TH9 TETRA radio
Power on hand

The TH9 is a ruggedized TETRA radio with IP65 protection class. Its high output power provides extended coverage. Excellent usability for mission-critical voice and data makes TH9 a powerful communication tool for heavy duty users.

The audio design of TH9 offers clear sound and excellent audibility for voice calls. A large QVGA display shows all critical information and visual icons clearly and sharply. User-friendly Night vision mode optimises the display for dark conditions.

The easy-to-use and intuitive user interface with the unique voice feedback provides extra user comfort. Java™ support enables usage of customer specific applications.

Bluetooth® wireless technology integrated in TH9 enables users to free themselves from wires when using accessories.

Additionally TH9 has two robust connectors: side connector for audio and data accessories and bottom connector for charging, data and programming.

The advanced Work alone and Lifeguard solution (man down) are for better user safety. When Lifeguard is activated and 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 .

Global Navigation Satellite System (GNSS) positioning chip inside TH9 brings extra benefits for the users. These include faster time-to-fix, more accurate and more reliable location information. This is achieved by increased sensitivity and simultaneous usage of two satellite systems (GPS, Glonass, BeiDou or Galileo).

In critical situations it is important to know if additional resources are nearby. The `Where are you?´ feature shows on the radio display during a call how far your team members are. When you press the PTT, they will also see where you are. During emergency call the radio sends its coordinates.

AIRBUS

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Frequency bands
• 380 – 430 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: 284 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, Greek, Korean, Macedonian,
Russian and Serbian
• Night vision mode

Keypad / controls
• 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
• GPS, BeiDou, Glonass and Galileo (SW
update) positioning and position
information sending to infrastructure and
other users
• 1-2 satellite systems simultaneously
• A-GPS with internal memory
• Power save mode
• GNSS activity indicator
• 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
• 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
• 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)
• NMEA output in PEI interface

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 groups
• Up to 200 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: (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
• 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
• Interface for automatic carrying mode
recognition
• Bluetooth® v2.1 EDR for audio and data
(option)

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
GNSS time
• Vibration alert
• Remote control through SDS or status
• Secondary Control Channel (SCCH)

Battery
• Li-Ion 2000 mAh (premium battery)
• Li-Ion 4600 mAh (heavy duty battery)

• Estimated values for 2000 mAh battery:
- Up to 19 h   (5/5/90)
- Up to 16,5 h (10/30/60)
- Up to 25 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:
Note: GPS/Vibra/Lifeguard usage affects the
times mentioned above. Variation in operation
times will occur depending on network settings
and usage. Use of energy economy increases
operation times.