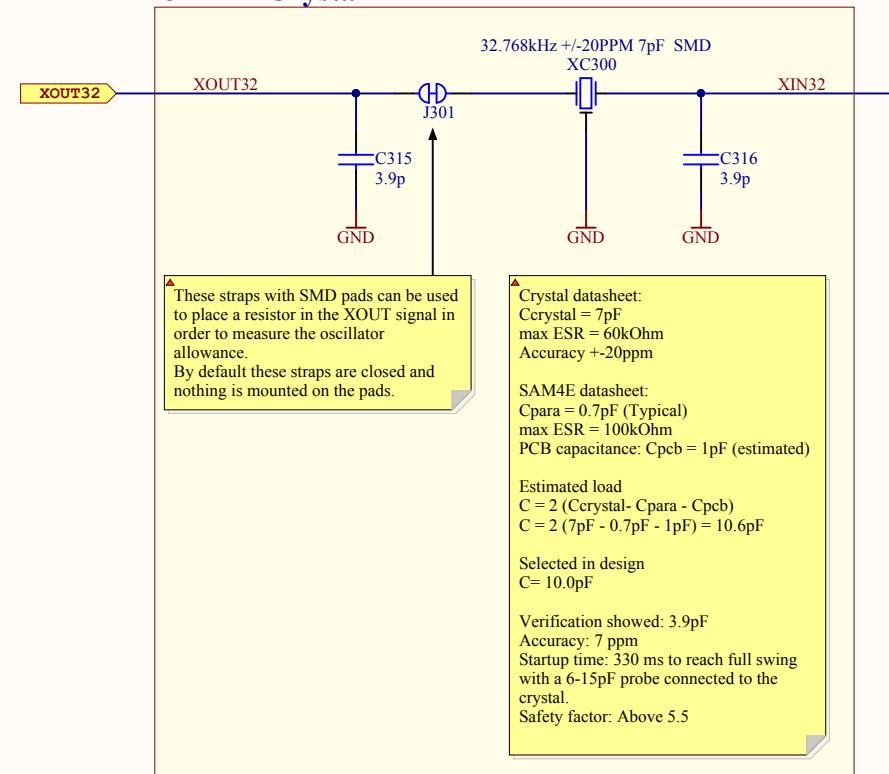
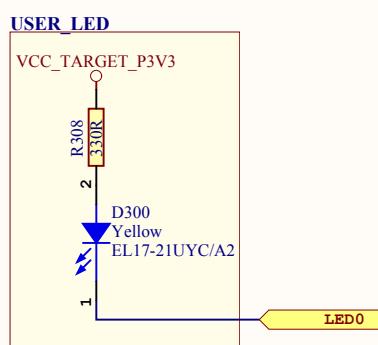
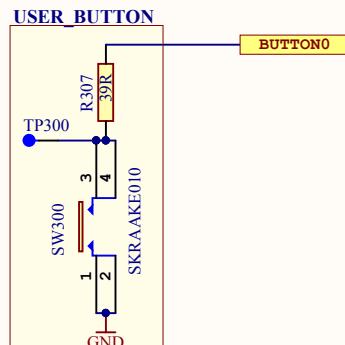
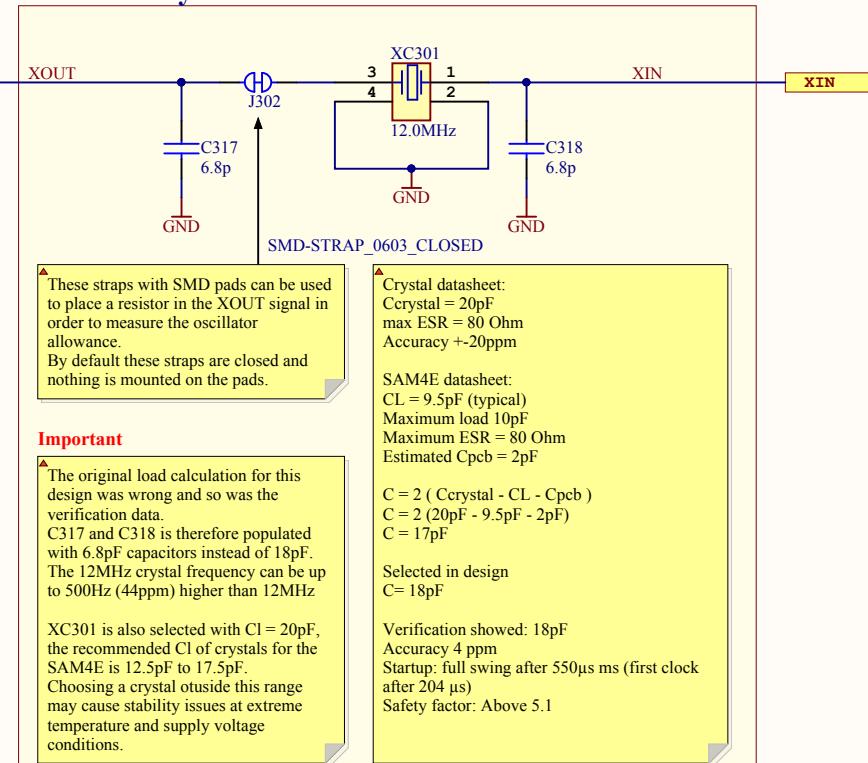
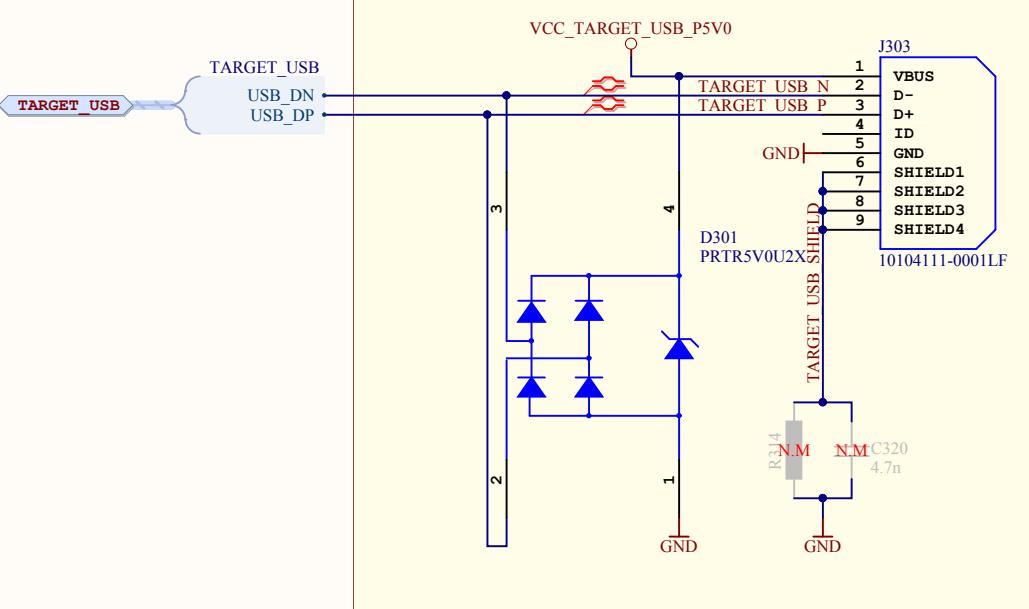
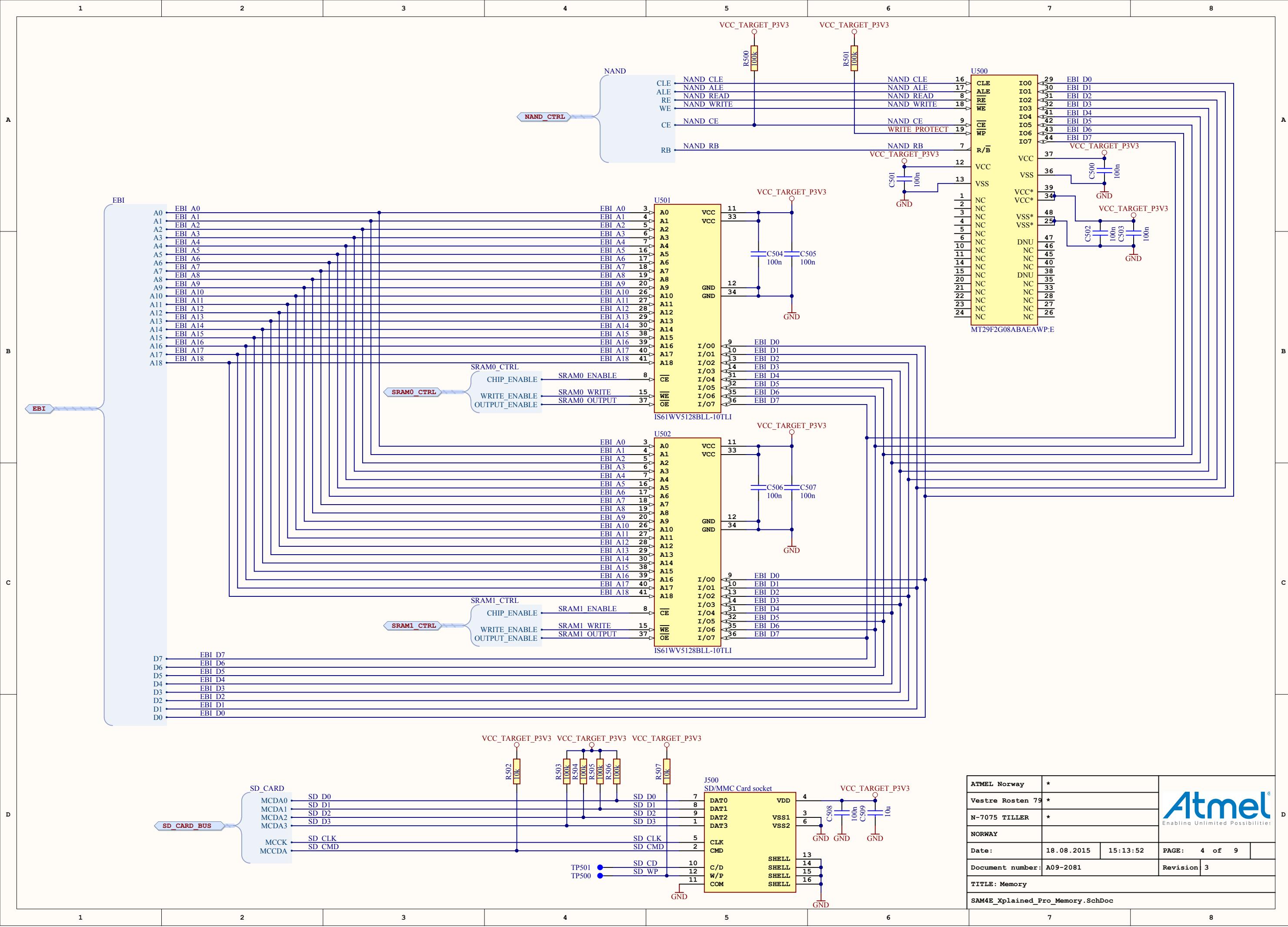
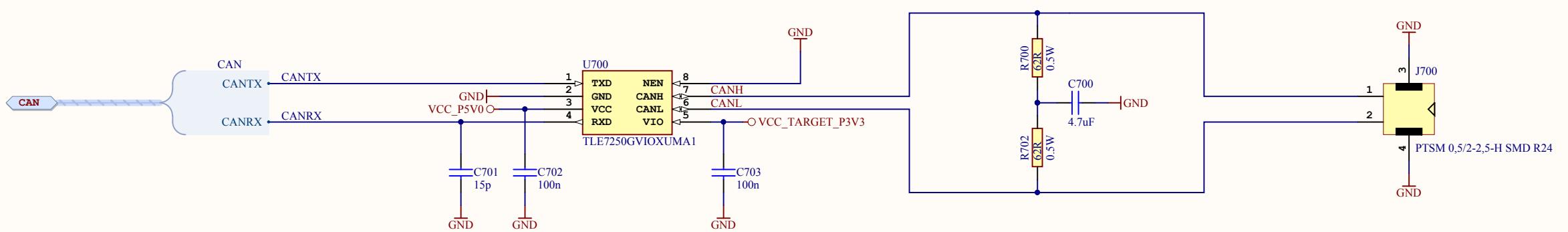


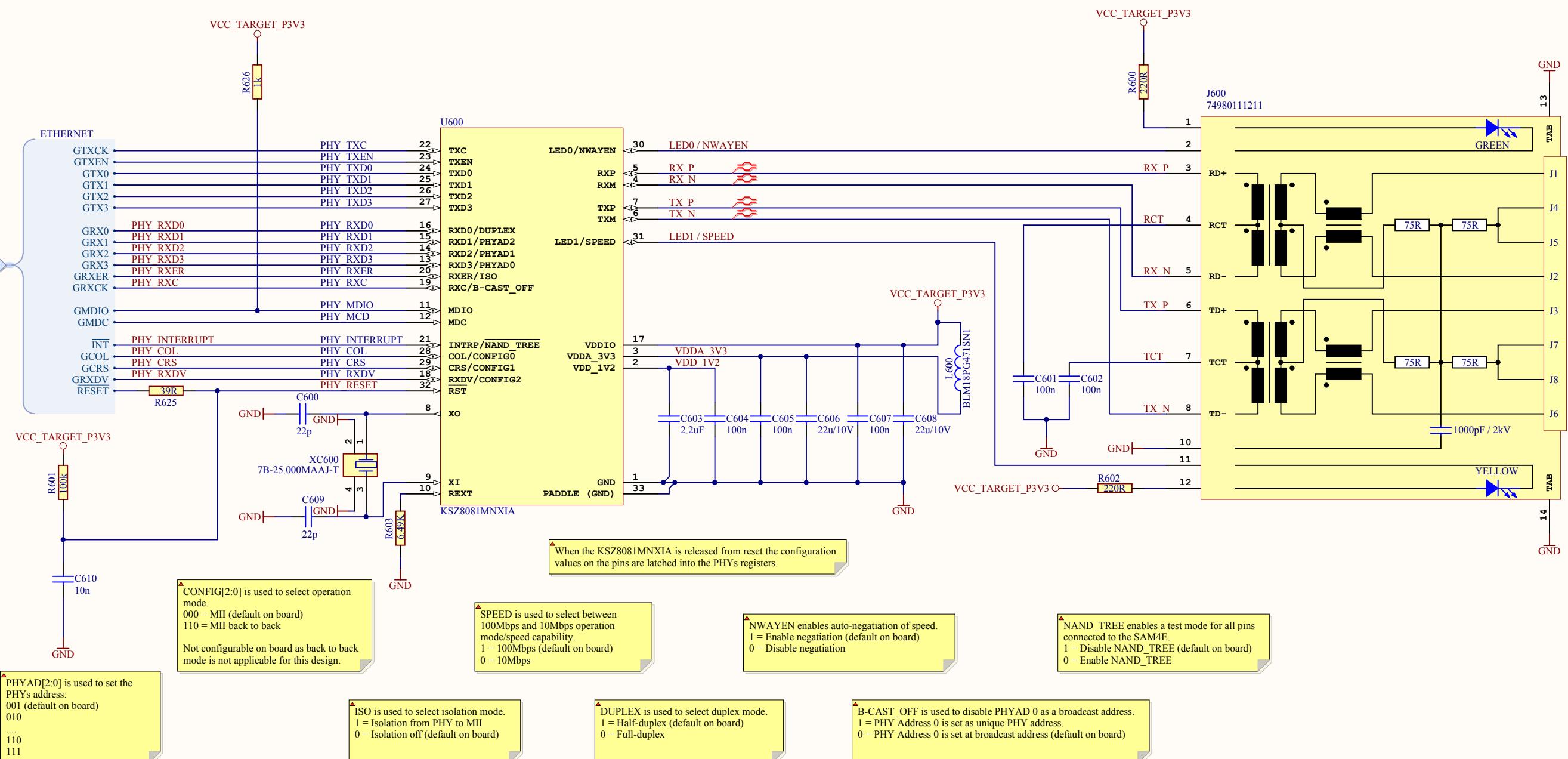
32 kHz Crystal**12 MHz Crystal****SAM4E USB Connector**

ATMEL Norway	*
Vestre Rosten 79	*
N-7075 TILLER	*
NORWAY	
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Document number:	A09-2081
Revision	3
TITLE: Target Peripherals	
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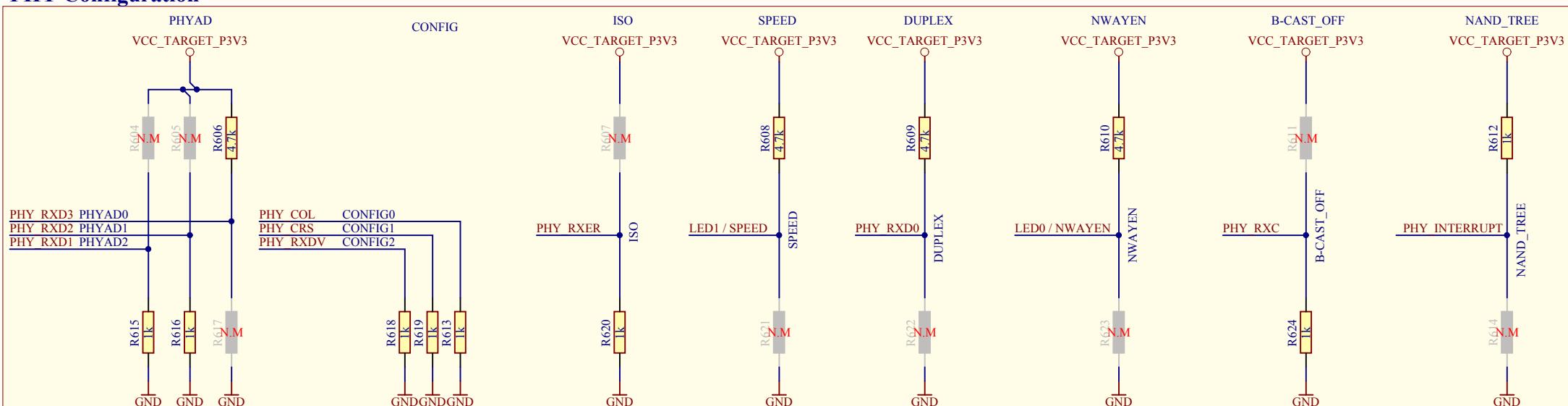




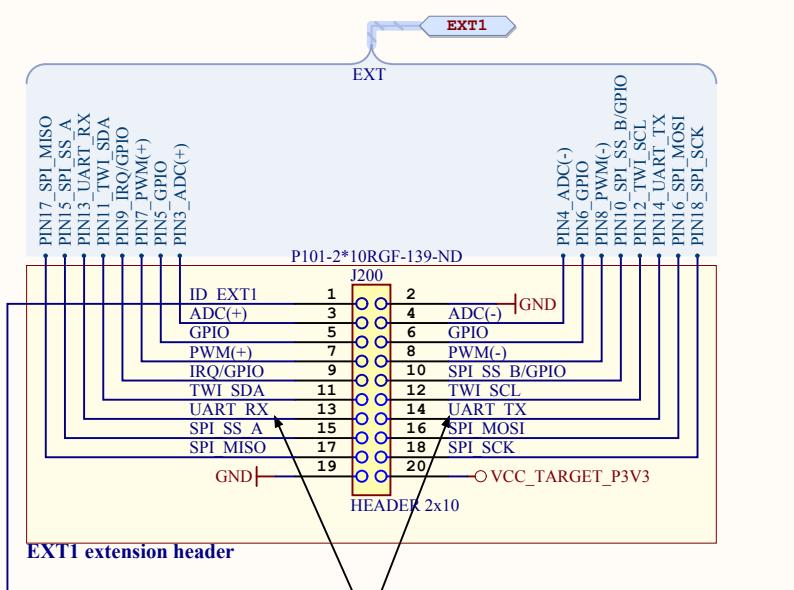
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Vestre Rosten 79	*	
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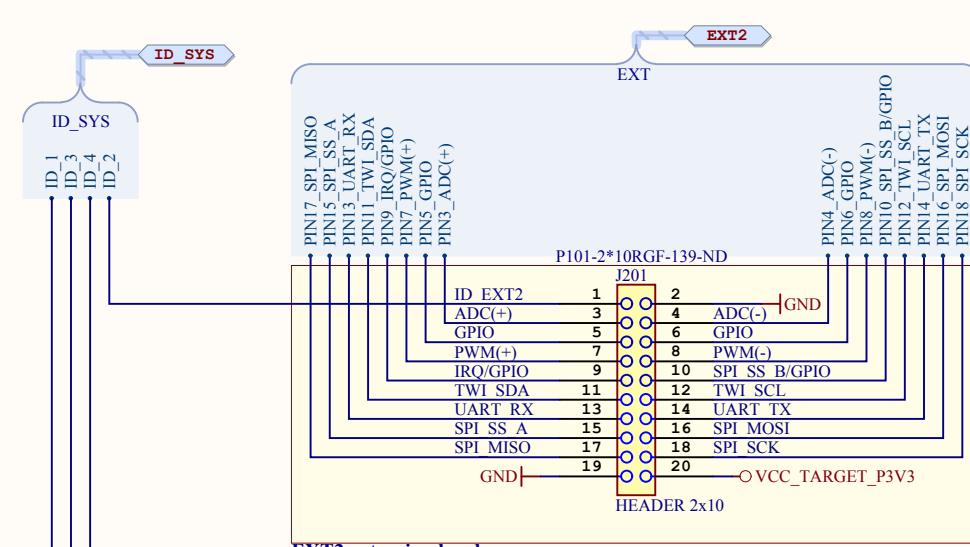
PHY Configuration



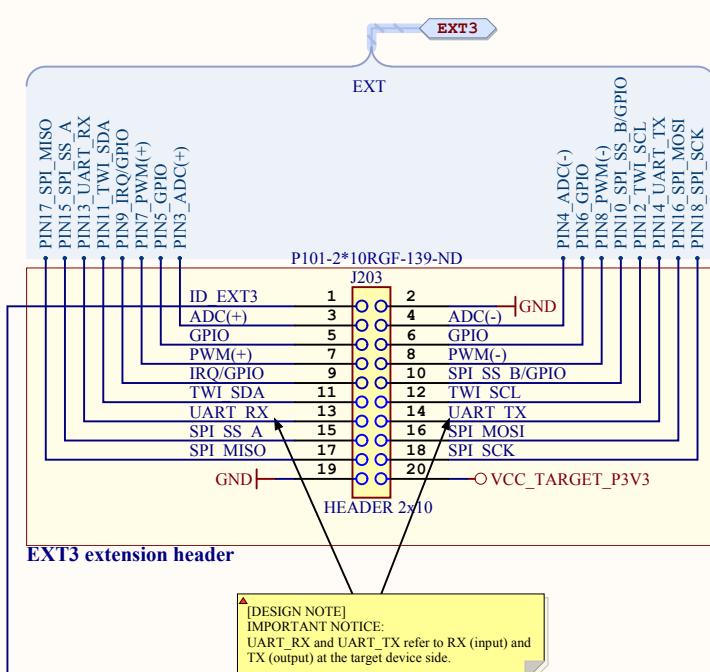
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NORWAY		
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Document number:	A09-2081	Revision 3
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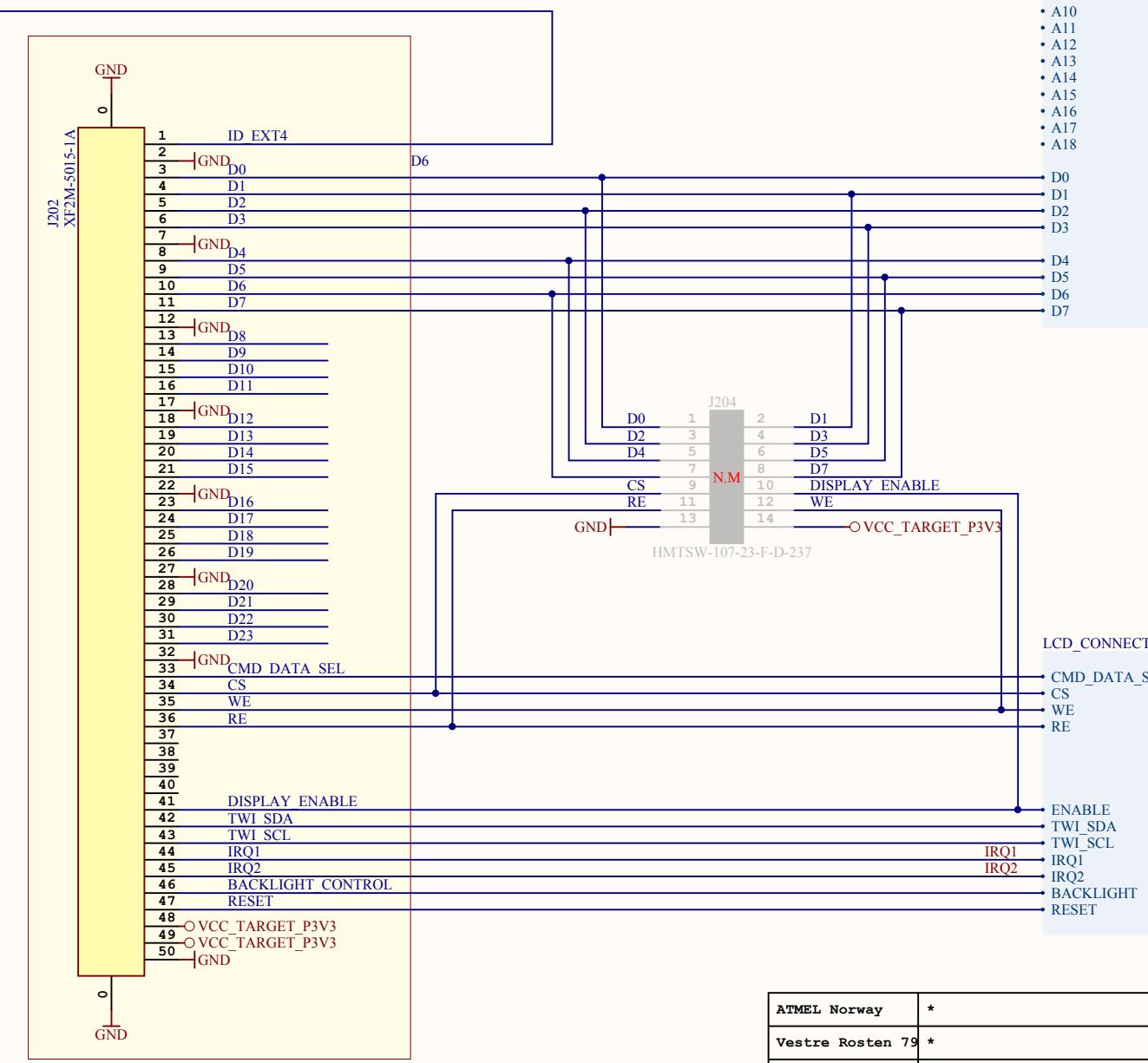
▲ DESIGN NOTE
IMPORTANT NOTICE:
UART_RX and UART_TX refer to RX (input) and TX (output) at the target device side.



- EBI**
- A0
 - A1
 - A2
 - A3
 - A4
 - A5
 - A6
 - A7
 - A8
 - A9
 - A10
 - A11
 - A12
 - A13
 - A14
 - A15
 - A16
 - A17
 - A18

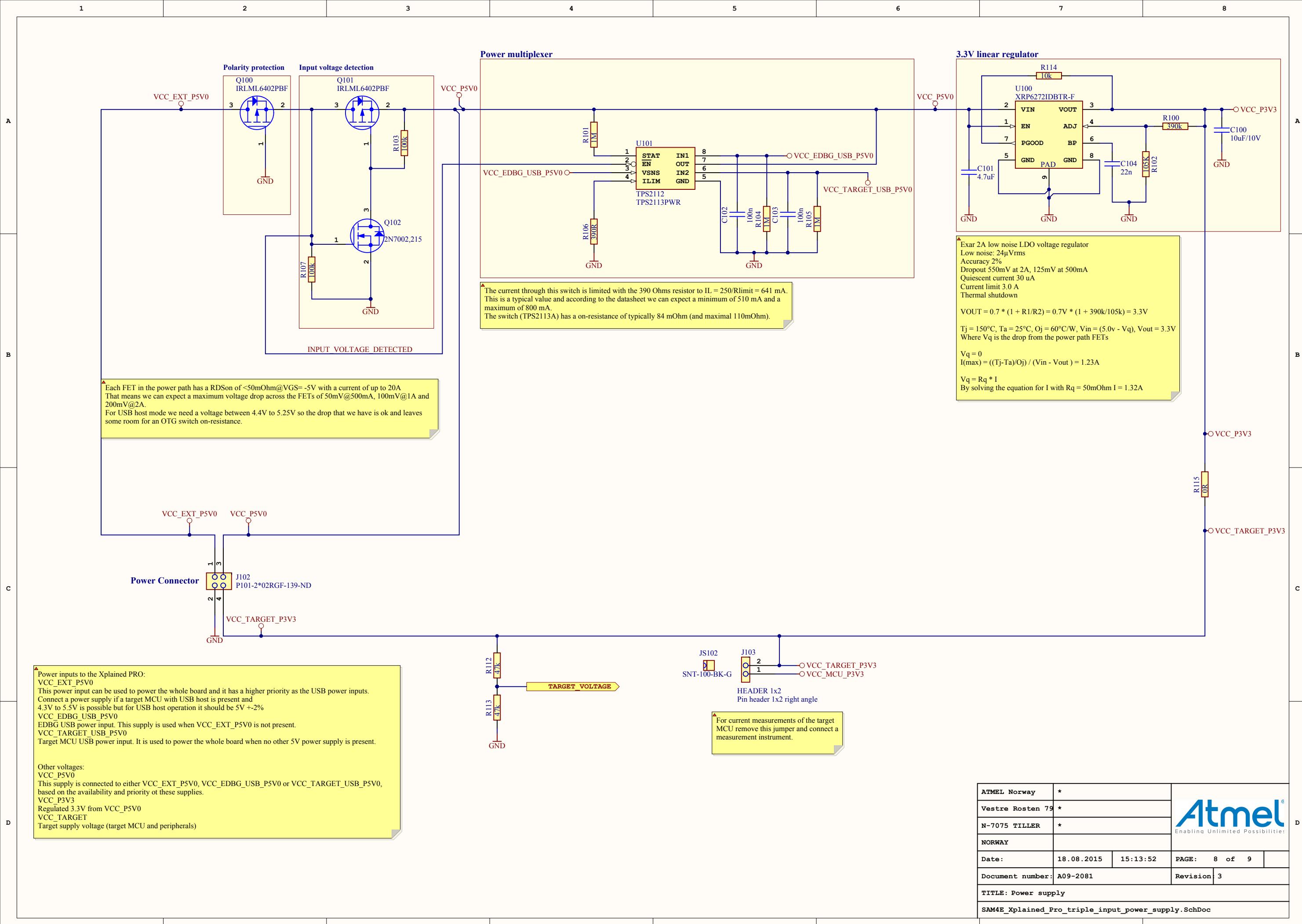


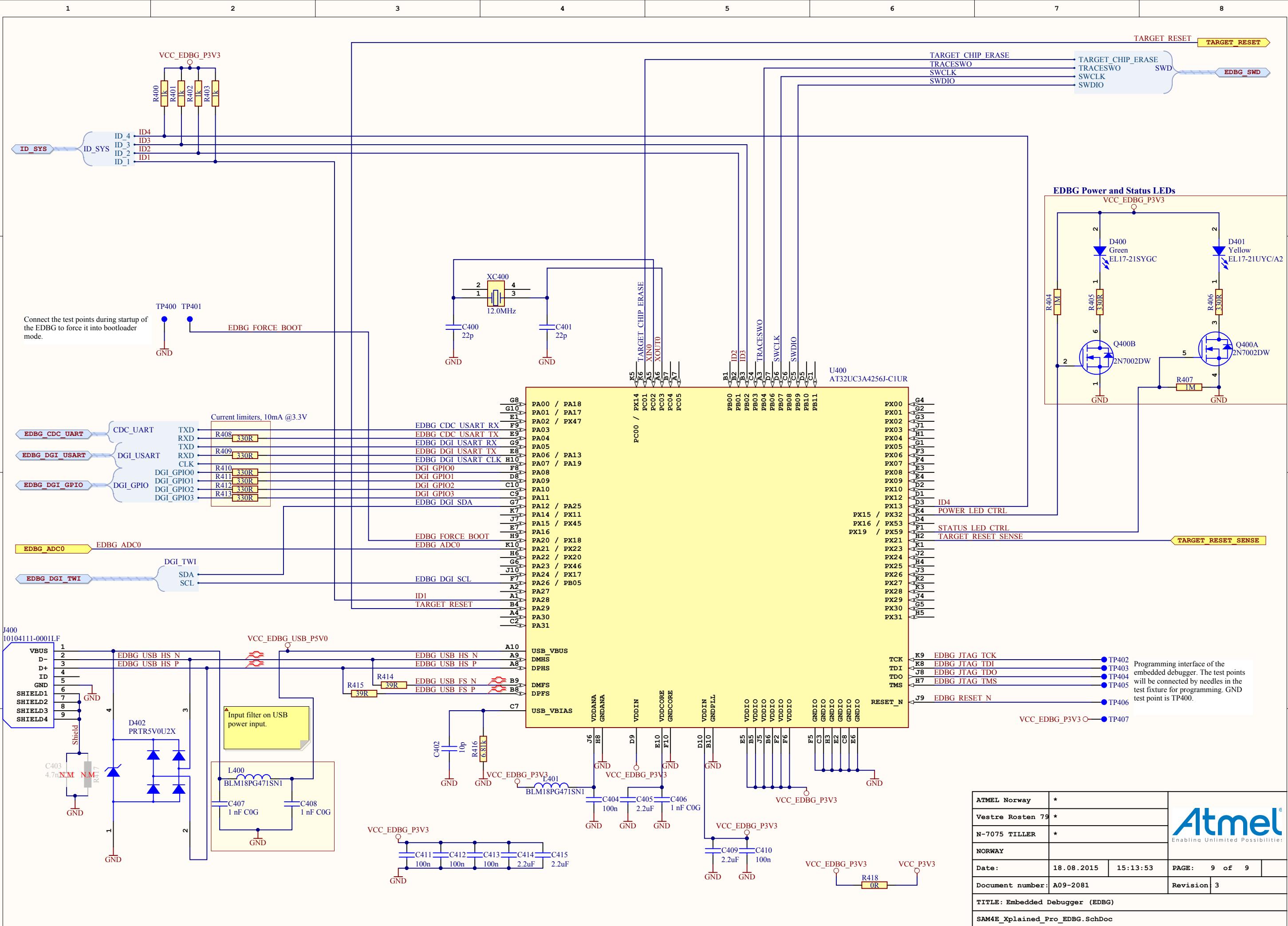
▲ DESIGN NOTE
IMPORTANT NOTICE:
UART_RX and UART_TX refer to RX (input) and TX (output) at the target device side.



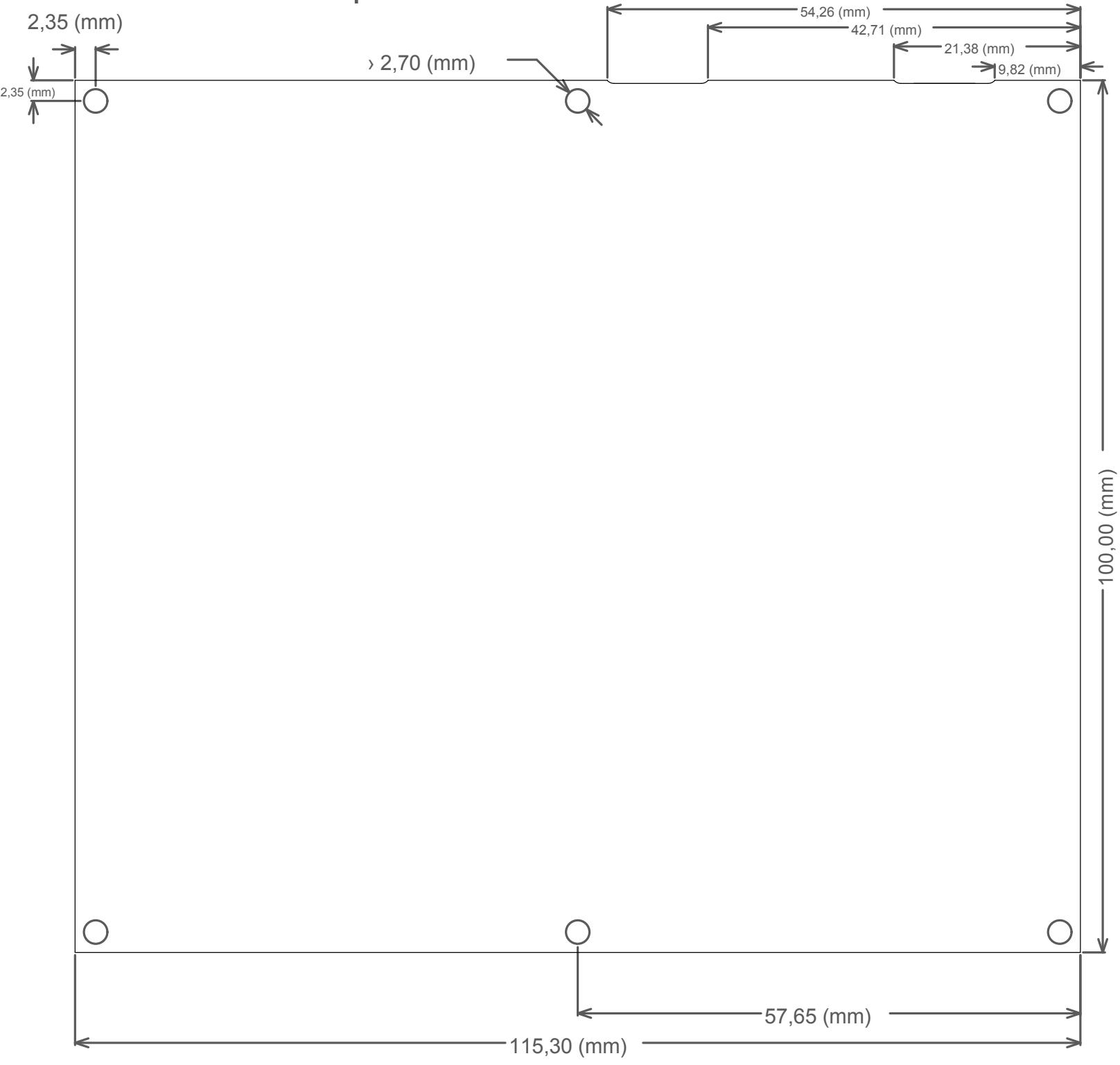
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Vestre Rosten 79	*
N-7075 TILLER	*
NORWAY	
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Revision	3
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Enabling Unlimited Possibilities

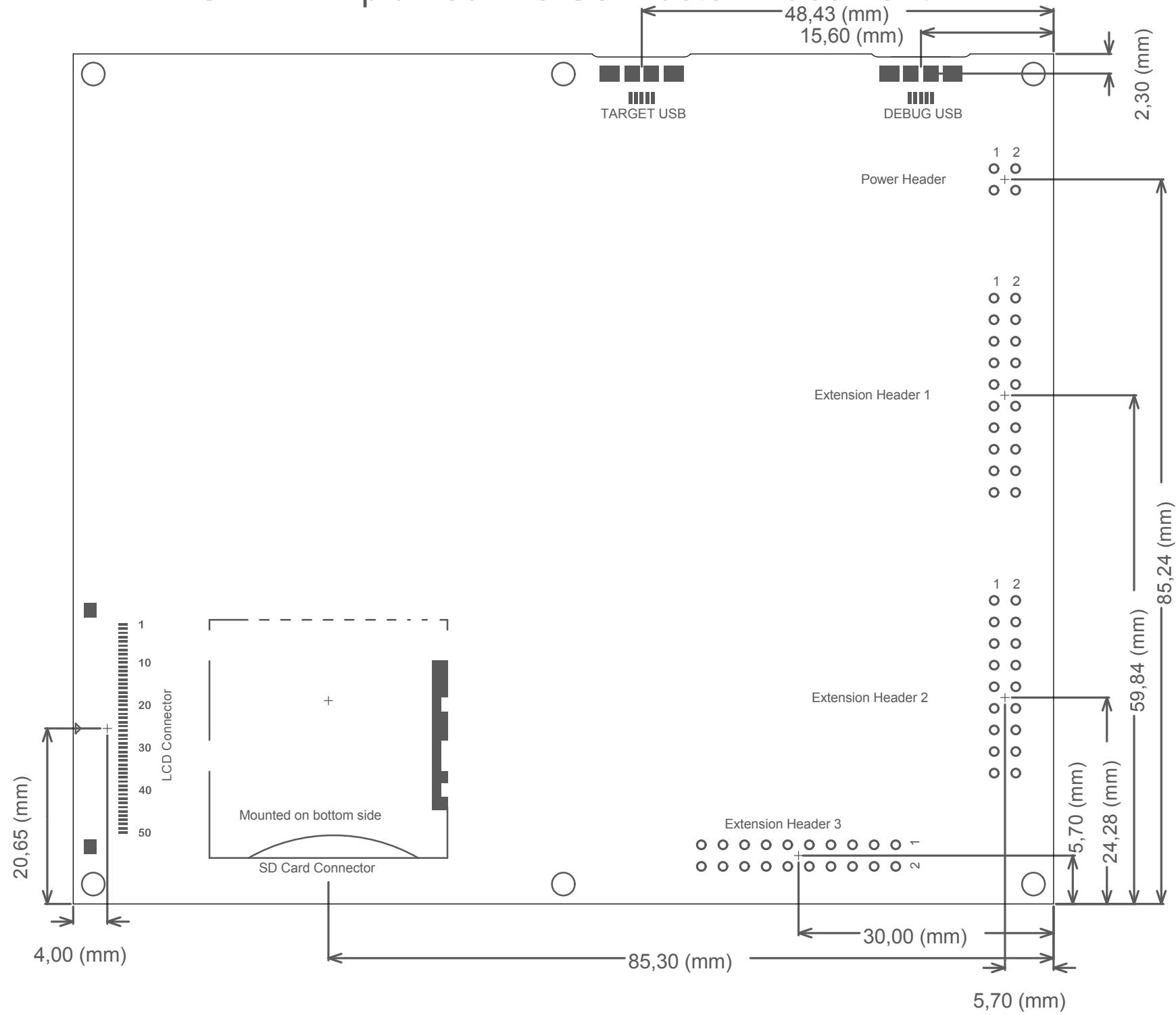


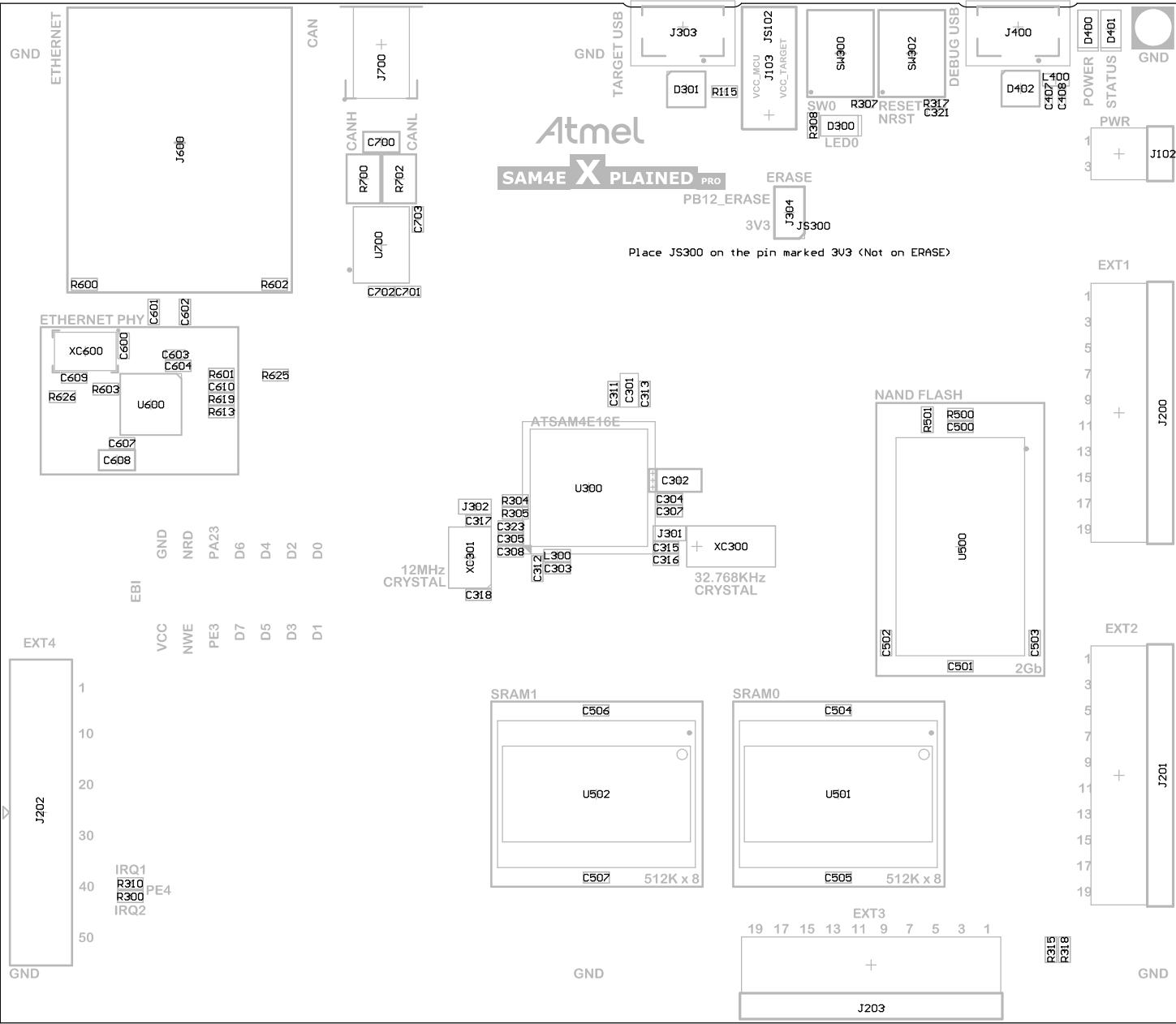


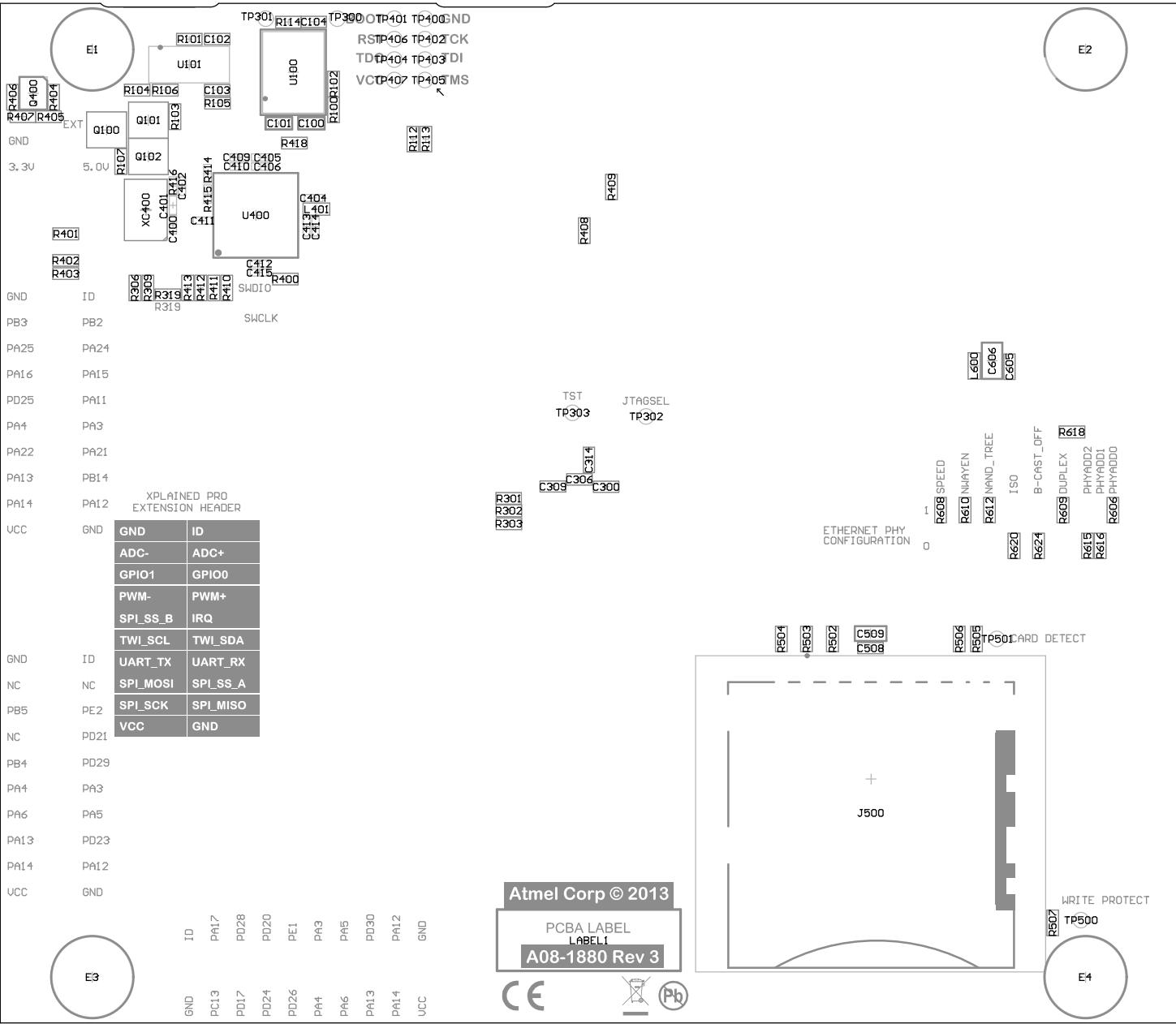
SAM4E Xplained Pro Mechanical Dimensions

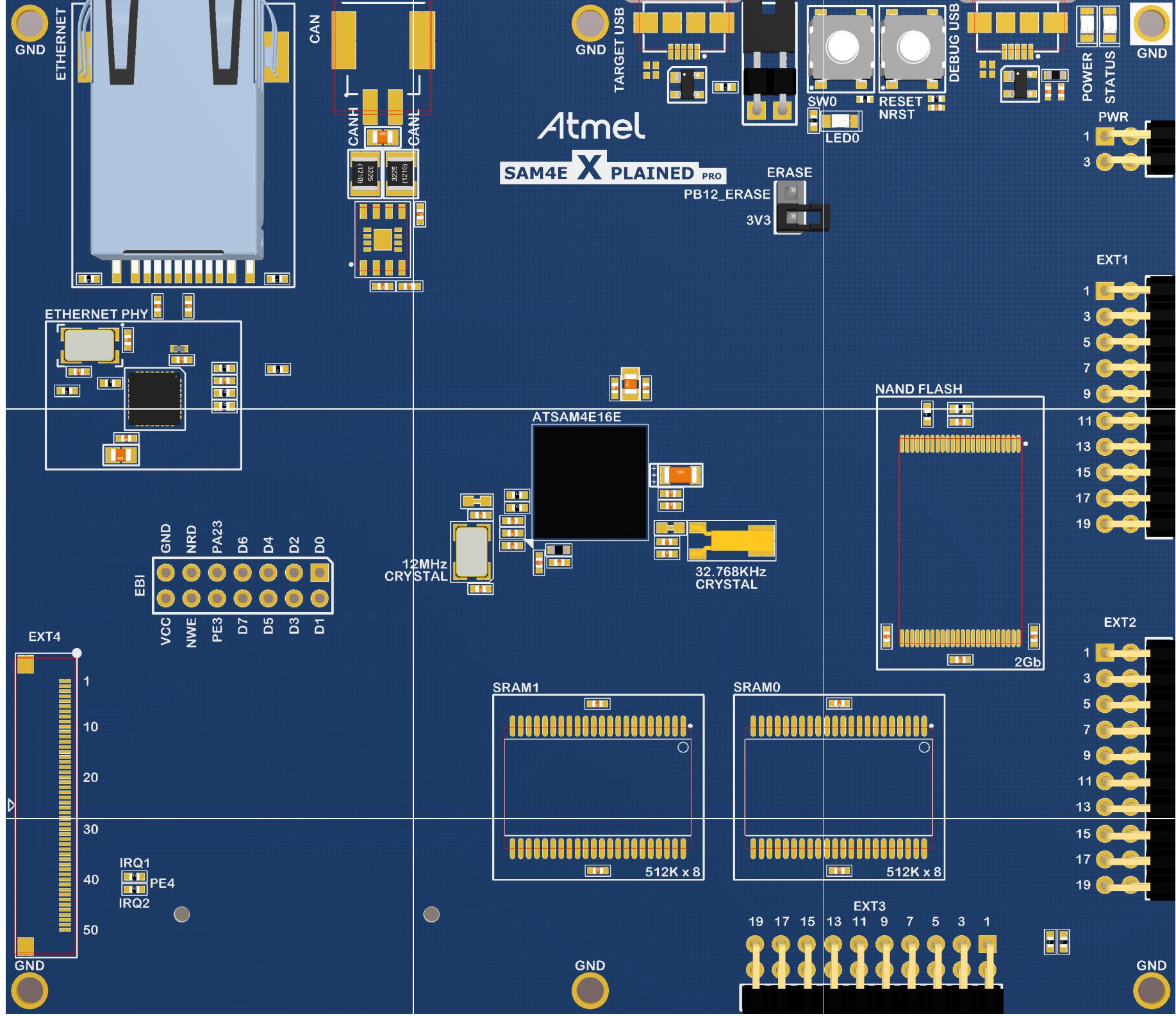


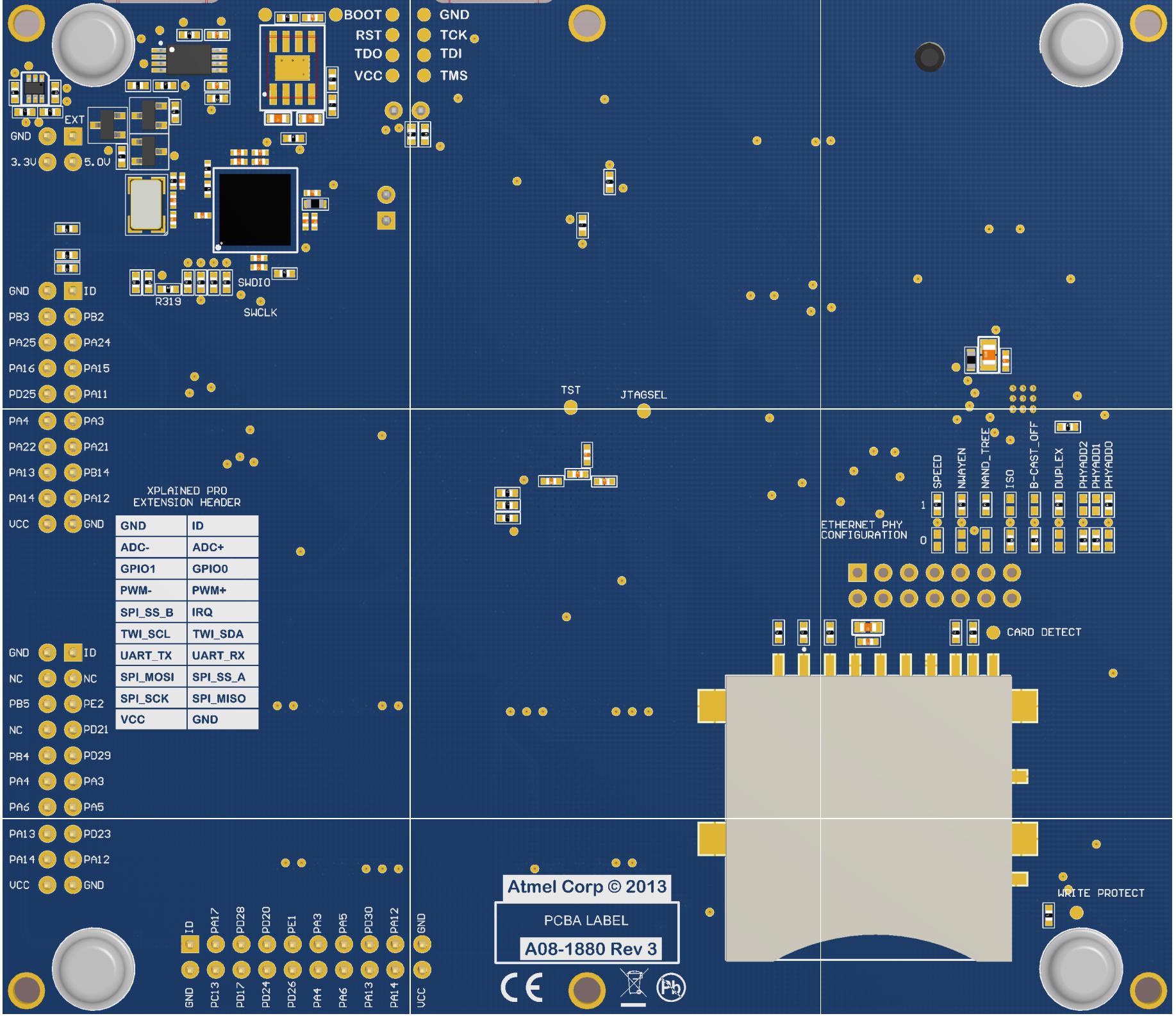
SAM4E Xplained Pro Connector Placement

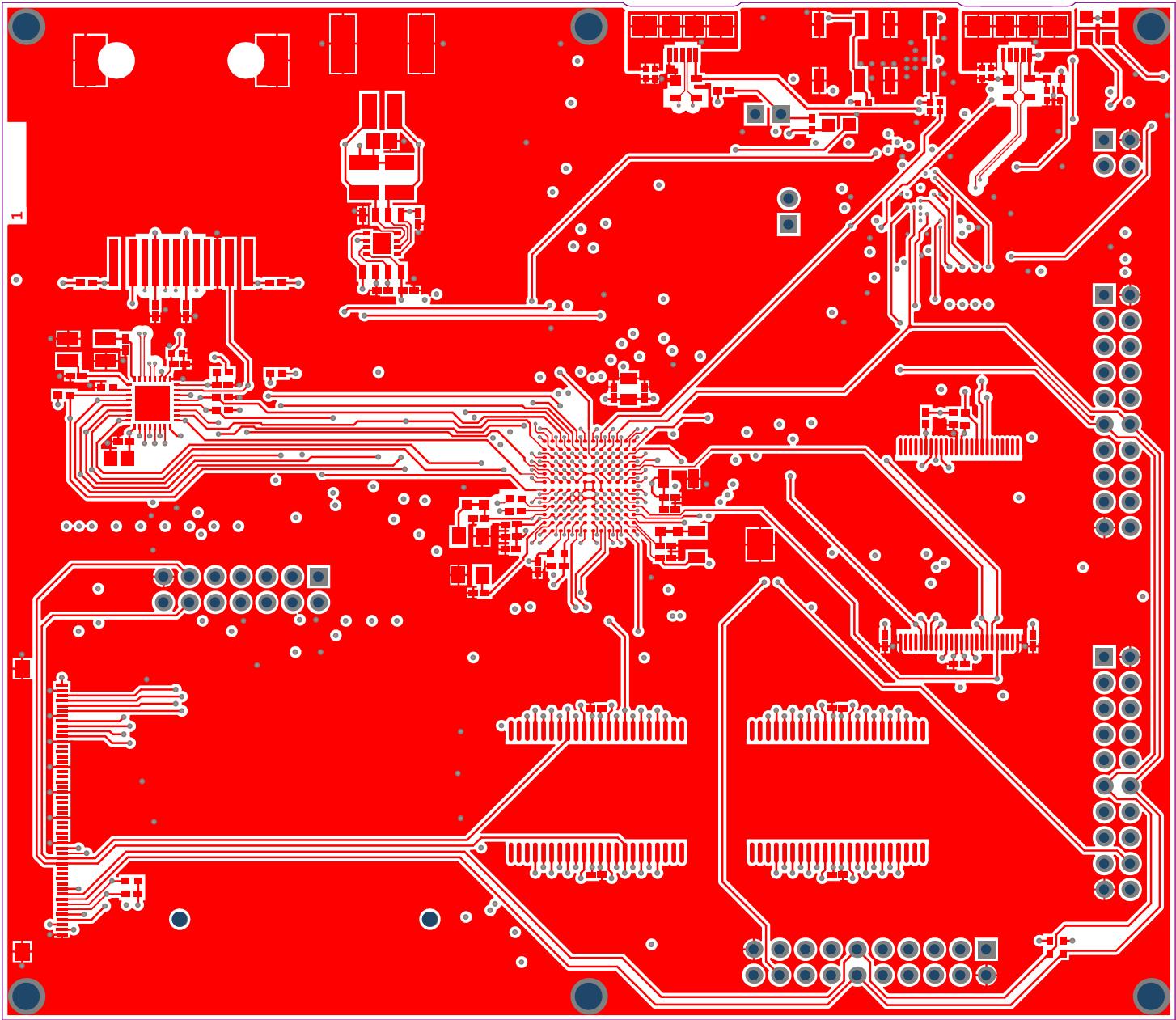


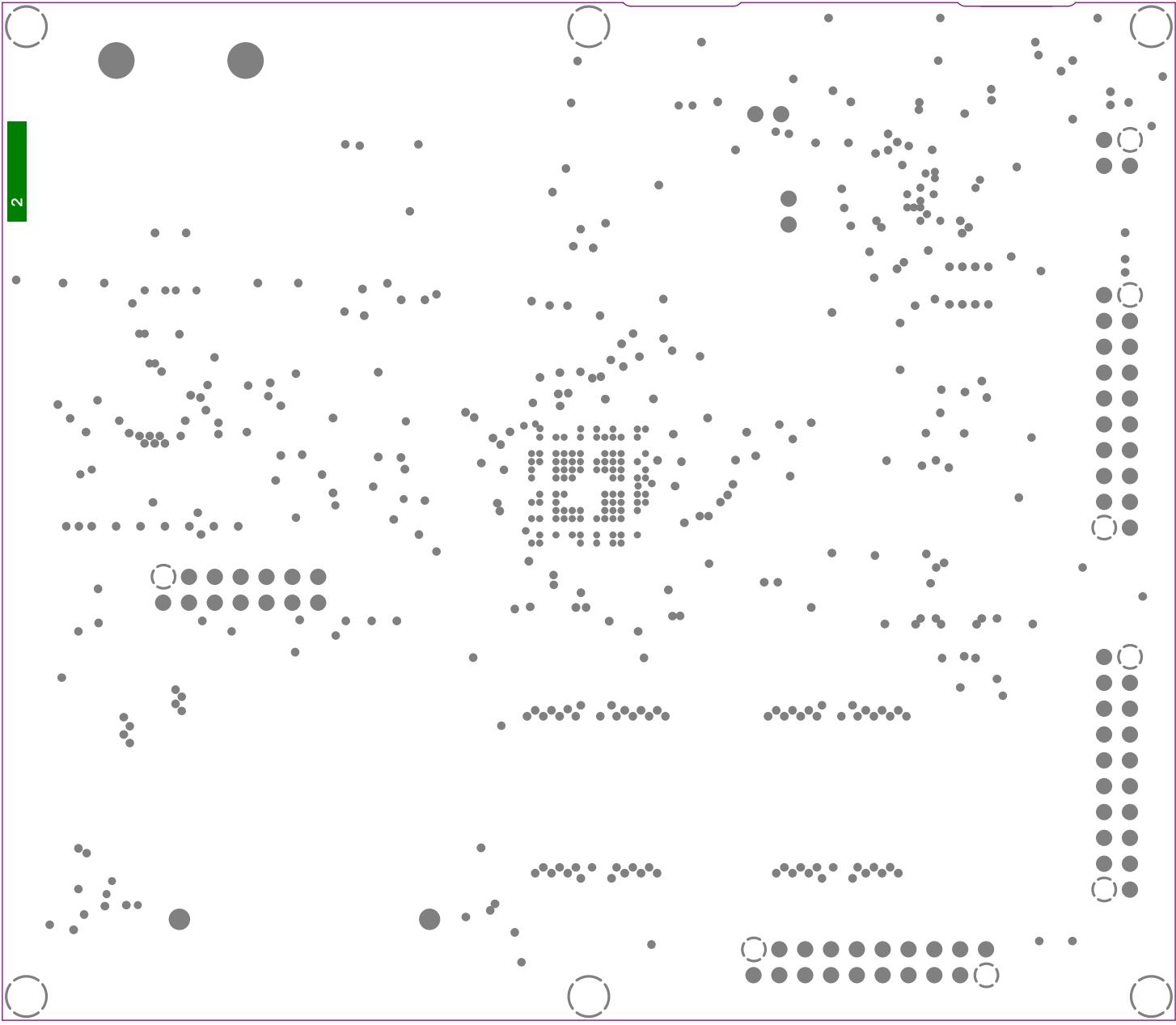


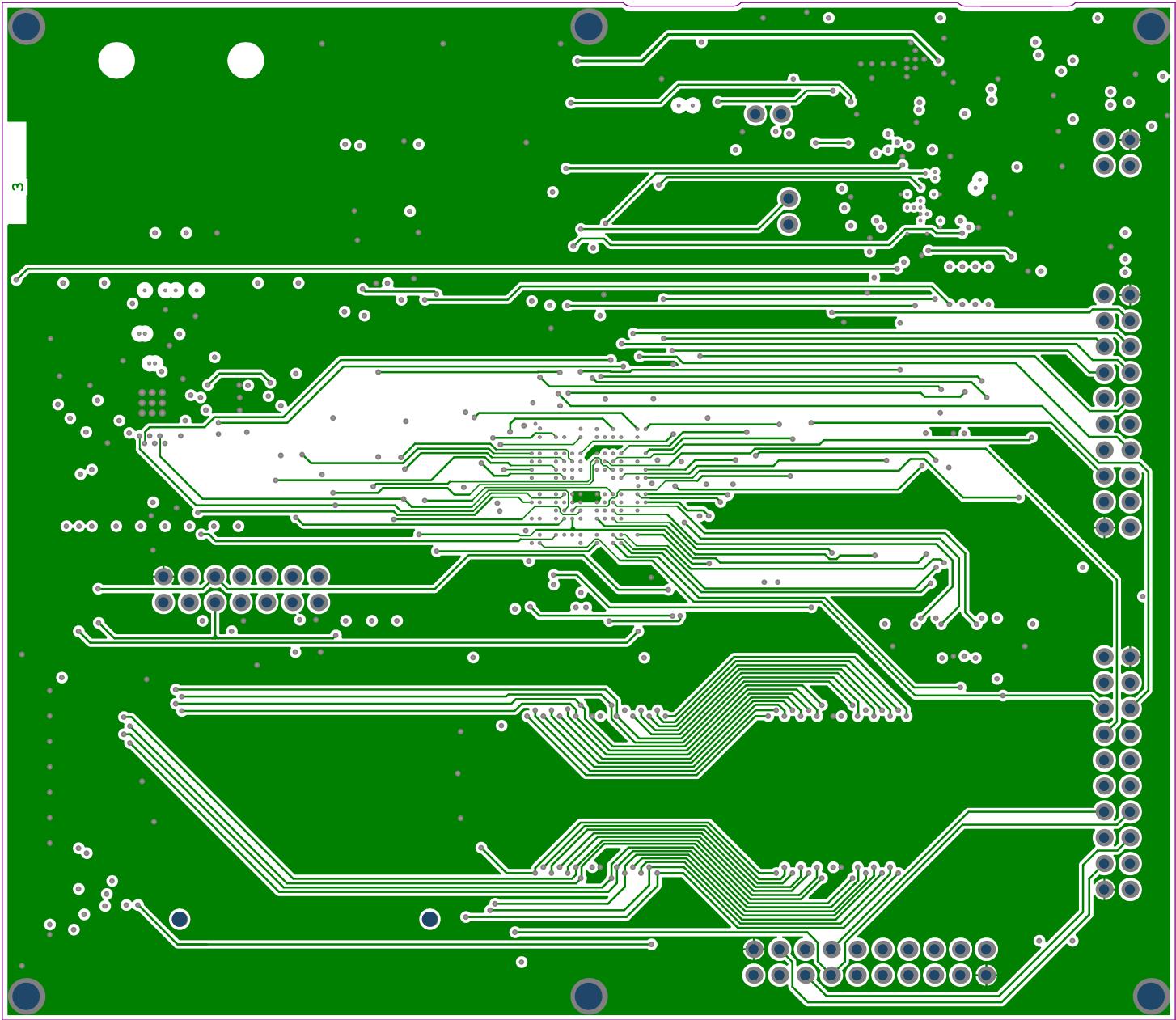


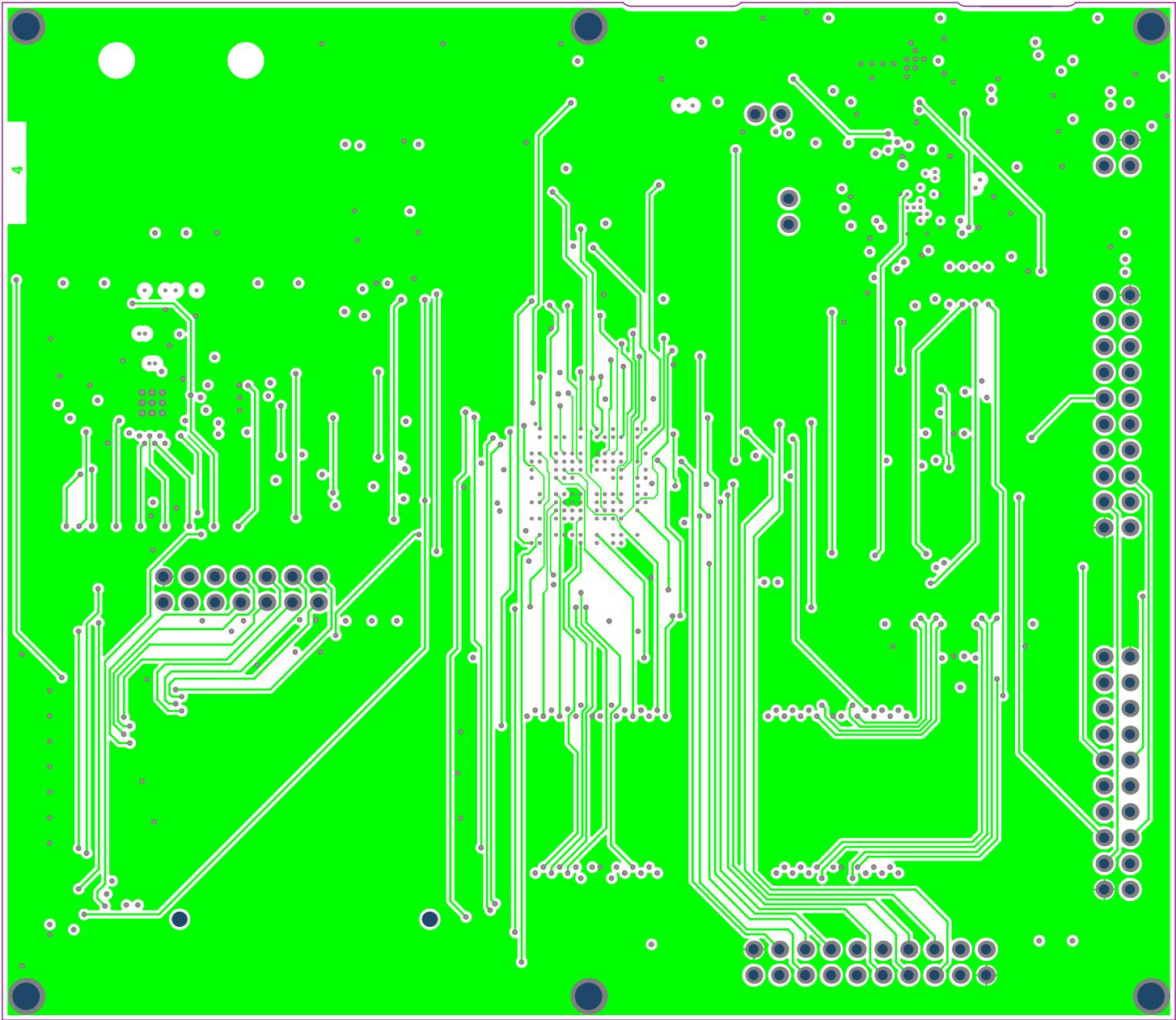


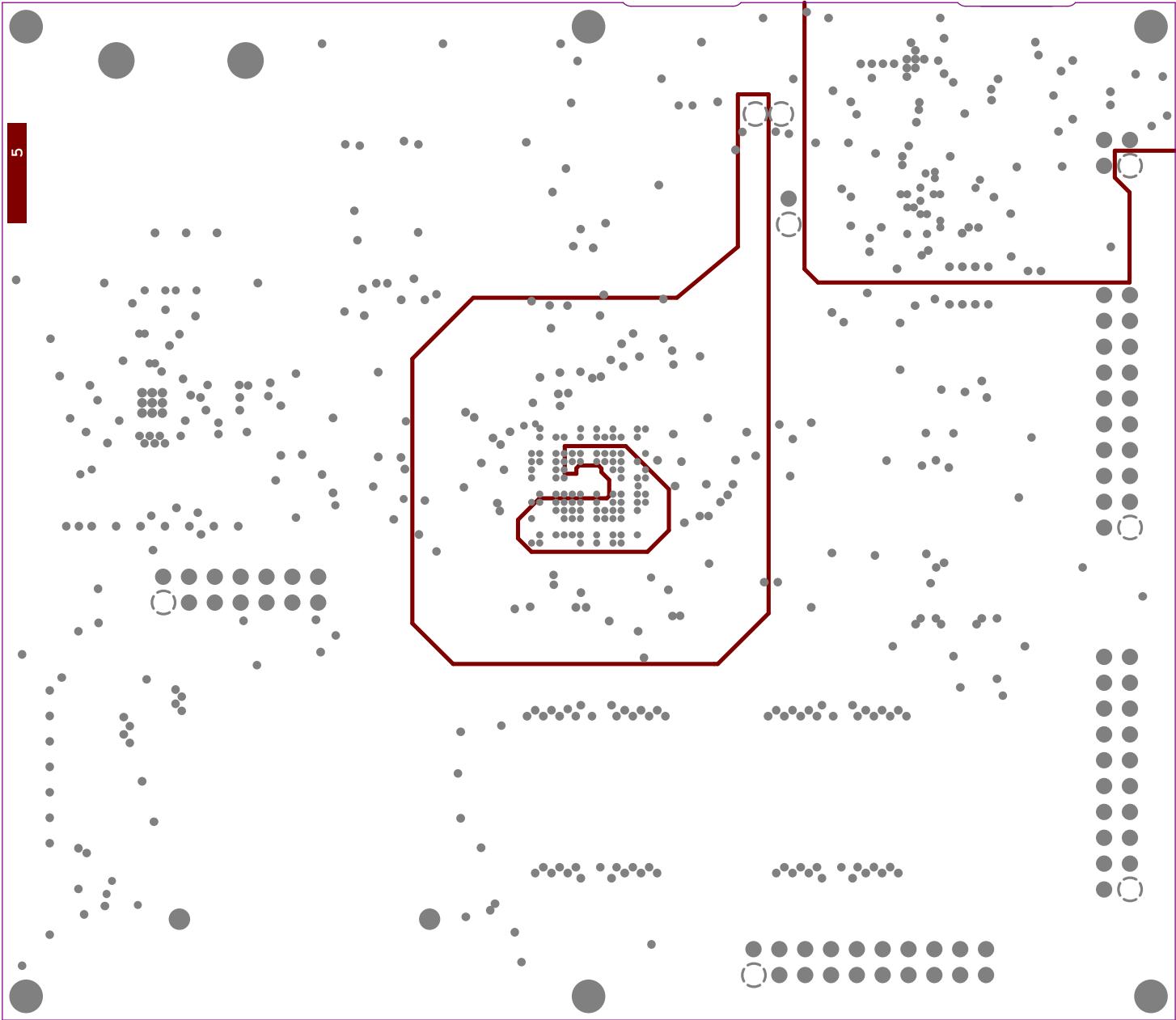


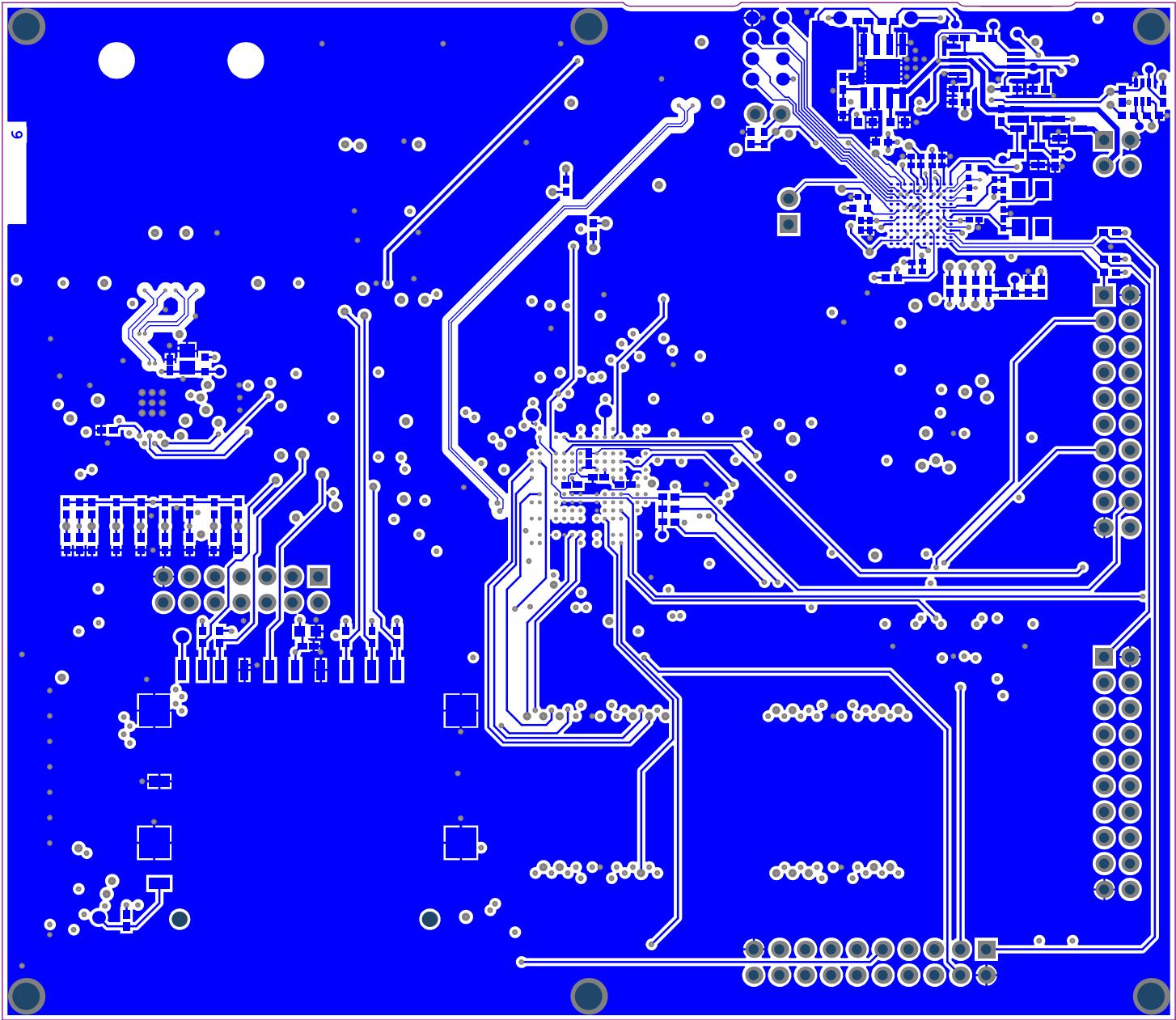












Component list

Top Level Schematics

Source Data From:

SAM4E_Xplained_Pro.PrfPCB

Project:

SAM4E_Xplained_Pro.PrfPCB

Variant:

Default_assembly



Report Date: 18.08.2015
Print Date: <Parameter Curren<Parameter CurrentTime not found>

Fitted	Designator	Quantity	Value	Manufacturer	MPN	Description
Fitted	C100	1	10uF/10V	AVX	0603ZD106MATT2A	Ceramic capacitor, SMD 0603, X5R, 10V, 10UF ± 20%
Fitted	C101	1	4.7uF	tdk	C1608X5R1A475K	Ceramic capacitor, SMD 0603, X5R, 10V, 10% (d31036)
Fitted	C102, C103, C300, C303, C304, C305, C306, C307, C308, C309, C311, C312, C313, C314, C323, C500, C501, C502, C503, C504, C505, C506, C507, C508, C601, C602, C604, C605, C607, C702, C703	31	100n	Kemet	C0402C104K4RACTU	Ceramic capacitor, SMD 0402, X7R, 16V, +/-10%
Fitted	C104	1	22n			Ceramic capacitor, SMD 0402, X7R, 25V, +/-10%
Fitted	C301	1	10uF	Murata	GRM21BR61A106KE19L	Ceramic capacitor, SMD 0805, X7R, 10V, 10% (d19441)
Fitted	C302	1	4.7uF/10V	Kemet	T491A475K010AT	SMD tantalum capacitor, ESR = 5, 3216-18 (BA) 1206, polarized
Fitted	C315, C316	2	3.9p			Ceramic capacitor, SMD 0402, NP0, 50V, +/-0.25pF
Fitted	C317, C318	2	6.8p			Ceramic capacitor, SMD 0402, NP0, 50V, +/-5%
Fitted	C321, C404, C410, C411, C412, C413	6	100n	Kemet	C0402C104K4RACTU	Ceramic capacitor, SMD 0402, X7R, 16V, +/-10%
Fitted	C400, C401	2	22p			Ceramic capacitor, SMD 0402, NP0, 50V, +/-5%
Fitted	C402	1	10p			Ceramic capacitor, SMD 0402, NP0, 50V, +/-5%
Fitted	C405, C409, C414, C415	4	2.2uF	Kemet	C0402C225M9PAC	Ceramic capacitor, SMD 0402, X5R, 6.3V, +/-20%
Fitted	C406, C407, C408	3	1nF COG	Murata	GRM1555C1H102JA01D	Ceramic capacitor, SMD 0402, COG, 50V, +/-5%
Fitted	C509	1	10u			Ceramic capacitor, SMD 0603
Fitted	C600, C609	2	22p			Ceramic capacitor, SMD 0402, NP0, 50V, +/-5%
Fitted	C603	1	2.2uF	tdk	C1005X5R1A225K	CAP CER 2.2uF 10V 10% X5R 0402
Fitted	C606, C608	2	22u/10V	tdk	C2012X5R1A226M0.85	Ceramic capacitor, SMD 0805, X5R, 10V, ±20%
Fitted	C610	1	10n			Ceramic capacitor, SMD 0402, X7R, 25V, +/-10%
Fitted	C700	1	4.7uF	Murata	GRM21BR61E475KA12L	Ceramic capacitor, SMD 0805, X5R, 25V, +/-10%
Fitted	C701	1	15p			Ceramic capacitor, SMD 0402, NP0, 50V, +/-5%
Fitted	D300, D401	2	EL17-21UYC/A2	Everlight	17-21UYC/S530-A3/TR8	LED, Yellow , Wave length=591nm, SMD 0805, ±70°
Fitted	D301, D402	2	PRT1RSV50U2X	NXP	PRT1RSV50U2X	Double rail-to-rail USB ESD protection diode (d35444)
Fitted	D400	1	EL17-21SYGC	Everlight	EL17-21SYGC	LED, Green, Wave length=575nm, SMD 0805, ±70°
Fitted	E1, E2, E3, E4	4	SJ5076	3M	SJ-5076	2.8mm adhesive feet,diam 8.00mm
Fitted	Fixture1	1	Xplained PRO MCU board	ESCATEC	Xplained PRO MCU board Jupiter Test Fixture	Xplained PRO MCU board Jupiter Test Fixture
Fitted	FW1	1	EDBG secured firmware	ATMEL		EDBG secured firmware
Fitted	J102	1	PI01-2*02RGF-139-ND		PI01-2*02RGF-139-ND	Pin header, 2x2, Right Angle, 2.54mm, THt, Pin In Paste
Fitted	J103	1	Pin header 1x2 right angle	Pro-data International Corp	2213R-2G	1x2 pin header, right angle, 2.54 mm pitch, through-hole
Fitted	J200, J201, J203	3	PI01-2*10RGF-139-ND		PI01-2*10RGF-139-ND	Pin header, 2x10, Right Angle, 2.54mm THM, Pin In Paste
Fitted	J202	1	XF2M-5015-1A	Omron Components	XF2M-5015-1A	50pin FFC connector, 0.5mm pitch, Top/Bottom contacts
Fitted	J303, J400	2	10104111-0001LF	FCI	10104111-0001LF	Micro USB AB Connector
Fitted	J304	1	HMTSW-102-23-F-S-237	SAMTEC	HMTSW-102-23-F-S-237	1x2 pin header, 2.54mm pitch, Pin-in-Paste THM
Fitted	J500	1	KYOCERA - 14 5738 009	Kyocera-elco	KYOCERA - 14 5738 009 220 859+	SD/MMC socket, 2.7mm, push-push, SMD
Fitted	J600	1	74980111211	Würth Elektronik	74980111211	10/100Base-TX, SMD, RJ45, green and yellow LEDs, integrated magnetics
Fitted	J700	1	PTSM.0/2-2.5-H SMD R24	Phoenix Contacts	PTSM.0/2-2.5-H SMD R24	SMD mounted terminal block with quick lock
Fitted	J502, JS300	2	SNT-100-BK-G	SAMTEC	SNT-100-BK-G	Juniper cap for 2.54mm pinheader
Fitted	L300, L400, L401, L600	4	BLM18PG471SN1	Murata	BLM18PG471SN1	SMD RF inductor 0603, Z=470Ωm (@100MHz), Max R(d)=0.65Ωm, Max current=1A
Fitted	LABEL1	1	Label PCB with one MAC48 address	ACT Logimark AS	505462	PCBA label PP Top White Gloss with one 48bit MAC address
Fitted	POB1	1	SAM4E Xplained Pro PCB	ATMEL		SAM4E Xplained Pro PCB document
Fitted	PCBADC01	1	A09-2081 PCBA Files	ATMEL		SAM4E Xplained Pro PCB documentation
Fitted	Q100, Q101	2	IRML6402PBF	International Rectifier	IRML6402PBF	P-ch. MOSFET, -30V, -3.7A continuous, RDS(ON)=0.05Ωm@VGs=-5.0V, RDS(ON)=0.08Ωm@VGs=+2.5V
Fitted	Q102	1	2N7002.215	NXP	2N7002.215	N-Channel MOSFET 60V, 0.300A continuos, 1.2A Peak, RDS(ON) < 3.80Ωm @VGs=+4.5V, VGS(th)<2.5V
Fitted	Q400	1	2N7002DW	Fairchild	2N7002DW	Dual N-Channel MOSFET, 60V, 115mA cont,RDS(ON) < 7.0 Ωm @ 50mA@5V, SOT-363
Fitted	R100	1	390k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R101, R104, R105, R404, R407	5	1M			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R102	1	105k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R103, R107, R500, R501, R503, R504, R505, R506, R601	9	100k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R106	1	390R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R112, R113, R309	3	47k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R114, R502, R507	3	10k	vishay	CROW040210K0FKED	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R115, R300, R310, R319, R418	5	0R		RMCF0402ZT0R00	RES 0.0 OHM 1/16W 0402 SMD, Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R301, R302, R303	3	43R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R304, R305, R625	3	39R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R306	1	27k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R307, R317, R414, R415	4	39R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R308, R405, R406, R408, R409, R410, R411, R412, R413	9	330R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R315, R318, R606, R608, R609, R610	6	4.7k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R400, R401, R402, R403, R612, R613, R615, R616, R618, R619, R620, R624, R626	13	1k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R416	1	6.81k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R600, R602	2	220R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R603	1	6.49k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R700, R702	2	62R			Thick film resistor, SMD 1210, 0.5W, 1%
Fitted	SV300, SV302	2	SKRAAKE010	ALPS	SKRAAKE010	6.2x6.2 mm SMD tact switch, same as A08-0091 but less force is needed
Fitted	TEST1	1	SAM4E Xplained Pro test	ATMEL		fixture test for SAM4E Xplained Pro
Fitted	TESTDOC1	1	SAM4E Xplained Pro test Instructions	ATMEL		SAM4E Xplained Pro test Instructions
Fitted	U100	1	XRP6272IDBTR-F	Exar	XRP6272IDBTR-F	Adjustable output LDO regulator, current limiter and thermal protection, Vin = 1.8-6V, Iout = 2A, Iq=30µA, Vd = 520mV @ 2A
Fitted	U101	1	TPS2113PWR	Texas Instruments	TPS2113PWR	Autoswitching Z1 Pow er Mux
Fitted	U300	1	ATSAM4E16E	ATMEL	ATSAM4E16E-CUR	ARM Cortex-M4 MCU with 2MB flash, 160KB SRAM
Fitted	U400	1	AT32UC3A4256J-C1UR	ATMEL	AT32UC3A4256J-C1UR	AVR 32-bit RISC-MCU
Fitted	U500	1	MT29F2G08ABAEEA WPE	Micron	MT29F2G08ABAEEA WPE	2Gb, x 8 NAND flash, 3.3V 48-TSOP1
Fitted	U501, U502	2	IS61WV5128BLL-10TLI	ISSI	IS61WV5128BLL-10TLI	512Kx8 SRAM, 2.4 ~ 3.6V, 10ns, 44L TSOP-2
Fitted	U600	1	KS28081MNIXA	MICREL SEMICONDUCTOR	KS28081MNIXA	10Base-T/100Base-TX PHY with MIll Support
Fitted	U700	1	TLT250GVQXUMA1	Infineon	TLT250GVQXUMA1	CAN Transceiver with UDFN8 / SO8 footprint, pin compatible with ATA6560
Fitted	XC300	1	32.768kHz +/-20PPM 7pF	Micro Crystal	MS1V-T1K 32.768kHz 7pF +/-20PPM TA	32k/68 crystal, +/-20ppm, CL=7pF, max ESR 60kΩm, SMD
Fitted	XC301	1	12.0MHz	Fox Electronics	FQ5032B-12-C-C-200-1 / 738B-12	Fox FQ5032B-12.0MHz SMD crystal 738B-12
Fitted	XC400	1	12.0MHz	Fox Electronics	FQ5032B-12-C-C-200-1	Fox FQ5032B 12.0MHz SMD crystal 738B-12
Fitted	XC600	1	7B-25.000MAAJ-T	TXC Corporation	7B-25.000MAAJ-T	25.000 MHz crystal, 18pF, ±30ppm, 5.0 x 3.2 mm
Not Fitted	C320, C403	0	4.7n			Ceramic capacitor, SMD 0402, X7R, 25V, +/-10%
Not Fitted	J204	0	HMTSW-107-23-F-D-237	SAMTEC	HMTSW-107-23-F-D-237	2x7 pin header, 2.54mm pitch, Pin-in-paste THM
Not Fitted	R314, R417	0	1M	KOA	RK73H1ETTP1004F	Thick film resistor, SMD 0402, 1/16W, 1%
Not Fitted	R604, R605, R607, R611	0	4.7k			Thick film resistor, SMD 0402, 1/16W, 1%
Not Fitted	R614, R617, R621, R622, R623	0	1k			Thick film resistor, SMD 0402, 1/16W, 1%