



Solid State High Power Amplifier

1.0 – 2.0 GHz, 1.2 kW, Wide Instantaneous Bandwidth, Built-in protection

Broadband Series: PA2020

FEATURES

Small form factor rack mounted system
High power advanced GaN design
1.0 – 2.0 GHz
1200 Watt output power
61 dB gain

180 - 240 Volt operation

Built-in remote control, monitoring and protection

APPLICATIONS

Linear CW and composite signal applications
EMI / EMC test equipment

High Power. Monitored. Line powered

Pushing limits.

Testing limits of the newest design requires precision power and continuous life testing. The MtronPTI PA2020 Solid State Power Amp provides a minimum of 1200 Watts of CW power across the full bandwidth and less than 3.0 dB_{P-P} gain flatness along with full remote monitoring and control.

With full power operation from 1.0 GHz to 2.0 GHz and built in VSWR protection, the PA2020 has 61 dB of gain and a compact R5U + R3U rack mount.

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.

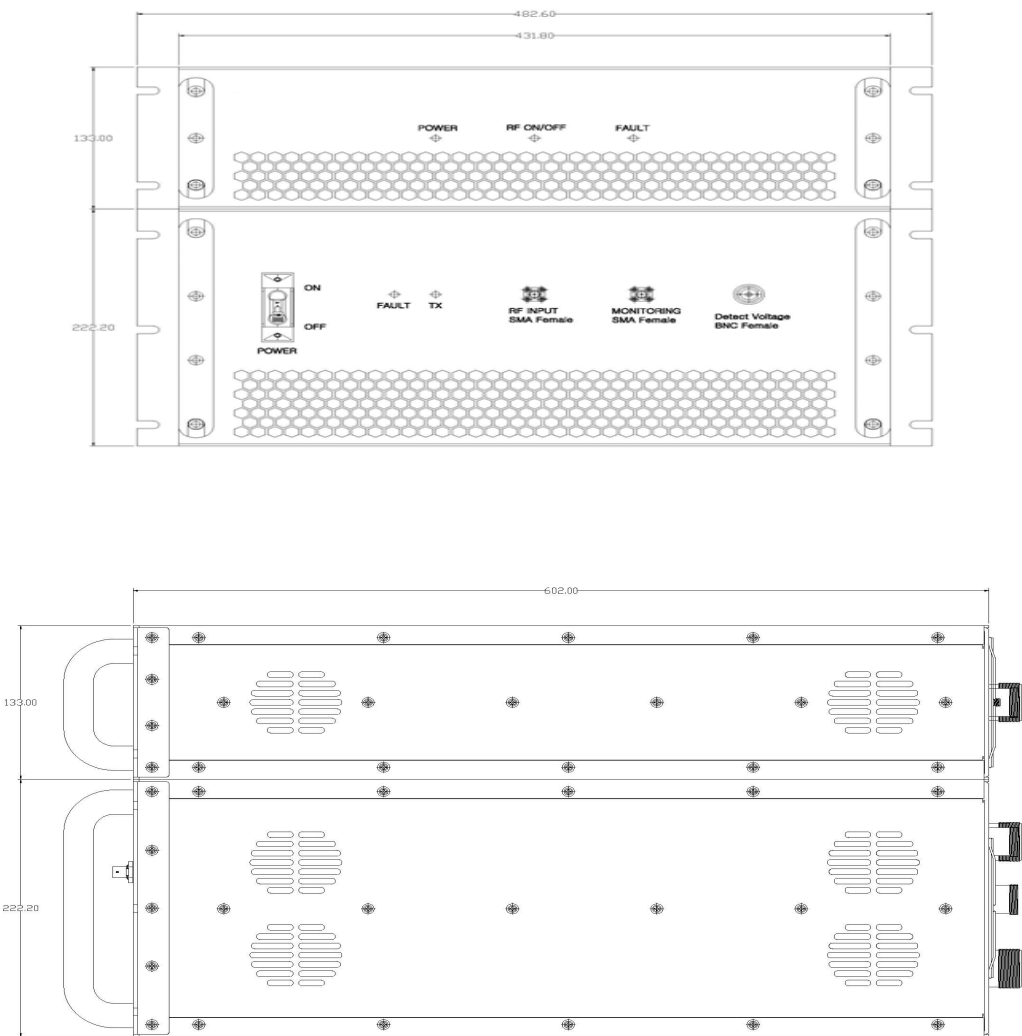
Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Units	Comment
PASSBAND						
Operating Frequency Range	F_{CARRIER}	1		2	GHz	
Power Output	$P_{\text{OUT_MIN}}$	1200			Watts	CW
Small Signal Gain	$A_{\text{RF_MIN}}$	61			dB	
Power Gain Flatness				3.0	dB _{P-P}	$A_{\text{RF_MAX}} - A_{\text{RF_MIN}}$
Input Return Loss	RL_{IN}	10			dB	Within the F_{SIG} bandwidth into 50Ω
2-tone Intermodulation (IMD)			-30		dBc	50 dBm/tone, $\Delta = 1$ MHz
Harmonics			-20		dBc	At rated P_{OUT}
Non Harmonic Spurious				-60	dBc	
Power						
Operating Voltage	V_{AC}	180		240	V _{AC}	
Power Consumption	P_{DISS}			5000	Watts	
Max Input Power	$P_{\text{IN_MIN}}$			+8	dBm	
Load VSWR Protection			$\infty : 1$			Without damage

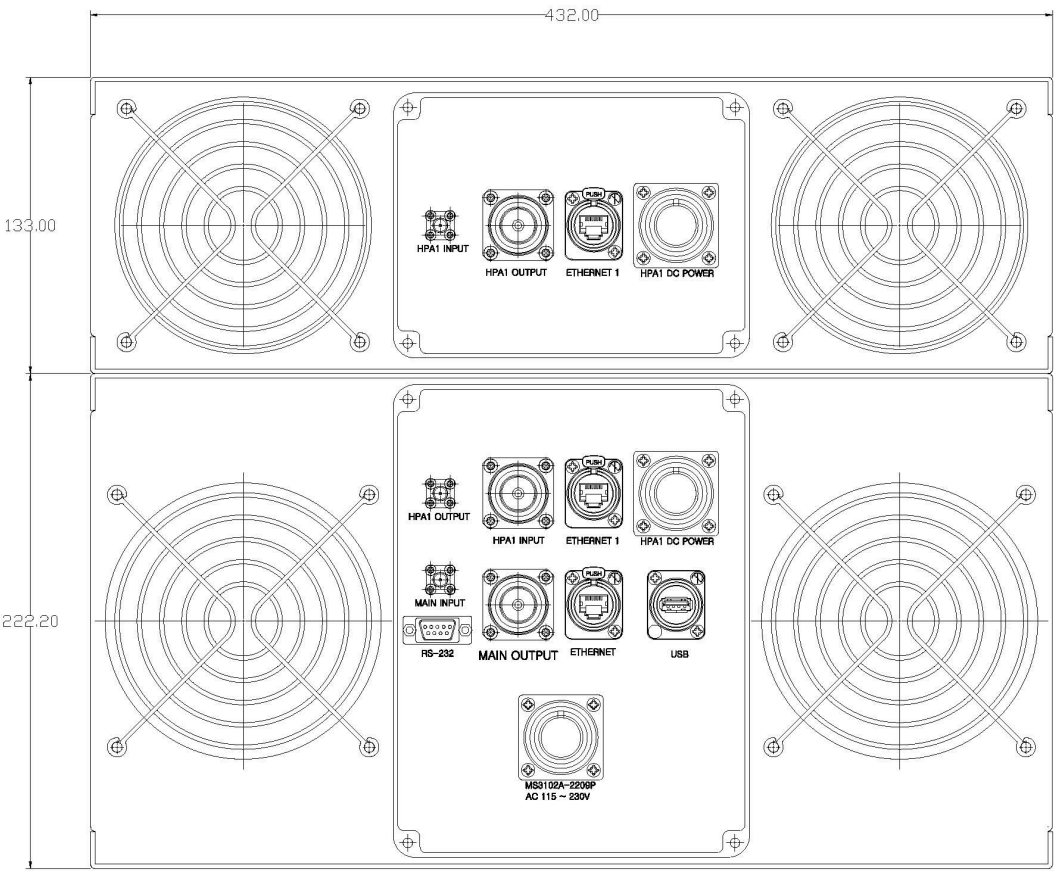
Environmental & Physical

Parameter	Symbol	Min.	Typ.	Max.	Units	Comment
Operating Case Temperature	T_{OC}	0		+50	°C	
Storage Temperature	T_{STR}	-20		+70	°C	
Relative Humidity				95	%	@ 40 °C Non-condensing
Dimensions			R5U + R3U			Without cabinet
Weight						
RF Connectors IN / OUT			Type N female / 7/16			
Optional: digital monitor & control FWD, REV, VSWR, GAIN, ALC, V & I, TEMP			Ethernet RJ-45 TCP/IP, RS422/485, GPIOB			Remote Bluetooth application

Case Outline (front / side)



Case Outline (rear)



Revision History

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

Information provided by MtronPTI is believed to be accurate and reliable. However, no responsibility is assumed by MtronPTI for its use nor for any infringements or patents or other rights of third parties that may result from its use.

No license is granted by implication or otherwise under any patent or patent rights of MtronPTI.

MtronPTI may change specifications without notice to improve end application performance or product manufacturability.

Contact MtronPTI for the most up-to-date information.