

Solid State High Power Amplifier Systems

0.8-3GHz /54 dB Gain/54 dBm Psat/220V AC

Model: TLPA0.8G3G-54-54-BC

TLPA0.8G3G-54-54-BC is a solid state high power amplifier systems provides high output power and high gain across the 0.8 to 3 GHz frequency range. The amplifier features a built-in 220V power supply, making it easy to use in most lab environments. This model features thermal self protection, preventing damage to the amplifier and providing added reliability.

Features:

- Wide Band: 0.8-3GHz
- Gain: 54dB Min
- Psat Output Power:54dBm Min
- Protection:Over TEM,over voltage, over current ,over VSWR protection
- 50 Ohm Matched Input / Output



Electrical Characteristics:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	0.8-3			GHz
Gain	GP	54			dB
Gain flatness	ΔGL		± 3		dB
Output Psat	Psat	54			dBm
Output P1dB	P1dB		50		dBm
Spurious@Pout=54dBm	Spur			-60	dBc
Harmonics@Pout=54dBm	HAM			-10	dBc
Input VSWR	VSWRin			2.0	:1
AC Voltage	Vac	220			V AC
AC Supply Current	Iac	1500@Max			W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

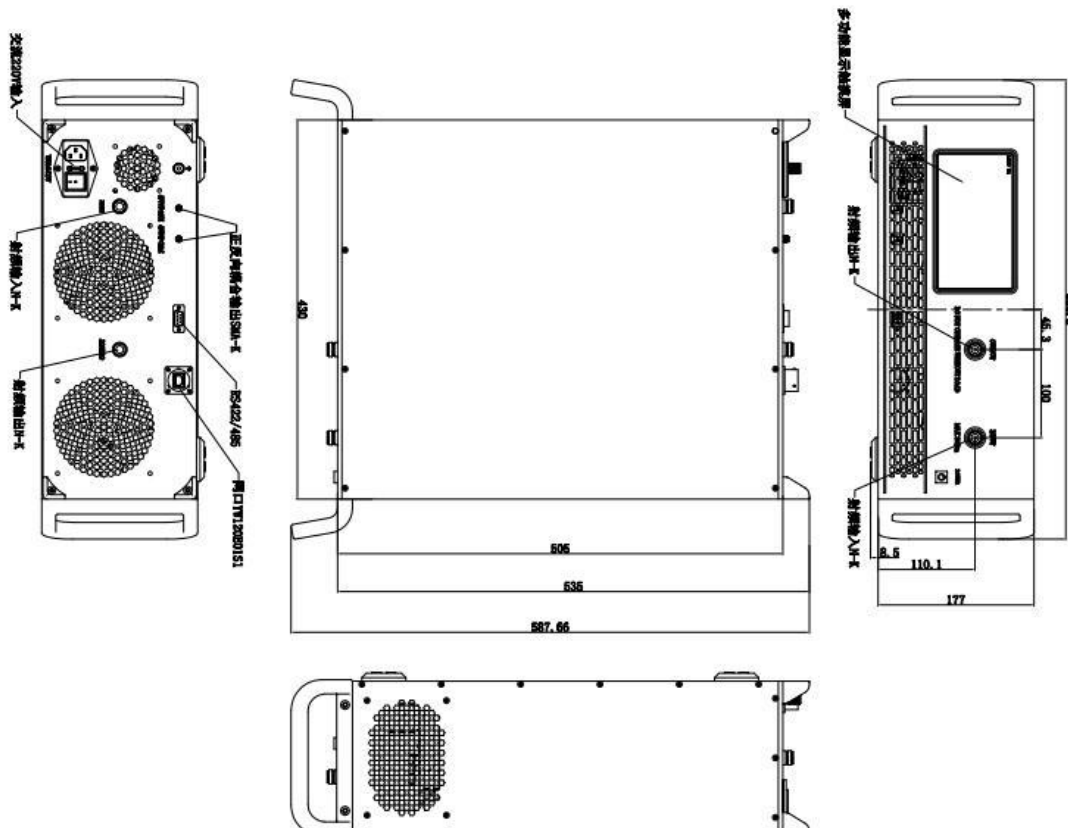
Parameter	Value	Units
Input /Output Connector	N Female/N Female	
Communication port	RJ-45/DB9	
Size	19 inch4U	mm
Weight	≤35	Kg

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	260V AC
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



Key Features:

Parameter	Advantages
Control	RS422/Ethernet, LCD Screen Display
Protection functions	1,Over TEM 2,Over voltage 3,Over current protection 4,Over VSWR
Control functions	1,Power setting On/Off 2,ALC automatic level control
Cooling system	Built in Cooling system,forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	°C
Non-operating Temperature*	-55		+125	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

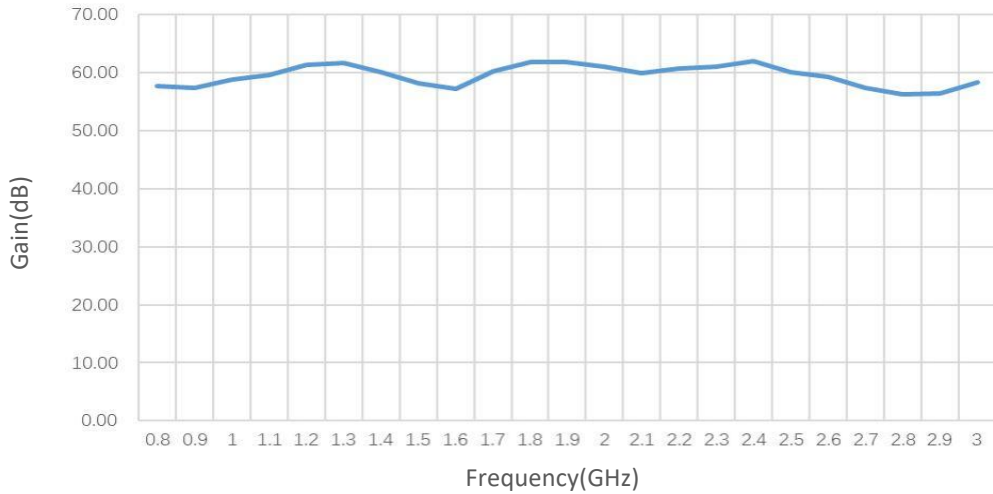
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

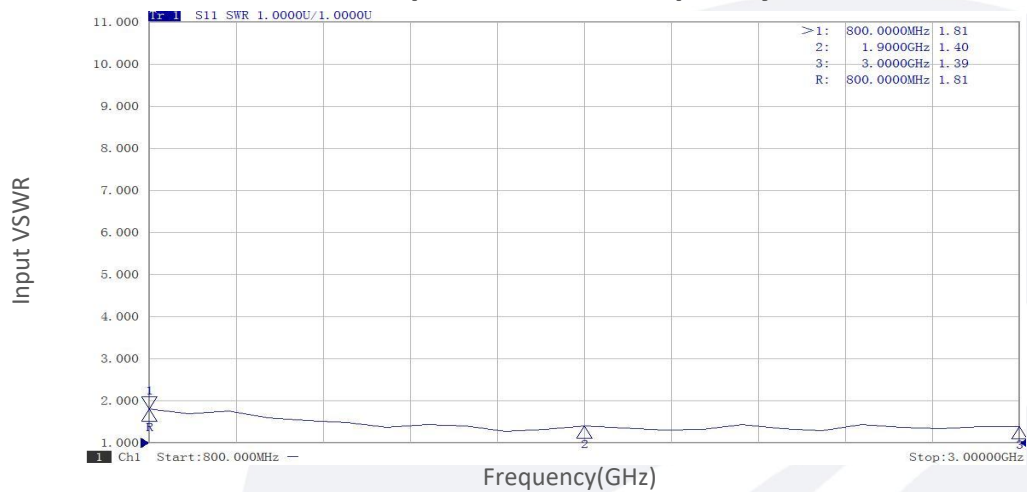
Base Number	Description	Revision
TLPA0.8G3G-54-54-BC	Solid State High Power Amplifier Systems 0.8-3GHz,Gain:54dB,Psat:54dBm,220V AC,Built in Fan Cooling	Rev.1.1

Typical Performance Data:

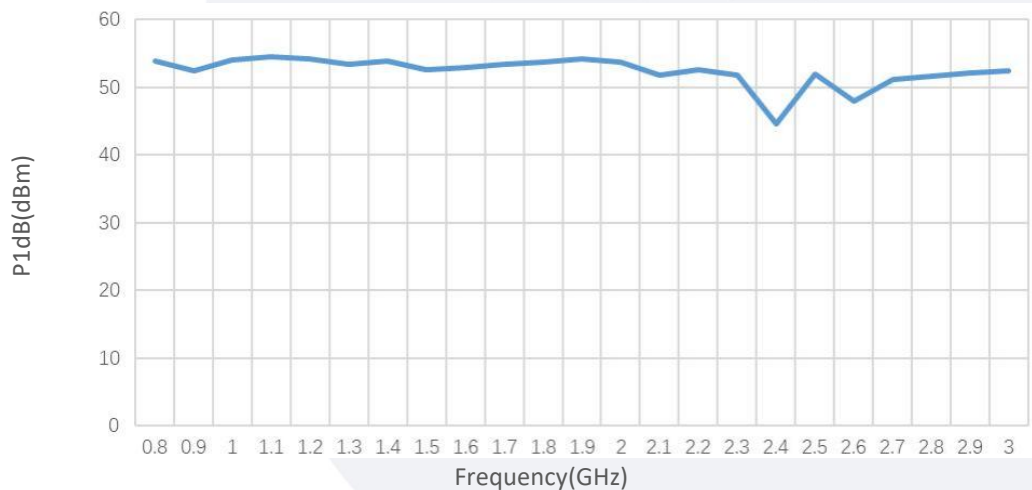
Gain vs Frequency



Input VSWR vs Frequency

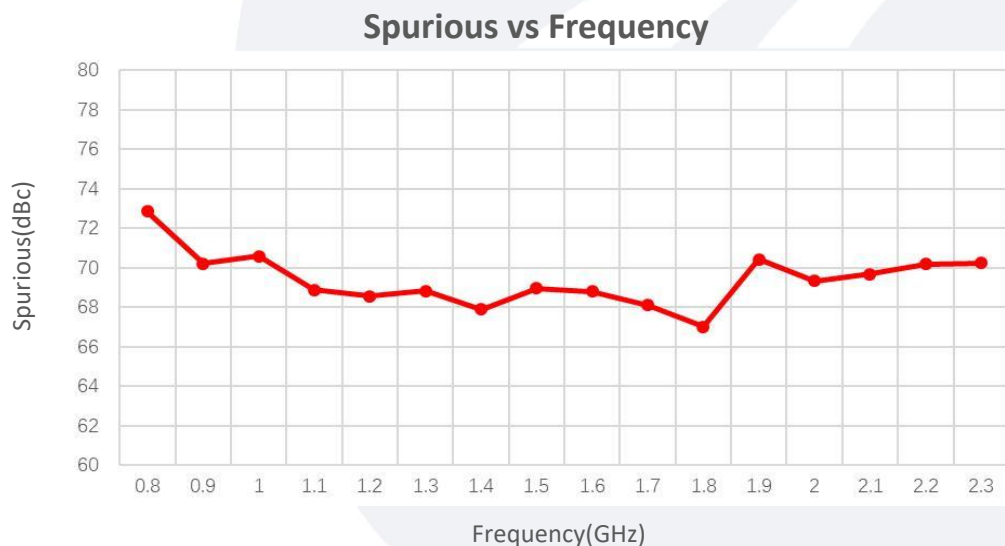
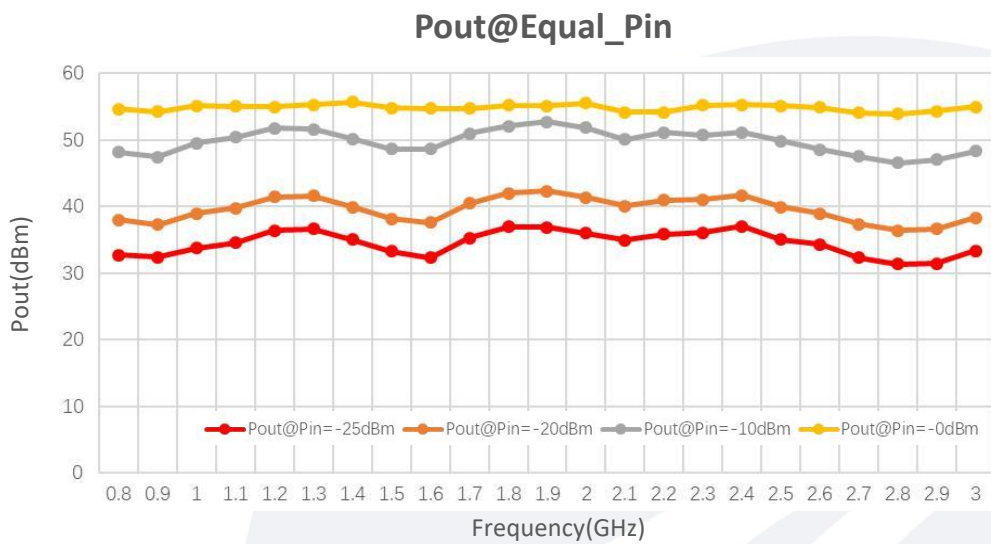
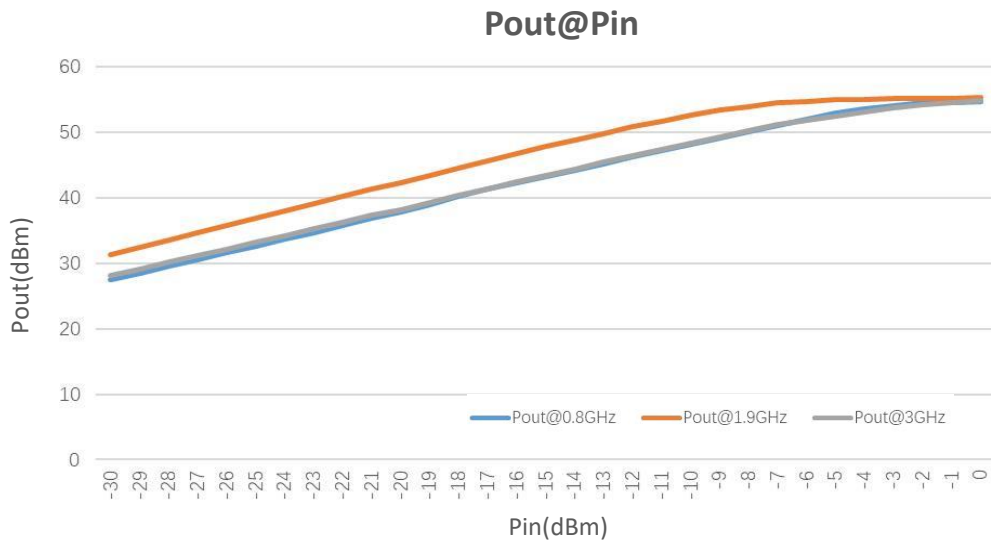


P1dB vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

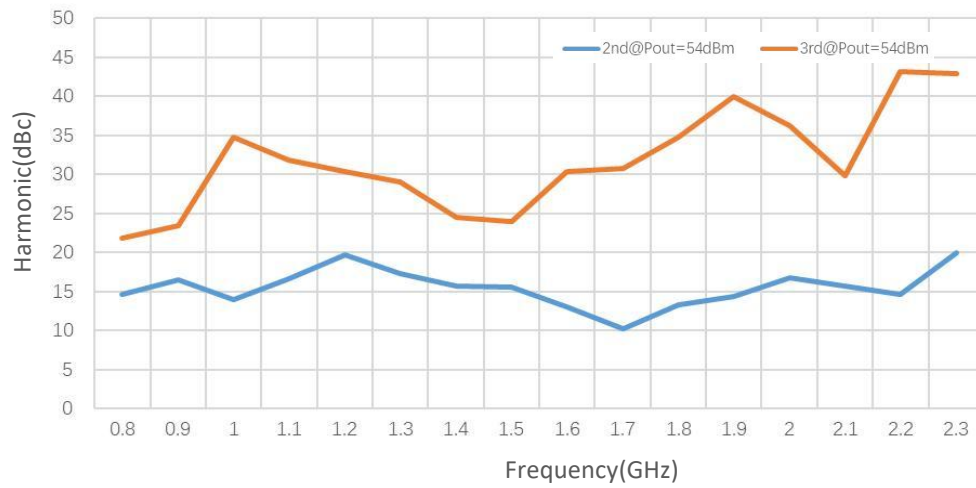
Typical Performance Data:



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Typical Performance Data:

Harmonic vs Frequency



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