



# 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<sub>P-P</sub> 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.

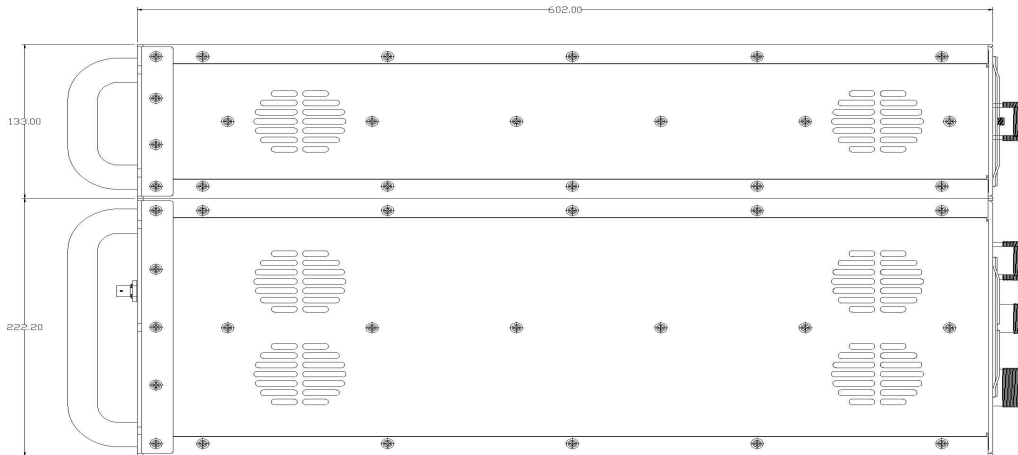
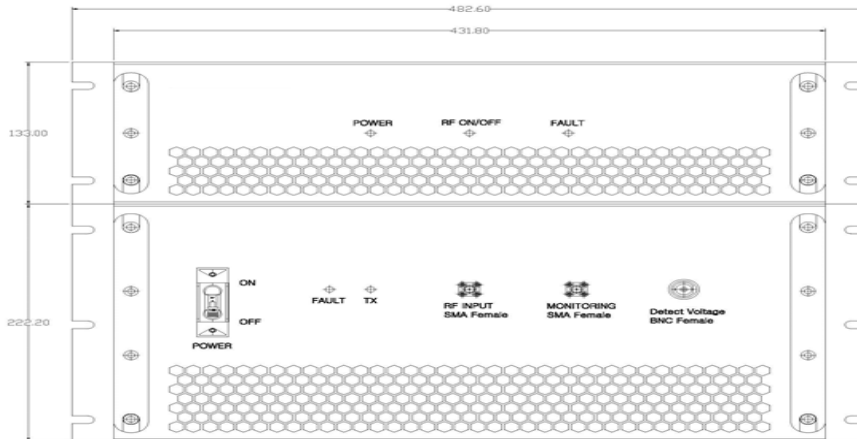
## Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Units	Comment
<b>PASSBAND</b>						
Operating Frequency Range	F <sub>CARRIER</sub>	1		2	GHz	CW
Power Output	P <sub>OUT_MIN</sub>	1200			Watts	
Small Signal Gain	A <sub>RF_MIN</sub>	61			dB	
Power Gain Flatness				3.0	dB <sub>P-P</sub>	
Input Return Loss	RL <sub>IN</sub>	10			dB	
2-tone Intermodulation (IMD)			-30		dBc	
Harmonics			-20		dBc	A <sub>RF_MAX</sub> - A <sub>RF_MIN</sub> Within the F <sub>SIG</sub> bandwidth into 50Ω 50 dBm/line, Δ = 1 MHz At rated P <sub>OUT</sub>
Non Harmonic Spurious				-60	dBc	
<b>Power</b>						
Operating Voltage	V <sub>AC</sub>	180		240	V <sub>AC</sub>	Without damage
Power Consumption	P <sub>DISS</sub>			5000	Watts	
Max Input Power	P <sub>IN_MIN</sub>			+8	dBm	
Load VSWR Protection			∞ : 1			

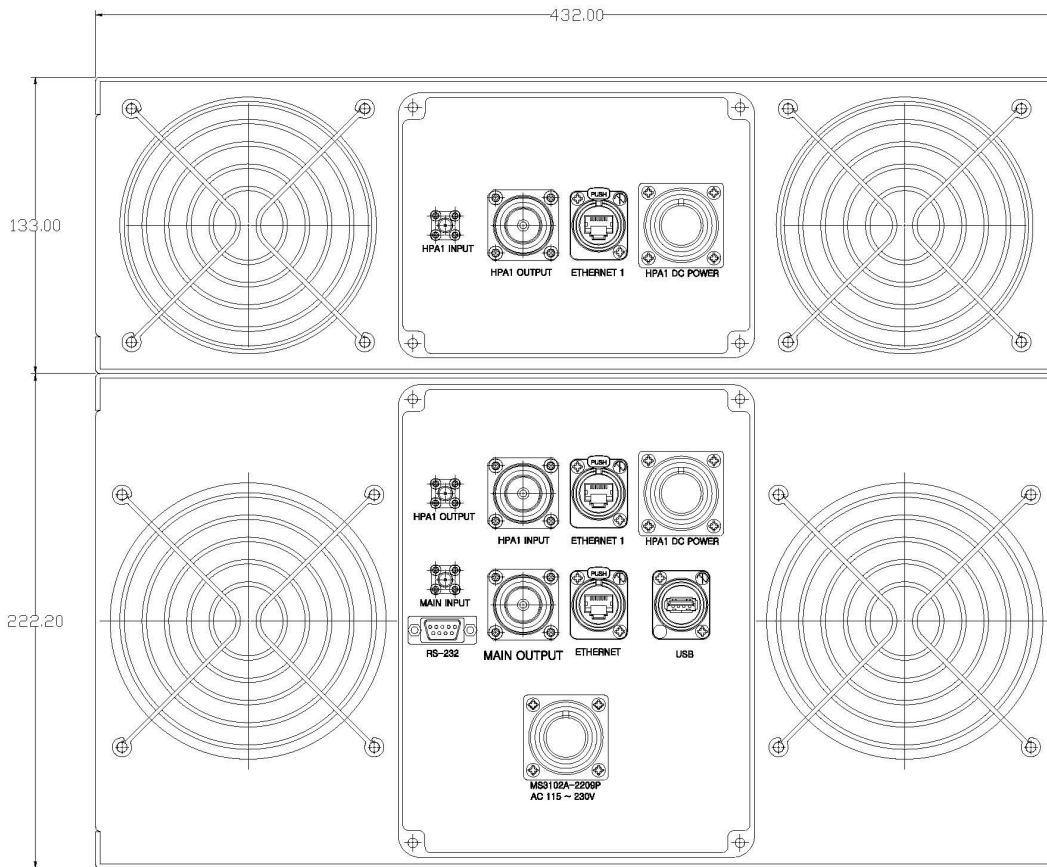
## Environmental & Physical

Parameter	Symbol	Min.	Typ.	Max.	Units	Comment
Operating Case Temperature	T <sub>OC</sub>	0		+50	°C	
Storage Temperature	T <sub>STR</sub>	-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, GPIB			Remote Bluetooth application

Case Outline (front / side)



Case Outline (rear)



Revision History

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

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

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