

- **Liquid cooled linear amplifier**
- **1.5 – 30 MHz continuous coverage**
- **500 W continuous duty cycle (100%)**
- **USB, LSB (SSB), CW, FSK, AM, ISB (Data)**
- **2G & 3G Automatic Link Establishment (ALE) options**
- **Digital Voice and Secure Digital Voice**
- **Housed in rugged 5RU rack mount case**
- **IP Connectivity**
- **Wireless operation via iOS, Android & Windows devices**

The Barrett 500W Tactical HF Transmitter (P/N: 4090-08-10) is a compact easily deployed communications solution developed for tactical base station applications. The transmitter comes as a complete package with our PRC-4090 exciter, power supply, 4075 linear amplifier and interconnecting cables all pre connected in a rugged 19" 5RU rack mount case. The 4075 linear amplifier unit (lower rack mount case shown in image to the right) can be ordered as an individual unit under P/N: 4090-08-05.

The 4075 linear amplifier is designed and engineered for modern communications which are heavily data orientated, requiring the equipment to work at high duty cycles for extended periods of time. The unique liquid cooled design increases cooling efficiency resulting in less system deterioration due to overheating in the power stages, extending overall equipment service life.

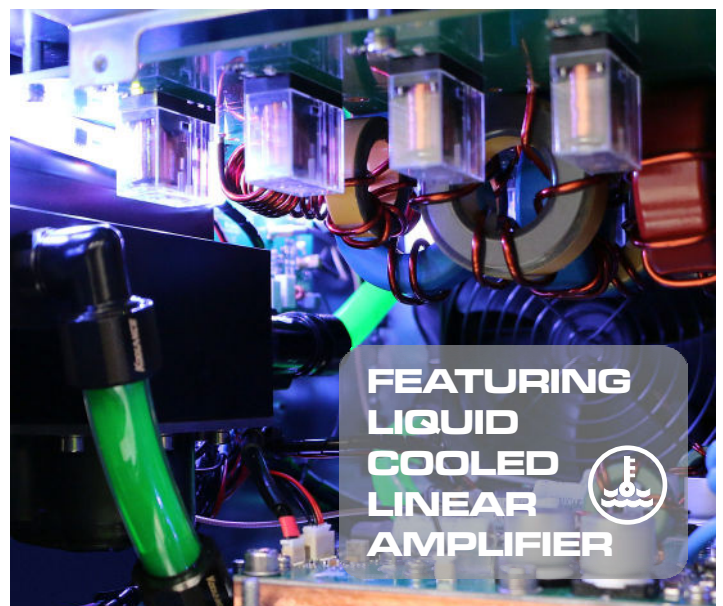


The 500W tactical HF transmitter natively supports the Barrett PRC-4090 HF SDR Transceiver/Exciter



The amplifier natively supports the Barrett PRC-4090 SDR Transceiver/Exciter (or similarly configured Barrett 4050 Exciter) which when coupled requires no further tuning or adjustment. A flexible I/O interface and analogue ALC feedback provide the transceiver/exciter full control over final output power. Intelligent electronic controls protect the amplifier from input and output overload while providing a sophisticated early warning and diagnostic interface for system monitoring and event logging. Customisable auxiliary ports are also available for enhanced system control.

The Barrett ISO9001 Quality Assurance Program ensures consistent performance and the highest reliability.



**FEATURING
LIQUID
COOLED
LINEAR
AMPLIFIER**





Typical configuration

- ➊ PRC-4090 HF SDR Transceiver/exciter
- ➋ PRC-4090 System docking station
- ➌ PRC-4090 AC power supply/battery charger
- ➍ PRC-4090 Control handset
- ➎ Amplified speaker
- ➏ 4075 Linear amplifier (500W)
- ➐ 4075 50V DC Power supply
- ➑ Supro Box 19" 5RU Anti shock rack mount case

General Specifications

Frequency coverage	1.5MHz to 30MHz (reduced performance below 1.6MHz)
Frequency stability	± 0.5 PPM -30°C to +70°C (±0.1 PPM available optionally) (PRC-4090 Transceiver/Exciter)
Channel capacity Modes	1000 with PRC-4090 HF Transceiver J3E (USB, LSB) - H2B (AM) - J2A (CW) -(CF (Custom Filter) - ISB (data option)
Power output	500W PEP
Duty cycle	100%, Continuous PEP, CW
Exciter	PRC-4090 HF SDR transceiver
External Dimensions	Each 5RU case 900 x 570 x H 374 mm including lids

4075 Linear Amplifier Specifications

Power Output CW	500W ± 1.5 dB
Power Gain	+25 dB
Harmonics & Spurious	Less than -55 dB
ALC Voltage (output)	0 ~ 10V
Filter Type	7 Band LPF
Dimensions	178H x 482W x 480D mm excluding handles and I/O connectors
Power Requirements	50V dc @ 60A, 24V dc @ 2.5 A max
Rack Height	5RU, 19" Rack mount (Amplifier and 50V power supply only)
Weight	35 kg (77 lbs)
Cooling	Liquid cooled, Water, Propylene Glycol mixture
Temperature	-20°C to +65°C operational, -40°C to +85°C storage
Humidity	95% relative, non condensing
Altitude	3000 m above sea level (not airborne), 9000m transportation
Input overdrive protection	+6 dBm max
Output VSWR protection	3:1 nominal all magnitude and phases
Thermal Overload protection	85°C
Fault Log	System events and error reporting
Standards	Designed to meet or exceed: - FCC/IC/ETS - CE - Australia/New Zealand AS/ NZS 4770 2000 and AS/NZS 4582:1999

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

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