Suzhou Talent Microwave,Inc
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Power Amplifier

1-6GHz /47dB Gain/47 dBm Psat Model: TLPA1G6G-47-47-V2

TLPA1G6G-47-47-V2 is a power amplifier with a typical small signal gain of 47 dB and Psat of 47 dBm across the frequency range of 1 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/6 A. The input and output port configuration offers coax adapter structure with SMA female .

Features:

- Frequency range: 1-6 GHz
- Gain: 47dB 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		1-6		GHz
Small Signal Gain	45	47		dB
Gain Flatness		±4	±5	dB
Output P1dB	44.5	45.5		dBm
Output Psat		47		dBm
Harmonic		-15	-13	dBc
Input VSWR		1.5	2	:1
DC Voltage		28		V DC
DC Supply Current		6	7	A
Impedance		50		Ohms

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Mechanical Specifications:

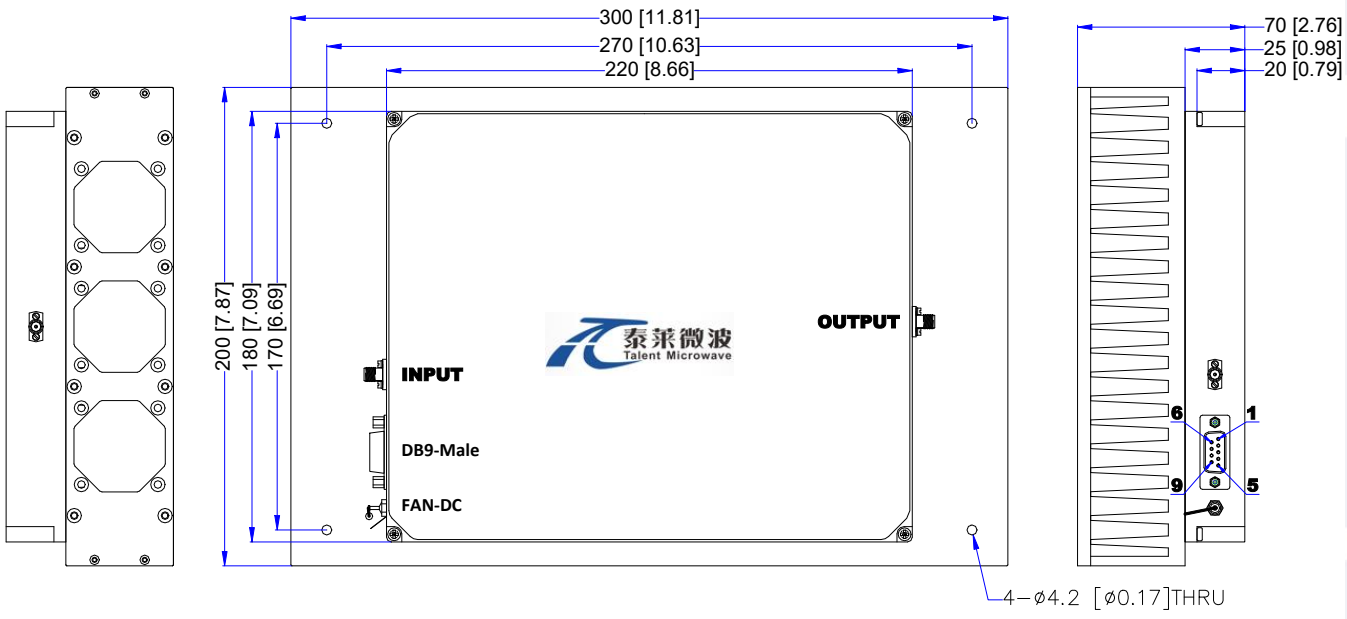
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Supply Connector	DSUB-9 Male	
Size	220*180*25(Without heatsink) 300*200*70(With heatsink)	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+8 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



***Heat Sink Required During Operation

OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

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DC Supply Connector（DSUB-9 Male):

Pin	Name	Function
1	+28V	+28.0-30.0VDC
2	+28V	+28.0-30.0VDC
3	+28V	+28.0-30.0VDC
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	NC	NC
8	NC	NC
9	NC	NC

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	℃
Non-operating Temperature*	-30		+60	℃
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
TLPA1G6G-47-47-V2	Power amplifier 1-6GHz,Gain:47dB,Psat:47dBm, +28V DC,Without Heatsink	Rev.1.1
TLPA1G6G-47-47-V2-HS	Power amplifier 1-6GHz,Gain:47dB,Psat:47dBm, +28V DC,With Heatsink	Rev.1.1

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Typical Performance Data:

VSWR&Gain vs Frequency

VSWR&Gain(dB)

Frequency(GHz)

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.