

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**

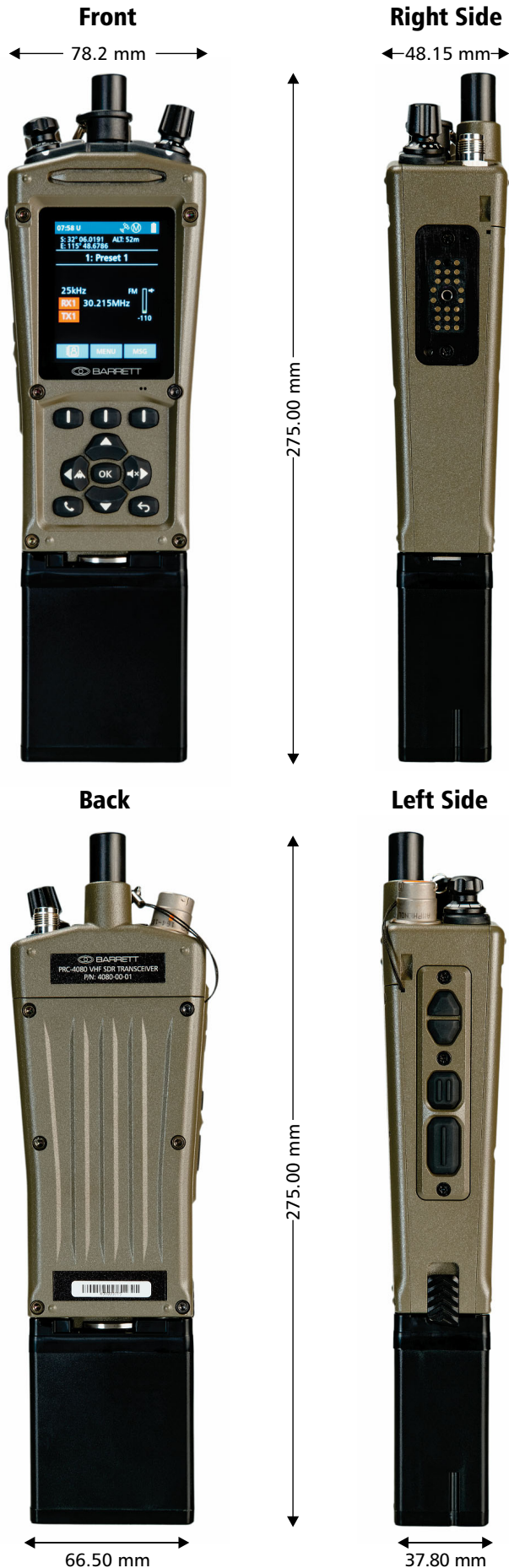
Options:

- **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

Dimensions (handheld)



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



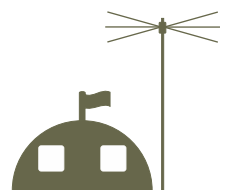
50W VHF Tactical mobile package

- 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



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

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

RF Transmitter

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|---------------------------------|---|
| 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

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|-------------------|---|
| 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

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

Radio Features

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|-------------------|---|
| 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, Chinese, French, Spanish, Russian, 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

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|------------|--|
| User input | Two rotary switches: <ul style="list-style-type: none"> · Off/On/Volume/Zeroise · Menu navigation/mode/chan select Front keypad: 10 button keypad: <ul style="list-style-type: none"> · 3 function keys · 5 button directional pad with centre key · 2 additional keys Side keys: <ul style="list-style-type: none"> · Up/Down/PTT 1/PTT 2 |
| Display | LCD size: 2.7" Transflective Colour TFT LCD display |
| Audio | Internal speaker and internal microphone |

External Interfaces

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|---------------------------|--|
| 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: <ul style="list-style-type: none"> · 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.

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