

Solid State High Power Amplifier Systems

0.1-6GHz/37dB Gain/37dBm Psat/220V AC

Model: TLPA0.1G6G-37-37-BC

TLPA0.1G6G-37-37-BC is a solid state high power amplifier systems provides high output power and high gain across the 0.1 to 6 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: 0.1-6GHz
- Gain: 37dB Min
- Psat Output Power: 37dBm 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	0.1		6	GHz
Small Signal Gain	GP	37	40		dB
Gain flatness	Δ GL		± 3	± 4	dB
Output P1dB	P1dB	33	34		dBm
Output Psat	Psat	37	38		dBm
Harmonics	HAM		-10		dBc
Input VSWR	VSWR _{in}		1.5	2.0	:1
AC Voltage	Vac	110	220		V AC
Power Consumption	P _{diss}		30	60	W
Impedance	I/O-IMP		50		Ohms

Mechanical Specifications:

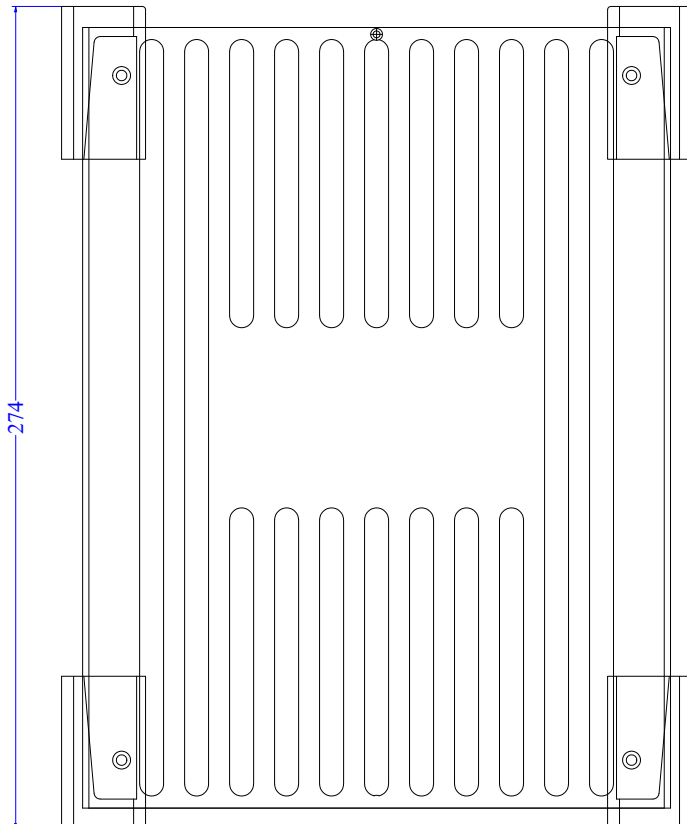
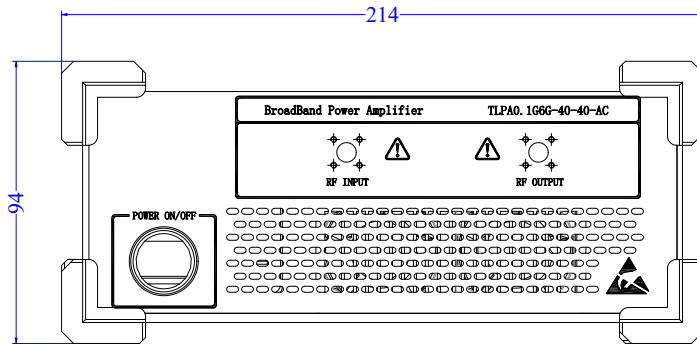
Parameter	Value	Units
Input /Output Connector	SMA Female/ SMA Female	
Size	274*214*94	mm
Weight	≤ 5	Kg

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
Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Over VSWR
Cooling system	Built in Cooling system,forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°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			

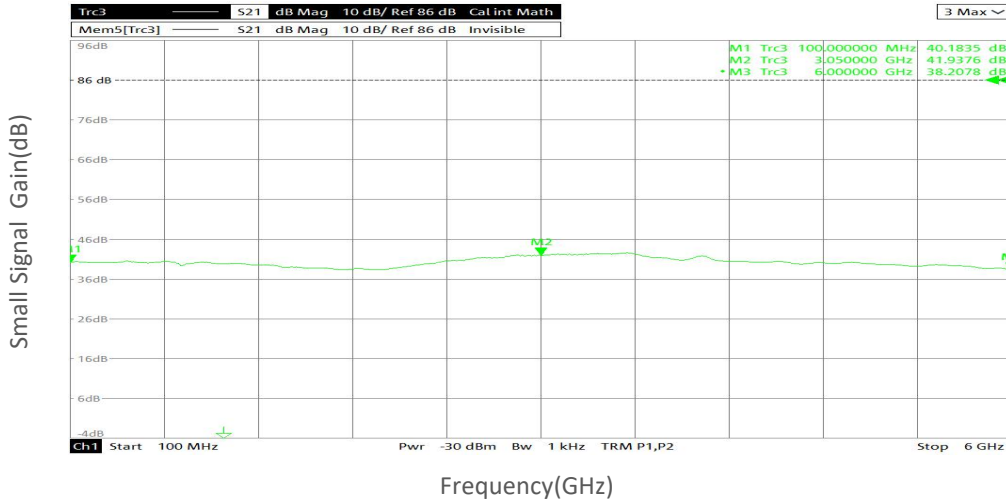
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

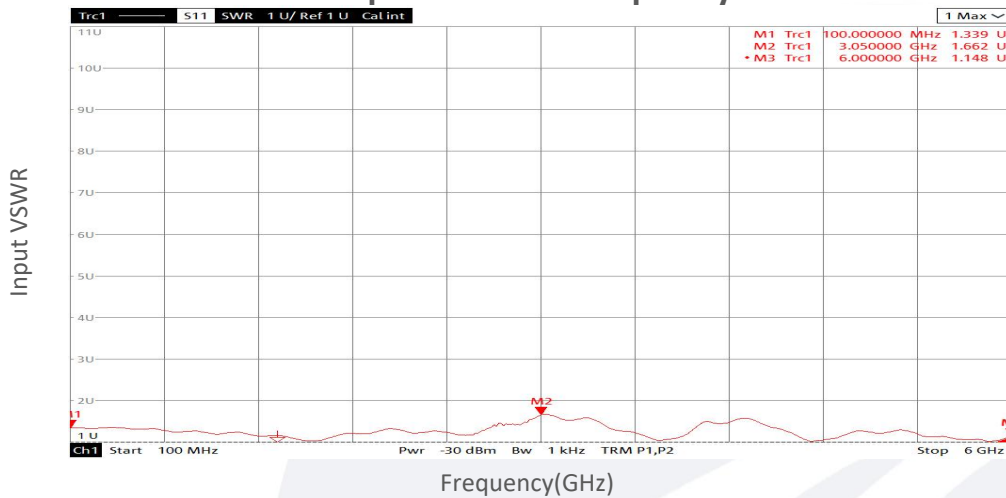
Base Number	Description	Revision
TLPA0.1G6G-37-37-BC	Solid State High Power Amplifier Systems 0.1-6GHz,Gain:37dB,Psat:37dBm,220V AC,Built in Fan Cooling	Rev.1.1

Typical Performance Data:

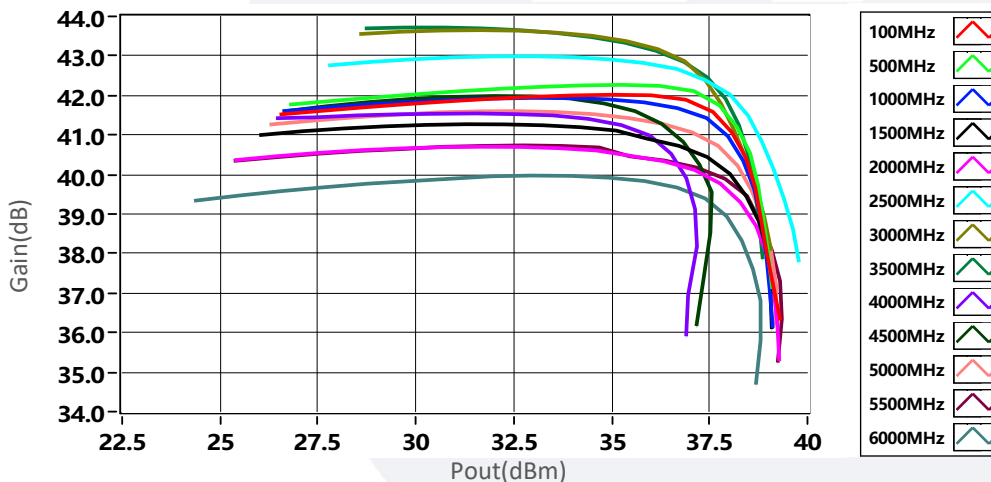
Small Signal Gain vs Frequency



Input VSWR vs Frequency



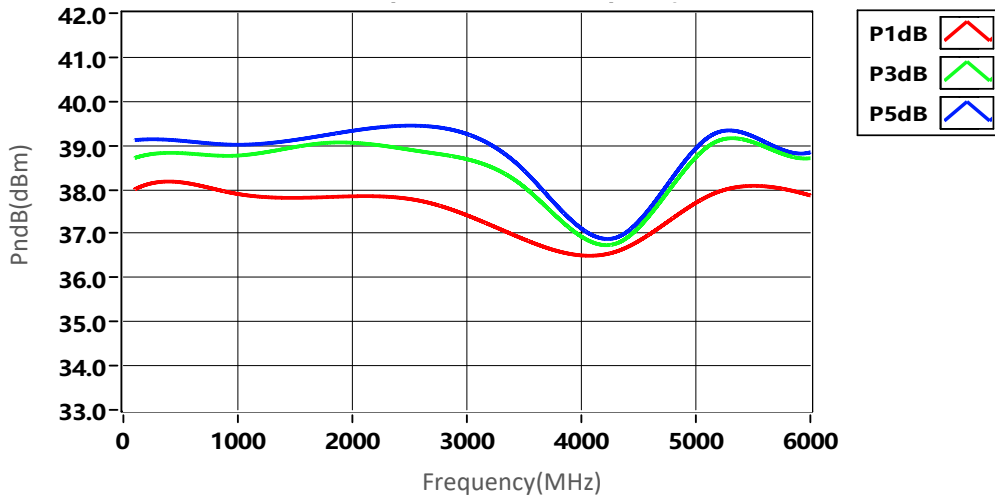
Gain vs Output Power



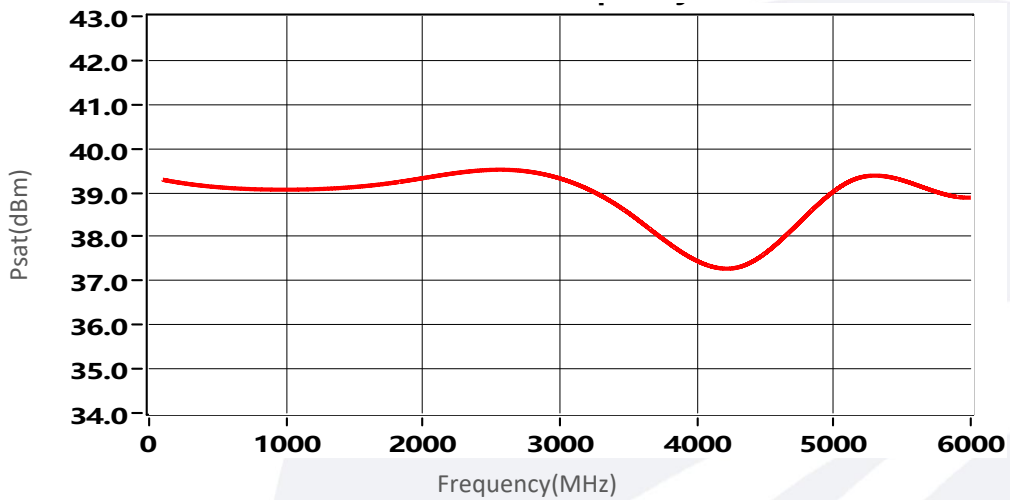
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

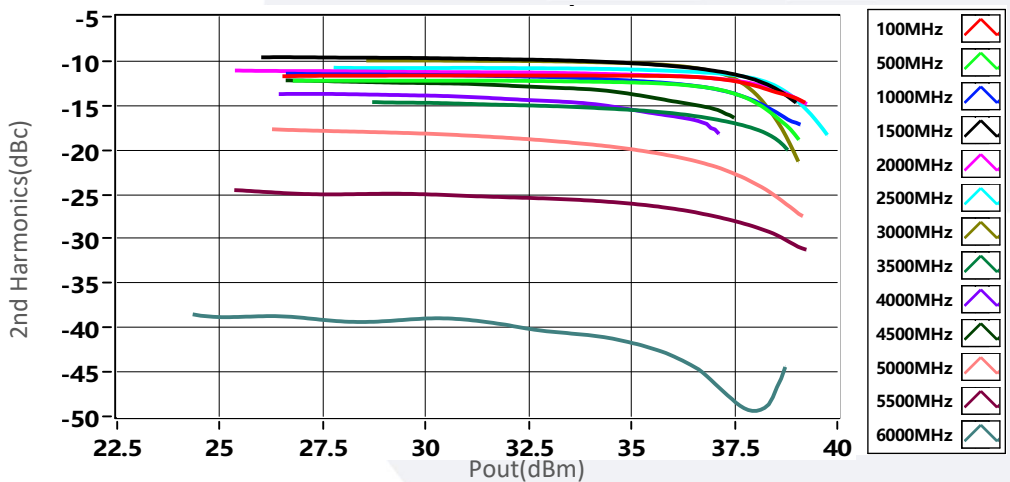
PndB vs Frequency



Psat vs Frequency



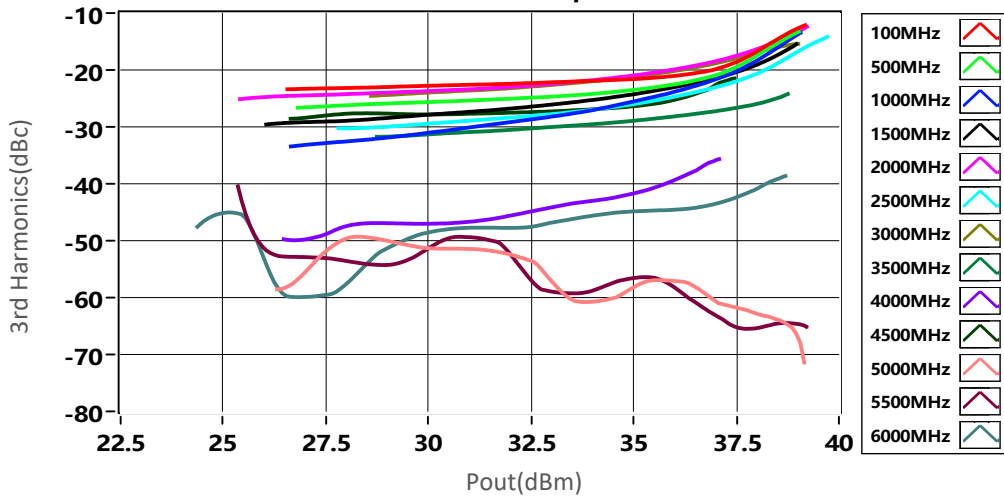
2nd Harmonics vs Output Power



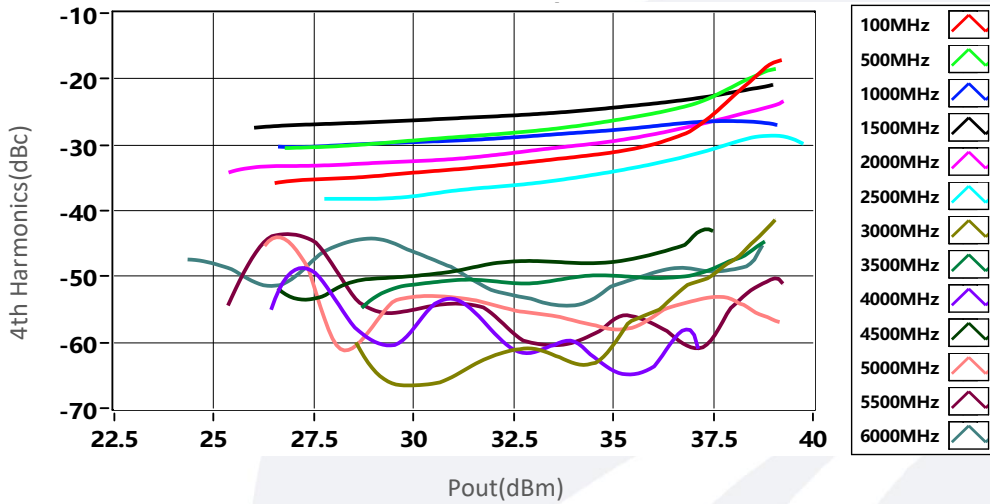
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Typical Performance Data:

3rd Harmonics vs Output Power



4th Harmonics vs Output Power



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