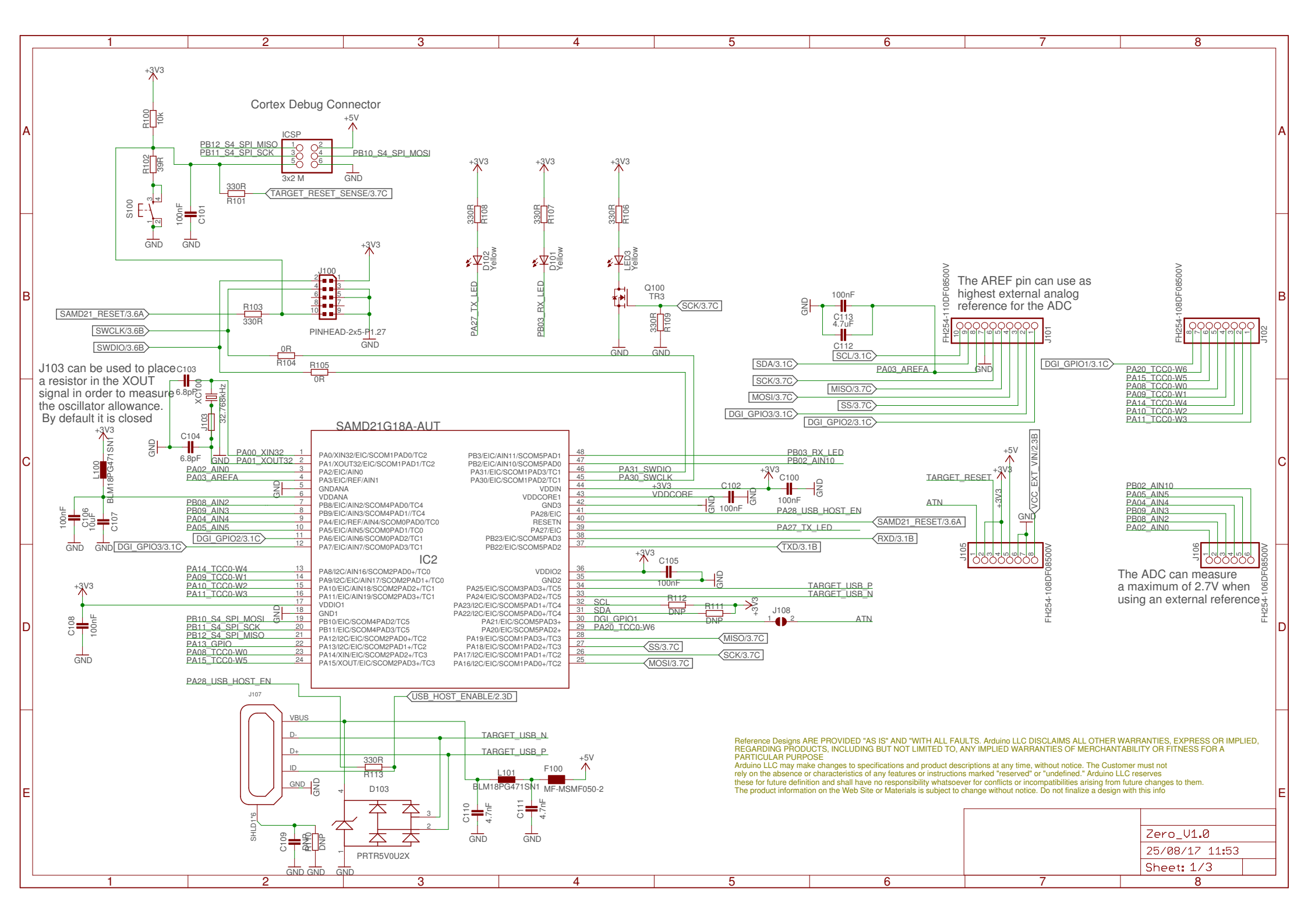
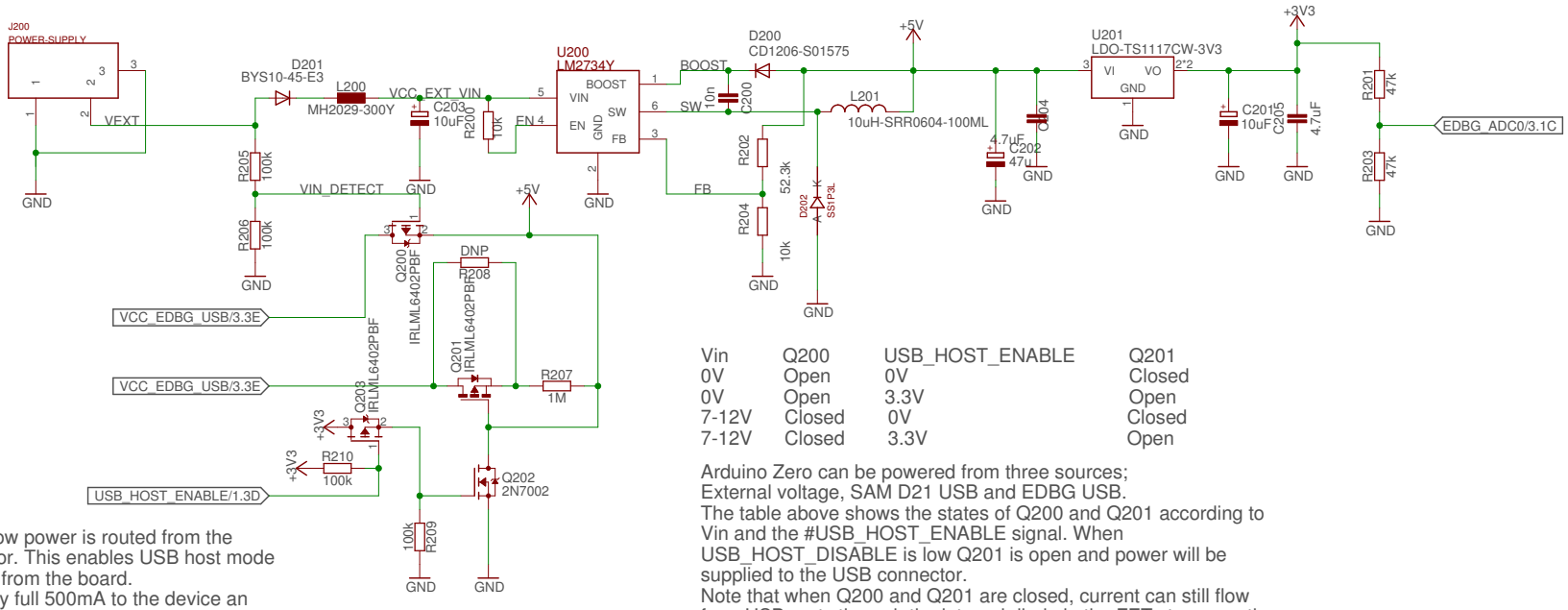

Cortex Debug Connector
ICSP
3x2 M
PB12_S4_SPI_MISO
PB11_S4_SPI_SCK
PB10_S4_SPI_MOSI
TARGET_RESET_SENSE/3.7C
PINHEAD-2x5-P1.27
SAMD21_RESET/3.6A
SWCLK/3.6B
SWDIO/3.6B
J103 can be used to place a resistor in the XOUT signal in order to measure the oscillator allowance. By default it is closed
SAMD21G18A-AUT
IC2
PA00_XIN32
PA01_XOUT32
PA02_AIN0
PA03_AREFA
PB08_AIN2
PB09_AIN3
PA04_AIN4
PA05_AIN5
DGI_GPIO2/3.1C
DGI_GPIO3/3.1C
PA14_TCC0-W4
PA09_TCC0-W1
PA10_TCC0-W2
PA11_TCC0-W3
PB10_S4_SPI_MOSI
PB11_S4_SPI_SCK
PB12_S4_SPI_MISO
PA13_GPIO
PA08_TCC0-W0
PA15_TCC0-W5
PB03_RX_LED
PB02_AIN10
PA31_SWDIO
PA30_SWCLK
PA28_USB_HOST_EN
SAMD21_RESET/3.6A
PA27_TX_LED
RXD/3.1B
TXD/3.1B
TARGET_USB_P
TARGET_USB_N
SCL
SDA
DGI_GPIO1
PA20_TCC0-W6
ATN
MISO/3.7C
SS/3.7C
SCK/3.7C
MOSI/3.7C
USB_HOST_ENABLE/2.3D
PRTR5V0U2X
The AREF pin can use as highest external analog reference for the ADC
The ADC can measure a maximum of 2.7V when using an external reference
Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino LLC DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE
Arduino LLC may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined." Arduino LLC reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them.
The product information on the Web Site or Materials is subject to change without notice. Do not finalize a design with this info
Zero_V1.0
25/08/17 11:53
Sheet: 1/3

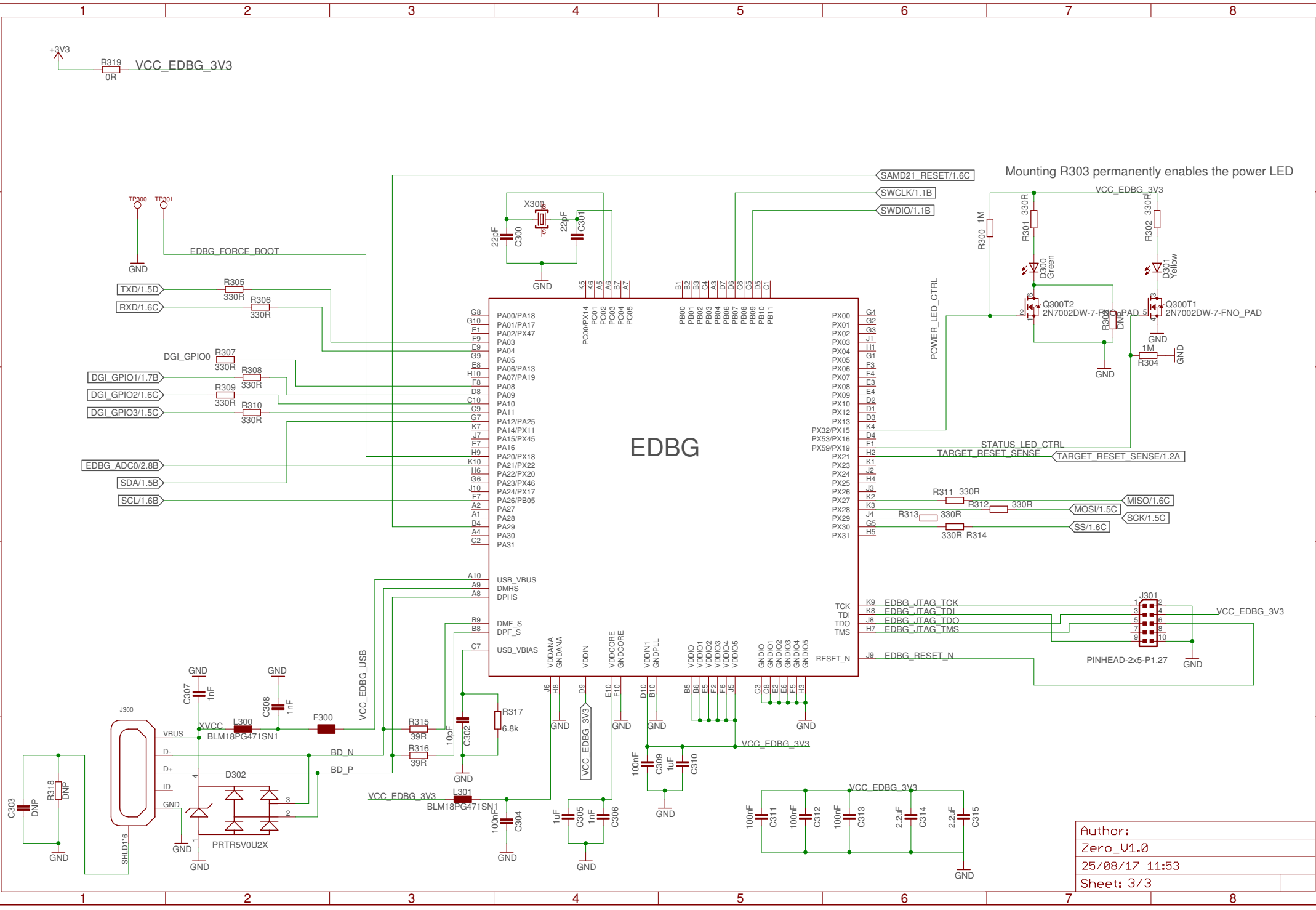


When USB_HOST_ENABLE is set low power is routed from the board to the SAM D21 USB connector. This enables USB host mode applications that supplies the device from the board.
Note that in order to be able to supply full 500mA to the device an external power supply has to be used.

Vin	Q200	USB_HOST_ENABLE	Q201
0V	Open	0V	Closed
0V	Open	3.3V	Open
7-12V	Closed	0V	Closed
7-12V	Closed	3.3V	Open

Arduino Zero can be powered from three sources;
External voltage, SAM D21 USB and EDBG USB.
The table above shows the states of Q200 and Q201 according to Vin and the #USB_HOST_ENABLE signal. When USB_HOST_DISABLE is low Q201 is open and power will be supplied to the USB connector.
Note that when Q200 and Q201 are closed, current can still flow from USB ports through the internal diode in the FETs to power the Arduino Zero.

Author:	
Zero_V1.0	
25/08/17 11:53	
Sheet: 2/3	


Mounting R303 permanently enables the power LED
EDBG
SAMD21_RESET/1.6C
SWCLK/1.1B
SWDIO/1.1B
TXD/1.5D
RXD/1.6C
DGI_GPIO0
DGI_GPIO1/1.7B
DGI_GPIO2/1.6C
DGI_GPIO3/1.5C
EDBG_ADC0/2.8B
SDA/1.5B
SCL/1.6B
EDBG_FORCE_BOOT
POWER_LED_CTRL
STATUS_LED_CTRL
TARGET_RESET_SENSE
TARGET_RESET_SENSE/1.2A
MISO/1.6C
MOSI/1.5C
SCK/1.5C
SS/1.6C
EDBG_JTAG_TCK
EDBG_JTAG_TDI
EDBG_JTAG_TDO
EDBG_JTAG_TMS
EDBG_RESET_N
VCC_EDBG_3V3
VCC_EDBG_USB
BD_N
BD_P
PINHEAD-2x5-P1.27
PRTR5V0U2X
BLM18PG471SN1
Author:
Zero_V1.0
25/08/17 11:53
Sheet: 3/3