

CBA 230M-080 150 kHz TO 230 MHz 80 WATT CLASS A BROADBAND AMPLIFIER



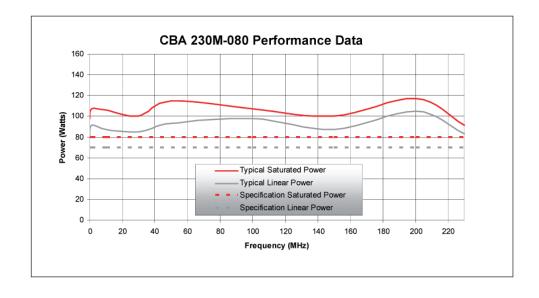
Designed specifically for Conducted EMC testing, this mismatch tolerant Class A amplifier is ideally suited to provide power into Bulk Current Injection (BCI) Probes, injection clamps and CDN for IEC61000-4-6 conducted susceptibility testing up to and beyond the normal 10 V emf test level.

The 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.

Class A linear and low distortion design

- Ideal for IEC61000-4-6 testing
- Mismatch tolerant and unconditionally stable
- Rugged design for EMC testing

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. Front panel indicators are provided to indicate over-temperature and rf interlock operation.







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Technical specifications

Frequency range (instantaneous) Rated output power 80 W minimum (90 W typical) Output power at 1 dB gain compression 70 W minimum (80 W typical) 50 dB Third order intercept point (see note 1) 58 dBm Gain variation with frequency ±2 dB Harmonics at 70 W output power Output impedance 50 Ohms Stability Unconditional Output VSWR tolerance (see note 2) Infinite any phase Input VSWR 2:1 RF connector style USB interface Supply voltage (single phase) Supply voltage (single phase) Supply frequency range 47 to 63 Hz Supply power <400 VA 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 EN61010-1 Case dimensions 19 inch, 3U case, 440 mm deep Mass Operating temperature range Oto 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors 341-920 Rack mountable with front panel mounted input/output connectors				
Output power at 1 dB gain compression 50 dB Third order intercept point (see note 1) 58 dBm Gain variation with frequency ±2 dB Harmonics at 70 W output power Better than -20 dBc Output impedance 50 Ohms Stability Unconditional Output VSWR tolerance (see note 2) Infinite any phase Input VSWR Fr connector style Type N female USB interface Optional Supply voltage (single phase) 85 to 264 Vac Supply frequency range 47 to 63 Hz Supply power <400 VA 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 EN61000-3-3 Safety EN61000-3-3 Safety EN61010-1 Case dimensions 13 kg Operating temperature range 0 to 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Frequency range (instantaneous)		0.15 to 230 MHz	
Gain			• • • • • • • • • • • • • • • • • • • •	
Third order intercept point (see note 1) Gain variation with frequency Harmonics at 70 W output power Output impedance Stability Unconditional Output VSWR tolerance (see note 2) Infinite any phase Input VSWR Proper Stability Unconditional Output VSWR Unconditional Output VSWR Unconditional Output VSWR Unconditional Output VSWR 2:1 RF connector style USB interface Optional Supply voltage (single phase) Supply requency range 47 to 63 Hz Supply power 4400 VA Mains connector IEC320 Conducted and radiated emissions Conducted and radiated immunity 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, 3U case, 440 mm deep Mass Operating temperature range Oto 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Output power at 1 dB gain compression		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Gain variation with frequency ±2 dB Harmonics at 70 W output power Better than -20 dBc Output impedance 50 Ohms Stability Unconditional Output VSWR tolerance (see note 2) Infinite any phase Input VSWR 2:1 RF connector style Type N female USB interface Optional Supply voltage (single phase) 85 to 264 Vac Supply frequency range 47 to 63 Hz Supply power <400 VA 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, 3U case, 440 mm deep Mass 13 kg Operating temperature range 0 to 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Gain		50 dB	
Harmonics at 70 W output power Output impedance Stability Unconditional Output VSWR tolerance (see note 2) Infinite any phase Input VSWR 2:1 RF connector style USB interface Optional Supply voltage (single phase) Supply frequency range 47 to 63 Hz Supply power Adains connector IEC320 Conducted and radiated emissions Conducted and radiated immunity EN61326: 1997 Table 1 Mains harmonic currents EN61000-3-2 Voltage fluctuations and flicker Safety EN61010-1 Case dimensions 19 inch, 3U case, 440 mm deep Mass Operating temperature range Oto 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Third order intercept point (see note 1)		58 dBm	
Output impedance Stability Unconditional Output VSWR tolerance (see note 2) Infinite any phase Input VSWR 2:1 RF connector style USB interface Optional Supply voltage (single phase) Supply frequency range A7 to 63 Hz Supply power <400 VA Mains connector IEC320 Conducted and radiated emissions Conducted and radiated immunity EN61326: 1997 Table 1 Mains harmonic currents EN61000-3-2 Voltage fluctuations and flicker Safety EN61010-1 Case dimensions 19 inch, 3U case, 440 mm deep Mass Operating temperature range Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Gain variation with frequency		±2 dB	
Stability Output VSWR tolerance (see note 2) Input VSWR Input VSWR 2:1 RF connector style USB interface Optional Supply voltage (single phase) Supply frequency range 47 to 63 Hz Supply power 4400 VA 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, 3U case, 440 mm deep Mass Operating temperature range Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Harmonics at 70 W output power		Better than -20 dBc	
Output VSWR tolerance (see note 2) Input VSWR RF connector style USB interface Optional Supply voltage (single phase) Supply frequency range 47 to 63 Hz Supply power 47 to 63 Hz Supply power Conducted and radiated emissions EN61326 Class A Conducted and radiated immunity Mains harmonic currents EN61000-3-2 Voltage fluctuations and flicker Safety EN61010-1 Case dimensions 19 inch, 3U case, 440 mm deep Mass Operating temperature range Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Output impedance		50 Ohms	
Input VSWR RF connector style USB interface Supply voltage (single phase) Supply frequency range Supply power Supply power Conducted and radiated emissions Conducted and radiated immunity Mains harmonic currents EN61326: 1997 Table 1 Mains harmonic currents EN61000-3-2 Voltage fluctuations and flicker Safety EN61010-1 Case dimensions 19 inch, 3U case, 440 mm deep Mass Operating temperature range Oto 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Stability		Unconditional	
RF connector style Type N female USB interface Optional Supply voltage (single phase) 85 to 264 Vac Supply frequency range 47 to 63 Hz Supply power < 400 VA 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, 3U case, 440 mm deep Mass 13 kg Operating temperature range 0 to 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Output VSWR tolerance (see note 2)		Infinite any phase	
USB interface Optional Supply voltage (single phase) 85 to 264 Vac Supply frequency range 47 to 63 Hz Supply power < 400 VA 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, 3U case, 440 mm deep Mass 13 kg Operating temperature range 0 to 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Input VSWR		2:1	
Supply voltage (single phase) Supply frequency range Supply power Ad0 VA Mains connector IEC320 Conducted and radiated emissions 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, 3U case, 440 mm deep Mass Operating temperature range Oto 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	RF connector style		Type N female	
Supply frequency range 47 to 63 Hz Supply power < 400 VA 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, 3U case, 440 mm deep Mass 13 kg Operating temperature range 0 to 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	USB interface		Optional	
Supply power Mains connector Conducted and radiated emissions Conducted and radiated immunity 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, 3U case, 440 mm deep Mass 13 kg Operating temperature range Oto 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Supply voltage (single phase)		85 to 264 Vac	
Mains connector 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, 3U case, 440 mm deep Mass 13 kg Operating temperature range Oto 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Supply frequency range		47 to 63 Hz	
Conducted and radiated emissions 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, 3U case, 440 mm deep Mass 13 kg Operating temperature range Oto 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Supply power		<400 VA	
Conducted and radiated immunity Mains harmonic currents EN61000-3-2 Voltage fluctuations and flicker EN61000-3-3 Safety EN61010-1 Case dimensions 19 inch, 3U case, 440 mm deep Mass 13 kg Operating temperature range Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Mains connector		IEC320	
Mains harmonic currents Voltage fluctuations and flicker EN61000-3-2 Voltage fluctuations and flicker EN61000-3-3 Safety EN61010-1 Case dimensions 19 inch, 3U case, 440 mm deep Mass 13 kg Operating temperature range Oto 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Conducted and radiated emissions		EN61326 Class A	
Voltage fluctuations and flicker EN61000-3-3 Safety EN61010-1 Case dimensions 19 inch, 3U case, 440 mm deep Mass 13 kg Operating temperature range 0 to 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Conducted and radiated immunity		EN61326: 1997 Table 1	
Safety EN61010-1 Case dimensions 19 inch, 3U case, 440 mm deep Mass 13 kg Operating temperature range 0 to 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Mains harmonic currents		EN61000-3-2	
Case dimensions 19 inch, 3U case, 440 mm deep Mass 13 kg Operating temperature range 0 to 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Voltage fluctuations and flicker		EN61000-3-3	
Mass 13 kg Operating temperature range 0 to 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Safety		EN61010-1	
Operating temperature range 0 to 40°C Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Case dimensions		19 inch, 3U case, 440 mm deep	
Options (select at time of ordering) 341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Mass		13 kg	
341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Operating temperature range		0 to 40°C	
341-720 Bench model with front panel mounted input/output connectors 341-820 Rack mountable with front panel mounted input/output connectors	Options (select at time of ordering)			
341-820 Rack mountable with front panel mounted input/output connectors		-		
	341-820			
	341-920	Rack mountable with rear 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.

