

## Power Amplifier

6-18GHz/60dB Gain/53dBm Psat

Model: TLPA6G18G-60-53

TLPA6G18G-60-53 is a power amplifier with a minimum small signal gain of 60 dB and a minimum Psat of 53 dBm across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/3500 W. The input port configuration offers coax adapter structure with SMA female and output port is WRD500.

### Features:

- Frequency range: 6-18GHz
- Gain: 60dB Min
- Output Power Psat: 53dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	6		18	GHz
Small Signal Gain	60			dB
Gain Flatness		±4.5	±5	dB
Output Psat	53			dBm
Spurious@Pout=50dBm			-55	dBc
2nd Harmonic@Pout=50dBm		-20	-15	dBc
DC Voltage		+28		V DC
Power Consumption			3500	W
Impedance		50		Ohms

### Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/WRD500	
DC Supply Connector	D-SUB-8W8	
Size	305*310*200	mm
Weight	25	Kg

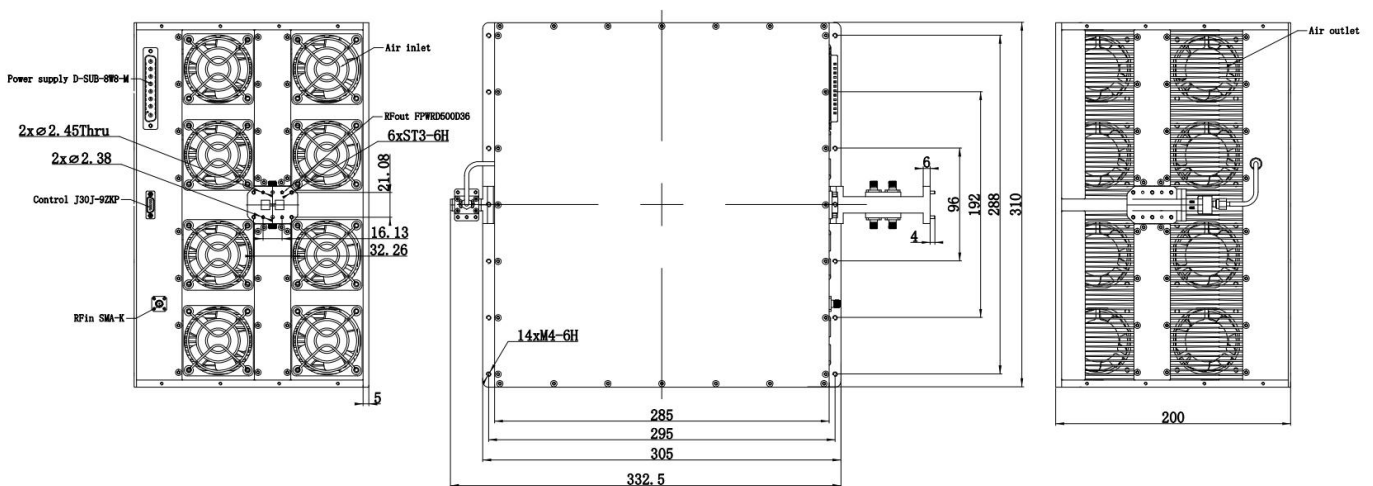
### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



### Outline Drawing:

Unit:mm



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

### DC Supply Connector(DSUB-8W8):

Pin	Function
Pin1-4	+28V
Pin5-8	GND

### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	°C
Non-operating Temperature*	-45		+65	°C
Relative humidity		95		%
Altitude	50,000			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			

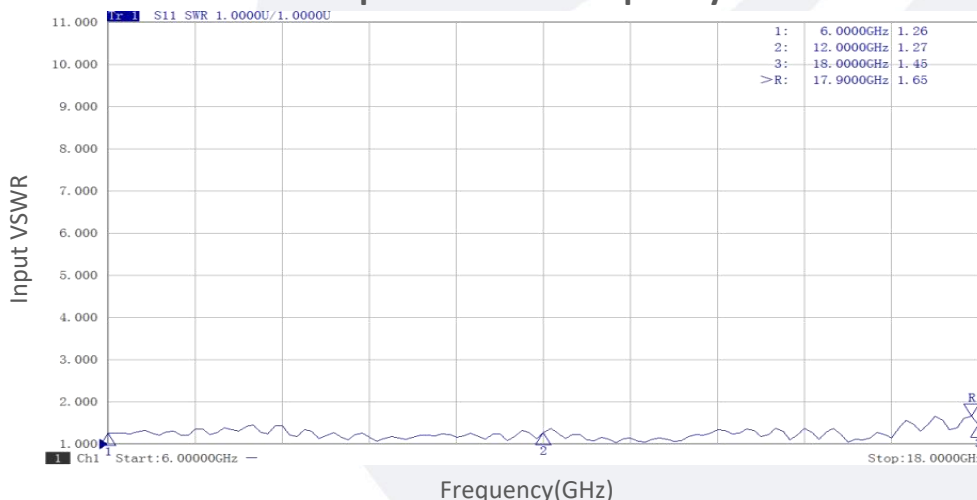
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

Base Number	Description	Revision
TLPA6G18G-60-53	Power amplifier 6-18GHz, Gain:60dB,Psat:53dBm,+28V DC,Built in Fan Cooling.	Rev.1.2

### Typical Performance Data:

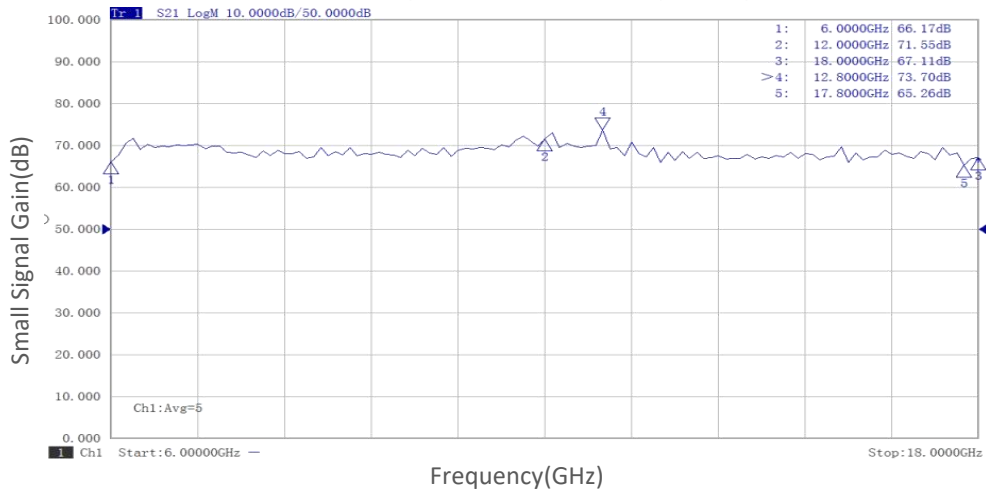
#### Input VSWR vs Frequency



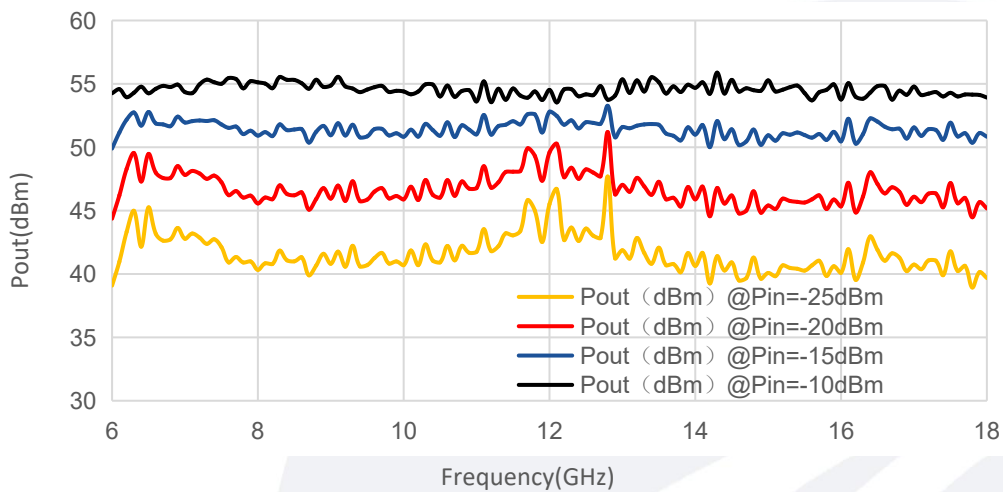
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

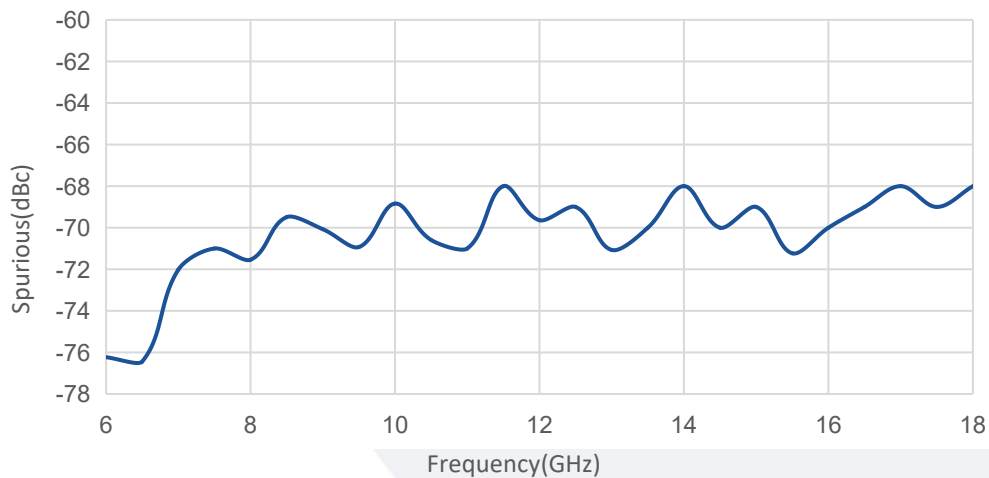
### Small Signal Gain vs Frequency



### Pout vs Frequency



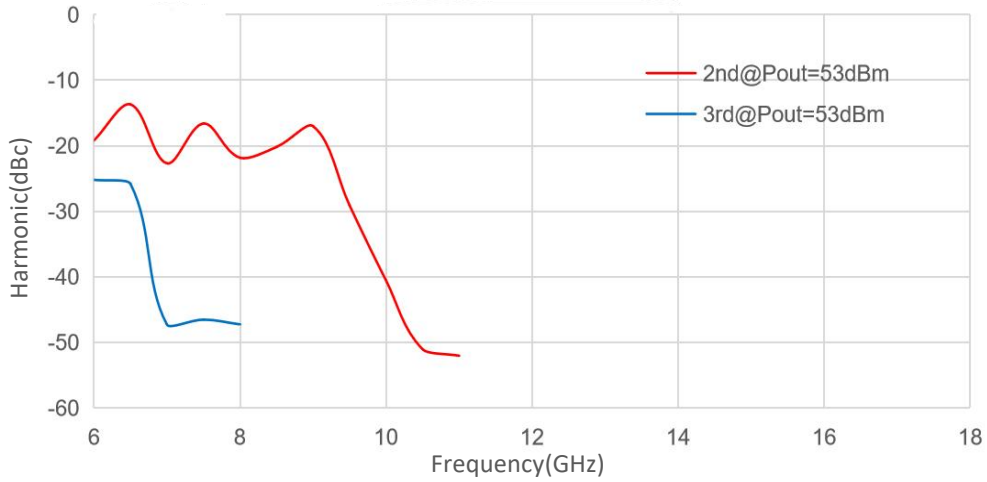
### Spurious vs Frequency



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## Typical Performance Data:

### Harmonic vs Frequency



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