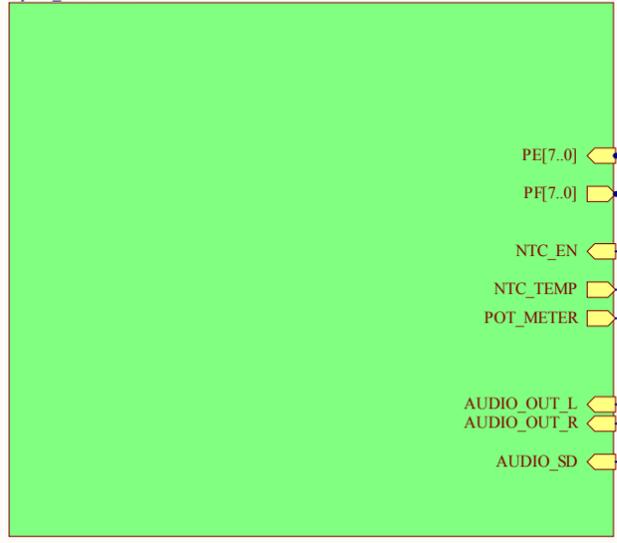
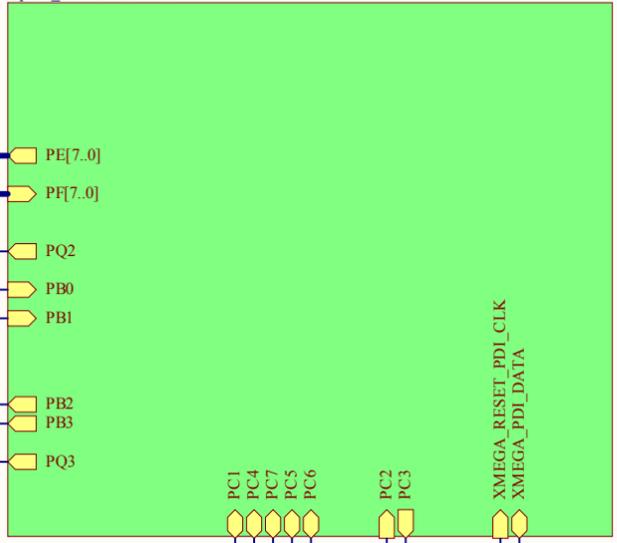


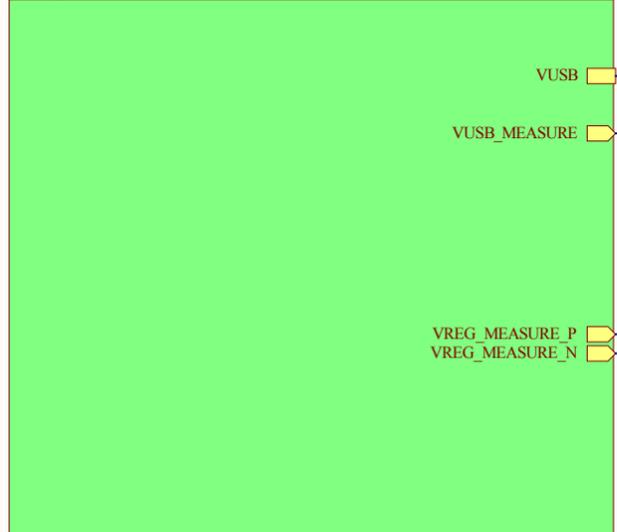
Designator
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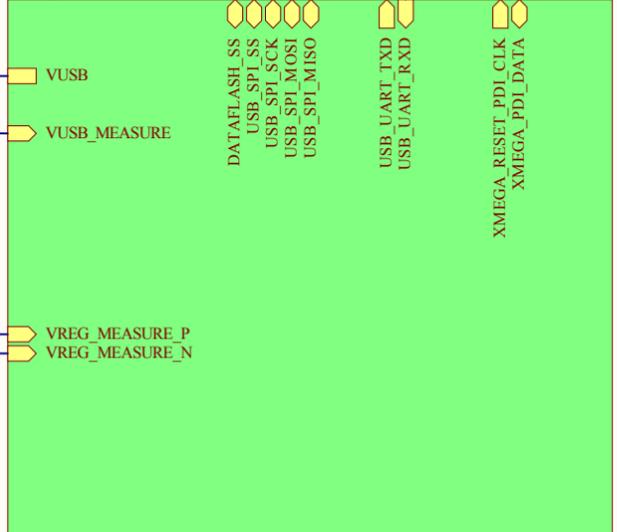
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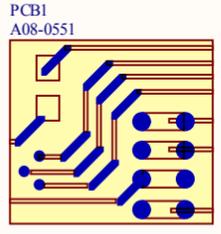
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Designator
Xplain_USB.SchDoc

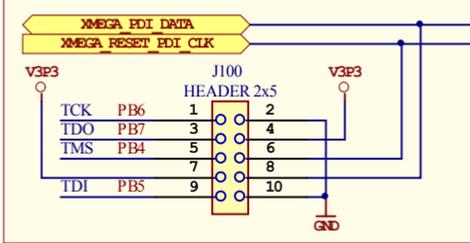


LBL1
Product number/revision
Serial number

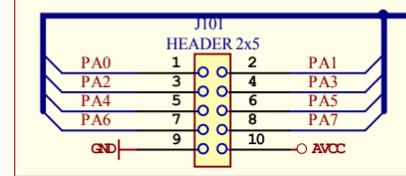


ATEL Norway				
Vestre Rosten 79				
7075 TILLER				
NORWAY				
Date:	08.05.2009	15:10:18	PAGE:	1 of 5
Document number:	A08-0551		Revision:	A
TITLE: AVR1907: Xplain evaluation board, Top-Level				
Xplain.SchDoc				

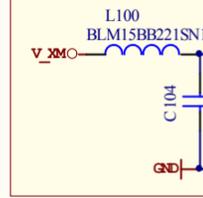
JTAG/PDI Interface



Spare ADC/DAC/AC channels



Analog power



NTC measure input



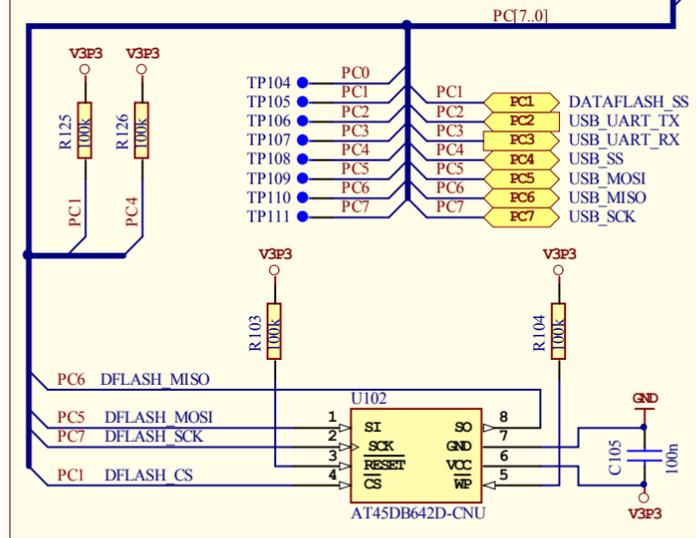
Potmeter measure input



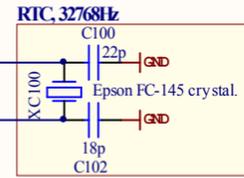
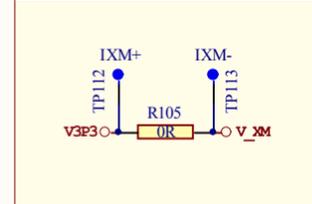
Audio DAC outputs



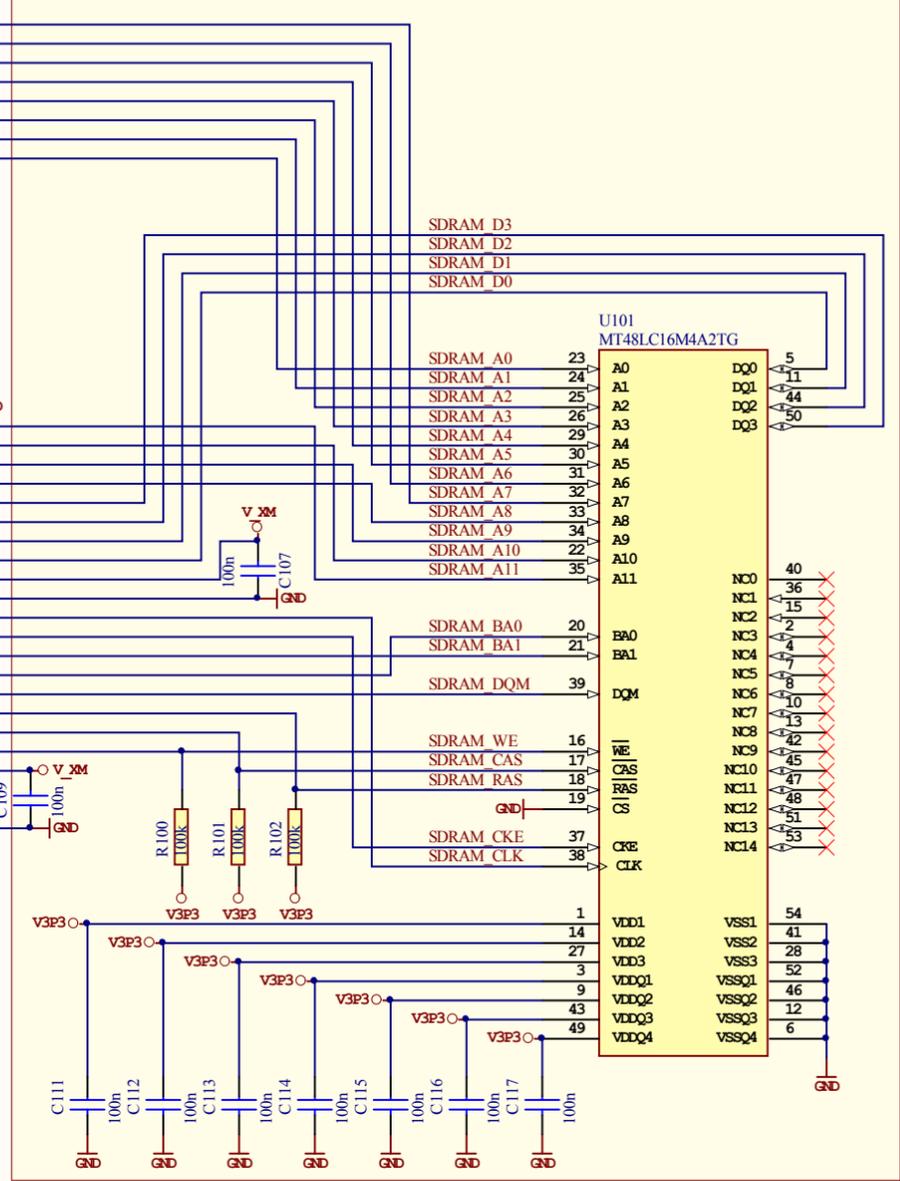
8MB Dataflash and SPI-BUS



XMEGA Current Shunt

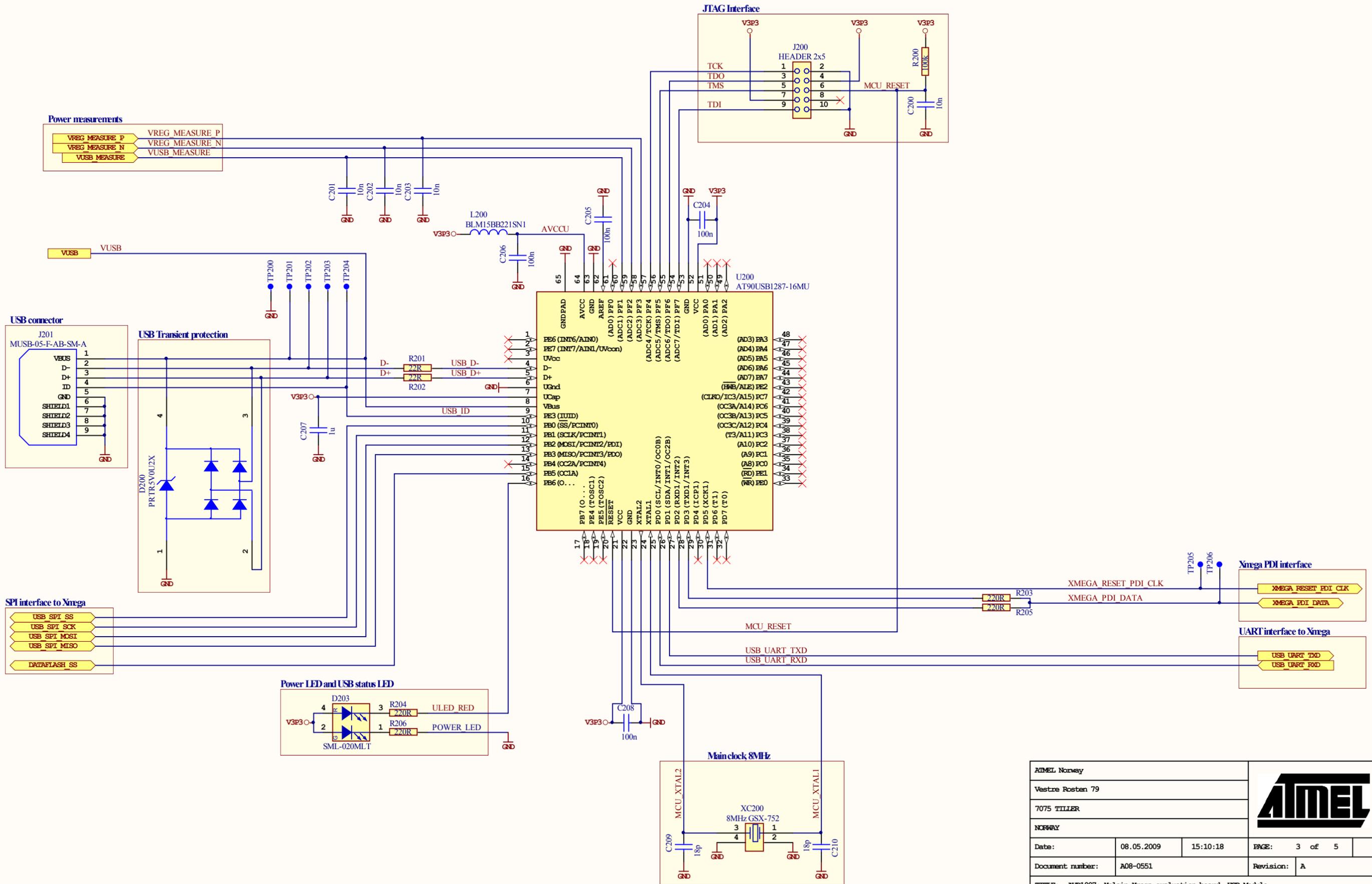


8MB SDRAM



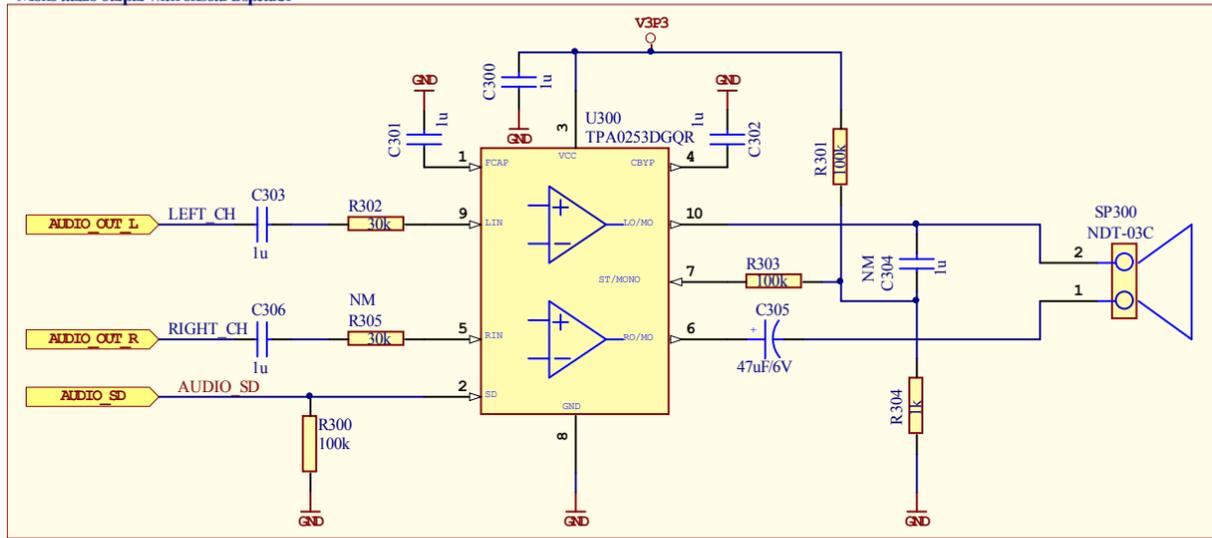
ATEMEL Norway			
Vestre Rosten 79			
7075 TILLER			
NORWAY			
Date:	08.05.2009	15:10:18	PAGE: 2 of 5
Document number:	A08-0551	Revision:	A
TITLE: AVR1907: Xplain evaluation board, Xmega CPU Module			
Xplain_XMEGA.SchDoc			



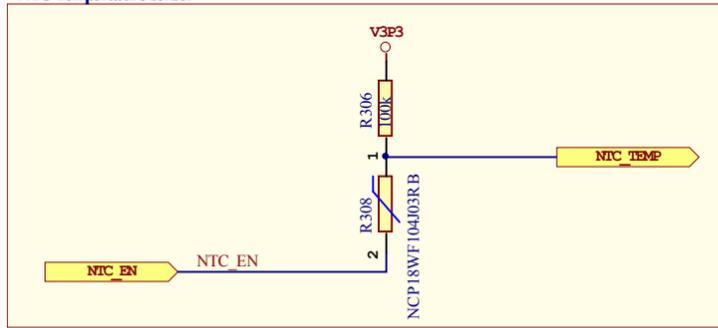


ATMEL Norway				
Vestre Rosten 79				
7075 TILLER				
NORWAY				
Date:	08.05.2009	15:10:18	PAGE:	3 of 5
Document number:	A08-0551		Revision:	A
TITLE: AVR1907: Xplain Xmega evaluation board, USB Module				
Xplain_USB.SchDoc				

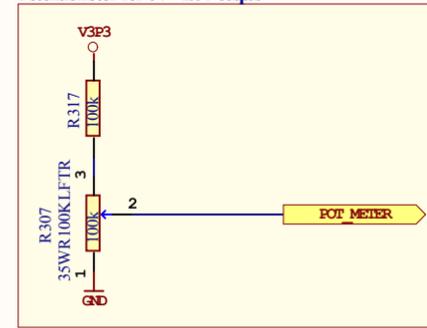
Mono audio output with onboard speaker



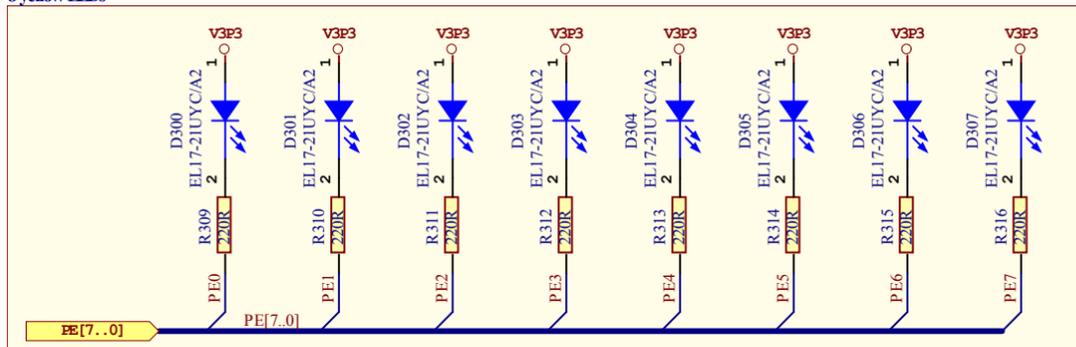
NTC Temperature sensor



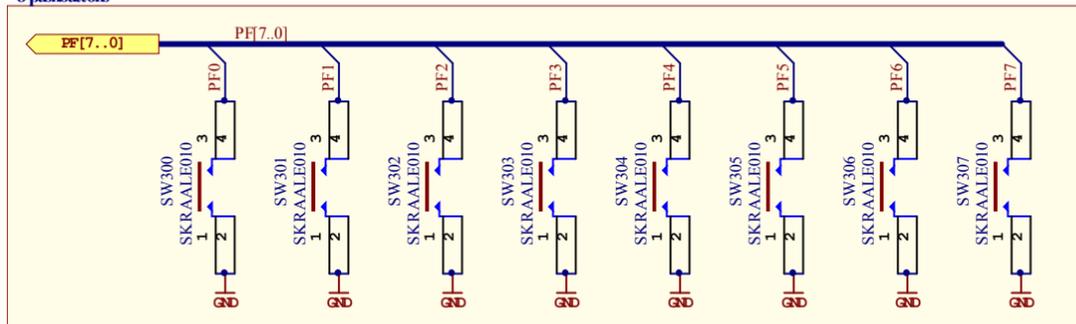
Potentiometer for 0V - 2.0V output



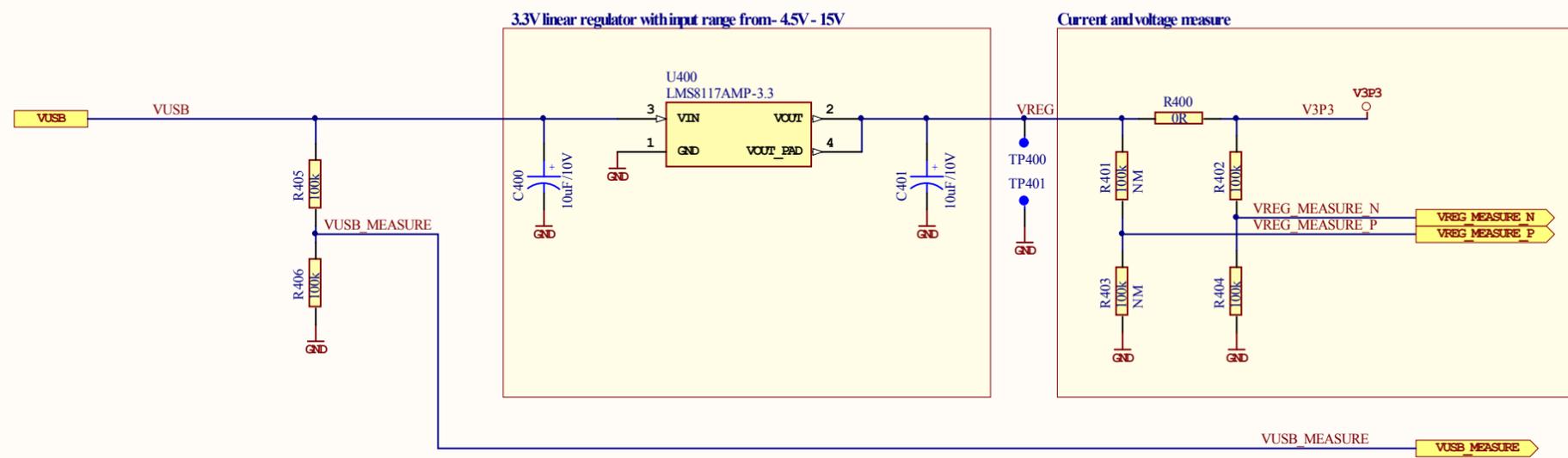
8 yellow LEDs



8 pushbuttons

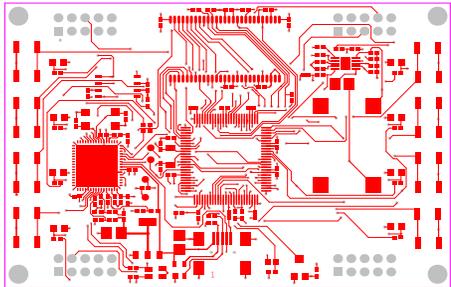


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Date:	08.05.2009	15:10:19	PAGE: 4 of 5
Document number:	A08-0551	Revision:	A
TITLE: AVR1907: Xplain Mega evaluation board, IO Module			
Xplain_IO.SchDoc			



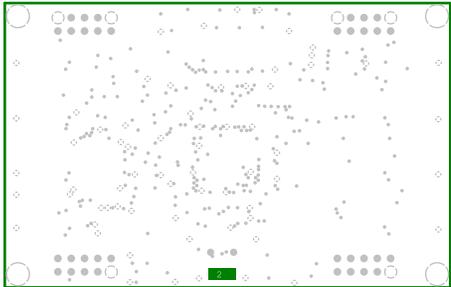
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NORWAY				
Date:	08.05.2009	15:10:19	PAGE:	5 of 5
Document number:	A08-0551	Revision:	A	
TITLE: AVR1907: Xplain evaluation board, Power-Supply Module				
Xplain_PSU.SchDoc				

Quantity	Designator	MPN	Description	Value	Manufacturer
1	C100		Ceramic capacitor, SMD 0402, NP 50V, +/-5%	22p	
22	C101, C103, C104, C105, C106, C107, C108, C109, C110, C111, C112, C113, C114, C115, C116, C117, C118, C119, C204, C205, C206, C208	C0402C104K4RACTU	Ceramic capacitor, SMD 0402, X7 16V, +/-10%	100n	Kemet
3	C102, C209, C210		Ceramic capacitor, SMD 0402, NP 50V, +/-5%	18p	
4	C200, C201, C202, C203		Ceramic capacitor, SMD 0402, X7 25V, +/-10%	10n	
6	C207, C300, C301, C302, C303, C306	C0402C105K9PAC	Ceramic capacitor, SMD 0402, X5 6.3V, +/-10%	1u	Kemet
1	C305	T494B476M006AT	SMD tantalum capacitor, precision molded chip, ESR=0,5	47uF/6V	Kemet
2	C400, C401	T491B106M010AT	SMD tantalum capacitor, precision molded chip. ESR = 3,5	10uF/10V	Kemet
1	D200	PRTR5V0U2X	Double rail-to-rail USB ESD protection diode	PRTR5V0U2X	Philips
1	D203	SML-020MLT	LED, 2 colour (RED/GREEN), transparent clear lens, SMD	SML-020MLT	ROHM
8	D300, D301, D302, D303, D304, D305, D306, D307	EL17-21UYC/A2	LED, Yellow, Wave length=591nm SMD0805 ±70°	EL17-21UYC/A2	Everlight
4	J100, J101, J102, J200	CD075014 2X5	2x5 pin header, 2.54 mm pitch, Pin Paste THM	CD075014 2X5	Freber
1	J201	MUSB-05-F-AB-SM-A		MUSB-05-F-AB-SM-A	SAMTEC
2	JS100, JS101	SNT-100-BK-G	Jumper cap for 2.54mm pinheader	SNT-100-BK-G	SAMTEC
2	L100, L200	BLM15BB221SN1	SMD RF inductor 0402. Z=220Ohm (@100MHz), Max R(dc)=0.80Ohm Max current=200mA	BLM15BB221SN1	Murata
1	LBL1		PCBA identification label PP Top White Gloss	Label PCBA	
1	PCB1	A08-0551	Xplain PCB, 4-layer, size 54mm x 85mm	A08-0551	
17	R100, R101, R102, R103, R104, R125, R126, R200, R300, R301, R303, R306, R317, R402, R404, R405, R406		Thick film resistor, SMD 0402, 1/16W, 1%	100k	
2	R105, R400		Thick film resistor, SMD 0402, 1/16W, 1%	0R	
2	R201, R202		Thick film resistor, SMD 0402, 1/16W, 1%	22R	
12	R203, R204, R205, R206, R309, R310, R311, R312, R313, R314, R315, R316		Thick film resistor, SMD 0402, 1/16W, 1%	220R	
1	R302		Thick film resistor, SMD 0402, 1/16W, 1%	30k	
1	R304		Thick film resistor, SMD 0402, 1/16W, 1%	1k	
1	R307	35WR100KLFTR	3mm single-turn SMD potmeter	35WR100KLFTR	BI Technologies
1	R308	NCP18WF104J03RB	NTC Thermistor 100kOhm @ 25deg, 1/10W, 5%, SMD 0603	NCP18WF104J03RB	Murata
1	SP300	NDT-03C	SMD Speaker, 0.5W, 15x15mm	NDT-03C	Star Micronics
8	SW300, SW301, SW302, SW303, SW304, SW305, SW306, SW307	SKRAALE010	6.2x6.2 mm SMD tact switch	SKRAALE010	ALPS
1	U100	ATxmega128A1-AU	AVR 8-bit RISC MCU	ATxmega128A1-AU	ATMEL
1	U101	MT48LC16M4A2P-75:G	64Mbit SDRAM 16Mx4, 3,3V.	MT48LC16M4A2P-75:G	Micron
1	U102	AT45DB642D-CNU	64-Mbit 2.7-volt serial data	AT45DB642D-CNU	ATMEL
1	U200	AT90USB1287-16MU		AT90USB1287-16MU	ATMEL
1	U300	TPA0253DGQR	1W mono audio power amplifier w/ headphone drive	TPA0253DGQR	Texas Instruments
1	U400	LMS8117AMP-3.3	3.3V 1A Low Dropout Linear Regulator SOT223_4	LMS8117AMP-3.3	National Semiconductor
1	XC100	Q13FC1450000614	32KHz crystal, SMD, 4.1 x 1.5 mm FC-145	Q13FC1450000614	Epson Toyocom
1	XC200	GSX-752B/551EF 8MHz		8MHz GSX-752	Golledge



ATMEL, HIGHWAY
 10000 PLEASANT
 HILL, MA 01967 USA

DESIGNER:	TITLE:		
PCB DESIGNER:	PART NO.:		REV.:
DATE:	06/03/2009	DWG NO.:	SCALE:
FILE NAME:	1904h7000e		



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10000 PARKWAY 79
MILFORD, MA 01908

DESIGNER	TITLE		
PCB DESIGNER	PART NO.		REV.
DATE	DWG NO.		SCALE
FILE NAME	DWG NO.		
1998-10-01			

1 2 3 4 5 6 7 8

A

A

B

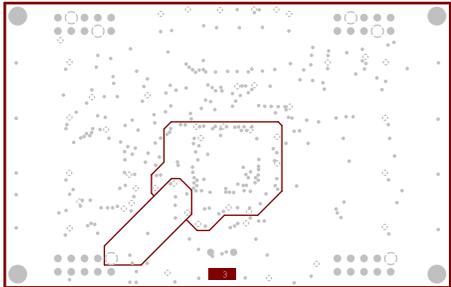
B

C

C

D

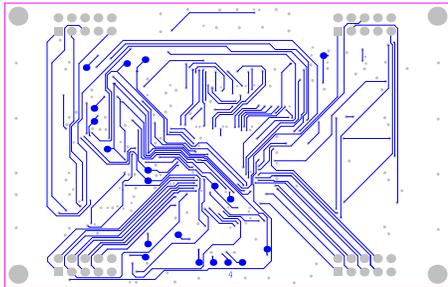
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ATMEL, HIGHWAY
 10000 PARKWAY 79
 N. 2075 Thru

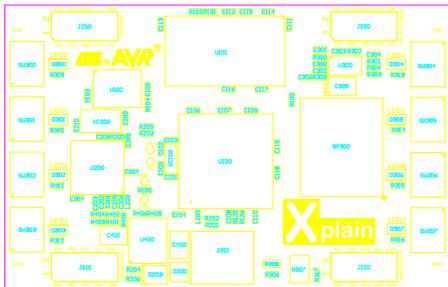
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103-10000			

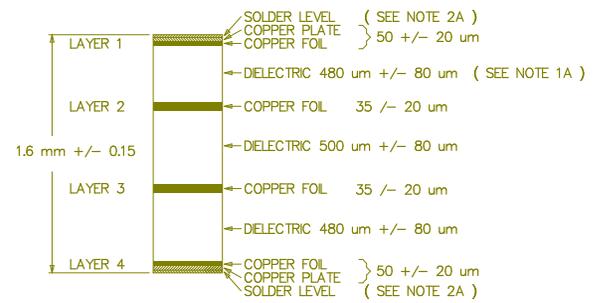
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ATMEL, HIGHWAY
 MARK PROGRAM 79
 81-7075 12th

DESIGNER:	TITLE:		
PCB DESIGNER:	PART NO.:		REV:
DATE:	06/03/2009	DWG NO.:	SCALE:
FILE NAME:	190497001e		





NOTE 1A: DIELECTRIC FR4
 2A: SURFACE PROTECTION: HASL
 THE BOARD MUST BE RoHS COMPLIANT

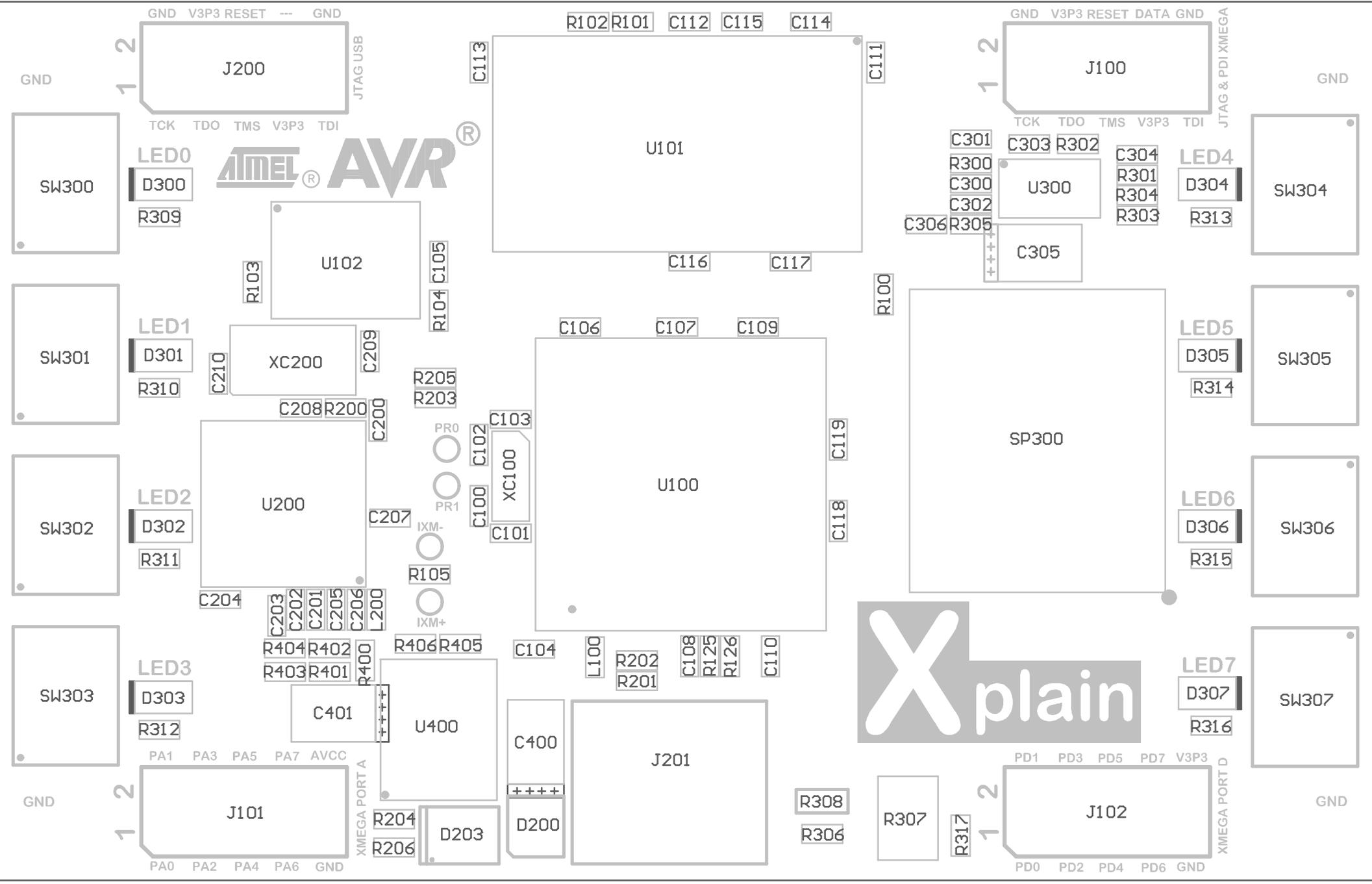
DETAIL A (CROSS-SECTION)
 SCALE = NONE

85 (mm)

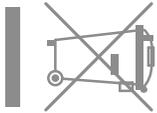


54 (mm)

 ATMEL, HIGHWAY 10000 PARKWAY 79 IRVING, TEXAS 75039	DESIGNER:	TITLE:	
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	ORIGINATOR:	DWG NO:	SCALE:
	FILE NAME:		
	1998-10-06		



PCBA LABEL



TP109

TP105

TP106

TP111

TP206

TP205

TP110

TP107

TP108

TP104

TP103

TP204

TP203

TP202

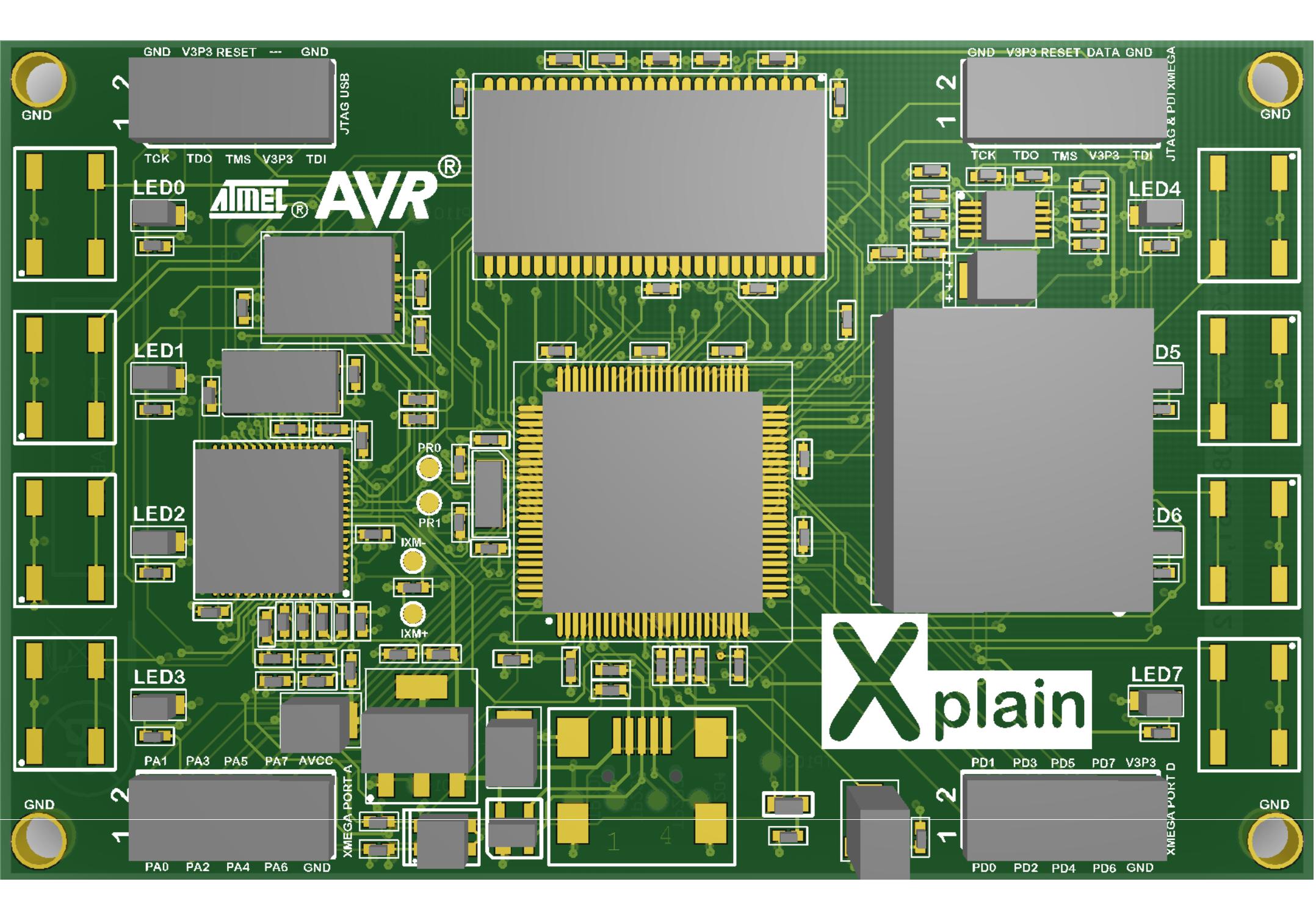
TP201

TP200

TP400

TP401

TP102



AMEL® AVR®

Xplain

GND V3P3 RESET --- GND

GND V3P3 RESET DATA GND

TCK TDO TMS V3P3 TDI

TCK TDO TMS V3P3 TDI

LED0

LED4

LED1

LED2

LED3

LED7

PA1 PA3 PA5 PA7 AVCC

PD1 PD3 PD5 PD7 V3P3

PA0 PA2 PA4 PA6 GND

PD0 PD2 PD4 PD6 GND

PR0

PR1

IXM-

IXM+

D5

D6

XMEGA PORT A

XMEGA PORT D

JTAG USB

JTAG & PDI XMEGA

GND

GND

GND

GND

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TP200

TP400

TP401