



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

V 4.00

AM-/AMC-134

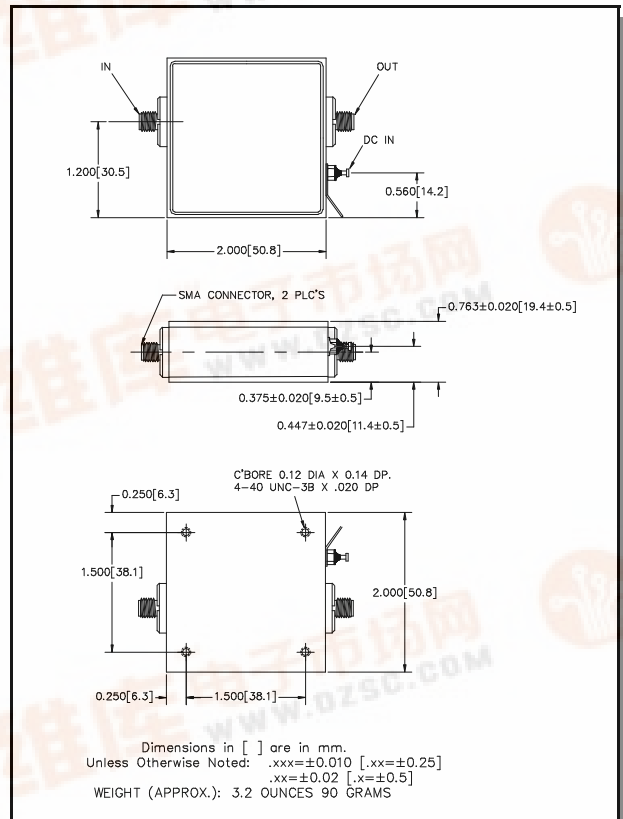
Features

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

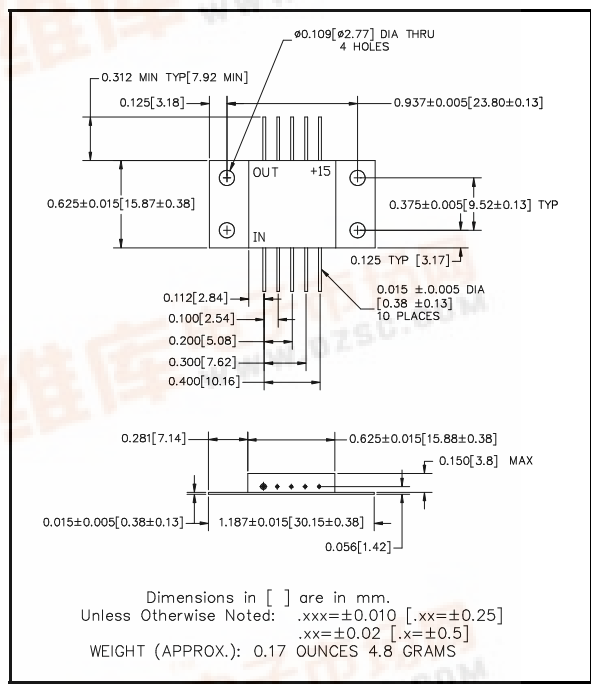
Description

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 Ratings¹

Parameter	Absolute Maximum
Max. Input Power	+15 dBm
V _{bias}	+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 _{bias}	10	GND

Electrical Specifications² $T_A = -55^\circ\text{C}$ to $+85^\circ\text{C}$ Case Temperature

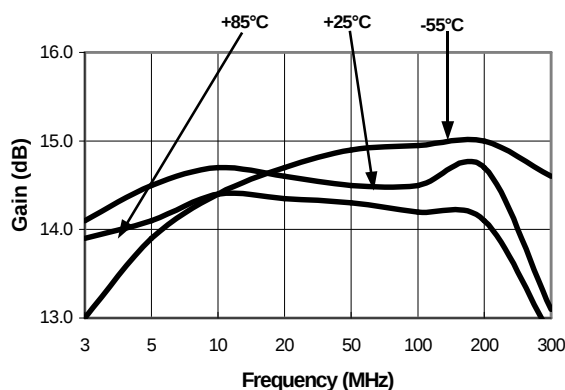
Parameter	Test Conditions	Frequency	Units	Min.	Typ.	Max.
Gain	50 MHz @ $+25^\circ\text{C}$	50 MHz	dB	14.0	14.6	15.2
Frequency Response	—	5 - 200 MHz	dB	—	—	± 0.5
Gain Variation with Temperature	—	5 - 200 MHz	dB	-1.0	—	+0.5
1 dB Compression	Output Power	5 - 200 MHz	dBm	+23	—	—
Noise Figure	—	5 - 200 MHz	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.

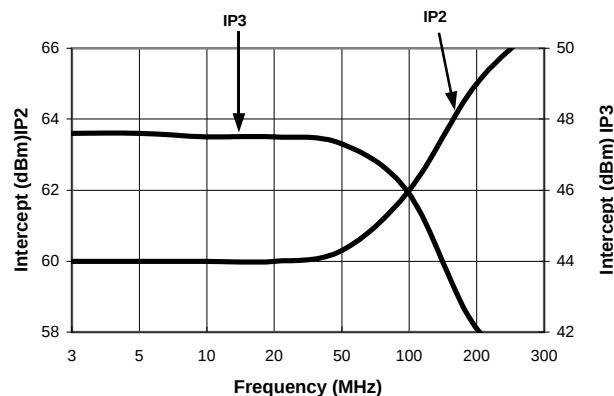
3. Heat Sinking: Operation at case temperature above 95°C is not recommended. Heat sinking adequate to dissipate 1.75W must be provided in use.

Typical Performance Curves

Gain vs. Frequency



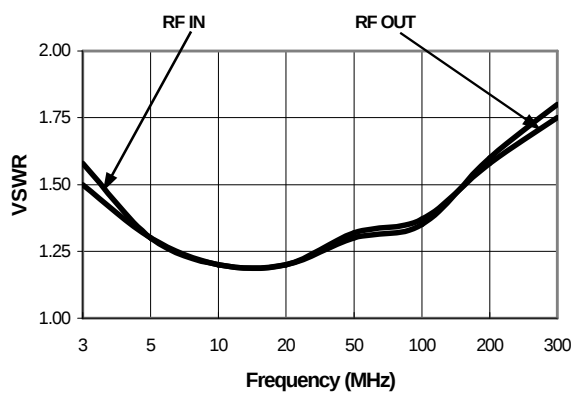
Intermodulation Intercept



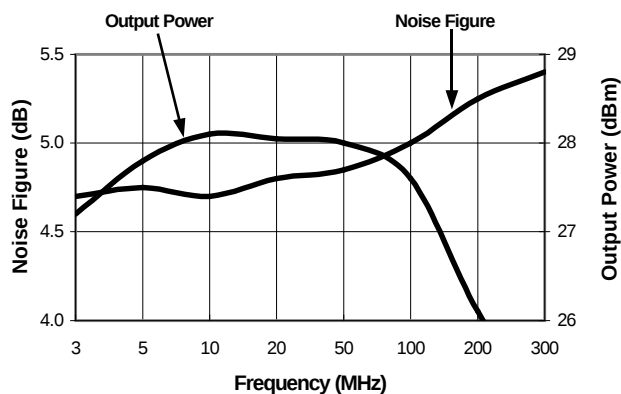
Specifications subject to change without notice.

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.

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