

AMP2136P-4KW SOLID STATE HIGH PULSE POWER AMPLIFIER

FEATURES

Designed for EMI/RFI, lab, HIRF/Pulse applications
 Small form factor rack-mounted system
 Class AB linear Advanced technology design
 Instantaneous S-Band octave bandwidth
 Linear high 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 - 4.0 GHz				
Power Output @ Peak Pulse	4.0 KW Typ / 3.5KW Min			Pulse	
Input Pulse Characteristics	Width	Duty	PRF	Rise/Fall	Droop
	up to 100 μS	6 % Max	up to 100 KHz	<50 nS Typ	<1 dB
Power Gain	66 dB Min			0dBm or less for rated Pout	
Power Gain Flatness	2.0 dB p-p Max			Constant input power	
Gain Adjustment Range	20 dB Min			Local or remote capable	
Input Return Loss	-10 dB Max				
Output Power On/Off Ratio	80 dB Max			TTL Gate Control	
Harmonics	<-20 dBc Typ			At rated output power	
Spurious	-60 dBc Max			Non-harmonics	
Operating Voltage	100 - 240 VAC			47 - 63Hz	
Power Consumption	1.5 KW Max			At rated Pout	
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

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 ³	

3 MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions W x H x D	430 x 444 x 580 mm	10U - Excluding handles
Weight	45 kg.	
RF Connectors, In / Out / Sample	N-Female/ SC-Female / N-Female	Front or rear panel
Gate Control	BNC Female	Front panel
AC Power / Interface Connector	IEC60320-14 / D-Sub 9-Pins	Rear panel
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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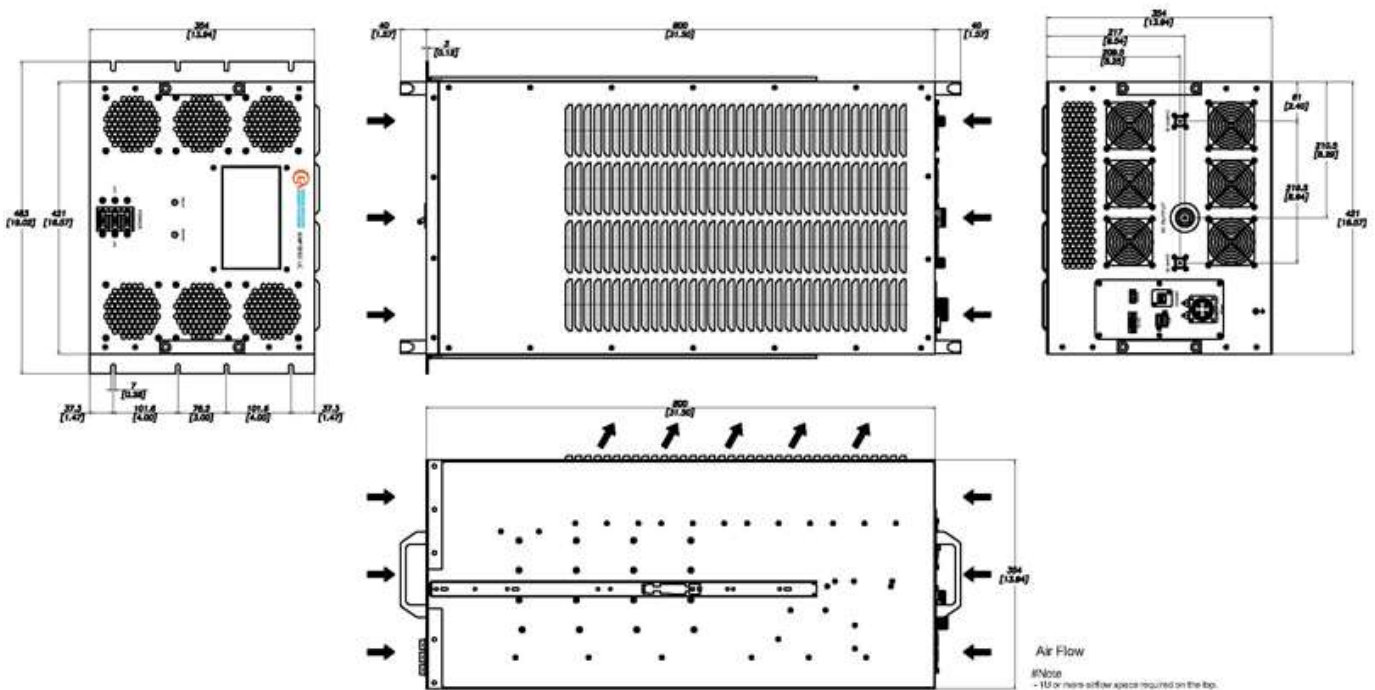
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AVAILABLE SPECIAL OPTIONS

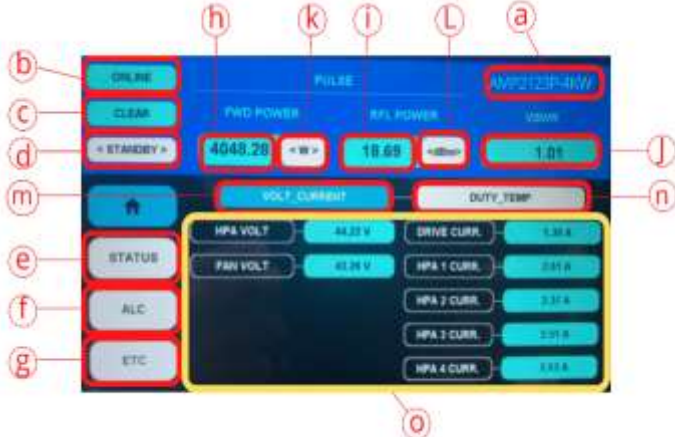
Parameter	Specification	Notes
Option FRS: Forward RF Sample	-60dB, Type N-Female	Front or rear panel
Option RRS: Reflected RF Sample	-50dB, Type N-Female	Front or rear panel
Option GPIB: GPIB remote control	GPIB IEEE-488 Remote capability	
Included CPM: Calibrated Power Monitoring (With purchase of Option DMC)	Offset correction entry for +/- 0.2dB accuracy	5-points standard ⁴

⁴ Consult with factory if additional points would be required.

OUTLINE DRAWING SHOWN WITH OPTIONAL LCD DIGITAL CONTROLLER



CONTROLLER - PRIMARY (MAIN) SCREENS

 Diagram of the AMP2136P-4KW controller main screen. The screen displays various power and status metrics. Callouts point to specific elements: (b) ONLINE button, (c) CLEAR button, (d) STANDBY button, (m) HOME button, (e) STATUS button, (f) ALC button, (g) ETC button, (h) FWD POWER display, (k) dBm/Watt selection, (i) RFL POWER display, (L) dBm/Watt selection, (a) Model number AMP2136P-4KW, (j) VSWR display, (n) DUTY_TEMP selection, and (o) Display status of the selected TABLE menu window.	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
 Diagram of the AMP2136P-4KW controller screen showing fault and alarm status. Callouts point to specific elements: (b) ONLINE button, (c) CLEAR button, (d) STANDBY button, (m) HOME button, (e) STATUS button, (f) ALC button, (g) ETC button, (h) FWD POWER display, (k) dBm/Watt selection, (i) RFL POWER display, (L) dBm/Watt selection, (a) Model number AMP2136P-4KW, (j) VSWR display, (n) DUTY_TEMP selection, and (m) Display status of the fault & alarm status.	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 - Display status of the fault & alarm status
 Diagram of the AMP2136P-4KW controller screen showing detailed pulse and temperature data. Callouts point to specific elements: (b) ONLINE button, (c) CLEAR button, (d) STANDBY button, (m) HOME button, (e) STATUS button, (f) ALC button, (g) ETC button, (h) FWD POWER display, (k) dBm/Watt selection, (i) RFL POWER display, (L) dBm/Watt selection, (a) Model number AMP2136P-4KW, (j) VSWR display, (n) DUTY_TEMP selection, and (o) Display status of the selected TABLE menu window.	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