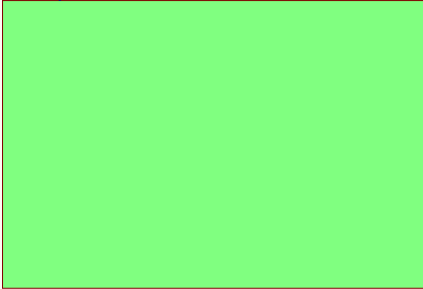


# Curiosity Nano Base for Click boards

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



E1



E3



E2



E4



PCBADC1



A12-1357

TESTDOC1



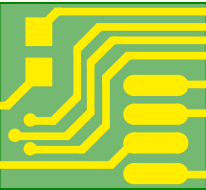
A12-1360

TEST1

\$ > \_

A11-0432

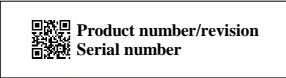
PCB1



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)

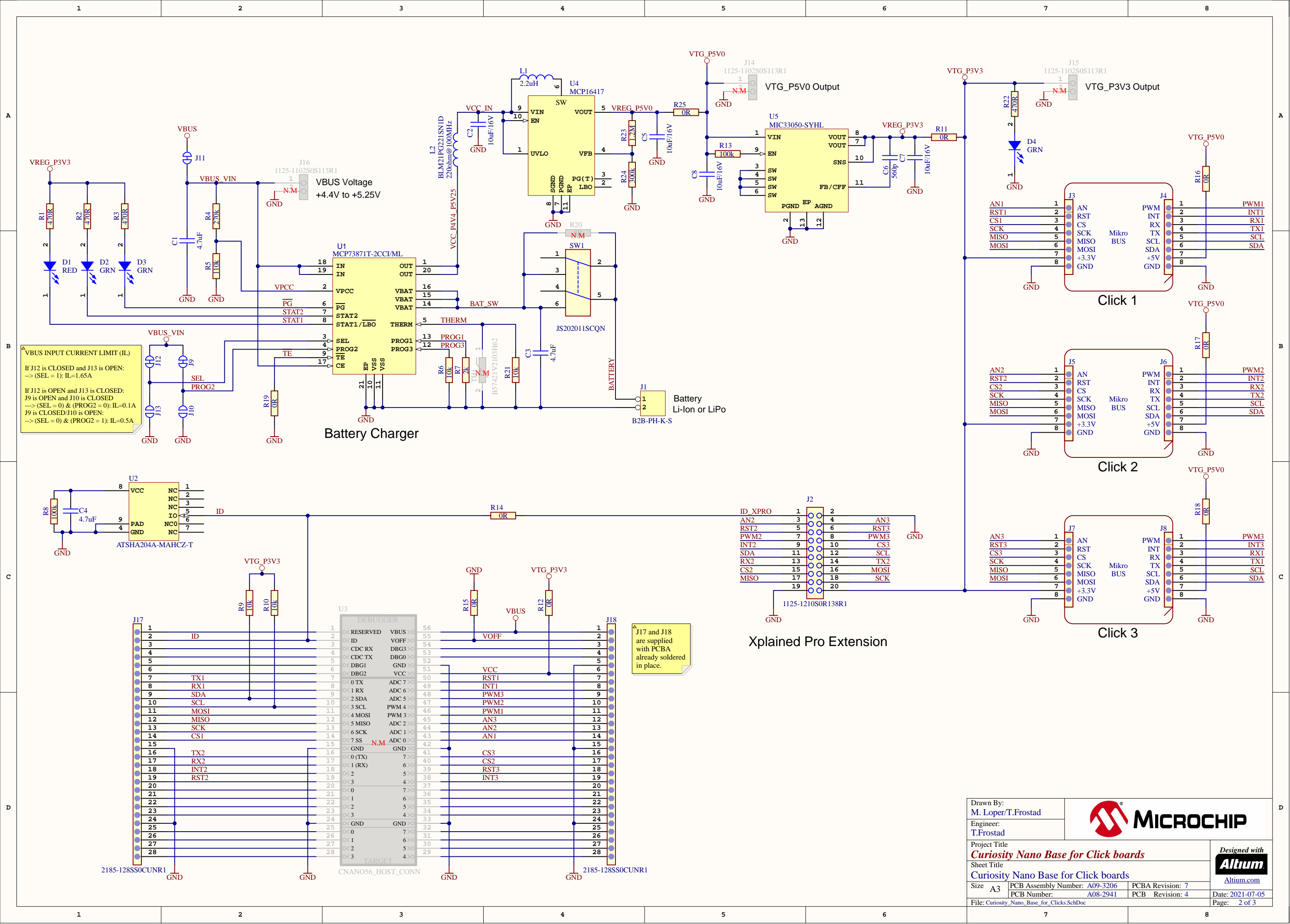
Date: 2021-07-05

Page: 1 of 3

S2

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





# 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

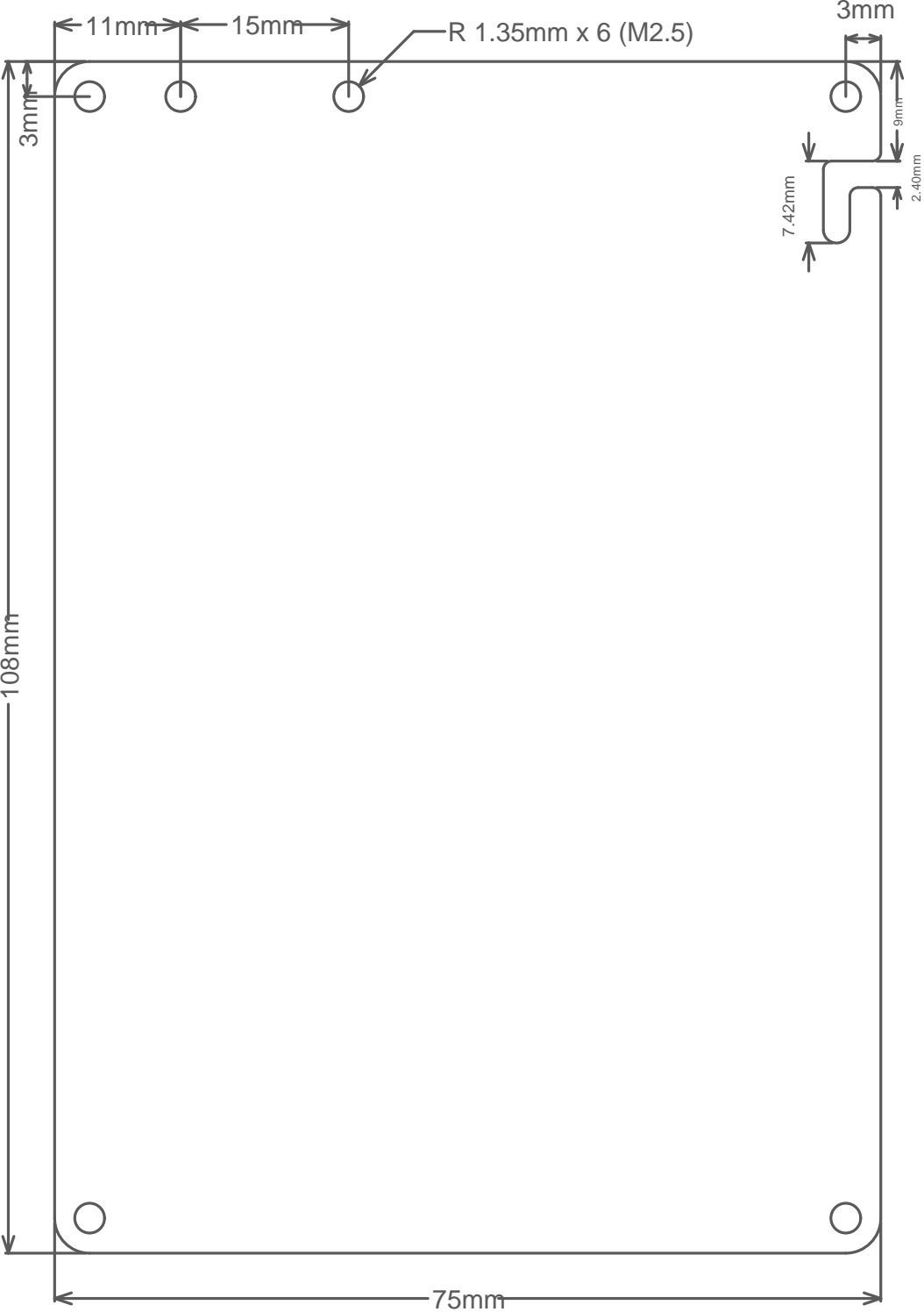
## PCB Assembly Rev 7:

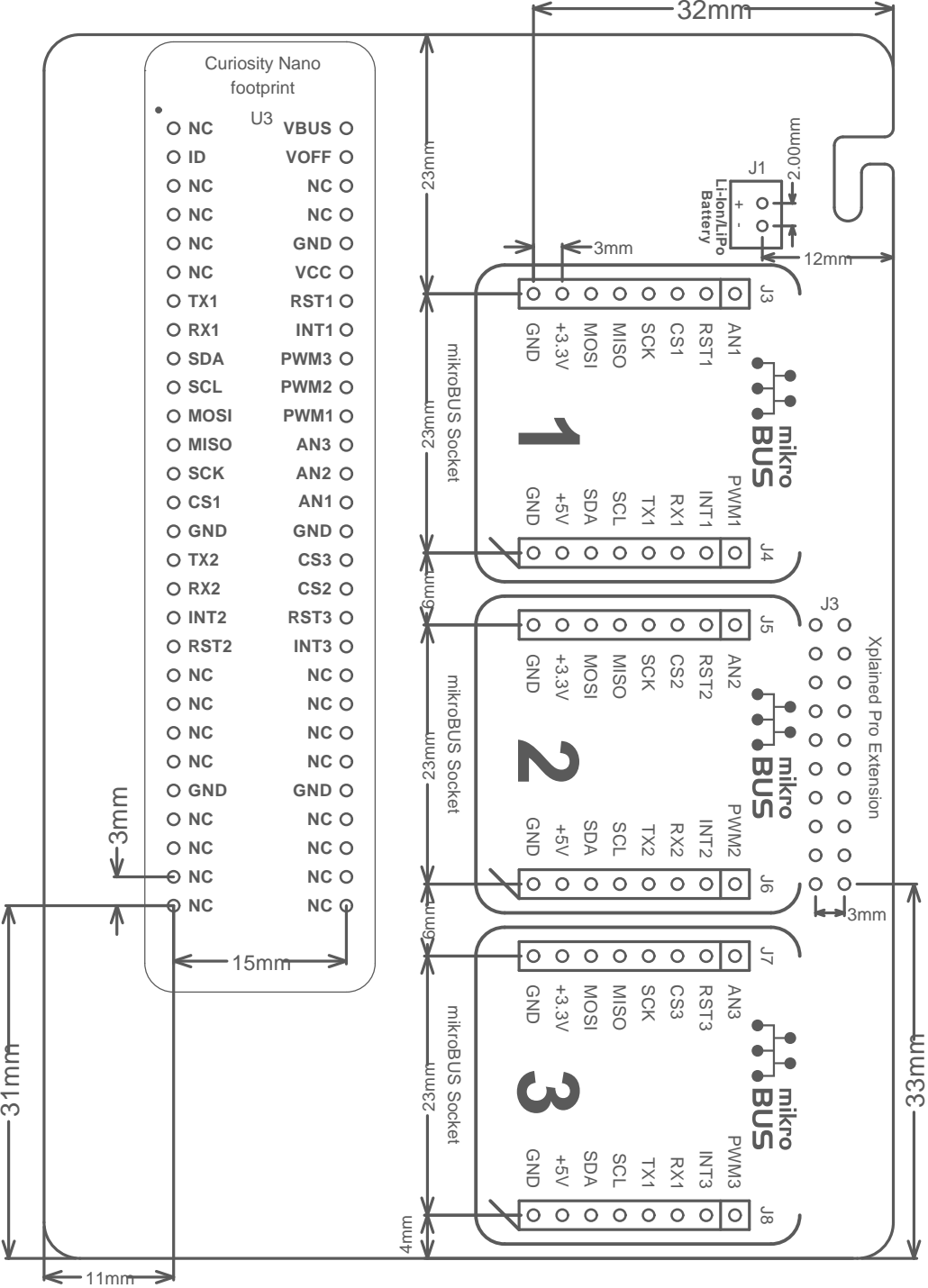
Design Changes:

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:

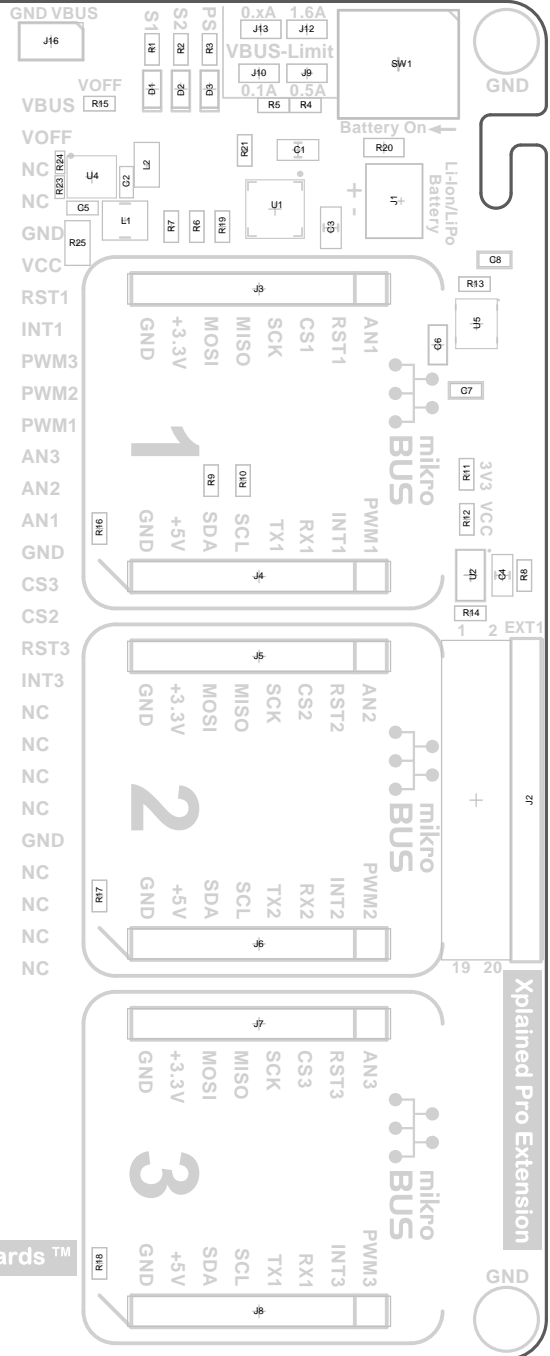
PCB revision 4

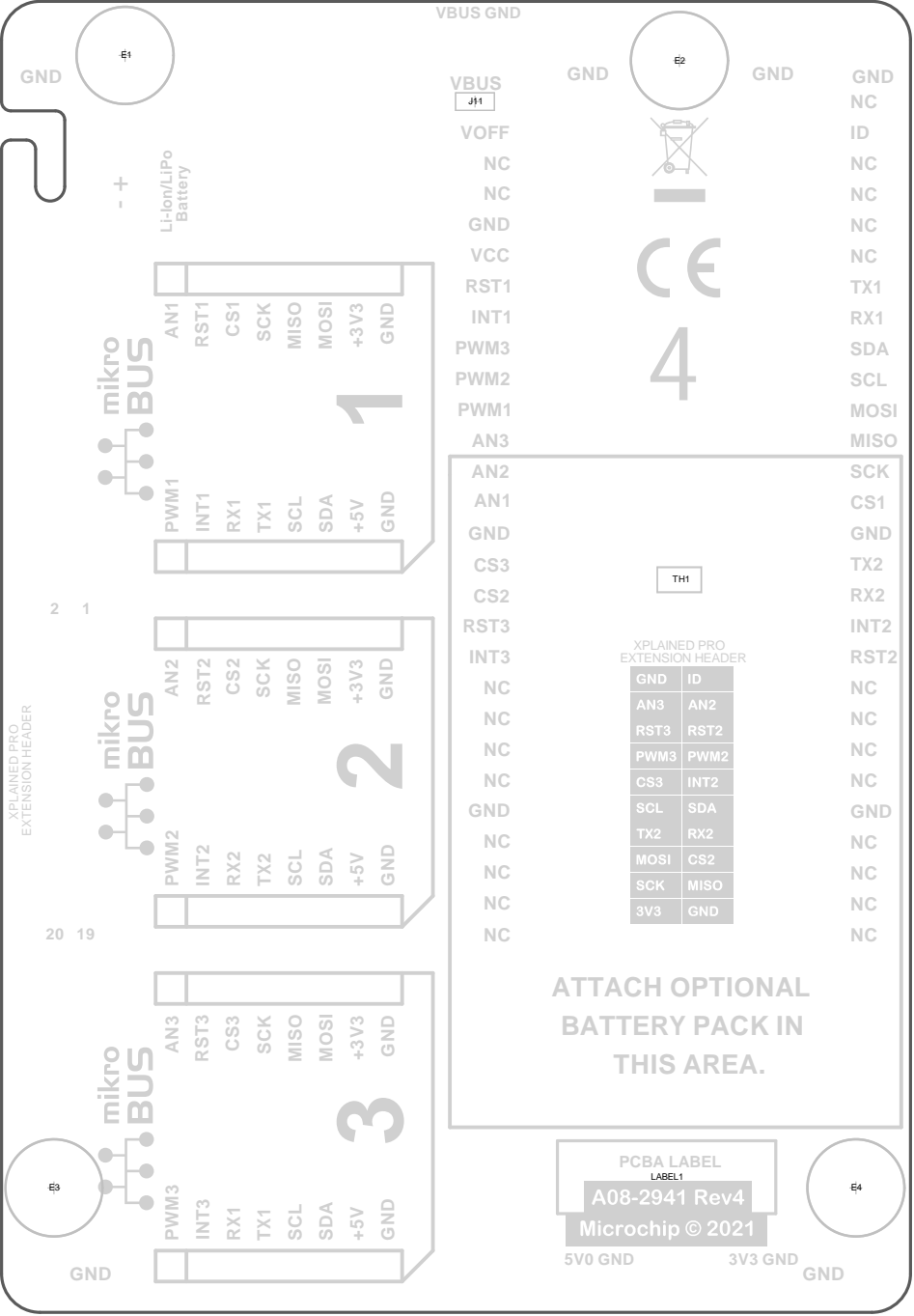






Curiosity Nano Base for Click boards™





XPLAINED PRO  
EXTENSION HEADER



mikro  
BUS

AN3  
RST3  
CS3  
SCK  
MISO  
MOSI  
+3V3  
GND

PWM3  
INT3  
RX1  
TX1  
SCL  
SDA  
+5V  
GND

mikro  
BUS

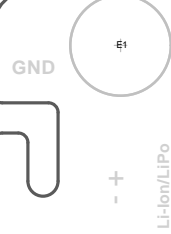
AN2  
RST2  
CS2  
SCK  
MISO  
MOSI  
+3V3  
GND

PWM2  
INT2  
RX2  
TX2  
SCL  
SDA  
+5V  
GND

mikro  
BUS

AN1  
RST1  
CS1  
SCK  
MISO  
MOSI  
+3V3  
GND

PWM1  
INT1  
RX1  
TX1  
SCL  
SDA  
+5V  
GND



Li-Ion/LiPo  
Battery

VBUS GND

VBUS  
J11

VOFF

NC

NC

GND

VCC

RST1

INT1

PWM3

PWM2

PWM1

AN3

AN2

AN1

GND

CS3

CS2

RST3

INT3

NC

NC

NC

NC

GND

NC

NC

NC

NC

GND



CE  
4

GND

GND

NC

ID

NC

NC

NC

NC

TX1

RX1

SDA

SCL

MOSI

MISO

SCK

CS1

GND

TX2

RX2

INT2

RST2

NC

NC

NC

NC

GND

NC

NC

NC

NC

NC

NC

NC

NC

NC

NC

NC

NC

NC

PCBA LABEL

LABEL1

A08-2941 Rev4

Microchip © 2021

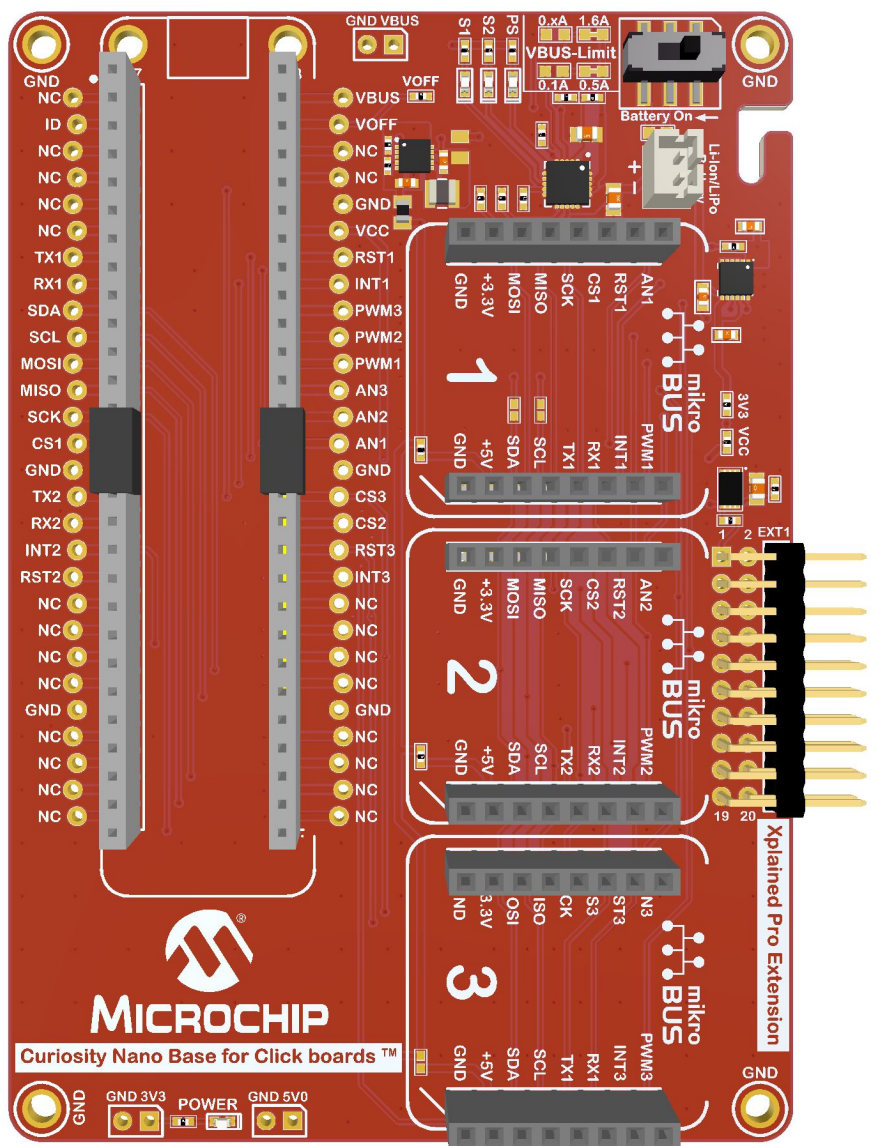
5V0 GND

3V3 GND

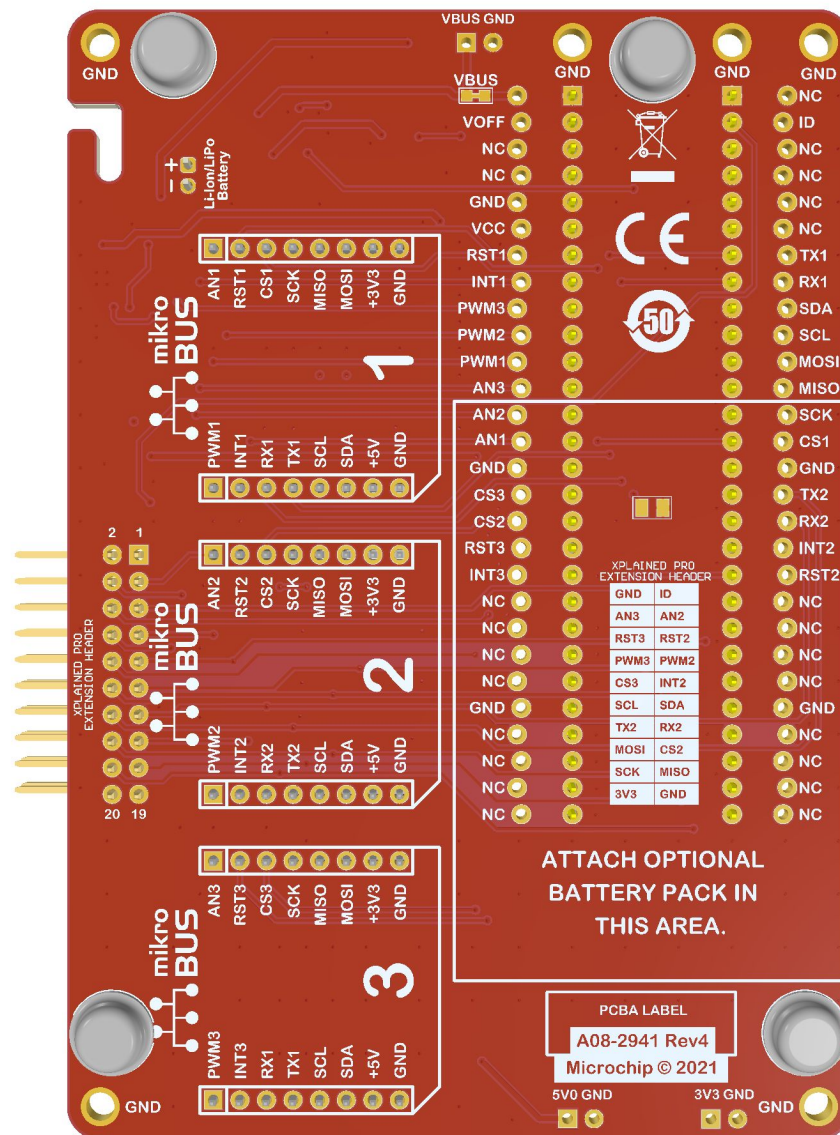
GND

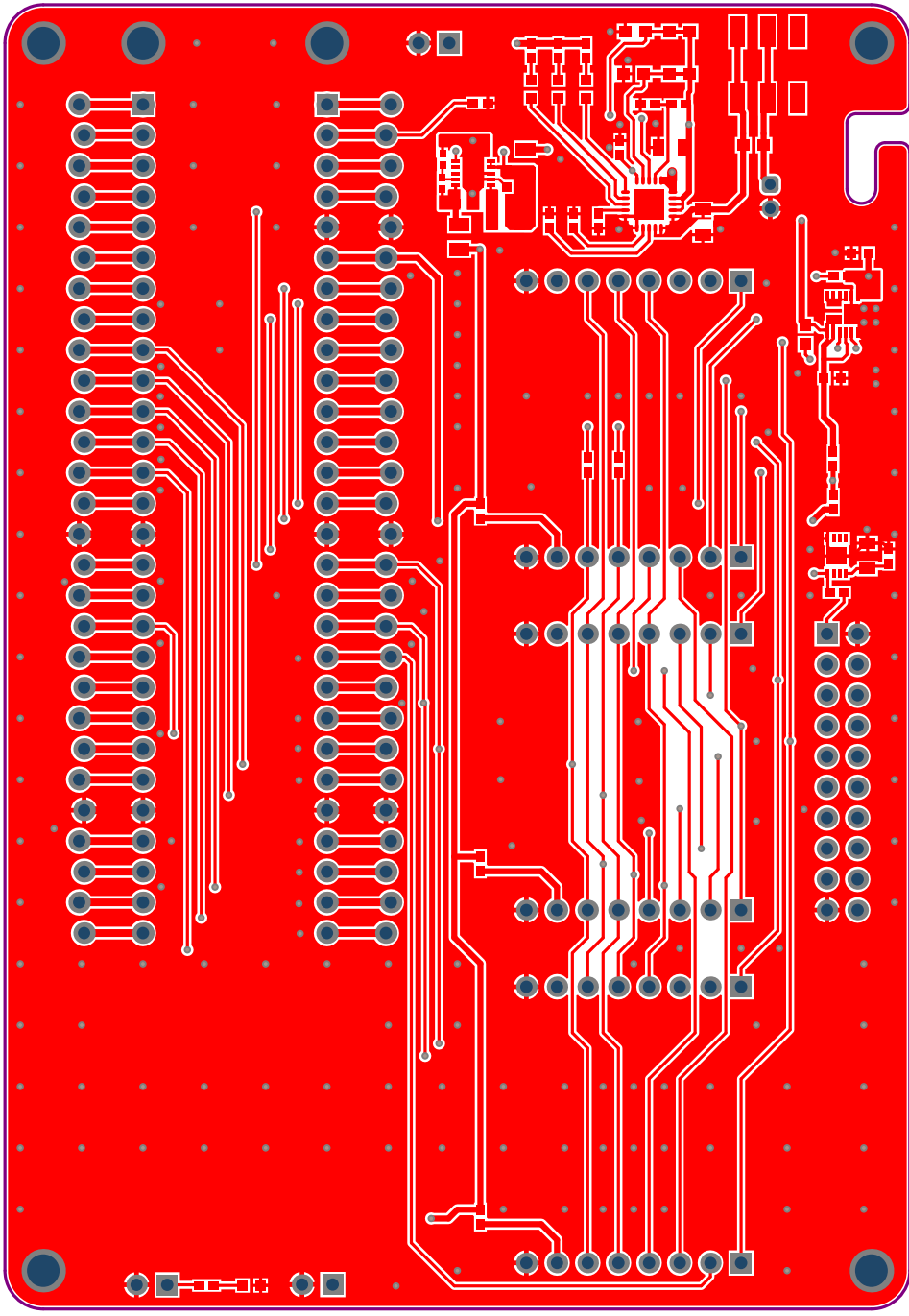


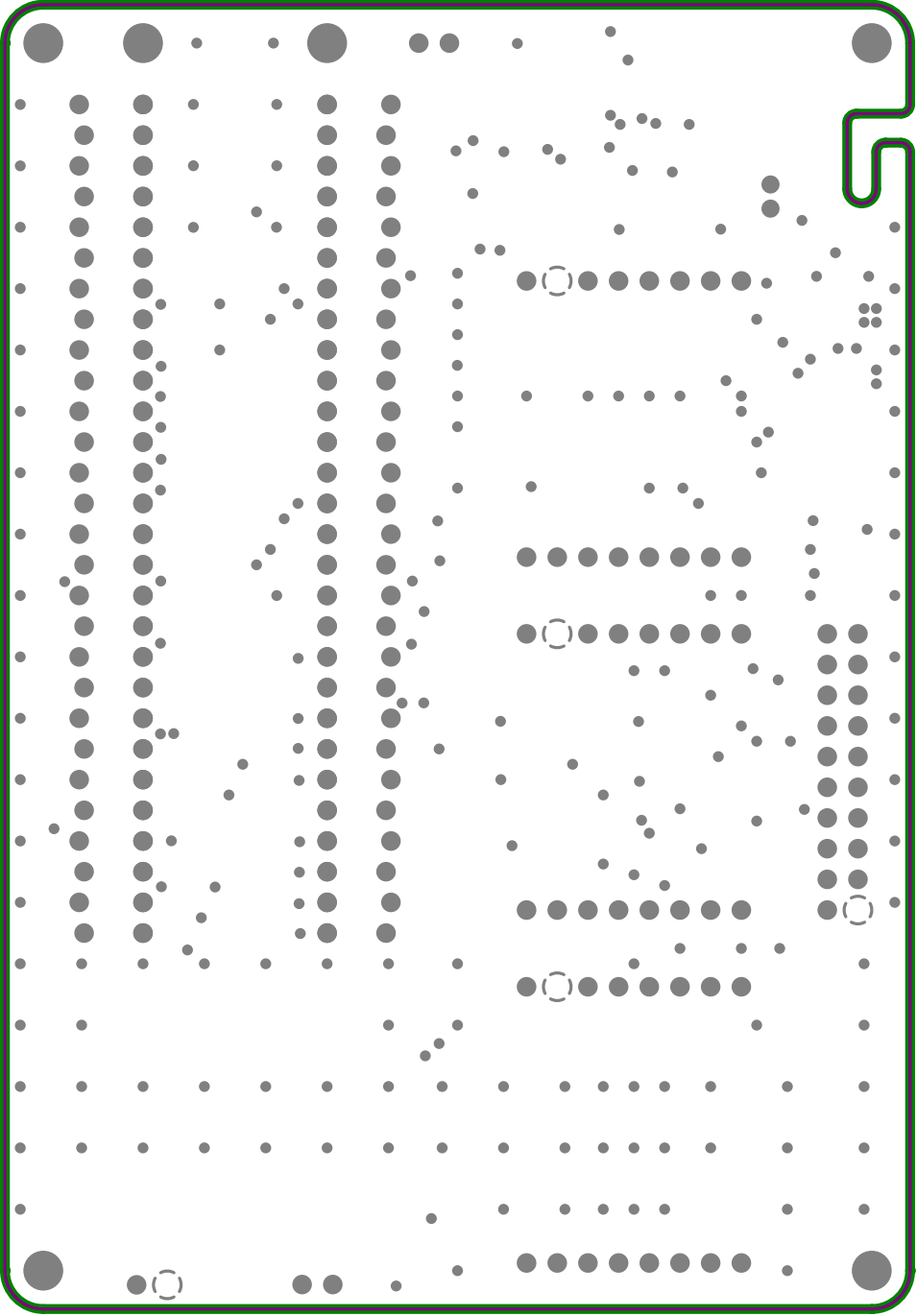
ATTACH OPTIONAL  
BATTERY PACK IN  
THIS AREA.

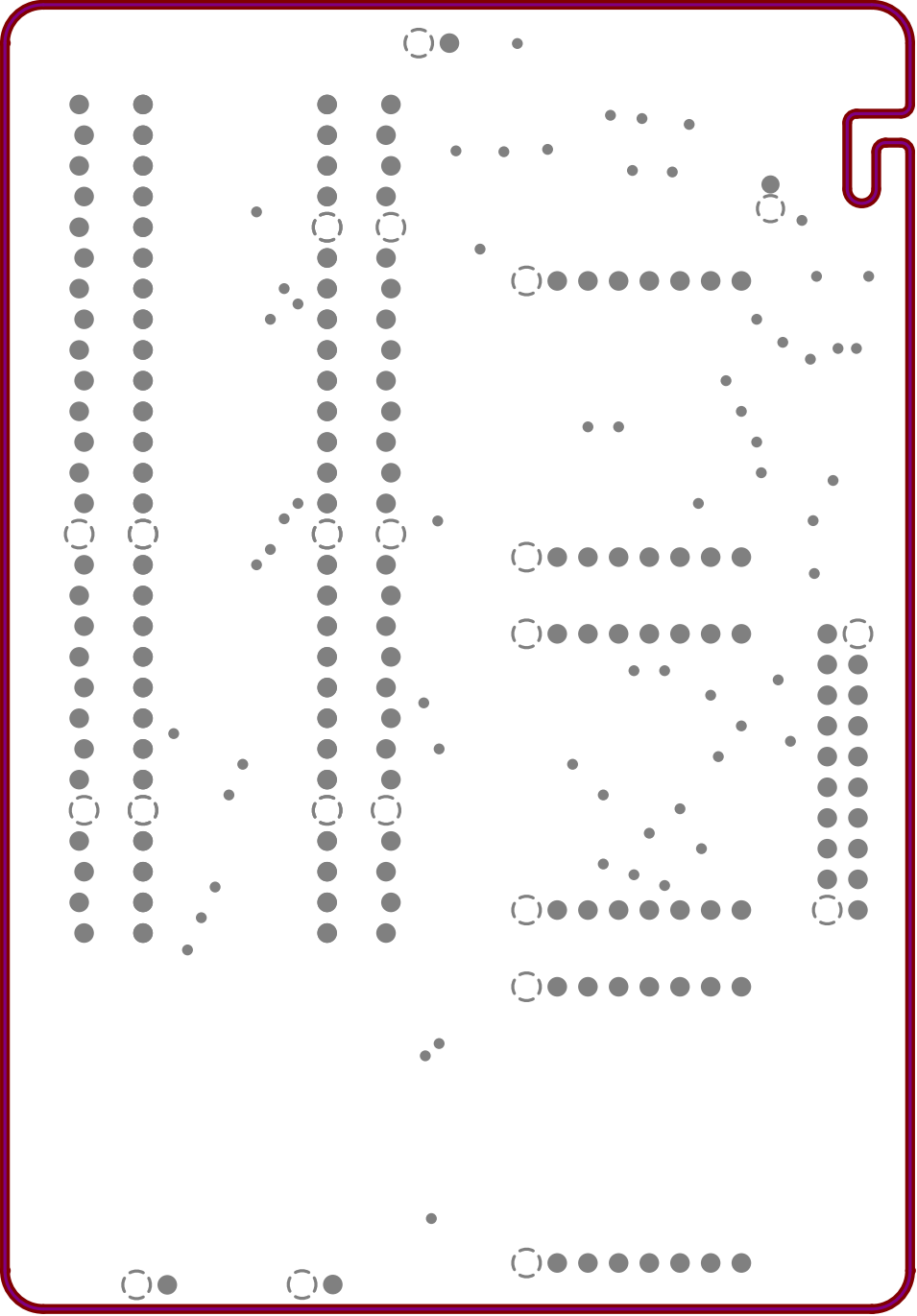


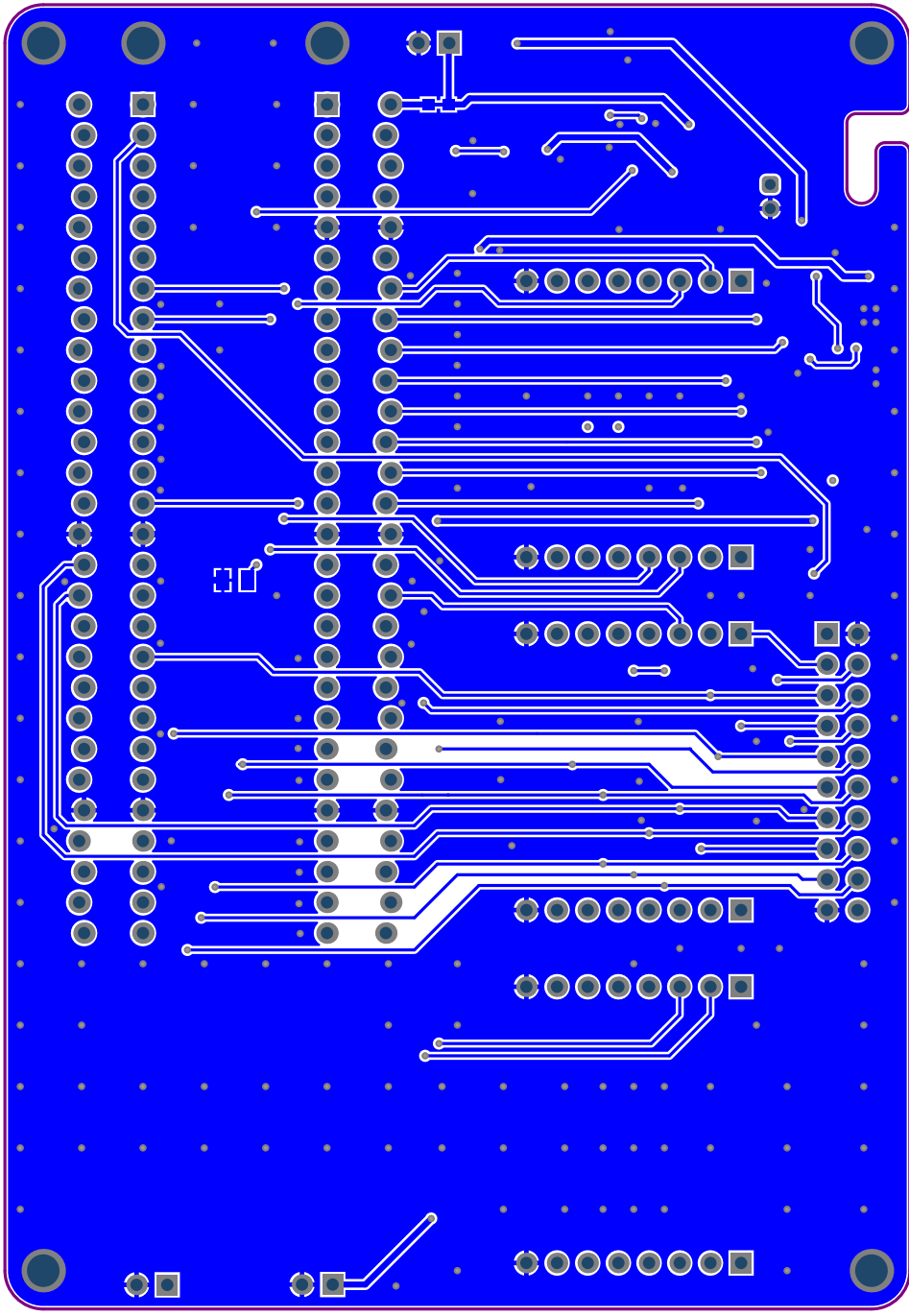












# Component list

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