DESCRIPTION

VRC-411/E system is a direct sequence spread spectrum radio designed and manufactured for establishing communication in the UHF1 frequency band. Due to the method used in this radio i.e. expanding the frequency spectrum in a wider bandwidth and decreasing power level of transmitter and as a result hiding radio signal under the noise level, the signal is prevented from being monitored by enemy for eavesdropping and jamming. A keypad includes handset is designed for the radio to set the system parameters and establishing voice communication. In addition, parameters of the system can be set via the GUI software. One important capability of the VRC-411/E radio is to network 6 systems as the TDMA for data transmission. In this network, one system is Master and other 5 systems are Slaves, whereas voice is transmitted normally in broadcast mode.

General specifications	
Frequency range	225~400 MHz
Signal bandwidth	10MHz
Data transmission rate	4800, 9600, 19200 bps
Maximum ratio of wideband jamming to the signal in minimum S/N	17dB
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Process rate	in data transmission rate of 19200: 24dB in data transmission rate of 9600: 27dB in data transmission rate of 4800: 30dB
Expander code type	Long
Synchronization code type	Long
Transmission delay	<500msec
Communication type	Simplex, Half-duplex
Supply	24V
Output port	RS-232
Modulation type	QPSK
Channel Accessibility	DSSS
Transmitter specifications	
Output power	maximum 20W (adjustable in three levels)
Harmonic rejection	better than 50dBc
Receiver specifications	
Receiving sensitivity	(BER=10E-5) -108dBm
Maximum receivable signal level	-15dBm
Noise figure	8dB
Image rejection	better than 50dBc
IF rejection	better than 50dBc
Physical & environmental specifications	
Maximum speed	60km/h
Operating temperature	-33°C ~ +65°C
Vibration standard	MIL-STD-810F
Dimension	100×315×290 mm
Weight	about 10kg
Case material	aluminium