TH1n pocket-fit TETRA radio

Small size, big performer

The TH1n TETRA radio offers all the best elements of a PMR handset in a slim design that makes it easy to carry. Yet it still packs a full set of features, being robust and delivering a loud and clear voice quality to satisfy even the most demanding users.

TH1n is the first in a completely new class of pocket-sized TETRA radios. Its classy, elegant design, featuring a metallic finish and well-formed, rubber-coated sides, sets it apart from conventional professional mobile radios. The large, bright colour display, familiar from many other Airbus radio models, makes critical information available in a clear, easy-to-read format.

TH1n is ideal for different users, even those who had difficulties to find a small and light enough radio, and those who wear business clothes or light uniforms rather than weatherproof gear.

The TH1n form-factor allows it to be carried in new ways. Slipped into a neck carrying case, pocket clip holder or shoulder holder, it can also be carried in belt and lapel-mounted holsters. When placed in carrying case with a magnetic sensor, the radio automatically changes to carrying mode – by setting both the loudspeaker and the top microphone.

Equipped with appropriate accessories, the slim-line TH1n is also great for covert use.

Lightweight TH1n is a fully-featured professional radio, for anyone who needs the most functional and robust tool. IP65 protection guarantees reliable performance in demanding environments and the class 3L (1.8 W) output power provides extra reach when network coverage is at its limit or when direct mode operation (DMO) is used. The repeater feature in DMO enables teams to build a voice connection between users who might otherwise be out of reach of each other.

And despite its slim profile, the TH1n's two batteries provide use times comparable with any other TETRA radio on the market.

AIRBUS

TH1n TETRA radio

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

Power class
- Compliant EN300392-2 power class 3L (Power class 3L as an option)
- Receiver class A and B
- RF power control, 4 steps of 5 dB, and 1 step of 2,5 dB (option)

Size
- Weight: 160 g
- Dimensions: 116 x 55 x 19 mm

Durability
- Water, dust, according to IP65 class
- Free fall IEC 60068-2-32 Ed (1,5m)
- 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
- Exposure to UV-C radiation

Display
- Transflective 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
- Night vision mode
- Grid menu as default at power-on

Keypad / controls
- Alphanumeric keypad
- 4 navigation keys, 3 selection keys
- Combined Duty key and HI/LO key
- Power-on key, red function key, fast menu key, combined volume control and group selector with back key

A-GPS / GNSS receiver
- A-GPS receiver in 380-430 MHz version
- **GNSS** receiver in 800 MHz version (A-GPS, Glonass, BeiDou/Galileo)
- 1-3 satellite system simultaneously in use with **GNSS**
- 72 channels receiver with **GNSS**
- Sensitivity -162 dBm / -167 dBm
- Simultaneous satellites up to 12 (A-GPS) /**32 (GNSS)**
- Cold start accuracy (open sky)* - 2,5 meters / **2,0 meters** CEP
- Cold start , time to first fix (open sky)* - < 30 seconds / **< 26 seconds**
- * measured at -130 dBm / GPS+Glonass

A-GPS/GNSS features
- Internal memory
- Automatic position saving
- Power save mode
- Positioning activity indicator
- Position information sending on request or on triggers (e.g. time, distance, status message)
- Position information sending during red key calls and public emergency calls
- SBAS augmentation systems (WAAS, EGNOS, MSAS, GAGAN) **in GNSS**
- Waypoints, waypoint guidance
- Showing caller's distance and direction during a call ('Where are you' feature)
- Saving own or caller's waypoint with one key press for Waypoint guidance
- Support for ETSI location information protocol for TETRA (LIP)

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

Direct mode features
- Up to 1500 DMO groups
- 500 DMO channels
- DMO repeater type 1A and 1B communications support, and acting itself as type 1A repeater (optional)
- 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 message, also during a call and even via Repeater/Gateway
- DMO SDS messages
- Network monitoring while in DMO

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

Group communication
- Up to 3 000 groups
  - 9999 group selection shortcuts
- Up to 200 group folders
- Up to 200 talk 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
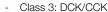- Voice override in group calls (pre-emption)
- Late entry

Messaging
- Status messages
- 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)
- SDS polling

Personal Safety
- Lifeguard – an advanced man down alarm
- Where are you? – Showing caller's distance and direction during a call
- Work Alone
- Position sending during red key calls and public emergency calls
- Configurable emergency button
- Night vision mode

Security
- Authentication and Mutual authentication
- Air Interface Encryption (AIE) security classes:
  - Class 1: Clear
  - Class 2: SCK
  - Class 3: DCK/CCK
  - Class 3G: (requires TETRA SIM card)
- Phone and Security code
- Temporary disable/enable (Stun)
- Permanent disable (Kill)
- 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
- XHTML color browser
- AT-command interface for applications
- Java™ MIDP 2.0 platform

Interfaces
- Side connector for audio and data accessories, programming and carkit
- Bottom connector for charging
- Interface for automatic carrying mode recognition
- Internal smart card slot
- Connector for external antenna
- USB flashing

Usability
- 500 phone book entries with 2 500 unique numbers
- 8 user 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 (locations 2-9)
- DTMF tone dialing
- Any key answer
- Duplex call barring
- Energy economy
- Remote control through SDS or status
- Vibration alert
- Secondary Control Channel (SCCH)

Battery
- Premium Battery BLN-10, Lithium-Ion 1590 mAh (included in sales packages)
- Estimated values:
  - Up to 15,5 h (5/5/90)
  - Up to 13 h (10/30/60)
  - Up to 20 h (standby)
- Heavy Duty Battery BLN-11, Lithium-Ion 3180 mAh (as an accessory)
- Estimated values:
  - Up to 27 h (5/5/90)
  - Up to 22 h (10/30/60)
  - Up to 36 h (standby)
- Charging time 2-3 h (ACP-12, power off)

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