

## Power Amplifier

0.6-4.2GHz/46dB Gain/44dBm Psat

Model: TLPA0.6G4.2G-46-44

TLPA0.6G4.2G-46-44 is a power amplifier with a typical small signal gain of 46 dB and a nominal Psat of 44 dBm across the frequency range of 0.6 to 4.2 GHz. The DC power requirement for the amplifier is +28 VDC/3.5 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 0.6-4.2GHz
- Gain: 46dB Typ
- Output Power Psat: 44dBm Typ
- 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	0.6		4.2	GHz
Small Signal Gain	41	46		dB
Gain Flatness		±2		dB
Output P1dB	38	41		dBm
OutputPsat	42	44		dBm
Noise Figure		10		dB
Input VSWR		1.5	2	:1
DC Voltage	26	28	30	V DC
DC Supply Current		3.5		A
Impedance		50		Ohms

## Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	170*110*25(Without Heatsink) 264*140*87(With Heatsink)	mm
Weight	150	g

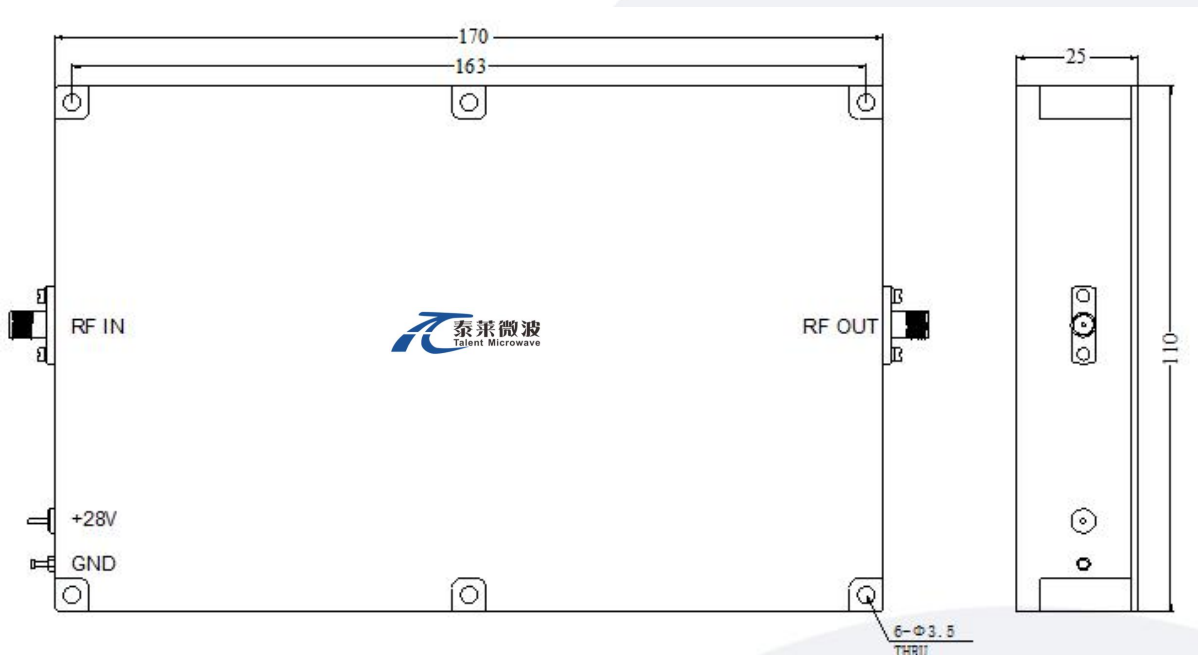
## Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	-3 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



## Outline Drawing:

Unit:mm



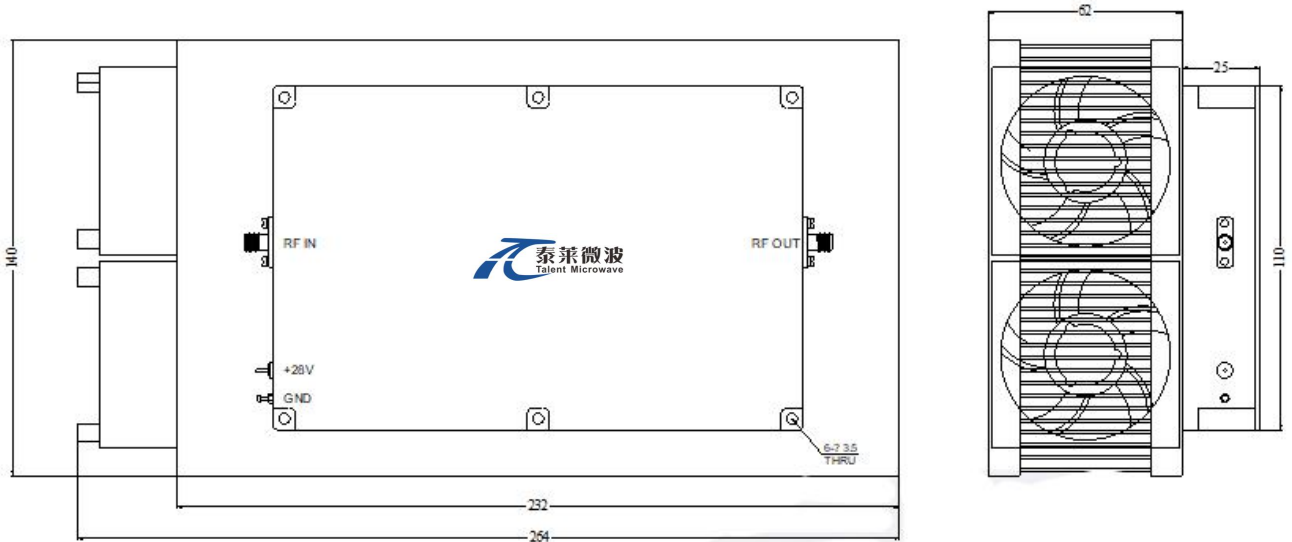
**\*\*\*Heat Sink Required During Operation**



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

**Outline Drawing:**

Unit:mm



**Environmental Conditions:**

Parameter	Min	Typ	Max	Units
Operating Temperature*	-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			

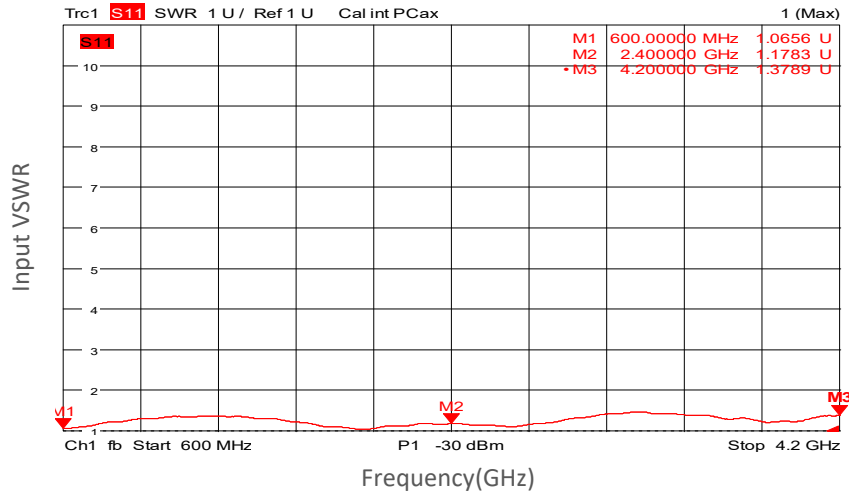
\*Note: For a wider temperature range, please consult the manufacturer.

**Ordering Information:**

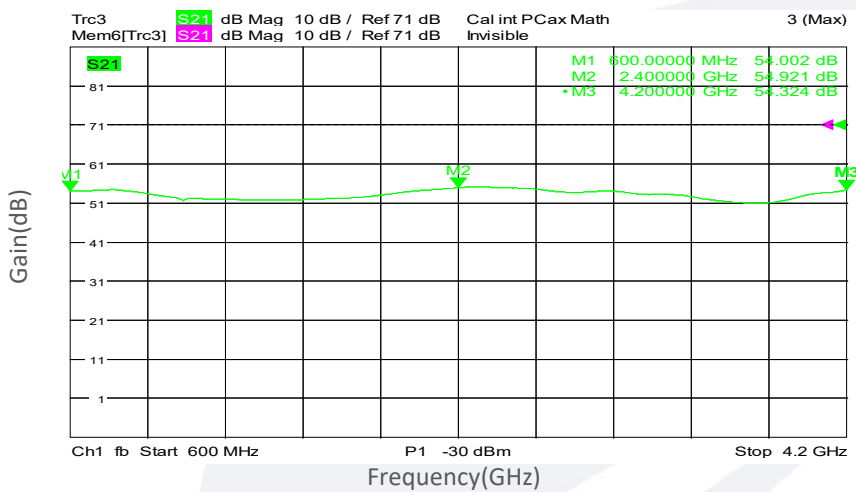
Base Number	Description	Revision
TLPA0.6G4.2G-46-44	Power amplifier 0.6-4.2GHz, Gain:46dB,Psat:44dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA0.6G4.2G-46-44-HS	Power amplifier 0.6-4.2GHz, Gain:46dB,Psat:44dBm,+28V DC,With Heatsink	Rev.1.1

## Typical Performance Data:

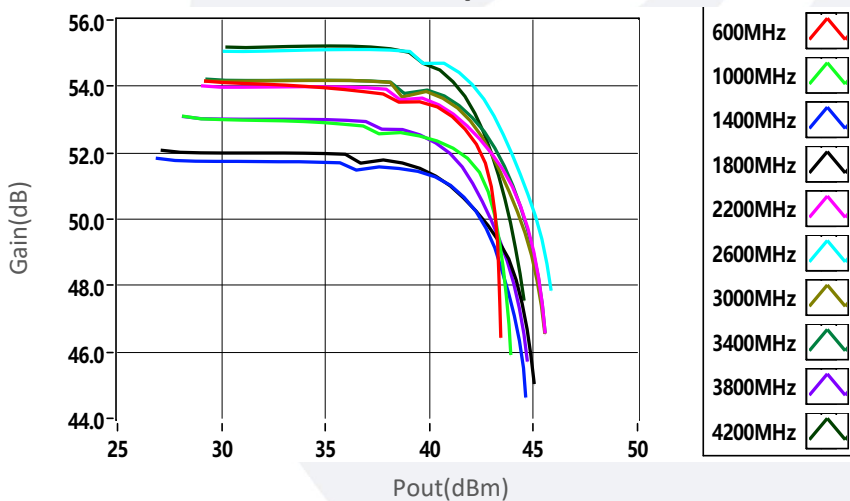
### Input VSWR vs Frequency



### Small Signal Gain vs Frequency



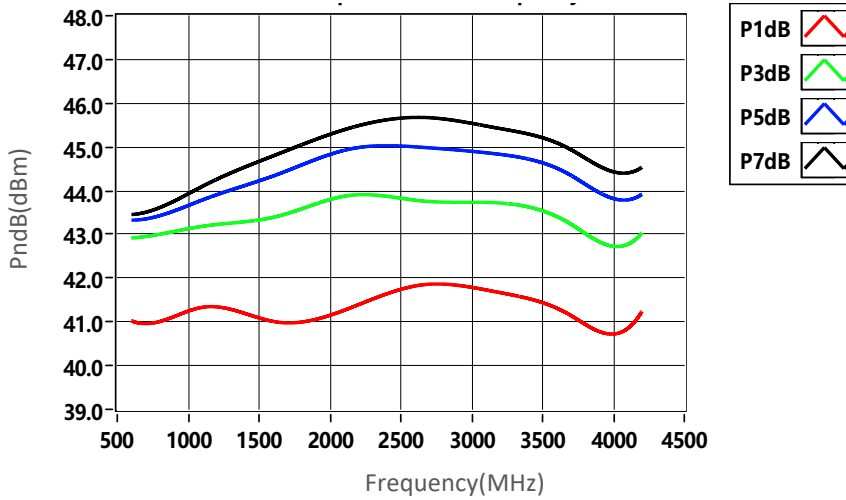
### Gain vs Output Power



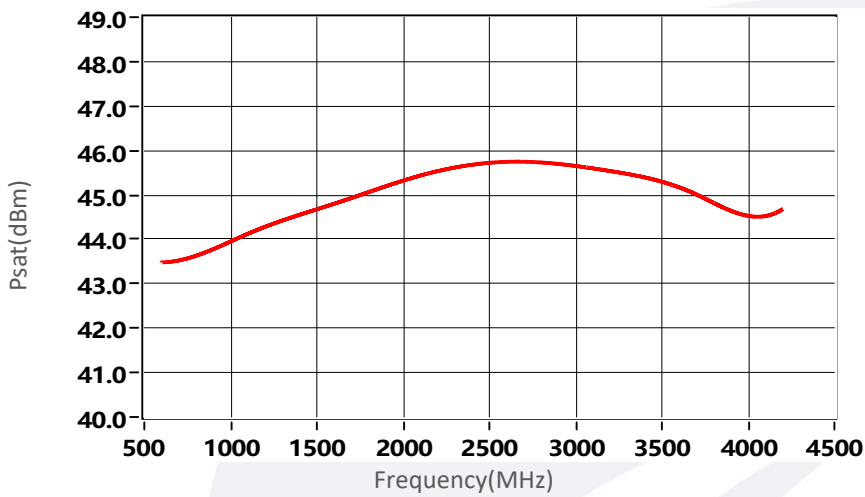
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

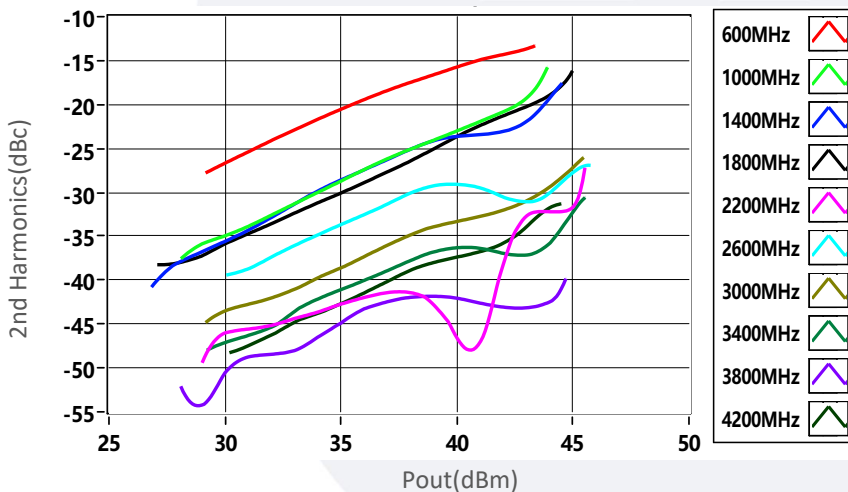
### PndB vs Frequency



### Psat vs Frequency



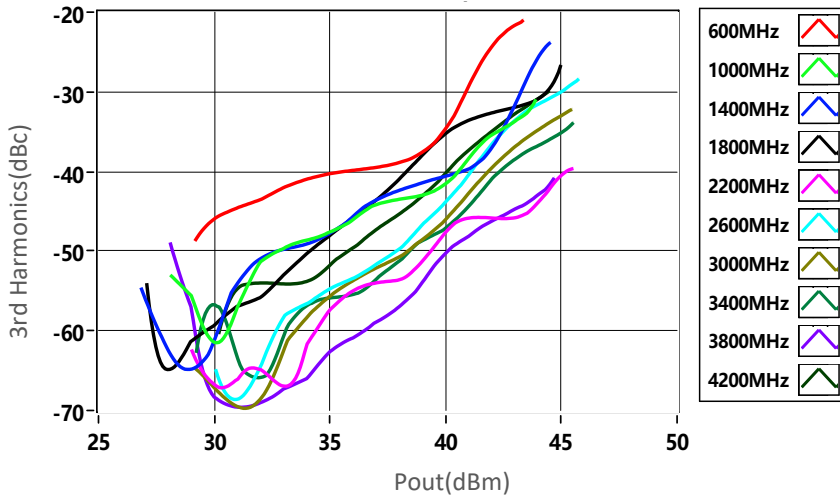
### 2nd Harmonics vs Output Power



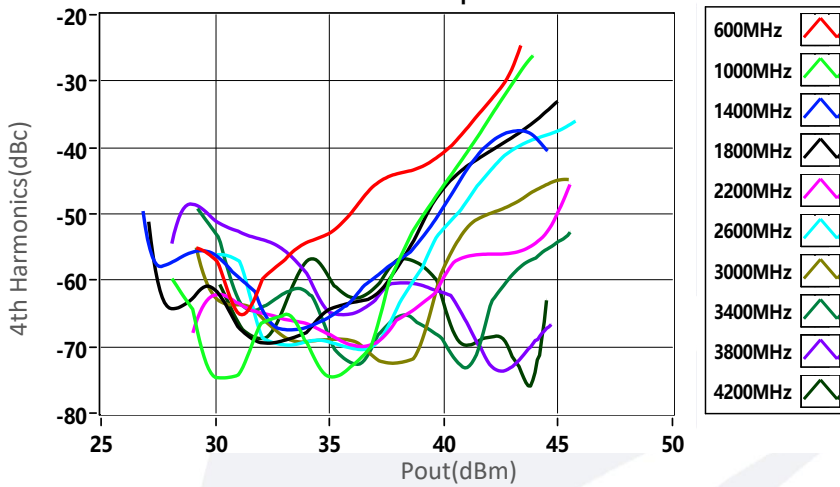
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

### 3rd Harmonics vs Output Power



### 4th Harmonics 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.