

R&S®SECOS 5/16 TDMA

SECURE EPM COMMUNICATIONS SYSTEM

The R&S®SECOS 5/16 TDMA waveform is a frequency hopping waveform solution with electronic protection measures (EPM/ECCM) for VHF/UHF radiocommunications.

In modern defense communications scenarios, radio-communications are extremely vulnerable to intentional or unintentional eavesdropping, intrusion and jamming. With an ingenious concept, R&S®SECOS protects communications and thus contributes to securing transmission. The waveform supports secure and jam-resistant voice and data communications in single-channel and TDMA modes. R&S®SECOS supports user-specific encryption (COMSEC) and customizable frequency hopping methods (TRANSEC). Embedded management encryption allows the safe loading and distribution of operational mission data. The waveform is integrated into almost all Rohde&Schwarz radio platforms.

Key facts

- ▶ Integrated COMSEC and TRANSEC algorithm
- ▶ Operational flexibility: available on airborne, stationary and ground tactical radios to enable seamless communications scenarios
- ▶ High communications security: fast, robust, replay-proof and jam-resistant synchronization schemes
- ▶ Communications flexibility: applicable in various frequency bands
- ▶ Easy to use

The R&S®SECOS waveform stands out with the following characteristics:

High security

- ▶ Proprietary user-specific algorithm for COMSEC, COMSEC/TRANSEC and waveform management
- ▶ Inherent time authentication, replay-proof
- ▶ Supports various orthogonal hopping schemes



R&S®SECOS 5/16 TDMA secures your mission.

TRANSEC mode

- ▶ Frequency hopping
- ▶ Frequency range: radio-dependent, user-selectable (tactical VHF (TVHF), VHF, UHF)
- ▶ Various dwell times

Communications features

- ▶ Break-in
- ▶ Hailing

Robustness

- ▶ Fast synchronization times
- ▶ Hop tracking
- ▶ Long autonomous operation time

Communications modes

- ▶ Voice and data communications with 16 kbps as standard in single-channel mode
- ▶ Data communications in TDMA modes with user-defined allocation of TDMA slots



The R&S®SECOS waveform suite includes the following configuration, management and maintenance components:

R&S®KMC3750 key management center

The R&S®KMC3750 is the key generation and management tool. The tool allows configuration of all security-relevant functions such as encryption, access control and generation of cipher keys for the communications network.

R&S®FMC3750 frequency management center

The R&S®FMC3750 is a software package used to manage all the frequencies used for operation and specific communications scenarios. This ensures correct and interference-free operation. The high flexibility allows secure communications to be adapted to specific current needs.

R&S®WOF HCM 370x workshop field

The R&S®WOF HCM 370x workshop field is a maintenance tool for configuring and checking the embedded EPM controller while it is installed in the radio. The workshop field allows encrypted downloads of user-specific waveforms.

R&S®DS3750 waveform application for R&S®SECOS

The R&S®DS3750 includes the customized R&S®SECOS waveform. The application is ready to be downloaded into R&S®SECOS radios.



R&S®FMC3750 frequency management center.

ORDERING INFORMATION

Designation	Type	Order No.
R&S®SECOS 3750 TDMA system suite		
Key management center	R&S®KMC3750SW	6207.4301.02
Key management center security module	R&S®KMC3750SM	on request
R&S®FMC3750 frequency management center	R&S®DS3190	6146.4943.24
R&S®WOF HCM 370x workshop field	R&S®CP1000	6207.4353.02
Security module for R&S®WOF HCM 370x	R&S®CP1000SM	on request
R&S®SECOS waveform application	R&S®DS3750	on request
Key distribution device		
Key distribution device	R&S®KDD3750	6207.3005.75

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PD 3608.9024.32 | Version 02.00 | December 2021 (ch)
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