Panasonic
ideas for life

KX-TDA600
(PLMPR Ver. 5.0)

System Capacity

Maximum Trunk and Extension
The PBX supports the following number of trunks and extensions.

Type		Basic System	2-shelf System	3-shelf System	4-shelf System
Trunk		160	320	480	640
Extension	PT	256	512	640 *1	640 *1
	SLT	240	480	720	960
	PT + SLT	304	608	880	1120

*1 The maximum number of PTs in the whole system is limited to 640.

Maximum Terminal Equipment
The following number of items of terminal equipment can be supported by the PBX.

		KX-TDA600			
		Basic System	2-Shelf System	3-Shelf System	4-Shelf System
Telephone (using Digital XDP)		240 (304)*1	480 (608)*1	720 (880)*1	960 (1120)*1
	SLT	240	480	720	960
	KX-T7600 series DPT	256	512	640	640
	Other DPT	128	256	384	512
	APT	80	160	240	320
	IP-PT	160	320	480	640
Trunk		160	320	480	640
DSS console		64			
Basic CS		32	64	96	128
High-density CS		16	32	48	64
PS (without an EMEC card)		256			
PS (with an EMEC card)		512			
Voice Processing System (VPS) *2		8			
Doorphone		16	32	48	64
Door Opener		16	32	48	64
External Sensor		16	32	48	64
External Relay		16	32	48	64

*1 Even when Digital XDP is used, each shelf supports a maximum of 256 KX-T7600 series DPTs.
*2 Only a single VPS can be connected to one optional service card.

Line-up
KX-TDA600 and the optional Expansion Shelf KX-TDA620 (Max 3 + TDA600)

Option List for TDA600

Category	Model No.	Description
EMPR Optional Card	KX-TDA6105	Memory Expansion Card (EMEC)
	KX-TDA0196	Remote Card (RMT)
Optional Shelf Expansion Cards	KX-TDA6110	Bus Master Card (BUS-M)
	KX-TDA6111	Bus Master Expansion Card (BUS-ME)
Expansion Shelf	KX-TDA620	Expansion Shelf
Built-in Shelf Expansion Card		Bus Slave Card (BUS-S)
Mounting Kit	KX-TDA6201	Mounting Kit for expanding to a 3- or 4- shelf System
Trunk Cards	KX-TDA0182	8-Port 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-TDA0189	8-Port Caller ID/Pay Tone Card (CID/PAY8)
	KX-TDA0193	8-Port Caller ID Card (CID8)
	KX-TDA0284	4-Port BRI Card (BRI4)
	KX-TDA0288	8-Port BRI Card (BRI8)
	KX-TDA0290CE/CJ	PRI Card (PRI30)
	KX-TDA0290	PRI Card (PRI23)
	KX-TDA0484	4-Channel VoIP Gateway Card (IP-GW4E)
	KX-TDA0490	16-Channel VoIP Gateway Card (IP-GW16)
	KX-TDA6181	16-Port Analogue Trunk Card (ELCOT16)
Extension Cards	KX-TDA0143	4 Cell Station Interface Card (CSIF4)
	KX-TDA0144	8 Cell Station Interface Card (CSIF8)
	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 Extension Card (SLC8)
	KX-TDA0177	16-Port Single Line Telephone Extension Card with Caller ID (CSLC16)
	KX-TDA0470	16-Channel VoIP Extension Card (IP-EXT16)
	KX-TDA6174	16-Port Single Line Telephone Extension Card (ESLC16)
	KX-TDA6175	16-Port Single Line Telephone Extension with Message Lamp Card (EMSLC16)
	KX-TDA6178	24-Port Single Line Telephone Extension Card with Caller ID (ECSLC24)
Other Cards	KX-TDA0161	4-Port Doorphone Card (DPH4)
	KX-TDA0162	2-Port Doorphone Card (German Type) (DPH2)
	KX-TDA0164	4-Port External Input/Output Card (EIO4)
	KX-TDA0168	Extension Caller ID Card (EXT-CID)
	KX-TDA0190	Optional 3-Slot Base Card (OPB3)
	KX-TDA0191	4-Channel Message Card (MSG4)
	KX-TDA0192	2-Channel Simplified Voice Message Card (ESVM2)
	KX-TDA0194	4-Channel Simplified Voice Message Card (ESVM4)
	KX-TDA0410	CTI Link Card (CTI-LINK)
	KX-TDA6166	16-Channel Echo Canceller Card (EECHO16)
Optional SD Memory Card	KX-TDA6920	SD Memory Card for Software Upgrade to Enhanced Version
Power Supply Units (PSUs)	KX-TDA0103	L-Type Power Supply Unit (PSU-L)
	KX-TDA0104	M-Type Power Supply Unit (PSU-M)
Cell Stations (CSs) — 2.4 GHz	KX-TDA0151	2-Channel Cell Station Unit Using a DHLC/DLC Card (PT-interface CS) for 2.4 GHz Portable Station
	KX-TDA0152	3-Channel Cell Station Unit Using a CSIF Card for 2.4 GHz Portable Station
DECT	KX-TDA0155CE	2-Channel Cell Station Unit Using a DHLC/DLC Card (PT-interface CS) for DECT Portable Station
	KX-TDA0156CE	4-Channel Cell Station Unit Using a CSIF Card for DECT Portable Station
	KX-TDA0158CE	8-Channel High-density Cell Station Unit Using a DHLC/DLC Card (PT-interface CS) for DECT Portable Station
DECT 6.0	KX-TDA0155	DECT 6.0 2-Channel Cell Station Unit Using a DHLC/DLC Card (PT-interface CS) for DECT 6.0 Portable Station
	KX-TDA0156	DECT 6.0 4-Channel Cell Station Unit Using a CSIF Card for DECT 6.0 Portable Station
	KX-TDA0158	DECT 6.0 8-Channel Cell Station Unit Using a DHLC/DLC Card (PT-interface CS) for DECT 6.0 Portable Station
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-T7765	Doorphone

Specifications

KX-TDA600

Control Bus:
Original bus (16-bit, 8 MHz, 10 megabytes per second)
Communication Bus:
H.100 bus conformity (1024 time slots)
Switching:
Distributed Switching
Power Input:
PSU-M 100 V AC to 130 V AC; 2.5 A/200 V AC to 240 V AC; 1.4 A;50 Hz/60 Hz
PSU-L 100 V AC to 130 V AC; 5.1 A/200 V AC to 240 V AC; 2.55 A;50 Hz/60 Hz
External Battery:
+36 V DC (+12 V DC x 3, recommended maximum capacity per shelf is 28 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
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 (per shelf):
From 10 x 3-party conference call to 4 x 8-party conference call
Music on Hold (MOH):
2 ports (Level Control:-11 dB to +11 dB in 1 dB steps)
MOH1:External Music Source port
MOH2:Selectable Internal/External Music Source port
Paging:
Internal Level Control:-15 dB to +6 dB in 3 dB steps
External 2 ports (Volume Control:-15 dB to +15 dB in 1 dB steps)
Serial Interface Port:
RS-232C 1 (maximum 115.2 kbps)
USB 1
Extension Connection Cable:
SLT 1-pair wire (T,R)
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 (Basic) 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:
Basic Shelf 430 mm (W) x 415 mm (H) x 270 mm (D)
Expansion Shelf 430 mm (W) x 415 mm (H) x 270 mm (D)
Weight (when fully mounted):
Basic Shelf Under 16 kg
Expansion Shelf Under 16 kg

Compatible Panasonic Proprietary Telephones
The PBX supports the following telephones:
· Digital proprietary telephones (e.g., KX-DT300 series)
· Analogue proprietary telephones (e.g., KX-T7700 series)
· IP proprietary telephones (e.g.,KX-NT346, KX-NT343, KX-NT321)
· Portable stations (e.g., KX-TCA275, KX-TCA175, KX-TCA256, KX-TCA364/355, KX-TD7690)
· DSS consoles (e.g., KX-T7640)
· Single line telephones (e.g., KX-T7710)
Incompatible Panasonic Proprietary Telephones
The PBX does not support the following telephones:
· KX-T30800 series proprietary telephones and DSS consoles
· KX-T61600 series proprietary telephones and DSS consoles
· KX-T123200 series proprietary telephones and DSS consoles
· KX-TD7500 DECT portable station

System Feature Capacity

	Item	KX-TDA600		Item	KX-TDA600
System	Absent Message-Extension	1 x 16 characters	**ARS**	Routing Plan Table	48 entries
	Absent Message-System	8 x 16 characters		Leading Number Table	16 digits, 1,000 entries
	Call Park Zone	100		Leading Number Exception Table	16 digits, 200 entries
	Conference	Each shelf:3-8 parties per conference (32 parties total)		ARS Carrier	48
	COS	64		Itemised Billing Code	10 digits
	DID/DDI Table	32 digits, 1,000 entries		Authorisation Code for Tenant	16 digits
	Extension Number	1-5 digits (1-4 digits for PSs)		Authorisation Code for Trunk	10 digits
	Extension Personal Identification Number (PIN)	10 digits, 1 entry/extension	**Call Log and Message Waiting**	Outgoing Call Log - PT	100 records/extn. 3,200 records/system
	Host PBX Access Code	10 digits, 10 entries/trunk group		Outgoing Call Log - PS	100 records/extn. 2,560 records/system
	Multiple Subscriber Number (MSN)	10 entries per ISDN-BRI port		Incoming Call Log - PT	100 records/extn. 6,400 records/system
	Number of the Characters of Name	20		Incoming Call Log - PS + Incoming Call Distribution Group	100 records/extn. or group Total 6,400 records/system
	Printing Message	8		Message Waiting - PS + Incoming Call Distribution Group	640
	Queuing Time Table	128		Message Waiting - PT + SLT	1,032
	Ring Tone Pattern Plan	8	**Voice Message**	Outgoing Message (OGM)	64
	Simultaneous Programmers	• one system programmer + 63 personal programmers • one manager programmer + 63 personal programmers • 64 personal programmers		OGM Total Recording Time	MSG4 Card:8 minutes;ESVM2/ESVM4 Card:20 minutes (at High recording quality)
	SMDR Call Storage	1,000 calls (4,000 calls w/EMEC card)		Built-in Simplified Voice Message (SVM)	ESVM2/ESVM4 Card: 250 messages per card/block
	Special Carrier Access Code	16 digits,100 entries		SVM Total Recording Time	ESVM2/ESVM4 Card: 20, 60, or 120 minutes (depending on the recording quality)
	Tenant	32	**Hospitality and Charge Management Features**	Billing items for guest rooms (only available w/ EMEC or MEC)	8000 records/PBX
	Time Service Holiday	24		Hotel Operator	4
	Verification Code	4 digits, 1,000 entries		Charge Rate	7 digits including a decimal
	Verification Code Personal Identification Number (PIN)	10 digits, 1,000 entries		Charge Denomination	3 currency characters/symbols
Dialling	Emergency Call	32 digits, 10 entries	**Networking**	TIE Line Routing and Modification Table	32 entries
	Hot Line	32 digits		Leading Number	3 digits
	Key Pad Protocol Dial (ISDN Service Access)	32 digits		PBX Code	7 digits
	Personal Speed Dialling	Without EMEC: 32 digits, 10 entries/extn. With EMEC: 32 digits, 100 entries/extn.		NDSS:Monitored PBXs	8
	Quick Dialling	4 digits, 80 entries (an additional 4,000 8 digit entries w/EMEC Card)		NDSS:Registered Extensions for Monitor PBX	250
	Redial	32 digits	**CTI**	PC Console	8
	System Speed Dialling	Without EMEC: 32 digits, 1,000 entries. With EMEC: Additional 1,000 32-digit entries/tenant.		PC Phone	128
Groups	Broadcasting Group	8 (32 members/group)	**Password**	System Password for Installer	4 - 10 characters
	Call Pickup Group	96		System Password for Administrator — for PC Programming	4 - 10 characters
	Idle Extension Hunting Group	128 (16 extensions/group)		System Password for User — for PC Programming	4 - 10 characters
	Incoming Call Distribution Group	128 (128 extensions/group)		System Password for Administrator — for PT Programming	4 - 10 digits
	Paging Group	96		System Password for User — for PT Programming	4 - 10 digits
	PS Ring Group	32		Manager Password	4 - 10 digits
	Trunk Group	96	**Programmer Code**	Installer Level Programmer Code	4 - 16 characters
	VM (DPT) Group	8 groups x 12 ports (24 channels)		Administrator Level Programmer Code	4 - 16 characters
	VM (DTMF) Group	8 groups x 32 channels		User Level Programmer Code	0 - 16 characters
TRS/Barring	TRS/Barring Level	7			
	TRS/Barring Denied Code	16 digits, 100 entries/level			
	TRS/Barring Exception Code	16 digits, 100 entries/level			

Features List

1. 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)
• FWD/DND Button, Group FWD Button

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
• One-Touch Dialling
• KX-T7710 One touch Dialling
• Last Number Redial
• Speed Dialling - Personal/System
• Quick Dialling
• Hot Line

Primary Directory Number (PDN)/ Secondary Directory Number (SDN) Features

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
Budget Management
Extension Dial Lock
Dial Tone Transfer
Walking COS
Verification Code Entry

Automatic Route Selection (ARS) Features
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
• Privacy Release

Paging Features

Broadcasting Features

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
• 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

T1 Line Service Features

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

2. System Configuration and Administration Features

System Configuration - Hardware
Extension Port Configuration
System Configuration - Software
Class of Service (COS)
Group
Tenant Service
Time Service
Operator Features
Manager Features

System Data Control
PC Programming
PT Programming
Password Security
Quick Setup
Automatic Setup
Flexible Numbering/Fixed Numbering
Floating Extension
Software Upgrading

Fault Recovery/Diagnostics
Power Failure Transfer
Power Failure Restart
Local Alarm Information