

Power Amplifier

900-950MHz/50dB Gain/50dBm Psat

Model: TLPA900M950M-50-50

TLPA900M950M-50-50 is a power amplifier with a minimum gain of 50 dB and a minimum Psat of 50 dBm across the frequency range of 900 to 950 MHz. The DC power requirement for the amplifier is +28 VDC/15 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 900-950MHz
- Gain: 50dB Min
- Output Power Psat: 50dBm 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	900		950	MHz
增益 Gain	50	52		dB
增益平坦度 Gain Flatness			±1	dB
饱和输出功率 Output Psat	50			dBm
输入驻波 Input VSWR		1.5	2.0	:1
直流电压 DC Voltage		+28		V DC
直流电流 DC Supply Current		15		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 Supply Connector	D-SUB-9	
尺寸 Size	180*115*25	mm
重量 Weight	250	g

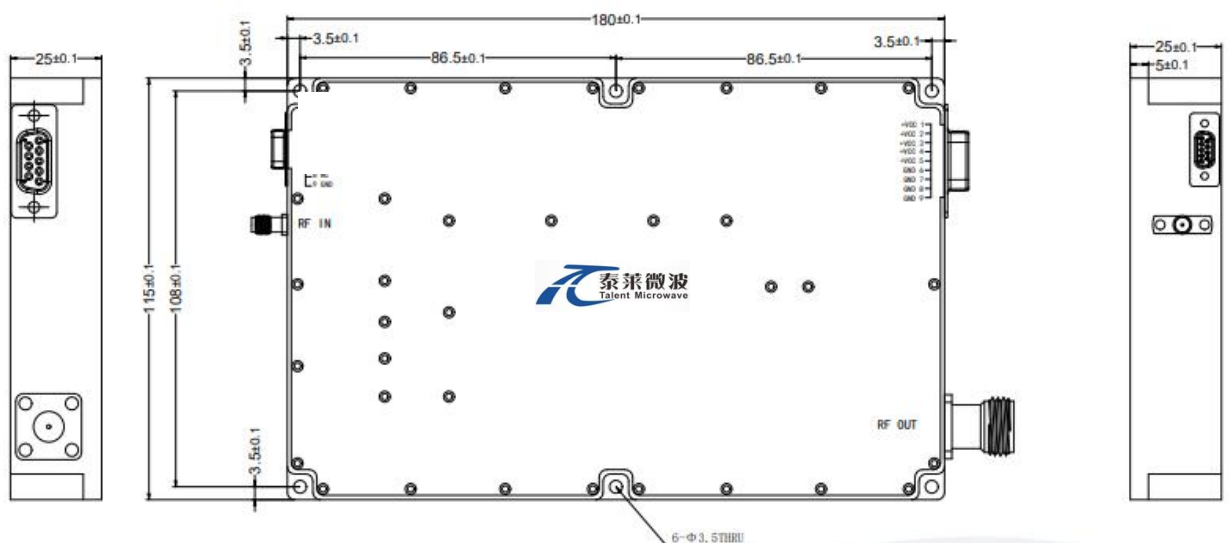
绝对最大值 Absolute Maximum Ratings:

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.

直流供电接口 DC Supply Connector(DSUB-9 Female):

引脚 Pin	名称 Name	功能 Function
1	+28V	Power supply positive,+28.0-33.0VDC
2	+28V	Power supply positive,+28.0-33.0VDC
3	+28V	Power supply positive,+28.0-33.0VDC
4	+28V	Power supply positive,+28.0-33.0VDC
5	+28V	Power supply positive,+28.0-33.0VDC
6	GND	Power supply negative
7	GND	Power supply negative
8	GND	Power supply negative
9	GND	Power supply negative

控制接口 Monitor and Control Interface(J30J-9 Female):

引脚 Pin	名称 Name	功能 Function
1	EN	Amplifier Enable:High level (or high-impedance) turns the amplifier on; low level turns it off
2	Over VSWR	When the external VSWR of the power amplifier output is greater than 5, the power amplifier is turned off, and this pin will output a high level. When the external VSWR is less than 5, this pin outputs a low level.
3	Over Temperature	When the temperature of the case exceeds 70 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 60 °C, the power amplifier will return to normal operation, and this pin will be pulled low.
4	Reset	When the power amplifier triggers VSWR protection, the power amplifier will shut down and enter a state lock. Giving this pin a low pulse of 10us will restart the power amplifier. Only VSWR protection can be reset.

控制接口 Monitor and Control Interface(J30J-9 Female):

引脚 Pin	名称 Name	功能 Function
5	NC	Not connected
6	NC	Not connected
7	NC	Not connected
8	NC	Not connected
9	GND	Ground

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)	20g,11ms,saw-tooth			
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
TLPA900M950M-50-50	Power amplifier 900-950MHz, Gain:50dB,Psat:50dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA900M950M-50-50-HS	Power amplifier 900-950MHz, Gain:50dB,Psat:50dBm,+28V DC,With Heatsink	Rev.1.1