

Rocket BSW 11.6" Schematic

Braswell

2015-11-09
REV : A00

DY : None Installed
OSP/ISP : different config for storage and DRAM
Drax : stuff on Drax

<Core Design>



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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Cover Page

Size
A3

Document Number

Rocket BSW 11.6"

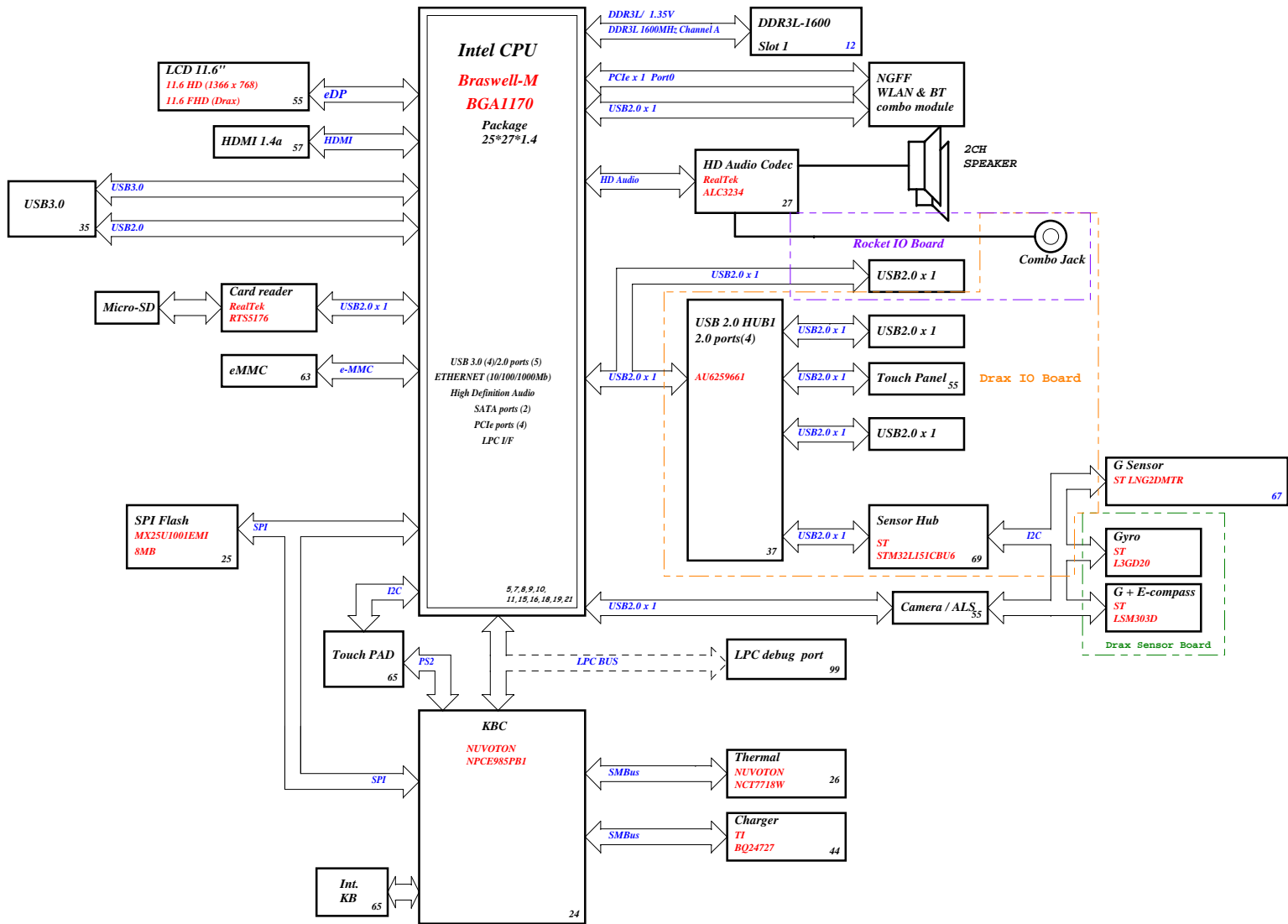
Rev
A00

Date: Tuesday, November 10, 2015

Sheet 1 of 109

Project code : 4PD076010001
PCB P/N : 15239
Revision : -1

Rocket 11.6" Block Diagram - 1SP




CHARGER	
BQ24727R6RR	44
INPUTS	OUTPUTS
19V_AD+	12V_BT+
SYSTEM DC/DC	
SY8288CRAC	45
SY8286BRAC	
INPUTS	OUTPUTS
19V_DCBATOUT	3D3V_AUX_S5 1D3V_S5 5V_S5
CPU DC/DC	
NCP81201MNTXG	46-47
INPUTS	OUTPUTS
19V_DCBATOUT	1V_CPU_CORE
CPU DC/DC	
NCP81201MNTXG	48
INPUTS	OUTPUTS
19V_DCBATOUT	6FX_CORE
SYSTEM DC/DC	
SY8286RAC	50
INPUTS	OUTPUTS
19V_DCBATOUT	1D05V_S5
Step Down Regulator	
SYW232DFC	50
INPUTS	OUTPUTS
3D3V_S5	1D15V_S5
SYSTEM DC/DC	
SY8286RAC	51
INPUTS	OUTPUTS
19V_DCBATOUT	1D35V_CPU_VDDQ_S3
SYSTEM DC/DC	
APL5338XAI	51
INPUTS	OUTPUTS
1D35V_CPU_VDDQ_S3	0D675V_VREF_S0
Step Down Regulator	
SYW232DFC	52
INPUTS	OUTPUTS
3D3V_S5	1D8V_S5
SYSTEM LDO	
S-1339D15-M5001	53
INPUTS	OUTPUTS
3D3V_S5	1D5V_S0
SYSTEM LDO	
APL5930KAI	54
INPUTS	OUTPUTS
3D3V_S5	1D24V_S5

PCB LAYER	
L1:Top	L4:Signal
L2:VCC	L5:GND
L3:Signal	L6:Bottom

SSID = CPU

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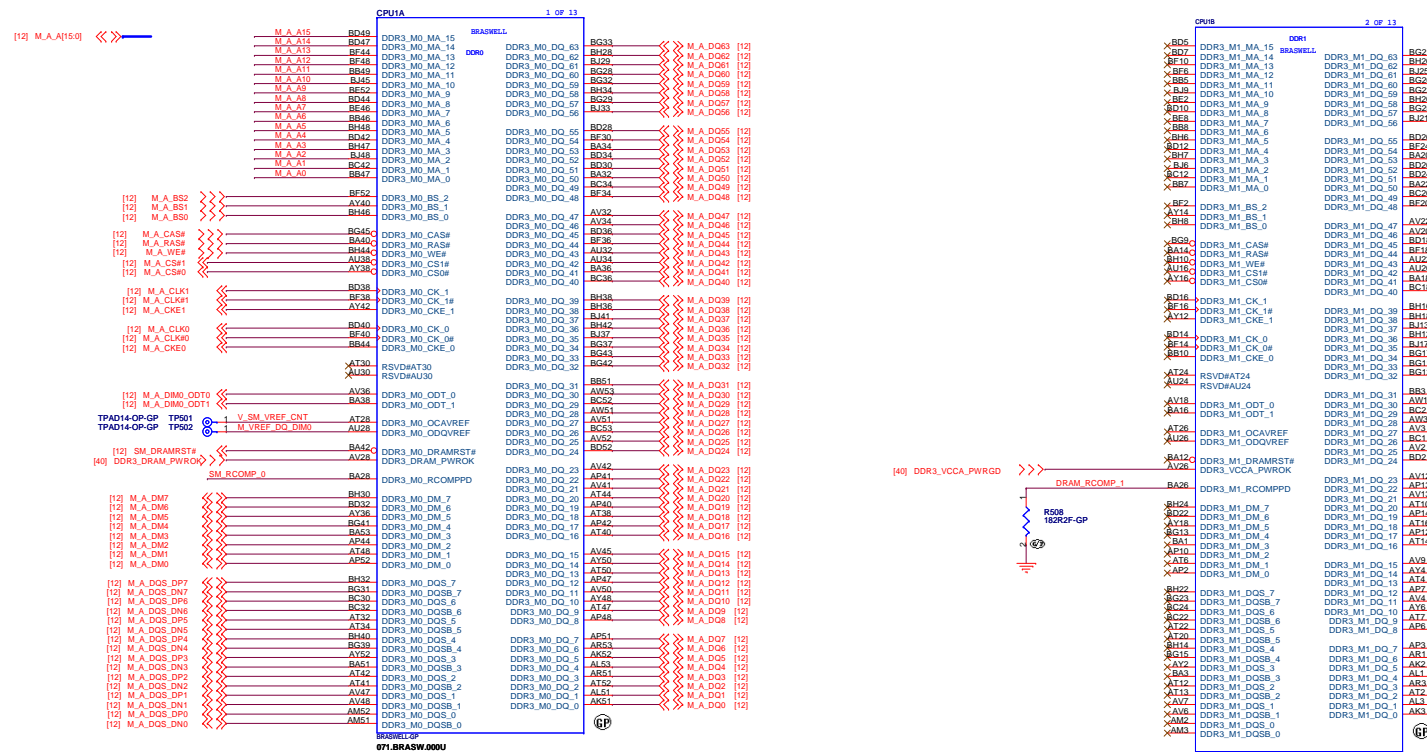
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SSID = CPU



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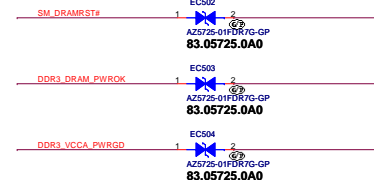
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Follow Intel Check List, Remove Reference Voltage

<p>DDR3_M0_ODQVREF DDR3_M1_ODQVREF</p>	<p>Not applicable to DDR3L implementation. In DDR3L mode, these pins are No Connect on SoC Vref. External Vref circuitry needs to be given on SODIMM side. Example shown as below</p>  <p>0.5*+VCCDDR_IP24_IP35. Use 1% resistor. Cannot go higher than 0.6*VCCDDR_IP24_IP35. Example shown as below</p>	<p>Not used for DDR3 design.</p>
<p>DDR3_M0_OCAVREF DDR3_M1_OCAVREF</p>	<p>Not applicable to DDR3L implementation. In DDR3L mode, these pins are No Connect on SoC Vref. External Vref circuitry needs to be given on SODIMM side. Example shown as below.</p>  <p>0.5*+VCCDDR_IP24_IP35. Use 1% resistor. Cannot go higher than 0.6*VCCDDR_IP24_IP35. Example shown as below</p>	<p>Not used for DDR3L design.</p>




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SSID = CPU

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CPU (CFG)

Size
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SSID = CPU

The diagram illustrates the power distribution for the CPU, showing connections between various power planes and the CPU pins. The CPU is labeled as CPU1H (8 OF 13) and BRASWELL. The power planes are categorized as follows:

- 1V_CPU_CORE:** Connected to pins AF36, AG33, AG35, AG36, AG38, AJ33, AJ36, and AJ38. *I_{max}=6.4A (merged VCC0+VCC1)*
- 1V_CPU_CORE:** Connected to pins AF30, AG27, AG29, AG30, AJ27, AJ29, AJ30, and AF29. *I_{max}=1.1A*
- GFX_CORE:** Connected to pins AD16, AD18, AD19, AF16, AF18, AF19, AF21, AF22, AJ19, AG16, AG18, AG19, AG21, AG22, AG24, AJ21, AJ22, AJ24, and AK24. *I_{max}=1.1A*
- 1D15V_S5:** Connected to pins AK30, AK35, AK36, and AM29. *I_{max}=0.7A (1D15V_S5)*
- 1D15V_S5:** Connected to pins AK33, AJ35, AM19, and AK21.


The CPU pins are grouped into several categories:

- CORE_VCC1_S0IX:** S0IX3, S0IX7, S0IX8, S0IX9, S0IX10, S0IX14, S0IX15, S0IX16, S0IX2, S0IX4, S0IX5, S0IX6, S0IX11, S0IX12, S0IX13, S0IX1.
- DDI_VGG_S0IX:** S0IX1, S0IX2, S0IX3, S0IX4, S0IX5, S0IX6, S0IX7, S0IX8, S0IX15, S0IX9, S0IX10, S0IX11, S0IX12, S0IX13, S0IX14, S0IX16, S0IX17, S0IX18, S0IX19.
- CORE_V1P15_S0IX:** S0IX1, S0IX2, S0IX3, S0IX4.
- FUSE_V1P15_S0IX:** S0IX2, S0IX1.
- DDI_V1P15_S0IX:** S0IX2, S0IX1.
- UNCORE_VNN_S4:** S41, S42, S43, S44, S45, S46, S47, S48, S49, S410, S411, S412, S413, S414.
- UNCORE_V1P15_S0IX:** S0IX6, S0IX1, S0IX2, S0IX3, S0IX4, S0IX5, S0IX7, S0IX8, S0IX9, S0IX10.
- ICLK_GND_OFF:** ICLK_GND_OFF2, ICLK_GND_OFF1.
- DDR_V1P05A_G3:** G31, G34, G32, G35, G36, G33.
- PCIE_V1P05A_G31#V22:** V22, V24.
- SATA_V1P05A_G32:** U24, U22.
- USB3_V1P05A_G32:** V27, U27, V29.
- FUSE3_V1P05A_G5:** G5, G3.

The diagram also shows connections to various power planes and components, including 1D05V_S5, 1D15V_S5, and 1D05V_S5. The diagram is labeled as BRASWELL-GP.

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Title			
CPU (VCC CORE)			
Size A4	Document Number		Rev
	Rocket BSW 11.6"		X00
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Size A4	Document Number <div style="text-align: center; font-size: 1.2em;"> Rocket BSW 11.6" </div>		Rev <div style="text-align: center; font-size: 1.2em;"> X00 </div>
Date: Monday, September 21, 2015	Sheet 7	of	109



CPU (VCC CORE)

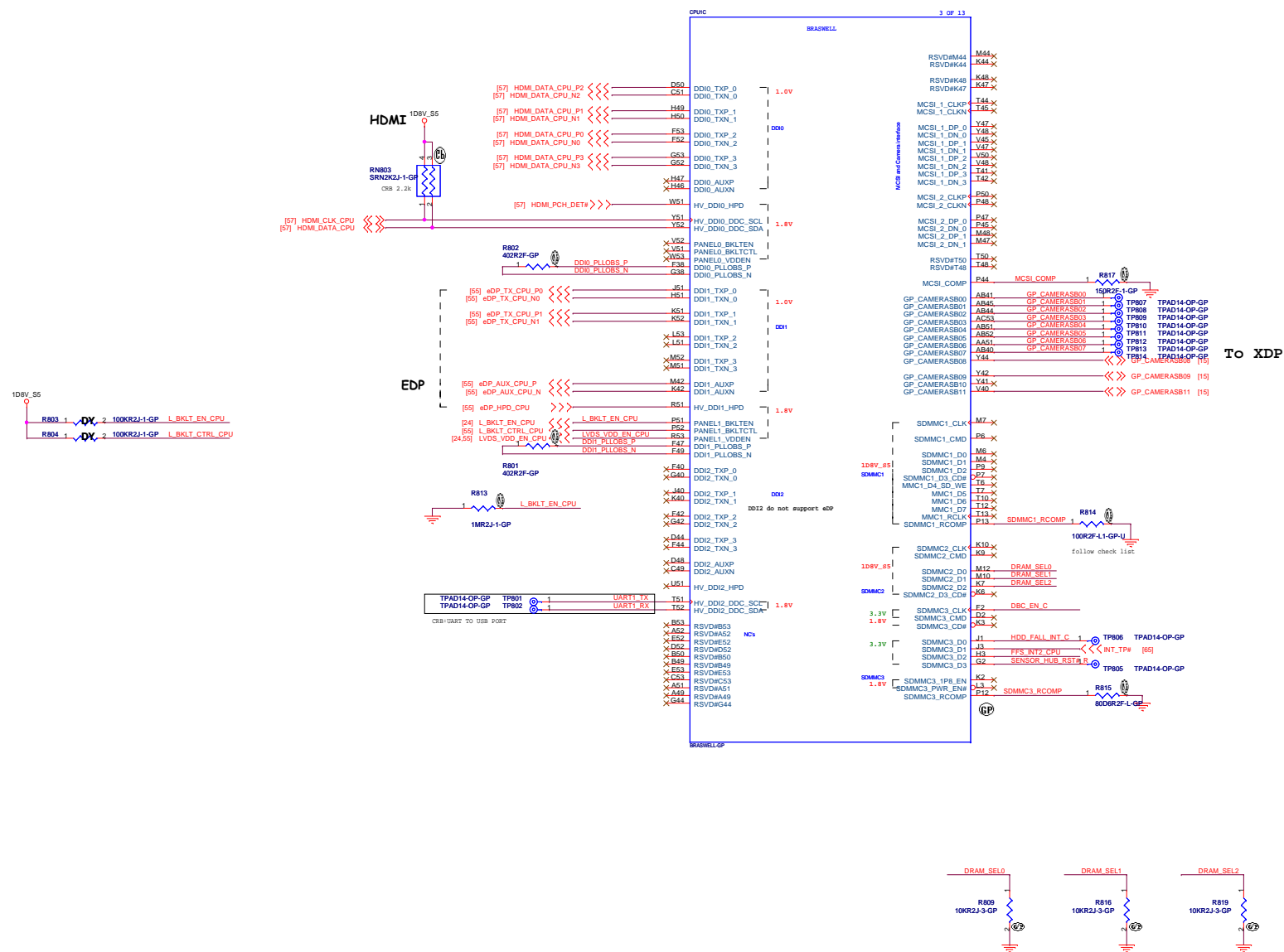
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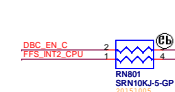
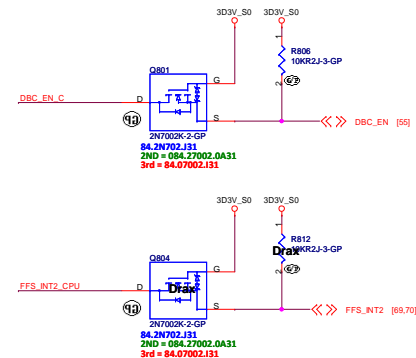
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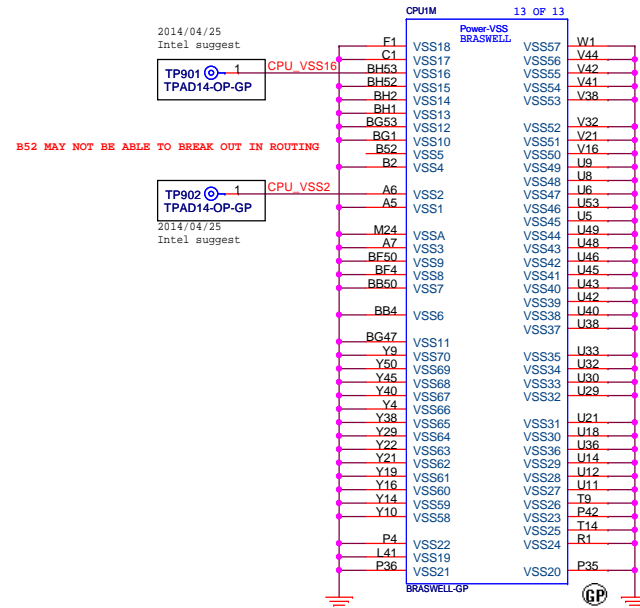
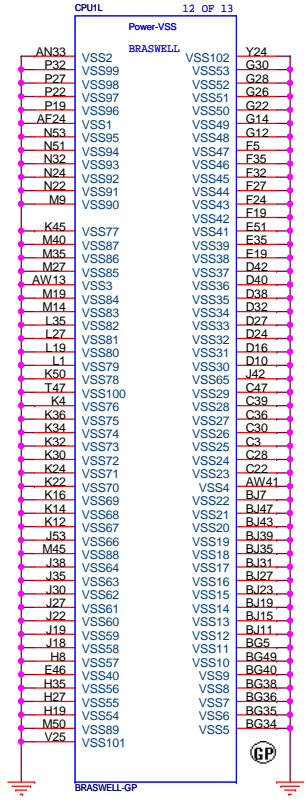
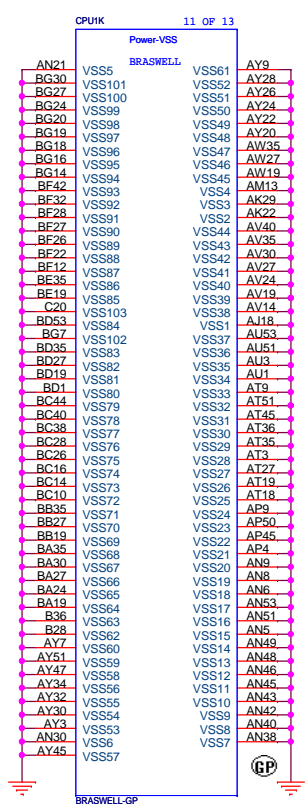
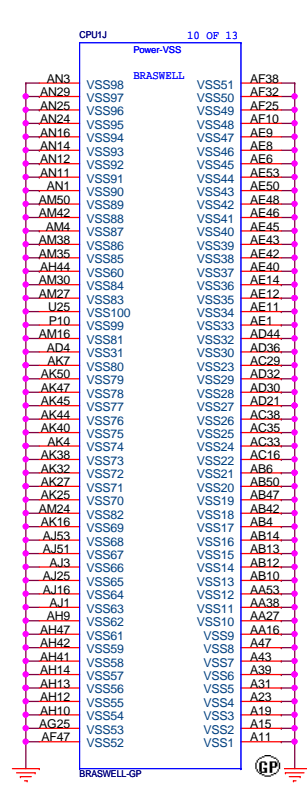
SSID = CPU



Level Shift

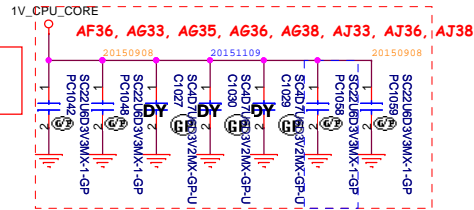


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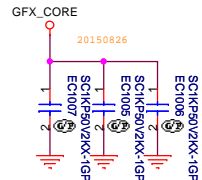
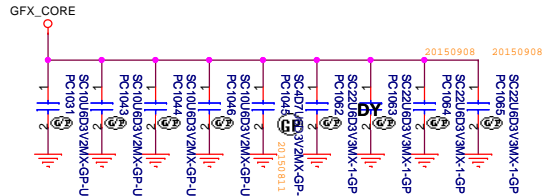
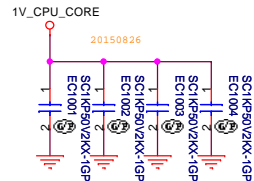
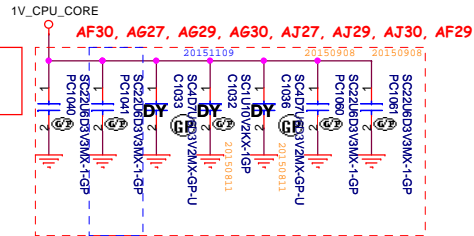


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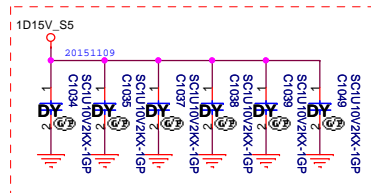
PLACE ALL THE CAPS
UNDER THE PKG SHADOW



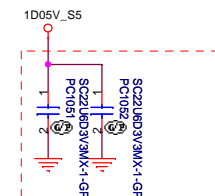
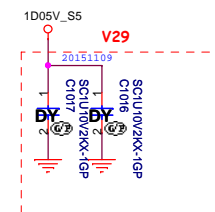
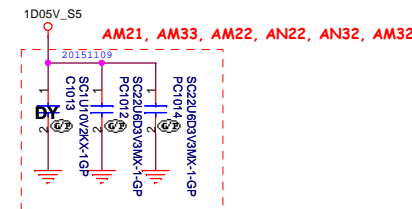
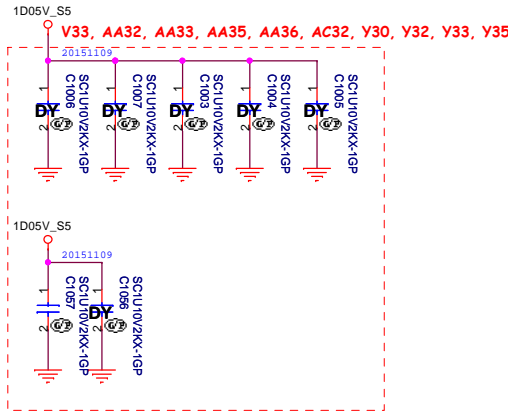
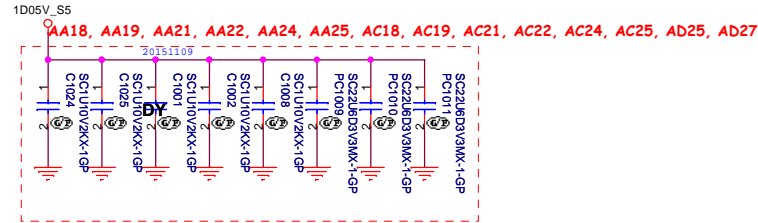
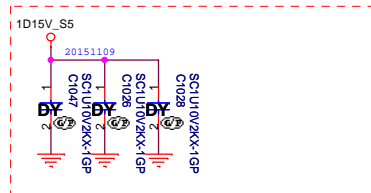
PLACE ALL THE CAPS
UNDER THE PKG SHADOW



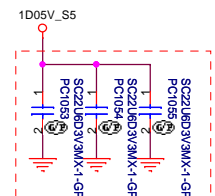
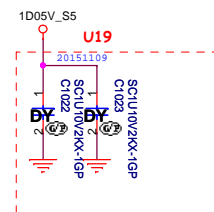
AK30 AK35 AK36 AM29



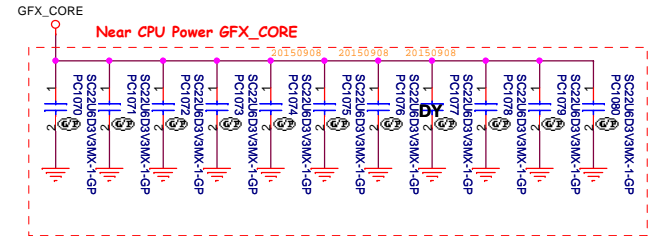
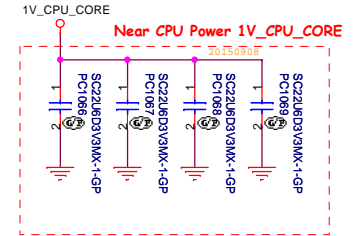
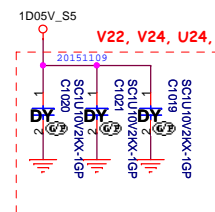
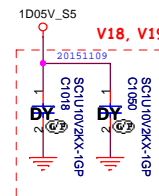
AM19 AK21



PLACE CLOSE TO PIN 1 OF RA



PLACE CLOSE TO PIN 1 OF RB

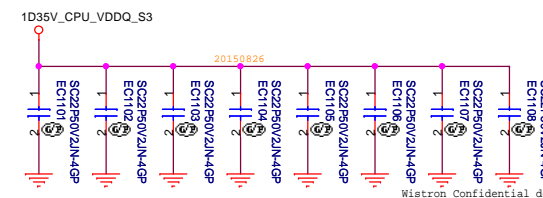
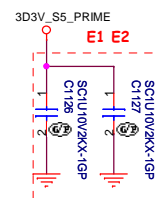
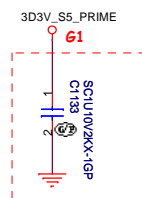
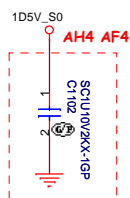
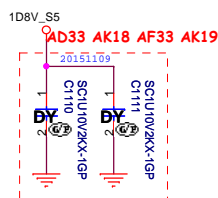
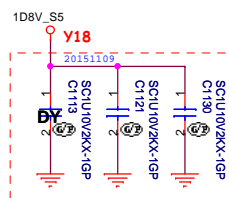
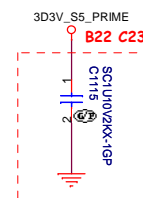
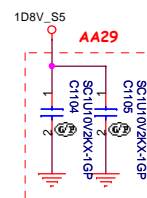
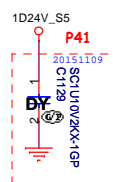
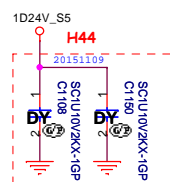
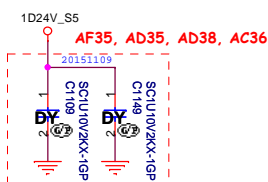
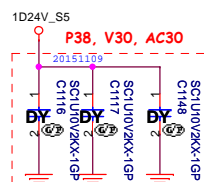
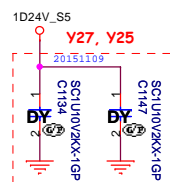
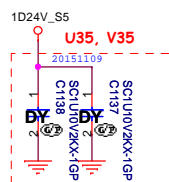
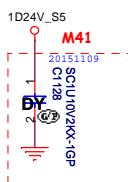
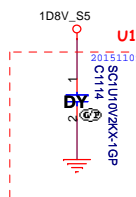
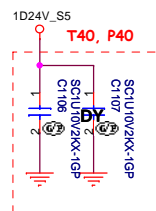
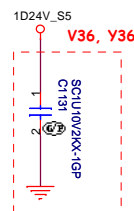
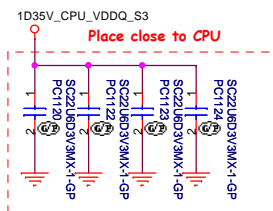
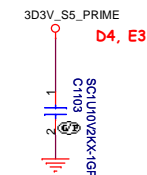
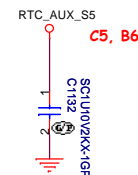
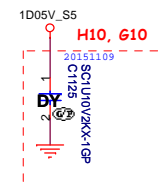
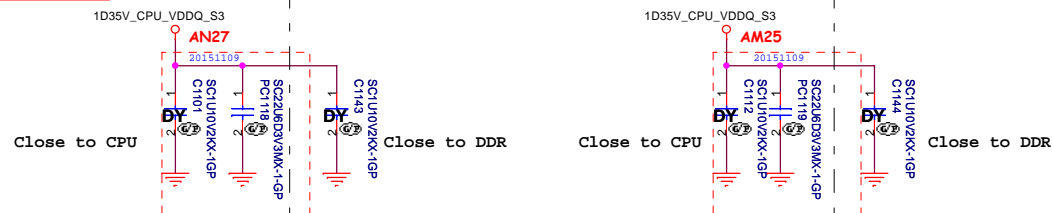


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Title			CPU (Power CAP1)	
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SSID = CPU



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Title		CPU (Power CAP2)	
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SSID = MEMORY

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SSID = CPU

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SSID = STRAP

STRAP RESISTORS SHOULD BE PLACED CLOSE TO SOC
SHOULD BE PLACED OUTSIDE KOZ AREA

All the straps are sampled on the rising edge of the
PMC_RSMRST_N signal (check list)

Description	DDI0_Detected	DDH_Detected	A16 Swap Override	DSI Display Detected	Boot BIOS Strap BBS	Flash Descriptor Security Override	DFX Boot Halt Strap & VISA Early POSM Debug Enable	DFX Sus Debug Strap	ICLK, USB2, DDI SFR Supply Select	ICLK SFR Bypass	POSM Select	ICLK Xtal OSC Bypass	CCU SUS RO Bypass	RTC OSC bypass
GPIO	GPIO_SUS0	GPIO_SUS1	GPIO_SUS2	GPIO_SUS3	GPIO_SUS4	GPIO_SUS5	GPIO_SUS6	GPIO_SUS7	SEC_GPIO_SUS8	SEC_GPIO_SUS9	SEC_GPIO_SUS10	GP_CAMERA8B08	GP_CAMERA8B09	GP_CAMERA8B11
Schematic														
High	DDI0 Detect	DDI1 Detect	Normal Operation	DSI Detect	Boot from SPI	Weak internal pull-up Normal Operation	Normal	Weak internal pull-up Normal	1.35V	Weak internal pull-up Bypass with 1.05V	PMC	Bypass	Bypass	Bypass
Low	Disable	Disable	Change Boot Loader address (A16 Override)	Disable	Boot from LPC	Override	Halt boot enable	Sus Debug enable	1.25V	No bypass	Fuse controller	No bypass	No bypass	No bypass

Table 29. Straps (Sheet 1 of 2)

Signal Name	Purpose	Pull-Up/Pull-Down	Strap Description
GPIO_SUS[0]	DDI0 Detect	Weak internal pull-down	DDI0 Detect 0 = DDI0 not detected 1 = DDI0 detected
GPIO_SUS[1]	DDI1 Detect	Weak internal pull-down	DDI1 Detect 0 = DDI1 not detected 1 = DDI1 detected
GPIO_SUS[2]	A16 swap override	Weak internal pull-up	Top Swap (A16 Override) 0 = Change Boot Loader address 1 = Normal Operation
GPIO_SUS[4]	Boot BIOS Strap BBS	Weak internal pull-up	BIOS Boot Selection 0 = - 1 = SPI
GPIO_SUS[5]	Flash Descriptor Security Override	Weak internal pull-up	Security Flash Descriptors 0 = Override 1 = Normal Operation

Table 29. Straps (Sheet 2 of 2)

Signal Name	Purpose	Pull-Up/Pull-Down	Strap Description
GPIO_SUS[8]	ICLK, USB2, DDI SFR Supply Select	Weak internal pull-down	0 = Supply is 1.25V 1 = Supply is 1.35V This strap also contains PLL LDO 0: supply is 1.25V; 1: supply is 1.35V. Selects supply voltage for LDOs used for PLLs, thermal oscillators, USB2, ICLK and DDI
GPIO_SUS[9]	ICLK, USB2, DDI SFR Bypass	Weak internal pull-up	0 = No bypass 1 = Bypass with 1.05V
GPIO_SUS[10]	POSM Select	Weak internal pull-down	Selects which POSM will be observed at time 0 0 = Fuse controller 1 = PMC
GPIO_CAMERA8B08	ICLK Xtal OSC Bypass	Weak internal pull-down	0 = No Bypass 1 = Bypass
GPIO_CAMERA8B09	CCU SUS RO Bypass	Weak internal pull-down	0 = No Bypass 1 = Bypass
GPIO_CAMERA8B11	RTC OSC Bypass	Weak internal pull-down	0 = No Bypass 1 = Bypass

CHV Straps [CRB] -- strap detect @ RSMRST# assertion				
Purpose	CHV Pin Name (refer CHV symbol PIN)	PU/PD (internal - Weak)	Options	Default State on board?
DDI0 Detected	GPIO_SUS0	PD	1- DDI0 Detect, 0- Disable	High
DDI1 Detected	GPIO_SUS1	PD	1- DDI1 Detect, 0- Disable	High
A16 swap override	GPIO_SUS2	PU	1- Default, 0- A16 override	High
DSI Display Detected	GPIO_SUS3	PD	1- DSI detect, 0- Disable	Low
Boot BIOS Strap BBS	GPIO_SUS4	PU	1- Boot from SPI, 0- Boot from LPC	High
Flash Descriptor Security Override	GPIO_SUS5	PU	1- Security enabled, 0- Security disabled	High
DFX Boot Halt Strap & VISA Early POSM Debug Enable	GPIO_SUS6	PU	1- normal, 0- Halt boot enable	High
DFX Sus Debug Strap	GPIO_SUS7	PU	1- Normal, 0- Sus Debug enable	High
ICLK, USB2, DDI SFR Supply Select	SEC_GPIO_SUS8	PU	1- 1.35V, 0- 1.25V	Low
ICLK SFR Bypass	SEC_GPIO_SUS9	PD	1- Bypass with 1.05V, 0- No Bypass	Low
POSM Select	SEC_GPIO_SUS10	PD	1- PMC, 0- Fuse controller	Don't care, if GPIO_SUS6 is pulled high.
ICLK Xtal OSC Bypass	GP_CAMERA8B08	PD	1- Bypass, 0- No bypass	Low
CCU SUS RO Bypass	GP_CAMERA8B09	PD	1- Bypass, 0- No bypass	Low
RTC OSC Bypass	GP_CAMERA8B11	PD	1- Bypass, 0- No bypass	Low

Level shift




Title	CPU (USB/LPC/GPIO)		
Size A2	Document Number	Rev	
	Rocket BSW 11.6"	X00	
Date:	Tuesday, October 06, 2015	Sheet 16 of	108

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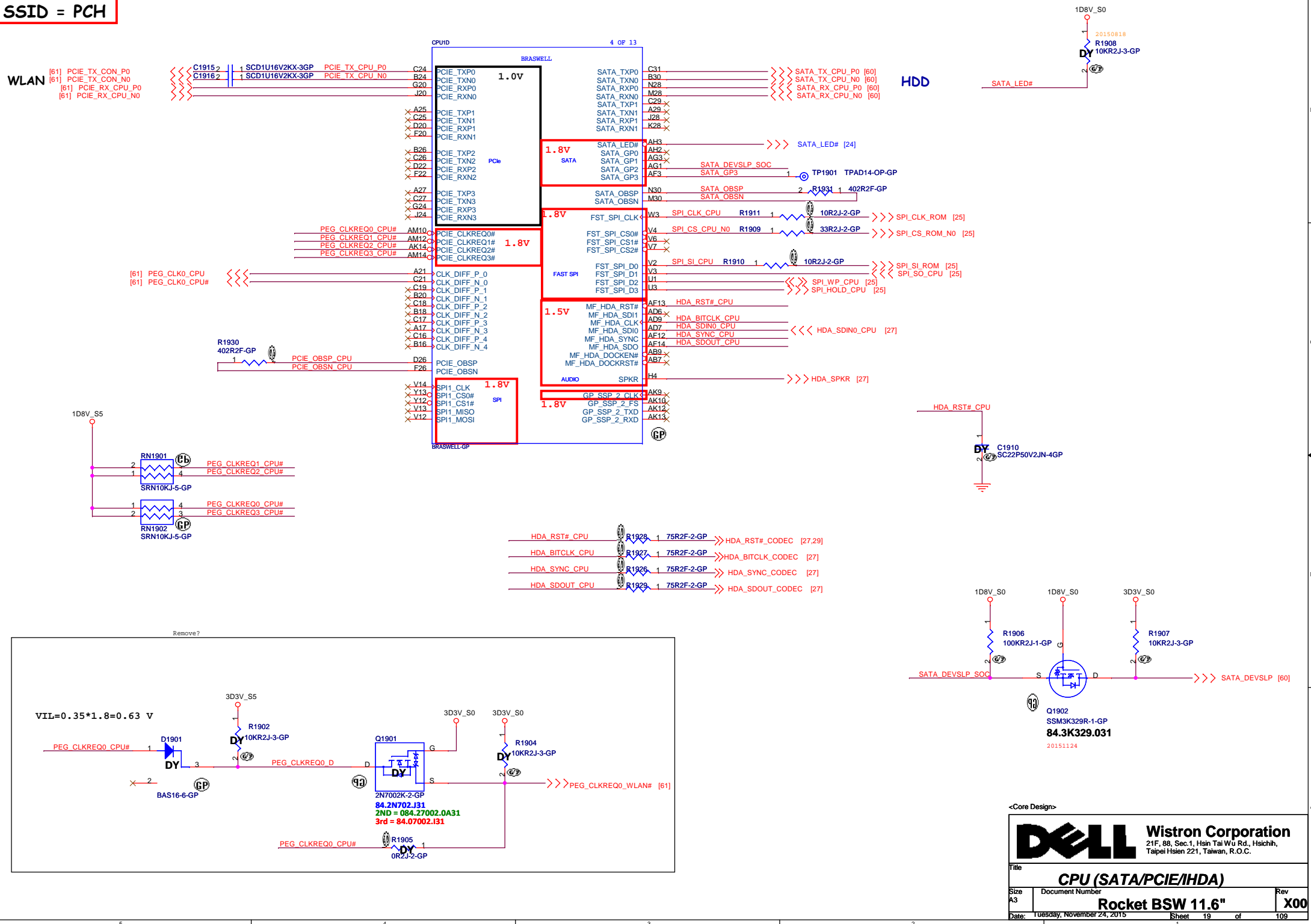
SSID = CPU

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Title (Reserved)			
Size A4	Document Number Rocket BSW 11.6"		Rev X00
Date: Monday, September 21, 2015		Sheet 17	of 109

SSID = PCH




SSID = PCH

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Title

(Reserved)

Size
A4

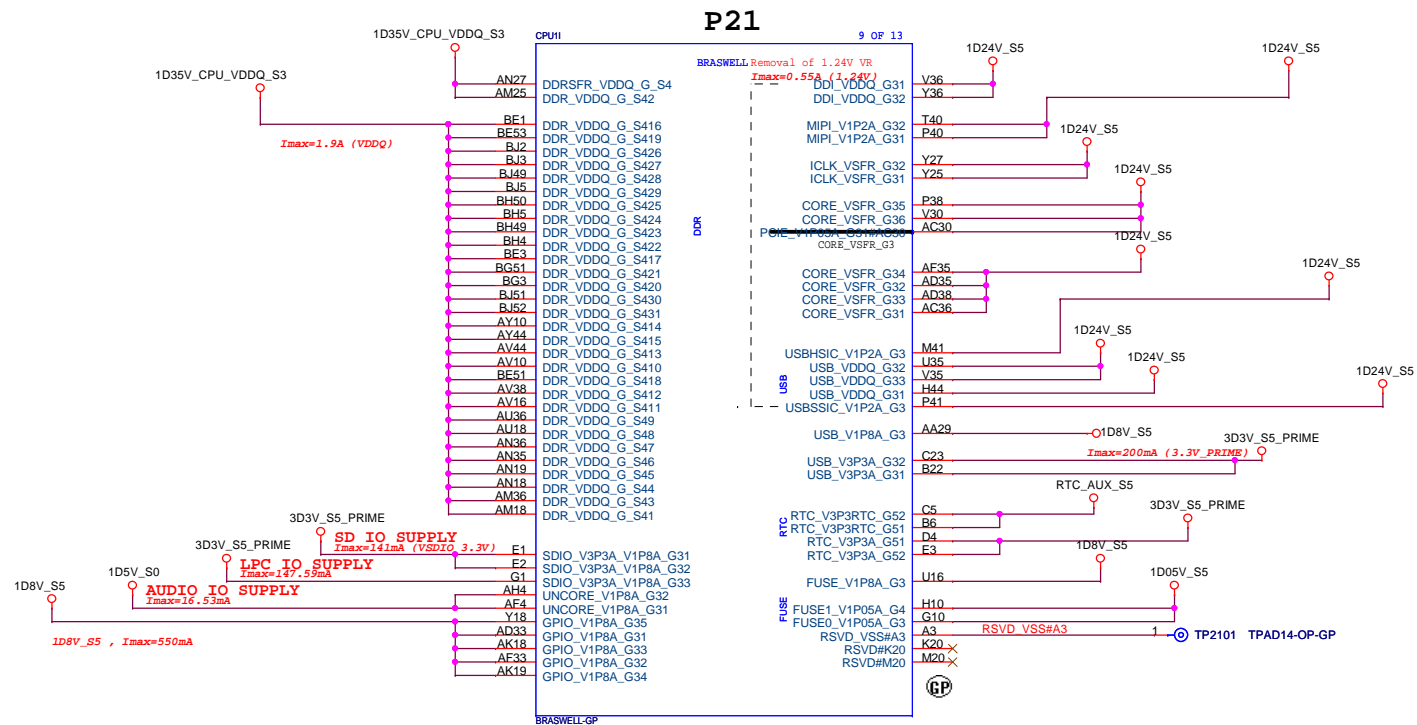
Document Number
Rocket BSW 11.6"

Rev
X00

Date: Monday, September 21, 2015

Sheet 20 of 109

SSID = CPU



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Title

CPU (POWER1)Size
A3

Document Number

Rocket BSW 11.6"

Date: Monday, September 21, 2015

Sheet 21 of 109

Rev

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Title

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Size
A4

Document Number

Rocket BSW 11.6"


Rev
X00

Date: Monday, September 21, 2015

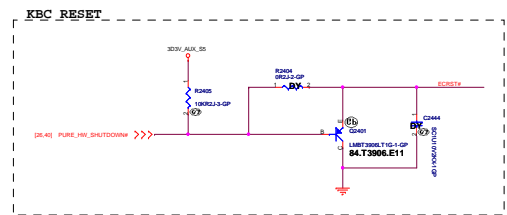
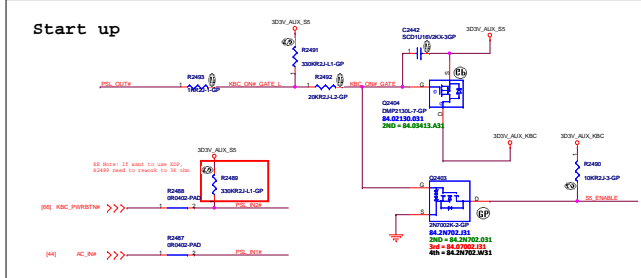
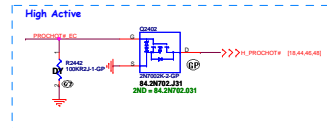
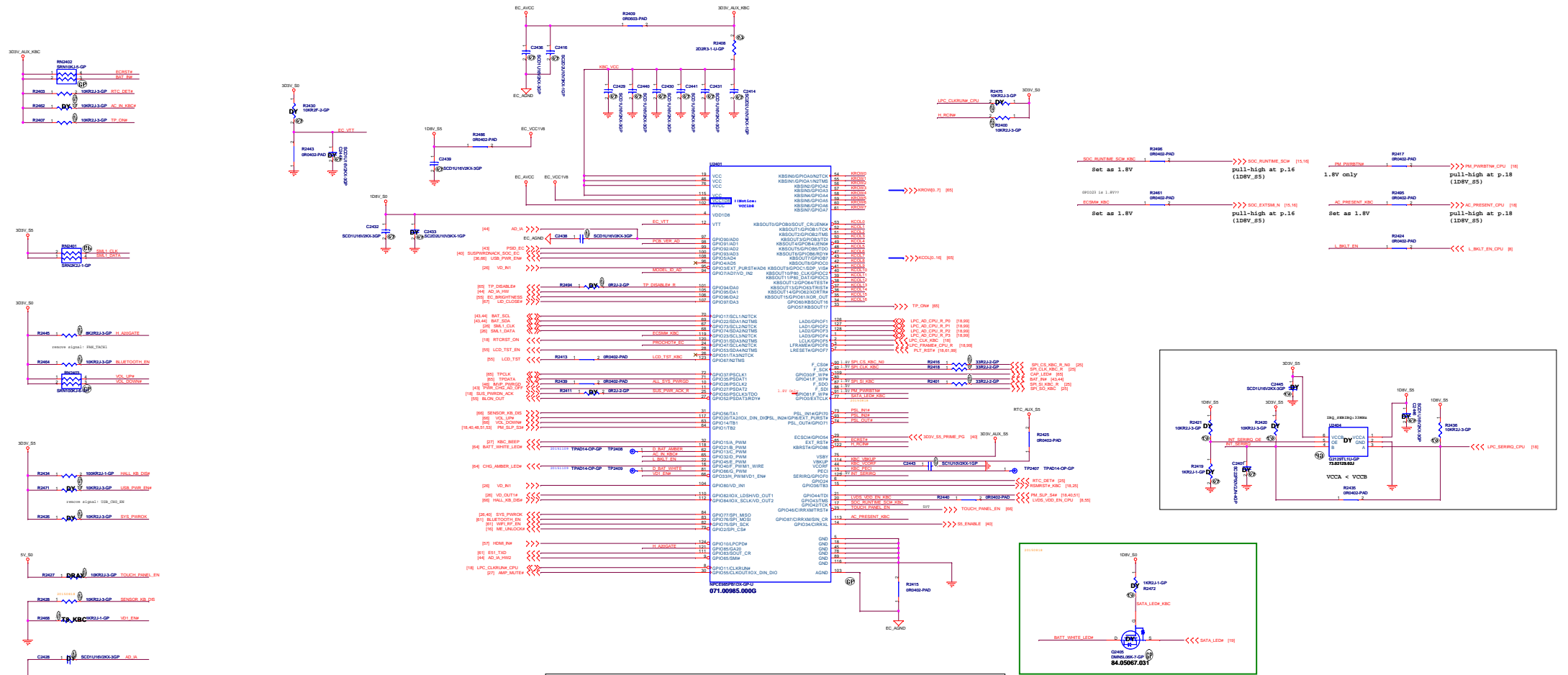
Sheet 22 of 109

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Title (Reserved)			
Size A4	Document Number Rocket BSW 11.6"		Rev X00
Date: Monday, September 21, 2015		Sheet 23 of	109

SSID = KBC



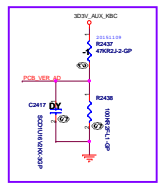
Module ID

	Rocket	Drax
ID	1	0

0033V_ALUX_KBC



R2410

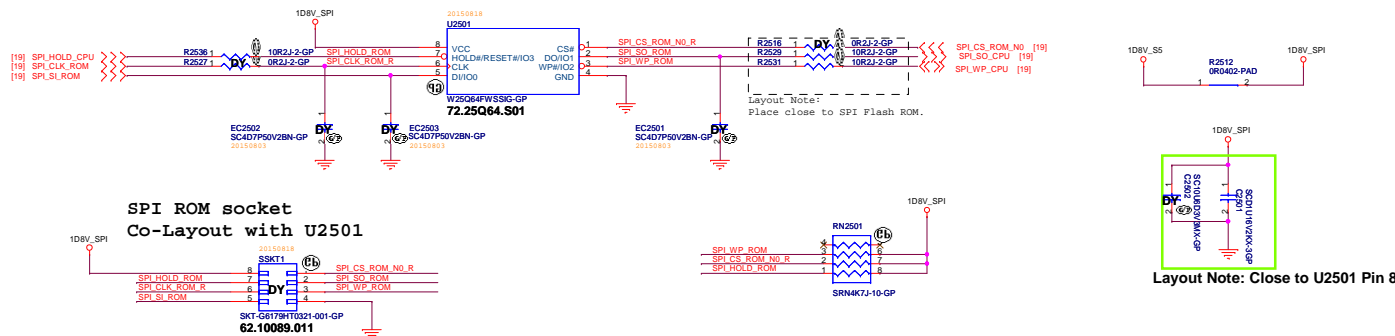


NCV Value	SA	Pu-Long Range	Pu-Short Range	Typical Voltage	Raw Voltage	Min Voltage	XDS Firmware Setting
SA	100.0 K	16.0 K	3.000 V	3.0054	2.9945		>= 2.875 V
SB	100.0 K	20.0 K	2.750 V	2.7591	2.7408		>= 2.616 V
SC	100.0 K	33.0 K	2.481 V	2.4935	2.4688		>= 2.363 V
-1	100.0 K	47.0 K	2.245 V	2.2589	2.2305		>= 2.120 V
Reserved for project use	100.0 K	64.0 K	2.001 V	2.0192	1.9854		>= 1.834 V
Reserved for project use	100.0 K	80.0 K	1.807 V	1.8250	1.7850		>= 1.704 V
Reserved for project use	100.0 K	100.0 K	1.650 V	1.6685	1.6335		>= 1.504 V
Reserved for project use	100.0 K	140.0 K	1.358 V	1.3740	1.3421		>= 1.201 V
Reserved for project use	100.0 K	174.0 K	1.204 V	1.2197	1.1891		>= 1.128 V
Reserved for project use	100.0 K	215.0 K	1.040 V	1.0620	1.0304		>= 0.924 V

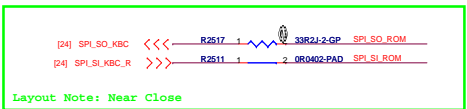


SSID = Flash.ROM

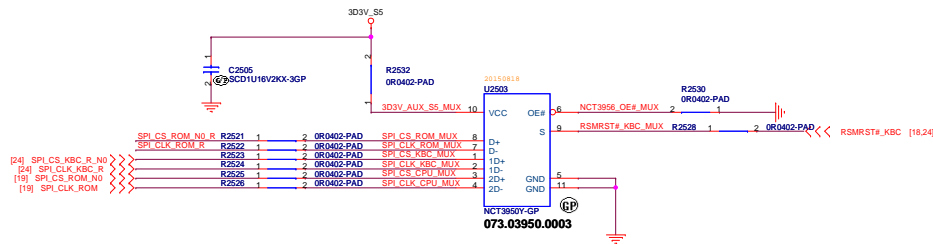
SPI FLASH ROM (8M byte) for CPU



SPI ROM link to KBC



High Speed Switch for Share ROM

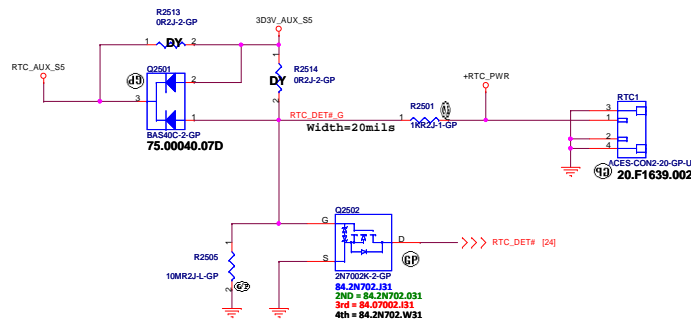


5240626:SPI Signals do not get tri-stated / MUX Sol.

Truth Table

OE#	S	D+	D-	Function
H	X	Hi-Z	Hi-Z	Disable
L	L	1D+	1D-	D=1D
L	H	2D+	2D-	D=2D

SSID = RTC



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Title

(Reserved)

Size
A4

Document Number

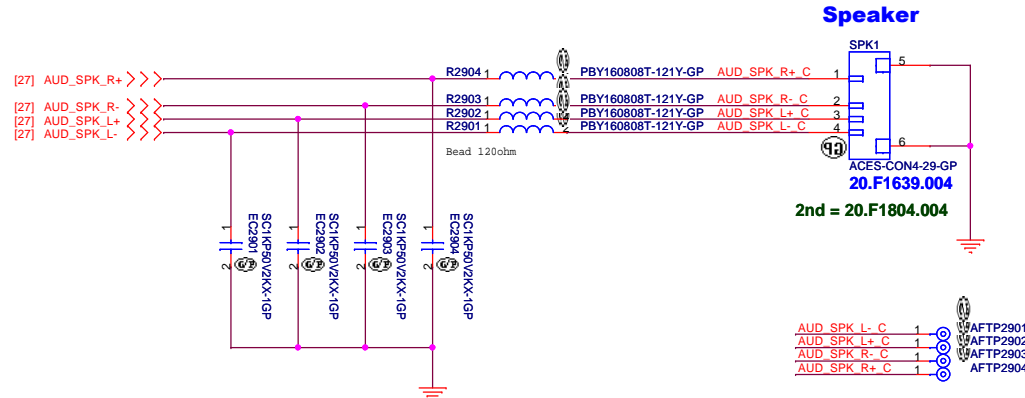
Rocket BSW 11.6"

Rev
X00

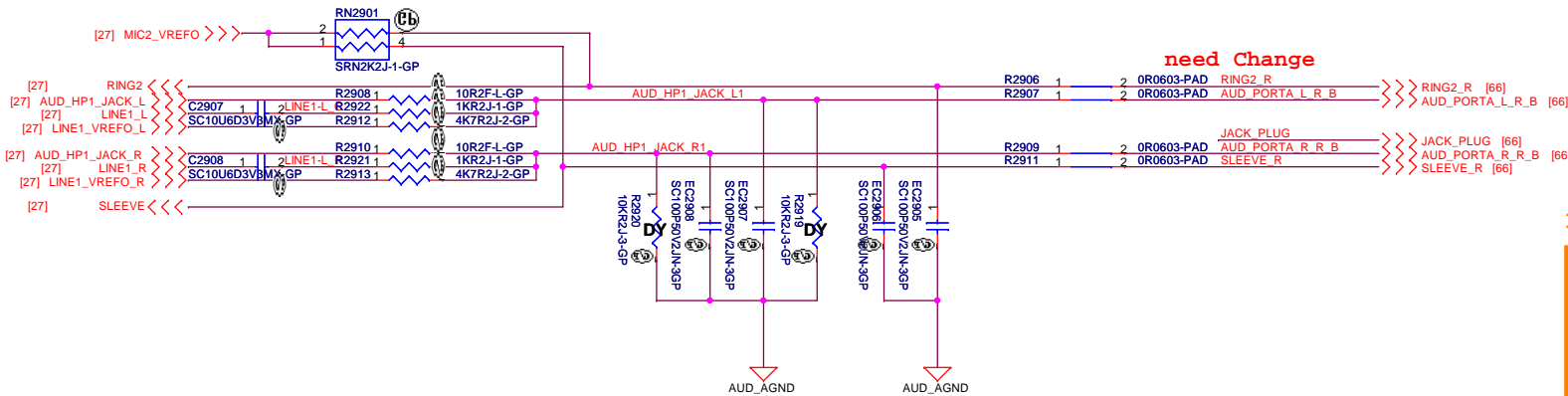
Date: Monday, September 21, 2015

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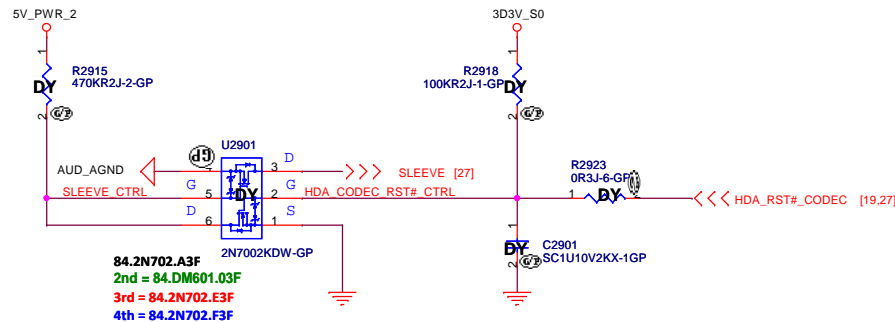
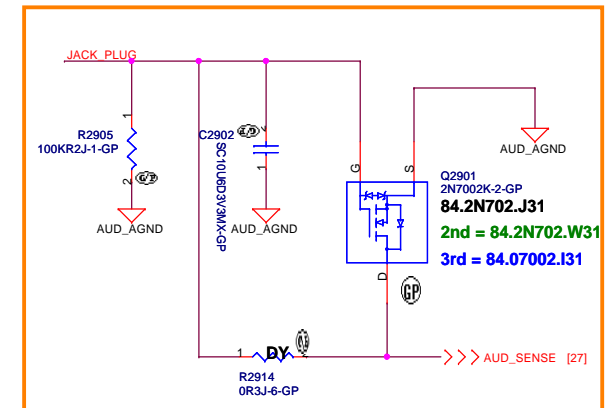
SSID = AUDIO



Combo Jack




Delay circuit



SSID = LOM

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Title (Reserved)LOM			
Size A4	Document Number Rocket BSW 11.6"		Rev X00
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SSID = LAN

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Title (Reserved)LAN					
Size A4	Document Number Rocket BSW 11.6"			Rev X00	
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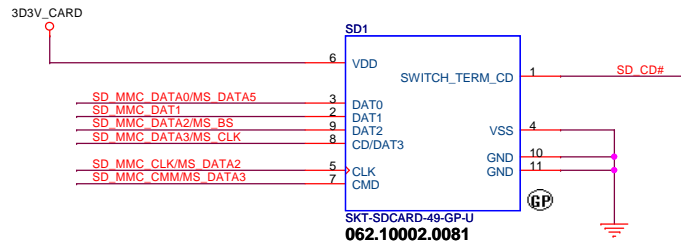
SSID = LAN CONN

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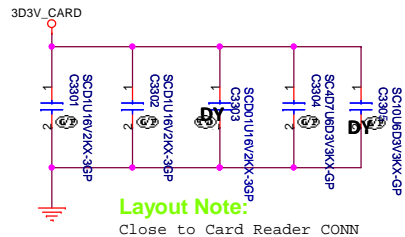
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Title (Reserved)RJ45+Transformer		
Size A4	Document Number Rocket BSW 11.6"	Rev X00
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SSID = Card Reader



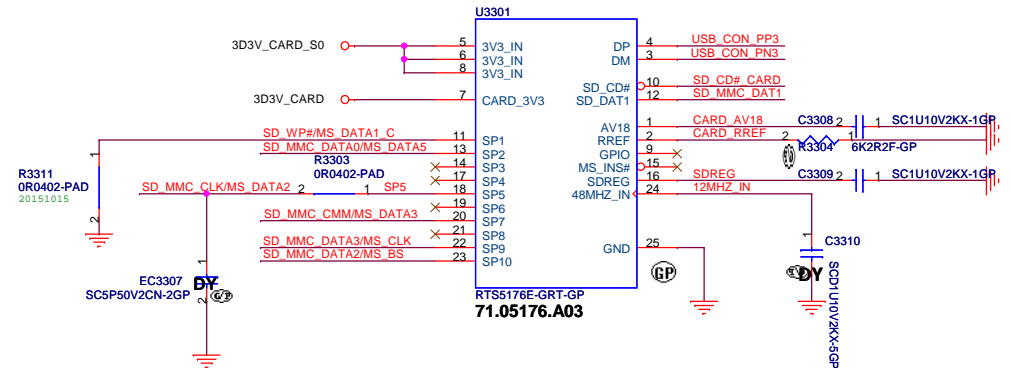
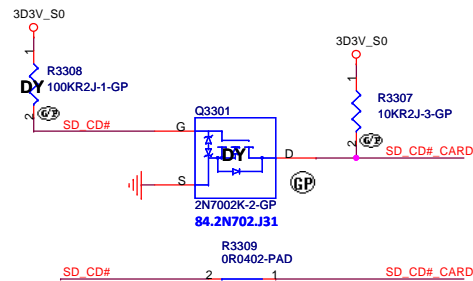
SD Card Connector

Pin	Define
P1	SWITCH TERM CD
P2	DAT1
P3	DAT0
P4	VSS
P5	CLK
P6	VDD
P7	CMD
P8	CD/DAT3
P9	DAT2
P10	GND
P11	GND

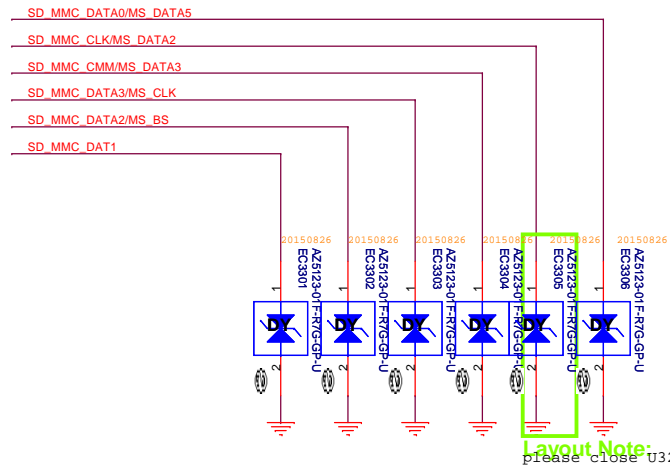


Layout Note:

Close to Card Reader CONN



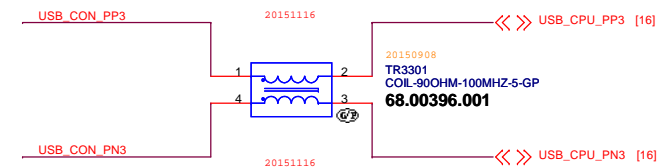
For EMI Reserved



Layout Note:

please close U3201

Pin name	Net name
SD_DAT1	SD_MMC_DAT1
SP1	SD_WP/MS_DATA1
SP2	SD_MMC_DATA0/MS_DATA5
SP3	MMC_DATA7/MS_DATA4
SP4	MMC_DATA6/MS_DATA0
SP5	SD_MMC_CLK/MS_DATA2
SP6	MMC_DATA5/MS_DATA6
SP7	SD_MMC Command/MS_DATA3
SP8	MMC_DATA4/MS_DATA7
SP9	SD_MMC_DATA3/MS_CLK
SP10	SD_MMC_DATA2/MS_BS



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Title **Card Reader + CONN**


Size A3 Document Number **Rocket BSW 11.6"** Rev **X00**

Date: Tuesday, November 17, 2015 Sheet 33 of 109

SSID = USB

Blanking

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Title

(Reserved)USB 2.0 Port

Size

A4

Document Number

Rocket BSW 11.6"

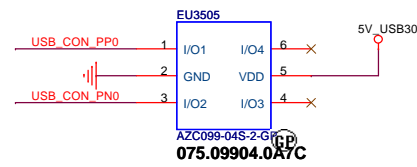
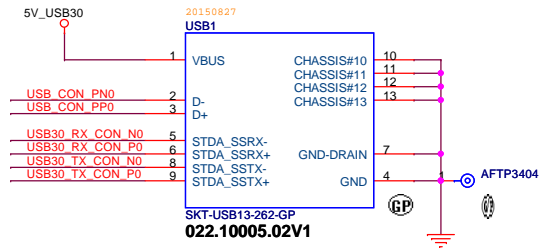
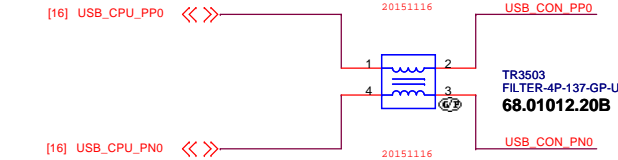
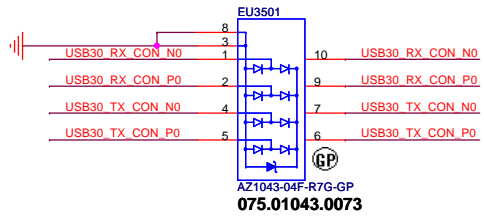
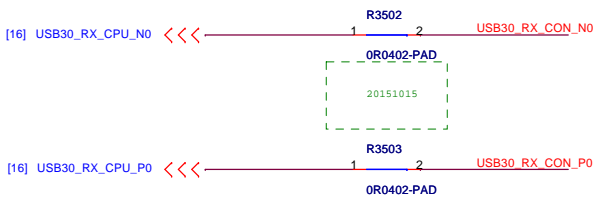
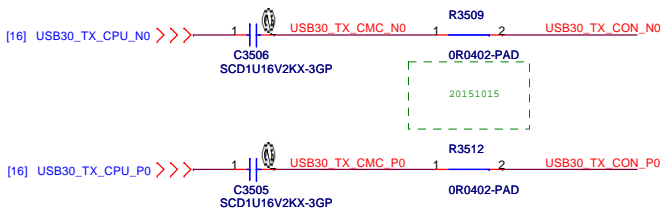
Rev

X00

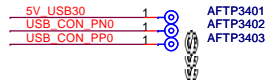
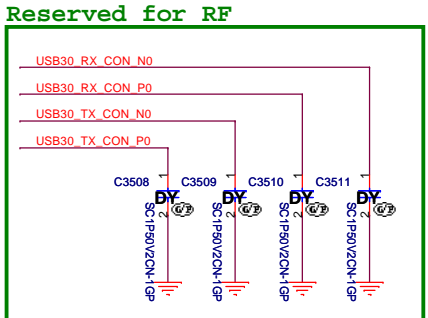
Date: Monday, September 21, 2015

Sheet 34 of 109

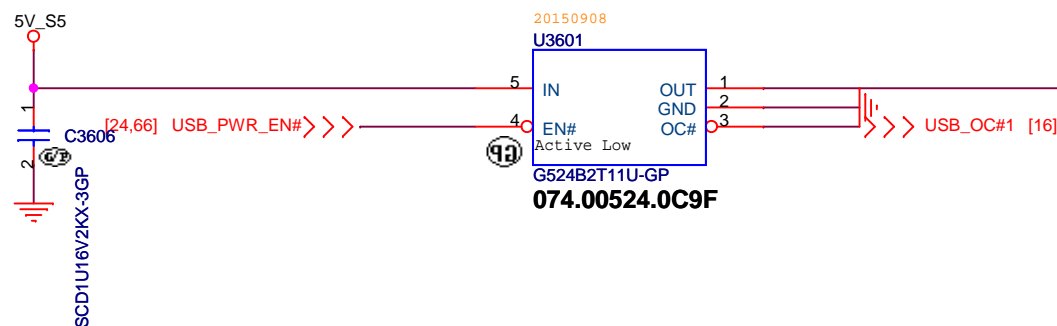
SSID = USB



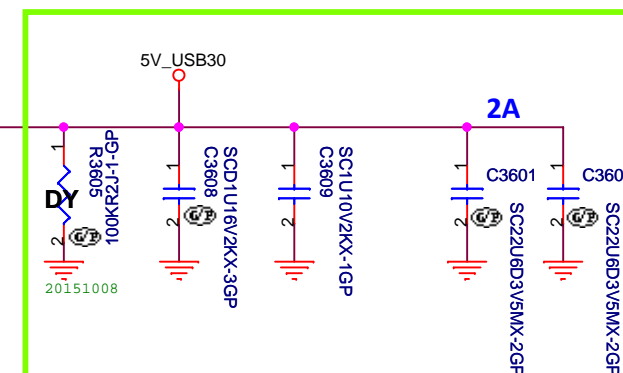
USB 3.0 Connector	
Pin definition	
1	POWER
2	USB 2.0 D-
3	USB 2.0 D+
4	GND
5	StdA_SSRX- SuperSpeed RX
6	StdA_SSRX+
7	GND
8	StdA_SSTX- SuperSpeed TX
9	StdA_SSTX+



USB3.0 Port1



Layout Note: Close CON1



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Title

USB Power SW

Size
A4

Document Number

Rocket BSW 11.6"

Rev
X00


Date: Thursday, October 08, 2015

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SSID = USB


Blanking

<Core Design>

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Title					
USB2.0 HUB					
Size	Document Number				Rev
A4	Rocket BSW 11.6"				X00
Date: Monday, September 21, 2015			Sheet 37 of 109		


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Size A4	Document Number Rocket BSW 11.6"		Rev X00
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Size A4	Document Number Rocket BSW 11.6"		Rev X00
Date: Monday, September 21, 2015		Sheet 39 of	109

Power Sequence




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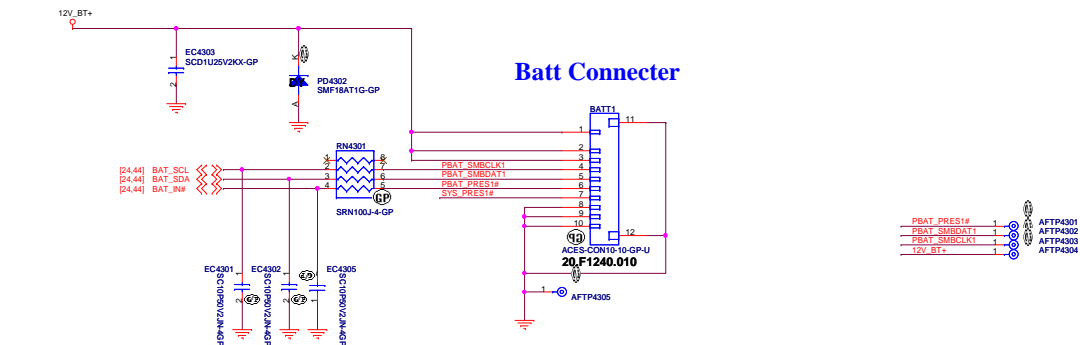
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Date: Monday, September 21, 2015		Sheet 41 of	109

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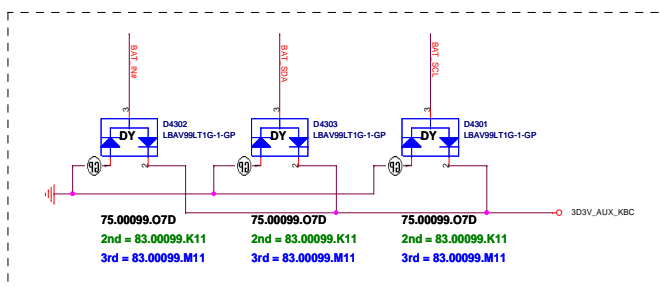
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Size A4	Document Number Rocket BSW 11.6"		Rev X00
Date: Monday, September 21, 2015		Sheet 42 of	109

SSID = PWR.Support



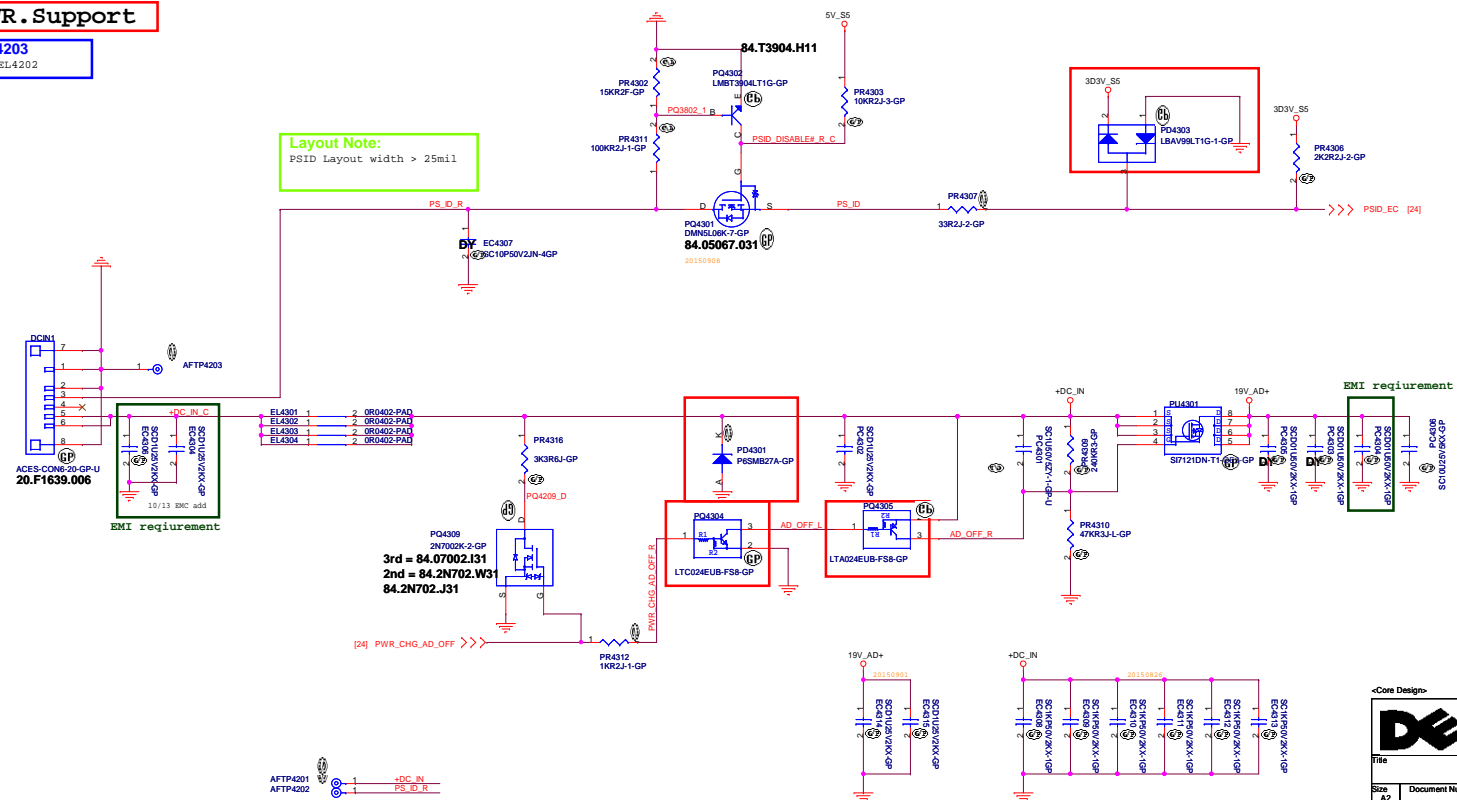
Placement: Close to Batt Connector



SSID = PWR.Support

0103 Add EC4203
ndde close to EL4202

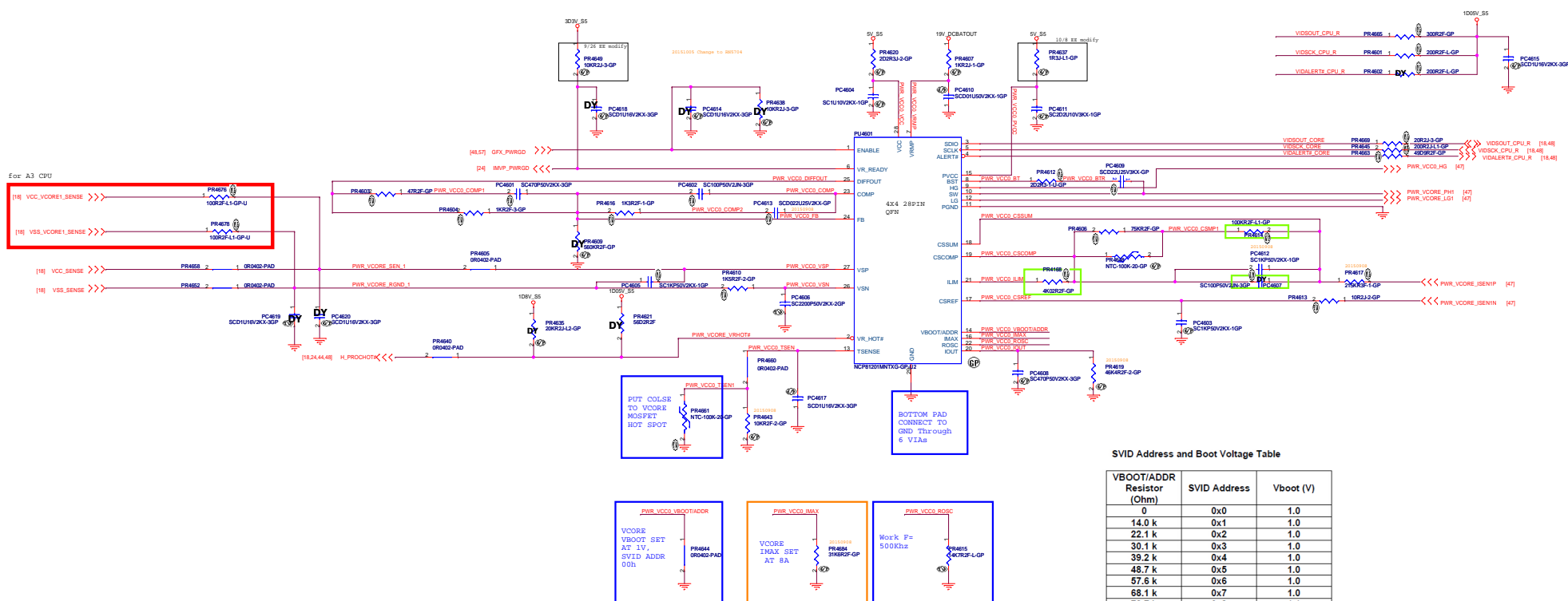
Layout Note:
PSID Layout width > 25mil



Main Func = Charger



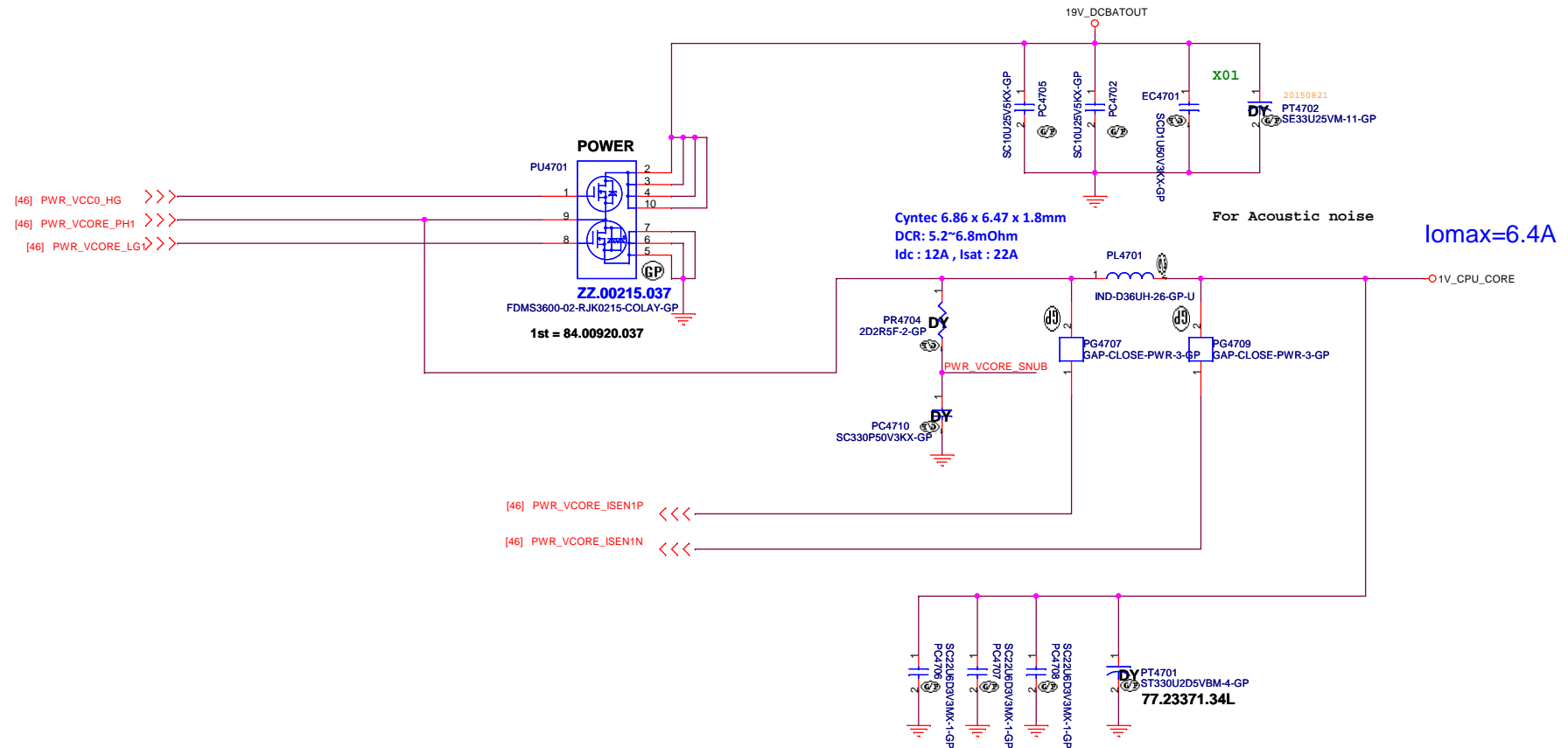
SSID = CPU Regulator



SVID Address and Boot Voltage Table

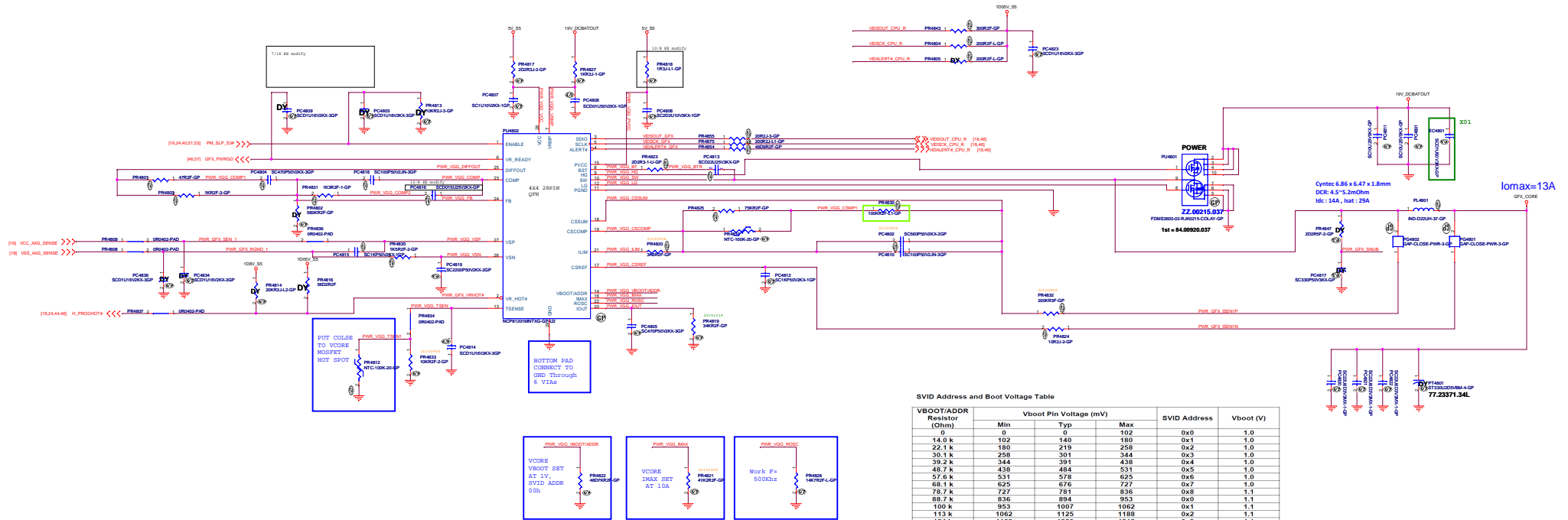
VBOOT/ADDR PREFETCH (Ohm)	SVID Address	Vboot (V)
0	0x0	1.0
14.0 k	0x1	1.0
22.1 k	0x2	1.0
30.1 k	0x3	1.0
39.2 k	0x4	1.0
48.7 k	0x5	1.0
57.6 k	0x6	1.0
68.1 k	0x7	1.0
78.7 k	0x8	1.1
88.7 k	0x9	1.1
100 k	0x1	1.1
113 k	0x2	1.1
124 k	0x3	1.1
137 k	0x4	1.1
150 k	0x5	1.1
165 k	0x6	1.1
178 k	0x7	1.1
196 k	0x8	1.1

SSID = CPU Regulator



<Core Design>

SSID = GFX Regulator




SVID Address and Boot Voltage Table

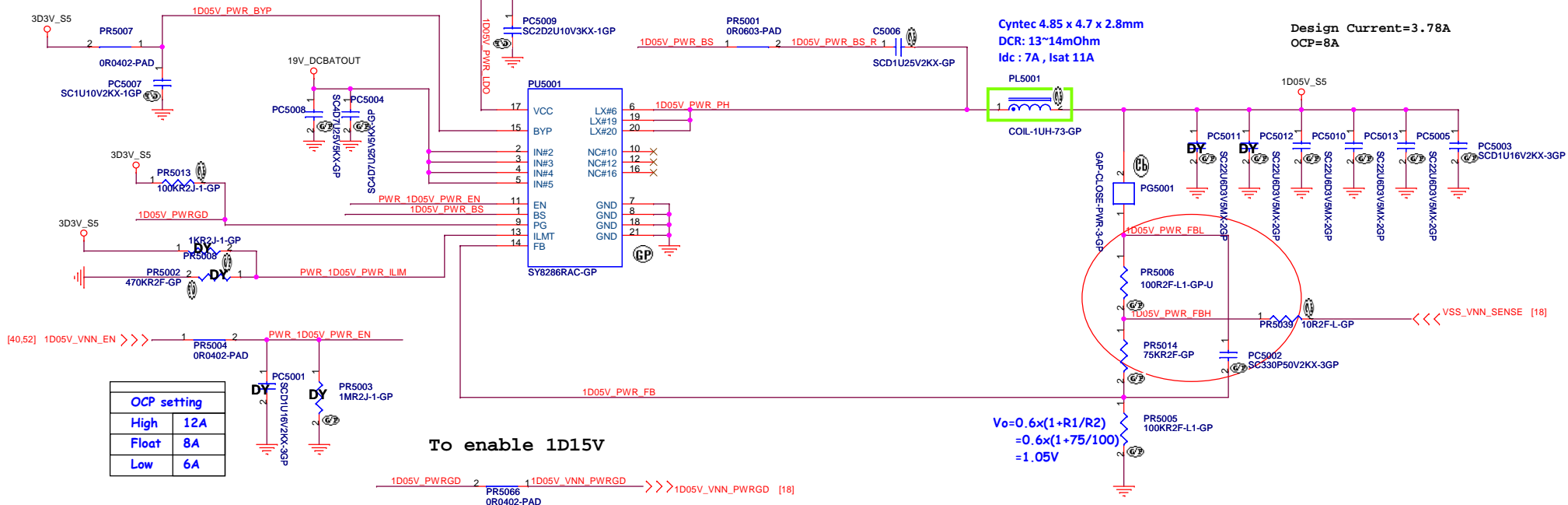
VBOOT/ADDR	Vboot Pin Voltage (mV)			SVID Address	Vboot (V)
Resistor (Ohm)	Min	Typ	Max		
0	0	0	102	0x0	1.0
14.0 k	102	140	250	0x1	0.7
22.1 k	180	219	250	0x2	1.0
30.9 k	250	309	344	0x3	1.0
39.2 k	344	391	438	0x4	1.0
48.7 k	438	484	531	0x5	1.0
57.8 k	531	578	625	0x6	1.0
68.1 k	625	676	727	0x7	1.0
74.7 k	727	781	836	0x8	1.1
88.7 k	836	894	953	0x9	1.1
100 k	1053	1062	1062	0xA	1.1
113 k	1062	1125	1188	0x2	1.1
128 k	1188	1280	1392	0x3	1.1
137 k	1312	1378	1445	0x4	1.1
150 k	1445	1511	1578	0x5	1.1
165 k	1578	1648	1715	0x6	1.1
178 k	1719	1789	1859	0x7	1.1
188 k	1859	1950	1950	0x8	1.1

Blanking

<Core Design>

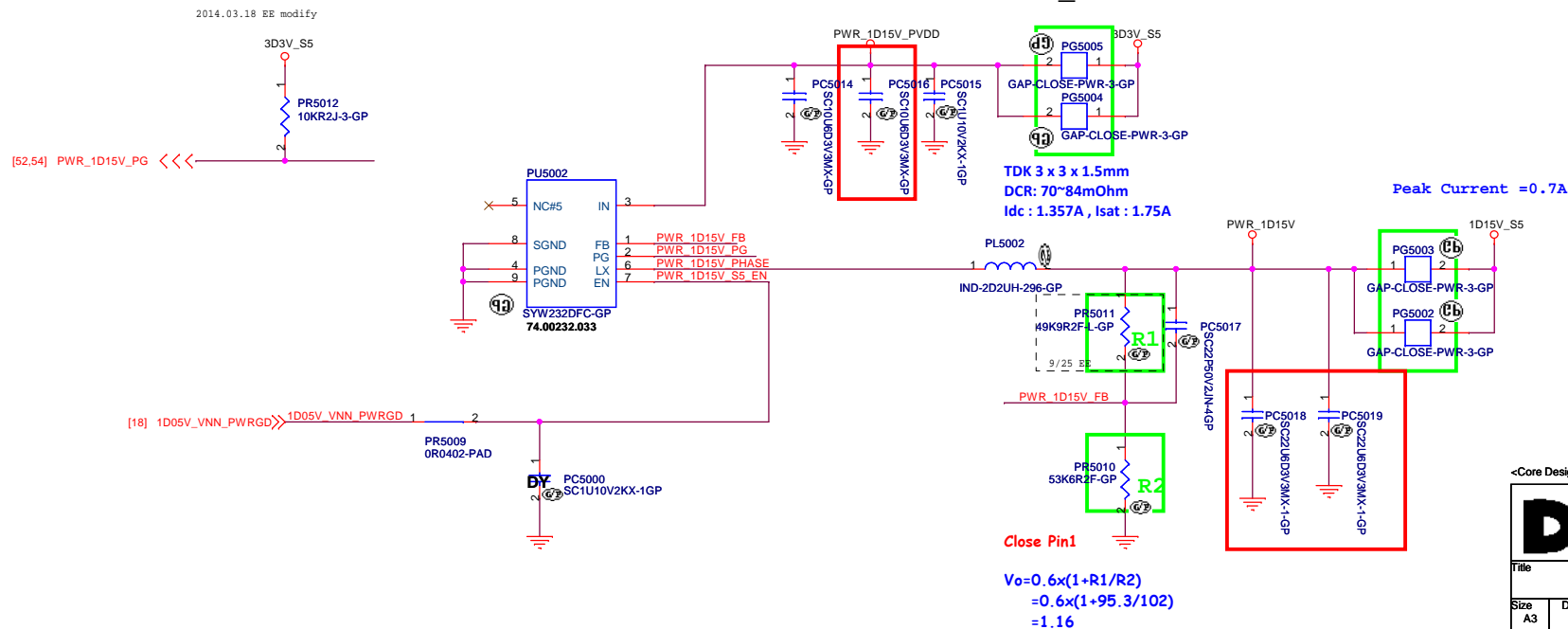
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Size A4	Document Number Rocket BSW 11.6"		Rev X00
Date: Monday, September 21, 2015		Sheet 49 of	109

SY8286D for 1D05V

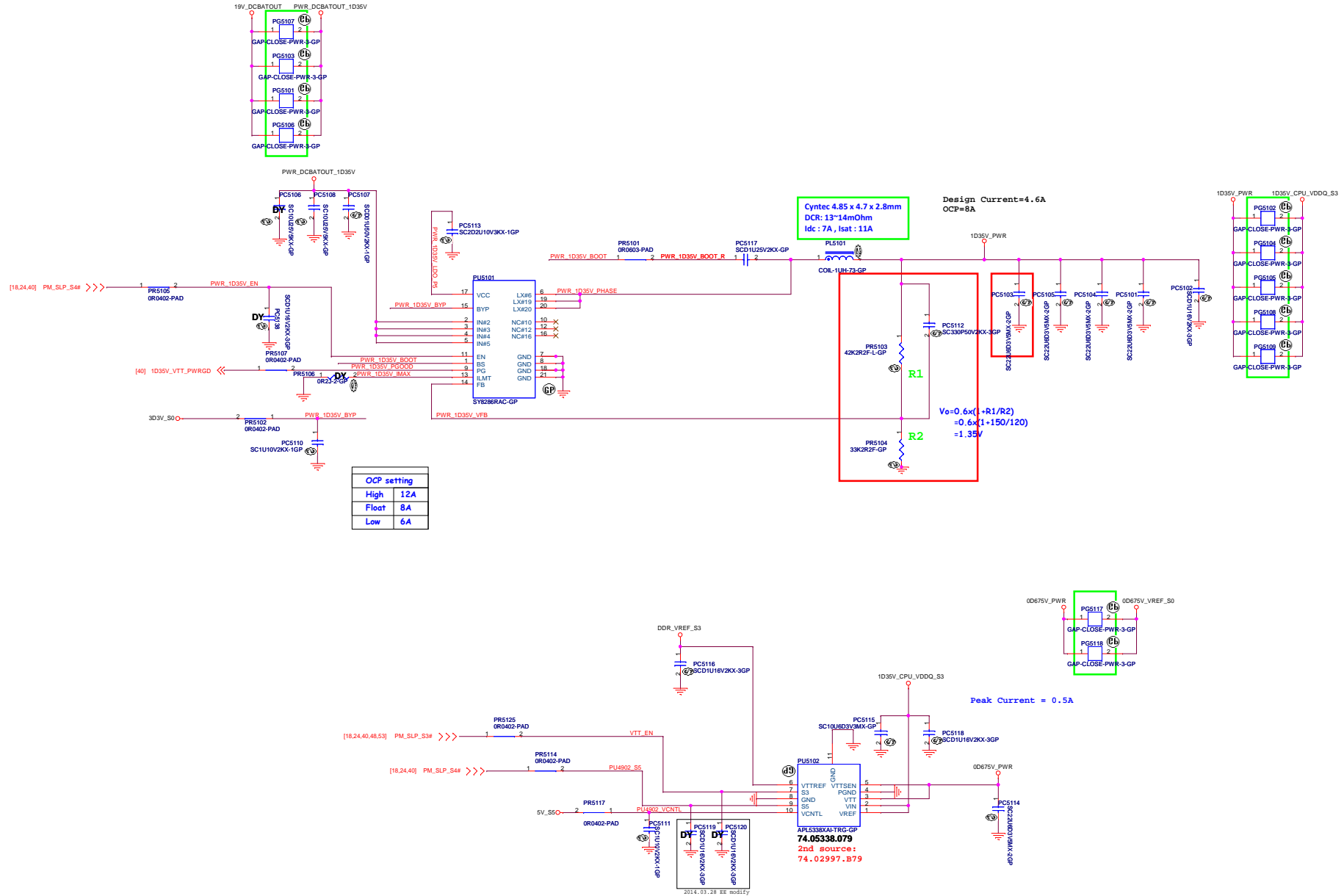


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SSID = PWR.Plane.Regulator_1p8v
```

SYW232 for 1D15V S5



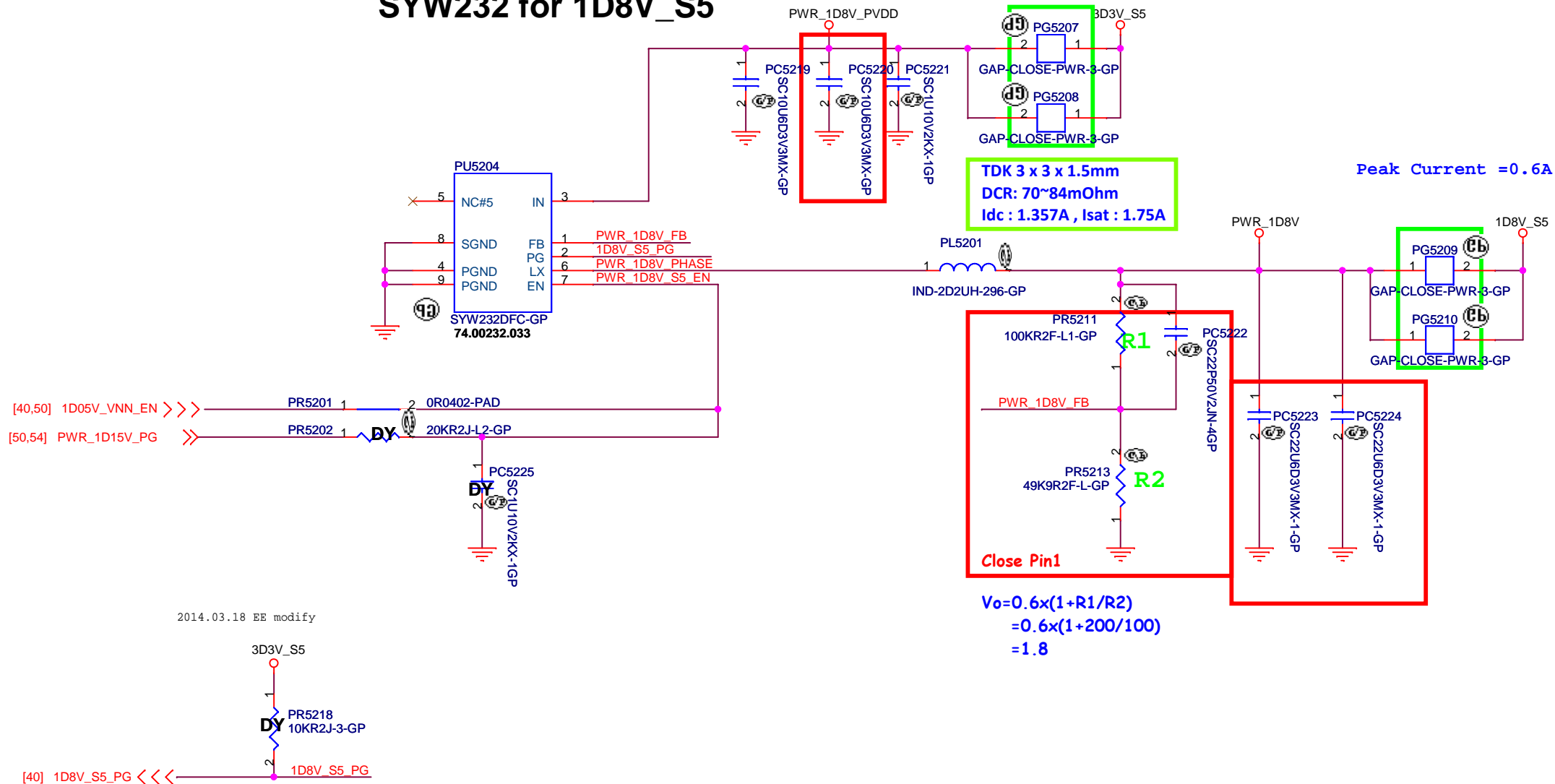
SY8206D for 1D35V



<Core Design>

SSID = PWR.Plane.Regulator_1p8v

SYW232 for 1D8V_S5



<Core Design>



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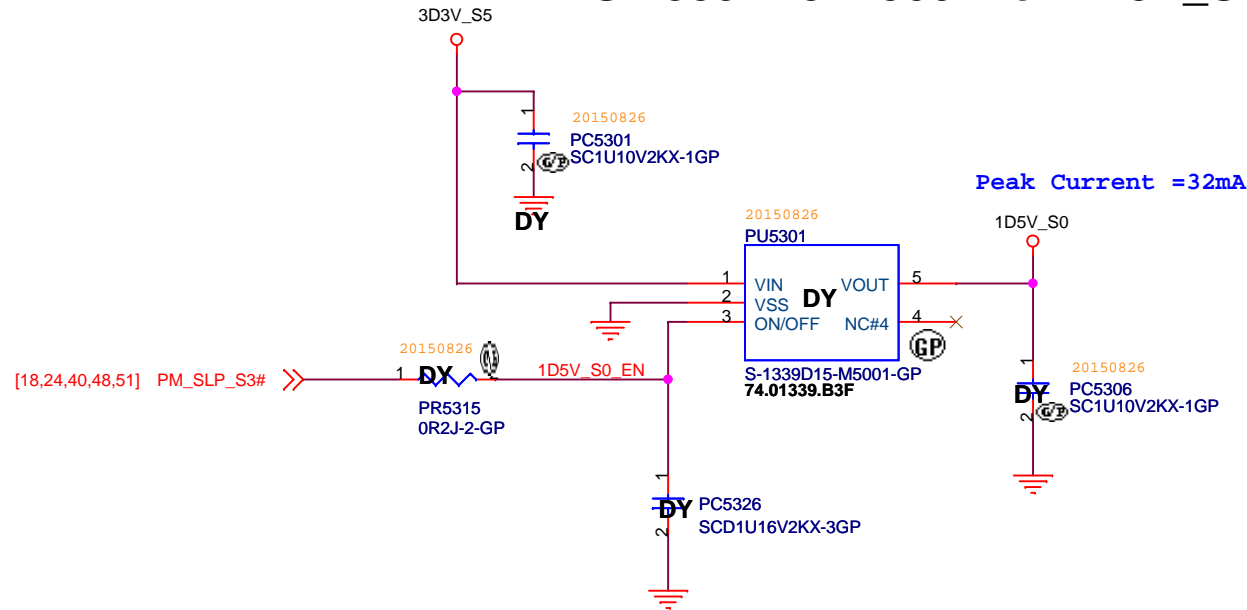
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title **SYW232DFC_1D8V**

Size A4	Document Number Rocket BSW 11.6"	Rev X00
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S-1339D15-M5001 for 1D5V_S0



<Core Design>



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Taipei Hsien 221, Taiwan, R.O.C.

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S1339D15 1D5V

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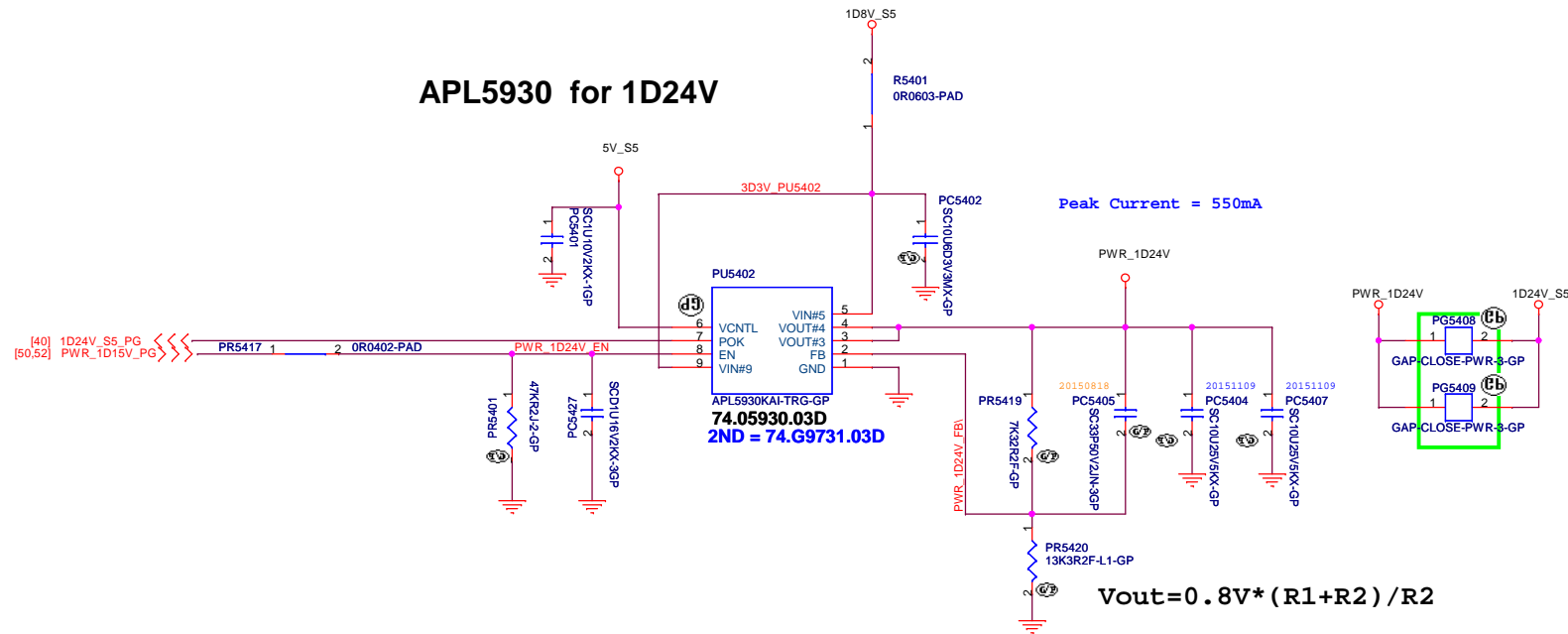
Rocket BSW 11.6"

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APL5930 for 1D24V



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Size
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Document Number

Rocket BSW 11.6"

Rev


A00

Date: Tuesday, November 10, 2015

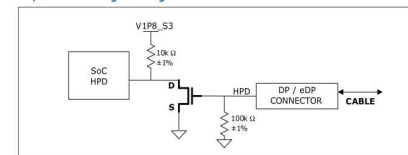
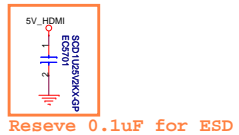
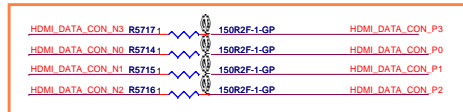
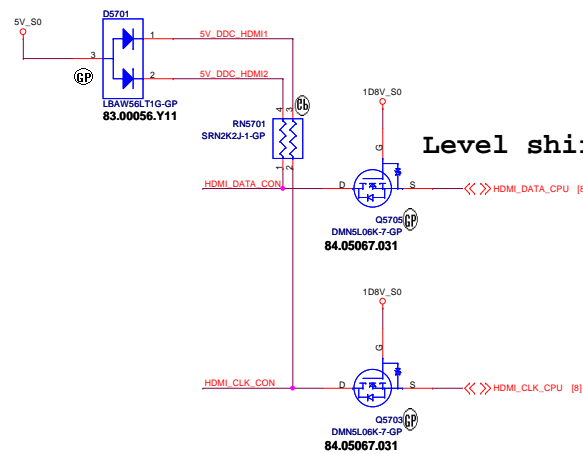
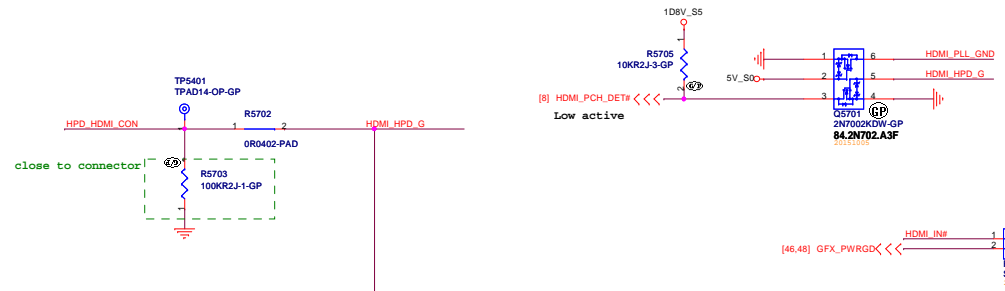
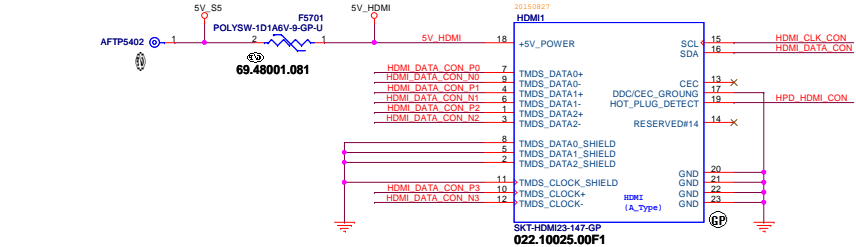
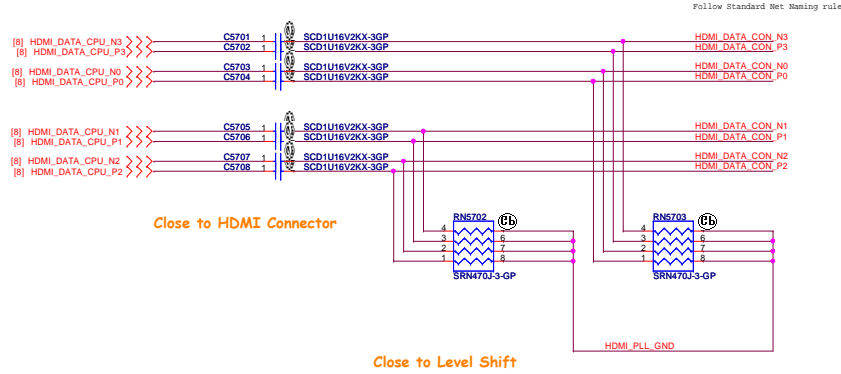
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Title (Reserved)			
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HDMI Level Shifter & CONNECTOR



4.2.9 Hot Plug Detect Signal (HPD)

The ground reference for the Hot Plug Detect signal is the DDC/CEC Ground pin.

Table 4-38 Required Output Characteristics of Hot Plug Detect Signal

Item	Value
High voltage level (Sink)	Minimum 2.4 Volts, Maximum 5.3 Volts
Low voltage level (Sink)	Minimum 0 Volts, Maximum 0.4 Volts
Output resistance	1000 ohms ±20%

Table 4-39 Required Detection Levels for Hot Plug Detect Signal


Item	Value
High voltage level (Source)	Minimum 2.0 Volts, Maximum 5.3 Volts
Low voltage level (Source)	Minimum 0 Volts, Maximum 0.8 Volts

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SSID = Display Port

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<Core Design>

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SSID = DVI

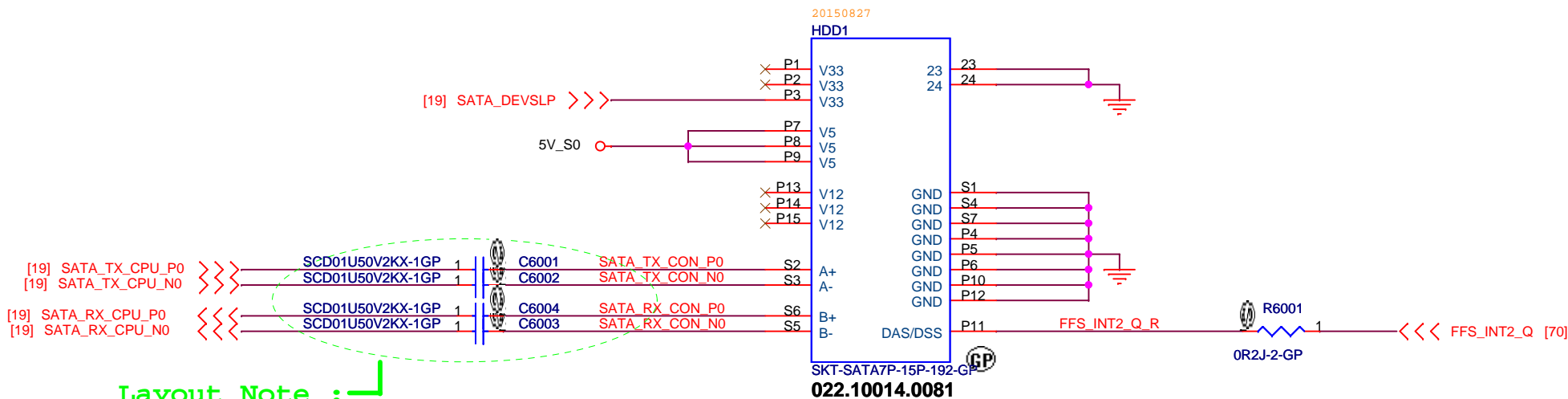
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Size	Document Number Rocket BSW 11.6"		Rev X00
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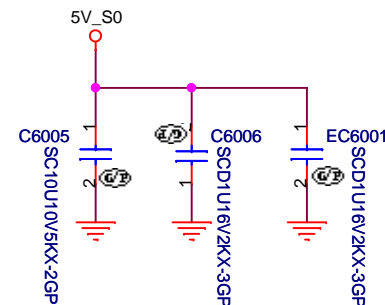
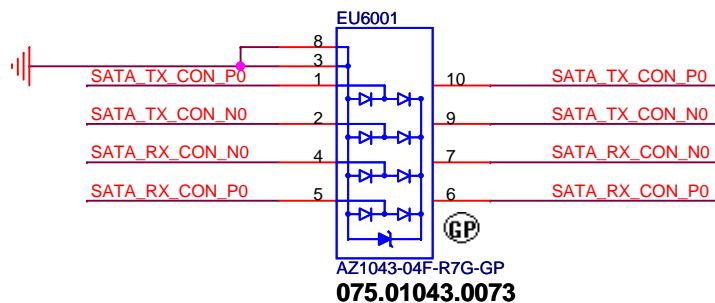
SSID = SATA

SATA HDD Connector



Layout Note :

AC coupling Cap;
place near CONN(<100mils)

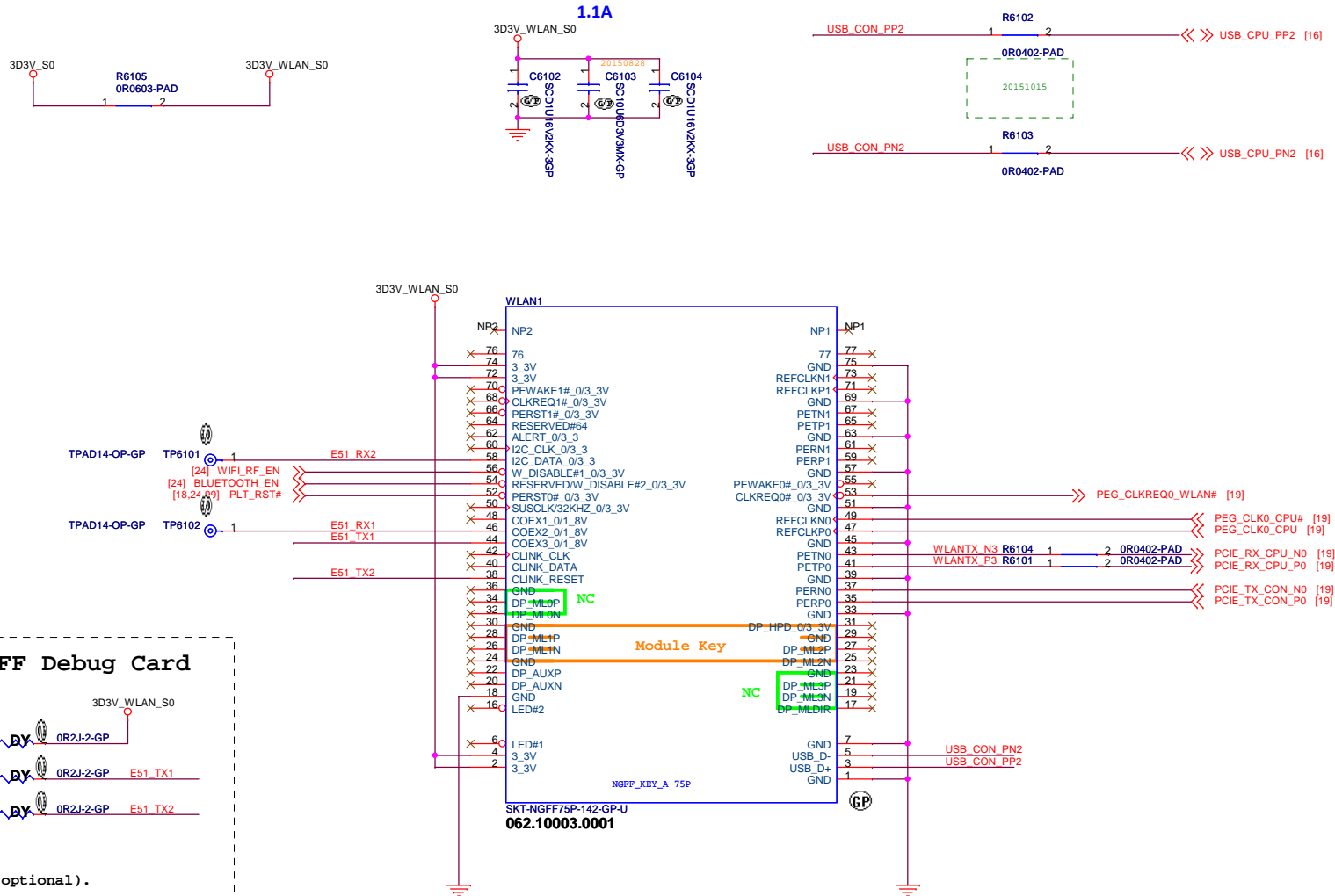


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Title			
HDD			
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SSID = WLAN

Mini Card Connector(802.11a/b/g)



3D3V_WLAN_S0	1	AFTP6101
PEG_CLKREQ0_WLAN#	1	AFTP6102
WIFI_RF_EN	1	AFTP6104
PLT_RST#	1	AFTP6105
BLUETOOTH_EN	1	AFTP6110
USB_CON_PN2	1	AFTP6111
USB_CON_PP2	1	AFTP6113

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Title		WLAN	
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SSID = WWAN

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Title

(Reserved) WWAN


SizeDocument NumberRev

Rocket BSW 11.6"**X00**

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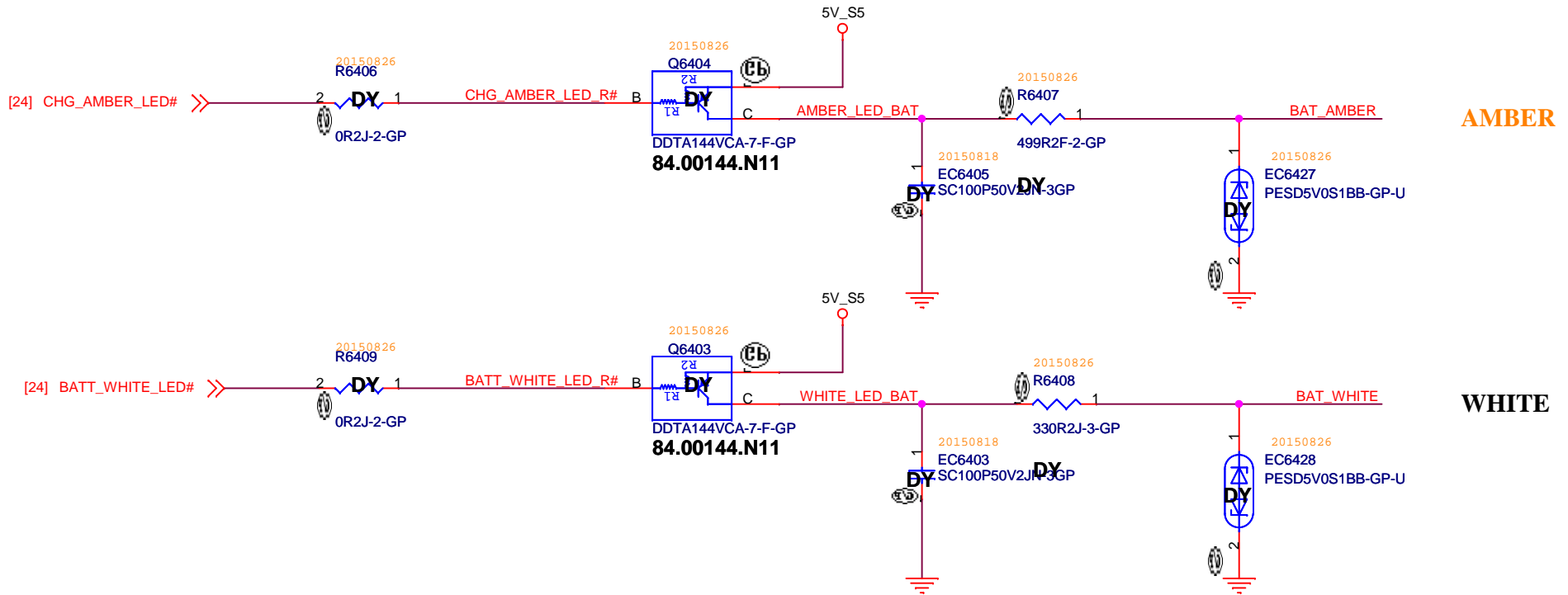
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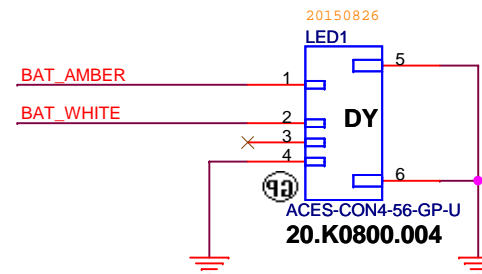
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Title eMMC			
Size A3	Document Number Rocket BSW 11.6"		Rev X00
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SSID = LED / PWRBTN

Battery LED1 (AMBER_LED)
Low activated from KBC GPIO



Battery LED2 (WHITE_LED)
Low activated from KBC GPIO



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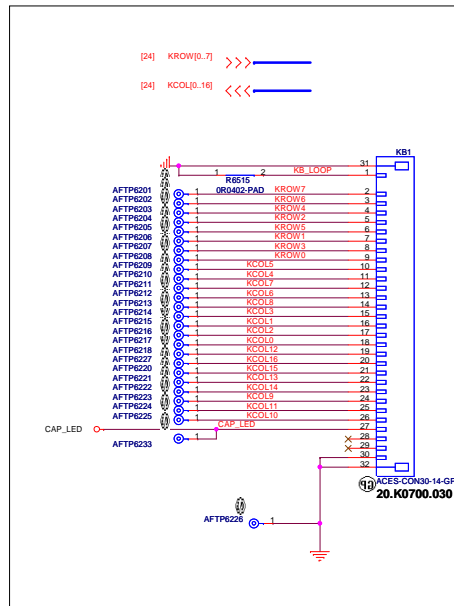
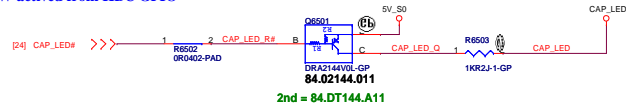
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Size	Document Number	Rev
A4	Rocket BSW 11.6"	X00

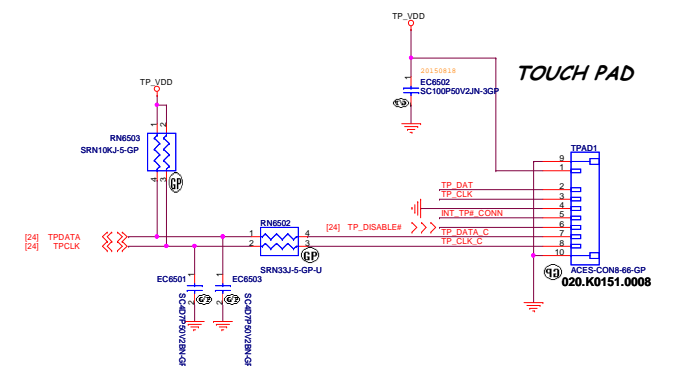
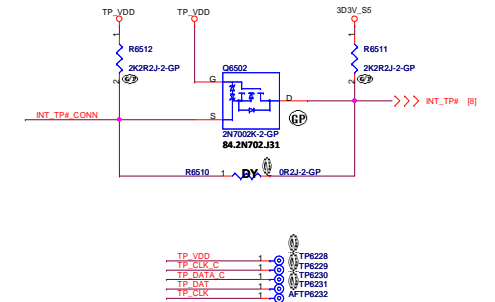
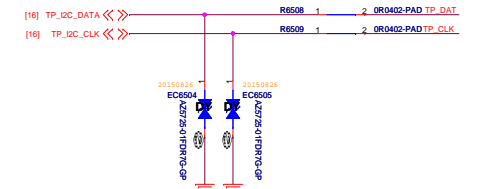
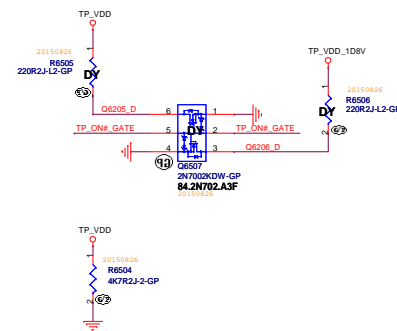
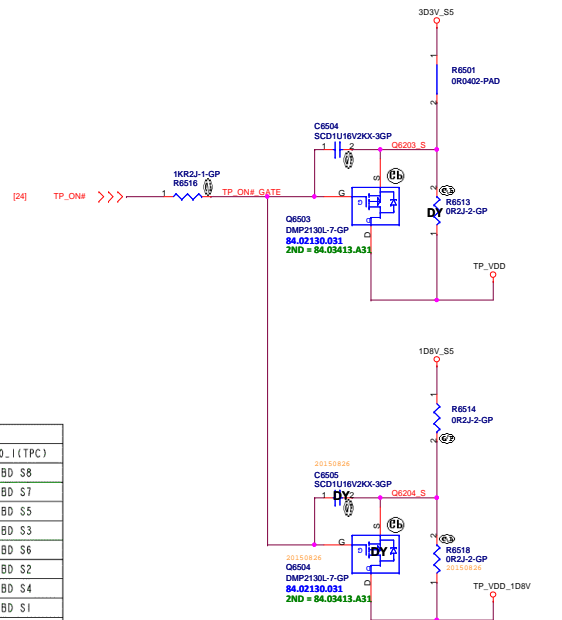
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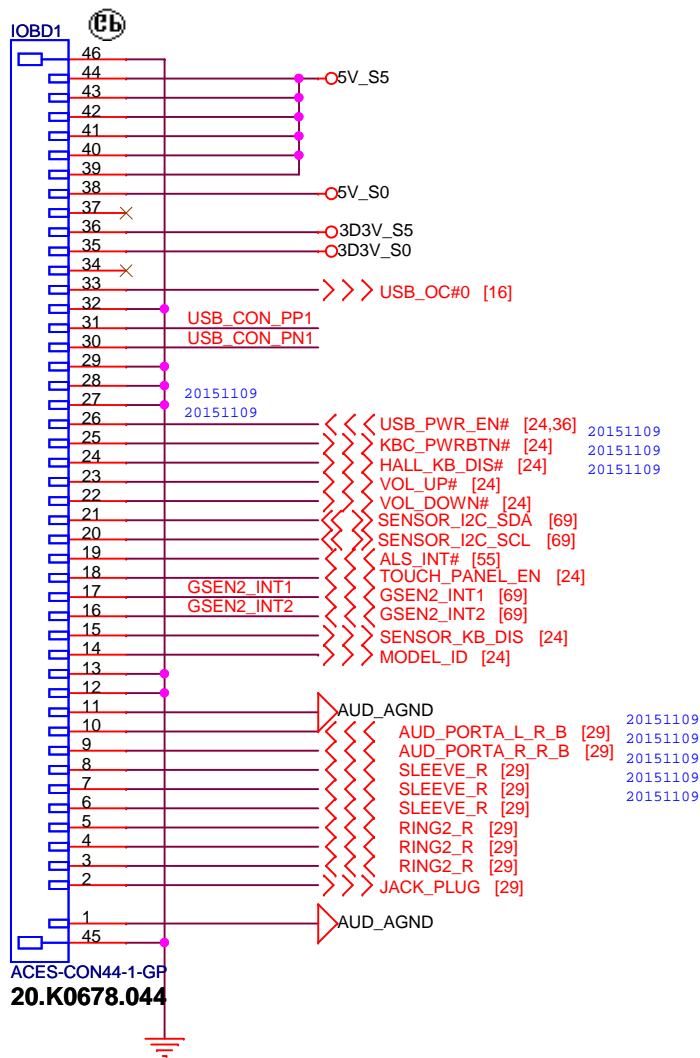
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CAP LED Control
LOW actived from KBC GPIO

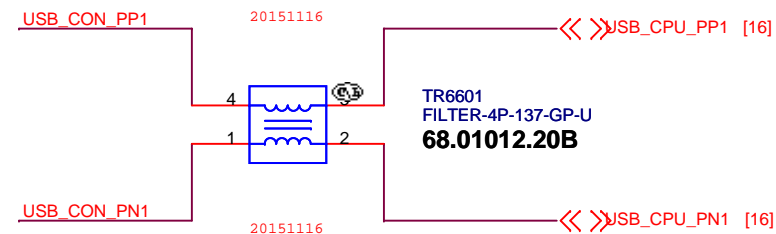


PIN#	SIGNAL
1	Diag_Loop=GP10_1 (TPC)
2	KSI [7] = KBD S8
3	KSI [6] = KBD S7
4	KSI [4] = KBD S5
5	KSI [2] = KBD S3
6	KSI [5] = KBD S6
7	KSI [1] = KBD S2
8	KSI [3] = KBD S4
9	KSI [0] = KBD S1
10	KSO [5] = KBD D6
11	KSO [4] = KBD D5
12	KSO [7] = KBD D8
13	KSO [6] = KBD D7
14	KSO [8] = KBD D9
15	KSO [3] = KBD D4
16	KSO [1] = KBD D2
17	KSO [2] = KBD D3
18	KSO [0] = KBD D1
19	KSO [12] = KBD D13
20	KSO [16] = KBD D17
21	KSO [15] = KBD D16
22	KSO [13] = KBD D14
23	KSO [14] = KBD D15
24	KSO [9] = KBD D10
25	KSO [11] = KBD D12
26	KSO [10] = KBD D11
27	CopsLock LED
28	N/C
29	N/C
30	GND



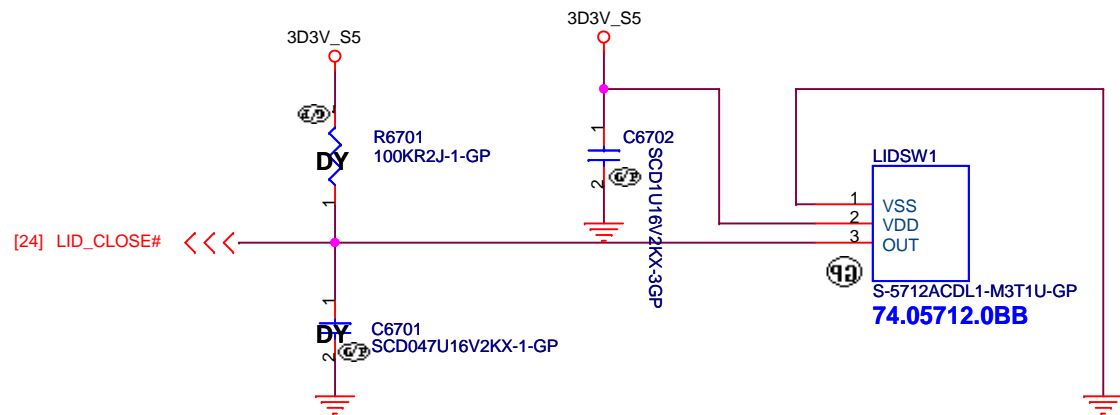


Power Pin Count : 9
GND Pin Count : 8



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		Title IO Board CONN	
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Title

Hall Sensor

Size
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Document Number

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SSID = Debug CONN

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Title

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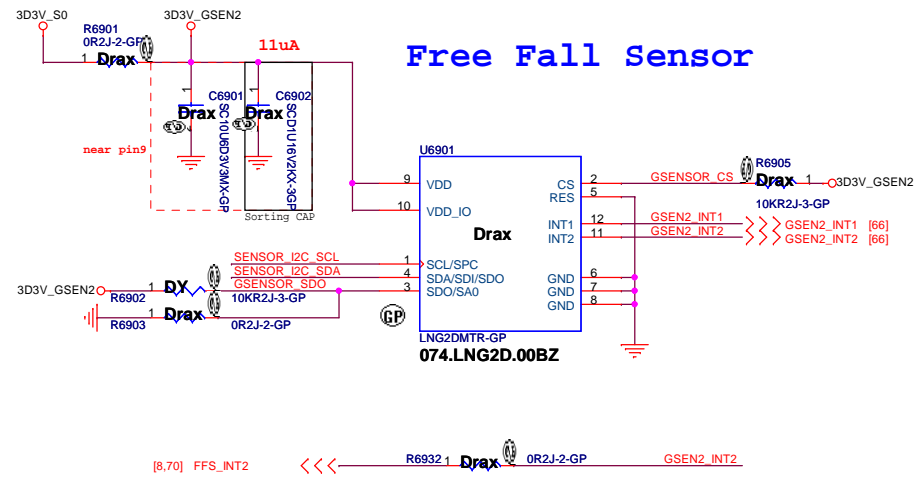
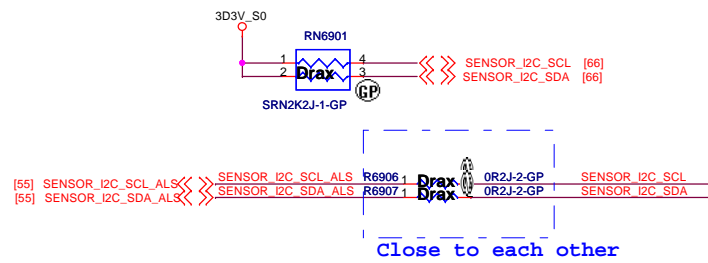
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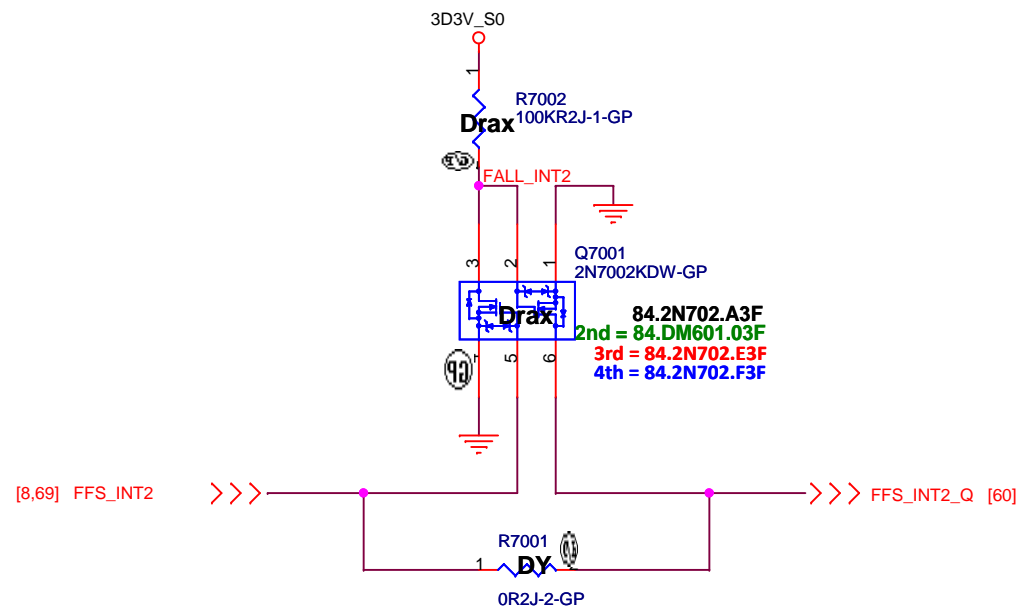
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SSID = Sensor



SSID = Free Fall Sensor




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SPR1



20151124

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SPRING-171-GP
SPR2



20150901

20151008

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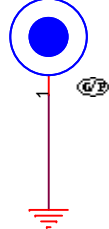
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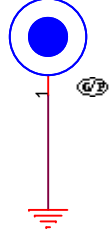
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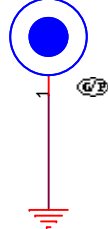
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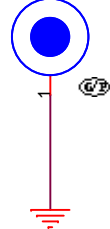
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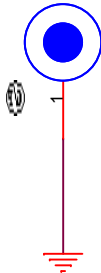
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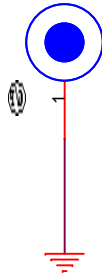
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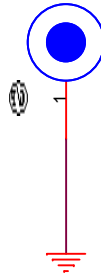
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Title

UNUSED PARTS/EMI Capacitors

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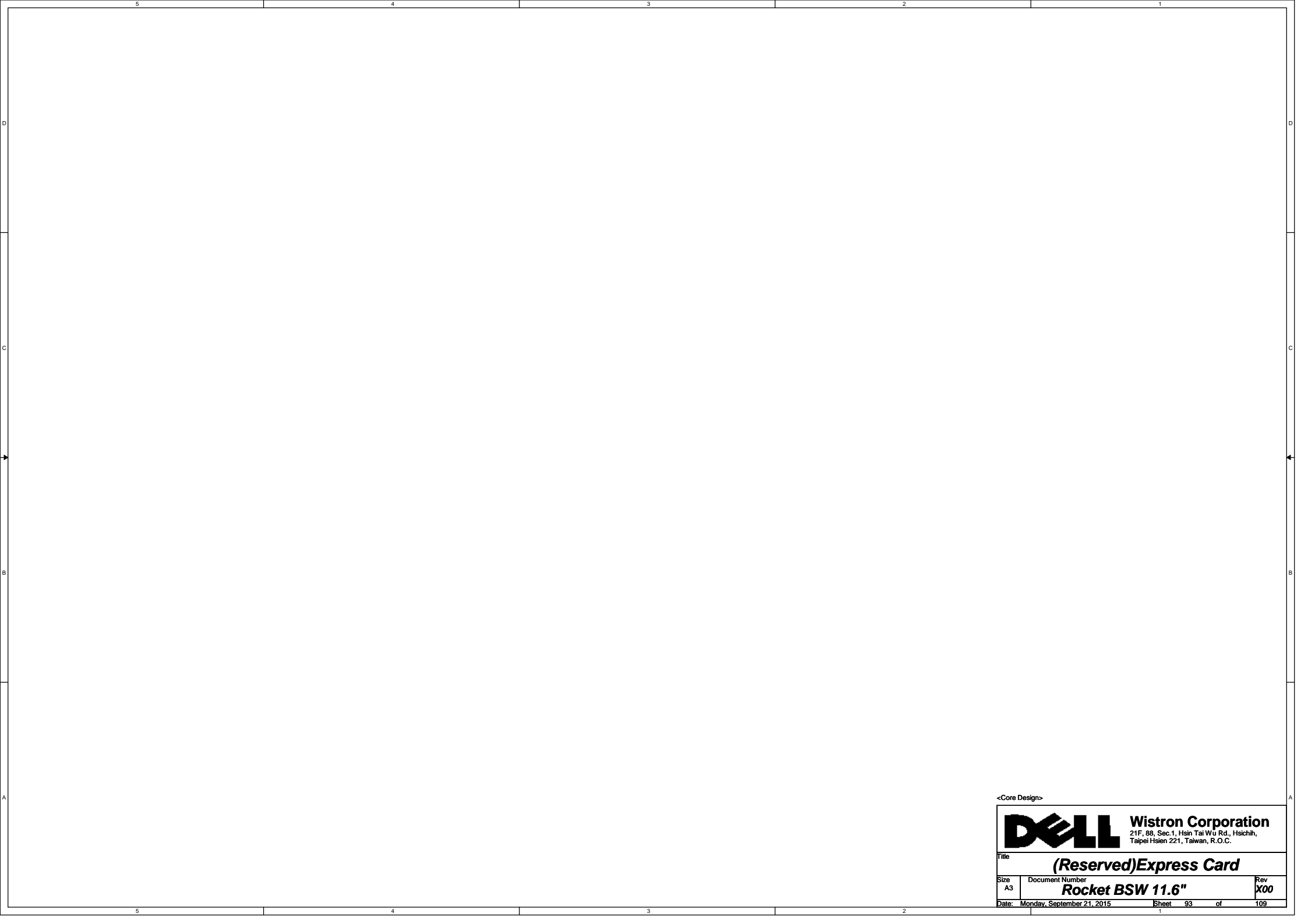
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		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title (Reserved)Express Card			
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<div><div></div><div><div>Wistron Corporation</div><div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div></div></div>		
Title <div>(Reserved)Smart Card Socket</div>		
Size <div>A4</div>	Document Number <div>Rocket BSW 11.6"</div>	Rev <div>X00</div>
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Title (Reserved)SW GFX eDP		
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Title (Reserved)Bottom Docking					
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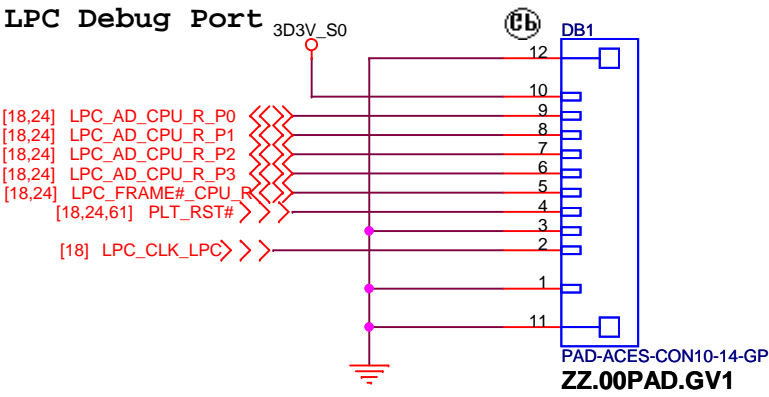
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Title (Reserved)LAN					
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Title (Reserved)LAN SWITCH					
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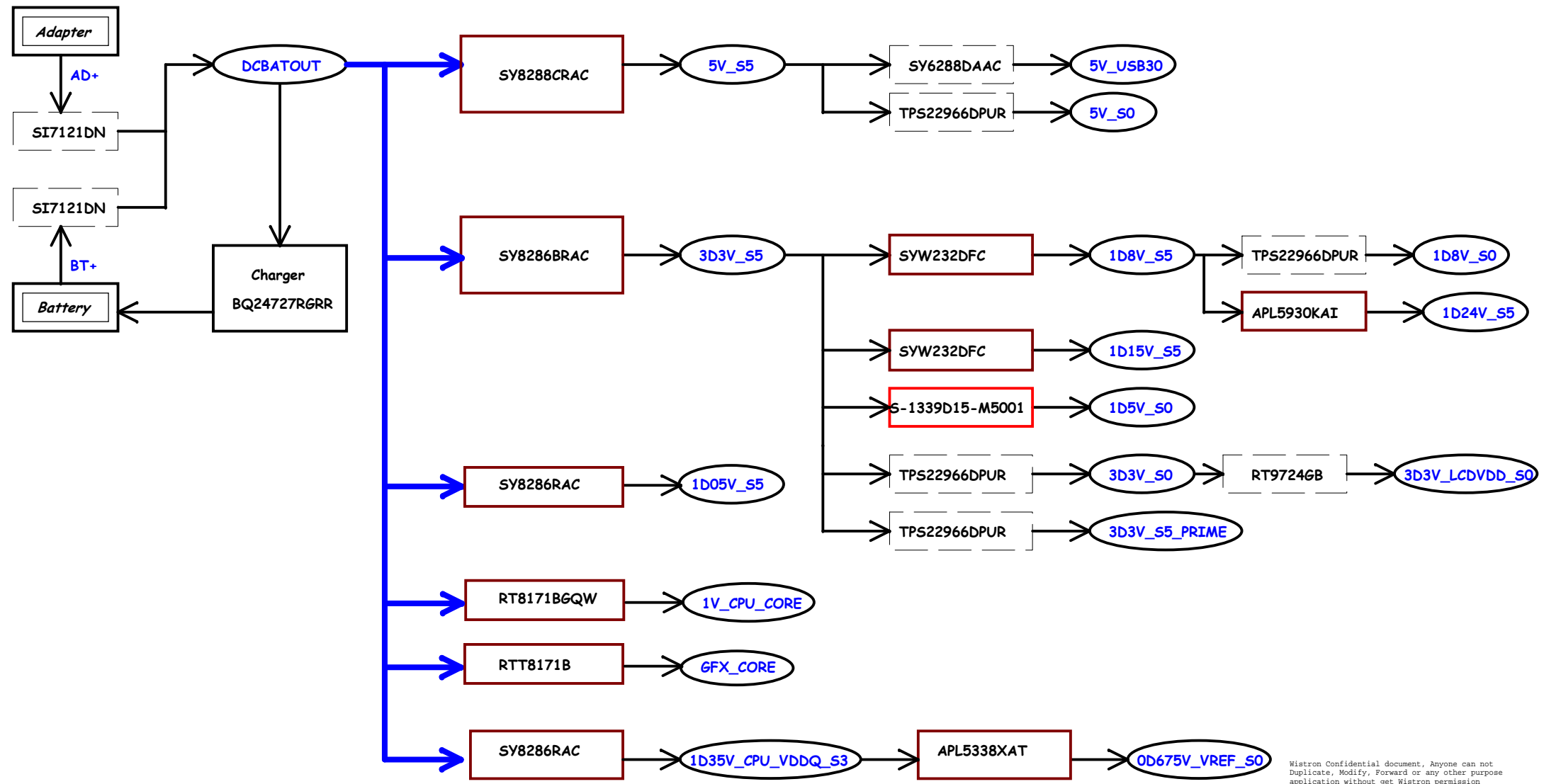
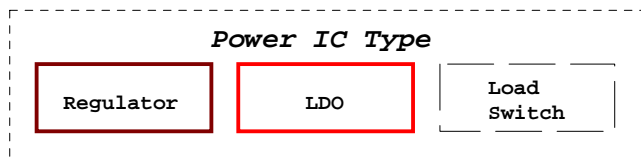
SSID = DEBUG PORT



20.F1180.010: Dummy Pad with solder mask is ZZ.00PAD.GV1

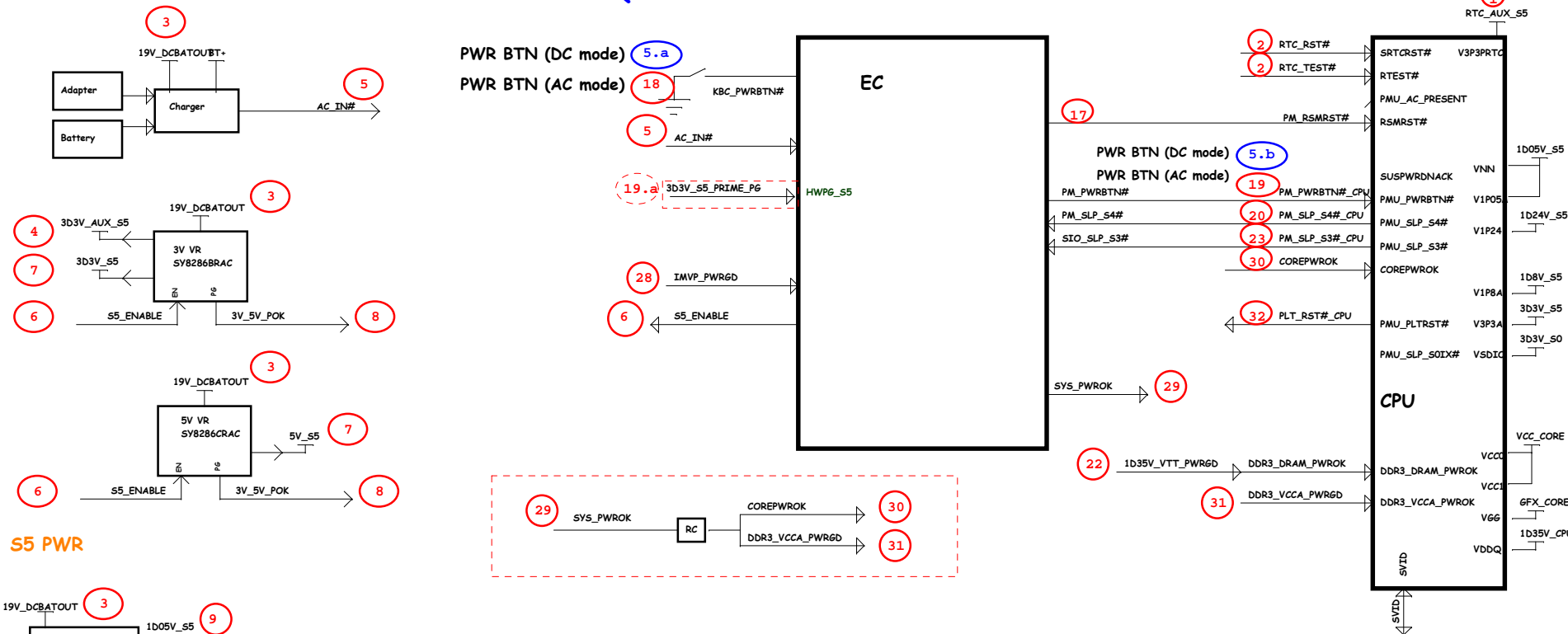
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Title					
CPU XDP					
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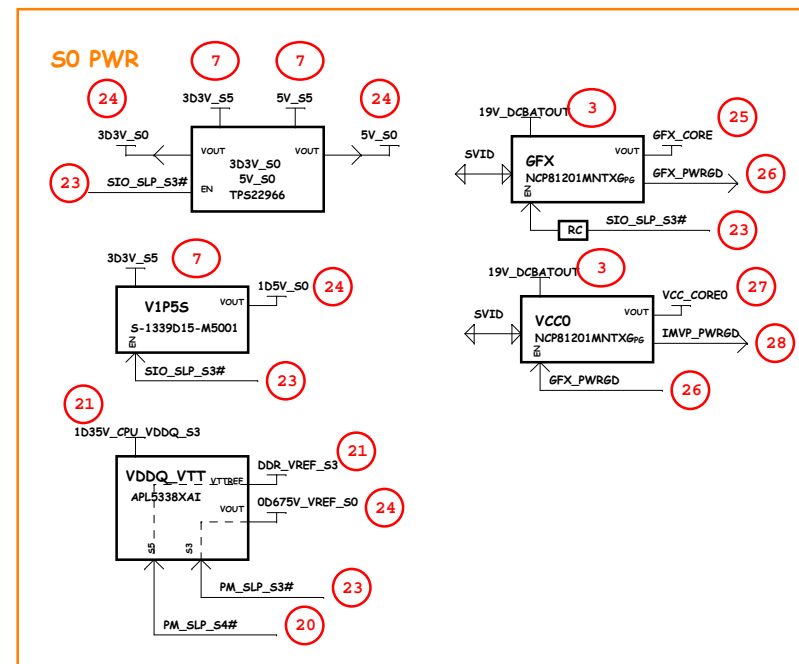
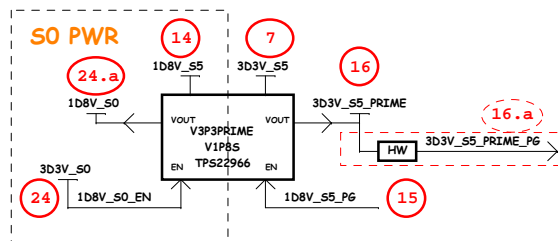
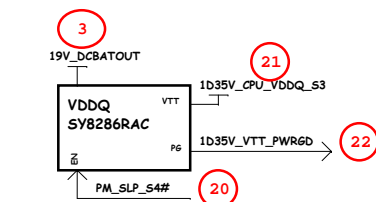
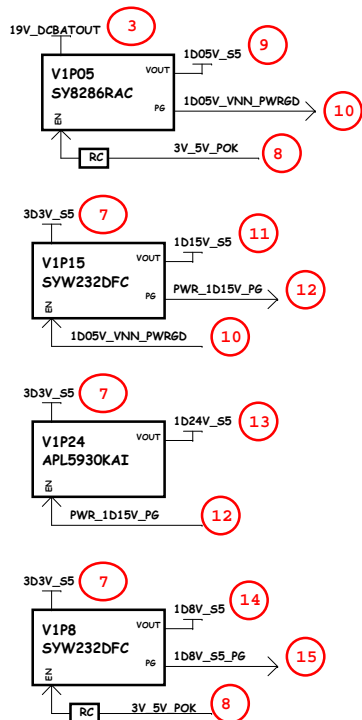


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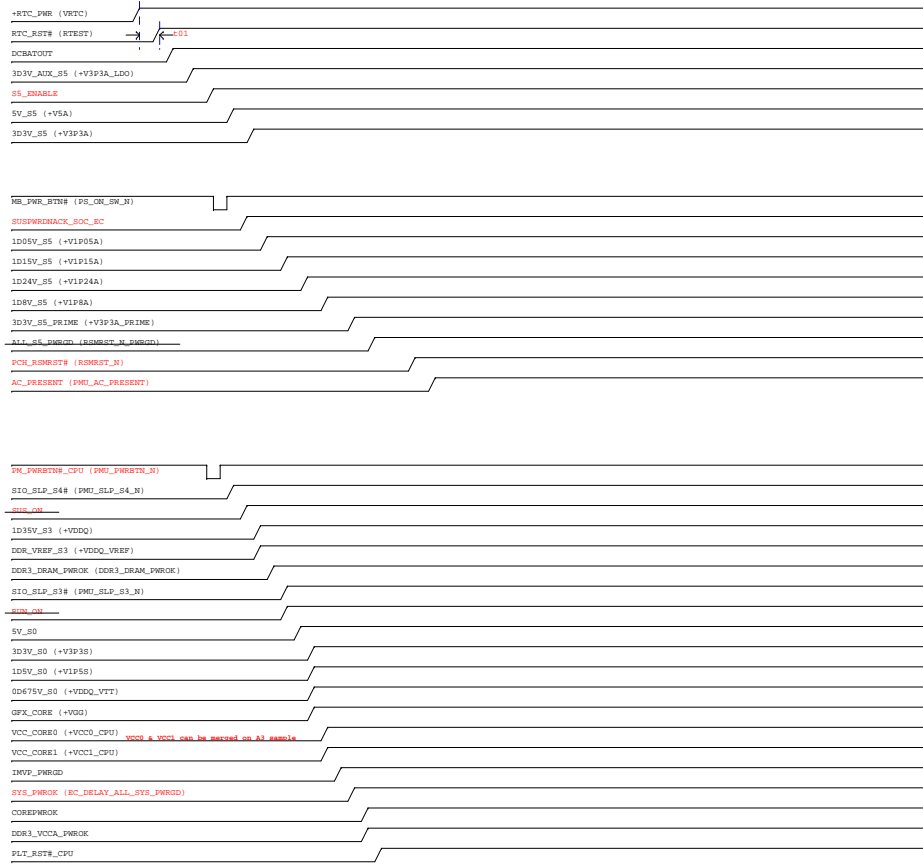
Braswell POWER UP SEQUENCE DIAGRAM



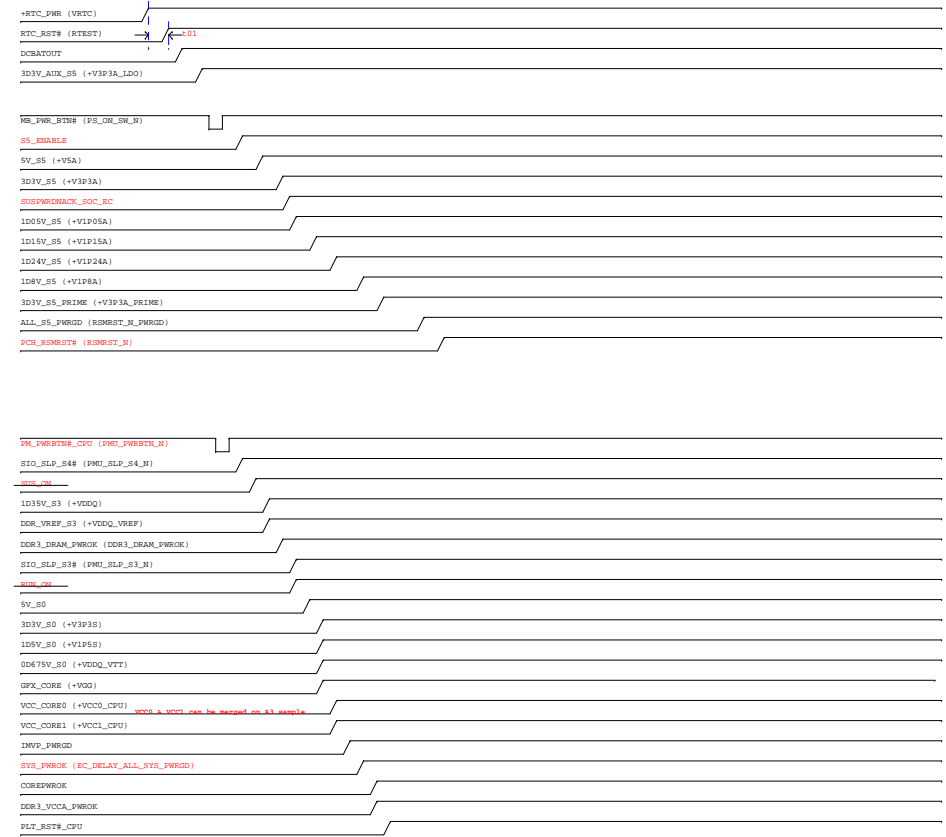
S5 PWR



(AC mode) Red word : KBC GPIO

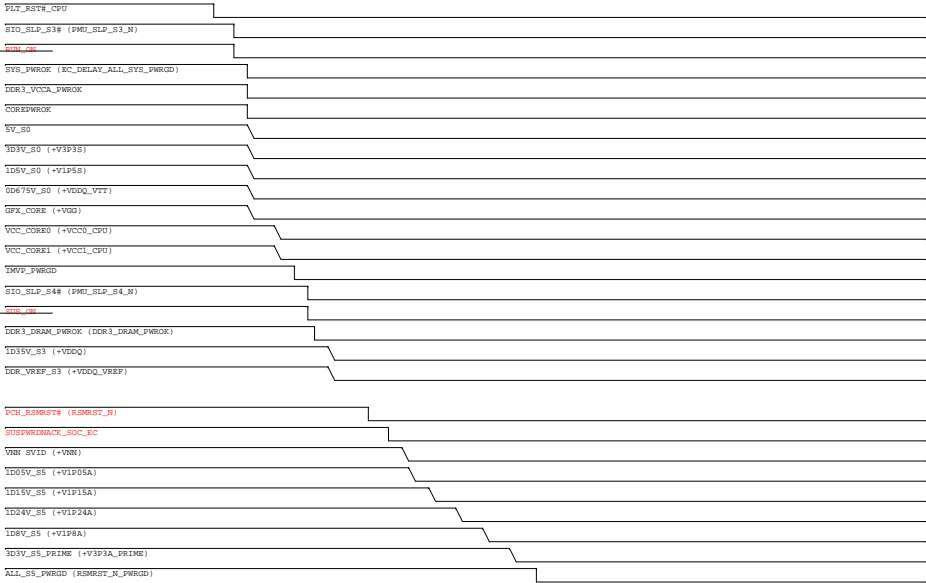


(DC mode) Red word : KBC GPIO



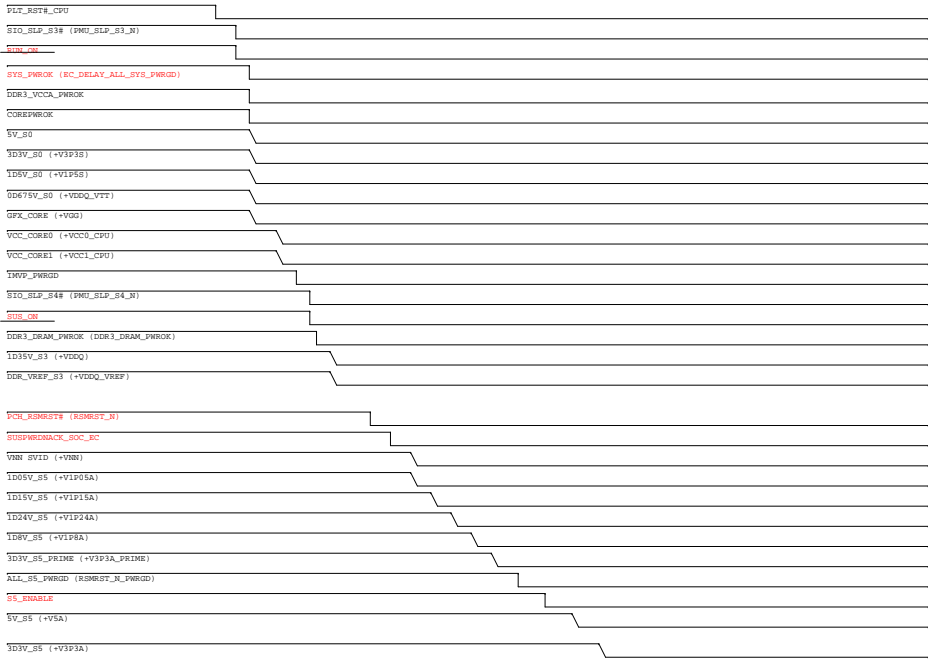
Intel-Power Down Sequence

(AC mode) Red word : X3C GPIO

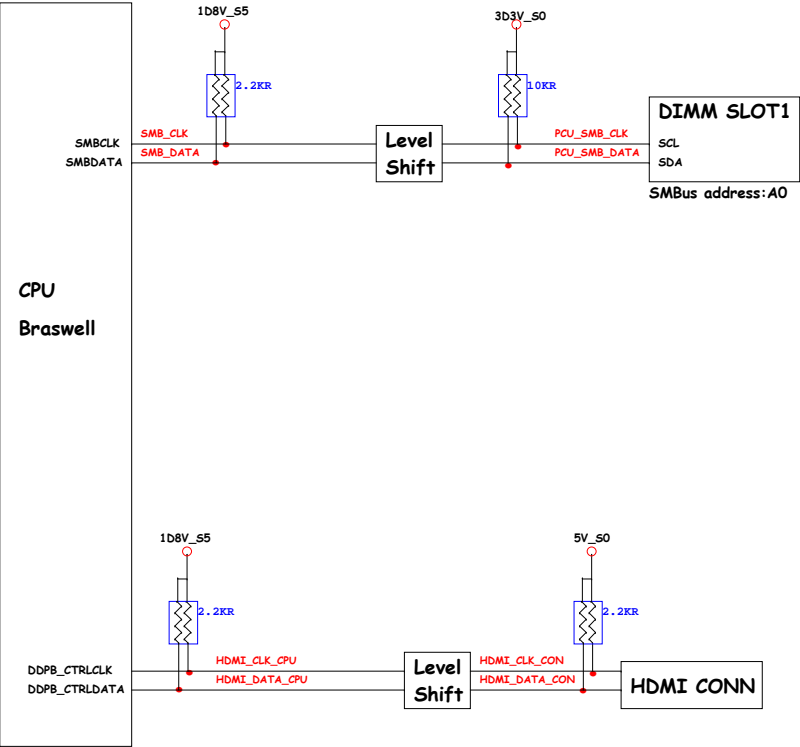


Intel-Power Down Sequence

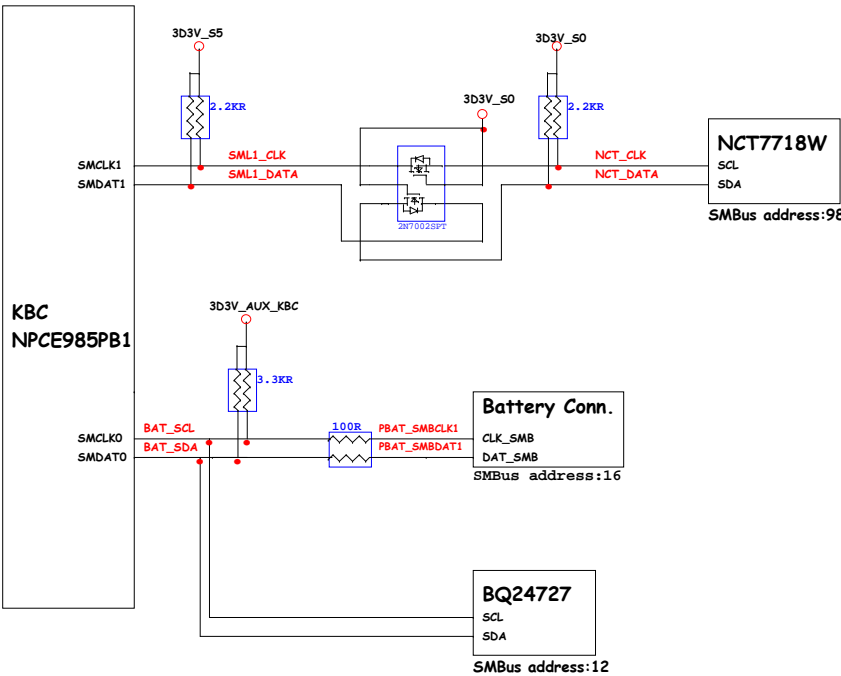
(DC mode) Red word : X3C GPIO



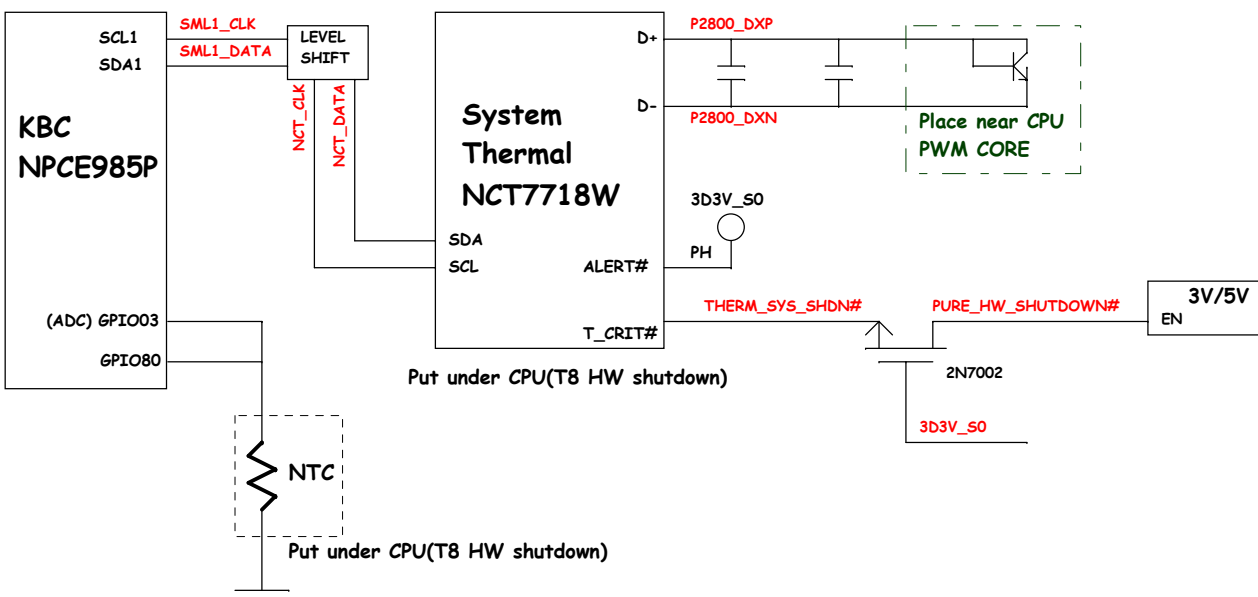
PCH SMBus Block Diagram



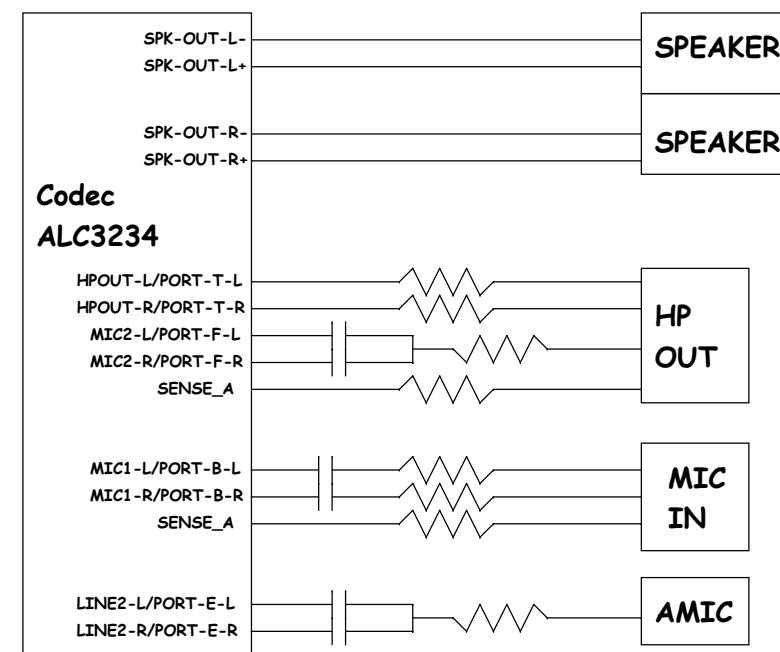
KBC SMBus Block Diagram



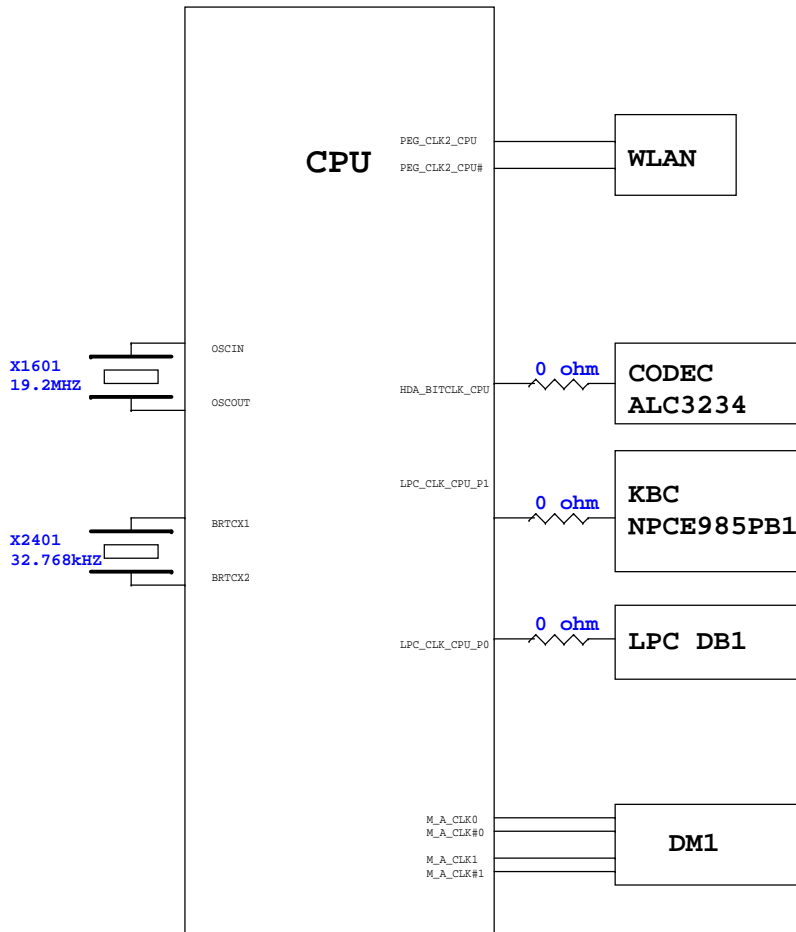
Thermal Block Diagram



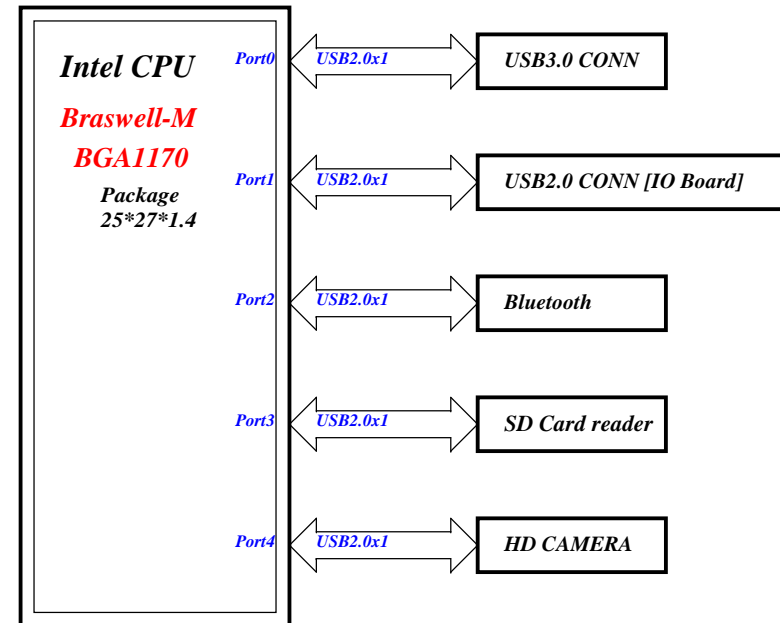
Audio Block Diagram



CLK Block Diagram



USB2.0 Port Block Diagram



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Title

Change History-02

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