



# SECURE MOBILE RADIO

## Omnisec 207 F1710/F2710



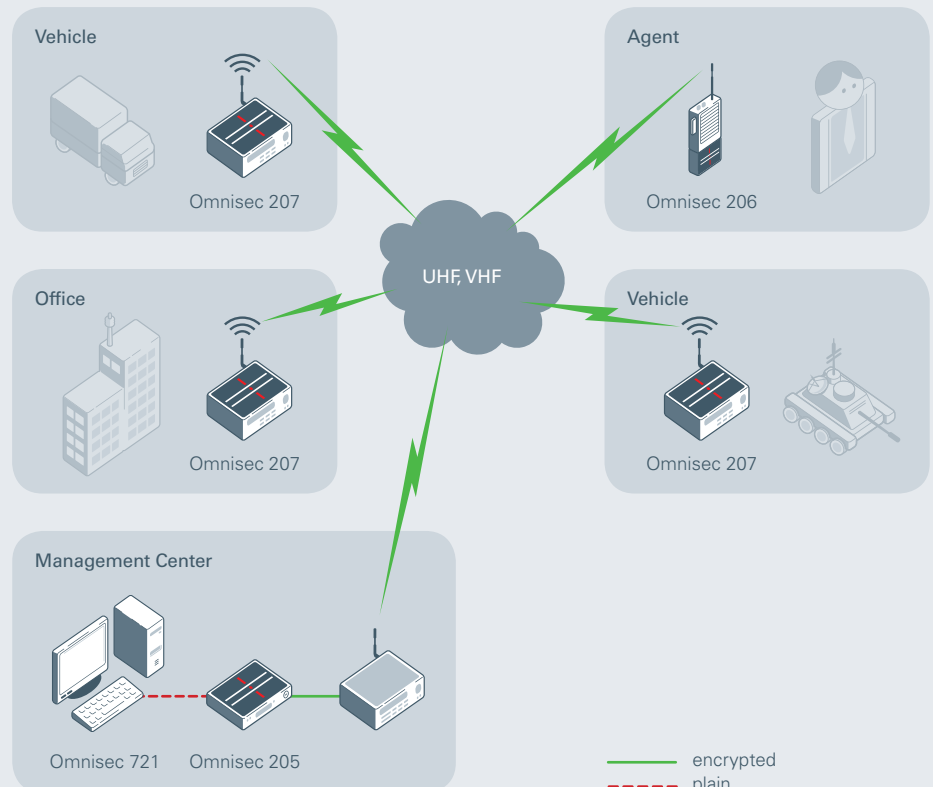
The ground-breaking Secure Mobile Radio Omnisec 207 exemplifies Omnisec as the world's leading supplier of maximum-security, high-quality (ISO 9001 approved) communication solutions.

Radio communication security is based on the security architecture **OmniCrypt™**, in which unique, short-lived Session Keys are generated from secret, long-lived Master Keys stored in the built-in **Security Module**. The Management Center facilitates the definition of user groups and allows over-the-air rekeying.

Customers are invited to assess and verify for themselves the implemented encryption procedures and algorithms.

The **Secure Mobile Radio Omnisec 207** represents a new approach to secure mobile radio communication. It is a rugged, reliable 2-way communication tool providing the highest level of security by means of an in-built authentication and voice encryption functionality.

The **Omnisec 207** is designed for mobility and flexibility, while at the same time making perfect use of an existing analog radio infrastructure (e.g. analog radio repeaters), offering superlative voice quality, extended range, unsurpassed confidentiality, and ease of installation. It offers advanced features such as a wide frequency range, multiple signaling and loud audio. Compatible to the well-proven Omnisec 205 and Omnisec 206 it embeds perfectly into a possibly already existing infrastructure secured with Omnisec equipment.





# Secure Mobile Radio Omnisec 207 F1710/F2710

## Features of Release 2.6

Complies with security architecture OmniCrypt™

### Encryption

- Proprietary highly-secure stream cipher
- Implementation of parameters for customer-specific encryption algorithms
- Very fast and robust synchronization with late-entry capability
- No error propagation
- Key length: 256 bits
- Key diversity:  $10^{77}$

### Key Management

- Flexible definition of up to 16 user groups
- Remote over-the-air rekeying (OTAR)
- Remote key erasure function

### Operational Features

- Highly-secure digital voice transmission
- Allows immediate transmission
- Excellent voice quality even in the presence of strong interference
- Coverage area as large or under certain conditions even larger than without encryption

## Management Tools

- Management Center Omnisec 721
- Designed to run on Windows 7, Vista, XP

## Options

- External antenna
- Separation kit for car installation

## Technical Data

### Major Technical Data of the IRCM

- Type of Modulation: C-OFDM (coded OFDM)
- OFDM Bandwidth: 2250...2700 Hz
- Coding: proprietary signal code construction with configurable robustness
- Decoding: maximum-likelihood
- Forward error correction: outer coding with Reed-Solomon and interleaving
- Error detection: CRC algorithm
- Voice Compression: AMBE (Advanced Multi-Band Excitation)
- Vocoder rate: 2 000 bit/s
- Reliability: MTBF (MIL-STD-217F, Notice 2, at  $t_{amb} = 20\text{ }^{\circ}\text{C}$ ): >50 000 h

### Major Technical Data of the Mobile Radio

- Frequency Range Omnisec 207 F1710: 136 - 174 MHz
- Frequency Range Omnisec 207 F2710: 400 - 470 MHz
- Number of channels: 256 channels/32 zones
- Output power: 25 W
- Antenna impedance: 50 Ohms
- Usable temperature range:  $-25 \dots +55\text{ }^{\circ}\text{C}$
- Power requirement: 13.2 V DC nominal
- Dimensions: w x h x d: 175 x 45 x 170 mm
- Weight: approx. 1.5 kg
- Mounting bracket: included
- Optional accessory: Vehicle Installation Kit

For additional information please refer to the corresponding radio manual.

## Engineering Support

Omnisec is prepared to support you in designing an optimal solution for your needs. We can help you analyze your environment, select and install your secure radio equipment (repeaters, antennas, etc.), and train your personnel in its use.

We strive to continuously improve our offerings and therefore reserve the right to change specifications without notice.