



Line-up :
KX-TDE600 and the optional Expansion Shelf KX-TDE620 (Max3)

System Capacity

Maximum Trunks and Extensions

The PBX supports the following number of trunks.

Type	Basic System	2-shelf System	3-shelf System	4-shelf System
Total Number of Trunks	224	384	544	640
Trunk (Physical Trunk Card)	160	320	480	640
Trunk (Virtual Trunk Card)			64	
H.323 Trunks			32	
SIP Trunks			64	

Option List

Category	Model	Description	
IPCEMPR Optional Cards	KX-NS0132	Stacking Card for KX-TDE/TDA Series	
	KX-TDE0105	Memory Expansion Card (IPMEC)	
	KX-TDE6101	IP Convergence Main Processing Card (IPCEMPR)	
	KX-TDE0110	16-Channel VoIP DSP Card (DSP16)	
	KX-TDE0111	64-Channel VoIP DSP Card (DSP64)	
	KX-TDA0196	Remote Card (RMT)	
	KX-TDA6110	Bus Master Card (BUS-M)	
Optional Shelf Expansion Cards	KX-TDA6111	Bus Master Expansion Card (BUS-ME)	
	KX-TDE620	Expansion Shelf	
Mounting Kit	KX-TDA6201	Mounting Kit for expanding to a 3- or 4-shelf System	
Activation Key Codes ¹⁾	KX-NCS4102	2-Channel IP Trunk Activation Key	
	KX-NCS4104	4-Channel IP Trunk Activation Key	
	KX-NCS4201	1-Channel IP Softphone/IP Proprietary Telephone Activation Key	
	KX-NCS4204	4-Channel IP Softphone/IP Proprietary Telephone Activation Key	
	KX-NCS4208	8-Channel IP Softphone/IP Proprietary Telephone Activation Key	
	KX-NCS4216	16-Channel IP Softphone/IP Proprietary Telephone Activation Key	
	KX-NCS4501	1-Channel IP Proprietary Telephone Activation Key	
	KX-NCS4504	4-Channel IP Proprietary Telephone Activation Key	
	KX-NCS4508	8-Channel IP Proprietary Telephone Activation Key	
	KX-NCS4516	16-Channel IP Proprietary Telephone Activation Key	
	KX-NCS4701	1-Channel SIP Extension Activation Key	
	KX-NCS4704	4-Channel SIP Extension Activation Key	
	KX-NCS4708	8-Channel SIP Extension Activation Key	
	KX-NCS4716	16-Channel SIP Extension Activation Key	
	KX-NCS2010	Activation Key for CA Thin Client	
	KX-NCS2020	Activation Key for CSTA Multiplexer	
	KX-NCS2201	Activation Key for CA PRO for 1 User	
	KX-NCS2205	Activation Key for CA PRO for 5 Users	
	KX-NCS2210	Activation Key for CA PRO for 10 Users	
	KX-NCS2240	Activation Key for CA PRO for 40 Users	
	KX-NCS2249	Activation Key for CA PRO for 128 Users	
	KX-NCS2301	Activation Key for CA ACD Monitor for 1 ICD Supervisor	
	KX-NCS2401	Activation Key for CA Operator Console 1 User	
	KX-NCS2901	Activation Key for CA Network 1 User	
	KX-NCS2905	Activation Key for CA Network 5 Users	
	KX-NCS2910	Activation Key for CA Network 10 Users	
	KX-NCS2940	Activation Key for CA Network 40 Users	
	KX-NCS2949	Activation Key for CA Network 128 Users	
	KX-NCS3930	Activation Key for Third Party CTI	
	KX-NCS4950	Activation Key for Software Upgrade to EnhancedVersion (Software Upgrade 01)	
	Physical 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)

¹⁾ Note that the types of activation keys are subject to change without notice. For CA activation keys, refer to the documentation for CA.

Compatible Panasonic Proprietary Telephones

- The PBX supports the following telephones:
 • IP proprietary telephones (e.g., KX-NT300 series) • IP softphones (e.g., KX-NCS8100) • Digital proprietary telephones (e.g., KX-DT300 series) • Analogue proprietary telephones (e.g., KX-T7700 series)
 • Portable stations (e.g., KX-WT115, KX-TCA355, KX-TCA275) • DSS consoles (e.g., KX-DT390) • 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

Note

Some models will be exported to limited region. Please contact our dealer and confirm the availability of specific models in your region.

Specifications

KX-TDE600	
CPU	32 bit RISC microcomputer (Internal Bus 32bit, External Bus 16bit)
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

The PBX supports the following number of extensions.

Type	Basic System	2-shelf System	3-shelf System	4-shelf System
Total Number of Extensions	432	736	1008	1152
Extension (Physical Extension Card)	304	608	880	1120
PT	256	512	640 ¹⁾	640 ¹⁾
SLT	240	480	720	960
PT and SLT	304	608	880	1120
Extension (Virtual Extension Card)			128	
IP-PT and IP Softphone			128	
SIP Extension			128	

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.

Terminal Equipment Type	Basic System	2-shelf System	3-shelf System	4-shelf System
Telephone (using Digital XDP)	368 (432) ¹⁾	608 (736) ¹⁾	848 (1008) ¹⁾	992 (1152) ¹⁾
SLT	240	480	720	960
KX-DT300/KX-T7600 series DPT	256	512	640	640
Other DPT	128	256	384	512
APT	80	160	240	320
IP-PT	288	448	608	704
IP-PT ²⁾ (supported by IP-EXT16 card)	160	320	480	640
IP-PT ³⁾ (supported by IPCEMPR card)			128 ⁴⁾	
SIP Extension			128	
DSS console			64	
CS	32 ⁵⁾	64 ⁵⁾	96 ⁵⁾	128 ⁵⁾
PT-interface CS (2-channel)/CS for CSIF card	32	64	96	128
PT-interface CS (8-channel)	16	32	48	64
IP-CS (8-channel)	16	16	16	16
PS			512	
Voice Processing System (VPS) ⁶⁾			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-DT300/KX-T7600 series DPTs.

²⁾ KX-NT300 series (except KX-NT366/KX-NT305), KX-NT265, and KX-NT136

³⁾ KX-NT400, KX-NT300 series, and KX-NT265 (software version 2.00 or later only)

⁴⁾ For the KX-NT400, the maximum number of extensions that can be connected to the PBX is 64.

⁵⁾ One 8-channel PT-interface CS or IP-CS counts as 2 CSs for the total number of CSs.

⁶⁾ Only a single VPS can be connected to one optional service card.

Category	Model	Description	
Physical Trunk Cards	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-TDA0290	PRI Card	
	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)	
	Physical 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 (DHL8)
		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-TDA0474		16-Port Single Line Telephone Extension Card (ESLC16)	
KX-TDA0475		16-Port Single Line Telephone Extension with Message Lamp Card (EMSLC16)	
KX-TDA0478	24-Port Single Line Telephone Extension Card with Caller ID (ECSLC24)		
KX-TDA0479	24-Port Single Line Telephone Extension with Caller ID and Message Lamp Card (EMSLC24)		
Other Physical 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 (EI04)	
	KX-TDA0168	Extension Caller ID Card (EXT-ID)	
	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-TDA0166	16-Channel Echo Canceller Card (EECH016)	
	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 DECT	KX-TDA0151	2-Channel Cell Station Unit Using a DHL8/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
		KX-TDA0155	2-Channel Cell Station Unit Using a DHL8/DLC Card (PT-interface CS) for DECT Portable Station
		KX-TDA0156	4-Channel Cell Station Unit Using a CSIF Card for DECT Portable Station
		KX-TDA0158	8-Channel High-density Cell Station Unit Using a DHL8/DLC Card (PT-interface CS) for DECT Portable Station
Proprietary Equipment	KX-NCP0158	8-Channel IP Cell Station Unit Using a V-IPCS4 Card for DECT Portable Station	
	KX-A228	S/M-type Back-up Battery Cable	
	KX-A229	L-type Back-up Battery Cable	
	KX-A258	Blank Slot Cover	
	KX-T30865 KX-T7765	Doorphone	

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)
RJ45 Port	MNT Port	1 (for PC connection)
	LAN Port	1 (for LAN connection)
	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 (2-channel) 1-pair wire (D1, D2) PT-interface CS (8-channel) 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 276 mm (D)
	Expansion Shelf	430 mm (W) x 415 mm (H) x 276 mm (D)
Weight (when fully mounted)	Basic Shelf	Under 16 kg
	Expansion Shelf	Under 16 kg

System Feature Capacity

	Item	KX-NTDE600	Item	KX-NTDE600		
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, 1000 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, 1000 entries		Authorisation Code for Tenant	16 digits	
	Extension number	1 – 5 digits		Authorisation Code for Trunk Group	10 digits	
	Extension Personal Identification Number (PIN)	10 digits, 1 entry/extension		Outgoing Call Log—PT	100 records/extn. 3200 records/system	
	Host PBX Access Code	10 digits, 10 entries/trunk group		Outgoing Call Log—PS	100 records/extn. 2560 records/system	
	Multiple Subscriber Number (MSN)	10 entries per ISDN-BRI port		Incoming Call Log—PT	100 records/extn. 6400 records/system	
	Number of Characters of Name	20	Call Log and Message Waiting	PS + Incoming Call Distribution Group	100 records/extn. or group Total 6400 records/system	
	Printing message	8		Message Waiting—PS + Incoming Call Distribution Group	640	
	Queuing Time Table	128		Message Waiting—PT + SLT	1280	
	Ring Tone Pattern Plan	8		Outgoing Message (OGM)	64	
	Simultaneous Programmers	• one system programmer + 63 personal programmers • one manager programmer + 63 personal programmers • 64 personal programmers	Voice Message	OGM Total Recording Time	MSG4 Card: 8 minutes; MPR/ESVM2/ESVM4 Card: 20 minutes (at High recording quality)	
	SMDR Call Storage	1000 calls (20 000 calls w/PCMEC card)		Built-in Simplified Voice Message (SVM)	MPR Card: 125 messages; ESVM2/ESVM4 Card: 250 messages per card/block	
	Special Carrier Access Code	16 digits, 100 entries		SVM Total Recording Time	20, 60, or 120 minutes (depending on the recording quality)	
	Tenant	32		Hospitality and Charge Management Features	Billing Items for guest rooms	4000 records/PBX (8000 records w/PCMEC card)
	Time Service Holiday	24			Hotel Operator	4
	Verification Code	4 digits, 1000 entries	Networking	Charge Rate	7 digits including a decimal	
Verification Code Personal Identification Number (PIN)	10 digits, 1000 entries	Charge Denomination		3 currency characters/symbols		
Dialling	Emergency Call	32 digits, 10 entries		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	32 digits, 100 entries/extn.		NDSS: Monitored PBXs	8	
	Quick Dialling	8 digits, 4080 entries		NDSS: Registered Extensions for Monitor PBX	250	
Redial	32 digits	CTI		PC Console	8	
System Speed Dialling	32 digits, 1000 entries/tenant			PC Phone	128	
One-touch Dialling—PT/DSS	32 digits, 5000 entries/system	Password		System Password for Installer	4 – 10 characters	
One-touch Dialling—PS	32 digits, 1000 entries/system		System Password for Administrator— for PC Programming	4 – 10 characters		
Groups	Conference Group		8 (8 members/group for Conference Group Mode, 32 members/group for Broadcast Mode)	System Password for User— for PC Programming	4 – 10 characters	
	Call Pickup Group		96	System Password for Administrator— for PT Programming	4 – 10 digits	
	Idle Extension Hunting Group		128 (16 extensions/group)	System Password for User— for PT Programming	4 – 10 digits	
	Incoming Call Distribution Group		128 (128 extensions/group)	Manager Password	4 – 10 digits	
	Paging Group		96	Programmer Code	Installer Level Programmer Code	4 – 16 characters
	PS Ring Group		32		Administrator Level Programmer Code	4 – 16 characters
	Trunk Group		96	User Level Programmer Code	0 – 16 characters	
	VM (DPT) Group		8 groups x 12 ports (24 channels)			
VM (DTMF) Group	8 groups x 32 channels					
TRS/Barring Level	7					
TRS/Barring	TRS/Barring Denied Code	16 digits, 100 entries/level				
	TRS/Barring Exception Code	16 digits, 100 entries/level				

Feature 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)
- 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

- Primary Directory Number (PDN)/Secondary Directory Number (SDN) Extension

Busy Line/Busy Party Features

- Automatic Callback Busy (Camp-on)
- Executive Busy Override
- Call Monitor
- Caller Information before Executive Busy Override or 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

Conversation Features

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

Transferring Features

- Call Transfer
- SIP Refer Transfer

Holding Features

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

Conference Features

- Conference
- Privacy Release

Conference Group Call Features

Paging 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)
- Built-in Simplified Voice Message (SVM)
- Automatic Fax Transfer
- 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

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

- Record Log Features
- Station Message Detail Recording (SMDR)
- Syslog Record Management
- 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 Features
- Walking Extension
- Enhanced Walking Extension
- Timed Reminder

Audible Tone Features

- Dial Tone
- Confirmation Tone

Networking Features

- TIE Line Service
- Making a TIE Line Call
- TIE Line and Trunk Connection
- TIE Line Programming
- Common Extension Numbering for 2 PBXs
- Voice over Internet Protocol (VoIP) Network
- Gateway Groups
- Common Extension Numbering for Multiple PBXs
- Call Distribution Port Group
- ISDN Virtual Private Network (ISDN-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 Telephone Features

- IP Proprietary Telephone (IP-PT)
- SIP (Session Initiation Protocol) Extension
- Peer-to-Peer Connection
- Self Labelling (KX-NT366 only)

Computer Telephony Integration (CTI) Features

- Computer Telephony Integration (CTI)
- PC Phone/PC Console
- CA (Communication Assistant)

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
- Simple Network Management Protocol (SNMP) System Monitor
- Dynamic Host Configuration Protocol (DHCP) Assignment
- Packet Internet Groper (PING) Confirmation