

## Solid State High Power Amplifier Systems

27-32GHz/56dB Gain/56dBm Psat/220V AC

Model: TLPA27G32G-56-56-BC

TLPA27G32G-56-56-BC is a solid state high power amplifier systems provides high output power and high gain across the 27 to 32GHz 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: 24-32GHz
- Gain: 56dB Min
- Psat Output Power: 56dBm 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	27-32			GHz
Power Gain	GP	56			dB
Gain flatness	$\Delta$ GL		$\pm 3$		dB
Output Psat	Psat	56			dBm
Spurious	Spur			-55	dBc
Input VSWR	VSWRin			2	:1
AC Voltage	Vac		220		V AC
Power Consumption	Pdiss		5500	6000	W
Impedance	I/O-IMP	50			Ohms

### Mechanical Specifications:

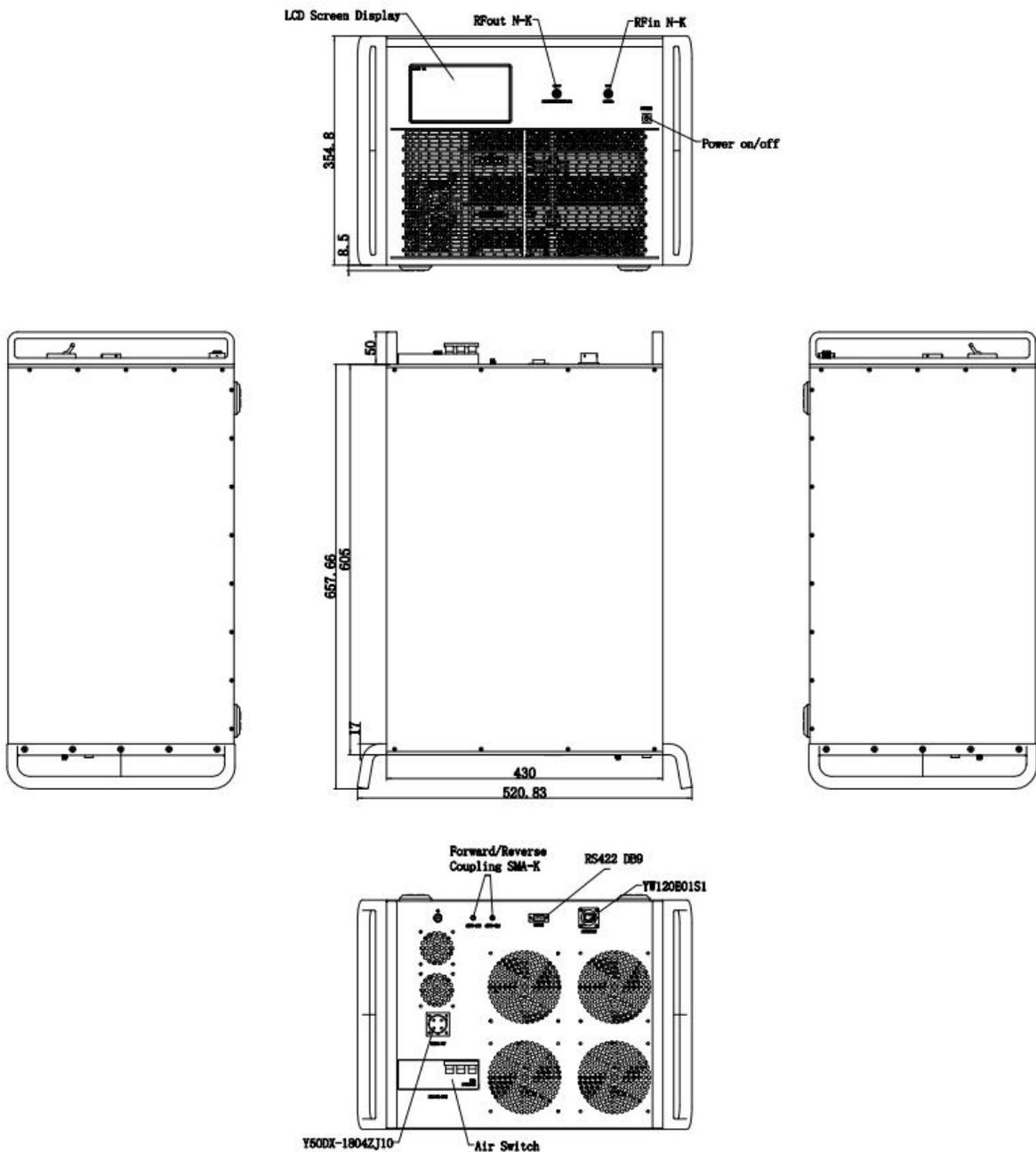
Parameter	Value	Units
Input /Output Connector	2.92mm Female/WR28	
Forward/Reverse Coupling	2.92mm Female/2.92mm Female	
Communication Connector	DB9/RJ45	
Size	19 Inch 8U*550	mm
Weight	$\leq 80$	Kg

### Absolute Maximum Ratings:

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

### Outline Drawing:

Unit:mm



### Key Features:

Parameter	Advantages
Control functions	1, Power setting On/Off 2, ALC automatic level control
Display functions	1, Current 2, Output/reflected power 3, Fault informations
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		+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			

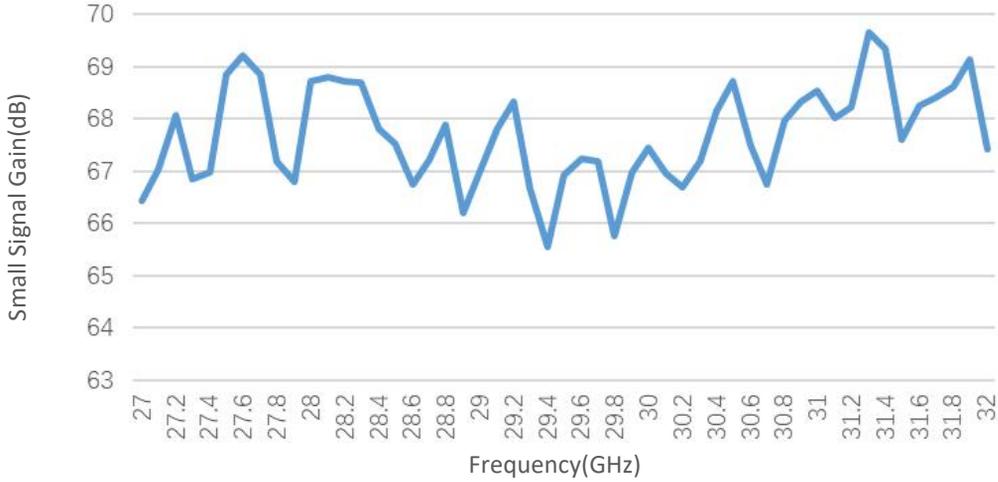
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

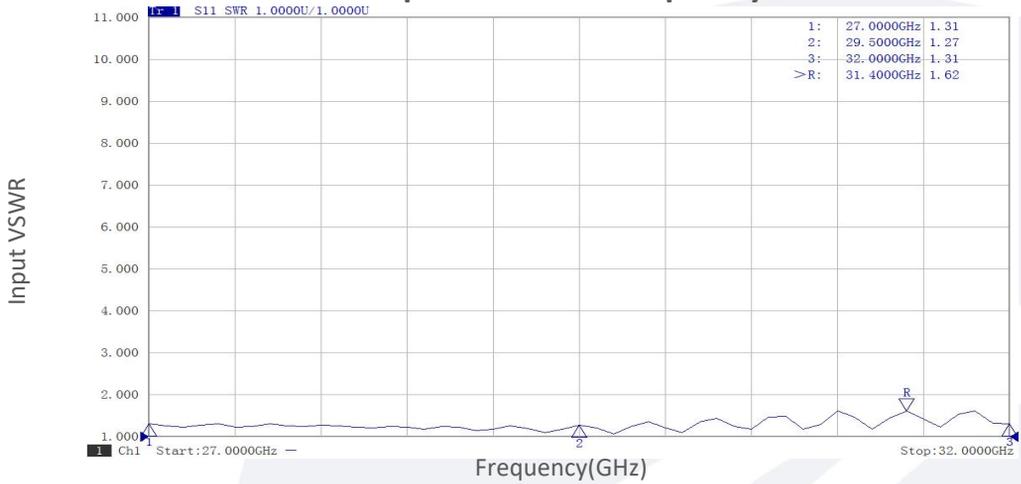
Base Number	Description	Revision
TLPA27G32G-56-56-BC	Solid State High Power Amplifier Systems 27-32GHz, Gain:56dB, Psat:56dBm, 220V AC, Built in Fan Cooling	Rev.1.1

**Typical Performance Data(T=21°C) :**

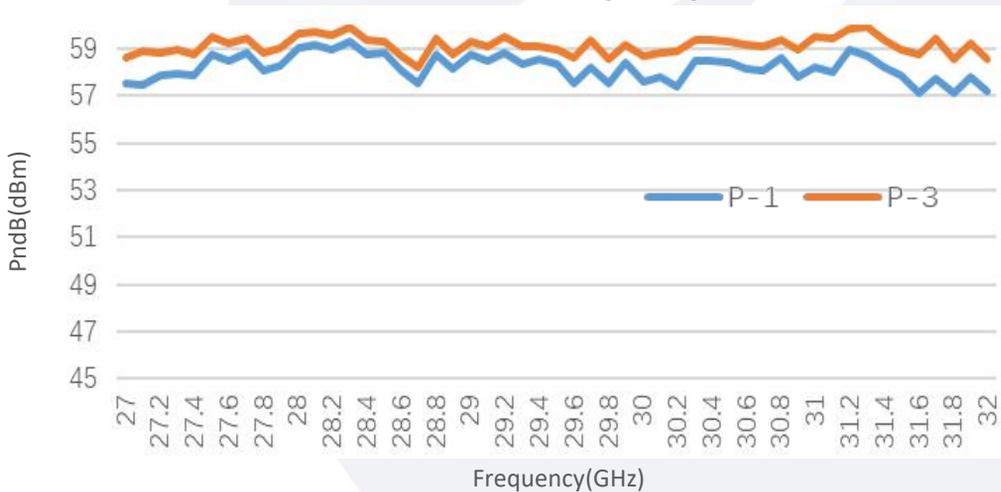
**Small Signal Gain vs Frequency**



**Input VSWR vs Frequency**

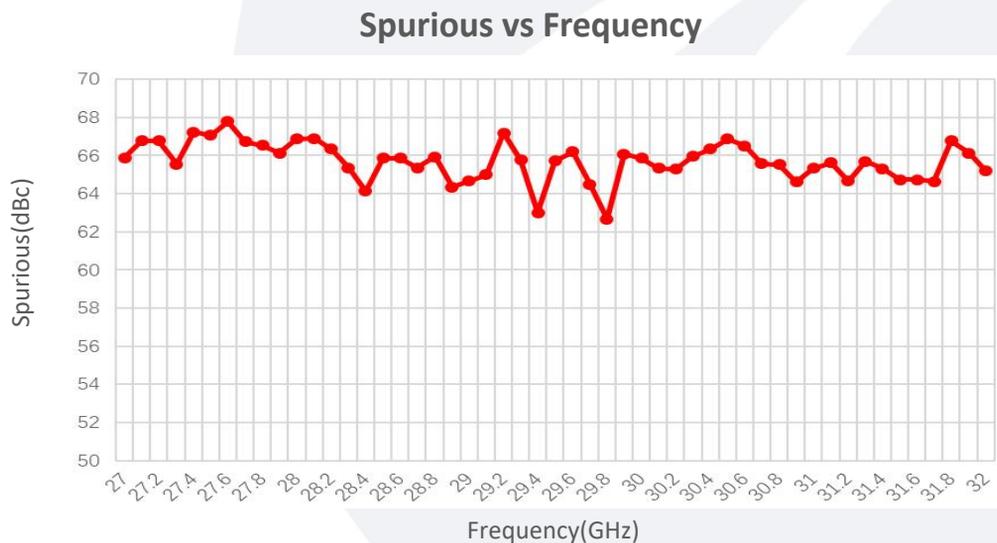
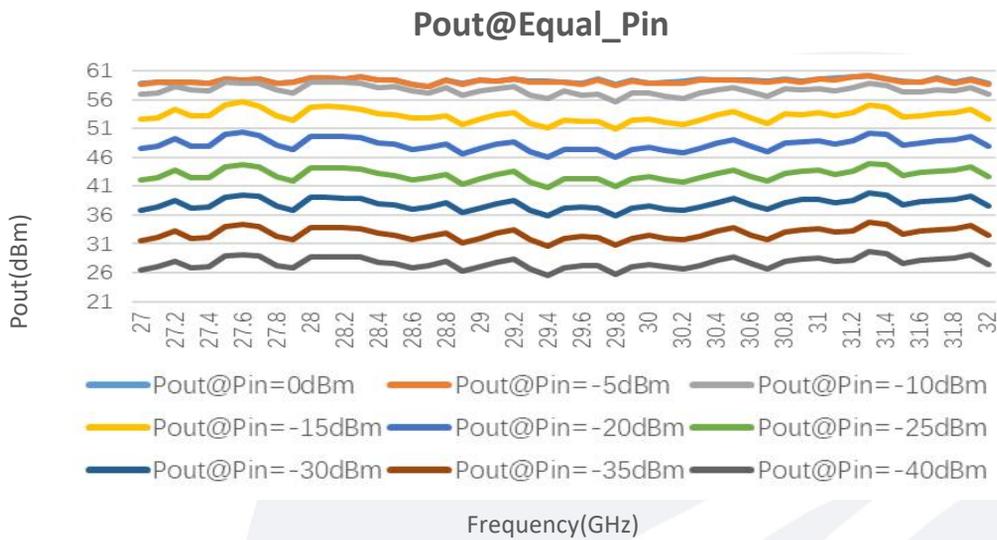
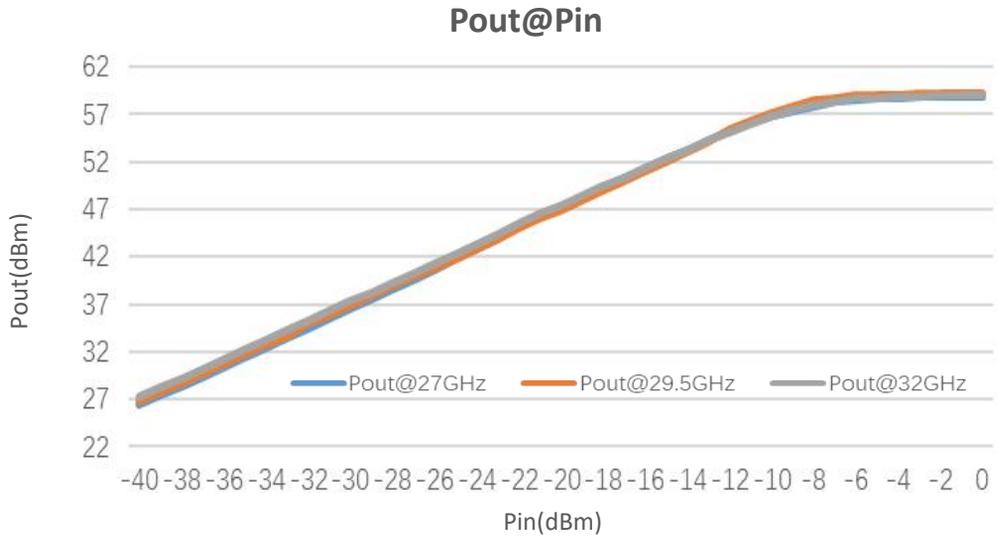


**PndB vs Frequency**



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.

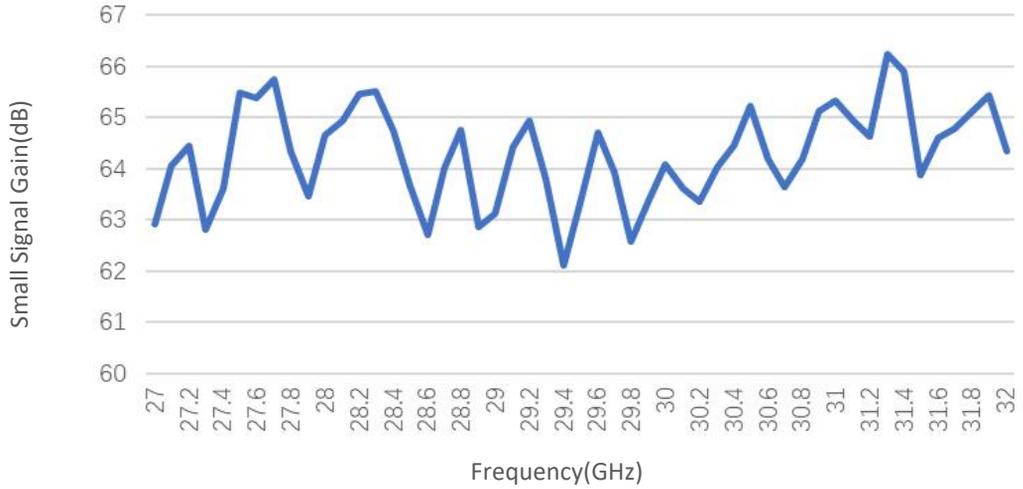
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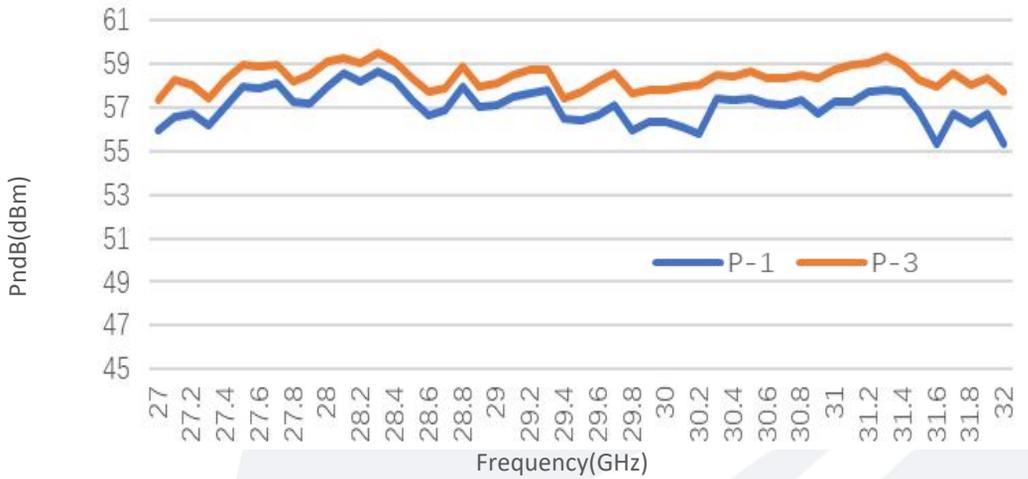
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**Typical Performance Data(T=50°C) :**

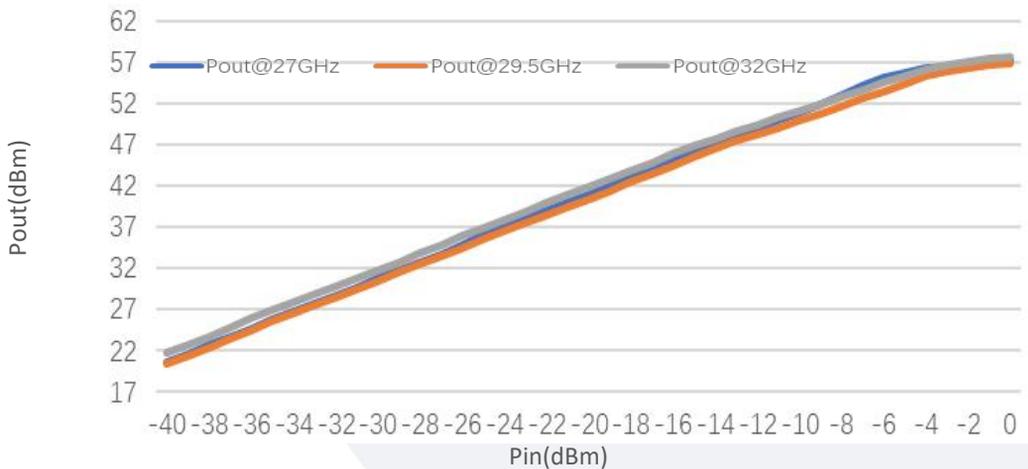
**Small Signal Gain vs Frequency**



**PndB vs Frequency**

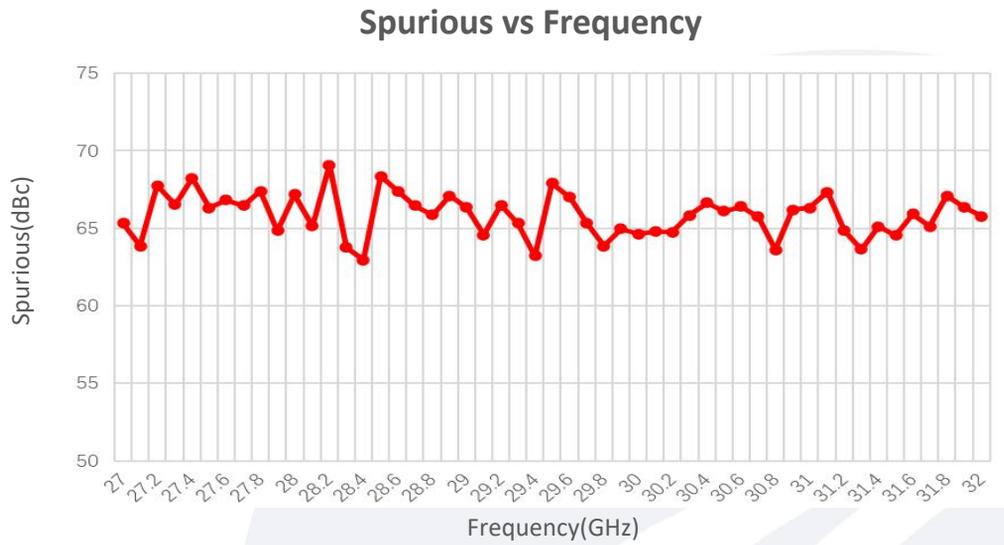
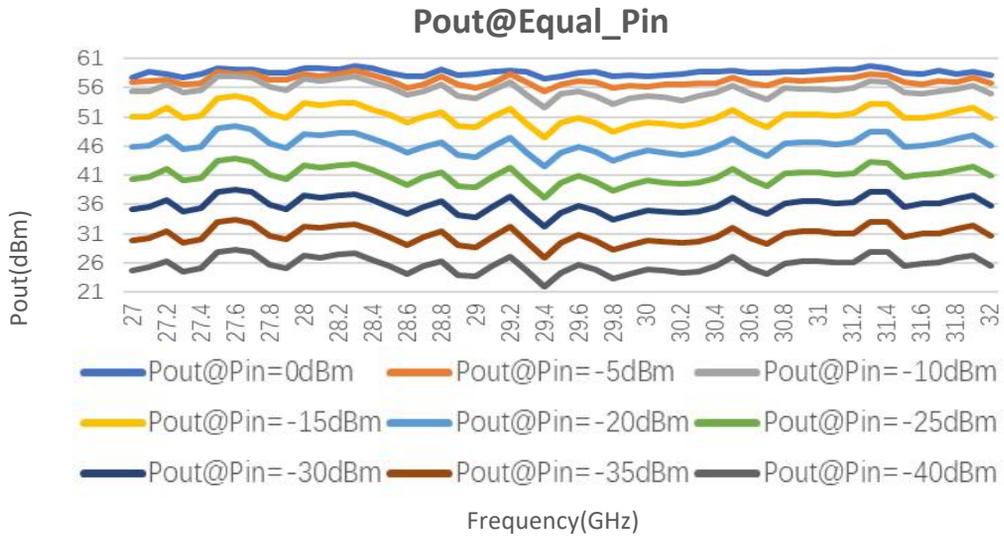


**Pout@Pin**



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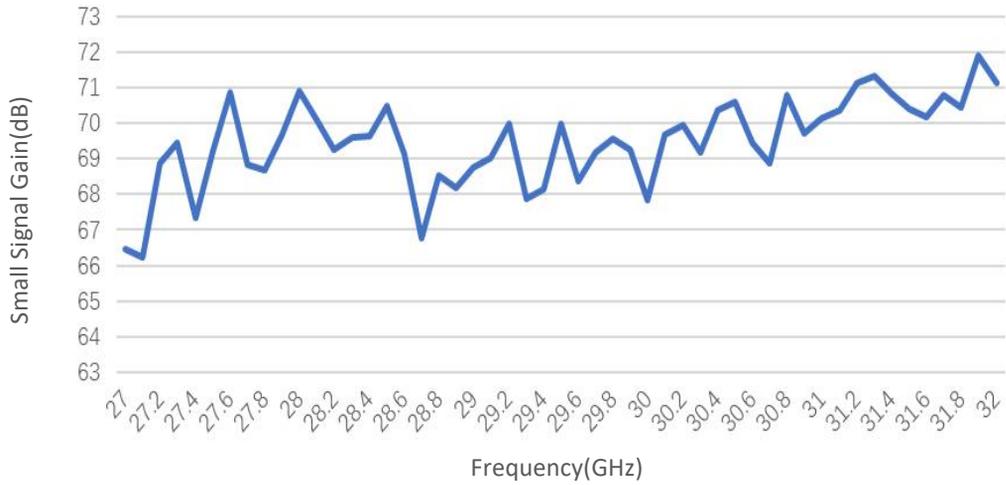
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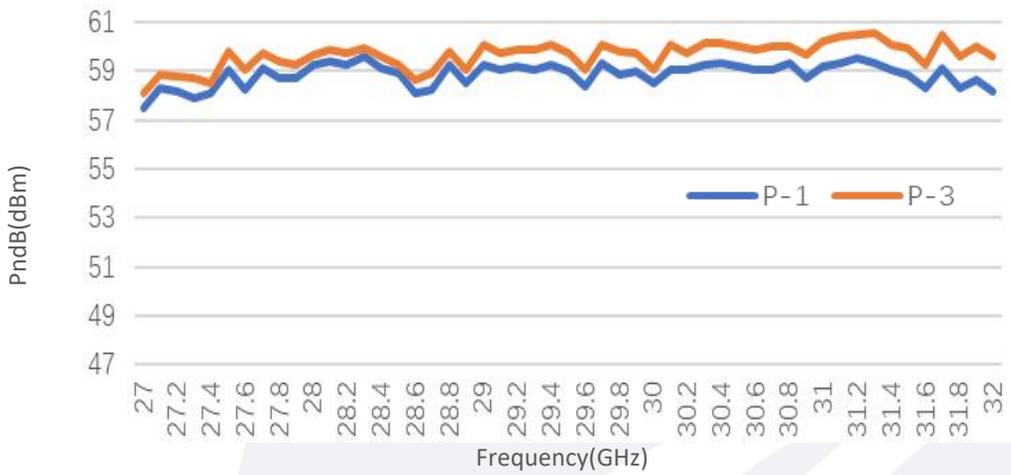
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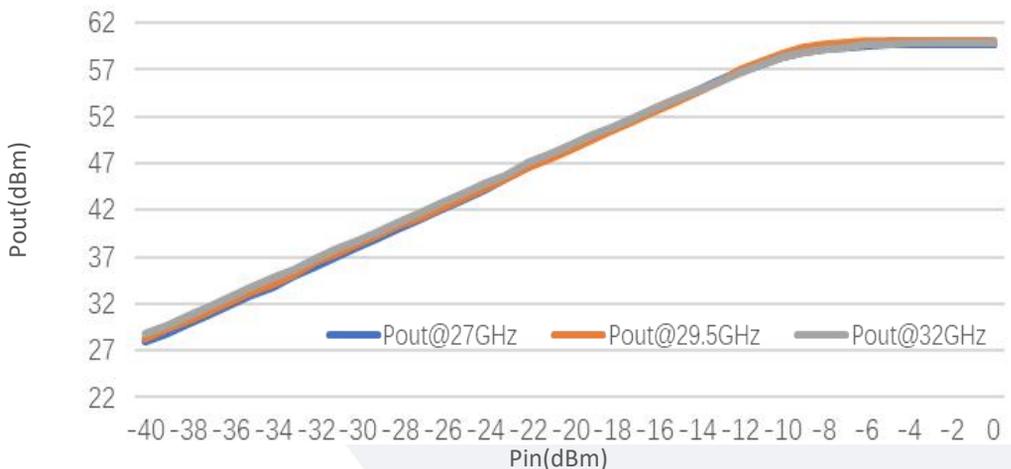
**Small Signal Gain vs Frequency**



**PndB vs Frequency**

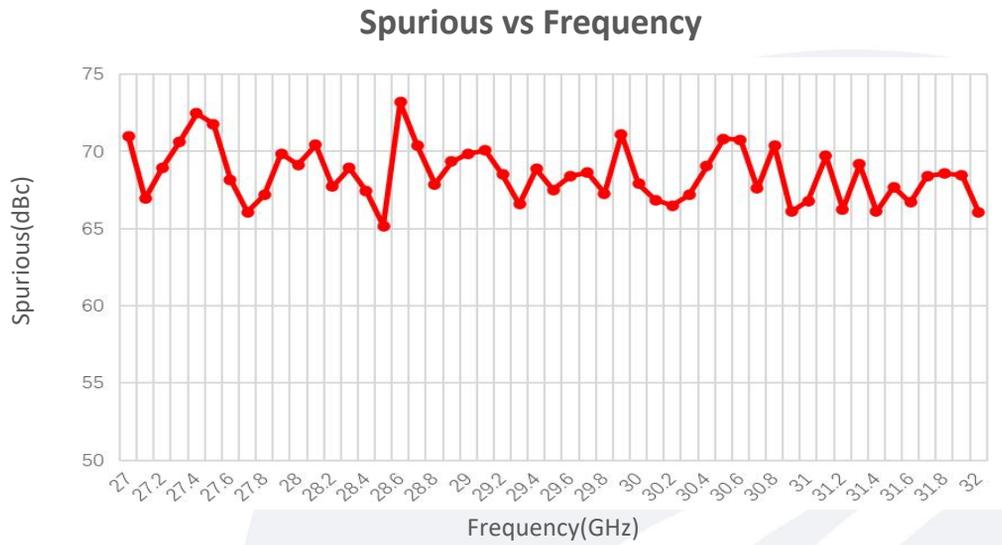
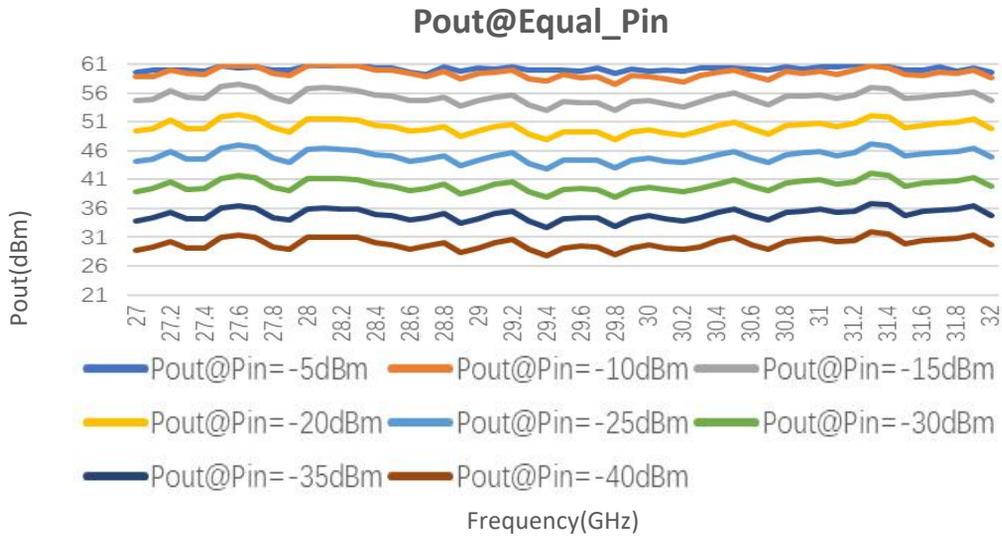


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