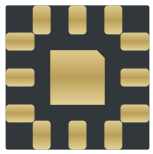
100–6000 MHz Packaged RF Gain Amplifier — P1dB 20 dBm (typical)

LCI-AMP-100-6000-P1DB20T · 100–6000 MHz · Packaged RF Gain Amplifier.



The RF table specifies: Small-signal gain 17 dB (typical); Noise figure 1.2 dB (typical); Output 1 dB compression power 20 dBm (typical). RF test conditions: TA = +25 °C; VD = +5 V; Pin = -20 dBm.

QFN12 2 × 2 mm

The RF ports require external DC-blocking capacitors.

The RF output shares its terminal with the supply; add an RF choke and filtering before the output DC-blocking capacitor.

T_peak ≤ 260 °C

RFin: 2

RFout / VDD: 8

GND: 1, 7

NC: 3, 4, 5, 6, 9, 10, 11, 12

Package outline dimensions: 2 × 2 × 0.75 mm.

RF characteristics

TA = +25 °C; VD = +5 V; Pin = -20 dBm

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	100	-	6000	MHz
Small-signal gain	Gain	-	17	-	dB
Noise figure	NF	-	1.2	-	dB
Output 1 dB compression power	P_1	-	20	-	dBm

DC bias and current

TA = +25 °C; VD = +5 V; Pin = -20 dBm

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Operating voltage	-	-	-	-	5	V
Quiescent current	ID	-	0.045	-	TA = +25 °C; VD = +5 V; Pin = -20 dBm	A

Absolute limits

Absolute limits; these are not normal operating targets.

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum operating voltage	-	-	-	6	V
Maximum input power	-	-	-	15	dBm
Operating temperature	-	-55	-	85	°C
Storage temperature	-	-65	-	150	°C

Package outline dimensions

Parameter	Value	Unit
Package outline dimensions	2 × 2 × 0.75	mm

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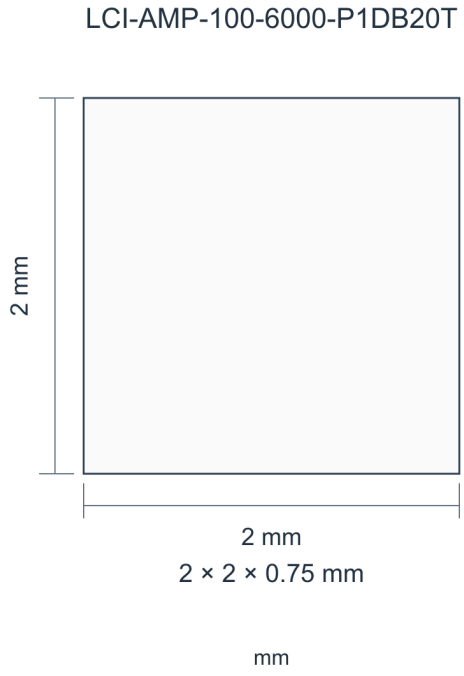
Integration notes

QFN12 2 × 2 mm The RF ports require external DC-blocking capacitors. The RF output shares its terminal with the supply; add an RF choke and filtering before the output DC-blocking capacitor. T_peak ≤ 260 °C RFin: 2 RFout / VDD: 8 GND: 1, 7 NC: 3, 4, 5, 6, 9, 10, 11, 12

Mechanical Outline

Reference drawing showing selected dimensions in mm. Use the complete installation drawing for mounting.



Document notice

Specifications are subject to revision. Before design release, confirm the current document revision and product-specific requirements with LCRF. The approved quotation and order documentation define the supplied configuration.