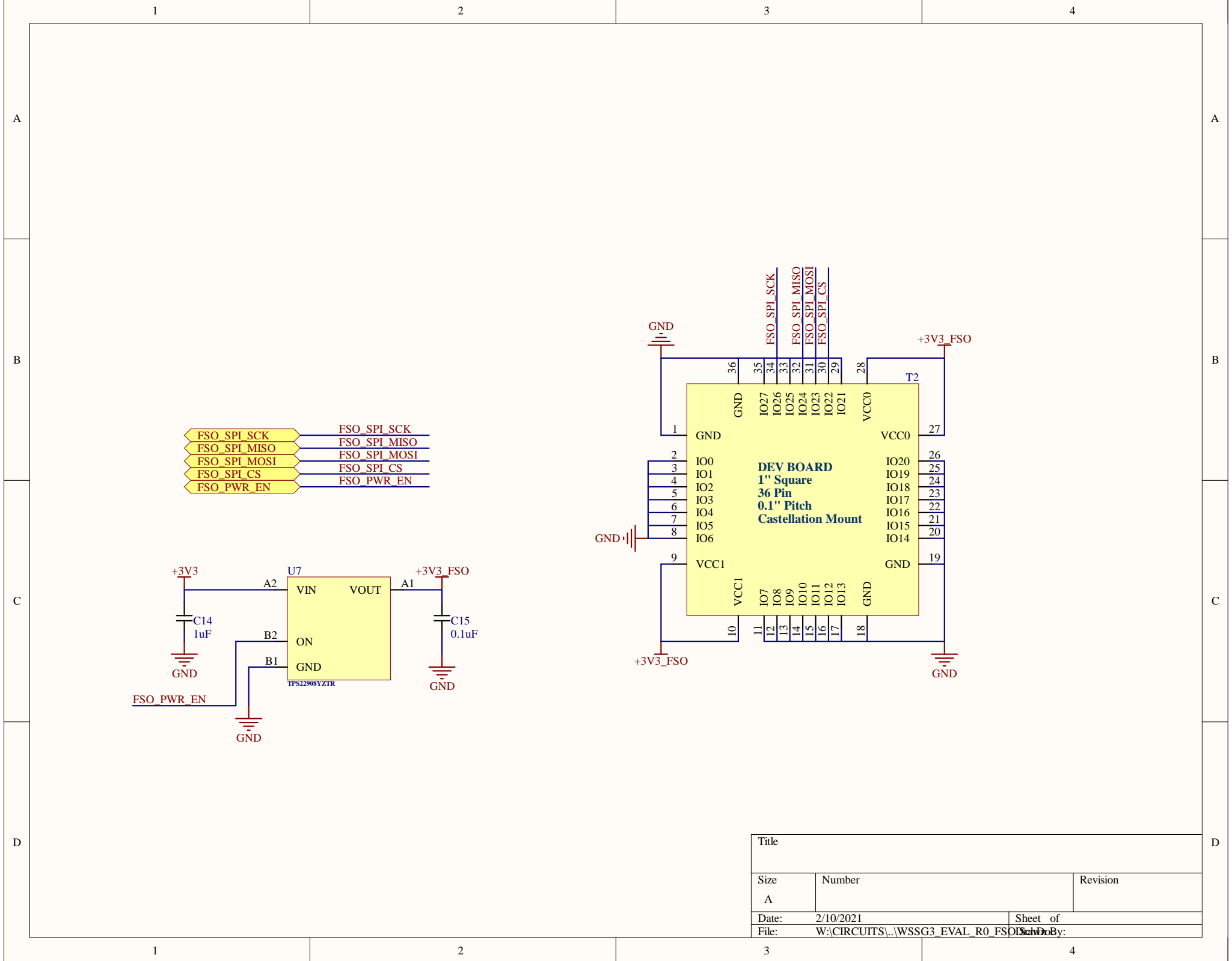
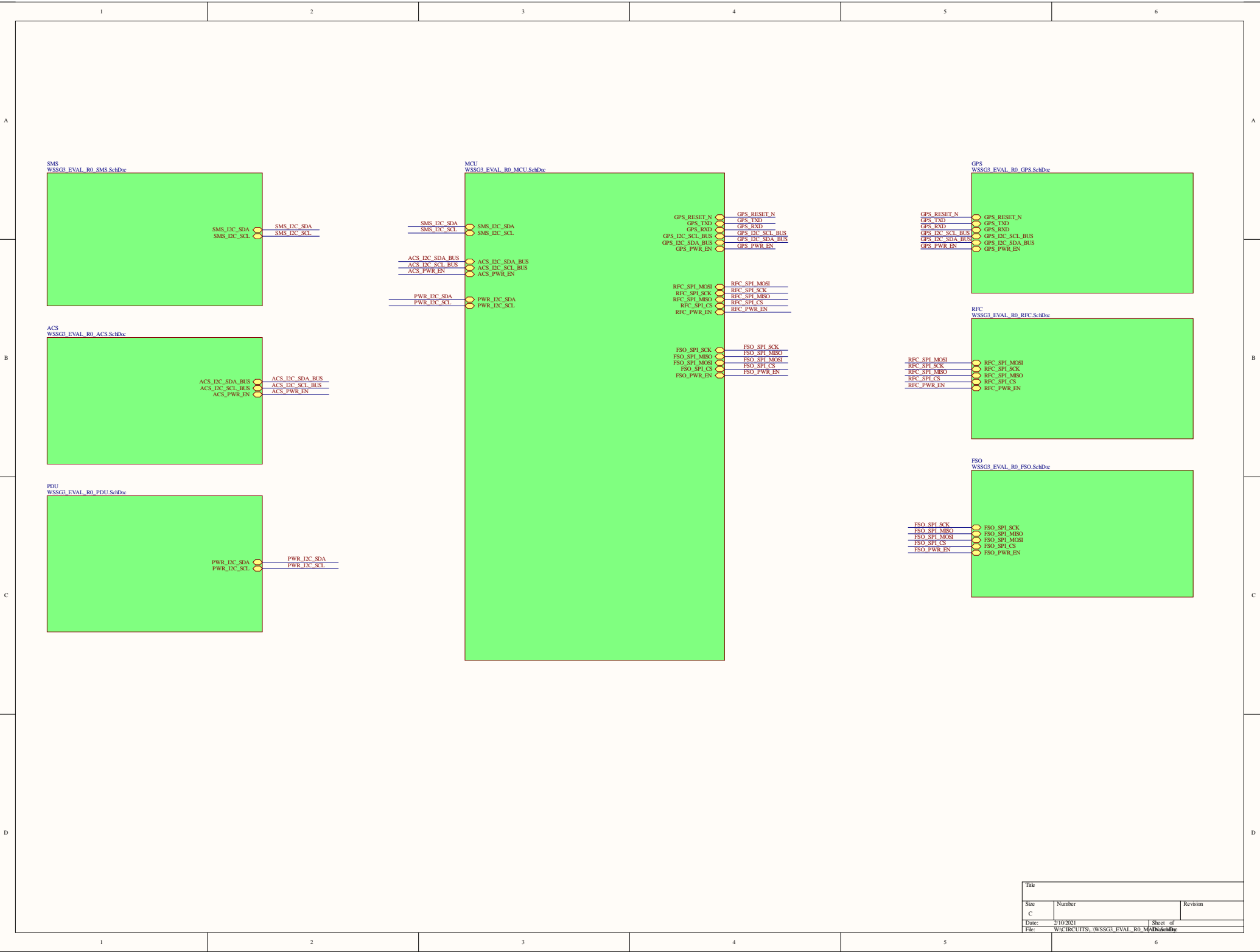


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Size	Number	Revision
A		
Date:	2/10/2021	Sheet of
File:	W:\CIRCUITS\WSSG3_EVAL_R0_ACS.DSN	Drawn By:

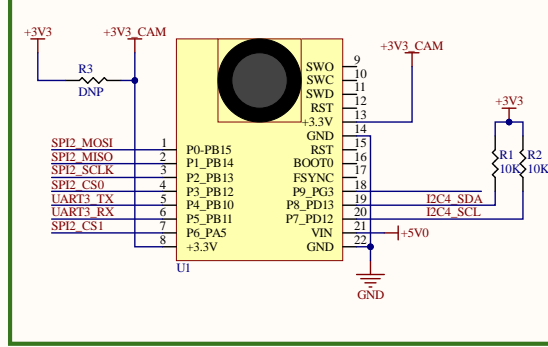


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Date:	2/10/2021	Sheet of
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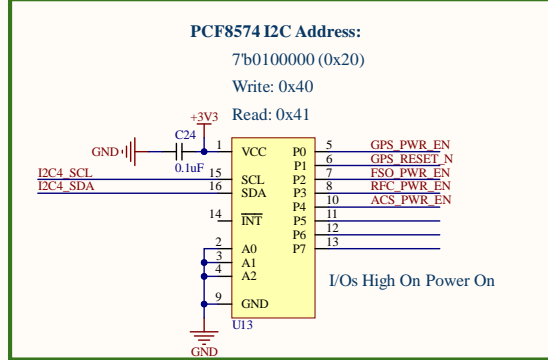


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Size	Number	Revision
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Date:	2/10/2021	Sheet of
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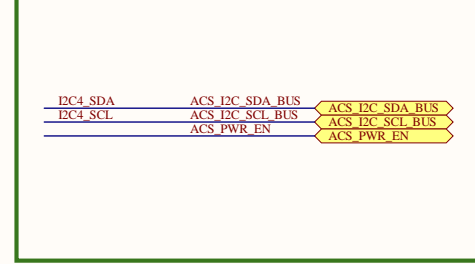
OpenMV



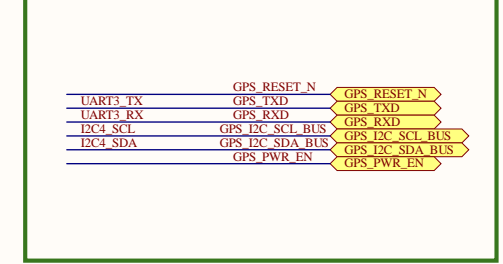
I/O



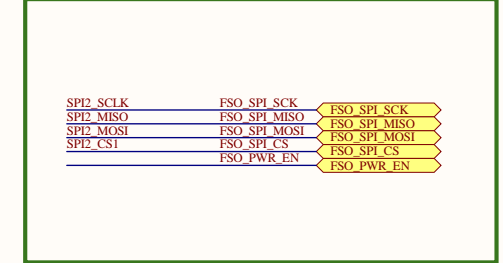
ACS



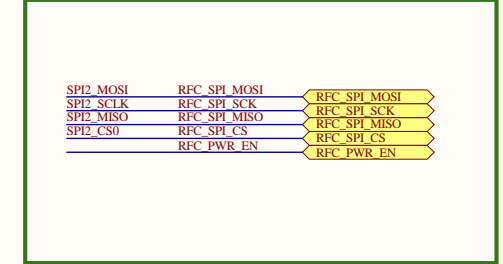
GPS



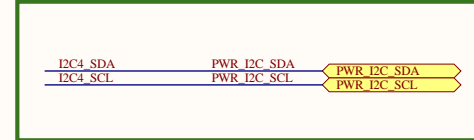
FSO



RFC



PDU



SMS



Title		
Size	Number	Revision
Date:	2/10/2021	Sheet of
File:	W:\CIRCUITS\WSSG3_EVAL_R0_MCU\Subby	

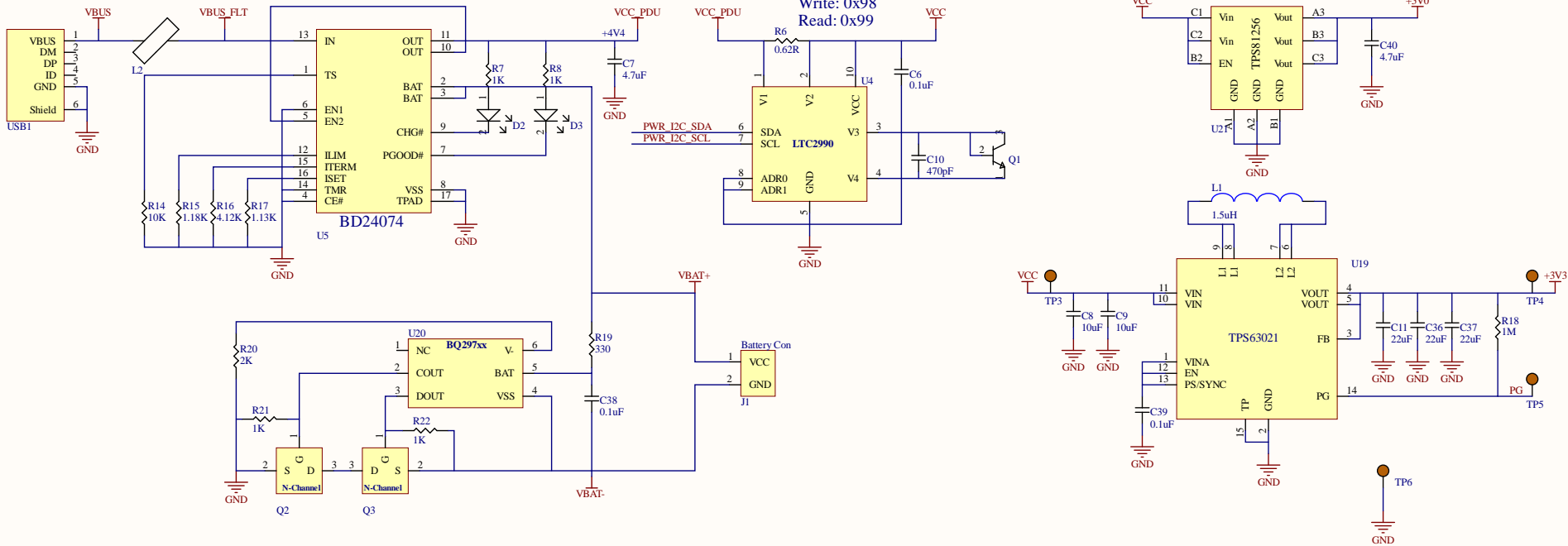
PWR_I2C_SDA
PWR_I2C_SCL

LTC2990 I2C ADDR:

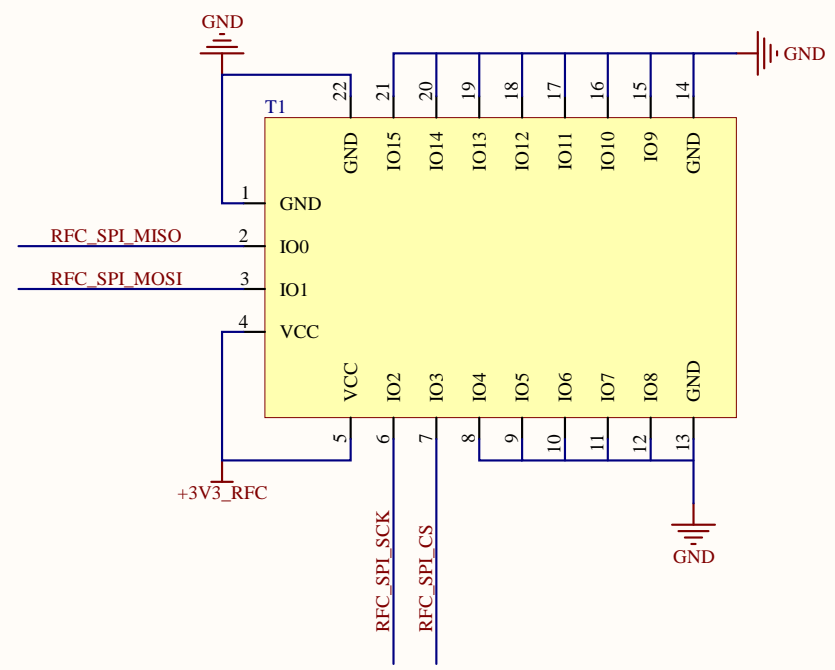
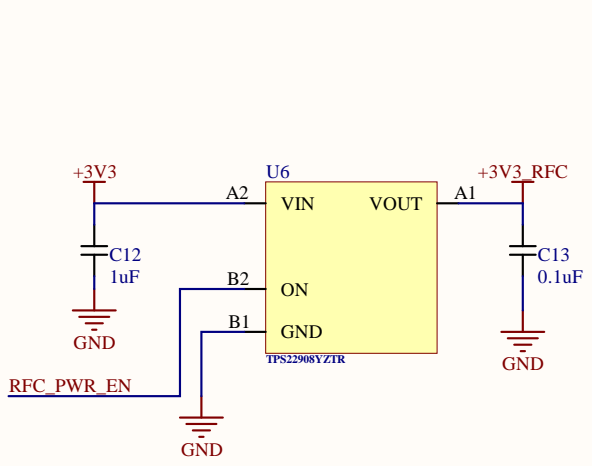
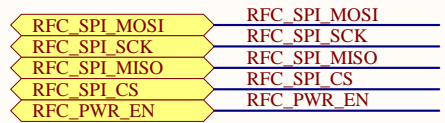
7b1001100

Write: 0x98

Read: 0x99



Title		
Size	Number	Revision
Date:	2/10/2021	Sheet of
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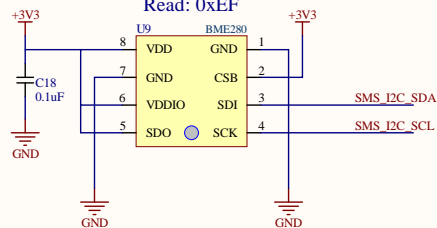


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Size	Number	Revision
A		
Date:	2/10/2021	Sheet of
File:	W:\CIRCUITS\..\WSSG3_EVAL_R0 RFC.Dwg	Drawn By:

SMS_I2C_SDA SMS_I2C_SDA
SMS_I2C_SCL SMS_I2C_SCL

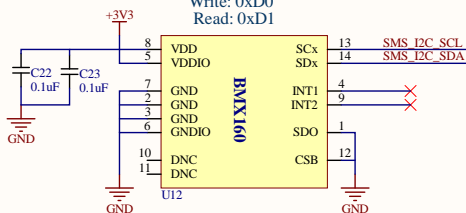
BME280

BME I2C ADDR:
7b1110111 (0x77)
Write: 0xEE
Read: 0xEF



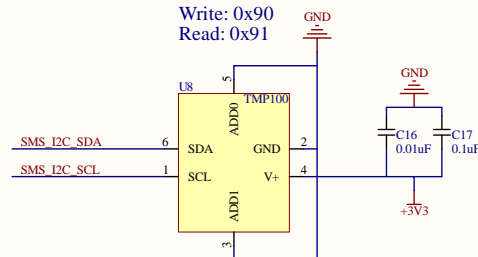
BMX160

BMX160 I2C ADDR:
7b1101000 (0x68)
Write: 0xD0
Read: 0xD1



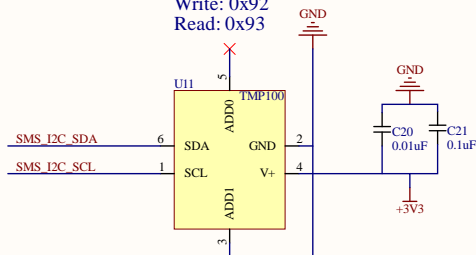
TMP100

TMP0 I2C ADDR:
7b1001000 (0x48)
Write: 0x90
Read: 0x91



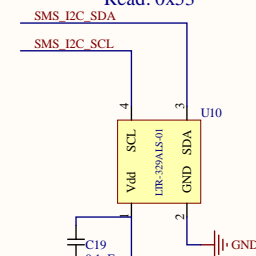
TMP100

TMP1 I2C ADDR:
7b1001001 (0x49)
Write: 0x92
Read: 0x93



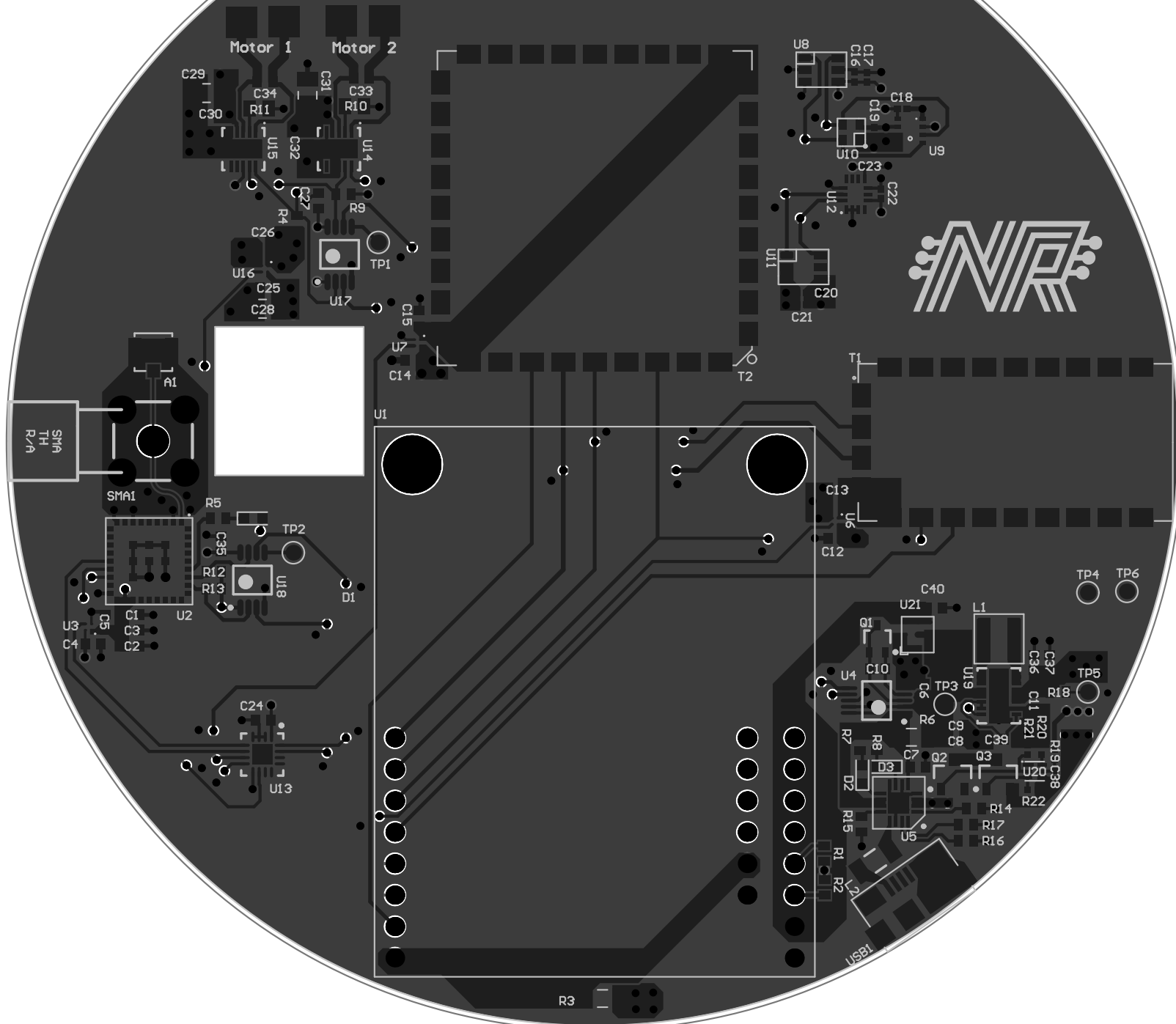
LTR-329ALS-01

AMB LIGHT I2C ADDR:
7b0101001 (0x29)
Write: 0x52
Read: 0x53



Title		
Size B	Number	Revision
Date: 2/10/2021	Sheet of	
File: W:\CIRCUITS\WSSG3_EVAL_R0_SMS	Schematics	

WSSG3_EVAL_R0
UCSB Physics
N. Rupert 02-03-21



Comment	Description	Designator	Footprint	LibRef	Quantity
Antenna Connector	Antenna Connector Hirose	A1	Hirose Micro Coax	Hirose Ultra Miniature Coax	1
SMD Chip Capacitor	SMD Chip Capacitor	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C24, C25, C26, C27, C30, C32, C33, C34, C35, C36, C37, C39, C40	CAPC0603	SMD Chip Capacitor	28
SMD Chip Capacitor	SMD Chip Capacitor	C16, C17, C18, C19, C20, C21, C22, C23, C38	CAPC0402	SMD Chip Capacitor	9
SMD Chip Capacitor	SMD Chip Capacitor	C28, C29, C31	CAPC1206	SMD Chip Capacitor	3
0603 LED	0603 LED	D1, D2, D3	0603 LED	0603 LED	3
PWR Pads	PWR Pads	J1	PWR Pads	PWR Pads	1
XFL4020-152MEC Fixed Inductors 1.5uH Shld 9.1A 15.8mOhms AECO2	XFL4020-152MEC Fixed Inductors 1.5uH Shld 9.1A 15.8mOhms AECO2	L1	XFL4020-152MEC	XFL4020-152MEC	1
1206 Ferrite Bead	1206 Ferrite Bead	L2	INDC3216X13N	1206 Ferrite Bead	1
UMT3904 NPN General Purpose Transistor	UMT3904 NPN General Purpose Transistor	Q1	SOT65P210X100-3N	UMT3904 NPN General Purpose Transistor	1
MGSF1N02LT1G MOSFET N-CH 20V 750MA SOT23	MGSF1N02LT1G MOSFET N-CH 20V 750MA SOT23	Q2, Q3	MGSF1N02LT1G SOT95P237X111-3N	MGSF1N02LT1G MOSFET N-CH 20V 750MA SOT23	2
SMD Chip Resistor	SMD Chip Resistor	R1, R2, R4, R5, R7, R8, R9, R12, R13, R14, R15, R16, R17, R18	RESC0603	SMD Chip Resistor	14
SMD Chip Resistor	SMD Chip Resistor	R3, R6	RESC1206	SMD Chip Resistor	2
SMD Chip Resistor	SMD Chip Resistor	R10, R11	RESC0805	SMD Chip Resistor	2
SMD Chip Resistor	SMD Chip Resistor	R19, R20, R21, R22	RESC0402	SMD Chip Resistor	4
CONN RP-SMA JACK RA 50 OHM PCB		SMA1	CONN RP-SMA JACK RA 50 OHM PCB	CONN RP-SMA JACK RA 50 OHM PCB	1
RF 1 in by 0.5 in 22 pin 0.1 in pitch castellated board	RF 1 in by 0.5 in 22 pin 0.1 in pitch castellated board	T1	RF 1 in by 0.5 in 22 pin 0.1 in pitch castellated board	RF 1 in by 0.5 in 22 pin 0.1 in pitch castellated board	1
1 in square 36 pin 0.1 in pitch castellated board	1 in square 36 pin 0.1 in pitch castellated board	T2	1 in square 36 pin 0.1 in pitch castellated board	1 in square 36 pin 0.1 in pitch castellated board	1
Test Point - Probe 50 mil Round	Test Point - Probe 50 mil Round	TP1, TP2, TP3, TP4, TP5, TP6	Test Point - Probe 50 mil Round	Test Point - Probe 50 mil Round	6
OpenMV CAM Plus	OpenMV CAM Plus	U1	OpenMV CAM Plus	OpenMV CAM Plus	1
EVA-M8 RF RCVR GNSS/GPS 1.575GHZ 43LGA	EVA-M8 RF RCVR GNSS/GPS 1.575GHZ 43LGA	U2	EVA-M8	EVA-M8	1
TPS22908YZTR	TPS22908YZTR	U3, U6, U7	BGA4C50P2X2_89X89 X50	TPS22908YZTR	3
LTC2990 IC TEMP/VOLT/CUR MONITOR 10MSOP	LTC2990 IC TEMP/VOLT/CUR MONITOR 10MSOP	U4	TSSOP50P490X110- 10N	LTC2990	1
PMIC BQ24074	PMIC BQ24074	U5	BQ24074	BQ24074	1
TMP100 Temp Sensor	TMP100 Temp Sensor	U8, U11	TMP100	TMP100 Temp Sensor	2
BME280 SENSOR PRESSURE HUMIDITY TEMP	BME280 SENSOR PRESSURE HUMIDITY TEMP	U9	BME280	BME280	1
Ambient Light Sensor	Ambient Light Sensor I2C	U10	LTR-329ALS-01	LTR-329ALS-01	1
BMX160 IMU ACCEL/GYRO/MAG	BMX160 IMU ACCEL/GYRO/MAG	U12	BMX160	BMX160 IMU ACCEL/GYRO/MAG	1
PCF8574RGTR I/O Expander 8 I ² C 100kHz 16-QFN (3x3)	PCF8574RGTR I/O Expander 8 I ² C 100kHz 16-QFN (3x3)	U13	QFN50P300X300X100 _HS-17N	PCF8574RGTR	1
DRV8830DRCR	DRV8830DRCR Bipolar Motor Driver Power MOSFET I ² C 10- VSON (3x3)	U14, U15	SON50P300X100_HS- 11N	DRV8830DRCR	2
TPS22930AYZVR	TPS22930AYZVR Power Switch/Driver 1:1 P-Channel 2A 4- DSBGA (0.88x0.88)	U16	BGA4C50P2X2_89X89 X54	TPS22930AYZVR	1
TCA4311A	TCA4311A IC REDRIVER I2C HOTSWAP 8VSSOP	U17, U18	TSOP65P490X110-8N	TCA4311A	2
TPS63021 IC REG BCK BST 3.3V 3.5A 14VSON	TPS63021 Buck-Boost Switching Regulator IC Positive Fixed 3.3V 1 Output 3.5A (Switch) 14-VDFN Exposed Pad	U19	SON50P300X100_HS- 15N	TPS63021	1
BQ297xx IC LITHIUM BATT PROTECT 6-SOP	BQ297xx IC LITHIUM BATT PROTECT 6-SOP	U20	BQ297xx	BQ297xx	1
TPS81256 IC REG BOOST 5V SYNC 9USIP	TPS81256 IC REG BOOST 5V SYNC 9USIP	U21	TPS81256 8-BGA	TPS81256	1
Hirose ZX62-AB- 5PA(31) CONN RCPT USB MICRO AB SMD RA	Hirose ZX62-AB- 5PA(31) CONN RCPT USB MICRO AB SMD RA	USB1	Hirose ZX62-AB- 5PA(31) CONN RCPT USB MICRO AB SMD RA	Hirose ZX62-AB- 5PA(31) CONN RCPT USB MICRO AB SMD RA	1