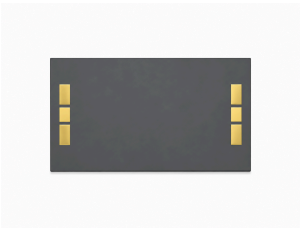
8000–12000 MHz GaAs PIN RF Limiter Die

LCI-LIM-8000-12000-PIP48MAX is a GaAs PIN limiter bare die for 8000–12000 MHz, designed to limit RF power ahead of power-sensitive components.



Insertion loss: 0.8 dB (typical); Limiting level: 16 dBm (typical) / 17 dBm (maximum); Maximum pulsed input power: 48 dBm (maximum) (τ = 300 µs; D = 30%); Maximum input power: 46 dBm (maximum) (CW). Die dimensions: 1.85 × 1.1 × 0.1 mm.

RF characteristics

TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Operating frequency	-	8000	-	12000	-	MHz
Insertion loss	-	-	0.8	-	-	dB
Input VSWR	-	-	1.5	-	-	-
Output VSWR	-	-	1.5	-	-	-
Limiting level	-	-	16	17	-	dBm
Maximum pulsed input power	-	-	-	48	τ = 300 µs; D = 30%	dBm
Maximum input power	-	-	-	46	CW	dBm

Environmental specifications

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Storage temperature	-	-65	-	150	°C
Operating temperature	-	-55	-	125	°C

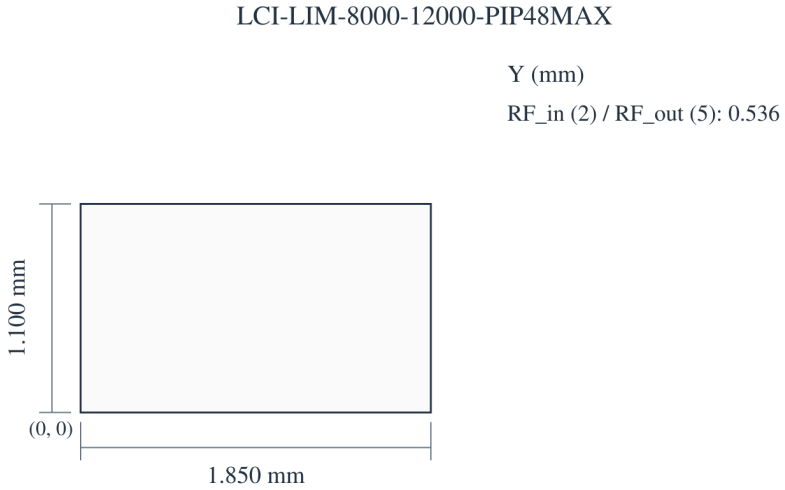
Bond-pad assignments

Pins	Symbol	Function	Notes
2	RF_in	RF input	50 Ω
5	RF_out	RF output	50 Ω
1, 3, 4, 6	GND	Ground pad for probe testing	-

Die dimensions

Parameter	Value	Unit
Die dimensions	1.85 × 1.1 × 0.1	mm

Partial dimensional reference in mm. Fabrication and wire bonding require complete drawings.



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Die integration and bias sequencing

RFout includes an integrated DC-blocking capacitor.

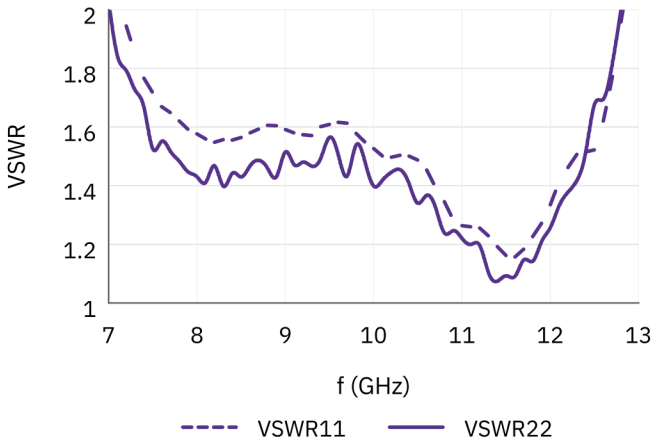
Performance curves

Each performance plot applies to its stated operating conditions.

Input/output matching; Insertion loss.

Figure notes: TA=+25°C. Readings are approximate.

VSWR



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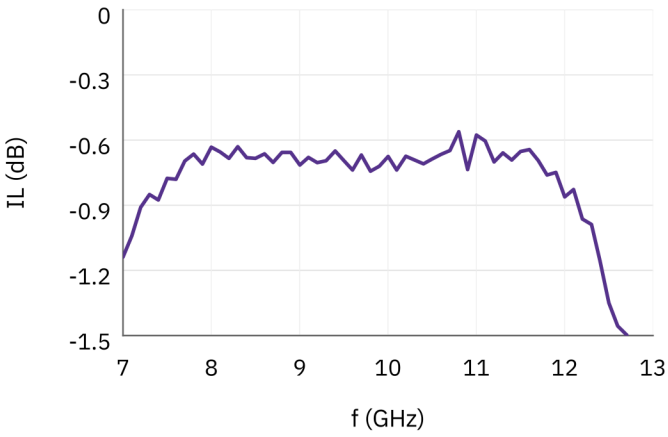

Document notice

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.