泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Solid State High Power Amplifier Systems

80MHz-1GHz /63dB Gain/63dBm Psat/380V AC Model: TLPA80M1G-63-63-BC

TLPA80M1G-63-63-BC is a solid state high power amplifier systems provides high output power and high gain across the 80MHz to 1GHz 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: 80MHz-1GHz
- Gain: 63dB Min
- Psat Output Power:63dBm Min
- Protection:Over TEM,over voltage, over current ,over VSWR,open/circuit break,overexcitation protection
- 50 Ohm Matched Input / Output

Electrical Characteristics:

Parameter		Symbol	Min	Typ	Max	Units
Frequency range		BW	80MHz		1GHz	
Power Gain		GP	63			dB
Gain flatness		ΔGL			±5	dB
Output Psat	@80-400MHz	Psat	2000			W
	@400MHz-1GHz		1000			
Output P1dB	@80-400MHz	P1dB	1600			W
	@400MHz-1GHz		800			
Spurious		Spur			-50	dBc
Harmonics		HAM			-18	dBc
Input VSWR		VSWRin			2	:1
AC Voltage		Vac		380		V AC
Power Consumption		Pdiss			10	KW
Impedance		I/O-IMP	50			Ohms

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	N Female/7/16 DIN Female (optional)	
Forward/Reverse Coupling	N Female/ N Female (optional)	
Size	600*800*1650/19 Inch*1400	mm
Weight	≤180	Kg

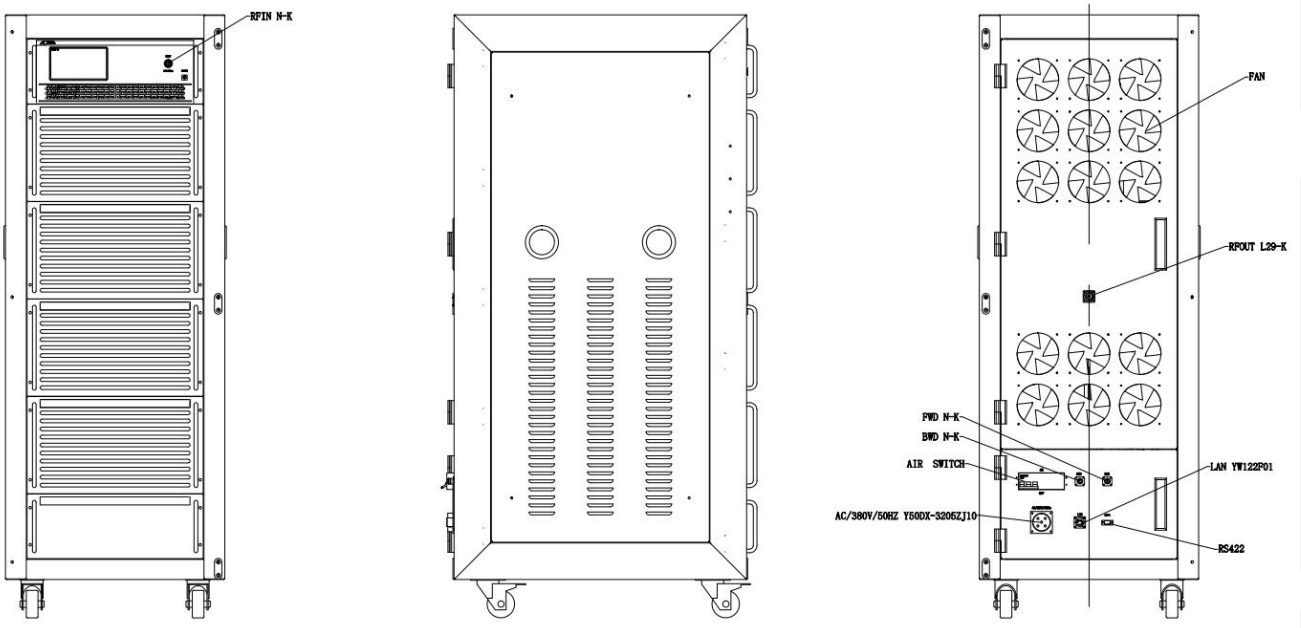
Note: Dual directional coupler can be selected as built-in or external.

Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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Key Features:

Parameter	Advantages
Control functions	1, Power setting On/Off 2,Gain adjustable,supporting manual or software control(Paid option features)
Protection functions	1,Over TEM: 70℃ 2,Over voltage 3,Over current 4,Over VSWR: 5:1 (adjustable) 5,Open/circuit break 6,Overexcitation:2300W@80-400MHz;1300W@400MHz-1GHz
Display function	Power Amplifier Status Monitoring (Paid option features)
Remote control	GPIB/Ethernet
Cooling system	Built in Cooling system,forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	0		40	℃
Non-operating Temperature*	-15		+65	℃
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.

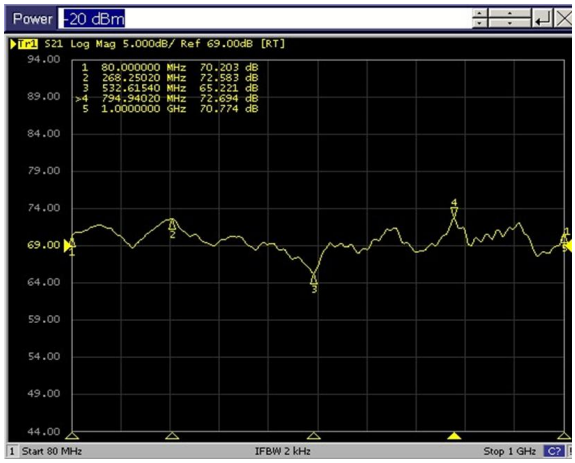
Ordering Information:

Base Number	Description	Revision
TLPA80M1G-63-63-BC	Solid State High Power Amplifier Systems 0.08-1GHz,Gain:63dB,Psat:63 dBm,380V AC,Built in Fan Cooling	Rev.1.1

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Typical Performance Data:

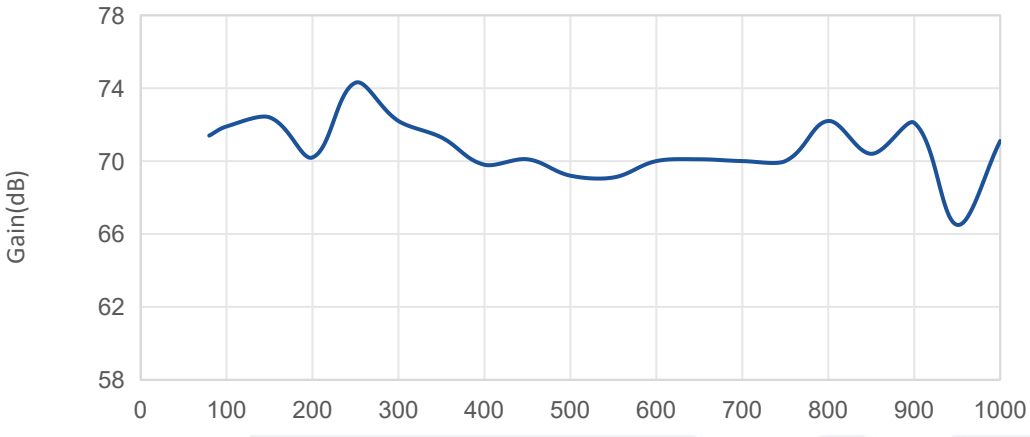
Small Signal Gain vs Frequency



Small Signal Gain(dB)

Frequency(MHz)

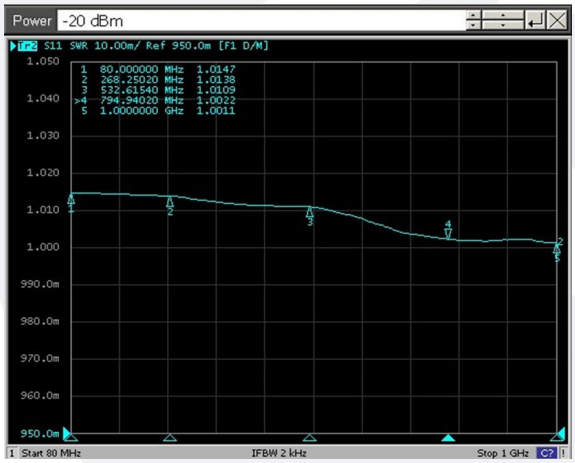
Power Gain vs Frequency



Gain(dB)

Frequency(MHz)

Input VSWR vs Frequency



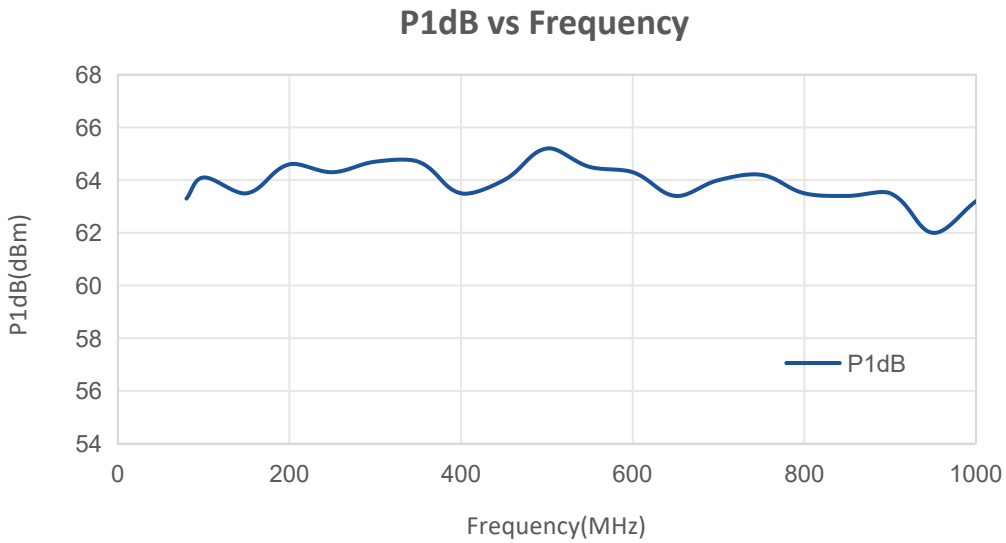
Input VSWR

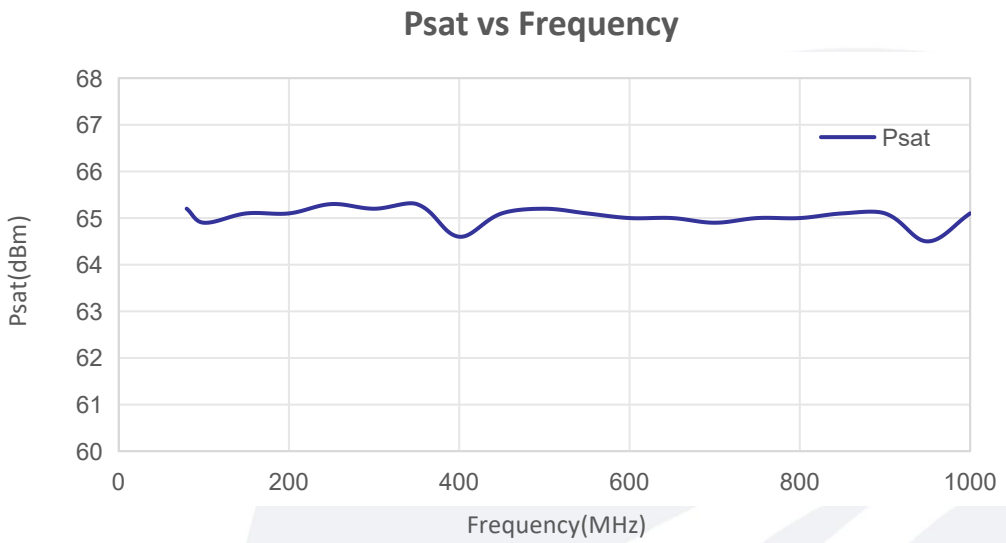
Frequency(MHz)

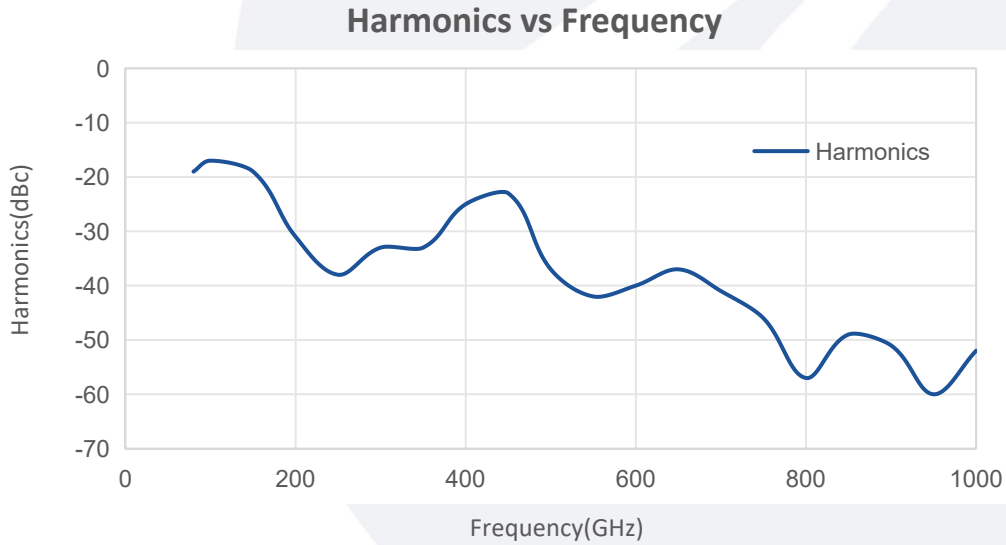
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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