

**Bitfire Development Kit
Bitfire Hardware Errata
Version 1.11**



ARROW ENGINEERING SWEDEN

This page is intentionally left blank.

Revision History		
Version	Date	Updates
1.10	050530	Document public release.
1.11	051019	Version 1.11 HW release notes added and fixed errata removed

Without our written consent in each particular case, this document must not under any circumstances and under penalty of law be reproduced, improperly used, handed over or otherwise communicated to a third part.

Arrow Engineering Sweden, Timmernabben, Sweden

1	RECOMMENDED CHANGES.....	5
1.1	EXCESSIVE VLED VOLTAGE.....	5
1.2	POOR WORKING TRAFFIC LED INDICATORS.....	5

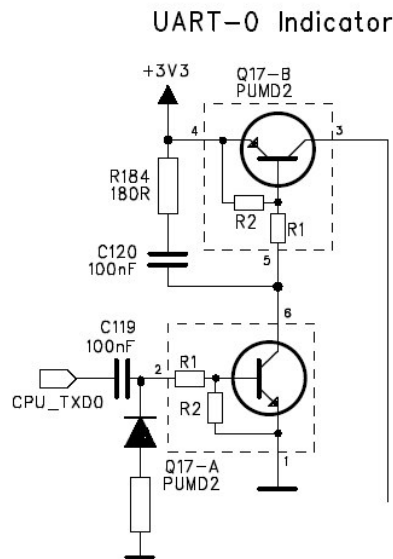
1 Recommended changes

1.1 Excessive VLED voltage

LED-matrix supply voltage is approx 4.5V by default, changing R130 to 3.3k Ω will lower the VLED voltage to 3.45V. This is still enough to have headroom for the current sources in the LED-drivers. This will increase the efficiency of the design as the losses in the drivers are reduced when the voltage drop is decreased.

1.2 Poor working traffic led indicators

A new feature on V1.11 hardware was implementation of traffic flow indicators on interface ports. Low dataflow in conjunction with high baud rate these will not show traffic activity correctly. The procedure for patching to get correct behavior is the same for all channels. Refer to schematic page “Onboard integrated debug tools”.



Above picture shows TXD channel on UART-0. Place a diode like BAS216, 1N4148 or similar with anode from ground in series with a 180R resistor. This will ensure that positive voltage is seen on the base of Q17 even though the previous packet had a short low level duration.