

[illegible]

Automatic USB power switch
When external power supply is not provided, the board can be powered by VBUS_USER or VBUS_VPC (VBUS_VPC has the higher priority)
Current limiter value is 530 mA

The diagram illustrates an automatic USB power switch circuit. The central component is the TPS2112PWR IC (U2). Its pins are connected as follows: Pin 1 (IN1) to VCC5VIN; Pin 2 (OUT) to VBUS_VPC; Pin 3 (EN) to VBUS_VPC; Pin 4 (ILIM) to ground; Pin 5 (GND) to ground; Pin 6 (IN2) to VBUS_USER; Pin 7 (OUT) to VBUS_VPC; Pin 8 (STAT) to VBUS_VPC. The circuit includes several resistors: R9 (0R) in series with VBUS_VPC; R6 (10k) between VCC5VIN and VBUS_VPC; R7 (10k) between VEXT and VBUS_VPC; R8 (10k) between VBUS_VPC and ground; R10 (43k) between VBUS_VPC and ground; R11 (390R) between VBUS_VPC and ground; R12 (10k) between VBUS_VPC and ground. There are also capacitors: C41 (100nF) at VCC5VIN, C42 (100nF) at VBUS_VPC, and C43 (100nF) at VBUS_USER. Test points TP4, TP5, TP6, TP7, and TP8 are marked. A blue arrow points from the VBUS_VPC line to the PA[30..0] signal.

Boost converter for stable 5V supply. Output 5V, 1,5A.

VCC5VIN

L1
CDRH5D18NP-100

U3
TPS61020DCRG4

SW 9
VBAT 6
EN 1
LBI 7
PS 8
PGND 10
GND 5

VOUT 2

FB 3
LBO 4

R13 1.8M
R14 200k

C44 33uF/16V
C47 10uF/10V
C45 100n
C46 220n
C48 22uF/6V
C49 33uF/16V

VCC5

Generates 3.3V from 5V.

to 3.3V 1.2 A buck converter.

$C3REG = 0.5 * (1 + 560k/100k) = 3.3V$

on-board components are powered by 3.3V

only LCD back light is powered by VCC5)

Test Point duplicated to allow one present on each side of the board

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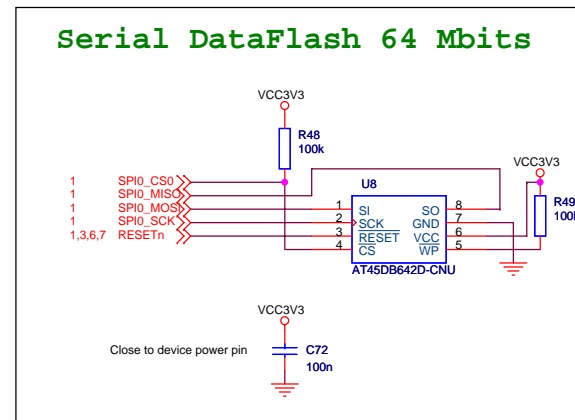
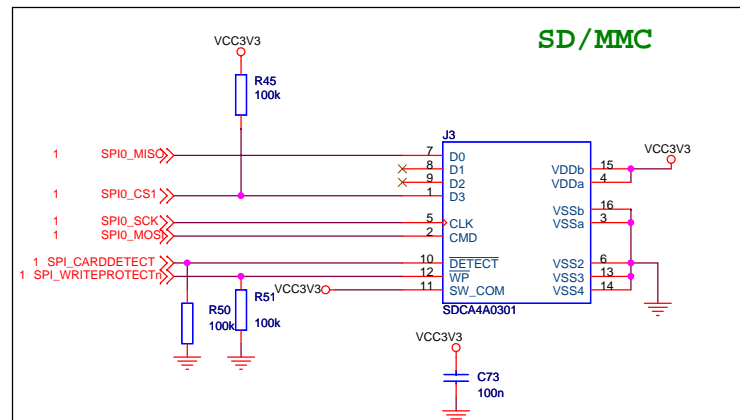
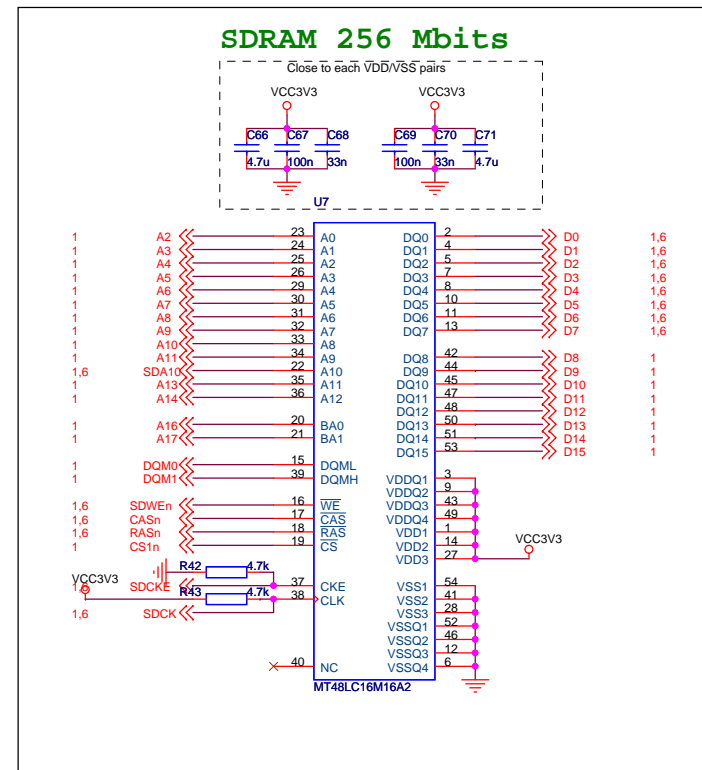
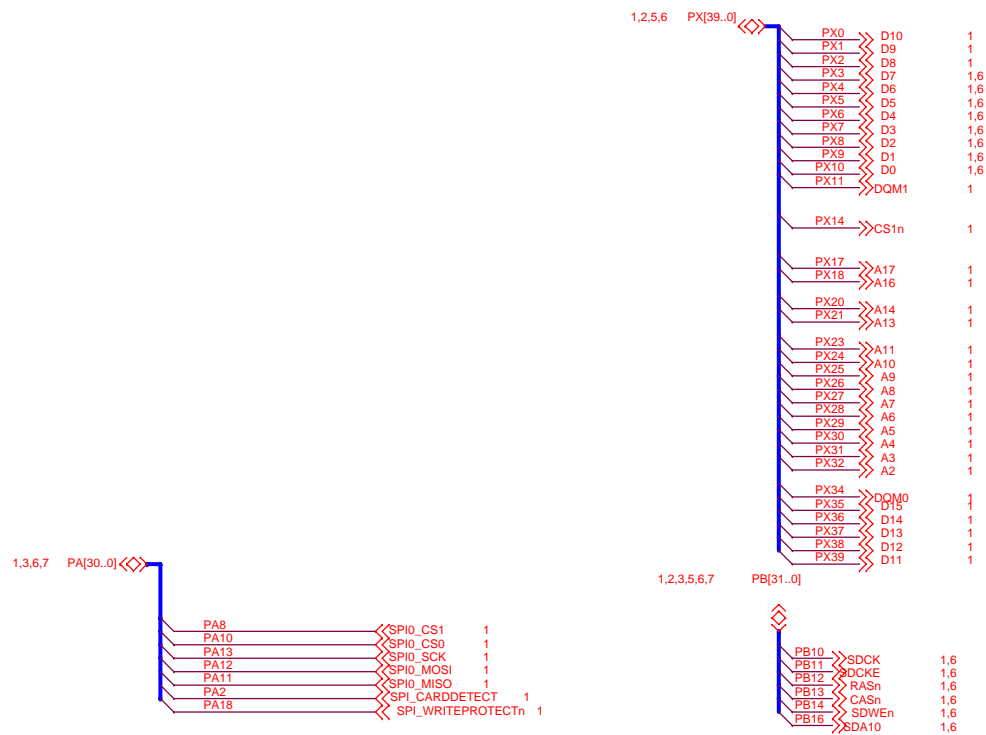


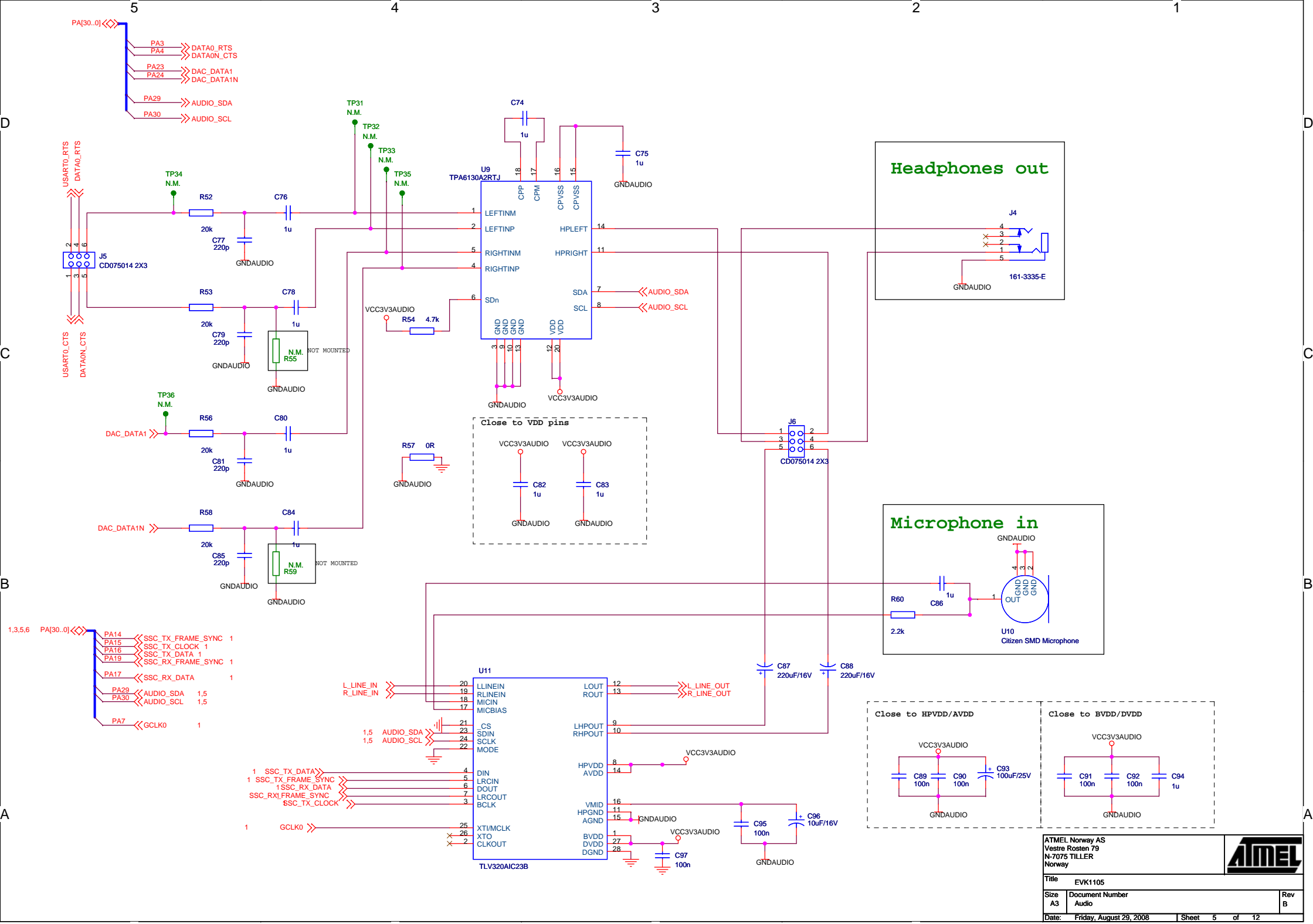
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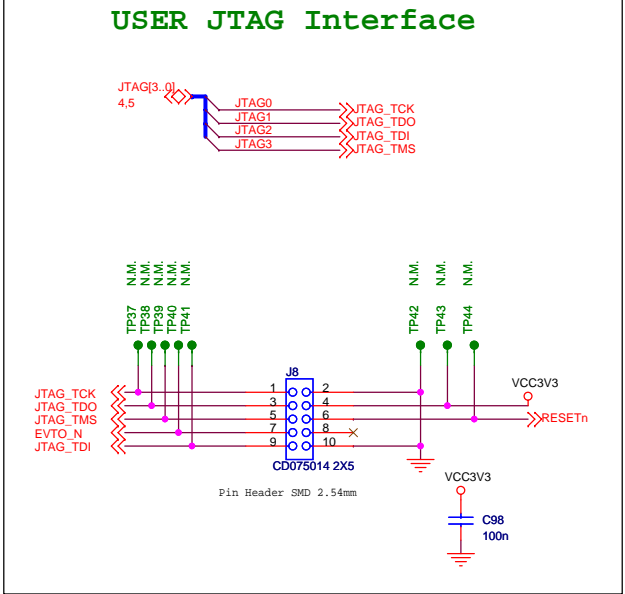
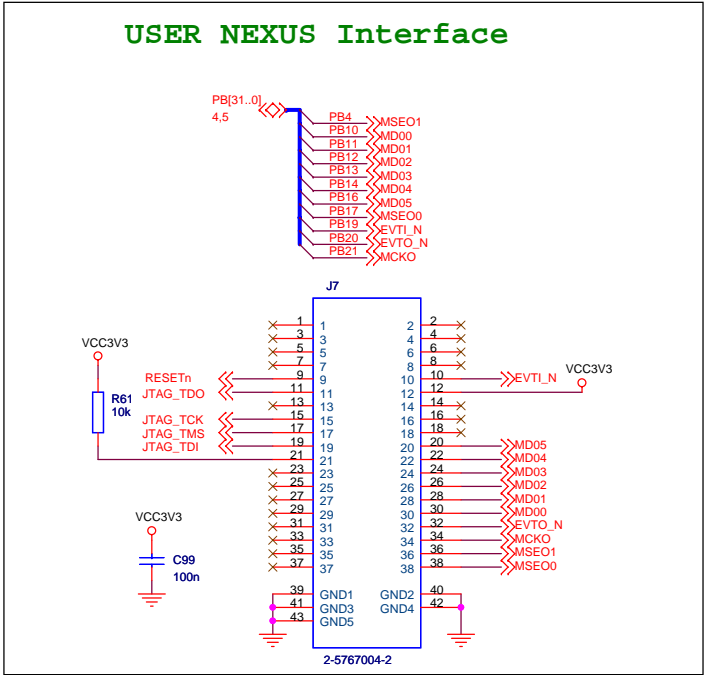
Size A3	Document Number Power supply
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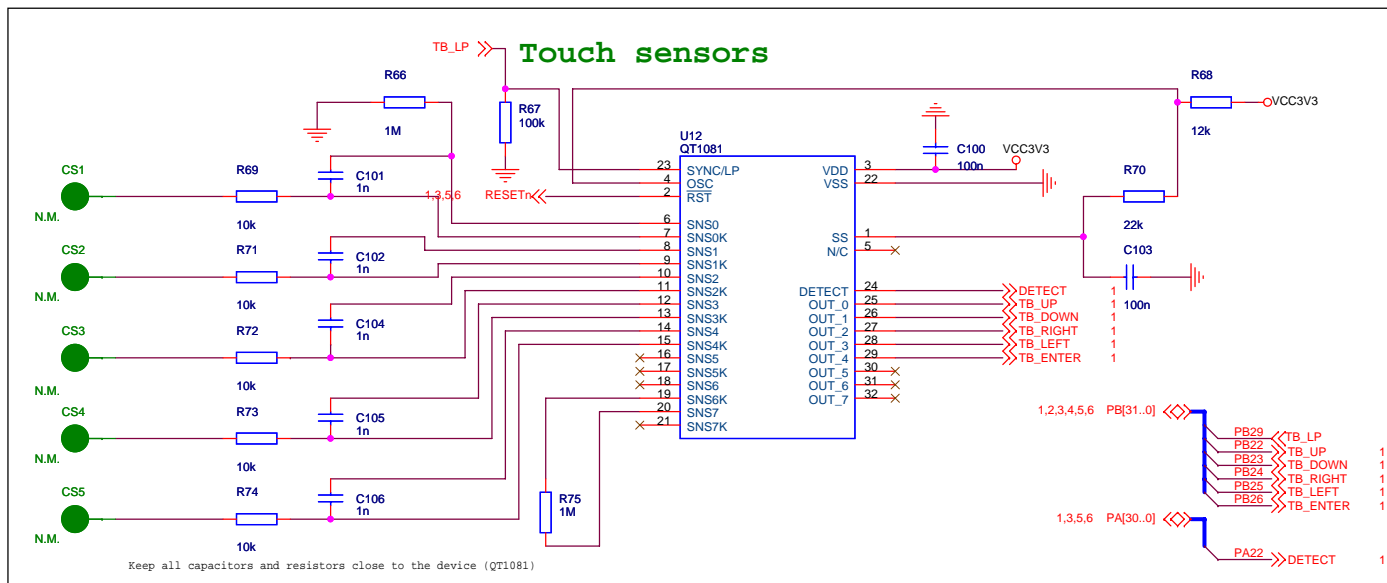
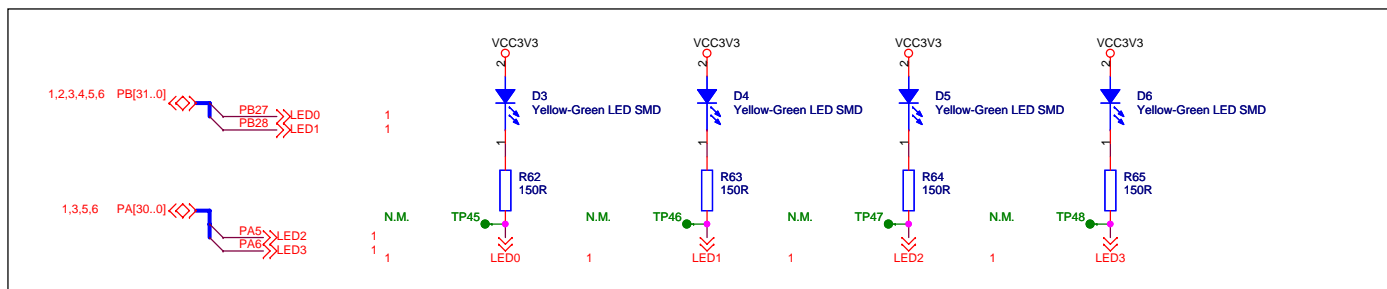
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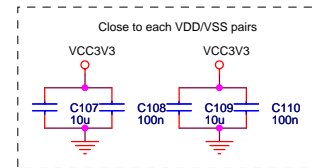
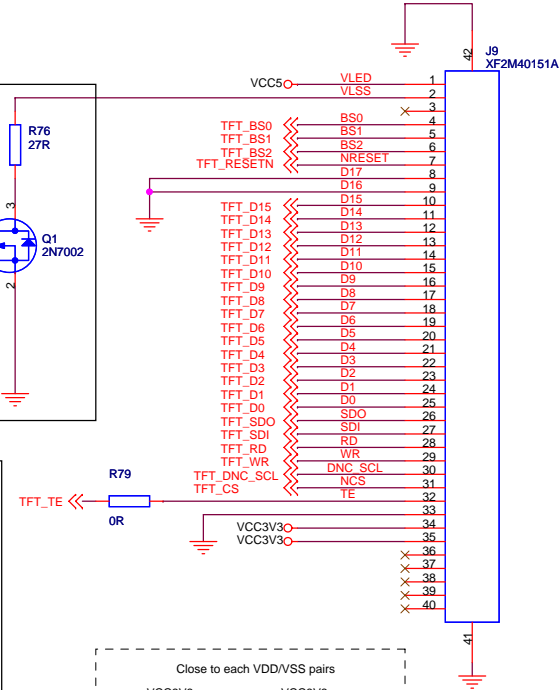
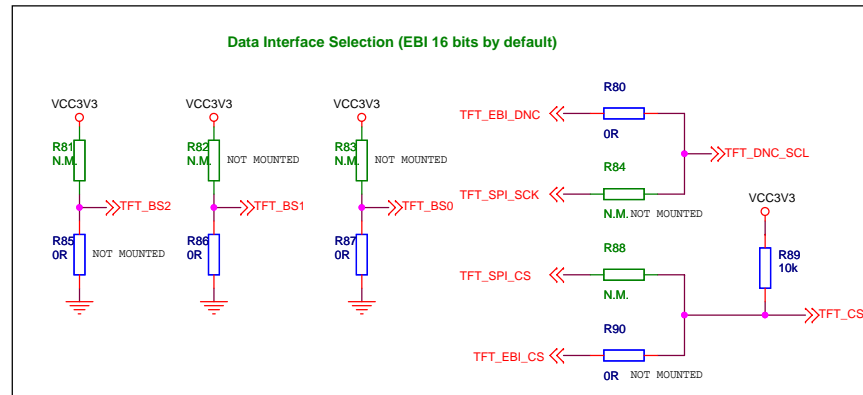
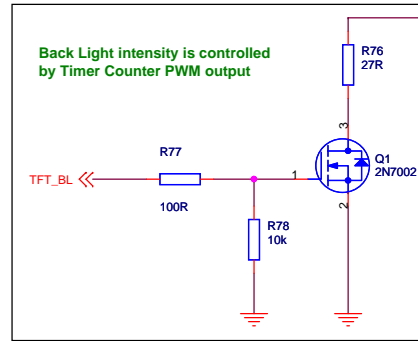
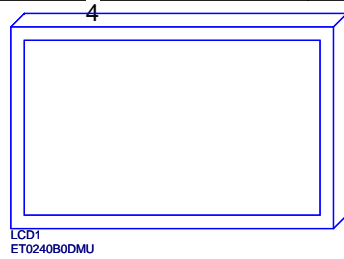
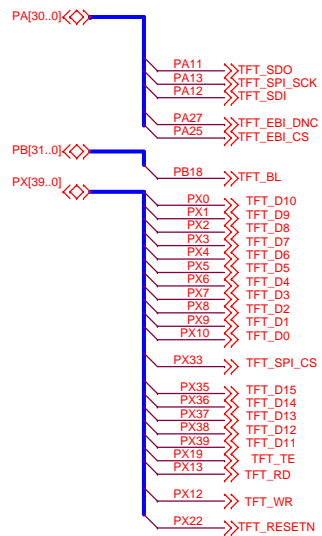
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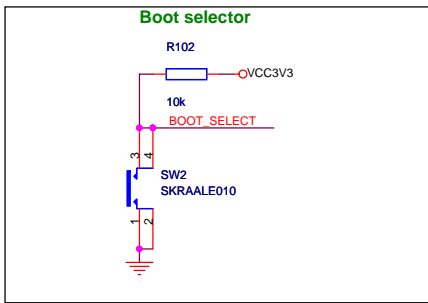
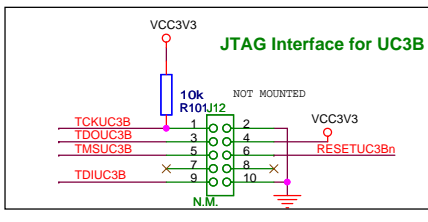
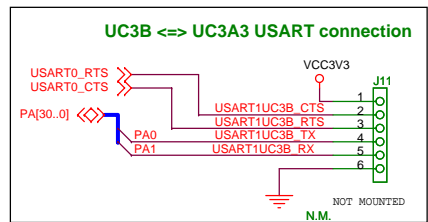
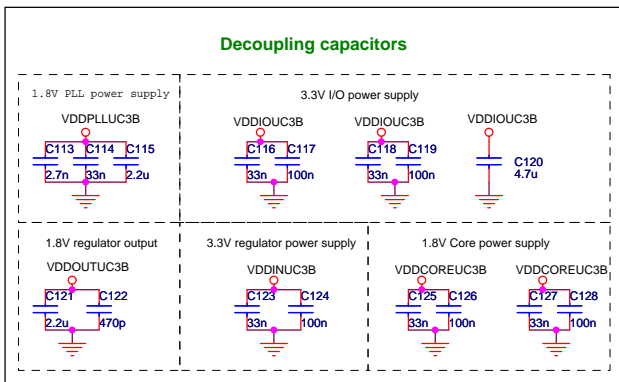
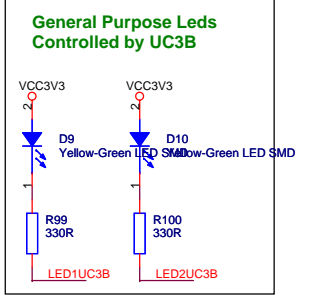
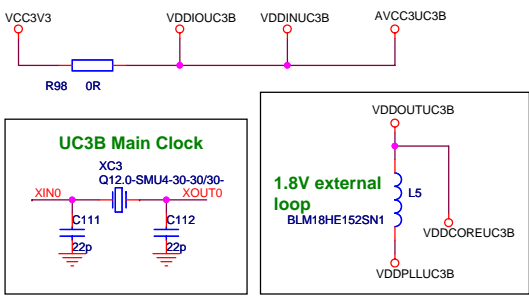
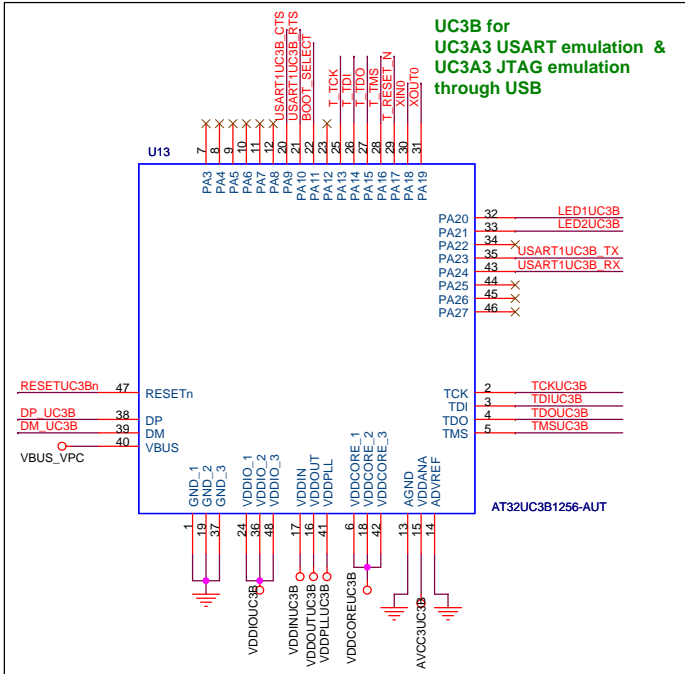
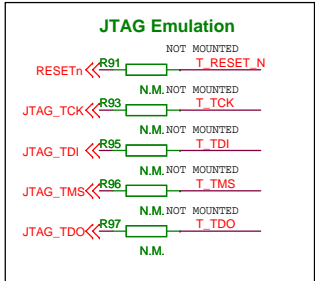
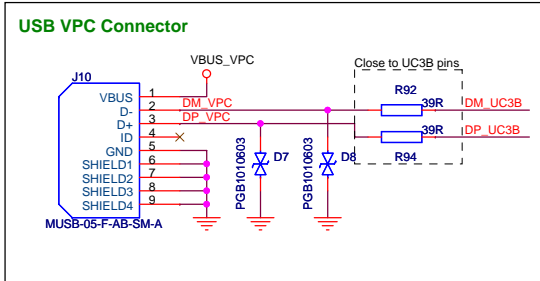


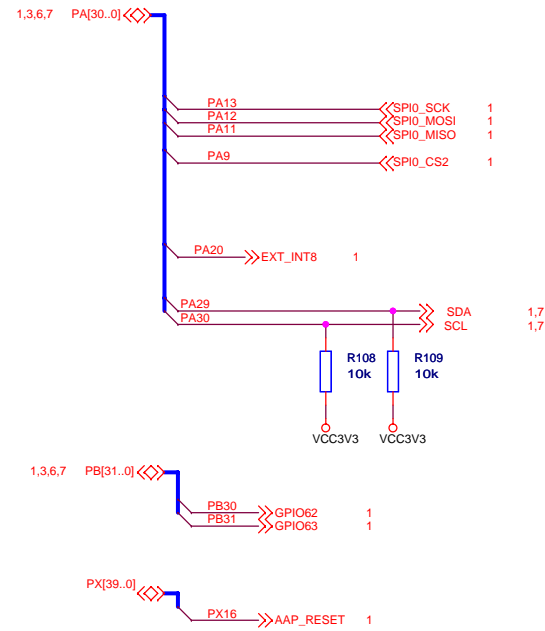
Title EVK1105

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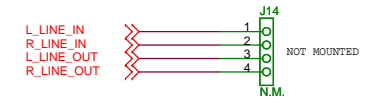
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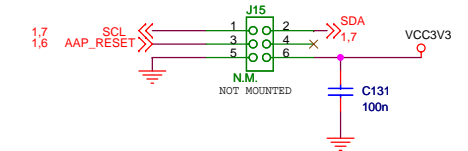




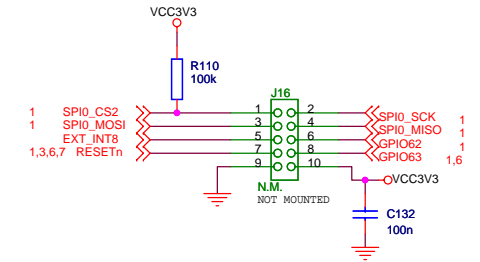
Alternative sound input/output



Expansion for AAP



ZigBee extension



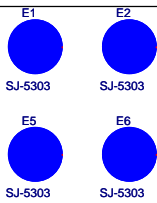
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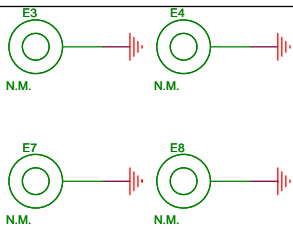


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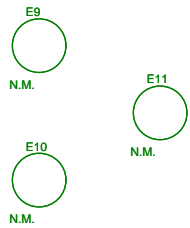
RevB created (LH)



Plastic feets 5mm height



Mounting holes 3.2mm



Manufacturing alignment points.



Jumpers for DAC/CODEC selection and
USART/DAC signal lines selection.

