

U[07] - CPU CONNECTORS
[07] - CPU CONNECTORS .SchDoc

U[08] - CPU USB
[08] - CPU USB.SchDoc

U[09] - PCB AND MECHANICALS
[09] - PCB AND MECHANICALS.SchDoc

U[10] - DOC REVISION HISTORY
[10] - DOC REVISION HISTORY.SchDoc

Notations

Set Project Parameters

Mark Not Fitted Components as
NF

Mark Zero Resistace
ZR

Net Class Example



Differential signal example

Syncbox

Open Source Radiography Platform

Based on Atom CPU and PIC uController

Schematic Status Explanation

DRAFT - Very early stage of schematic, ignore details.

PRELIMINARY - Close to final schematic.

CHECKED - There should not be any mistakes. Tell the engineer if you find one.

RELEASED - A board with this schematic has been sent to production.

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SYNCBOX

Variant: [No Variations]

**12/9/2020
V3I1**

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DESIGN CONSIDERATIONS

DESIGN NOTE:
Example text for debug notes.

DESIGN NOTE:
Example text for informational design notes.

DESIGN NOTE:
Example text for critical design notes.

DESIGN NOTE:
Example text for cautionary design notes.

LAYOUT NOTE:
Example text for critical layout guidelines.

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SYNCBOX

(Block Diagram)

Pages 05

POWERS

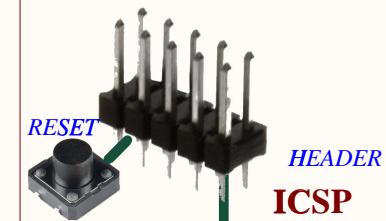
Pages 07

CPU CONNECTORS**MAGNETICS***Ethernet***SATA****PROTECTION***CPU GPIO***LEVEL SHIFTER***HDMI***USB PROTECTION***CPU USB 1,2,3,4***RS232 TRANSCEIVER***UART1*

Pages 04

COM Express Type 10 Connector

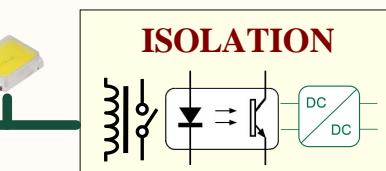
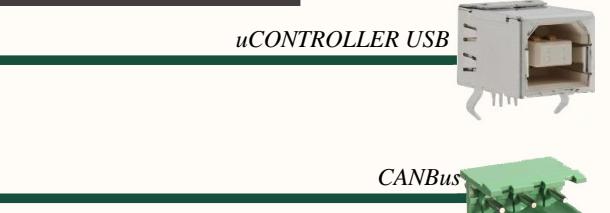
Pages 03

**ICSP****HEADER****RESET**

Pages 03

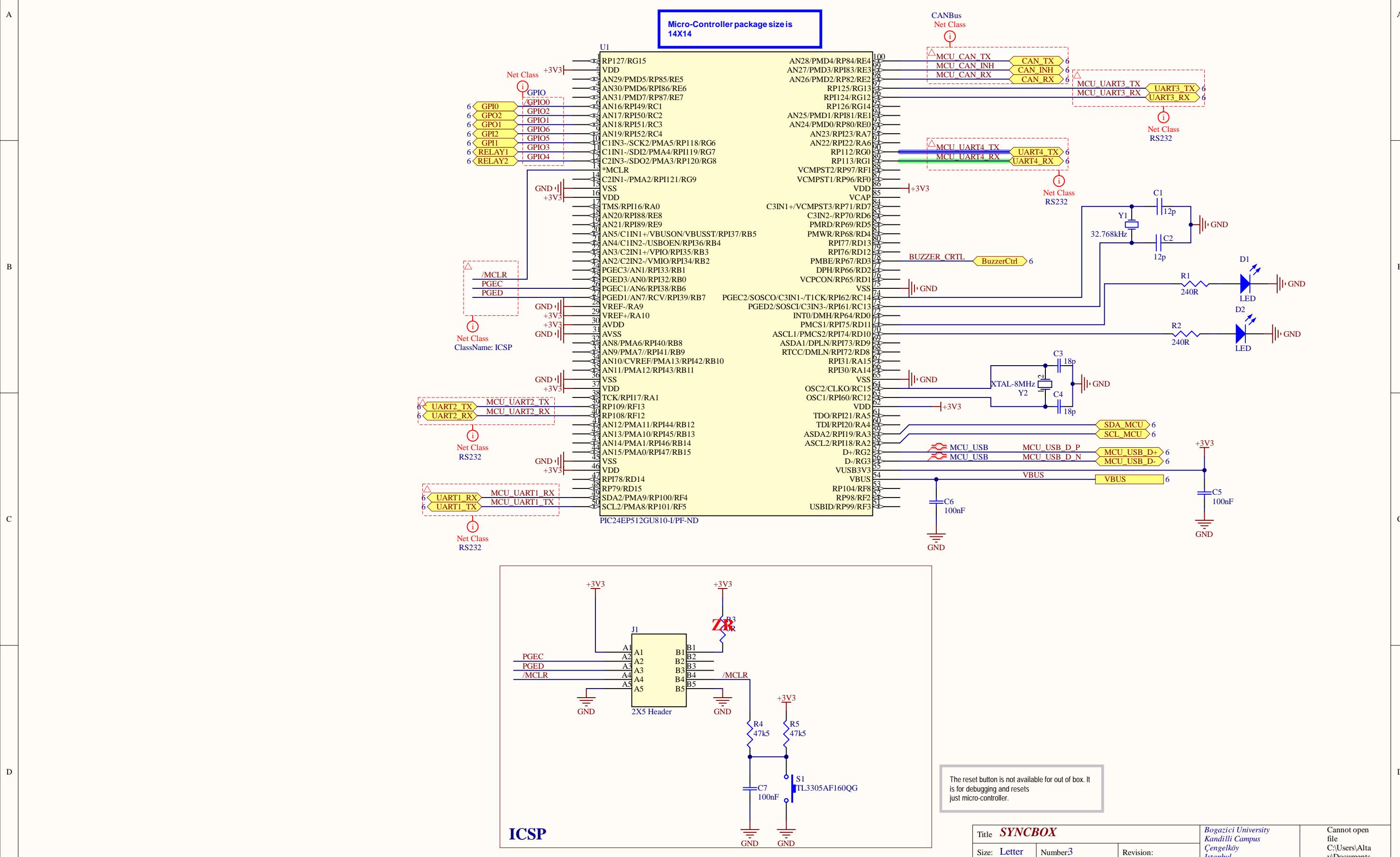
uControllerUART
Pages 06**RS232 TRANSCEIVER**Pages 03,06
DEBUGGING**uCONTROLLER GPIO****UART1****UART2****UART3****UART4****RS232 TRANSCEIVER****RS485 TRANSCEIVER****uCONTROLLER USB****CANBus****LED Bank****Buzzer**

Pages XX

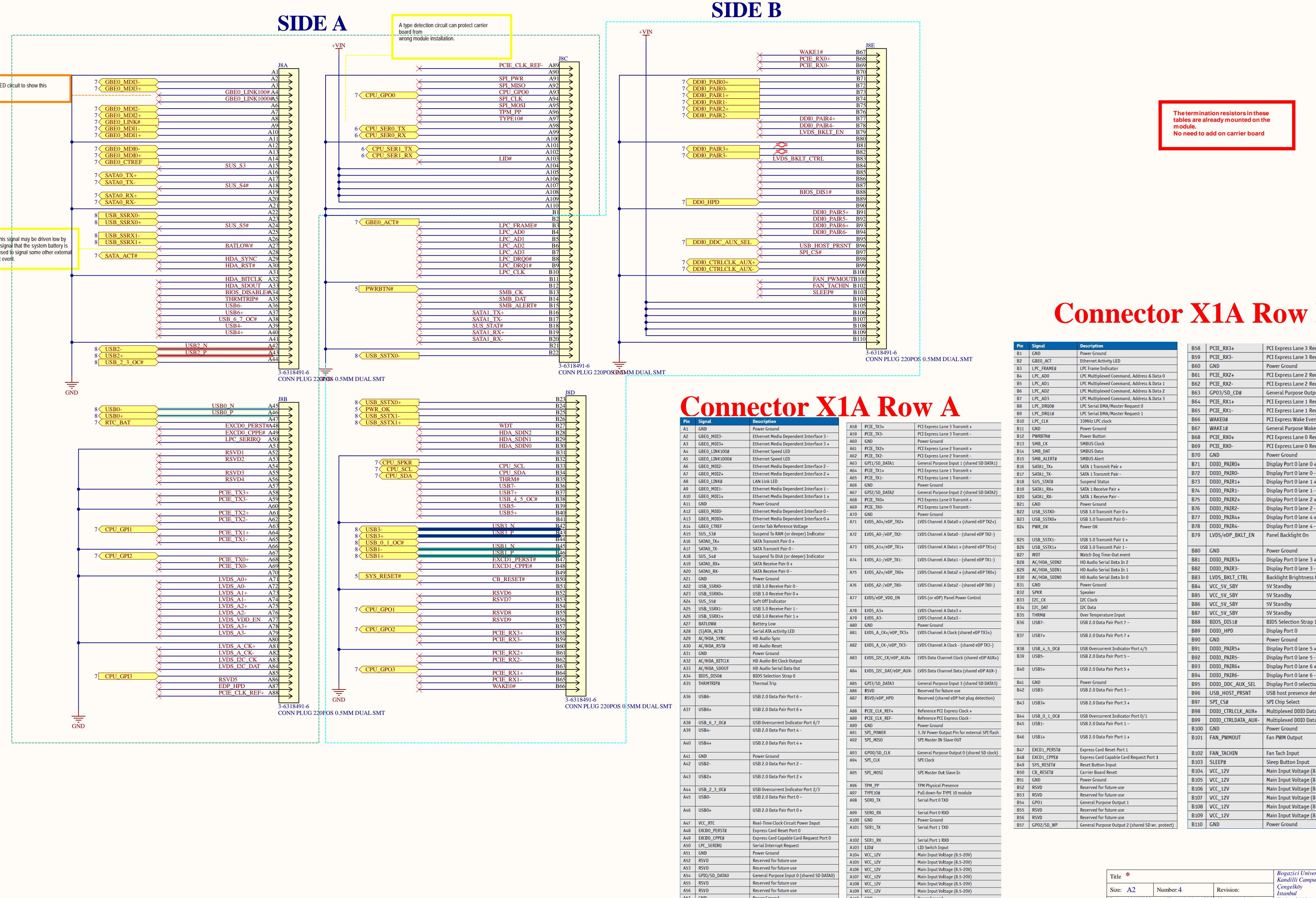
MICRO-CONTROLLER CONNECTORS**ISOLATION****RS232 TRANSCEIVER****RS232****RS232 TRANSCEIVER****RS232****RS485 TRANSCEIVER****RS485****uCONTROLLER USB****CANBus****uCONTROLLER USB****CANBus**

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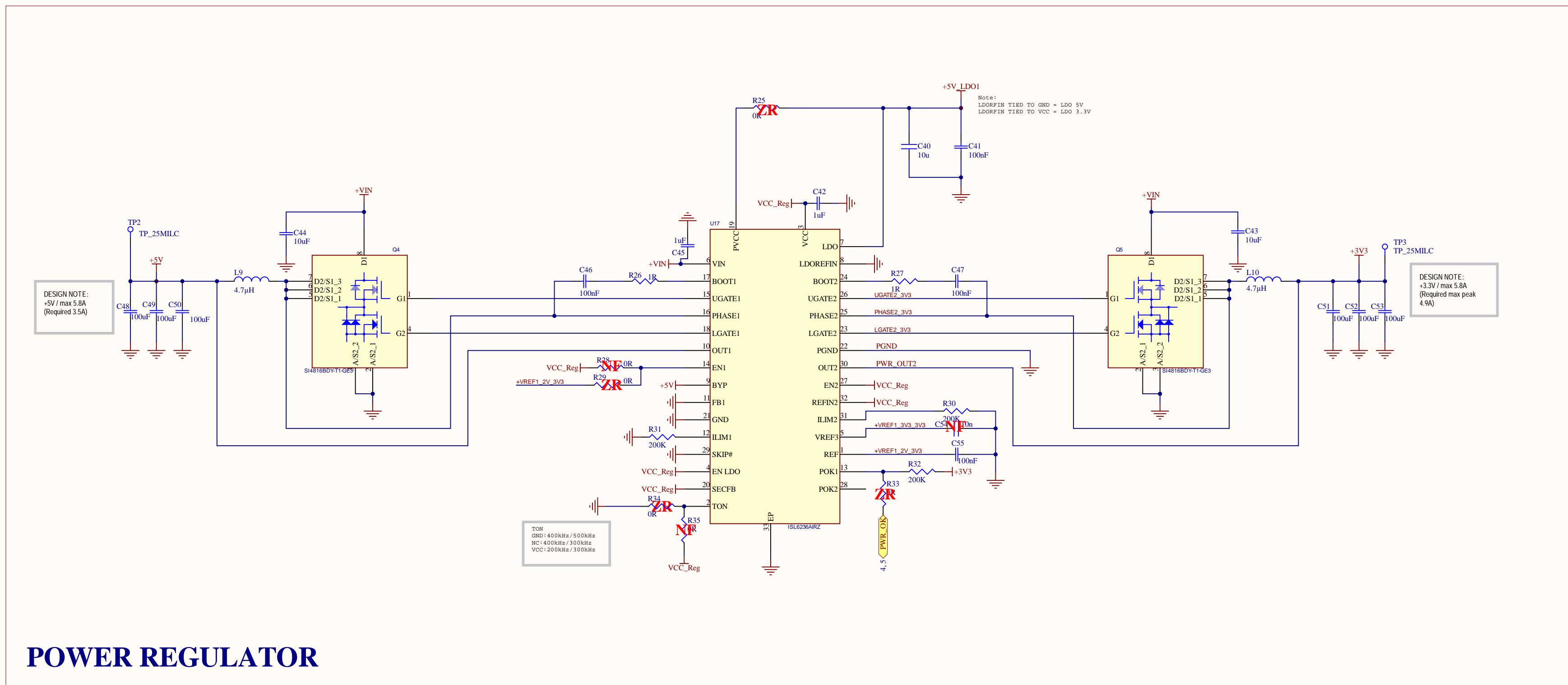
MICRO-CONTROLLER



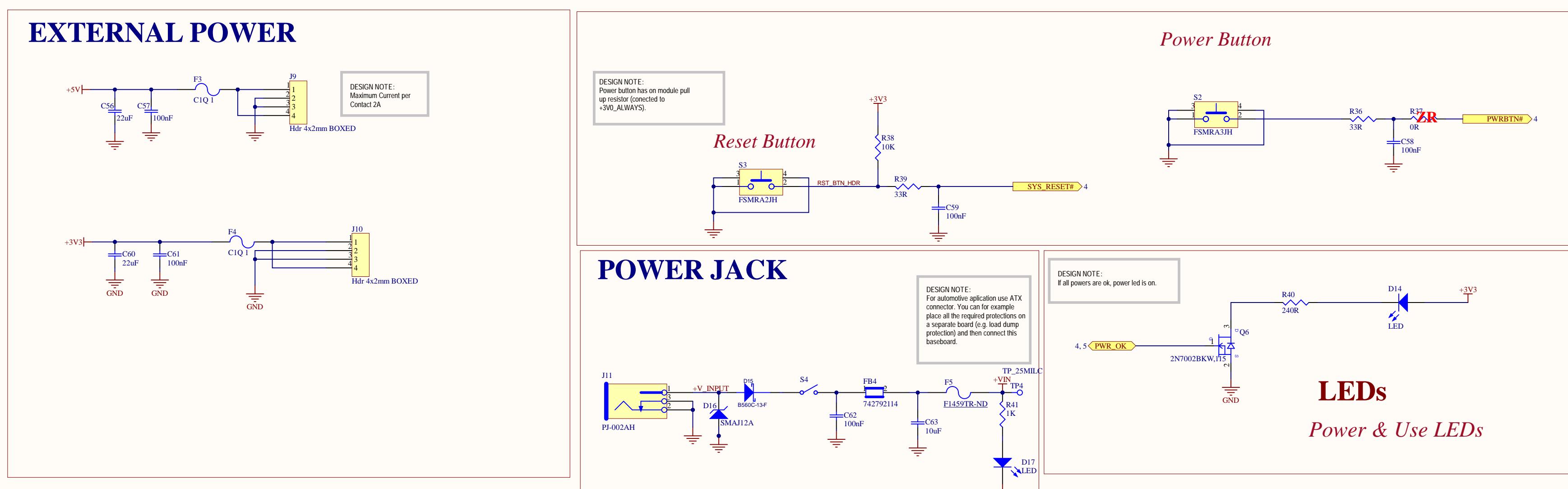
COM EXPRESS TYPE 10 CONNECTOR



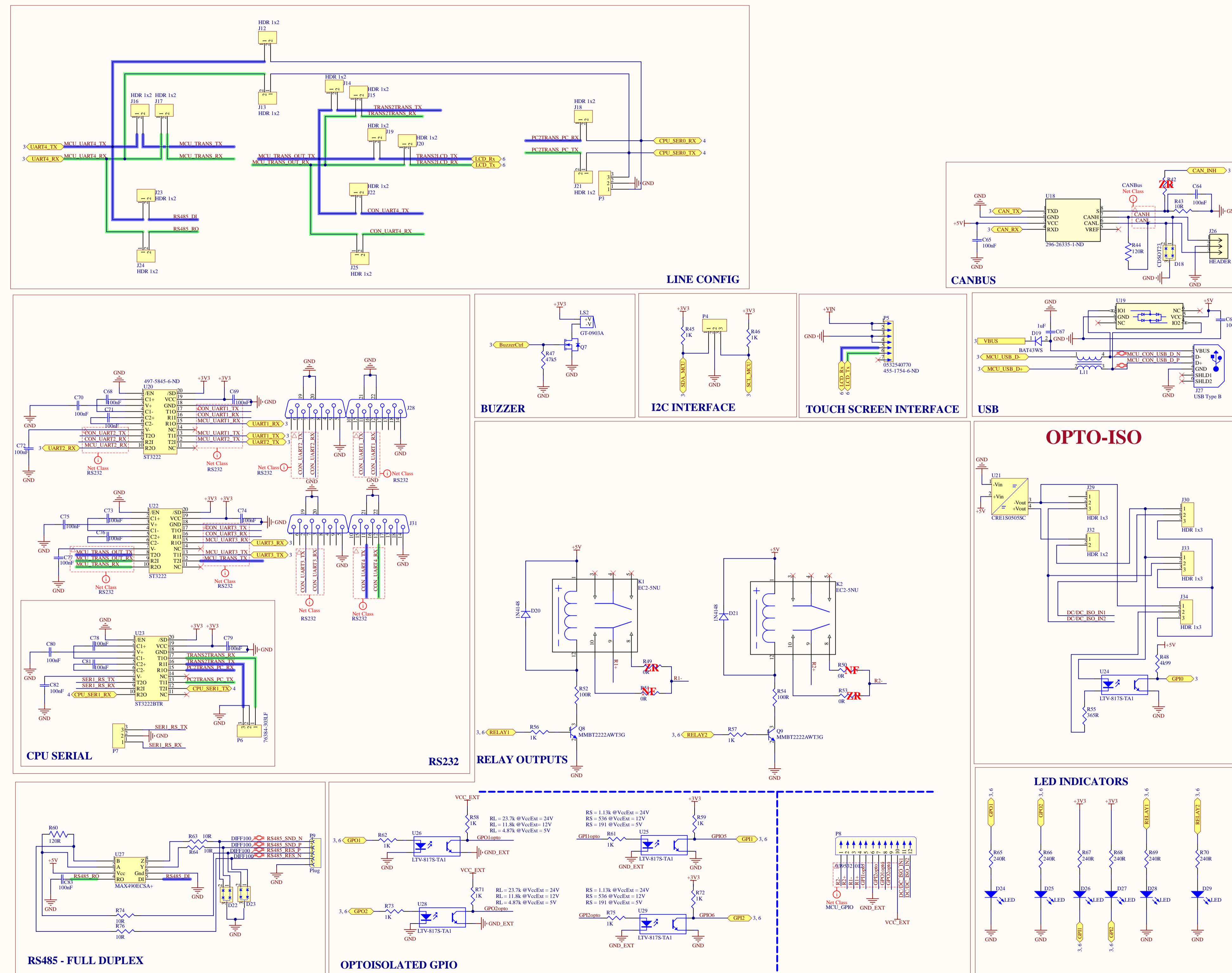
POWER

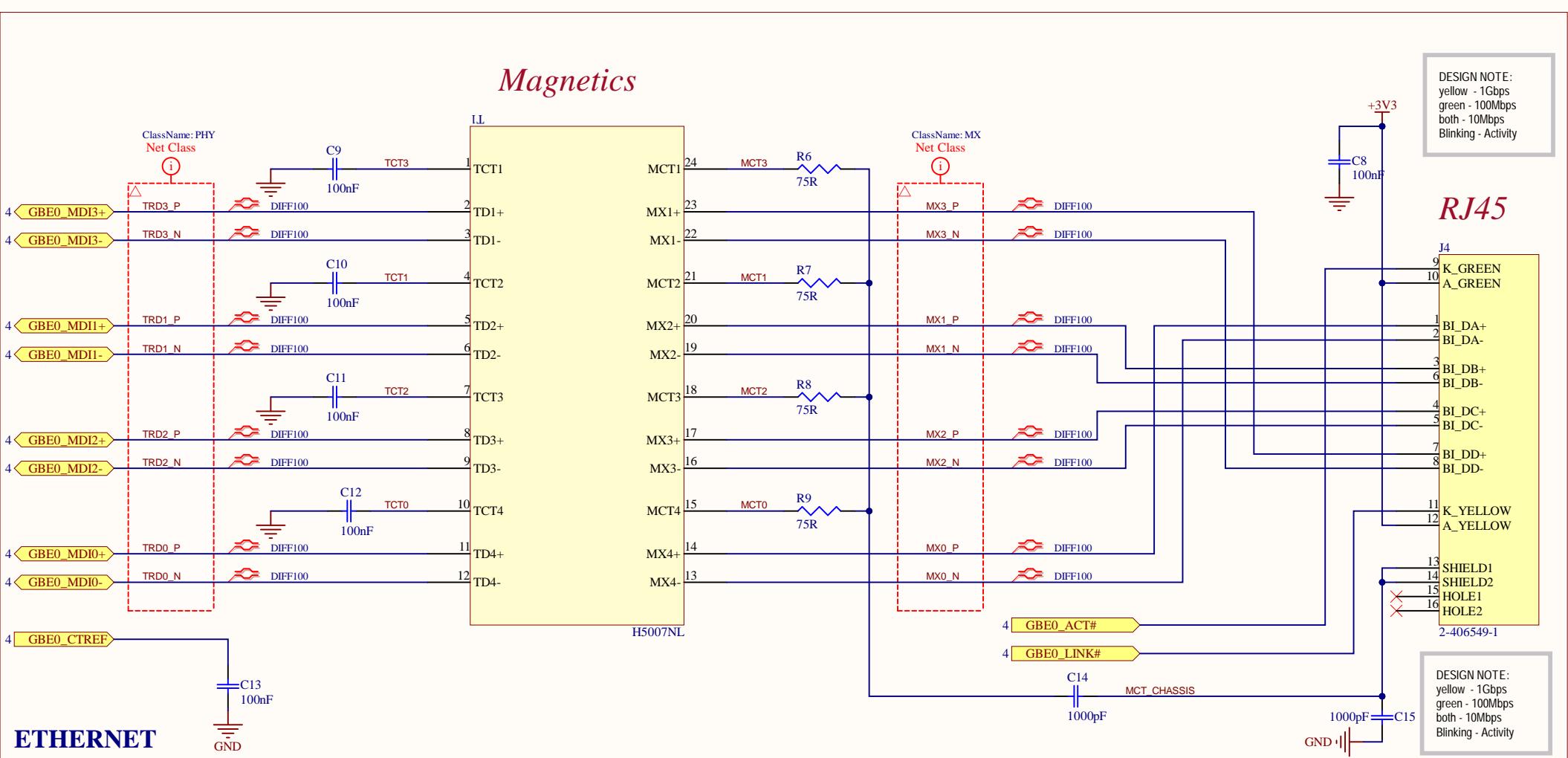
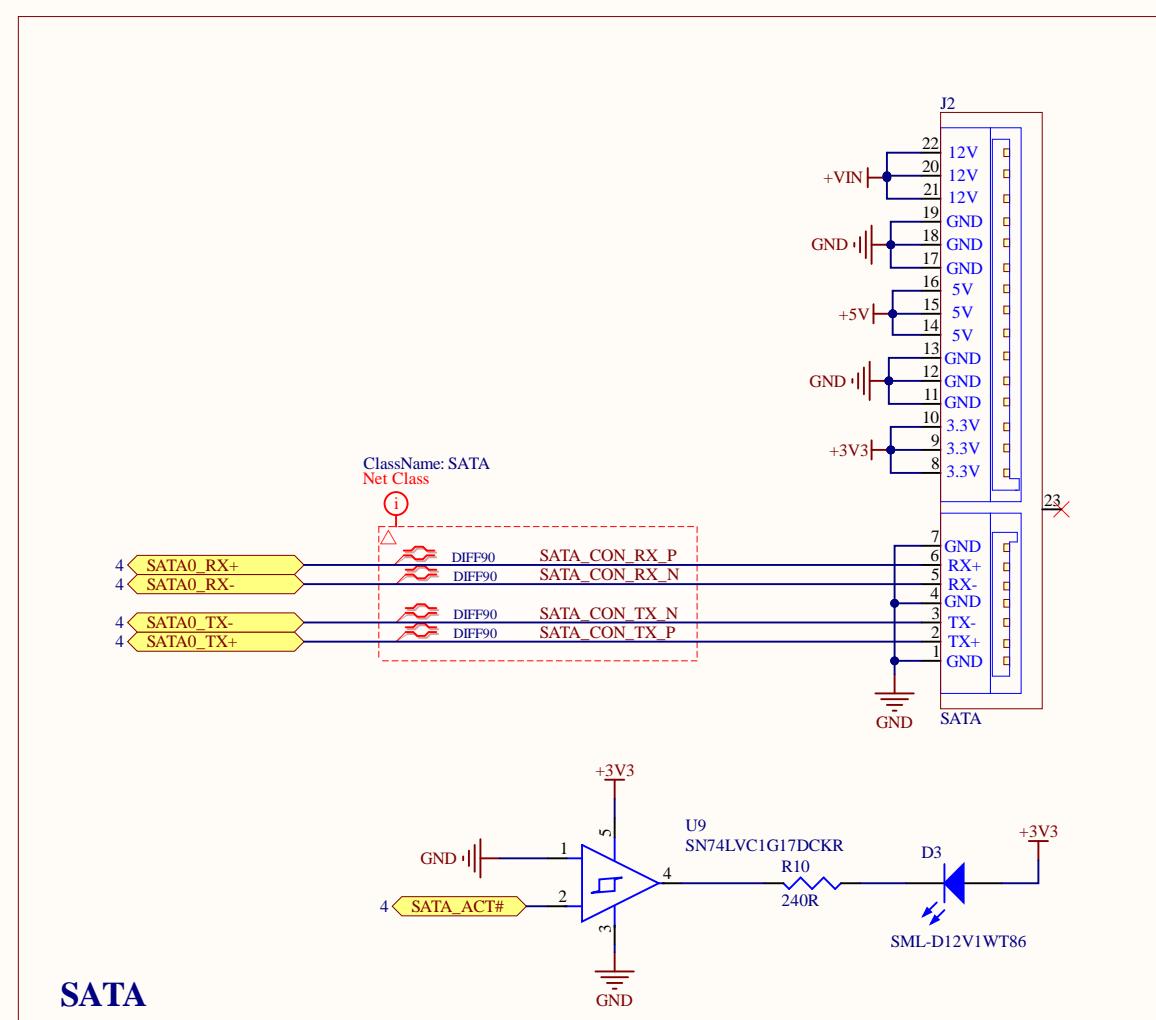
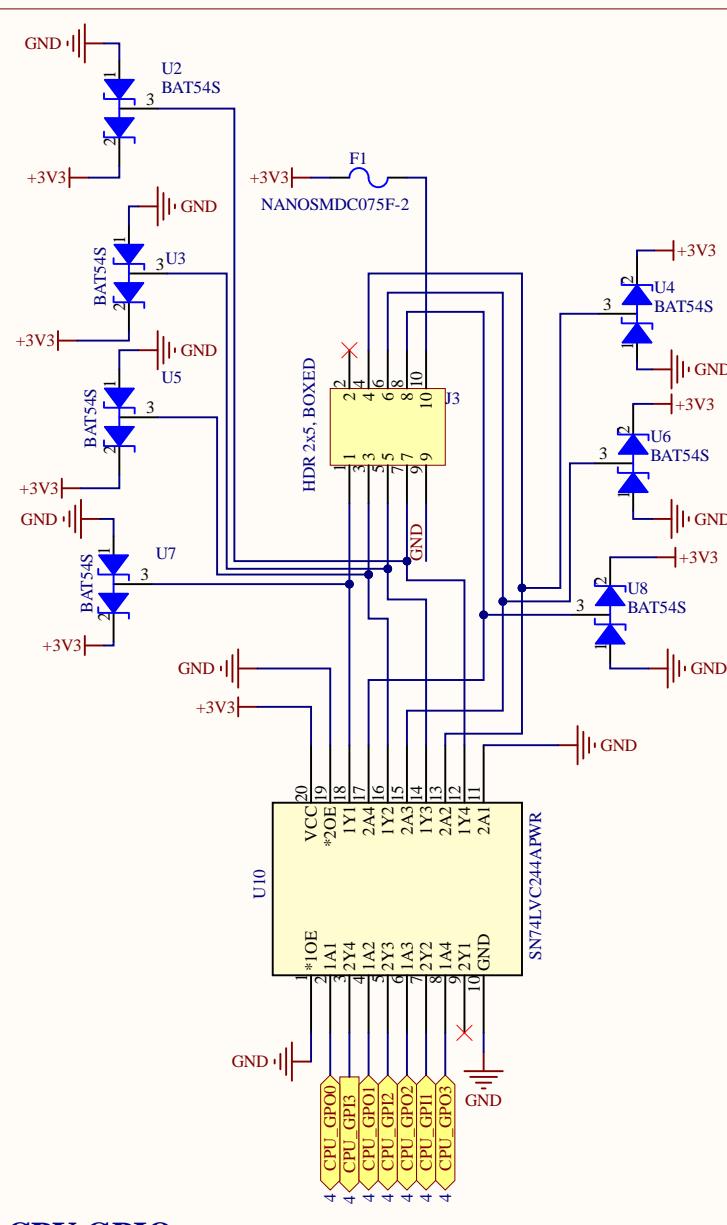
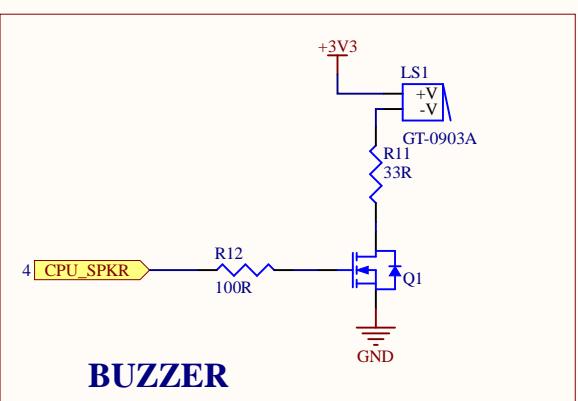
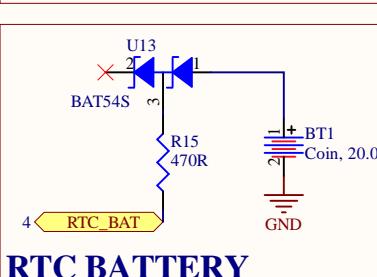
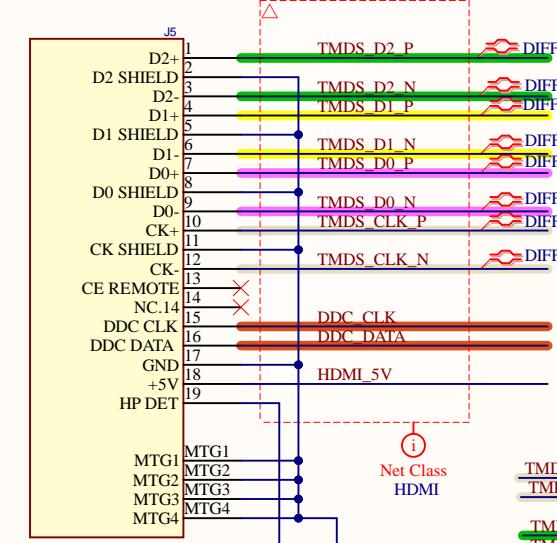
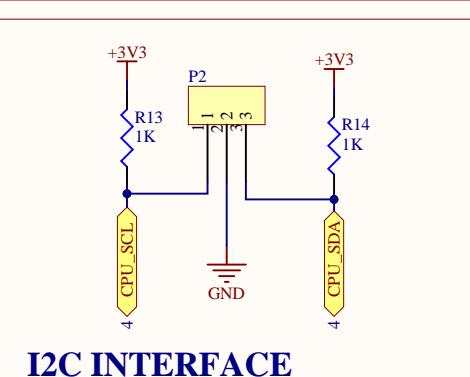
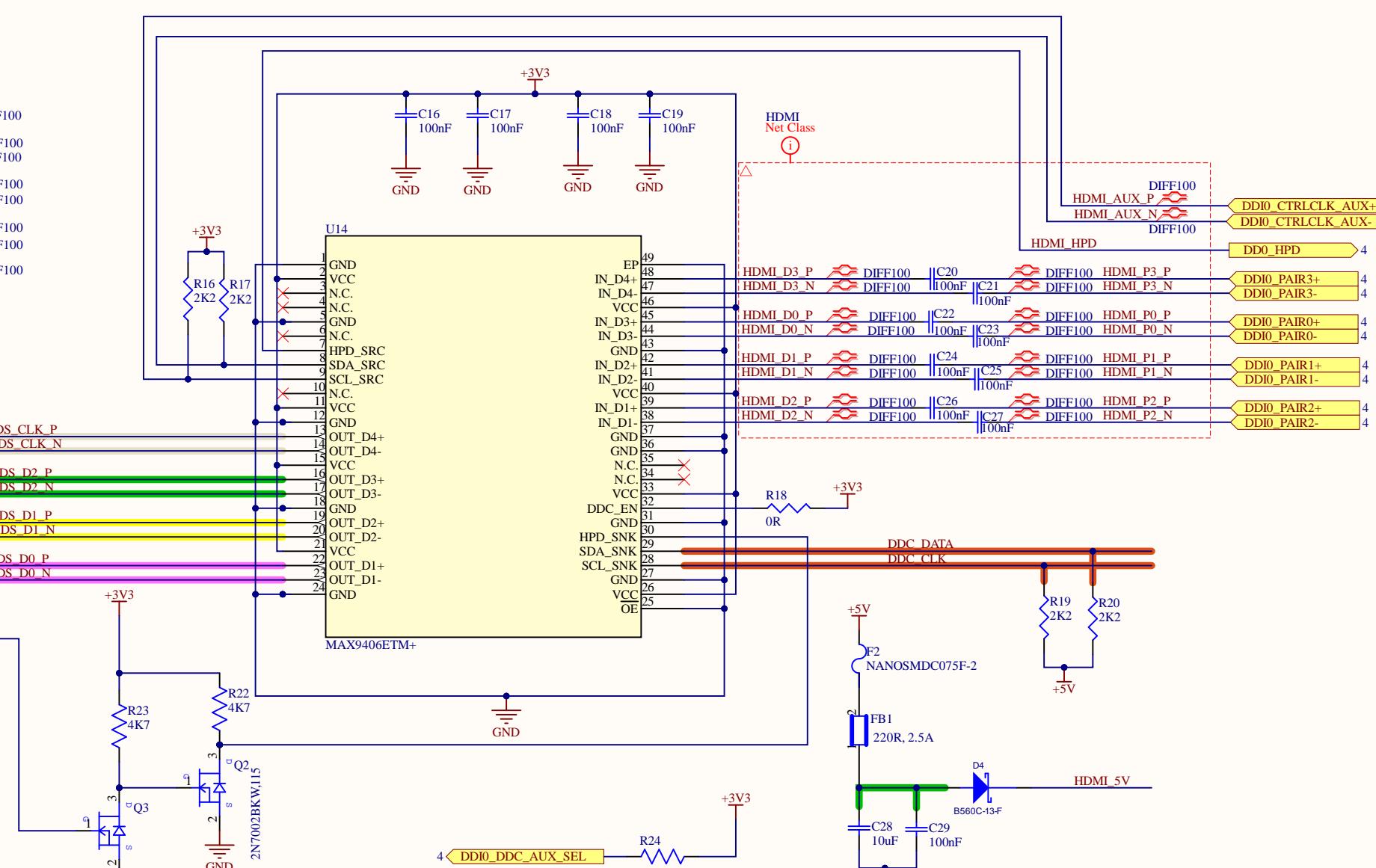


POWER REGULATOR

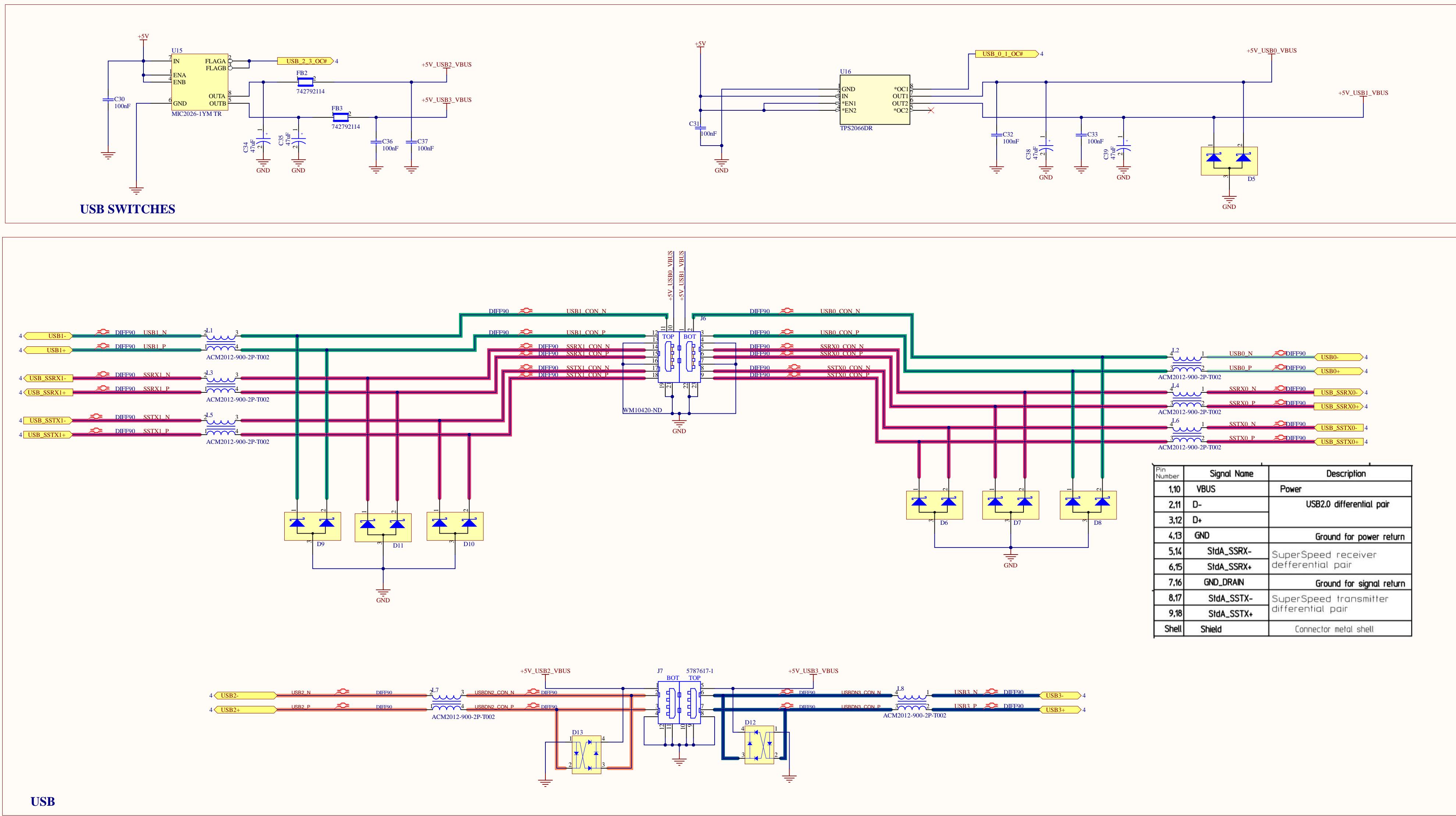


MICRO-CONTROLLER CONNECTIONS

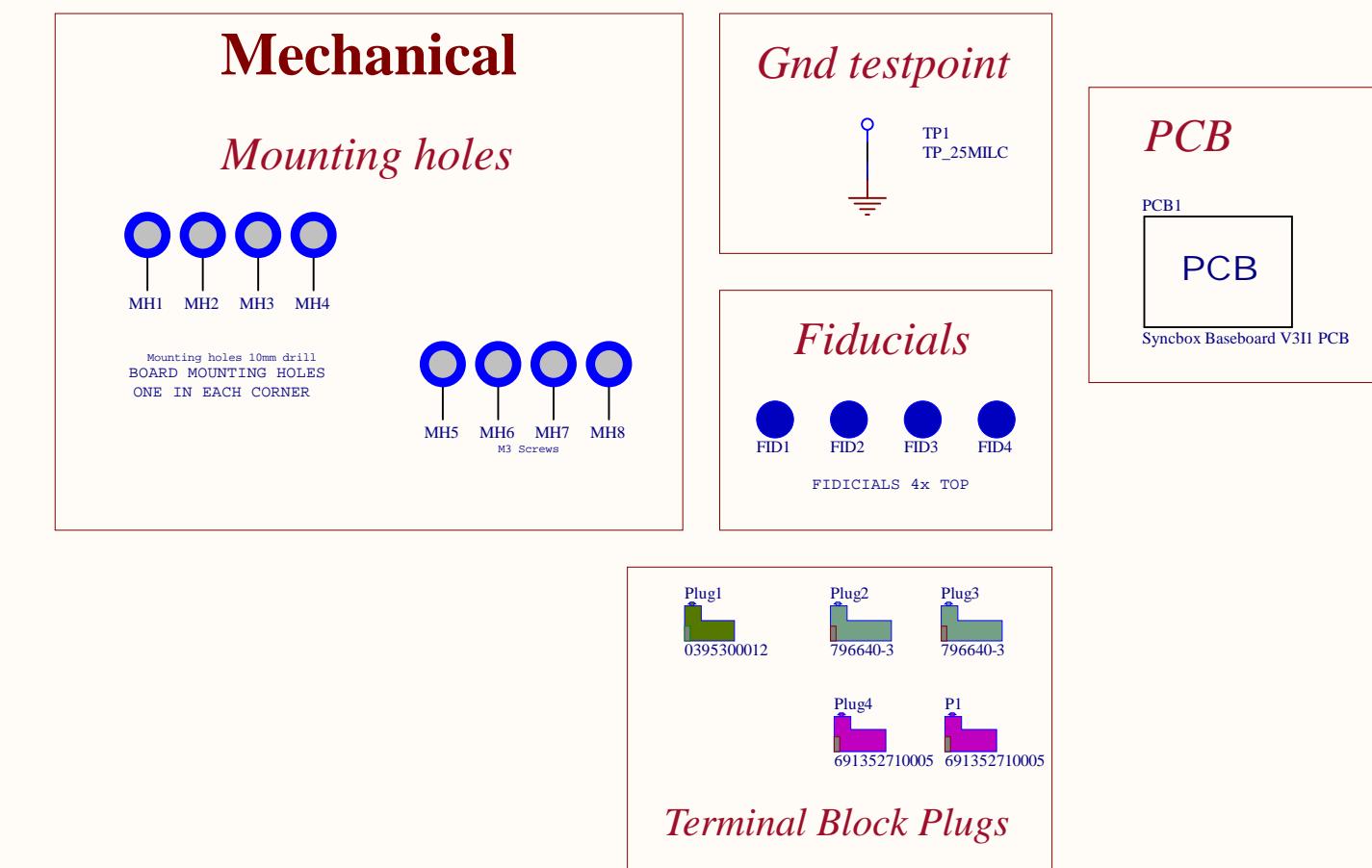


Magnetics**ETHERNET***RJ45***SATA****CPU GPIO****BUZZER****RTC BATTERY****HDMI****I2C INTERFACE**

CPU USB



PCB AND MECHANICAL



DOC: REVISION HISTORY

Syncbox V3.1 is printed three times: In the first print the COMe module was drawn reversed and blowed the COMe card. In the second print there was a problem with HDMI socket design and HDMI did not work. In the lastest print HDMI and COMe were corrected but USB 3 voltage regulator suffers from serious heat problem.

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