

## 700W PSM - PLUG AND PLAY

- For L-Band Pulsed Radar Application

---

700 Watts - 300 $\mu$ s, 10%, +50V  
 L-Band Pulsed Radar 1200 - 1400 MHz

---

- Easy To Use – 50  $\Omega$  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

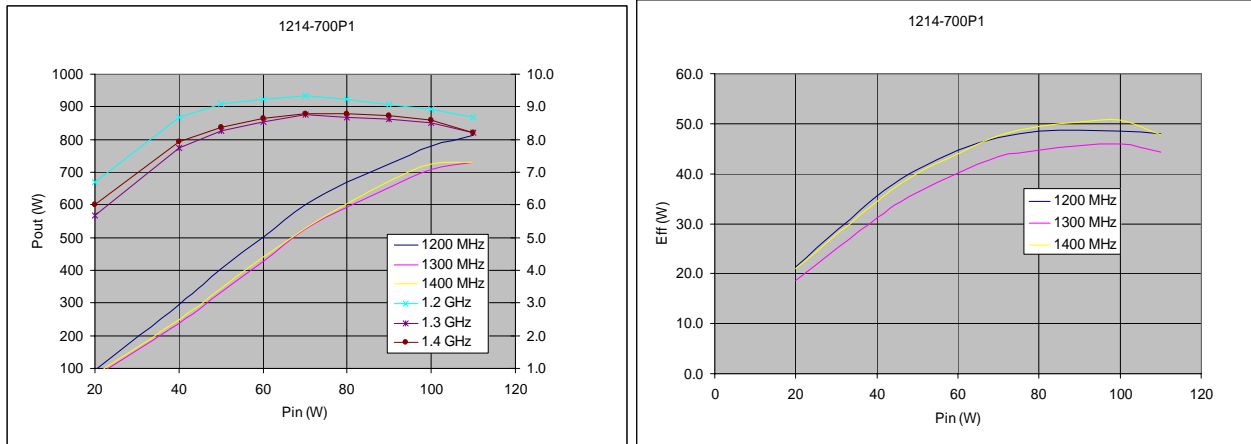
Symbol	Characteristics	Test Conditions	Min	Typ	Max	Units
Pin	Output Power	Vcc=50V, Pout=700W, Freq=1.2 to 1.4 GHz	85	100	110	W
Gp	Power Gain	Vcc=50V, Pout=700W, Freq=1.2 to 1.4 GHz	8.0	8.5	9.1	dB
$\eta_c$	Collector Efficiency	Vcc=50V, Pout=700W, Freq=1.2 to 1.4 GHz	45	52		%
Droop	Pulse Droop	Vcc=50V, 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	
$\Theta_{jc}$	Thermal Resistance	Pulse Width=300uS, Duty=10%			0.15	°C/W

### Typical Test Data:

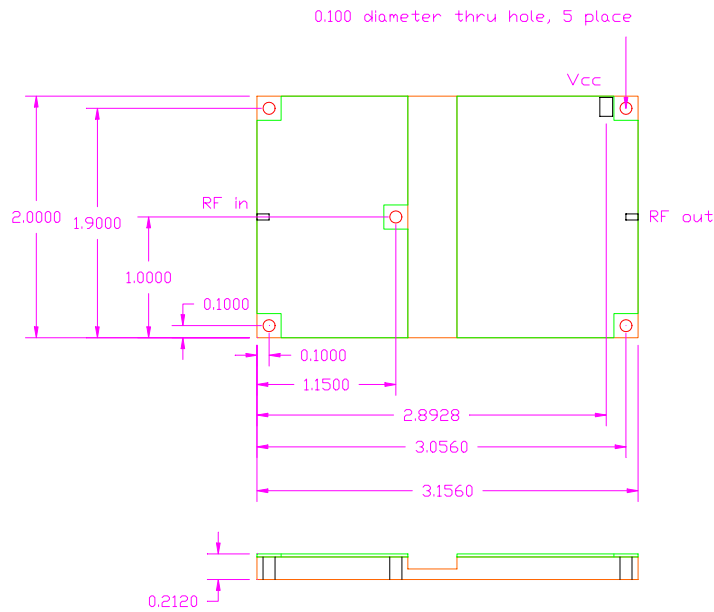
Frequency	Pin (W)	Pout (W)	Ic (A)	RL (dB)	Nc (%)	G (dB)
1200 MHz	100	824	3.1	-14	52	9.1
1300 MHz	100	760	3.1	-17	48	8.7
1400 MHz	100	770	2.9	-16	53	8.8

Microsemi reserves the right to change, without notice, the specifications and information contained herein. To verify the current version please check our website at [www.micorsemi.com](http://www.micorsemi.com), email to [PSM@Microsemi.com](mailto:PSM@Microsemi.com), or contact our factory direct. Microsemi PPGR 3295 Scott Blvd, Suite 150, Santa Clara, CA 95054 Tel. 408-986-8031

## Typical Performance Curves



## Pallet Outline Drawing



ALL UNITS ARE IN INCHES

Microsemi reserves the right to change, without notice, the specifications and information contained herein. To verify the current version please check our website at [www.micorsemi.com](http://www.micorsemi.com), email to [PSM@Microsemi.com](mailto:PSM@Microsemi.com), or contact our factory direct. Microsemi PPGR 3295 Scott Blvd, Suite 150, Santa Clara, CA 95054 Tel. 408-986-8031