

MDT-400 SERVICES SUPPORTED

Mobility Management

- Registration / Deregistration
- All types of TETRA cell reselection (handover)
- AI migration & Multiple MNC (manual network selection)

Security Class 2 & 3

- Authentication (terminal and mutual)
- Air Interface Encryption Security Class:
 - Class 1: Clear
 - Class 2: SCK
 - Class 3: DCK
- Algorithms: TEA1, TEA2 & TEA3
- OTAR (Over The Air Rekeying)
- Enable/Disable (Temporary and/ Permanent)
- PIN / PUK code

End to End encryption

- Voice E2EE (TMO & DMO).
- Full & Half duplex
- Individual & group
- Late Entry
- Data E2EE
- SDS
- GPS info
- Simultaneous ciphering of voice & SDS

Voice services

- Individual Half-duplex calls with Direct / Hook signalling
- Individual Duplex calls
- Group call: 1050 talkgroups (for TMO/DMO or both)
- Broadcast call
- Phone calls (PSTN/PABX). DTMF transmission
- Emergency call (type destination address programmable)

Data services

- Status to individual or group addresses
- SDS (type 1, 2, 3 and 4) to individual or group addresses (with or without TL)
- Simultaneous Status & SDS Data on a Voice Call
- Immediate SDS
- PEI interface:
 - AT commands
 - TNP1 commands
 - Different services profiles
 - Packet Data (IP service)
 - Circuit Data

Main Supplementary services

- Dynamic Group Number Assignment (DGNA)
- Late Entry (LE)
- Calling Line Identification (CLI)
- Calling Line Identification Restriction (CLIR)
- Talking Party Identification (TPI)
- Priority Call (PC)
- Call Forwarding (CF)
- Pre-emptive Priority Call (PPC)
- Access Priority (AP)
- Ambience Listening (AL)

Other features

- Transmit inhibit operation
- 112 / 999 emergency codes
- FSSN dialling / Simple offset dialling
- Engineering mode
- Discreet mode
- Logging request
- Audio accessories selection via menu
- MMI languages: European (English, Spanish, French, German, Catalan, Dutch, Euskera, Polish, Portuguese), Cyrillic (Russian), Chinese and Korean

TECHNICAL CHARACTERISTICS

Dimensions

- MDT-400: 177 x 163 x 47,5 mm (radio unit only)
195 x 163 x 61 mm (With front panel)
- DT-410: 300 x 320 x 110 mm

Weight

- MDT-400: 1230 gr. (radio unit only)
1400 gr. (With front panel)
- DT-410: 5 Kg.

Power Supply Voltage

- MDT-400: 10,8 to 15,6 VDC
- DT-410: 100 to 250 VAC

Consumption

- 4A (5A for 10W Tx RF)

DT-410 loudspeaker

- 3", 5W, 4 Ohms / Output to external speaker

RF Features

- Chanel Spacing: 25KHz
- Rx/Tx Bandwidth: 20MHz
- Static/Dynamic Sensitivity: -112/-103 dBm
- Receiver Class: A

Frequency bands

- 350-370MHz (10W) / 380-400MHz (10W) / 410-430MHz (10W)
- 450-470MHz (10W) / 806-870MHz (3W)

ENVIRONMENTAL

General

- According to ETSI EN 300 019 standard
- Operative temperature range: -30°C to +70°C
- Conformance Testing: ETSI EN300 394-1 (-20°C to +55°C)
- Storage temperature: -40°C to +85°C
- Humidity: 5% to 95%
- IP54

Classification according to ETSI EN 300 019 Standard

- Storage. Class 1.3. Non-weather protected storage locations.
- Transportation. Class 2.3. Public transportation.
- Stationary use (DT-410) Class 3.2. Partly temperature controlled locations.
- Mobile use (MDT-400):
 - Environmental Class 5.2. Partly protected installations.
 - Mechanical Class 5M3



Powerful Technology for professional communications





POWERFUL

Up to 10W RF output power

The output power is programmable from 15 mW up to 10W (40dBm) in 5dB steps. The 10W maximum output power provides enhanced coverage, a key point in emergency and security situations.

Complete range of TETRA bands

The Teltronic mobile terminal is available in all the TETRA frequency bands on the market: 350-370, 380-400, 410-430, 450-470, 806-870 MHz

Improved audio quality

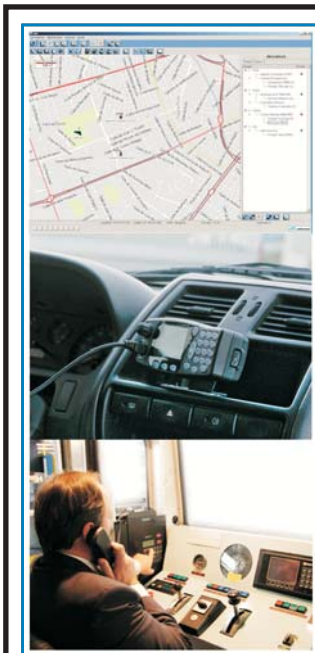
Improved audio quality according to PESQ (Perceptual Evaluation of Speech Quality, ITU-T recommendation P.862).



Remote front panel mounting kit



MDT-400 can be operated as a Data Modem.



POWERFUL & VERSATILE

Wide range of options

Programmable I/O option that includes audio line interface (600 Ohm E&M), and digital I/O lines, that can be configured to send predefined calls.

Internal GSM option that enables to automatically change to GSM when the terminal travels outside the TETRA coverage.

Internal GPS option, with shortened format and position information available via MMI and via PEI. Very secure E2EE based in a tamperproof HW module. Several algorithms and market standards available.

Special solutions for railways, underground, buses (AVLS),...

Numerous references in various scenarios: buses, railways, undergrounds, light trains, ... using different kinds of mechanical racks, audio configurations, PEI profiles, ... standardised Teltronic equipment for complex requirements

The best option for system integrators

An enhanced PEI interface enables developed of all kind of applications such as GPS information, database consult, files transmission or telemetry.

All data services defined in the TETRA standard are available (status, short data, packet data, circuit mode data)

For AVLS projects optimised AVL algorithms improves the control channel efficiency to be able to manage a greater amount of user terminals.

POWERFUL & FRIENDLY

Easy to use MMI

Features one of the easiest MMIs on the market, very intuitive and can be adapted to any customers requirements, through short-cut keys and programmable keys. The terminal is also available in a multiple variety of MMI languages: European languages, Cyrillic, Chinese and Korean.

High quality display

Large 128x 64 dot matrix display making it easier to read data information and control the terminal. Features also an automatic positive / negative mode, especially suitable for any kind of lighting conditions (indirect, direct sunlight or low light conditions)

A configuration for each situation

Modern and ergonomic DT-410 unit specially designed for desktop use, with a full range of accessories, and connection to an external battery.

Remote control unit for motorbikes designed taking into account ruggedness and ease of operation.

Standard MDT-400 can also be operated without front panel as a Data Modem.



OPTIONS / ACCESSORIES

Options

- Internal GPS
- Internal GSM
- Air Interface Encryption SCK / DCK (TEA1, TEA2 & TEA3)
- E2EE
- Programmable I/O (includes all necessary hardware to allow a customised use):
 - Line Interface (E&M)
 - Audio Line Interface (600 Ohm)
 - Ignition Control
 - Mute Control / External horn relay
 - Special events
 - External PTT, AUX, HANG
 - PEI control

Accessories

- Hands Free kit
- Fist Microphone with PTT and AUX
- Loud speaker 5W, 2 1/4"
- Handset with PTT
- Remote control unit for motorbikes
- PEI connection kit
- Remote front panel mounting kit
- TETRA, GPS, GSM and combined antennas

Specific accessories for DT-410

- Desktop microphone with PTT, AUX buttons and Tx/Rx LEDs
- Foot-switched PTT
- Headset with boom microphone

