

## CBA 400M-110 10 KHZ TO 400 MHZ 110 WATT CLASS A BROADBAND AMPLIFIER



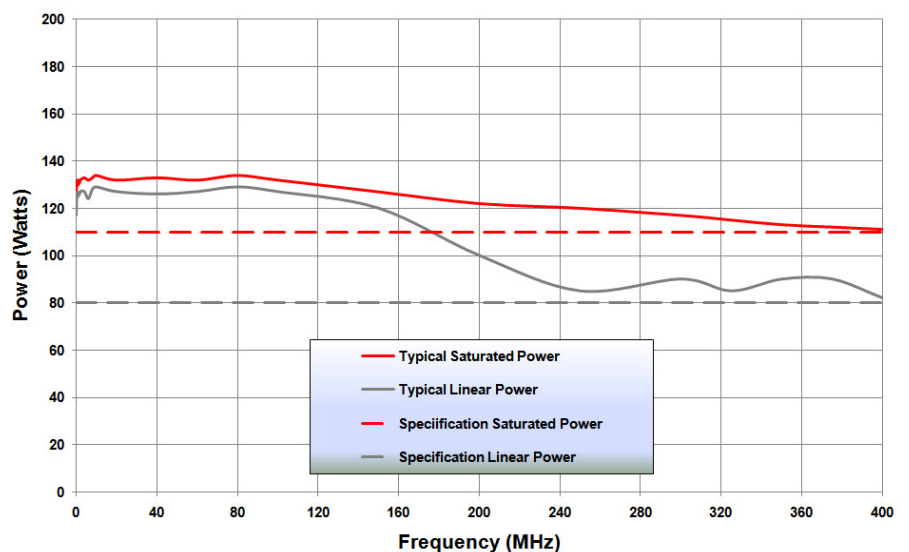
- Class A linear and low distortion design
- High reliability gallium arsenide technology
- Mismatch tolerant and unconditionally stable
- Wide instantaneous bandwidth
- Remote control option
- Three year parts and labour warranty

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.

**CBA 400M-110 Performance Data**





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Key RF Parameters	
Frequency range (instantaneous)	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)
Harmonics at 80 W output power	Better than -20 dBc
Gain (nominal)	51 dB
Gain variation with frequency	±2 dB
Maximum input power (no damage)	+10 dBm

Impedance / VSWR	
Output VSWR tolerance <sup>1</sup>	Infinity:1
Stability	Unconditional
Output impedance	50 Ω
Input VSWR	2:1

Additional RF Data	
Third order intercept point <sup>2</sup>	61 dBm
RF connector style	Type N female

Electrical and Interfaces	
USB interface	Optional
Dual safety interlock	Two BNC female connectors S / C to mute and O / C to mute
Supply voltage	100 to 240 Vac (+ / - 10%)
Supply frequency range	45 to 63 Hz
Supply power	<1 kVA (typical 700 VA)

Physical / Environmental	
Case dimensions	19 inch, 4U case, 440 mm deep
Weight	18 kg
Operating temperature range	0°C–40°C

Notes:

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

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## OUR SALES & SERVICE CENTERS

### China

#### AMETEK Commercial Enterprise (Shanghai) Co. Ltd.

Beijing Branch  
Western Section, 2nd Floor  
Jing Dong Fang Building (B10)  
Chaoyang District  
Beijing, China, 100015  
T +86 10 8526 2111  
[chinasales@ametek.com](mailto:chinasales@ametek.com)

#### Shanghai Office:

Part A1, A4, 2nd floor, Building No. 1  
No. 526 Fute 3rd Road East  
Pilot Free Trade Zone, Shanghai 200131,  
China  
T +86 21 5868 5111

#### Guangzhou Office:

Room 1410-12, Yian Plaza  
33 Jian She Liu Ma Road  
Guangzhou, China  
T +86 20 8363 4768

### Germany

#### AMETEK CTS Europe GmbH

Lünener Straße 211  
59174 Kamen, Deutschland  
T +49 2307 26070-0  
[sales.cts.de@ametek.com](mailto:sales.cts.de@ametek.com)

### Great Britain

#### AMETEK (GB) Ltd. t/a Teseq

5 Ashville Way, Molly Millars Lane  
Wokingham  
Berkshire RG41 2PL  
Great Britain  
T +44 845 074 0660  
[ametekgb.service@ametek.com](mailto:ametekgb.service@ametek.com)

### Japan

#### AMETEK Co. Ltd.

#### Tokyo office

3rd floor, Shiba NBF Tower,  
1-1-30 Shiba-Daimon, Minato-ku  
Tokyo, 105-0012, Japan  
T +81 3 6809 2401  
[cts-japan.sales@ametek.com](mailto:cts-japan.sales@ametek.com)

#### Nagoya Office

1-329 Kifune Meito-ku Nagoya-shi  
Aichi-ken, 465-0058, Japan  
T +81 52 709 5501

### Poland

#### AMETEK CTS Europe GmbH

Biuro w Polsce  
ul. Ogrodowa 31/35  
00-893 Warszawa, Polen  
T +48 518 643 512  
[infopolska.cts@ametek.com](mailto:infopolska.cts@ametek.com)

### Singapore

#### AMETEK Singapore Pte. Ltd.

No. 43 Changi South Avenue 2  
#04-01 Singapore 486164  
T +65 6484 2388  
[singapore.sales.cts@ametek.com](mailto:singapore.sales.cts@ametek.com)

### Taiwan

#### AMETEK Taiwan Corp. Ltd.

10F-5, No. 120, Sec 2,  
GongDaoWu Rd.,  
Hsinchu City 30072, Taiwan  
T +886 3 57 5099  
[taiwan.sales.cts@ametek.com](mailto:taiwan.sales.cts@ametek.com)

### USA

#### AMETEK CTS US

52 Mayfield Avenue  
Edison, New Jersey 08837, USA  
T +1 732 417 0501  
Toll free: +1 888 417 0501  
[usasales.cts@ametek.com](mailto:usasales.cts@ametek.com)

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Accelonix BV  
Luchthavenweg 18b • NL-5657 EB •  
Eindhoven • The Netherlands •  
T: +31 40 750 1650 • E: [info@accelonix.nl](mailto:info@accelonix.nl)

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