



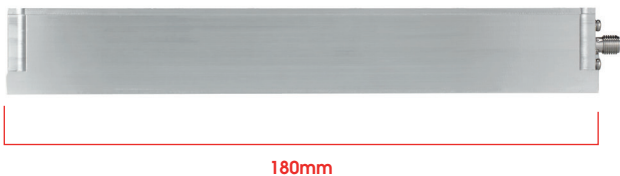
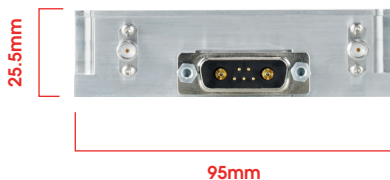
SPA082 100W PA

The SPA0727-56-47 series of high power amplifiers are ideal for broadband mobile jamming applications, EMC testing and band specific RF links. The modules utilize high power advanced GaN devices housed in compact machined Aluminium enclosure offering high gain & power, high efficiency and low distortions.

The exceptional broadband performance has been achieved by careful design of matching networks using both commercial and proprietary CAD software. In addition, using load-pull data and EM simulations have resulted in consistent and repeatable performance with the highest reliability.

Key features:-

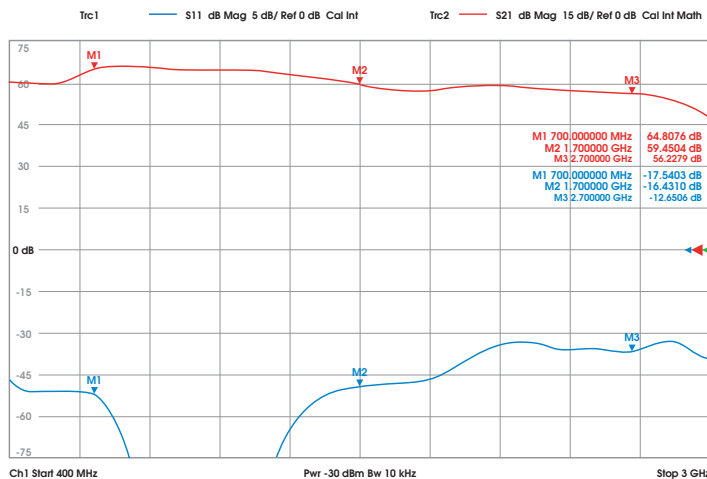
- Waveform Engineered Solid State design
- Ultra broadband performance
- Suitable for use with CW, AM/FM and higher ordered modulation schemes including LTE/UMTS.
- Temperature Monitor
- Optional features such as Forward Power Monitor/ TDD Control available



PARAMETER	VALUE	REMARK
Electrical Specification		
Operating Frequency	700 - 2700MHz	
Operating Bandwidth	2000MHz	
Output Power Psat	100W typ	
Small Signal Gain	56dB min	
Gain Flatness	±1dB	
Input Return Loss	-10dB	
Noise Figure	7dB	
Third Order Intercept Point 2-Tone @33dBm/Tone, 100kHz spacing	+48dBm min	
Harmonics @ Pout = 46dBm	15dB min	
Non-Harmonic Spurious Level	60dBc min	
Operating Voltage VDD	35V typ	Range: 34V-36V
Current Consumption	9A max at Psat	3A max at 10W GSM 2.2A max at 5W UMTS/LTE
Quiescent Current	1.3A typ	
Switching Time	2µs	ON/OFF (TDD Option)
Mechanical		
Dimensions	180mm x 95mm x 26mm	
Weight	800g	
RF Input/Output Connector	SMA Female	
DC Interface Connector	D-Sub 7-Pin Male	
Cooling	External Heatsink	Optional
Surface Finish	Iridite	
Environmental Characteristics (Design to Meet)		
Operating Temperature	-40°C to +70°C	Base Plate Temperature
Storage Temperature	-40°C to +75°C	
Relative Humidity	95%	Non-condensing
Altitude	30,000ft	
Limits		
Input RF Drive Level without damage	+15dBm max	
Load VSWR @ Pout = 100W	3:1 @ all loads phase and amplitude continuous	
Thermal Degradation	+85°C	
DC Interface Connector		
Pin A1	VDD	+34-36V DC
Pin A2	GND	Ground
Pin 1	Enable/Disable	Enable: TTL 'Low' Disable: TTL 'High' or Open
Pin 2	N/C	Not Connected
Pin 3	Forward Power Monitor	Analog DC Voltage
Pin 4	TDD Control (Optional)	Active 'High' STD TTL Logic
Pin 5	Temperature Monitor (Optional)	Analog DC Voltage (0.75V@25°C)

Specification subject to change without notice

Measured Performance:



Spectrum

