



RFMA2124-2W-P3

UPDATED: 01/09/2007

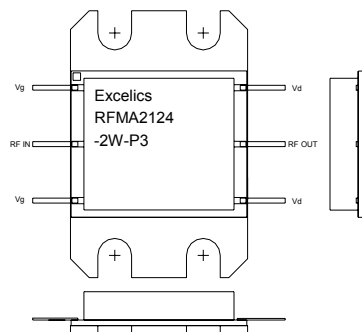
21.2 – 23.6 GHz Power Amplifier MMIC

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, V_{dd}=7V, V_{gg}=-5V)

SYMBOL	PARAMETER/TEST CONDITIONS	MIN	TYP	MAX	UNITS
F	Operating Frequency Range	21.2		23.6	GHz
P _{1dB}	Output Power at 1dB Gain Compression	30.0	31.0		dBm
G _{1dB}	Gain @ 1dB gain compression	18.0	22.0		dB
OIMD ₃	Output 3 rd 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
I _{dd}	Drain Current		1700	2300	mA
V _{dd}	Drain Voltage		7	8	V
V _{gg}	Gate Voltage		-5		V
R _{th}	Thermal Resistance (Au-Sn Eutectic Attach)		4.0	4.5	°C/W
T _b	Operating Base Plate Temperature	-30		+80	°C

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	I _{dss}	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 $V_{dd} \cdot I_{dd} < (T_{CH} - T_b) / R_{TH}$; where T_b = operating base plate temperature

Specifications are subject to change without notice.

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Revised January 2007

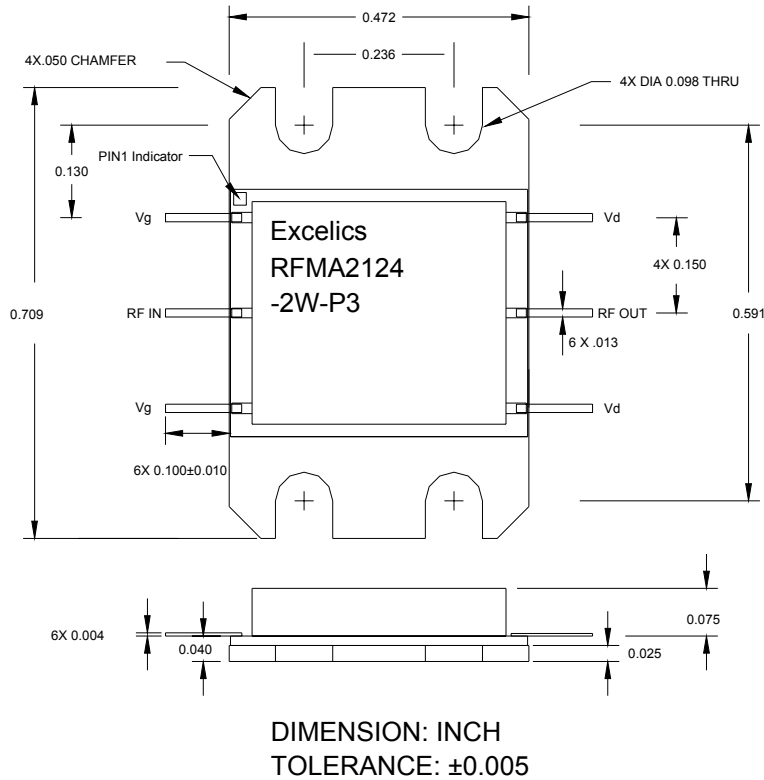


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P3 Package Outline



Ordering Information

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

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- A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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