



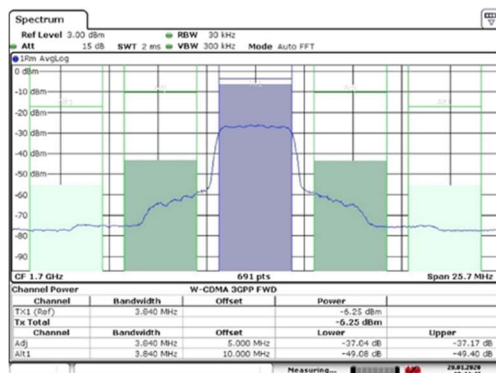
SPA115

700 to 2700 MHz 12W Linear Power Amplifier

The SPA115 series of power amplifiers are ideal for use with Software Defined Radio (SDR) and other applications such as small cells for the mobile comms market covering 2G, 3G and 4G over several frequency bands requiring high linearity in digital modulation schemes. 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:-

- 2W UMTS/LTE
- Waveform Engineered Solid State design
- Ultra broadband performance
- Suitable for use with CW, AM/FM and higher ordered modulation schemes including LTE/UMTS.
- Thermal shutdown with Auto Recovery
- Optional features such as TDD Control available



PARAMETER	VALUE	REMARK
Electrical Specification		
Operating Frequency	700 - 2700MHz	
Operating Bandwidth	2000 MHz	
Output Power Psat	12 W typ	Other Higher Power Options are available
Small Signal Gain	40 dB min	
Gain Flatness	±1 dB	
Input Return Loss	-10 dB	
Noise Figure	7 dB	
ACLR Performance	≥30dBc	Average Output Power = 33dBm
Harmonics @ Pout = 33dBm	15 dB min	
Non-Harmonic Spurious Level	60 dBc min	
Operating Voltage VDD	12V typ	Range: 10V-20V
Current Consumption	4A Typical	2W UMTS/LTE
Quiescent Current	300mA typ	
Switching Time	2µS	ON/OFF (TDD Option)
Mechanical		
Dimensions	102 mm x 53mm x 22mm	Approx.
Weight	300 g	
RF Input/Output Connector	SMA Female	
DC Interface Connector	4 Pin LEMO type	
Cooling	Via enclosure	Further Optional Heatsink can be used
Surface Finish	Iridite	
Environmental Characteristics (Design to Meet)		
Operating Temperature	-20°C to +50°C	Base Plate Temperature
Storage Temperature	-30 °C to +60°C	
Relative Humidity	95%	Non-condensing
Limits		
Input RF Drive Level without damage	+15 dBm max	
Load VSWR @ Pout = 12W	3:1 @ all loads phase and amplitude continuous	
Thermal Degradation	+85 °C	
DC Interface Connector		
Pin 1	VDD	+12V DC
Pin 2	GND	Ground
Pin 3	PA Enable/Disable	Enable: TTL 'Low' Disable: TTL 'High' or Open
Pin 4	TDD Control (Optional)	Active 'High' STD TTL Logic

Specification subject to change without notice

**For Price and Delivery information please contact the Sales Team
at
SARAS Technology Limited**

Tel: +44 (0) 113 230 8450

F: +44 (0) 113 279 6218

E-mail: sales@sarastech.co.uk

Web: <http://www.sarastech.co.uk/>

Windmill House, 277 Tong Road, Leeds, West Yorkshire, LS12 4NQ, England