

550W PSM - PLUG AND PLAY

- For L-Band Pulsed Radar Application

550 Watts - 300 μ s, 10%, +42V
 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 1214-550P is a 50 ohm matched Power Solution Module (PSM) for L-Band pulsed Radar systems capable of providing 550 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

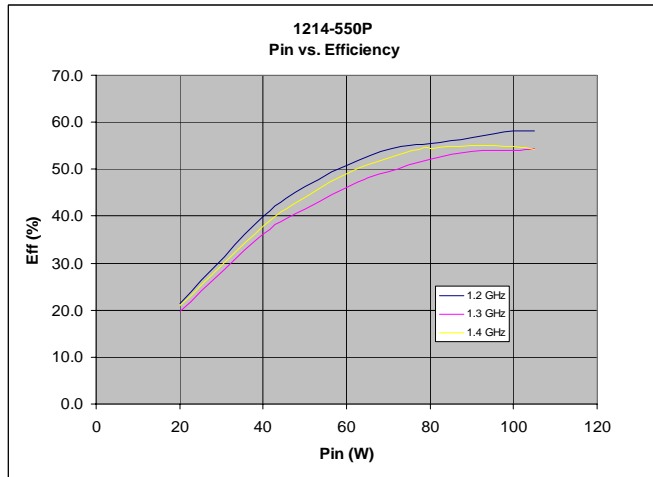
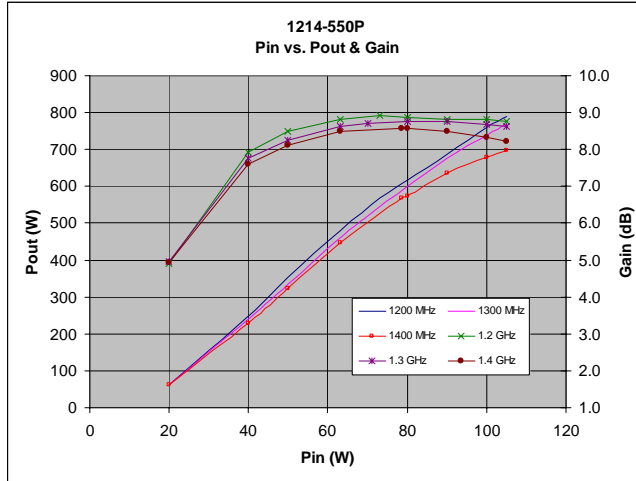
Symbol	Characteristics	Test Conditions	Min	Typ	Max	Units
Pin	Input Power	Vcc=42V, Pout=550W, Freq=1.2 to 1.4 GHz	63	80	87	W
Gp	Power Gain	Vcc=42V, Pout=550W, Freq=1.2 to 1.4 GHz	8.0	8.5	9.4	dB
η_c	Collector Efficiency	Vcc=42V, Pout=550W, Freq=1.2 to 1.4 GHz	50	55		%
Droop	Pulse Droop	Vcc=42V, Pout=550W, Freq=1.2 to 1.4 GHz		0.1	0.5	dB
R/L	Input Return Loss	Vcc=42V, Pout=550W, Freq=1.2 to 1.4 GHz	9			dB
VSWR-T	Load Mismatch Tolerance	Vcc=42V, Pout=550W, 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:

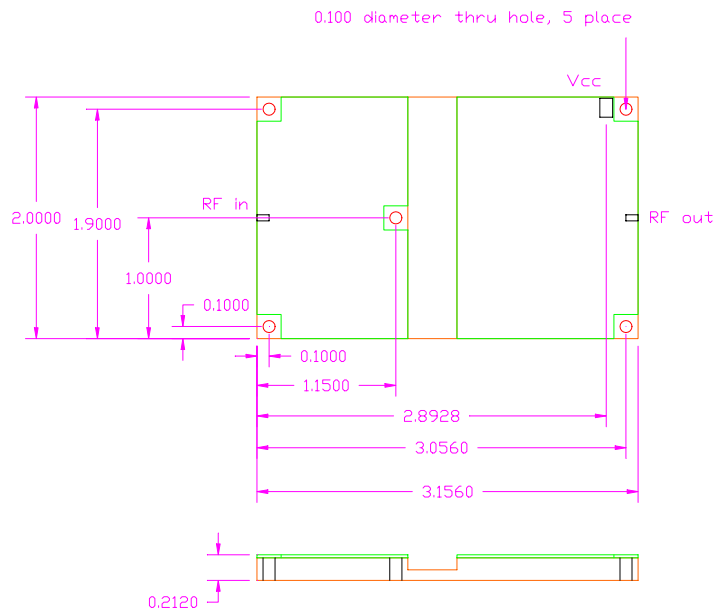
Frequency	Pin (W)	Pout (W)	Ic (A)	RL (dB)	Nc (%)	G (dB)
1200 MHz	80	699	2.8	-11	59	9.4
1300 MHz	80	620	2.7	-15	55	8.9
1400 MHz	80	580	2.5	-19	55	8.6

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Typical Performance Curves



Pallet Outline Drawing



ALL UNITS ARE IN INCHES

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