

Solid State High Power Amplifier Systems

1-2GHz/65dB Gain/65dBm Psat/380V AC

Model: TLPA1G2G-63-63-BC

TLPA1G2G-63-63-BC is a solid state high power amplifier systems provides high output power and high gain across the 1 to 2 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: 1-2GHz
- Gain: 65dB Min
- Psat Output Power: 65dBm 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	1		2	GHz
Working Mode	Mode	AM/FM/PM/CW			
Power Gain	GP	65			dB
Gain flatness	ΔGL		± 3		dB
Gain adjust Range	ΔGR		30		dB
Gain adjust Step	ΔGS		0.5		dB
Output Psat	Psat	65			dBm
Spurious	Spur			-60	dBc
Harmonics	HAM		-15	-10	dBc
Input VSWR	VSWR _{in}			2	:1
AC Voltage	Vac	340	380	420	V AC
Power Consumption	P _{diss}			18000	W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

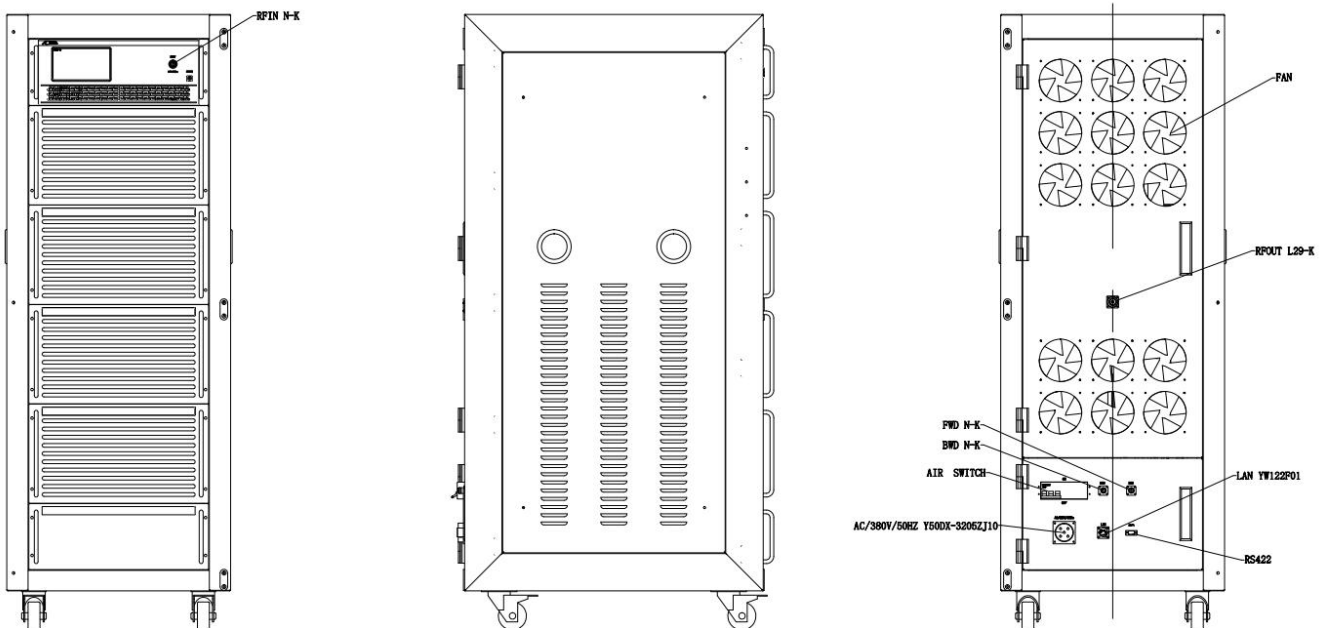
Parameter	Value	Units
Input /Output Connector	N Female/1-5/8 EVA	
Forward/Reverse Coupling	N Female/ N Female	
Remote Control Connector	RS422/LAN/GPIB/USB	
Front Panel LCD Screen Display	7 inch LCD Screen Display	
Size	32U*800 depth	
Weight	≤260	Kg

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+10 dBm
ESD sensitivity (HBM)	Class 0, passed 150V

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Key Features:

Parameter	Advantages
Control functions	Power 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			

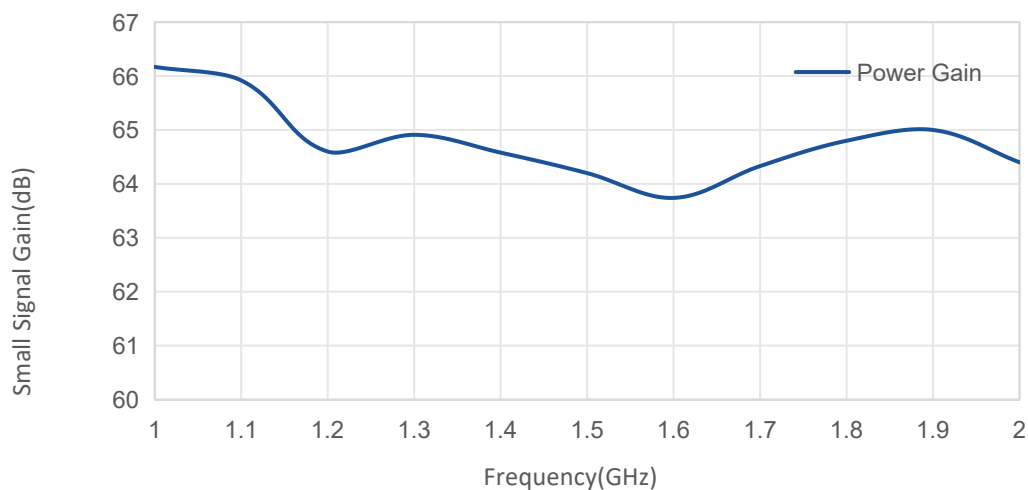
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

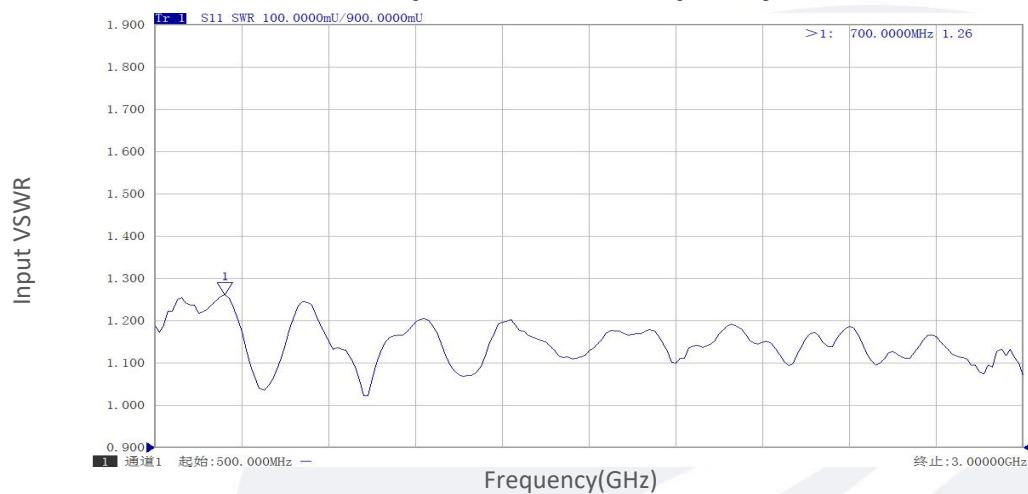
Base Number	Description	Revision
TLPA1G2G-63-63-BC	Solid State High Power Amplifier Systems 1-2GHz, Gain:65dB, Psat:65dBm, 380V AC, Built in Fan Cooling	Rev.1.2

Typical Performance Data:

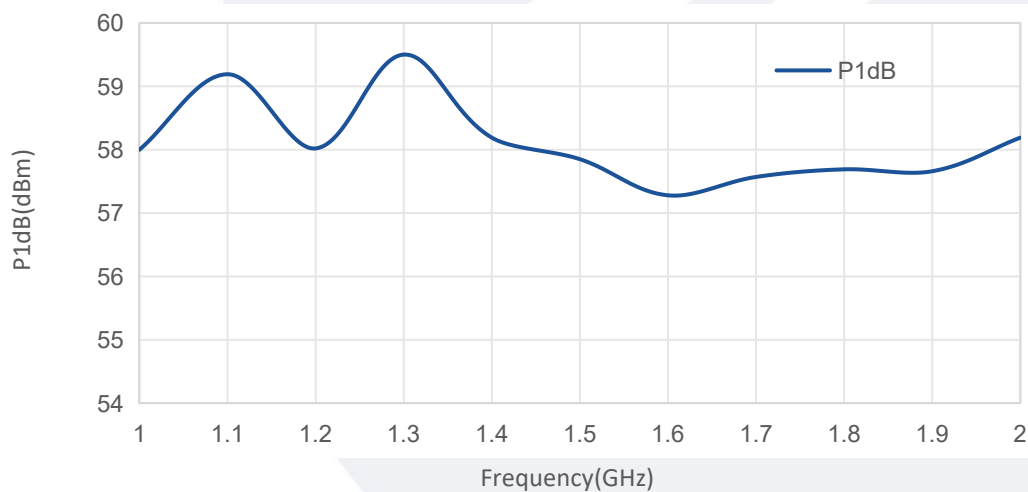
Power Gain vs Frequency



Input VSWR vs Frequency



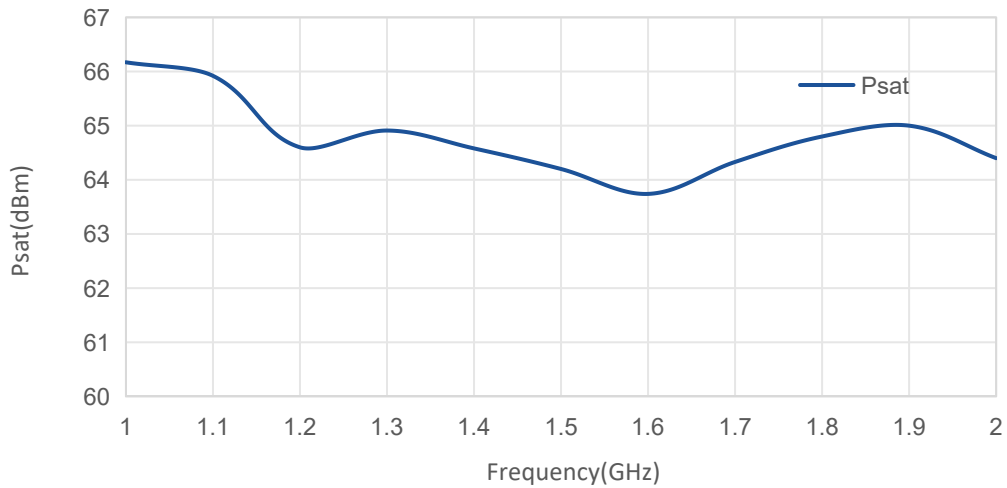
P1dB vs Frequency



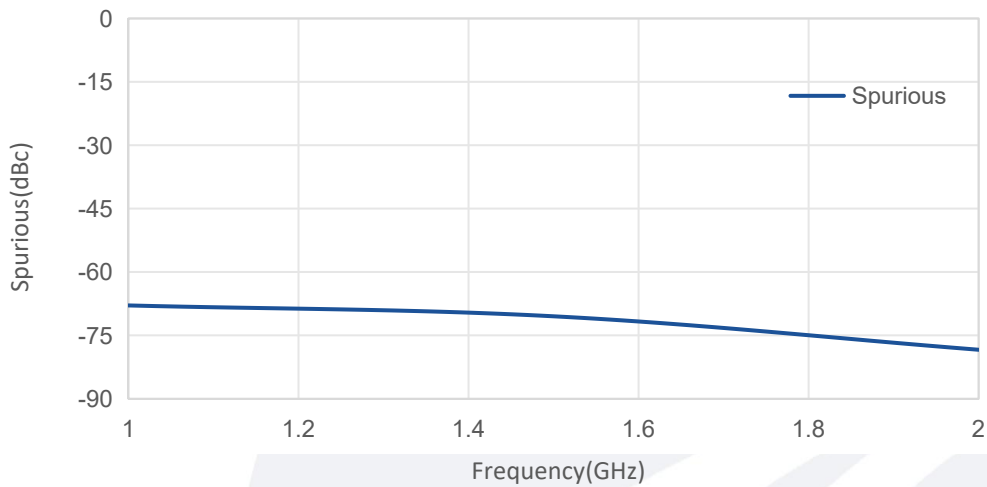
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

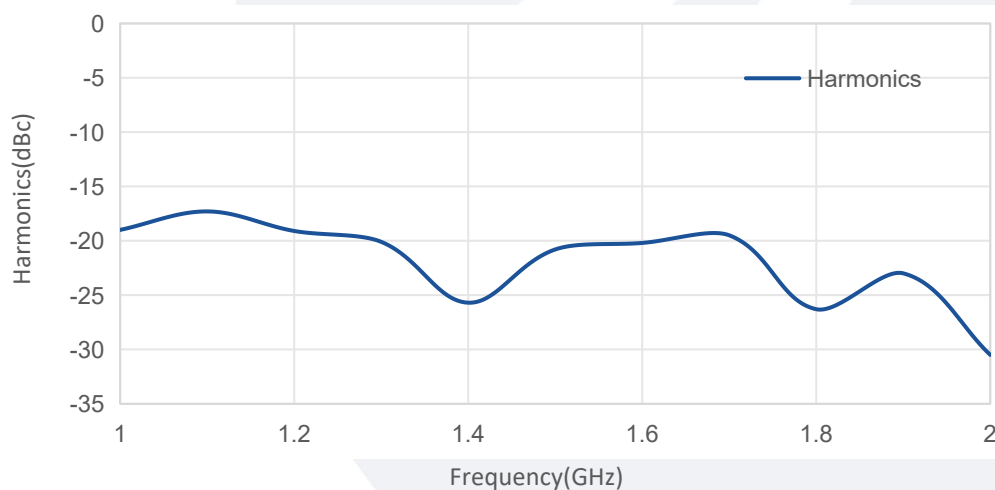
Psat vs Frequency



Spurious vs Frequency



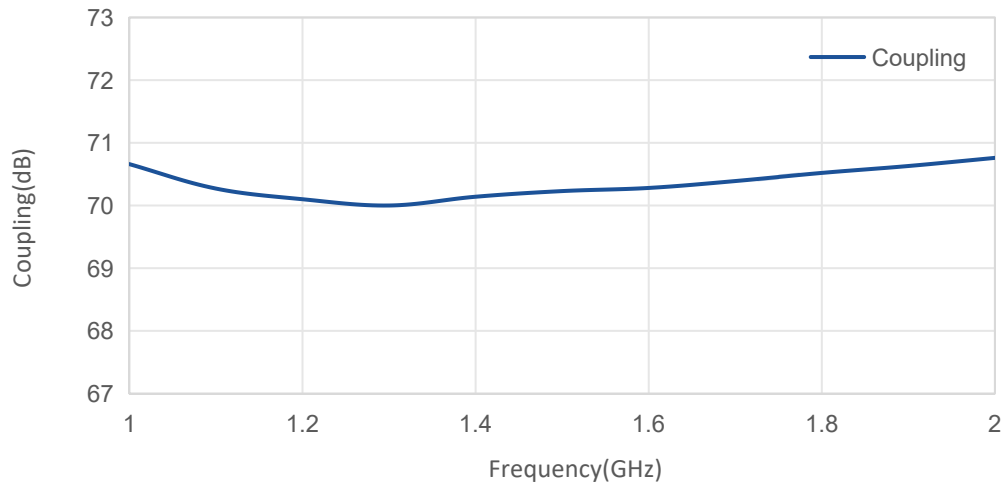
Harmonics vs Frequency



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Typical Performance Data:

Coupling vs Frequency



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