

PAGE	CONTENTS
1	INDEX
2	BLOCK DIAGRAM
3	POWER DELIVERY
4	CHANGE LIST
5	CPU PCIE X16/DMI
6	CPU FDI
7	CPU DDR CHANNEL A
8	CPU DDR CHANNEL B
9	CPU POWER/GND
10	DDR3 DIMM A1/A2
11	DDR3 DIMM B1/B2
12	PCH DMI/PCIE/USB
13	PCH CLINK/SATA/CPU HOST
14	PCH LPC/HDA/SPI/MISC
15	PCH NVRAM/VGA/USB3/FDI
16	PCH CLOCK BUFFER
17	PCH POWER
18	PCH GND
19	SPI ROM/BAT
20	PCIE X16 SLOT
21	PCIE X4 & X1
22	HDMI CONNECTOR
23	VGA/DVI CONNECTOR
24	AUDIO CODEC ALC892
25	AUDIO CONNECTOR
26	LAN RTL8111G
27	PCI BRIDGE ASM1083
28	PCI SOLT1&2
29	SUPERIO ITE8622E
30	PS2/COM/FAN
31	FRONT USB
32	REAR USB
33	24PIN CONN & FP
34	RESUME RESET LOGIC
35	ACPI POWER
36	LINEAR POWER
37	MEMORY DC-DC
38	CPU PWM ISL6376
39	VCORE PHASE
40	PCIE M2 & SATA EXPRESS
41	BOM

IB25C-AHS

TB250 BTC

VER:60

CPU:
Intel Skylake S 42 in LGA1151 Package 95W

System Chipset:
SPT-H PCH

Main Memory:
Dual Channel/DDR-4*2(Max 32GB) 1866/2133

Onboard Device:
Super I/O:IT8613E
LAN:Realtek 8111H
HD Codec:ALC887

Power solution:
CPU Voltage Regulators:3phase by ISL95824
DDR Voltage Regulators:1Phase by UP1514

Expansion Slots:
PCI EXPRESS 16X SLOT *1
PCI EXPRESS 1X SLOT *3

REAR IO:

PS/2 Port

DVI Port

SINGLE USB2.0 PORT

2 layer USB3.0 PORT

Gb RJ-45 +2 layer USB2.0 Ports


Audio Jacks

Front I/O:
SATA3 *6
USB 2.0 Header * 2
USB 3.0 Header * 1
CPU FAN *1
System FAN *1

SATA EXPRESS * 1
Serial header
Front Audio Header

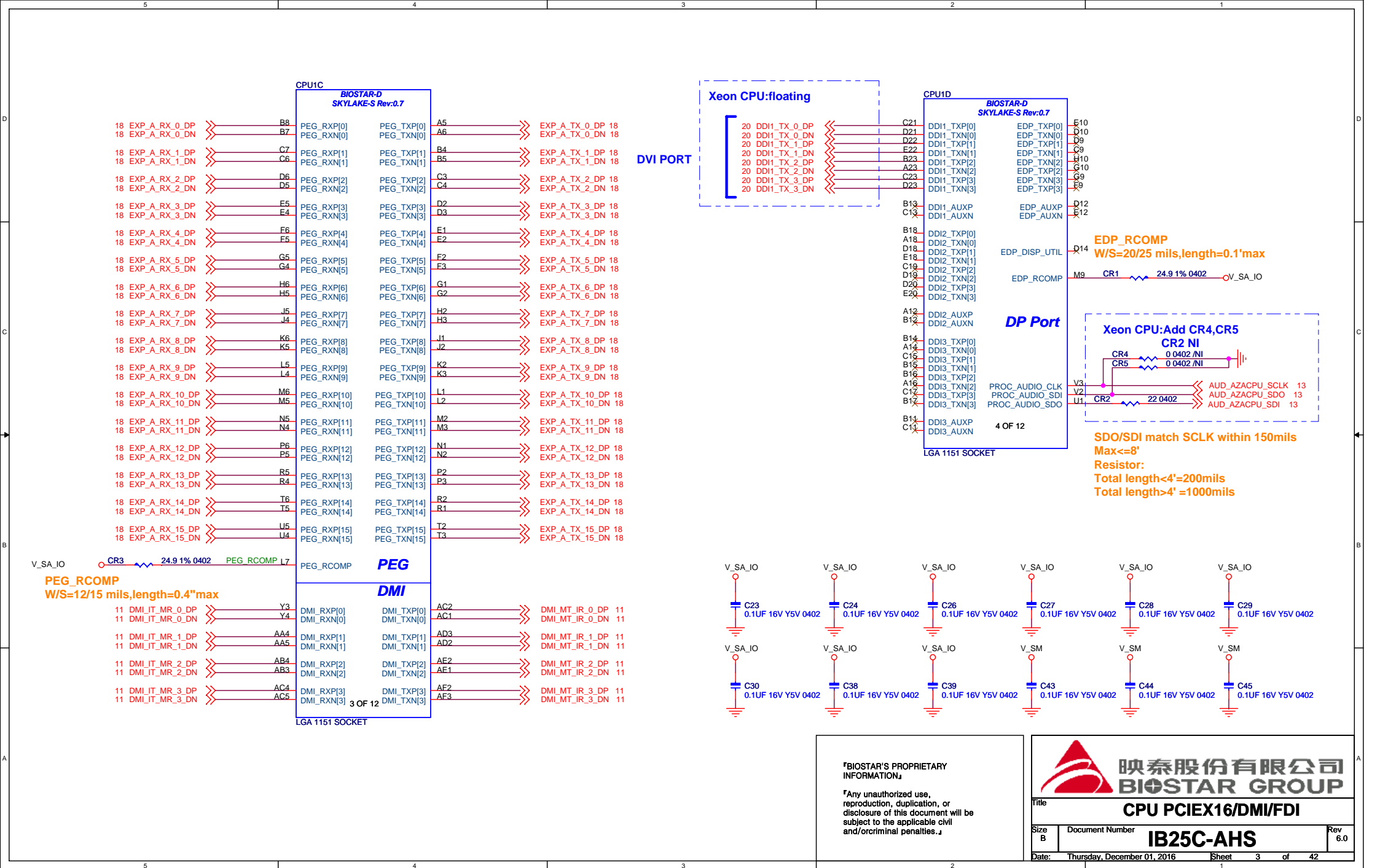
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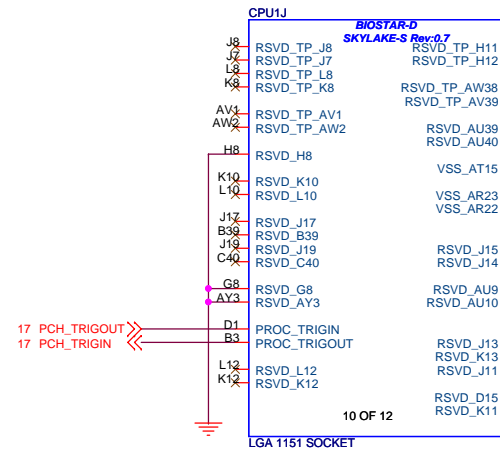
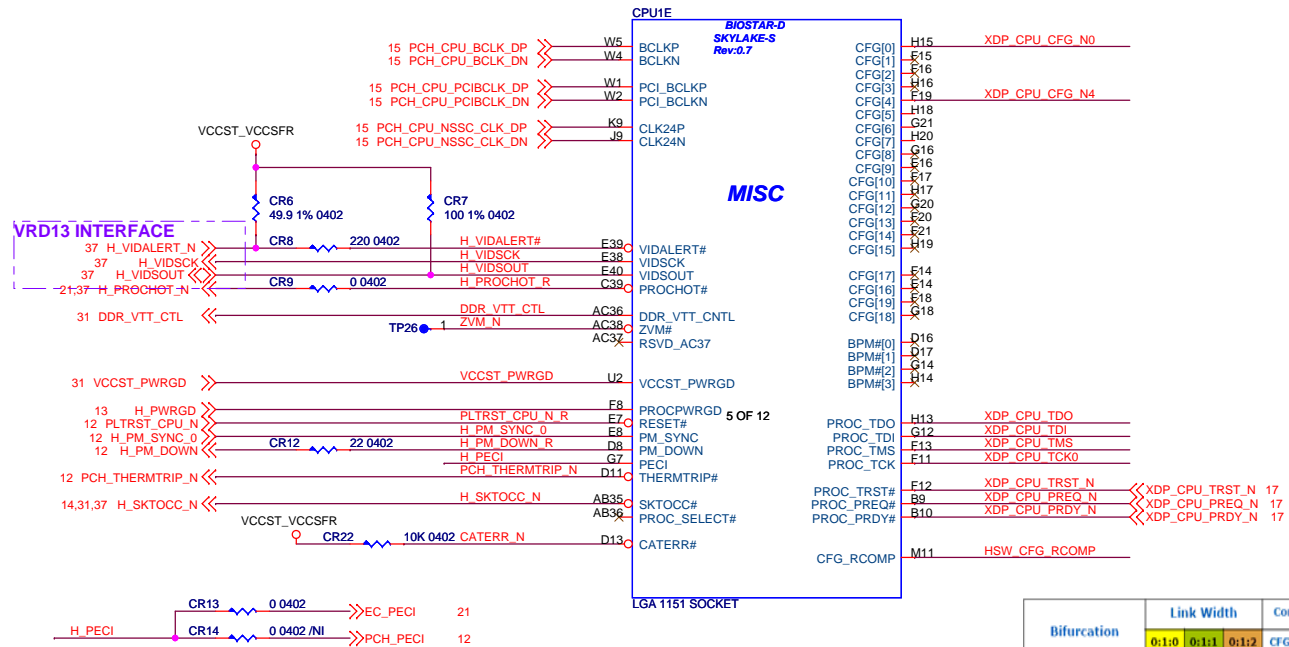
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Title INDEX		
Size B	Document Number IB25C-AHS	Rev 6.0
Date Friday, December 23, 2016	Sheet 1	of 42





CFG	HIGH	LOW	STRAP DESCRIPTION
0	NORMAL	STALL	EAR
1	NORMAL	PCHLESS	PCHLESS MODE
2	NORMAL	REVERSE	PEG_LANE_REVERSAL
3	ENABLE	DISABLE	PHYSICAL_DEBUG_ENABLE
4	DISABLE	ENABLE	DP PRESENCE
5	DISABLE	ENABLE	PEG0CFGSEL[0]
6	DISABLE	ENABLE	PEG0CFGSEL[1]
7	RESET_N	BIOS REQ	PEG_DEFER_TRAINING
8	DISABLE	ENABLE	CFG_UNLOCK
9	PRESENT	NOT PRESENT	SVID NOT PRESENT
10	ACTIVATE	DEACTIVATE	SAFE MODE BOOT
11	DC COUPLED	AC COUPLED	DMI_AC_COUPLED
12	PMSYNC 2.0	LEGACY	PMSYNC LEGACY
13	SYNC	ASYN	PMSYNC ASYN MODE
14	RESERVED		
15	RESERVED		

ALL PINS HAVE INTERNAL PULL-UPS

Bifurcation	Link Width			Config. Signals		
	0:1:0	0:1:1	0:1:2	CFG [6]	CFG [5]	CFG [2]
1x16	x16	N/A	N/A	1	1	1
1x16 Reversed	x16	N/A	N/A	1	1	0
2x8	x8	x8	N/A	1	0	1
2x8 Reversed	x8	x8	N/A	1	0	0
1x8+2x4	x8	x4	x4	0	0	1
1x8+2x4 Reversed	x8	x4	x4	0	0	0

Configuration Signals: The CFG signals have a default value of '1' if not mentioned on the board. Refer to the appropriate platform design guide for pull-up/down recommendations when a logic low is desired.

Configuration signals, pinning first pins on the board for CFG pins:

- CFG[0]: STALL reset sequence after PCU PSL lock until the asserted:
 - 0 = Normal
 - 1 = Stall
- CFG[2]: Reserved configuration lane:
 - 0 = Normal operation
 - 1 = Lane numbers reserved
- CFG[3]: Reserved configuration lane:
 - 0 = Enabled
 - 1 = Disabled
- CFG[4]: PC Express* Bifurcation:
 - 00 = 0 Lanes, 2 x8 PC Express*
 - 01 = 2 x8 PC Express*
 - 10 = 4 x8 PC Express*
 - 11 = 8 x8 PC Express*
- CFG[5]: PC Training:
 - 0 = Legacy/PCIE 2.0
 - 1 = Legacy/PCIE 3.0
- CFG[6]: Reserved configuration lane:
 - 0 = Normal operation
 - 1 = Lane numbers reserved

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File

CPU MISC

Size Custom

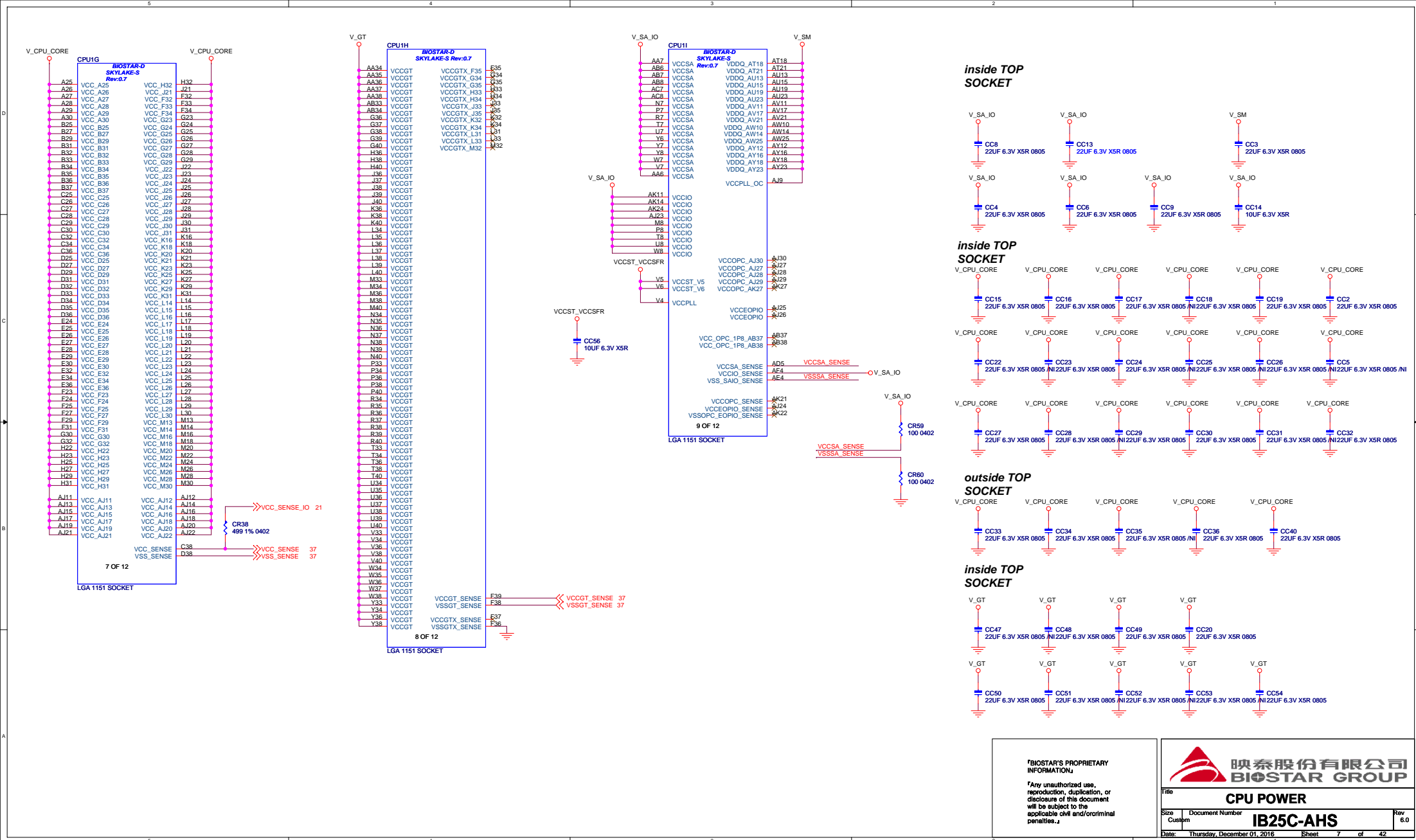
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IB25C-AHS

Date: Thursday, December 01, 2016

Sheet 6 of 42

Rev 6.0



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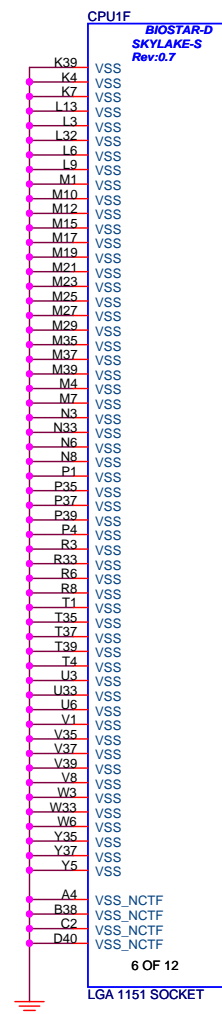
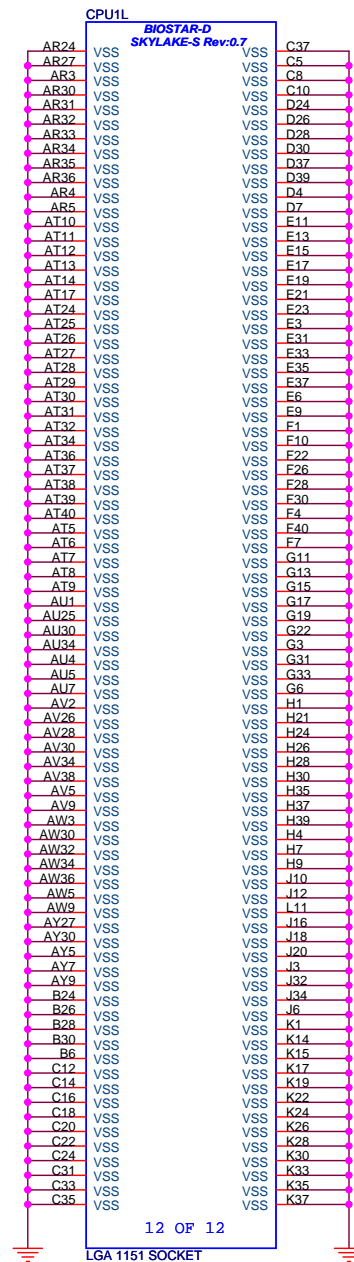
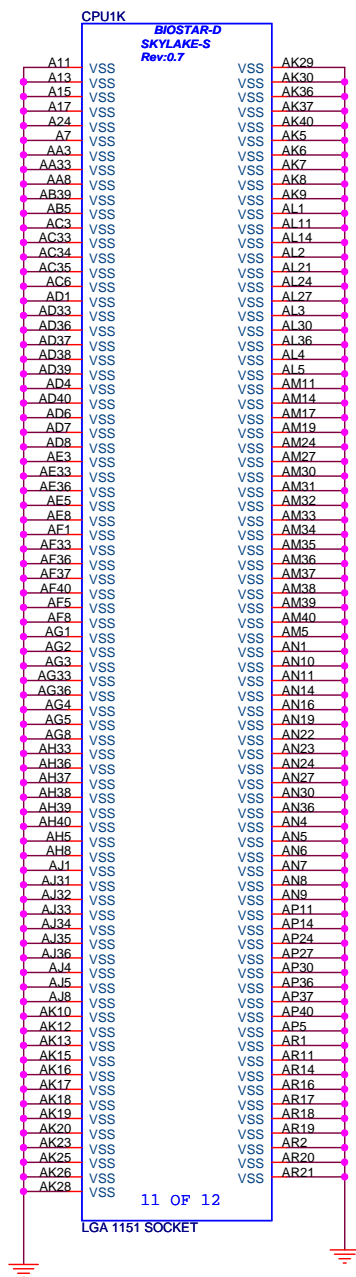


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Title	CPU POWER
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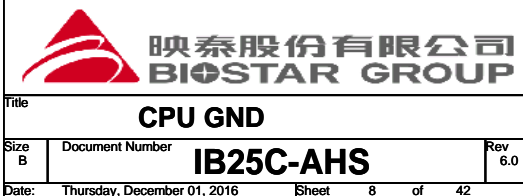
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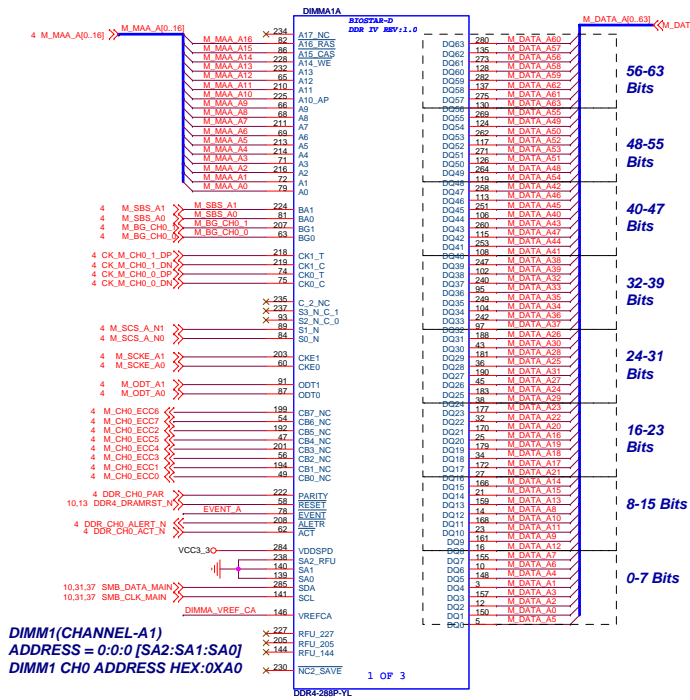


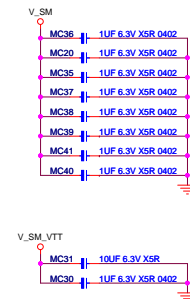
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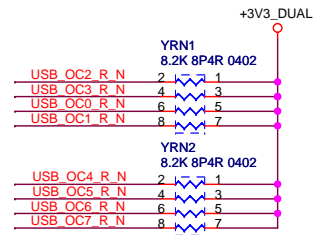
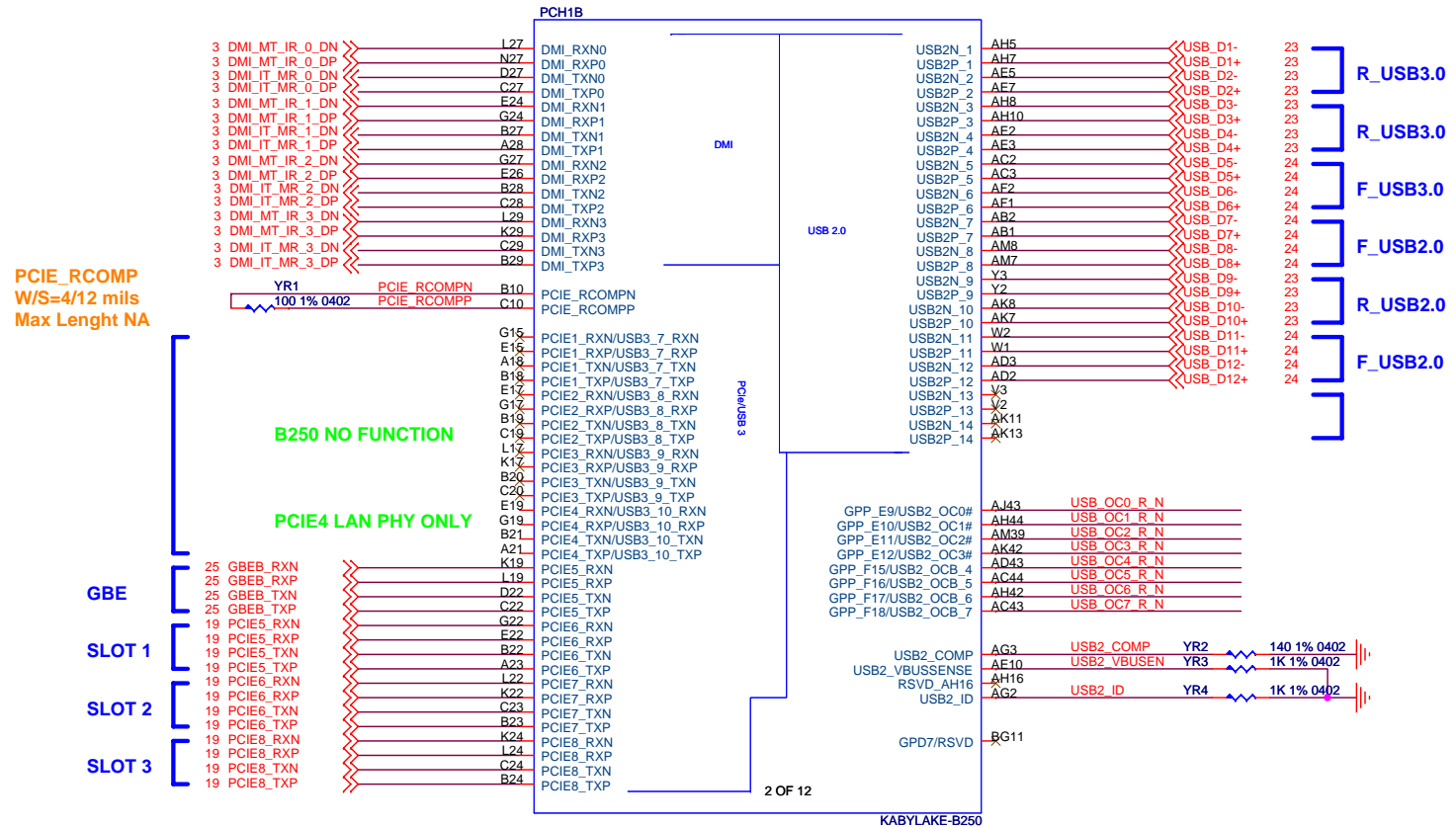
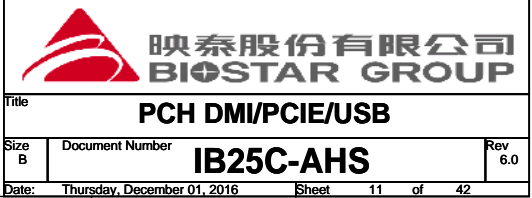




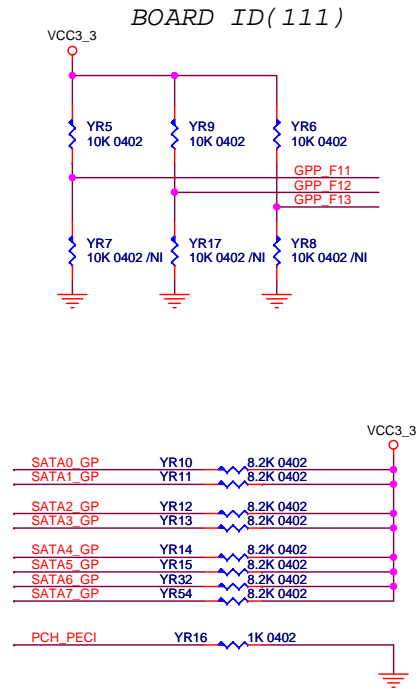


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Date:	Thursday, December 01, 2016	Sheet	10 of 42

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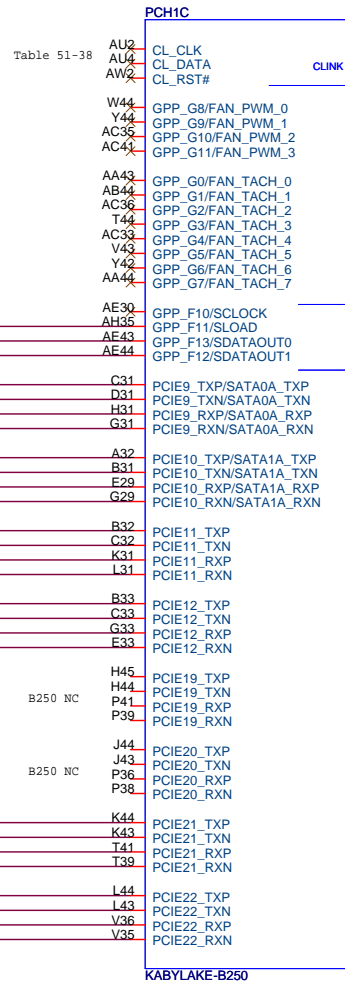
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M.2

SLOT 4

SLOT 5



Intel GbE can be mapped into one of the PCIe Ports 4-5, Port 9, and Ports 12-13.

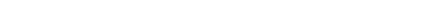
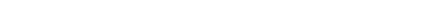
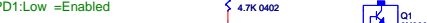
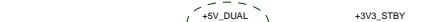
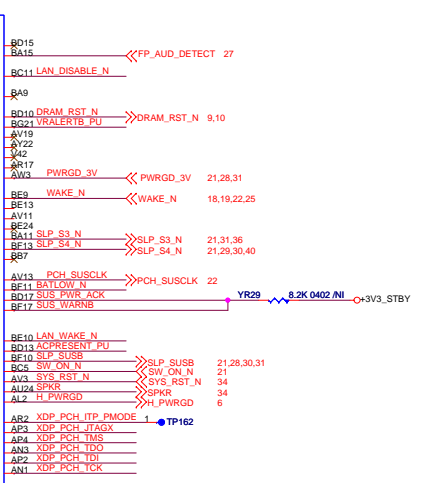
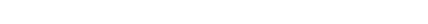
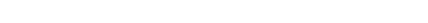
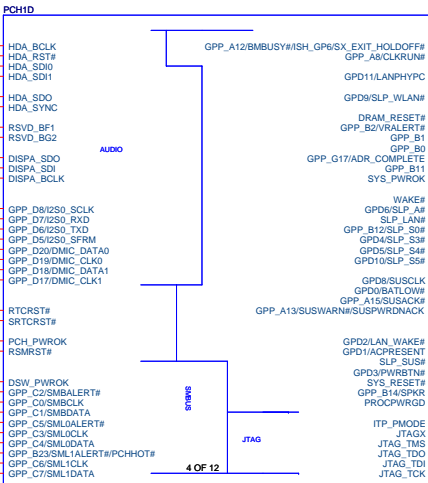
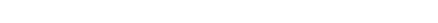
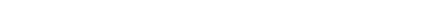
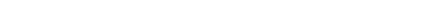
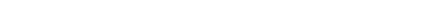
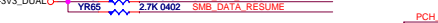
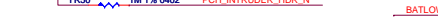
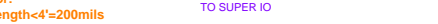
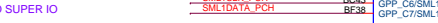
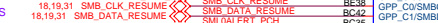
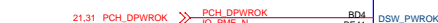
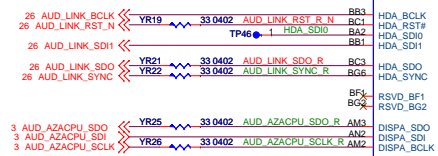
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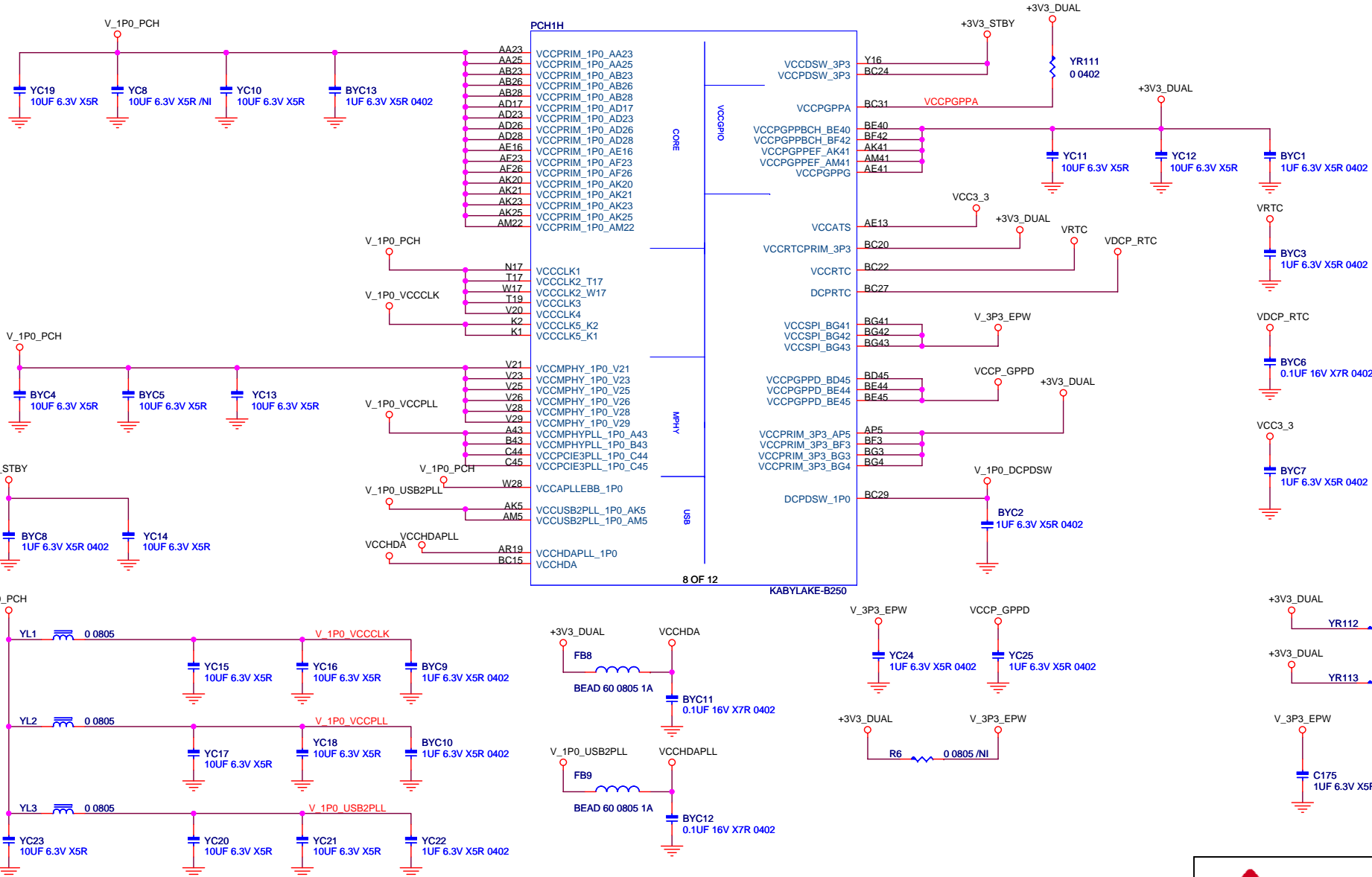


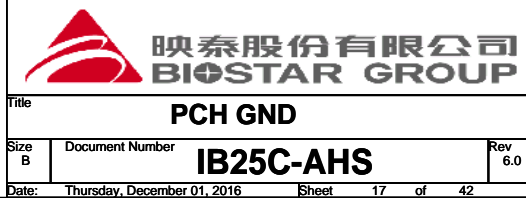
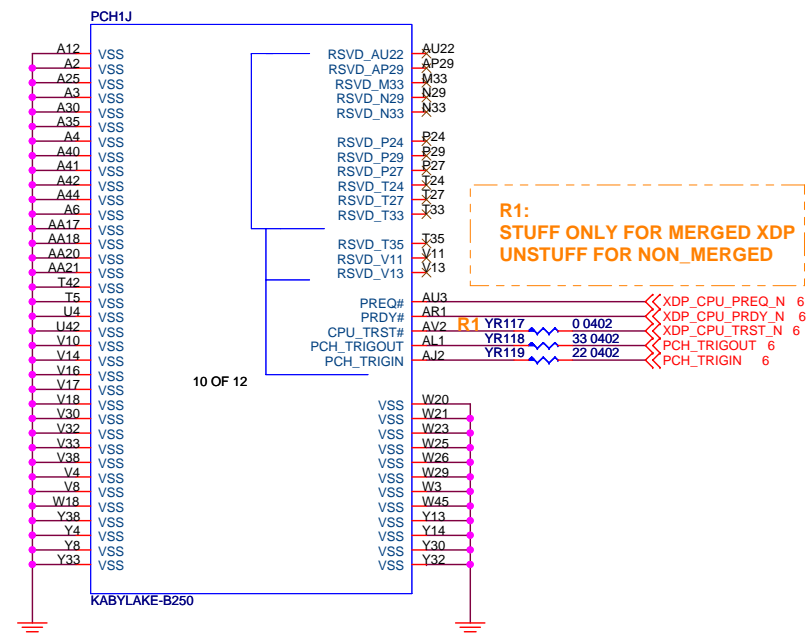
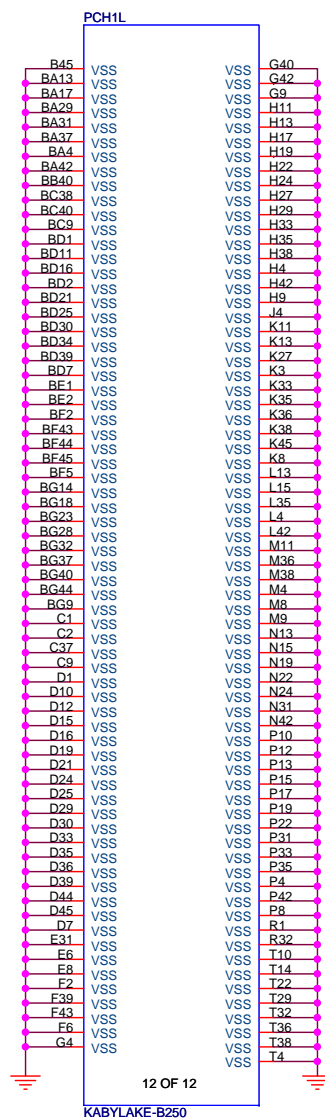
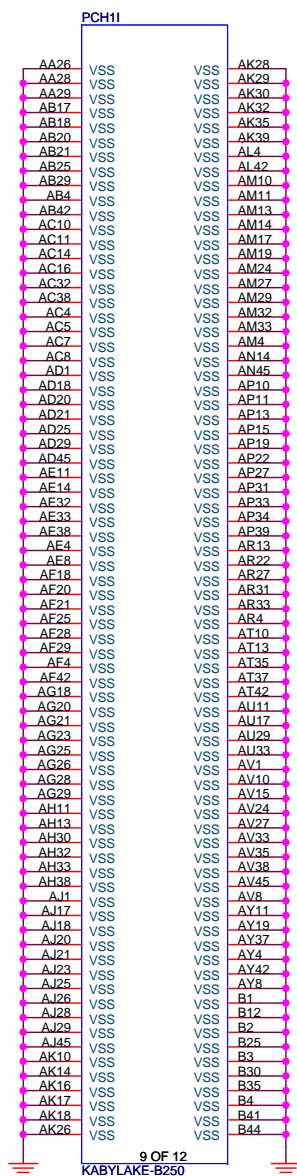
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Size	Document Number	Rev
B	IB25C-AHS	6.0
Date: Thursday, December 01, 2016		Sheet 12 of 42

HDA_SDO and HDA_BCLK matched within 500mils



Date: Thursday, December 01, 2016 Sheet 14 of 42

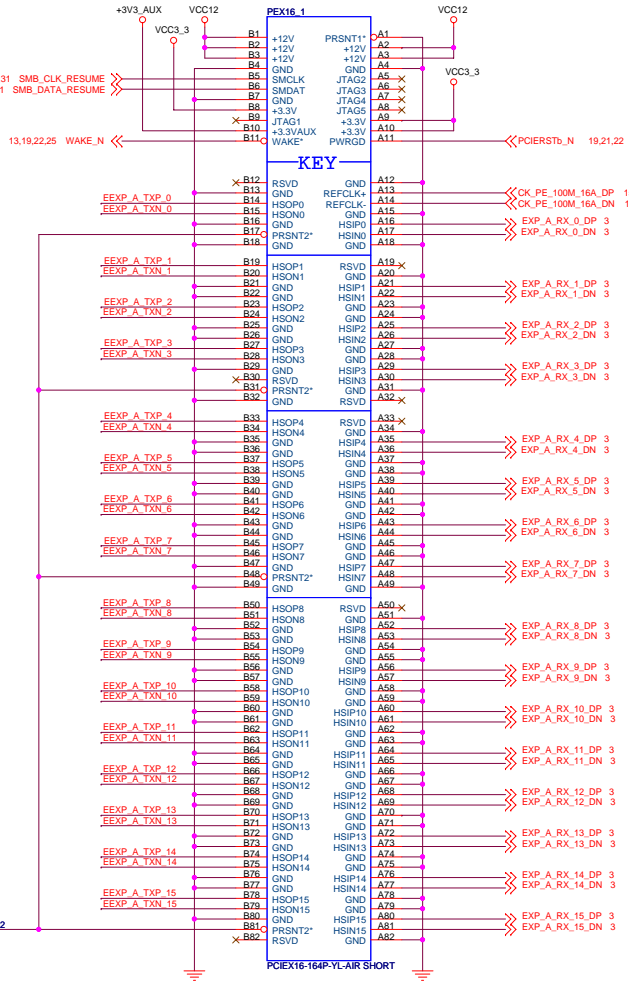




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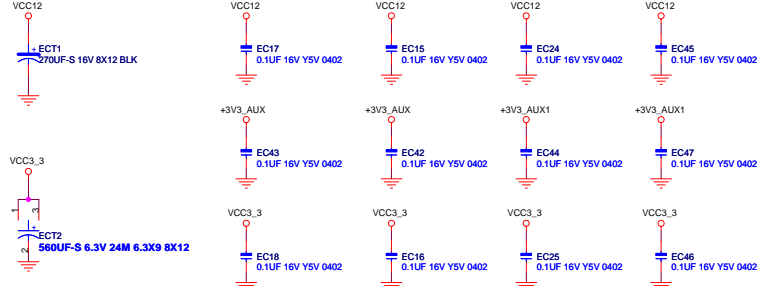


VCC3_3O R131 10K 0402



KEY

PCIEX16-164P-VL-AIR SHORT



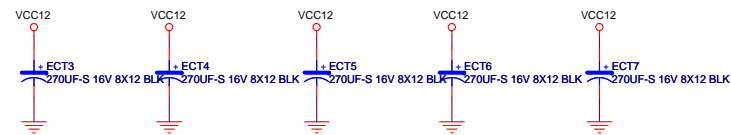
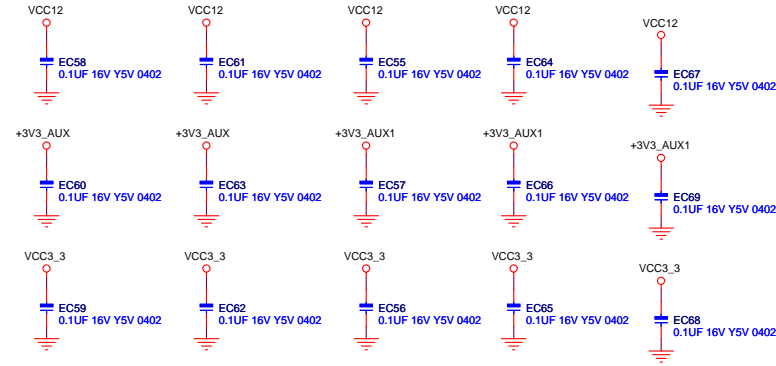
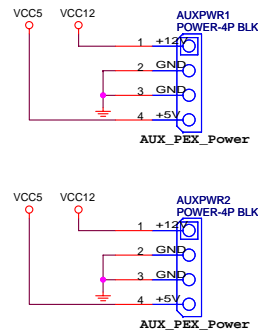
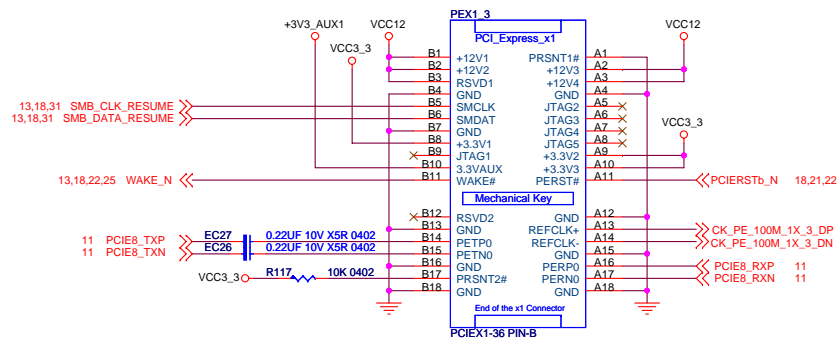
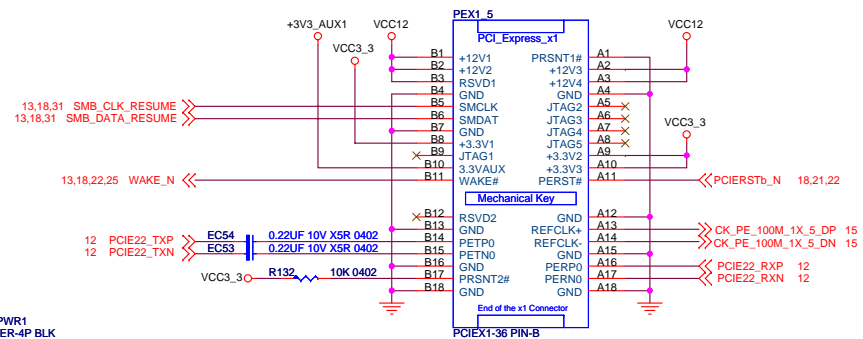
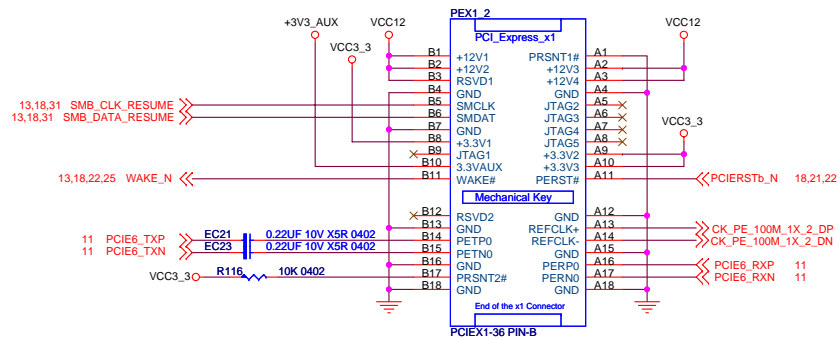
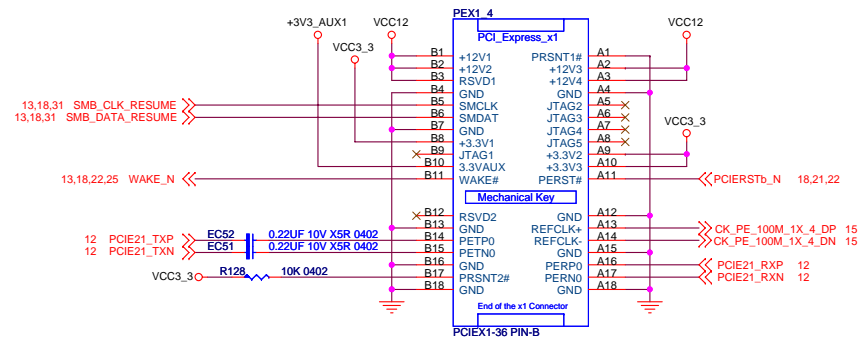
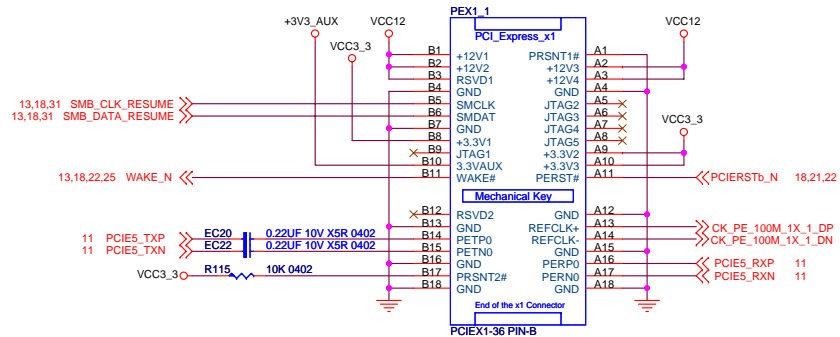
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File
PCIEX16 SLOT 1 & 2

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Date: Thursday, December 01, 2016 Sheet 18 of 42

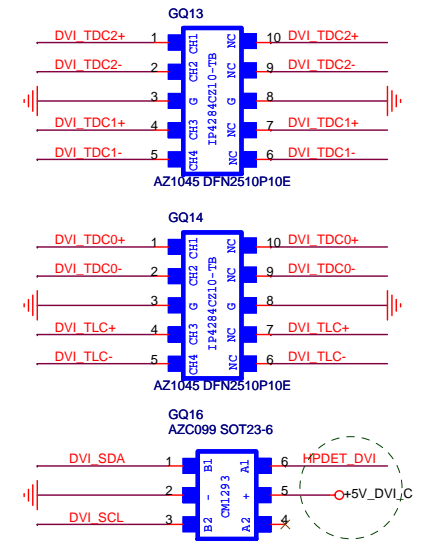
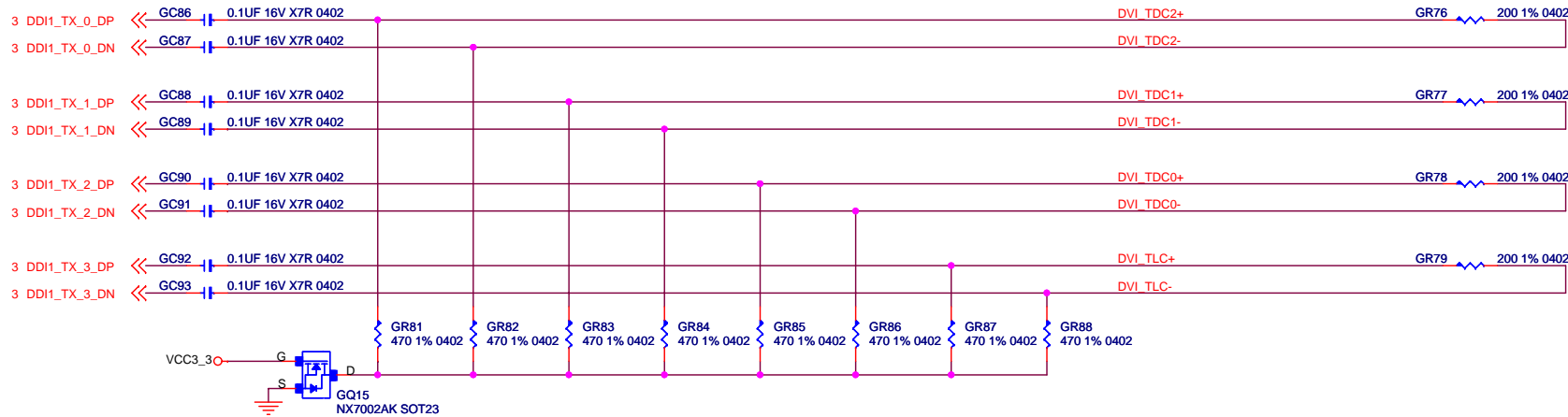


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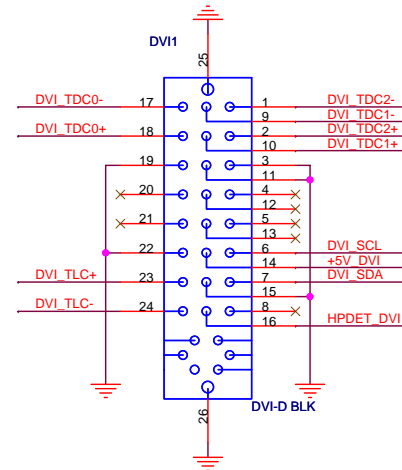
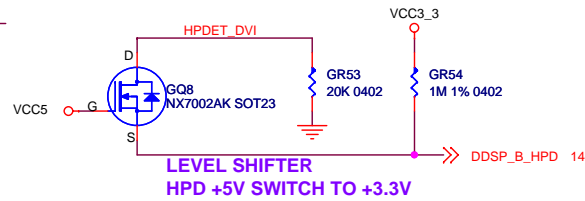
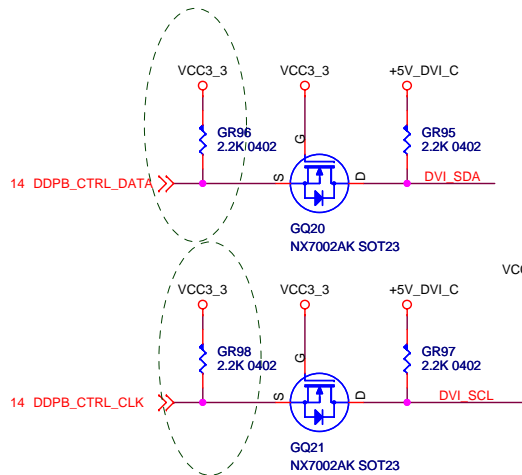
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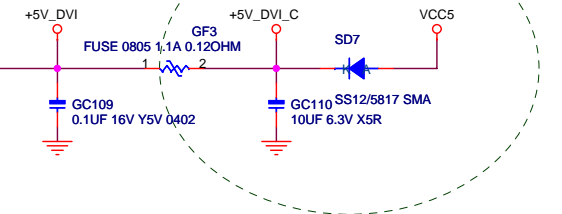
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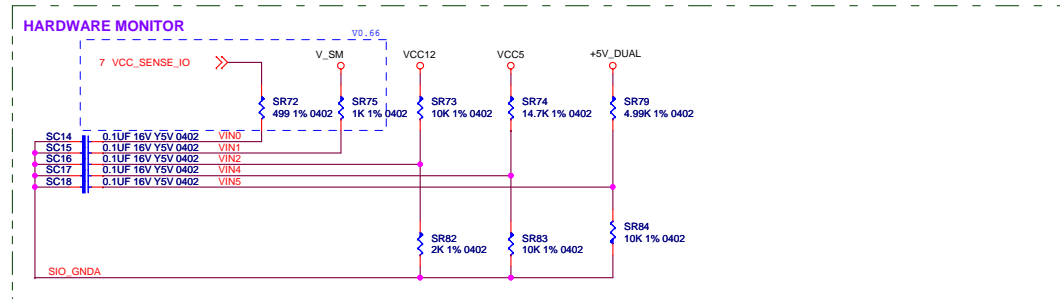
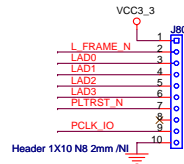
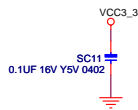
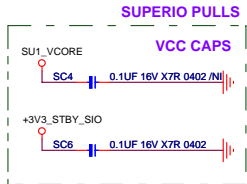
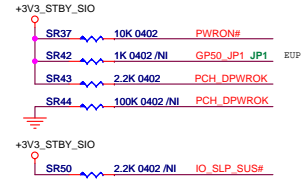
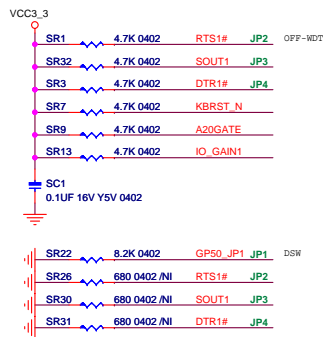


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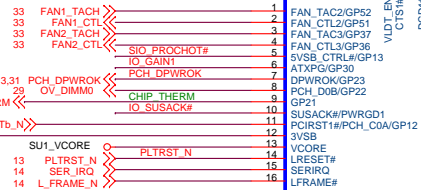
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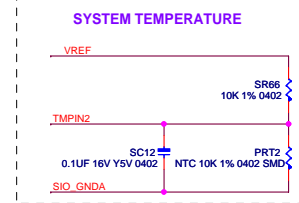
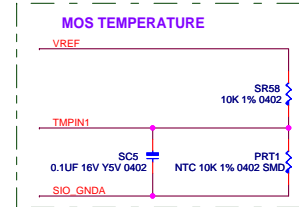
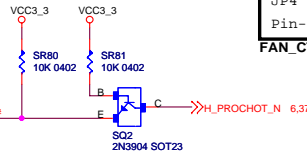
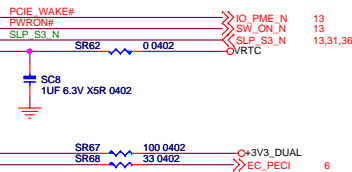
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Size B	Document Number		IB25C-AHS	
Date		Friday, December 23, 2016	Sheet 20	of 42
				Rev 6.0



IT8613E LQFP64



64-LQFP



Power-On Strapping

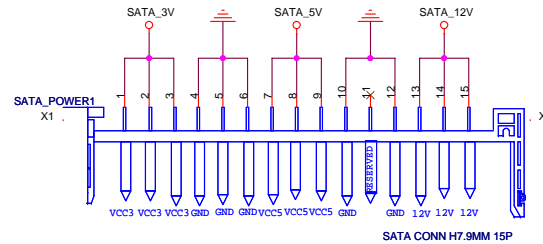
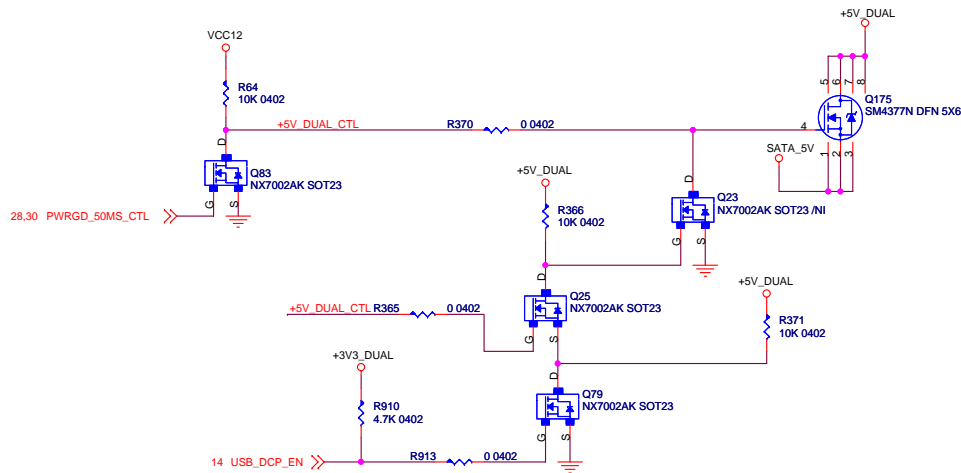
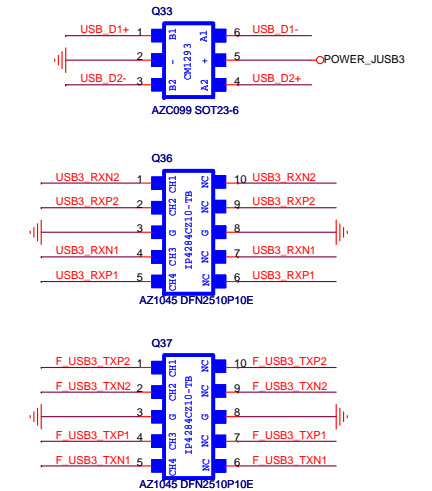
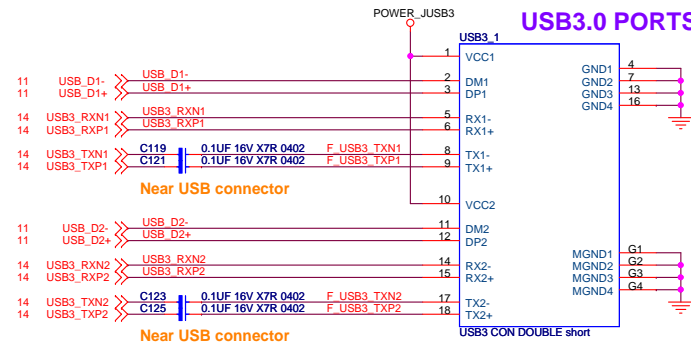
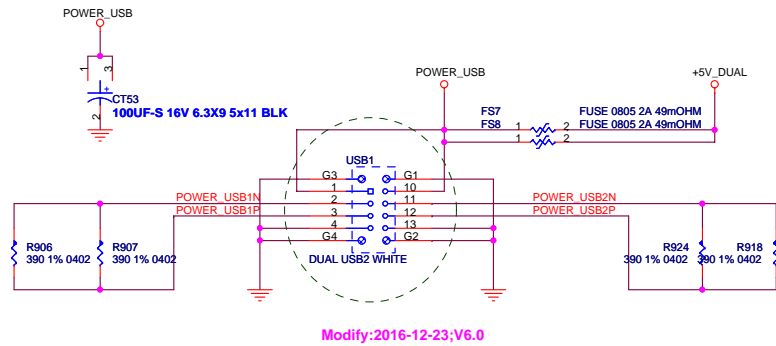
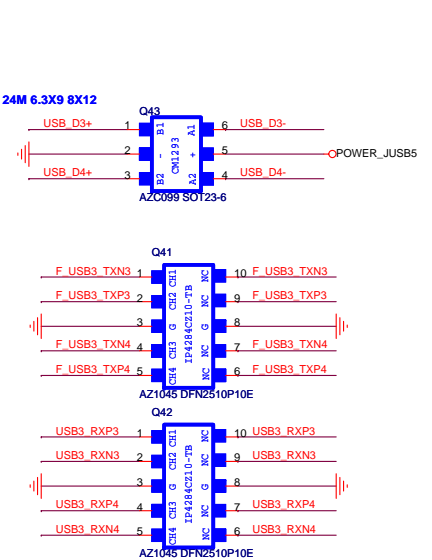
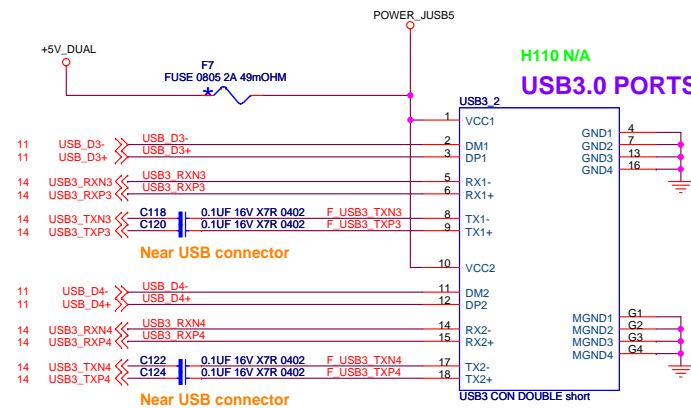
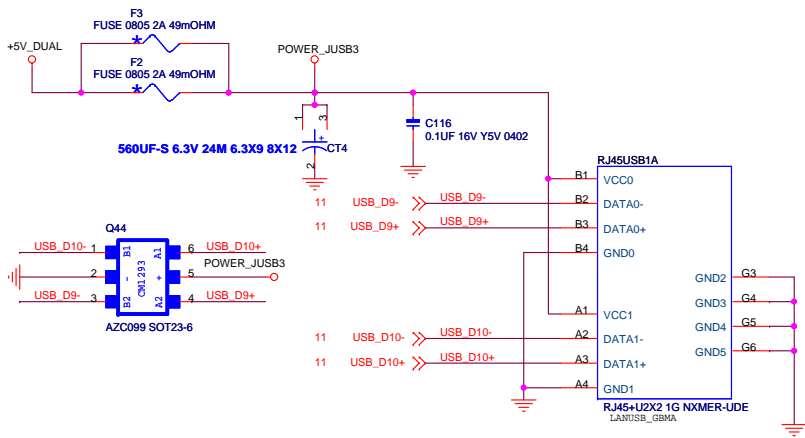
	Symbol	Value	Description
JP1	DSW_EUP_SEL	1	EUP
Pin-24		0	DSW
JP2	WDT_EN	1	Disable WDT to reset PWROK
Pin-56		0	Enable WDT to reset PWROK
JP3	FAN_CTL_SEL	1	EC Index 63h/73h/7B/A3 is 80h
Pin-58		0	EC Index 63h/73h/7B/A3 is 00h
JP4	K8PWR_EN	1	Disable K8 Power Sequence
Pin-60		0	Enable K8 Power Sequence

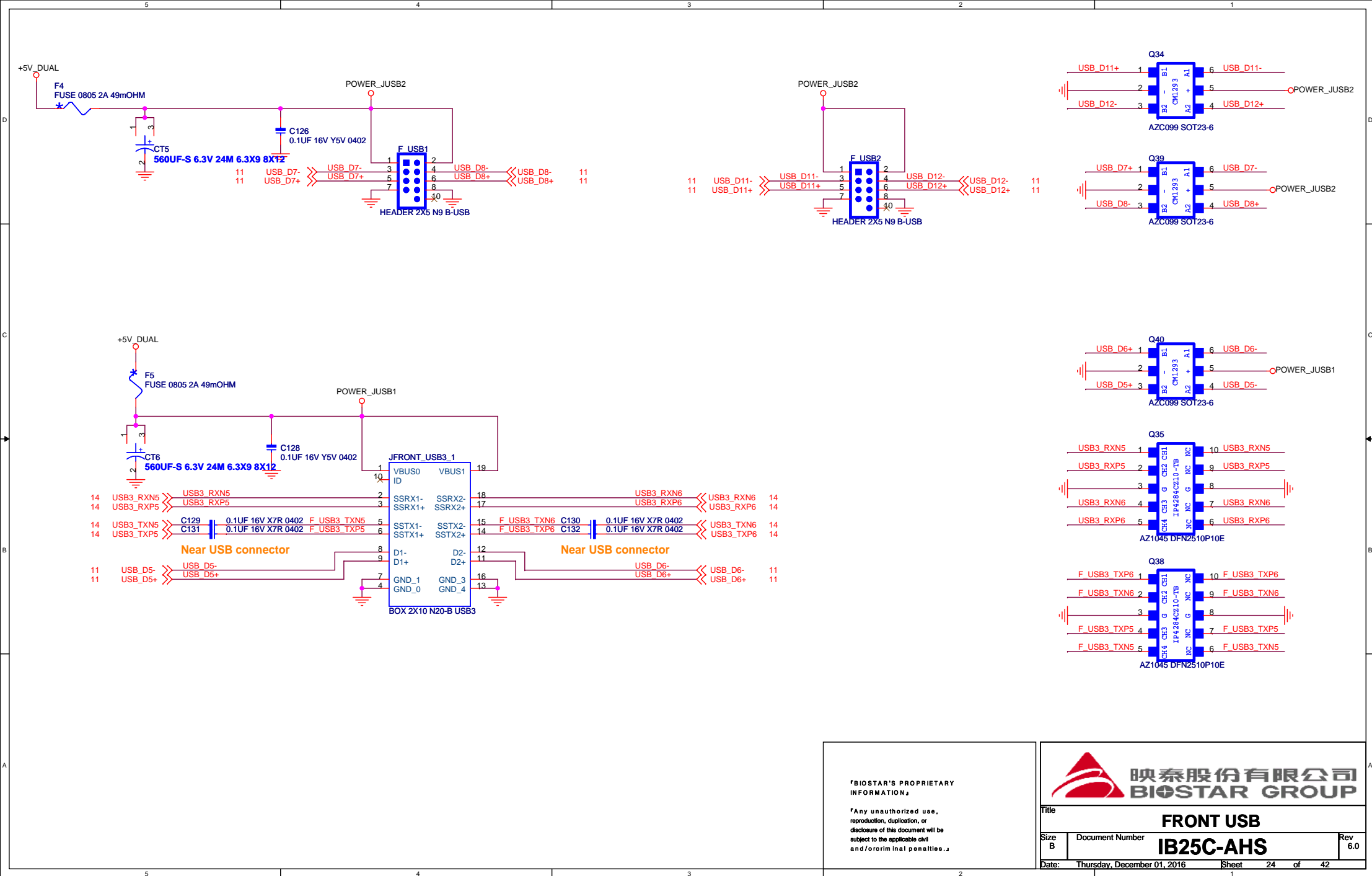
FAN_CTL2 not supported by JP3 FAN_CTL_SEL(EC index 6Bh default value always 80h)

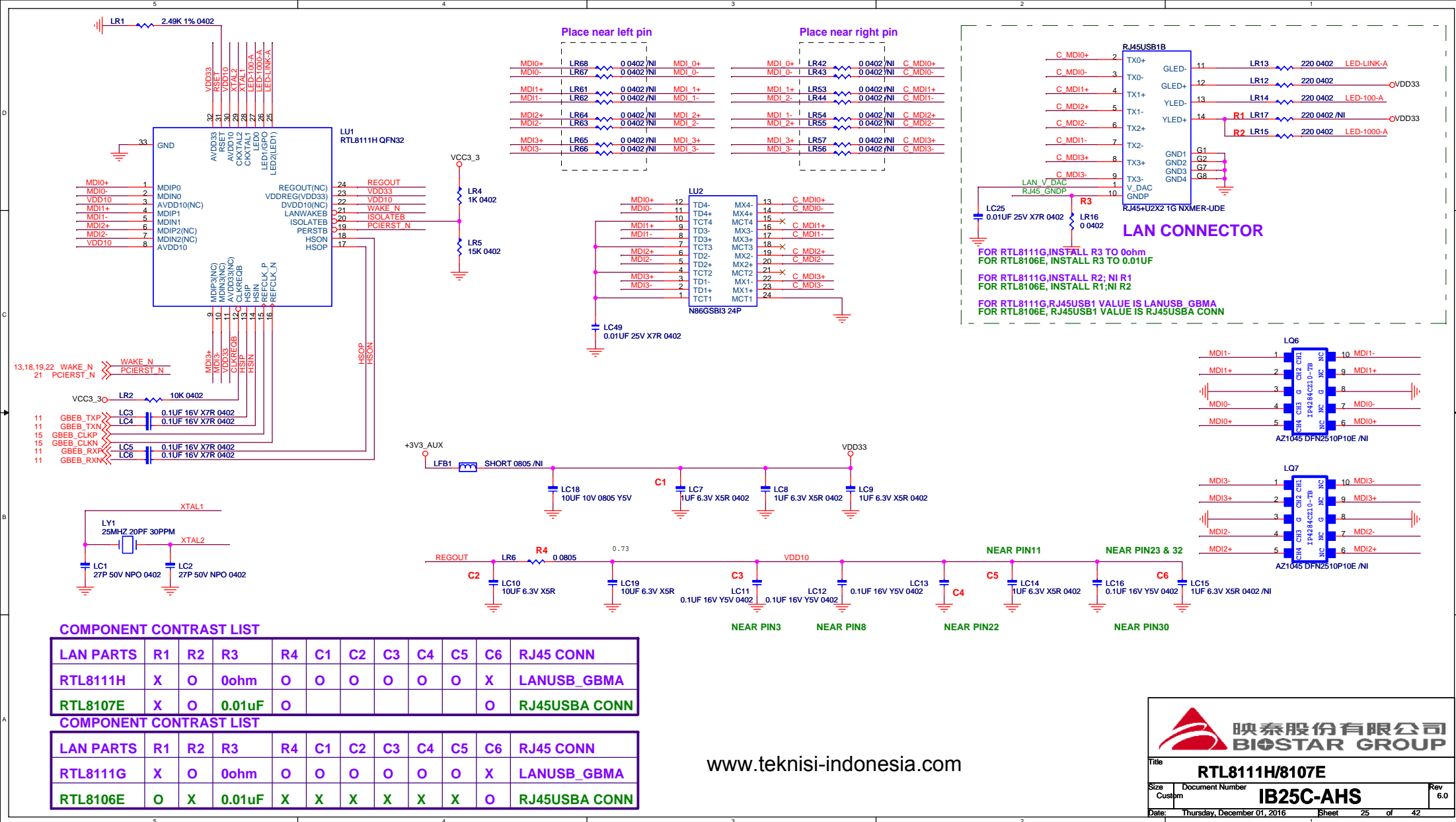
Title: **SIO IT8613E**

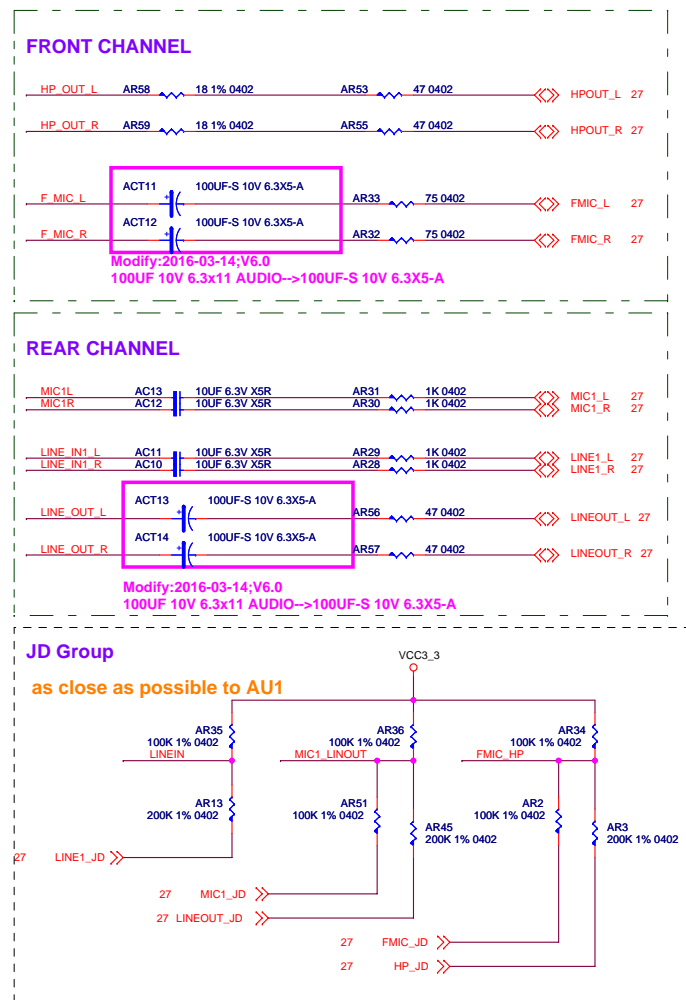
Size: Custom Document Number: **IB25C-AHS** Rev: 6.0

Date: Thursday, December 01, 2016 Sheet: 21 of 42

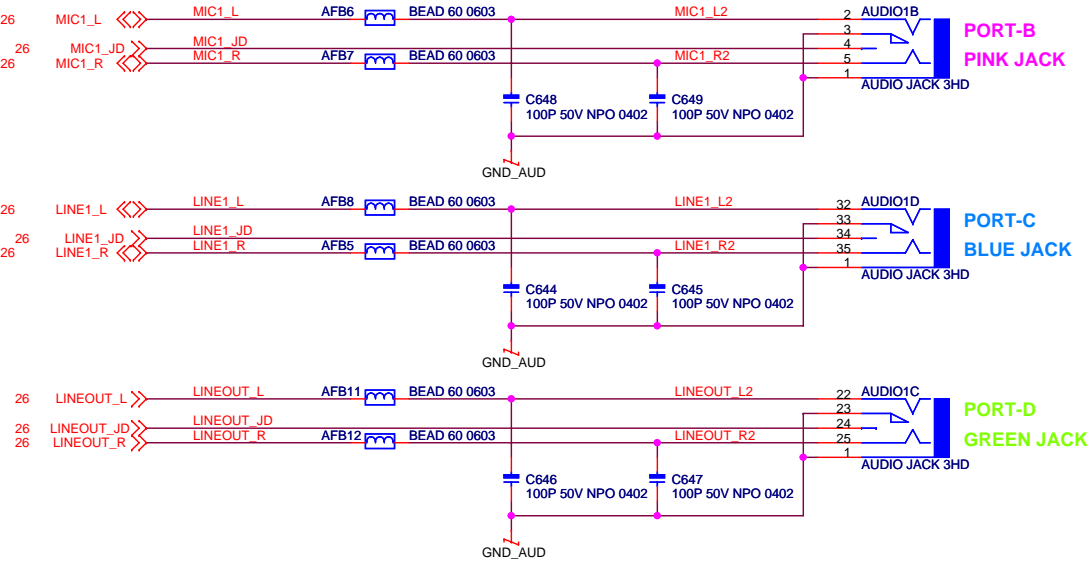




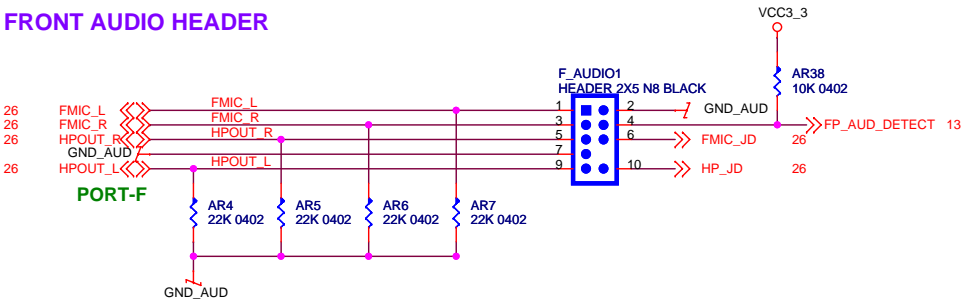




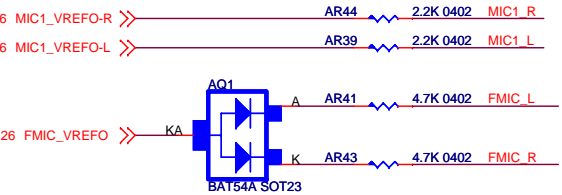
REAR AUDIO JACKS



FRONT AUDIO HEADER

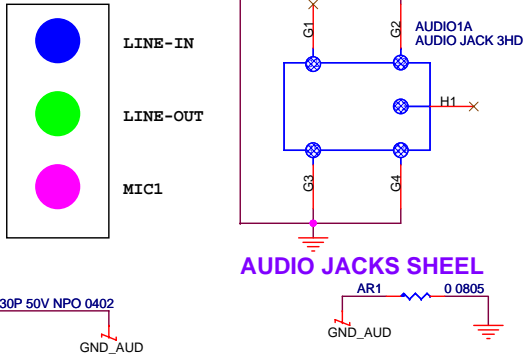


MIC VREF



SPDIF CONNECTOR

V0.66

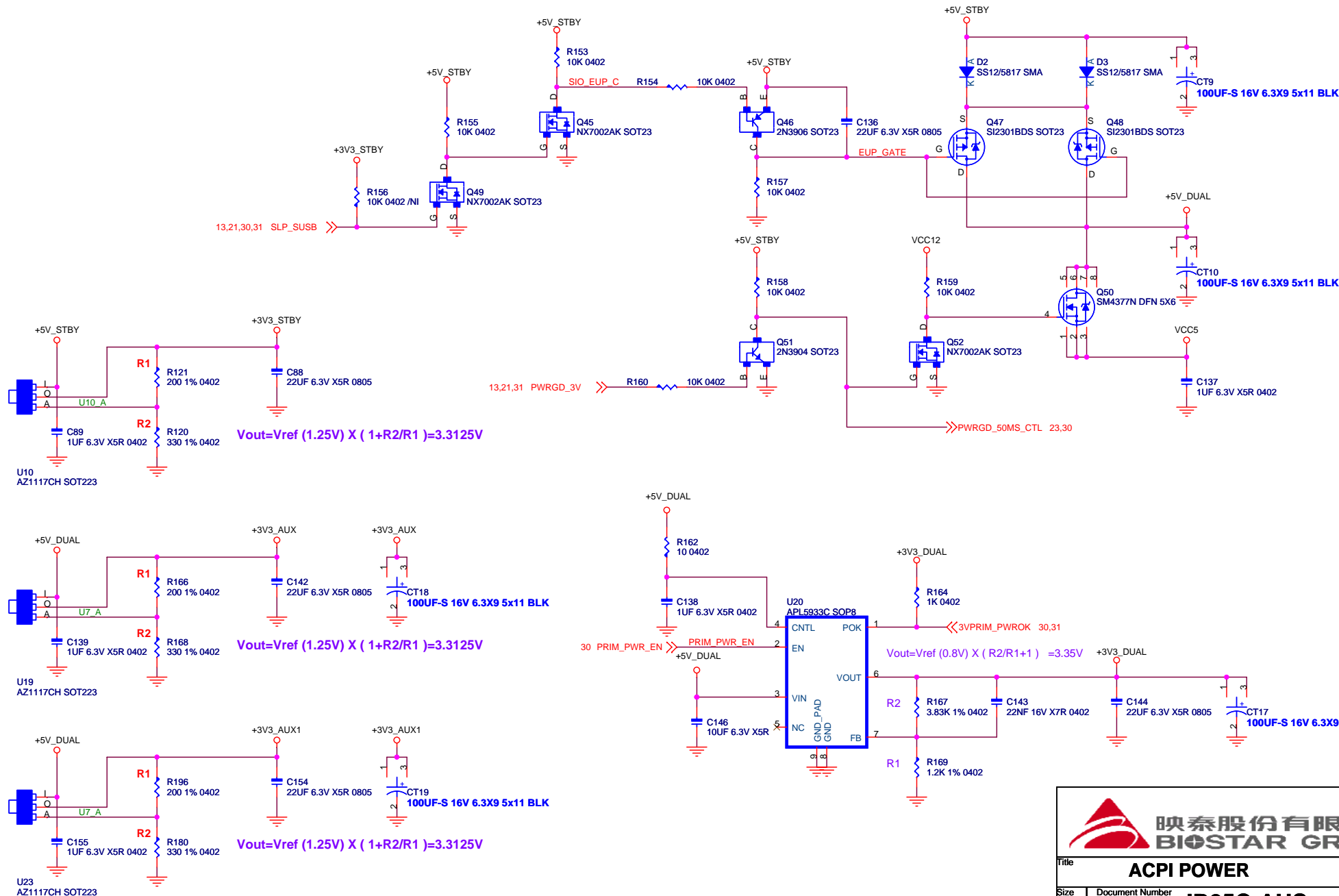


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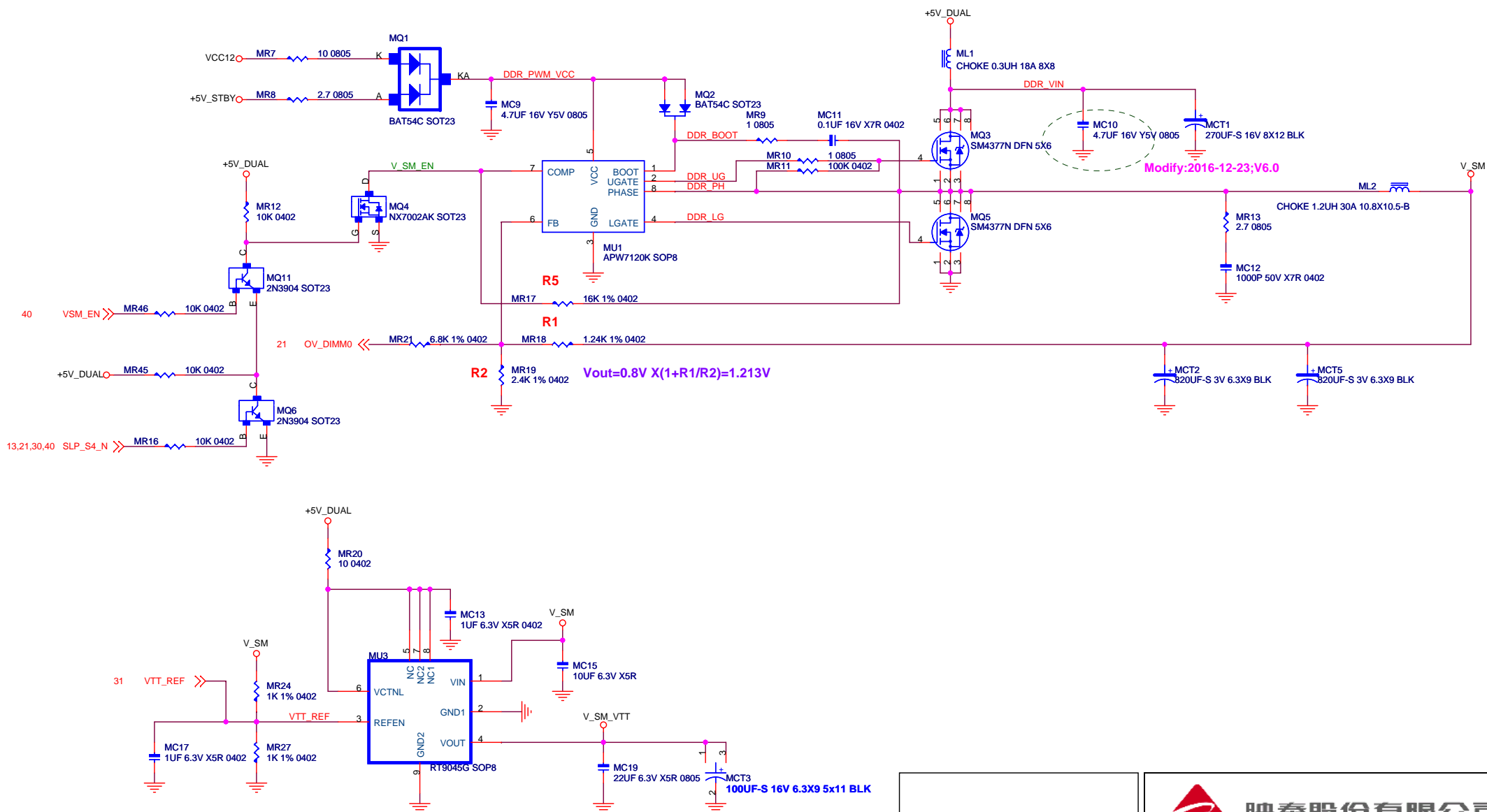


Title			AUDIO CONNECTOR
Size	Document Number	IB25C-AHS	
B		Rev 6.0	

Date: Thursday, December 01, 2016 Sheet 27 of 42



MEMORY PART:M+Reference



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1	Title
2	
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Document Number

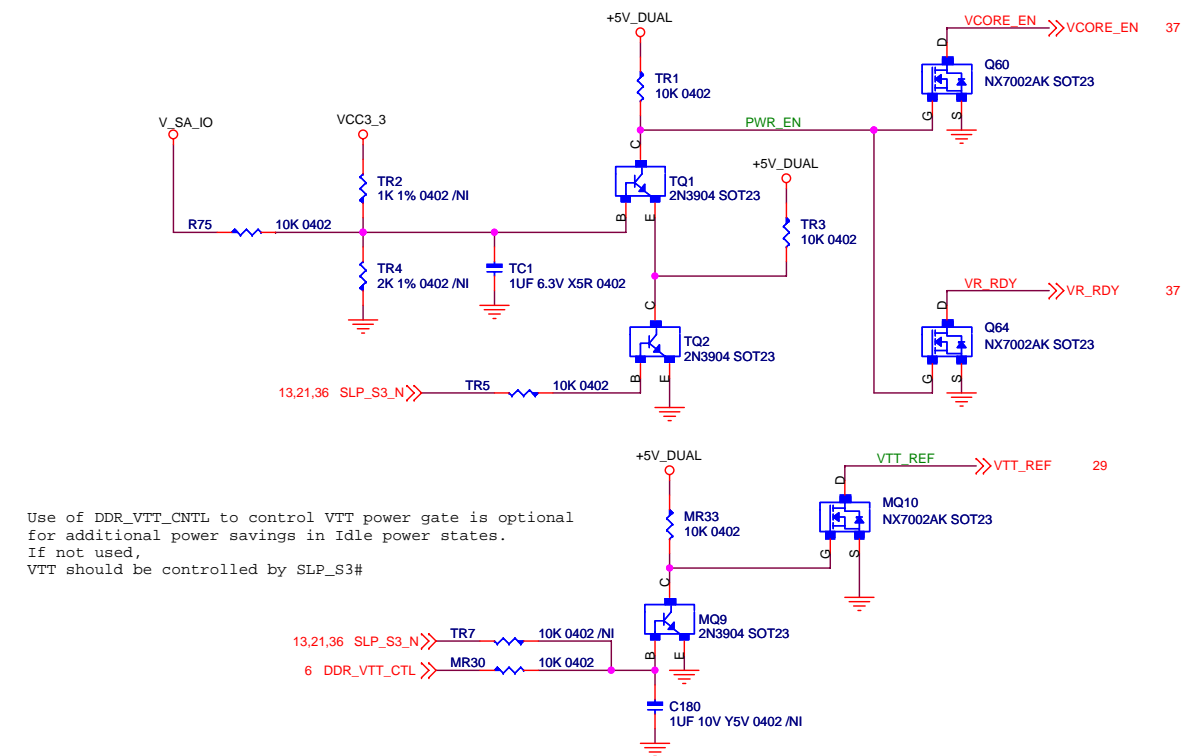
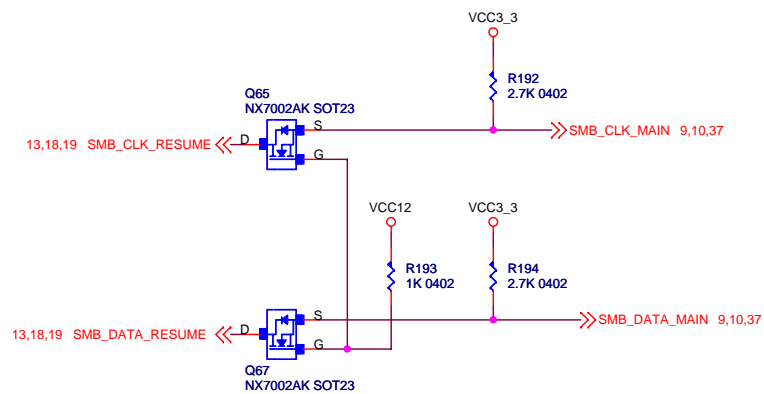
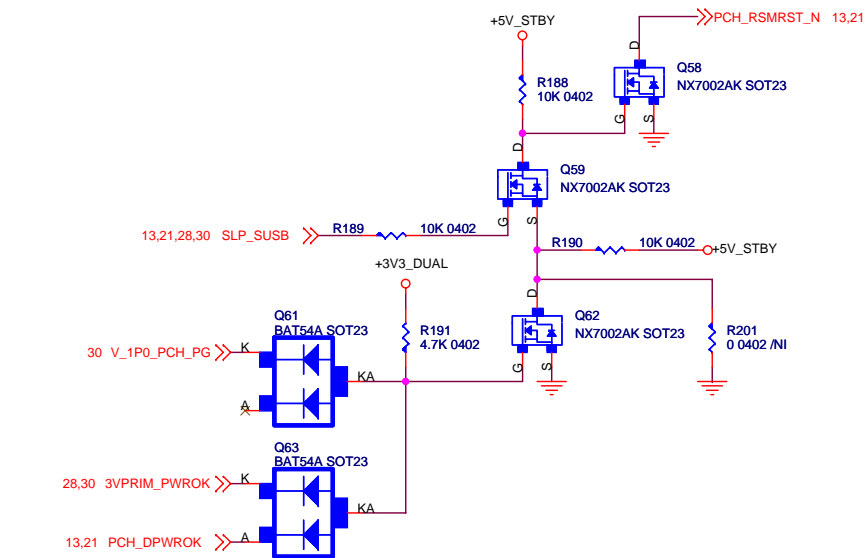
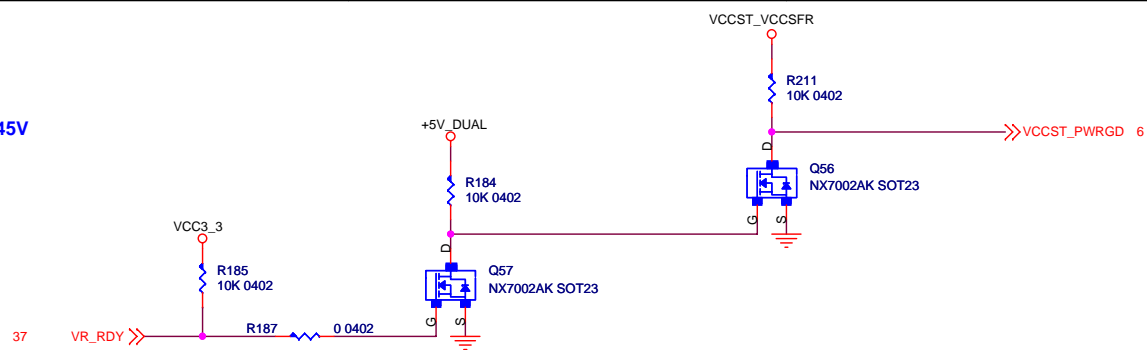
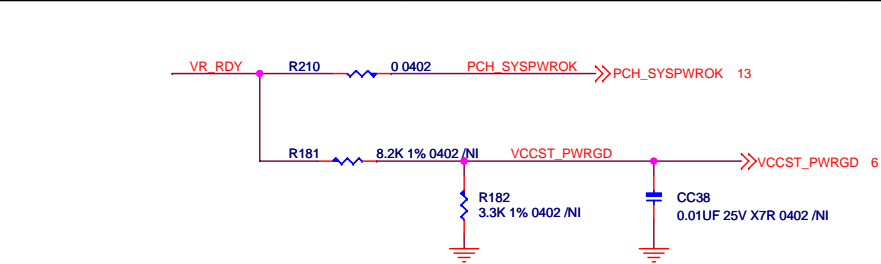
Date: Friday, December 23, 2016

Sheet 29 of 42

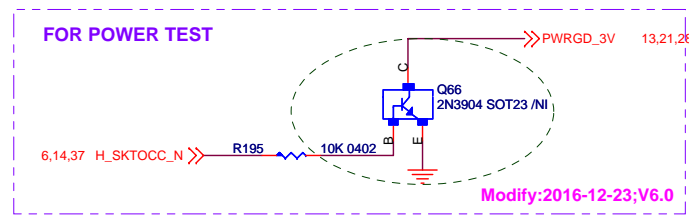
MEMORY DC-DC

IB25C-AHS

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Use of DDR_VTT_CNTL to control VTT power gate is optional for additional power savings in Idle power states. If not used, VTT should be controlled by SLP_S3#

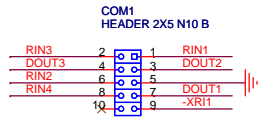
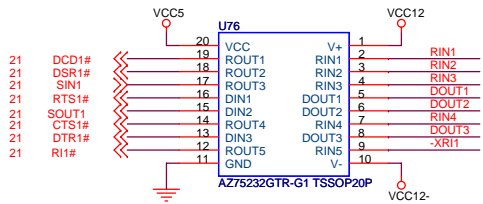


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Title: **RESUME RESET LOGIC**

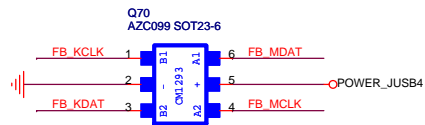
Size B: Document Number **IB25C-AHS** Rev 6.0

Date: Friday, December 23, 2016 Sheet 31 of 42

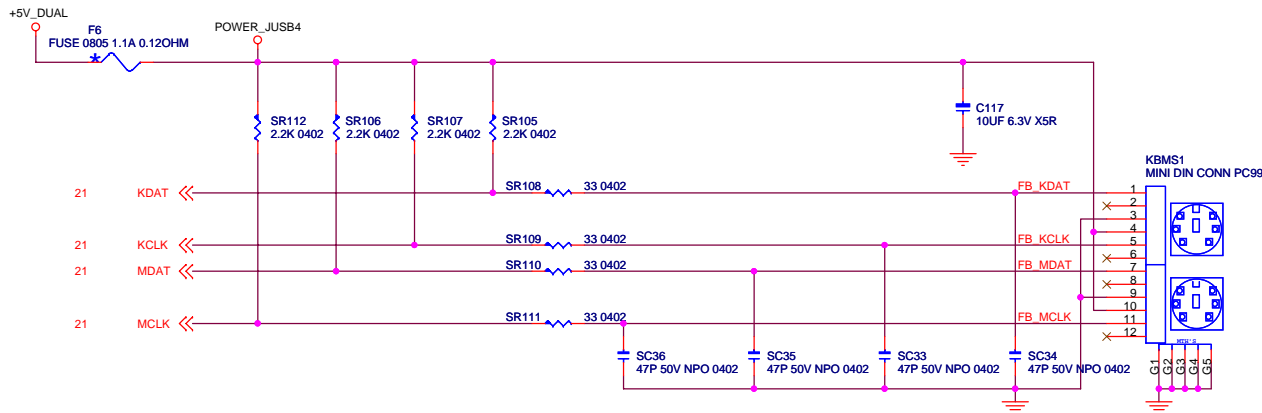


COM PORT

WAKE ON RING



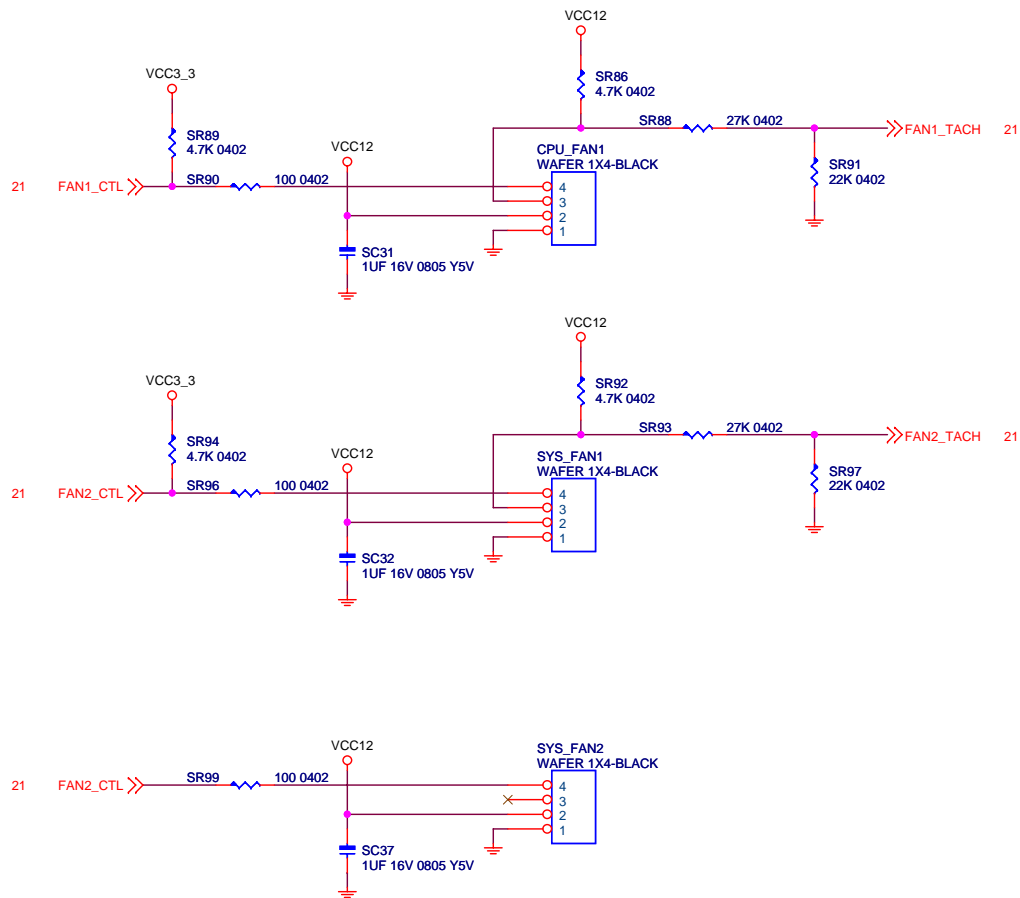
KEYBOARD & MOUSE



PARALLEL CONNECTOR

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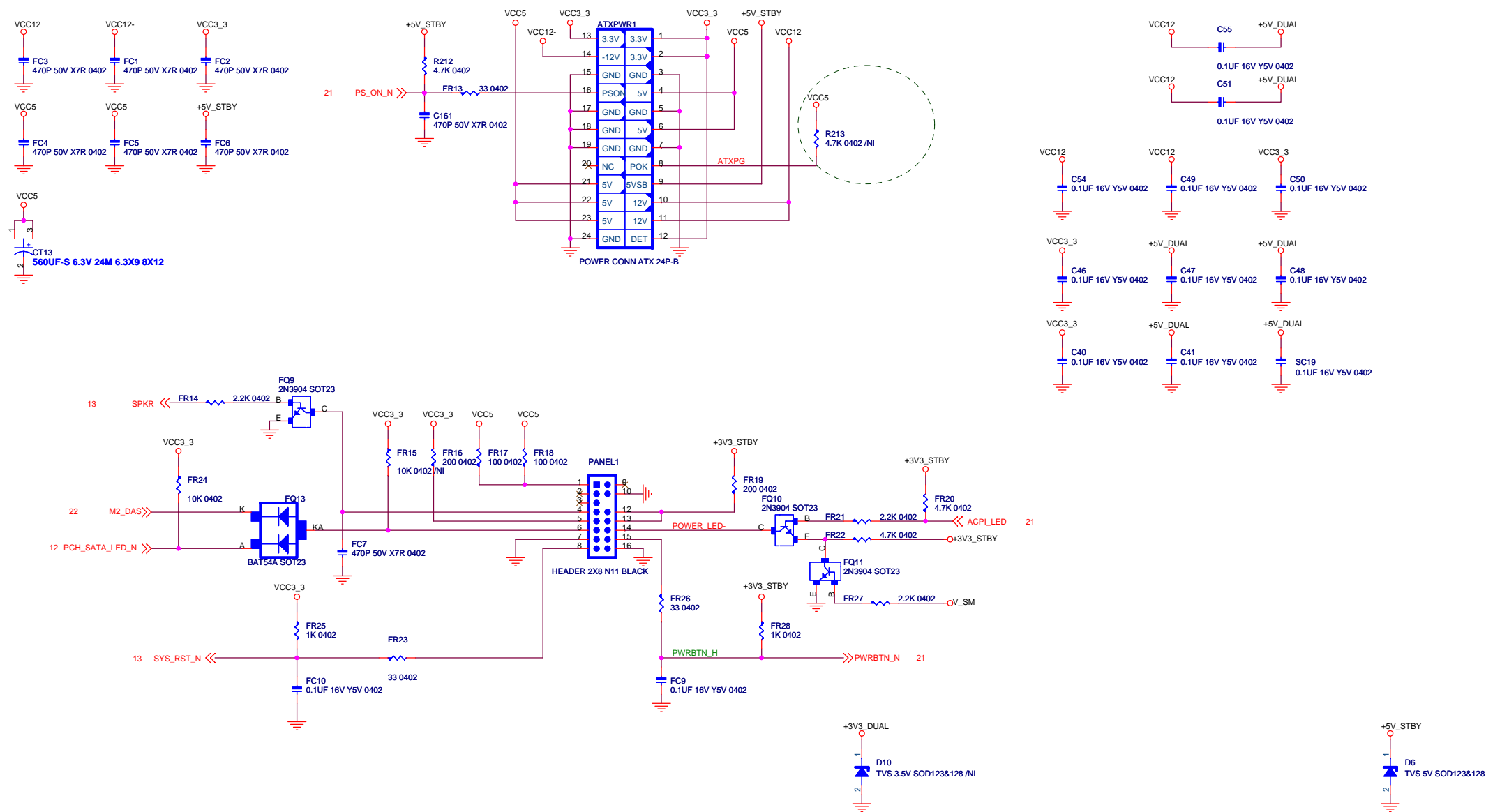
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Size	Document Number	Rev	
B	IB25C-AHS	6.0	
Date:	Thursday, December 01, 2016	Sheet	33 of 42

FP PART: F+Reference

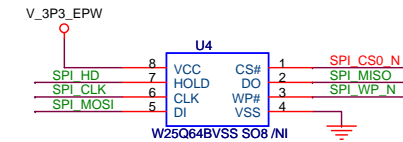
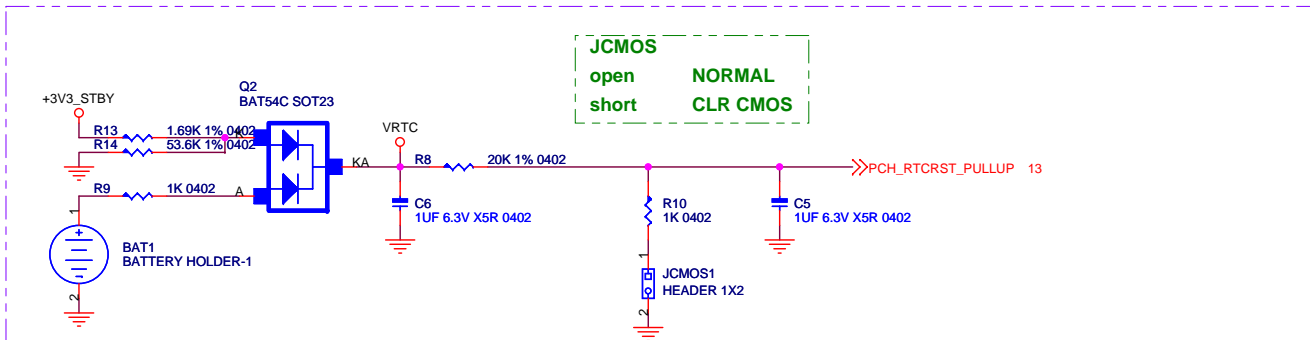
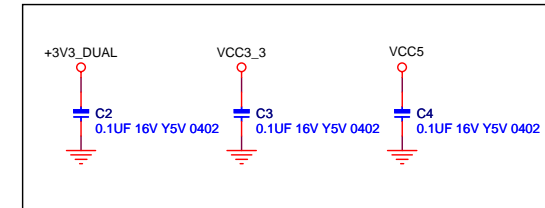
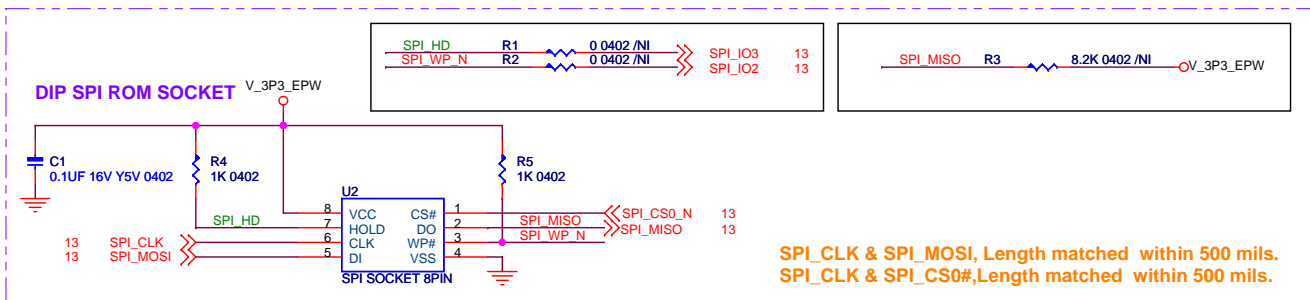


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Title				24PIN CONN & FP			
Size	Document Number	IB25C-AHS				Rev	6.0
Custom							
Date:	Monday, December 26, 2016		Sheet	34	of	42	

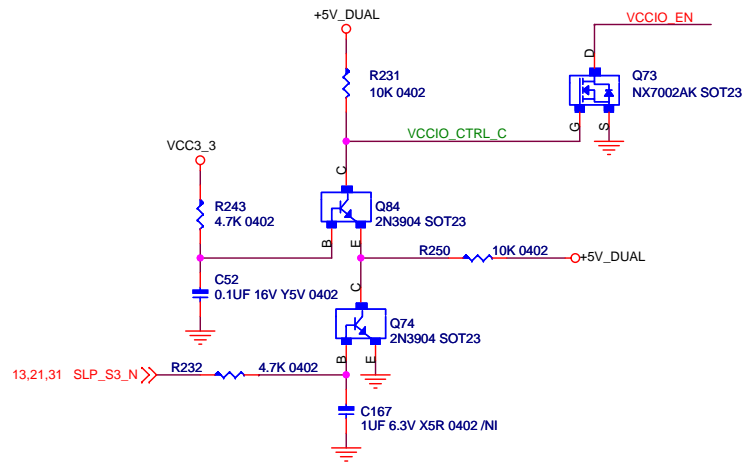
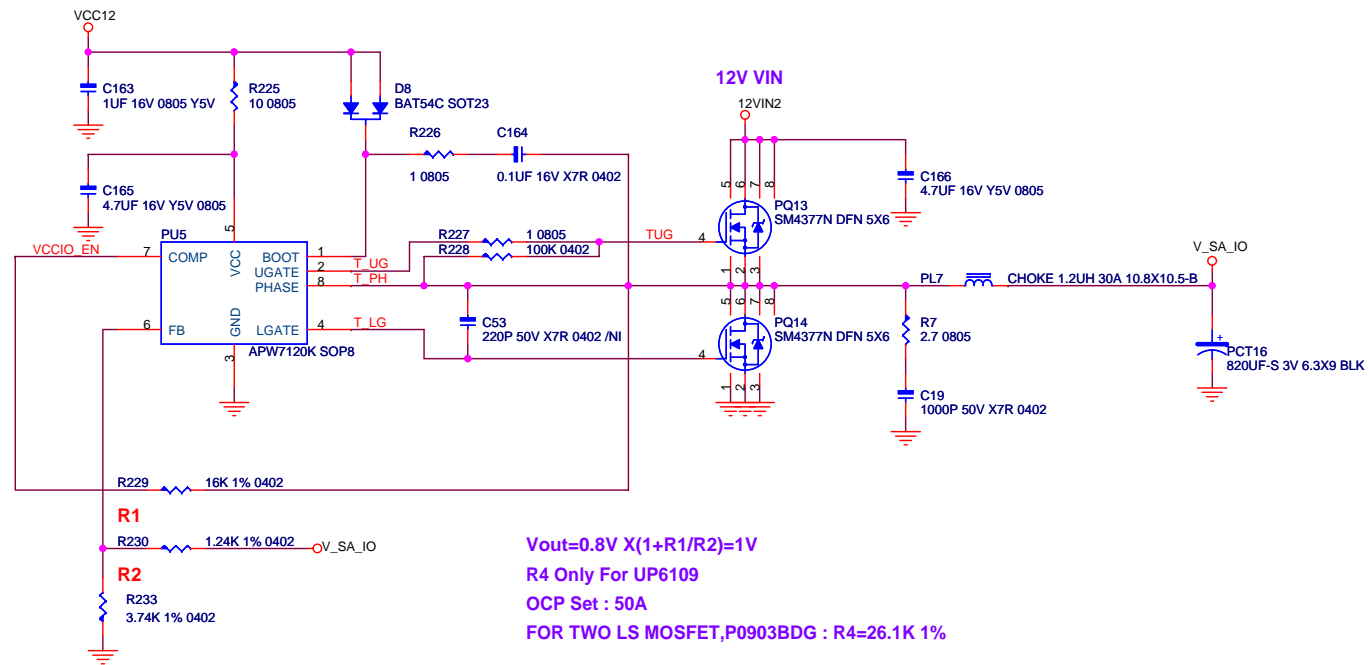


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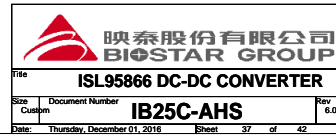
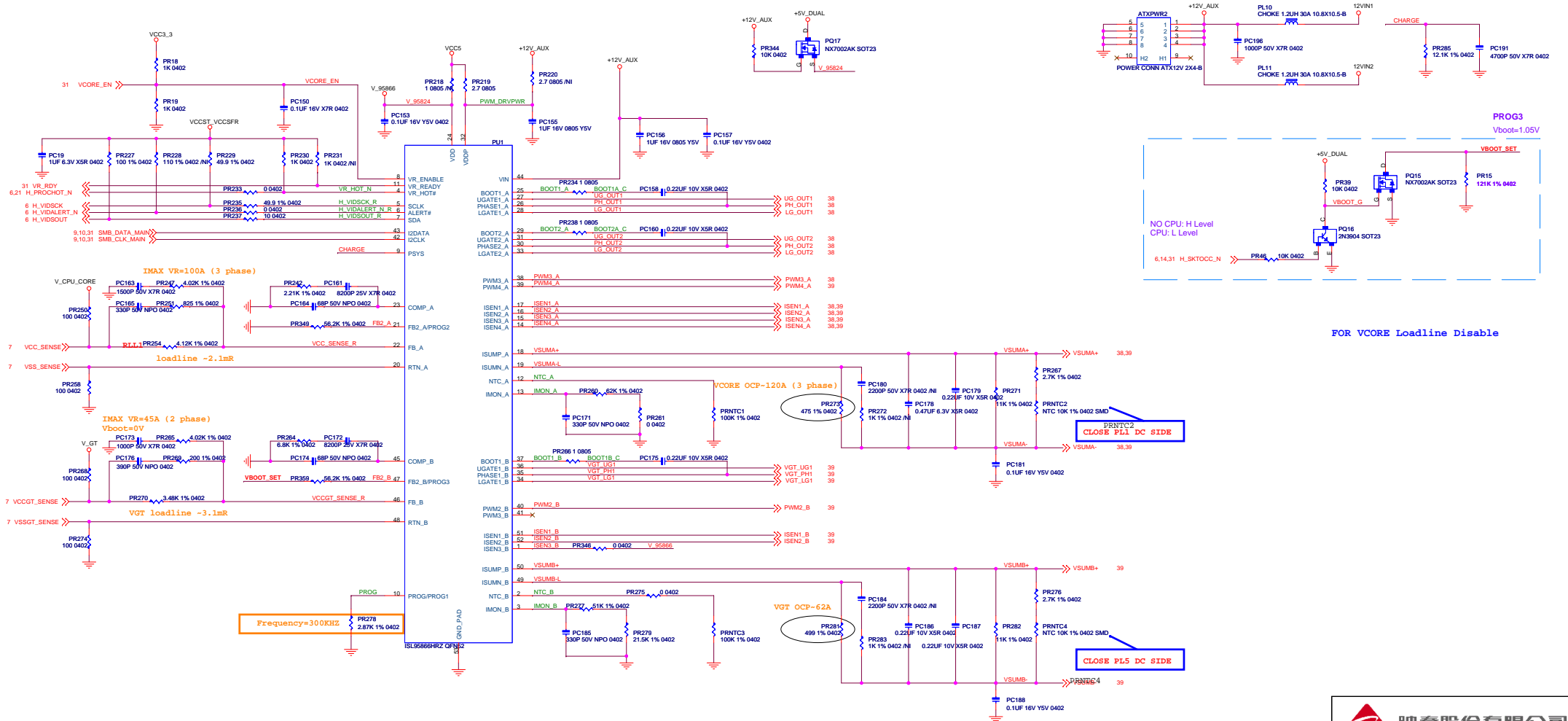
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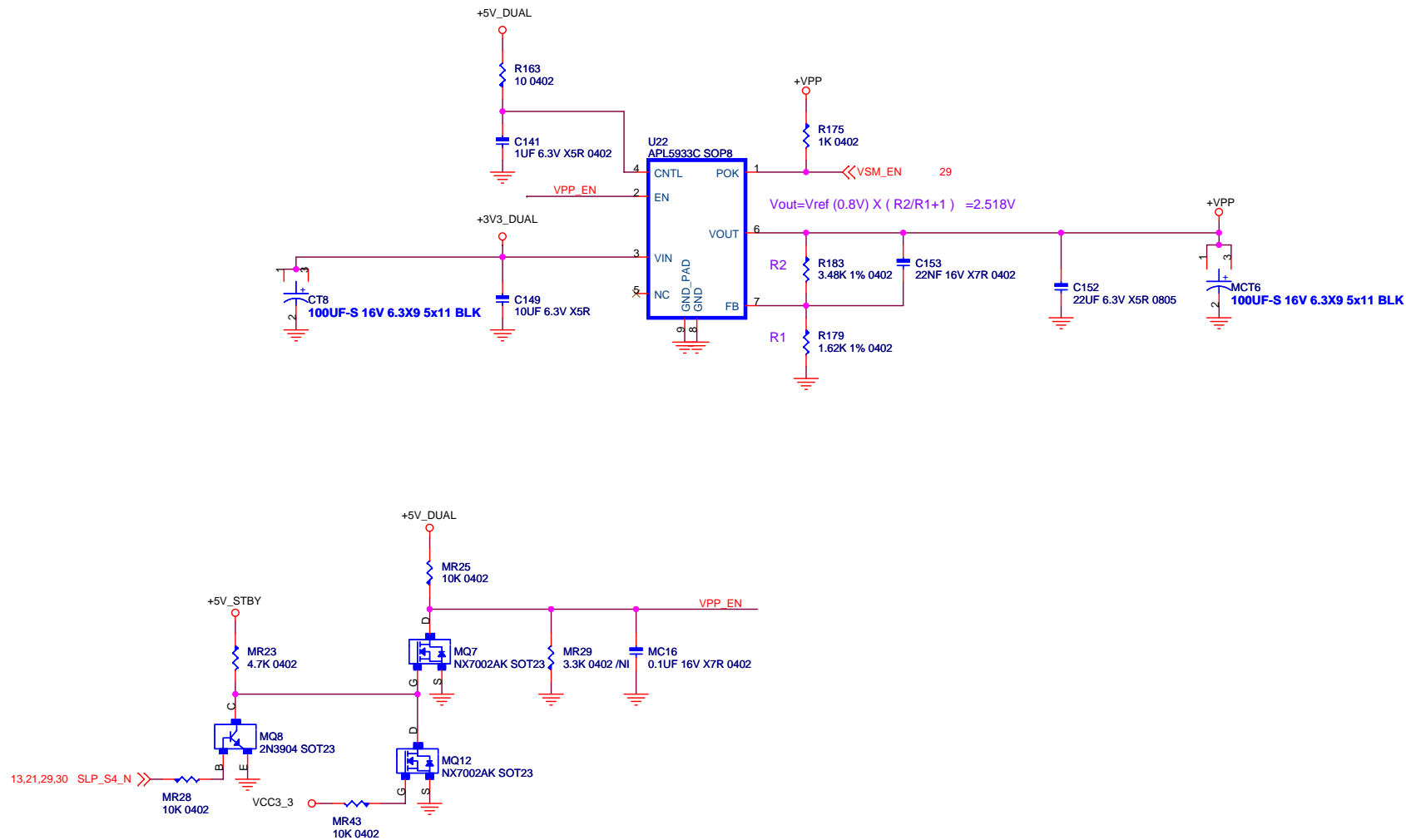
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Size	Document Number	IB25C-AHS	
B			
Date:	Thursday, December 01, 2016	Sheet	35 of 42
			Rev 6.0



Kabylake S-line 42e 95W ISL95866 +ISL95808



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Title			
ISL95824 VGT PHASE			
Size	Document Number	Rev	
Custom	IB25C-AHS	6.0	
Date:	Thursday, December 01, 2016	Sheet	38 of 42



IB15C-AHS-V6.0 Change List 160307

Based on IB15C-AHS-V0.6

2016/03/07

1.For thermal balance

PR343,PR342,PR341,PR253,PR296,PR331

100K 1% 0402--->82K 1% 0402

2.ACT11,ACT12,ACT13,ACT14 100UF-S 16V 6.3X9 GOLD--->100UF 10V 6.3x11 AUDIO

3.Adjust USB1 charger layout for higher current

IB25C-AHS-V6.0 Change List 161226

Based on IB25C-AHS-V0.6

1.PAGE20: Add SD7,GR96,GR98

2.PAGE23: USB1 VALUE CHANGE TO DUAL USB2 WHITE


3.PAGE31: MC10 change to 4.7UF 16V Y5V 0805

4.PAGE31: Q66 NI

5.PAGE42: MOS SINK change

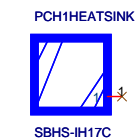
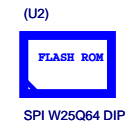
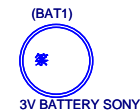
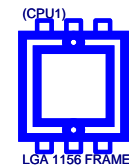
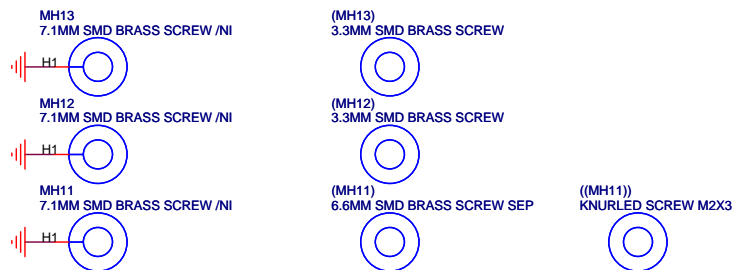
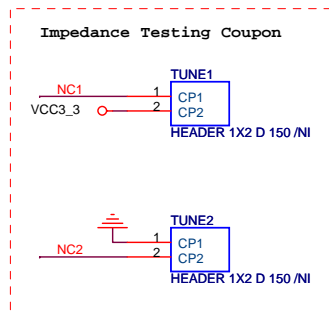
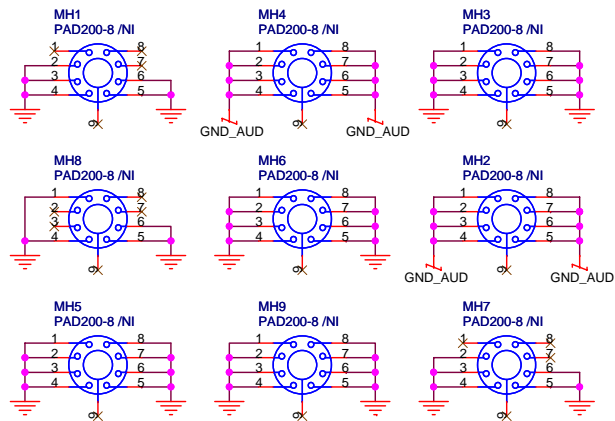
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Title CHANGELIST		
Size B	Document Number IB25C-AHS	Rev 6.0
Date: Monday, December 26, 2016	Sheet 41	of 42



20-120-544002H11 20-120-228202H1
Modify:2016-12-23;V6.0

86-IB25CAHS-R01P-60 SMT MODULE IB25CAHS...6.0 MB.
96-IB25CAHS-R01P-60 DIP MODULE IB25CAHS...6.0 MB.
98-IB25CAHS-R01P IB25CAHS Rev:6.0 DocNo: MB.PCB VER:0.6/import

15-Z71-106060RS IB25C-AHSVER:0.6 /OSP/BLACK/(210.00*295.00*1.5)mm/4L /ISUHN

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Size B	Document Number IB25C-AHS		Rev 6.0
Date: Friday, December 23, 2016	Sheet 42	of 42	