



## 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

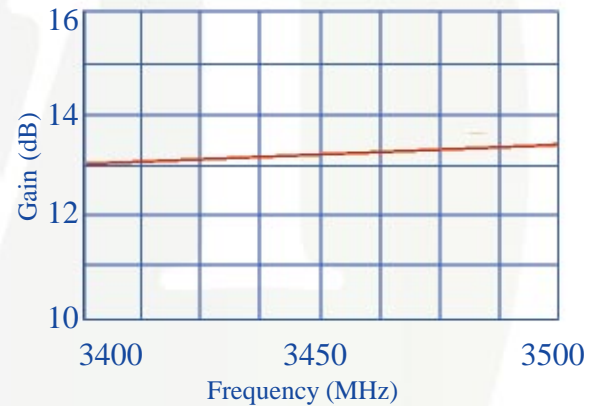
The MPS 3435A9D-82 is a high quality linearity modular amplifier designed to meet the ultralinear transmitter driver requirements for commercial Wireless Local Loop (WLL) applications. Key advantages are low intermodulation performance for multi-carrier or wideband CDMA systems (IMD3 -70 dBc typical)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

## Specifications

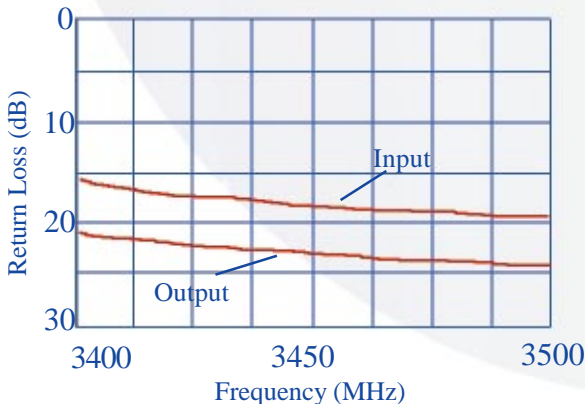
- Electrical at 25°C, Vdd= 7.5 V, Zo= 50 Ω

| 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 |
| I <sub>dd</sub> | DC Current                |       | 300         | 400      | mA    |

Gain vs. Frequency



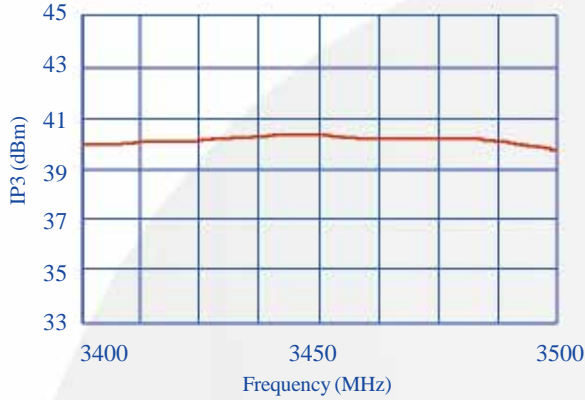
Return Loss vs. Frequency



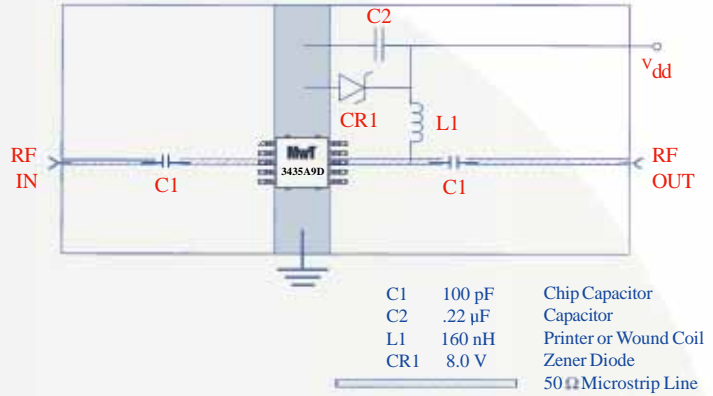
## Absolute Maximum Ratings

|                                    |                 |
|------------------------------------|-----------------|
| 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 |

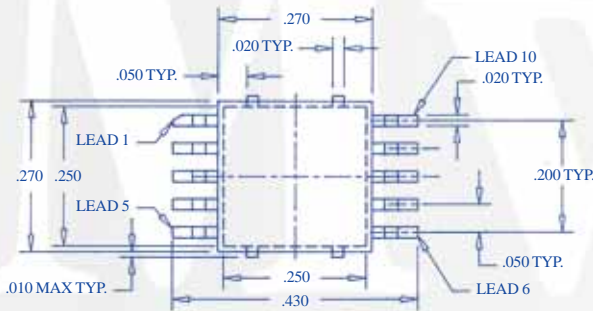
### IP3 at 13 dBm/Tone



### Typical Biasing Configuration



### Outline Diagrams



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

