

## Power Amplifier

890-925MHz/54dB Gain/54dBm Psat

Model: TLP890M925M-54-54

TLP890M925M-54-54 is a power amplifier with a typical small signal gain of 54 dB and a minimum Psat of 54 dBm across the frequency range of 890 to 925 MHz. The DC power requirement for the amplifier is +48 VDC/15 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 890-925MHz
- Gain: 54dB Typ
- Output Power Psat: 54dBm 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	890		925	MHz
Small Signal Gain	52	54		dB
Gain Flatness		±1	±1.5	dB
Output Psat	54	54.5		dBm
Input VSWR		1.5	2.0	:1
DC Voltage	+46	+48	+50	V DC
DC Supply Current		15		A
Impedance		50		Ohms

## Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Supply Connector	D-SUB-9	
Size	170*95*22(Without heatsink) 292*200*84(With heatsink)	mm
Weight	1000	g

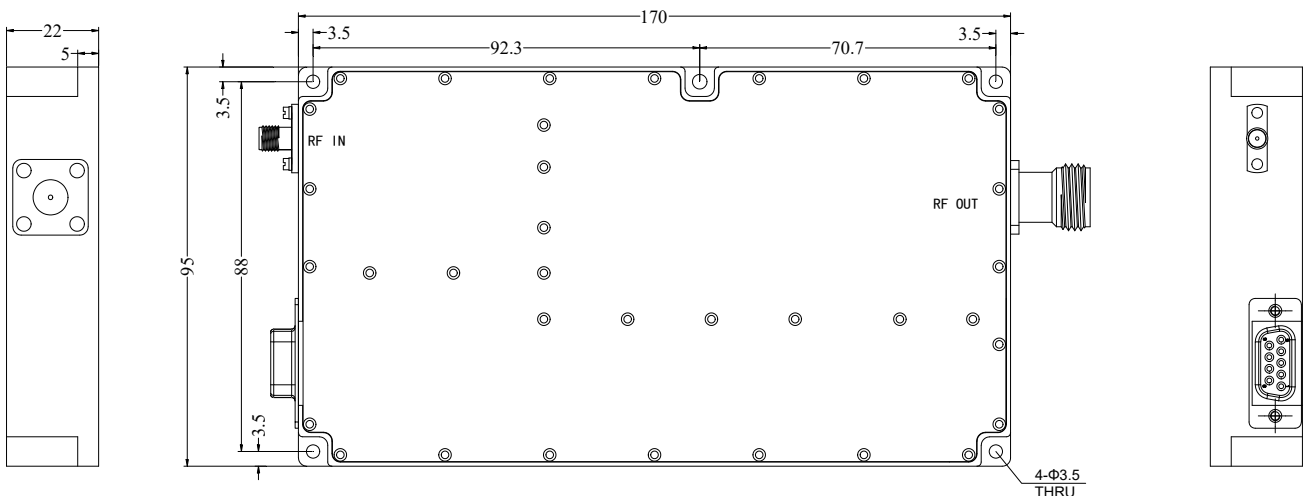
## Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



## Outline Drawing:

Unit:mm



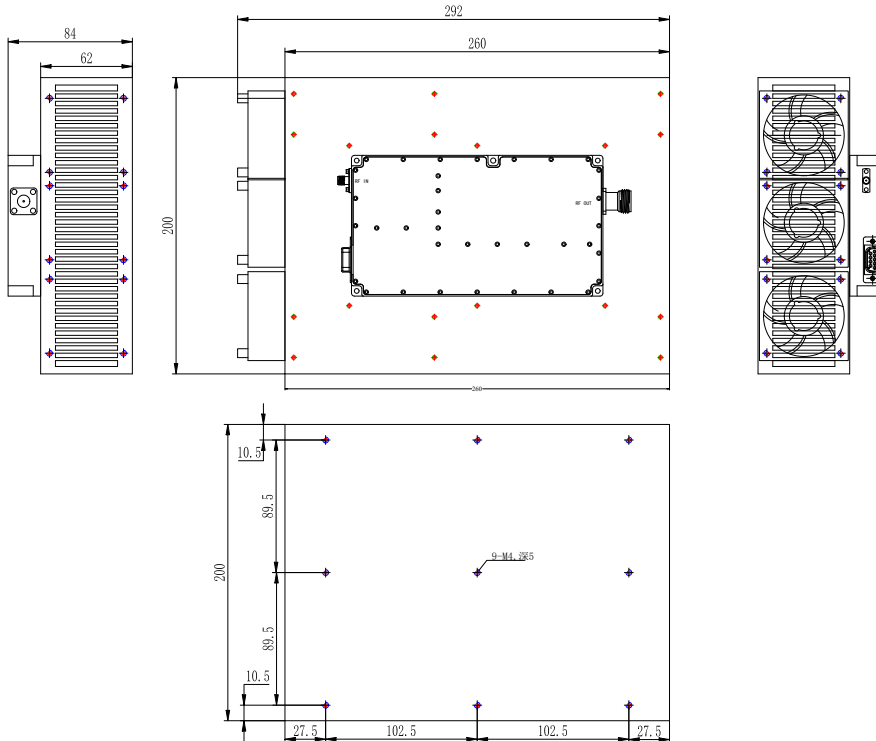
**\*\*\*Heat Sink Required During Operation**



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

**Outline Drawing:**

Unit:mm



**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			

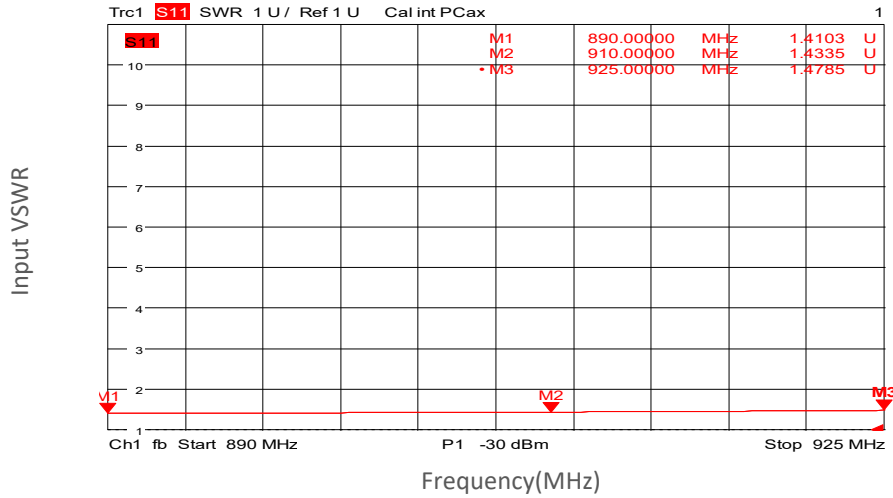
\*Note: For a wider temperature range, please consult the manufacturer.

**Ordering Information:**

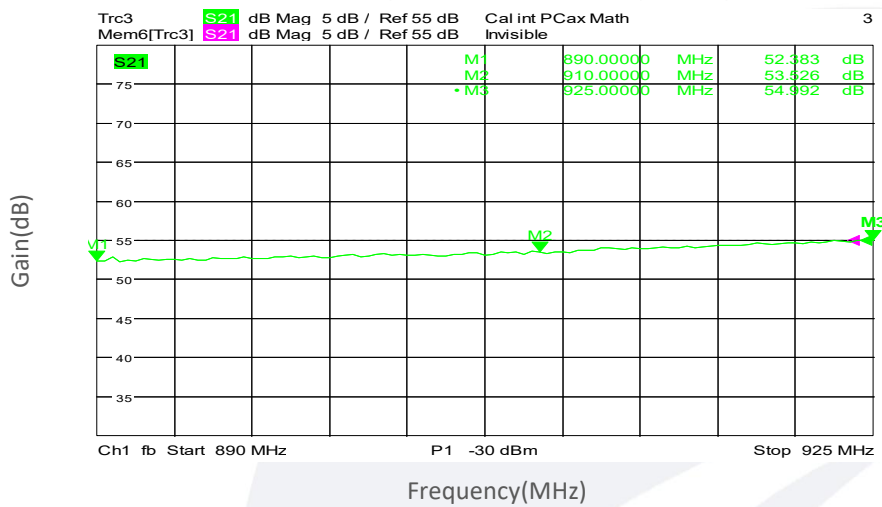
Base Number	Description	Revision
TLPA890M925M-54-54	Power amplifier 890-925MHz, Gain:54dB,Psat:54dBm,+48V DC,Without Heatsink	Rev.1.1
TLPA890M925M-54-54-HS	Power amplifier 890-925MHz, Gain:54dB,Psat:54dBm,+48V DC,With Heatsink	Rev.1.1

## Typical Performance Data:

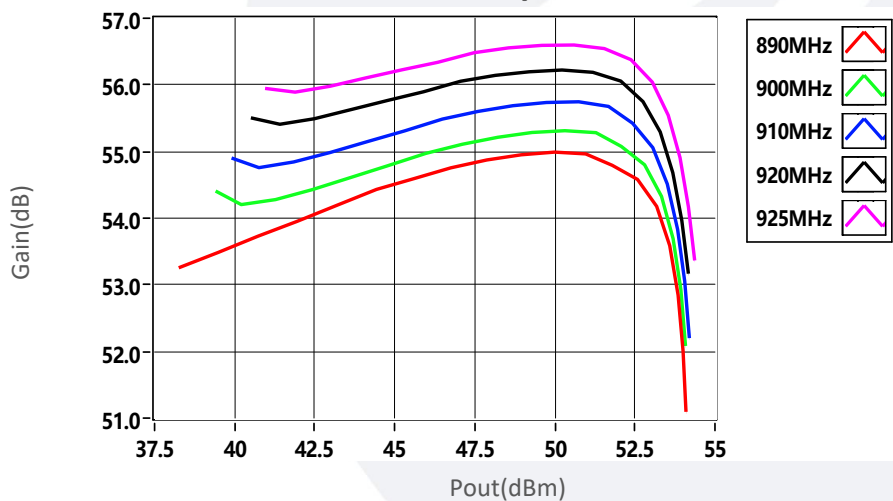
### Input VSWR vs Frequency



### Small Signal Gain vs Frequency



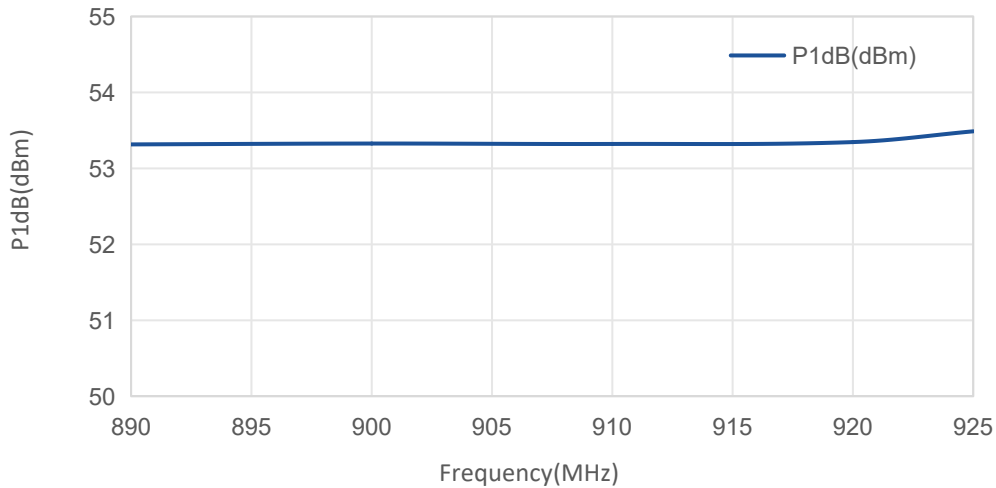
### Gain vs Output Power



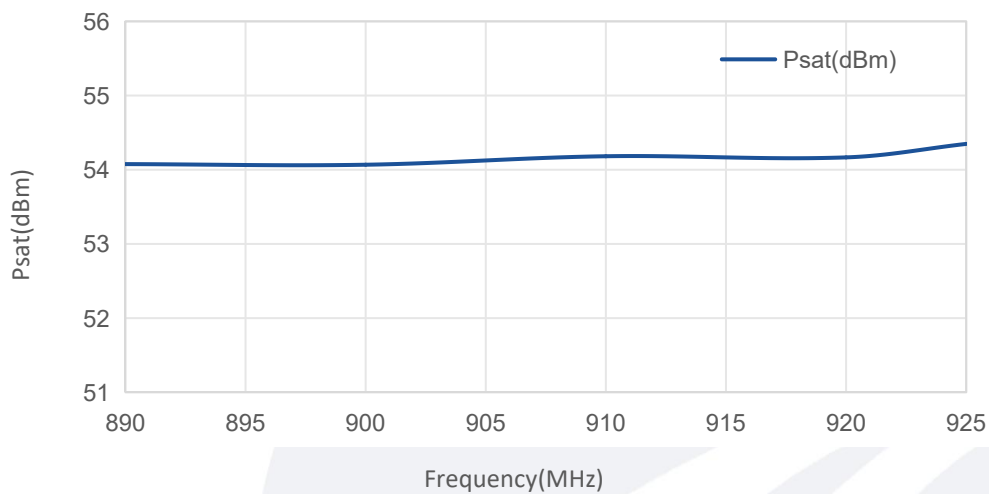
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

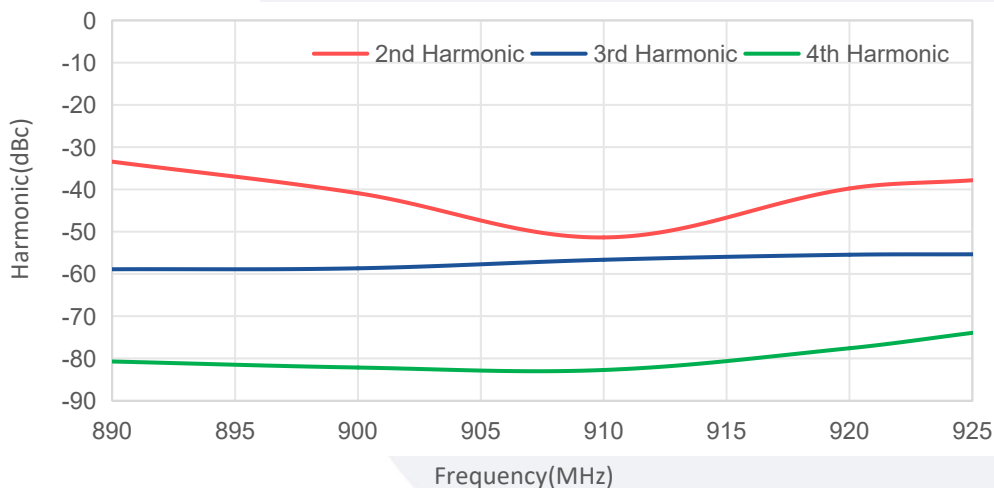
### P1dB vs Frequency



### Psat vs Frequency



### Harmonics vs Frequency



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