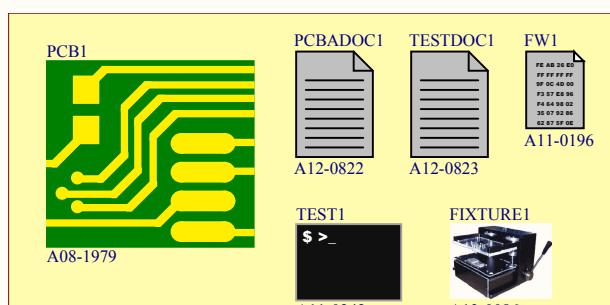
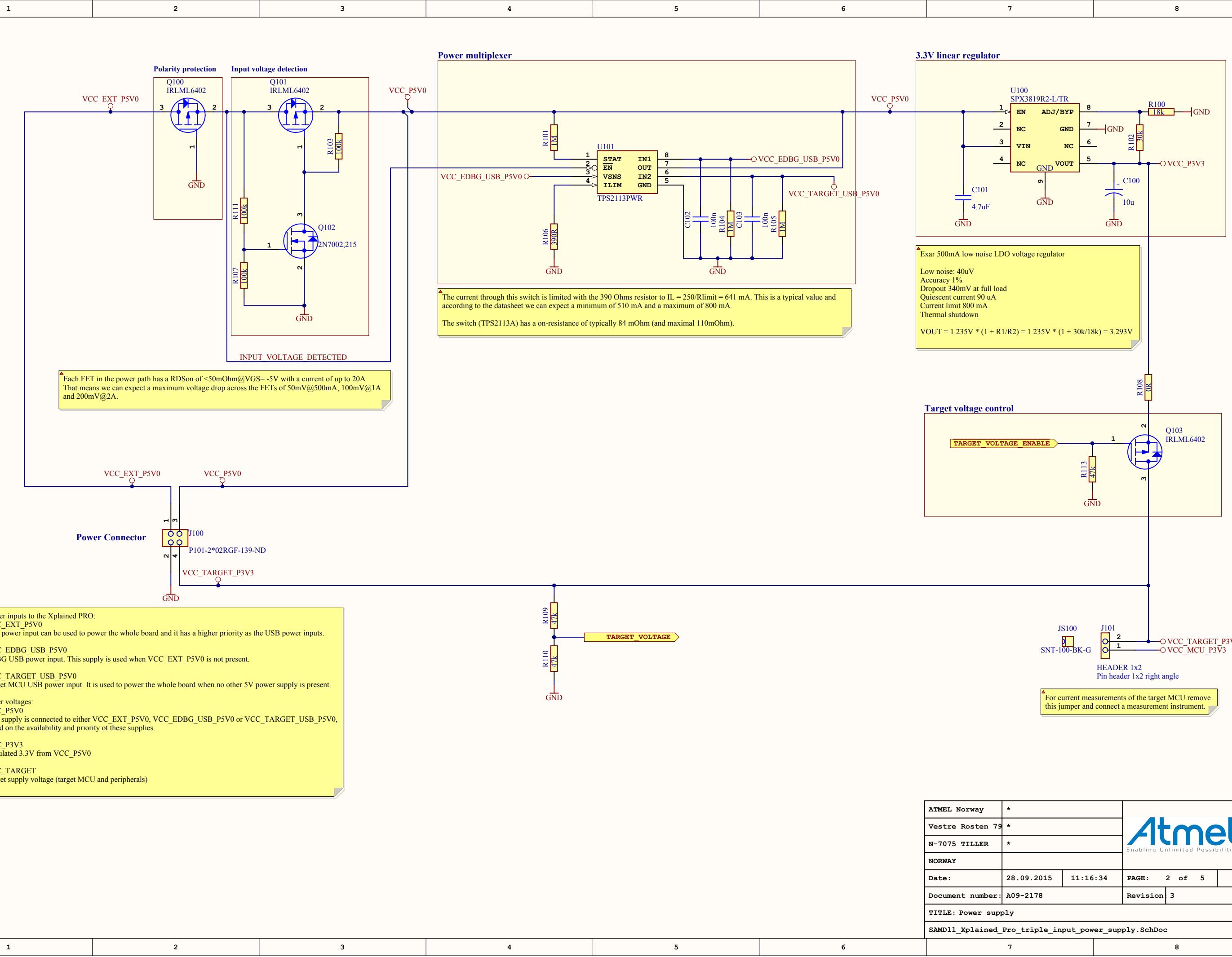


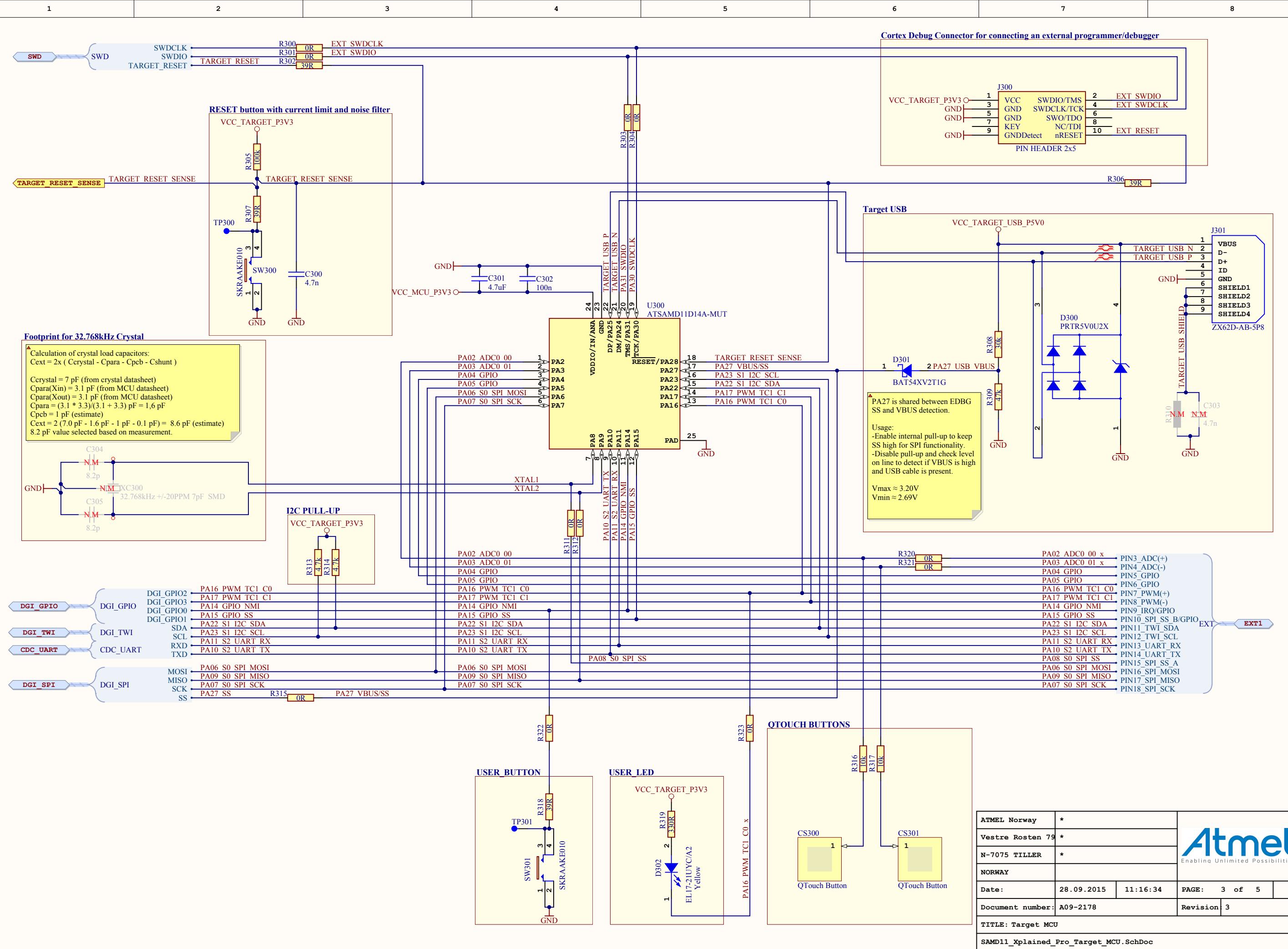
LABEL1
 Product number/revision
 Serial number

Label PCBA



ATMEL Norway	*	
Vestre Rosten 79	*	
N-7075 TILLER	*	
NORWAY		
Date:	28.09.2015 11:16:33	PAGE: 1 of 5
Document number:	A09-2178	Revision 3
TITLE: Top Level Schematics		
SAMD11_Xplained_Pro_TopLevel.SchDoc		





A

A

B

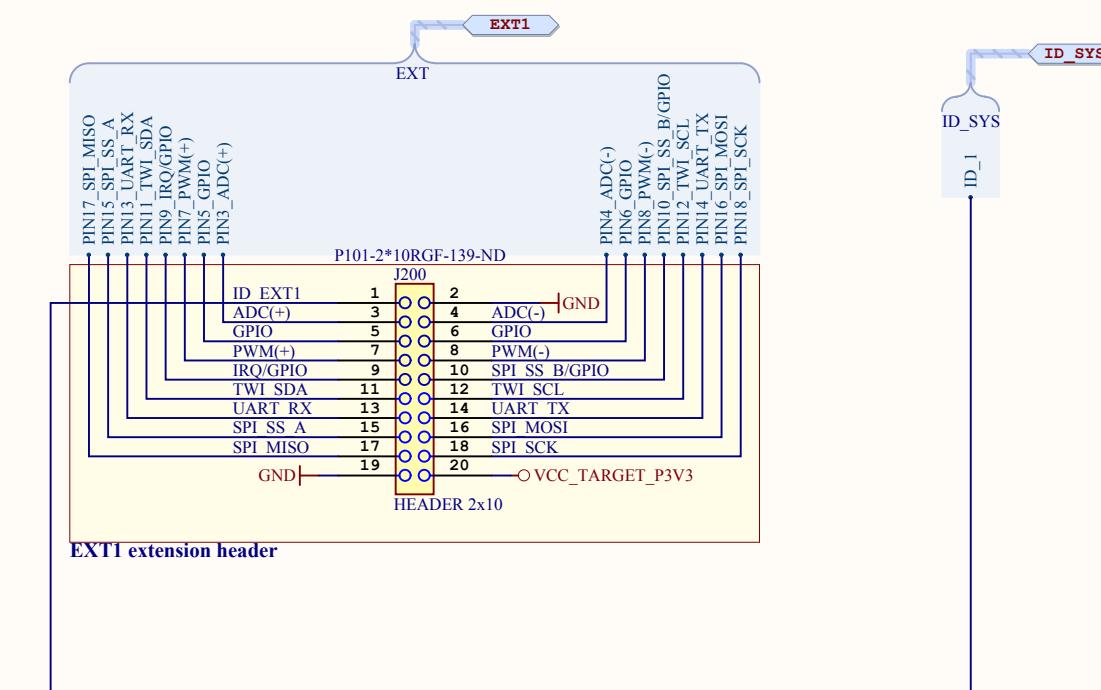
B

C

C

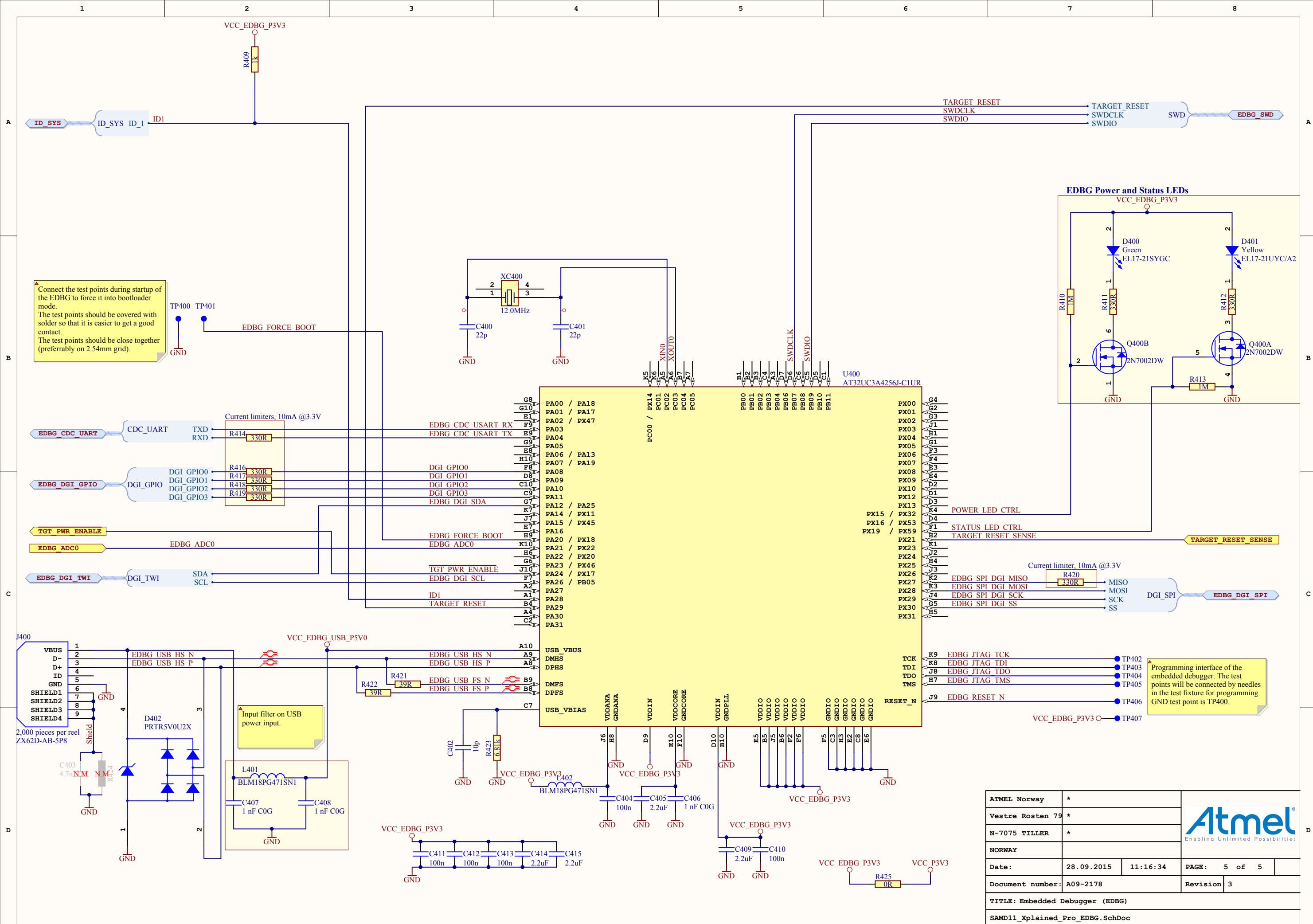
D

D

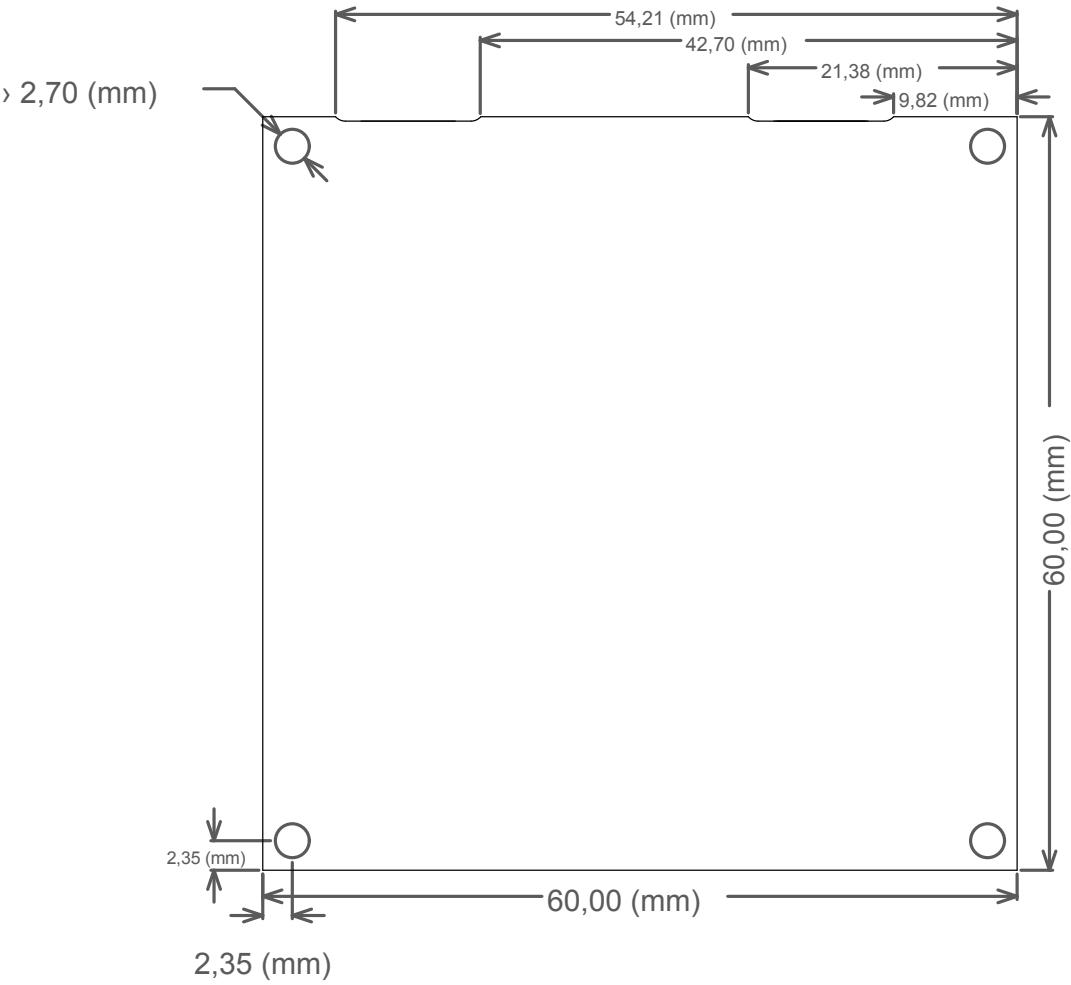


ATMEL Norway	*		
Vestre Rosten 79	*		
N-7075 TILLER	*		
NORWAY			
Date:	28.09.2015	11:16:34	PAGE: 4 of 5
Document number:	A09-2178		Revision 3
TITLE: Extension connectors			
SAMD11_Xplained_Pro_Connectors.SchDoc			

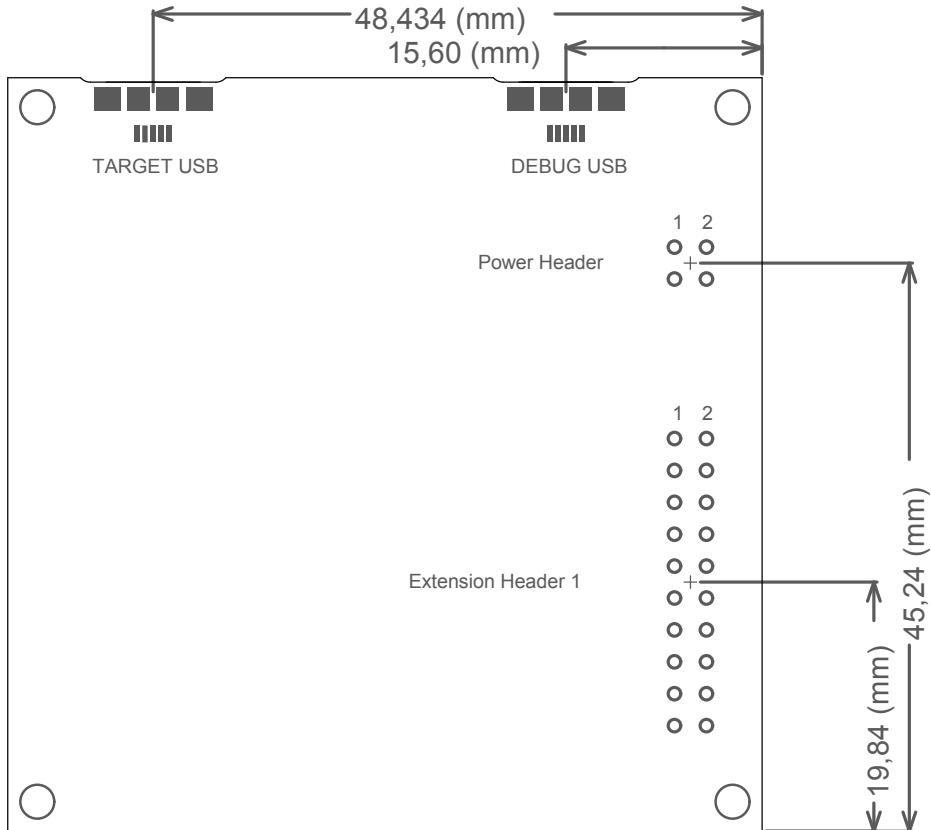
Atmel[®]
Enabling Unlimited Possibilities

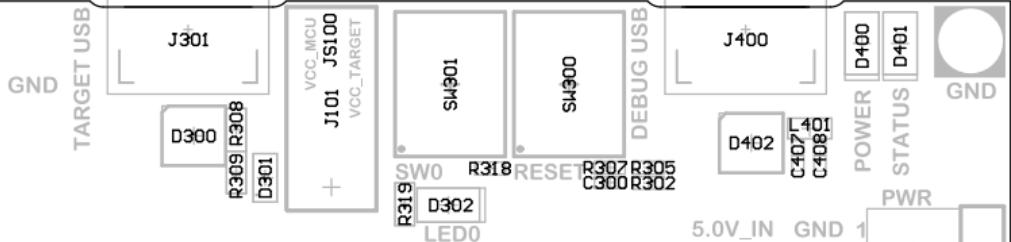


Small MCU Mechanical Dimensions



Small MCU Connector Placement





Atmel

SAMD11 X PLAINED PRO



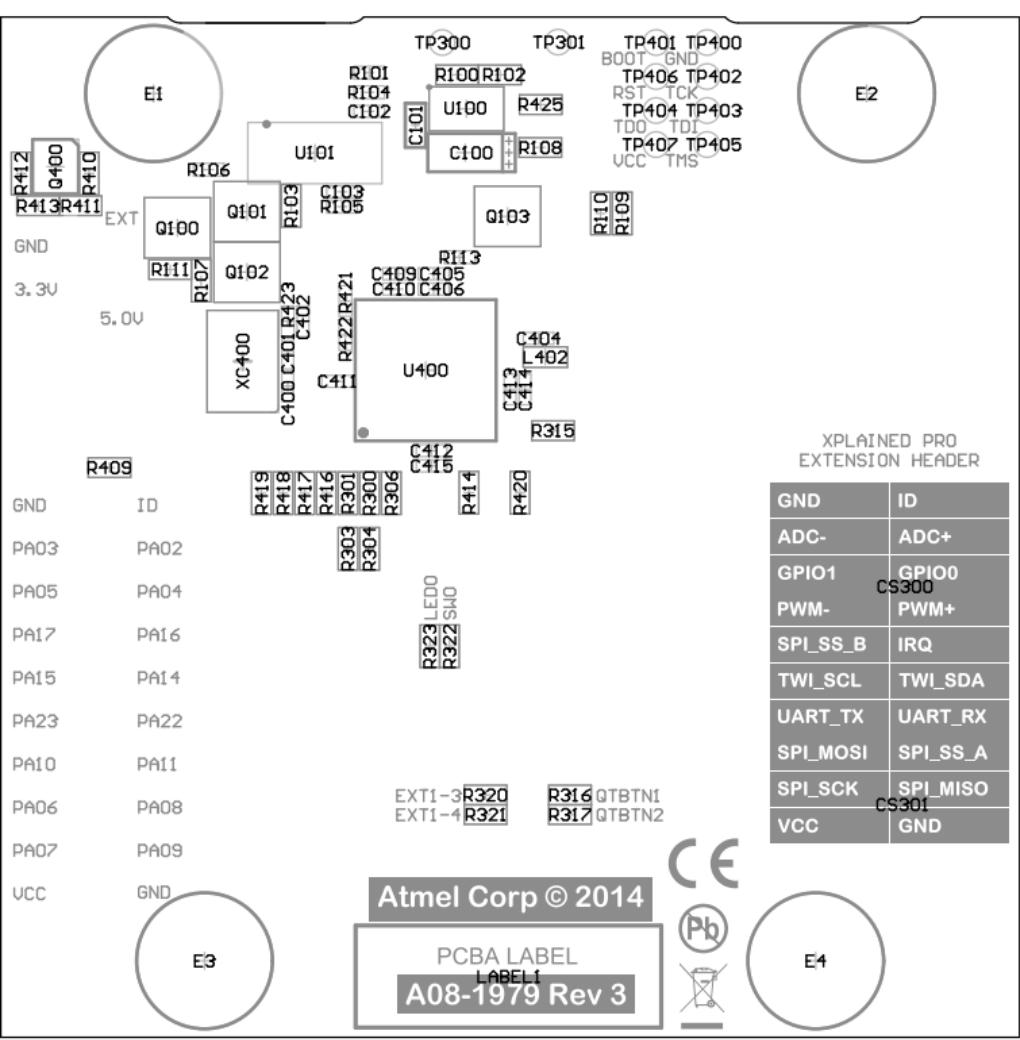
GND

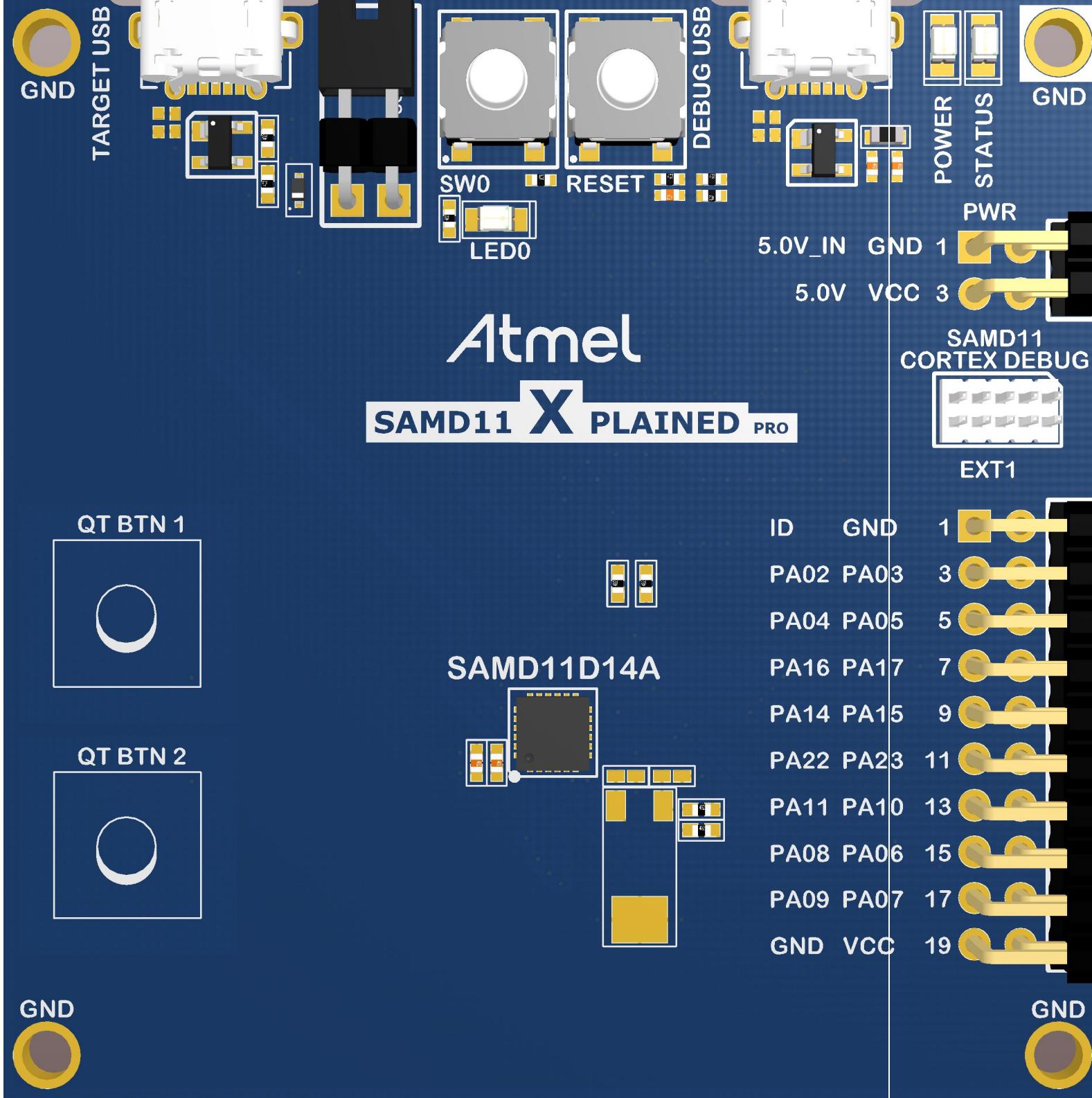


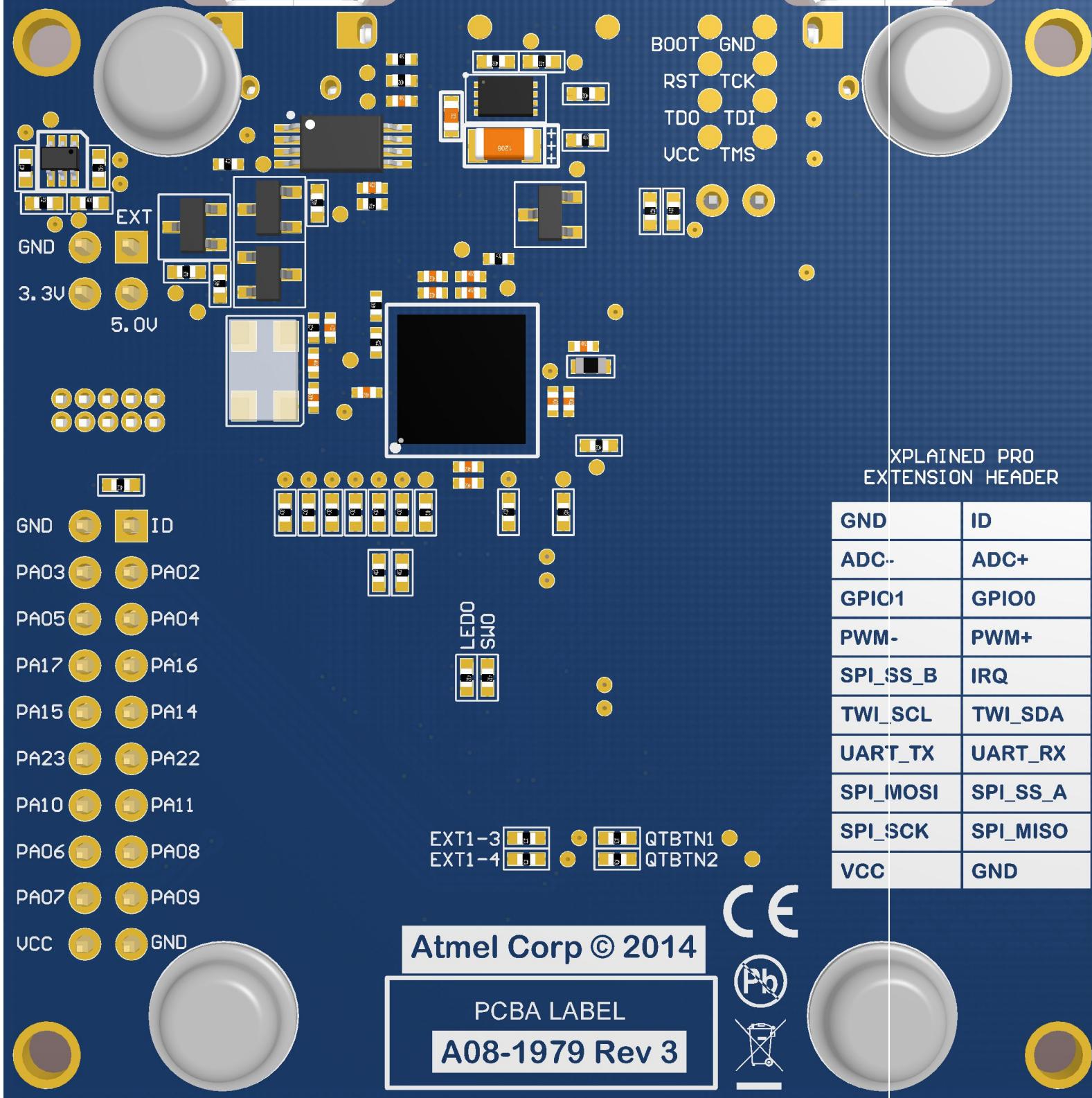
R312
R311

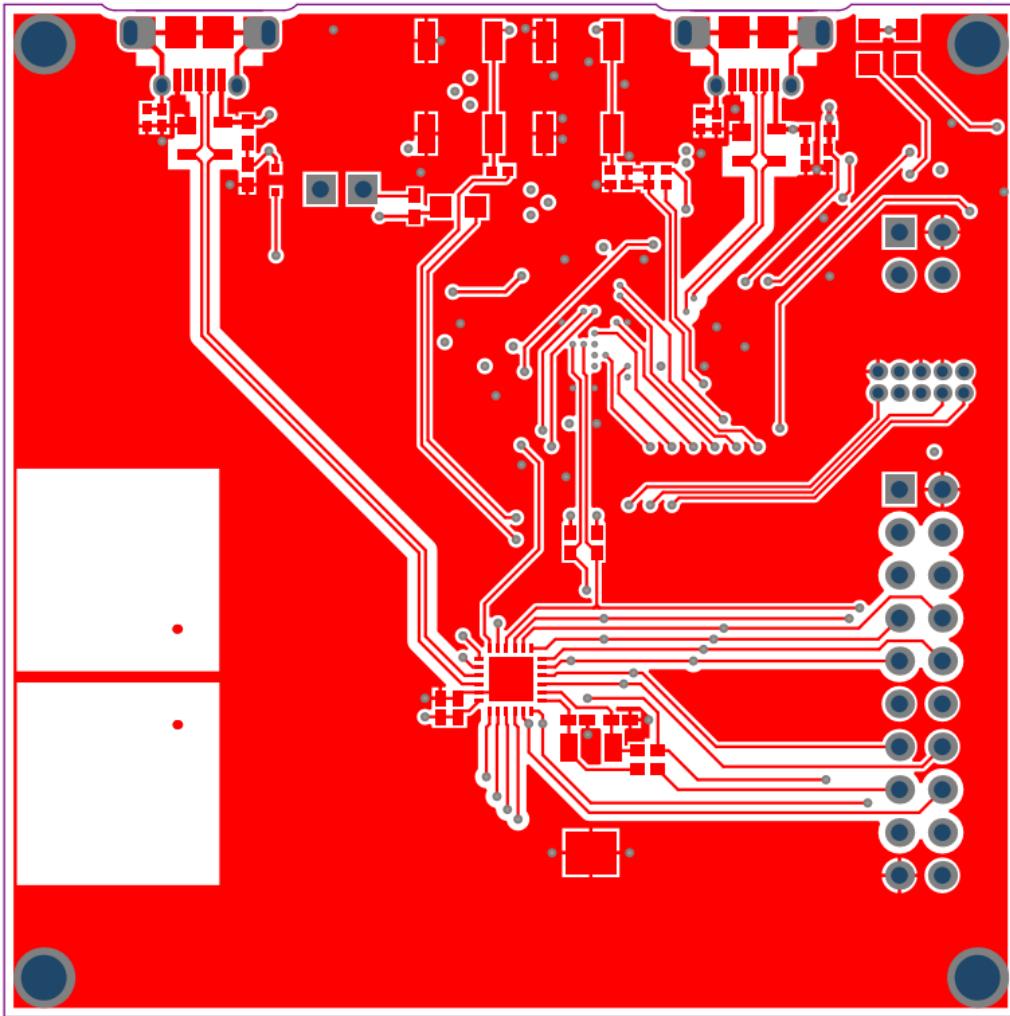
ID	GND	1
PA02	PA03	3
PA04	PA05	5
PA16	PA17	7
PA14	PA15	9
PA22	PA23	11
PA11	PA10	13
PA08	PA06	15
PA09	PA07	17
GND	VCC	19

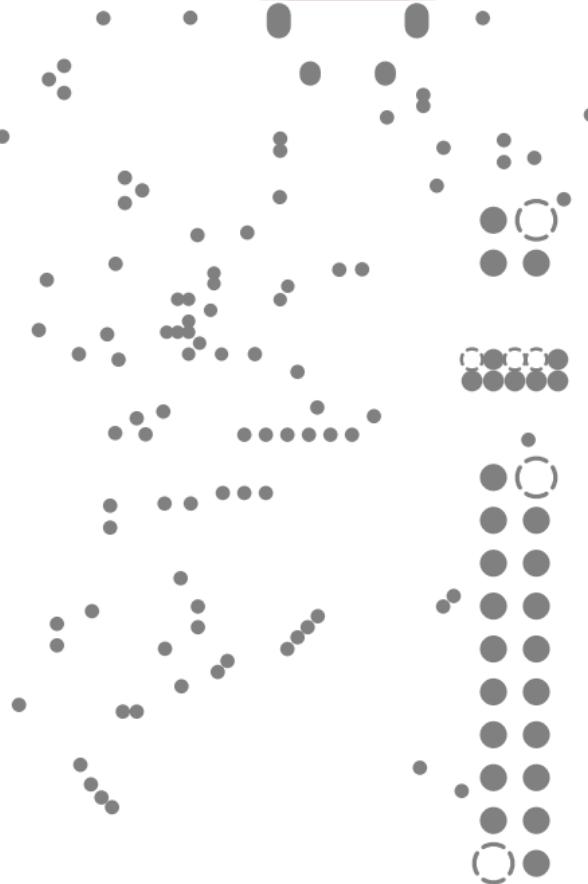
GND

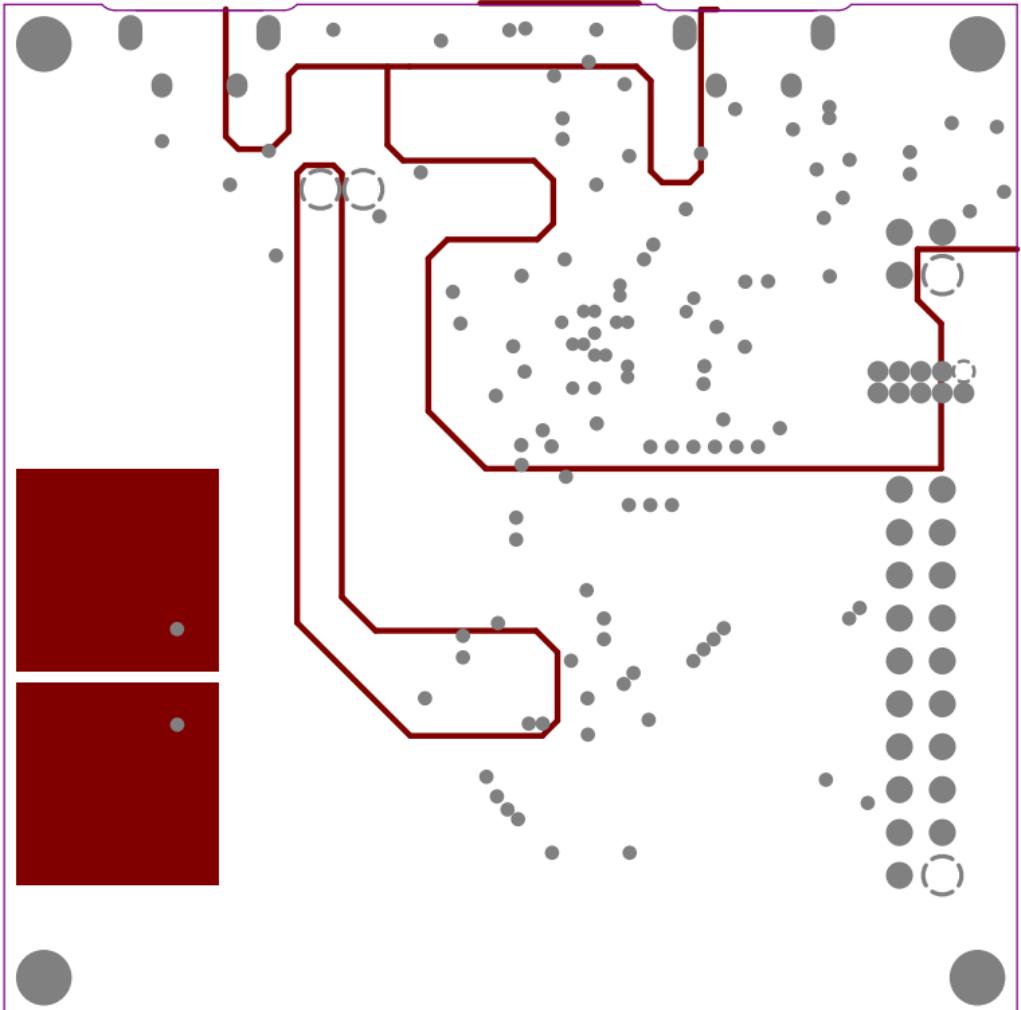


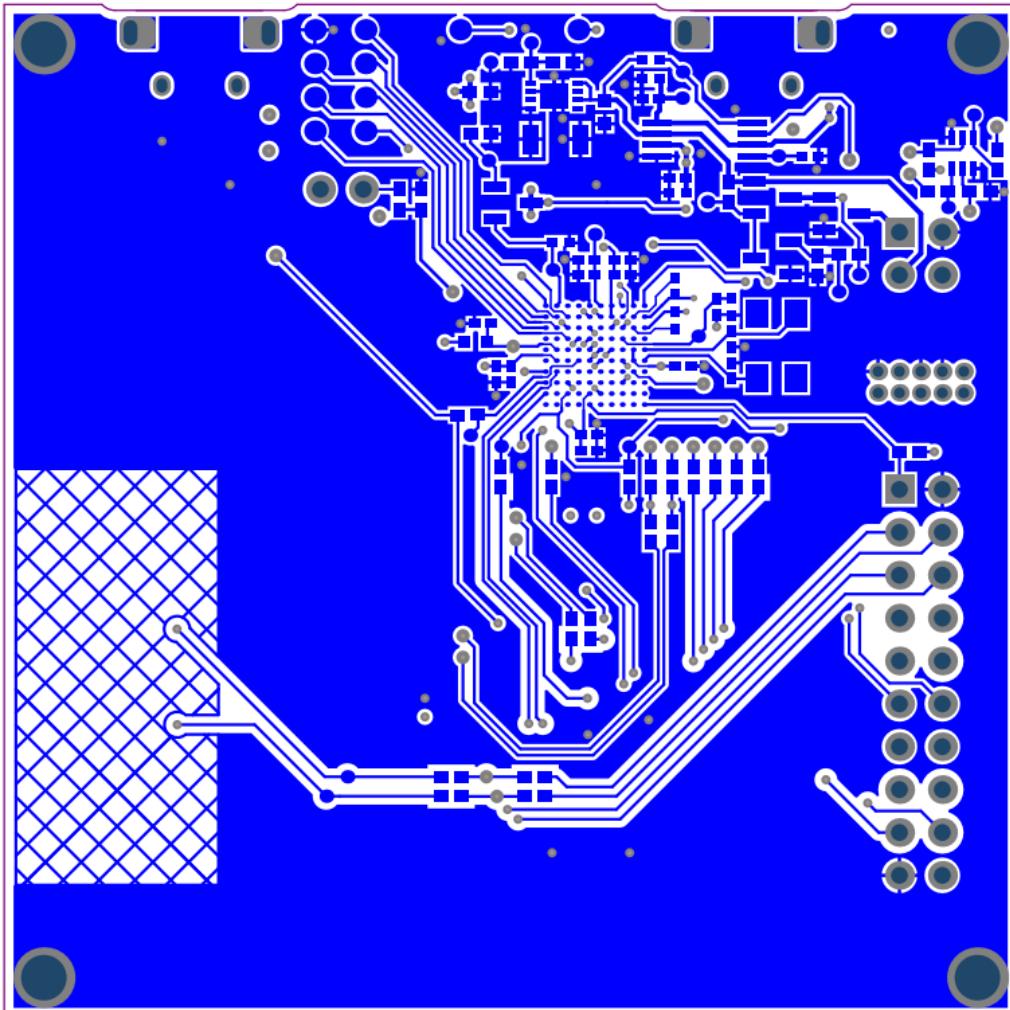












Component list

Top Level Schematics

Source Data From:
Project:
Variant:

SAMD11_Xplained_Pro.PjPCB
SAMD11_Xplained_Pro.PjPCB
Default_assembly



Fitted	Designator	Quantity	Value	Manufacturer	MPN	Description
Fitted	C100	1	10u	vishay	TR3A106K016C1700	SMD tantalum capacitor, ESR = 1, 3216-18 (EA) 1206,
Fitted	C101	1	4.7uF	tdk	C1608X5R1A475K	Ceramic capacitor, SMD 0603, X5R, 10V, 10% (de31036)
Fitted	C102, C103	2	100n	Kemet	C0402C104K4RACTU	Ceramic capacitor, SMD 0402, X7R, 16V, +/-10%
Fitted	C300	1	4.7n			Ceramic capacitor, SMD 0402, X7R, 25V, +/-10% (de35287)
Fitted	C301	1	4.7uF	tdk	C1005X5R0J475K	Ceramic capacitor, SMD 0402, X5R, 6.3V, +/-10%
Fitted	C302	1	100n	Kemet	C0402C104K4RACTU	Ceramic capacitor, SMD 0402, X7R, 16V, +/-10%
Fitted	C400, C401	2	22p			Ceramic capacitor, SMD 0402, NPO, 50V, +/-5%
Fitted	C402	1	10p			Ceramic capacitor, SMD 0402, NPO, 50V, +/-5%
Fitted	C404, C410, C411, C412, C413	5	100n	Kemet	C0402C104K4RACTU	Ceramic capacitor, SMD 0402, X7R, 16V, +/-10%
Fitted	C405, C409, C414, C415	4	2.2uF	Kemet	C0402C225M9PAC	Ceramic capacitor, SMD 0402, X5R, 6.3V, +/-20%
Fitted	C406, C407, C408	3	1 nF COG	Murata	GRM1555C1H102JA01D	Ceramic capacitor, SMD 0402, COG, 50V, +/-5%
Fitted	D300, D402	2	PRT5V0U2X	Philips	PRT5V0U2X	Double rail-to-rail USB ESD protection diode
Fitted	D301	1	BAT54XV2T1G	ON Semiconductor	BAT54XV2T1G	Schottky diode, If>200mA, Vf=0.35V, Vrrm=30V, SOD-523
Fitted	D302, D401	2	EL17-21UYCA/2	Everlight	17-21UYC/S530-A3/TR8	LED, Yellow, Wave length=591nm, SMD 0805, +/-70"
Fitted	D400	1	EL17-21SYGC	Everlight	EL17-21SYGC	LED, Green, Wave length=575nm, SMD 0805, +/-70"
Fitted	E1, E2, E3, E4	4	SJ-5076		SJ-5076	2.8mm adhesive feed, diam 8.0mm
Fitted	Fixture1	1	Xplained PRO MCU board Jupiter Test Fixture	ESCATEC	Xplained PRO MCU board Jupiter Test Fixture	Xplained PRO MCU board Jupiter Test Fixture
Fitted	FW1	1	EDBG secured firmw are	ATMEL		EDBG secured firmw are
Fitted	J100	1	P101-2*02RGF-139-ND		P101-2*02RGF-139-ND	
Fitted	J101	1	Pin header 1x2 right angle	Pro-data International Corp	2213R-2G	Pin header, 2x2, Right Angle, 2.54mm, TH, Pin In Paste
Fitted	J200	1	P101-2*10RGF-139-ND		P101-2*10RGF-139-ND	1x2 pin header, right angle, 2.54 mm pitch, through-hole
Fitted	J300	1	PIN HEADER 2x5	Garry	STL21-0730 G TT-10U	Pin header, 2x10, Right Angle, 2.54mm, TH, Pin In Paste
Fitted	J301, J400	2	ZX62D-AB-5P8			2x5 pin header, 1.27mm pitch, THM
Fitted	JS100	1	SNT-100-RK-G	SAMTEC	SNT-100-RK-G	Micro USB AB Connector, Standard SMT + DIP
Fitted	L401, L402	2	BLM18PG471SN1	Murata	BLM18PG471SN1	Jumper cap for 2.54mm pinheader
Fitted	LABEL1	1	Label PCB4	ACT Logimark AS	505462	PCBA identification label PP Top White Gloss
Fitted	PCB1	1	SAMD11 Xplained Pro PCB documentation			SAMD11 Xplained Pro PCB documentation
Fitted	PCBADOC1	1	A09-2178 PCBA Files			SAMD11 Xplained Pro PCBA documentation
Fitted	Q100, Q101, Q103	3	IRLML6402	International Rectifier	IRLML6402PBF	P-ch, MOSFET, -30V, -3.7A continuous,RDS(ON)=0.05Ohm@VGs=-4.5V, RDS(ON)=0.08Ohm@VGs=-2.5V
Fitted	Q102	1	2N7002,215	NXP	2N7002,215	N-Channel MOSFET, 60V, 0.300A continuos, 1.2A Peak, RDS(on)=3.80Ohm@VGs=4.5V, VGs(th)<2.5V
Fitted	Q400	1	2N7002DW	Fairchild	2N7002DW	Dual N-Channel MOSFET, 60V, 115mA cont,RDS(ON) < 7.5 Ohm @50mA@5V, SOT-363
Fitted	R100	1	18k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R101, R104, R105	3	1M			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R102, R308	2	30k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R103, R107, R111	3	100k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R106	1	390R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R108, R300, R301, R303, R304, R311, R312, R315, R320, R321, R222, R323, R425	13	0R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R109, R110, R309	3	47k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R113	1	47k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R302, R307, R318, R421, R422	5	39R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R305	1	100k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R306	1	39R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R313, R314	2	4.7k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R316, R317	2	10k	vishay	CRCW040210K0FKED	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R319, R411, R412, R414, R416, R417, R418, R419, R420	9	330R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R409	1	1k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R410, R413	2	1M	KOA	RK73H1ETTP1004F	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R423	1	6.81k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	SW300, SW301	2	SKRAAKED10	ALPS	SKRAAKED10	6.2x6.2 mm SMD tact switch, same as A08-0091 but less force is needed
Fitted	TEST1	1	SAMD11 Xplained Pro test			Fixture test for SAMD11 Xplained Pro
Fitted	TESTDOC1	1	SAMD11 Xplained Pro Test Instructions			SAMD11 Xplained Pro Test Instructions
Fitted	U100	1	SPX381R92-LTR	Exar	SPX381R92-L/TR	500mA LDO, ADJ, low noise, 8-DFN package
Fitted	U101	1	TPS2113PWR	Texas Instruments	TPS2113PWR	Autoswitching 2:1 Pow er Mux
Fitted	U300	1	ATSAMD11D14A-MUT	ATMEL	ATSAMD11D14A-MUT	Atmel 32-bit RISC MCU
Fitted	U400	1	AT32UC3A4256J-C1UR	ATMEL	AT32UC3A4256J-C1UR	AVR 32-bit RISC MCU
Fitted	XC400	1	12.0MHz	Fox Electronics	FQ5032B-12-C-C-200-1	Fox FQ5032B 12.0MHz SMD crystal 738B-12
Not Fitted	C303, C403	0	4.7n			Ceramic capacitor, SMD 0402, X7R, 25V, +/-10%
Not Fitted	C304, C305	0	8.2p			Ceramic capacitor, SMD 0402, NPO, 50V, +/-5%
Not Fitted	R310, R424	0	1M	KOA	RK73H1ETTP1004F	Thick film resistor, SMD 0402, 1/16W, 1%
Not Fitted	XC300	0	32.768kHz +/-20ppm 7pF SMD	Micro Crystal	MS1V-T1K 32.768kHz 7pF +/-20ppm TA	32k768 crystal, +/-20ppm, CL=7pF, max ESR 60kOhm, SMD

111

Approved

Notes