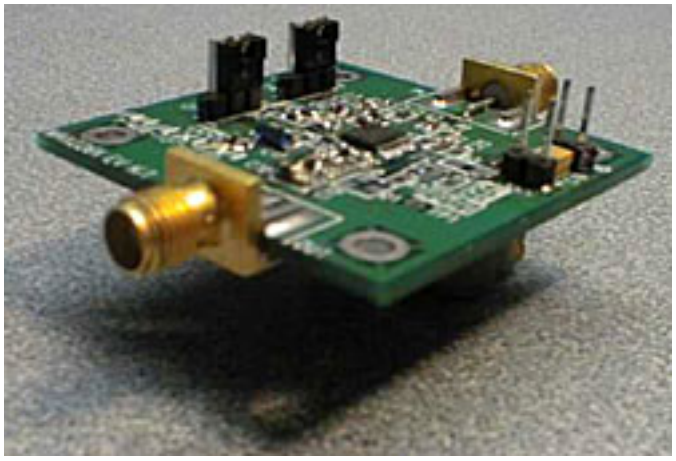
# CDMA Power Amplifier (PA) for Cellular IS-95 Ultra-Low Cost Applications

*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

REPCA28Q300, November 2000

**More Information**

MAX2265: QuickView -- Full (PDF) Data Sheet -- Free Samples