8000–12000 MHz QFN low-noise amplifier IC

LCI-LNA-8000-12000-NF0p9T-SG28T — 8000–12000 MHz QFN low-noise amplifier IC.

Noise figure: 0.9 dB (typical); Small-signal gain: 28 dB (typical); Output 1 dB compression power: 10 dBm (typical). Package dimensions: 2.5 × 2.5 × 0.75 mm.



RF characteristics

TA = +25 °C; Vd = +5 V; Pin = -35 dBm

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	-	8000	-	12000	MHz
Output 1 dB compression power	-	-	10	-	dBm
Small-signal gain	-	-	28	-	dB
Noise figure	-	-	0.9	-	dB

DC bias and current

TA = +25 °C; Vd = +5 V; Pin = -35 dBm

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Operating voltage	-	-	-	-	5	V
Quiescent current	-	-	0.028	-	-	A

Electrical characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Package	-	-	-	-	QFN 2.5 × 2.5	mm
Terminal count	-	-	-	-	16	-
RF input pin	-	-	-	-	3	-
RF output pin	-	-	-	-	10	-
Supply pin	-	-	-	-	14 (Vd = +5 V)	-
Ground pins	-	-	-	-	2, 4, 9, 11	-
Unconnected pins	-	-	-	-	1, 5, 6, 7, 8, 12, 13, 15, 16	-

Absolute limits

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum operating voltage	-	-	-	6	V
Maximum input power	-	-	-	15	dBm
Maximum reflow peak temperature	-	-	-	260	°C

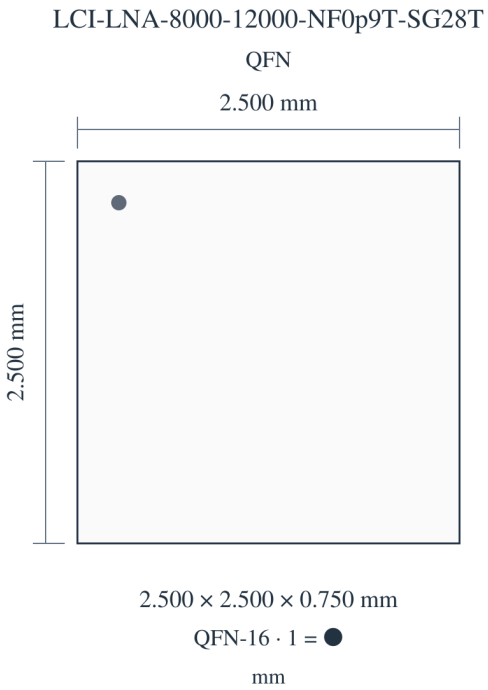
Environmental specifications

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Storage temperature	-	-65	-	150	°C
Operating temperature	-	-55	-	85	°C

Package dimensions

Parameter	Value	Unit
Package dimensions	2.5 × 2.5 × 0.75	mm

Package outline showing selected dimensions in mm.



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Die integration and bias sequencing

Input and output DC-blocking capacitors are integrated.

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.