

Model Name: GA-H81M-D3V-JP JP

SHEET

TITLE

Revision 1.01

SHEET

TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1150-A
05	CPU_LGA1150-B
06	CPU_LGA1150-C
07	DDR III CHANNEL A
08	DDR III CHANNEL B
09	PCH_FDI,DMI,USB,PCIE,NVRAM
10	PCH_DP,CLK BUFFER
11	PCH_HOST,SATA,PCI
12	PCH_GPIO,CTRL,AUDIO
13	PCH_PWR,GND
14	PCI EXPRESS*16 SLOT
15	PCI EXPRESS X1 *3 SLOT
16	PCI SLOT (NA)
17	ITE 8620 LPC IO
18	COM,KB_MS_USB,USB30_20
19	HWM,FAN CTRL,OV
20	DUAL BIOS
21	FP,FUSB,SPK,SATALED
22	Realtek ALC887-VD2
23	REAR AUDIO JACK
24	REALTEK RTL8111F
25	DISCRETE POWER
26	ATX
27	VCORE ISL95812_1

28	VCORE ISL95812_2
29	RT8120_DDR POWER
30	LPT
31	DVI
32	IT8892E (NA)
33	USB3 VL805

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Cover Sheet			
Size	Document Number	GA-H81M-D3V-JP JP	Rev
Custom			1.01
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Model Name:
GA-H81M-D3V-JP JP

Component value change history

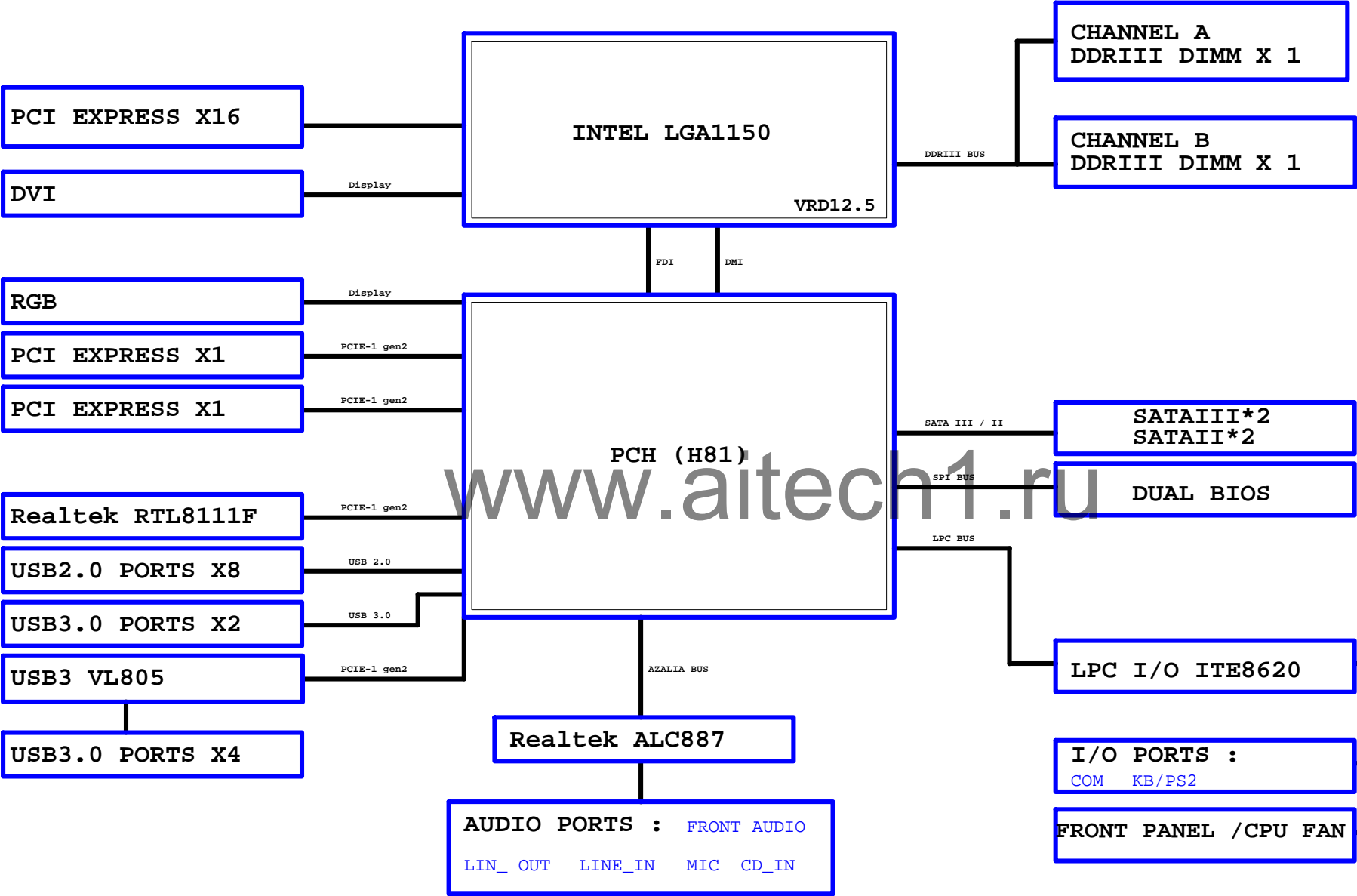
2013/05/17

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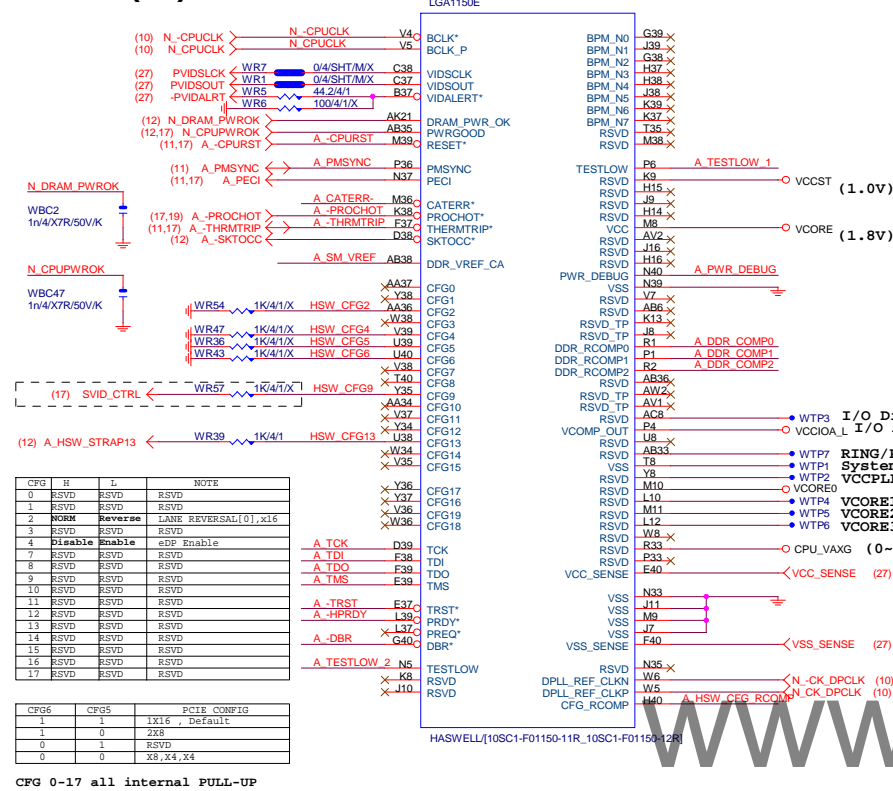
Circuit or PCB layout change

[illegible]

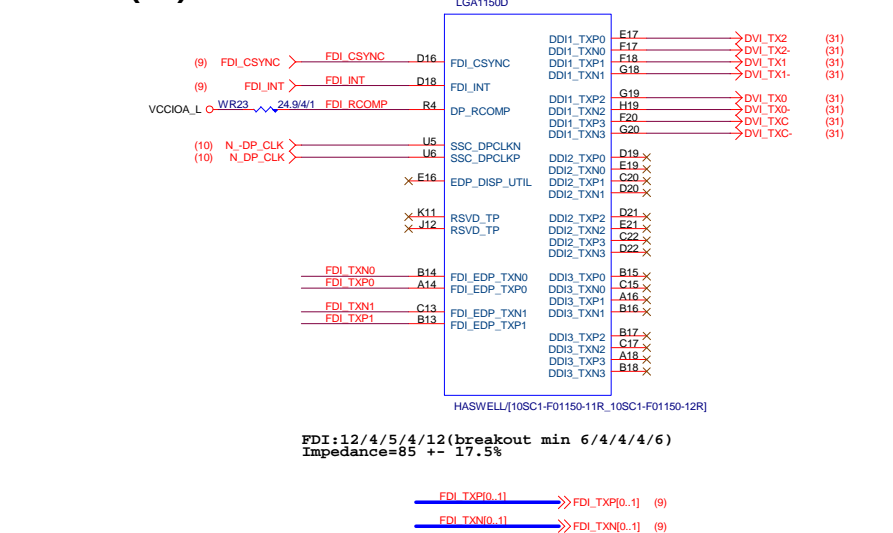
BLOCK DIAGRAM



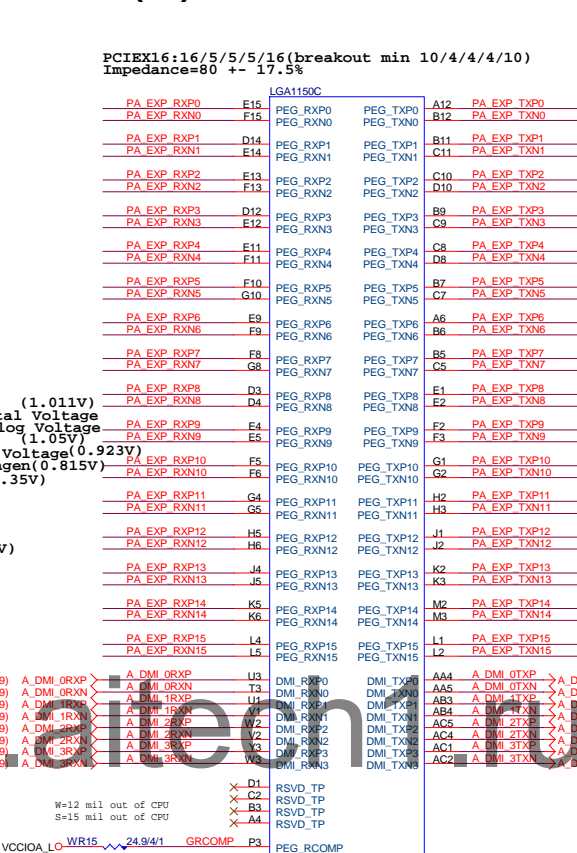
LGA1150 (E)



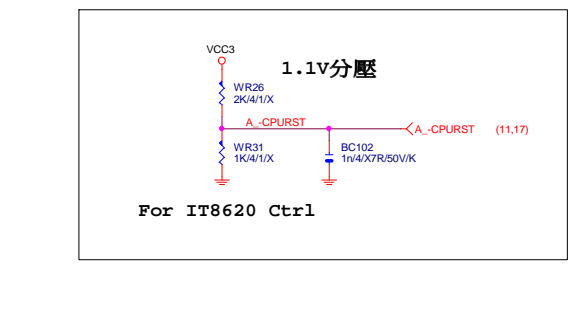
LGA1150 (D)



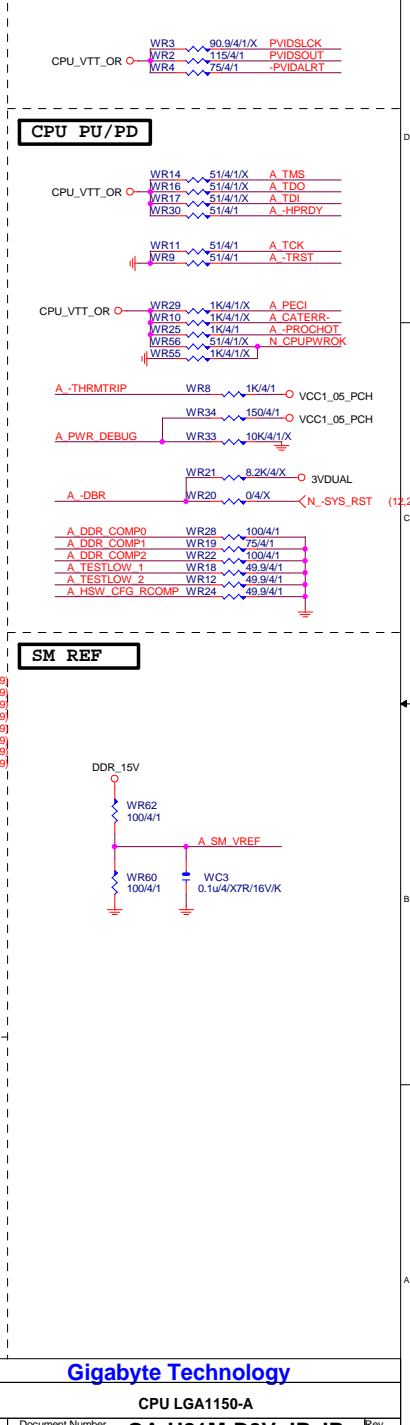
LGA1155 (C)



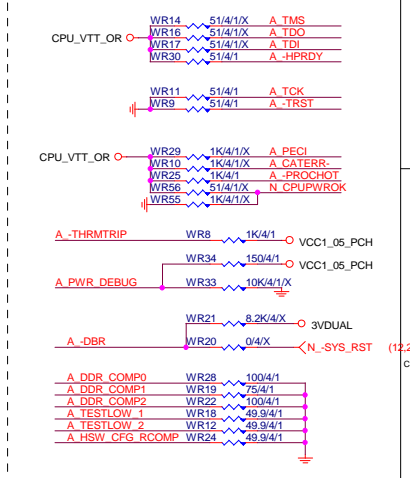
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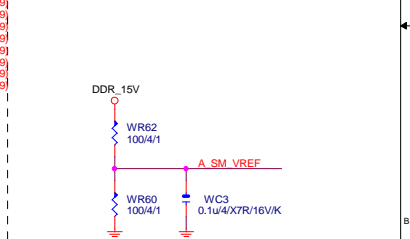
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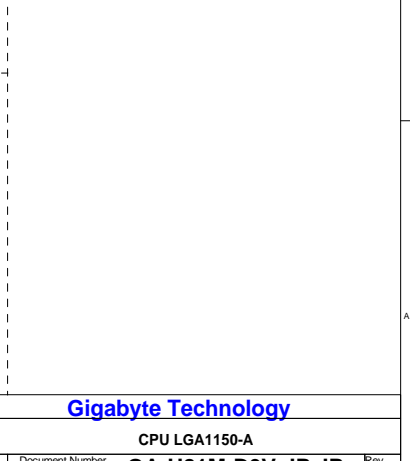
CPU PU/PD



SM REF



DMI:12/4/4/12(breakout min 8/4/4/8)



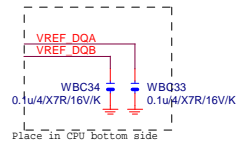
LGA1150 (A)

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MAAA2	AU16	DDR0_MA2	DDR0_D02	AF38	MDA2
MAAA3	AW17	DDR0_MA3	DDR0_D03	AF39	MDA3
MAAA4	AU17	DDR0_MA4	DDR0_D04	AD37	MDA4
MAAA5	AW18	DDR0_MA5	DDR0_D05	AD40	MDA5
MAAA6	AV17	DDR0_MA6	DDR0_D06	AE37	MDA6
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MAAA8	AU18	DDR0_MA8	DDR0_D08	AH40	MDA9
MAAA9	AT19	DDR0_MA9	DDR0_D09	AH39	MDA10
MAAA10	AW11	DDR0_MA10	DDR0_D10	AK38	MDA10
MAAA11	AV19	DDR0_MA11	DDR0_D11	AK39	MDA11
MAAA12	AU19	DDR0_MA12	DDR0_D12	AH37	MDA12
MAAA13	AT20	DDR0_MA13	DDR0_D13	AH38	MDA13
MAAA14	AT20	DDR0_MA14	DDR0_D14	AK37	MDA14
MAAA15	AU21	DDR0_MA15	DDR0_D15	AK40	MDA15
MODT_A0	AW10	DDR0_ODT0	DDR0_D16	AM40	MDA17
MODT_A1	AY8	DDR0_ODT1	DDR0_D17	AM39	MDA21
AW8	AW8	DDR0_ODT2	DDR0_D18	AP38	MDA18
AW8	AW8	DDR0_ODT3	DDR0_D19	AP39	MDA19
AW33	AW33	DDR0_ECC0	DDR0_D20	AM37	MDA20
AW33	AW33	DDR0_ECC1	DDR0_D21	AM38	MDA16
AW33	AW33	DDR0_ECC2	DDR0_D22	AP37	MDA22
AW33	AW33	DDR0_ECC3	DDR0_D23	AP40	MDA23
AW33	AW33	DDR0_ECC4	DDR0_D24	AW37	MDA29
AW33	AW33	DDR0_ECC5	DDR0_D25	AU35	MDA26
AW33	AW33	DDR0_ECC6	DDR0_D26	AU35	MDA27
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AW33	AW33	DDR0_ECC9	DDR0_D29	AT35	MDA30
AW33	AW33	DDR0_ECC10	DDR0_D30	AW35	MDA31
AW33	AW33	DDR0_ECC11	DDR0_D31	AY6	MDA33
AW33	AW33	DDR0_ECC12	DDR0_D32	AU6	MDA37
AW33	AW33	DDR0_ECC13	DDR0_D33	AW6	MDA36
AW33	AW33	DDR0_ECC14	DDR0_D34	AW4	MDA38
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AW33	AW33	DDR0_ECC16	DDR0_D36	AR1	MDA41
AW33	AW33	DDR0_ECC17	DDR0_D37	AR4	MDA45
AW33	AW33	DDR0_ECC18	DDR0_D38	AN3	MDA42
AW33	AW33	DDR0_ECC19	DDR0_D39	AN4	MDA43
AW33	AW33	DDR0_ECC20	DDR0_D40	AR2	MDA44
AW33	AW33	DDR0_ECC21	DDR0_D41	AR3	MDA40
AW33	AW33	DDR0_ECC22	DDR0_D42	AN2	MDA46
AW33	AW33	DDR0_ECC23	DDR0_D43	AN1	MDA47
AW33	AW33	DDR0_ECC24	DDR0_D44	AL1	MDA49
AW33	AW33	DDR0_ECC25	DDR0_D45	AL4	MDA53
AW33	AW33	DDR0_ECC26	DDR0_D46	AL4	MDA50
AW33	AW33	DDR0_ECC27	DDR0_D47	AJ4	MDA51
AW33	AW33	DDR0_ECC28	DDR0_D48	AL2	MDA52
AW33	AW33	DDR0_ECC29	DDR0_D49	AJ2	MDA54
AW33	AW33	DDR0_ECC30	DDR0_D50	AJ1	MDA55
AW33	AW33	DDR0_ECC31	DDR0_D51	AG1	MDA57
AW33	AW33	DDR0_ECC32	DDR0_D52	AG4	MDA61
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AW33	AW33	DDR0_ECC34	DDR0_D54	E4	MDA59
AW33	AW33	DDR0_ECC35	DDR0_D55	AG2	MDA60
AW33	AW33	DDR0_ECC36	DDR0_D56	AG3	MDA56
AW33	AW33	DDR0_ECC37	DDR0_D57	AE2	MDA62
AW33	AW33	DDR0_ECC38	DDR0_D58	AE1	MDA63
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AW33	AW33	DDR0_ECC40	DDR0_D60	AJ39	DQSA1
AW33	AW33	DDR0_ECC41	DDR0_D61	AN39	DQSA2
AW33	AW33	DDR0_ECC42	DDR0_D62	AV36	DQSA3
AW33	AW33	DDR0_ECC43	DDR0_D63	AV5	DQSA4
AW33	AW33	DDR0_ECC44	DDR0_D64	AP3	DQSA5
AW33	AW33	DDR0_ECC45	DDR0_D65	AK3	DQSA6
AW33	AW33	DDR0_ECC46	DDR0_D66	AF3	DQSA7
AW33	AW33	DDR0_ECC47	DDR0_D67	AV32	DQSA8
AW33	AW33	DDR0_ECC48	DDR0_D68	AE38	DQSA0
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AW33	AW33	DDR0_ECC50	DDR0_D70	AN38	DQSA2
AW33	AW33	DDR0_ECC51	DDR0_D71	AJ36	DQSA3
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AW33	AW33	DDR0_ECC55	DDR0_D75	AF2	DQSA7
AW33	AW33	DDR0_ECC56	DDR0_D76	AJ32	DQSA8

HASWELL[10SC1-F01150-11R_10SC1-F01150-12R]

LGA1150 (B)

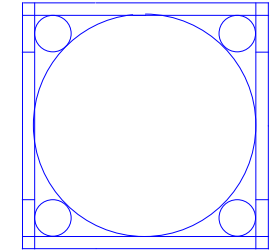
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MAAB3	AM23	DDR1_MA3	DDR1_MA3	AH35	MD83
MAAB4	AP23	DDR1_MA4	DDR1_MA4	AD34	MD84
MAAB5	AL23	DDR1_MA5	DDR1_MA5	AD35	MD85
MAAB6	AY24	DDR1_MA6	DDR1_MA6	AG34	MD86
MAAB7	AY25	DDR1_MA7	DDR1_MA7	AH34	MD87
MAAB8	AU26	DDR1_MA8	DDR1_MA8	AL34	MD88
MAAB9	AW25	DDR1_MA9	DDR1_MA9	AL35	MD89
MAAB10	AP18	DDR1_MA10	DDR1_MA10	AL31	MD810
MAAB11	AY25	DDR1_MA11	DDR1_MA11	AK34	MD811
MAAB12	AY26	DDR1_MA12	DDR1_MA12	AK35	MD812
MAAB13	AR15	DDR1_MA13	DDR1_MA13	AK32	MD813
MAAB14	AV27	DDR1_MA14	DDR1_MA14	AL32	MD814
MAAB15	AY28	DDR1_MA15	DDR1_MA15	AL34	MD817
MODT_B0	AM17	DDR1_ODT0	DDR1_ODT0	AP34	MD821
MODT_B1	AL16	DDR1_ODT1	DDR1_ODT1	AN31	MD819
AM16	AM16	DDR1_ODT2	DDR1_ODT2	AP31	MD823
AK15	AK15	DDR1_ODT3	DDR1_ODT3	AP35	MD820
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AM25	AM25	DDR1_ECC1	DDR1_ECC1	AN32	MD818
AP25	AP25	DDR1_ECC2	DDR1_ECC2	AP32	MD822
AP26	AP26	DDR1_ECC3	DDR1_ECC3	AM29	MD825
AL26	AL26	DDR1_ECC4	DDR1_ECC4	AM28	MD828
AL25	AL25	DDR1_ECC5	DDR1_ECC5	AR29	MD827
AR26	AR26	DDR1_ECC6	DDR1_ECC6	AR28	MD830
AR25	AR25	DDR1_ECC7	DDR1_ECC7	AL28	MD824
AK17	AK17	DDR1_BA0	DDR1_BA0	AP29	MD826
SBAB0	SBAB0	DDR1_BA1	DDR1_BA1	AP28	MD831
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SBAB2	SBAB2	DDR1_BA3	DDR1_BA3	AL12	MD835
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CSB13	CSB13	DDR1_CS_N13	DDR1_CS_N13	AL10	MD849
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CSB18	CSB18	DDR1_CS_N18	DDR1_CS_N18	AE6	MD859
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CSB21	CSB21	DDR1_CS_N21	DDR1_CS_N21	AJ7	MD857
CSB22	CSB22	DDR1_CS_N22	DDR1_CS_N22	AE6	MD858
CSB23	CSB23	DDR1_CS_N23	DDR1_CS_N23	AE7	MD862
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CSB29	CSB29	DDR1_CS_N29	DDR1_CS_N29	AP8	DQSB5
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CSB31	CSB31	DDR1_CS_N31	DDR1_CS_N31	AG7	DQSB7
CSB32	CSB32	DDR1_CS_N32	DDR1_CS_N32	AN25	DQSB8
CSB33	CSB33	DDR1_CS_N33	DDR1_CS_N33	AE34	DQSB9
CSB34	CSB34	DDR1_CS_N34	DDR1_CS_N34	AK33	DQSB1
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CSB36	CSB36	DDR1_CS_N36	DDR1_CS_N36	AN29	DQSB3
CSB37	CSB37	DDR1_CS_N37	DDR1_CS_N37	AN13	DQSB4
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CSB39	CSB39	DDR1_CS_N39	DDR1_CS_N39	AM8	DQSB6
CSB40	CSB40	DDR1_CS_N40	DDR1_CS_N40	AG6	DQSB7
CSB41	CSB41	DDR1_CS_N41	DDR1_CS_N41	AN26	DQSB8
CSB42	CSB42	DDR1_CS_N42	DDR1_CS_N42	AN27	DQSB9



HASWELL[10SC1-F01150-11R_10SC1-F01150-12R]

LGA1150 (CR)

CR
CPU RETENTION/X



LGA1150



ILM_BP/1156/CSP/ILM_BP/1156/CSP/[12KRC-0F0001-52R_12KRC-0F0001-51R]

DDR BUS

(7) MODT_A[0..1]	MODT_A0..1
(8) MODT_B[0..1]	MODT_B0..1
(7) MDA[0..63]	MDA0..63
(8) MDB[0..63]	MDB0..63
(7) DQSA[0..7]	DQSA0..7
(7) DQSA[0..7]	DQSA0..7
(7) MAA[0..15]	MAA0..15
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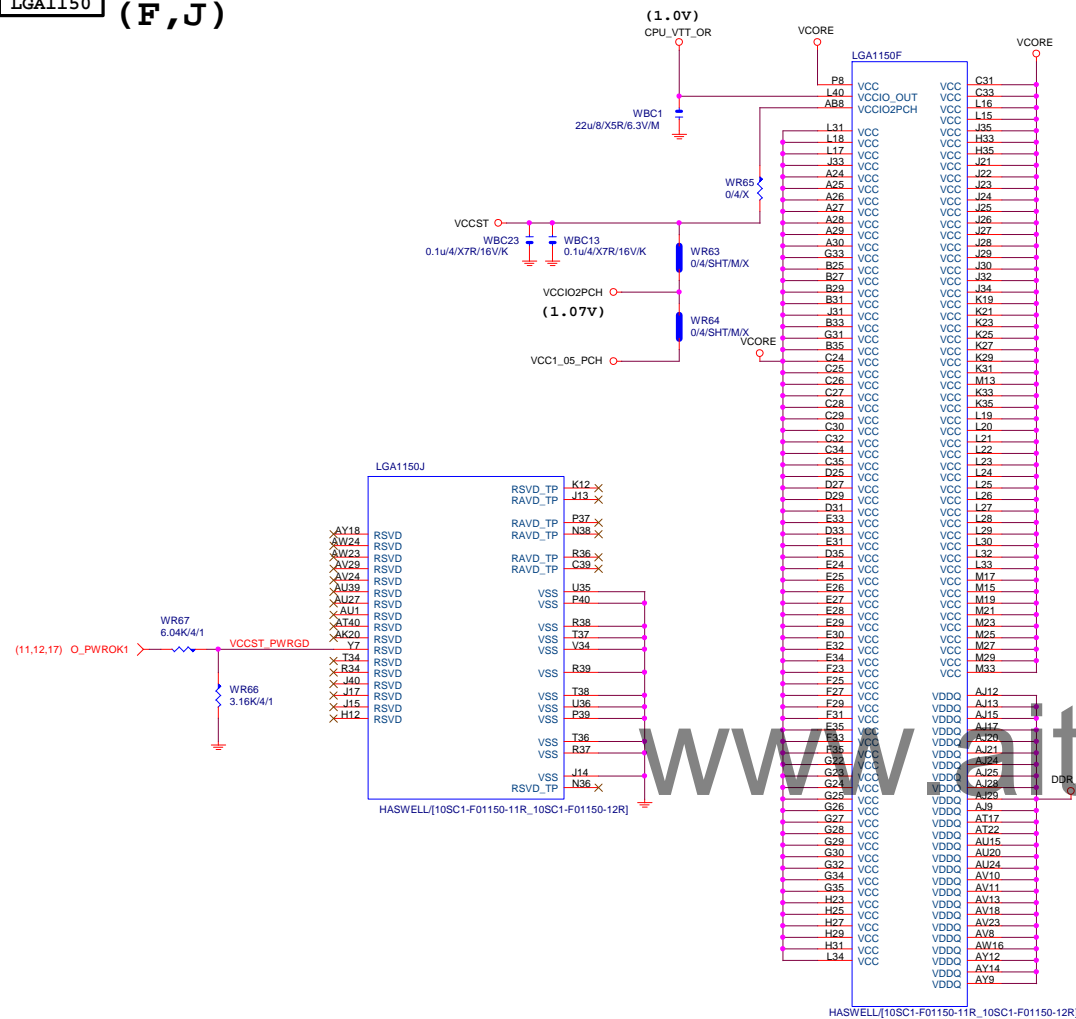
Gigabyte Technology

CPU LGA1150-B

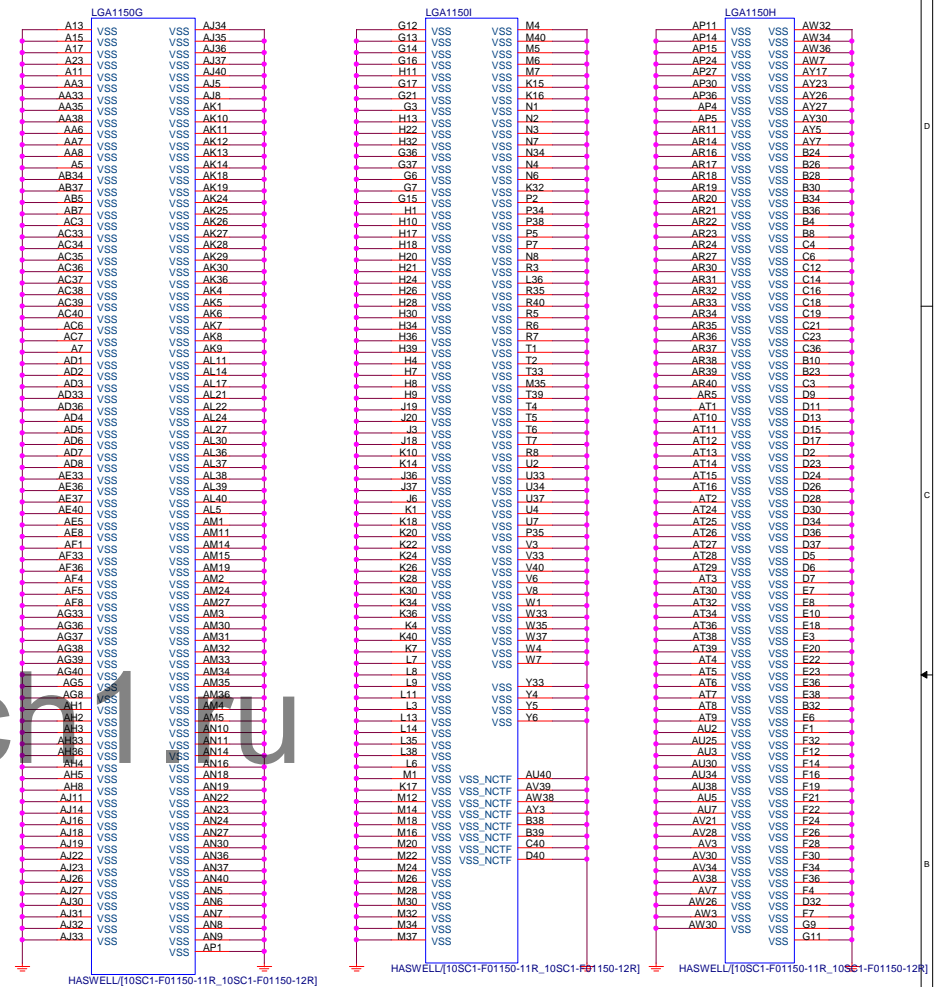
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Custom		

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LGA1150 (F, J)

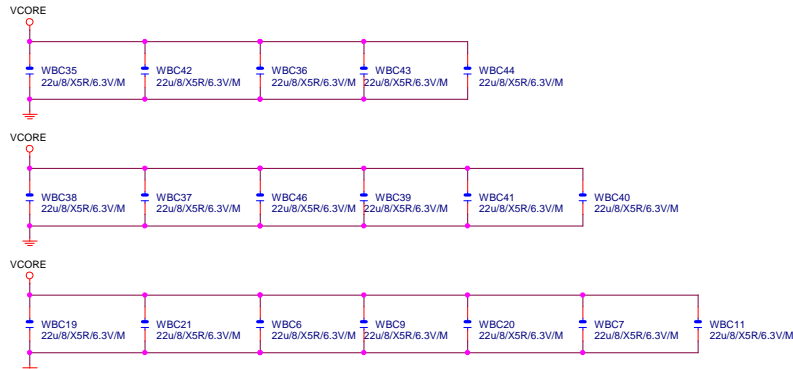


LGA1155 (G,H,I)



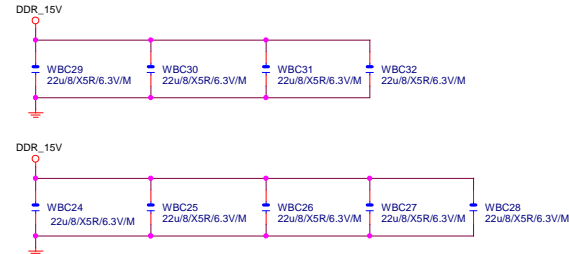
VCore CAP

(X18)



DDR CAP

(x9)

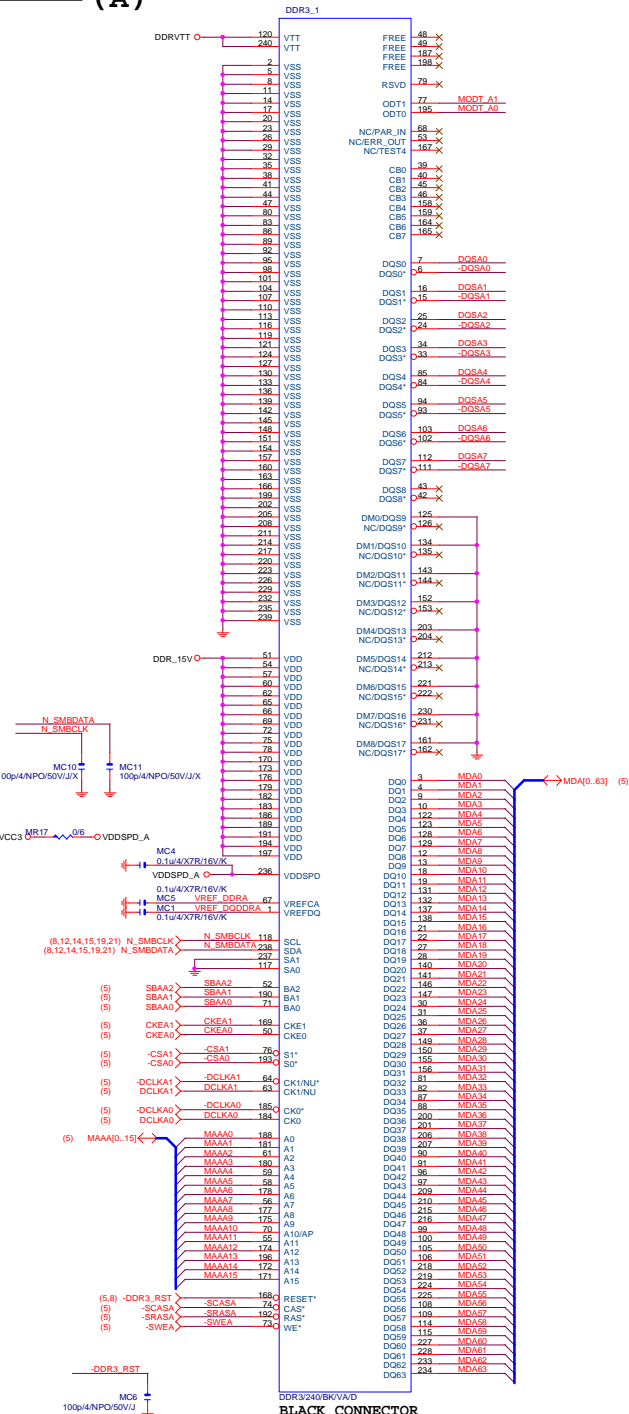


Gigabyte Technology

Title			
CPU LGA1150-C			
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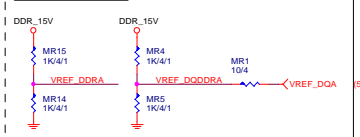
DDR3

(A)

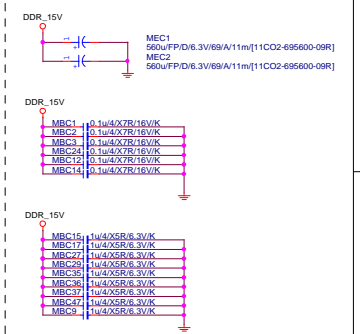


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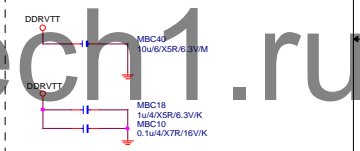
DDR3 VREF



DDR15V Decouple

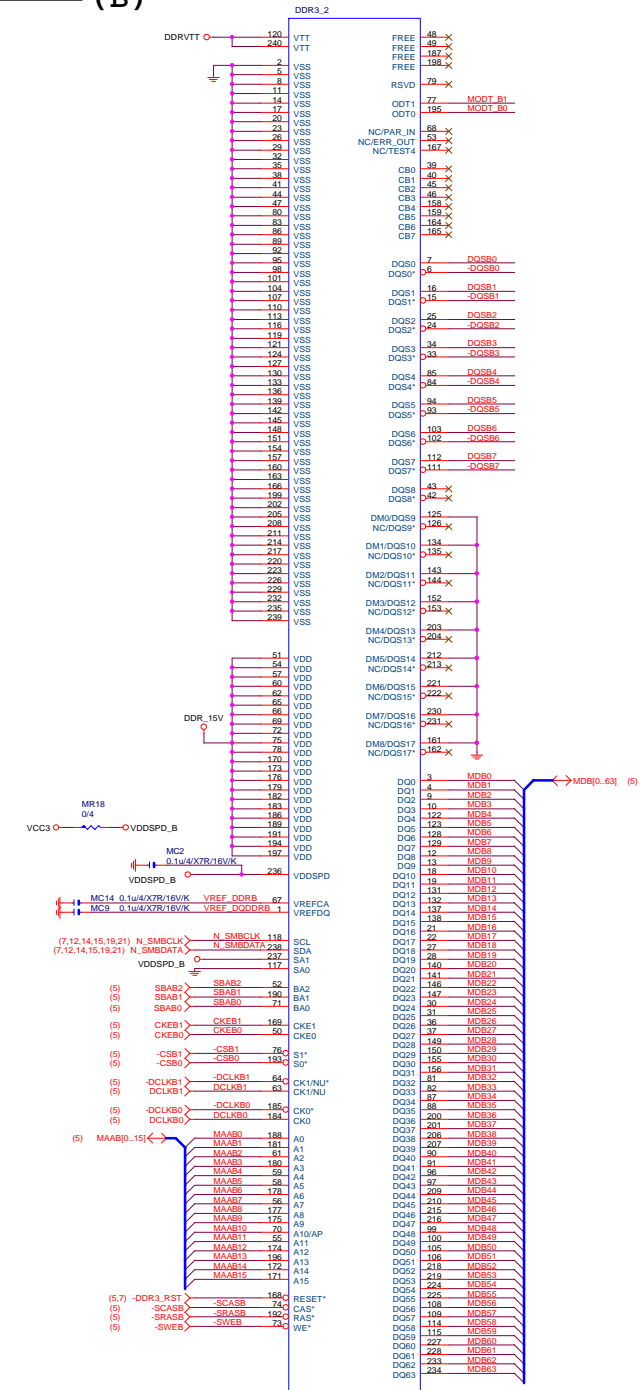


DDRVTT Decouple

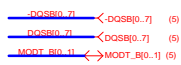


DDR3

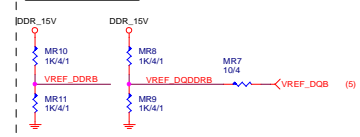
(B)



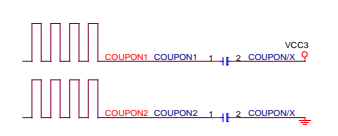
DDR3/240/BK/VA/D
BLACK CONNECTOR



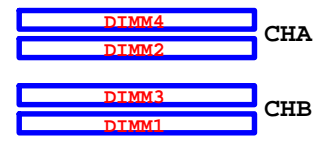
DDR3 VREF



COUPON

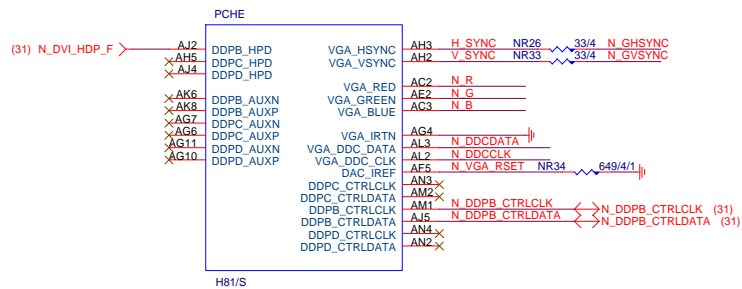


CPU

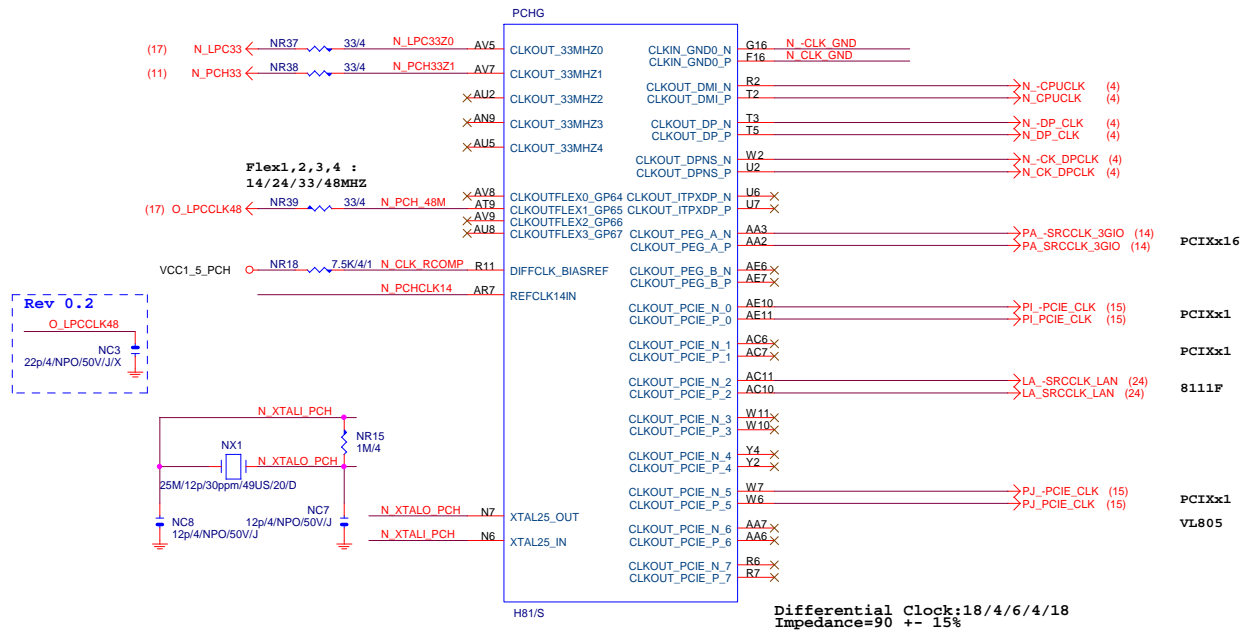


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PCH (E)



PCH (G)



Differential Clock:18/4/6/4/18
Impedance=90 +- 15%

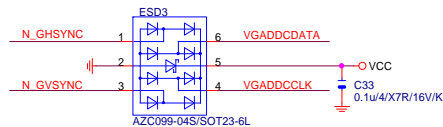
PCH CLK PD



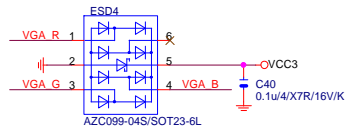
Mount for integrated clock Generation
Mode



VGA ESD

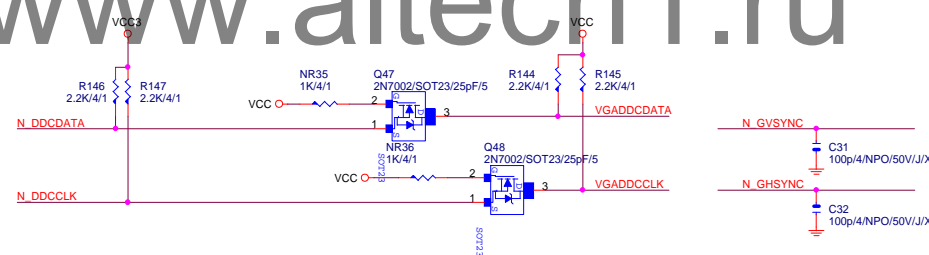


SSOP6 ESD

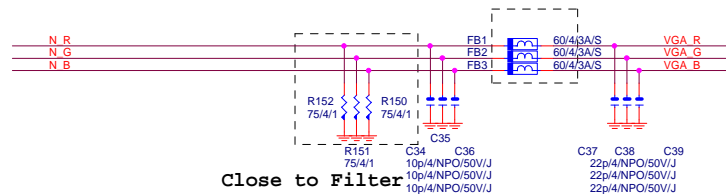


AZC099-04S/SOT23-6L

VGA DDC

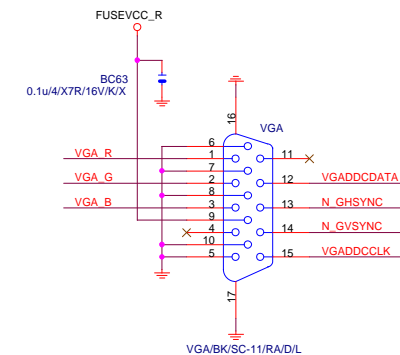


VGA DDC



Close to Filter

VGA CONNECTOR



BLACK CONNECTOR

Gigabyte Technology

PCH DISPLAY ,CLK BUFFER

GA-H81M-D3V-JP JP

Date: Friday, November 08, 2013 Sheet 10 of 33

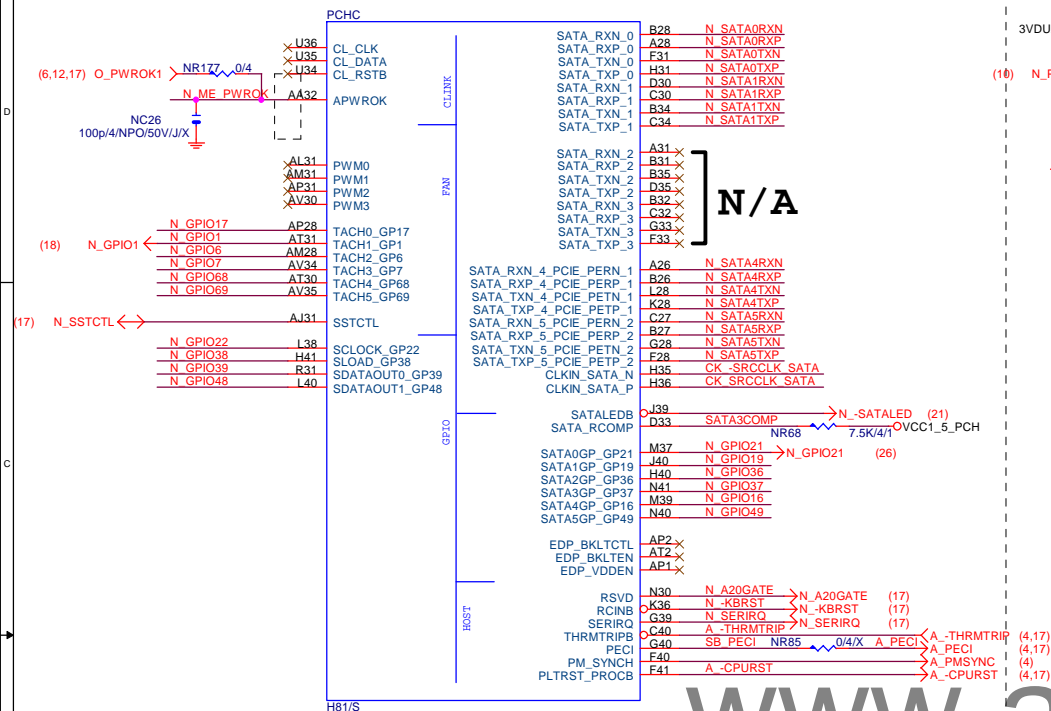
Date: Friday, November 08, 2013 Sheet 10 of 33

Date: Friday, November 08, 2013 Sheet 10 of 33

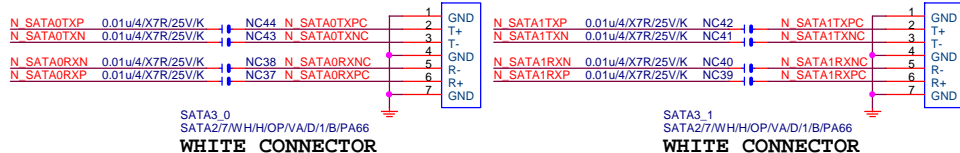
Date: Friday, November 08, 2013 Sheet 10 of 33

(C)

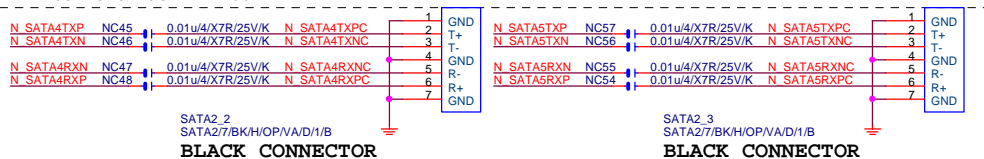
SATA3 : 20/7.5/4.5/7.5/20 (breakout min 8/4/4/4/8)
Impedance=90 +- 17.5%
SATA2 : 15/7.5/4.5/7.5/15 (breakout min 8/4/4/4/8)
Impedance=90 +- 17.5%



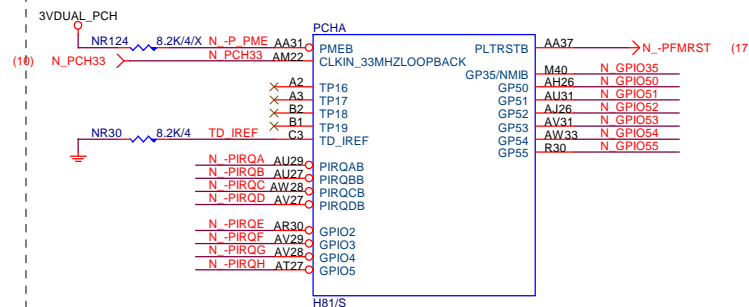
SATA CONNECTOR



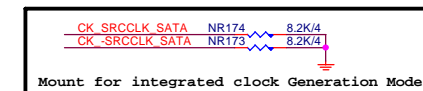
```
** Z87/H87 Port 4&5 SATA3.0
** B85 Port 4&5 SATA2.0
```



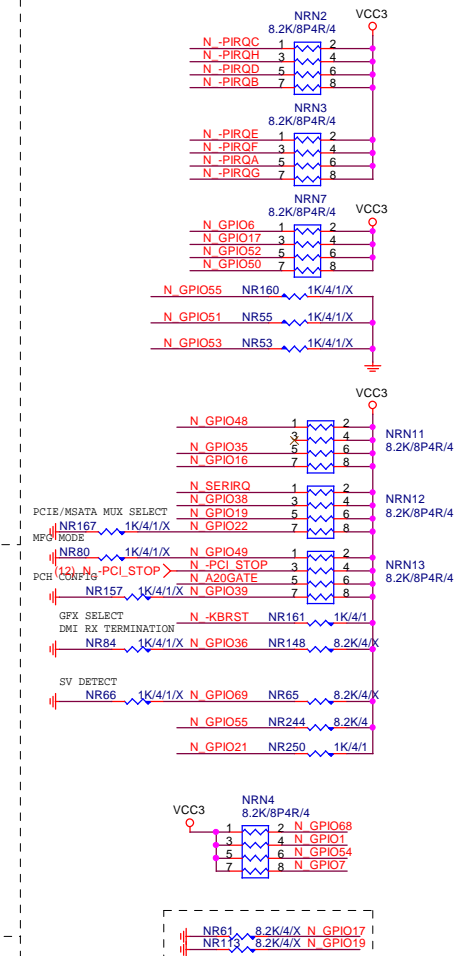
(A)



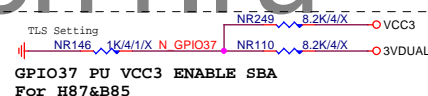
PCH	CLK	PD
-----	-----	----



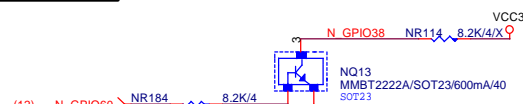
PCH	PU/PD
-----	-------



ME PWROK



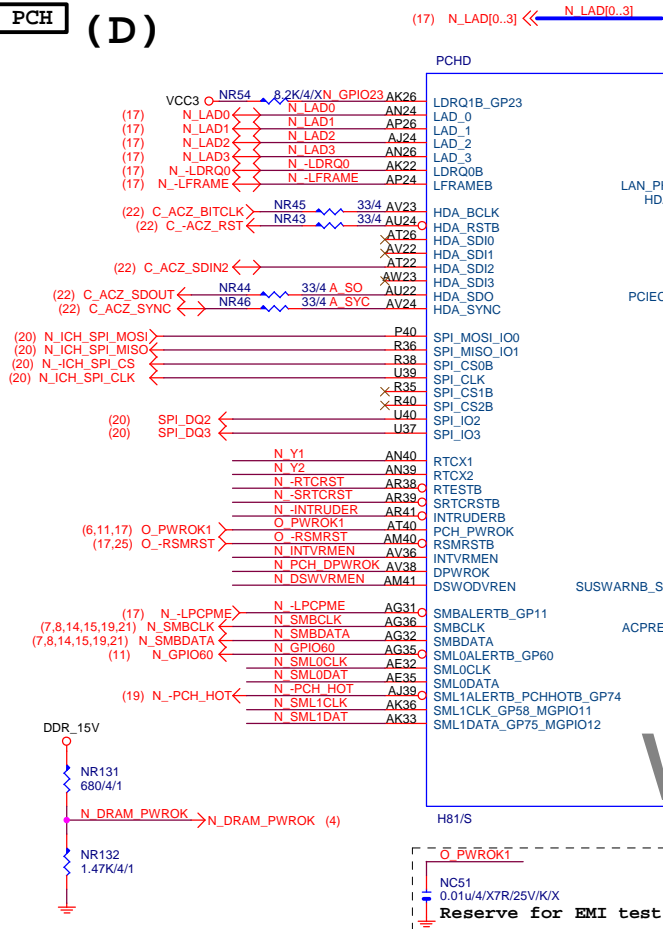
GPIO38 Ctrl



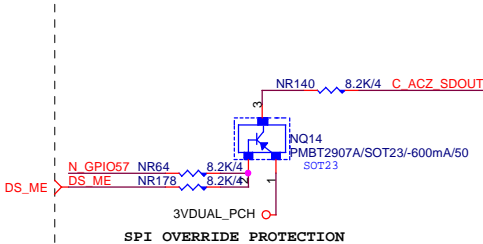
Gigabyte Technology

Title			
PCH HOST , SATA, PCI			
Size	Document Number		Rev
Custom	GA-H81M-D3V-JP JP		1.0
Date:	Friday, November 08, 2013	Sheet	11 of 33

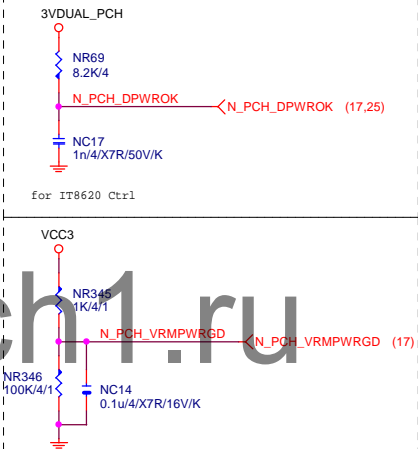
(D)



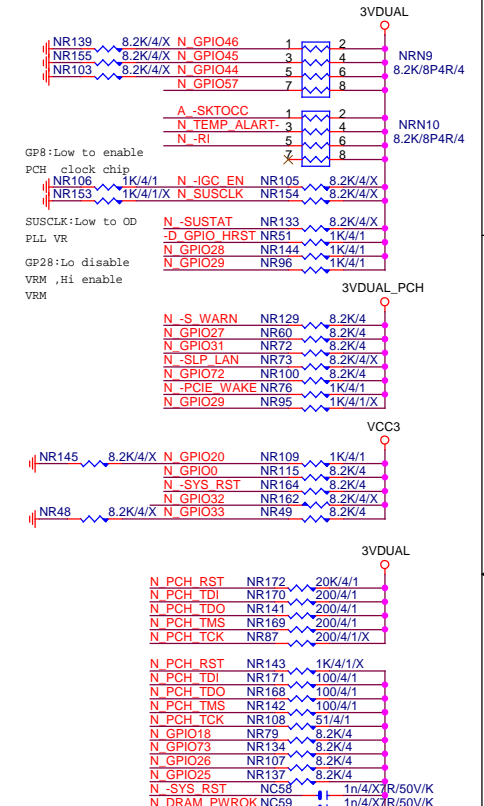
ACZ_SDOUT



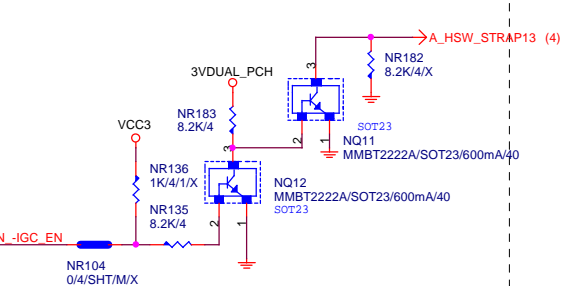
PCH_DPWROK



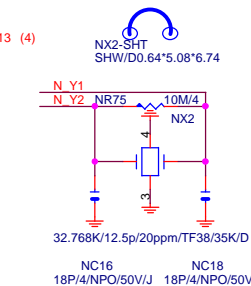
PCH	PU/PD
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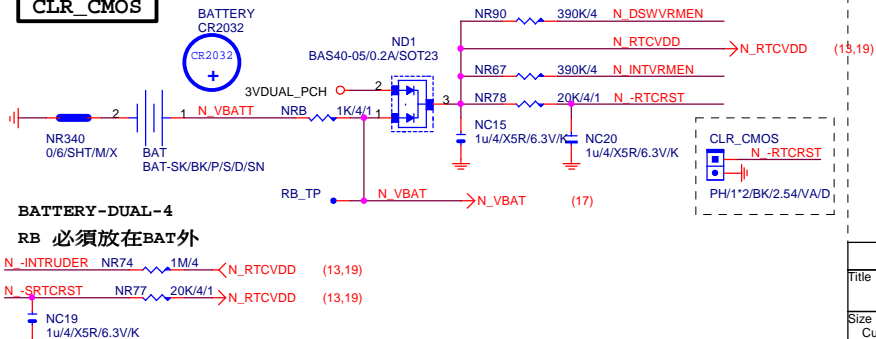
HSW_STRAP13



32.768KHZ



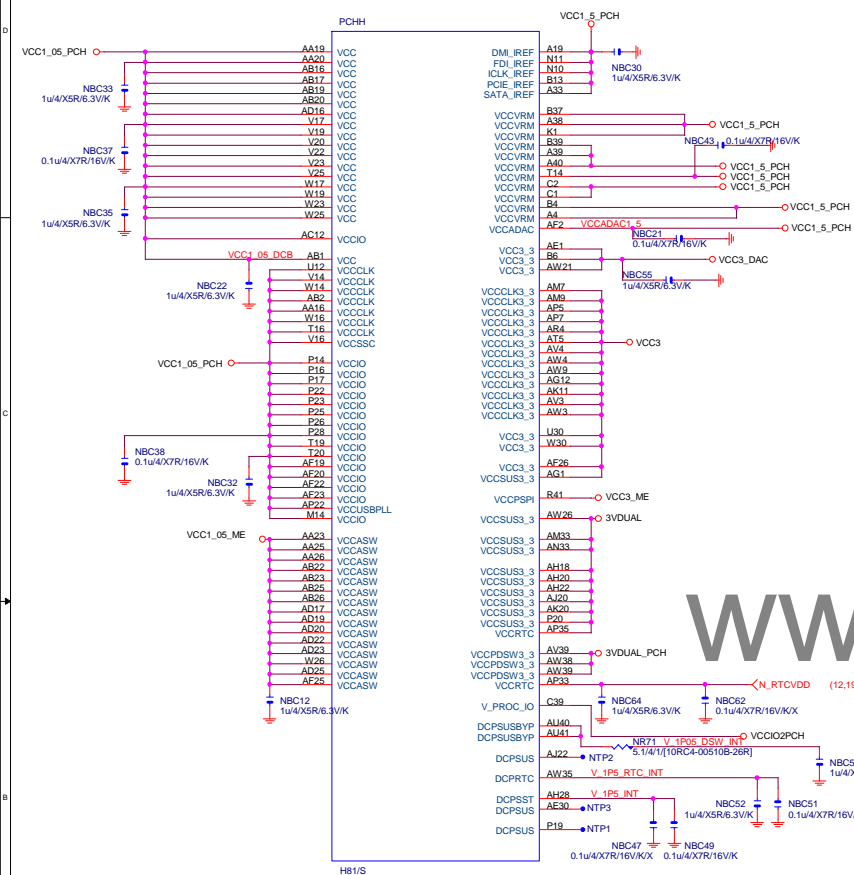
CLR_CMOS



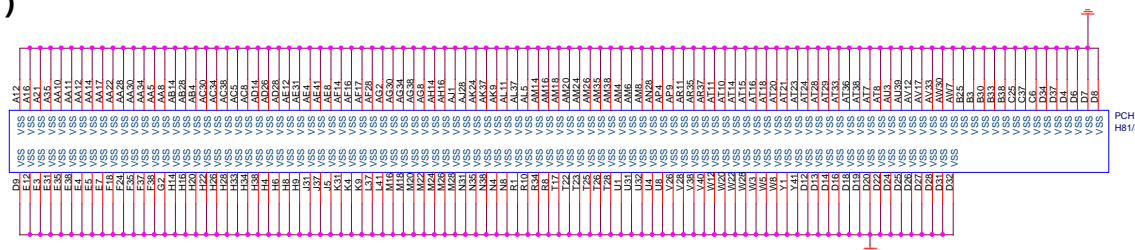
Gigabyte Technology

Title			
PCH GPIO , CTRL , AUDIO			
Size	Document Number		Rev
Custom	GA-H81M-D3V-JP JP		1.0
Date:	Friday, November 08, 2013	Sheet	12 of 33

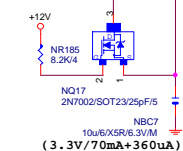
PCH (H)



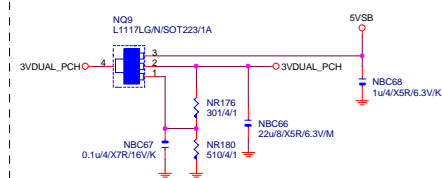
PCH (I)



VCC3_DAC



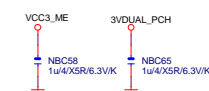
3VDUAL_PCH



SHT PWR

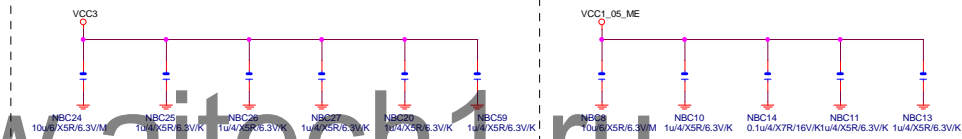


CAP

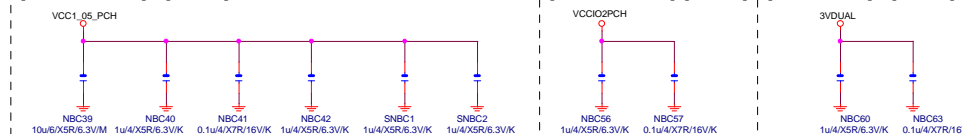


(3.3V) (X6)

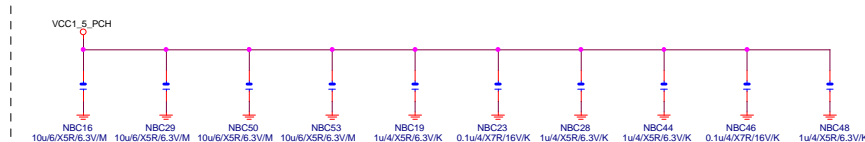
(1.05V) (x5)



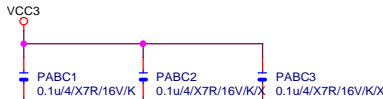
(1.05V)(x6)

$$(1.05V)(x2) - (3.3V)(x2)$$


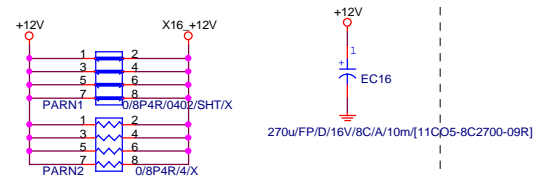
(1.05V) (x10)



PCIEX16 CAP



PCIEX16	PROTECT	SHT
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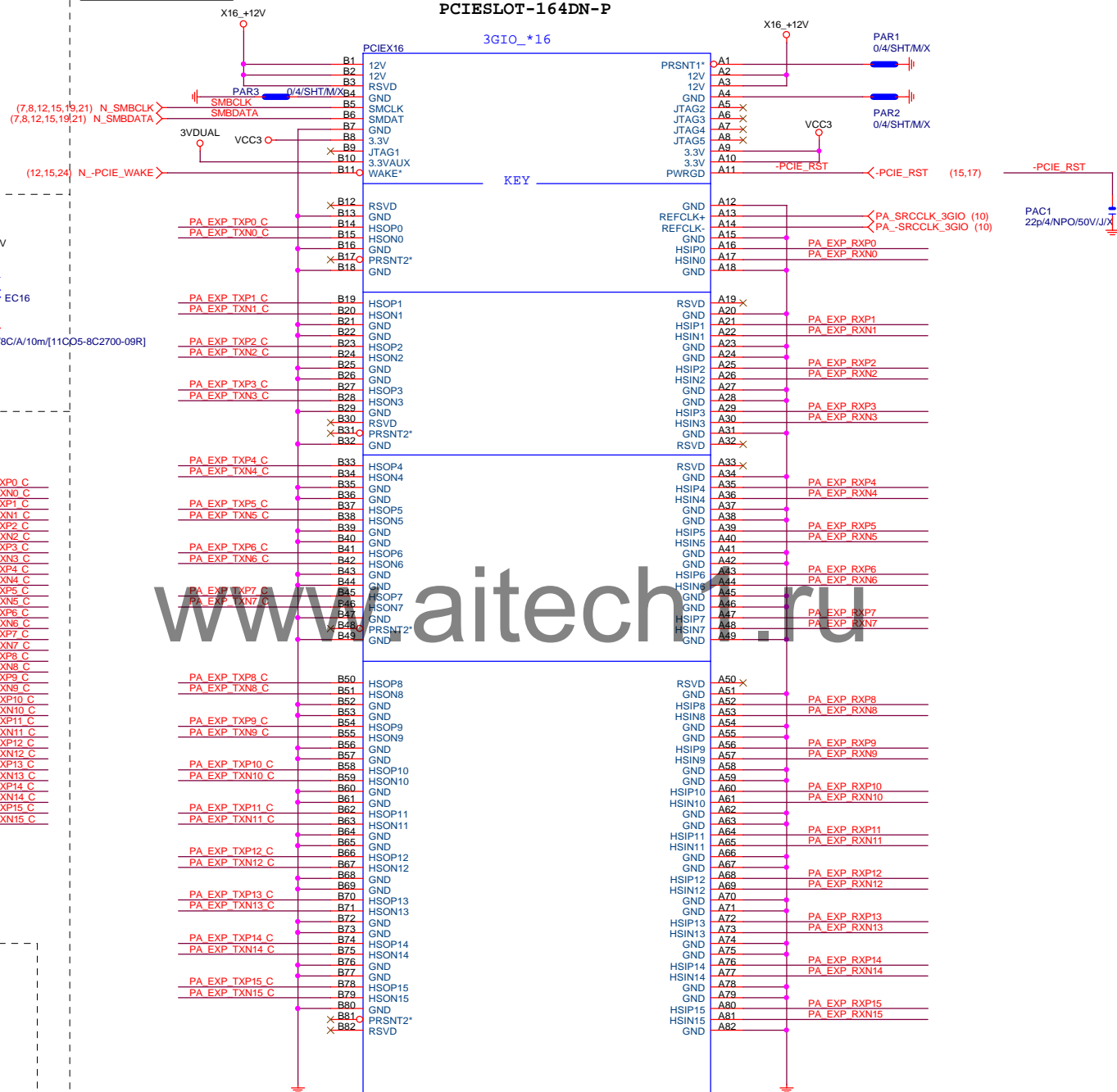
PCIEX16	AC	CAP
---------	----	-----

PA EXP TXP0	PAC5	0.22u4/X5R/6.3V/K	PA EXP TXP0 C
PA EXP TXN0	PAC4	0.22u4/X5R/6.3V/K	PA EXP TXN0 C
PA EXP TXP1	PAC6	0.22u4/X5R/6.3V/K	PA EXP TXP1 C
PA EXP TXN1	PAC7	0.22u4/X5R/6.3V/K	PA EXP TXN1 C
PA EXP TXP2	PAC8	0.22u4/X5R/6.3V/K	PA EXP TXP2 C
PA EXP TXN2	PAC9	0.22u4/X5R/6.3V/K	PA EXP TXN2 C
PA EXP TXP3	PAC10	0.22u4/X5R/6.3V/K	PA EXP TXP3 C
PA EXP TXN3	PAC11	0.22u4/X5R/6.3V/K	PA EXP TXN3 C
PA EXP TXP4	PAC12	0.22u4/X5R/6.3V/K	PA EXP TXP4 C
PA EXP TXN4	PAC13	0.22u4/X5R/6.3V/K	PA EXP TXN4 C
PA EXP TXP5	PAC14	0.22u4/X5R/6.3V/K	PA EXP TXP5 C
PA EXP TXN5	PAC15	0.22u4/X5R/6.3V/K	PA EXP TXN5 C
PA EXP TXP6	PAC16	0.22u4/X5R/6.3V/K	PA EXP TXP6 C
PA EXP TXN6	PAC17	0.22u4/X5R/6.3V/K	PA EXP TXN6 C
PA EXP TXP7	PAC18	0.22u4/X5R/6.3V/K	PA EXP TXP7 C
PA EXP TXN7	PAC19	0.22u4/X5R/6.3V/K	PA EXP TXN7 C
PA EXP TXP8	PAC20	0.22u4/X5R/6.3V/K	PA EXP TXP8 C
PA EXP TXN8	PAC21	0.22u4/X5R/6.3V/K	PA EXP TXN8 C
PA EXP TXP9	PAC22	0.22u4/X5R/6.3V/K	PA EXP TXP9 C
PA EXP TXN9	PAC23	0.22u4/X5R/6.3V/K	PA EXP TXN9 C
PA EXP TXP10	PAC24	0.22u4/X5R/6.3V/K	PA EXP TXP10 C
PA EXP TXN10	PAC25	0.22u4/X5R/6.3V/K	PA EXP TXN10 C
PA EXP TXP11	PAC26	0.22u4/X5R/6.3V/K	PA EXP TXP11 C
PA EXP TXN11	PAC27	0.22u4/X5R/6.3V/K	PA EXP TXN11 C
PA EXP TXP12	PAC28	0.22u4/X5R/6.3V/K	PA EXP TXP12 C
PA EXP TXN12	PAC29	0.22u4/X5R/6.3V/K	PA EXP TXN12 C
PA EXP TXP13	PAC30	0.22u4/X5R/6.3V/K	PA EXP TXP13 C
PA EXP TXN13	PAC31	0.22u4/X5R/6.3V/K	PA EXP TXN13 C
PA EXP TXP14	PAC32	0.22u4/X5R/6.3V/K	PA EXP TXP14 C
PA EXP TXN14	PAC33	0.22u4/X5R/6.3V/K	PA EXP TXN14 C
PA EXP TXP15	PAC34	0.22u4/X5R/6.3V/K	PA EXP TXP15 C
PA EXP TXN15	PAC35	0.22u4/X5R/6.3V/K	PA EXP TXN15 C

PA_EXP_RXP[0..15] >> PA_EXP_RXP[0..15] (4)
PA_EXP_RXN[0..15] >> PA_EXP_RXN[0..15] (4)
PA_EXP_TXP[0..15] >> PA_EXP_TXP[0..15] (4)
PA_EXP_TXN[0..15] >> PA_EXP_TXN[0..15] (4)

The auxillary reset circuit is only required for PCIe Gen3 margining and functional link training

PCIEX16 SLOT



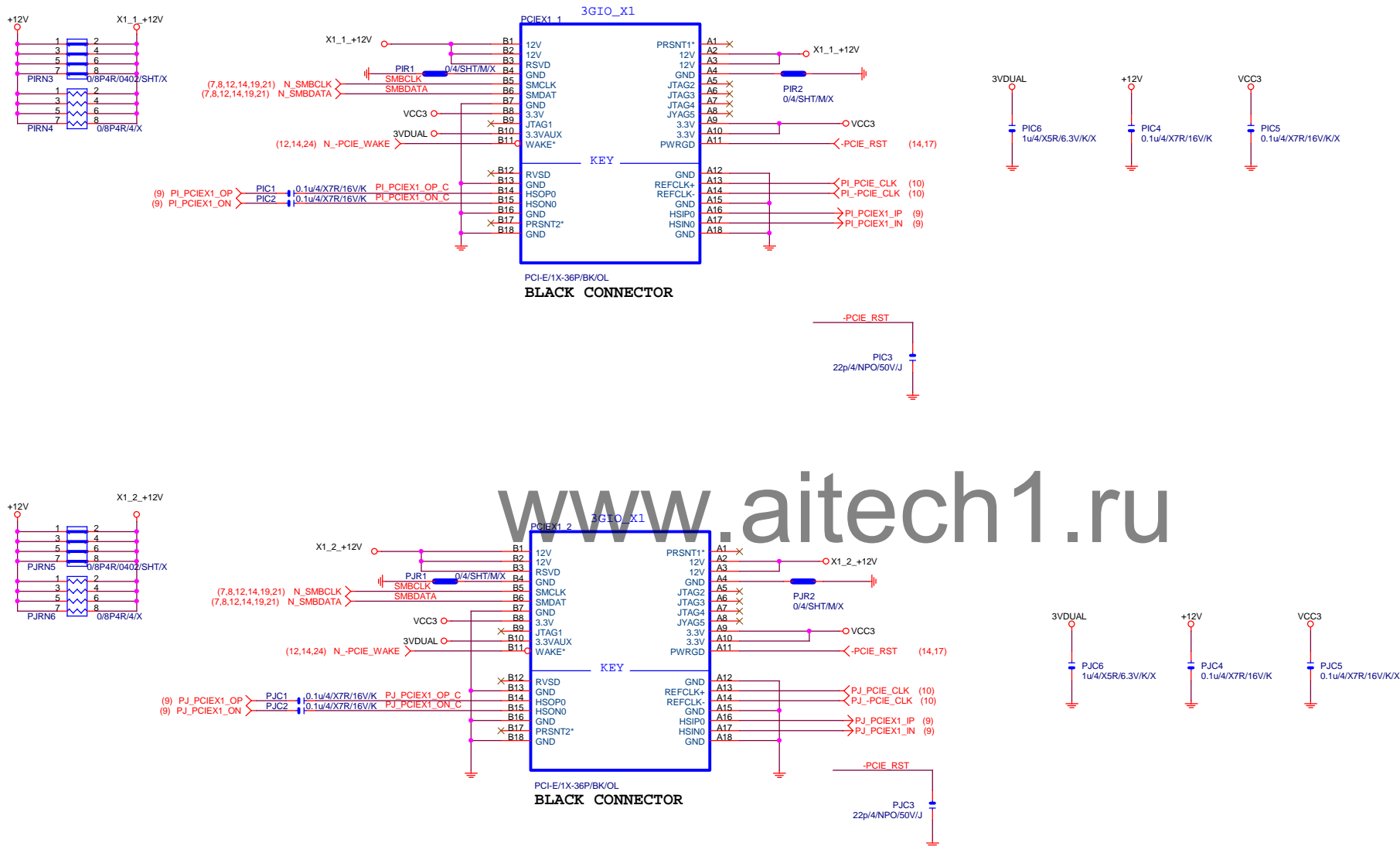
PCI-E/16X-164P/BK/LONG DOUBLE

BLACK CONNECTOR

Gigabyte Technology

Title			
PCI EXPRESS * 16			
Size	Document Number		Rev
Custom	GA-H81M-D3V-JP JP		1.0
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PCIEX1 SLOT



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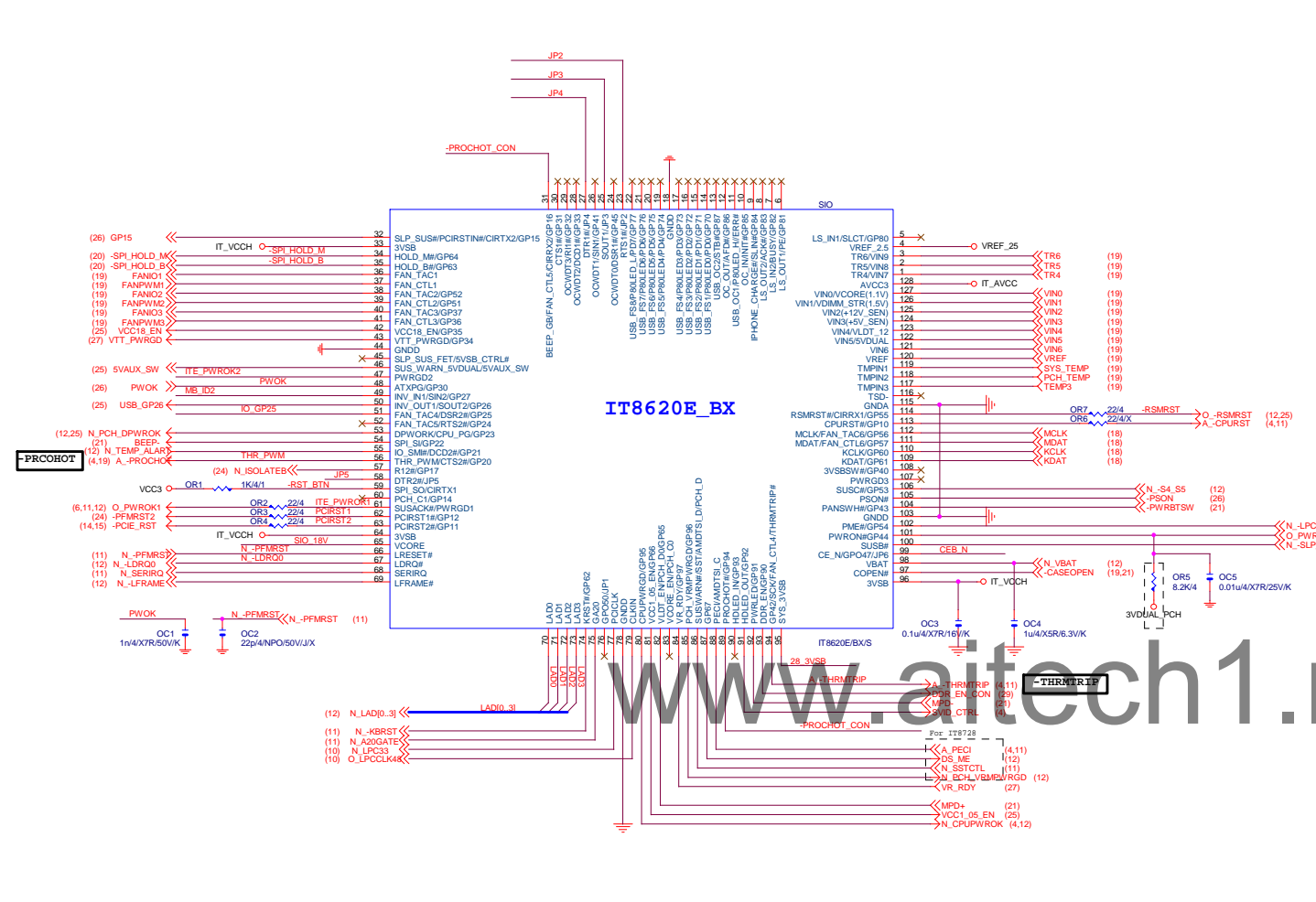
Gigabyte Technology

Title		
PCI EXPRESS X 1 PORT		
Size	Document Number	Rev
Custom	GA-H81M-D3V-JP JP	1.01
Date:	Friday, November 08, 2013	Sheet 15 of 33

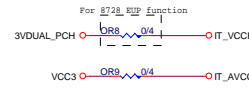
www.aitech1.ru

Gigabyte Technology			
Title			
PCI SLOT 1&2			
Size	Document Number		Rev
Custom	GA-H81M-D3V-JP JP		1.01
Date:	Friday, November 08, 2013	Sheet	16 of 33
	2		1

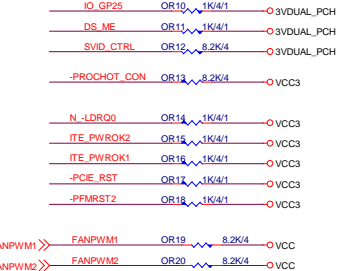
SIO IT8620



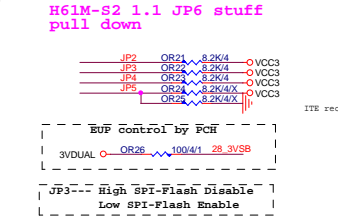
PWR SHT



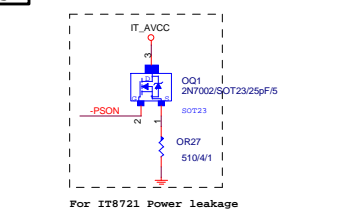
SIO PU



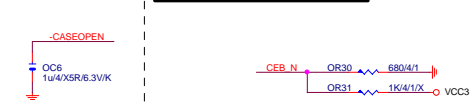
SIO STRAP



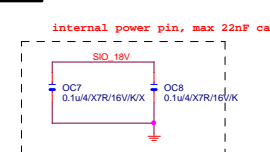
Power leakage



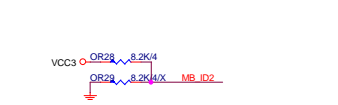
DUAL BIOS OPT STRAP



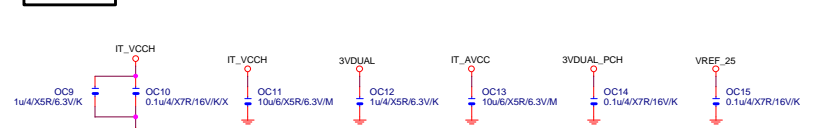
SIO_18V



MB ID



SIO CAP



COM

COM RI

USB30_20

USB30_20 PWR

-USBOC_R

KB/MS



USB3.0 ESD

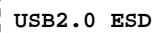
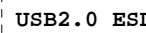
USB2.0 PWR

KB MS USB 2-Port 2.0A

KB MS USB 2-Port 2.0A



KB/MS ESD

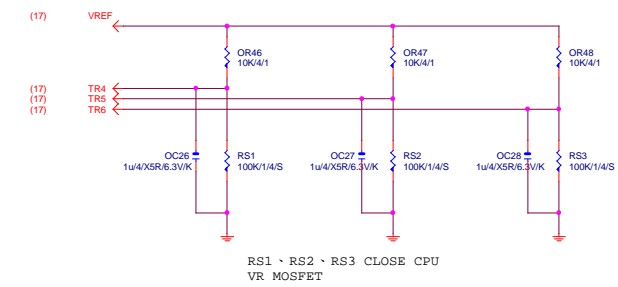
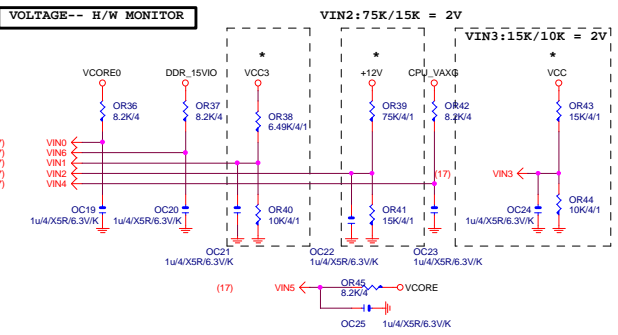
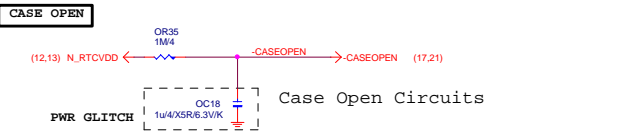
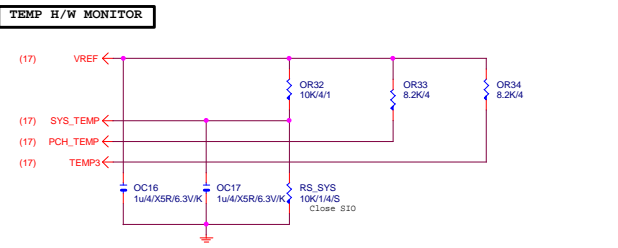


USB POWER PROTECT

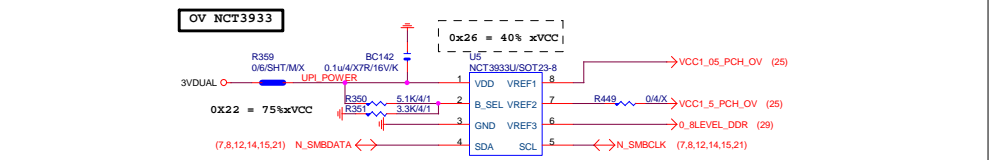
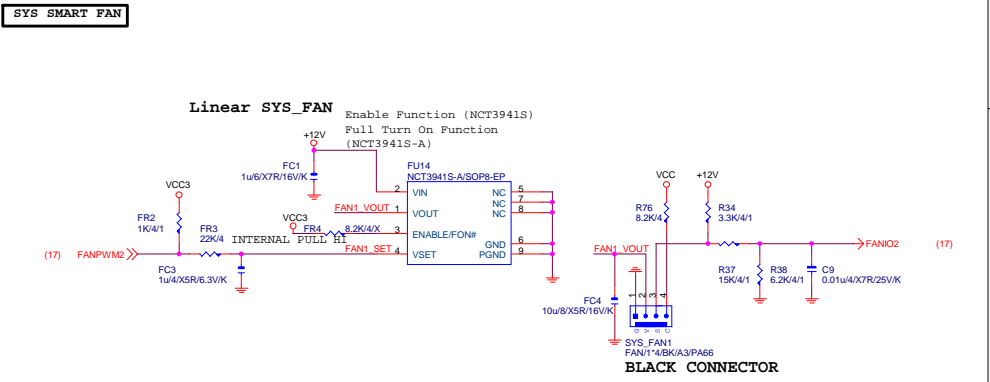
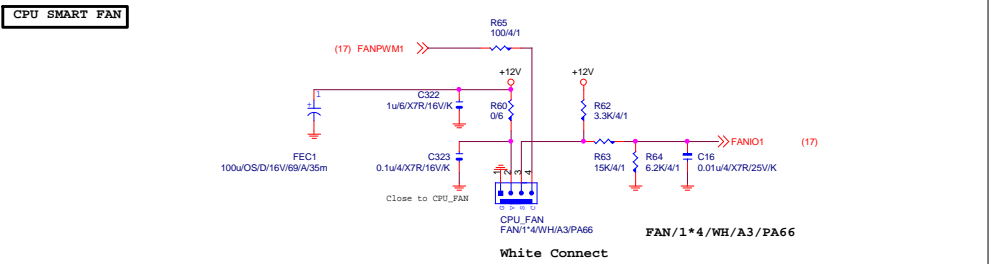


Size Custom	Document Number GA-H81M-D3V-JP JP	Rev 1.01
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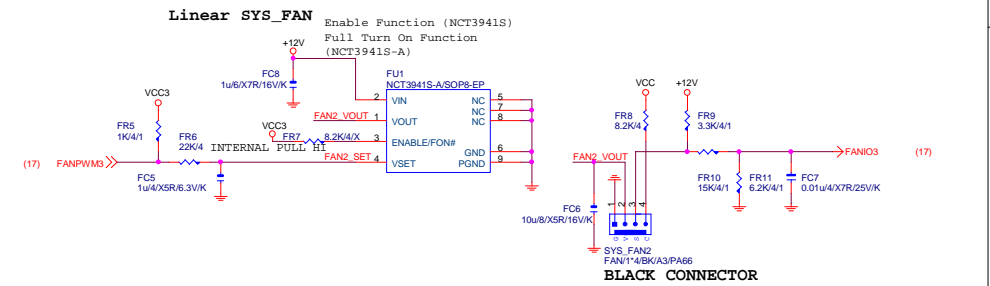
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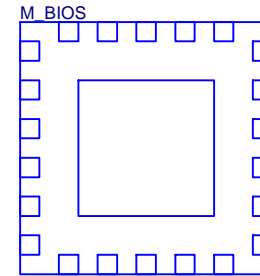


RS1、RS2、RS3 CLOSE CPU
VR MOSFET



NCT3933	0X2A	0X20	0X22
VREF1	DDRVTT	VREF_DDRA_DQ	PCH Core
VREF2	VREF_DDRA_CA	N/A	VCC1_5_PCH
VREF3	VREF_DDRA_CA	VREF_DDRB_DQ	SMREF

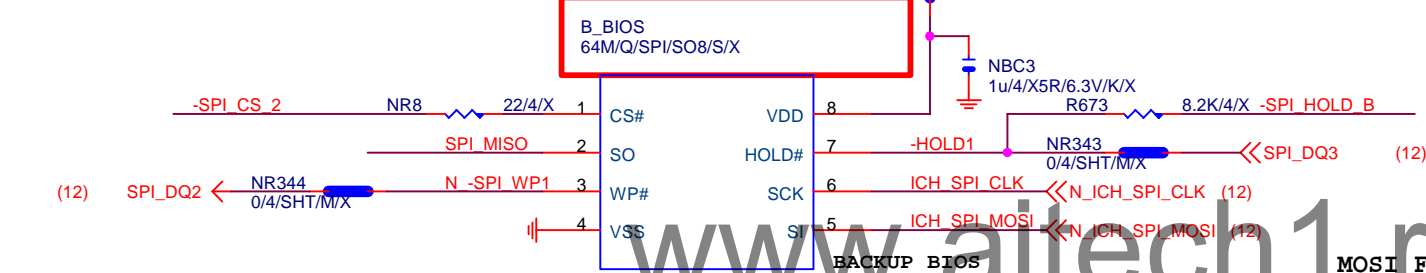




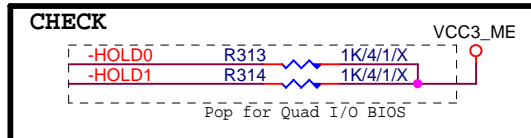
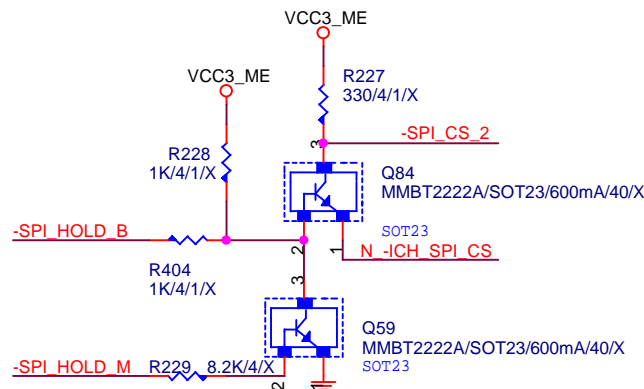
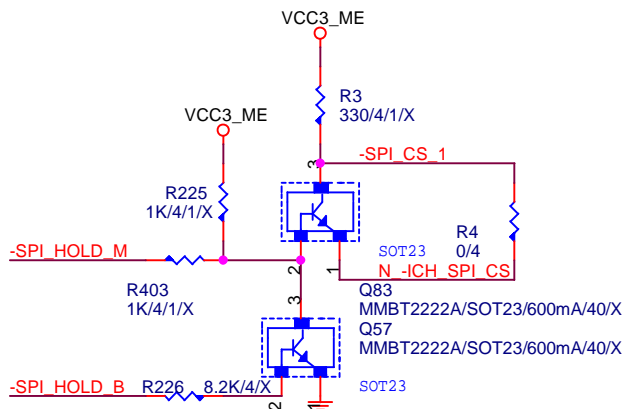
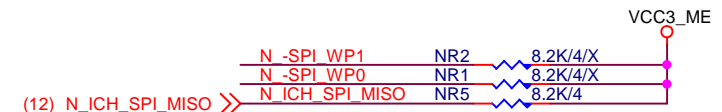
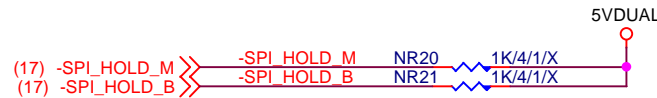
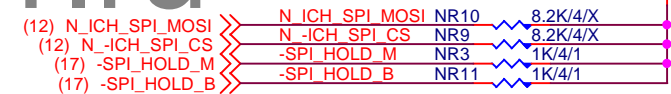
LCP/G-FL/1.27mm/200MIL/WHITE[10SL2-000008-31R]/X

BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

1 means floating
0 means PD 1K



MOSI For DMI RX Termination Voltage



Gigabyte Technology

DUAL BIOS

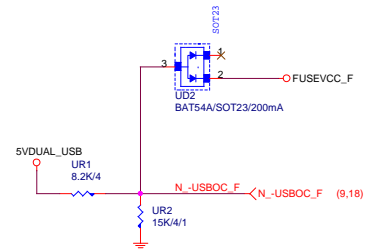
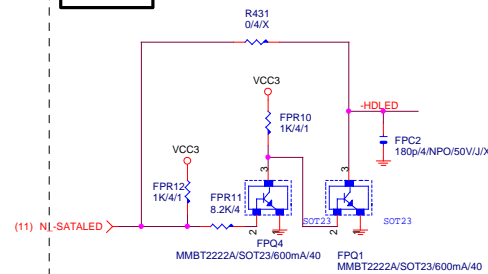
Title		Rev
Size Custom		1.01
Document Number	GA-H81M-D3V-JP JP	
Date:	Friday, November 08, 2013	Sheet 20 of 33

F_USB30

F_USB30 PWR

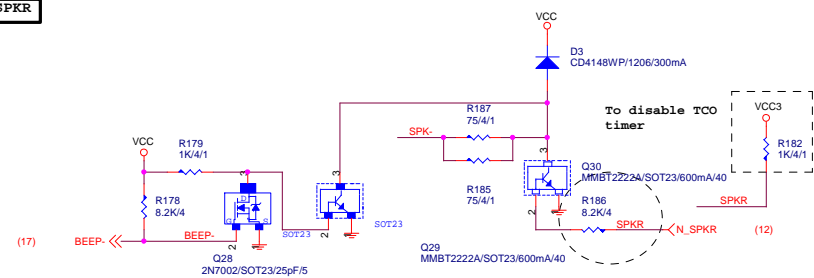
SATA LED

-USB0C_F



F_USB30 ESD PROTECT

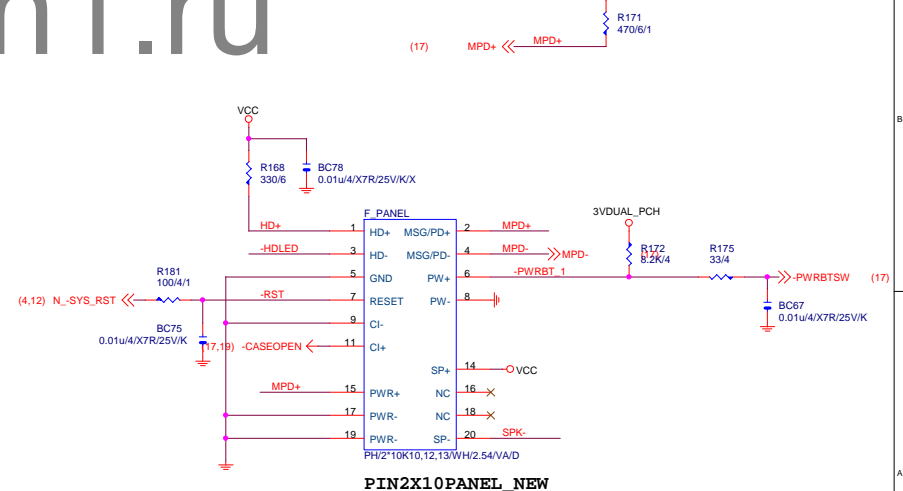
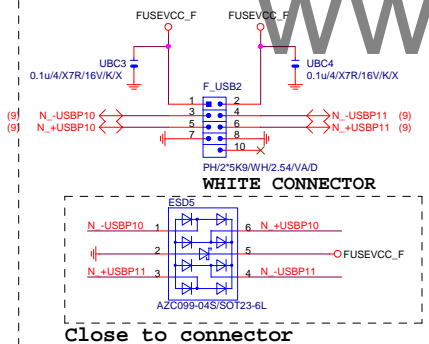
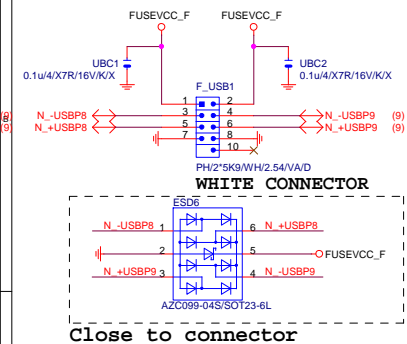
SPKR



FRONT USB1

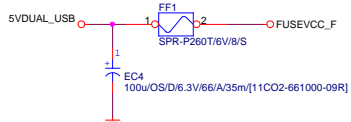
FRONT USB2

INTEL FRONT PANEL



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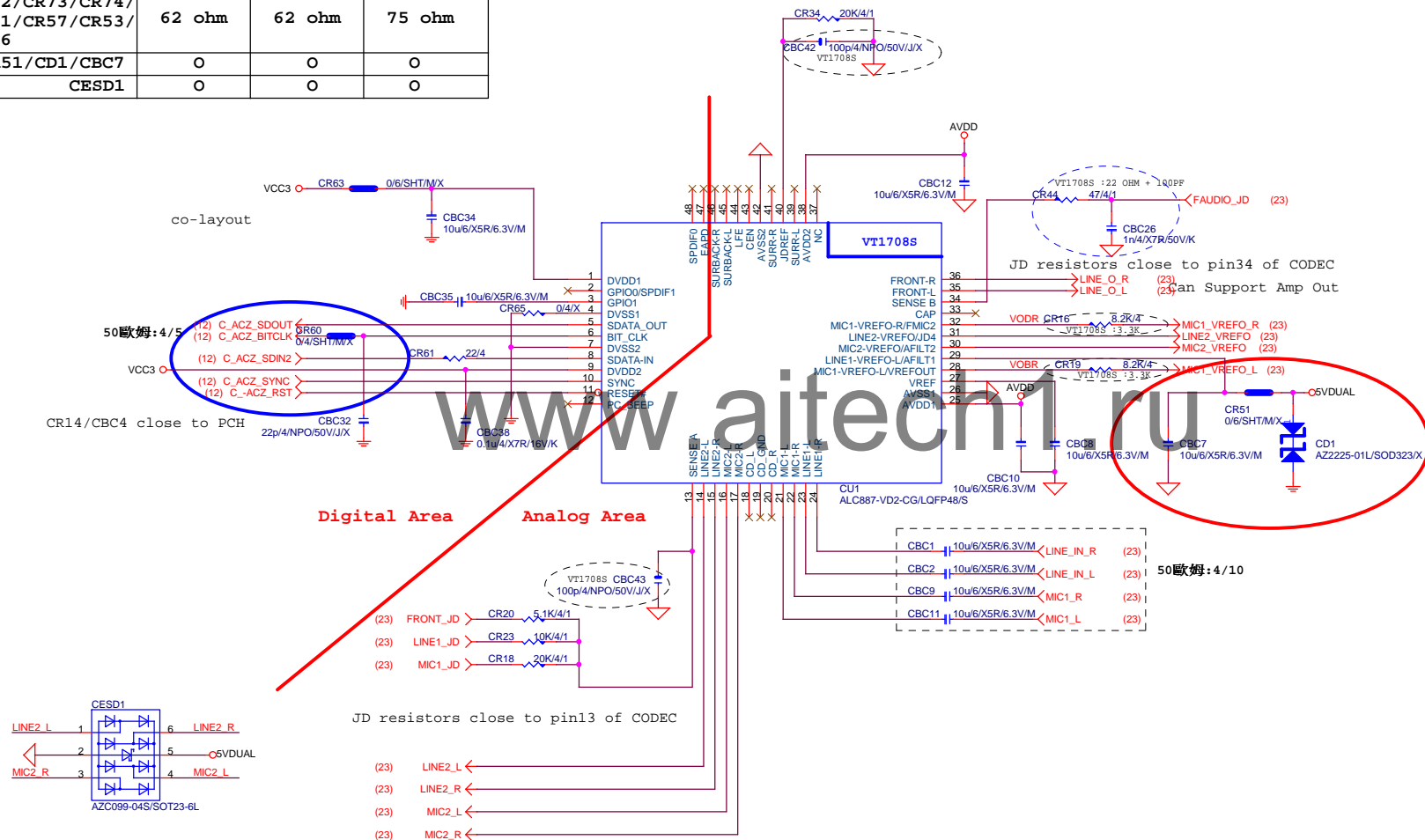
FUSE-0805
F_USB1, F_USB2 4-Port 2.6A

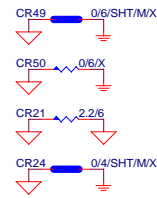


Gigabyte Technology			
Title			
FP,F_USB,USB PWR,SPKR,SATA LED			
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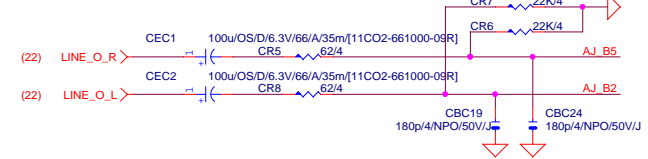
AZALIA CODEC ALC892/ALC887-VD2/VT1708-CE Colay

	ALC892	ALC887-VD2	VT1708S-CE
CR44/CBC26	47ohm+1nF	47ohm+1nF	22ohm+100P
CBC42/CBC43	X	X	100P/4
CR6/CR7/CR58/CR54/ CR67/CR68/CR69/CR70	22K/4	22K/4	10K/4/1
CR5/CR8/CR1/CR14/ CR17/CR22/CR73/CR74/ CR13/CR11/CR57/CR53/ CR75/CR76	62 ohm	62 ohm	75 ohm
CR51/CD1/CBC7	O	O	O
CESD1	O	O	O





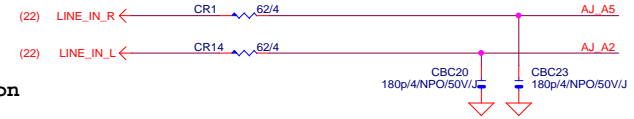
LINE-OUT



LINE-IN

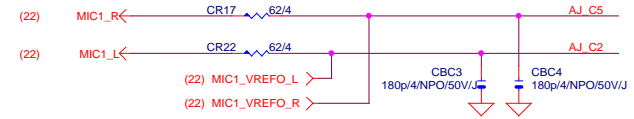
Verify MIC function
in LINE-in

Only reserved for ALC888



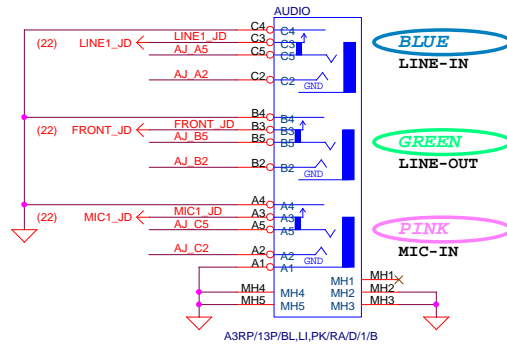
For 889A/888

MIC-IN

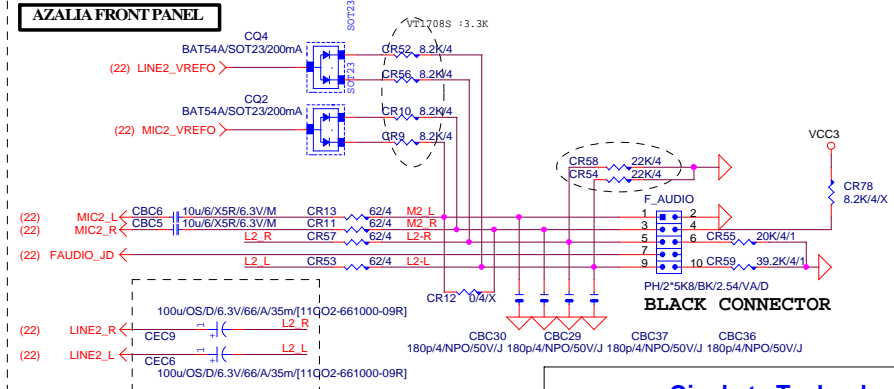


SPDIF_OUT

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AZALIA FRONT PANEL



Gigabyte Technology

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AUDIO JACK			
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[illegible]

2.5LEVEL

BC84
1u4/XSR/6.3V/K

R191
13.7K/4/1

R192
10K/4/1

VCC1_05_EN

(19) VCC1_05_PCH_OV

12V

U1B
LM358DR/SO8

R223
100/4/1

VCC1_05_G

C80
1n4/XZR/50V/K

R199
10K/4/1

R222
8.2K/4/1

R198
499/4/1

DOR_15V

G

VCC1_05_PCH

EC9
500uF/6.3V/69A/11mF[11CO2-695600-09R]

5/8φ

VCC1_05_EN

VCC1_05_EN (17)

Q35
RJK(3B7DPA-00/N7.8m/PPAKSO-8[10IF9-100397-21R]

[illegible][illegible]

The schematic diagram illustrates the power management section of the ADXL345 evaluation board. It shows the 5VSB and 5V_AUX_SW inputs connected to various resistors (R706, R704, R705, R424, R383, R384, R393, R388) and capacitors (C12, C143, C132). It includes three MOSFETs (Q11, Q73, Q66) and one P-MOSFET (Q67) for switching and regulation. The output is 5V_DUAL. A dashed box encloses the 5VSB input and its associated components.

5VDUAL

BC164
0.1uF/4X7R16V/KX

3V3DUAL

R387
100k/1

R395
169k/1

BC161
0.1uF/4X7R16V/KX

EC15
560uF/6.3V/9A/11mF[1CO2-69560-09R]
8/80

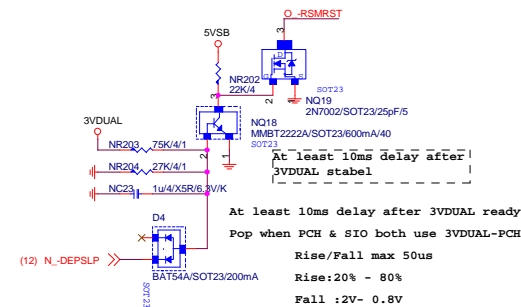
R326
22k/4

C104
1n4/4X7R/50V/K

O_RSMRST (12,17)

Q1
L108SDQ/T0252/5A

Meet the rise time

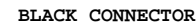


1A max

【技術通報R&D技術通報155】



To fix 12V light load
abnromal issue +12V



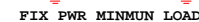
ATX_12V_2X4
APW/2'4/BK/OC/P/4.2/VA/SN/OH::Location ATX_12V_2X4



To prevent the 5VSB
under loading when
boot

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【技術通報R&D技術通報154】



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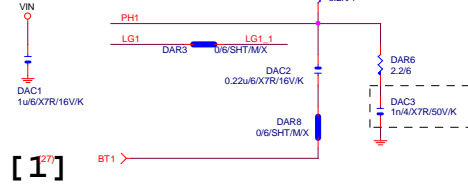
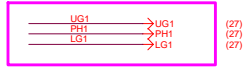
ATX CONNECTOR

GA-H81M-D3V-JP JP

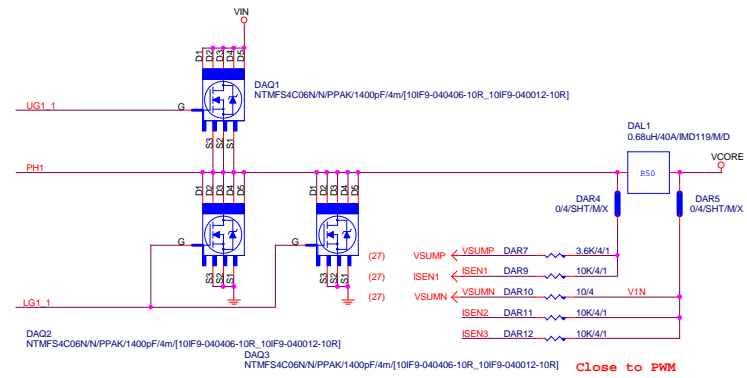
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1.01

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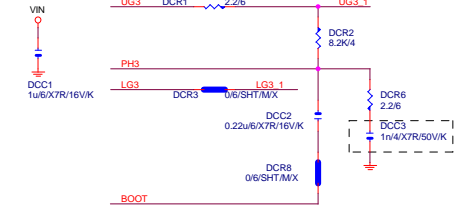
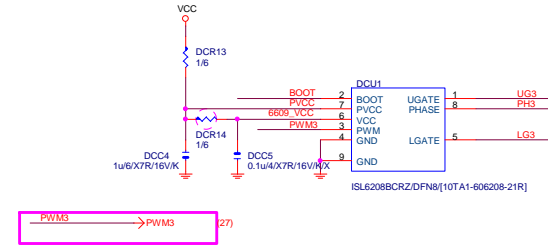
PHASE 1



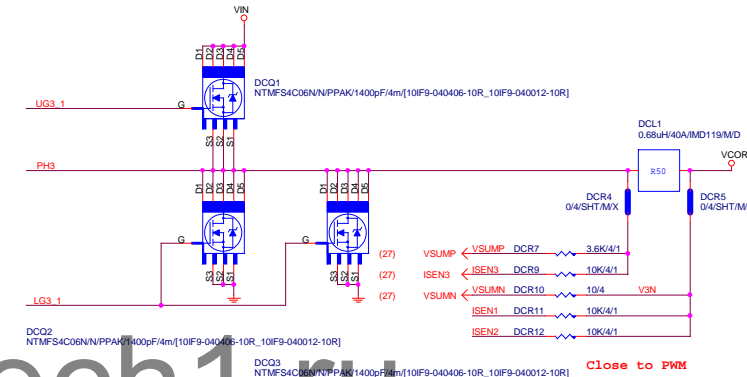
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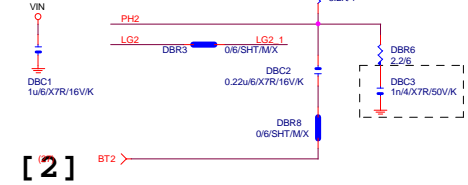
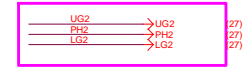
PHASE 3



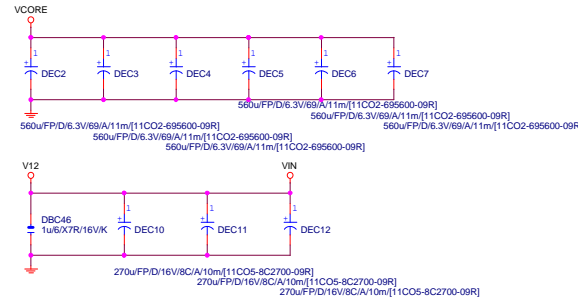
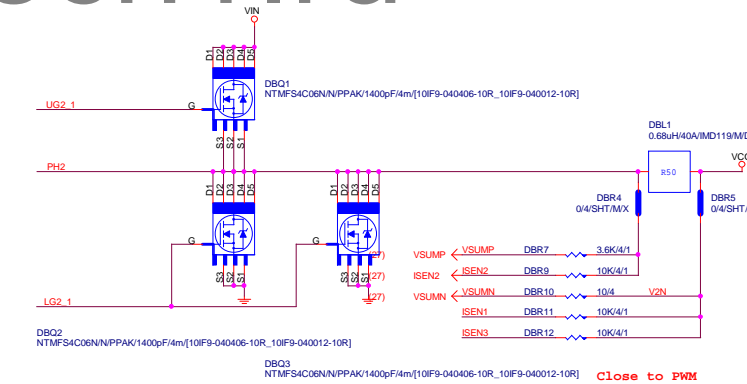
[3]



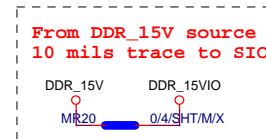
PHASE 2



[2]



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VIN=5V, VOUT=1.5V, IOUT=25A, PHASE=1
IRMS=11.45A
560uF/P/D/6.3V/68/8m RIPPLE CURRENT=4.7A
Coefficient=1.7(85°C), 1(105°C)
VIN Ripple current=4.7X1.7=7.99A(85°C)
-->故固態電容須2X7.99=15.98>11.45A

```
Rocset=(Iocp*Lgate,rdson)/Iocset
Rocset=(45A*6.7mOhm)/10uA = 30K
Iocset=10uA
```

<i>Gigabyte Technology</i>			
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DDR POWER			
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VCC1_05_ME

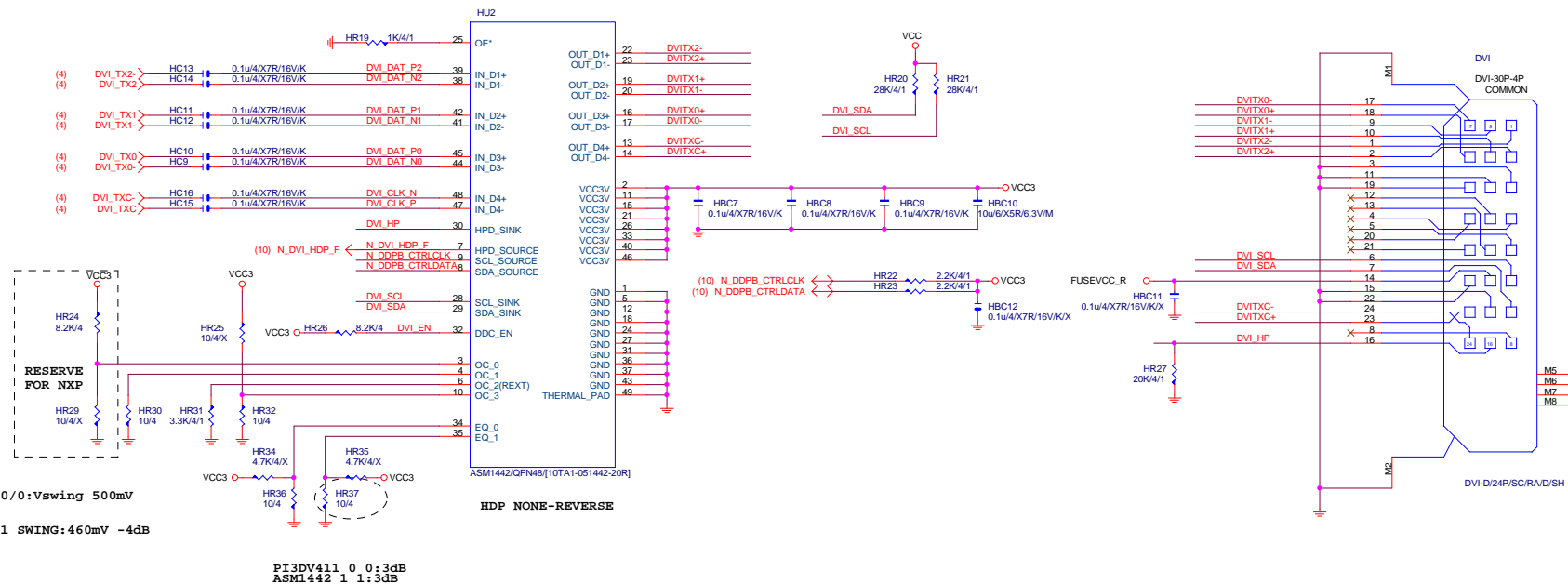
【技術通報R&D技術通報156】
(RICHTEK), (NUVOTON), (EMC)做共用
PIN7分壓阻值須做修改為100K以上電阻值

VCC3_ME

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DVI LEVEL SHIFT



HDMI LEVEL SHIFT

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ITE IT8892E			
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