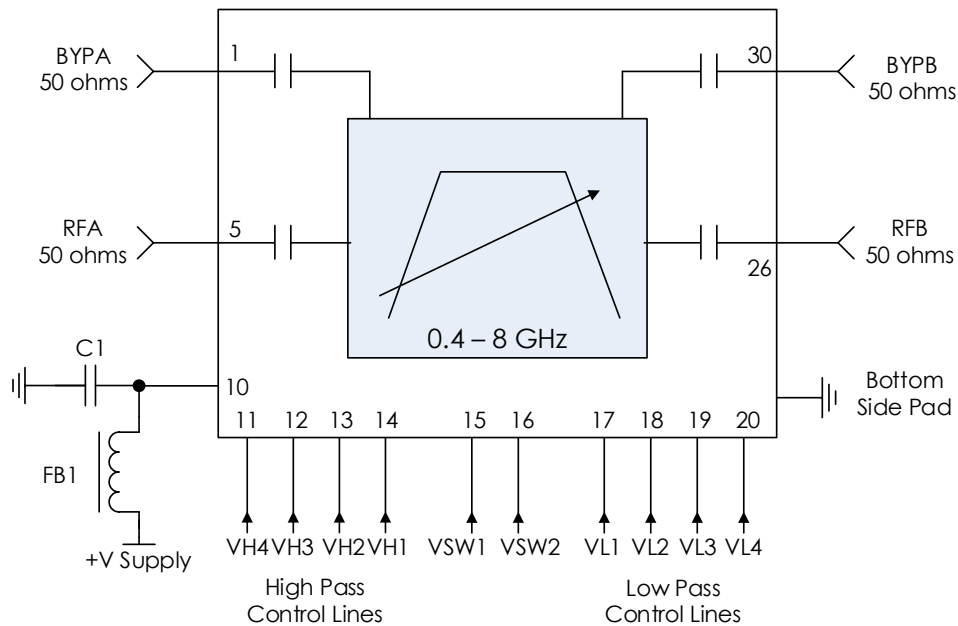


AM3156 Application Note

Digitally Tunable 0.4 MHz to 8 GHz Band Pass

Typical Application



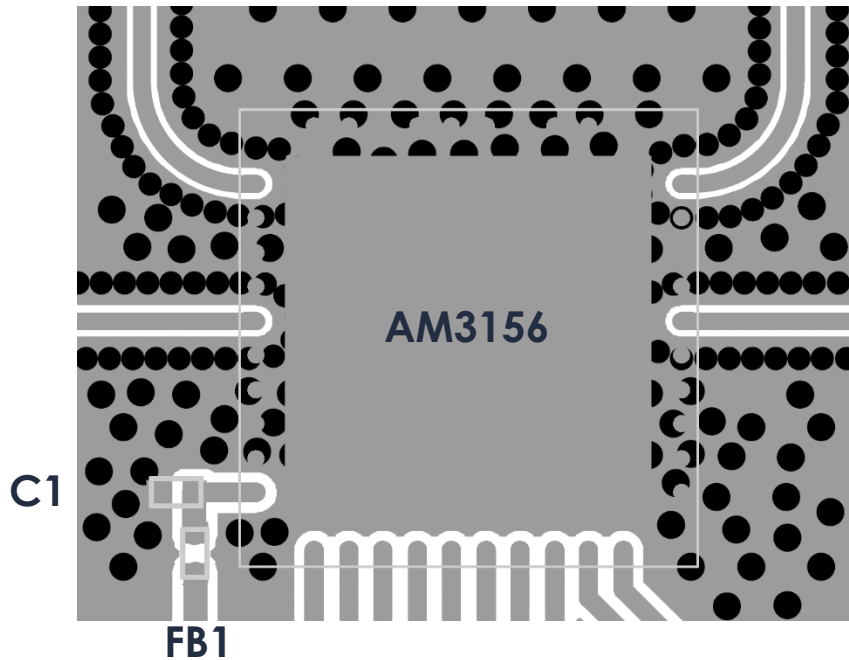
Recommended Component List (or equivalent):

Part	Value	Part Number	Manufacturer
C1	0.1 μ F	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 Number	Notes
June 11, 2021	1	Initial Release