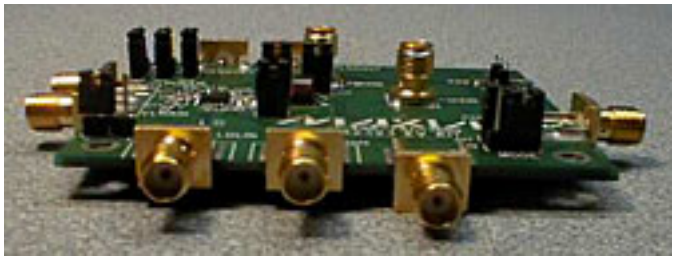
REP016: Dual-Band Front End for Japanese Cellular CDMA at 110MHz IF

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 MAX2323/MAX2325
Applications Technical Support



Objective: To band-shift the RF matching from the U.S. to the Japanese cellular band, and to measure the performance of this CDMA dual-mode front-end IC.

The MAX2325 application circuit was changed from its standard BOM for the U.S. cellular-band LNA and mixer RF matching, to meet the Japanese cellular band with 110MHz IF. In addition, measurements were made to ensure compatibility with the end-customer's requirements. The MAX2325's performance was found to be fully compliant to the data sheet specifications at U.S. cellular frequencies.

A MAX2323 evaluation kit was used to evaluate the performance of the MAX2325, as it provides a superset of MAX2325 features.

The MAX2325 low-noise amplifier (LNA) plus mixer is designed for single-band CDMA cellular-phone handsets, but it can also be used in 800-900MHz-band TDMA, GSM, or EDGE

applications. It differs from its predecessor (the MAX2324) by adding a third "mid-gain" state for the LNA that improves switchover hysteresis margin. The MAX2325 also comes in a smaller package (28-QFN) and offers increased third-order input intercept.

Block Diagram of a Receive-Path Application
Bill of Materials, Part 1
Bill of Materials, Part 2
Schematic of the MAX2323 Evaluation Kit with the MAX2325 IC Installed (PDF, 58K)

REPCA35Q300, November 2000

More Information

MAX2325: QuickView -- Full (PDF) Data Sheet -- Free Samples