

Model Name: GA-H81M-D3V-JP UC

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



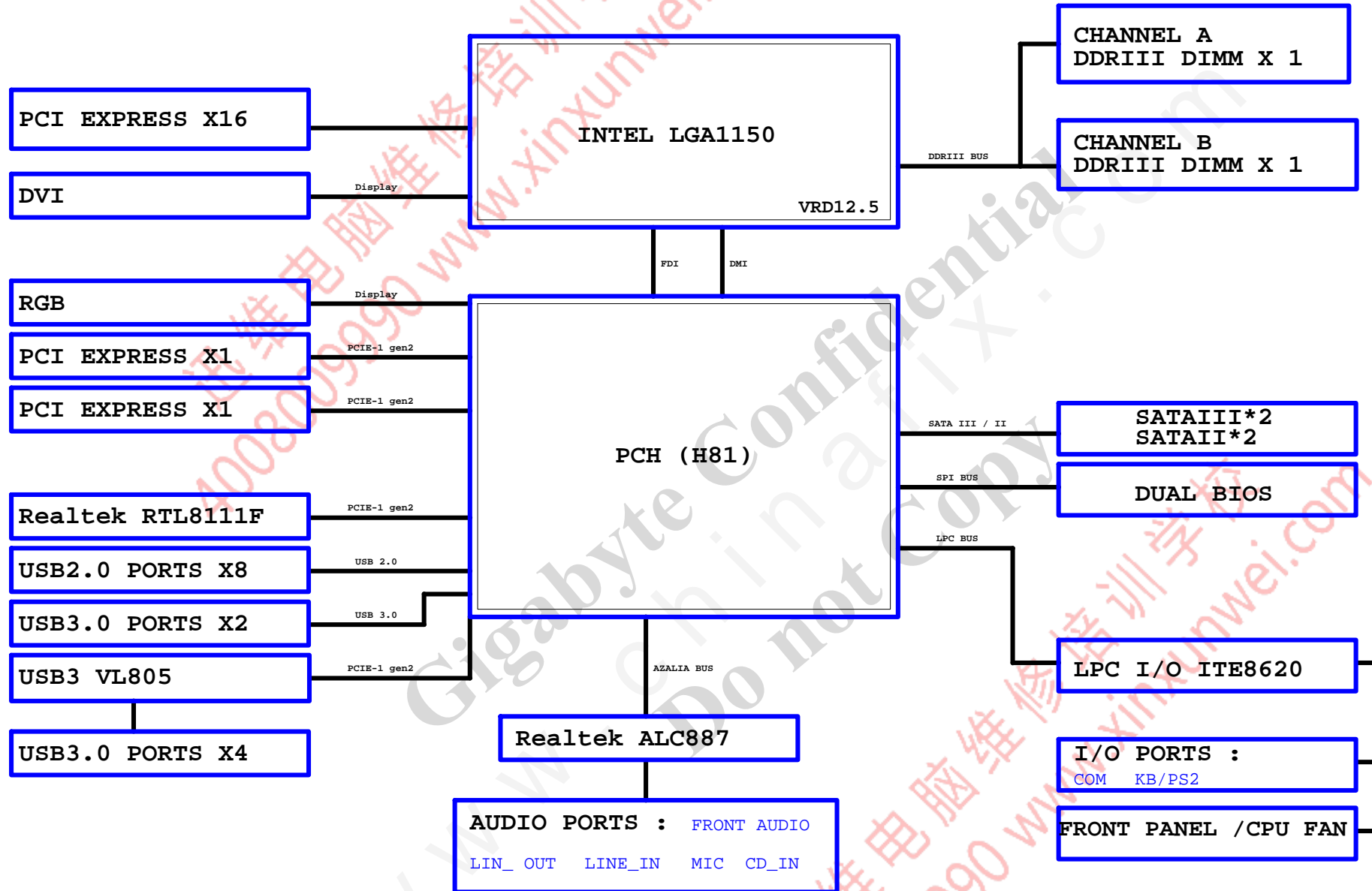
Gigabyte Technology	
Cover Sheet	
Title	Document Number
Size	GA-H81M-D3V-JP UC
Custom	Rev 1.01
Date: Friday, November 08, 2013	Sheet 1 of 33

Circuit or PCB layout change

2013/05/17

[illegible][illegible]

BLOCK DIAGRAM



Gigabyte Technology

Title			BLOCK DIAGRAM
Size	Document Number	GA-H81M-D3V-JP UC	
C			Rev 1.01
Date:	Friday, November 08, 2013	Sheet	3 of 33



LGA1150

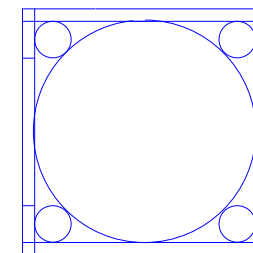
(A)

LGA1150

(B)

LGA1150

(CR)

CR
CPU RETENTION X

LGA1150



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

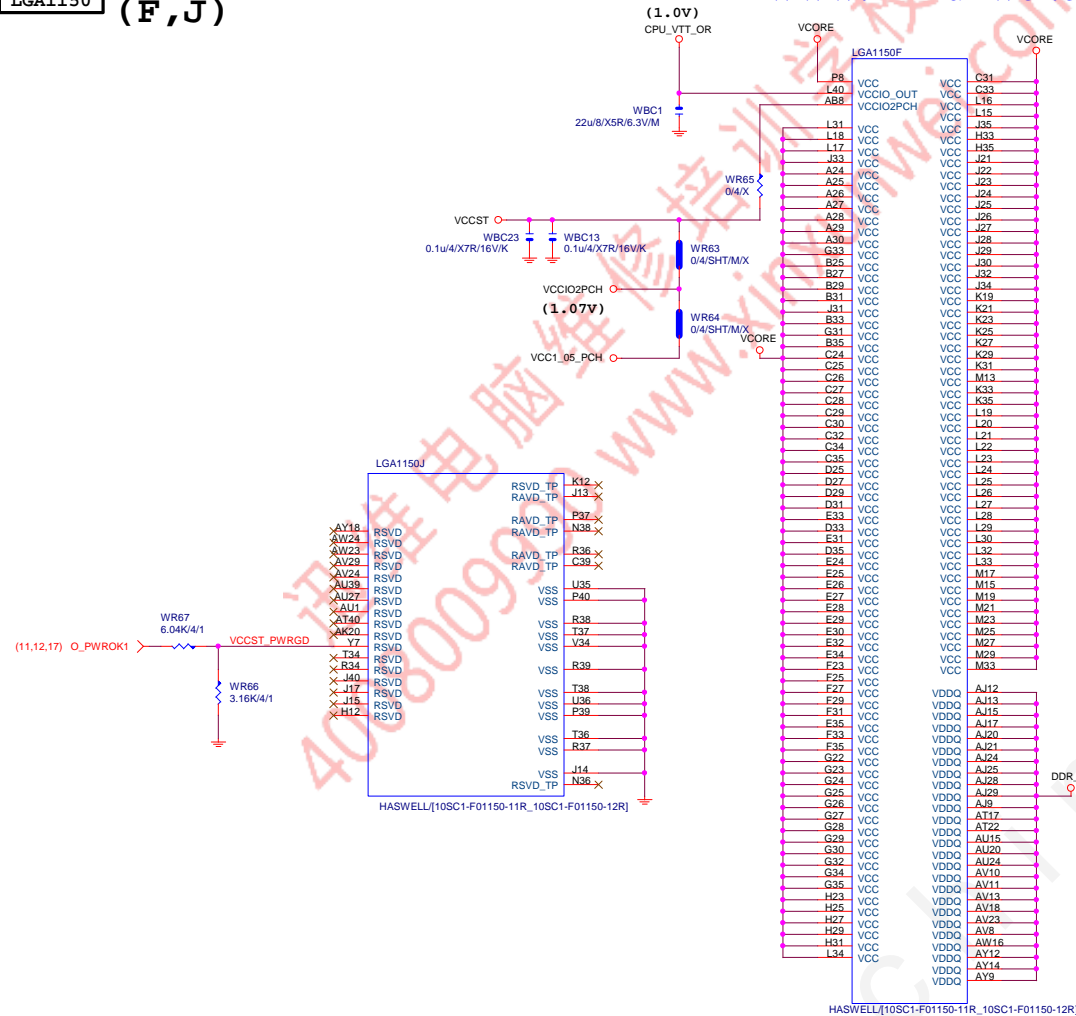
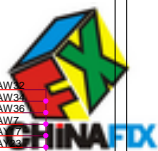
DDR BUS

MAAA0	AU13	DDR0_MA0	DDR0_D00	AD38	MDA0
MAAA1	AV16	DDR0_MA1	DDR0_D01	AD39	MDA1
MAAA2	AV16	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	AW17	DDR0_MA6	DDR0_D06	AE37	MDA6
MAAA7	AT18	DDR0_MA7	DDR0_D07	AF40	MDA7
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	AY10	DDR0_MA13	DDR0_D13	AH38	MDA8
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		DDR0_ODT2	DDR0_D18	AP38	MDA18
AW9		DDR0_ODT3	DDR0_D19	AP39	MDA19
AW10			DDR0_D20	AM37	MDA20
AW11			DDR0_D21	AM38	MDA16
AW12			DDR0_D22	AP47	MDA22
AW13			DDR0_D23	AP40	MDA23
AW14			DDR0_D24	AW37	MDA25
AW15			DDR0_D25	AW37	MDA29
AW16			DDR0_D26	AU35	MDA26
AW17			DDR0_D27	AT37	MDA28
AW18			DDR0_D28	AU37	MDA24
AW19			DDR0_D29	AT35	MDA30
AW20			DDR0_D30	AW35	MDA31
AW21			DDR0_D31	AW36	MDA33
AW22			DDR0_D32	AW36	MDA33
AW23			DDR0_D33	AW36	MDA33
AW24			DDR0_D34	AW36	MDA33
AW25			DDR0_D35	AW36	MDA33
AW26			DDR0_D36	AW36	MDA33
AW27			DDR0_D37	AW36	MDA33
AW28			DDR0_D38	AW36	MDA33
AW29			DDR0_D39	AW36	MDA33
AW30			DDR0_D40	AW36	MDA33
AW31			DDR0_D41	AW36	MDA33
AW32			DDR0_D42	AW36	MDA33
AW33			DDR0_D43	AW36	MDA33
AW34			DDR0_D44	AW36	MDA33
AW35			DDR0_D45	AW36	MDA33
AW36			DDR0_D46	AW36	MDA33
AW37			DDR0_D47	AW36	MDA33
AW38			DDR0_D48	AW36	MDA33
AW39			DDR0_D49	AW36	MDA33
AW40			DDR0_D50	AW36	MDA33
AW41			DDR0_D51	AW36	MDA33
AW42			DDR0_D52	AW36	MDA33
AW43			DDR0_D53	AW36	MDA33
AW44			DDR0_D54	AW36	MDA33
AW45			DDR0_D55	AW36	MDA33
AW46			DDR0_D56	AW36	MDA33
AW47			DDR0_D57	AW36	MDA33
AW48			DDR0_D58	AW36	MDA33
AW49			DDR0_D59	AW36	MDA33
AW50			DDR0_D60	AW36	MDA33
AW51			DDR0_D61	AW36	MDA33
AW52			DDR0_D62	AW36	MDA33
AW53			DDR0_D63	AW36	MDA33
AW54			DDR0_D64	AW36	MDA33
AW55			DDR0_D65	AW36	MDA33
AW56			DDR0_D66	AW36	MDA33
AW57			DDR0_D67	AW36	MDA33
AW58			DDR0_D68	AW36	MDA33
AW59			DDR0_D69	AW36	MDA33
AW60			DDR0_D70	AW36	MDA33
AW61			DDR0_D71	AW36	MDA33
AW62			DDR0_D72	AW36	MDA33
AW63			DDR0_D73	AW36	MDA33
AW64			DDR0_D74	AW36	MDA33
AW65			DDR0_D75	AW36	MDA33
AW66			DDR0_D76	AW36	MDA33
AW67			DDR0_D77	AW36	MDA33
AW68			DDR0_D78	AW36	MDA33
AW69			DDR0_D79	AW36	MDA33
AW70			DDR0_D80	AW36	MDA33
AW71			DDR0_D81	AW36	MDA33
AW72			DDR0_D82	AW36	MDA33
AW73			DDR0_D83	AW36	MDA33
AW74			DDR0_D84	AW36	MDA33
AW75			DDR0_D85	AW36	MDA33
AW76			DDR0_D86	AW36	MDA33
AW77			DDR0_D87	AW36	MDA33
AW78			DDR0_D88	AW36	MDA33
AW79			DDR0_D89	AW36	MDA33
AW80			DDR0_D90	AW36	MDA33
AW81			DDR0_D91	AW36	MDA33
AW82			DDR0_D92	AW36	MDA33
AW83			DDR0_D93	AW36	MDA33
AW84			DDR0_D94	AW36	MDA33
AW85			DDR0_D95	AW36	MDA33
AW86			DDR0_D96	AW36	MDA33
AW87			DDR0_D97	AW36	MDA33
AW88			DDR0_D98	AW36	MDA33
AW89			DDR0_D99	AW36	MDA33
AW90			DDR0_D100	AW36	MDA33
AW91			DDR0_D101	AW36	MDA33
AW92			DDR0_D102	AW36	MDA33
AW93			DDR0_D103	AW36	MDA33
AW94			DDR0_D104	AW36	MDA33
AW95			DDR0_D105	AW36	MDA33
AW96			DDR0_D106	AW36	MDA33
AW97			DDR0_D107	AW36	MDA33
AW98			DDR0_D108	AW36	MDA33
AW99			DDR0_D109	AW36	MDA33
AW100			DDR0_D110	AW36	MDA33
AW101			DDR0_D111	AW36	MDA33
AW102			DDR0_D112	AW36	MDA33
AW103			DDR0_D113	AW36	MDA33
AW104			DDR0_D114	AW36	MDA33
AW105			DDR0_D115	AW36	MDA33
AW106			DDR0_D116	AW36	MDA33
AW107			DDR0_D117	AW36	MDA33
AW108			DDR0_D118	AW36	MDA33
AW109			DDR0_D119	AW36	MDA33
AW110			DDR0_D120	AW36	MDA33
AW111			DDR0_D121	AW36	MDA33
AW112			DDR0_D122	AW36	MDA33
AW113			DDR0_D123	AW36	MDA33
AW114			DDR0_D124	AW36	MDA33
AW115			DDR0_D125	AW36	MDA33
AW116			DDR0_D126	AW36	MDA33
AW117			DDR0_D127	AW36	MDA33
AW118			DDR0_D128	AW36	MDA33
AW119			DDR0_D129	AW36	MDA33
AW120			DDR0_D130	AW36	MDA33
AW121			DDR0_D131	AW36	MDA33
AW122			DDR0_D132	AW36	MDA33
AW123			DDR0_D133	AW36	MDA33
AW124			DDR0_D134	AW36	MDA33
AW125			DDR0_D135	AW36	MDA33
AW126			DDR0_D136	AW36	MDA33
AW127			DDR0_D137	AW36	MDA33
AW128			DDR0_D138	AW36	MDA33
AW129			DDR0_D139	AW36	MDA33
AW130			DDR0_D140	AW36	MDA33
AW131			DDR0_D141	AW36	MDA33
AW132			DDR0_D142	AW36	MDA33
AW133			DDR0_D143	AW36	MDA33
AW134			DDR0_D144	AW36	MDA33
AW135			DDR0_D145	AW36	MDA33
AW136			DDR0_D146	AW36	MDA33
AW137			DDR0_D147	AW36	MDA33
AW138			DDR0_D148	AW36	MDA33
AW139			DDR0_D149	AW36	MDA33
AW140			DDR0_D150	AW36	MDA33
AW141			DDR0_D151	AW36	MDA33
AW142			DDR0_D152	AW36	MDA33
AW143			DDR0_D153	AW36	MDA33
AW144			DDR0_D154	AW36	MDA33
AW145			DDR0_D155	AW36	MDA33
AW146			DDR0_D156	AW36	MDA33
AW147			DDR0_D157	AW36	MDA33
AW148			DDR0_D158	AW36	MDA33
AW149			DDR0_D159	AW36	MDA33
AW150			DDR0_D160	AW36	MDA33
AW151			DDR0_D161	AW36	MDA33
AW152			DDR0_D162	AW36	MDA33
AW153			DDR0_D163	AW36	MDA33
AW154			DDR0_D164	AW36	MDA33
AW155			DDR0_D165	AW36	MDA33
AW156			DDR0_D166	AW36	MDA33
AW157			DDR0_D167	AW36	MDA33
AW158			DDR0_D168	AW36	MDA33
AW159			DDR0_D169	AW36	MDA33
AW160			DDR0_D170	AW36	MDA33
AW161			DDR0_D171	AW36	MDA33
AW162			DDR0_D172	AW36	MDA33
AW163			DDR0_D173	AW36	MDA33
AW164			DDR0_D174	AW36	MDA33
AW165			DDR0_D175	AW36	MDA33
AW166			DDR0_D176	AW36	MDA33
AW167			DDR0_D177	AW36	MDA33
AW168			DDR0_D178	AW36	MDA33
AW169			DDR0_D179	AW36	MDA33
AW170			DDR0_D180	AW36	MDA33
AW171			DDR0_D181	AW36	MDA33
AW172			DDR0_D182	AW36	MDA33
AW173			DDR0_D183	AW36	MDA33
AW174			DDR0_D184	AW36	MDA33
AW175			DDR0_D185	AW36	MDA33
AW176			DDR0_D186	AW36	MDA33
AW177			DDR0_D187	AW36	MDA33
AW178			DDR0_D188	AW36	MDA33
AW179			DDR0_D189	AW36	MDA33
AW180			DDR0_D190	AW36	MDA33
AW181			DDR0_D191	AW36	MDA33
AW182			DDR0_D192	AW36	MDA33
AW183			DDR0_D193	AW36	MDA33
AW184			DDR0_D194	AW36	MDA33
AW185			DDR0_D195	AW36	MDA33
AW186			DDR0_D196	AW36	MDA33
AW187			DDR0_D197	AW36	MDA33
AW188			DDR0_D198	AW36	MDA33
AW189			DDR0_D199	AW36	MDA33
AW190			DDR0_D200	AW36	MDA33
AW191			DDR0_D201	AW36	MDA33
AW192			DDR0_D202	AW36	MDA33
AW193			DDR0_D203	AW36	MDA33
AW194			DDR0_D204	AW36	MDA33
AW195			DDR0_D205	AW36	MDA33
AW196			DDR0_D206	AW36	MDA33
AW197			DDR0_D207	AW36	MDA33
AW198			DDR0_D208	AW36	MDA33
AW199			DDR0_D209	AW36	MDA33
AW200			DDR0_D210	AW36	MDA33
AW201			DDR0_D211	AW36	MDA33
AW202			DDR0_D212	AW36	MDA33
AW203			DDR0_D213	AW36	MDA33
AW204			DDR0_D214	AW36	MDA33
AW205			DDR0_D215	AW36	MDA33
AW206			DDR0_D216	AW36	MDA33
AW207			DDR0_D217	AW36	MDA33
AW208			DDR0_D218	AW36	MDA33
AW209			DDR0_D219	AW36	MDA33
AW210			DDR0_D220	AW36	MDA33
AW211			DDR0_D221	AW36	MDA33
AW212			DDR0_D222	AW36	MDA33
AW213			DDR0_D223	AW36	MDA33
AW214			DDR0_D224	AW36	MDA33
AW215			DDR0_D225	AW36	MDA33
AW216			DDR0_D226	AW36	MDA33
AW217			DDR0_D227	AW36	MDA33
AW218			DDR0_D228	AW36	MDA33
AW219			DDR0_D229	AW36	MDA33
AW220			DDR0_D230	AW36	MDA33
AW221			DDR0_D231	AW36	MDA33
AW222					

LGA1150 (F,J)

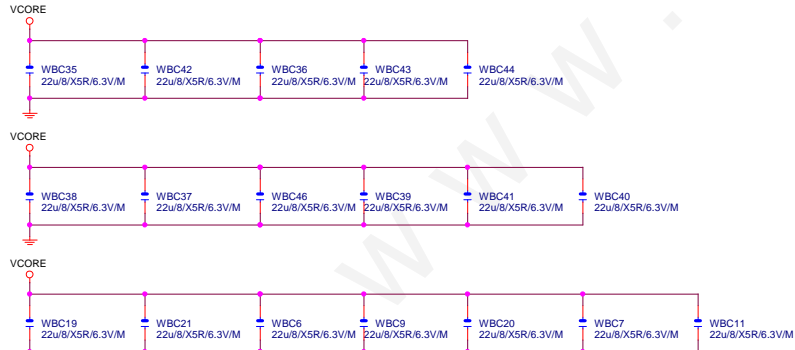
www.xinxunwei.com 400-800-9990

LGA1155 (G,H,I)



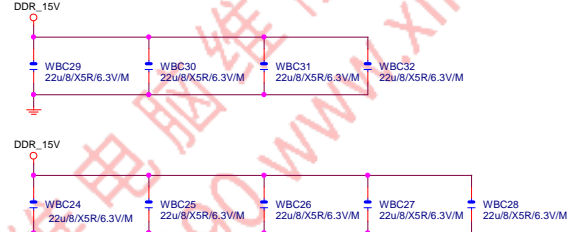
VCore CAP

(X18)



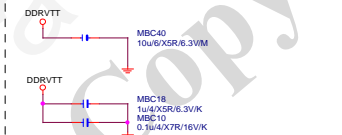
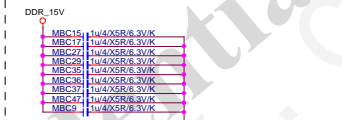
DDR CAP

(X9)



Gigabyte Technology

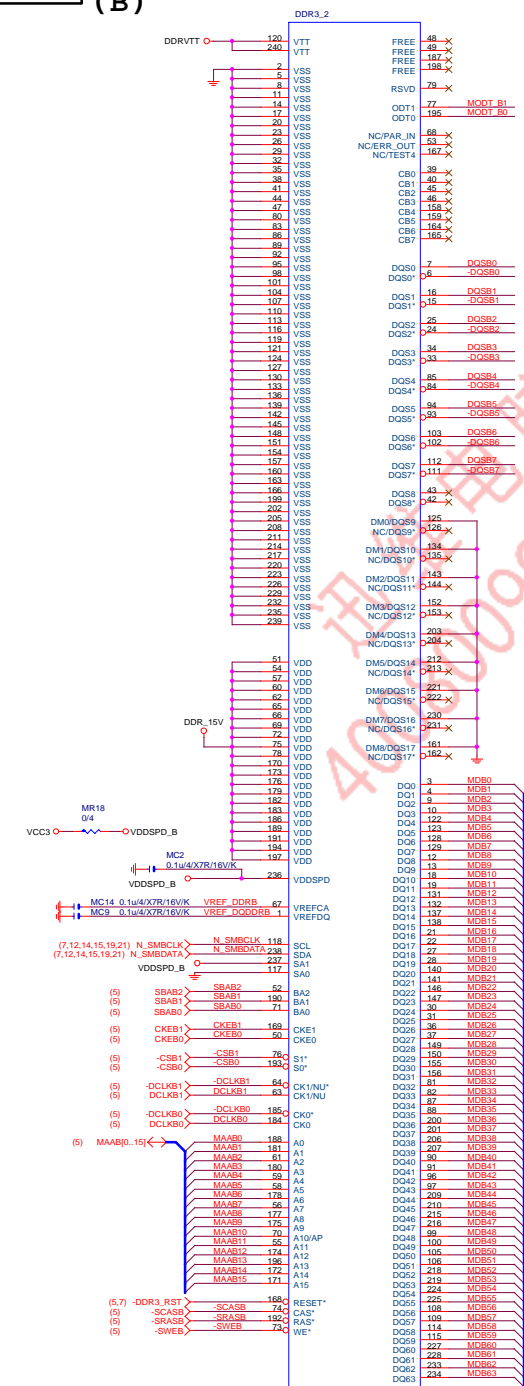
Title				
CPU LGA1150-C				
Size	Document Number	GA-H81M-D3V-JP UC		Rev
Custom				1.01
Date:	Friday, November 08, 2013	Sheet	6 of 33	





DDR3

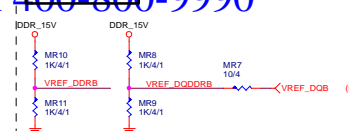
(B)



DDR3/240/BK/VA/D
BLACK CONNECTOR



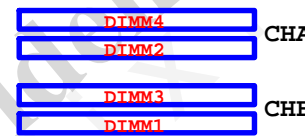
DDR3 VREF



COUPON



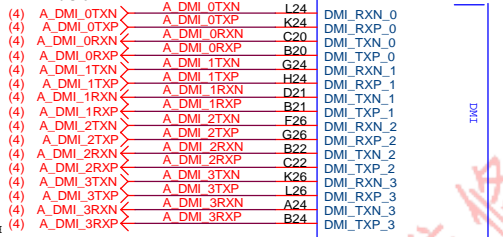
CPU



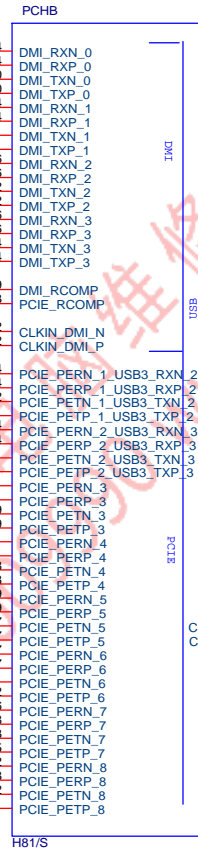
Gigabyte Technology	
Title	
DDRIII CHANNEL B	
Size	Document Number
Custom	GA-H81M-D3V-JP UC
Date	Rev
2	1.01
Sheet 8 of 33	

PCH (B)

DMI:12/4/4/4/12(breakout min 8/4/4/4/8)
Impedance=85 +- 17.5%



USB2.0 : 12/4.5/7.5/4.5/12 (breakout min 8/4/4/4/8)
Impedance=90 +- 17.5%



B85: Port 6/7 N/A
H81: Port 6/7/12/13 N/A

H81: Port 6/7/12/13 N/A

H81: Port 6/7/12/13 N/A

N -USBOC_R (18)
N -USBOC_F (18,21)

AV20 N_USBRBIAS NR47 22.6/4/1
AU20

N GPIO14 NR130 8.2K/4
N -USBOC_F N -USBOC_R
NBC82 0.1u/4/X7R/16V/K NBC83 0.1u/4/X7R/16V/K

PCIE Only

8111G

VL805

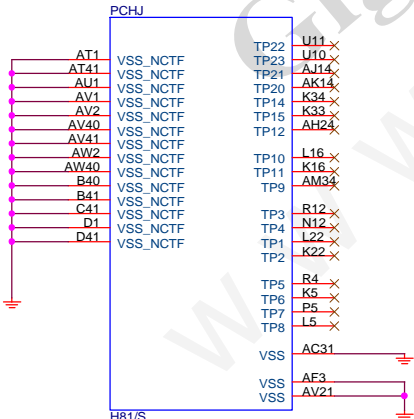
PCIEx1

N/A

放靠近 Device & PCI-E Slot
Impedance=80 +- 17.5%

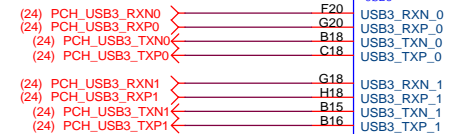
PCIEX1:16/5/5/5/16 (breakout min 8/4/4/4/8)

PCH (J)



H81/S

PCH (F)



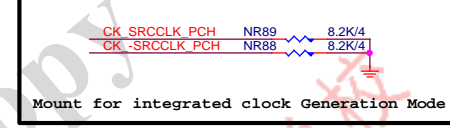
N/A



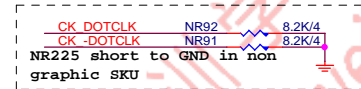
H81/S
FDI_TXP0..11 >>> FDI_TXP0..11 (4)
FDI_TXN0..11 >>> FDI_TXN0..11 (4)

USB3.0:20/5/7/5/20 (breakout min 8/4/4/4/8) ; ONLY 3 VIAS
Impedance=85 +- 17.5%
Back Panel < 10000 MILS
Front Panel < 6000 MILS

PCH CLK PD



Mount for integrated clock Generation Mode

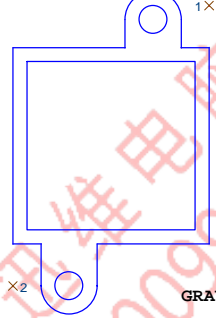


NR225 short to GND in non graphic SKU

PCH H/S

LOW COST ICH7 HEATSINK

SB_HEATSINK



PCH_HS
PCH_HS[12SP2-030005-41R]

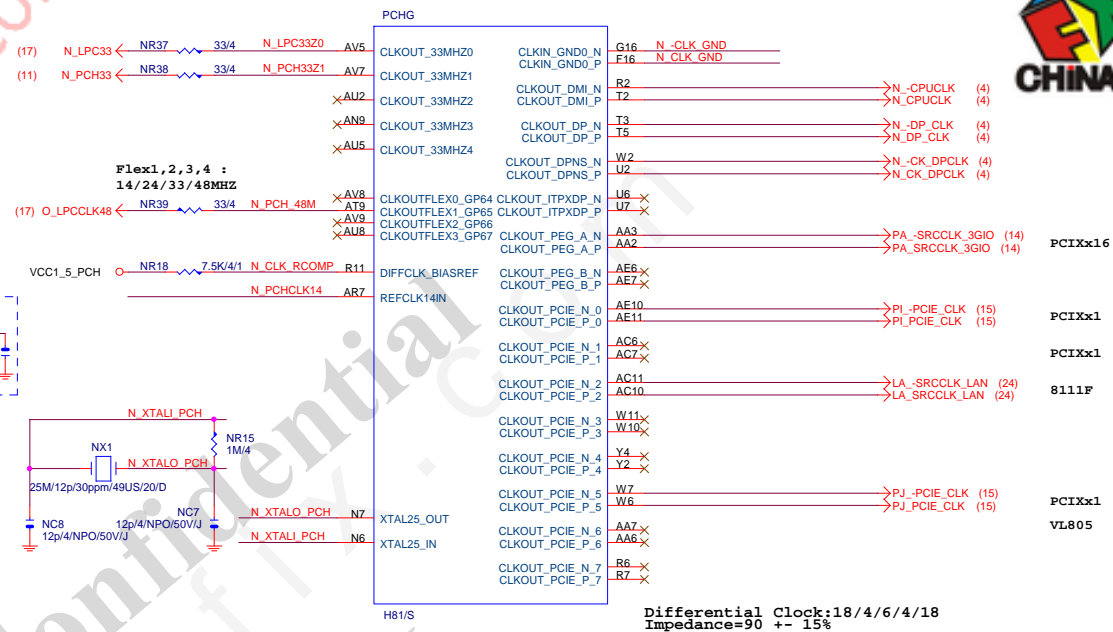
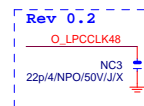
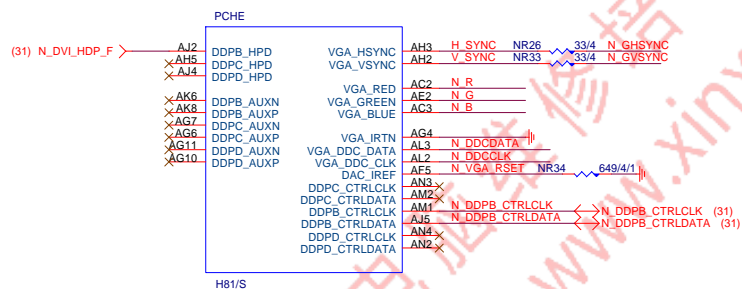
USB TABLE

OC[3:0]# for Device 29 (ports 0-7)
OC[7:4]# for Device 26 (ports 8-13)

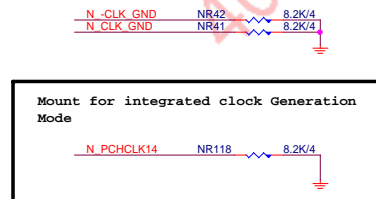
USB OC#	Configure
OC0#	F_USB30
OC1#	USB_LAN
OC2#	R_USB30
OC3#	N/A
OC4#	F_USB1
OC5#	F_USB2
OC6#	KB_MS_USB
OC7#	Not Use

Gigabyte Technology

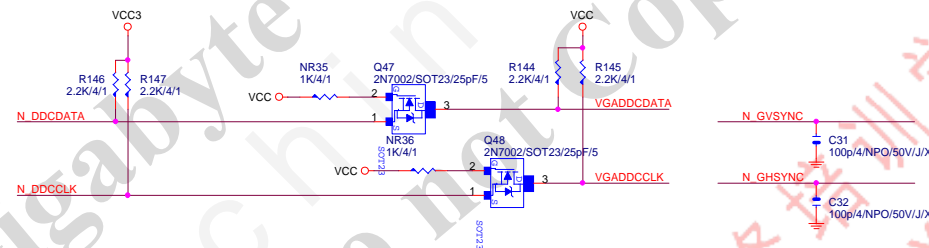
Title	PCH FDI,DMI,USB ,PCIE,NVRAM		
Size	Document Number	GA-H81M-D3V-JP UC	Rev 1.01
Custom			
Date:	Friday, November 08, 2013	Sheet 9 of 33	1



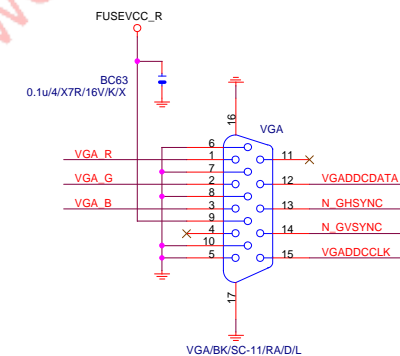
PCH CLK PD



VGA DDC



VGA CONNECTOR

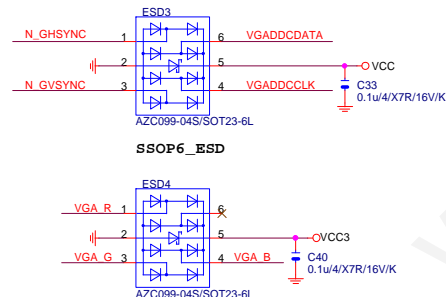


BLACK CONNECTOR

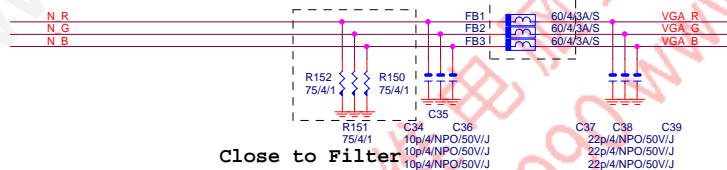
Gigabyte Technology

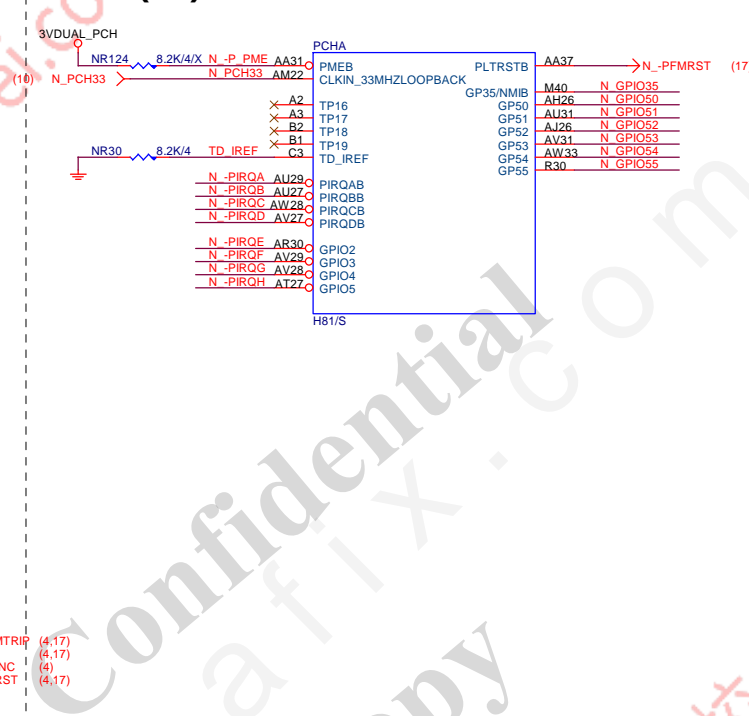
Title			
PCH DISPLAY_CLK BUFFER			
Size Custom			
Document Number			
GA-H81M-D3V-JP UC			
Date: Friday, November 08, 2013			
Sheet 10 of 33			
Rev 1.01			

VGA ESD



VGA DDC

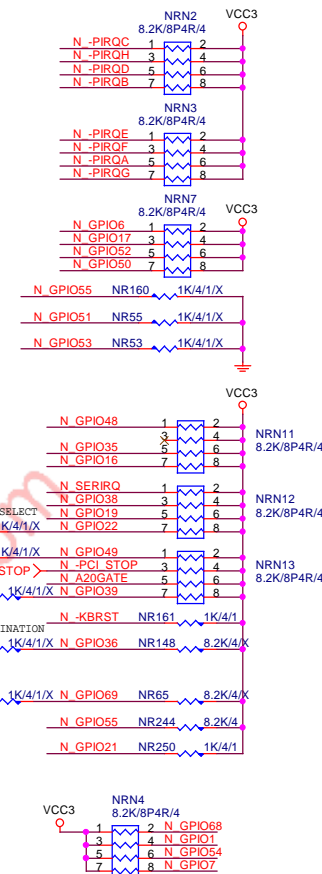




(12) N GPIO60 NR184 8.2K/4

N GPIO38 NR114 8.2K/4 X

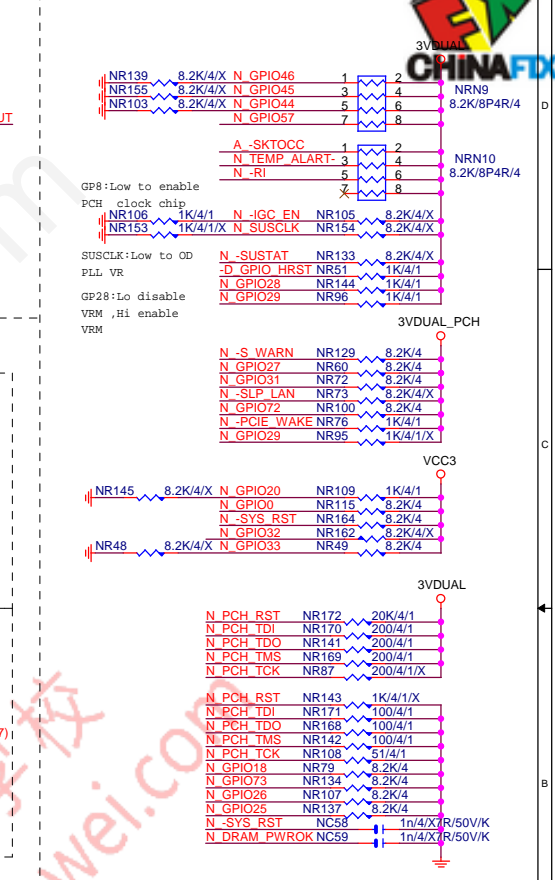
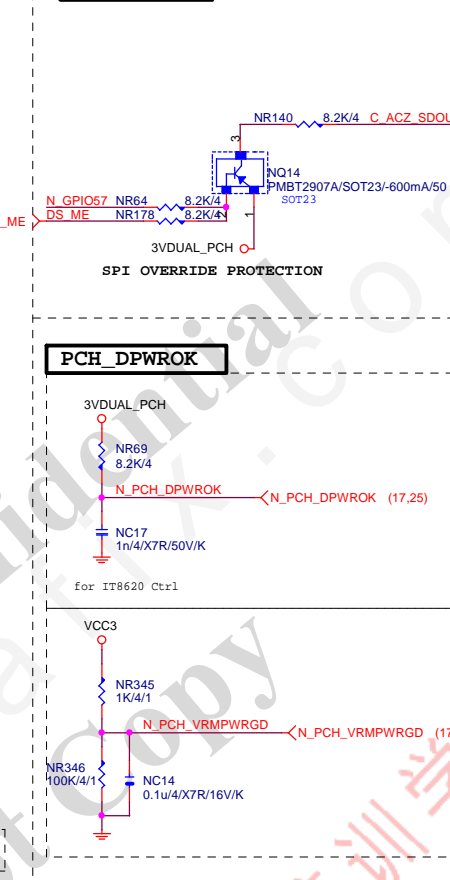
NQ13 MMBT2222A/SOT23/600mA/40 SOT23



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

ACZ_SDOUT

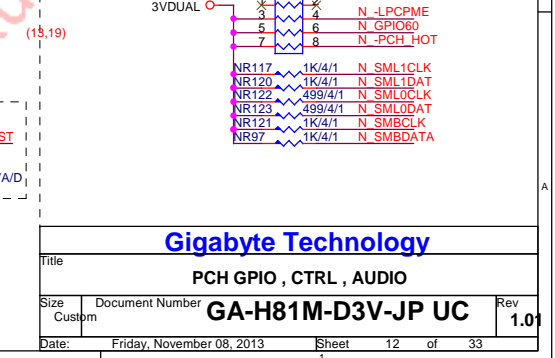
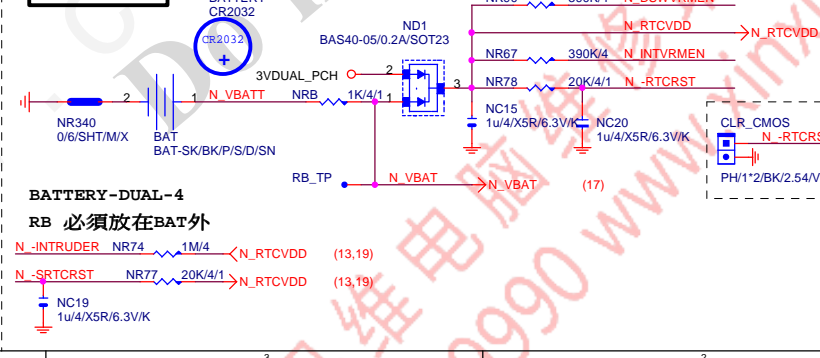
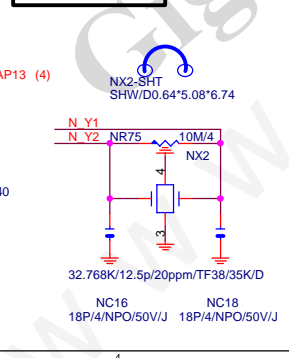
PCH	PU/PD
-----	-------



HSW_STRAP13

32.768KHZ

CLR_CMOS



Gigabyte Technology

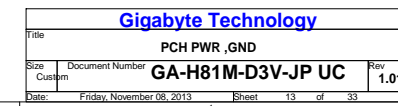
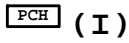
PCH GPIO , CTRL , AUDIO

GA-H81M-D3V-JP UC

1.01

Date:	Friday, November 08, 2013	Sheet	12	of	33
-------	---------------------------	-------	----	----	----

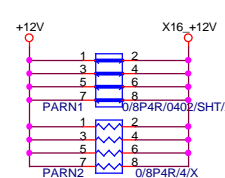
SHT PWR



PCIEX16 CAP



PCIEX16 PROTECT SHT



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

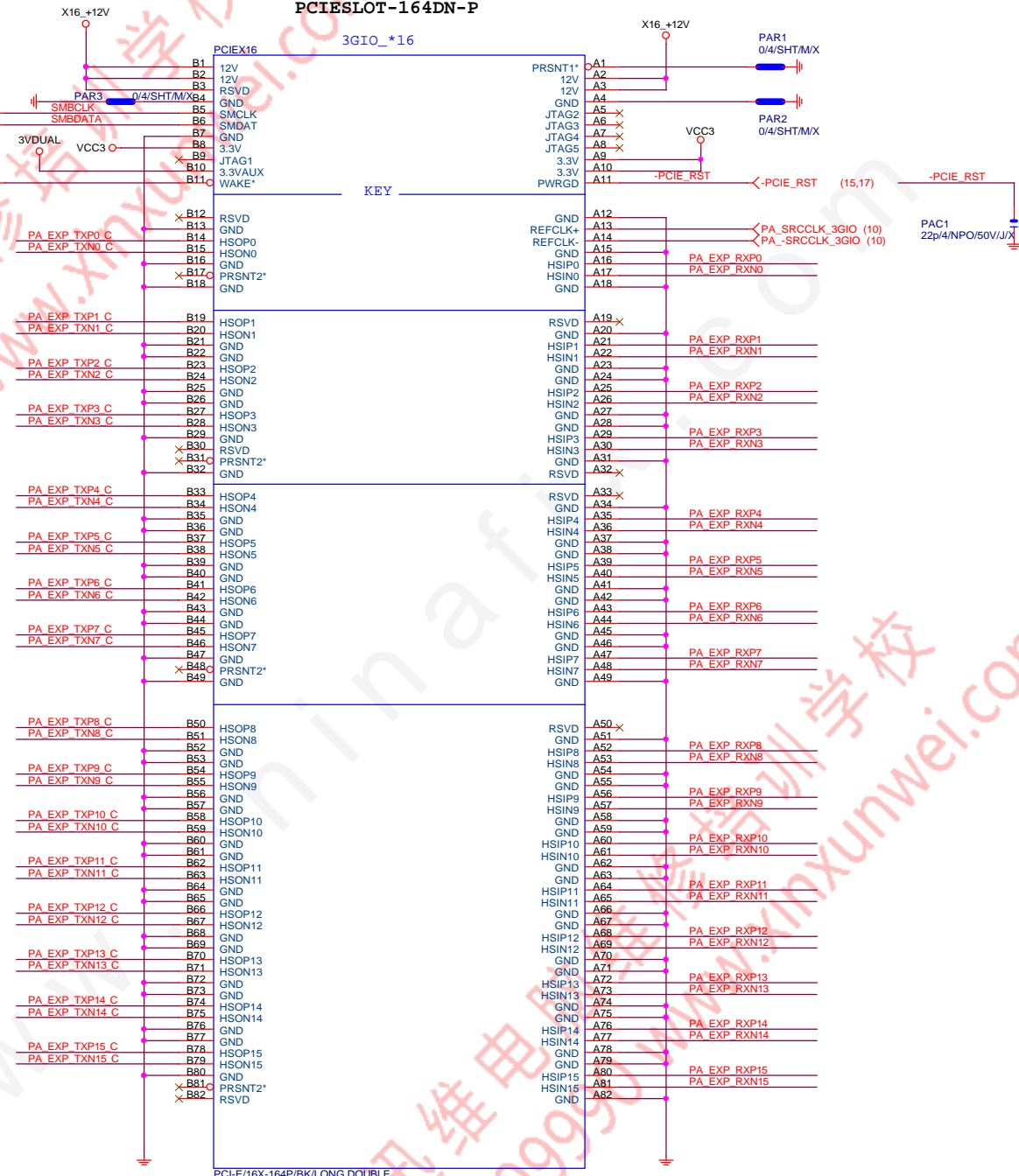
PA_EXP_RXP[0..15] >> PA_EXP_RXP[0..15] (4)
PA_EXP_RXN[0..15] >> PA_EXP_RXN[0..15] (4)
PA_EXP_TXP[0..15] >> PA_EXP_TXP[0..15] (4)
PA_EXP_TXN[0..15] >> PA_EXP_TXN[0..15] (4)

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

PCIEX16 SLOT

www.xinxunwei.com 400-800-9990

PCIESLOT-164DN-P



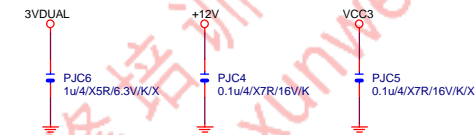
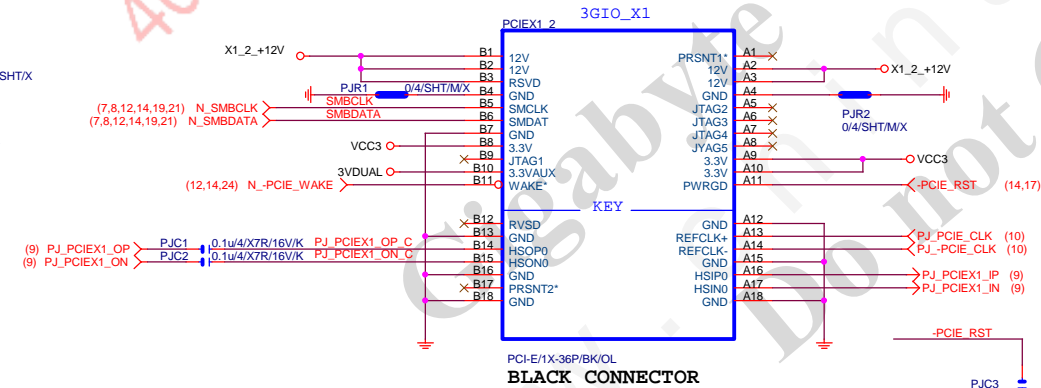
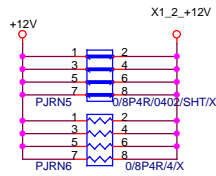
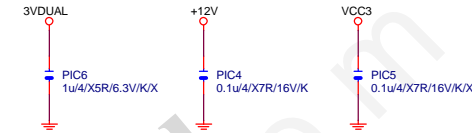
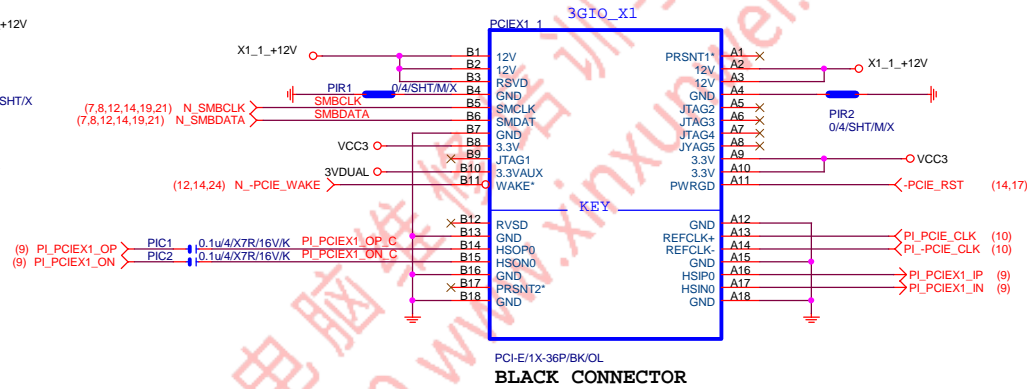
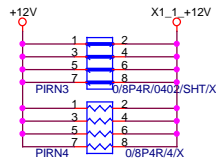
PCI-E/16X-164P/BK/LONG DOUBLE

BLACK CONNECTOR

Gigabyte Technology

Title						PCI EXPRESS * 16					
Size		Document Number				GA-H81M-D3V-JP UC				Rev	
Custom										1.0	
Date:		Friday, November 08, 2013				Sheet		14		of 33	

PCIEX1 SLOT



Gigabyte Technology

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

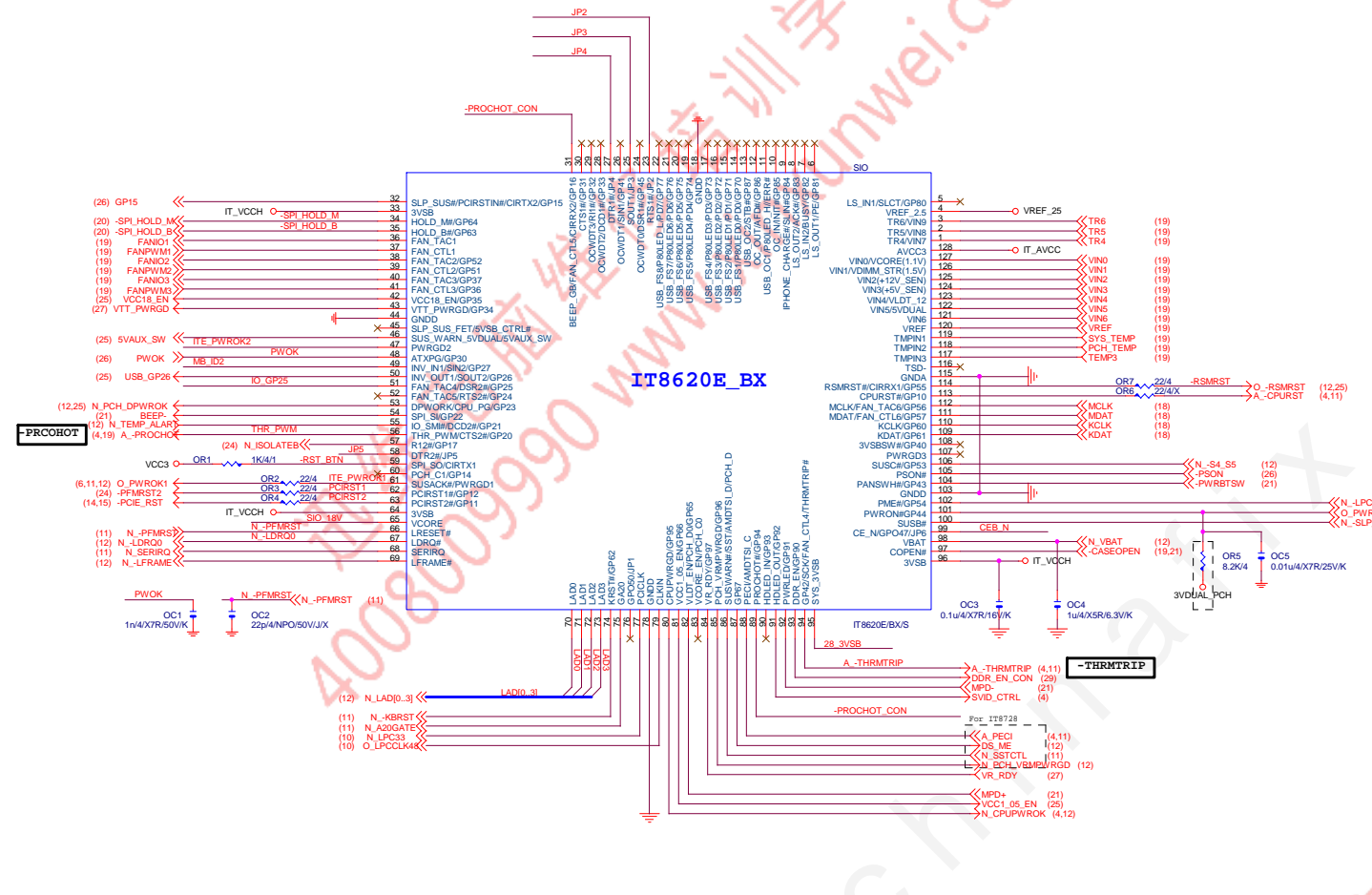


迅维电脑维修培训学校
4008009990 www.xinxunwei.com

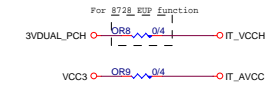
Gigabyte Confidential
www.chinafix.com
Do not Copy

迅维电脑维修培训学校
4008009990 www.xinxunwei.com

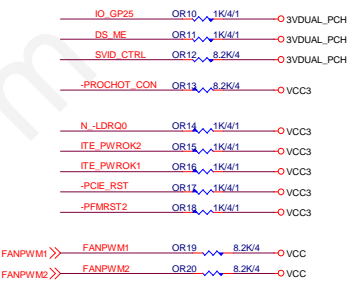
Gigabyte Technology			
Title			
PCI SLOT 1&2			
Size	Document Number	Rev	
Custom	GA-H81M-D3V-JP UC	1.01	
Date:	Friday, November 08, 2013	Sheet	16 of 33
	2		1



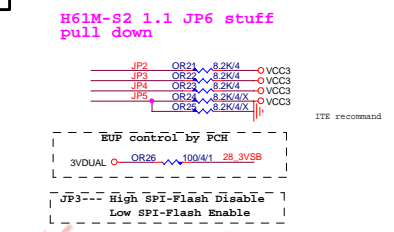
PWR SHT



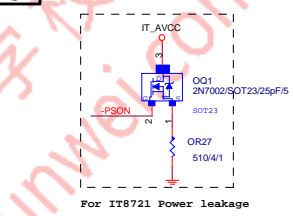
SIO PU



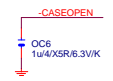
SIO STRAP



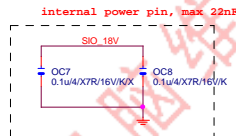
Power leakage



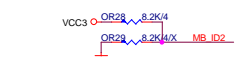
DUAL BIOS OPT STRAP



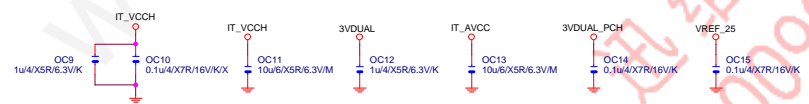
SIO 18V



MB ID



SIO CAP



Gigabyte Technology			
Title PCH GPIO, CTRL, AUDIO			
Size C	Document Number	GA-H81M-D3V-JP UC	Rev 1.01
Date:	Friday, November 05, 2013	Sheet 17	of 33

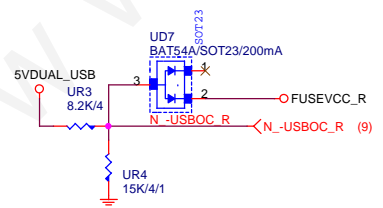
COM

COM RI

USB30_20

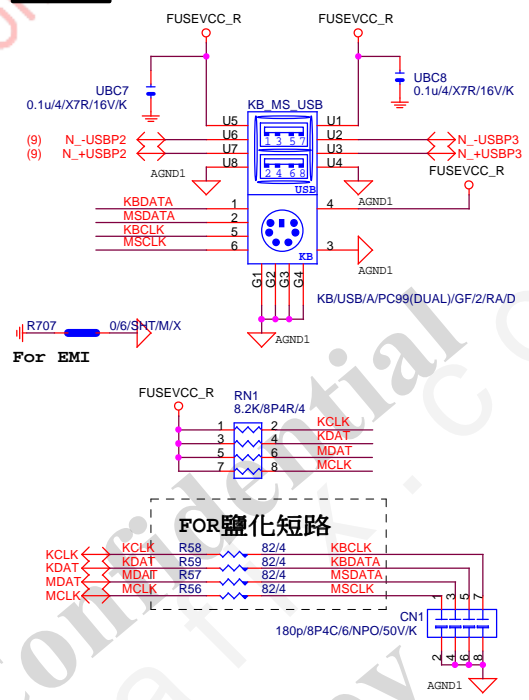
USB30_20 PWR

-USBOC_R



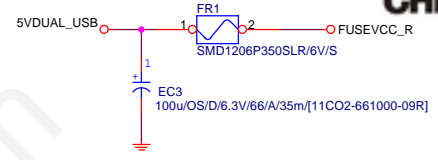
www.xinxunwei.com 400-800-9990

KB/MS



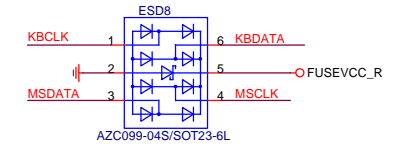
USB2.0 PWR

FUSE-0805
KB_MS_USB 2-Port 2.0A

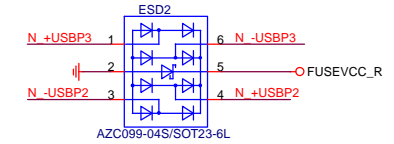


Close to connector

KB/MS ESD



USB2.0 ESD

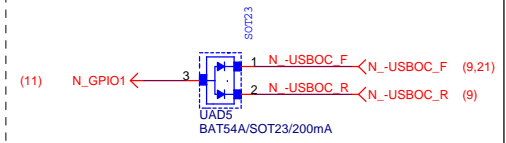


USB30_20 ESD PROTECT

USB3.0 ESD

USB2.0 ESD

USB POWER PROTECT

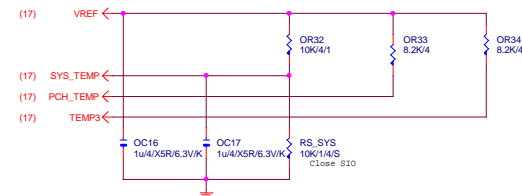


Gigabyte Technology

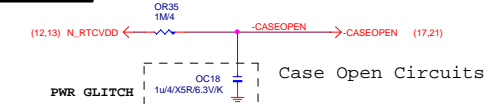
Title				COM,-RI,KB_USB,USB_ESATA,-PROCHOT	
Size	Custom	Document Number	GA-H81M-D3V-JP UC		Rev 1.01
Date:	Friday, November 08, 2013		Sheet	18	of 33



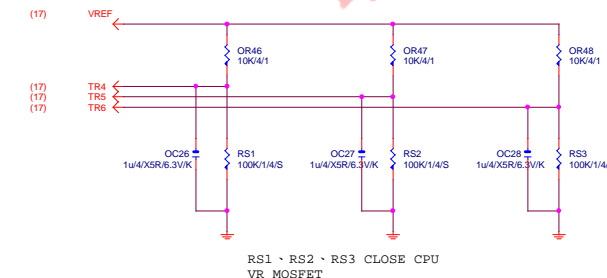
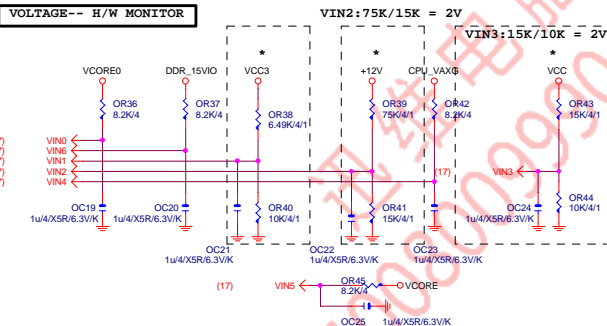
TEMP H/W MONITOR



CASE OPEN

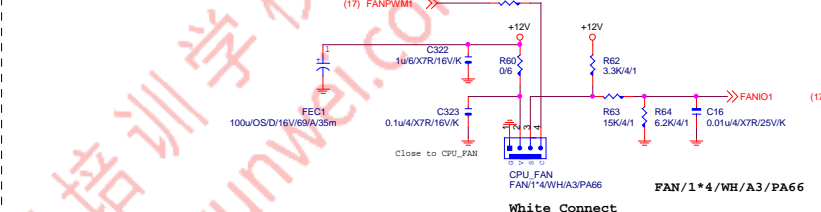


VOLTAGE-- H/W MONITOR

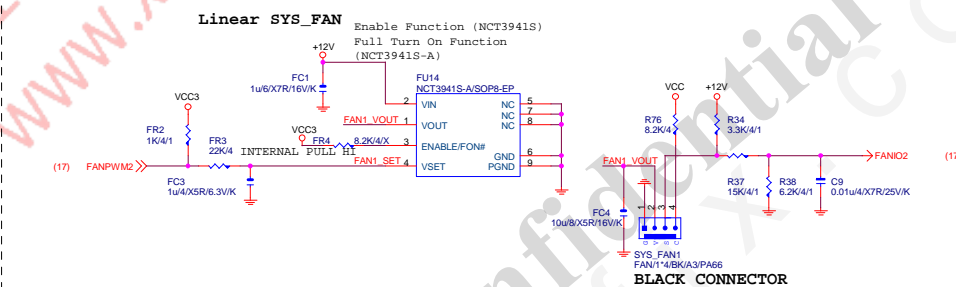


RS1、RS2、RS3 CLOSE CPU VR MOSFET

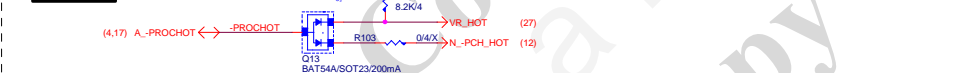
CPU SMART FAN

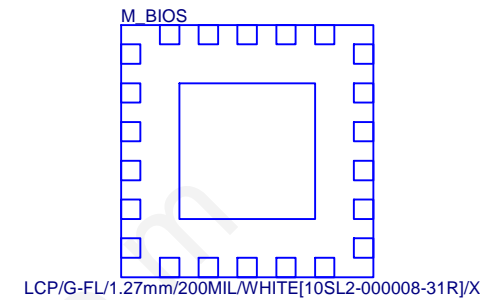
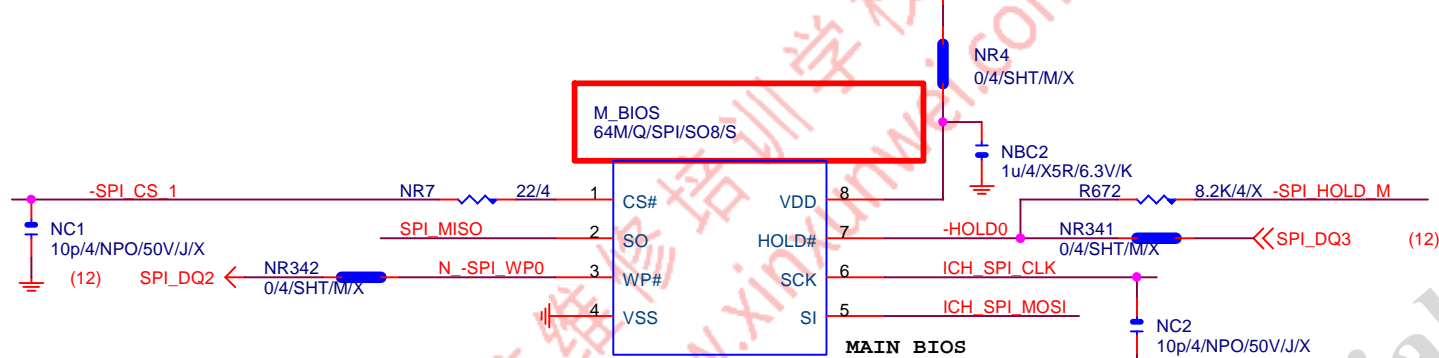


SYS SMART FAN



-PROHOT

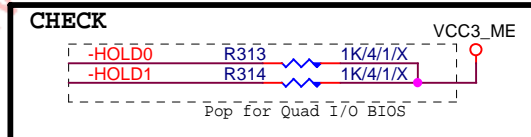
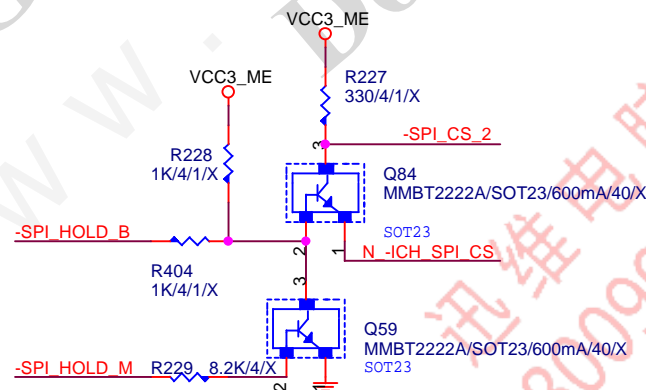
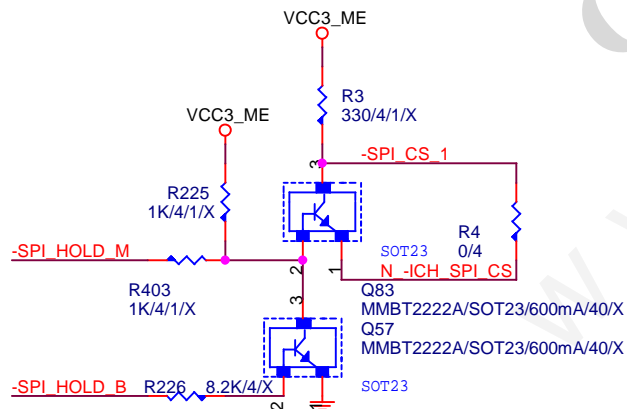
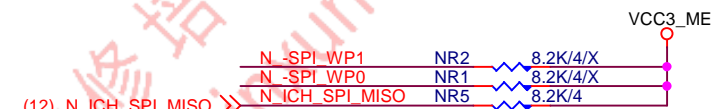




BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

1 means floating
0 means PD 1K

MOSI For DMI RX Termination Voltage



Gigabyte Technology

DUAL BIOS

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



F_USB30

www.xinxiunwei.com 400-800-9990

F_USB30_PWR

SATA_PWR

-USB0C_F

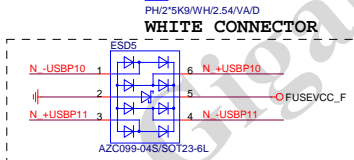
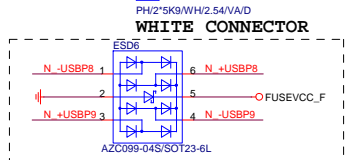
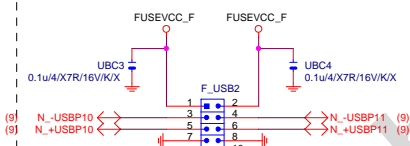
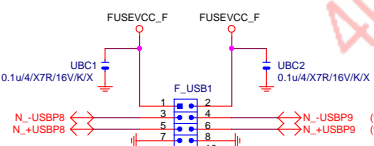
F_USB30 ESD PROTECT

SPKR

FRONT USB1

FRONT USB2

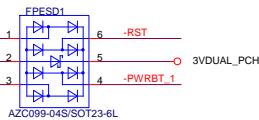
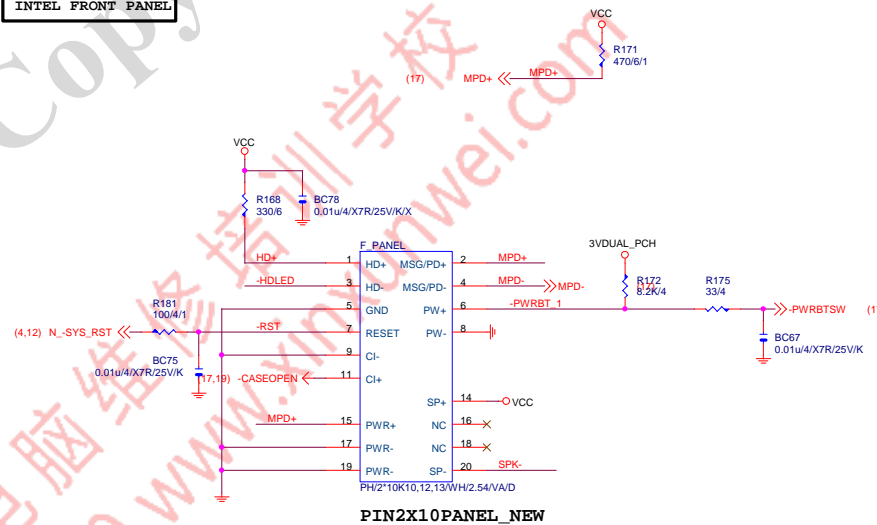
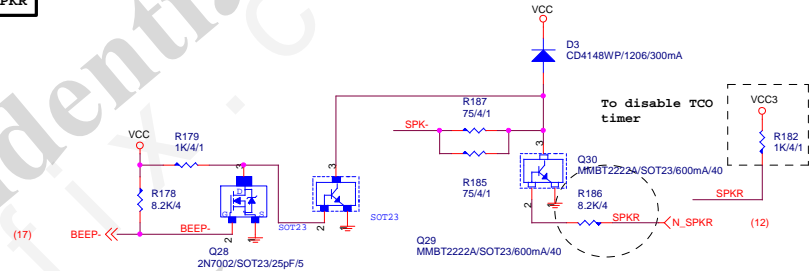
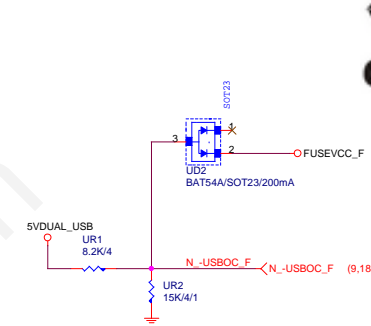
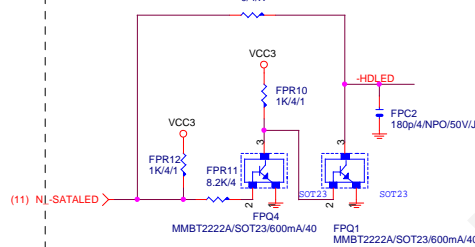
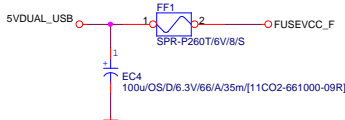
INTEL FRONT PANEL



Close to connector

Close to connector

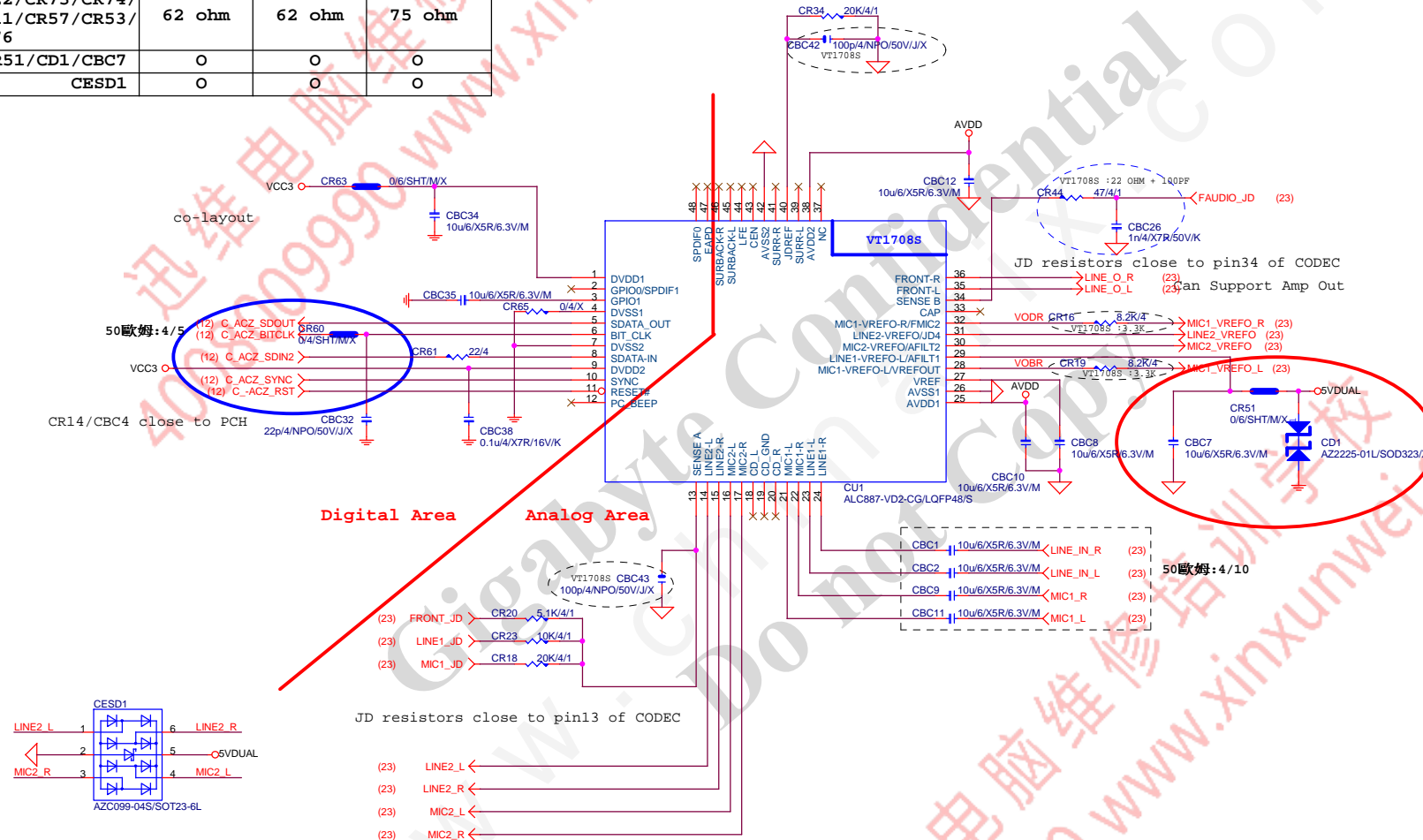
FUSE-0805
F_USB1, F_USB2 4-Port 2.6A



Gigabyte Technology			
FP_F_USB,USB PWR,SPKR,SATA LED			
GA-H81M-D3V-JP UC			
Size	Document Number	Rev	1.01
Custom			
Date:	Friday, November 08, 2013	Sheet	21 of 33

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



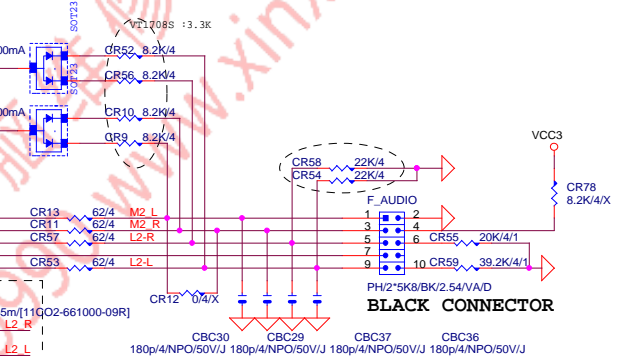
Gigabyte Technology

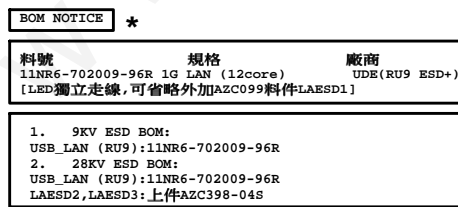
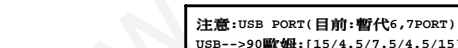
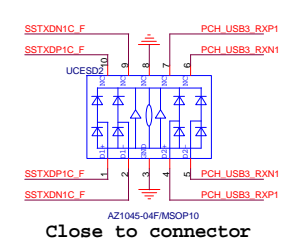
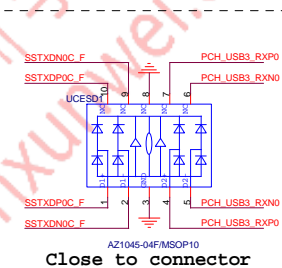
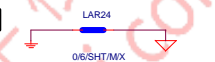
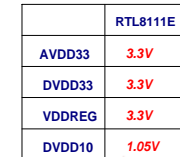
Title	HD AUDIO ALC887B-VD2/VT1708S/VT2021		
Size	Document Number	GA-H81M-D3V-JP UC	Rev 1.01
Custom			
Date:	Friday, November 08, 2013	Sheet 22 of 33	1

—



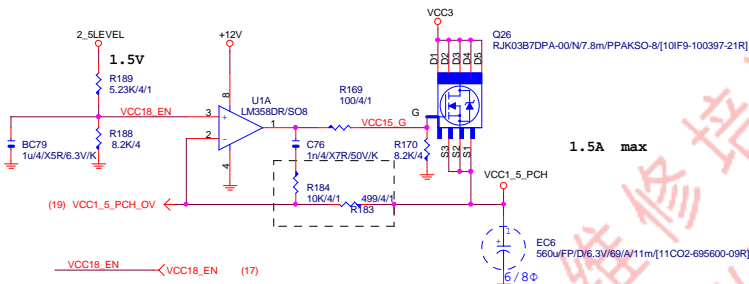
Title		AUDIO JACK		Rev
Size Custom	Document Number	GA-H81M-D3V-JP UC		1.01
Date:	Friday, November 08, 2013	Sheet	23	of 33



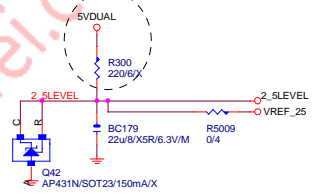




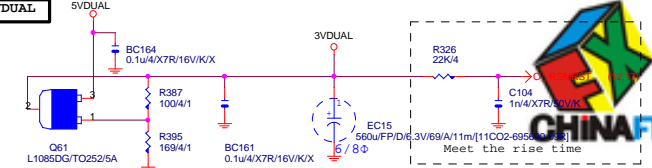
VCC1_8_PCH



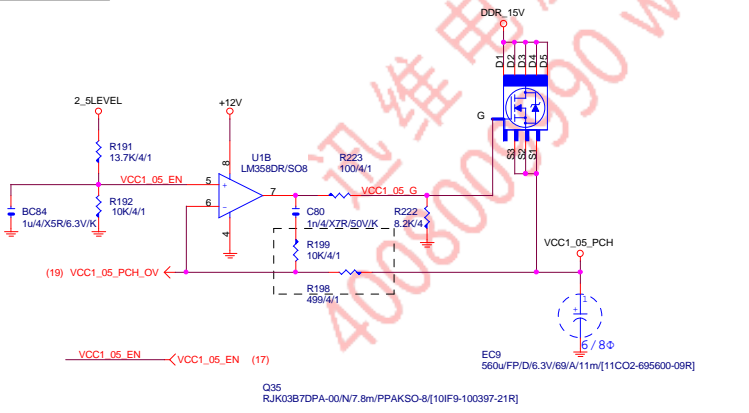
ERP



3VDUAL

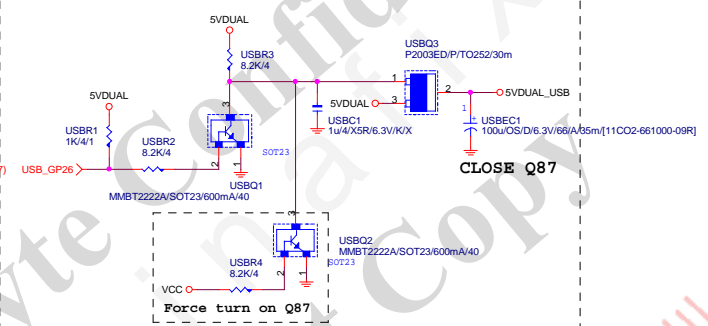


VCC1_05_PCH

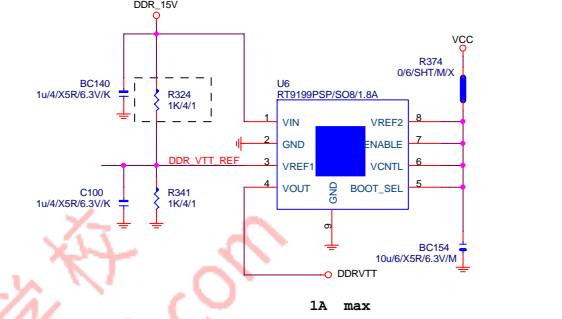


GPIO	5VDUAL_USB
High	Power ON
Low	Power OFF

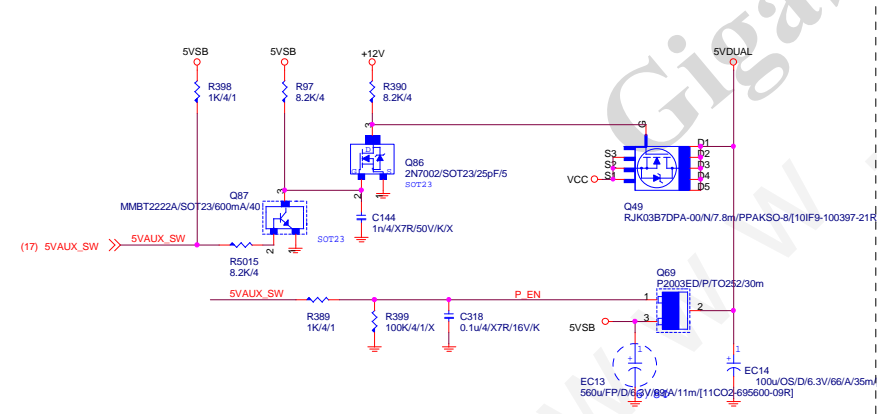
5VDUAL_USB Ctrl
KB_USB, R_USB30,
USB_LAN_F_USB30,
F_USB2 Power



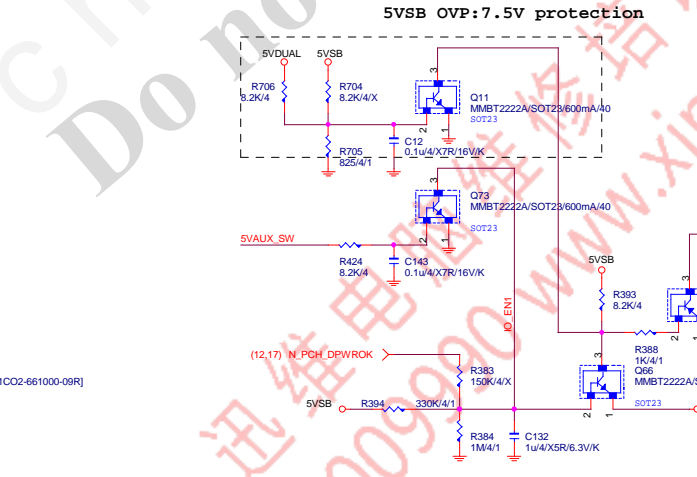
DDR_VTT



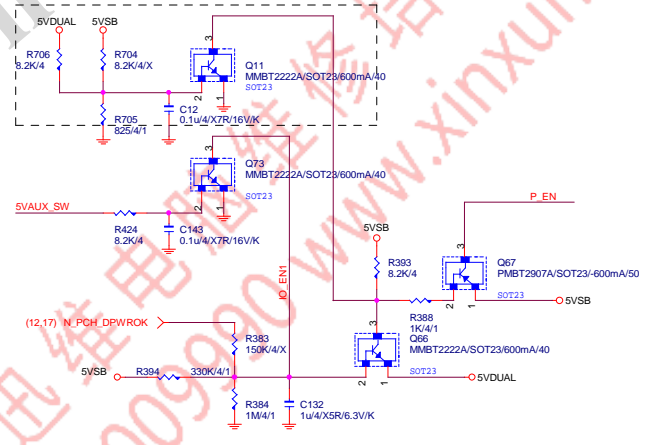
5VDUAL



5VDUAL SHORT PROTECT



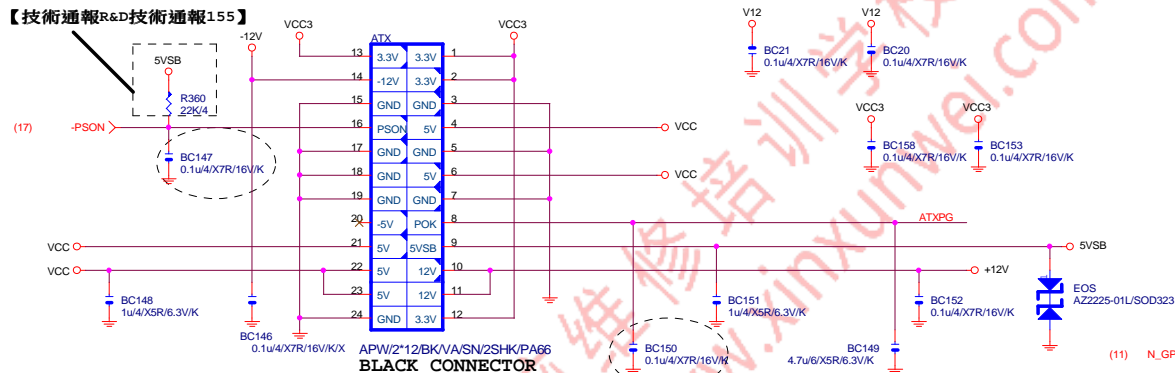
5VSB OVP:7.5V protection



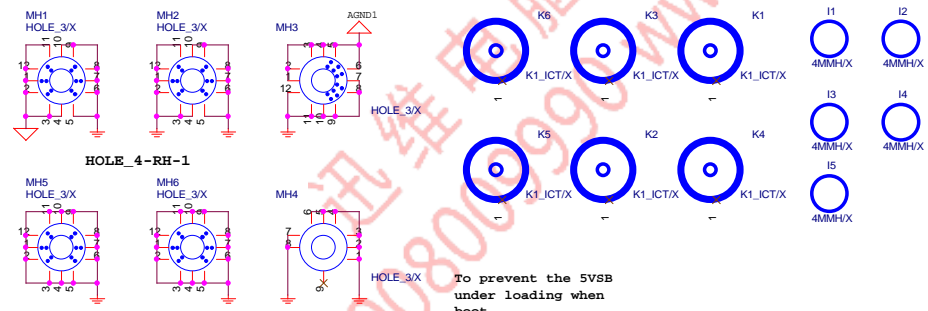
Gigabyte Technology	
DISCRETE POWER	
Size	Document Number
Custom	GA-H81M-D3V-JP UC1.01
Date	Friday, November 08, 2013
Sheet	25 of 33

ATXX24 POWER CONNECTOR

【技術通報R&D技術通報155】



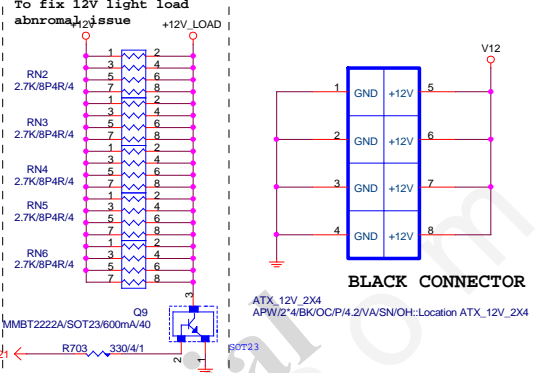
BLACK CONNECTOR



TPM

ATXX4 POWER CONNECTOR

【技術通報R&D技術通報158】

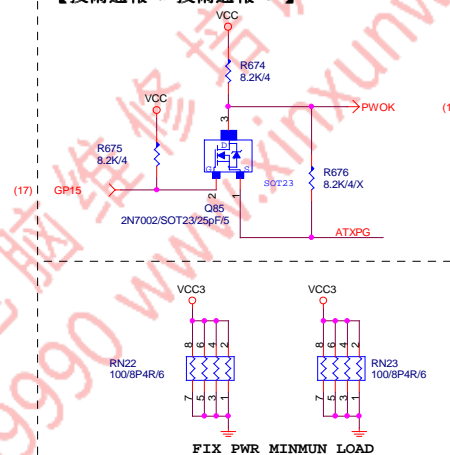


BLACK CONNECTOR

ATX 12V 2X4
APW2 4BK/OC/P4.2/V/A/SN/OH: Location ATX_12V_2X4

PWOK PATCH

【技術通報R&D技術通報154】



FIX PWR MINMUN LOAD

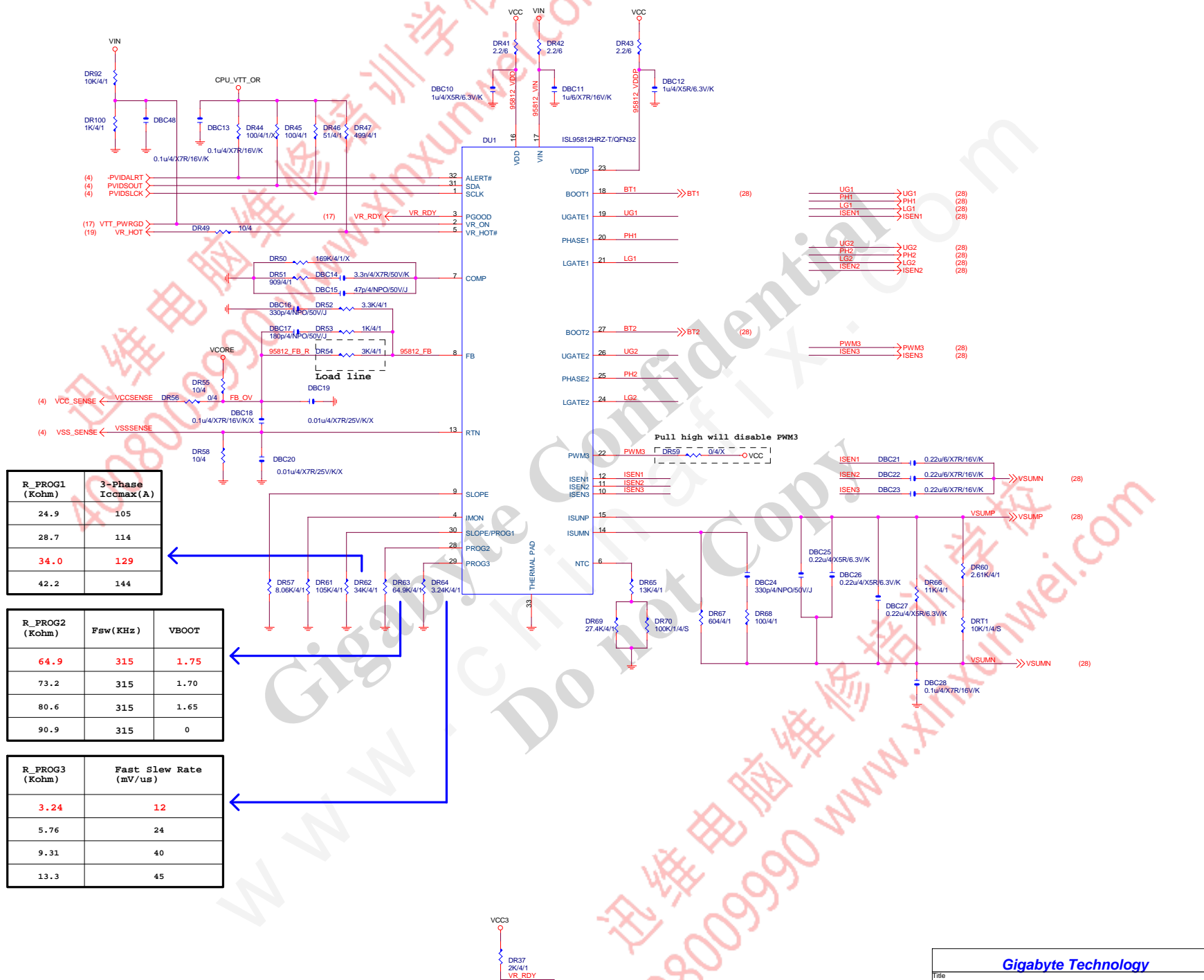
Gigabyte Technology

ATX CONNECTOR

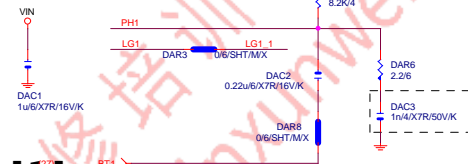
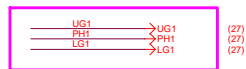
GA-H81M-D3V-JP UC

Rev 1.01

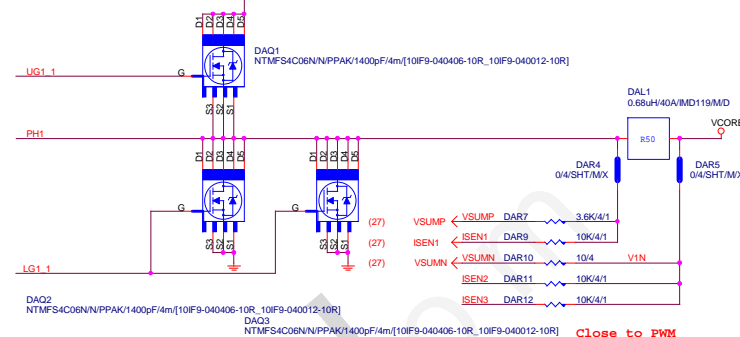
Date: Friday, November 08, 2013 Sheet 26 of 33



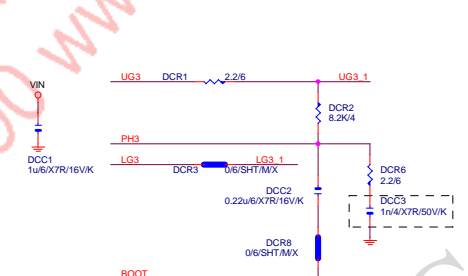
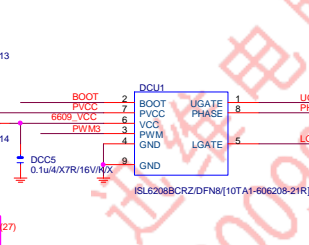
PHASE 1



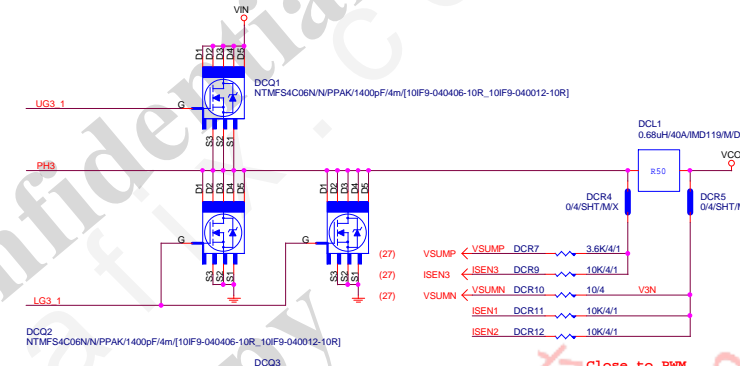
[1]



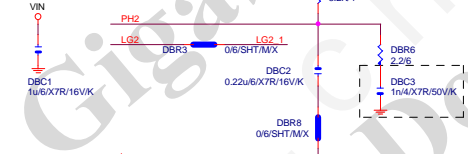
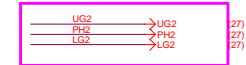
PHASE 3



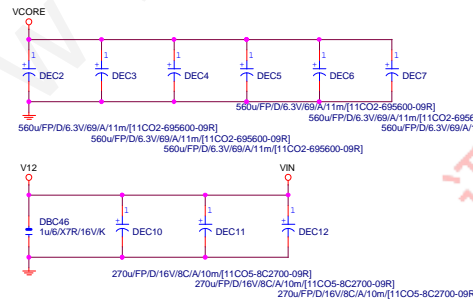
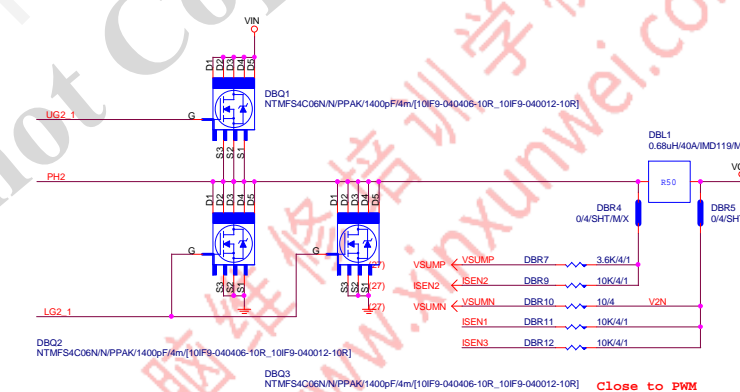
[3]

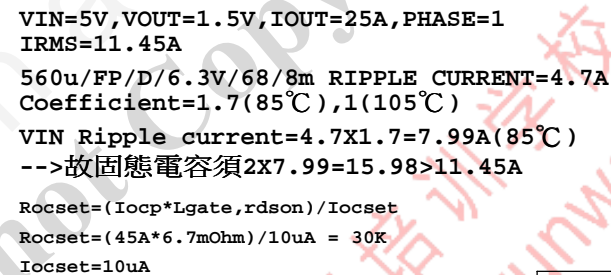


PHASE 2



[2]





<i>Gigabyte Technology</i>			
DDR POWER			
Size Custom	Document Number	GA-H81M-D3V-JP UC	Rev 1.01
Date:	Friday, November 08, 2013	Sheet 29 of 33	

VCC1_05_ME

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

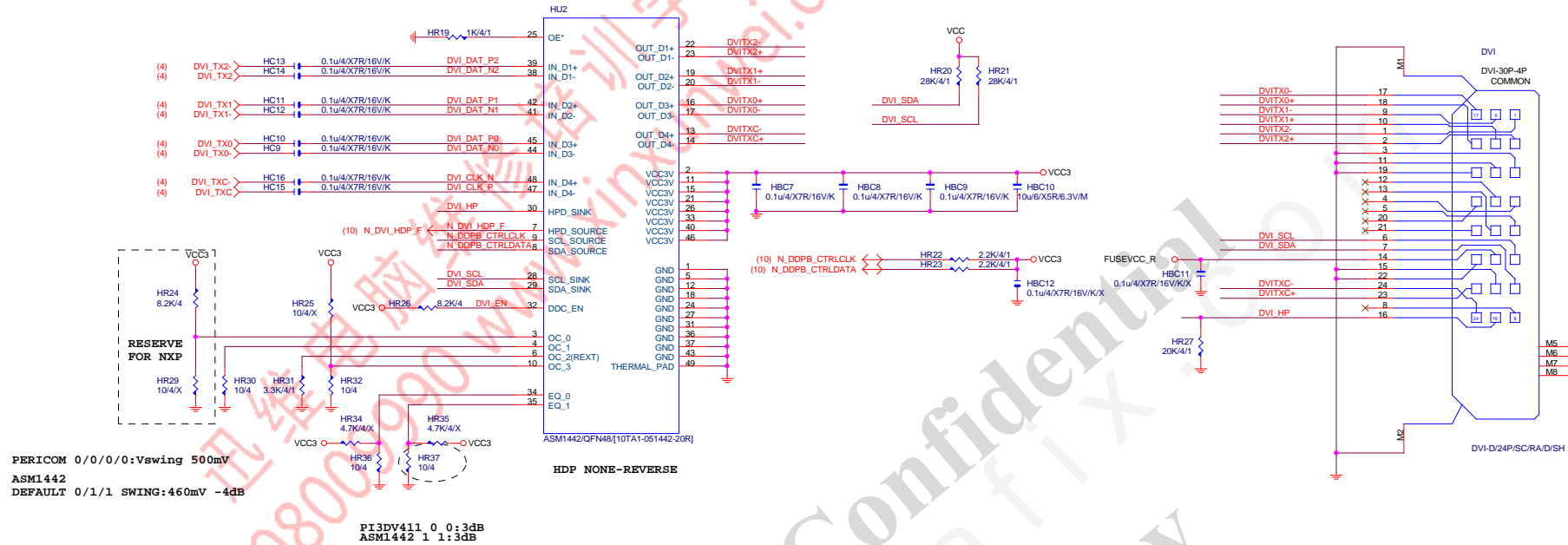
www.xinxunwei.com 400-800-9990

VCC3_ME



Gigabyte Technology			
Title			
LPT			
Size Custom	Document Number	GA-H81M-D3V-JP UC	Rev 1.01
Date:	Friday, November 08, 2013	Sheet	30 of 33

DVI LEVEL SHIFT



HDMI LEVEL SHIFT



迅维电脑维修培训学校
4008009990 www.xinxunwei.com

Gigabyte Confidential
www.chinafix.com
Do not Copy

迅维电脑维修培训学校
4008009990 www.xinxunwei.com

Gigabyte Technology			
Title			
ITE IT8892E			
Size	Document Number	Rev	
Custom	GA-H81M-D3V-JP UC	1.0	
Date:	Friday, November 08, 2013	Sheet	32 of 33



迅维电脑维修培训学校
4008009990 www.xinxunwei.com

Gigabyte Confidential
www.chinafix.com
Do not Copy

迅维电脑维修培训学校
4008009990 www.xinxunwei.com

Gigabyte Technology			
Title USB EJ188			
Size C	Document Number	GA-H81M-D3V-JP UC	Rev 1.01
Date: Friday, November 08, 2013		Sheet 33	of 33