

# High Performance Amplifier, 15 dB Gain, 5 - 200 MHz

V 4.00

AM-/AMC-134

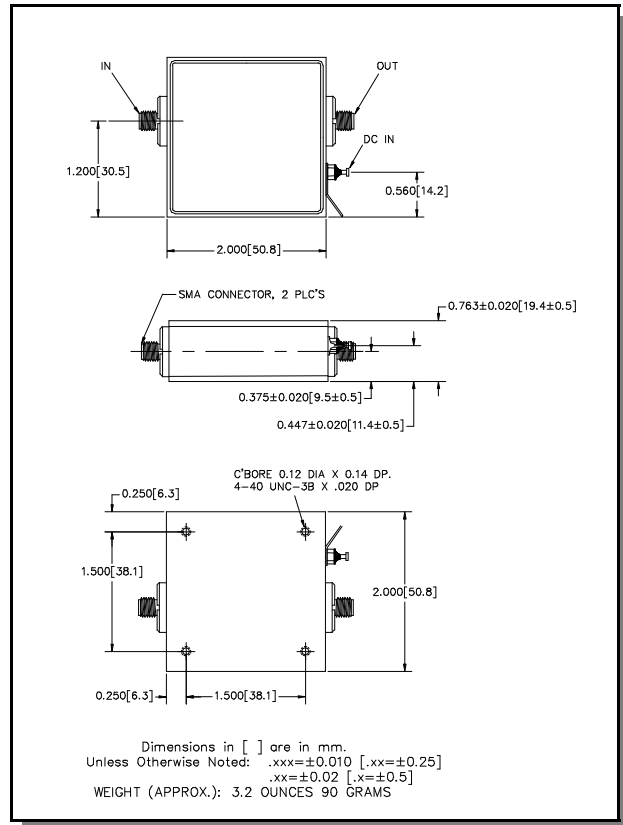
## Features

- +49 dBm Typical Midband Third Order Intercept
- +29 dBm Typical Midband 1 dB Compression
- 4.8 dB Typical Midband Noise Figure

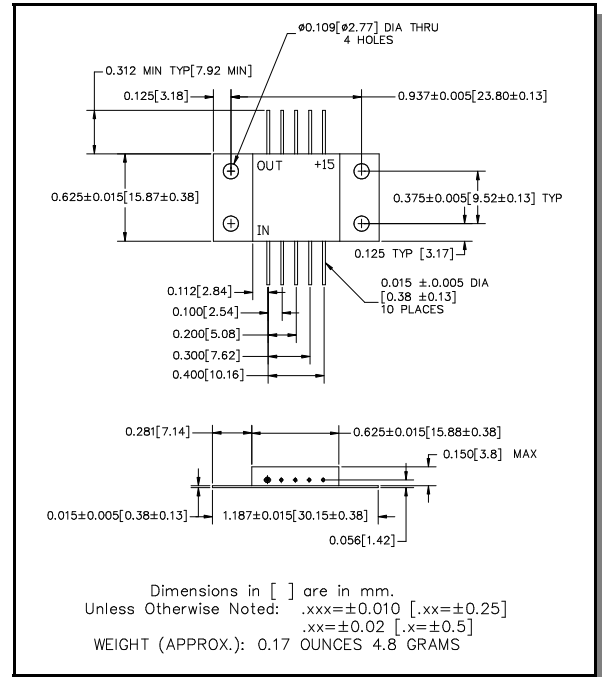
## Description

M/A-COM's AM-134 is a coupler feedback amplifier with high intercept and compression points. The use of coupler feedback minimizes noise figure and current in a high intercept amplifier. This amplifier is packaged in a flatpack with flanges. Due to the internal power dissipation the thermal rise should be minimized. The ground plane on the PC board should be configured to remove heat from under the package. AM-134 is ideally suited for use where a high intercept, high reliability amplifier is required.

## C-25



## FP-8



## Absolute Maximum Ratings <sup>1</sup>

Parameter	Absolute Maximum
Max. Input Power	+15 dBm
V <sub>bias</sub>	+17.0 V
Operating Temperature	-55°C to +85°C
Storage Temperature	-65°C to +125°C

1. Operation of this device above any one of these parameters may cause permanent damage.

## Pin Configuration

Pin #	Function	Pin #	Function
1	RF OUT	6	RF IN
2	GND	7	GND
3	GND	8	GND
4	GND	9	GND
5	V <sub>bias</sub>	10	GND

Electrical Specifications<sup>2</sup>  $T_A = -55^\circ\text{C}$  to  $+85^\circ\text{C}$  Case Temperature

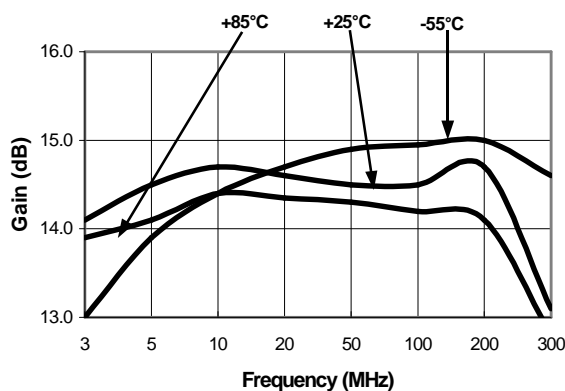
Parameter	Test Conditions	Frequency	Units	Min.	Typ.	Max.
Gain	50 MHz @ $+25^\circ\text{C}$	50 MHz	dB	14.0	14.6	15.2
Frequency Response	—	5 - 200 MHz	dB	—	—	$\pm 0.5$
Gain Variation with Temperature	—	5 - 200 MHz	dB	-1.0	—	+0.5
1 dB Compression	Output Power	5 - 200 MHz	dBm	+23	—	—
Noise Figure	—	5 - 200 MHz	dB	—	—	7.0
Reverse Transmission	—	5 - 200 MHz	dB	—	-21	-19
VSWR	—	5 - 200 MHz	Ratio	—	—	2.5:1
Output $IP_2$	Two-tone inputs up to +10 dBm	5 - 200 MHz	dBm	+55	—	—
Output $IP_3$	Two-tone inputs up to +10 dBm	5 - 200 MHz 5 - 70 MHz	dBm dBm	+37 +42	—	—
Vbias	—	—	V	14.25	15	15.75
Ibias	Vbias = +15.0 VDC	—	mA	—	90	110
Power Dissipation	@ +15V Bias	—	W	—	1.35	—

2. All specifications apply when operated at +15 VDC, with 50 ohms source and load impedance.

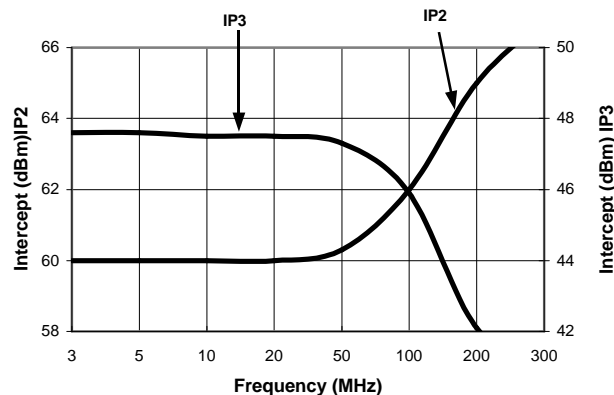
3. Heat Sinking: Operation at case temperature above  $95^\circ\text{C}$  is not recommended. Heat sinking adequate to dissipate 1.75W must be provided in use.

## Typical Performance Curves

Gain vs. Frequency



Intermodulation Intercept



Specifications subject to change without notice.

■ North America: Tel. (800) 366-2266  
 ■ Asia/Pacific: Tel. +81-44-844-8296, Fax +81-44-844-8298  
 ■ Europe: Tel. +44 (1344) 869 595, Fax +44 (1344) 300 020

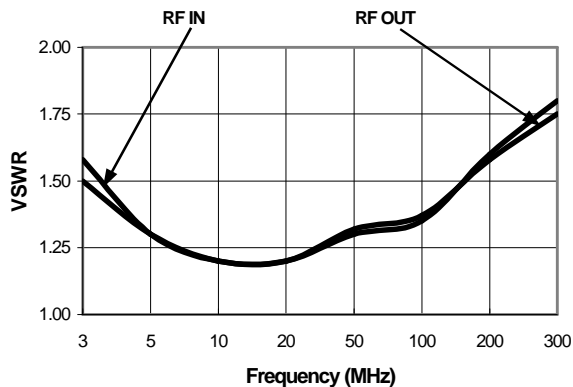
Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.

tyco / Electronics

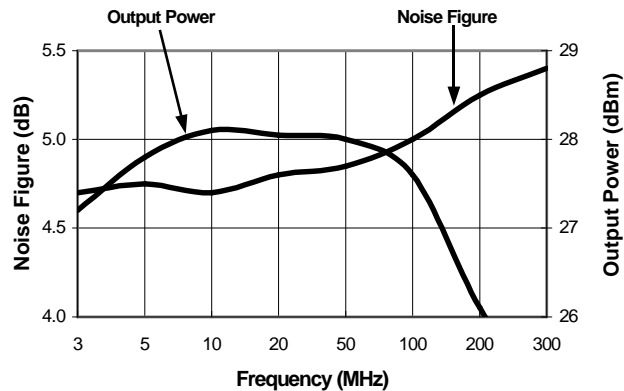
MACOM

## Typical Performance Curves

VSWR vs. Frequency



Noise Figure and 1 dB Compression



## Ordering Information

Part Number	Package
AM-134 PIN	FP-9
AMC-134 SMA	C-25

Specifications subject to change without notice.

- North America: Tel. (800) 366-2266
- Asia/Pacific: Tel.+81-44-844-8296, Fax +81-44-844-8298
- Europe: Tel. +44 (1344) 869 595, Fax+44 (1344) 300 020

Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.