Product Features

- 50 ~ 2000 MHz
- GaAs MMIC
- 38dBm Output IP3
- 17dB Gain
- 21dBm P1dB
- Single +5V Supply

Application

- CDMA,W-CDMA Medium Power Amplifier
- High Linearity Drive Amplifier
- 50Ω Telecommunication Systems

Package : SOIC-8

Description

AP230SO8 is a high linearity amplifier designed with GaAs MMIC. AP230SO8 is designed for applications such as GSM, CDMA, W-CDMA driver devices which require high IP3. AP230SO8 is in 8 pin, SOIC-8 package.

ELECTRICAL CHARACTERISTICS

Absolute Minimum and Maximum Ratings

PARAMETER	UNIT	MIN	MAX
Device Voltage	VDC		+6
RF Input Power	dBm		+10
Storage Temperature	℃	-40	+125

Operating Ranges

PARAMETER	UNIT	MIN	TYP	MAX
Operating Frequency	MHz	50		2000
Device Voltage	VDC		+5	+5.3
Operational Temperature	℃	-40		+85

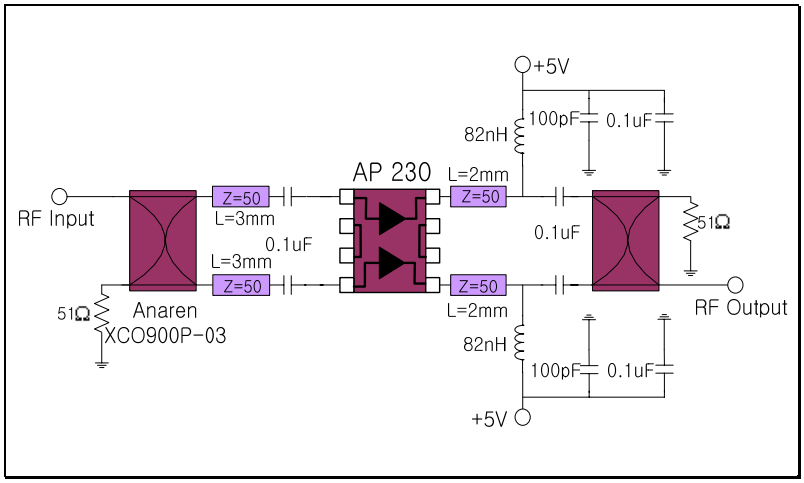
Electrical Specifications

(Ta=+25℃, V_{DD}=+5V, Fc=880 MHz)

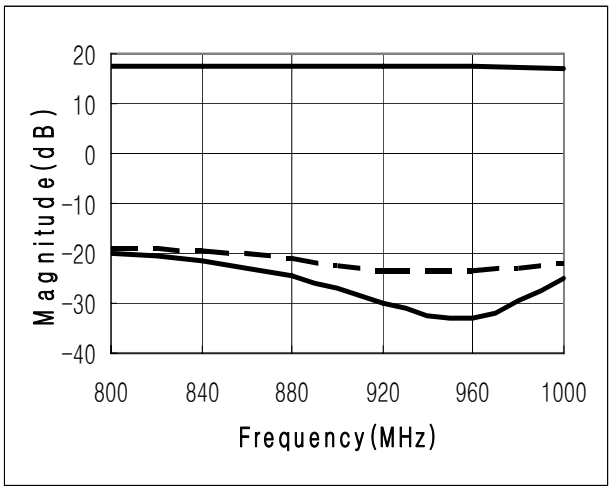
PARAMETER	UNIT	MIN	TYP	MAX
Gain	dB	16	17.4	
Input Return Loss	dB		-23	
Output Return Loss	dB		-20	
Output IP3	dBm	+36	+38	
1dB Compression Point	dBm		+21	
Noise Figure	dB		3.3	
DC Current	mA		250	270
Supply Voltage	VDC		+5	
Thermal Resistance(Rth)	℃/W			57.5

OIP3 is measured with two tones, at an output power of 5dBm/tone separated by 1MHz

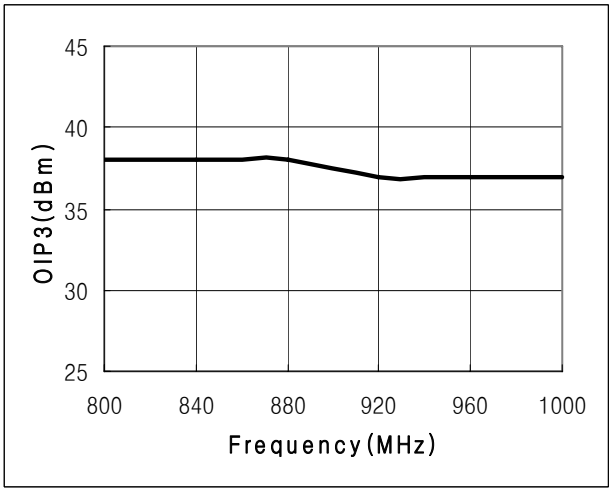
Application Circuit (900MHz)



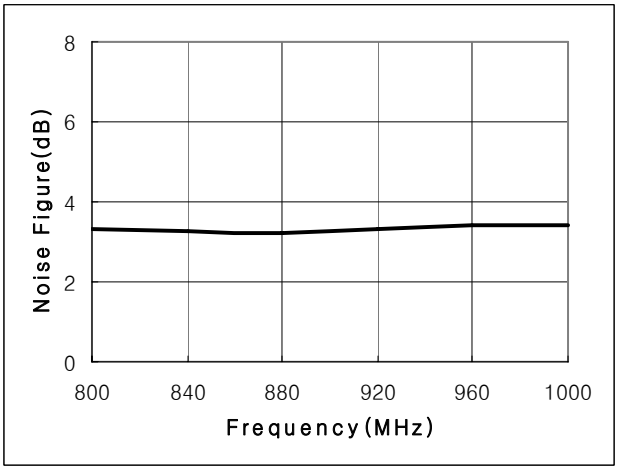
S-Parameter vs. Frequency



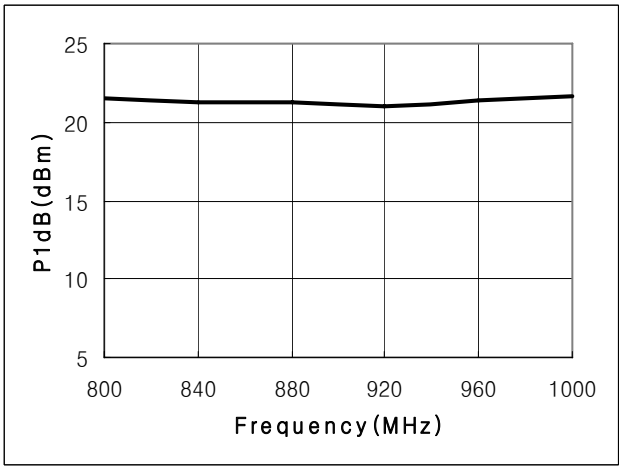
OIP3 vs. Frequency



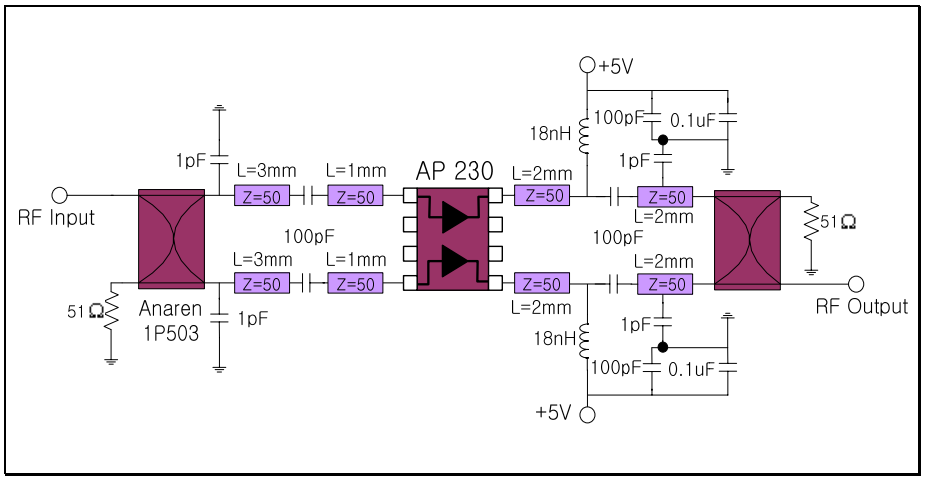
Noise Figure vs. Frequency



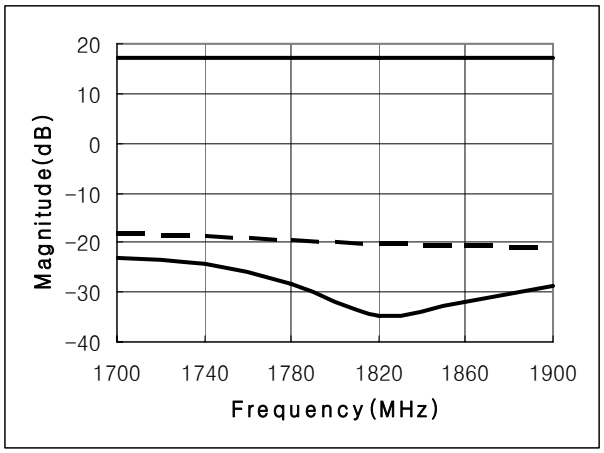
P1dB vs. Frequency



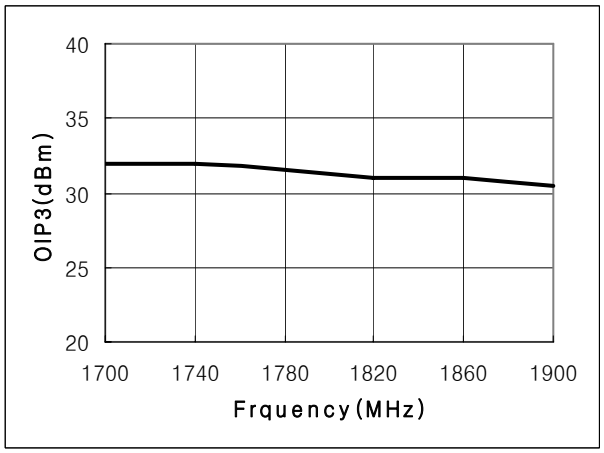
Application Circuit (1800MHz)



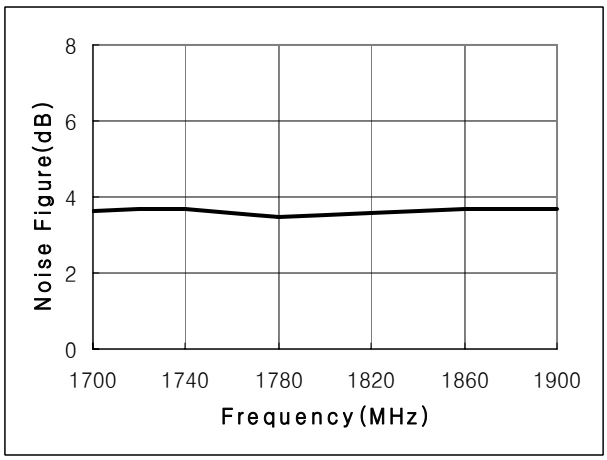
S-Parameter vs. Frequency



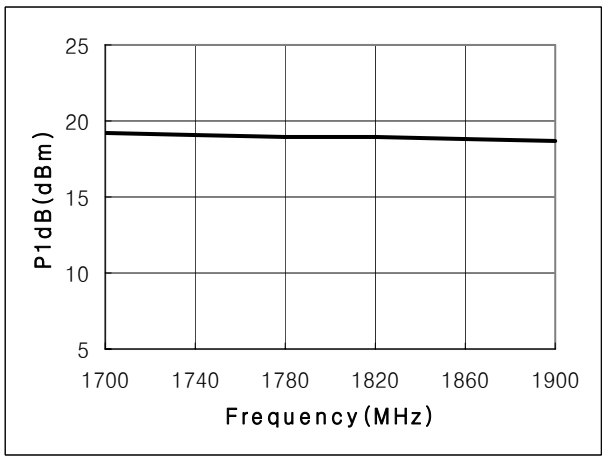
OIP3 vs. Frequency



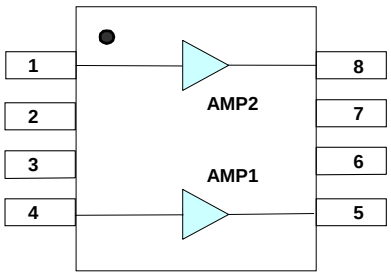
Noise Figure vs. Frequency



P1dB vs. Frequency

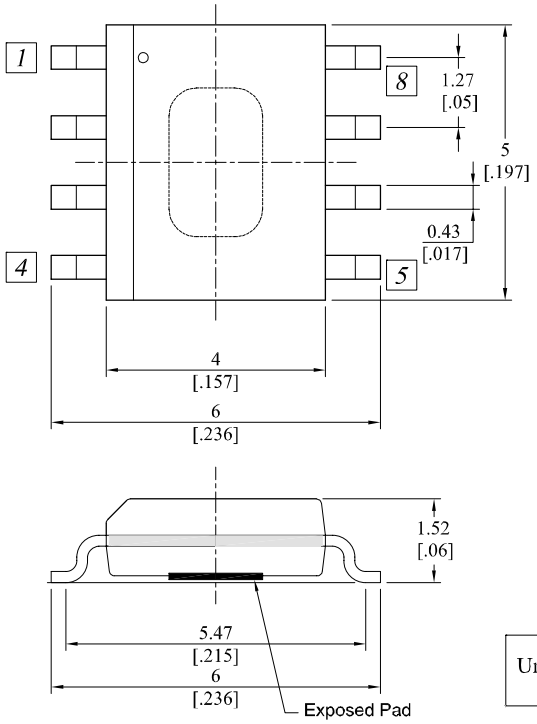


Pin Description

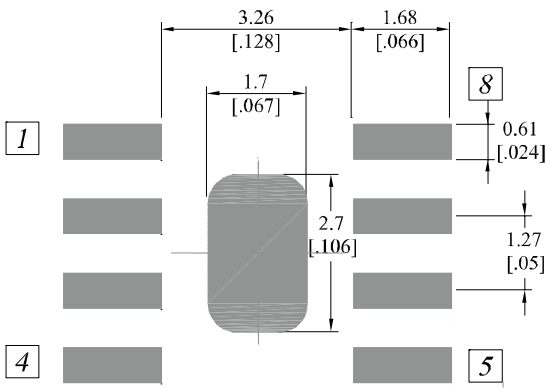


Pin No	Function
1	RF IN(2)
5	RF OUT(1)
4	RF IN(1)
8	RF OUT(2)
2, 3, 6, 7	GND
Exposed slug	GND

Package Dimensions (Type: SOIC-8)



Recommended Pattern



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