

Power Amplifier

60MHz-0.3GHz/30dB Gain/37dBm Psat

Model: TLPA60M0.3G-30-36

TLPA60M0.3G-30-36 is a power amplifier with a minimum gain of 30 dB and a minimum Psat of 37 dBm across the frequency range of 60MHz to 0.3 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: 60MHz-0.3GHz
- Gain: 30dB Min
- Output Power Psat: 37dBm 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	60MHz		0.3GHz	
Gain	30			dB
Gain Flatness		±1	±2	dB
Output P1dB	36			dBm
Output Psat	37			dBm
Input VSWR			2	:1
DC Voltage		+28		V DC
DC Supply Current		0.5		A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	140*65*23	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+12 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.

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°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			

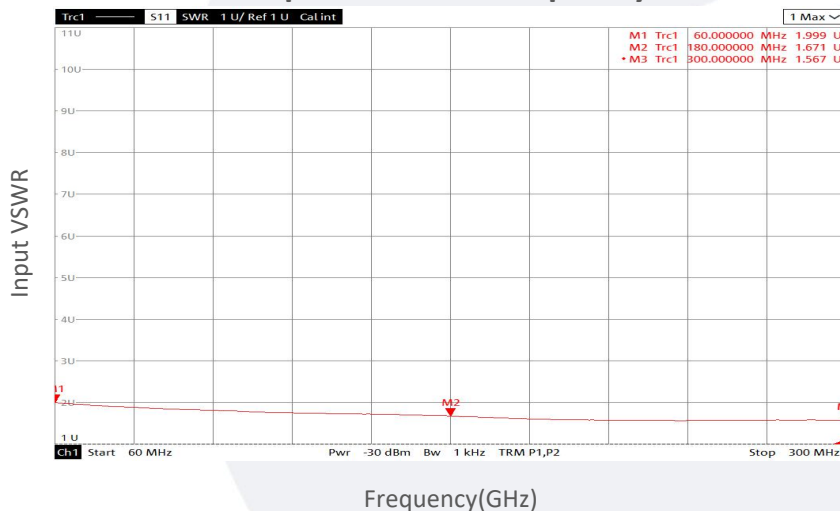
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA60M0.3G-30-36	Power amplifier 60MHz-0.3GHz, Gain:30dB,Psat:37dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA60M0.3G-30-36-HS	Power amplifier 60MHz-0.3GHz, Gain:30dB,Psat:37dBm,+28V DC,With Heatsink	Rev.1.1

Typical Performance Data:

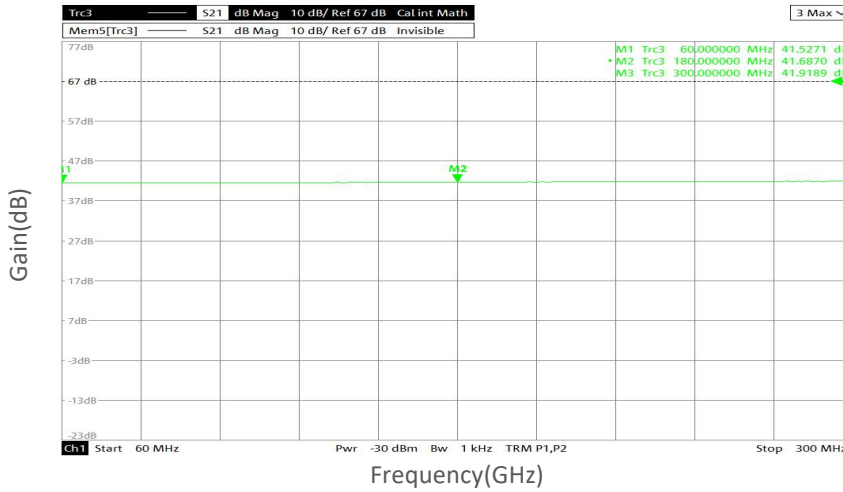
Input VSWR vs Frequency



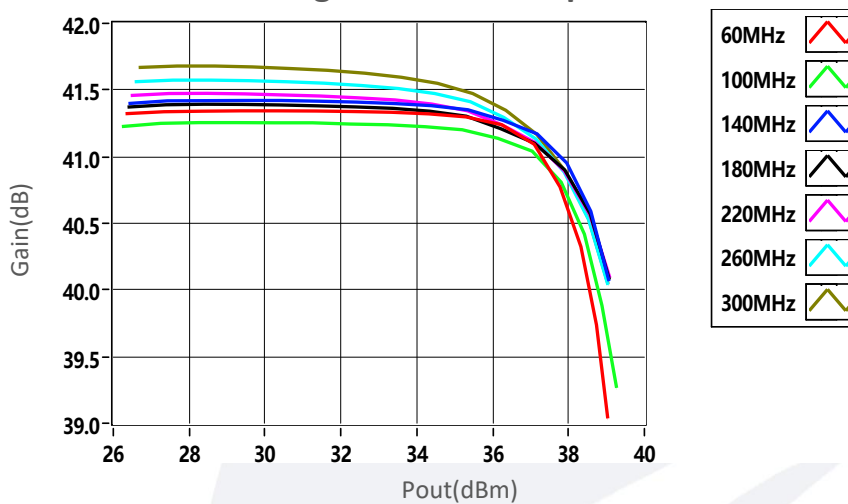
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

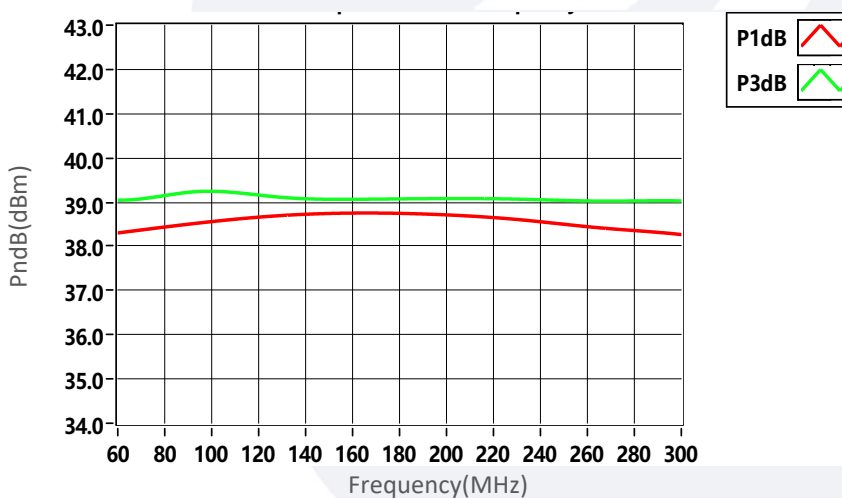
Small Signal Gain vs Frequency



Small Signal Gain vs Output Power



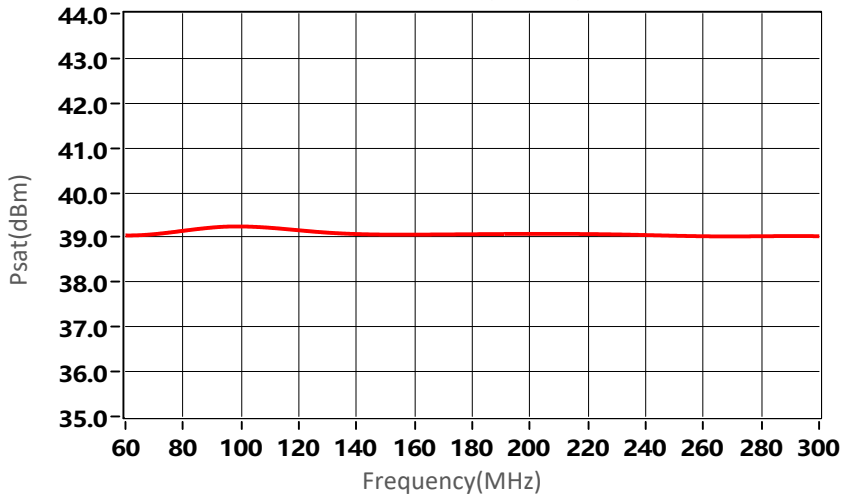
PndB vs Frequency



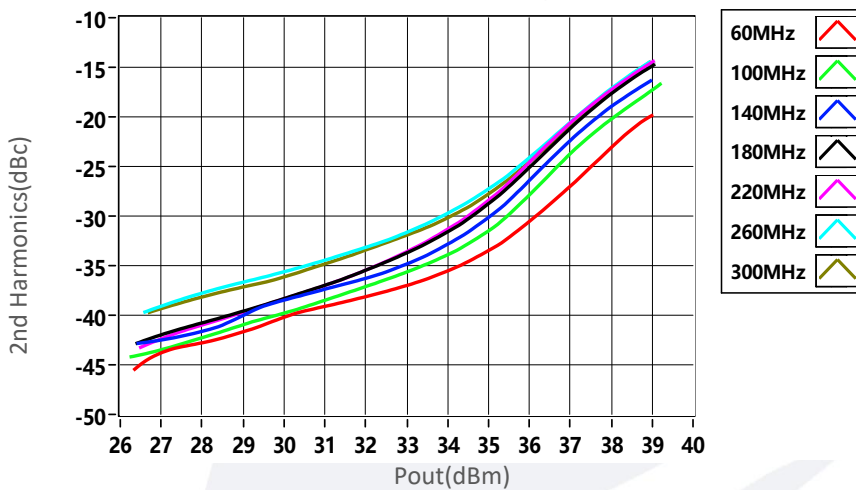
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Typical Performance Data:

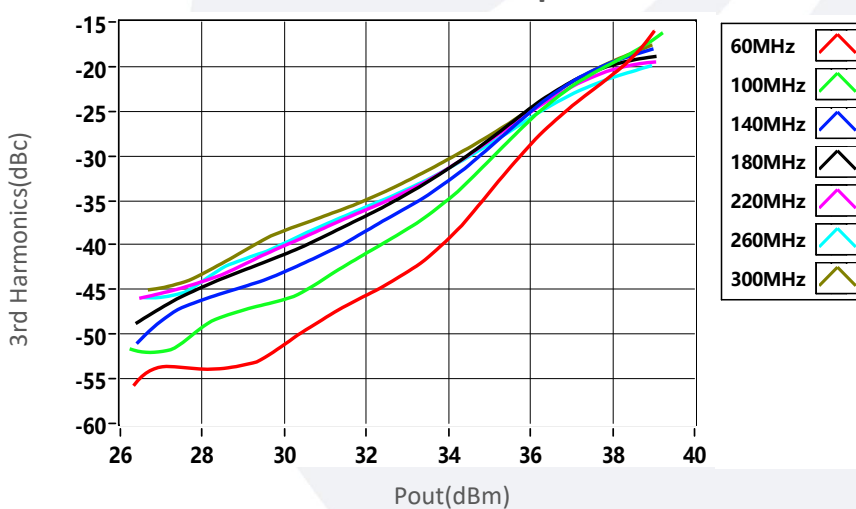
Psat vs Frequency



2nd Harmonics vs Output Power

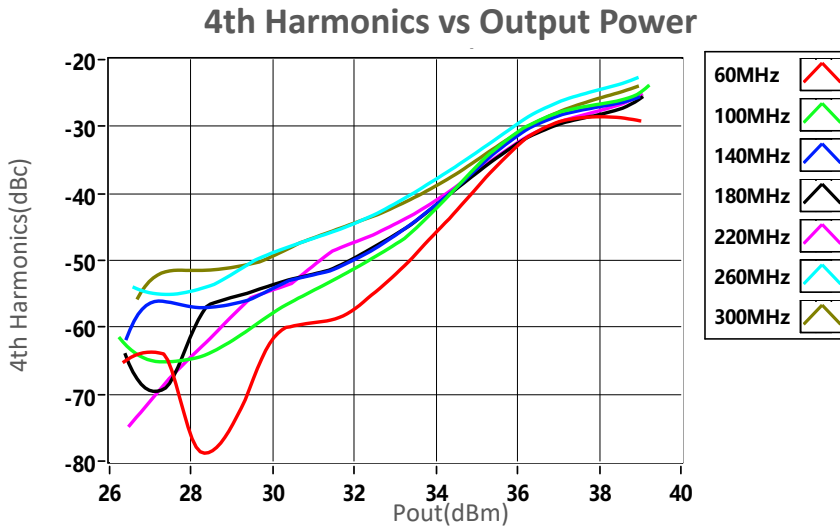


3rd Harmonics vs Output Power



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