

LPA Concepts

LINEAR POWER DRIVER AMPLIFIER	
P2950	LPA-LPD2-004AB-5100M-5900M-48-00
FEATURES ◆ 5100-5900MHz ◆ Gain: 26 dB / P_{pep} = 4W ◆ 50Ω input / output ◆ 48V / 80mA idle ◆ 48V / 0.36A @ 4W CW ◆ Aluminum flange ◆ Low cost	PACKAGE LPD2 package APPLICATIONS ◆ General purpose
BLOCK DIAGRAM	

Specifications and information are subject to change without notice

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Electrical characteristics: 50 ohms; +48V; -25°C to +80°C (1, 2)

Ref	Parameter	Conditions	Note	Min	Typ	Max	Units
1	Bandwidth			5100		5900	MHz
2	Gain small signal	5500 MHz; 50°C			26		dB
3	Gain variation vs frequency	5100 MHz - 5900 MHz			2	3	dBpp
4	Gain variation vs temperature	-25°C to +80°C	2		3		dB
5	Input return loss	50 ohms				-15	dB
6	Output return loss	50 ohms				-15	dB
7	Peak envelope power	IMD3 = -30 dBc, f=5500 MHz	3	4	5		W
8	Current consumption idle				0.08		A
9	Current consumption 4W	CW frequency 5500MHz			0.36		A
10	Max current	Shut down current			0.5		A

1. Unless otherwise specified
2. Housing temperature
3. 2 CW, tone spacing 5MHz

Maximum ratings

Ref	Parameter	Conditions	Note	Min	Nom	Max	Units
1	Operating temperature	flange temperature		-40°C		+80	°C
2	Supply voltage			46	48	50	V
3	Input peak power					+17	dBm
4	Input average power					+14	dBm
5	Max load VSWR	At 4W output			10:1		

Power Supply DC Connection

Pin description			
Terminal 2 : Supply +48V		SMD LOOP TERMINAL	3.3mm x 1.85mm x 2.0mm
Terminal 1 : Gnd			

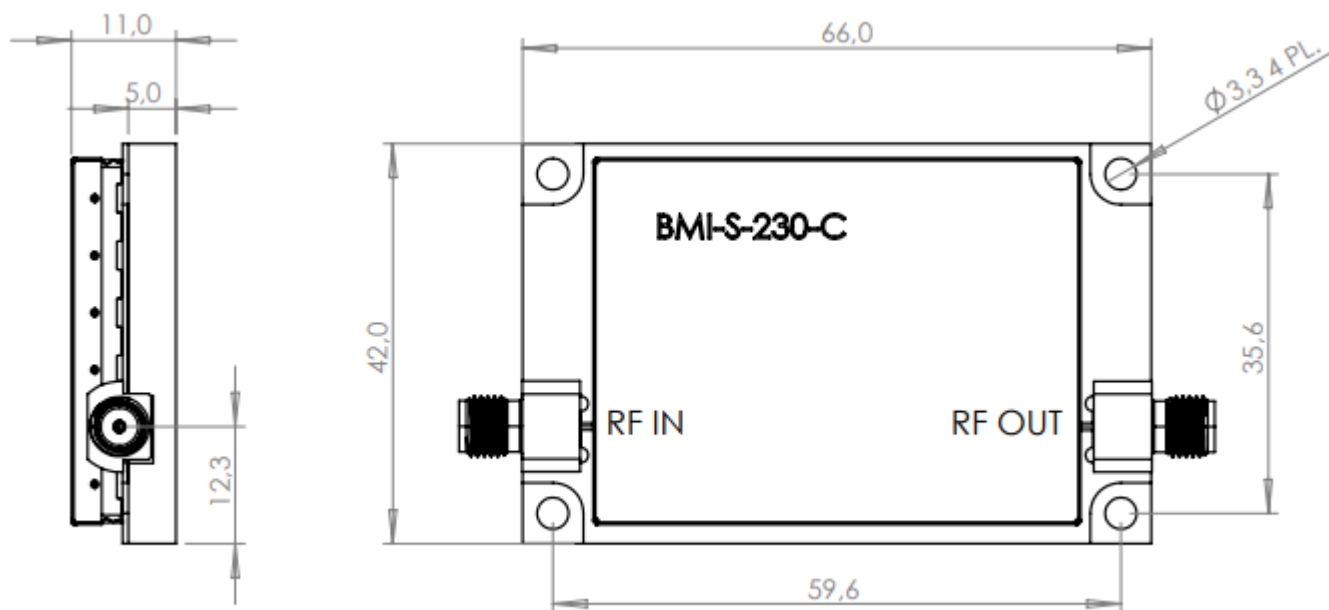
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Mechanical characteristics

Ref	characteristic	description	remarks
1	Package dimensions	66mm x 42mm x 11mm	
2	Flange dimensions	66mm x 42mm x 5mm	4 x M3 screws for heatsink attach
3	Input/output RF connectors	SMA	
4	DC supply connection	SMD Loop terminal	For hook clip (Minigrabber or Micrograbber)
5	Weight	60 grams	

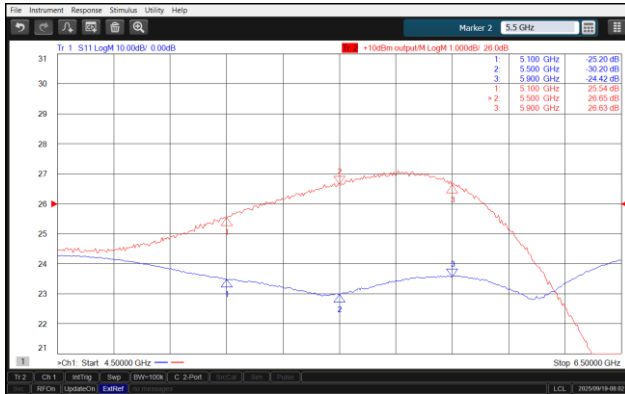
Package outline:



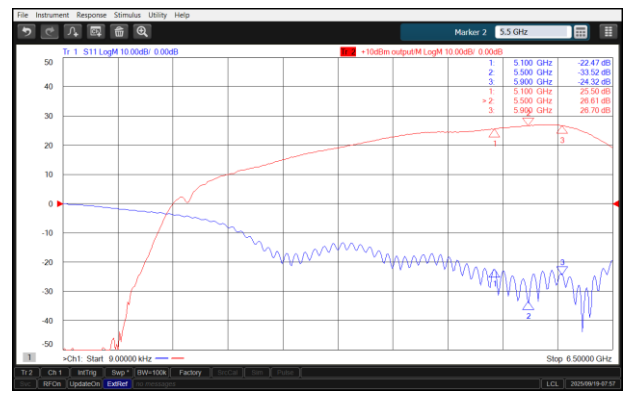
dimensions are in mm

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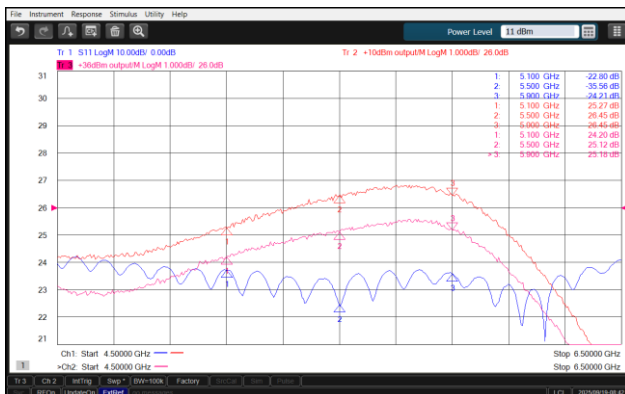
TYPICAL PERFORMANCE



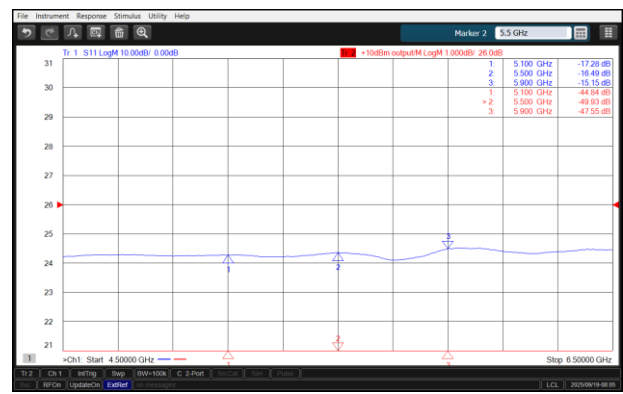
Gain vs Frequency



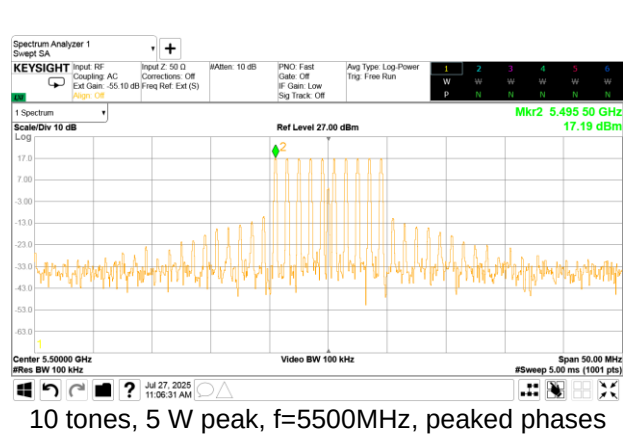
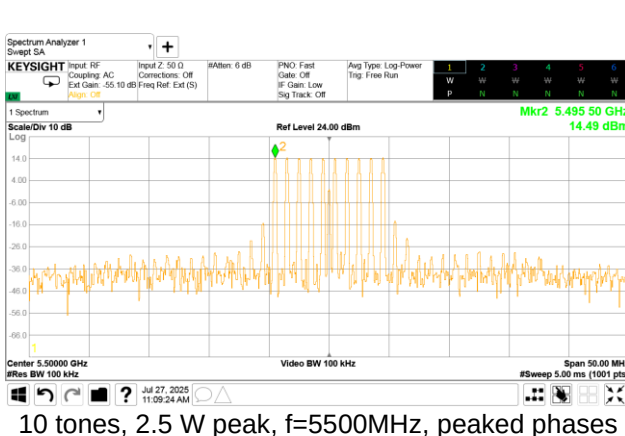
Wideband gain vs Frequency



Gain compression at 4W out

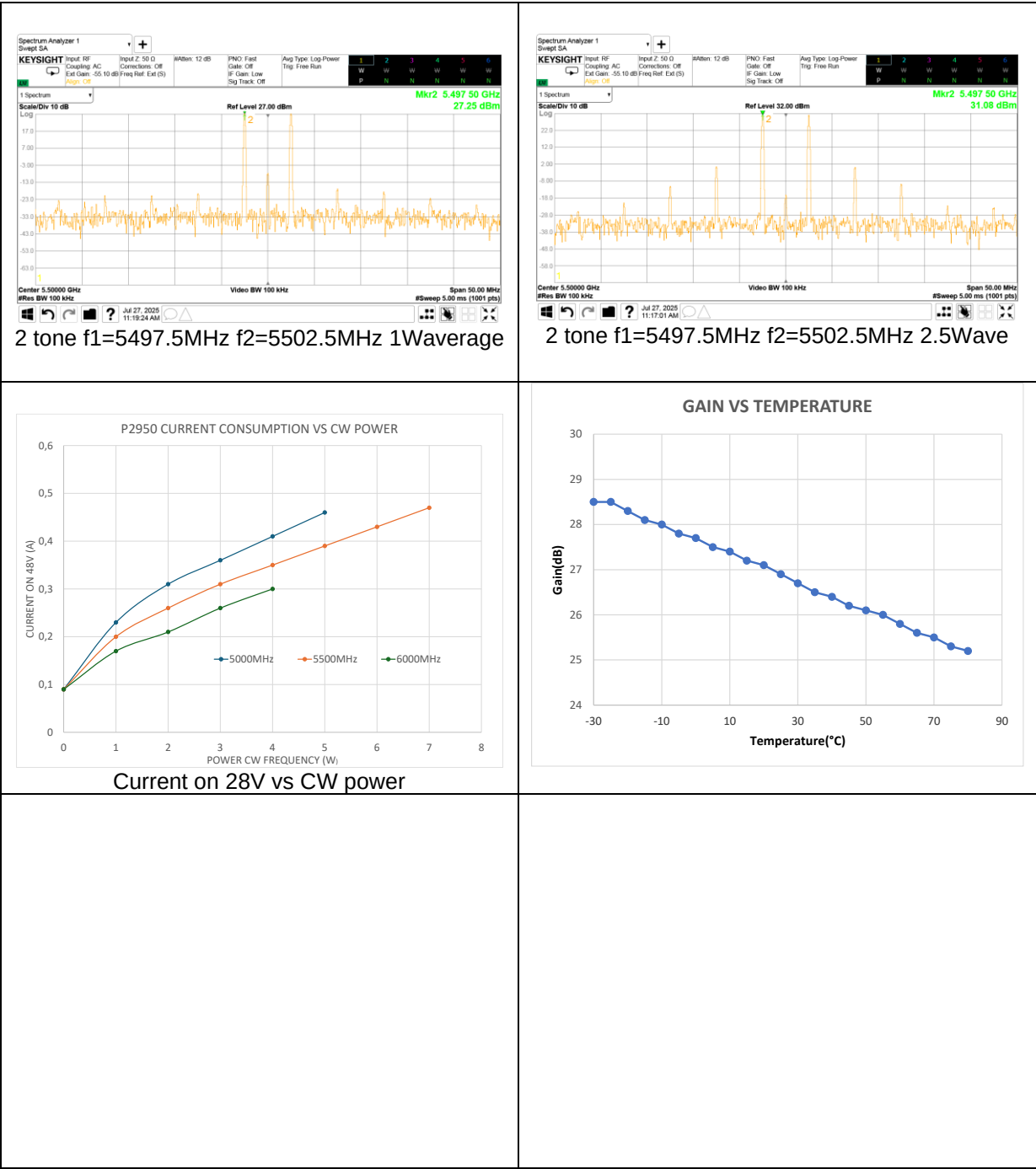


Output Return Loss vs Frequency



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TYPICAL PERFORMANCE (continued)



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