80RF1000-500

80 MHz TO 1 GHz 500 WATT BROADBAND POWER AMPLIFIER

- **Upgradeable to higher power**
- **High reliability GaN transistor technology**
- **Mismatch tolerant and unconditionally stable**
- **Wide instantaneous bandwidth**
- **Unique five year parts, labour and shipping warranty**
- **Integral directional coupler**
- **IEEE, USB, ethernet and RS232 standard**

This innovative amplifier combines a compact design with market leading performance. Its ability to operate into any load without fold back makes this an ideal amplifier for all EMC RF immunity testing. The amplifier is supported via Milmega's unique five year parts, labour and shipping warranty and Teseq's local service network.

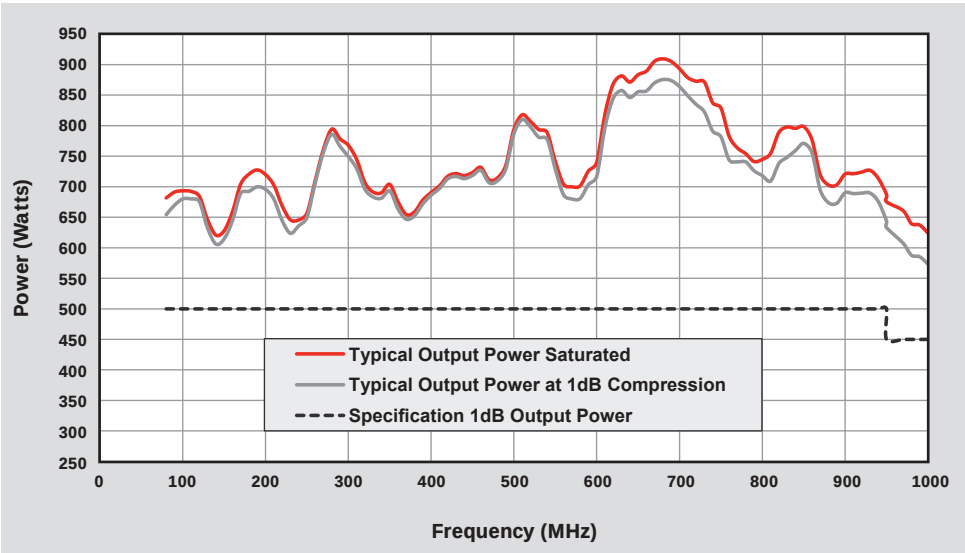
Designed specifically for radiated EMC testing, this mismatch tolerant amplifier delivers power continuously into the poor and variable match typically associated with EMC antenna. Although antenna are usually well matched, the presence of the EUT in the path of the antenna causes high levels of reflected power which the high breakdown voltage of GaN (Gallium Nitride) can handle with ease.

The amplifier is designed with upgradability in mind. If more power is required this amplifier can be integrated with further additional units to achieve a power level of 1000 watts. The added benefit is that the 250 watt units can still be used individually if required as they can be easily disconnected and used as stand-alone units.

The GaN balanced pair design at the core of the amplifier ensures a high reliability, linear performance across the frequency range. This design also ensures that the amplifier will continue to operate at full power even when presented with an open or short circuit at its output.

The unit is powered from a switched mode power supply for high efficiency, high power factor and wide voltage range operation. The unit is air-cooled with integral fans, and is protected against faulty cooling by excess temperature sensing. A safety interlock connector is provided, which the user can short circuit to ground, to put the amplifier into standby mode. Front panel indicators are provided to indicate over-temperature and RF interlock condition.

Measured data



MILMEGA

a TESEQ Company

80RF1000-500
80 MHz TO 1 GHz 500 WATT BROADBAND POWER AMPLIFIER

Key RF Parameters

Frequency range (instantaneous)	80 to 1000 MHz
Rated output power	530 W minimum
Power at 1 dB gain compression (P1dB)	500 W minimum
Harmonics at P1dB	-20 dBc typical
Gain	54.9 dB
Gain variation with frequency	+/-3.5 dB
Maximum input power (no damage)	15 dBm

Impedance / VSWR

Output VSWR tolerance	Infinite any phase
Stability	Unconditional
Output impedance	50 Ohm
Output VSWR	2:1 typical
Input VSWR	2:1 max

Additional RF Data

Third order intercept point IP3	8 dB > P1dB
Spurious	-70 dBc max (-80 dBc typical)
Noise figure	10 dB
RF connector style	Input = type N female, output = 7/16th female

Electrical and Interfaces

Remote control	GPIB, RS232, USB and ethernet fitted as standard
Safety interlock	Via rear panel D-sub connector
Supply voltage (three phase)	100 to 240 Vac (phase to phase for Delta (Δ) or phase to neutral for star (Y)
Supply frequency	47 to 63 Hz
Supply power	<4.2 kVA

Physical / Environmental

Case dimensions	19 inch, 12U case, 800 mm deep
Mass	130 kg
Operating temperature range	0 to 40° C (storage -40 to 70° C)

MILMEGA
Park Road, Ryde, Isle of Wight, PO33 2BE, UK
T +44 (0) 1983 618004 F +44 (0) 1983 811521
sales@milmega.co.uk **www.milmega.co.uk**
www.teseq.com

691-314A October 2013

MILMEGA
a TESEQ Company