

FPGA Mezzanine Card for Wireless Communications

Product Details

The FMCOMMS1-EBZ high-speed analog module is designed to showcase the latest generation high-speed data converters. The FMCOMMS1-EBZ provides the analog front-end for a wide range of compute-intensive FPGA-based radio applications. When combined with an FPGA development platform, FMCOMMS1-EBZ enables a variety of wireless communications functions at the physical layer, from baseband to RF.

FMCOMMS1 + Xilinx Virtex-6 FPGA



Specifications & Features

- Software tunable across wide frequency range (400MHz to 4GHz) with 125MHz channel bandwidth (250MSPS ADC, 1GSPS DAC)
- RF section bypass for baseband sampling
- Phase and frequency synchronization on both transmit and receive paths
- Allows high channel density
- Powered from single FMC connector
- Supports MIMO radio, with less than 1 sample sync on both ADC and DAC
- Includes schematics, layout, BOM, HDL, Linux drivers and application software
- Supports add on cards for spectrum specific designs (PA, LNA etc)
- Common I²C access for all device registers

Applications

- Wireless communications demonstration and learning tool
- Remote radio head
- Software-defined radio
- Satellite modems
- Test and measurement equipment
- Radar and advanced imaging
- General purpose data acquisition