



## TB3c TETRA BASE STATION

Uncompromising coverage, ultimate flexibility

The TB3c transportable TETRA base station from Cassidian offers easy installation and better coverage than any other transportable TETRA solution. With outstanding receiver sensitivity and a high output power, the TB3c provides the seamless service needed to co-ordinate and safeguard field personnel.

In crisis situations, the TB3c can be configured to provide an all-in-one transmit/receive antenna solution, allowing emergency response coordinators to deploy the base station rapidly. The small size of the TB3c simplifies site acquisition and allows easier installation in fixed installations.

The modular design and built-in redundancy of the TB3c ensures maximum resilience, while the trunked group communication feature helps keep everyone in touch when the connection with the core network is lost.

The TB3c is extremely cost-effective and, in common with all Cassidian base stations, supports a variety of network topologies.

With Cassidian TETRA, software updates can be downloaded to base stations remotely, which enables easy configuration of the TB3c for temporary use without needing high levels of engineering expertise in the field. Software upgrades also reduce the need for site visits when the TB3c is used as a fixed base station.



### Characteristics

- Frequency band:
  - TB3c 350: 350-368 MHz
  - TB3c 380: 380-400 MHz
  - TB3c 410: 410-430 MHz
  - TB3c 800: 800-869 MHz
- Max. TBS power: 40 W (with combiner bypass configuration)
- Max. power at TTRX output: 65 W
- Guaranteed dynamic sensitivity at top of cabinet: < -112 dBm (TCH 7.2, BER 4 %, TU50) without diversity
- Guaranteed static sensitivity at top of cabinet: < -119 dBm (TCH 7.2, BER 4 %) without diversity
- Receiver class: Class A and B ETS300 3922
- Diversity reception: Maximum ratio combining (MRC) improving the uplink budget by between 3 and 8 dB compared to single receiver antenna solutions
- Duplex spacing:
  - 10 MHz, TB3c 350
  - 10 MHz, TB3c 380
  - 10 MHz, TB3c 410
  - 45 MHz, TB3c 800
- Carrier spacing: 25 kHz
- Combiner options:
  - Auto tune combiner
  - Wideband hybrid combiner with duplexers
  - Combiner bypass with duplexer

- Supply voltage options
  - 230 VAC (184 VAC...276 VAC)
  - -48VDC (-36 VDC...-60 VDC)
- Power consumption:
  - 0.3 kW with one TTRX at 65 W/100% duty cycle
  - 0.5 kW with two TTRXs keyedPower consumption varies according to the traffic volume.
- Width x Height x Depth: 600 x 880 x 500 mm
- Weight: less than 100 kg
- Operating temperature (ambient): Between -10°C and +55°C
- TBS transmit mode: Downlink continuous (DCT) (as specified in the TETRA standard)
- O&M functions
  - Remote and local configuration
  - Remote and local alarm handling
  - Remote and local software downloading
  - Remote and local test services. 36 alarm inputs. 8 remote outputs

### Additional base station features

- Superior and versatile coverage solutions
- Intelligent radio resource management
- Enhanced fallback
- Standalone mode
- Automatic main control channel changeover
- Air to ground cell range up to 83 km
- Modular design for redundant base station main units
- Jamming detection
- Dynamic air encryption with two simultaneous encryption algorithms
- Adaptive random access window for congestion control
- Additional signalling channel for Automatic Vehicle Location
- Load-directed roaming
- Dynamic channel allocation between voice or packet data
- Optional Global Positioning System (GPS)
- TETRA Enhanced Data Service (TEDS)
- Secondary Control Channel



### CASSIDIAN

Landshuter Str. 26  
85716 Unterschleissheim - Germany  
Tel.: +49 (0) 89.3179-0

[www.cassidian.com/tetra](http://www.cassidian.com/tetra)

### CASSIDIAN

Hiomotie 32  
00380 Helsinki - Finland  
Tel.: +358 10 4080 000  
e-mail: [securenetworks@cassidian.com](mailto:securenetworks@cassidian.com)

### CASSIDIAN

MetaPole  
1, boulevard Jean Moulin  
CS 40001  
78996 Elancourt Cedex - France  
Tel.: +33 (0)1 61 38 50 00