

KX-NCP500

KX-NCP1000



System Capacity

Type and Maximum Number of Slots

The PBX supports the following type and number of slots.

Slot Type	KX-NCP500	KX-NCP1000
IPCMPR Card Slot	1	1
Regular Free Slot	2	3
Small Free Slot	3	4
Virtual Slot		
Virtual Trunk Slot	4	4
Virtual Extension Slot	4	4

Maximum Trunks and Extensions

The PBX supports the following number of trunks.

Type	Maximum Number
Total Number of Trunks	128
Trunk (Physical Trunk Card)	64
Trunk (Virtual Trunk Card)	64
H.323 Trunks	32
SIP Trunks	64

Option List

Category	Model	Description
IPCMPR Option Cards	KX-NCP1104	4-Channel VoIP DSP Card (DSP4)
	KX-TDE0110	16-Channel VoIP DSP Card (DSP16)
	KX-TDE0111	64-Channel VoIP DSP Card (DSP64)
	KX-TDA0196	Remote Card (RMT)
Activation Key Codes ¹	KX-NCS3102	2-Channel IP Trunk Activation Key
	KX-NCS3104	4-Channel IP Trunk Activation Key
	KX-NCS3201	1-Channel IP Softphone/IP Proprietary Telephone Activation Key
	KX-NCS3204	4-Channel IP Softphone/IP Proprietary Telephone Activation Key
	KX-NCS3208	8-Channel IP Softphone/IP Proprietary Telephone Activation Key
	KX-NCS3216	16-Channel IP Softphone/IP Proprietary Telephone Activation Key
	KX-NCS3501	1-Channel IP Proprietary Telephone Activation Key
	KX-NCS3504	4-Channel IP Proprietary Telephone Activation Key
	KX-NCS3508	8-Channel IP Proprietary Telephone Activation Key
	KX-NCS3516	16-Channel IP Proprietary Telephone Activation Key
	KX-NCS3701	1-Channel SIP Extension Activation Key
	KX-NCS3704	4-Channel SIP Extension Activation Key
	KX-NCS3708	8-Channel SIP Extension Activation Key
	KX-NCS3716	16-Channel SIP Extension Activation Key
	KX-NCS3910	Activation Key for Enhanced Features
	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

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
- KX-NT136 IP proprietary telephone • KX-NT265 IP proprietary telephone (apart from software version 2.00 or later)

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-NCP500/1000	
Control Bus	Original bus (16-bit, 8 MHz, 10 megabytes per second)
Communication Bus	H.100 bus conformity (1024 time slots)
Switching	Non-blocking
Power Input	KX-NCP500 100 V AC to 130 V AC; 1.0 A/200 V AC to 240 V AC; 0.6 A; 50 Hz/60 Hz KX-NCP1000 100 V AC to 130 V AC; 1.3 A/200 V AC to 240 V AC; 0.8 A; 50 Hz/60 Hz
Power Consumption (When fully mounted)	KX-NCP500 51 W (240V:122VA, 200V:113VA, 130V:100VA, 100V:92VA) KX-NCP1000 65 W (240V:142VA, 200V:134VA, 130V:119VA, 100V:113VA)
Maximum Power Failure Tolerance ¹	300 ms
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	From 10 x 3-party conference call to 4 x 8-party conference call
Music on Hold (MOH)	1 port (Level Control: -6 dB to +6 dB per 3 dB) MOH1: Selectable Internal/External Music Source port
Paging	Internal Level Control: -6 dB to +3 dB per 3 dB External 1 port (Volume Control: -15 dB to +6 dB per 3 dB)
Serial Interface Port	RS-232C 1 (maximum 115.2 kbps)
RJ45 Port	MMT 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	KX-NCP500 430 mm (W) x 88 mm (H) x 340 mm (D) KX-NCP1000 430 mm (W) x 130 mm (H) x 340 mm (D)
Weight (when fully mounted)	KX-NCP500 Under 7 kg KX-NCP1000 Under 8 kg

¹ If tolerance may be exceeded, an Uninterruptible Power Supply (UPS) is recommended.

The PBX supports the following number of extensions.

Type	Maximum Number
Total Number of Extensions	172
Extension (Physical Extension Card)	44
Extension (Virtual Extension Card)	128
IP-PT and IP Softphone	128
SIP Phone	128

Maximum Terminal Equipment

The following shows the number of each terminal equipment type supported by the PBX.

Terminal Equipment Type	Maximum Number
Telephone	172
SLT	36
KX-DT300/KX-T7600 series DPT	40
Other DPT	10
APT	4
IP-PT ¹	128 ²
SIP Extension	128
DSS console	8
CS	21 ³
PT-interface CS (2-channel)	11
PT-interface CS (8-channel)	5
IP-CS (8-channel)	16
PS	64
Voice Processing System (VPS)	2
Doorphone	16 ⁴
Door Opener	16
External Sensor	16
External Relay	16

¹ KX-NT400, KX-NT300 series, and KX-NT265 (software version 2.00 or later only)

² For the KX-NT400, the maximum number of extensions that can be connected to the PBX is 64.

³ One 8-channel PT-interface CS or IP-CS counts as 2 CSs, up to a maximum of 32 CSs. Therefore, the maximum number of CSs is 21 (eleven 2-channel CSs + ten 8-channel CSs).

⁴ For the KX-NCP500, when using the DPH2 card, the maximum number of doorphones is 12.

Category	Model	Description	
Activation Key Codes ¹	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	
Small Free Slot			
Physical Trunk Cards	KX-NCP1180	4-Port Analogue Trunk Card (LCOT4)	
	KX-NCP1280	2-Port BRI Card (BRI2)	
	KX-NCP1290	PRI Card	
Physical Extension Card	KX-NCP1170	4-Port Digital Hybrid Extension Card (DHLC4)	
Regular Free Slot			
Physical Trunk Cards	KX-NCP1187	T-1 Trunk Card (T1)	
	KX-NCP1188	E-1 Trunk Card (E1)	
Physical Extension Cards	KX-NCP1171	8-Port Digital Extension Card (DLC8)	
	KX-NCP1172	16-Port Digital Extension Card (DLC16)	
	KX-NCP1173	8-Port Single Line Telephone Extension Card (SLC8)	
	KX-NCP1174	16-Port Single Line Telephone Extension Card (SLC16)	
	KX-NCP1190	Optional 3-Slot Base Card (OPB3)	
OPB3			
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-TDA0166	16-Channel Echo Canceller Card (ECHO16)	
	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)	
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	
	DECT	KX-TDA0155 2-Channel Cell Station Unit Using a DHLC/DLC Card (PT-interface CS) for DECT Portable Station KX-TDA0158 8-Channel High-density Cell Station Unit Using a DHLC/DLC Card (PT-interface CS) for DECT Portable Station KX-NCP0158 8-Channel IP Cell Station Unit Using a V-IPCS4 Card for DECT Portable Station	
	Proprietary Equipment	KX-T30865	Doorphone
		KX-T7765	Doorphone

System Feature Capacity

		KX-NCP500	KX-NCP1000	
System	Absent Message—Extension	1 x 16 characters		
	Absent Message—System	8 x 16 characters		
	Call Park Zone	100		
	Conference	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	64		
	Ring Tone Pattern Plan	8		
	Simultaneous Programmers	<ul style="list-style-type: none"> • one system programmer + 63 personal programmers • one manager programmer + 63 personal programmers • 64 personal programmers 		
	SMDR Call Storage	200 calls		
	Special Carrier Access Code	16 digits, 20 entries		
	Tenant	8		
	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, 2000 entries/system		
One-touch Dialling—PS		32 digits, 500 entries/system		
Conference Group		8 (8 members/group for Conference Group Mode, 32 members/group for Broadcast Mode)		
Groups	Call Pickup Group	64		
	Idle Extension Hunting Group	64 (16 extensions/group)		
	Incoming Call Distribution Group	128 (128 extensions/group)		
	Paging Group	32		
	PS Ring Group	32		
	Trunk Group	64		
	VM (DPT) Group	2 groups x 12 ports (24 channels)		
	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			
ARS	Routing Plan Table	16 entries		
	Leading Number Table	16 digits, 1000 entries		
	Leading Number Exception Table	16 digits, 200 entries		
	ARS Carrier	10		
	Itemised Billing Code	10 digits		
	Authorisation Code for Tenant	16 digits		
	Authorisation Code for Trunk Group	10 digits		
	Outgoing Call Log—PT	100 records/extn. 840 records/system		
	Outgoing Call Log—PS	100 records/extn. 320 records/system		
	Incoming Call Log—PT	100 records/extn. 1680 records/system		
Call Log and Message Waiting	Incoming Call Log—PS + Incoming Call Distribution Group	100 records/extn. or group Total 1536 records/system		
	Message Waiting—PS + Incoming Call Distribution Group	192		
	Message Waiting—PT + SLT	512		
	Outgoing Message (OGM)	64		
Voice Message	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)		
	Billing items for guest rooms	1000 records/PBX		
Hospitality and Charge Management Features	Hotel Operator	4		
	Charge Rate	7 digits including a decimal		
	Charge Denomination	3 currency characters/symbols		
	TIE Line Routing and Modification Table	32 entries		
Networking	Leading Number	3 digits		
	PBX Code	7 digits		
	NDSS: Monitored PBXs	8		
	NDSS: Registered Extensions for Monitor PBX	250		
CTI	PC Console	8	8	
	PC Phone	20	36	
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		
Programmer Code	Installer Level Programmer Code	4 – 16 characters		
	Administrator Level Programmer Code	4 – 16 characters		
	User Level Programmer Code	0 – 16 characters		

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
- 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
- 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