

Power Amplifier

50-500MHz/50dB Gain/48dBm Psat

Model: TLPA50M500M-50-47

TLPA50M500M-50-47 is a power amplifier with a typical gain of 50 dB and a nominal Psat of 48 dBm across the frequency range of 50 to 500 MHz. The DC power requirement for the amplifier is +24 VDC/10 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 50-500MHz
- Gain: 50dB Typ
- Output Power Psat: 48dBm Typ
- 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	50		500	MHz
增益 Gain	47	50		dB
增益平坦度 Gain Flatness		±1	±2	dB
线性输出功率 Output P1dB	44	46		dBm
饱和输出功率 Output Psat	46	48		dBm
噪声系数 Noise Figure		4.5	7	dB
输入驻波 Input VSWR		1.5	2.0	:1
直流电压 DC Voltage		+24		V DC
直流电流 DC Supply Current		10		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	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	152.4*82.6*28.6(Without heatsink) 264*140*90.6(With heatsink)	mm
重量 Weight	500	g

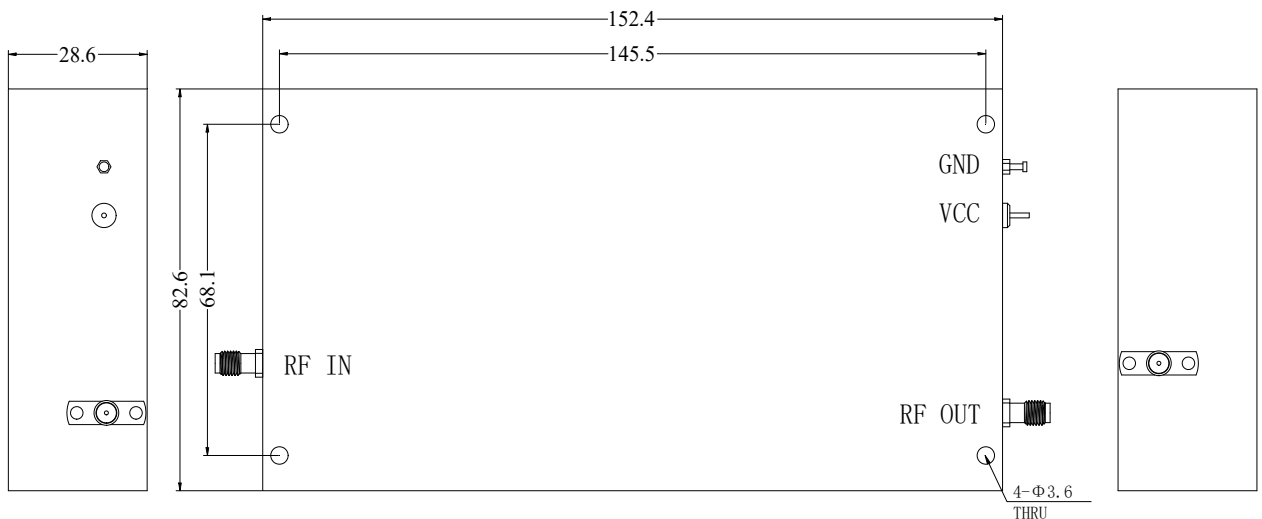
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+28 V
输入功率 RF Input Power	+3 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



外形图 Outline Drawing:

Unit:mm

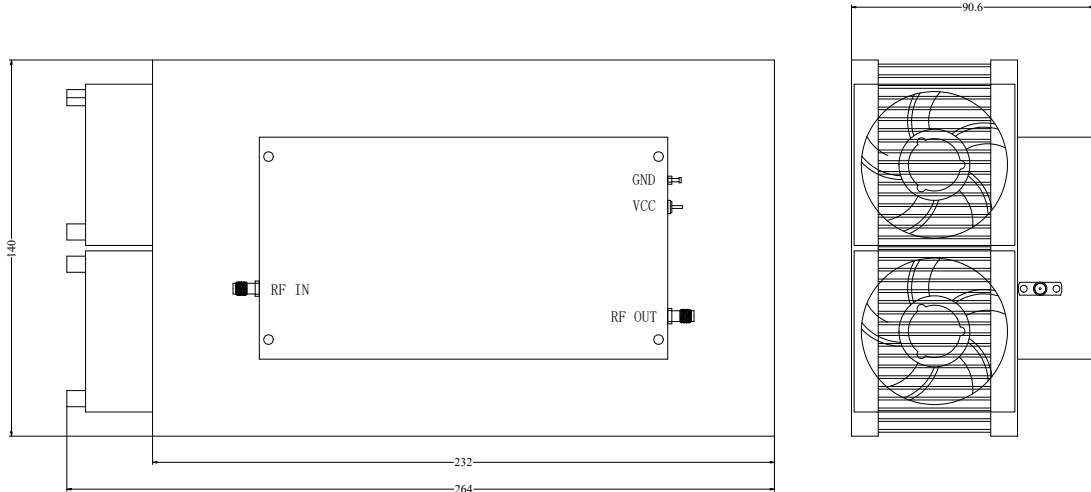


*****Heat Sink Required During Operation**



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

外形图 Outline Drawing: Unit:mm



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
TLPA50M500M-50-47	Power amplifier 50-500MHz , Gain:50dB,Psat:48dBm,+24V DC,Without Heatsink	Rev.1.1
TLPA50M500M-50-47-HS	Power amplifier 50-500MHz , Gain:50dB,Psat:48dBm,+24V DC,With Heatsink	Rev.1.1