



AMP4024AP SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Designed for S-Band long pulse radar systems
High power advanced device technology
Small form factor rack-mounted system
High power peak pulse applications
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	2.0 - 3.0 GHz				
Power Output	1000 Watt Min			Pulse	
Power Gain	60 dB Min			0dBm or less for rated Pout	
Power Gain Flatness	3.0 dB p-p Max			Constant input power	
Pulse Characteristics	Width	Duty	PRF	Rise/Fall	Droop
	up to 1 mS	20 % Max	Up to 100 KHz	<100 nS	1 dB Typ ³
Input Return Loss	-10 dB Max				
Output Power On/Off Ratio	80 dB Max			TTL Gate Control	
Harmonics	-20 dBc Max			At rated Pout	
Spurious	-60 dBc Max			Non-harmonics	
Operating Voltage	200 - 240 VAC Nom			47 - 63Hz	
Power Consumption	2 KW Max			@ 20% Duty cycle	
Input Power Protection	+10 dBm Max ¹				
Load VSWR Protection	4 : 1: Max ²			Foldback @ preset limit	
Sample Port (optional)	-60 dB			N-Female	

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

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

3 Droop <1dB Typ @100usec, overshoot & droop 1dB typ @ 1msec

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	3000 meters	
Shock & Vibration	Normal transport ⁴	

4 MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions W x H x D	482 x 310 x 750 mm	7U, excluding handles
Weight	40 Kg. Max	
RF Connectors Input/Output/Sample	N-Female	Front or rear panel
Gate Control	BNC Female	Front panel
AC Power / Interface	MS Type / 9-Pin D-Sub	Or equivalent
Cooling	Built in Fan Cooling	Variable speed
OPTIONAL: Digital Monitor & Control (DMC) FWD, REV, VSWR, GAIN, ALC, V & I, TEMP, Optional Safety Interlock (INT)	Ethernet RJ-45 TCP/IP, RS422/485, USB Optional GPIB Interface Open=STBY/Short=RFON	IEEE rear panel BNC-F rear panel

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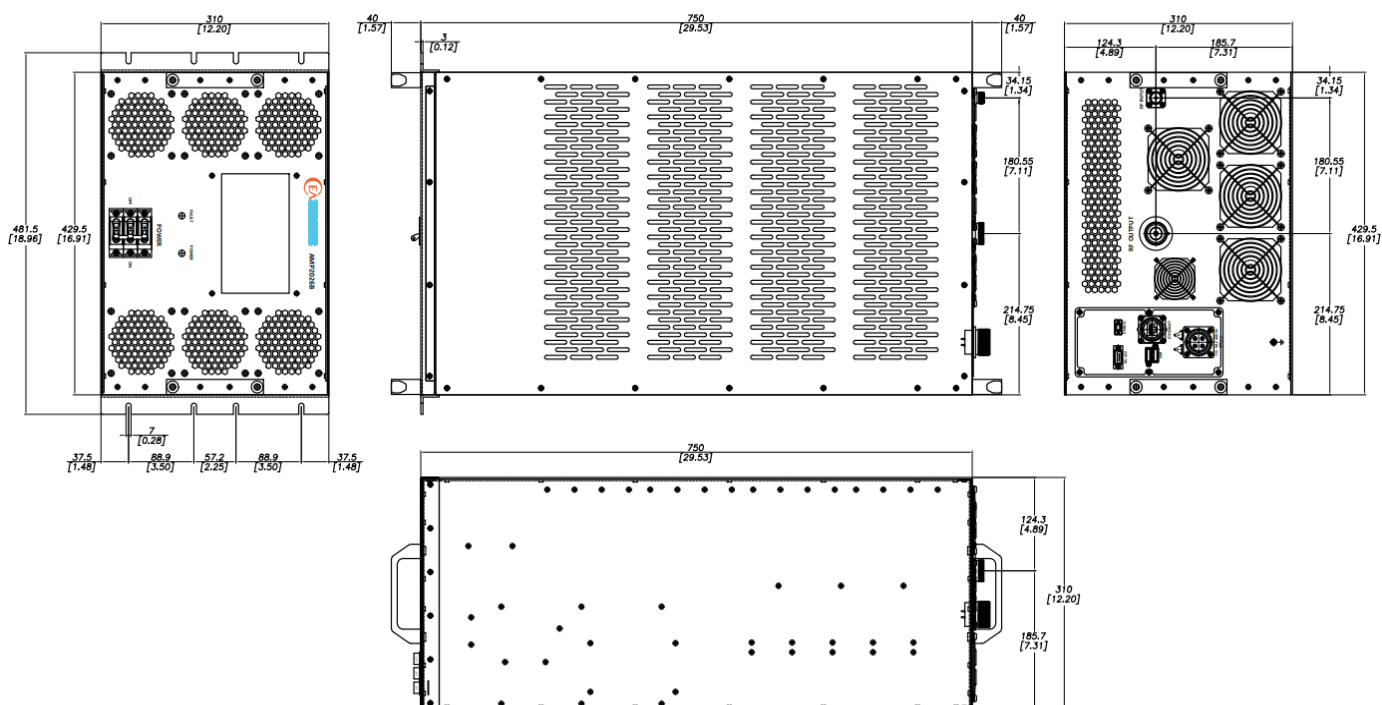
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AVAILABLE SPECIAL OPTIONS

Parameter	Specification	Notes
Option FRS: Forward RF Sample	-60dB, Type N-Female	Front or rear panel
Option RRS: Reflected RF Sample	-50dB, Type N-Female	Front or rear panel
Option GPIB: GPIB remote control	GPIB IEEE-488 Remote capability	
Included CPM: Calibrated Power Monitoring (With purchase of Option DMC)	Offset correction entry for +/- 0.2dB accuracy	5-points standard ⁵

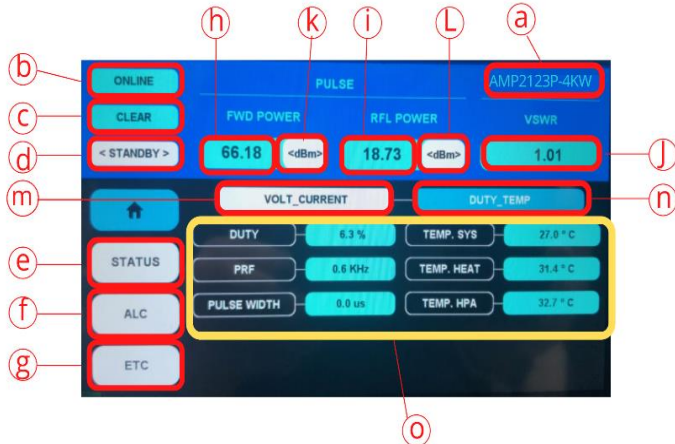
⁵ Consult with factory if additional points would be required

OUTLINE DRAWING



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CONTROLLER - PRIMARY (MAIN) SCREENS

	a - Model: Amplifier model number b - STANDBY/ONLINE: Display STANDBY/ONLINE status c - CLEAR/FALUT: Display CLEAR/FAULT status d - STANDBY/ONLINE: Display STANDBY/ONLINE control e -STATUS: Displays fault & alarm monitors f - ALC: ALC menu button g - ETC: Screen selection button h - FWD POWER: Display FWD POWER value i - RFL POWER: Display RFL POWER value j - VSWR: Display VSWR value k - dBm/Watt: Display dBm/Watt selection & status L - dBm/Watt: Display dBm/Watt selection & status m - Volt_Current: Voltage & current monitor selection n - Duty_Temp: Pulse-Duty & temperature monitor selection o - Display status of the selected TABLE menu window
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