

General Specifications

Standard Exceeds/complies with Australian/ New Zealand standard AS/NZS 4770:2000 and AS/NZS 4582:1999
Exceeds/complies with European standard ETSI 300 373 and associated Amendment A Exceeds/complies with EMC and vibration standard IEC 945
Complies with MIL Spec. 810 F for drop, dust, temperature, shock and vibration.

Transmit frequency range 1.6 MHz to 30 MHz (continuous) Receive frequency range 500 kHz to 30 MHz (continuous)

Channel capacity

Up to 500 programmable channels (simplex or semi-duplex) Audio frequency response Less than 6dB variation 350Hz to 2700 Hz

Frequency resolution

10 Hz program mode 1 Hz tunable receiver

Standard stability ±30 Hz or better than 1.0 PPM over temperature range -30°C to +60°C High stability option ±10 Hz or better than 0.3 PPM over temperature range - 30°C to +70°C Frequency stability

Operating modes J3E (USB, LSB) - H3E (AM) - J2A (CW) - J2B (AFSK) Optional J2B (AFSK) with narrow filter.

Operating temperature -30°C to +60°C (-35°C to +70°C at reduced specification) Humidity 95% relative, non

13.8V DC + 20% / - 10% (negative ground) Polarity protected. Overvoltage protected
510mA standby (muted, back lighting off)

Selcall system

Based on CCIR 493-4, four and six digit systems. Protocol available for free distribution. Also true CCIR standard and other manufacturer's emulation.

Switching speed Less than 15mS Tx to Rx, Rx to Tx

Receiver Specifications

-120dBm (0.224µV) for 10dB SINAD - J3E Mode Sensitivity

pre-amp on -110dBm (0.708µV) for 20dB SINAD - J3E Mode pre-amp on

-1 kHz and +4 kHz better than 58dB

Selectivity J3E

Selectivity J2B (optional)

-1 kHz and + 4 kHz better than 58dB -500 Hz and +500 Hz better than 45dB -2 kHz and +5 kHz better than 55dB -5 kHz and +6 kHz better than 50dB -5 kHz and +6 kHz better than 60dB The level of an unwanted signal above the level of a wanted signal that will reduce the SINAD of the wanted signal from 20dB SINAD to 14dB SINAD

(max. usable sens.) - 20 kHz and +20 kHz better than 77dB
- The level of an unwanted signal above the level of a wanted signal that will reduce the SINAD of the wanted signal from by 6dB or cause and output level change of dB.

signal inclinity obusiness and incliness and incliness of the signal incliness of the wanted signals, that are within 30kHz.of the wanted signal, above the level of a wanted signal that reduces the SINAD of the wanted signal to 20dB.

Spurious response ratio Better than 70dB Reciprocal mixing Better than 115 dBµV

4W into 4 Ohms, 2W into 8 Ohms at less than 5% distortion Audio Output Audio response Less than 6dB variation from 350Hz to 2700Hz

Better than 30V RMS from a 50 ohm source Input protection



Transmitter Specifications

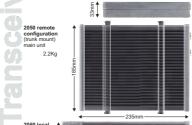
125 watt PEP voice ± 1.5dB

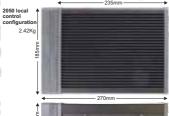
30 watt PEP voice ± 1.5dB

or 15watt PEP voice ± 1.5dB

100% two-tone input signal with fan option

Current consumption Voice average less than 9Amps typical Two tone less than 15Amps typical









MADE IN AUSTRALIA







Channel 0030







The Barrett 2050 transceiver, the centrepiece of the Barrett 2000 series of high frequency single sideband communications equipment, combines current technology with the intuitive "ease of use" which has become synonymous with Barrett Communications HF equipment.

In addition to providing all common modes of transmission, most currently used selective call formats and Mil STD 188-141AAutonatic Link Establishment, the 2050 transceiver has a new generation, simple to operate, frequency hopping option.

The heart of the 2050 is a flexible, soft core processor and powerful DSP system that delivers superior reception and noise reduction while providing very low current consumption.



The 2050 transceiver is packaged with all the















Digital Signal Processing (DSP)

A single DSP chip provides modulation and demodulation of the all on air signalling used in the ALE, selective call and syllabic mute processes and provides noise reduction of received signals.

Frequency hopping option

A simple to operate unique frequency hopping system that has no network entry time or late entry time. Simply enter the hop band, cipher key number and talk.



Simple architecture

Size and weight

Physically 40% smaller than our 900 series, the 2050 in a local control configuration measures only 185 W x 270mm D x 70mm H and weighs less than 2.5 Kg.

Direct dial telephone calls

"Telcall" option provides direct dialling access with Barrett Communications HF Telephone Interconnects and most interconnects from other manufactures

Voice Scrambler

An option that provides a medium level of voice encryption for message privacy.

ALE - Automatic Link Establishment

An embedded internal option fully interoperable with FED STD 1045 ALE systems. Also capable of full 16 digit telephone dialling (using FED STD 1045 ALE as the signalling medium) with Barrett 960 or 2060 ALE equipoped



GPS tracking

An option that supports connection of an external GPS receiver for tra-applications using the Barrett 977 tracking system.

HF email and data

The 2050 transceiver auxiliary connector is fully featured to interface to a variety of external modems including the Barrett 923 fax and data system and the Barrett 2020 HF email system.



Selective call options

"Selcall" option - all current derivatives of CCIR 493 format can be programmed on a channel basis. Four and six digit selcall formats.

"SMS Pagecall"

"SMS Pagecall"

Allows short text messages to be sent from one 2050 transceiver to another. Barrett 2050 transceivers have alphanumeric input keys (similar to mobile phones) that allow direct text message input (without the need for an external PC or Palm type input device)

BITE - Built In Test Equipment

Programming by IR or

errogramming by IR or serial port
For ease of programming in a vehicle notebook computer loaded with the 200 series programming package can loa transceiver parameters without the nee for cables through the remote head I port.



Allows each channel to select one of two ardistance antennas are used.



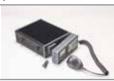


Second antenna connector

Configuration Flexibility

The 2050 transceiver is packaged with all the components required to configure it as either a desktop (local control) or mobile transceiver (trunk mount). This feature simplifies the logistics of stocking the right transceiver for the right application The modular design of the 2000 series enables the basic 2050 transceiver to adapt quickly and easily between base station, mobile, email fax & data, and man-pack configurations.











Manpack Configuration

Inserting the 2650 into the separate 2040 manpack adaptor, the complete unit becomes a light weight [6.460] MIL. becomes a light weight [6.460] MIL becames a light weight [6.460] mill between the separate automatic antenna tuner, universal input battery charge rand removable lithium polymer battery pack. All connections such as handests and auxiliary units are made through millitary specification connectors.











