

SS1T3G250A | 1000~3000MHz, 250W

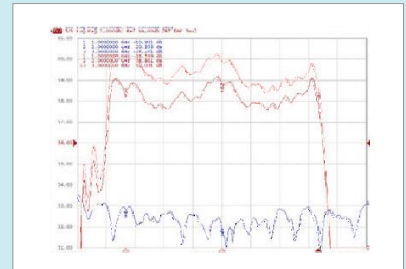
Amplifier General Description

This high power amplifier system covers the frequency range from 1000 to 3000MHz. This utilizes GaN devices that provide high gain and excellent output power performance. With exceptional performance, long term reliability and high efficiency are available by using this application.



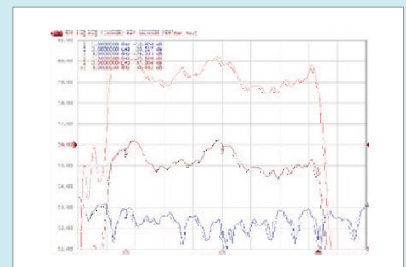
ELECTRICAL SPECIFICATIONS @ 220VAC, 25°C, 50Ω System

Parameter	Symbol	Specifications	Unit
Operating Frequency	BW	1000 ~ 3000	MHz
Power Output CW	P_{SAT}	250 Min.	Watt
Power Gain @ CW	G1dB	54 Typ.	dB
Input Power Range	P_{IN}	0 Typ.	dBm
Gain Adjustment Range	VVA	20 Typ.	dB
Input Return Loss	S_{11}	-10 Typ.	dB
Noise Figure @ maximum gain	NF	10 Typ.	dB
Third Order Intermodulation 2-Tone @ 48dBm/Tone, 1MHz Spacing	IM3	-20 Typ.	dBc
Harmonics @ P_{OUT} (without Harmonic Suppression Filters)	2ND	-20 Max.	dBc
	3RD	-10 Max.	
Spurious Signals	Spur	-60 Max.	dBc
Operating Voltage –(1-phase)	VAC	210 ~ 230	Volt
Power Consumption @ 250W CW	PD	2000 Typ.	Watt



Plot 1 – Small Signal Gain and P_{1dB}

Top Curve: Small Signal Gain @ $P_{IN} = -20dBm$ Mi
Middle Curve: Power Gain @ P_{1dB} , $P_{IN} = -15dBm$ Re
Reference: 56dB, 1dB/div.
Bottom Curve: Input Return Loss
Reference: 20dB, 10dB/Div



Plot 2 – Small Signal Gain and P_{SAT}

Top Curve: Small Signal Gain @ $P_{IN} = -20dBm$
Middle Curve: Power Gain @ P_{SAT} , $P_{IN} = 0dBm$
Reference: 56dB, 1dB/div.
Bottom Curve: Input Return Loss
Reference: 20dB, 10dB/Div.