



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, Viabes Industrial Estate,
Basingstoke, Hampshire, RG22 4PD, UK