

Power Amplifier

700MHz-2.2GHz/62dB Gain/32dBm P1dB

Model: TLPA700M2G2-62-32

TLPA700M2G2-62-32 is a power amplifier with a minimum small signal gain of 62 dB and a minimum P1dB of 32 dBm across the frequency range of 700MHz to 2.2 GHz. The DC power requirement for the amplifier is +28 VDC/2 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 700MHz-2.2GHz
- Gain: 62dB Min
- Output Power P1dB: 32dBm 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	0.7		2.2	GHz
Small Signal Gain	62			dB
Gain Flatness			±2	dB
Output P1dB	32			dBm
Noise Figure		2.5	3	dB
Harmonic			-25	dBc
Input VSWR		1.5	2	:1
DC Voltage		+28		V DC
DC Supply Current		2		A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	140*80*22	mm
Weight	200	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+32 V
RF Input Power	-20 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

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			

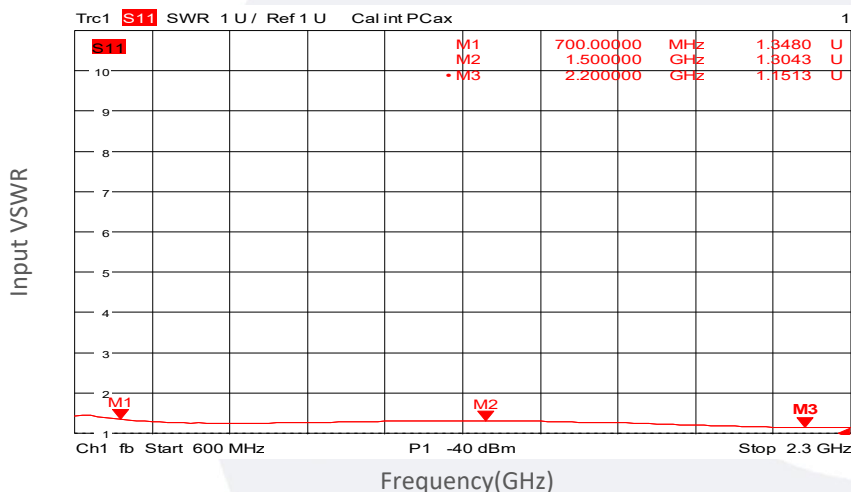
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA700M2G2-62-32	Power amplifier 700MHz-2.2GHz, Gain:62dB,P1dB:32dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA700M2G2-62-32-HS	Power amplifier 700MHz-2.2GHz, Gain:62dB,P1dB:32dBm,+28V DC,With Heatsink	Rev.1.1

Typical Performance Data:

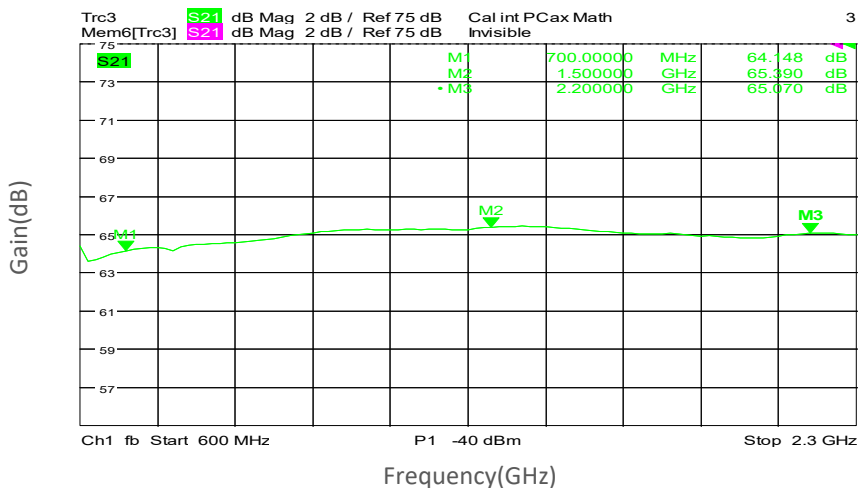
Input VSWR vs Frequency



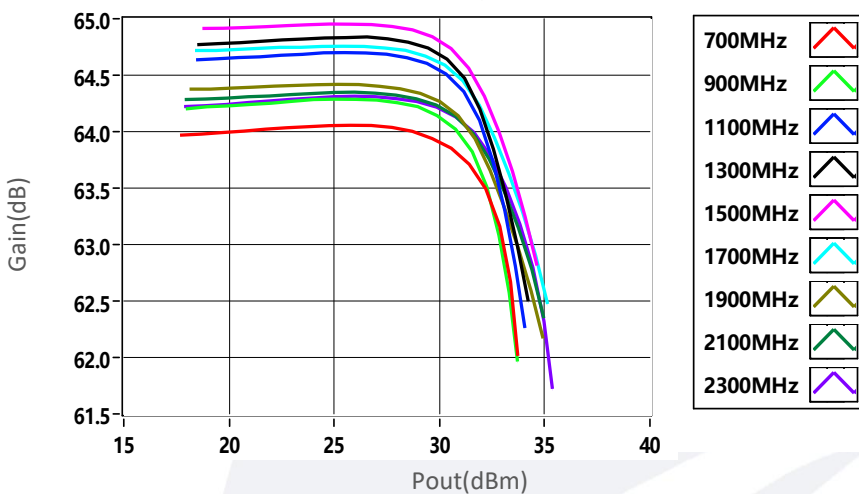
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

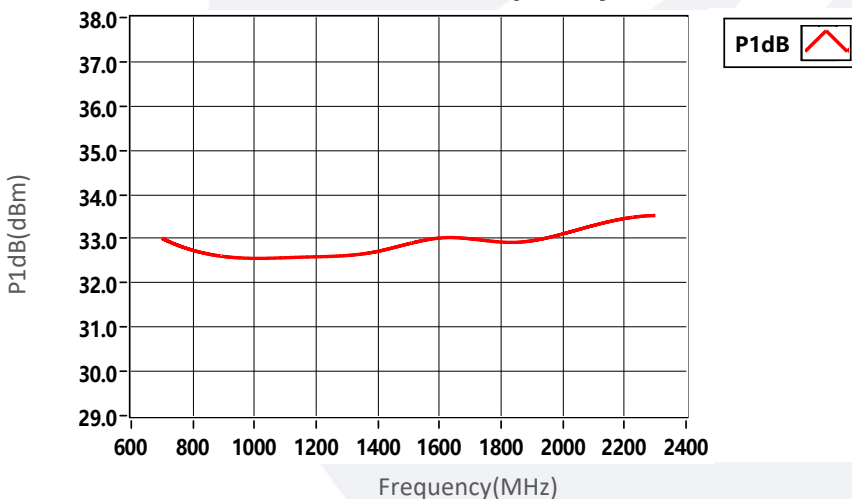
Gain vs Frequency



Gain vs Output Power



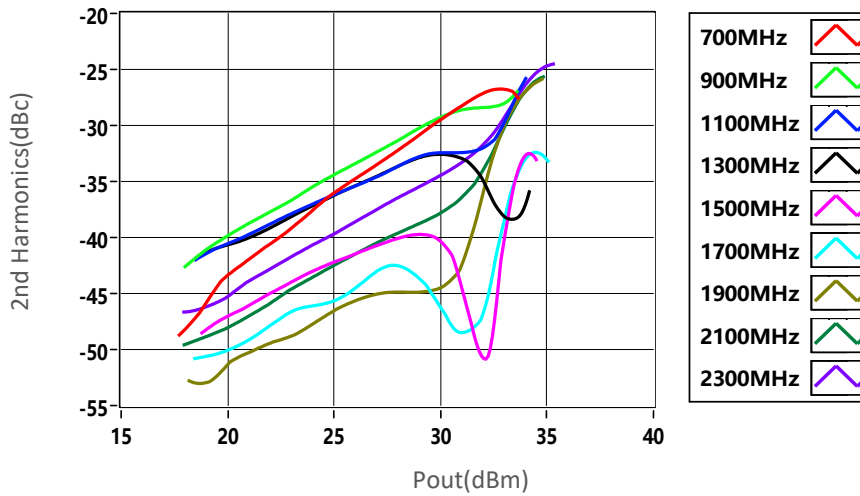
P1dB vs Frequency



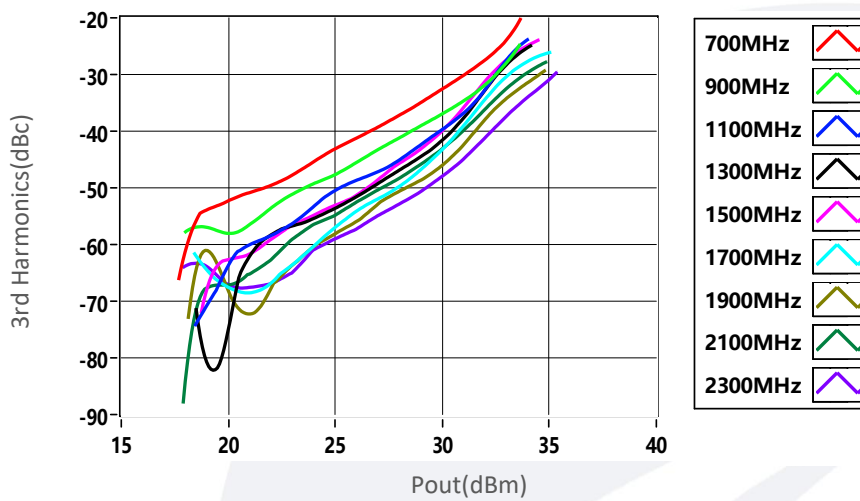
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Typical Performance Data:

2nd Harmonics vs Output Power



3rd Harmonics vs Output Power



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