aselsan

9651 V/UHF

HANDHELD RADIO

PRC-9651 is a Software Defined Handheld Radio which is designed to provide continuous audio, data and video communications for the tactical users.

A wide operating frequency spectrum bandwidth of 30-512 MHz and high level Electronic Warfare Protection features provides much more field maintenance ability to PRC-9651 Handheld Radio.

Software based structure of PRC-9651 Handheld Radio supports the tactical land units to communicate with each other in clear, encrypted and frequency hopping voice/data communication. On the other hand, it has the capability to fullfill all the requirements of strategical and tactical communication system users. User can select the required communication mode without loading any software by just selecting the related waveform (mode) from the user interface.

Features:

- Tactical Radio Communication Mode (CNR and A-CNR modes)
- High speed data communications by Wide Band Communication Mode (5100 Mode) and Mobile Telephone Functions (SCRA)
- SK2 Professional Communication Mode
- Narrow Band Networking Communication Mode
- Air-to-Ground Communication Mode (AM)
- High level of Electronic Warfare Protections
- High speed real time data communications
- Simultaneous voice and data communication
- Wide Band Direct Sequence Spread Spectrum (DSSS) waveform is supported.
- Software Programmable Architecture
- Easy to use Man Machine Interface (MMI)
- Built-in-test
- ITU-T V.24 /V.28 Data Interface
- 1300 Programmable Channel

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General

Frequency Range	30-512 MHz
Preset Channels	1300 Channels
RF Output Power	CNR, A-CNR, NBNR: 5W (maximum) SK2: 4W (maximum) Air to Ground: AM 2.5W (PEP)
Battery	14.4V Li-Ion (Rechargeable)

Operating Modes

CNR Mode (30-108 MHz):	Compatible with 9600 Series of Radios in Fixed Frequency Clear or Encrypted, Frequency Hopping Encrypted Voice and Data. Compatible with VHF-FM (NATO STANAG 4204) Radios in Clear Voice.
SK2 Mode VHF (146-174 MHz):	Compatible with 4000, 4400 and 4700 Series of PMR Radios in Fixed Frequency Clear and Encrypted Voice and Data. Compatible with VHF-FM Radios in Clear Voice (ETS 300 086 and ETS 300 113).
5100 Mode (225-400 MHz):	Compatible with 5100 Series Radios (TDMA/DSSS) in Encrypted Voice and Data. Full Duplex Mobile Telephone Communication(SCRA)
SK2 Mode UHF (406-470 MHz):	Compatible with 4000, 4400 and 4700 series of PMR radios in Fixed Frequency Clear or Encrypted Voice and Data. Compatible with UHF-FM Radios in Clear Voice (ETS 300 086 and ETS 300 113)
V/UHF-AM Mode (108-400 MHz):	Fixed Frequency Clear Voice
A-CNR Mode (30-512 MHz):	Fixed Frequency Clear or Encrypted, Frequency Hopping Encrypted
Narrow Band Networking Radio Waveform Mode (30-512 MHz):	Encrypted, Frequency Hopping and Networking

(CNR, SK2, 5100, A-CNR, NBNR modes are ASELSAN proprietary waveforms.)

Environmental (MIL-STD-810D)

Operating Temperature	- 40 °C / + 60°C
Relative Humidity	95%
Immersion	2 hours @ 1 meter
Shock	MIL-STD-810D method 516.3

Features and Services

ECCM (COMSEC AND TRANSEC):
Built-In National Crypto, Frequency Hopping, Burst Data Transmission, TDMA/DSSS

Data Communications

CNR Mode
- Synchronous Data (max. 16 kbps, half-duplex)
- Asynchronous Data (max. 4.8 kbps)
- SMS (Short Message Service)
- Operation Code Transmission

SK2 Mode
- Asynchronous Data (max 4.8 kbps, half-duplex)
- Status Message Transmission
- SMS

5100 Mode
- IP Packet Data Service (max 64 kbps full-duplex)
- X.25 Packet Data Switching Service (max 64 kbps PVC or max 9.6 kbps SVC)
- Synchronous Data (max 64 kbps, full-duplex)
- Asynchronous Data (max 38.4 kbps, full-duplex),
- SMS (TASMUS)

A-CNR Mode
- Synchronous Data(max 16 kbps, half-duplex)
- Asynchronous Data(max 4.8 kbps, half-duplex)
- IP Data

Narrow Band Networking Radio Waveform Mode
- IP Compatibility
- Data Rate: ~ 15-25 Kbps / link, Up to 3-8 times for total NET data rate depending on the topology
- Point to Point Transmission
  - In-NET and Inter-NETs
  - 3 Physical NETs away (including WBNR Waveform)
  - Up to 3 radio hops in a NET
- Point to Multi-Point Transmission
  - In-NET and Inter-NETs
- Broadcast Transmission
  - In-NET and for radios having direct communication
- Service quality management appropriate for different traffic profiles and Quality of Service (QoS) with preemptive priority mechanism
- Maximizing resource reuse by cognitive interference management
- Automatic position transmission

Channel Scanning

User defined scanning list could be selected by channels in:

CNR Mode
Frequency Hopping and Fixed Frequency (up to 3)
SK2 Mode
Fixed Frequency Analog or Digital
A-CNR Mode
Frequency Hopping and Fixed Frequency (up to 3)

Configuration Units

- RT-9651 Standard Receiver/Transmitter
- BX-9651 Standard Battery Block
- BC-9651 12/24 V DC Charger
- BC-9652 Charging Adaptor (220V, 50 Hz AC and 110V, 60 Hz AC)
- AN-9651 Antenna (Short)
- CH-9652 Carrying Case
- CK-9651 CIK (Crypto Ignition Key)

Optional Units and Supplementary Features

- Headset support
- FG-2070 Key/NET Plan Loading Unit
- BC-9653 Solar Charger and Hand Operated Dynamo
- Collar Microtelephone
- AN-9651 Antenna (Long)
- CH-9651 Carrying Bag
- Data Terminal Cable
- Ethernet Cables
- ITU-T V.24/V.28 Data Cable
- NET Planning System
- External GNSS Connection Capability

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