



APPLICATION NOTE 456

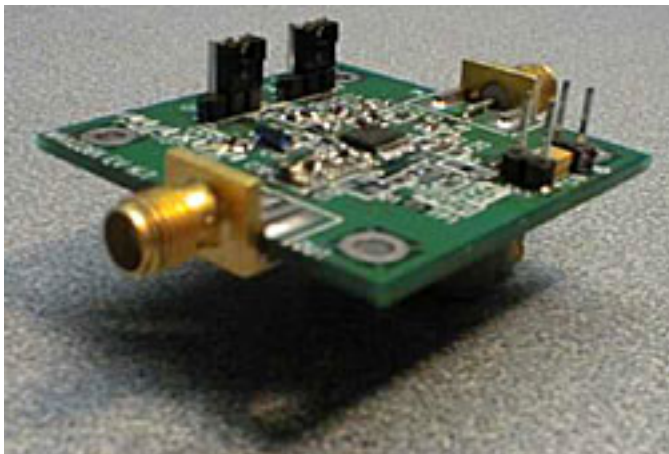
## CDMA Power Amplifier (PA) for Cellular IS-95 Ultra-Low Cost Applications

*Abstract: Tune MAX2265 power amplifier for IS-95 requirements in the cellular band. Target specs are 28dB gain, +28dBm output power, -45dBc ACPR, and PAE 35%. Application note provides schematic and bill of materials.*

Rapid Engineering Prototypes are real circuits that Maxim application engineers have built and measured in our labs. They can provide a starting point for new RF designs. They are not available as Evaluation Kits.

Additional Information:

- [Wireless Product Line Page](#)
- [Quick View Data Sheet for the MAX2264/MAX2265](#)
- [Applications Technical Support](#)



*Objective: To tune and measure the cellular-band performance of this low-cost CDMA RF power amplifier.*

The project requirement was to tune the MAX2265 to IS-95 CDMA in the cellular band (824 - 849MHz), with gain = 28dB, power-added efficiency (PAE) = 35%, and ACPR1 = -45dBc, all at Pout = +28dBm.

The MAX2265 linear RF power amplifier is designed for U.S. cellular-band IS-95-based CDMA, PDC, and IS-136-based TDMA modulation formats. To improve its PAE, the MAX2265 offers a continuous-current throttle-back arrangement. In this way, the amplifier linearity (that is, adjacent-channel power ratio, or ACPR) is held relatively constant, whereas both the output power and the current drain are reduced. Thus, the desired linearity can be maintained, while improving low-output PAE, over a continuously variable output control range.

[Schematic of the MAX2265 Evaluation Kit](#) (PDF, 48K)

[Bill of Materials, Part 1](#)

[Bill of Materials, Part 2](#)

[Performance Results of the MAX2265](#)

Application Note 456: <http://www.maxim-ic.com/an456>

### **More Information**

For technical questions and support: <http://www.maxim-ic.com/support>

For samples: <http://www.maxim-ic.com/samples>

Other questions and comments: <http://www.maxim-ic.com/contact>

### **Related Parts**

MAX2265: [QuickView](#) -- [Full \(PDF\) Data Sheet](#) -- [Free Samples](#)

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