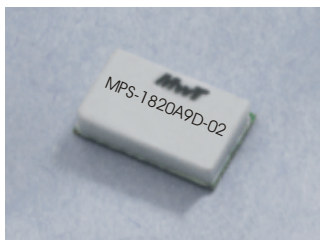


Features:



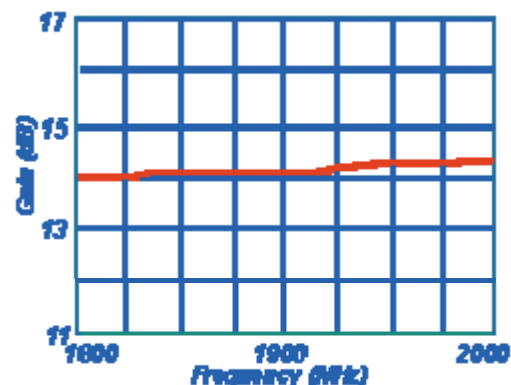
- 1.2:1 Typical Output VSWR
- 14 dB Typical Gain
- +42 dBm Typical IP3
- Single Positive Bias
- +26 dBm Typical P1dB
- Surface Mount Package

The MPS 1820A9D-02 is a high quality linearity modular amplifier designed to meet the ultra-linear transmitter driver requirements for commercial PCS 1800 and PCS 1900 base stations. Key advantages are low inter-modulation performance for multi-carrier or wideband CDMA systems (IMD3 -70 dBc typical) and exceptionally low input/output return loss for ease of integration.

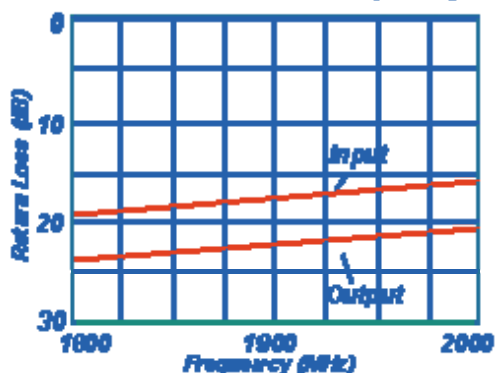
Electrical Specifications @ 25°C, Vdd = 7.5 V, Zo = 50 ohms

SYMBOL	PARAMETERS	Min	Typical	Max	Unit
Freq.	Frequency Range	1800		2000	MHz
SSG	Small Signal Gain	13	14		dB
P1 dB	Pout at 1 dB Comp Point	+25.0	+26.0		dBm
IP3	Third-Order Intercept	+41.0	+42.0		dBm
VSWR	VSWR (Input/Output)		1.4:1/1.2:1	1.5:1	
GOF	Gain Var. over Frequency		± 0.20	± 0.30	dB
GOT	Gain Var. over Temp		-0.015		dB/°C
Idd	DC Current		230	320	mA

Gain vs. Frequency



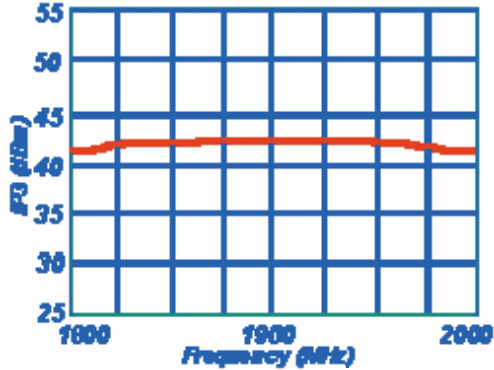
Return Loss vs. Frequency



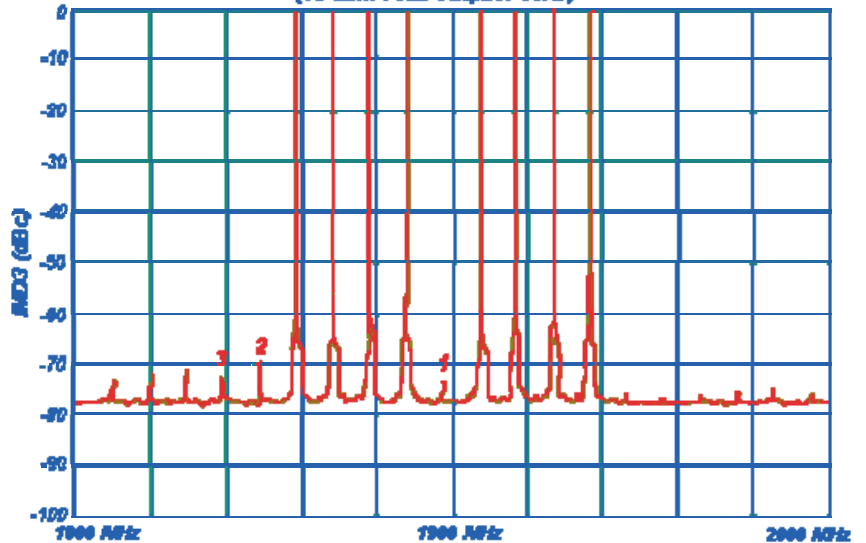
Absolute Maximum Ratings

Maximum Bias Voltage	8.0 V
Maximum Continuous RF Input Power	+25 dBm
Maximum Peak Input Power	+27 dBm
Maximum Case Operating Temperature	+85 °C
Maximum Storage Temperature	- 65 to + 150 °C

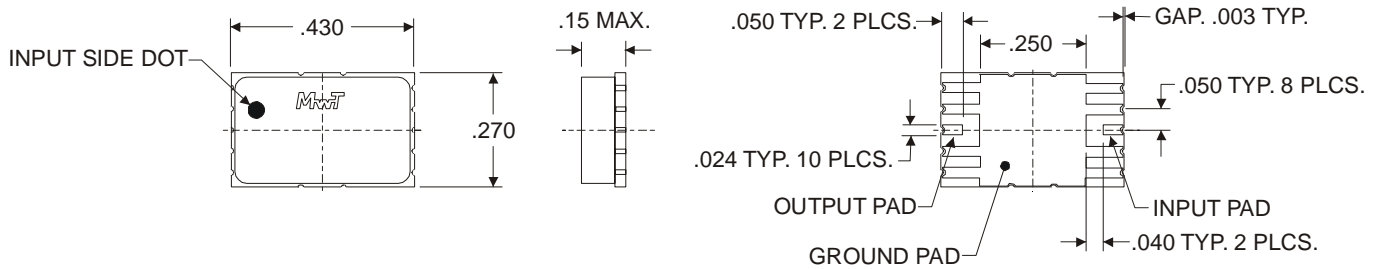
IP3 at 13 dBm/Tone



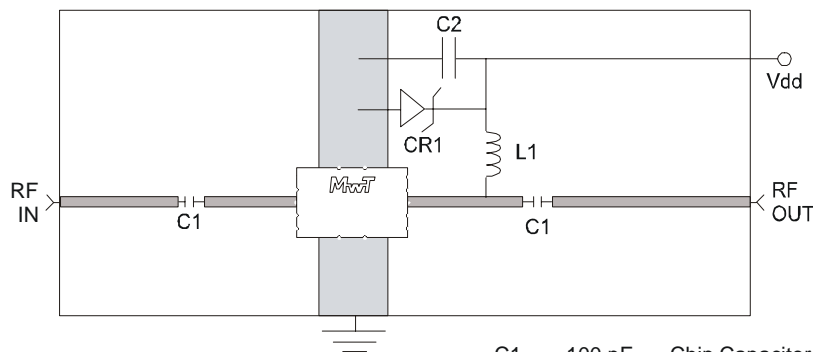
8-Tone IMD Testing (10 dBm Total Output Power)



Outline Diagram



Application Circuit



C1	100 pF	Chip Capacitor
C2	22 uF	Capacitor
L1	160 nH	Printed or Wound Coil
CR1	7.0 V	Zener Diode

50 ohm Microstrip Line