



**Avnet MiniZed**  
**Revision 1 Errata**  
**V1.0**  
**12 December 2017**

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# 1 Introduction

Thank you for your interest in the Avnet MiniZed Zynq 7007S development board. This errata document describes unintended limitations that are the result of design errors. If another board revision is ever created, these corrections should be made to the board.

# 2 Identifying Affected Modules

This errata list currently only applies to the Rev 1 MiniZed board. There was a Rev A prototype board with a red PCB, but those boards have been recalled and the limited number should be out of circulation.

The image below indicates how you can verify that you have a MiniZed Rev 1 board. For a Rev 1 board, the text **PBA-M1DEV-1** is etched into the copper. Because of the black PCB this may be tricky to locate without the yellow indicator on the right in the image below. You may have to use a magnifying glass.

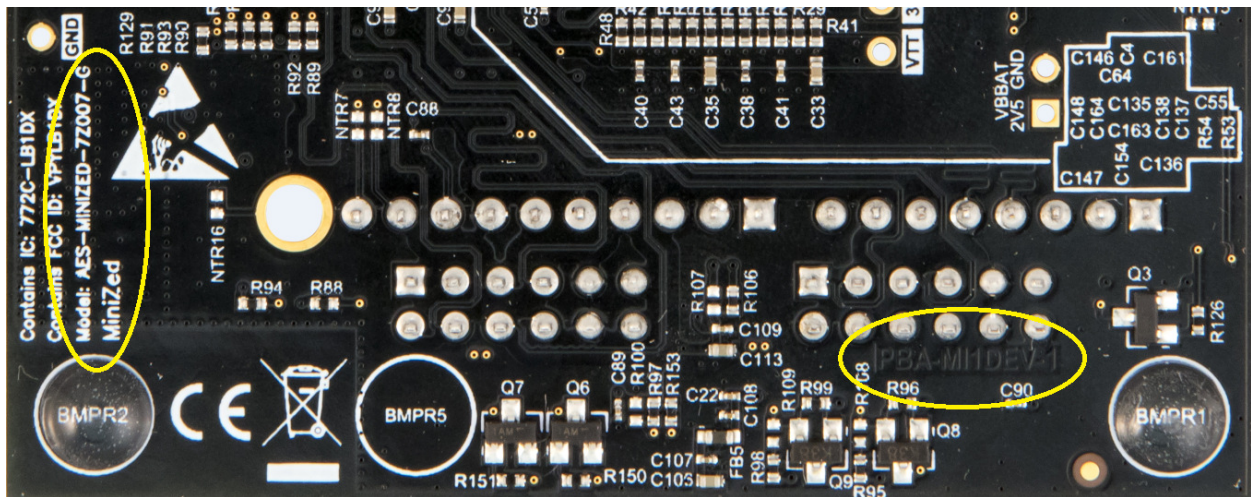


Figure 1 – Identifying MiniZedZed Rev 1 for this Errata

### 3 Errata

#### 3.1 Remote JTAG Debug Reset Does not Work

##### 3.1.1 Applications Affected

Both Xilinx Vivado and SDK will be affected when trying to use JTAG remotely. Since the power-on reset and software reset cannot be controlled via the FTDI device, the tools will not be able to programmatically issue a reset when re-starting a download. MiniZed is only reset during power-on or when the reset button is pushed.

##### 3.1.2 Description

The resistors marked in red below are not on the current schematic. This is due to a design oversight, since they should have been included. Without them, it was discovered that many boards manifested an unreliable reset on power-up. This was because the inputs to U16 would float when the FTDI chip was not actively driving the LS\_OE\_N line. Because this line is under software control via the FTDI driver, it is not driven unless debug software is active.

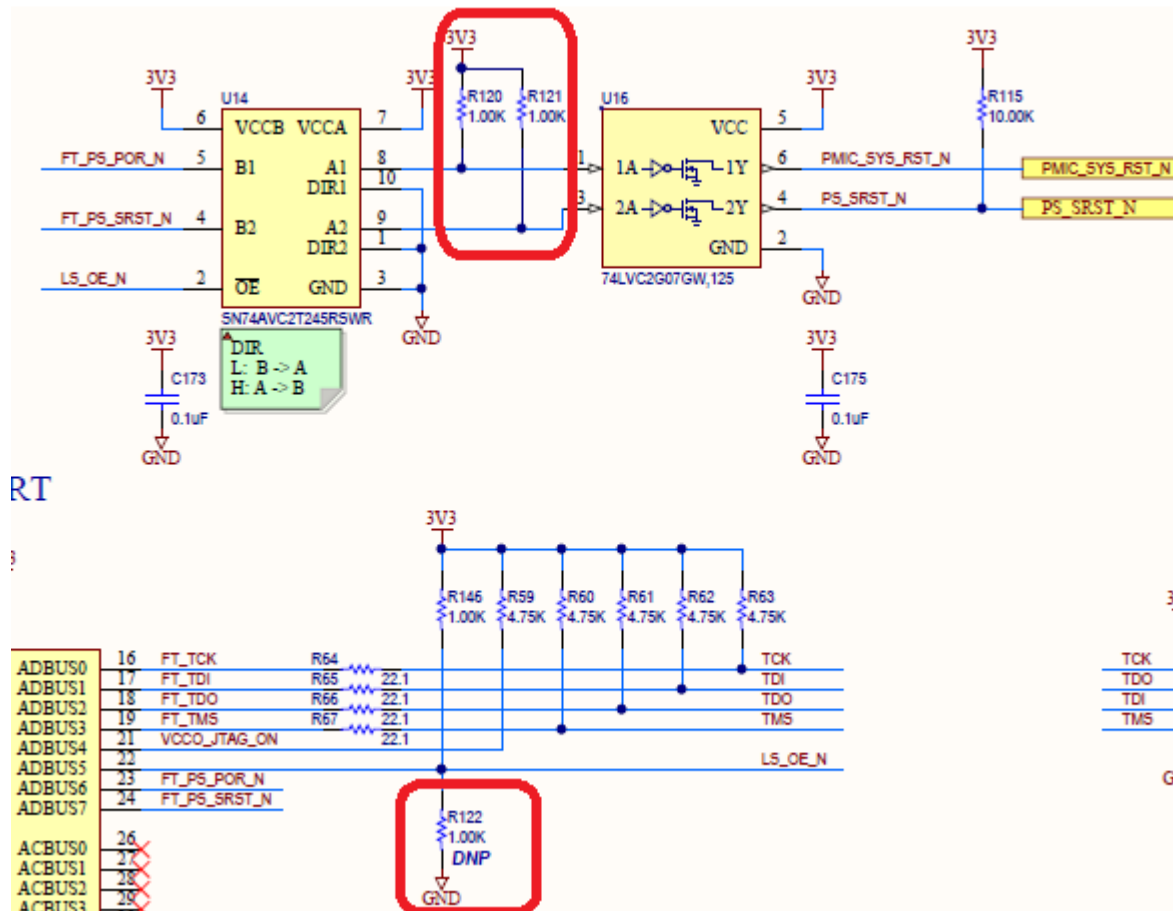
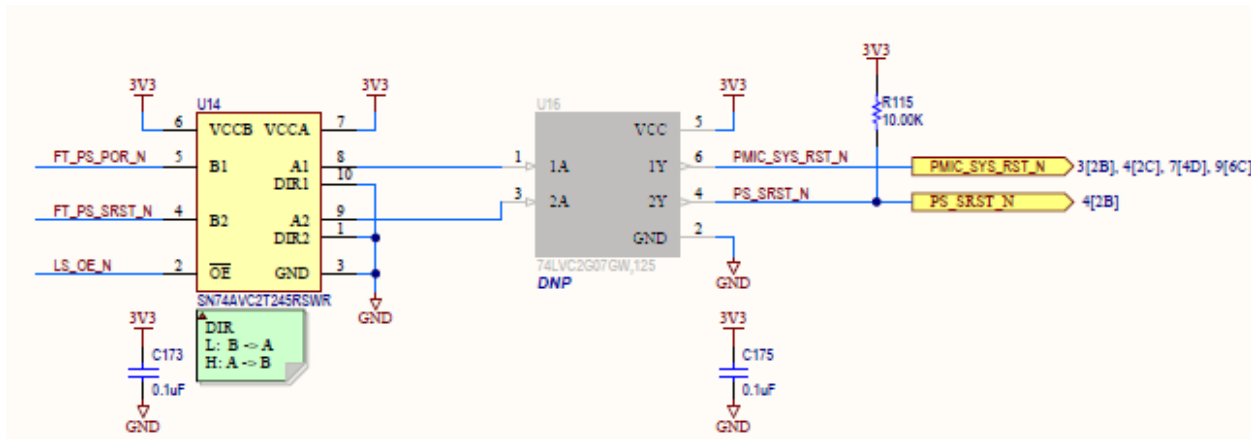


Figure 2 – Missing Resistors on the Rev 1 MiniZedZed Design

The solution (shown in the image below) was to remove U16 on the Rev 1 boards. This causes power-on reset to be reliable, but unfortunately a software reset via the JTAG driver software is not supported anymore.



**Figure 3 – U16 Removed on Current Rev 1 MiniZedZed Schematic**

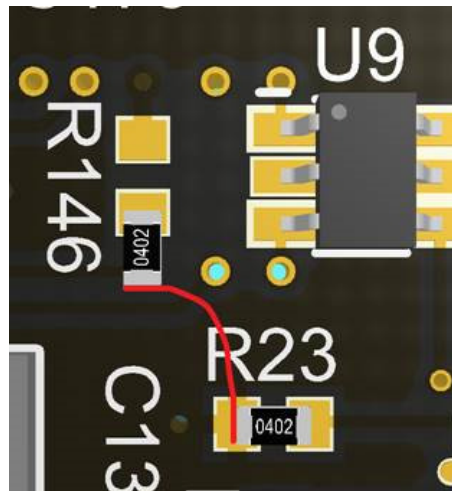
Note that U16 was not removed from all Rev A prototype boards (with a red PCB). So these boards will manifest unreliable reset, but software reset will work.

### 3.1.3 Workaround

Any workaround will require a hardware modification to the board.

If you simply wanted to test the remote debug feature to make sure how it would work on your own custom hardware design, you could replace U16, which is a 74LVC2G07GW,125 device from NXP with description: IC BUFFER N-INV OP/DRAIN 6TSSOP.

The replacement of U16 will cause software reset to work, but power-on reset to be unreliable. This is because LS\_OE\_N could be high during power-up, which would result in U16's inputs floating. If LS\_OE\_N is pulled low though, this could be remedied. This can be accomplished by desoldering R146 (1K) and then using a jump-wire to connect it to GND on R23, as shown in the image below.



**Figure 4 – Modification to pull LS\_OE\_N Low**

## 4 New Erratum

Any new erratum found will be posted to the MiniZed website: <http://zedboard.org/product/minized>

## 5 Additional Support

For additional support, please review the discussions and post your questions to the MiniZed Forums at: <http://picozed.org/forums/minized-hardware-design>

You can also contact your local Avnet FAE.

## 6 Revision History

Date	Version	Revision
12 Dec 17	1.0	Initial Draft