Suzhou Talent Microwave,Inc
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Power Amplifier

20MHz-6GHz/35dB Gain/38dBm Psat

Model: TLPA20M6G-35-38

TLPA20M6G-35-38 is a power amplifier with a typical power gain of 35 dB and a nominal Psat of 38 dBm across the frequency range of 20MHz to 6 GHz. The DC power requirement for the amplifier is +28 VDC/0.5 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 20MHz-6GHz
- Gain: 35dB Typ
- Output Power Psat: 38dBm 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	20MHz		6GHz	
Power Gain	33	35		dB
Gain Flatness		±3	±5	dB
Output P1dB	35	37		dBm
Output Psat	37	38		dBm
Harmonics@Pout=37dBm			-10	dBc
Input VSWR		1.5	2.0	:1
DC Voltage	+26	+28	+30	V DC
DC Supply Current		0.5	1.7	A
Impedance		50		Ohms

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Supply Connector	J30J-9Pin	
Size	100*86*40(With heatsink)	mm
Weight	250	g

Absolute Maximum Ratings:

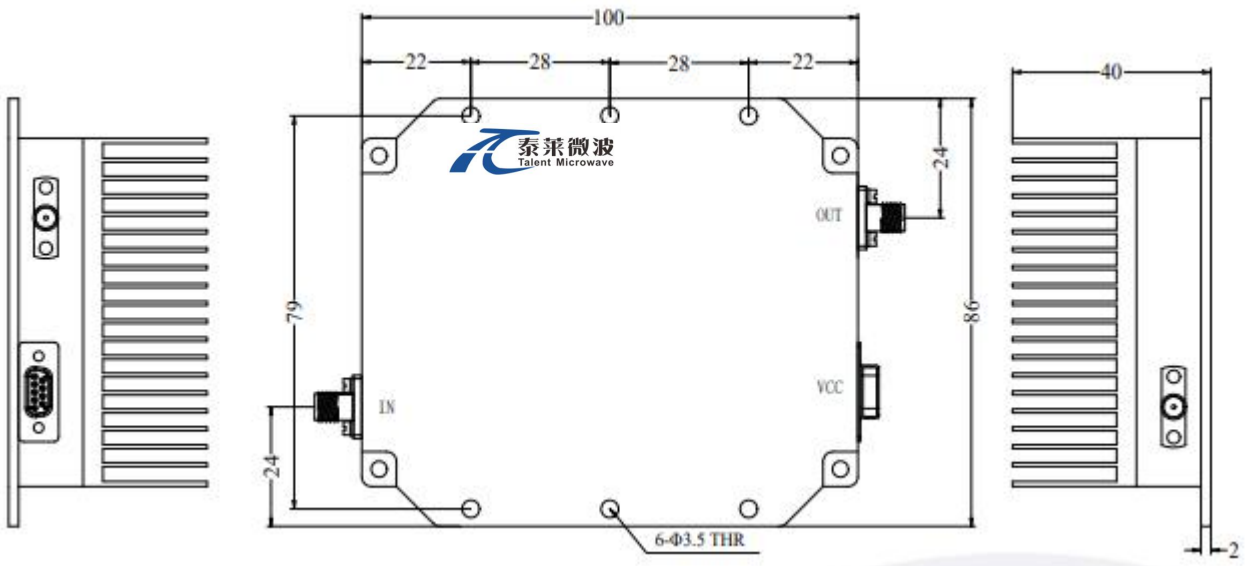
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



***Heat Sink Required During Operation

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

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DC Supply Connector J3OJ-9ZKW-J(J30J-9TJL):

Pin	Name	Function
1	Enable	A high (or suspended) level turns on the power amplifier, and a low level turns it off。
2	GND	Ground
3	GND	Ground
4	GND	Ground
5	GND	Ground
6	+28V	Power supply positive,+26.0-30.0VDC.
7	+28V	Power supply positive,+26.0-30.0VDC.
8	+28V	Power supply positive,+26.0-30.0VDC.
9	+28V	Power supply positive,+26.0-30.0VDC.

Note: TTL is 5V.

Instruction Manual:

Power on	
1	Connect ground and RF input connector.
2	Connect the RF output port to the load (The VSWR of the load should be less than 3:1).
3	The power amplifier is enabled by default when Pin 1 is floating.
4	Connect the 28V power supply to the amplifier.
5	Turn on the RF signal and ensure that the input signal does not exceed 5dBm.

Power off	
1	Turn off RF signal.
2	Disconnect the 28V power supply to the amplifier.
3	Disconnect the RF connectors

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Environmental Conditions:

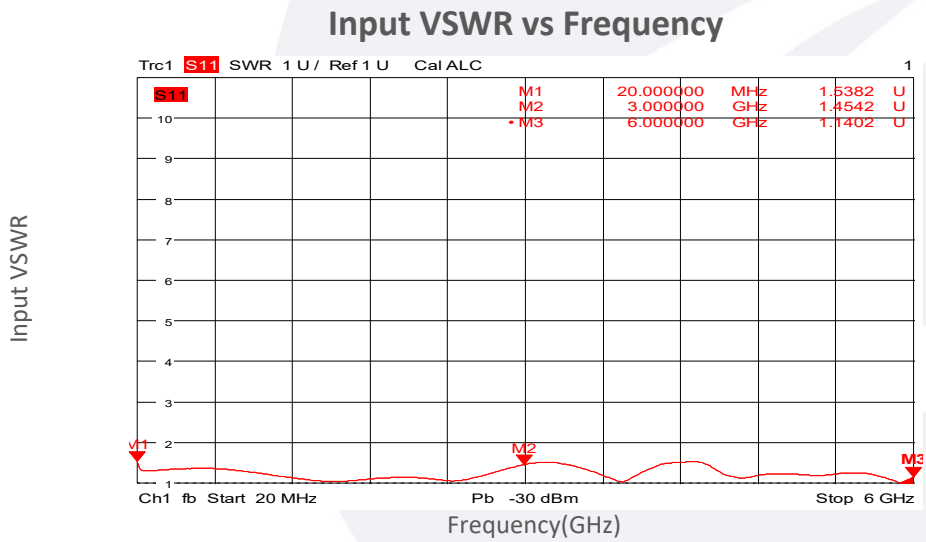
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	℃
Non-operating Temperature*	-50		+70	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA20M6G-35-38	Power amplifier 20MHz-6GHz, Gain:35dB,Psat:38dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA20M6G-35-38-HS	Power amplifier 20MHz-6GHz, Gain:35dB,Psat:38dBm,+28V DC,With Heatsink	Rev.1.1

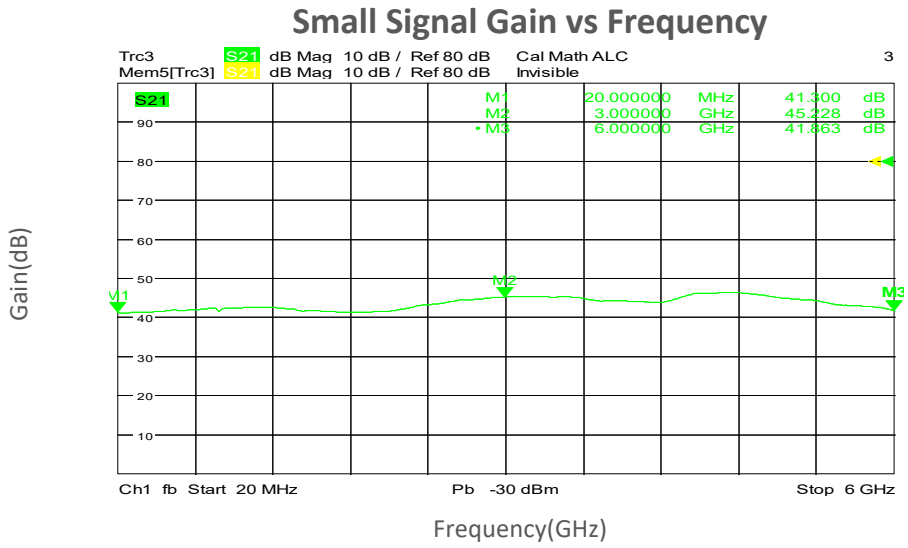
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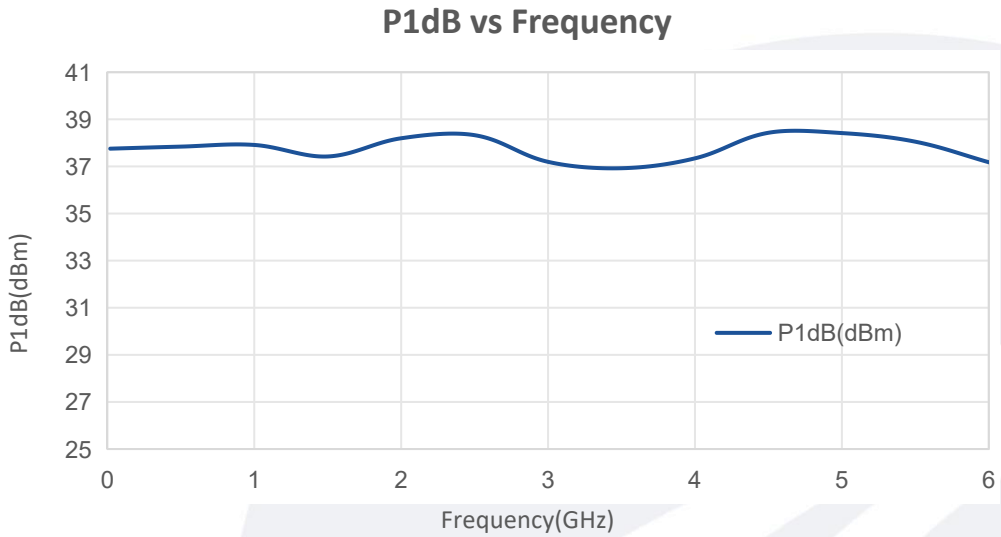


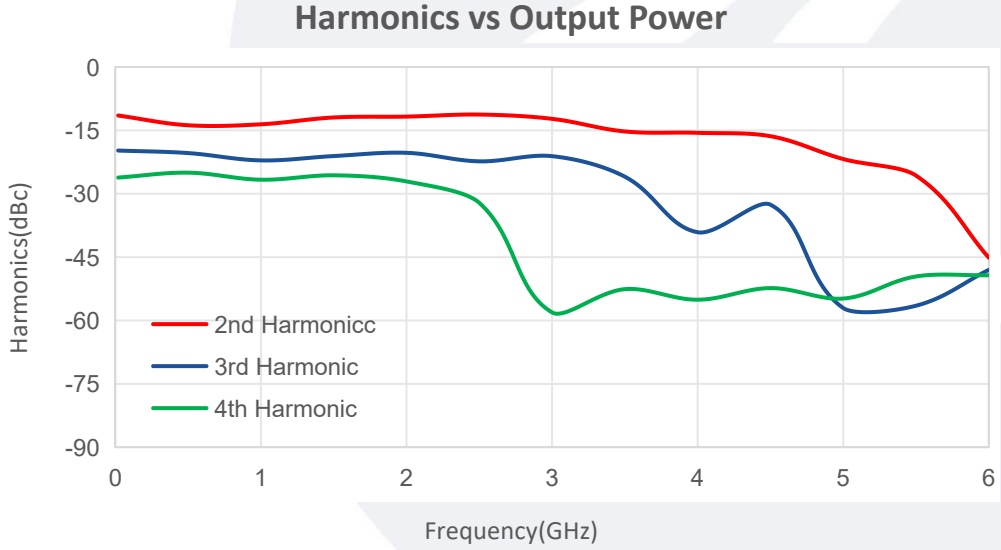
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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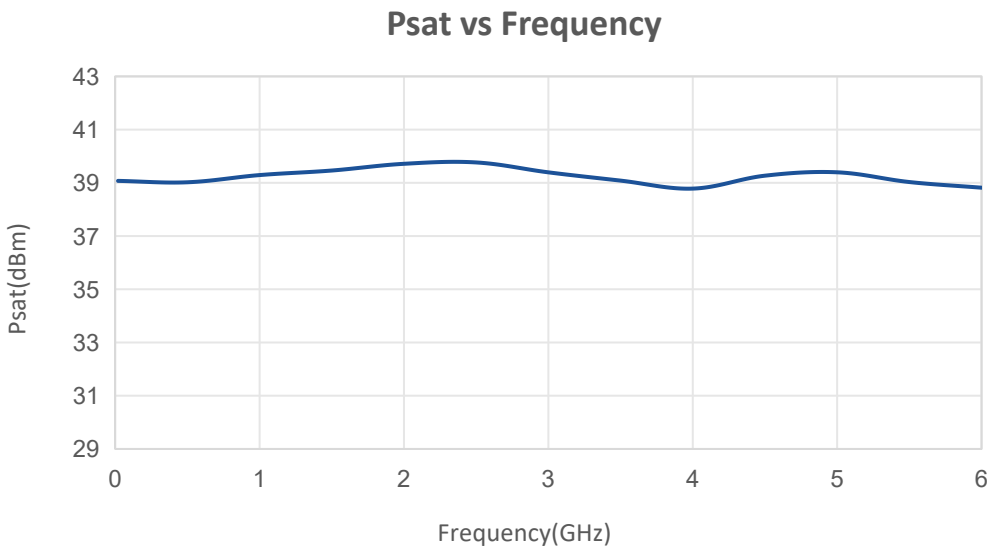




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