

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 has been specifically designed for communication purposes at the tactical level of command across all services.

This radio is intended to be installed in all tracked and wheeled vehicles, as well as base stations. The core component of the RF4050 is the RF40 handheld radio. To maintain communication in dismount operations, the system's 'jerk-and-run' capability permits the handheld radio to be easily detached and used independently.

A range of waveforms

FM/AM - voice modes supporting ground-to-ground and ground-to-air communication according to STANAG 4204/4205

WF40 - a comprehensive COMSEC-secured MANET network providing voice and data communication in VHF and UHF. It boasts automatic rebroadcasting capability over several hops within a radio channel of only 250 kHz, delivering up to 270 kbit/s data capacity.

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

Mission Module

This optional module extends radio capabilities to match current mission needs. The platform is open for custom specific device installation of various types, such as additional independent broadband radio channels, sensors, routers, processing units, or similar.

GNSS

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

Co-site performance

The transceiver is available with or without an optional co-site filter. The integrated co-site filters enable the operation of multiple radios at the same location/vehicle.

Intercom

The RF4050 offers an interface for connecting to vehicle intercom systems, such as the VICM200 Combat.

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

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 specific kit is tailored to the customer's requirements and defined in the contract.



551-10/23/EN



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