

UPDATED 11/02/2007

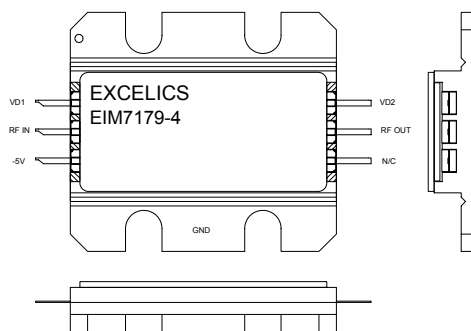
7.1 – 7.9 GHz Multi-Stage Power Amplifier

FEATURES

- 7.1– 7.9GHz Operating Frequency Range
- 35.5dBm Output Power at 1dB Compression
- 33.0 dB Typical Power Gain @1dB gain compression
- -45dBc Typical OIM3@ each tone Pout 23.5dBm
- Non-Hermetic Metal Flange Package

APPLICATIONS

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



Caution! ESD sensitive device.

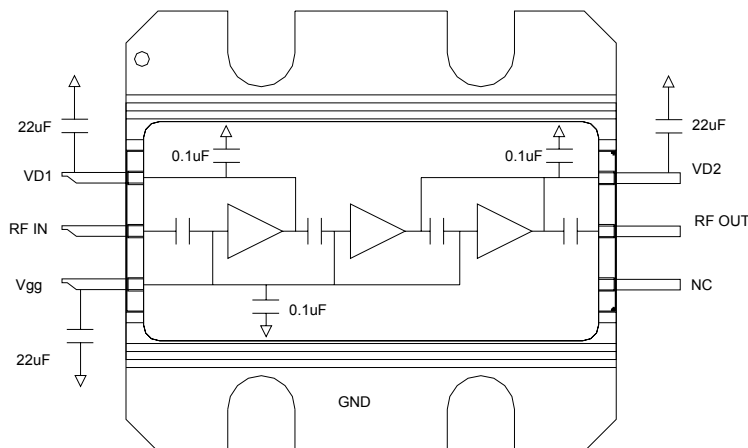
ELECTRICAL CHARACTERISTICS (T_b = 25 °C, 50 ohm, VD1=7V, VD2=10V, V_{gg}=-5V)

SYMBOL	PARAMETER/TEST CONDITIONS	MIN	TYP	MAX	UNITS
F	Operating Frequency Range	7.1		7.9	GHz
P1dB	Output Power at 1dB Gain Compression	34.5	35.5		dBm
G1dB	Gain @1dB gain compression	29	33		dB
ΔGain	Gain Flatness		±1.5		dB
OIMD3	Output 3 rd Order Intermodulation Distortion @Δf=10MHz, Each Tone Pout 23.5dBm	-42	-45		dBc
Input RL	Input Return Loss		-12	-8	dB
Output RL	Output Return Loss		-15	-10	dB
VD1	Drain Supply Voltage 1		7		V
VD2	Drain Supply Voltage 2		10		V
I_{DQ1}	Quiescent Drain Current 1		380		mA
I_{DQ2}	Quiescent Drain Current 2		1800	2000	mA
V_{gg}	Gate Supply Voltage		-5		V
R_{th}	Thermal Resistance		3.4		°C/W
T_b	Operating Base Plate Temperature	- 30		+ 80	°C

Specifications are subject to change without notice.

Application Note

1. The package should be screwed onto a good heat sink and ground
2. Turn on/off sequence is required:
 - to turn on: apply -5V first, then +7V and +10V.
 - to turn off: turn +7V and +10V off first, then turn -5V off
3. Recommended External Bias Circuit and Internal Block Diagram



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