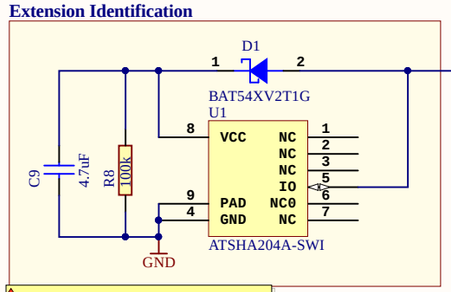
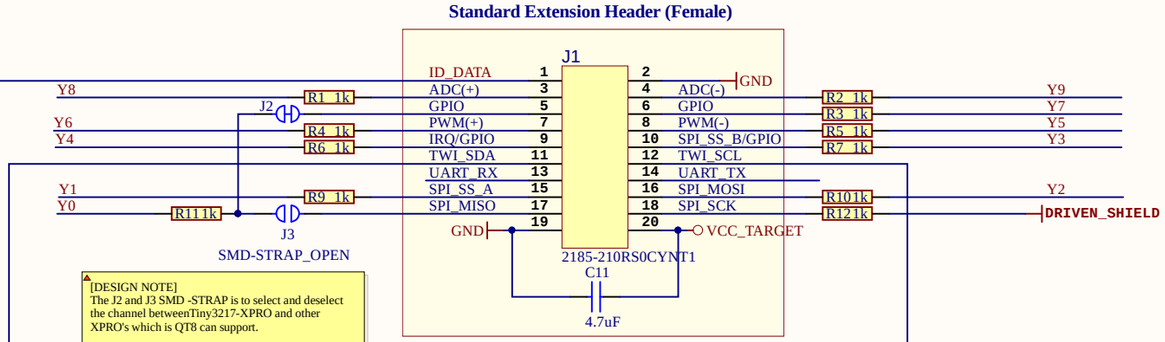
Extension Identification



[DESIGN NOTE]
The ATSHA204 is powered through an IO Pin from the EDBG on an MCU board.
R100 is present to drain the capacitor C100 when power is removed from an MCU board.

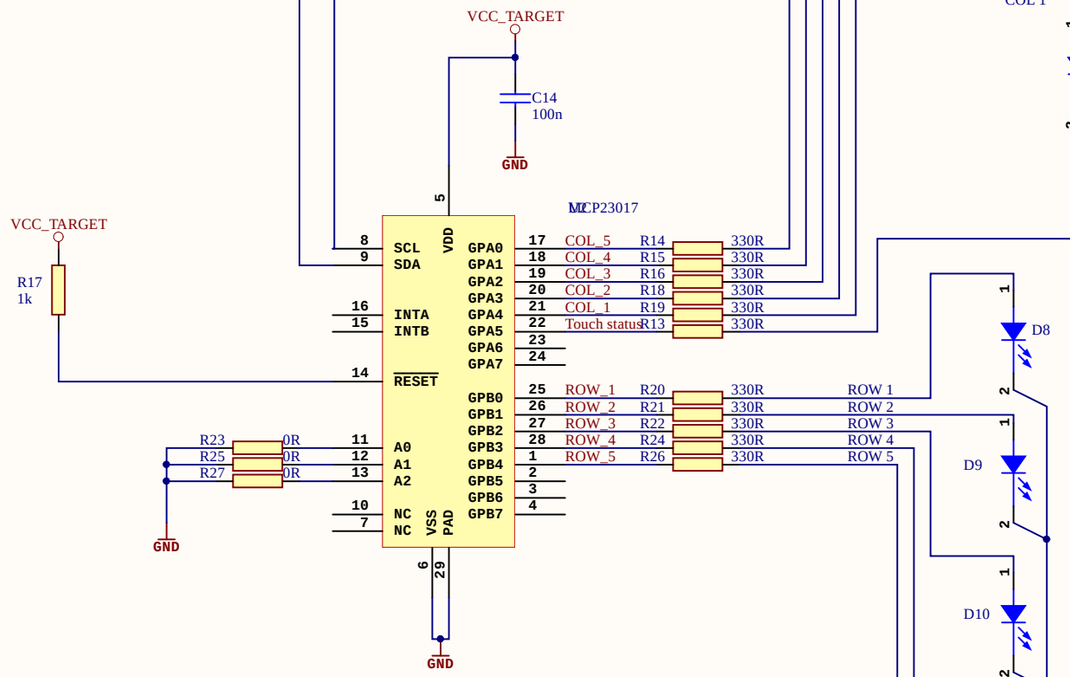
Standard Extension Header (Female)

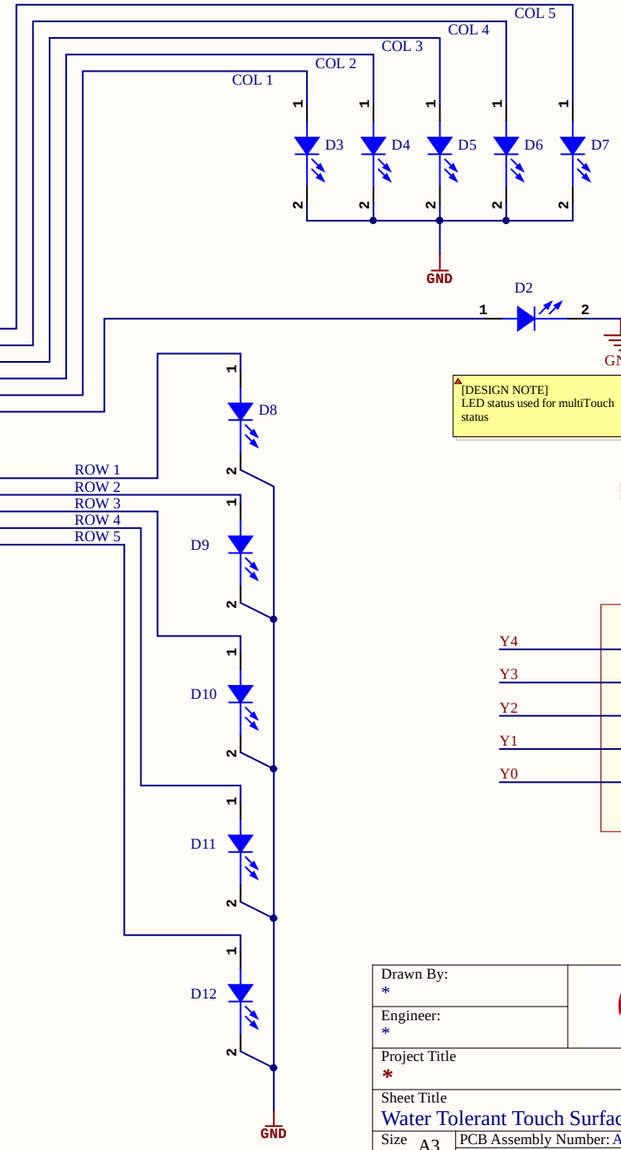


[DESIGN NOTE]
The J2 and J3 SMD -STRAP is to select and deselect the channel betweenTiny3217-XPRO and other XPRO's which is QT8 can support.

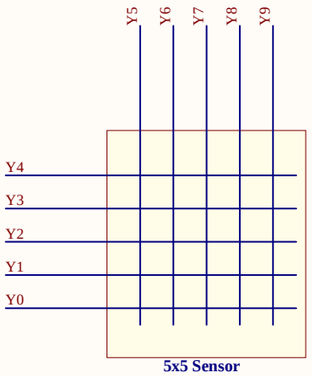
To support 3217 Xpro then need to close J3 and open J2 in hardware

Default configuration will be J2 close and J3 open.





[DESIGN NOTE]
LED status used for multiTouch status



5x5 Sensor

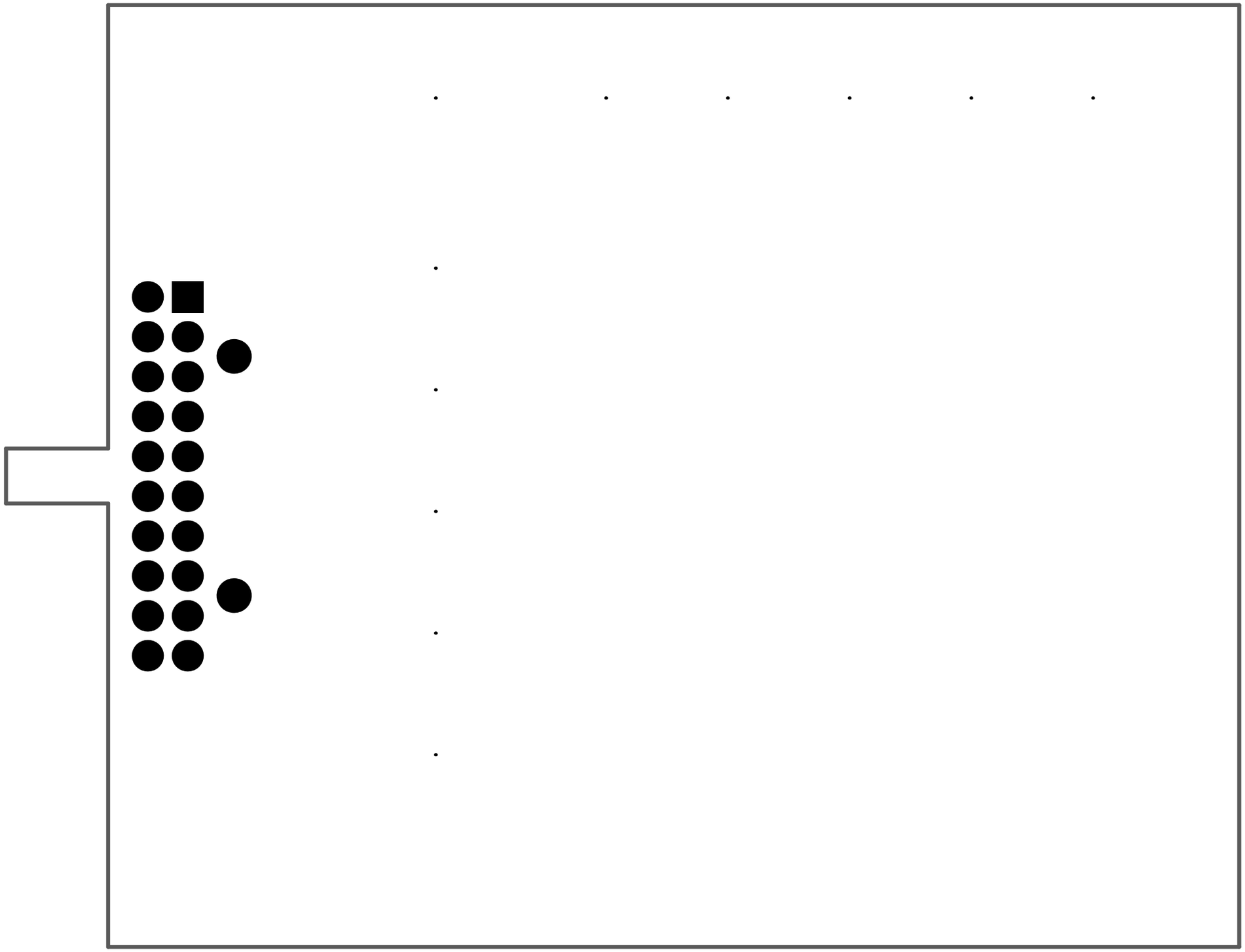
E1 SJ-5076
E2 SJ-5076
E3 SJ-5076
E4 SJ-5076

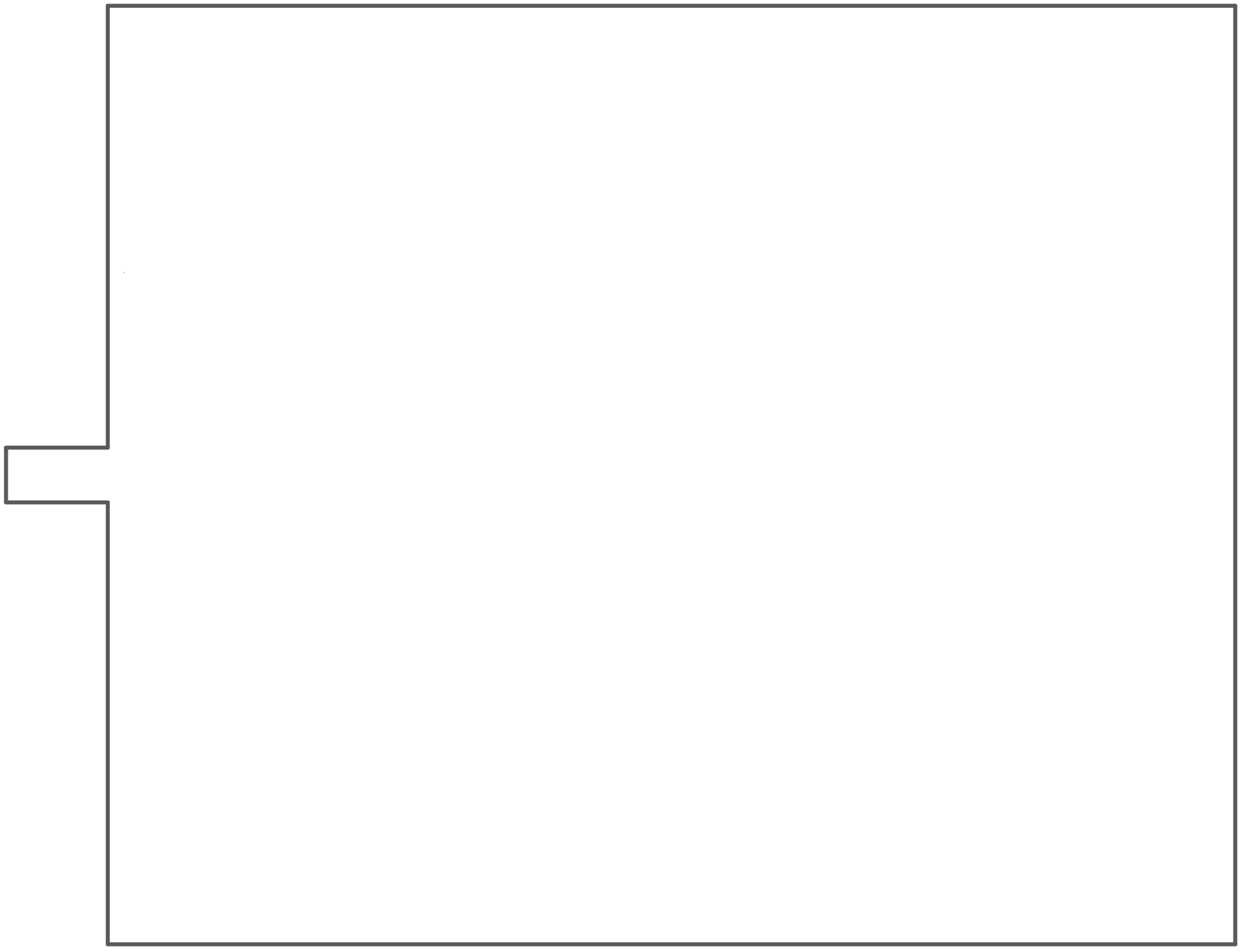
PCB1
A08-2947
QT8 Xplained Pro extension kit PCB documentatio

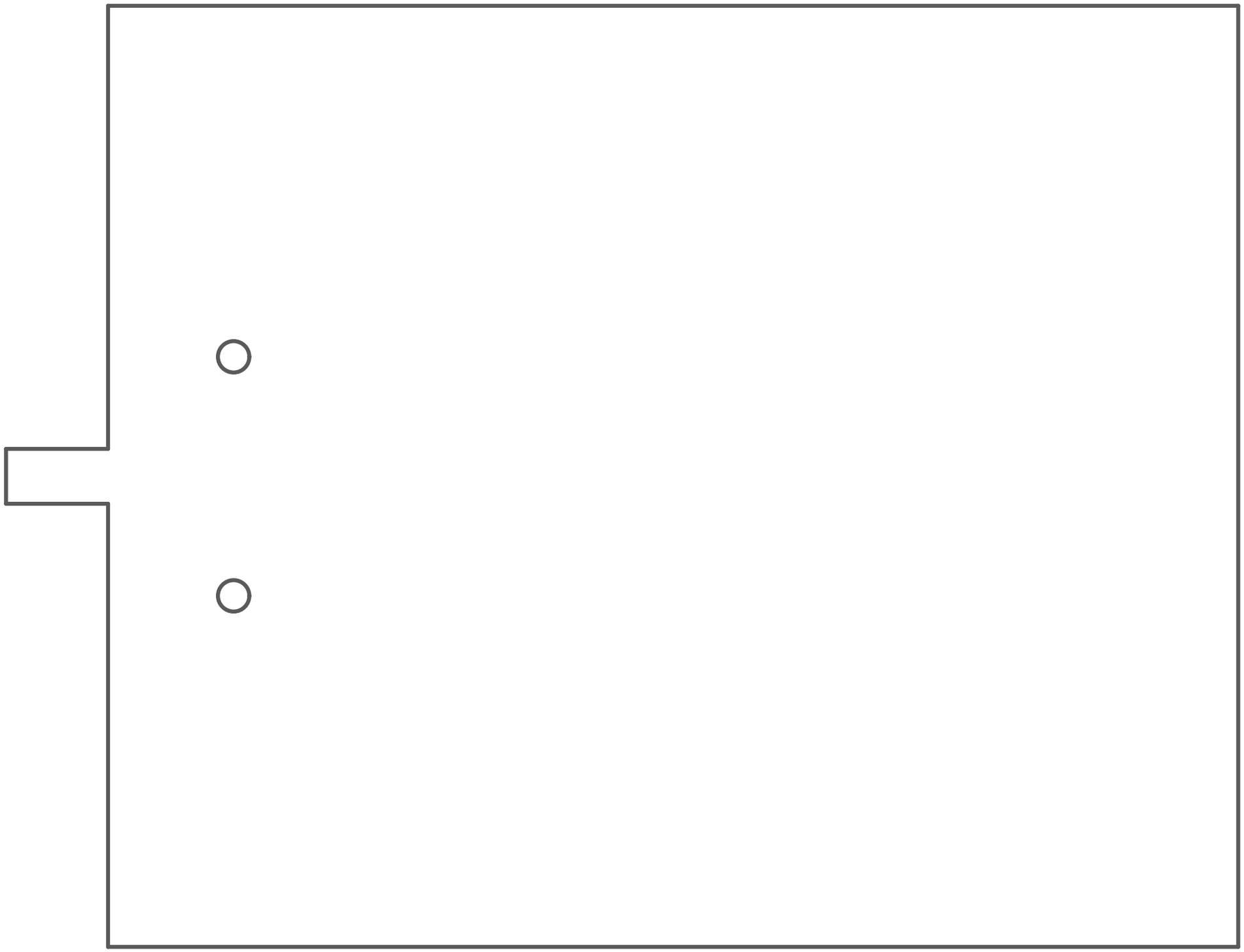
PCBADOC1
A12-1363

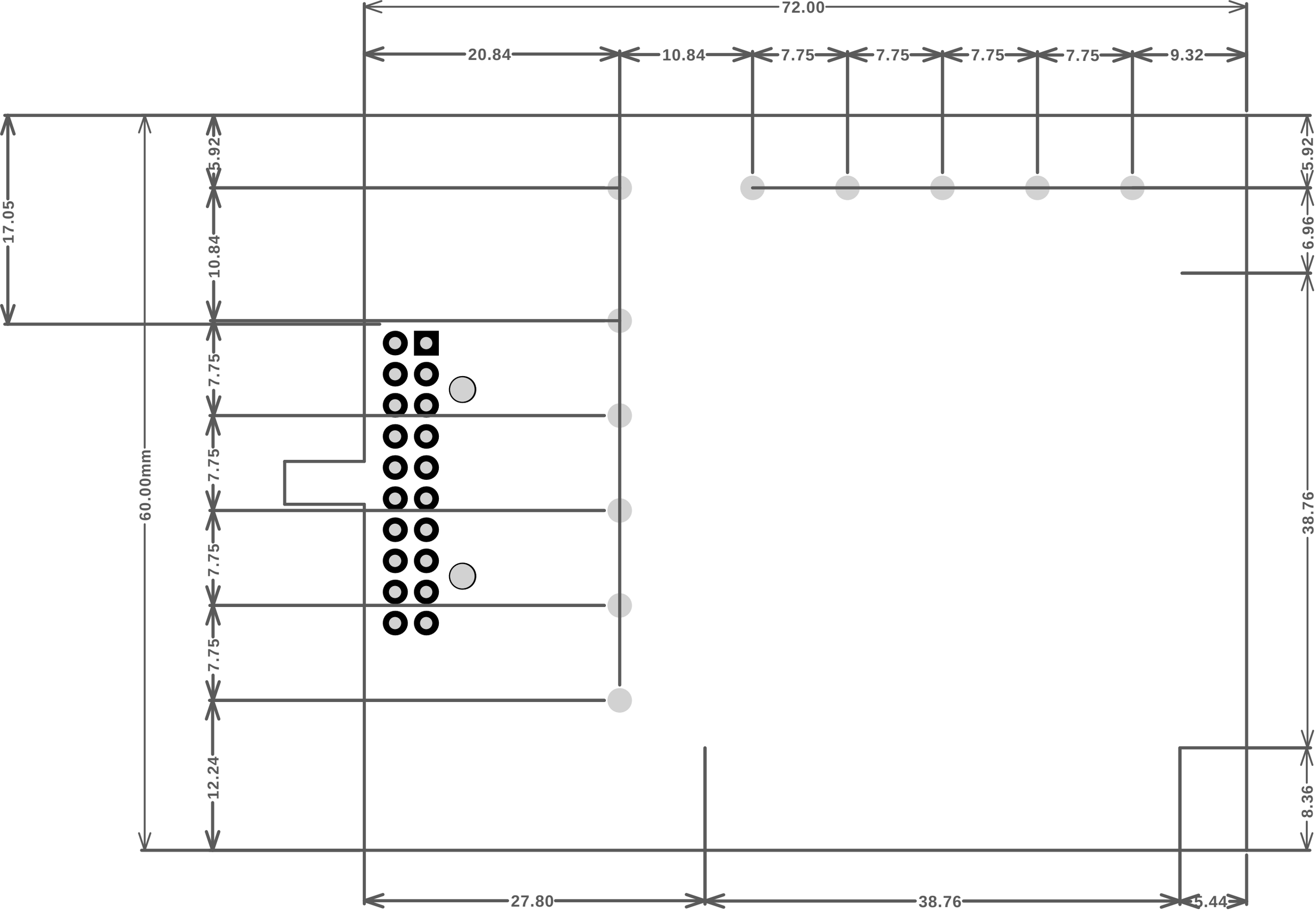
LABEL1
Product number/revision
Serial number

Drawn By: *	MICROCHIP
Engineer: *	
Project Title *	Designed with Altium — Altium.com
Sheet Title: Water Tolerant Touch Surface Development Kit	
Size A3	PCB Assembly Number: A09-3028 — PCBA Revision: 2
	PCB Number: A09-2769 — PCB Revision: 2
File: QT8_Xplained_Pro.SchDoc	Date: 7/13/2018
	Page: 2 of 4

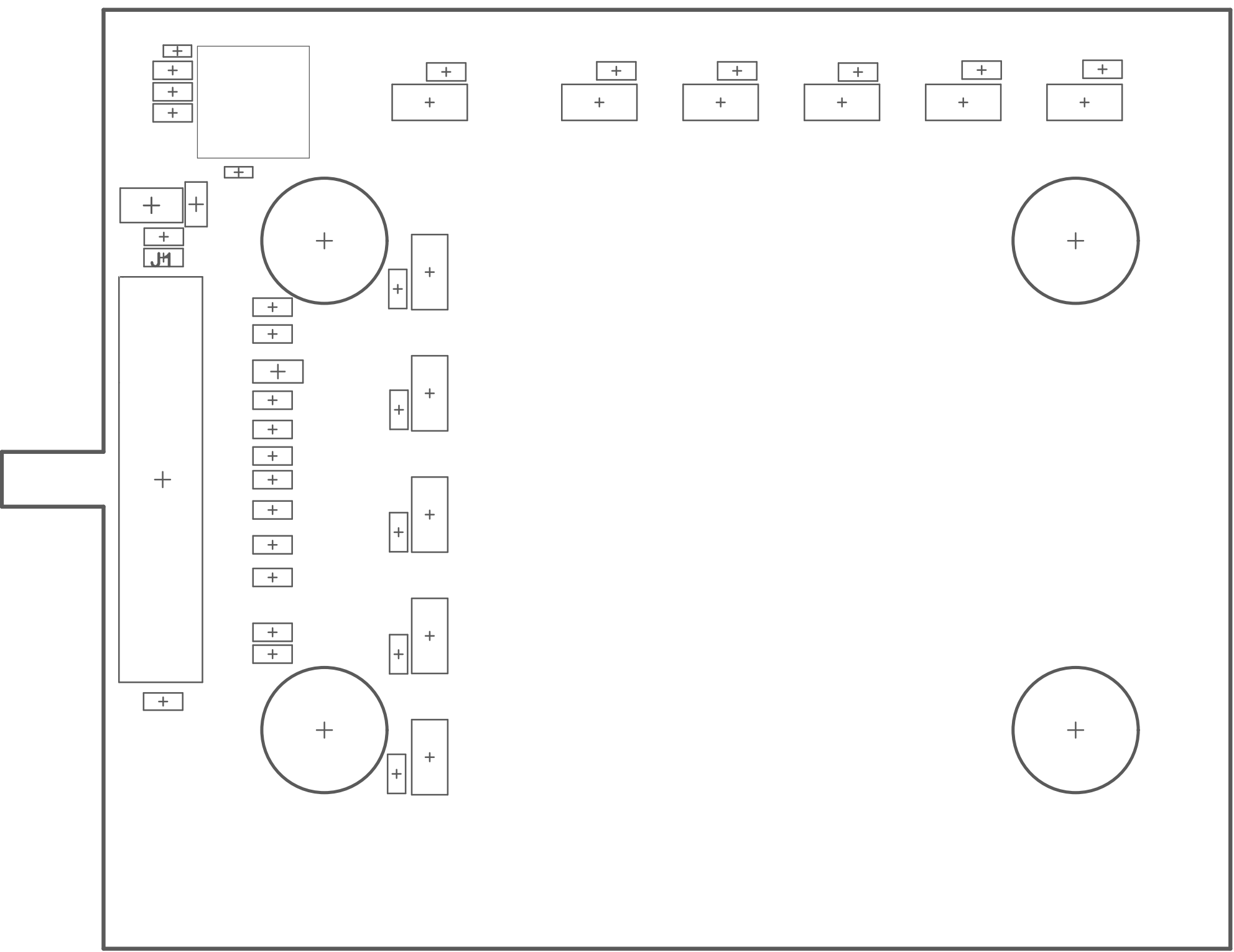


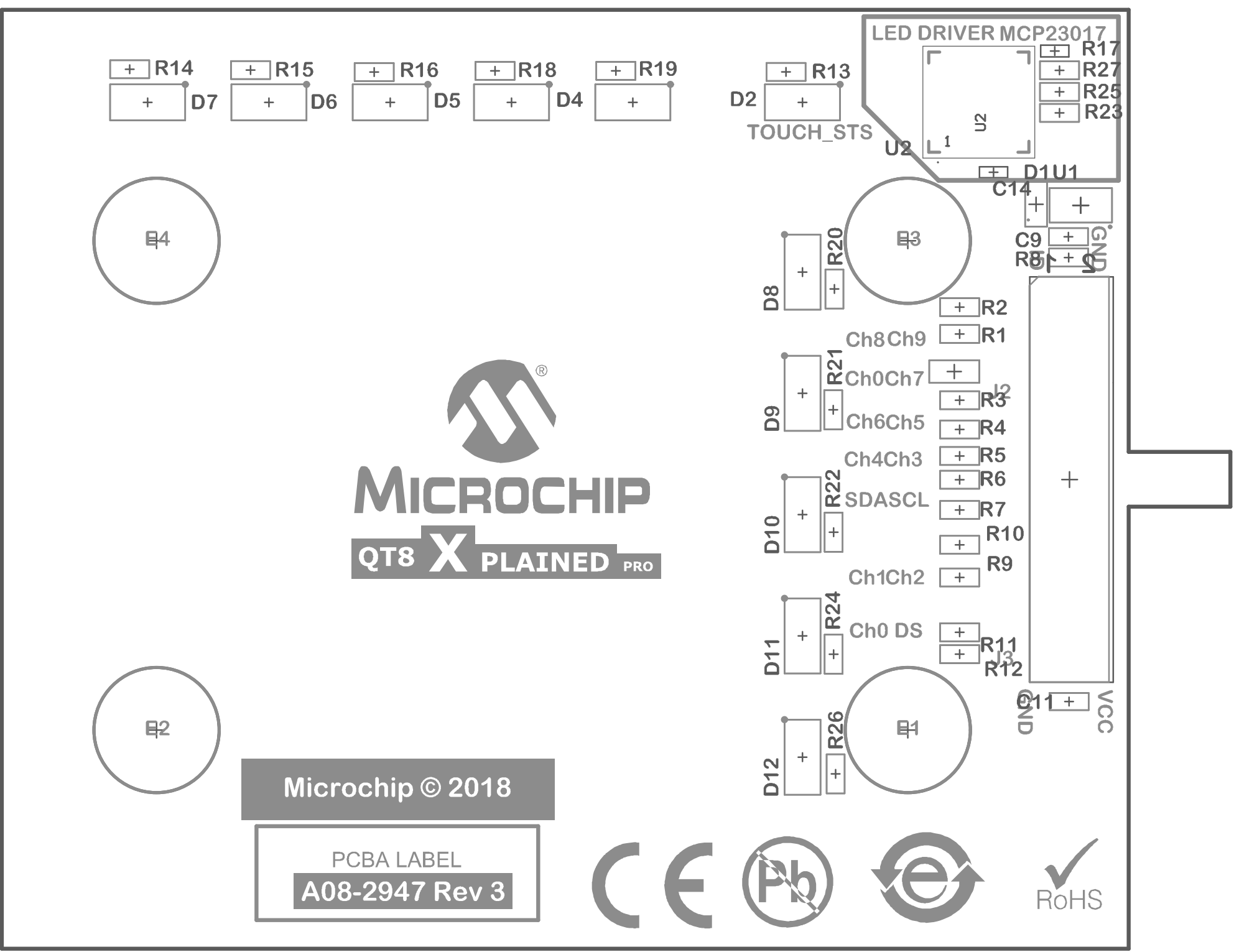


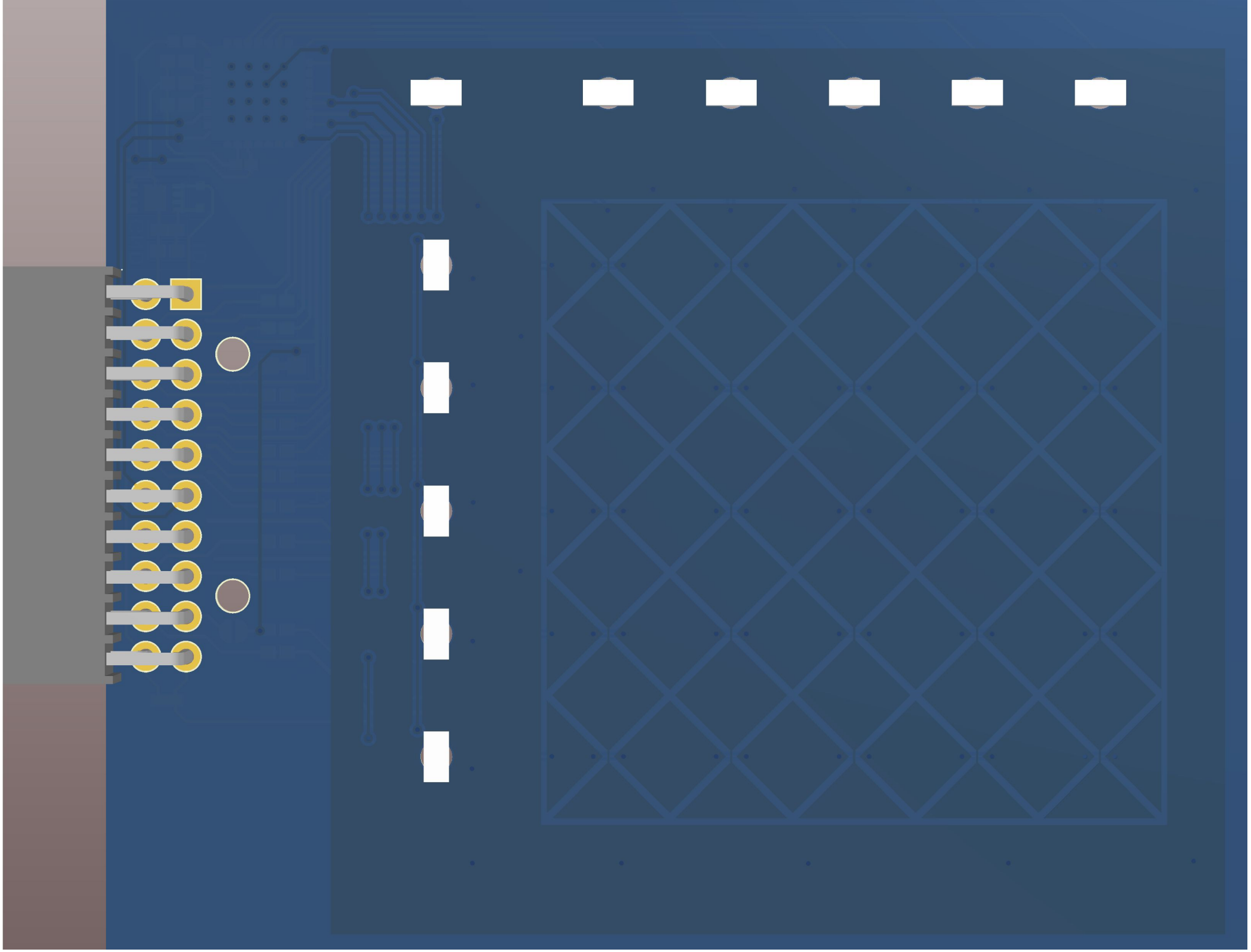


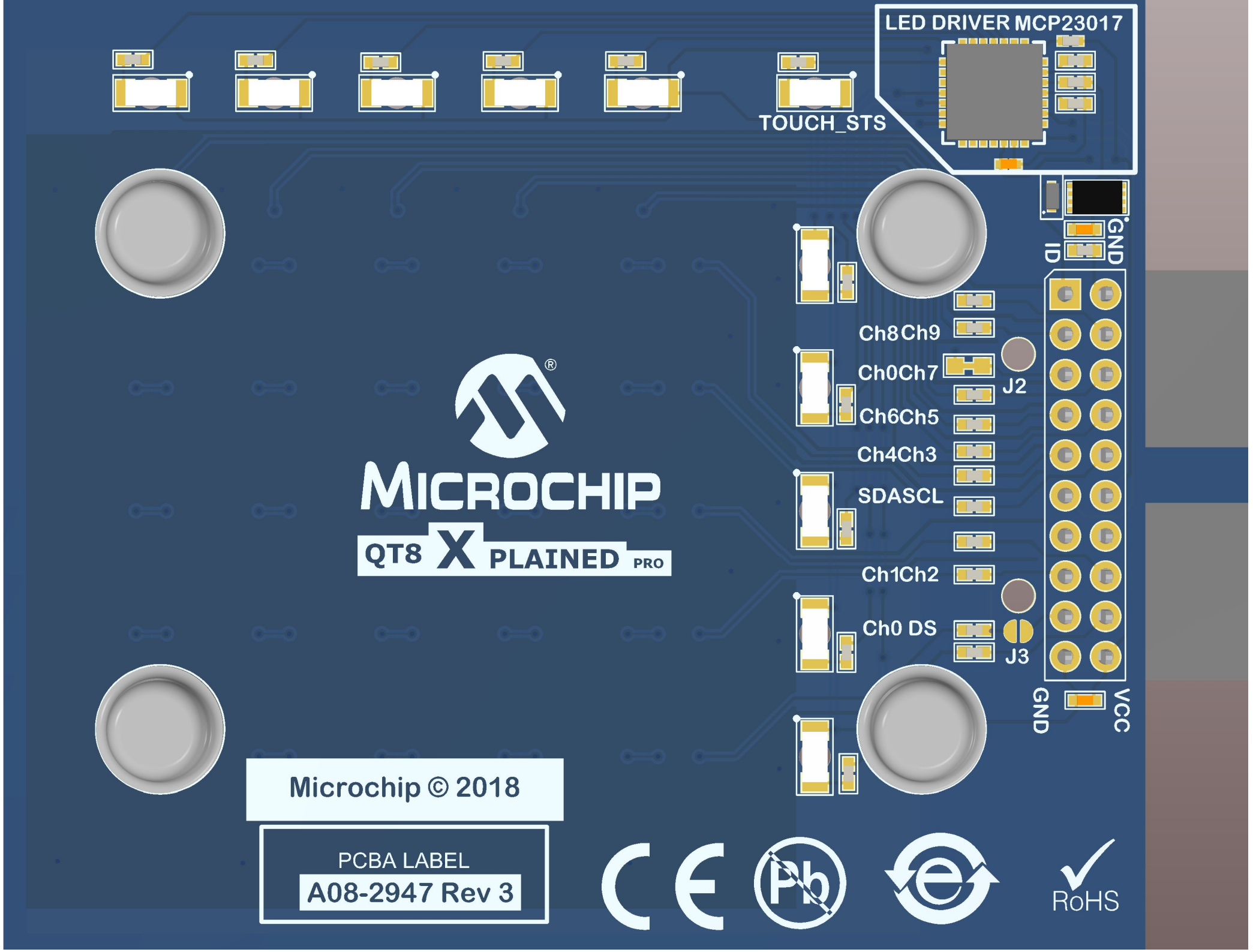


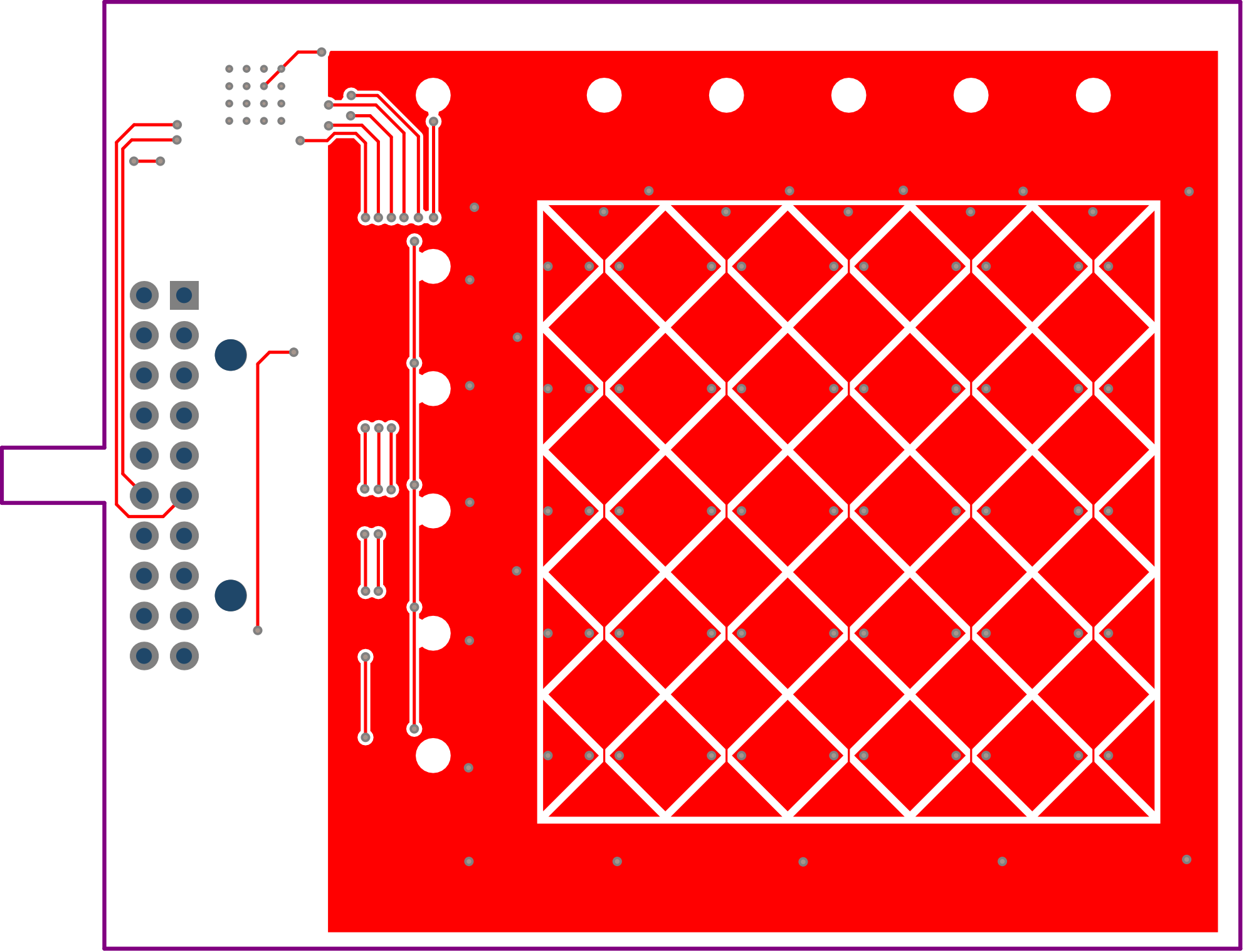
ALL DIMENSIONS ARE IN MM

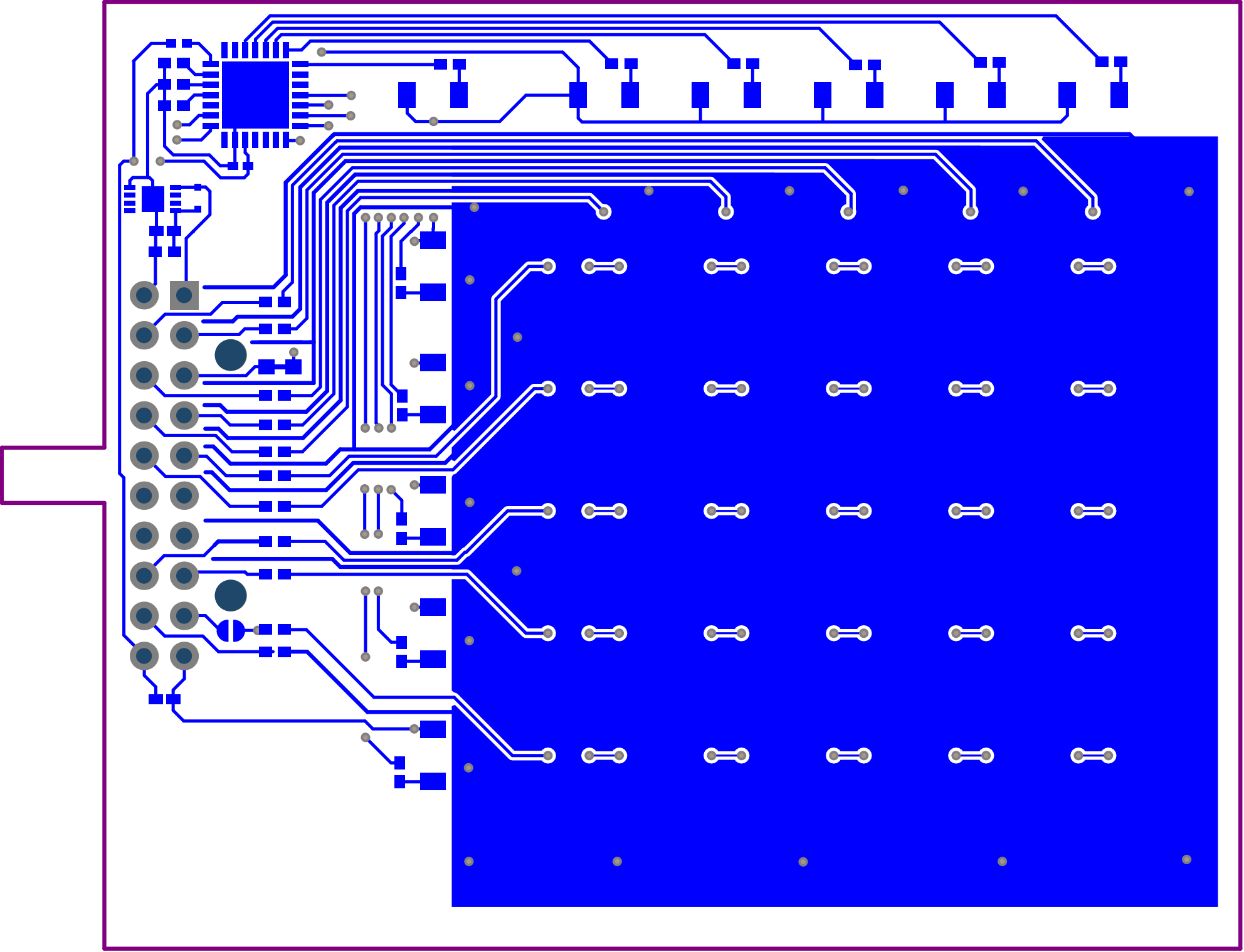



R14
R15
R16
R18
R19
D7
D6
D5
D4
R13
D2
TOUCH_STS
LED DRIVER MCP23017
U2
R17
R27
R25
R23
D1
U1
C14
C9
R8
GND
VCC
H4
H3
H2
H1
D8
R20
R2
R1
Ch8Ch9
D9
R21
Ch0Ch7
J2
R3
Ch6Ch5
R4
Ch4Ch3
R5
D10
R22
SDASCL
R6
R7
R10
R9
Ch1Ch2
D11
R24
Ch0 DS
R11
R12
J3
C11
D12
R26
MICROCHIP
QT8 XPLAINED PRO
Microchip © 2018
PCBA LABEL
A08-2947 Rev 3
RoHS




LED DRIVER MCP23017
TOUCH_STS
GND
ID
Ch8 Ch9
Ch0 Ch7
Ch6 Ch5
Ch4 Ch3
SDA SCL
Ch1 Ch2
Ch0 DS
J2
J3
GND
VCC
MICROCHIP
QT8 X PLAINED PRO
Microchip © 2018
PCBA LABEL
A08-2947 Rev 3
RoHS





Fitted	Designator	Quantity	Value	Manufacturer	MPN	Description
Fitted	C9, C11	2	4.7uF	Murata	GRM155R60J475ME87D	Ceramic capacitor, SMD 0402, X5R, 6.3V, +/-20% (de33687)
Fitted	C14	1	100n	Kemet	C0402C104K4RACTU	Ceramic capacitor, SMD 0402, X7R, 16V, +/-10%
Fitted	D1	1	BAT54XV2T1G	ON Semiconductor	BAT54XV2T1G	Schottky diode, If:200mA, Vf:0.35V, Vrrm:30V, SOD-523
Fitted	D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12	11	LTST-C250KRKT			LED, SMD, RED, 3.2x1.2mm, reverse mount
Fitted	E1, E2, E3, E4	4	SJ-5076	3M	SJ-5076	2.8mm adhesive feet,diam 8.0mm
Fitted	J1	1	2185-210RS0CYNT1	WCON HARDWARE ELECTRONICS CO., LTD	2185-210RS0CYNT1	2x10, female pin header receptable, right-angled, 2.54mm pitch, THM, PIP
Fitted	LABEL1	1		ACT Logimark AS	505462	PCBA identification label PP Top White Gloss
Fitted	PCB1	1	QT8 Xplained Pro extension kit PCB documentatio			QT8 Xplained Pro extension kit PCB documentation
Fitted	PCBADOC1	1	QT8 Xplained Pro extension kit PCBA			QT8 Xplained Pro extension kit PCBA Documentation
Fitted	R1, R2, R3, R4, R5, R6, R7, R9, R10, R11, R12	11	1k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R8	1	100k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R13, R14, R15, R16, R18, R19, R20, R21, R22, R24, R26	11	330R	ASJ	CR10-3300-FK	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R17	1	1k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R23, R25, R27	3	0R	(n/a)	RMCF0402ZT0R00	RES 0.0 OHM 1/16W 0402 SMD
Fitted	U1	1	ATSHA204 SWI UDFN8	ATMEL	ATSHA204A-MAHCZ-T	ATSHA204 with 1-wire interface and UDFN8 package
Fitted	U2	1	MCP23017	Microchip Technology Inc	MCP23017-E/ML	16-Bit I/O Expander with I2C interface, 28-Lead QFN