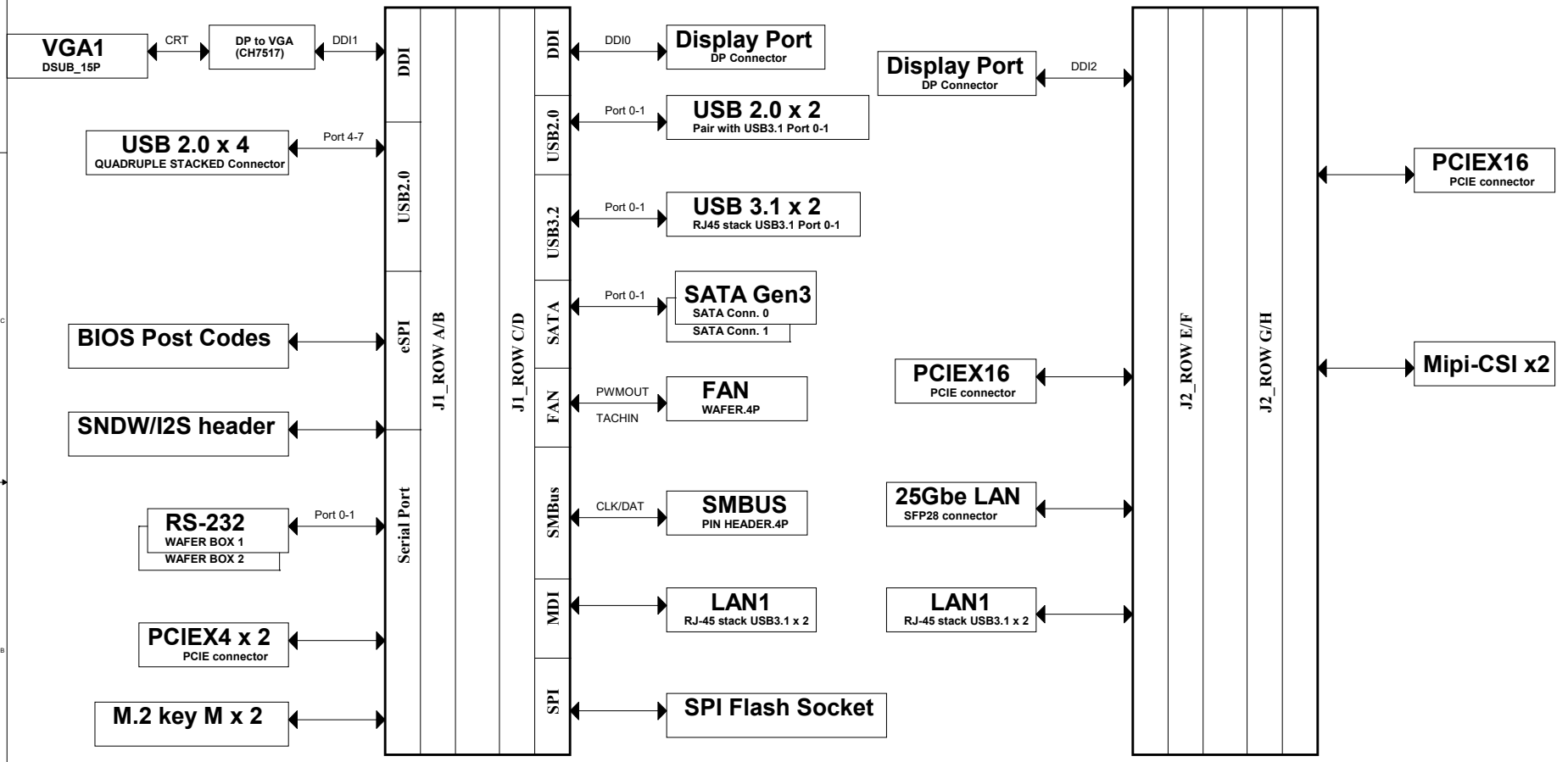
ECB-980A
COM Express HPC Carrier Board



<Variant Name>

Title: Cover & Block Diagram

Size: Custom | Document Number: ECB-980A | Rev: A0.1_0_0

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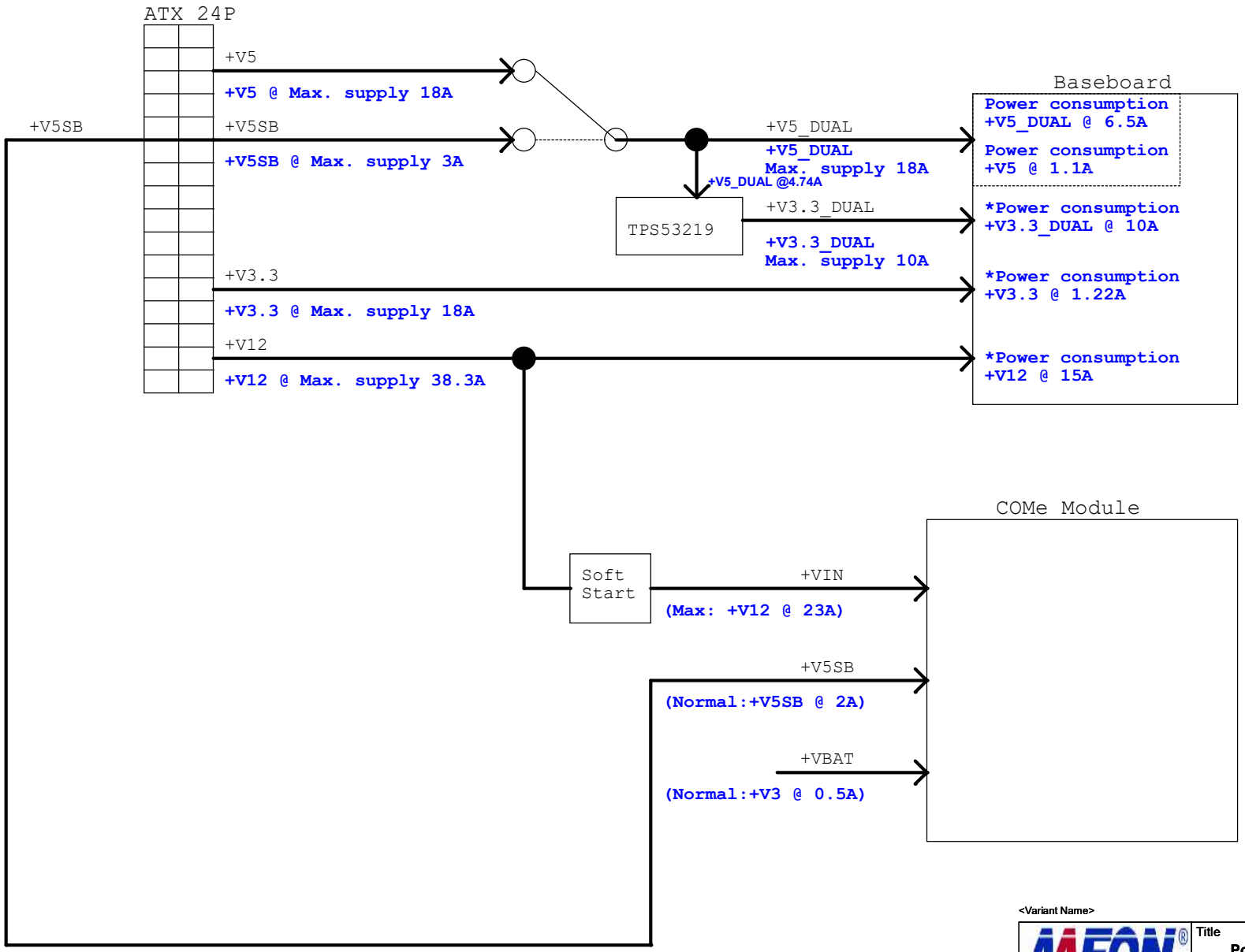
*Calculate the ATX PWR distribution based on 500W



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AAEON an ASUS assoc. co.	Title: Power Map	
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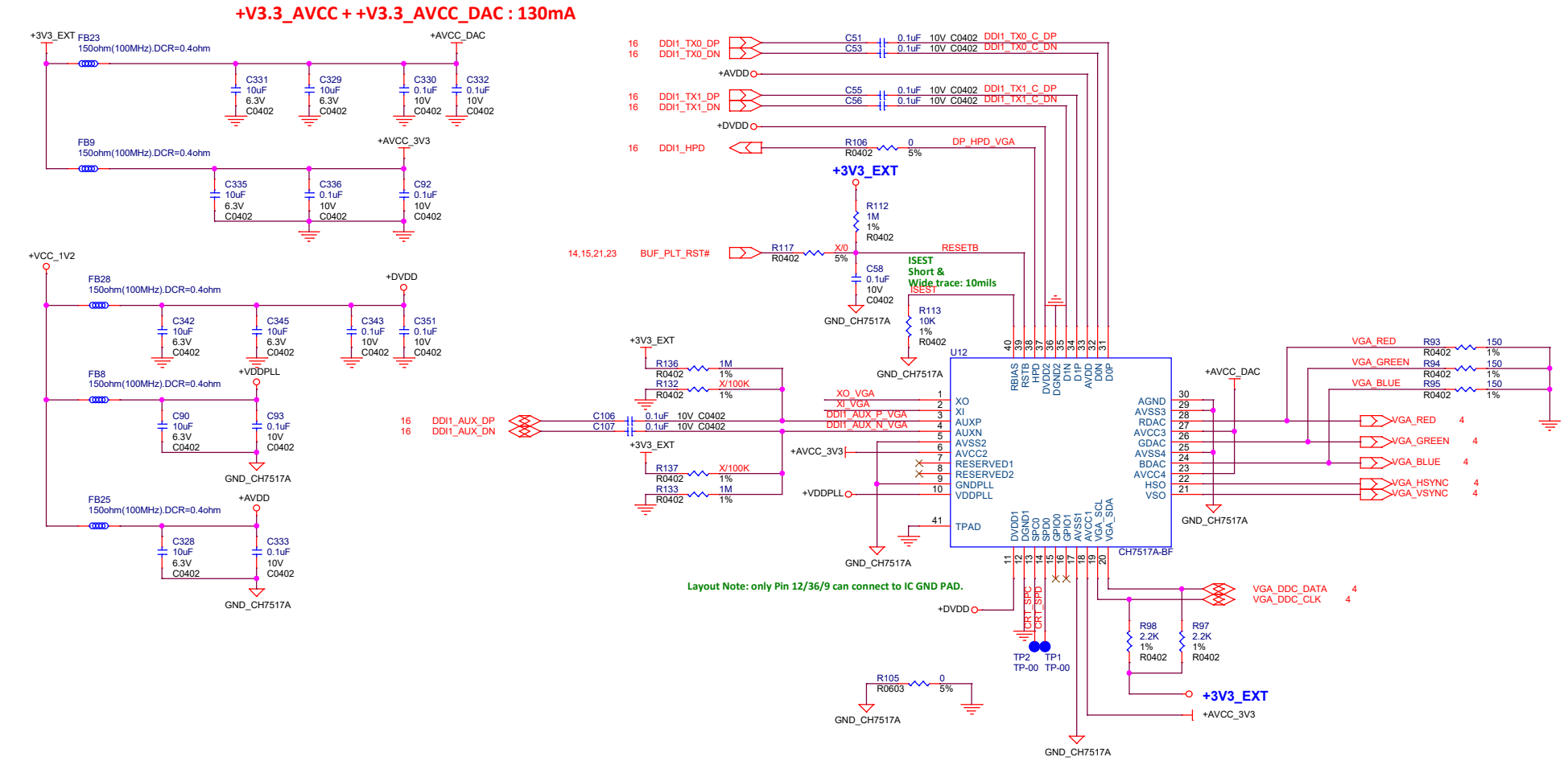
DP to VGA (CH7517)

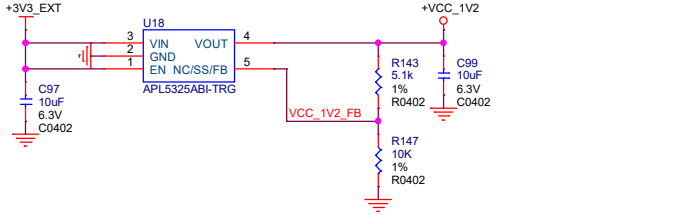
Note:
1. +1.05V power spply tolerance range -5%~+25%
2. +3.3V power spply tolerance range +/-10%



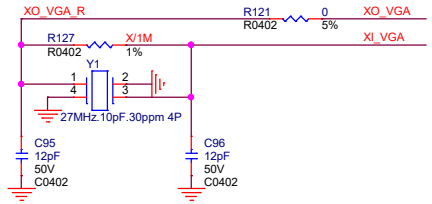
LDO

+3V3_EXT @ 60mA

+V1.2_DVDD + +V1.2_VDDPLL + +V1.2_AVDD : 135mA



X'tal



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Title: DP(DDI1) to VGA(CH7517)		
Size: Custom	Document Number: ECB-980A	Rev: A0.1_0_0
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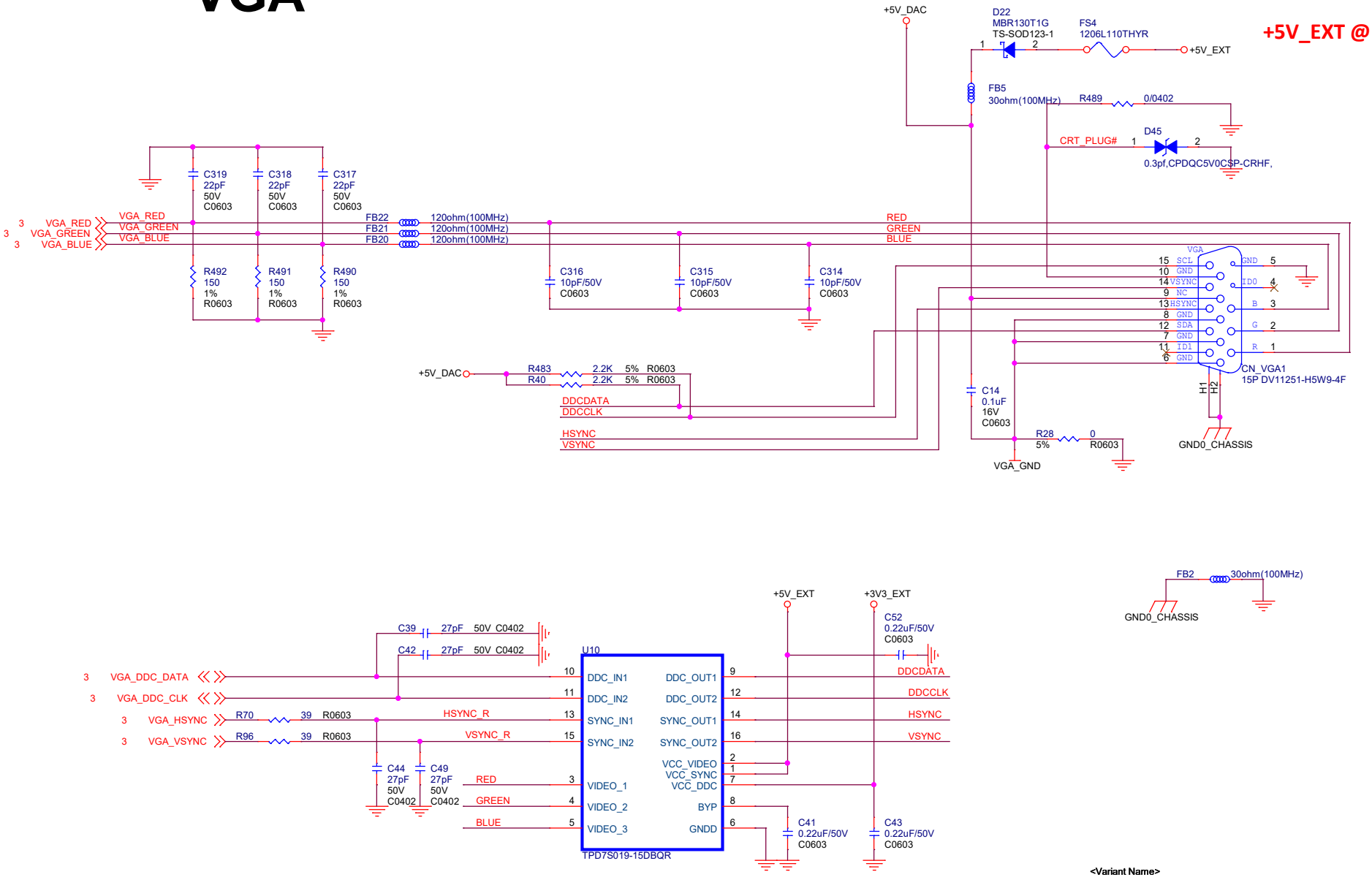
VGA



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AAEON an ASUS assoc. co.	Title: VGA	
	Size: Custom	Document Number: ECB-980A — Rev: A0.1_0_0
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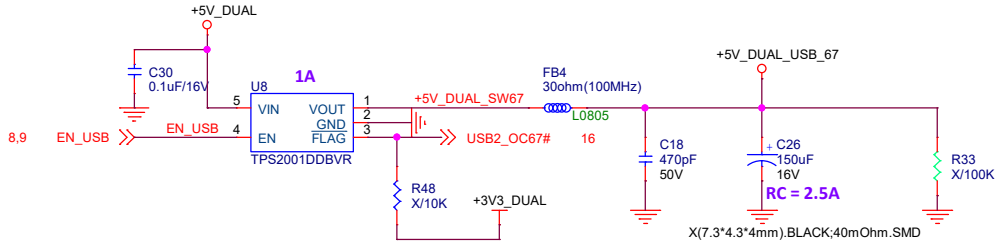
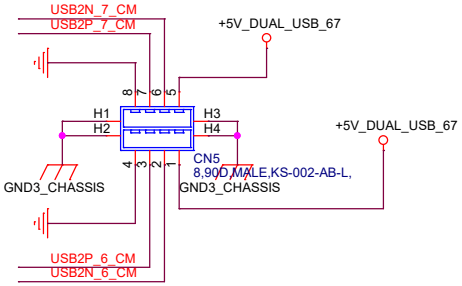
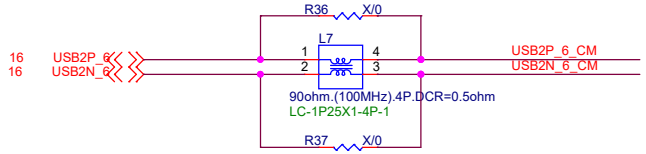
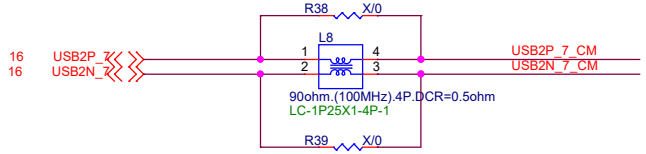
USB 2.0

+5V_DUAL @ 2A

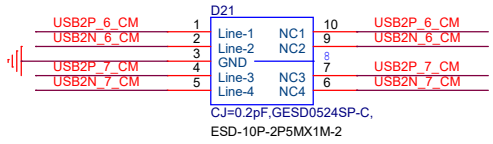


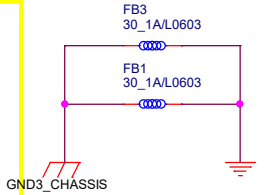






Change alternative part from 130505ESD0 to 1305Q00022





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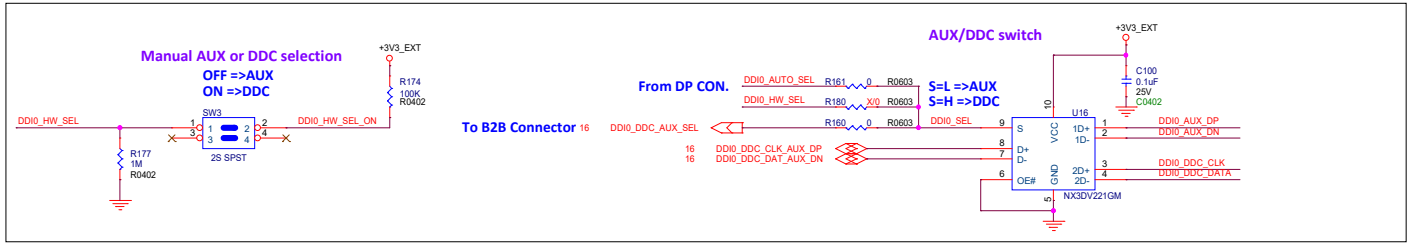
Display Port 1.4



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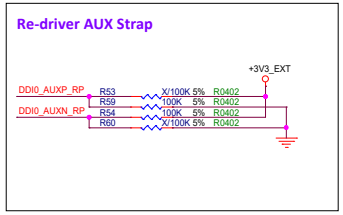
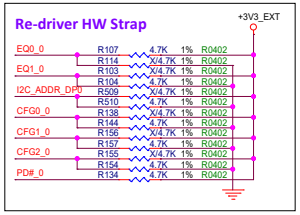
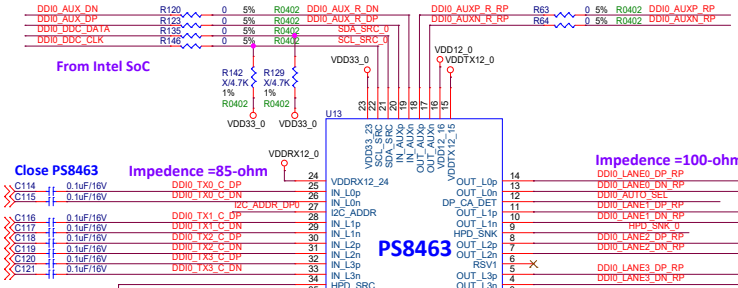
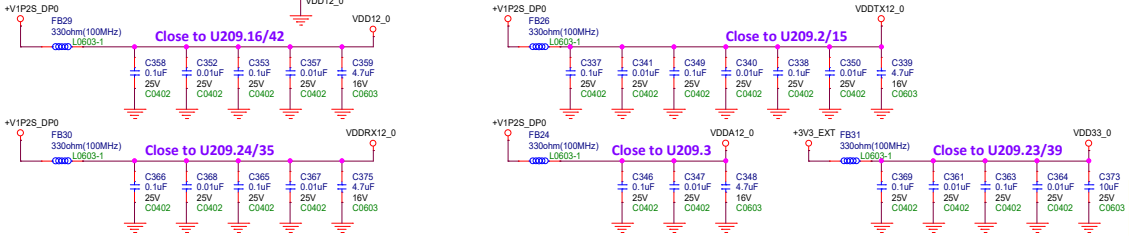
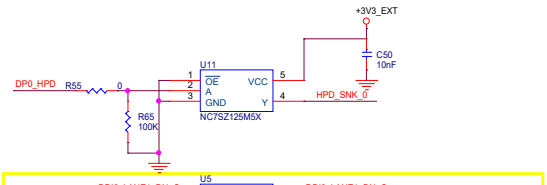
+3V3_EXT @ 0.019A
+V1P2S_DP0 @ 0.47A

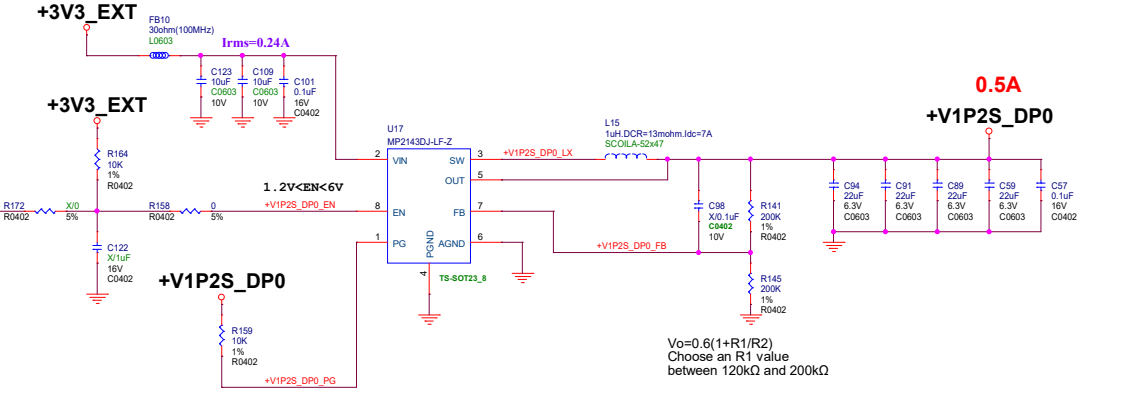


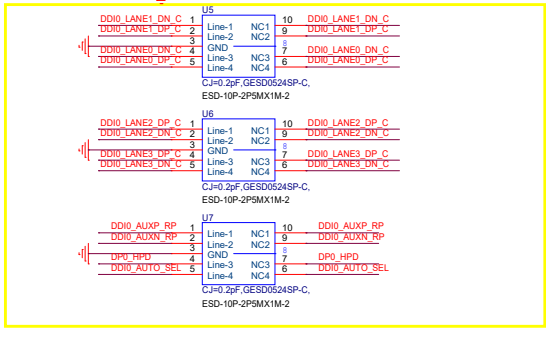












Change alternative part from 130505ESD0 to 1305Q00022

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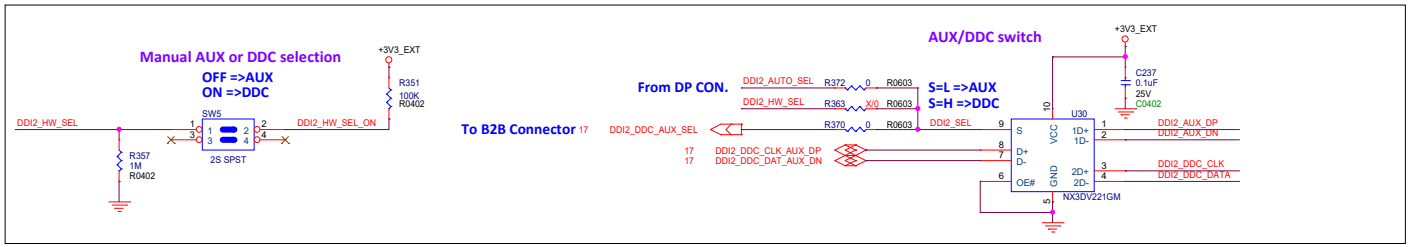
Display Port 1.4



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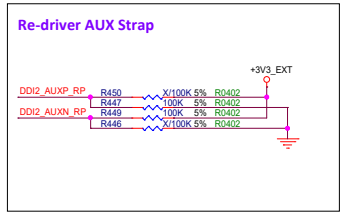
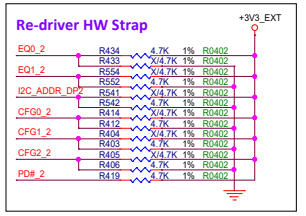
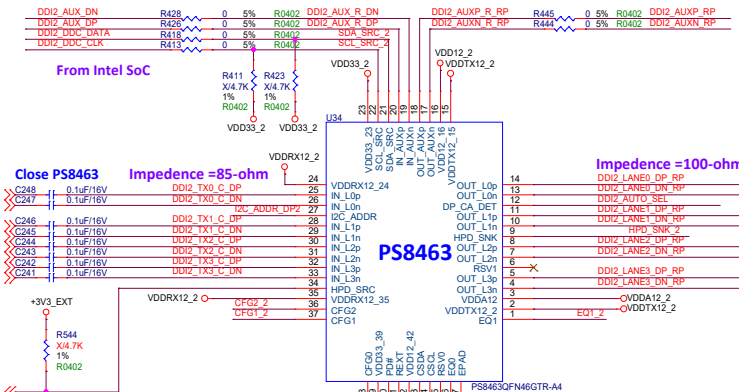
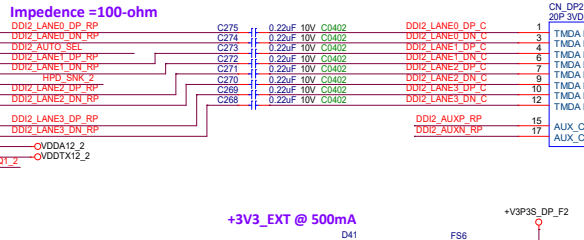
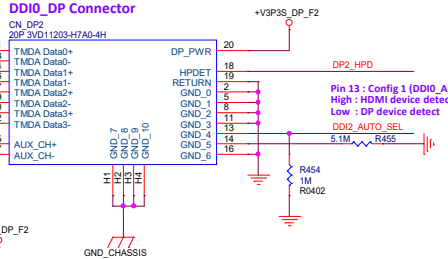
+V1P2S_DP2 @ 0.47A

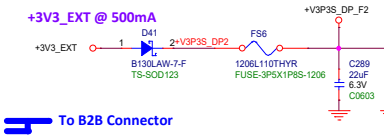


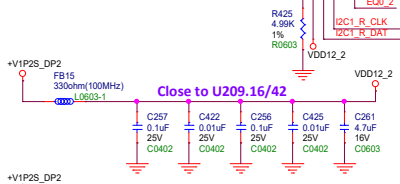


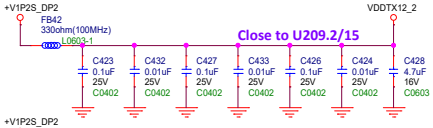


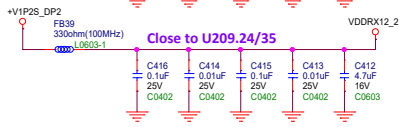


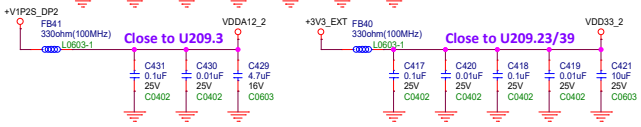


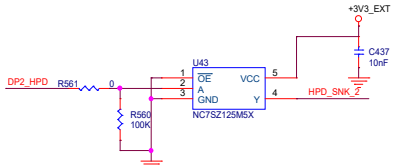


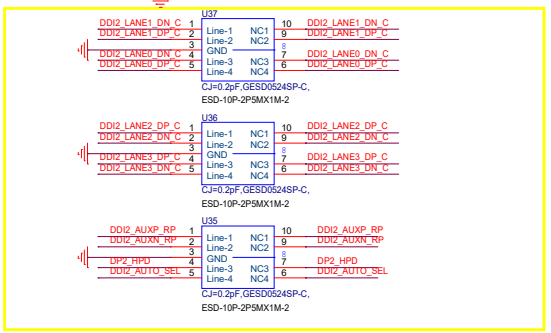












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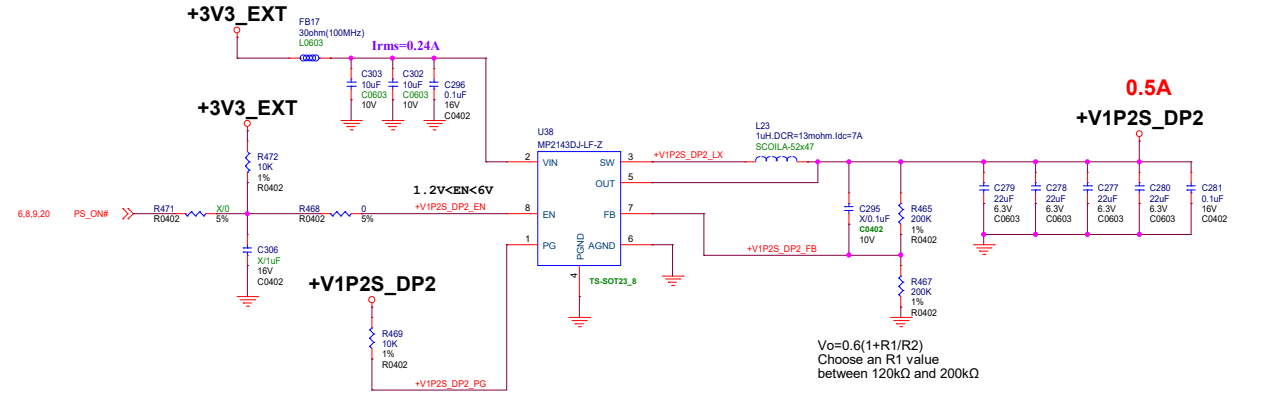

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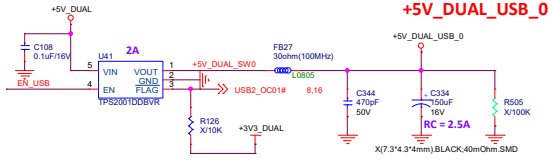
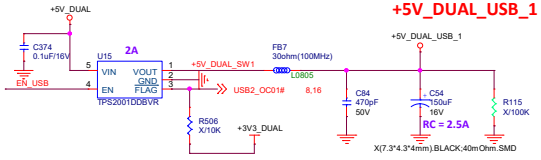
LAN & USB 3.1

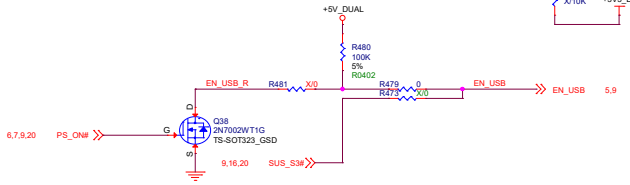
Total: +5V_DUAL @ 3A

+5V_DUAL_USB_0 @ 1.5 A



+5V_DUAL_USB_1 @ 1.5 A





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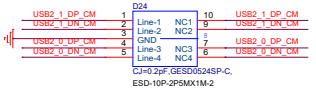
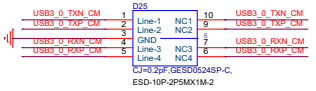
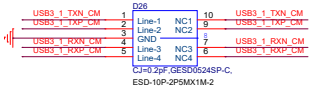
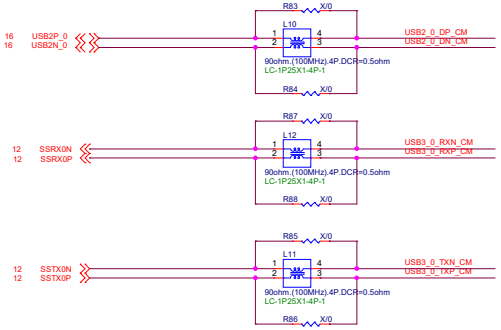
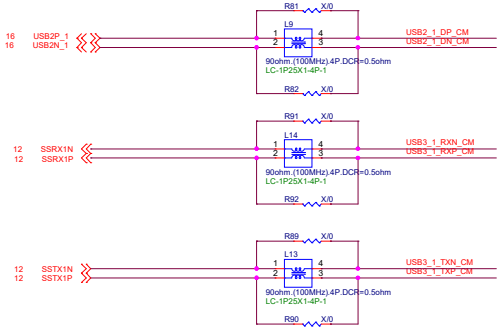


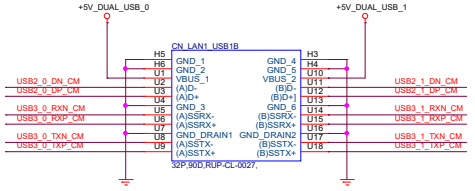




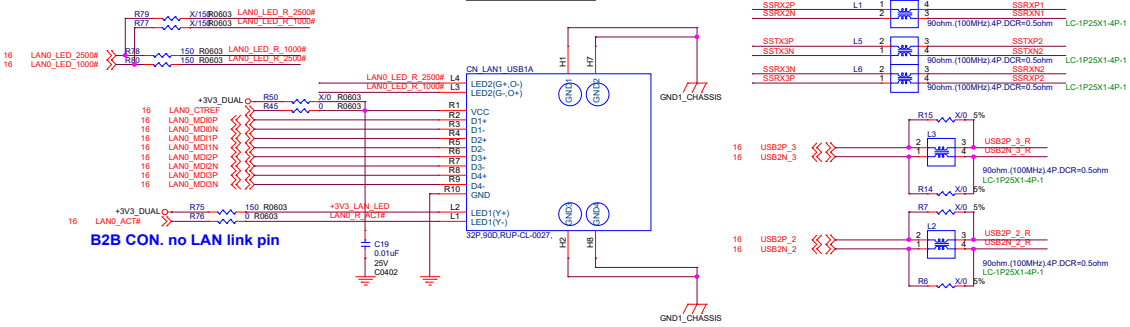




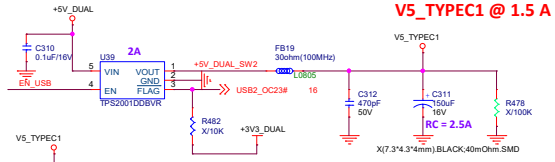
Two USB3.2 GEN2

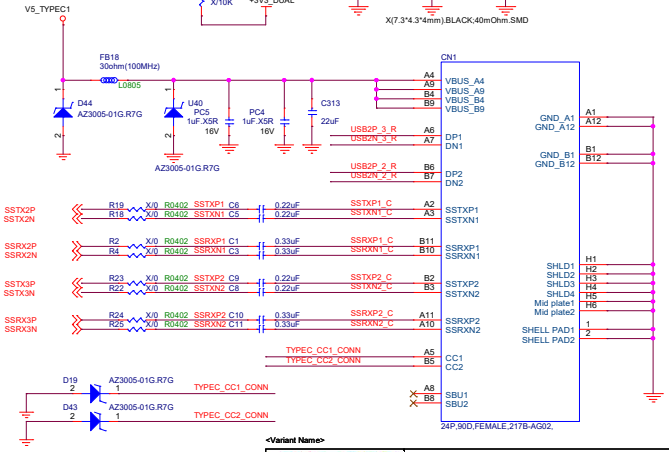


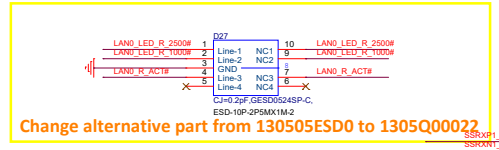
LAN 2.5G CON.

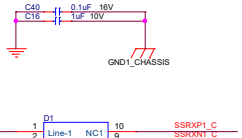


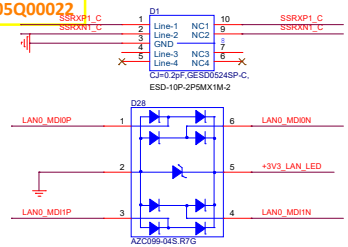
V5_TYPEC1 @ 1.5 A

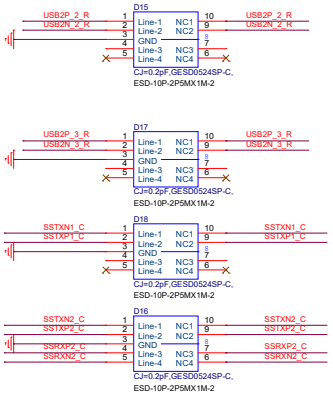












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Title: LAN1 with USB3.1		
Size: Custom	Document Number: ECB-980A	Rev: A0.1_0_0
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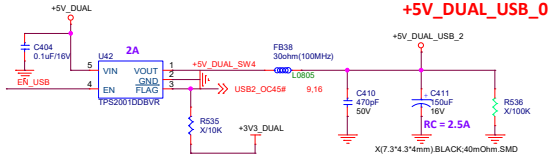
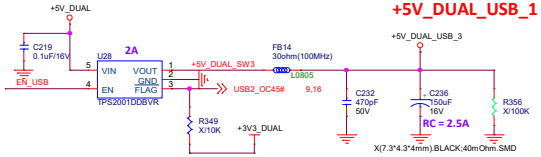
LAN2 & USB 3.1

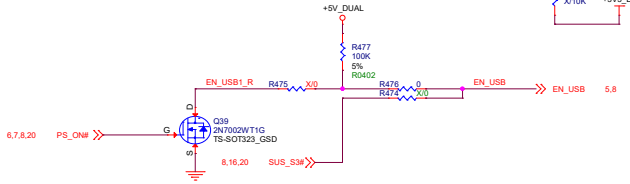
Total: +5V_DUAL @ 3A

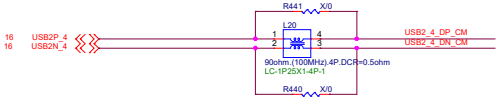
+5V_DUAL_USB_0 @ 1.5 A

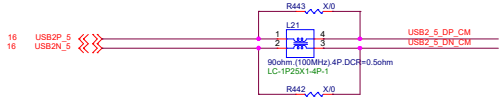


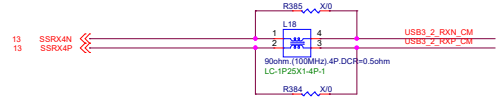
+5V_DUAL_USB_1 @ 1.5 A

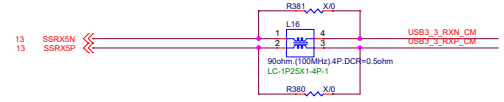


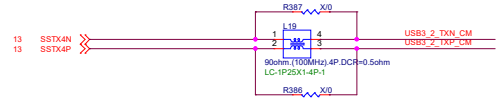


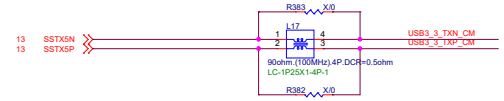




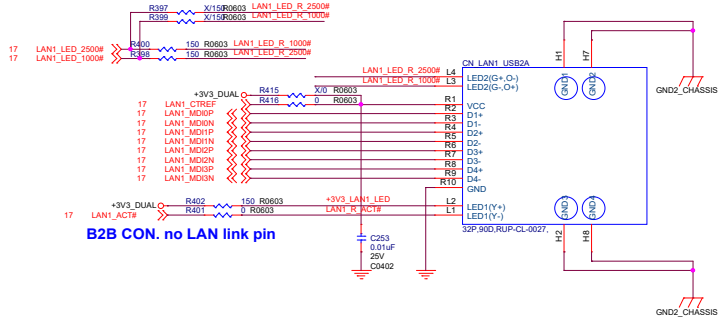




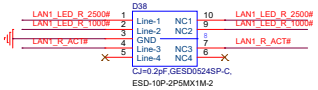




LAN 2.5G CON.



B2B CON. no LAN link pin



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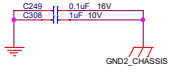

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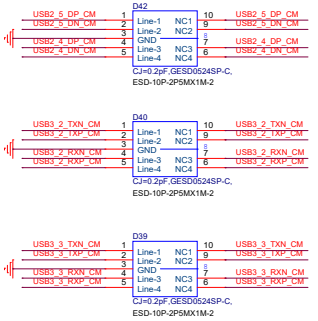
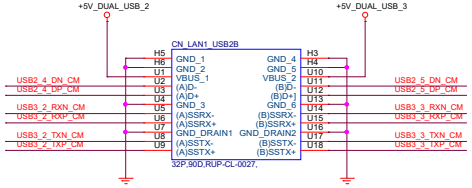
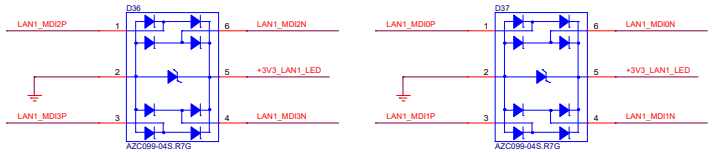


Two USB3.2 GEN2





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AAEON an ASUS assoc. co.	Title: LAN2 with USB3.1	
	Size: Custom	Document Number: ECB-980A
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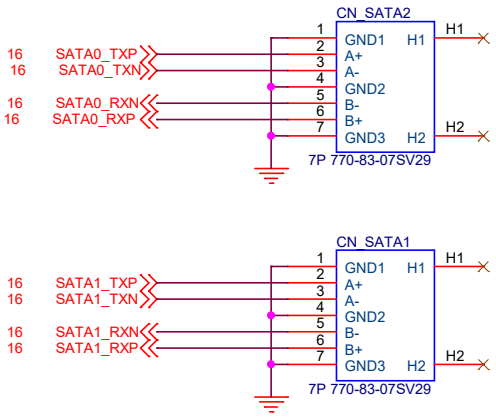
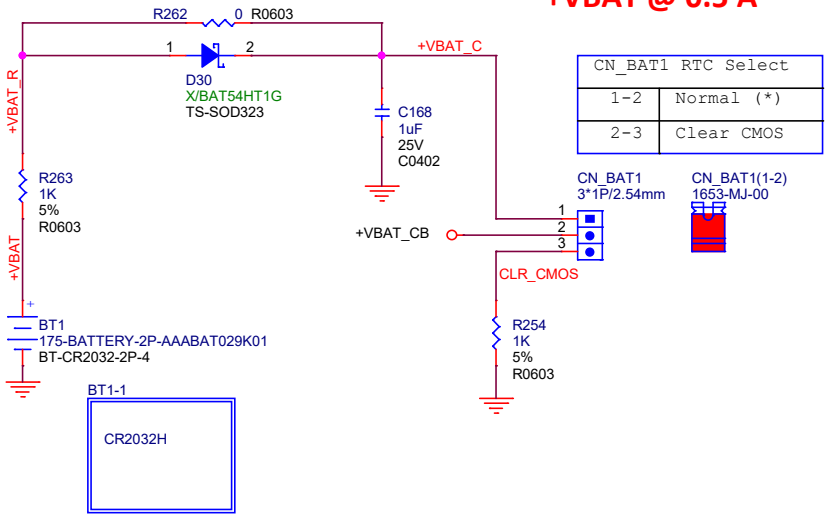
SATA CON.

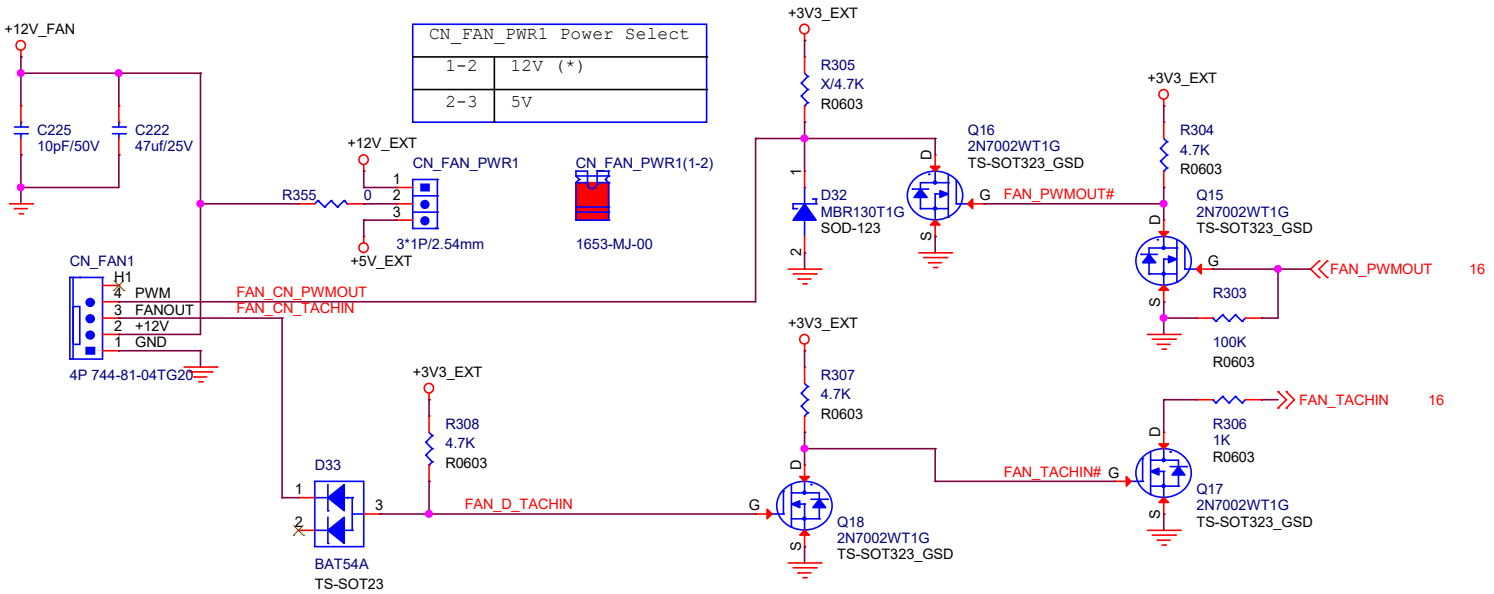


RTCBAT

+VBAT @ 0.5 A



PWM FAN Control



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Title: SATA/RTC/FAN		
Size: Custom	Document Number: ECB-980A	Rev: A0.1_0_0
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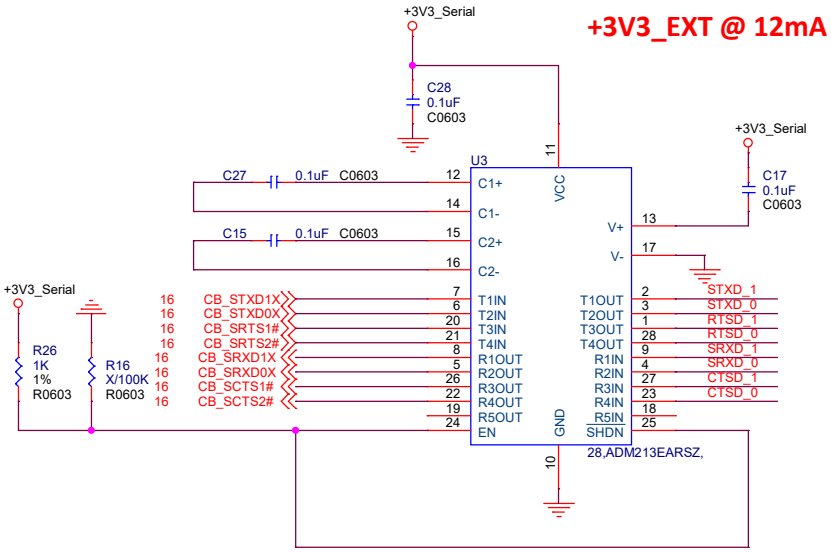
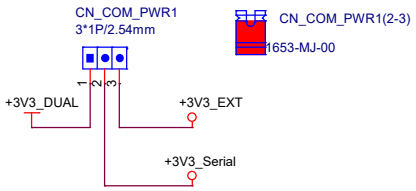
Serial Port





Serial Port Wafer BOX

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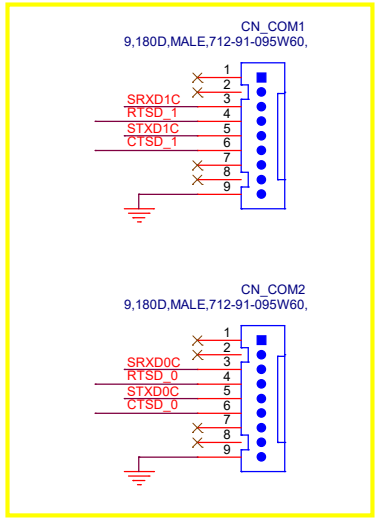

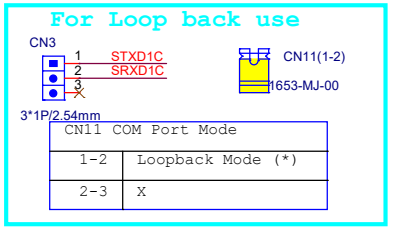

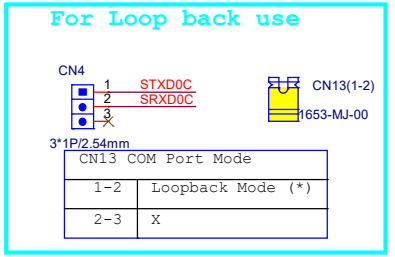

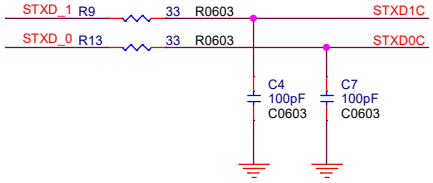

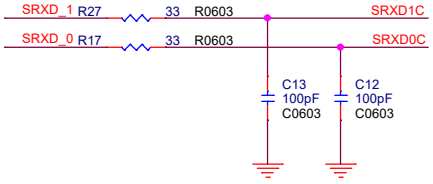

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Size: Custom	Document Number: ECB-980A	Rev: A0.1_0_0
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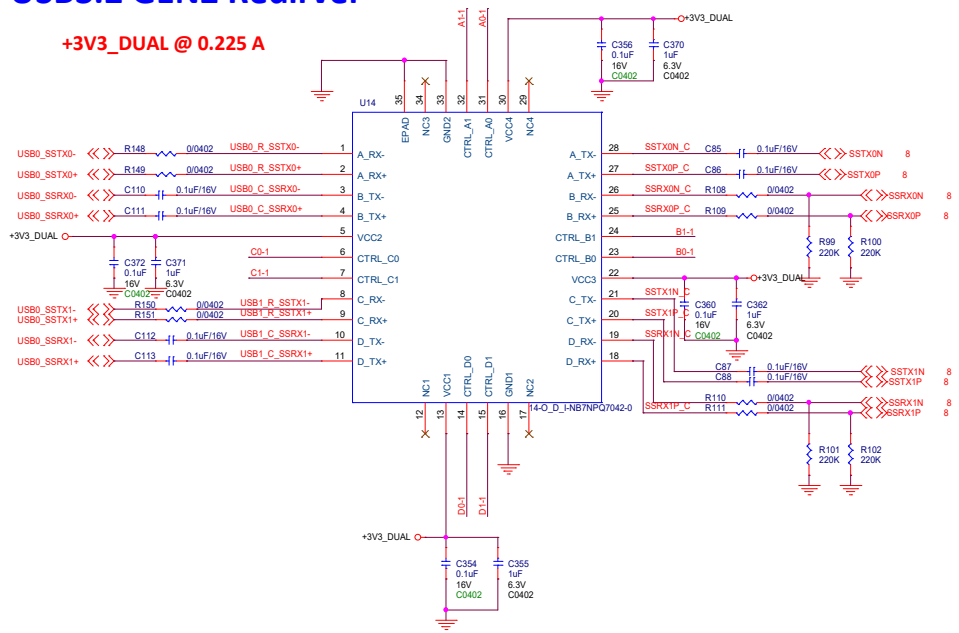
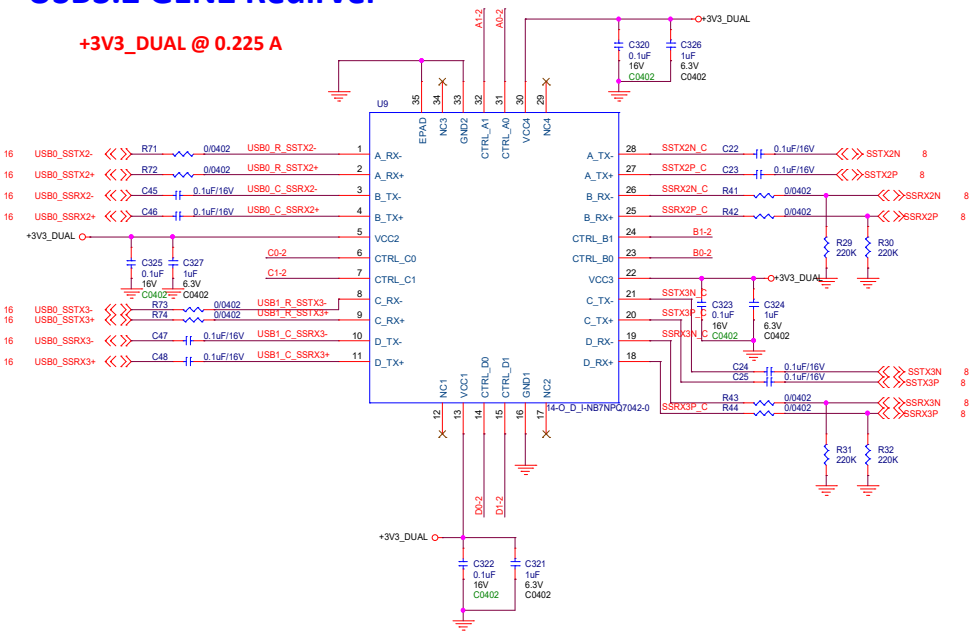
USB3.2 GEN2 Redirver

+3V3_DUAL @ 0.225 A

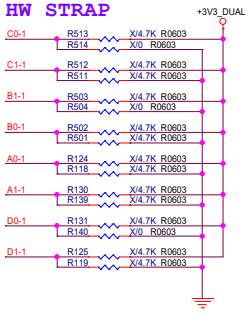


USB3.2 GEN2 Redirver

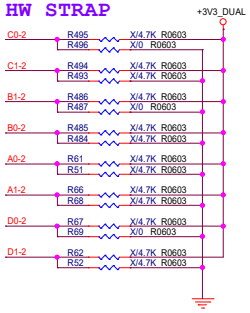
+3V3_DUAL @ 0.225 A



HW STRAP



HW STRAP



<Variant Name>

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Title: USB3.1 GEN2 Redriver		
Size: C	Document Number: ECB-980A	Rev: A0.1_0_0
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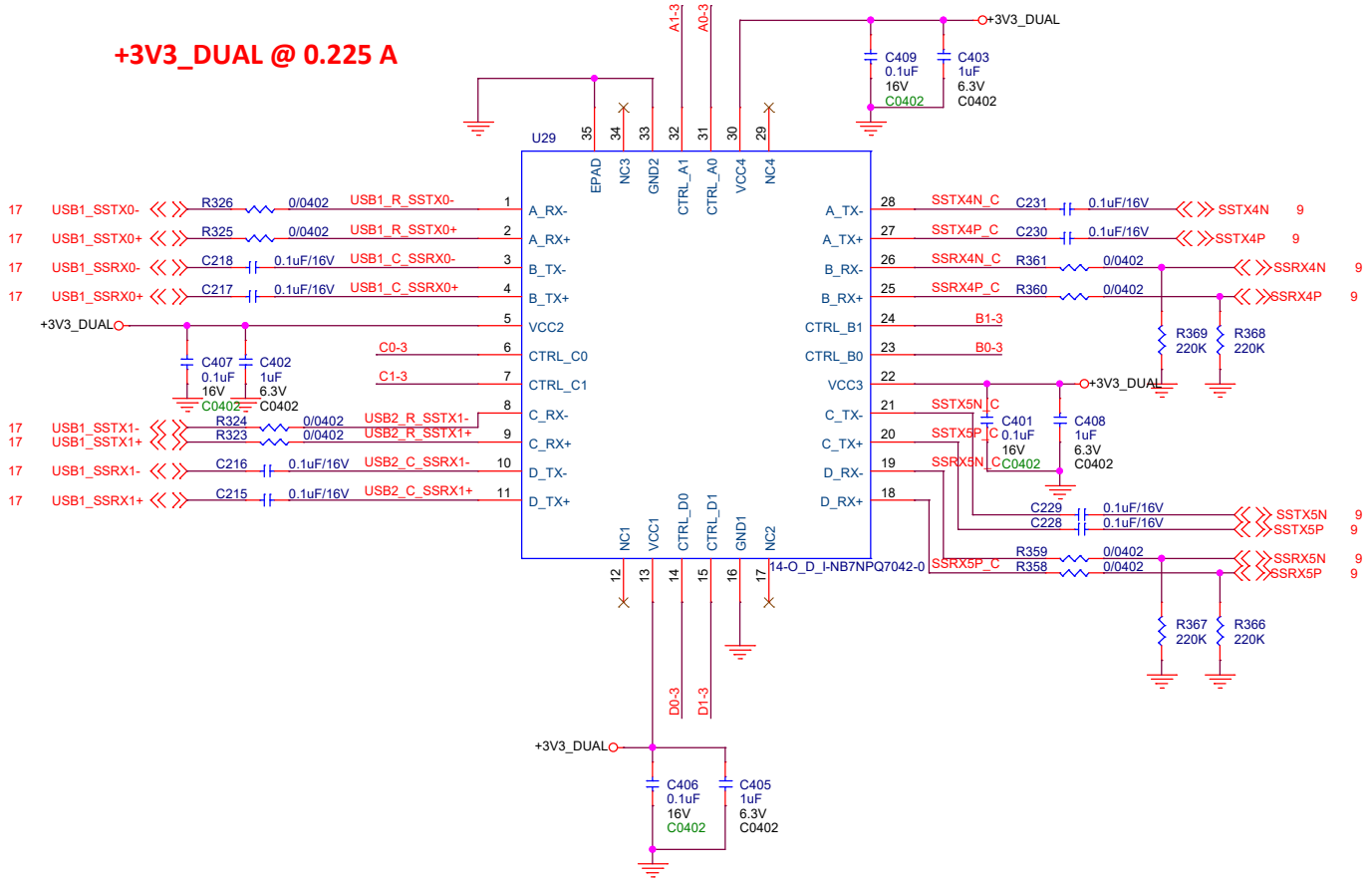
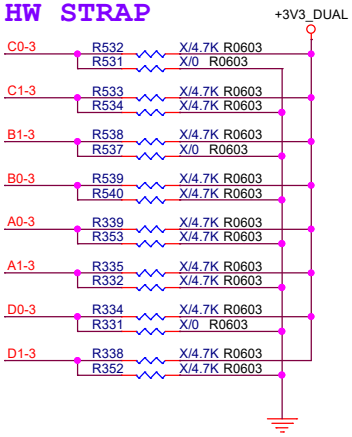
USB3.2 GEN2 Redirver

+3V3_DUAL @ 0.225 A



HW STRAP



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Size: B	Document Number: ECB-980A	Rev: A0.1_0_0
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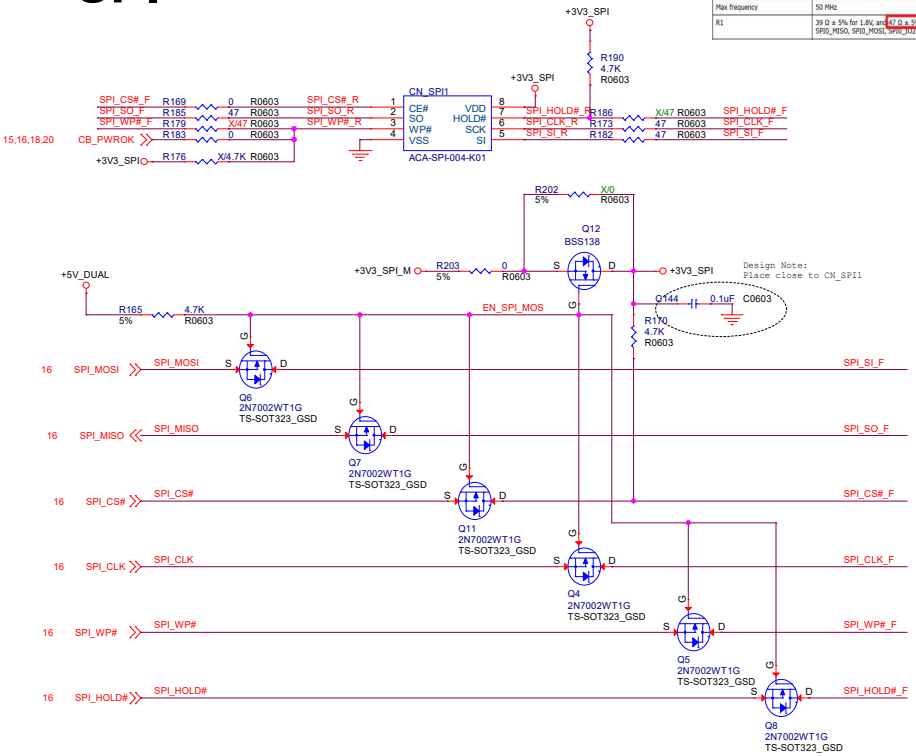
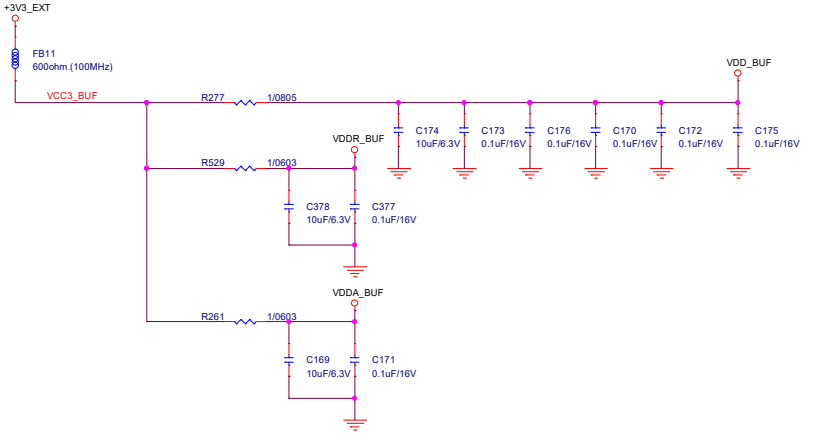
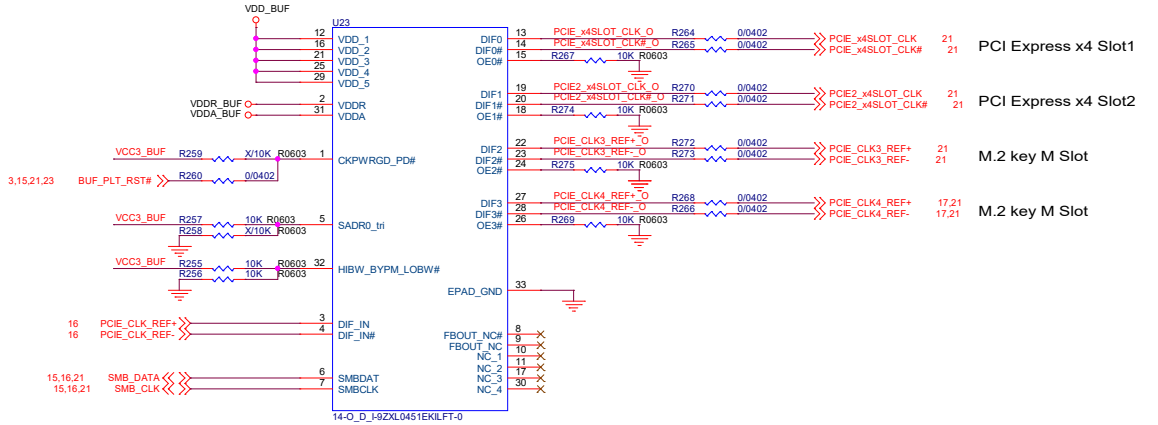
SPI

Table 543. 3-Load Branch Topology (Device Down) MAF Notes

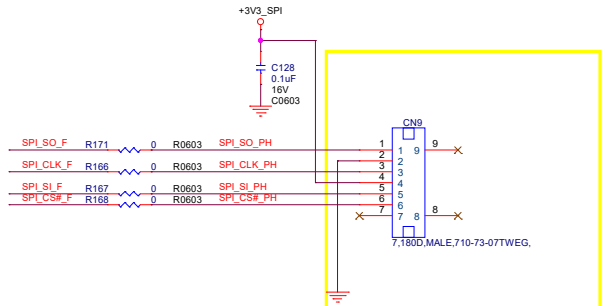
Note	Detail
Number of vias allowed	5
Reference plane	Continuous ground only
Max frequency	50 MHz
R1	39 Ω ± 5% for 1.8V, and 47 Ω ± 5% for 3.3V, to be placed on SPI0_CLK, SPI0_MISO, SPI0_MOSI, SPI0_IO2 and SPI0_IO3







SPI pin header



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Size: Custom	Document Number: ECB-980A	Rev: A0.1_0_0
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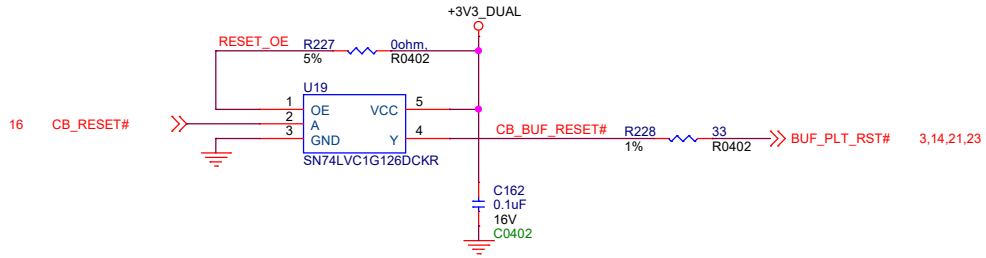
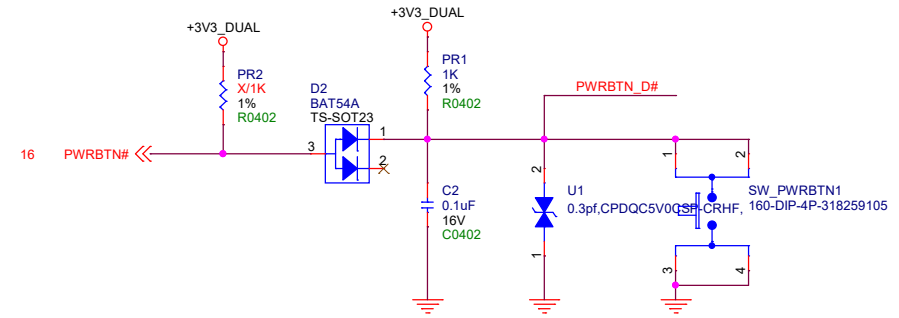
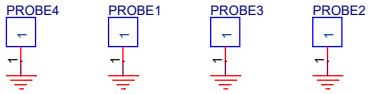
PLT_RST#



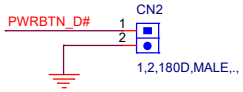
POWER BUTTON



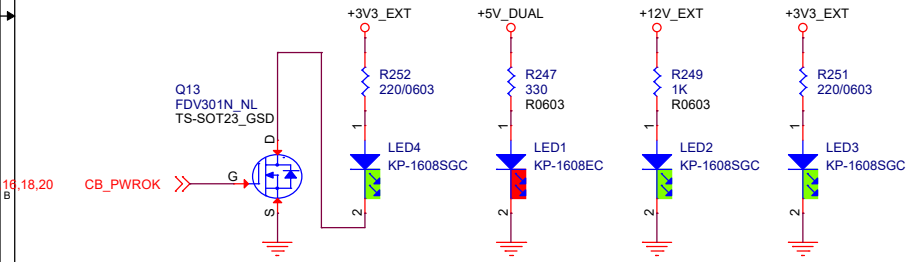
GND Probes



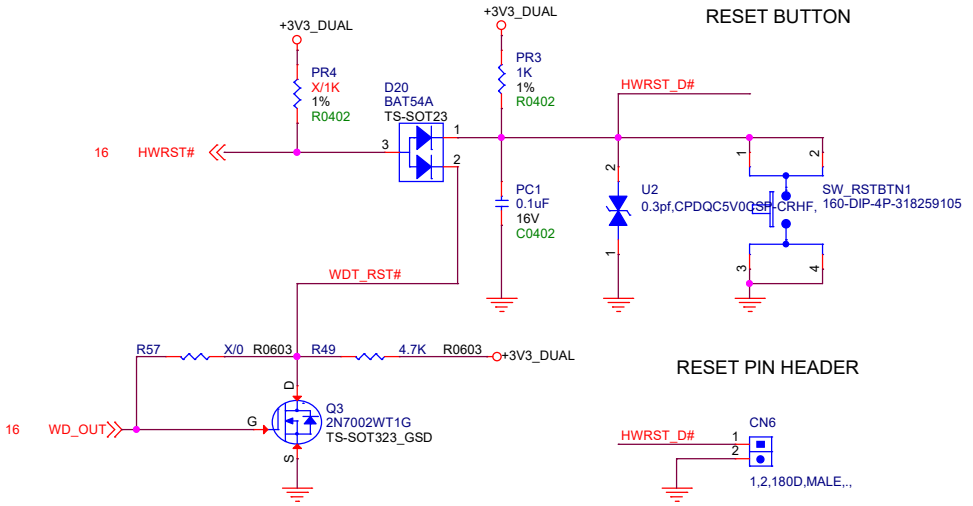
PWR BTN PIN HEADER



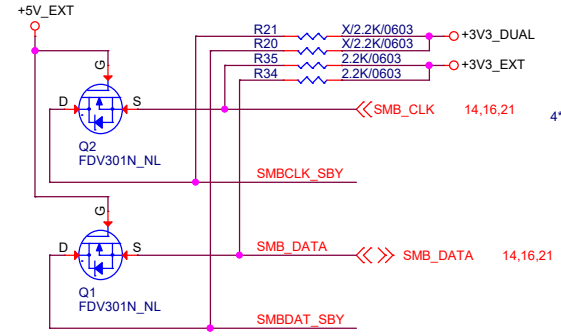
POWER LED



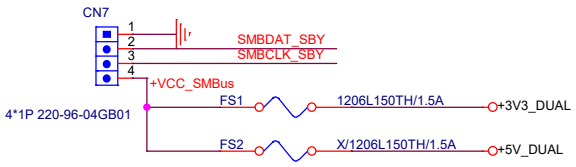
RESET BUTTON



SMBUS



SMBUS Pin Header

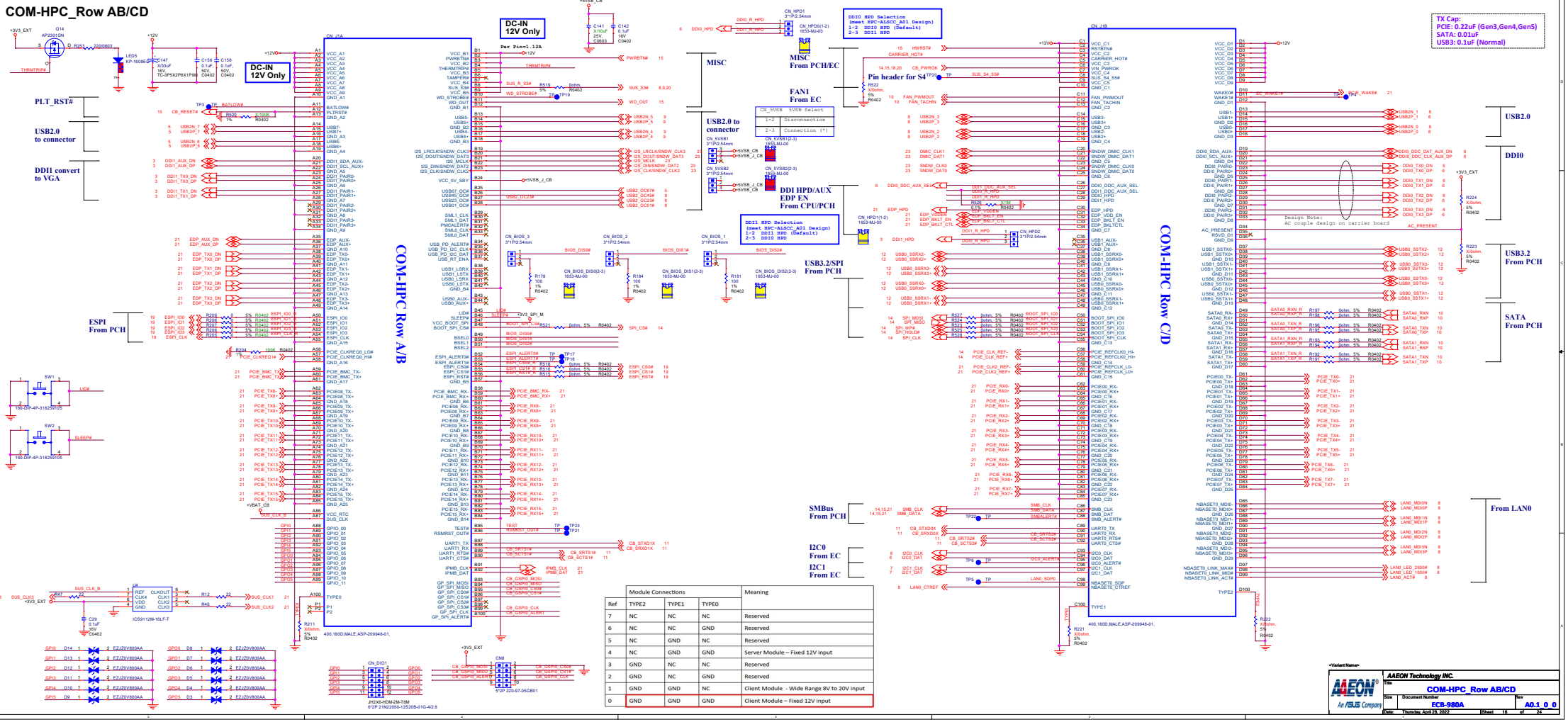


RESET PIN HEADER

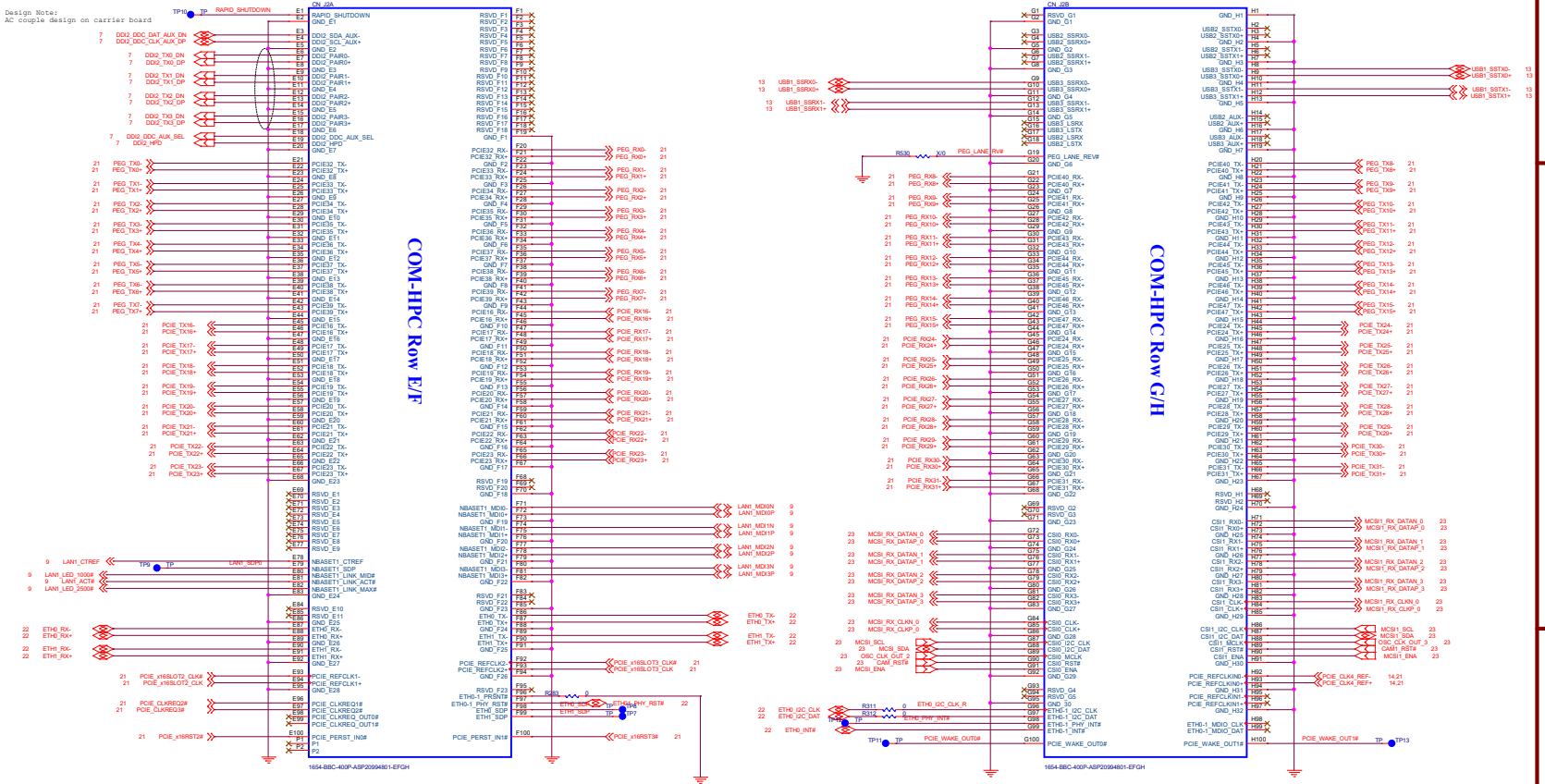
<Variant Name>

AAEON an ASUS assoc. co.	Title: **BUTTON/PLRST/LED/SMBUS**	
	Size: **B**	Document Number: **ECB-980A** Rev: **A0.1_0_0**
	Date: *Thursday, April 28, 2022*	Sheet: **15** of **24**

COM-HPC_Row AB/CD

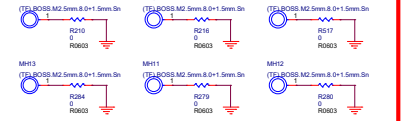


COM-HPC_Row EF/GH

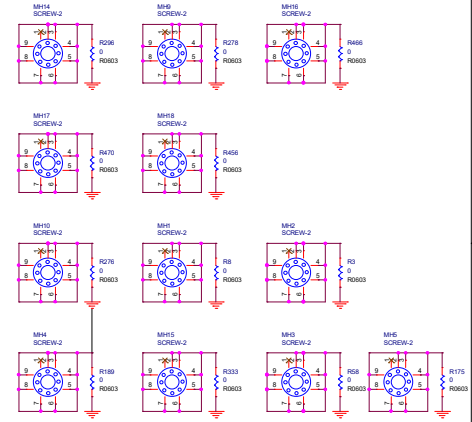


Skew Stud

Temporarily use PN:S1BB008090.
*Must to change to M2.5*10mm for HPC use.



Skew Hole



PCB P/N

PCB:ECB-980A.Rev.A0.1_0_0.Non-HDI.(0).6.Green.1*1.244mm*244mm*1.6mm
1907980A00

<Variant Name>

AAEON Technology INC.

Title	COM-HPC_Row EF/GH		
Size	Document Number		Rev
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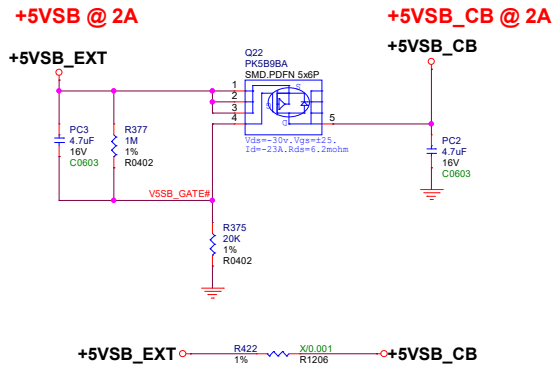
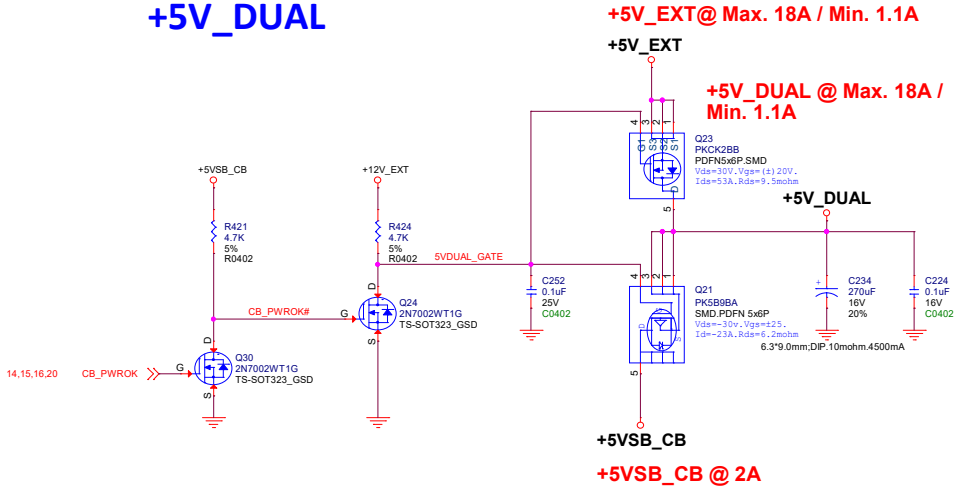
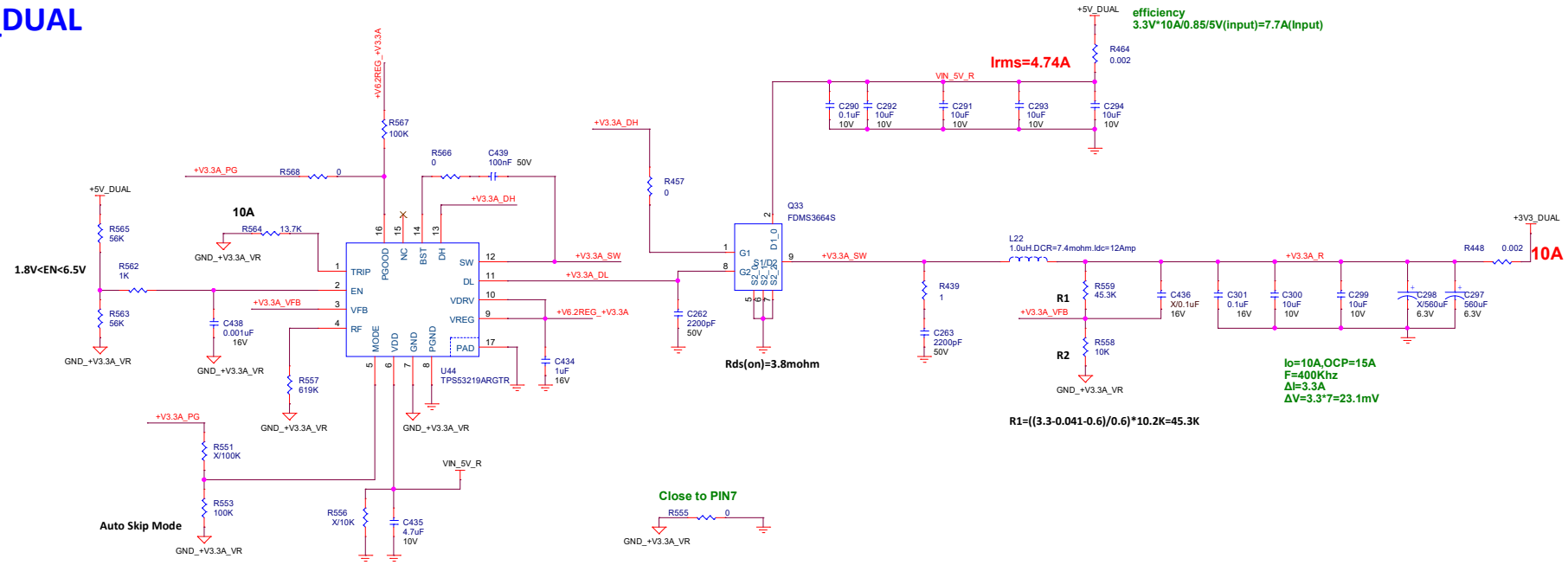
5SB Soft stat



+5V_DUAL



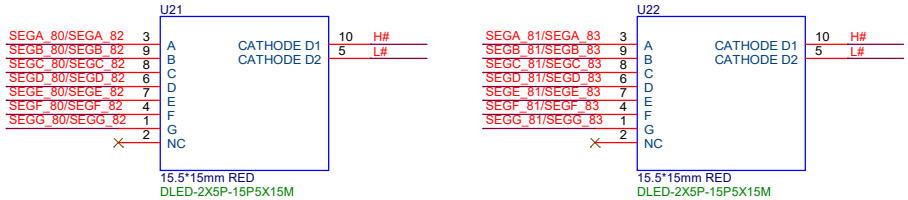
+3V3_DUAL



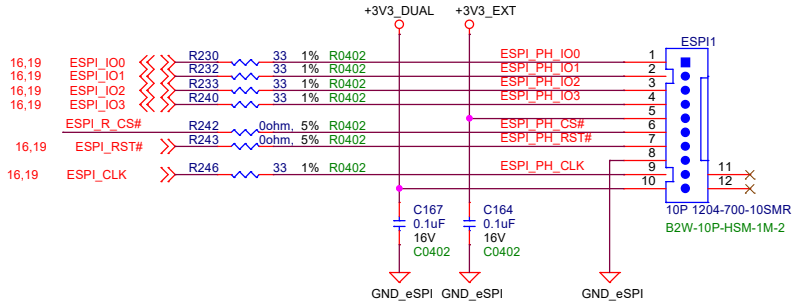
<Variant Name>

AAEON an ASUS assoc. co.	Title: +3V3_DUAL & +5V_DUAL	
	Size: Custom	Document Number: ECB-980A — Rev: A0.1_0_0
	Date: Thursday, April 28, 2022	Sheet: 18 of 24

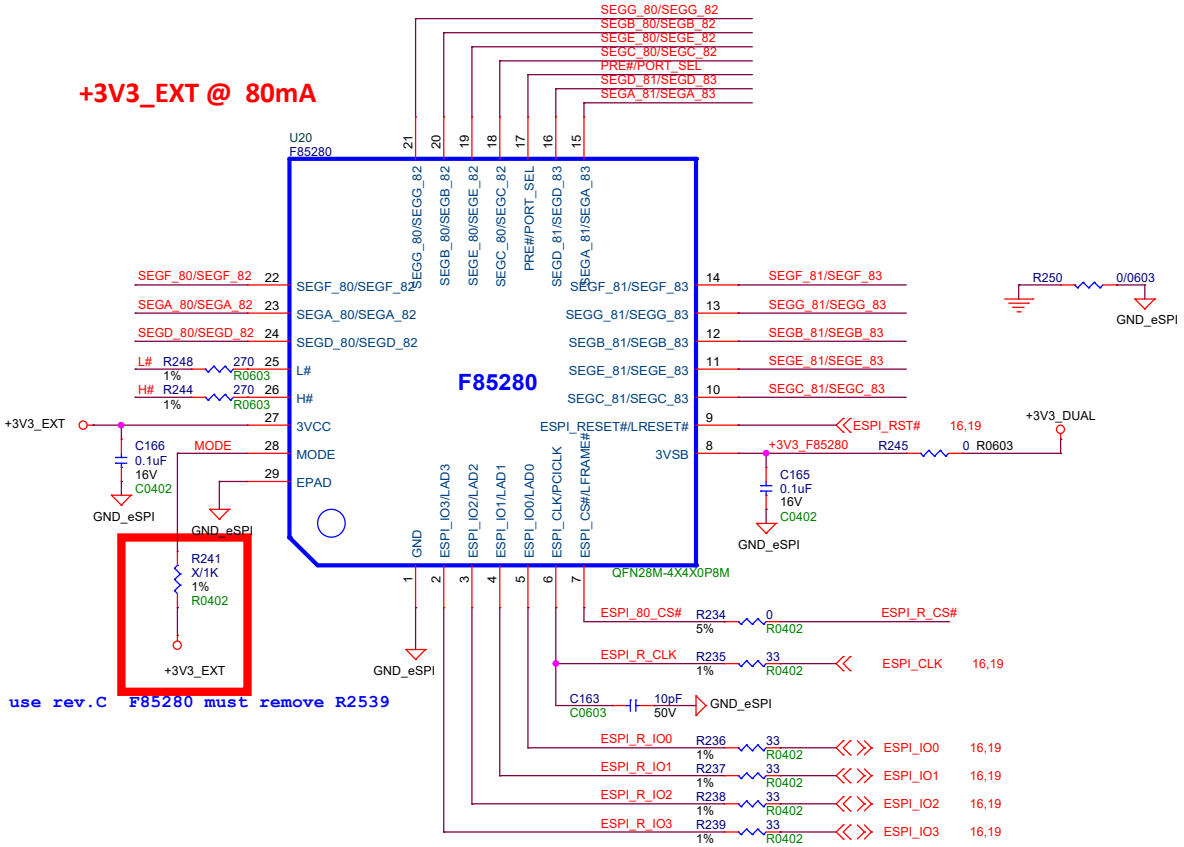
BIOS POST code with eSPI



eSPI Connector



+3V3_EXT @ 80mA

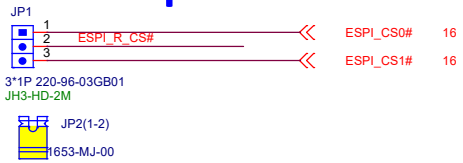


use rev.C F85280 must remove R2539

Port Selection

JP1 Port 80 Select	
1-2	82/83 Port
2-3	80/81 Port (*)

eSPI Chip Selection



JP2

JP2	Function
1-2	ESPI_CS0#
2-3 (Default)	ESPI_CS1#

<Variant Name>

AAEON an ASUS assoc. co.

Title: F85280 LPC+eSPI 80H		
Size: Custom	Document Number: ECB-980A	Rev: A0.1_0_0
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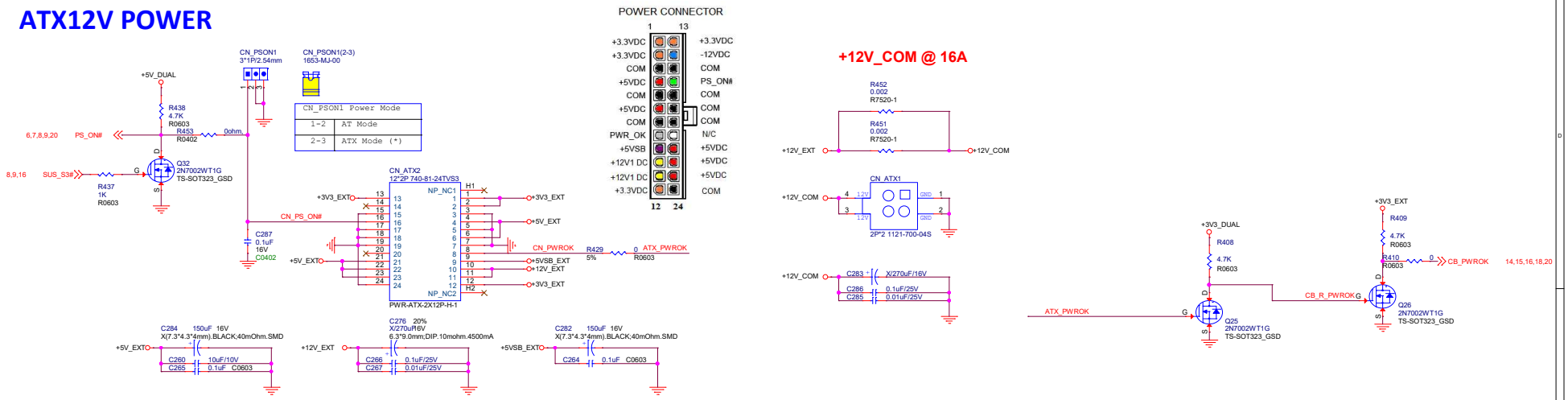
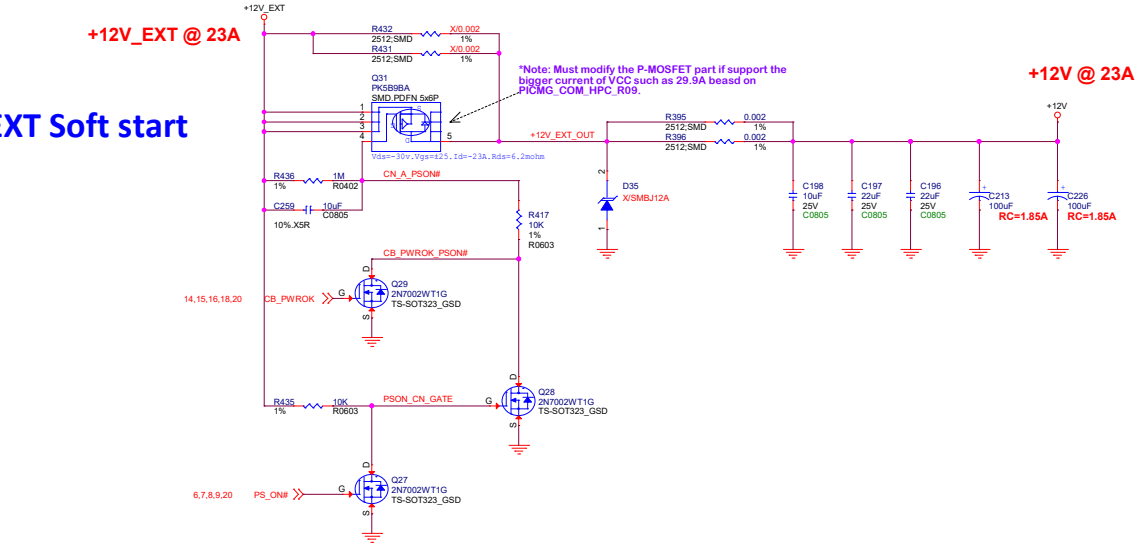
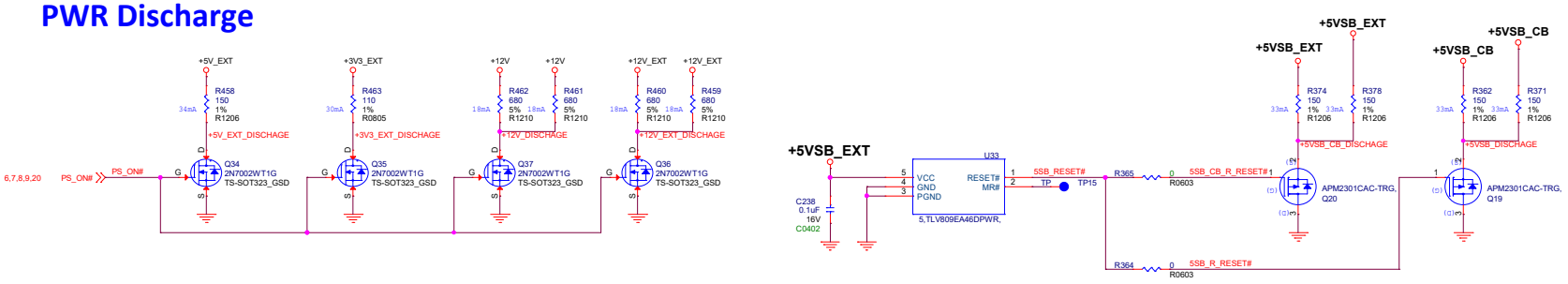
ATX12V POWER



+12V_EXT Soft start



PWR Discharge



<Variant Name>

AAEON an ASUS assoc. co.

Title: ATX Power + Front Panel		
Size: Custom	Document Number: ECB-980A	Rev: A0.1_0_0
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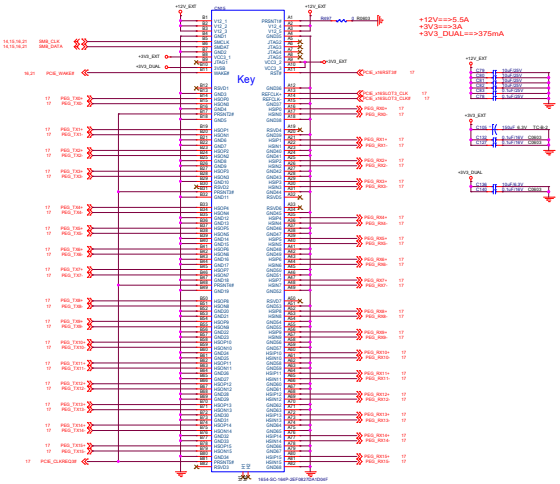
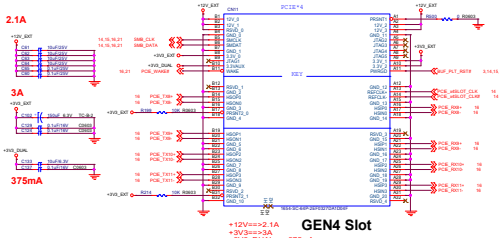
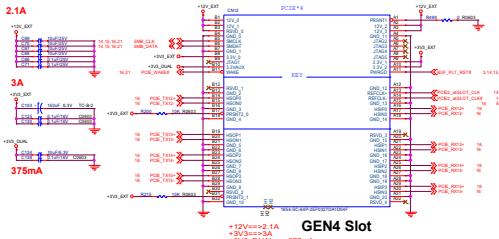
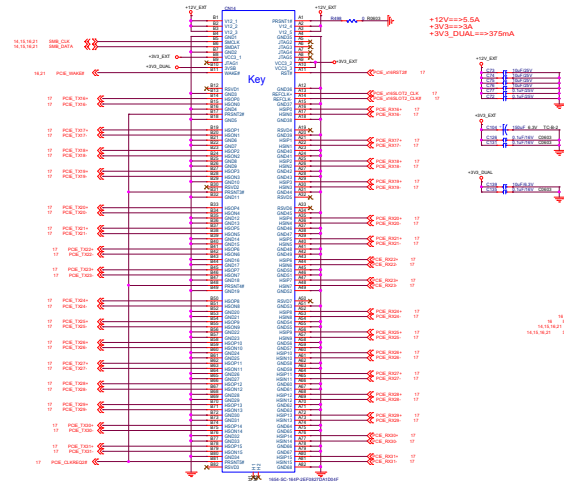
PCIe x4 GEN4 Slots

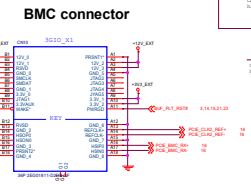


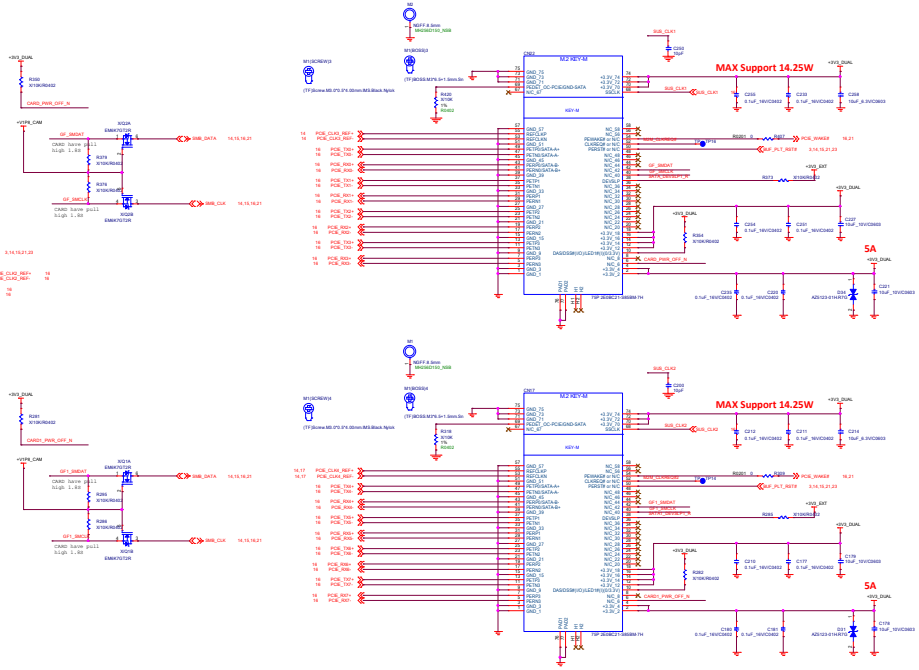






BMC connector





Variant Name	
AAEON Technology INC.	
Title	PCIEX16 M.2. eDP connector
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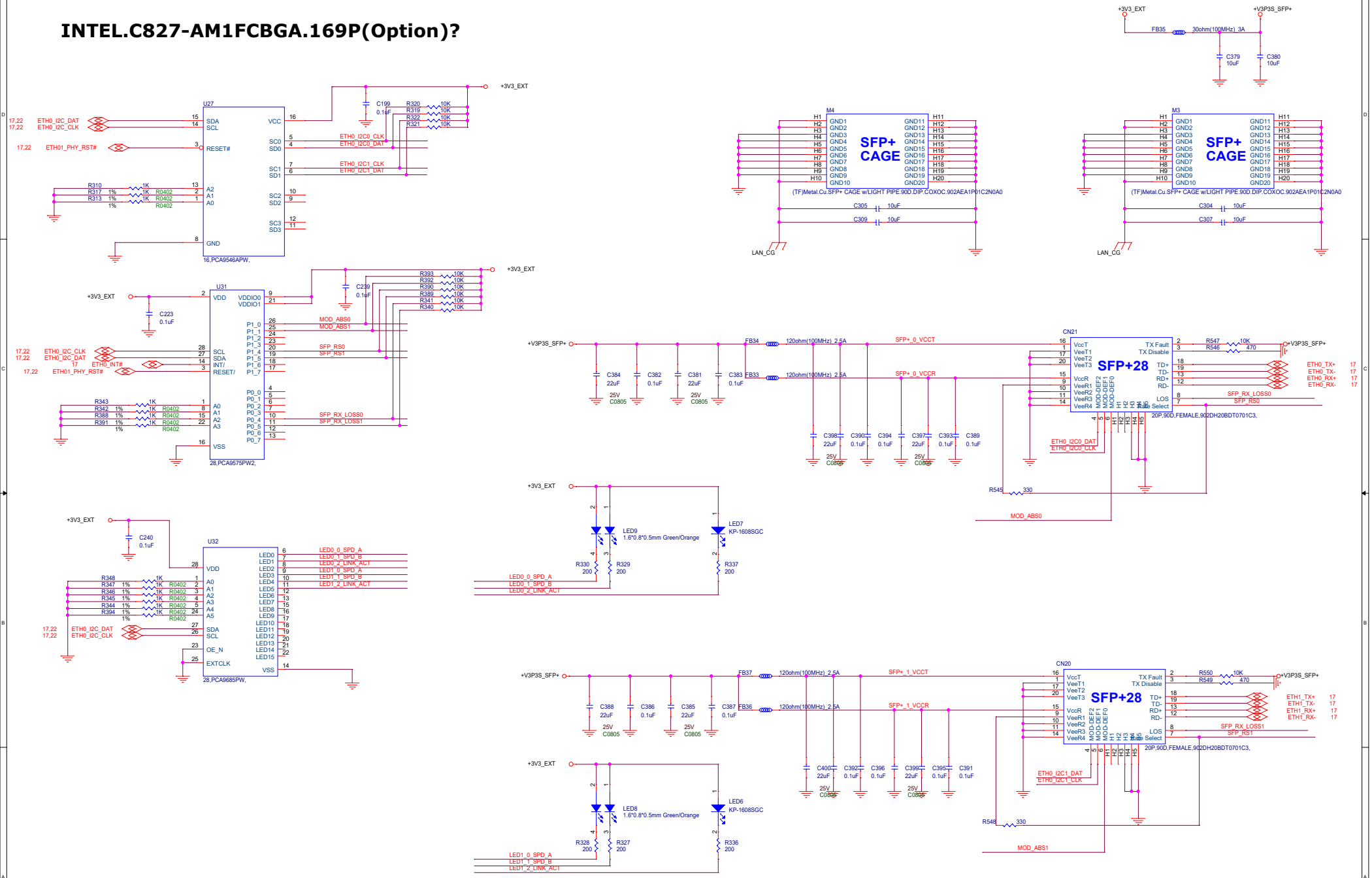
INTEL.C827-AM1FCBGA.169P(Option)?



<Variant Name>

AAEON Technology INC.

Title: 25Gbe connector

Size | Document Number: ECB-980A | Rev: A0.1_0_0

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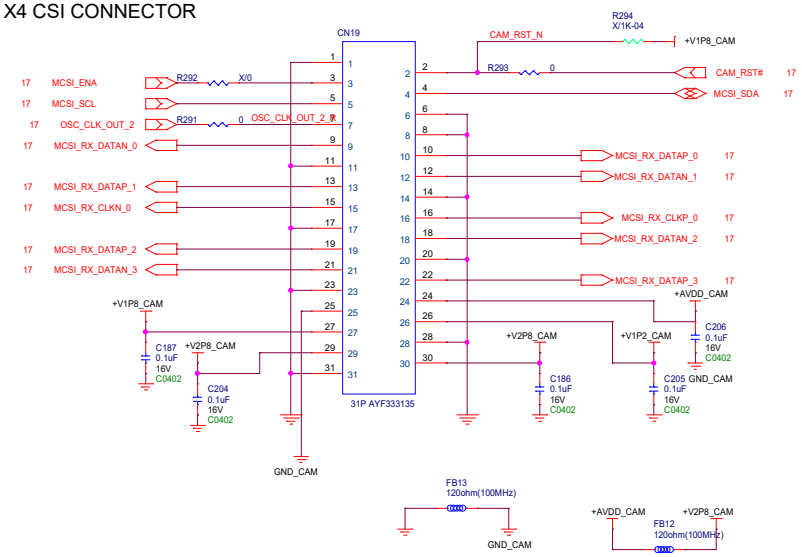
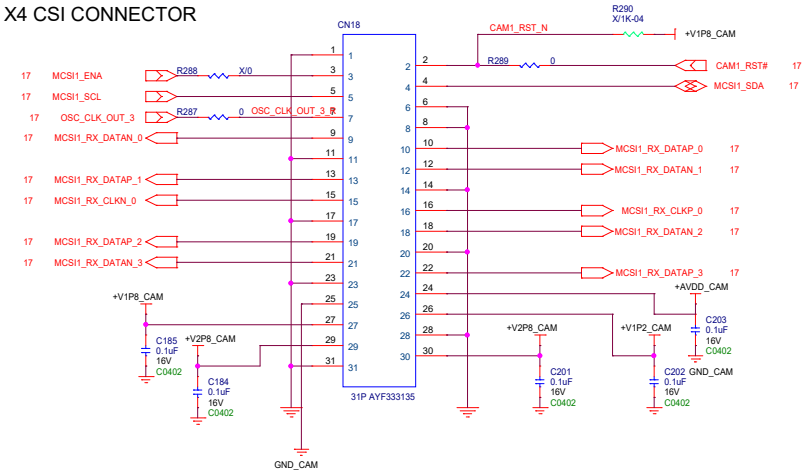
GP_CAMERASB11
RESET# DOUBLE CHECK

MIPI X4 CSI CONNECTOR

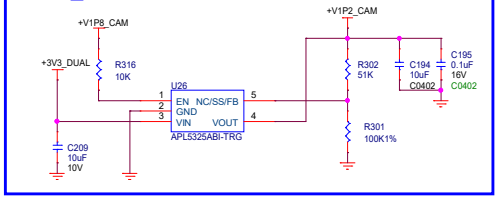


GP_CAMERASB11
RESET# DOUBLE CHECK

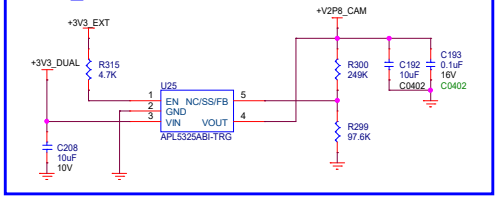
MIPI X4 CSI CONNECTOR



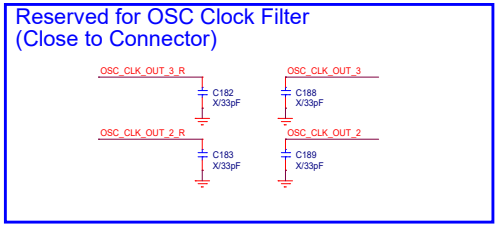
+V1P2_CAM



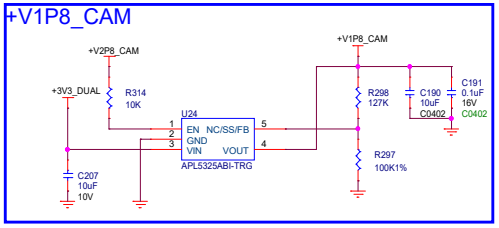
+V2P8_CAM



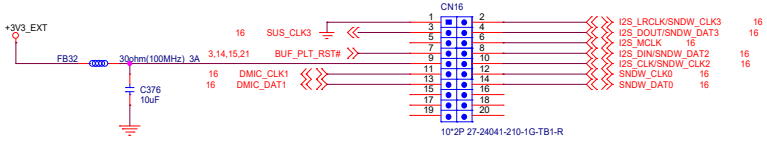
Reserved for OSC Clock Filter (Close to Connector)



+V1P8_CAM



SNDW/I2S header



<Variant Name>

AAEON Technology INC.

Title	CSI. SNDW/I2S header		
Size	Document Number	ECB-980A	Rev A0.1_0_0
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Revision History

ECB-980A A0.1_0_0 PCB: 1907980A00 Date: 2022/03/25

01. Project code:
02. Model name: ECB-980A
03. Model revision: A0.1_0_0
04. 96-Level: 9697
05. PCB 料號: 1907980A00
06. PCB 厚度: 1.6 mm
07. PCB 層數: 8 Layer
08. 連板數量: 2 pcs

Revision History *Page 1*

Item	*Page #*	*Title*	*Date*	*Request Owner*	*Issue Description*	*Solution Description*	*Rev.*	*Bug ID*
1	xx	xxx	xx	xx	xxx	xxx	A01	

<Variant Name>

AAEON Technology INC.

Title	Revision History		
Size	Document Number		Rev
Custom	ECB-980A		A0.1_0_0
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