

#### WWW.IDEHAL.ORG





# 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

## 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**

|                                      | I                      | IN NOTA.  | 10/ 110500        |  |
|--------------------------------------|------------------------|---|-------------------|--|
|                                      |                        | 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                |                        | 110 W   |                   |  |
| External Backup Battery              |                        | External battery port is supported  |                   |  |
| Memory Backup Duration               |                        | 7 years   |                   |  |
| Dialling                             | Trunk                  | Dial Pulse (DP) 10 pps, 20 pps Tone (DTMF) Dialling   |                   |  |
| Extension                            | Dial Pulse (DP) 10 pp  | os, 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    |   |                   |  |
| 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<br>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) ( | or 2-pair wire (T, R, D1, D2)   |                   |  |
| PT-interface CS                      | 1-pair wire (D1, D2)   |   |                   |  |
| PT-interface CS<br>(High-density)    | 4-pair wire (D1, D2)   |   |                   |  |
| DSS Console and<br>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                   |          | KX-NS500 | With 1 KX-NS520 | With 2 KX-NS520 | With 3 KX-NS520 |
|------------------------|----------|----------|-----------------|-----------------|-----------------|
| Total Number of Trunks |          | 100 ch   | 130 ch          | 160 ch          | 190 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                     |          | 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.

| TYPE Extensions (DXDP*1) |              | KX-NS500  | With 1 KX-NS520 | With 2 KX-NS520 | With 3 KX-NS520 |
|--------------------------|--------------|-----------|-----------------|-----------------|-----------------|
|                          |              | 162 (168) | 194 (208)       | 226 (248)       | 258 (288)       |
| Legacy (DXDP*            | 1)           | 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               |

<sup>\*1</sup> 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).

# **SYSTEM FEATURE CAPACITY**

|   | ITEM  | CAPACITY  |
|---|---|---|
|   | Absent Message—Extension  | 1 x 16 characters   |
|   | Absent Message—System   | 8 x 16 characters   |
|   | Call Park Zone  | 100<br>3 – 8 parties per conference (32 parties total)                          |
|   | Conference<br>COS   | 5 – 6 parties per conference (32 parties total)                                 |
|   | 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   |
| System  | Number of Characters of Name  | 20  |
|   | Printing message Queuing Time Table                                       | 8 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  Verification Code Personal Identification Number (PIN) | 4 digits, 1000 entries<br>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   |
|   | Personal Speed Dialling   | 32 digits, 100 entries/extn.  |
| Dialling  | Quick Dialling  | 8 digits, 4000 entries  |
|   | Redial  | 32 digits   |
|   | System Speed Dialling One-touch Dialling—PT                               | 32 digits, 1000 entries/tenant<br>32 digits, 5000 entries/system                |
|   | One-touch Dialling—PS   | 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 Incoming Call Distribution Group             | 64 (16 extensions/group)  |
| iroups  | Paging Group  | 128 (128 extensions/group)<br>32  |
| лоиро   | 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 TRS/Barring Level   | 32  |
| TRS/Barring   | TRS/Barring Denied Code   | 16 digits, 100 entries/level  |
| Tho, burning  | 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 Authorisation Code for Tenant                       | 10 digits<br>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                            |
|   | Message Waiting—PS + Incoming Call Distribution Group                     | 256   |
|   | Message Waiting—PT + SLT  Outgoing Message (0GM)                          | 256<br>64   |
|   | OGM Total Recording Time  | Approx. 20 minutes  |
| oice Message  | Build-in Simplified Voice Message (SVM)                                   | 125 messages  |
|   | SVM Total Recording Time  | 120 minutes   |
|   | Billing items for guest rooms   | 1000 records/PBX (Without SD card)/ 10000 records/PBX (With SD card)            |
| Hospitality and Charge Management Features          | Hotel Operator  | 4   |
|   | Charge Rate   | 7 digits including a decimal  |
|   | Charge Denomination TIE Line Routing and Modification Table               | 3 currency characters/symbols 32 entries  |
|   | Leading Number  | 32 entries<br>3 digits  |
| letworking  | PBX Code  | 7 digits  |
|   | NDSS: Monitored PBXs  | 8   |
|   | NDSS: Registered Extensions for Monitor PBX                               | 250   |
|   | Mailboxes   | 500 subscriber mailboxes 1 System Manager mailbox 1 Message Manager<br>mailbox  |
| 1.22.11   | Group Distribution List   | User: 4 groups, 40 members per group System: 20 groups, 200 members pe<br>group |
| Initied Messaging                                   |   |   |
| Initied Messaging                                   | Service Group   | 64 entries  |
| Initied Messaging                                   | Service Group Unified Messaging Ports                                     | 64 entries<br>24 ports  |
| Initied Messaging                                   |   |   |
|   | Unified Messaging Ports<br>Users (User)<br>Users (Administrator)          | 24 ports<br>500 accounts<br>8 accounts  |
| Unified Messaging  Web Maintenance Console Accounts | Unified Messaging Ports<br>Users (User)                                   | 24 ports<br>500 accounts  |