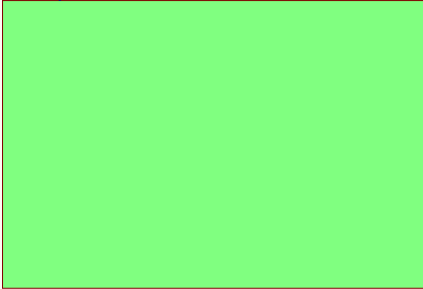


# Curiosity Nano Base for Click boards

S1  
Curiosity\_Nano\_Base\_for\_Clicks.SchDoc



E1



E3



E2



E4



PCBADC1



A12-1357

TESTDOC1



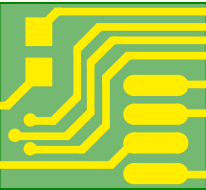
A12-1360

TEST1

\$ > \_

A11-0432

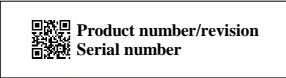
PCB1



A08-2941

CNANO-BASE4CLICK kit PCB documentation

LABEL1



Label PCBA

Drawn By:

T.Frostad

Engineer:

T.Frostad



Project Title

**Curiosity Nano Base for Click boards**

Sheet Title

**Top Level**

Size

A3

PCB Assembly Number: A09-3206

PCB Number: A08-2941

PCBA Revision: 7

PCB Revision: 4

File: Curiosity\_Nano\_Base\_for\_Clicks\_TopLevel.SchDoc

Designed with

**Altium**

[Altium.com](http://Altium.com)

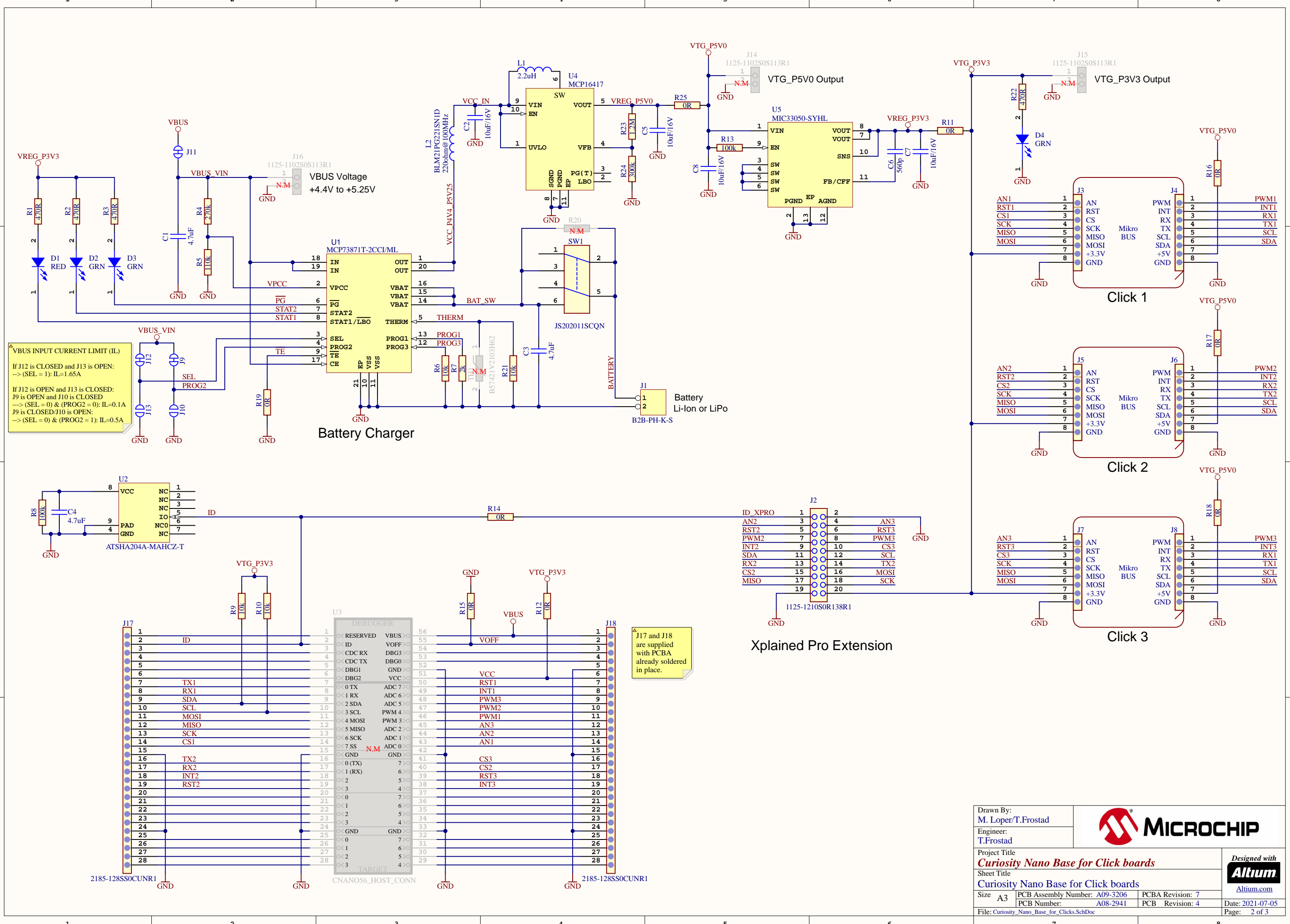
Date: 2021-07-05

Page: 1 of 3

S2

Curiosity\_Nano\_Base\_for\_Clicks\_Revision\_History.SchDoc






**VBUS INPUT CURRENT LIMIT (IL)**

If J12 is CLOSED and J13 is OPEN:  
--> (SEL = 1); IL=1.65A

If J12 is OPEN and J13 is CLOSED:  
J9 is OPEN and J10 is CLOSED  
--> (SEL = 0) & (PROG2 = 0); IL=0.1A  
J9 is CLOSED/J10 is OPEN:  
--> (SEL = 0) & (PROG2 = 1); IL=0.5A

J17 and J18  
are supplied  
with PCBA  
already soldered  
in place.

Drawn By: M. Loper/T.Frostad			
Engineer: T.Frostad			
Project Title <b>Curiosity Nano Base for Click boards</b>			
Sheet Title <b>Curiosity Nano Base for Click boards</b>			
Size A3	PCB Assembly Number: A09-3206	PCBA Revision: 7	Designed with  Altium.com
PCB Number: A08-2941	PCB Revision: 4	Date: 2021-07-05	
File: Curiosity_Nano_Base_for_Clicks.SchDoc			Page: 2 of 3

# Revision History

## PCB Assembly Rev 1:

Design Changes:

Initial Design

PCB:

PCB revision 1

## PCB Assembly Rev 2:

Design Changes:

Redesigned power supply for VTG\_P5V0/VTG\_P3V3.

PCB:

PCB revision 2

## PCB Assembly Rev 3:

Design Changes:

Added jumper on VBUS. Added pinheaders for VBUS, VTG\_P5V0, and VTG\_P3V3. Added power LED to VTG\_P3V3. Added jumpers to enable high-current (1.6A) on power MUX. Default is still 500mA.

PCB:

PCB revision 3

## PCB Assembly Rev 4:

Design Changes:

Mounted two 28 pin receptacles.

PCB:

PCB revision 3

## PCB Assembly Rev 5:

Design Changes:

Redesign of VTG\_P5V0 power supply to get rid of noise problems. Set high-current (1.6A) mode as default. Renamed kit to "Curiosity Nano Base for Clicks".

PCB:

PCB revision 4

## PCB Assembly Rev 6:

Design Changes:

Change in capacitors

PCB:

PCB revision 4

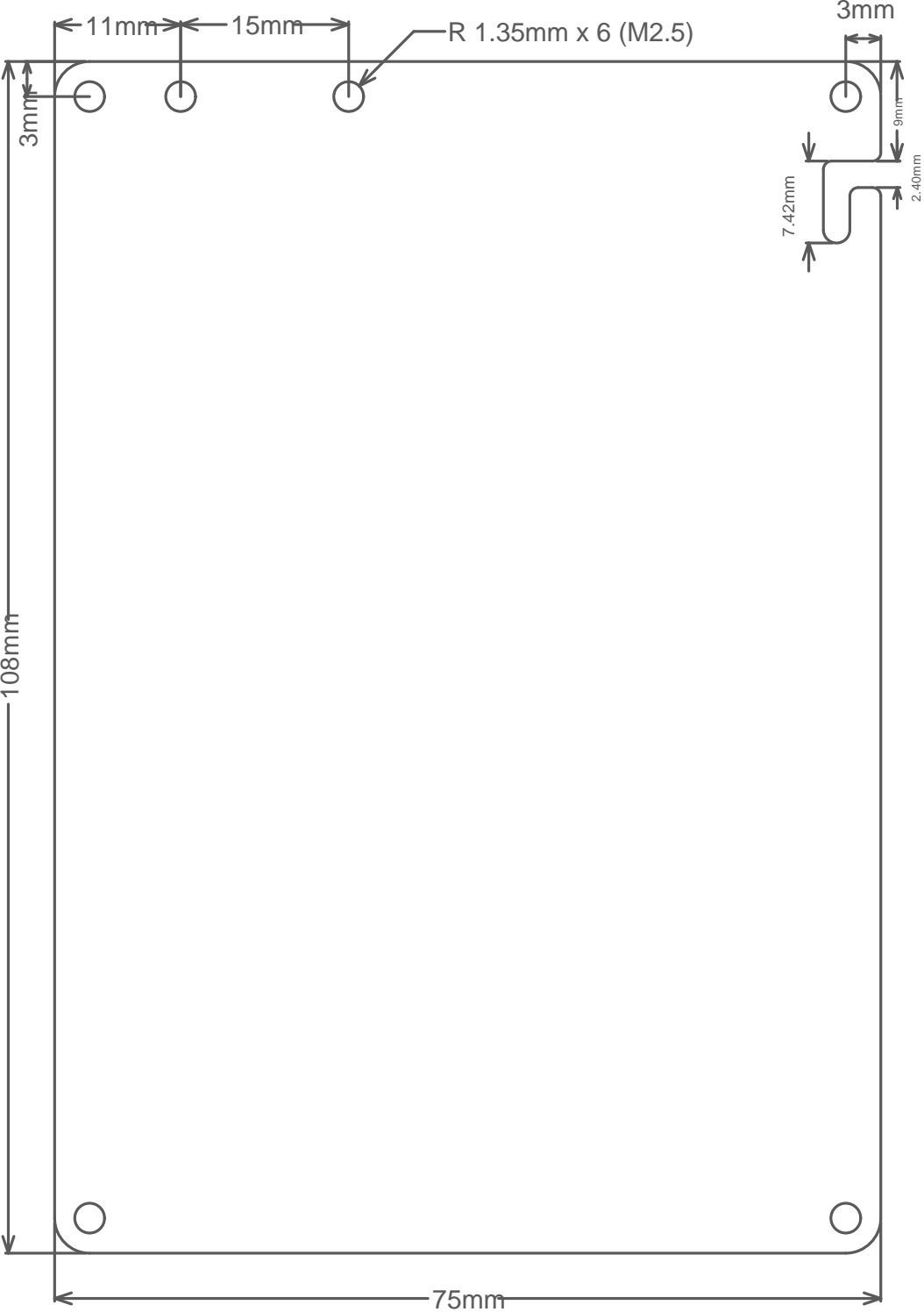
## PCB Assembly Rev 7:

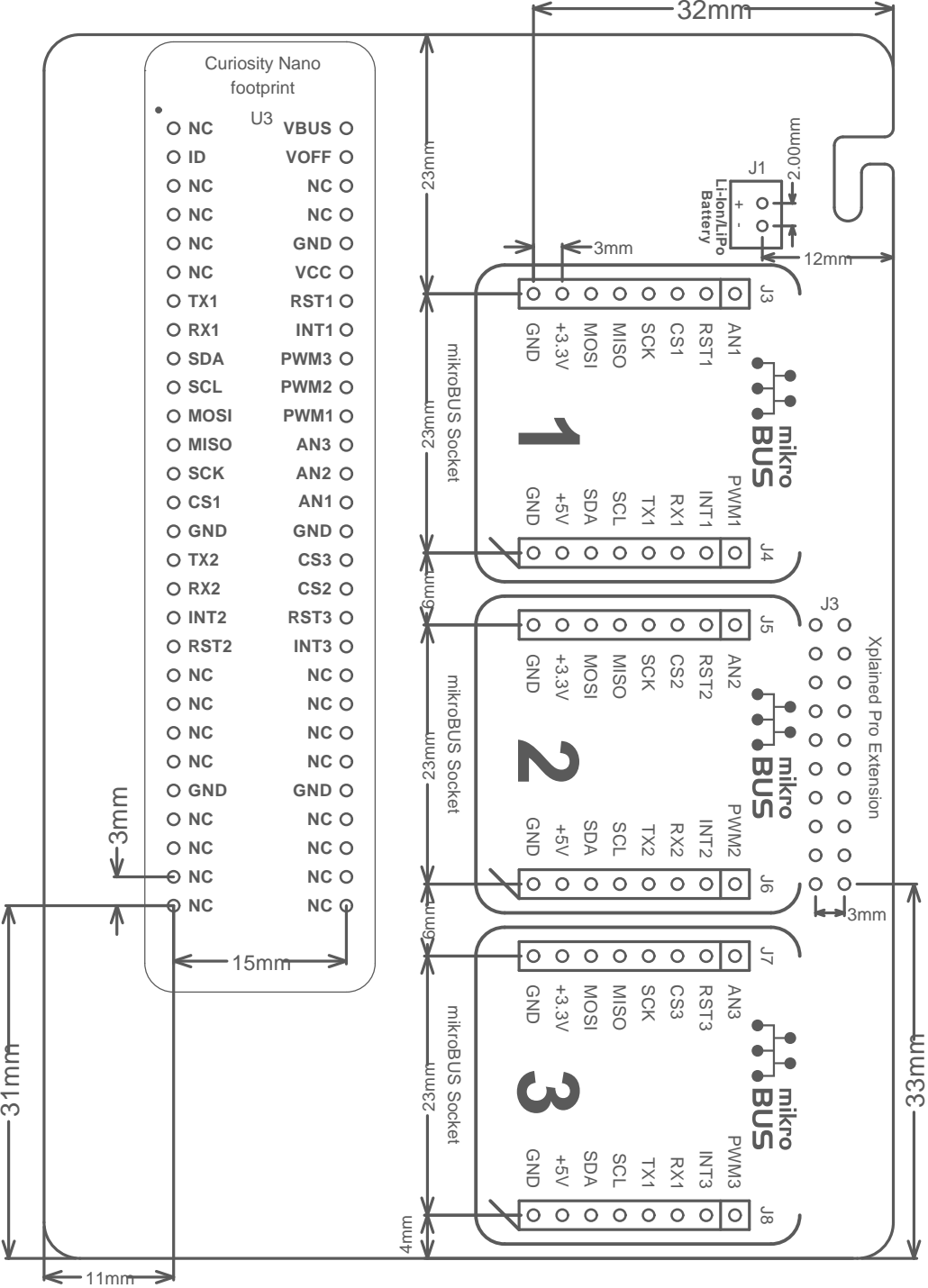
Design Changes:

Adjusted feedback resistors of 5V regulator for slightly lower output voltage (4.85V). Ferrite bead L3 replaced with 0-Ohm resistor to for better noise performance.

PCB:

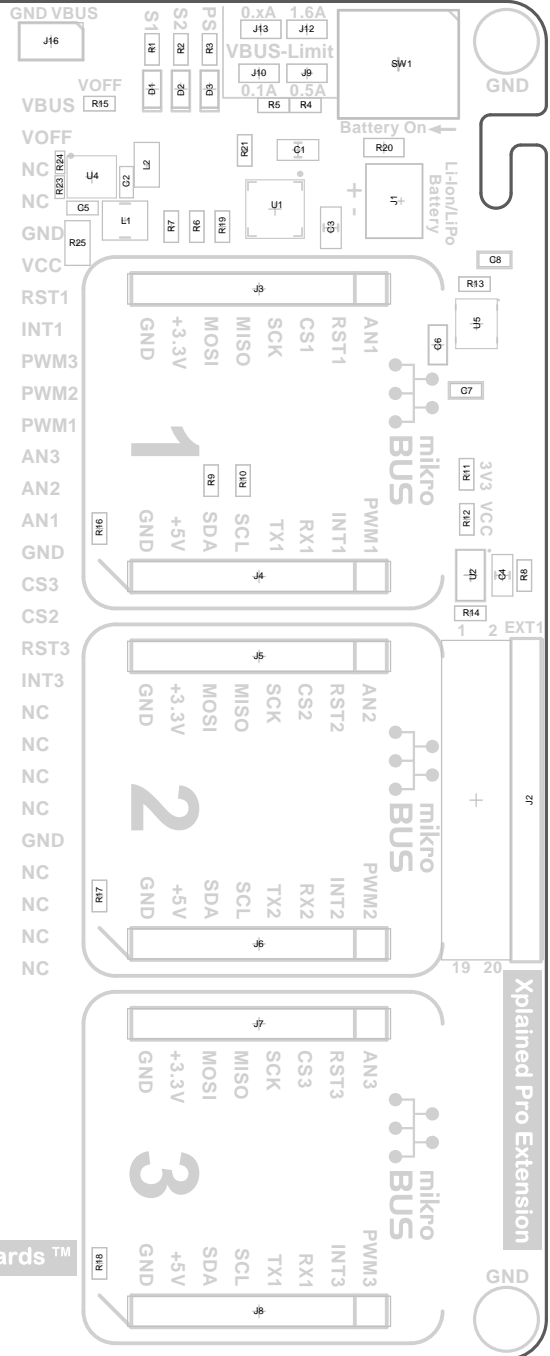
PCB revision 4



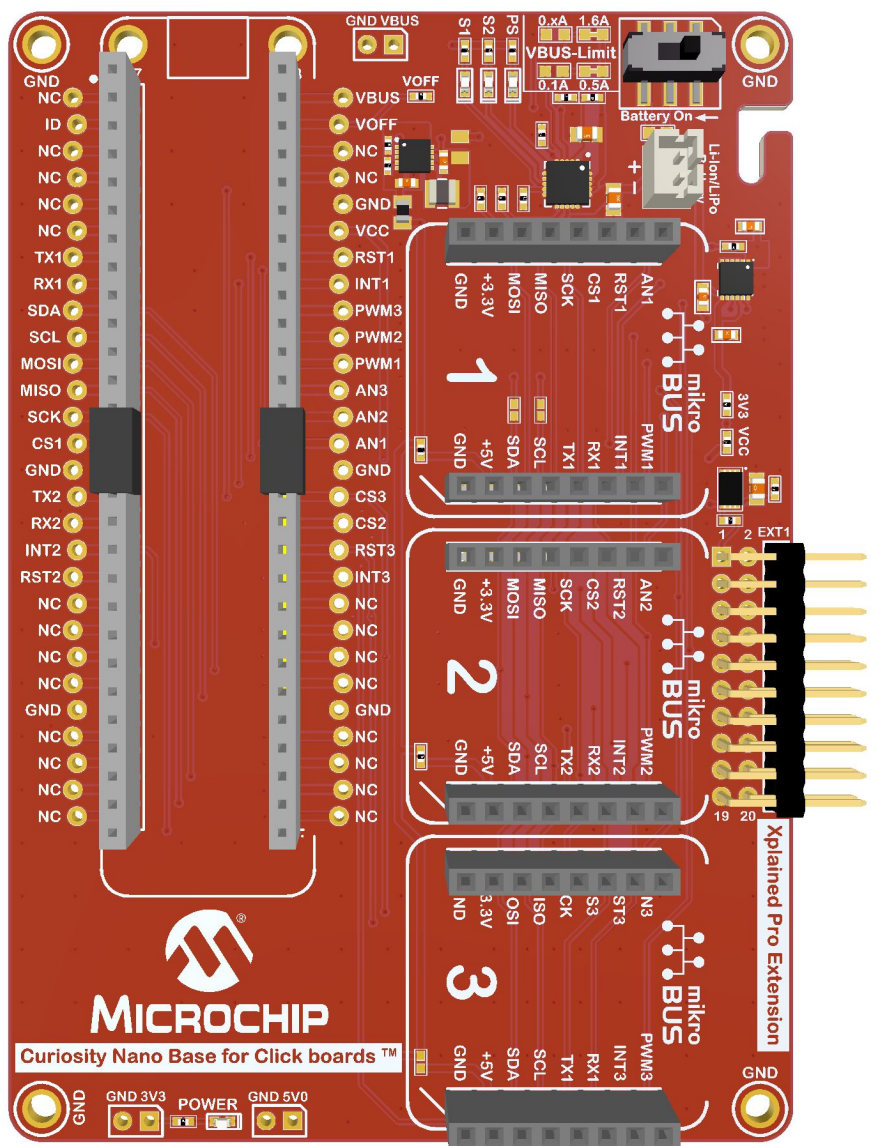




Curiosity Nano Base for Click boards™

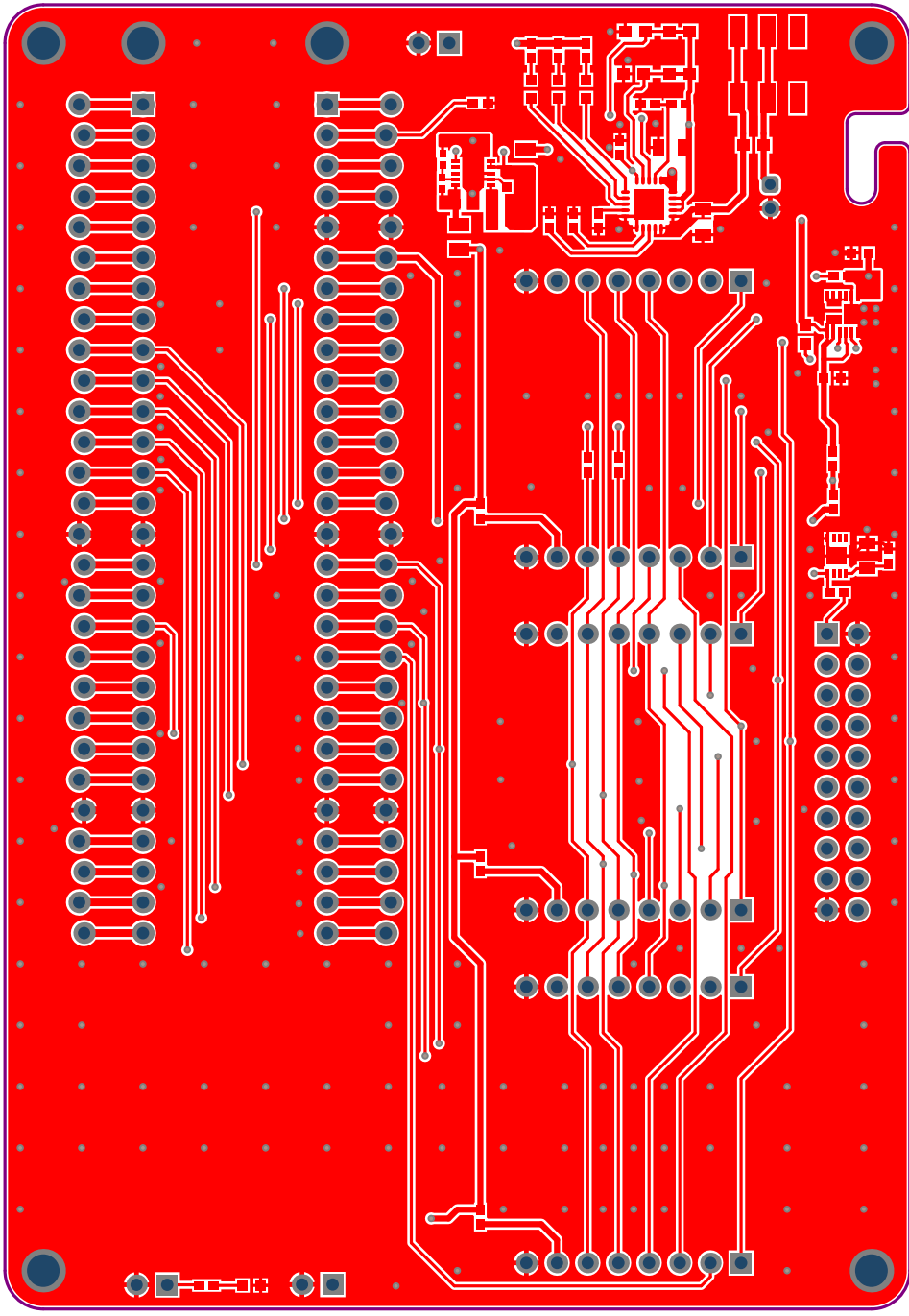


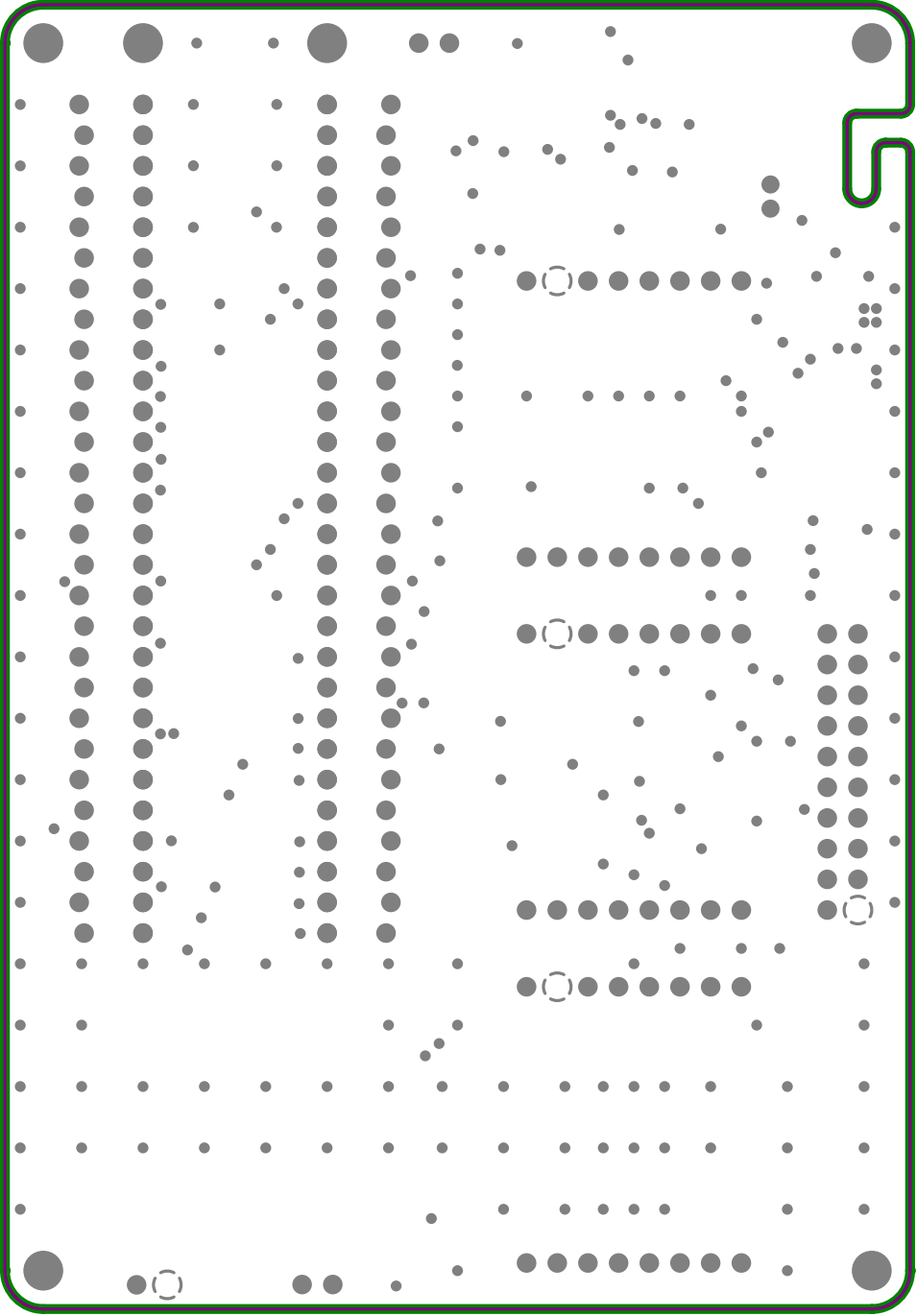


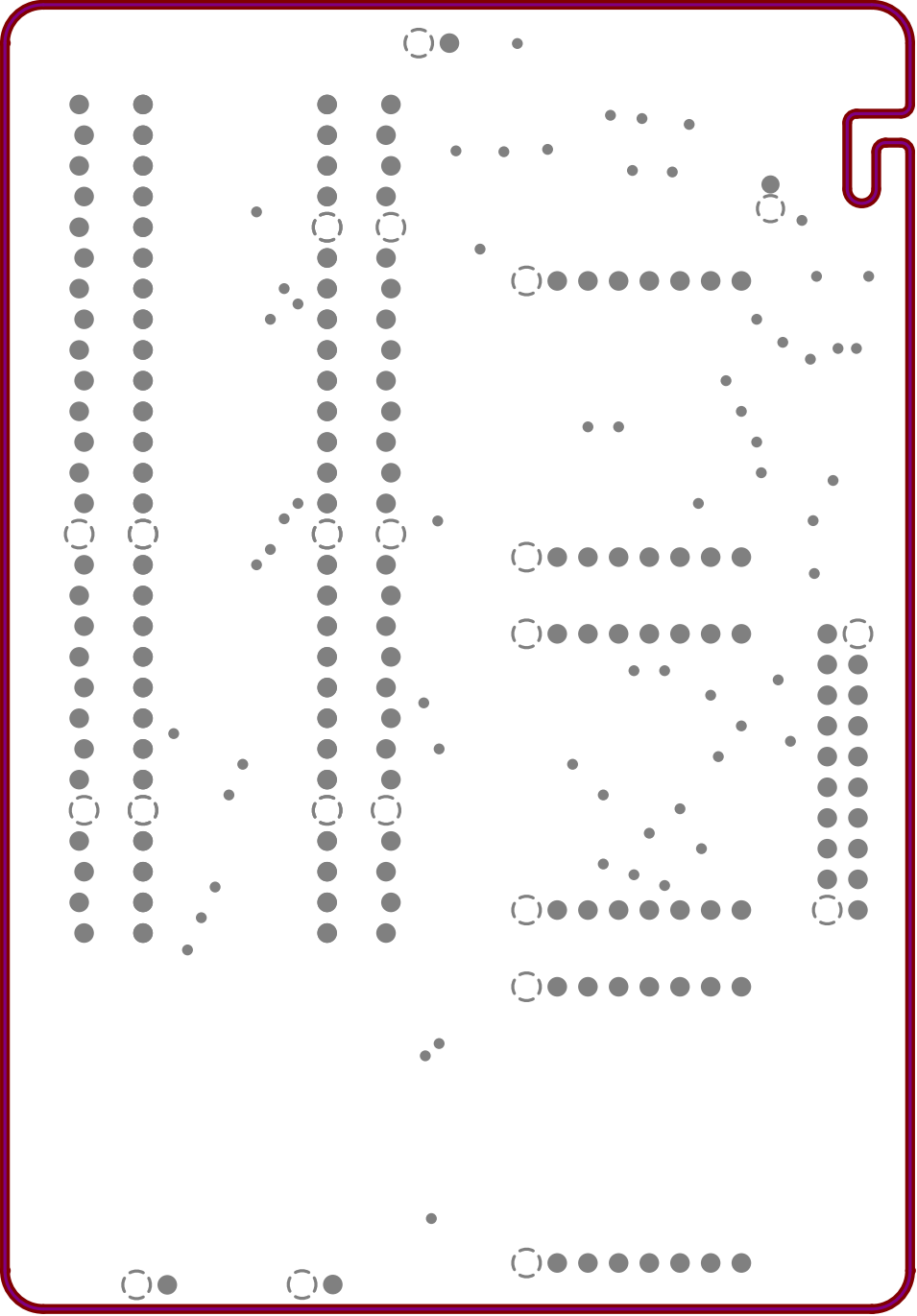


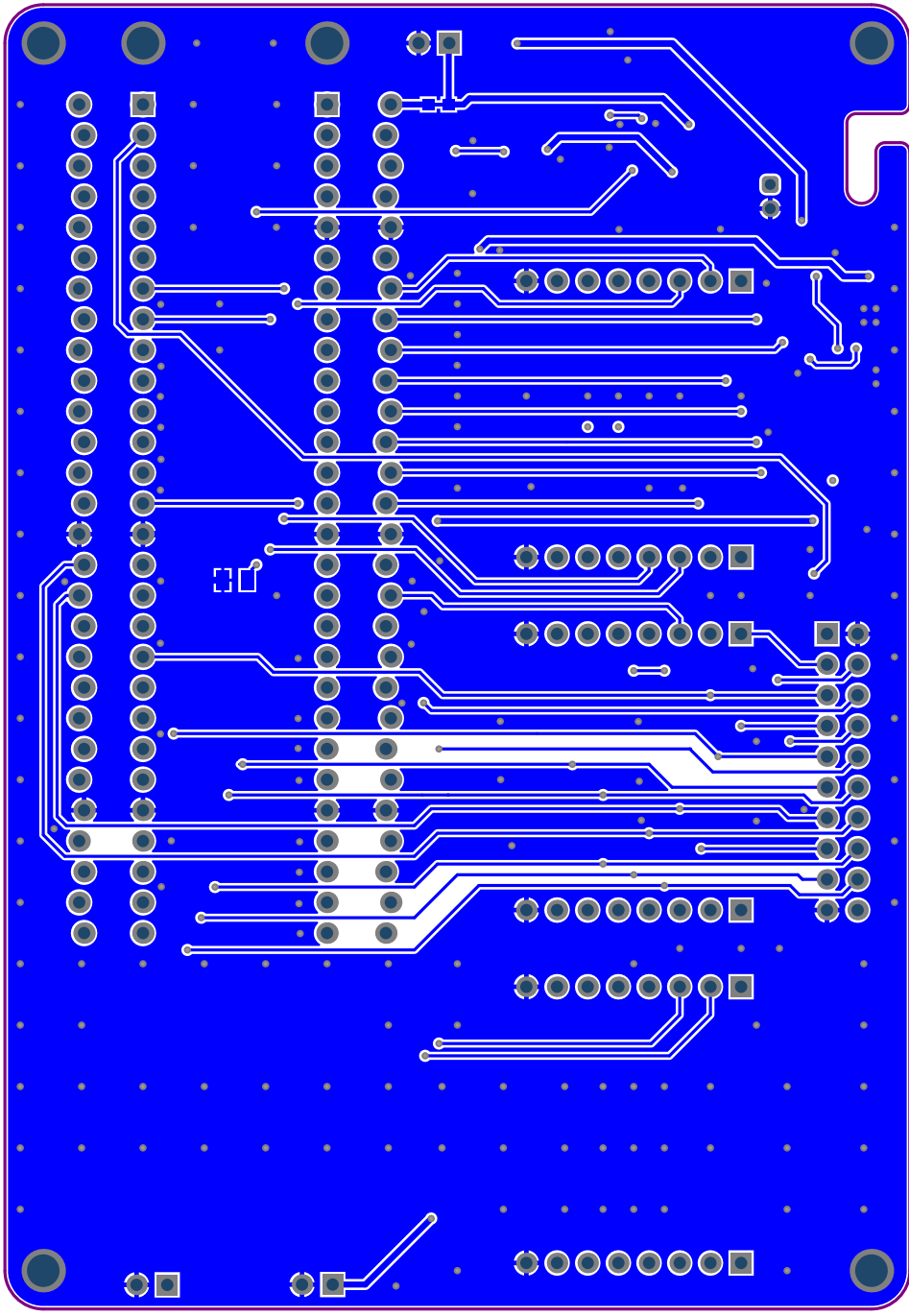












# Component list

Bill of Materials Fitted for Variant [Default Assembly] of Project [Curiosity\_Nano\_Base\_for\_Clicks.PrjPcb] (No PCB Document Selected)

Source Data From:

Curiosity\_Nano\_Base\_for\_Clicks.PrjPcb

Project:

Curiosity\_Nano\_Base\_for\_Clicks.PrjPcb

Variant:

Default Assembly



Report Date: 2021-07-05 17:08  
Print Date: 2021-07-05 17:08:42

Fitted	Designator	Quantity	Value	Manufacturer	MPN	Description
Fitted	C1, C3, C4	3	4.7uF	Yageo	CC0805KKX7R7BB475	Ceramic capacitor, SMD 0805, X7R, 16V, 10%,
Fitted	C2, C5, C7, C8	4	10uF/16V	Taiyo Yuden	EMK107BBJ106MA-T	Ceramic capacitor, SMD 0603, X5R, 16V, 10uF ± 20% (High Density)
Fitted	C6	1	560p			Ceramic capacitor, SMD 0603, X7R, 50V, ±10 %
Fitted	D1	1	RED LED	ROHM	SML-D12U1WT86	LED, SMD 0603, Red, Wave length=620nm, 63mcd @ (20mA, 2.2Vf) rohm
Fitted	D2, D3, D4	3	SML-310MT86N	ROHM	SML-310MT86N	LED, Green, 570nm, SMD 0603
Fitted	E1, E2, E3, E4	4	SJ-5076	3M	SJ-5076	2.8mm adhesive feet,diam 8.0mm
Fitted	J1	1	B2B-PH-K-S	J.S.T. Mfg. Co. Ltd.	B2B-PH-K-S	Pin Header 1x2, 2mm THM, top entry, 100V AC/DC, 2A AC/DC (AWG #24)
Fitted	J2	1	1125-1210S0R138R1	WCON	1125-1210S0R138CR01	Pin header, 2x10, Right Angle, 2.54mm, THM, Pin In Paste
Fitted	J3, J4, J5, J6, J7, J8	6	2185-108SS0CYNP1	WCON	2185-108SS0CYNP1	1x8 receptacle pin header, 2.54mm pitch THM, PIP
Fitted	J17, J18	2	2185-128SS0CUNR1	WCON	2185-128SS0CUNR1	1X28 Receptacle Pin Socket 2.54mm pitch THM with pick and place TAB
Fitted	L1	1	2.2uH	Murata	DFE252012P-2R2M=P2	2.2uH, 2.6A shielded SMD power inductor
Fitted	L2	1	220ohm@100MHz	Murata	BLM21PG221SN1D	FerriteBead,220ohm@100MHz,2000mA,0.045ohm
Fitted	LABEL1	1	Label PCBA	ACT Logimark AS	505462	PCBA identification label PP Top White Gloss
Fitted	PCB1	1	CNANO-BASE4CLICK kit PCB documentation			CNANO Adapter kit PCB documentation
Fitted	PCBADC1	1	A09-3206 PCBA Files			Curiosity Nano Adapter PCBA documentation
Fitted	R1, R2, R3, R22	4	470R	ASJ Holdings	CR10-4700-FK	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R4	1	270k	Yageo	RC0402FR07270KL	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R5	1	110k	Yageo	RC0402FR-07110KL	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R6, R9, R10, R21	4	10k	vishay	CRCW040210K0FKED	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R7	1	2k	Yageo	RC0402FR072KL	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R8, R13	2	100k	Yageo	RC0402FR-07100KP	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R11, R12, R14, R15, R16, R17, R18, R19	8	0R	Stackpole Electronics Inc	RMCF0402ZT0R00	RES 0.0 OHM 1/16W 0402 SMD
Fitted	R23	1	1.2M	Yageo	RC0402FR-071M2L	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R24	1	300k	Yageo	RC0402FR-07300KL	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R25	1	0R	Yageo	RC0805FR-070RL	Chip Resistor 0R,0805,1% 1/8W
Fitted	SW1	1	JS202011SQCN	C&K Components	JS202011SQCN	Slide Switch, C&K, 2 Pos 2 Pol, SMD
Fitted	TEST1	1	Curiosity Nano BASE4CLICK test			Fixture test for Curiosity Nano Adapter
Fitted	TESTDOC1	1	CNANO-BASE4CLICK test instructions			Test instructions for the curiosity nano Adapter
Fitted	U1	1	MCP73871	Microchip	MCP73871T-2CCI/ML	Load Sharing and Li-Ion/Li-Polymer Battery Charge Management Controller
Fitted	U2	1	ATSHA204A SWI UDFN8	Microchip	ATSHA204A-MAHCZ-T	ATSHA204A with 1-wire interface and UDFN8 package
Fitted	U4	1	MCP16417	Microchip	MCP16417T-VMN	Low Iq boost converter with programmable low battery, UVLO, and automatic input-to-output bypass operation
Fitted	U5	1	MIC33050-SYHL	Microchip	MIC33050-SYHL-TR	3.3V Fixed, 4MHz, 600mA, Buck regulator with internal inductor with HyperLight Load
Not Fitted	J14, J15, J16	0	1125-1102S0S113R1	WCON	1125-1102S0S113R1	1x2 pin header, 2.54mm pitch, Pin-in-Paste THM
Not Fitted	TH1	0	NTC- B57421V2103H62	EPCOS	B57421V2103H62	THERMISTOR NTC 10K OHM 3% 0805
Fitted		62				

Approved

Notes