THALES

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TACTICAL VEHICULAR RADIO STATION
MASTER NETWORK CENTRIC TRANSFORMATION

- NATO, Coalition and National missions
- Accelerating Collaborative Combat
- Secure High Data Rate networking
- Multi-service, open interfaces, BMS/C2 ready
- Large robust graphical touch screen – Icon-based

RADIOCOMMUNICATION PRODUCTS AND SOLUTIONS

SYNAPS-T
Vehicular Station V/UHF SDR 50 W

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SYNAPS-T Vehicular Station V/UHF SDR 50 W is part of the SYNAPS Networking SDR Family designed for network centric transformation and connects battlefield BMS/C2 application.

SYNAPS-T provides High Data Rate secured against jamming with frequency hopping both in VHF and UHF, transverse and geographical user services to accelerate the tempo of the manoeuver as well as collaborative combat capabilities.

SYNAPS-T is multi-mission ready, both in national or international coalition operations, supporting a comprehensive set of interoperability waveforms for Legacy, Coalition and NATO radios.

SYNAPS-T reduced form-factor and embedded agile co-site filters allow easy mechanical and electromagnetic integration into vehicles.

MULTIMEDIA SERVICES - HIGH DATA RATE

Thanks to GeoMux HD (VHF) and ESSOR (UHF) High Data Rate MANET waveforms, **SYNAPS-T** provides the users on the field with simultaneous, independent and secure services such as combat voice, video, IP data, messaging, chat, SMS, geographical BFT (Blue Force Tracking) and alerts.

These MANET waveforms allow automatic split/merge and late entry to match with operational battlefield requirements.

Unique GeoMux transverse BFT capabilities shared over different VHF nets avoids friendly fires between adjacent units.

SYNAPS-T natively supports Ground-Air coordination with helicopters for fire support as well as DaCAS through connection of an IDM modem.

MANOEUVER

MANOEUVER GEO (VHF) and COMMAND/COMBAT (UHF) waveforms provide the **SYNAPS-T** users with High Data Rate and unique collaborative engagement capabilities. It includes automatic insertion of combat and helicopters fire support units with split/merge and late entry features.

SYNAPS-T with MANOEUVER waveforms supports hierarchical, as well as transverse and geographical end-to-end services including multiple combat voice channels, messaging with reliable forwarding, Communities of Interest (CoI) as well as IP data, video, chat, SMS, BFT (Blue Force Tracking) and alerts.

Thanks to SYNAPS MANOEUVER waveforms shared over the **SYNAPS-T** and SYNAPS-V 2-channel radios, users can access to all other SYNAPS users in a secure way, without deciphering, whatever they are in MANOEUVER VHF or UHF waveforms. **SYNAPS-T** thus displays extended operational range and battlefield transverse connectivity, coupled with embedded high RF performance and interference protection hardware capabilities.

EASY TO INTEGRATE, SETUP AND OPERATE

SYNAPS-T can be easily integrated with BMS and C2 application thanks to IP open interfaces and a suite of advanced radio services.

SYNAPS-EASY mission preparation graphical tool allows simple and automated network planning based on order of battle and information exchange requirements.

SYNAPS-T is easy to operate thanks to a large robust graphical touch screen, icon-based. Web server feature allows remote control and monitoring of the radio.

Main Features

General Characteristics

ESSOR SCA architecture – SCA 2.2.2 compliant, SCA 4.1 ready
Frequency range: VHF 30-108 MHz - UHF 225-512 MHz
RF output power: 50 W
Channelization: 8.33 kHz, 12.5 kHz, 25 kHz, 50 kHz, 75 kHz, 250 kHz, 500 kHz, 1.25 MHz (others on demand)
Built-in GNSS receiver
Embedded agile co-site filters
NATO Restricted product variant
Embedded programmable crypto module

SYNAPS-WAVE (Waveform Library)

Advanced national networking waveforms

- ESSOR HDR – UHF Wideband
- GeoMux (incl. High Data Rate – up to 160 kbps) - VHF
- MANOEUVER GEO – VHF
- MANOEUVER COMMAND/COMBAT – UHF
- AIRPOWER-I (Ground to Air) (future) – UHF

PR4G, F@stnet and NextW@ve native interoperability

International Coalition and NATO waveforms

- Tactical VHF and UHF, Stanag 4204 and 4205
- ESSOR HDR – UHF Wideband
- NATO NBWF (future), COALWNW (future)

SDR Lab for waveform development and porting

Interfaces

Large robust graphical touch screen - Icon-based
Voice: standard analog and digital (VoIP)
Data: USB Host device and ethernet/IP
Control : SNMP v3 – Web server
GPS: embedded + external MIL GPS connection
Power supply: 28 V DC (18-33 V DC) - MIL-Std-1275D

Physical and Environmental

Weight: 15 kg
Size (WxHxD): 221 x 148 x 380 mm
Environmental and EMC: MIL-Std-810G, MIL-Std-461F

Ancillaries

Mounting tray
Dual band V/UHF antennas
Windows/Android remote control (smartphone, tablet…)

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