



# **KX-NS500 BUSINESS COMMUNICATIONS SOLUTION GREATER ACCESSIBILITY. HIGHER QUALITY COMMUNICATIONS.**

For any small or medium-sized business looking to take advantage of Panasonic's reputation for quality technology, without needing a huge budget, the new KX-NS500 unified communication solution provides the answers. This smart hybrid PBX is a cost-effective legacy and IP communication system for companies with up to 250 employees, that can be flexibly configured and expanded according to the specific requirements of their business.

The KX-NS500 has advanced features and starts from six analogue trunks and 18 extensions, up to 288 extensions with an Expansion Unit. The KX-NS500 is also a unified communication system which has rich IP features, such as mobile linking, integrated voicemail and e-mail, instant messaging (chat), and presence information.

It can also use built-in applications such as a call centre solution, mobile solution and voicemail system to provide more efficient work and increased customer satisfaction.

#### **KEY FEATURES**

- Smart hybrid PBX system for small and medium-sized businesses
- Expand from six analogue trunks and 18 extensions, up to 288 extensions with Expansion Unit
- Cost-effective installation and operation
- Built-in applications include call centre solution, mobile solution and voicemail
- Easy evolution from analogue to IP communications







KX-TCA385 - New DECT Phone

KX-DT546 - New Digital Terminal

**Call Centre Solution** 

### THE SYSTEM THAT GROWS WITH YOUR BUSINESS

#### **BUILT-IN AUTO ATTENDANT**

As a standard feature, the KX-NS500 can connect customers to the appropriate section or operator according to their query in call routing with voice guidance. It can also prompt the customers to leave a voice message when the operator is away.

#### **USE EXISTING RESOURCES**

Existing analogue PTs and digital PTs from Panasonic can continue to be used, enabling a system to be replaced at a low cost without wasting resources.

#### **ENHANCED VOICEMAIL**

The KX-NS500 can be expanded to a voicemail system that can record a maximum of 24 channels at the same time and store up to 400 hours. It also sends an e-mail to notify users when they have new voice messages. The messages can also be received as attachment files and forwarded. E-mail notification can also be sent for missed calls where the customer did not leave a message, enabling users to quickly contact the customer.

#### **CALL CENTRE SOLUTION**

The KX-NS500 includes an advanced call routing function for small to medium size call centres. This function can be used without an external CTI server. More efficient call reception enables you to effectively utilise limited resources to assist in improving customer service.

#### AUTO-RECORDING AND BACKING-UP CONVERSATIONS

The voicemail system function can be used to automatically record conversations with customers. The recorded voice data can be automatically saved to USB memory or an external server via the internet, and listened when required. The data can be used to understand problems or opportunities relating to customer service.

#### **COMPATIBLE WITH MODERN, STYLISH PHONES**

Using Panasonic's latest wireless and desk applications.

### **SPECIFICATIONS**

		KX-NS500	KX-NS520	
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 (wh	en fully mounted)	110 W		
External Backup Battery		External battery port is supported		
Memory Backup Duratio		7 years		
Dialling	Trunk	Dial Pulse (DP) 10 pps, 20 pps Tone (DTMF) Dialling		
Extension	Dial Pulse (DP) 10 pp	is, 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-c	0.		
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	1-pair wire (T, R)		
DPT	1-pair wire (D1, D2) o	or 2-pair wire (T, R, D1, D2)		
PT-interface CS	1-pair wire (D1, D2)			
PT-interface CS	4-pair wire (D1, D2)			
(High-density)	4-µali wile (D1, D2)			
DSS Console and Add-on Key Module	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		

## **SYSTEM CAPACITY**

### MAXIMUM TRUNKS

THE PBX SUPPORTS THE FOLLOWING NUMBER OF TRUNKS.

TYPE Total Number of Trunks Legacy		KX-NS500	With 1 KX-NS520	With 2 KX-NS520	With 3 KX-NS520
		<b>100 ch</b> 36 ch	130 ch	<b>160 ch</b> 96 ch	<b>190 ch</b> 126 ch
			66 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		64 ch	64 ch	64 ch	64 ch
	H.323	32 ch	32 ch	32 ch	32 ch
	SIP	64 ch	64 ch	64 ch	64 ch

#### MAXIMUM TERMINAL EQUIPMENT

THE FOLLOWING SHOWS THE NUMBER OF EACH TERMINAL EQUIPMENT TYPE SUPPORTED BY THE PBX.

ТҮРЕ		KX-NS500	With 1 KX-NS520	With 2 KX-NS520	With 3 KX-NS520
Extensions (DXDP*1) Legacy (DXDP*1)		162 (168)	194 (208)	226 (248)	258 (288)
		34 (40)	66 (80)	98 (120)	130 (160)
	SLT	32	64	96	128
	DPT (DXDP*1)	18 (24)	34 (48)	50 (72)	66 (96)
	APT	8	16	24	32
IP		128	128	128	128
	IP-PT*2	128	128	128	128
	SIP	128	128	128	128
	SIP Phone*3	128	128	128	128
	S-PS	128	128	128	128
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-MT500 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).



### **SYSTEM FEATURE CAPACITY**

	ITEM	CAPACITY
	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) Host PBX Access Code	10 digits, 1 entry/extension
	Number of Characters of Name	10 digits, 10 entries/trunk group 20
System	Printing message	8
	Queuing Time Table	64
	Ring Tone Pattern Plan	8
	Simultaneous Programmers	One manager programmer + 32 personal programmers
	SMDR Call Storage	1000 calls (Without SD card)/40000 calls (With SD card)
	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
	Emergency Call	Dialling Emergency Call 32 digits, 10 entries
	Hot Line	32 digits
	Key Pad Protocol Dial (ISDN Service Access)	32 digits
1.110-x	Personal Speed Dialling	32 digits, 100 entries/extn.
lialling	Quick Dialling	8 digits, 4000 entries
	Redial	32 digits 32 digits, 1000 entries/tenant
	System Speed Dialling One-touch Dialling—PT	32 digits, 1000 entries/tenant 32 digits, 5000 entries/system
	One-touch Dialling—P1 One-touch Dialling—PS	32 digits, 5000 entries/system 32 digits, 1000 entries/system
	· ·	32 (32 members/group for Conference Group Mode, 32 members/group for
	Conference Group	Broadcast Mode)
	User Group	32
	Call Pickup Group	64
	Idle Extension Hunting Group	64 (16 extensions/group)
	Incoming Call Distribution Group	128 (128 extensions/group)
roups	Paging Group	32
	PS Ring Group	32
	Trunk Group	64
	UM Group	1
	VM (DPT) Group	2 units x 12 ports (24 channels)
	VM (DTMF) Group	2 groups x 32 channels
	P2P Group	32
	TRS/Barring Level TRS/Barring Denied Code	7 16 digits, 100 entries/level
TRS/Barring	TRS/Barring Exception Code	16 digits, 100 entries/level
	Routing Plan Table	48 entries
	Leading Number Table	16 digits, 1000 entries
	Leading Number Exception Table	16 digits, 200 entries
ARS	ARS Carrier	48
	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. 1520 records/system
	Outgoing Call Log-PS	100 records/extn. 640 records/system
Call Log and Message Waiting	Incoming Call Log—PT	100 records/extn. 3040 records/system
att Log and Message Waiting	Incoming Call Log—PS + Incoming Call Distribution Group	100 records/extn. or group Total 2560 records/system
		<b>0</b>
	Message Waiting—PS + Incoming Call Distribution Group	256
	Message Waiting—PS + Incoming Call Distribution Group Message Waiting—PT + SLT	256 256
	Message Waiting—PS + Incoming Call Distribution Group Message Waiting—PT + SLT Outgoing Message (OGM)	256 256 64
loice Message	Message Waiting—PS + Incoming Call Distribution Group Message Waiting—PT + SLT Outgoing Message (OGM) OGM Total Recording Time	256 256 64 Approx. 20 minutes
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	Message Waiting—PS + Incoming Call Distribution Group Message Waiting—PT + SLT Outgoing Message (OGM) OGM Total Recording Time Build-in Simplified Voice Message (SVM) SVM Total Recording Time Billing items for guest rooms	256 256 64 Approx. 20 minutes 125 messages 120 minutes 1000 records/PBX (Without SD card)/ 10000 records/PBX (With SD card)
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	Message Waiting—PS + Incoming Call Distribution Group Message Waiting—PT + SLT Outgoing Message (OGM) OGM Total Recording Time Build-in Simplified Voice Message (SVM) SVM Total Recording Time Billing items for guest rooms Hotel Operator Charge Rate	256 256 64 Approx. 20 minutes 125 messages 120 minutes 1000 records/PBX (Without SD card)/ 10000 records/PBX (With SD card) 4 7 digits including a decimal
	Message Waiting—PS + Incoming Call Distribution Group Message Waiting—PT + SLT Outgoing Message (OGM) OGM Total Recording Time Build-in Simplified Voice Message (SVM) SVM Total Recording Time Billing items for guest rooms Hotel Operator	256 256 64 Approx. 20 minutes 125 messages 120 minutes 1000 records/PBX (Without SD card)/ 10000 records/PBX (With SD card) 4
	Message Waiting—PS + Incoming Call Distribution Group         Message Waiting—PT + SLT         Outgoing Message (OGM)         OGM Total Recording Time         Build-in Simplified Voice Message (SVM)         SVM Total Recording Time         Billing items for guest rooms         Hotel Operator         Charge Rate         Charge Denomination	256 256 64 Approx. 20 minutes 125 messages 120 minutes 1000 records/PBX (Without SD card)/ 10000 records/PBX (With SD card) 4 7 digits including a decimal 3 currency characters/symbols
lospitality and Charge Management Features	Message Waiting—PS + Incoming Call Distribution Group         Message Waiting—PT + SLT         Outgoing Message (OGM)         OGM Total Recording Time         Build-in Simplified Voice Message (SVM)         SVM Total Recording Time         Billing items for guest rooms         Hotel Operator         Charge Rate         Charge Denomination         TIE Line Routing and Modification Table	256 256 64 Approx. 20 minutes 125 messages 120 minutes 1000 records/PBX (Without SD card)/10000 records/PBX (With SD card) 4 7 digits including a decimal 3 currency characters/symbols 32 entries
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Voice Message Hospitality and Charge Management Features Networking Unified Messaging	Message Waiting—PS + Incoming Call Distribution Group         Message Waiting—PT + SLT         Outgoing Message (OGM)         OGM Total Recording Time         Build-in Simplified Voice Message (SVM)         SVM Total Recording Time         Billing items for guest rooms         Hotel Operator         Charge Denomination         TIE Line Routing and Modification Table         Leading Number         PBX Code         NDSS: Monitored PBXs         NDSS: Registered Extensions for Monitor PBX         Mailboxes         Group Distribution List         Service Group         Unified Messaging Ports         Users (User)	256 256 256 4 Approx. 20 minutes 125 messages 120 minutes 1000 records/PBX (Without SD card)/ 10000 records/PBX (With SD card) 4 7 digits including a decimal 3 currency characters/symbols 32 entries 3 digits 7 digits 8 250 500 subscriber mailboxes 1 System Manager mailbox 1 Message Manager mailbox User: 4 groups, 40 members per group System: 20 groups, 200 members per group 64 entries 24 ports 500 accounts
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Panasonic BUSINESS

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