

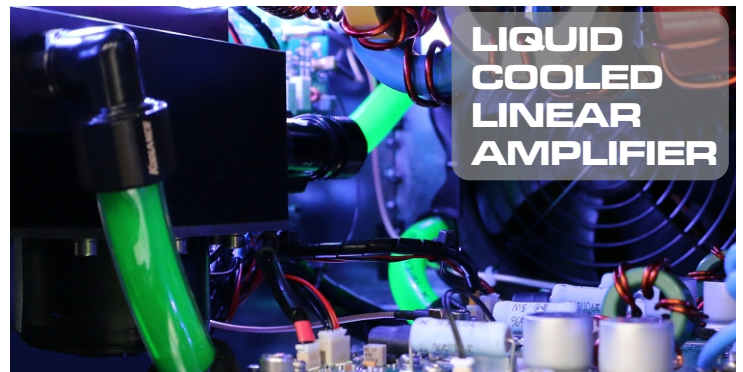


- **Liquid cooled linear amplifier**
- **1.5 – 30 MHz continuous coverage**
- **1 kW or 500 W continuous duty cycle (100%)**
- **USB, LSB (SSB), CF (custom filter), FSK, AM, ISB (data)**
- **Digital Voice and Secure Digital Voice**
- **2G & 3G Automatic Link Establishment (ALE) options**
- **ARINC ICAO Annex 10 Aeronautical Selcall option**
- **Wired & wireless operation via iOS, Android & Windows devices**
- **IP Connectivity (ED-137c compliant)**

The Barrett 4075 high power HF Transmitter is a compact rack mounted communications solution developed for base station applications in large HF networks. It can be supplied in 1kW and 500 W versions. The transmitter comes as a complete package with an exciter, power supply, power amplifier, interconnecting cables and all required rack mount hardware. The amplifier natively supports the Barrett 4050 Transceiver/Exciter which when coupled requires no further tuning or adjustment.

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 compact rack mounted amplifier, together with its power supply occupies just 5U of cabinet space.

A flexible I/O interface and analogue ALC feedback provide the transceiver/exciter full control over final output power. Intelligent electronic controls protect the 4075 from input and output overload while providing a sophisticated early warning and a diagnostic interface for system monitoring and event logging. Customisable auxiliary ports are also available for enhanced system control.



The Barrett 4075 High power 1kW and 500W systems are available in 20RU and 39RU 19" racks with a depth of 700 mm. The 4075 500W HF transmitter is also available in a rugged transportable 9RU 19" rack mount case.

The packages ship as a complete unit including rack mounting kits, blanking plates and all necessary cables and hardware ready for operation. For full package details, including part numbers please download the systems catalogue from our website.

1kW 4075 Transmitter in 20RU 19" rack



500W 4075 Transportable transmitter in 9RU 19" rack mount case





Typical 4075 transmitter configuration

- ❶ 4075 Linear amplifier (1kW)
- ❷ 4050 HF SDR Transceiver/exciter
- ❸ 4075 50V DC Power supply
- ❹ 4022 AC/DC power supply/battery charger
- ❺ 4075 AC Power distribution unit

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) (4050 Transceiver/Exciter)
Channel capacity	1000 with 4050 Transceiver/Exciter
Modes	J3E (USB, LSB) - H2B (AM) - J2A (CW) -(CF (Custom Filter) - ISB (data option)
Power output	1000W PEP or 500W PEP
Duty cycle	100%, Continuous PEP, CW
Exciter	4050 HF SDR transceiver

4075 Linear Amplifier Specifications

Power Output CW	1kW or 500W ± 1.5 dB
Power Gain	+25 dB
Harmonics & Spurious	Less than -55 dB
ALC Voltage (output)	0 ~ 3V
Filter Type	7 Band LPF
Rack Height (min)	5RU, 19" Rack mount (Amplifier and 50V power supply only)
Dimensions	178H x 482W x 480D mm excluding handles and I/O connectors
Weight	35 kg (77 lbs)
Power Requirements	50V dc @ 60A, 24V dc @ 2.5A max
Cooling	Liquid cooled, 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

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