BARRETT 2000 SERIES
ADVANCED HF SSB COMMUNICATIONS

2020 & 2024 Email Fax & Data Systems

The Barrett 2020 Email Fax & Data System

The Barrett 2020 Email, Fax & Data System is ideal for the provision of full telecommunication facilities within organisations with remote-sited operations. The 2020 provides a simple automatic interface for speech, data, fax and email among all stations in the HF Network with full connectivity to Internet email and fax facilities via the international telephone network. After the initial capital equipment cost, which is comparable or less than current satellite systems, there are no ongoing time charges costs.

The Barrett 2020 has been designed specifically to be simple to install and easy to use. For the system administrator, there exists a variety of automatic linking options and a link scheduler all fully interoperable with FED STD ALE and CCIR Selective calling protocols, providing a comprehensive and automated networking solution. To the user the 2020 system is transparent; emails are sent and received via the users own and familiar mail client software such as MS Outlook, Lotus notes or any other common email program.

Barrett 2020 email systems use state of the art and proven Clover 2000 modems, employing the latest Digital Signal Processing (DSP) techniques and specifically designed for HF operation. Modulation formats vary from simple robust two phase to multi-level differential phase four level amplitude modulation modes which combined with sophisticated compression algorithms within the Barrett 2020 operating software produce compressed on-air data rates up to 14400 bps, subject to link quality and file compressibility.

Fully integrated with Barrett Communications HF transceiver range and accessories, the Barrett 2020 HF email system is easy to install and set up. However if assistance is required our international network of sales and service agents are ready to serve.

The Barrett 2024 HF point to point fax system

The Barrett 2024 Fax system is a simple and reliable hard copy fax transfer system for high frequency radio networks requiring minimal system set up and operator training.

The Barrett 2024 HF Fax system is ideal for providing fax connections between sites that have no connection to telephone systems. An HF Fax station consists of a Barrett 2050 transceiver and 2024 modem, a suitable power supply and antenna and an inexpensive standard G3 fax machine. No computer software is required.

Operators simply establish a radio link by voice, Selcall or ALE, put the documents to be transmitted to the distant station in the fax machine and dial in the remote systems number, the system takes care of the rest. When the Fax has been received by the remote station an acknowledgment is printed on the local fax just as it would be when using a fax connected to a telephone line.

System set up is simple and fully integrated into a standard 2000 series equipment enclosure and uses the robust and high-speed Clover 2000 protocol to transmit the fax digitally and error free. With typical good HF conditions a standard page of text can be sent in less than 3 minutes. Slightly longer than a telephone fax but with no cost.

The Barrett 2024 Fax modem also provides the same facilities as a Barrett 2020 system and can be connected to a computer running Barrett 2020 operating software to provide email and data transfer with Internet connection.

MADE IN AUSTRALIA

BARRETT 2000 SERIES
ADVANCED HF SSB TRANSCEIVERS

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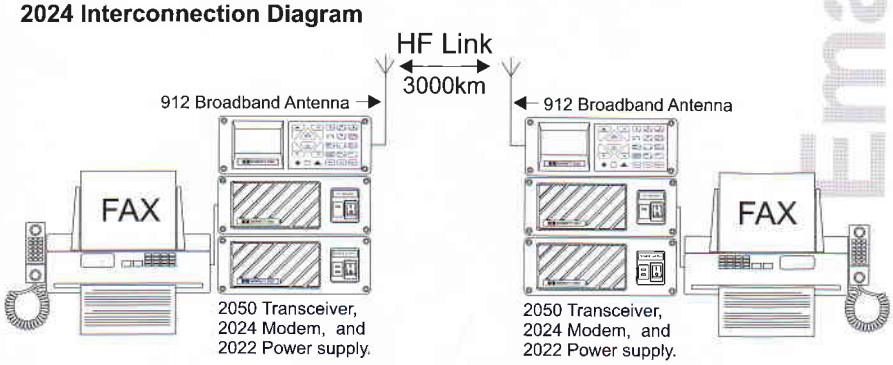
Specifications:

2023/2024 HF Fax & Data Modems

Data Protocol	Clover 2000 - An adaptive High Speed Selective ARQ repeat modulation for 100% Error free data transmission.
Data Transfer Rate	Up to 14400 bps Error corrected, Compressed (2020 only). Based on average to good link quality and file compressibility
Modulation Modes	BPSM 2 phase, 500 bps QPSM 4 phase, 1000 bps 8PSM 8 phase, 1500 bps 8P2A 8 phase, 2 amplitude, 2000 bps 16P4A 16 phase, 4 amplitude, 3000 bps
CCIR Emission	2k0H J2 DEN or 2k0H BEN
Required Bandwidth	2000 (at 6dB)
Minimum S/N for Data Transfer	-3dB
PC/Transceiver interface	RS232 Data rate 9600 Baud (up to 57,600 bps max)
Current Consumption	400mA Standby (2023), 700mA Standby (2024)
Operating Temperature	-15°C to +55°C (-40°C to +60°C Storage)
Controls	On/Off power switch
Indicators	Front power LED, rear six modem status LEDs
Connectors	DB-25 female to transceiver DB-9 male to computer RJ-45 to Fax machine (2024 only)

2024 Interconnection Diagram



Email Fax & Data Systems

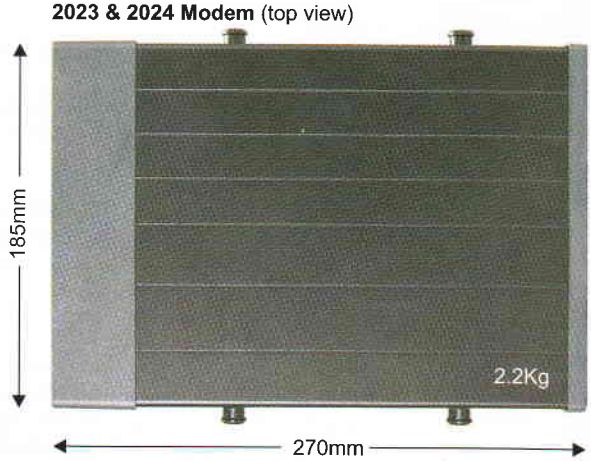
2023 HF Modem (front panel)

2023 HF Modem (rear panel)

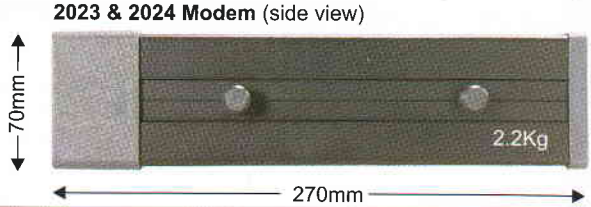
2024 HF Fax Modem (front panel)

2024 HF Fax Modem (rear panel)

2023 & 2024 Modem (top view)



2023 & 2024 Modem (side view)



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