



THR880i TETRA radio

Secure mobility

The THR880i TETRA radio has a unique two-sided design:

The phone side features a color display, a convenient keypad and a user-friendly menu. The sharp, active high-resolution TFT display of the THR880i radio enables clear and convenient viewing of images, graphics and color pictures.

The other side, dedicated to radio functions has only the essential operating keys. Managing talk groups is easy with the multimode group selector. The voice feedback enables users to work with the radio without having to look at it as the voice guidance, for example changing the talk group or switching to direct mode.

An integrated GPS receiver enables positioning of the radio. The radio's coordinates can be transmitted automatically at certain time or distance intervals, or as a reply to a single request. Using a separate positioning application, the unit's position can be shown on a digital map, allowing command and control to trace and contact field staff based on their geographical location.

For user safety, the radio can be programmed to send details of its current or latest position to a predefined address when a red key call or public emergency call is initiated. In addition, radio users can save their positions as waypoints, and send these to other users as short messages.

THR880i radio supports smart card based end-to-end encryption solution. Communications can be encrypted all the way from the sending unit to the receiving unit. The smart card based encryption provides the highest level of security, allowing implementation of organisation specific encryption algorithms.

The Java™ platform on the terminal allows organisations easily introduce its own applications with a customised user interface, making information available to users quickly, conveniently and reliably.

AIRBUS

THR880i – Advanced mobility

Frequency bands

- 380 – 430 MHz
- 806 – 825 MHz, 851 – 870 MHz

Power class

- EN300392-2 compliant, power class 4
- Receiver class A
- RF power control, 4 steps of 5 dB

Size

- Weight: 247 g
- Dimensions: 147 x 57 x 35 mm

Durability

- Water and dust resistant according to IP55 classification
- Polycarbonated, hard-coated display window

Display

- High-resolution, active TFT color display
- Up to 65,536 colors with 130x130 pixels
- Display texts in more than 25 languages
- Night vision mode

Keypad / controls

- 2-sided user interface
- Alphanumeric keypad
- 4 navigation keys, 3 selection keys
- HI/LO key for loudspeaker control
- Power-on key, volume keys, red function key, duty key, fast menu key, group selector, back key

GPS receiver

- Inbuilt GPS receiver
- Sensitivity -152 dBm
- Simultaneous satellites up to 12
- Cold start accuracy (open sky)*
 - 5 meters (50% confidence level)
 - 10 meters (95% confidence level)
- * measured at -130 dBm
- GPS activity indicator
- Automatic position saving
- Position information sending on request or on triggers (time, distance, status message)
- Position sending during red key calls and public emergency calls
- Position information on/off
- Waypoints, waypoint guidance
- Viewing own coordinates, altitude, speed and direction on the display
- Saving own or caller's waypoint with one key press for Waypoint guidance
- Network-based terminal assisted positioning
- Support for ETSI location information protocol for TETRA (LIP)

Call types

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

Group communication

- Up to 2 000 talk groups
- Up to 200 talk group folders
- Up to 200 group sub folders with 3 layers
- Up to 400 groups per folder
- Dynamic Group Number Assignment (DGNA), up to 200 DGNA groups
- Up to 10 background groups
- Priority scanning
- Scanning list up to 59 groups
- Voice override in group calls (pre-emption)
- Late entry

Direct mode features

- Up to 180 DMO groups
- 60 DMO channels
- Support for DMO repeater type 1A & 1B
- TMO-DMO via Gateway communications support, but not as a Gateway itself
- Scanning
- DMO individual call
- 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, encryption classes 2A, 2B and 2C
- DMO status messages
- DMO SDS messages
- Network monitoring while in DMO

Messaging

- Status messages
- Callback requests to individual and group numbers
- Text messages with concatenation
- Situation indicators to a predefined address
- Flash messages
- Call-out
- Predictive text input T9 for most languages
- Unit alert (Selective alert)
- SDS3 polling

Security

- Authentication and Mutual authentication
- Air Interface Encryption (AIE) security classes:
 - Class 1: Clear
 - Class 2: SCK
 - Class 3: DCK/CCK
 - Class 3G: GCK (requires TETRA SIM card)
- Phone and Security code
- Temporary disable/enable (Stun)
- Permanent disable (Kill)
- Transmission barring (Tx inhibit)
- Alert for out of network coverage
- Support for smart card based end-to-end encryption (option)

TETRA SIM support (option)

- TSIM card with subscriber identification information (ITSI and authentication key K)
- Easy to move subscriber information with TSIM card from one radio to another

Wireless data

- IP packet data
- WAP 2.0 over TETRA IP Packet Data
- xHTML color browser
- AT-command interface for applications
- Java™ MIDP 2.0 platform

Other features

- 500 phone book entries
- 8 profiles: General, Silent, Meeting, Outdoor, Pager, Active holder, Headset and Monophone
- Voice feedback
- Configurable main menu
- Configurable fast menu
- Configurable function keys
- Speed dialing (one-touch dialing, locations 2–9)
- DTMF tone dialing
- Load Directed Roaming (LDR)
- Energy economy
- Any key answer
- Duplex call barring
- Multiple network support
- Aliasing
- Clock synchronisation with network and/or GPS time
- Remote control through SDS or status
- Secondary Control Channel (SCCH)
- ISI support
- USB flashing

Battery

- Internal Battery BLN-4, Li-Ion 1880 mAh
- Talk time up to 2 – 4,5h (duplex)
- Use time: up to 11 – 25h (5/5/90),
 - up to 8 – 17 h (10/30/60)
- Standby time up to 25 – 40h
- Charging times 2,5 – 3,5 h (ACP-12, power off)

Note: GPS usage affects the above mentioned times. Variation in operation times will occur depending on network settings and usage.



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