



System Capacity

Maximum Trunks

The PBX supports the following number of trunks.

Type	KX-NS300	With 1 KX-NS320	With 2 KX-NS320	With 3 KX-NS320
Total Number of Trunks	52 ch	82 ch	112 ch	142 ch
Legacy	36 ch	66 ch	96 ch	126 ch
PRI30	30 ch	60 ch	90 ch	120 ch
E1	30 ch	60 ch	90 ch	120 ch
Analogue	12 lines	24 lines	36 lines	48 lines
IP	16 ch	16 ch	16 ch	16 ch
H.323	16 ch	16 ch	16 ch	16 ch
SIP	16 ch	16 ch	16 ch	16 ch

Option List

Hardware

Component	Model No.	Installed in	
DSP	S (63 resources) XS (VM Recording Time: 40 hours) S (VM Recording Time: 200 hours) M (VM Recording Time: 400 hours)	KX-NS5110 KX-NS3134 KX-NS3135 KX-NS3136	DSP Card Slot Storage Memory Card Slot
Trunk	LCOT6 PRI30/E1 DPH2	KX-NS5180 KX-NS5290CE KX-NS5162	Trunk Slot
Extension	DHLC4 DLC8 DLC16 MCSLC8 MCSLC16	KX-NS5170 KX-NS5171 KX-NS5172 KX-NS5173 KX-NS5174	Extension Slot
Expansion Master Card	EXP-M	KX-NS5170	EXP-M Slot
Remote Modem	RMT	KX-TDA0196	RMT Slot

Activation Keys

Component	Model No.	Maximum	
		KX-NS300	With KX-NS320
System Function	Call Centre VoIP/Unified Message (UM)	KX-NSF201 KX-NSF990	1 activation key
IP Trunk ¹	IP Trunks (H.323/SIP)	2 ch 4 ch 8 ch 16 ch	SIP 16 ch H.323 16 ch
Networking	QSIG Network	KX-NSN002	1 activation key
IP Telephone ^{2,3,4} - User Licence	IP PTs/KX-UT Series SIP Phones /IP Softphones IP PTs/KX-UT Series SIP Phones SIP Phones	1 ch 5 ch 10 ch 20 ch Up to 4 ch 1 ch 5 ch 10 ch 20 ch 1 ch 5 ch 10 ch 20 ch	Preinstalled 32 ch

¹ Storage Memory for VM Time, ACD Report, SMDR expansion, Program upgrading ² An SD card is necessary to use ACD Reports. ³ KX-NSF990 is necessary to use VoIP/UM features.

⁴ IP PTs: KX-NT500/300 series IP proprietary phones, KX-NT265 IP Softphones: KX-NCS8100, KX-TDA0350 SIP Phones: KX-NT700 IP Conferencing phone and Third party SIP phones (SIP hardphones/SIP softphones).

Incompatible Panasonic Telephones

The KX-NS300 does not support the following Panasonic proprietary telephones:

• KX-NT400 and KX-HGT100

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

Specifications

	KX-NS300	KX-NS320
Main CPU	Cortex A8 600 MHz	Cortex A8 300 MHz
Power Input	100 V AC to 130 V AC: 2.2 A/200 V AC to 240 V AC: 1.3 A; 50 Hz/60Hz	
Power Consumption (when fully mounted)	110 W	
External Backup Battery	External battery port is supported.	
Memory Backup Duration	7 years	
Dialling	Trunk Extension	Dial Pulse (DP) 10 pps, 20 pps Tone (DTMF) Dialling Dial Pulse (DP) 10 pps, 20 pps Tone (DTMF) Dialling
Mode Conversion		DP-DTMF, DTMF-DP
Ring Frequency		20 Hz/25 Hz (selectable)
Operating Environment	Temperature Humidity	0 °C to 40 °C 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)		Maximum 8 ports (Level Control: -31.5 dB to +31.5 dB per 0.5 dB) MOH: Selectable Internal/External Music Source port
External Paging		Maximum 6 ports (Volume Control: -15.5 dB to +15.5 dB per 0.5 dB)
LAN Port	1 (for LAN connection)	10BASE-T/100BASE-TX (Auto MDI/MDI-X)
Extension Connection Cable	SLT DPT PT-interface CS PT-interface CS (High-density) DSS Console and Add-on Key Module	1-pair wire (T, R) 1-pair wire (D1, D2) or 2-pair wire (T, R, D1, D2) 1-pair wire (D1, D2) 4-pair wire (D1, D2) 1-pair wire (D1, D2)
Air-cooling Method		Fan
Dimension		430 mm (W) x 88 mm (H) x 367 mm (D)
Weight (when fully mounted)		Under 4.5 kg

Maximum Terminal Equipment

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

Type	KX-NS300	With 1 KX-NS320	With 2 KX-NS320	With 3 KX-NS320
Extensions (DXDP¹)	66 (72)	98 (112)	130 (152)	162 (192)
Legacy (DXDP ¹)	34 (40)	66 (80)	96 (120)	130 (160)
SLT	32	64	96	128
DPT (DXDP ²)	18 (24)	34 (48)	50 (72)	66 (96)
APT	8	16	24	32
IP	32	32	32	32
IP-PT ²	32	32	32	32
SIP	32	32	32	32
SIP Phone ³	32	32	32	32
S-PS	32	32	32	32
DSS Console	8	8	8	8
CS	20	24	28	32
DPT-CS (2 ch) / (8 ch)	4 / 2	8 / 4	12 / 6	16 / 8
IP-CS/SIP-CS	16	16	16	16
PS	128	128	128	128
VM				
ESVM (ch)	2	2	2	2
Built-in UM (ch)	24	24	24	24
TVM Unit	2	2	2	2
Doorphone	2	4	6	8
Door Opener	2	4	6	8
External Sensor	2	4	6	8

¹ When Digital XDP is used.

² KX-NT500 series, KX-NT300 series, and KX-NT265 (software version 2.00 or later only).

³ KX-UT Series, KX-NT700 and third party SIP phones (SIP hardphones/SIP softphones).

Component	Model No.	Maximum	
		KX-NS300	With KX-NS320
Cellular Phone Extension-User Licence	Mobile Extension 1 ch 5 ch 10 ch 20 ch	KX-NSE101 KX-NSE105 KX-NSE110 KX-NSE120	288 cellular phone extensions
Unified Messaging System ³	Feature		
	Two-way REC (Recording) Control Message Backup Unified Messaging Channel 2 ch 2 ch 4 ch	KX-NSU002 KX-NSU003 Preinstalled KX-NSU102 KX-NSU104	1 activation key 1 activation key 24 UM Ports
User (Mailbox) Licence	1 user 5 users 10 users 20 users All users	KX-NSU201 KX-NSU205 KX-NSU210 KX-NSU220 KX-NSU299	500 mailboxes
	Two-way Recording/ Two-way Transfer	1 user 5 users 10 users 20 users All users	KX-NSU301 KX-NSU305 KX-NSU310 KX-NSU320 KX-NSU399
Communication Assistant	User Licence		
	CA Basic-Express 1 user 5 users 10 users 40 users 128 users	Preinstalled KX-NSA201 KX-NSA205 KX-NSA210 KX-NSA240 KX-NSA249	without CA server 240 users/ with CA server 288 users
CA Supervisor	1 user	KX-NSA301	without CA server 4 users/ with CA server 128 users
	CA Operator Console	1 user	KX-NSA401
CA Network Plug-in	1 user 5 users 10 users 40 users 128 users	KX-NSA901 KX-NSA905 KX-NSA910 KX-NSA940 KX-NSA949	without CA server 240 users/ with CA server 1022 users
	External Interface		
CA Thin Client	Thin Client Server Connection	KX-NSA010	1
CSTA Multiplexer	Multiple CSTA Connection	KX-NSA020	
3rd Party CTI link	CTI interface	KX-NSF101	

System Feature Capacity

	Item	Capacity		Item	Capacity
System	Absent Message—Extension	1 x 16 characters	TRS/Barring	TRS/Barring Level	7
	Absent Message—System	8 x 16 characters		TRS/Barring Denied Code	16 digits, 100 entries/level
	Call Park Zone	100		TRS/Barring Exception Code	16 digits, 100 entries/level
	Conference	3 – 8 parties per conference (32 parties total)	ARS	Routing Plan Table	48 entries
	COS	64		Leading Number Table	16 digits, 1000 entries
	DID/DDI Table	32 digits, 1000 entries		Leading Number Exception Table	16 digits, 200 entries
	Extension number	1 – 5 digits		ARS Carrier	48
	Extension Personal Identification Number (PIN)	10 digits, 1 entry/extension		Itemised Billing Code	10 digits
	Host PBX Access Code	10 digits, 10 entries/trunk group		Authorisation Code for Tenant	16 digits
	Number of Characters of Name	20		Authorisation Code for Trunk Group	10 digits
	Printing message	8	Call Log and Message Waiting	Outgoing Call Log—PT	100 records/extn. 1520 records/system
	Queuing Time Table	64		Outgoing Call Log—PS	100 records/extn. 640 records/system
	Ring Tone Pattern Plan	8		Incoming Call Log—PT	100 records/extn. 3040 records/system
	Simultaneous Programmers	• one manager programmer + 32 personal programmers		Incoming Call Log—PS + Incoming Call Distribution Group	100 records/extn. or group Total 2560 records/system
	SMDR Call Storage	1000 calls (Without SD card)/4000 calls (With SD card)		Message Waiting—PS + Incoming Call Distribution Group	256
	Special Carrier Access Code	16 digits, 20 entries	Message Waiting—PT + SLT	256	
	Tenant	8	Voice Message	Outgoing Message (OGM)	64
	Time Service Holiday	24		OGM Total Recording Time	Approx. 20 minutes
	Verification Code	4 digits, 1000 entries		Build-in Simplified Voice Message (SVM)	125 messages
	Verification Code Personal Identification Number (PIN)	10 digits, 1000 entries	SVM Total Recording Time	120 minutes	
	Dialling	Emergency Call	32 digits, 10 entries	Hospitality and Charge Management Features	Billing items for guest rooms
Hot Line		32 digits	Hotel Operator		4
Key Pad Protocol Dial (ISDN Service Access)		32 digits	Charge Rate		7 digits including a decimal
Personal Speed Dialling		32 digits, 100 entries/extn.	Charge Denomination		3 currency characters/symbols
Quick Dialling		8 digits, 4000 entries	Networking	TIE Line Routing and Modification Table	32 entries
Redial		32 digits		Leading Number	3 digits
System Speed Dialling		32 digits, 1000 entries/tenant		PBX Code	7 digits
One-touch Dialling—PT	32 digits, 5000 entries/system	Unified Messaging	NDSS: Monitored PBXs	8	
One-touch Dialling—PS	32 digits, 1000 entries/system		NDSS: Registered Extensions for Monitor PBX	250	
Groups	Conference Group	32 (32 members/group for Conference Group Mode, 32 members/group for Broadcast Mode)	Web Maintenance Console Accounts	Mailboxes	500 subscriber mailboxes 1 System Manager mailbox 1 Message Manager mailbox
	User Group	32		Group Distribution List	User: 4 groups, 40 members per group System: 20 groups, 200 members per group
	Call Pickup Group	64		Service Group	64 entries
	Idle Extension Hunting Group	64 (16 extensions/group)	Unified Messaging Ports	24 ports	
	Incoming Call Distribution Group	128 (128 extensions/group)	Users (User)	Users (Administrator)	500 accounts
	Paging Group	32		Installer	8 accounts
	PS Ring Group	32	Password (all account types)	1 account	
	Trunk Group	64		4 – 16 characters	
	UM Group	1			
	VM (DPT) Group	2 units x 12 ports (24 channels)			
	VM (DTMF) Group	2 groups x 32 channels			
P2P Group	32				

Feature List

1. Call Handling Features

Incoming Call Features

Incoming Trunk Call Features

- Direct In Line (DIL)
- Direct Inward Dialling (DID)/Direct Inward 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
- 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)

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

Last Number Redial

Speed Dialling—Personal/System

Quick Dialling

Hot Line

T7710 One-touch Dialling

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

Automatic Route Selection (ARS)

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

Conversation Features

Hands-free Operation

Off-hook Monitor

Mute

Headset Operation

Data Line Security

Flash/Recall/Terminate

External Feature Access (EFA)

Trunk Call Limitation

Calling Party Control (CPC) Signal Detection

Paralleled Telephone

One-numbered Extension

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

Conference Group Call

Direct Inward System Access (DISA) Features

Direct Inward System Access (DISA)

Automatic Fax Transfer

Built-in Simplified Voice Message (SVM)

Paging Features

Paging

Trunk Answer From Any Station (TAFAS)

External Device Features

Doorphone Call

Door Open

External Sensor

External Relay Control

Caller ID Features

Caller ID

Incoming Call Log

Message Features

Message Waiting

Absent Message

Proprietary Telephone (PT) Hardware Features

Fixed Buttons

Flexible Buttons

LED Indication

Display Information

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

Computer Telephony Integration (CTI) Features

Computer Telephony Integration (CTI)

CA (Communication Assistant)

Cellular Phone Features

Voice Mail Features

Voice Mail (VM) Group

Voice Mail DTMF Integration

Voice Mail DPT (Digital) Integration

E1 Line Service Features

E1 Line Service

Miscellaneous Features

Background Music (BGM)

Outgoing Message (OGM)

2. Unified Messaging System

Unified Messaging System Administration

System Administration

Automatic Configuration of Mailboxes

Custom Service Builder

Default Mailbox Template

Password Administration

System Backup/Restore

System Reports

System Security

System and Subscriber Features

System Features

Alternate Extension Group

Auto Forwarding

Automated Attendant (AA)

Automatic Two-way Recording for Manager

Broadcasting Messages

Call Services

Call Transfer to Outside

Caller ID Call Routing

Caller ID Screening

Caller Name Announcement

Class of Service (COS)

Company Greeting

Company Name

Covering Extension

Custom Service

Dialling by Name

Emergency Greeting

Extension Group

Hold

Holiday Service

Hospitality Mode

Intercept Routing to a Mailbox

Intercom Paging

Interview Service

List All Names

Logical Extension (All Calls Transfer to Mailbox)

Message Reception Mode

Message Waiting Notification—E-mail Device

Message Waiting Notification—Lamp

Message Waiting Notification—Telephone Device

Multilingual Service

No DTMF Input Operation

On Hold Announcement Menu

Operator Service

PIN Call Routing

Play System Prompt After Personal Greeting

Port Service

Remote Time Service Set

Service Group

Simplified Tutorial

System Prompts

Transfer Recall to a Mailbox

Transfer to Mailbox

Trunk Service (Universal Port)

Voice Mail Service

Subscriber Features

Auto Receipt

Automatic Login

Autoplay New Message

Bookmark

Call-through Service

Call Transfer Scenario

Call Transfer Status

Callback Number Entry

Caller ID Callback

Delete Message Confirmation

Direct Service Access

External Message Delivery Service

Forwarding to a Mailbox

Group Distribution Lists

Incomplete Call Handling Service

Live Call Screening (LCS)

Mailbox

Mailbox Capacity Warning