

Product Features

- 50 ~ 3000 MHz
- GaAs MMIC
- 43dBm Output IP3
- 13dB Gain
- 26dBm P1dB
- Single +9V Supply

Application

- CDMA, W-CDMA Medium Power Amplifier
- High Linearity Drive Amplifier

**Description**

AP222 is a high linearity amplifier designed with GaAs MMIC. AP222 is designed for applications such as GSM, CDMA, W-CDMA driver devices which require high IP3

ELECTRICAL CHARACTERISTICS**Absolute Minimum and Maximum Ratings**

PARAMETER	UNIT	MIN	MAX
Device Voltage	VDC		+12
RF Input Power	dBm		+15
Storage Temperature	°C	-40	+150

Operating Ranges

PARAMETER	UNIT	MIN	TYP	MAX
Operating Frequency	MHz	50		3000
Device Voltage	VDC		+9	+10
Case Temperature	°C	-40		+100

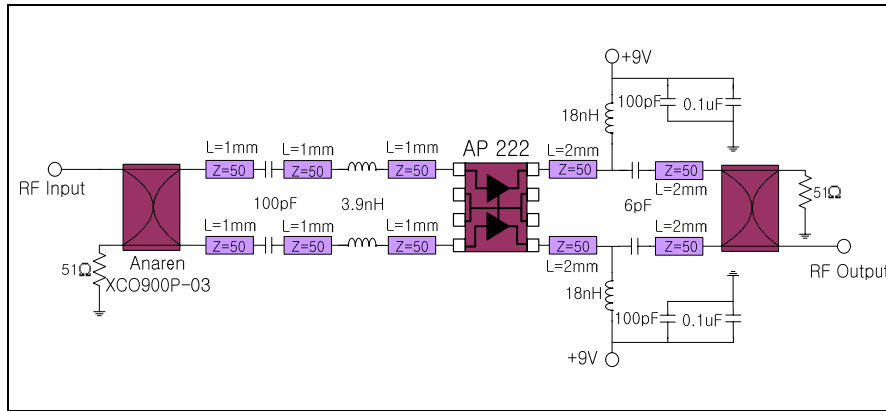
Electrical Specifications

(Ta=+25°C, V_{DD}=+9V, Fc=900MHz)

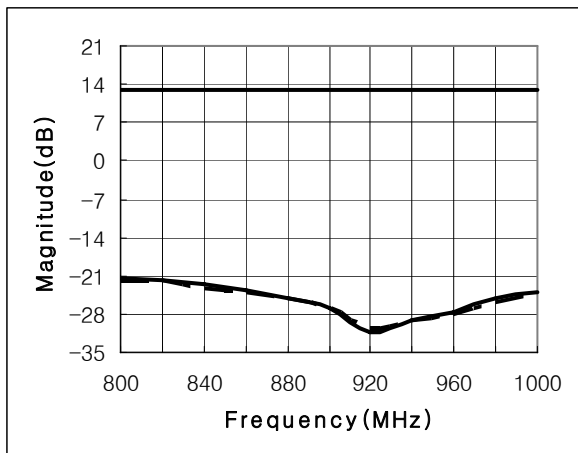
PARAMETER	UNIT	MIN	TYP	MAX
Gain	dB	12	13	
Input Return Loss	dB		-20	
Output Return Loss	dB		-20	
Output IP3	dBm	+38	+43	
1dB Compression Point	dBm		+26	
Noise Figure	dB		2.8	
DC Current	mA		240	
Supply Voltage	VDC		+9	
Thermal Resistance(Rth)	°C/W			20

OIP3 is measured with two tones, at an output power of 10dBm/tone separated by 1MHz

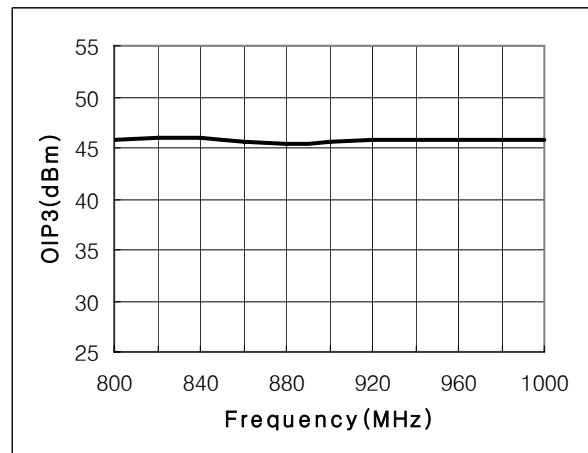
Application Circuit (900MHz)



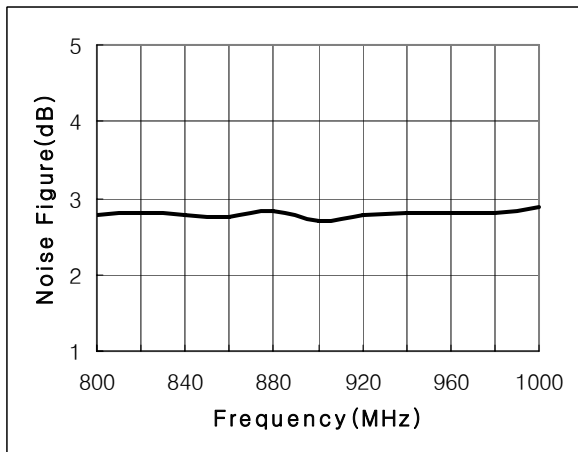
S-Parameter vs. Frequency



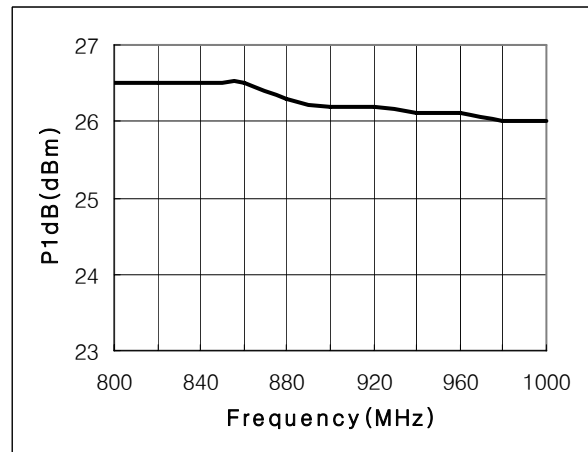
OIP3 vs. Frequency



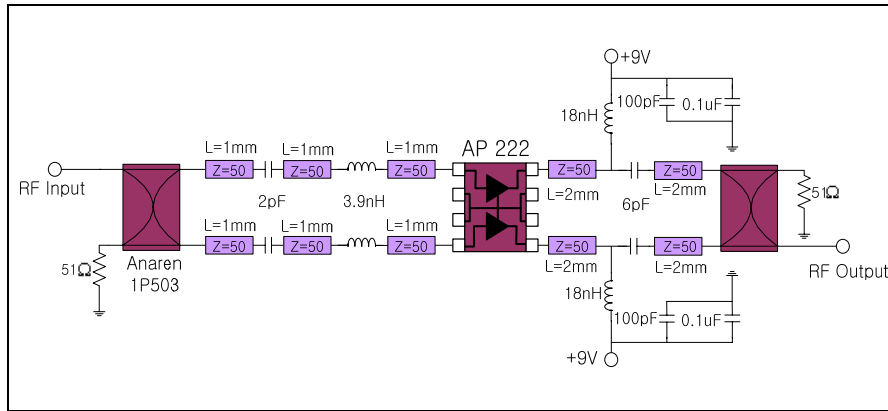
Noise Figure vs. Frequency



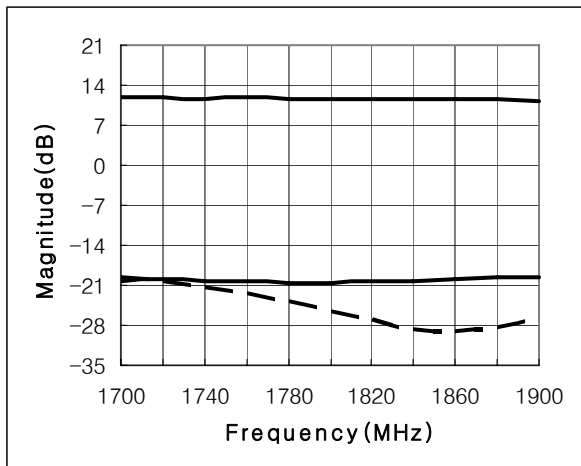
P1dB vs. Frequency



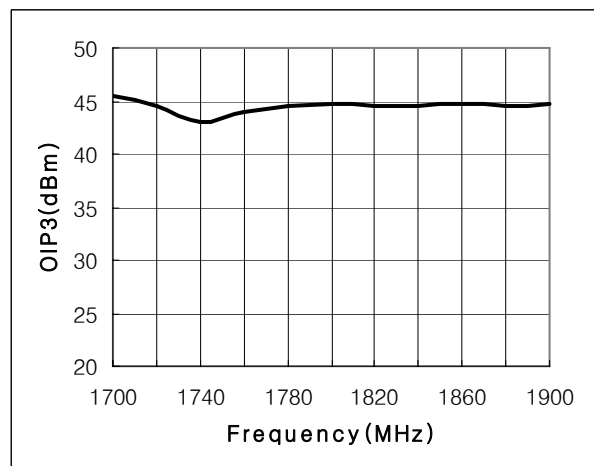
Application Circuit (1800MHz)



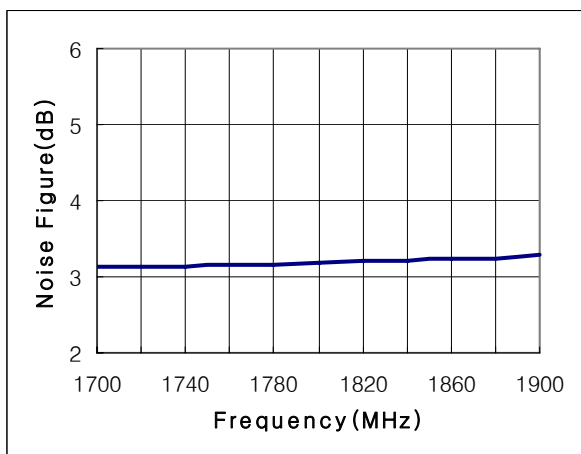
S-Parameter vs. Frequency



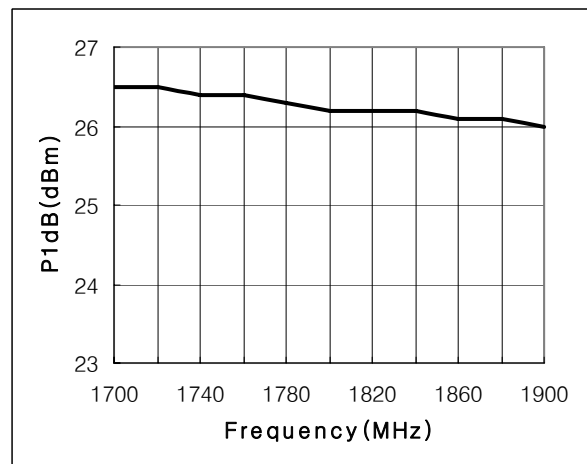
OIP3 vs. Frequency



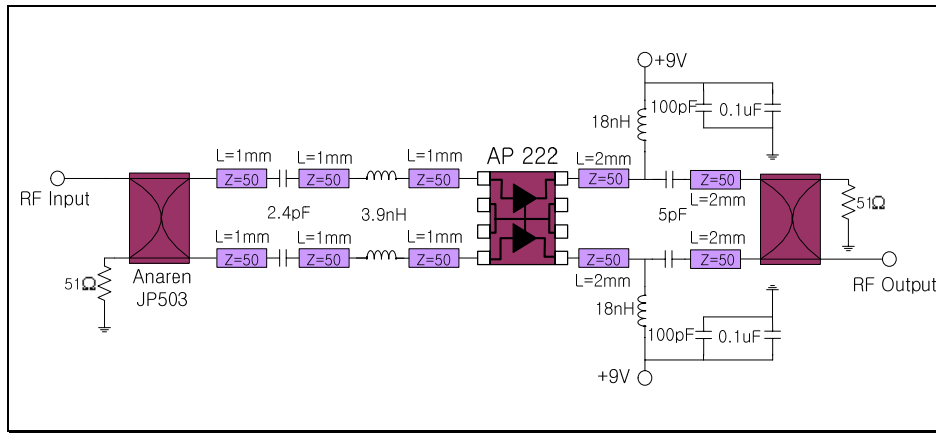
Noise Figure vs. Frequency



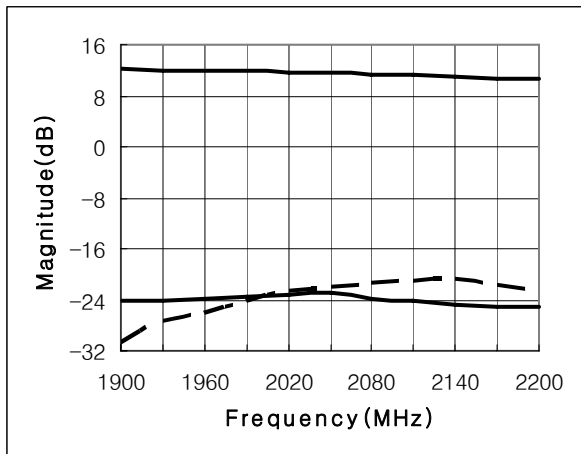
P1dB vs. Frequency



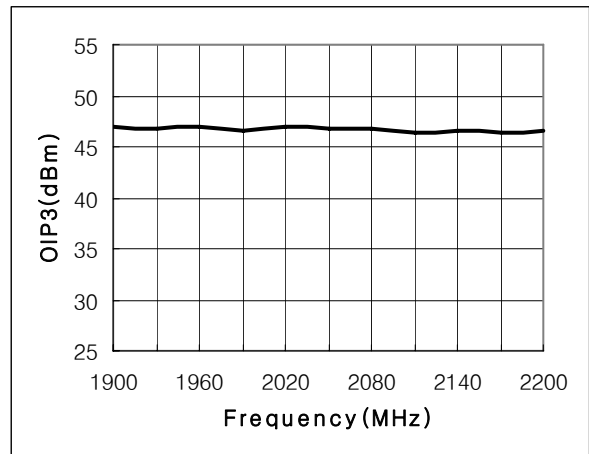
Application Circuit (2100MHz)



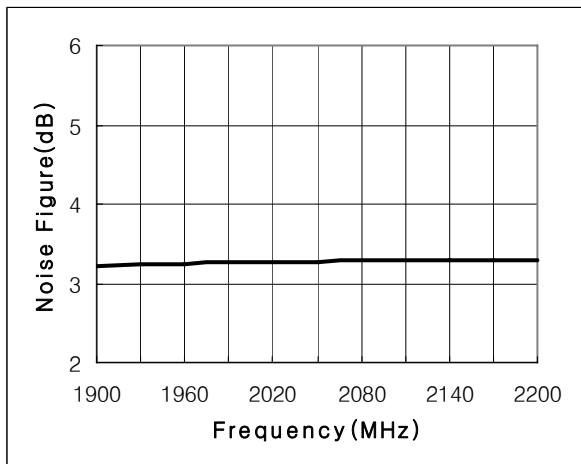
S-Parameter vs. Frequency



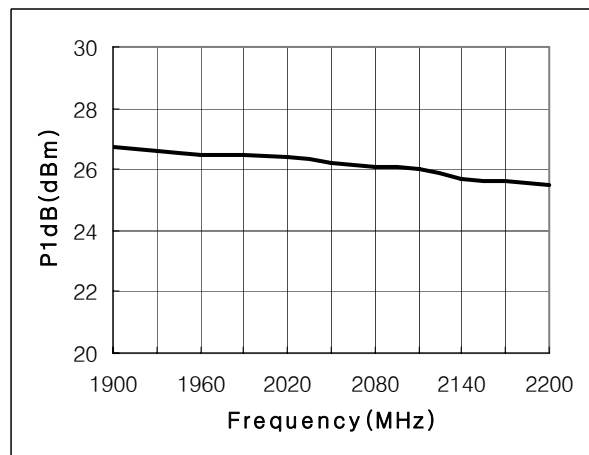
OIP3 vs. Frequency



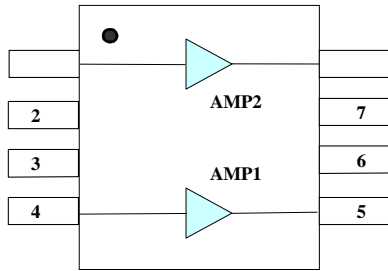
Noise Figure vs. Frequency



P1dB vs. Frequency

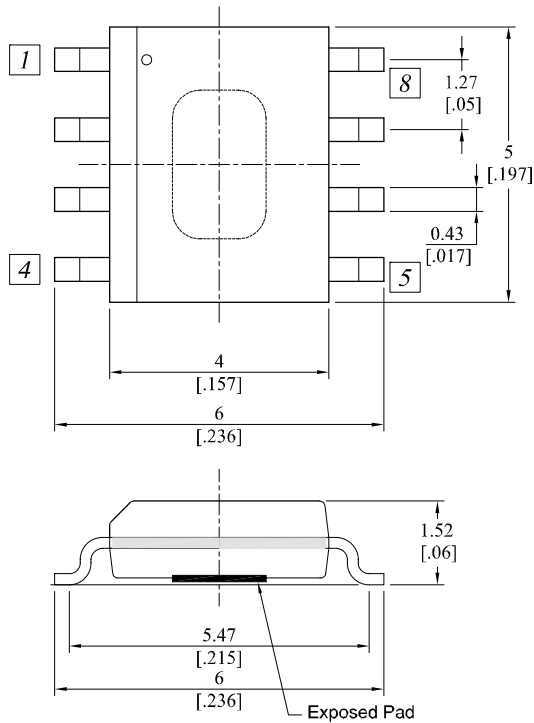


Pin Description

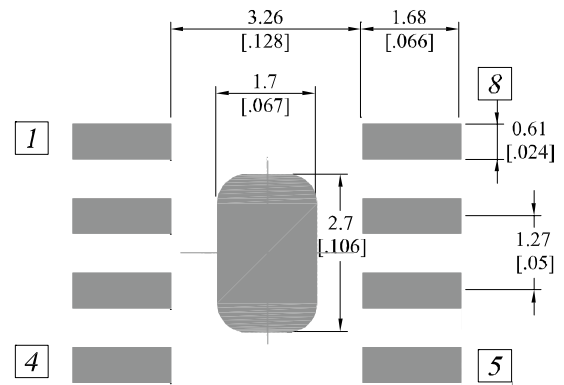


Pin No	Function
1	RF IN(2)
5	RF OUT(1)
4	RF IN(1)
8	RF OUT(2)
2, 3, 6, 7	N.C
Exposed slug	GND

Package Dimensions (Type: SOIC-8)



Recommended Pattern



Unit : mm [inch]	Tolerance : ± 0.2 .008
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