

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

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	50		500	MHz
Gain	47	50		dB
Gain Flatness		±1	±2	dB
Output P1dB	44	46		dBm
Output Psat	46	48		dBm
Noise Figure		4.5	7	dB
nput VSWR		1.5	2.0	:1
DC Voltage		+24		V DC
DC Supply Current		10		A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female	
DC Bias	Solder Pin	
Size	152.4*82.6*28.6(Without heatsink) 264*140*90.6(With heatsink)	mm
Weight	500	g

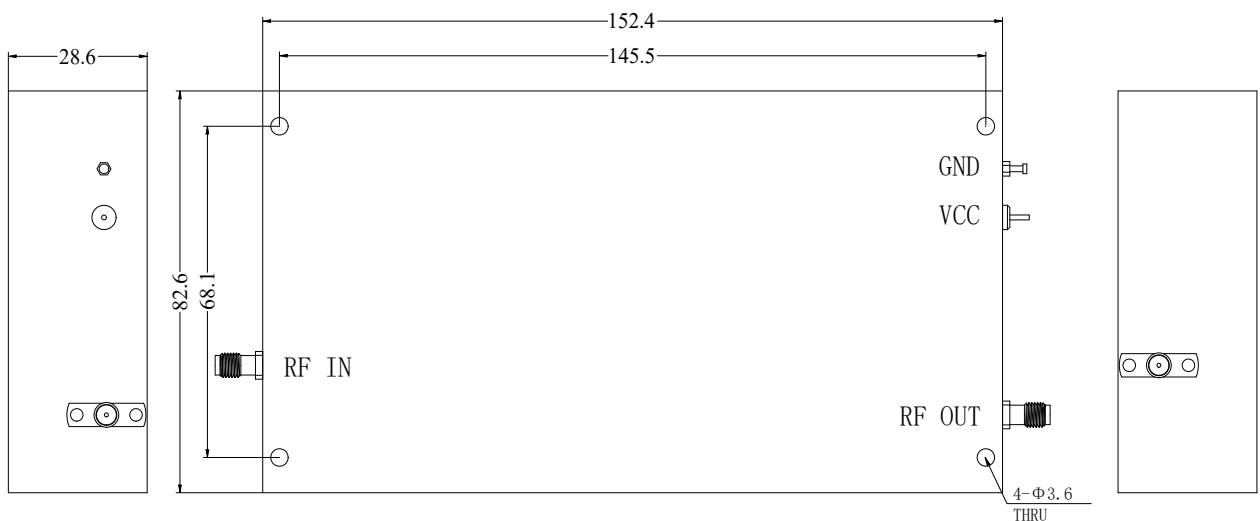
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+3 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm



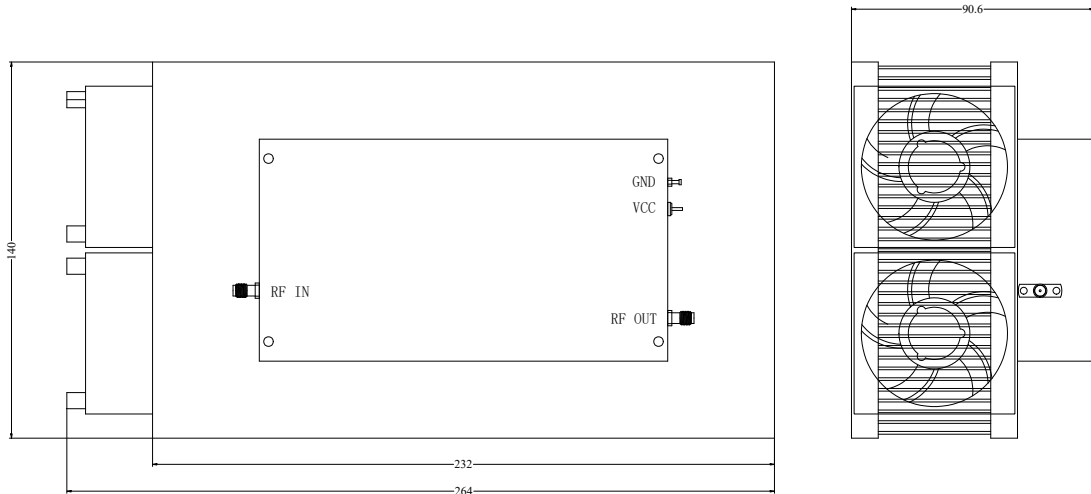
*****Heat Sink Required During Operation**



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

Outline Drawing:

Unit:mm



Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-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
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