

Solid State High Power Amplifier Systems

2.5-7.5GHz/57dB Gain/57dBm Psat/380V AC

Model: TLPA2.5G7.5G-57-57-BC

TLPA2.5G7.5G-57-57-BC is a solid state high power amplifier systems provides high output power and high gain across the 2.5 to 7.5 GHz frequency range. The amplifier features a built-in 380V 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:

- Frequency range: 2.5-7.5GHz
- Gain: 57dB Min
- Psat Output Power: 57dBm 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	2.5-7.5			GHz
Power Gain	GP	57			dB
Gain flatness	Δ GL		± 4		dB
Output Psat	Psat	57			dBm
Spurious@Pout=57dBm	Spur		-60	-50	dBc
Harmonics	HAM		-15	-10	dBc
Input VSWR	VSWRin			2.0	:1
AC Voltage	Vac		380		V AC
Power Consumption	Pdiss			5000	W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

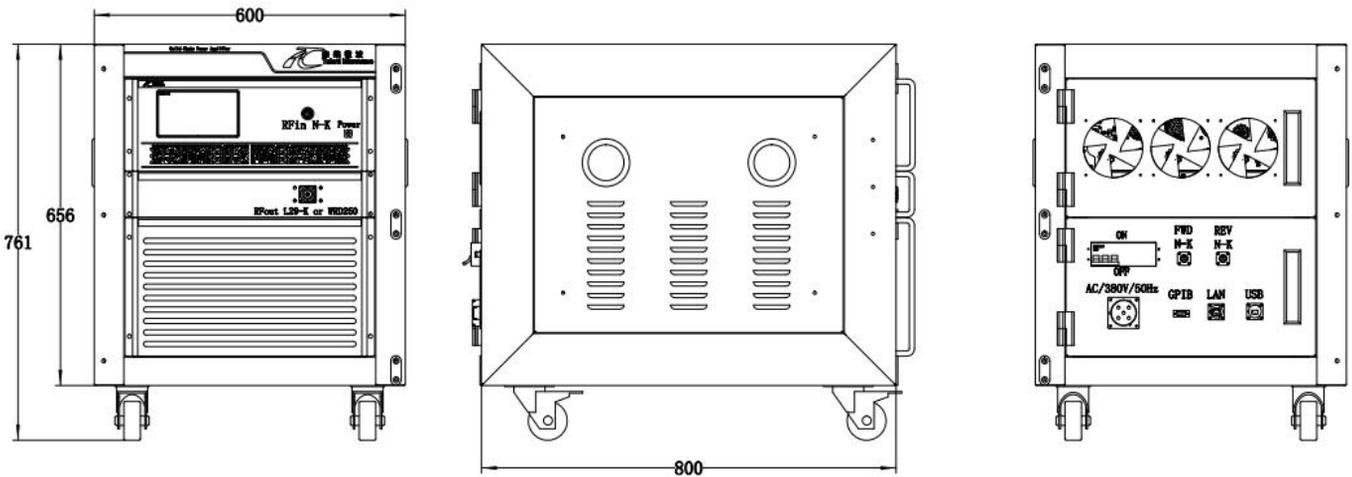
Parameter	Value	Units
Input /Output Connector	N Female/L29 Female or WRD250	
Size	12U	
Weight	≤ 150	Kg

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	0 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



Key Features:

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

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	°C
Non-operating Temperature*	-30		+50	°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			

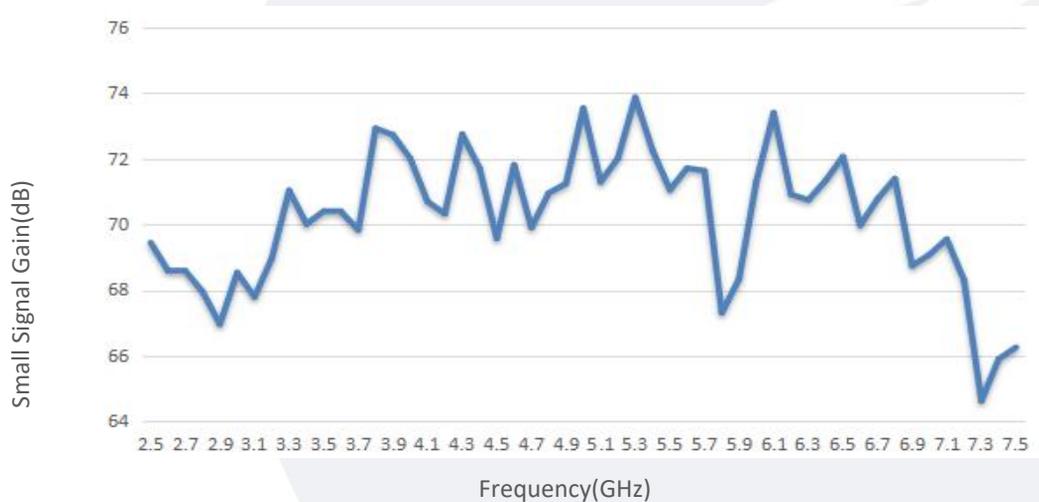
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA2.5G7.5G-57-57-BC	Solid State High Power Amplifier Systems 2.5-7.5GHz,Gain:57dB,Psat:57 dBm,380V AC,Built in Fan Cooling	Rev.1.1

Typical Performance Data:

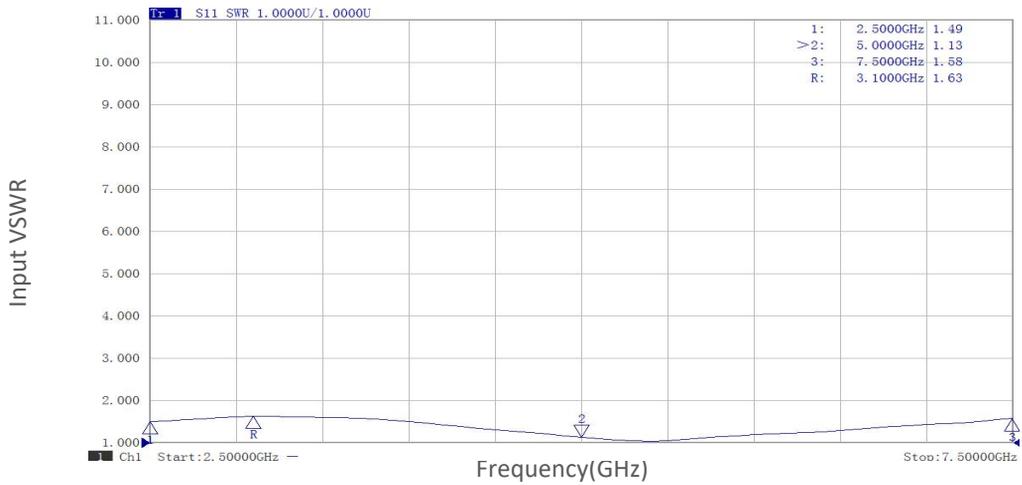
Small Signal Gain vs Frequency



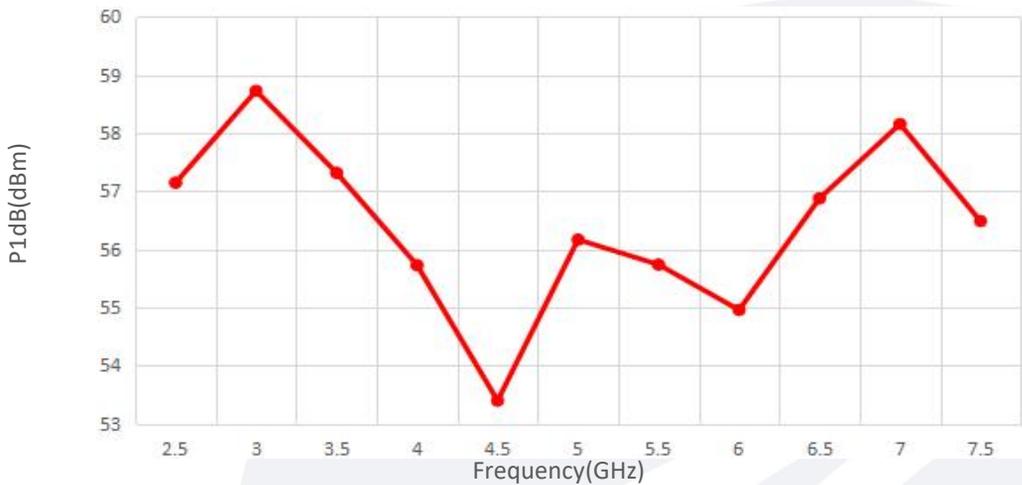
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

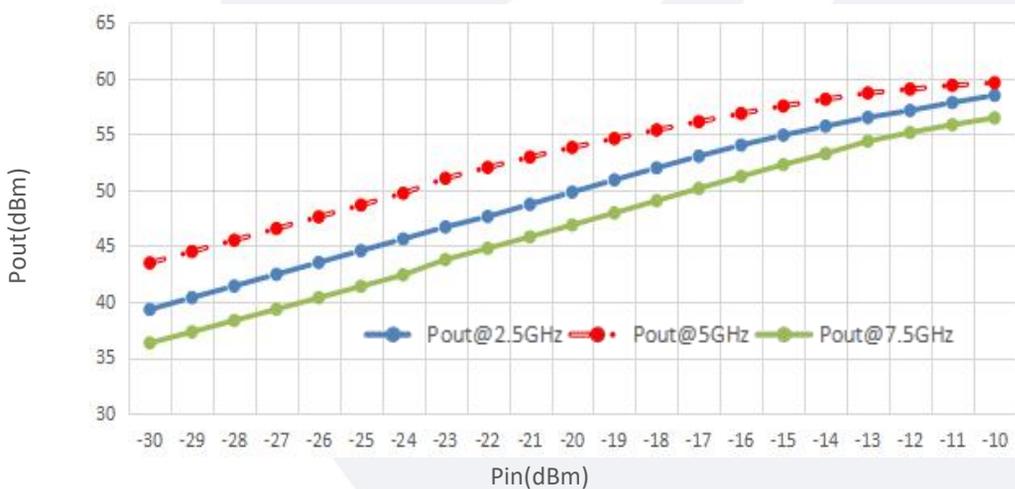
Input VSWR vs Frequency



P1dB vs Frequency



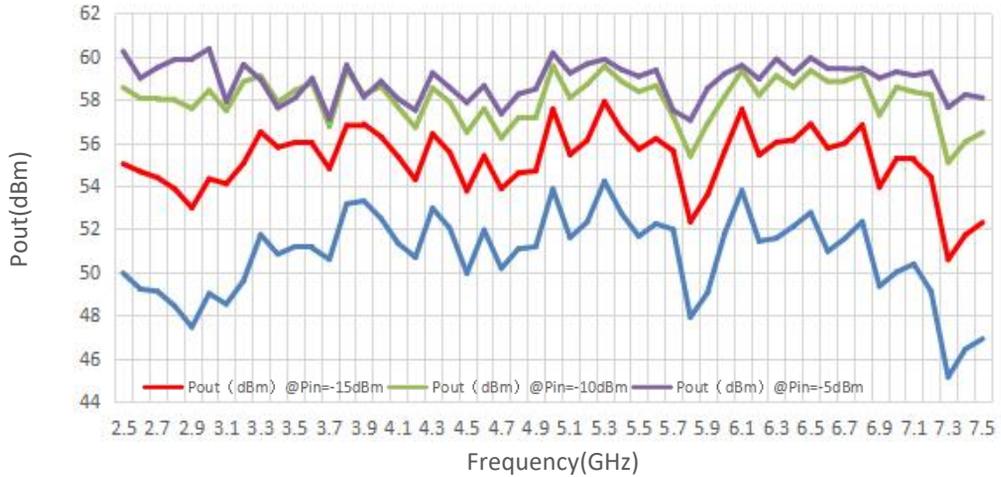
Pout@Pin



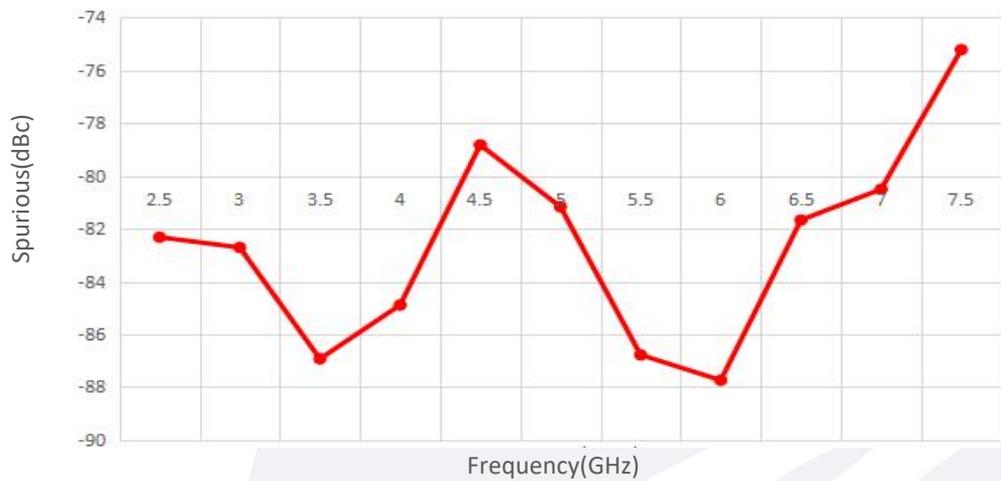
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

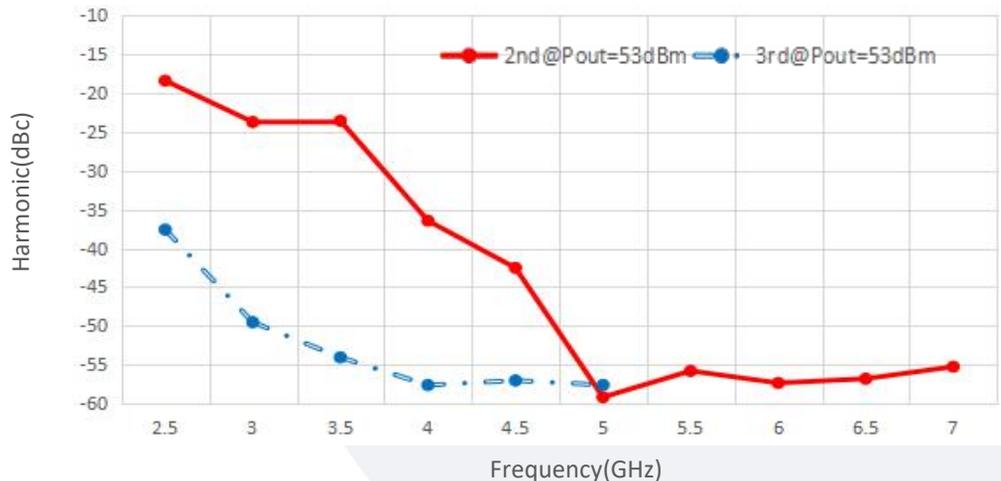
Pout@Equal_Pin



Spurious vs Frequency



Harmonic 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.