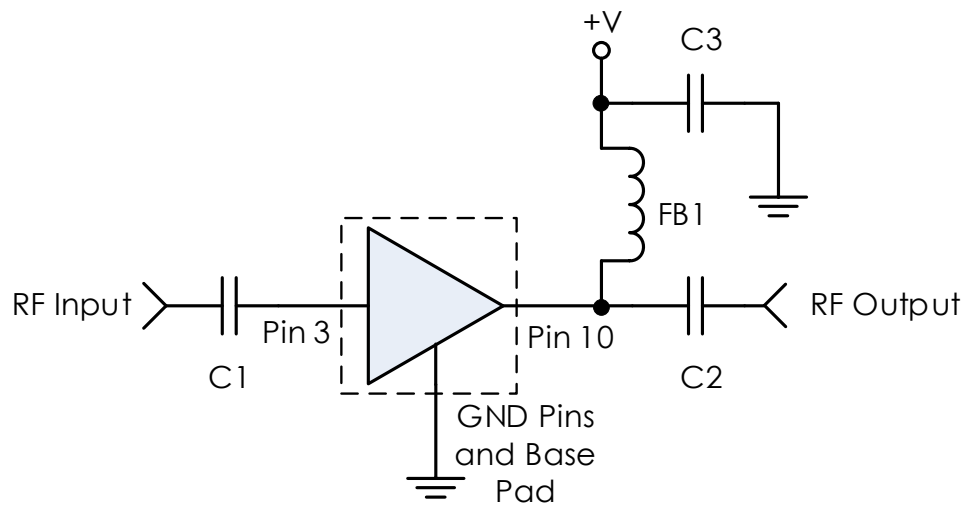


## APPLICATION NOTE

### 3mm Amplifier -VDD on RF Out

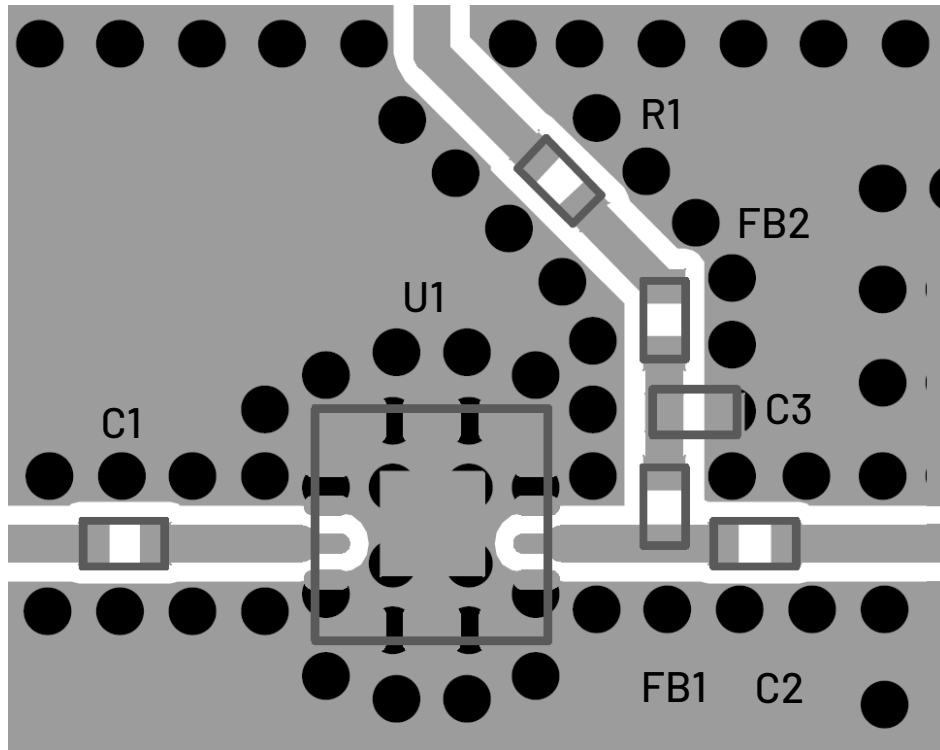
## TYPICAL APPLICATION



## RECOMMENDED COMPONENT LIST (OR EQUIVALENT)

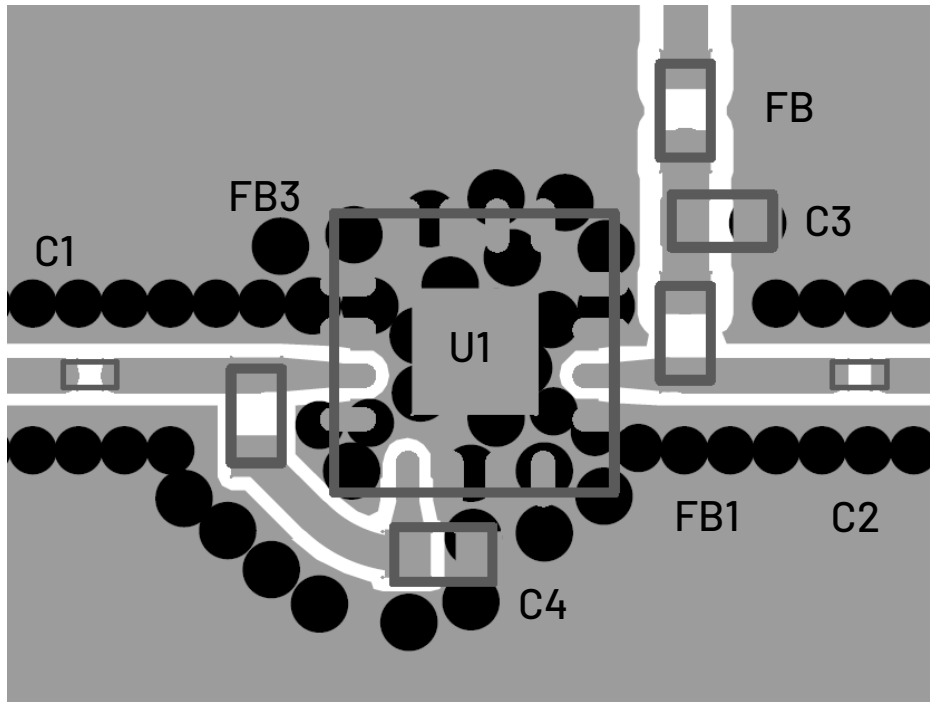
Part	Value	Part Number	Manufacturer
C1, C2	0.1 uF	0402BB104KW160	Passives Plus
C3	0.1 uF	GRM155R71C104KA88	Murata
FB1	-	MMZ1005A222E	TDK

## RECOMMENDED LAYOUT

**Notes:**

1. FB2 = FB1 = MMZ1005A222E for symmetry.
2. R1 = 0 ohms.
3. Recommended input trace is grounded coplanar waveguide, 50 ohms.
4. IC and RF input / output should be via fenced.
5. Vias should be placed under IC and GND pads.

## RECOMMENDED LAYOUT - Mercury 3mm Amp Drop In Layout



## Notes:

1. FB3 = FB2 = FB1 = MMZ1005A222E for symmetry.
2. C4 = C3 = GRM155R71C104KA88
3. R1 = 0 ohms. (not shown, keep in same place as previous layout)
4. Recommended input trace is grounded coplanar waveguide, 50 ohms.
5. IC and RF input / output should be via fenced.
6. Vias should be placed under IC and GND pads.
7. Adding FB3 and C4 connected to pin 5 of the amplifier allows for maximum compatibility with Mercury 3mm amplifiers. Using this footprint lets one swap different amplifiers should more or less gain, linearity, or NF be needed.

## REVISION HISTORY

Date	Revision	Notes
June 25, 2020	1	Initial release.
August 13, 2024	2	Changed to Mercury branding. No content changes.

For more information, contact: [MMICsupport@mrcy.com](mailto:MMICsupport@mrcy.com)

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