



TH1n POCKET-FIT TETRA RADIO

Small size, big performer



- **Slim and light pocket-fit design**
- **Best-on-the-market usability**
- **Fresh, new user interface style**
- **Large QVGA colour display**
- **Automatic carrying mode recognition**
- **Water and dust resistant according to IP65**
- **Extended radio coverage thanks to class 3L output power and DMO repeater**
- **Java™ MIDP 2.0 platform for applications**

The TH1n TETRA radio from CASSIDIAN® 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 Cassidian radio models, makes critical information available in a clear, easy-to-read format.

A radio for everyone

TH1n is ideal for many different users, including those who have found it difficult to find a radio of the right size and weight to fit their needs, including those who wear business clothes or light uniforms rather than weatherproof gear.

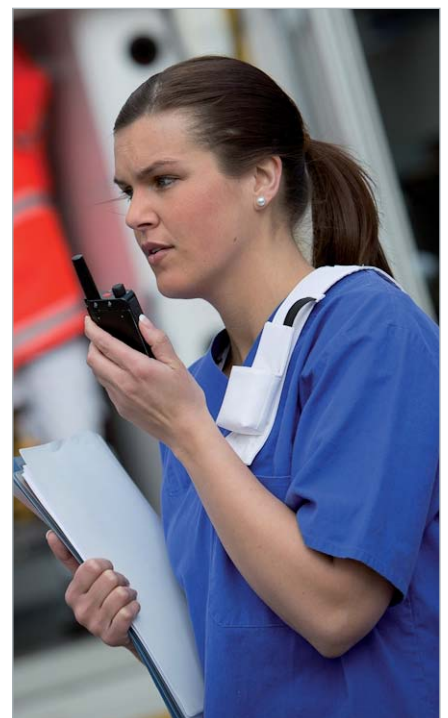
The completely new form-factor allows the TH1n to be carried in new ways. Small enough to be slipped into a neck carrying case, pocket clip holder or shoulder holder, it can also be carried in belt and lapel-mounted holsters. When placed in carrying case equipped with a magnetic sensor, the radio's built-in recognition mechanism switches automatically to active carrying mode - the loudspeaker is switched on and the top microphone is activated to allow convenient use of the radio in its holder.

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

The tool for professionals

Although optimised for light-weight, the 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 output power (1,8 W) 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 battery provides use times comparable with any other TETRA radio on the market.





Easy to use

A professional radio needs to be both responsive and easy to use to help people in their tasks. The TH1n offers a high level of usability, combining simplicity with logical keying patterns and clear menus. Its fresh new graphics style is clear and bright, and the lay-out is optimised and enriched by colours, allowing easy recognition of essential information in any situation.

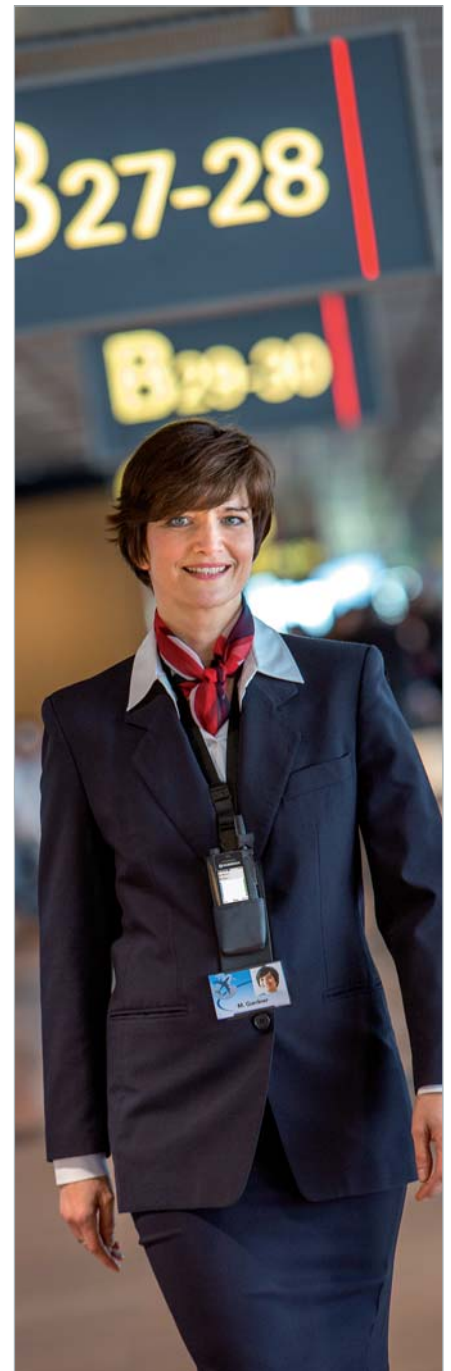
The ability to access and share data in the field is increasingly important and the TH1n enables field operatives to perform data queries and send reports. Users also benefit from the radio's Java™ platform, which offers many types of easy-to-use applications through custom-made user interfaces.

Accessories

There is a wide range of TH1n accessories available in the following categories:

- Audio
- Power
- Carrying
- Installation
- Connectivity

This offering has been designed to meet the specific requirements of different TH1n user groups, including blue and white collar officers as well as health care professionals.



TH1n TETRA handportable radio

Cassidian TETRA Terminals fulfill the following specifications for TETRA radio equipment in the temperature range of -20 °C to +55 °C:
EN 300 392 V+D Air Interface
EN 300 394 V+D Conformance testing
TETRA Speech codec (ACELP) according to EN 300 395

Frequency band

- 380 – 430 MHz

Power class

- Compliant with EN300392-2 power class 3L
- Receiver class A
- RF power control, 4 steps of 5 dB, and 1 step of 2,5 dB

Size

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

Durability

- Water, dust and shock resistant according to IP65 classification

Display

- Full-color QVGA display with fresh UI colors and icons
- Up to 262144 colors with 240 x 320 pixels
- Display backlight off by single key press
- Display reverse (180 degrees by single key press)
- Display texts in more than 20 languages
- Support for Latin, Arabic, Cyrillics and Korean character set
- Nightvision mode
- Grid menu as default at power-on

Keypad / controls

- Alphanumeric keypad
- 4 navigation keys, 3 selection keys
- HI/LO key for loudspeaker control
- Power-on key, red function key, duty key, fast menu key, combined volume control and group selector with back key

GPS receiver

- GPS activity indicator
- Automatic position saving
- 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
- NMEA routing to serial port
- Network-based terminal assisted positioning
- Support for ETSI location information protocol for TETRA (LIP)

Call types

- Phone calls in TETRA networks
- Phone calls to public network
- 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 and 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)
- Re-broadcast of group and emergency groups calls on configured DMO groups

Messaging

- Status messages
- Text messages with concatenation
- Situation indicators to a predefined address
- Flash messages
- Predictive text input T9*
- Unit alert (Selective alert)

Security

- Lifeguard – an advanced man down alarm
- Authentication
- Mutual authentication
- Air Interface Encryption (AIE) security classes:
 - Class 1: Clear
 - Class 2: SCK
 - Class 3: DCK/CCK
- Phone and Security code
- Temporary disable/enable (Stun)
- Permanent disable (Kill)

* for most languages

- Transmission barring (Tx inhibit)
- 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
- 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

Other features

- Voice feedback
- Configurable main menu
- Configurable fast menu
- Configurable function keys
- Speed dialing (one-touch dialing, locations 2-9)
- DTMF tone dialing
- Any key answer
- Duplex call barring
- Multiple network support
- Aliasing
- Energy economy
- Clock synchronisation with network and/or GPS time
- Vibration alert
- Remote control through SDS or status
- Secondary Control Channel (SCCH)

Battery

- Premium Battery BLN-10, Lithium-Ion 1590 mAh (included in sales packages)
- Heavy Duty Battery BLN-11, Lithium-Ion 3180 mAh (as an accessory)
- Estimated values for 1590 mAh battery (with 1W output power):
 - Up to 13 h (5/5/90)
 - Up to 11 h (10/30/60)
 - Up to 19 h (standby)
- Estimated values for 3180 mAh battery (with 1W output power):
 - Up to 22 h (5/5/90)
 - Up to 19 h (10/30/60)
 - Up to 34 h (standby)
- Charging time 2-3 h (ACP-12, power off)

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

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