



# CBA 400M-110

## 10 kHz TO 400 MHz 110 WATT

### CLASS A BROADBAND AMPLIFIER

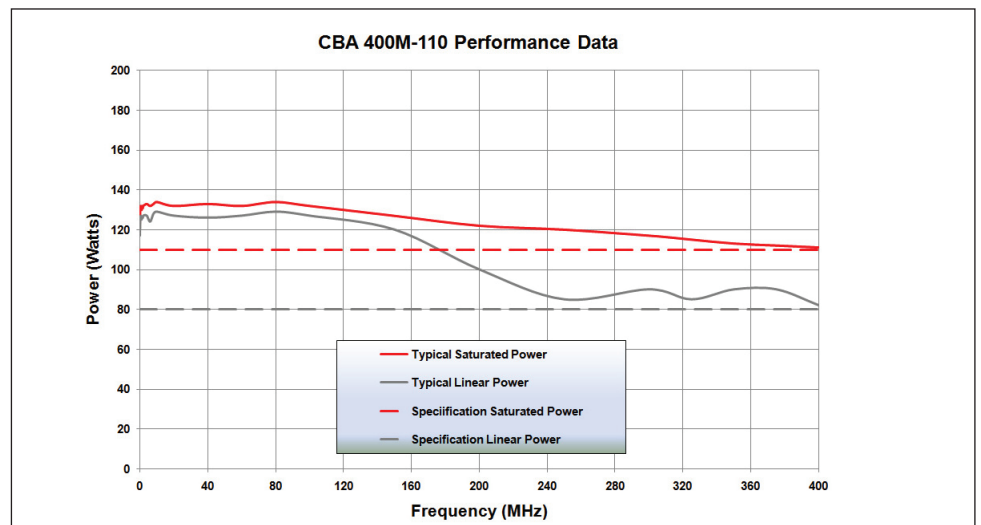


- **Class A linear and low distortion design**
- **High reliability gallium arsenide technology**
- **Mismatch tolerant and unconditionally stable**
- **Wide instantaneous bandwidth**
- **Remote control option**
- **Three year parts and labour warranty**

Designed specifically for automotive, military and aerospace BCI and other susceptibility EMC testing, this mismatch tolerant Class A amplifier delivers power continuously into the varying match typically associated with this type of testing.

The GaAs Class A push pull 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 use of gallium arsenide technology represents a breakthrough in amplifier design for this frequency range and output power. Previous designs based on silicon technology suffer from relatively poor compression characteristics, low efficiency and sometimes poor reliability.

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 operation.



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### Technical specifications

Frequency range	10 kHz to 400 MHz
Rated output power	110 W minimum
Output power at 1 dB gain compression	80 W minimum 110 W typical below 100 MHz
Gain (nominal)	51 dB
Third order intercept point <sup>1</sup>	61 dBm
Gain variation with frequency	±2 dB
Harmonics at 80 W output power	Better than -20 dBc
Output Impedance	50 Ohms
Stability	Unconditional
Output VSWR tolerance <sup>2</sup>	Infinity:1
Input VSWR	2:1
RF connector style	
Input	Type N female
Output	Type N female
Safety interlock	Dual input, O/C and/or S/C to mute
USB interface	Optional
Supply voltage	100 to 240 Vac (+/- 10%)
Supply frequency range	45 to 63 Hz
Supply power	<1 kVA (typical 700 VA)
Mains connector	Appropriate IEC 60309 plug (see options)
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, 4U case, 440 mm deep
Mass	18 kg
Operating temperature range	0 to 40°C
Options (select at time of ordering)	
341-745	Bench model with front panel mounted input/output connectors
341-845	Rack mountable with front panel mounted input/output connectors
341-945	Rack mountable with rear panel mounted input/output connectors

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#### 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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