

System Capacity

Maximum Number of Trunks

The PBX supports the following number of trunks and extensions.

Type	Basic System	2-shelf System	3-shelf System	4-shelf System
Total Number of Trunks	224	384	544	640
Trunk with option card	160	320	480	640
IP Trunk on MPR card			64*1	
H.323 trunks			32	
SIP trunks			32	

*1 Only 49 virtual trunk/extension card channels can be in use at any one time [except for peer-to-peer calls for IP extensions].

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	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 MPR card)			128*4	
SIP Extension			128	
DSS console			64	
CS	32*5	64*5	96*5	128*5
High-Density CS	16	32	48	64
IP-CS			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 high-density 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.



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

Option List

	Model	Description		Model	Description
IPCEMPR Option Cards	KX-TDE0105	Memory Expansion Card (IPCEMC)	Physical Trunk Cards	KX-TDA0189	8-Port Caller ID/Pay Tone Card (CID/PAY8)
	KX-TDE0110	16-Channel VoIP DSP Card (DSP16)		KX-TDA0193	8-Port Caller ID Card (CID8)
	KX-TDE0111	64-Channel VoIP DSP Card (DSP64)		KX-TDA0284	4-Port BRI Card (BR14)
	KX-TDA0196	Remote Card (RMT)		KX-TDA0288	8-Port BRI Card (BR18)
Optional Shelf Expansion Cards	KX-TDA6110	Bus Master Card (BUS-M)	KX-TDA0290CE	PRI Card (PRI30)	
	KX-TDA6111	Bus Master Expansion Card (BUS-ME)	KX-TDA0290CJ	PRI Card (PRI30)	
Expansion Shelf	KX-TDE620	Expansion Shelf	KX-TDA0290	PRI Card (PRI23)	
Mounting Kit	KX-TDA6201	Mounting Kit for expanding to a 3-or 4-shelf System	KX-TDA0484	4-Channel VoIP Gateway Card (IP-GW4E)	
Activation Key Cards	KX-NCS4102	2-Channel IP Trunk Activation Key (2 IP Trunk)	KX-TDA0490	16-Channel VoIP Gateway Card (IP-GW16)	
	KX-NCS4104	4-Channel IP Trunk Activation Key (4 IP Trunk)	KX-TDA6181	16-Port Analogue Trunk Card (ELCOT16)	
	KX-NCS4201	1-Channel IP Softphone/IP Proprietary Telephone Activation Key (1 IP Softphone/IP PT)	KX-TDA0143	4 Cell Station Interface Card (CSIF4)	
	KX-NCS4204	4-Channel IP Softphone/IP Proprietary Telephone Activation Key (4 IP Softphone/IP PT)	KX-TDA0144	8 Cell Station Interface Card (CSIF8)	
	KX-NCS4208	8-Channel IP Softphone/IP Proprietary Telephone Activation Key (8 IP Softphone/IP PT)	KX-TDA0170	8-Port Digital Hybrid Extension Card (DHLCH8)	
	KX-NCS4216	16-Channel IP Softphone/IP Proprietary Telephone Activation Key (16 IP Softphone/IP PT)	KX-TDA0171	8-Port Digital Extension Card (DLC8)	
	KX-NCS4501	1-Channel IP Proprietary Telephone Activation Key (1 IP PT)	KX-TDA0172	16-Port Digital Extension Card (DLC16)	
	KX-NCS4504	4-Channel IP Proprietary Telephone Activation Key (4 IP PT)	KX-TDA0173	8-Port Single Line Telephone Extension Card (SLC8)	
	KX-NCS4508	8-Channel IP Proprietary Telephone Activation Key (8 IP PT)	KX-TDA0177	16-Port Single Line Telephone Extension Card with Caller ID (CSLCL16)	
	KX-NCS4516	16-Channel IP Proprietary Telephone Activation Key (16 IP PT)	KX-TDA0470	16-Channel VoIP Extension Card (IP-EXT16)	
	KX-NCS4701	1-Channel SIP Extension Activation Key (1 SIP Extension)	KX-TDA6174	16-Port Single Line Telephone Extension Card (ESLCL16)	
	KX-NCS4704	4-Channel SIP Extension Activation Key (4 SIP Extension)	KX-TDA6175	16-Port Single Line Telephone Extension with Message Lamp Card (EMSLCL16)	
	KX-NCS4708	8-Channel SIP Extension Activation Key (8 SIP Extension)	KX-TDA6178	24-Port Single Line Telephone Extension Card with Caller ID (ECSLCL24)	
	KX-NCS4716	16-Channel SIP Extension Activation Key (16 SIP Extension)	KX-TDA0161	4-Port Doorphone Card (DPH4)	
	KX-NCS4950	Activation Key for Software Upgrade to Enhanced Version (Software Upgrade 01)	KX-TDA0162	2-Port Doorphone Card (German Type)(DPH2)	
	KX-NCS2010	Activation Key for CA Thin Client	KX-TDA0164	4-Port External Input/Output Card (EIO4)	
	KX-NCS2020	Activation Key for CSTA Multiplexer	KX-TDA0168	Extension Caller ID Card (EXT-CID)	
	KX-NCS2201	Activation Key for CA PRO for 1 User (CA PRO 1 user)	KX-TDA0190	Optional 3-Slot Base Card (OPB3)	
	KX-NCS2205	Activation Key for CA PRO for 5 Users (CA PRO 5 users)	KX-TDA0191	4-Channel Message Card (MSG4)	
	KX-NCS2210	Activation Key for CA PRO for 10 Users (CA PRO 10 users)	KX-TDA0192	2-Channel Simplified Voice Message Card (ESVM2)	
KX-NCS2240	Activation Key for CA PRO for 40 Users (CA PRO 40 users)	KX-TDA0194	4-Channel Simplified Voice Message Card (ESVM4)		
KX-NCS2249	Activation Key for CA PRO for 128 Users (CA PRO 128 users)	KX-TDA6166	16-Channel Echo Canceller Card (EECH016)		
KX-NCS2301	Activation Key for CA ACD Monitor for 1 LCD Supervisor (CA Supervisor 1 user)	KX-TDA0103	L-Type Power Supply Unit (PSU-L)		
KX-NCS2401	Activation Key for CA Operator Console 1 User	KX-TDA0104	M-Type Power Supply Unit (PSU-M)		
KX-NCS2901	Activation Key for CA Network 1 User	KX-TDA0155CE	2-Channel Cell Station Unit Using a DHLCL/DLC Card (PT-interface CS) for DECT Potable Station		
KX-NCS2905	Activation Key for CA Network 5 Users	KX-TDA0156CE	4-Channel Cell Station Unit Using a CSIF Card for DECT Potable Station		
KX-NCS2910	Activation Key for CA Network 10 Users	KX-TDA0158CE	8-Channel High-Density Cell Station Unit Using a DHLCL/DLC Card (PT-interface CS) for DECT Potable Station		
KX-NCS2940	Activation Key for CA Network 40 Users	KX-NCP0158CE	8-Channel IP Cell Station Unit Using a V-PCSA Card for DECT Potable Station		
KX-NCS2949	Activation Key for CA Network 128 Users	KX-A228	S/M-type Back-up Battery Cable		
Physical Trunk Cards	KX-TDA0182	8-Port DID Card (DID8)	KX-A229	L-type Back-up Battery Cable	
	KX-TDA0184	8-Port E & M Trunk Card (E&M8)	KX-A258	Blank Slot Cover	
	KX-TDA0187	T-1 Trunk Card (T1)	KX-T7765	Doorphone	
	KX-TDA0188	E-1 Trunk Card (E1)			

Specifications

KX-TDE600	
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)
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 1-pair wire (D1, D2)
Extension Connection Cable (High-Density)	PT-interface CS 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:

• IP proprietary telephones (e.g., KX-NT400, 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-TCA175, KX-TCA275, KX-TCA364, KX-TCA355, KX-TCA256, KX-TD7690) • DSS consoles (e.g., KX-TD390) • 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-TDE600		Item	KX-TDE600
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		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	Outgoing Message (OGM)	64	
	Simultaneous Programmers	<ul style="list-style-type: none"> 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;ESVM2/ESVM4 Card:20 minutes (at High recording quality)
	SMDR Call Storage	1000 calls (20,000 calls w/IPCMEC 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	20, 60, or 120 minutes (depending on the recording quality)
	Tenant	32		Billing Items for Guest Rooms	4,000 records/PBX (8,000 records w/IPCMEC card)
	Time Service Holiday	24	Hospitality and Charge Management Features	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	32 digits, 100 entries/extn.		NDSS:Monitored PBXs	8
	Quick Dialling	8 digits, 4,080 entries	NDSS:Registered Extensions for Monitor PBX	250	
	Redial	32 digits	CTI	PC Console	8
System Speed Dialling	32 digits, 1,000 entries/tenant	PC Phone		128	
Groups	Conference Group	8 (8 members/group for Conference Group Mode, 32 members/group for Broadcast Mode)	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	Pro-grammer 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			

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)
- Ring 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 Distribution Port Group

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
- 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
- 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
- Conference Group Call Features
- Conference Group Call

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)
- 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 Message 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
- Virtual Private Network (VPN)

QSIG Standard Features

- Calling/Connected Line Identification Presentation (CLIP/COLP) and Calling/Connected Name Identification Presentation (CNIP/CONPI) - 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)
- 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

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
- SNMP System Monitor
- DHCP Assignment
- PING Confirmation