

Solid State High Power Amplifier Systems

18-26.5GHz /40dB Gain/40dBm Psat/220V AC

Model: TLPA18G26.5G-40-40-BC

TLPA18G26.5G-40-40-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: 18-26.5 GHz
- Gain: 40dB Min
- Psat Output Power:40dBm 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
Small Signal Gain	SSGP		46		dB
PowerGain@Pout=40dBm	GP	43			dB
Gain flatness	ΔGL		± 2.5		dB
Output Psat	Psat	40	41		dBm
Saturated Power flatness	ΔPL			± 1	dB
Output P1dB	P1dB		35		dBm
Spurious@Pout=40dBm	Spur			-50	dBc
Harmonics@Pout=40dBm	HAM			-20	dBc
Input VSWR	VSWRin		1.5	2.0	:1
AC Voltage	Vac	220			V AC
Power Consumption	Pdiss			70	Watts
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

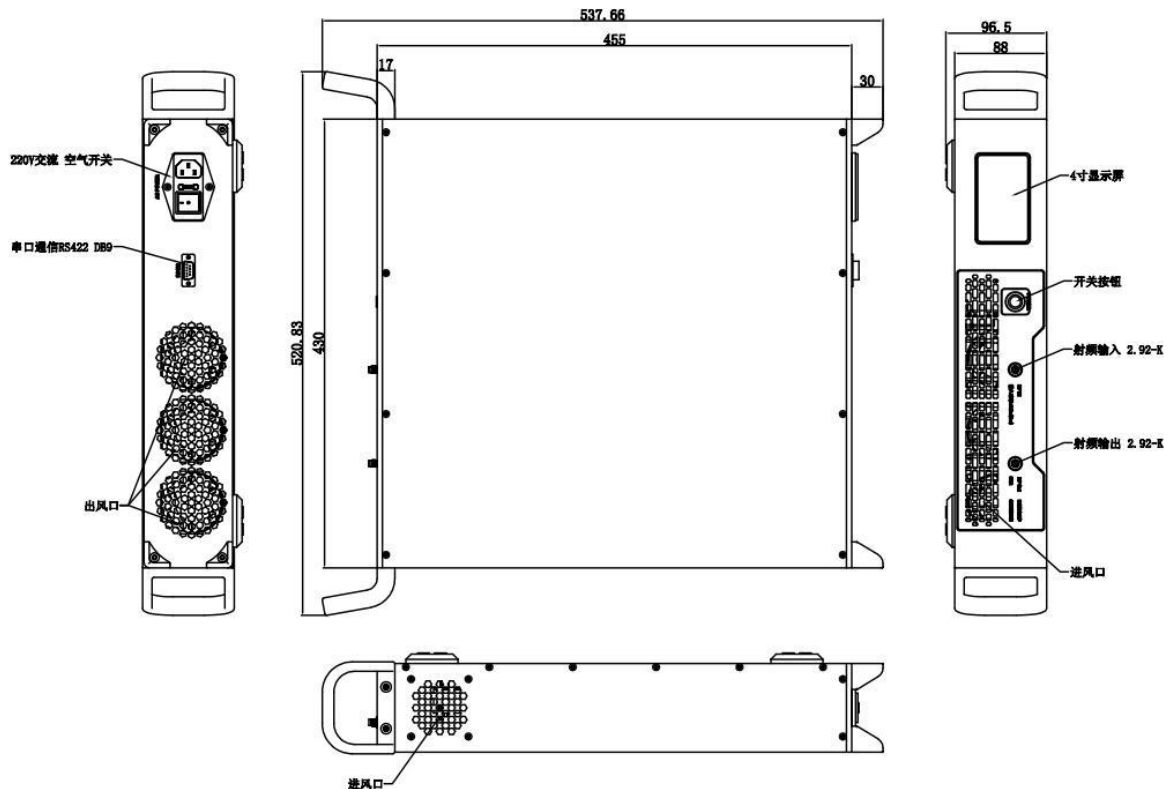
Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
AC Power Interface	Air switch	
Size	19 Inch 2U	
Weight	20	Kg

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	1, PRS422
Protection functions	1,Over TEM 2,Over voltage 3,Over current protection 4,Over VSWR
Control functions	1,Power setting On/Off 2,ALC On/Off
Cooling system	Built in Cooling system,forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	°C
Non-operating Temperature*	-30		+60	°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			

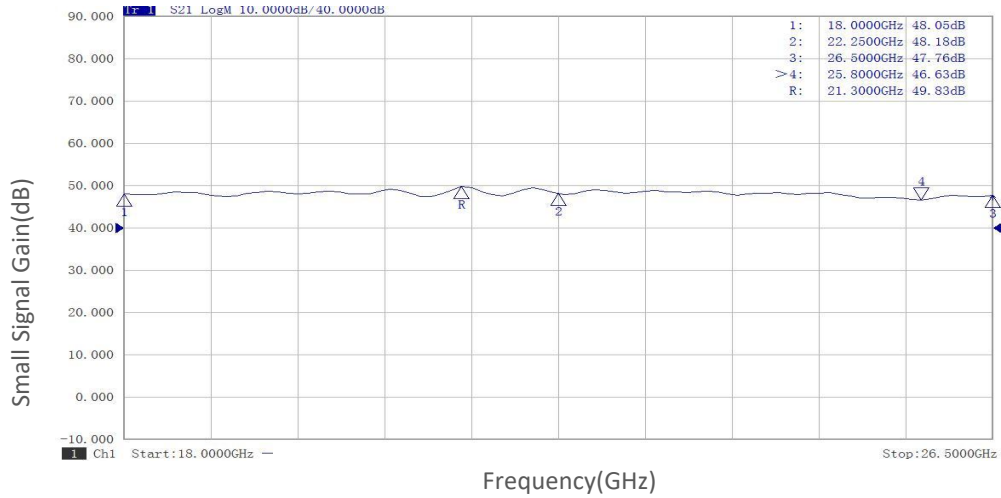
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

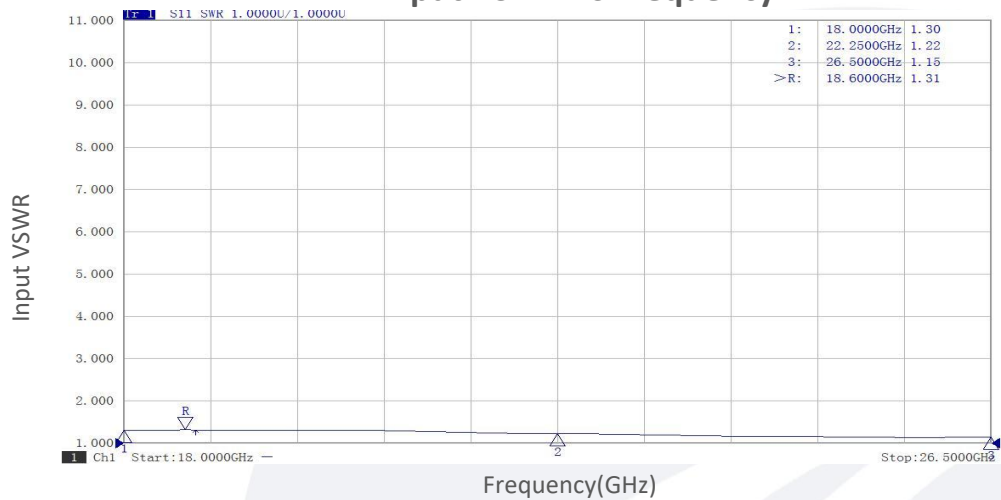
Base Number	Description	Revision
TLPA18G26.5G-40-40-BC	Solid State High Power Amplifier Systems 18-26.5GHz,Gain:43dB,Psat:40dBm,220V AC,Built in Fan Cooling	Rev.1.0

Typical Performance Data:

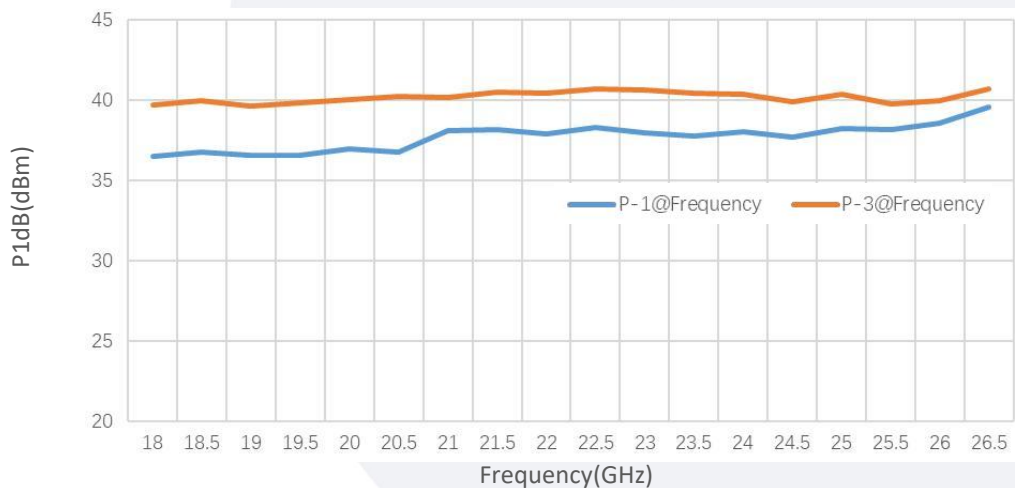
Small Signal Gain vs Frequency



Input VSWR vs Frequency



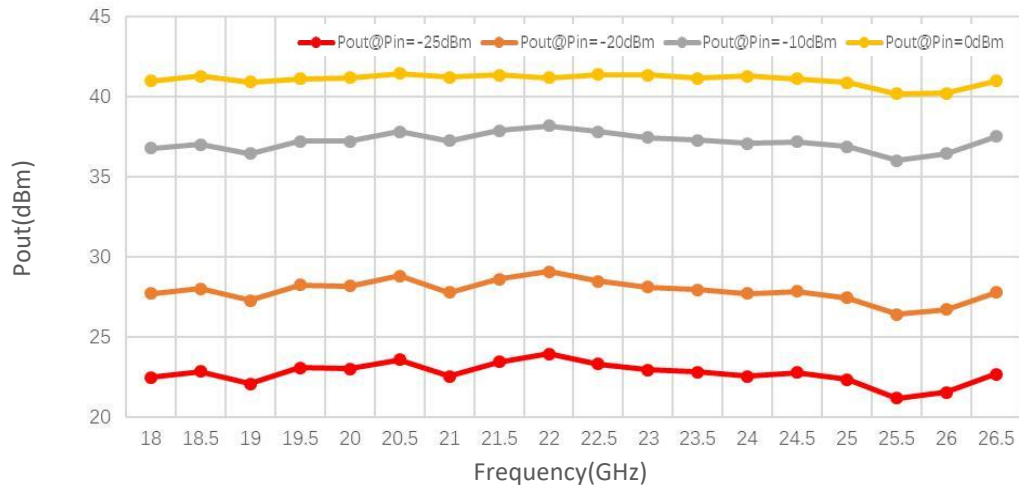
P1dB vs Frequency



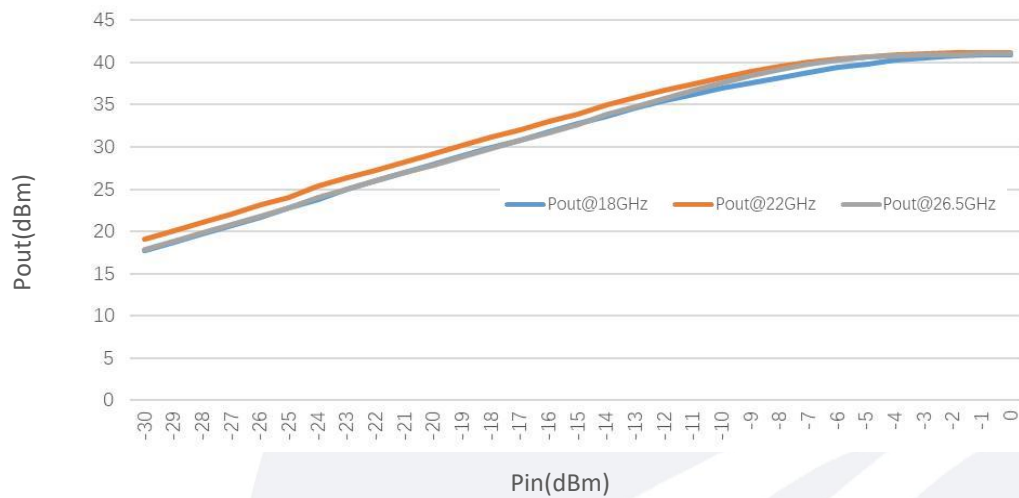
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

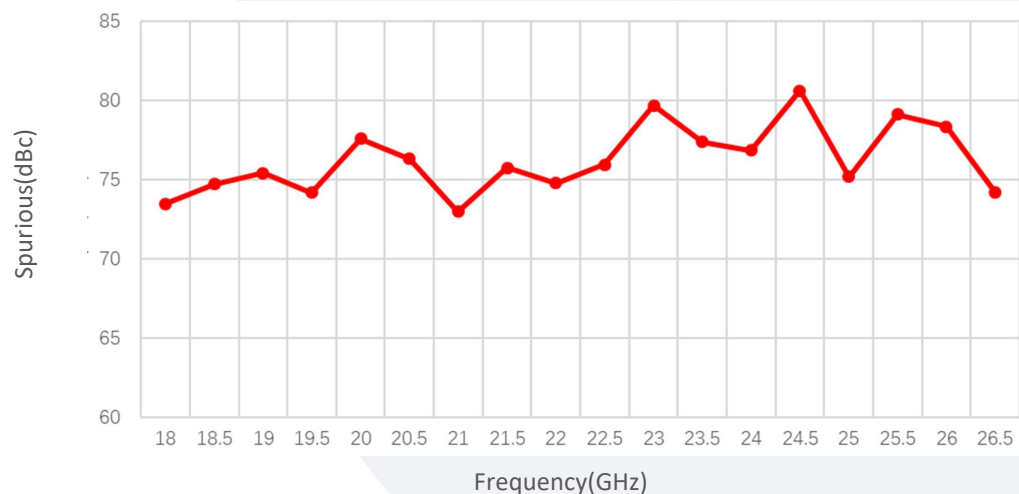
Pout@Equal_Pin



Pout@Pin



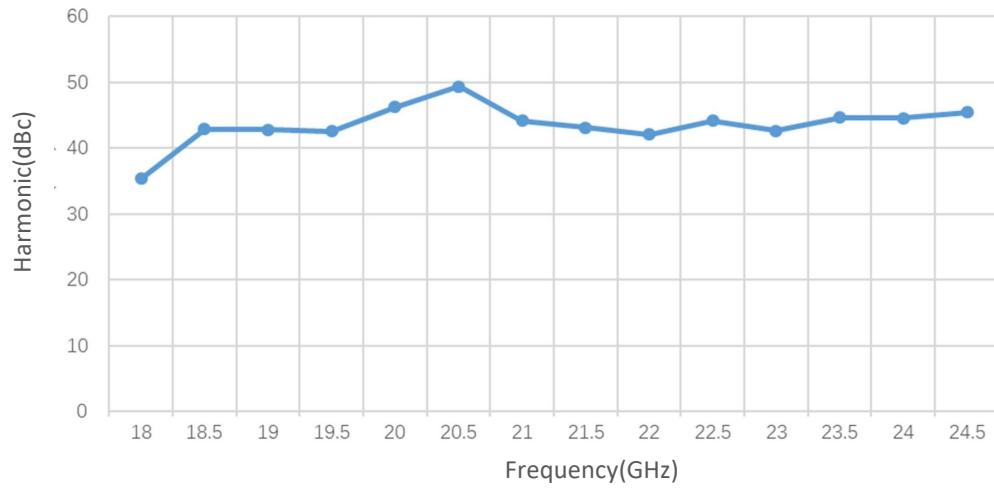
Spurious vs Frequency



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Typical Performance Data:

Harmonic vs Frequency



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