

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

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	2400		2500	MHz
Small Signal Gain	40	47		dB
Gain Flatness			±1	dB
Output Psat	47			dBm
Harmonics		-12		dBc
Input VSWR		1.5	2	:1
DC Voltage		+28		V DC
DC Supply Current		12		A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Power Supply Connector	J30J-9Pin	
Size	170*94*20	mm
Weight	150	g

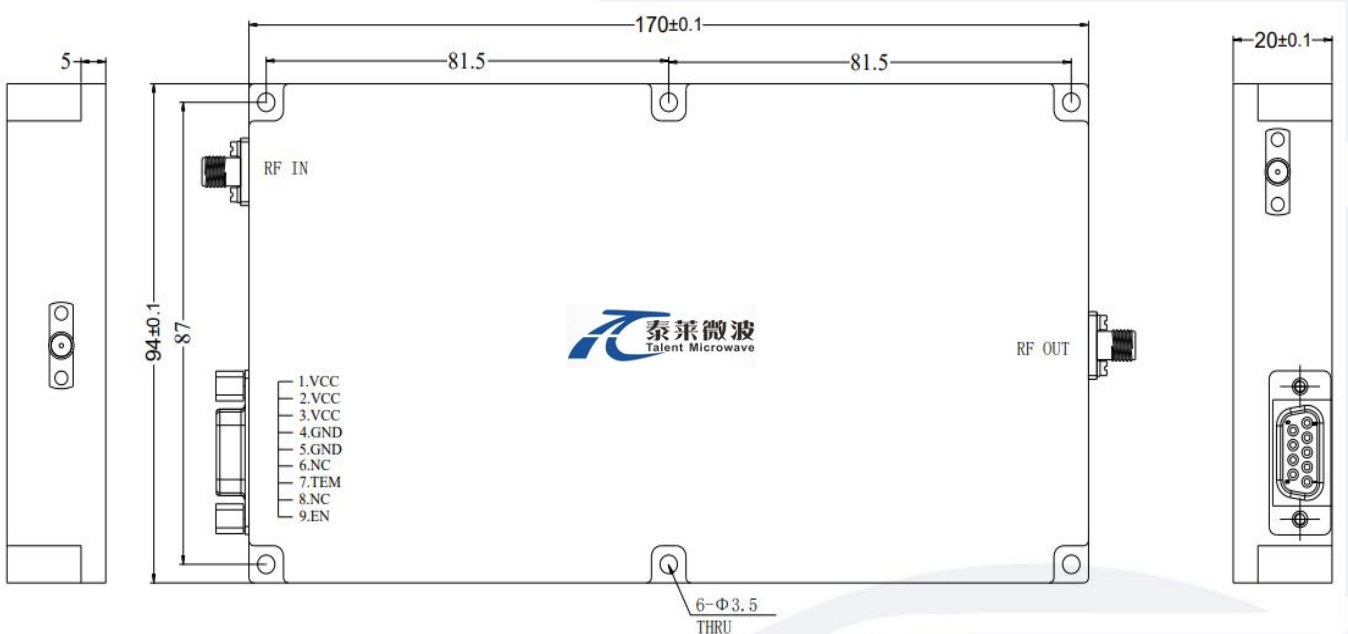
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 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*	-20		+50	°C
Non-operating Temperature*	-30		+60	°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			

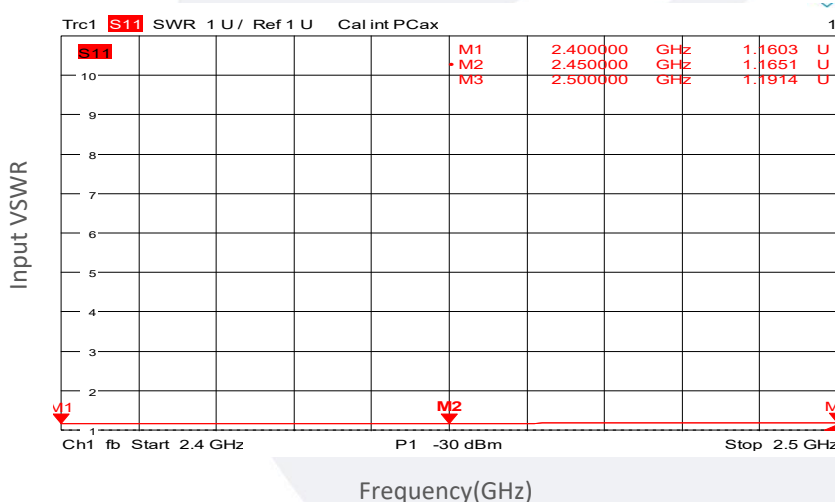
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
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

Typical Performance Data:

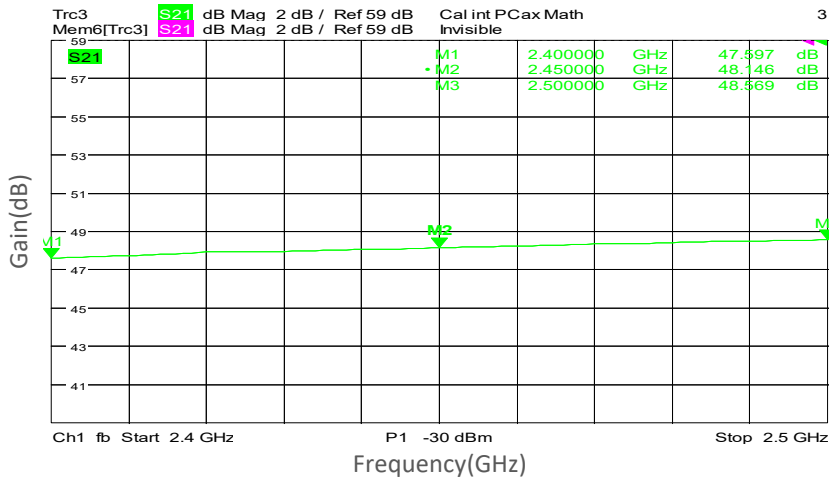
Input VSWR vs Frequency



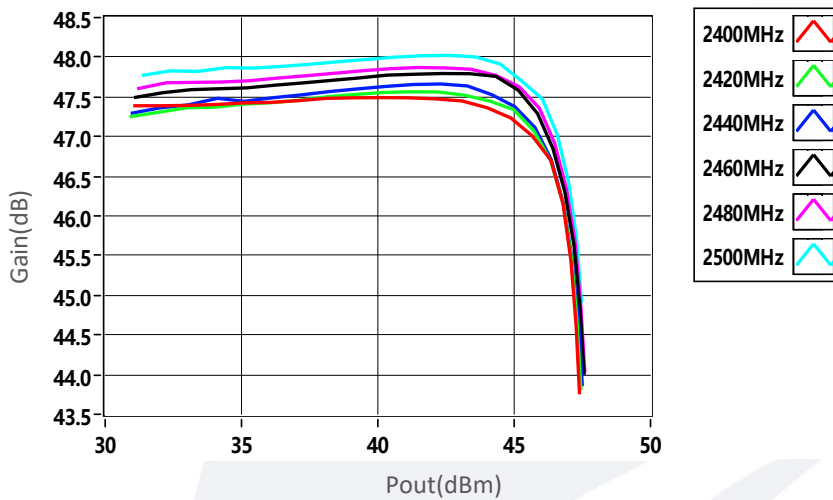
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

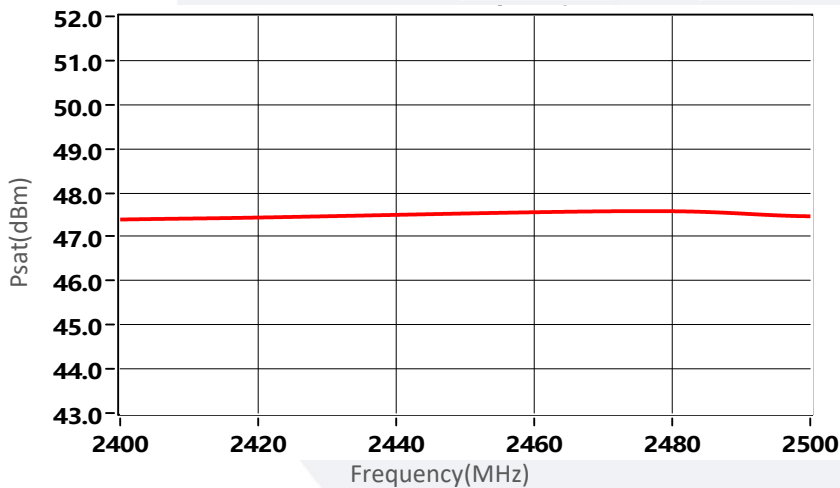
Small Signal Gain vs Frequency



Gain vs Output Power



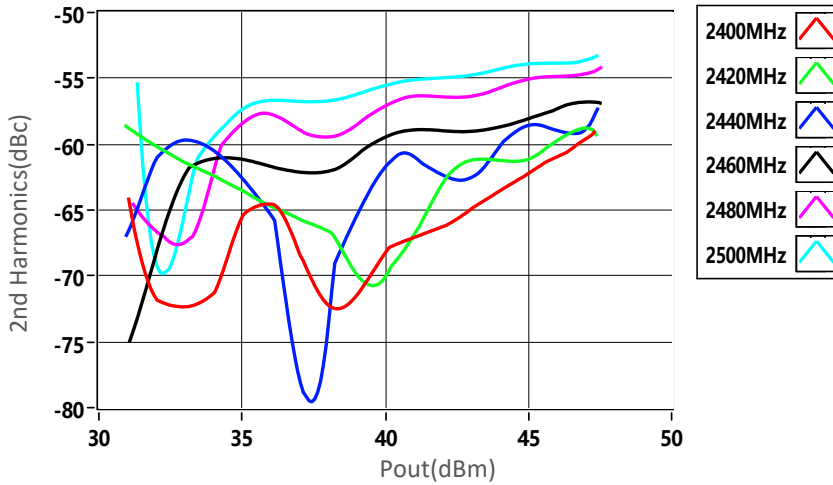
Psat vs Frequency



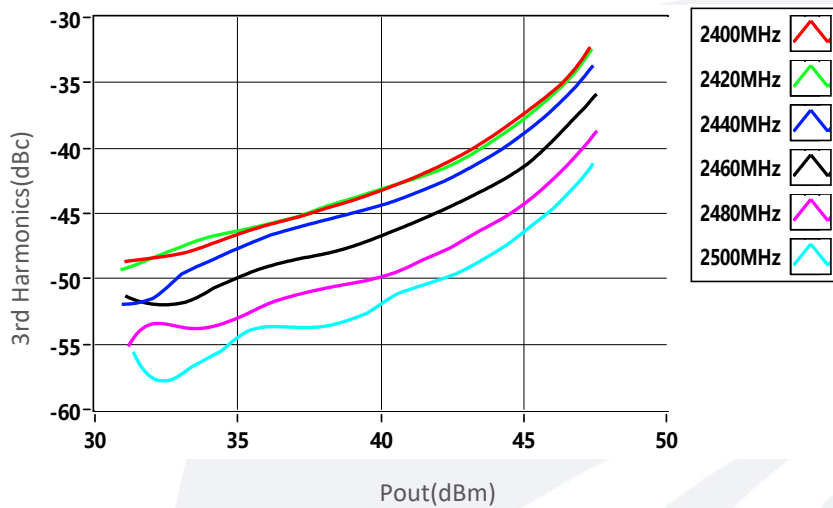
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Typical Performance Data:

2nd Harmonics vs Output Power



3rd Harmonics vs Output Power



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