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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

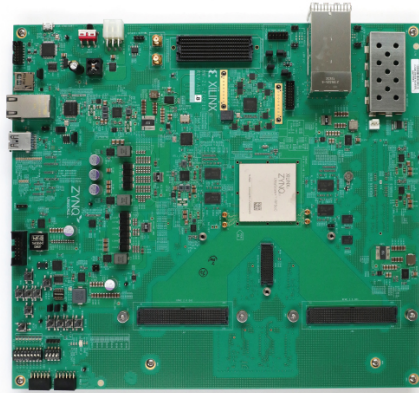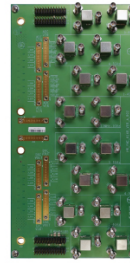### Test and Measurement

> Spectrum Analyzers

> High-Speed RF Testers

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Adaptable. Intelligent.
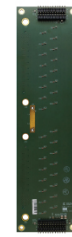
01	**ZCU216 Evaluation Board**
02	**XM655 16T16R Breakout Add-on Card** Reference Balun Layout and MTS Capability: 2 Channel from 10MHz-1GHz 2 Channel from 1GHz-4GHz 2 Channel from 4GHz-5GHz 2 Channel from 5GHz-6GHz
03	**XM650 16T16R N79 band Loopback Add-on Card** 1-16 Channel 4.5GHz-5GHz Loopback Capability
04	**CLK104 RF 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