

Zynq UltraScale+ RFSoc ZCU216 Evaluation Kit Board user interface quick set up guide



1. Introduction

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

2. Software Requirements

- Windows 11 English version
- <https://www.xilinx.com/products/boards-and-kits/zcu216.html> (rdf0549-zcu216-bit-c-2020-1.zip)
- Vivado 2020.1 Lab

3. Equipment Requirements

Machine

- Win 11 Laptop

Power supply

- 180W(12V) Power Supply
- XM655 16T16R Breakout Add-On Card
- CLK104 RF Clock Add-On Card (refer to <https://www.xilinx.com/publications/product-briefs/xilinx-zcu216-product-brief.pdf>)

Cable

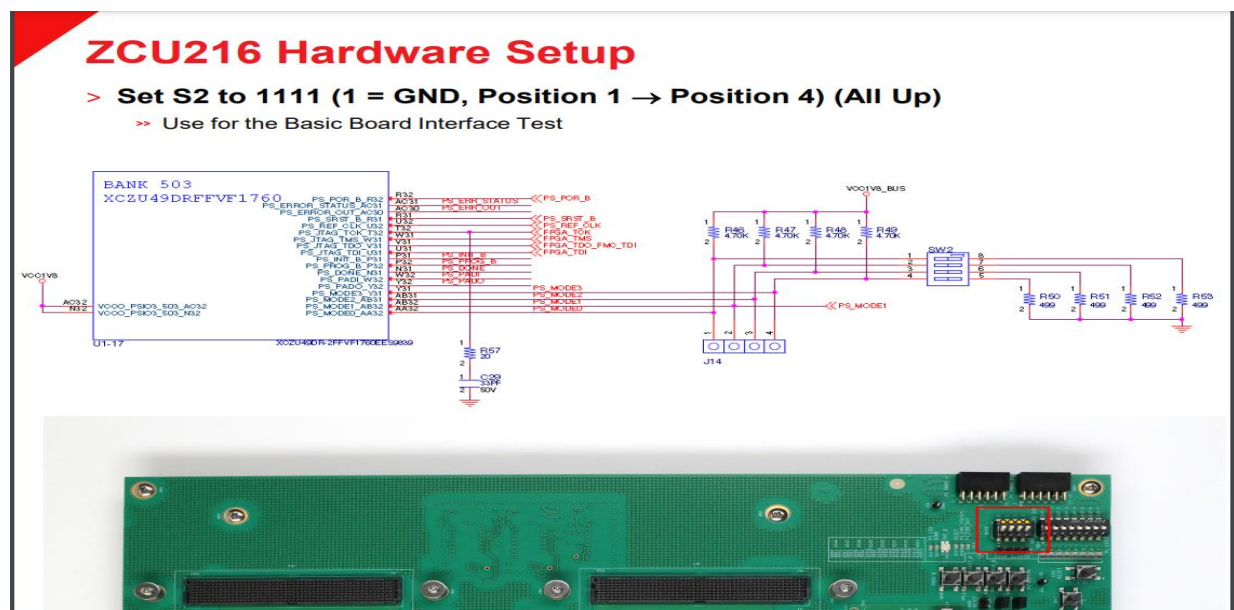
- Micro USB Cable

4. Quick start guide

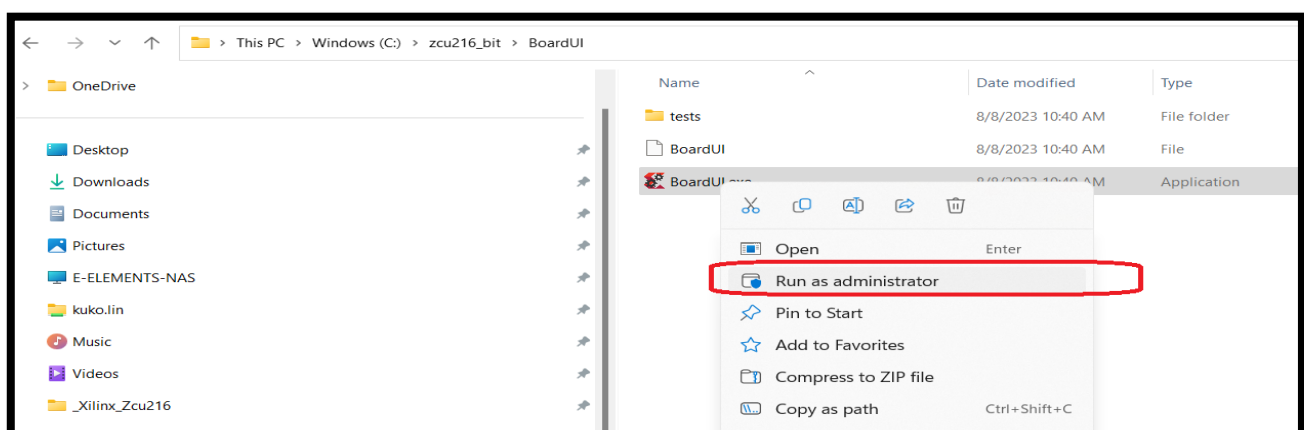
a. Setup as below



b. Set S2 as below and take SW15 from off to on (DC12V input to ZCU216 board)



c. Open the RDF0549 – ZCU216 Board Interface Test Files (2020.1 C) ZIP file Extract these files to your C:\ drive (ZCU216 BITS file download from <https://www.xilinx.com/products/boards-and-kits/zcu216.html>)



d. Appear below and press OK

Enter Board Information

Board: ZCU216

Revision: A02

Silicon: prod

Mode: default

Serial Number: 042307159092

MAC Address: 00:0A:35:03:04:05

OK

e. Appear Board User interface main GUI

ZCU216 - Board User Interface

File Logging Layout Help

Run All

| Test Function | Status |
|---------------------|--------------|
| ZCU216 Setup | READY TO RUN |
| IDCODE/SW/FW Check | READY TO RUN |
| EFUSE | READY TO RUN |
| Check Voltages | READY TO RUN |
| Check CLK-104 | READY TO RUN |
| Test IIC Pathways | READY TO RUN |
| Test Level Shifters | READY TO RUN |
| ZCU216 RTC | READY TO RUN |
| IPI APP Basic Test | READY TO RUN |
| UART Q2 TEST | READY TO RUN |
| MIG PS DDR4 | READY TO RUN |
| MIG PL DDR4 C0 | READY TO RUN |
| MIG PL DDR4 C1 | READY TO RUN |
| Program QSPI | READY TO RUN |
| QSPI Test | READY TO RUN |

Board Interface Tests System Controller

f. To Select test function as below

ZCU216 - Board User Interface

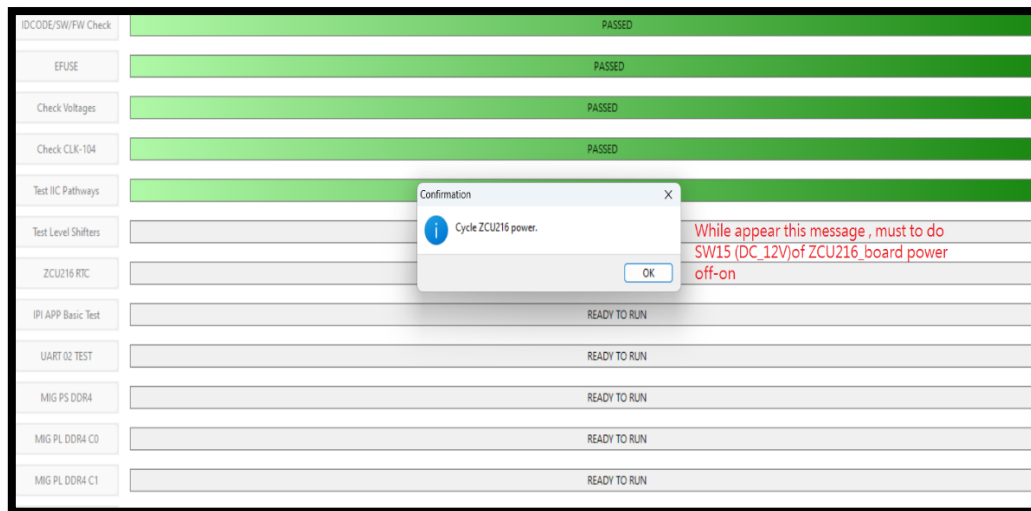
File Logging Layout Help

Run All

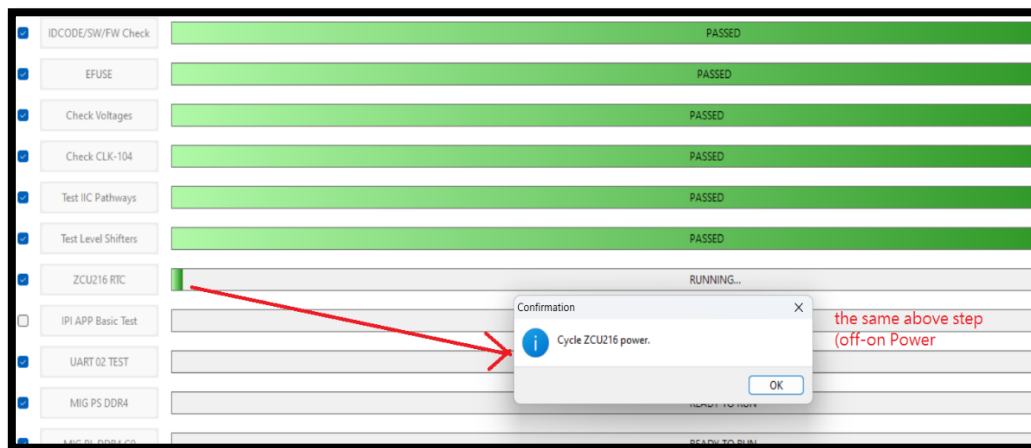
| Test Function | Status |
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Board Interface Tests System Controller

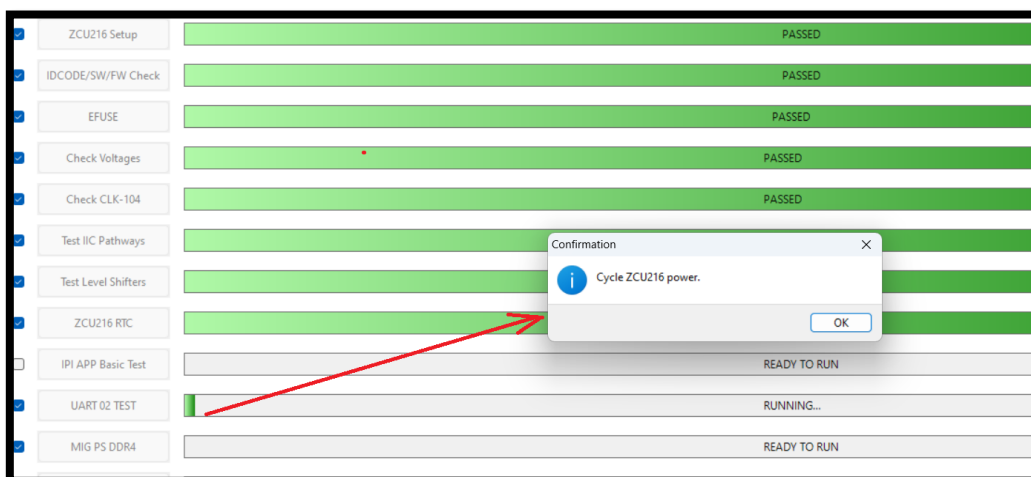
h. appear “ Cycle ZCU216 “ ,please see the below in red



i. appear “ Cycle ZCU216 “ ,please see the below in red



j. appear “ Cycle ZCU216 “ ,please see the below in red



you can see all pass