

Power Amplifier

6-8GHz/38dB Gain/44 dBm Psat

Model: TLPA6G8G-38-44

TLPA6G8G-38-44 is a power amplifier with a typical small signal gain of 38 dB and a minimum Psat of 44 dBm across the frequency range of 6 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/2 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 6-8GHz
- Gain: 38dB Typ
- Output Power Psat: 44dBm 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		6-8		GHz
Small Signal Gain	36	38		dB
Gain Flatness		±1.5		dB
Gain Variation@TEM			±2	dB
Output P1dB		41		dBm
Output Psat	44			dBm
Spurious		-60		dBc
Harmonic		-15		dBc
Input VSWR		1.5	2	:1
DC Voltage		28		V DC
DC Supply Current@Pout=10W		2	4	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	115*100*20(Without Heatsink) 175*114*70(With Heatsink)	mm
Weight	1500	g

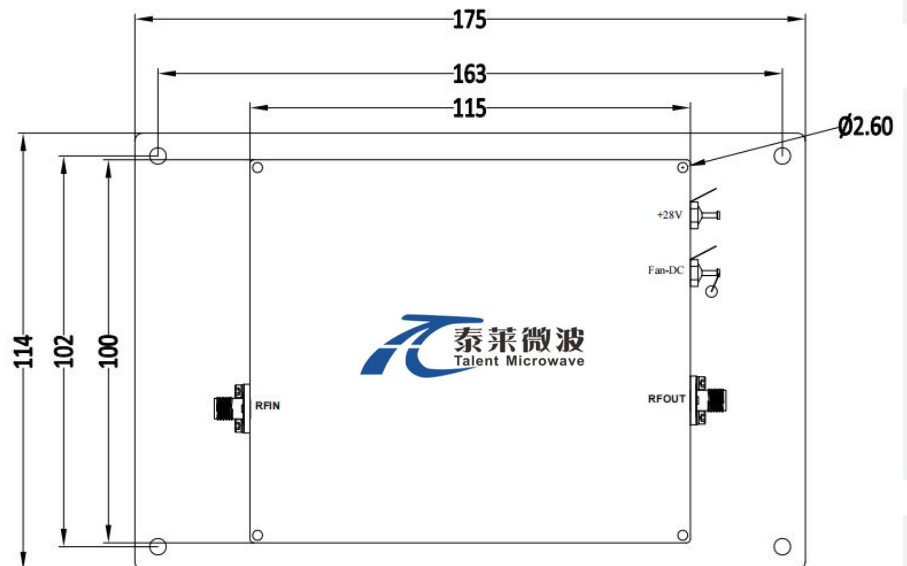
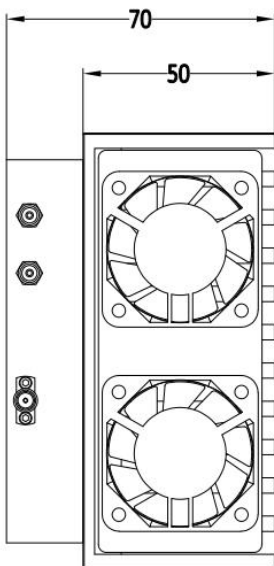
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+15 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

Regulatory Compliance:



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

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	°C
Non-operating Temperature*	-50		+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			

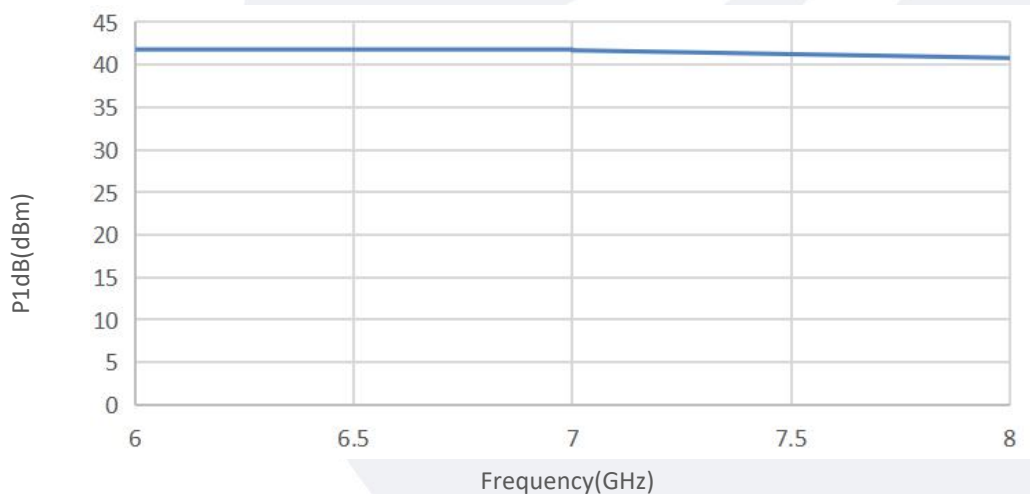
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA6G8G-38-44	Power amplifier 6-8GHz, Gain:38dB, Psat:44dBm, +28V DC, Without Heatsink	Rev.1.1
TLPA6G8G-38-44-HS	Power amplifier 6-8GHz, Gain:38dB, Psat:44dBm, +28V DC, With Heatsink	Rev.1.1

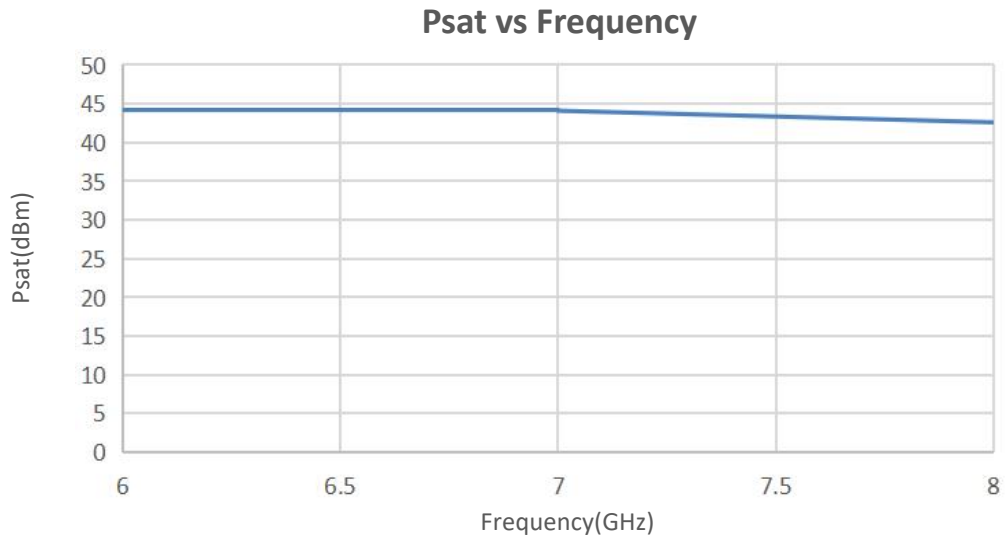
Typical Performance Data:

P1dB vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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