



MTP810 Ex

ATEX TETRA Terminal

High performing communication and user safety



Part of Motorola's market leading range of ATEX TETRA terminals, the MTP810 Ex provides high quality communication with comprehensive user safety when in environments containing potentially explosive atmospheres.

Motorola is a world leader in the development and deployment of TETRA communication solutions, and the MTP810 Ex ATEX TETRA radio delivers safe and reliable communications for users with a powerful set of features to harness the capability of TETRA.

High Performance Communication

The MTP810 Ex delivers best in class audio performance in the typical noisy environments where specialist users from industry or public safety operate.

Comprehensive User Safety

The MTP810Ex can be used in explosive environments as per its ATEX certificate (i.e., indicated levels of protection). Operational safety is further enhanced with a range of features including:

- State of the art integrated GPS receiver providing the ability to locate personnel through the radio, improving user safety and resource management.
- Internal "Man Down" alert - this fully integrated solution triggers an emergency procedure when the carrier of the radio remains motionless for a set period or falls down.

Key Features

High Performing Communication

- Strong rugged design for optimum reliability in harsh conditions
- Powerful, high quality audio in most demanding environments
- Full range of supporting ATEX certified accessories for a customized solution

Comprehensive User Safety

- ATEX & IEC-Ex gas and dust approvals
- Integrated GPS for user location
- Internal "Man Down" alarm

Simple but Powerful User Interface

The simplified keypad with large button surface makes the MTP810 Ex easy to use with gloves. Combined with the large scalable display fonts and icons, the MTP810 Ex facilitates operation in difficult environments with limited visibility.

Data Applications Capability

The integrated WAP browser and Multi-Slot packet data enables rapid access to critical information in the field. Applications are further enhanced with the ability to have simultaneous Short Data Service (SDS) and Multi-Slot packet data services via the TNP1 protocol.

Atex Specifications

ATEX Rating	Gas	II 2G Ex ib IIA T3
	Dust	II 3D Ex ibD 22 IP6x T90°C
IEC EX Rating	Gas	Ex ib IIA T3 (Approved for Zone 1 & 2, Equipment Group II, Gas Group A, Temperature Class T3, Ambient temp -20°C to +50°C)
	Dust	Ex ibD 22 IP6x T90°C (Approved for Zone 22, Equipment Group II)

Specifications

PHYSICAL

Dimensions (mm)	135 x 55 x 38
Weight (typ) g	400
Battery	725 mAh, 7.2V 12 hrs, typ, 5/5/90 duty cycle

RF Specifications

Frequency Bands (MHz)	380 – 430
Switching Bandwidth (MHz)	50
RF Channel Bandwidth (kHz)	25
Transmitter RF Power	1W
RF Power Control	3 Steps of 5 dB
RF Power Level Accuracy	+/- 2dB
Receiver Class	A & B
Receiver Static Sensitivity (dBm)	-112 minimum, -115 typical
Receiver Dynamic Sensitivity (dBm)	-103 minimum, -107 typical

VOICE SERVICES

Talkgroups	2048 (TMO) & 1024 (DMO)	
Phone Book	1000 persons	
Scan Lists	40 lists, 20 talkgroups / list	
TMO Services	Group Call	Late entry
	Private Call	Half / Full Duplex
	Telephony	Full Duplex
DMO Services	DGNA	up to 2047 groups
	Group Call	Late entry
	Private Call	
Emergency	Compatibility	Gateway & Repeater
	Smart Emergency	DMO / TMO / DMO to TMO
	Hot Mic	Configurable timers
	Location	Send on emergency
Other Services	Target Address	Individual or Group
	Alarm	Emergency Status
		Ambience Listening Transmit Inhibit

INTERFACES

RS232 PEI	For connection of data devices
Rugged Accessory	For programming and audio accessory connectivity

PERIPHERALS AND ACCESSORIES

Audio	A wide range of audio accessories is available including ATEX certified speaker mics and headsets.
Power & Charging	Solutions for desk top charging and multi-way chargers
Carrying	A range of carrying solutions is available including carry cases, carry strap and belt clips
Programming	Comprehensive solutions available for radio configuration and encryption key loading via Motorola KVL, including support for the Motorola Integrated Terminals Management solution

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature (°C)	-20°C to +50°C (Hazardous Environments)
	-20°C to +60°C (Non-Hazardous Environments)
Storage Temperature (°C)	-40°C to +85°C (MIL STD 810 C, D)
Humidity	ETS 300 019-1-7 Class 7.3E
Dust and Water	IP64 per IEC 60529
Shock, drop and vibration	ETS 300 019-1-7 Class 5M3

GPS SPECIFICATIONS

Simultaneous Satellites	12
Mode of Operation	Autonomous or assisted (A-GPS)
GPS Antenna	Integrated in TETRA antenna
Sensitivity	-152 dBm / -182 dBW
Accuracy	5 meter (50% probable)
Location Protocols	ETSI LIP Motorola LRRP

DATA SERVICES

Status Messaging	Alias Messages	100
	Short Data Service (SDS)	Inbox 20 messages
		Target Address Individual or Group Address
Packet Data	Voice Interaction	Send / receive during calls
	Single or Multi Slot	7.2kbps - 28.8 kbps gross
WAP	Integrated Openwave browser	
	WAP 1.2.x and WAP 2.0 compatibility for UDP/IP Stack	
PEI	AT Commands	
	TNP1; enables simultaneous SDS & PD	

SECURITY FEATURES

Air Interface Encryption	Algorithms	TEA1, TEA2, TEA3
	Security Classes	Class1 (clear), Class2 (SCK), Class3 (DCK, CCK & GCK*)
Key Provisioning	Secure provisioning tool (key variable loader KVL)	
	Over the Air Re-keying (OTAR) for SCK and Class 3 (CCK & GCK*)	
	Temporary Enable / Disable (Stun)	
Network Access	Permanent Enable / Disable (Kill)	
	Authentication	Infrastructure initiated and made mutual by terminal



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