

Solid State High Power Amplifier Systems

5.85-7.075GHz/75dB Gain/58dBm Psat

Model: TLPA5.85G7.075G-75-58-BC

TLPA5.85G7.075G-75-58-BC is a solid state high power amplifier systems provides high output power and high gain across the 5.85 to 7.075 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:

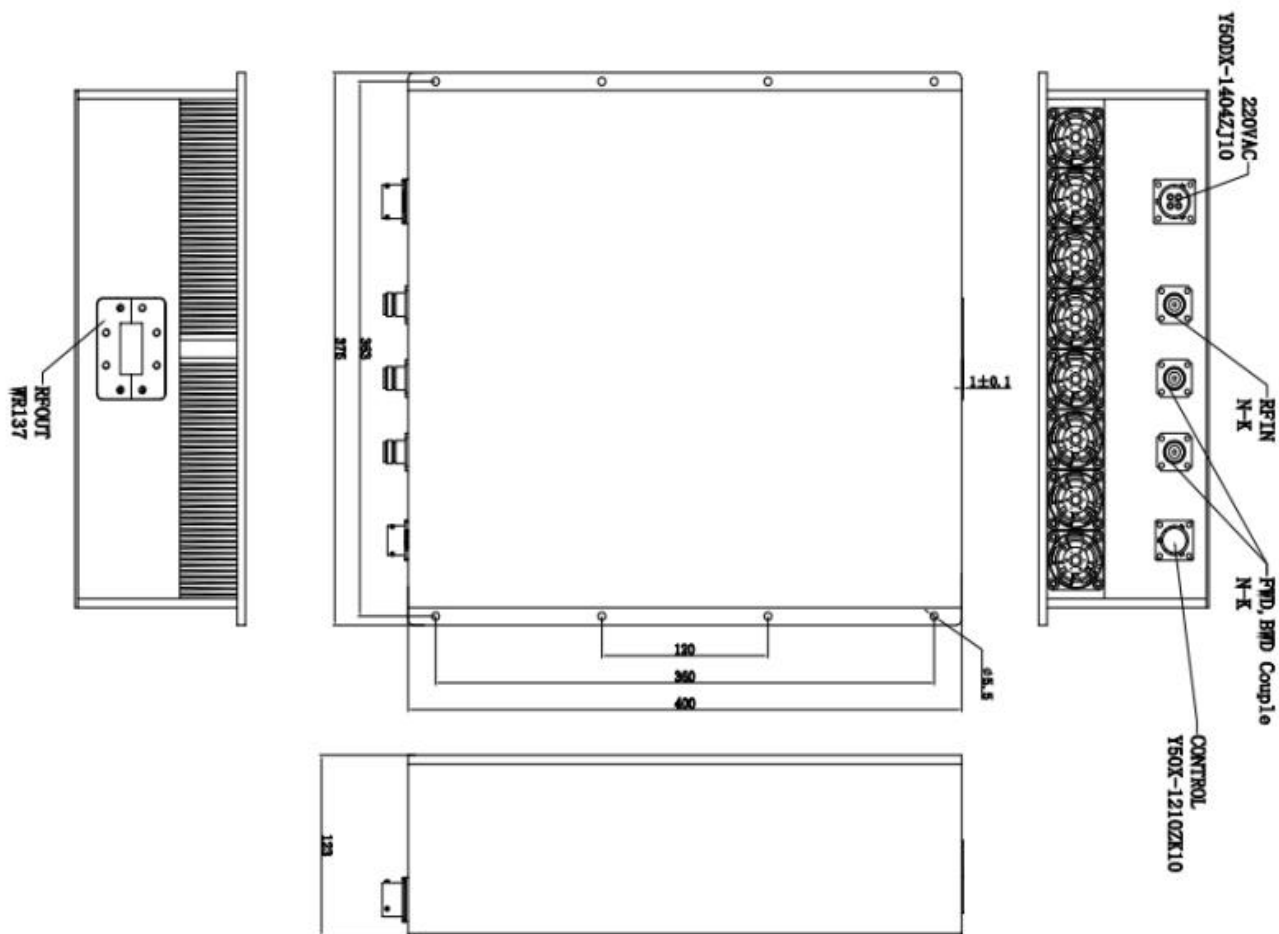
- Frequency range: 5.85-7.075GHz
- Gain: 75dB Typ
- Psat Output Power: 58dBm Typ
- 50 Ohm Matched Input / Output

电气特性 Electrical Characteristics:

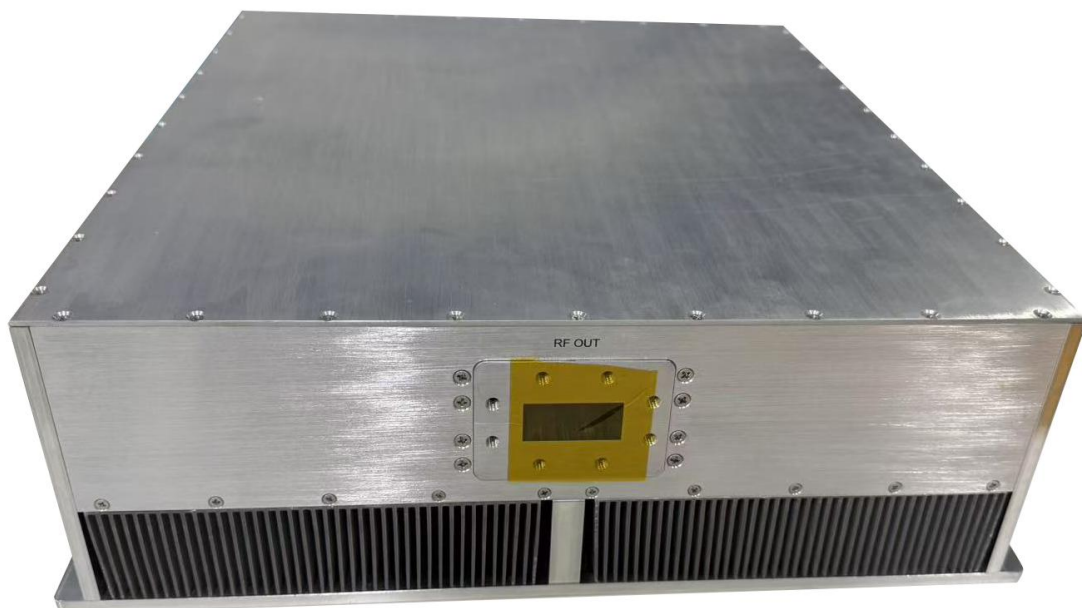
参数 Parameter	代码 Symbol	Min	Typ	Max	单位 Units
频率范围 Frequency range	BW	5.85-7.075			GHz
小信号增益 Small Signal Gain@Pout=57dBm	SSGP	70	75		dB
增益平坦度 Gain flatness	ΔGL			±3	dB
饱和输出功率 Output Psat	Psat	57	58		dBm
输出功率调节范围 Pout adjust range	Padj	20			dB
增益稳定度 Gain stability@24h	Gstb			±0.25	dB
增益波动 Gain fluctuation@-40~+55°C	Gvrt		±2		dB
增益斜率 Gain slope	Gslp			±0.02	dB/MHz
杂散 Spurious@Pout=57dBm	Spur			-60	dBc
二次谐波 2nd Harmonics	HAM			-20	dBc
输入驻波 Input VSWR	VSWRin		1.3	1.5	:1
输出驻波 Output VSWR	VSWRout		1.3	1.5	
交流电压 AC Voltage	Vac		220		V AC
功耗 Power Consumption	Pdiss			2200	W
阻抗 Impedance	I/O-IMP	50			Ohms

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/WR137	
正向/反向耦合 Forward/Reverse Coupling	N Female/N Female	
尺寸 Size	375*400*123	mm
重量 Weight	≤38	Kg

参数 Parameter	指标 Value
输入功率 RF Input Power	-5 dBm
ESD灵敏度 ESD sensitivity (HBM)	Class 0, passed 150V



实物图 Physical picture:



主要功能 Key Features:

参数 Parameter	特点 Advantages
控制功能 Control functions	1, Power setting On/Off 2, ALC automatic level control
监测功能 Monitor functions	1, Temperature 2, Voltage 3, Current 4, Output/Reverse Power
监控和控制 Remote control	RS422/RS485
冷却系统 Cooling system	Built in Cooling system, forced air cooling

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-20		+50	°C
存储温度 Non-operating Temperature*	-20		+40	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave, 3 axis both directions			

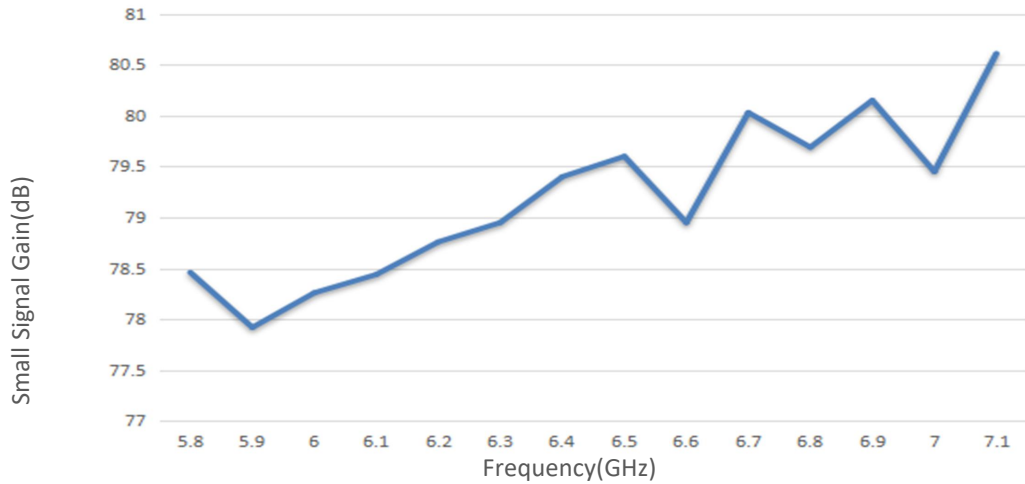
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

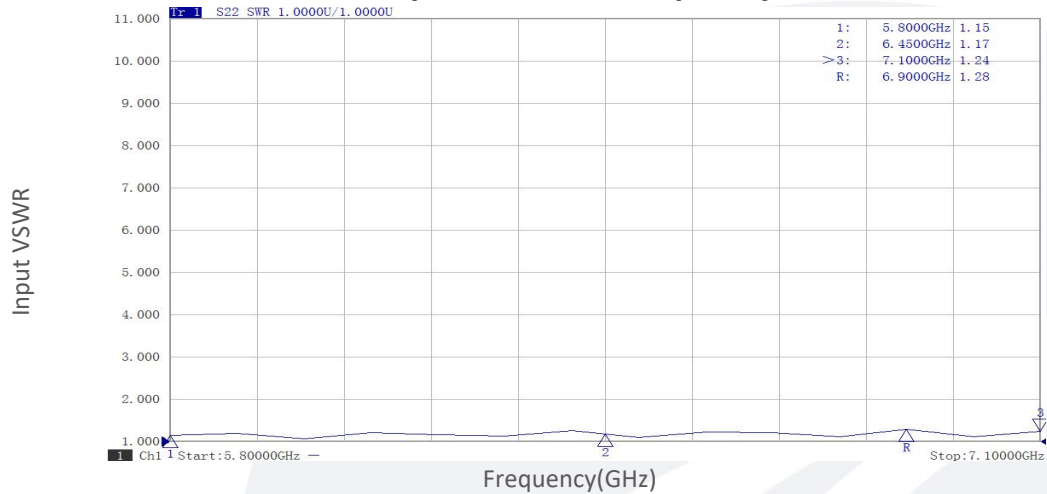
标准型号 Base Number	描述 Description	版本号 Revision
TLPA5.85G7.075G-75-58-BC	Solid State High Power Amplifier Systems 5.85-7.075GHz, Gain:75dB, Psat:58 dBm, 220V AC, Built in Fan Cooling	Rev.1.1

典型曲线 Typical Performance Data:

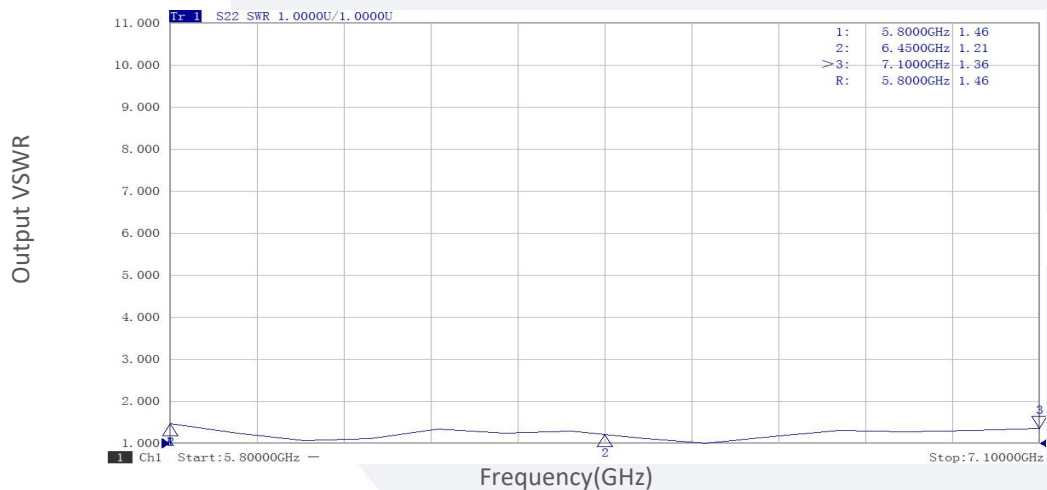
Small Signal Gain vs Frequency



Input VSWR vs Frequency



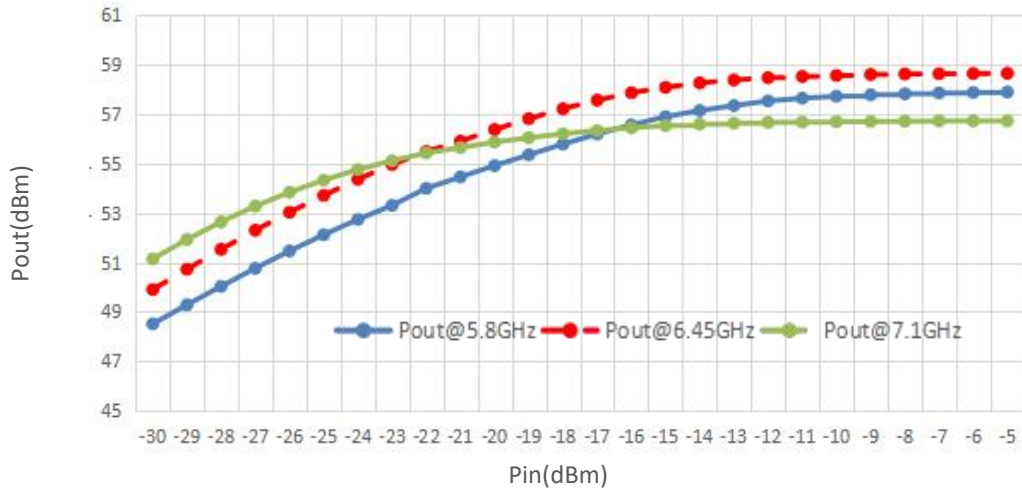
Output VSWR vs Frequency



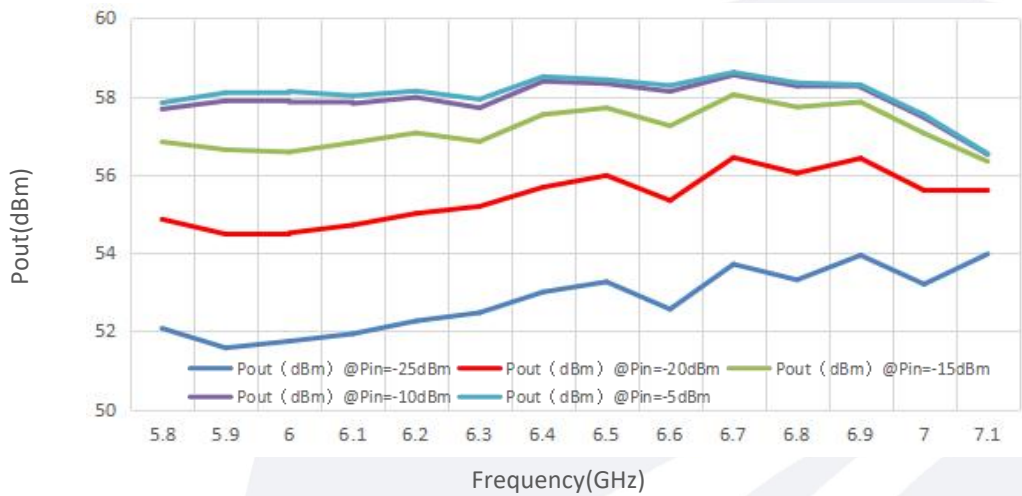
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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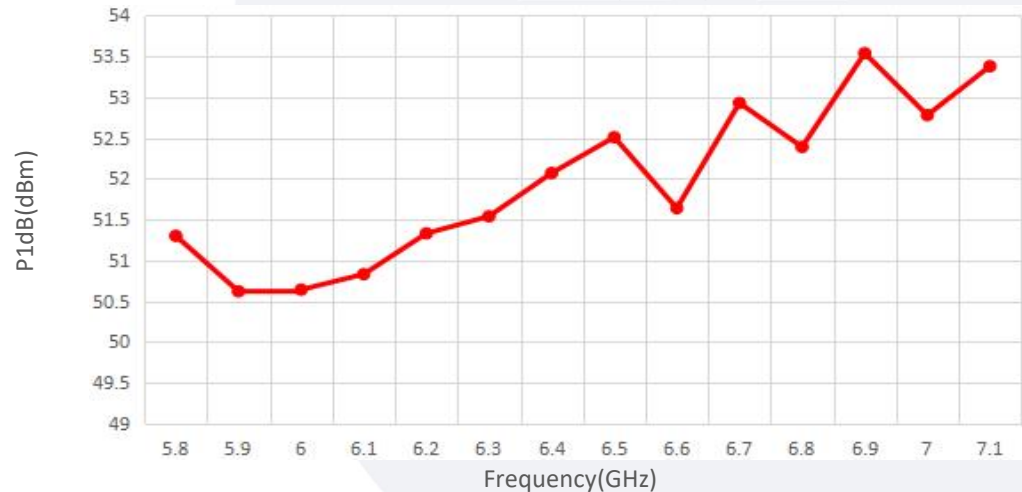
Pout@Pin



Pout@Equal_Pin



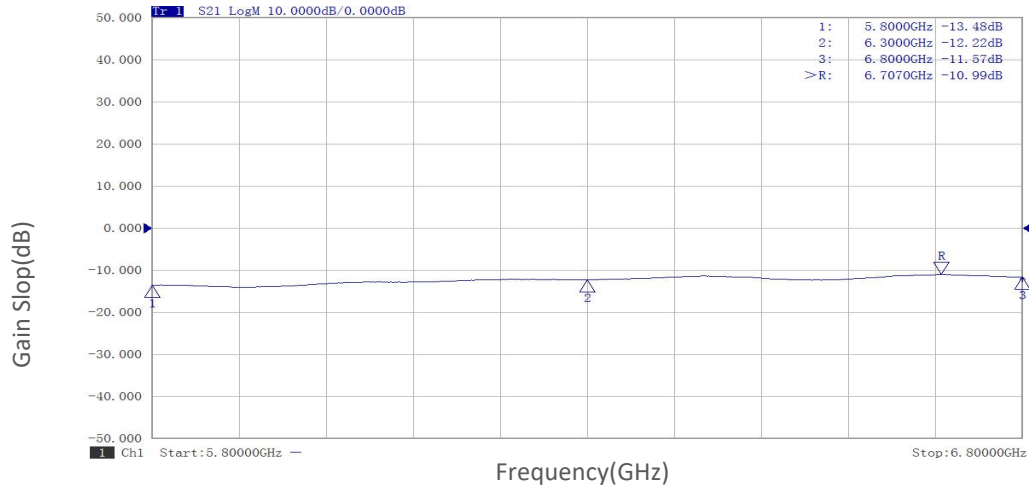
P1dB vs Frequency



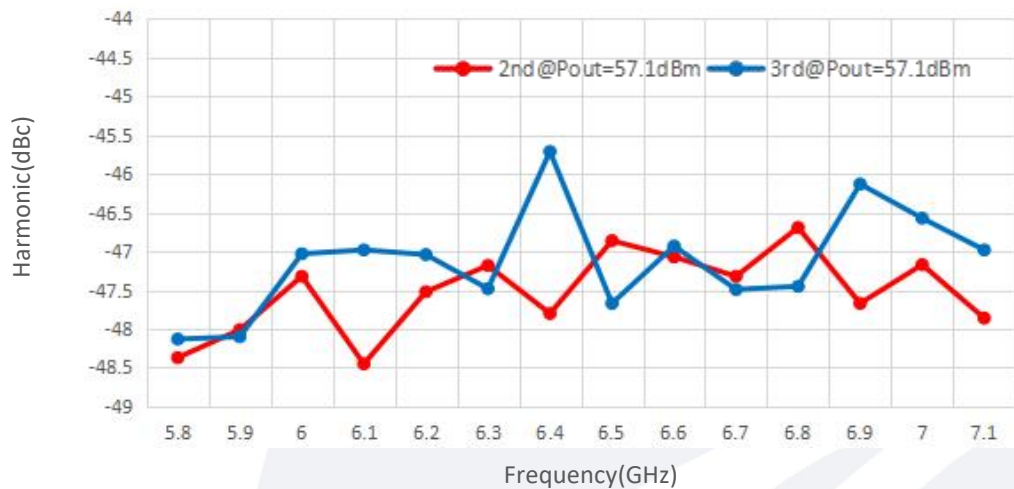
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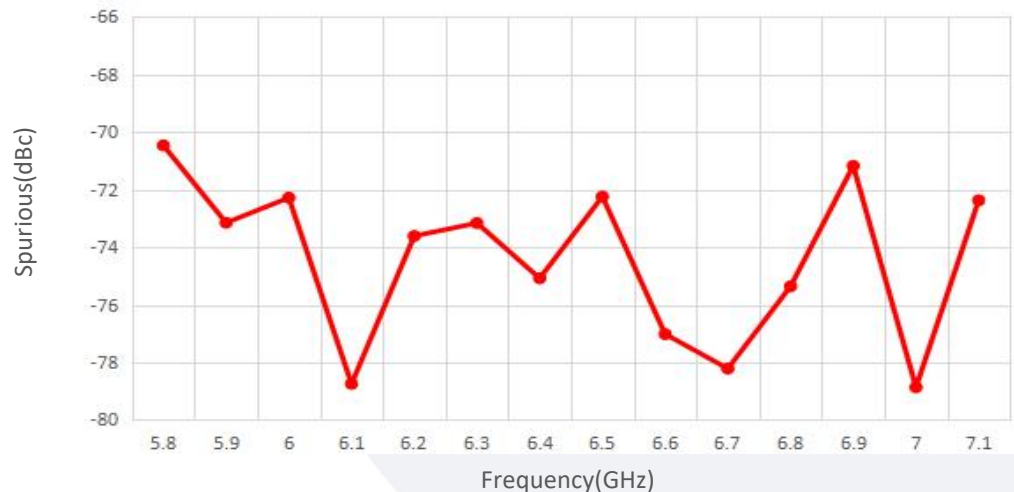
Gain Slop vs Frequency



Harmonic vs Frequency



Spurious vs Frequency



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