TMR880i TETRA mobile radio

Mobile connection with confidence

EADS
DEFENCE
& SECURITY

TMR880i TETRA mobile radio

- **Integrated GPS receiver**

- **Radio unit with separate highly ergonomic CUR-3 control unit**

- **Active TFT colour display with support for true colour pictures**

- **Suitable for use as a data radio without the control unit**

- **Support for smart card-based end-to-end encryption (option)**

- **Java MIDP 2.0 platform**

- **XHTML colour browser**

Versatile connectivity for professionals

The TMR880i is an advanced and reliable TETRA mobile radio, able to meet the most diverse requirements for secure and efficient voice and data communication. Voice feedback, a clear menu structure and the Series 40 style user interface make the TMR880i easy to learn and use, even under the most challenging circumstances.

The TMR880i consists of a compact radio transceiver and a separate control unit optimised for easy and reliable installation and use in a wide variety of vehicles. The radio unit can be integrated into - and controlled by - an external device or application, making it ideal for data applications such as telemetry, positioning and remote control.

Adapting to your needs

The new CUR-3 control unit has a professional, balanced design with clear, user-friendly keypad for ideal convenience and ergonomics. The large high-resolution colour display provides optimised visibility, even in changing light conditions. Voice feedback guides the user in talk group selection and the activation of the Fast Menu functions enabling reliable and intuitive operation. The display texts and voice feedback are available in more than 15 languages, further enhancing the easy and straightforward operation of the radio.

Configurable menus, programmable keys and a "Go to" quick menu create extensive possibilities for customising the radio to meet an organisation's precise needs.

Confidential communication

The TMR880i supports the EADS total solution for end-to-end encryption. The smart card-based solution enables the smooth introduction of end-to-end encryption when needed, making it easily adaptable to an organisation's operational needs. The TMR880i radio unit has an integrated slot for the smart card. An external smart card reader is available for further flexibility.

DD-5 Smart card reader

Put yourself on the map

With its integrated GPS receiver, the TMR880i can provide the user - as well as the command and control centre - with accurate position information.

The position of a specified radio can be requested over the air. Alternatively, the radio can be set to send its position at certain intervals, or at defined triggers. Users can view their coordinates, altitude, speed, and direction on the radio display. For enhanced user safety, the radio can be programmed to send details of its current or latest position to a predefined address. The user-friendly GPS-based Waypoint guidance application can show the direction and distance to a selected destination.

Power of applications

The TMR880i has Java™ platform that enables professional organisations to implement mobile applications customised for their requirements, and download them to the terminal as needed. These could include applications for mobile command, control and reporting, navigation or database queries, or temporary applications for a certain event. The Java J2ME, a platform specially targeted at mobile devices, enables optimum utilisation of the TMR880i's sharp, high-resolution colour screen, making it ideally suited to intuitive applications.

Accessories

The following accessories are available for the TMR880i radio:

Vehicle installation

- Installation cables for CUR-3, 5,5 and 10 meters
- System cable CA-105
- Radio installation plate
- Mounting swivel for CUR-3, HHR-1
- Din installation set for CUR-3

Audio

- Speaker microphone MPR-1
- Loudspeaker HPS-10
- HF microphone HFR-1
- HF Push-to-talk switch PTT-1
- Handset HSU-1T
- Helmet cable CA-106

Data

- Data cable DLR-3T

Power

- Power Supply ACR-1, 230 VAC/12 VDC

Antennas

- TETRA and GPS antennas

End-to-end encryption

- Smart card reader DD-5

TMR880i TETRA mobile radio

EADS TETRA terminals fulfil the following specifications for TETRA radio equipment in the temperature range of -20°C to +55°C:
EN 300 392 V+D air interface
EN 300 394 V+D conformance testing

Frequency bands

- Wideband, 380-430 MHz

Power class

- EN 300392-2 compliant, power class 3
- Receiver class A
- RF power control, 5 steps of 5dB

Size

Radio Unit
- Weight: 1004 g
- Dimensions: 60 x 182 x 125 mm (H x W x D)

Control unit CUR-3
- Weight: 240 g
- Dimensions: 72 x 190 x 36 mm (H x W x D)

Display

- High-resolution, active TFT colour display
- 130x130 pixels, 65,536 colours

Keypad / controls

- Alphanumeric keypad
- Call and end-call keys
- 4 navigation keys, 4 selection keys
- Power-on key, volume keys, red function key, duty key, fast menu key, group selector, back key, display brightness control

GPS receiver

- Sensitivity –152 dBm
- Cold start accuracy (open sky)* 5 meters (50% confidence level) 10 meters (95 % confidence level)
- GPS activity indicator
- Automatic position saving
- Position information sending on request or on triggers, e.g. time, distance, status message

* measured at –130 dBm

- Position sending during red key calls and public emergency calls
- Waypoints, waypoint guidance
- Support for ETSI location information protocol for TETRA

Call types

- Phone calls in TETRA network
- Phone calls to public network
- Express and group calls in TETRA network
- TETRA emergency calls
- Public emergency calls (e.g. to 112)

Group communication

- Up to 2000 talk groups
- Up to 200 talk group folders
- Up to 400 groups per folder
- Dynamic Group Number Assignment (up to 200 DGNA groups)
- Up to 10 background groups
- Priority scanning
- Scanning list up to 59 talk groups
- Voice override in group calls (pre-emption)
- Late entry

Direct Mode features

- Up to 180 DMO groups
- 60 DMO channels
- DMO gateway and repeater support
- Scanning
- Red key call to DMO group
- Red key call to TMO within TETRA network coverage
- Public emergency call within TETRA network coverage
- DMO SCK encryption
- Status messages

Messaging

- Status and text messages
- Flash messages
- Predictive text input (T9)
- Unit alert (selective alert)

Security

- Authentication
- Mutual authentication

- Air interface encryption, security classes:
  - Class 1: Clear
  - Class 2: SCK
  - Class 3: DCK/CCK
- Phone and security code
- Temporary disable/enable (Stun)
- Permanent disable (Kill)
- Alert for out of network coverage
- Support for smart card based end-toend encryption (option)

Wireless data

- IP packet data
- WAP 2.0 over TETRA IP packet data
- XHTML browser
- AT command interface for applications
- Java MIDP 2.0 platform

Other features

- Voice feedback
- Configurable main menu
- Configurable fast menu
- Tx inhibit
- Speed dialing (one touch dialing, locations 2-9)
- Functional number keys
- DTMF tone dialing
- Any key answer
- Duplex call barring
- Multiple network support

Interfaces

- Separate control unit CUR-3
- 16 configurable I/O pins
- Multiple audio devices
- Helmet audio interface
- Serial data
- External power on / off
- External PTT
- External emergency PTT
- Ignition sense
- Internal slot for smart card
- External smart card reader
- Active GPS antenna
- TETRA antenna
- Service connector for programming

Defence & Security, a Division of EADS