

**Panasonic**  
ideas for life

# Advanced Hybrid System



**KX-TES824**



# The Best Cost Effective Solution For All Your Communication Needs

For voice conversation - your telephone system is an integral part of your establishment and is your main tool of communication. It is your primary link to your business partners, customers, suppliers, employees, colleagues, friends, and even family members.

The KX-TES824 Advanced Hybrid PBX System can cost effectively support all your personal and business communication needs. The system supports 3 outside (CO) lines and 8 extensions - all built-in so you can use the system straight out of the box. With optional cards, you can easily expand the capacity up to 8 outside (CO) lines and 24 extensions\* as your needs grow. The system provides features that can satisfy the demands of the most sophisticated and cost conscious users. You can even connect a variety of communication devices, such as cordless phones, answering machines, computer modems, credit card verifiers, fax machines, and any other device that works with conventional telephone lines.

Packed with so many features - the Panasonic KX-TES824 is ideal for a small business or home office requiring a flexible system with a high degree of sophistication.

\* 8 of the extensions are ports used for Single Line Telephones.

## Simple Yet Powerful Features

### 3-level Automatic Reception with Voice Guidance

- Reduces Operator Call Traffic
- Multi Level Messages

The KX-TES824 supports a Direct Inward System Access (DISA) function that allows outside callers to access any extension without going through an operator. Automatic greeting messages (3-levels) can be recorded by the operator or manager, directing the caller to an appropriate department or destination. For example: "Welcome to My Company. To speak to the Sales Dept please press 1, to speak to the Service Dept press 2, to speak to the operator press 3" (Level 1). Then additional options can be added after each option, for example, "To check on deliveries, press 1, for credit card orders press 2, (Level 2). Customers can be given options on 3 different levels. Callers can also dial the desired destination not only to an extension, but also to a group of extensions\*, or even outside lines. The DISA feature can drastically reduce the amount of call traffic handled by the operator - allowing the operator to spend more time with new or important customers. The system is smart enough to even detect an incoming fax transmission - routing the call automatically to a designated fax machine. This allows you to be able to receive faxes day or night without a need for someone to transfer the call, and removes any need for purchasing a special fax phone line.

\* All phones in the group will ring simultaneously, allowing any member of the group to answer the call.

### Flexible SMS Routing\*

SMS (Short Message Service) messaging is an affordable and increasingly popular way to send text messages between fixed line and mobile telephones. You can customise the system to allow SMS message senders to address their messages directly to a specific user's SLT (Single Line Telephone), ensuring the desired user receives their messages quickly, and privately.

\* An optional Caller ID card and an SMS-compatible telephone is required to send and receive SMS messages. Please contact your dealer or phone company to confirm that Short Message Service is available in your area.

### Built-in Voice Message (BV)\*

- No Missed Calls and Lost Messages
- No Separate Voice Mail System Required

Enjoy the business benefit and efficiency of using voice messaging without adding a separate voice mail system. The optional Voice Message Card ensures you'll never miss an important call - giving your customers the option to leave a message when you are not available. You can customise your voice mailbox by recording your own greetings, which will be played when you cannot answer your phone. Your callers can simply leave you a voice message directly into your personal mailbox, allowing you to receive private information without relying on hand-written notes and memos. Call Centres and Workgroups can use the common message area for recording caller messages that can be played back later by an operator or group member. For more advanced voice messaging needs, a Panasonic Voice Processing System (VPS) can provide for more professional flexibility and control.

\* An optional Voice Message Card is required.

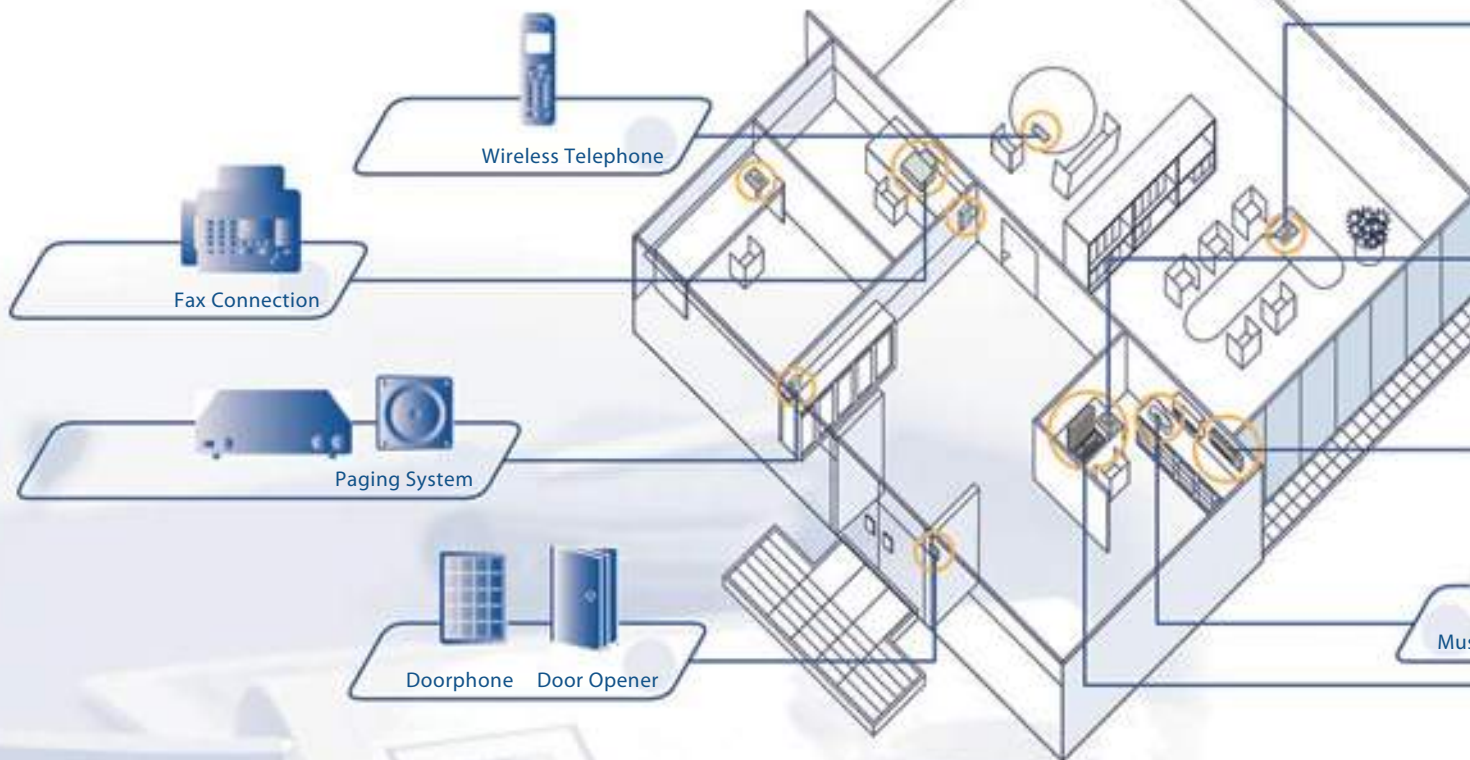
### Caller ID Display on SLT's and APT's\*

- Caller Recognition
- Better Call Management

The system is compatible with Caller ID service, which allows a user to see the caller's information before they answer a call. This function works on Analogue Proprietary Telephones (APT's) as well as Single Line Telephones (SLT's) that support Caller ID display. Proprietary display telephones can be used to also access the Caller ID log for the 20 most recent calls (Call Log) while the system itself has 300 common logs. The logged incoming calls can be called back easily.

\* An optional card is required. Please contact your dealer or phone company to confirm if the Caller ID service is available in your area.

## Hybrid System



## Efficient Call Handling

### Uniform Call Distribution (UCD) with message

- Improves the company image.
- Important business calls will not be missed.
- Shares the operator load.

For handling many incoming calls quickly and efficiently, UCD with message allows incoming calls to be distributed uniformly to a group of extensions. If all stations in the UCD group are busy, the system plays a message to the caller - acting like a receptionist or a Music-on-Hold system. If still the UCD group remains busy, the call can be sent to a secondary DISA. This is especially useful for an office with high incoming call traffic with only one person to accept calls (queuing feature).

### Call Forwarding (Busy / No Answer / Follow-Me / to Outside)

- Important business calls will not be missed.

Incoming, intercom and transferred calls to your extension can be easily forwarded to another destination when you are on the phone or away from your desk. Calls can be directed to a preprogrammed number, such as your mailbox, another phone, or a mobile phone, improving efficiency and overall customer service. Forgot to forward your calls while in a conference room? 'Follow me' programming allows you to remotely set Call Forwarding from another phone at your office (e.g. meeting room), so calls to your extension will reach you while you are away from your desk.

### Message Waiting\*

Allows an extension user to notify the called extension of a message waiting when the called extension is busy or does not answer the call. Pressing the lit MESSAGE button of proprietary telephone can call back the called party automatically.

\* Analogue Proprietary Telephone only.

### Day / Night / Lunch Mode

The system provides 'Day/Night' and 'Lunch' mode features, which can be used to change system behaviour according to the time of day. For example, you can designate which phones will ring for incoming calls after hours, or prevent outgoing calls at night.

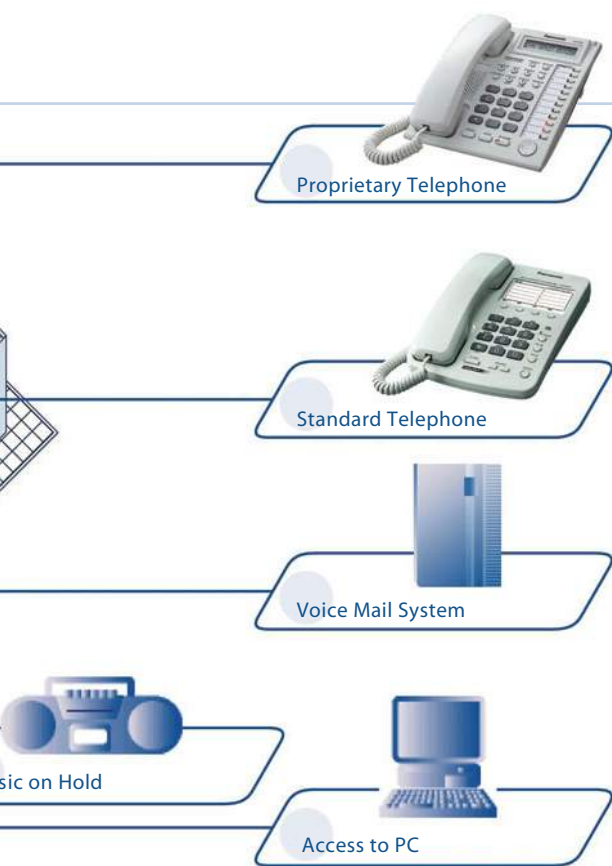
### Doorphones, Door Openers, and Doorbells\*

The KX-TES824 supports up to 4 doorphones. As a visitor presses a doorphone button, a pre-assigned internal extension rings allowing the extension user to talk to the visitor. Standard doorbells can also be connected to the system to indicate doorphone calls with the familiar chime. If an optional Door Opener is connected, the extension user can even open the door and let the visitor in.

\* An optional card is required.

### 5-party Conference

The system allows 5 different parties to have a telephone conversation simultaneously. Up to 2 outside lines can join a conference call.



## Flexible and Simple Expansion

Panasonic offers you unprecedented flexibility and simple expansion of your TES824 system with optional cards. By adding optional cards, you can expand the system from 3 CO's / 8 extensions to 8 CO's / 24 extensions.

## Economical Cost Management

### Calling Activity Reports Station Message Detail Recording (SMDR)

The KX-TES824 can record or print out detailed call information such as the date, time, extension number, dialled number, duration, etc. SMDR records can help you effectively manage call costs, staff productivity and phone system usage.

### Account Code Entry (Option / Forced / Verified)

Account codes can be used to identify outgoing external calls for accounting and billing purposes. The calling activities made with ID codes can be printed out (SMDR). 'Verified Account Code' is a very useful way to control call costs and to manage your telephone expenses more effectively.

### Call Restriction

The system can be programmed to prohibit unauthorised outgoing long distance calls by restricting certain extensions from dialling certain specific area codes / exchange codes.

### Electronic Station Lock

Prevents unauthorised personnel from making calls with your phone by 'locking' your outside lines and requiring a 4-digit security code before making calls. The operator and manager are given the privilege of controlling Electronic Station Lock at any station by using the DSS console. For example, this feature is useful for a small hotel when guests have checked out

### Limited Call Duration

The system disconnects outbound calls when a preprogrammed time expires. An alarm tone is sent to both parties 15 seconds before the assigned time limit.

### Emergency Call

You can assign 5 numbers, which can override call restrictions when making an emergency call to the authorities - such as police, fire department, ambulance, etc.

### Room Monitor

An Analogue Proprietary Telephone or Doorphone can be used as a Room Monitor. This feature is useful for monitoring a child or elder's room or for security purposes.

### Extension Group

The system supports 8 extension groups. In an extension group, the following features can be activated.

**Group Call Pickup:** Any member of an extension group can pick up a call directed to another group number.

**Paging - Group:** Any member of an extension group can make a voice announcement to another group member.

**A hunting group:** DISA ring group or UCD group is a specific extension group.

### Ring Pattern Selection

- Distinguish incoming calls for easy call handling.

A ringing pattern can be selected depending on the type of call such as an outside call, intercom call or a doorphone call.

## Easy Programming, Easy Maintenance

### Intuitive Customisation and Maintenance

System customisation and maintenance is easier than ever, thanks to the included Windows based Panasonic KX-TE Maintenance Console software. Simply connect a PC to the system via the built-in USB or serial (RS-232C) interface, and the software's intuitive graphic interface will help you do the rest. System Administrators can even program and maintain the system while off-site by connecting remotely to the built-in modem. And of course, the familiar Panasonic PT Programming interface is also available, allowing you to quickly program the system using a PT.

### Battery Backup Interface (Built - In)\*

The system is equipped with a built-in battery interface which provides full system operation in the event of a power failure.

\* An optional connecting cable is required.

# Analogue Proprietary Telephones (APT)

Bringing a Sleek New Form to Communications

## ■ KX-T7735

3-Line Display,  
Speakerphone Unit

**Call Forwarding/Do Not Disturb**  
Call forwarding transfers calls to a different telephone. The "Do Not Disturb" function blocks calls when you're busy.

**Conference**  
For making multi-party calls.

**Intercom**  
Use to or receive an intercom call.

**Flash/Recall**  
Use to disconnect a call without hanging up, then to reconnect.

**Auto Answer/Mute**  
Auto Answer: For use with intercom calls.  
Mute: Listen in without being heard.

**Headset Jack**  
Talk while using your keyboard.

**Redial**  
For redialling.

**Hold**  
Places a call on hold.

**Speakerphone for Hands-Free Convenience**  
Dial or talk without picking up the handset.

**Alphanumeric LCD**  
3 line with a 16 character display provides useful information such as Absent Messages, call status, date and time, call duration, and Caller ID\*

**Programmable Keys with Dual Colour LED (Red/Green)**  
Enjoy one-touch operation of features such as Direct Station Selection (DSS), Log-In/Log-Out, or voice mail transfer. Dual-colour LEDs show convenient information. A Busy Lamp Field (BLF) shows which extensions are in use.

**Incoming Call/Message Lamp**  
This large, easy-to-see lamp announces incoming calls or messages, so you'll always know whose telephone is ringing – even from a distance.

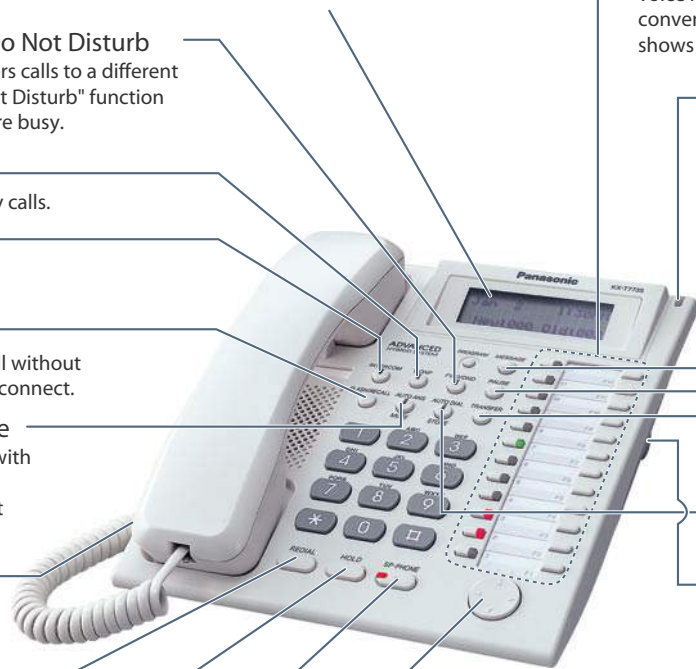
**Message**  
Use to leave a message-waiting indication, or to reply to one.

**Pause**  
Inserts a pause in speed-dial numbers.

**Transfer**  
For transferring calls to another extension or to voice mail.

**Auto Dial/Store**  
For use with speed-dialling.

**Tilt-Angle Adjustment**  
The telephone adjusts to either of two angles for easier use and a smaller, space-saving footprint.



Units available in Black and White

\* An optional card is required. Please contact your dealer or phone company to confirm if the Caller ID service is available in your area.



■ KX-T7730  
Speakerphone Unit



■ KX-T7720  
Speakerphone Unit



■ KX-T7750  
Monitor Unit



■ KX-T7740  
DSS Console

| Feature                                   | Model | KX-T7735                       | KX-T7730                       | KX-T7720                       | KX-T7750                       |
|---|-------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Alphanumeric Display (Lines x Characters) |       | 3 x 16                         | 1 x 16                         | -                              | -                              |
| Programmable Keys with Dual Colour LED    |       | 12                             | 12                             | 12                             | 12                             |
| Feature Access Keys for LCD               |       | Navigator Key                  | Navigator Key                  | -                              | -                              |
| Hands-Free Speech                         |       | ●                              | ●                              | ●                              | Monitor                        |
| SP-Phone (Monitor) Volume Control         |       | Navigator Key                  | Navigator Key                  | Up/Down Key                    | Up/Down Key                    |
| Handset Volume Control                    |       | Navigator Key                  | Navigator Key                  | Up/Down Key                    | Up/Down Key                    |
| Ringer Volume Control                     |       | Slide Switch<br>(Off/Low/High) | Slide Switch<br>(Off/Low/High) | Slide Switch<br>(Off/Low/High) | Slide Switch<br>(Off/Low/High) |
| Contrast Control                          |       | Navigator Key                  | Navigator Key                  | -                              | -                              |
| Incoming Call / Message Lamp              |       | ●                              | ●                              | ●                              | ●                              |
| Auto Answer / Mute                        |       | ●                              | ●                              | ●                              | -                              |
| Voice Call                                |       | ●                              | -                              | -                              | ●                              |
| Headset Compatible*                       |       | ●                              | ●                              | -                              | -                              |
| Wall Mountable                            |       | ●                              | ●                              | ●                              | ●                              |

| KX-T7740                       |
|--------------------------------|
| DSS Keys with dual Colour LEDs |
| 32                             |
| Programmable Keys              |
| 16                             |
| Wall Mountable                 |
| ●                              |

\* Only a  $\phi$ 2.5mm pin jack is connectable.

## Features List

- Absent Message Capability
- Account Code Entry (Option / Forced / Verified)
- Alternate Calling - Ring / Voice
- Automatic Callback Busy (Camp-on)
- Automatic Configuration for Outside (CO) Line Type
- Automatic Fax Transfer
- Battery Backup Interface (Built - in)
- Built-in Voice Message (BV)\*1
- Busy Station Signalling (BSS)
- Call Barring
- Call Forwarding
  - All
  - Busy / No Answer
  - Follow Me
- Caller ID Display on SLT and APT\*1\*3
- Calling Party Control (CPC) Signal Detection\*2
- Call Park
- Call Pickup
- Call Routing for Fixed Line SMS
- Call Splitting
- Call Transfer
  - To Extension
  - To Outside (CO) Line
- Call Waiting
- Conference (3-Party / 5 -Party)
- Conference, Unattended (3-Party)
- Data Line Security
- Direct in Line (DIL)
- DISA (Direct Inward System Access) with message (3-level, 1ch, 180sec)
- Distinctive Ringer Tone
- DND (Do Not Disturb)
- DND Override
- Door Opener\*1
- Doorphone Call\*1
- DSS Console
- Emergency Call
- Executive Busy Override (Extension / CO Line)
- Executive Busy Override Deny
- Extension Group
- Extension Password / System Password
- External Feature Access
- Flexible Extension Numbering
- Handsfree Answerback
- Hold
- Intercept Routing
- Intercom Calling
- Limited Call Duration (1~32 minutes)
- Log-In/Log-Out (Idle Hunt Group)
- Message Waiting
- Music on Hold / Background Music (BGM)
- One-Touch Dialling
- Operator Call
- Outgoing Message (OGM)
- Paging
  - All Extension
  - Group
  - External
- Paging Deny
- Parallel Telephone Connection
- Pickup Dialling (Hot Line)
- Polarity Reverse Detection\*2
- Power Failure Transfer
- Preferred Line Assignment
  - Incoming
  - Outgoing
- Programming (via PT / PC)
- Pulse to Tone Conversion
- Redial
  - Automatic
  - Last Number
  - Saved Number
  - Logged Caller ID\*1
- Ringing Pattern Selection
- Room Monitor (APT / Doorphone)
- Secret Dialling
- Speed Dialling
  - System
  - Personal
- Station Feature Clear
- Station Hunting
- Station Lock
- Station Lock, Remote
- SMDR (Station Message Detail Recording)
- Time (Day / Night / Lunch) Service
  - Automatic
  - Manual
- Timed Reminder
- Timed Reminder, Remote
- UCD (Uniform Call Distribution) with message
- Voice Mail Integration (APT / DTMF)
- Walking COS (Class of Service)

## Specifications

### Configuration

|          | Basic                                  | Option (KX-TE82480)<br>2CO's / 8 SLTs | Option (KX-TE82483)<br>3CO's / 8 Hybrid Extensions | Option (KX-TE82474)<br>8 SLTs |
|----------|--|---------------------------------------|--|-------------------------------|
| KX-TE824 | Outside (CO) Lines:3<br>Extensions : 8 | 5<br>16                               | 8<br>24  | 6<br>24                       |
|          |  |                                       | 6<br>16  | 3<br>16                       |

### System Capacity (Max.)

| ITEM                     | KX-TE824                        |
|--------------------------|---------------------------------|
| Operator                 | 1                               |
| System Speed Dialling    | 100                             |
| Personal Speed Dialling  | 10 / Ext.                       |
| One-Touch Dialling       | Max 12 / Ext.                   |
| Extension Groups         | 8                               |
| UCD Group                | 1                               |
| Toll Restriction Levels  | 5                               |
| Account Codes (Verified) | 50                              |
| Call Park                | 10                              |
| Call Log (Caller ID)*3   | 20 (Personal)<br>300 (Common)   |
| Absent Messages          | 6                               |
| Message Waiting          | 8 / Ext.                        |
| Emergency Codes          | 5                               |
| External Music Source    | 1                               |
| External Pager           | 1                               |
| Doorphones               | 4                               |
| Door Openers             | 4                               |
| DSS Consoles             | 2                               |
| Outgoing Message (DISA)  | 360 sec                         |
| Outgoing Message (BV)    | 125 messages or 60 min. (/1 ch) |

### Specifications

| ITEM                                  | KX-TE824  |
|---------------------------------------|---|
| Maximum Capacity                      | 8CO's<br>24 Extensions<br>(16:Hybrid 8:SLT)   |
| Intercom Paths                        | 4   |
| Dialling Method                       | External: Tone (DTMF) / Pulse (10 pps, 20 pps)<br>Internal: Tone (DTMF) / Pulse (10 pps, 20 pps)                        |
| Dialling Conversion                   | Pulse to tone   |
| Connections                           | CO Line<br>Intercom<br>Paging<br>External Music<br>SMDR<br>Programming  |
| SMDR                                  | Detail Recording: Date, Time, Extension Number, CO Line Number, Dialed Number, Call Duration, Account Code, Caller ID*3 |
| Polarity Reverse Detection*2          | Yes   |
| Voice Mail Ports                      | 2 ports (APT or DTMF)   |
| DTMF Receivers                        | 2 / 8 Extension   |
| DTMF Generator                        | 1 / 8 Extension   |
| CO - CO Transfer Path                 | 2 / CO Line Card  |
| Power Failure Transfer Ports          | 1 / CO Line Card  |
| Direct Connection to External Battery | Yes   |
| Power Source                          | AC 110 - 240 V, 50/60 Hz  |
| Power Consumption                     | 45W   |
| Dimensions (W x H x D)                | 368 mm x 284 mm x 117 mm  |
| Weight (when fully expanded)          | Approx. 3.5 Kg  |

### Options

| Option     | Description  | KX-TE824 |
|------------|--|----------|
| KX-TE82461 | 4-Port Doorphone Interface Card*4                        | Max.1    |
| KX-TE82474 | 8-Port Single Line Telephone Extension Card              | Max.1    |
| KX-TE82480 | 2-Port Analogue CO Line and 8-Port Single Line Telephone | Max.1    |
| KX-TE82483 | 3-Port Analogue CO Line and 8-Port Hybrid Extension Card | Max.1    |
| KX-TE82491 | Message Expansion Card for OGM                           | Max.1    |
| KX-TE82492 | 2-Channel Voice Message Card                             | Max.1    |
| KX-TE82493 | 3-Port Caller ID Card                                    | Max.3    |
| KX-T30865  | Doorphone  | Max.4    |
| KX-A227    | Back-up Battery Cable                                    |          |

### Interfaces

- RS-232C
- USB (1.1)
- Battery Interface
- Doorphone / Door Opener
- External Music Source
- External Pager

\*1 An optional card is required.

\*2 Polarity Reverse Detection is subject to the telephone company services in your country.

\*3 Please contact your dealer or phone company to confirm if the Caller ID service is available in your area.

\*4 Doorphone #1 and Doorphone #2 can not be used at the same time.  
Doorphone #3 and Doorphone #4 can not be used at the same time.

APT: Analogue Proprietary Telephone  
SLT: Single Line Telephone