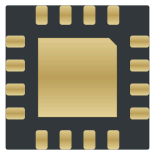
5000–20000 MHz Packaged RF Gain Amplifier — P1dB 19.5 dBm (typical)

LCI-AMP-5000-20000-P1DB19p5T · 5000–20000 MHz · Packaged
RF Gain Amplifier.



The RF table specifies: Small-signal gain 20 dB (typical); Noise figure 6 dB (typical); Output 1 dB compression power 19.5 dBm (typical). RF test conditions: TA = +25 °C; VD = +5 V; Pin = -20 dBm.

QFN16 3 × 3 mm

The RF ports include DC-blocking capacitors.

The supply port requires an external filtering and bias network.

T_peak ≤ 260 °C

RFin: 3

RFout: 10

VD: 13

GND: 2, 4, 9, 11

NC: 1, 5, 6, 7, 8, 12, 14, 15, 16

Package outline dimensions: 3 × 3 × 0.75 mm.

RF characteristics

TA = +25 °C; VD = +5 V; Pin = -20 dBm

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	5000	-	20000	MHz
Small-signal gain	Gain	-	20	-	dB
Noise figure	NF	-	6	-	dB
Output 1 dB compression power	P_1	-	19.5	-	dBm
Saturated output power	P_Sat	-	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	-	0.12	-	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	-	-	-	18	dBm
Operating temperature	-	-55	-	85	°C
Storage temperature	-	-65	-	150	°C

Package outline dimensions

Parameter	Value	Unit
Package outline dimensions	3 × 3 × 0.75	mm

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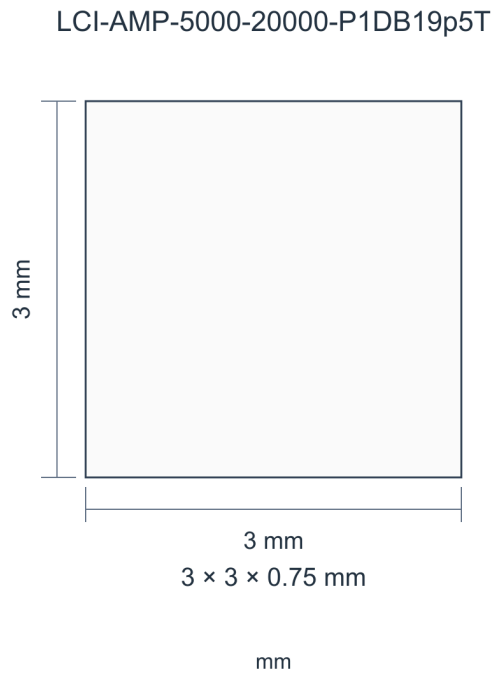
Integration notes

QFN16 3 × 3 mm The RF ports include DC-blocking capacitors. The supply port requires an external filtering and bias network. T_peak ≤ 260 °C RFin: 3 RFout: 10 VD: 13 GND: 2, 4, 9, 11 NC: 1, 5, 6, 7, 8, 12, 14, 15, 16

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.