

PRC-4080 VHF SDR Tactical Transceiver

The PRC-4080 30–175 MHz VHF SDR 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.

- **30-175MHz Software Defined Radio Transceiver**
- **Digital Signal Processing (DSP)**
- **Dual Net Receive (DNR)**
- **Lightweight compact rugged 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 COMSEC options**
- **Secure messaging with encryption**
- **Frequency hopping (300 hops/second)**
- **GPS position messaging and Blue force tracking**



PRC-4080

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	Call types: Selcall, Private call, Legacy call, Text message, GPS request, GPS send
Frequency Hopping	300 hops/second (option)
Mute/Squelch	Tone Squelch: 150 Hz PRC-77 compatible, CTCSS. Digital Voice squelch: for digital voice modes. Signal Detect Squelch: Analog AM, FM and Frequency modes.
Whisper Mode	Selectable through radio menu
Nets	1000 Nets capacity. Net types supported: Single channel/fixed frequency net Split channel/fixed frequency net Channel Scan net Frequency hopping net
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 (option)
Data Modem Option	Internal fit Data Modem up to 43.2kbps in 12.5kHz bandwidth (option)
COMSEC	AES-256, DES-56 and Clear Text modes supported for both data and digital voice modes* (*Option dependant)
Zeroise/Over Air	Multiple levels of erase, lock and zeroise, Transceiver Lock/Transceiver Kill



Configurations

PRC-4080 VHF Tactical transceiver 5W handheld package

Includes:

- 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



PRC-4081 20W VHF Tactical manpack package

Includes:

- PRC-4080 VHF Tactical transceiver
- Tactical amplifier 20W, 30MHz - 175MHz
- Manpack docking station
- Li-ion Battery Pack 16Ah
- H-250 Tactical handset
- 1.2m Tape whip antenna with gooseneck
- Daypack - colour Multicam



PRC-4082 50W VHF Tactical mobile package

Includes:

- PRC-4080 VHF Tactical transceiver
- Tactical amplifier 50W, 30MHz - 175MHz
- H-250 Tactical handset
- PRC-4080 VHF Transceiver docking station with powered Speaker
- Anti-Vibration mounting frame



PRC-4084 50W VHF Tactical base package

Includes:

- PRC-4080 VHF Tactical transceiver
- Tactical Amplifier 50W, 30MHz - 175MHz
- H-250 Tactical handset
- PRC-4080 VHF Transceiver docking station w/ powered speaker
- AC Power supply module 24 VDC



Specifications

General Specifications

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

RF Receiver

Sensitivity	-116 dBm at 12 dB SINAD FM -101 dBm at 20 dB SINAD AM
Dual receivers	Dual Receiver / Dual Net monitoring

RF Transmitter

Power Output (Hand Portable)	5W / 2.5W / 1W / 0.5W PEP +/- 1dB 20W Fixed (Manpack) 50W Fixed (Mobile/Base Station)
Audio Response	+1dB to -3dB (TIA-603D)
Harmonic Suppression	>73dBc (Typical)
Spurious Emission	>73dBc (Typical)
Adjacent Channel Power	>60dBc
Transmitter	Single transmitter / Dual PTT
Deviation	± 5 kHz (25kHz Channel) ± 3 kHz (12.5kHz Channel)

Power Supply

Supply Voltage	Handheld: 10.8V Nominal Lithium Ion Battery
Power Consumption	RX: 320mA TX (5 W): 2.5A (maximum) at 10.8V DC
Supply Endurance	Better than 16 Hours with a 8:1:1 Idle, receive to transmit ratio

Mechanical Specifications

Weight	1.05 kg, transceiver + battery
Material	Diecast Aluminium body
Colour/styling	NATO Green body with Black Battery
Dimensions	80 (W) x 50 (D) x 259 (H) mm, with battery
Temperature	Operational Temp Range: -30C to 60C Storage Temp (transceiver): -40 to 85C Storage Temp (battery): -40 to 40C (Recommended)
Temperature	MIL-STD-810H 501.7 High Temperature MIL-STD-810H 502.7 Low Temperature
Humidity	MIL-STD-810H 507.6 Humidity
Immersion	IEC60529 IP67
Salt Fog	MIL-STD-810H 509.7 Salt Fog
Rain	MIL-STD-810H 506.6 Rain
Vibration	MIL-STD-810G 514.6 Vibration
Shock	MIL-STD-810G 516.6 Shock

User Interfaces

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	
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
Fill Device Connector	16 pin Mil connector
Side Hot-shoe Connector	21 pin hot-shoe connector to connect to: <ul style="list-style-type: none"> · Audio/PTT interface · RS232 Data Interface

Ancillaries

Rebro interface

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



BCB40800/6

Head Office:
 Barrett Communications Pty Ltd
 47 Discovery Drive, Bibra Lake,
 WA, 6163 AUSTRALIA
 Tel: +61 8 9434 1700
 information@barrettcomms.com