PRODUCT BRIEF

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

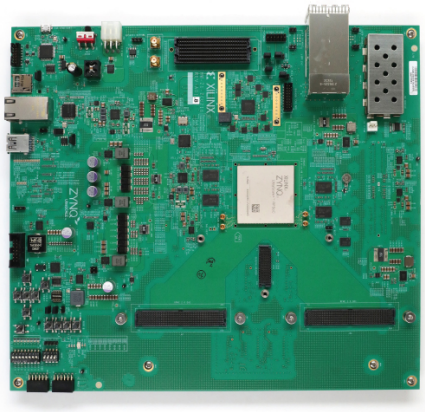
- Spectrum Analyzers
- High-Speed RF Testers

Adaptable. Intelligent.

KIT CONTENTS

Zynq UltraScale+ RFSoC ZCU216 Evaluation Kit

01



02

03

04

05

06

07

08

09

10

11

12

13

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

Corporate Headquarters
Xilinx, Inc.
2100 Logic Drive
San Jose, CA 95124
USA
Tel: 408-559-7778
www.xilinx.com

Xilinx Europe
Xilinx Europe
Bianconi Avenue
Citywest Business Campus
Saggart, County Dublin
Ireland
Tel: +353-1-464-0311
www.xilinx.com

Japan
Xilinx K.K.
Art Village Osaki Central Tower 4F
1-2-2 Osaki, Shinagawa-ku
Tokyo 141-0032 Japan
Tel: +81-3-6744-7777
japan.xilinx.com

Asia Pacific Pte. Ltd.
Xilinx, Asia Pacific
5 Changi Business Park
Singapore 486040
Tel: +65-6407-3000
www.xilinx.com

India
Xilinx India Technology Services Pvt. Ltd.
Block A, B, C, 8th & 13th floors,
Meenakshi Tech Park, Survey No. 39
Gachibowli(V), Seri Lingampally (M),
Hyderabad -500 084
Tel: +91-40-6721-4747
www.xilinx.com

XILINX

© Copyright 2020 Xilinx, Inc. Xilinx, the Xilinx logo, Alveo, Artix, Kintex, Spartan, Versal, Vitis, Virtex, Vivado, Zynq, and other designated brands included herein are trademarks of Xilinx in the United States and other countries. AMBA, AMBA Designer, ARM, ARM1176JZ-S, CoreSight, Cortex, and PrimeCell are trademarks of ARM in the EU and other countries. PCIe, and PCI Express are trademarks of PCI-SIG and used under license. All other trademarks are the property of their respective owners.

Printed in the U.S.A. AC0312