H81H3-MV Rev :1.0

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REVISION HISTORY:

Rev	Date	Notes
VA	2013 1224	Initial version

NOTE:

1. Model Code:
2. Modified from H81H3-M7 V:1.0

ECS
CONFIDENTIAL

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Title	Cover Page	
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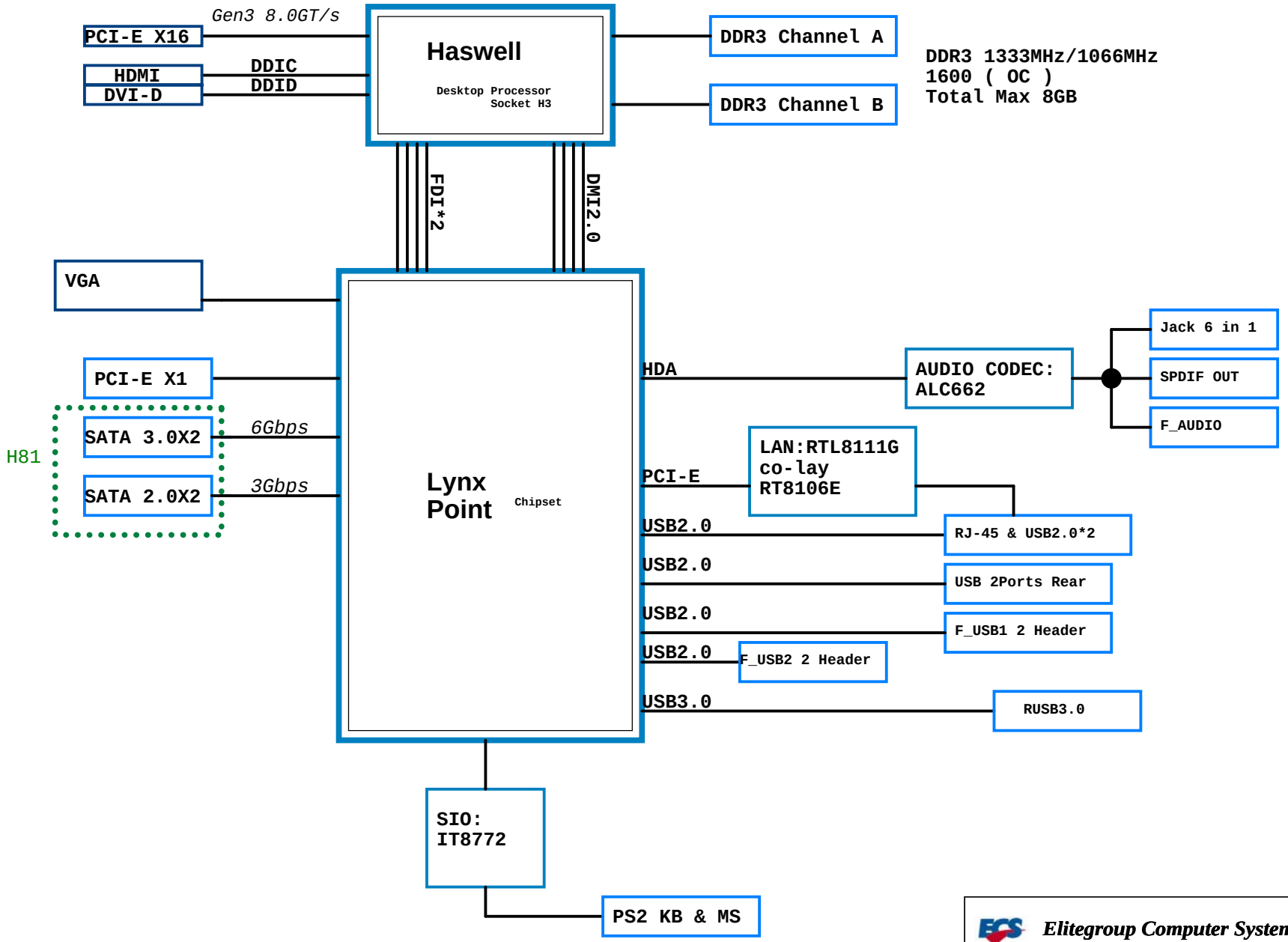
PCB size:225X170



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Title	Block Diagram	
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PCH-GPIO function

Pin Name	Power Well	Usage	Default Status
GPIO0	VCC3	case open(reserve)	GPI
GPIO13	3VSB	LPC_PME	GPI
GPIO24	3VSB	USB_5VDUAL control	GPO
GPIO72	3VSB	USB_5VDUAL control (reserve)	Native
GPIO45	3VSB	BIOS WP	Native
GPIO57	3VSB	BIOS WP	GPI
GPIO46	3VSB	WLAN_DIS_L	Native
GPIO61	3VSB	LPCPD_L	Native
GPIO27	ATX_3VSB	LAN_WAKE_L	GPI
GPIO1	VCC3	OBR	GPI
GPIO68	VCC3	TP_VGA	GPI

SIO-GPIO function

Pin Name	Power Well	Usage	Default Status
GP16	VCC3	Beep(reserve)	GPIO
GP33	ATX_3VSB	SUSACK#	GPIO
GP34	ATX_3VSB	SUSWARN#	GPIO
GP55	ATX_3VSB	DPWROK	RSMRST#
GP41	3VSB	RSMRST#	PWROK2
GP63	3VSB	3VSBSW_MINI	GPIO
GP35	3VSB	LED0	GPIO
GP37	3VSB	LED1	GPIO
GP72	VCC3	BOM detect	GPIO
GP73	VCC3	BOM detect	GPIO
GP74	VCC3	BOM detect	GPIO
GP75	VCC3	BOM detect	GPIO
GP76	VCC3	BOM detect	GPIO

Update 20130520 Amos

Interrupt mapping

Function	INT# port	PCIe*1 port	Device
LAN	INTC#	port 7	RTL8111G or RTL8106E
PCIEX1	INTD#	port 6	LPT integrate
PCIEX1	INTA#/B#	port 8	LPT integrate
SATA	INTB#	NA	LPT integrate

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Title: GPIO Function & INT# Mapping

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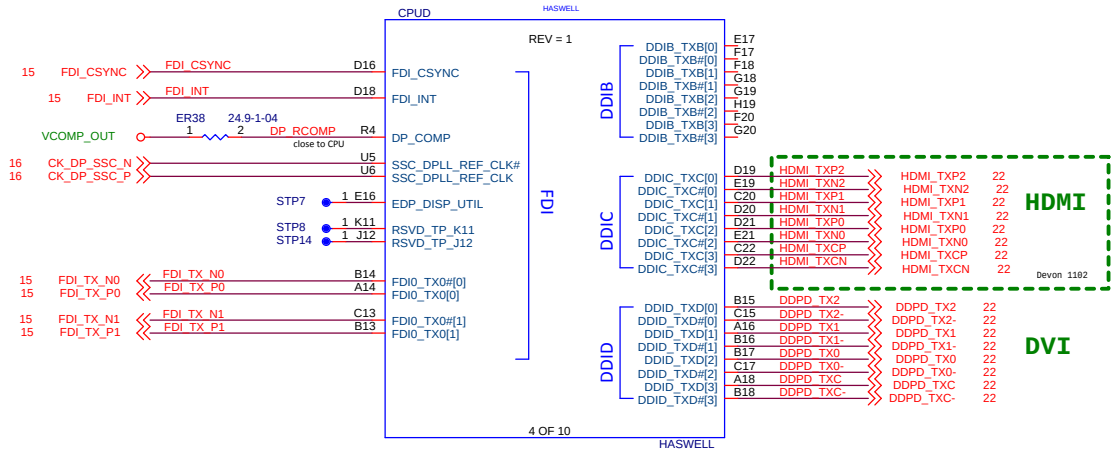

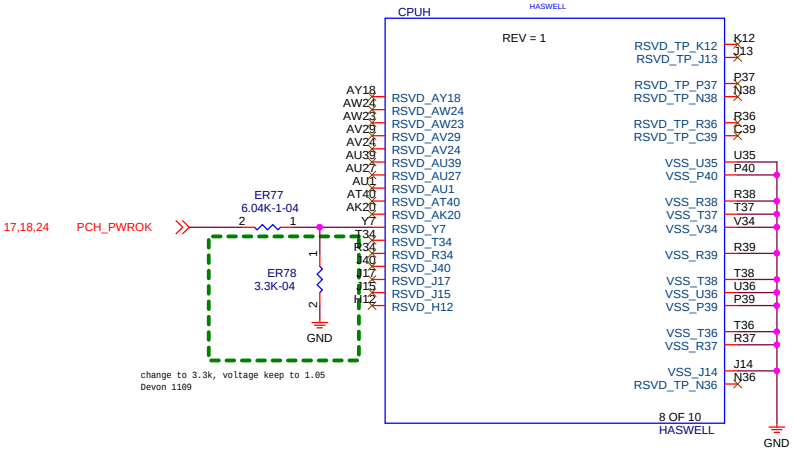

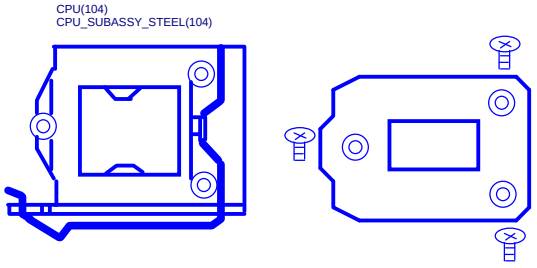

CPU steel (T/U pahse)
PN:20-800-005711 CPU SOCKET STEEL SUBASSY.STEEL....LGA 1155/1156P.W/BACK PLATE,CAP.LOTES

CPU socket (SMD phase)
PN:11-018-115128 SOCKET.CPU..LGA 1150P SMD..15u...BLACK.ACA-ZIF-138-P01...HF.LEAD-FREE.LOTES

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Title	CPU-PEG/DMI/FDI/DDI		
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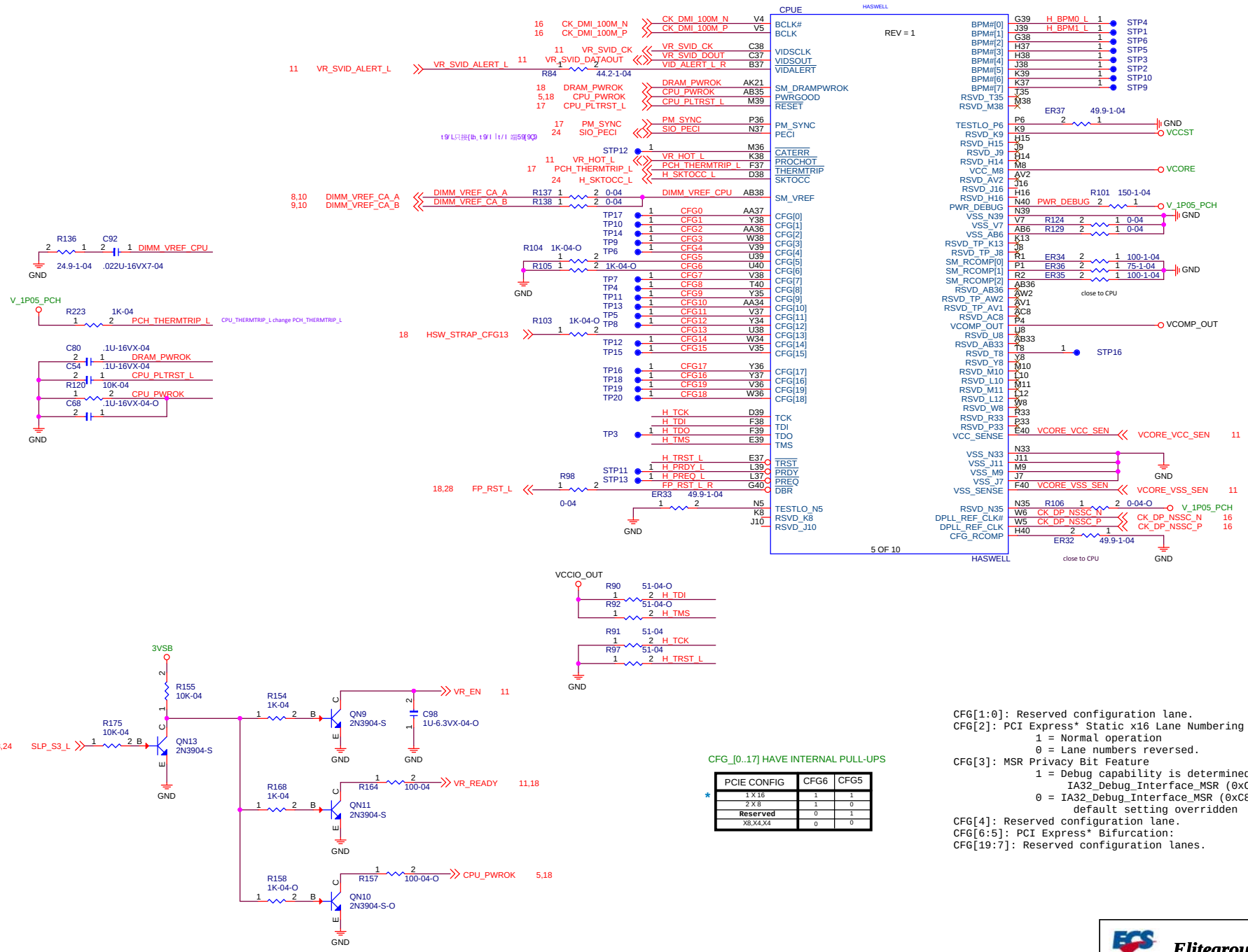
CPUE
HASWELL
REV = 1
5 OF 10
BCLK#
BCLK
VIDSCLK
VIDSOUT
VIDALERT
SM_DRAMPWROK
PWRGOOD
RESET
PM_SYNC
PECI
CATERR
PROCHOT
THERMTRIP
SKTOCC
SM_VREF
CFG[0]
CFG[1]
CFG[2]
CFG[3]
CFG[4]
CFG[5]
CFG[6]
CFG[7]
CFG[8]
CFG[9]
CFG[10]
CFG[11]
CFG[12]
CFG[13]
CFG[14]
CFG[15]
CFG[17]
CFG[16]
CFG[19]
CFG[18]
TCK
TDI
TDO
TMS
TRST
PRDY
PREQ
DBR
TESTLO_N5
RSVD_K8
RSVD_J10
CK_DMI_100M_N
CK_DMI_100M_P
VR_SVID_CK
VR_SVID_DOUT
VID_ALERT_L_R
DRAM_PWROK
CPU_PWROK
CPU_PLTRST_L
PM_SYNC
SIO_PECI
VR_HOT_L
PCH_THERMTRIP_L
H_SKTOCC_L
DIMM_VREF_CPU
H_TCK
H_TDI
H_TDO
H_TMS
H_TRST_L
H_PRDY_L
H_PREQ_L
FP_RST_L_R
BPM#[0]
BPM#[1]
BPM#[2]
BPM#[3]
BPM#[4]
BPM#[5]
BPM#[6]
BPM#[7]
RSVD_T35
RSVD_M38
TESTLO_P6
RSVD_K9
RSVD_H15
RSVD_J9
RSVD_H14
VCC_M8
RSVD_AV2
RSVD_J16
RSVD_H16
PWR_DEBUG
VSS_N39
VSS_V7
VSS_AB6
RSVD_TP_K13
RSVD_TP_J8
SM_RCOMP[0]
SM_RCOMP[1]
SM_RCOMP[2]
RSVD_AB36
RSVD_TP_AW2
RSVD_TP_AV1
RSVD_AC8
VCOMP_OUT
RSVD_U8
RSVD_AB33
RSVD_T8
RSVD_Y8
RSVD_M10
RSVD_L10
RSVD_M11
RSVD_L12
RSVD_W8
RSVD_R33
RSVD_P33
VCC_SENSE
VSS_N33
VSS_J11
VSS_M9
VSS_J7
VSS_SENSE
RSVD_N35
DPLL_REF_CLK#
DPLL_REF_CLK
CFG_RCOMP
VCCIO_OUT
3VSB
SLP_S3_L
VR_EN
VR_READY
CPU_PWROK
Power Down Sequencing Circuit
CFG_[0..17] HAVE INTERNAL PULL-UPS
PCIE CONFIG
CFG6
CFG5
1 X 16
2 X 8
Reserved
X8,X4,X4
CFG[1:0]: Reserved configuration lane.
CFG[2]: PCI Express* Static x16 Lane Numbering Reversal.
1 = Normal operation
0 = Lane numbers reversed.
CFG[3]: MSR Privacy Bit Feature
1 = Debug capability is determined by
IA32_Debug_Interface_MSR (0xC80) bit[0]
0 = IA32_Debug_Interface_MSR (0xC80) bit[0]
default setting overridden
CFG[4]: Reserved configuration lane.
CFG[6:5]: PCI Express* Bifurcation:
CFG[19:7]: Reserved configuration lanes.
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Title
CPU-MISC
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Custom
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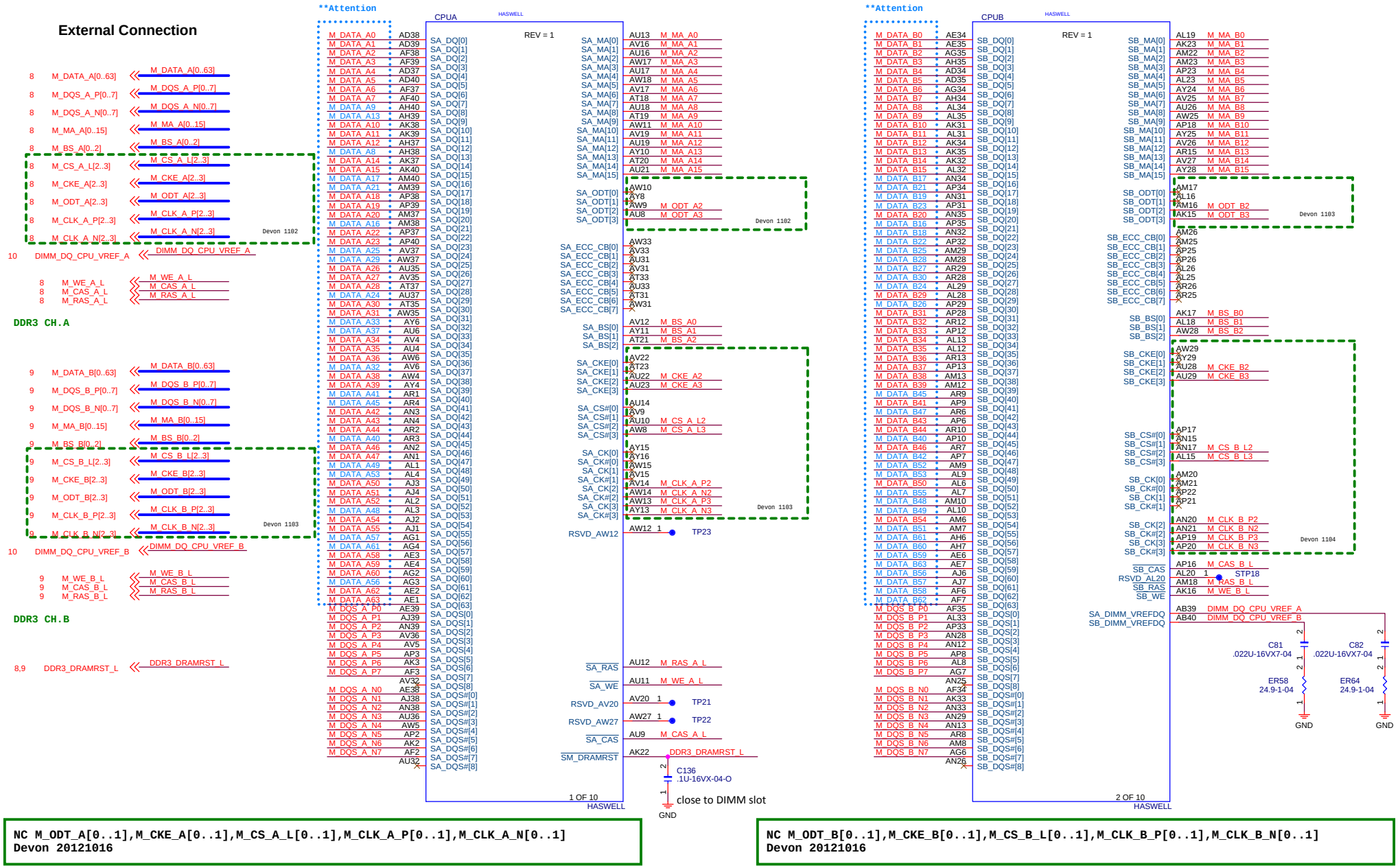

NC M_ODT_A[0..1],M_CKE_A[0..1],M_CS_A_L[0..1],M_CLK_A_P[0..1],M_CLK_A_N[0..1]
Devon 20121016

NC M_ODT_B[0..1],M_CKE_B[0..1],M_CS_B_L[0..1],M_CLK_B_P[0..1],M_CLK_B_N[0..1]
Devon 20121016

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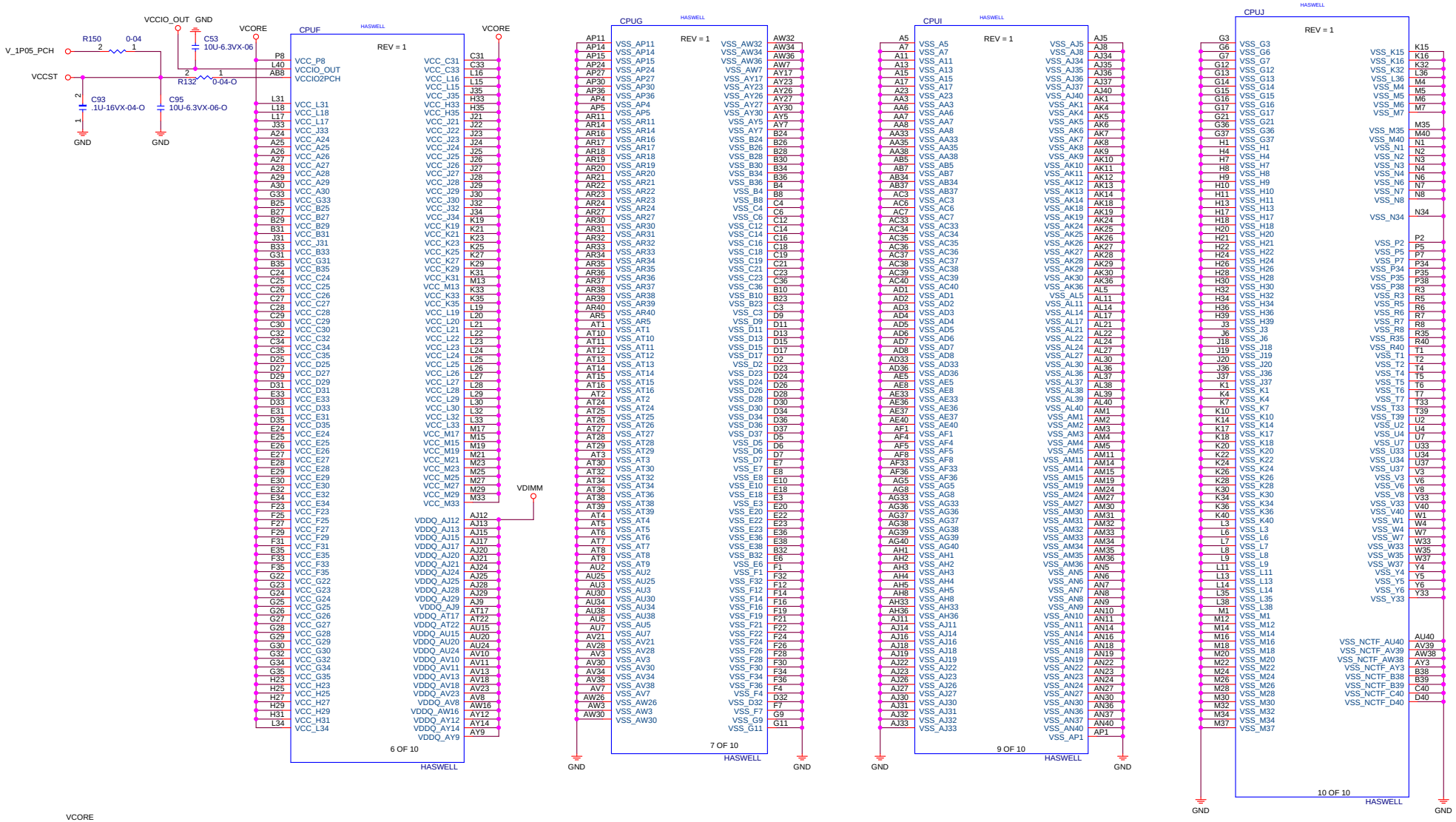

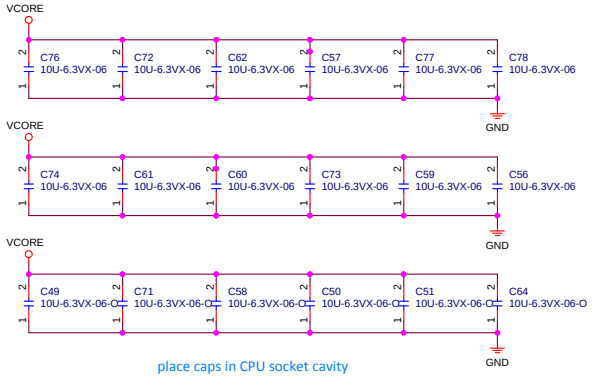

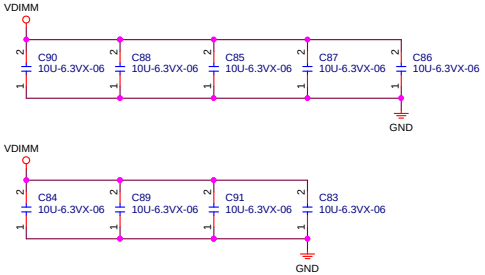

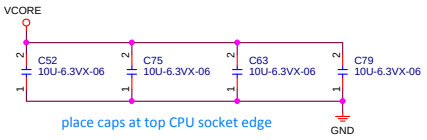

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Title	CPU-PWR/GND	
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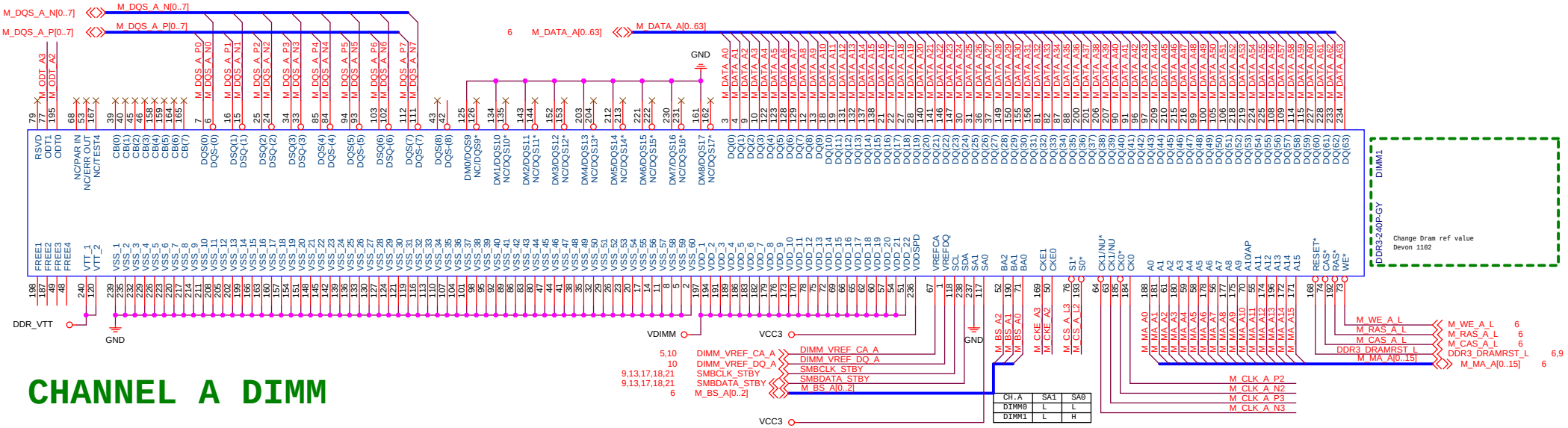
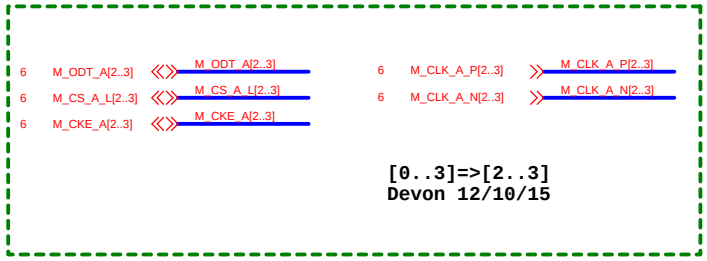
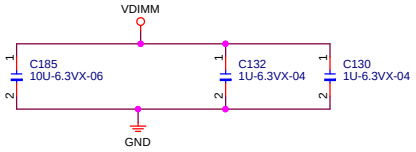
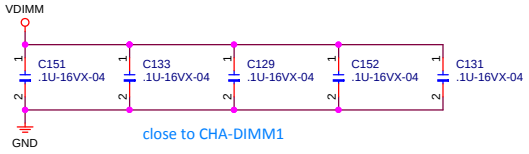


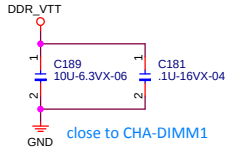
CHANNEL A DIMM

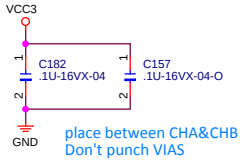
CH.A	SA1	SA0
DIMM0	L	L
DIMM1	L	H











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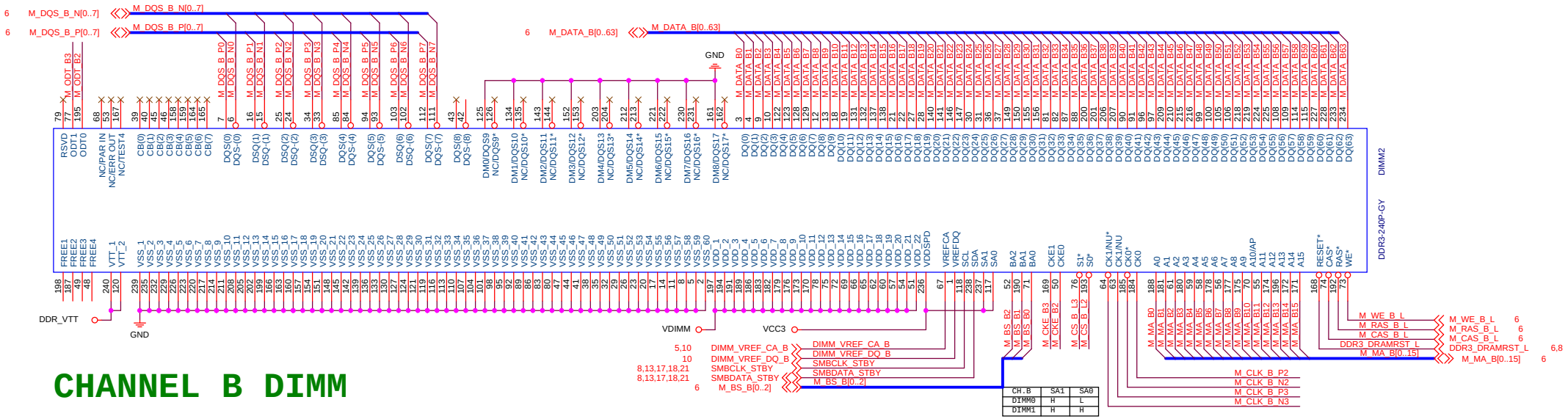

CH.B	SA1	SA0
DIMM0	H	L
DIMM1	H	H

M_ODT_B[2..3]
M_CS_B_L[2..3]
M_CKE_B[2..3]
M_CLK_B_P[2..3]
M_CLK_B_N[2..3]

[0..3]=>[2..3]
Devon 20121015

VDIMM
C161 10U-6.3VX-06
C128 10U-6.3VX-06
C188 1U-6.3VX-04
C187 1U-6.3VX-04
C186 10U-6.3VX-06
GND

VDIMM
C154 .1U-16VX-04
C180 .1U-16VX-04
GND
close to CHB-DIMM2

DDR_VTT
C156 10U-6.3VX-06
C155 .1U-16VX-04
GND
close to CHB-DIMM2

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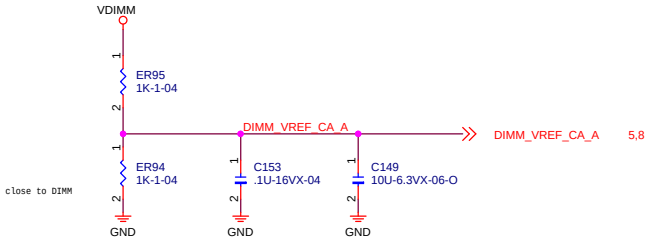
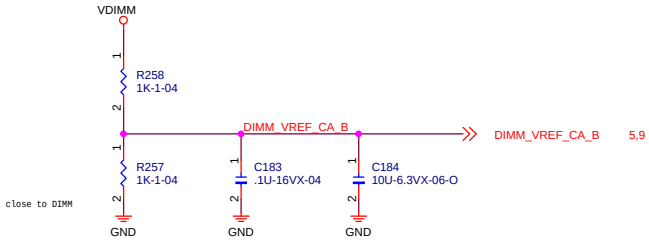
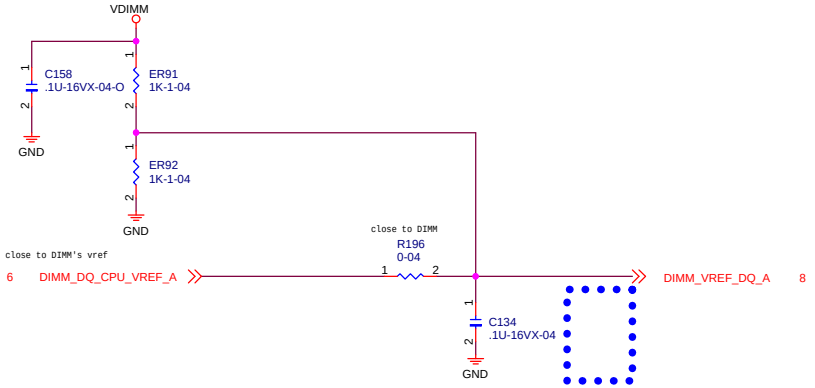
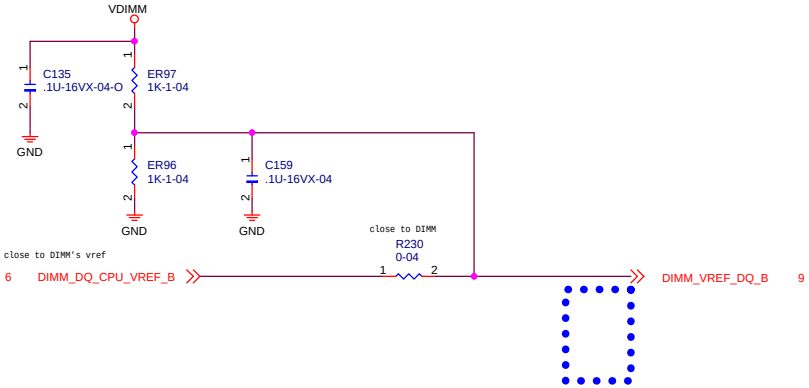
DIMM_VREF_CA Circuit





DIMM_VREF_DQ Circuit





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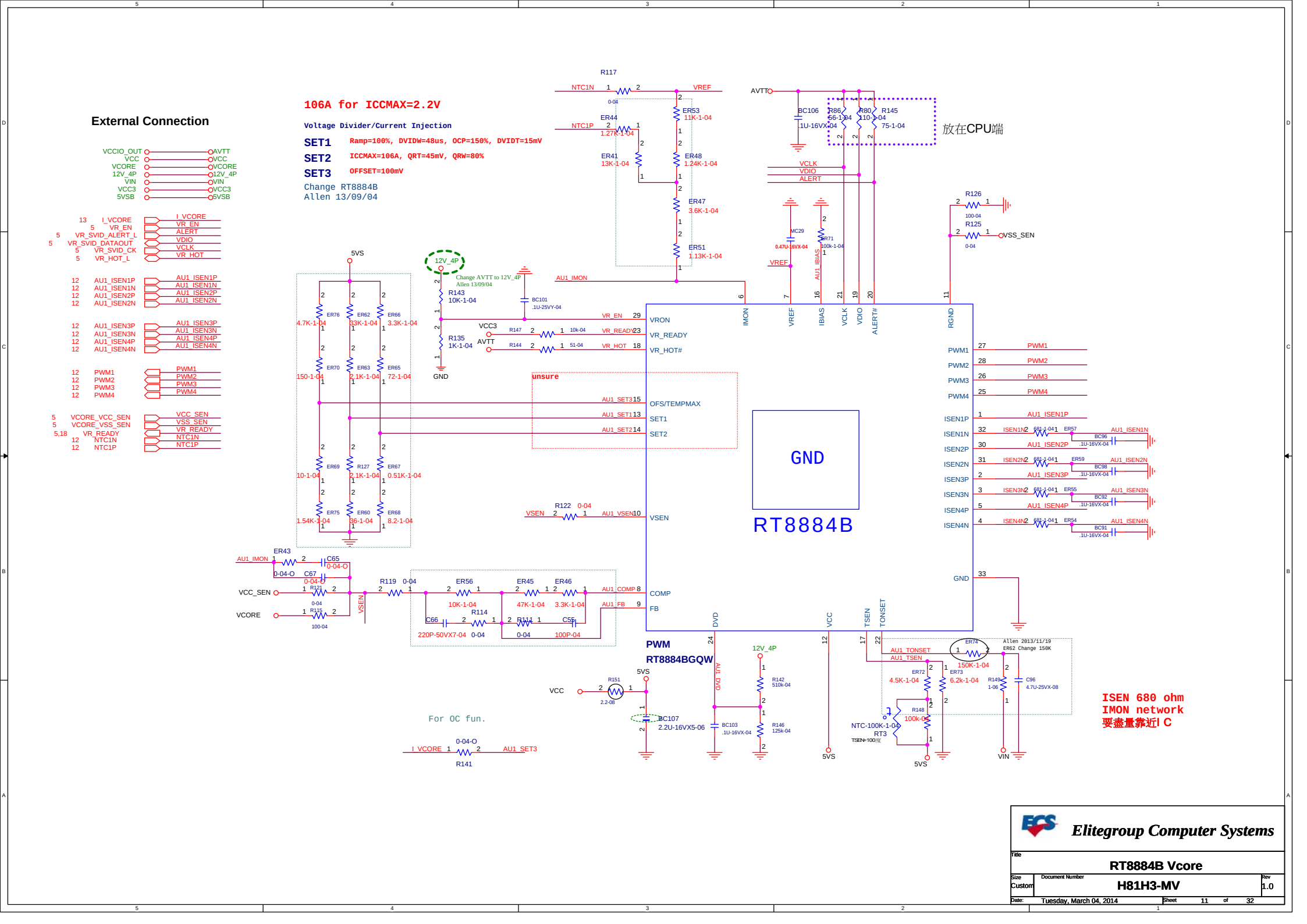
External Connection
VCCIO_OUT
VCC
VCORE
12V_4P
VIN
VCC3
5VSB
AVTT
VCC
VCORE
12V_4P
VIN
VCC3
5VSB
I_VCORE
VR_EN
ALERT
VDIO
VCLK
VR_HOT
AU1_ISEN1P
AU1_ISEN1N
AU1_ISEN2P
AU1_ISEN2N
AU1_ISEN3P
AU1_ISEN3N
AU1_ISEN4P
AU1_ISEN4N
PWM1
PWM2
PWM3
PWM4
VCC_SEN
VSS_SEN
VR_READY
NTC1N
NTC1P
106A for ICCMAX=2.2V
Voltage Divider/Current Injection
SET1 Ramp=100%, DVIDW=48us, OCP=150%, DVIDT=15mV
SET2 ICCMAX=106A, QRT=45mV, QRW=80%
SET3 OFFSET=100mV
Change RT8884B
Allen 13/09/04
R117
NTC1N
VREF
ER53 11K-1-04
NTC1P
ER44 1.27K-1-04
ER41 13K-1-04
ER48 1.24K-1-04
ER47 3.6K-1-04
ER51 1.13K-1-04
AVTT
BC106 1U-16VX-04
R86 56-1-04
R80 110-1-04
R145 75-1-04
放在CPU端
VCLK
VDIO
ALERT
R126 100-04
R125 0-04
VSS_SEN
MC29 0.47U-16VX-04
R71 100k-1-04
AU1_IBIAS
VREF
5VS
12V_4P
Change AVTT to 12V_4P
Allen 13/09/04
R143 10K-1-04
BC101 .1U-25VY-04
R135 1K-1-04
GND
AU1_IMON
VR_EN
VR_READY
VR_HOT
R147 10k-04
R144 51-04
VCC3
AVTT
ER76 4.7K-1-04
ER62 33K-1-04
ER66 3.3K-1-04
ER70 150-1-04
ER63 2.1K-1-04
ER65 72-1-04
ER69 10-1-04
R127 2.1K-1-04
ER67 0.51K-1-04
ER75 1.54K-1-04
ER60 36-1-04
ER68 8.2-1-04
unsure
AU1_SET3
AU1_SET1
AU1_SET2
R122 0-04
VSEN
AU1_VSEN
VRON
VR_READY
VR_HOT#
OFS/TEMPMAX
SET1
SET2
VSEN
COMP
FB
IMON
VREF
IBIAS
VCLK
VDIO
ALERT#
RGND
DVD
VCC
TSEN
TONSET
GND
RT8884B
PWM
RT8884BGQW
PWM1
PWM2
PWM3
PWM4
ISEN1P
ISEN1N
ISEN2P
ISEN2N
ISEN3P
ISEN3N
ISEN4P
ISEN4N
ISEN1N 681-1-04 ER57 BC96 .1U-16VX-04
ISEN2N 681-1-04 ER59 BC98 .1U-16VX-04
ISEN3N 681-1-04 ER55 BC92 .1U-16VX-04
ISEN4N 681-1-04 ER54 BC91 .1U-16VX-04
ER43
C65 0-04-O
C67 0-04-O
R121 0-04
R115 100-04
VCC_SEN
VCORE
R119 0-04
ER56 10K-1-04
ER45 47K-1-04
ER46 3.3K-1-04
R114
C66 220P-50VX7-04
C55 100P-04
R111 0-04
R151 2.2-08
BC107 2.2U-16VX5-06
BC103 .1U-16VX-04
R142 510k-04
R146 125k-04
For OC fun.
I_VCORE
AU1_SET3
0-04-O
R141
ER74 150K-1-04
ER72 4.5K-1-04
ER73 6.2K-1-04
R149 1-06
C96 4.7U-25VX-08
R148 100k-04
NTC-100K-1-04
RT3
TSEN=100/筐
Allen 2013/11/19
ER62 Change 150K
AU1_TONSET
AU1_TSEN
ISEN 680 ohm
IMON network
要盡量靠近I C
Elitegroup Computer Systems
Title
RT8884B Vcore
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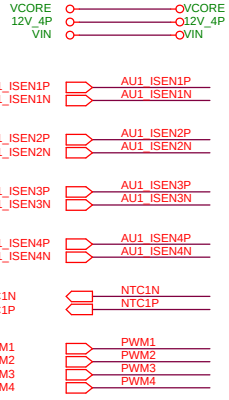
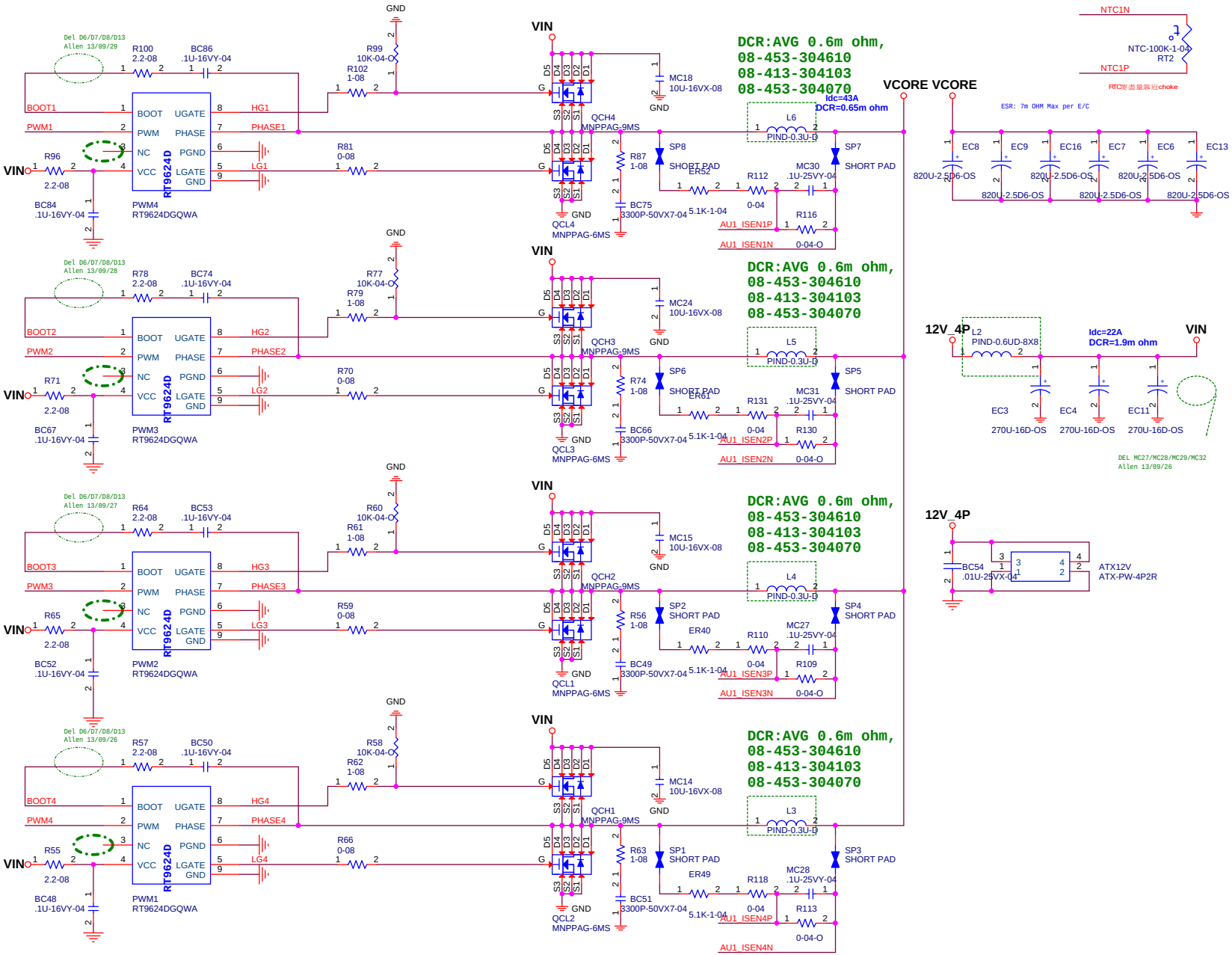
External Connection



Change Choke
3 PHASE Change to 4 PHASE
RT9624D 第三PIN不接
Allen 13/11/19



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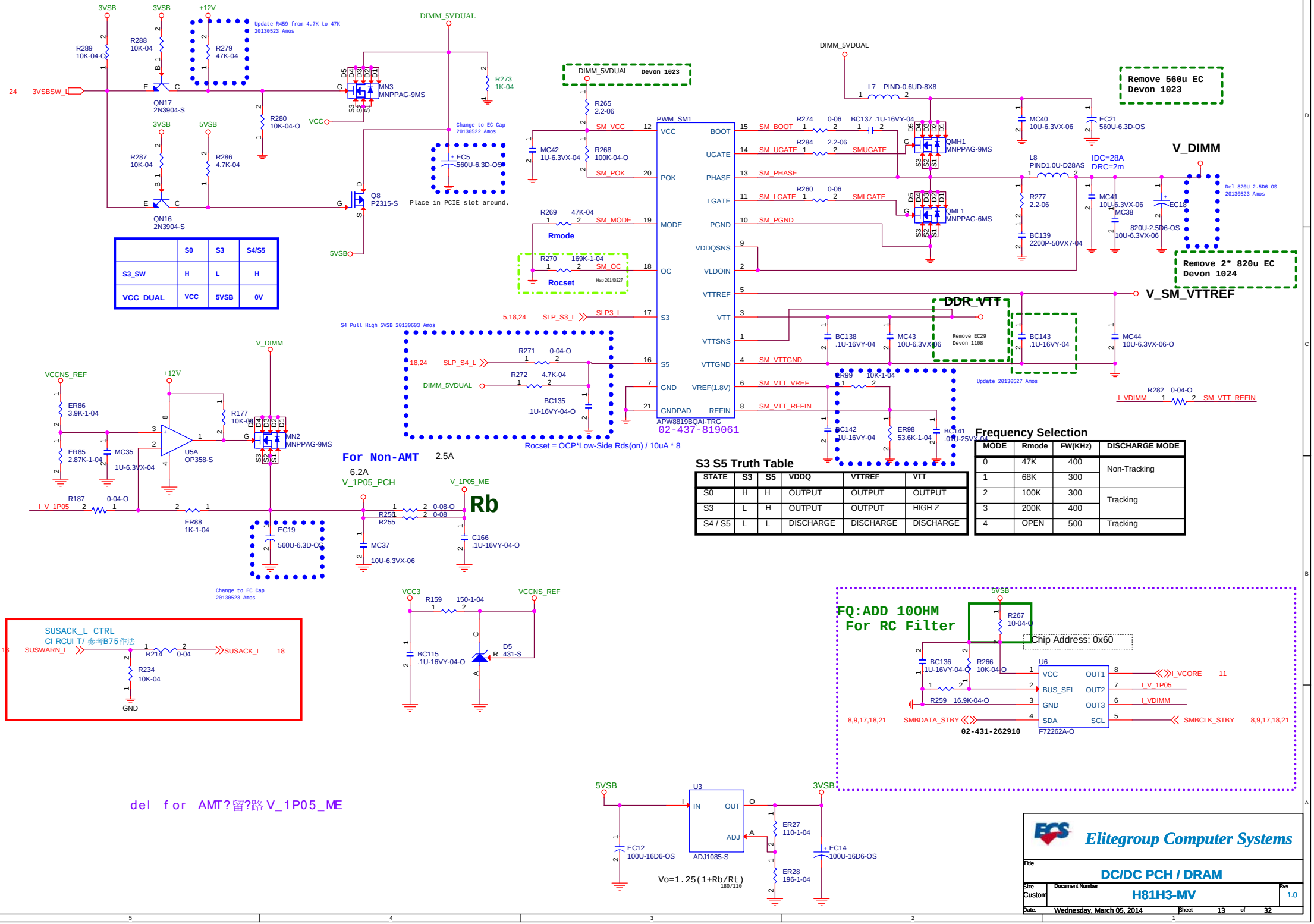

	S0	S3	S4/S5
S3_SW	H	L	H
VCC_DUAL	VCC	5VSB	0V

STATE	S3	S5	VDDQ	VTTREF	VTT
S0	H	H	OUTPUT	OUTPUT	OUTPUT
S3	L	H	OUTPUT	OUTPUT	HIGH-Z
S4 / S5	L	L	DISCHARGE	DISCHARGE	DISCHARGE

MODE	Rmode	FW(KHz)	DISCHARGE MODE
0	47K	400	Non-Tracking
1	68K	300	
2	100K	300	Tracking
3	200K	400	
4	OPEN	500	Tracking

Elitegroup Computer Systems

Title	DC/DC PCH / DRAM	
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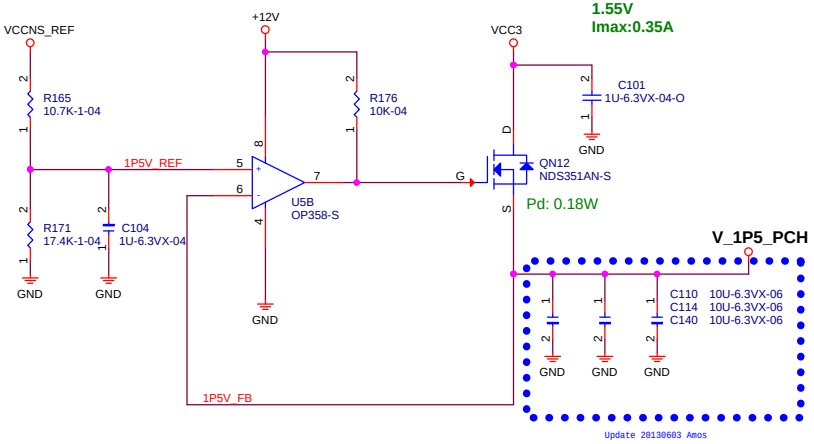
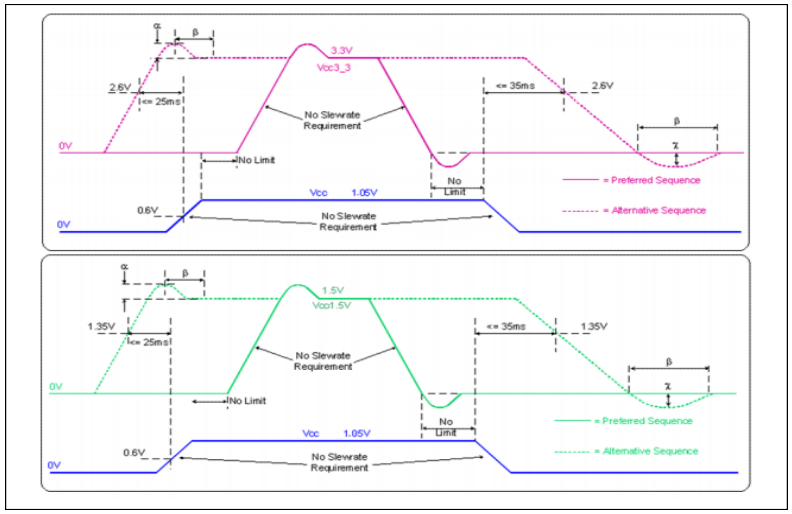
PCH DAC power

2.5*(17.4/10.7+17.4)=1.548
V_1P5_PCH=1.55(防止I oss
電壓偏低i ssue)

1.55V
Imax:0.35A



Update 20130603 Amos



Elitegroup Computer Systems		
Title	DC/DC PCH_1.5V/PCH,ME_1.05V	
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3VSB

R233 10K-04

Remove PCI 20130513 Amos

PCH_PME_L

PCI_CLK2_FB

16 PCI_CLK2_FB

C125 10P-04-O

GND

close to PCH

ER84 8.2K-1-04

GND

PCHA

LPT_PCH_DT

REV 1

PME#

CLKIN_33MHZLOOPBACK

TP16

TP17

TP18

TP19

TD_IREF

PIRQA_L

PIRQB_L

PIRQC_L

PIRQD_L

PCH_GPIO2

INTF_L

PCH_GPIO4

PCH_GPIO5

PIRQA#

PIRQB#

PIRQC#

PIRQD#

GPIO2

GPIO3

GPIO4

GPIO5

1 OF 11

PCI

LPT_PCH_DT

PLTRST#

GPIO35_NMI#

GPIO50

GPIO51

GPIO52

GPIO53

GPIO54

GPIO55

PCH_PLTRST_L 24

PCH_GPIO35

PCH_GPIO50

PCH_GPIO51 1 STP30

PCH_GPIO52

PCH_GPIO53 1 STP28

PCH_GPIO54

PCH_GPIO55 1 STP27

GPIO51,52,53,55

with 20Kohm internal pull-up

GPIO53 : DT shouldn't be pulled-down

GPIO55 : TOP-BLOCK swap override when LOW

VCC3

RN16 10K-8P4R-04

PCH_GPIO35

PCH_GPIO50

PCH_GPIO52

PCH_GPIO54

Update 10K 排阻電阻 20130520 Amos

VCC3

RN15 8.2K-8P4R-04

PIRQD_L

PIRQB_L

PCH_GPIO5

PIRQC_L

RN14 8.2K-8P4R-04

PCH_GPIO4

PIRQA_L

INTF_L

PCH_GPIO2

USB2 port 6,7 disable in B85

USB2 port 6,7,12,13 disable in H81

Update LAN+USB2.0 20130516 Amos

PCHB

LPT_PCH_DT

REV 1

DMI_TX_N0 L24

DMI_TX_P0 K24

DMI_RX_N0 C20

DMI_RX_P0 B20

DMI_TX_N1 G24

DMI_TX_P1 H24

DMI_RX_N1 D21

DMI_RX_P1 B21

DMI_TX_N2 F26

DMI_TX_P2 G26

DMI_RX_N2 B22

DMI_RX_P2 C22

DMI_TX_N3 K26

DMI_TX_P3 L26

DMI_RX_N3 A24

DMI_RX_P3 B24

DMI_RXN0

DMI_RXP0

DMI_TXN0

DMI_TXP0

DMI_RXN1

DMI_RXP1

DMI_TXN1

DMI_TXP1

DMI_RXN2

DMI_RXP2

DMI_TXN2

DMI_TXP2

DMI_RXN3

DMI_RXP3

DMI_TXN3

DMI_TXP3

DMI

V_1P5_PCH

ER90 1 2 7.5K-1-04 B19

ER87 1 2 7.5K-1-04 C13

close to PCH

DMI_RCOMP

PCIE_RCOMP

GND

R192 1 2 10K-04 G22

R191 1 2 10K-04 F22

CLKIN_DMI

CLKIN_DMI_P

USB

PERn1 / USB3Rn2 L14

PERp1 / USB3Rp2 K14

PETn1 / USB3Tn2 B12

PETp1 / USB3Tp2 B11

PERn2 / USB3Rn3 F14

PERp2 / USB3Rp3 G14

PETn2 / USB3Tn3 D11

PETp2 / USB3Tp3 C11

PERN3 F11

PERP3 H11

PETN3 B9

PETP3 A9

PERN4 J11

PERP4 L11

PETN4 B8

PETP4 C8

PERN5 G9

PERP5 F9

PETN5 B7

PETP5 A7

PERN6 F7

PERP6 H7

PETN6 E1

PETP6 D2

PERN7 K6

PERP7 K8

PETN7 G3

PETP7 G5

PERN8 J2

PERP8 J3

PETN8 H2

PETP8 H1

PCIE

2 OF 11

LPT_PCH_DT

USB2N0 AV10 USB_N0

USB2P0 AU10 USB_P0

USB2N1 AV11 USB_N1

USB2P1 AW11 USB_P1

USB2N2 AN14 USB_N2

USB2P2 AP14 USB_P2

USB2N3 AJ16 USB_N3

USB2P3 AK16 USB_P3

USB2N4 AU15 USB_N4

USB2P4 AV15 USB_P4

USB2N5 AU12 USB_N5

USB2P5 AT12 USB_P5

USB2N6 AV14

USB2P6 AW14

USB2N7 AU17

USB2P7 AT17

USB2N8 AW16 USB_N8

USB2P8 AV16 USB_P8

USB2N9 AN16 USB_N9

USB2P9 AP16 USB_P9

USB2N10 AJ18 USB_N10

USB2P10 AK18 USB_P10

USB2N11 AP18 USB_N11

USB2P11 AN18 USB_P11

USB2P12 AW18

USB2P13 AV18

AP20

AN20

USB_N0 23

USB_P0 23

USB_N1 23

USB_P1 23

USB_N2 25

USB_P2 25

USB_N3 25

USB_P3 25

USB_N4 23

USB_P4 23

USB_N5 23

USB_P5 23

USB1 2.0

REAR- USB 2.0+LAN

RUSB 3.0

Disable USB 2.0 PORT 6,7

F-USB2 2.0

REAR-USB 2.0 * 2

USB_N8 29

USB_P8 29

USB_N9 29

USB_P9 29

USB_N10 29

USB_P10 29

USB_N11 29

USB_P11 29

Remove PCIEX4 Devon 1023

25 LAN_RX_N

25 LAN_RX_P

25 LAN_TX_N

25 LAN_TX_P

C118 1 2 .1U-16VX-04 PETN7

C120 1 2 .1U-16VX-04 PETP7

LAN

PCIEX1 A

21 PEX1_RX_N

21 PEX1_RX_P

21 PEX1_TX_N

21 PEX1_TX_P

GPIO59 AE40 USB_OC0_L

GPIO40 AF37 USB_OC1_L

GPIO41 AD39 USB_OC2_L

GPIO42 AD40 USB_OC3_L

GPIO43 AF39 USB_OC4_L

GPIO9 AC41 USB_OC5_L

GPIO10 AF40 USB_OC6_L

GPIO14 AG40 USB_OC7_L

3VSB

R215 10K-04

USBRBIAS# AV20

USBRBIAS AU20 ER89 1 2 22.6-1-04 GND

CLKIN_DOT96 AP11 R169 1 2 10K-04

CLKIN_DOT96_P AM11 R166 1 2 10K-04 GND

close to PCH

Update USB3.0 co-lay header & connector 20130517 Amos

23 USB3_RXN1

23 USB3_RXP1

23 USB3_TXN1

23 USB3_TXP1

23 USB3_RXN2

23 USB3_RXP2

23 USB3_TXN2

23 USB3_TXP2

USB3_RXN1 F20

USB3_RXP1 G20

USB3_TXN1 B18

USB3_TXP1 C18

USB3_RXN2 G18

USB3_RXP2 H18

USB3_TXN2 B15

USB3_TXP2 B16

PCHF

LPT_PCH_DT

REV 1

USB3RN0

USB3RP0

USB3TN0

USB3TP0

USB3RN1

USB3RP1

USB3TN1

USB3TP1

USB3

K20 USB3RN4

L20 USB3RP4

D15 USB3TN4

C15 USB3TP4

L18 USB3RN5

K18 USB3RP5

B14 USB3TN5

A14 USB3TP5

FDILINK

GPIO70 AK28

GPIO71 AT34

TACH6 / GPIO70

TACH7 / GPIO71

TACH not supported on Desktop.

6 OF 11

LPT_PCH_DT

FDI_RXN0 N1 FDI_TX_N0 FDI_TX_N0 4

FDI_RXP0 N2 FDI_TX_P0 FDI_TX_P0 4

FDI_RXN1 P2 FDI_TX_N1 FDI_TX_N1 4

FDI_RXP1 P3 FDI_TX_P1 FDI_TX_P1 4

FDI_CSYNC L2 FDI_CSYNC FDI_CSYNC 4

FDI_INT L3 FDI_INT FDI_INT 4

FDI_RCOMP K2 FDI_RCOMP 2 1 V_1P5_PCH

close to PCH

ER82 7.5K-1-04

USB3.0 (PET port 1,2) disable in B85/H81

PET port 7,8 disable in H81

BOOT device	GPIO51	SATA1GP/GPIO19
LPC	0	0
* SPI	1	1

USB3 port 4,5 disable in H81

RJ5 VCC3

GPIO70 2 1

3 GND

10K-04(1-2)

RJ6 VCC3

GPIO71 2 1

3 GND

10K-04(1-2)

Elitegroup Computer Systems

Title: PCH-DMI/PE/USB/FDI

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NC DDPC_AUXN,AUXP.
Devon 1023

PCHE
REV 1
LPT_PCH_DT

STP19
HDMI_HPD
DDPD_HDP_F

DDPB_HPD
DDPC_HPD
DDPD_HPD
DDPB_AUXN
DDPB_AUXP
DDPC_AUXN
DDPC_AUXP
DDPD_AUXN
DDPD_AUXP

VGA_HSYNC
VGA_VSYNC
VGA_RED
VGA_GREEN
VGA_BLUE
VGA_IRTN
VGA_DDC_DATA
VGA_DDC_CLK
DAC_IREF
DDPC_CTRLCLK
DDPC_CTRLDATA
DDPB_CTRLCLK
DDPB_CTRLDATA
DDPD_CTRLCLK
DDPD_CTRLDATA

ER80 150-1-04
ER79 150-1-04
ER81 150-1-04
R174 649-1-04
R161 2.2K-04-O

HDMI_CLK
HDMI_DAT
DDPD_CTRLCLK
DDPD_CTRLDATA

STP20
VCC3

5 OF 11

RN13 100K-8P4R-04
Swap DDPC & DDPD
Devon 1113

Port B/C/D Detected
Has a weak internal pull down
0 = is not detected
1 = is detected

Del TPM function 20130513 Amos
Add LDC header 20130521 Amos
close to PCH

SIO_33M R180 22-04 C119 10P-04-O
PCI_CLK2_FB R167 22-04 C102 10P-04-O
LPC_33M R178 22-04 C116 10P-04-O
SIO_48M R181 22-04 C121 10P-04-O
V_1P5_PCH ER83 7.5K-1-04 close to PCH
R179 10K-04

PCHG
REV 1
LPT_PCH_DT

CLKOUT_33MHZ0
CLKOUT_33MHZ1
CLKOUT_33MHZ2
CLKOUT_33MHZ3
CLKOUT_33MHZ4
CLKOUTFLEX0 / GPIO64
CLKOUTFLEX1 / GPIO65
CLKOUTFLEX2 / GPIO66
CLKOUTFLEX3 / GPIO67
DIFFCLK_BIASREF
REFCLK14IN

CLKIN_GND0
CLKIN_GND0_P
CLKOUT_DMI
CLKOUT_DMI_P
CLKOUT_DP
CLKOUT_DP_P
CLKOUT_DPNS
CLKOUT_DPNS_P
CLKOUT_ITPXDP
CLKOUT_ITPXDP_P
CLKOUT_PEG_A
CLKOUT_PEG_A_P
CLKOUT_PEG_B
CLKOUT_PEG_B_P
CLKOUT_PCIE_N0
CLKOUT_PCIE_P0
CLKOUT_PCIE_N1
CLKOUT_PCIE_P1
CLKOUT_PCIE_N2
CLKOUT_PCIE_P2
CLKOUT_PCIE_N3
CLKOUT_PCIE_P3
CLKOUT_PCIE_N4
CLKOUT_PCIE_P4
CLKOUT_PCIE_N5
CLKOUT_PCIE_P5
CLKOUT_PCIE_N6
CLKOUT_PCIE_P6
CLKOUT_PCIE_N7
CLKOUT_PCIE_P7

CK_DMI_100M_N
CK_DMI_100M_P
CK_DP_SSC_N
CK_DP_SSC_P
CK_DP_NSSC_N
CK_DP_NSSC_P
PEX16_100M_N
PEX16_100M_P
CK_PE_100M_LAN_L
CK_PE_100M_LAN_H
PEX1A_100M_N
PEX1A_100M_P

to X16 SLOT
Remove PCI 20130513 Amos
Remove PCIEX4
Devon 1023

7 OF 11

XTAL_25M_PCH_IN
XTAL_25M_PCH_OUT
XTAL25_IN
XTAL25_OUT
R152 1M-04
X2 X-25M
C97 27P-04
C94 27P-04

Del VGA header 20130523 Amos

VCC3 VCC3 VCC_DDC
R54 2.2K-04
Q7 2N7002-S
R47 6.8K-04
VGA_DDC_CLK
DDCCLK

VCC3 VCC3 VCC_DDC
R53 2.2K-04
Q6 2N7002-S
R46 6.8K-04
VGA_DDC_DATA
DDCDATA

VGA

VGA
CONN-VGA-HRBL

Close to Connector

VGA_RED FB9 FB80-04-B RED
VGA_GREEN FB10 FB80-04-B GREEN
VGA_BLUE FB11 FB80-04-B BLUE

ER22 150-1-04
ER23 150-1-04
ER24 150-1-04
BC41 22P-04
BC42 22P-04
BC43 22P-04
BC38 15P-04
BC37 15P-04
BC36 15P-04
20140305 Hao

Close to Connector

DDC1DATA R44 0-04 DDCDATA
VGA1_HSYNC R163 33-04 VGA_HSYNC
VGA1_VSYNC R162 33-04 VGA_VSYNC
DDC1CLK R45 0-04 DDCCLK

BC39 47P-04
BC29 10P-04-O
BC34 10P-04-O
BC40 47P-04

ESD

ESD11
DDC1DATA
DDC1CLK
VGA1_VSYNC
VGA1_HSYNC
ESD-6P
BC28 .1U-16VY-04

ESD10
GREEN
BLUE
RED
ESD-6P
BC27 .1U-16VY-04

VCC_DDC

Elitegroup Computer Systems

Title: PCH-DDI/CLK/VGA
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DEL AMT sku

port 2,3 disable in H81

port 4,5 are SATA 3Gb/s in H81

Update SATA 3.0 20130514 Amos

Del SATA 3.0 20130523 Amos

Del SATA 3.0 20130523 Amos

Update SATA 3.0 20130514 Amos

PCHC

LPT_PCH_DT

REV 1

CLINK

FAN

GPIO

SATA

HOST

3 OF 11

LPT_PCH_DT

4,18,24 PCH_PWROK FROM SIO

R243 Rd 0-04

PCH_MEPWROK_R AA32

C165 .1U-16VX-04-O

GND

APWROK

CL_CLK U36

CL_DATA U35

CL_RST# U34

PWM0 AL31

PWM1 AM31

PWM2 AP31

PWM3 AV30

TACH0 / GPIO17 AP28

TACH1 / GPIO1 AT31

TACH2 / GPIO6 AM28

TACH3 / GPIO7 AV34

TACH4 / GPIO68 AT30

TACH5 / GP69 AV35

SSTCTL AJ31

SCLOCK / GPIO22 L38

SLOAD / GPIO38 H41

SDATAOUT0 / GPIO39 R31

SDATAOUT1 / GPIO48 L40

TACH0 AP28

TACH1 AT31

CR_GPIO6 AM28

CR_GPIO7 AV34

TACH4 AT30

TACH5 AV35

SCLOCK L38

SLOAD H41

SDAT0 R31

SDAT1 L40

VCC3

RN17 10K-8P4R-04: CR_GPIO7, TACH0, CR_GPIO6, TACH5

RN19 10K-8P4R-04: SERIRQ, SDAT0, KBRST_L, SLOAD

KBRST_L_R change KBRST_L

RN18 10K-8P4R-04: A20GATE, SCLOCK, SDAT1

R222 10K-04 SATALED_L

R221 10K-04 PCH_GPIO21

R197 10K-04 TACH1

R195 10K-04 TACH4

R220 1K-04 PCH_GPIO37

SATA3GP/GPIO37 1K-04 pull high VCC3

Devon 1113

RJ8 PCH_GPIO16 10K-04(1-2) GND

RJ7 PCH_GPIO49 10K-04(1-2) GND

Del SMBUS isolation schematic
Del pull high res.
Devon 1023

SMbus Logic Circuit

3VSB

R204 2.2K-04 SMBCLK_STBY

R240 2.2K-04 SMBDATA_STBY

SMBCLK_STBY 8,9,13,18,21

SMBDATA_STBY 8,9,13,18,21

Devon 1023

SATA_RXN0 B28 SATA3_RX_N0

SATA_RXP0 A28 SATA3_RX_P0

SATA_TXN0 F31 SATA3_TX_N0

SATA_TXP0 H31 SATA3_TX_P0

SATA_RXN1 D30 SATA3_RX_N1

SATA_RXP1 C30 SATA3_RX_P1

SATA_TXN1 B34 SATA3_TX_N1

SATA_TXP1 C34 SATA3_TX_P1

SATA_RXN2 A31

SATA_RXP2 B31

SATA_TXN2 B35

SATA_TXP2 D35

SATA_RXN3 B32

SATA_RXP3 C32

SATA_TXN3 G33

SATA_TXP3 F33

Del SATA 3.0 20130523 Amos

SATA_RXN4 / PERn1 A26 SATA_RX_N4

SATA_RXP4 / PERp1 B26 SATA_RX_P4

SATA_TXN4 / PETn1 L28 SATA_TX_N4

SATA_TXP4 / PETp1 K28 SATA_TX_P4

SATA_RXN5 / PERn2 C27 SATA_RX_N5

SATA_RXP5 / PERp2 B27 SATA_RX_P5

SATA_TXN5 / PETn2 G28 SATA_TX_N5

SATA_TXP5 / PETp2 F28 SATA_TX_P5

CLKIN_SATA H35 R229 10K-04

CLKIN_SATA_P H36 R224 10K-04

GND

SATALED# J39 SATALED_L

SATA_RCOMP D33 R199 7.5K-1-04 close to PCH

SATALED_L 28

V_1P5_PCH

SATA0GP / GPIO21 M37 PCH_GPIO21

SATA1GP / GPIO19 J40 PCH_GPIO19 1 STP38

SATA2GP / GPIO36 H40 PCH_GPIO36 1 STP36

SATA3GP / GPIO37 N41 PCH_GPIO37

SATA4GP / GPIO16 M39 PCH_GPIO16

SATA5GP / GPIO49 N40 PCH_GPIO49

*GPIO19 with internal pull-up

*GPIO36 with internal pull-down

EDP_BKLTCTL AP2

EDP_BKLTEN AT2

EDP_VDDEN AP1

RSVD_N30 N30 A20GATE

RCIN# K36 KBRST_L

SERIRQ G39 SERIRQ

THRMTRIP# C40

PECI G40

PM_SYNCH F40

PLTRST_PROC# F41

A20GATE 24

KBRST_L 24

SERIRQ 24

PCH_THERMTRIP_L 5

PM_SYNC 5

CPU_PLTRST_L 5

KBRST_L_R change KBRST_L BY PASS .1u delete

SATA3.0 ->SATA2.0
Footprint change to SATA7P-M-HUANXUN_1
Devon 1018

SATA3_1: SATA3_TX_P0, SATA3_TX_N0, SATA3_RX_N0, SATA3_RX_P0 — C178, C177, C176, C168 .01U-25VX-04 — SATA3T_P0, SATA3T_N0, SATA3R_N0, SATA3R_P0 — TXP, TXN, RXN, RXP — HOLD1, GND, GND1, GND2, HOLD2 — SATA3-7P2R-GR — GND

SATA3_2: SATA3_TX_P1, SATA3_TX_N1, SATA3_RX_N1, SATA3_RX_P1 — C201, C200, C199, C197 .01U-25VX-04 — SATA3T_P1, SATA3T_N1, SATA3R_N1, SATA3R_P1 — TXP, TXN, RXN, RXP — HOLD1, GND, GND1, GND2, HOLD2 — SATA3-7P2R-GR — GND

SATA2_3: SATA_TX_P4, SATA_TX_N4, SATA_RX_N4, SATA_RX_P4 — C198, C196, C195, C190 .01U-25VX-04 — SATAT_P4, SATAT_N4, SATAR_N4, SATAR_P4 — TXP, TXN, RXN, RXP — HOLD1, GND, GND1, GND2, HOLD2 — SATA-7P2R-W — GND

SATA2_4: SATA_TX_P5, SATA_TX_N5, SATA_RX_N5, SATA_RX_P5 — C194, C193, C192, C191 .01U-25VX-04 — SATAT_P5, SATAT_N5, SATAR_N5, SATAR_P5 — TXP, TXN, RXN, RXP — HOLD1, GND, GND1, GND2, HOLD2 — SATA-7P2R-W — GND

Elitegroup Computer Systems

Title: PCH-HOST/SATA

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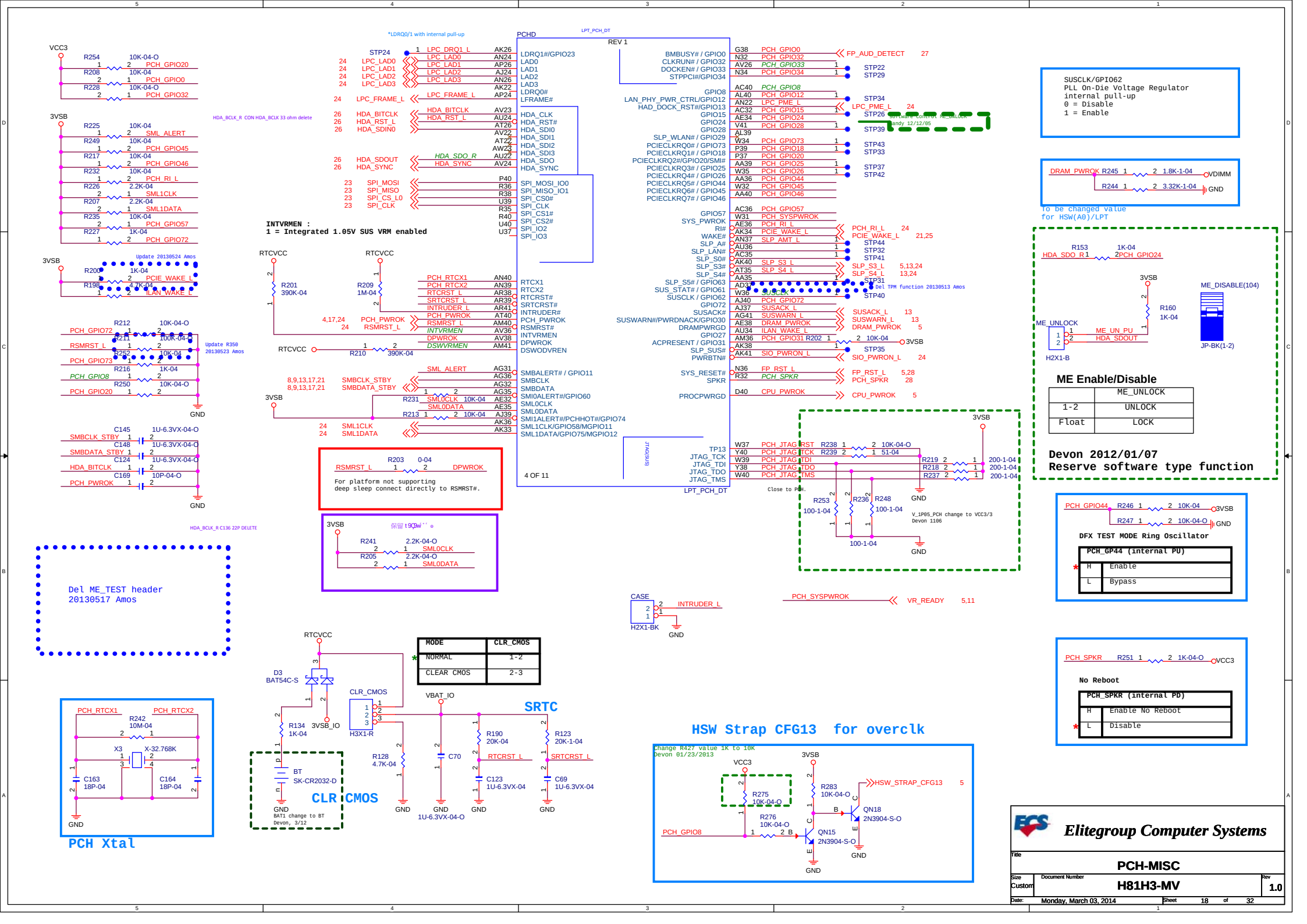
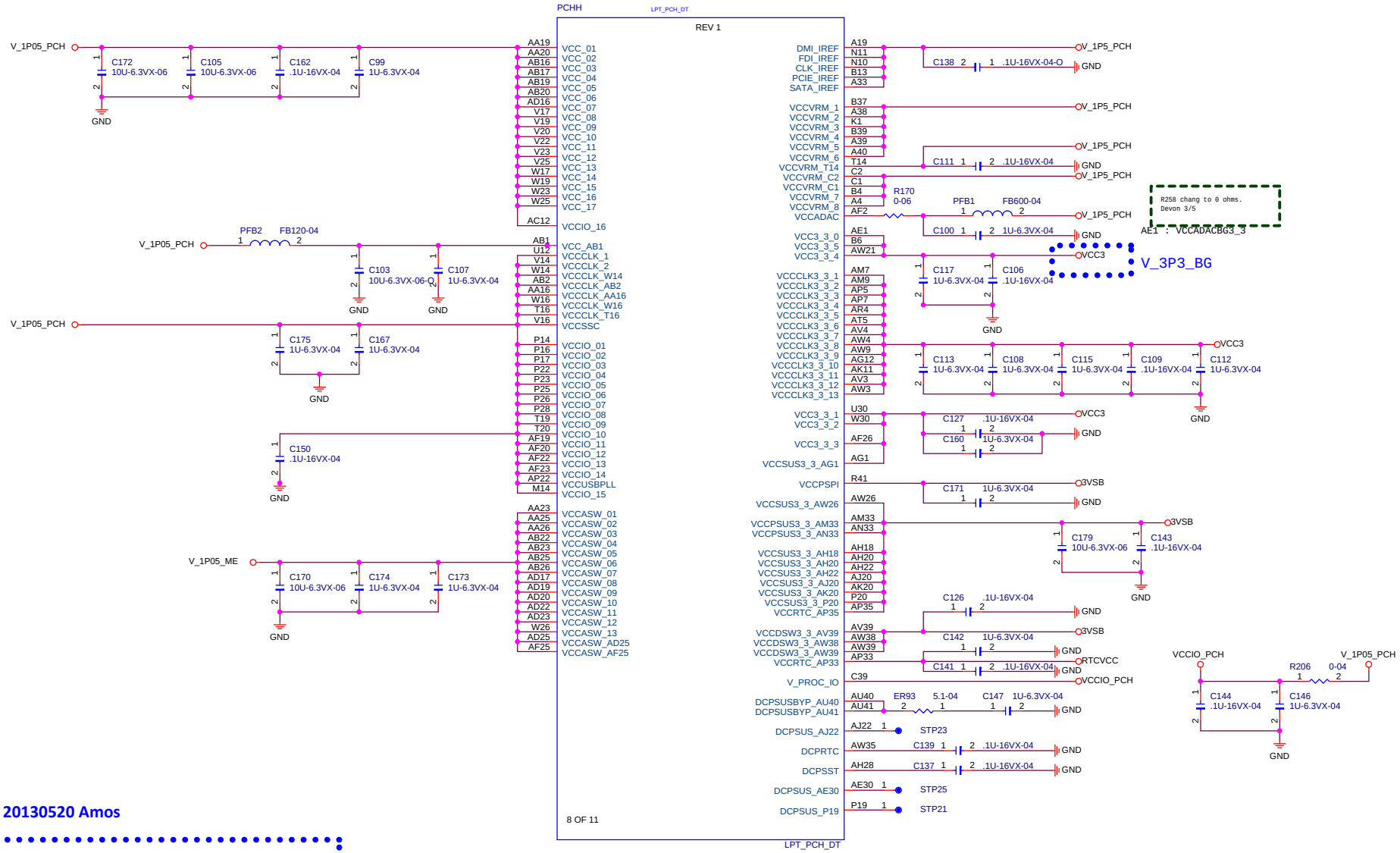

PCHD
REV 1
LPT_PCH_DT
4 OF 11
*LDRQ0/1 with internal pull-up
INTVRMEN :
1 = Integrated 1.05V SUS VRM enabled
SUSCLK/GPIO62
PLL On-Die Voltage Regulator
internal pull-up
0 = Disable
1 = Enable
To be changed value
for HSW(A0)/LPT
ME Enable/Disable
ME_UNLOCK
1-2 UNLOCK
Float LOCK
Devon 2012/01/07
Reserve software type function
Del ME_TEST header
20130517 Amos
For platform not supporting
deep sleep connect directly to RSMRST#.
DFX TEST MODE Ring Oscillator
PCH_GP44 (internal PU)
H Enable
L Bypass
No Reboot
PCH_SPKR (internal PD)
H Enable No Reboot
L Disable
MODE CLR_CMOS
NORMAL 1-2
CLEAR CMOS 2-3
CLR CMOS
SRTC
PCH Xtal
HSW Strap CFG13 for overclk
Change R427 value 1K to 10K
Devon 01/23/2013
Elitegroup Computer Systems
PCH-MISC
H81H3-MV
1.0
Monday, March 03, 2014



Del LPT EV ENG EXP 20130520 Amos

Elitegroup Computer Systems

Title	PCH-POWER	
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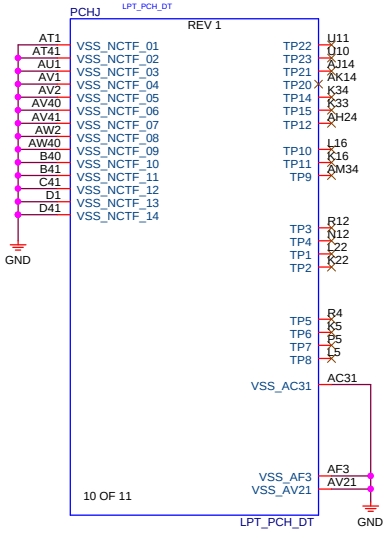

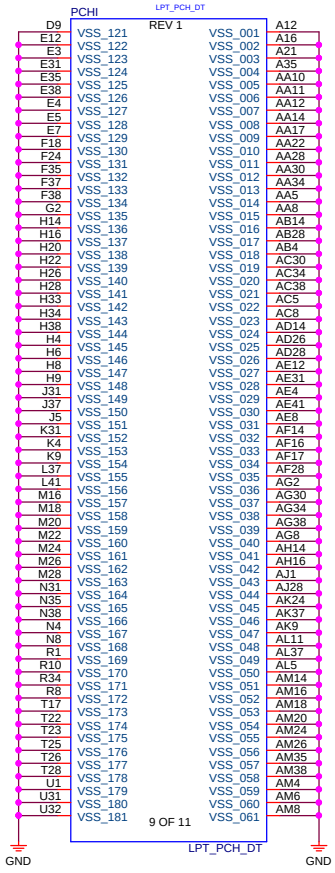

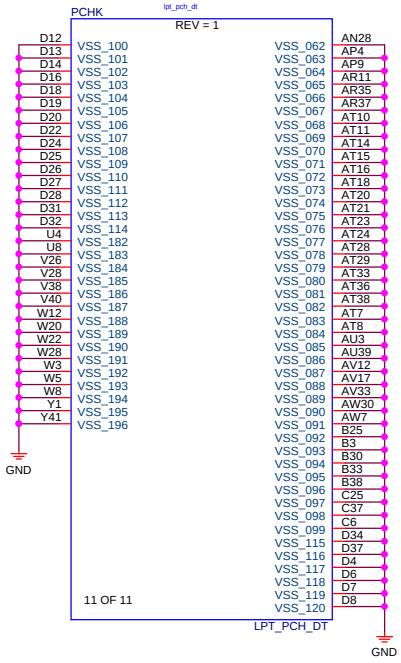

Elitegroup Computer Systems

Title: PCH-GND

Size: Custom | Document Number: H81H3-MV | Rev: 1.0

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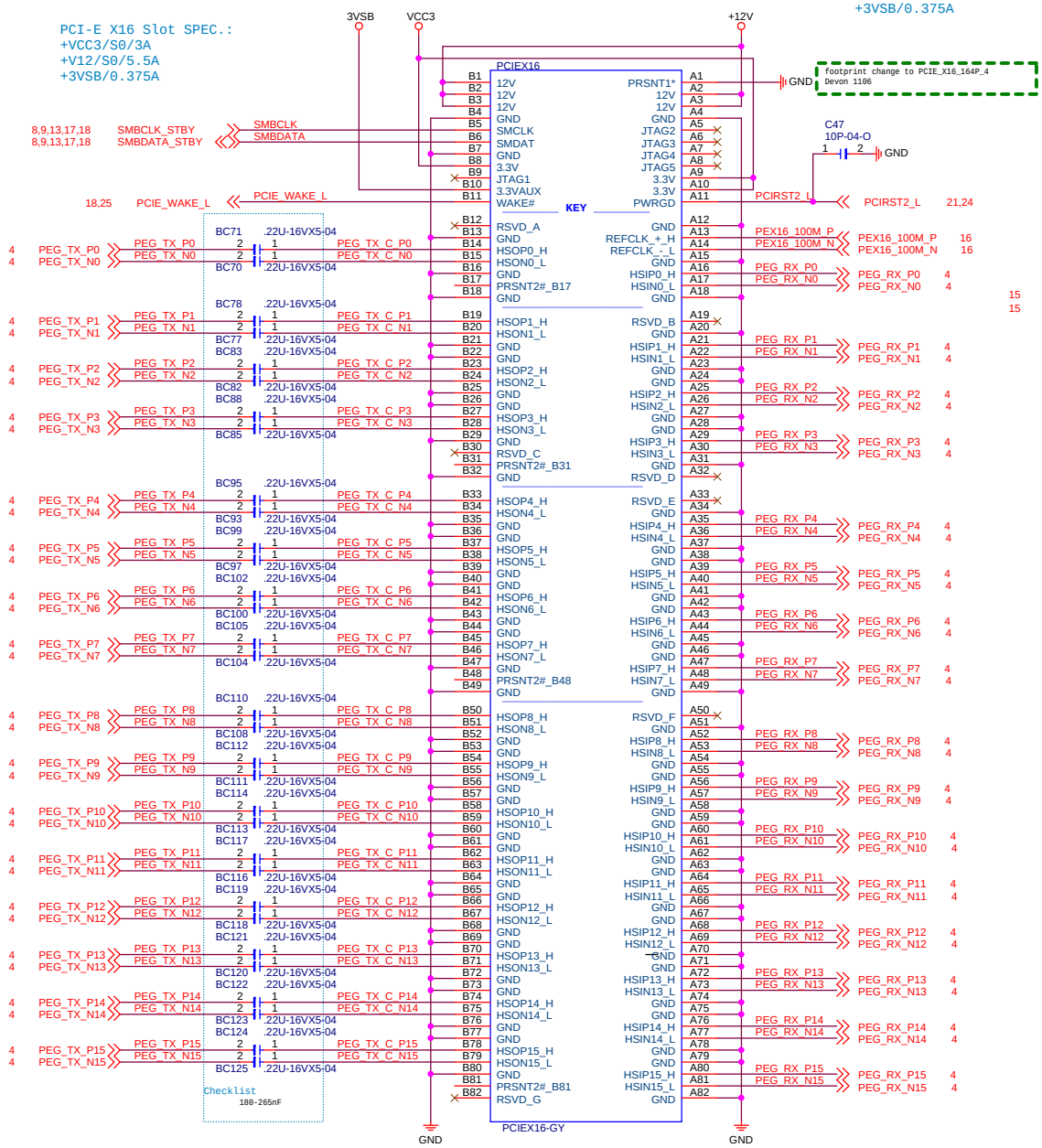
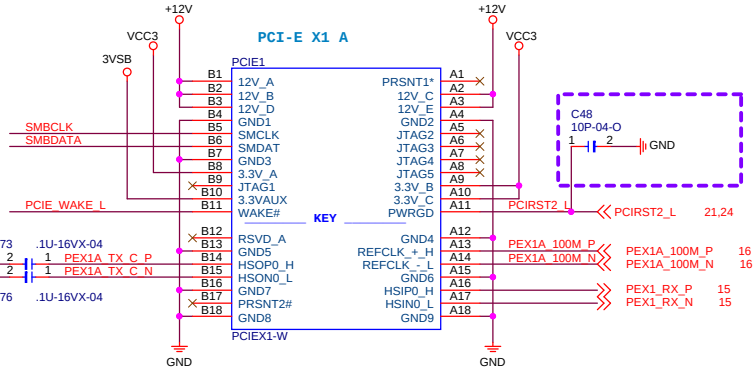
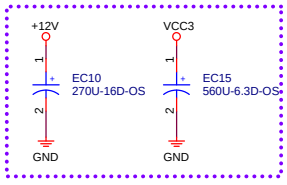
PCI-E X16 Slot SPEC.:
+VCC3/S0/3A
+V12/S0/5.5A
+3VSB/0.375A

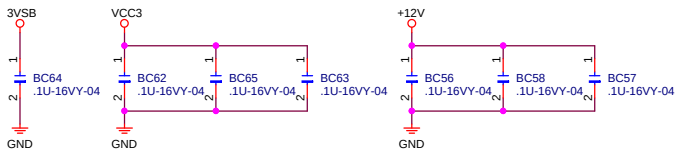
PCI-E X1 Slot SPEC.:
+VCC3/S0/3A
+V12/S0/0.5A
+3VSB/0.375A





Add PCIEX1 20130513 Amos





Elitegroup Computer Systems

Title: Slot PCI-EX16 / PCI-EX1

Size	Document Number	Rev
Custom	H81H3-MV	1.0

Date: Monday, March 03, 2014 Sheet 21 of 32

External Connection

16 DDPD_HDP_F — DDPD_HDP_F
16 DDPD_CTRLCLK — DDPD_CTRLCLK
16 DDPD_CTRLDATA — DDPD_CTRLDATA

4 DDPD_TX0 — DDPD_TX0
4 DDPD_TX0 — DDPD_TX0-
4 DDPD_TX1 — DDPD_TX1
4 DDPD_TX1 — DDPD_TX1-
4 DDPD_TX2 — DDPD_TX2
4 DDPD_TX2 — DDPD_TX2-
4 DDPD_TXC — DDPD_TXC
4 DDPD_TXC — DDPD_TXC-

DDPD_TXC — C45 .1U-16VX-04 — DDPD_TXC_C — ER20 680-1-04
DDPD_TXC- — C46 .1U-16VX-04 — DDPD_TXC-_C — ER21 680-1-04
DDPD_TX0 — C44 .1U-16VX-04 — DDPD_TX0_C — ER19 680-1-04
DDPD_TX0- — C43 .1U-16VX-04 — DDPD_TX0-_C — ER18 680-1-04
DDPD_TX1 — C40 .1U-16VX-04 — DDPD_TX1_C — ER15 680-1-04
DDPD_TX1- — C39 .1U-16VX-04 — DDPD_TX1-_C — ER14 680-1-04
DDPD_TX2 — C41 .1U-16VX-04 — DDPD_TX2_C — ER16 680-1-04
DDPD_TX2- — C42 .1U-16VX-04 — DDPD_TX2-_C — ER17 680-1-04

Q5 2N7002-S: D — DDPD_TXC_C, S — VCC, G — DDPD_TXC-_C

DVI

RN8 0-8P4R-SH
DDPD_TXC-_C 7 — 8 DVI_TXC-
DDPD_TXC-_C 5 — 6 DVI_TXC+
DDPD_TX0-_C 3 — 4 DVI_TX0+
DDPD_TX0-_C 1 — 2 DVI_TX0-

RN7 0-8P4R-SH
DDPD_TX1-_C 1 — 2 DVI_TX1-
DDPD_TX1_C 3 — 4 DVI_TX1+
DDPD_TX2_C 5 — 6 DVI_TX2+
DDPD_TX2-_C 7 — 8 DVI_TX2-

VCC3 VCC3 VCC_DDC

R51 2.2K-04 — DDPD_CTRLCLK — Q4 2N7002-S — R41 2.2K-04 — DDPD_SCL
R50 2.2K-04 — DDPD_CTRLDATA — Q3 2N7002-S — R35 2.2K-04 — DDPD_SDA

VCC3 VCC3 VCC_DDC

R48 1M-04 — DDPD_HDP_F — Q2 BSS138-S — R40 20K-04 — DDPD_HP
MC12 1U-6.3VX-04
R49 10K-04-O

+12V — R33 10K-04 — Q1 NDS351AN-S
VCC — F1 FUSE-1.1A-08 — VCC_DDC
R22 0-08-O — MC5 10U-6.3VX-06

VCC_DDC — BC5 .1U-16VY-04

BC8 .1U-16VY-04 — VCC_DDC
DDPD_HP — ESD4 — DDPD_SCL / DDPD_SDA — ESD-6P

Add 0-08-O 20130527 Amos

DVI_TX0- / DVI_TX0+ — ESD9 I/O1 I/O2 I/O3 I/O4 NC4 NC3 GND NC2 NC1 — DVI_TX0- / DVI_TX0+ — ESD-10P-USB30
DVI_TXC+ / DVI_TXC- — ESD9 — DVI_TXC+ / DVI_TXC- — ESD-10P-USB30
DVI_TX1- / DVI_TX1+ — ESD8 — DVI_TX1- / DVI_TX1+ — ESD-10P-USB30
DVI_TX2+ / DVI_TX2- — ESD8 — DVI_TX2+ / DVI_TX2- — ESD-10P-USB30

GND GND

DVI — CONN-24P3R-DVI
DVI_TX0- 17 / DVI_TX1- 9 / DVI_TX0+ 18 / DVI_TX1+ 10 / DVI_TXC+ 23 / DVI_TXC- 24 / DDPD_HP 16
1 DVI_TX2- / 2 DVI_TX2+ / 3 / 4 / 5 / 6 DDPD_SCL / 7 DDPD_SDA / 8 / 25 / 26

03-013-428402

HDMI

4 HDMI_TXP2 — HDMI_TXP2
4 HDMI_TXN2 — HDMI_TXN2
4 HDMI_TXP1 — HDMI_TXP1
4 HDMI_TXN1 — HDMI_TXN1
4 HDMI_TXP0 — HDMI_TXP0
4 HDMI_TXN0 — HDMI_TXN0
4 HDMI_TXCP — HDMI_TXCP
4 HDMI_TXCN — HDMI_TXCN

16 HDMI_CLK — HDMI_CLK
16 HDMI_DAT — HDMI_DAT
16 HDMI_HPD — HDMI_HPD

HDMI_TXP2 — BC19 .1U-16VX-04 — HDMI_TX2_C
HDMI_TXN2 — BC20 .1U-16VX-04 — HDMI_TX2-_C
HDMI_TXP1 — BC21 .1U-16VX-04 — HDMI_TX1_C
HDMI_TXN1 — BC22 .1U-16VX-04 — HDMI_TX1-_C
HDMI_TXP0 — BC23 .1U-16VX-04 — HDMI_TX0_C
HDMI_TXN0 — BC24 .1U-16VX-04 — HDMI_TX0-_C
HDMI_TXCP — BC25 .1U-16VX-04 — HDMI_TXC_C
HDMI_TXCN — BC26 .1U-16VX-04 — HDMI_TXC-_C

HDMI — TYPE A — HDMI-19P

HDMI_TX2+ 1 / HDMI_TX2- 3 / HDMI_TX1+ 4 / HDMI_TX1- 6 / HDMI_TX0+ 7 / HDMI_TX0- 9 / HDMI_TXC+ 10 / HDMI_TXC- 12 / 13 / 14 / 15 / 16 HDMI_CLK_Q / HDMI_DAT_Q / 17 / 18 HDMI_HPD_Q / 19 / 20 / 21 / 22 / 23 GND

VCC_DDC — BC7 .1U-16VY-04 — R27 20K-04 — HDMI_HPD_Q

Update 20130530 Amos

VCC3 — R38 1M-04 — QN3 BSS138-S — HDMI_HPD — HDMI_HPD_Q
R39 10K-04-O
VCC3 — R36 2.2K-04 — QN1 2N7002-S — HDMI_CLK — HDMI_CLK_Q — R25 2.2K-04 — VCC_DDC
VCC3 — R37 2.2K-04 — QN2 2N7002-S — HDMI_DAT — HDMI_DAT_Q — R26 2.2K-04 — VCC_DDC

RN1 0-8P4R-SH
HDMI_TX2_C 8 — 7 HDMI_TX2+
HDMI_TX2-_C 6 — 5 HDMI_TX2-
HDMI_TX1_C 4 — 3 HDMI_TX1+
HDMI_TX1-_C 2 — 1 HDMI_TX1-

RN2 0-8P4R-SH
HDMI_TX0_C 8 — 7 HDMI_TX0+
HDMI_TX0-_C 6 — 5 HDMI_TX0-
HDMI_TXC_C 4 — 3 HDMI_TXC+
HDMI_TXC-_C 2 — 1 HDMI_TXC-

HDMI_TX2_C — ER3 470-1-04
HDMI_TX2-_C — ER4 470-1-04
HDMI_TX1_C — ER5 470-1-04
HDMI_TX1-_C — ER6 470-1-04
HDMI_TX0_C — ER7 470-1-04
HDMI_TX0-_C — ER8 470-1-04
HDMI_TXC_C — ER9 470-1-04
HDMI_TXC-_C — ER10 470-1-04

QN4 2N7002-S — VCC — R31 22K-04

680 ohms change to 470 ohms
to fix HDMI 7-2 issue
Devon 03/01

DEL DP MODULE.
Only save HDMI function.
Devon 1023

ESD1 ESD-10P-USB30: HDMI_TX2+ / HDMI_TX2- / HDMI_TX1+ / HDMI_TX1-
ESD2 ESD-10P-USB30: HDMI_TXC- / HDMI_TXC+ / HDMI_TX0- / HDMI_TX0+
ESD3 ESD-6P: HDMI_CLK_Q / HDMI_HPD_Q / HDMI_DAT_Q — BC6 .1U-16VY-04 — VCC_DDC

Devon 1102

Elitegroup Computer Systems

Title: DVI / Co-layout With DP/HDMI
Size: Custom — Document Number: H81H3-MV — Rev: 1.0
Date: Wednesday, March 05, 2014 — Sheet 22 of 32

External Connection

3VSB
VCC
USBVCC1
USBVCC2
USBVCC4

Remove EZ charge 20130513 Amos

USB_P1 USB_F3+
USB_N1 USB_F3-
USB_P0 USB_F4+
USB_N0 USB_F4-

USB_P4 USB_F0S+
USB_N4 USB_F0S-
USB_P5 USB_F1S+
USB_N5 USB_F1S-

USB3_RXN1 USB3_RX1S-
USB3_RXP1 USB3_RX1S+
USB3_TXN1 USB3_TX1S-
USB3_TXP1 USB3_TX1S+

USB3_RXN2 USB3_RX2S-
USB3_RXP2 USB3_RX2S+
USB3_TXN2 USB3_TX2S-
USB3_TXP2 USB3_TX2S+

BC89 .1U-16VY-04 USBVCC1
ESD16
USBF4- USBF3+
USBF3- USBF4+
ESD-6P
F75204 已內建ESD

USB 2.0 [0,1]
USBVCC1 F_USB1 USBVCC1
USBF4- USBF3-
USBF4+ USBF3+
H5X2-P9E-W

DEL F_USB2.0 port6,7,11,12
Devon 1019

USB_F3- USBF3-
USB_F3+ USBF3+
USB_F4- USBF4-
USB_F4+ USBF4+

DEL USBPWR3
Devon 1022

RN4 0-8P4R-04-SH
USB3_TX2S- USB3_TX4-
USB3_TX2S+ USB3_TX4+
USB3_TX1S- USB3_TX3-
USB3_TX1S+ USB3_TX3+

RN5 0-8P4R-04-SH
USB3_RX1S- USB3_RX3-
USB3_RX1S+ USB3_RX3+
USB3_RX2S- USB3_RX4-
USB3_RX2S+ USB3_RX4+

RN6 0-8P4R-04-SH
USB_F1S+ USB_F6+
USB_F1S- USB_F6-
USB_F0S+ USB_F5+
USB_F0S- USB_F5-

ESD5 ESD-10P-USB30
USB3_RX3- USB3_RX3-
USB3_RX3+ USB3_RX3+
USB3_RX4- USB3_RX4-
USB3_RX4+ USB3_RX4+

ESD6 ESD-10P-USB30
USB3_TX4- USB3_TX4-
USB3_TX4+ USB3_TX4+
USB3_TX3- USB3_TX3-
USB3_TX3+ USB3_TX3+

USBVCC4
C271 .1U-16VY-04
U1 ESD-6P
USB_F6+ USB_F5+
USB_F5- USB_F6-

DIMM_5VDUAL
F4 FUSE-2A-08LR
USBVCC1 USBVCC1: F_USB1 & F_USB2
80 mils
MC26 22U-6.3VX-08
MC25 22U-6.3VX-08
BC90 .1U-16VY-04
R108 1K-04-O

DIMM_5VDUAL
F2 FUSE-2A-08LR
USBVCC2 USBVCC2: USB & USBLAN & PS2
80 mils
MC10 22U-6.3VX-08
MC9 22U-6.3VX-08
BC16 .1U-16VY-04
AUGND2

DIMM_5VDUAL
F3 FUSE-2A-08LR
USBVCC4 USBVCC3: USB3R
80 mils
0-08-O
R290
20140304 Hao
MC8 22U-6.3VX-08
MC11 22U-6.3VX-08
BC17 .1U-16VY-04

Update USB power 20130521 Amos

USBVCC4
USB3R USB3.0 USB3.0X2-SB
USB_F6- USB_F5-
USB_F6+ USB_F5+
USB3_RX4- USB3_RX3-
USB3_RX4+ USB3_RX3+
USB3_TX4- USB3_TX3-
USB3_TX4+ USB3_TX3+
AUGND2 AUGND2

5VSB_ATX
BC129 .1U-16VY-04

DIMM_5VDUAL
BC144 .1U-16VY-04
BC145 .1U-16VY-04
BC146 .1U-16VY-04
BC147 .1U-16VY-04
BC148 .1U-16VY-04
add for 5VDUAL 20140306 Hao

ROM(104)
SPI-ROM-S-64M

SPI

18 SPI_MOSI SPI_MOSI
18 SPI_MISO SPI_MISO
18 SPI_CS_L0 SPI_CSS
18 SPI_CLK SPI_CLK

RN20 33-8P4R-04
SPI_CLK SPI_CLKK
SPI_MOSI SPI_MOS_II
SPI_MISO SPI_MOS_OO

R278 1K-04
R281 10K-04
SPI_DC
SPI_WP_L
3VSB_SPI

3VSB
3VSB_SPI
BC140 .1U-16VY-04
ROM
SPI_CSS SPI_DC
SPI_MOS_OO SPI_CLKK
SPI_WP_L SPI_MOS_II
SPI-8P-BK
SMD TYPE socket: 11-127-008120

SPI_CSS R285 0-04-O SPI_CS_L
P/R: 上header + jumper SPI_DEBUG(1-3)
MP: 上0ohm in R285

SPI_DEBUG
SPI_CSS SPI_DC
SPI_CS_L SPI_CLKK
SPI_MOS_OO SPI_MOS_II
SPI_WP_L
3VSB
H5X2-BK-P2E-P1.27
10-342-010211

SPI_DEBUG(1-3)
JP-P1.27
Jumper : 10-611-002144

Elitegroup Computer Systems

Title: F_USB / SPI
Size: Custom
Document Number: H81H3-MV
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External Connection

VDIMM, 5VSB_ATX, 3VSB_IO, VCC, 5VSB, VCC3, VBAT_IO, VCORE

5 H_SKTOCC_L — SKTOCC_L
5 SIO_PECI — PECI
13 3VSBSW_L — ATX_PSON_L
28 ATX_PSON_L — ATX_PSON_L
28 ATX_PWRGD — ATX_PWRGD
28 FP_PWRBTN — FP_BTN_L
28 G_LED1 — G_LED1
28 G_LED2 — G_LED2

21 PCIRST2_L — PCIRST2_L
15 PCH_PLTRST — PLTRST_L
16 SIO_33M — SIO_33M
16 SIO_48M — SIO_48M
16 LPC_33M — LPC_33M
17 KBRST_L — KBRST_L
17 A20GATE — A20GATE
17 SERIRQ — SERIRQ
18 RSMRST_L — RSMRST_L
4,17,18 PCH_PWROK — PWROK
18 LPC_PME_L — LPCPME_L
18 LPC_FRAME — LFRAME_L
18 LPC_LAD[0..3] — L_AD[0..3]
18 SIO_PWRON_L — PWRON_L
18 PCH_RI_L — RI_L
18 SML1CLK — SML1CLK
18 SML1DATA — SML1DATA
5,13,18 SLP_S3_L — SLP3_L
13,18 SLP_S4_L — SLP4_L

25 PCIRST1_L — PCIRST1_L

28 CFAN_TAC1 — CFAN_TAC
28 CFAN_PWM1 — CFAN_PWM

28 SFAN_TAC2 — SFAN_TAC
28 SFAN_PWM2 — SFAN_PWM

COM Header

COM1 (H5X2-P10E): NDCD, NTXD, NRTS, NRI, NRXD, NDTR, NDSR, NCTS

Del 排容

R67 3.3K-04 (NRI); R69 2.2K-04; QN5 2N3904-S (RI_L)

130328 vendor suggest預留

RN9 10K-8P4R-04-O: -DTR, TXD, -RTS → VCC3

U2 ST75185CT-S: +12V, -12V, VCC BC60 .1U-16VX7-04

NDSR, NRXD, NDCD, NRTS, NTXD, NRI, NDTR, NCTS ↔ -DSR, RXD, -DCD, -RTS, TXD, -RI, -DTR, -CTS

SYSTEM THERMAL

HM_AGND; RT1 NTC-10K-1-04; TMP_SYS; IO_VREF; ER31 10K-1-04; BC68 .1U-16VY-04

Voltage Monitor

RN10 10K-8P4R-04: HM_VIN0 → VCORE, HM_VIN1 → VDIMM, HM_VIN2 → +12V, HM_VIN3 → VCC, HM_VIN4 → VCC3

ER25 2K-04 HM_AGND; ER26 15K-1-04; ER29 1.3K-1-04; ER30 2K-1-04 HM_AGND

* HM_VIN0 for VCORE
* HM_VIN1 for V_DIMM
* HM_VIN4 for VCC3
* HM_VIN2 for +12V
* HM_VIN3 for VCC

PS2

130326 for H81H3-M4 EMI only, 130325 EMI, 可改為預留

USBVCC2 — FB5 FB120P-06 — V_PS; BC18 1U-16VX7-04; RN3 2.2K-8P4R-04

KDATA, KCLK, MDATA, MCLK → PSKBM1 PS2-KB-MS: KBDATA, NC1, GND, VCC, KBCLK, NC2, HOLE, HOLE, HOLE, MSDATA, NC3, GND, VCC, MSCLK, NC4, HOLE, HOLE

BC33 180P-50VX7-04; BC30 180P-50VX7-04; BC32 180P-50VX7-04; BC31 180P-50VX7-04

130325 EMI, 可改為預留

VCC3 — MC16 1U-6.3VX-04 CLOSE TO PIN53

VCC3 — R68 330-04

SML1DATA, SML1CLK, -RTS, -DSR, TXD, RXD, -DTR, -DCD, -RI, -CTS

HM_VIN0, HM_VIN1, HM_VIN2, HM_VIN3

SIO IT8772E-FX

64-LQFP

FAN_TAC2/GP52, FAN_CTL2/GP51, FAN_TAC3/GP37, FAN_CTL3/GP36, 5VSB_CTL#, ATXPG/GP30, DPWOK/CPU_PG/GP23, GP22, SUSACK#/PWRGD1, PCIRST1#/GP12, 3VSB, VCORE, LRESET#, SERIRQ, LFRAME#, LAD0

CTS1#/GP31, RI1#/GP32, DCD1#/GP33, DTR1#/JP4, SIN1/GP41, SOUT1/JP3, DSR1#/GP45, RTS1#/JP2, CFANMON#/GP44, CFANPWM/GP47, VLDT_EN/PCH_DPRSLP/GP55, GNDD, AVCC3, VIN0/VCORE(0.8V), VIN1/VDIMM_STR(1.5V), VIN2/VDIMM(+12V_SEN), VIN3(+5V_SEN)

5VDUAL/5VLDT_12/VIN4, VREF, TMPIN1, TMPIN2, GNDA/TSD, RSMRST#/CIRRX1/GP55, PCIRST3#/GP10, MCLK/GP56, MDAT/GP57, KCLK/GP60, KDAT/GP61, 3VSBSW#/GP40/SCL0, PWRGD3/SDA0, SUSC#/GP53, PSON#/GP42, PWRSWH#/GP43

LAD1, LAD2, LAD3, KRST#/GP62, GA20, PCICLK, GPOS0/JP1, CLKRUN#/SST/AMDTSI_D/CORE_EN/PCH_CFANMON#, PECI/AMDTSI_C, SYS_3VSB, COPEN#, VBAT, SUSB#, PWRON#/GP54/JP5, PME#/GP50

HM_VIN4, IO_VREF, TMP_SYS, HM_AGND, RSMRST_L, PCIRST2_L, MCLK, MDATA, KCLK, KDAT, 3VSBSW_L, PWROK, SLP4_L, ATX_PSON_L, FP_BTN_L

MC17 1U-6.3VX-04-O; FB13 0-06-SH

CFAN_TAC, CFAN_PWM, SFAN_TAC, SFAN_PWM, 5VSB_CTRL, ATX_PWRGD, G_LED2, G_LED1, PWRGD_30MS, PCIRST1_L, IO_VCORE, PLTRST_L, SERIRQ, LFRAME_L, L_AD0

TP2; 3VSB_IO

CLOSE TO PIN11

3VSB_IO — MC19 1U-6.3VX-04; BC69 .1U-16VX7-04

BC72 .1U-16VX7-04 IO_VCORE

LDC H5X2-BK-P10E-P2.0 → VCC3: L_AD3, L_AD2, L_AD1, L_AD0, LFRAME_L, PCIRST1_L, LPC_33M

L_AD1, L_AD2, L_AD3, KBRST_L, A20GATE, SIO_33M, IO_JP1, SIO_48M

LPCPME_L, PWRON_L, SLP3_L, COPEN_L, SYS_3VSB, PECI

VBAT_IO

RN12 10K-8P4R-04: PCIRST2_L, ATX_PSON_L, FP_BTN_L, LPCPME_L → VCC3, 5VSB_ATX, 3VSB

3VSB_IO — R93 1K-04 IO_JP1

130325 for EMI, 請改為預留

BC79 22P-04 SIO_33M; BC81 22P-04 SIO_48M; BC80 10P-04-O PECI

130312 for H81H3-M4 only

VCC3 — R83 1K-04 PWROK

PWROK — MN1 2N7002-S — 5VSB; R89 10K-04; SKTOCC_L

COPEN_L, SYS_3VSB, RSMRST_L → VBAT_IO / 3VSB

VBAT_IO — MC22 1U-6.3VX-04; SYS_3VSB — MC23 1U-6.3VX-04

130328 vendor suggest預留

ErP

5VSB_ATX — ER50 150-1-04 — Rt; QN8 2N3904-S; ER42 620-1-04 — Rb → 3VSB_IO

4.097V
Origin: Rt:127, Rb: 510, 4.00V
Vo=Vin*Rb/(Rt+Rb)-0.7
3VSB IO Max=25mA

5VSB_ATX — R264 4.7K-04; MC39 2.2U-6.3VX-06; 5VSB_CTRL; R261 30K-1-04; 5VSBCTRL; MP1 APM2315AC → 5VSB

3VSB_IO, 5VSB_ATX — R107 0-08-O → 3VSB; R262 0-08-O → 5VSB

130328 for non-ErP

IT8772 Power-On Strapping Options

	Symbol	Value	Description
JP1	DSW_EUP_SEL	1	EUP(default)
Pin-23		0	DSW
JP2	WDT_EN	1	Disable WDT to reset PWROK(default)
Pin-57		0	Enable WDT to reset PWROK
JP3	FAN_CTL_SEL	1	EC Index 6Bh/73h default = 80h
Pin-59		0	EC Index 6Bh/73h default = 00h
JP4	K8PWR_EN	1	Disable K8 Power Sequence(default)
Pin-61		0	Enable K8 Power Sequence
JP8	RSMRST_SEL	1	RSMRST# output detected by 3VSB
Pin-31		0	RSMRST# output detected by SYS_3VSB

Elitegroup Computer Systems

Title: SIO-IT8772

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External Connection

3VSB, VCC3, AUGND2

18,21 PCIE_WAKE_L / 24 PCIRST1_L — LAN1_WAKE_UP-

16 CK_PE_100M_LAN_H — CLK_LAN1_H

16 CK_PE_100M_LAN_L — CLK_LAN1_L

15 LAN_TX_P — LAN1_HSIP

15 LAN_TX_N — LAN1_HSIN

15 LAN_RX_P — LAN1_HSOP

15 LAN_RX_N — LAN1_HSON

Change USBVCC2 To USBVCC
Devon 1115

15 USB_P2 — L1_USB_1+

15 USB_N2 — L1_USB_1-

15 USB_P3 — L1_USB_2+

15 USB_N3 — L1_USB_2-

Cf

C38 .1U-16VY-04 — 3VSB

ESD14 (ESD-6P): MDI1_P2 — MDI1_N2; MDI1_P3 — MDI1_N3

C29 .1U-16VY-04 — AUGND2 — USBVCC2

ESD12 (ESD-6P): L1_USB_P1 — L1_USB_N1; L1_USB_P2 — L1_USB_N2

Update LAN+USB2.0 20130516 Amos

Ch

AVDDREG1 MC6 10U-6.3VX-06-O — Closed To Pin 23

VDD1.0_A MC7 10U-6.3VX-06-O — Closed To The Pin 9

L1_USB_2- L1_USB_N2
L1_USB_2+ L1_USB_P2
L1_USB_1+ L1_USB_P1
L1_USB_1- L1_USB_N1

3VSB, VDD1.0_A

R28 1M-04-O — L_XTAL2 / L_XTAL1

X-25M X1 — C26 27P-04 — C25 27P-04 — SWAP

R23 2.49K-1-04 — LAN1_RSET

LAN1_ACTIVE- R30 330-04 — ACTIVE1

LED1/GPO — R29 330-04 — LINK1

TP1

Cg

For SNR Over 75%

BC14 .1U-16VY-04

L1 IND-4.7U-S-O; R21 0-06; FB1 0-06

VDD1.0_A, 3VSB

LAN1

GND

AVDD33, RSET, AVDD10, CKXTAL2, CKXTAL1, LED0, LED1/GPO, LED2(LED1)

MDI1_P0 / MDI1_N0 / MDI1_P1 / MDI1_N1 / MDI1_P2 / MDI1_N2

MDIP0, MDIN0, AVDD10(NC), MDIP1, MDIN1, MDIP2(NC), MDIN2(NC), AVDD10_1

REALTEK

REGOUT(NC), VDDREG(VDD33), DVDD10(NC), LANWAKEB, ISOLATEB, PERSTB, HSON, HSOP

REGOUT, AVDDREG1, LAN1_WAKE_UP-, ISOLATEB, LAN1_RST-, HSON, HSOP

R15 1K-04; R16 15K-04-O; C8 .1U-16VX-04 — LAN1_HSON; C7 .1U-16VX-04 — LAN1_HSOP

VCC3

Add R40
Devon 03/01

BC46 .1U-16VY-04-O — ACTIVE1

BC44 .1U-16VY-04-O — LINK1

FOR EMI

MDIP3(NC), MDIN3(NC), AVDD33(NC), CLKREQB, HSIP, HSIN, REFCLK_P, REFCLK_N

MDI1_P3 / MDI1_N3

CLK_LAN1_L / CLK_LAN1_H

LAN1_HSIN / LAN1_HSIP

3VSB, VCC3

R12 10K-04

8106E : NC PIN - 3,6,7,9,10,11,22,24

Ca

RTL8111G-CG

01-267-111367

Add USB3LAN connector
Devon 1019

Update LAN+USB2.0 20130516 Amos

For USB2.0

USBVCC2

USBLAN

VCC, -DATA1, +DATA1, GND, H_USB3, H_USB4, -DATA0, +DATA0, GND, H_USB1, H_USB2

L1_USB_N1 — L1_USB_N2

L1_USB_P1 — L1_USB_P2

AUGND2, 3VSB

L_TCT, MDI1_P0, MDI1_N0, MDI1_P1, MDI1_N1, MDI1_P2, MDI1_N2, MDI1_P3, MDI1_N3, L_RCT

TCT(P01), TX1+, TX1-, TX2+, TX2-, TX3+, TX3-, TX4+, TX4-, RCT(P10)

GLED(P11), OLED(P12), YLED(P13), VCC(P14), H_LAN1, H_LAN2, H_LAN3, H_LAN4

LINK1, ACTIVE1

USBX2-LAN-1000

Cd

BC45 .1U-16VY-04-O — R52 0-04-O

Ce

BC47 0-04

Cc

Link: Green on
Active: Yellow blinking

Update chock size from 0603 to 0402
20130520 Amos

C37 .1U-16VY-04 — 3VSB

ESD13 (ESD-6P): MDI1_P0 — MDI1_N0; MDI1_P1 — MDI1_N1

VDD1.0_A

Closed To Pin 3, 8, 22, 24, 30

BC12, BC3, BC11, BC9, BC2 .1U-16VY-04

C22 1U-6.3VX-04

1U Close To Pin 22

3VSB

Closed To PIN 11, 23, 32

BC1, BC13, BC4 .1U-16VY-04

MC4 10U-6.3VX-06

MC13 4.7U-6.3VX-06-O

Update 20130603 Amos

AUGND2 — FB4 0-04-SH

AUGND2 — FB2 0-04-SH

BOM Difference

	RTL8111GS-CG (SWR mode) 1000M	RTL8111G-CG (LDO mode) 1000M	RTL8106E-CG (LDO mode) 10/100M
Ca	RTL8111GS	RTL8111G	RTL8106E
Cb	None	None	None
Cc	USBX2-LAN-1000	USBX2-LAN-1000	USBX2-LAN-100
Cd	X	X	V
Ce	0-04	0-04	.01U-25VX-04
Cf	V	V	X
Cg	L	R	X
Ch	V	X	X

DEFAULT

Elitegroup Computer Systems

Title: PCIE LAN - RTL111G(S) / 8106E

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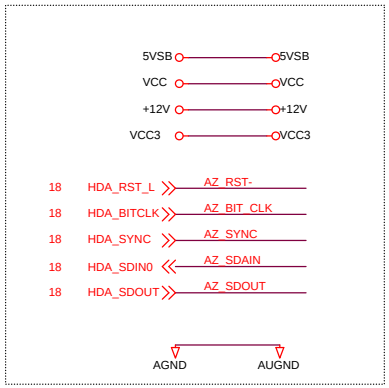
External Connection



* VCC1.5 can remove for non-Intel G4X plateform

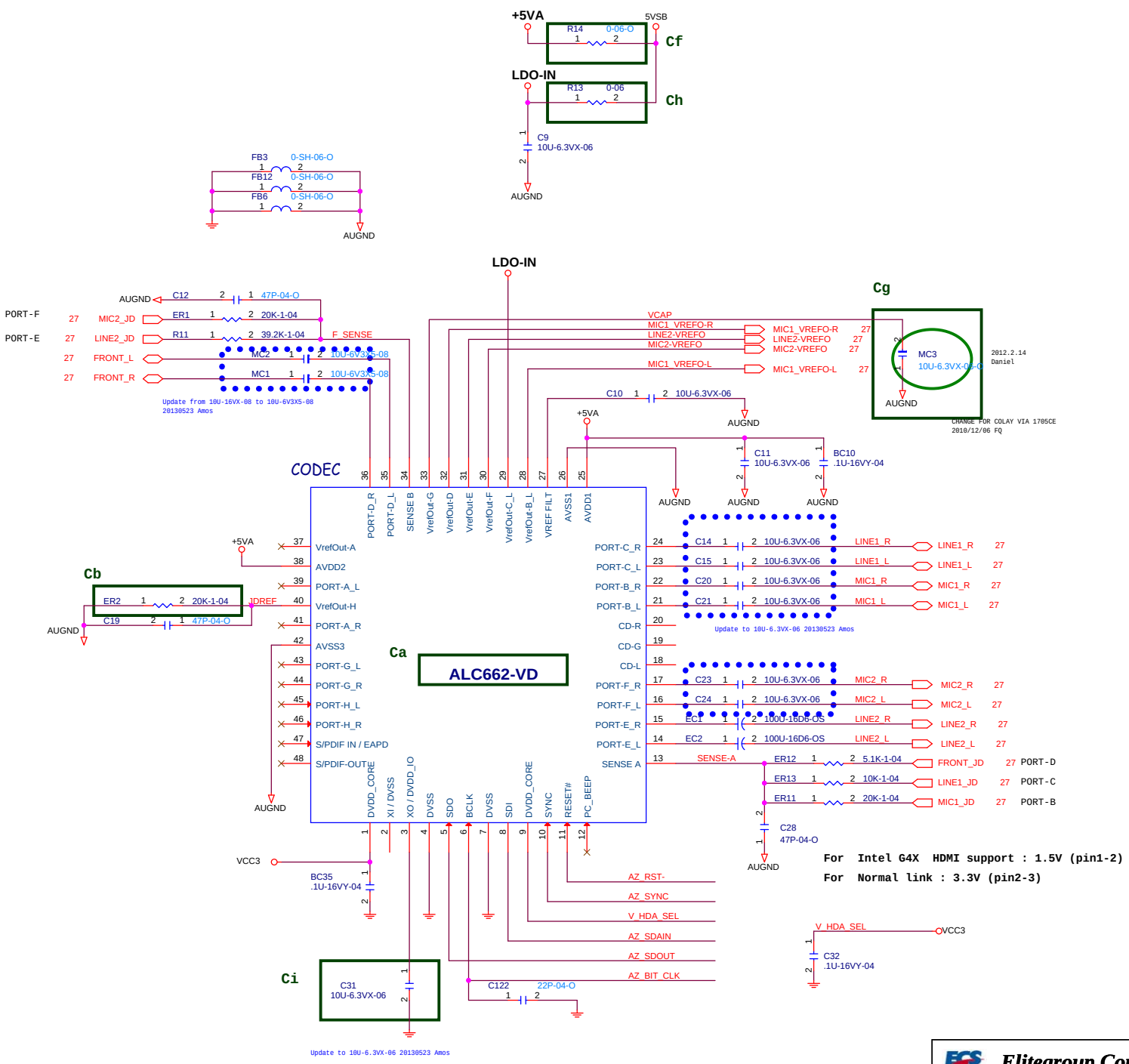
Pin Difference

Pin	ALC662 VD	VT1705CE
3	REG VREF	GPIO1
4	GPIO1	DVSS
25	LDO OUTPUT	LDO VIN
29	LDO VIN	OPTION CAP
33	LINE1 VREF	LDO OUTPUT
37	FRONT VREF ?	NC
38	LDO OUTPUT	LDO VIN
45	DMIC DATA	NC
46	DMIC CLK	NC

BOM Difference

Location	ALC662 VD	VT1705CE
Ca	ALC662-VD0-GR	VT1705CE
Cb	20K-1-04	5.1K-1-04
Cc	V	X
Cd	2.2K-04	3.3K-04
Ce	75-04	16-04
Cf	X	V
Cg	X	V
Ch	V	X
Ci	V	X

When you change BOM, remember change GPI to inform BIOS use different Verb-Table.



Change ALC892 to ALC662.
Devon 20121016

Elitegroup Computer Systems

Title: ALC662(CHIP)

Size: Custom | Document Number: H81H3-MV | Rev: 1.0

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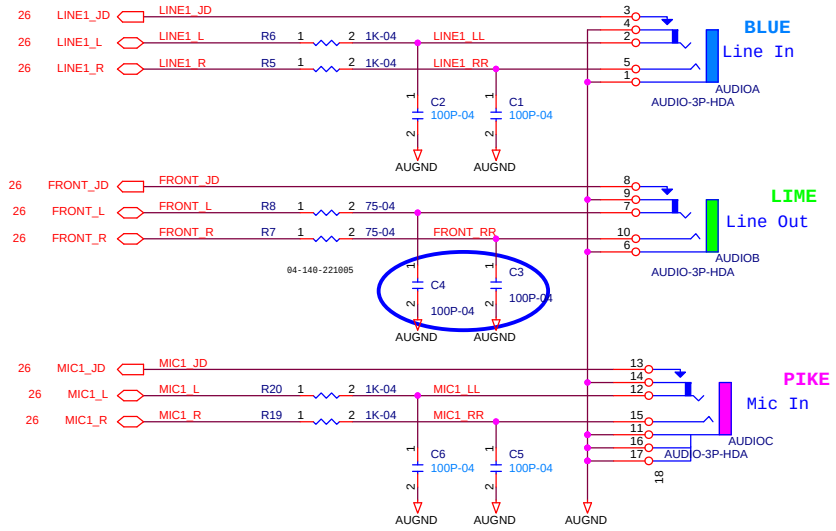
External Connection

18 FP_AUD_DETECT <<— FP_AUD_DETECT

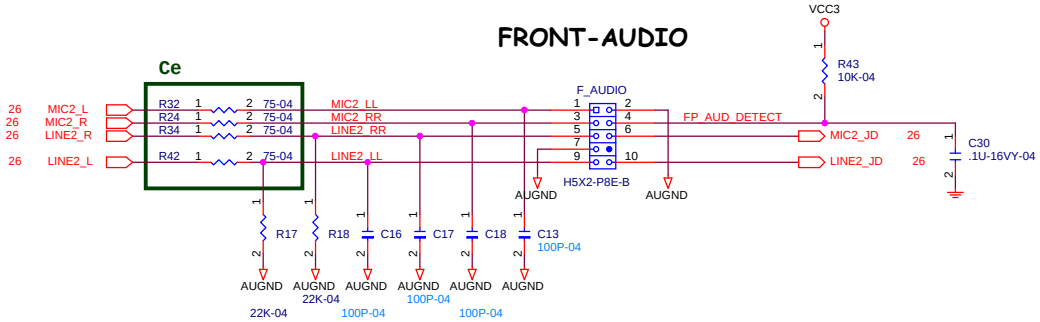
* HDPANEL_DETECT connect to SIO or SB GPIO for AC97 Panel support

REAR-AUDIO

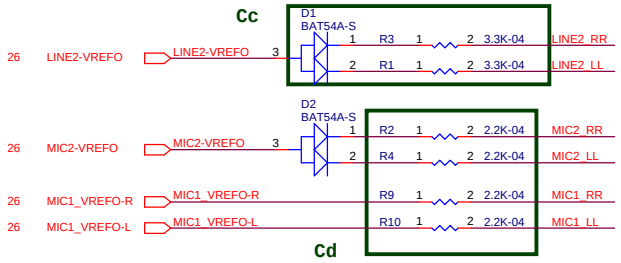
Non re-tasking for rear panel

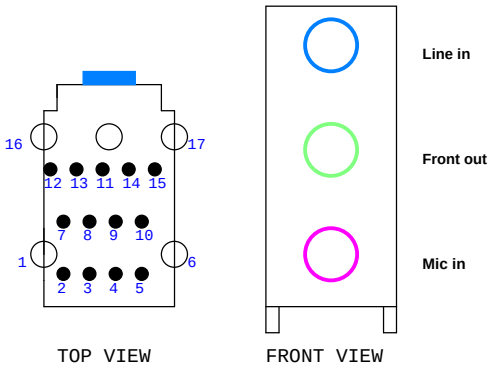


FRONT-AUDIO



MIC Bias





Elitegroup Computer Systems	
Title	ALC662(CHIP)
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External Connection

17 SATALED_L — SATA_LED1-
5,18 FP_RST_L — HWRST_L
24 FP_PWRBTN_L — -PWRBTN
24 G_LED1 — G_LED1
24 G_LED2 — G_LED2
18 PCH_SPKR — PCH_SPKR

F_PANEL: +HDLED, +HPSLED, RST, PWR; pins 1 2 3 4 5 6 7 8 9

FRONT PANEL

DIMM_5VDUAL, RN11 470-8P4R-04
VCC3: R88 8.2K-04; VCC: R73 330-04
HDD_LED, SATA_LED1-, HWRST_L, PWRBTN, G_LED1X, G_LED2X, -PWRBTN
R85 100-04; R82 100-04
MC21 1U-6.3VX-04; MC20 1U-6.3VX-04
F_PANEL: H5X2-P10E-B

5VSB: R72 4.7K-04, G_LED1; QN6 2N3904-S; G_LED1X
5VSB: R75 4.7K-04, G_LED2; QN7 2N3904-S; G_LED2X

	S0	S1	S3	S4	S5
G_LED1	L	B	B	L	L
G_LED2	H	H	L	L	L
	G	GB	YB	OFF	OFF

B:Blinking

PCH_SPKR: R194 1K-04; QN14 2N3904-S
R193 100-04; SPKOUT; BZ; H4X1-P2E-B
BC126 .1U-16VY-04

5VSB: BC61 .1U-16VY-04-O
+12V: BC134 .1U-16VY-04-O
5VSB_ATX: BC133 .1U-16VY-04-O
VCC: BC131 .1U-16VY-04-O
VCC3: BC130 .1U-16VY-04-O

POWER CONNECTOR

External Connection

ATX_5VSB — 5VSB_ATX
VCC3 — VCC3
-12V — -12V
5VSB — 5VSB
VCC — VCC
+12V — +12V
DIMM_5VDUAL — DIMM_5VDUAL
24 ATX_PSON_L — -ATX_PSON_SIO
24 ATX_PWRGD — ATX_PWRGD

-12V, VCC, VCC3, VCC3, VCC+12V, 5VSB_ATX
-ATX_PSON_SIO
ATX_POWER: ATX-PW-24P2R
3.3V, -12V, GND, PS_ON, GND, GND, -5V, +5V, +5V, GND, 3.3V, 3.3V, -12V, GND, +5V, GND, +5V, GND, PWROK, AUX5V, +12V, +12V, 5VSB
VCC: R263 10K-04; ATX_PWRGD; BC132 .1U-16VY-04

VCC: EC20 560U-6.3D-OS
Change to EC Cap 20130522 Amos

Del PWR_FAN 20130513 Amos

Update SYS FAN to 3 Pin colay 4Pin 20130516 Amos

FAN

Kent 1016

External Connection

+12V — +12V
VCC — VCC
24 CFAN_PWM1 — CFAN_PWM1
24 CFAN_TAC1 — CFAN_TAC1
24 SFAN_TAC2 — SFAN_TAC2
24 SFAN_PWM2 — SFAN_PWM2

+12V, VCC3
CFAN_TAC1, CFAN_PWM1, CFAN_PWM1_R
R185 27K-04; R186 4.7K-04; R188 4.7K-04; R189 100-04; R184 10K-04
D6 1N4148-S
CPU_FAN: GPO, SENSE, +12V, GND; H4X1-P-W
EC17 100U-16D6-OS; MC36 1U-16VX-04-O
Update 20130524 Amos

Top View

+12V: BC59 .1U-16VY-04-O; BC55 .1U-16VY-04-O
DIMM_5VDUAL: BC127 .1U-16VY-04-O; BC128 .1U-16VY-04-O; BC87 .1U-16VY-04-O
reserve bypass C for +12V and DIMM_5VDUAL
Devon 1119

SYS_FAN

Ca
VCC3, +12V
VOUT_SYS, FON2, VSET_SYS
U4: VOUT, VIN, FON#, VSET, NC, NC, GND, NC, G, S
NCT3941S-A-O PN:02-415-941900
MC33 10U-16VX-08-O; MC34 10U-6.3VX-06-O
R172 4.7K-04; R173 100-04

Cb
SFAN_PWM2
R139 10K-04; R133 27K-04; R140 4.7K-04
D4 1N4148-S
SFAN_TAC2

Cc
+12V
R156 0-08
VSET_SYS, SFAN_TAC2R, VOUT_SYS
SYS_FAN: GPO, SENSE, +12V, GND; H4X1-P-W
MC32 10U-16VX-08; BC109 .1U-16VY-04-O

Cd

RJ4 0-04-O(1-2); FON2
VCC3
1-2 VOUT 4 times of VSET voltage
2-3 Fully turn on
=>Internal pull-high

BOM Difference

	SYS_FAN 3PIN	SYS_FAN 4PIN
Ca	V	X
Cb	15k	100
Cc	X	V
Cd	H3X1-P-W	H4X1-P-W

H2 TH8; H3 TH8; H4 TH8; H1 TH8
AUGND; AUGND

Elitegroup Computer Systems

Title: F_PANEL / FAN / PWR CONN
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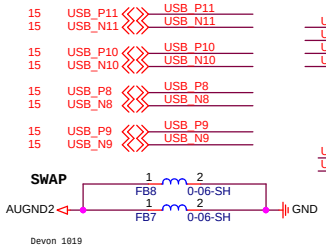
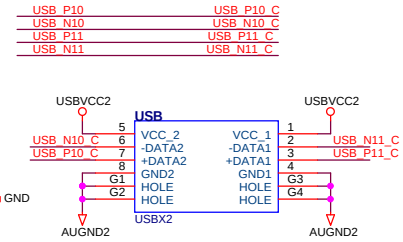
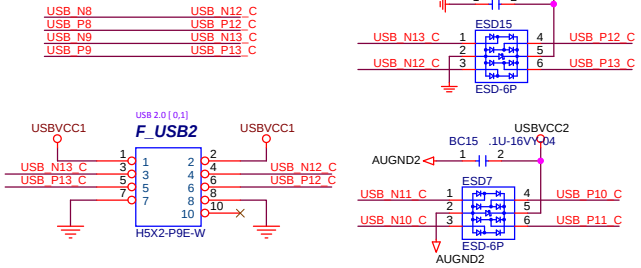
DEL LPT&COM Hao 20131224

Update USB2.0 20130516 Amos

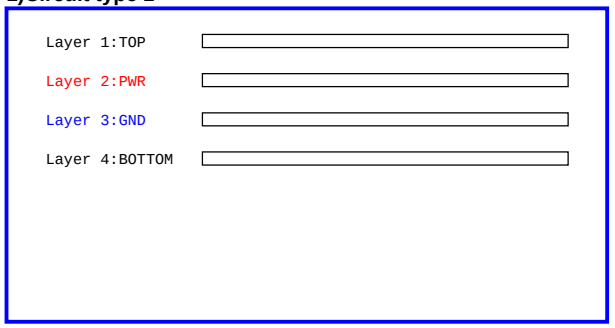
USB & F_USB2



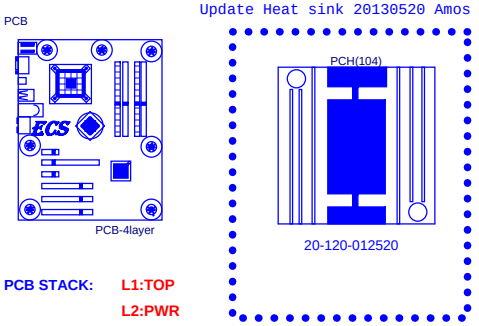




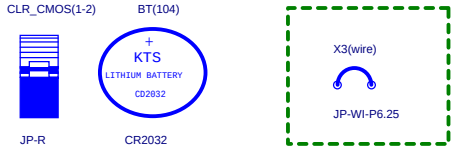
1)Circuit type 1



Update Heat sink 20130520 Amos



PCB STACK: **L1:TOP** **L2:PWR** **L3:GND** **L4:BOTTOM**



Del TPM function 20130513 Amos

Elitegroup Computer Systems

Title	LPT / COM / RUSB / TPM	
Size: Custom	Document Number: H81H3-MV	Rev: 1.0
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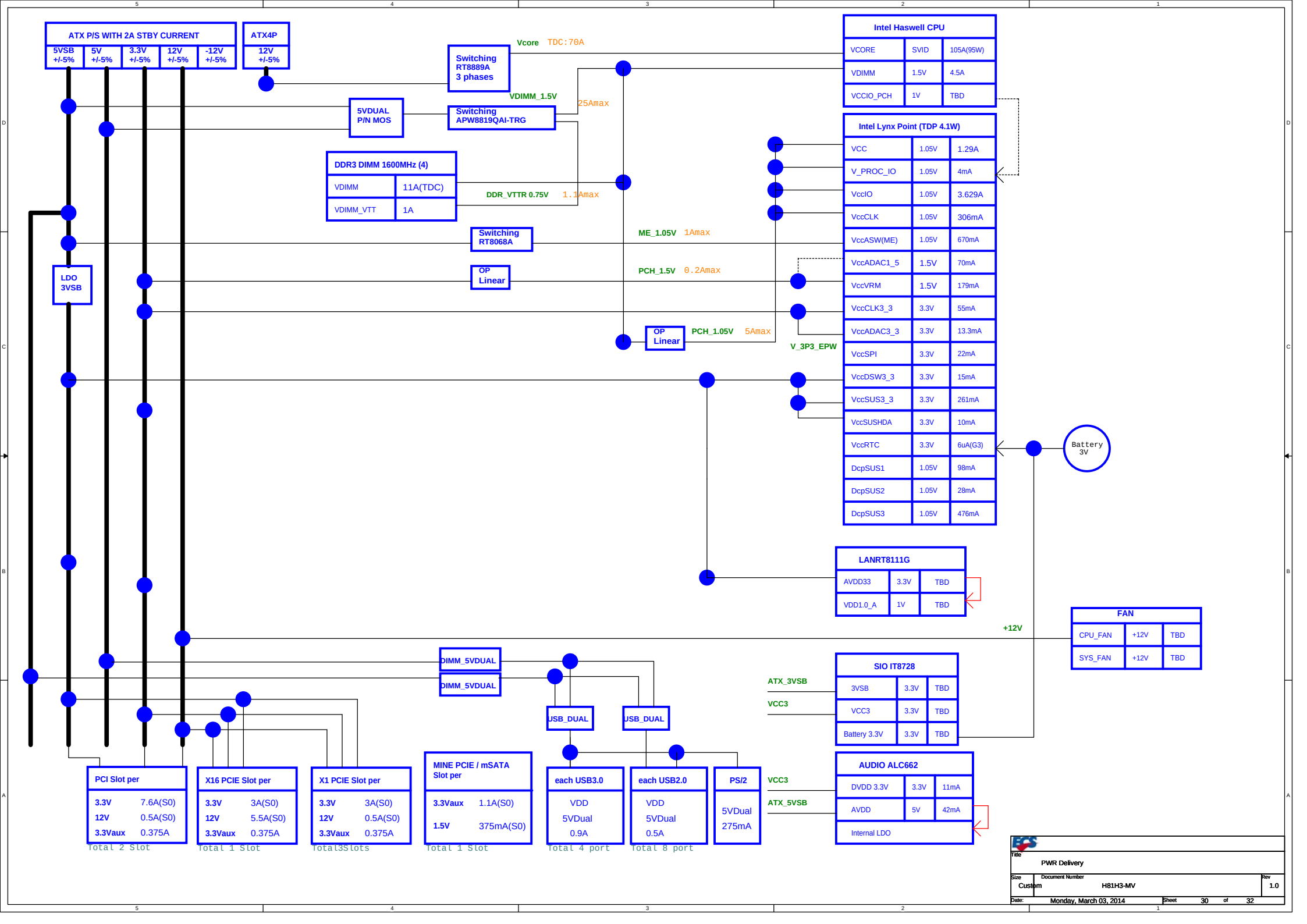
ATX P/S WITH 2A STBY CURRENT
5VSB +/-5%
5V +/-5%
3.3V +/-5%
12V +/-5%
-12V +/-5%
ATX4P
12V +/-5%
Switching RT8889A 3 phases
Vcore TDC:70A
VDIMM_1.5V
25Amax
5VDUAL P/N MOS
Switching APW8819QAI-TRG
DDR3 DIMM 1600MHz (4)
VDIMM 11A(TDC)
VDIMM_VTT 1A
DDR_VTTR 0.75V 1.1Amax
Switching RT8068A
ME_1.05V 1Amax
LDO 3VSB
OP Linear
PCH_1.5V 0.2Amax
OP Linear
PCH_1.05V 5Amax
Intel Haswell CPU
VCORE SVID 105A(95W)
VDIMM 1.5V 4.5A
VCCIO_PCH 1V TBD
Intel Lynx Point (TDP 4.1W)
VCC 1.05V 1.29A
V_PROC_IO 1.05V 4mA
VccIO 1.05V 3.629A
VccCLK 1.05V 306mA
VccASW(ME) 1.05V 670mA
VccADAC1_5 1.5V 70mA
VccVRM 1.5V 179mA
VccCLK3_3 3.3V 55mA
VccADAC3_3 3.3V 13.3mA
V_3P3_EPW
VccSPI 3.3V 22mA
VccDSW3_3 3.3V 15mA
VccSUS3_3 3.3V 261mA
VccSUSHDA 3.3V 10mA
VccRTC 3.3V 6uA(G3)
DcpSUS1 1.05V 98mA
DcpSUS2 1.05V 28mA
DcpSUS3 1.05V 476mA
Battery 3V
LANRT8111G
AVDD33 3.3V TBD
VDD1.0_A 1V TBD
+12V
FAN
CPU_FAN +12V TBD
SYS_FAN +12V TBD
DIMM_5VDUAL
DIMM_5VDUAL
USB_DUAL
USB_DUAL
SIO IT8728
ATX_3VSB
VCC3
3VSB 3.3V TBD
VCC3 3.3V TBD
Battery 3.3V 3.3V TBD
PCI Slot per
3.3V 7.6A(S0)
12V 0.5A(S0)
3.3Vaux 0.375A
Total 2 Slot
X16 PCIE Slot per
3.3V 3A(S0)
12V 5.5A(S0)
3.3Vaux 0.375A
Total 1 Slot
X1 PCIE Slot per
3.3V 3A(S0)
12V 0.5A(S0)
3.3Vaux 0.375A
Total3Slots
MINE PCIE / mSATA Slot per
3.3Vaux 1.1A(S0)
1.5V 375mA(S0)
Total 1 Slot
each USB3.0
VDD 5VDual 0.9A
Total 4 port
each USB2.0
VDD 5VDual 0.5A
Total 8 port
PS/2
5VDual 275mA
VCC3
ATX_5VSB
AUDIO ALC662
DVDD 3.3V 3.3V 11mA
AVDD 5V 42mA
Internal LDO
Title
PWR Delivery
Size Custom
Document Number H81H3-MV
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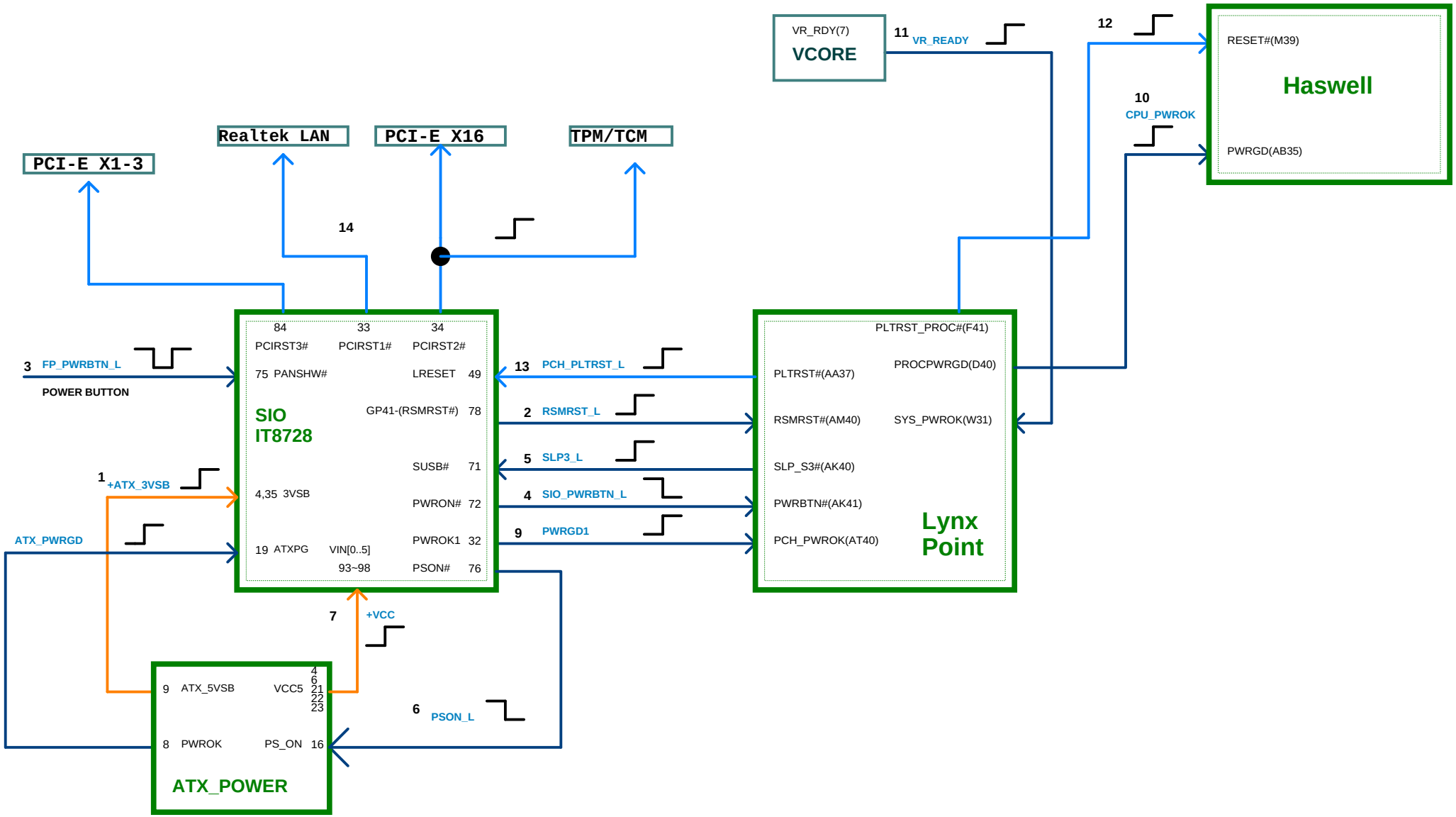

Title	PWR Sequence/RST Diagram		
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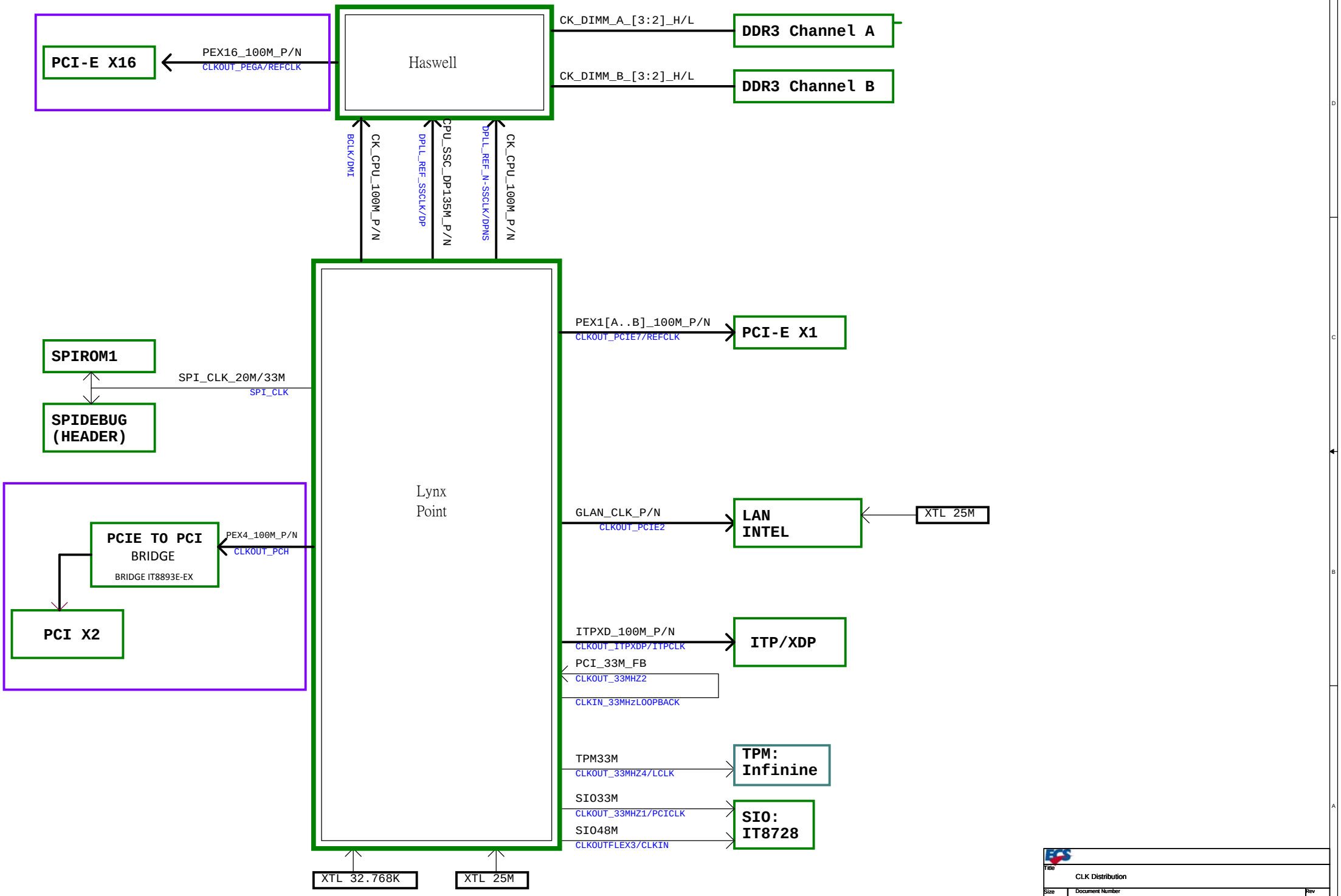

Title	CLK Distribution	
Size: Custom	Document Number: H81H3-MV	Rev: 1.0
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