

CBA80M1G-500E

80 MHz to 1 GHz 500 Watt Solid State Amplifier



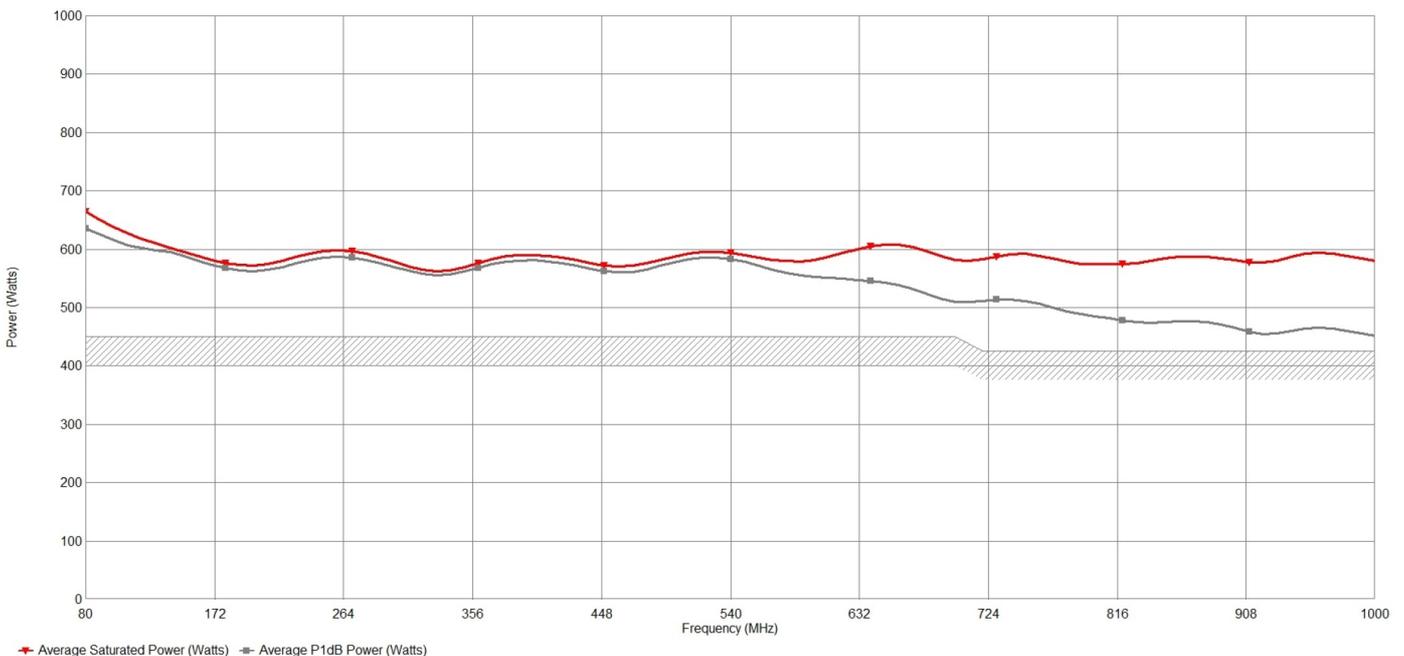
Our high-power density design supports a robust 500-watt Class A amplifier that operates over a wide 80 MHz to 1 GHz frequency range, all within a streamlined 8U enclosure. Capable of delivering a minimum of 450 watts of linear (P1dB) power, this amplifier is ideal for rigorous IEC, ISO, and MIL radiated immunity compliance testing. Seamlessly integrable with Teseq RF immunity test system equipment such as the NSG 4070D, NSG 6000, and Teseq GTEM cells, this amplifier complements turnkey test setups with ease.

MAIN FEATURES

- **Class A Operation**
- **Touch Screen Display**
- **100% Mismatch Tolerant**
- **Scalable Modular Construction**
- **Ethernet, USB, GPIB, RS-232 Remote Interface**
- **3 Year Warranty**
- **Applications: Radiated immunity (ISO, IEC, MIL), Telecom Component Test and Aerospace & Defence**

A responsive colour touchscreen provides real-time feedback on the operation status of the amplifier and access to diagnostic information. The amplifier design is fully VSRW protected and can function into an open or short circuit condition with no need for gain foldback. Thermally optimized for efficiency, the design reduces thermal stress on critical component and decreases fan noise for a quieter testing environment.

Multiple standard remote interfaces, including USB, GPIB, RS232, and Ethernet, provide flexible connectivity. Amplifier gain can be controlled remotely via these interfaces or directly through the intuitive front-panel touchscreen, offering convenience and adaptability in diverse testing environments.



+ Average Saturated Power (Watts) - Average P1dB Power (Watts)

Technical Specifications

Frequency Range	80 MHz to 1 GHz
Rated Output Power	80-700MHz 525W (min) - 575W (typ)
Rated Output Power	700-1000MHz 425W (min)
Power Output @ 1dB Compression	80-700MHz - 450W (min) - 500W (typ)
Power Output @ 1dB Compression	700-1000MHz - 425W (min)
Input for Rated Output	0dBm (1mW)
Small Signal Gain	57 dB
Gain Variation (max) ±	1.5 dB
Gain Control Adjust When Below P1dB	20 dB
Harmonics @ P1dB (min)	-20 dBc
Spurious (typ)	-70 dBc
Input VSWR	1.5:1 (max)
Output VSWR	2:1 (typ)
Output Impedance	50 Ohm
3rd Order Intercept Point	63 dB
Noise Figure (typ)	8 dBm
Modulation Formats	AM, FM, PM, ODFM
Maximum Input Power (no damage)	13 dBm
Output VSWR Tolerance	Infinite any Phase (No Foldback)

General Specifications

Acoustic Noise (measured @ 1 m)	60 dBA
Supply Frequency	47 to 63 (Hz)
Supply Voltage	100 to 240 VAC
Supply Power (max)	1.8 KVA

Mechanical Specifications

RF Input Connector	Type-N Female
RF Output Connector	Type-N Female
RF Sample Port Connectors	Type-N Female, (coupling factor 57 dB typical)
Safety Interlock	15-Pin Subminiature D Female
Dimensions (No Cabinet) (W x H x D)	(8U) 48.3 x 35.6 x 74.9 cm (19.0 x 14.0 x 29.5 in)
Weight (No Cabinet)	50.8 kg (112 lbs)
Cooling System	Air Cooled, Self-contained
Com. Interface	IEEE-488 / RS-232 / RS-232 (fibre optic) / USB 2.0 / Ethernet

Environmental Specifications

Ambient Running Temperature	5°C to +40°C
Storage Temperature	-20°C to +50°C
Maximum Altitude	up to 2000M
Shock and Vibration	Normal Truck Transport

Regulatory Compliance (CE)

EMC	EN 61326-1
Safety	UL 61010-1
RoHS	DIRECTIVE 2011-65-EU
Export Classification	No Licence Required

Available Configurations

Product	Configuration	Item #
CBA80M1G-500E-001	Front Panel RF Connectors	3-342632
CBA80M1G-500E-002	Rear Panel RF Connectors	3-342633