



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.

Option List

IPCEMPR Optional Cards	KX-NS0132	Stacking Card for KX-TDE/TDA Series
	KX-TDE0105	Memory Expansion Card (IPCMEC)
	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)
Optional Shelf Expansion Cards	KX-TDA6110	Bus Master Card (BUS-M)
	KX-TDA6111	Bus Master Expansion Card (BUS-ME)
Expansion Shelf	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-DTME, 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.

Total Number of Extensions				
Extension(Physical Extension Card)		432	736	1008
PT		304	608	880
	SLT	256	512	640 ¹⁾
	SLT	240	480	720
PT and SLT		304	608	880
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.

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

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.

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 (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)	
	KX-TDA6179	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 (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-TDA6166		16-Channel Echo Canceller Card (EECH016)	
Power Supply Units		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-TDA0155	2-Channel Cell Station Unit Using a DHLC/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 DHLC/DLC Card (PT-interface CS) for DECT
		KX-NCP0158	8-Channel IP Cell Station Unit Using a V-IPCS4 Card for DECT 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-T30865	Doorphone	
	KX-T7765		

System Feature Capacity

	Item	KX-NTDE600
System	Absent Message—Extension	1 x 16 characters
	Absent Message—System	8 x 16 characters
	Call Park Zone	100
	Conference	Each shelf: 3-8 parties per conference (32 parties total)
	COS	64
	DID/DDI Table	32 digits, 1000 entries
	Extension number	1 – 5 digits
	Extension Personal Identification Number (PIN)	10 digits, 1 entry/extension
	Host PBX Access Code	10 digits, 10 entries/trunk group
	Multiple Subscriber Number (MSN)	10 entries per ISDN-BRI port
	Number of Characters of Name	20
	Printing message	8
	Queuing Time Table	128
	Ring Tone Pattern Plan	8
	Simultaneous Programmers	• one system programmer + 63 personal programmers • one manager programmer + 63 personal programmers • 64 personal programmers
	SMDR Call Storage	1000 calls (20 000 calls w/IPCMEC card)
	Special Carrier Access Code	16 digits, 100 entries
	Tenant	32
	Time Service Holiday	24
	Verification Code	4 digits, 1000 entries
	Verification Code Personal Identification Number (PIN)	10 digits, 1000 entries
Dialling	Emergency Call	32 digits, 10 entries
	Hot Line	32 digits
	Key Pad Protocol Dial (ISDN Service Access)	32 digits
	Personal Speed Dialling	32 digits, 100 entries/extn.
	Quick Dialling	8 digits, 4080 entries
	Redial	32 digits
	System Speed Dialling	32 digits, 1000 entries/tenant
	One-touch Dialling—PT/DSS	32 digits,5000 entries/system
Groups	One-touch Dialling—PS	32 digits,1000 entries/system
	Conference Group	8 (8 members/group for Conference Group Mode, 32 members/group for Broadcast Mode)
	Call Pickup Group	96
	Idle Extension Hunting Group	128 (16 extensions/group)
	Incoming Call Distribution Group	128 (128 extensions/group)
	Paging Group	96
	PS Ring Group	32
	Trunk Group	96
TRS/Barring	VM (DPT) Group	8 groups x 12 ports (24 channels)
	VM (DTMF) Group	8 groups x 32 channels
	TRS/Barring Level	7
	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
- Parallellled 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

	Item	KX-NTDE600
ARS	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 for Tenant	16 digits
	Authorisation Code for Trunk Group	10 digits
Call Log and Message Waiting	Outgoing Call Log—PT	100 records/extn. 3200 records/system
	Outgoing Call Log—PS	100 records/extn. 2560 records/system
	Incoming Call Log—PT	100 records/extn. 6400 records/system
	Incoming Call Log—PS + Incoming Call Distribution Group	100 records/extn. or group Total 6400 records/system
	Message Waiting—PS + Incoming Call Distribution Group	640
	Message Waiting—PT + SLT	1280
Voice Message	Outgoing Message (OGM)	64
	OGM Total Recording Time	MSG4 Card: 8 minutes; MPR/ESVM2/ESVM4 Card: 20 minutes (at High recording quality)
	Built-in Simplified Voice Message (SVM)	MPR Card: 125 messages; ESVM2/ESVM4 Card: 250 messages per card/block
	SVM Total Recording Time	20, 60, or 120 minutes (depending on the recording quality)
Hospitality and Charge Management Features	Billing items for guest rooms	4000 records/PBX (8000 records w/IPCMEC card)
	Hotel Operator	4
	Charge Rate	7 digits including a decimal
Networking	Charge Denomination	3 currency characters/symbols
	TIE Line Routing and Modification Table	32 entries
	Leading Number	3 digits
	PBX Code	7 digits
	NDSS: Monitored PBXs	8
CTI	NDSS: Registered Extensions for Monitor PBX	250
	PC Console	8
	PC Phone	128
Password	System Password for Installer	4 – 10 characters
	System Password for Administrator— for PC Programming	4 – 10 characters
	System Password for User— for PC Programming	4 – 10 characters
	System Password for Administrator— for PT Programming	4 – 10 digits
	System Password for User— for PT Programming	4 – 10 digits
	Manager Password	4 – 10 digits
	Installer Level Programmer Code	4 – 16 characters
Programmer Code	Administrator Level Programmer Code	4 – 16 characters
	User Level Programmer Code	0 – 16 characters

- 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