

DICOM® RF4050

VHF/UHF vehicular/base radio

- 30 MHz to 512 MHz frequency range
- True MANET network in VHF/UHF
- Simultaneous voice and IP data
- Virtual voice channels
- Multiple waveforms support
- Position reporting system (GPS, Galileo, GLONASS, Beidou)
- AES based COMSEC
- Up to 50 W power output
- Compact and robust design
- Jerk and Run support
- Vehicle Intercom interface
- 10 to 33 VDC power supply
- Mission Modules support
- Up to two internal co-site filters
- Legacy systems compatibility



The RF4050 multiband, multirole VHF/UHF vehicular/base radio is designed for communication on the tactical level of command of all services.

The RF4050 is intended for installation in all tracked and wheeled vehicles and base stations. The core component of the RF4050 is the RF40 handheld radio. To maintain communications in dismount operations, the system's "jerk-and-run" capability allows the handheld radio to be quickly removed and used separately.

Variety of waveforms

FM/AM - voice modes according to STANAG 4204/4205 support legacy ground-to-ground and ground-to-air communication.

WF40 - full fledged COMSEC-secured MANET-type network for voice and data communication in VHF and UHF with automatic rebroadcasting capability over several hops in only 250 kHz wide radio channel offering up to 270 kbit/s capacity for data.

This modern software defined radio platform is open for further legacy and custom waveform porting.

Mission Module

Expands the radio features according to actual mission needs. Open platform for installation of custom specific devices of different types. E.g., the MM40WR Mission Module offers a second independent broadband radio channel for voice and data transmission in MANET-type network. Available in L-band or S-band frequency configuration allowing data transmissions in dozens of megabits depending on the radio channel bandwidth setup.

GNSS

Built-in GNSS receiver for GPS, Galileo, GLONASS and Beidou systems with automatic despatch of positional reports (PLI) on the background of voice or data communication.

Co-site performance

The transceiver is manufactured with or without a co-site filter (option). Integrated co-site filters make it possible to operate multiple radios simultaneously at one site.

Intercom

The RF4050 provides interface for connection to vehicle intercom systems (e.g. VICM200 Combat).

RF4050 Recommended Kit Composition

- RF40 handheld radio
- VA40 vehicular amplifier
- Frame - increased mechanical resistance of the vehicular/base radio to mechanical stresses.
- Antenna
- Handset
- Handset holder
- Cables (Power cable, RF cable (ANT), RF cable (GPS))

This is a recommended configuration of the RF4050 radio. The actual kit is composed according to the customer's specification and is defined in the contract.

Technical parameters:

Frequency range		30 MHz to 512 MHz
Modulation type		FM, AM, CPM
Transmission power		max. 50 W
Supply voltage range		10 V to 33 V (MIL-STD-1275E)
Power Consumption	Transmission RF 50 W	max. 290 W
	Reception	max. 30 W
Channel bandwidth		25 kHz, 250 kHz
Waveforms		FM/AM (STANAG 4204/4205)
		WF40 (VHF/UHF MANET waveform)
Communication security		AES
GNSS receiver		built in (GPS/Galileo/GLONASS/Beidou)
Data interfaces		Ethernet, USB
Environmental		
Dimensions		202 mm x 220 mm x 226 mm
Weight		max. 10 kg
Operating temperature range		-30 °C to +60 °C
Environmental specification		MIL-STD-810G
EMC specification		MIL-STD-461F

* option



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