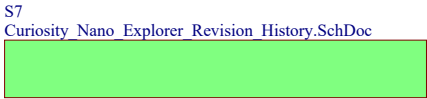
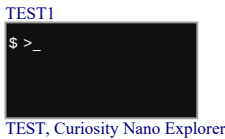
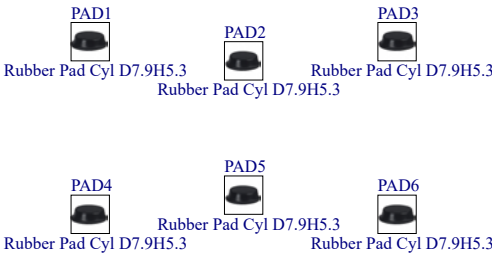
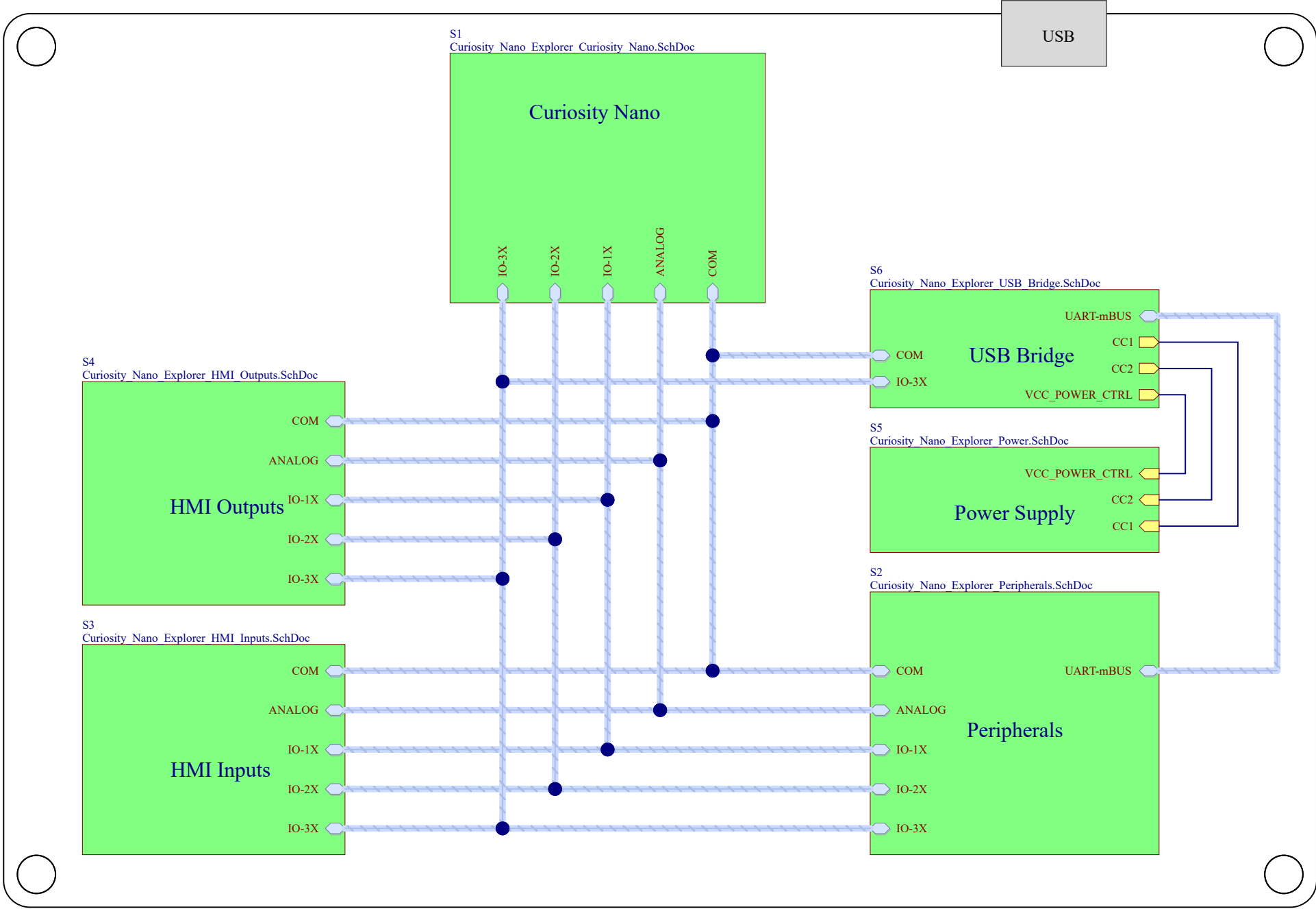


Curiosity Nano Explorer



Text in Silkscreen on PCB

Project Owner: AH

PCB Layout Contact: TF, VL

PartNumber: EV58G97A

Project Title: Curiosity Nano Explorer

Variant: Default Assembly

Sheet Title: Top Level

Size: A3

SCH #: 02-00630

Rev: 3

Date: 2024-04-18

PCB #: 04-11720

Rev: 2

Sheet 1 of 9

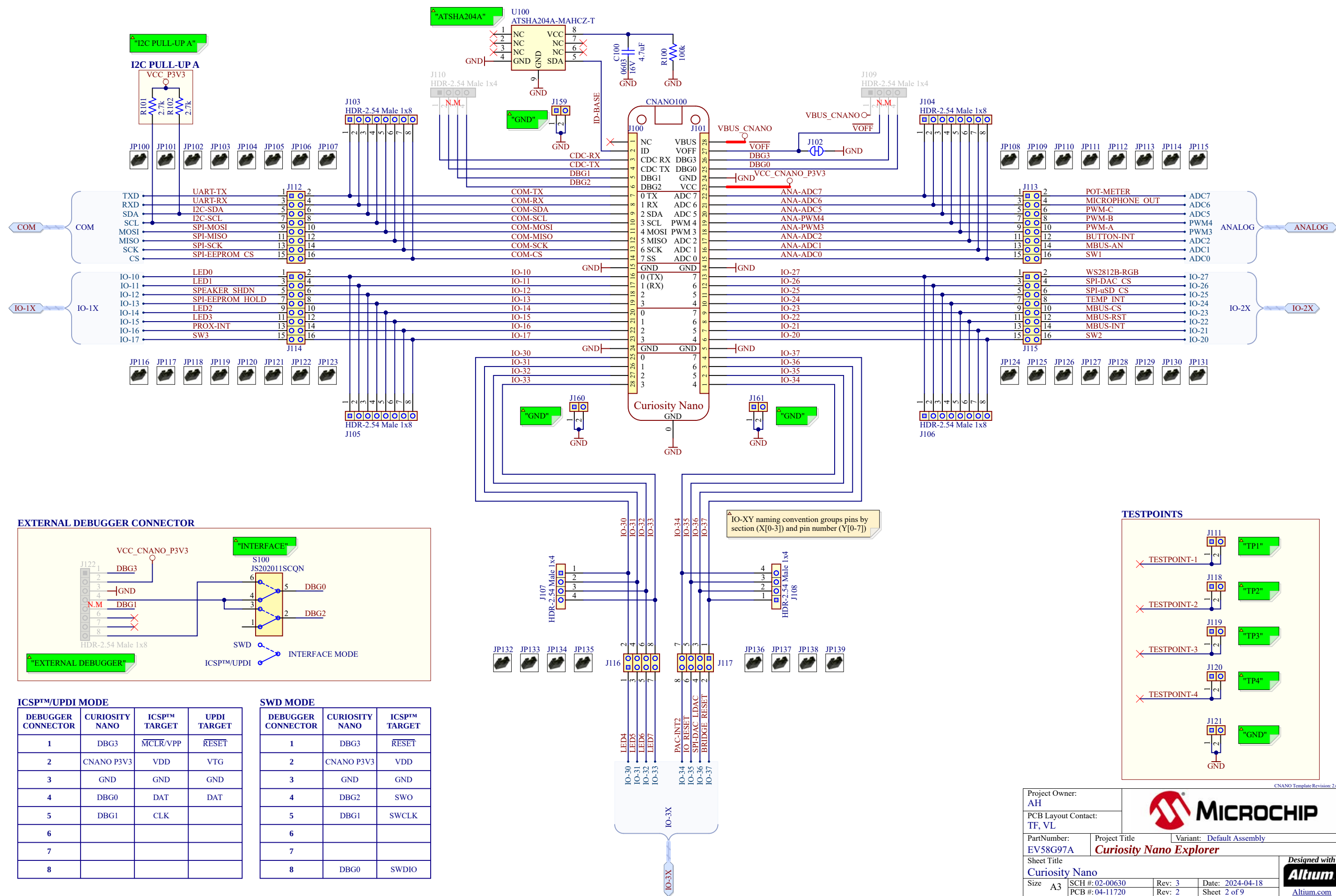
File: Curiosity Nano Explorer TopLevel.SchDoc

Designed with Altium

Altium.com

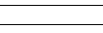
CNANO Template Revision: 2.6

Curiosity Nano

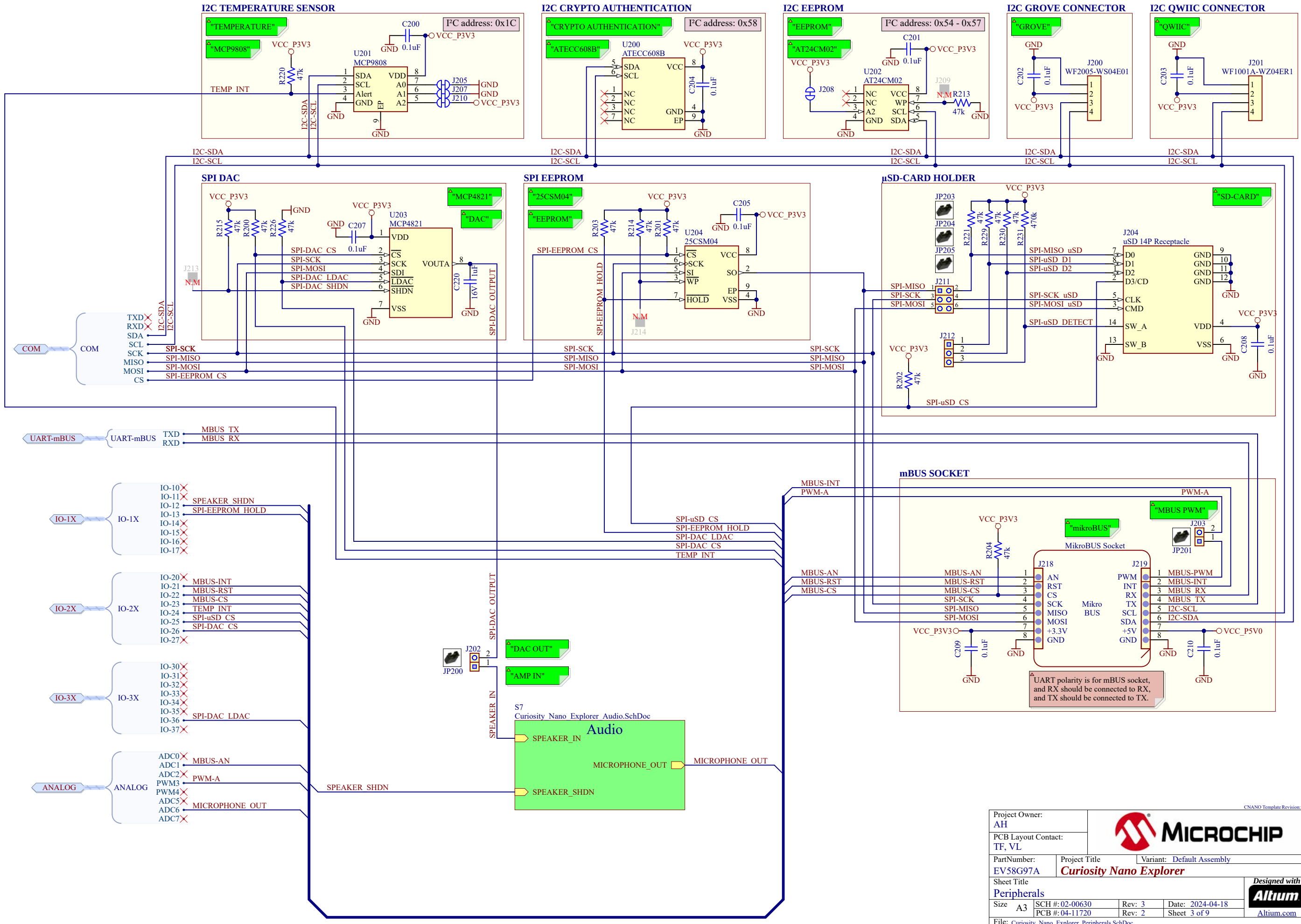


DEBUGGER CONNECTOR	CURIOSITY NANO	ICSP™ TARGET	UPDI TARGET
1	DBG3	<u>MCLR/VPP</u>	<u>RESET</u>
2	CNANO P3V3	VDD	VTG
3	GND	GND	GND
4	DBG0	DAT	DAT
5	DBG1	CLK	
6			
7			
8			

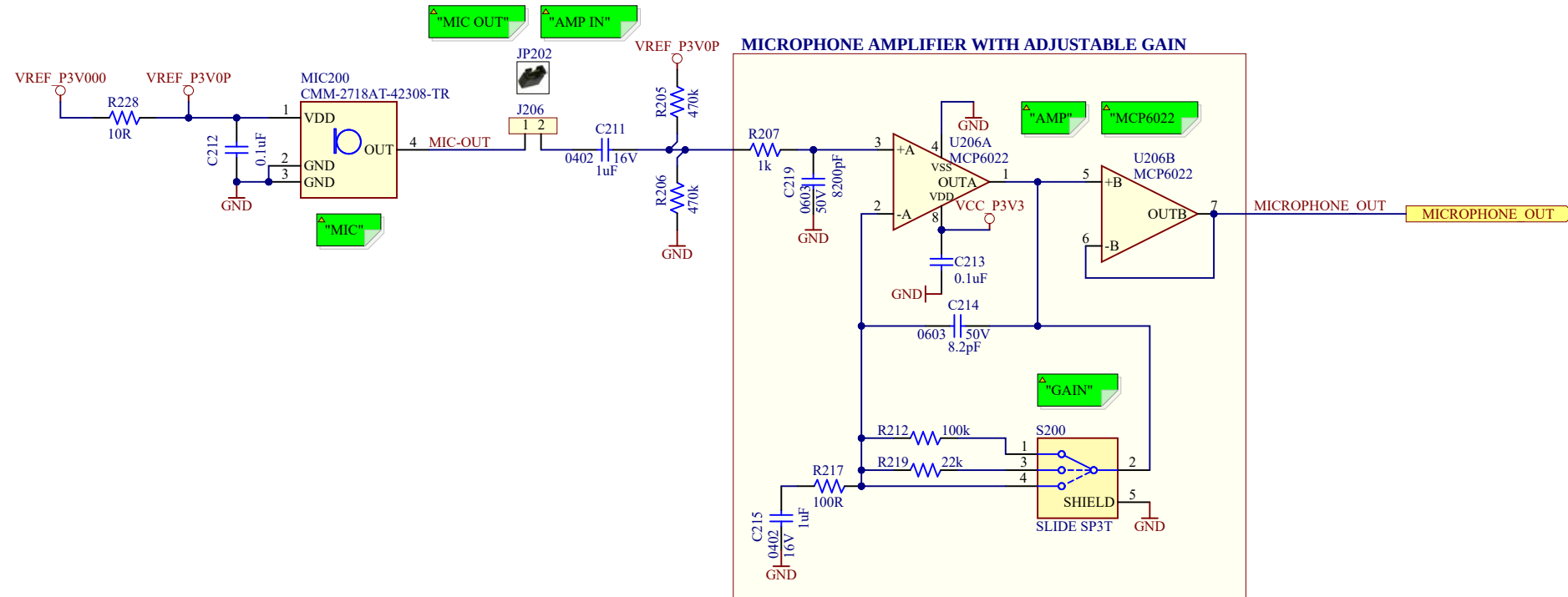
SWD MODE		
DEBUGGER CONNECTOR	CURIOSITY NANO	ICSP™ TARGET
1	DBG3	$\overline{\text{RESET}}$
2	CNANO P3V3	VDD
3	GND	GND
4	DBG2	SWO
5	DBG1	SWCLK
6		
7		
8	DBG0	SWDIO

Project Owner: AH		 MICROCHIP			
PCB Layout Contact: TF, VL					
PartNumber: EV58G97A		Project Title Curiosity Nano Explorer		Variant: Default Assembly	
Sheet Title Curiosity Nano					
Size A3	SCH #:02-00630	Rev: 3	Date: 2024-04-18		 Designed with Altium Altium.com
	PCB #:04-11720	Rev: 2	Sheet 2 of 9		
File: Curiosity Nano Explorer Curiosity Nano.SchDoc					

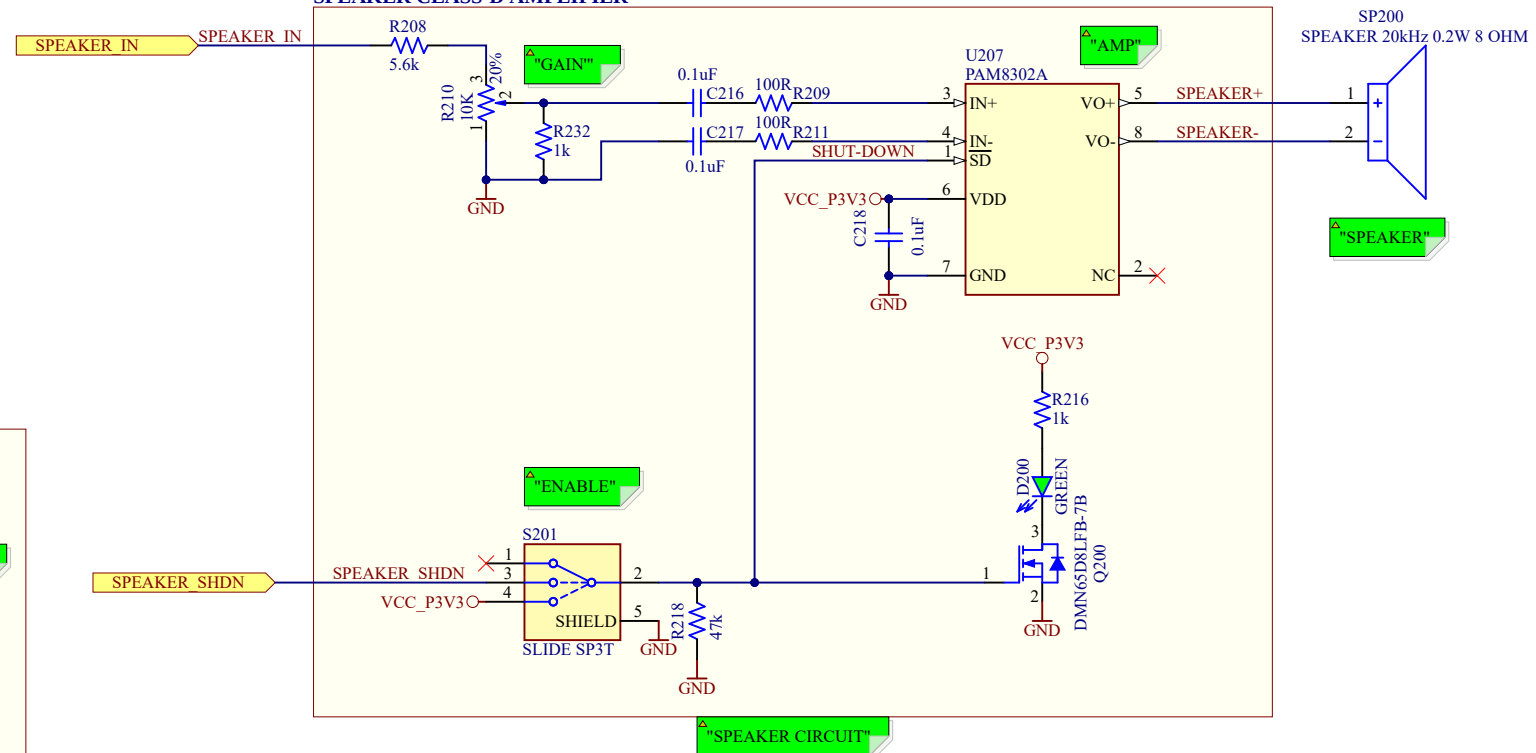
Peripherals



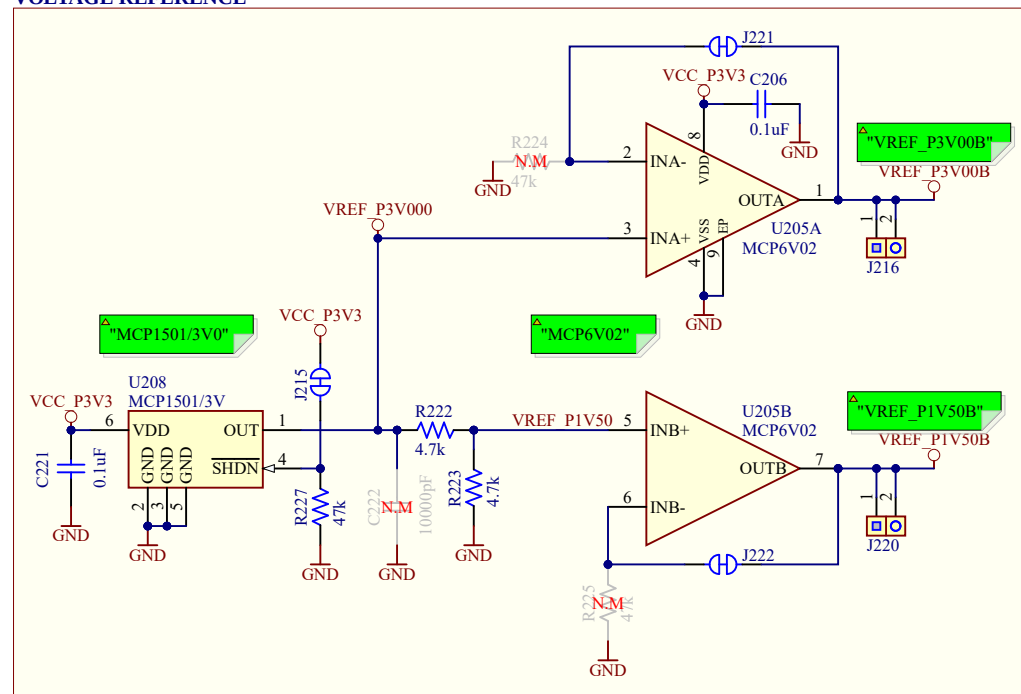
Audio

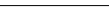


SPEAKER CLASS-D AMPLIFIER

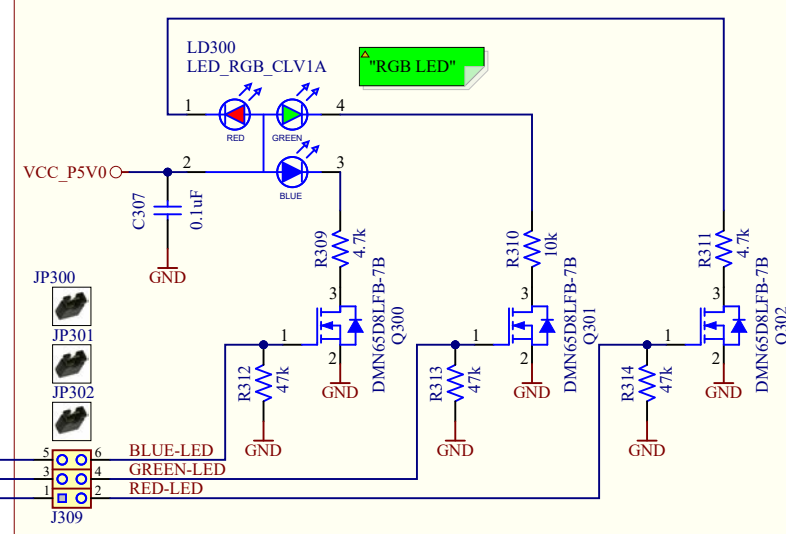
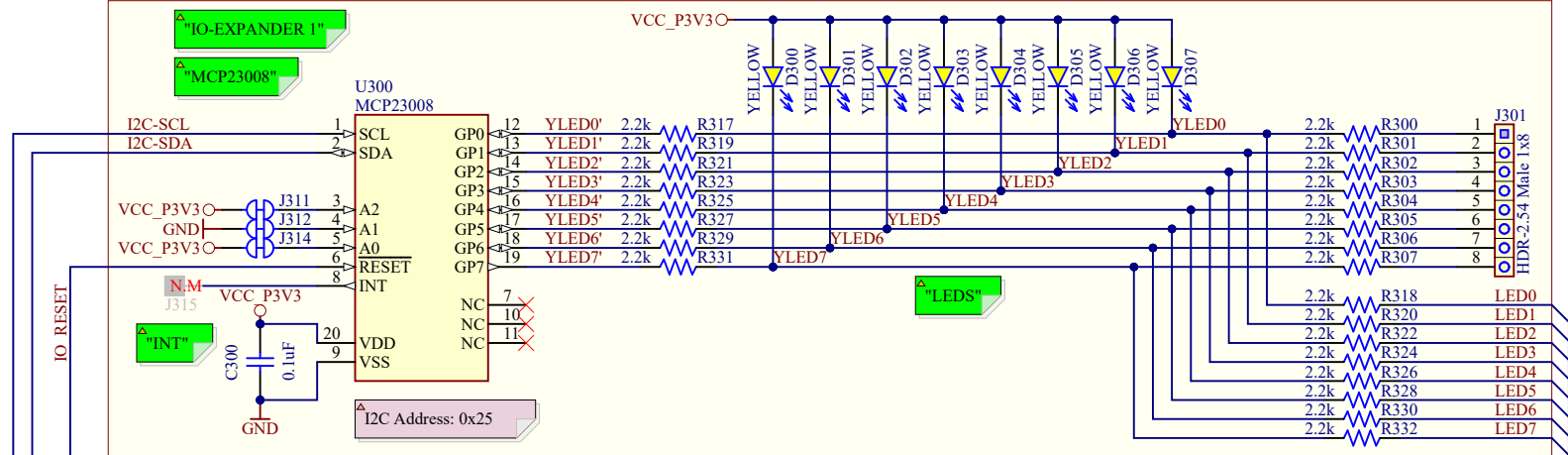
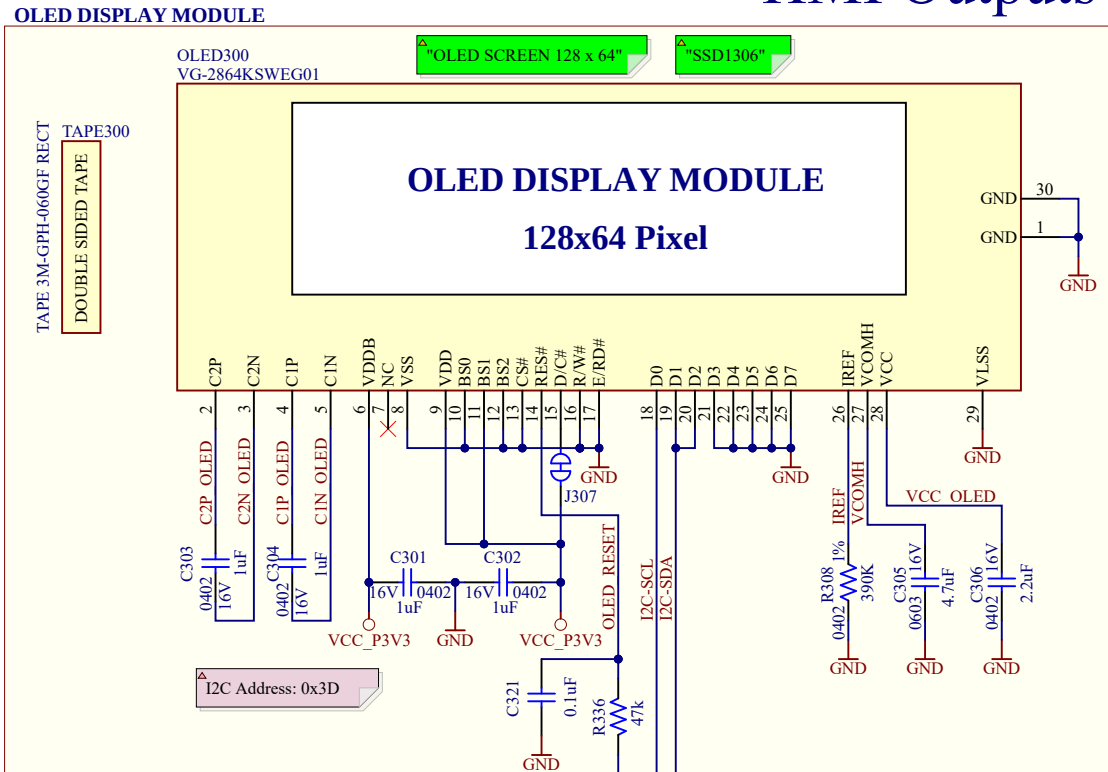


VOLTAGE REFERENCE

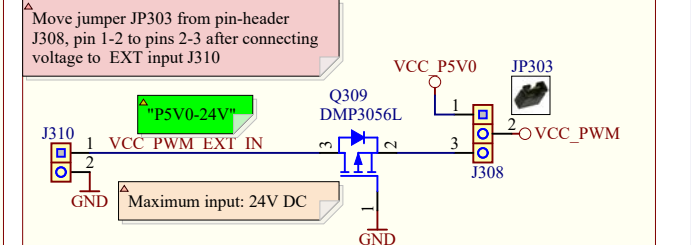


Project Owner: AH		 MICROCHIP		CNANO Template Revision: 2.6	
PCB Layout Contact: TF, VL					
PartNumber: EV58G97A		Project Title <i>Curiosity Nano Explorer</i>		Variant: Default Assembly	
Sheet Title Audio				Designed with  Altium.com	
Size	A3	SCH #: 02-00630	Rev: 3	Date: 2024-04-18	
		PCB #: 04-11720	Rev: 2	Sheet 4 of 9	
File: Curiosity Nano Explorer Audio.SchDoc					

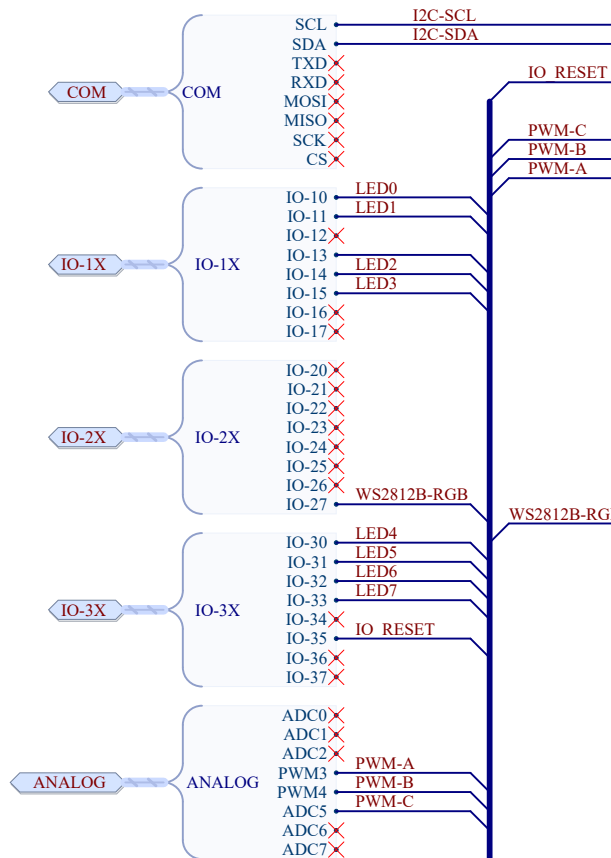
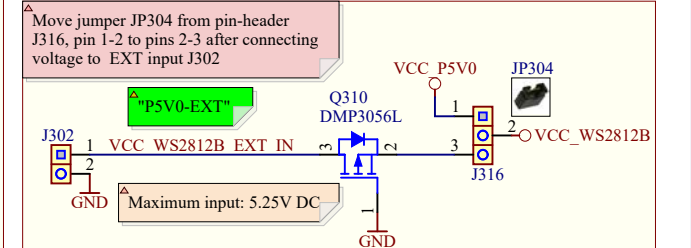
HMI Outputs



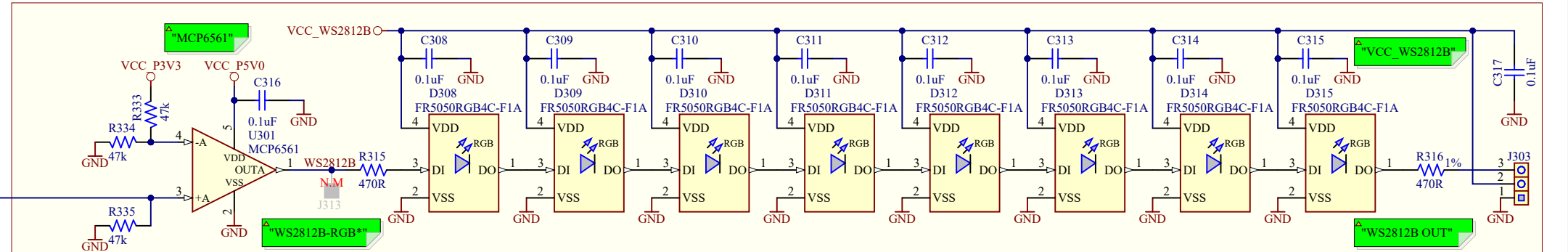
VCC_PWM EXTERNAL POLARITY PROTECTION



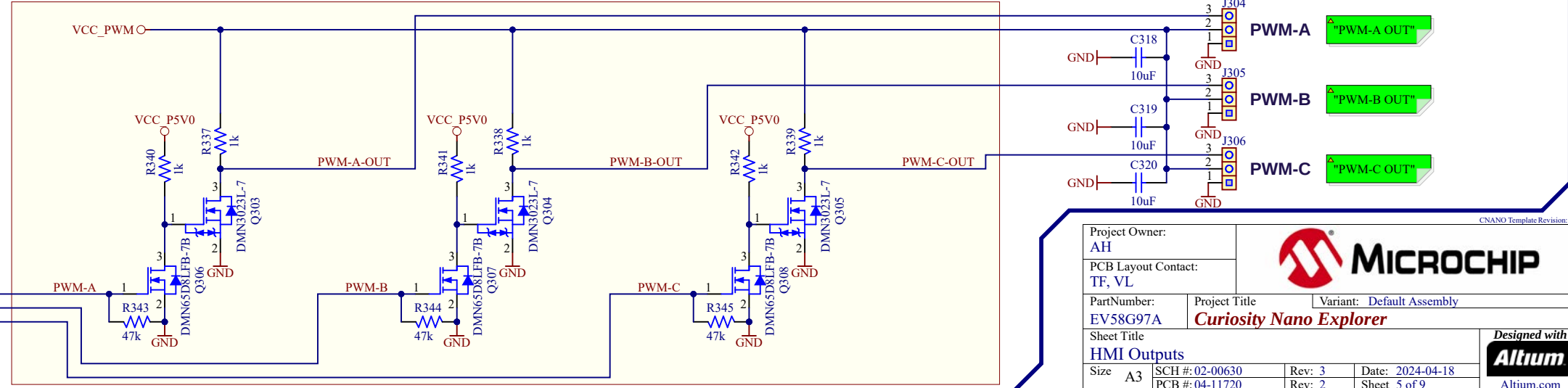
VCC_WS2812B EXTERNAL POLARITY PROTECTION

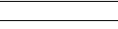


Addressable RGB LED-STRIP

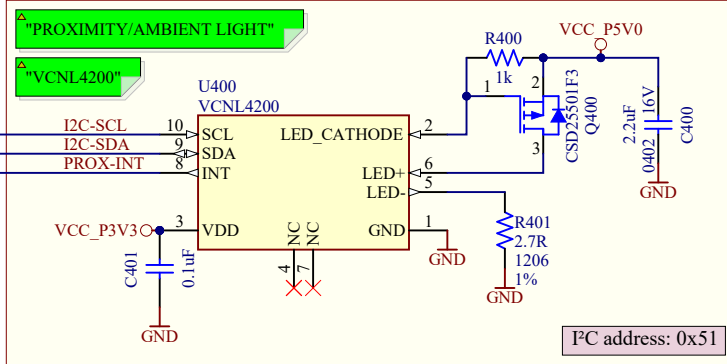


PWM SERVO-MOTOR/RGB-LED STRIP Driver

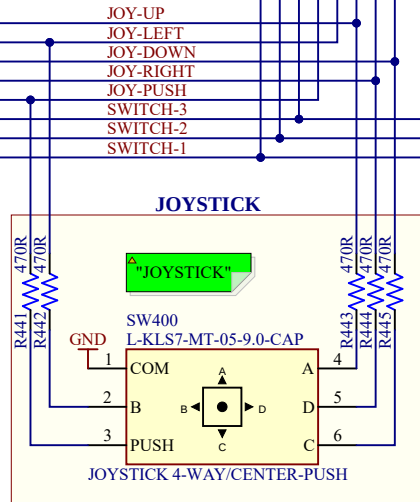
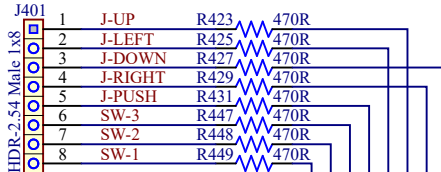
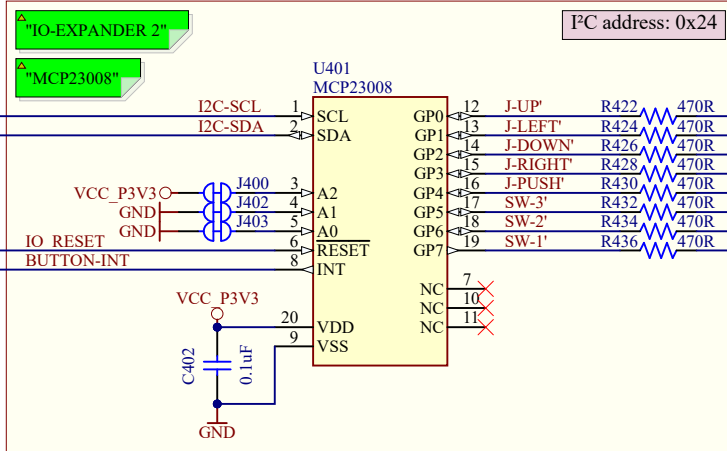


Project Owner: AH		 MICROCHIP		CNANO Template Revision: 2.6	
PCB Layout Contact: TF, VL					
PartNumber: EV58G97A		Project Title <i>Curiosity Nano Explorer</i>		Variant: <u>Default Assembly</u>	
Sheet Title HMI Outputs				Designed with 	
Size A3		SCH #: 02-00630	Rev: 3	Date: 2024-04-18	
		PCB #: 04-11720	Rev: 2	Sheet 5 of 9	
File: Curiosity Nano Explorer HMI Outputs.SchDoc					

HMI Inputs

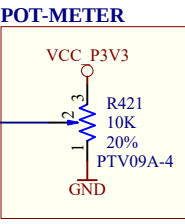
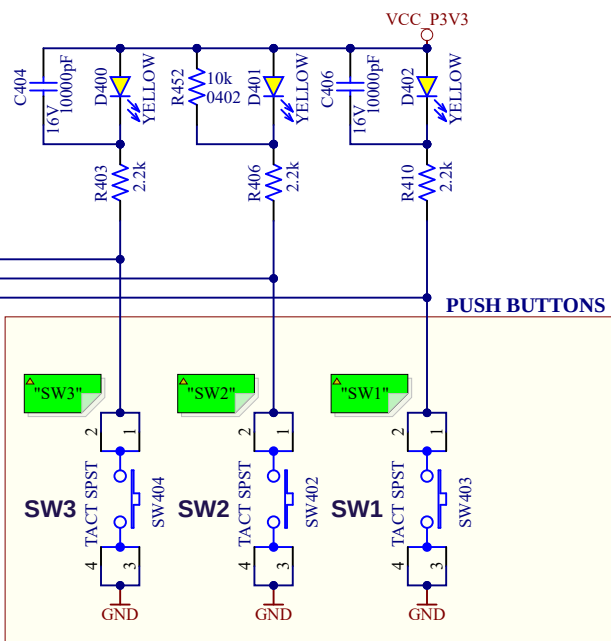
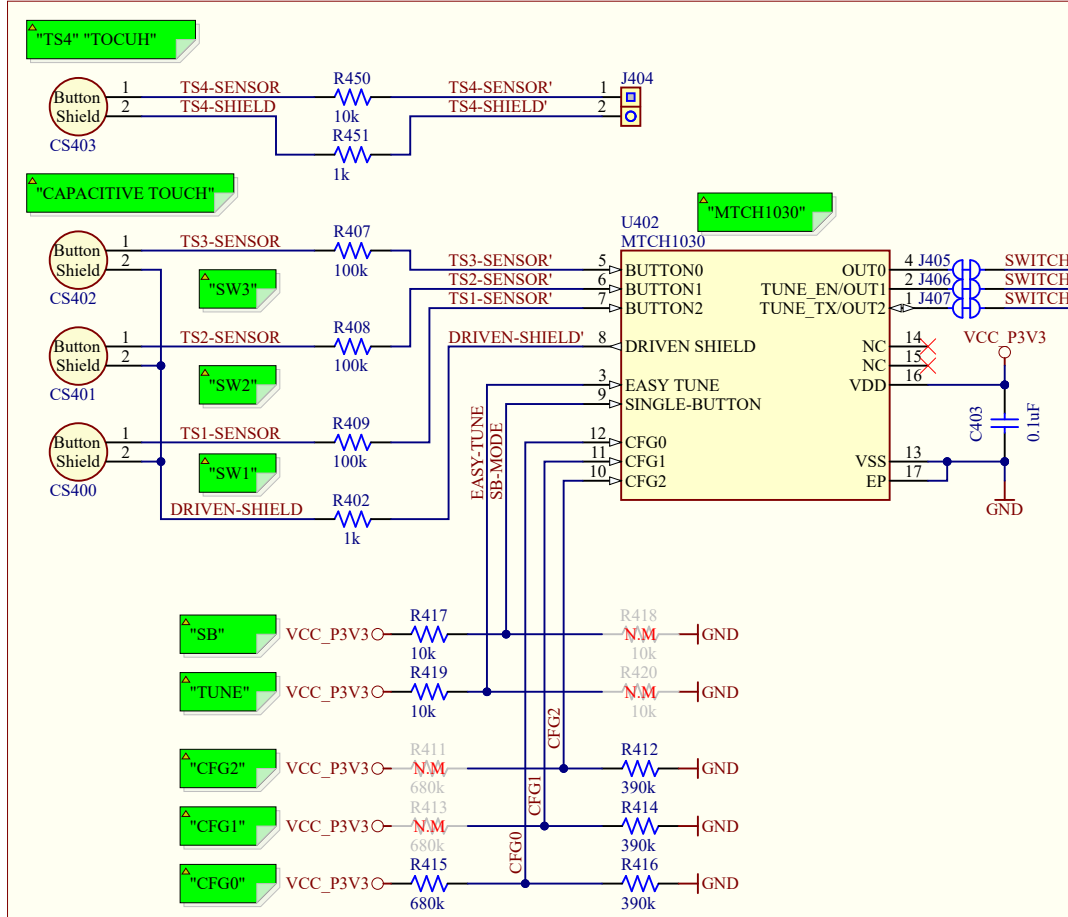


IO-EXPANDER INPUTS

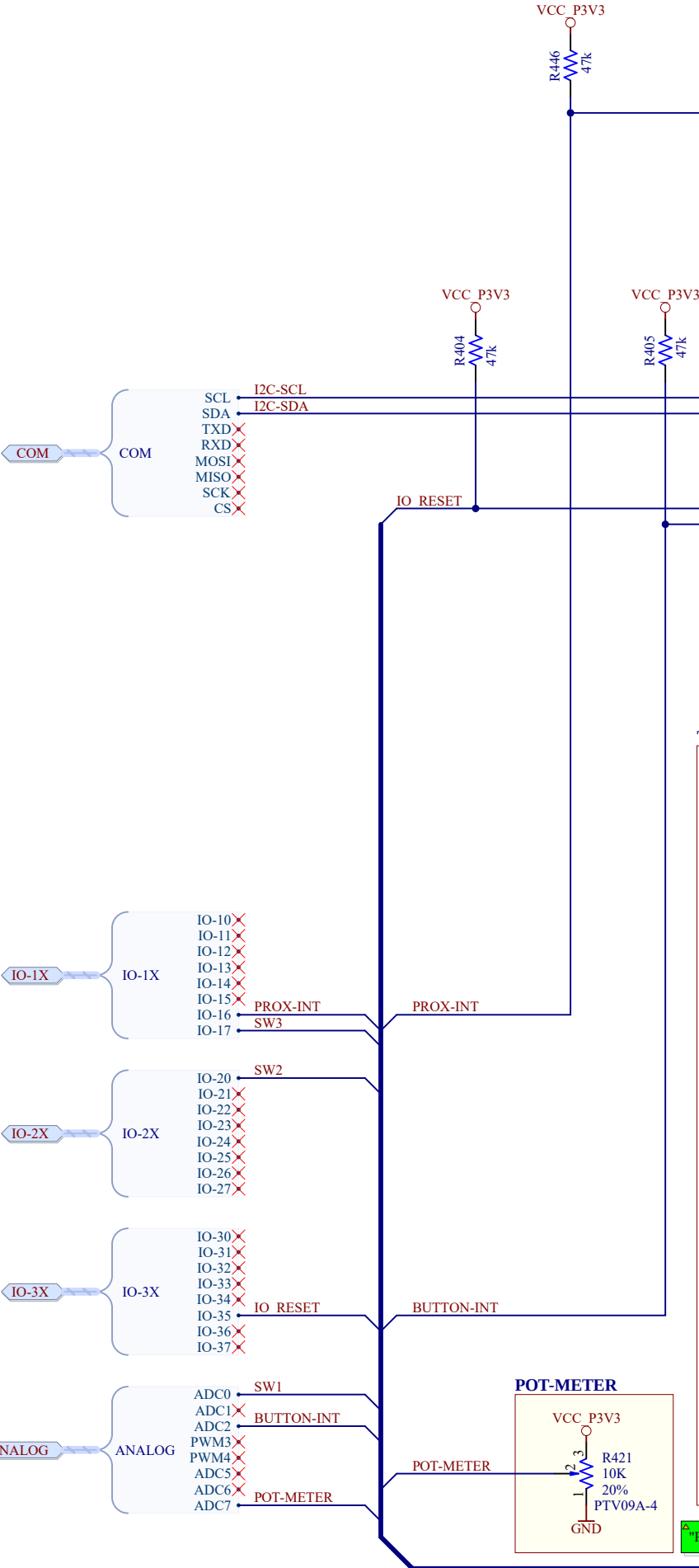


[DESIGN NOTE]
SW2 has a pull-up on the board.
All other joystick/switch signals does not have pull-ups on the board. Pull-ups must be enabled in the Curiosity Nano MCU or the IO-Expander.

TOUCH BUTTONS



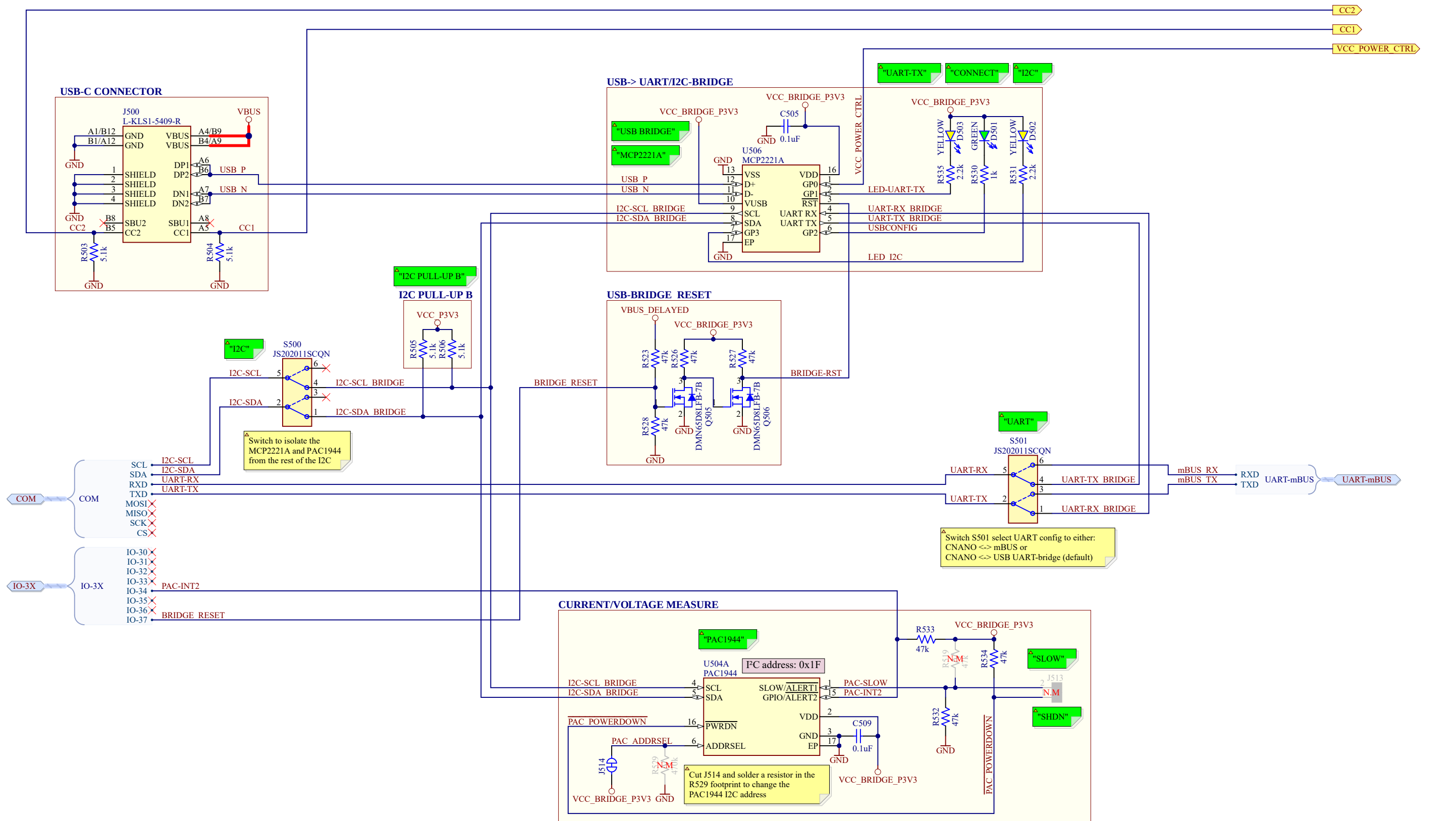
"POT-METER"



C:\Nano Template\Revision: 2.0

Project Owner: AH		 MICROCHIP		C:\Nano Template\Revision: 2.0		
PCB Layout Contact: TF, VL						
PartNumber: EV58G97A		Project Title Curiosity Nano Explorer		Variant: <u>Default Assembly</u>		
Sheet Title HMI Inputs				Designed with  Altium.com		
Size	A3	SCH #: <u>02-00630</u>	Rev: <u>3</u>			Date: <u>2024-04-18</u>
		PCB #: <u>04-11720</u>	Rev: <u>2</u>			Sheet <u>6 of 9</u>
File: Curiosity Nano Explorer HMI Inputs.SchDoc						

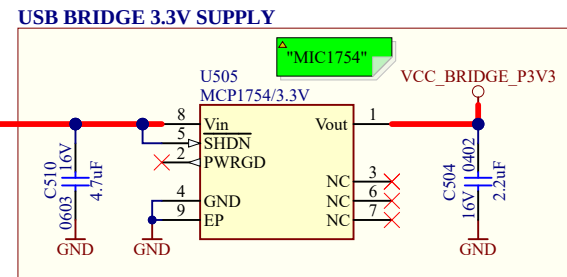
USB-BRIDGE



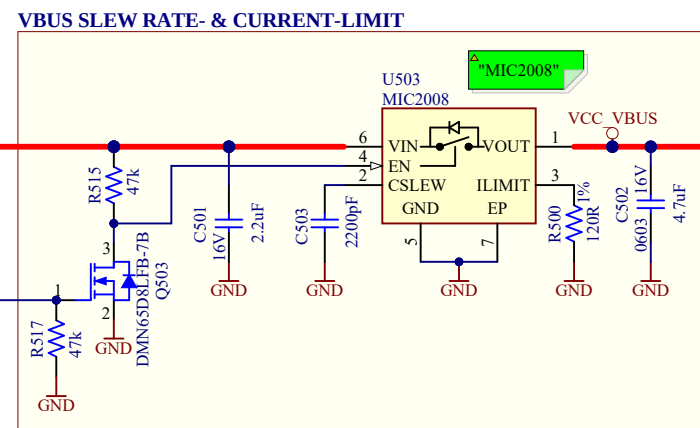
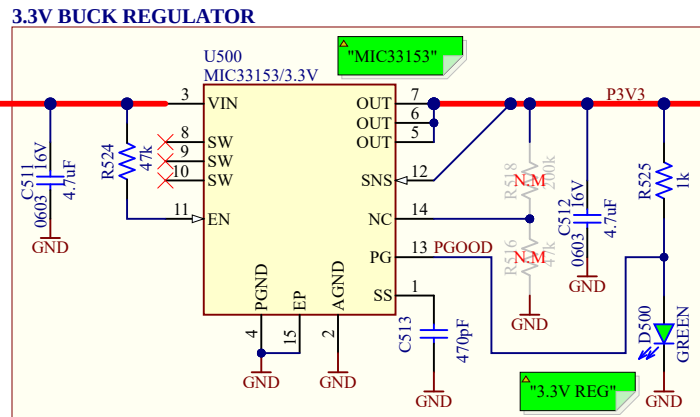
POWER-SUPPLY

CURRENT MEASURE

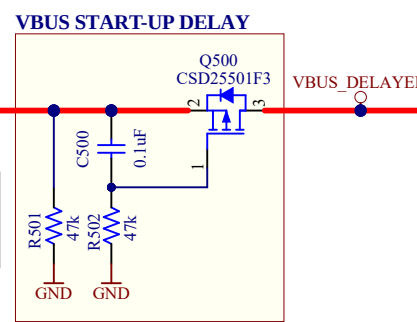
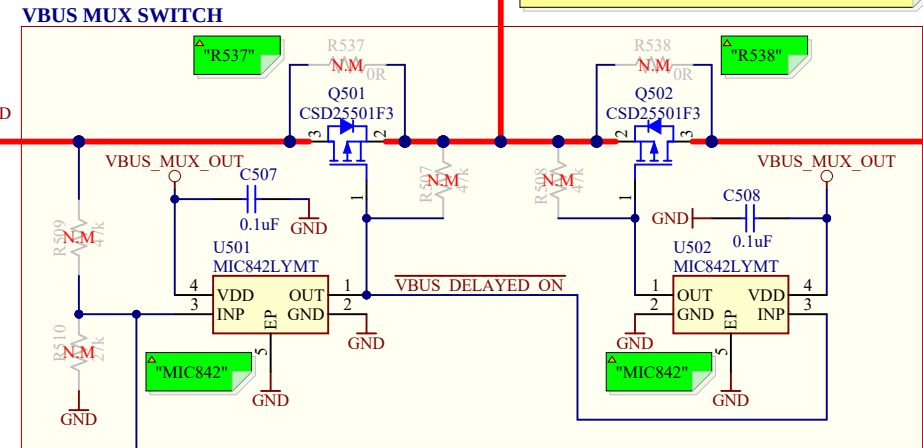
MCP1754/3.3V:
Vin: 3.6V to 16.0V
Vout: Fixed 3.3V
Imax: 150mA
Dropout: 300mV @ 150mA



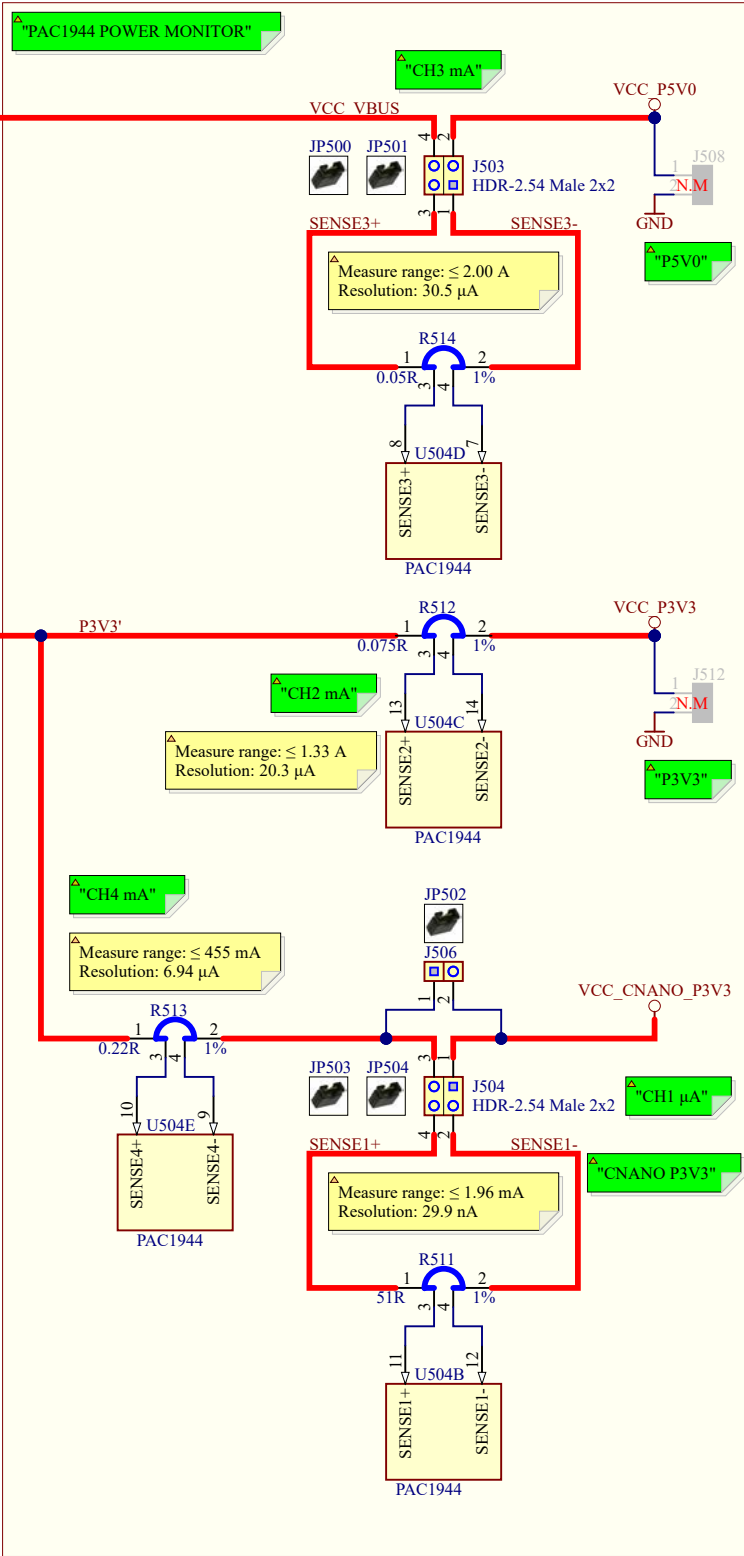
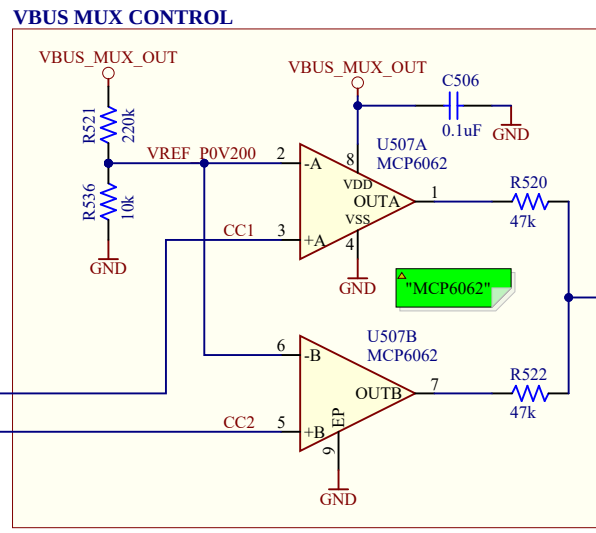
MIC33153/3.3V:
Vin: 2.7V to 5.5V
Vout: Fixed 3.3V
Imax: 1.2A



SLEW RATE LIMIT:
- With C503 set to 2200pF, the slew rate of VCC_VBUS is limited to 2 V/ms by the power switch MIC2008.
CURRENT LIMIT:
- With R500 set to 120ohm, the current through the power switch MIC2008 is limited to 2A.



START-UP DELAY: C500 set to 0.1uF and R502 set to 47kohm, Q500 is delaying the turn-on of VBUS_DELAYED by ~1ms.



Revision History

PCB Assembly Rev 1:

Microchip Prototype

PCB Assembly Rev 2:

Microchip Prototype

PCB Assembly Rev 3:

Design Changes:

Initially released design

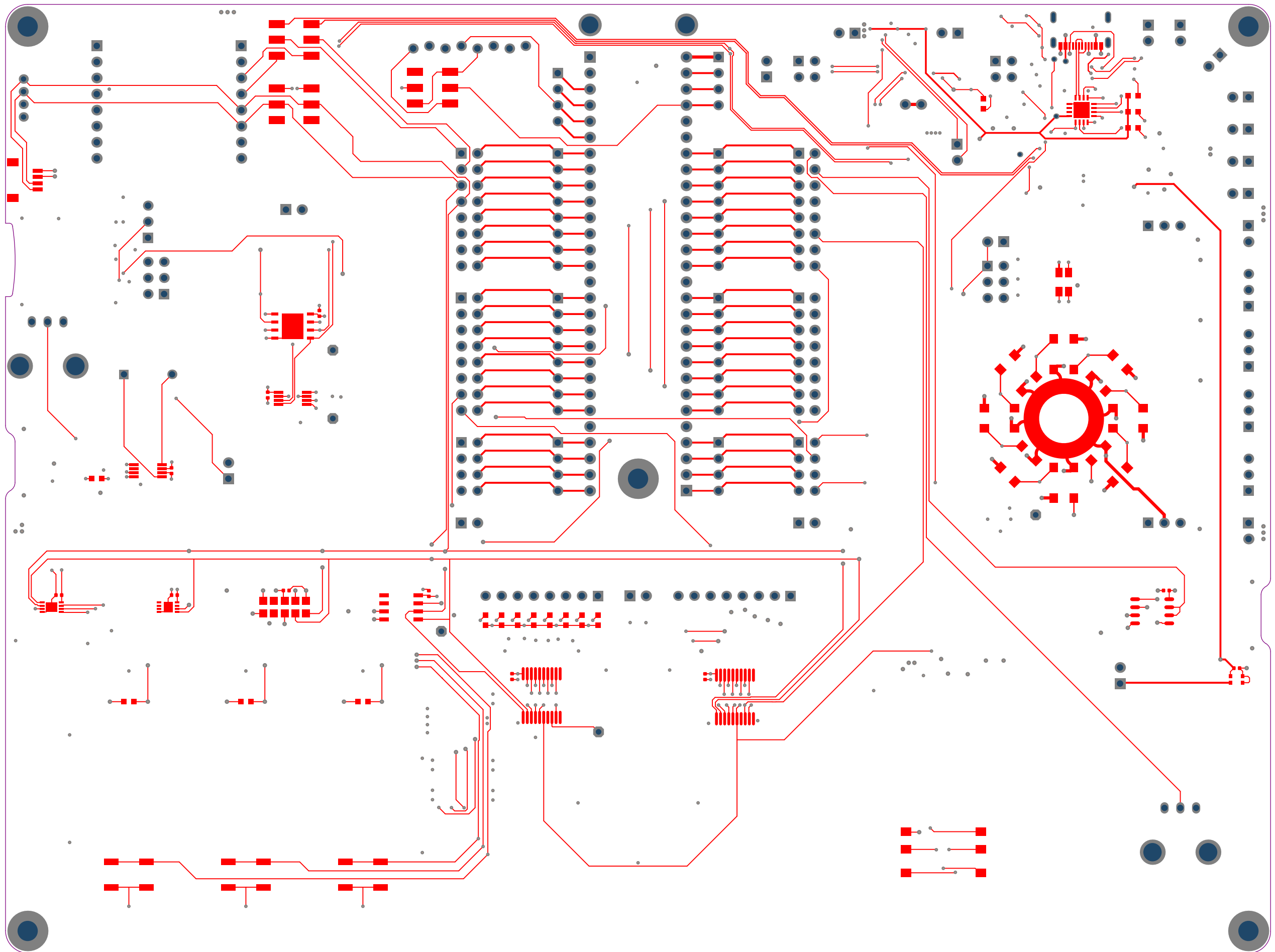
Changed I2C pull-up values to conform to Normal (100kHz) and Fast Mode (400kHz) I2C specification:
R101 & R102 4.7K -> 2.7K
R505 & R506 4.7K -> 5.1K

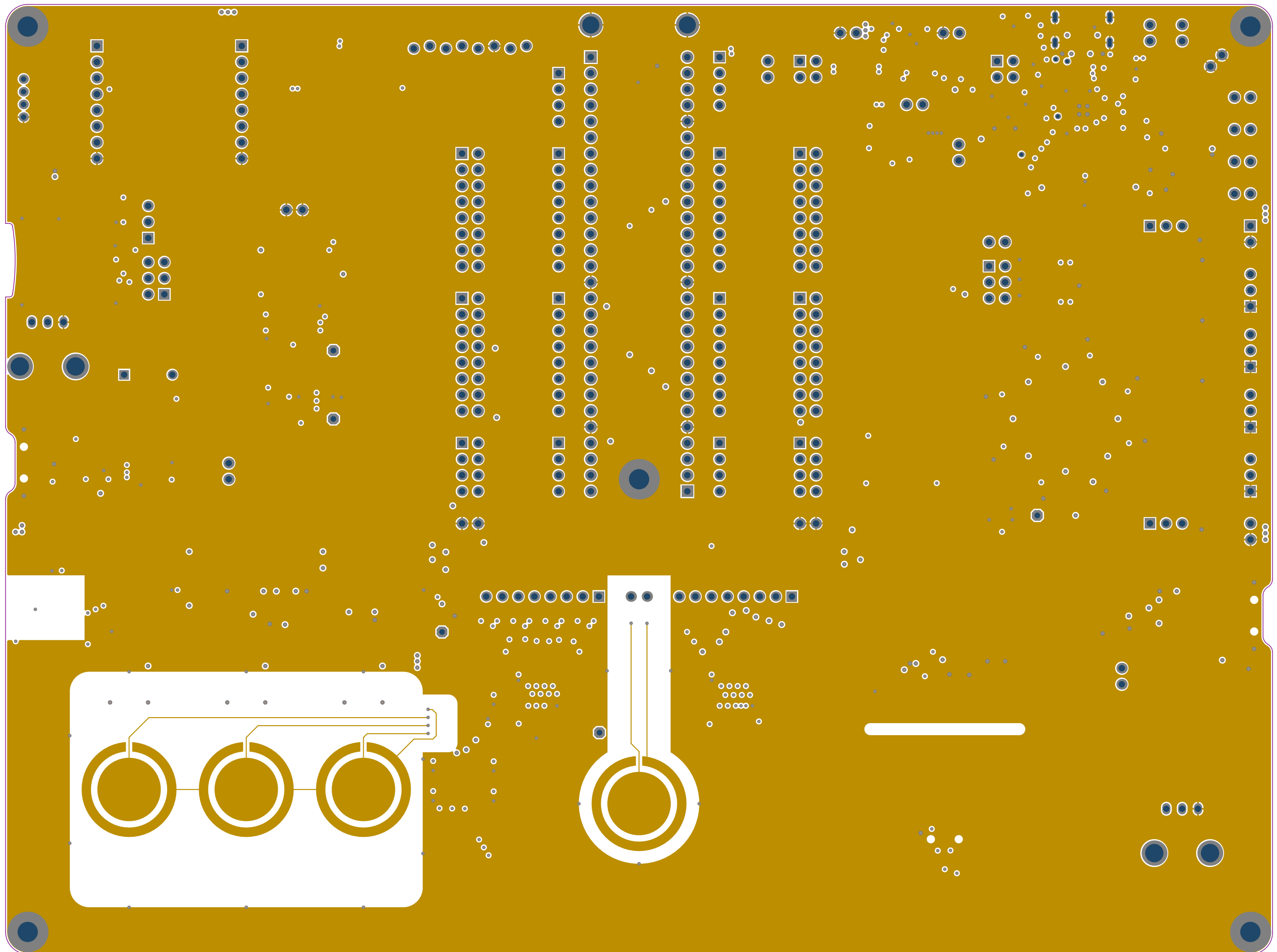
Replaced C405 with R452, a 10K resistor to consistently boot the MTCH1030 in application mode

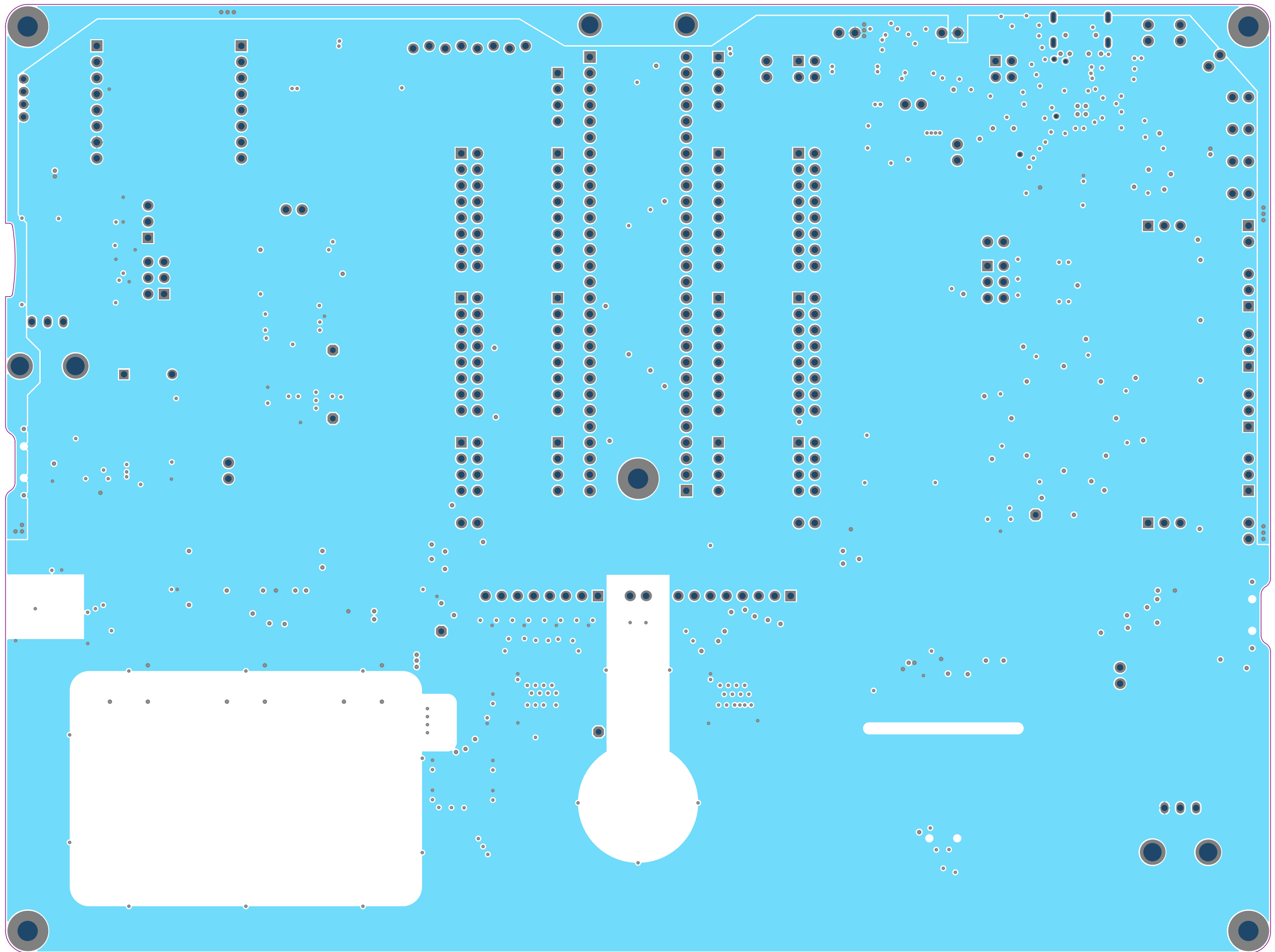
PCB:

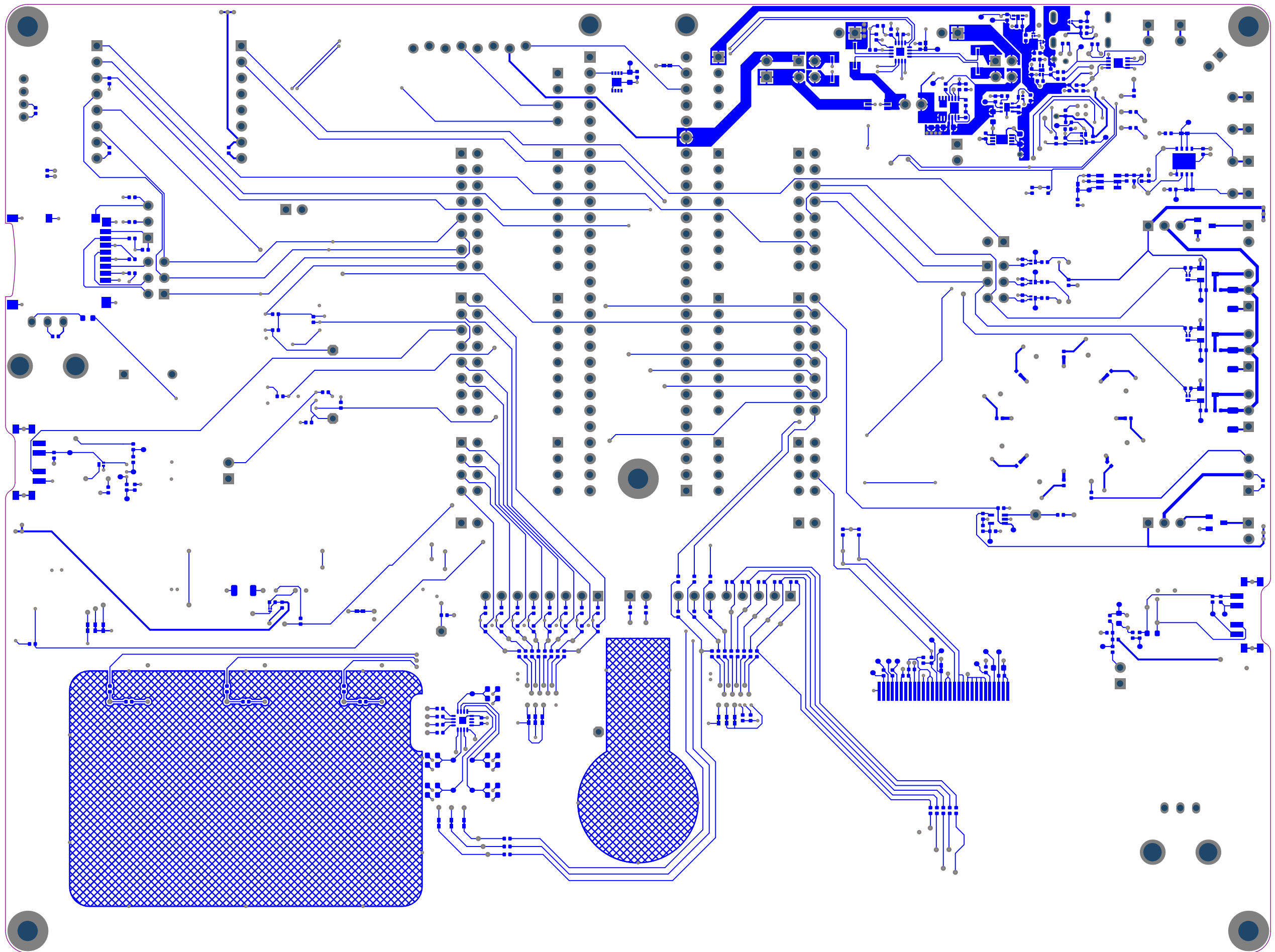
PCB revision 2

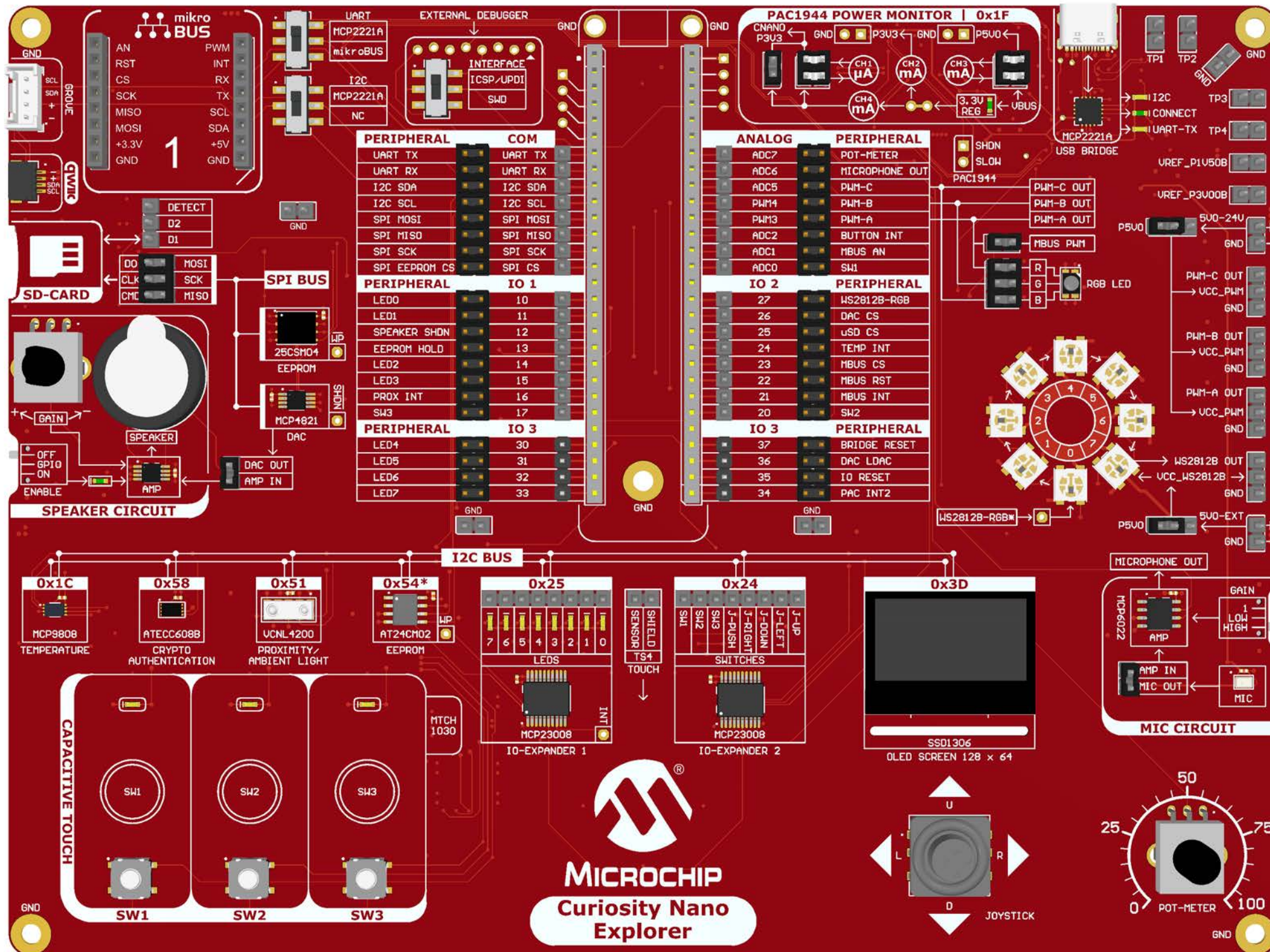
CNANO Template Revision: 2.6

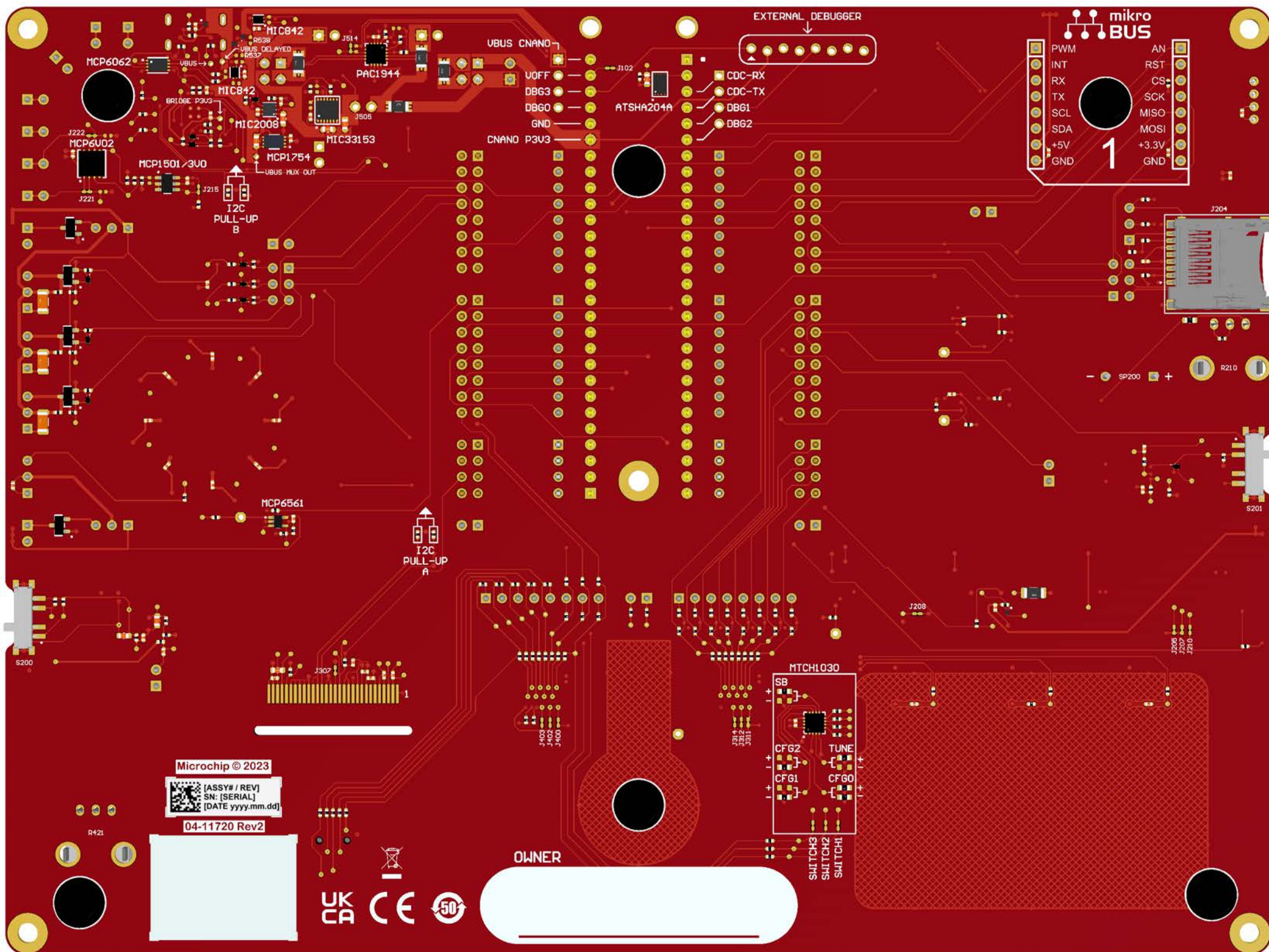


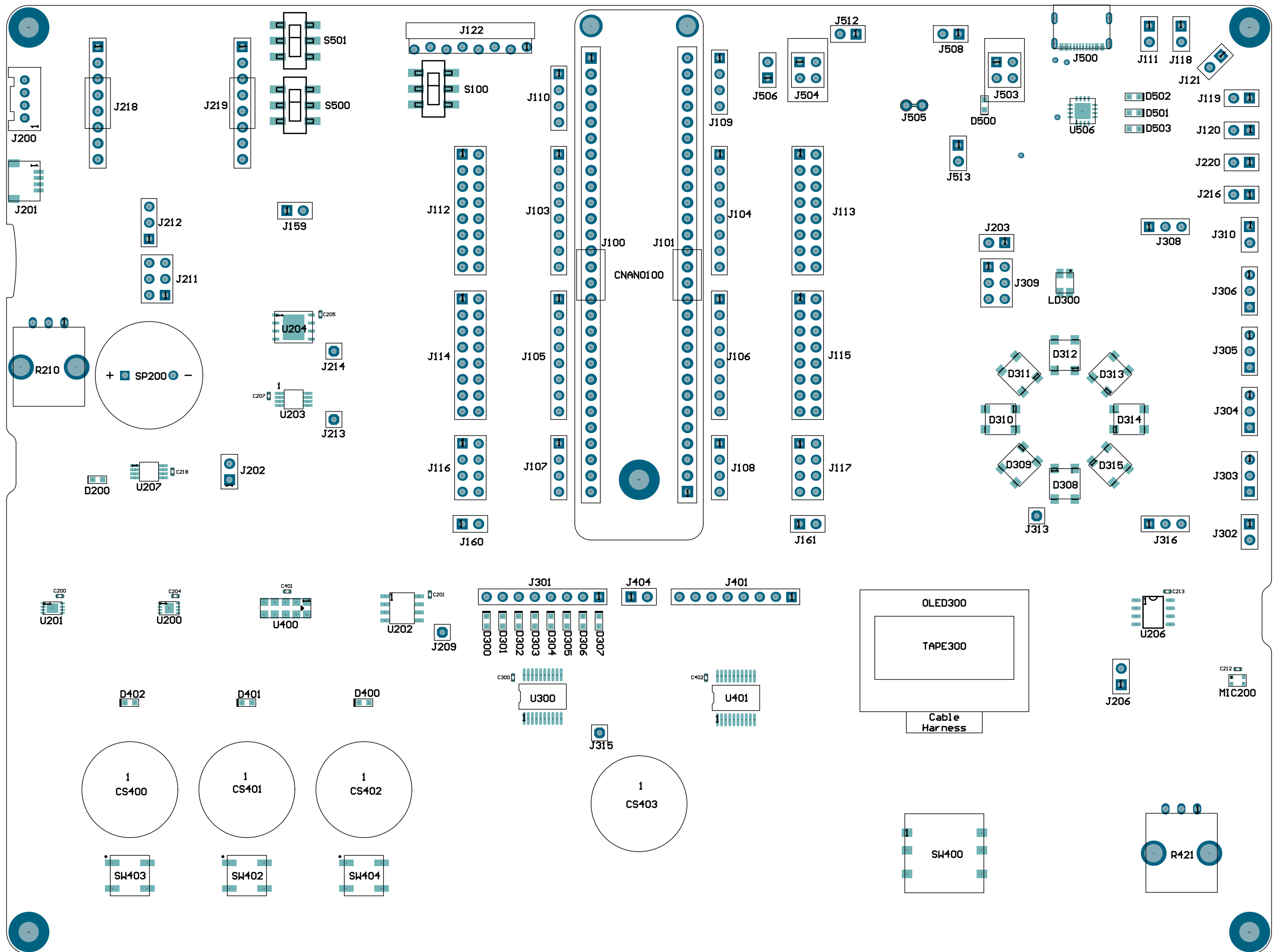


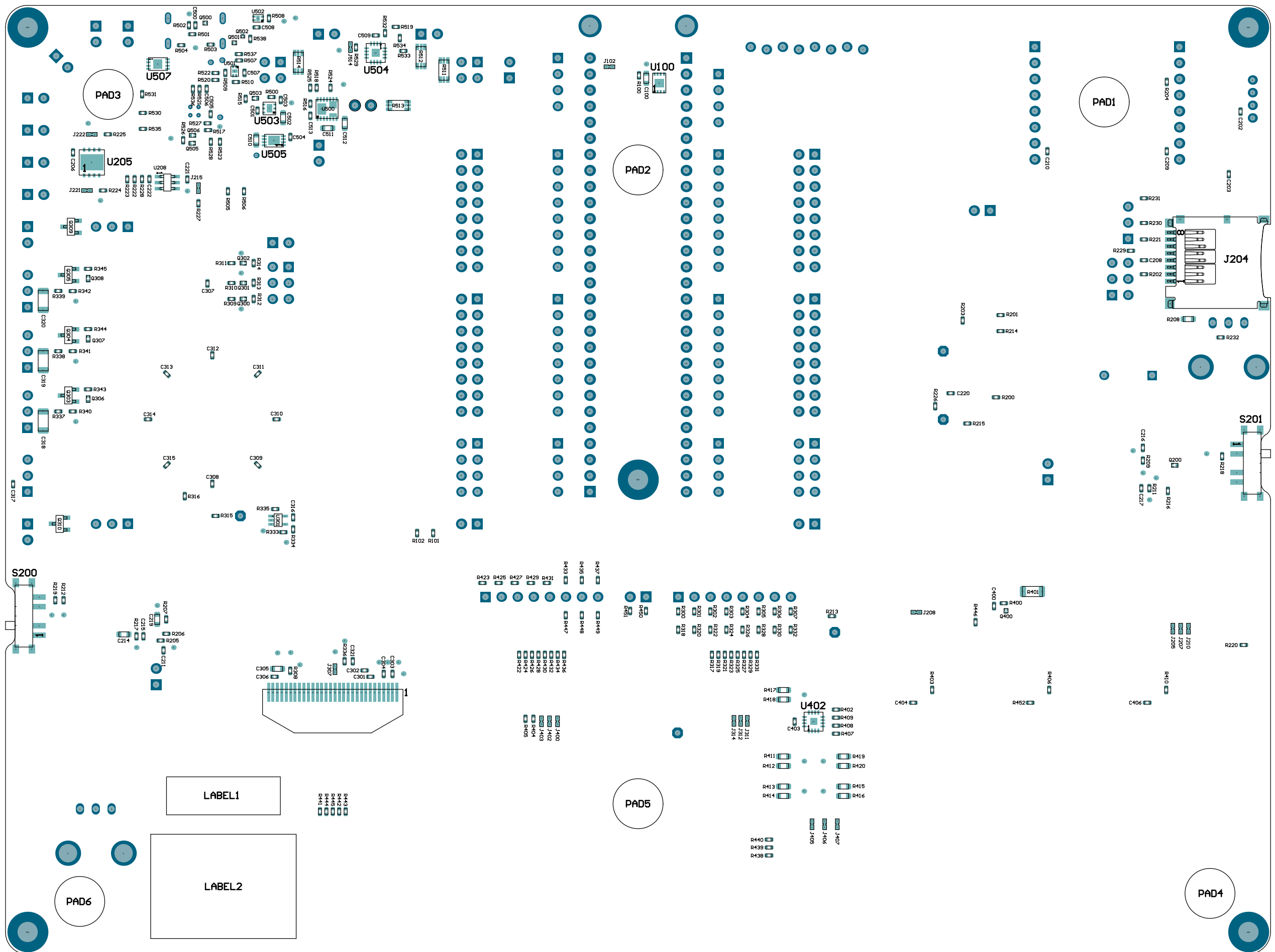




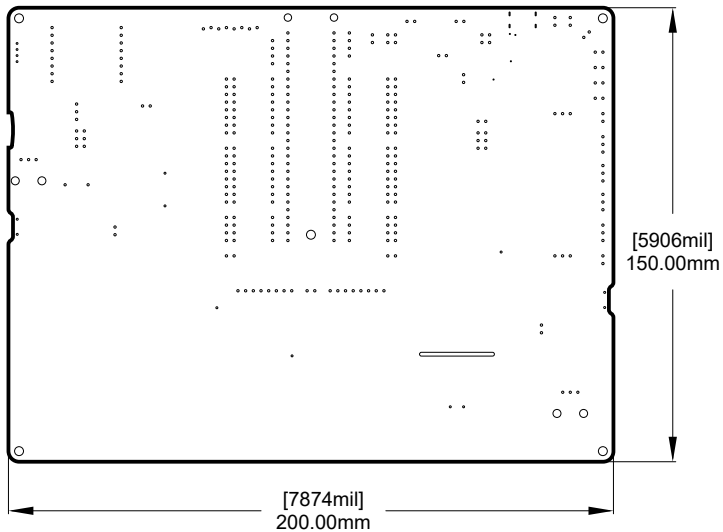








Board Outline



PCB Stackup

Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.010mm	Solder Resist	Solder Mask	GTS
Copper	Top Layer	0.035mm		Signal	GTL
Prepreg		0.117mm	PP-016	Dielectric	
Copper	Gnd Plane	0.035mm		Signal	G1
Core		1.200mm	FR-4	Dielectric	
Copper	Pwr Plane	0.035mm		Signal	G2
Prepreg		0.117mm	PP-016	Dielectric	
Copper	Bottom Layer	0.035mm		Signal	GBL
Surface Material	Bottom Solder	0.010mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO
Total thickness: 1.594mm					

Component list

Curiosity Nano Explorer

PCBA Number:

02-00630

PCBA Revision:

3

Variant:

Default Assembly



Print Date: 2024-04-18 10:02:17

Fitted	Designator	Quantity	Value	Manufacturer 1	Manufacturer Part Number 1	Description
Fitted	C100, C305, C502, C510, C511, C512	6	4.7uF	TDK Corporation	C1608XSR1C475K080AC	CAP CER 4.7uF 16V 10% X5R SMD 0603
Fitted	C200, C201, C202, C203, C204, C205, C206, C207, C208, C209, C210, C212, C213, C216, C217, C218, C221, C300, C307, C308, C309, C310, C311, C312, C313, C314, C315, C316, C317, C321, C401, C402, C403, C500, C505, C506, C507, C508, C509	39	0.1uF	Hottech	C1005B104K160NT	CAP CER 0.1uF 16V 10% X7R SMD 0402
Fitted	C211, C215, C220, C301, C302, C303, C304	7	1uF	Samsung Electro-Mechanics	CL05A105K05NNNC	CAP CER 1uF 16V 10% X5R SMD 0402
Fitted	C214	1	8.2pF	AVX	06035J8R28B8STR	CAP CER 8.2pF 50V 0.1pF NPO SMD 0603
Fitted	C219	1	8200pF	Yageo	CQ0603JRX7R9B8822	CAP CER 8200pF 50V 5% X7R SMD 0603
Fitted	C306, C400, C501, C504	4	2.2uF	Murata	GRM155R61C225KE40D	CAP CER 2.2uF 16V 10% X5R SMD 0402
Fitted	C318, C319, C320	3	10uF	TDK Corporation	C3216X7R1H106K160AE	CAP CER 10uF 50V 10% X7R SMD 1206
Fitted	C404, C406	2	10000pF	Murata	GRM155R71C103KA01D	CAP CER 10000pF 16V 10% X7R SMD 0402
Fitted	C503	1	2200pF	KEMET	C0402C222J3GACTU	CAP CER 2200pF 25V 5% C0G SMD 0402
Fitted	C513	1	470pF	Murata	GRM1555C1H471JA01D	CAP CER 470pF 50V 5% NPO SMD 0402
Fitted	D200, D500, D501	3	GREEN	LuckyLight	S192GC-1BG	DIO LED GREEN 2V 25mA 40mcd CLEAR SMD 0603
Fitted	D300, D301, D302, D303, D304, D305, D306, D307, D400, D401, D402, D502, D503	13	YELLOW	LuckyLight	S192YC-1BG	DIO LED YELLOW 2V 25mA 120mcd CLEAR SMD 0603
Fitted	D308, D309, D310, D311, D312, D313, D314, D315	8	FR5050RGB4C-F1A	LuckyLight	FR5050RGB4C-F1A	DIO LED TRI w Driver RED GREEN BLUE SMD PLOC-4
Fitted	J100, J101	2	HDR-2.54 Female 1x28	WCON	2185-128S050UNR1	CON HDR-2.54 Female 1x28 GOLD FLASH TIN TH-PP VERT
Fitted	J103, J104, J105, J106, J301, J401	6	HDR-2.54 Male 1x8	WCON	1125-1108S05116CR01	CON HDR-2.54 MALE 1x8 GOLD FLASH TIN 6.10MM TH-PP VERT
Fitted	J107, J108	2	HDR-2.54 Male 1x4	WCON	1125-1104S05116CR01	CON HDR-2.54 MALE 1x4 GOLD FLASH TIN 6.10MM TH-PP VERT
Fitted	J111, J118, J119, J120, J121, J159, J160, J161, J202, J203, J206, J216, J220, J302, J310, J404, J506	17	HDR-2.54 Male 1x2	WCON	1125-1102S05116CR01	CON HDR-2.54 MALE 1x2 GOLD FLASH TIN 6.10MM TH-PP VERT
Fitted	J112, J113, J114, J115	4	HDR-2.54 Male 2x8	WCON	1125-1208S05116CR01	CON HDR-2.54 MALE 2x8 GOLD FLASH TIN 6.10MM TH-PP VERT
Fitted	J116, J117	2	HDR-2.54 Male 2x4	WCON	1125-1204S05116CR01	CON HDR-2.54 MALE 2x4 GOLD FLASH TIN 6.10MM TH-PP VERT
Fitted	J200	1	HDR-2 Male 1x4	WCON	WP2005-WS04E01	CON HDR-2 Male 1x4 Tin LOCK TH VERT Grove
Fitted	J201	1	HDR-1 Male 1x4	WCON	WF1001A-WZ04ER1	CON HDR-1 Male 1x4 Tin SHROUD SMD R/A Qw ic
Fitted	J204	1	uSD 14P Receptacle	Bellw ether Electronics Corp	10104-1021	CON FLASH uSD 14P Push-Push SMD R/A
Fitted	J211, J309	2	HDR-2.54 Male 2x3	WCON	1125-1203S05116CR01	CON HDR-2.54 MALE 2x3 GOLD FLASH TIN 6.10MM TH-PP VERT
Fitted	J212, J303, J304, J305, J306, J308, J316	7	HDR-2.54 Male 1x3	WCON	1125-1103S05116CR01	CON HDR-2.54 MALE 1x3 GOLD FLASH TIN 6.10MM TH-PP VERT
Fitted	J218, J219	2	HDR-2.54 Female 1x8	WCON	2185-108S050CYNP1	CON HDR-2.54 Female 1x8 GOLD FLASH TIN TH-PP VERT
Fitted	J500	1	USB2.0 Type-C FEMALE	KLS Electronic	L-KLS1-5409-R	CON USB2.0 Type-C Female SMD R/A
Fitted	J503, J504	2	HDR-2.54 Male 2x2	WCON	1125-1202S05116CR01	CON HDR-2.54 MALE 2x2 GOLD FLASH TIN 6.10MM TH-PP VERT
Fitted	JP100, JP101, JP102, JP103, JP104, JP105, JP106, JP107, JP108, JP109, JP110, JP111, JP112, JP113, JP114, JP115, JP116, JP117, JP118, JP119, JP120, JP121, JP122, JP123, JP124, JP125, JP126, JP127, JP128, JP129, JP130, JP131, JP132, JP133, JP134, JP135, JP136, JP137, JP138, JP139, JP200, JP201, JP202, JP203, JP204, JP205, JP300, JP301, JP302, JP303, JP304, JP500, JP501, JP502, JP503, JP504	56	JUMPER 2.54mm 1x2	WCON	3710-6001CS0B01	MECH HW JUMPER 2.54mm 1x2 Black
Fitted	LABEL1	1	PCBA LABEL 18x6mm	ACT Logimark AS	505462	LABEL PCBA 18x6mm Datamatrix Assy# / Rev / Serial / Date
Fitted	LABEL2	1	INFO LABEL 23x16.5mm	Fuzhou Zhongao Technology Co.	70107458	LABEL PCBA 23x16.5mm Info Text
Fitted	LD300	1	RED, GREEN, BLUE	Cree Inc.	CLV11A-FKB-CK1VW1DE1B87C3G3	DIO LED TRI RED, GREEN, BLUE 2V, 3.2V, 3.2V 20mA, 20mA SMD 4-PLOC
Fitted	MIC200	1	MEMS MIC 100Hz-10kHz 60dBA	CUI	CMM-2718A-T-42308-TR	SENSOR ACOUSTIC MICROPHONE MEMS OMNIDIRECTIONAL 100Hz to 10kHz 60dBA SMD CMM-2718A-T-42308-TR
Fitted	OLED300	1	V-G-2864KSWEG01	WiseChip Semiconductor Inc.	VG-2864KSWEG01	DISPLAY OLED V-G-2864KSWEG01 128x64 5V FPC
Fitted	PAD1, PAD2, PAD3, PAD4, PAD5, PAD6	6	Rubber Pad Cy D7.9H5.3	3M	SJ61A11	MECH HW RUBBER PAD CYLINDRICAL D7.9 H5.3 BLACK
Fitted	Q200, Q300, Q301, Q302, Q306, Q307, Q308, Q503, Q505, Q506	10	DMN65D8LF-7B	Diodes Incorporated	DMN65D8LF-7	TRANS FET N-CH DMN65D8LF-7B 280mA 60V 430mW X1_DFN1006-3
Fitted	Q303, Q304, Q305	3	DMN3023L-7	Diodes Incorporated	DMN3023L-7	TRANS FET N-CH DMN3023L-7 30V 6.2A 900mW SOT-23-3
Fitted	Q309, Q310	2	DMP3056L	Diodes Incorporated	DMP3056L-7	TRANS FET P-CH DMP3056L-7 -30V -4.3A 1.38W SOT-23-3
Fitted	Q400, Q500, Q501, Q502	4	CSD25501F3	Texas Instruments	CSD25501F3	TRANS FET P-CH CSD25501F3 -20V -3.6A 0.076R LGA
Fitted	R100, R212, R407, R408, R409	5	100k	Yageo	RC0402FR-07100KL	RES TKF 100k 1% 1/16W SMD 0402
Fitted	R101, R102	2	2.7k	Panasonic	ERJ-2RKf2701X	RES TKF 2.7k 1% 1/10W SMD 0402
Fitted	R200, R201, R202, R203, R204, R213, R214, R215, R218, R220, R221, R228, R227, R229, R230, R312, R313, R314, R333, R334, R335, R336, R343, R344, R345, R404, R405, R446, R501, R502, R515, R517, R520, R522, R523, R524, R526, R527, R528, R532, R533, R534	42	47k	Yageo	RC0402FR-0747KL	RES TKF 47k 1% 1/16W SMD 0402
Fitted	R205, R206, R231	3	470k	Panasonic Electronic Components	ERJ-U02F4703X	RES TKF 470k 1% 1/16W SMD 0402
Fitted	R207, R216, R222, R337, R338, R339, R340, R341, R342, R400, R402, R451, R525, R530	14	1k	Panasonic	ERJ-2RKf1001X	RES TKF 1k 1% 1/10W SMD 0402
Fitted	R208	1	5.6k	Yageo	RC0603FR-075K6L	RES TKF 5.6k 1% 1/10W SMD 0603
Fitted	R209, R211, R217	3	100R	Yageo	RC0402FR-07100RL	RES TKF 100R 1% 1/16W SMD 0402
Fitted	R210, R421	2	10k	Bourns Inc.	PTV09A-4020S-B103	RES VARIABLE 10k 20% 50mW TH
Fitted	R219	1	22k	Panasonic Electronic Components	ERJ-2RKf2202X	RES TKF 22k 1% 1/10W SMD 0402
Fitted	R222, R223, R309, R311	4	4.7k	Yageo	RC0402FR-074K7L	RES TKF 4.7k 1% 1/16W SMD 0402
Fitted	R228	1	10R	Vishay Dale	CRCW040210R0FKEDC	RES TKF 10R 1% 1/16W SMD 0402
Fitted	R300, R301, R302, R303, R304, R305, R306, R307, R317, R318, R319, R320, R321, R322, R323, R324, R325, R326, R327, R328, R329, R330, R331, R332, R403, R406, R410, R531, R535	29	2.2k	Panasonic	ERJ-2RKf2201X	RES TKF 2.2k 1% 1/10W SMD 0402
Fitted	R308	1	390k	Yageo	RC0402FR-07390KL	RES TKF 390k 1% 1/16W SMD 0402
Fitted	R310, R450, R452, R536	4	10k	TE Connectivity	CRG0402F10K	RES TKF 10k 1% 1/16W SMD 0402
Fitted	R315, R316, R422, R423, R424, R425, R426, R427, R428, R429, R430, R431, R432, R433, R434, R435, R436, R437, R438, R439, R440, R441, R442, R443, R444, R445, R447, R448, R449	29	470R	Yageo	RC0402FR-07470RL	RES TKF 470R 1% 1/16W MF 0402
Fitted	R401	1	2.7R	KOA Speer	RK73H28TTD2R70F	RES TKF 2.7R 1% 1/4W SMD 1206 AEC-Q200
Fitted	R412, R414, R416	3	390k	Panasonic	ERJ-3EKf3903V	RES TKF 390k 1% 1/10W SMD 0603
Fitted	R415	1	680k	Panasonic	ERJ-3EKf6803V	RES TKF 680k 1% 1/10W SMD 0603
Fitted	R417, R419	2	10k	Stackpole Electronics Inc	RNCP0603FTD10K0	RES TF 10k 1% 1/8W SMD 0603
Fitted	R500	1	120R	Panasonic	ERJ-2RKf1200X	RES TKF 120R 1% 1/10W SMD 0402
Fitted	R503, R504, R505, R506	4	5.1k	Panasonic Electronic Components	ERJ-2RKf5101X	RES TKF 5.1k 1% 1/10W SMD 0402
Fitted	R511	1	51R	Bourns Inc.	CRM1206-FX-51R0ELF	RES SHUNT TKF 51R 1% 1/2W SMD 1206
Fitted	R512	1	0.075R	Stackpole Electronics Inc	CSR1206FK75LD	RES SHUNT TKF 0.075R 1% 1/2W SMD 1206
Fitted	R513	1	0.22R	SUSUMU	KRL1632E-M-R220-F-T5	RES SHUNT MF 0.22R 1% 750mW SMD 1206 AEC-Q200
Fitted	R514	1	0.05R	Stackpole Electronics Inc	CSR1206FK50LD	RES SHUNT TKF 0.05R 1% 1/2W SMD 1206
Fitted	R521	1	220k	Panasonic Electronic Components	ERJ-2RKf2203X	RES TKF 220k 1% 1/10W SMD 0402 AEC-Q200
Fitted	S100, S500, S501	3	JS202011SCQN	C&K	JS202011SCQN	SWITCH SLIDE DPDT 6V 300mA JS202011SCQN SMD
Fitted	S200, S201	2	SLIDE SP3T	KLS Electronic	L-KLS7-MSS-1300BP	SWITCH SLIDE SP3T 12V 50mA L-KLS7-MSS-1300BP R/A SMD
Fitted	SP200	1	SPEAKER 20kHz 0.2W 8 OHM	CUI Devices	CVS-1708	MECH HW SPEAKER 20kHz 200mW 8OHM CUI CVS-1708
Fitted	SW400	1	JOYSTICK 4-WAY/CENTER-PUSH	KLS Electronic	L-KLS7-MT-05-9.0-CAP	SWITCH JOY STICK 4-WAY/CENTER-PUSH MECHANICAL 100mA L-KLS7-MT-05-9.0-CAP SMD
Fitted	SW402, SW403, SW404	3	TACT SPST	Dailywell Electronics Co., Ltd.	TS604VM1-035CR-R	SWITCH TACT SPST 12 50mA TS604VM1-035CR-R SMD
Fitted	TAPE300	1	TAPE 3M-GPH-060GF RECT	3M	GPL-060GF	MECH HW TAPE 3M-GPH-060GF RECT L22W10
Fitted	TEST1	1				TEST, Curiosity Nano Explorer
Fitted	U100	1	ATSHA204A-MAHCZ-T	Microchip Technology	ATSHA204A-MAHCZ-T	MCHP MEMORY SERIAL EEPROM CRYPTO AUTH 4.5Kb I2C ATSHA204A-MAHCZ-T UDNFN-8
Fitted	U200	1	ATECC080B	Microchip Technology	ATECC080B-MAH4-S	MCHP INTERFACE SECURITY I2C ATECC080B-MAH4-S UDNFN-8
Fitted	U201	1	MCP9808	Microchip Technology	MCP9808T-EMC	MCHP ANALOG TEMPERATURE SENSOR -40C to +125C MCP9808T-EMC DFN-8
Fitted	U202	1	AT24CM02	Microchip Technology	AT24CM02-SSHM-T	MCHP MEMORY SERIAL EEPROM 2Kb I2C AT24CM02-SSHM SOC-8
Fitted	U203	1	MCP4821	Microchip Technology	MCP4821-EMS	MCHP ANALOG DAC 1-Ch 12-Bit MCP4821-EMS MSOP-8
Fitted	U204	1	25CSMD4	Microchip Technology	25CSMD4T-IMF	MCHP MEMORY SERIAL EEPROM 4Kb SPI 25CSMD4-IMF TDFN-S
Fitted	U205	1	MCP6V02	Microchip Technology	MCP6V02-EMD	MCHP ANALOG OPAMP 2-Ch 1.3MHz MCP6V02-EMD DFN-8
Fitted	U206	1	MCP6022	Microchip	MCP6022-ESN	MCHP ANALOG OPAMP 2-Ch 10MHz MCP6022-ESN SOIC-8
Fitted	U207	1	PAM6302A	Diodes Inc	PAM6302AASCR	IC AUDIO PAM6302A 2.5W CLASS D MONO AMP MSOP-8
Fitted	U208	1	MCP1501/3V	Microchip Technology	MCP1501T-30ECHY	MCHP ANALOG VREF 3V MCP1501T-30ECHY SOT-23-6
Fitted	U300, U401	2	MCP23008	Microchip	MCP23008T-ESS	MCHP INTERFACE SPD-PORT EXPAND I2C 8-Port MCP23008T-ESS SSOP-20
Fitted	U301	1	MCP6561	Microchip	MCP6561T-ELT	MCHP ANALOG COMPARATOR 1-CH MCP6561T-ELT SC-70-5
Fitted	U400	1	VONL4200	Vishay	VONL4200	SENSOR OPTICAL VONL4200 SMD
Fitted	U402	1	MTCH1030	Microchip Technology	MTCH1030T-IMG	MCHP INTERFACE TOUCH CONTROLLER MTCH1030-IMG QFN-16
Fitted	U500	1	MC33153/3.3V	Microchip Technology	MC33153-SYHU-TR	MCHP ANALOG SWITCHER Buck 3.3V MC33153-SYHU
Fitted	U501, U502	2	MC342LYMT	Microchip Technology	MC342LYMT-TR	MCHP ANALOG COMPARATOR 1-Ch MC342LYMT-TR TDFN-4
Fitted	U503	1	MC2008	Microchip Technology	MC2008YML-TR	MCHP ANALOG POWER SWITCH 5.5V 2.1A MC2008YML-TR VDFN-6
Fitted	U504	1	PAC1944	Microchip	PAC1944T-E4MX	MCHP ANALOG POWER CURRENT SENSE MONITOR PAC1944T-E4MX QFN-16
Fitted	U505	1	MCP1754/3.3V	Microchip Technology	MCP1754T-3302EMC	MCHP ANALOG LDO 3.3V MCP1754T-3302EMC DFN-8
Fitted	U506	1	MCP2221A	Microchip Technology	MCP2221A-IML	MCHP INTERFACE USB I2C UART MCP2221A-IML QFN-16
Fitted	U507	1	MCP6062	Microchip Technology	MCP6062T-EMNY	MCHP ANALOG OPAMP 2-Ch 730kHz MCP6062T-EMNY 8-TDFN (2x3)
Not Fitted	C222	0	10000pF	Murata	GRM155R71C103KA01D	CAP CER 10000pF 16V 10% X7R SMD 0402
Not Fitted	J109, J110	0	HDR-2.54 Male 1x4	WCON	1125-1104S05116CR01	CON HDR-2.54 MALE 1x4 GOLD FLASH TIN 6.10MM TH-PP VERT
Not Fitted	J122	0	HDR-2.54 Male 1x8	WCON	1125-1108S0R140CR01	CON HDR-2.54 MALE 1x8 GOLD FLASH TIN 6.00MM TH-PP R/A
Not Fitted	J209, J213, J214, J313, J315	0	HDR-2.54 Male 1x1	Samtec Inc.	TSW-101-07-G-S	CON HDR-2.54 Male 1x1 Gold 5.84MM TH VERT
Not Fitted	J508, J512, J513	0	HDR-2.54 Male 1x2	WCON	1125-1102S05116CR01	CON HDR-2.54 MALE 1x2 GOLD FLASH TIN 6.10MM TH-PP VERT
Not Fitted	R224, R225, R507, R508, R509, R516, R519	0	47k	Yageo	RC0402FR-0747KL	RES TKF 47k 1% 1/16W SMD 0402
Not Fitted	R411, R413	0	680k	Panasonic	ERJ-3EKf6803V	RES TKF 680k 1% 1/10W SMD 0603
Not Fitted	R418, R420	0	10k	Stackpole Electronics Inc	RNCP0603FTD10K0	RES TF 10k 1% 1/8W SMD 0603
Not Fitted	R510	0	27k	Yageo	RC0402FR-0727KL	RES TKF 27k 1% 1/16W SMD 0402
Not Fitted	R518	0	200k	Panasonic Electronic Components	ERJ-2RKf2003X	RES TKF 200k 1% 1/10W SMD 0402 AEC-Q200
Not Fitted	R529	0	470k	Panasonic Electronic Components	ERJ-U02F4703X	RES TKF 470k 1% 1/16W SMD 0402
Not Fitted	R537, R538	0	0R	Vishay	CRCW0402000020EDHP	RES TKF 0R <0.01R 1/5W SMD 0402
Not Fitted						
Approved		418		Notes		