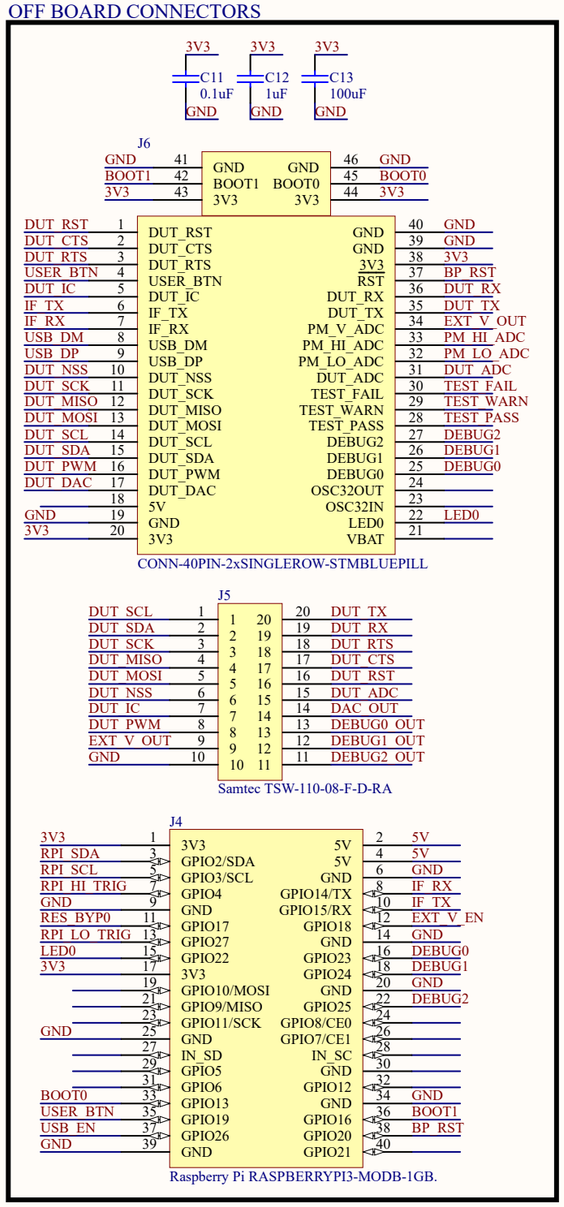
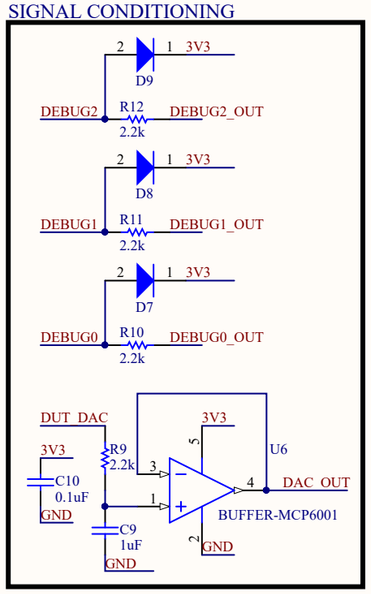
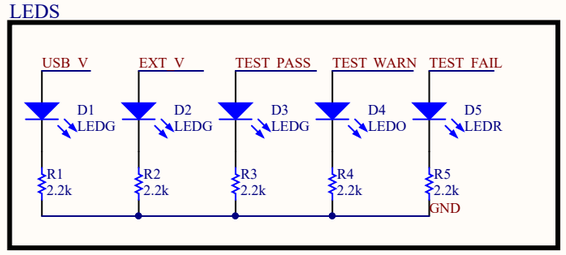
OFF BOARD CONNECTORS



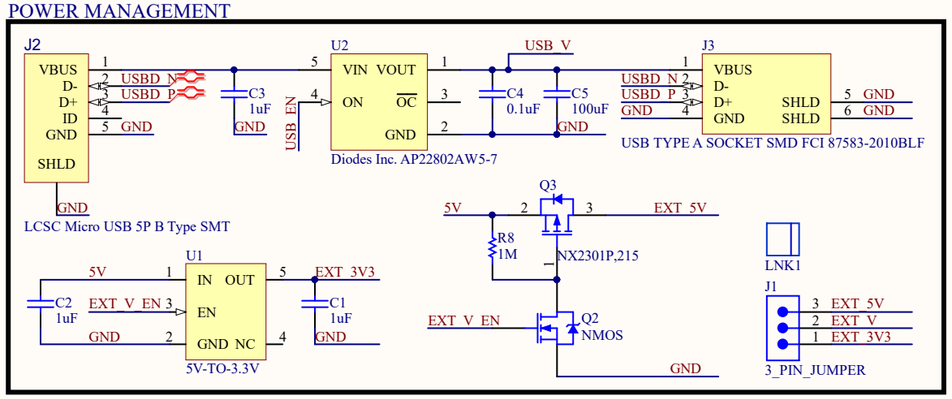
SIGNAL CONDITIONING



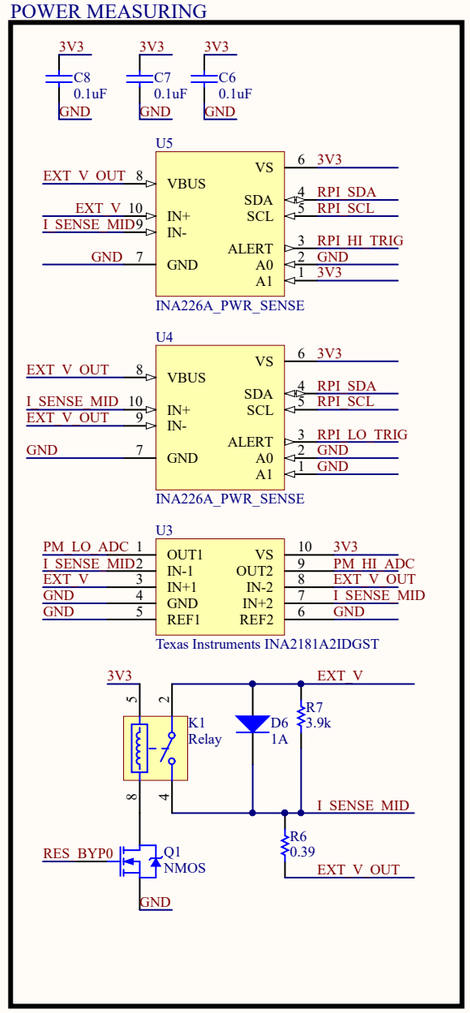
LEDS



POWER MANAGEMENT



POWER MEASURING



Current Measurment

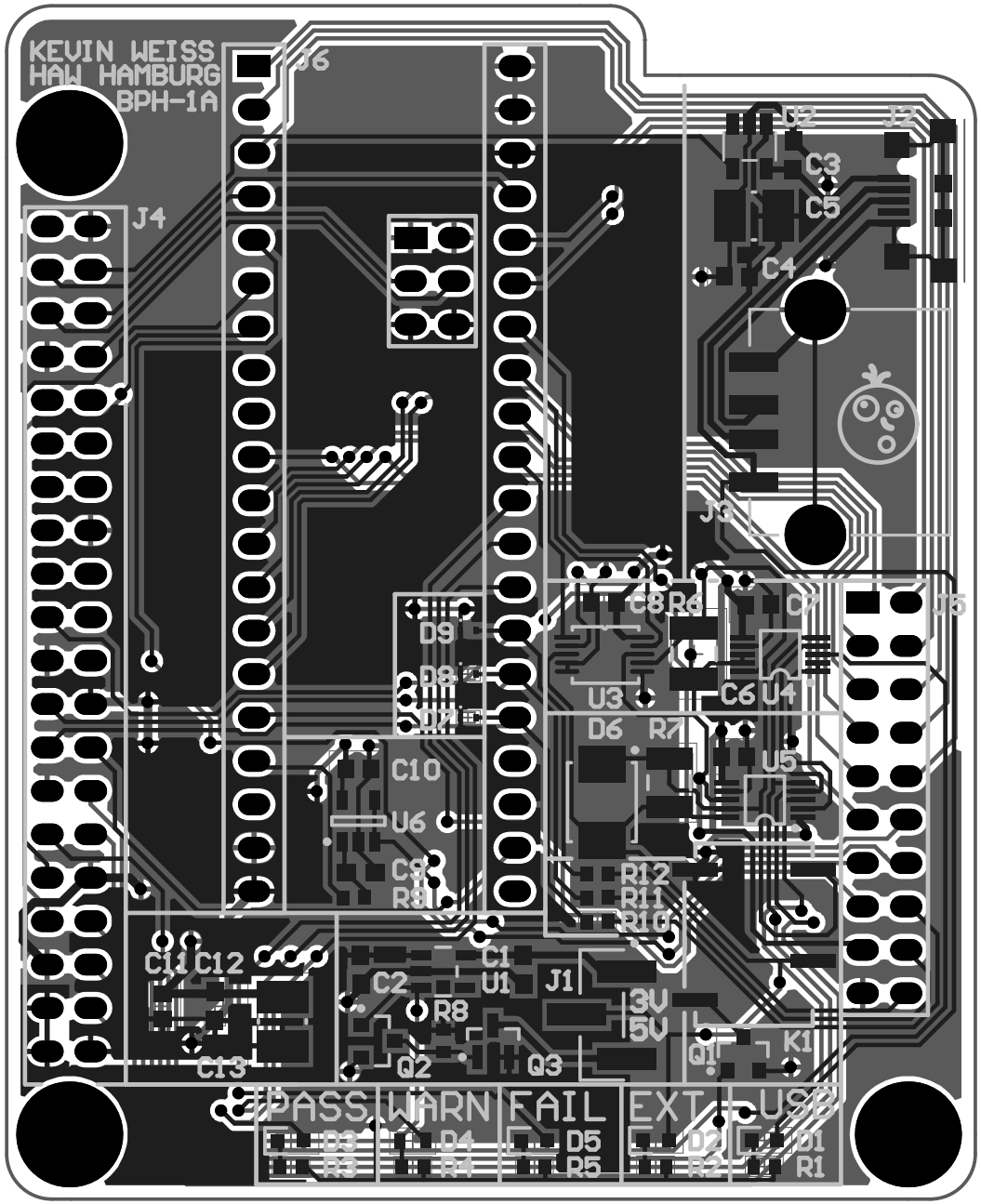
RPi I2C low current
ADC 16 bit
Active voltage: 82 mV
Active current: 21uA
Resolution: 0.3nA

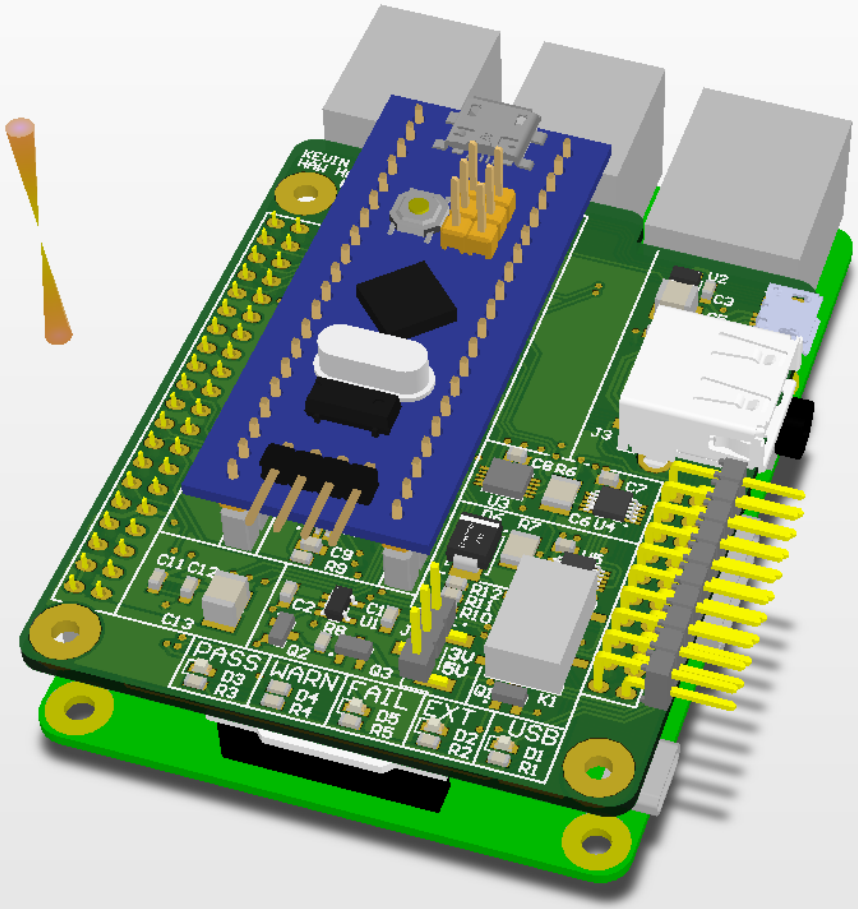
RPi I2C high current
ADC 16 bit
Burden voltage: 82 mV
Active current: 210mA
Resolution: 4uA

BPT ADC high current
ADC 12 bit
Gain: 50
Burden voltage: 66 mV
Active current: 170mA
Resolution: 41uA

BPT ADC high current
ADC 12 bit
Gain: 50
Burden voltage: 66 mV
Active current: 17uA
Resolution: 42nA

Title		
Size A3	Number	Revision
Date: 8/1/2018		Sheet of
File: bph.SchDoc		Drawn By:


KEVIN WEISS
HAW HAMBURG
BPH-1A
J6
J4
U2
J2
C3
C5
C4
J3
C8
R6
C7
J5
D9
D8
D7
U3
C6
U4
D6
R7
U5
C10
U6
C9
R9
R12
R11
R10
C11
C12
C1
U1
C2
J1
R8
3V
5V
K1
Q1
C13
Q2
Q3
PASS
WARN
FAIL
EXT
USB
D3
D4
D5
D2
D1
R3
R4
R5
R2
R1


PASS
WARN
FAIL
EXT
USB

Electrical Rules Check Report

Class	Document	Message
		Successful Compile for bph.PrjPcb

Design Rules Verification Report

Filename : C:\ProgramData\Altium\CircuitMaker {8EBB6731-1AD7-46CA-96B8-AC039FD36340}\Projects\848933AC-9F1C-44E3-8F1C-68CEACBCBD93\65a71a72-7911-418c-9cee-440acca976dc\bph.CMPcbDoc

Warnings 0
Rule Violations 0

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=12mil) (InPolygon),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ((All))	0
Clearance Constraint (Gap=8mil) (All),(All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=20mil) (Conductor Width=10mil) (Air	0
Width Constraint (Min=10mil) (Max=20mil) (Preferred=10mil) (All)	0
Height Constraint (Min=0mil) (Max=1000mil) (Prefered=500mil) (All)	0
Hole Size Constraint (Min=1mil) (Max=100mil) (All)	0
Hole To Hole Clearance (Gap=10mil) (All),(All)	0
Minimum Solder Mask Sliver (Gap=1mil) (All),(All)	0
Silk To Solder Mask (Clearance=2mil) (IsPad),(All)	0
Silk to Silk (Clearance=2mil) (All),(All)	0
Silk primitive without silk layer	0
Net Antennae (Tolerance=0mil) (All)	0
Unpoured Polygon (Allow unpoured: False)	0
Total	0