

Power Amplifier

2200-2400MHz/30dB Gain/40dBm Psat

Model: TLPA2200M2400M-30-40

TLPA2200M2400M-30-40 is a power amplifier with a minimum small signal gain of 30 dB and a minimum Psat of 40 dBm across the frequency range of 2200 to 2400 GHz. The DC power requirement for the amplifier is +28 VDC/0.7 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2200-2400MHz
- Gain: 30dB Min
- Output Power Psat: 40dBm 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	2200		2400	MHz
Small Signal Gain	30	33		dB
Gain Flatness		±0.5	±1	dB
Output Psat	40	43		dBm
Spurious		-65	-60	dBc
Input VSWR		1.3	1.5	:1
Output VSWR			2.0	:1
DC Voltage	+18	+28	+36	V DC
DC Supply Current		0.7	3	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	150*140*30	mm
Weight	1.3	Kg

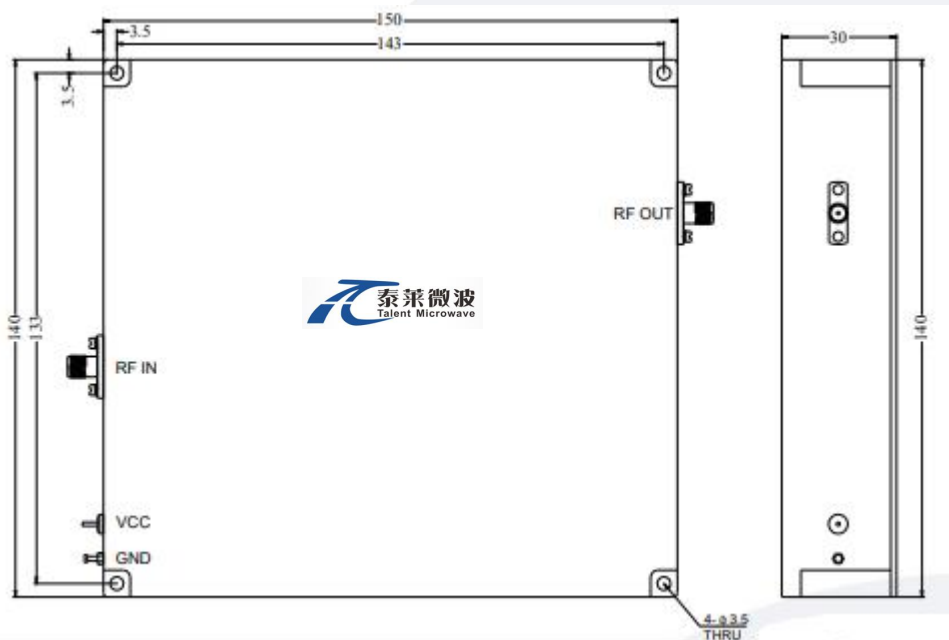
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+36 V
RF Input Power	+33 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			

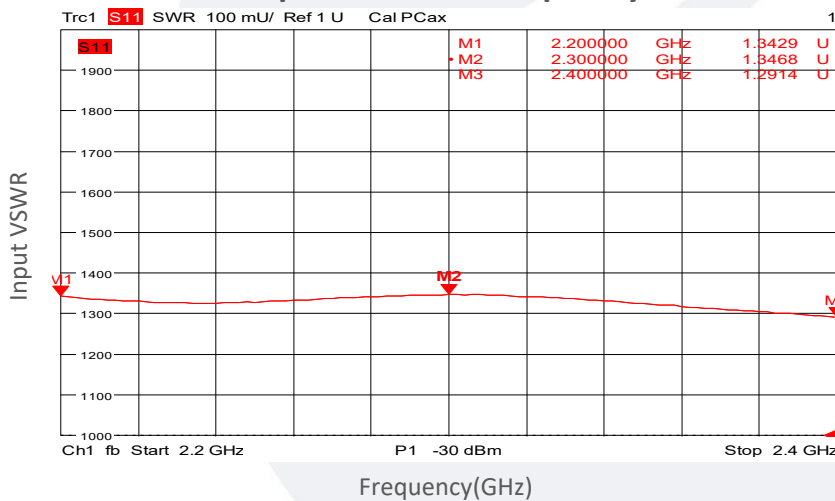
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA2200M2400M-30-40	Power amplifier 2200-2400MHz, Gain:30dB,Psat:40dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA2200M2400M-30-40-HS	Power amplifier 2200-2400MHz, Gain:30dB,Psat:40dBm,+28V DC,With Heatsink	Rev.1.1

Typical Performance Data:

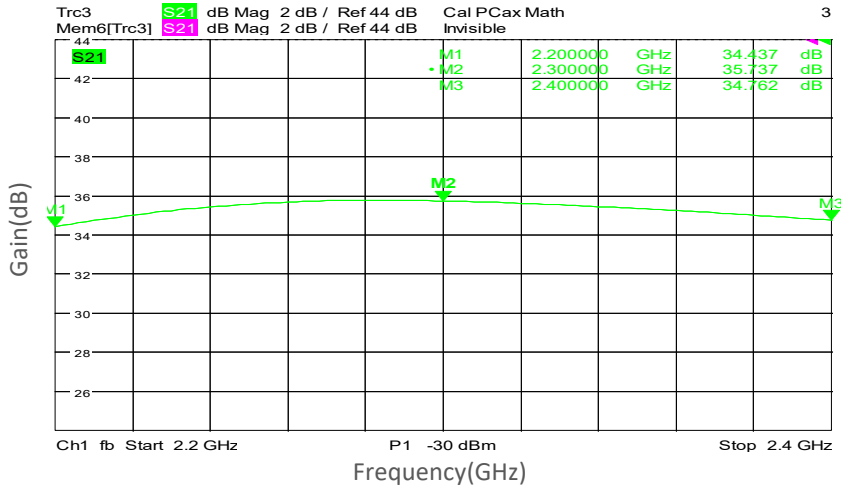
Input VSWR vs Frequency



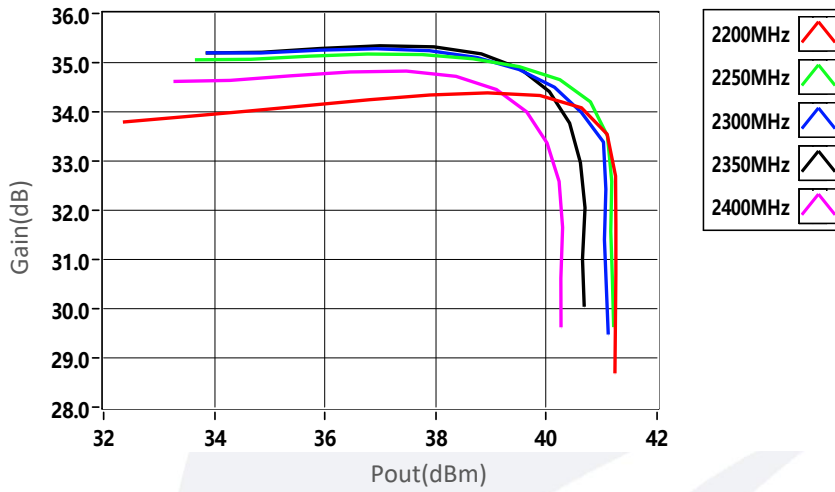
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

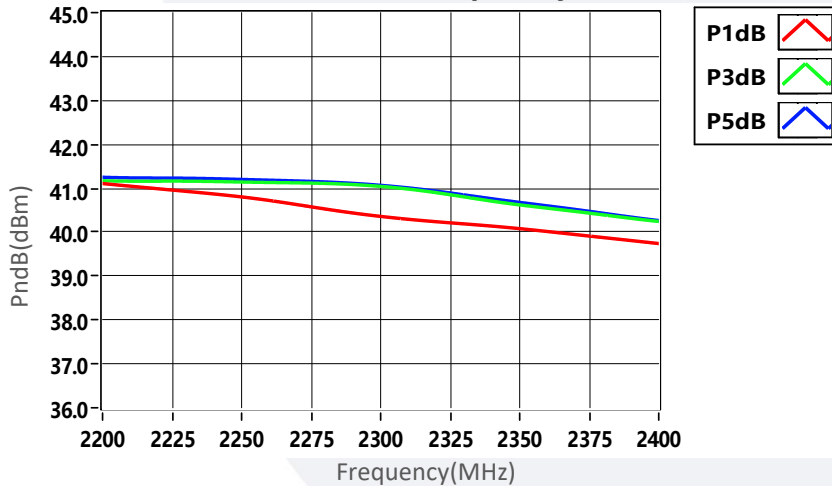
Small Signal Gain vs Frequency



Gain vs Output Power



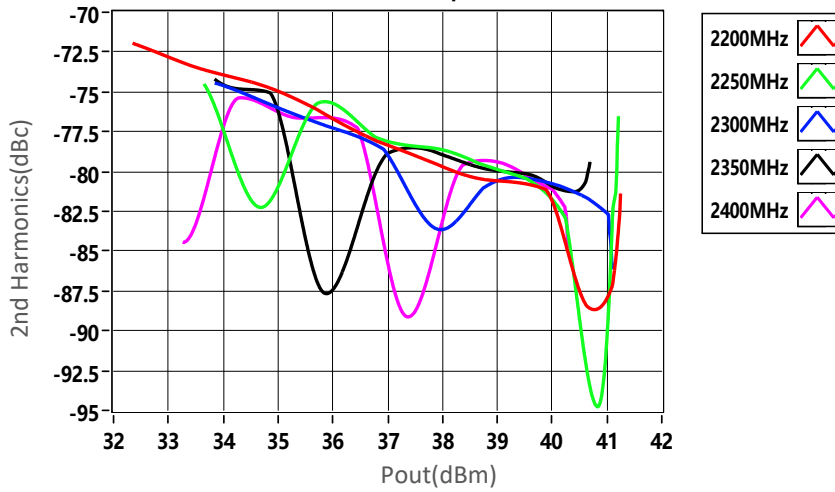
PndB vs Frequency



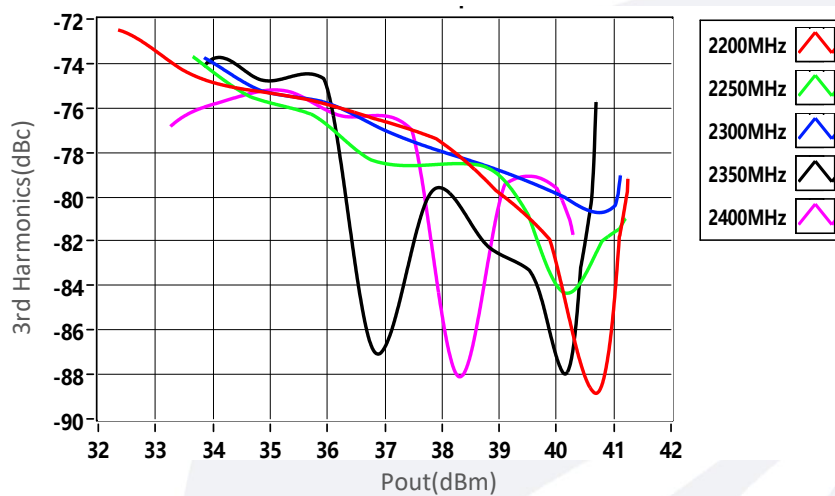
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Typical Performance Data:

2nd Harmonics vs Output Power



3rd Harmonics vs Output Power



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