

100 W GaN Based CW Power Amplifier

Typical Applications

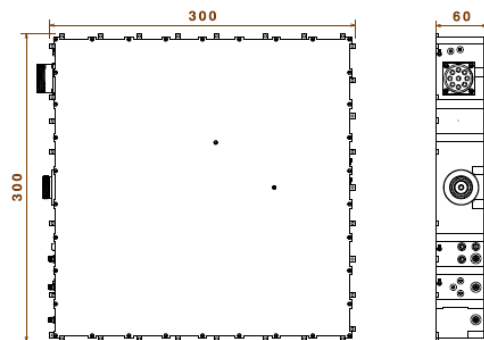
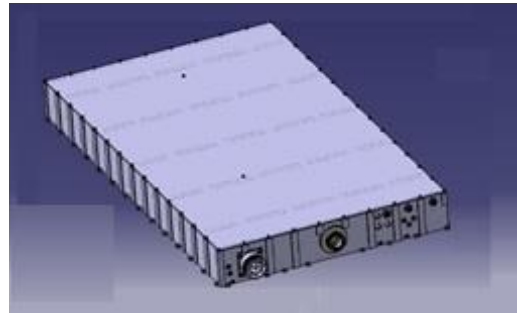
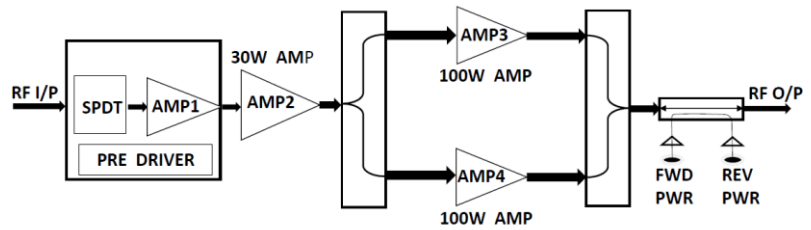
- Radar, EW and Communications.
- General Purpose RF Amplifier

Features

- Solid State Class AB and Modular Design
- Suitable for CW, AM and Pulse
- 50 ohm Input/output Impedance Matched
- Instantaneous Broadband
- GaN on SiC HEMT Technology
- Highly Reliable and Rugged Design
- Built-in Control, Monitoring and Protection

General Description

The AIDIN-SSPA-0520-100 is designed for UHF & L Bands, broadband or band specific high power Linear, CW and Pulse applications. This amplifier utilizes high power GaN on SiC HEMT devices that provide wide frequency response, high gain, high peak power capability, high linearity and high efficiency. Exceptional performance, long term reliability and high efficiency are achieved by employing advanced broadband RF matching networks and combining techniques and all qualified components. The amplifier is housed in a size which is mountable in a 19" rack. The amplifier operates from a single DC supply and has built-in control, monitoring and protection functions, with cooling provided through the base plate designed for proper heat transfer.



Electrical Specifications (at 25°C)

Operating Frequency	500 to 2000 MHz
Power Output	100 W Min, CW or Pulsed
Saturated Gain	50 dB Min.
Input Power	0 dBm Min, +5 dBm Max, CW/Pulsed
Pulse Modulation Capability	TTL Control
Input/Output VSWR	2:1
Harmonics	-10 dBc Max, -40 dBc with External Filter
Spurious	-60 dBc Max.
Output Mismatch Protection	Reflected Power Sense For O/P VSWR > 2:1
Input/Output Connector	SMA Jack / N Jack
Operating Temperature	0°C to +55°C
DC Power Supply/Interface Connector	+50 V , 20 Amps. (Max.)
Size	300mm x 300mm x 60mm Without the External Cold Plate/Heat Sink
Cooling	Through Base Plate, Designed for Proper Heat Transfer