# Highpass Filter · 900–6000 MHz

Stopband Rejection ≥40 dB (DC–650 MHz). Body Dimensions 10 ± 0.2 × 7.5 ± 0.2 × 4 ± 0.3 mm.

## RF Performance

| Parameter | Value |
|---|---|
| Passband | 900–6000 MHz |
| Passband Insertion Loss [1] | ≤2 dB |
| Stopband Rejection [2] | ≥40 dB |
| VSWR [1] | ≤1.8:1 |

[1] 900–6000 MHz
[2] DC–650 MHz

## Design Ratings Design rating

| Parameter | Value |
|---|---|
| Operating Temperature | –40...+70 °C |
| Storage Temperature | –55...+85 °C |
| Power Handling | 1 W |

## Typical measured response

| Frequency (MHz) | S11 VSWR | S22 VSWR | S12 loss (dB) | S12 rejection (dB) | S12 delay (ns) |
|---|---|---|---|---|---|
| 10 | 92692.81 | 1760.72 | -81.55 | -81.55 | 5.29 |
| 140 | 2756.14 | 4876.68 | -48.09 | -48.09 | 3.21 |
| 290 | 362.47 | 581.95 | -47.62 | -47.62 | 0.33 |
| 430 | 116.94 | 157.04 | -64.44 | -64.44 | -1.28 |
| 570 | 48.47 | 63.92 | -52.41 | -52.41 | -1.78 |
| 710 | 20.76 | 25 | -48.87 | -48.87 | -0.29 |
| 860 | 1.32 | 1.36 | -1.64 | -1.64 | 0.8 |
| 1000 | 1.07 | 1.06 | -0.82 | -0.82 | 1.85 |
| 1140 | 1.24 | 1.26 | -0.65 | -0.65 | 1.05 |
| 1290 | 1.25 | 1.26 | -0.57 | -0.57 | 0.71 |
| 1430 | 1.22 | 1.22 | -0.51 | -0.51 | 0.56 |
| 1570 | 1.18 | 1.17 | -0.47 | -0.47 | 0.48 |
| 1710 | 1.15 | 1.15 | -0.45 | -0.45 | 0.42 |

## Typical measured response

| Frequency (MHz) | S11 VSWR | S22 VSWR | S12 loss (dB) | S12 rejection (dB) | S12 delay (ns) |
|---|---|---|---|---|---|
| 1860 | 1.11 | 1.13 | -0.43 | -0.43 | 0.37 |
| 2000 | 1.08 | 1.13 | -0.41 | -0.41 | 0.35 |

## Mechanical Specifications

| Parameter | Value |
|---|---|
| Body Dimensions | 10 ±0.2 × 7.5 ±0.2 × 4 ±0.3 mm |
| RF Interface | Surface Mount |
| Quality Grade | Industrial |
| Package RF Terminal Inner-Edge Span | 8.8 mm |
| PCB RF Land Inner-Edge Span | 8.6 mm |
| Opposing Clearance Inner-Edge Span | 7.2 mm |
| Clearance Opening Along the Short Edge | 2.6 mm |
| Package RF Terminal Width | 1.0 mm |
| PCB RF Land Width Along the Short Edge | 1.2 mm |
| Package RF Terminal Notch Diameter | Ø0.6 mm |

## Mounting and PCB Layout

In the underside view, the two interchangeable RF terminals are centered on opposite short edges. The hatched underside is GND. Route a 50 Ω feed line to each centered PCB land and keep it clear of the ground copper. Provide ground vias around and beneath the footprint. The recommended PCB layout specifies a relative permittivity of 3.48 and a dielectric thickness of 0.254 mm. A separate cavity is recommended. For effective grounding, keep the sides and the top and bottom of the package in close contact with the metal assembly housing where practical. Poor grounding degrades stopband rejection. The filter supports reflow soldering at 220 °C. Clean the surface without immersing the filter in cleaning liquid.

**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.