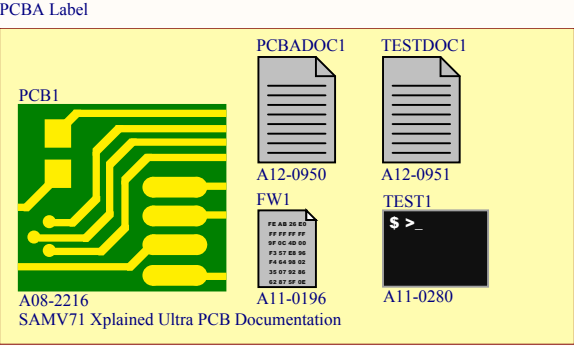
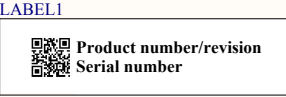
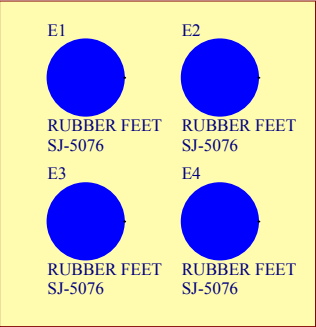
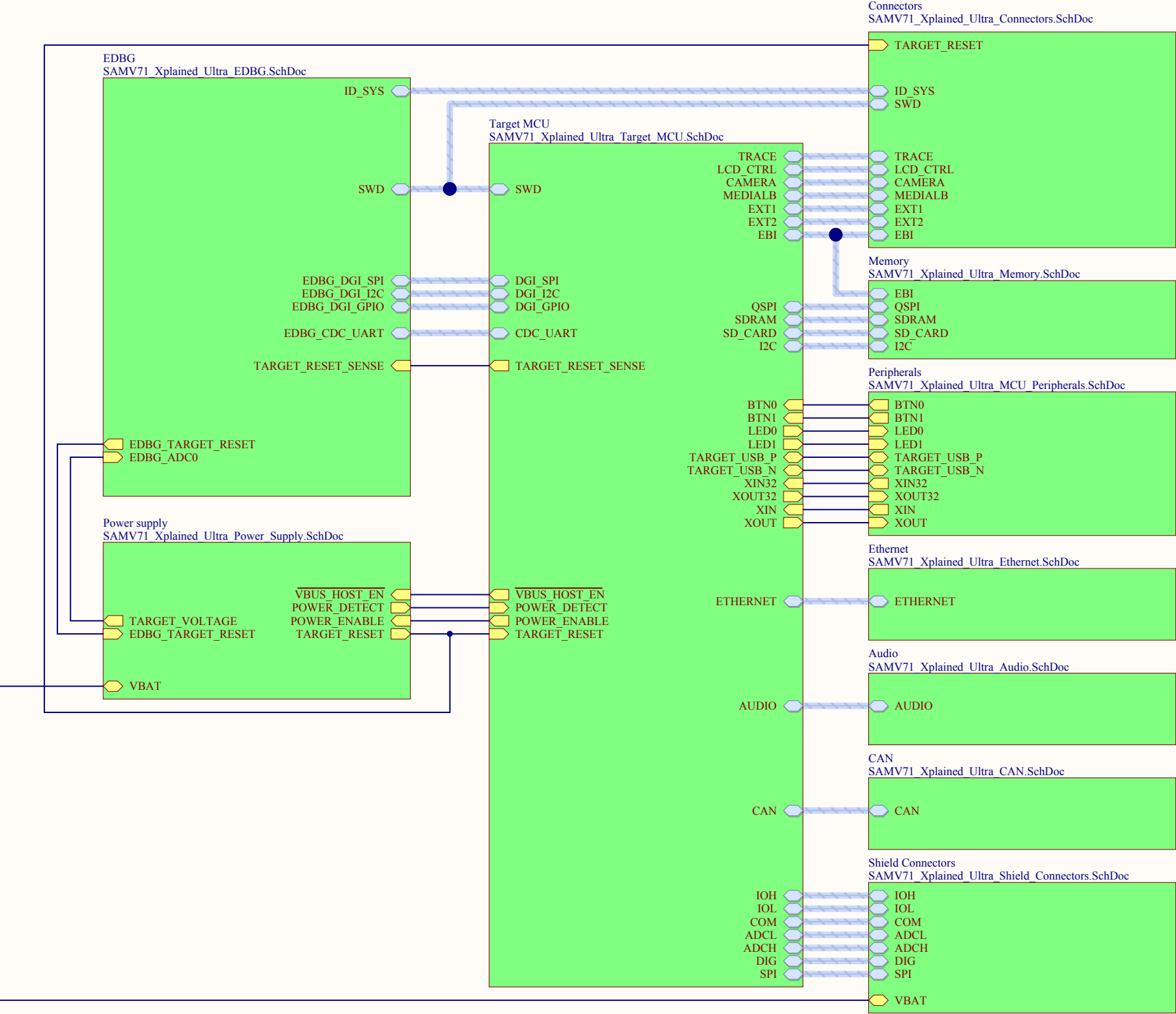


SAM V71 Xplained ULTRA



ATMEL Norway	*	 Enabling Unlimited Possibilities!		
Vestre Rosten 79	*			
N-7075 TILLER	*			
NORWAY				
Date:	24.08.2016	16:00:18	PAGE:	1 of 13
Document number:	A09-2407	Revision:	2	
TITLE: Top Level Schematics				
SAMV71_Xplained_Ultra_TopLevel.SchDoc				

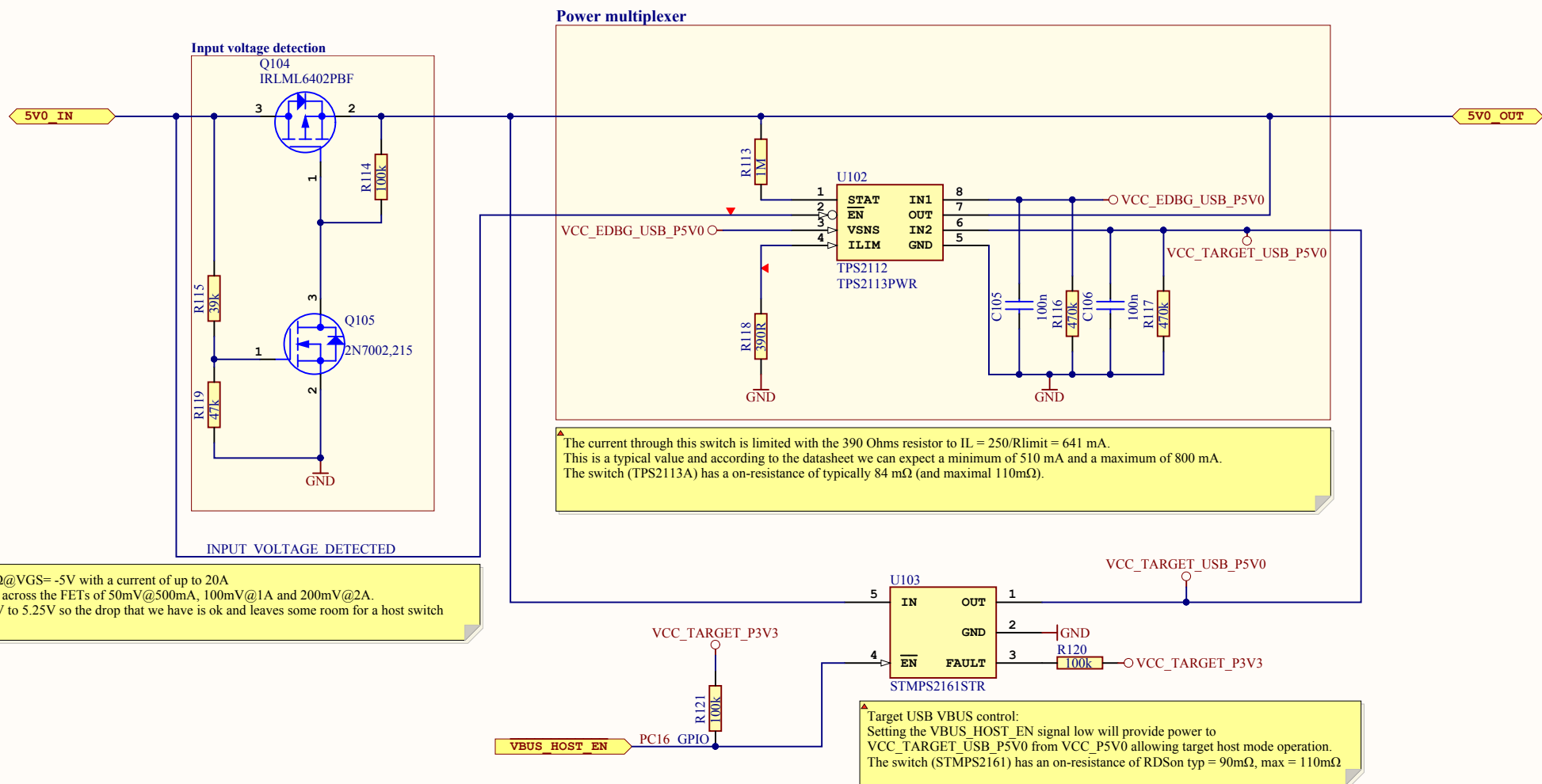
Vin has to be 12V when MediaLB extensions are used.

When Vin = 5V the regulator uses a 100% duty-cycle mode (passthrough).

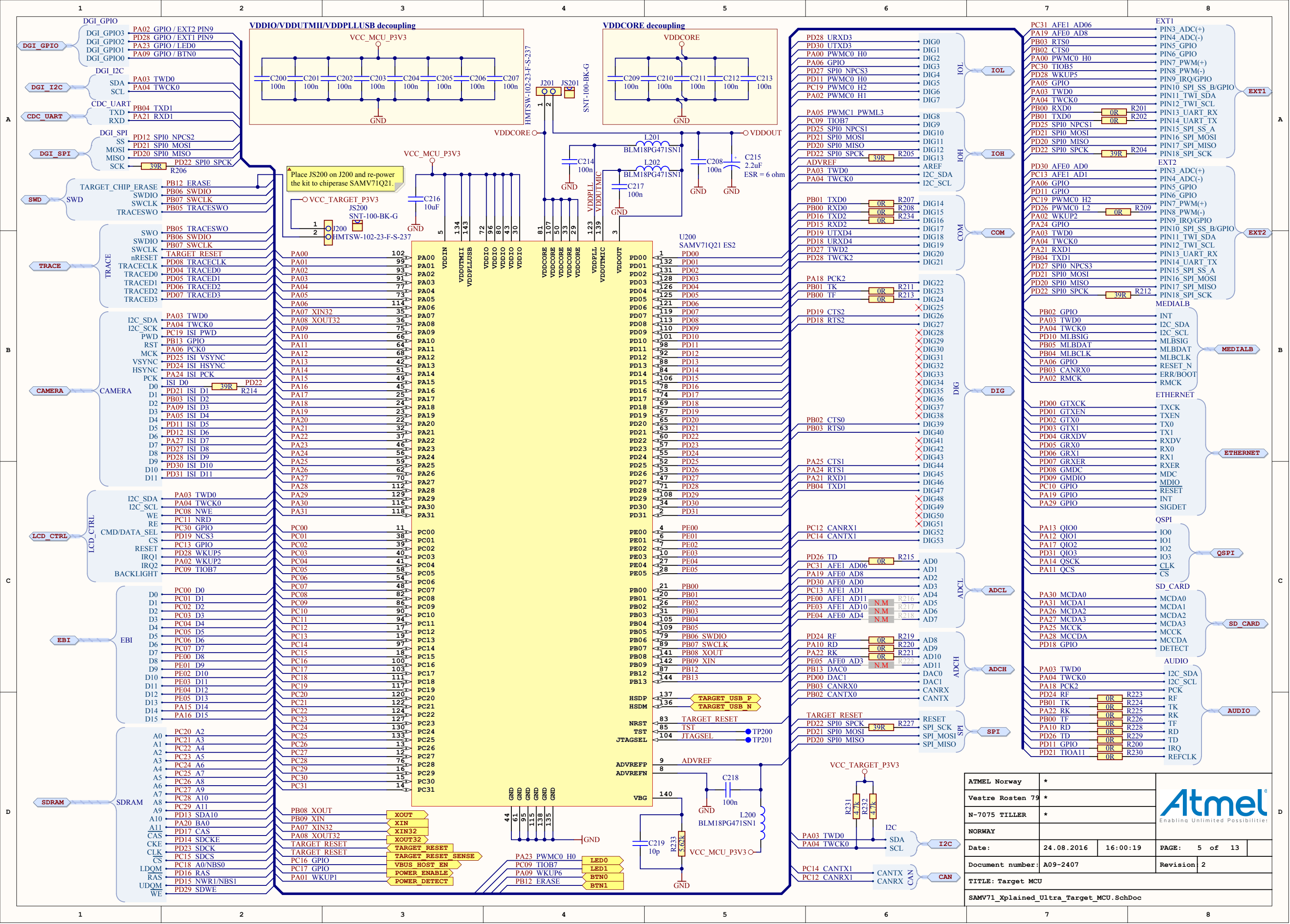
VCC_EXT_P5V0:
This power input can be used to power the whole board and it has a higher priority as the USB power inputs.
Connect a power supply if a target MCU with USB host is present and VCC_EXT_P5V0_P17V0 is not used.
4.3V to 5.5V is possible but for USB host operation and in case on-board devices use this voltage it should be 5V $\pm$ 2%.

VCC_TARGET_USB_P5V0:
Target MCU USB power input. It is used to power the whole board when no other 5V power supply is present.

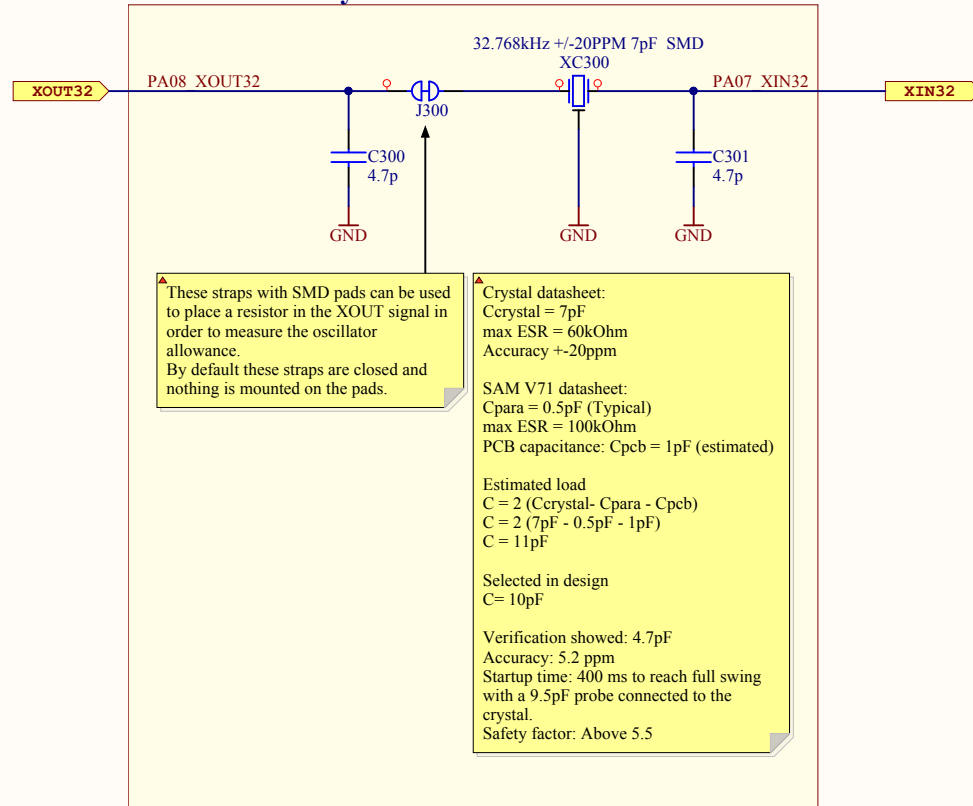
VCC_P3V3: Regulated 3.3V from VCC_P5V0
VCC_P2V0: Regulated 2.0V from VCC_P5V0
VCC_P1V8: Regulated 1.8V from VCC_P5V0
VCC_P1V2: Regulated 1.2V from VCC_P5V0



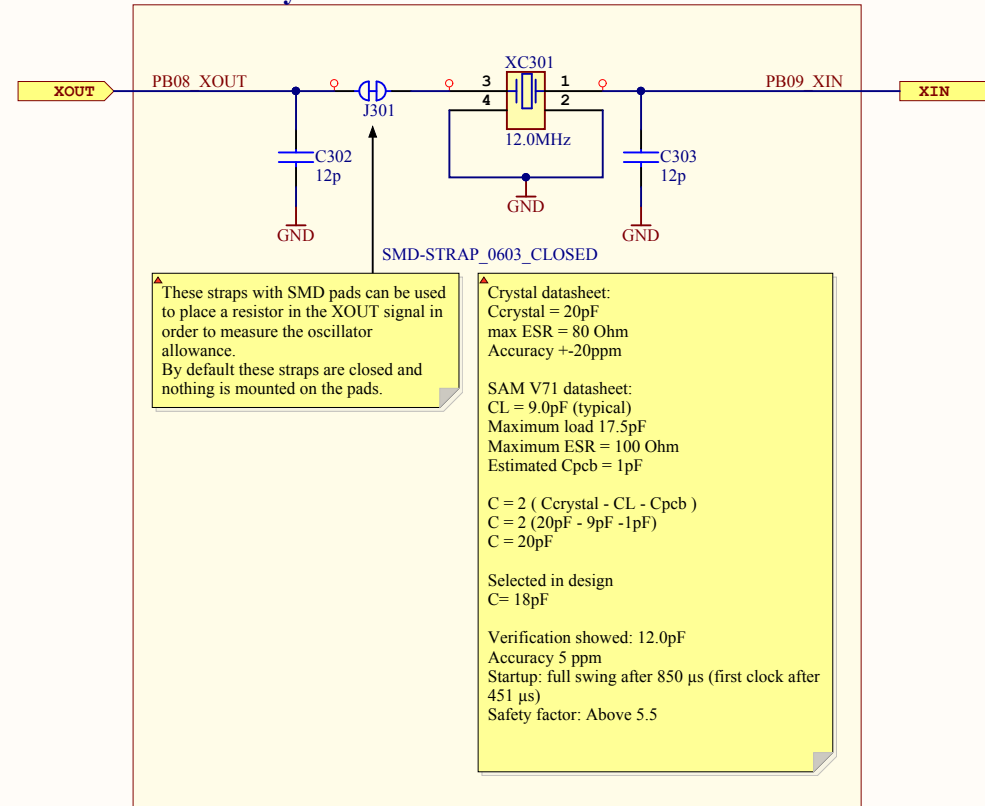
ATMEL Norway	*		 Enabling Unlimited Possibilities		
Vestre Rosten 79	*				
N-7075 TILLER	*				
NORWAY					
Date:	24.08.2016	16:00:18	PAGE:	3 of 13	
Document number:	A09-2407		Revision:	2	
TITLE: Power Multiplexer					
SAMV71_Xplained_Ultra_Power_Multiplexer.SchDoc					



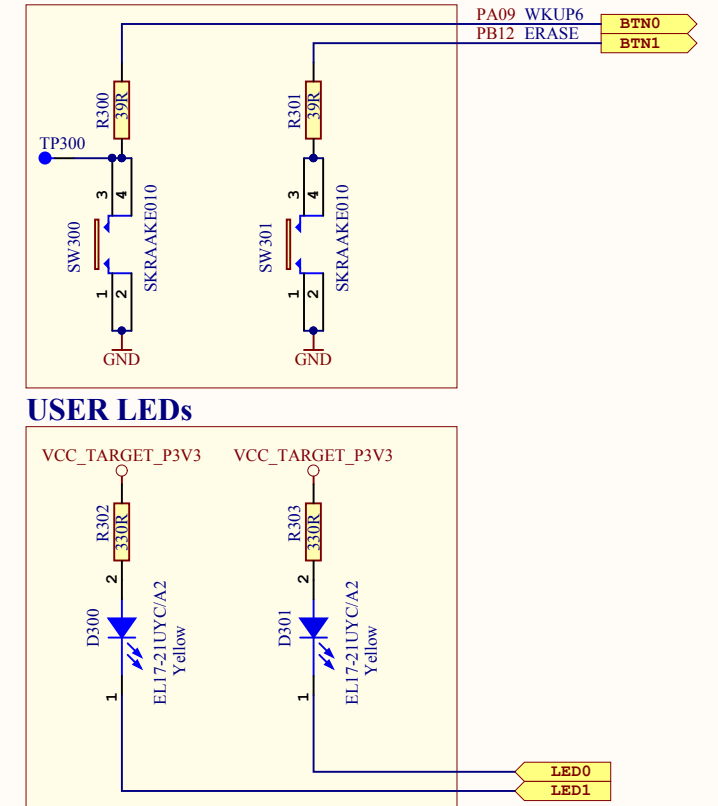
32.768 kHz Crystal



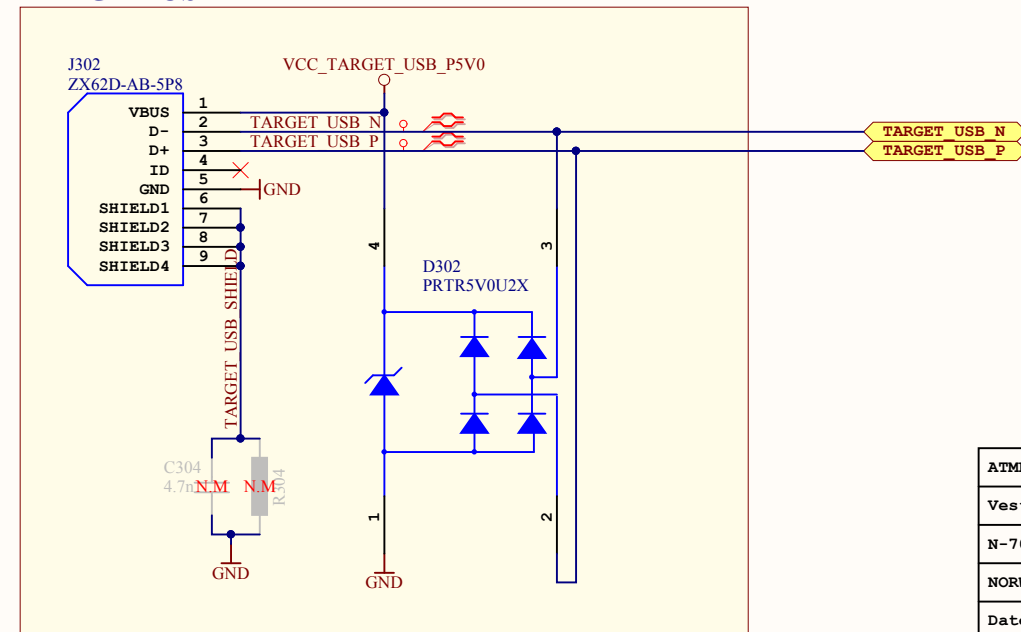
12 MHz Crystal



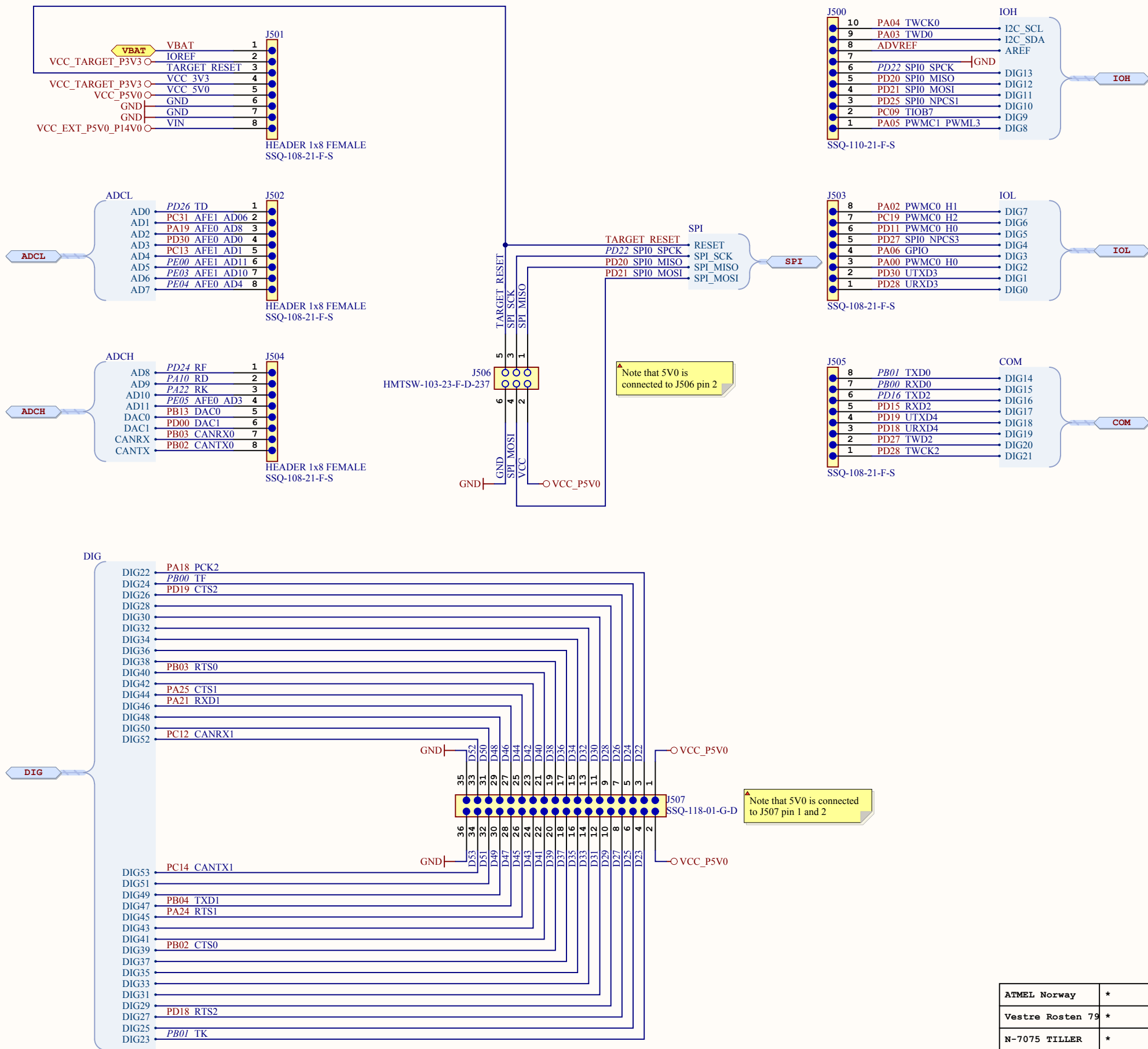
USER BUTTONs

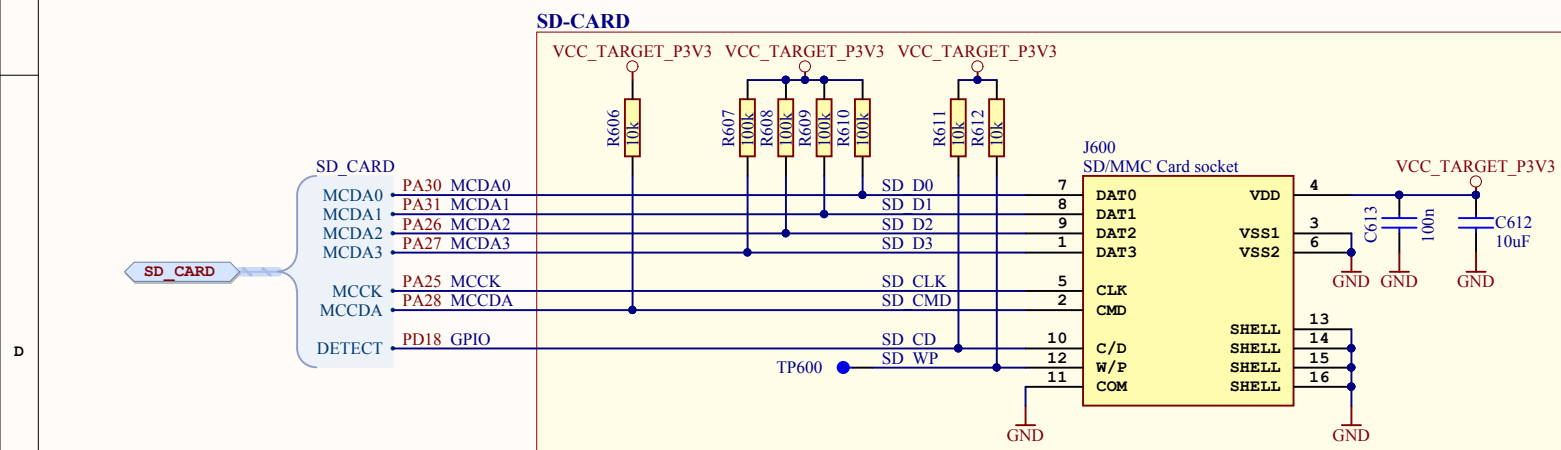
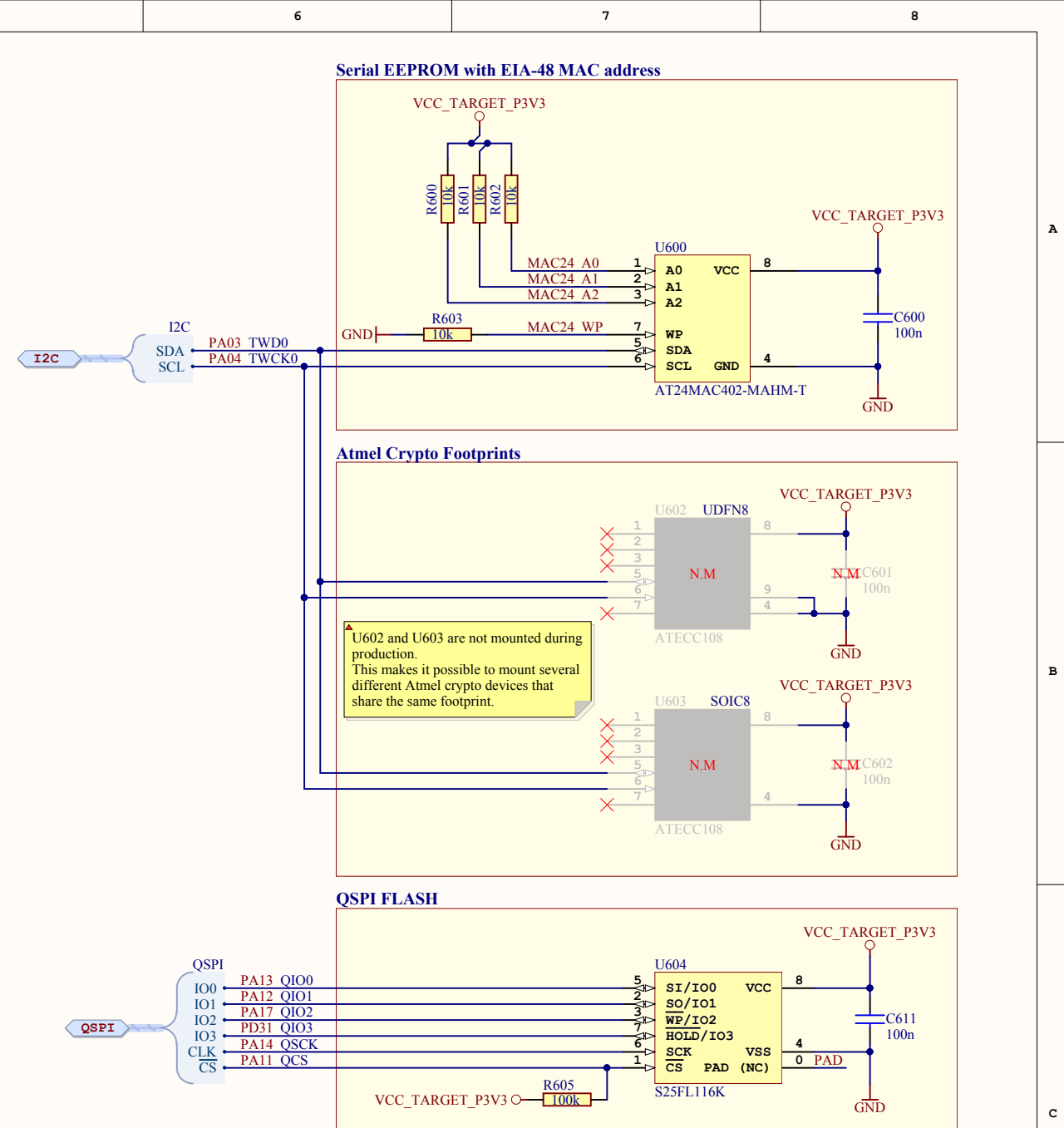
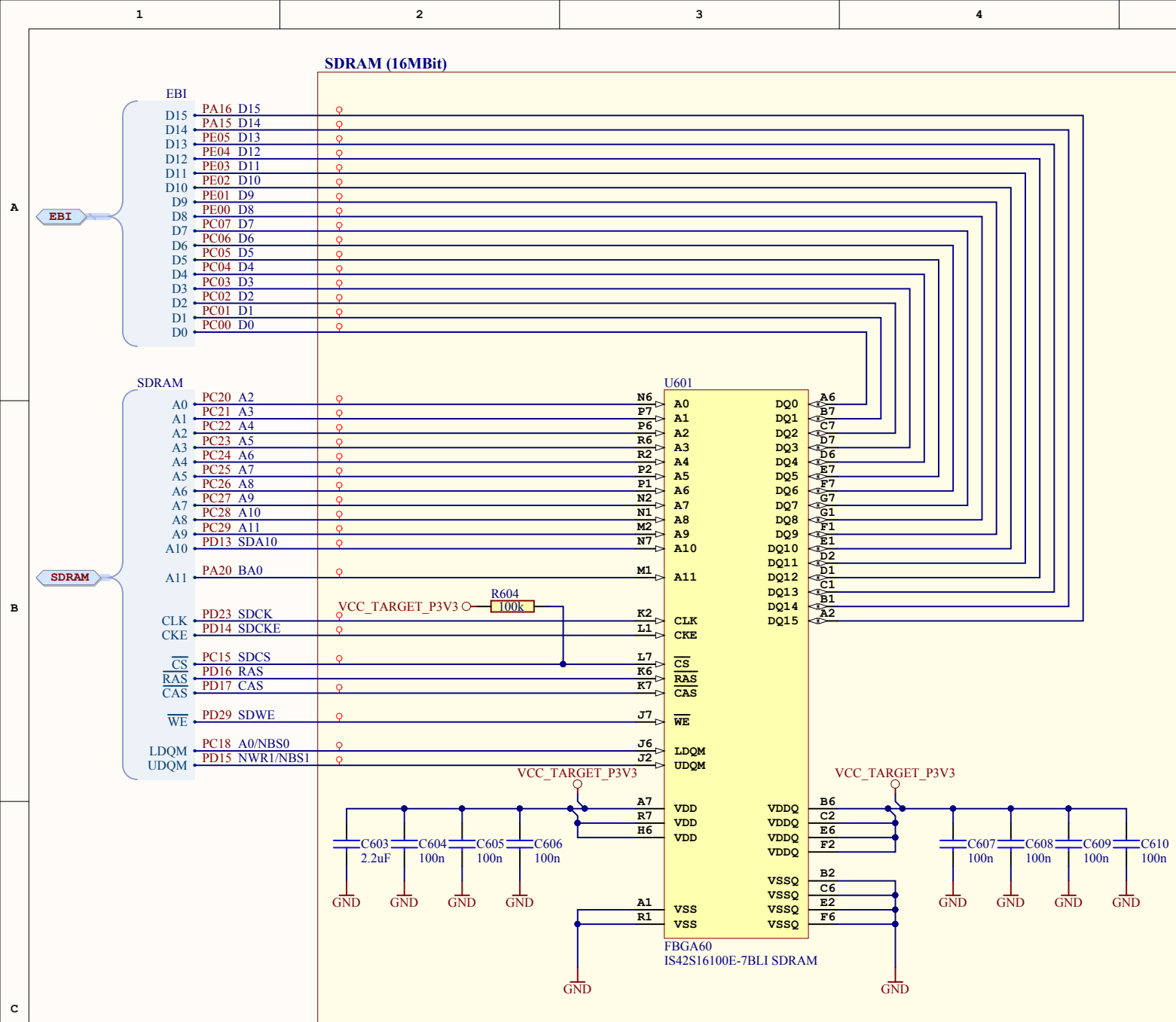


TARGET USB



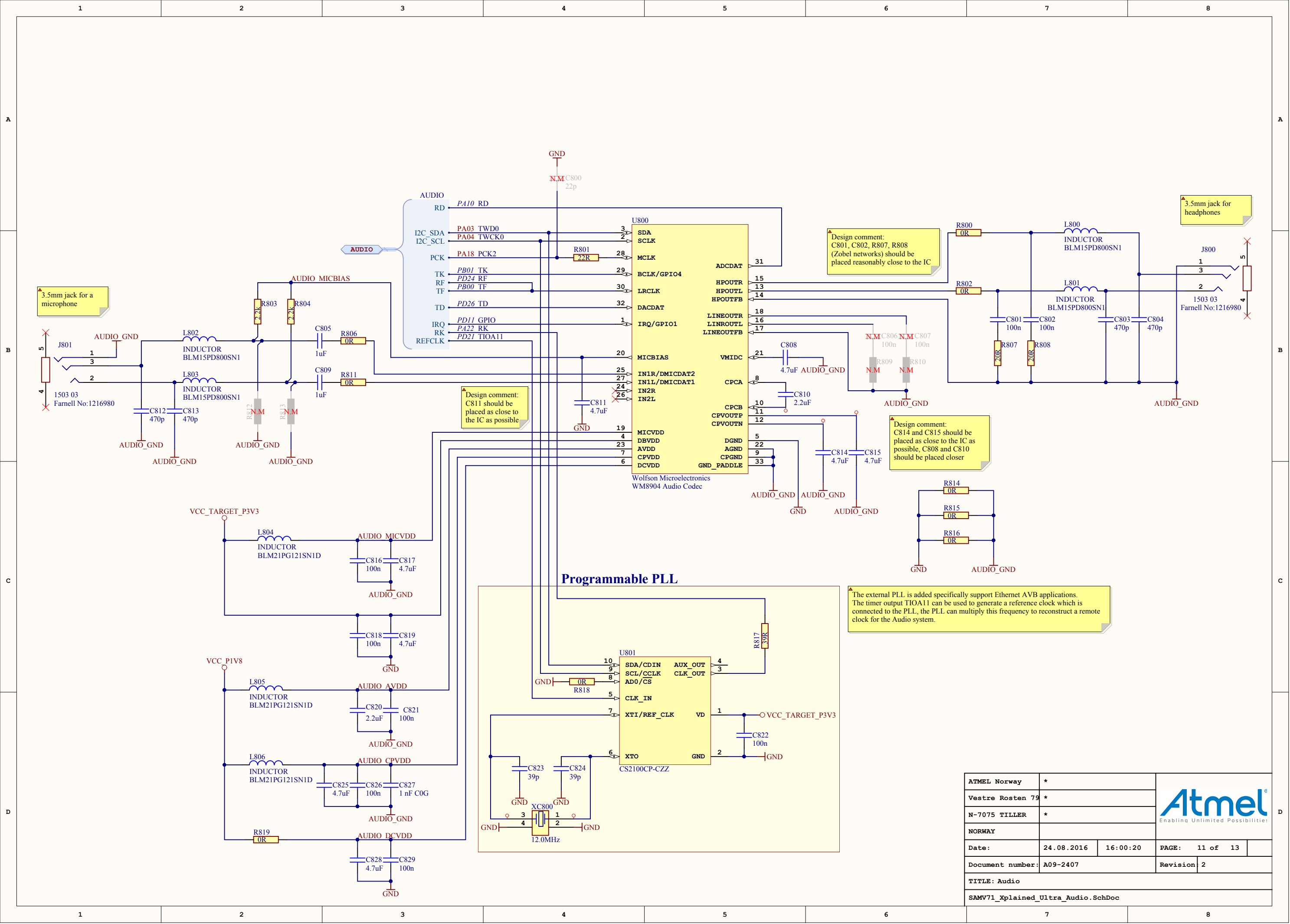
ATMEL Norway	*		 Enabling Unlimited Possibilities!	
Vestre Rosten 79	*			
N-7075 TILLER	*			
NORWAY				
Date:	24.08.2016	16:00:19	PAGE:	6 of 13
Document number:	A09-2407		Revision	2
TITLE: Target MCU Peripherals				
SAMV71 Xplained Ultra MCU Peripherals.SchDoc				

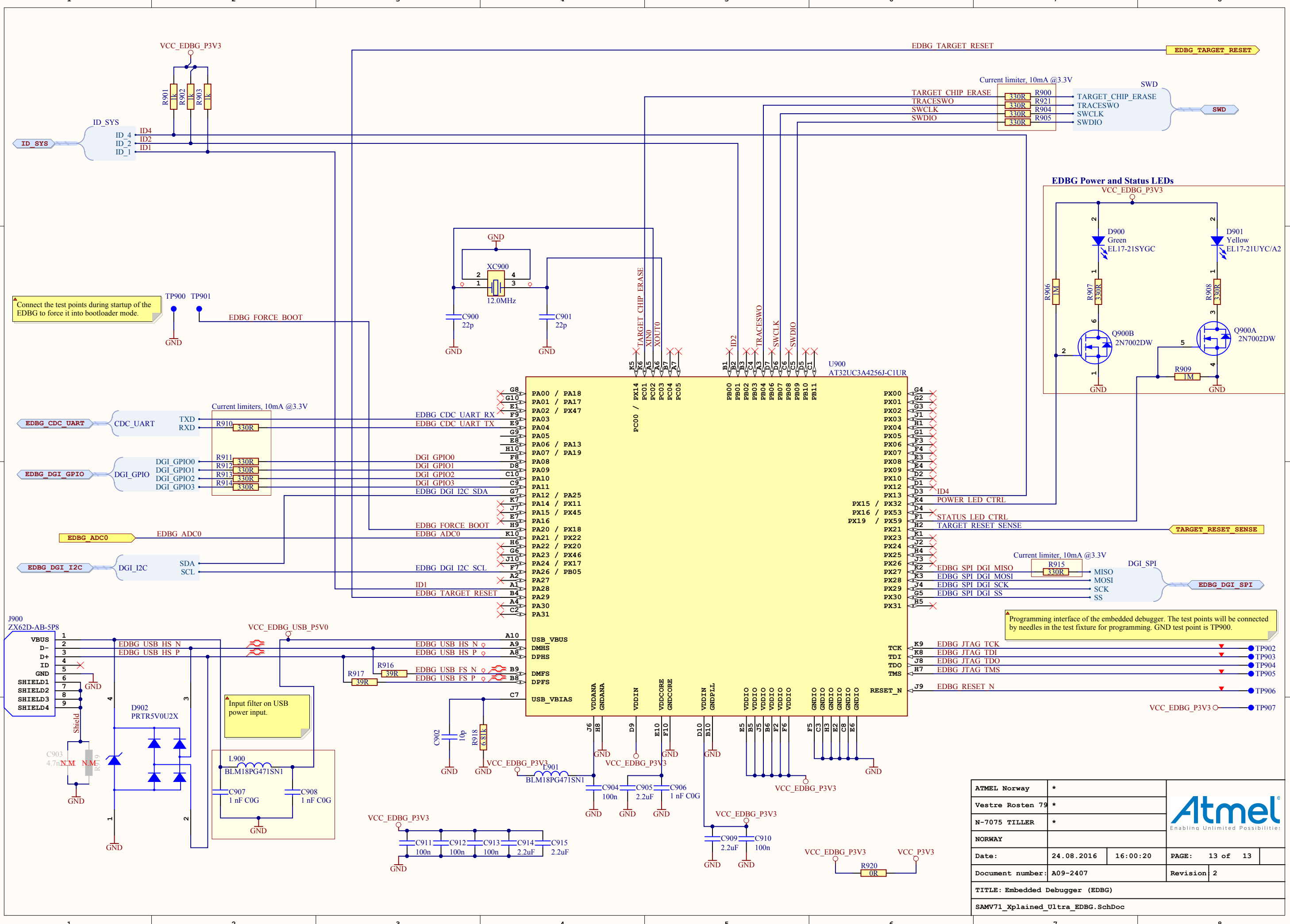


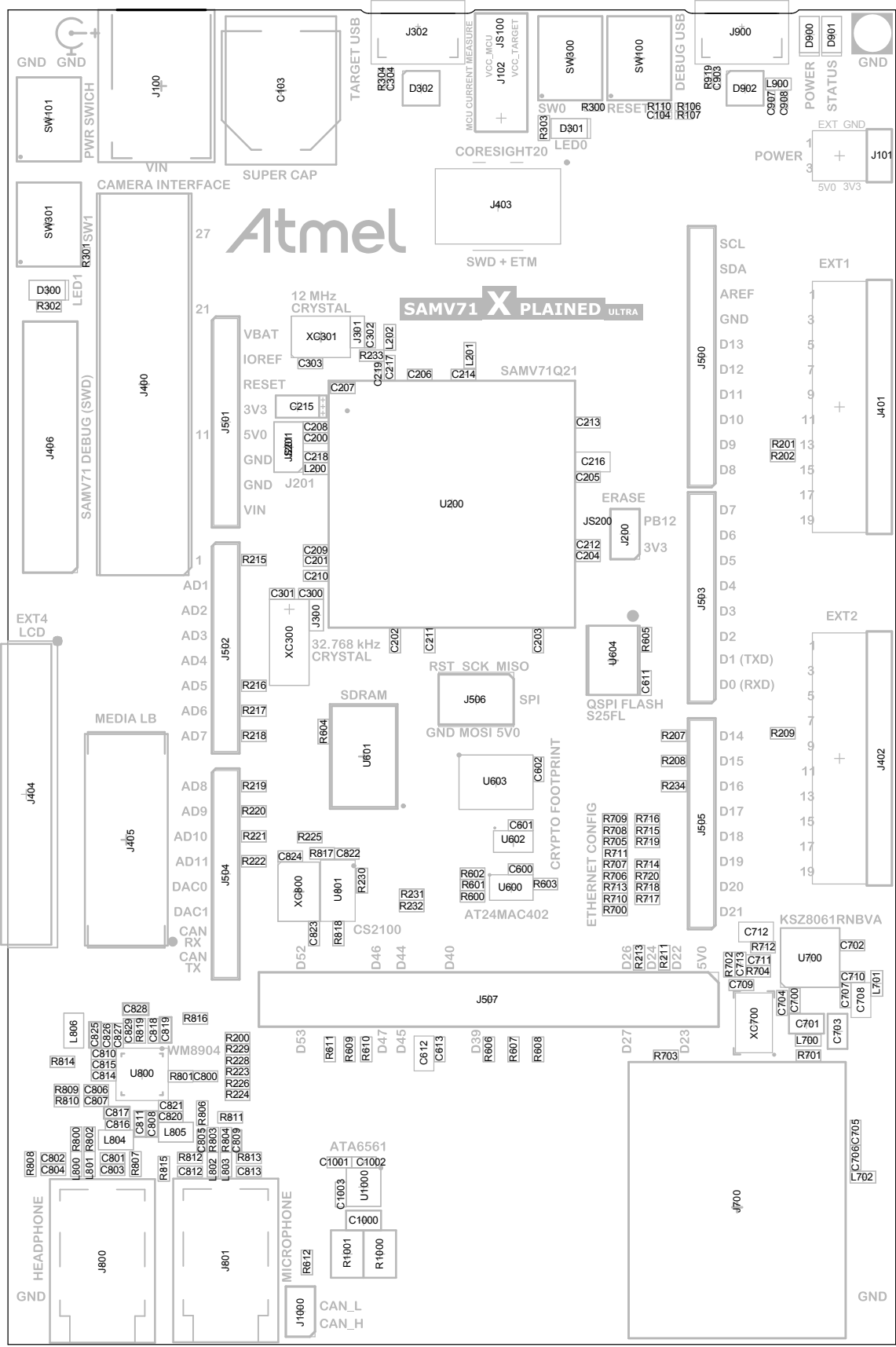


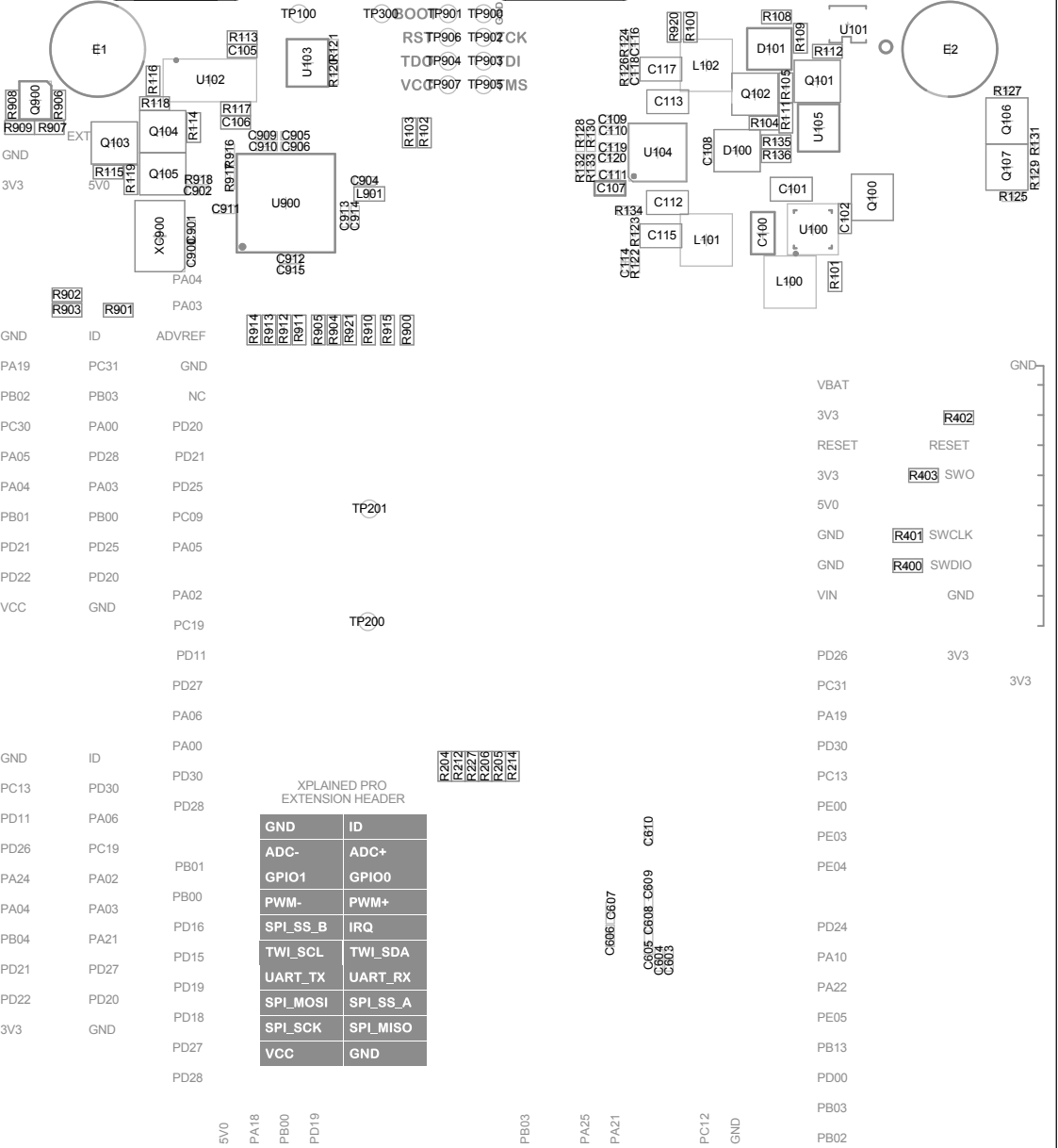
▲ C/D is connected to COM when a card is placed into the socket.
W/P is connected to COM when the write protect slider is in protect position.

ATMEL Norway	*		 Enabling Unlimited Possibilities	
Vestre Rosten 79	*			
N-7075 TILLER	*			
NORWAY				
Date:	24.08.2016	16:00:20	PAGE:	9 of 13
Document number:	A09-2407		Revision	2
TITLE: Memory				
SAMV71_Xplained_Ultra_Memory.SchDoc				





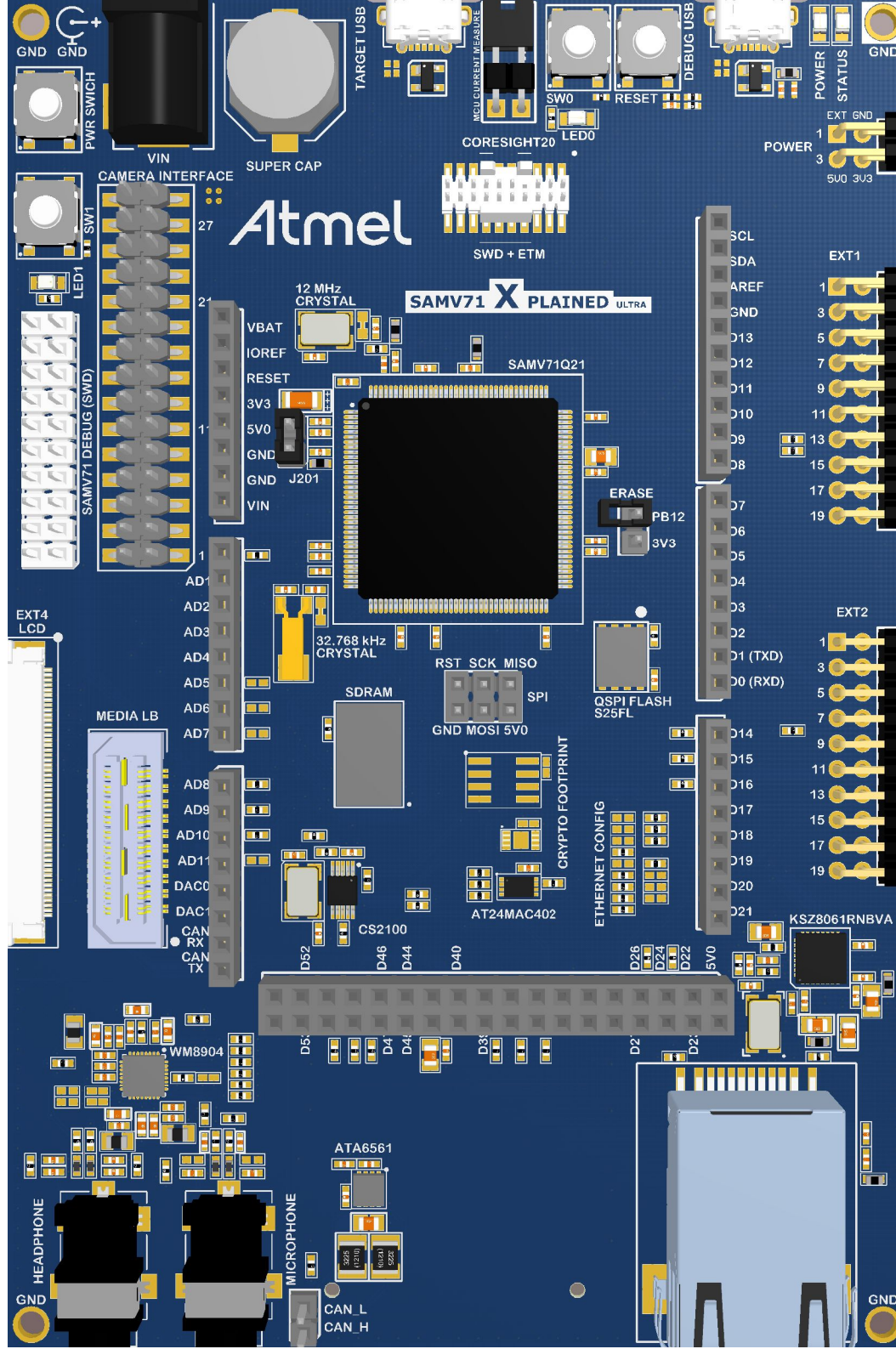


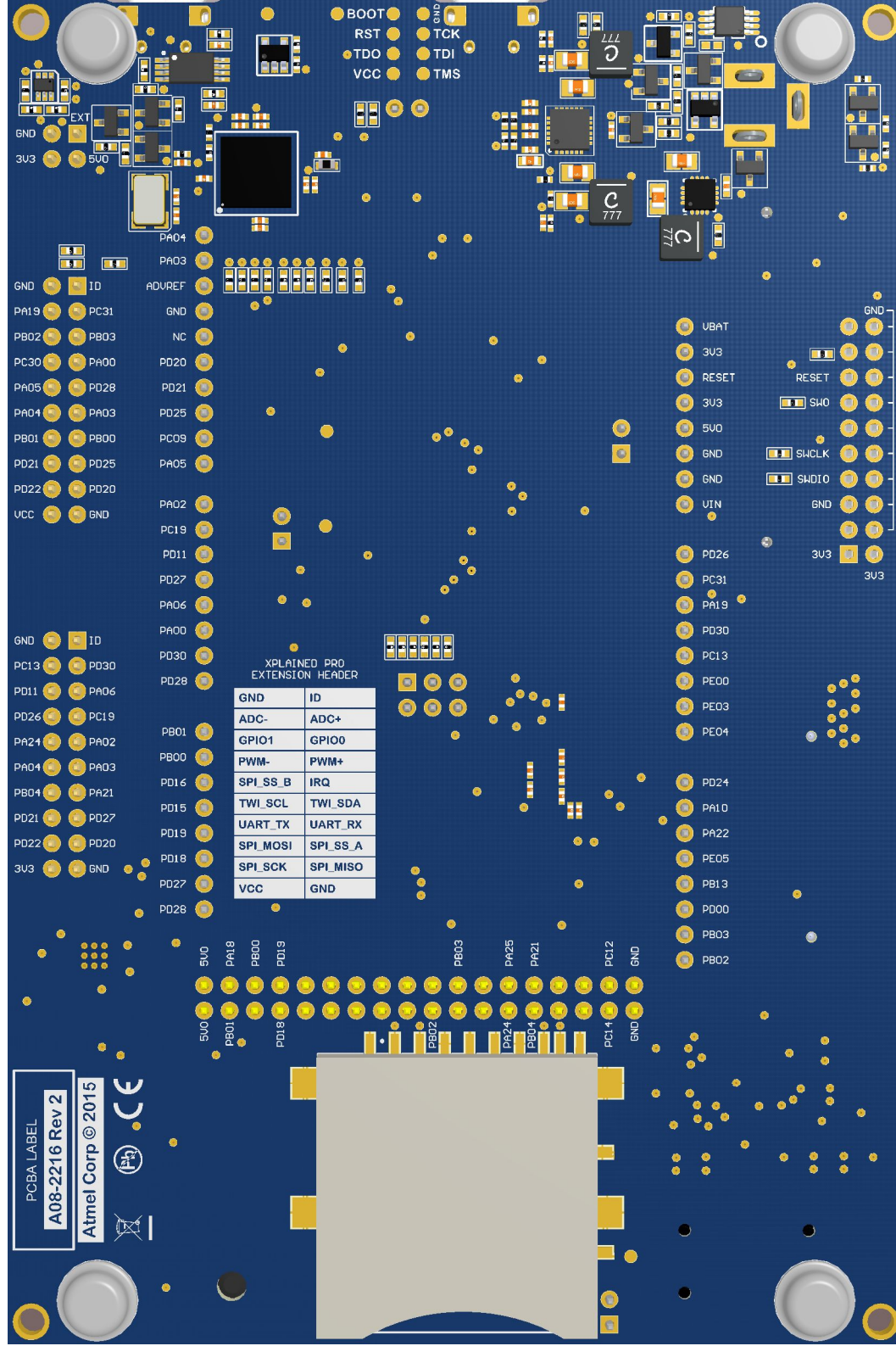


PCBA LABEL LABEL A08-2216 Rev 2

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BOOT
RST
TDO
VCC

TCK
TDI
TMS

GND
3V3
5V0

PA04
PA03

GND ID

PA19 PC31

PB02 PB03

PC30 PA00

PA05 PD28

PA04 PA03

PB01 PB00

PD21 PD25

PD22 PD20

VCC GND

GND ID

PC13 PD30

PD11 PA06

PD26 PC19

PA24 PA02

PA04 PA03

PB04 PA21

PD21 PD27

PD22 PD20

3V3 GND

ADUREF

GND

NC

PD20

PD21

PD25

PC09

PA05

PA02

PC19

PD11

PD27

PA06

PA00

PD30

PD28

PB01

PB00

PD16

PD15

PD19

PD18

PD27

PD28

XPLAINED PRO EXTENSION HEADER	
GND	ID
ADC-	ADC+
GPIO1	GPIO0
PWM-	PWM+
SPI_SS_B	IRQ
TWI_SCL	TWI_SDA
UART_TX	UART_RX
SPI_MOSI	SPI_SS_A
SPI_SCK	SPI_MISO
VCC	GND

5V0
PA18
PB00
PD13
PB03
PA25
PA21
PC12
GND
5V0
PB01
PD18
PB02
PA24
PE04
PC14
GND

UBAT

3V3

RESET

3V3

5V0

GND

GND

VIN

PD26

PC31

PA19

PD30

PC13

PE00

PE03

PE04

PD24

PA10

PA22

PE05

PB13

PD00

PB03

PB02

GND

3V3

RESET

3V3

5V0

GND

GND

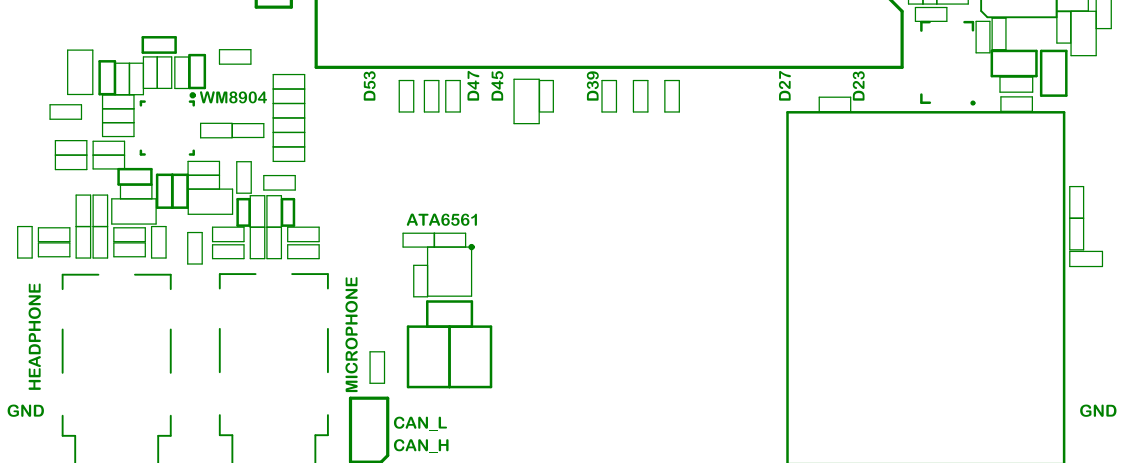
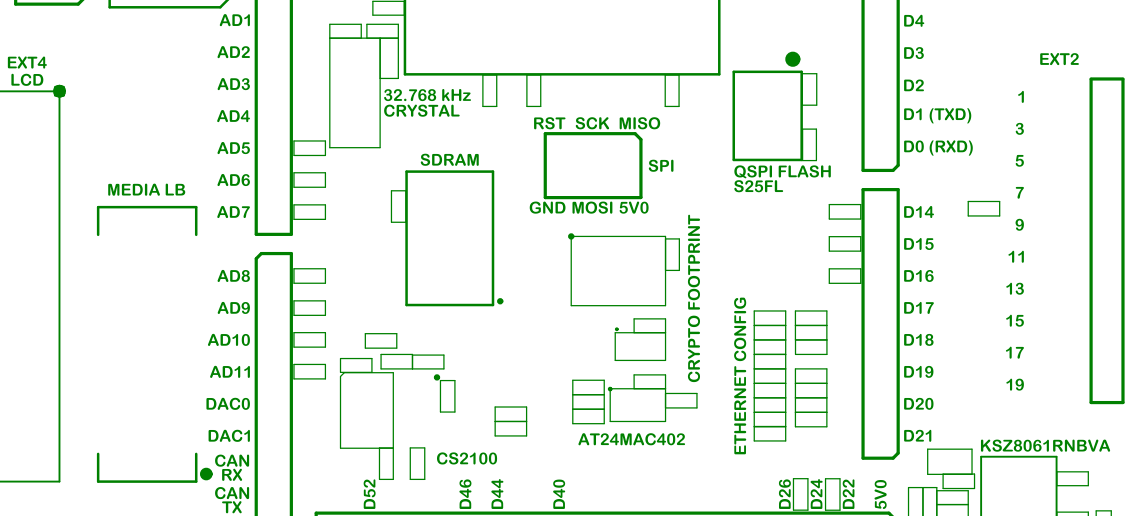
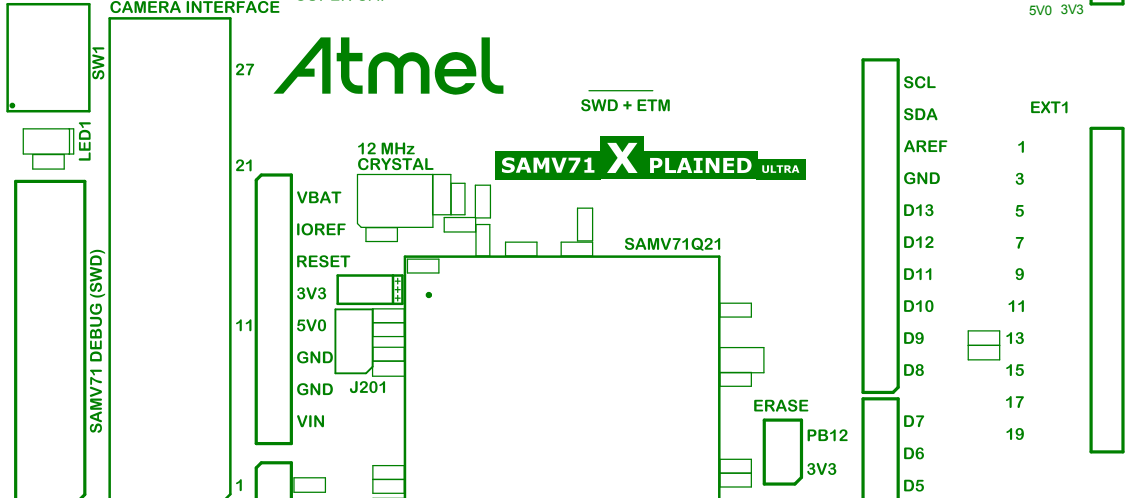
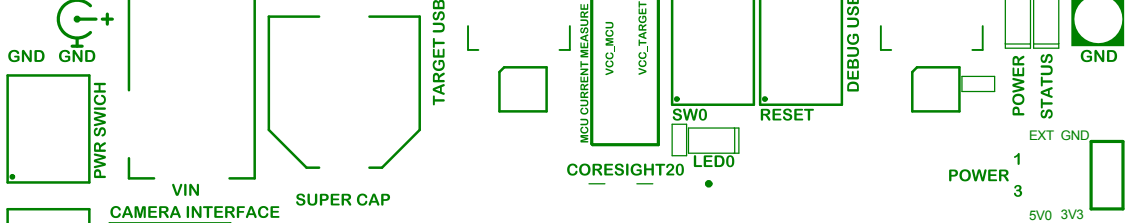
VIN

3V3

3V3

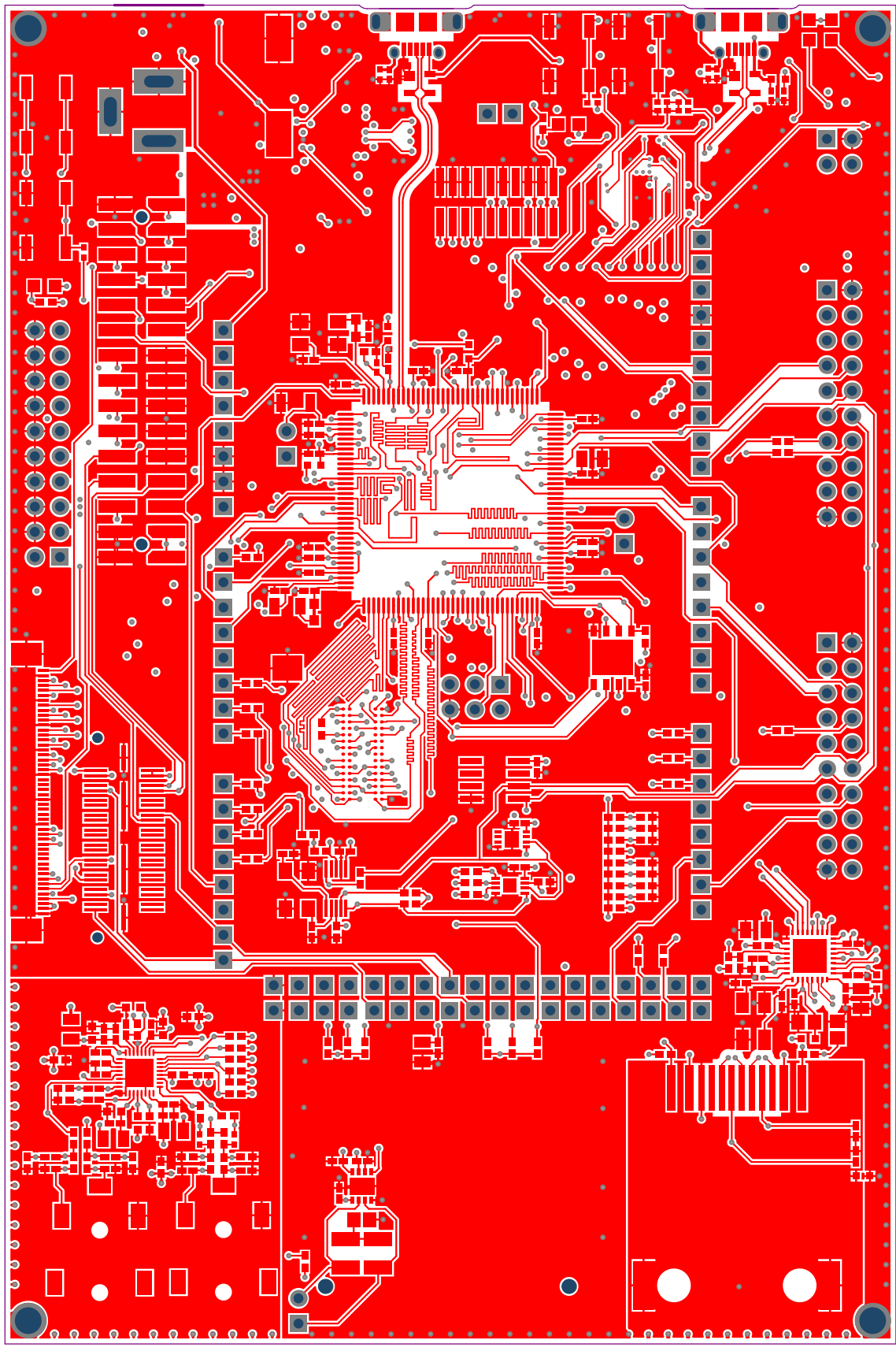
PCBA LABEL
A08-2216 Rev 2
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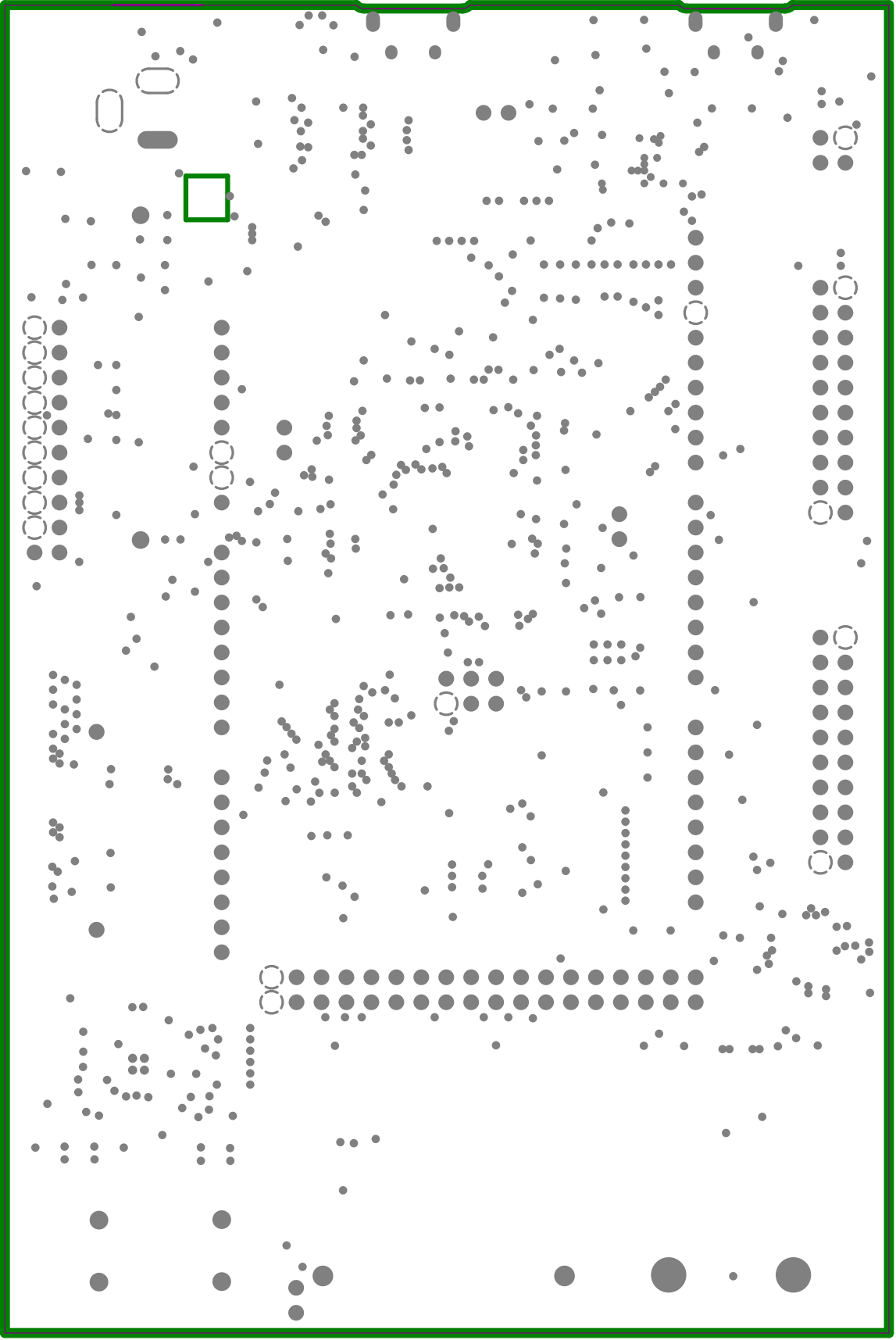


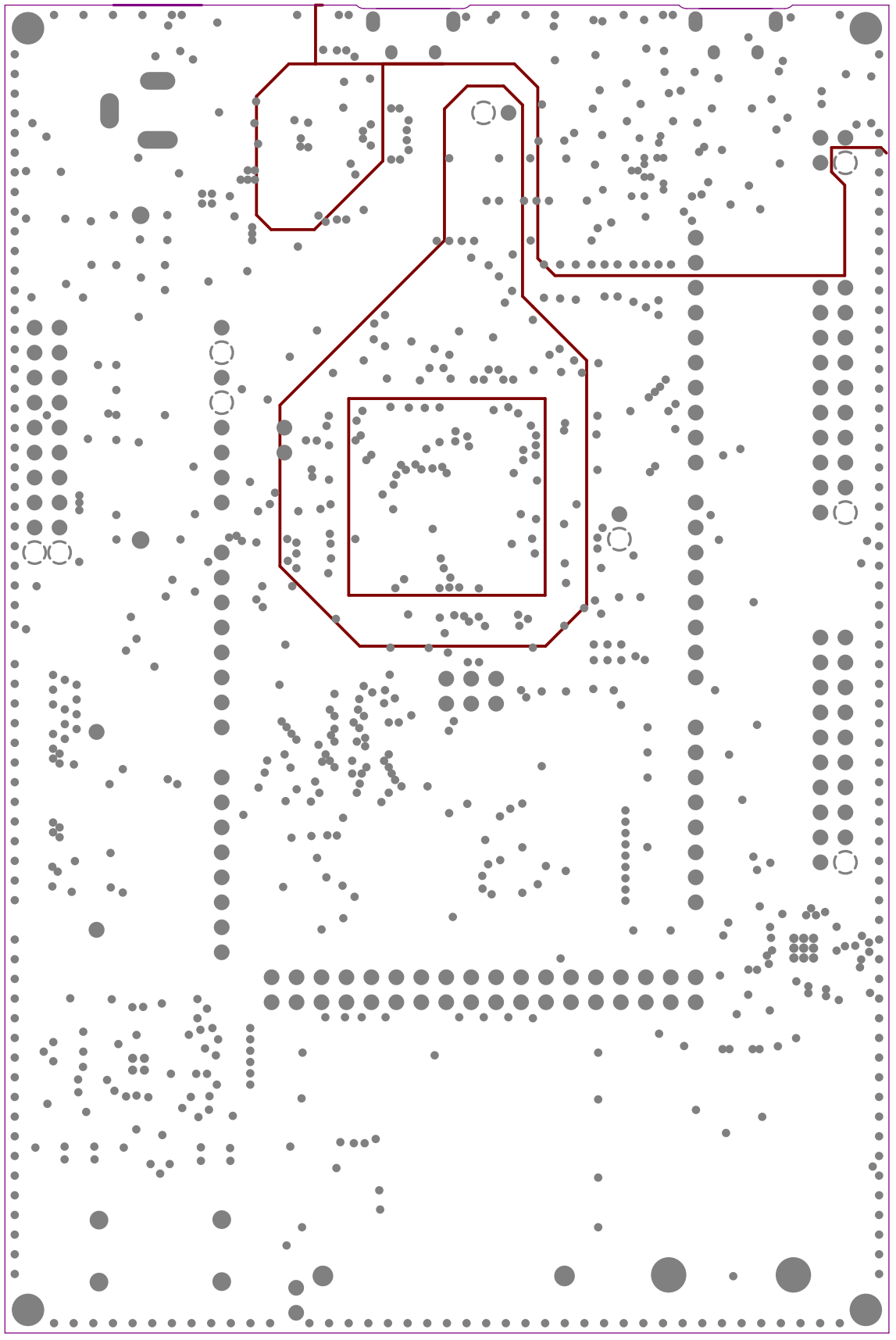


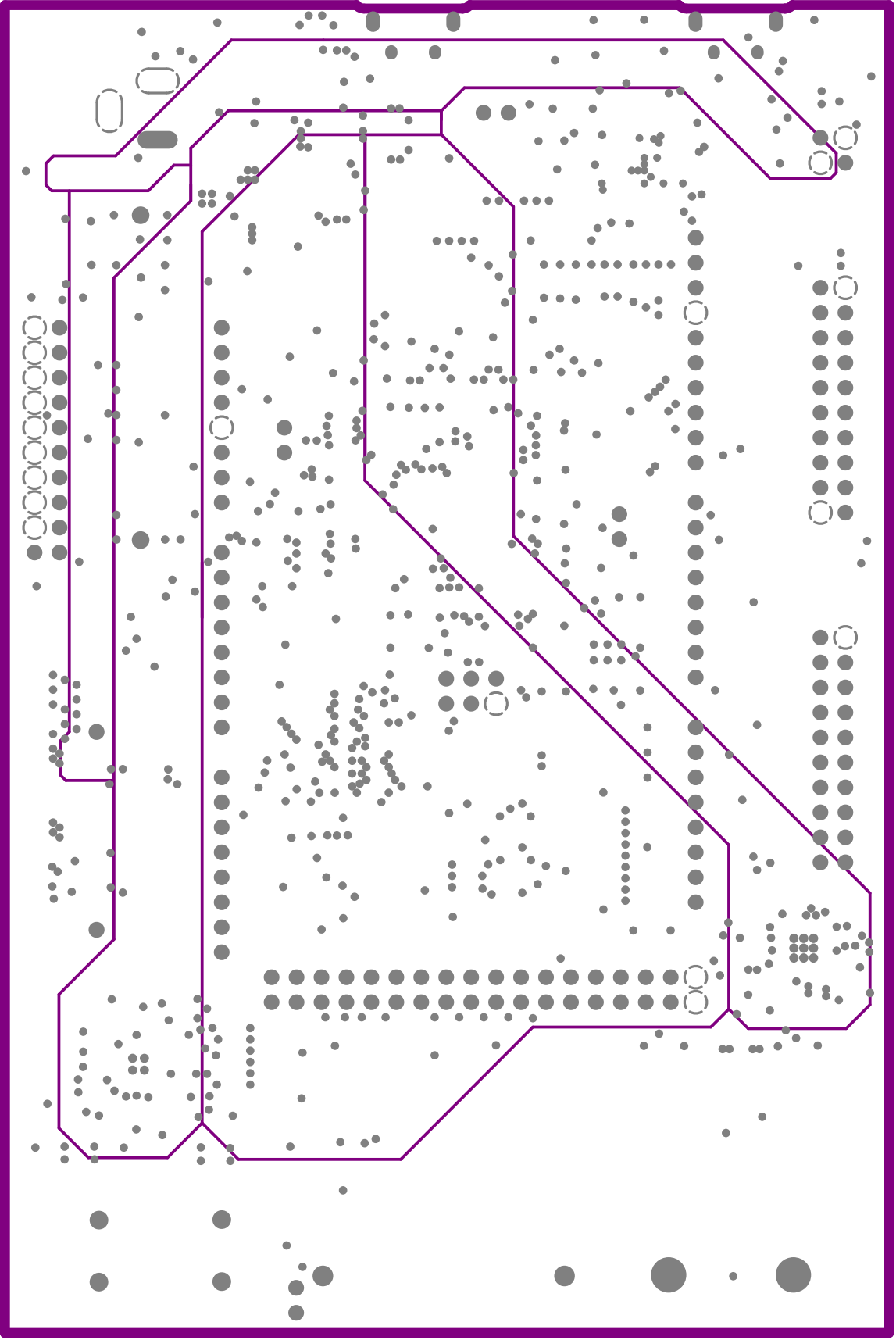
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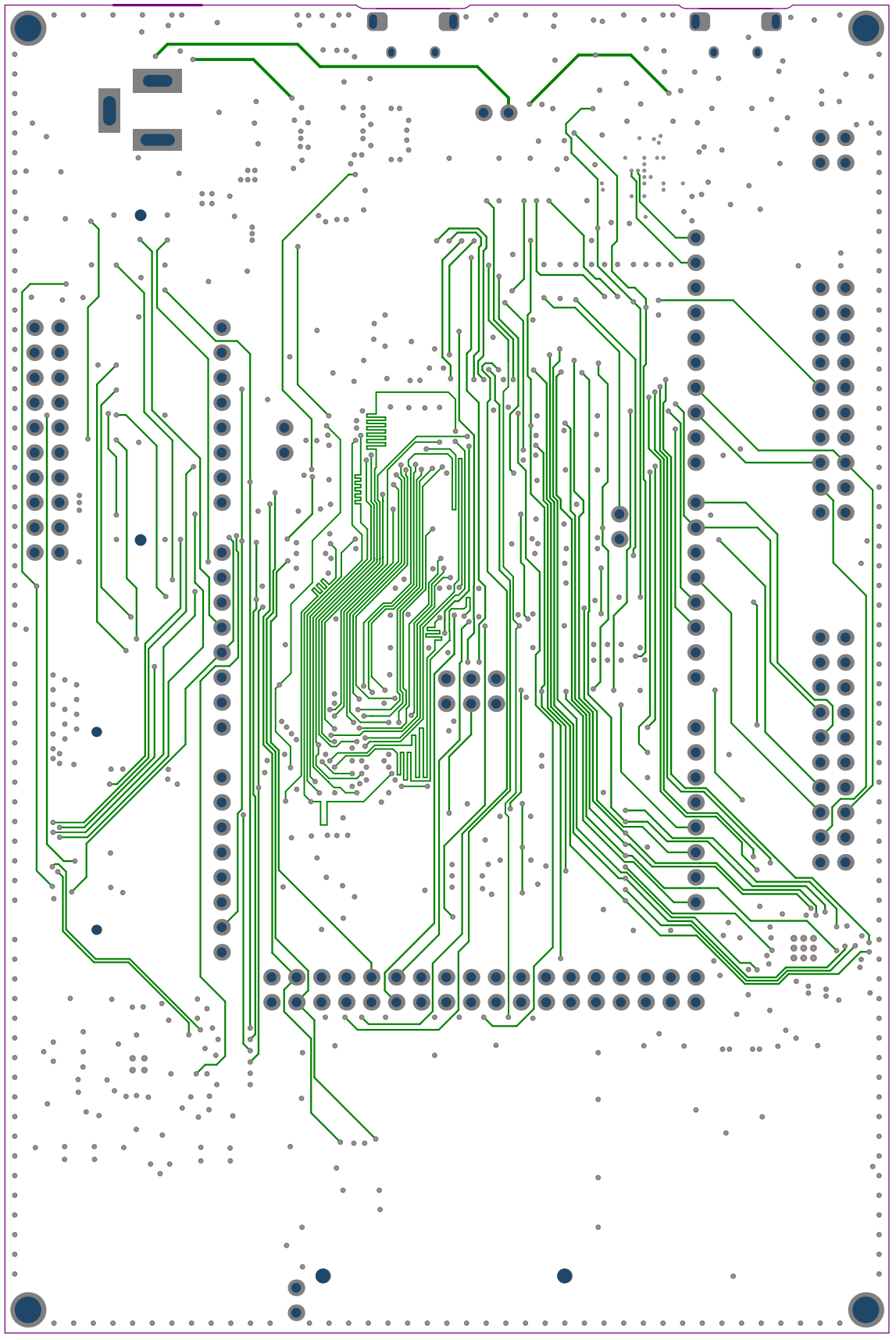
SAMV71 X PLAINED ULTRA

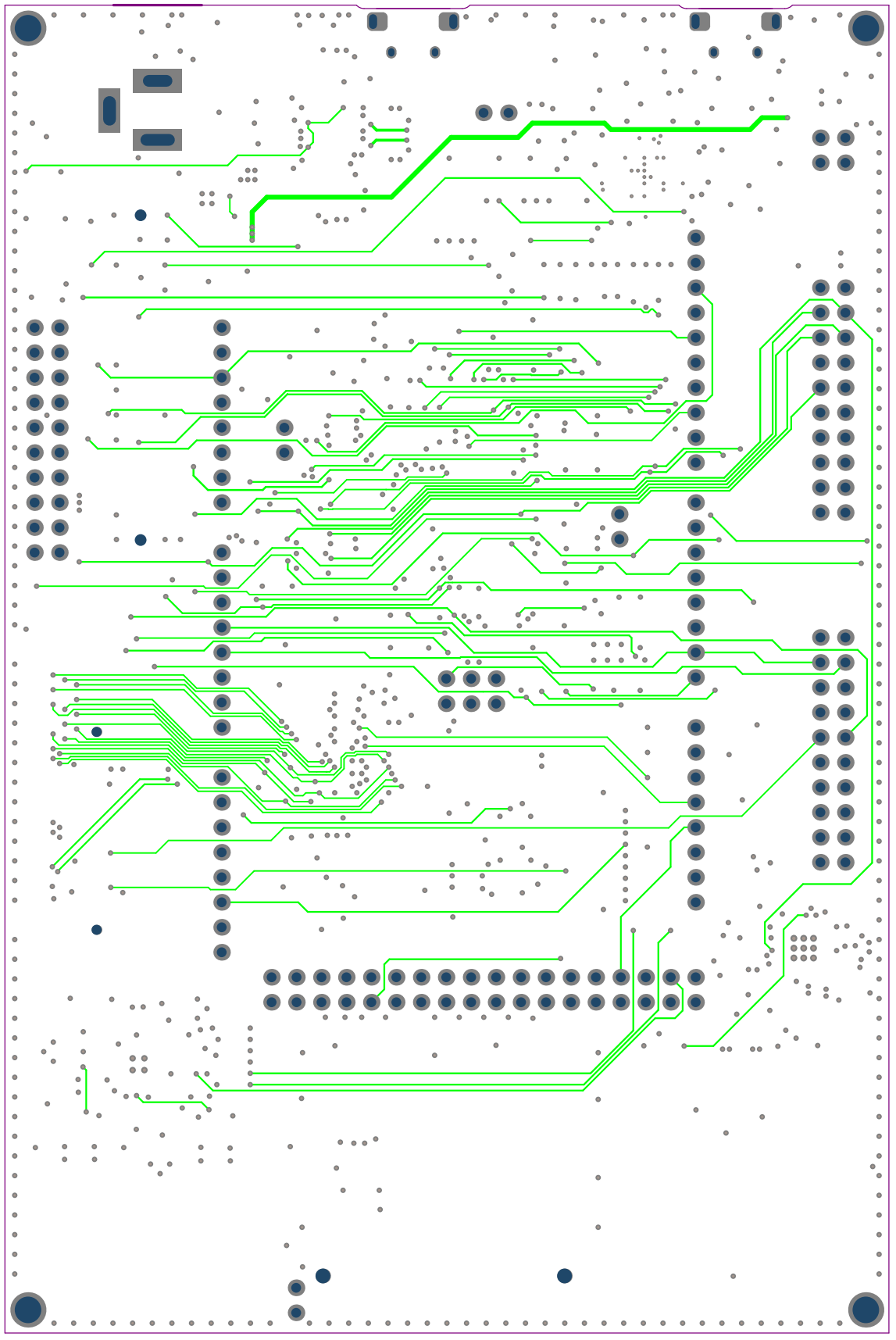


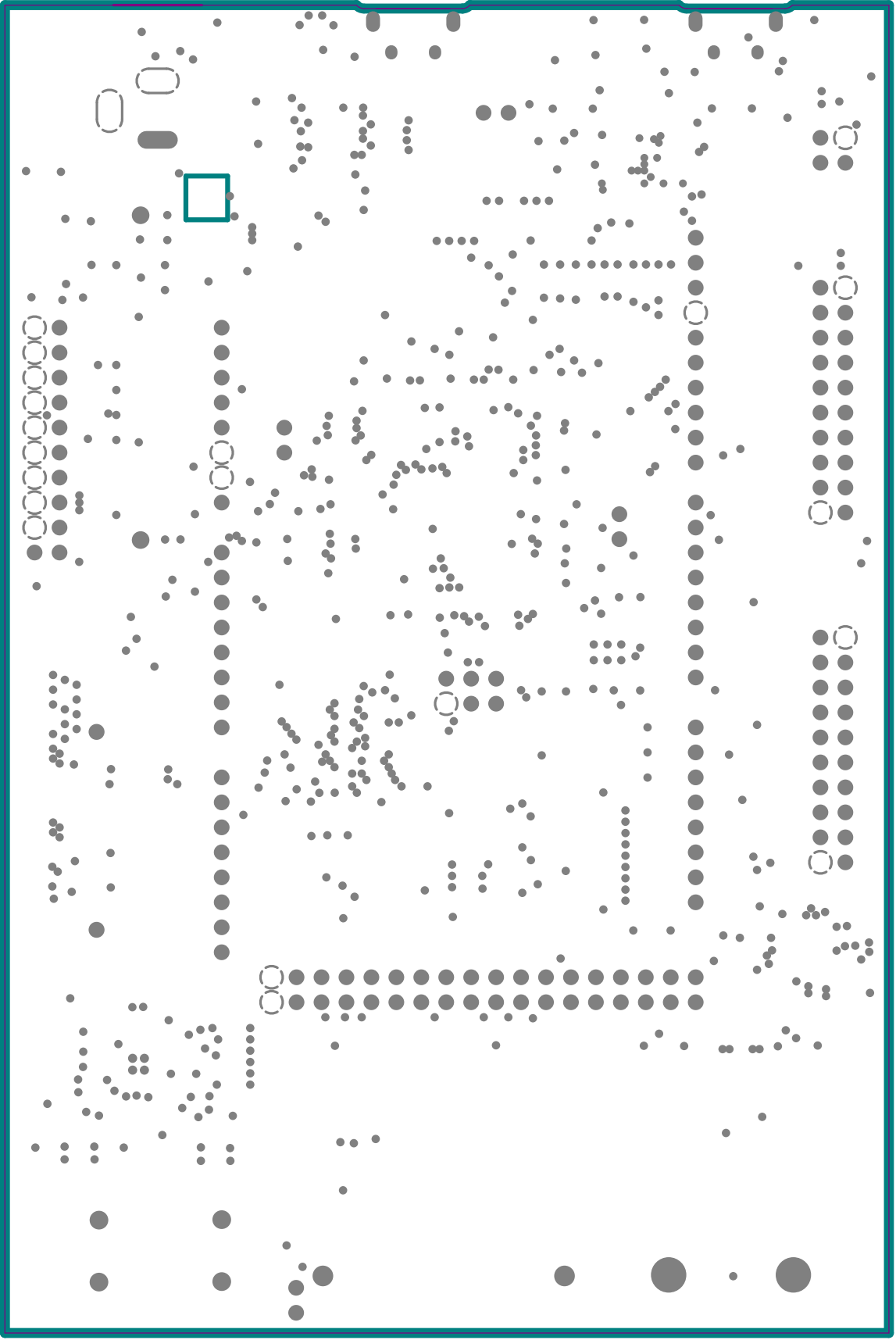


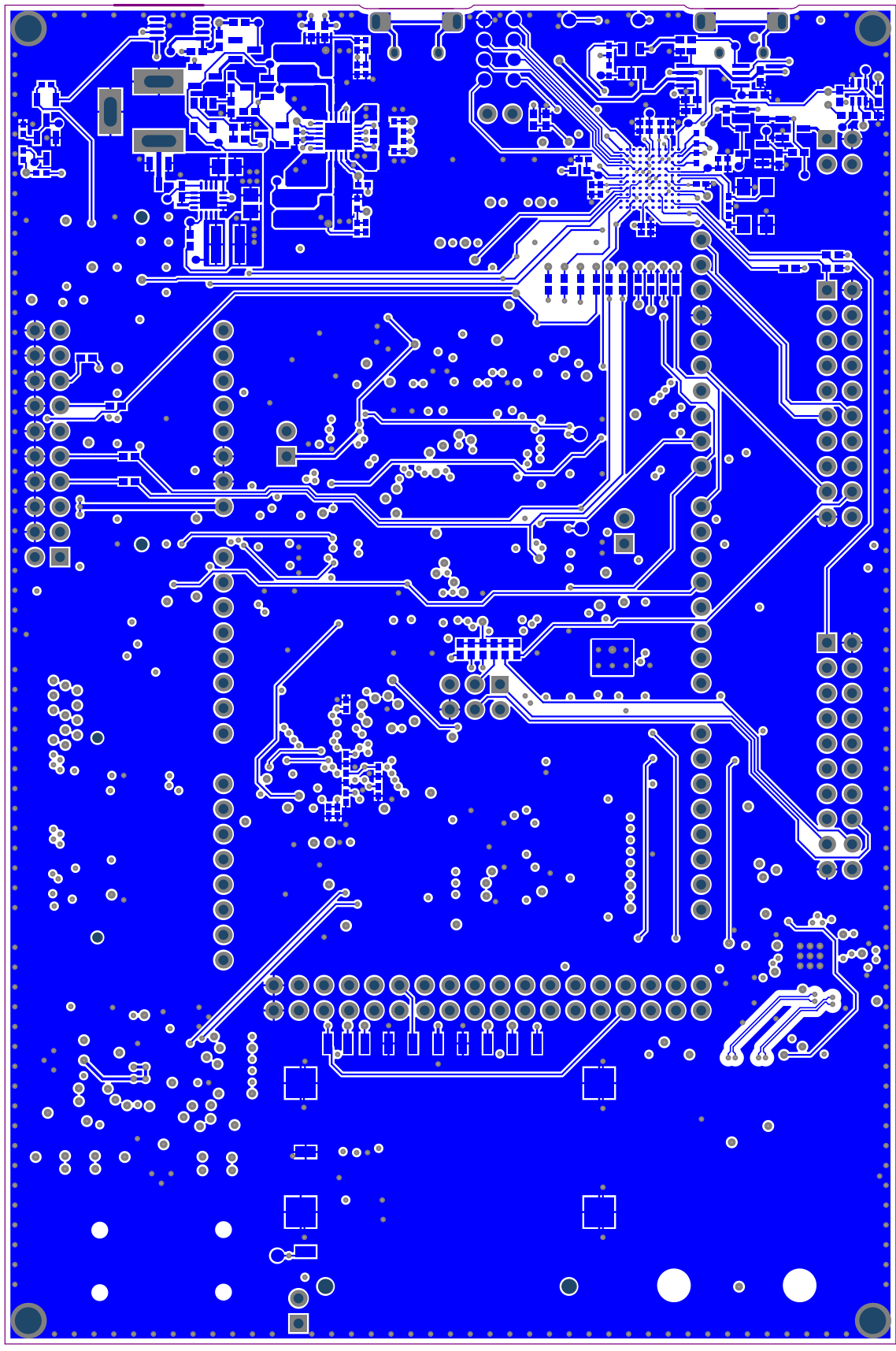












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Approved		Notes