HF Radio Communications

2020 HF email fax & data system

- **International long distance email fax and voice communication**

- **No phone lines**

- **Non satellite**

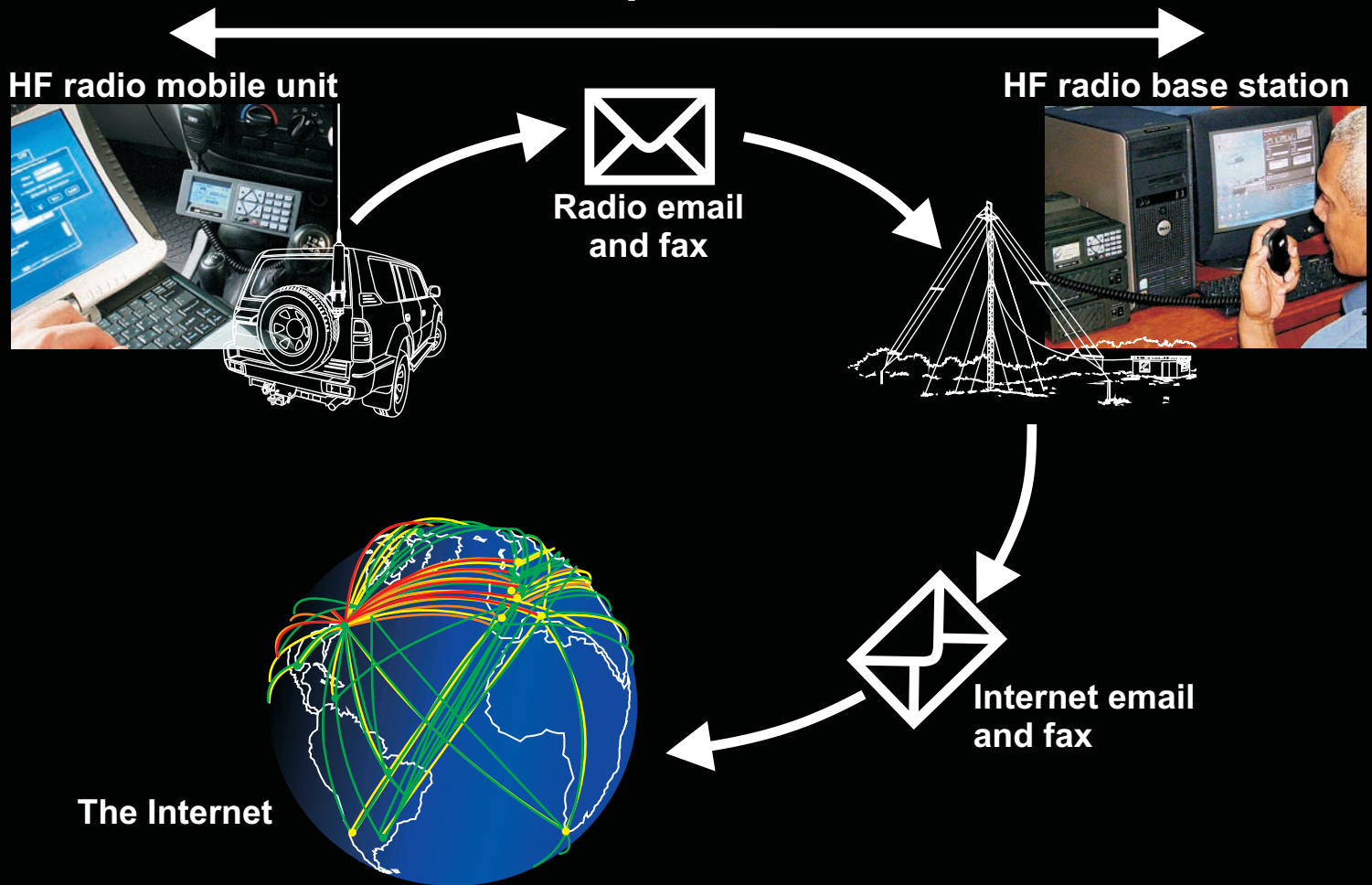- **Non cellular**

- **Free to air**

  The Barrett 2020 Email, fax & data system is ideal for the provision of full telecommunication facilities within organisations with remote-sited operations with no existing communications infrastructure.

  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.

2020

www.barrettcommunications.com.au

BCB20201/17

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HF Radio Communications

HF radio network
0 to 3000 plus kilometres

HF radio mobile unit

Radio email and fax

HF radio base station

Internet email and fax

The Internet

After the initial capital equipment cost, which is comparable or less than current satellite systems, there are no ongoing time charge 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 end 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.

The Barrett 2020 email system uses 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.

2023 HF Modem front view

2023 HF Modem rear view

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2020 HF email fax and data system

The 2023 HF modem is also available as an internal fit option for the Barrett 2050 HF Transceiver. This is an ideal option where base station space is limited or in a mobile configuration where vehicle mounting is required.
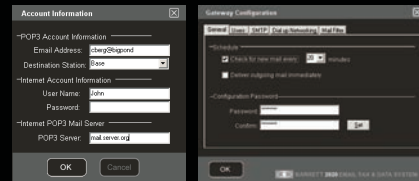
Easy to use windows based software runs on any personal computer platform with Microsoft Windows 9X, XP and Vista operating systems and works with most common email clients like Microsoft Outlook.

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.
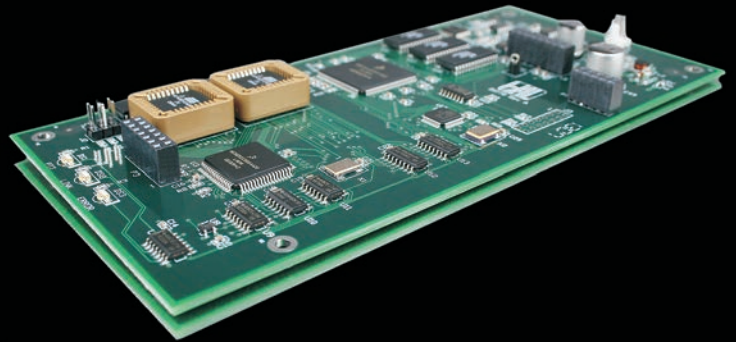
Additionally Barrett Communications is able to offer specific training for the Barrett 2020 Email fax and data system and/or generic training courses in radio system operation, planning and maintenance. Whilst we will continue to offer specific training for all Barrett users, we have identified a need for more generalised training and advice to radio systems users. Whilst our focus remains HF systems, other related technologies may also be accommodated.

Details of standard courses and sample syllabuses are available on request and Barrett will also design a course specifically for your needs. Courses are principally conducted in Barrett's custom designed training facility in Perth, Western Australia. "Field" courses can also be accommodated in a location convenient for your operation or mission.

2020 PC based software
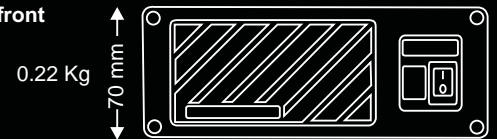

2023 HF Modem for internal fitting

2020

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Specifications
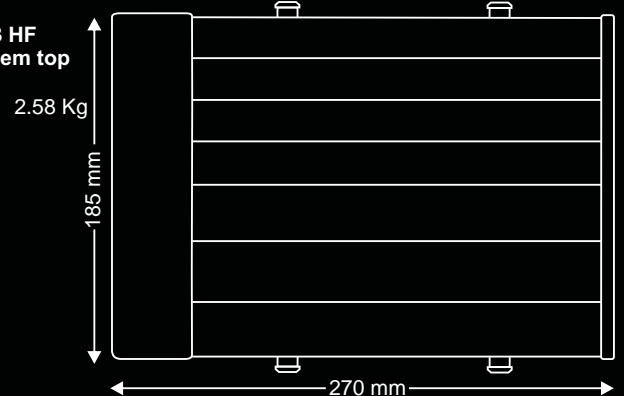
General specifications 2023 HF fax and data modem

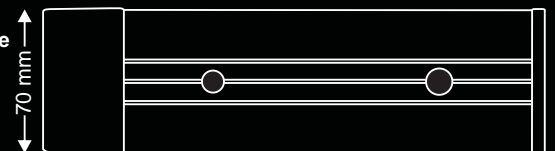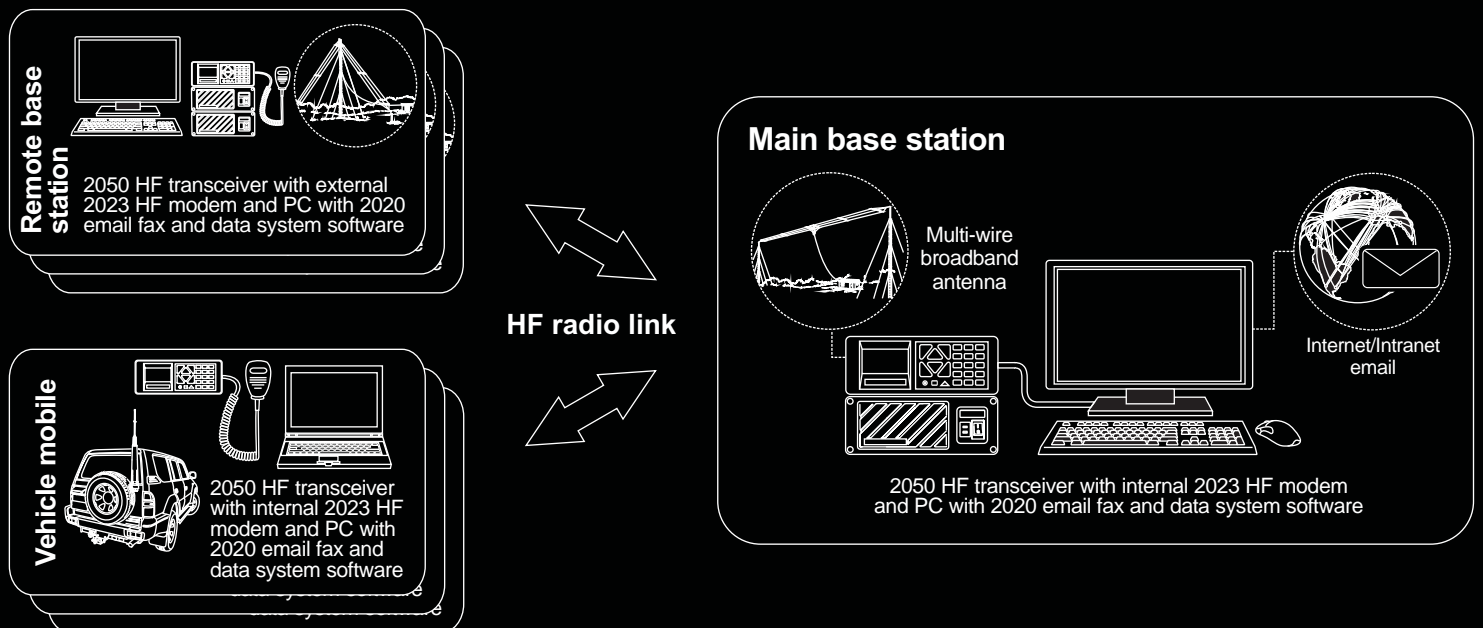|	
Data protocol	Clover 2000 - An adaptive High Speed Selective ARQ repeat modulation for 100% error free data transmission
Data transfer rate	Up to 14400 bps error corrected, compressed (2020 only). Based on average to good link quality and file compressibility
Modulation modes	BPSM 2 phase, 500 bps
	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 6 dB)
Min S/N for data transfer	-3 dB
PC/transceiver interface	RS232 data rate 9600 Bd (up to 57,600 bps max)
Current consumption	400 mA standby
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)

2023 HF modem front — 0.22 Kg — 70 mm

2023 HF modem top — 2.58 Kg — 185 mm — 270 mm

2023 HF modem side — 70 mm

Typical 2020 email fax and data system network example

Remote base station
2050 HF transceiver with external 2023 HF modem and PC with 2020 email fax and data system software

Vehicle mobile
2050 HF transceiver with internal 2023 HF modem and PC with 2020 email fax and data system software

HF radio link

Main base station
Multi-wire broadband antenna

Internet/Intranet email

2050 HF transceiver with internal 2023 HF modem and PC with 2020 email fax and data system software

ISO 9001
BUREAU VERITAS Certification
No 149438