



VRC-220/E

VHF Vehicular Radio Communication System

VRC-220/E Software Defined Handheld Radio Communication System is a tactical secure radio with capability of establishing voice/data communication in fixed/hopping frequency mode. This radio is compatible with VHF/LB analog radios in frequency band of 30-88MHz. There are four selectable power levels (Low, Medium, High, and Very High) considered in the radio so that it covers a wide transmission range. In addition, Fixed/Hopping frequency mode, Code/Plain voice and data transmission, SMS sending, Various types of analog/digital modulations, establishing selective/group/broadcast communication, Software upgrading/programming, Hailing/Plain override/Late Entry, GPS, network connection, and remote controlling (via the RS-485/LAN/ISDN) are the other capabilities of the VRC-220/E.

General specifications

Frequency band.....	30~88 MHz
Frequency channel spacing.....	12.5/25 KHz
Frequency stability.....	±1PPm
Number of preset channels.....	100 channels
Supply.....	23-28 VDC
Data transmission rate.....	up to 9.6Kbps
Modulation type.....	FM/QPSK/CPM/FSK
Vocoder type.....	MELP/CVSD/AMBE
Voice/data operation type.....	FIX FREQUENCY (CLEAR/CIPHER) FREQUENCY HOPPING (CIPHER)
Antenna type.....	Rod

Receiving specifications

Sensitivity.....	-117dBm/12dB SINAD
Adjacent channel rejection.....	>60dB
IF rejection.....	>70dB
Image rejection.....	>70dB
Audio distortion.....	less than 5%

Transmitting specifications

Transmitter power.....	0.5W-5W-10W,20W,40W ±1.5dB
Harmonic rejection.....	-50dBc
Spurious signal rejection.....	-60dBc
Modulated frequency change.....	5.5±1.0 KHz

Physical & environmental specifications

Dimension (W×H×D).....	280×190×280 mm
Weight.....	less than 14kg
Operating temperature.....	-25°C ~ +65°C
Storage temperature.....	-40°C ~ +65°C
Environmental standard.....	MIL-STD-810F
EMC standard.....	MIL-STD-461F