

Power Amplifier

2400-2500MHz/47dB Gain/47dBm Psat

Model: TLPA2400M2500M-47-47

TLPA2400M2500M-47-47 is a power amplifier with a typical small signal gain of 47 dB and a minimum Psat of 47 dBm across the frequency range of 2400 to 2500 MHz. The DC power requirement for the amplifier is +28 VDC/12 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2400-2500MHz
- Gain: 47dB Typ
- Output Power Psat: 47dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	2400		2500	MHz
小信号增益 Small Signal Gain	40	47		dB
增益平坦度 Gain Flatness			±1	dB
饱和输出功率 Output Psat	47			dBm
谐波抑制 Harmonics		-12		dBc
输入驻波 Input VSWR		1.5	2	:1
直流电压 DC Voltage		+28		V DC
直流电流 DC Supply Current		12		A
阻抗 Impedance		50		Ohms

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流供电接口 DC Power Supply Connector	J30J-9Pin	
尺寸 Size	170*94*20	mm
重量 Weight	150	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+30 V
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



外形图 Outline Drawing:

Unit:mm



*****Heat Sink Required During Operation**



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

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-20		+50	°C
存储温度 Non-operating Temperature*	-30		+60	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

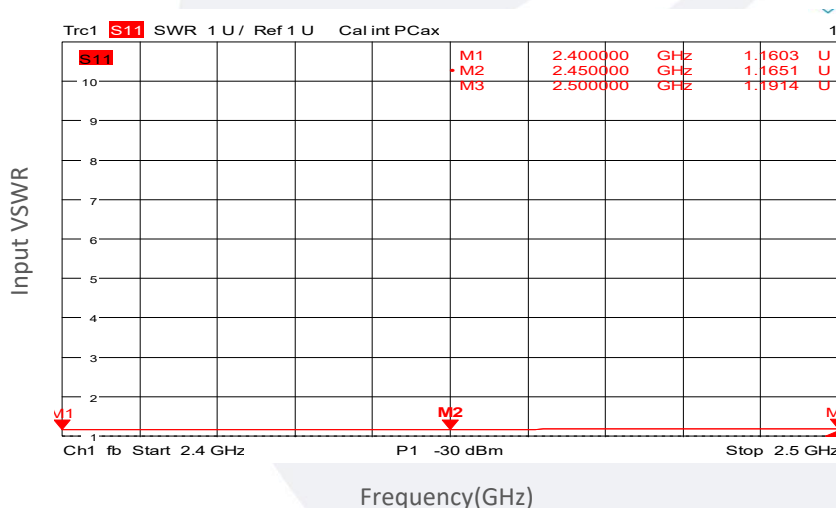
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLPA2400M2500M-47-47	Power amplifier 2.4-2.5GHz, Gain:47dB,Psat:47dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA2400M2500M-47-47-HS	Power amplifier 2.4-2.5GHz, Gain:47dB,Psat:47dBm,+28V DC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

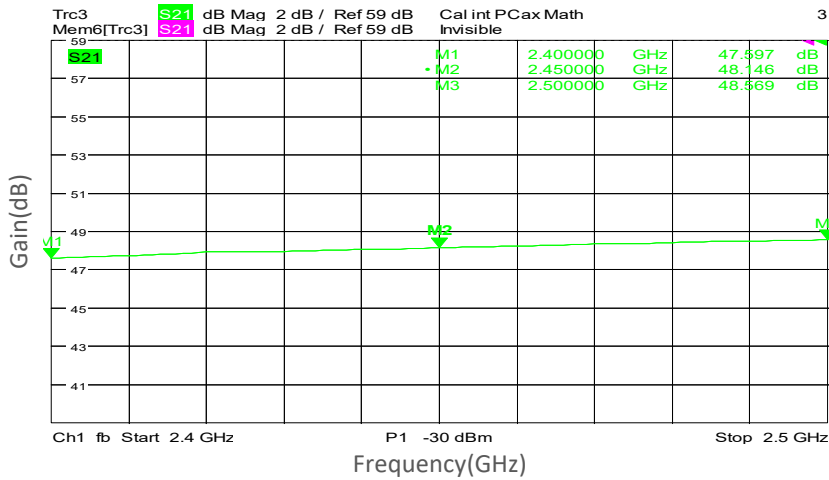
Input VSWR vs Frequency



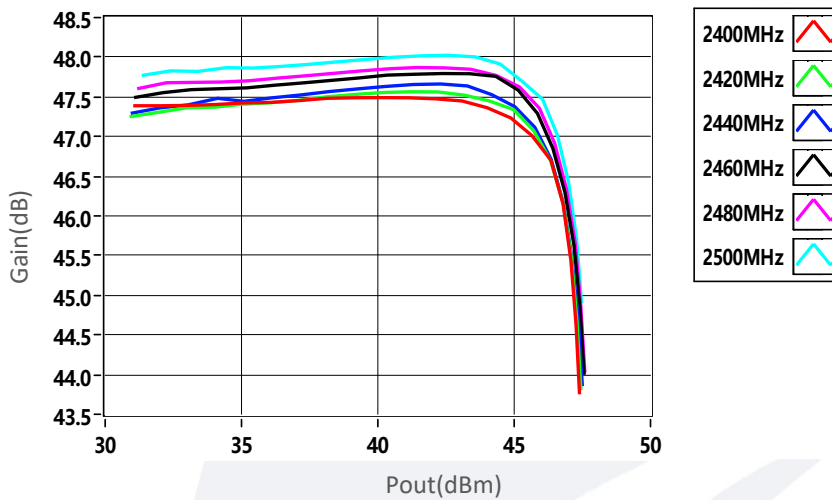
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

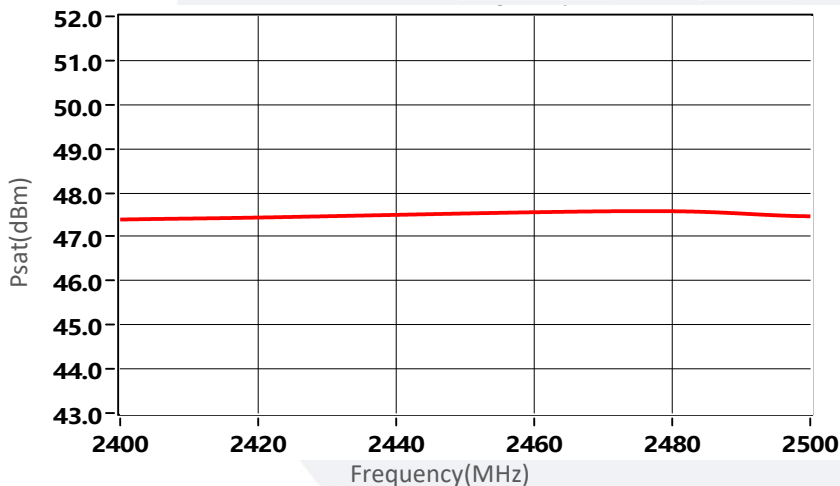
Small Signal Gain vs Frequency



Gain vs Output Power



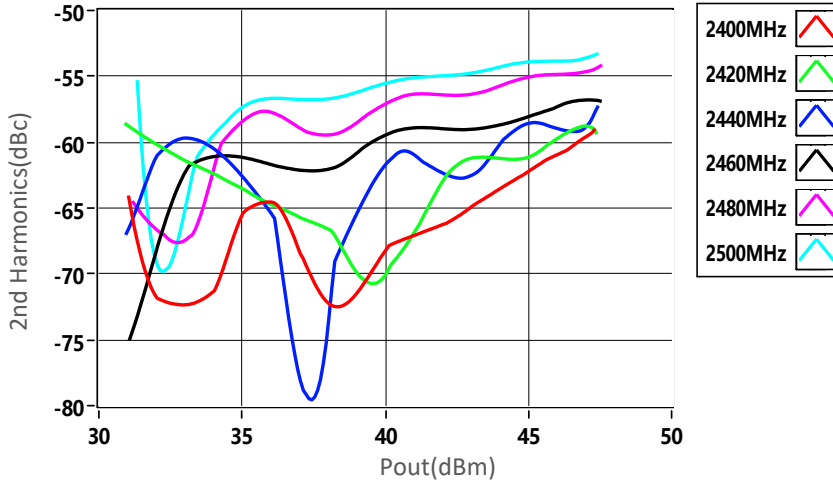
Psat vs Frequency



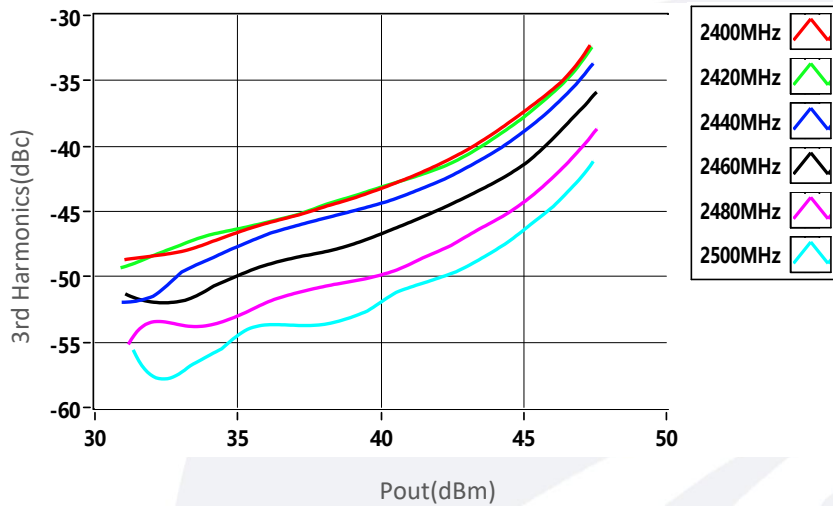
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典型曲线 Typical Performance Data:

2nd Harmonics vs Output Power



3rd Harmonics vs Output Power



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