CBA 3G-180
800 MHz TO 3.1 GHz 180 WATT CLASS A BROADBAND AMPLIFIER

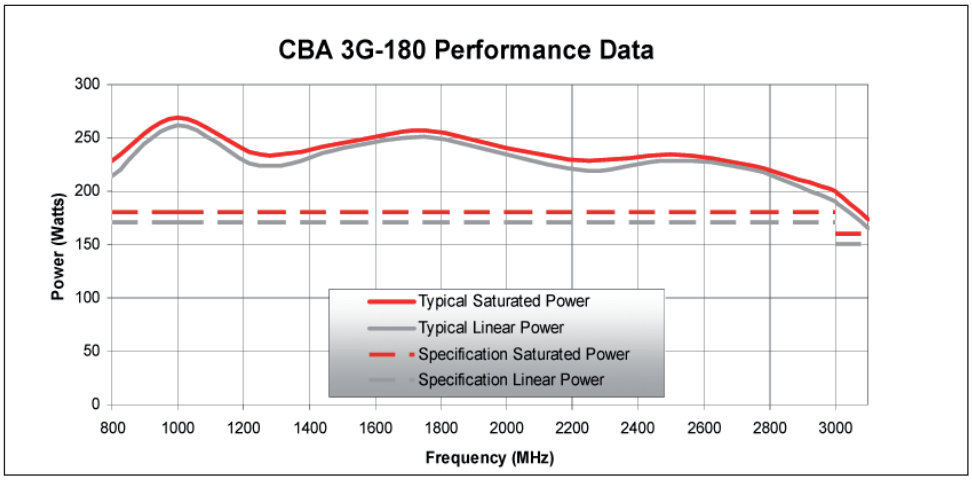
- **Class A linear and low distortion design**
- **High reliability gallium arsenide technology**
- **Mismatch tolerant and unconditionally stable**
- **Wide instantaneous bandwidth**
- **Three year parts and labour warranty**

Designed specifically for Radiated EMC testing, this mismatch tolerant Class A amplifier delivers power continuously into the poor and variable match typically associated with testing above 1 GHz. Although antennas are usually well matched at these high frequencies, the presence of the EUT in the path of the antenna causes high levels of reflected power which only full Class A amplifiers can tolerate.

Whilst antenna gain is relatively constant, increasing cable losses at the higher frequencies demand increasing power with increasing frequency. Teseq amplifiers are therefore designed to maintain their high linear output power right up to and beyond the defined frequency range.

The GaAs Class A design ensures a high reliability, low distortion 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.



TESEQ

Advanced Test Solutions for EMC

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Technical specifications

Frequency range (instantaneous)	800 to 3100 MHz
Rated output power	180 W minimum (800 MHz to 3 GHz) 220 W typical (800 MHz to 3 GHz) 160 W minimum (3.0 GHz to 3.1 GHz) 170 W typical (3.0 GHz to 3.1 GHz)
Output power at 1 dB gain compression	170 W minimum (800 MHz to 3 GHz) 210 W typical (800 MHz to 3 GHz) 150 W minimum (3.0 GHz to 3.1 GHz) 160 W typical (3.0 GHz to 3.1 GHz)
Gain	54 dB
Third order intercept point (see note 1)	64 dBm
Gain variation with frequency	±3 dB
Harmonics at 170 W output (800 MHz to 3 GHz)	Better than -20 dBc
Output impedance	50 Ohms
Stability	Unconditional
Output VSWR tolerance (see note 2)	Infinity:1
Input VSWR	2:1
RF connector style	Type N female
Safety interlock	BNC female, s/c to mute
USB interface	Optional
Supply voltage (single phase)	184 to 264 Vac
Supply frequency range	45 to 63 Hz
Supply power	<1.6 kVA
Mains connector	IEC320
Conducted and radiated emissions	EN61326 Class A
Conducted and radiated immunity	EN61326: 1997 Table 1
Mains harmonic currents	EN61000-3-2
Voltage fluctuations and flicker	EN61000-3-3
Safety	EN61010-1
Case dimensions	19 inch, 9U case, 550 mm deep
Mass	47 kg
Operating temperature range	0 to 40°C
Options (select at time of ordering)	
341-730	Rack mountable with rear panel mounted input/output connectors
341-830	Rack mountable with front panel mounted input/output connectors

Notes:

1. The third order intercept point is a nominal value, as its calculation depends upon the power level at which distortion measurements are made.
2. Output VSWR tolerance is specified for excitation within the permitted levels and frequency range.

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