Preliminary

MPS-3435A9D-82

3400 to 3500 MHz Linear Amplifier

www.mwtinc.com

Email: info@mwtinc.com

Features

- 1.3:1 Typical Output VSWR
- 13 dB Typical Gain
- +41 dBm Typical IP3
- Single Positive Bias
- +24 dBm Typical P1dB
- Surface Mount Package

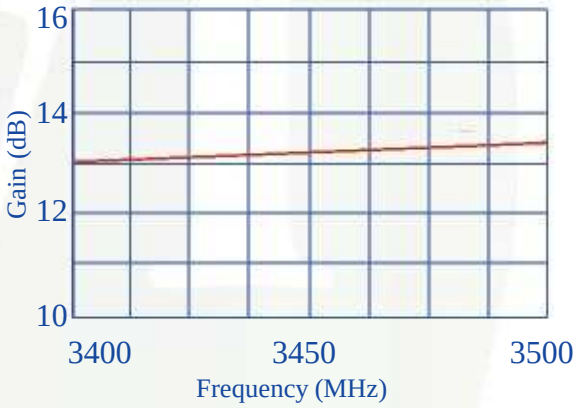
The MPS 3435A9D-82 is a high quality linearity modular amplifier designed to meet the ultralinear transmitter driver requirements for commercial Wireless Local Loop (WLL) applications. Key advantages are low intermodulation performance for multi-carrier or wideband CDMA systems (IMD3 -70 dBc typical) and exceptionally low input/output return loss for ease of intergration.

Specifications

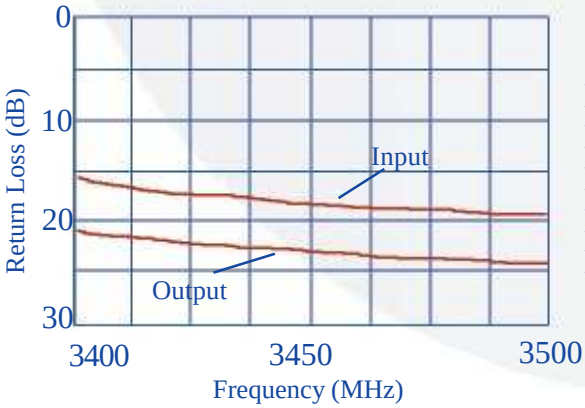
Electrical at 25°C, Vdd= 7.5 V, Zo= 50 Ω

Symbol	Parameter	Min.	Typical	Max	Unit
Freq	Frequency Range	3400		3500	MHz
SSG	Small Signal Gain	12	13		dB
P1dB	P out at 1 dB Compression	+23.0	+24.0		dBm
IP3	Third-order Intercept	+39.0	+41.0		dBm
VSWR	VSWR, In/Out		1.4:1/1.3:1	1.5:1	
ΔGOF	Gain Variation over Freq.		+/- 0.20	+/- 0.30	dB
ΔGOT	Gain Variation over Temp.		- 0.015		dB/°C
Idd	DC Current		300	400	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°C to +150°C

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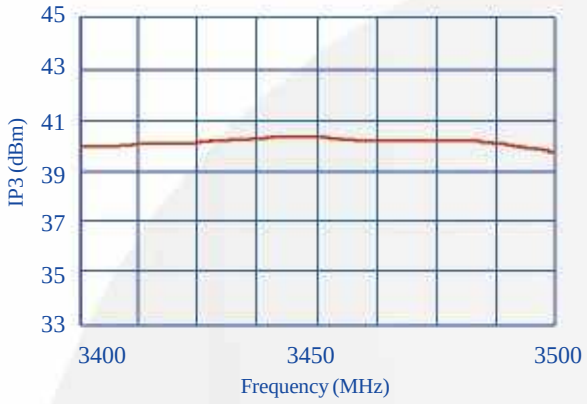
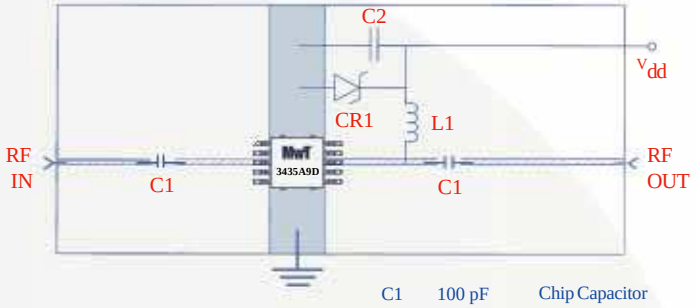
IP3 at 13 dBm/Tone

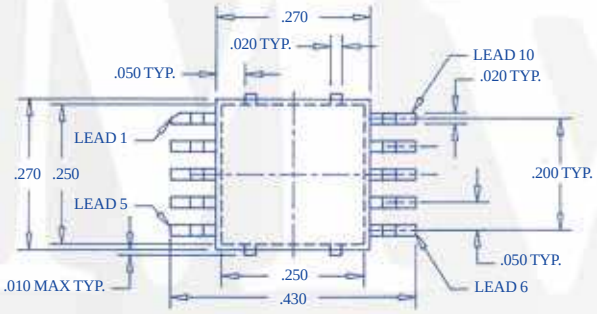


Typical Biasing Configuration

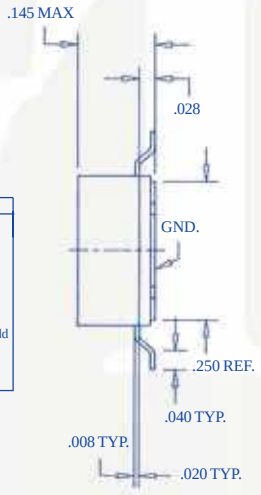


C1	100 pF	Chip Capacitor
C2	.22 µF	Capacitor
L1	160 nH	Printer or Wound Coil
CR1	8.0 V	Zener Diode
		50 Ω Microstrip Line

Outline Diagrams



Pin	Connection
1	N/C
2	N/C
3	RF Input
4	NC
5	N/C
6	N/C
7	N/C
8	RF Output, Vdd
9	N/C
10	N/C
Case	Ground



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