



Software Defined Radios (SDR)

Based on its software configurable architecture, SDR ensure clear or encrypted voice and data communication in VHF and UHF frequency bands (30-512 MHz) as well as full automatic integration with tactical and strategic networks to provide “cellular phone” services to tactical users. The radio transceiver features a 96x 64 graphical LCD display and a 3x6 keypad for easy man machine interface. The menu structure and controls are very similar to cellular phones for ease of use and training. SDR ensure increased survivability against Electronic Warfare threats by providing alternative communication functions compared to conventional radios. The Software Defined Radio is equipped with highly secure communication methodology owing to its Frequency Hopping feature, which makes the communication immensely cumbersome to be detected on the wireless channel. Various radios waveforms operating in different frequencies and modulations (FM, AM) can be utilized by means of the software running on the radio. The SDR has the capability of creating a 30 channels TDMA packet switched network.

The scheme implemented for TDMA networking is DSSS which further increases its robustness against eavesdropping and jamming. With this software, SDR support short and medium range tactical radio communications (CNR), Narrow Band Packet Radio (NBPR), Wide Band Packet Radio (WBPR) and Mobile Telephone (SCRA) functionalities and advanced Electronic Counter Counter Measures (ECCM) techniques on the same platform. Software Defined Networking Radio architecture which support many waveforms can be software upgraded for new waveforms or features. NRTC Remote Control System (RCS) is designed to control 3 Manpack /Vehicular Software Defined Radios (SDR) and to make voice and data communication with these radios up to 3 KM distance from the operator through two –wire cable connection in the tactical field.



Software Defined Radios (SDR)

Features

Handheld

Multiband Multimode Radio

- Multi band Multimode
- AM/FM QPSK
- Software Programmable Architecture
- Easy Man Machine Interface
- Built-in-Test (BITE)
- Remote Control Interface
- Emergency Erase
- Full duplex voice/data
- Simultaneous voice and data
- Advanced Electronic Protection Measure (EPM) Techniques
- Frequency Hopping (full band 30-512 MHz)
- Direct Sequence Spread Spectrum (DSSS)
- High data rate upto 64 kbps
- IP packet data service (variable 64 kbps full duplex)
- ITU-T V.24/V.28 and Ethernet interface
- 14.4 Li-ion (Rechargeable) Battery
- 1300 preset channels

Manpack

Multiband Multimode Radio

- Multi band Radio 30-512 MHz Transceiver AM/FM QPSK
- Software Programmable Architecture
- Remote Control Interface
- Emergency Erase
- Full Duplex voice and data
- Simultaneous voice and data
- Advanced Electronic Protection Measures (EPM) Techniques
- Frequency Hopping (full band 30- 512 MHz)
- Direct Sequence Spread Spectrum (DSSS)
- High data rate upto 64 kbps
- Easy Man Machine Interface
- 10W Power output
- Support 25 KHz , 12.5 kHz and 8.33 Khz
- Channel spacing
- Reliable Ad-Hoc radio networking
- Frequency hopping net scan (upto 3 nets)
- Easy to use man machine interface
- Built-in-Test (BITE)
- Tactical Internet
- Li-Ion rechargeable Battery
- External GPS Connection
- 1300 preset channels

Vehicular

Multiband Multimode Radio

- Multi band Radio 30-512 MHz Transceiver AM/FM QPSK
- Software Programmable Architecture
- Remote Control Interface
- Emergency Erase
- Full Duplex voice and data
- Simultaneous voice and data
- Advanced 50W power Output
- Co-site filtering
- Reliable ad-hoc radio networking
- Frequency Hopping net scan (upto 3 nets)
- Supports 25 kHz, 12.5 Khz and 8.33 KHz channel spacing
- Advanced Electronic Protection Measure (EPM) Techniques
- Freq Hopping (full band 30-512 MHz)
- Direct Sequence Spread Spectrum
- High Data Rate upto 64 kbps
- Easy to use Man Machine Interface
- 10.5 -32 V DC power supply
- Built-in-test (BITE)
- Tactical internet
- External GPS connection
- 1300 preset channels



NATIONAL RADIO &
TELECOMMUNICATION CORPORATION
Haripur, Pakistan.

Phones: +92-995-666611, 666627 Fax: +92-995-610933 Email: md@nrtc.com.pk, marketing@nrtc.com.pk

www.nrtc.com.pk