RFMA2124-2W-P3

UPDATED: 01/09/2007

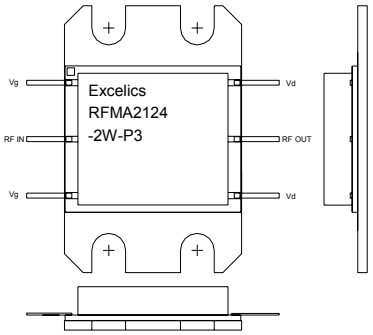
21.2 – 23.6 GHz Power Amplifier MMIC

FEATURES

- **21.2– 23.6GHz Operating Frequency Range**
- **31.0dBm Output Power at 1dB Compression**
- **22dB Typical Power Gain @ 1dB Gain Compression**
- **-39dBc Typical OIM3 @ each tone Pout 20dBm**

APPLICATIONS

- **Point-to-point and point-to-multipoint radio**
- **Military Radar Systems**



Caution! ESD sensitive device.

ELECTRICAL CHARACTERISTICS (T_a = 25 °C, 50 ohm, Vdd=7V, Vgg=-5V)

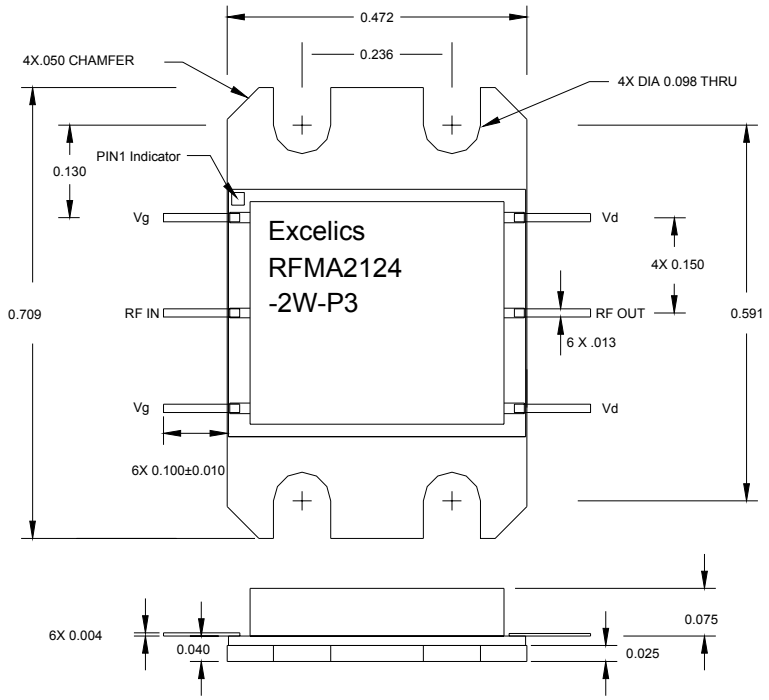
SYMBOL	PARAMETER/TEST CONDITIONS	MIN	TYP	MAX	UNITS
F	Operating Frequency Range	21.2		23.6	GHz
P1dB	Output Power at 1dB Gain Compression	30.0	31.0		dBm
G1dB	Gain @ 1dB gain compression	18.0	22.0		dB
OIMD3	Output 3rd Order Intermodulation Distortion @Δf=10MHz, Each Tone Pout 20dBm		-39	-36	dBc
Input RL	Input Return Loss		-10		dB
Output RL	Output Return Loss		-15	-10	dB
Idd	Drain Current		1700	2300	mA
Vdd	Drain Voltage		7	8	V
Vgg	Gate Voltage		-5		V
Rth	Thermal Resistance (Au-Sn Eutectic Attach)		4.0	4.5	°C/W
Tb	Operating Base Plate Temperature	-30		+80	ºC

MAXIMUM RATINGS @25°C

SYMBOL	CHARACTERISTIC	ABSOLUTE	CONTINUOUS [1,2]
V_{DD}	Drain Supply Voltage	12V	8V
V_{GG}	Gate Supply Voltage	-8V	-3V
I_{DD}	Drain Current	Idss	3.6A
P_{IN}	Input Power	20dBm	@ 3dB compression
T_{CH}	Channel Temperature	175°C	150°C
T_{STG}	Storage Temperature	-65/175°C	-65/150°C
P_T	Total Power Dissipation	30.0W	25.2W

1. Operating the device beyond any of the above rating may result in permanent damage.
2. Bias conditions must also satisfy the following equation Vdd*Idd < (T_{CH} –Tb)/R_{TH}; where T_b = operating base plate temperature

P3 Package Outline



DIMENSION: INCH
TOLERANCE: ±0.005

Ordering Information

Part Number	
RFMA2124-2W-P3	Refer P3 Package Outline