

RFMA2124-1W

ISSUED 02/14/2006

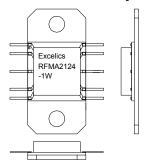
21.2 - 23.6 GHz Power Amplifier MMIC

FEATURES

- 21.2 23.6 GHz Operating Frequency Range
- 28.5dBm Output Power at 1dB Compression
- 25 dB Typical Power Gain @1dB gain Compression
- -41dBc Typical OIM3 @ Each Tone Pout 18dBm

APPLICATIONS

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



Different packages are available



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			23.6	GHz
P1dB	dB Output Power at 1dB Gain Compression		28.5		dBm
G1dB	Gain @1dB gain compression	22 25 dB		dB	
OIMD3	Output 3 rd Order Intermodulation Distortion @\Delta f = 10MHz, Each Tone Pout 17dBm		-41	-38	dBc
Input RL	Input Return Loss		-10	-8	dB
Output RL	Output Return Loss		-15	-10	dB
ldd	Drain Current		900	1080	mA
Vdd	Drain Voltage		7	8	V
Vgg	Gate Voltage		-5		V
Rth	Thermal Resistance (Au-Sn Eutectic Attach)		7	7.5	°C/W
Tb	Operating Base Plate Temperature	- 30		+ 80	°C

MAXIMUM RATINGS AT 25°C

SYMBOL	CHARACTERISTIC	ABSOLUTE	CONTINUOUS			
Vdd	Drain Supply Voltage	12V	8V			
Vgg	Gate Supply Voltage	-8V	-3 V			
ldd	Drain Current	Idss	1.9A			
lgg	Gate Current	132mA	22 mA			
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			

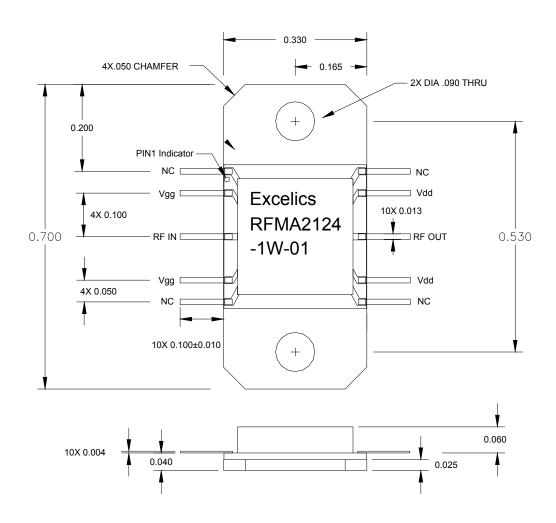
^{1.} Operating the device beyond any of the above rating may result in permanent damage.

^{2.} Bias conditions must also satisfy the following equation $Vdd^*Idd < (T_{CH} - T_{HS})/R_{TH}$; where T_{HS} = base plate temperature

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01 Package Dimension and Pin Assignment



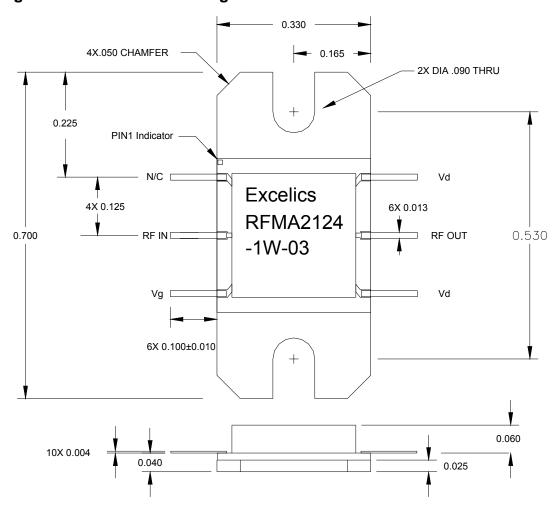
ALL DIMENSIONS IN INCHES TOLERANCE: ±0.005



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03 Package Dimension and Pin Assignment



ALL DIMENSIONS IN INCHES TOLERANCE: ±0.005

Ordering Information

Part Number				
RFMA2124-1W-01	Refer 01 Package Outline			
RFMA2124-1W-03	Refer 03 Package Outline			