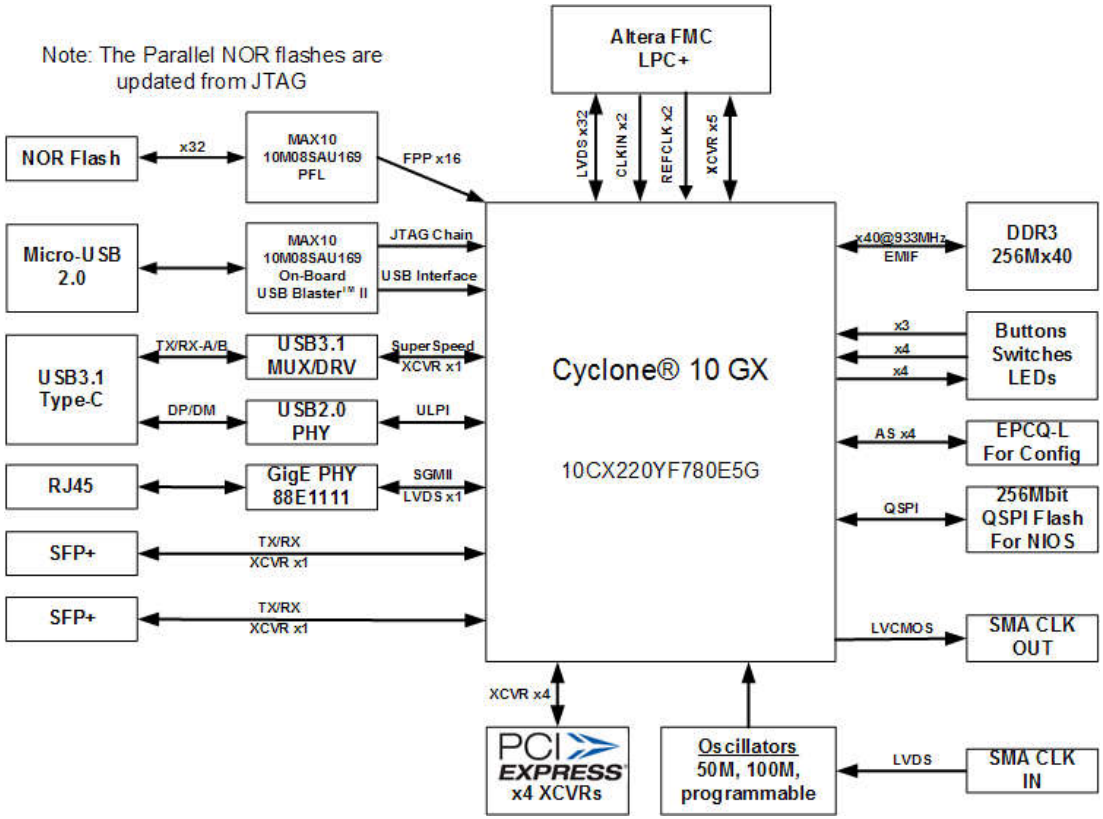
NOTES:

1. Project Drawing Numbers:

Raw PCB	100-0321329-A1
Gerber Files	110-0321329-A1
PCB Design Files	120-0321329-A1
Assembly Drawing	130-0321329-A1
Fab Drawing	140-0321329-A1
Schematic Drawing	150-0321329-A1
PCB Film	160-0321329-A1
Bill of Materials	170-0321329-A1
Schematic Design Files	180-0321329-A1
Functional Specification	210-0321329-A1
PCB Layout Guidelines	220-0321329-A1
Assembly Rework	320-0321329-A1



REV	DATE	PAGE	DESCRIPTION
0.1			initial schematic
0.2			Released schematic, R406=22K, R343=1.2K
0.3			Released schematic, BoM Change: Install Y2(Si570) and U7(Si53307)

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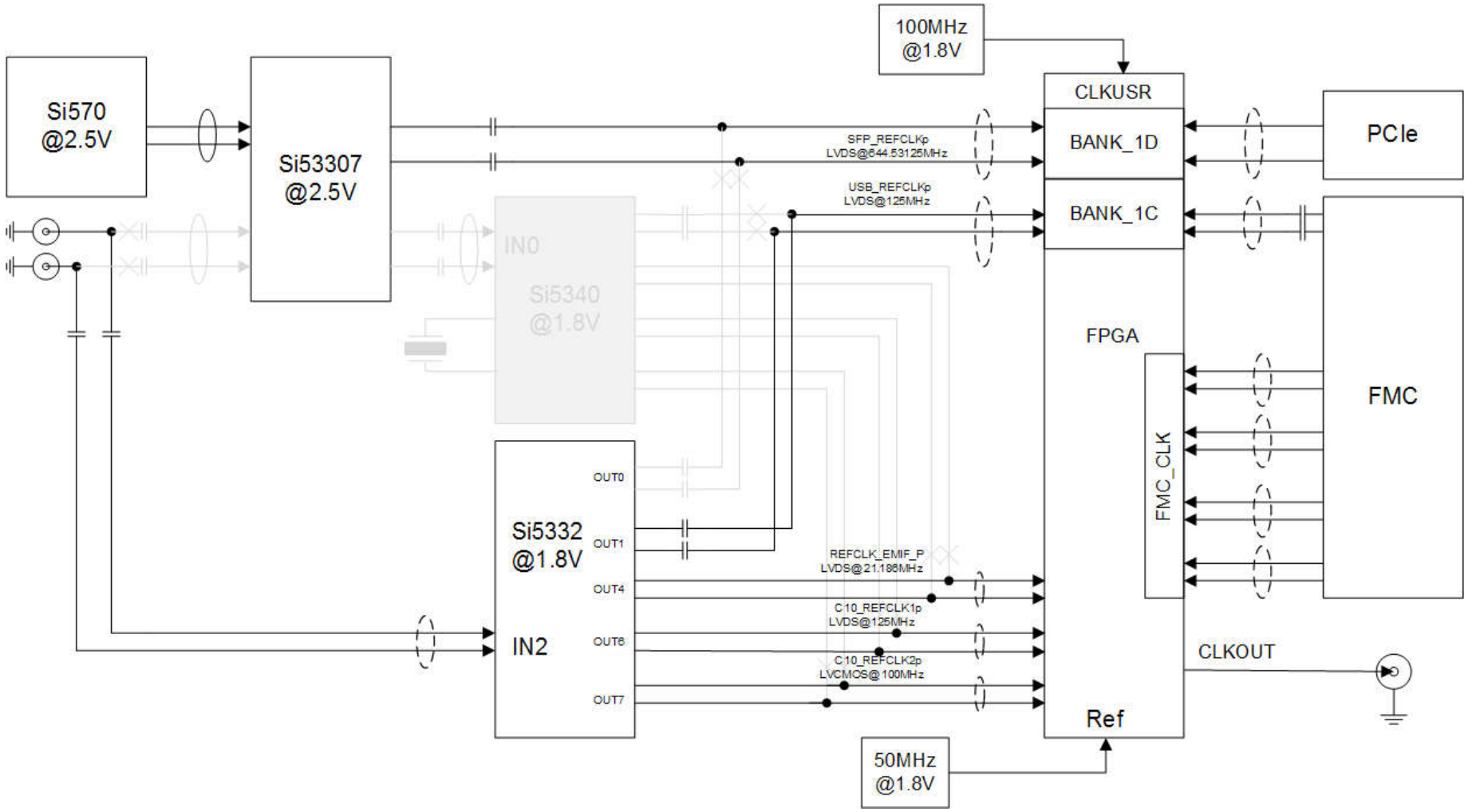
Clock Diagram



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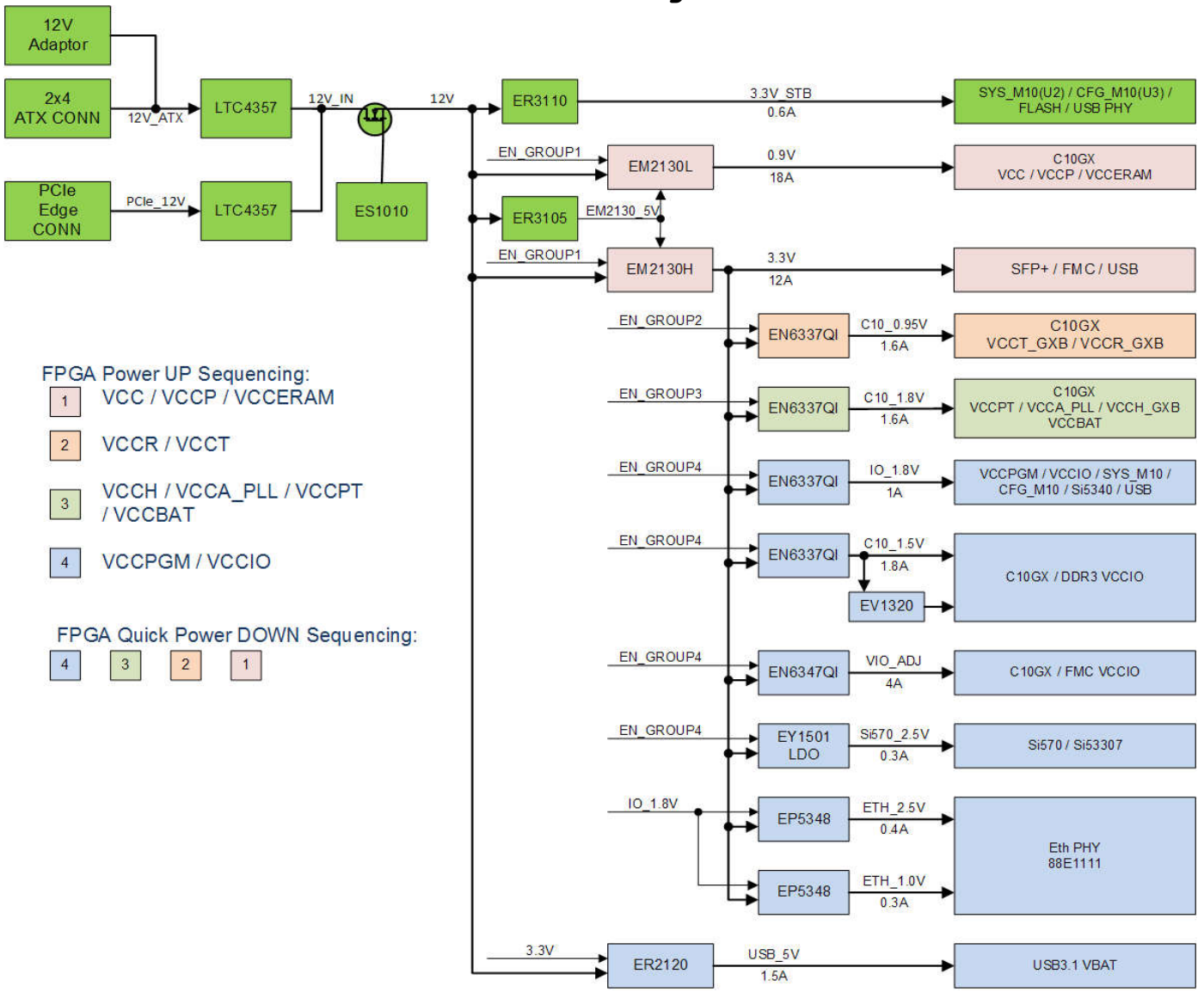
Power Tree Diagram



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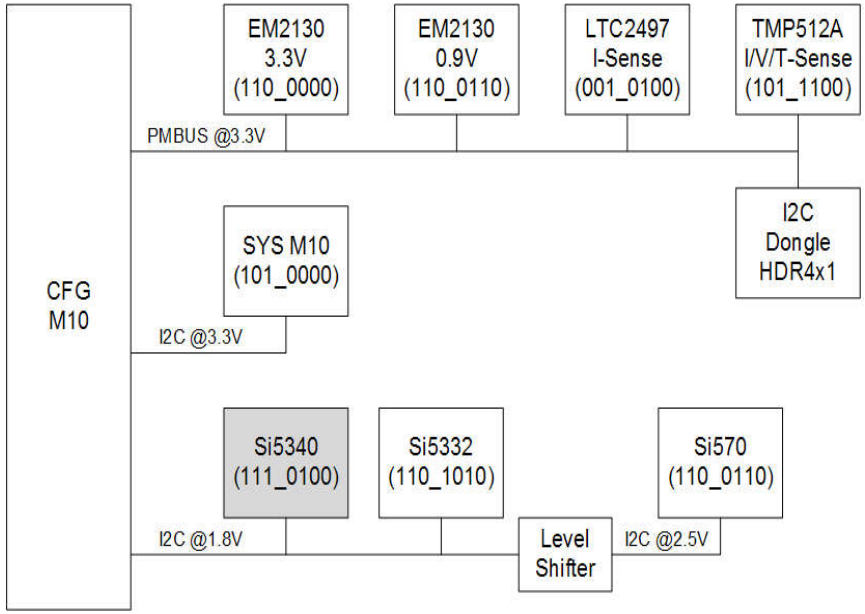
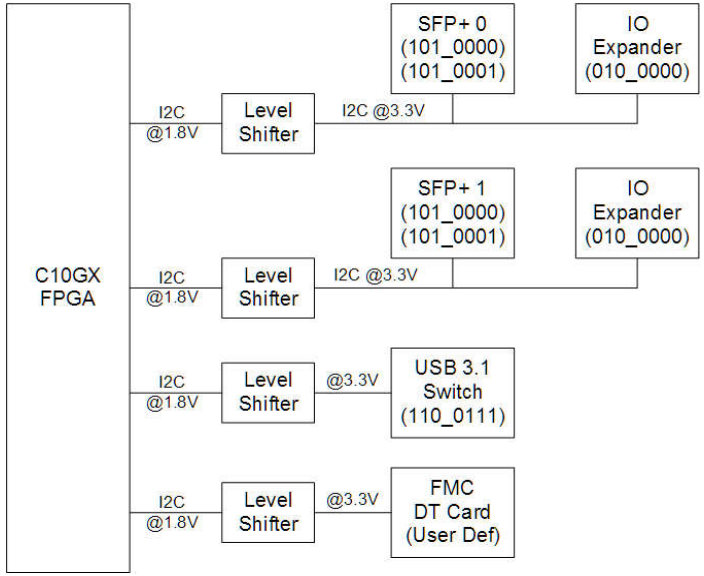
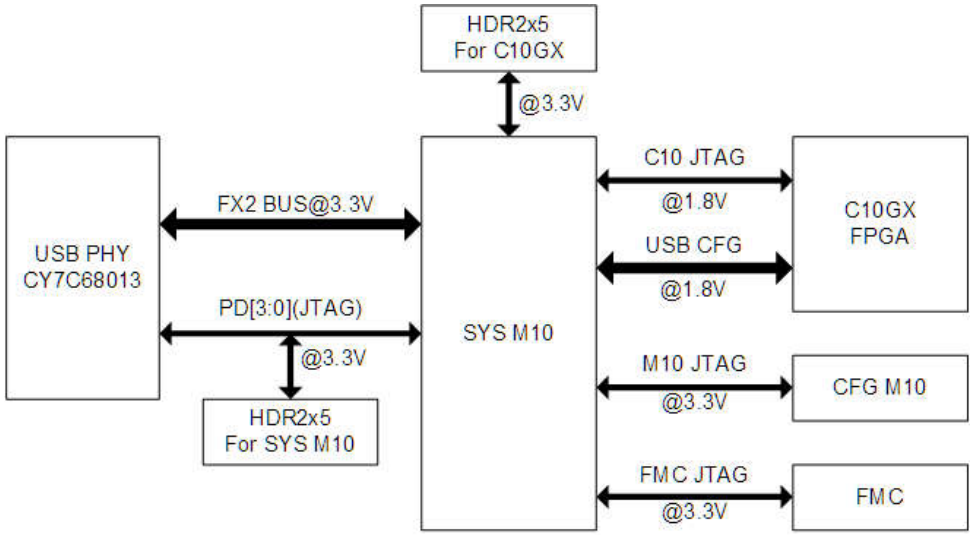
I2C / JTAG Chain Diagram







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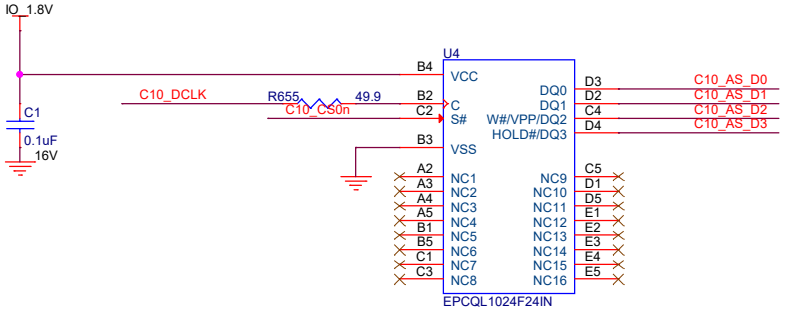
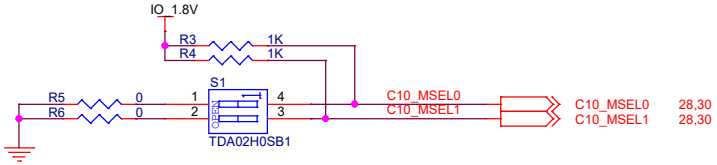
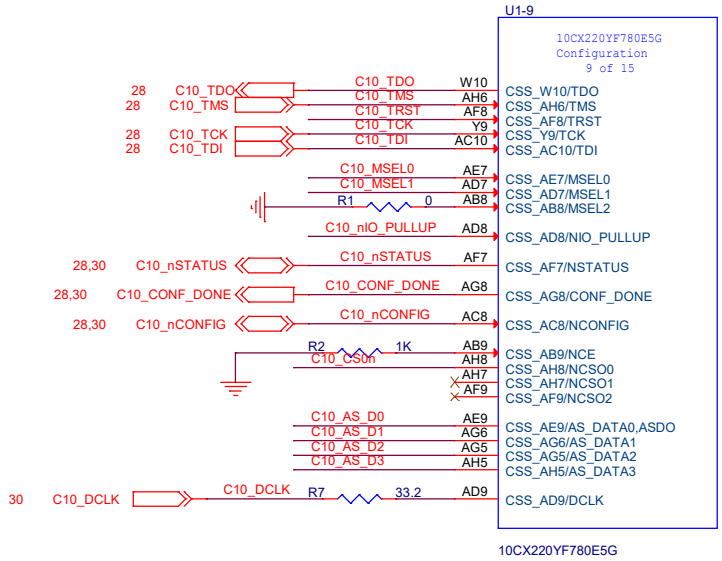
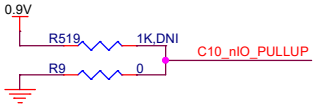
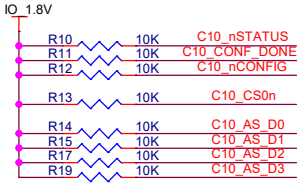
C10GX BANK CSS - Config

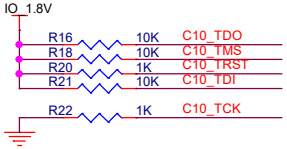












Configuration Scheme	V_{CCPGM} (V)	Power-On Reset (POR) Delay	Valid MSEL[2..0]
JTAG-based configuration	—	—	Use any valid MSEL pin settings below
AS (x1 and x4)	1.8	Fast	010
		Standard	011
PS and FPP (x8, x16, and x32)	1.2/1.5/1.8	Fast	000
		Standard	001

Note:
MSEL2 is fixed '0', MSEL1 and MSEL0 are '0' when corresponding switch is ON

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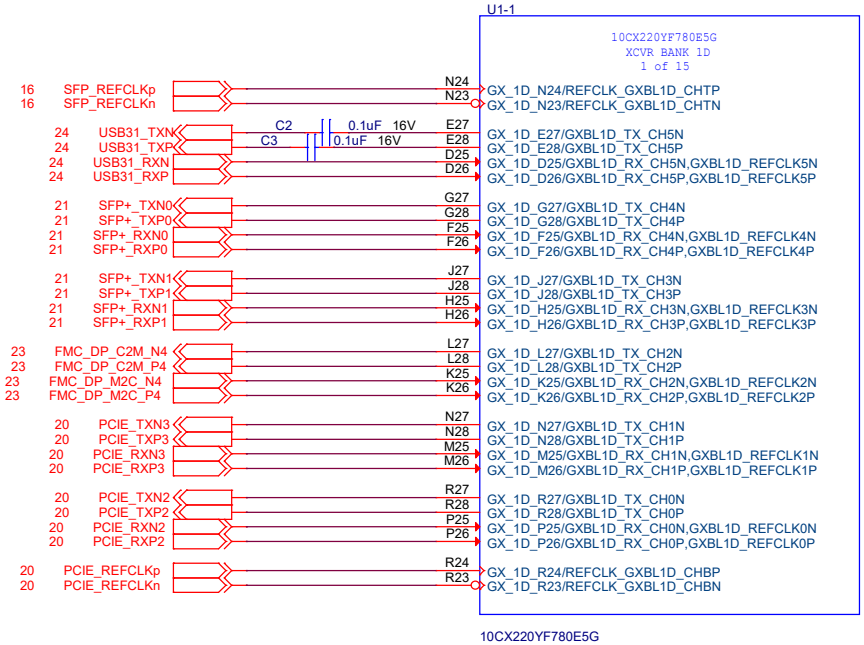
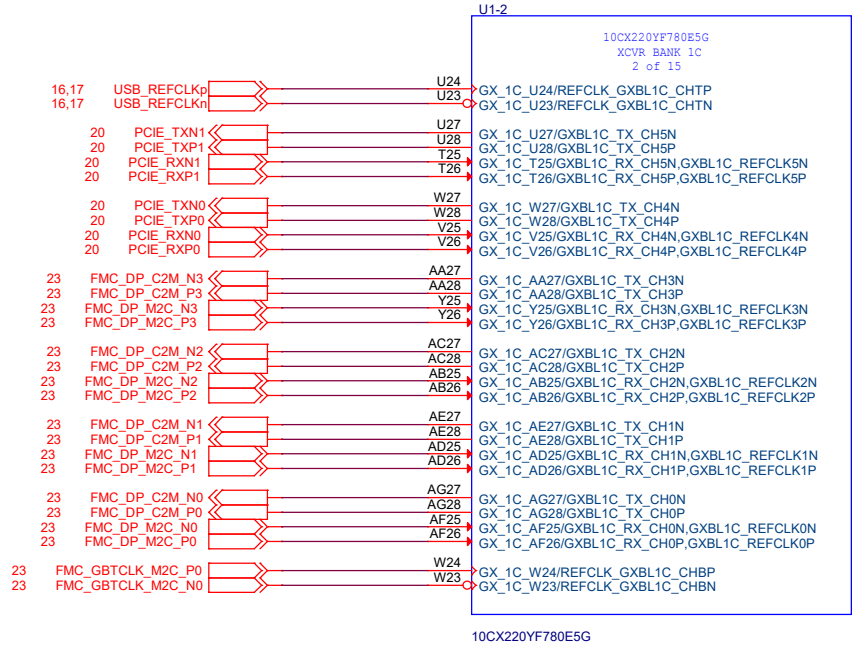
C10GX BANK1C/1D - XCVR





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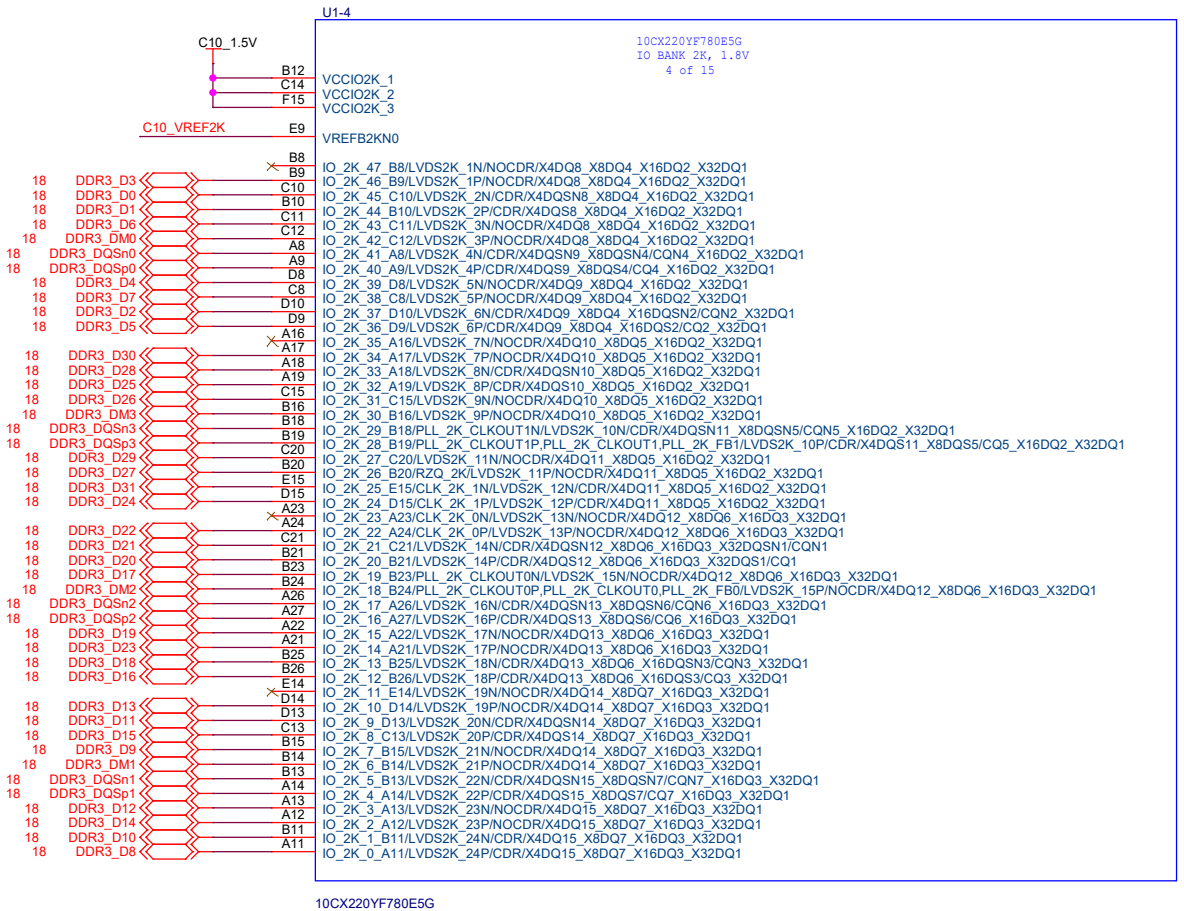
C10GX BANK2K - EMIF



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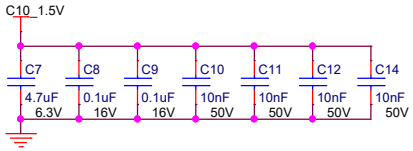

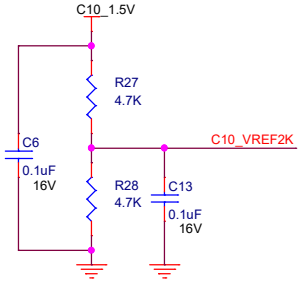

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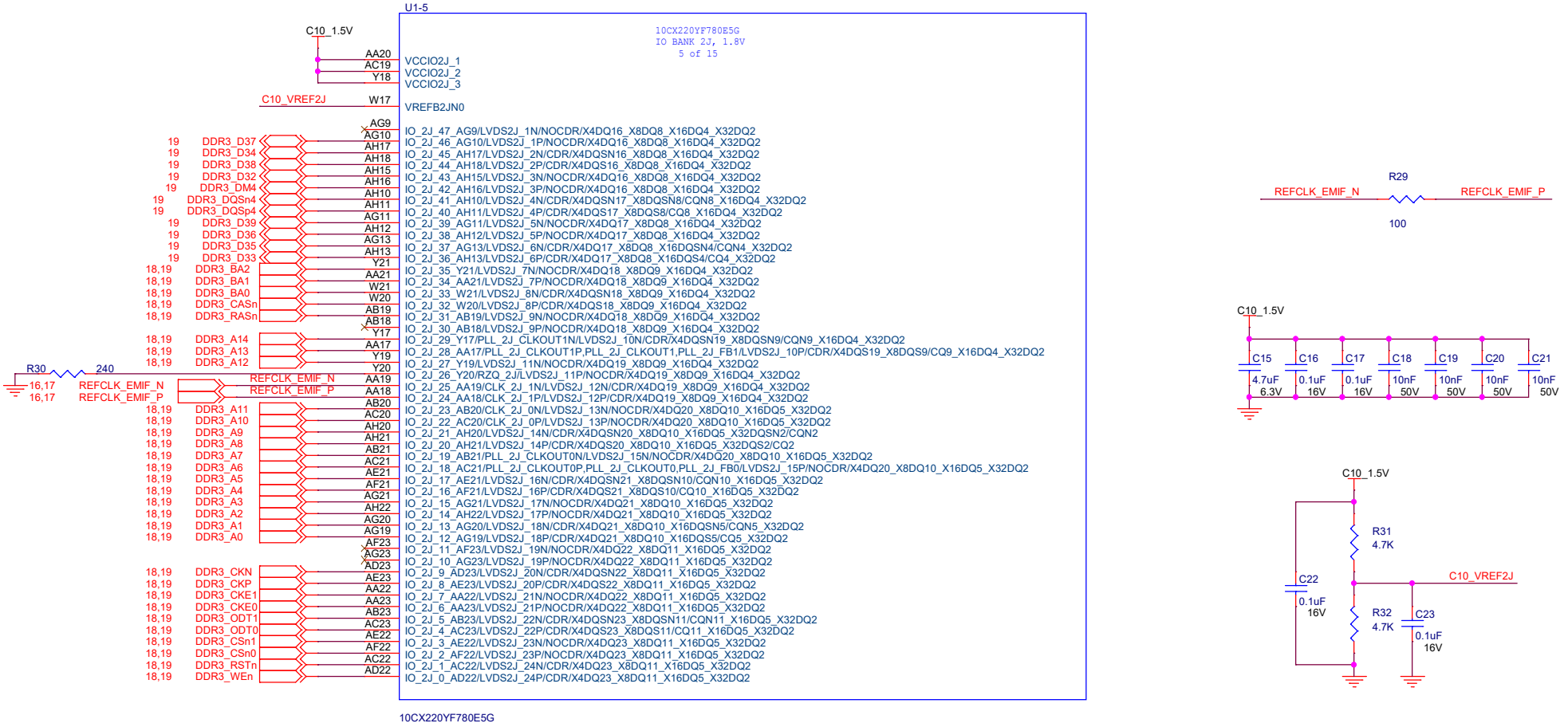
C10GX BANK2J - EMIF



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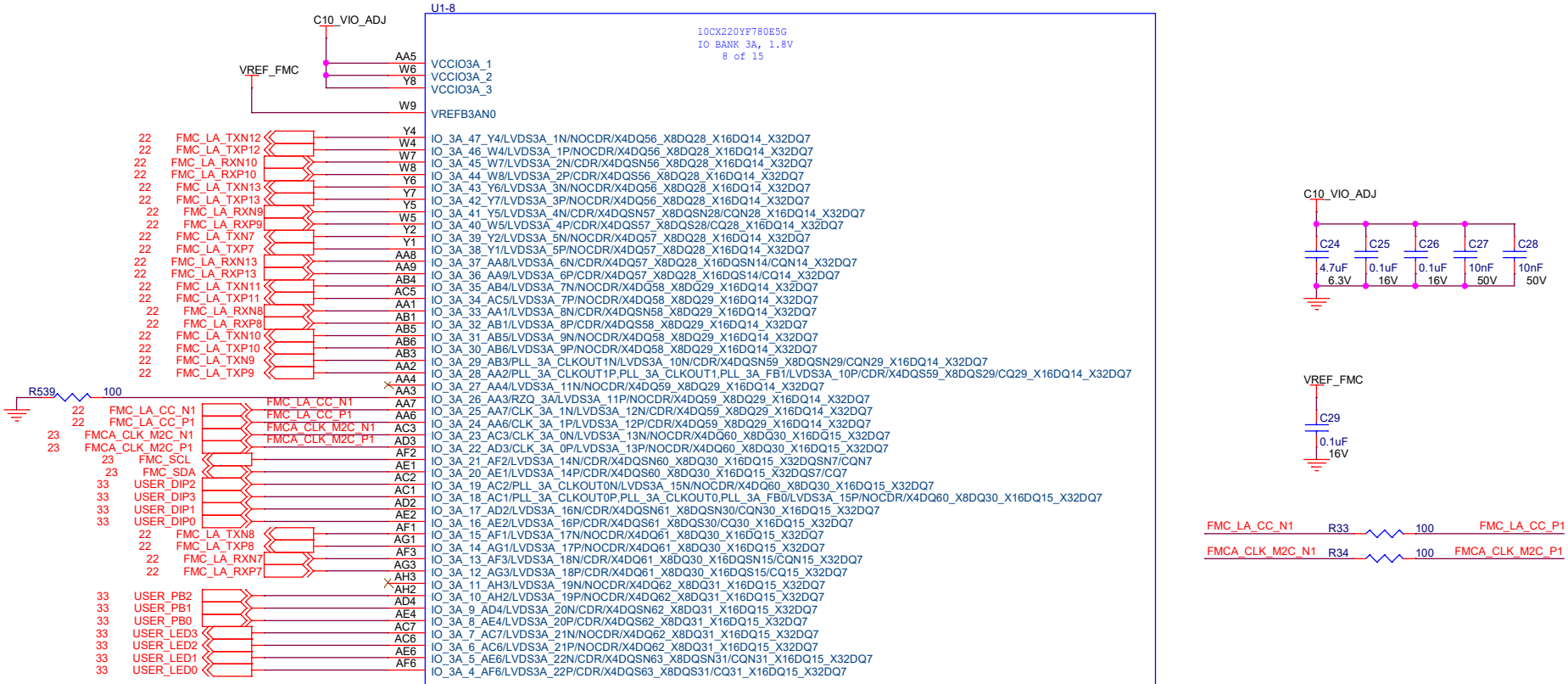
C10GX BANK3A - FMC LVDS



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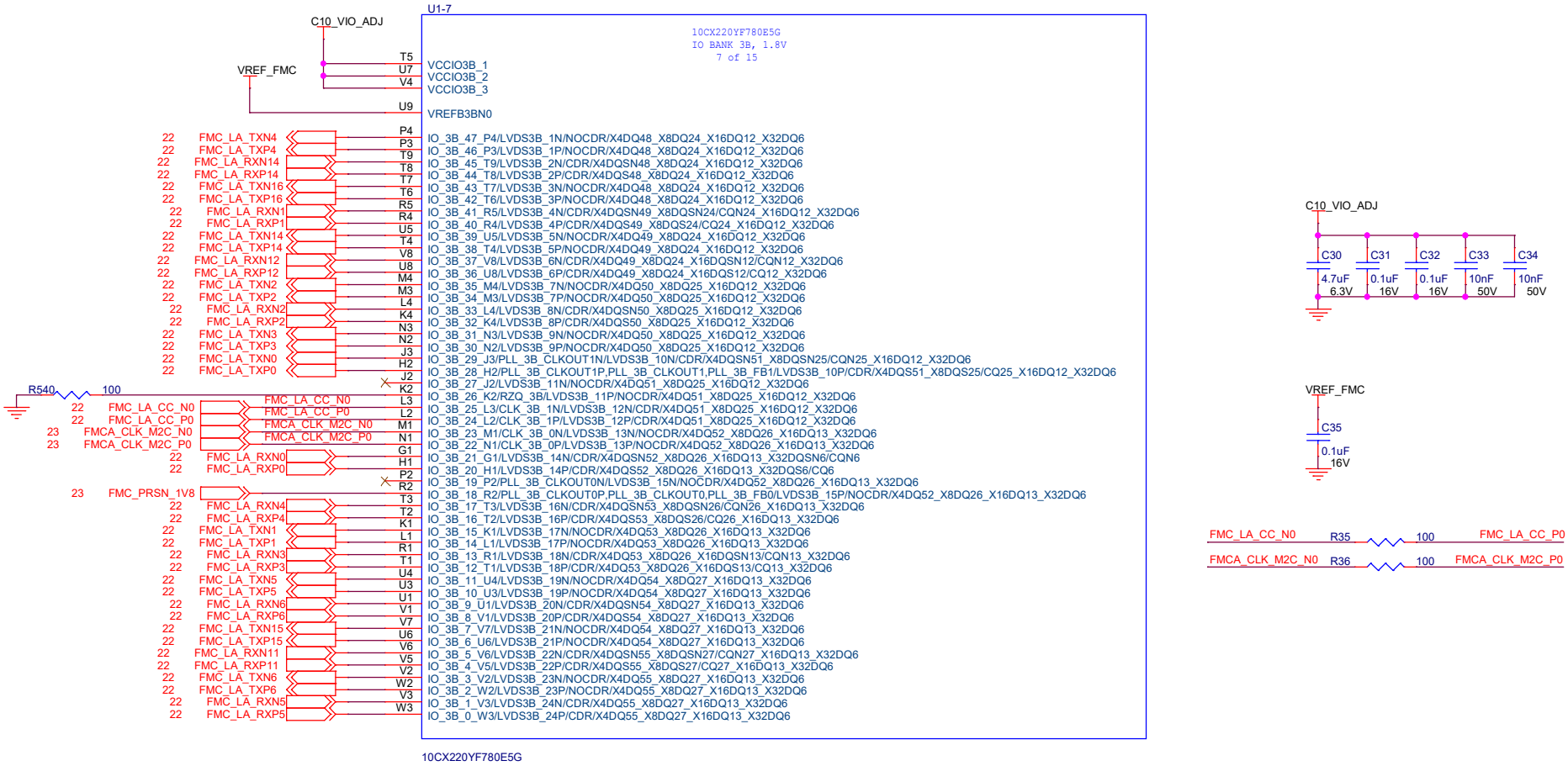
C10GX BANK3B - FMC LVDS



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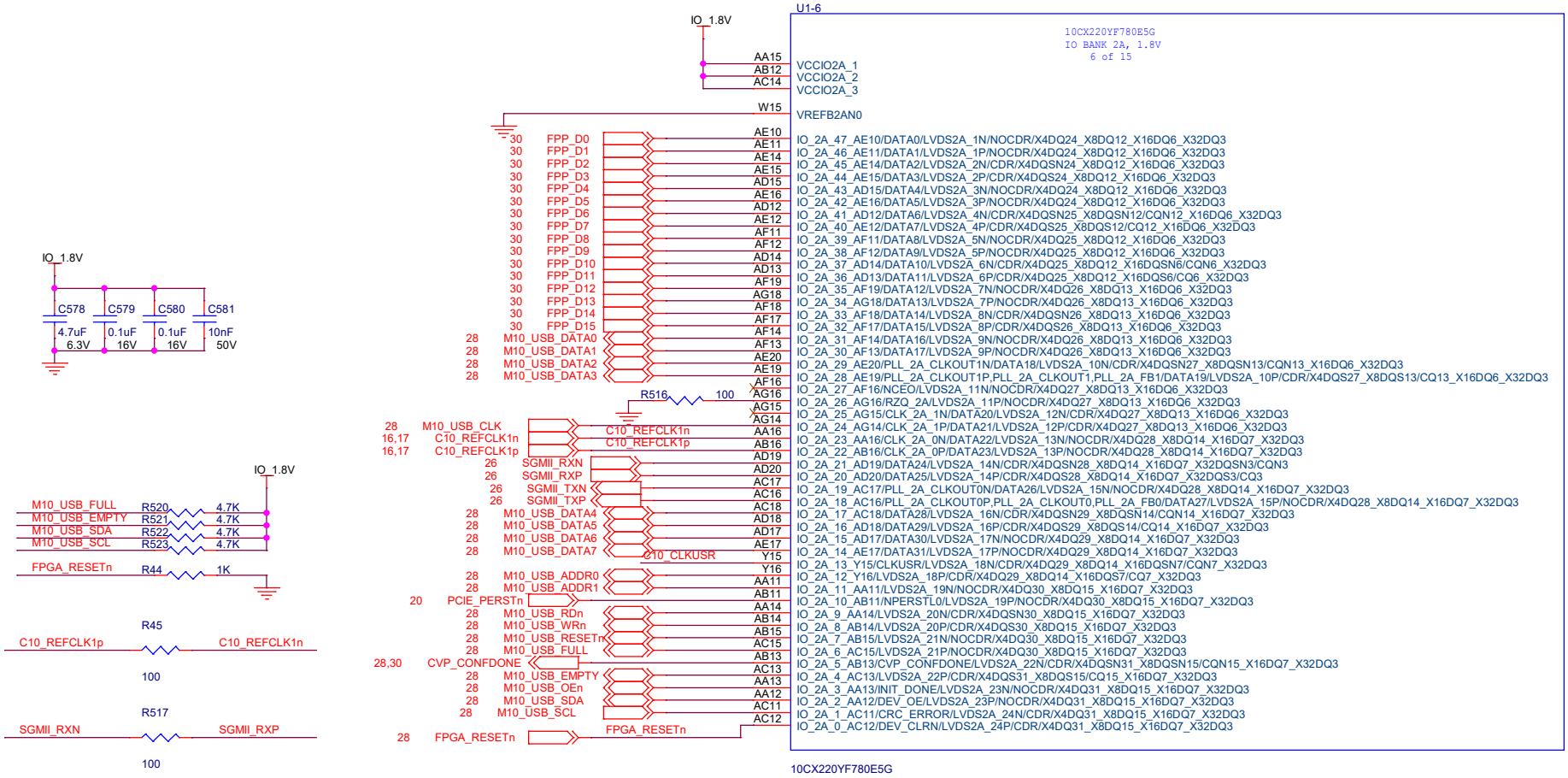
C10GX BANK2A - FPP/GPIO



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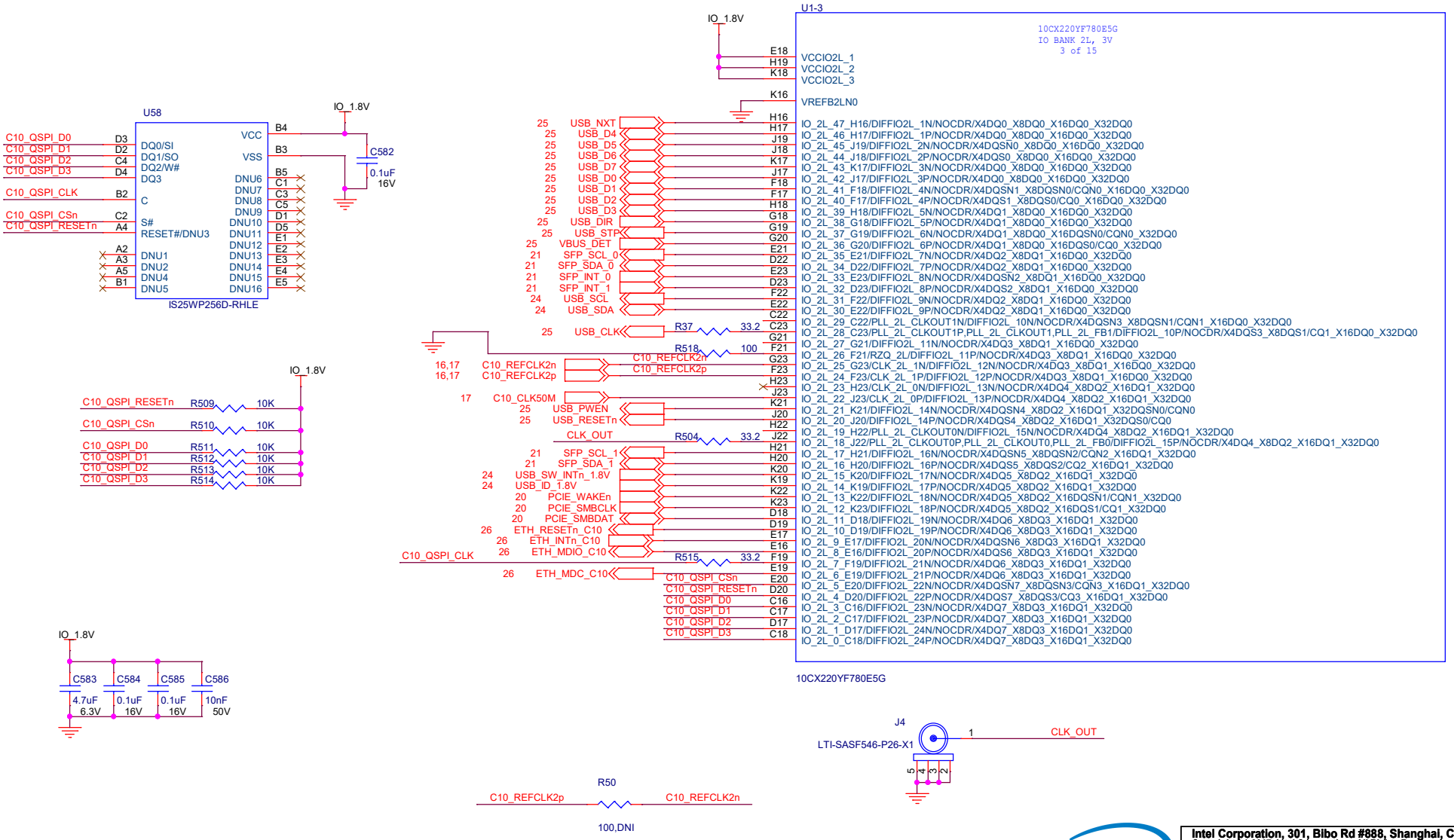
C10GX BANK2L - GPIO



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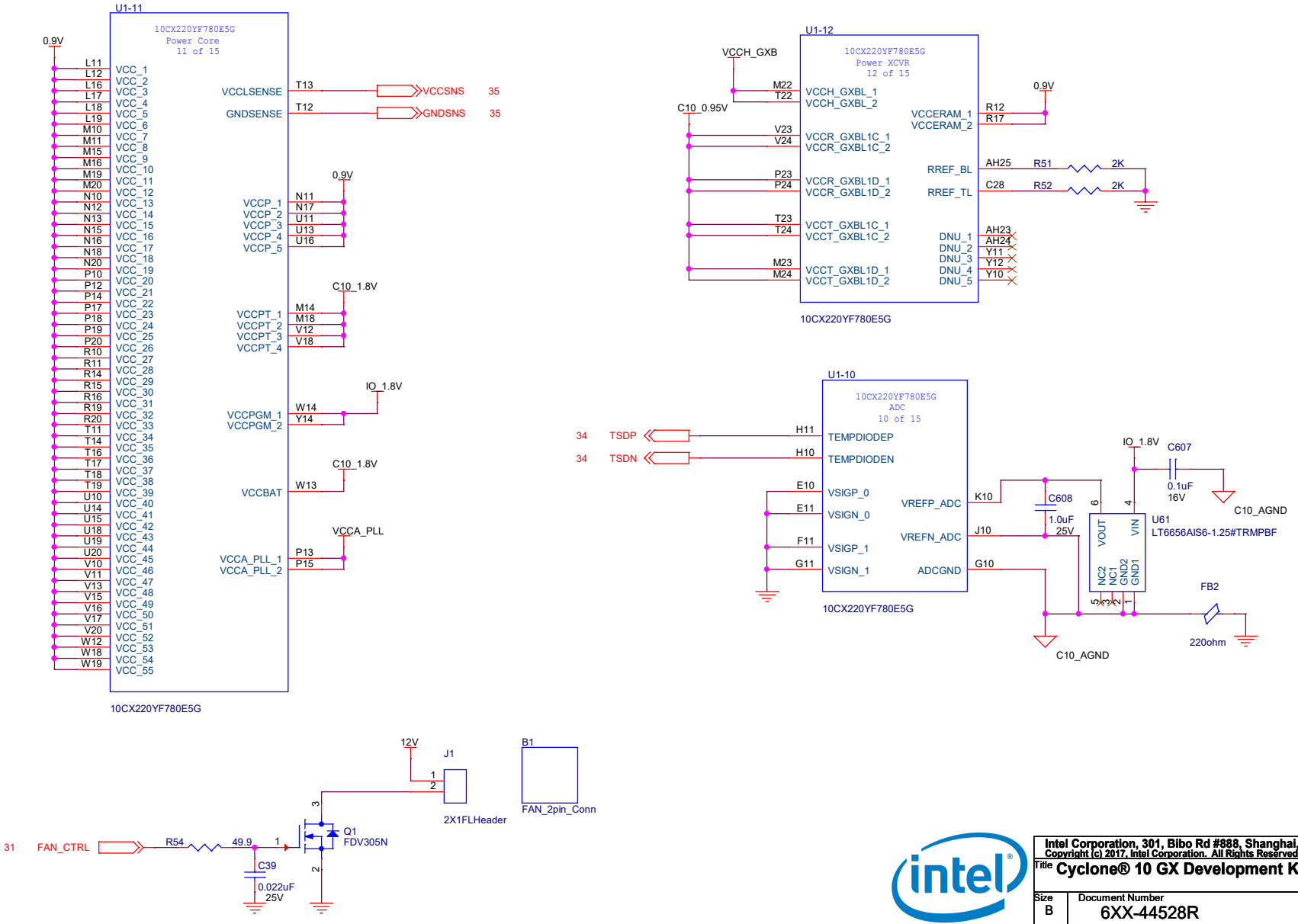
C10GX POWER



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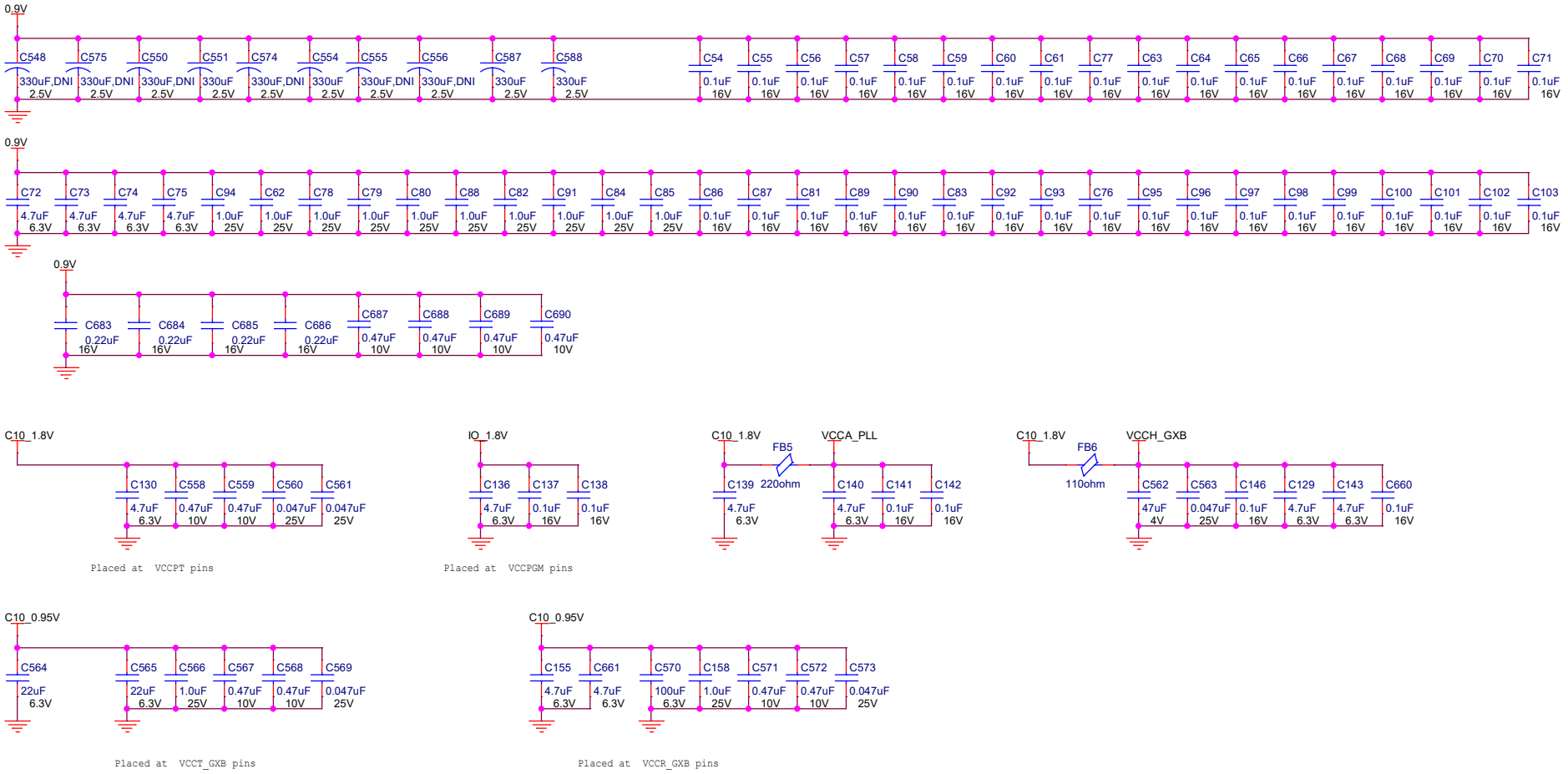
C10GX PWR Filter



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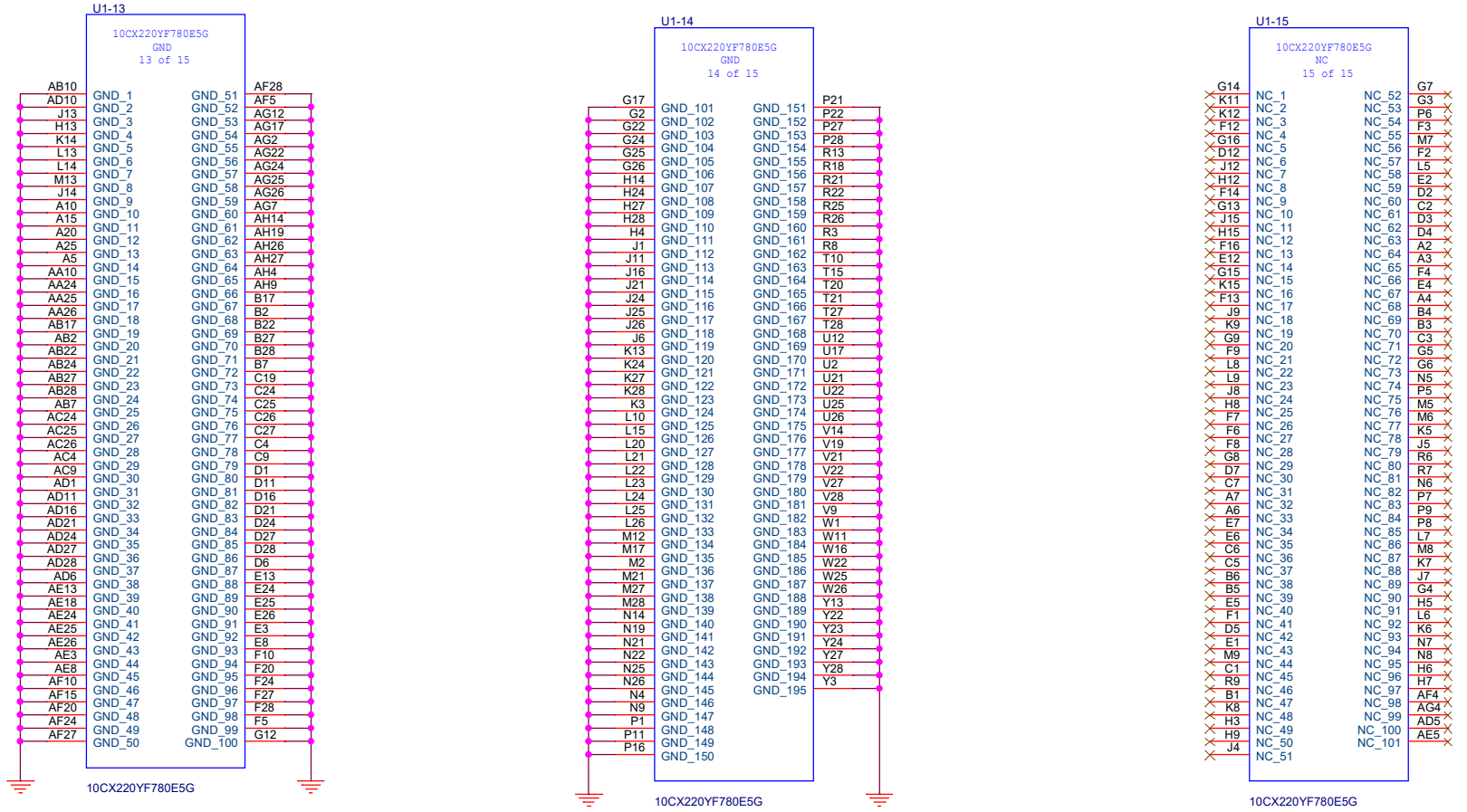
C10GX GND



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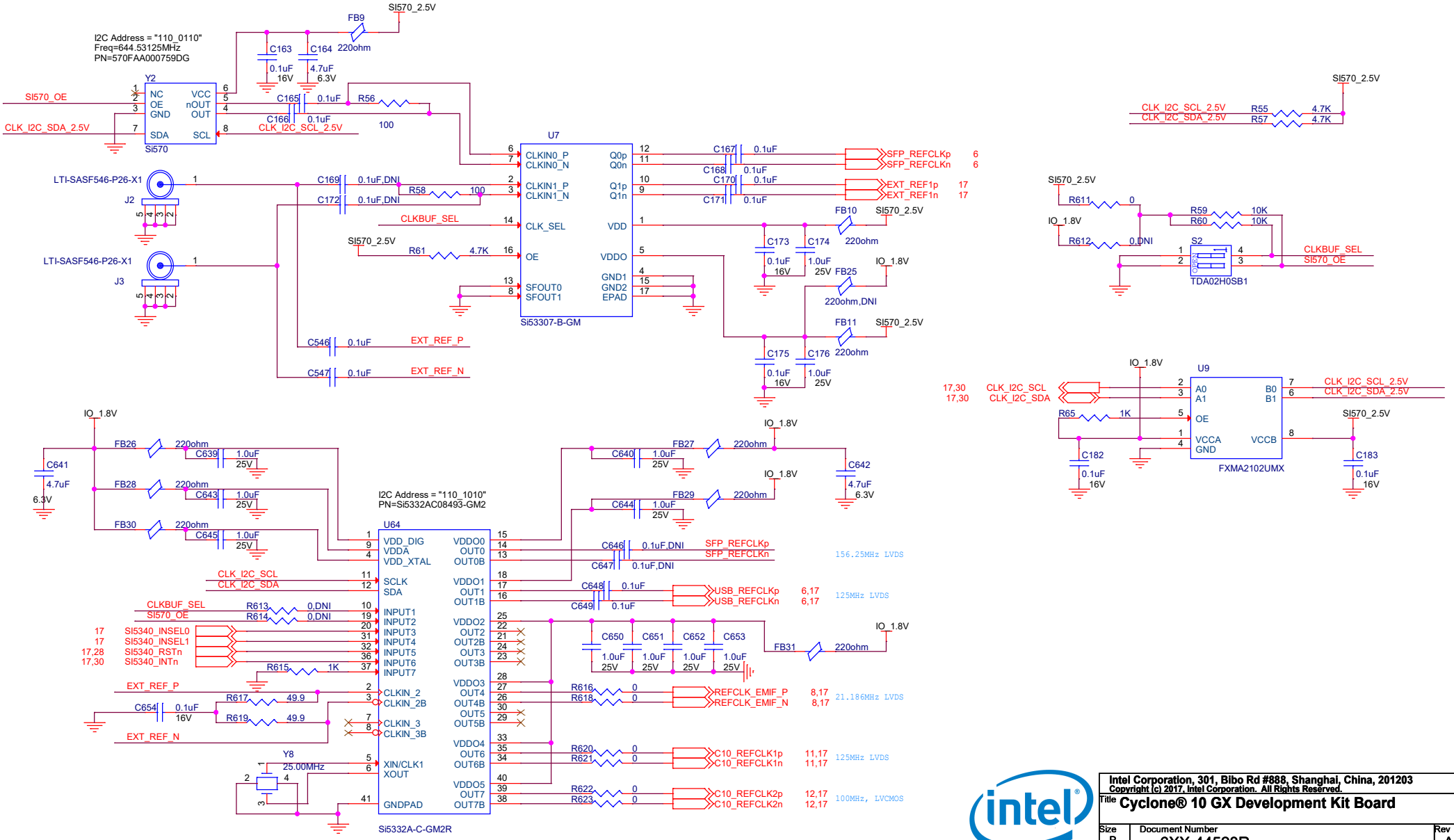
CLOCK - SI570/Si5332



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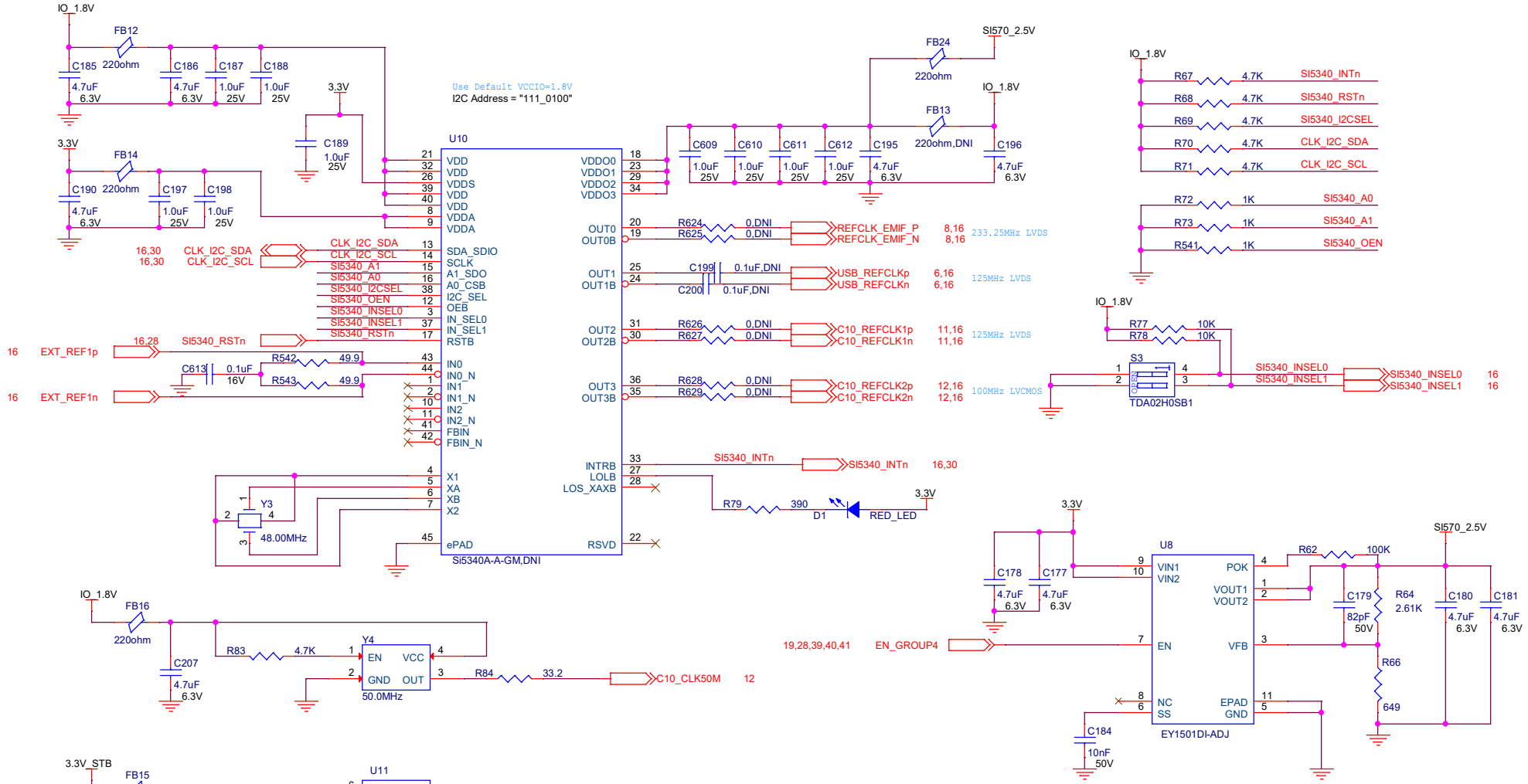
CLOCK - SI5340



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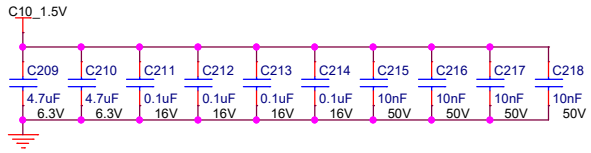
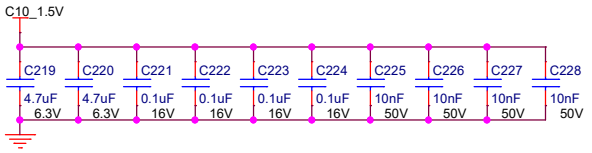
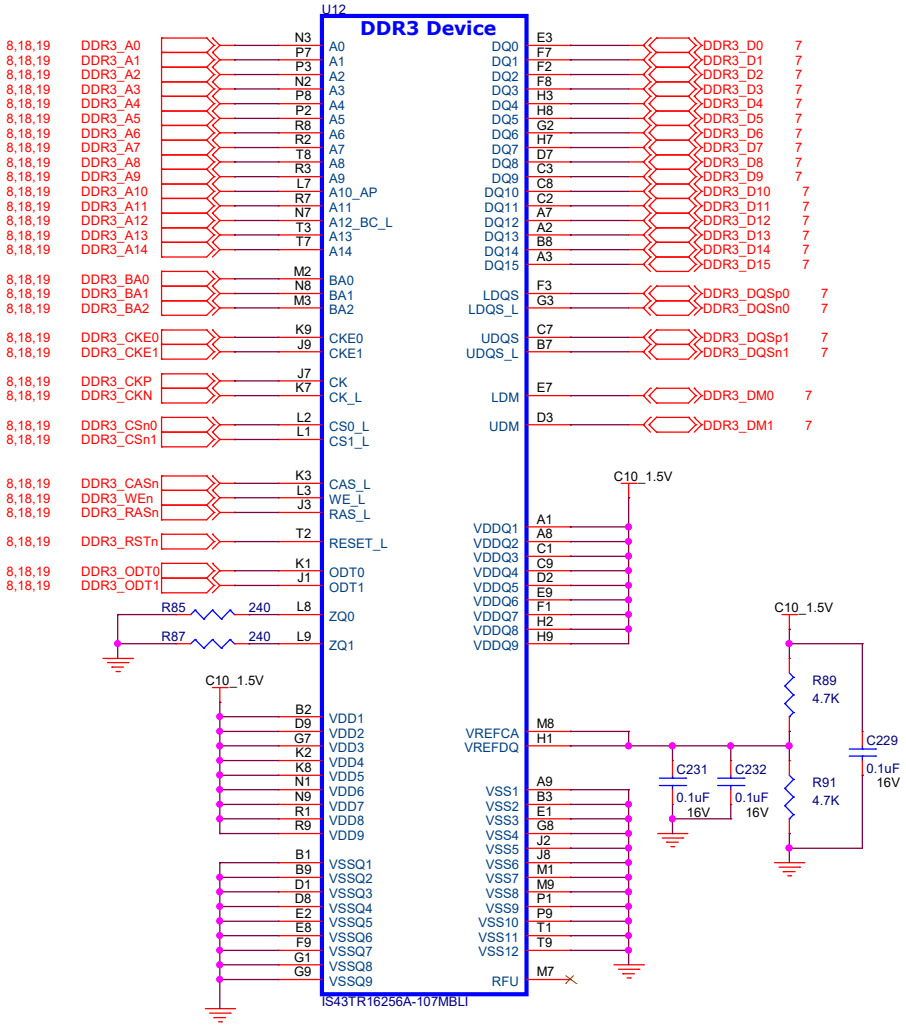
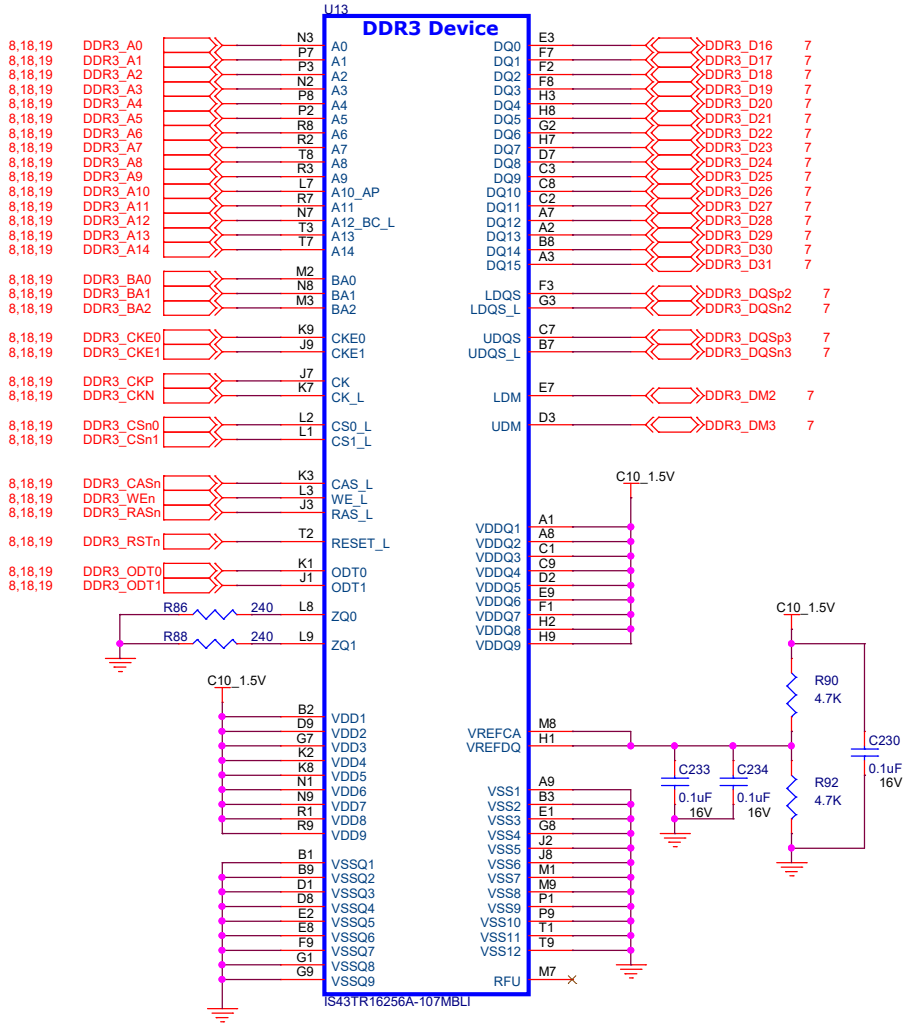
EMIF-DDR3-1









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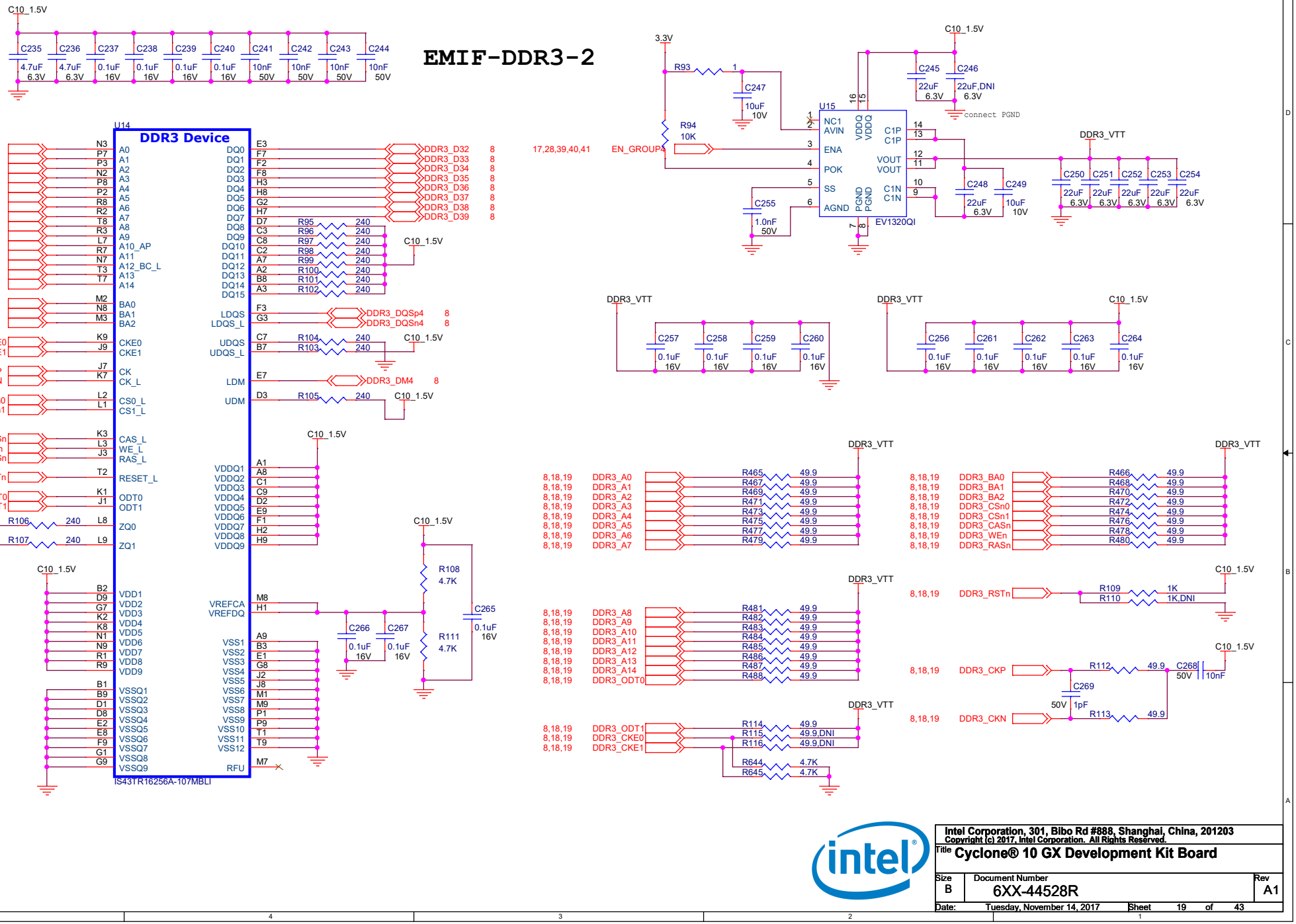
EMIF-DDR3-2



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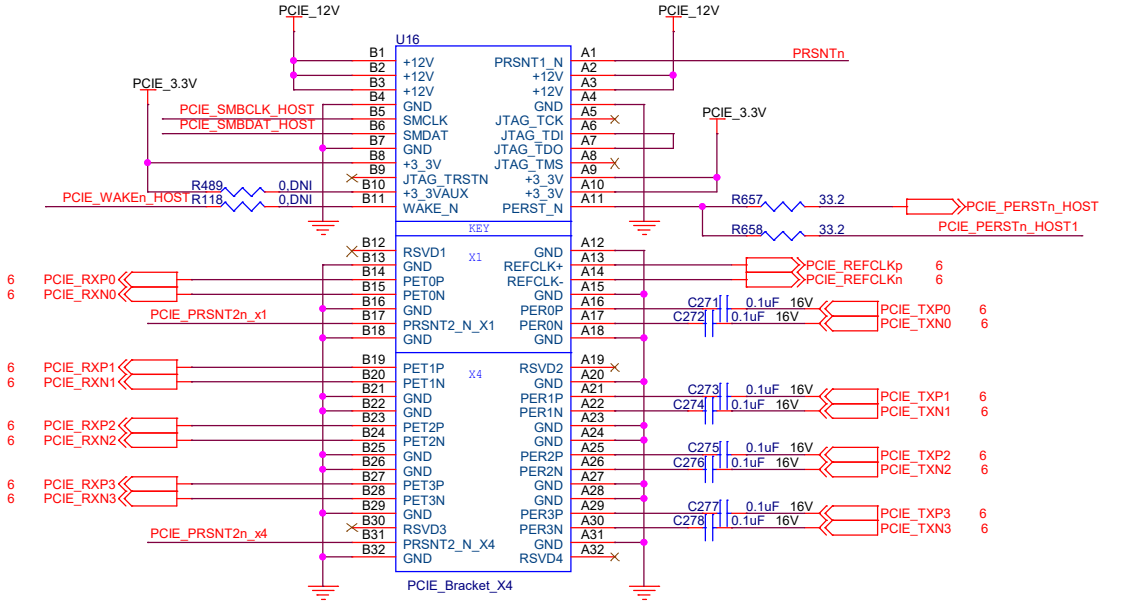
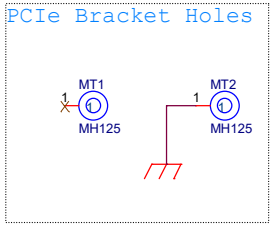
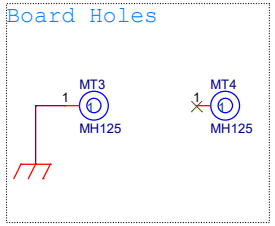
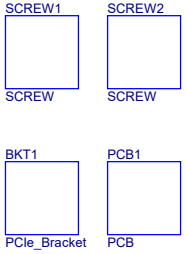
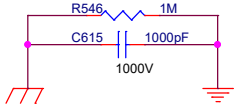
INTERFACE - PCIe

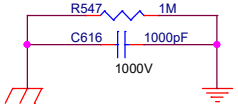


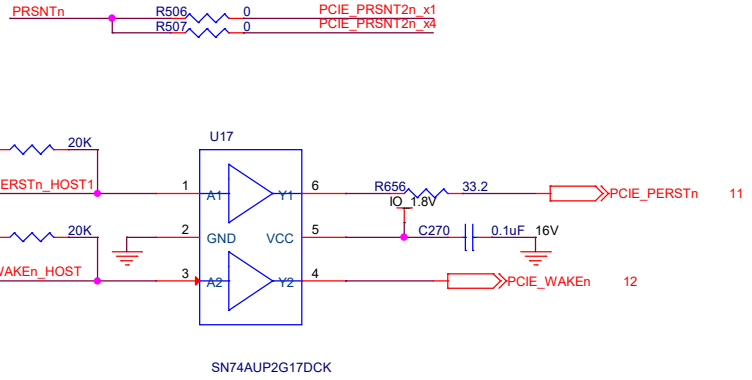


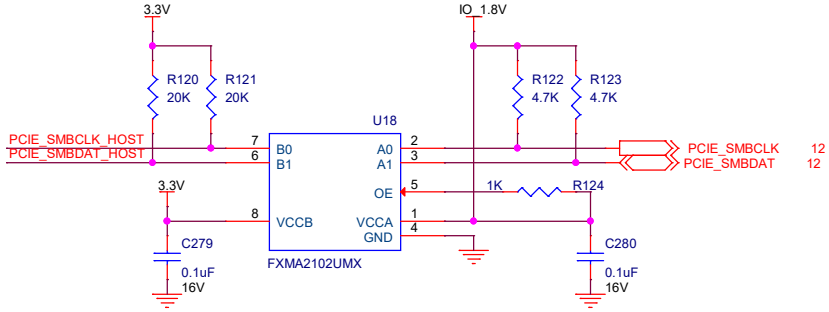












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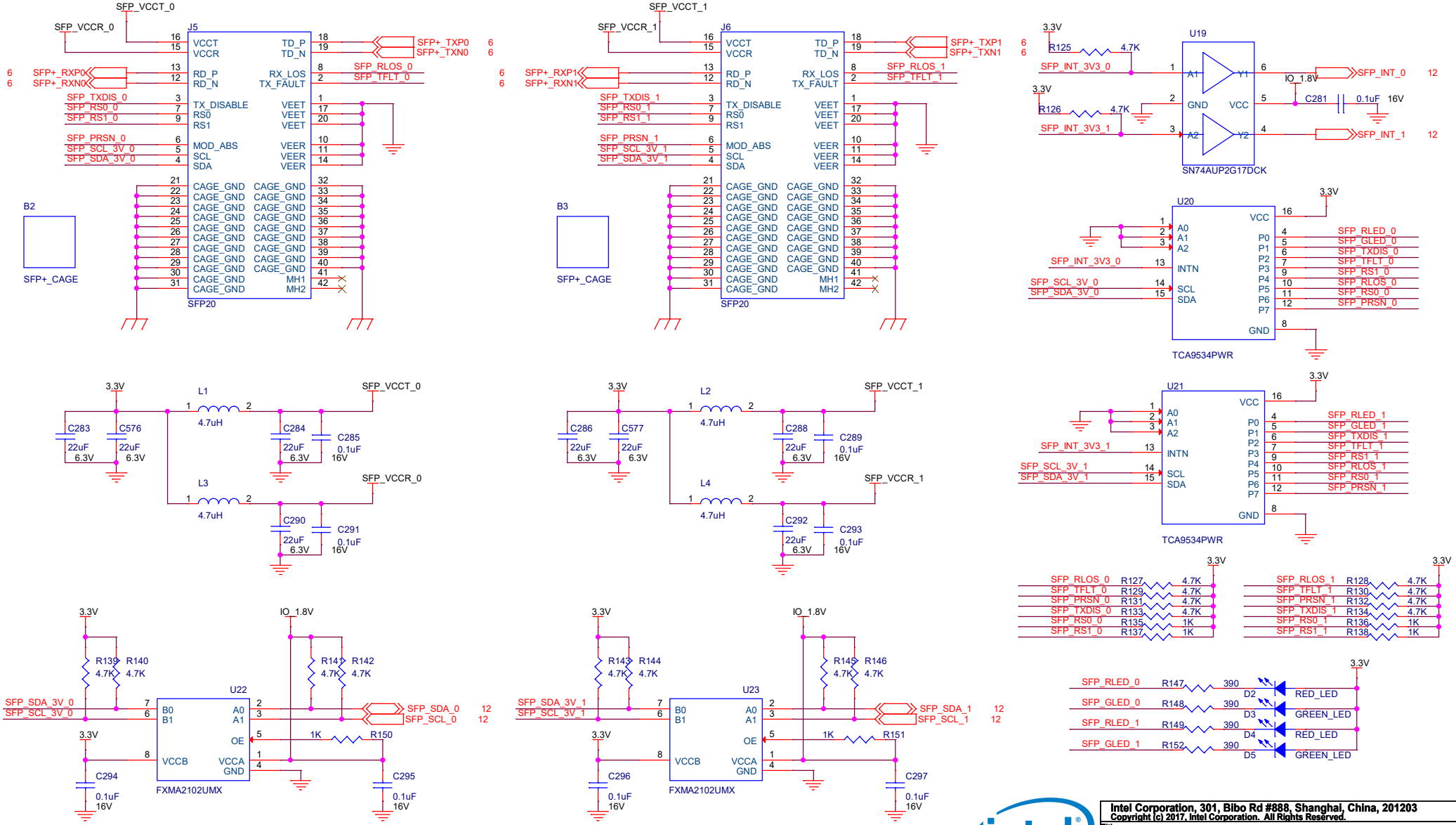
INTERFACE - SFP+



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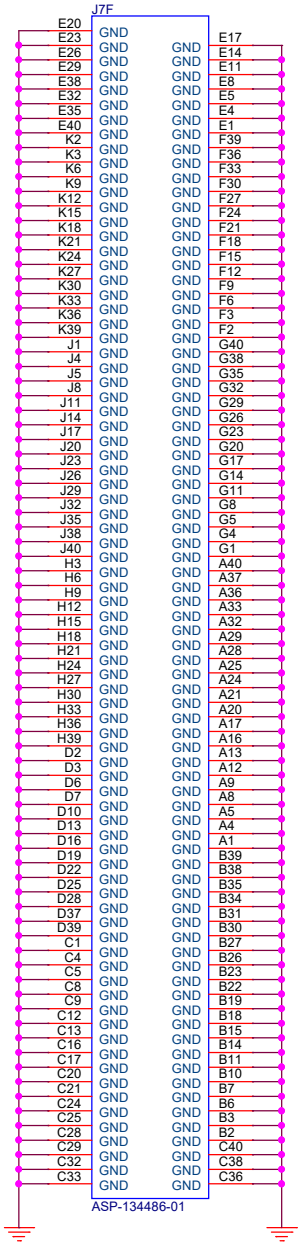

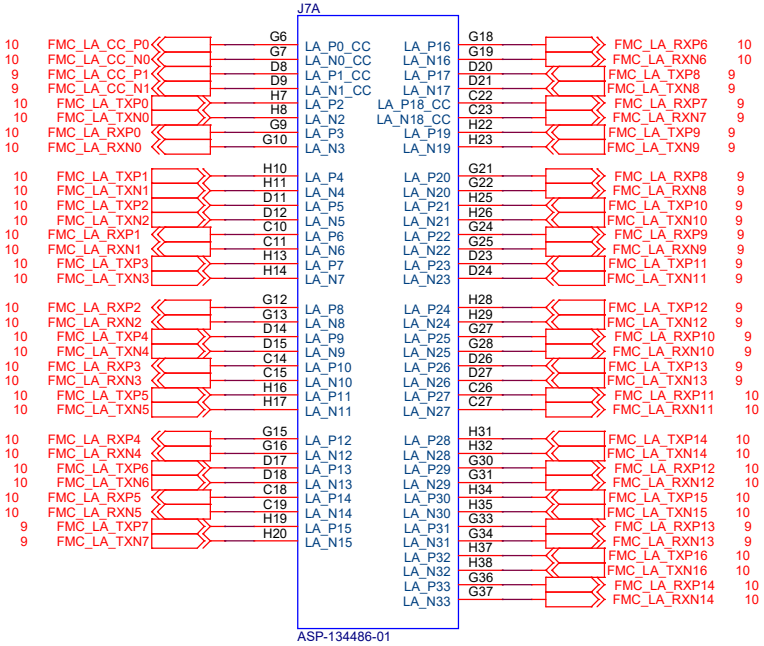

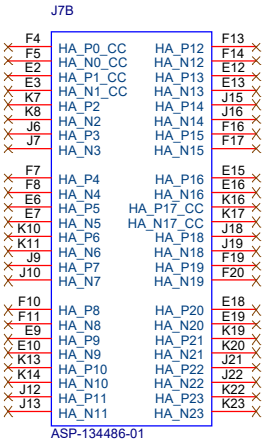

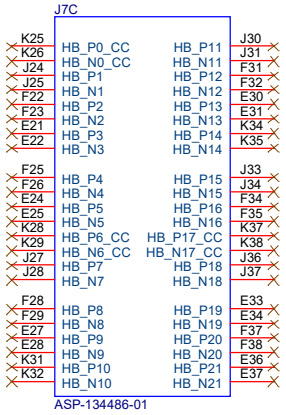

FMC cards Supported:
12G SDI: Semtech RDK-12GSRD-ALTRA00 Evaluation Board
8G Displayport: Bitec FMC DisplayPort Daughter Card
6G HDMI 2.0: Bitec FMC HDMI Daughter Card

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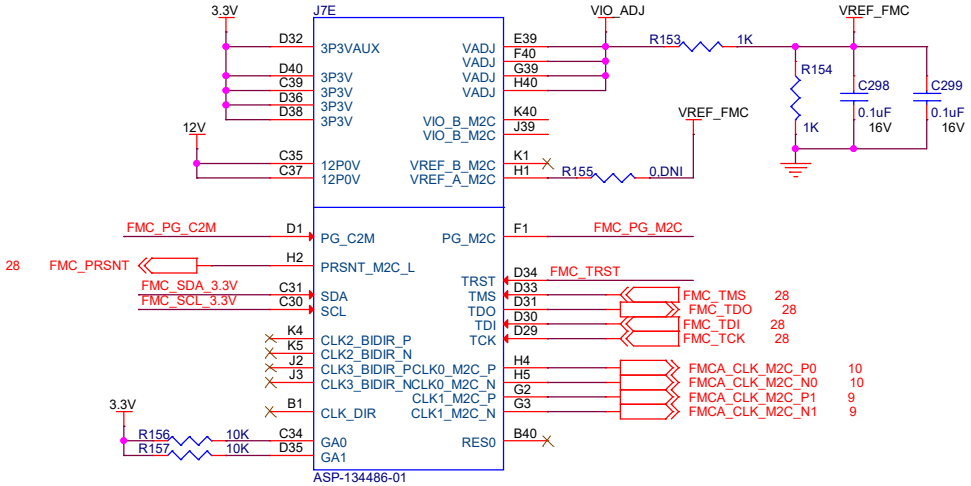
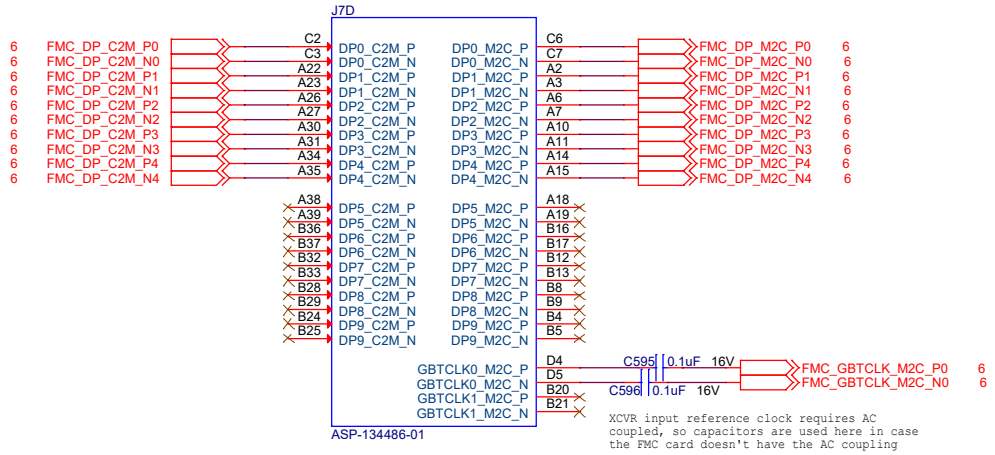
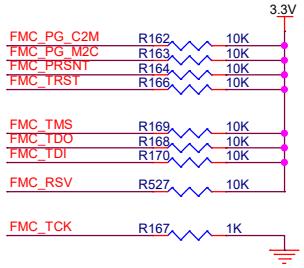
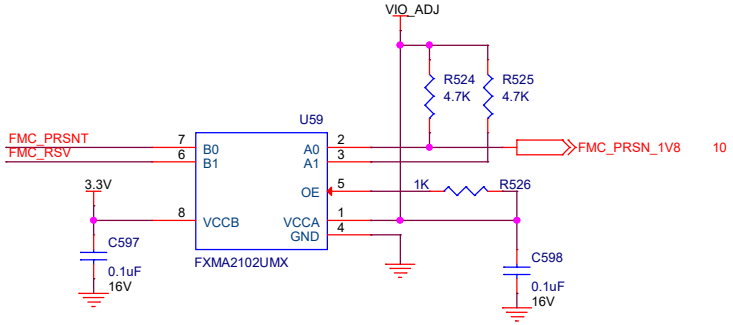
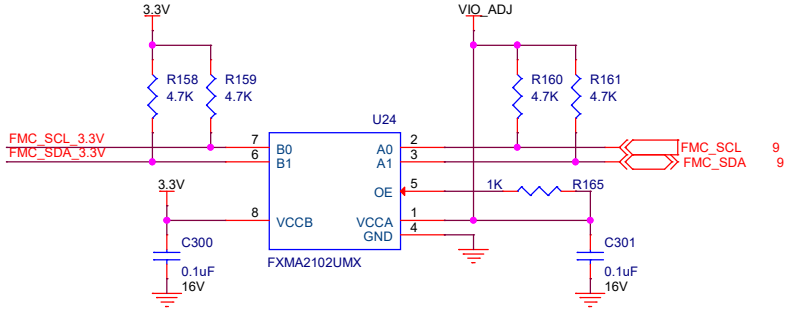
INTERFACE - FMC - 2











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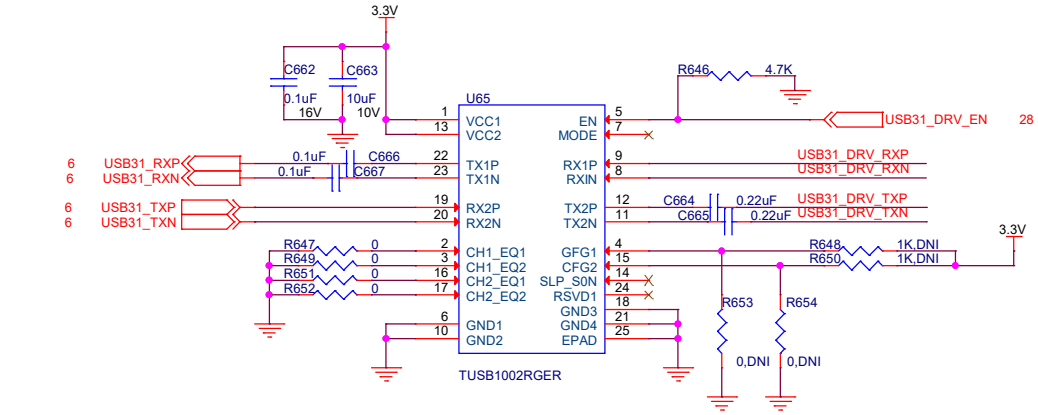
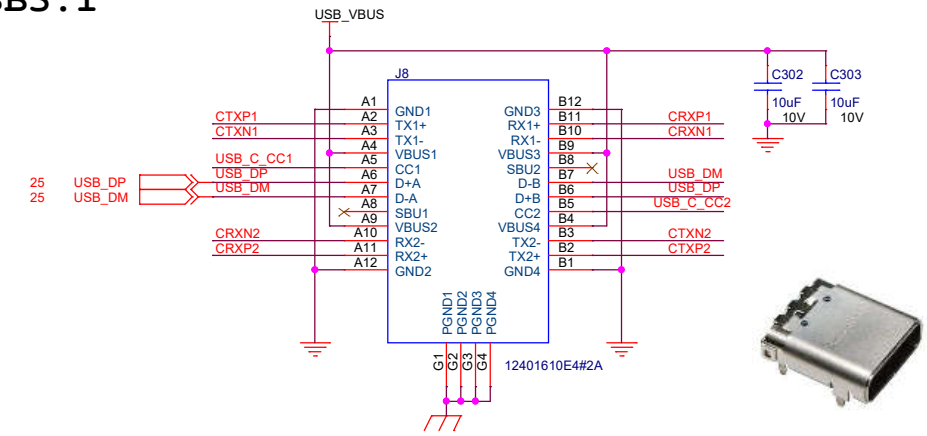
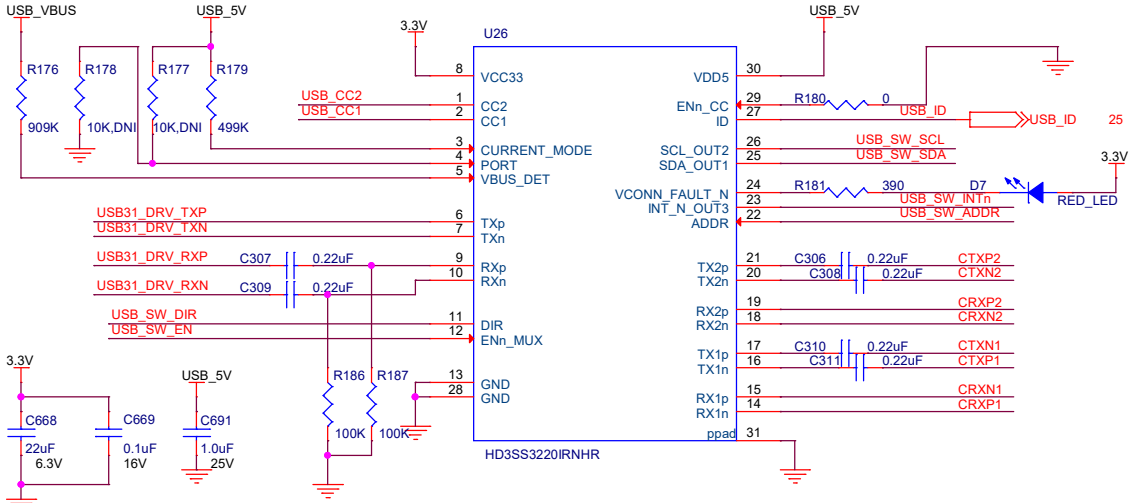
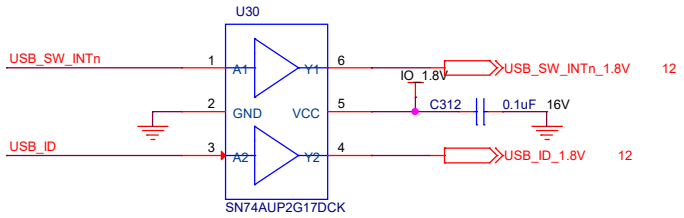
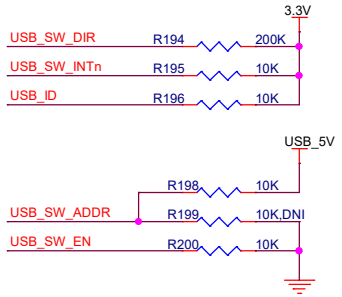
INTERFACE - USB3.1

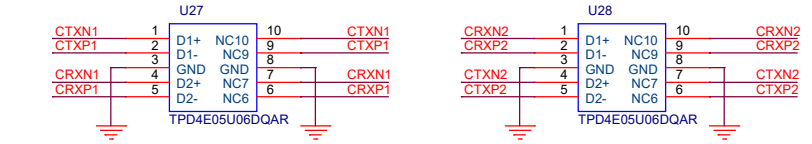


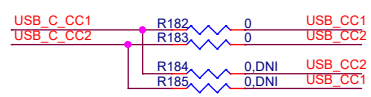


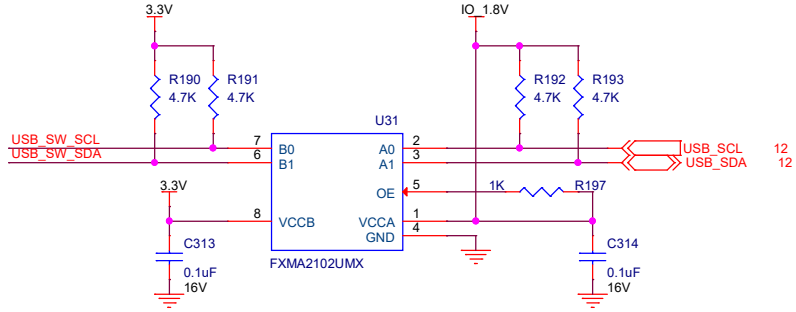












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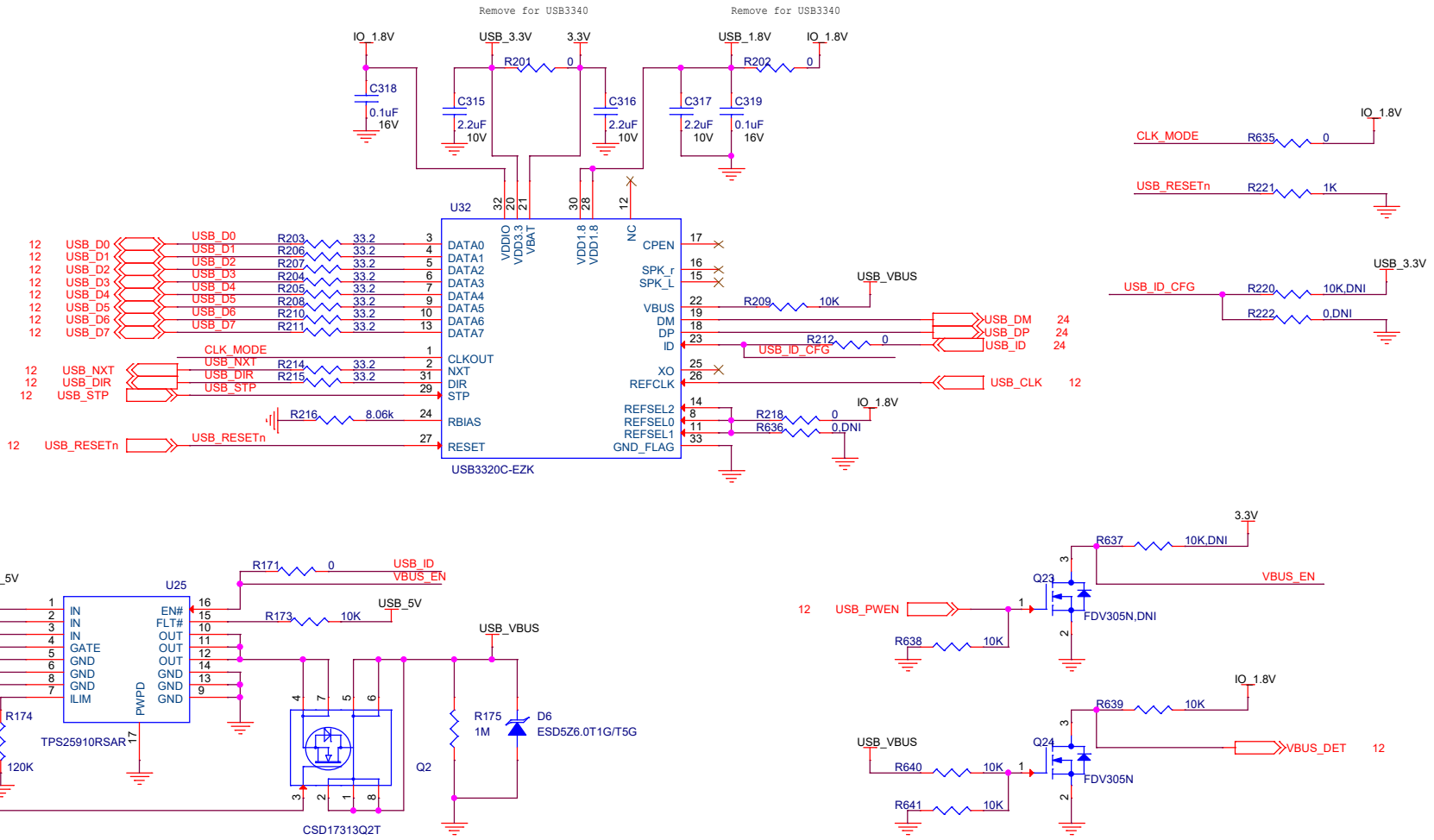
INTERFACE - USB2.0



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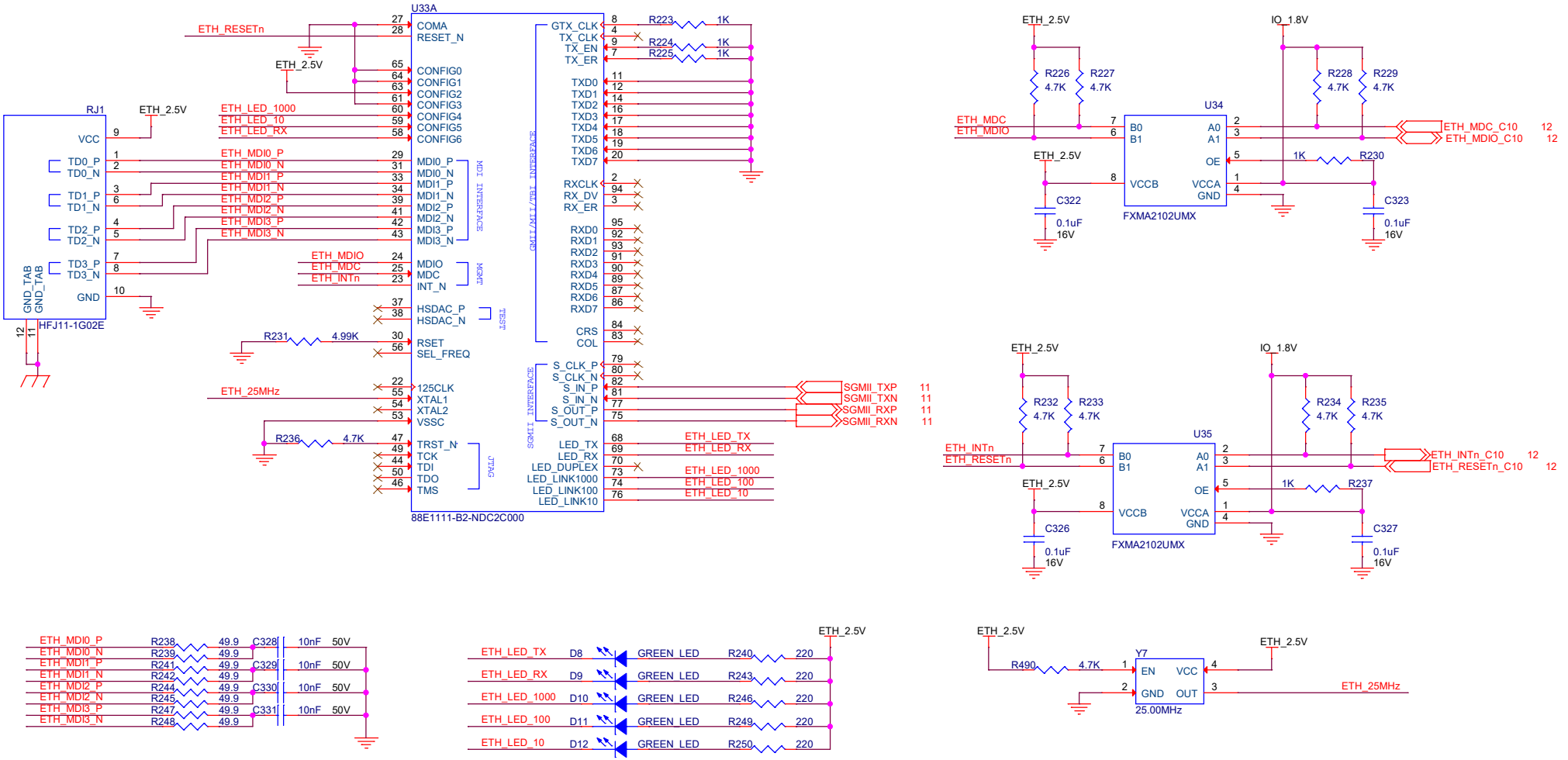
INTERFACE - GIGE - 1



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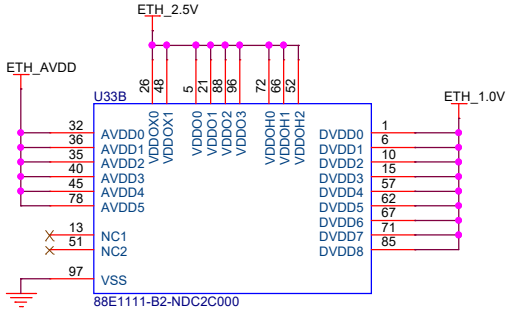
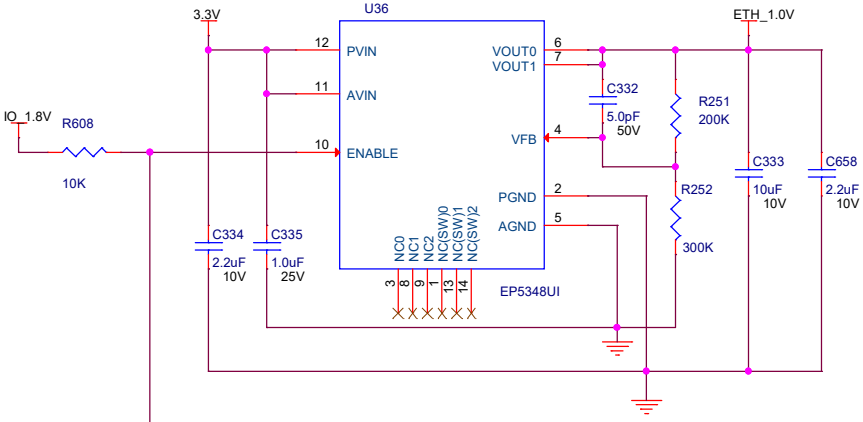
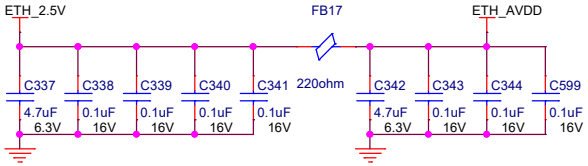
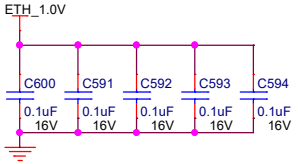
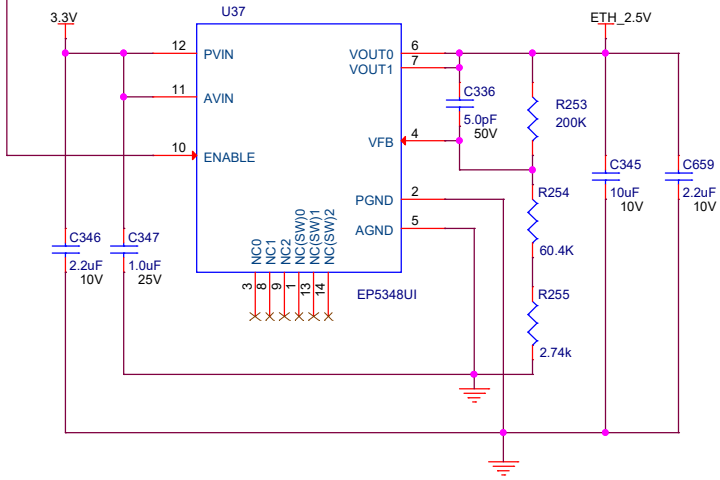
INTERFACE - GIGE - 2











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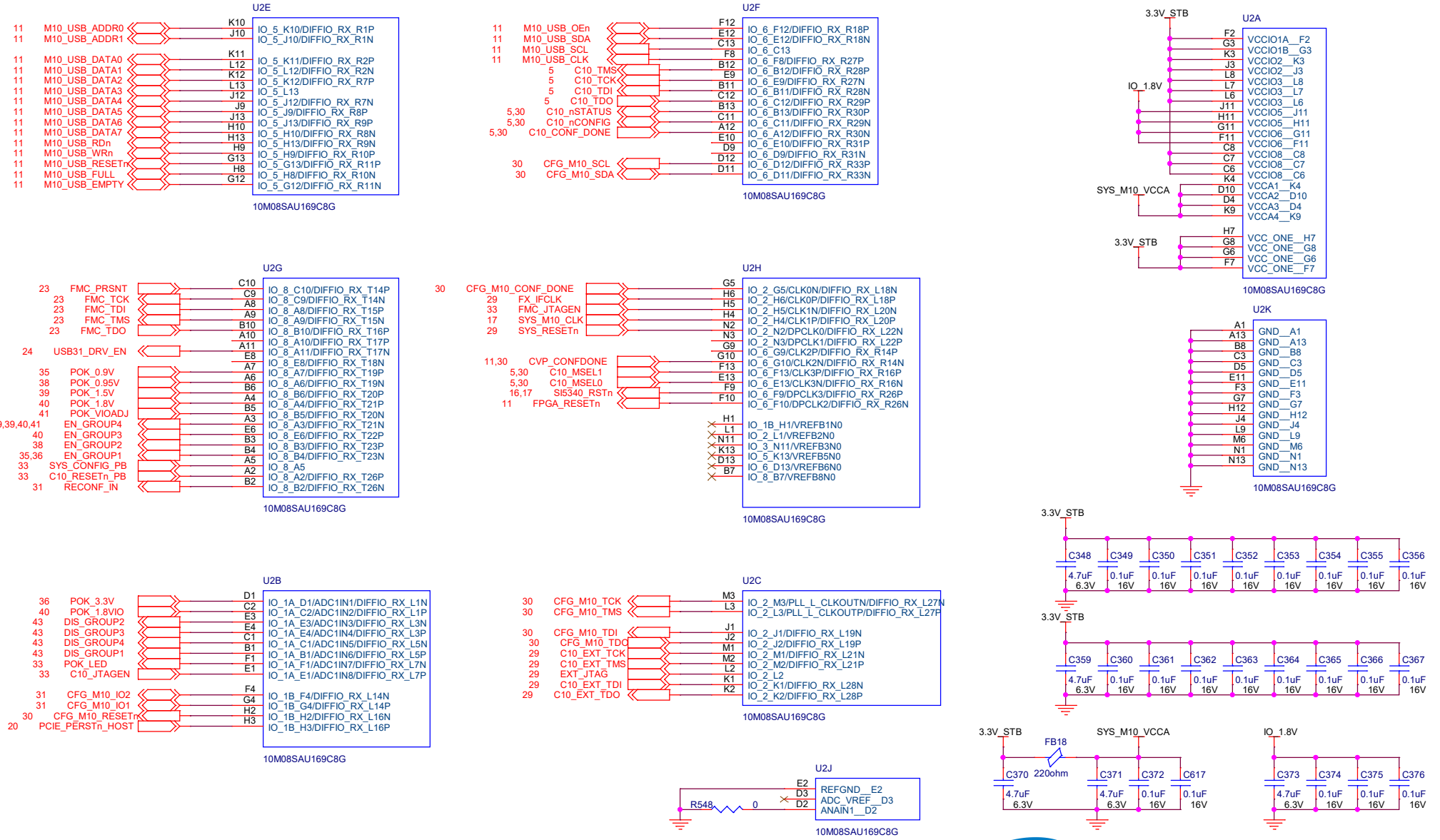
SYS MAX10 - CTRL



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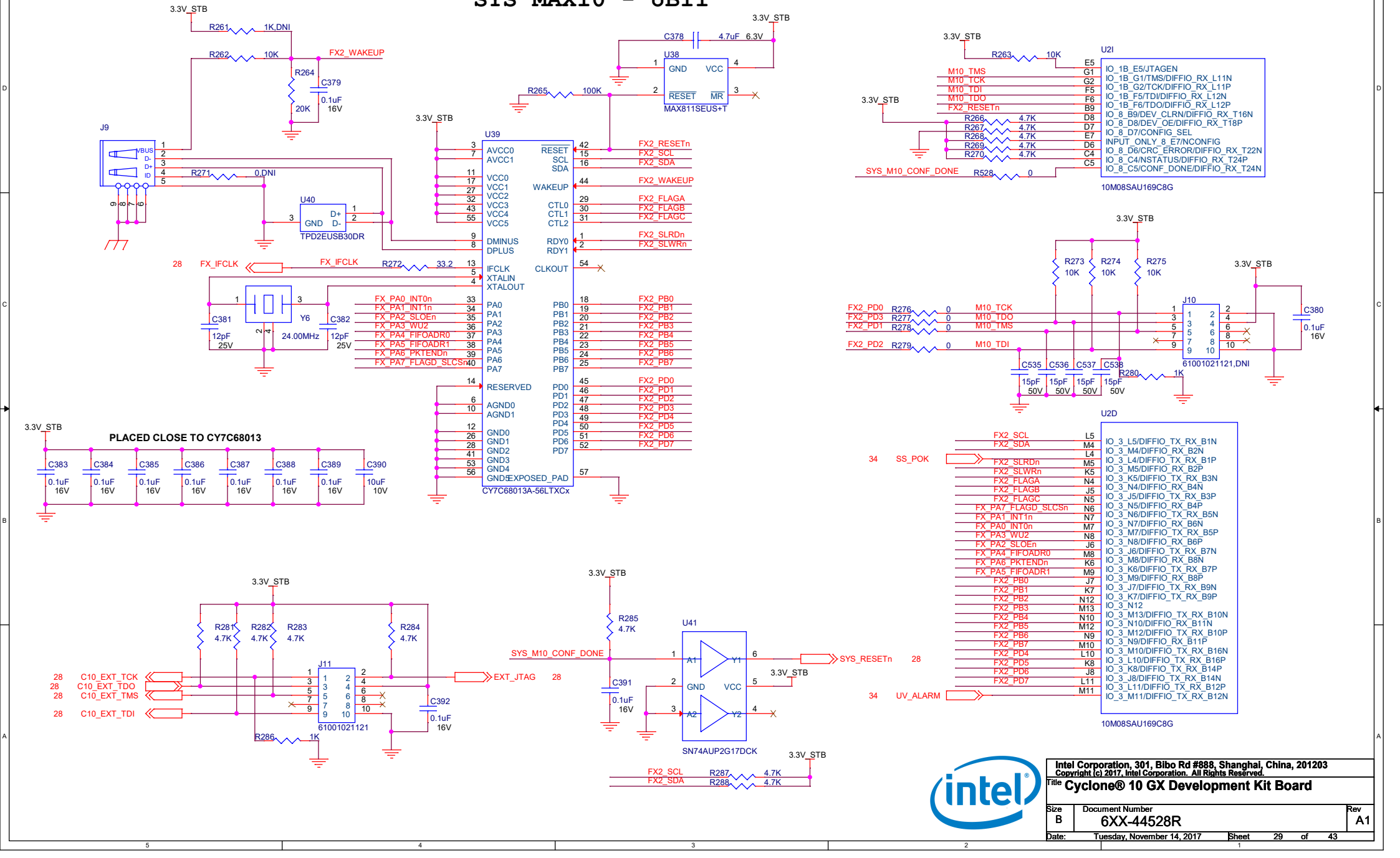
SYS MAX10 - UBII



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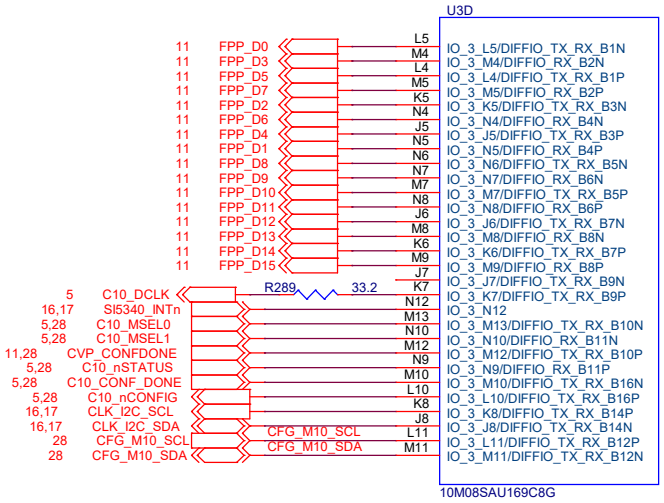
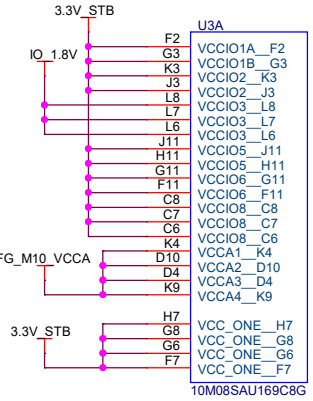
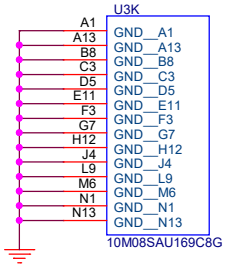
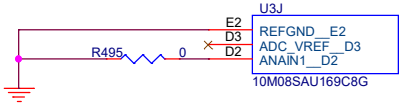
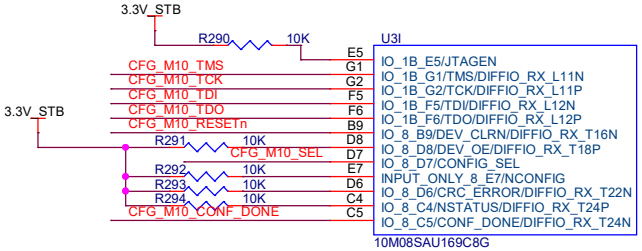
CFG MAX10 - FPP

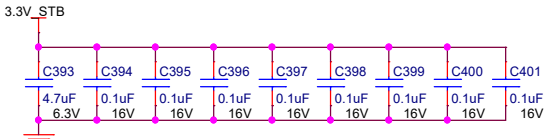


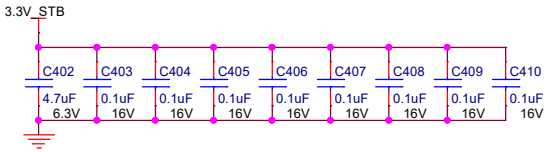


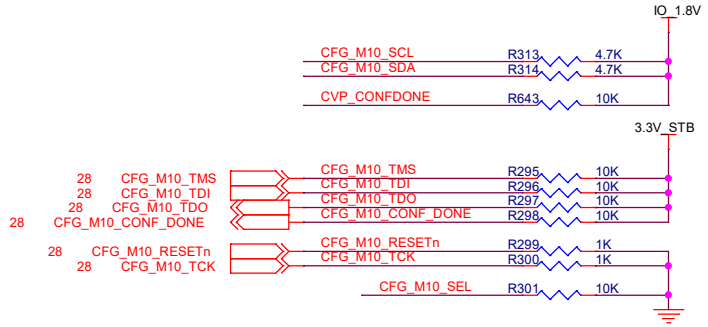


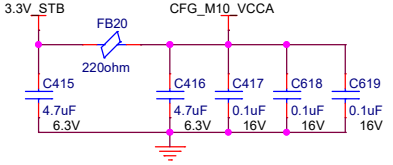


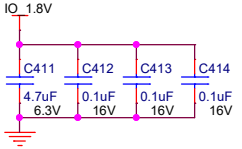












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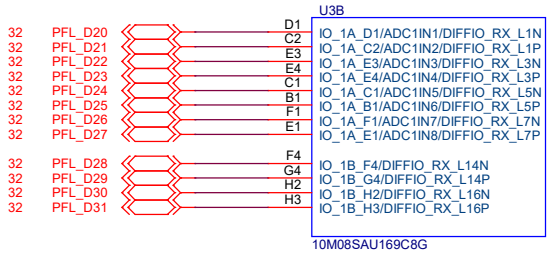
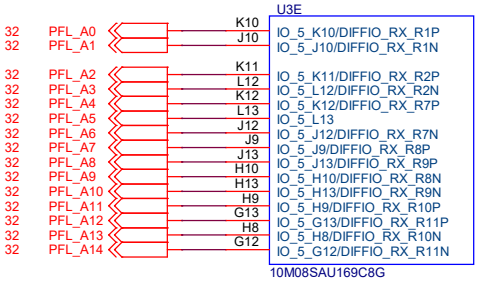
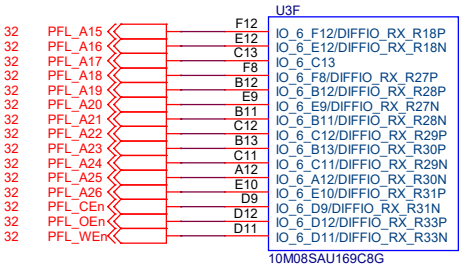
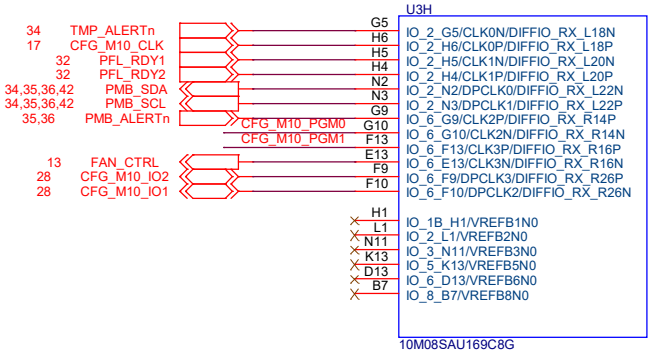
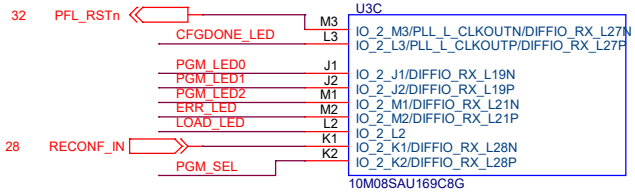
CFG MAX10 - PFL

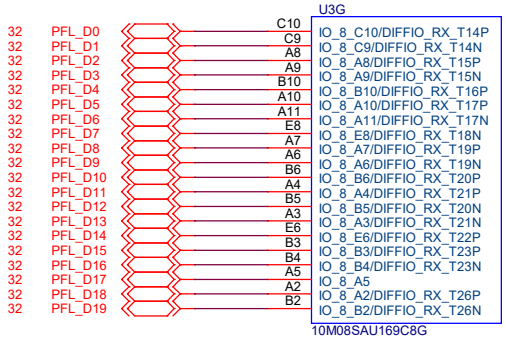


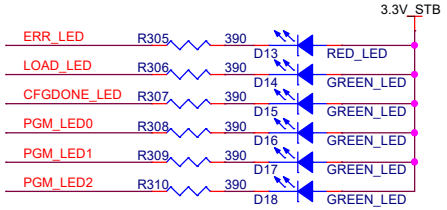


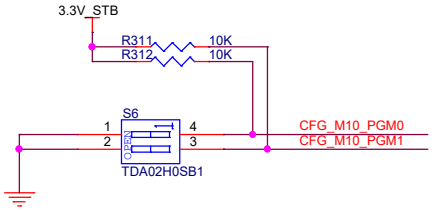


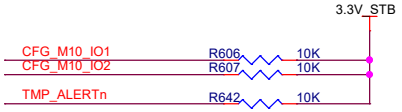


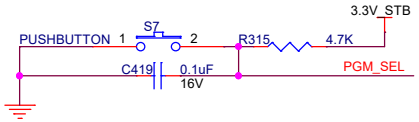












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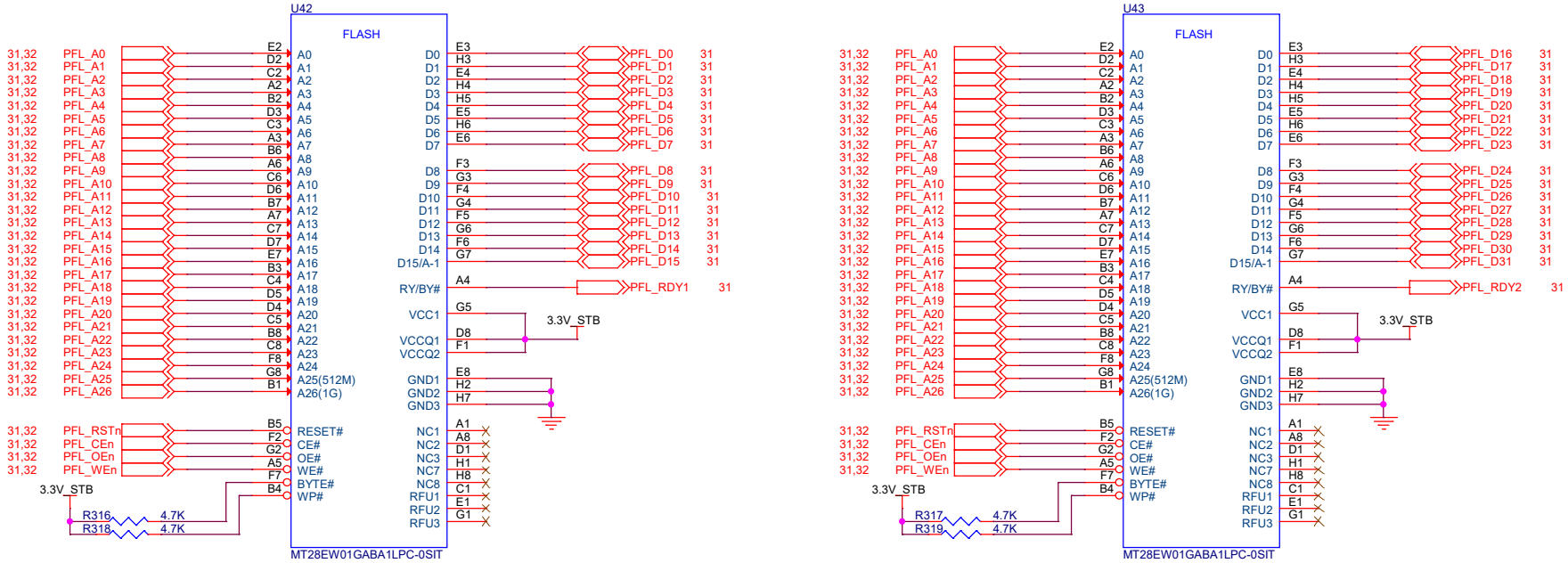
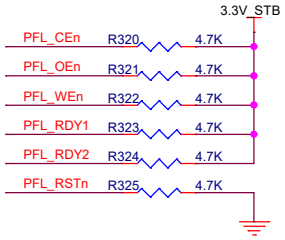
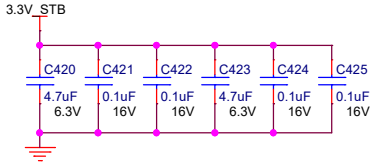
CFG PFL FLASH







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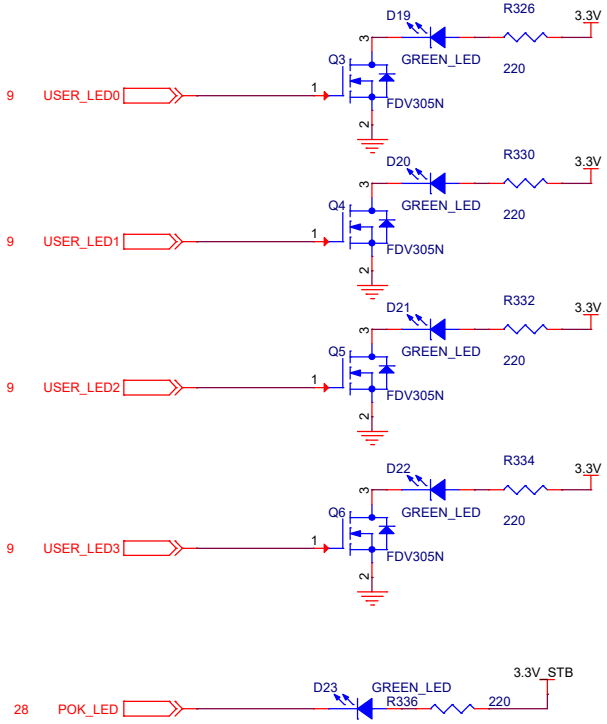
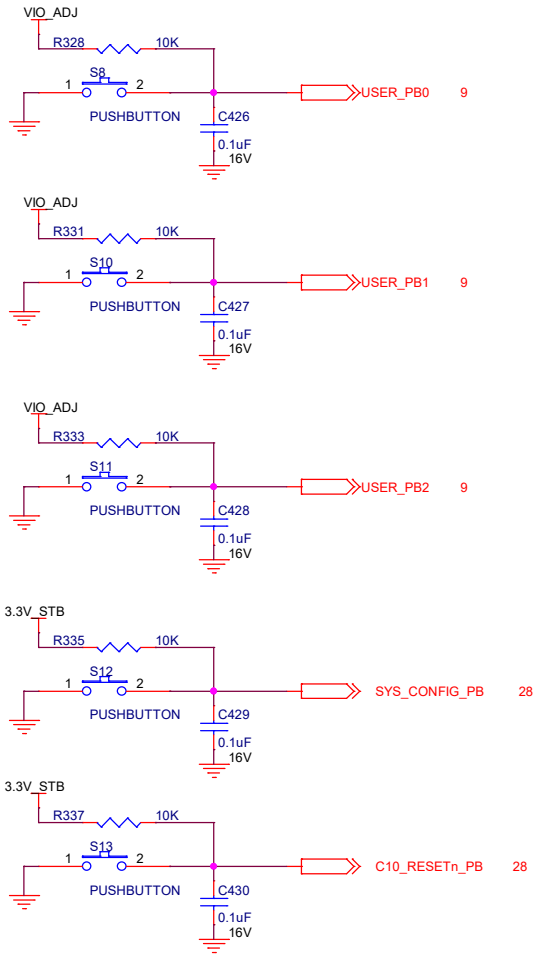
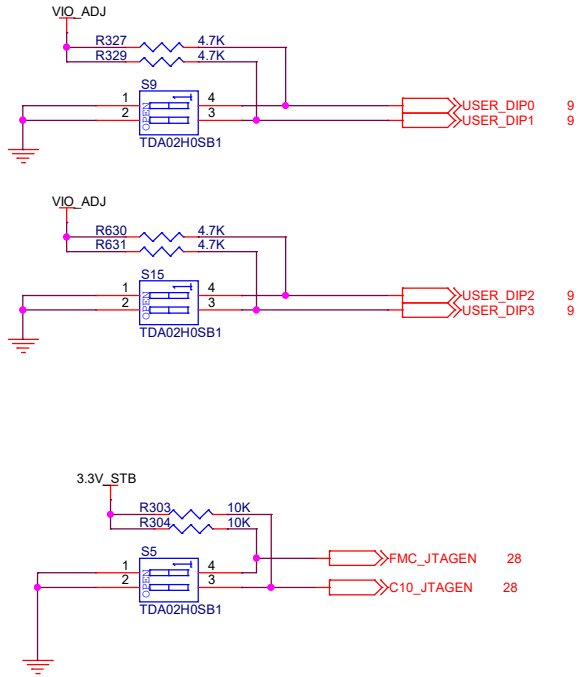
LED & PB & SW







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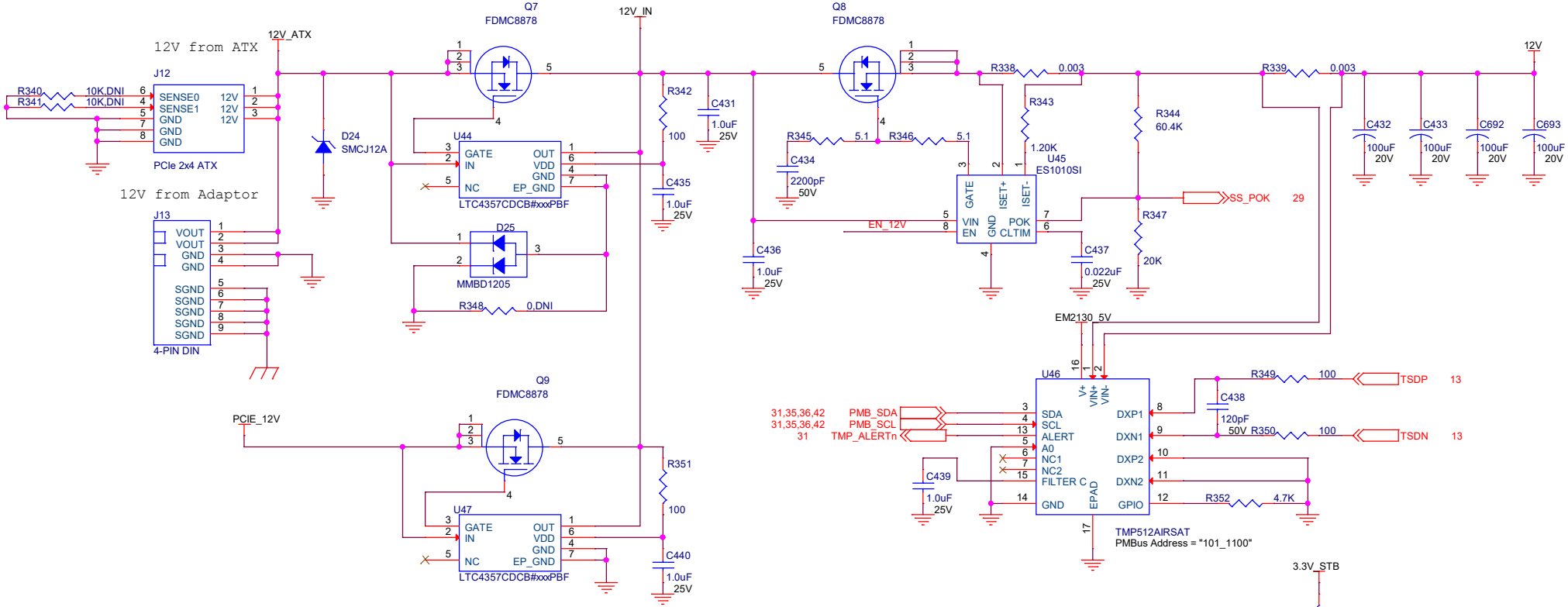
POWER - INPUT



Note:
1. ATX connctor is compatible with 2x4 or 2x3 plug
2. When the board is on desk, power input can be from either ATX or Adaptor, but not both at same time
3. When the board is in PCIe socket, power input can be from standard PCIe connector only(75W max), or from both ATX and PCIe connector

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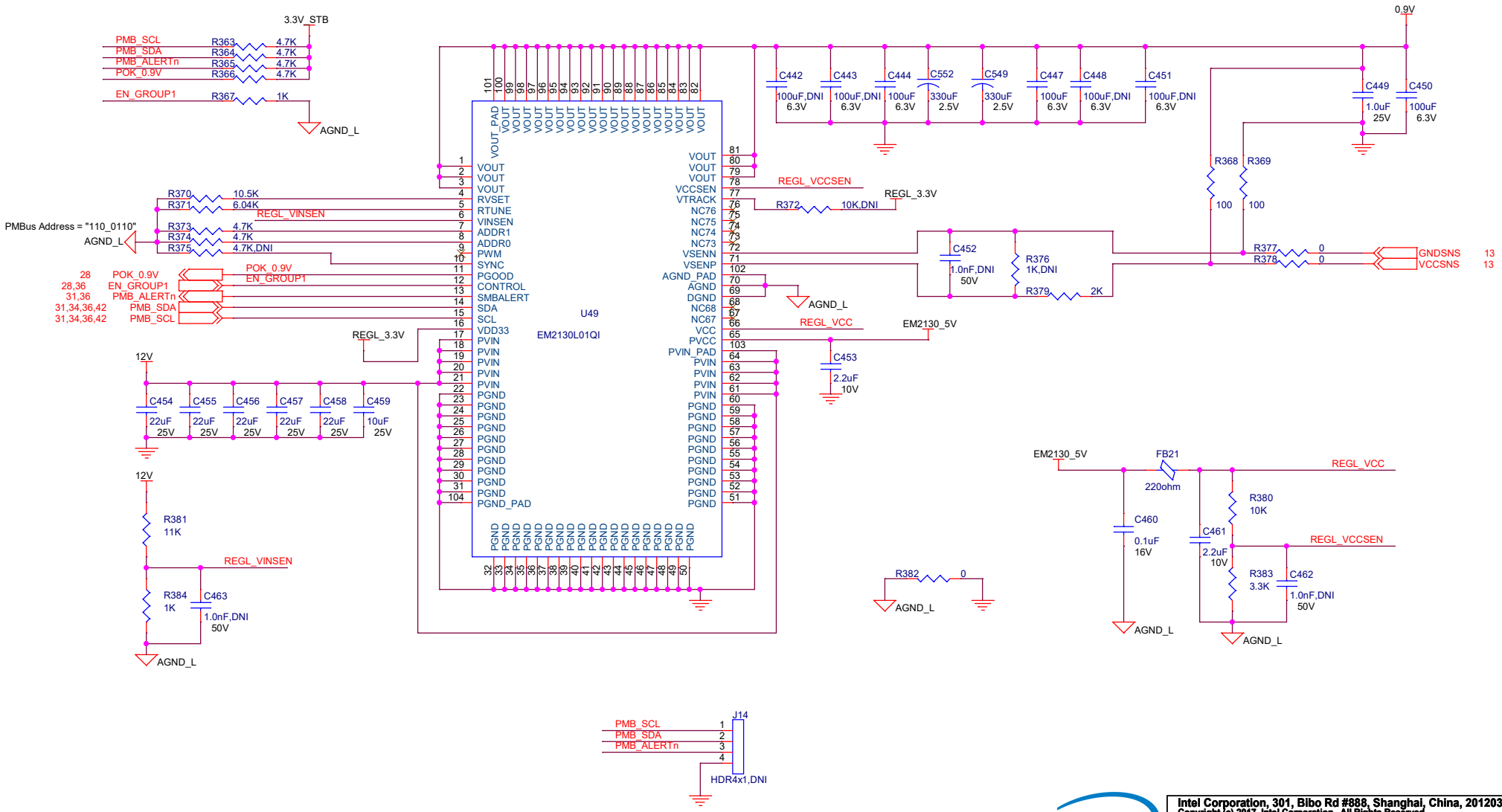
POWER - 12V to 0.9V



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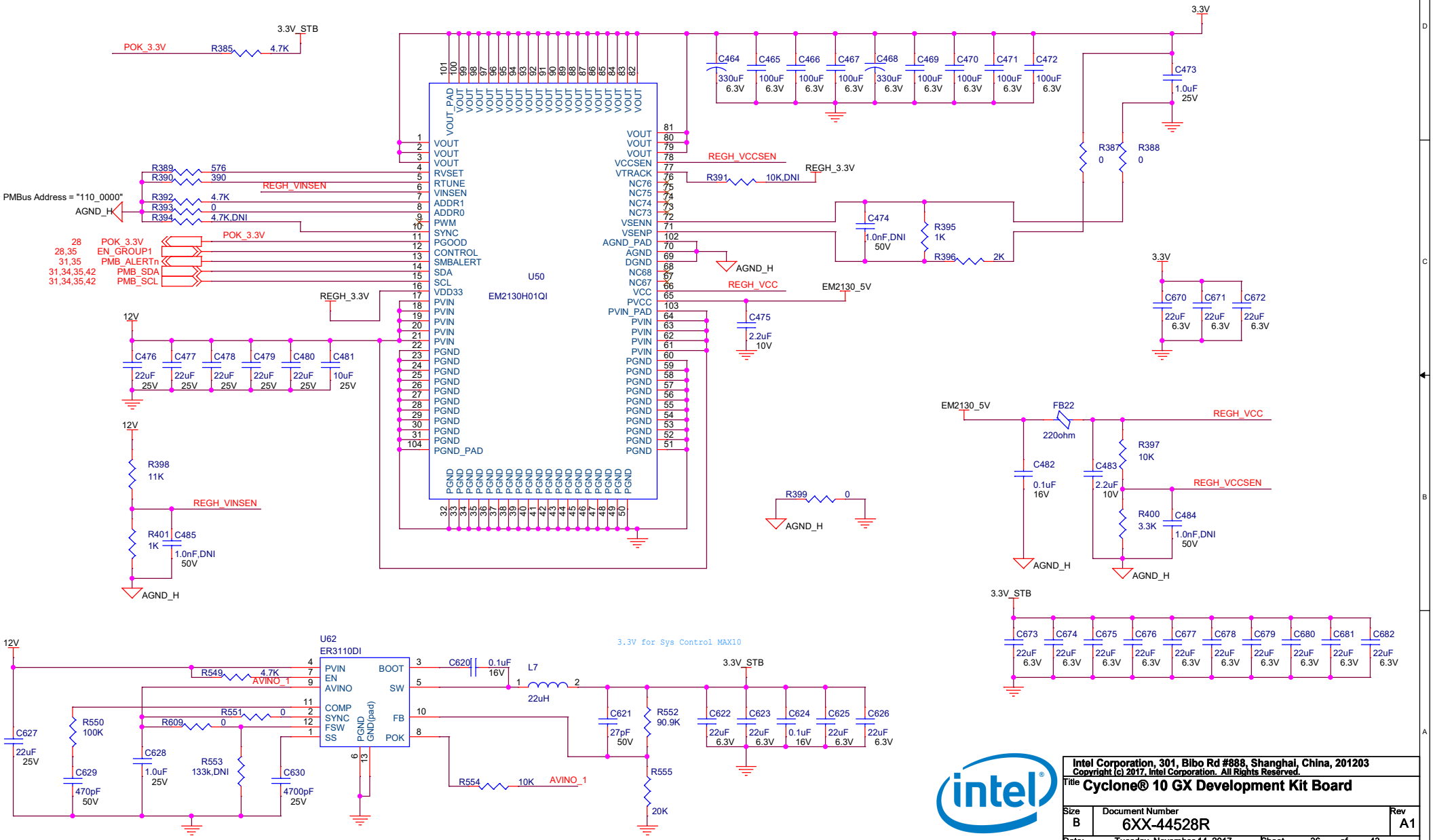
POWER - 12V to 3.3V



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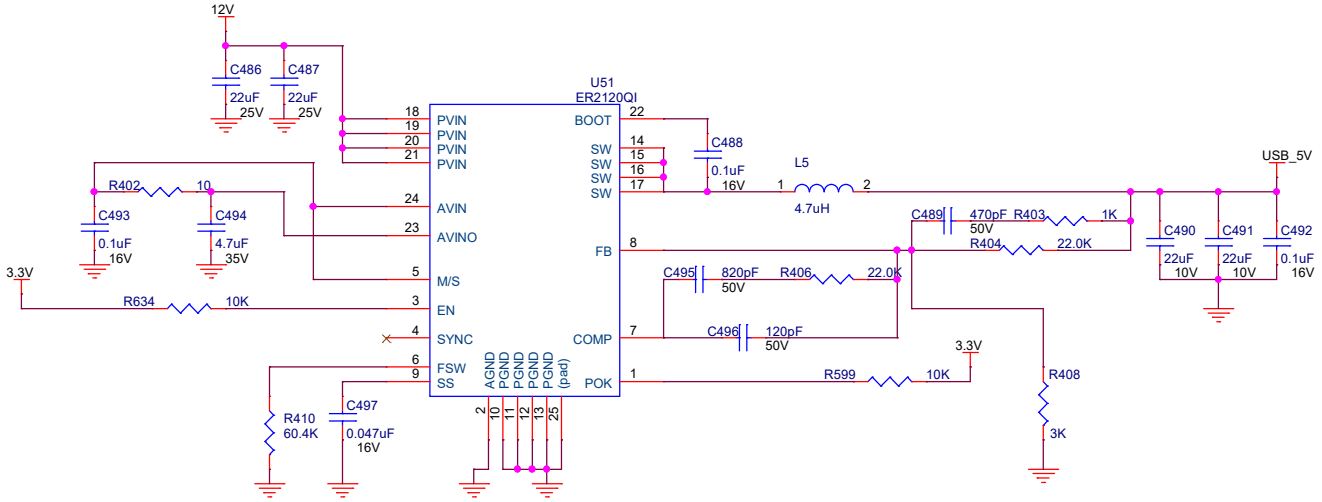
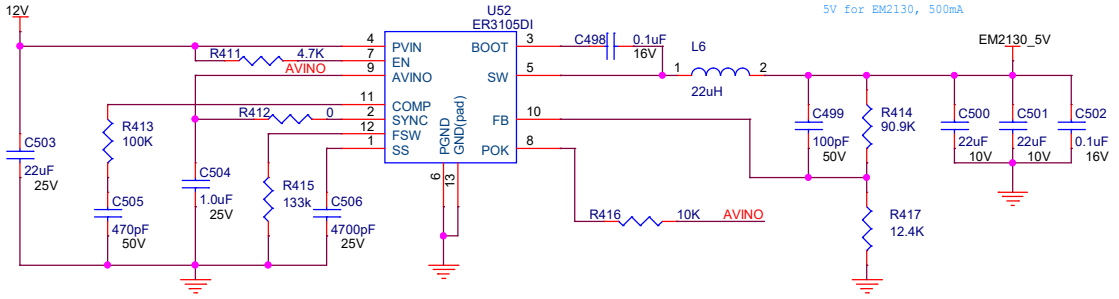
POWER - 12V to 5V



GND of input/output filter and PGND shall be connected to GND layer directly, while all signal GND and AGND shall be connected together and then go to a single via away from the PGND area



GND of input/output filter and PGND shall be connected to GND layer directly, while all signal GND and AGND shall be connected together and then go to a single via away from the PGND area

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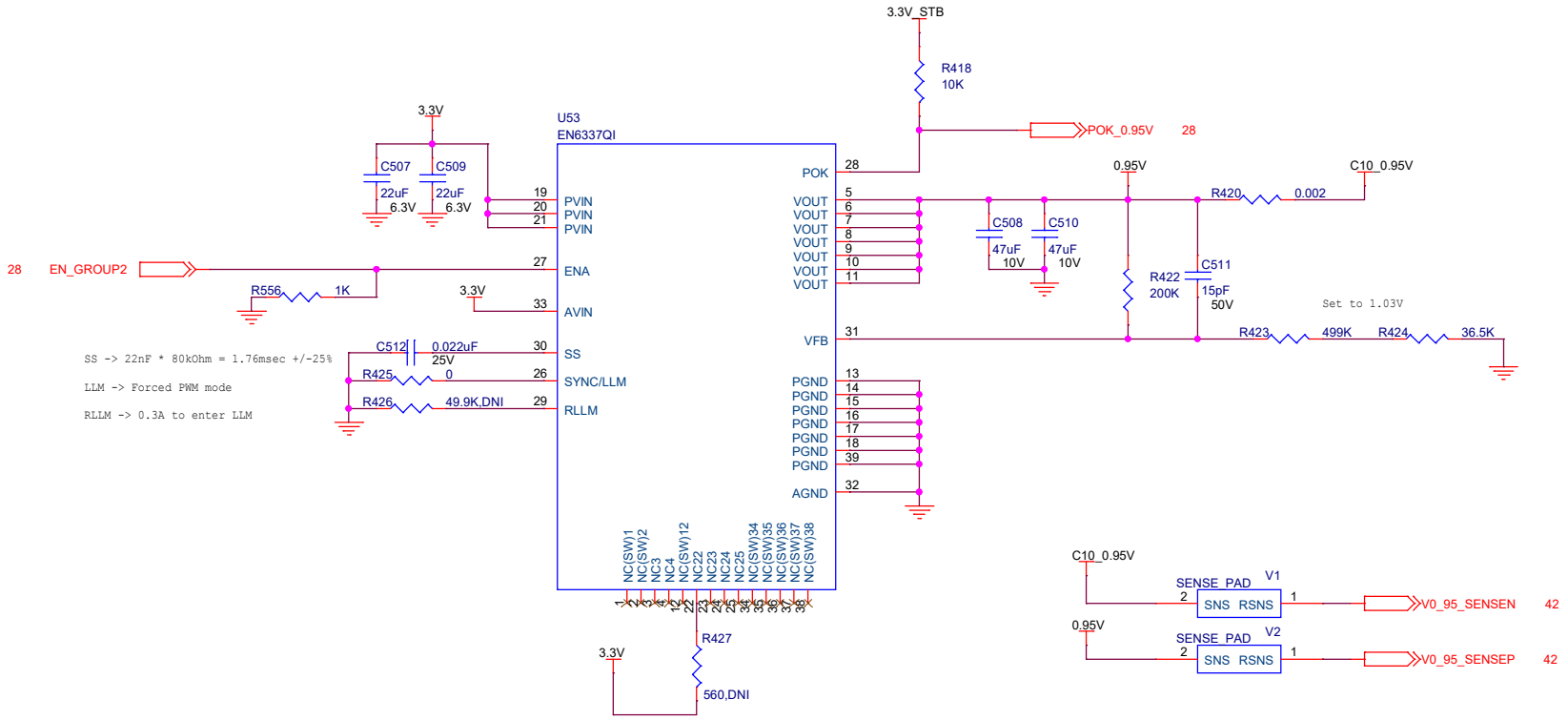
POWER - 3.3V to 0.95V



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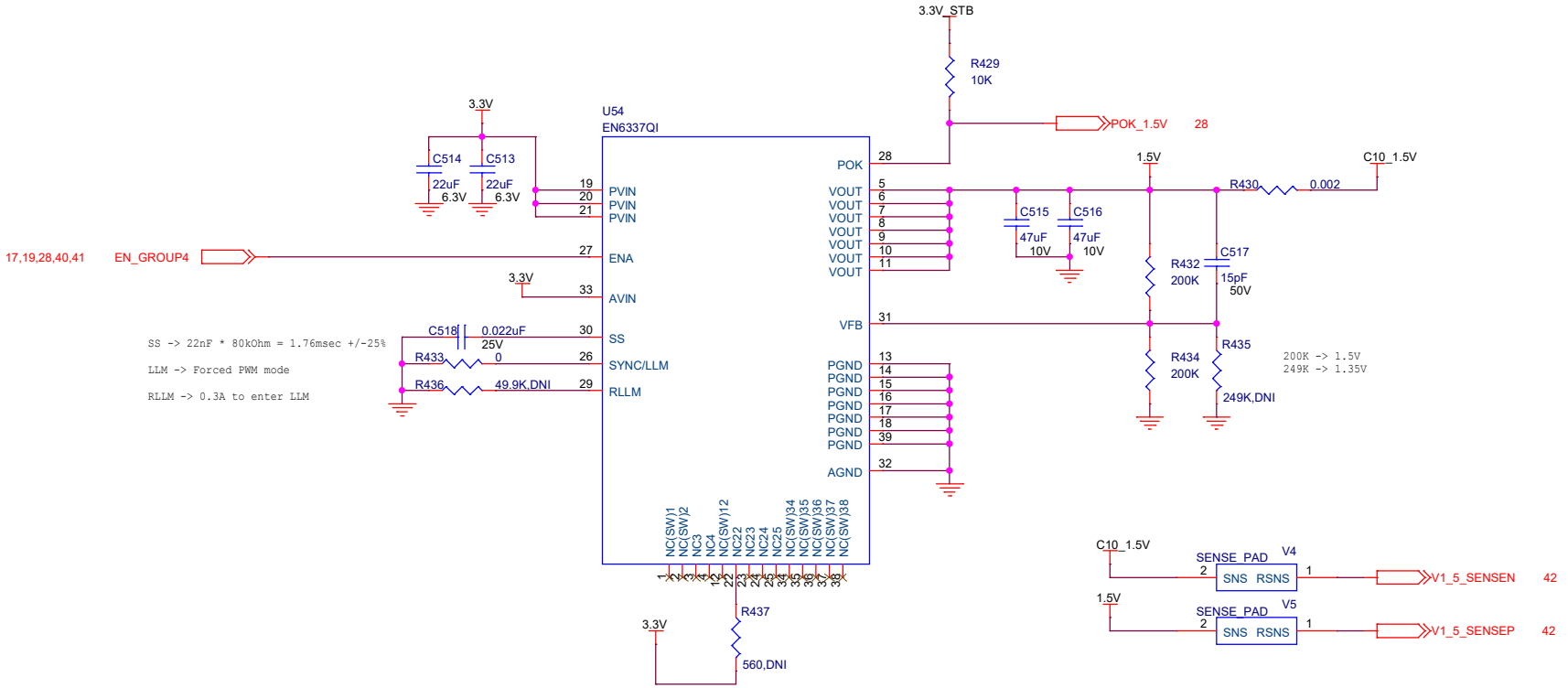
POWER - 3.3V to 1.5V



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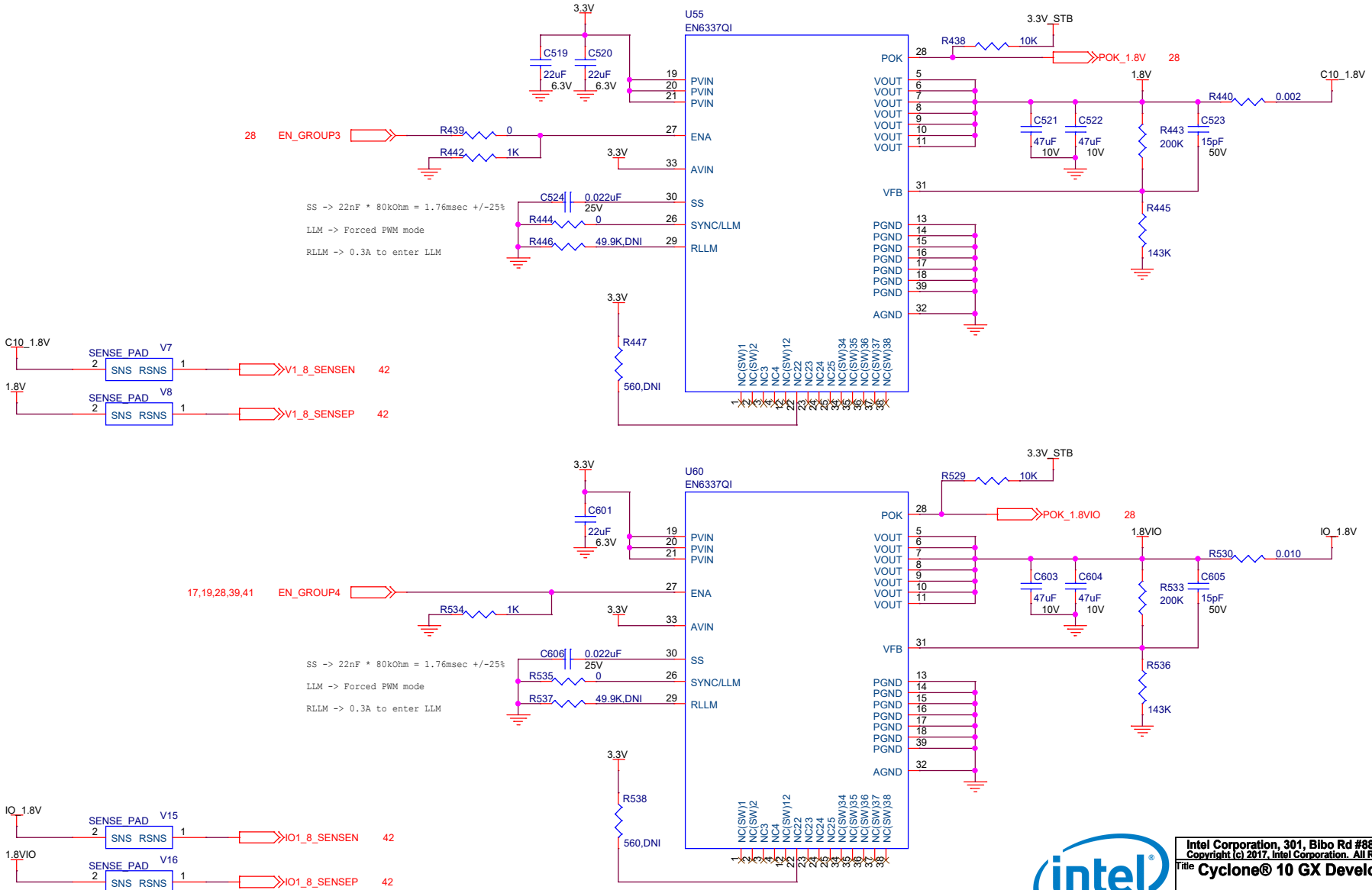
POWER - 3.3V to 1.8V



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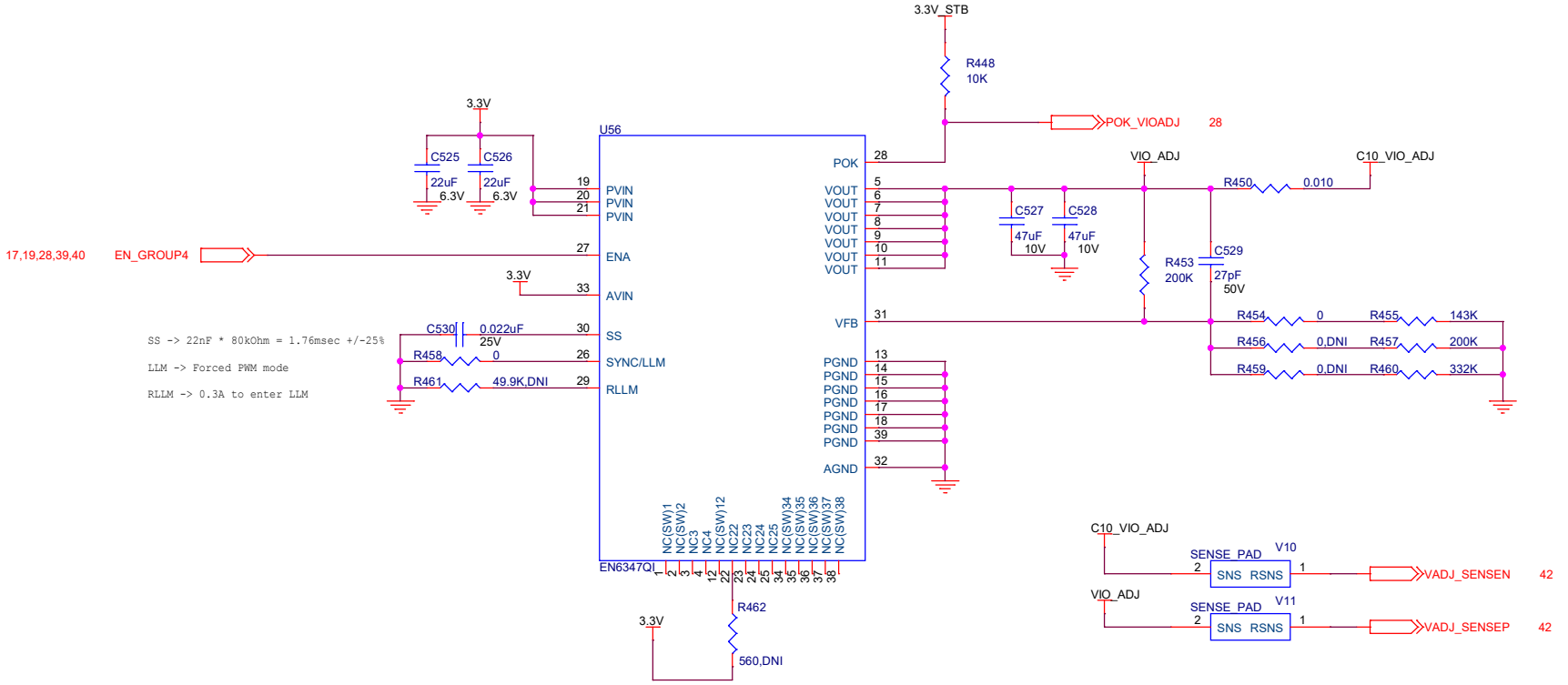
POWER - 3.3V to VADJ



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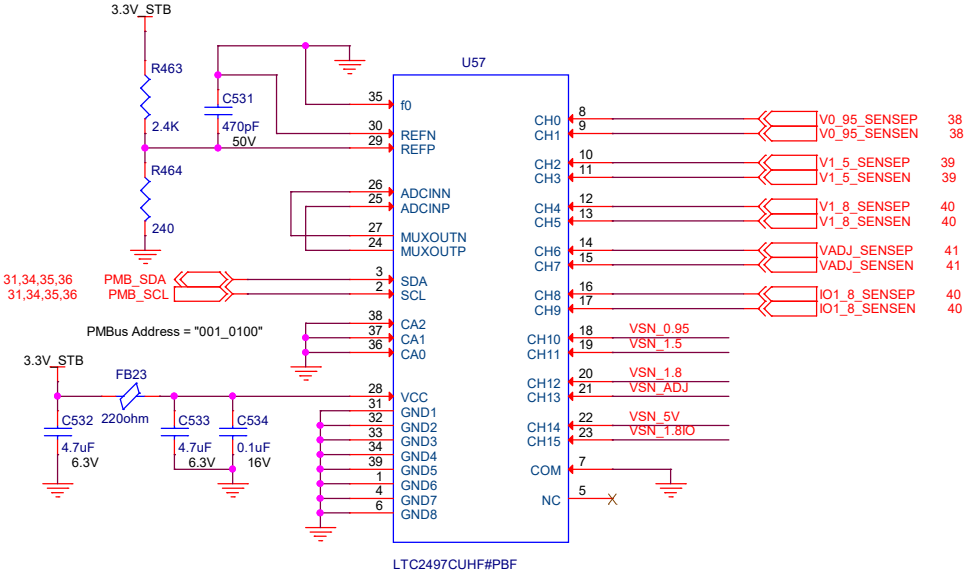
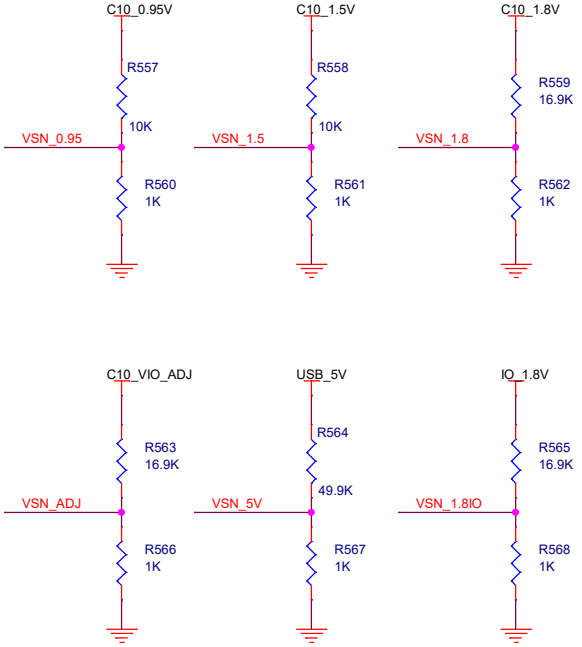
POWER - CURRENT SENSE





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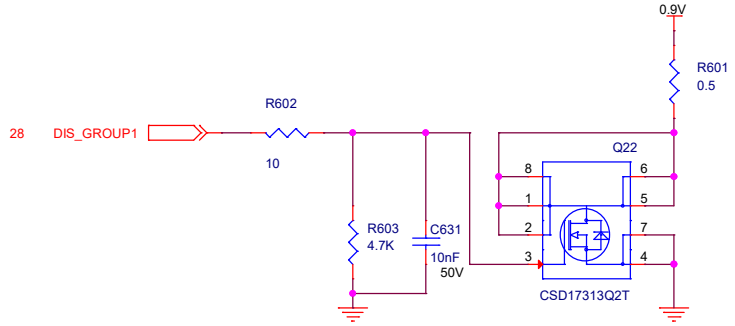
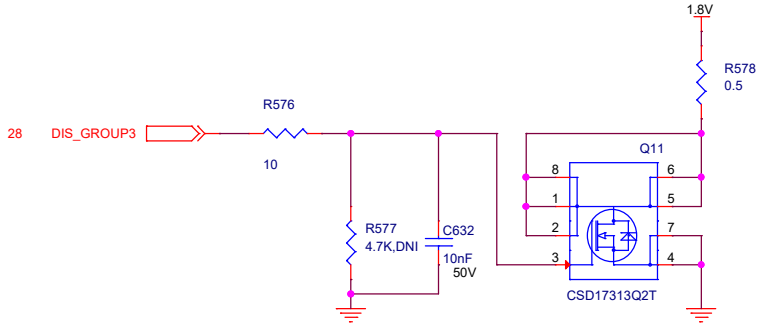
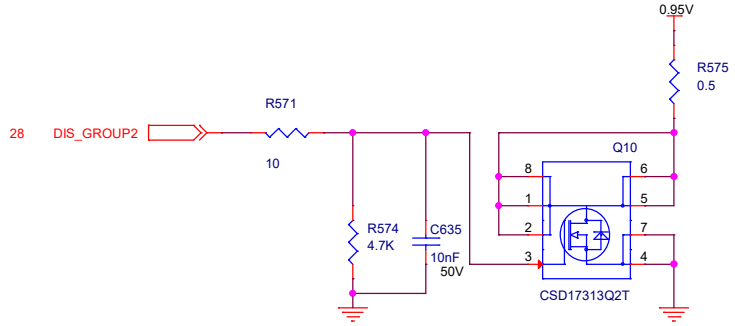
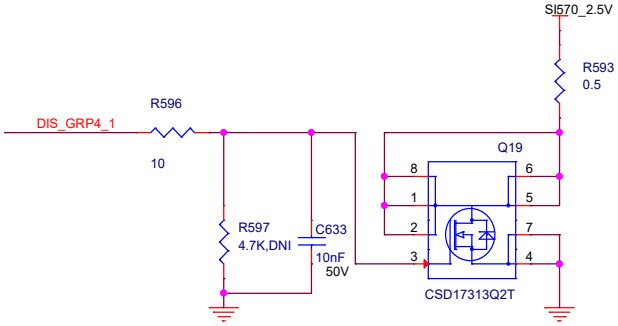
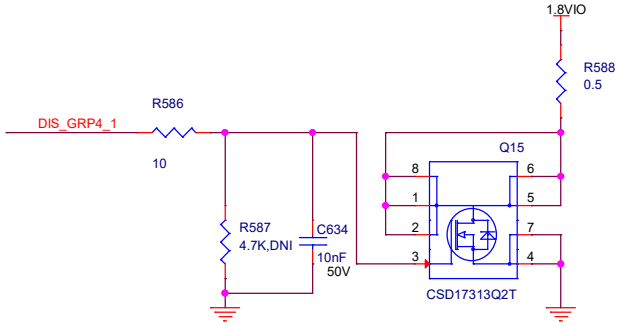
POWER - Fast Discharge

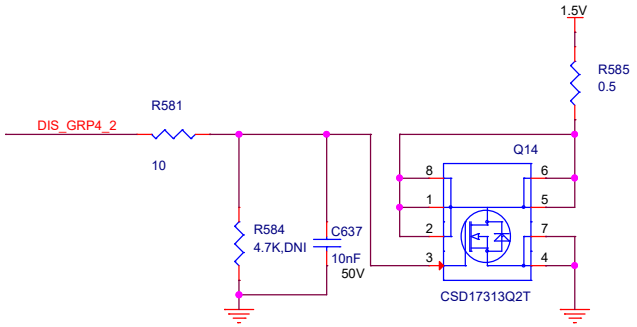


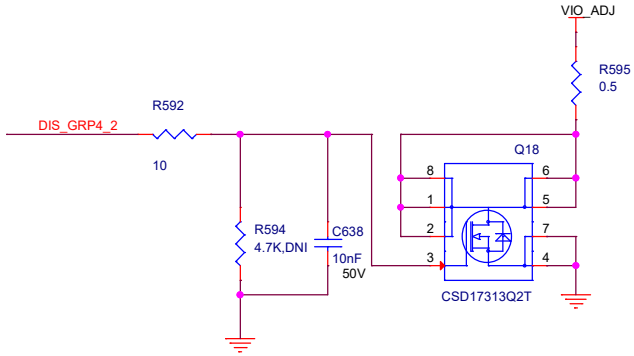


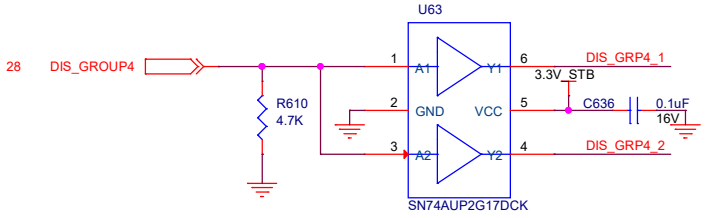












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