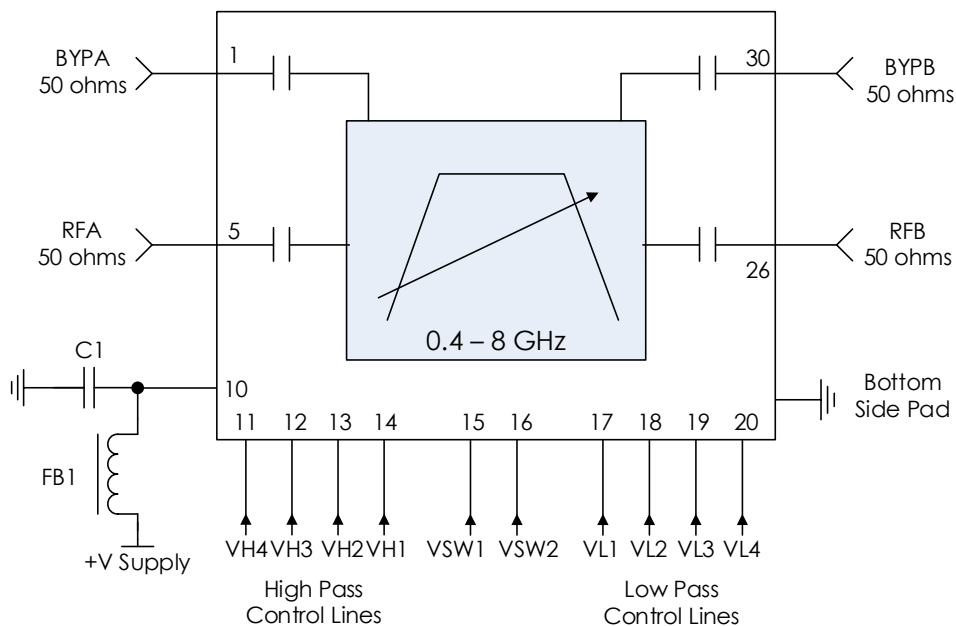


RECOMMENDED APPLICATION



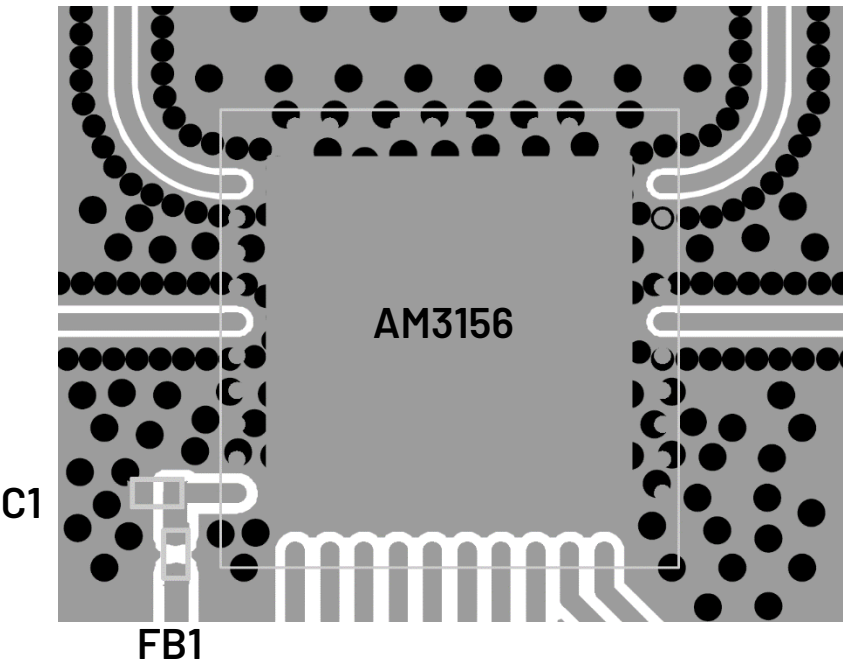
RECOMMENDED COMPONENT LIST (OR EQUIVALENT)

Part	Value	Part Number	Manufacturer
C1	0.1 uF	C1005X7R1H104K050BB	TDK
FB1	-	MMZ1005A222E	TDK

Notes:

- VDD and Control Lines filtered internally providing high frequency isolation.
 - It is recommended to add C1 and FB1 for further power line clean up.
 - No RC filtering required on pins 11 through 20. Switching and tuning speed reported in "Timing characteristics" section of AM3156 datasheet are inclusive of these internal filters.
- RFA, RFB, BYPA, and BYPB are AC coupled, no external DC blocking capacitors required.
- If top layer dielectric is < 6 mils then ground cutouts should be added under pins 1, 5, 26, and 30 to minimize parasitic capacitance. A cutout of 0.6mm x 1mm is recommended.

RECOMMENDED LAYOUT



Notes:

- 1. Recommended input/output/bypass trace is grounded coplanar waveguide, 50 ohms.
- 2. IC and RF inputs / outputs should be via fenced.
- 3. Vias should be placed under IC and GND pads (not all vias shown above).
- 4. Vias shown are 10mil hole size with 20mil pad.
- 5. BYPA and BYPB can be routed in any angle between 90°-180° and 0°-90° respectively.
- 6. No filtering needed on control lines as they are internally filtered.
- 7. No DC blocks on RF I/O are required as they are internally blocked.

REVISION HISTORY

Date	Revision	Notes
June 11, 2021	1	Initial release
August 1, 2024	2	Changed to Mercury branding. No content changes.

For more information, contact: MMICsupport@mrchy.com

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