Zynq UltraScale+ RFSoC ZCU216 Evaluation Kit

OVERVIEW

Equipped with the industry's only single-chip adaptable radio device, the Zynq® UltraScale+™ RFSoC ZCU216 evaluation kit is the ideal platform for both rapid prototyping and high-performance RF application development.

Reference add-on cards and connectivity options make the ZCU216 kit suitable for developing, testing, and debug of next-gen products while reducing development complexity and improving time to market.

Co-optimized with Xilinx's comprehensive Vivado® Design Suite, the ZCU216 kit comes with design files, development tools, and IPs.

KEY FEATURES

Featuring Industry’s Only Adaptable Single-Chip Radio Platform

> Zynq UltraScale+ RFSoC Gen 3 ZU49DR on the ZCU216 board
> Full sub-6GHz direct RF sampling with extended mmWave and multi-band support
> 16 14-bit resolution 2.5GSPS RF-ADCs
> 16 14-bit resolution 10GSPS RF-DACs

Add-on Cards for Fast Evaluation and Rapid Prototyping

> XM650 16T16R N79 band loopback add-on card for quick loopback test
> XM655 16T16R breakout add-on card for in-depth performance measurements
> CLK104 RF clock add-on card for internal reference and external sampling clocking

Flexible I/O Options for Broad Application Development

> FMC+ interface for I/O expansion including 12 33Gb/s transceivers and 34 user defined differential I/O signals
> 2 400pin RFMC 2.0 18GB/s interfaces
> 2x2 SFP28 interfaces for 4 SFP/SFP+/zSFP+/SFP28 modules

Comprehensive Development Tools and IPs

> Programmable configurations with Vivado® Design Suite and IPs
> RF Data Converter Evaluation Tool and RF Power Advantage Tool
> Reference designs and board files for rapid development

TARGET APPLICATIONS

Wireless

> 5G Sub-6GHz Massive-MiMO Radio
> 5G mmWave Intermediate Frequency (IF) Transceiver
> Fixed Wireless Access
> Software Defined Radio

Aerospace and Defense

> Digital Phased Array Radar
> Terrestrial Satellite Communications

Test and Measurement

> Spectrum Analyzers
> High-Speed RF Testers
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Kit Contents

01 ZCU216 Evaluation Board
02 XM655 16T16R Breakout Add-on Card
  Reference Balun Layout and MTS Capability:
  2 Channel from 10MHz-1GHz
  2 Channel from 1GHz-4GHz
  2 Channel from 4GHz-5GHz
  2 Channel from 5GHz-6GHz
03 XM650 16T16R N79 band Loopback Add-on Card
  1-16 Channel 4.5GHz-5GHz Loopback Capability
04 CLK104 Clock Add-on Card
  Internal reference clocking
  External sampling clocking
05 6 Filters
  2 Channel from 1GHz-4GHz
  2 Channel from 4GHz-5GHz
  2 Channel from 5GHz-6GHz
06 2 Carlisle SMA 8 cable assemblies
07 2 SMA Cables
08 Ethernet Cable
09 2 Micro USB Cables
10 MicroSD Card
11 Power Cords and Adapters
12 Vivado Design Suite: System Edition Voucher
13 Hand Tools

Take the Next Step

For more information, documents, and reference designs, or to purchase, visit [www.xilinx.com/zcu216](http://www.xilinx.com/zcu216)