polyphonic ringer melodies and 6 ringing patterns
- Vibrate alert*
- Meeting mode*

*Only KX-TCA355, 256

As for KX-TCA355 Tough Type Model

- IP5*= Dust resistance (Protection from dust penetration to a level that does not interfere with the operation of the handset)
- IP*4= Water resistance (Protection against splashing water)
The Panasonic KX-TCA355 DECT Handset complies to UKAS IP54 testing standards.
- Impact absorbing rubber is adopted around the KX-TCA355.
- The cabinet (outer plastic covering) is also used impact-touch materials.

Maximum Terminal Equipment

The following shows the number of each terminal equipment type supported by the PBX

Terminal Equipment Type	Without Additional AC Adaptor	With Additional AC Adaptor
Basic CS	4	8
High-density CS	2	4
PS	28	28

Cell Stations

KX-TDA0141

DPT I/F Cell Station
2 speech path

High-Density Cell Station

KX-TDA0158

- The KX-TDA0158CE supports 8 speech paths.

KX-TDA0158



Repeater

KX-A272

Used with Repeater, the range can be extended. A maximum of six repeaters per CS are available.

Required Equipment and Maximum Number of Calls

CS	Connection Card	Maximum Calls	Compatible PSs
KX-TDA0158CE	DHLC,DLC	8	KX-TCA155 KX-TCA256
KX-TDA0141CE	DHLC,DLC	2	KX-TCA355

CTI & Application

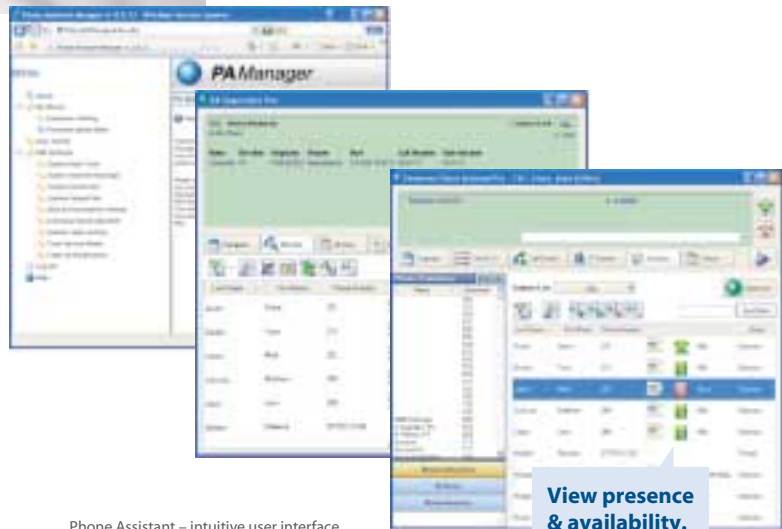


Phone Assistant

The Panasonic Phone Assistant productivity software suite is a highly intuitive PC based application suite that blends powerful point and click telephony together with screen based presence, availability, integration with Microsoft Outlook®, integration with popular TAPI enabled CRM desktop tools, and a variety of collaboration tools to simplify and enhance real-time communications for business telephony users.

Features

- Availability and Presence
- Incoming Call Popup
- Visually Dial Contacts
- One Click Access to Phone Directory
- Chat
- Record Conversation with TVM50/200
- Voice Mail Assistant
- Integration with TAPI
- IP Softphone Option
- IP Camera Integration
- etc....



Phone Assistant – intuitive user interface

View presence & availability.

Targeting all areas for enhancements – Phone Assistant productivity suite includes:

Products	Targeted Solution	Benefits
Phone Assistant Pro	Point and click telephony for desk based or remote workers	Helps you visually control all your communications from your PC. Remote telephony is possible via optional Softphone module
Phone Assistant Status Pro	Team supervisors to monitor employees' activities, or Operators to handle call traffic	Helps you to visually manage all your team member's telephony activities or for operators to handle business call traffic
Phone Assistant Manager	Web based system administration	Helps quickly administer your PBX from any networked PC with a web browser

All applications – when used together can significantly enhance enterprise business productivity and help propel your business to the next level.

Voice Mail

Messaging that Adds More Value and Accuracy to Your Business

Optional Voice Processing System

Panasonic Voice Processing Systems (TVM50/200) let you to record, send and retrieve messages 24 hours a day, 7 days a week world-wide, and help to efficiently handle your telephone system traffic and internal communication needs.

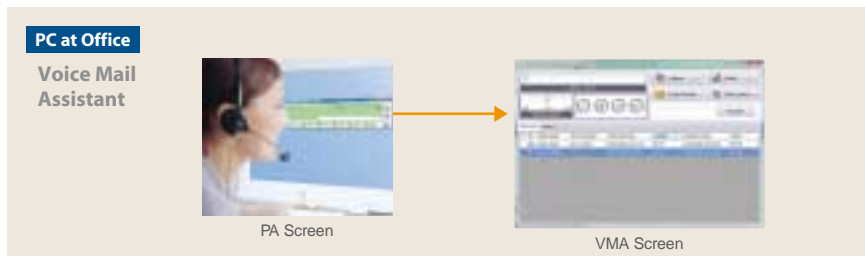
If you are short of staff, you can handle calls with the Automated Attendant Service. You can also upgrade to Unified Messaging using CTI technology that combines e-mail, fax and voice mail, giving you multi-media communication capabilities.

You can even customise the system to meet the needs of different callers using Multilingual Service and Caller ID Call Routing. By combining this with a Panasonic Voice Mail System, you can get additional features that are available only from Panasonic, such as Live Call Screening, Two-Way Recording, and Two-Way Transfer.

Multiple PBXs can also share a single voice mail unit to enable centralised voice mail control.

Voice Mail Assistant (VMA)

Each subscriber of TVM50/200 can access his/her Mailbox by VMA that is launched through Phone Assistant (Ver1.7 or later).



Simplified Voice Message Card

Optional Cards SVM2 (KX-TDA3192) or ESVM2 (KX-TDA3194) provide added message recording and outgoing message (only ESVM2) handling capabilities that help ensure calls from your customers routed through properly and are always answered or processed gracefully.

Enhanced SVM2 (ESVM2) cards can be configured to run in are three modes for complete flexibility

SVM Mode: For Simple Voice Mail only features.

SVM + MSG Mode: Allowing customers to have both a simple voice mail as well as DISA functionality. Companies can even upload from PC high-quality sound files (8kHz, 16 bit .wav file) that can be played as OGM recordings - for various outgoing message applications.

In these case, each card is assigned a floating extension number in the same way as an SVM2 card.

MSG Mode: For DISA functionality leveraging Outgoing Message recordings. The MSG mode can also support mobile telephone extension integration allowing for mobile telephones to be used as PBX extensions.





Mobile Phone Integration with Panasonic PBX



► Simultaneous ringing

Mobile telephones can be registered to the PBX as extensions working as "Virtual" Portable Stations (PS).

When connected in parallel with a wired telephone, both the wired extension and the mobile telephone can ring simultaneously.

And both the wired and the mobile telephone can belong to the same group and can ring simultaneously, too.

► Transfer from a mobile phone

Mobile phone users can transfer calls received on their mobile telephones to colleagues in the office by simply pressing the "#" key and dialling the required extension number.

► PBX feature access

If a mobile phone user (employee) calls to his office, the PBX can automatically recognise and authorise him as a "PBX extension user" and give him all the rights of extension users, such as:

1. To call outside using company COs. This is good because you can save on long distance calls, and you can call to any person from your mobile phone without disclosing your mobile phone number.
2. To call other extensions using short numbers.

Informal Call Centre Function

With its intelligent call-handling functions, the Panasonic Hybrid IP PBX system can serve as the core of an efficient small contact centre for outstanding customer service. Use the Hybrid IP PBX to automatically distribute incoming calls as desired.

Calls can be queued while your team is busy on the telephone; pre-recorded messages can be played to reassure callers while they wait for their call to be answered. If there is no reply or if the phones are all busy, music or pre-recorded promotional messages can be played on hold. You can also assign a backup extension as an overflow destination for calls not answered within a specified period of time.

The system provides a variety of call distribution patterns. Effective use of the different patterns – Uniform Call Distribution (UCD), Priority Hunting, and Simultaneous Ring – can help you manage calls more efficiently.

Group Features

- VIP Call (Priority Answer)
- CLIP Distribution
- Queuing Table

Agent Features

- Log-in / Log-out
- Ready / Not Ready
- Wrap up

Supervisor Features

- Monitoring group activity in real time, with real-time display view
- Historical analysis
- Agent management with DSS
- Agent status monitor
- Remote agent log-in / out by DSS
- Autoanswer by headset

Panasonic Helps to Cut Costs

Least Cost Routing (LCR) saves money by choosing the most inexpensive calling route. To prevent unauthorised people from using the telephone, you can set each extension to require a password for outgoing calls. A time limit can also be set on conversations.

Using a VoIP gateway, the Hybrid IP PBX converts telephone voice signals into IP packets, making it possible for you to use VoIP technology with your present telephone units. VoIP allows simultaneous voice and data transmission on your existing managed data network.

VoIP is an ideal solution for site-to-site communications between multi-site offices and retail chains - as well as for networking branch office and remote office employees, small office/home office (SOHO) workers, and home sales personnel, allowing for flexible working environment and lowering cost.

Company-wide Voice Network

The Hybrid IP PBX can serve as the core of an inexpensive, easy-to-use interoffice networking system. Virtual Private Networking (VPN) is a service provided by the telephone company. It uses an existing line as if it were a private line. The KX-TDA30 supports closed number dialling and digit translation to create your own private digital network.

The KX-TDA30 also supports QSIG* protocol, allowing you to interconnect numerous PBX locations into a large, effectively seamless virtual telephone system, and giving you access to more advanced communication functions. As an example, for customers with a Panasonic KX-TDA100, KX-TDA200, or KX-TDA600 in the head office, QSIG can be used to implement KX-TDA30s in all the branch offices. Using the network numbering plan, you can assign a telephone number to each extension in a branch or head office, reducing communication costs.

Additionally TDA30 will support IP Network with new option IP Card.

* QSIG is an industry-standard digital networking protocol. QSIG Networking is available with PBX systems that support ISDN BRI QSIG.

250 Network DSS keys for 8 PBX systems

8 PBX systems in a private network can have a maximum of 250 network extensions stored on DSS keys (N-DSS: Network-DSS), in order to monitor busy user status across a network of TDA PBXs. In addition to the Network Operator, this feature has now been expanded to allow any extension on a network the ability to monitor .

Hospitality

This KX-TDA Hybrid IP PBX has several built-in features that support its use in a hotel or hotel-like environment, where extensions correspond to guest rooms.

Check-in/Check-out - room status control

The hotel operator extension can be used to view and change the check-in and check-out status of guest rooms. Flexible buttons on the hotel operator's extension can be set as Room Status Control buttons. Two buttons are available:

- Check-in - Guests are checked-in, Telephone charges are cleared and Remote Extension Lock is turned off, allowing calls to be made by the guest from the room extension.

- Check-out - Guests are checked-out and Extension data, such as Timed Reminder or Last Number Redial data, is cleared, and Remote Extension Lock is turned on - preventing calls.

When a guest has checked-in, the DSS key LED corresponding to the guest room will light RED. It will turn off when checked-out.

Remote Wake-up call set via dialling

A Hotel receptionist can set a timed reminder by using the Telephone push buttons. The guest will receive a reminder at the programmed time, on their rooms extension.

Voice Mail Delete on Check-out

Guest extension messages are automatically deleted when a guest has checked-out.

SMDR for Hospitality (ISDN-AOC* is not required.)

The SMDR (Station Message Detail Recording) prints the following information:

- Room Check-in/Check-out
- Timed Reminder Start/Answer/No Answer
- Incoming/Outgoing Trunk
- Dialed number
- Call Duration
- Account code entry

* Advice of Charge

Another SMDR feature is the programmable Message Print-out. Hotel employees can use the telephone in the guest room to input charges, such as those for the minibar. The message will then be printed onto the SMDR.

Bill printout on Check-out (ISDN-AOC* is required.)

Separately from standard SMDR, following information is printed when check out.

- Date & Time of Check in
- Date & Time of Check out
- All calls made from a guest room
- Total charge for telephone call and minibar
- Total tax in charge

For Bill Printed on Check-out feature, Memory Expansion Card is required.



Feature List

Call Handling Features

Incoming Call Features

- Incoming Trunk Call Features
- Direct In Line (DIL)
- Direct Inward Dialling (DID)/Direct Dialling In (DDI)
- Multiple Subscriber Number (MSN) Ringing Service
- Calling Line Identification (CLI) Distribution
- Intercept Routing
- Intercept Routing —No Destination
- Internal Call Features
- Internal Call Block
- Incoming Call Indication Features
- Ring Tone Pattern Selection
- Call Waiting

Receiving Group Features

- Idle Extension Hunting
- Incoming Call Distribution Group Features
- Group Call Distribution
- Outside Destinations in Incoming Call Distribution Group
- Queuing Feature
- VIP Call
- Overflow Feature
- Log-in/Log-out
- Supervisory Feature

Call Forwarding (FWD)/Do Not Disturb (DND) Features

- Call Forwarding (FWD)/Do Not Disturb (DND)
- Call Forwarding (FWD)
- Do Not Disturb (DND)
- FWD/DND Button, Group FWD Button

Answering Features

- Answering Features
- Line Preference — Incoming
- Call Pickup
- Hands-free Answerback

Making Call Features

- Predialling
- Automatic Extension Release
- Intercom Call
- Trunk Call Features
- Emergency Call
- Account Code Entry
- Dial Type Selection
- Reverse Circuit
- Trunk Busy Out
- Pause Insertion
- Host PBX Access Code (Access Code to the Telephone Company from a Host PBX)
- Special Carrier Access Code
- Seizing a Line Features
- Line Preference — Outgoing
- Trunk Access

Memory Dialling Features

- Memory Dialling Features
- One-touch Dialling
- KX-T7710 One-touch Dialling
- Last Number Redial
- Speed Dialling — Personal/System
- Quick Dialling
- Hot Line

Busy Line/Busy Party Features

- Automatic Callback Busy (Camp-on)
- Executive Busy Override
- Call Monitor
- Second Call Notification to Busy Extension
- Call Waiting Tone
- Off-hook Call Announcement (OHCA)
- Whisper OHCA

Toll Restriction (TRS)/Call Barring (Barring) Features

- Toll Restriction (TRS)/Call Barring (Barring)
- Budget Management
- Extension Dial Lock
- Dial Tone Transfer
- Walking COS
- Verification Code Entry

Automatic Route Selection (ARS) Features

- Automatic Route Selection (ARS)

Conversation Features

- Hands-free Operation
- Off-hook Monitor
- Mute
- Headset Operation
- Data Line Security
- Flash/Recall/Terminate
- External Feature Access (EFA)
- Trunk Call Limitation
- Paralleled Telephone
- Calling Party Control (CPC) Signal Detection

Transferring Features

- Call Transfer

Holding Features

- Call Hold
- Call Park
- Call Splitting
- Music on Hold

Conference Features

- Conference Features
- Conference
- Privacy Release

Paging Features

- Paging

Broadcasting Features

- Broadcasting

Optional Device Features

- Doorphone Call
- Door Open
- Trunk Answer From Any Station (TAFAS)
- Background Music (BGM)
- Outgoing Message (OGM)
- Direct Inward System Access (DISA)
- Automatic Fax Transfer
- Built-in Simplified Voice Message (SVM)
- External Sensor
- External Relay Control

Caller ID Features

- Caller ID
- Incoming Call Log

Message Features

- Message Waiting
- Absent Message

Proprietary Telephone (PT) Features

- Fixed Buttons
- Flexible Buttons
- LED Indication
- Display Information

Integrated Services Digital Network (ISDN) Service Features

- Integrated Services Digital Network (ISDN)
- Calling/Connected Line Identification Presentation (CLIP/COLP)
- Advice of Charge (AOC)
- Call Forwarding (CF)—by ISDN (P-MP)
- Call Forwarding (CF)—by ISDN (P-P)
- Call Hold (HOLD)—by ISDN
- Call Transfer (CT)—by ISDN
- Three-party Conference (3PTY)—by ISDN
- Malicious Call Identification (MCID)
- Completion of Calls to Busy Subscriber (CCBS)
- ISDN Extension
- ISDN Service Access by Keypad Protocol

E1 Line Service Features

- E1 Line Service

Voice Mail Features

- Voice Mail (VM) Group
- Voice Mail DTMF Integration
- Voice Mail DPT (Digital) Integration

Portable Station (PS) Features

- Portable Station (PS) Connection
- PS Ring Group
- PS Directory
- PS Feature Buttons
- Wireless XDP Parallel Mode
- Virtual PS

Administrative Information Features

- Station Message Detail Recording (SMDR)
- Printing Message
- Call Charge Services

Hospitality Features

- Room Status Control
- Call Billing for Guest Room

Extension Controlling Features

- Extension Personal Identification Number (PIN)
- Extension Feature Clear
- Walking Extension
- Timed Reminder

Audible Tone Features

- Dial Tone
- Confirmation Tone

Networking Features

- TIE Line Service
- Voice over Internet Protocol (VoIP) Network
- Virtual Private Network (VPN)
- QSIG Standard Features
- Calling/Connected Line Identification Presentation (CLIP/COLP) and Calling/Connected Name Identification Presentation (CNIP/CONP)—by QSIG
- Call Forwarding (CF)—by QSIG
- Call Transfer (CT)—by QSIG
- Completion of Calls to Busy Subscriber (CCBS)—by QSIG
- QSIG Enhanced Features
- Network Direct Station Selection (NDSS)
- Centralised Voice Mail
- Network ICD Group
- PS Roaming by Network ICD Group

IP Proprietary Telephone (IP-PT) Features

- IP Proprietary Telephone (IP-PT)

Computer Telephony Integration (CTI) Features

- Computer Telephony Integration (CTI)
- PC Phone/PC Console

Cellular Phone Features



System Capacity (PSMPR Ver. 5.0)

Maximum Number of Trunks

The PBX supports the following number of trunks.

Line Type	Maximum Number (Channels)
LCOT +BRI +DID	12
VoIP (H.323)	4
VoIP (SIP)	8
E1	30

Maximum Terminal Equipment

The following number of items of terminal equipment can be supported by the PBX. Depending on the type and total number of items of equipment to be connected, the MEC card may be required. To determine whether or not the MEC card is necessary, refer to "MEC Card Calculation".

Terminal Equipment Type	Without Additional AC Adapter	With Additional AC Adapter
SLT	24 ^{*1}	24 ^{*1}
KX-DT300 series/KX-T7600 series/ KX-T7560/KX-T7565 DPT and KX-DT300 series/KX-T7600 series DSS console	Total 24	Total 48
KX-DT300/KX-T7600 series DPT	24	48
KX-DT300/KX-T7600 series DSS console	4	4
KX-T7560/KX-T7565 DPT	24	24
Other DPT/Other DSS console and APT	Total 4	Total 24
Other DPT	4	24
Other DSS console	4	4
APT	4	4
IP-PT	4	4
DSS console	4	4
VPS	4 ports (1 VPS) ^{*2}	4 ports (1 VPS) ^{*2}
SLT, PT, DSS console, and VPS	28	56
CS	4	8
High-density CS	2	4
PS	28	28
Doorphone	4	4
Door Opener/External Relay	4	4
External Sensor	4	4

^{*1} This number includes all ports of SLC cards, regardless of whether an SLT is connected or not.

^{*2} A maximum of 4 ports (8 channels) of a single VPS can be connected to the PBX.

Note Devices connected to the PBX that exceed the system capacity will not function.

Option List

Model No.	Description	Maximum Quantity
KX-TDA3105	Memory Expansion Card (MEC)	1
KX-TDA3161	4-Port Doorphone Card (DPH4)	1
KX-TDA3162	2-Port Doorphone Card (German Type) (DPH2)	1
KX-TDA3166	8-Channel Echo Canceller Card (ECHO8)	1
KX-TDA3168	Extension Caller ID Card (EXT-CID)	1
KX-TDA3171	4-Port Digital Extension Card (DLC4)	1
KX-TDA3172	8-Port Digital Extension Card (DLC8)	2
KX-TDA3173	4-Port Single Line Telephone Extension Card (SLC4)	1
KX-TDA3174	8-Port Single Line Telephone Extension Card (SLC8)	2
KX-TDA3180	4-Port Analogue Trunk Card (LCOT4)	3
KX-TDA3182	3-Port DID Card (DID3)	2
KX-TDA3183	2-Port Analogue Trunk Card (LCOT2)	3
KX-TDA3188	E-1 Trunk Card (E1)	1
KX-TDA3191	2-Channel Message Card (MSG2)	2
KX-TDA3192	2-Channel Simplified Voice Message Card (SVM2)	2
KX-TDA3194	2-Channel Simplified Voice Message Card (ESVM2)	4
KX-TDA3193	4-Port Caller ID Card (CID4)	3
KX-TDA3196	Remote Card (RMT)	1
KX-TDA3280	2-Port BRI Card (BRI2)	3
KX-TDA3283	1-Port BRI Card (BRI1)	3
KX-TDA3450	4-Channel SIP Trunk Card (SIP-GW4)	1
KX-TDA3451	4-Channel VoIP DSP Card (SIP-DSP4)	1
KX-TDA3470	4-Channel VoIP Extension Card (IP-EXT4)	1
KX-TDA3480	4-Channel VoIP Gateway Card (IP-GW4)	1
KX-TDA3820	SD Memory Card for Software Upgrade	1
KX-TDA3920	SD Memory Card for Software Upgrade to Enhanced Version	1
KX-A236	Additional AC Adaptor	1

Specifications

KX-TDA30		
Switching		Non-blocking
AC Adaptor	AC Input	• Panasonic PSLP1244:100 V AC to 240 V AC;1.5 A;50 Hz/60 Hz • Panasonic PSLP1434:110 V AC to 240 V AC;1.35 A;50 Hz/60 Hz
	DC Output	40 V;1.38 A (55.2 W)
DC Input		• DC IN 1:40 V;1.38 A (55.2 W) • DC IN 2:40 V;1.38 A (55.2 W)
External Battery		+36 V DC (+12 V DC x 3, recommended maximum capacity is 14 Ah)
Maximum Power Failure Tolerance		300 ms (without using backup batteries)
Memory Backup Duration		7 years
Dialling	Trunk	Dial Pulse (DP)10 pps, 20 pps Tone (DTMF)Dialling
	Extension	Dial Pulse (DP)10 pps, 20 pps Tone (DTMF)Dialling
Connectors	Trunk	RJ45/RJ11 (2 wire) x each trunk port
	Extension	RJ45/RJ11 (4 wire) x each extension port
	Paging Output	1 conductor jack
	External MOH (Music on Hold) Output	1 conductor jack
Mode Conversion		DP-DTMF, DTMF-DP
Ring Frequency		20 Hz/25 Hz (selectable)
Trunk Loop Limit		1600 Ω maximum
Operating Environment	Temperature	0 °C to 40 °C
	Humidity	10 % to 90 % (non-condensing)
Conference Call Trunk		From 10 x 3-party conference call to 4 x 8-party conference call
Music on Hold		1 port (Level Control: -11 dB to +11 dB in 1 dB steps) Selectable Tone/External Music Source port
Paging	Internal	Level Control: -15 dB to +6 dB in 3 dB steps
	External	1 port (Volume Control: -15 dB to +15 dB in 1 dB steps)
Serial Interface Port	RS-232C	1 (maximum 115.2kbps)
	USB	1
	SLT	1-pair wire (T, R)
Extension Connection Cable	DPT	1-pair wire (D1, D2) or 2-pair wire (T, R, D1, D2)
	APT	2-pair wire (T, R, D1, D2)
	PT-interface CS	1-pair wire (D1, D2)
	PT-interface CS (High-density)	4-pair wire (D1, D2)
	DSS Console and Add-on Key Module	1-pair wire (D1, D2)
Dimension		275 mm (W) x 376 mm (H) x 117 mm (D)
Weight (when fully mounted)		Under 3.5 kg



The Other Panasonic Proprietary Telephone Line-Up

IP Telephones

KX-NT136

- IP Proprietary Telephone
- 6-Line Back-lit Display
- 24-Programmable Keys
- Digital Speakerphone
- 2nd Ethernet Port
- Power Over Ethernet (POE)



KX-NT265

- 1-Line Display
- 8-Programmable Keys
- Message / Ringer Lamp
- Digital Speakerphone



Digital Telephones

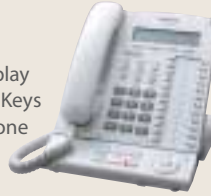
KX-T7636

- Digital Proprietary Telephone
- 6-Line Back-lit Display
- 24-Programmable Keys
- Digital Speakerphone
- USB Connection (optional)



KX-T7633

- Digital Proprietary Telephone
- 3-Line Back-lit Display
- 24-Programmable Keys
- Digital Speakerphone
- USB Connection (optional)



KX-T7630

- Digital Proprietary Telephone
- 3-Line Display
- 24-Programmable Keys
- Digital Speakerphone



KX-T7625

- Digital Proprietary Telephone
- 24-Programmable Keys
- Digital Speakerphone



KX-T7665

- 1-Line Display
- 8-Programmable Keys
- Speakerphone



KX-T7603

- Add-on Key Module (12 Co Keys)



Analogue Telephone

KX-T7710

- Proprietary Telephone
- 8-Programmable Keys
- Modem Data Port
- Message Waiting LED
- Ideal as an office or hotel room phone
- One-touch Button Panel



KX-T7640

- Digital DSS Console (60 DSS)

