

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

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	900		950	MHz
Gain	50	52		dB
Gain Flatness			±1	dB
Output Psat	50			dBm
Input VSWR		1.5	2.0	:1
DC Voltage		+28		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	180*115*25	mm
Weight	250	g

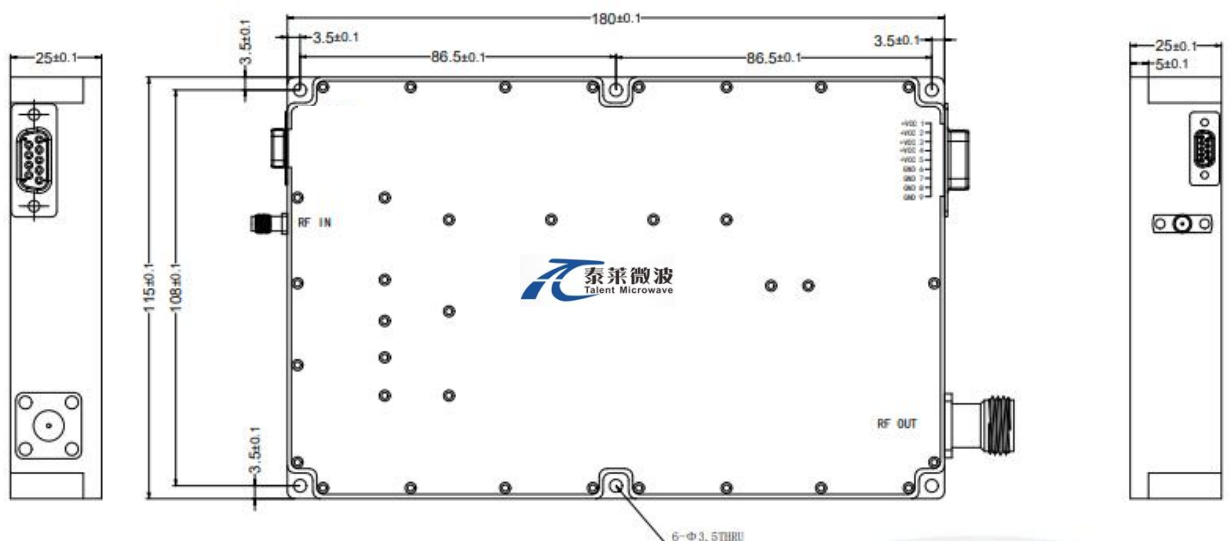
Absolute Maximum Ratings:

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.

DC Supply Connector(DSUB-9 Female):

Pin	Name	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

Monitor and Control Interface(J30J-9 Female):

Pin	Name	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.

Monitor and Control Interface(J30J-9 Female):

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

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)	20g,11ms,saw-tooth			
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
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