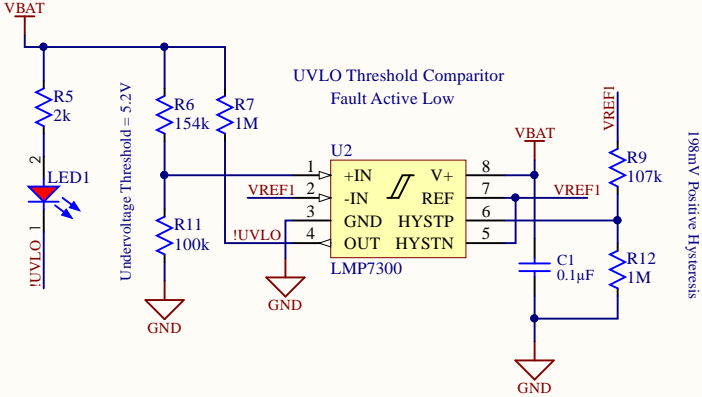
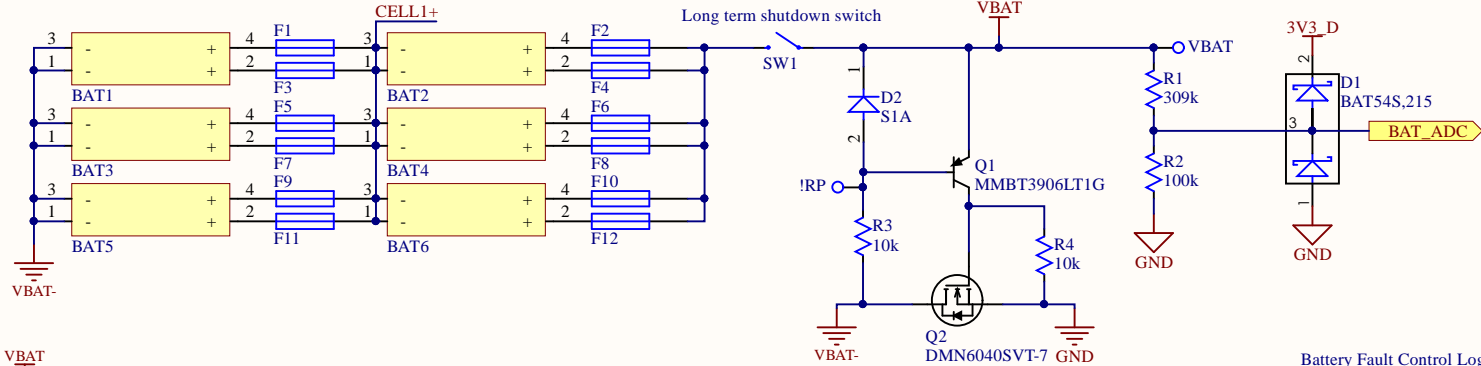


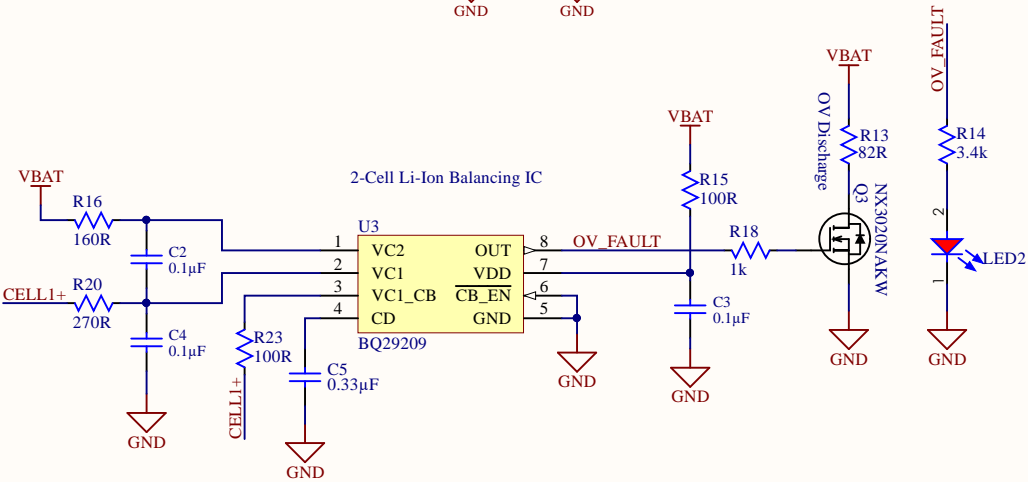
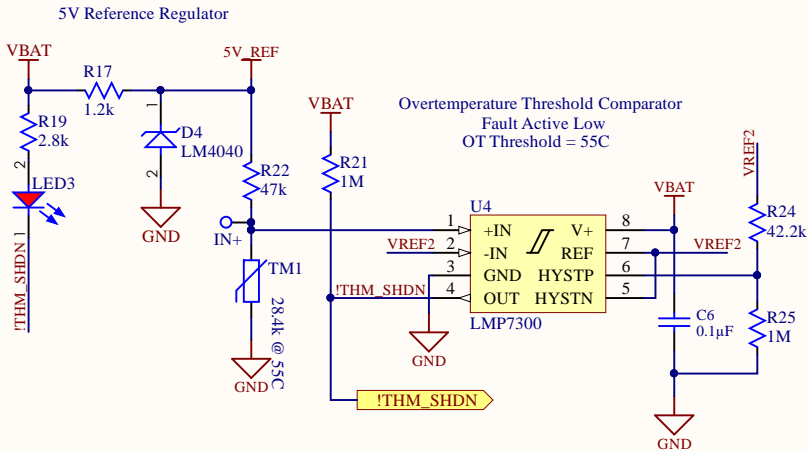
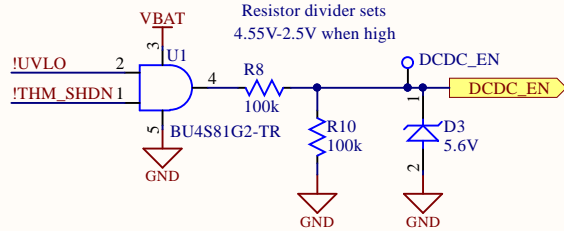
2 Series 6 Parallel 18650 Lithium-Ion Battery Pack

Bi-directional Reverse Polarity Circuit

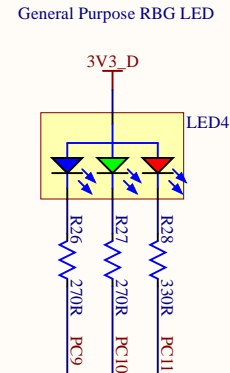
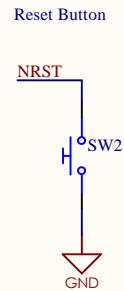
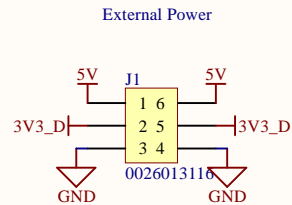
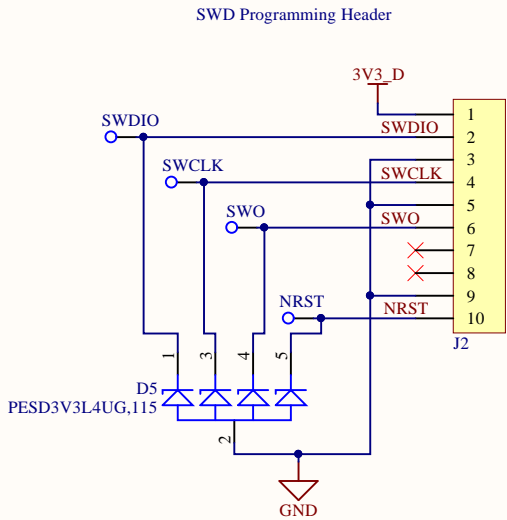
VBAT Voltage Sense



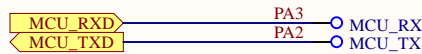
Battery Fault Control Logic



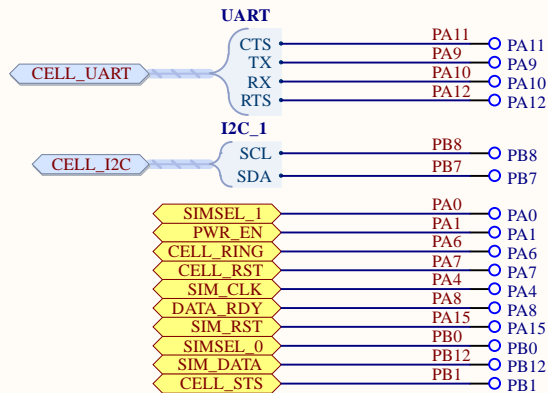
Title		
Battery Management		
Size	Number	Revision
A4		Rev. A
Date:	2020-02-04	Sheet 1 of 7
File:	C:\Users\...Battery Management.SchDoc	Drawn By: G. Goodwin-Wilson



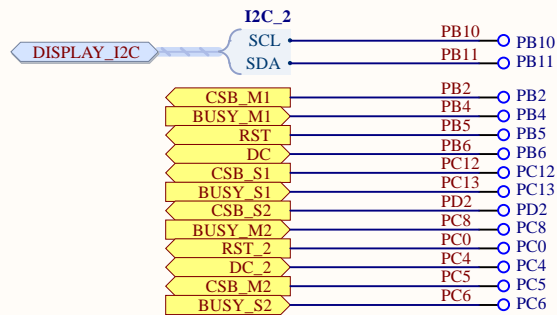
UART (From USB)



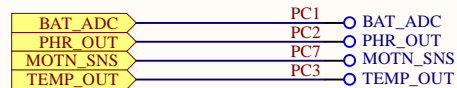
Cellular Module



Display Interface



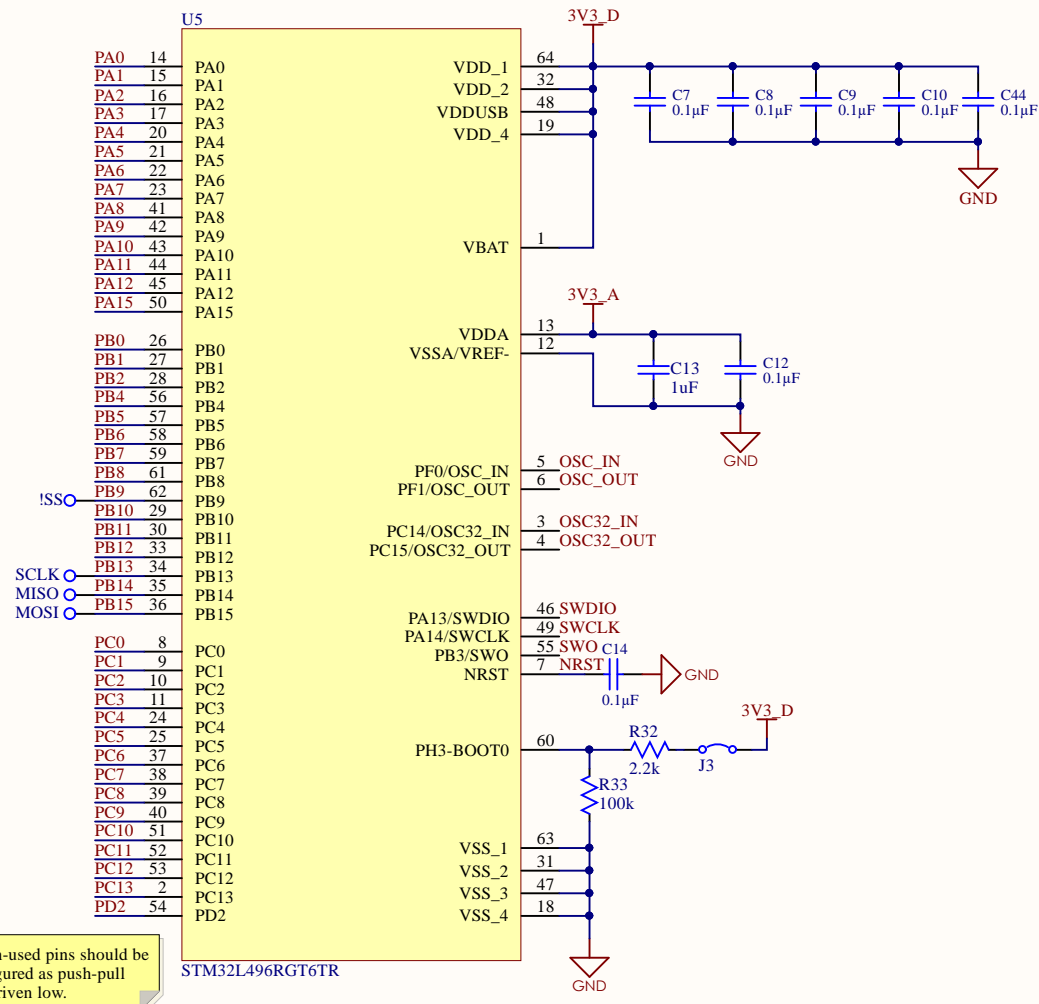
Sensor Signals



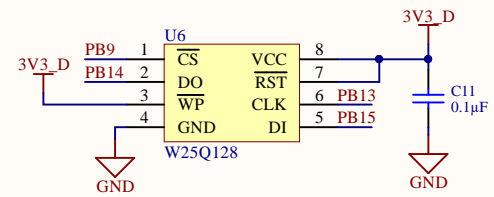
LED Output



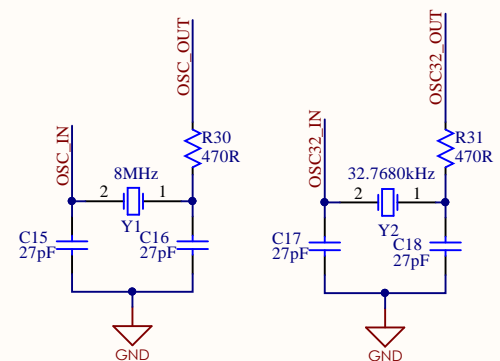
Microcontroller



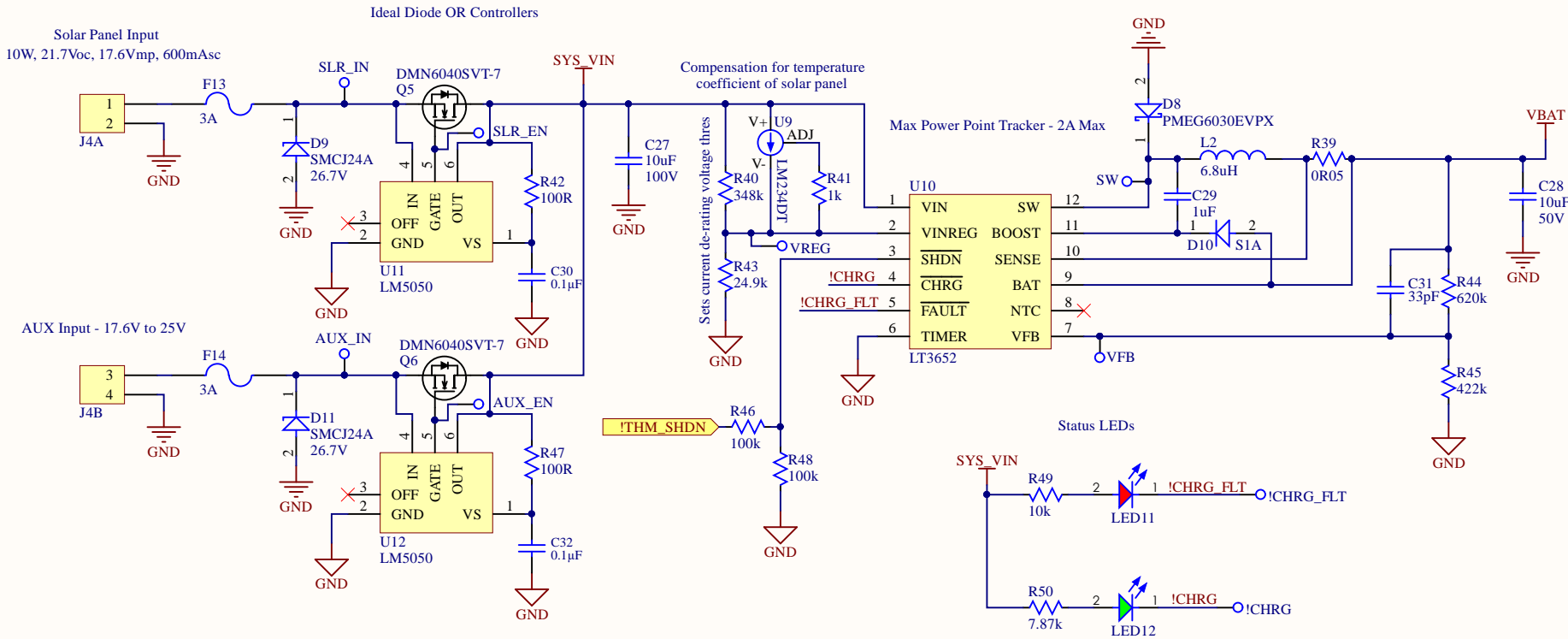
128M-Bit Serial Flash Memory



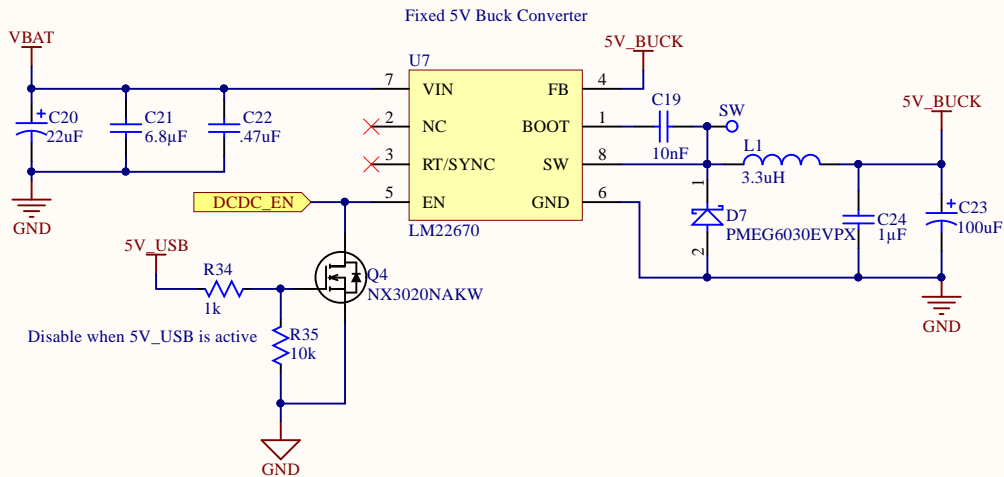
External Oscillators



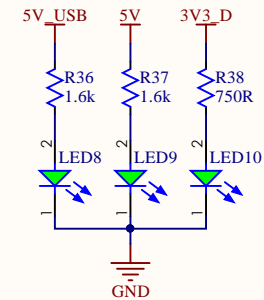
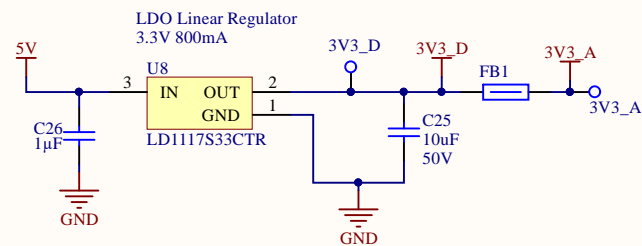
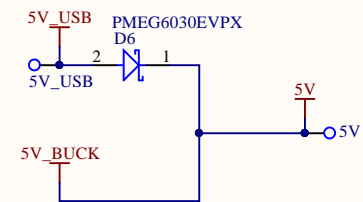
Title			
Microcontroller I/O			
Size	Number	Revision	
A3		Rev. A	
Date:	2020-02-04	Sheet	2 of 7
File:	C:\Users\...\MCU IO.SchDoc	Drawn By:	G. Goodwin-Wilson



Title		
Solar Charging		
Size	Number	Revision
A4		Rev. A
Date:	2020-02-04	Sheet 3 of 7
File:	C:\Users\...\Solar Charging.SchDoc	Drawn By: G. Goodwin-Wilson



Power Rail ORing Scheme



Title		
Power		
Size	Number	
A4	Revision	
Date: 2020-02-04		Sheet 4 of 7
File: C:\Users\...Power.SchDoc		Drawn By: G. Goodwin-Wilson

A

B

C

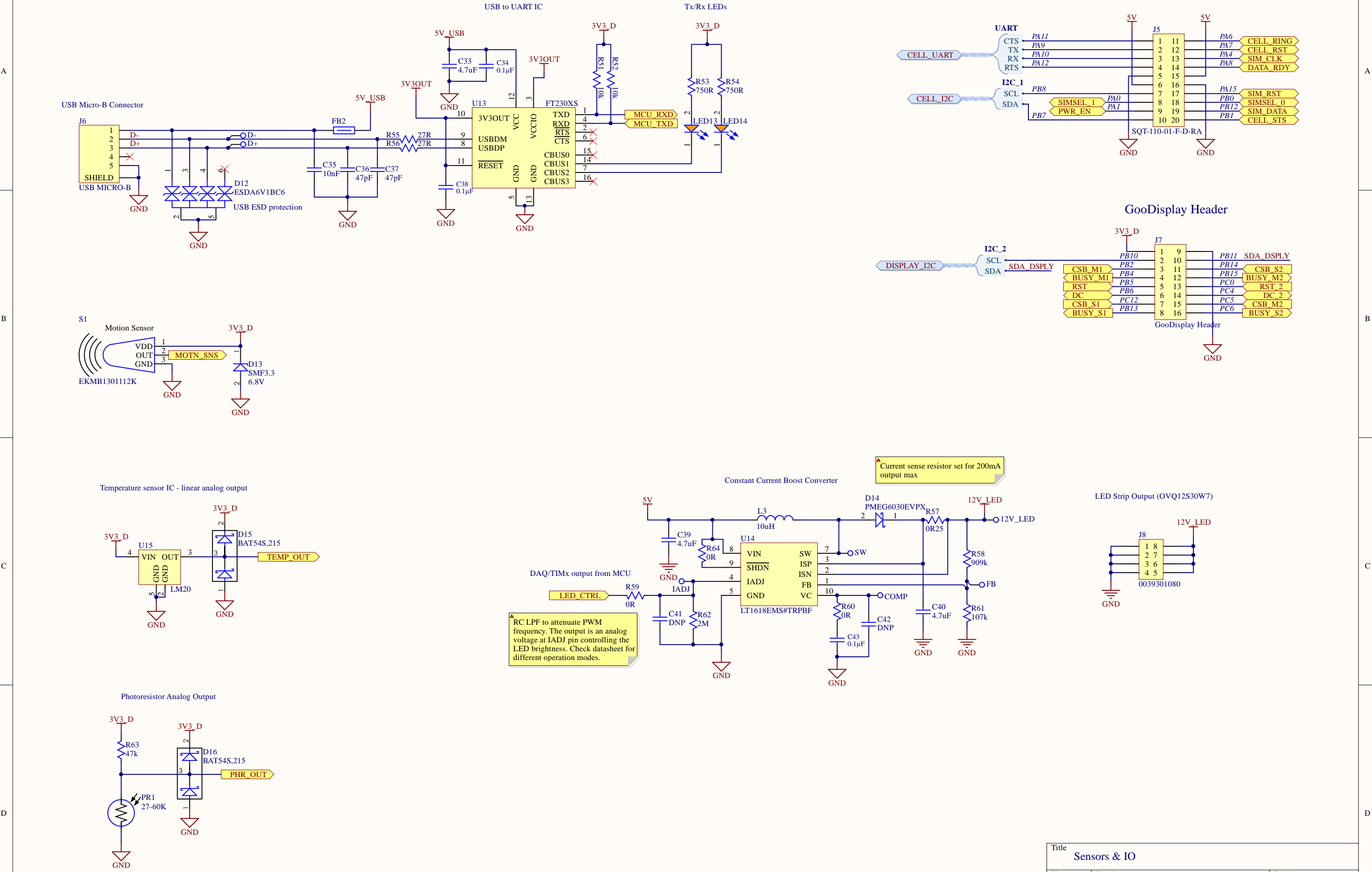
D

A

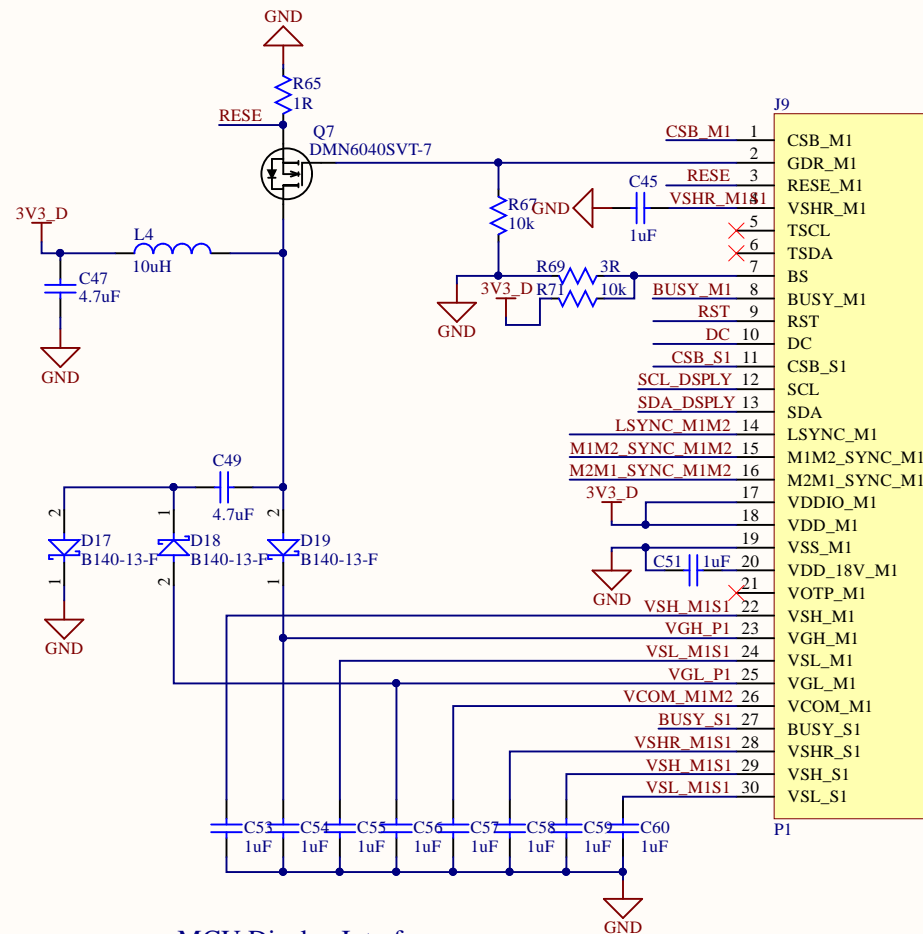
B

C

D



Title Sensors & IO		
Size A3	Number	Revision Rev. A
Date:	2020-02-04	Sheet 5 of 7
File:	C:\Users\...\Sensors IO.SchDoc	Drawn By: G. Goodwin-Wilson

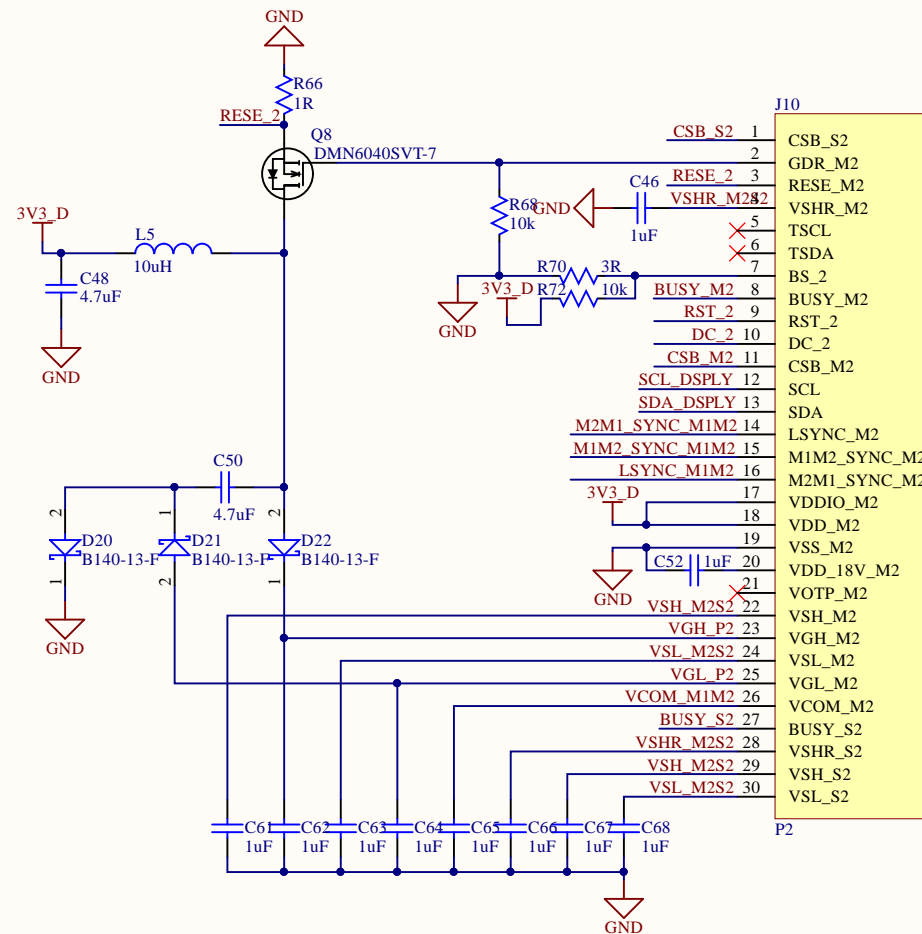


MCU Display Interface

CSB_M1	PB2	CSB_M1
BUSY_M1	PB4	BUSY_M1
RST	PB5	RST
DC	PB6	DC
CSB_S1	PC12	CSB_S1
BUSY_S1	PB13	BUSY_S1
CSB_S2	PB14	CSB_S2
BUSY_S2	PB15	BUSY_S2
RST_2	PC0	RST_2
DC_2	PC4	DC_2
CSB_M2	PC5	CSB_M2
BUSY_M2	PC6	BUSY_M2

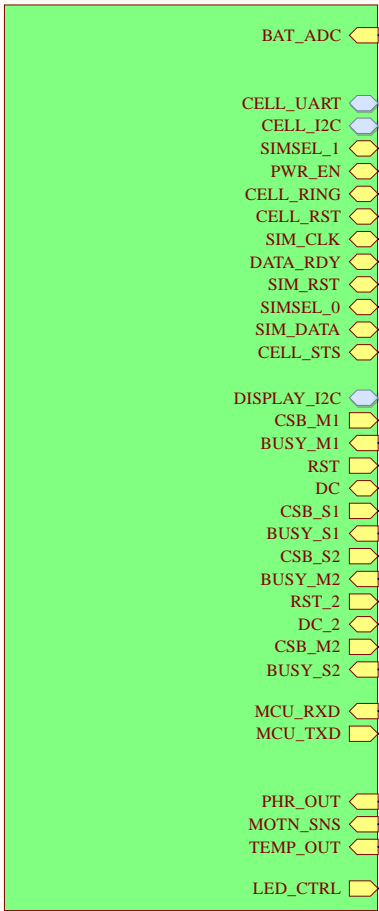
I2C_2	PB10	SCL_DSPY
SCL	PB11	SDA_DSPY

DISPLAY_I2C

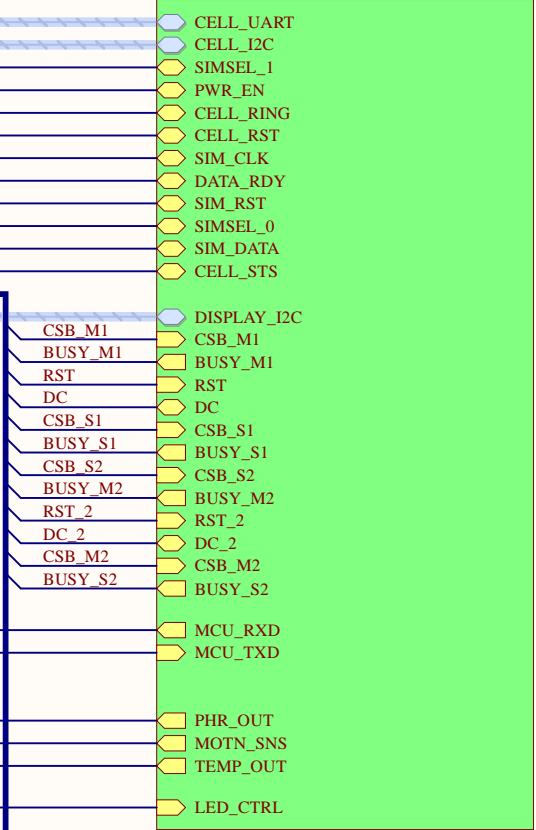


Title Display IO		
Size A4	Number	Revision Rev. A
Date:	2020-02-04	Sheet 6 of 7
File:	C:\Users\Wilson\Display IO.SchDoc	Drawn By: G. Goodwin-Wilson

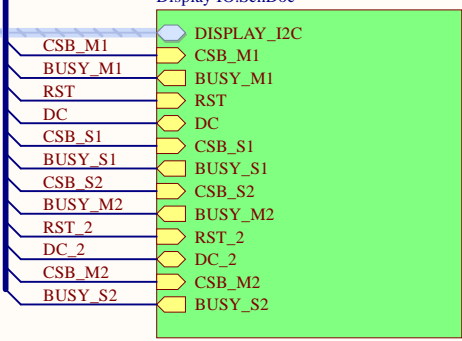
U_MCU IO
MCU IO.SchDoc



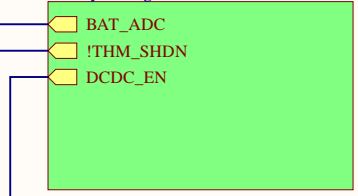
U_Sensors IO
Sensors IO.SchDoc



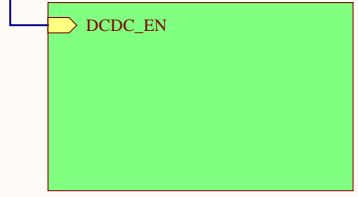
U_Display IO
Display IO.SchDoc



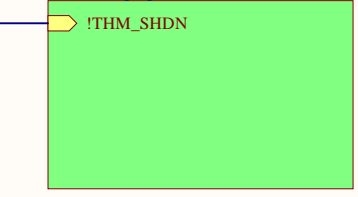
U_Battery Management
Battery Management.SchDoc



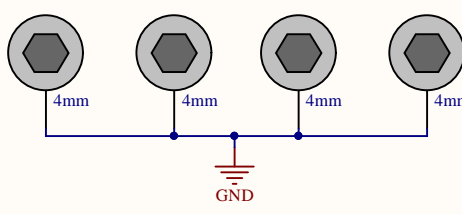
U_Power
Power.SchDoc



U_Solar Charging
Solar Charging.SchDoc



PCB Mounting Holes



Title Top Level		
Size A3	Number	Revision Rev. A
Date:	2020-02-04	Sheet 7 of 7
File:	C:\Users\...\Top Level.SchDoc	Drawn By: G. Goodwin-Wilson