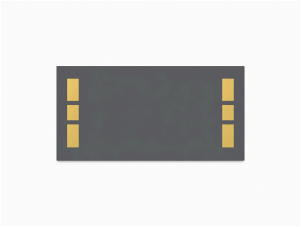
6000–18000 MHz GaAs PIN RF Limiter Die

LCI-LIM-6000-18000-PIP42MAX is a GaAs PIN limiter bare die for 6000–18000 MHz, designed to limit RF power ahead of power-sensitive components.



Insertion loss: 0.8 dB (typical); Limiting level: 16.5 dBm (typical) / 17.5 dBm (maximum); Maximum pulsed input power: 42 dBm (maximum) (τ = 300 µs; D = 30%). Die dimensions: 1.6 × 0.8 × 0.1 mm.

RF characteristics

TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Operating frequency	-	6000	-	18000	-	MHz
Insertion loss	-	-	0.8	-	-	dB
Input VSWR	-	-	1.6	-	-	-
Output VSWR	-	-	1.6	-	-	-
Limiting level	-	-	16.5	17.5	-	dBm
Maximum pulsed input power	-	-	-	42	τ = 300 µs; D = 30%	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	1.6 × 0.8 × 0.1	mm

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

LCI-LIM-6000-18000-PIP42MAX

Y (mm)
RF_in (2) / RF_out (5): 0.400



1.600 × 0.800 × 0.100 mm
X, Y: ±0.100 mm
X → · Y ↑ · X, Y: mm

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Die integration and bias sequencing

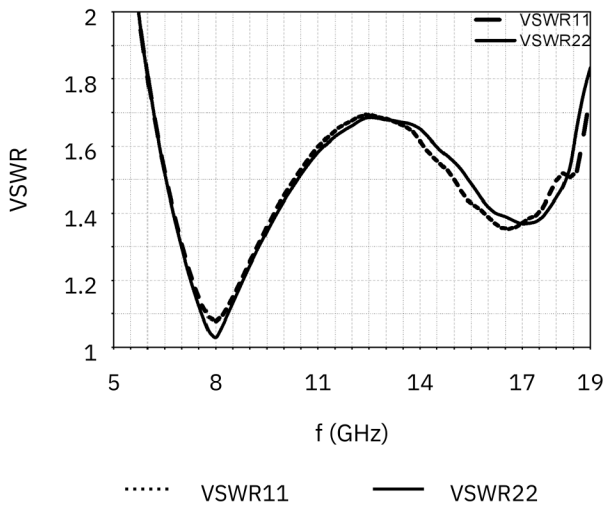
Input and output DC-blocking capacitors are integrated.

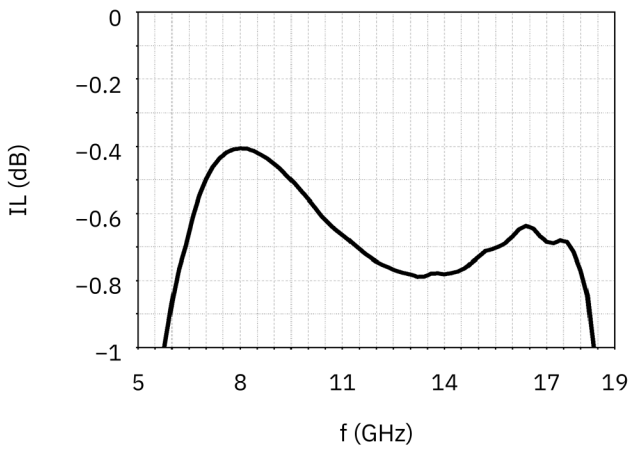
Performance curves

Each performance plot applies to its stated operating conditions.

Input/output matching; Insertion loss.

Figure notes: TA=+25°C. The frequency axis spans 5–19 GHz.





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.