BARRETT
a Motorola Solutions Company

PRC-4080 VHF SDR

PRC-4080 VHF SDR Tactical Transceiver

The PRC-4080 30–175 MHz VHF transceiver is a Combat Net Radio (CNR) designed for multi-role tactical military and security applications. The PRC 4080 is both compact, lightweight, and extremely simple to operate in demanding mission critical conditions.

The PRC-4080 is part of the Barrett family of transceivers that are field proven in over 150 countries, on every continent and in all environments.

Features:

- **30-175MHz Software Defined Radio Transceiver**
- **Digital Signal Processing (DSP)**
- **Dual Network Receive (DNR)**
- **Lightweight compact modular design**
- **Selective and group calling**
- **MIL-STD 810H**
- **IP67 - Fully immersible to 1m**
- **5W - 20W - 50W Configurations**

Options:

- **High speed data capability**
- **Secure Digital Voice and messaging**
- **AES 256 & DES 56 Encryption levels**
- **Secure messaging with encryption**
- **Frequency hopping (300 hops/second)**
- **GPS location messaging and Blue force tracking**



PRC-4080

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Dimensions (handheld)

Front

78.2 mm



Right Side

48.15 mm



275.00 mm

Back



66.50 mm

Left Side



275.00 mm

37.80 mm

Configurations

5W VHF Tactical handheld package

- PRC-4080 VHF Tactical Transceiver
- H-250 Tactical handset
- Tape whip antenna 1.2 metres with gooseneck
- Molle pouch with quick release - Multicam
- Rechargeable 6.8Ah Li-Ion battery pack
- Battery charger



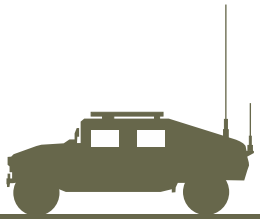
20W VHF Tactical manpack package

- PRC-4080 VHF Tactical Transceiver
- H-250 Tactical handset
- Tape whip antenna 1.2 metres
- Gooseneck (N Type)
- Daypack - colour Multicam
- Li-ion Battery Pack 16Ah
- Universal AC/DC adaptor



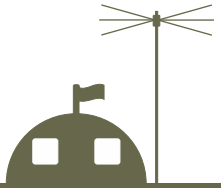
50W VHF Tactical mobile package

- PRC-4080 VHF Tactical Transceiver
- H-250 Tactical handset
- Anti-vibration mount
- Rugged external mount speaker
- Installation kit
- Optional remote mounting cradle



50W VHF Tactical base package

- PRC-4080 VHF Tactical Transceiver
- H-250 Tactical handset
- AC power supply module
- Rugged external mount speaker
- Handset and speaker mounting bracket





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PRC-4080 VHF SDR

Specifications

General Specifications

Frequency Range	30 MHz to 175 MHz
Supported Modulations	FM (12.5kHz, 25kHz) AM (8.33kHz, 25kHz) Digital modulation (6.25kHz, 12.5kHz, 25kHz)
Channel Spacing	6.25kHz, 12.5kHz, 25kHz
Frequency Stability	±0.1PPM with GPS Sync (±0.3PPM unsynced)

RF Receiver

Sensitivity	-116dBm for 12dB SINAD – FM Mode -103dBm for 20dB SINAD – AM Mode

RF Transmitter

Power Output (Hand Portable)	5W / 2.5W / 1W / 0.5W PEP +/- 1dB 20W (Manpack) 50W (Mobile/Base Station)
Duty Cycle	Continuous service, all modes
Audio Response	+1dB to -3dB (TIA-603D)
Harmonic Suppression	>73dBc (Typical)
Spurious Emission	>73dBc (Typical)
Adjacent Channel Power Ratio	>60dBc
Deviation	±3kHz ~ ±7kHz factory set

Power Supply

Supply Voltage	Handheld: 9.6 – 12.6V (Battery Voltage range)
Power Consumption	RX: 300mA (Typical) TX (5 W): 1.2A (Typical)
Supply Endurance	> 16hrs (9:1 RX/TX ratio)

Mechanical Specifications

Weight	1.0kg (Including Battery)
Material	Diecast Aluminium Plastic (PC/ABS)
Colour/styling	NATO Green body with Black Battery

Radio Features

GPS Functionality	Built-in GPS with external SMA antenna position distribution waveform, position distribution simultaneously and transparently together with digital voice
Selective calling	Simple mode for a single radio ID Expanded mode to allow for multiple Selcall IDs (Programming software setup)
Frequency Hopping	300 hops/second
Mute/Squelch	150Hz tone or noise activated CTCSS and RF level
Whisper Mode	Selectable through radio menu
Contact Capacity	500 contacts
Multiple Language Support	Multiple languages selectable through front screen (English, French, Spanish, Arabic, software upgrades allow additional languages)
Digital Voice	600 – 2400bps TWELP/MELPe
Data Modem Option	128kbps in 25kHz* 16kbps in 3.125kHz* (* audio bandwidth selectable)
Encryption	DES 56 & AES 256 data and voice encryption
OTAR	Over-The-Air-Re-keying
Zeroise/Over Air	Multiple levels of erase, lock and zeroise, Transceiver Lock/Transceiver Kill

User Interfaces

User input	Two rotary switches: · Off/On/Volume/Zeroise · Menu navigation/mode/chan select Front keypad: 10 button keypad: · 3 function keys · 5 button directional pad with centre key · 2 additional keys Side keys: · Up/Down/PTT 1/PTT 2
Display	LCD size: 2.7" Transflective Colour TFT LCD display
Audio	Internal speaker and internal microphone

External Interfaces

Handset/Headset Connector	U-283/U 6 pin Mil connector to connect H250 Handset or Headset
VHF Antenna Port	TNC antenna mounting connector
GPS Antenna Port	SMA connector to suit radio mounted antenna or external SMA cabled antenna
Smart Handset Connector	ODU connector
Side Hot-shoe Connector	21 pin hot-shoe connector to connect to: · High Assurance Module · Re-bro system · HF Cross-gate

Ancillaries

HF / VHF Interoperation Mode	Direct connection to 4090/4050 HF system (Crossgate capability)

Specifications are typical. Equipment descriptions and specifications are subject to change without notice or obligation.

BCB40800/5

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