

Solid State High Power Amplifier Systems

18-26.5GHz /53dB Gain/53 dBm Psat/220V AC

Model: TLPA18G26.5G-53-53-BC

TLPA18G26.5G-53-53-BC is a solid state high power amplifier systems provides high output power and high gain across the 18 to 26.5 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: 18-26.5GHz
- Gain: 53dB Min
- Psat Output Power:53dBm 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	18-26.5			GHz
Power Gain	GP	53			dB
Gain flatness	Δ GL		± 4		dB
Output Psat	Psat	53			dBm
Spurious@Pout=53dBm	Spur			-50	dBc
Harmonics@Pout=53dBm	HAM			-20	dBc
Input VSWR	VSWRin			2	:1
AC Voltage	Vac		220		V AC
Power Consumption	Pdiss			2500	W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

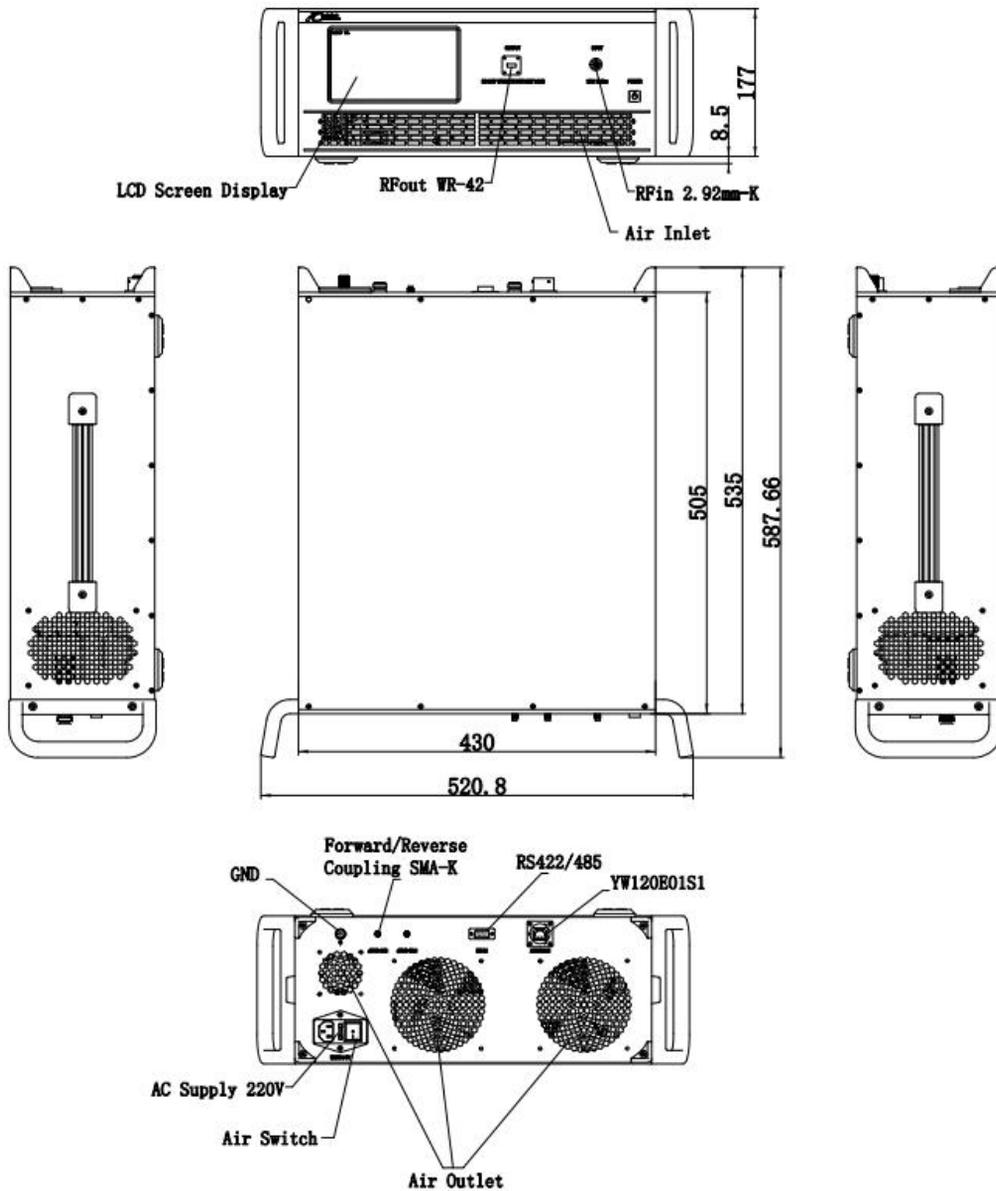
Parameter	Value	Units
Input /Output Connector	2.92mm Female WR42	
Communication Connector	DB9/RJ45	
Size	19 Inch 4U	
Weight	≤ 35	Kg

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+5 dBm
ESD sensitivity (HBM)	Class 0, passed 150V

Outline Drawing:

Unit:mm



Key Features:

Parameter	Advantages
Control functions	1, Power setting on/off 2, Output power adjust
Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR
Remote control	RS422/Ethernet
Display functions	1, Output/reflected power 2, Fault informations
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			

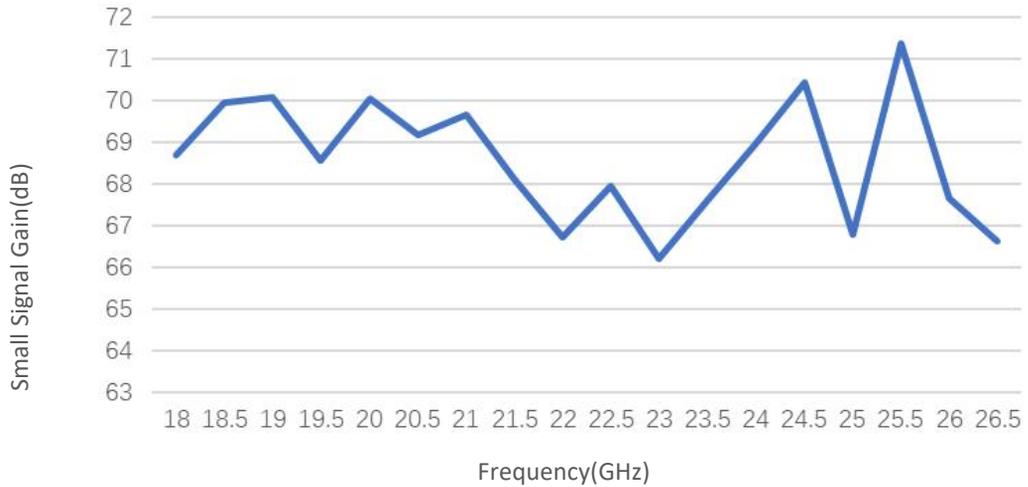
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

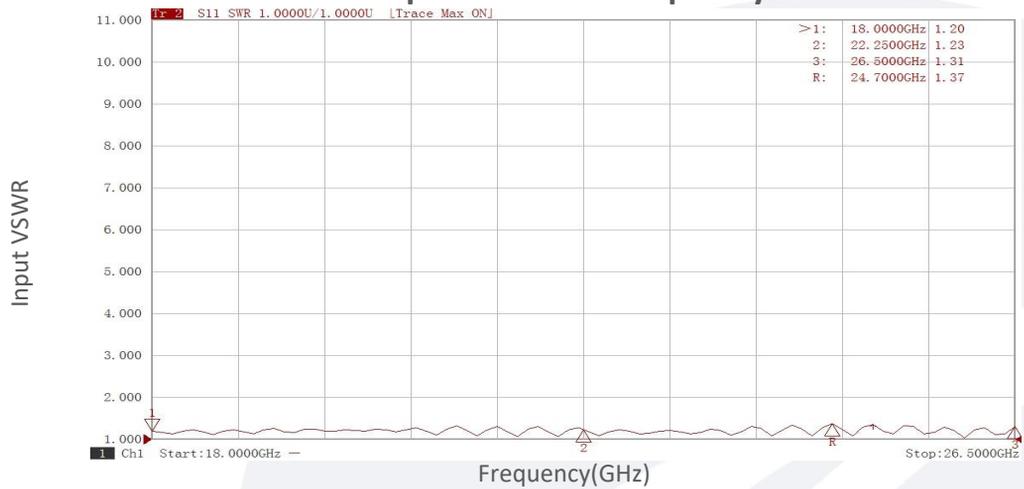
Base Number	Description	Revision
TLPA18G26.5G-53-53-BC	Solid State High Power Amplifier Systems 18-26.5GHz, Gain:53dB, Psat:53dBm, 220V AC, Built in Fan Cooling	Rev.1.1

Typical Performance Data:

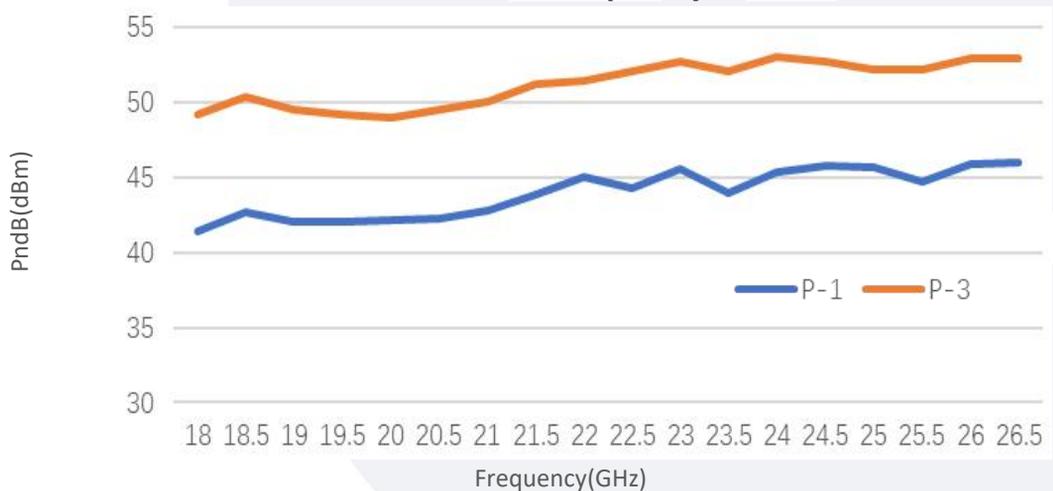
Small Signal Gain vs Frequency



Input VSWR vs Frequency



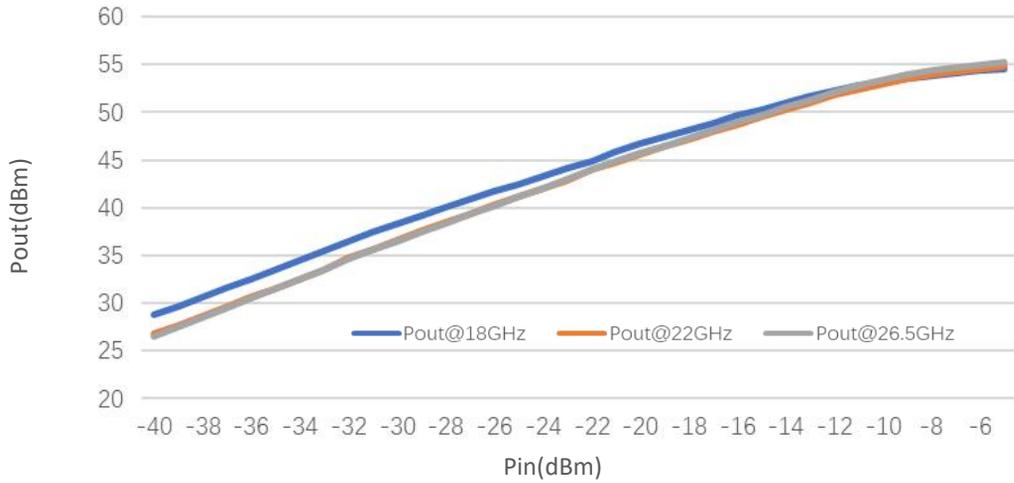
PndB vs Frequency



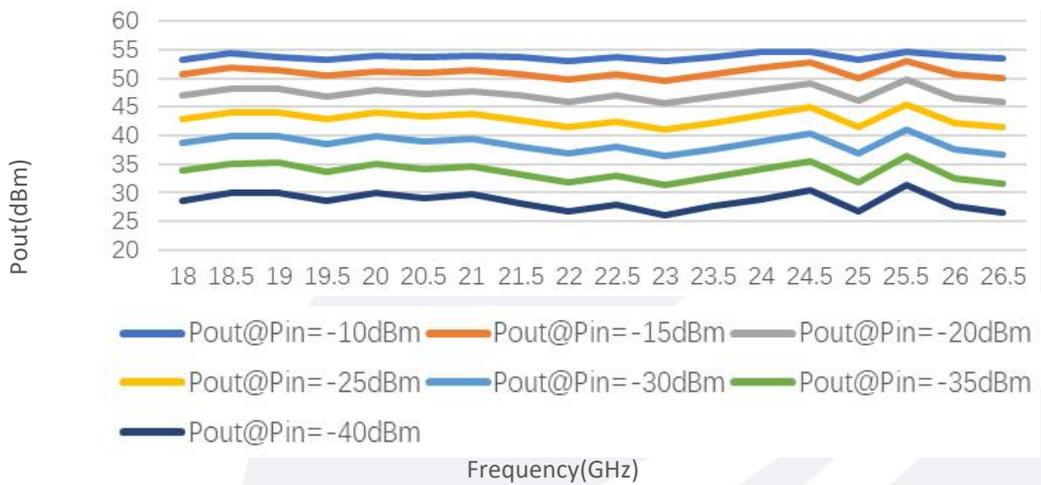
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating and other factors like material lots etc.

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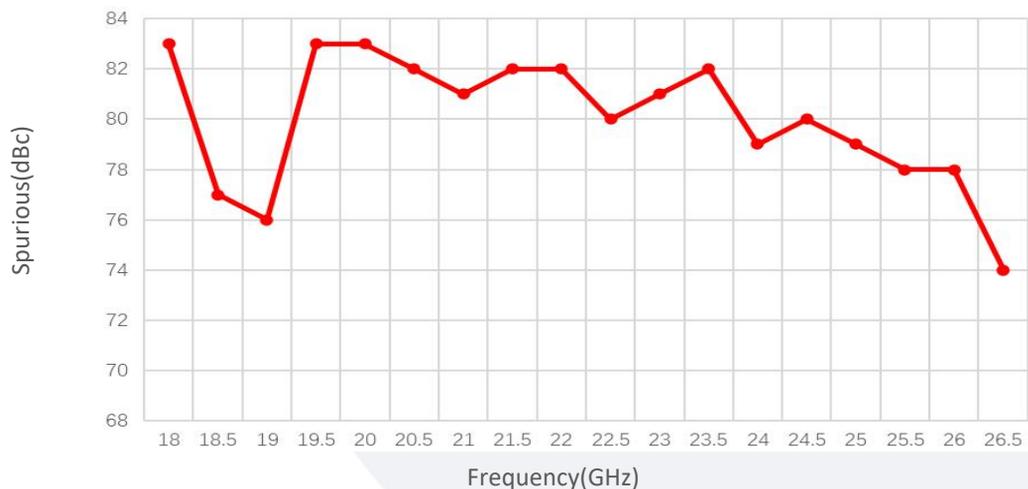
Pout@Pin



Pout@Equal_Pin

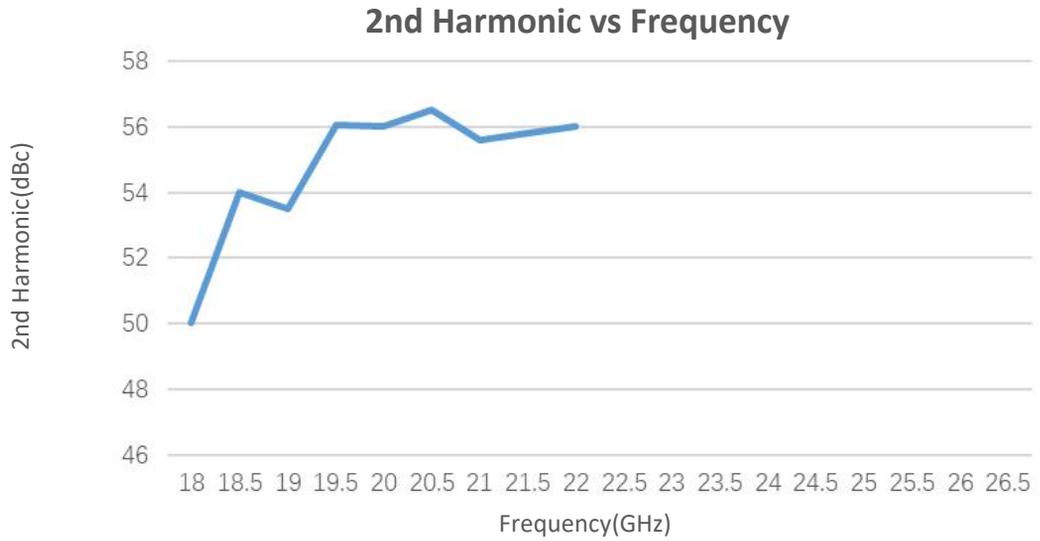


Spurious vs Frequency



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