

Power Amplifier

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

Model: TLPA6G18G-60-53

TLPA6G18G-60-53 is a power amplifier with a typical power gain of 60 dB and a 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 configuration offers coax adapter structure with WRD500.

Features:

- Ultra Wide Band: 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
Power Gain	60			dB
Gain Flatness		±4.5	±5.0	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:

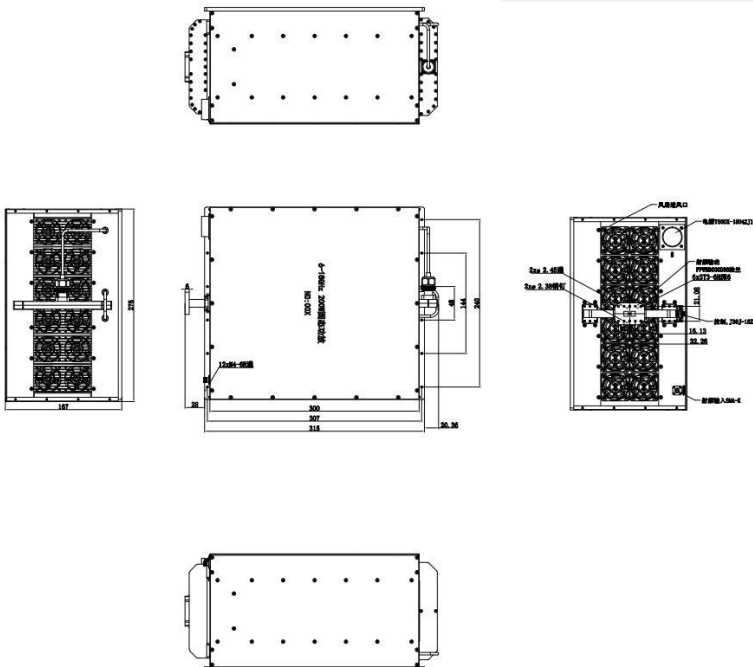
Parameter	Value	Units
Input /Output Connector	SMA Female WRD500	
DC Power Interface	Y50DX-1804	
Size	270*276*207.25	mm
Weight	25	Kg

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



Y50DX-1904 Define	
Pin	Function
Pin1-2	+28V
Pin3-4	GND

*****Heat Sink Required During Operation**



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	°C
Non-operating Temperature*	-45		+65	°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			

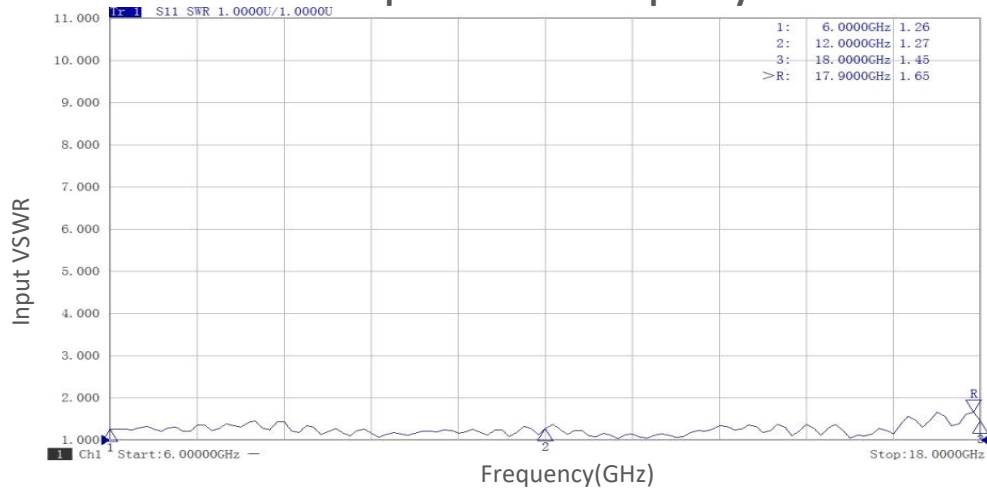
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

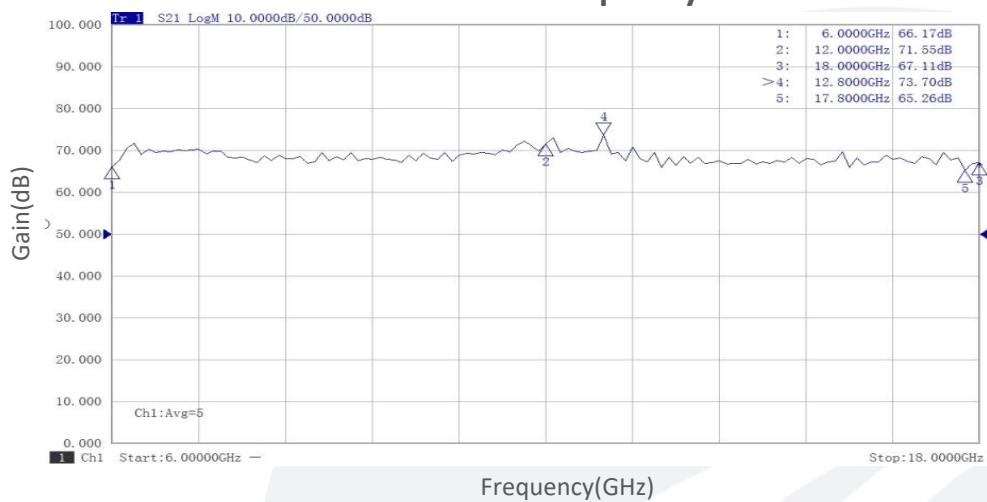
Base Number	Description	Revision
TLPA6G18G-60-53	Power amplifier 6-18GHz,Gain:60dB,Psat:53dBm,+28V DC,Built in Fan Cooling .	Rev.1.1

Typical Performance Data:

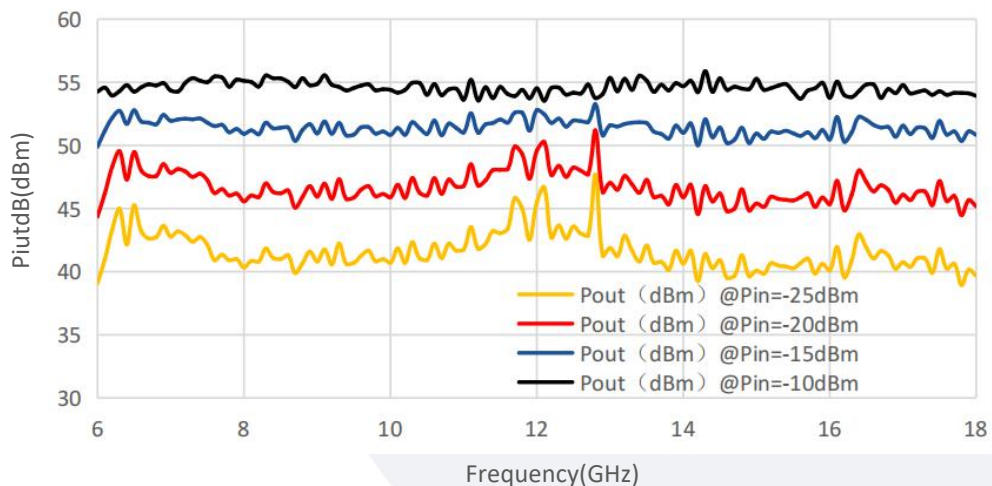
Input VSWR vs Frequency



Gain vs Frequency



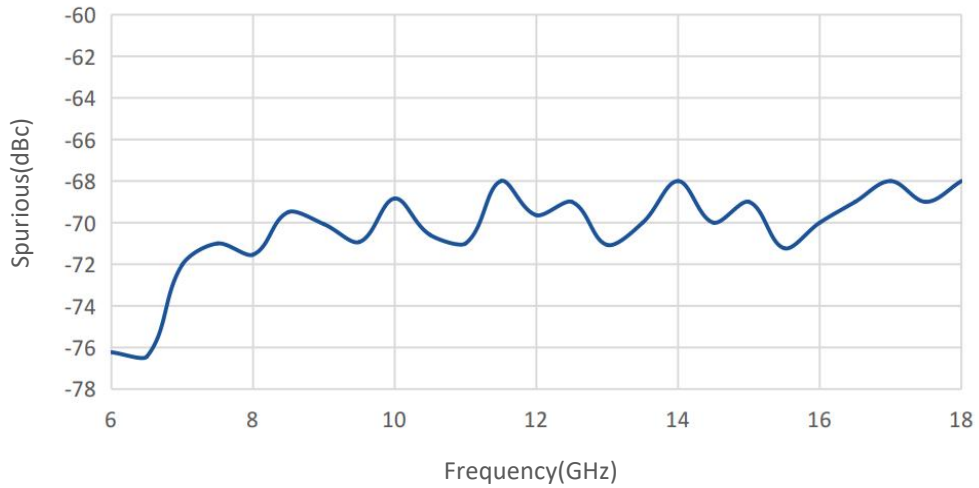
Pout vs Frequency



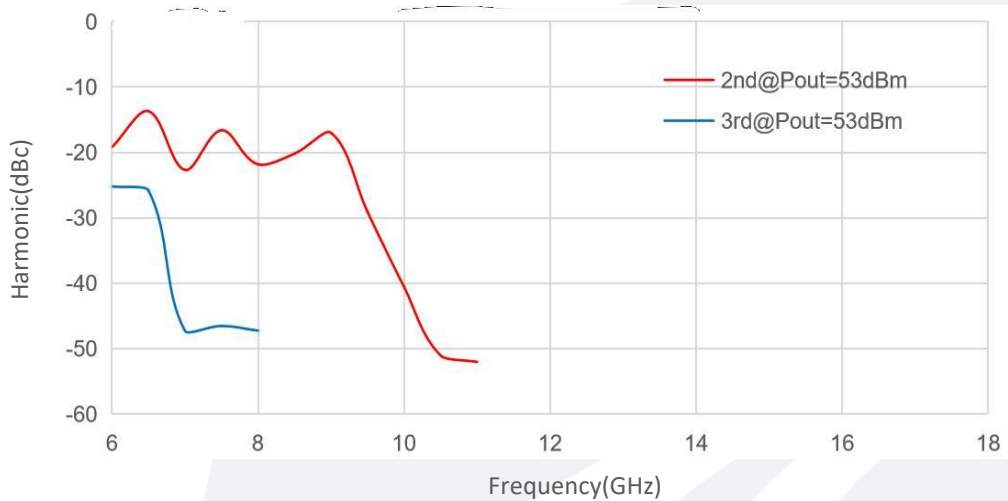
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Spurious vs Frequency



Harmonic vs Frequency



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