

AMP2090A SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Designed for EMI/RFI, lab, CW/Pulse and all communication applications Small form factor, rack mounted system
Class A/AB Linear design
High Power Advanced technology devices
Instantaneous ultra-wide bandwidth

Built-in protection circuits, with extensive monitoring

Local LCD & remote flexible interfaces

High efficiency, with unprecedented reliability and ruggedness



ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	0.8 - 4.2 GHz	
Power Output@ Psat	300 Watt Min	CW or Pulse
Power Gain	55 dB Min	OdBm or less for rated Pout
Power Gain Flatness	4 dB p-p Max	Constant input power
Gain Adjustment Range	20 dB Min	Local or remote
Input / Output Return Loss	-10 dB Max	
2-Tone Intermodulation (IMD)	<-30 dBc Typ	45dBm/Tone, Δ = 1MHz
Harmonics	<-20 dBc Typ	At rated output
Spurious	-60 dBc Max	Non-harmonic
Operating Voltage	120 VAC 3-phase, 47-63 Hz	400Hz & Alt. power available
Power Consumption	2500 Watt Max	At rated output
Input Power Protection	+10 dBm Max ¹	
Load VSWR Protection	4 : 1: Max ²	Foldback @ preset limit
Sample Port Coupling (optional)	-50 dB	N-Female

¹ Units with optional digital monitor and control, for basic units <10 Sec without damage

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Ambient Temperature	0 to +50°C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	up to 95 %	Non-condensing
Altitude	5000 meters	
Shock & Vibration	Normal transport ³	

³ MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions W x H x D	483 x 221 x 560 mm	5U, excluding handles
Weight	30 Kg. Max	
RF Conn. In / Out / Sample (optional)	N-Female	Front or rear panel
Interface Connector	9-Pin D-Sub	Rear panel
AC Power	IEC 60320-C14	Or equivalent
Cooling	Built in Fan Cooling	Variable speed
OPTIONAL: Digital Monitor & Control (DMC)	Ethernet RJ-45 TCP/IP, RS422/485, USB	
FWD, REV, VSWR, GAIN, ALC, V & I, TEMP,	Optional GPIB Interface	IEEE rear panel
Optional Safety Interlock (INT)	Open=STBY/Short=RFON	BNC-F rear panel

² Units with optional digital monitor and control, for basic units <1 minute at rated Pout



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AVAILABLE SPECIAL OPTIONS

Parameter	Specification	Notes
Option FRS: Forward RF Sample	-50dB, Type N-Female	Front or rear panel
Option RRS: Reflected RF Sample	-40dB, Type N-Female	Front or rear panel
Option GPIB: GPIB remote control	GPIB IEEE-488 Remote capability	
Option BST: Battle-short	Disables faults during critical applications	Front or rear panel
Included CPM: Calibrated Power Monitoring	Offset correction entry for +/- 0.2dB accuracy	7-points standard ⁴
(With purchase of Option DMC)		

⁴ Consult with the factory if additional points are required.

OUTLINE DRAWING

SHOWN WITH LCD DIGITAL CONTROLLER

