Solid State High Power Amplifier

1.0 – 3.0 GHz, 500 Watt, Wide Instantaneous Bandwidth, Built-in protection

Broadband Series: PA2037

FEATURES

Rack mounted system
Class AB linear GaN design
1.0 – 3.0 GHz
500 Watt output power
43 dB gain

180 - 240 Volt operation

Built-in remote control, monitoring and protection

APPLICATIONS

Suitable for all modulation standards
EMI / EMC test equipment
Lab test equipment

Linear GaN. All modulations. Line powered

Pushing limits.

Broadband performance verification or immunity testing requires both power and bandwidth. The MtronPTI PA2037 Solid State Power Amp provides a 500 Watts of CW power across full bandwidth and less than 3.0 dB_{P-P} gain flatness along with full remote monitoring and control.

MtronPTI's line of Solid State Power Amplifiers is backed by a multi-national design and manufacturing team with more than 150 years combined PA design experience. MtronPTI's continuing focus on client service ensures full program life engineering support from specification to production to next generation architecture planning.

Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Units	Comment
PASSBAND						
Operating Frequency Range	$F_{CARRIER}$	1.0		3.0	GHz	
Power Output	P_{OUT_SAT}		500		Watts	Saturated CW
Power Output	P_{OUT_1dB}	300			Watts	@ 1 dB GCP
Small Signal Gain	A_{RF_MIN}	57			dB	
Power Gain Flatness				3.0	dB_{P-P}	$A_{RF_MAX} - A_{RF_MIN}$
Input Return Loss	RL_{IN}	10			dB	Within the F_{SIG} bandwidth into 50Ω
2-tone Intermodulation (IMD)			-30		dBc	47 dBm/tone, Δ = 1 MHz
Harmonics			-20		dBc	At rated POUT
Non Harmonic Spurious				-60	dBc	
Power						
Operating Voltage	V_{AC}	100		240	V_{AC}	
Power Consumption	P_{DISS}			2000	Watts	
Max Input Power	P_{IN_MIN}			+8	dBm	Without damage
Load VSWR Protection			∞ : 1			

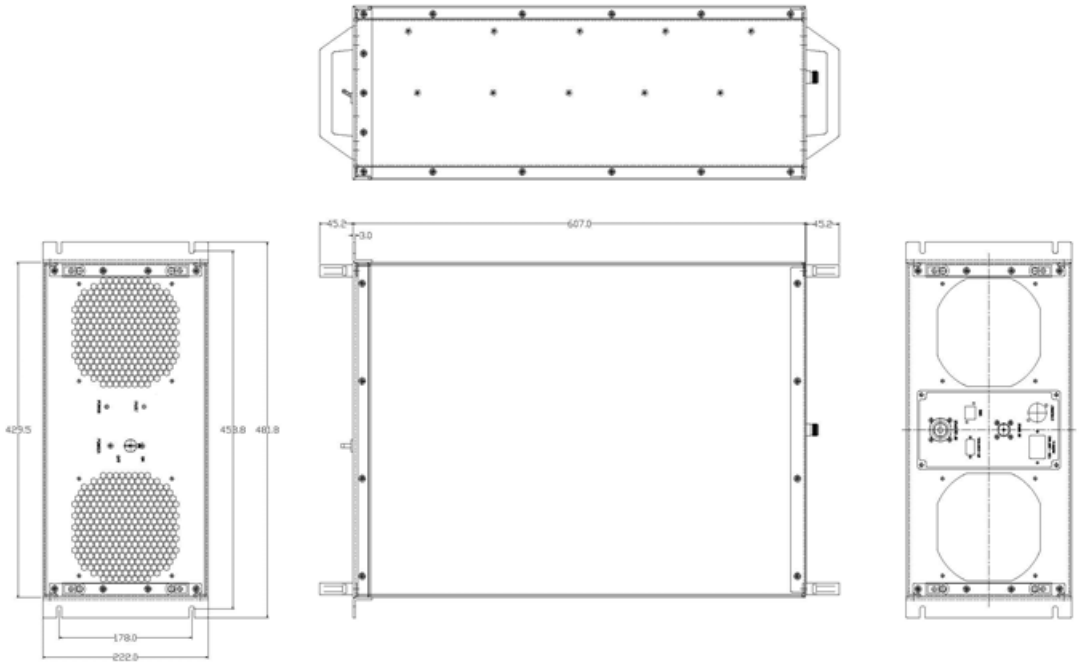
Environmental & Physical

Parameter	Symbol	Min.	Typ.	Max.	Units	Comment
Operating Case Temperature	T_{OC}	0		+50	℃	
Storage Temperature	T_{STR}	-40		+85	℃	
Relative Humidity		5		95	%	Non-condensing
Dimensions			5U			Rack mount chassis
Weight				35	kg	
RF Connectors IN / OUT			Type N female			
AC Power / Interface			IEC 60320-C14 / 9-Pin D-Sub			
Optional: digital monitor & control FWD, REV, VSWR, GAIN, ALC, V & I, TEMP			Ethernet RJ-45 TCP/IP, RS422/485, GPIB			Remote Bluetooth application

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Case Outline



Revision History

Date	Rev.	Orig.	Details of Revision
20150317	A	DPD	Initial

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