



## System Capacity Maximum Trunks and Extensions

Type	KX-TDE100	KX-TDE200
<b>Total Number of Trunks</b>	128	128
Trunk (Physical Trunk Card)	120	128
Trunk (Virtual Trunk Card)	32	32
<b>Total Number of Extensions</b>	256	256
Extension (Physical Extension Card)	160	256
Extension (Virtual Extension Card)	128	128
IP-PT and IP Softphone	64	64
SIP Extension	128	128

Note: For non-peer-to-peer calls via the DSP card, calls cannot be made or received when all of the card's resources are being used.

## Maximum Terminal Equipment

Terminal Equipment Type	KX-TDE100	KX-TDE200
<b>Telephone</b>	256	256
SLT	96	128
KX-T7600 series DPT	128	256
KX-T7400 series DPT	96	128
Other DPT	32	128
APT	24	64
IP-PT	160	160
IP-PT *1 (supported by IP-EXT16 card)	96	128
IP-PT *2 (supported by IPCMPR card)	64	64
SIP Extension	128	128
DSS Console	8	8
Basic CS	32	32
PS	128	128
<b>Voice Processing System (VPS)</b>	2	2
Doorphone	16	16
Door Opener	16	16
External Sensor	16	16
External Relay	16	16

\*1 KX-NT136 and KX-NT265    \*2 KX-NT300 series and KX-NT265 (software version 2.00 or later only)

## Option List

	Model	Description	
<b>Main Processing Card</b>	KX-TDE0101	IP Convergence Main Processing Card (IPCMR)	
<b>IPCMR Option Cards</b>	KX-TDE0110	16-Channel VoIP DSP Card (DSP16)	
	KX-TDE0111	64-Channel VoIP DSP Card (DSP64)	
	KX-TDA0196	Remote Card (RMT)	
<b>Activation Key Cards</b>	KX-NCS4104	4-Channel IP Trunk Activation Key (4 IP Trunk)	
	KX-NCS4208	8-Channel IP Softphone/IP Proprietary Telephone Activation Key (8 IP Softphone/IP PT)	
	KX-NCS4508	8-Channel IP Proprietary Telephone Activation Key (8 IP PT)	
	KX-NCS4716	16-Channel SIP Extension Activation Key (16 SIP Extension)	
	KX-NCS4910	Activation Key for Software Upgrade to Enhanced Version (Software Upgrade 01)	
<b>Physical Trunk Cards</b>	KX-TDA0180	8-Port Analogue Trunk Card (LCOT8)	
	KX-TDA0181	16-Port Analogue Trunk Card (LCOT16)	
	KX-TDA0182	8-Port DID Card (DID8)	
	KX-TDA0193	8-Port Caller ID Card (CID8)	
	KX-TDA0290	PRI Card (PRI 23)	
	KX-TDA0484	4-Channel VoIP Gateway Card (IP-GW4E)	
	KX-TDA0490	16-Channel VoIP Gateway Card (IP-GW16)	
<b>Physical Extension Cards</b>	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-TDA0175	16-Port Single Line Telephone Extension Card with Message Lamp Card (MSLC16)	
	KX-TDA0470	16-Channel VoIP Extension Card (IP-EXT16)	
<b>Other Physical Cards</b>	KX-TDA0161	4-Port Doorphone Card (DPH4)	
	KX-TDA0164	4-Port External Input/Output Card (EIO4)	
	KX-TDA0166	16-Channel Echo Canceller Card (ECHO16)	
	KX-TDA0168	Extension Caller ID Card (EXT-CID)	
	KX-TDA0190	Optional 3-Slot Base Card (OPB3)	
	KX-TDA0191	4-Channel Message Card (MSG4)	
<b>Power Supply Units (PSUs)</b>	KX-TDA0103	L-Type Power Supply Unit (PSU-L)	
	KX-TDA0104	M-Type Power Supply Unit (PSU-M)	
	KX-TDA0108	S-Type Power Supply Unit (PSU-S)	
<b>Cell Stations (CSs)</b>	Basic	KX-TDA0151	2-Channel Cell Station Unit Using a DHLC/DLC Card (PT-interface CS) for 2.4 GHz Portable Station
	CSs	KX-TDA0152	3-Channel Cell Station Unit Using a CSIF Card for 2.4 GHz Portable Station
<b>Proprietary Equipment</b>	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	

### 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-T7600 series)
  - Analogue proprietary telephones (e.g., KX-T7700 series)
  - Portable stations (e.g., KX-TD7680, KX-TD7684, KX-TD7694, KX-TD7690)
  - DSS consoles (e.g., KX-T7640)
  - Single line telephones (e.g., KX-T7710)

## Specifications

KX-TDE100/TDE200		
<b>Control Bus</b>	Original bus (16-bit, 8 MHz, 10 megabytes per second)	
<b>Communication Bus</b>	H.100 bus conformity (1024 time slots)	
<b>Switching</b>	Non-blocking	
<b>Power Input</b>	PSU-S	100 V AC to 130 V AC; 1.4 A 200 V AC to 240 V AC; 0.8 A 50 Hz/60 Hz
	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
<b>External Battery</b>	+36 V DC (+12 V DC x 3, recommended maximum capacity is 28 Ah)	
<b>Maximum Power Failure Tolerance</b>	300 ms (without using backup batteries)	
<b>Memory Backup Duration</b>	7 years	
<b>Dialling</b>	Trunk	Dial Pulse (DP) 10 pps, 20 pps Tone (DTMF) Dialling
	Extension	Dial Pulse (DP) 10 pps, 20 pps Tone (DTMF) Dialling
<b>Mode Conversion</b>	DP-DTME, DTMF-DP	
<b>Ring Frequency</b>	20 Hz/25 Hz (Selectable)	
<b>Trunk Loop Limit</b>	1600 Ω Maximum	
<b>Operating Environment</b>	Temperature	0 °C to 40 °C
	Humidity	10 % to 90 % (non-condensing)
<b>Conference Call Trunk</b>	From 10 x 3-party conference call to 4 x 8-party conference call	
<b>Music on Hold (MOH)</b>	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	
<b>Paging</b>	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)
<b>Serial Interface Port</b>	RS-232C	1 (maximum 115.2 kbps)
<b>RJ45 Port</b>	MNT Port	1 (for PC connection)
	LAN Port	1 (for LAN connection)
<b>Extension Connection Cable</b>	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)
<b>Dimension</b>	KX-TDE100	334 mm(W) x 390 mm(H) x 272 mm(D)
	KX-TDE200	430 mm(W) x 415 mm(H) x 276 mm(D)
<b>Weight (when fully mounted)</b>	KX-TDE100	Under 12 kg
	KX-TDE200	Under 16 kg

# System Feature Capacity

	Item	KX-TDE100	KX-TDE200		Item	KX-TDE100	KX-TDE200
System	Absent Message-Extension	1 x 16 characters		ARS	Routing Plan Table	16 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	3-8 parties per conference (32 parties total)			ARS Carrier	10	
	COS	64			Authorization Code	10 digits	
	DID/DDI Table	32 digits, 1,000 entries		Call Log and Message Waiting	Outgoing Call Log - PT	100 records/extn. 1,520 records/system	
	Extension Number	1-5 digits [1-4 digits for PSs, 2-4 digits for extensions which have a VM (DPT) mailbox]			Outgoing Call Log - PS	100 records/extn. 640 records/system	
	Extension Personal Identification Number (PIN)	10 digits, 1 entry/extension			Incoming Call Log - PT	100 records/extn. 3,040 records/system	
	Host PBX Access Code	10 digits, 10 entries/trunk group			Incoming Call Log - PS + Incoming Call Distribution Group	100 records/extn. or group Total 2,048 records/system	
	Number of the Characters of Name	20			Message Waiting - PS + Incoming Call Distribution Group	256	
	Printing Message	8		Voice Message	Message Waiting - PT + SLT	512	
	Queueing Time Table	64			Outgoing Message (OGM)	64	
	Ring Tone Pattern Plan	8			OGM Total Recording Time	8 minutes	
	SMDR Call Storage	200 calls			Proprietary Voice Mail Systems	2 TVM System (max. 24 ports each)	
	Special Carrier Access Code	16 digits, 20 entries			Networking	DTMF Voice Mail Systems	2 Systems
	Tenant	8		TIE Line Routing and Modification Table		32 entries	
	Time Service Holiday	24		Leading Number		3 digits	
	Verification Code	4 digits, 1,000 entries		PBX Code		7 digits	
	Verification Code Personal Identification Number (PIN)	10 digits, 1,000 entries		NDSS:Monitored PBXs		8	
	Dialling	Emergency Call	32 digits, 10 entries		CTI	NDSS:Registered Extensions for Monitor PBX	250
Hot Line		32 digits		PC Console		8	
Key Pad Protocol Dial (ISDN Service Access)		32 digits		PC Phone		64	128
Personal Speed Dialling		32 digits, 100 entries/extn.					
Quick Dialling		8 digits, 4,080 entries					
Groups	Redial	32 digits					
	System Speed Dialling	32 digits, 1,000 entries/tenant					
	Broadcasting Group	8 (32 members/group)					
	Call Pickup Group	64					
	Idle Extension Hunting Group	64 (16 extensions/group)					
	Incoming Call Distribution Group	128 (32 extensions/group)					
	Paging Group	32					
	PS Ring Group	32					
	Trunk Group	64					
	VM (DPT) Group	2 groups x 12 ports (24 channels)					
TRS/Barring	VM (DTMF) Group	2 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)
  - 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
  - Queueing 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
  - 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

- 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
  - Parallel 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)
    - 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)
- Completion of Calls to Busy Subscriber (CCBS)
- ISDN Service Access by Keypad Protocol

#### Voice Message Features

- Built-in Simplified Voice Message (SVM)
- 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

#### Hospitality Features

- Room Status Control
- 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

- 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 QSIG365
  - 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)
  - Centralized 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

#### 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