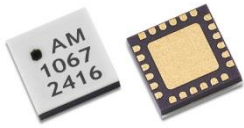


AM1067 - Amplifier

5 GHz to 20 GHz Bypassable

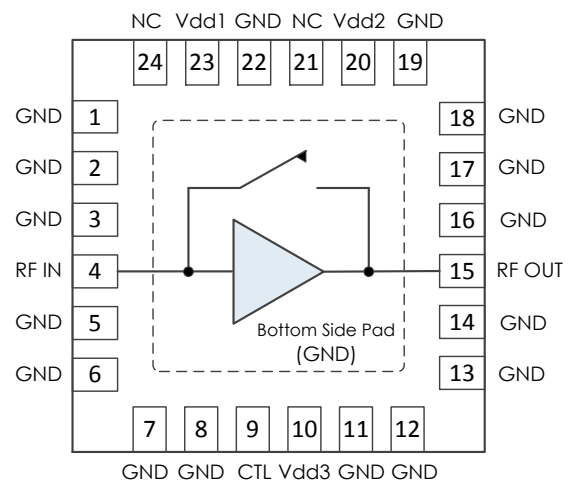


The AM1067 is a high dynamic range bypassable amplifier covering the 5 GHz to 20 GHz frequency range. The device provides high gain and low bypass insertion loss. Packaged in a 4mm QFN with internal 50Ω matching and requiring a single positive control voltage, the AM1067 represents a dramatic size reduction over a discrete implementation of a bypassable amplifier.

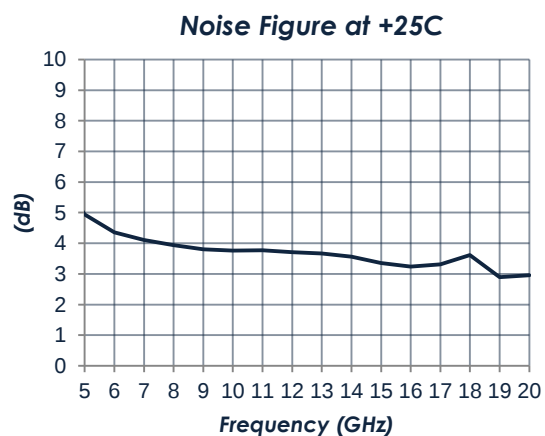
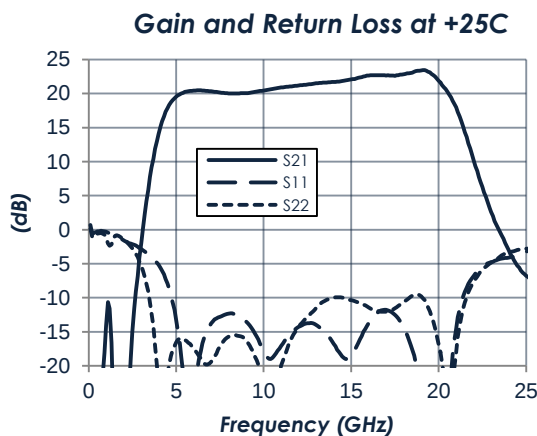
Features

- 21 dB Gain
- 3.5 dB Noise Figure
- +25 dBm OIP3
- +15 dBm P1dB
- 2 dB Bypass Insertion Loss
- +3.3V, 96/1 mA (Gain/Bypass)
- +3.3V Logic
- 4mm QFN Package
- Unconditionally Stable

Functional Diagram



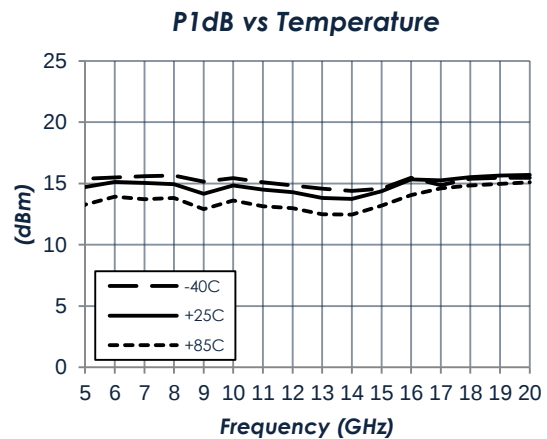
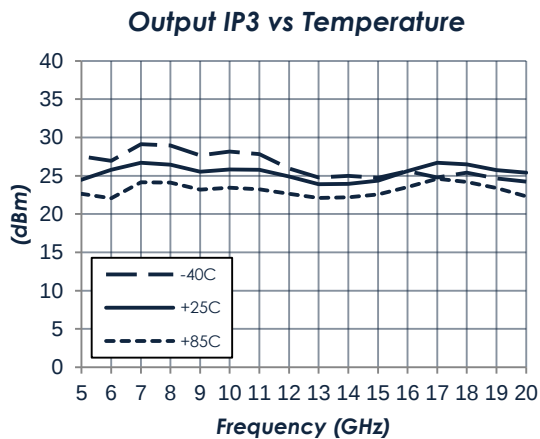
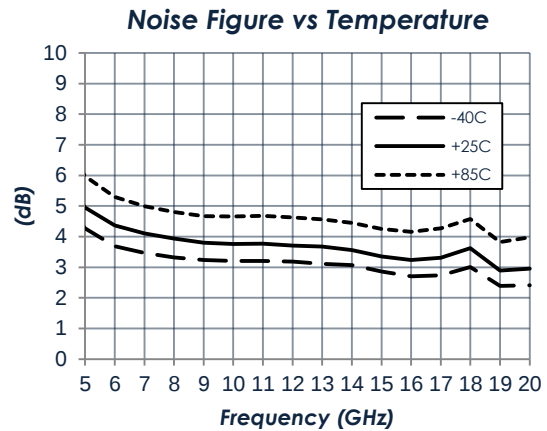
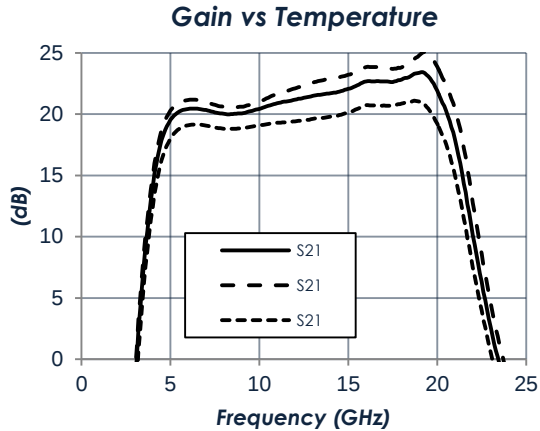
Performance (Gain Mode at 3.3V, 96 mA)



AM1067 - Amplifier

5 GHz to 20 GHz Bypassable

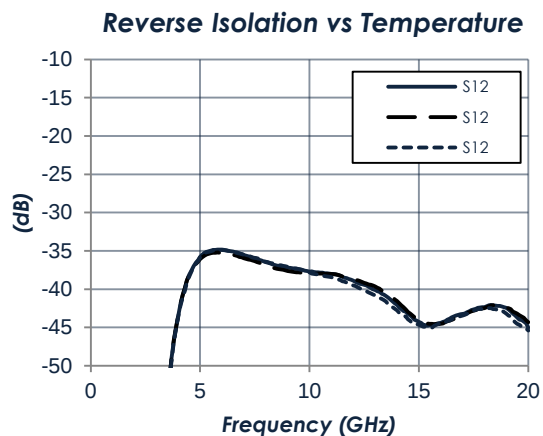
Performance (Gain Mode at 3.3V, 96 mA, continued)



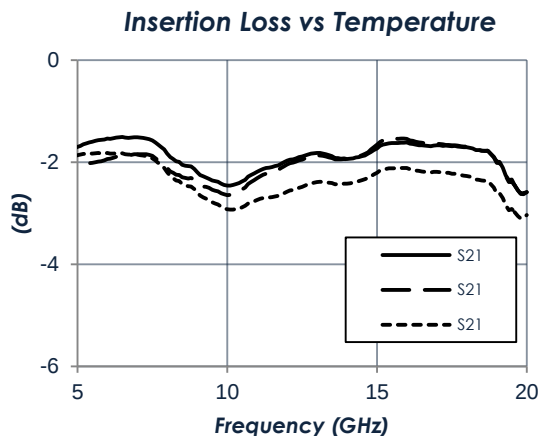
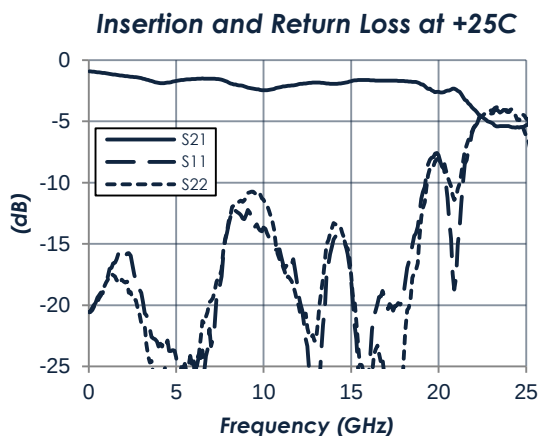
AM1067 - Amplifier

5 GHz to 20 GHz Bypassable

Performance (Gain Mode at 3.3V, 96 mA, continued)



Performance (Bypass Mode at 3.3V, 1 mA)



AM1067 - Amplifier

5 GHz to 20 GHz Bypassable

Additional Specifications (T=25 °C unless otherwise specified)

Total Current at +3.3V (Vdd1=Vdd2=Vdd3)	96 mA typ, 88 mA to 104 mA max
Idd1	32 mA typ
Idd2	63 mA typ
Idd3	1 mA typ
Typical Device Voltage (Vdd1=Vdd2=Vdd3)	+2.7V to +3.3V
Control Logic Level Low	-0.1V to +0.4V
Control Logic Level High	+2.0V to +3.3V
Maximum RF Input	+13 dBm
Operating Temperature Range	-40C to +85C
Storage Temperature Range	-50C to +125C

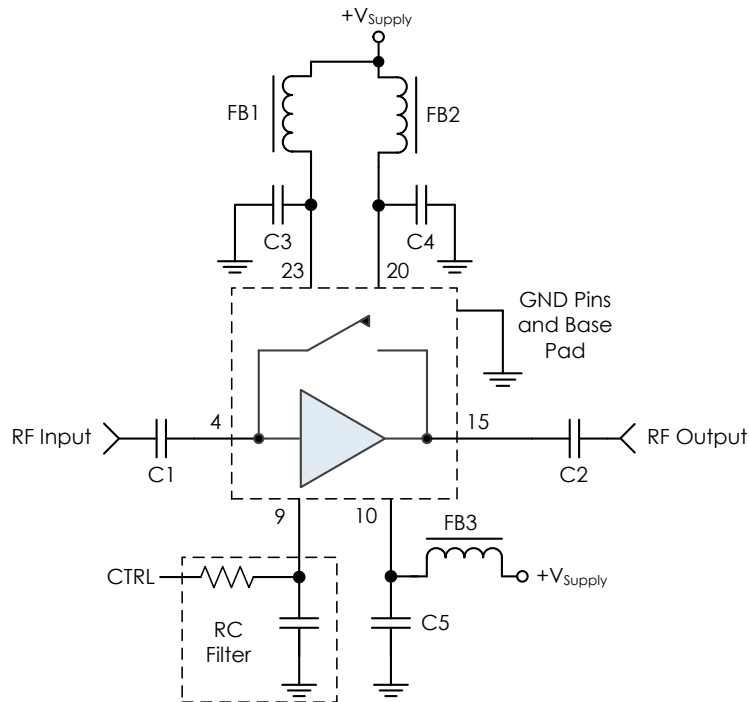
Amplifier Control:

Control Line (CTL)	Amplifier
1	Enabled
0	Bypassed

AM1067 - Amplifier

5 GHz to 20 GHz Bypassable

Recommended Application Circuit



Recommended Component List (or equivalent):

Part Type	Value	Part Number	Manufacturer
C1, C2	0.1 μ F	0402BB104KW160	Passives Plus
C3, C4, C5	0.1 μ F	GRM155R71C104KA88	Murata
FB1, FB2, FB3	-	MMZ1005A222E	TDK

Notes:

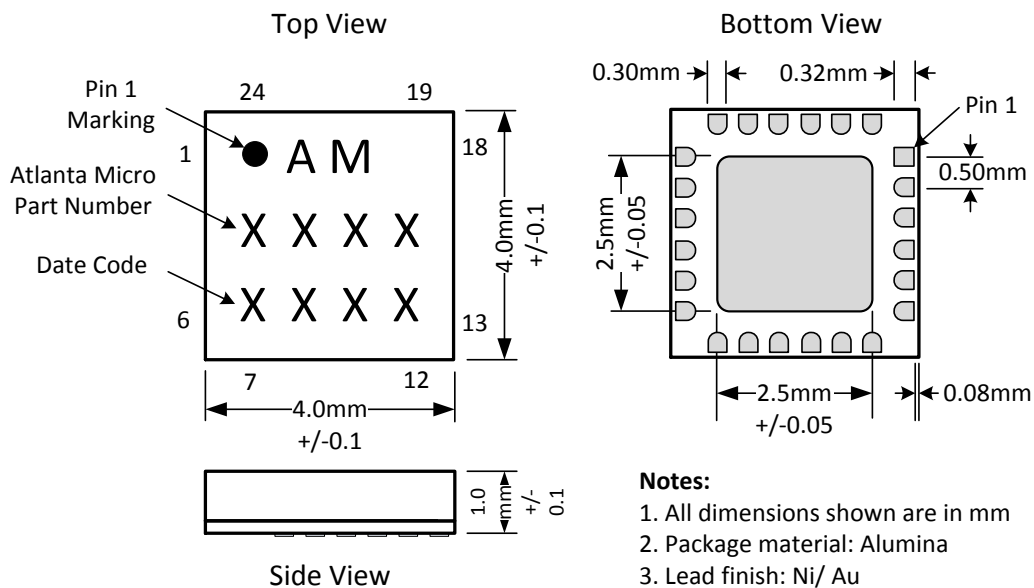
1. Select control line RC filter values based on desired logic source decoupling and switching speed.
2. Do not connect NC pins.

AM1067 - Amplifier

5 GHz to 20 GHz Bypassable

Package Details and Footprint

Package Drawing



Recommended Footprint

