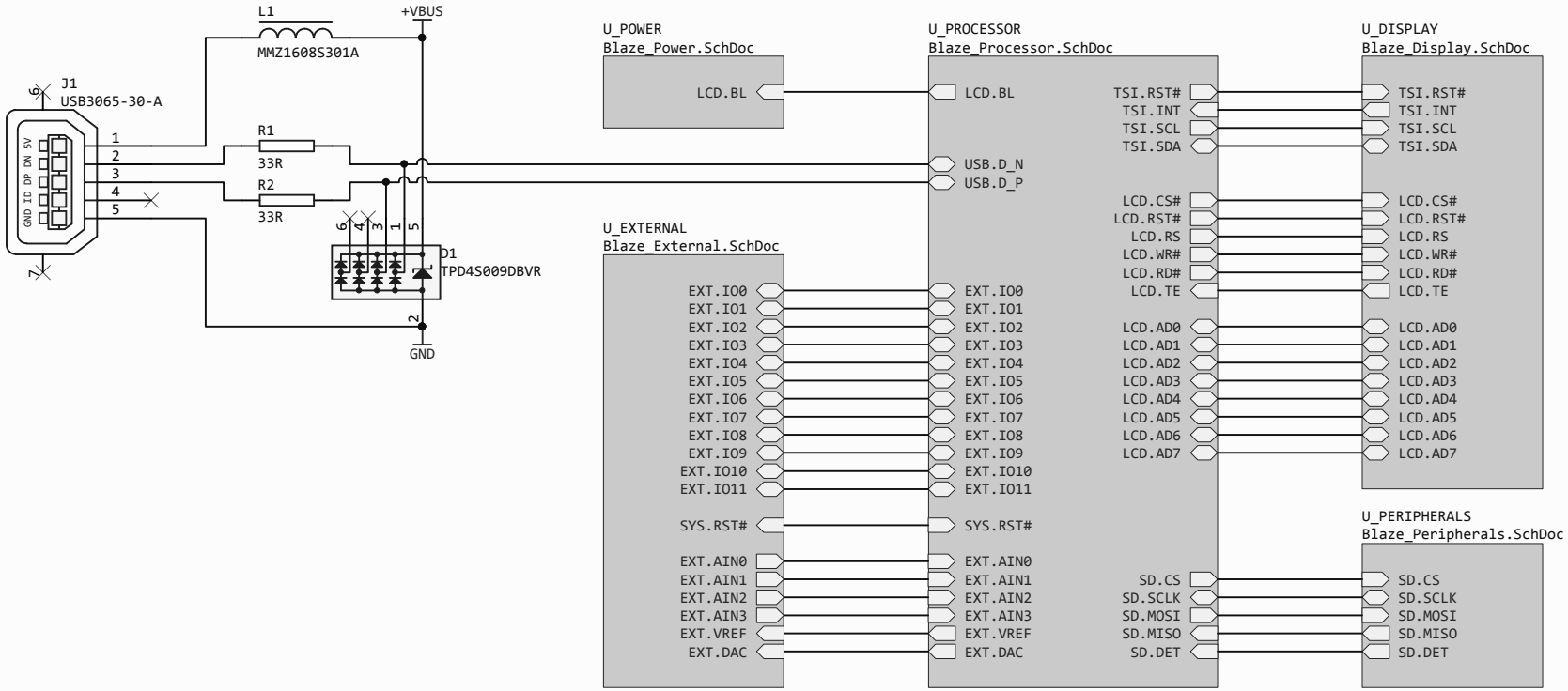
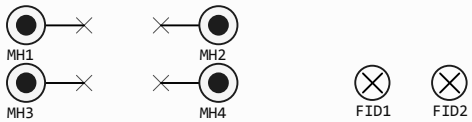
V1 - Blaze

USB Micro Receptacle



M2 Mounting Holes



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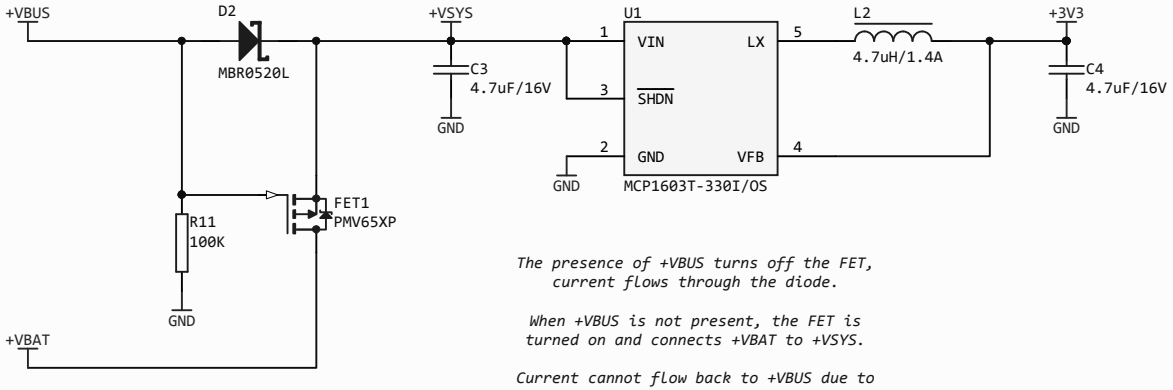
V1 - Blaze

Voltage Regulator

Capable of providing 500mA of current at 3.3V

USB input



The presence of +VBUS turns off the FET, current flows through the diode.

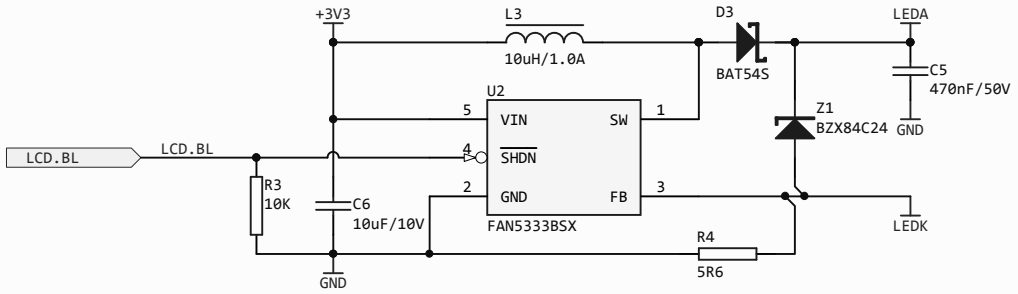
When +VBUS is not present, the FET is turned on and connects +VBAT to +VSYS.

Current cannot flow back to +VBUS due to the diode.

Battery input

Backlight Regulator

Driving 3 LEDs in series (20mA each)



ILED = VFB/R
R = 0.315/ILED
R = 0.315/0.06
R = 5R25 (~5R6)

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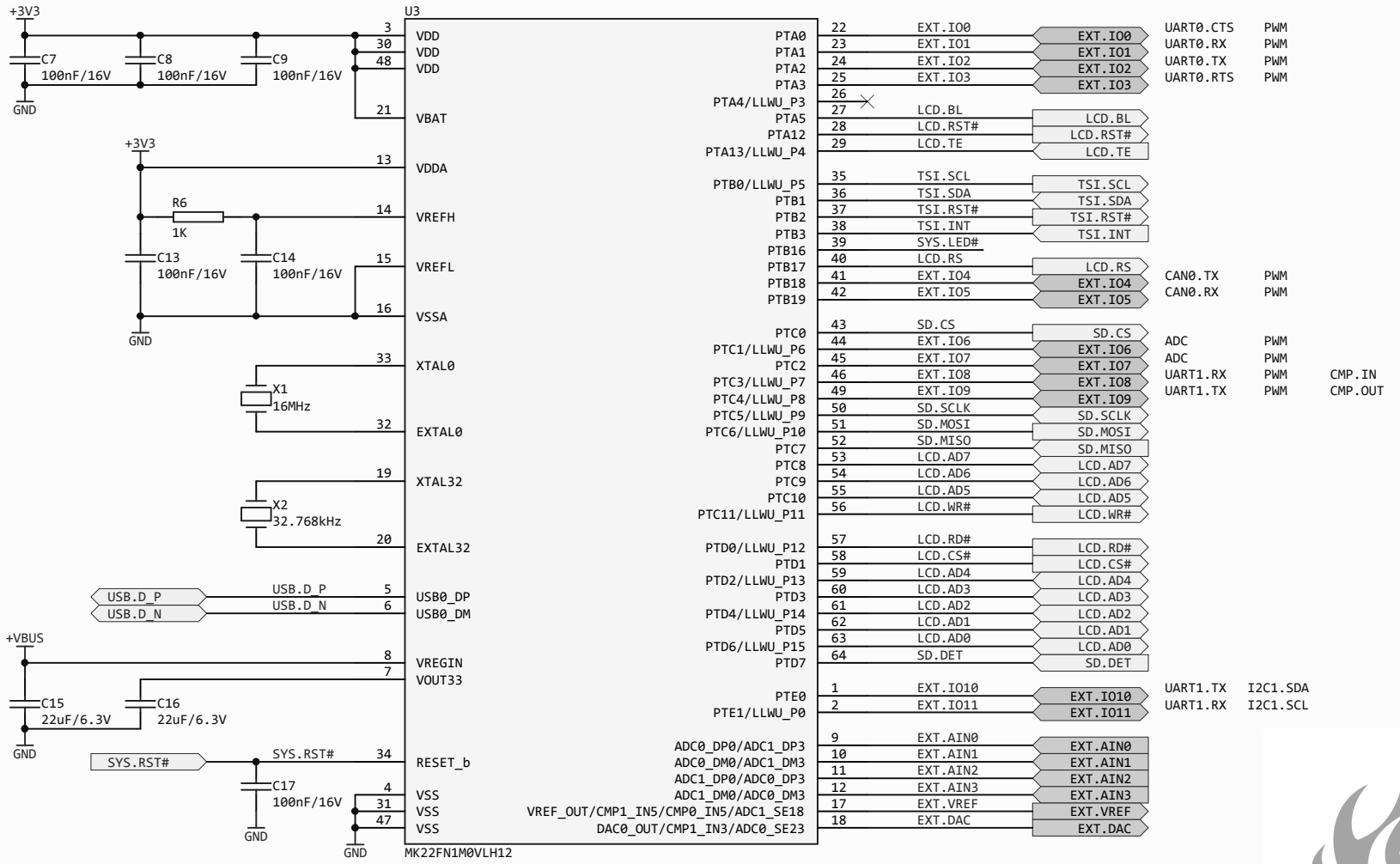
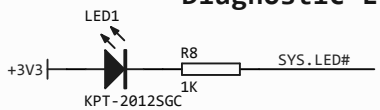
V1 - Blaze

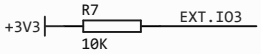
Kinetis K22 120MHz Cortex-M4 Microcontroller



Diagnostic LED



JTAG TMS Pull-up



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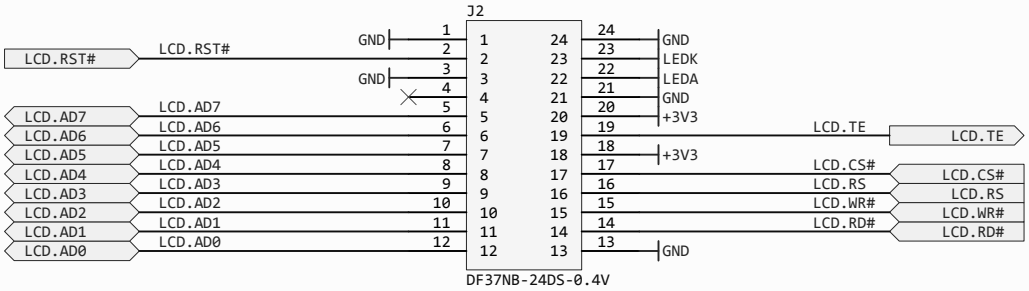
1.6" 240x240px Display



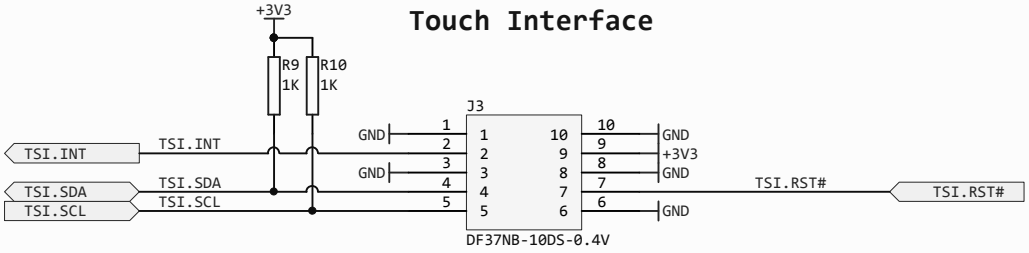
The display is driven entirely by the FlexBus peripheral in 8-bit mode, however the FlexBus must be configured for 32-bit mode. This is essential to allow the RS signal to work below.

The RS signal sits on bit 16 of the FlexBus AD port and is used to control whether data or a command is sent to the display.

When writing a command to the display, write to address 0x60000000.

When writing data to the display, write to address 0x60010000 - note that bit 16 is set which tells the display that it is receiving a command.

Touch Interface



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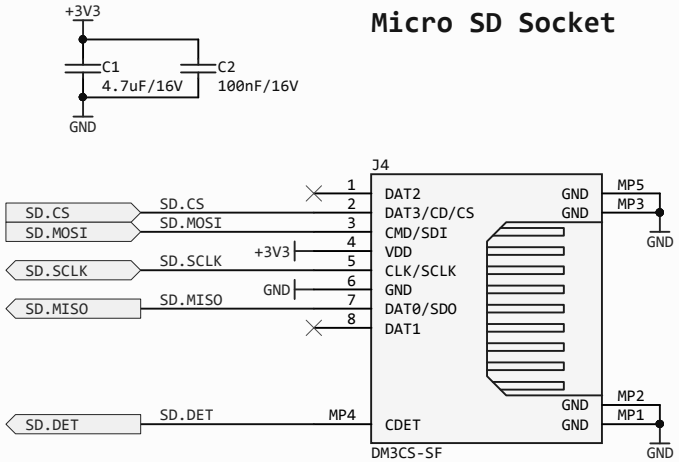
V1 - Blaze



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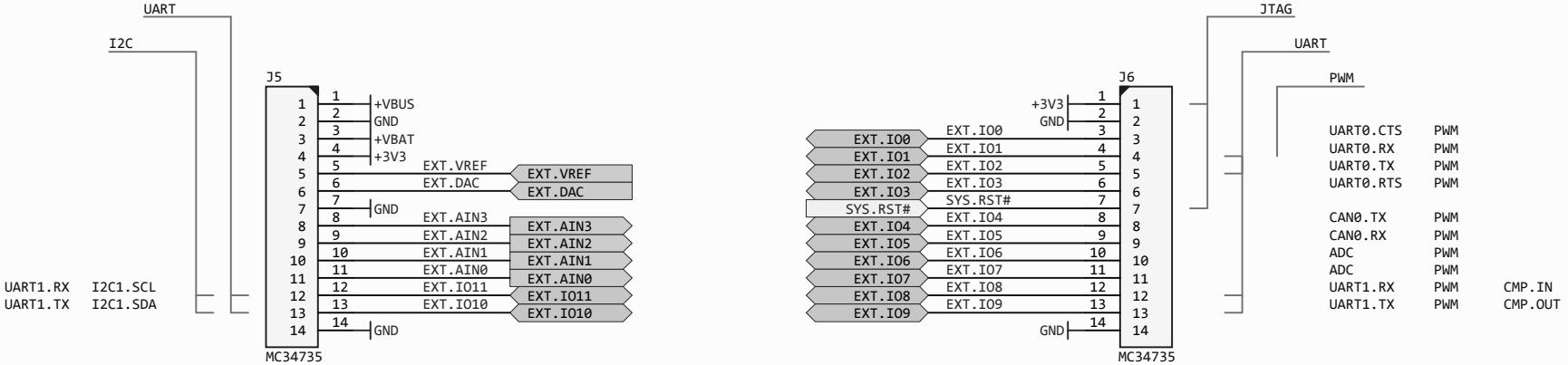
External IO Headers

Pair of external IO headers for expansion



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