

700W PSM - PLUG AND PLAY

- For L-Band Pulsed Radar Application

700 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 1214-700P1 is a 50 ohm matched Power Solution Module (PSM) for L-Band pulsed Radar systems capable of providing 700 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	Output Power	Vcc=50V, Pout=700W, Freq=1.2 to 1.4 GHz	85	100	110	W
Gp	Power Gain	Vcc=50V, Pout=700W, Freq=1.2 to 1.4 GHz	8.0	8.5	9.1	dB
η_c	Collector Efficiency	Vcc=50V, Pout=700W, Freq=1.2 to 1.4 GHz	45	52		%
Droop	Pulse Droop	Vcc=50V, Pout=700W, Freq=1.2 to 1.4 GHz		0.1	0.5	dB
R/L	Input Return Loss	Vcc=50V, Pout=700W, Freq=1.2 to 1.4 GHz	13	15		dB
VSWR-T	Load Mismatch Tolerance	Vcc=50V, Pout=700W, Freq=1.2 to 1.4 GHz			2:1	
Θ_{jc}	Thermal Resistance	Pulse Width=300uS, Duty=10%			0.15	°C/W

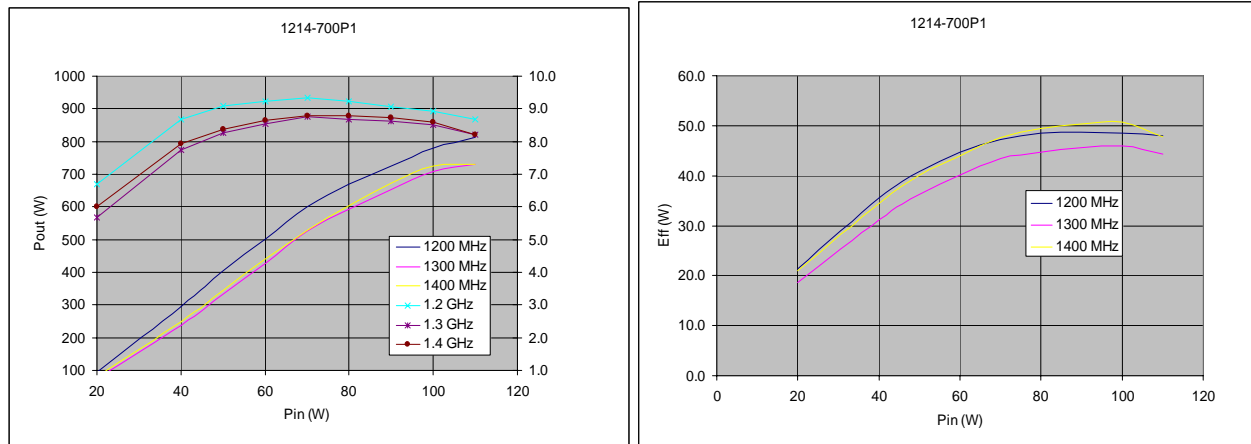
Typical Test Data:

Frequency	Pin (W)	Pout (W)	Ic (A)	RL (dB)	Nc (%)	G (dB)
1200 MHz	100	824	3.1	-14	52	9.1
1300 MHz	100	760	3.1	-17	48	8.7
1400 MHz	100	770	2.9	-16	53	8.8

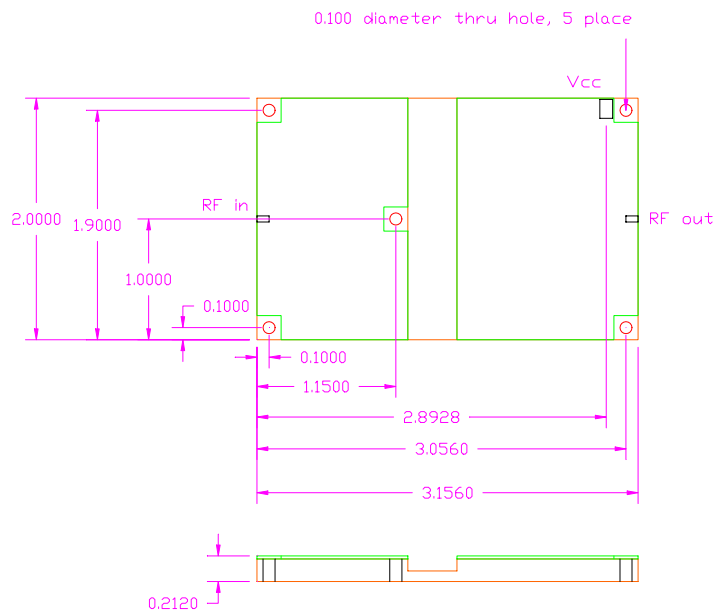
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Typical Performance Curves



Pallet Outline Drawing



ALL UNITS ARE IN INCHES

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