VCU118 Built In Test (BIT)

May 2019

XILINX

XTP439

Revision History

Date	Version	Description
07/19/19	9.1	Updated bitstreams.
05/29/19	9.0	Updated for 2019.1.
12/10/18	8.0	Updated for 2018.3.
06/18/18	7.0	Updated for 2018.2.
04/09/18	6.0	Updated for 2018.1.
12/20/17	5.0	Updated for 2017.4.
10/26/17	4.0	Updated for 2017.3.1. For Rev 2.0, with Production Silicon.
06/20/17	3.0	Updated for 2017.2.
04/19/17	2.0	Updated for 2017.1.
03/28/17	1.1	Minor update to SCUI config.json.
12/19/16	1.0	Initial version for 2016.4.

VCU118 BIT Test Overview

- Xilinx VCU118 Board
- Software Requirements
- VCU118 Setup
- Run the BIT Test
- Notes
- References

Note: This presentation applies to the VCU118

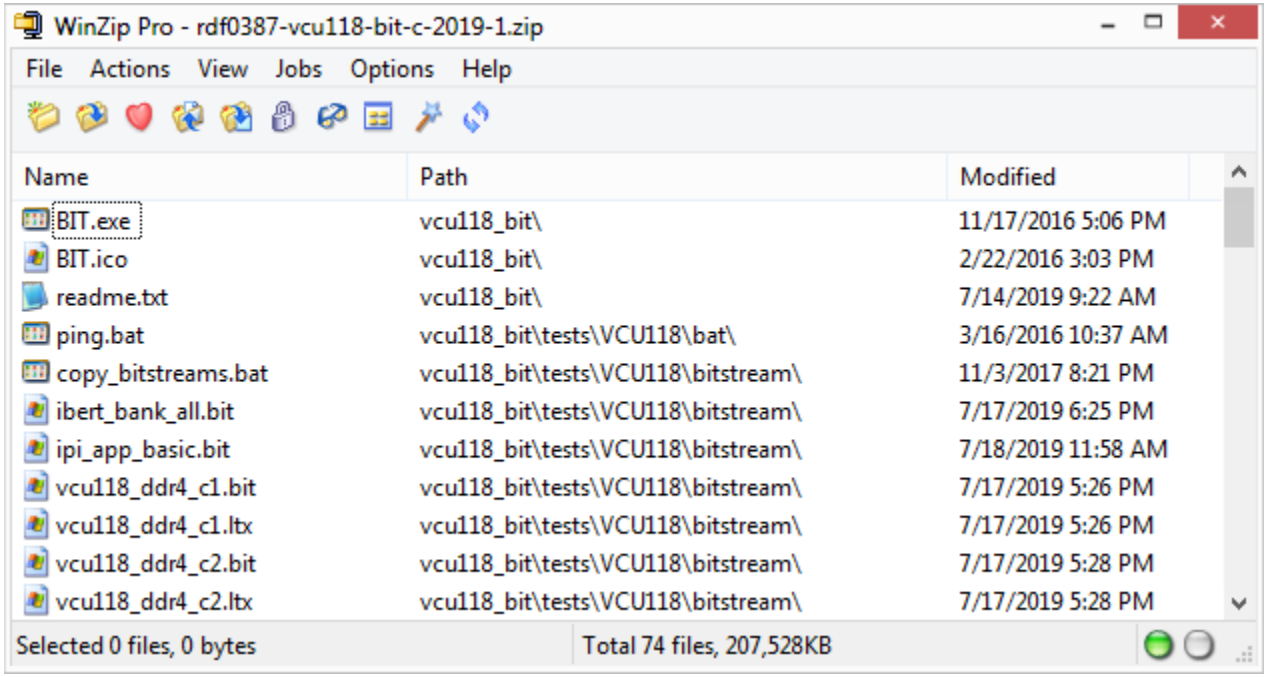
VCU118 Software Install and Board Setup

- **Complete setup steps in XTP449 – VCU118 Software Install and Board Setup:**
  - Software Requirements
  - VCU118 Board Setup
  - UART Driver Install
  - Ethernet Setup

Note: Presentation applies to the VCU118

Setup for the VCU118 BIT Test

- **Open the VCU118 Built In Test Design Files (2019.1 C) ZIP file:**
  - Extract these files to your C:\ drive



Note: Presentation applies to the VCU118

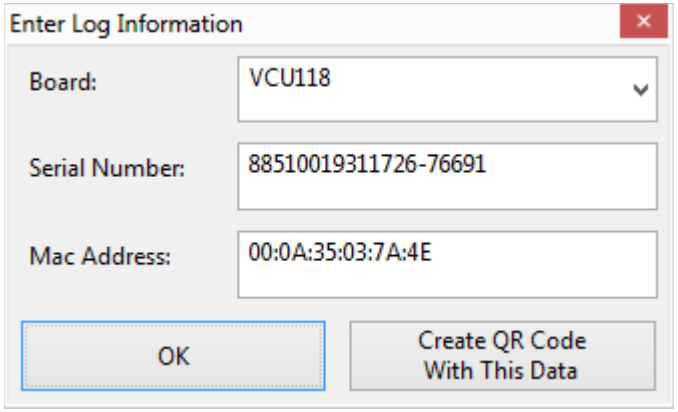
Running the Board Interface Test

- **From C:\vcu118_bit, double click on vcu118_bit.exe**

Note: Executable requires 64-bit Windows

Basic Board Interface Test

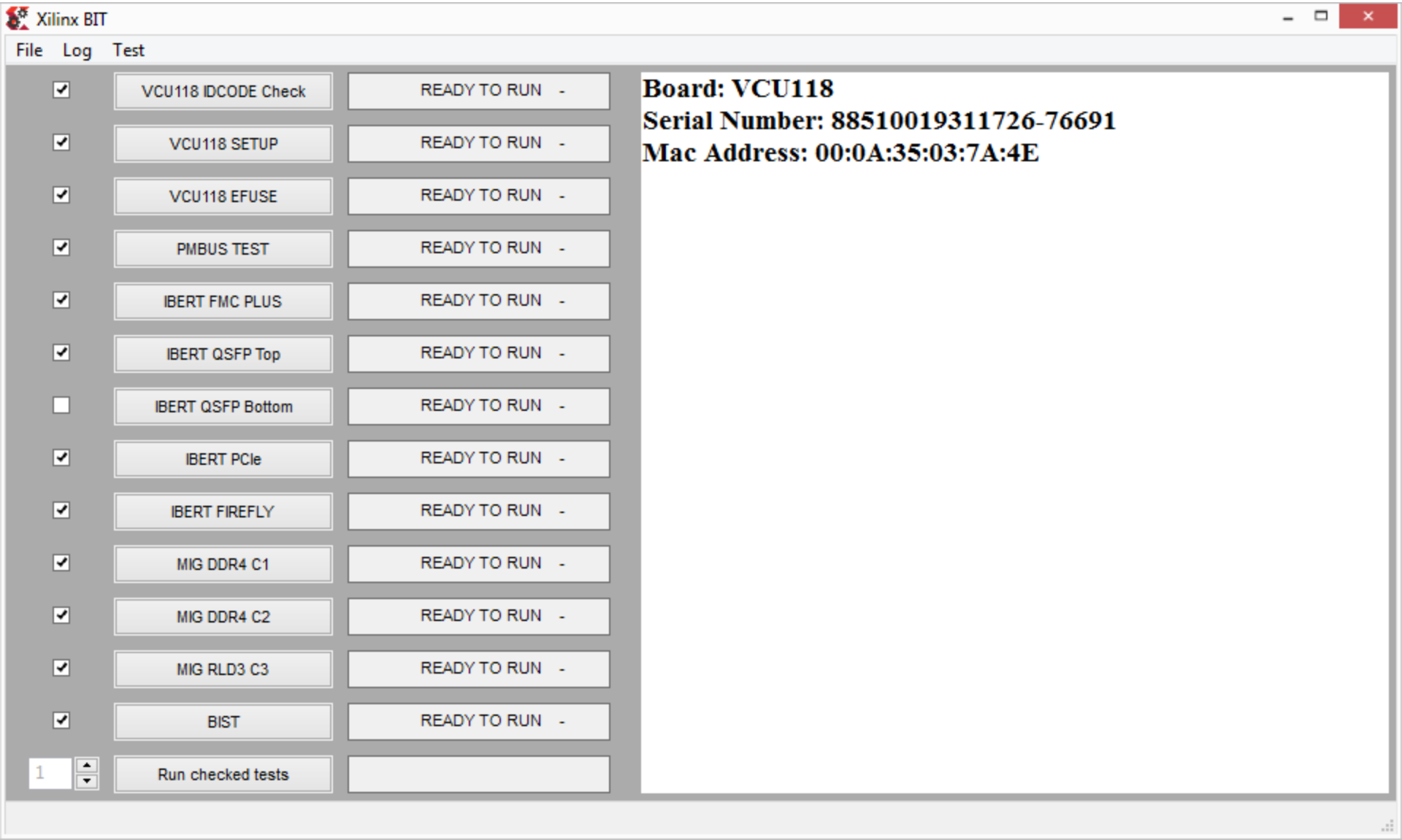
- **Enter the Board Serial Number and Mac Address and click OK**



Note: Presentation applies to the VCU118

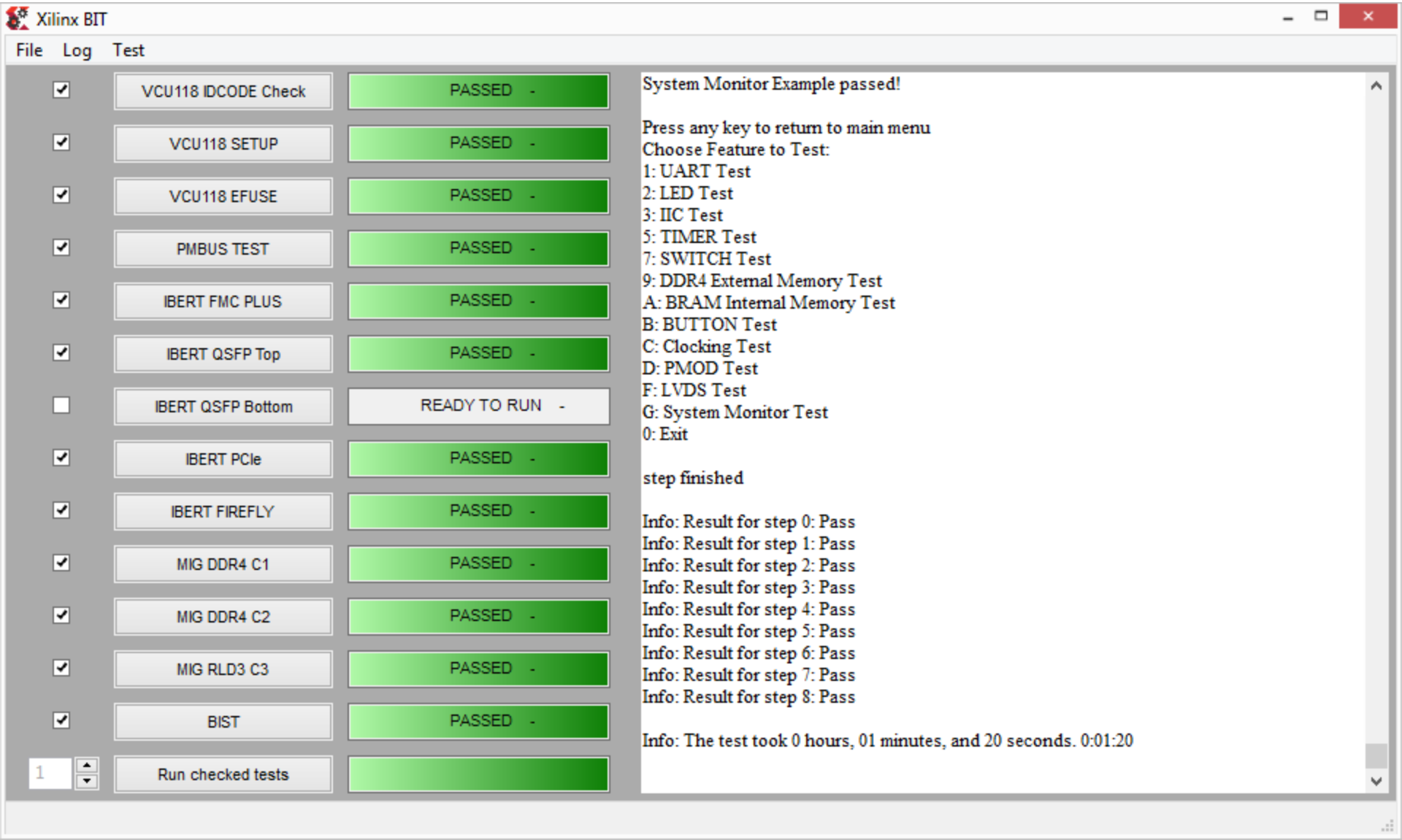
Basic Board Interface Test

- Click the Run checked tests button



Basic Board Interface Test

> **All selected tests passed**



Appendix

- **Ensure that you have followed all instructions in XTP453 - VCU118 Evaluation Kit Quick Start Guide and XTP449, VCU118 Software Install and Board Setup**
- **Ensure that no other Terminal program is connected to the VCU118's two COM ports while the Board Interface Test is running**
  - See XTP449 for details on COM Ports
- **Only one board can be connected to your PC during the test**
  - Both USB UART (J4) and USB JTAG (J106) are required for this test
  - Disconnect any other board UARTs or Programming Cables
- **If you missed any set-up instructions and experience problems, then please follow these steps:**
  - Recheck your setup
  - End any hw_server processes and cycle board power
  - Open Vivado Hardware Manager and test PC-board JTAG connectivity

Note: Presentation applies to the VCU118

References

References

- **Vivado Release Notes**
  - Vivado Design Suite User Guide - Release Notes – UG973
    - https://www.xilinx.com/support/documentation/sw_manuals/xilinx2019_1/ug973-vivado-release-notes-install-license.pdf
  - Vivado Design Suite 2019 - Vivado Known Issues
    - https://www.xilinx.com/support/answers/72162.html
- **Vivado Programming and Debugging**
  - Vivado Design Suite Programming and Debugging User Guide – UG908
    - https://www.xilinx.com/support/documentation/sw_manuals/xilinx2019_1/ug908-vivado-programming-debugging.pdf

Documentation

Documentation

- **Virtex UltraScale+**
  - Virtex UltraScale+ FPGA Family
    - https://www.xilinx.com/products/silicon-devices/fpga/virtex-ultrascale-plus.html
- **VCU118 Documentation**
  - Virtex UltraScale+ FPGA VCU118 Evaluation Kit
    - https://www.xilinx.com/products/boards-and-kits/vcu118.html
  - VCU118 Board User Guide – UG1224
    - https://www.xilinx.com/support/documentation/boards_and_kits/vcu118/ug1224-vcu118-eval-bd.pdf
  - VCU118 Evaluation Kit Quick Start Guide User Guide – XTP453
    - https://www.xilinx.com/support/documentation/boards_and_kits/vcu118/xtp453-vcu118-quickstart.pdf
  - VCU118 - Known Issues and Release Notes Master Answer Record
    - https://www.xilinx.com/support/answers/68268.html