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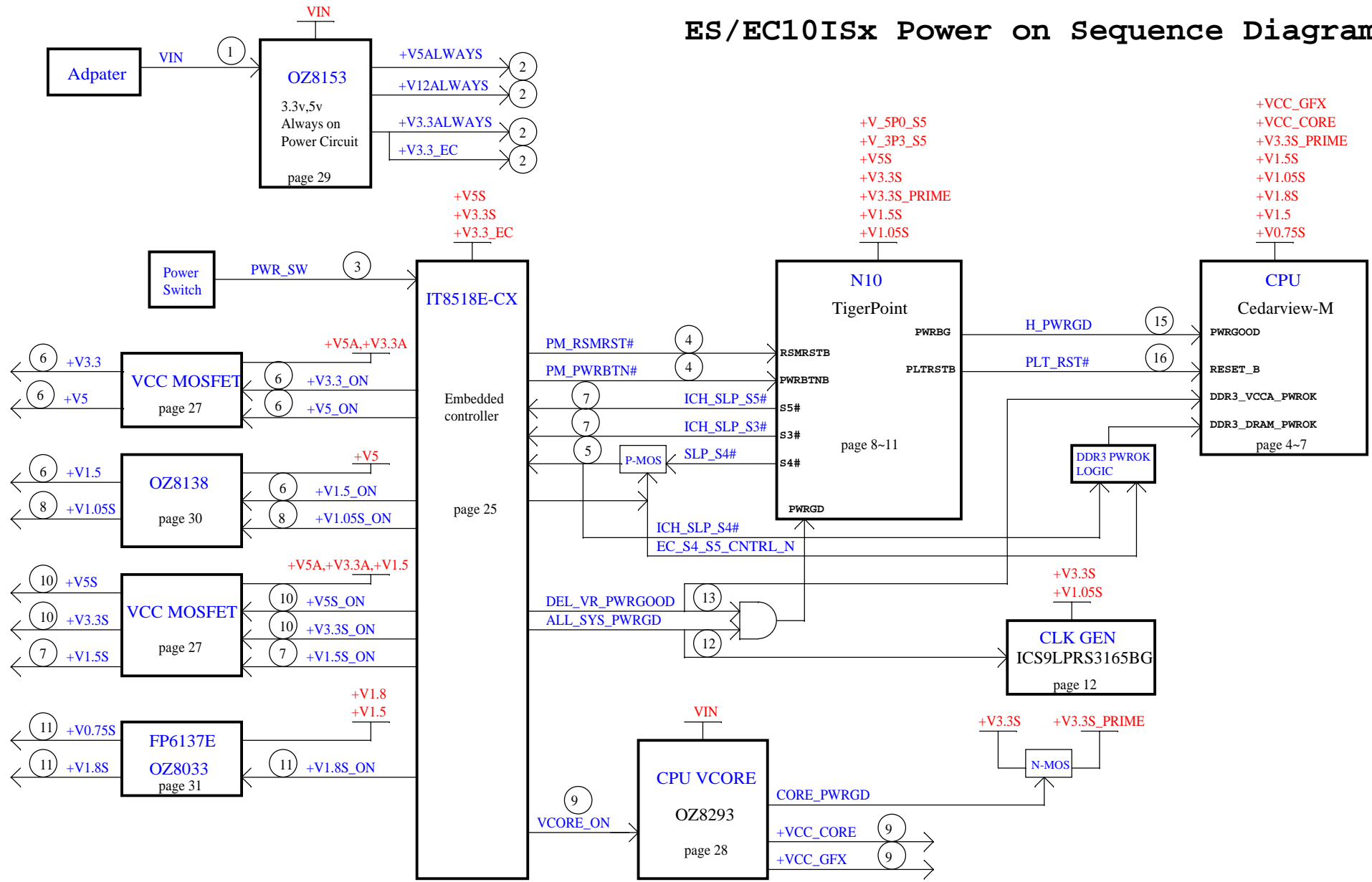
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27.	DEEP STANDBY
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30.	+V3.3 / +V5(OZ8153)
31.	+V1.5/+V1.05S (OZ8138)
32.	+V1.8S / +V0.75S
33.	DC IN / BATT IN / CHARGER
34.	POWER P-STATE

Power Rail

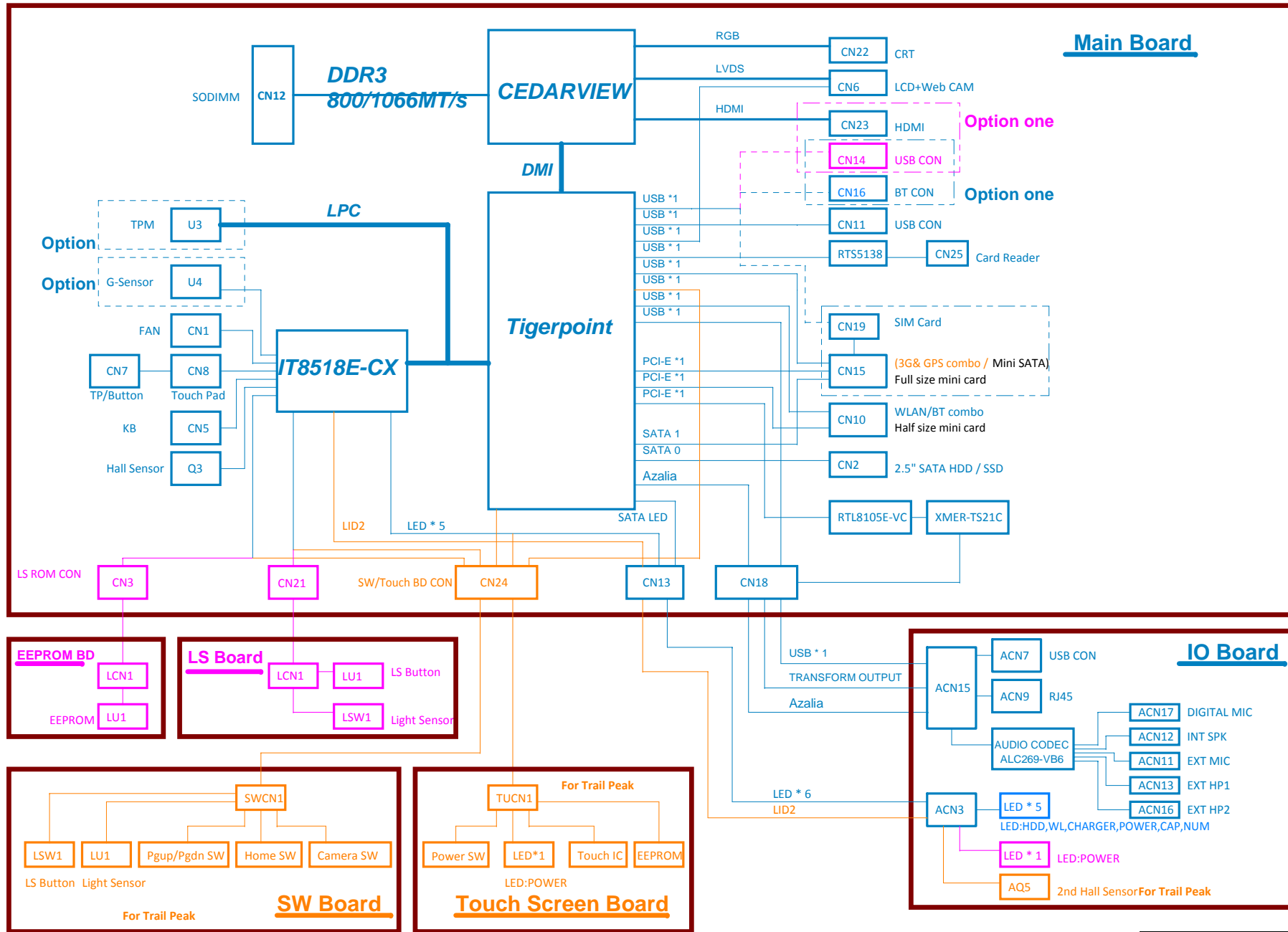
+VCC_CORE	Core voltage for Processor(off in S3-S5)
+VCC_GFX	GFX voltage for Processor(off in S3-S5)
+V0.75S	0.75V switched power rail(off in S3-S5)
+V1.05S	1.05V switched power rail (off in S3-S5)
+V1.5S	1.5V switched power rail (off in S3-S5)
+V1.5	1.5V power rail (off in S4-S5)
+V1.8S	1.8V switched power rail (off in S3-S5)
+V5S	5V switched power rail (off in S3-S5)
+V5	5V power rail (off in S4-S5)
+V5ALWAYS	5V always on power rail
+V3.3S	3.3V switched power rail (off in S3-S5)
+V3.3	3.3V power rail (off in S4-S5)
+V3.3ALWAYS	3.3V always on power rail

+V□□ALWAYS	Always on power rail
+V□□	Switched power rail (off in S4 - S5)
+V□□S *	Switched power rail (off in S3 - S5)

ES/EC10ISx Power on Sequence Diagram



ES10/EC10 System Block Diagram



CEDARVIEW
REV = 1.10

DMI

VGA

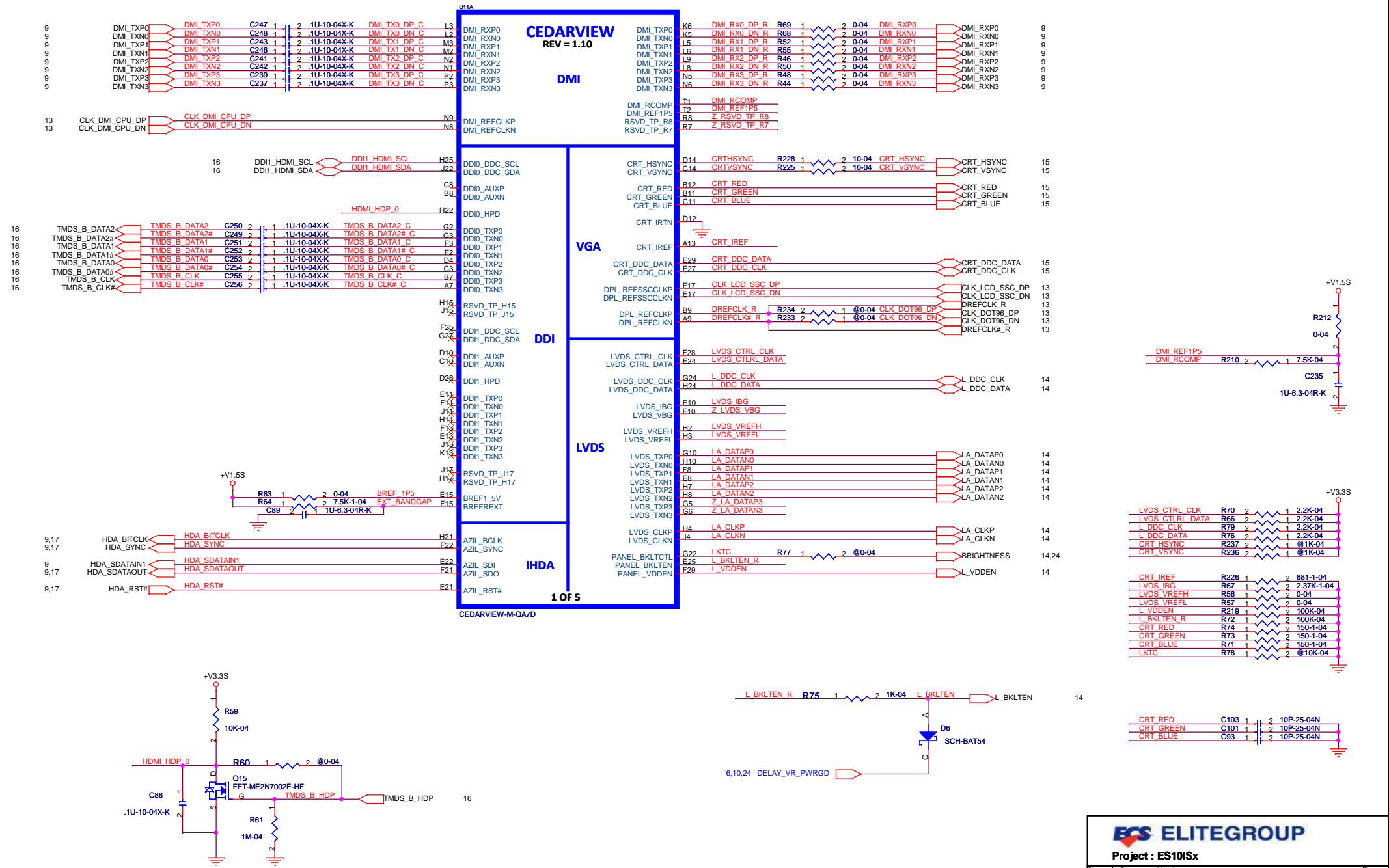
DDI

LVDS

IHDA

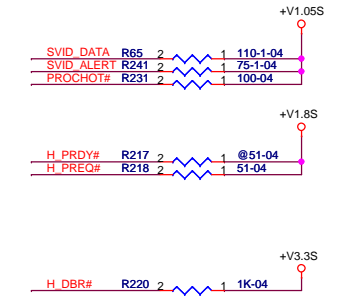
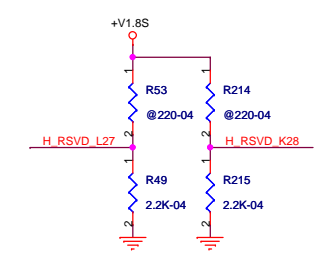
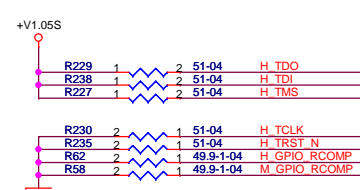
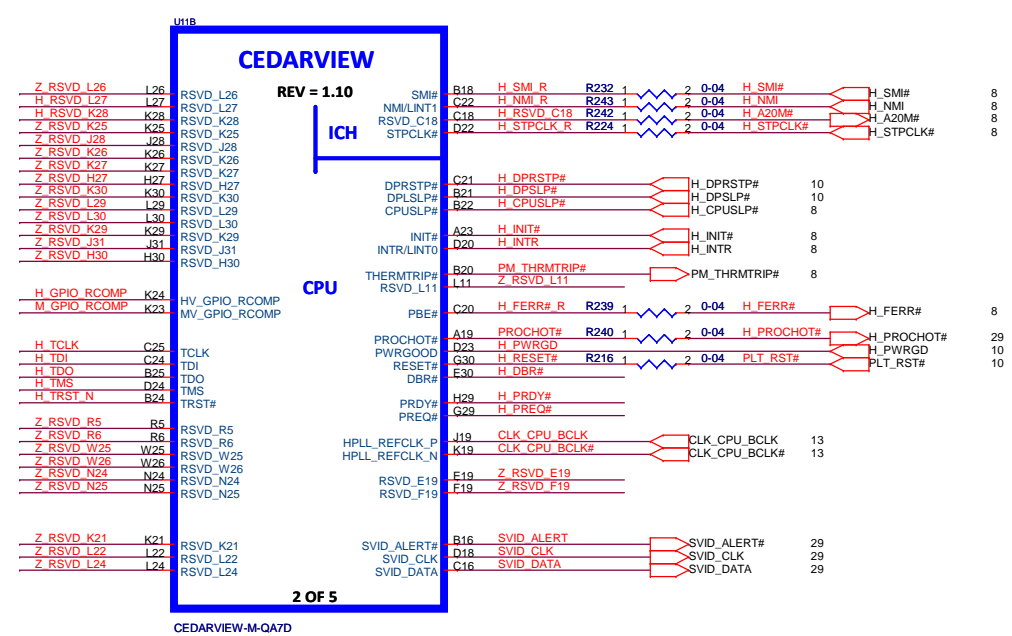
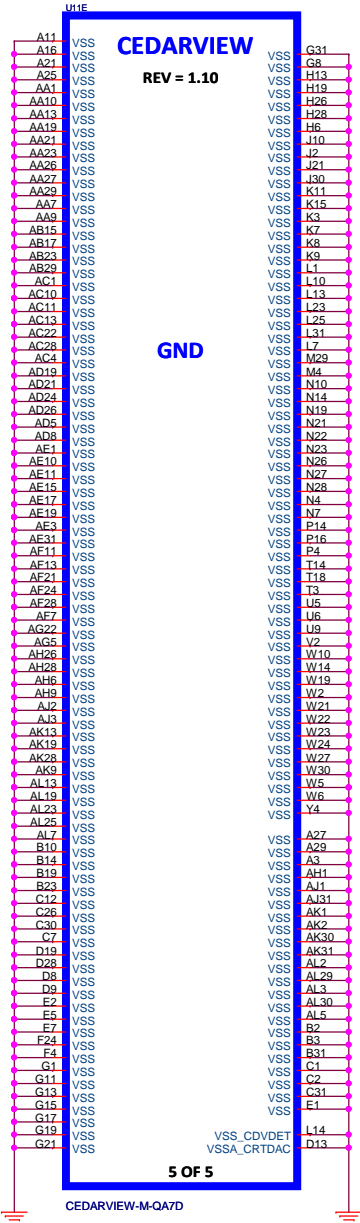
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CEDARVIEW-M-QA7D



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	CPU CEDARVIEW-1/4	A
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NOTE:
MAX TRACE LENGTH OF 500 MIL
AND 5 MIL SPACING
R402 for CDV and Interposer Boot

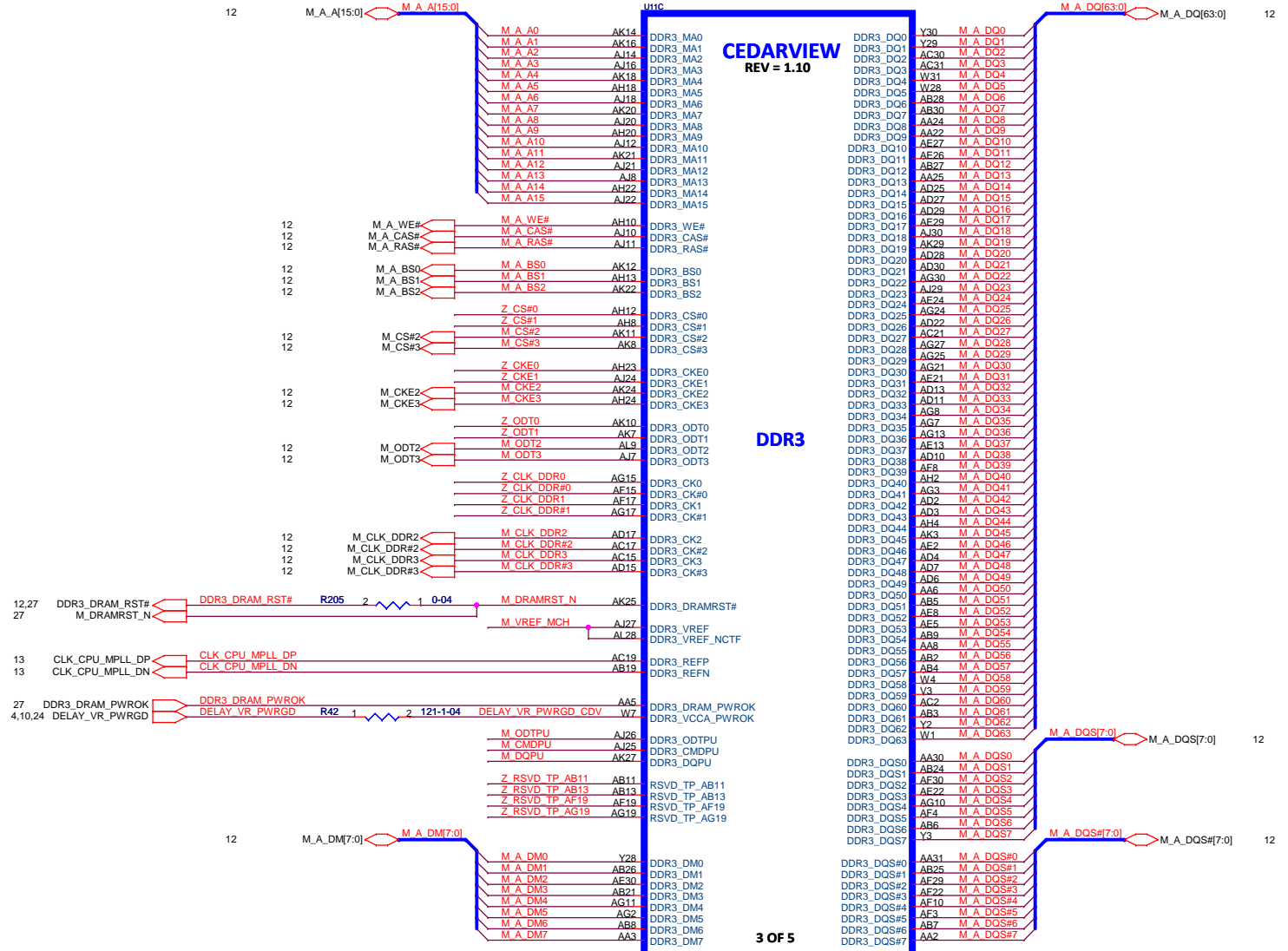
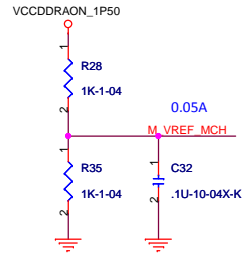
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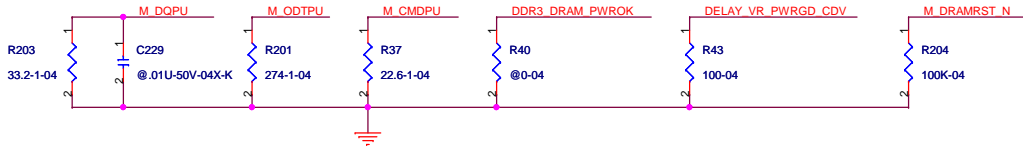
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	CPU CEDARVIEW-2/4	A

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NOTE:
PLACE TWO 1K OHM CLOSE TO CPU PINS ON M_VREF
PLACE 0.1UF CLOSE TO CPU

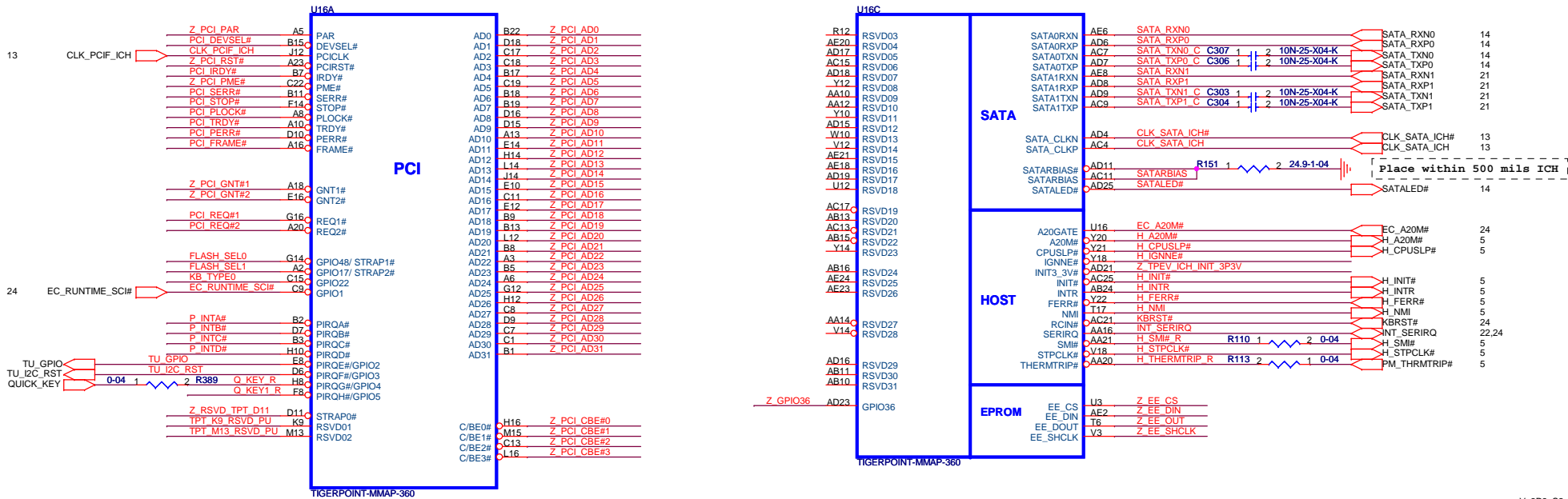


CEDARVIEW-M-QA7D

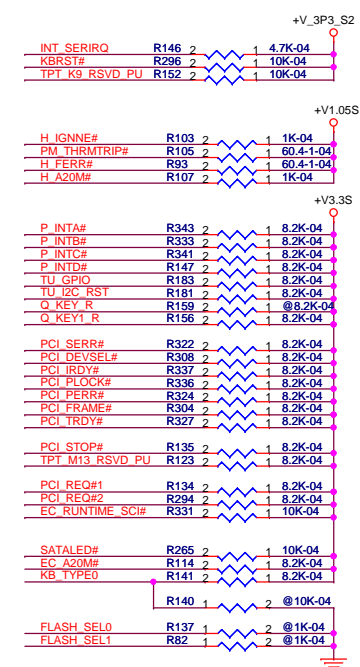


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Place within 500 mils ICH

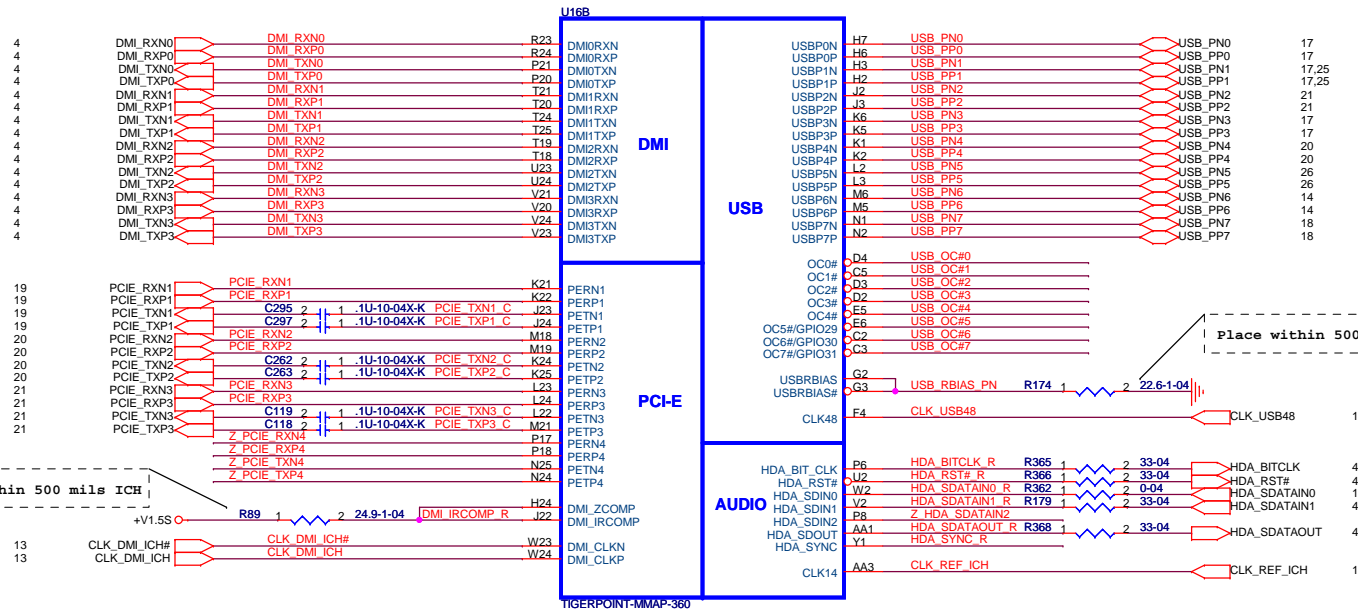


Design Note : TPT_GPIO22(KB_TYPE0) Stuff for validating CK505 driving DPLL GPIO reserved for DPLL REF CLOCK selection

	FLASH_SELO	FLASH_SEL1
SPI	X	V
LPC	X	X
PCI	V	X

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SB TIGERPOINT 1/4
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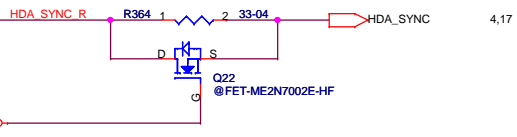
USB	0	1	2	3	4	5	6	7
DEVICE	INT USB0	INTUSB1 SIM/BT	3G CARD	IO USB3	WLAN CARD	I2C	WEB CAM	CARD READER



Place within 500 mils ICH

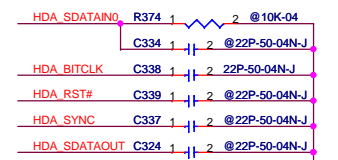
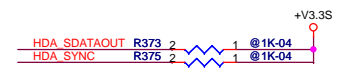
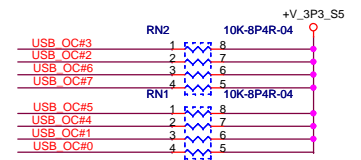
Place within 500 mils ICH

PCI-E	1	2	3	4
DEVICE	LAN	WLAN	3G	N/A



Audio	VA	VB
R364	V	X
Q22	X	V

HDA_SDATAOUT	PCI Express port config bit 1
HDA_SYNC	PCI Express port config bit 0

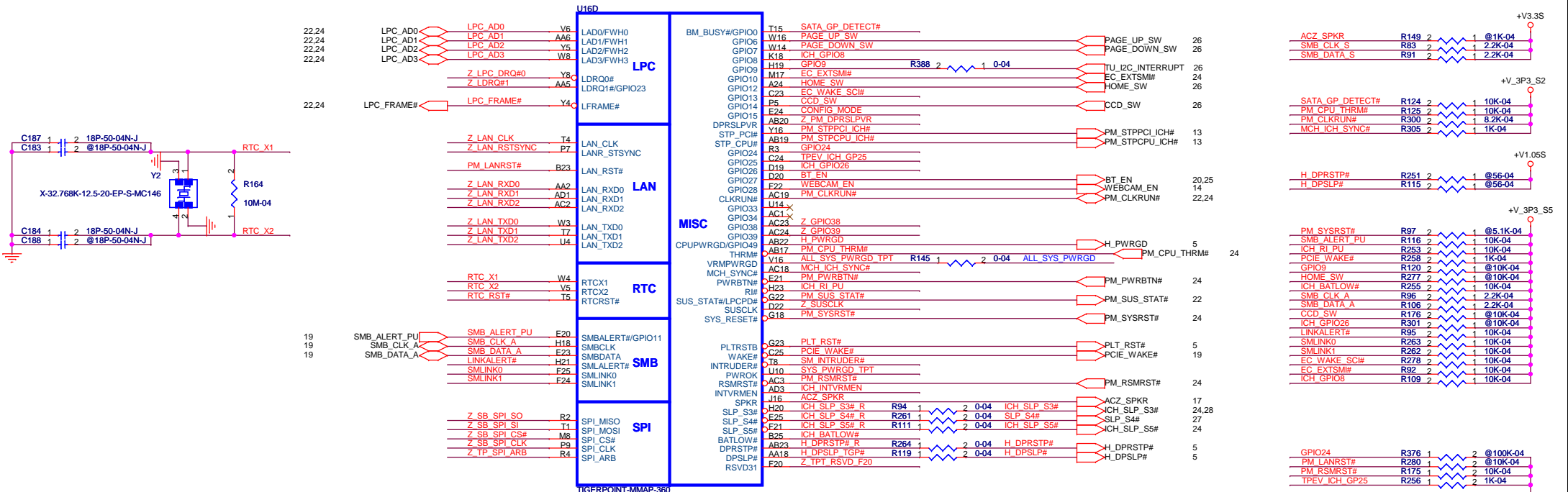


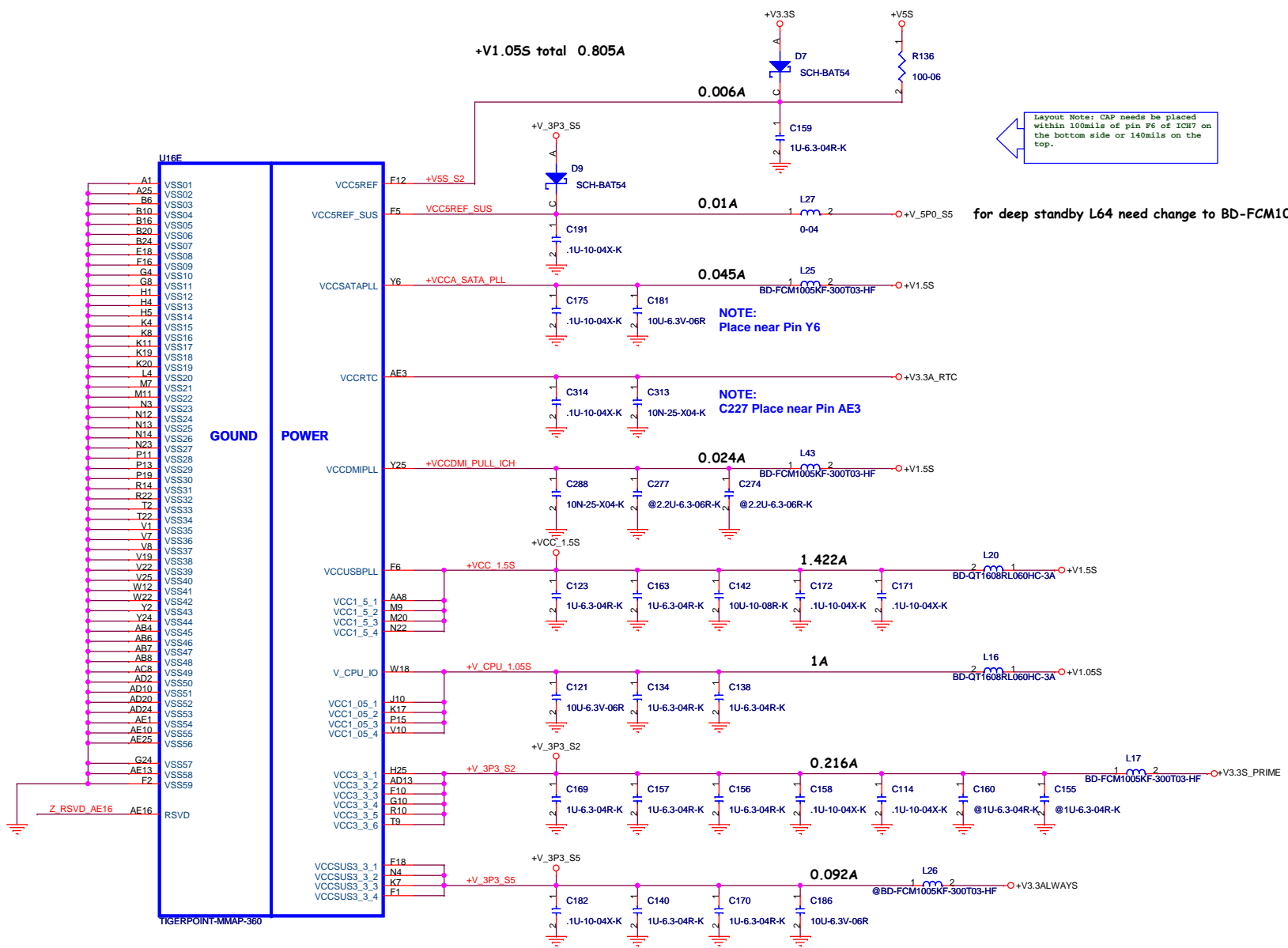
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	SB TIGERPOINT 2/4	A

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Layout Note: CAP needs be placed within 100mils of pin F6 of ICH7 on the bottom side or 140mils on the top.

for deep standby L64 need change to BD-FCM1005KF-300T03-HF

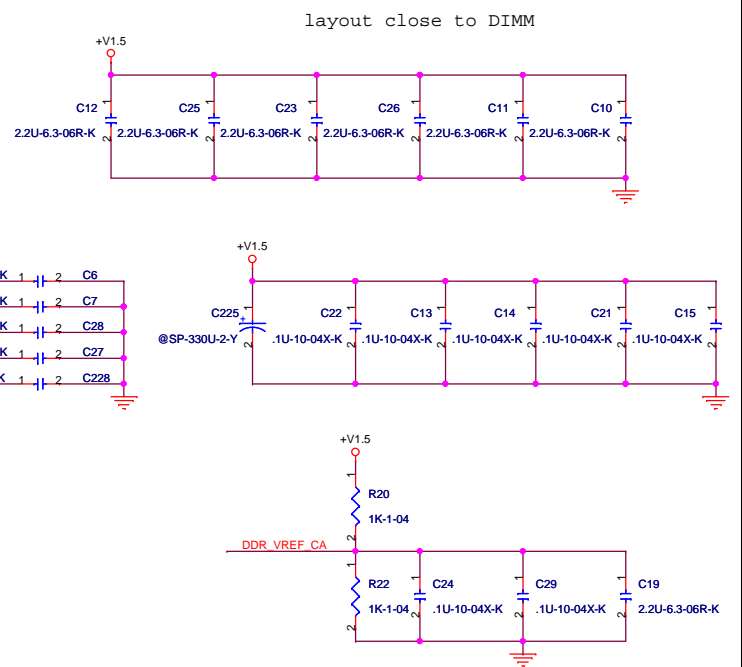
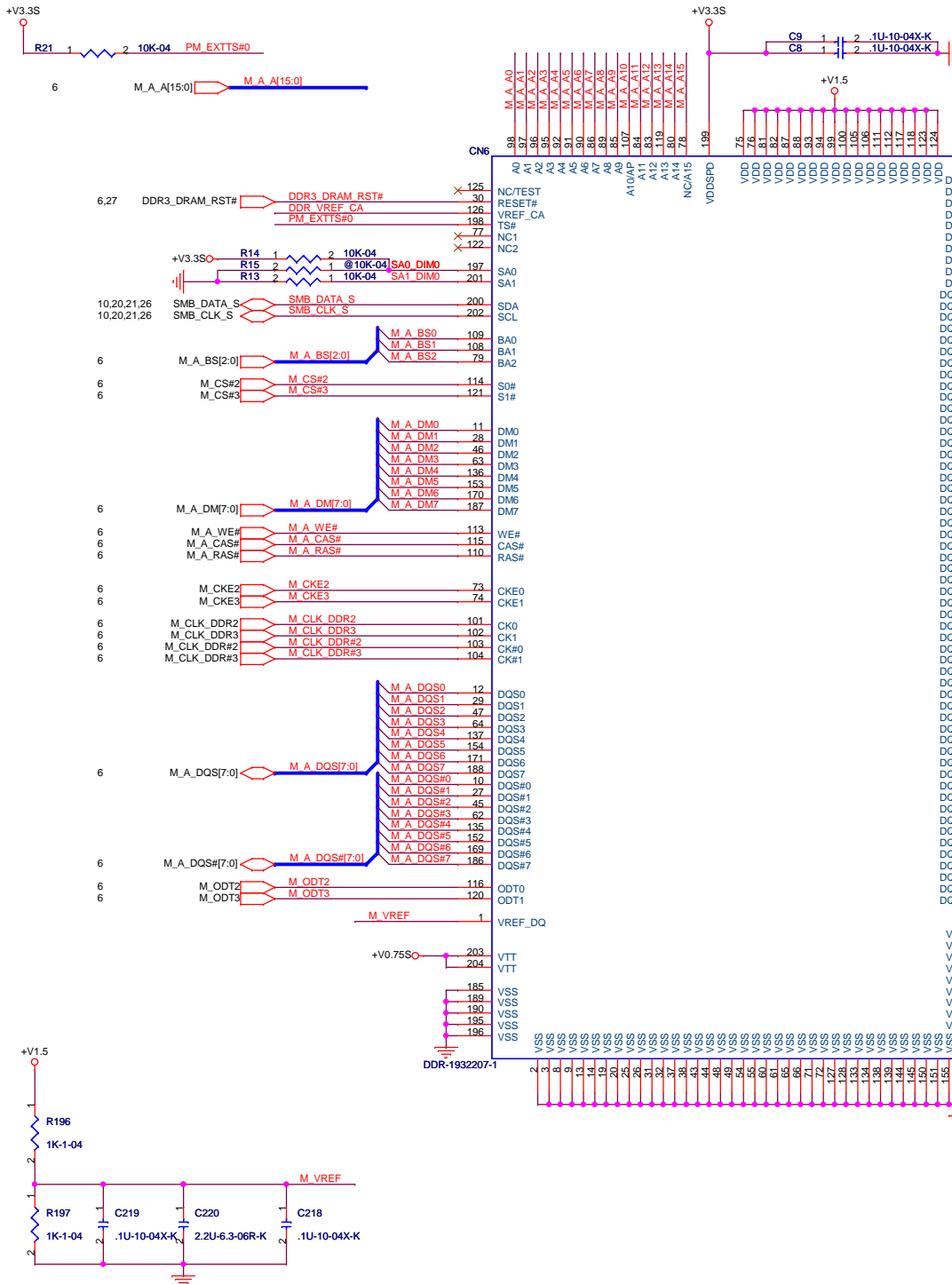
NOTE: Place near Pin Y6

NOTE: C227 Place near Pin AE3

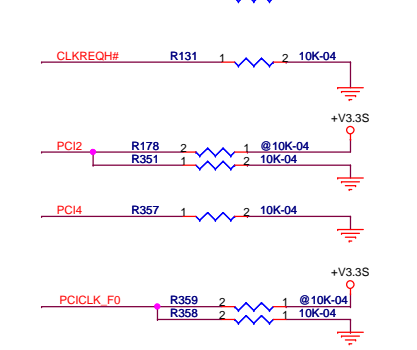
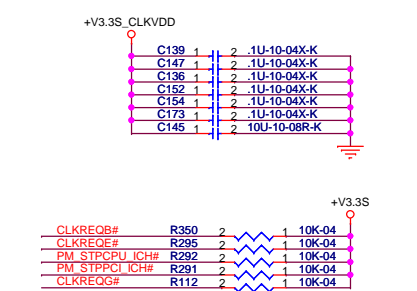
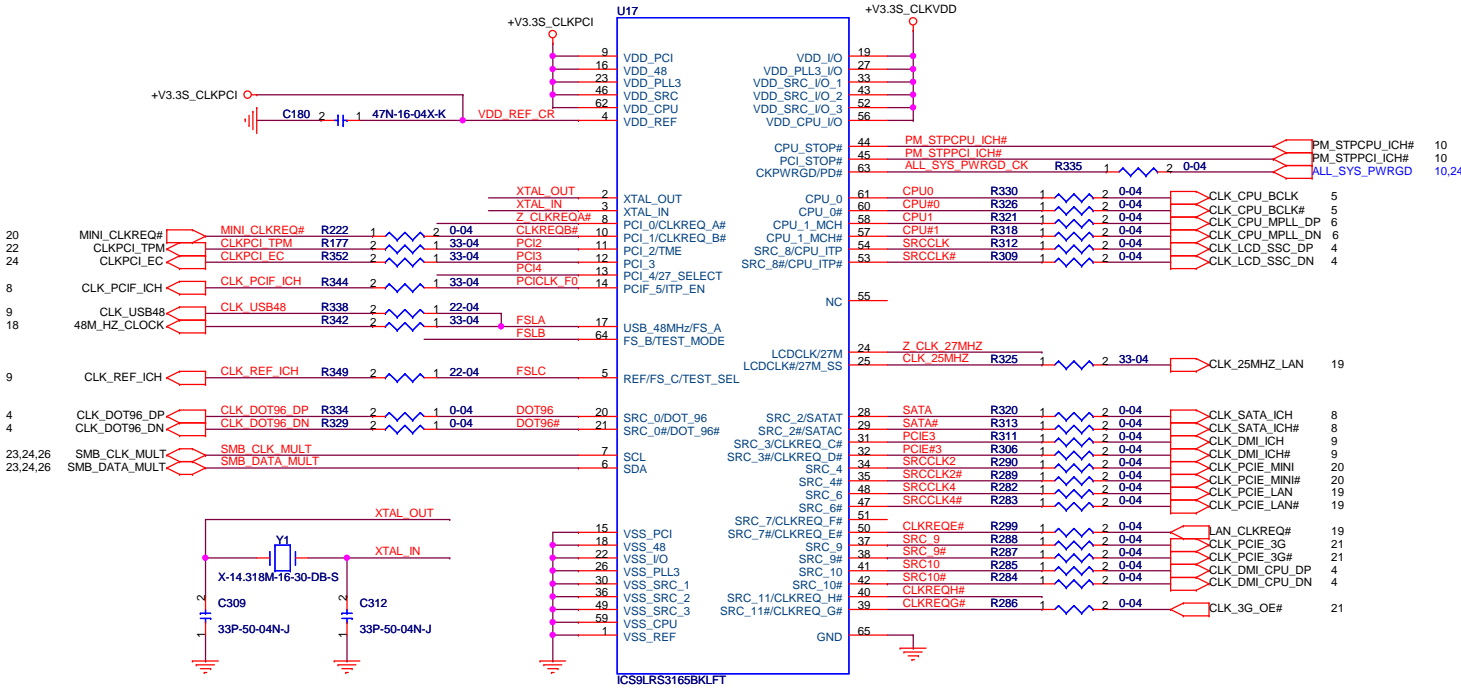
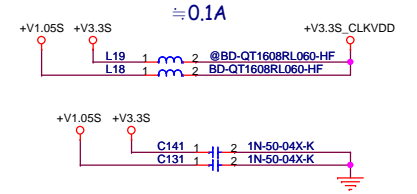
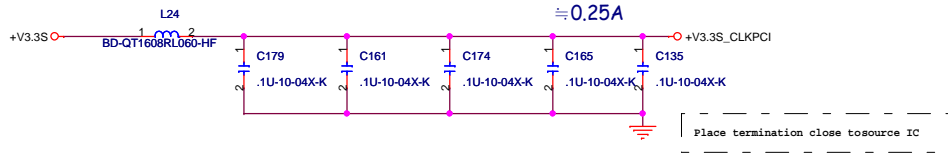
GROUND POWER

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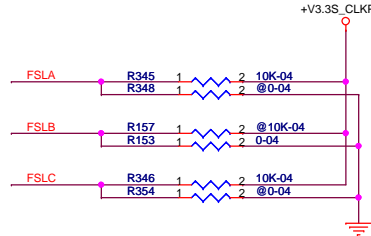
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CLOCK GEN

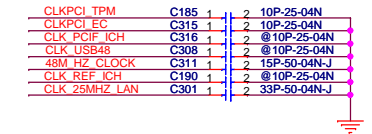


FSLC BSEL2	FSLB BSEL1	FSLA BSEL0	CPU	SRC	PCI
L	L	H	133MHz	100MHz	33MHz
L	H	L	200MHz	100MHz	33MHz
L	H	H	166MHz	100MHz	33MHz
H	L	H	100MHz	100MHz	33MHz
H	H	L	400MHz	100MHz	33MHz
H	L	L	333MHz	100MHz	33MHz
H	H	H	CPU SEL	100MHz	33MHz



PS : CRB SETUP CPU Frequency 100MHz

Reserve for EMI

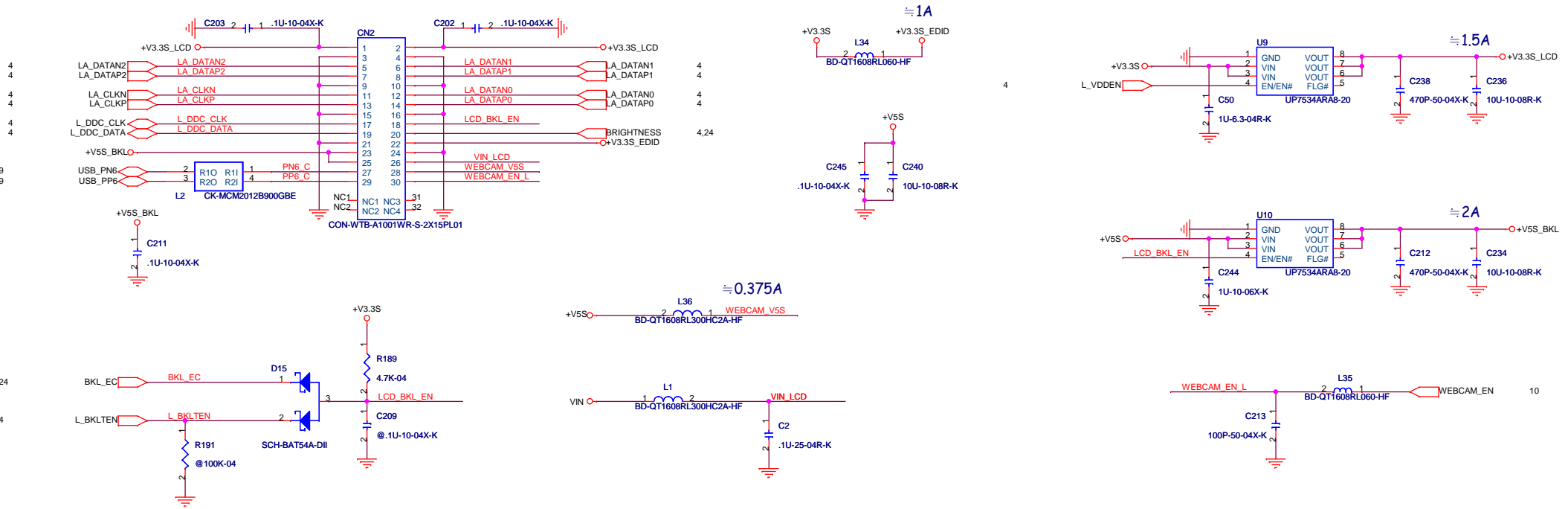


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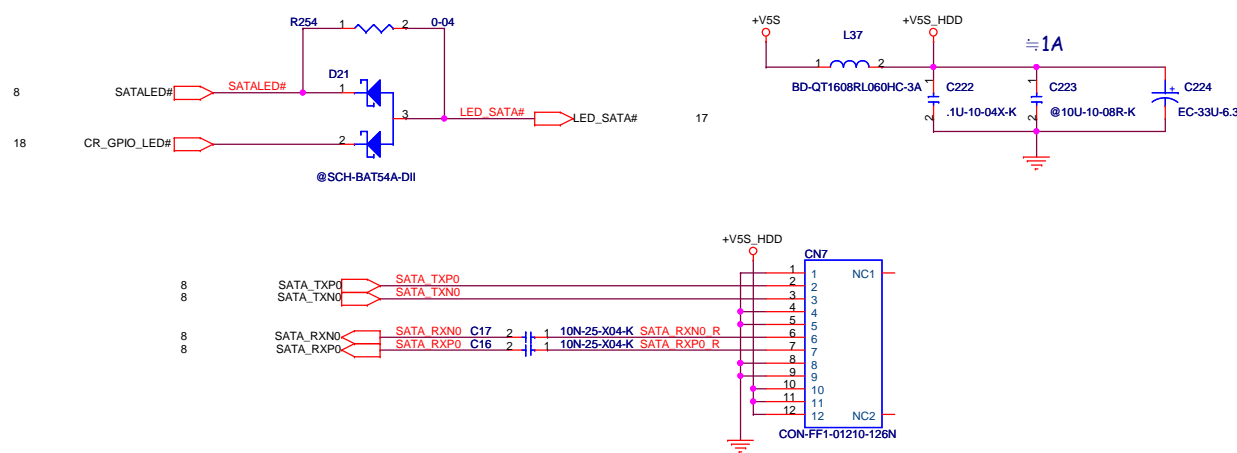
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LCD+WEB 30 PIN CON



SATA HDD

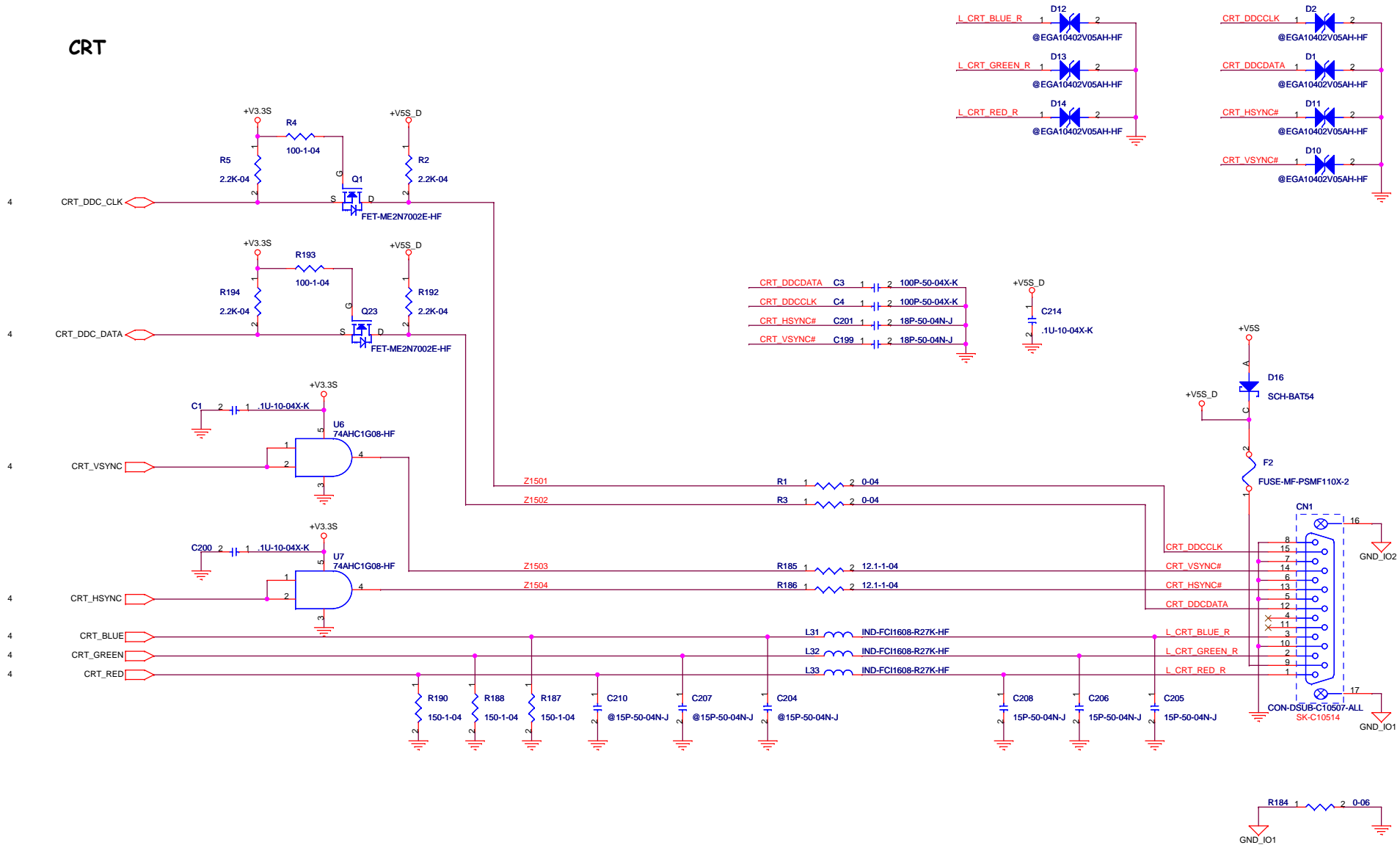


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	LCD /WEB CAM / SATA	A
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CRT

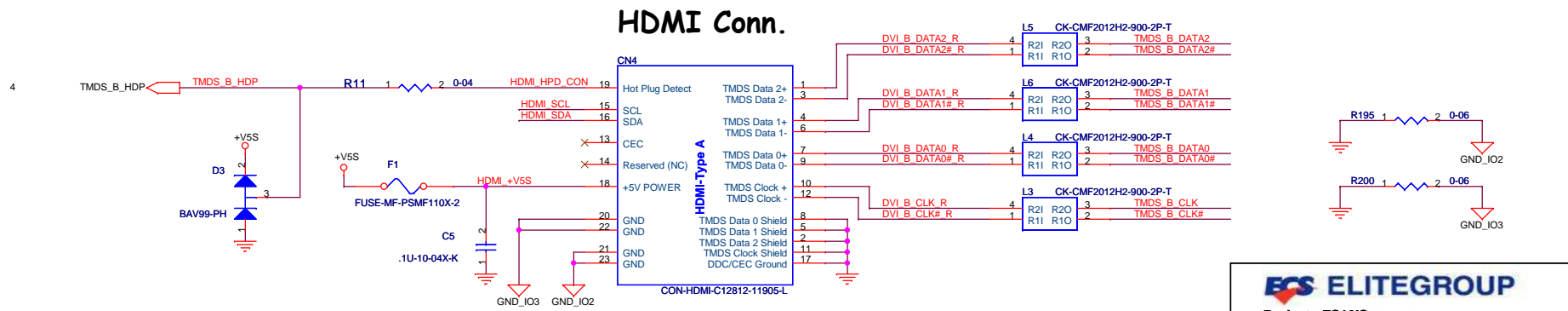
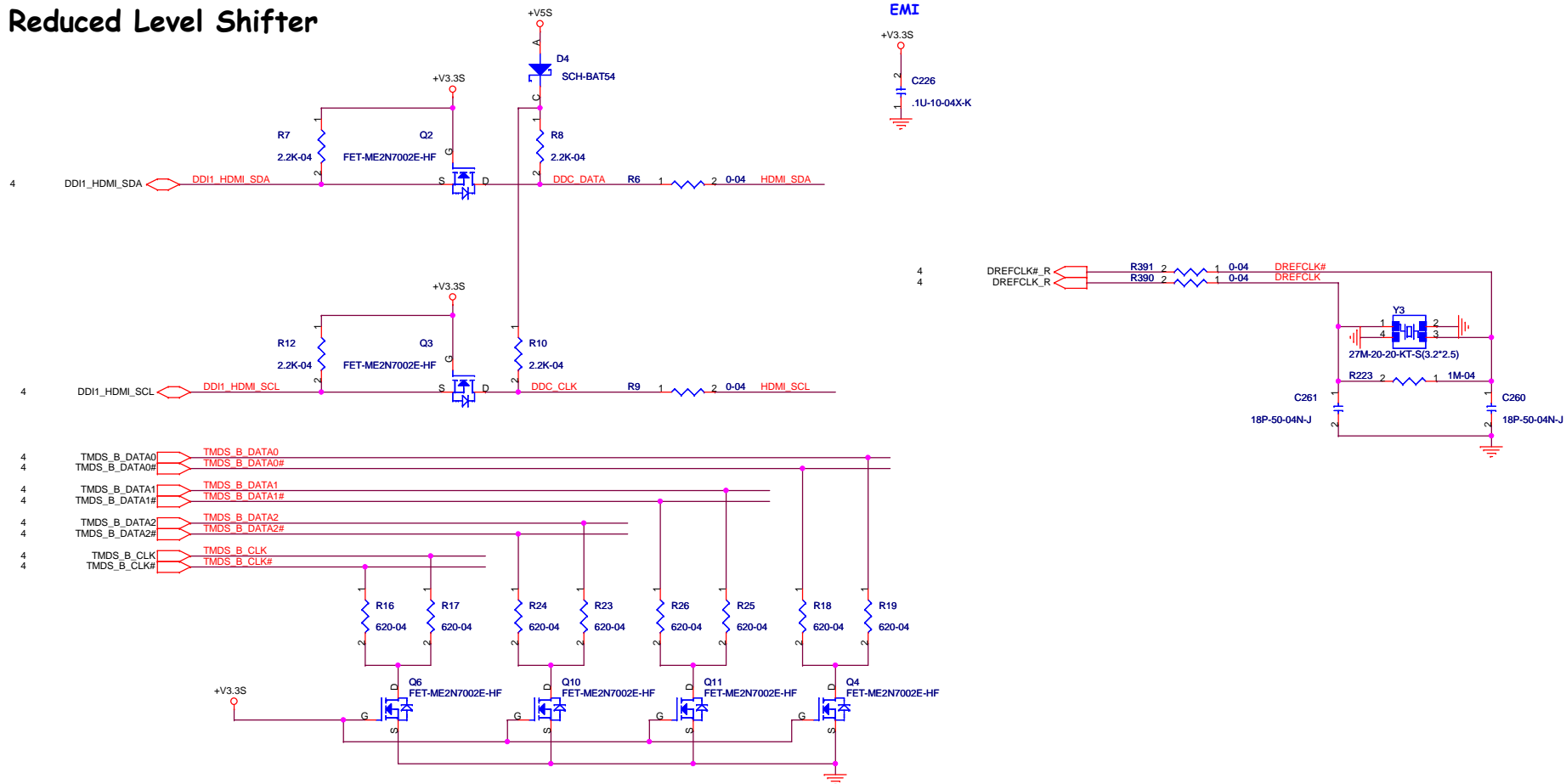


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	CRT CON	A

HDMI Cost Reduced Level Shifter

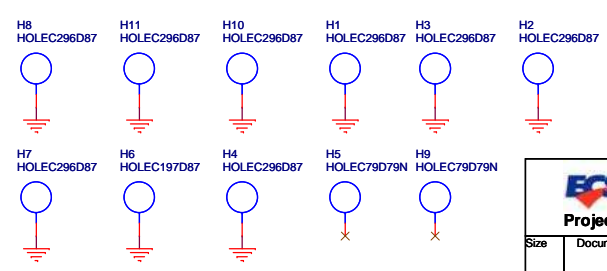
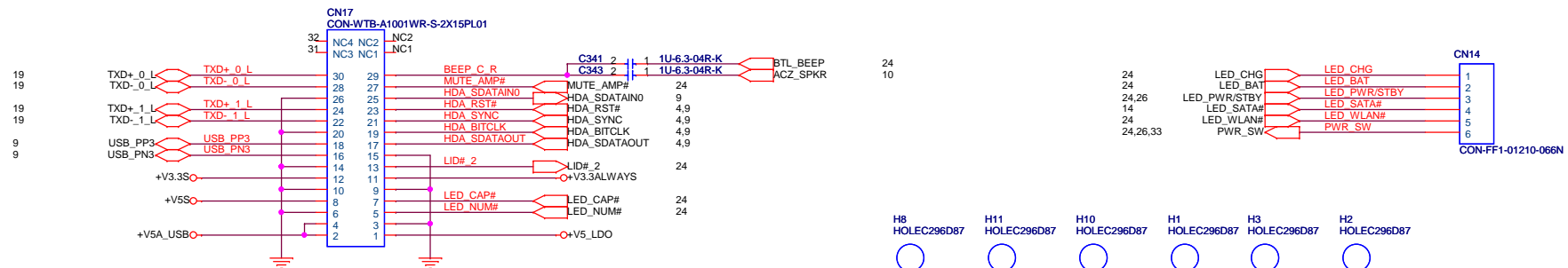
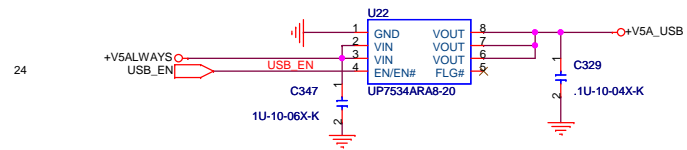
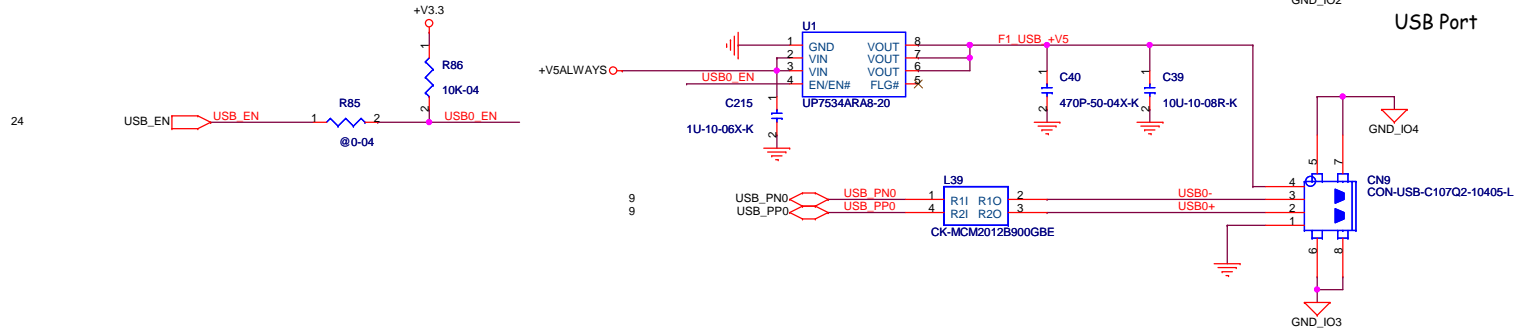
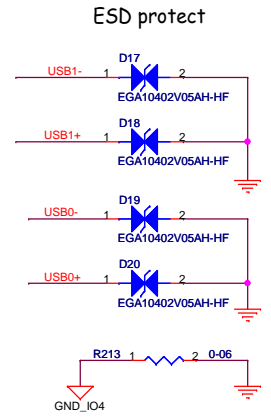
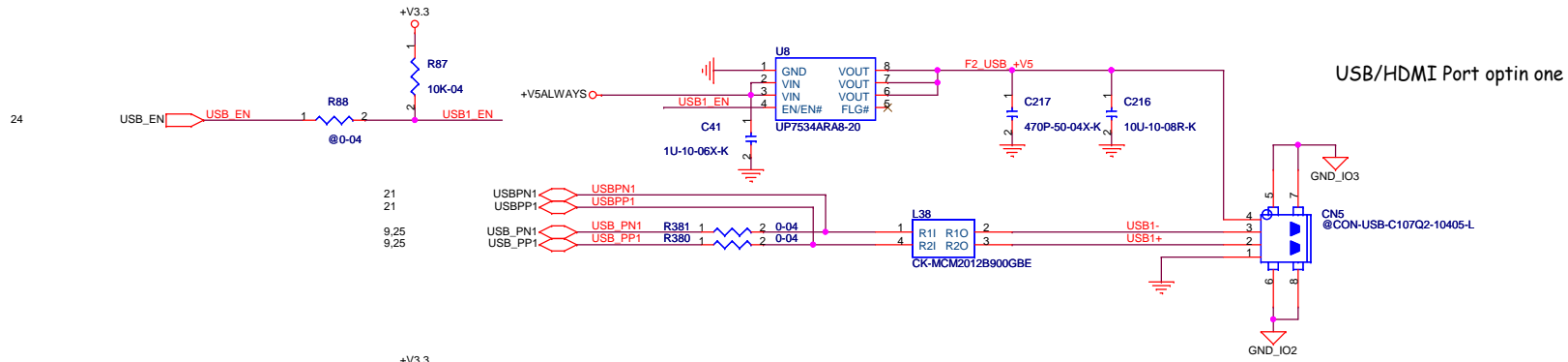


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	HDMI	A

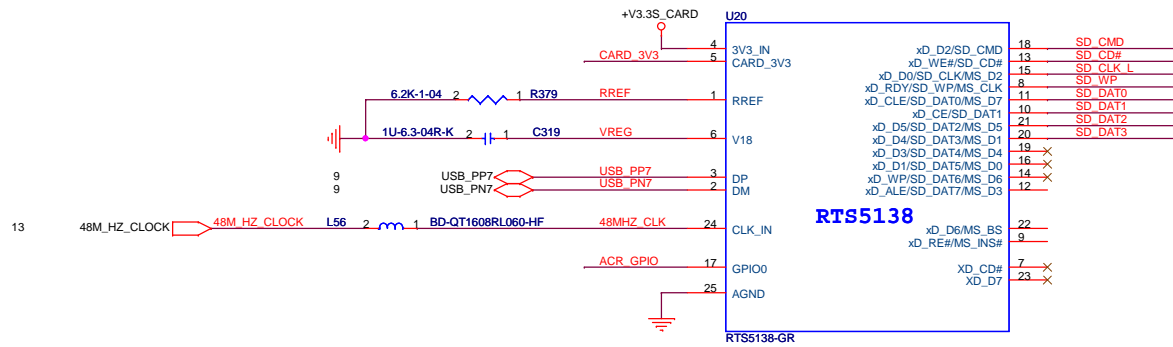
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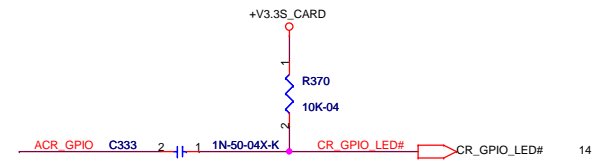
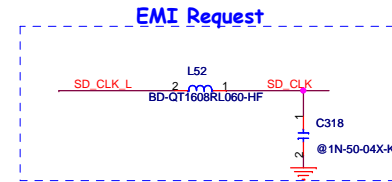
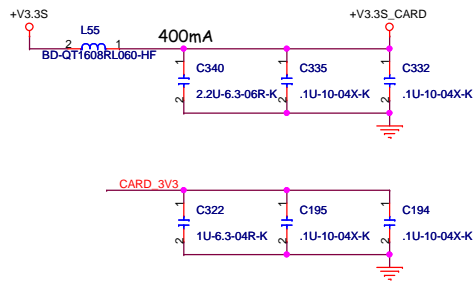
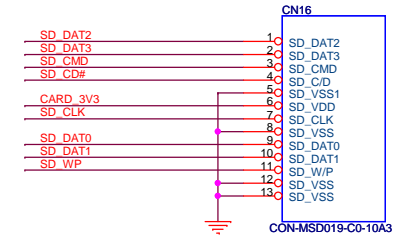
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	USB & IO CON	A
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CARD READER



1. SD/MMC Card: 250mA

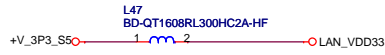


ECS ELITEGROUP

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	CARD READER RST-5138	A
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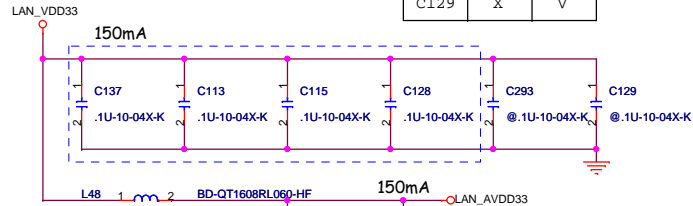
LAN



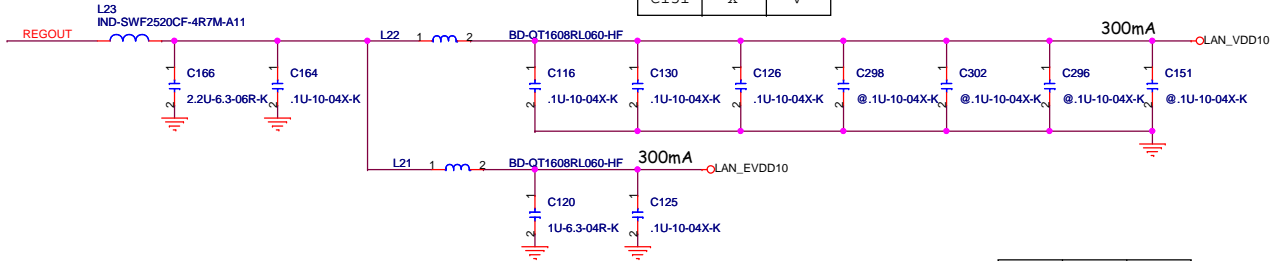
	8105E	8111E
C137	V	V
C113	V	V
C115	V	V
C128	V	V
C293	X	V
C129	X	V

	LDO	Swch
L23	X	V
C166	X	V
C164	X	V

	8105E	8111E
C116	V	V
C130	V	V
C126	V	V
C298	X	V
C302	X	V
C296	X	V
C151	X	V

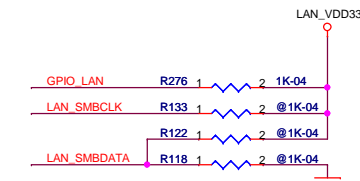
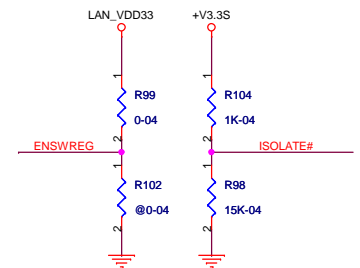
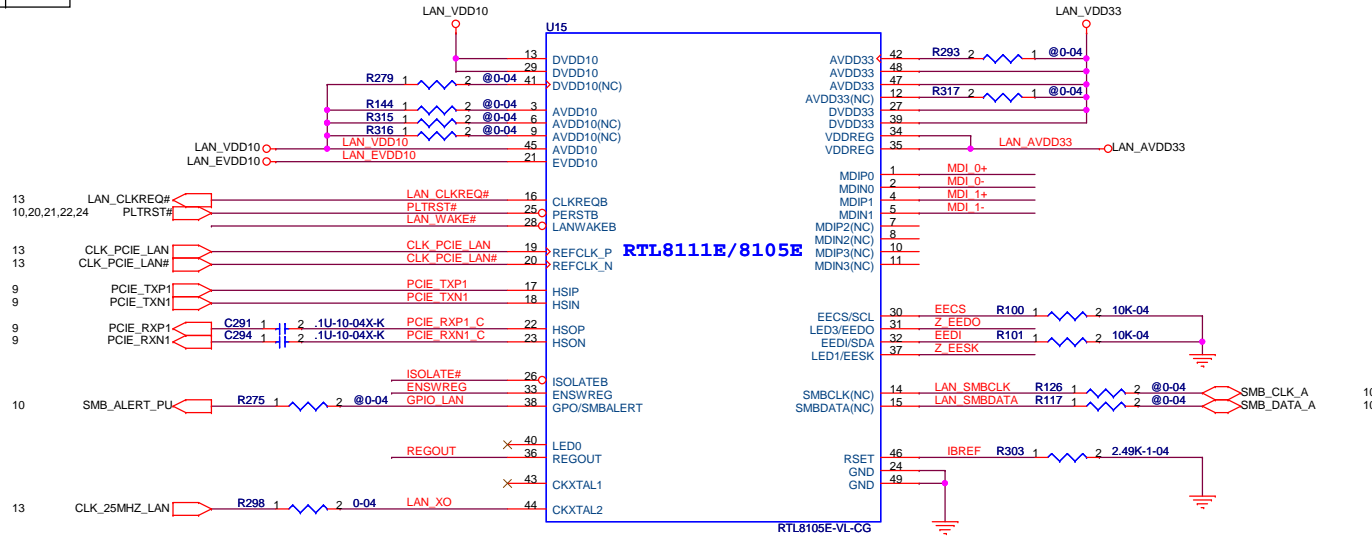


	LDO	Swch
L48	X	V
C292	X	V
C117	X	V



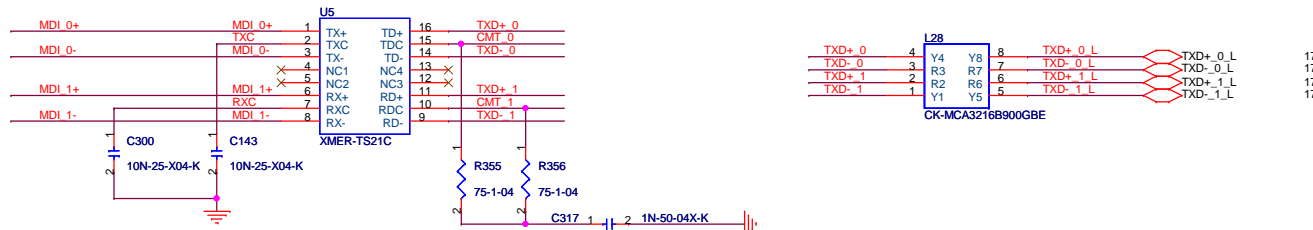
Swch	Enable	Disable
R99	V	X
R102	X	V

	8105E	8111E
R279	X	V
R315	X	V
R144	X	V
R316	X	V
R293	X	V
R317	X	V



ASF	8105E	8111E
R118	X	X
R276	V	V
R113	X	V
R112	X	V

P.S : 8105E don't support ASF mode

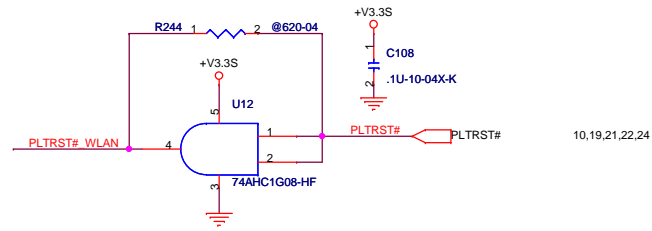
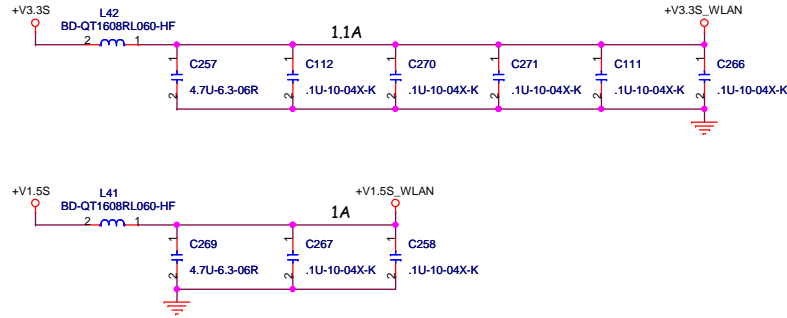
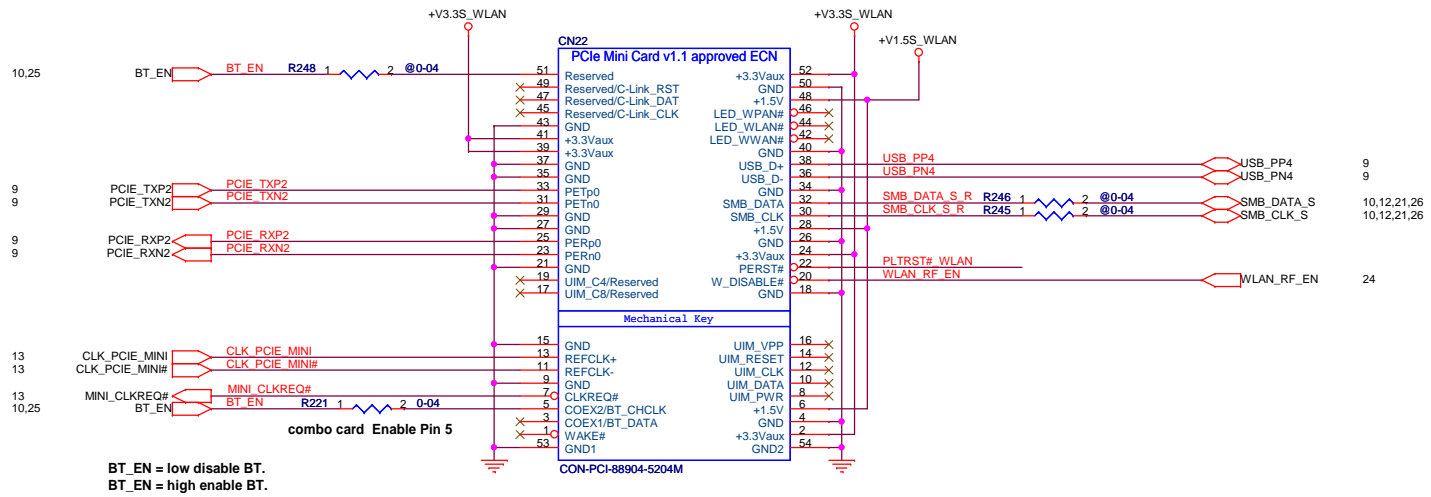


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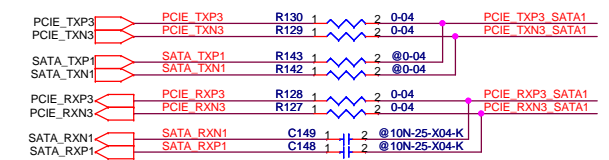
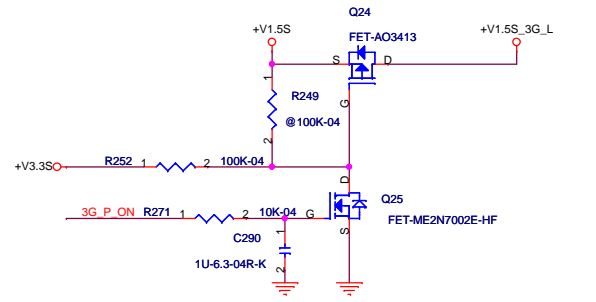
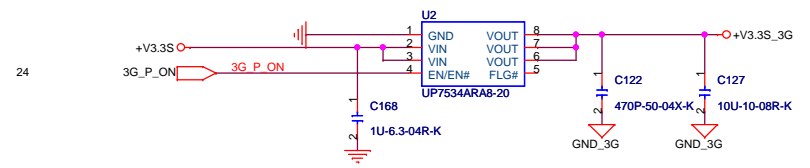
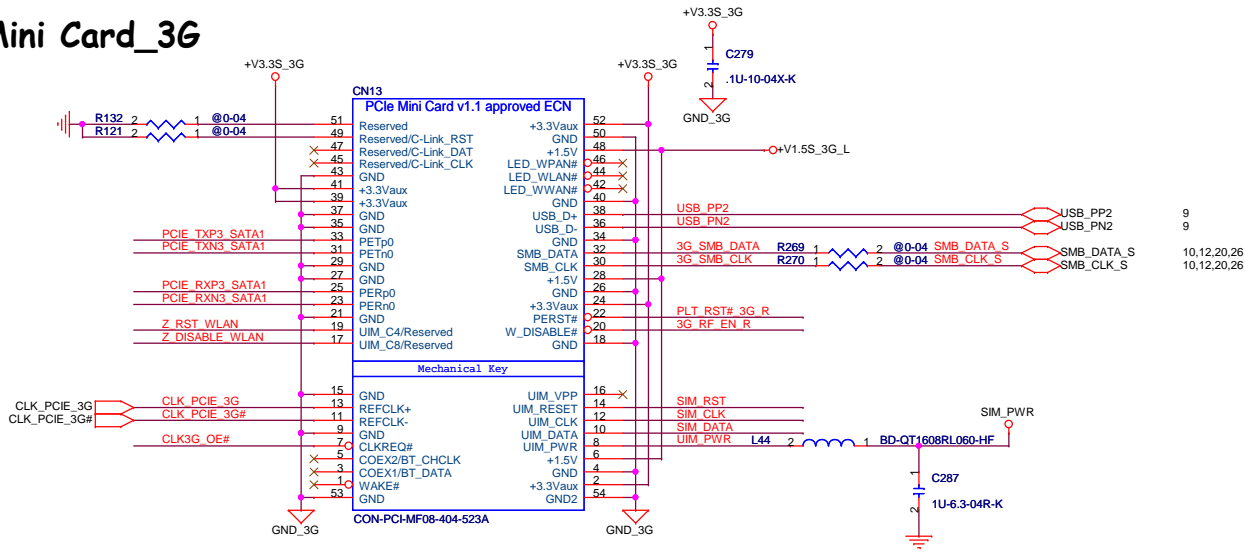
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	LAN-RTL8111E/8105E-VL-CG	A

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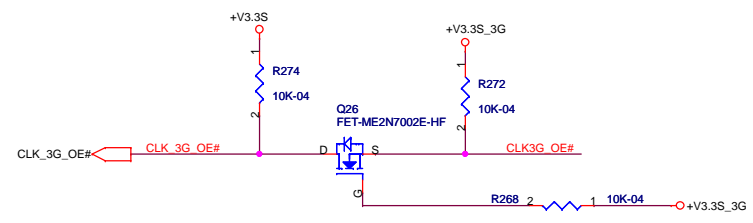
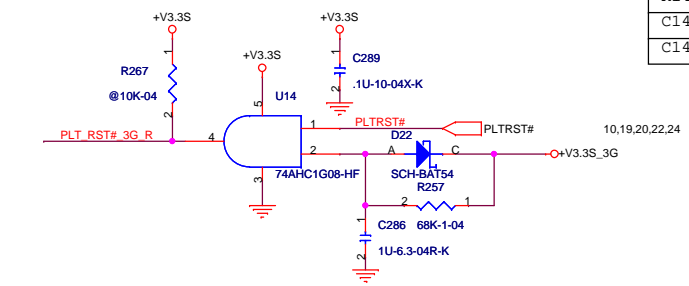
Mini Card



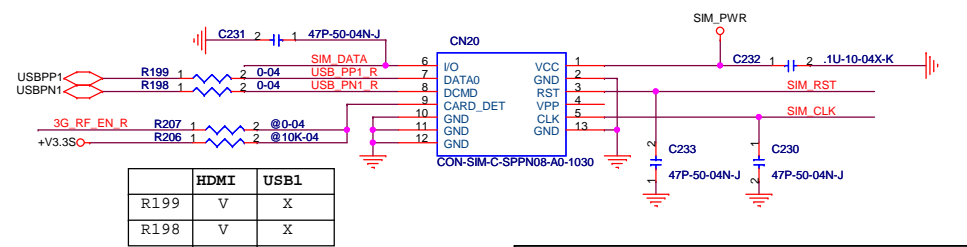
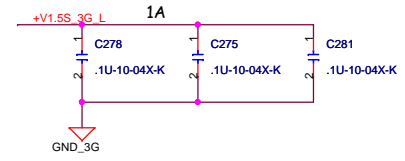
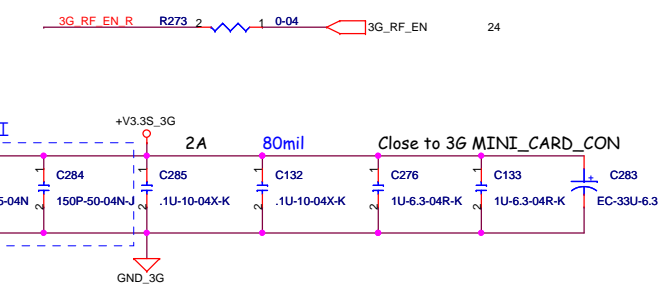
Mini Card_3G



	PCI-E	M-SATA
R130	V	X
R129	V	X
R128	V	X
R127	V	X
R143	X	V
R142	X	V
C149	X	V
C148	X	V



SIM_CARD



	HDMI	USB1
R199	V	X
R198	V	X

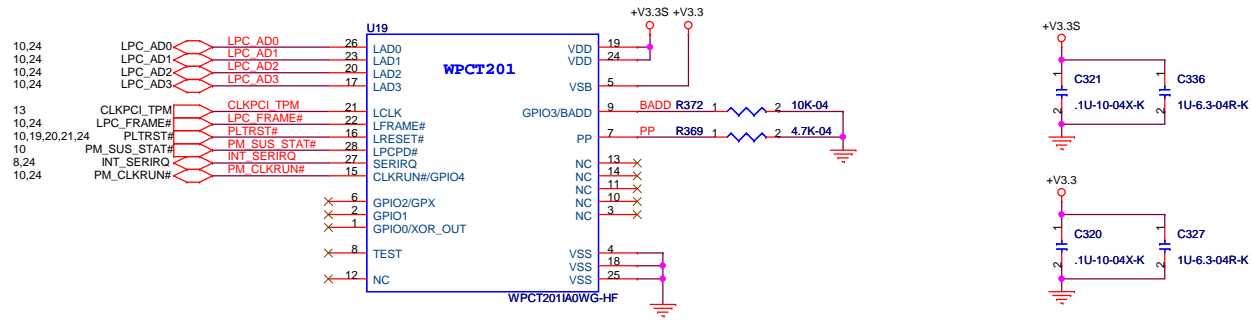
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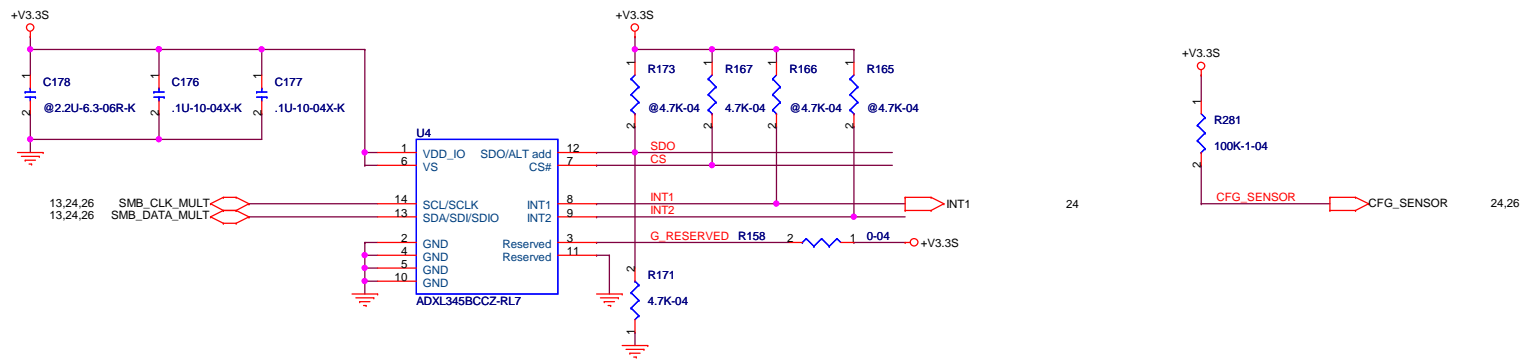
Size Document Number 3G CON Rev A

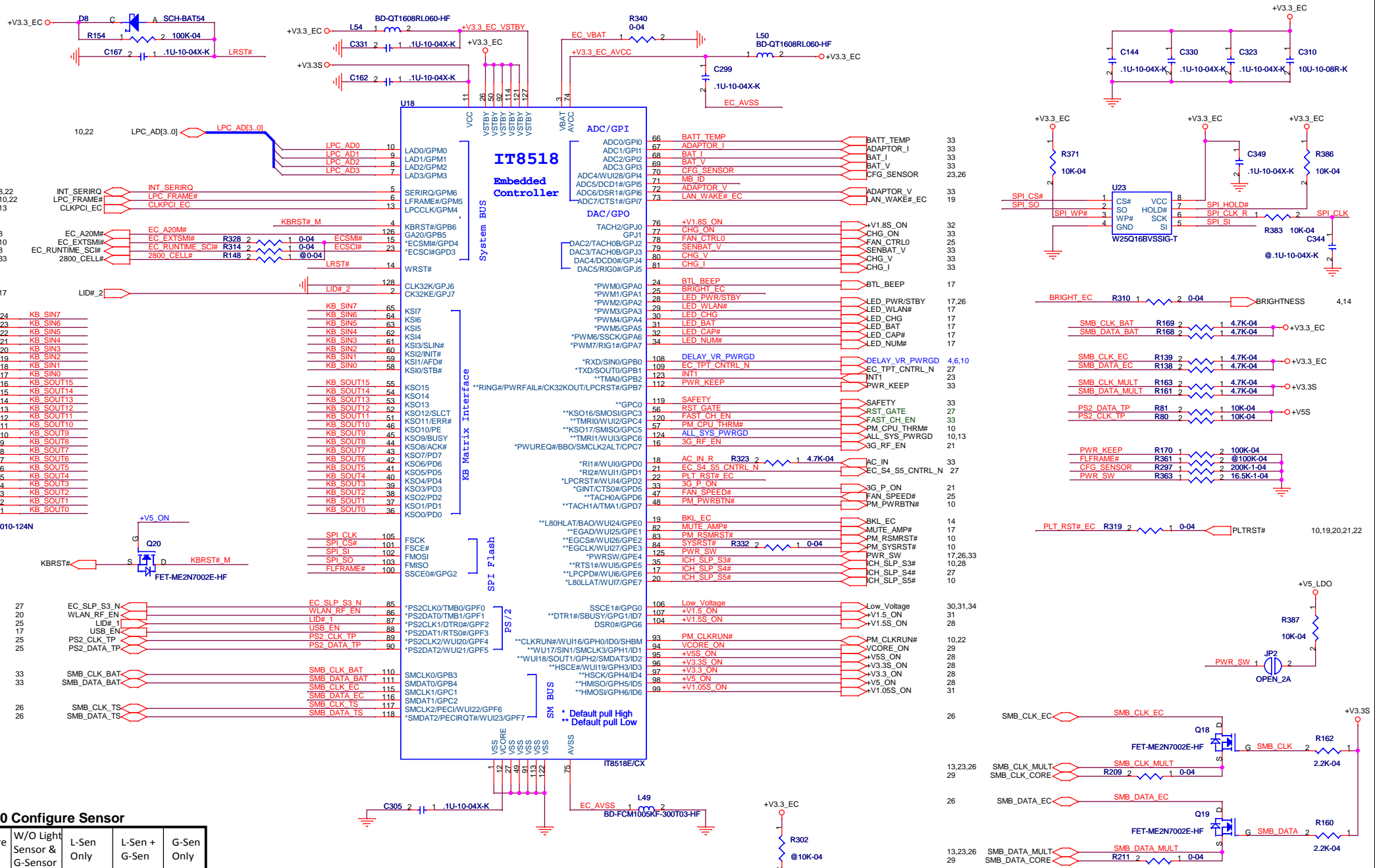
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TPM



G-Sensor





ES/EC10 Configure Sensor

Configure	W/O Light Sensor & G-Sensor	L-Sen Only	L-Sen + G-Sen	G-Sen Only
Voltage	0 V	0.825 V	1.65 V	2.2 V
R281	@	@	V	V
R297	V	V	V	V

ES/EC10 M/B revision ID---

MB rev. ID	Rev.A	Rev.A W/O TPM	Rev.B	Rev.B W/O TPM	Rev.C	Rev.C W/O TPM
MB_ID	0V	0.55V	1.05V	1.48V	1.98V	2.56V
R302	@	10K	10K	10K	10K	10K
R307	1.5K	2K	4.7K	8.2K	12K	34.8K

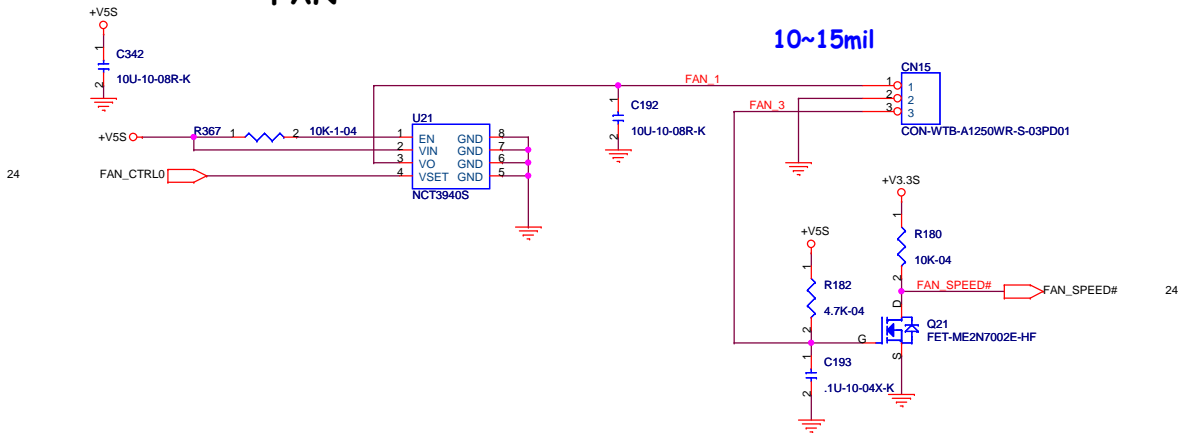
ELITEGROUP

Project : ES10ISx

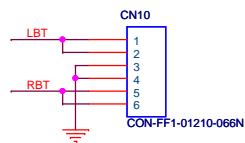
Size	Document Number	Rev
	ES10ISX_MB_BD_REV_A	A

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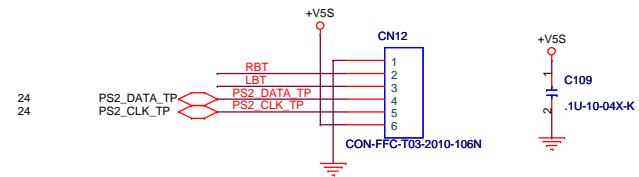
FAN



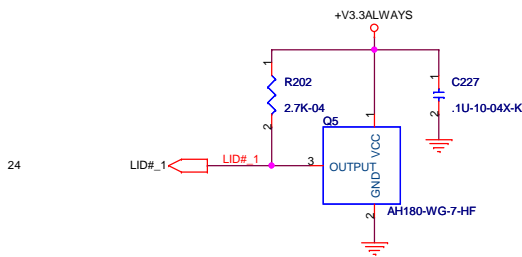
Touch PAD Button



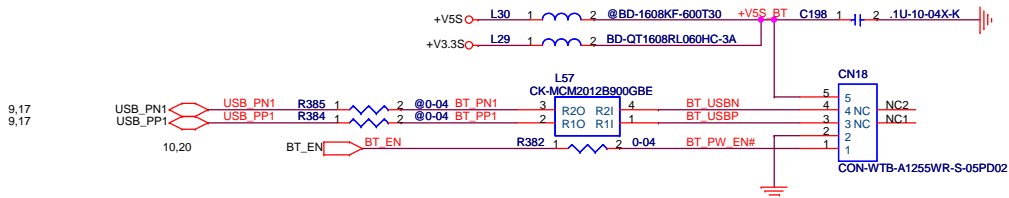
Touch PAD



HALL Sensor

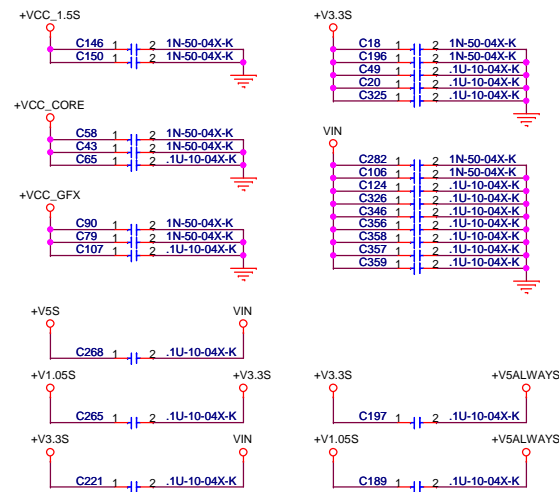


Option Bluetooth



BT_EN = low disable BT.
BT_EN = high enable BT.

EMI Request



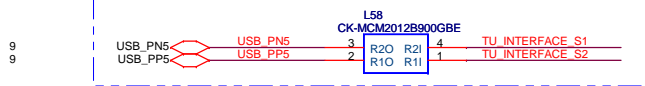
ELITEGROUP

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	FAN/TP-B/BTH/LID/EMI	A

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For USB touch IC



Trial Peak CON

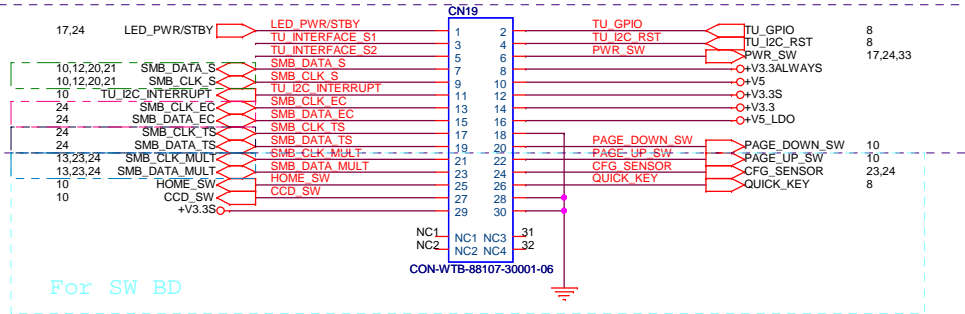
For T/S BD

I2C touch IC For SB

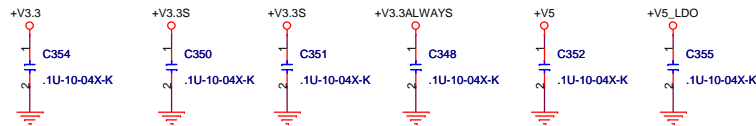
EEPROM For EC

I2C touch IC For EC

LS Sensor For EC



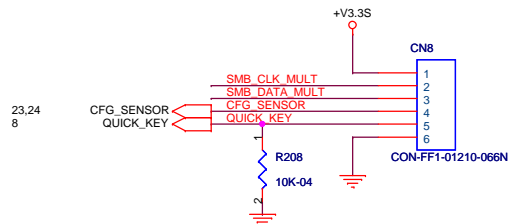
For SW BD



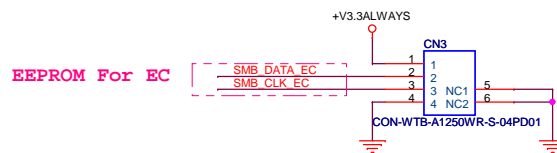
EC10 VS ES10 different

Item	For Trail Peak	For Stone Point
CN19	✓	X
CN8	X	✓
CN3	X	✓

Configure Sensor/Quick Key CON



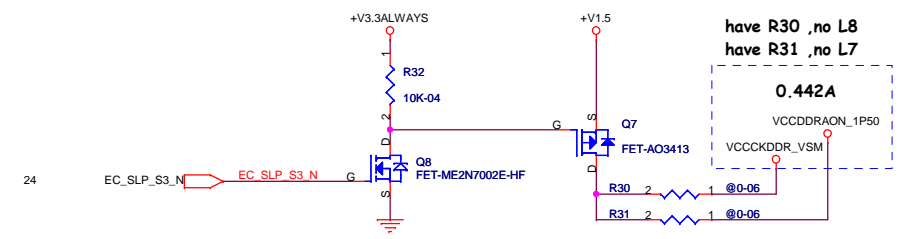
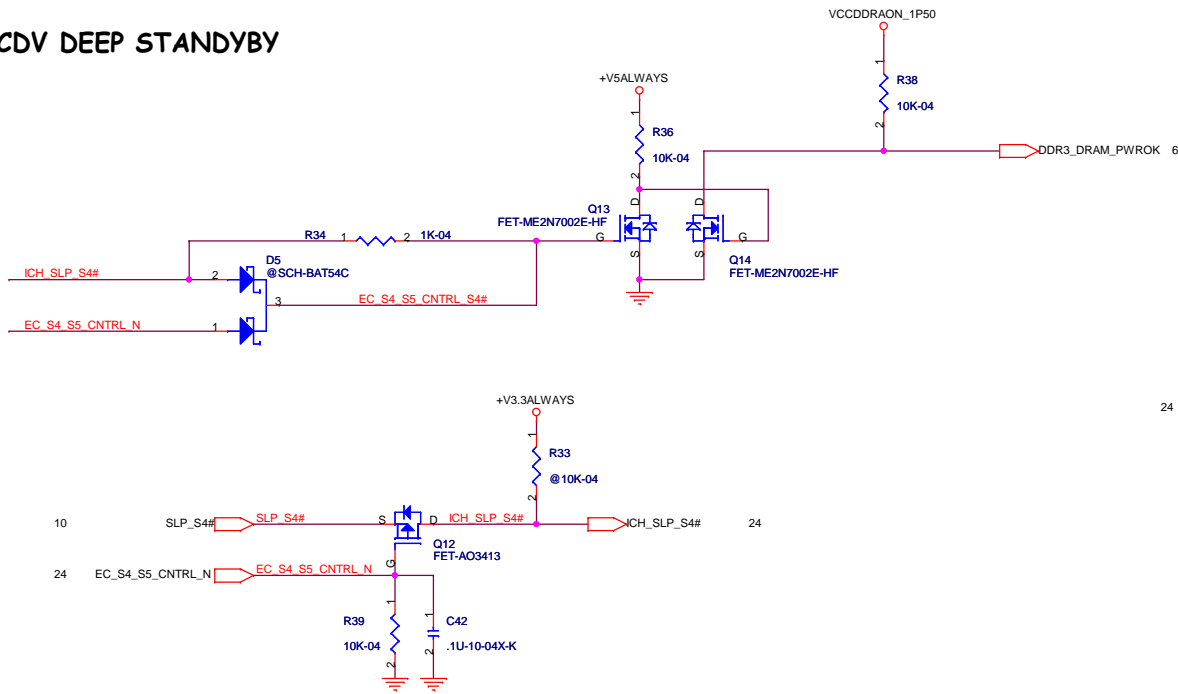
EEPROM CON



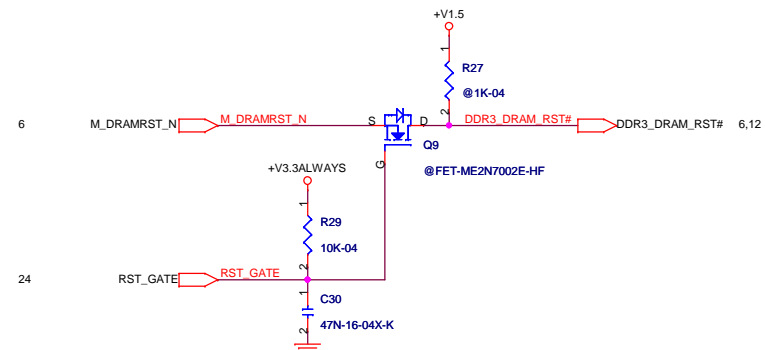
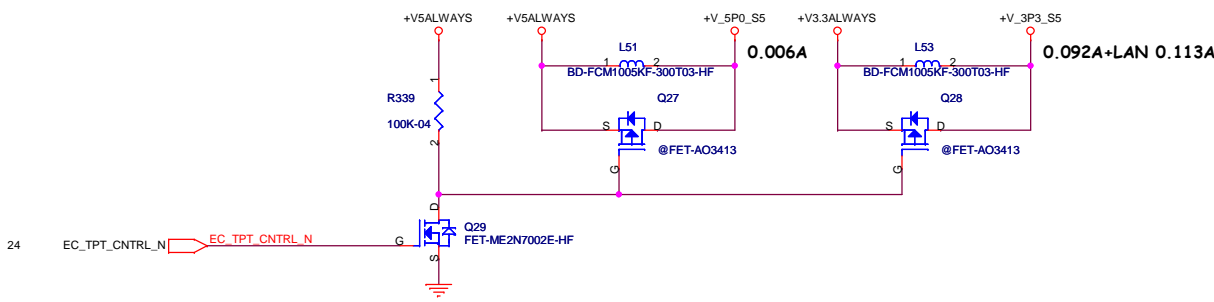
ECS ELITEGROUP

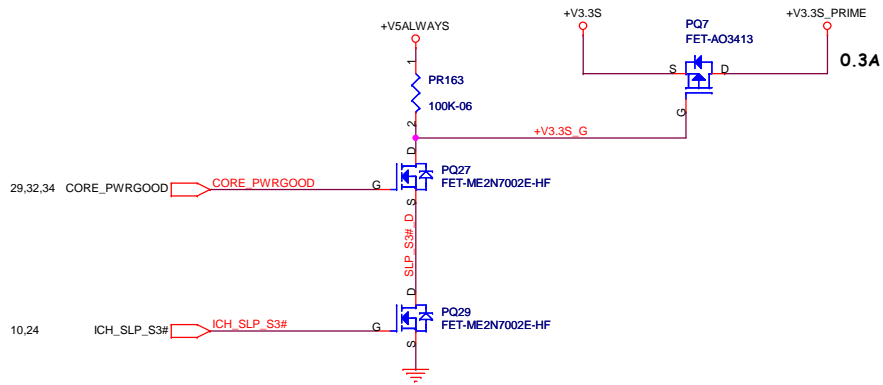
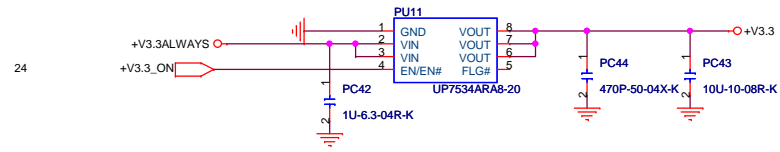
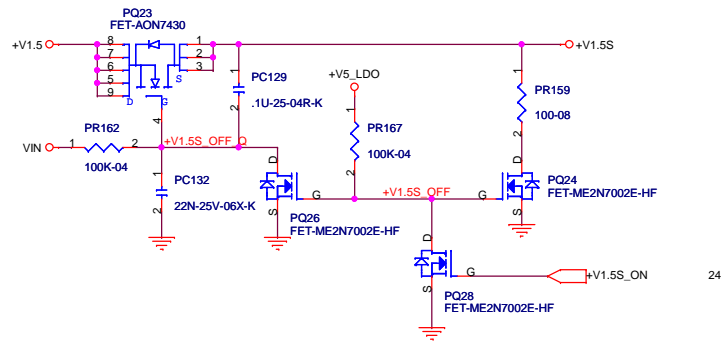
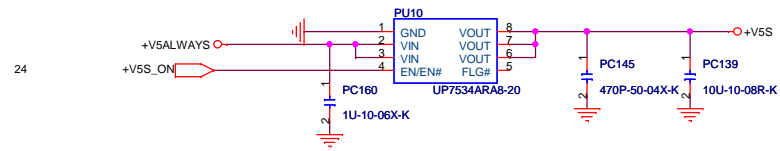
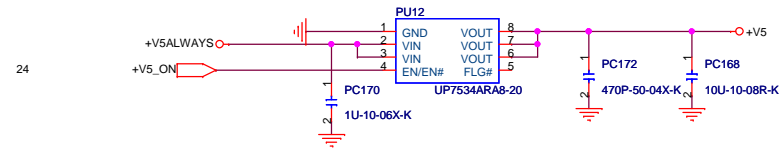
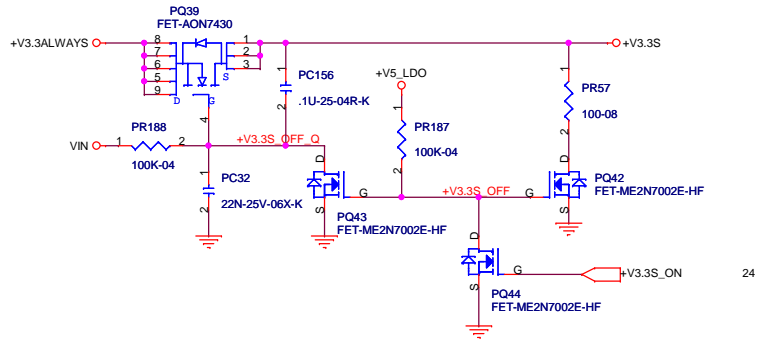
Project : ES10ISx

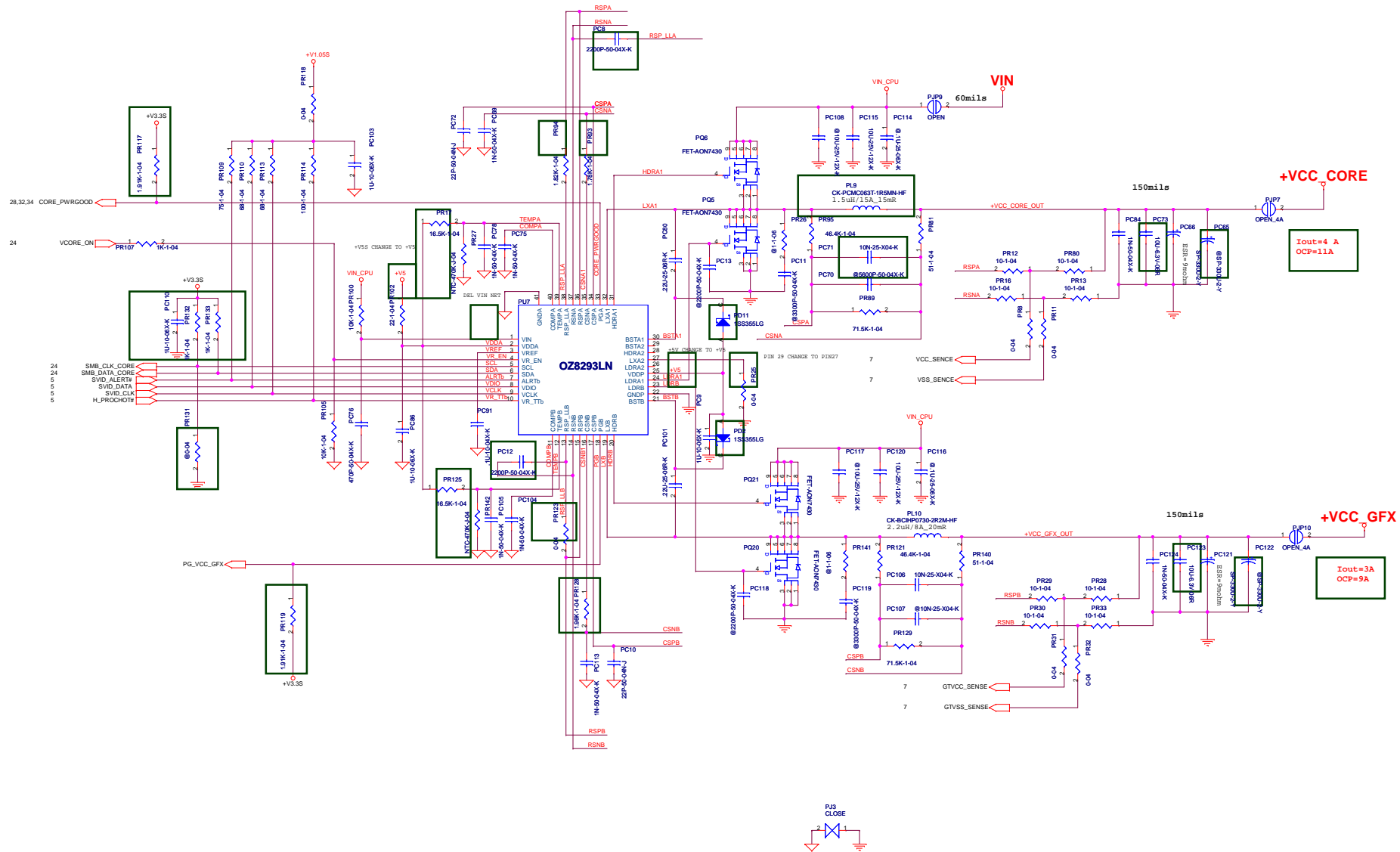
CDV DEEP STANDBY

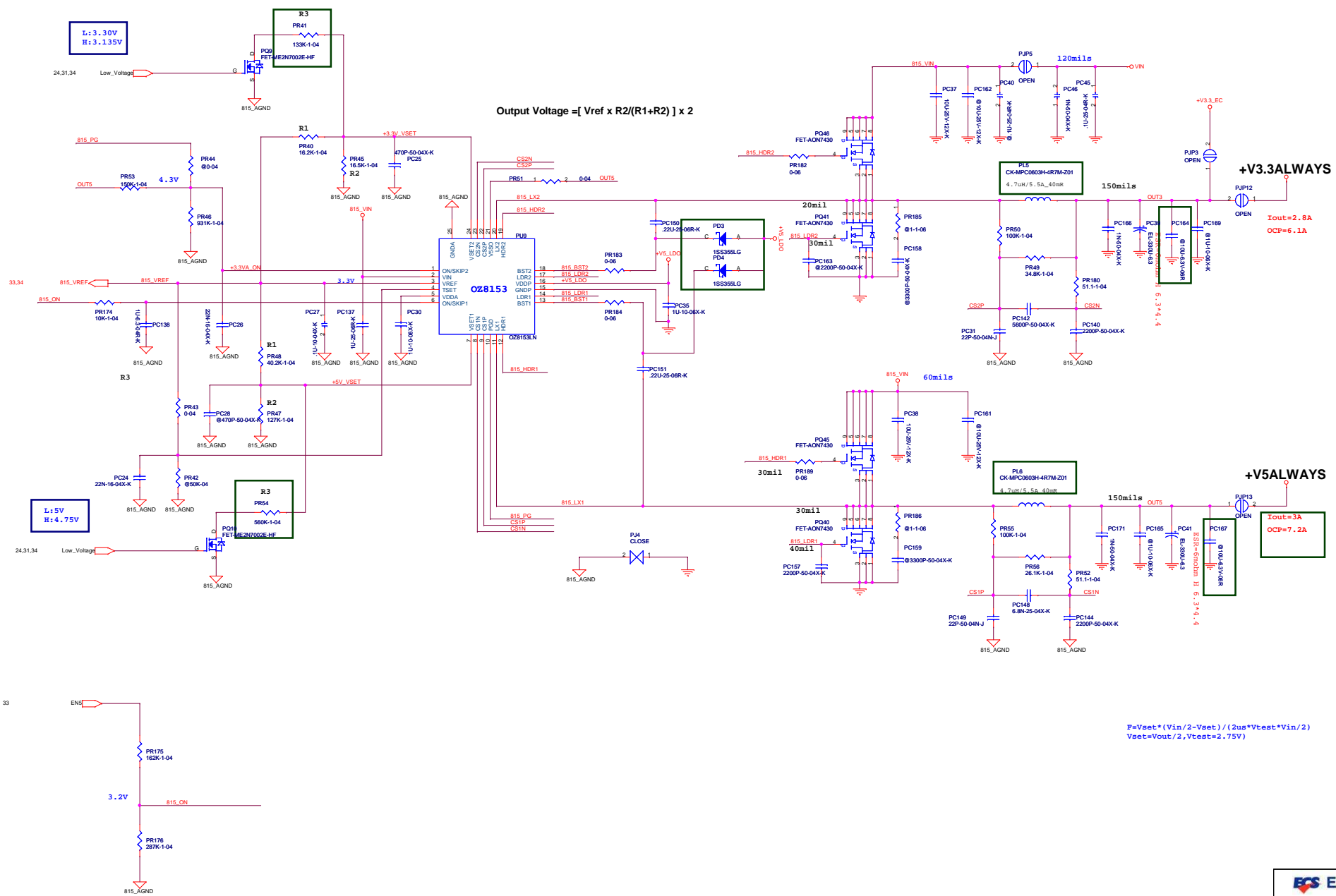


ICH DEEP STANDBY BY





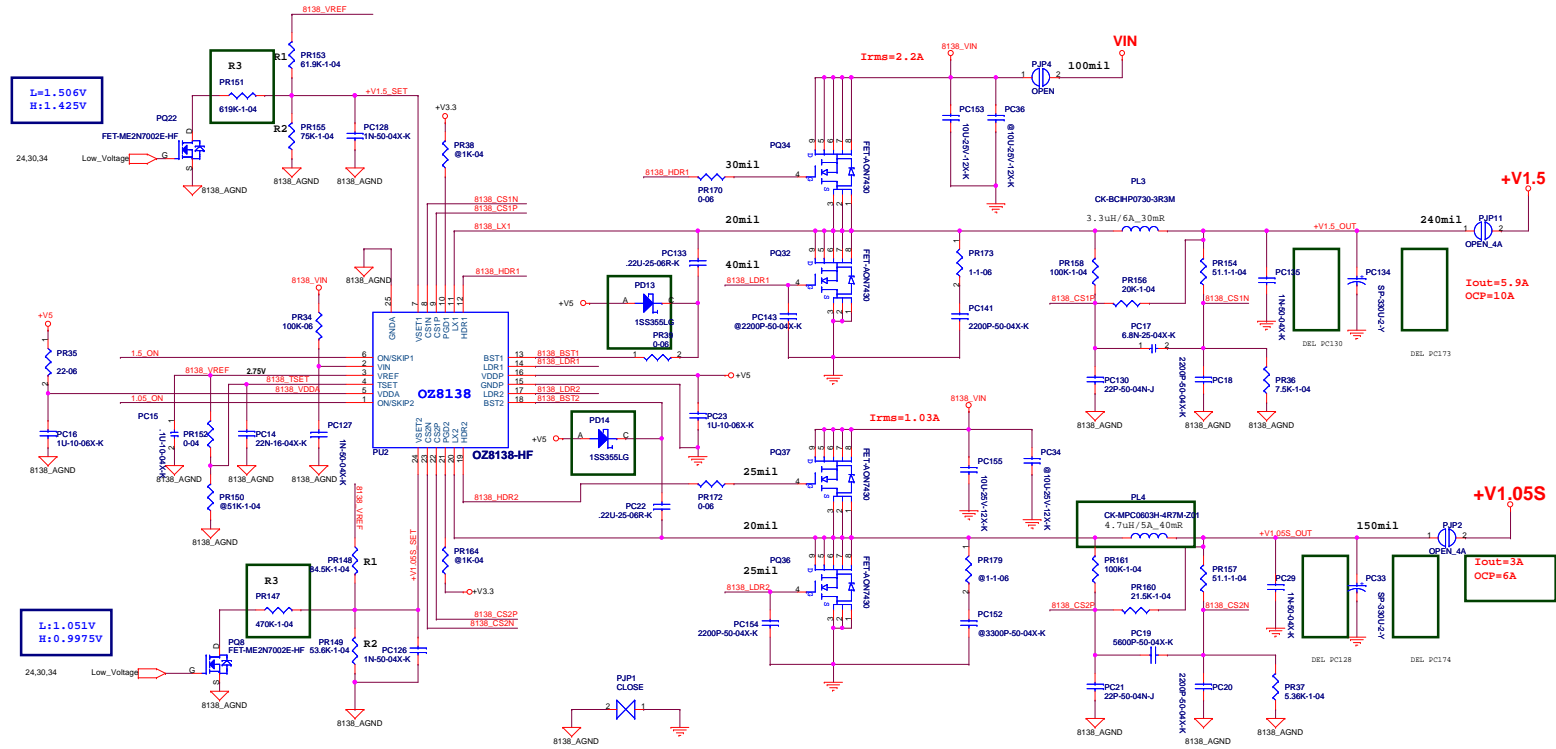




Output Voltage = [Vref x R2 / (R1+R2)] x 2

$$F = Vset * (Vin/2 - Vset) / (2us * Vtest * Vin/2)$$

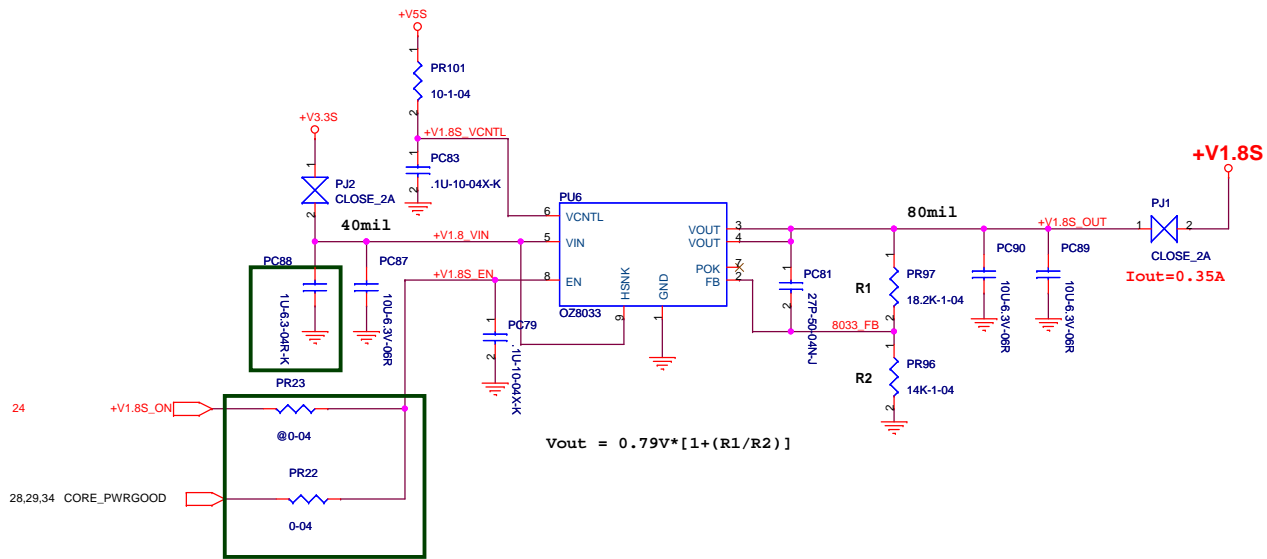
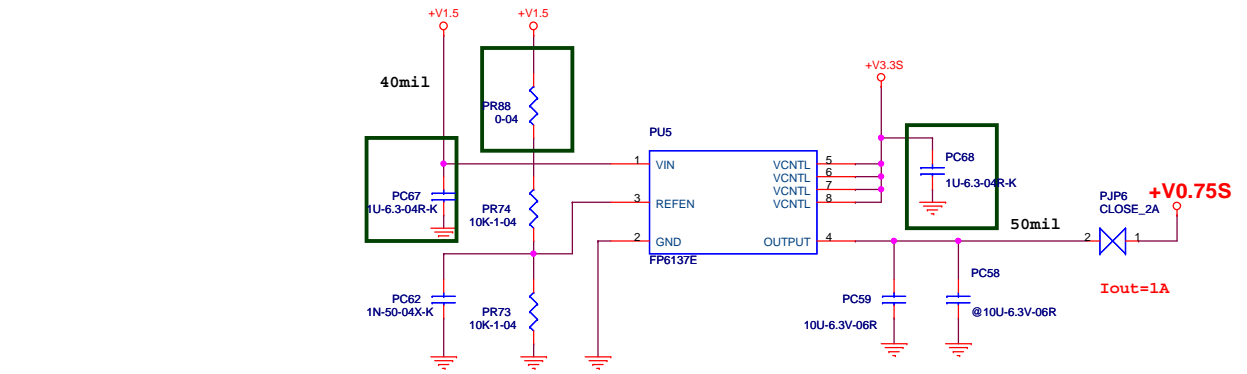
$$Vset = Vout / 2, Vtest = 2.75V$$

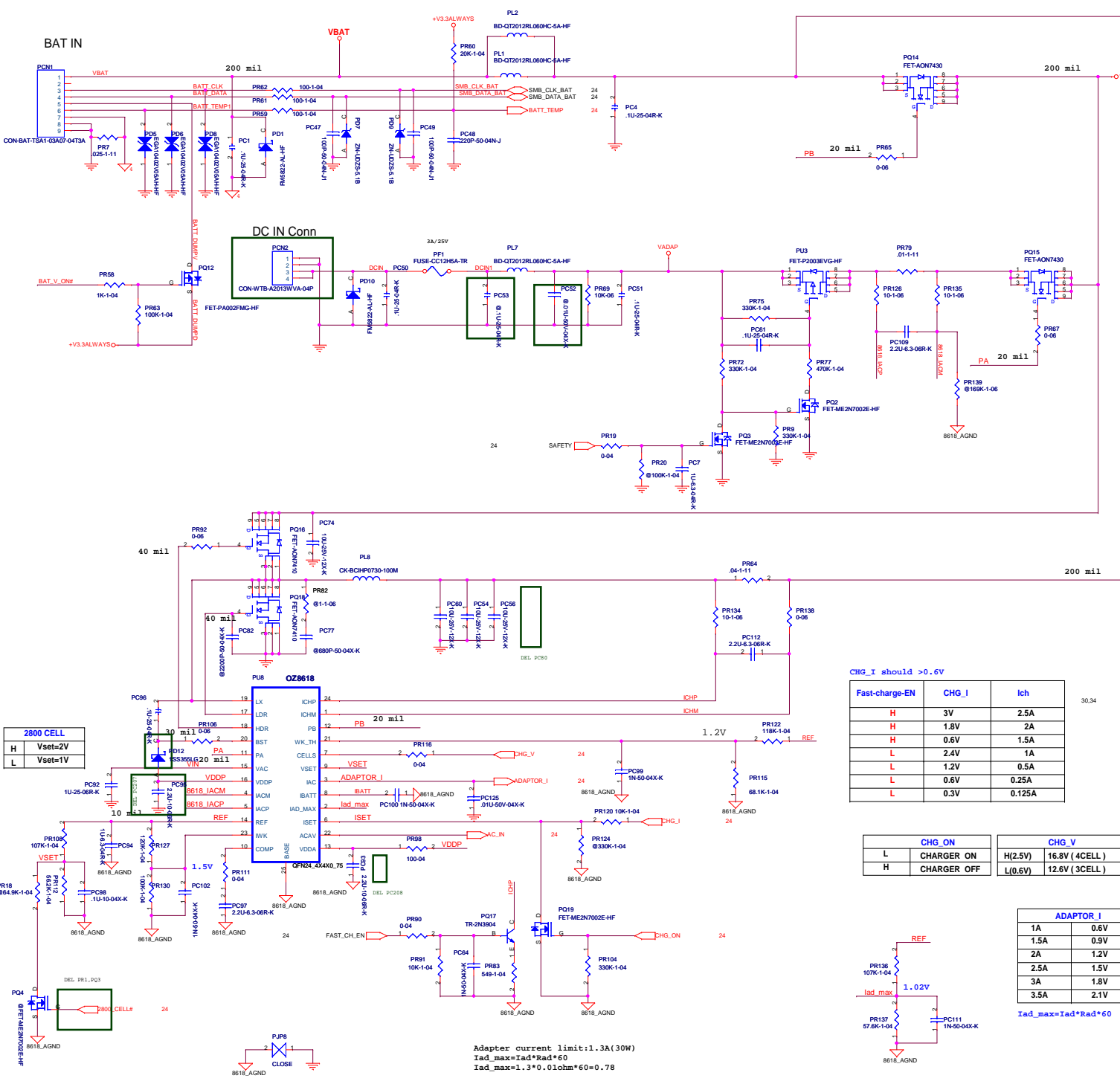


L=1.506V
H:1.425V

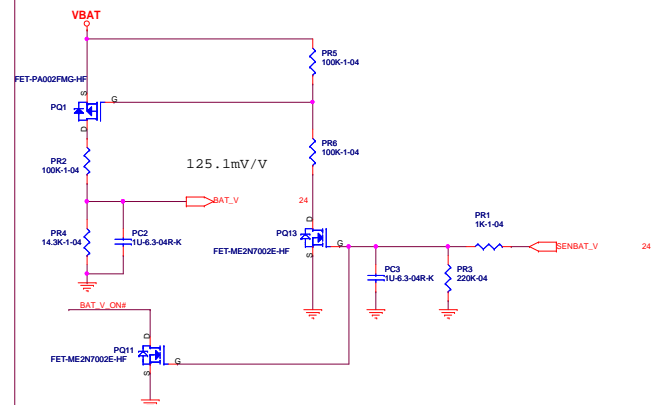
L:1.051V
H:0.9975V

$$P = V_{out} * (V_{in} - V_{out}) / (1.6 \mu s * V_{in} * V_{test})$$





Battery Voltage Detect



Charge / Discharge Detect

CHG_I should > 0.6V

Fast-charge-EN	CHG_I	Ich
H	3V	2.5A
H	1.8V	2A
H	0.6V	1.5A
L	2.4V	1A
L	1.2V	0.5A
L	0.6V	0.25A
L	0.3V	0.125A

CHG ON		CHG V	
L	CHARGER ON	H(2.5V)	16.8V (4CELL)
H	CHARGER OFF	L(0.6V)	12.6V (3CELL)

ADAPTOR_I	
1A	0.6V
1.5A	0.9V
2A	1.2V
2.5A	1.5V
3A	1.8V
3.5A	2.1V

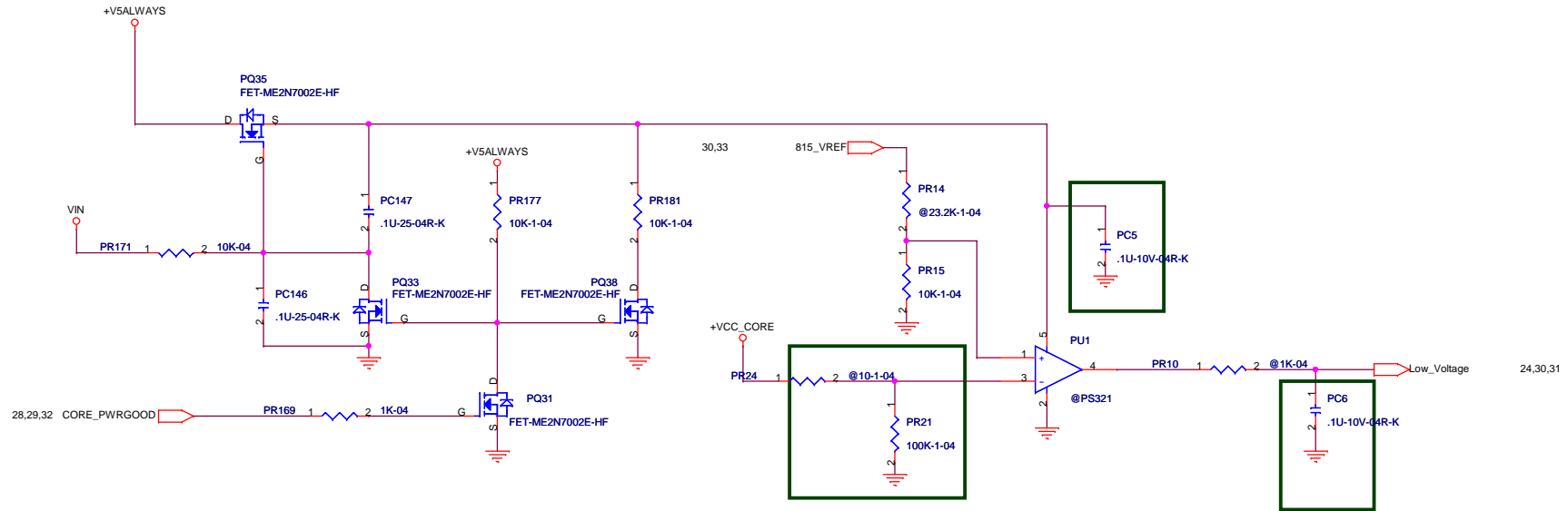
Iad_max=Iad*Rad*60

Charge / Discharge Detect

Op-amp circuit: **OP4A LM358DR-SEMI**

VADAP=20V, Vm=2.0104V
VADAP=19V, Vm=1.914V

Power_P-State



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Project : ES10ISx

Size	Document Number	Rev
	Power_P-State	A

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