

800W PSM - PLUG AND PLAY

- For L-Band Pulsed Radar Application

800 Watts - 300 μ s, 10%, +50V
 L-Band Pulsed Radar 1200 - 1400 MHz

- Easy To Use – 50 Ω Plug-and-Play
- Reduce Design Cycle Time
- Improve System Performance
- Reduce System Size and Components

GENERAL DESCRIPTION

The 1214-800P is a 50 ohm matched Power Solution Module (PSM) for L-Band pulsed Radar systems capable of providing 800 Watts of pulsed RF output power at three hundreds microsecond pulse width ten percent duty factor across the band 1200-1400 MHz. This PSM is designed with plug and play concept which is extremely user friendly and requires no additional tuning and impedance matching from the customer. Mechanical Size is 3.2" x 2" x 0.22"

ELECTRICAL CHARACTERISTICS @ 25 °C

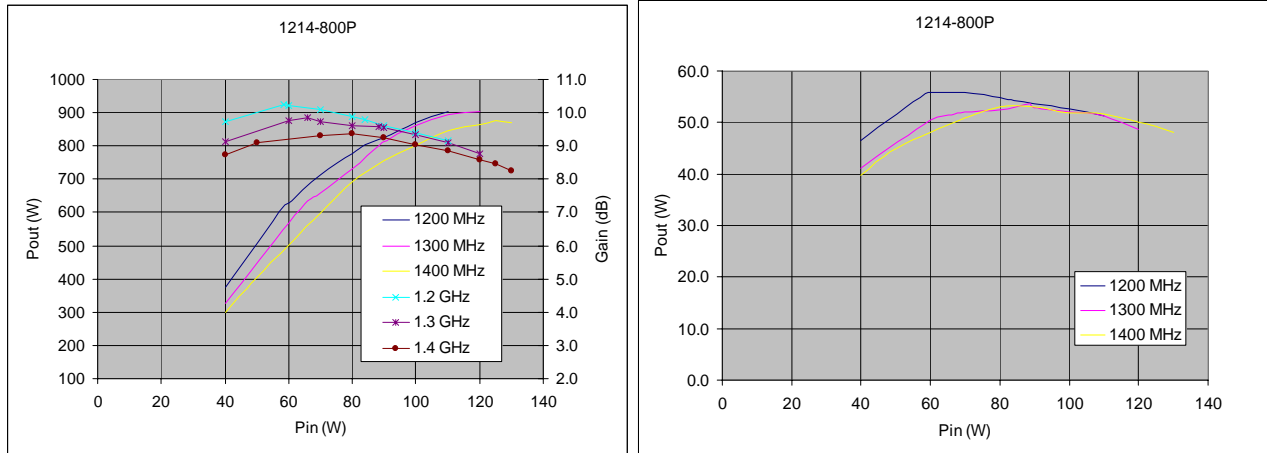
Symbol	Characteristics	Test Conditions	Min	Typ	Max	Units
P _{in}	Input Power	V _{cc} =50V, P _{out} =800W, Freq=1.2 to 1.4 GHz	90	110	120	W
G _p	Power Gain	V _{cc} =50V, P _{out} =800W, Freq=1.2 to 1.4 GHz	8.2	8.6	9.5	dB
η_c	Collector Efficiency	V _{cc} =50V, P _{out} =800W, Freq=1.2 to 1.4 GHz	45	52		%
Droop	Pulse Droop	V _{cc} =50V, P _{out} =800W, Freq=1.2 to 1.4 GHz		0.1	0.5	dB
R/L	Input Return Loss	V _{cc} =50V, P _{out} =800W, Freq=1.2 to 1.4 GHz	10			dB
VSWR-T	Load Mismatch Tolerance	V _{cc} =50V, P _{out} =800W, Freq=1.2 to 1.4 GHz			2:1	
Θ_{jc}	Thermal Resistance	Pulse Width=300uS, Duty=10%			0.15	°C/W

Typical Test Data:

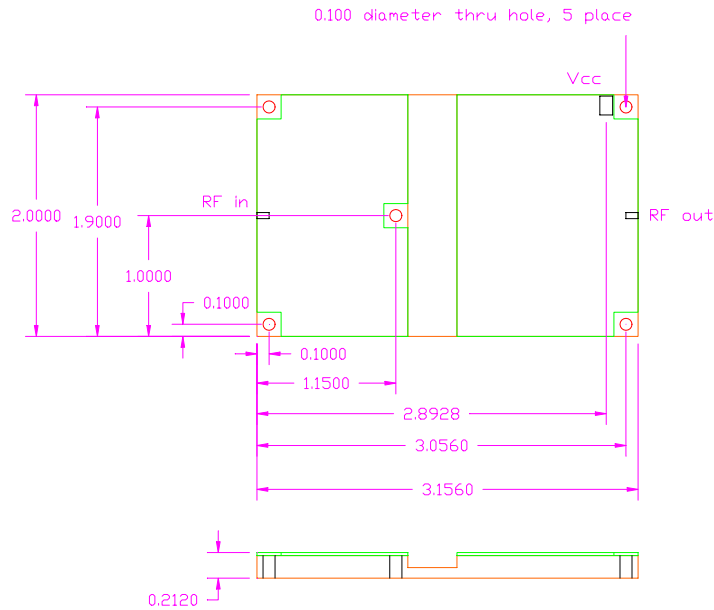
Frequency	P _{in} (W)	P _{out} (W)	I _c (A)	RL (dB)	N _c (%)	G (dB)
1200 MHz	100	871	3.3	-12	52	9.4
1300 MHz	100	861	3.3	-15	52	9.4
1400 MHz	100	800	3.0	-18	52	9.0

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Typical Performance Curves



Pallet Outline Drawing



ALL UNITS ARE IN INCHES

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