

High Efficiency 4W Power Amplifier 2300M to 2400MHz**Features:**

- * High Efficiency: PAE=36.5% @+28dBm
- * High Gain: 35.5 dB
- * Excellent input and output return loss: to 50 Ω system
- * Integrated active bias: temperature compensated
- * Single DC Voltage: +5V
- * Stainless Steel SMA Female Connector
- * High Quality Rogers RO4350 RF PCB
- * ROHS Compliant

General Description:

PA2300M2400M is a high efficiency fully input/output matched power amplifier (PA) with high gain and linearity. The compact 0.938"x2.813"x1.35" (including heatsink and mounting bracket) makes this 4W PA one of smallest in the market. This PA is designed for frequency operating from 2300 to 2400 MHz. The active biasing circuitry is integrated to compensate PA performance over temperature and voltage. The PA has high thermal performance heatsink for optimum operation.

Applications:

- * LTE Applications
- * Wideband A/D System
- * General Purpose Wireless
- * Driver Amplifier for base station
- * SDR & Ham Radio

**Electrical Specifications:**

Item	Parameter	Symbol	Test Condition	Min	Typ.	Max	Units
1	Frequency	f		2300		2400	MHz
1	Small signal gain	S ₂₁	Pin = -30 dBm	34	35.5		GHz
2	Gain @+28 dBm	Gain@+28dBm	Pout =+28 dBm	34	35.5		dB
3	Input Return Loss	S ₁₁	Pin =-20 dBm	11	18		dB
4	Output Return Loss	S ₂₂	Pin =-20 dBm	10	15		dB
5	Reverse isolation	S ₁₂	Pin =-30 dBm		55		dB
6	Saturated output power	P _{SAT}	CW, Pin = 5 dBm	+35.5	+36.5		dB
7	Output Power at 3dB Gain compression	P3dB	CW, Pin = -30 dBm	+35	+36		dBm
8	Power-added efficiency	PAE	CW, Pout = +28 dBm	32	36.5		%
9	Quiescent Current	I _{cc}	No RF signal		70	100	mA

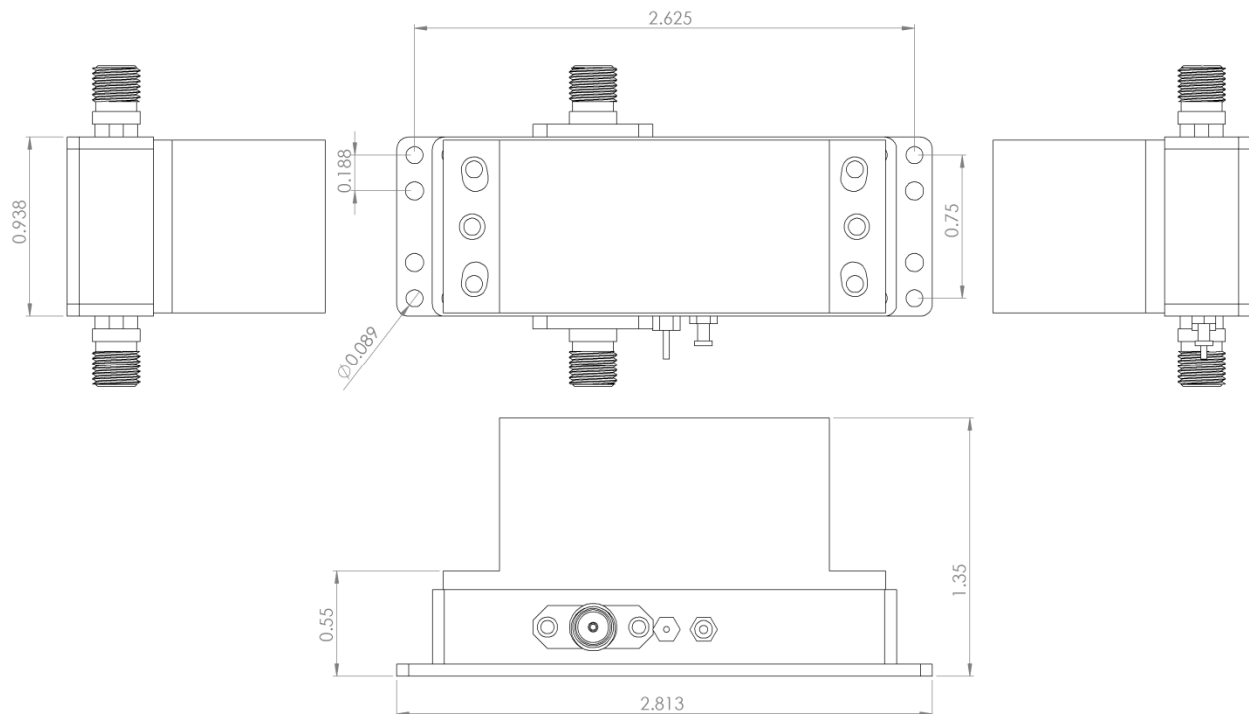
Test Conditions: V_{DD}=+5V, Temp = +25 °C, f=2350 MHz.



Absolute Maximum Ratings

Item	Parameter	Rating	UNITS
1	Max Device Voltage	+5.5	V
2	Max RF input Power	+8	dBm
3	Operating Temperature	-40 to +85	°C
4	Max Storage Temperature	-55 to +125	°C
5	Power dissipation	1.4	W

Outline Drawing (inch)



S-Parameters

