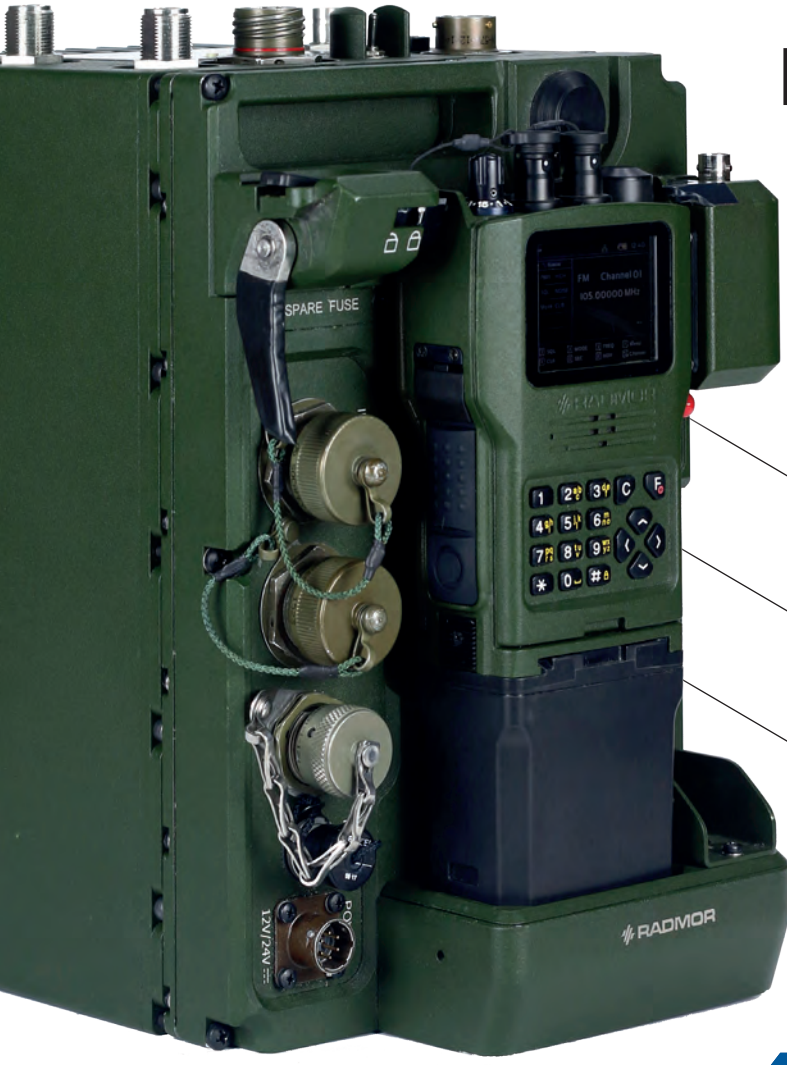
WB GROUP

SOFTWARE DEFINED RADIO

Mobile COMP@N

Radio Communications
of the Future



VERSATILE

FLEXIBLE

CUSTOMIZED TO MISSION REQUIREMENTS

Wide range of functionalities:

- Basic e.g. voice transmissions broadcast
- Complex e.g. MANET radio / all available functions

Within the family of COMP@N radios it is possible to choose between different waveforms (WF) and range of supported frequencies.

Handheld COMP@N radios can be connected to the vehicle adapter and power amplifier to create mobile or stationary set.

Mobile adapter is a device which enables the use of COMP@N handheld radio in vehicles (e.g. light tanks, transporter vehicles). This set provides a secure attachment and a possibility for easy removing of the radio, without outages. After installing the radio in the adapter, it is being automatically switched to work with vehicular data communications system and power amplifier (if such is installed). In such set, a radio is powered via an adapter with the onboard network of the vehicle, while ensuring the charging of its battery from vehicular power supply. The adapter also provides an access to interfaces of the radio through a dedicated connectors, enabling further integration with on-board systems.

Mobile set, which consists of handheld COMP@N radio mounted in vehicular adapter, can be extended with power amplifier. It allows to work with maximum power 50 W, which significantly increase radio range. The amplifier is powered from the vehicular power supply and is designed for all the COMP@N family radios.

The basic parameters of the amplifier

frequency range	**30-520 MHz**
input voltage	**17÷33 V**
maximum output power	**50 W**
dimensions	**270 x 180 x 187 mm**

The amplifier and adapter can be installed in the vehicle either as a separately mounted devices (e.g. spaced apart to several meters), and as one integrated set.

General specification of the COMP@N platform

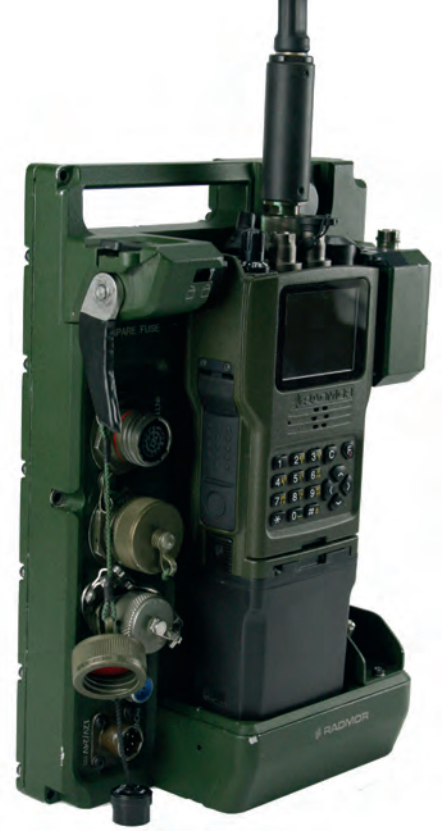
FM/AM fixed frequency	modulations	FM, AM
	transmission modes	F3E, A3E
	channel	FM: 25 kHz
		AM: 8.33 kHz, 25 kHz
	Squelch	
	№ of channels	1000
	Scan	
	FCS (free channels search)	
General	a large color display	
	auto backlight intensity regulation	
	menu	
	double PTT button	
	backlit keybord	
	Emergency Clear button	
	build-in GPS receiver	
	dimensions (with amplifier & adapter)	270 x 180 x 277 mm
	weight	~ 15 kg
RF	frequency range	30 ÷ 520 MHz
	output power	up to 50 W
	suppression of harmonics: > 50 dBc	
	frequency stability: ± 1 ppm	
	sensitivity: - 116 dBm (SINAD 20 dB)	
	adjacent channel selectivity ≥ 50 dB	
Interfaces	Audio / PTT	
	RS232	
	Ethernet 10/100	
	USB	
	Side Connector (to work with COMP@N accesorries)	
Enviromental parameters	operational temperature	-32°C ÷ +55°C
	MIL-STD-810G	
	EMC MIL-STD-461F	

COMP@N H07 Waveforms

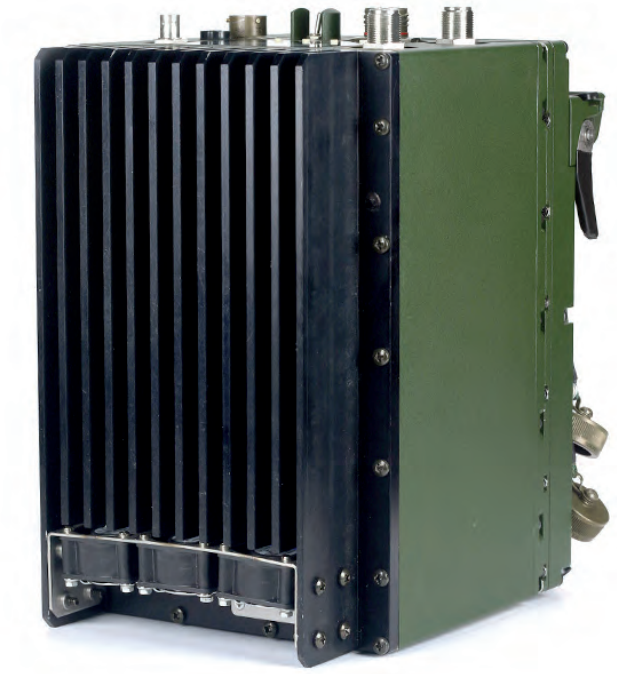
DV	operating modes	FH (Frequency Hopping): 100 hop/s
		FF (Fixed Frequency)
	digital voice transmission	
	channel 25 kHz	
	security (AES-256 based)	TRANSEC
		COMSEC
	pre-defined profiles with set of mission parameters (radio data, encryption keys)	
RSD	channel 25 kHz	
	capability to enter data via Ethernet or serial port	
	capability to transmit GPS reports	
	modulation	π/4 DQPSK
	data rate	up to 40 kb/s

COMP@N H09 Waveforms

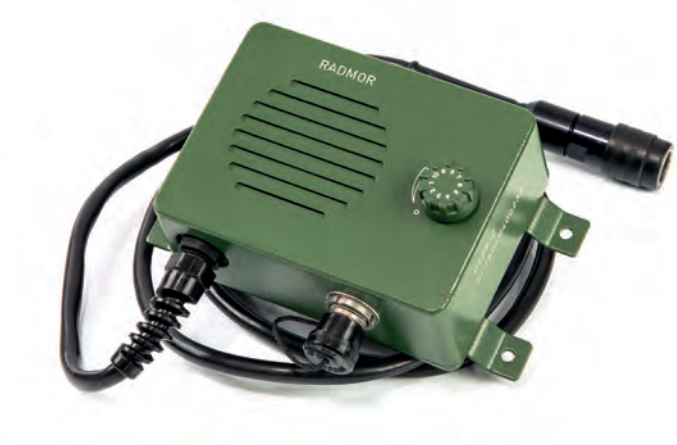
BMS IP WF	MANET class waveform	mobile self-configuring and self-organazing network	
		extended range of services (retransmission within waveform – multihop relay)	
		operation in IP networks, build-in IP router, QoS supporting	
W2FH	EPM (Electronic Protective Measures) class waveform	LPD (Low Probability of Detection)	
		LPI (Low Probability of Interception)	
		AJ (Anti-Jamming)	
	operating modes	FH (Frequency Hopping, 300 hop/s)	
		FF (Fixed Frequency)	
	simultaneous voice and data services		
	voice services	digital voice (np. MELPe 2400, CODEC2)	
		group calls	
		priviledged users	
		priority calls (break-in)	
		multi-hop voice	
	data services	IP data	
		Serial data	
		SA (Situation Awareness) messages	
		GPS reports	
		short text messages	
		sensor data	
		files, video, pictures, mail transmission supporting	
		data retransmission	
	synchronization without GNSS (e.g. GPS)		
	modulation	CPM	
	channel	50 kHz / 25 kHz	
	security (AES-256 based)	TRANSEC	
		COMSEC	
		NETSEC	
	data rates	BMS	up to 40 kb/s
		W2FM	up to 26 kb/s
	definable frequency range and sub-bands		
	pre-defined BMS IP WF or V2FH profiles with set of mission parameters (radio data, encryption keys)		
	operational in radio silence mode		
	number of networks	20	



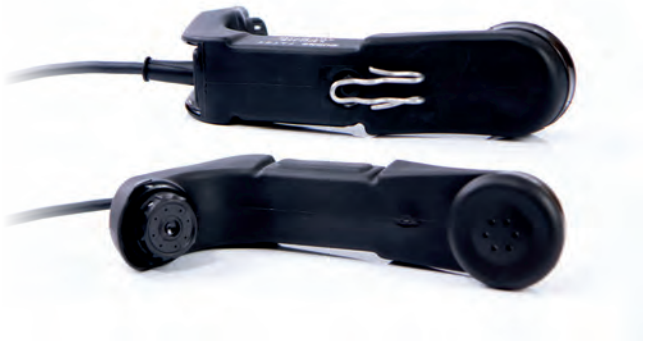
Mobile adapter with radio



Power amplifier



External loudspeaker



Handset

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