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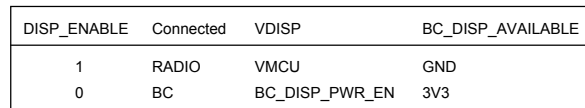


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Revision History	
Rev.	Description
A04	Initial release.

		Board Name	
SILICON LABS		Wireless Pro Kit Mainboard	
Designed HEL		Page Title Title Page	
Approved RGU		Board Number BRD4002A	
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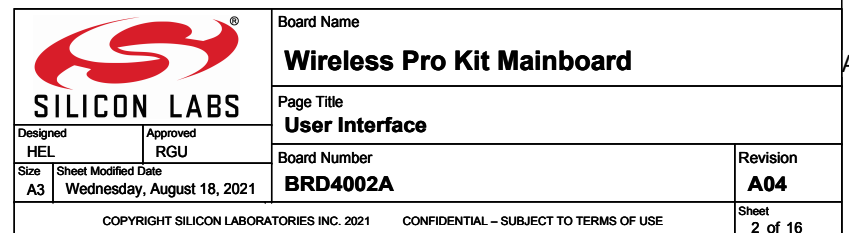
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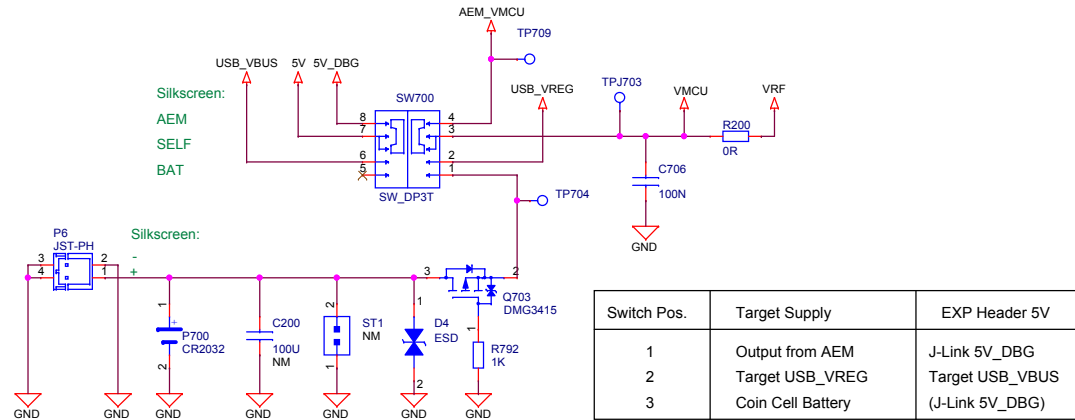
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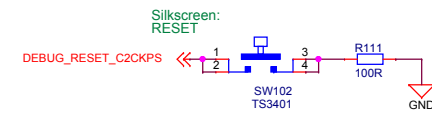
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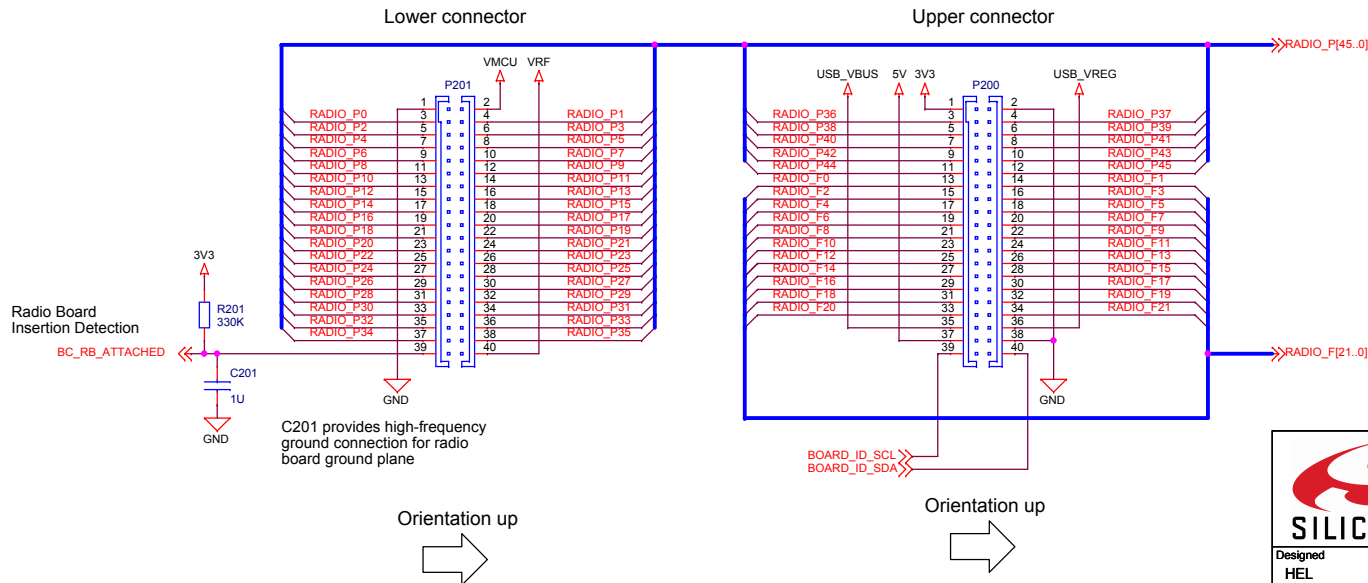
Power Select Switch



Reset Pushbutton



Radio Board Connectors

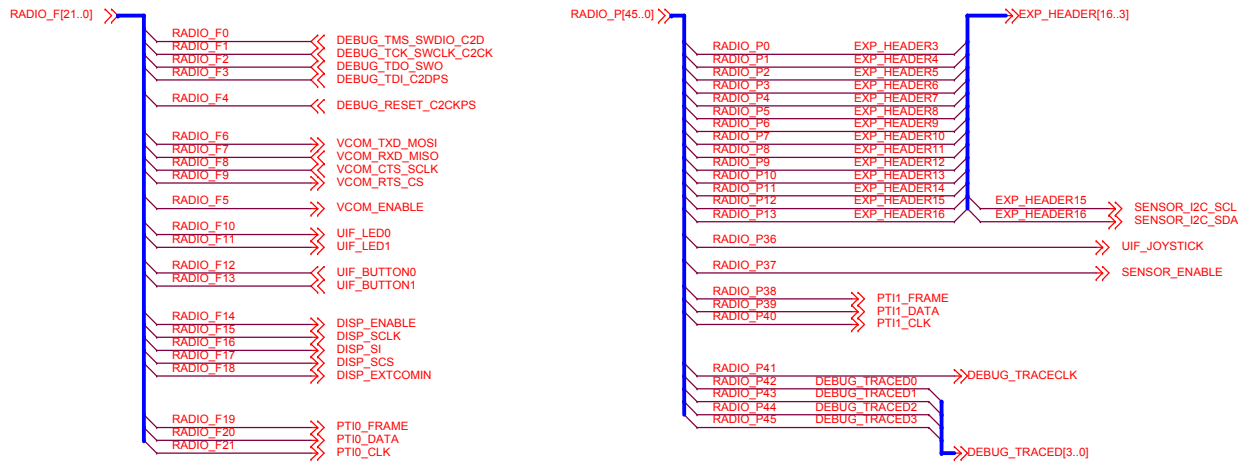


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		Radio Board Interface	
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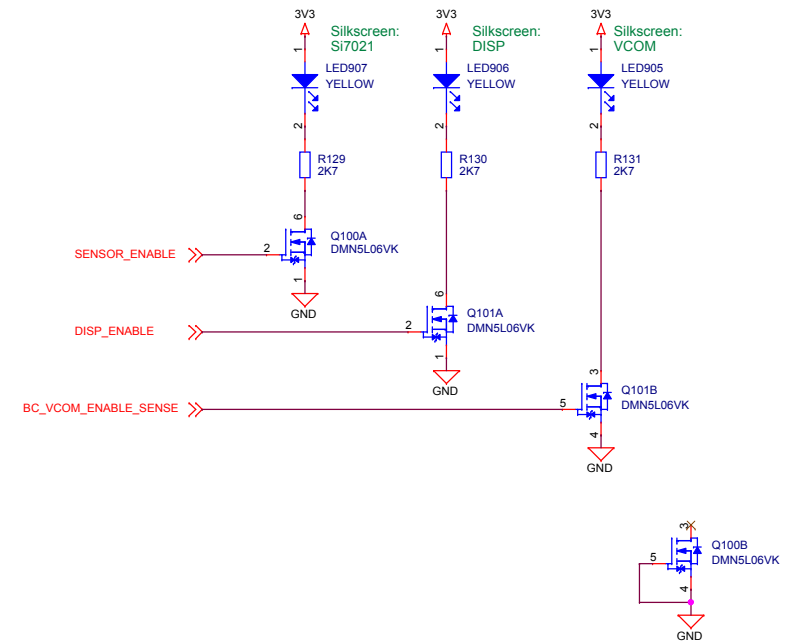
Radio Board Signal Assignments

Dedicated functions on radio board connectors

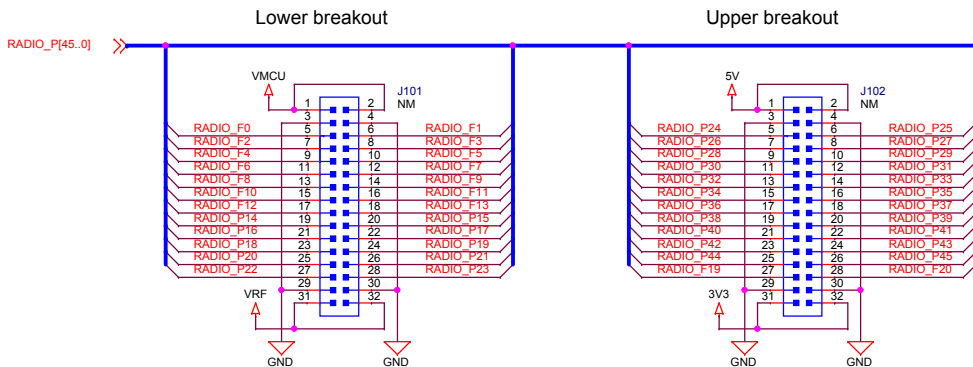
Functions shared with breakout pins on radio board connectors



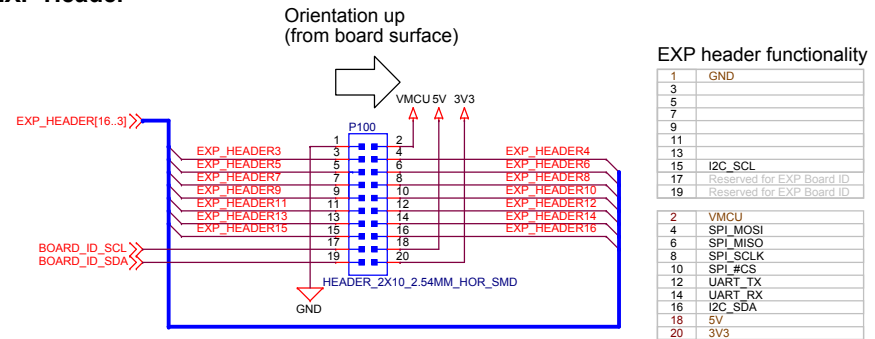
Enable Signal Indicator LEDs



Breakout Connections

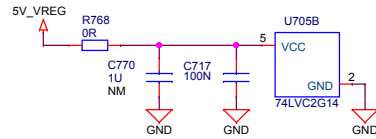
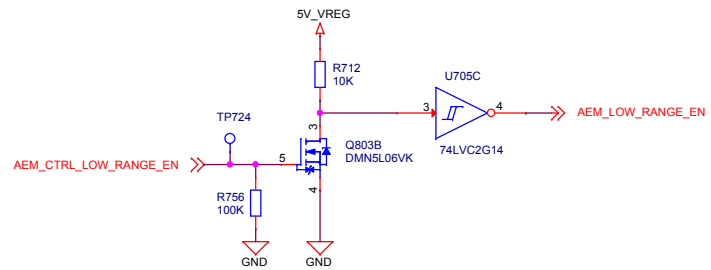
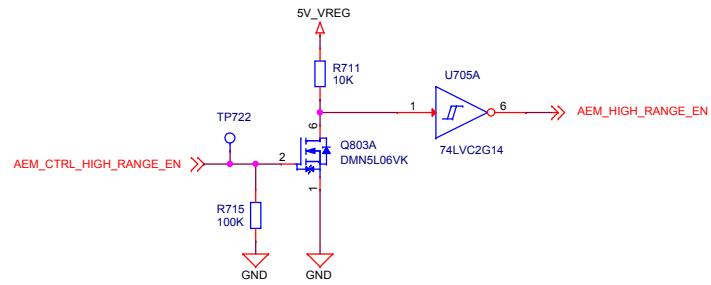


EXP Header



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VMCU Voltage Regulator Range Selection



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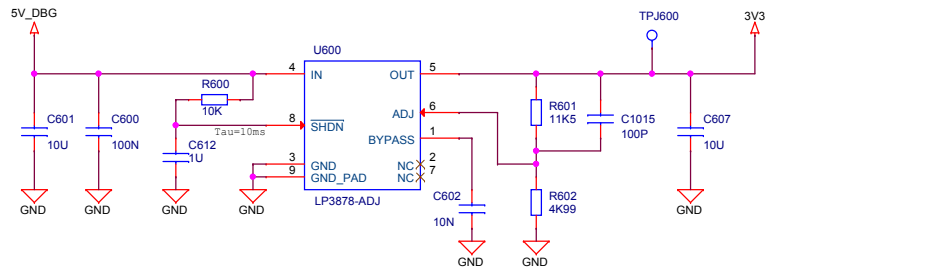
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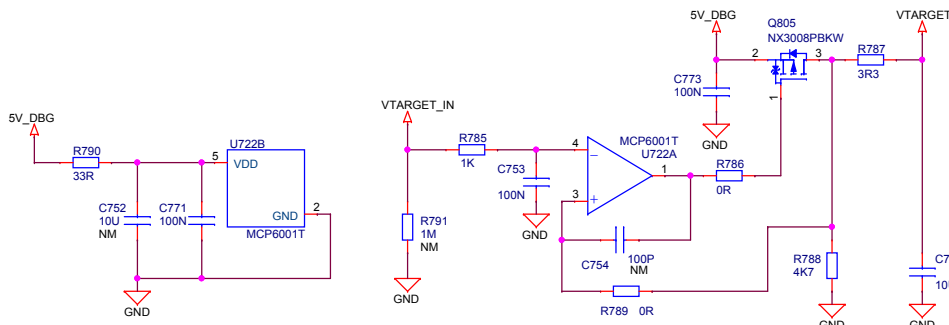
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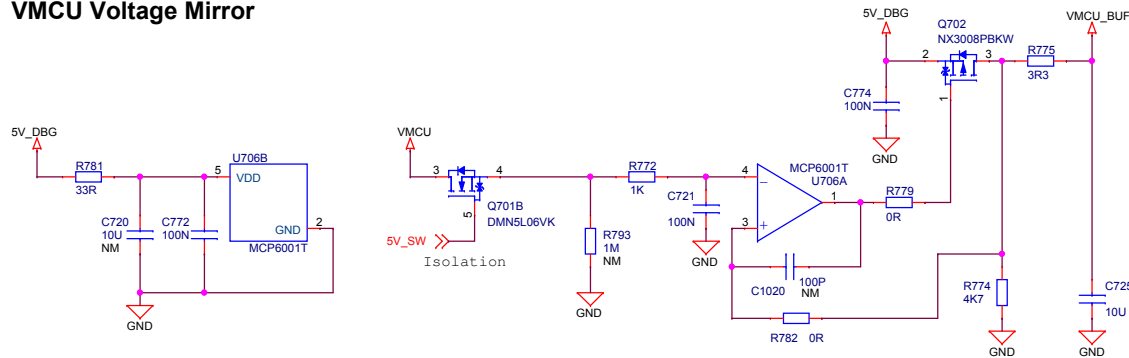
3V3 Regulator



VTARGET Voltage Mirror



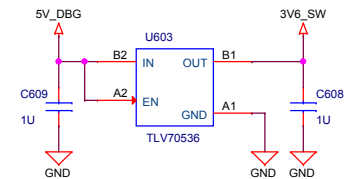
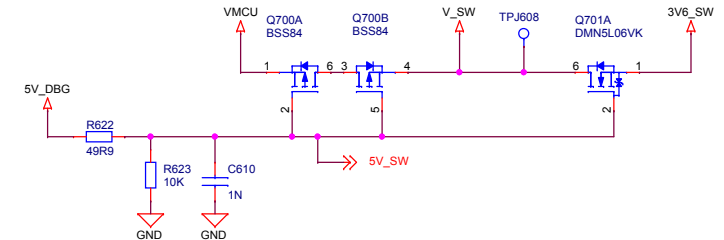
VMCU Voltage Mirror



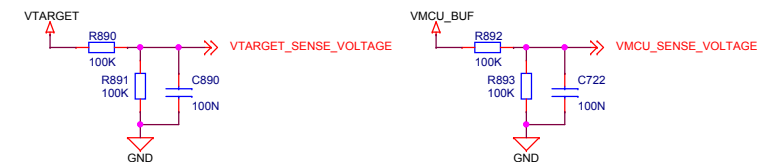
Power Supply for Analog Switches

Analog switches used for isolation are powered by V6_SW when the USB cable is connected, otherwise by VMCU.

J-Link USB Cable	PMOS State	NMOS State	V_SW	VMCU_SENSE
Connected	Off	ON	3.6V VMCU	VMCU Isolated
Disconnected	ON	OFF	3.6V VMCU	VMCU Isolated



Buffered Voltage Monitoring



Mode	VTARGET SOURCE	VTREF SOURCE
Debug Out	VTREF (EXT)	NONE (SELF)
Mini Out	VMCU	NONE
MCU Debug	VMCU	NONE
Debug In	VMCU	VMCU_BUF
Debug Off	VMCU	NONE

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		Voltage Regulators	
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Mode	VTARGET_VMCU_CON	DEBUG_DH_SW_ENABLE	MINI_SW_ENABLE	DEBUG_IF_#OE	ISOLATE_EN	VTREF	VTARGET
Debug Out	0	1	0	0/1	0	External voltage	External voltage
Mini Out	1	0	1	0/1	0	Disconnected	VMCU
MCU Debug	1	0	0	0/1	1	Disconnected	VMCU
Debug In	1	1	0	1	1	VMCU	VMCU
Debug Off	1	0	0	1	0	-	-

Board Name: **Wireless Pro Kit Mainboard**

Page Title: **Debug Interface**

Board Number: **BRD4002A**

Revision: **A04**

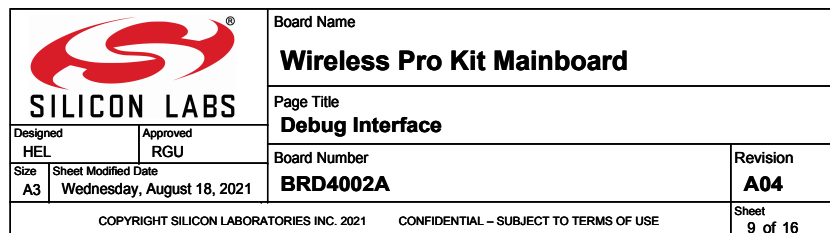
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Size: **A3** Sheet Modified Date: **Wednesday, August 18, 2021**

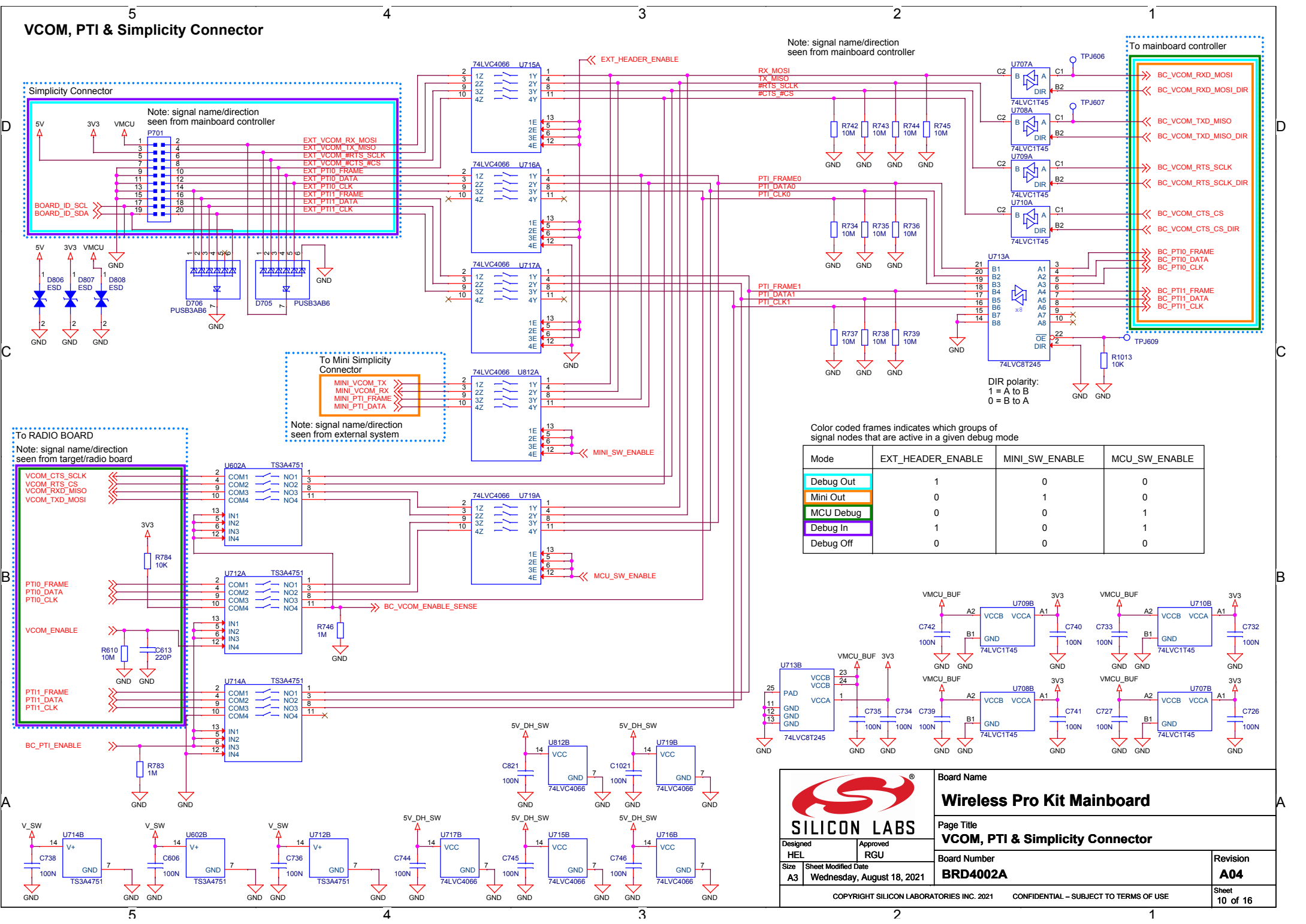
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Mode	VTARGET_VMCU_CON	DEBUG_DH_SW_ENABLE	MINI_SW_ENABLE	DEBUG_IF_#OE	ISOLATE_#EN	VTREF	VTARGET
Debug Out	0	1	0	0/1	0	External voltage	External voltage
Mini Out	1	0	1	0/1	0	Disconnected	VMCU
MCU Debug	1	0	0	0/1	1	Disconnected	VMCU
Debug In	1	1	0	1	1	VMCU	VMCU
Debug Off	1	0	0	1	0	-	-

Color coded frames indicates which groups of signal nodes that are active in a given debug mode



VCOM, PTI & Simplicity Connector



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Board Controller I/O

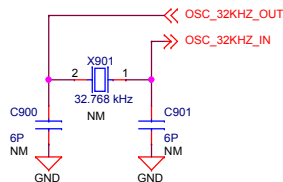
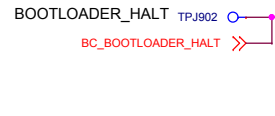
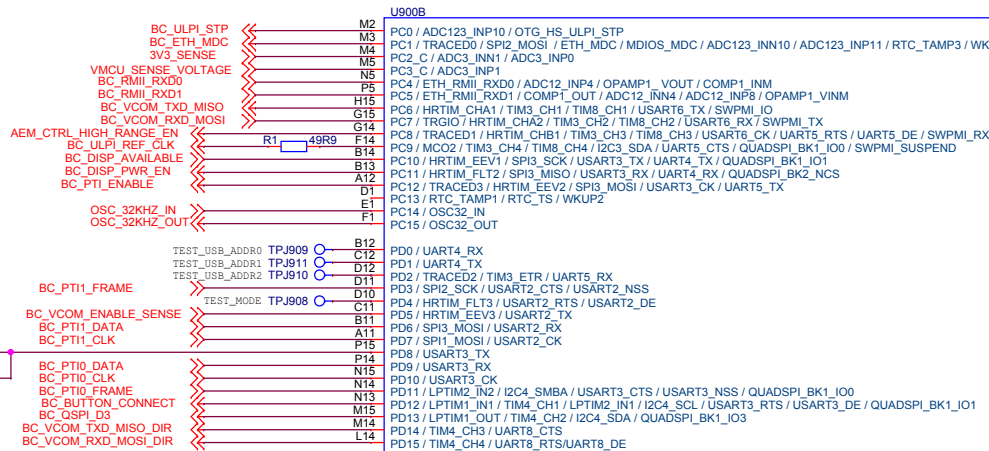
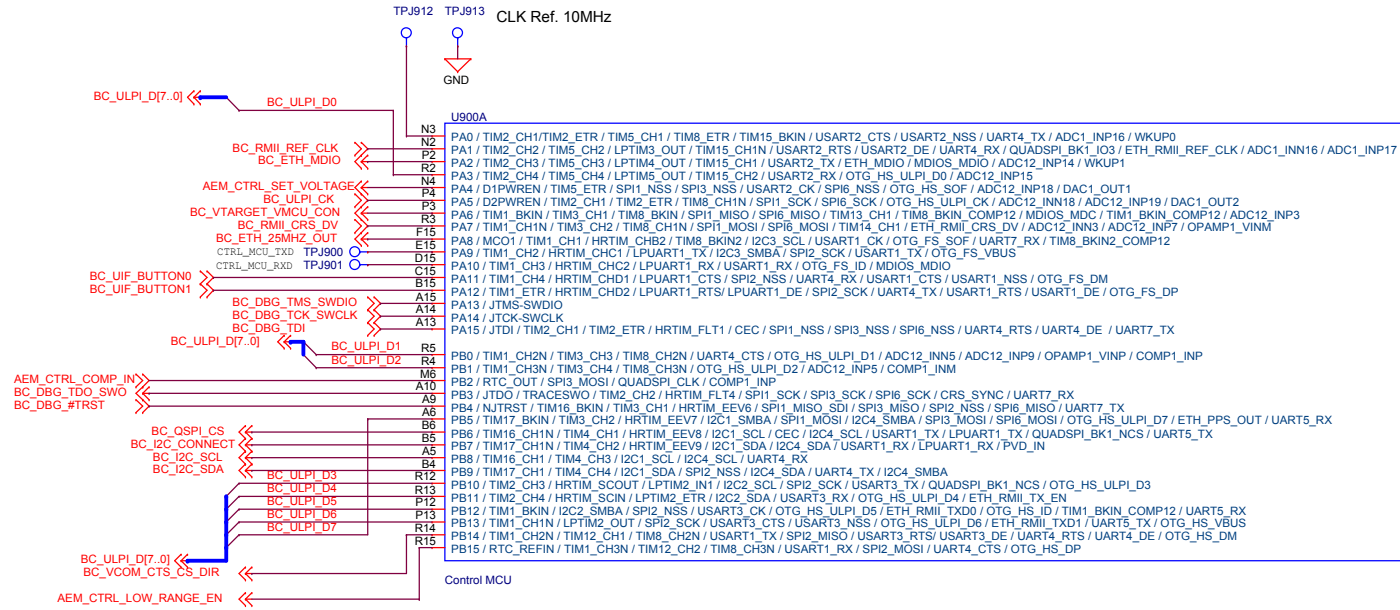
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Board Name

Wireless Pro Kit Mainboard

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Board Controller I/O

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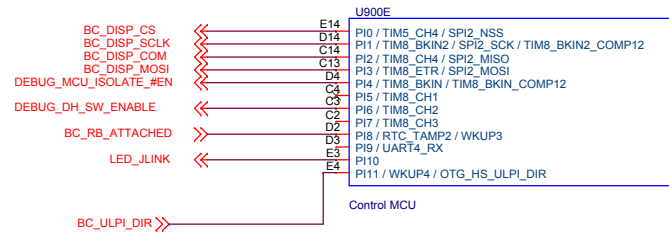
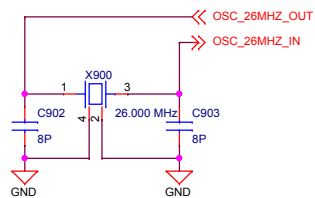
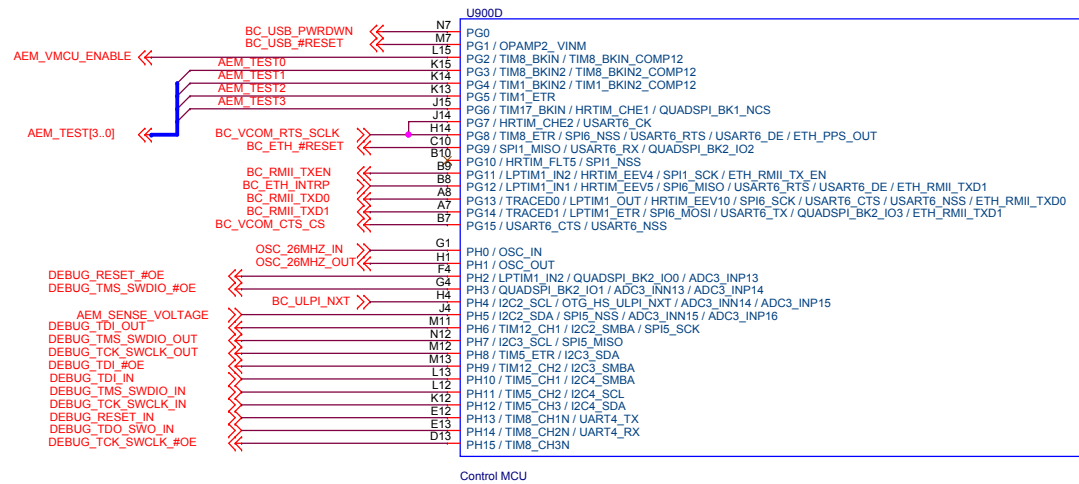
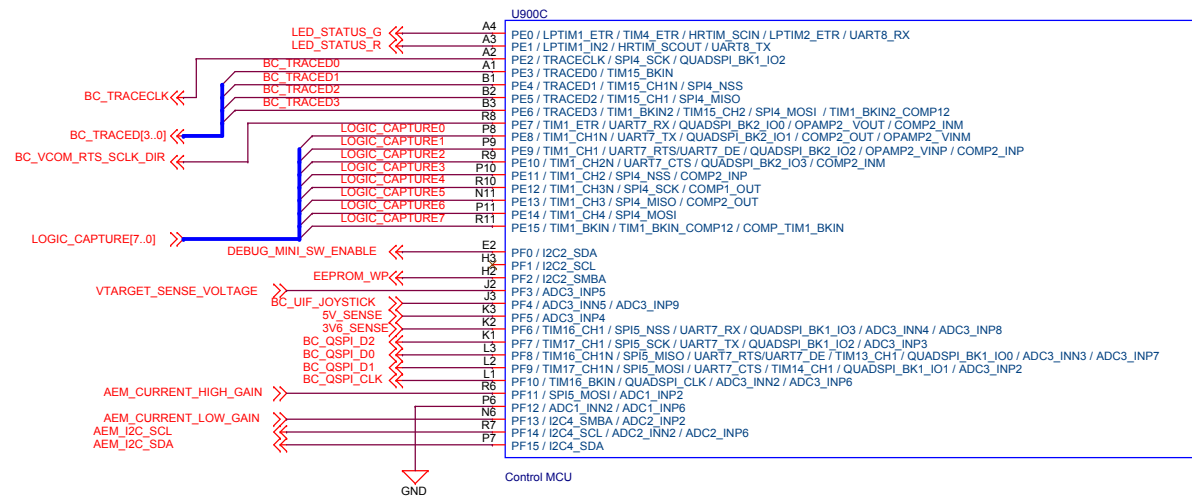
A04

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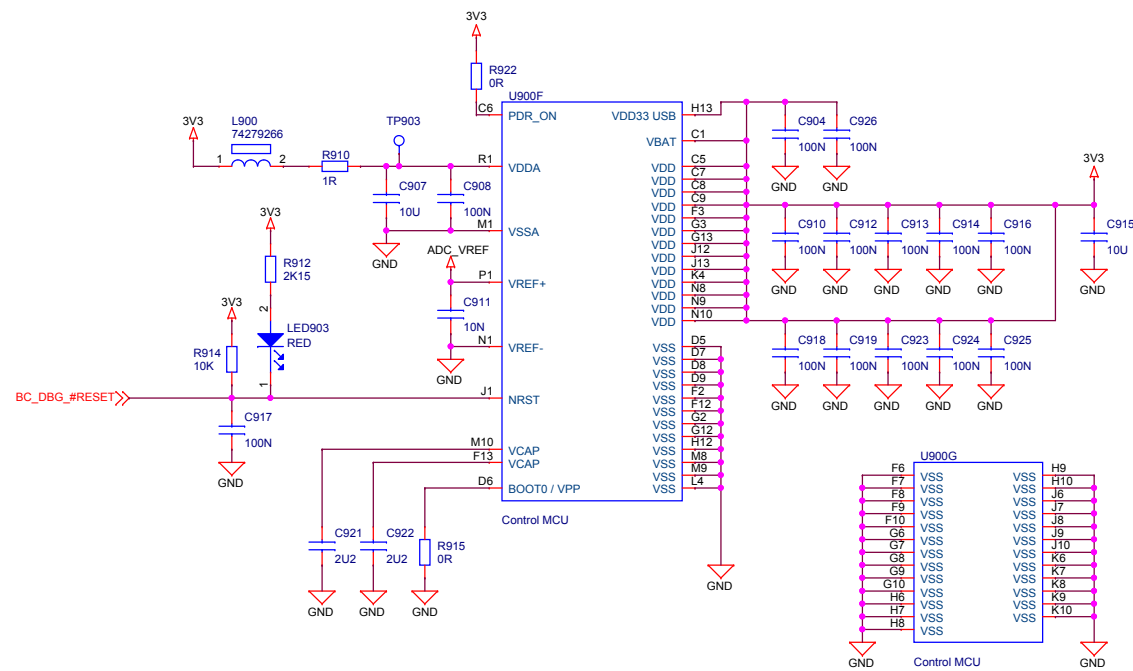
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Board Controller I/O

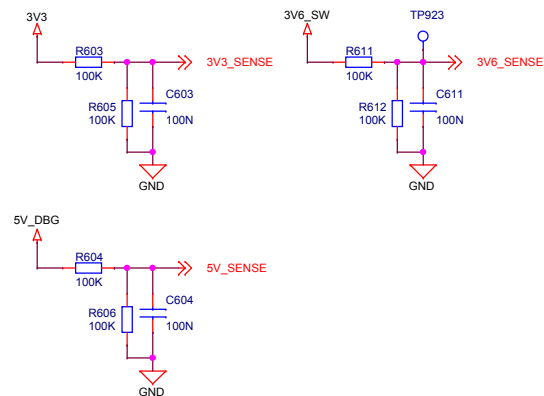


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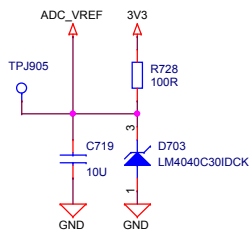
Board Controller Power & Decoupling



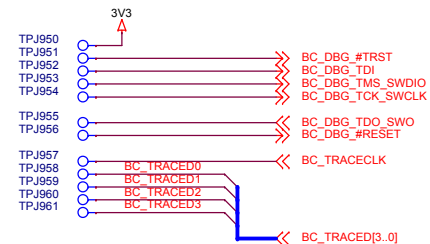
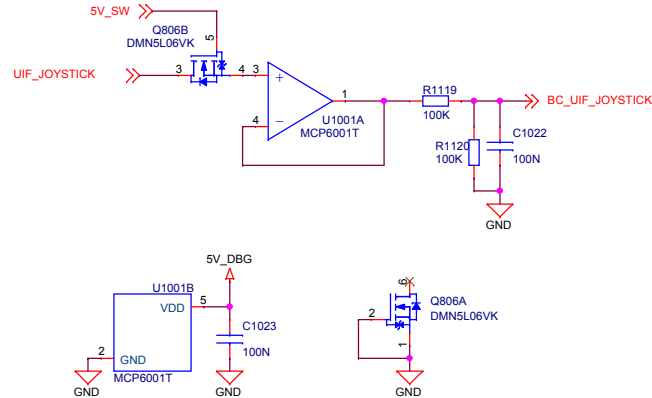
Voltage Sense



BC ADC Reference

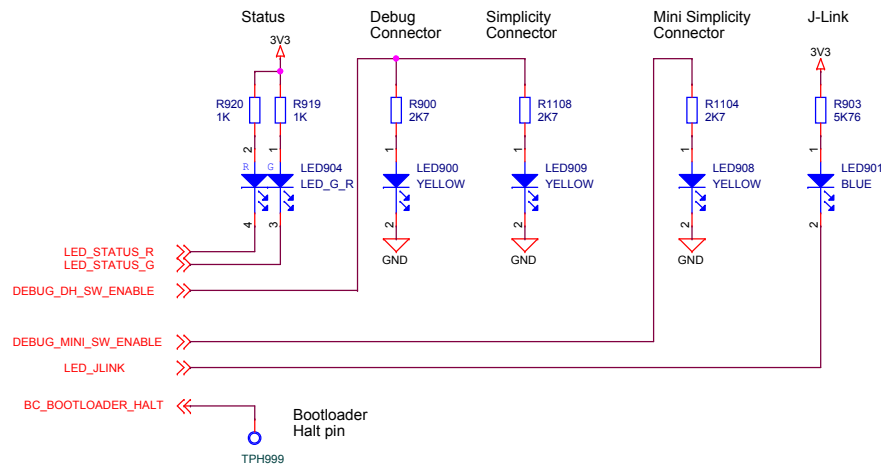


Joystick Output Buffer

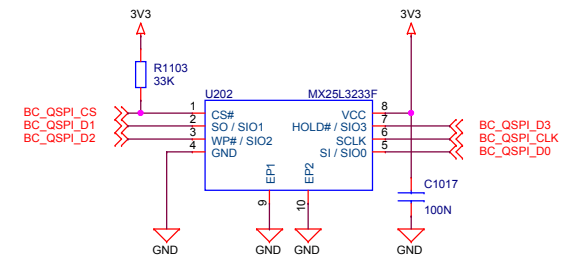


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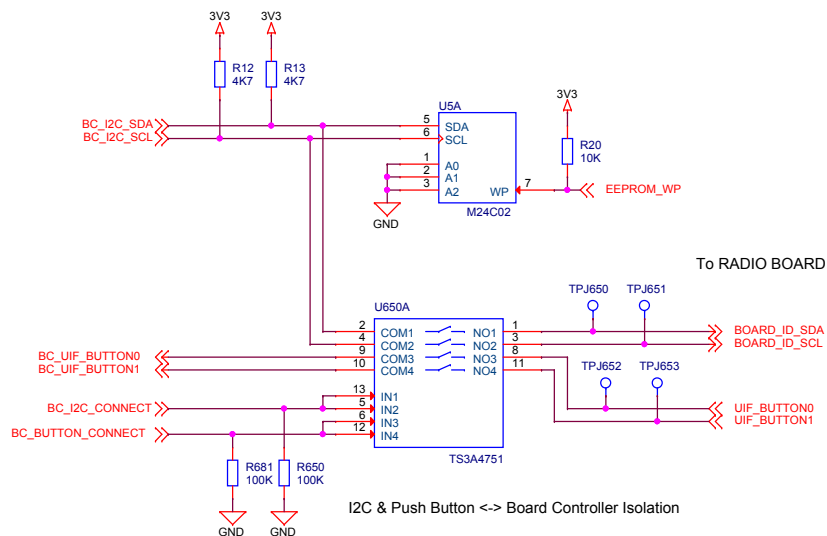
Indicator LEDs



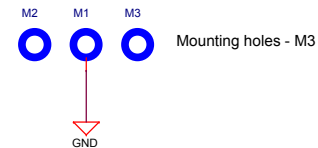
QSPI Flash Memory



I2C EEPROM Board Identification



Mounting Holes



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10/100 Mbit Ethernet PHY

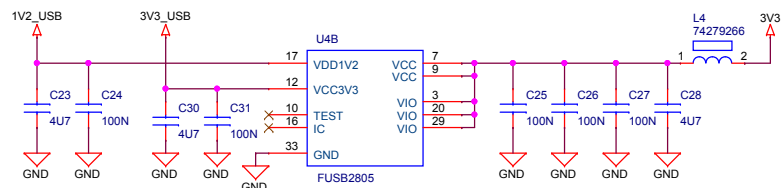
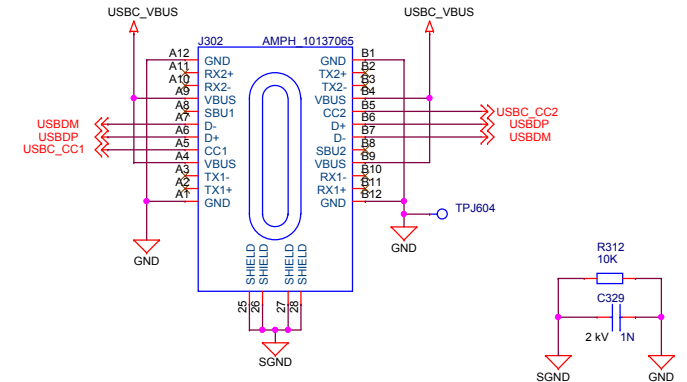
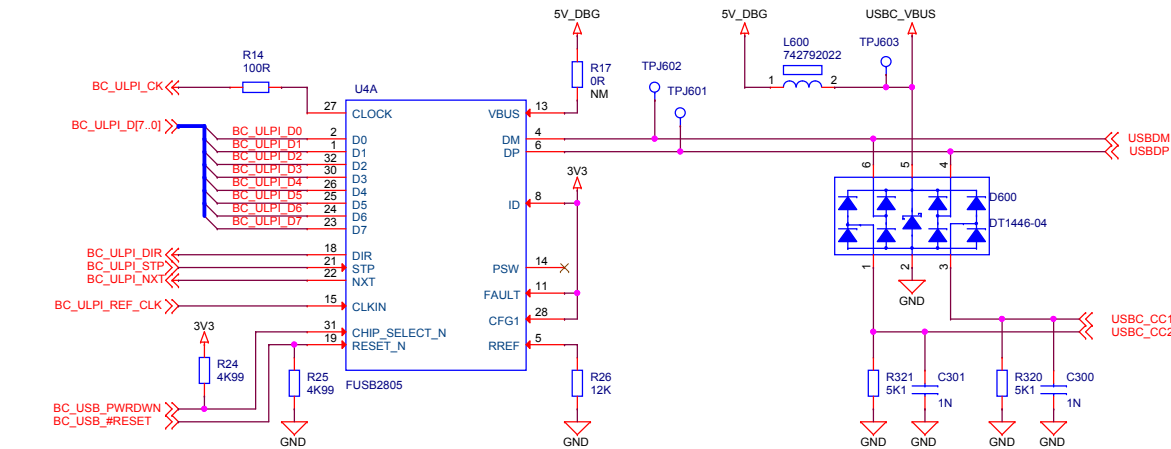
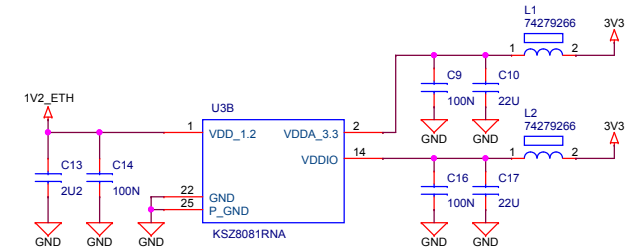
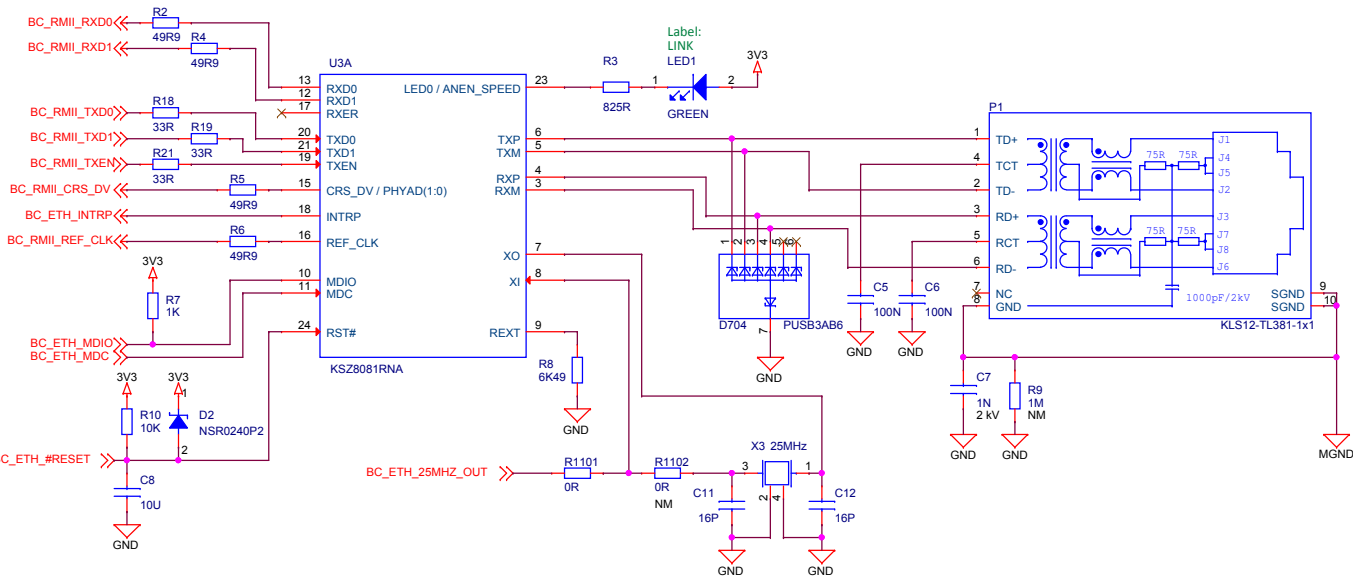
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USB High Speed

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