

Power Amplifier

4-6GHz/53dB Gain/47dBm Psat

Model: TLPA4G6G-53-47

TLPA4G6G-53-47 is a power amplifier with a typical gain of 53 dB and a nominal Psat of 47 dBm across the frequency range of 4 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/1 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 4-6GHz
- Gain: 53dB Typ
- Output Power Psat: 47dBm Typ
- 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	4		6	GHz
Gain	50	53		dB
Gain Flatness		±2	±3	dB
Output Psat	46	47		dBm
Harmonics@Pout=47dBm		-15		dBc
Input VSWR		1.5	2.0	:1
DC Voltage		+28		V DC
DC Supply Current		1	10	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input/Output Connector	SMA Female/SMA Female	
DC Supply Connector	D-Sub-9Pin	
Size	200*120*20	mm
Weight	1000	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+38 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm



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



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

DC Supply Connector(DSUB-9 Female):

Pin	Name	Function
1	VDD	+26.0-30.0VDC
2	VDD	+26.0-30.0VDC
3	VDD	+26.0-30.0VDC
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	Current Sensor	Analog voltage relative to ID @ 25mV /100mA
8	Temp. Sensor	Analog voltage relative to Module's Temperature @ 10 mV/°C
9	EN	Amplifier Enable: TTL "Low" (Logic 0) or Open Amplifier Disable: TTL "High" (Logic 1)

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
TLPA4G6G-53-47	Power amplifier 4-6GHz Gain:53dB,Psat:47dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA4G6G-53-47-HS	Power amplifier 4-6GHz Gain:53dB,Psat:47dBm,+28V DC,With Heatsink	Rev.1.1