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AD-FMCOMMS2-EBZ User Guide

The [AD-FMComms2-EBZ](#) is an FMC board for the [AD9361](#), a highly integrated RF Agile Transceiver™. While the complete chip level design package can be found on the [the ADI web site](#). Information on the card, and how to use it, the design package that surrounds it, and the software which can make it work, can be found here.

The purpose of the AD-FMComms2-EBZ is to provide an RF platform which shows maximum performance of the AD9361. It's expected that the RF performance of this platform can meet the datasheet specifications without issues at 2.4 GHz, and not much anywhere else. This is due to the external Johanson Technology's [2450BL15B050E](#) 2.45 GHz Balun that is on the board. This balun is rated for a operating frequency of 2400~2500 MHz.

This platform is primarily for hardware / RF investigation and bring up of various waveforms from a RF team before their custom hardware is complete, where they want to see waveforms at their frequency of interest, and are not afraid of changing out the balun if necessary. (Have a look in the [Configuration](#) sections).

The AD-FMComms2-EBZ board is very similar to the [AD-FMComms3-EBZ](#) board with only one exception, the RX/TX RF differential to single ended balun/transformer. The AD-FMComms3-EBZ is more targetted for wider tuning range applications, that is why we use the [TCM1-63AX+](#) from mini Circuits as the RF transformer of choice. We affectionately call the FMCOMMS3-EBZ the "Software Engineers" platform, and the FMCOMMS2-EBZ, the "RF Engineers" platform to denote the difference.

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People who follow the flow that is outlined, have a much better experience with things. However, like many things, documentation is never as complete as it should be. If you have any questions, feel free to [ask](#).

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2. [Hardware](#): This provides a brief description of the board by itself, and is a good reference for those who want to understand a little more about the board. If you just want to use the board, you can skip this section, and come back to it when you want to incorporate the AD9361 into your product.
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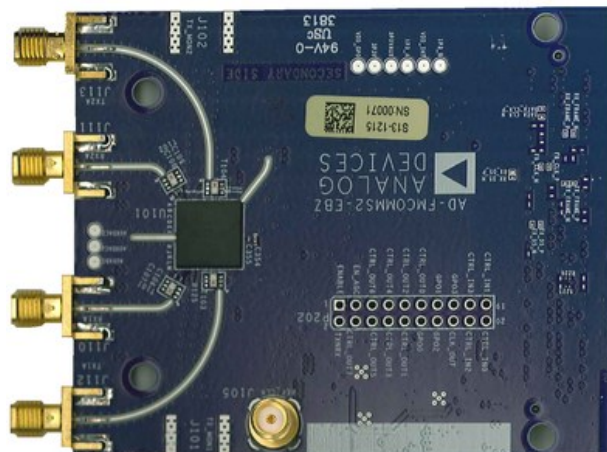


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Introduction to the AD9361

Introduction to the AD9361 based ecosystem

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Digital Filter Wizard for the AD9361

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Software Defined Radio using the Linux IIO Framework



ADI Articles

- Four Quick Steps to Production: Using Model-Based Design for Software-Defined Radio
 - [▶ Part 1—the Analog Devices/Xilinx SDR Rapid Prototyping Platform: Its Capabilities, Benefits, and Tools](#)
 - [▶ Part 2—Mode S Detection and Decoding Using MATLAB and Simulink](#)
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MathWorks Webinars

- [🌐 Modelling and Simulating Analog Devices' RF Transceivers with MATLAB and SimRF](#)
- [🌐 Getting Started with Software-Defined Radio using MATLAB and Simulink](#)

Warning



All the products described on this page include ESD (electrostatic discharge) sensitive devices. Electrostatic charges as high as 4000V readily accumulate on the human body or test equipment and can discharge without detection.

Although the boards feature ESD protection circuitry, permanent damage may occur on devices subjected to high-energy electrostatic discharges. Therefore, proper ESD precautions are recommended to avoid performance degradation or loss of functionality. This includes removing static charge on external equipment, cables, or antennas before connecting to the device.

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15,000

Problem Solvers

4,700+

Patents

125,000

Customers

50+

Years

Ahead of What's Possible

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