



## THR9+ TETRA radio

### World's best gloves-on access to TETRA

The THR9+ TETRA handheld is designed to meet the strictest requirements of field workers. The radio has a large simplified keypad that can be used even while wearing gloves. The radio's robust construction is resistant to water and dust (IP65).

The THR9+ addresses to users such as firemen who work in harsh conditions and who mostly do not need to free-dial numbers or write messages. With the 4-way navigation keys the user has direct access to the menu, phone-book and often used functions. Two freely programmable function keys, F1 and F2, can be assigned as keys to the most often needed functions. Text messaging is possible with characters shown on the display and selecting them with the navigation keys.

The large display is used for viewing the menu and operating the radio, and also provides valuable information for users on changing field situations. For example, a red signal warns the user if the radio battery is running empty or the TETRA network coverage is diminishing. In addition, the selected talk group, profile and the last sent status message are visible. The THR9+ has a specific night vision display colour scheme to provide enhanced visibility and user safety when working in the dark.

Equipped with a solid belt clip or carrying case, the compact THR9+ is easy to carry on a lapel or belt.

The advanced Lifeguard solution, also known as man down alarm, is for better user safety. If the radio stops moving or remains horizontal for too long, it triggers a local alert. If the user does not respond, the radio automatically activates an alarm and sends its coordinates to a predefined destination.

With an easy and reliable battery connection mechanism and two battery options – one with an extended capacity – the radio can keep even the heaviest radio users in contact throughout their shift.

# THR9+ For the harshest in the field

## Frequency band

- 380 – 430 MHz

## Power class

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

## Size

- Weight: 270 g
- Dimensions: 133 x 58 x 31 mm

## Durability

- Water, dust, and shock resistant according to IP65 classification

## Display

- Full-color QVGA display
- Up to 262144 colors, 240 x 320 pixels
- Display backlight off by single key press
- Display reverse (180 degrees by single key press)
- Display texts in more than 25 languages
- Support for Latin, Arabic, Bulgarian, Chinese, Cyrillic, Korean, Macedonian and Serbian characters
- Night vision mode

## Keypad / controls

- 4 navigation keys, 3 selection keys
- Function keys F1 and F2
- 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 A-GPS with internal memory
- Power save mode
- GPS activity indicator
- Sensitivity -162 dBm
- Simultaneous satellites up to 12
- Cold start accuracy (open sky)\*
  - 2,5 meters CEP
- Cold start TTFF, time to first fix (open sky)\*
  - < 30 seconds
- \* measured at -130 dBm
- 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
- Waypoints, waypoint guidance
- Showing caller's distance and direction during a call (Where are you?)
- 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 3 000 talk groups
- Up to 200 talk group folders
- 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 1500 DMO groups
- 500 DMO channels
- DMO gateway support
- 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 messages
- DMO SDS messages
- ETSI TETRA type 1A DMO repeater operation (option)

## Messaging

- Status messages
- Text messages with concatenation
- Situation indicators to a predefined address
- Flash messages
- Call-out
- Predictive text input T9\*\*
- Unit alert (Selective alert)
- \*\*for most languages

## Security

- Lifeguard – an advanced man down alarm
- 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

## Interfaces

- Side connector for audio accessories and data
- Bottom connector for charging, carkit, programming and data
- Internal smart card slot
- Connector for external antenna (for carkit)

## Other features

- 500 phone book entries
- 8 profiles: General, Silent, Meeting, Outdoor, Pager, Active holder, Headset and Monophone
- Voice feedback
- Configurable main menu and fast menu
- Configurable function keys
- Transmission barring (Tx inhibit)
- 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
- Vibration alert
- Remote control through SDS or status
- Secondary Control Channel (SCCH)

## Battery

- Li-Ion 1900 mAh (premium battery)
- Li-Ion 4600 mAh (heavy duty battery)
  
- Estimated values for 1900 mAh battery:
  - Up to 16 h (5/5/90)
  - Up to 12,5 h (10/30/60)
  - Up to 22,5 h (standby)
  
- Estimated values for 4600 mAh battery:
  - Up to 36 h (5/5/90)
  - Up to 32,5 h (10/30/60)
  - Up to 48 h (standby)

## Note:

GPS usage affects the above mentioned times.

For more information please contact

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