

# AM1070 - Amplifier

## DC to 18 GHz Gain Block

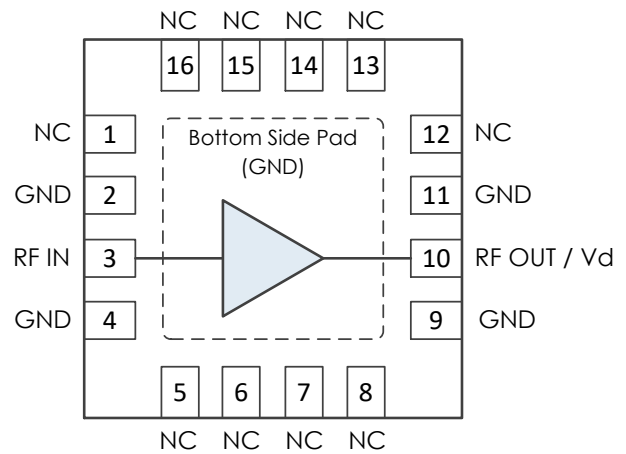


The AM1070 is a high dynamic range DC-coupled amplifier covering up to 18 GHz. With internal 50Ω matching and packaged in a 3mm QFN, the AM1070 represents a compact total PCB footprint.

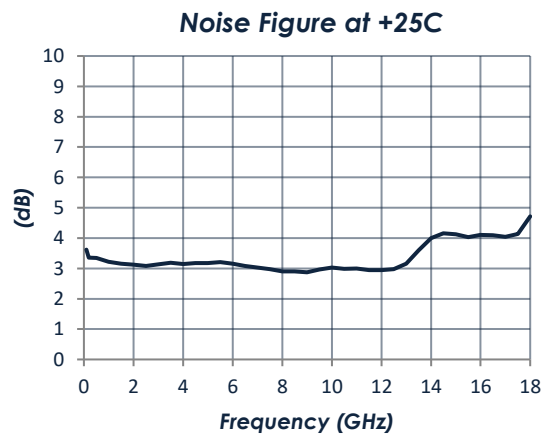
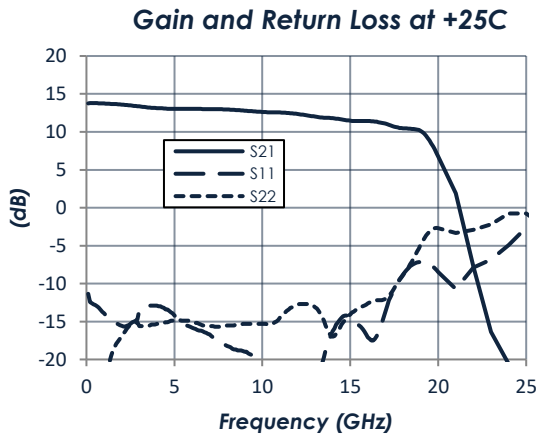
### Features

- 12 dB Gain
- 3 dB Noise Figure
- +27 dBm OIP3
- +15 dBm P1dB
- +3.3V, 60mA Supply
- 3mm QFN
- -40C to +85C Operation

### Functional Diagram



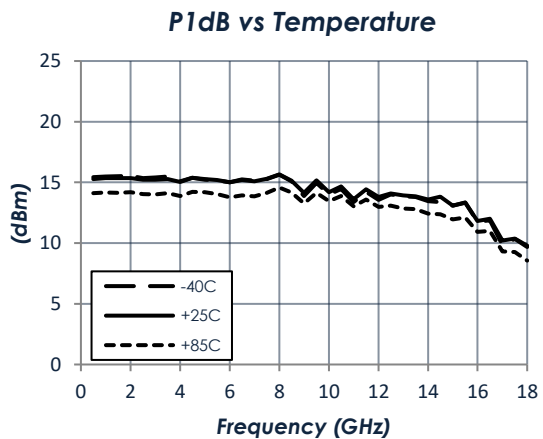
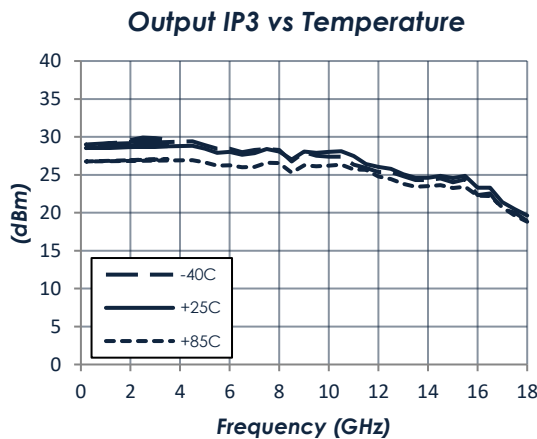
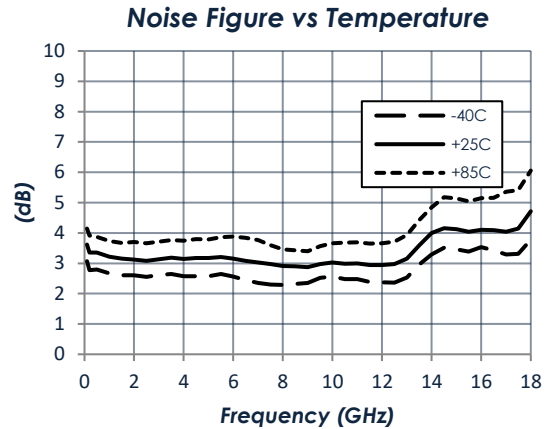
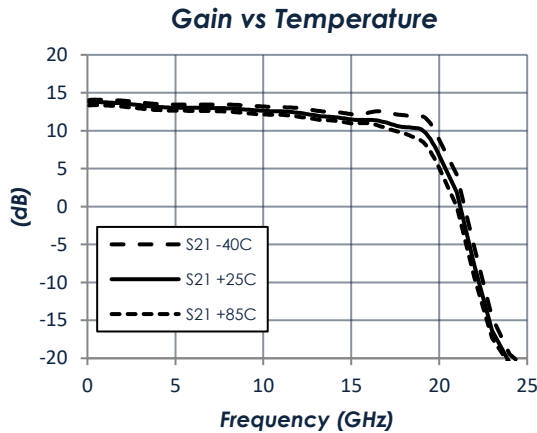
### Performance (at Vd = 3.1V, Id = 60 mA)



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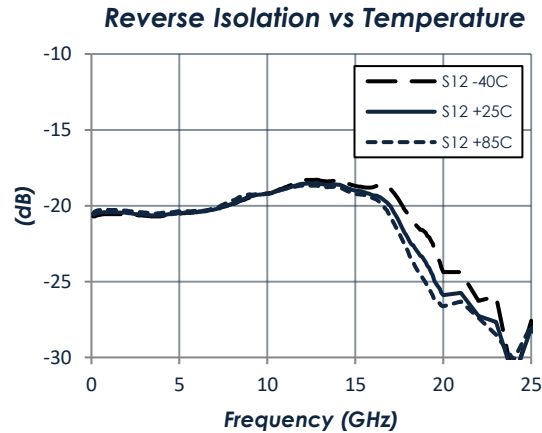
**Performance** (at  $V_d = 3.1V$ ,  $I_d = 60\text{ mA}$ , continued)



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**Performance** (at  $V_d = 3.1V$ ,  $I_d = 60\text{ mA}$ , continued)



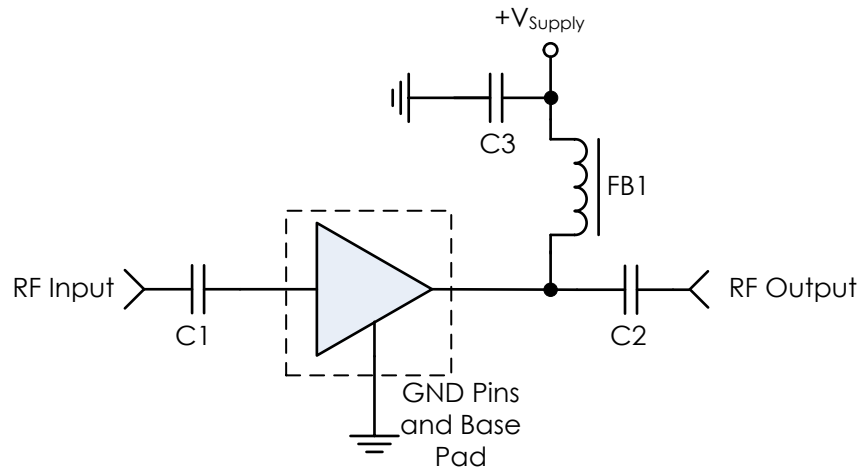
**Additional Specifications** ( $T=25\text{ }^{\circ}\text{C}$  unless otherwise specified)

Current ( $I_d$ ) at +3.1V Device Voltage ( $V_d$ )	60 mA typ, 45 mA to 75 mA max
Device Voltage ( $V_d$ )	+3.1V typ, +2.7V to +3.3V max
Maximum RF Input	+13 dBm
Operating Temperature Range	-40C to +85C
Storage Temperature Range	-50C to +125C

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### Recommended Application Circuit



### Recommended Component List (or equivalent):

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

### Notes:

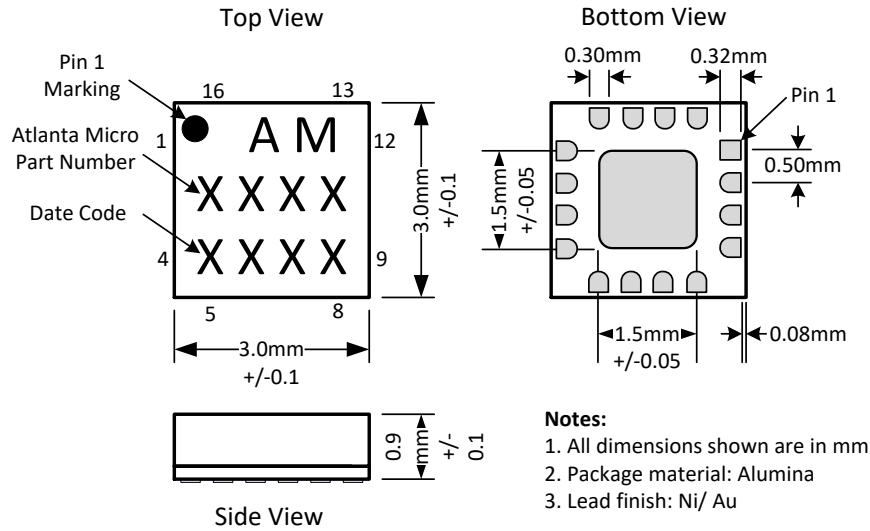
1. NC pins may be grounded or left open.

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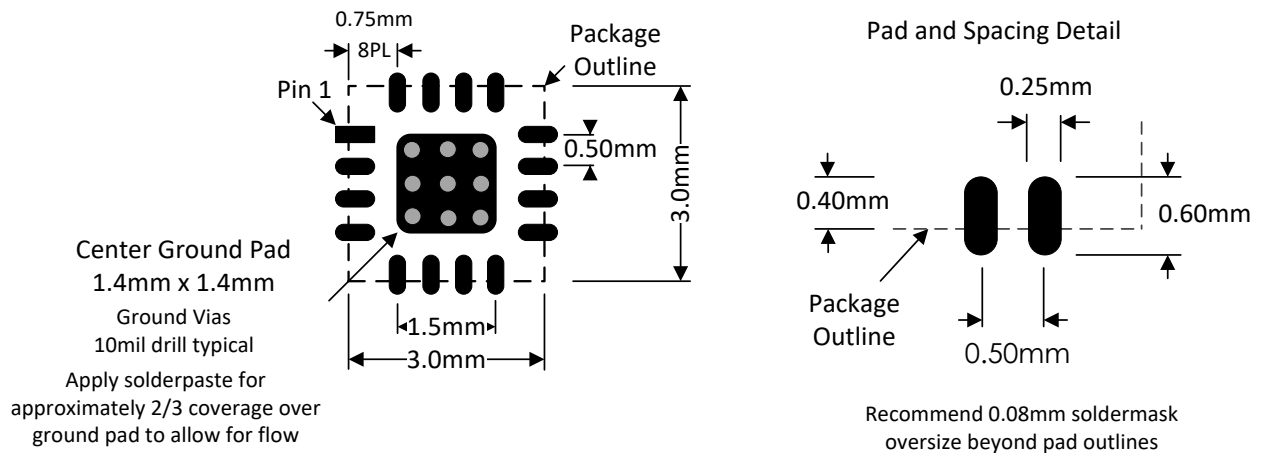
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### 3mm QFN Package Details and Footprint

#### Package Drawing



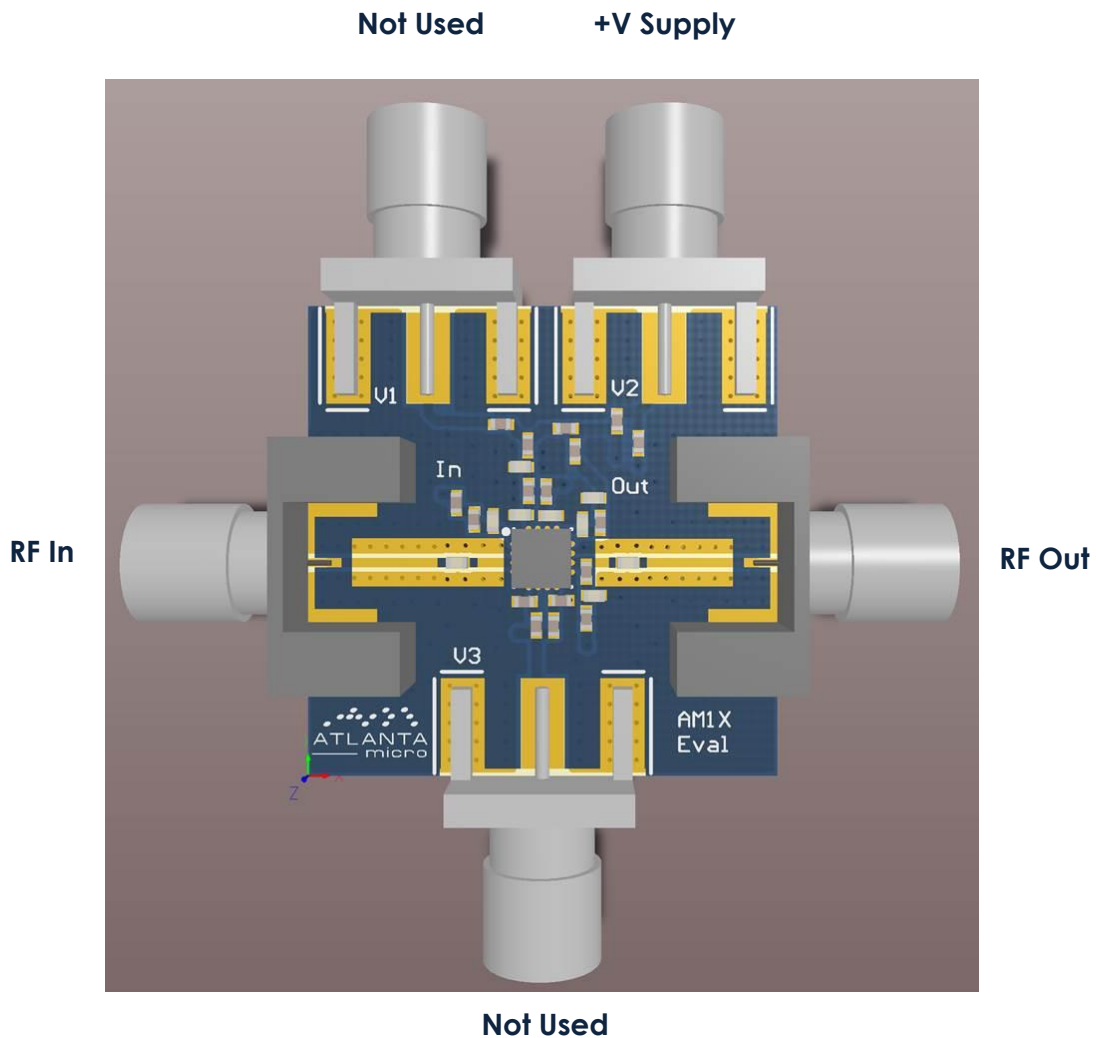
#### Recommended Footprint



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### AM1070 Evaluation Board



Note: Some of the components shown will not be installed.