Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Power Amplifier

0.3-6GHz/40dB Gain/32 dBm Psat Model: TLPA300M6G-40-30

TLPA300M6G-40-30 is a power amplifier with a typical small signal gain of 42 dB and a nominal Psat of 32 dBm across the frequency range of 0.3 to 6 GHz. The DC power requirement for the amplifier is +12 VDC/700 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.3-6GHz
- Gain: 42dB Typ
- Output Power Psat: 32dBm 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		300MHz-6GHz		
Small Signal Gain	40	42		dB
Gain Flatness		±0.5	±1	dB
Output P1dB	30	31		dBm
Output Psat		32		dBm
Input VSWR		1.8		:1
Harmonics@Pout=30dBm		-15		dBc
DC Voltage		12	15	V DC
DC Supply Current		700	1000	mA
Impedance		50		Ohms

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	100*50*15	mm
Weight	140	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+8 V
RF Input Power	0 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.

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Environmental Conditions:

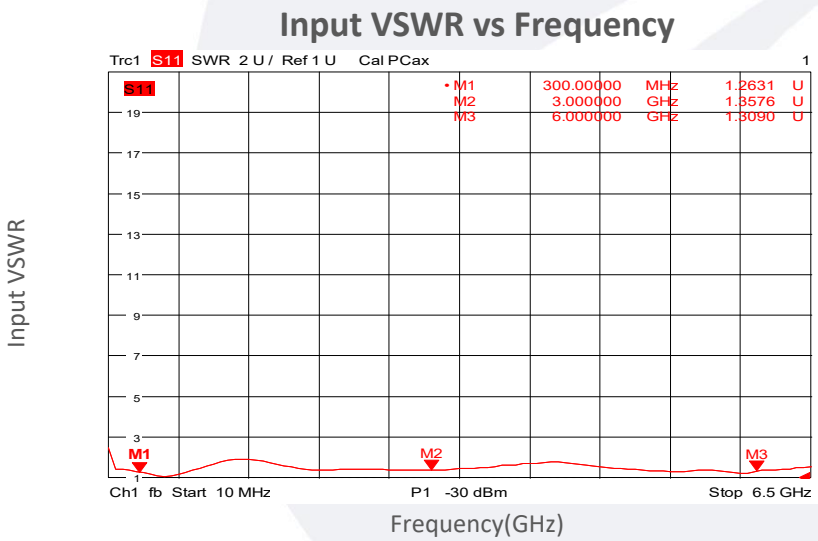
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	℃
Non-operating Temperature*	-50		+70	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Desciption	Revision
TLPA300M6G-40-30	Power amplifier 0.3-6GHz,Gain:40dB,P1dB:30dBm,+12V DC,Without Heatsink.	Rev.1.1
TLPA300M6G-40-30-HS	Power amplifier 0.3-6GHz,Gain:40dB,P1dB:30dBm,+12V DC,With Heatsink.	Rev.1.1

Typical Performance Data:



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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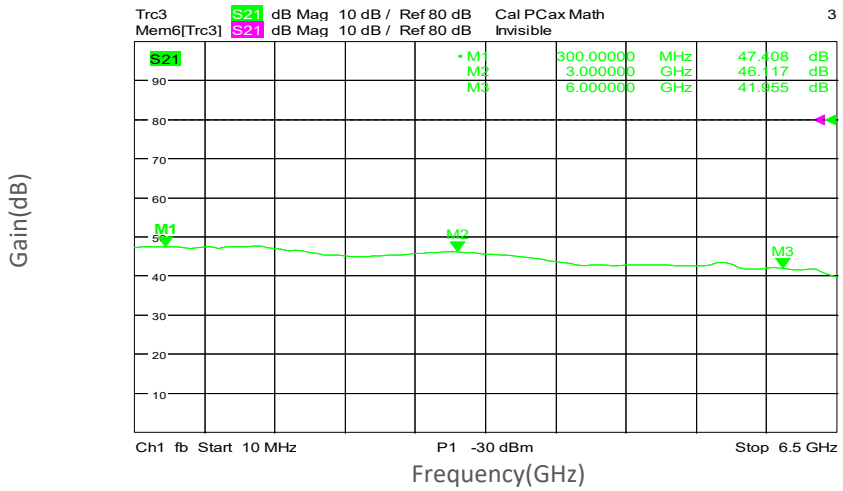
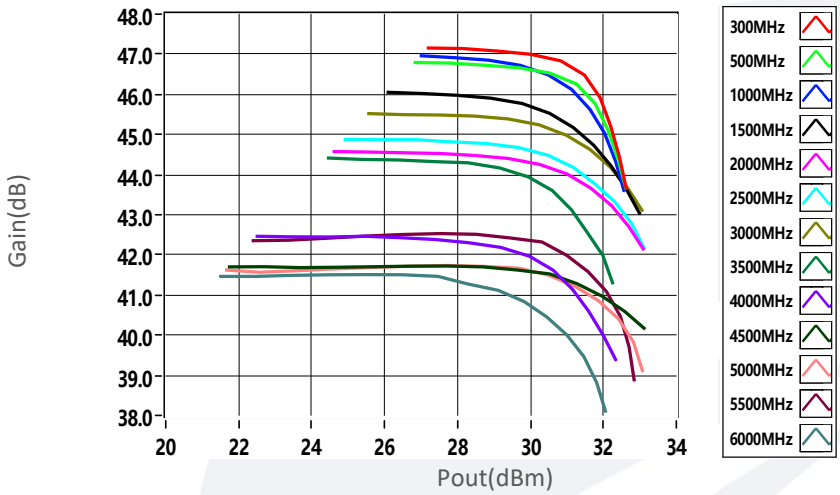
Typical Performance Data:

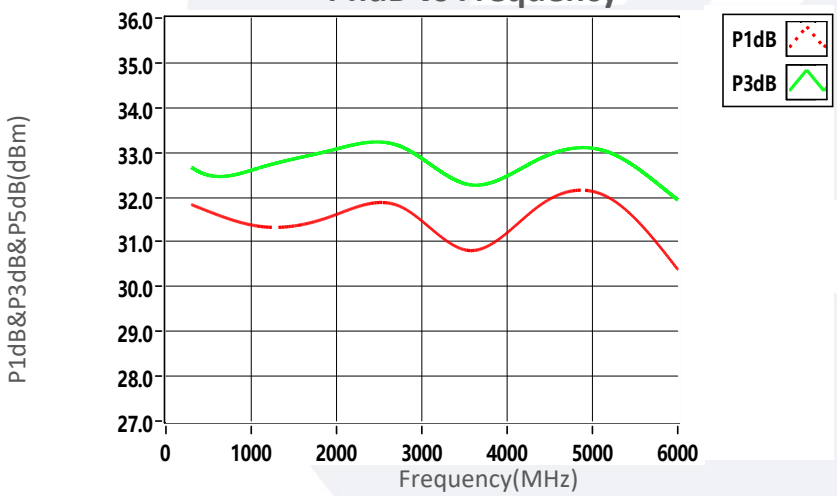
Small Signal Gain vs Frequency



Gain vs Output Power



PndB vs Frequency



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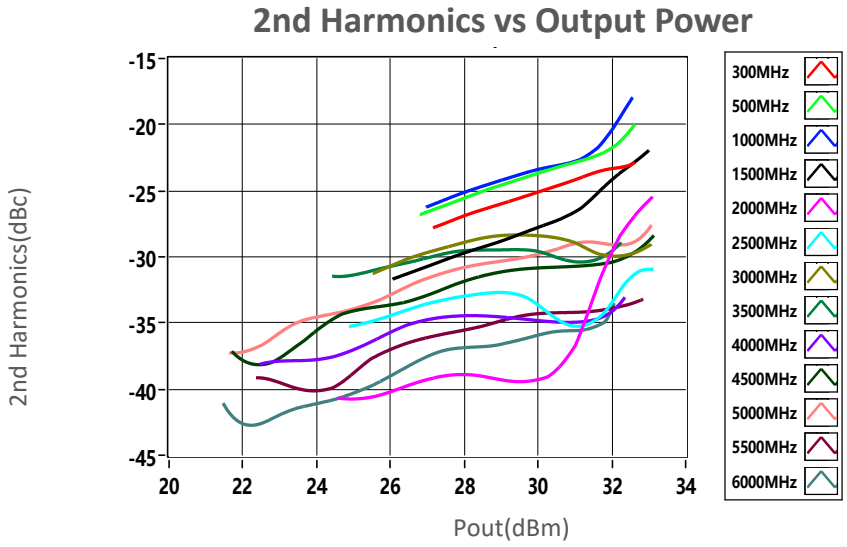

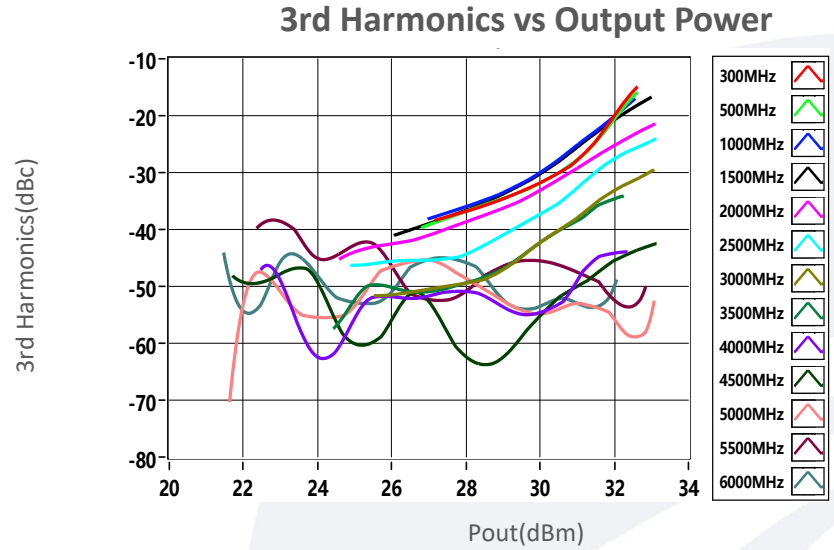

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