MAAM-008874-PKG003

Amplifier, Driver 17.7—23.6 GHz

Features

- 22 dB Gain
- +/-0.5 dB Gain Flatness per Band
- 30 dBm Output IP3
- 14 dB Typical Return Losses
- 4 mm, 24 Lead QFN Package
- RoHS Compliant
- MSL 1

Description

The MAAM-008874-PKG003 is a driver amplifier covering the 18 and 23 GHz digital radio bands. It may also be used as an LO buffer amplifier. Good gain flatness, excellent return losses, and small package make this amplifier an ideal choice for point-to-point radio applications.

The low-cost RoHS compliant QFN package is compatible with 260°C reflow temperatures and has an MSL 1 rating. The MTTF is greater than 1,000,000 hours over the full operating temperature range of -40 to +85°C at the recommend bias conditions.

Electrical Specifications: $Z_0 = 50\Omega$, Vdd = 6V

Parameter	Symbol	Typical	Units
Bandwidth	f	17.7-23.6	GHz
Gain	G	22	dB
Noise Figure	NF	5	dB
Input Return Loss	IRL	14	dB
Output Return Loss	ORL	14	dB
P1dB Compression Point	P1dB	21	dBm
Third Order Intercept Point	IP3	30	dBm
Small Signal Current	I _{DQ}	140	mA

Ordering Information

Part Number	Package	
MAAM-008874-PKG003	4 mm, 24 Lead QFN	
MAAM-008874-SMB003	Evaluation Sample Board	
MAAM-008874-DIE000	Bare Die	

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Product Drawing



Absolute Maximum Ratings

Parameter	Absolute Maximum	
Storage Temperature	-55°C to +150°C	
Case Temperature	-40°C to +85°C	
Junction Temperature	+140°C	
Thermal Resistance	62.5 °C/W	
Drain Voltage	8 V	
Input Power	+10 dBm	
ESD Level (HBM)	Class 0	

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- Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298 Visit www.macom.com for additional data sheets and product information.

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Outline Drawing



Pin Designations



Pin	Function	Pin	Function
1	NC	13	NC
2	NC	14	NC
3	NC	15	RF Out
4	RF In	16	NC
5	NC	17	NC
6	NC	18	NC
7	NC	19	NC
8	NC	20	Vdd
9	NC	21	NC
10	NC	22	Vdd
11	NC	23	NC
12	NC	24	Vdd

Exposed pad on bottom is ground

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