THR880i plus

Secure mobility enhanced

The THR880i plus is a TETRA radio with 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 plus 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.

The new improved THR880i plus is equipped with a GNSS receiver which enables accurate 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.
New GNSS receiver consumes less power increasing the battery autonomy

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 plus 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 plus – Secure mobility advanced

Frequency bands
- 380 – 430 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, dust, according to IP55 class
- Free fall IEC 60068-2-32 Ed (2m)
- Vibration resistant IEC-60068-2-6, IEC 60068-2-64, Fh broad-band
- Solar radiation resistant IEC-60068-2-5
- Temperature changes IEC-60068-2-14 Na
- Polycarbonated, hard-coated display window

Display
- Transflective 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

GNSS receiver
- Inbuilt GNSS (A-GPS, Glonass, BeiDou/ Galileo) receiver with internal memory
- GPS, Galileo, Glonass/ BeiDou positioning and position information sending to infra-structure and other users
- 1–3 satellite system simultaneously in use
- Simultaneous satellites up to 32
- Possible to turn GNSS off by user
- Power save mode
- GNSS activity indicator
- 72 channels receiver
- Sensitivity -167 dBm
- Cold start accuracy (open sky) *
  - 2.0 meters CEP
- Cold start TTFF time to first fix (open sky)*
  - < 26 seconds

  *with GPS + Glonass
- SBAS augmentation systems (WAAS, EGNOS, MSAS, GAGAN)

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)

Network features
- Multiple network support
- ISI support
- Clock synchronisation with network and/or GPS time
- Transmission barring (Tx inhibit)
- Load Directed Roaming (LDR)
- Alert for out of network coverage

Direct mode features
- Up to 180 DMO groups
- 60 DMO channels
- TMO-DMO via Gateway communications support, but not as a Gateway itself
- Support for DMO repeater type 1A &1B
- 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 message, also during a call and even via Repeater/Gateway
- DMO SDS messages
- Network monitoring while in DMO

Group communication
- Up to 2 000 talk groups
  - 9999 group selection shortcuts
- 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 20 background groups
- Priority scanning
- Scanning list up to 60 groups
- Voice override in group calls (pre-emption)
- Late entry

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

Personal Safety
- Work Alone
- Position sending during red key calls and
- Configurable emergency button
- Night vision mode

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

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)
- Alert for out of network coverage
- Support for smart card based end-to-end encryption (option)

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

Usability
- 500 phone book entries
- 8 profiles: General, Silent, Meeting, Outdoor, Pager, Active holder, Headset and Monophone
- Aliasing – call routing service
- Voice feedback
- Configurable main menu and fast menu
- Configurable function keys
- Speed dialing (one-touch dialing, locations 2-9)
- DTMF tone dialing
- Energy economy
- Any key answer
- Duplex call barring
- Remote control through SDS or status
- Secondary Control Channel (SCCH)
- USB flashing

Battery

Internal Battery BLN-4, Li-Ion 2000 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:

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

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