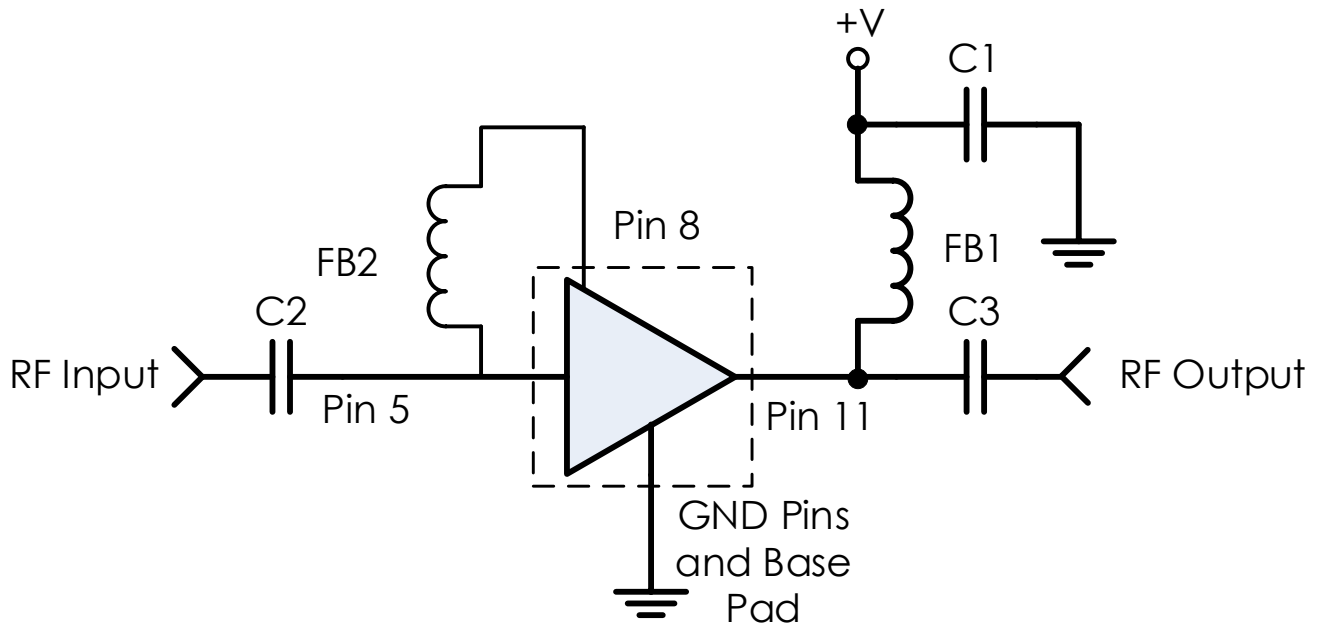


### Typical Application



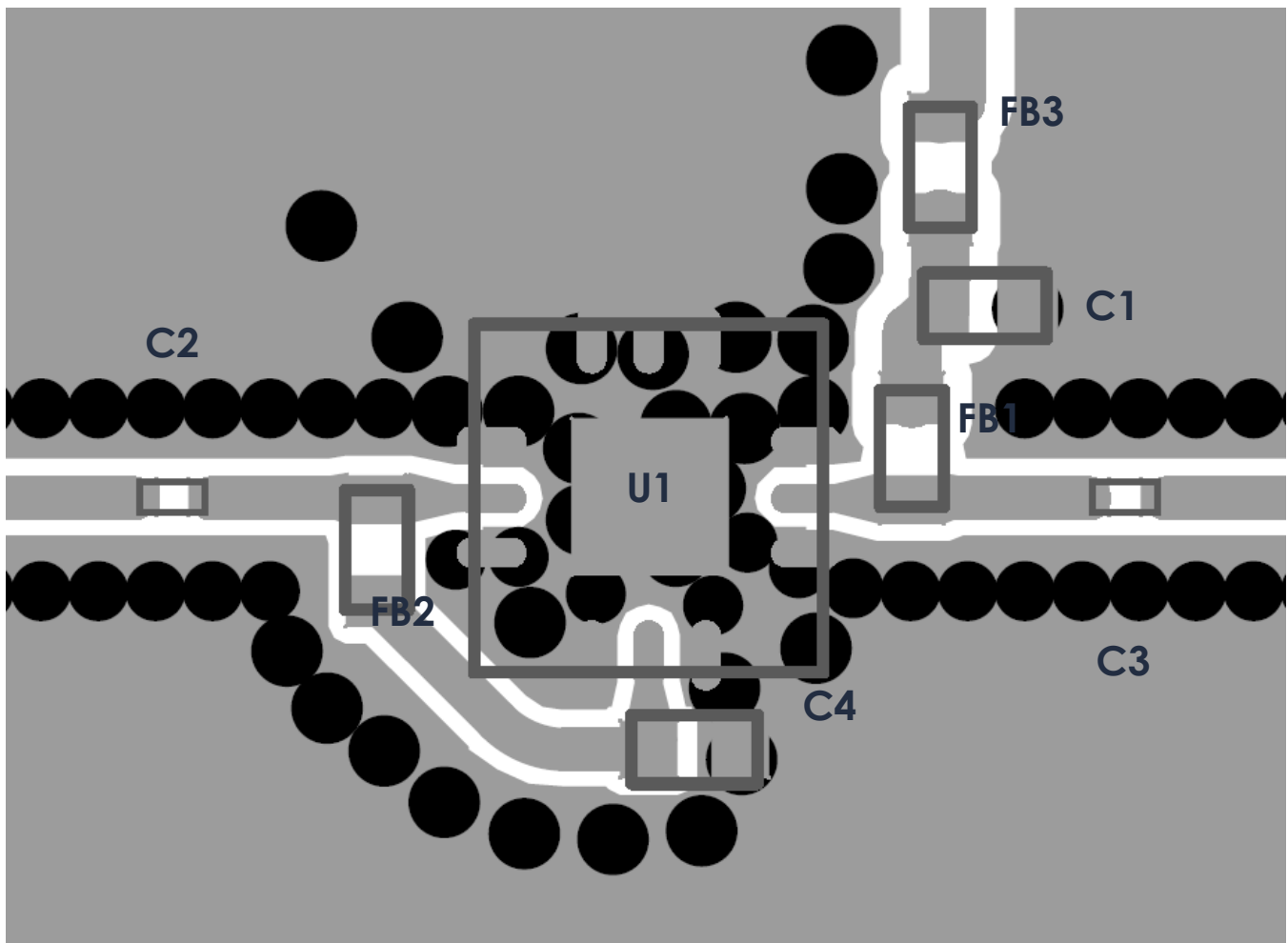
### Recommended Component List (or equivalent):

Part	Value	Part Number	Manufacturer
C1	0.1 $\mu$ F	GRM155R71C104KA88	Murata
C2, C3	0.1 $\mu$ F	0201BB104KW160	Passives Plus
FB1, FB2	-	MMZ1005A222E	TDK

### Notes

1. Application shown above is the minimum needed for an operational circuit.
2. The circuit in the recommended layout is representative of the s-parameters as available on the website.
  - a. The recommended layout adds extra components to increase power line isolation and improve performance vs frequency.
3. To choose the best component for FB2, Atlanta Micro recommends the following:
  - a. First, determine your desired frequency range of operation.
  - b. Next, design your output bias tee (FB1/C1 + any other components) for your desired power supply isolation and chosen frequency range.
  - c. The component used for FB2 should then be component(s) as used in your bias tee that connect to the main RF output (pin 11) line only.
    - i. This does not need to be the whole bias tee design.
    - ii. In the example above, FB2 = FB1.

### Recommended Layout



#### Notes:

1. FB3 = FB1 = MMZ1005A222E for symmetry.
2. C4 = C1 = GRM155R71C104KA88. C4 recommended for better performance across frequency.
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.
6. FBx and Cx may be 0201 components to minimize space used. It is not recommended to use components larger than 0402 due to extra parasitic inductance/capacitance of the larger component sizes.

# 3mm 12 Lead FB Amplifier Application Note

VDD on RF Out



## Revision History

Date	Revision Number	Notes
January 21, 2021	1	Initial Release