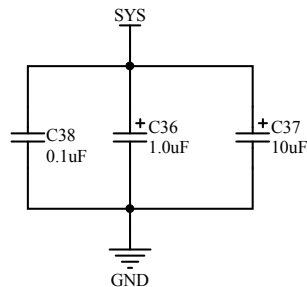
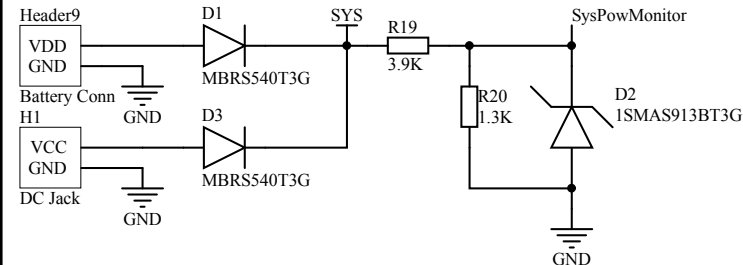


3S Lipo Battery



Power Input, Selection, and Monitoring

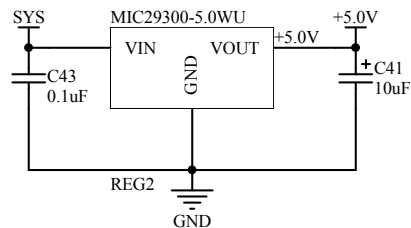


Power Rails:

+5.0V Rated: 3000mA
 +3.3V Rated: 3000mA
 +2.8V Rated: 150mA
 +1.5V Rated: 150mA
 +1.2V Rated: 3000mA

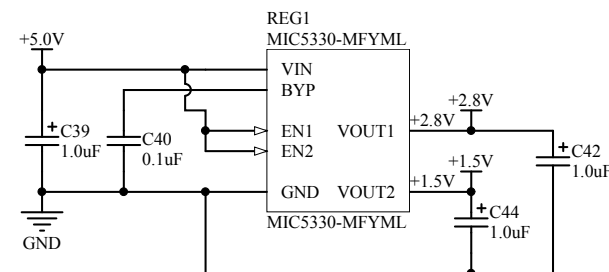
+6 to +11.7 VDC

Battery -> 5.0 VDC

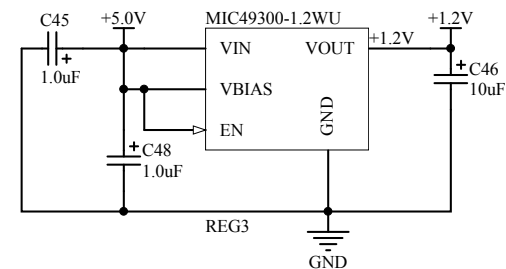


+5.0 VDC

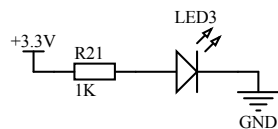
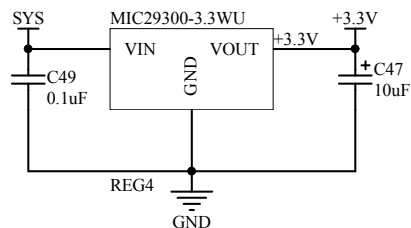
5.0 -> 2.8 & 1.5 VDC



5.0 -> 1.2 VDC



Battery -> 3.3 VDC



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File:	C:\Users\...\Power.SchDoc	Drawn By:

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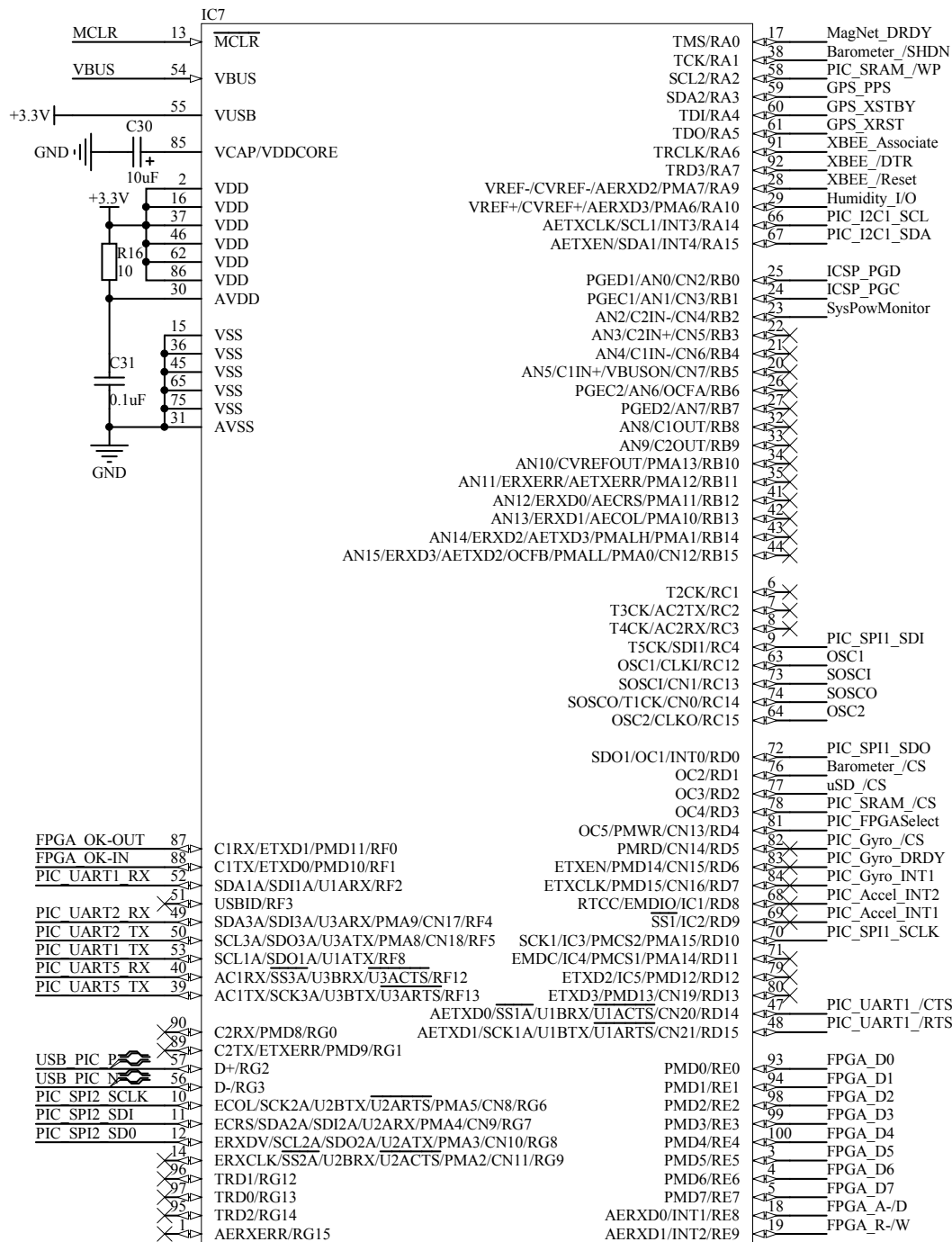
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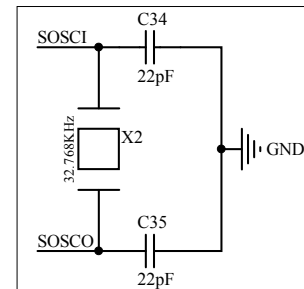
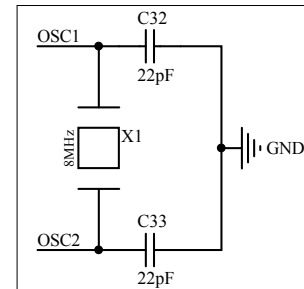
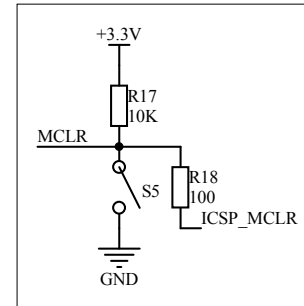
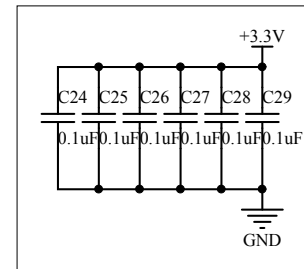
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PIC32MX795F512L-801/PT



Notes:
- VCAP is a 6V 1-Ohm Tantalum Capacitor

Title		
Size	Number	Revision
A		
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PIC SPI-1 Interface (PIC Peripherals)

PIC_SPI1_SCLK	PIC_SPI1_SDI	PIC_SPI1_SDO
uSD_SCLK	uSD_SDO	uSD_SDI
PIC_SRAM_SCK	PIC_SRAM_SO	PIC_SRAM_SI
Barometer_SCLK	Barometer_DOUT	Barometer_DIN
PIC_Gyro_SPC	PIC_Gyro_SDO	PIC_Gyro_SDI

PIC SPI-2 Interface (PIC-FPGA Connection)

PIC_SPI2_SCLK	PIC_SPI2_SDI	PIC_SPI2_SDO
PIC_SCLK	PIC_MISO	PIC_MOSI

PIC I2C-1 Interface

PIC_I2C1_SCL	PIC_I2C1_SDA
Magnet_SCL	Magnet_SDA
DS1085_SCL	DS1085_SDA
PIC_Accel_SCL	PIC_Accel_SDA

PIC UART-2/5 Interface (Trimble GPS Module)

PIC_UART2_RX	PIC_UART2_TX
GPS_TXB	GPS_RXB
PIC_UART5_RX	PIC_UART5_TX
GPS_TXA	GPS_RXA

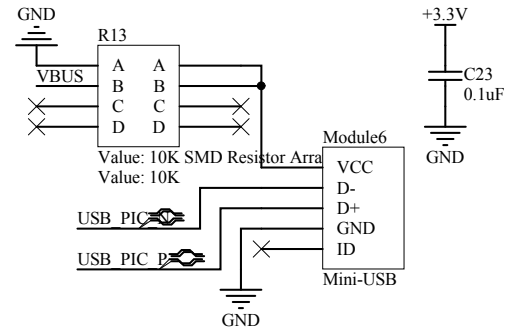
PIC UART-1 Interface (XBee Pro)

PIC_UART1_/CTS	PIC_UART1_/RTS
XBEE_/RTS	XBEE_/CTS
PIC_UART1_RX	PIC_UART1_TX
XBEE_DOUT	XBEE_DIN

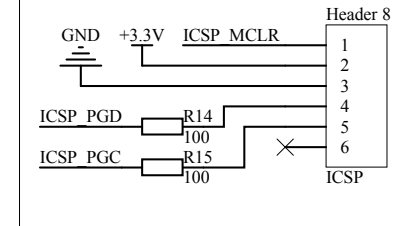
PIC Control Lines

Humidity_I/O
MagNet_DRDY
PIC_FPGASelect
Barometer_/CS
Barometer_/SHDN
uSD_/CS
PIC_SRAM_/WP
PIC_SRAM_/CS
GPS_PPS
GPS_XSTBY
GPS_XRST
XBEE_Associate
XBEE_/DTR
XBEE_/Reset

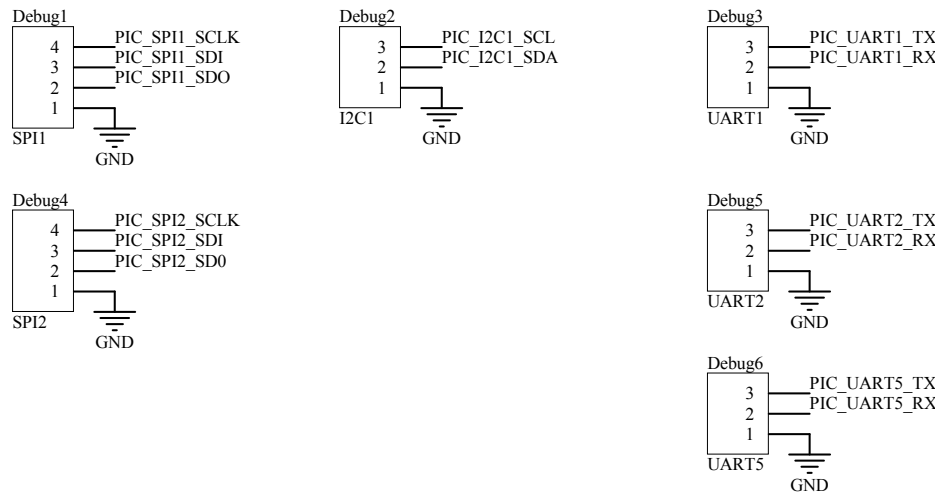
PIC32 USB Interface



In-Circuit Serial Programming Interface

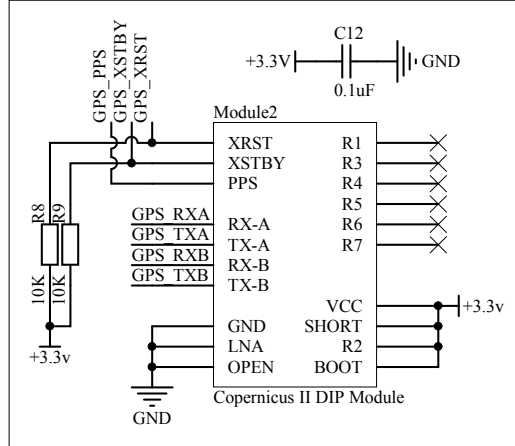


Communication Debug Headers



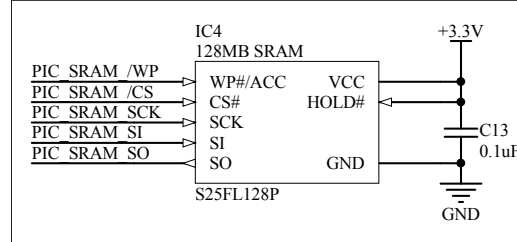
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File:	C:\Users\...\Navigator Connectors.SchDoc	Drawn By:

GPS Module 38.4Kbps TSIP / 4.8Kbps NMEA Interface



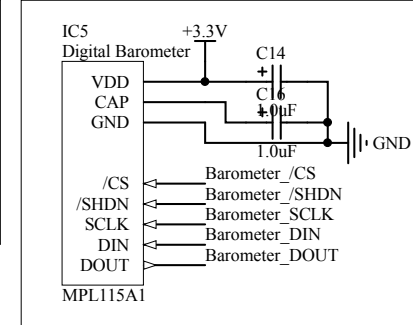
Serial SRAM

104/40MHz SPI Interface



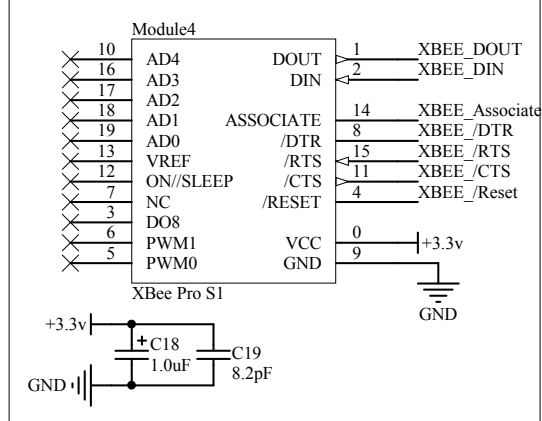
Barometric Sensor

8MHz SPI Interface



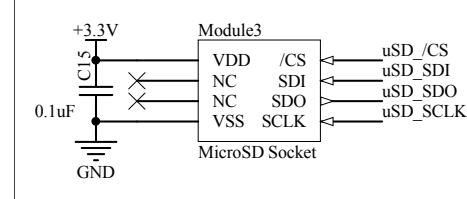
XBee Module

57.6 Kbps Serial Interface



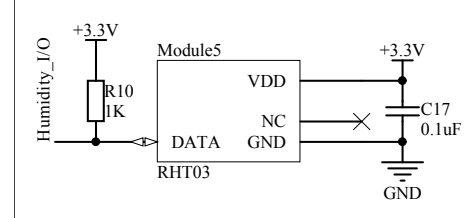
MicroSD Card

25MHz SPI Interface

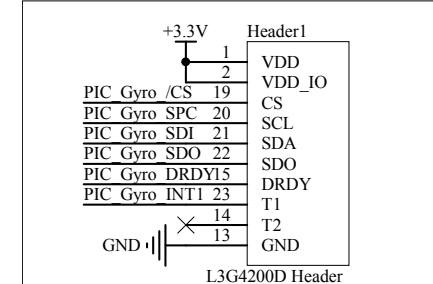


Humidity Sensor

1-Wire Interface

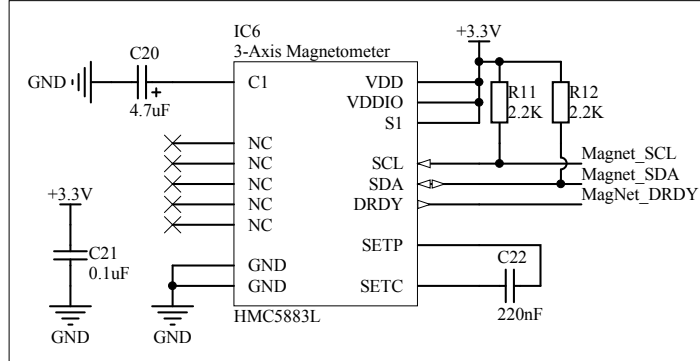


Test Connections

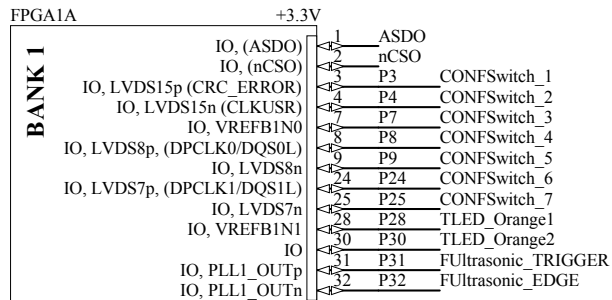


Three-Axis Magnetometer

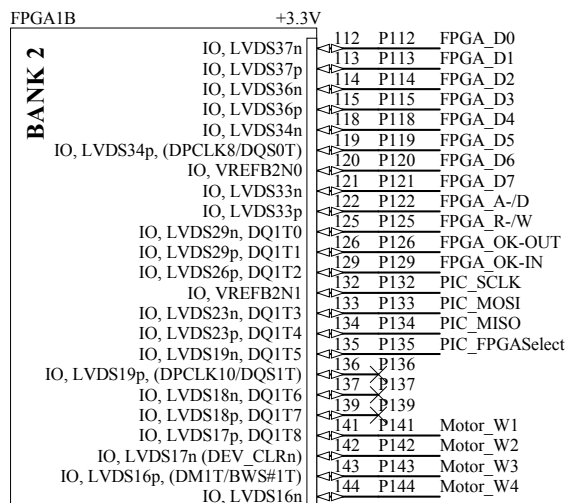
400KHz I2C Interface



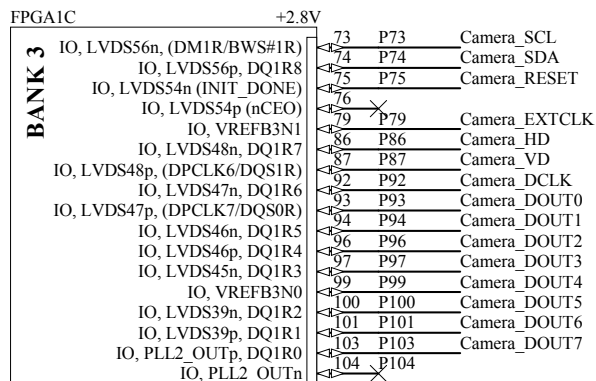
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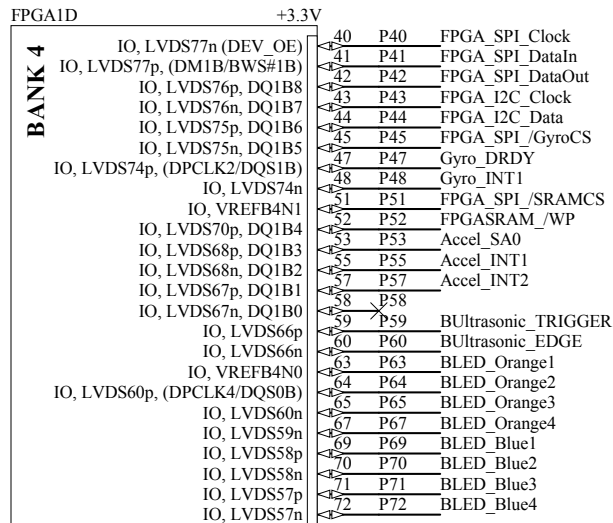
EP2C8T144C8N



EP2C8T144C8N

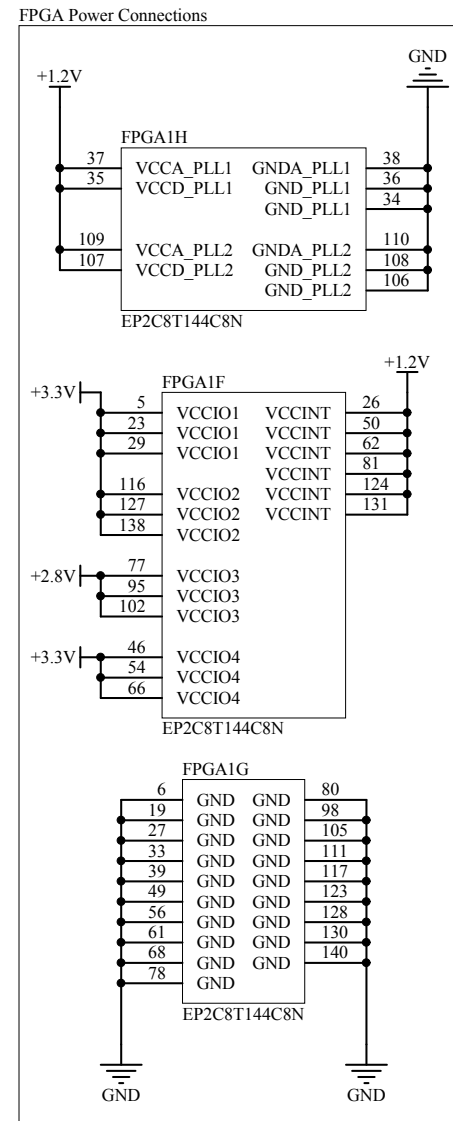
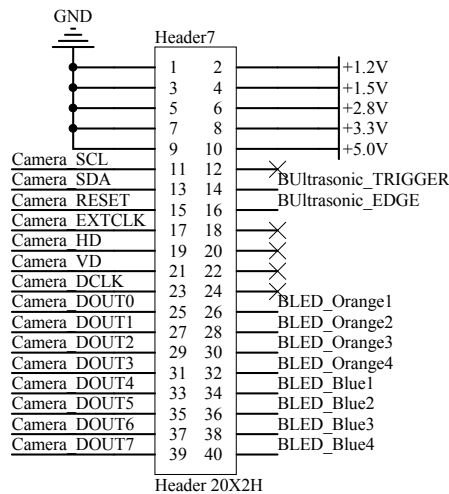


EP2C8T144C8N



EP2C8T144C8N

Bottom PCB Bus



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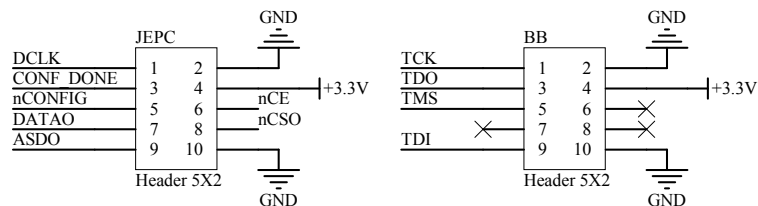
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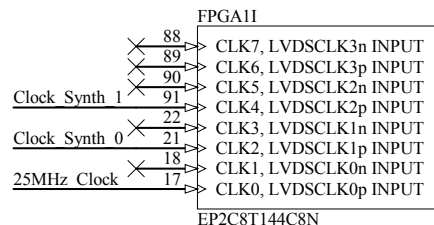
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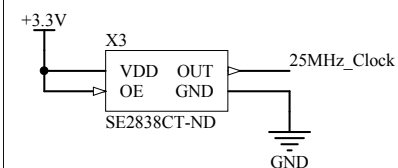
FPGA JTAG Configuration Headers



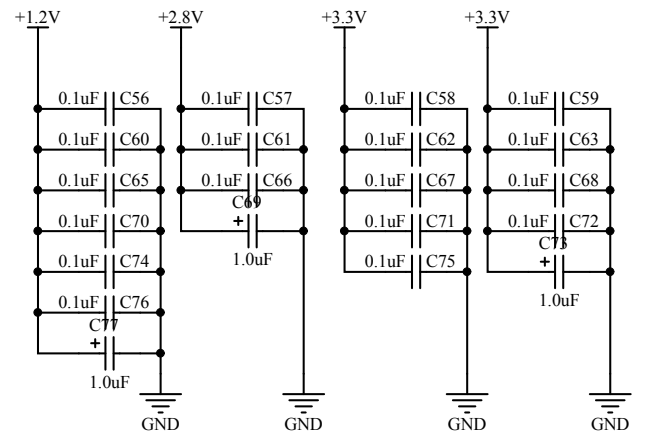
FPGA Clock Connections



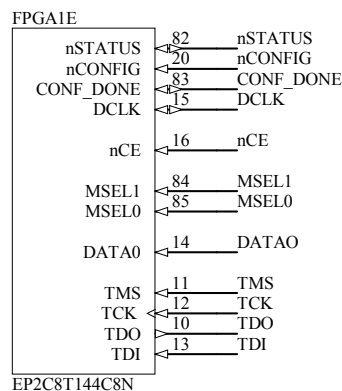
25.175MHz Master Clock



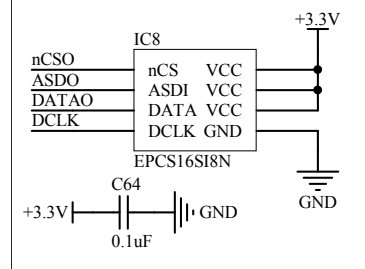
FPGA Bypass Capacitors



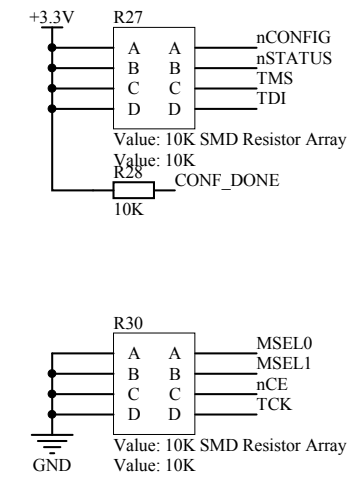
FPGA Configuration Connections



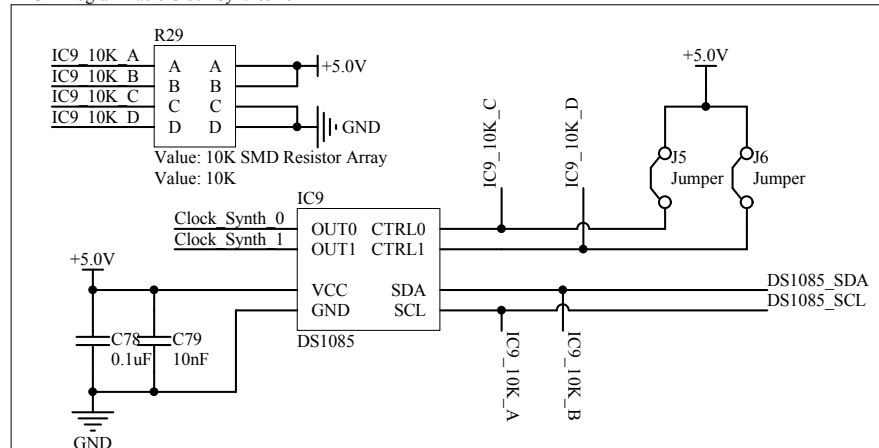
FPGA Configuration Memory



FPGA Signal Conditioning



FPGA Programmable Clock Synthesizer



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Revision

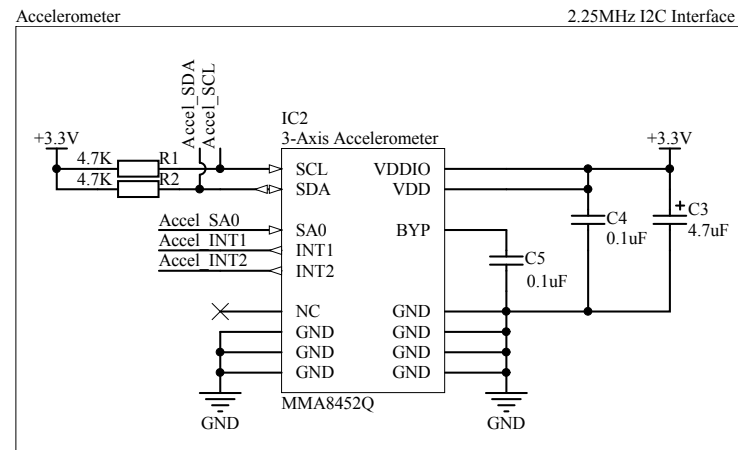
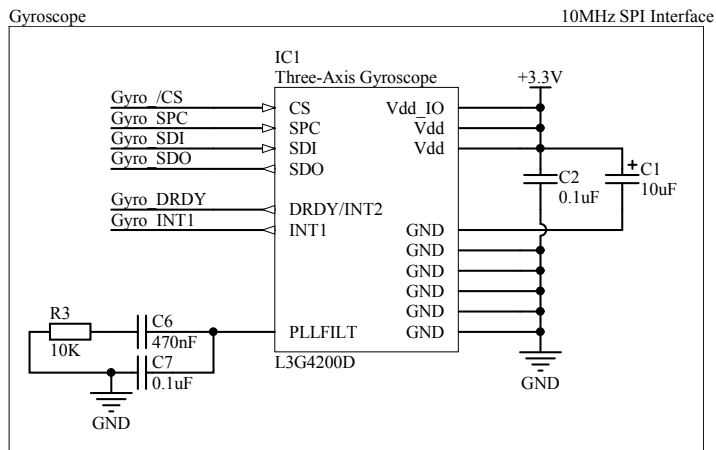
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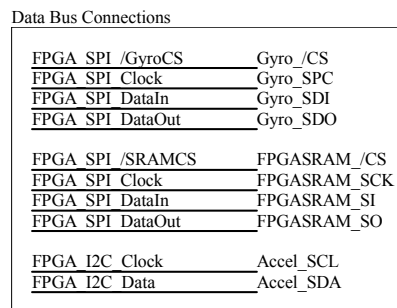
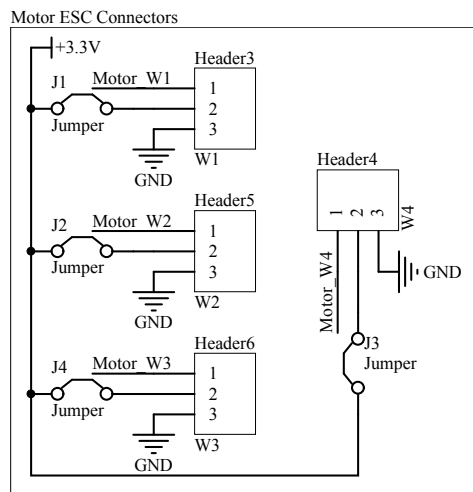
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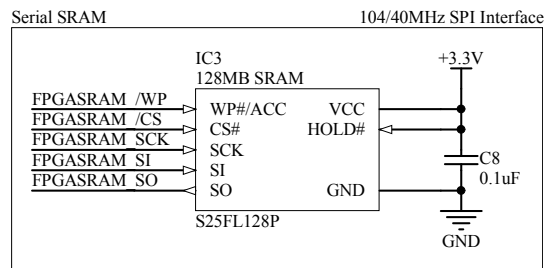
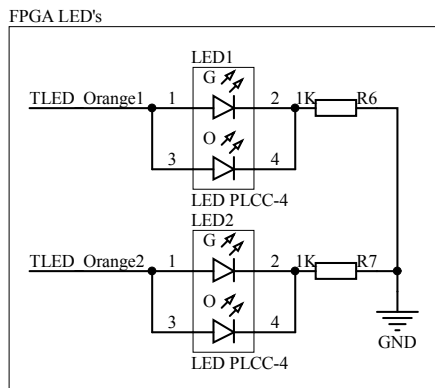
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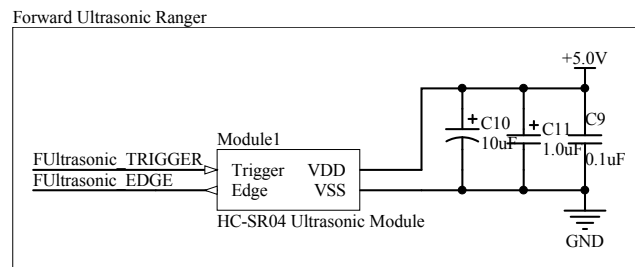
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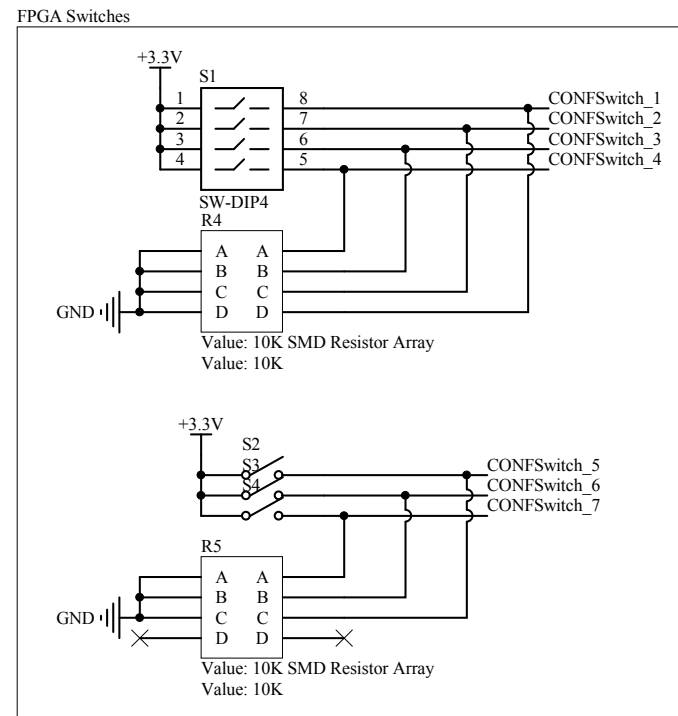


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