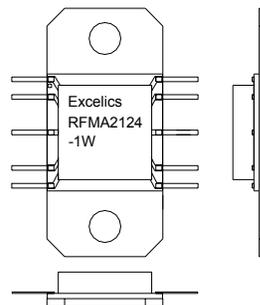


FEATURES

- 21.2 – 23.6 GHz Operating Frequency Range
- 28.5dBm Output Power at 1dB Compression
- 22 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 ($T_a = 25\text{ }^\circ\text{C}$, 50 ohm, $V_{dd}=7\text{V}$, $V_{gg}=-5\text{V}$)

| SYMBOL | PARAMETER/TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|-----------------------|--|------|------|------|--------------------|
| F | Operating Frequency Range | 21.2 | | 23.6 | GHz |
| P1dB | Output Power at 1dB Gain Compression | 27 | 28.5 | | dBm |
| G1dB | Gain @1dB gain compression | 18 | 22 | | dB |
| OIMD3 | Output 3 rd Order Intermodulation Distortion @ $\Delta f=10\text{MHz}$, Each Tone Pout 17dBm | | -41 | -38 | dBc |
| Input RL | Input Return Loss | | -10 | | dB |
| Output RL | Output Return Loss | | -15 | -10 | dB |
| I_{dd} | Drain Current | | 1100 | 1400 | mA |
| V_{dd} | Drain Voltage | | 7 | 8 | V |
| V_{gg} | Gate Voltage | | -5 | | V |
| R_{th} | Thermal Resistance (Au-Sn Eutectic Attach) | | 7 | 7.5 | $^\circ\text{C/W}$ |
| T_b | Operating Base Plate Temperature | - 30 | | + 80 | $^\circ\text{C}$ |

MAXIMUM RATINGS AT 25°C

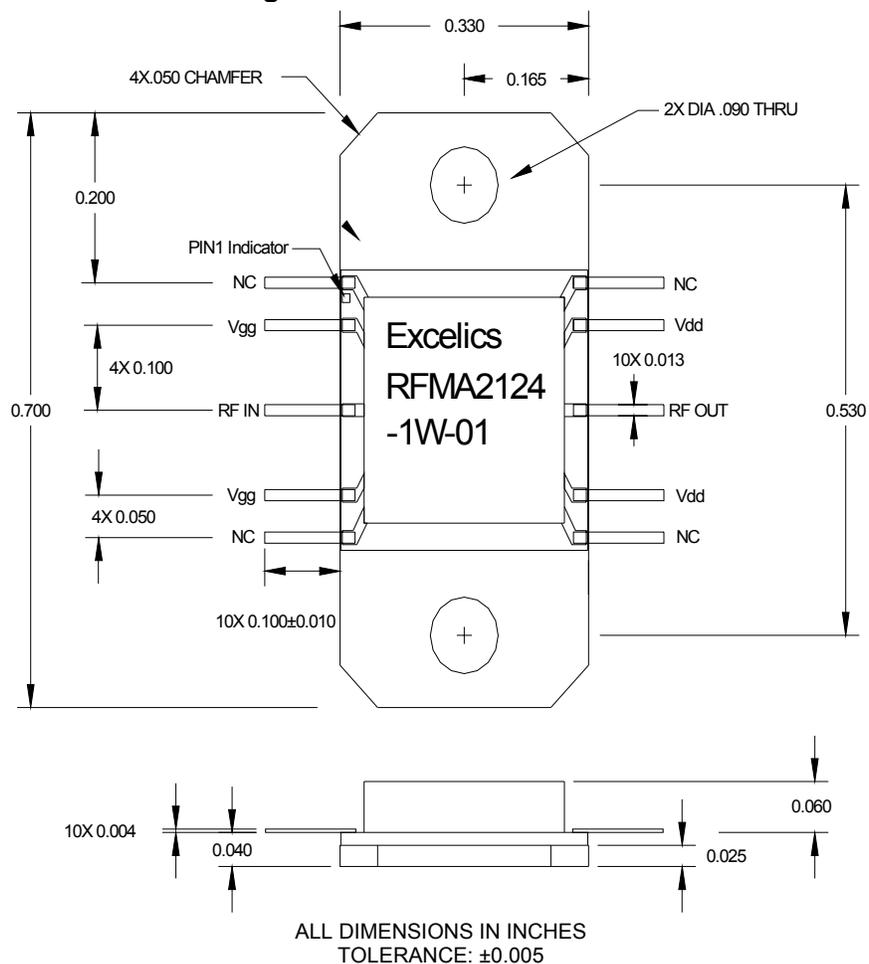
| SYMBOL | CHARACTERISTIC | ABSOLUTE | CONTINUOUS |
|------------------|----------------------|------------------|-------------------|
| V _{dd} | Drain Supply Voltage | 12V | 8V |
| V _{gg} | Gate Supply Voltage | -8V | -3 V |
| I _{dd} | Drain Current | I _{dss} | 1.9A |
| I _{gg} | Gate Current | 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 $V_{dd} \cdot I_{dd} < (T_{CH} - T_{HS}) / R_{TH}$; where T_{HS} = base plate temperature

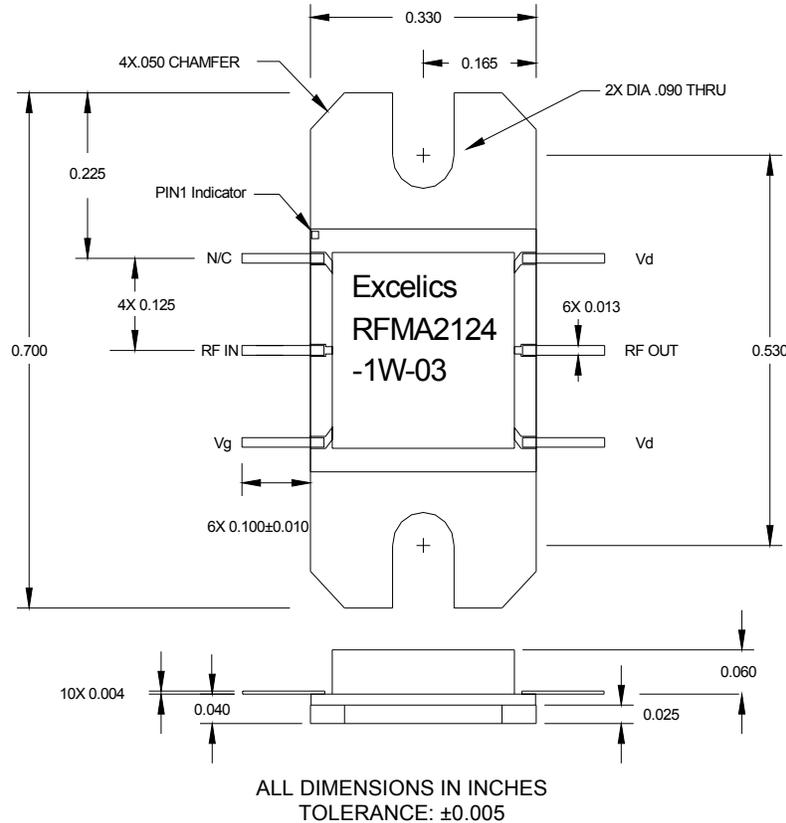
Specifications are subject to change without notice.

01 Package Dimension and Pin Assignment



Specifications are subject to change without notice.

03 Package Dimension and Pin Assignment



Ordering Information

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