# Panasonic ideas for life





Hybrid IP-PBX Systems

> KX-TDA100 KX-TDA200 KX-TDA600

The intelligent business solution.

## **Hybrid IP-PBX KX-TDA Telecommunication Platform:**



Investment in a telecommunication system requires business communication foresight. Businesses need to be able to effectively communicate today - yet want to make sure that they are properly equipped to handle the growing demands of their future communication needs. The Panasonic Hybrid IP-PBX TDA systems combine the advantages of traditional telecommunications with the convergence of IP technology offering maximum feature and functional flexibility to handle all your business communication needs Today and in the Future.

#### **Makes Communications Easy**

Panasonic digital telephones are stylish, easy to use, and efficient.

Features include a large, easy-to-read 6-line backlit LCD that can display up to 24 characters, an easy-to-view Message/Ringer Lamp, Navigator Keys for quick and easy operation, 4-step angle adjustment for greater comfort, and a USB terminal that provides simple plug-n-play connection with a PC.

#### **Cost-Cutting Performance**

Any business could benefit from a low-cost, easy-to-use, and reliable inter-office networking system. Using a VoIP gateway, the Hybrid IP-PBX converts telephone voice signals into IP packets, making it possible for you to use VoIP technology even with existing telephone units. The Hybrid IP-PBX also supports the QSIG\* protocol, making it effective for building a company-wide voice network. And Automatic Route Selection (ARS) saves money by choosing the most inexpensive calling route. Also, in addition to cutting costs, VoIP technology and networking give you easier access within networks.

- OSIG\*
- Voice over Internet Protocol (VoIP)
- Automatic Route Selection (ARS)



<sup>\*</sup> QSIG is an industry-standard digital networking protocol.

#### The Future is here



#### **Efficiency You Can Appreciate**

Our versatile solutions will bring a wide range of benefits to your company. Wireless technology allows you freedom of mobility so you can initiate or respond to important calls from anywhere in your office, and the messaging solution adds value to virtually all your services. Advanced call centre functions improve communication efficiency and allow you to serve customers more effectively. The Hybrid IP-PBX makes it easy to distribute calls, manage your telephone agents, and control office use of the phone system. Compatible with the CTI standard protocols, TAPI and CSTA, the Panasonic Hybrid IP-PBX can serve as the core of a powerful, high-value-added CTI system.

#### Reliability

The reliability of the Panasonic Hybrid IP-PBX system is assured by a rigorous quality control system and extensive testing before it leaves the factory. The Hybrid IP-PBX is also designed for quick, easy maintenance to keep system downtime to an absolute minimum. You can change or add modules without switching off the system.

## An Affordable System that Adds Value to Your Business

The new Messaging Features offer greater flexibility. If short of staff, you can handle calls with the Automated Attendant Service. You can upgrade to Unified Messaging using CTI technology that can combine e-mail, fax and voice mail, giving you multi-media communication capabilities. You can even customise the Hybrid IP-PBX to meet the needs of different callers. By adding a Panasonic Voice Processing System, you can utilise additional features that are available only from Panasonic, such as Live Call Screening, Two-way Recording, and Two-way Transfer.



### **Extreme Functionality**



For effective communication - Panasonic telecommunication systems allow you to have a wide range of services at your disposal. Panasonic communication systems allow businesses to choose from a range of user-friendly solutions allowing you to find the right solution at the right price to handle your business application needs.

#### **Alphanumeric Display**



Visual feedback on the user-friendly LCD display makes it easier to handle calls and perform other tasks. Use it to view a variety of information (see partial list below) or to access the Hybrid IP-PBX system's many features. Users can also make calls by simply following the visual prompts shown on the display.

- Incoming caller's name and number (ISDN, Caller ID)
- Message waiting, absent messages, feature settings
- Log of incoming and outgoing calls (Call Log)
- System/personal speed dialling
- Extension lists
- Call Duration
- Menu of system features
- Time and date

## **Navigator Key**



The navigator key allows fast, one touch, access to the multiple system functions.

#### **Programmable Keys**



One-touch function access: the programmable soft keys save time and effort. These keys can be used to store telephone numbers, or frequently used feature access. The dual colour Red/Green LED's give visual indication of feature accessed as well as the status of colleagues whether they are available or busy on their phone.

### Ergonomic-Design, 4-Step, Tilt-Angle Adjustment



The display screen can be adjusted to four different viewing angles for optimum readability.

### **Hands Free Convenience**



The built-in headset jack allows you to keep your hands free while taking important telephone calls, giving you the freedom and flexibility to work on your PC or take notes etc.

## eXtra Device Port (XDP) and Digital XDP (DXDP)

Use the XDP port to add an analogue phone, cordless phone, or other single-line device to your extension without the cost of an additional line. This lets you send a fax while talking to a customer. Or, by connecting a modem to the XDP port, you can access the Internet while you continue to use the telephone conversing with a client. The DXDP port allows you to add a second digital telephone to your extension allowing you to increase your system capacity without the need for additional optional extension cards and wiring.

#### **Best Comfort**

#### **KX-NT136**

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



#### KX-T7636 with KX-T7603

- Digital Proprietary Telephone
- 6-Line Back-lit Display
- 24-Programmable Keys
- Digital Speakerphone
- USB Connection (optional) 12 additional programmable keys (KX-T7603)



#### **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
- Digital Speakerphone\*



#### **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)



<sup>\*</sup> Half Duplex

#### More selection



With its intelligent call-handling functions, the Panasonic Hybrid IP-PBX can serve as the core of a contact centre that efficiently and intelligently handles all business calls.

#### Higher Productivity, Greater Customer Satisfaction

Desktop PC Integration improves call handling and provides added functionality for power users. A 'snap-in' high-speed USB module makes it easy to connect the digital telephone to your desktop or laptop computer.

#### **User Productivity**

Using PC Phone software, you can integrate your phone system with a database, giving you a powerful Customer Relationship Management (CRM) support tool. Selective or automatic Call Recording, Intelligent TAM, as well as Microsoft Outlook synchronisation are just a few of the exceptional features that can provide enhanced added functionality to telephony power-users in your company.

#### **Attendant Productivity**

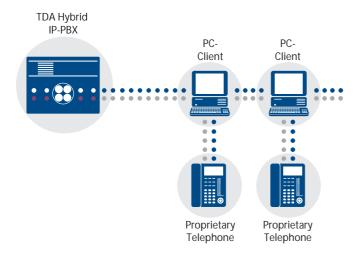
Productivity can be improved further by using the PC Console software application giving operator attendants the ability to answer and transfer calls and perform other routine call-handling duties by simple, visual drag-and-drop operations using a standard PC mouse or other similar pointing device.

The attendant can also take notes in the absence of a user. These notes pop-up when the user calls the attendant to retrieve the messages.

## **More success**

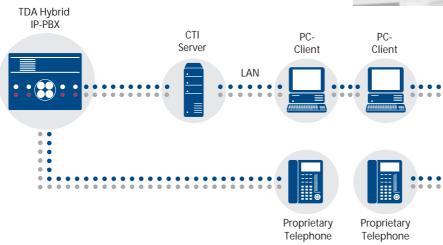


## **1st Party CTI**

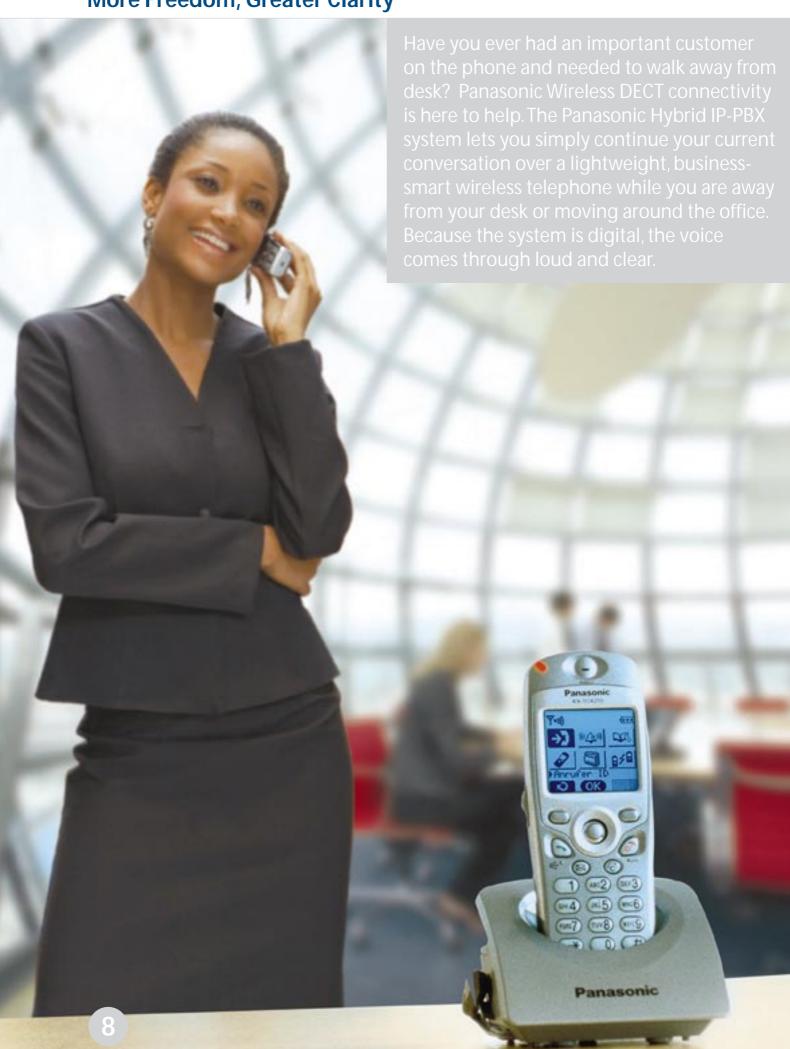




## **3rd Party CTI**



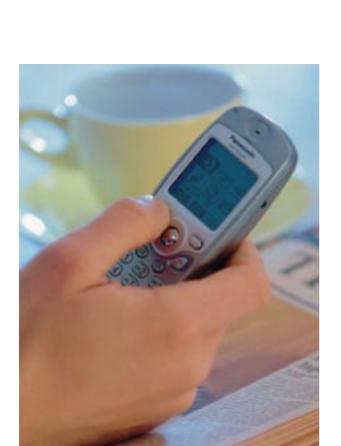
## More Freedom, Greater Clarity





## **DECT Mobility**

The Hybrid IP-PBX system allows wireless communication over an extended range by using multiple cell stations that boost the flexibility and mobility of your wireless handset. Using the Wireless XDP, you can set your wireless telephone to have the same extension as your desk phone, and then receive calls even when away from the desk. You are always there, ready to receive your customers' calls, and make the most of every business opportunity that comes along.





## KX-TCA155 and KX-TCA255 -**Features**

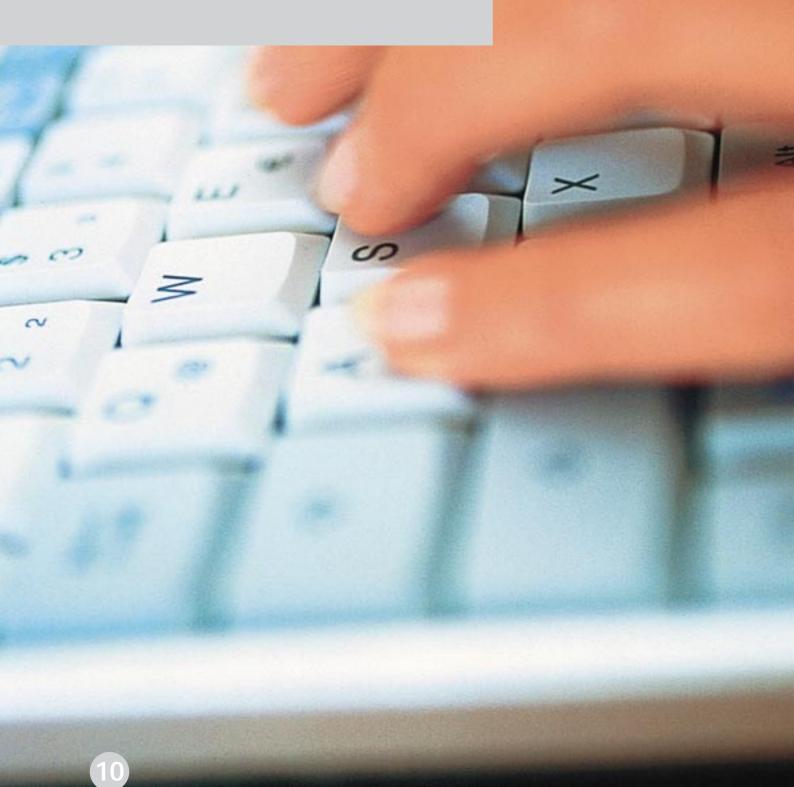
- 6-line, Blue LCD Backlight Illuminated Keypad Multiple Language Display

- Speakerphone
  Programmable Soft Keys
  PBX functionality support
  200 entry Phonebook
  Headset Compatible
  9 polyphonic Ringer Melodies and 6 ringing patterns Vibrate Alert\*
- Meeting Mode\*

\* KX-TCA255 Only

## **Flexible Access**

The human voice remains the most effective mode of communication. We all know how frustrating it can be when trying to contact someone and the line is always busy or not answered. Panasonic has combined its knowledge of Call handling with their Intelligent PBX systems to ensure that calls from your customers can always be answered by someone, or voice messages can be left to request a follow-up call.



### **Intelligent Call Handling Capabilities**



## Personal Mailboxes and email notification.

Using the advanced KX-TVM Messaging Solution - each Extension can be assigned its own personal mailbox that can be contacted any time of day or night. If a caller leaves a voice message for a user, the extension user is notified by a message-waiting lamp available on proprietary telephones or can be additionally notified via an e-mail with voice message attached sent to the user's personal computer. Incoming call information is also recorded with the message and is displayed on a Proprietary telephone. This information includes Callers telephone number, time of call, and length of call.

## The perfect service for your customers

Whatever the size of your company, efficient and courteous handling of telephone calls is a major factor in a successful business. Panasonic provides multiple solutions for Call Centres, to help control and make use of the limited resources that may be available. Use the Hybrid IP-PBX to automatically distribute incoming calls as desired. You can program the Hybrid IP-PBX to direct callers to the appropriate group for efficient call handling.

You can also assign a backup extension as an overflow destination for calls not answered within a specified period of time. You can designate any extension you want as the overflow destination—a company message box, for example—and you can designate different overflow destinations for when the PBX is in day, lunch, break, or night mode.

Other features—such as VIP Call, which provides special handling for key customers; Automated Attendant, which answers calls automatically; and queuing, which puts the caller on hold and plays messages and music when no one is available—help ensure greater customer satisfaction and prevent missed business opportunities.

The Hybrid IP-PBX 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.

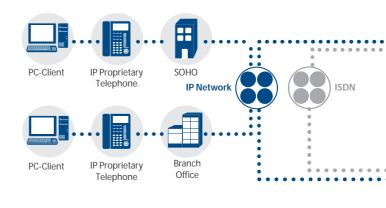
Designated member extensions can "log in" to join their designated group and begin handling calls, or "log out" to exit the group temporarily, such as when taking a break. An extension can also be designated for use by the supervisor, who can access information about incoming calls to each group (the number of gueued calls, the longest queuing time, etc.), check the log-in/log-out status, and monitor the status of group members.



## **Integrating Voice and Data networks**



exist in the majority of companies, can now carry voice along with data. Designed to support Convergence via modular structure, the Hybrid IP-PBX systems allow a harmonious migration towards VoIP, allowing voice and data communication to work within the same network.



VoIP/QSIG Network with Centralised operator

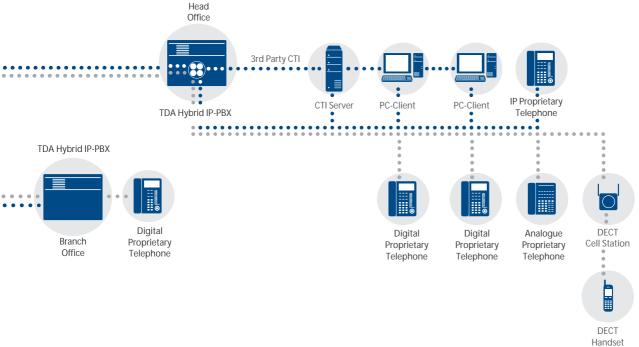
## Voice-over Internet Protocol (VoIP)

VoIP is the latest proven technology for voice communications where packets of digitally compressed voice are sent over IP data networks, which gets converted back to voice once it reaches the destination. By leveraging existing data networks, VoIP can bypass PSTN and therefore avoid all costs associated with PSTN calls no matter how far the distance and how long the conversation. In addition, VoIP also allows for more advanced telephony solutions and applications.

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.







#### **IP Telephony**

Customers interested in gradually evolving their businesses using IP telephony can benefit from the introduction of the new KX-NT136 IP telephone and IP Extension card. Based on the familiar high-end Digital Proprietary Telephone, the KX-NT136 IP Telephone includes the familiar one touch feature access to:

- Call Hold
- Conference Call
- Call Transfer Call Forward and many more...

Leveraging standard data-network cabling - and supporting Power-over-Ethernet (PoE), IP telephony can reduce your installation cost as well as make telephony available wherever there is a data network available.

Supporting a 6-line alphanumeric LCD display for user friendly feedback and feature visualisation, the KX-NT136 IP telephone is a perfect solutions for both office employees or remote workers / home workers.

### **QSIG Networking**

The KX-TDA Hybrid IP-PBX system supports QSIG protocol, allowing you to interconnect multiple PBX locations to build a large, effectively seamless virtual telephone system, as well as giving you access to more advanced communication functions. As an example, for customers with a legacy PBX in the corporate office, QSIG can be used to implement Panasonic Hybrid IP-PBXs 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.

### The possibilities are endless





#### **Hospitality**

The Hospitality market requires the communications system to be flexible, economical, and easy to use, with maximum reliability and adaptability for the individual needs. The possibility of PC integration to allow guest room billing and system management has also become a requirement of this sector. The Hybrid IP-PBX Systems are perfectly equipped with all these necessary hospitality features and solutions.



#### Medical

To be able to work effectively and comfortably in a medical environment, it is necessary that the telecommunication system is adapted perfectly to fit the needs of this type of activity. In the field of health, Panasonic alleviates the continual increase in costs and allows easy integration with life saving technologies.



## **Health Service**

A telecommunication system in nursing facilities and resident housing must be consistent above all to the requirements of people in need. Panasonic offers custom-made solutions that can be integrated with computers to support administrative tools and emergency call systems. The investment ensures security by flexible, future-safe technology.



#### **Customer Services**

We all would like to offer our customers the best service we possibly can, and while you might be the best today, what about tomorrow? Panasonic Telecommunication systems offer service-orientated solutions, which can be expanded to meet your customer's needs now and for days to come.



#### **Administration**

Public administrations see themselves today more than ever as service providers. Their services must be carried out in spite of the increasing pressure of cost management for government, council and municipal authorities. Panasonic offers such establishments a telecommunications solution which helps them maintain and keep their costs in check.



### with digital communication.





#### **Sales**

In today's competitive world, personal contact becomes ever more important to the customer. Customer satisfaction, maximum flexibility and accessibility provide the crucial lead in this sector. With a solution from Panasonic, everything that you need is already built in as standard.



#### Construction

Customers like to only invest in well built products, displaying them attractively and place them within a delightful environment. These same guidelines should also be followed by your telecommunication systems. When it comes from Panasonic - you are sure that all these important points have been meticulously followed - so customers can be proud to own a Panasonic system.



### **Production Enterprises**

High flexibility, economy and maximum reliability as well as adjustment to individual needs are important criteria, which telecommunication systems must fulfil. The Panasonic Hybrid IP-PBX outshines here as it was developed with manufacturing plants and production departments in mind. With its ultramodern design and future ready solutions, experience a new dimension of efficient communication.

#### **Logistics**

Logistics requires smooth and reliable transport of information. This is why logistics companies have particular requirements when it comes to telecommunications systems. With possibility for integration into modern EDP systems and mobile accessibility, Panasonic Hybrid IP-PBX systems can become the driving force for your business today, tomorrow and in the future.





#### Legal

The legal industry of law firms, notaries, attorneys, solicitors etc have specific requirements when it comes to business communication.

Attorney client conversation may need to be recorded - or clients may need to be billed for calls. Law firms may prefer to have secure entrances monitored via IP cameras. The Panasonic Hybrid IP-PBX addresses all these unique communication needs of the legal industry - yet provides all these and more solutions in a cost effective manner.

With Panasonic the possibilities are endless.



# **Panasonic**

## ideas for life

## KX-TDA100 **KX-TDA200**

#### **System Capacity**

#### **Maximum Trunk and Extension Cards**

The following number of trunk and extension cards can be installed in the Hybrid IP-PBX for expansion.

Card Type	KX-TDA100	KX-TDA200
Trunk Card*1	4	8
Extension Card	4	8
Total	5	10

<sup>\*1</sup> One T1, E1, PRI30, PRI23, or IP-GW4 card counts as 2 cards

#### **Maximum Terminal Equipment**

Terminal Equipment Type		KX-TDA100*3		KX-TD/	KX-TDA200*4	
		Without	With	Without	With	
		MEC	MEC	MEC	MEC	
Telephon	e*2	88	152	176	304	
	SLT and PT	64	128	128	256	
	Single Line Telephone (SLT)	64	64	128	128	
	Proprietary Telephone (PT)	64	128	128	256	
	IP-PT (Proprietary Telephone)	64	1	12	128	
Direct Sta	ation Select (DSS) Console	8		8		
Portable Station (PS)		128		128		
Cell Statio	on (CS)	16		32		
Voice Pro	cessing System (VPS)	2		2		
Doorphoi	ne	8		16		
Door Ope	ener	8		16		
External S	Sensor	8		16		
External F	Relay	8		16		
Add-on Key Module		64	128	128	256	
USB Module		64		128		
PC Conso	le	8		8		
PC Phone		64		128		

- \*2 A single "T1-OPX (Off Premise Extension) port" or "BRI/PRI extension port" is counted as a wired telephone.
  \*3 For the maximum capacity, a Memory Expansion Card (MEC) and / or M-Type Power Supply Unit may be required.
  \*4 For the maximum capacity, a Memory Expansion Card (MEC) and / or L-Type Power Supply Unit may be required.
  Note: Please ask your dealer for maximum capacity and configuration.

#### **Option List**

	Model	Description	Maximum KX-TDA100	Quantity KX-TDA200
MPR Option Cards	KX-TDA0105	Memory Expansion Card (MEC)	1	1
	KX-TDA0196	Remote Card (RMT)	1	1
Trunk Cards	KX-TDA0180	8-Port Analogue Trunk Card (LCOT8)	4	8
	KX-TDA0181	16-Port Analogue Trunk Card (LCOT16)	4	8
	KX-TDA0182	8-Port DID Card (DID8)	4	8
	KX-TDA0183	4-Port Analogue Trunk Card (LCOT4)	4	8
	KX-TDA0184	8-Port E&M Trunk Card (E&M8)	4	8
	KX-TDA0187	T-1 Trunk Card (T1)	2	4
	KX-TDA0188	E-1 Trunk Card (E1)	2	4
	KX-TDA0189	8-Port Caller ID/Pay Tone Card (CID/PAY8)	8	16
	KX-TDA0193	8-Port Caller ID Card (CID8)	8	16
	KX-TDA0284	4-Port Basic Rate Interface (BRI) Card (BRI4)	4	8
	KX-TDA0288	8-Port Basic Rate Interface (BRI) Card (BRI8)	4	8
	KX-TDA0290	Primary Rate Interface (PRI) Card (PRI 23/PRI 30)	2	4
	KX-TDA0484	4-Channel VoIP Gateway Card (IP-GW4E)	2	4
	KX-TDA0490	16-Channel VoIP Gateway Card (IP-GW16)	2	4
Extension Cards	KX-TDA0170	8-Port Digital Hybrid Extension Card (DHLC8)	4	8
	KX-TDA0171	8-Port Digital Extension Card (DLC8)	4	8
	KX-TDA0172	16-Port Digital Extension Card (DLC16)	4	8
	KX-TDA0173	8-Port Single Line Telephone Extension Card (SLC8)	4	8
	KX-TDA0174	16-Port Single Line Telephone Extension Card (SLC16)	4	8
	KX-TDA0175	16-Port Single Line Telephone Extension with Message Lamp Card (MSLC16)	4	8
	KX-TDA0470	16-Channel VoIP Extension Card (IP-EXT16)	4	8
Option Cards	KX-TDA0161	4-Port Doorphone Card (for KX-T30865) (DPH4)	2	4
·	KX-TDA0162	2-Port Doorphone Card (for German Type) (DPH2)	4	8
	KX-TDA0164	4-Port External Input/Output Card (EIO4)	2	4
	KX-TDA0166	16-Channel Echo Canceller Card (ECHO16)	2	2
	KX-TDA0168	Extension Caller ID Card (EXT-CID)	4	8
	KX-TDA0190	Optional 3-Slot Base Card (OPB3)	2	4
	KX-TDA0191	4-Channel Message Card (MSG4)	2	4
	KX-TDA0410	CTI Link Card (TAPI/CSTA, 10Base-T)	1	1
Dect Options	KX-TDA0141CE	2-Channel Cell Station Unit Using a DHLC/DLC Card (PT-interface CS) for DECT Portable Station	16	32
·	KX-TDA0142CE	4-Channel Cell Station Unit Using a CSIF Card for DECT Portable Station	16	32
	KX-TDA0143	4 Cell Station Interface Card (CSIF4)	2	4
	KX-TDA0144	8 Cell Station Interface Card (CSIF8)	2	4
Proprietary Equipment	KX-A228	S/M-type Back-up Battery Cable	-	-
	KX-A229	L-type Back-up Battery Cable	-	-
	KX-A258	Blank Slot Cover	-	-
	KX-T30865	Doorphone	8	16
Power Supply Unit	KX-TDA0103	L-Type Power Supply Unit for KX-TDA200 System	-	1
	KX-TDA0104	M-Type Power Supply Unit for KX-TDA200/TDA100 Systems	1	1
	KX-TDA0108	S-Type Power Supply Unit for KX-TDA100 System	1	-
Optional SD Memory Cards	KX-TDA0820	SD Memory Card for Software Upgrade	-	-
	KX-TDA0920	SD Memory Card for Software Upgrade to Enhanced Version		-





**Line-up** KX-TDA100 and KX-TDA200

## **Specifications**

KX-TDA100/200	
Power Voltage:	
AC100V ~ 240V	
External Battery:	
+36V (+12V x 3), Built-in interface	
Memory Back-up Duration:	
7 years	
Dialling:	
Extension - DP (10pps, 20pps), DTMF	
CO - DP (10pps, 20pps), DTMF	
Mode Conversion:	
DP-DTMF, DTMF-DP Connectors:	
CO Line - Amphenol Connector	
Station - Amphenol Connector	
External Paging Output - 2 conductor jack	
External MOH Input - 2 conductor jack	
Ring Frequency:	
20 / 25 Hz (Selectable)	
Central Office Loop Limit:	
1600 ohms max.	
Operating Environment:	
Temperature - 0 - 40°C (32 - 104°F)	
Humidity - 10 - 90%	
MOH (Music on Hold):	
2 ports	
MOH # 1: External Music Source	
MOH # 2: Internal Music / External Music Source	
(Level control: -11dB ~ +11dB in 1dB steps)	
Internal Paging:	
Level control: -15dB ~ +6dB in 3dB steps  External Paging:	
2 ports (Level control: -15dB ~ +15dB in 1dB step:	د۱
Serial Interface Port:	3)
USB: 1port RS-232C: 1port (115.2kbps)	
Structure:	
Free Slot style	
Can be accommodated into 19" Rack	
Dimensions:	
KX-TDA100: 334mm(W) x 390mm(H) x 270mm(D)	)
KX-TDA200: 430mm(W) x 415mm(H) x 270mm(D)	)
Weight (when fully mounted):	
KX-TDA100 : Under 12 kg	
KX-TDA200 : Under 16 kg	

#### **System Feature Capacity**

		KX-TDA100	KX-TDA200	
System	Tenant		3	
	Class of Service	6	4	
	Trunk Group	64		
	User Group	32		
	Paging Group	32		
	Call Pickup Group	64		
	Incoming Call Distribution (ICD) Group	64groups (32 extensions/group)		
	Portable Station (PS) Ring Group	32		
	VM (DPT) Group	2 group	s x 24 ch	
	VM (DTMF) Group	2 group	s x 32 ch	
	Queuing Time Table	6	4	
	Idle Extension Hunting Group	64 groups(16 extensions/group)		
	AL	8 messages x 16 ch	aracters per system	
	Absent Message (System/Extension)	1 message x 16 characters per extension		
	Message Waiting	512		
	Number of characters for Display ID	20		
	Extension Number Digit	1-4		
	Call Park Area	100		
	Conference	3x10 - 8x4		
	Verified Code	4 digits (1000 entries)		
	Verified Code Personal Identification Number (PIN)	10 digits (1000 entries)		
	Special Carrier Code	16 digits (20 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	200 calls		
Toll Restriction /	Toll Restriction / Barring Level	7 levels		
Barring	Toll Restriction / Barring Denied Code	16 digits, 100 entries / level		
	Toll Restriction / Barring Exception Code	16 digits, 100 entries / level		
	3	3 .,		

		KX-TDA100	KX-TDA200
Networking	TIE Routing Table	32 en	tries
	Leading Digits	3 digits	
	PBX Code	7 digits	
Automatic Route	Routing Plan Table	16 en	tries
Selection (ARS)	Leading Number Table	16 digits (10	000 entries)
	Leading Number Exception Table	16 digits (2	00 entries)
	ARS Carrier	1	0
	Itemised Billing Code	10 di	gits
	Authorisation Code	10 d	igits
Dialling	Emergency Call	32 digits (1	10 entries)
•	Quick Dialling	1-4 digits (80 entries)	
	System Speed Dialling	32 digits (1000 entries)	
	Personal Speed Dialling	32 digits (10 entries/extension)	
	One-Touch Dialling	32 digits	
	Hot Line	32 digits	
	ISDN Service Access	32 digits	
	Redial	32 d	igits
Password	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	
Call Log	Outgoing Call Log	0-100 logs / Extension	
		2160 logs	
	Incoming Call Log	0-100 logs	
		4960 logs	/ system

#### **Feature List**

System Features

Automatic ISDN Setting (BRI)

I Automatic Route Selection (ARS)/Least Cost Routing (LCR)
IBackground Music (BGM)

Budget Management

Busy on Busy
Call Park with Indication

| Call Pickup Group
| Calling Line Identification Distribution (CLI)
| 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** 

External Sensor/Relay for Alarm Notification

IEmergency Call
IExisting APT/DPT Compatibility
IExternal BGM

Flexible Numbering Plan (4 digits)
Floating Extension

Greeting Message
Host PBX Access Code
Hunting Group

ıHurry-Up Transfer

Incoming Group (Hunting Group)
Intercept Routing - Busy/DND
Intercept Routing - No Answer
Intercept to Trunk

ıMain Processing (MPR), Card/CS Software Download

Manager Functions
Multiple Language Support

Online Diagnostics

Operator Functions
IPC 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)

System Memory Expansion

Tenant Service

Timed Reminder
Time Service (Day/Night/Lunch/Break)

Toll Restriction

ı Trunk Group ı Uniform Call Distribution (UCD)

ı User Group ı VIP-Call ıVisual Caller ID <Voice Mail (VM) Features>

Automatic Configuration - Quick Setup

Call Forwarding to VM Caller's Identification Notification to VM

E-mail Integration\*1

It-mail Integration\*\*
Intercept Routing to VM
ILive Call Screening (LCS)
IRemote PBX Data Control by VM
ITelephone Display, Menu driven VM operation
IVM Data Control by PBX

ıVM (Digital/DTMF) Integration

ıVM Group

ı VM Mail Transfer

IVM Menu on the LCD\*1 (KX-T7636/T7633 only)

**Extension Features** 

14-Party Conference with Broadcasting up to 32-Party

Absent Message

Account Code Entry (Forced)
Automatic Redial

Broadcasting

Caller ID to SLT

Call Forwarding (All Calls, Busy, Busy/ No Answer, No Answer, Follow Me, From Incoming Group)

Call Pickup (Directed, Group, DSS, Deny)
Call Transfer (Screened, Unscreened,

One-Touch Transfer, Transfer Recall)

ı Conference (3-Party Conference, Mul'ti Party Conference, Unattended Conference)

Digital Duplex SP-phone
Digital eXtra Device Port (DXDP)\*2

(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 Hands-free Operation

Handset/Headset Selection

Large Telephone Display Features with Back-lit LED control for CTI

Log-In/Log-Out

Message Waiting

iMulti-Lingual Display
iMultiple Hop Call Forwarding(4 steps)
iMusic on Hold

Off-Hook Call Announcement (OHCA)\*2

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)

ıWrap-Up ıeXtra Device Port (XDP)

<DECT Features>

Automatic Handover

DECT CS on Digital Extension Port Headset Compatibility

Incoming & Outgoing Call Log
Telephone Display control via CTI\*3
Wireless XDP Parallel Mode

Vibrator Ring (KX-TCA255 only)

ISDN Service Features

Advice of Charge (AOC)
Call Hold (HOLD)

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)

IISDN 3 Party Conference (3PTY)
IISDN Call Forward (CFU/CFNR/CFB)

ISDN Call Transfer (CT)

ISDN Extension Malicious Call Identification (MCID)

Multiple Subscriber Numbers (MSN)

Networking Features

Alternated Routing

DISA Call to the Network

Network Busy Lamp Field (BLF)\*3
Network Closed Numbering

Private Network to Public Network
Public Network to Private Network

QSIG Connection

Tandem Connection

TIE Line Transfer to Network PBX

Virtual Private Network (VPN)

ı VoIP Network (Built-in IP-GW) **Built-in Hotel Features** 

Call Billing for Guest Room Remote Wake-up Call

Room Status Control ISMDR for External Hotel Application

\*1 When the KX-TDA Hybrid IP-PBX is integrated with a

KX-TVM50 or KX-TVM200 Voice Processing System.
\*2 This feature is unavailable with the KX-NT136.

\*3 Optional software required.

Digital Proprietary Telephone Analogue Proprietary Telephone

Single Line Telephone

## **Panasonic**

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## **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	960
	Single Line Telephone (SLT)		160	320	480	640
	KX-T7600 series Digital Proprieta	ry 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
Trunks	Trunk Port		160	320	480	640
	ISDN Trunk		160	320	480	640
	Analogue Trunk		160	320	480	640
	IP-Gateway		160	320	480	640
Direct Station Select (DSS) Console		64				
Portable Station (PS)	Without Memory Expansion Card		256			
	With Memory Expansion Card			5	12	
Cell Station (CS)			32	64	96	128
Voice Processing Syst	em (VPS)		8			
Doorphone			16	32	48	64
Door Opener			16	32	48	64
External Sensor			16	32	48	64
External Relay			16	32	48	64
Add-on Key Module			160	320	480	640
USB Module			160	320	480	640
PC Console					3	
PC Phone			13	28		
DXDP: Digital eXtra De	vice Port					



 $\label{eq:Line-up} \mbox{KX-TDA600 and the optional Expansion Shelf KX-TDA620 (Max 3 + TDA600)}$ 

## **Option List for TDA600**

			Description		
Cabinet	KX-TDA600		Basic Shelf (Main Unit)		
	KX-TDA620		Expansion Shelf Bus Slave Connection Circuit added initially (BUS S)		
EMPR		KX-TDA6105	Memory Expansion Card (EMEC)		
	Daughter cards for EMPR card only	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		
Trunk Cards	KX-TDA6181		16-Port Analogue Trunk Card (ELCOT16)		
		KX-TDA0189	8-Port Caller ID / Pay Tone Card (CID / PAY8)		
	Daughter cards for ELCOT cards only	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-TDA0187		T-1 Trunk Card (T1)		
	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 (PRI23/PRI30)		
	KX-TDA0484		4-Channel VoIP Gateway Card (IP-GW4E)		
	KX-TDA0490		16-Channel VolP Gateway Card (IP-GW16)		
Extension Cards	KX-TDA0470		8-Port Digital Hybrid Extension Card (DHLC8)		
	KX-TDA0170		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	101 15/10100	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)		
Option Cards	KX-TDA0170		Optional 3-Slot Base Card (OPB3)		
Option cards	KX-TDA0410		CTI Link Card (TAPI / CSTA, 10Base-T)		
	KX-TDA6166		16-Channel Echo Canceller Card (EECHO16)		
	KA-TDA0100	KX-TDA0161	4-Port Doorphone Card (for KX-T30865) (DPH4)		
		KX-TDA0161	2-Port Doorphone Card (for German Type) (DPH2)		
	Daughter cards for OPB3 card only	KX-TDA0162 KX-TDA0164	4-Port External sensor Card (EIO4)		
		KX-TDA0104 KX-TDA0191	No. 7		
Dect Options	KX-TDA0141	KA-IDAUI9I	4-Channel Message Card (MSG4)		
Dect Options			2-Channel Cell Station Unit Using a DHLC / DLC Card for DECT Portable Station		
	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		
D	KX-TDA0144		8 Cell Station Interface Card (CSIF8) for TDA0142		
Proprietary Equipment	KX-A228		S/M-type Back-up Battery Cable		
	KX-A229		L-type Back-up Battery Cable		
	KX-A258		Blank Slot Cover		
	KX-T30865		Doorphone		
Power Supply unit	KX-TDA0103		Large Power Supply Unit (L-PSU)		
	KX-TDA0104		Medium Power Supply Unit (M-PSU)		
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

KX-TDA600
Power Voltage:
AC100V ~ 240V
External Battery:
+36V (+12V x 3), Built-in interface
Memory Back-up Duration:
7 years
Dialling:
Extension - DP (10pps, 20pps), DTMF
CO - DP (10pps, 20pps), DTMF
Mode Conversion:
DP-DTMF, DTMF-DP
Connectors:
CO Line - Amphenol Connector
Station - Amphenol Connector
External Paging Output - 2 conductor jack
External MOH Input - 2 conductor jack
Ring Frequency:
20 / 25 Hz (Selectable)
Central Office Loop Limit:
1600 ohms max.
Operating Environment:
Temperature - 0 - 40 °C (32 - 104 °F)
Humidity - 10 - 90%
MOH (Music on Hold):
2 ports
MOH # 1: External Music Source
MOH # 2: Internal Music / External Music Source
(Level control: -11dB ~ +11dB in 1dB steps)
Internal Paging:
Level control: -15dB ~ +6dB in 3dB steps
External Paging:
2 ports (Level control: -15dB ~ +15dB in 1dB steps)
Serial Interface Port:
USB: 1port RS-232C: 1port (115.2kbps)
Structure:
Free Slot style
Can be accommodated into 19" Rack
Dimensions:
Basic Shelf: 430mm(W) x 415mm(H) x 270mm(D)
Expansion Shelf: 430mm(W) x 415mm(H) x 270mm(D)
Weight (when fully mounted):
Basic Shelf :Under 16 kg
Expansion Shelf : Under 16 kg

#### **System Feature Capacity**

		KX-TDA600
System	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 / group)
	Portable Station (PS) Ring Group	32
	Voice Mail (DPT) Group	8 groups x 24 ch
	Voice Mail (DTMF) Group	8 groups x 32 ch
	Queuing Time Table	128
	Idle Extension Hunting Group	128 groups (16 extensions / group)
	Absent Message (System / Extension)	8 messages 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 for Display ID	20
	Extension Number Digits	1-5
	Call Park Area	100
	Conference	3x10 - 8x4 per shelf
	Verified Code	4 digits (1000 entries)
	Verified Code Personal Identification Number (PIN)	10 digits (1000 entries)
	Special Carrier Code	16 digits (100 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
Toll	Toll Restriction / Barring Level	7 levels
Restriction /	Toll Restriction / Barring Denied Code	16 digits, 100 entries / level
Barring	Toll Restriction / Barring Exception Code	16 digits, 100 entries / level
Networking	TIE Routing Table	32 entries
	Leading Digits	3 digits
	PBX Code	7 digits

		KX-TDA600	
Automatic	Routing Plan Table	48 entries	
Route Selection (ARS)	Leading Number Table	16 digits (1000 entries)	
	Leading Number Exception Table	16 digits (200 entries)	
(AINO)	ARS Carrier	48	
	Itemised Billing Code	10 digits	
	Authorisation Code	10 digits	
Dialling	Emergency Call	32 digits (10 entries)	
		4 digits, 80 entries w/o EMEC card	
	Quick Dialling	(4 digits, 80 entries) + (8 digits, 1000 entries)	
		w EMEC card	
		32 digits, 1000 entries per system w/o	
	System Speed Dialling	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	
	Personal speed Dialling	32 digits, 100 entries per extension w EMEC	
	One-Touch Dialling	32 digits	
	Hot Line	32 digits	
	ISDN Service Access	32 digits	
	Redial	32 digits	
Password	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	
Call Log	Outgoing Call Log	0 100 logs / extension	
	outgoing can rog	5760 logs / system	
	Incoming Call Log	0 - 100 logs / extension	
	incoming can boy	12800 logs /system	

#### **Features List**

#### System Features

- Automatic ISDN Setting (BRI)
  Automatic Route Selection (ARS) / Least Cost Routing (LCR)
- Background Music (BGM)
  Budget Management

- IBudget Management
  IBusy on Busy
  ICall Park with Indication
  ICall Pickup Group
  ICall distribution by Caller ID
  IClass of Service (COS)
  ICTI (CSTA, TAPI)
  IData Line Security
  IDalayet Bioging

- Delayed Ringing
  Direct In Lines (DIL)
  Direct Invard Dialling (DID)
  Direct Inward System Access (DISA)
  Door-Phone / Door Opener
- **LEcho Cancellation**
- Extension Lock
- External Sensor/Relay for Alarm Notification Emergency Call
  Existing APT/DPT Compatibility
  External BGM
  IFlexible Numbering Plan (4-digits)

- Floating Extension Greeting Message Host PBX Access Code

- Host PBA Access Code
  Hurring Group
  Hurry-Up Transfer
  Incoming Group (Hunting Group)
  Intercept Routing Busy/ DND
  Intercept Routing No Answer
  Intercept to Trunk
  Main Processing (MPR) Card / CS s
- Main Processing (MPR), Card / CS software download
  Manager Functions
  Multiple Language Support

- IMultiple Language Support
  Online Diagnostics
  Operator Functions
  IPC Console / PC Phone
  IPC Programming
  Paging Group
  IQuick Setup
  IRemote Alarm Notification
  IRemote Attorion Status Consoleration
- Remote Extension Status Control through DISA Remote Extension Lock

- IRING Group
  | Special Carrier Access
  | Station Message Detail Recording (SMDR)
  | 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
- ı Visual Caller ID

- <Voice Mail (VM) Features>
- Automatic Configuration Quick Setup Call Forwarding to VM
- Caller's Identification Notification to VM
- E-mail Integration\*1
- Intercept Routing to VM
  Live Call Screening (LCS)
  Remote PBX Data Control by VM
- IREMOTE PBX Data Control by VM
  Telephone Display, Menu driven VM operation
  IVM Data Control by PBX
  IVM (Digital / DTMF) Integration
  IVM Group
  IVM Mail Transfer

- IVM Menu on the LCD\*1 (KX-T7636/T7633 only)

#### **Extension Features**

- 14-Party Conference with Broadcasting up to 32-Party Absent Message
- Account Code Entry (Forced)
- Automatic Redial Boss Secretary
- Broadcasting Caller ID to SLT
- Call Forwarding (All Calls, Busy, Busy / No Answer, No Answer, Follow Me, From Incoming Group)
- Call Hold
- ICall Pickup (Directed, Group, DSS, Deny)
  ICall Transfer (Screened, Unscreened, One-Touch Transfer, Transfer
- Recall)

  Conference (3-Party Conference, Multi Party Conference. Unattended Conference)

- Dial Type Selection
  Digital Duplex SP-phone
  Digital Duplex SP-phone
  Digital eXtra Device Port (DXDP) \*2
  (2DPTs in One Extension Port)
- Direct One-Touch Answering
  On Not Disturb (DND)
- DSS Console
- Executive Busy Override
- | Extension Directory | Extension-to-Trunk Call Duration Time | External Feature Access

- Flexible Buttons 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
- I Off-Hook Call Announcement (OHCA)\*2 I Off-Hook Monitor

- | One-Touch 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)

- ı Wrap-Up ı eXtra Device Port (XDP)

- <DECT Features>
  Automatic Handover
- I Automatic Handover
  IDECT CS on Digital Extension Port
  Headset Compatibility
  Incoming & Outgoing Call Log
  Telephone Display control via CTI\*3
  Wireless XDP Parallel Mode

- Vibrator Ring (KX-TCA255 only)

#### ISDN Service Features

- Advice Of Charge (AOC)
  Call Hold (HOLD)
- 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 Presentation (COLR)
  Direct Dialling Inward (DDI)
  ISDN 3 Party Conference (3PTY)
  ISDN Call Forward (CFU / CFNR / CFB)
  ISDN Call Transfer (CT)

- ISDN Extension
  IMalicious Call Identification (MCID)
  IMultiple Subscriber Numbers (MSN)

- Networking Features
  Alternated Routing
  ARS with VolP
- IARS with VoIP
  DISA Call to the Network
  Network Busy Lamp Field (BLF)\*3
  Network Closed Numbering
  Private Network to Public Network
  Public Network to Private Network

- QSIG Connection Tandem Connection

- TIE Line
  Transfer to Network PBX
  Virtual Private Network (VPN) VoIP Network (Built-in IP-GW)
- **Built-in Hotel Features**
- Call Billing for Guest Room Remote Wake-up Call
- Room Status Control ISMDR for External Hotel Application
- \*¹ When the KX-TDA Hybrid IP-PBX is integrated with a KX-TVM50 or KX-TVM200 Voice Processing System.
  \*² This feature is unavailable with the KX-NT136.

- \*3 Optional software required
- DPT: Digital Proprietary Telephone APT: Analogue Proprietary Telephone SLT: Single Line Telephone
- PS : Portable Station

