

GA-E350N

www.xinxunwei.com 400-800-9990



Revision : 3.0

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	APU DDRIII, PCI_E
05	APU CONTROL
06	APU POWER & GND
07	DDRIII CHANNEL A
08	HUDSON PCIE/PCI/CPU/LPC/CLK
09	HUDSON ACPI/GPIO/USB/AUDIO
10	HUDSON SATA/IDE/HWM/SPI
11	HUDSON POWER & GND
12	PCI, VGA
13	ITE 8728 EX
14	ALC887-VD2 CODEC
15	LPT ,COM ,F_USB ,FAN ,USB_HDMI
16	ATX, F_PANEL, PWR SEQ
17	VCORE (PWM RT8871)
18	SB, APU18 V, APU10V, VCC11_DUAL POWER
19	DDR POWER , VCC18
20	LAN RTL8111F

GIGABYTE™			
Title COVER SHEET			
Size	Document Number	Rev	
Custom	GA-E350N	3.0	
Date:	Thursday, September 20, 2012	Sheet	1 of 20

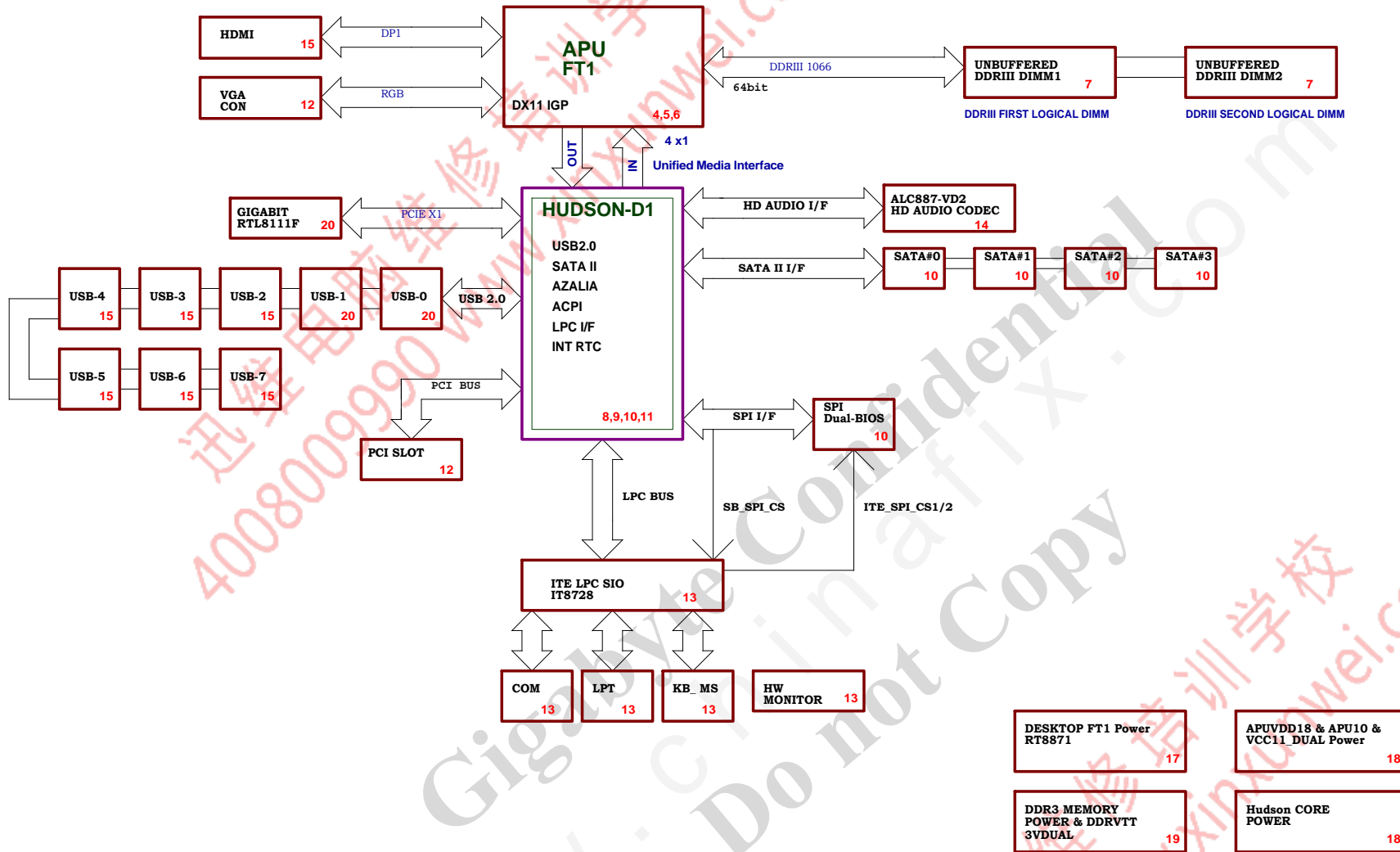
Circuit or PCB layout change for next version

Version: 3.0
P-Code: U99054-0

[illegible]

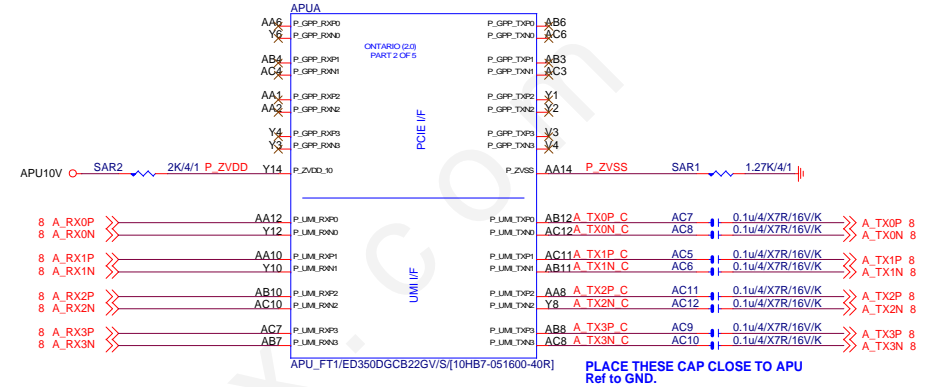
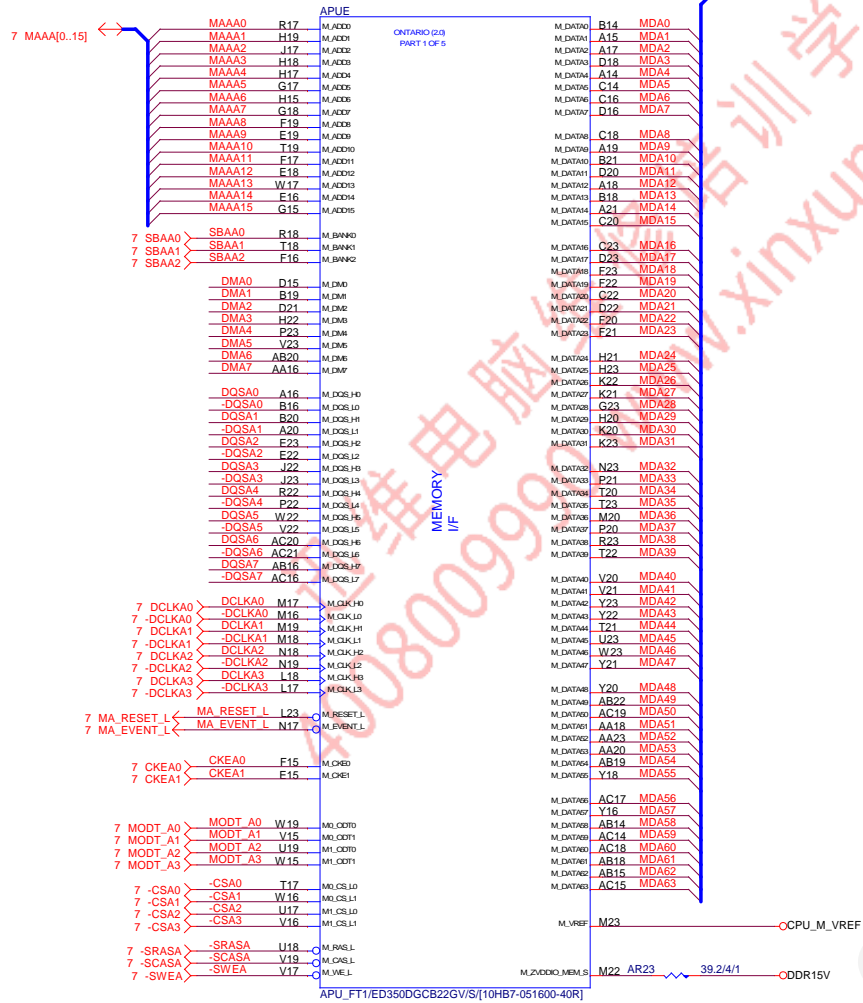
FT1 CUSTOMER DESKTOP REFERENCE DESIGN

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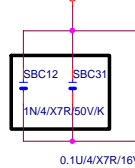
Title				BLOCK DIAGRAM	
Size	Custom	Document Number	GA-E350N		Rev
Date:	Thursday, September 20, 2012	Sheet	3	of	20



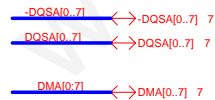
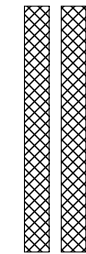
CPUVREF

40 MILS WIDTH

CPU_M_VREF

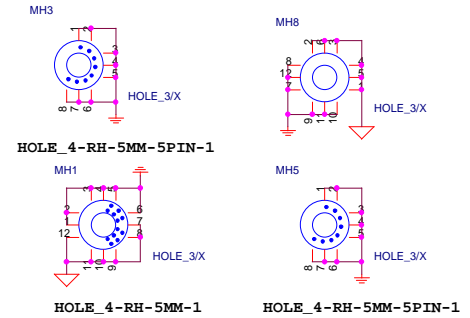
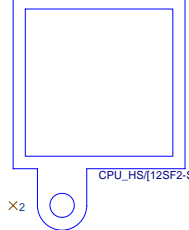


MEM CHA



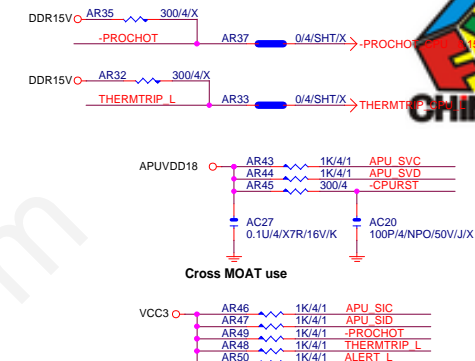
NB_HEATSIN

CPU_HS



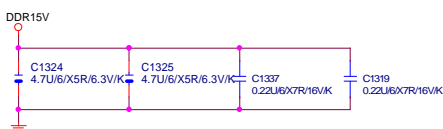
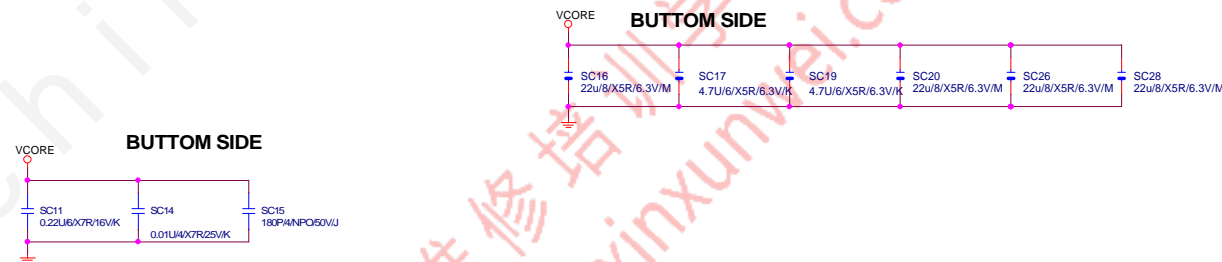
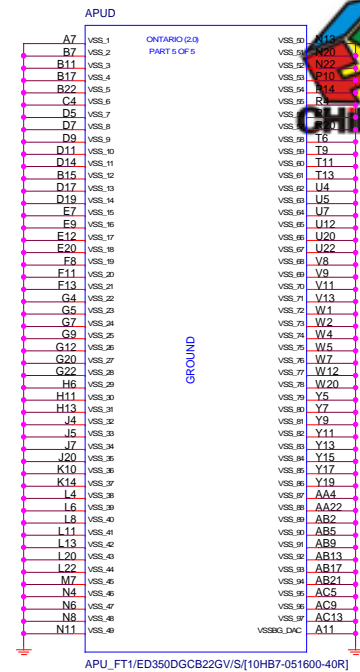
GIGABYTE™

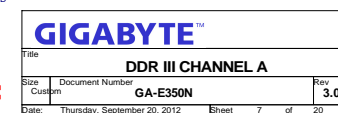
Title		
APU DDRIII, PCI_E		
Size	Document Number	Rev
Custom	GA-E350N	3.0
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```
VLDT_A = VCC12_HT
VLDT_B = HT12B
```

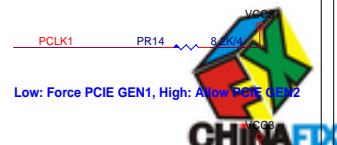
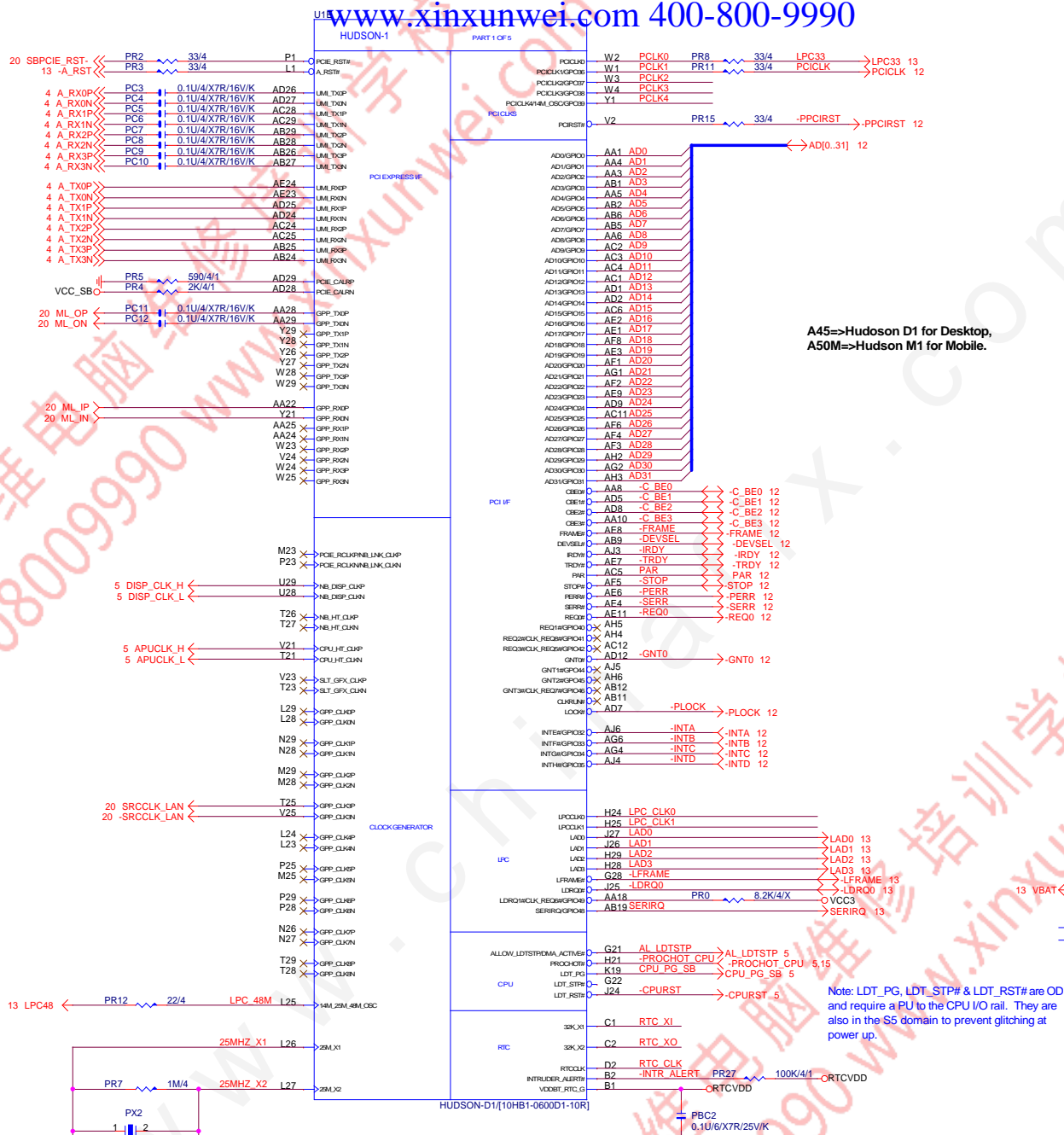
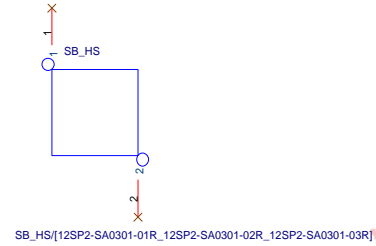
TEST35: high=>HDMI enable,
low=>HDMI disable.





PLACE THESE PCIE AC COUPLING CAPS CLOSE TO SB850

S.B HEATSINK



Low: Force PCIE GEN1, High: Allow PCIE GEN2

Watch Dog Timer :Low=>Disable, High=>Enable

Debug Straps:Low=>Disable, High=>Enable

Fusion clock mode :Low=>Enable, High=>Disable

This strap is not used if the strap CLKGEN is configured for external clock generator mode.

PEMC1 for EMI 0.01u/4X7R/25V/K

LPC_CLK0 LPC_CLK1

PULL HIGH IMC ENABLED Internal Clock Mode DEFAULT

PULL LOW IMC DISABLED External Clock Mode DEFAULT

20mil 20mil

3VDDUAL_SB

13 VBAT

20mil

BAT-SK/BK/P/S/D/SN

CR2032

CLR_CMOS

SHORT CLEAR CMOS

OPEN NORMAL

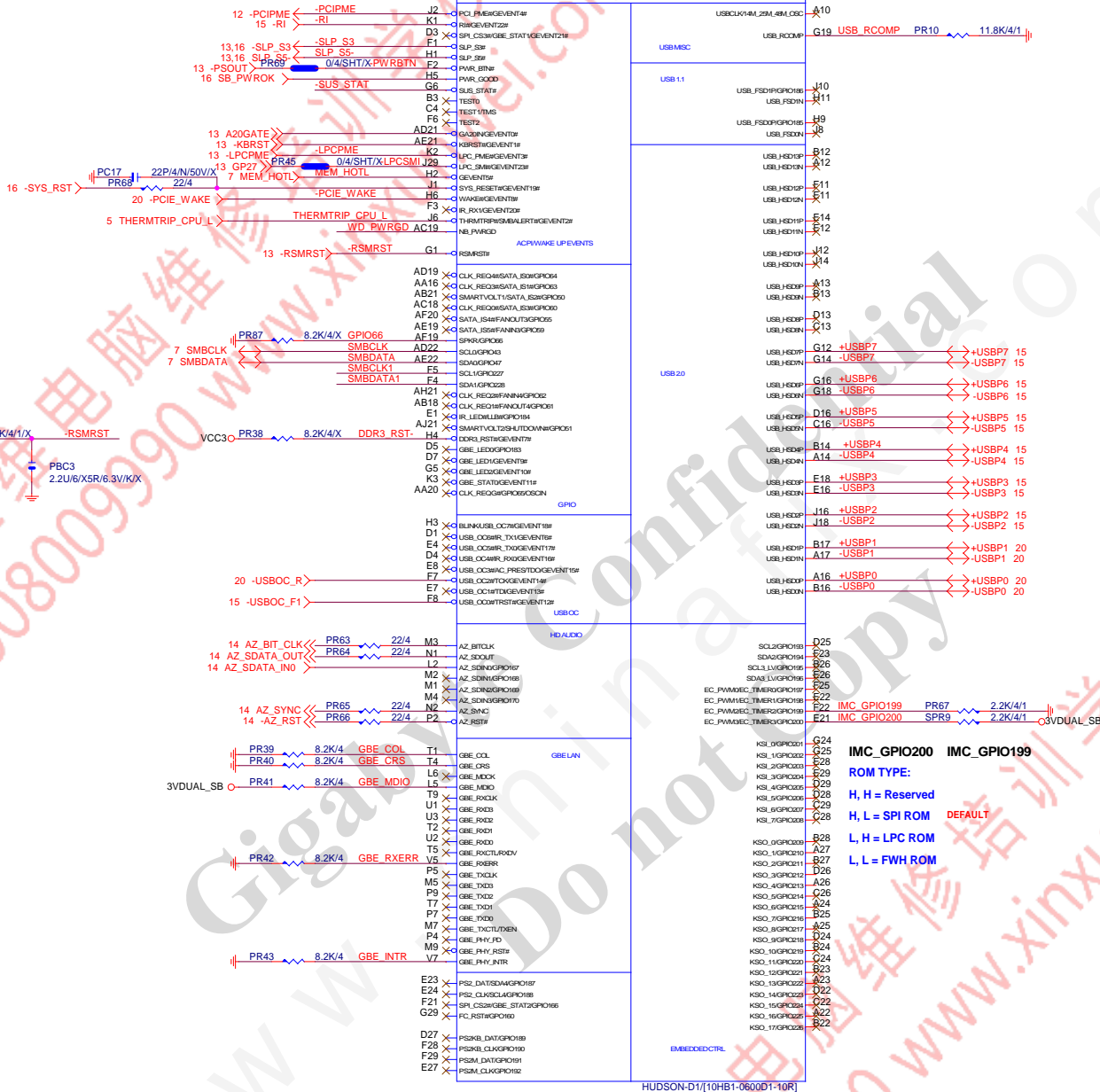
NOT ADD ICT FOR RTCVDD PIN

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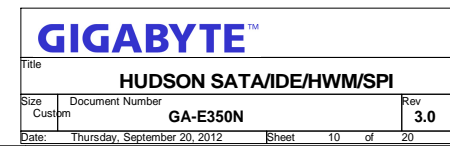
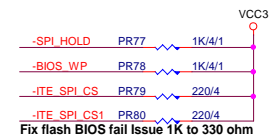
HUDSON PCIE/PCI/CPU/LPC/CLK

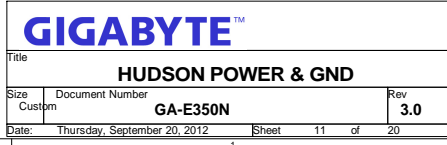
GA-E350N

3.0



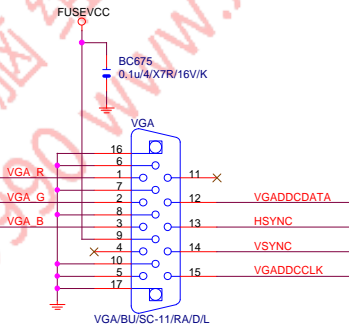
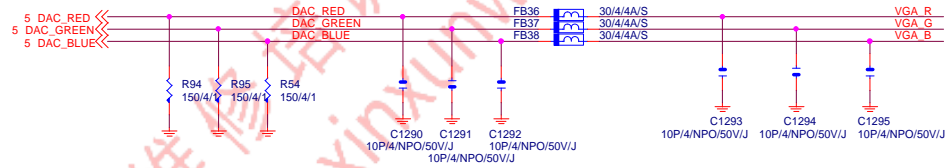
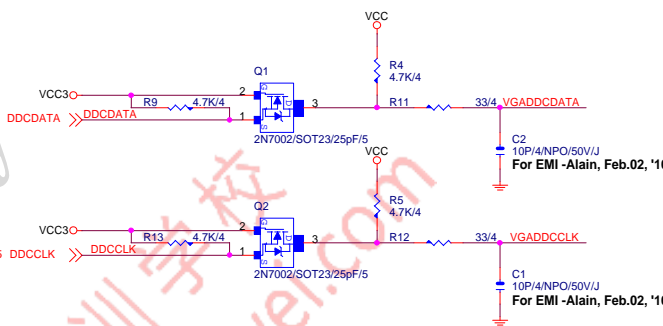
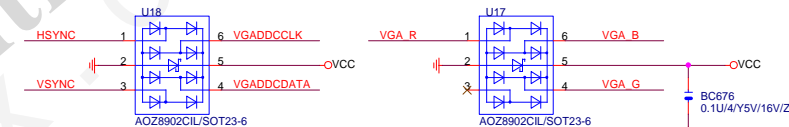
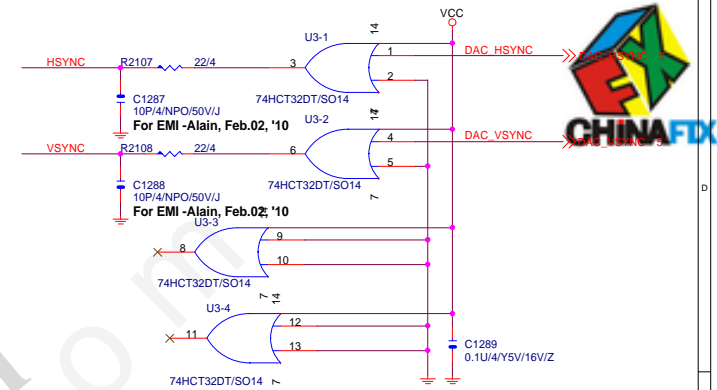
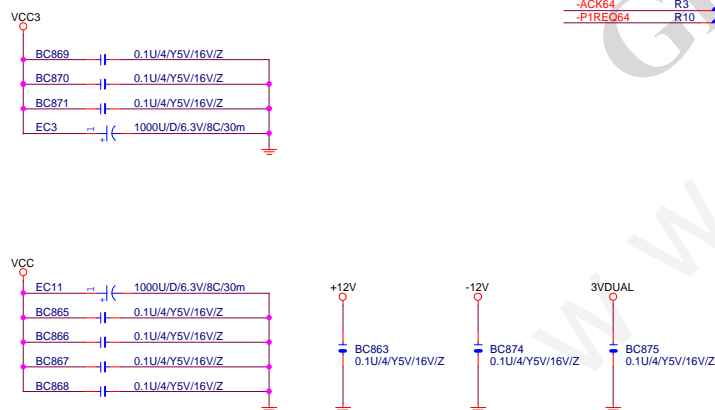
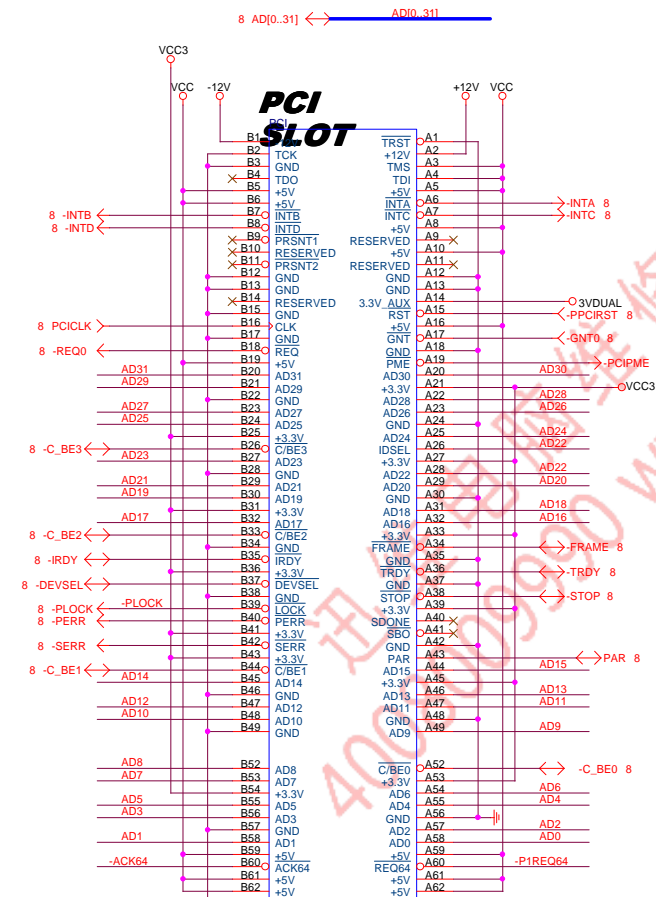
IMC_GPIO200	IMC_GPIO199
ROM TYPE:	
H, H = Reserved	
H, L = SPI ROM	DEFAULT
L, H = LPC ROM	
L, L = FWB ROM	





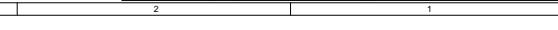
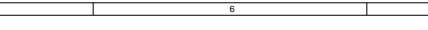


PCI SLOT

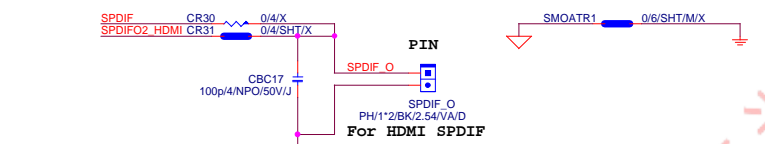


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Title			PCI, VGA
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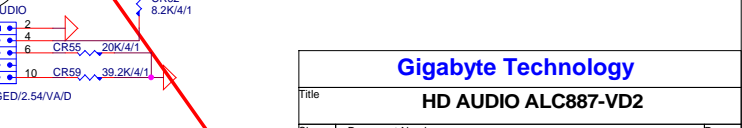
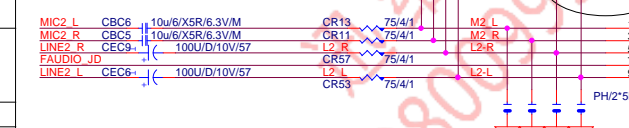
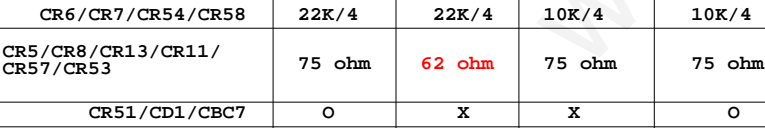
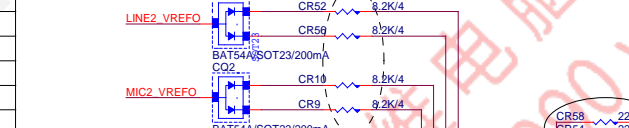
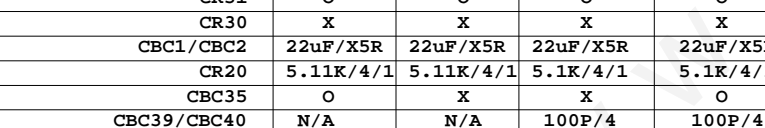
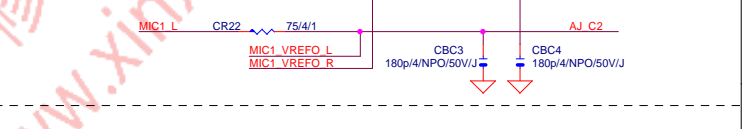
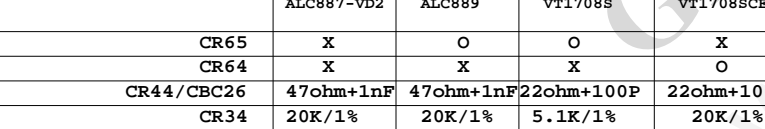
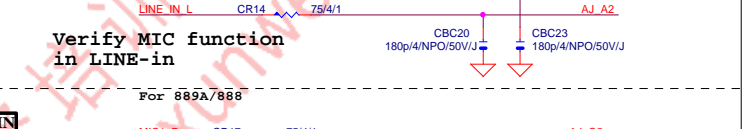
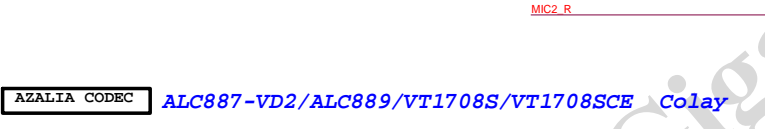
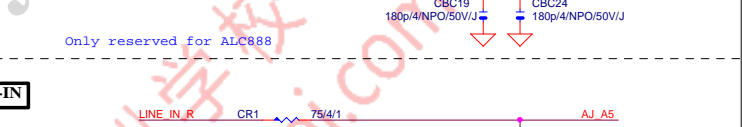
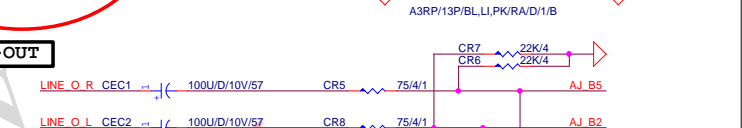
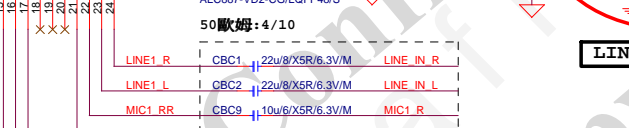
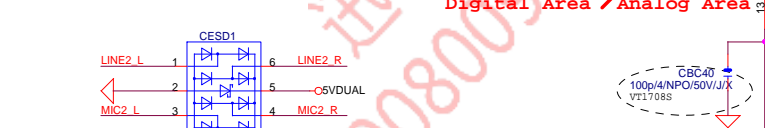
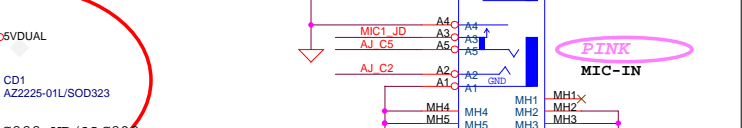
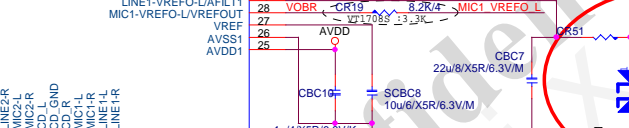
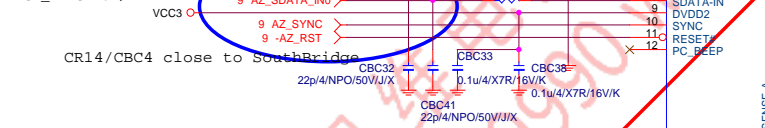
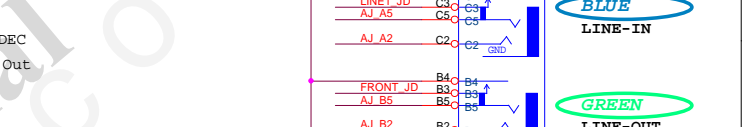
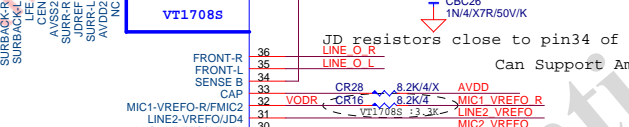
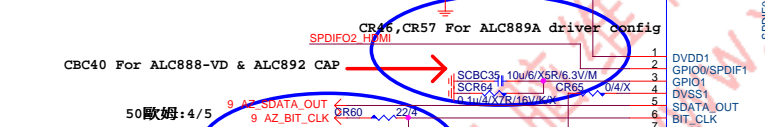
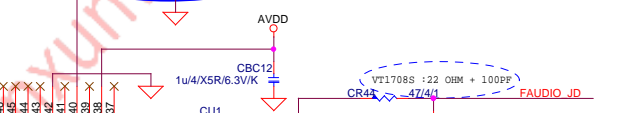
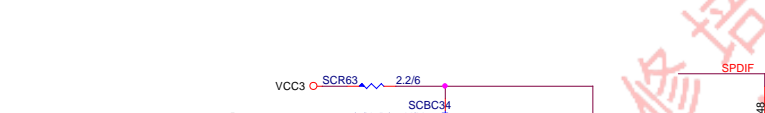
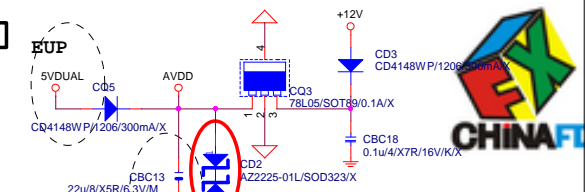


SPDIF OUT



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CODEC POWER/EMI PAD

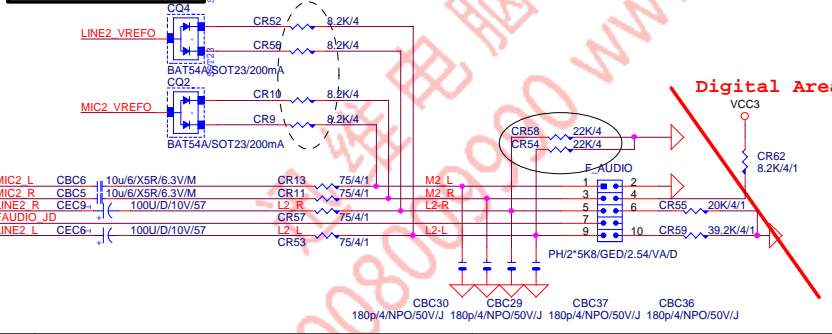


	ALC887-VD2	ALC889	VT1708S	VT1708SCE
CR65	X	O	O	X
CR64	X	X	X	O
CR44/CBC26	47ohm+1nF	47ohm+1nF	22ohm+100P	22ohm+100P
CR34	20K/1%	20K/1%	5.1K/1%	20K/1%
CR31	O	O	O	O
CR30	X	X	X	X
CBC1/CBC2	22uF/X5R	22uF/X5R	22uF/X5R	22uF/X5R
CR20	5.11K/4/1	5.11K/4/1	5.1K/4/1	5.1K/4/1
CBC35	O	X	X	O
CBC39/CBC40	N/A	N/A	100P/4	100P/4
CR6/CR7/CR54/CR58	22K/4	22K/4	10K/4	10K/4
CR5/CR8/CR13/CR11/CR57/CR53	75 ohm	62 ohm	75 ohm	75 ohm
CR51/CD1/CBC7	O	X	X	O
CD2/CD3/CQ3/CQ5	X	O	O	X
CR1/CR14/CR17/CR22	75 ohm	62 ohm	1K ohm	1K ohm

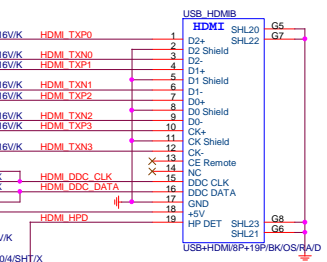
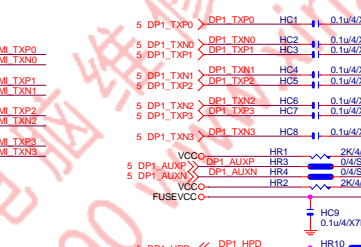
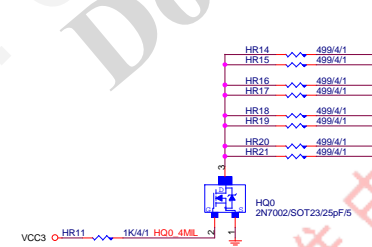
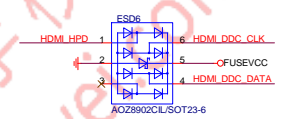
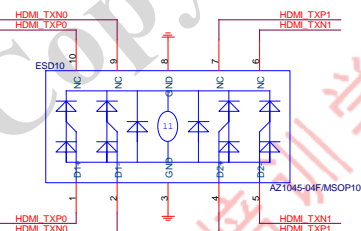
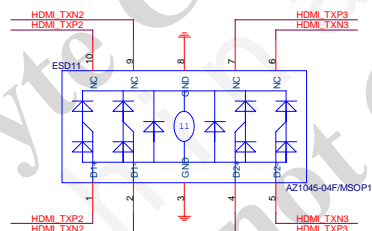
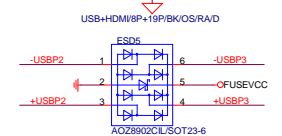
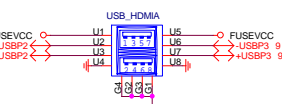
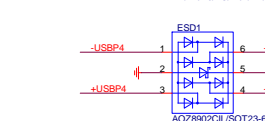
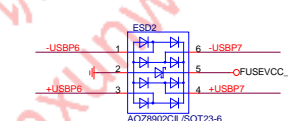
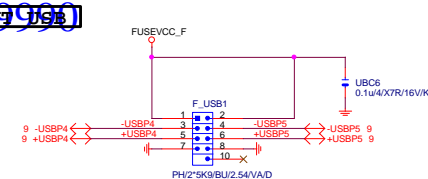
	ALC887-VD2	ALC889	VT1708S	VT1708SCE
CR65	X	O	O	X
CR64	X	X	X	O
CR44/CBC26	47ohm+1nF	47ohm+1nF	22ohm+100P	22ohm+100P
CR34	20K/1%	20K/1%	5.1K/1%	20K/1%
CR31	O	O	O	O
CR30	X	X	X	X
CBC1/CBC2	22uF/X5R	22uF/X5R	22uF/X5R	22uF/X5R
CR20	5.11K/4/1	5.11K/4/1	5.1K/4/1	5.1K/4/1
CBC35	O	X	X	O
CBC39/CBC40	N/A	N/A	100P/4	100P/4
CR6/CR7/CR54/CR58	22K/4	22K/4	10K/4	10K/4
CR5/CR8/CR13/CR11/CR57/CR53	75 ohm	62 ohm	75 ohm	75 ohm
CR51/CD1/CBC7	O	X	X	O
CD2/CD3/CQ3/CQ5	X	O	O	X
CR1/CR14/CR17/CR22	75 ohm	62 ohm	1K ohm	1K ohm

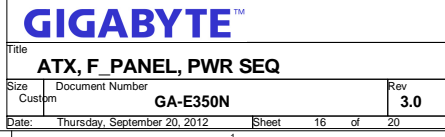
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CR65	X	O	O	X
CR64	X	X	X	O
CR44/CBC26	47ohm+1nF	47ohm+1nF	22ohm+100P	22ohm+100P
CR34	20K/1%	20K/1%	5.1K/1%	20K/1%
CR31	O	O	O	O
CR30	X	X	X	X
CBC1/CBC2	22uF/X5R	22uF/X5R	22uF/X5R	22uF/X5R
CR20	5.11K/4/1	5.11K/4/1	5.1K/4/1	5.1K/4/1
CBC35	O	X	X	O
CBC39/CBC40	N/A	N/A	100P/4	100P/4
CR6/CR7/CR54/CR58	22K/4	22K/4	10K/4	10K/4
CR5/CR8/CR13/CR11/CR57/CR53	75 ohm	62 ohm	75 ohm	75 ohm
CR51/CD1/CBC7	O	X	X	O
CD2/CD3/CQ3/CQ5	X	O	O	X
CR1/CR14/CR17/CR22	75 ohm	62 ohm	1K ohm	1K ohm

AZALIA FRONT PANEL



Gigabyte Technology			
HD AUDIO ALC887-VD2			
Title	GA-E350N		
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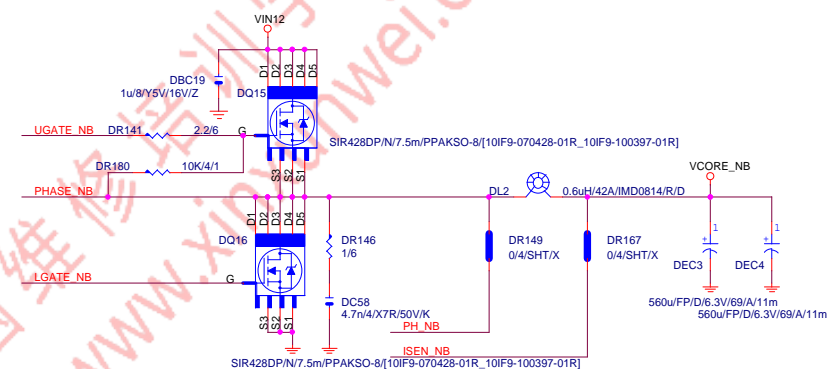
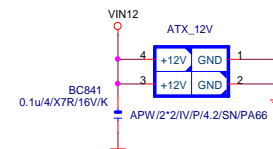
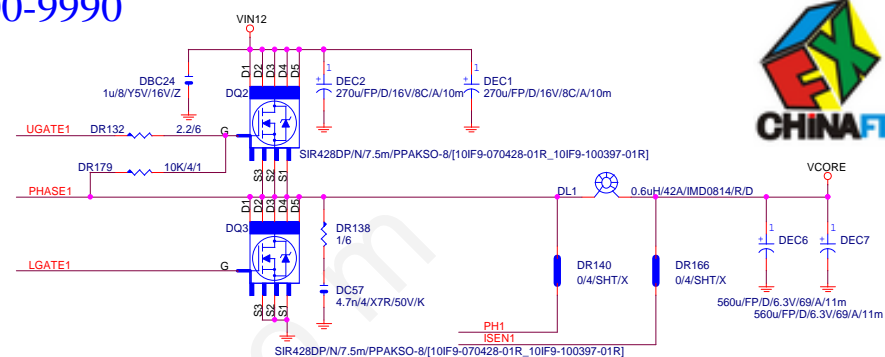




```

AMD FM1
VCORE          LL=1.3m ohm
VCORE_NB       LL=4m ohm

```



5 COREFB

OCP SET : 38.68A

DR174 04/SH/1X

DR163 100/4/1

DC127 43.2K/4/1

DC71 1N/4/XTR/50V/K

DR71 12.4K/4/1

DC28 3.3N/4/XTR/50V/K

DC27 68P/4/NPO/50V/J

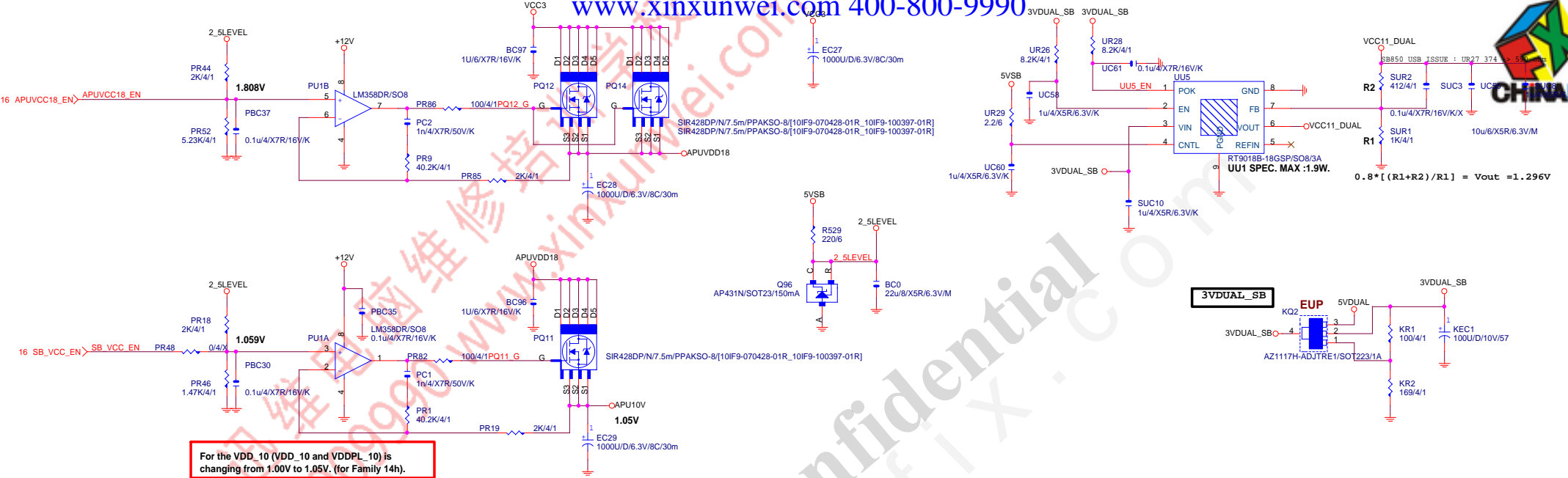
DR72 51/4/1

DR74 2K/4/1

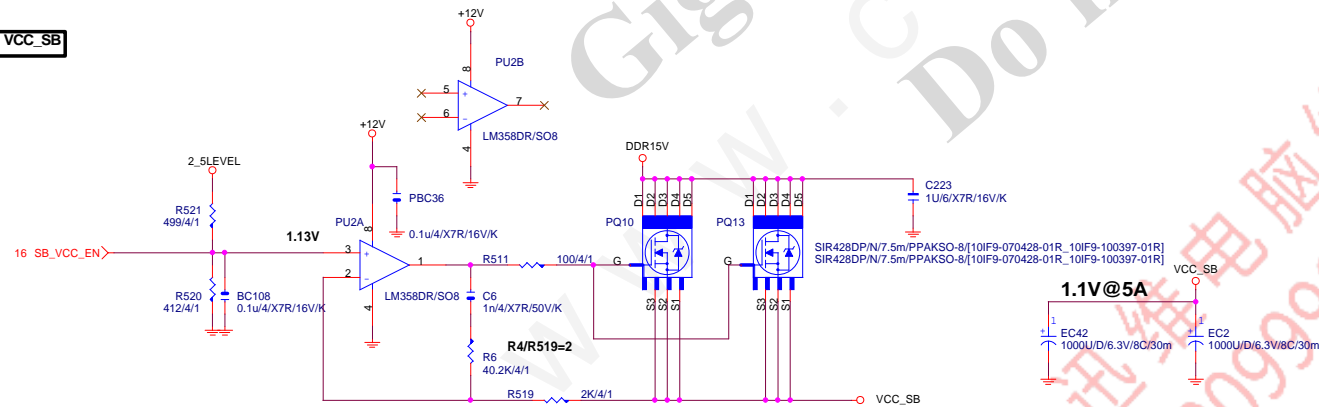
IMAX

COMP

OV : 20mV/Step



VCC_SB

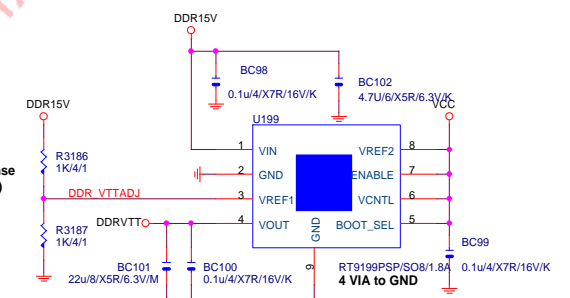
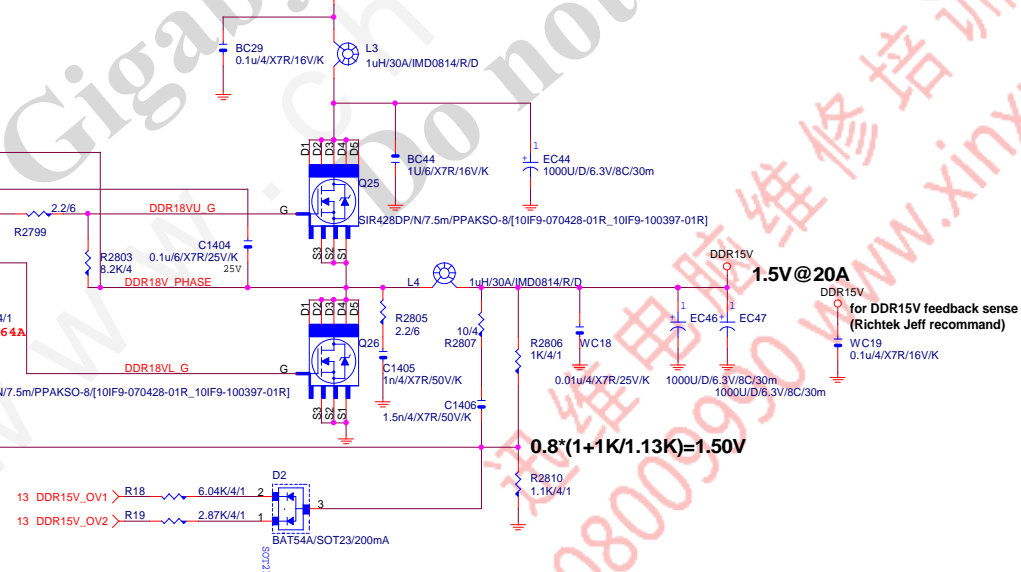
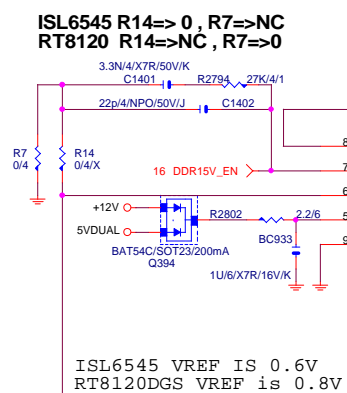
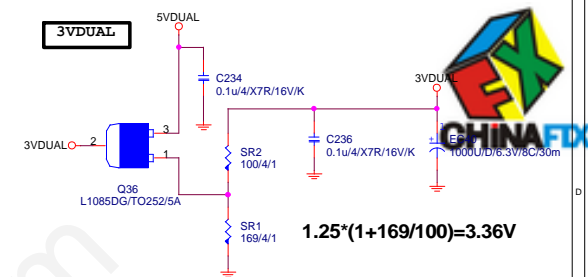
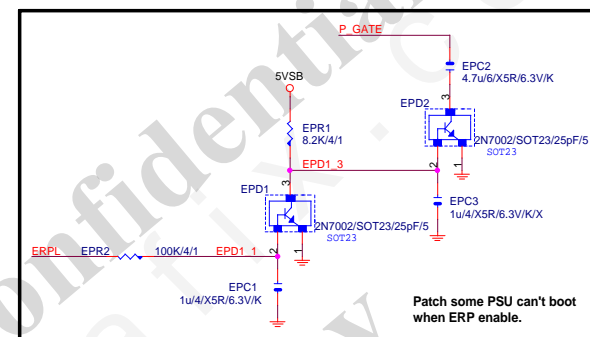
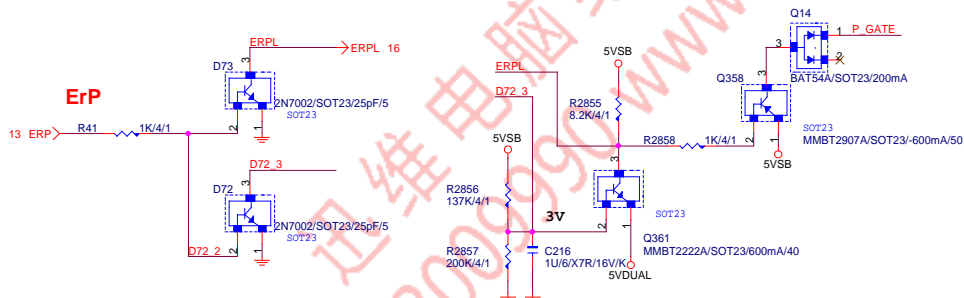
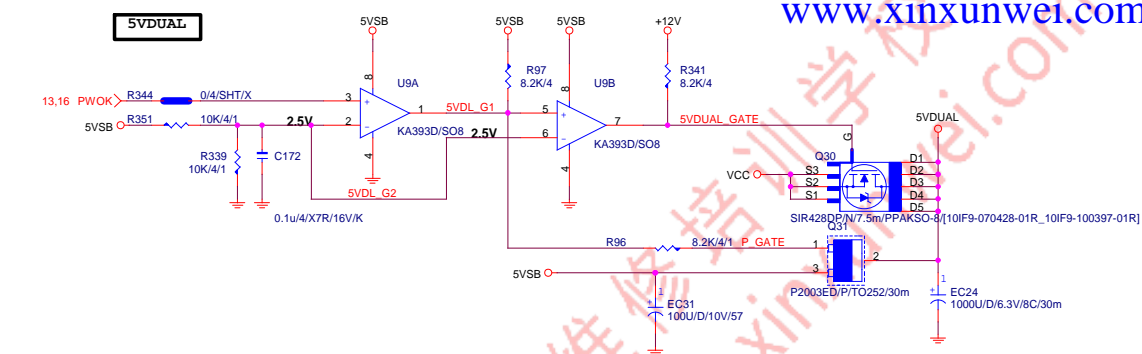


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Title VCC_SB,APUVDD18,APU10V,VCC11_Dual

Size Document Number Rev
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