

# **SS3T6G50A** | 3000~6000MHz, 50W

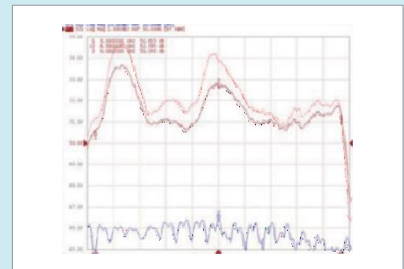
## Amplifier General Description

This high power amplifier system covers the frequency range from 3000 to 6000MHz. 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.



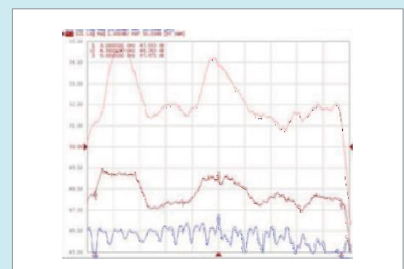
### ELECTRICAL SPECIFICATIONS @ 220VAC, 25°C, 50Ω System

Parameter	Symbol	Specifications	Unit
Operating Frequency	BW	3000 ~ 6000	MHz
Power Output CW	$P_{SAT}$	50 Min.	Watt
Power Gain @ CW	G1dB	47 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 @ 33dBm/Tone, 1MHz Spacing	IM3	-20 Typ.	dBc
Harmonics @ $P_{OUT}$ (without Harmonic Suppression Filters)	2ND	-40 Max.	dBc
	3RD	-40 Max.	
Spurious Signals	Spur	-60 Max.	dBc
Operating Voltage -(1-phase)	VAC	100 ~ 230	Volt
Power Consumption @ 50WCW	PD	500 Typ.	Watt



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

Top Curve: Small Signal Gain @  $P_{IN} = -20$ dBm  
 Middle Curve: Power Gain @  $P_{1dB}$ ,  $P_{IN} = -8.0$ dBm  
 Reference: 50dB, 1dB/div.  
 Bottom Curve: Input Return Loss  
 Reference: 20dB, 10dB/Div.



**Small Signal Gain and  $P_{SAT}$**

Top Curve: Small Signal Gain @  $P_{IN} = -20$ dBm  
 Middle Curve: Power Gain @  $P_{SAT}$ ,  $P_{IN} = 0$ dBm  
 Reference: 50dB, 1dB/div.  
 Bottom Curve: Input Return Loss  
 Reference: 20dB, 10dB/Div.