



Motorola CEP400 Digital Portable Radio

Heavyweight capabilities, lightweight portability



Motorola's CEP400 TETRA portable delivers the high performance and dependability required for enhanced workforce productivity and assured user safety.

Leveraging the best features of a two-way radio and a cellular phone, the lightweight and robust CEP400 has been engineered to ensure loud and clear communications even in high noise work environments.

Built to Last

CEP400 has been made to the highest quality levels and exceeds all 11 categories in the MIL-810 standard. Further, like all Motorola TETRA radios, CEP400 has been designed to pass an Accelerated Life Test simulating over 5 years use; these tests ensure it will stand up to the toughest conditions and provide durability that helps to drive down lifecycle support costs.

One Device for all Critical Communications

CEP400 takes advantage of all the benefits of TETRA digital technology to drive workforce productivity and safety. These include exceptional audio quality with full duplex voice services, PABX and PSTN interconnection, individual and group calls, priority and emergency calls, Short Data Services and Localization Services.

CEP400 also benefits from the inherent protection of TETRA digital signaling. Coupled with the Mutual Authentication feature, CEP400 provides a secure communications platform.

Key Benefits

High Performance, Built to Last

- Rugged and lightweight, designed for optimum reliability in harsh conditions
- Superior audio quality for the most demanding environments
- Comprehensive range of accessories to provide a tailored solution
- Cellular phone style, optimized user interface
- Remote programming facility for cost effective radio terminal management
- Large high resolution colour (or grey scale) display

Unified Communications, Integrated Safety

- Trunked and conventional operation modes
- Full duplex PABX and PSTN interconnection
- Personnel safety and emergency call features
- Optional integrated GPS for personnel tracking

Simple but Powerful User Interface

To minimize staff training costs, CEP400 leverages an instantly familiar cellular phone style user interface. It also includes a large colour (or grey-scale) display that supports 65, 536 vivid colours and large scalable fonts. Usability is further enhanced through a customizable menu and simplified keypad that combine to make device interaction fast and intuitive.

Cost Efficient Terminal Solution

CEP400 is complemented by a complete terminal solutions portfolio designed for efficient operations:

- Remote programming to ensure cost effective rollout of new services and simplified radio management
- CEP400 leverages the same wide range of accessories as the flagship MTP850 radio to increase investment security. This range includes audio, power, carry and in-vehicle solutions

Specifications

| General | | |
|----------------------------|-----------------|-------------------------|
| Dimensions HxWxD mm | 125 x 50 x 33.5 | (with slim battery) |
| | 125 x 50 x 37.5 | (with standard battery) |
| Weight g | 170 | (radio only) |
| | 225 | (with slim battery) |
| | 240 | (with standard battery) |
| Battery Performance | Slim Li Ion | Standard Li Ion |
| mAh | 950 | 1850 |
| Duty Cycle (5/5/90) hours | > 12.5 | > 23 hours |
| Duty Cycle (5/35/60) hours | > 9 | > 17 hours |
| Talk time hours | 1.9 | 3.5 hours |

RF Specifications

| | | |
|------------------------------|-----------------------------|--|
| Frequency Bands | 380-430 | |
| Transmitter RF Power | Class 4 (1W) | |
| RF Power Level Accuracy dB | 2 | |
| Adaptive Power Control | A and B | |
| Receiver Class | A and B | |
| Receiver Static Sensitivity | -112 dBm (-115 dBm typical) | |
| Receiver Dynamic Sensitivity | -103 dBm (-107 dBm typical) | |

Environmental Specifications

| | | |
|-----------------------------------|----------------------------|--|
| Operating Temperature oC | -30 to +60 | |
| Storage Temperature oC | -40 to +85 | |
| Humidity | ETS 300 019-1-7 class 7.3E | |
| Dust and Water Ingress Protection | IP54 per IEC 60529 | |
| Shock, drop and vibration | ETS 300-019 1-7 class 5M3 | |

Options

| | |
|-------------------------------------|--|
| GPS License | |
| Local Language Options | |
| Colour and Greyscale Display Option | |

Peripherals and Accessories

| | |
|-----------------------------------|--|
| Audio | Earpieces, headsets and remote speaker microphones |
| Batteries | Range of 950 mAh and 1850 mAh batteries |
| Carrying and In-Vehicle Solutions | Various carrying solutions and vehicle adapters |
| Antenna | Includes stub, whip options |
| Remote Programming | Via Intelligent terminal management solution |

Security Services

| | |
|----------------|--------|
| Authentication | Mutual |
|----------------|--------|

Data Services

| | |
|-------------|---|
| Short Data | STATUS messaging in TMO & DMO |
| | Short Data Service messaging in TMO & DMO |
| | Short Data applications |
| AT Commands | Reduced set of AT commands (excludes voice control) |

Location Services

| | |
|-------------------------|---|
| Simultaneous Satellites | 12 |
| GPS Antenna | Helical integrated into TETRA antenna |
| Sensitivity | -152 dBm / -182 dBW |
| Accuracy | 5 meter (50% probable); 10 meter (95% probable) |
| Protocols | ETSI LIP & Motorola LRRP |

User Interface

| | | |
|-------------------------------|---|----------------|
| Display | Colour (or Gray Scale) 130x130 pixels with 65, 536 vivid colours | |
| | Backlight Flip screen and scalable text font options | |
| Screen Saver | (Gif image & text) | (user defined) |
| Universal Time Display | | |
| Multiple Languages | | |
| Keypad Lock | | |
| Talkgroup Management | User friendly, flexible, fast and efficient interface | |
| Talkgroups – TMO | 2048 | |
| Talkgroups – DMO | 1024 | |
| Talkgroup Folders | Dual layer folder structure (folder/sub-folder) 256 folders | |
| Favourite Folders | Up to 3 (to store favourite talk groups) | |
| Menu | Customisable to user needs Menu Shortcuts Menu Configuration | |
| Contacts Management | Cellular phone style | |
| Contacts List | Up to 1000 contacts Up to 6 numbers per contact, max. 2000 entries | |
| Multiple Dialling Methods | User defined | |
| Fast/Flexible Call Response | Private Call Response to a Group Call via One Touch button | |
| Alerting Modes | Vibrator and Multiple ringtones | |
| Message Manager | Cellular phone style | |
| Text Message Inbox | 20 messages | |
| Intelligent Keypad Text input | | |
| Status List | 100 alias messages | |
| Country/Network Code List | 100 | |
| Scan lists | 40 lists of 20 talkgroups | |
| User Controls | | |
| Multi-function Rotary Knob | Volume, Talkgroup scroll and/or selection | |
| One Touch Buttons | Single button activation for multiple functions | |
| Adaptive Audio Control | Selects best audio profile for a given environment | |

| Voice Services | | |
|-------------------------------------|----------------|--|
| Full Duplex | TMO | Private, PABX, PSTN, Emergency |
| Half Duplex | TMO | Private, Group, Emergency |
| | DMO | Private, Group, Emergency |
| | | Inter-MNI, Gateway, Repeater |
| Dialling | | Direct, Scroll, Speed, One Touch button/key Call History Redial |
| Emergency and Safety (User-defined) | Tactical | Emergency Group Call to ATTACHED talkgroup |
| | Non-Tactical | Emergency Group Call to DEDICATED talkgroup |
| | Individual | Emergency Call to PREDEFINED party |
| | HOT MIC | Talk without pressing PTT button (user enabled) |
| | Status Message | Message sent to dispatch console (user enabled) |
| | DMO to TMO | Enter DMO emergency (with/without gateway) or enter TMO emergency |

Pre-emptive Priority Calls



www.motorola.com/tetra
Motorola Ltd, Jays Close, Viables Industrial Estate,
Basingstoke, Hampshire, RG22 4PD, UK