PRODUCT BRIEF

Zynq UltraScale+ RFSoC ZCU208 Evaluation Kit

OVERVIEW

Equipped with the industry's only single-chip adaptable radio device, the Zynq® UltraScale+™ RFSoC ZCU208 evaluation kit is the ideal platform for both rapid prototyping and high-performance RF application development. The included ZU48DR is Xilinx's highest ADC sample rate RFSoC device, designed for applications requiring wide instantaneous bandwidth. Eight integrated SD-FEC cores provide forward error correction at 80% lower power consumption than soft implementations, making the ZU48DR ideal for DOCSIS, microwave backhaul, and small cell applications.

Reference add-on cards and connectivity options make the ZCU208 kit suitable for developing, testing, and debug of next-generation products while reducing development complexity and improving time to market.

KEY FEATURES

Features Industry's Only Adaptable Single-Chip Radio Platform

- Zynq UltraScale+ RFSoC Gen 3 ZU48DR on the ZCU208 board
- Full sub-6GHz with extended mmWave and multi-band support
- Integrated direct RF-sampling enabling RF design in the digital domain
- 8x 14-bit resolution 5GSPS RF-ADCs
- 8x 14-bit resolution 10GSPS RF-DACs
- 8x SD-FEC cores
- Lidless package for improved thermal dissipation

Includes Add-On Cards for Evaluation and Rapid Prototyping

- XM650 N79 band loopback add-on card for quick out of box evaluation
- XM655 breakout add-on card for in-depth performance measurements
- CLK104 RF clock add-on card for internal reference clocking and external sampling clocking

Offers Flexible I/O Options

- FPGA Mezzanine Card (FMC+) including 12x 33Gb/s transceivers and 34 user defined differential I/O signals
- 2x 400pin RFMC 2.0 18GB/s interfaces
- 2x2 SFP28 interfaces for 4 SFP/SFP+/zSFP+/SFP28 modules

Comprehensive Development Tools and IP

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

TARGET APPLICATIONS

WIRELESS

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

AEROSPACE AND DEFENSE

- Digital Phased Array Radar
- Terrestrial Satellite Communications

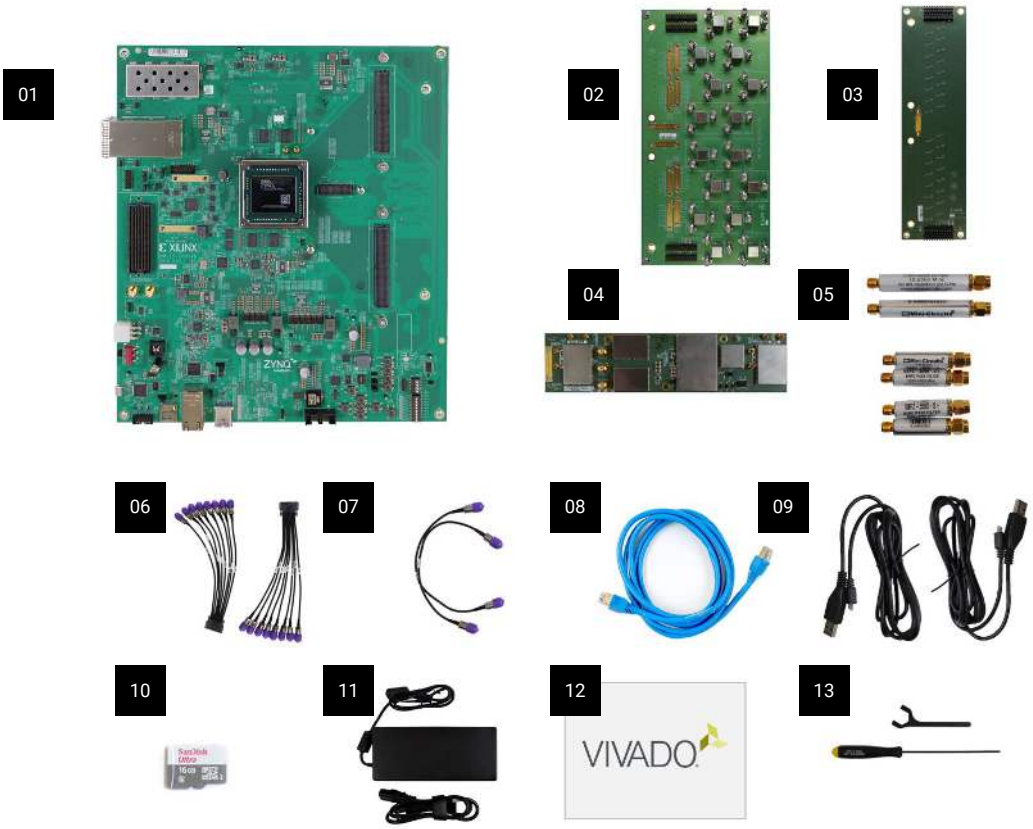
CABLE ACCESS

- Remote PHY for DOCSIS 3.1 and 4.0

TEST AND MEASUREMENT

- Spectrum Analyzers
- High-Speed RF Testers

KIT CONTENTS



01	ZCU208 Evaluation Board
02	XM655 Breakout Add-On Card
03	XM650 N79 Loopback Add-On Card
04	CLK104 RF Clock Add-On Card
05	6 Filters 2 Low Pass: DC-2500MHz 2 Mid-Band Pass: 3000-4300MHz 2 High-Band Pass: 4900-6200MHz
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/zcu208

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