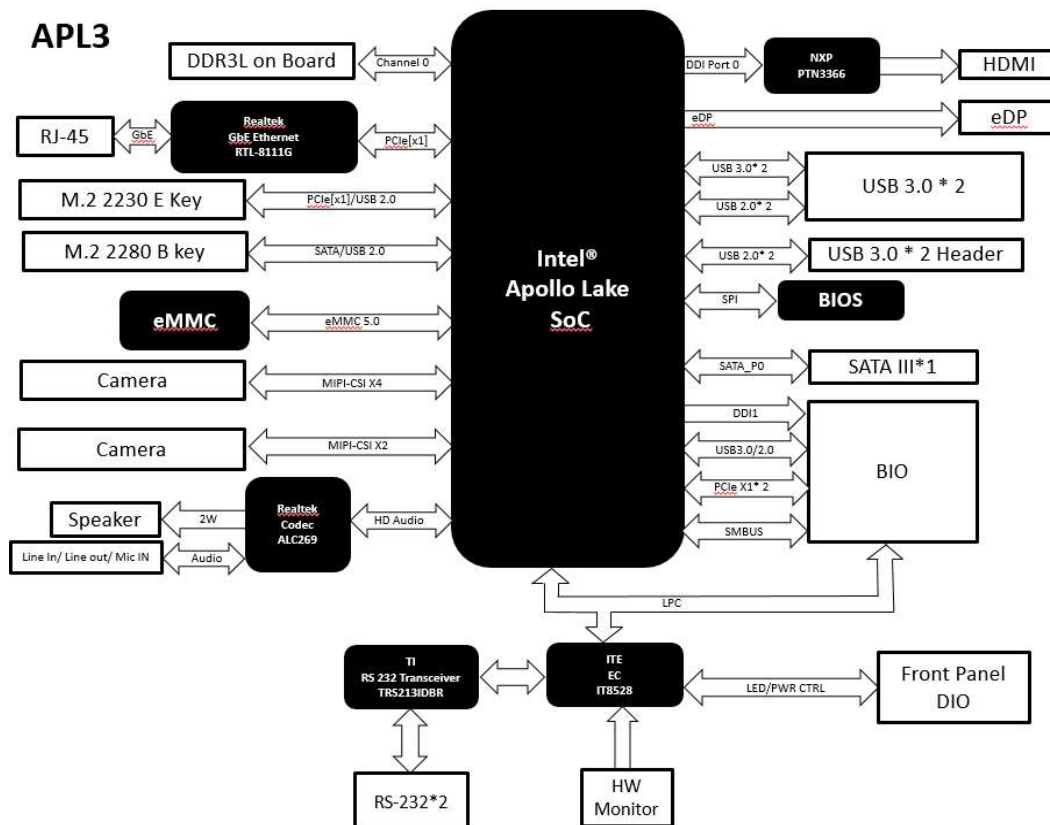


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Project Number : E16XXXX
Production Line : Sub.EPI.AA2M

SOC GPIO Pins :

Name	Power Well	Default	GPIO Function
GPIO 0	1.8V	20K PDI	
GPIO 1	1.8V	20K PDI	
GPIO 2	1.8V	20K PDI	
GPIO 3	1.8V	20K PDI	
GPIO 4	1.8V	20K PDI	
GPIO 5	1.8V	20K PDI	
GPIO 6	1.8V	20K PDI	
GPIO 7	1.8V	20K PDI	
GPIO 8	1.8V	20K PDI	
GPIO 9	1.8V	20K PDI	
GPIO 10	1.8V	20K PDI	
GPIO 11	1.8V	20K PDI	
GPIO 12	1.8V	20K PDI	
GPIO 13	1.8V	20K PDI	GPIO PME#
GPIO 14	1.8V	20K PDI	
GPIO 15	1.8V	20K PDI	
GPIO 16	1.8V	20K PDI	GPIO BTN#
GPIO 17	1.8V	20K PDI	
GPIO 18	1.8V	20K PDI	
GPIO 19	1.8V	20K PDI	
GPIO 20	1.8V	20K PDI	
GPIO 21	1.8V	20K PDI	
GPIO 22	1.8V	20K PDI	SATA GPIO
GPIO 23	1.8V	20K PDI	
GPIO 24	1.8V	20K PDI	
GPIO 25	1.8V	20K PDI	
GPIO 26	1.8V	20K PDI/OP	SATA LED_N
GPIO 27	1.8V	20K PDI	
GPIO 28	1.8V	20K PDI	
GPIO 29	1.8V	20K PDI	
GPIO 30	1.8V	20K PDI	
GPIO 31	1.8V	20K PDI	
GPIO 32	1.8V	20K PDI	
GPIO 33	1.8V	20K PDI	PMIC IRQ
GPIO 216	1.8V	20K PDI/O	
GPIO 217	1.8V	20K PDI/O	
GPIO 218	1.8V	20K PDI/O	
GPIO 219	1.8V	20K PDI/IO/OP	EMMC0_RST_N

PCB STACK :


Impedence 50ohm +/-15%.

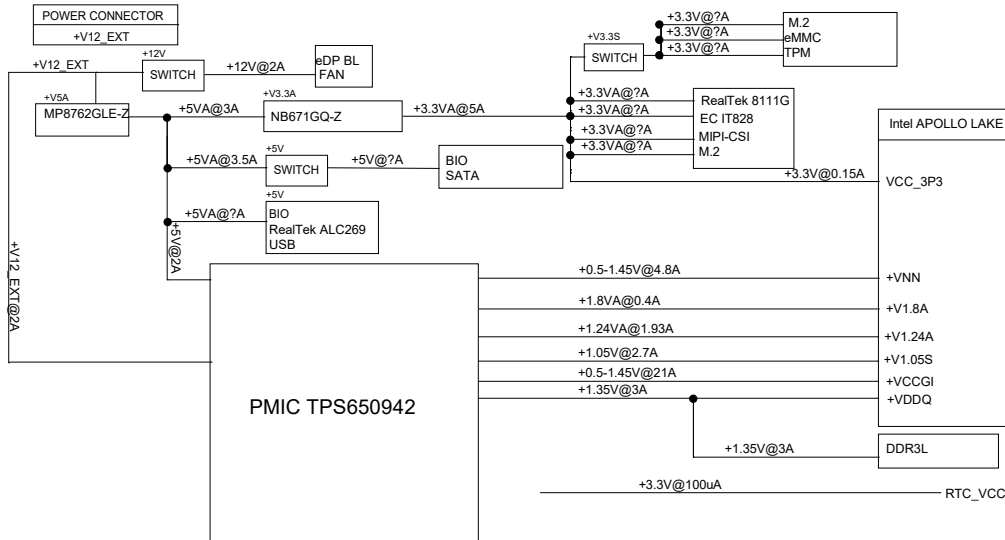
	Layer 1 : Component
	Layer 2 : GND
	Layer 3 : Signal
	Layer 4 : GND
XXXXXXXXXX	Layer 5 : Signal
	Layer 6 : VCC
	Layer 7 : Signal
	Layer 8 : Signal
	Layer 9 : GND
	Layer 10 : Solder

The Mapping Table For Super E/C IT8528 GPIOs :

Name	PIN No.	SVT	Type	Description & setting	Name	PIN No.	SVT	Type	Description & setting
GPIO[A0]	M5				GPIO[F0]	A11			GPIO
GPIO[A1]	N5				GPIO[F1]	B11			GP11
GPIO[A2]	M6				GPIO[F2]	A10			DTRA#
GPIO[A3]	N6			FAN_PWM1	GPIO[F3]	B10			RTSA#
GPIO[A4]	K6			BRD_ID0	GPIO[F4]	D9			
GPIO[A5]	J6			BRD_ID1	GPIO[F5]	B9			EC_MUTE#
GPIO[A6]	M7			BRD_ID2	GPIO[F6]	B1			SMB_CLK_BIO
GPIO[A7]	K7			RTSB#	GPIO[F7]	C1			SMB_DAT_BIO
GPIO[B0]	A4			RXA#	GPIO[G0]	E6			
GPIO[B1]	A3			TXA#	GPIO[G1]	A5			DTRB#
GPIO[B2]	D2				GPIO[G2]	E7			
GPIO[B3]	B4			SMB_CLK_A	GPIO[G6]	D6			DSRA#
GPIO[B4]	A2			SMB_DATA_A	GPIO[H0]	D8			EC_RSMRST#(Reseved)
GPIO[B5]	F1			PMIC_ON	GPIO[H1]	E8			RXB#
GPIO[B6]	H4			WDT_RST#	GPIO[H2]	D7			TXB#
GPIO[B7]	A1			SYS_RESET#	GPIO[H3]	A9			PCH_PWROK(Reserved)
GPIO[C0]	D1				GPIO[H4]	B8			BIO-GPIO-R(Reserved)
GPIO[C1]	B3				GPIO[H5]	A8			
GPIO[C2]	B2				GPIO[H6]	B7			
GPIO[C3]	K13				GPIO[J0]	G10			TH1_CPU
GPIO[C4]	C2			EC_WAKE0#	GPIO[J1]	G13			TH2_SYS
GPIO[C5]	J10				GPIO[J2]	G12			VCORE_SEN
GPIO[C6]	E1			LAN1_EN	GPIO[J3]	F9			V5ALW_SEN
GPIO[C7]	M2			PM_PWRBTN#_3P3	GPIO[J4]	F13			VDDR3L_SEN
GPIO[D0]	N1			PM_SLP_S3#_3P3	GPIO[J5]	F10			DCDB#
GPIO[D1]	N3			M_SLP_S4#_3P3	GPIO[J6]	F12			DSRB#
GPIO[D2]	M4			LPC_RST#	GPIO[J7]	E13			CTSB#
GPIO[D3]	N4			EC_SCI#	GPIO[J0]	E12			
GPIO[D4]	L2			EC_SMI#	GPIO[J1]	D13			ATX_DIPSW
GPIO[D5]	N7			CTSA#	GPIO[J2]	D12			
GPIO[D6]	M11			FAN_TACH1	GPIO[J3]	C13			ADM213_EN
GPIO[D7]	M12				GPIO[J4]	B13			DCDA#
GPIO[E0]	N2			GPO0	GPIO[J5]	B13			RIA#
GPIO[E1]	A13			GPO1	GPIO[J6]	F2			
GPIO[E2]	A12			W_DISABLE2#	GPIO[J7]	G1			
GPIO[E3]	B12			W_DISABLE1#					
GPIO[E4]	E2			EXT_PWRBTN#					
GPIO[E5]	N8			RTSB#					
GPIO[E6]	M1			EN_USB					
GPIO[E7]	M3			PS_ON#					

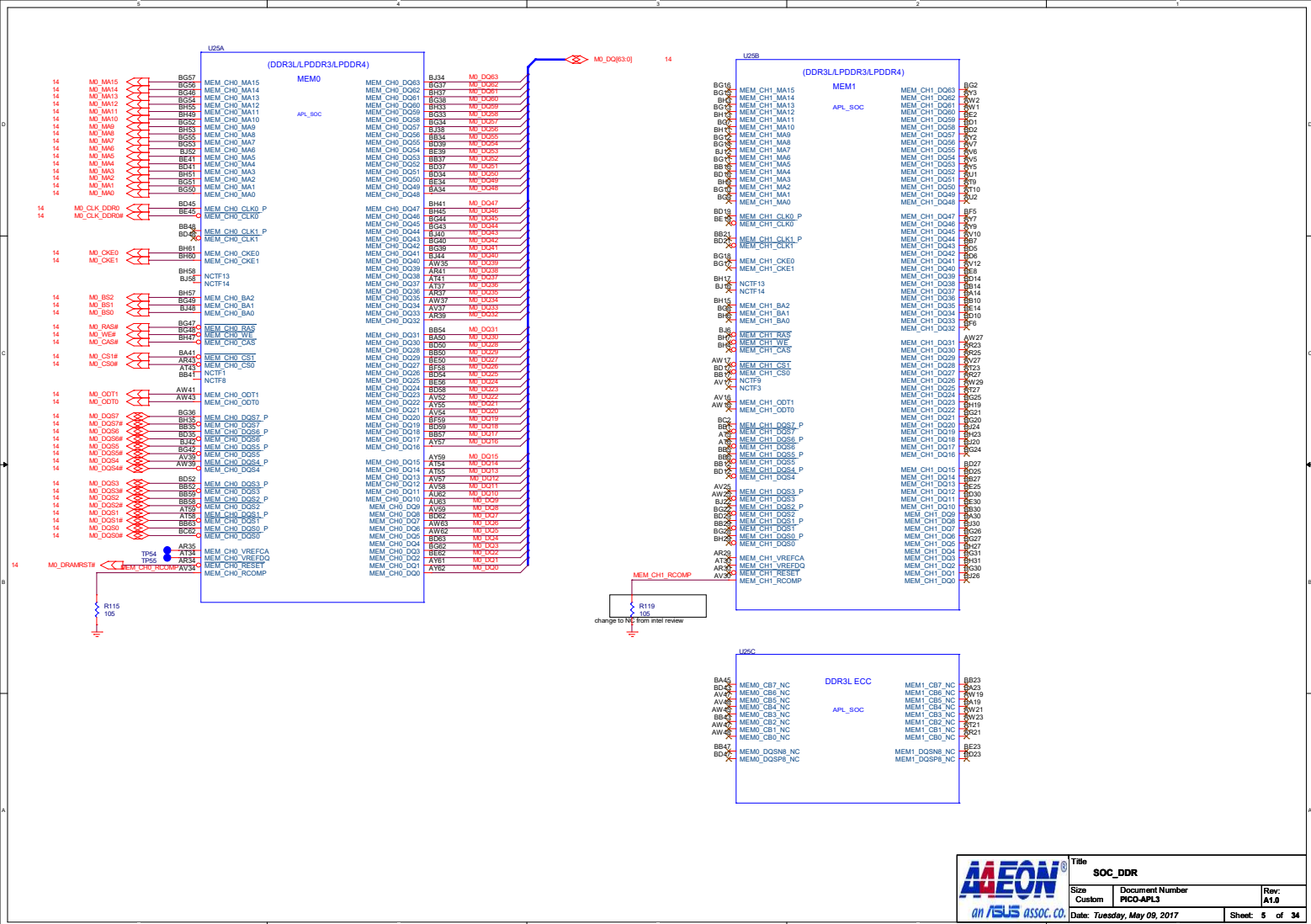
GA20/ECSCI/ECSMI/KBRST# pay attention for leak current DO NOT place any pull up resistor on G0,G2,G6 (Reserved for Hardware strap)
(2) Open-drain output pin should be pulled.
(1) Each input pin should be driven or pulled.
Note 1 : Since all GPIO belong to VSTBY power domain, and there are some special considerations below:
(1) If it is output to external VCC derived power domain circuit, this signal should be isolated by a diode such as KBRST# and GA20.
(2) If it is input from external VCC derived power domain circuit, this external circuit must consider not to float the GPIO input.

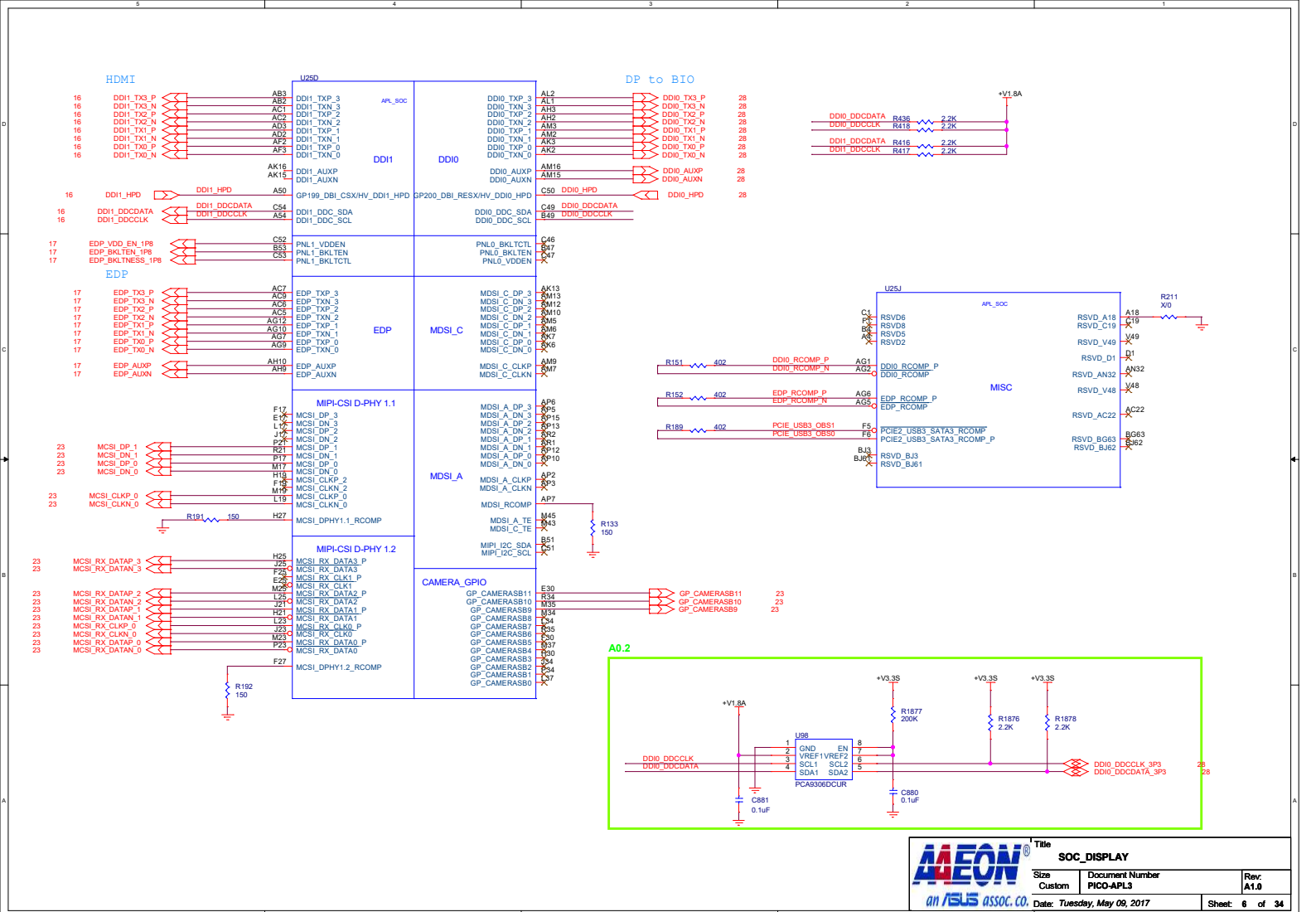
 an ASUS assoc. co.	Title System Settings		
	Size B	Document Number PICO-APL3	Rev: A1.0
	Date: <i>Tuesday, May 09, 2017</i>		Sheet: 2 of 34

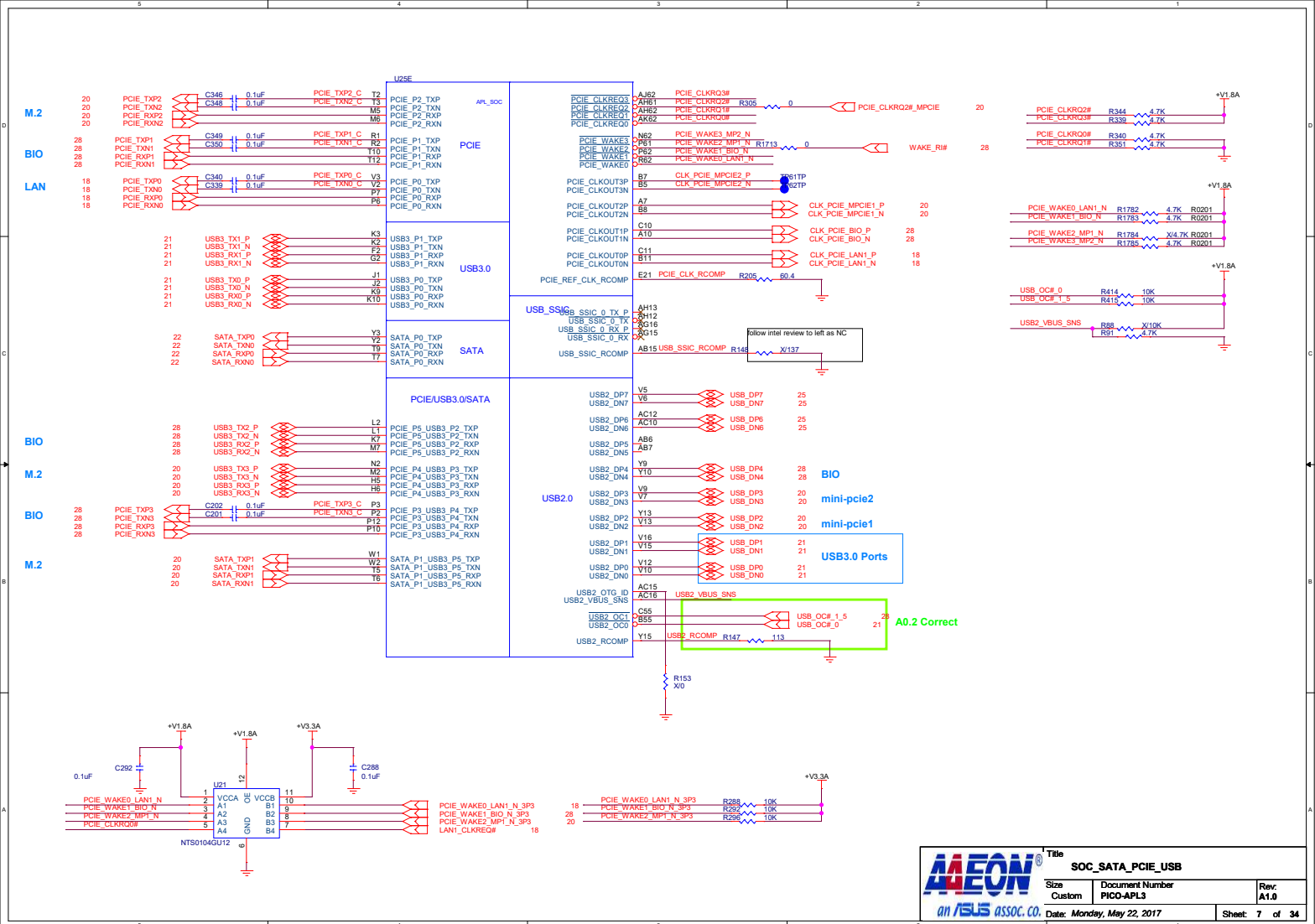


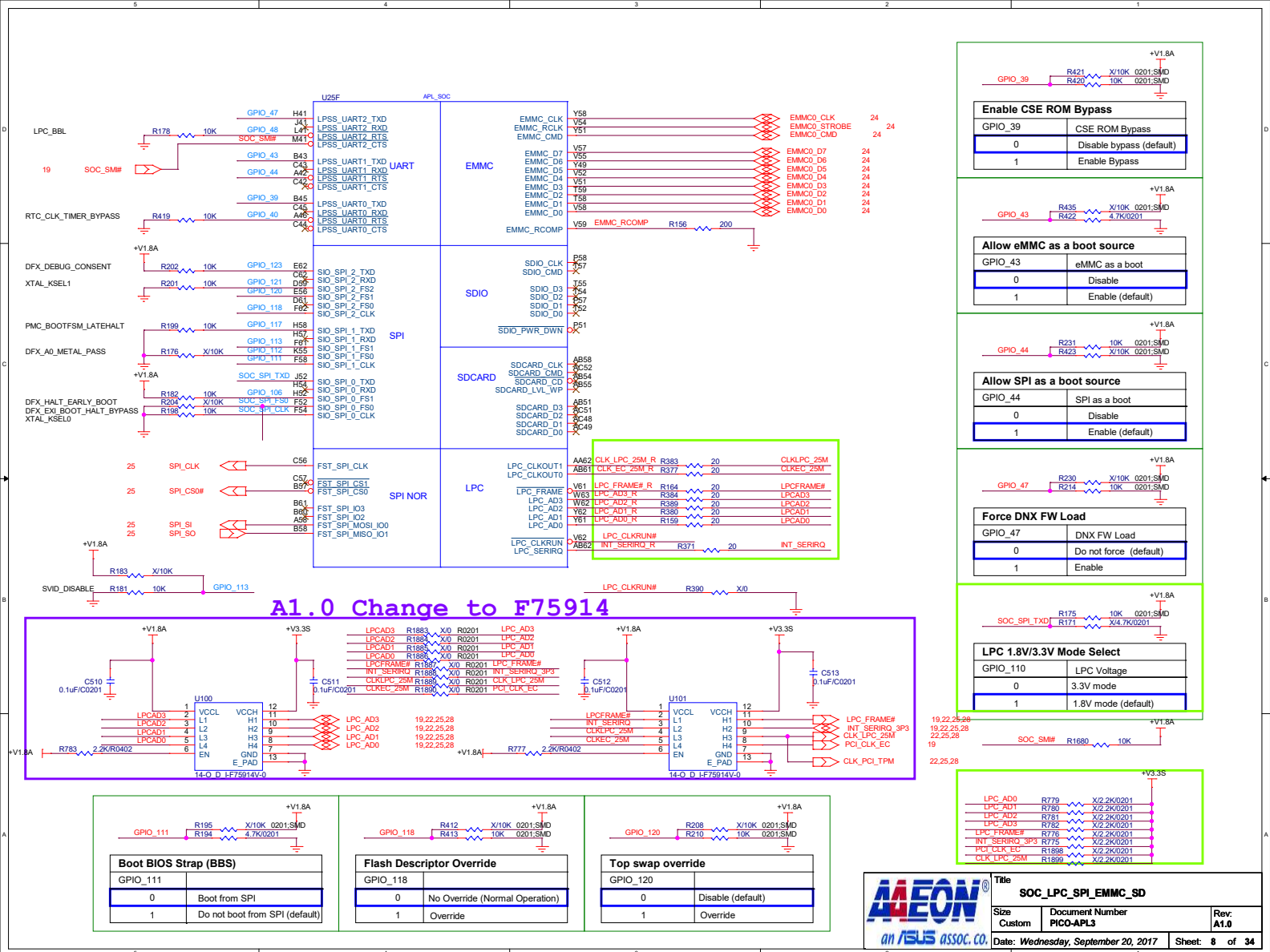
+V5A -> +V3.3A -> +VNN -> +VCC -> +V1P8A -> +V1P24A -> +V1P8U -> +VDDQ
+V1.05S -> +VCC_VCGI

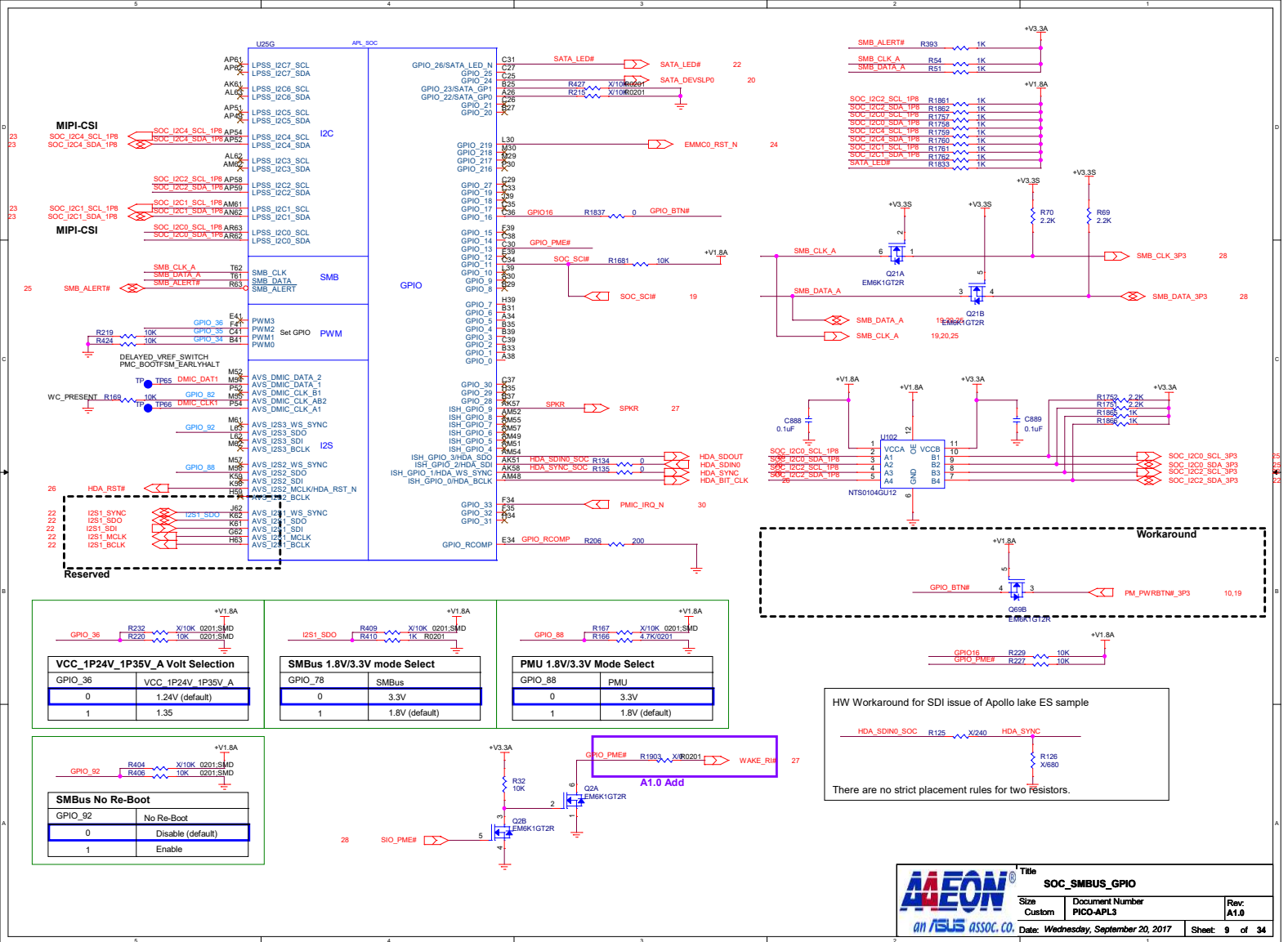
Power Type	Voltage Range (V)	Voltage Tolerance (AC+DC+Ripple)	Iccmax (A)
VCC_VCGI	0.45-1.3	DC Load Line (DCLL) = TBD Ripple at Iccmax = +/-15mV TOB_Iccmax = +/-20mV Maximum overshoot voltage = 100mV Maximum overshoot duration = 50 μs	21
VNN	0.45-1.3	+/-50mV	4.8
VCC_V1P05	1.05	+/-5%	2.7
VCC_V1P24_1P35_A	1.24V or 1.35V	+/- 5%	1.3
VCC_V1P24_A	1.24	+/-5%	TBD
VCC_V1P8V_A	1.8	+/-5%	0.4
VDDQ	1.35	+/-5%	2.8 (excluding DRAM)
	1.24	+/-5%	
VCC_3P3V_A	3.3	+/-5%	0.15
VCC_RTC_3P3V	2-3.47	N/A	TBD

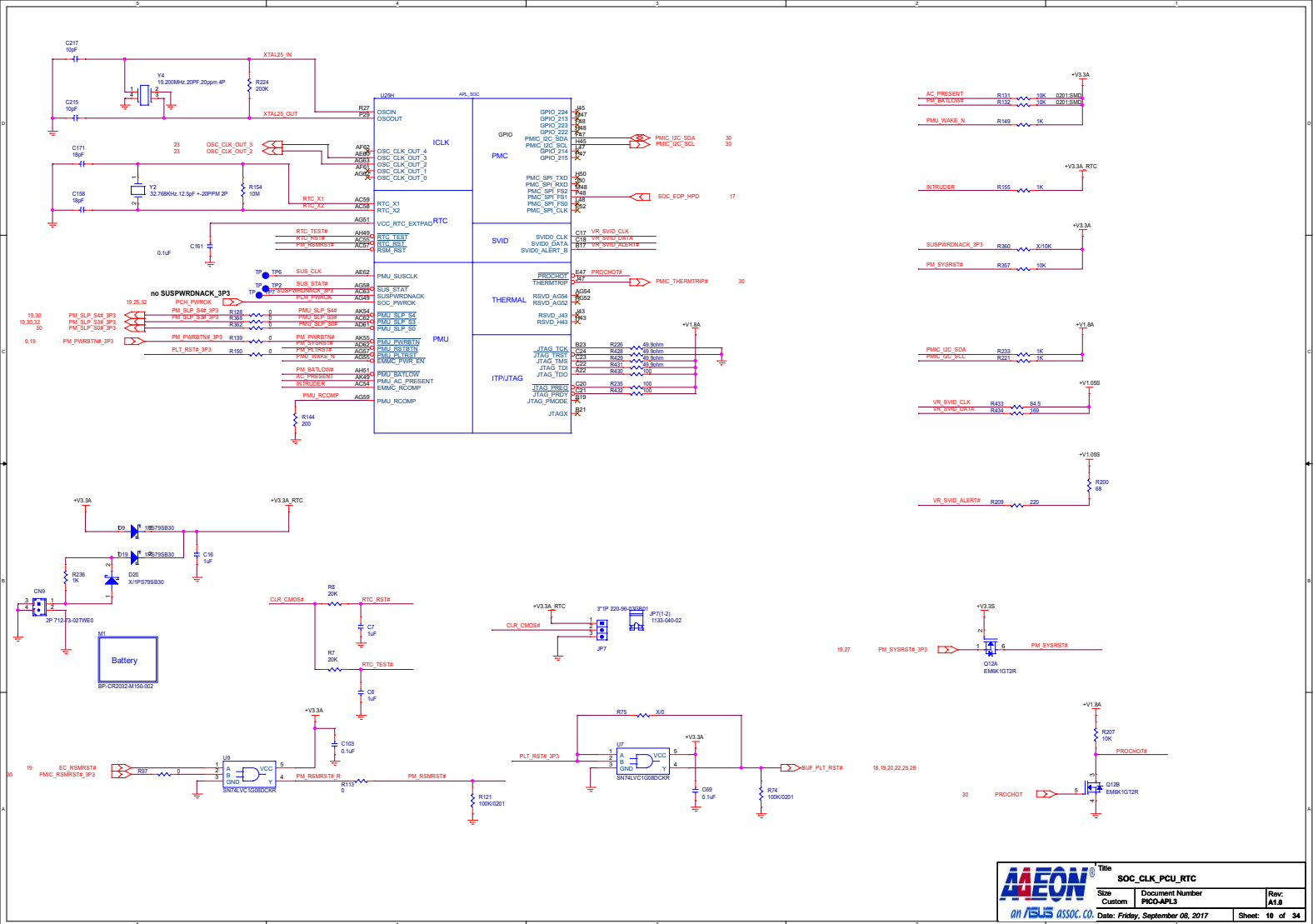


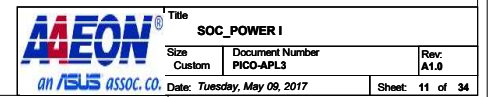


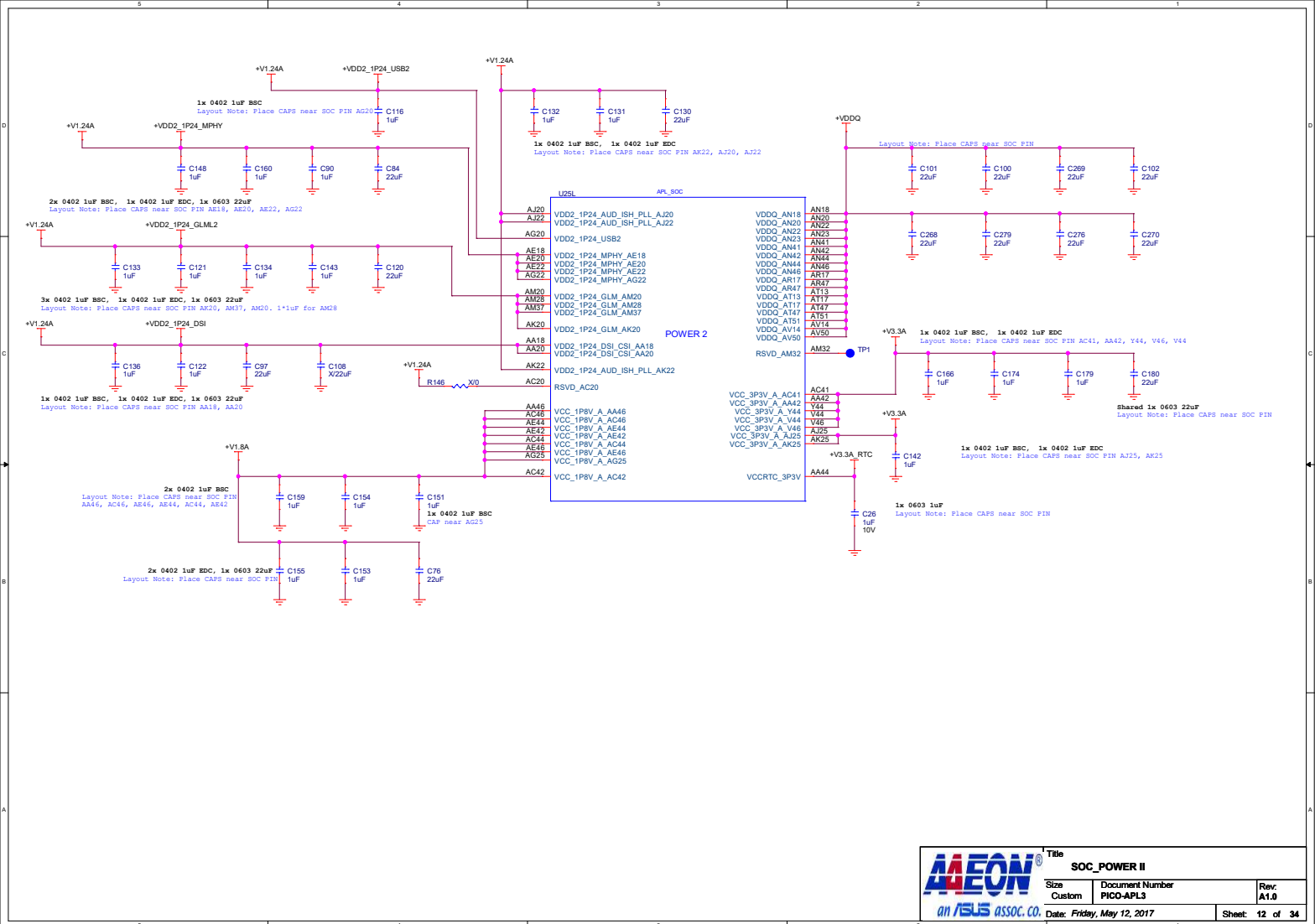




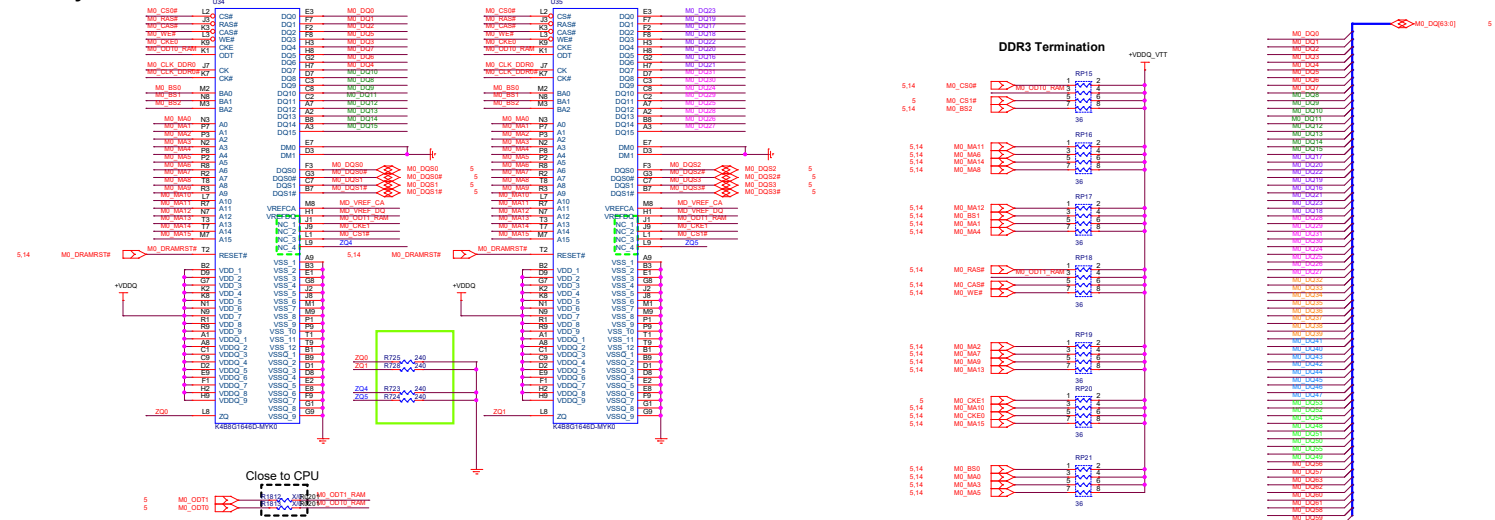




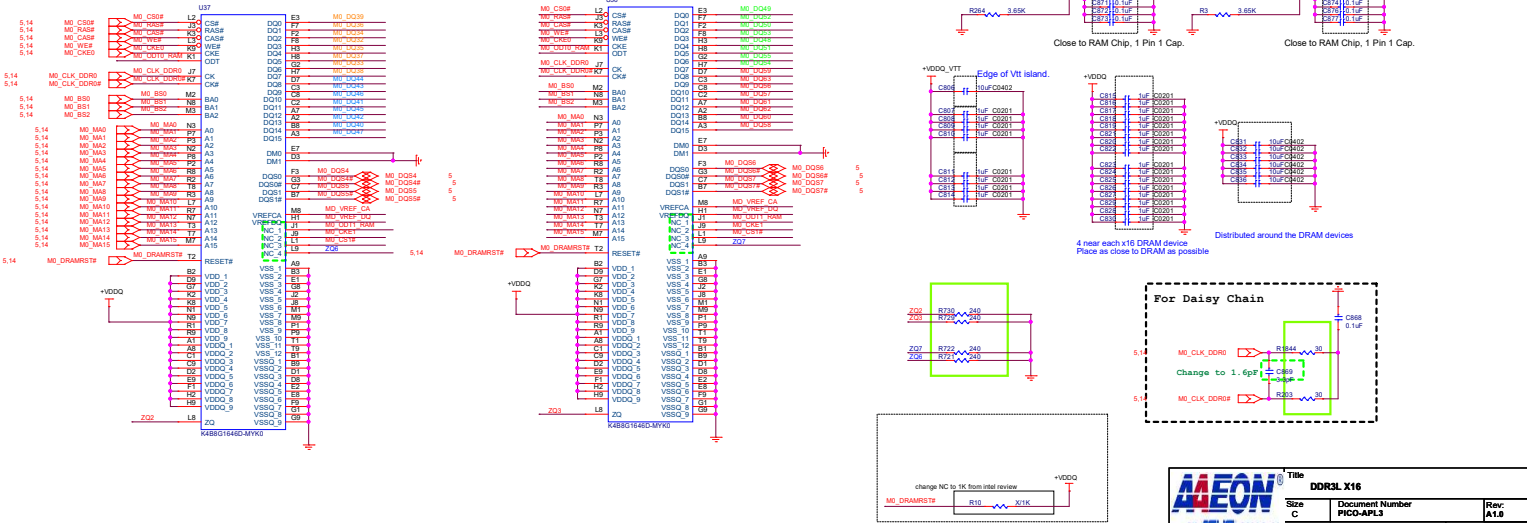




Memory down



Memory down

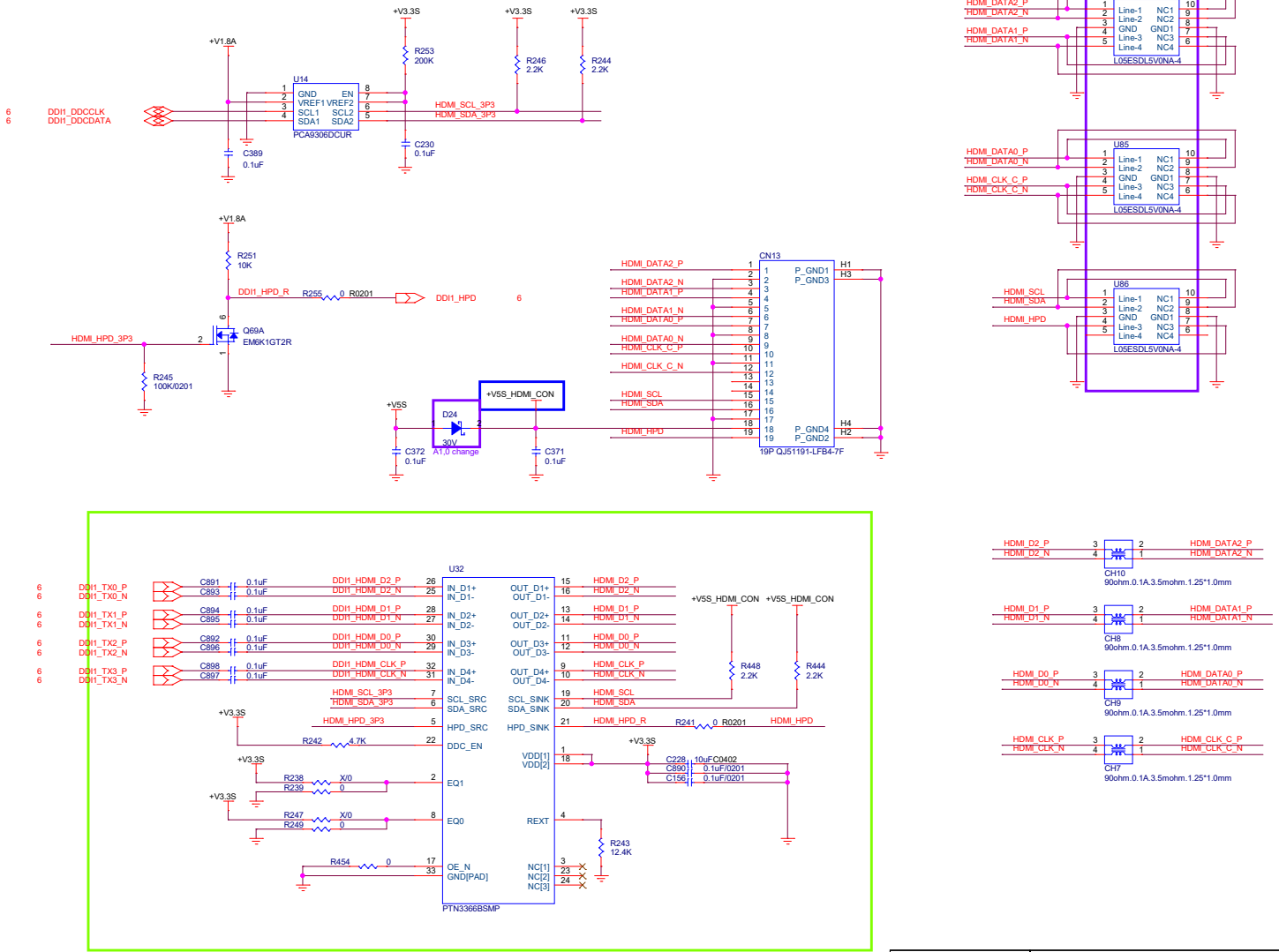



5	4	3	2	1
D				D
C				C
B				B
A				A
5	4	3	2	1

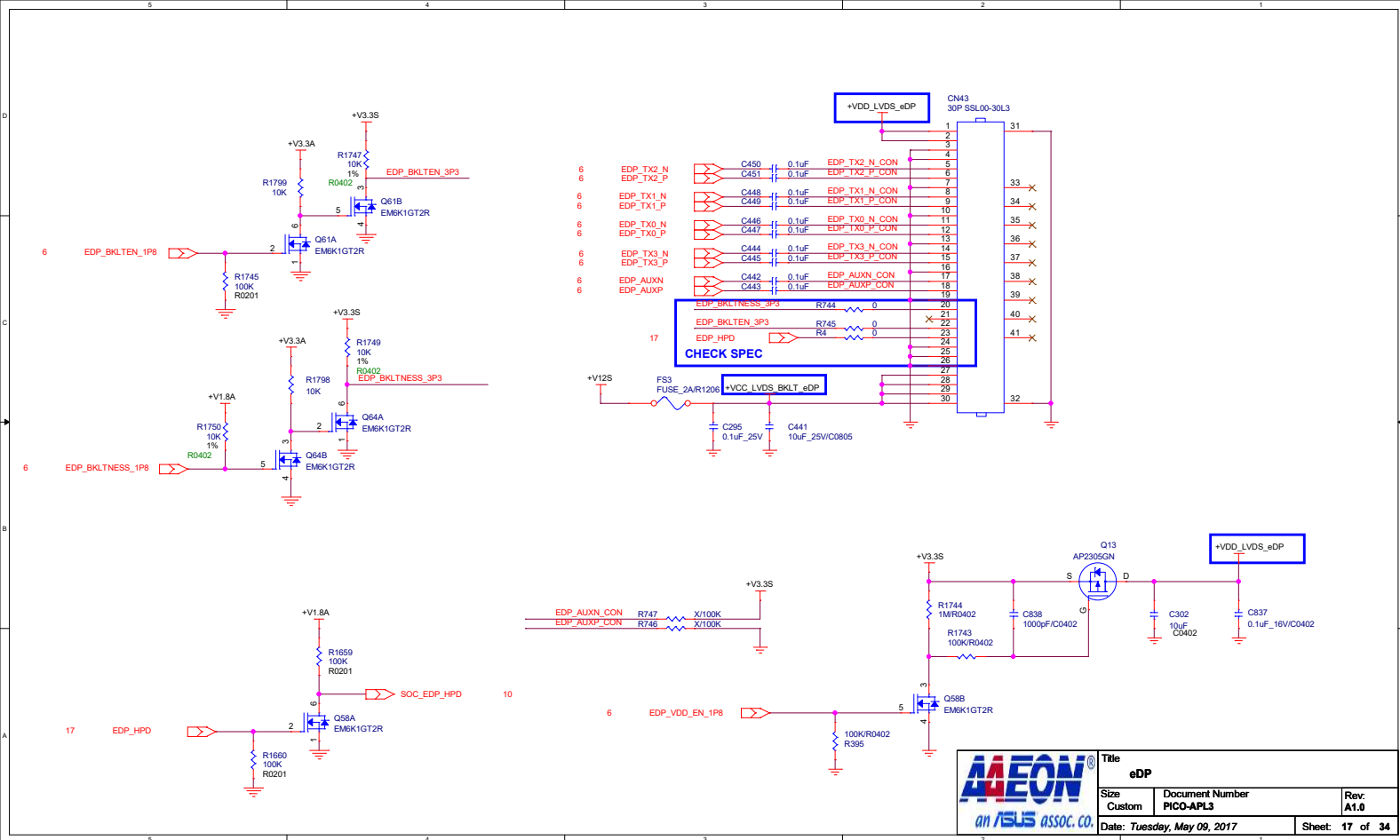


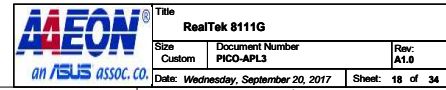
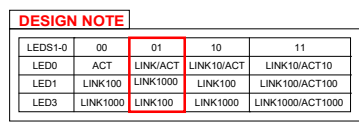
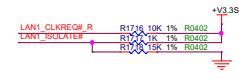
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Size B	Document Number PICO-APL3	Rev: A1.0
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HDMI



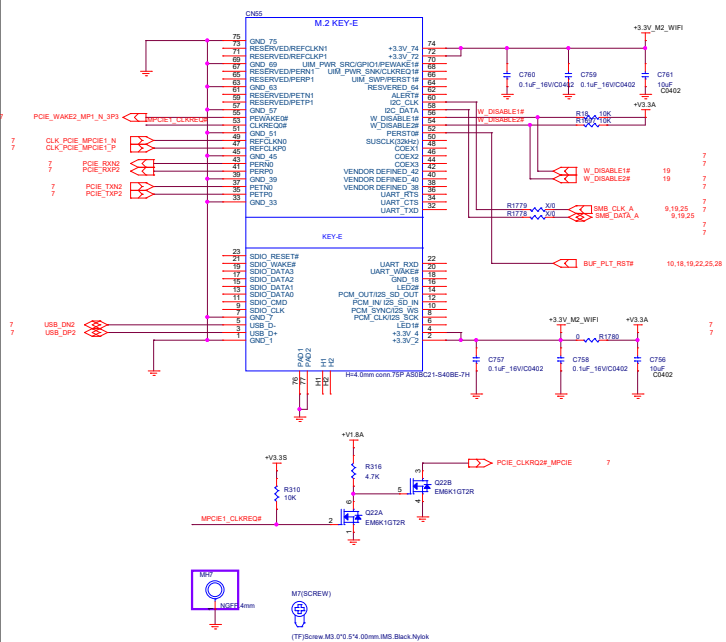
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		HDMI	
Size	Custom	Document Number	PICO-APL3
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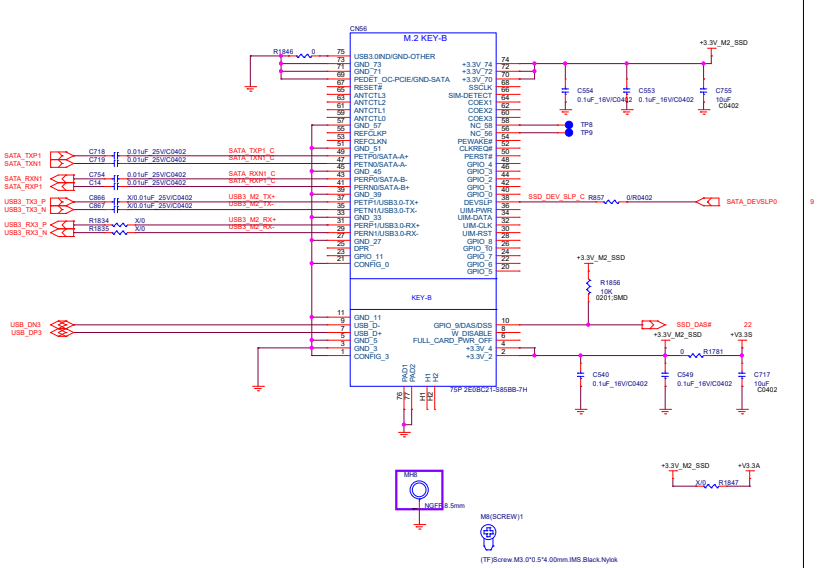


 an ASUS assoc. co.	Title		
	EC IT8528		
	Size	Document Number	Rev.
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M.2 Key E

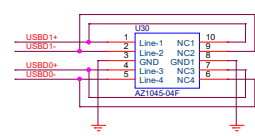
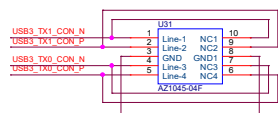
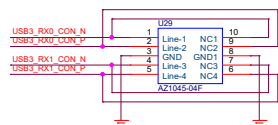
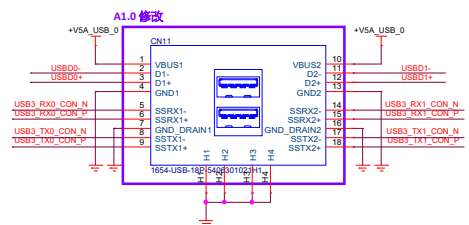
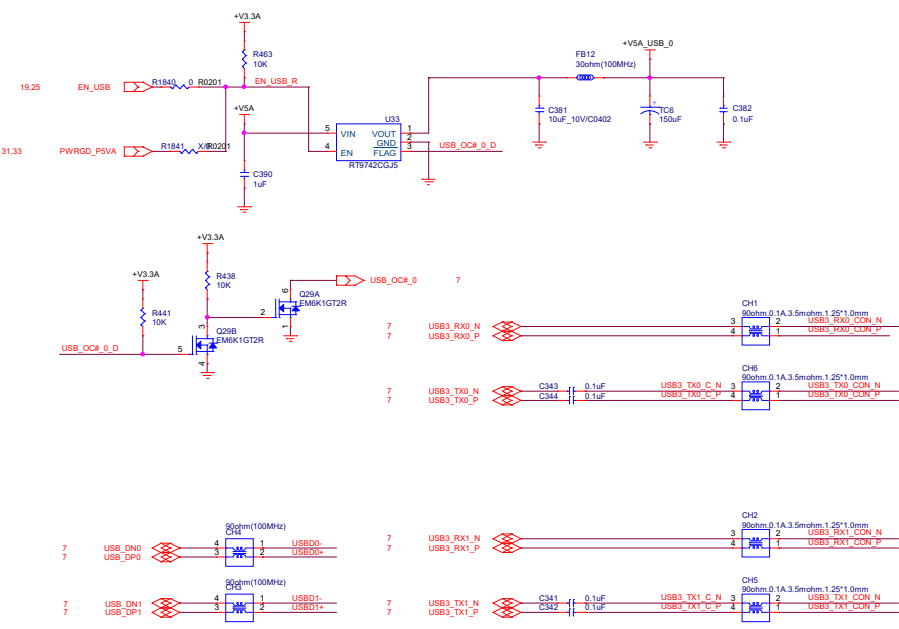


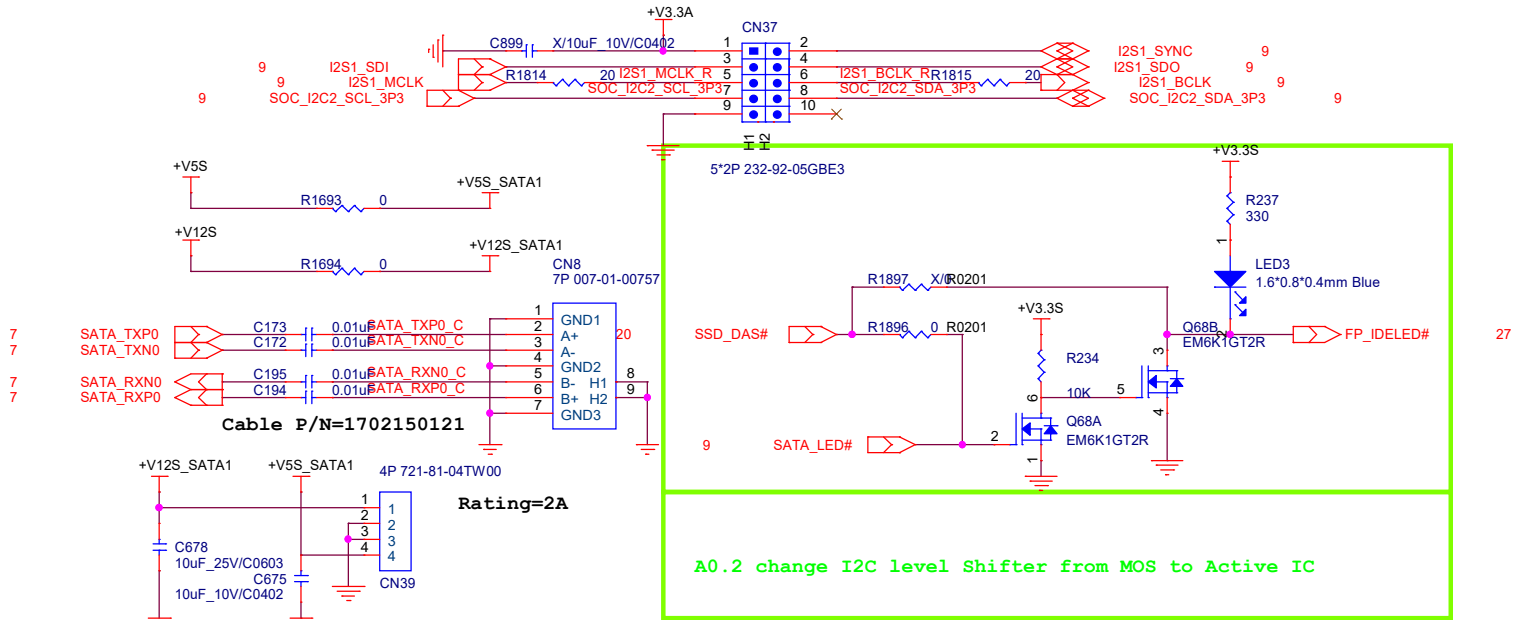
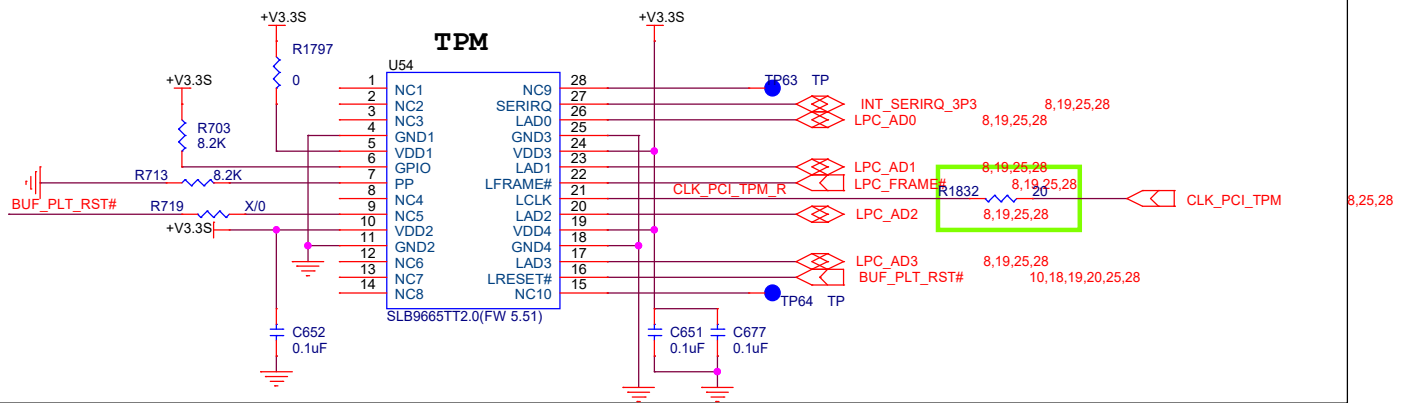
M.2 Key B



Title			
M.2 *2			
Size	Document Number	Rev	
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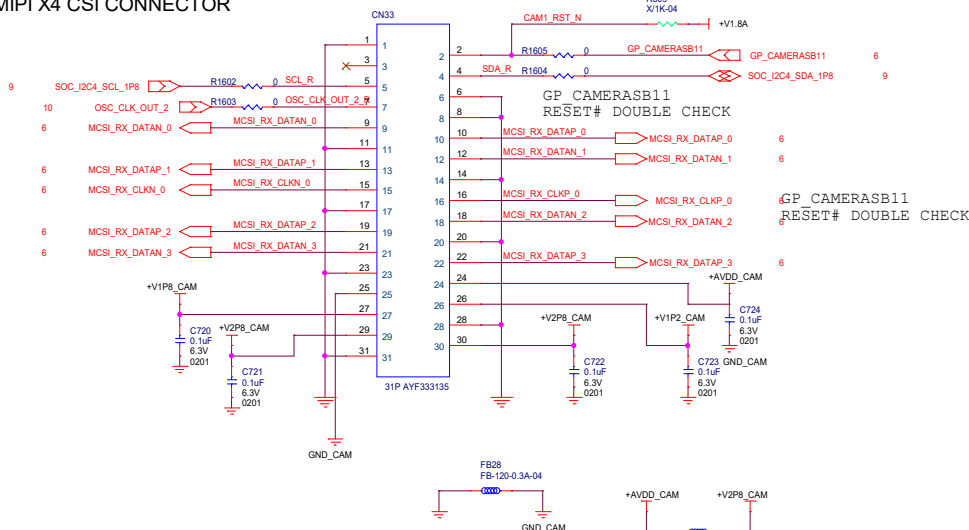
USB3.0 x 2



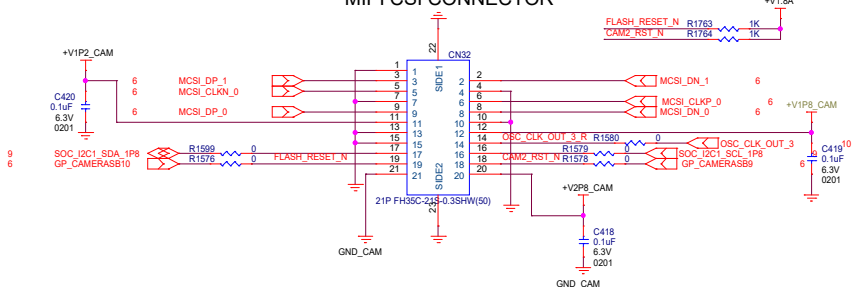


Title		
TPM & SATA & MISC		
Size	Document Number	Rev:
Custom	PICO-APL3	A1.0
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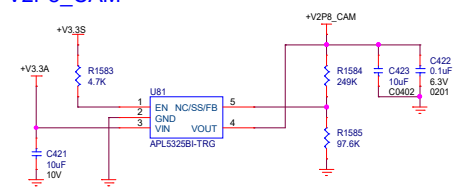
MIPI X4 CSI CONNECTOR



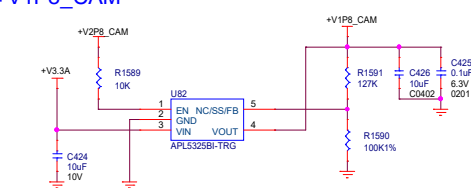
MIPI CSI CONNECTOR



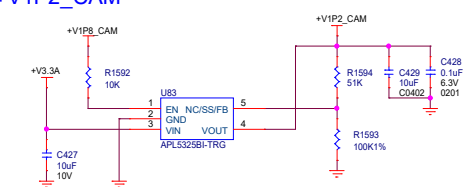
+V2P8 CAM



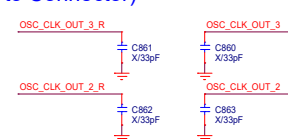
+V1P8 CAM



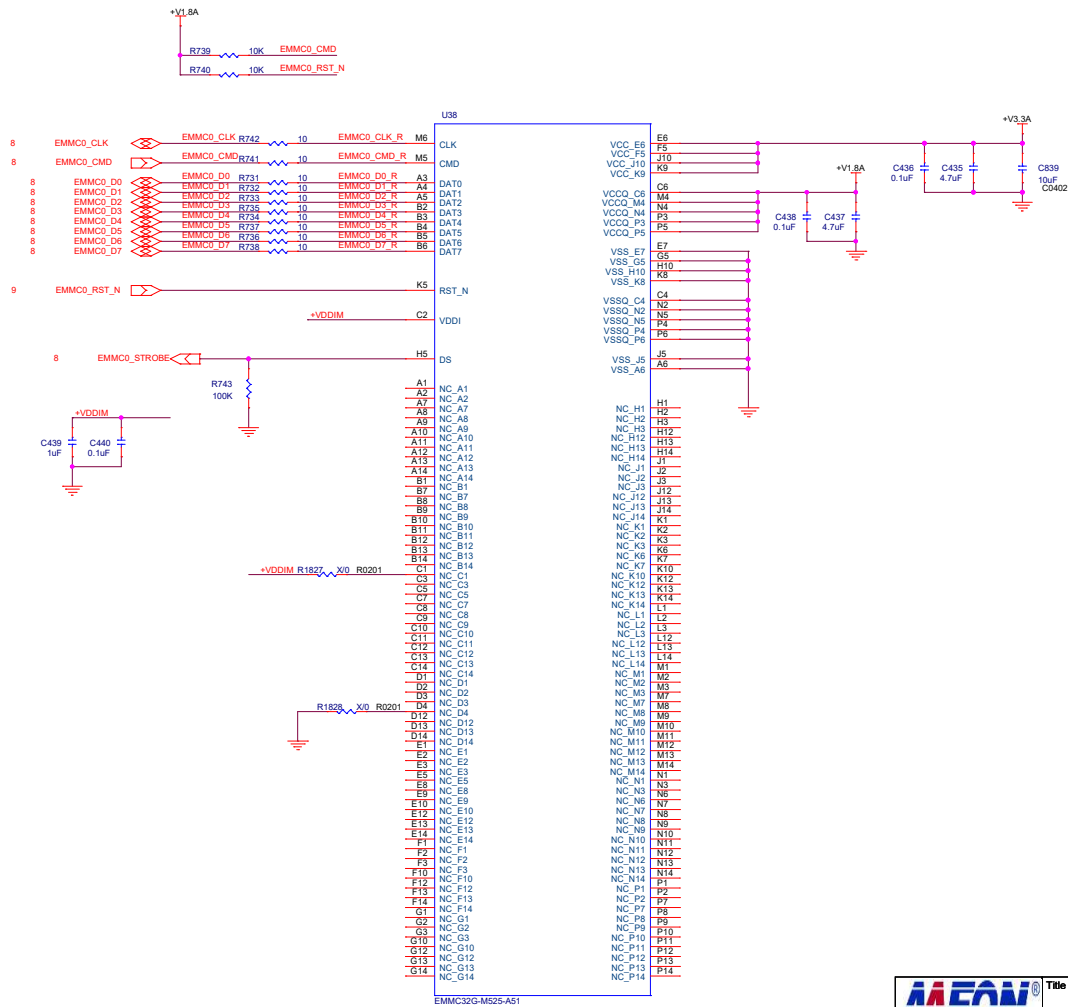
+V1P2 CAM



Reserved for OSC Clock Filter
(Close to Connector)

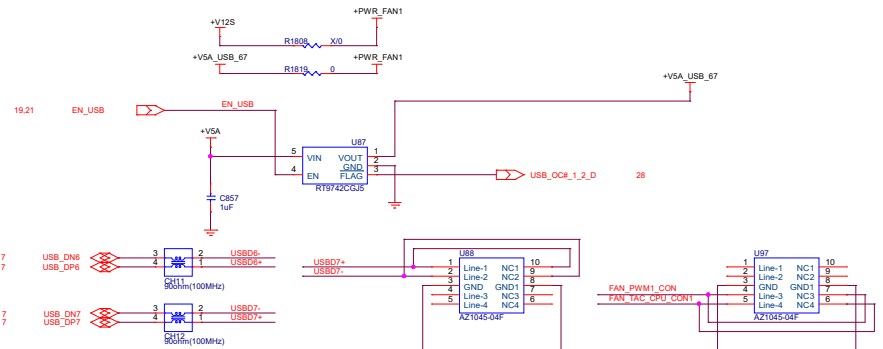
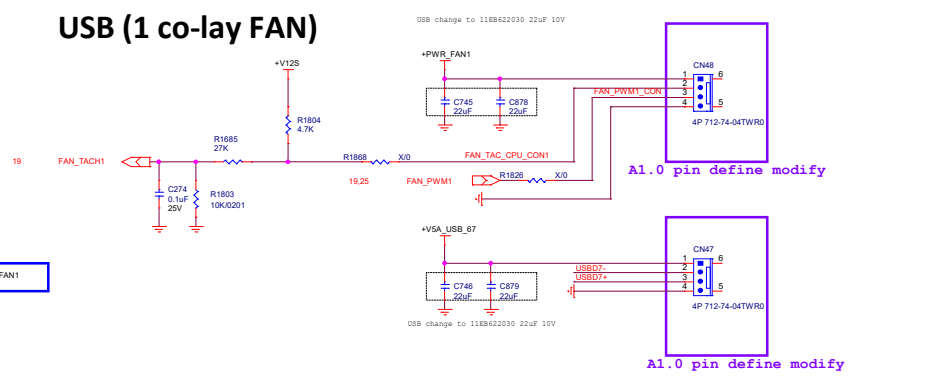
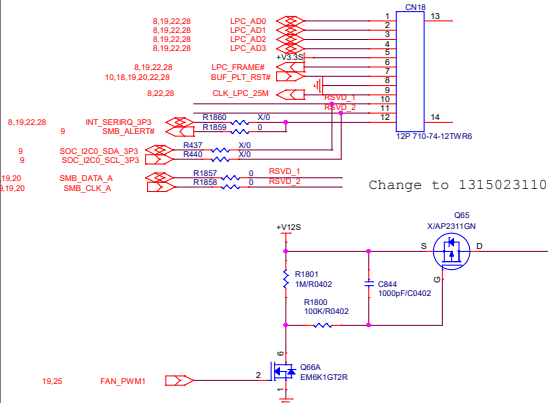


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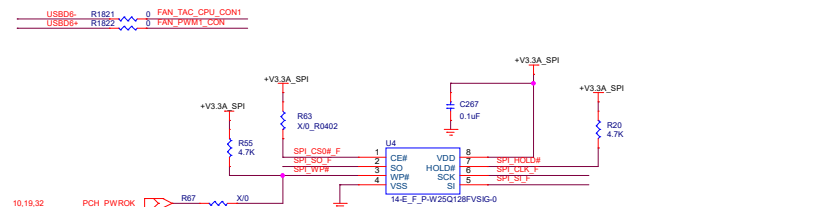
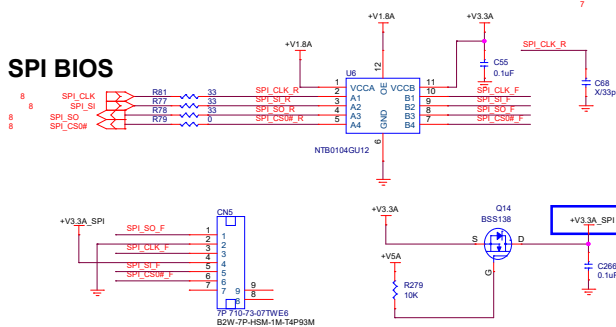


Title		
eMMC		
Size	Document Number	Rev
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USB (1 co-lay FAN)

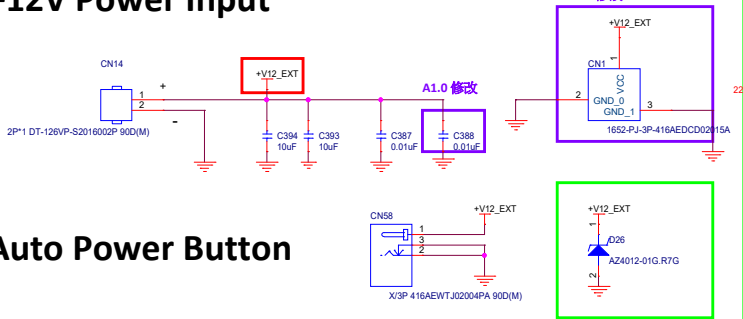


SPI BIOS



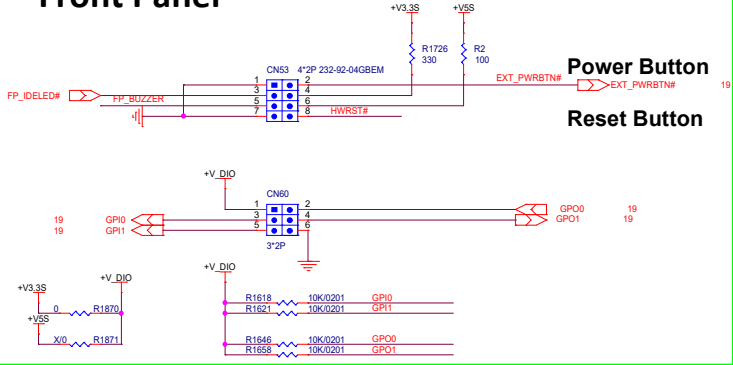
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Size Custom	Document Number PICO-APL3	Rev: A1.0
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+12V Power Input



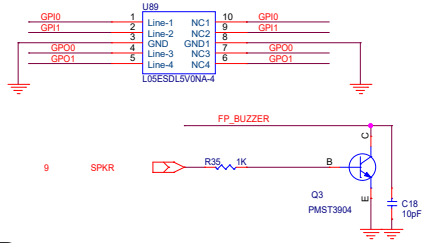
Auto Power Button

Front Panel



CMOS Control Selection(RTC_RST#)		
No Stuff	Save CMOS	Default
3-4	Clear CMOS	

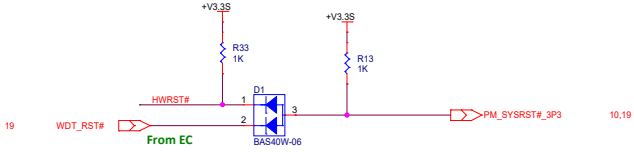
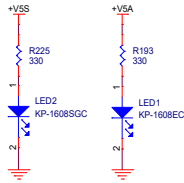
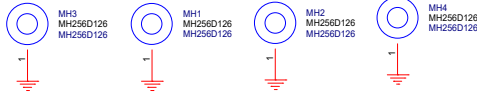
Auto power button		
No Stuff	ATX	Default
1-2	AT	



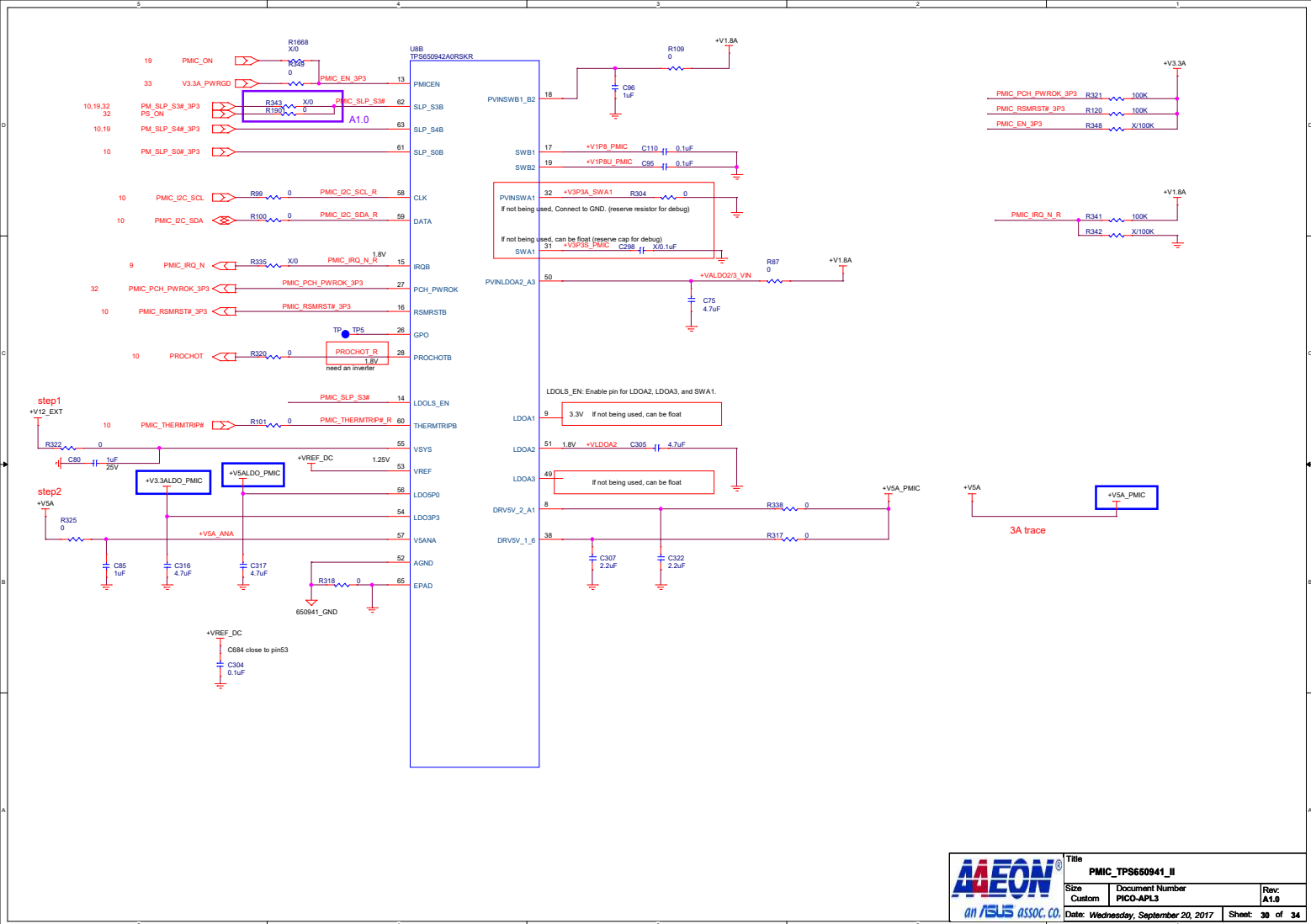
Power LED

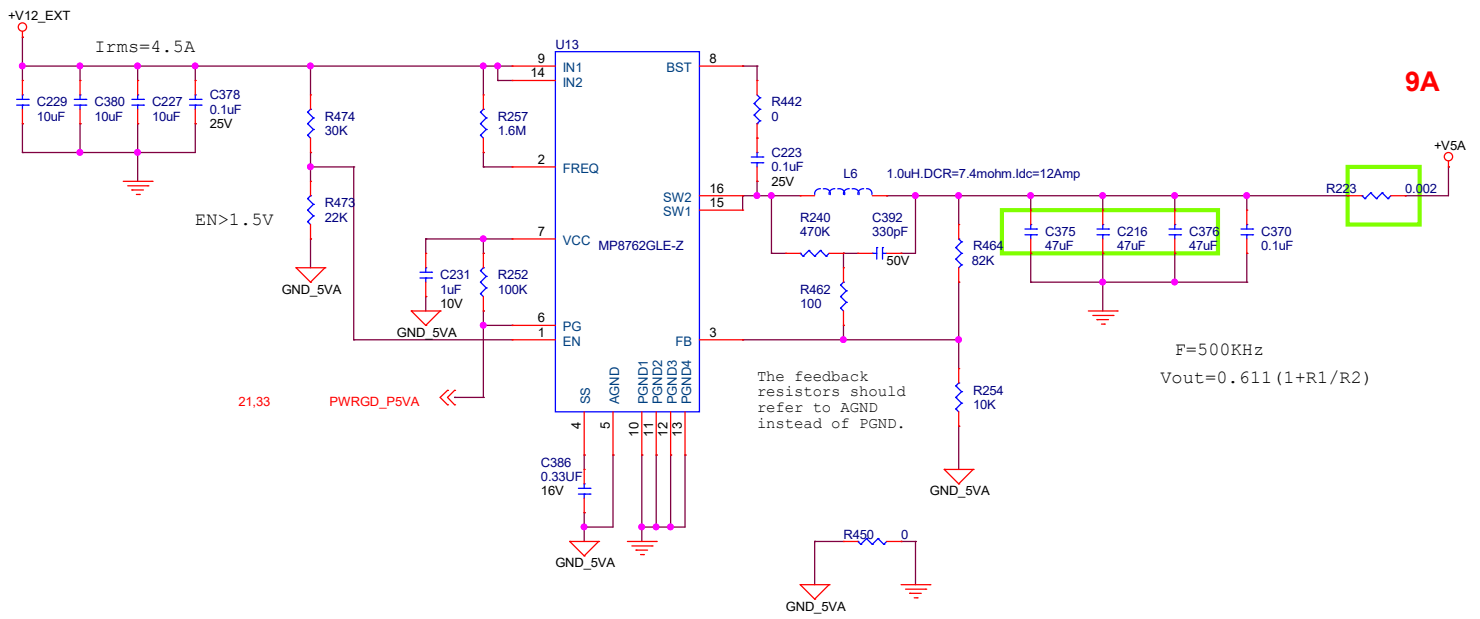
System Reset

Mounting Holes / Non-PTH



Title		Front Panel/Power in	
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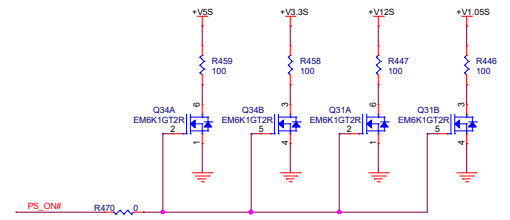
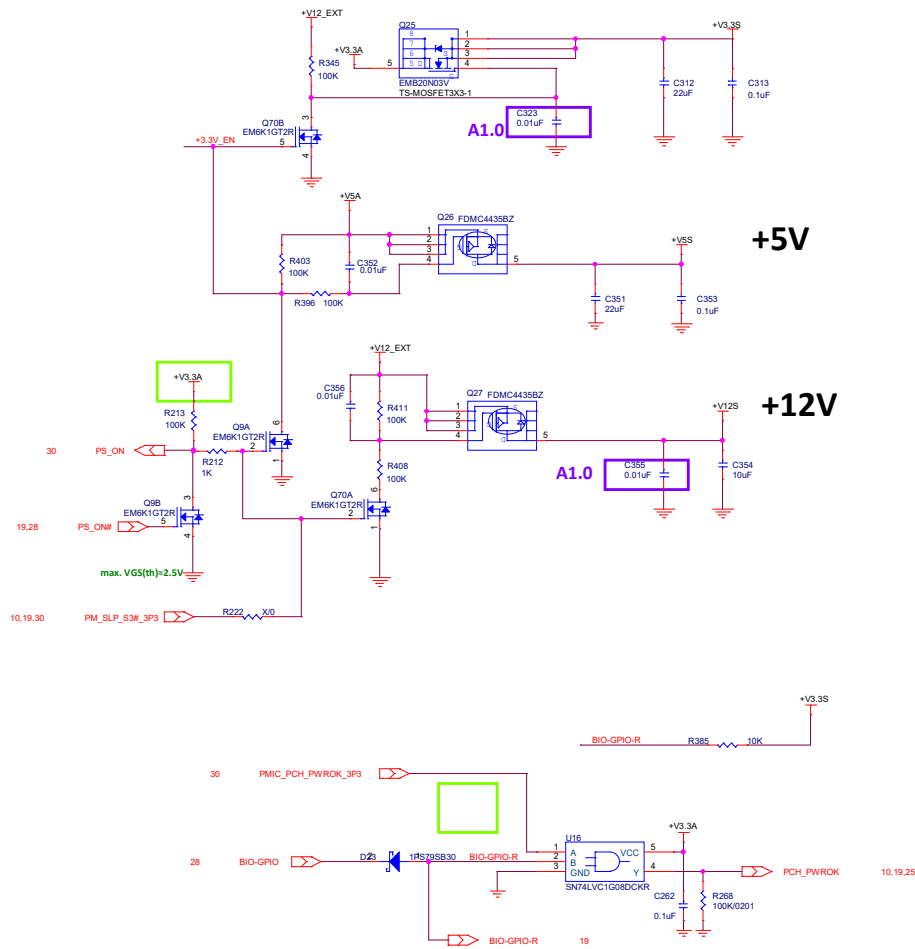


Title Power VR : +V5A		
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+3.3V

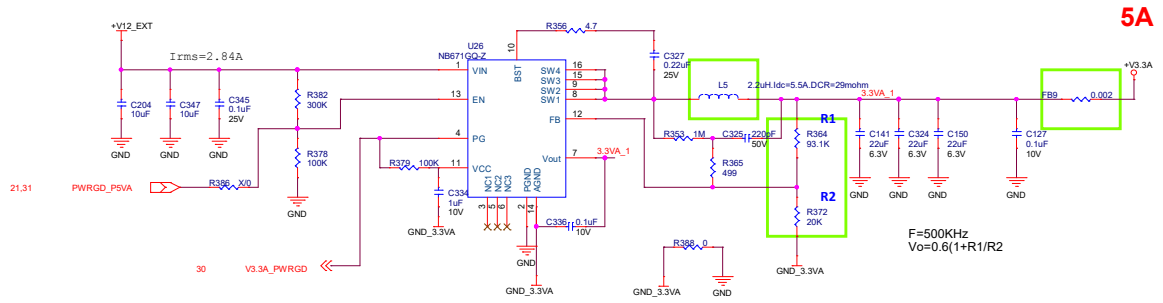
+5V

+12V



Power Sequence Logic			
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1.35V<EN<12V
EN voltage should be lower than 12V



Title		
Power VR : +V3.3A.+V1.5S		
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HISTORY

[illegible]