

TURBOT

Rev : X205

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REVISION HISTORY:

Rev	Date	Notes
X100	2015/05/22	INITIAL RELEASE OF TURBOT DESIGN
X200	2015/07/30	FIXES BASED ON ALPHA QUALIFICATION
X201	2015/08/17	SWAP IN NEW LOW-Vth FET FOR Q16, DNI U33 (SPD EEPROM)
X202	2015/08/27	STUFF R354, REPLACE U32 (USB POWER SWITCH) WITH PART FROM X100 RELEASE
X203	2015/09/23	ADD LABELS TO BOM FOR PILOT PRODUCTION RELEASE
X204	2015/10/13	BOM FIX D5, D6, D10 TO PART WITH CORRECT FOOTPRINT
X205	2015/08/27	NO STUFF R53, R54, R55, R56 TO MATCH VALIDATED PROTOTYPES

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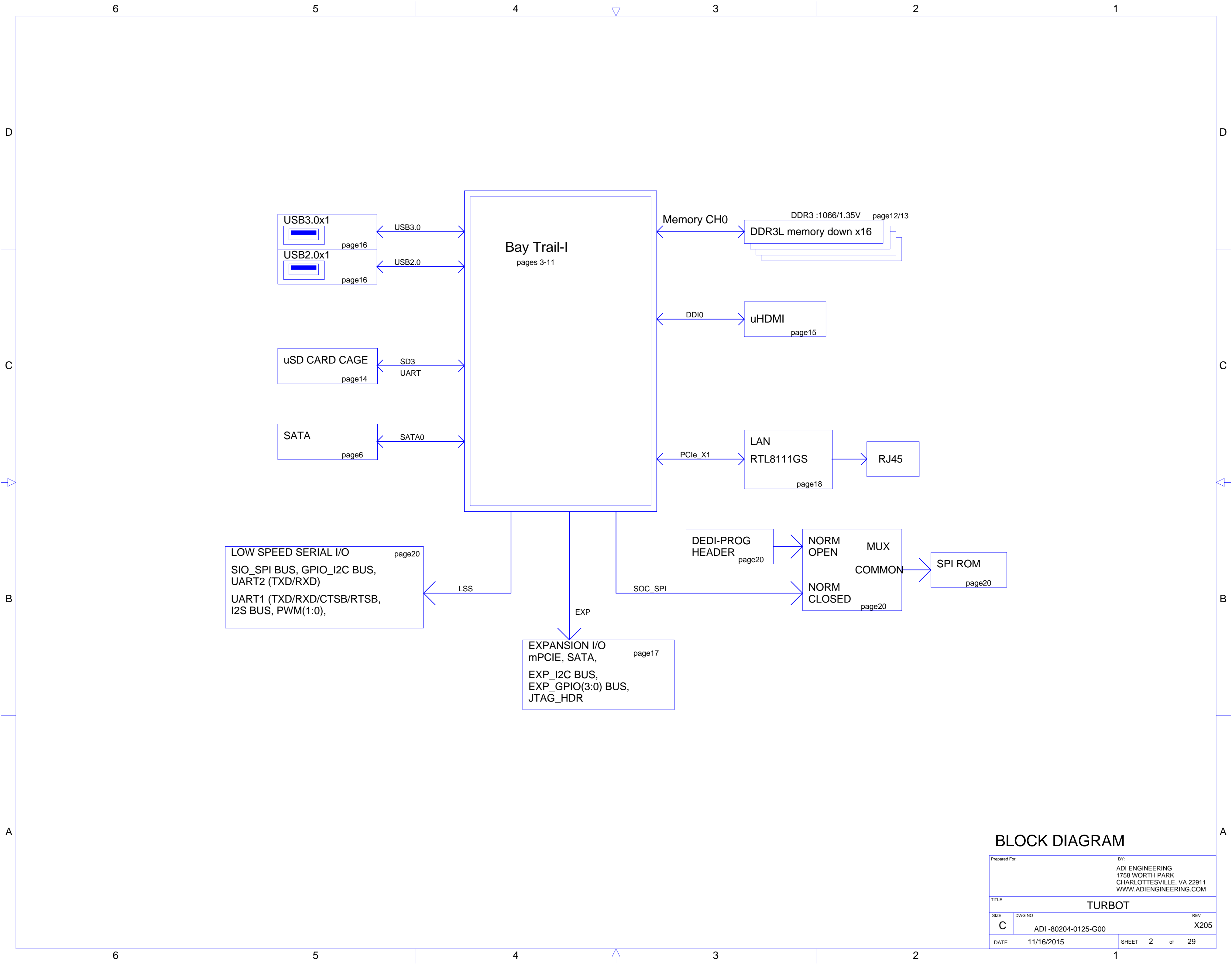
Minnowboard Turbot design derived from Minnowboard MAX as designed by CircuitCo LLC.

All derivative works are to be attributed to ADI Engineering and CircuitCo LLC .

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For all design files, including bill of materials and gerber files, please visit www.minnowboard.org

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TITLE TURBOT			
SIZE C	DWG NO ADI -80204-0125-G00		REV X205
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BLOCK DIAGRAM

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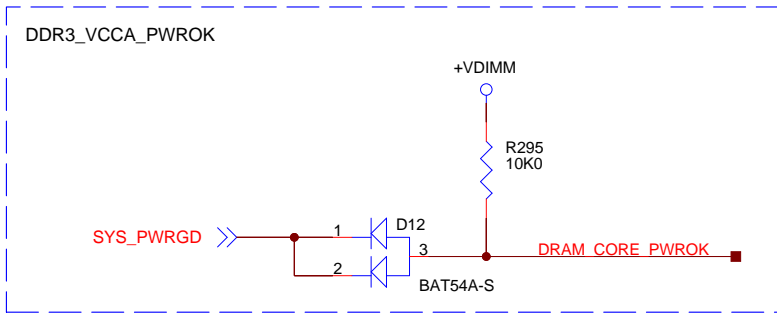
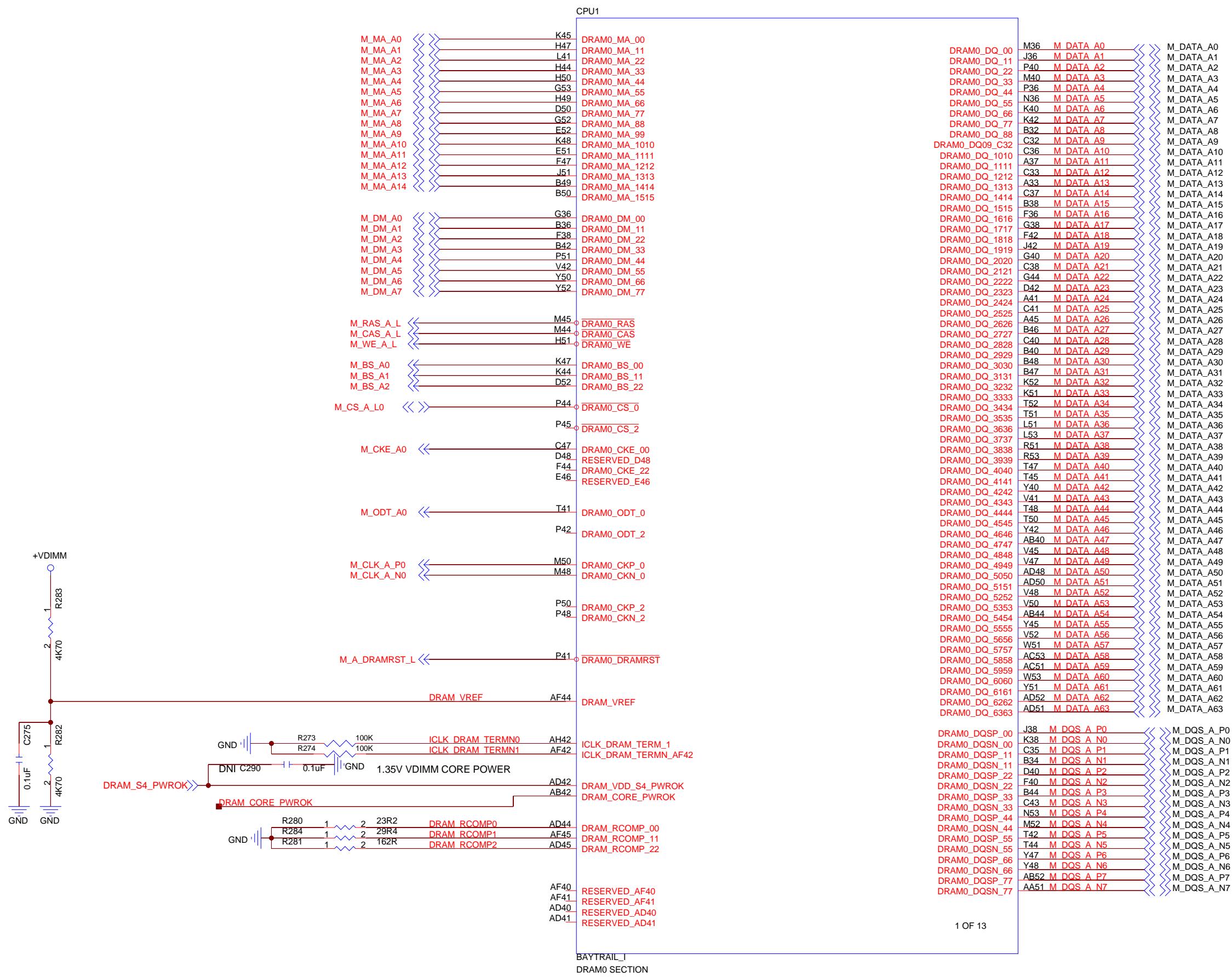
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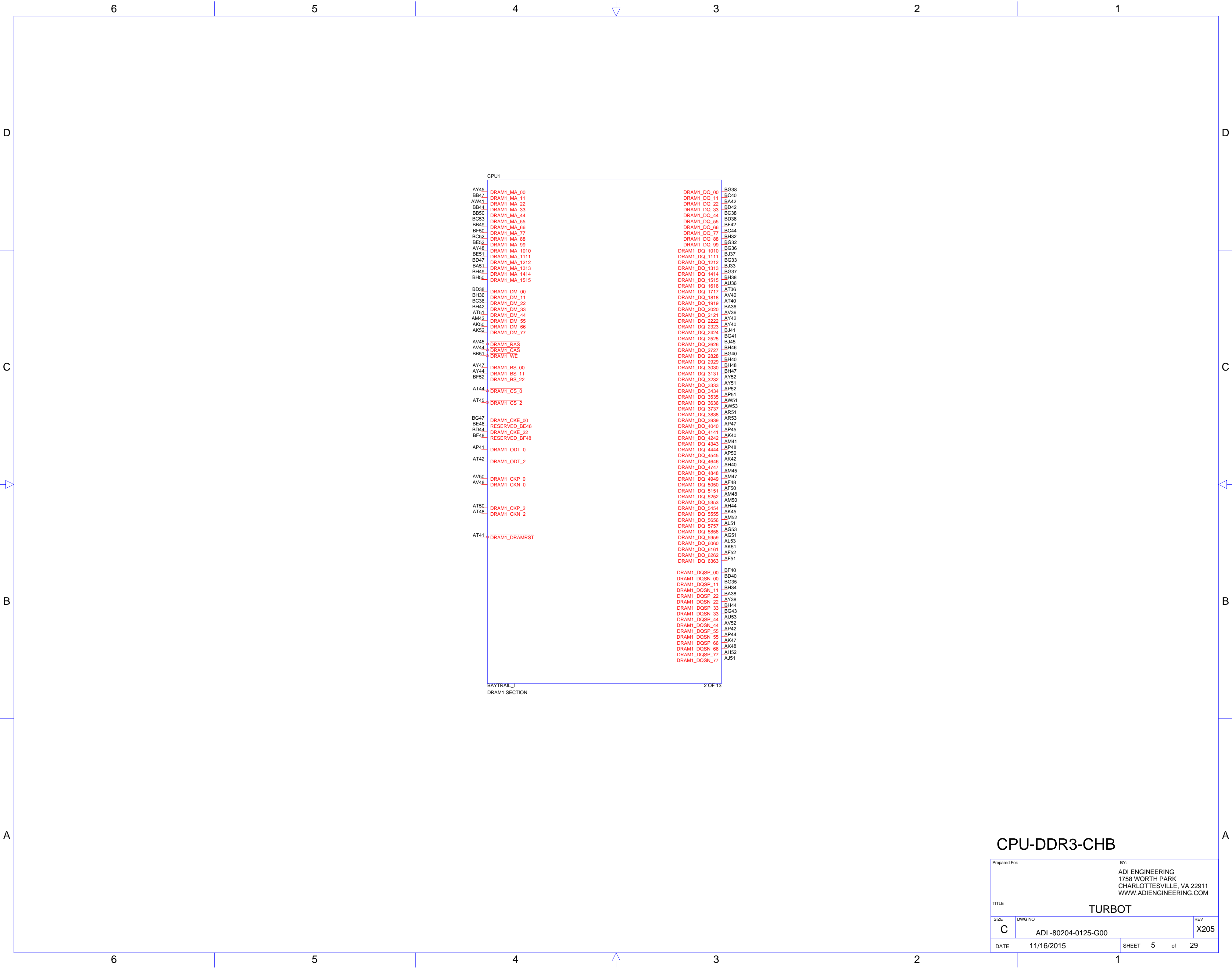
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CPU-DDR3-CHA

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CPU-DDR3-CHB

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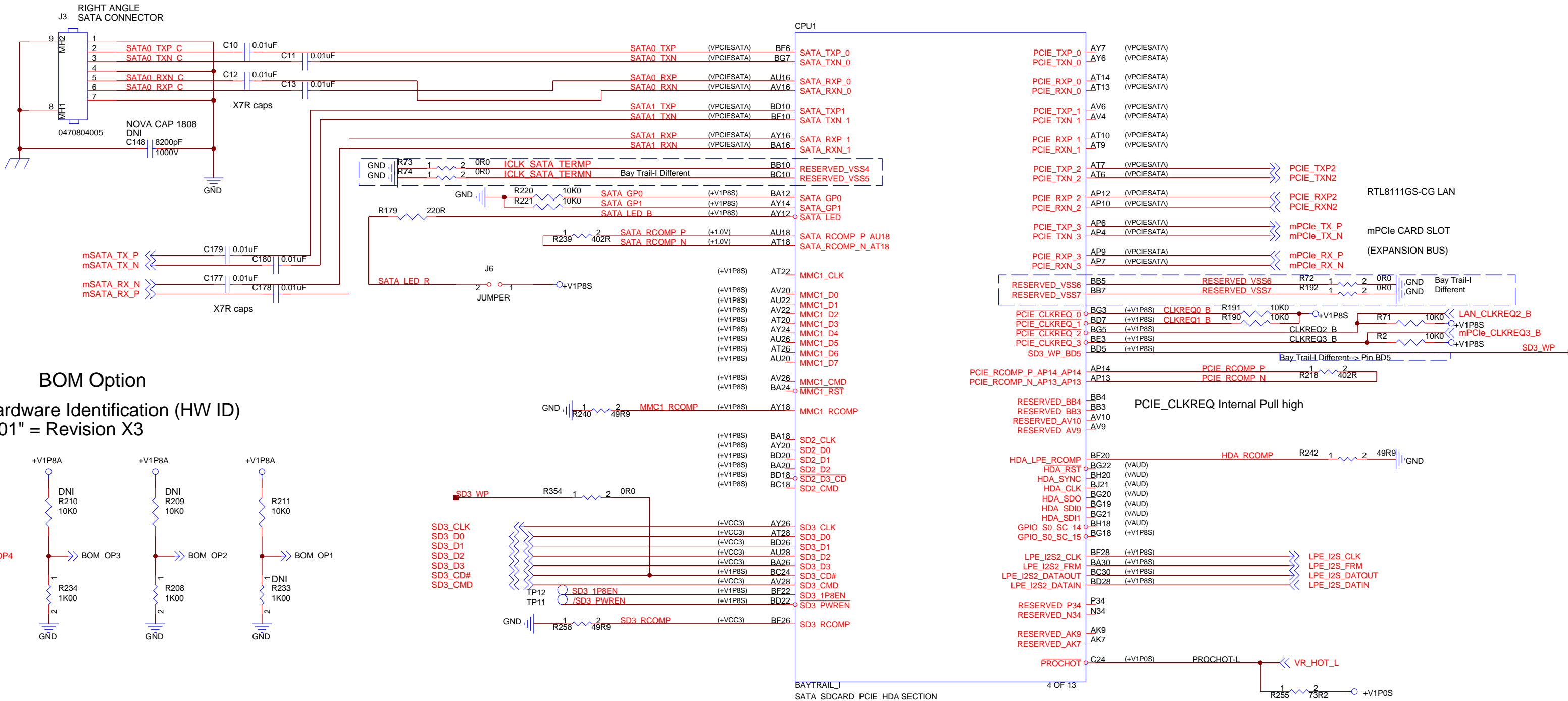
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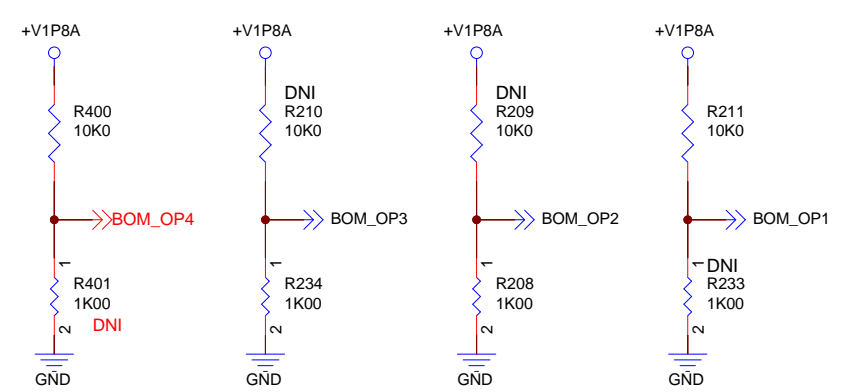
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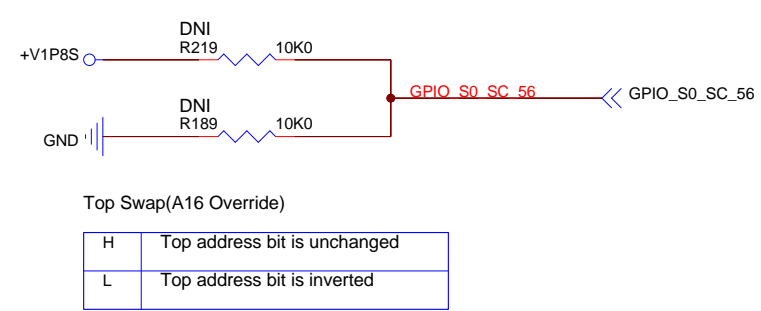


BOM Option
Hardware Identification (HW ID)
"001" = Revision X3



HW STRAP

STRAP RESISTORS SHOULD BE PLACED CLOSE TO SOC



Strap Pin	Function
GPIO_S0_SC63 (LPE_I2S_FRM)	BIOS Boot Selection 0=LPC *1=SPI
GPIO_S0_SC65 (LPE_I2S_DATAOUT)	Security Flash Descriptors 0=Override *1=Normal Operation

CPU-PE/HDA/SD/eMMC/Strap

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CPU-PWR1/TPM/LPC

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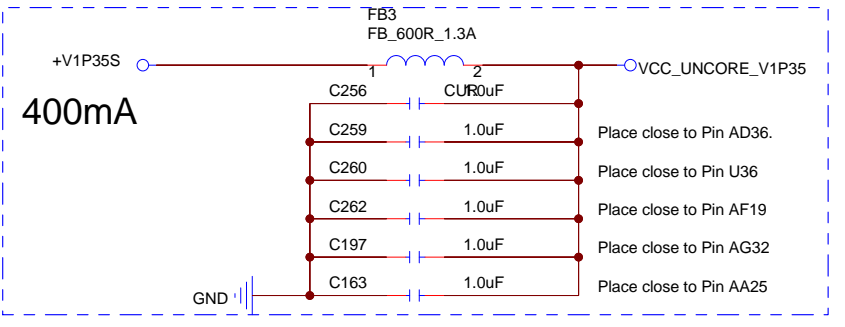
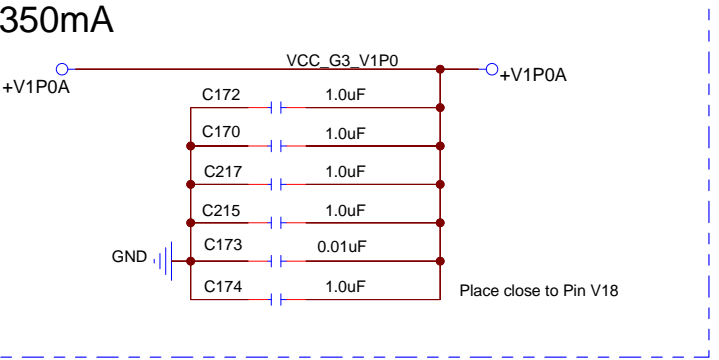
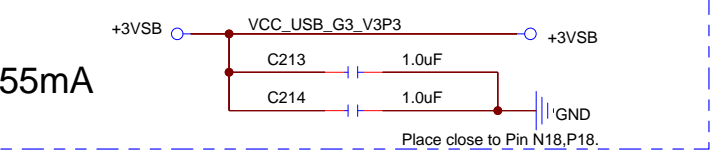
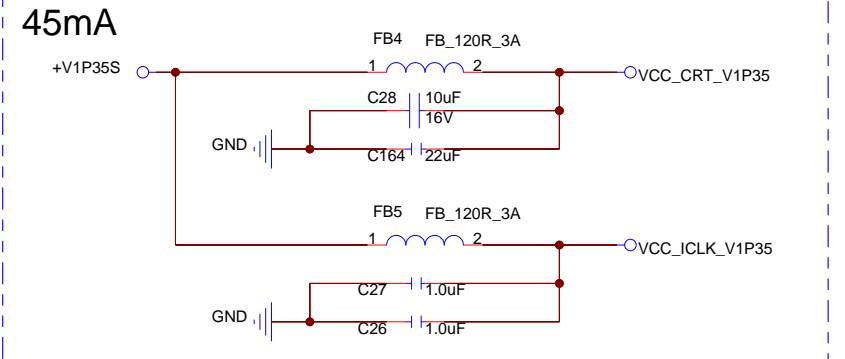
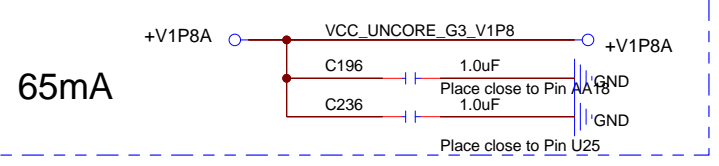
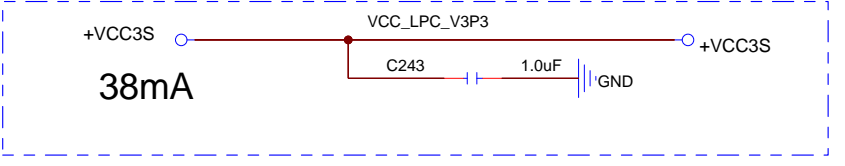
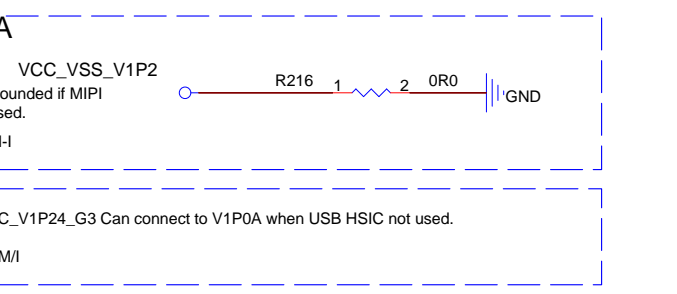
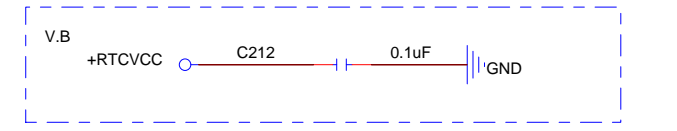
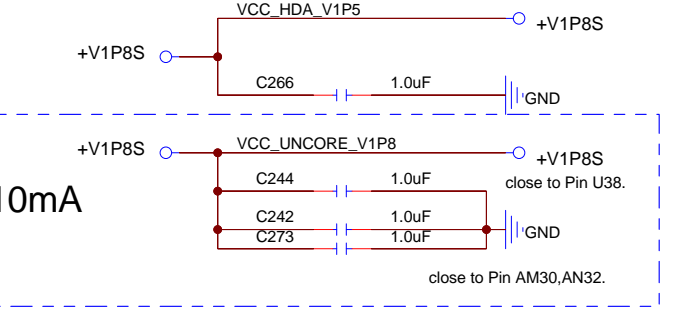
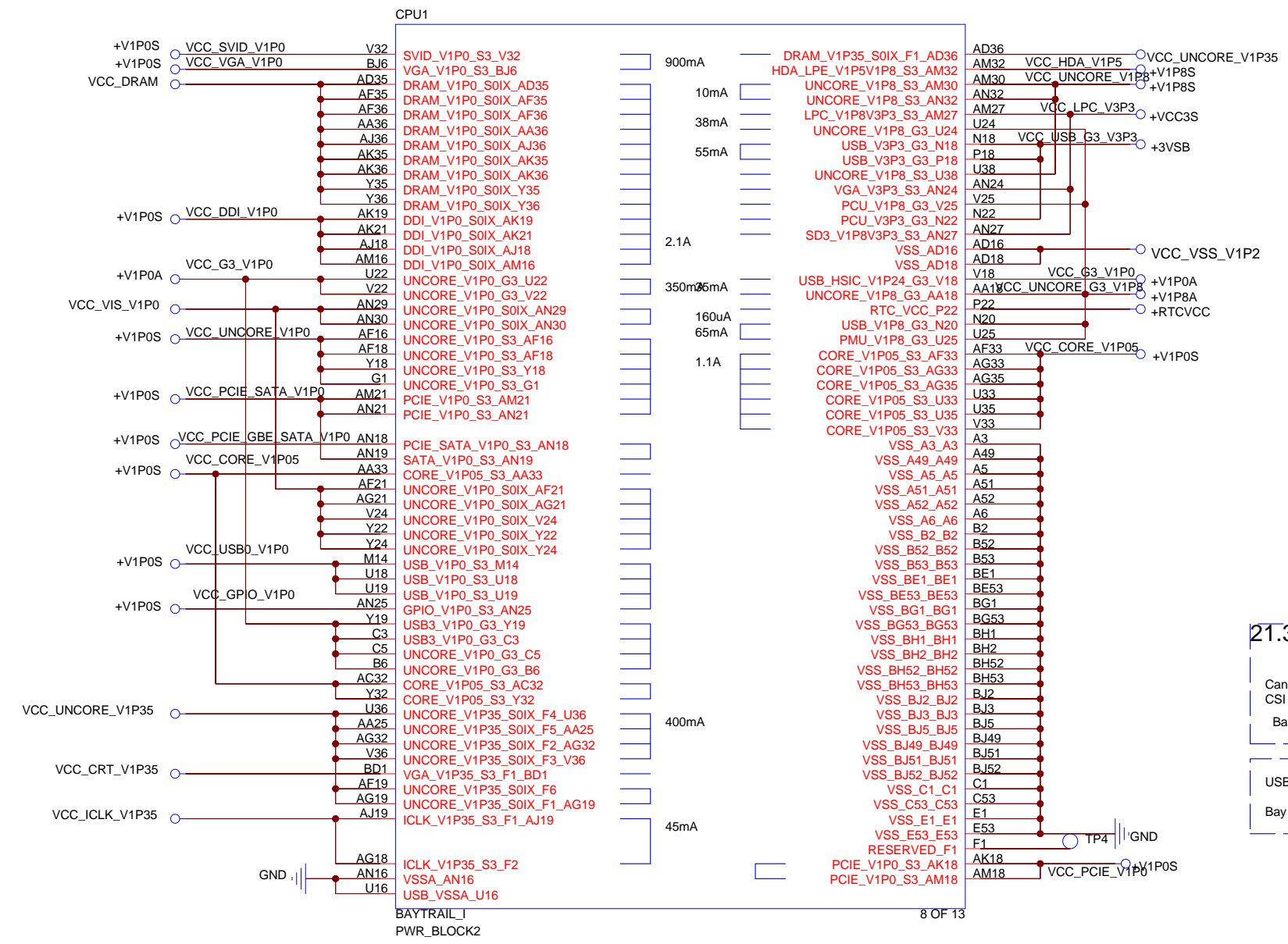
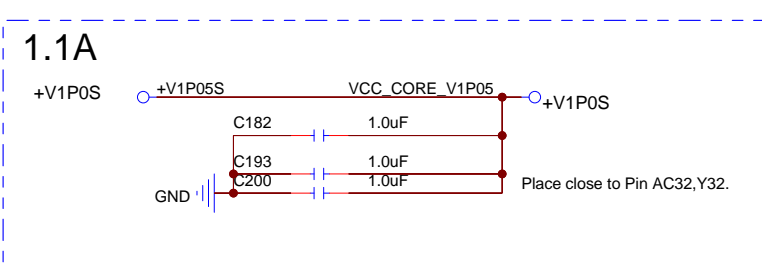
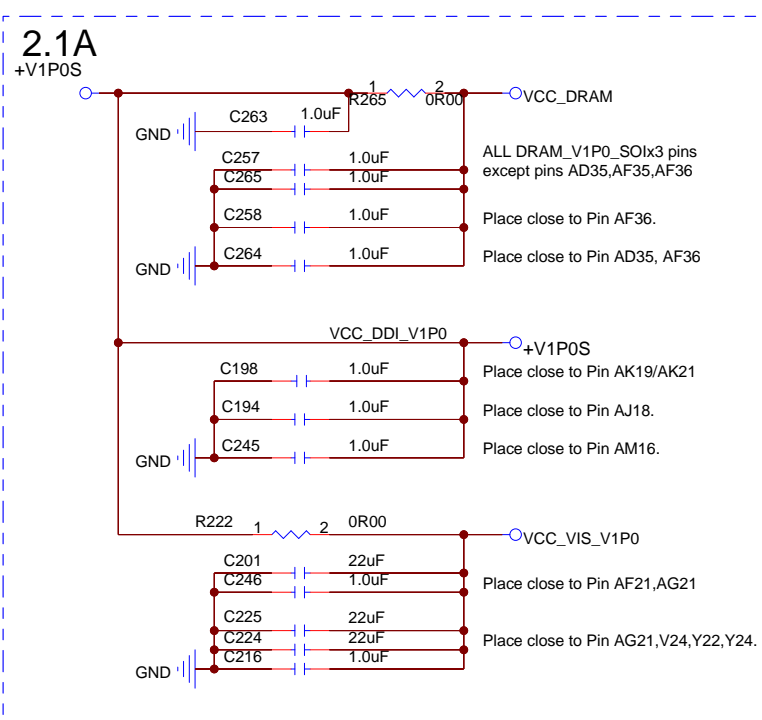
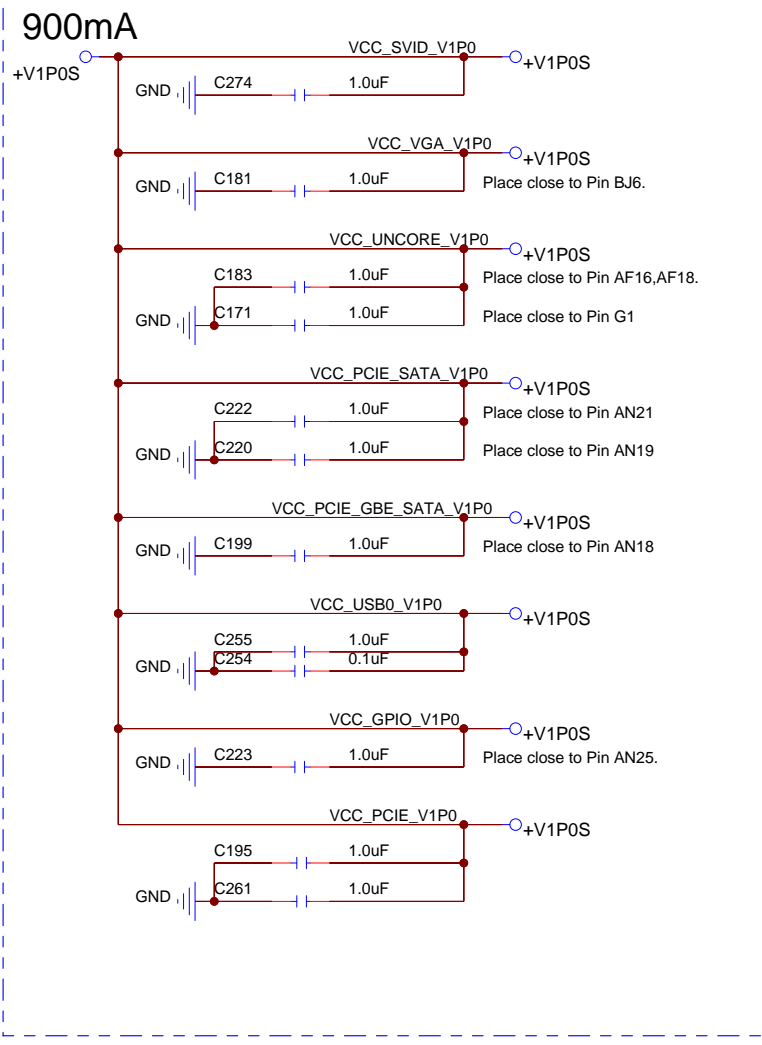
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CPU-PWR2

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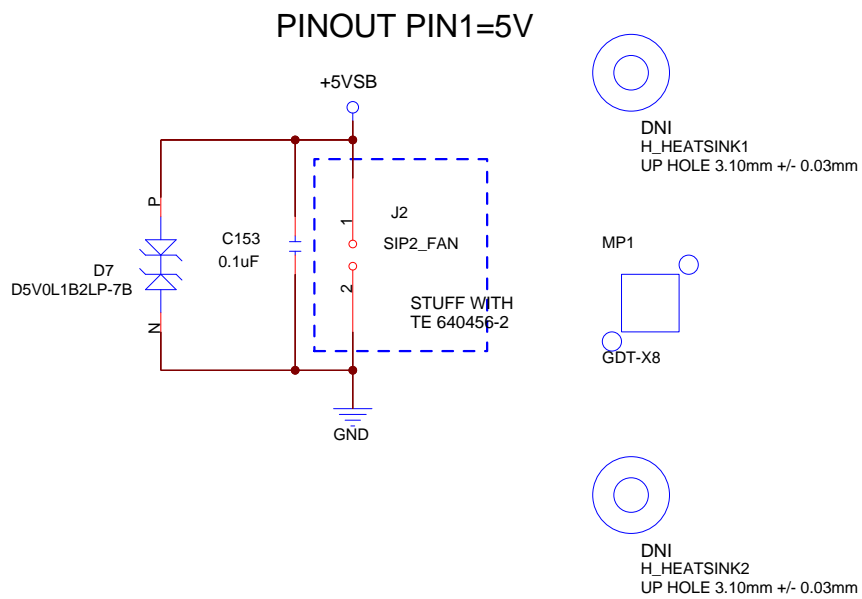
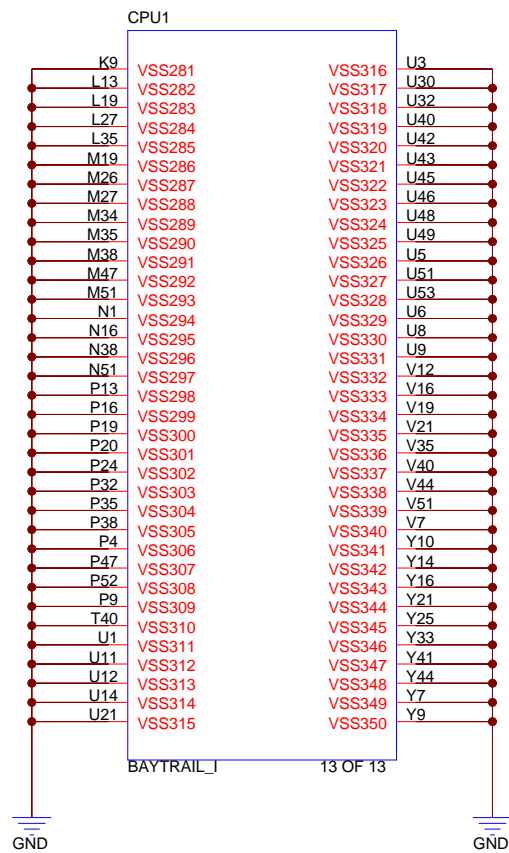
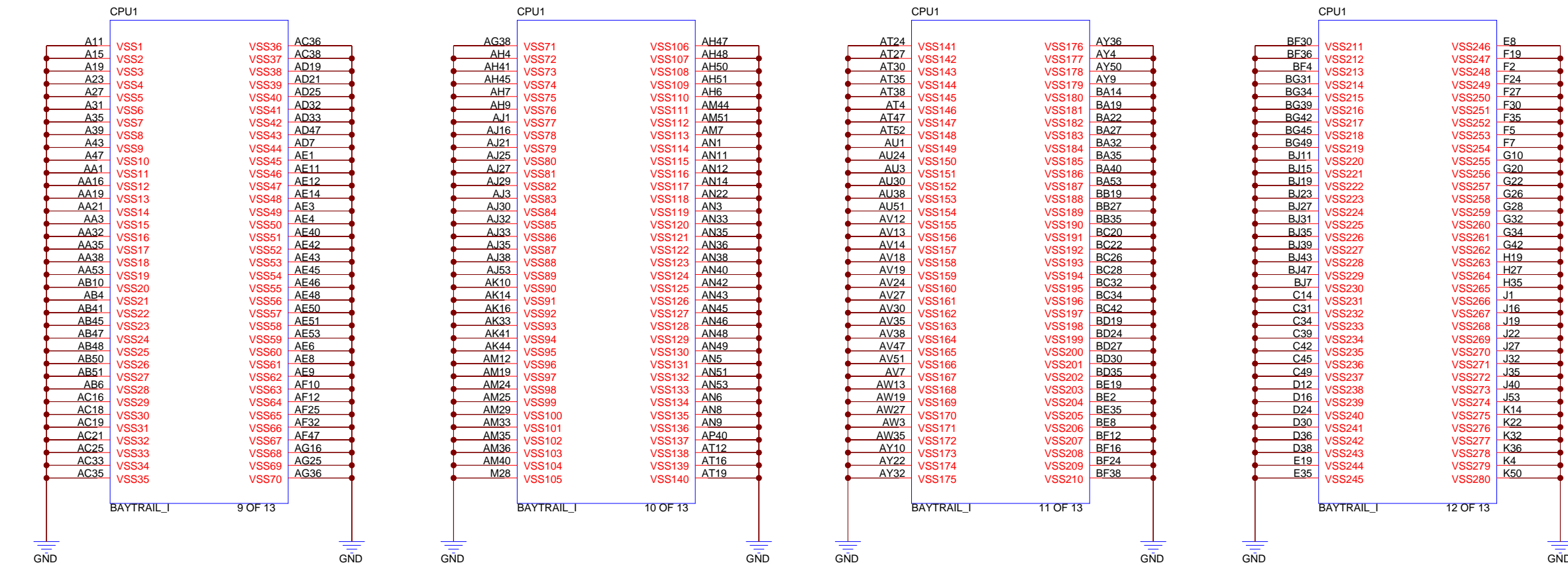
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CPU-GND

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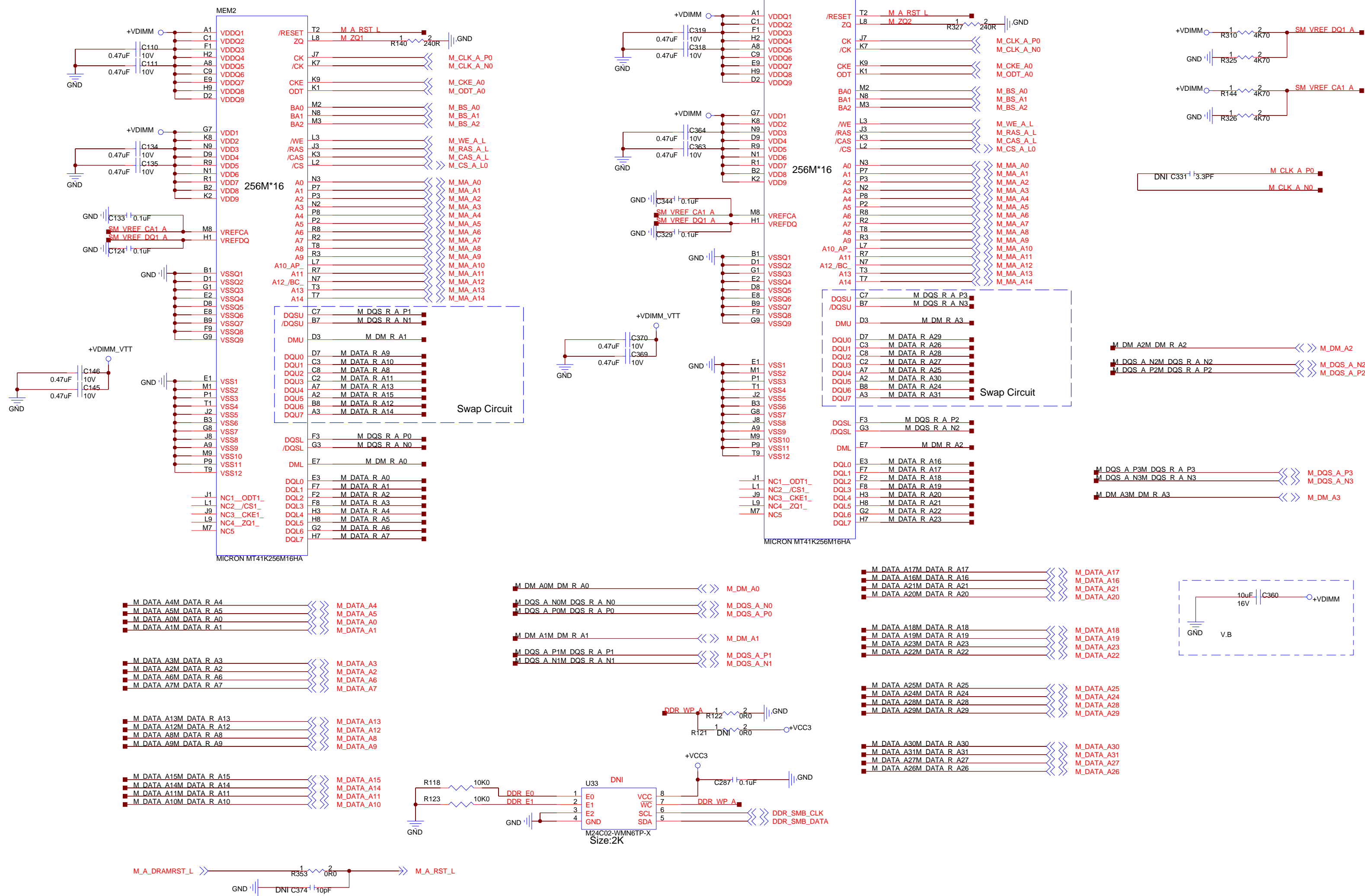
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1



NOTE: COMPATIBLE DDR3L MEMORIES
FOR THE MINNOWMAX
ARE THE FOLLOWING:
MICRON MT41K128M16HA-125:D,
MICRON MT41K256M16HA-125:E,
MICRON MT41K512M16TNA-125:X

Memory_CHA-1

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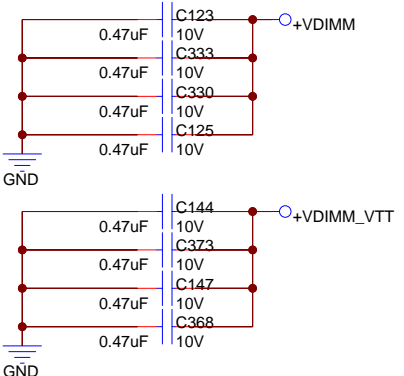
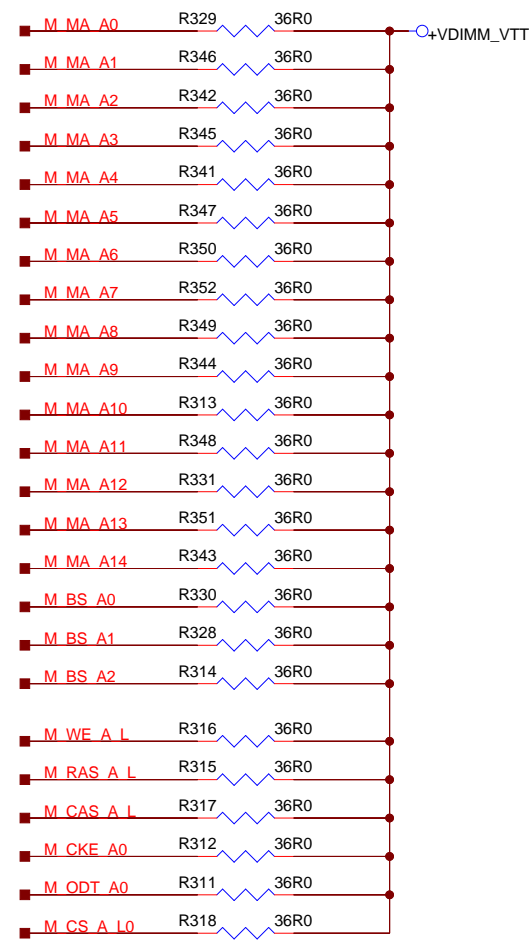
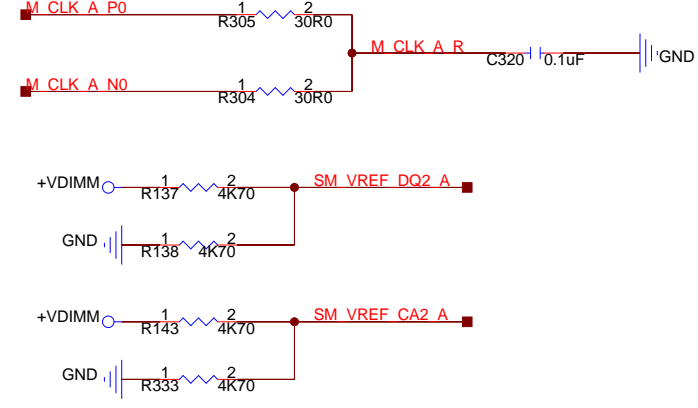
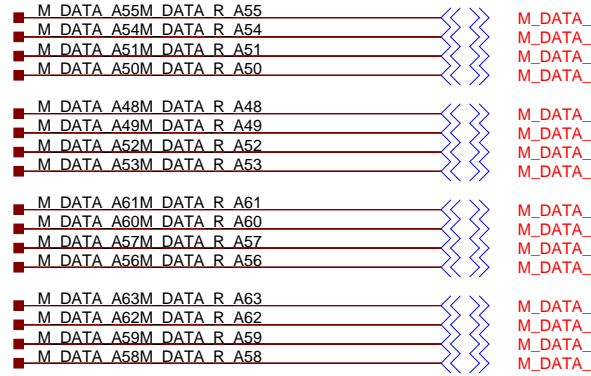
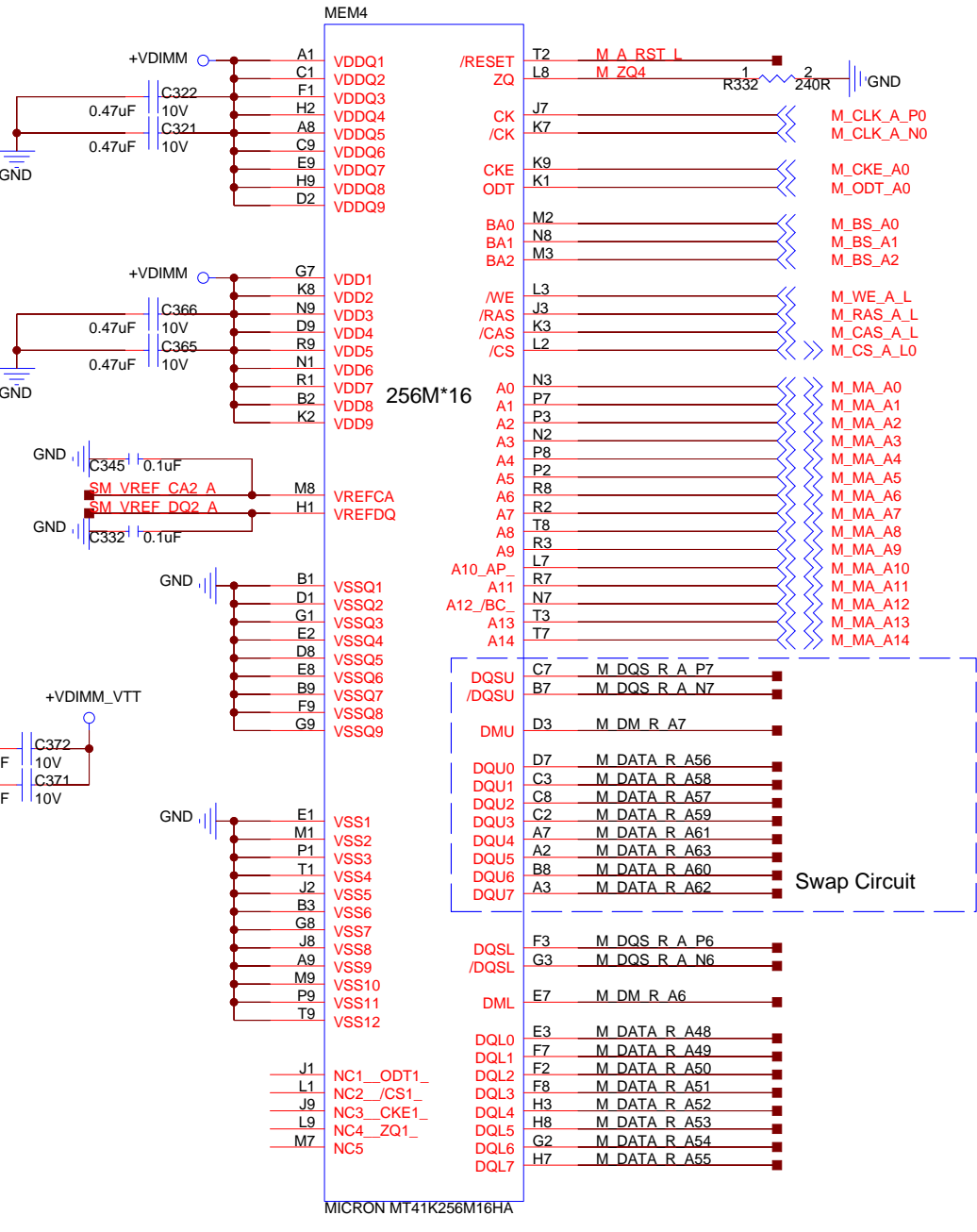
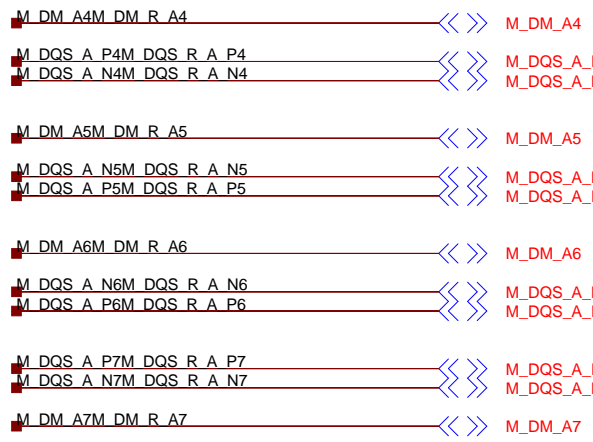
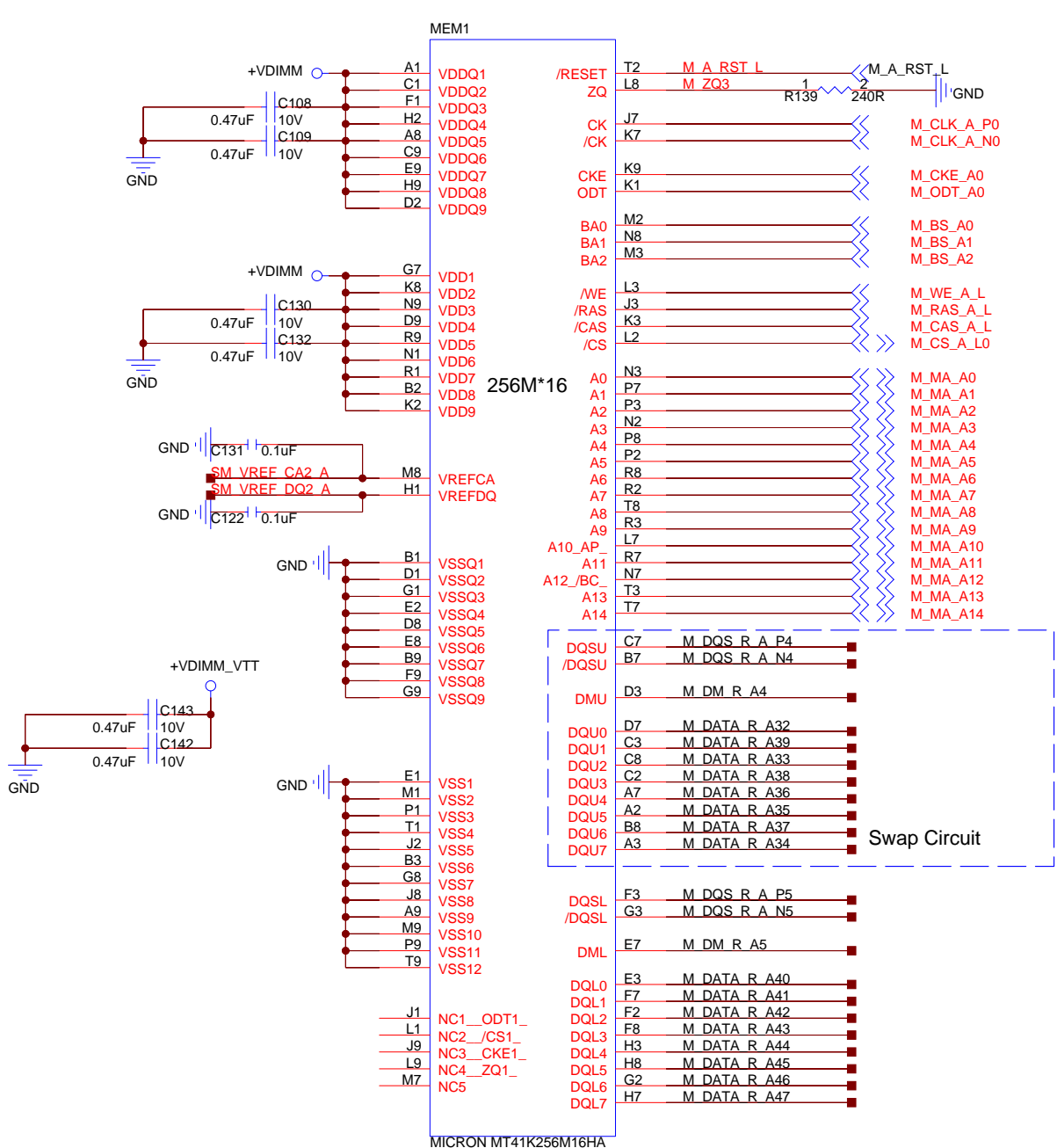
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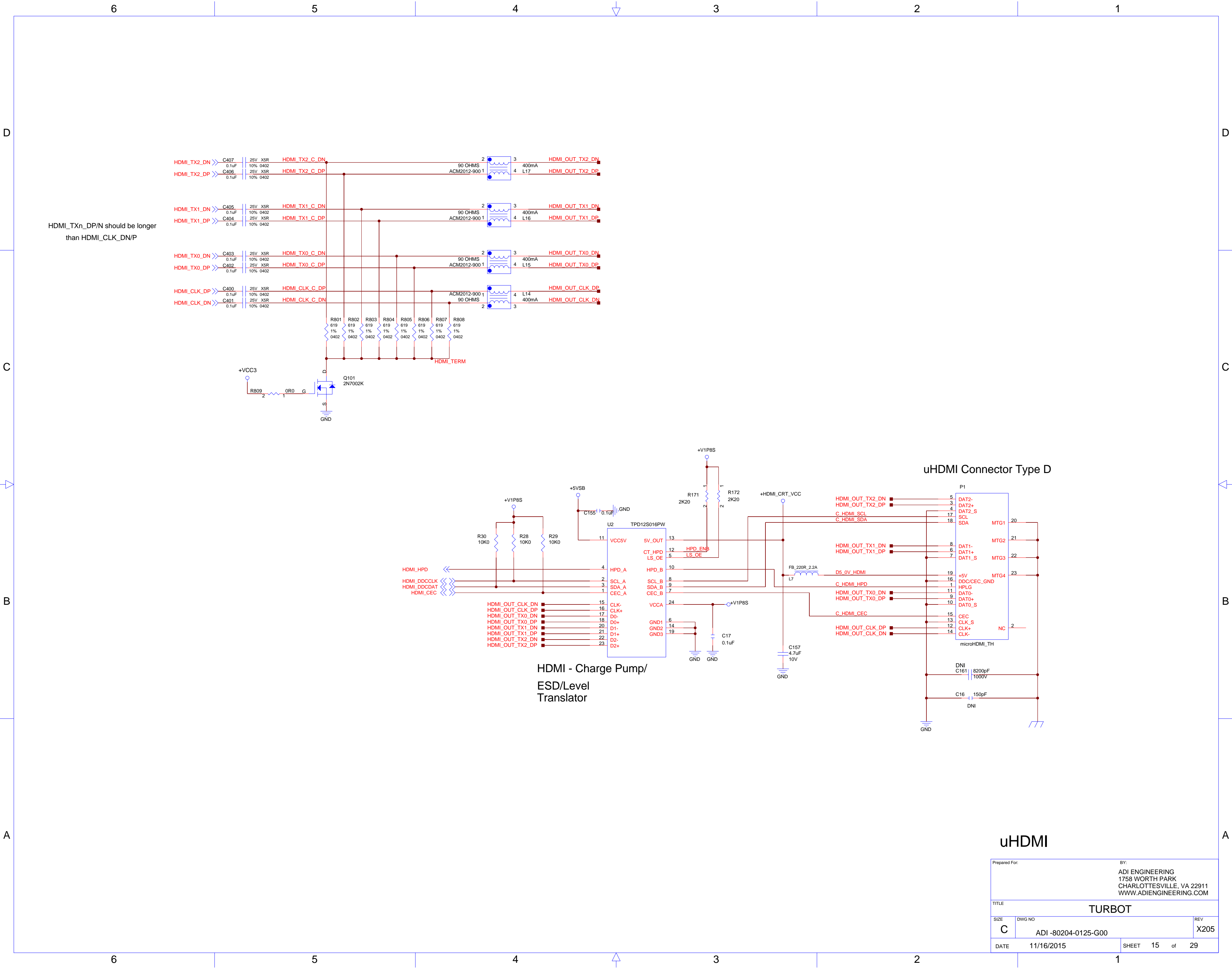
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NOTE: COMPATIBLE DDR3L MEMORIES
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MICRON MT41K128M16HA-125:D,
MICRON MT41K512M16HA-125:E,
MICRON MT41K512M16HA-125:X

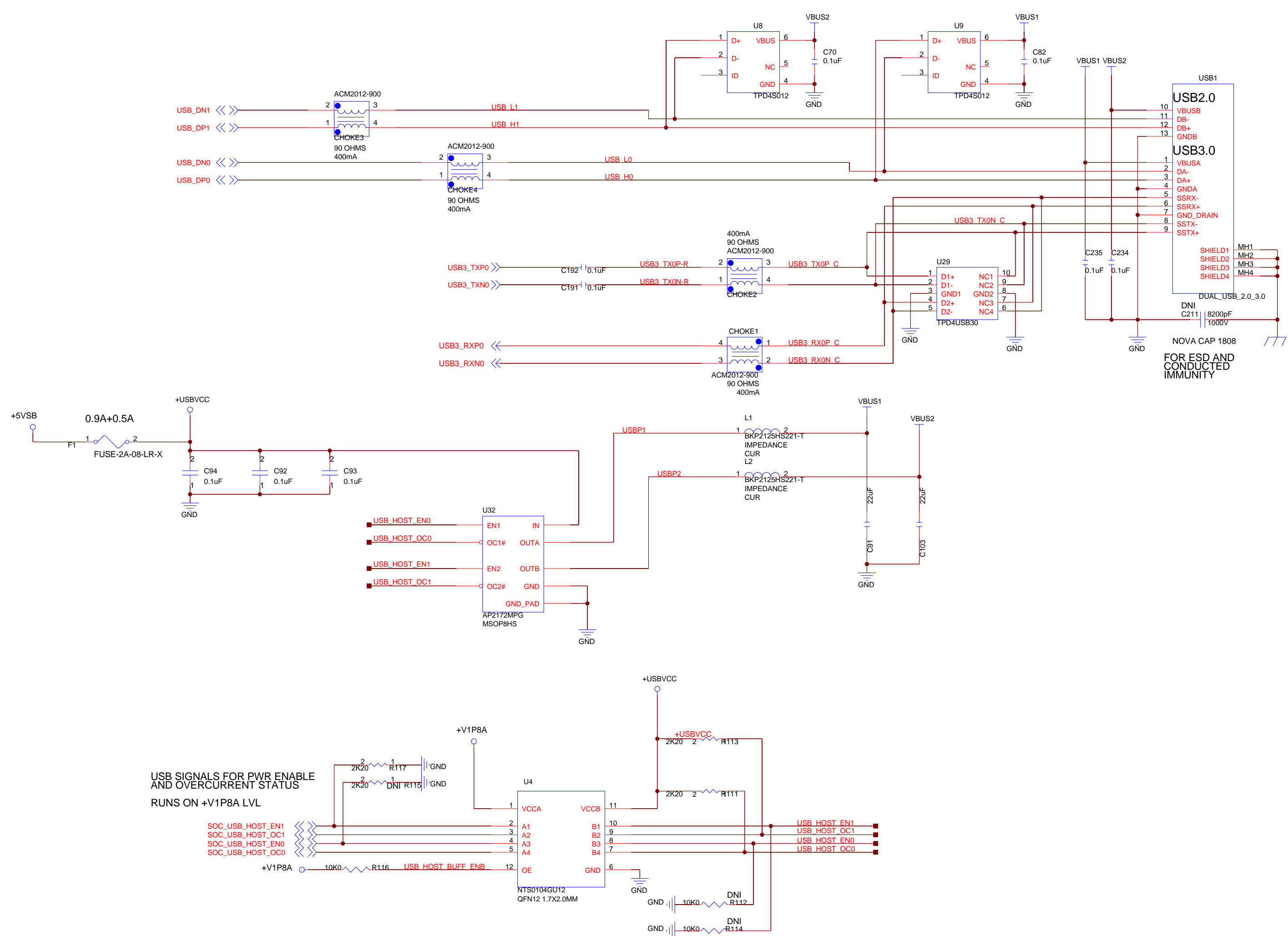
Memory_CHA-2

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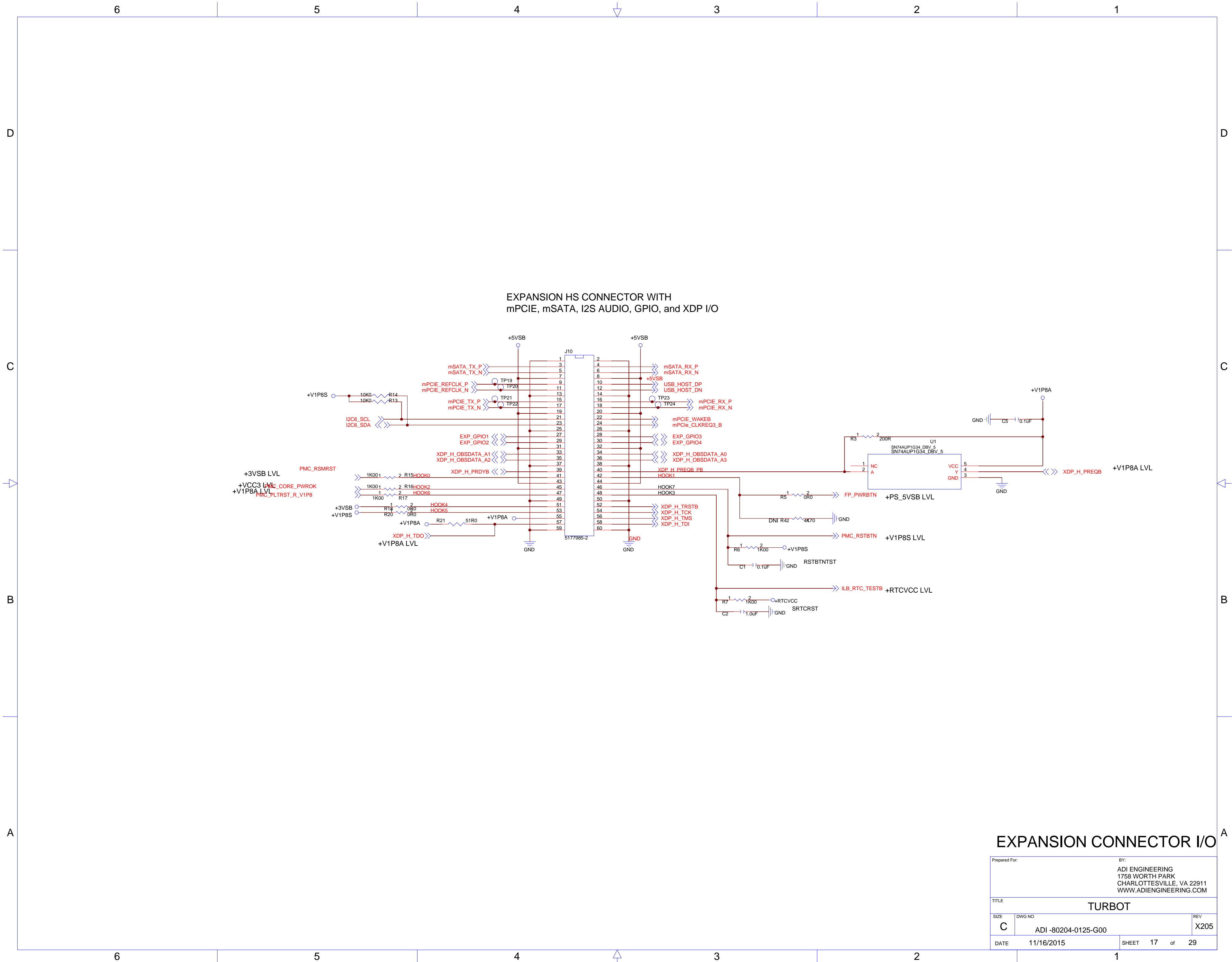
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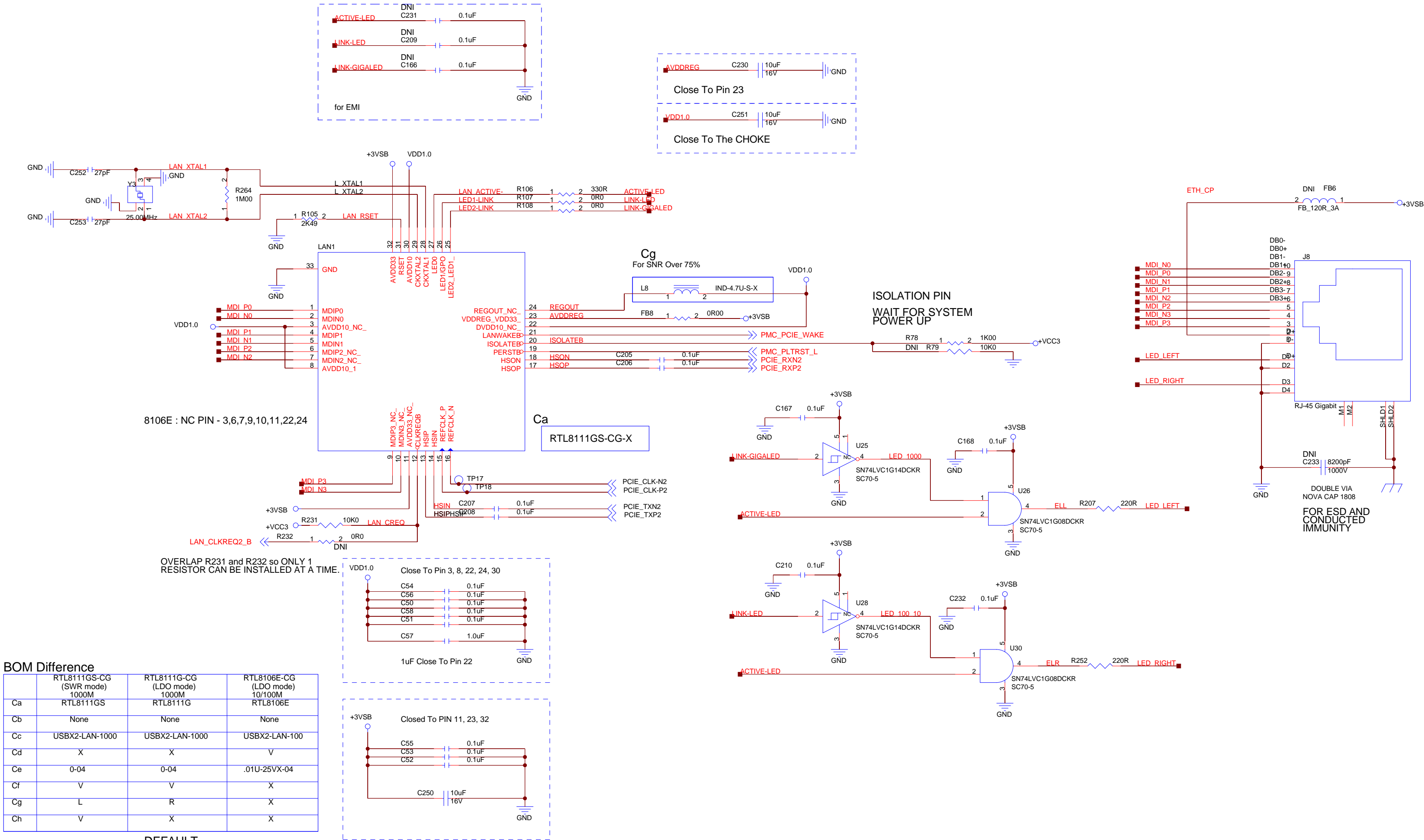
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USB3+USB2

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LAN RT8111GS-CG

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DATE	11/16/2015	SHEET	18 of 29

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TITLE TURBOT			
SIZE C	DWG NO ADI -80204-0125-G00		REV X205
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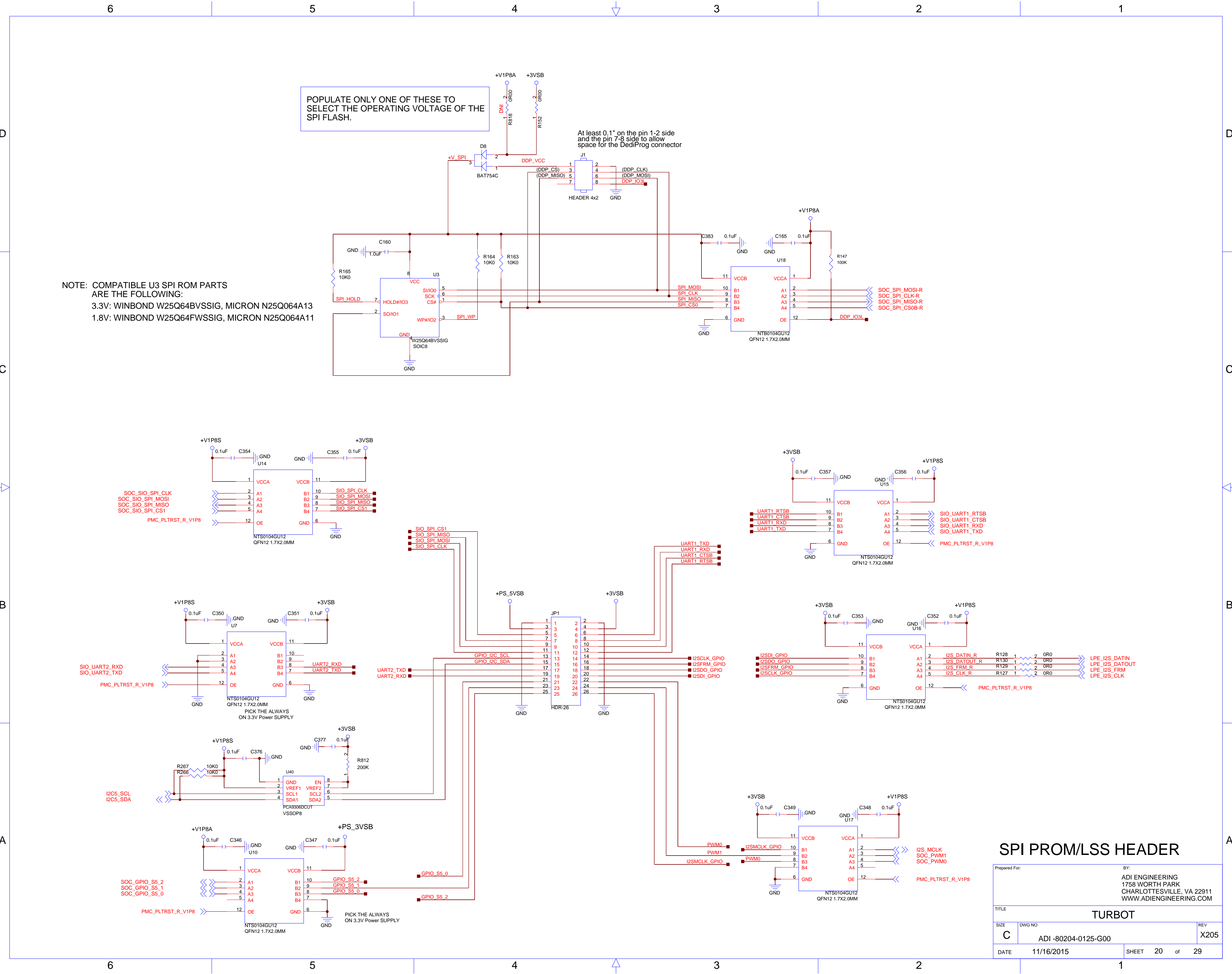
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SPI PROM/LSS HEADER

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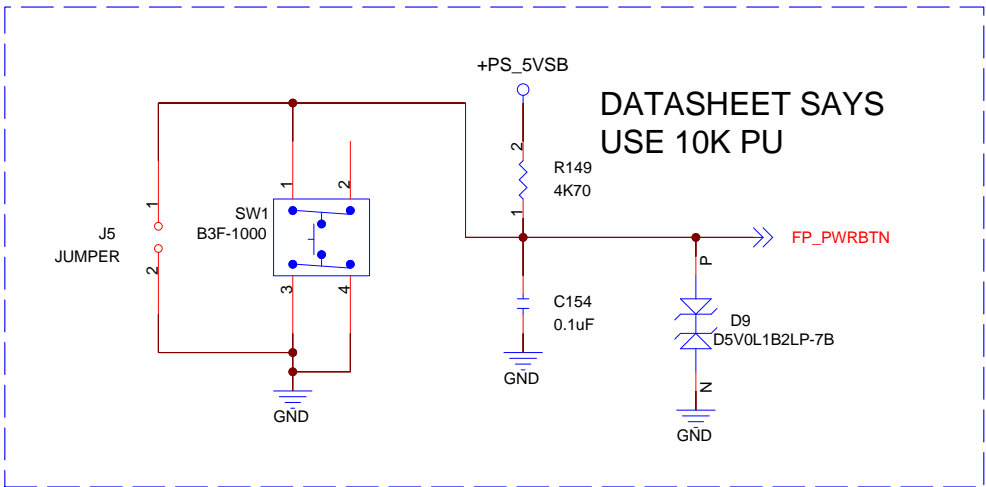
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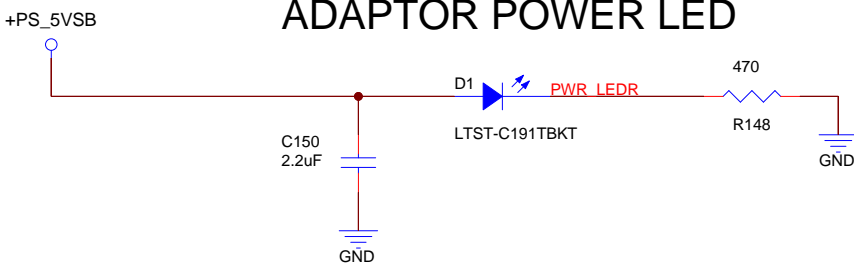
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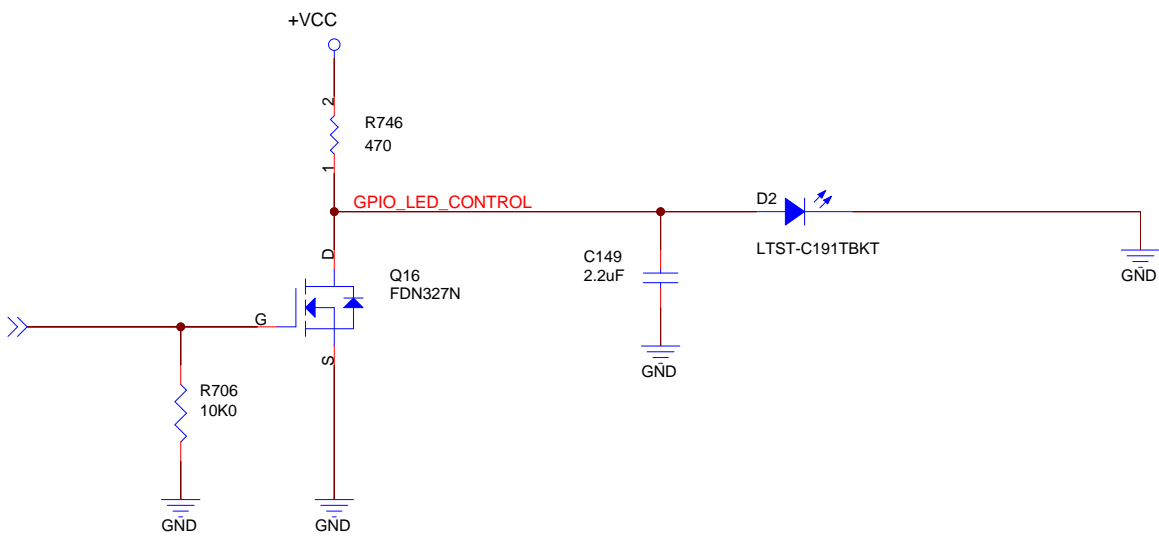


ADAPTOR POWER LED

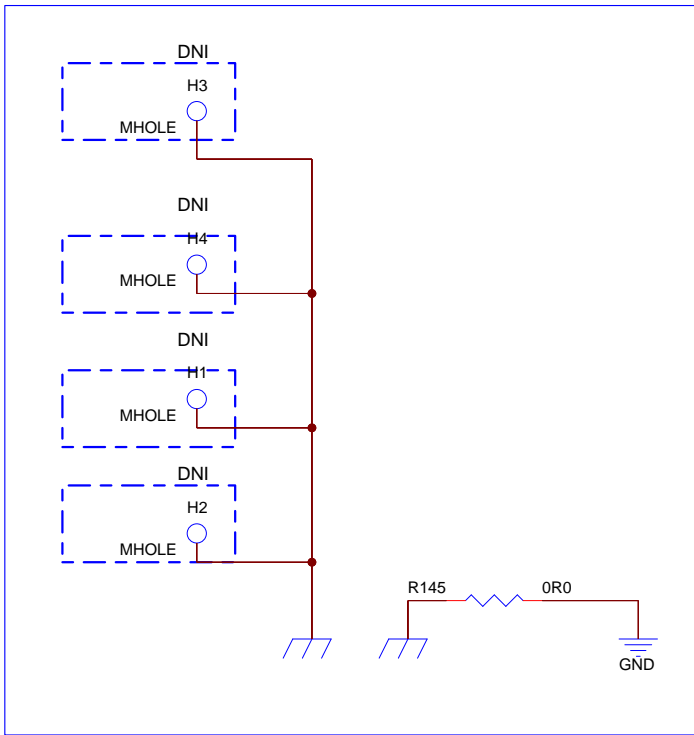


SYSTEM POWER LED - GPIO CONTROLLED

GPIO_D2_LED_CTRL



BOARD HOLES - 4 TOTAL - 1 in EACH CORNER



PWR BTN / LED / HOLES

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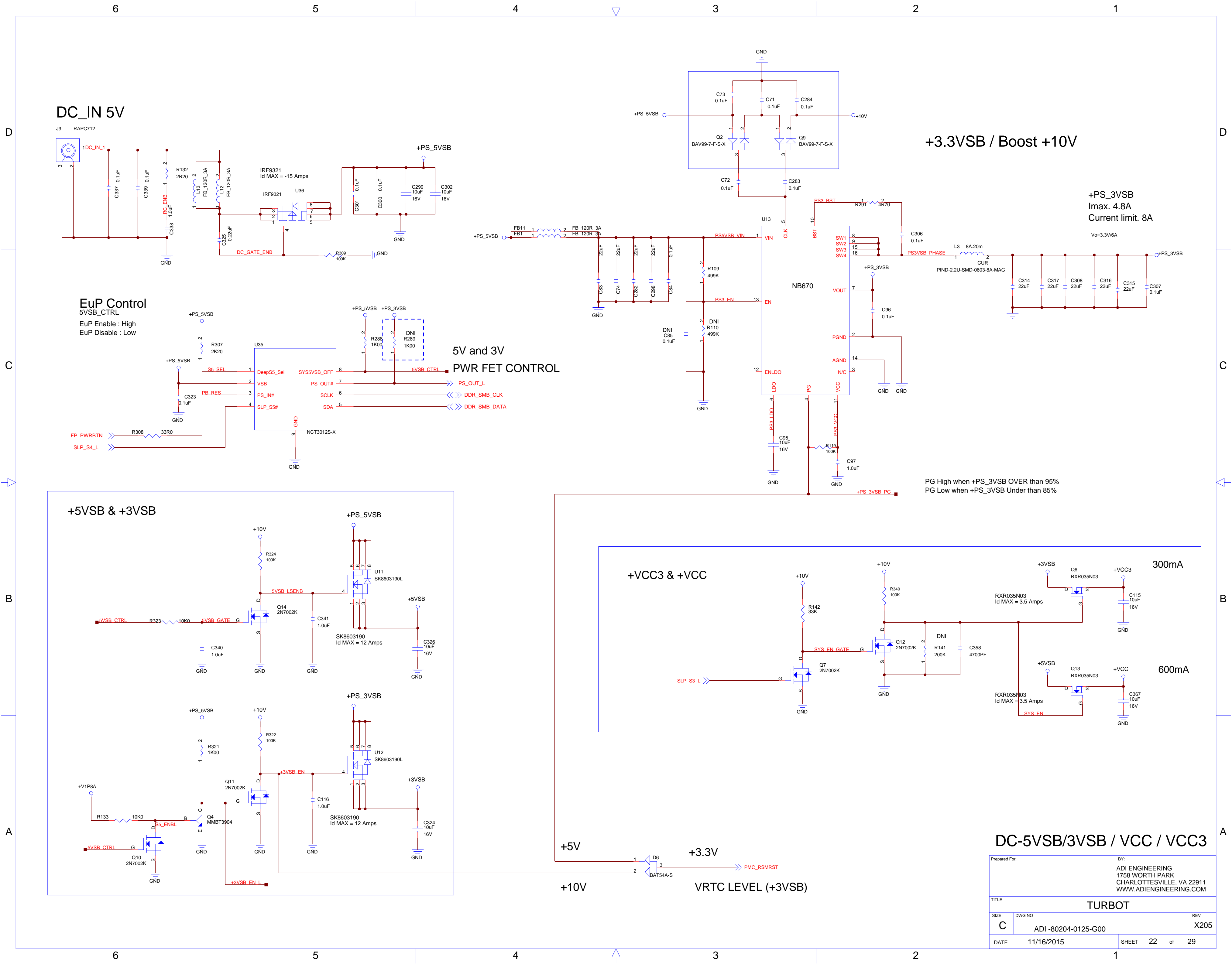
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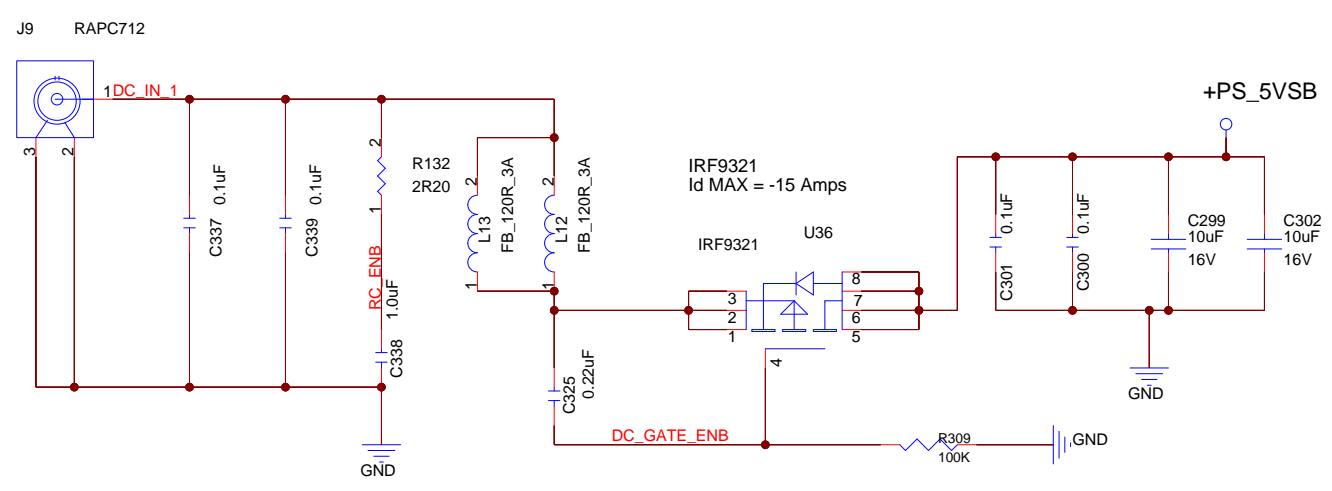
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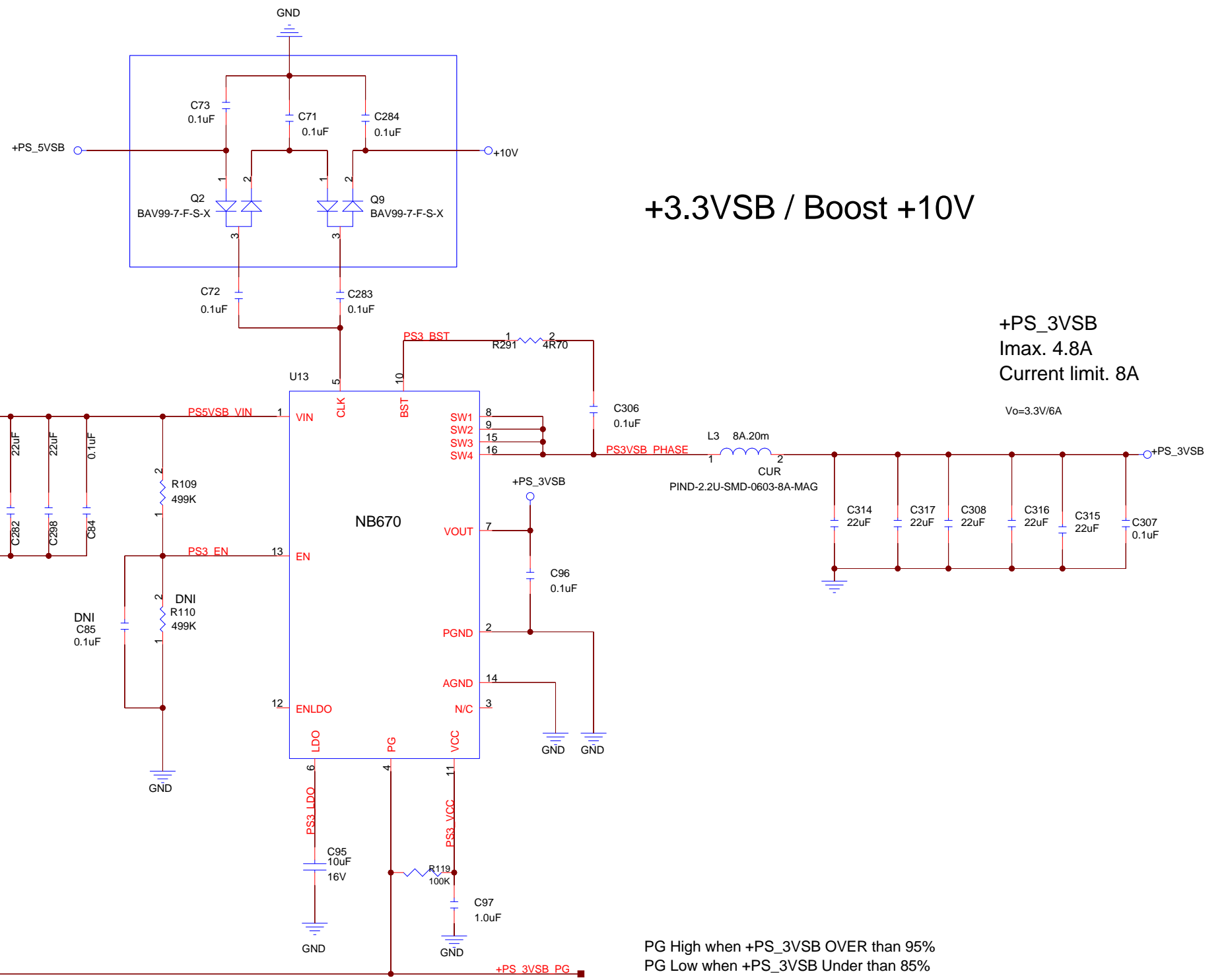
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DC_IN 5V

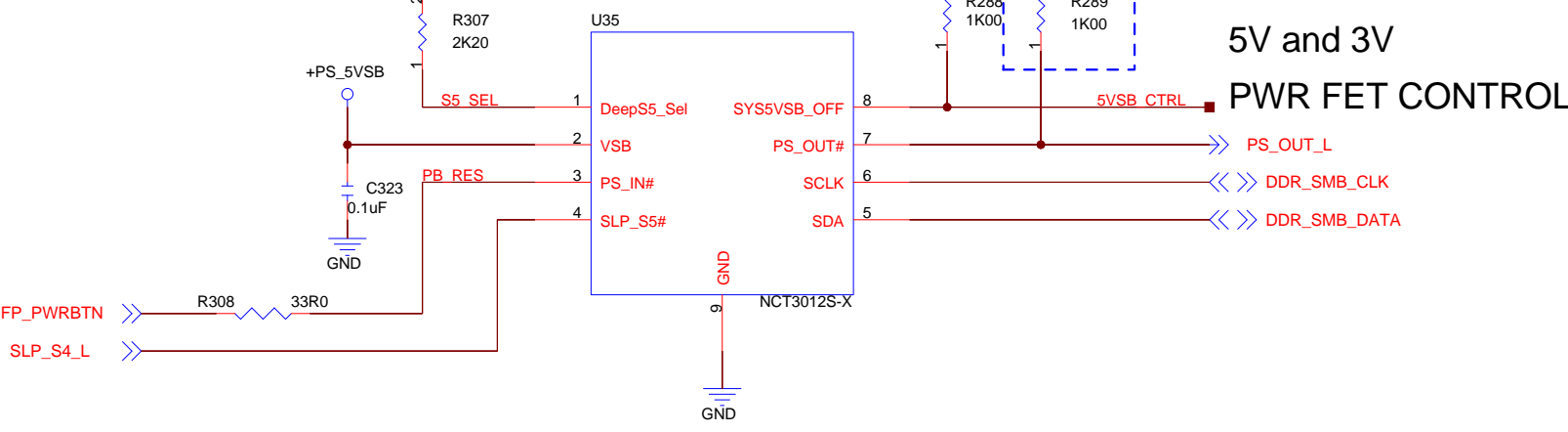


+3.3VSB / Boost +10V



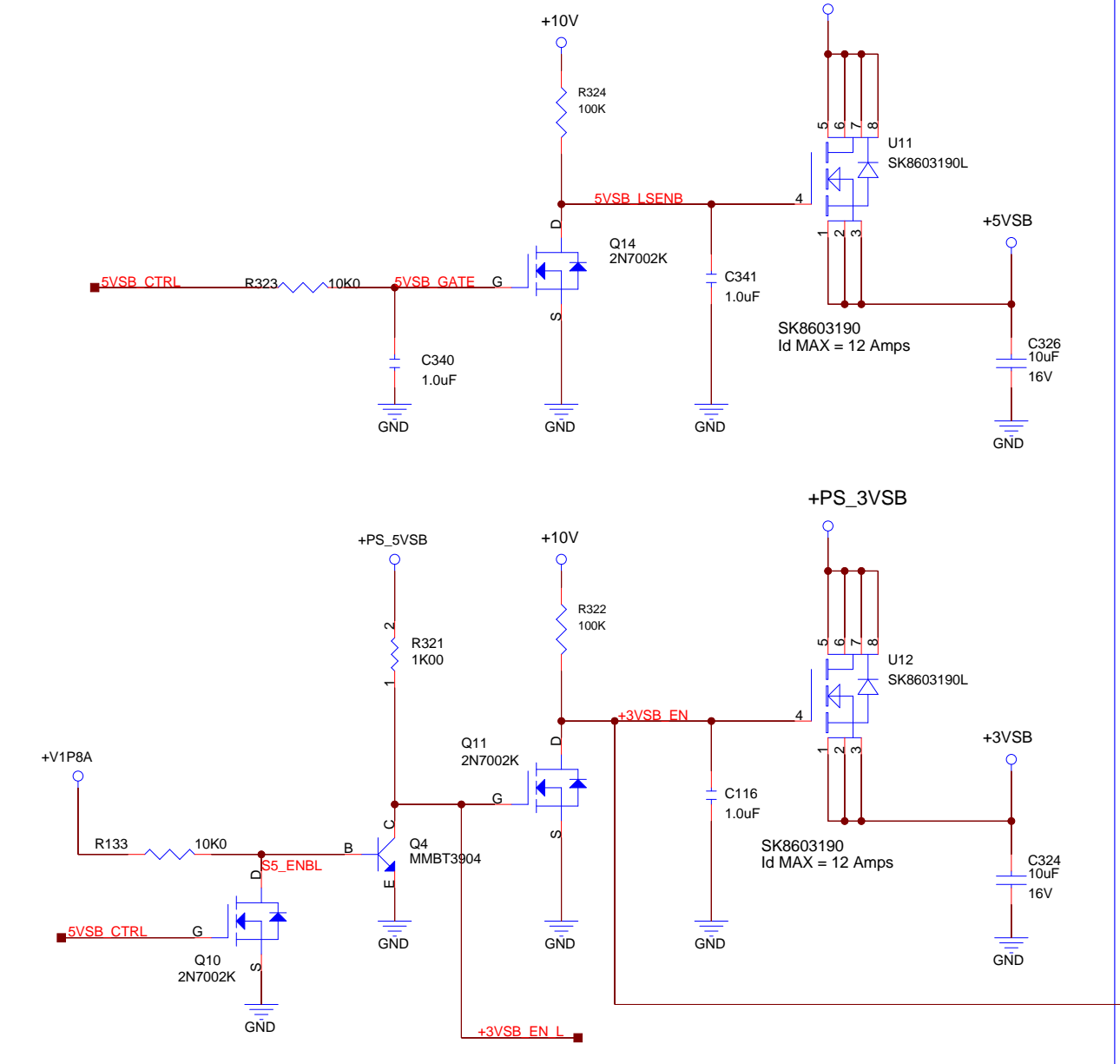
EuP Control

5VSB_CTRL
EuP Enable : High
EuP Disable : Low

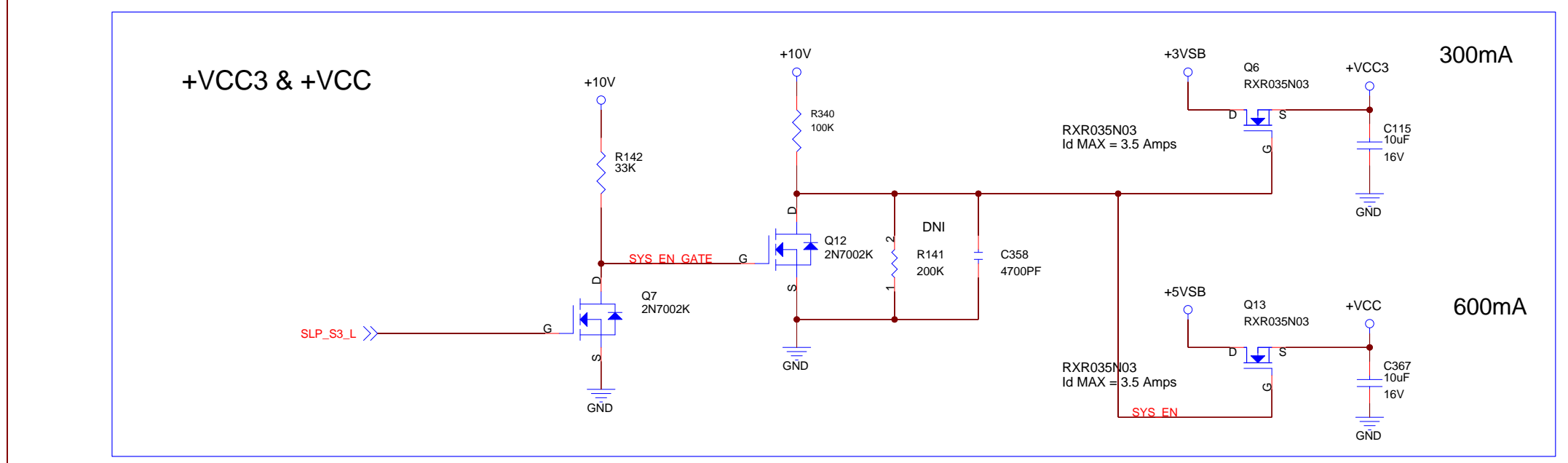


5V and 3V PWR FET CONTROL

+5VSB & +3VSB



+VCC3 & +VCC

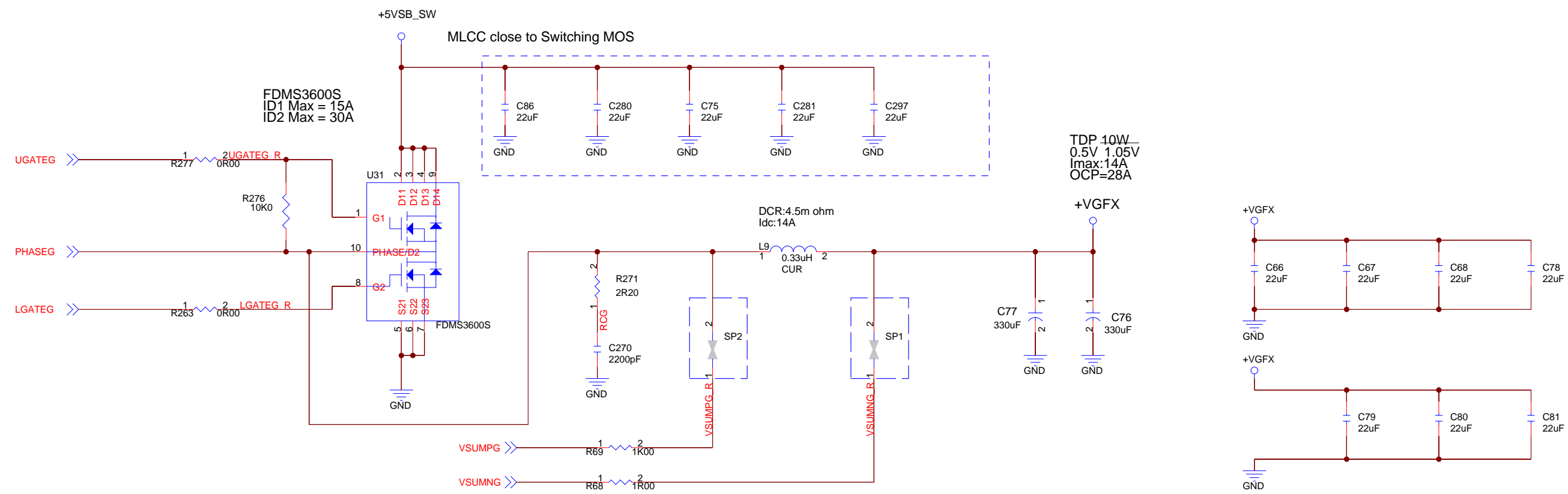


DC-5VSB/3VSB / VCC / VCC3

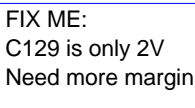
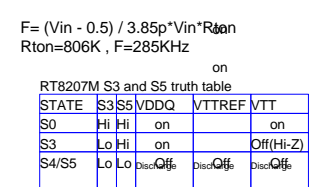
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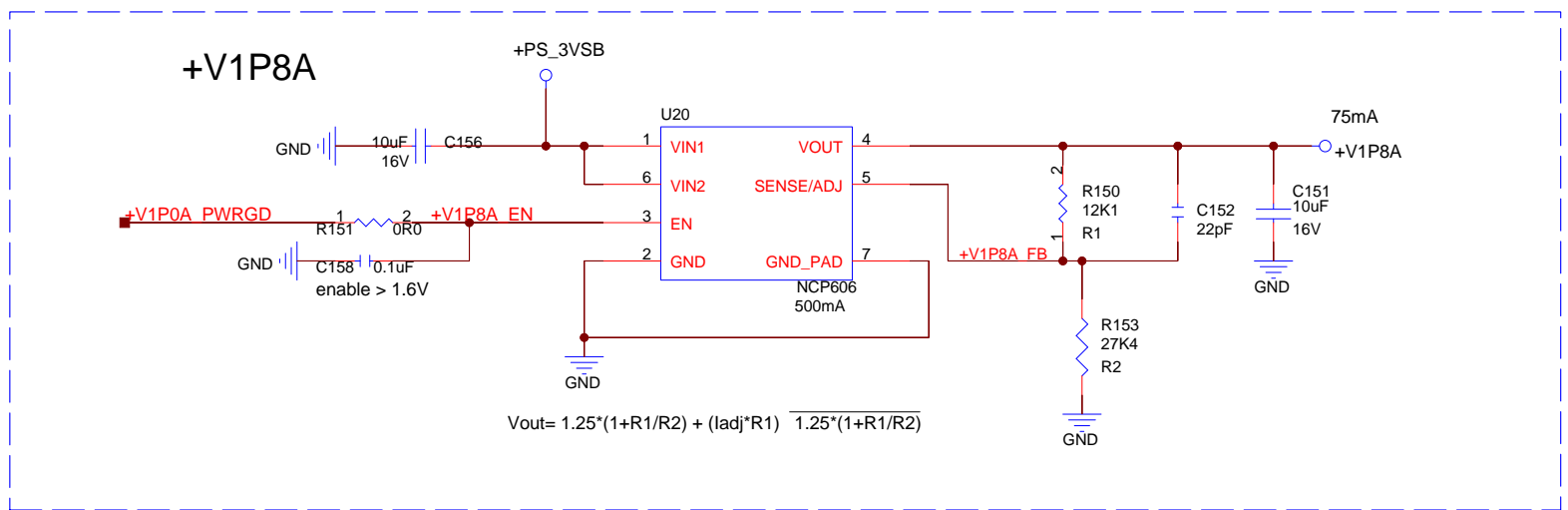
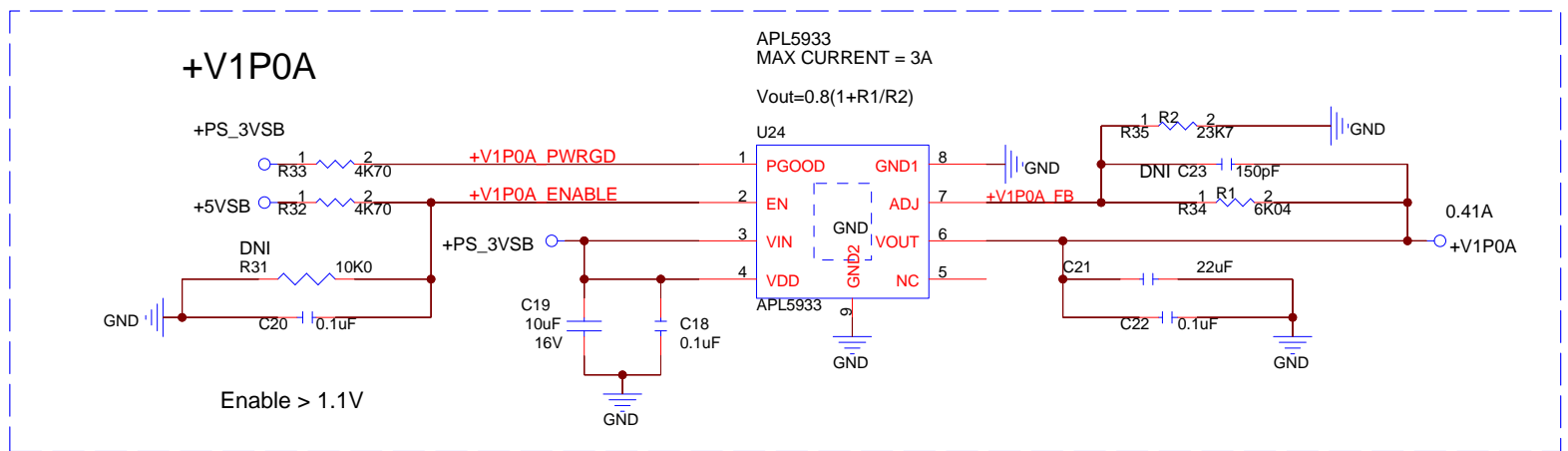
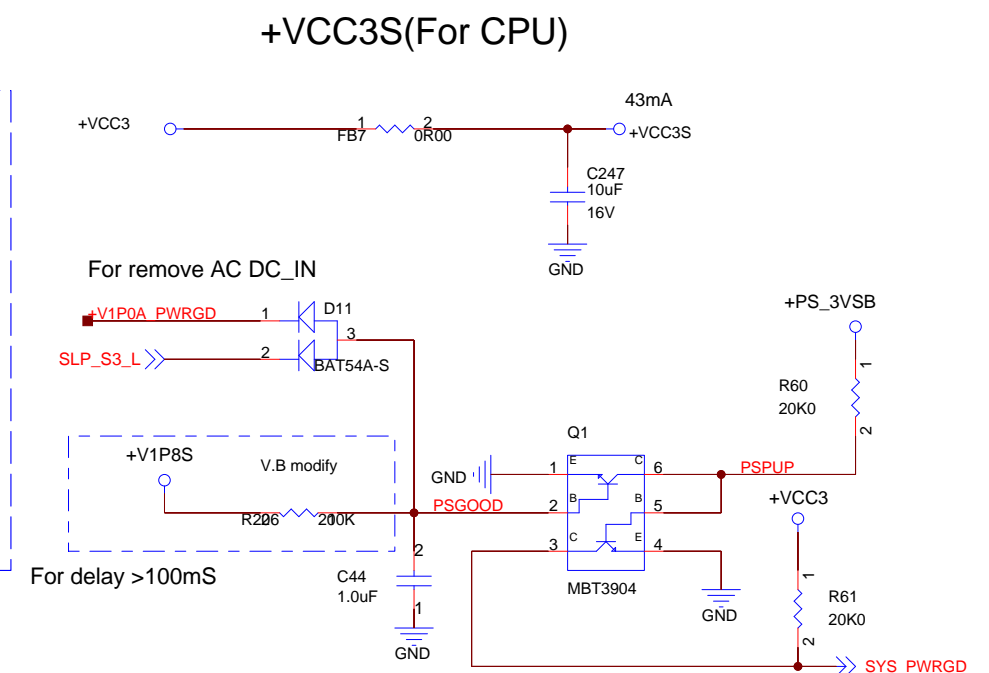
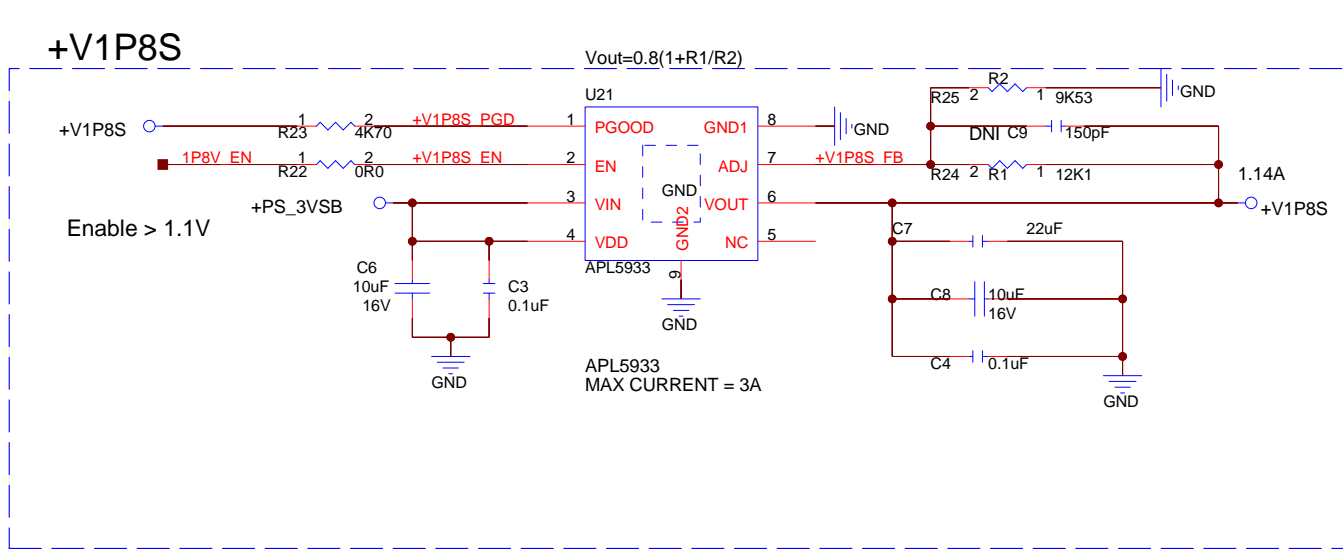
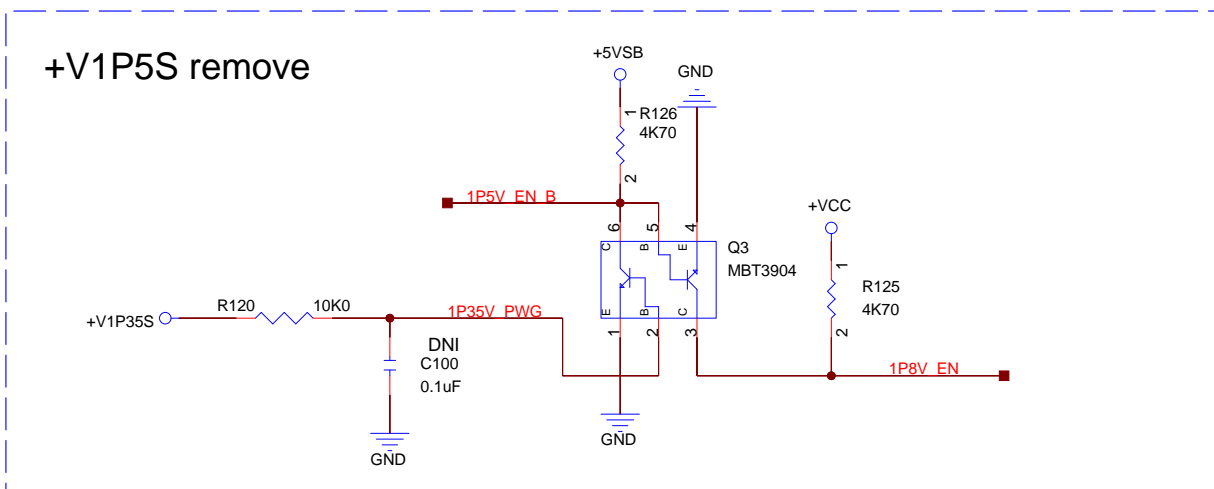
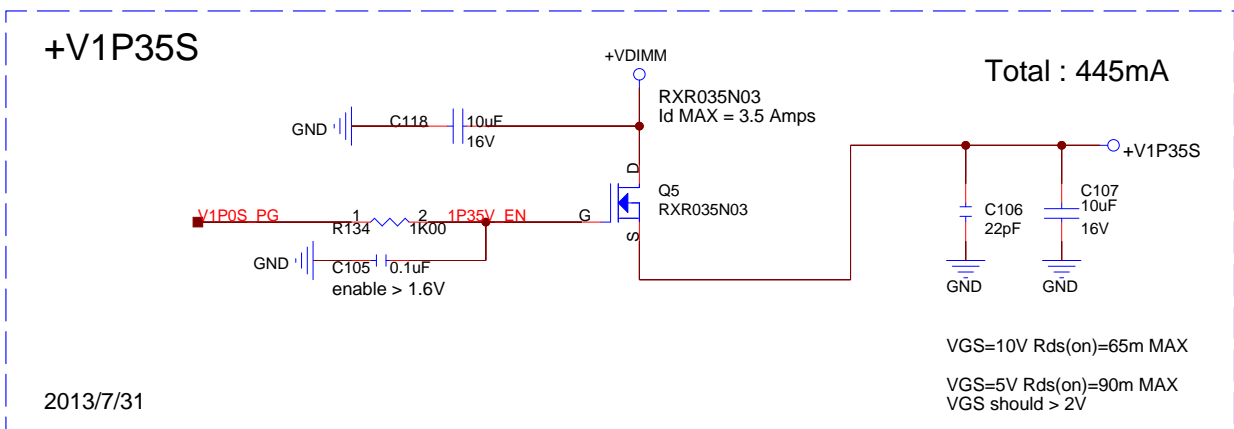
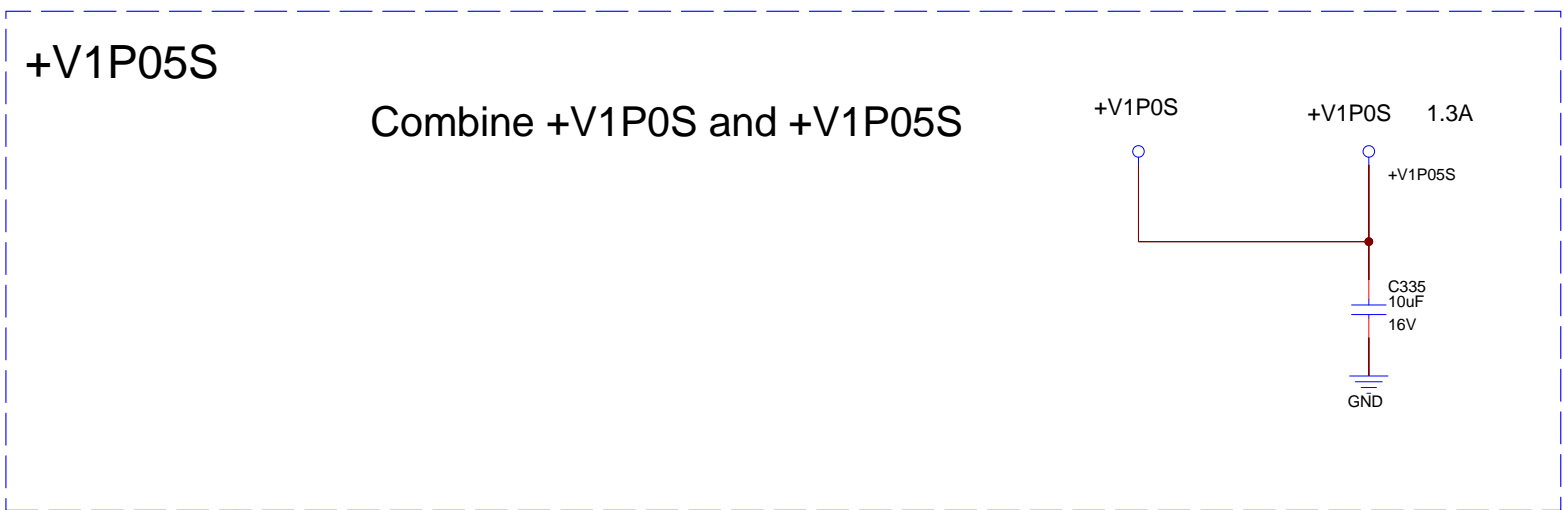
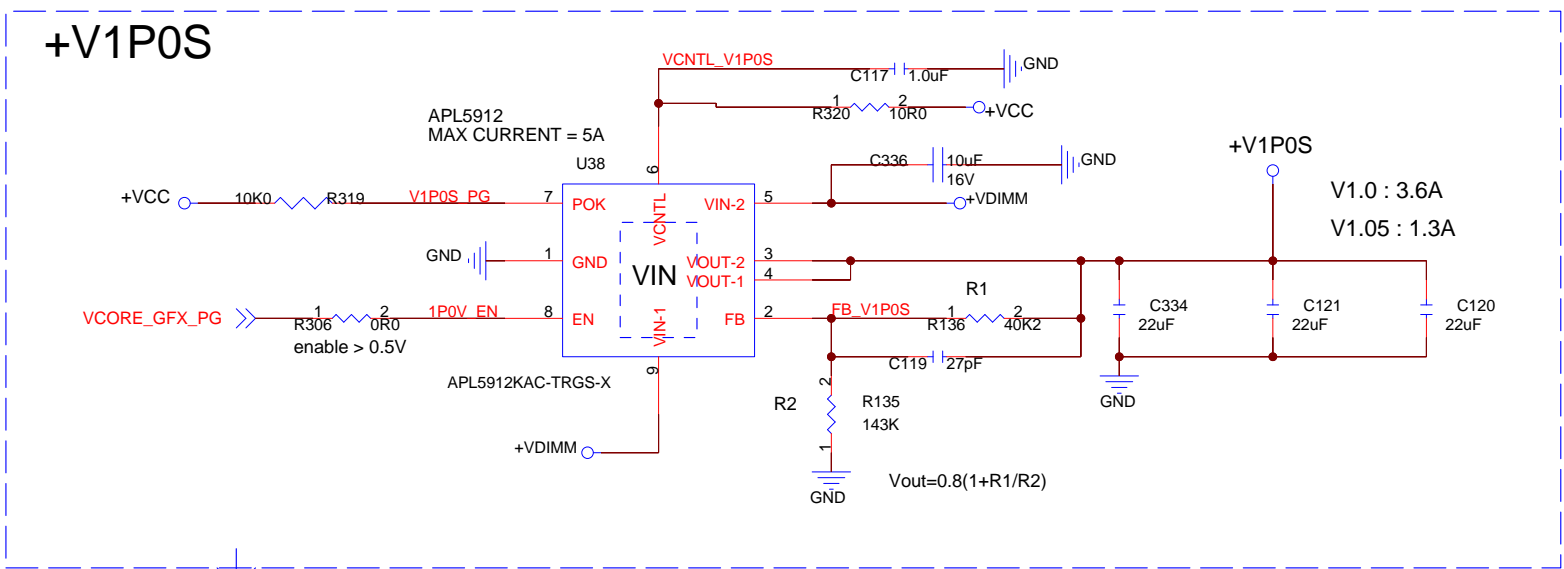
GFX PHASE



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TITLE			
TURBOT			
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C	ADI -80204-0125-G00	X205	
DATE	11/16/2015	SHEET	24 of 29

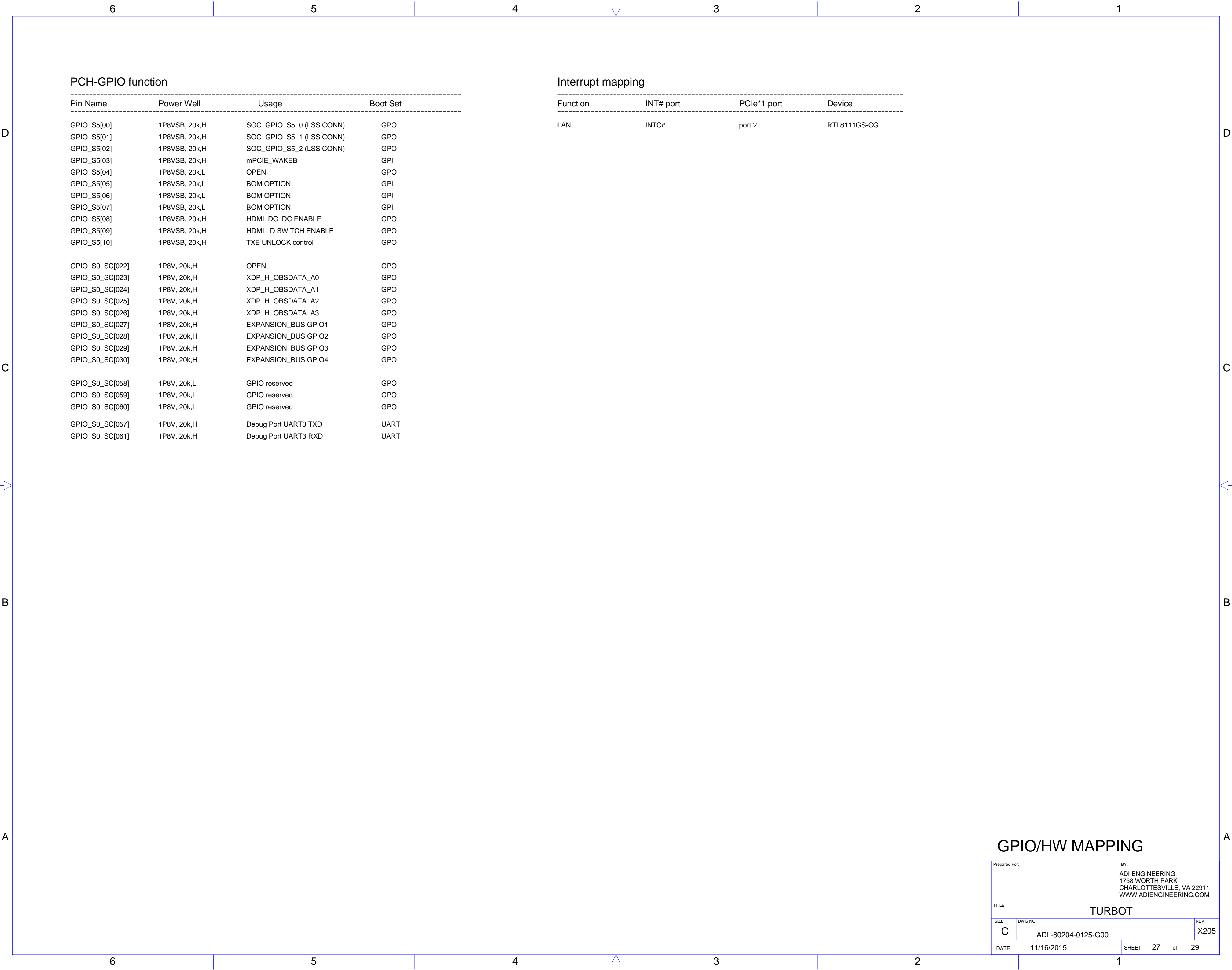


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TITLE			
TURBOT			
SIZE	DWG NO		REV
C	ADI -80204-0125-G00		X205
DATE	11/16/2015	SHEET	25 of 29



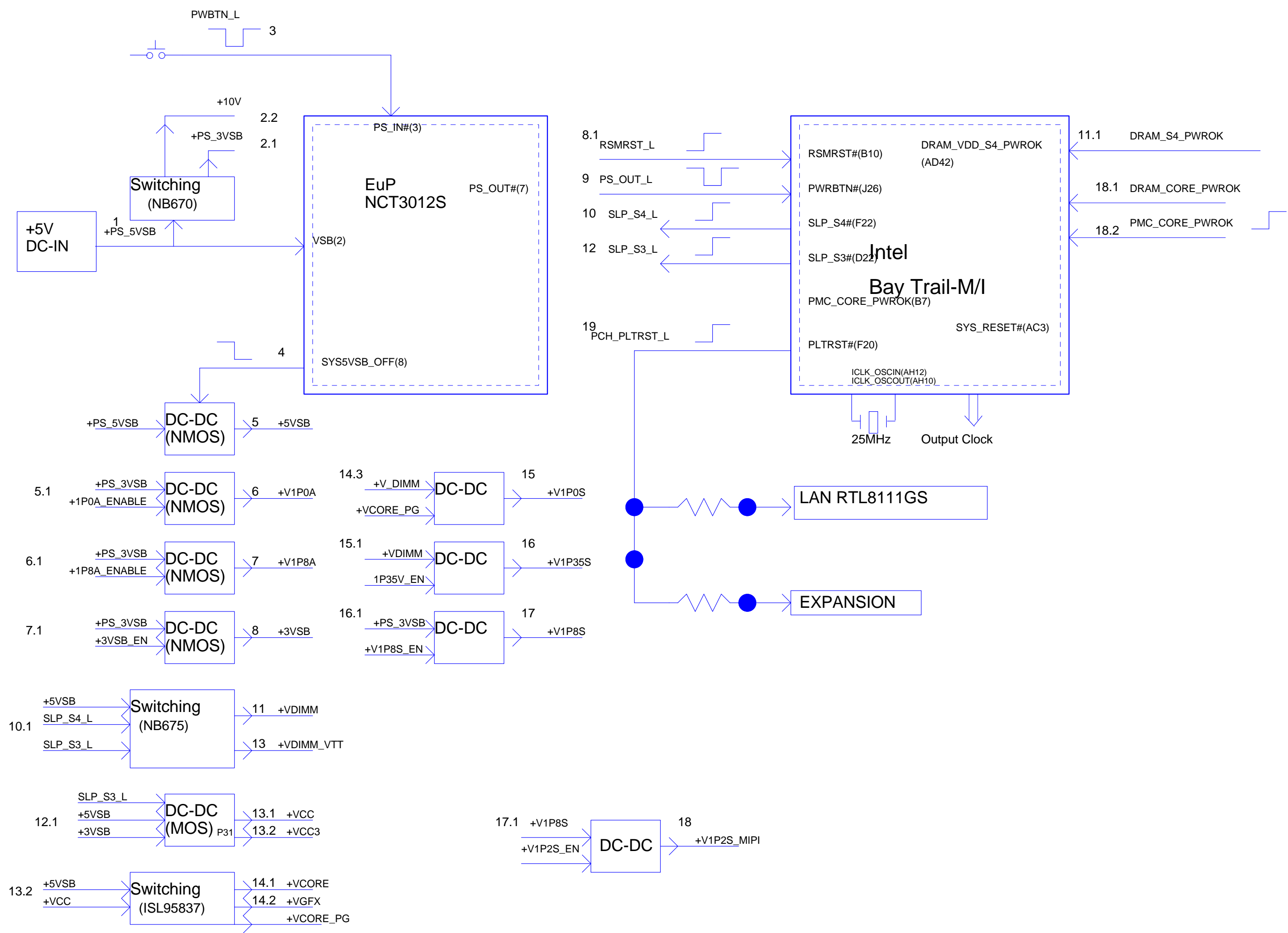
DC-DC VOLTAGE

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TITLE			
TURBOT			
SIZE	DWG NO		REV
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POWER DELIVERY

PWR Sequence & RST Diagram



POWER SEQUENCE

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TITLE TURBOT			
SIZE C	DWG NO ADI -80204-0125-G00	REV X205	
DATE 11/16/2015	SHEET 29 of 29		