

APPLICATION NOTE 1185

Designing with the MAX2538 Family of Single- and Multi-Band LNAs and Downconverters

Abstract: This application note presents the MAX2538 front end IC (FEIC) and describes the issues encountered when applying it in a cell phone. A sample RF layout is shown, along with measured performance for standard US communications bands. A matching circuit for 183.6 MHz IF is also presented, and the layout and grounding scheme is examined.

The MAX2351/MAX2354/MAX2358/MAX2359/MAX2530/MAX2531/MAX2537/MAX2538 family of single- and multi-band LNAs and downconverters are optimized for CDMA, GSM, and TDMA applications in both cellular and PCS bands.

The MAX2530/MAX2531/MAX2537/MAX2538 ICs feature an additional GPS LNA and downconverter signal path for E911 and traveler assistance applications. The cellular and PCS signals can be routed to either IF port. For example, one IF port can be connected to an IF filter with 30kHz bandwidth, while the other port can drive an IF filter with a wider bandwidth. The GPS band has its own IF port.

To obtain a copy of an application note that describes how to design with the MAX2538 family, send an e-mail message to:

WirelessResponse@maximhq.com Please specify:

- Your name and company
- e-mail address
- phone number
- project you are working on

Application Note 1185: <http://www.maxim-ic.com/an1185>

More Information

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Related Parts

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MAX2354: [QuickView](#) -- [Full \(PDF\) Data Sheet](#) -- [Free Samples](#)

MAX2358: [QuickView](#) -- [Full \(PDF\) Data Sheet](#) -- [Free Samples](#)

MAX2359: [QuickView](#) -- [Full \(PDF\) Data Sheet](#) -- [Free Samples](#)

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