



## H y b r i d I P - P B X KX-TDA600

### *The Flexible, Expandable, and Powerful Communications Solution*

- ▶ *To stay ahead in today's changing business environment, you need a communications solution that is as flexible as it is powerful. Whether you want to expand your business, improve existing services, or take advantage of the latest technologies, the Panasonic KX-TDA600 Hybrid IP-PBX can help you both stay in touch and stay ahead.*



# KX-TDA600 Hybrid IP-PBX

## The Flexible, Expandable, and Powerful Communications Solution

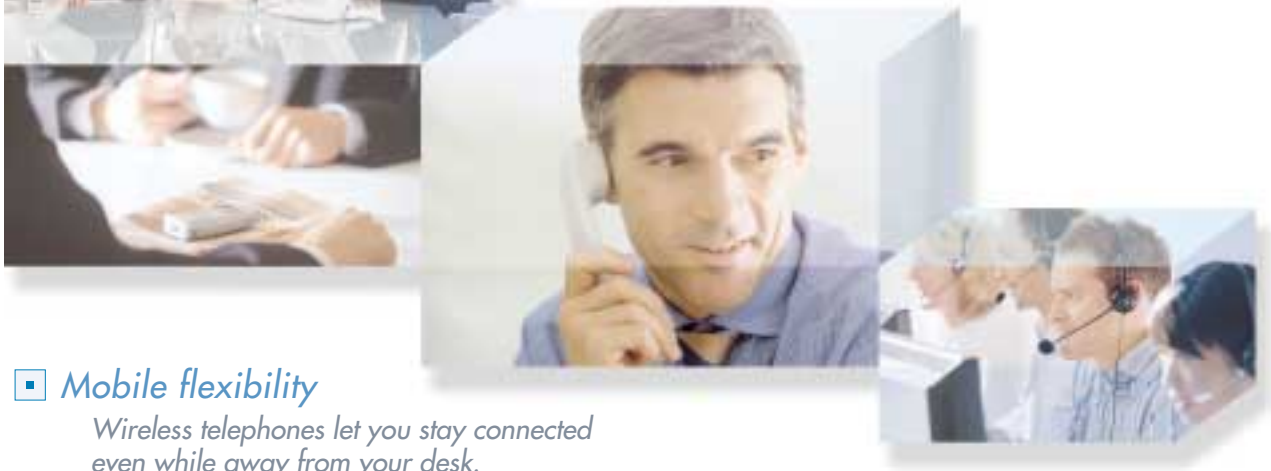
### ■ Grows with you

*Optional cards and cabinets allow you to expand the system to meet your changing needs.*



### ■ Cost-effective performance

*IP technology allows you to connect branch offices at minimal cost while using the same lines for voice and data.*



### ■ Mobile flexibility

*Wireless telephones let you stay connected even while away from your desk.*

### ■ Cutting-edge technologies

*VoIP-compatibility, digital and wireless telephones, and computer integration bring your telephone system into the 21st century.*

## ■ Meeting Your Needs, Exceeding Your Expectations Today and Tomorrow

The KX-TDA600's modular design lets you expand the system as your needs evolve. The Basic Shelf provides maximum 160 ports (240 ports with DXDP\*), and the optional Expansion Shelf provides maximum 688 ports (1008 ports with DXDP)†. Plus with the KX-TDA600's free slot architecture, you can easily insert expansion cards and access new features as well as expand your capabilities.

This expandability means you can enhance system capabilities and features to meet your changing needs, without having to purchase a new system.



\* Digital eXtra Device Port

† When connected to analogue CO-line.

The number may vary depending on the configuration.



## ■ Mobility is flexibility

From almost any place you choose to work – the office down the hall, the warehouse, or outside on the grounds, Panasonic's wireless telephones deliver clear transmission and provide easy access to even advanced telephone system features. Plus, Wireless XDP allows you to set your wireless telephone to use the same extension number as your desk telephone, meaning you can make and receive calls even when away from your desk.

## ■ Customised Customer Service

For businesses with high-volume customer call traffic, keeping calls flowing smoothly and quickly is essential. Panasonic digital telephones do their part by connecting via USB to a personal computer, allowing telephone systems and computer systems to share the workload. For example, you can use the Panasonic PC Phone software to allow call agents to access data such as caller name, account history, previous purchases, etc., all before they answer their phones! This Computer Telephony Integration (CTI) increases both efficiency and customer satisfaction, because agents can handle calls quickly and more appropriately.

## ■ Superior Call Handling

Efficient and intelligent call distribution improves customer satisfaction as well as your company's image. Incoming calls can be directed to available agents in a variety of ways, allow you to control who receives which calls and when. Calls can be queued while your team is busy with other calls, and music or pre-recorded promotional messages can be played for waiting callers to help reduce lost calls and missed business opportunities. You can also assign an additional backup destination for calls that are not answered within a specified period of time. Preferred customers and VIPs can even have their calls connected with priority or to a specific staff member, allowing you to provide special attention to special clients.

## ■ Cost-effective connectivity through IP technology

Companies with two or more branches can utilise networking features to establish private phone connections between the sites. Now you can connect branch offices and off-site staff (remote workers, home workers) to a single Hybrid IP-PBX in your main office with the ease of IP. Only one central Hybrid IP-PBX is needed, which means you can provide the same seamless operation as a single PBX system. And because voice and data can be shared on the same line, a fully-functional home office is now only a network connection away! What's more, you can reduce the number of public telephone lines connected to the system and replace them with cost-slashing IP lines.

## ■ Never Miss a Call

Built-in messaging features ensure accuracy and reliability, and an optional KX-TVM series Voice Processing System adds even more flexibility. The Automated Attendant can answer calls and help your customers direct themselves to the appropriate party. When you're not available, callers can leave messages if necessary, and you can record your phone conversations for confirmation later. Want to check your messages while away from the office? Call in to the system and check your messages, or better yet, have the system forward them to you via e-mail!

## Digital Proprietary Telephones and IP Telephone



### KX-T7636 with KX-T7603

- 6-Line Back-lit Display, 24 Programmable Keys, and a Speakerphone
- Optional 12 Programmable Keys and USB port



### KX-T7633

- 3-Line Backlit Display, 24 Programmable Keys, and a Speakerphone
- Optional 12 Programmable Keys and USB port



### KX-T7630

- 3-Line Display, 24 Programmable Keys, and a Speakerphone



### KX-T7665

- 1-Line Display, 8 Programmable Keys, and a Speakerphone



### KX-T7640

- Digital DSS Console (60 DSS)



### KX-NT136 (IP Phone)

- 6-Line Back-lit Display, 24 Programmable Keys, and a Speakerphone
- 2 Ethernet Ports
- Power Over Ethernet (POE)

## Digital Telephones Specifications

		KX-NT136	KX-T7636	KX-T7633	KX-T7630	KX-T7665
Display	Alphanumeric Display (Lines x Characters)	6 x 24	6 x 24	3 x 24	3 x 24	1 x 16
	Tilt-Angle Adjustment	4 Steps	4 Steps	4 Steps	4 Steps	2 Steps
	Display-Contrast Adjustment	4 Levels	4 Levels	4 Levels	4 Levels	3 Levels
	Back-lit	✓	✓	✓	-	-
Keys Audio	Feature Access Keys for Display	4	4	4	4	-
	Programmable Keys with Dual-Colour LED	24	24 (36*)	24 (36*)	24	8
	Direct Station Selection (DSS) Keys with Busy Lamp Field (BLF)	**	**	**	**	**
	Navigator Keys	✓	✓	✓	✓	✓
Audio	Message / Ringer Lamp	✓	✓	✓	✓	✓
	Speaker-Phone (Monitor) Volume Control	12 Levels	12 Levels	12 Levels	12 Levels	12 Levels
	Handset Volume Control	4 Levels	4 Levels	4 Levels	4 Levels	4 Levels
	Ringer Volume Control	4 Levels	4 Levels	4 Levels	4 Levels	4 Levels
Connection	Off-Hook Call Announcement (OHCA)	-	✓	✓	✓	✓
	Whisper OHCA	✓	✓	✓	✓	✓
	USB Module (KX-T7601) Connectable	-	✓	✓	-	-
Others	Digital eXtra Device Port (DXDP)	-	✓	✓	✓	✓
	Optional Headset Compatible	✓	✓	✓	✓	✓
	Station Speed Dial Numbers	10***	10***	10***	10***	10***
	Wall Mount	✓	✓	✓	✓	✓

\* 36 programmable Keys are available when the optional 12 Programmable Key Add-On Module (KX-T7603) is selected.  
 \*\* Can be assigned to Programmable Key.  
 \*\*\* 100 Station Speed Dial numbers if Memory expansion card installed.

## Digital Telephones Additional Options

KX-T7640	KX-T7603	KX-T7601
DSS Console. 60 Programmable keys with Busy Lamp Field. Compatible with KX-T7636, KX-T7633 and KX-T7630 models.	Additional 12 Programmable keys module with Dual-Colour LED's. KX-T7636 and KX-T7633 only.	USB Interface card. Enables connection between Telephone and PC for CTI software. KX-T7636 and KX-T7633 only.

## DECT Telephones



KX-TCA255

KX-TCA155

## Specifications



	KX-TCA255	KX-TCA155
Liquid Crystal Display (LCD)	16 x 6 Lines	16 x 6 Lines
Back Light	Blue	Blue
Multiple Language Display	16 (Fixed)	16 (Fixed)
Illuminated Keypad	Yes (Green)	Yes (Green)
Headset Compatible	Yes	Yes
Phonebook	200	200
Redial	Last 5 Numbers	Last 5 Numbers
Caller ID Compatibility	Yes	Yes
Call Log*	Incoming Call	10
	Outgoing Call	5
Soft Keys	3	3
Programmable Menu Flexible Keys	12	3

\* The number of default settings.  
 When connected to the KX-TDA PBX, the number of call logs is changeable using PBX PC software.

## System Capacity

		KX-TDA600			
		Basic System	2 Shelf System	3 Shelf System	4 Shelf System (Max)
Telephone	Without DXDP*	160	320	480	640
		With DXDP*	240	480	720
	Single Line Telephone (SLT)	160	320	480	640
	KX-T7600 series Digital Proprietary Telephone (DPT)	160	320	480	640
	Other DPT	128	256	384	512
	Analogue Proprietary Telephone (APT)	80	160	240	320
	IP-PT (Proprietary Telephone)	160	320	480	640
	Direct Station Select (DSS) Console	64			
Voice Processing System (VPS)	8				
Trunks	Trunk Port	160	320	480	640
	ISDN Trunk	150	300	450	600
	Analogue Trunk	160	320	480	640
	IP-Gateway	160	320	480	640
Wireless	Portable Station (PS)	Without Memory Expansion Card	256		
		With Memory Expansion Card	512		
	Cell Station (CS)	32	64	96	128
Doorphone Port		16	32	48	64
PC Console		8	8	8	8
PC Phone		128	128	128	128

\*DXDP: Digital eXtra Device Port

## Option List for TDA600

	Model	Description	
Cabinet	KX-TDA600 (Proprietary)	Basic Shelf (Main Unit)	
	KX-TDA620 (Proprietary)	Expansion Shelf Bus Slave Connection Circuit added initially (BUS S)	
Power Supply	KX-TDA0103	Large Power Supply Unit (L-PSU)	
	KX-TDA0104	Medium Power Supply Unit (M-PSU)	
EMPR	Daughter cards for EMPR card only	KX-TDA6105	Memory Expansion Card (EMEC)
		KX-TDA0196	Remote Card (RMT)
Inter Connection	KX-TDA6110	Shelf Connection Card for Basic Shelf (BUS M)	
	KX-TDA6111	Additional Card for connecting Expansion Shelf 2 and 3 (BUS ME) Mounted onto Bus M Card	
Extension Cards	KX-TDA0170	8-Port Digital Hybrid Extension Card (DHLC8)	
	KX-TDA0171	8-Port Digital Extension Card (DLC8)	
	KX-TDA0172	16-Port Digital Extension Card (DLC16)	
	KX-TDA0173	8-Port Single Line Telephone Card (SLC8)	
	Daughter card for SLC8 card only	KX-TDA0168	8-Port Analogue Extension Caller ID card (EXT-CID8)
	KX-TDA6174	16-Port Single Line Telephone Card (ESLC16)	
	KX-TDA6175	16-Port Single Line Telephone Card with Message Lamp (EMSLC16)	
KX-TDA0470	16-Port IP PT Extension Card (IP-EXT16)		
Trunk Cards	KX-TDA6181	16-Port Analogue Trunk Card (ELCOT16)	
	Daughter cards for LCOT cards only	KX-TDA0189	8-Port Caller ID / Pay Tone Card (CID / PAY8)
		KX-TDA0193	8-Port Caller ID Card (CID8)
	KX-TDA0182	8-port Direct Dialling In (DID) Card (DID8)	
	KX-TDA0184	8-Port E&M Trunk Card (E&M8)	
	KX-TDA0188	E-1 Trunk Card (E1)	
	KX-TDA0284	4-Port Basic Rate Interface (BRI) Card (BRI4)	
	KX-TDA0288	8-Port Basic Rate Interface (BRI) Card (BRI8)	
	KX-TDA0290	Primary Rate Interface (PRI) Card (PRI 30)	
	KX-TDA0484	4-Channel VoIP Gateway Card (IP-GW4E)	
	KX-TDA0490	16-Channel VoIP Gateway Card (IP-GW16)	
Dect Options	KX-TDA0141	2-Channel Cell Station Unit Using a DHLC / DLC Card for DECT Portable	
	KX-TDA0142	4-Channel Cell Station Unit Using a CSIF Card for DECT Portable Station	
	KX-TDA0143	4 Cell Station Interface Card (CSIF4) for TDA0142	
	KX-TDA0144	8 Cell Station Interface Card (CSIF8) for TDA0142	
	KX-A272	2-Channel DECT Cell Station Repeater	
Option Cards	KX-TDA0190	Optional 3-Slot Base Card (OPB3)	
	KX-TDA0410	CTI Link Card (TAPI / CSTA, 10Base-T)	
	KX-TDA6166	16-Channel Echo Canceller Card (EECHO16)	
	Daughter cards for OPB3 card only	KX-TDA0161	4-Port Doorphone Card (for KX-T30865) (DHP4)
		KX-TDA0162	2-Port Doorphone Card (for German Type) (DPH2)
KX-TDA0164		4-Port External sensor Card (EIO4)	
KX-TDA0191		4-Channel Message Card (MSG4)	
Other	KX-TDA6920	SD Card containing Enhanced Feature Upgrades	
	KX-TDA6201	Mounting Kit - Contains 4 x Wall Mounting Plates, 4 x Feet, and Screws	

## Specifications

KX-TDA600
<b>Power Voltage:</b> AC100V ~ 240V
<b>External Battery:</b> +36V (+12V x 3), Built-in interface
<b>Memory Back-up Duration:</b> 7 years
<b>Dialling:</b> Extension - DP (10pps, 20pps), DTMF CO - DP (10pps, 20pps), DTMF
<b>Mode Conversion:</b> DP-DTMF, DTMF-DP
<b>Connectors:</b> CO Line - Amphenol Connector Station - Amphenol Connector Paging Output - 2 conductor jack External Voice Output - 2 conductor jack
<b>Ring Frequency:</b> 20 / 25 Hz (Selectable)
<b>Central Office Loop Limit:</b> 1600 ohms max.
<b>Operating Environment:</b> Temperature - 0 - 40°C (32 - 104°F) Humidity - 10 - 90%
<b>MOH (Music on Hold):</b> 2 ports MOH # 1: External Music Source MOH # 2: Internal Music / External Music Source (Level control: -6dB ~ +6dB per 3dB)
<b>Internal Paging:</b> Level control: -6dB ~ +6dB per 3dB
<b>External Paging:</b> 2 ports (Level control: -15dB ~ +15dB per 3dB)
<b>Serial Interface Port:</b> USB: 1port RS-232C: 1port (115.2kbps)
<b>Structure:</b> Free Slot style Can be accommodated into 19" Rack

# System Feature Capacity

		KX-TDA600
<b>System</b>	Tenant	8
	Class of Service	64
	Trunk Group	96
	User Group	96
	Paging Group	96
	Call Pickup Group	96
	Incoming Call Distribution (ICD) Group	128 groups, 128 extensions per group
	Portable station (PS) Ring Group	32
	Voice Mail (DPT) Group	8
	Voice Mail (DTMF) Group	8
	Queueing Time Table	128
	Extension Hunting Group	128 groups (16 extensions per group)
	Absent Message (System / Extension)	8 message x 16 characters per system 1 message x 16 characters per extension
	Message Waiting	1672 (1032: PT+SLT) + (640: ICDG+PS)
	Number of the characters of Name	20
	Extension Number Digits	5 digits
	Call Park Zone	100
	Conference	3x10 - 8x4 per shelf
	Special Carrier Code	16 digits, 100 entries
	Verified Code	4 digits x 1000 entries
	Verified Code Personal Identification Number (PIN)	10 digits, 1000 entries
	Host PBX Access Code	10 digits (10 entries / trunk group)
	DDI / DID Table	32 digits (1000 entries)
	Station Message Detailed Recording (SMDR) Call Storage	1000 calls w/o EMEC card 4000 calls w EMEC card
	<b>Toll Restriction / Barring</b>	Toll Restriction / Barring Level
Toll Restriction / Barring Denied Code		16 digits, 100 entries per level
Toll Restriction / Barring Exception Code		16 digits, 100 entries per level
<b>Networking</b>	TIE Routing Table	32 entries
	Leading Number	3 digits
	PBX Code	7 digits

		KX-TDA600	
<b>Automatic Route Selection (ARS)</b>	Routing Plan Table	48 entries	
	Leading Number Table	16 digits, 1000 entries	
	Leading Number Exception Table	16 digits, 200 entries	
	ARS Carrier	48	
	Itemised Billing Code	10 digits	
	Authorisation Code	10 digits	
<b>Dialling</b>	Emergency Call	32 digits, 10 entries	
	Quick Dialling	4 digits, 80 entries w/o EMEC card (4 digits, 80 entries) + (8 digits, 1000 entries) w EMEC card	
	System Speed Dialling	32 digits, 1000 entries per system w/o EMEC card 32 digits, 1000 entries per Tenant w EMEC card Max: 8 Tenants	
	Personal Speed Dialling	32 digits, 10 entries per extension w/o EMEC 32 digits, 100 entries per extension w EMEC	
	One-Touch Dialling	32 digits	
	Hot Line	32 digits	
	Key Pad Protocol Dial (ISDN Service Access)	32 digits	
	Redial	32 digits	
	<b>Password</b>	System Password for Administrator	4-10 digits
		System Password for User	4-10 digits
Manager Password		4-10 digits	
Extension Personal Identification Number (PIN)		0-10 digits / extension	
<b>Voice Mail</b>	Max Number of VPS Systems	8	
	Max Number of VPS Channels	8 x 24ch	
<b>Call Log</b>	Outgoing Call Log	10 logs per extension 5 x 1152 logs per system	
	Incoming Call Log	100 logs per extension 10 x 1280 logs per system	

## Features List

### System Features

- Automatic ISDN Setting (BRI)
- Automatic Route Selection (ARS) / Least Cost Routing (LCR)
- Background Music (BGM)
- Budget Management
- Busy on Busy
- Call Park with Indication
- Call Pickup Group
- Call distribution by Caller ID
- Class of Service (COS)
- CTI (CSTA, TAPI)
- Data Line Security
- Delayed Ringing
- Direct In Lines (DIL)
- Direct Inward Dialling (DID)
- Direct Inward System Access (DISA)
- Door-Phone / Door Opener
- Echo Cancellation
- Extension Lock
- Emergency Call
- Existing APT/ DPT Compatibility
- External BGM
- Flexible Numbering Plan (4-digits)
- Floating Extension
- Greeting Message
- Host PBX Access Code
- Hunting Group
- Hurry-Up Transfer
- Incoming Group (Hunting Group)
- Intercept Routing - Busy/ DND
- Intercept Routing - No Answer
- Intercept to Trunk
- Line Monitor (CO)
- Main Processing (MPR), Card / CS software download
- Manager Functions
- Multiple Language Support
- Online Diagnostics
- Operator Functions
- PC Console / PC Phone
- PC Programming
- Paging Group
- Quick Setup
- Remote Alarm Notification
- Remote Extension Status Control through DISA
- Remote Extension Lock
- Ring Group
- Special Carrier Access
- Station Message Detail Recording (SMDR)
- SMDR 24 Hour and 12 Hour Time Format
- SMDR Caller ID Printing
- System Memory Expansion
- Tenant Service
- Timed Reminder
- Time Service (Day / Night / Lunch / Break)
- Toll Restriction
- Trunk Group
- Uniform Call Distribution (UCD)
- User Group
- VIP-Call
- Visual Caller ID

### <Voice Mail (VM) Features>

- Automatic Configuration - Quick Setup
- Call Forwarding to VM
- Caller's Identification Notification to VM
- Intercept Routing to VM
- Telephone Display, Menu driven VM operation
- Live Call Screening (LCS)
- Remote PBX Data Control by VM
- VM Data Control by PBX
- VM (Digital / DTMF) Integration
- VM Group
- VM Mail Transfer
- VM Message Number display on DPT LCD

### Extension Features

- 4-Party Conference with Broadcasting up to 32-Party
- Absent Message
- Account Code Entry (Forced)
- Automatic Redial
- Boss - Secretary
- Broadcasting
- Caller ID to Single Line Telephone
- Call Forwarding (All Calls, Busy, Busy / No Answer, No Answer, Follow Me, From Incoming Group)
- Call Hold
- Call Pickup (Directed, Group, DSS, Deny)
- Call Transfer (Screened, Unscreened, One-Touch Transfer, Transfer Recall)
- Conference (3-Party Conference, Multi Party Conference, Unattended Conference)
- Dial Type Selection
- Digital eXtra Device Port (DXDP) (2DPTs in One Extension Port)
- Direct One-Touch Answering
- Do Not Disturb (DND)
- DSS Console
- Executive Busy Override
- Extension Directory
- Extension-to-Trunk Call Duration Time
- External Feature Access
- Flexible Buttons
- Digital Duplex SP-phone
- Hands-free Operation
- Handset / Headset Selection
- Large Telephone Display Features with Back-lit
- LED control for CTI
- Log-In / Log-Out
- Message Waiting
- Multi-Lingual Display
- Multiple Hop Call Forwarding (4 steps)
- Music on Hold
- Off-Hook Call Announcement (OHCA)
- Off-Hook Monitor
- One-Touch Dialling
- Paging (Deny, Paging Transfer)
- Paralleled Telephone (APT/ DPT+SLT, DPT/ SLT+PS)
- Redial, Last Number
- Remote Station Control
- Special Carrier Access
- Speed Dialling - Personal / System
- Time and Date Display

- Tone-Pulse Conversion
- Trunk Answer from Any Station (TAFAS)
- Walking Class Of Service (COS)
- Whisper OHCA (Off-Hook Call Announcement)
- Wrap-Up
- eXtra Device Port (XDP)

### <DECT Features>

- Automatic Handover
- DECT CS on Digital Extension Port
- Headset Compatibility
- Incoming & Outgoing Call Log
- Telephone Display control via CTI\*
- Wireless XDP Parallel Mode
- Vibrator Ring (KX-TCA255 only)

### ISDN Service Features

- Advice Of Charge (AOC)
- Calling Line Identification Restriction (CLIR)
- Calling Line Identification Presentation (CLIP)
- Completion of Calls to Busy Subscriber (CCBS)
- Connected Line Identification Presentation (COLP)
- Connected Line Identification Restriction (COLR)
- Direct Dialling Inward (DDI)
- ISDN 3 Party Conference (3PTY)
- ISDN Call Forward (CFU / CFNR / CFB)
- ISDN Call Transfer (CT)
- ISDN Extension
- Malicious Call Identification (MCID)
- Multiple Subscriber Numbers (MSN)

### Networking Features

- Alternated Routing
- ARS with VoIP
- Network Busy Lamp Field (BLF)\*
- Caller ID to SLT (Public Call through Private Network)
- Call Log (Public Call through Private Network)
- Network Closed Numbering
- DISA Call to the Network
- Private Network to Public Network
- Public Network to Private Network
- QSSIG Connection
- Speed Dial Name (Public Call through Private Network)
- Tandem Connection
- Transfer to Network PBX
- Virtual Private Network (VPN)
- VoIP Network (Built-in IP-GW)

\*Optional software required  
 DPT: Digital Proprietary Telephone  
 APT: Analogue Proprietary Telephone  
 SLT : Single Line Telephone  
 PS : Portable Station