泰莱微波
Talent Microwave

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Power Amplifier

8-12GHz/47dB Gain/46dBm Psat

Model: TLPA8G12G-47-46

TLPA8G12G-47-46 is a power amplifier with power gain of 47 dB and Psat of 46 dBm across the frequency range of 8 to 12 GHz. The DC power requirement for the amplifier is +28 VDC/7 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 8-12 GHz
- Gain: 47dB min
- Output Power Psat: 46dBm 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		8-12		GHz
Power Gain	47			dB
Gain Flatness		±2		dB
Output Psat	45.5	46		dBm
Spurious@Pout=46dBm			-60	dBc
Harmonic@Pout=46dBm		-25		dBc
Input VSWR			2	:1
DC Voltage		28		V DC
DC Supply Current			7	A
Impedance		50		Ohms

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Mechanical Specifications:

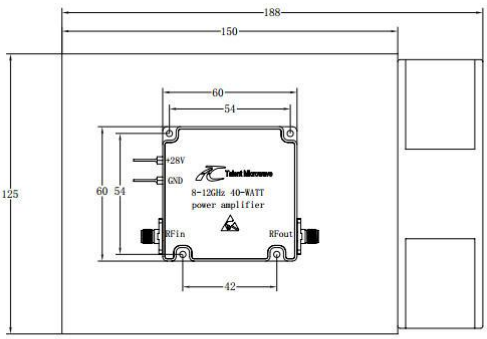
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Supply Connector	Feedthru capacitors	
Size	60*60*11(Without heatsink) 188*125*146(With heatsink)	mm
Weight	≤200	g

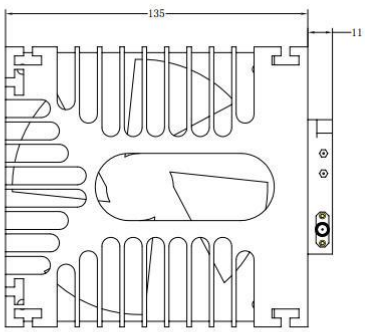
Absolute Maximum Ratings:

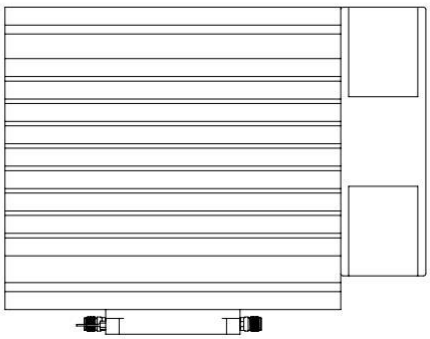
Parameter	Value
Supply Bias Voltage	+29 V
RF Input Power	+5dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm







Regulatory Compliance:

***Heat Sink Required During Operation

OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

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Environmental Conditions:

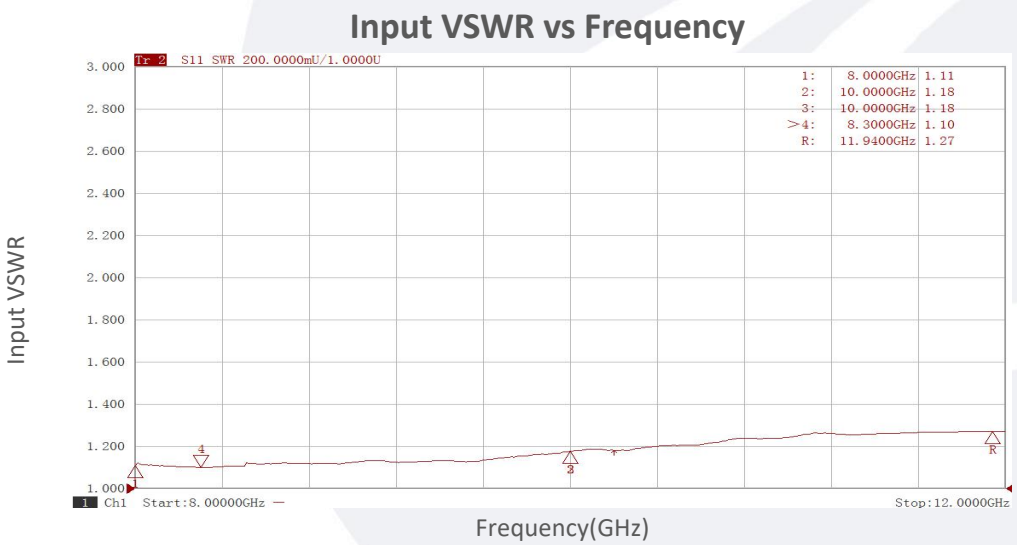
Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	℃
Non-operating Temperature*	-50		+60	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

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

Ordering Information:

Base Number	Description	Revision
TLPA8G12G-47-46	Power amplifier 8-12GHz, Gain:47dB,Psat:46dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA8G12G-47-46-HS	Power amplifier 8-12GHz, Gain:47dB,Psat:46dBm,+28V DC,With Heatsink	Rev.1.1

Typical Performance Data(Vdc=+28V):



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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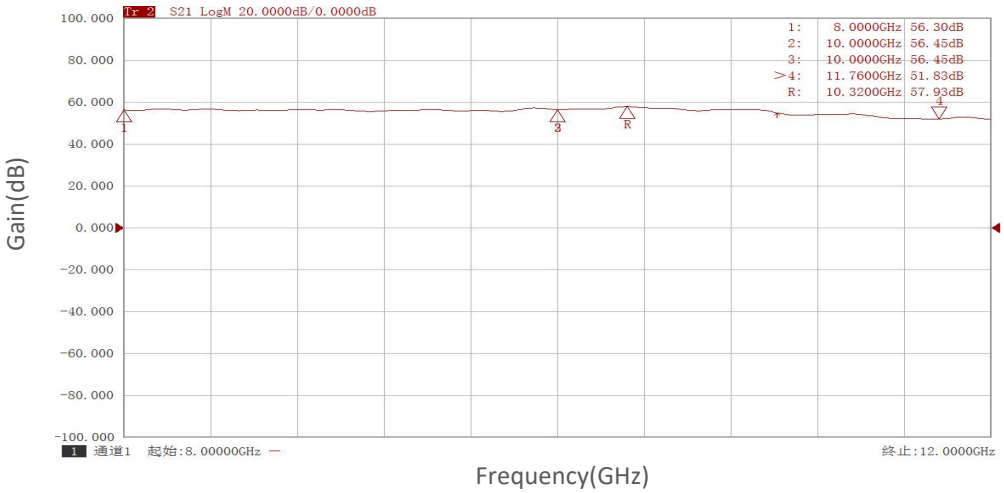
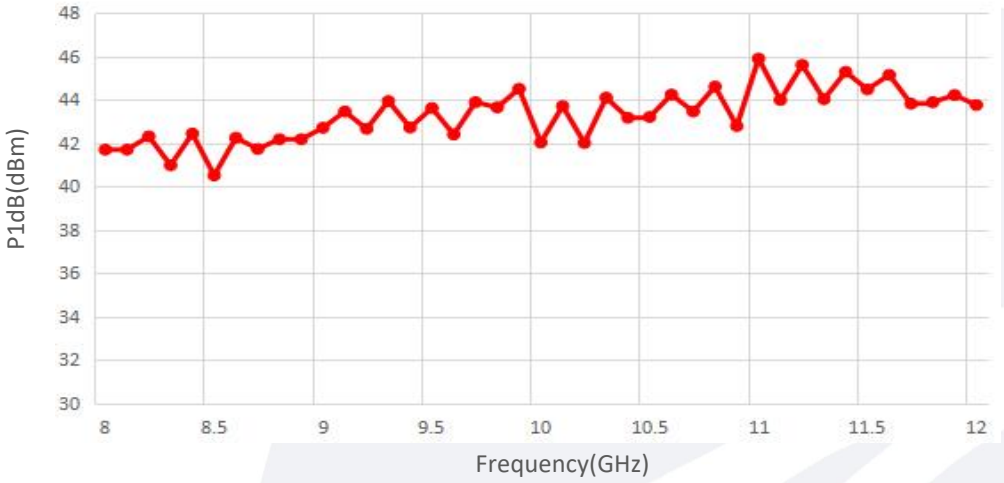
Typical Performance Data(Vdc=+28V):

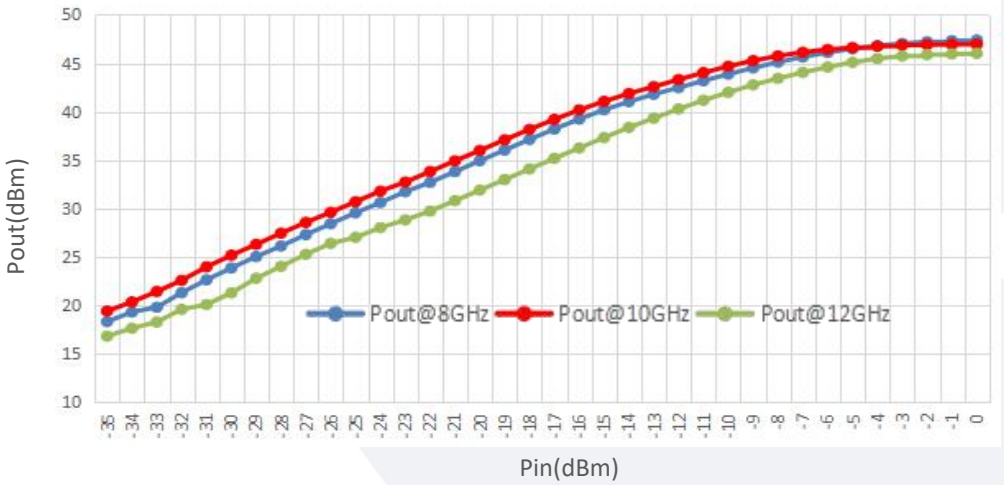
Small Signal Gain vs Frequency



P1dB vs Frequency



Pout@Pin



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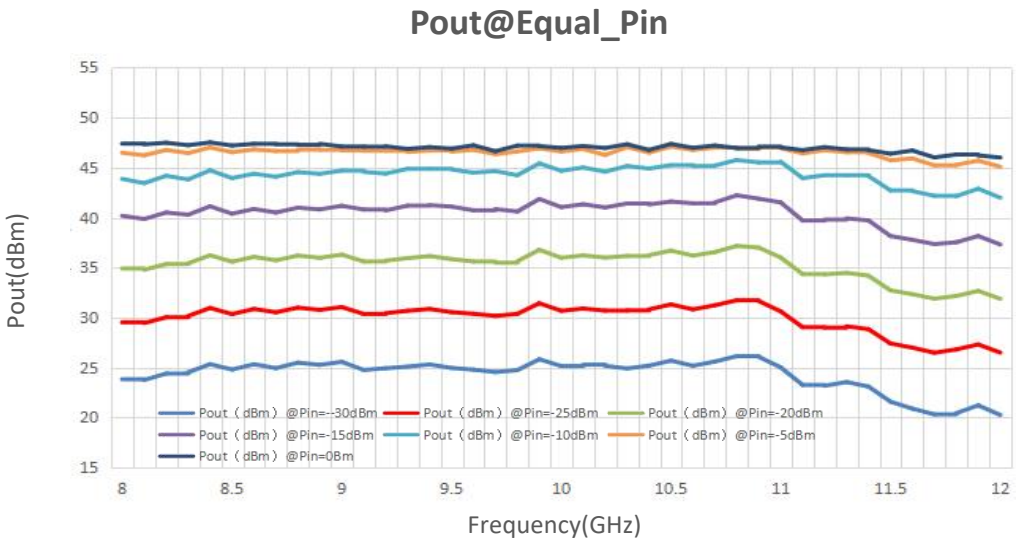

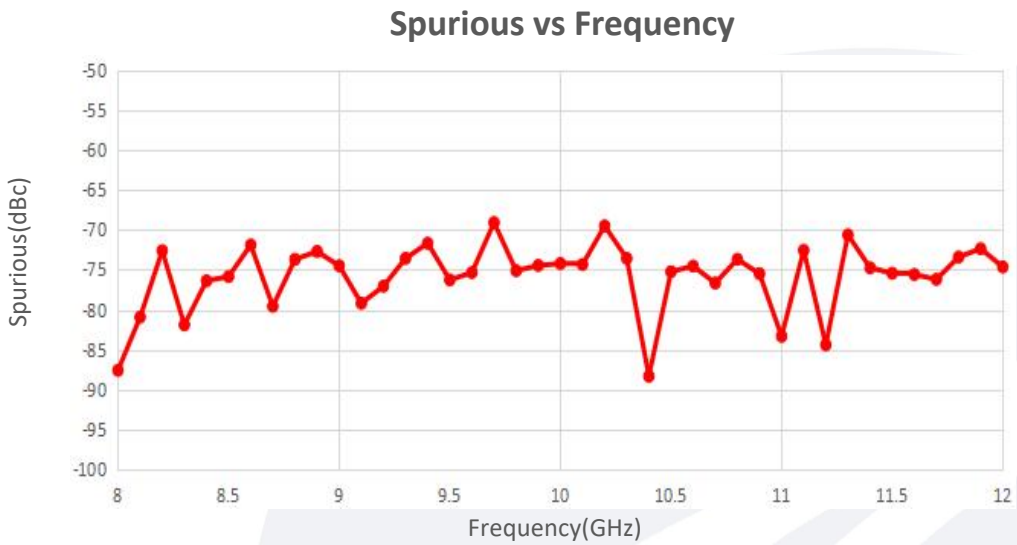

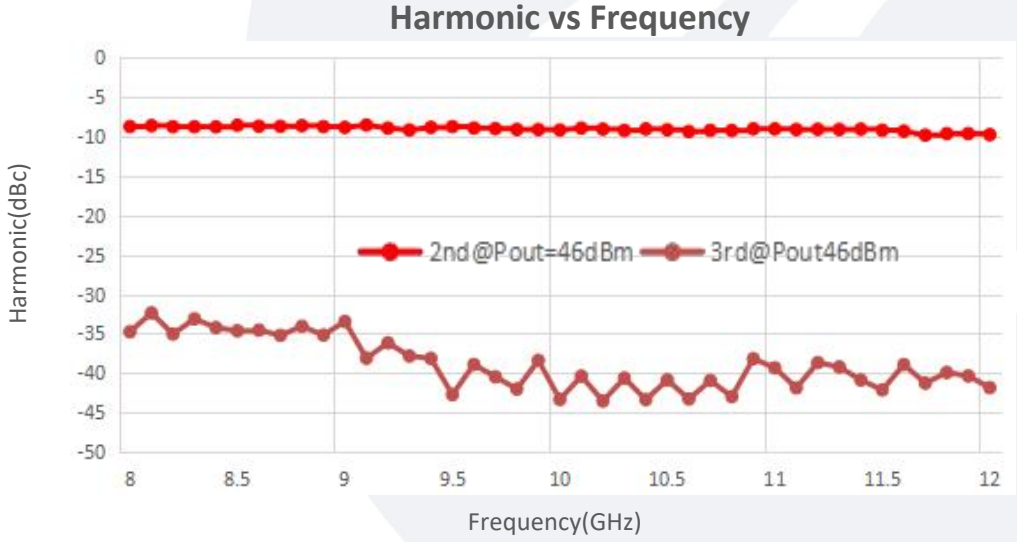

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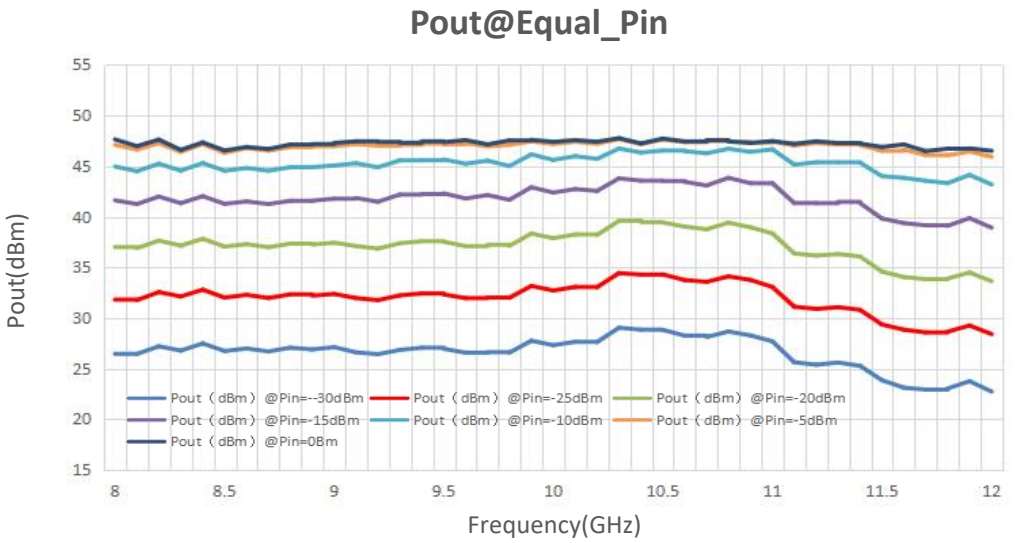
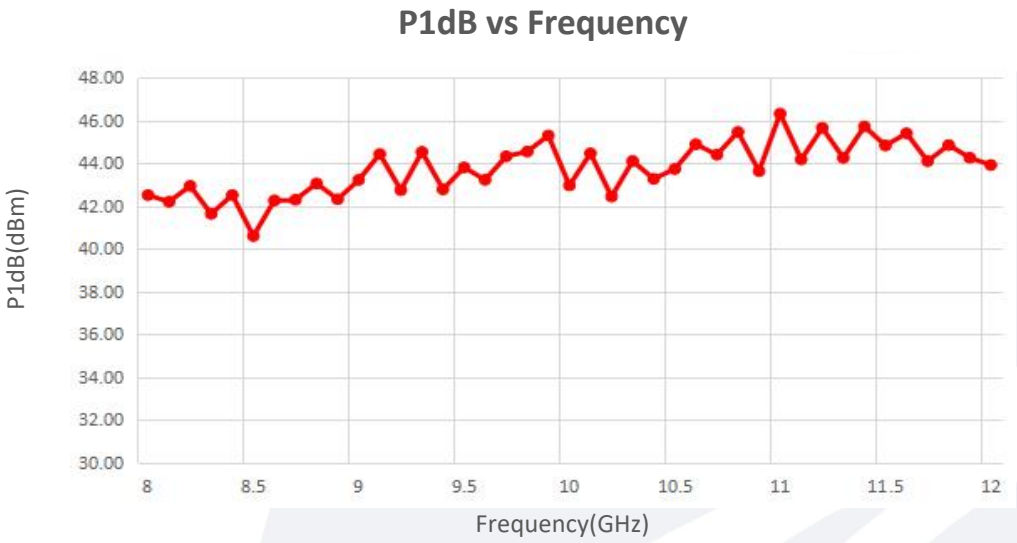
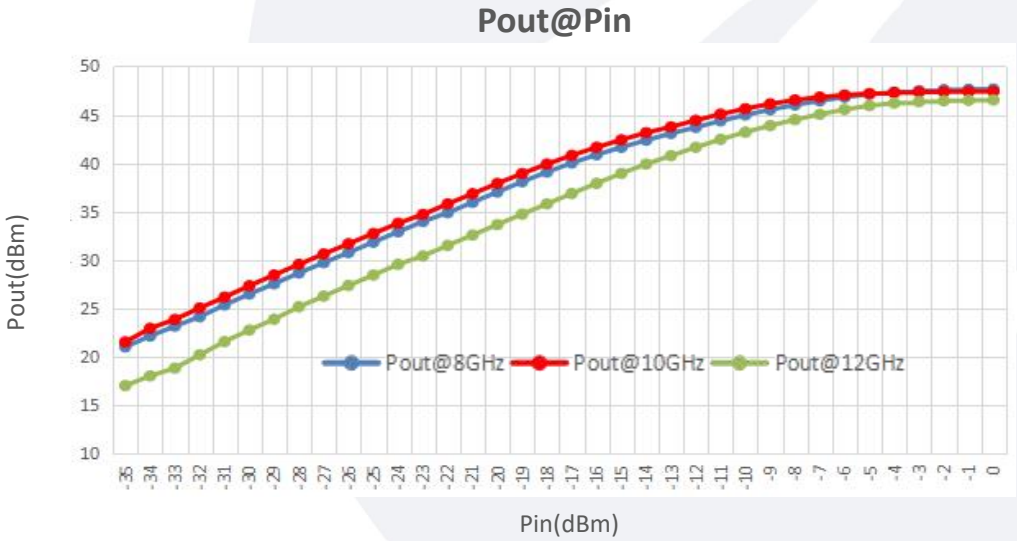
Typical Performance Data(Vdc=+30V):







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