

APPLICATION NOTE

```
// Create an instant camera object with the first
Camera_t camera( CT1Factory::GetInstance().Creat

// Register an image event handler that accesses
camera.RegisterImageEventHandler(_new CSampleIma
Ownership_TakeOwnership);

// Open the camera.
camera.Open();
```

Required Modifications on MicroZed Processing Board Used with USB 2.0 Devices

Applicable to Basler dart BCON for LVDS Development Kit with MicroZed Processing Board

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1 General Information

NOTICE

Basler strongly recommends not using the USB 2.0 port of the processing board to operate a USB 2.0 device (e.g., a camera) that requires a power supply as specified by the USB 2.0 standard. When connected to the USB 2.0 port, functionality and data transmission of the device will be limited or the device will not be recognized at all.

If you want to operate a USB 2.0 device, follow the instructions on the next page in order to prepare the processing board for operation with USB 2.0 devices.

1.1 About this Document

This document provides information about how to modify the MicroZed processing board of the Basler dart BCON for LVDS Development Kit in order to use it with USB 2.0 devices.

1.2 Target Audience

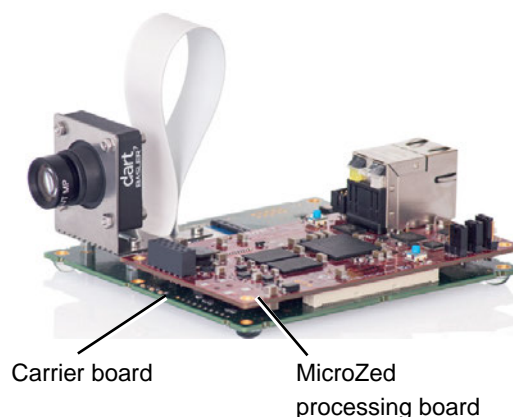
The Basler dart BCON for LVDS Development Kit is aimed at experienced hardware and software engineers proficient in electronics, software development, and embedded system design.

2 If the MicroZed Processing Board is Used with USB 2.0 Devices

The MicroZed processing board is powered with 5 VDC via the carrier board of the Basler dart BCON for LVDS Development Kit.

This voltage is fed through two Schottky diodes on the MicroZed processing board and is used as power supply voltage for optional USB 2.0 devices.

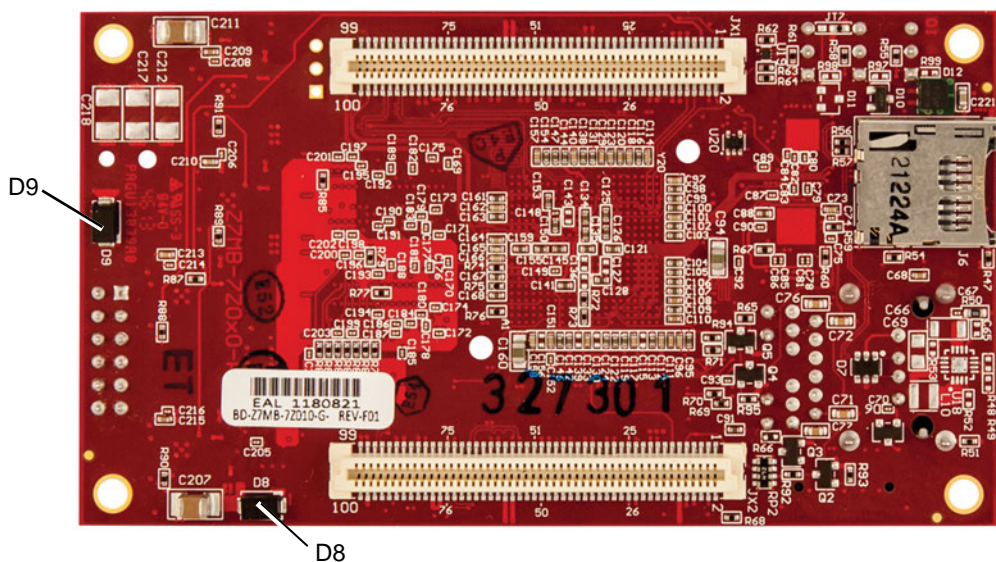
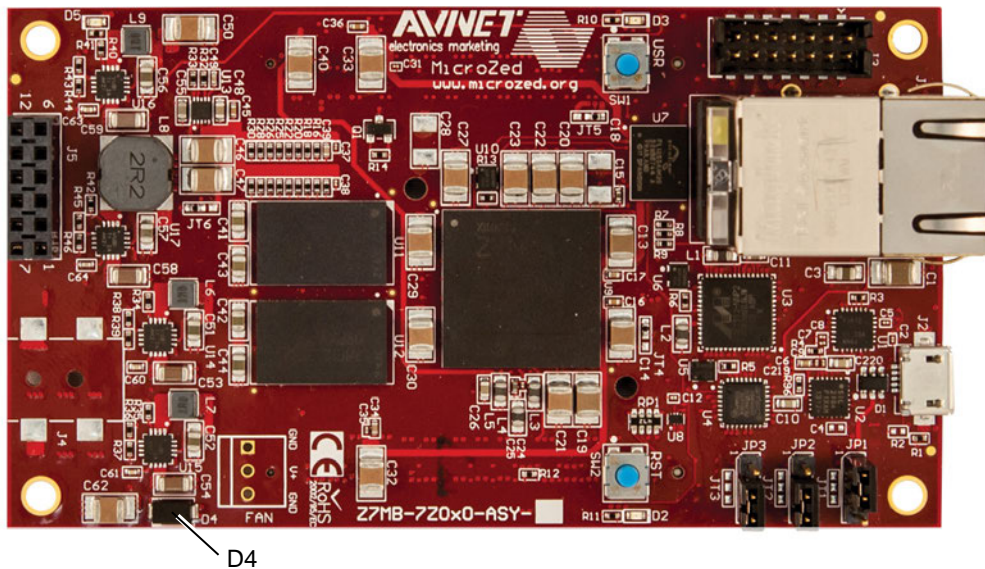
Each of the Schottky diodes causes a voltage drop of up to 0.5 V. This leads to a reduced output voltage on the USB 2.0 connector of down to 4.0 V which might cause problems with USB 2.0 devices attached.



3 Obtaining USB 2.0 Compatibility on the MicroZed Processing Board

To obtain USB 2.0 compatibility on the MicroZed processing board:

1. Make sure that the MicroZed processing board is disconnected from power.
2. On the front side of the processing board:
Remove the D4 diode.
3. On the back side of the processing board:
Remove the D8 and D9 diodes and replace them by shunts (0 Ohm resistors, size 1206).



These modifications allow you to use USB 2.0 devices with the processing board without a reduced output voltage on the USB 2.0 connector.

Revision History

Document Number	Date	Changes
AW00140301000	21 March 2017	Initial release version of this document.
AW00140302000	02 August 2018	Changed name of the development kit to <i>Basler dart BCON for LVDS Development Kit</i> .

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