

System Capacity

Maximum Trunks
The KX-NS300 supports the following number of trunks.

Type	Standalone/Slave Unit				One-look Networking ^{*1}
	KX-NS300	With 1 KX-NS320	With 2 KX-NS320	With 3 KX-NS320	
Total Number of Trunks	100 [52] ^{*2}	136 [88] ^{*2}	172 [124] ^{*2}	208 [160] ^{*2}	600
Legacy	36	72	108	144	600
BRI	8	24	40	56	600
PRI23	23	46	69	92	600
PRI30	30	60	90	120	600
E1	30	60	90	120	600
Analogue	12	24	36	48	600
IP	64 [16] ^{*2}	64 [16] ^{*2}	64 [16] ^{*2}	64 [16] ^{*2}	256
H.323	32 [16] ^{*2}	32 [16] ^{*2}	32 [16] ^{*2}	32 [16] ^{*2}	128
SIP	64 [16] ^{*2}	64 [16] ^{*2}	64 [16] ^{*2}	64 [16] ^{*2}	256

Maximum Terminal Equipment
The KX-NS300 supports the following number of terminal equipment.

Type	Standalone/Slave Unit				One-look Networking ^{*1}
	KX-NS300	With 1 KX-NS320	With 2 KX-NS320	With 3 KX-NS320	
Extensions (DXDP ^{*3})	162 [176] [66 (80)] ^{*2}	194 [224] [98 (128)] ^{*2}	226 [272] [130 (176)] ^{*2}	258 [320] [162 (224)] ^{*2}	1000
Legacy (DXDP ^{*3})	34 (48)	66 (96)	98 (144)	130 (192)	1000
SLT	32	64	96	128	1000
DPT (T76xx/DT5xx)/DXDP ^{*3}	18 (32)	34 (64)	50 (96)	66 (128)	512 (1000)
APT	8	16	24	32	336
IP	128 [32] ^{*2}	128 [32] ^{*2}	128 [32] ^{*2}	128 [32] ^{*2}	1000
IP-PT	128 [32] ^{*2}	128 [32] ^{*2}	128 [32] ^{*2}	128 [32] ^{*2}	1000
IP Phone	128 [32] ^{*2}	128 [32] ^{*2}	128 [32] ^{*2}	128 [32] ^{*2}	1000
DSS Console	8	8	8	8	64
CS	36	40	44	48	128
DPT-CS (2 ch)	4	8	12	16	128
DPT-CS (8 ch)	2	4	6	8	64
IP-CS	32	32	32	32	128
SIP-CS	16	16	16	16	128
PS	128	128	128	128	512
Built-in VM (ch) ^{*4}	2	2	2	2	-
Built-in UM (ch)	24	24	24	24	30
TVM Unit	2	2	2	2	8
Doorphone	2	4	6	8	80
Door Opener	2 ^{*5}	4 ^{*5}	6 ^{*5}	8 ^{*5}	80 ^{*5}
External Relay					
External Sensor	2	4	6	8	80

^{*1} The NS1000 must be used as the master unit. ^{*2} The numbers enclosed in square brackets (e.g., [66 (80)]) are the capacities when the PBX is connected as a slave unit in a One-look network. ^{*3} When Digital XDP is used. ^{*4} Cannot be used with a slave unit ^{*5} The total number of Door Openers and External Relays.

Option List

Hardware

Component	Model No.	Installed in
DSP	S (63 resources)	DSP Card Slot
	M (127 resources)	
	L (254 resources)	
Storage Memory ^{*1}	XS (VM Recording Time: 40 hours)	Storage Memory Card Slot
	S (VM Recording Time: 200 hours)	
	M (VM Recording Time: 400 hours)	
Trunk	KX-NS3136	Trunk/Doorphone Slot
	KX-NS5180	
	KX-NS5282	
	KX-NS5284	
	KX-NS5290	
	KX-NS5290CE	
	KX-NS5162	
Extension	KX-NS5170	Extension Slot
	KX-NS5171	
	KX-NS5172	
	KX-NS5173	
	KX-NS5174	
	KX-NS5177	
Expansion Master Card	EXP-M	EXP-M Slot
Remote Modem	RMT	RMT Slot

Activation Keys

Component			Model No.	
Networking	QSIG Network		KX-NSN002	
	One-look Networking		KX-NSN001	
System Function	Call Centre Feature	ACD Report ^{*2} , Announcement of waiting number for queuing	KX-NSF201	
		Announcement of waiting number for queuing	KX-NSXF021	
	Report ^{*2}	ACD report	KX-NSXF022	
		Enhanced Built-in ACD Report ^{*3}	KX-NSXF023	
		Call Statistics Report	KX-NSXF202	
Remote Maintenance		KX-NS5101		
VoIP/Unified Message (UM)		KX-NSF990		
IP Trunk	IP Trunks (H.323/SIP)	2 ch	KX-NSM102	
		4 ch	KX-NSM104	
		8 ch	KX-NSM108	
		16 ch	KX-NSM116	
IP Telephone ^{*4}	IP PTs/IP Phones/ IP Camera/ IP Video Doorphone/ IP Softphones	1 ch	KX-NSM201	
		5 ch	KX-NSM205	
		10 ch	KX-NSM210	
		20 ch	KX-NSM220	
	Up to 4 ch	Preinstalled		
		IP PTs/IP Phones/ IP Camera/ IP Video Doorphone	1 ch	KX-NSM501
			5 ch	KX-NSM505
			10 ch	KX-NSM510
	20 ch		KX-NSM520	
	3rd Party SIP Phones	1 ch	KX-NSM701	
		5 ch	KX-NSM705	
		10 ch	KX-NSM710	
		20 ch	KX-NSM720	
Cellular Phone Extension	Mobile Extension	1 ch	KX-NSE101	
		5 ch	KX-NSE105	
		10 ch	KX-NSE110	
		20 ch	KX-NSE120	

Component			Model No.
IP-CS Channel Expansion	Channel Expansion (from 4 to 8 ch)	1 CS	KX-NSE201
		5 CS	KX-NSE205
		10 CS	KX-NSE210
		20 CS	KX-NSE220
CTI	CSTA Multiplexer	Multiple CSTA connection, FOS interface	KX-NSA020
	3rd Party CTI link	CTI interface, FOS interface	KX-NSF101
Unified Messaging System	Feature		
	Two-way REC (Recording) Control		KX-NSU002
	Message Backup		KX-NSU003
	Unified Messaging Channel	2 ch	Preinstalled
		2 ch	KX-NSU102
		4 ch	KX-NSU104
	User (Mailbox) Activation Key		
	E-mail (IMAP4) Client/ E-mail Notification	1 user	KX-NSU201 ¹⁵
		5 users	KX-NSU205 ¹⁵
		10 users	KX-NSU210 ¹⁵
		20 users	KX-NSU220 ¹⁵
		All users	KX-NSU299 ¹⁵
	Two-way Recording/ Two-way Transfer	1 user	KX-NSU301
		5 users	KX-NSU305
		10 users	KX-NSU310
		20 users	KX-NSU320
All users		KX-NSU399	
Communication Assistant	User Activation Key		
	CA Basic-Express	All users	Preinstalled
		1 user	KX-NSA201
	CA PRO	5 users	KX-NSA205
		10 users	KX-NSA210
		40 users	KX-NSA240
		128 users	KX-NSA249
	CA Supervisor	1 user	KX-NSA301
	CA Operator Console	1 user	KX-NSA401
		1 user	KX-NSA901
	CA Network Plug-in	5 users	KX-NSA905
		10 users	KX-NSA910
		40 users	KX-NSA940
128 users		KX-NSA949	
CA Thin Client	Thin Client Server Connection		KX-NSA010
Package	Standard (E-mail/Two-way Recording)	1 user	KX-NSP001
		5 users	KX-NSP005
		10 users	KX-NSP010
		20 users	KX-NSP020
	Advanced (E-mail/Two-way Recording/Mobile/ CA PRO)	1 user	KX-NSP101
		5 users	KX-NSP105
		10 users	KX-NSP110
		20 users	KX-NSP120
	Mobile (E-mail/Mobile)	1 user	KX-NSP201
		5 users	KX-NSP205
10 users		KX-NSP210	
20 users		KX-NSP220	
Mobile Softphone	1 user		KX-UCMA001
	5 users		KX-UCMA005
	10 users		KX-UCMA010
	25 users		KX-UCMA025
	50 users		KX-UCMA050

^{*1} Storage Memory for VM Recording, ACD Report, SMDR expansion.
^{*2} Requires optional SD card.
^{*3} Requires KX-NSF201 or KX-NSXF022.
^{*4} IP PTs: KX-NT600/500/300 series IP proprietary phones, IP Phones: KX-HDV and KX-UT series, IP Camera/IP Video Doorphone: KX-NTV series
^{*5} Preinstalled on system firmware versions 5.0 and later.

Activation Keys for UC Pro 2

Component		Model No.
UC Pro V2 User AK	5 users	KX-UCPB0005W
	10 users	KX-UCPB0010W
	25 users	KX-UCPB0025W
	50 users	KX-UCPB0050W
	75 users	KX-UCPB0075W
	100 users	KX-UCPB0100W
	250 users	KX-UCPB0250W
	500 users	KX-UCPB0500W
1000 users	KX-UCPB1000W	
UC Pro V2 Line AK	5 lines	KX-UCPM0005W
	10 lines	KX-UCPM0010W
	25 lines	KX-UCPM0025W
	50 lines	KX-UCPM0050W
	75 lines	KX-UCPM0075W
	100 lines	KX-UCPM0100W
	250 lines	KX-UCPM0250W
	500 lines	KX-UCPM0500W
1000 lines	KX-UCPM1000W	
Upgrading from UC Pro	5 users	KX-UCPAB005W
	10 users	KX-UCPAB010W
	25 users	KX-UCPAB025W
	50 users	KX-UCPAB050W
	75 users	KX-UCPAB075W
	100 users	KX-UCPAB100W
	250 users	KX-UCPAB250W
	500 users	KX-UCPAB500W
1000 users	KX-UCPAB1KW	

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/60 Hz	
Power Consumption (when fully mounted)		110 W	
Memory Backup Duration		7 years	
External Backup Battery		External battery port is supported.	
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)	
Operating Environment	Temperature	0 °C to 40 °C	
	Humidity	10 % to 90 % (non-condensing)	
Conference Call Trunk		32 parties (default)/96 parties (DSP installed) (10 x 3-party conference call, 12 x 8-party conference call, etc.)	—
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	1-pair wire (T, R)	
	DPT	1-pair wire (D1, D2)	
	APT	2-pair wire (T, R, D1, D2)	
	PT-interface CS	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)	
Air-cooling Method		Fan	
Dimension		430 mm (W) x 367 mm (D) x 88 mm (H)	
Weight (when fully mounted)		Under 4.5 kg	

System Feature Capacity

	Item	Capacity		Item	Capacity
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	3 – 8 parties per conference 32 parties (default)/96 parties (DSP installed)		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		Authorisation Code for Trunk Group	10 digits
	Extension Personal Identification Number (PIN)	10 digits, 1 entry/extension	Call Log and Message Waiting	Outgoing Call Log—PT	100 records/extn. 1,520 records/system
	Host PBX Access Code	10 digits, 10 entries/trunk group		Outgoing Call Log—PS	100 records/extn. 640 records/system
	Multiple Subscriber Number (MSN)	10 entries per ISDN-BRI port		Incoming Call Log—PT	100 records/extn. 3,040 records/system
	Number of Characters of Name	20		Incoming Call Log—PS + Incoming Call Distribution Group	100 records/extn. or group Total 2,560 records/system
	Printing message	8		Message Waiting—PS + Incoming Call Distribution Group	256
	Queuing Time Table	64		Message Waiting—PT + SLT	256
	Ring Tone Pattern Plan	8	Voice Message	Outgoing Message (OGM)	64
	Simultaneous Programmers	• 1 system programmer + 63 personal programmers • 1 manager programmer + 63 personal programmers • 64 personal programmers		OGM Total Recording Time	Approx. 20 minutes
	Simultaneous Programmers (Web Maintenance Console)	• 1 Installer level account • 32 User (User) and User (Administrator) level accounts		Build-in Simplified Voice Message (SVM)	125 messages
	SMDR Call Storage	1,000 calls (Without SD card)/40,000 calls (With SD card)		SVM Total Recording Time	120 minutes
	Charge Record for Hotel	1,000 calls (Without SD card)/10,000 calls (With SD card)		Number of Channel for SVM	2 ch
	Special Carrier Access Code	16 digits, 20 entries	Hospitality and Charge Management Features	Billing items for guest rooms	1,000 records/PBX (Without SD card)/ 10,000 records/PBX (With SD card)
	Tenant	8		Hotel Operator	4
	Time Service Holiday	24		Charge Rate	7 digits including a decimal
	Verification Code	4 digits, 1,000 entries	Networking	Charge Denomination	3 currency characters/symbols
	Verification Code Personal Identification Number (PIN)	10 digits, 1,000 entries		TIE Line Routing and Modification Table	32 entries
Dialling	Emergency Call	32 digits, 10 entries		Leading Number	3 digits
	Hot Line	32 digits		PBX Code	7 digits
	Key Pad Protocol Dial (ISDN Service Access)	32 digits		NDSS: Monitored PBXs	8
	Personal Speed Dialling	32 digits, 100 entries/extn.		NDSS: Registered Extensions for Monitor PBX	250
	Quick Dialling	8 digits, 4,000 entries	Unified Messaging	Mailboxes ^{*1}	500 subscriber mailboxes 1 System Manager mailbox 1 Message Manager mailbox
	Redial	32 digits		Total Recording Time	40h/200h/400h (SD XS/S/M)
	System Speed Dialling	32 digits, 1,000 entries/tenant		Maximum Message Length	1 - 60 min (programmable) Unlimited for two-way recording
	One-touch Dialling—PT	32 digits, 5,000 entries/system		Number of Channel for UM	24 ch
	One-touch Dialling—PS	32 digits, 1,000 entries/system		Length of Personal Greeting	Max: 360s
Groups	Conference Group	8 (31 members/group for Conference Group Mode, 32 members/group for Broadcast Mode)		Custom Service	Up to 200
	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)	492 accounts
	Paging Group	32	Web Maintenance Console Accounts	Users (Administrator)	8 accounts
	PS Ring Group	32		Installer	1 account
	Trunk Group	64		Password (all account types)	4 – 16 characters
	UM Group	1	ACD Report	Number of Call log for ACD report	300,000 ^{*2}
	VM (DPT) Group	2 units x 12 ports (24 channels)			
TRS/Barring	VM (DTMF) Group	2 groups x 32 channels			
	P2P Group	32			
	TRS/Barring Level	7			
	TRS/Barring Denied Code	16 digits, 100 entries/level			
	TRS/Barring Exception Code	16 digits, 100 entries/level			

^{*1} The maximum number of recordings that can be stored in each type of mailbox is 9,000.
^{*2} Basis of the number 5,000 (calls per day): Ex. 25 (agent) x 20 (call/hour-agent) x 10 (hour/day)
A maximum of 12 months of ACD reports are saved and the exceeded data is deleted automatically.