

General Description

The P300/200W2-18C SSPA is a high power, broadband, solid state power amplifier housed in a custom hub mountable chassis. The amplifier incorporates a wide input range DC – DC power supply, fan–forced convective thermal management, and an internal driver amplifier. The amplifier is appropriate for high–power wide–band testing, communications, radar, or any application requiring capability for simultaneous power amplification of signals across the 2.0 – 18.0 GHz spectrum.

The P300/200W2-18CP incorporates high efficiency GaN MMICs, spatially combined in a compact structure to achieve robust, high performance power amplification across the 2.0 – 18.0 GHz frequency range.

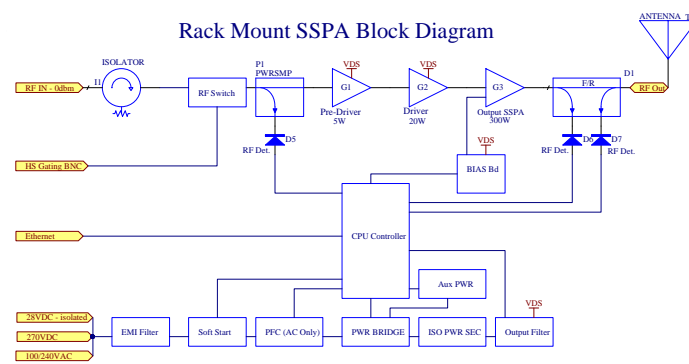


Product Features

- 2.0 – 18.0 GHz
- 300/200 Watts saturated
- Gating frequency - 100kHz
- 62 dB small signal gain
- 51 dB nominal power gain
- 28VDC input voltage
- Weight 25lbs - depends on options
- Ethernet monitor and control
- Air cooling - back panel inlet and outlet
- Liquid or conduction cooled options

Performance is typical across frequency. Please reference electrical specification table and data plots

Functional Block Diagram



Applications

- Radar
- Communications
- Test & Measurement
- EMI Testing

Ordering Information

Part No.	ECCN	Description
P300/200W2-18CP	3A611.X	2.0 – 18.0 GHz 100 Watt Amplifier

Absolute Maximum Ratings

Parameter	Rating
RF Input Power, CW, 50 Ω , T _{CASE} =25 °C	+10 dBm
Load VSWR	3.0:1
DC Current (22, 28, 30VDC)	80, 65, 60 A
Storage Air Temperature	-30 to +75 °C
Operating Air Temperature	-5 to +40 °C

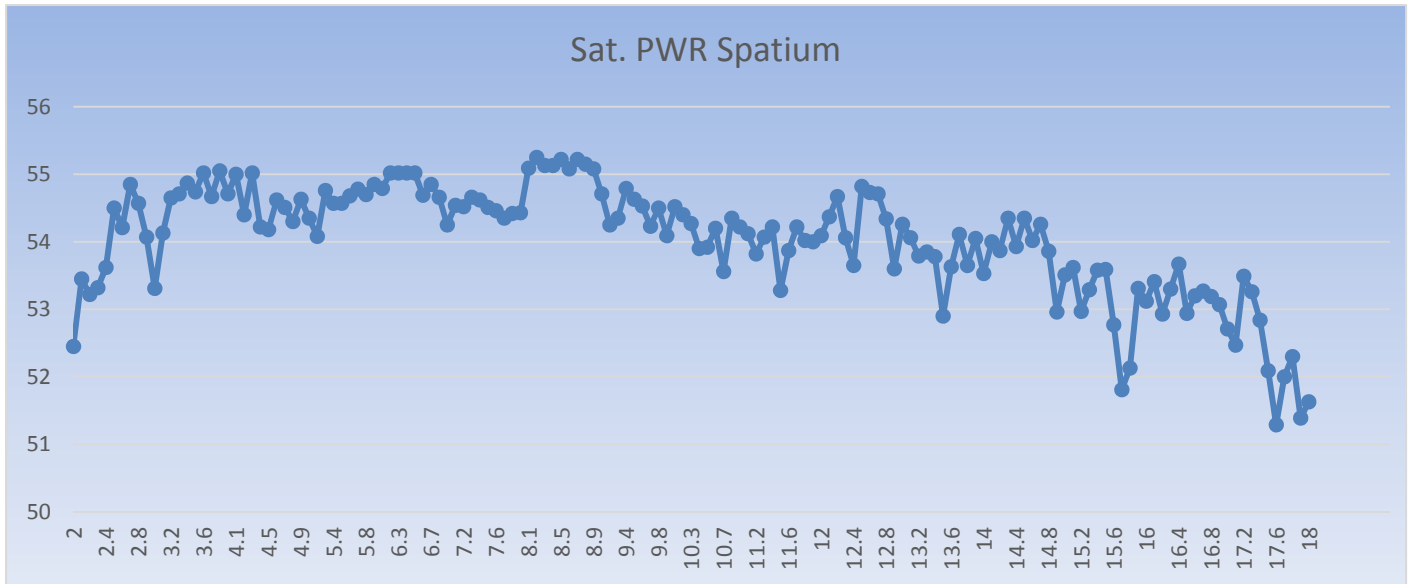
Recommended

Parameter	Min	Typ	Max	Units
Voltage (V _{dc})	22	28	30	V _{dc}
Current (dc)	60	65	80	A
Operating Air Temperature	0	25	40	°C
RF Input Power, CW		0	+5	dBm

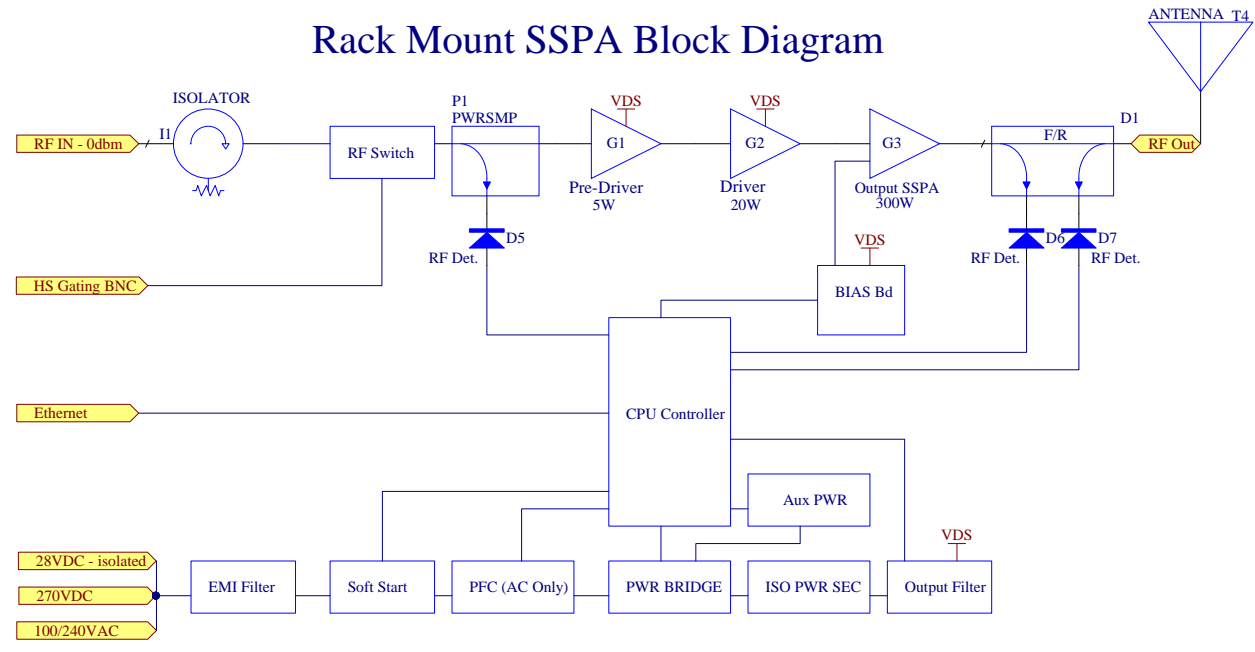
Electrical specifications are measured at specified test conditions. Specifications are not guaranteed over all recommended operating conditions.

Exceeding any one or a combination of the Absolute Maximum Rating conditions may cause permanent damage to the device. Extended application of Absolute Maximum Rating conditions to the device may reduce device reliability.

SSPA Output Power @ 35C inlet air temperature

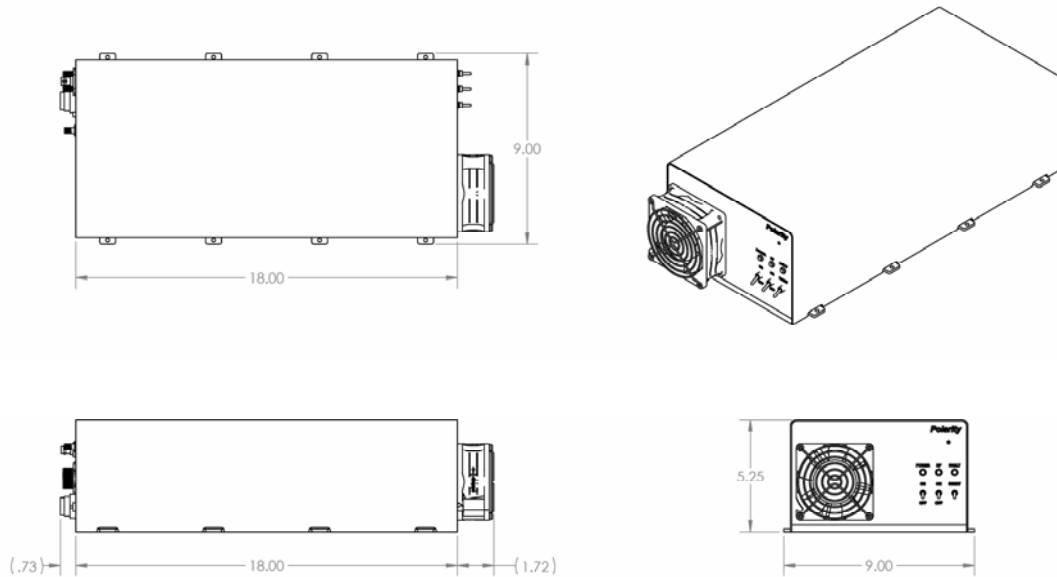


Block Diagram and Description



I/O Port	Label	Description
RF In	N/A	SMA RF Input
RF Out	N/A	N-type
DC Input	N/A	1/4/20 lugs

Package Marking and Dimensions



Handling Precautions



Caution!
ESD-Sensitive Device

Contact Information

For the latest specifications, additional product information, worldwide sales and distribution locations

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For technical questions and application information:

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