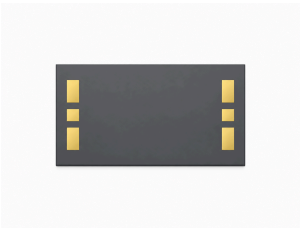
# 10000–18000 MHz GaAs PIN RF Limiter Die

LCI-LIM-10000-18000-PIP45MAX is a GaAs PIN limiter bare die for 10000–18000 MHz, designed to limit RF power ahead of power-sensitive components.



Insertion loss: 0.8 dB (typical); Limiting level: 17 dBm (typical) / 18 dBm (maximum); Maximum pulsed input power: 45 dBm (maximum) (τ = 200 µs; D = 30%). Die dimensions: 1.6 × 0.85 × 0.1 mm.

## RF characteristics

TA = +25 °C

| Parameter | Symbol | Minimum | Typical | Maximum | Value | Unit |
|---|---|---|---|---|---|---|
| Operating frequency | - | 10000 | - | 18000 | - | MHz |
| Insertion loss | - | - | 0.8 | - | - | dB |
| Input VSWR | - | - | 1.6 | 1.8 | - | - |
| Output VSWR | - | - | 1.6 | 1.8 | - | - |
| Limiting level | - | - | 17 | 18 | - | dBm |
| Maximum pulsed input power | - | - | - | 45 | τ = 200 µs; D = 30% | dBm |

## Environmental specifications

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

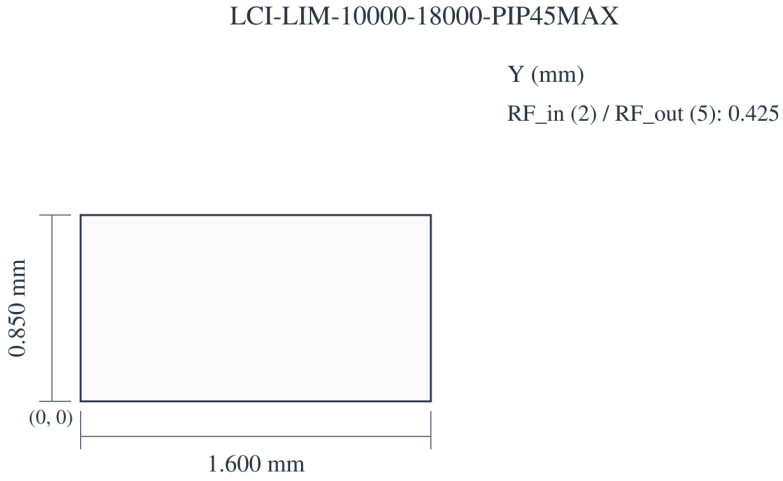
## Bond-pad assignments

| 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 × 0.85 × 0.1 | mm |

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




**Current publication record** · 1.7 · 2026-11-12. Product description or editorial content updated. Replaces revision 1.6.

## Die integration and bias sequencing

Input and output DC-blocking capacitors are integrated.

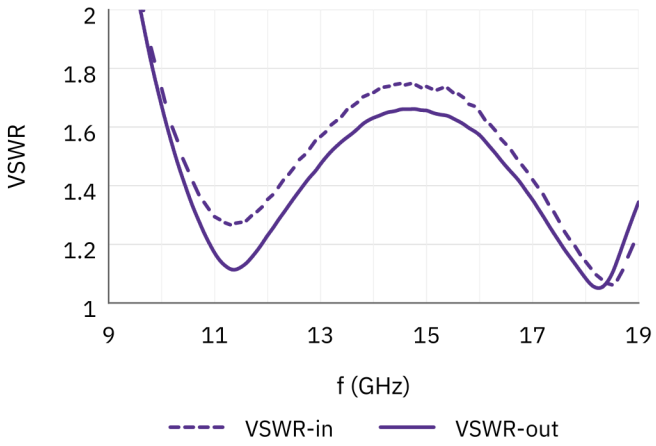
## Performance curves

Each performance plot applies to its stated operating conditions.

**Input/output matching; Insertion loss.**

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

VSWR

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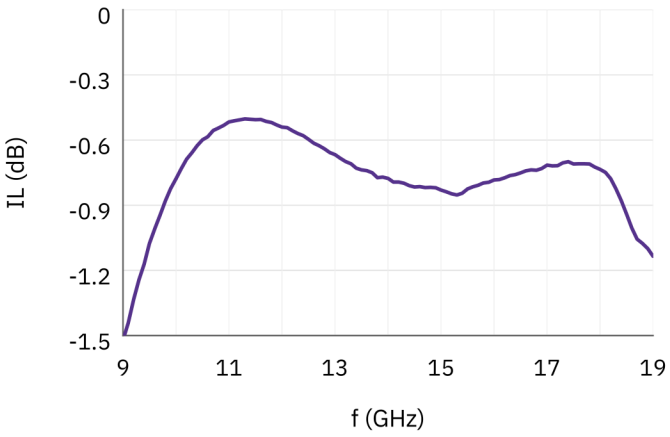


**Document notice**

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.