

Power Amplifier

6-8GHz/50dB Gain/50dBm Psat

Model: TLPA6G8G-50-50

TLPA6G8G-50-50 is a power amplifier with a minimum small signal gain of 50 dB and a minimum Psat of 50 dBm across the frequency range of 6 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/14A. The input ports configuration offers coax adapter structure with SMA female and output ports configuration offers coax adapter structure with N female.

Features:

- Frequency range: 6-8GHz
- Gain: 50dB Min
- Output Power Psat: 50dBm 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	6		8	GHz
Small Signal Gain	50	53		dB
Gain Flatness		±1.5	±2	dB
Output P1dB	45	46		dBm
Output Psat	49.5	50		dBm
Input VSWR		1.5	2	:1
DC Voltage		28	30	V DC
Static Current		3		A
Saturation current		14	15	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Supply Connector	DSUB-15	
Size	240*140*35(Without heatsink) 270*190*130(With heatsink)	mm
Weight	2000	g

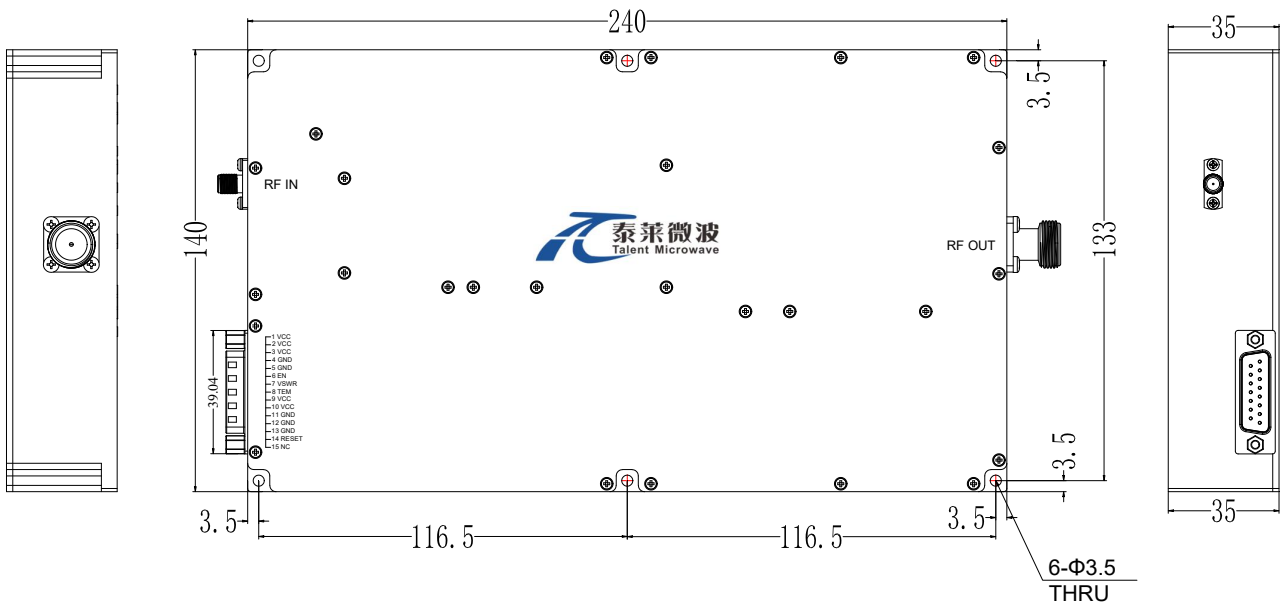
Absolute Maximum Ratings:

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-15 Female):

Pin	Name	Function
1	VCC	Power supply positive,+26.0-30.0VDC
2	VCC	Power supply positive,+26.0-30.0VDC
3	VCC	Power supply positive,+26.0-30.0VDC
4	GND	Ground
5	GND	Ground
6	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground
7	Over VSWR	VSWR FAULT: (TTL High= Fault, TTL Low =Normal).
8	Over TEM	When the temperature of the case exceeds 75 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 70 °C, the power amplifier will return to normal operation, and this pin will be pulled low.
9	VCC	Power supply positive,+26.0-30.0VDC
10	VCC	Power supply positive,+26.0-30.0VDC
11	GND	Ground
12	GND	Ground
13	GND	Ground
14	Reset	Resets PA when logic LOW is applied and released (Internally Pulled-High).
15	NC	Not Connected

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
TLPA6G8G-50-50	Power amplifier 6-8GHz, Gain:50dB,Psat:50dBm,+28V DC,Without Heatsink	Rev.1.0
TLPA6G8G-50-50-HS	Power amplifier 6-8GHz, Gain:50dB,Psat:50dBm,+28V DC,With Heatsink	Rev.1.0