

GA-A320M-D2

www.xinxunwei.com 400-800-9990




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[illegible]

2015.12.30--B.L

			
Title <div style="text-align: center; font-size: 1.2em; font-weight: bold;">COVER SHEET</div>			
Size Custom	Document Number <div style="text-align: center; font-size: 1.2em; font-weight: bold;">GA-A320M-D2</div>		Rev <div style="text-align: center; font-size: 1.2em; font-weight: bold;">1.0</div>
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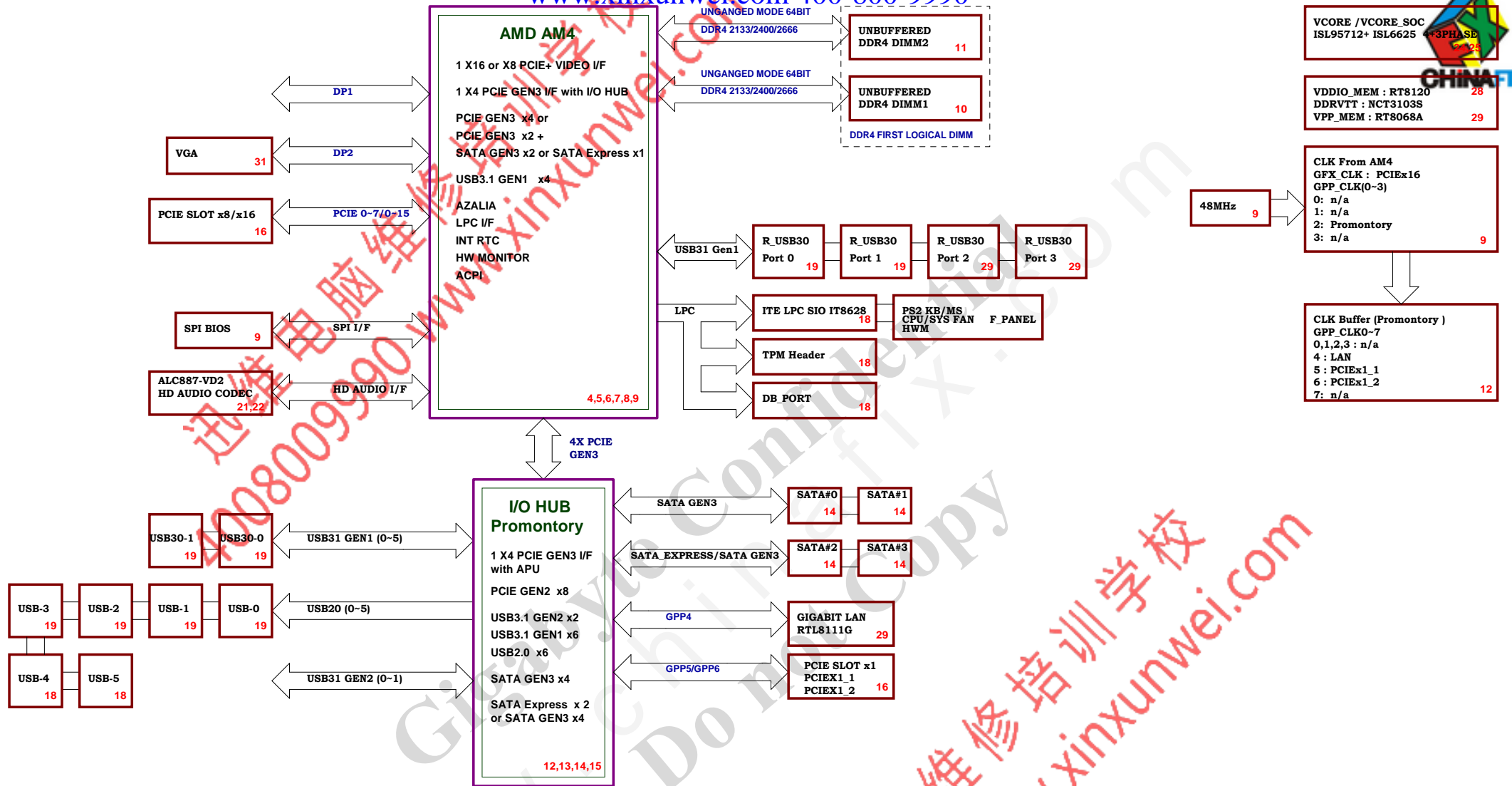
Component value change history

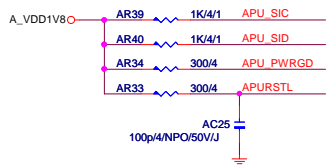
P-Code: U16129-0

[illegible]

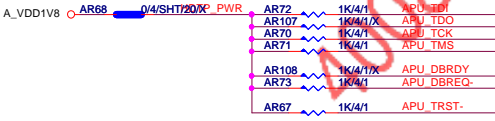
Circuit or PCB layout change for next version

[illegible]





SVC	SVD	Boot voltage
0	0	1.1
0	1	1.0
1	0	0.9
1	1	0.8



VGA

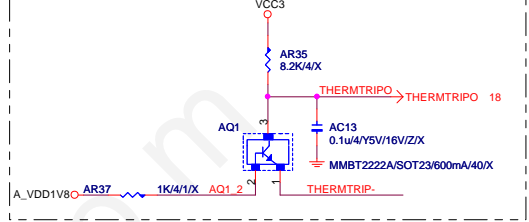
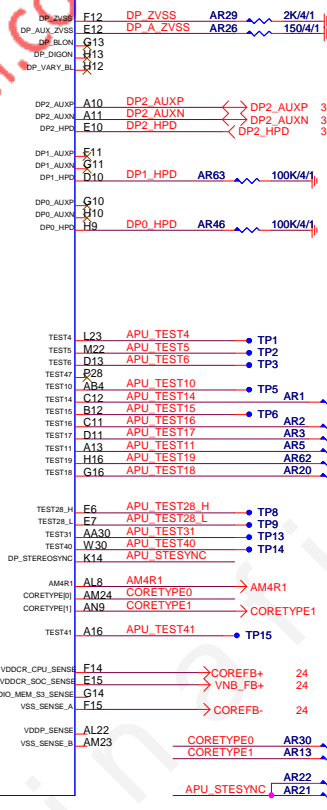


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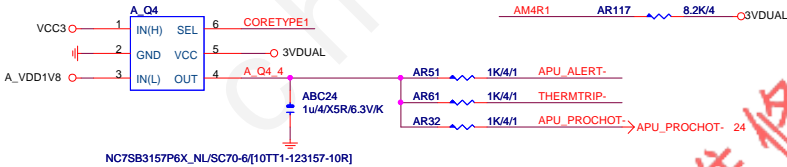
AM40



Placed within 1500 mils from APU



THERMTRIP- AR36 0/4 THERMTRIP



CORETYPE 1	CORETYPE 0	Family / Model Numbers	AM4 APU TYPE
0 BR	0	Family 15 h / Models 60 h-6 Fh	TYPE 0
0	1	Reserved	TYPE 1
1 ST	0	Family 17 h / Models 00 h-0 Fh	TYPE 2
1 RV	1	Family 17 h / Models 10 h-1 Fh	TYPE 3

GIGABYTE

Title: CPU DDI, CONTROL

Size: Custom

Document Number: GA-A320M-D2

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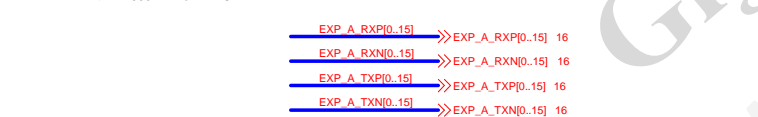
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AM4B

PCIE

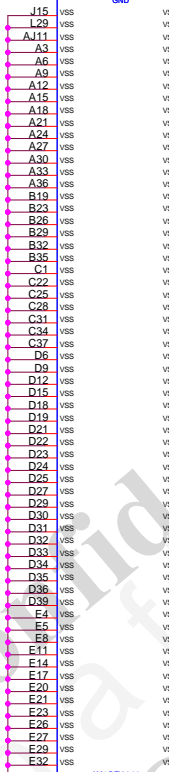


PLACE THESE CAP CLOSE TO APU.

Within 1500mil from APU

AM4B

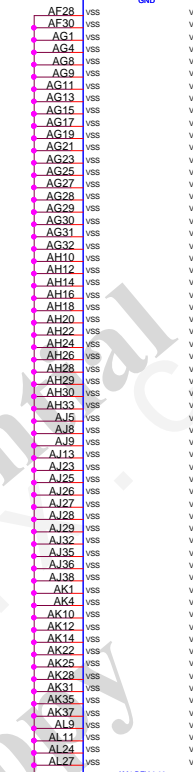
GND



CPU-SK/1331/BK/S/10

AM4J

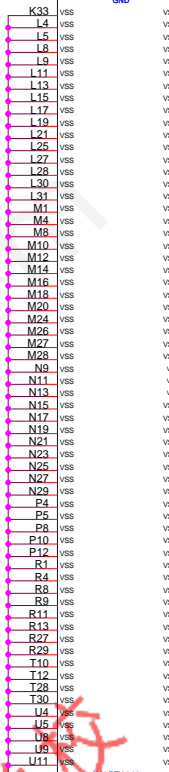
GND



CPU-SK/1331/BK/S/10

AM4H

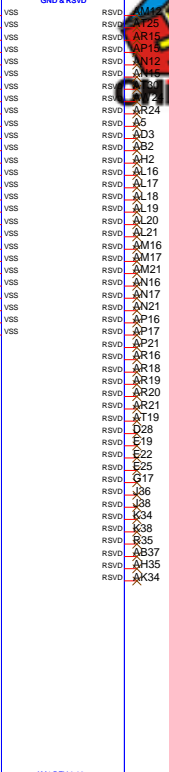
GND



CPU-SK/1331/BK/S/10

AM4K

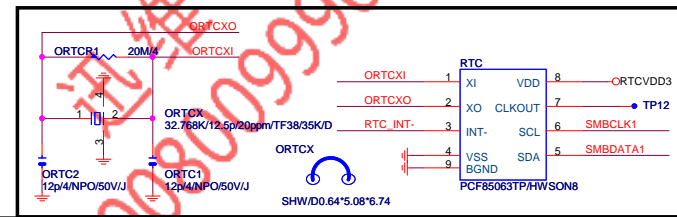
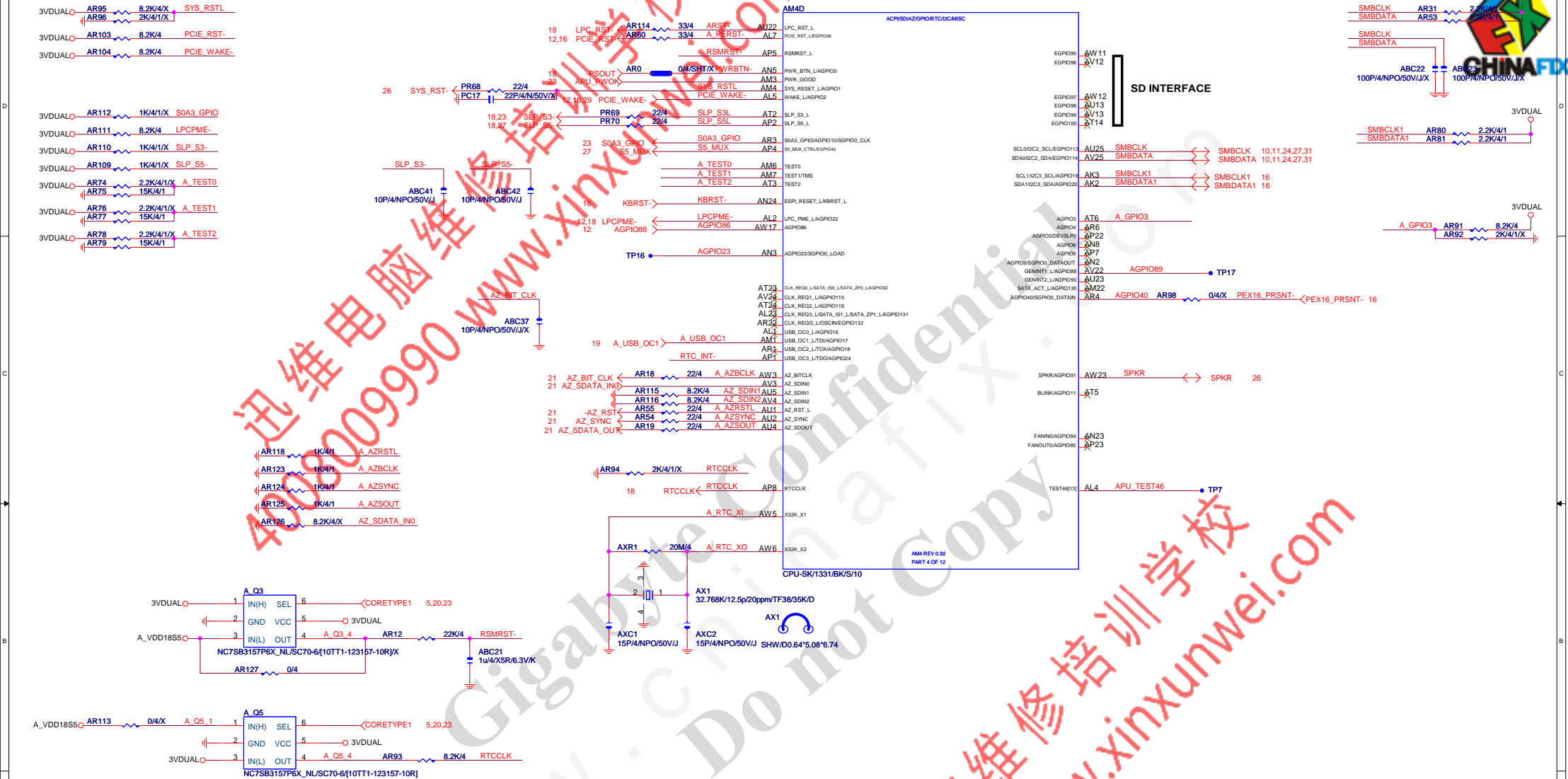
GND & RSVD



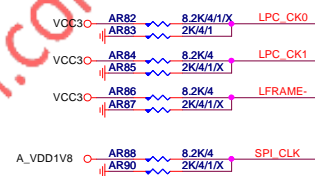
CPU-SK/1331/BK/S/10

GIGABYTE™

Title		
CPU GFX, GPP, SB, GND		
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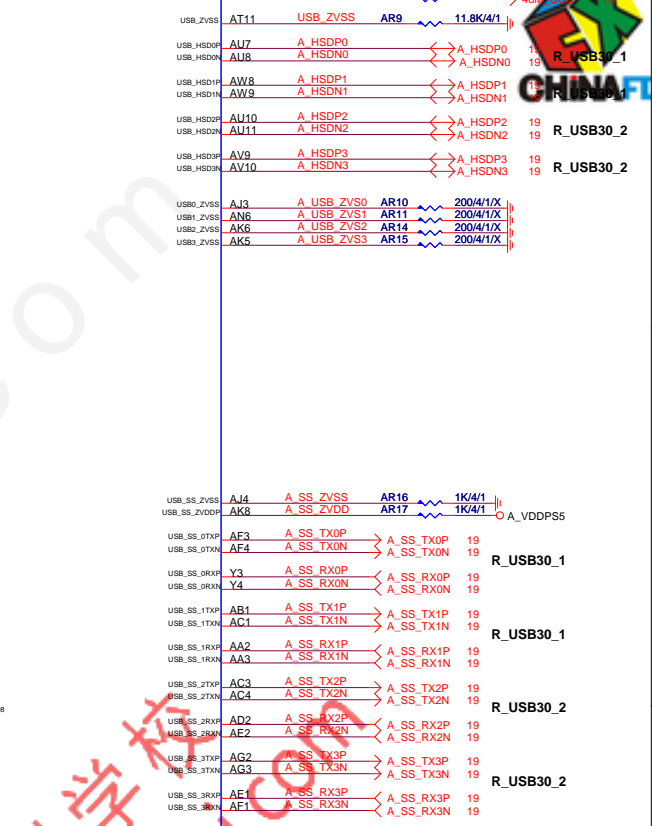
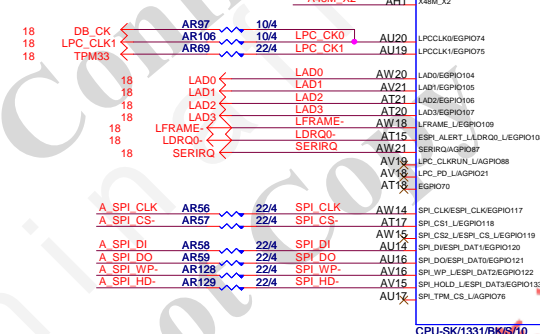
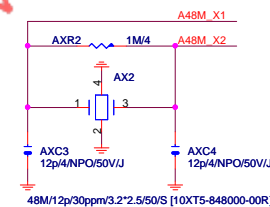


GIGABYTE™		
Title		
AM4 MISC		
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X16 Slot

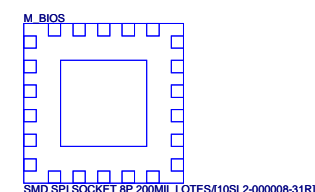
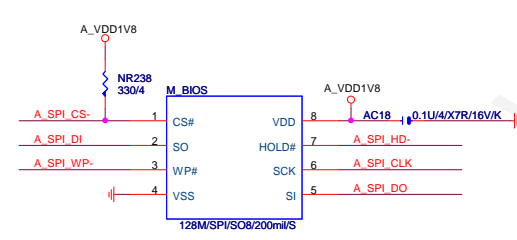
Promontory



★1.8V SPI ROM USE



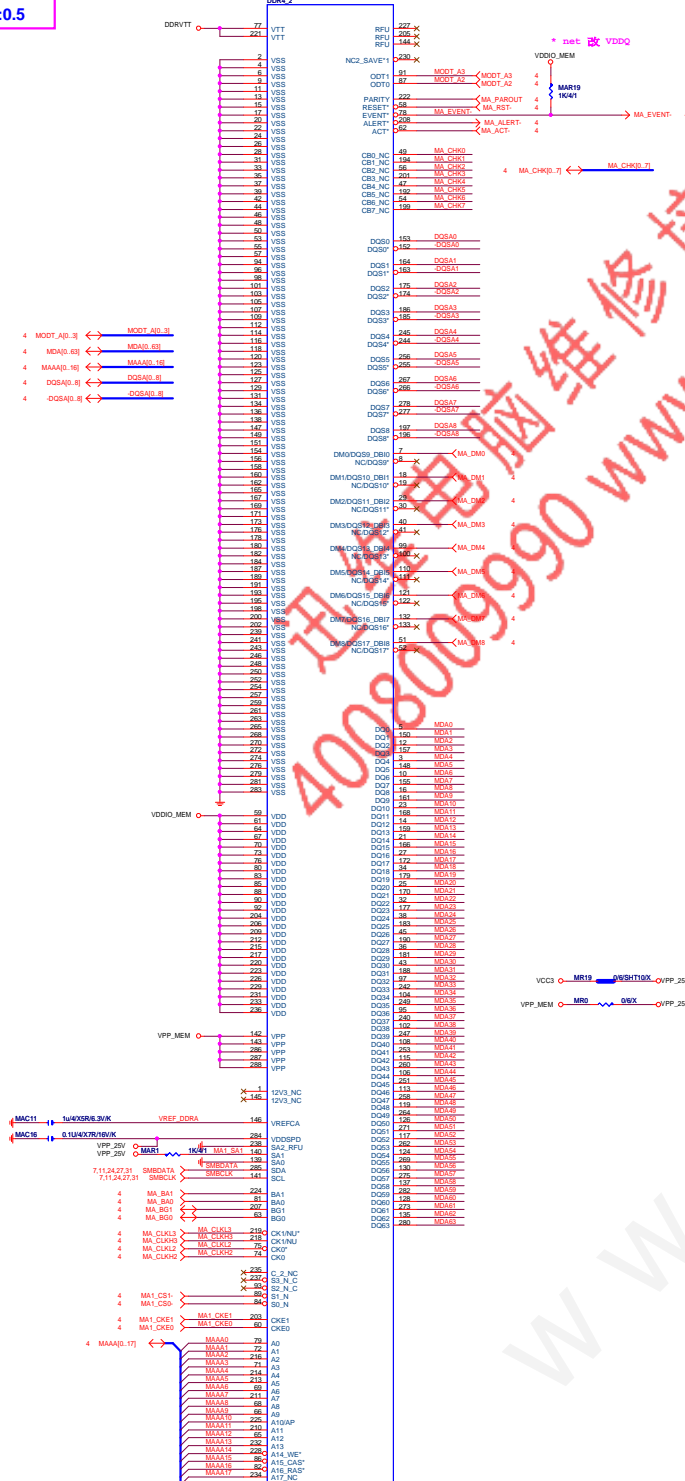
Fix flash BIOS fail Issue 1K to 330 ohm



GIGABYTE™		
Title CPU USB3, SPI		
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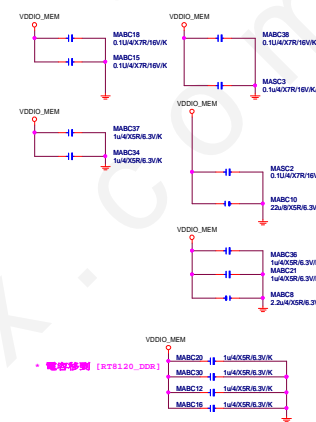


Rev:0.5

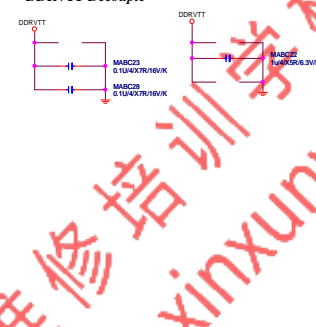


CHANNEL A1
SA2:2=010

DDR12V Decouple



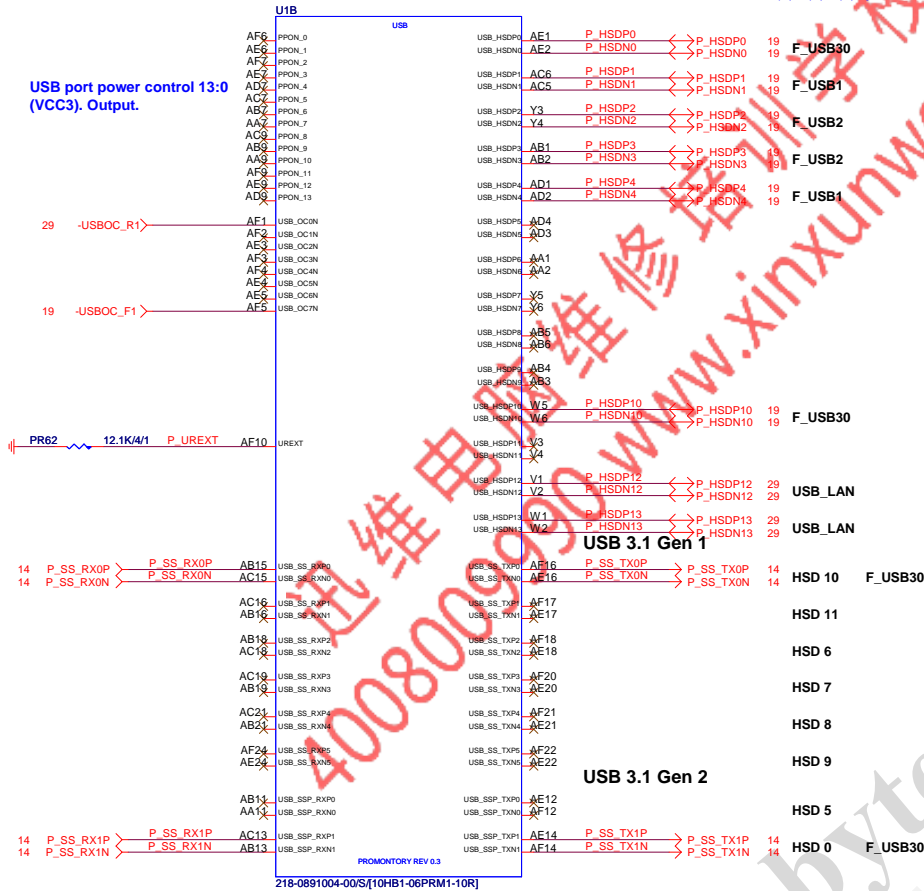
DDRVRTT Decouple



GIGABYTE			
DDR4 CHANNEL A			
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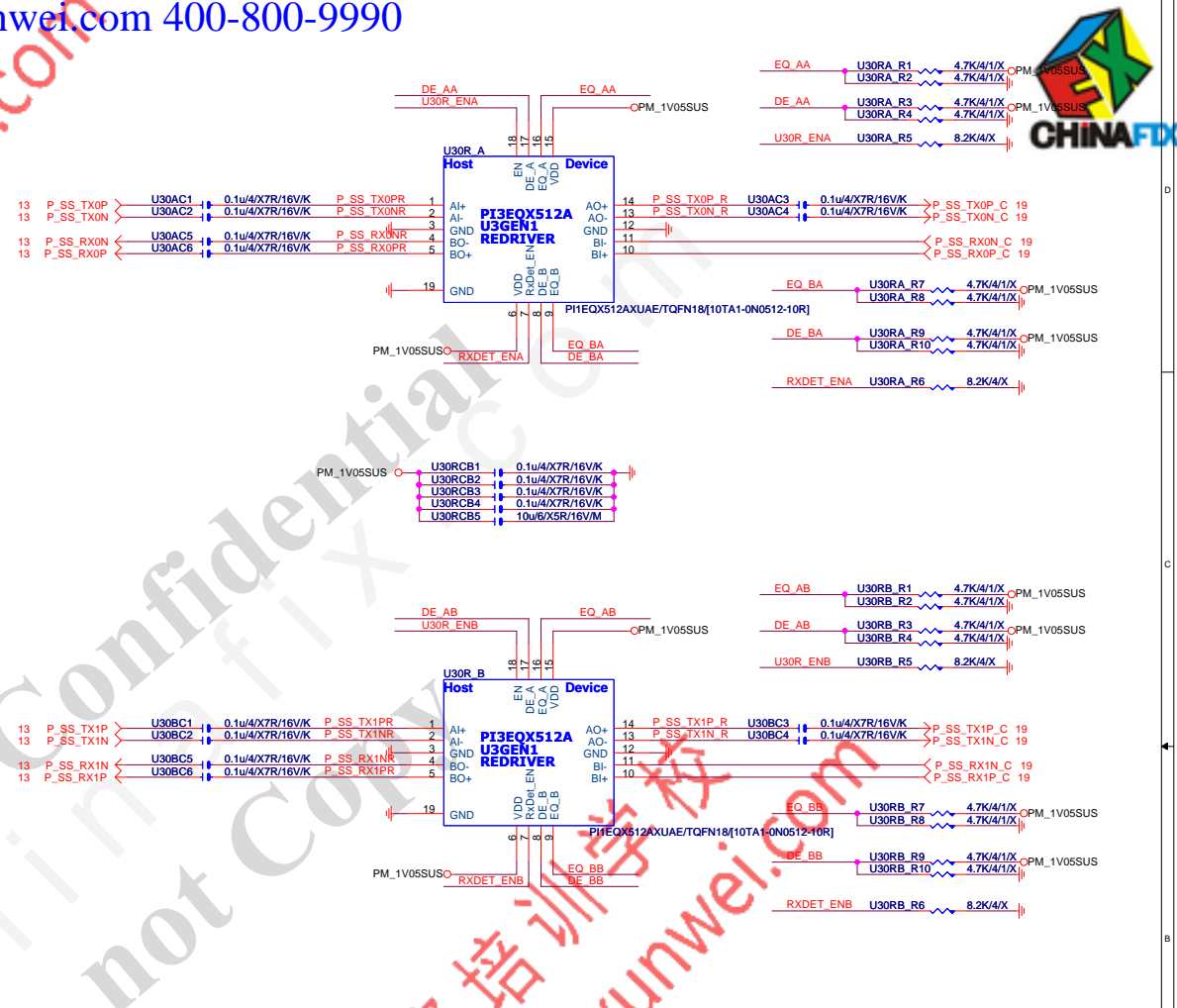
USB port power control 13:0
(VCC3). Output.




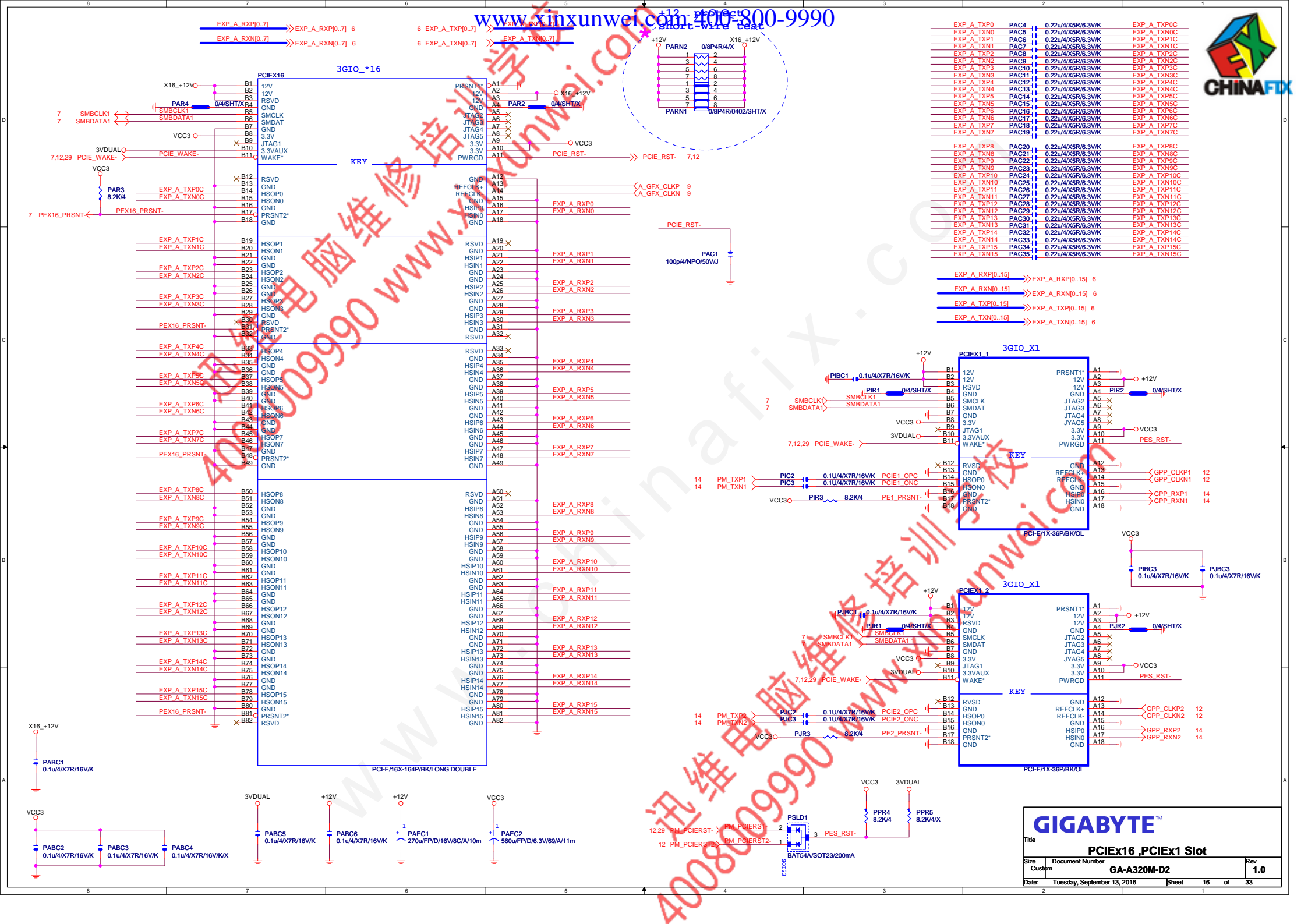
USB3.1	USB2.0	USB_OC
USB_SSP_TX/RXP/N[0]	USB_HSDP/N[5]	USB_OC0N
USB_SSP_TX/RXP/N[1]	USB_HSDP/N[0]	USB_OC1N
USB3.0	USB2.0	USB_OC
USB_SS_TX/RXP/N[0]	USB_HSDP/N[10]	USB_OC2N
USB_SS_TX/RXP/N[1]	USB_HSDP/N[11]	USB_OC3N
USB_SS_TX/RXP/N[2]	USB_HSDP/N[6]	USB_OC4N
USB_SS_TX/RXP/N[3]	USB_HSDP/N[7]	USB_OC5N
USB_SS_TX/RXP/N[4]	USB_HSDP/N[8]	USB_OC6N
USB_SS_TX/RXP/N[5]	USB_HSDP/N[9]	USB_OC7N
	USB_HSDP/N[1]	USB_OC7N
	USB_HSDP/N[2]	USB_OC7N
	USB_HSDP/N[3]	USB_OC7N
	USB_HSDP/N[4]	USB_OC7N
	USB_HSDP/N[12]	USB_OC7N
	USB_HSDP/N[13]	USB_OC7N

BUS Model	USB			
	3.1 Gen2 10 Gbps	3.1 Gen1 5 Gbps	2.0	Debug Port
PROM4	USB_SSP Port0~1	USB_SS Port 0~5	USB_HSD Port0~13	USB_SSP Port0
PROM3	USB_SSP Port0~1	USB_SS Port 0~5	USB_HSD Port0~13	USB_SSP Port0
PROM2	USB_SSP Port0~1	USB_SS Port 0~1	USB_HSD Port0~5 USB_HSD Port10~13	USB_SSP Port0
PROM1	USB_SSP Port0	USB_SS Port0 USB_SSP Port1	USB_HSD Port0~5 USB_HSD Port10, 12~13	USB_SSP Port0

GIGABYTE™		<OrgAddr1>	
Title			
PM USB			
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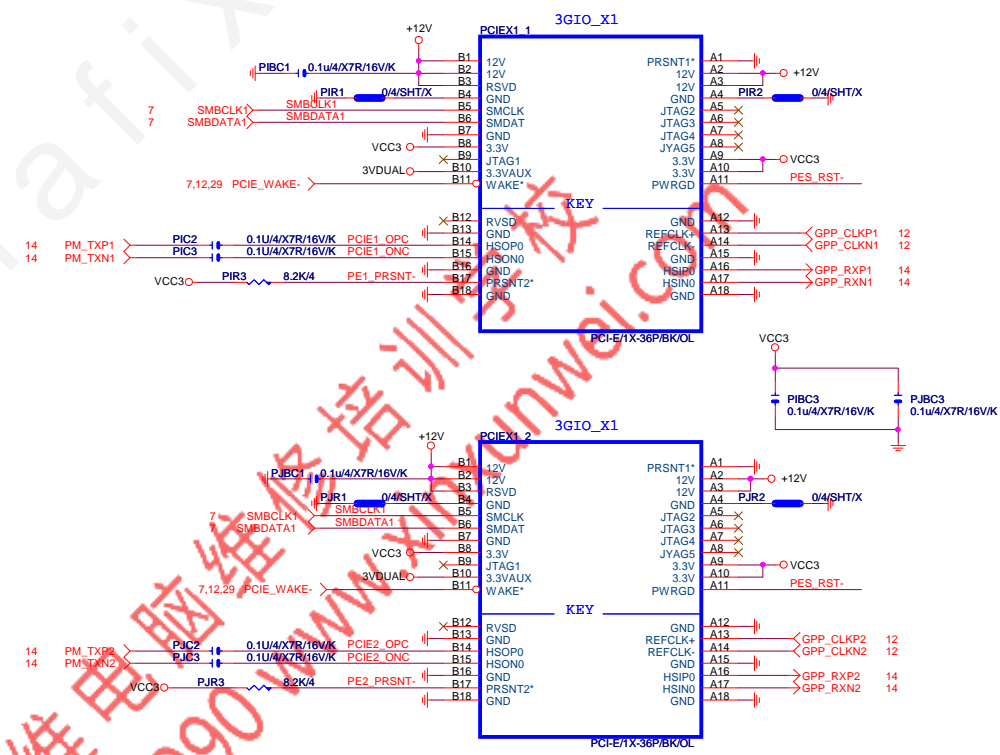


 <OrgAddr1>				
Title				
PM SATA, GPP				
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EXP A TXP0	PAC4	0.22u/4X5R6.3V/K	EXP A TXP0C
EXP A TXN0	PAC5	0.22u/4X5R6.3V/K	EXP A TXN0C
EXP A TXP1	PAC6	0.22u/4X5R6.3V/K	EXP A TXP1C
EXP A TXN1	PAC7	0.22u/4X5R6.3V/K	EXP A TXN1C
EXP A TXP2	PAC8	0.22u/4X5R6.3V/K	EXP A TXP2C
EXP A TXN2	PAC9	0.22u/4X5R6.3V/K	EXP A TXN2C
EXP A TXP3	PAC10	0.22u/4X5R6.3V/K	EXP A TXP3C
EXP A TXN3	PAC11	0.22u/4X5R6.3V/K	EXP A TXN3C
EXP A TXP4	PAC12	0.22u/4X5R6.3V/K	EXP A TXP4C
EXP A TXN4	PAC13	0.22u/4X5R6.3V/K	EXP A TXN4C
EXP A TXP5	PAC14	0.22u/4X5R6.3V/K	EXP A TXP5C
EXP A TXN5	PAC15	0.22u/4X5R6.3V/K	EXP A TXN5C
EXP A TXP6	PAC16	0.22u/4X5R6.3V/K	EXP A TXP6C
EXP A TXN6	PAC17	0.22u/4X5R6.3V/K	EXP A TXN6C
EXP A TXP7	PAC18	0.22u/4X5R6.3V/K	EXP A TXP7C
EXP A TXN7	PAC19	0.22u/4X5R6.3V/K	EXP A TXN7C
EXP A TXP8	PAC20	0.22u/4X5R6.3V/K	EXP A TXP8C
EXP A TXN8	PAC21	0.22u/4X5R6.3V/K	EXP A TXN8C
EXP A TXP9	PAC22	0.22u/4X5R6.3V/K	EXP A TXP9C
EXP A TXN9	PAC23	0.22u/4X5R6.3V/K	EXP A TXN9C
EXP A TXP10	PAC24	0.22u/4X5R6.3V/K	EXP A TXP10C
EXP A TXN10	PAC25	0.22u/4X5R6.3V/K	EXP A TXN10C
EXP A TXP11	PAC26	0.22u/4X5R6.3V/K	EXP A TXP11C
EXP A TXN11	PAC27	0.22u/4X5R6.3V/K	EXP A TXN11C
EXP A TXP12	PAC28	0.22u/4X5R6.3V/K	EXP A TXP12C
EXP A TXN12	PAC29	0.22u/4X5R6.3V/K	EXP A TXN12C
EXP A TXP13	PAC30	0.22u/4X5R6.3V/K	EXP A TXP13C
EXP A TXN13	PAC31	0.22u/4X5R6.3V/K	EXP A TXN13C
EXP A TXP14	PAC32	0.22u/4X5R6.3V/K	EXP A TXP14C
EXP A TXN14	PAC33	0.22u/4X5R6.3V/K	EXP A TXN14C
EXP A TXP15	PAC34	0.22u/4X5R6.3V/K	EXP A TXP15C
EXP A TXN15	PAC35	0.22u/4X5R6.3V/K	EXP A TXN15C

EXP A RXP[0..15]	>>>EXP_A_RXP[0..15]	6
EXP A RXN[0..15]	>>>EXP_A_RXN[0..15]	6
EXP A TXP[0..15]	>>>EXP_A_TXP[0..15]	6
EXP A TXN[0..15]	>>>EXP_A_TXN[0..15]	6



Title

PCIEx16, PCIEx1 Slot

Size Custom

Document Number

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Rev 1.0

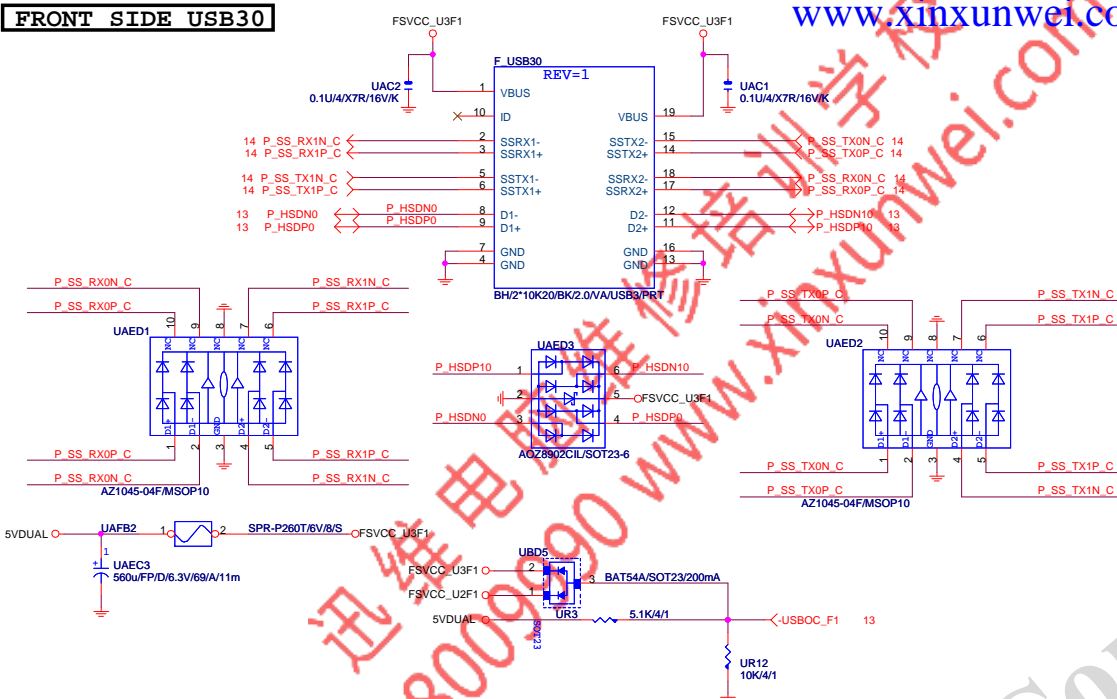


Rev: 0.73

DVI CONN

GIGABYTE™			
Title DVI			
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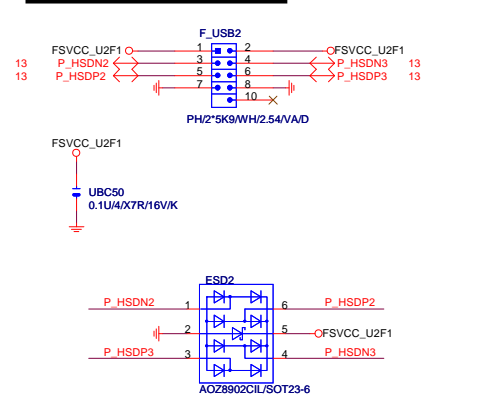
FRONT SIDE USB30



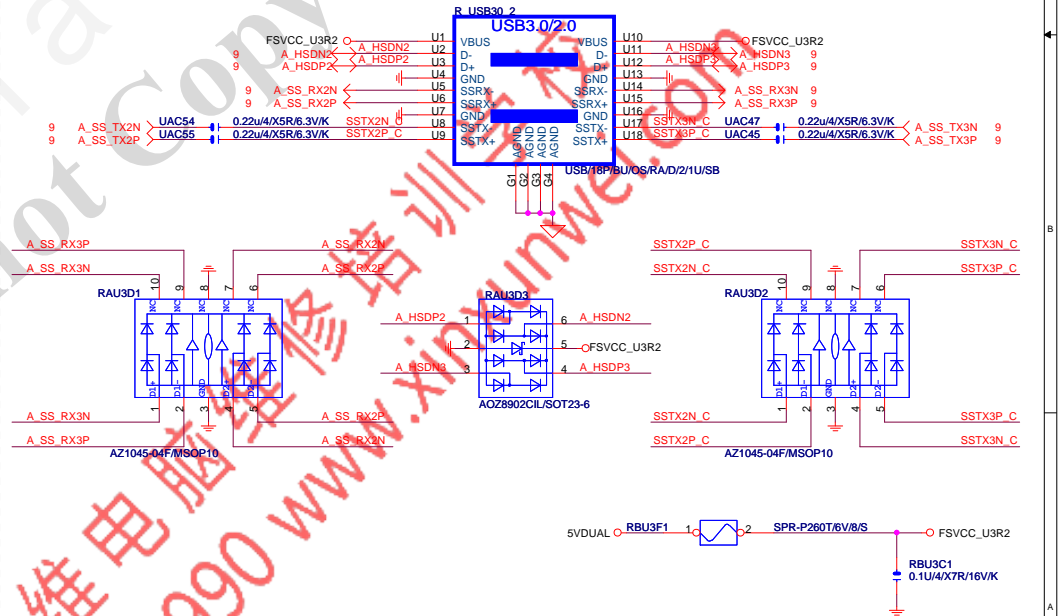
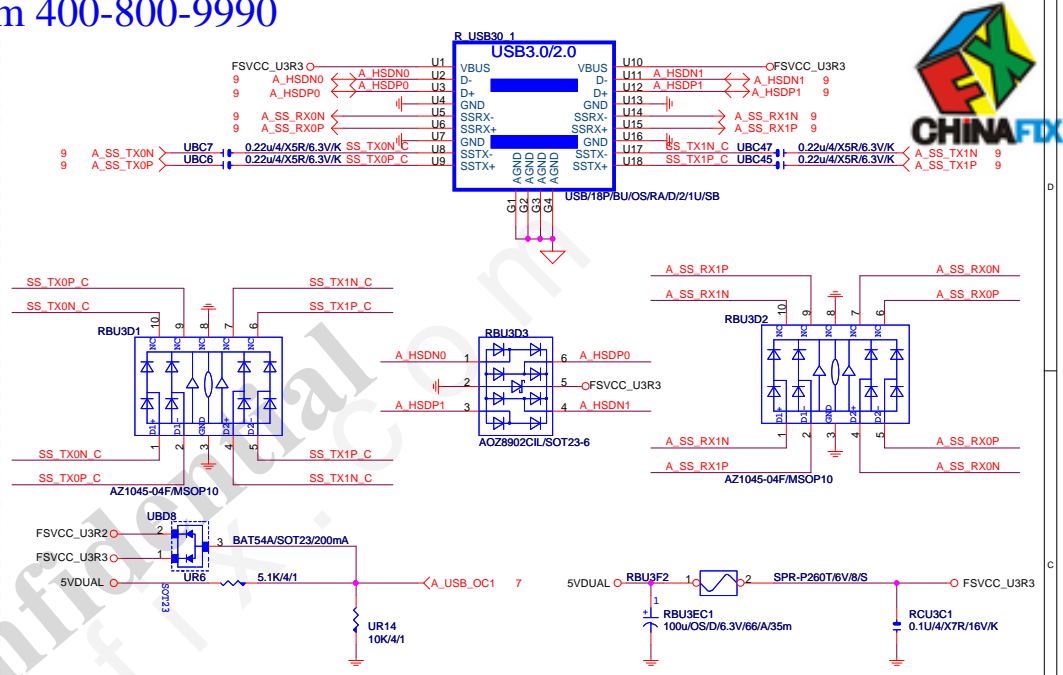
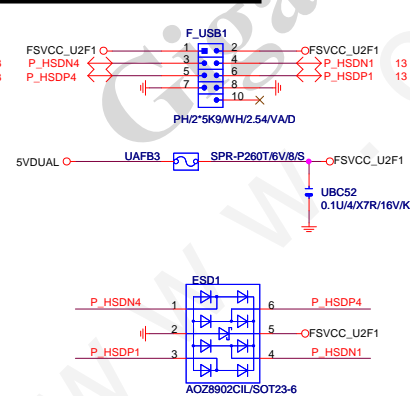
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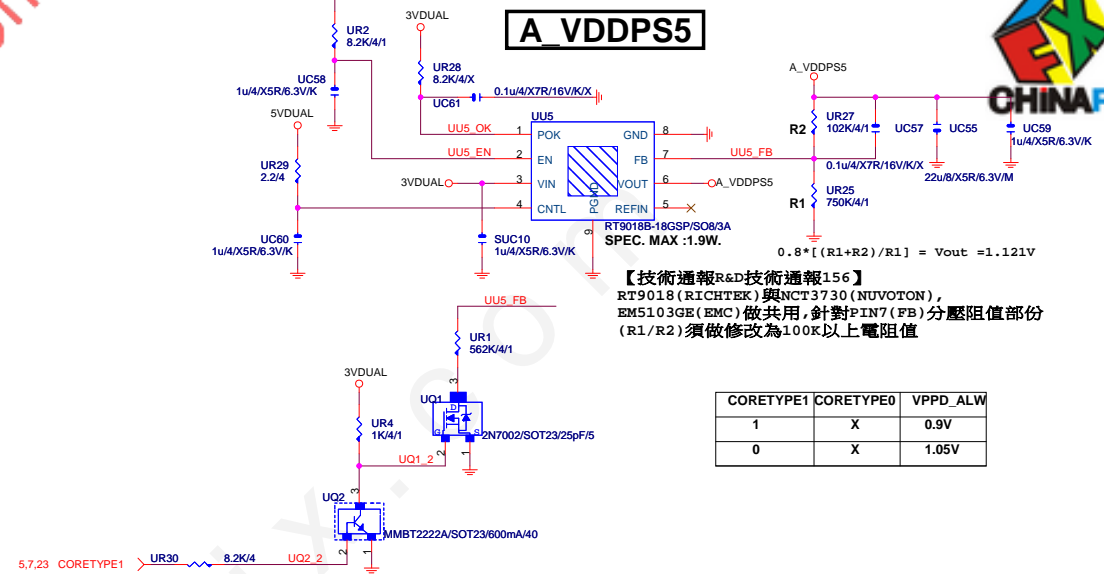
FRONT SIDE USB2



FRONT SIDE USB1

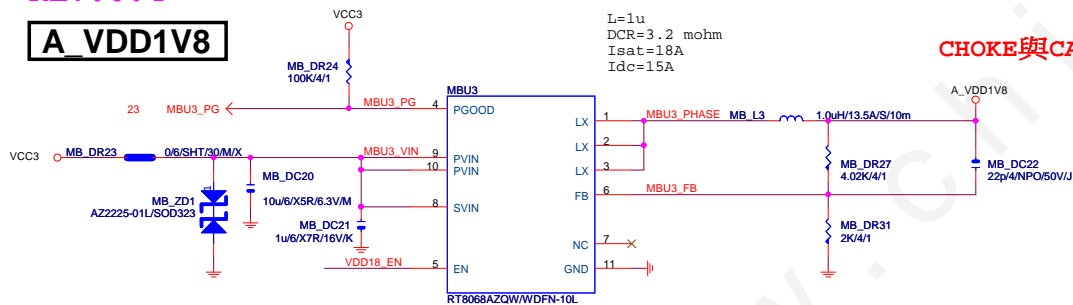


A_VDDPS5



REV:0.4

A_VDD1V8



PWR_SEQ

* 刪 MA_DR32

VPP CAP

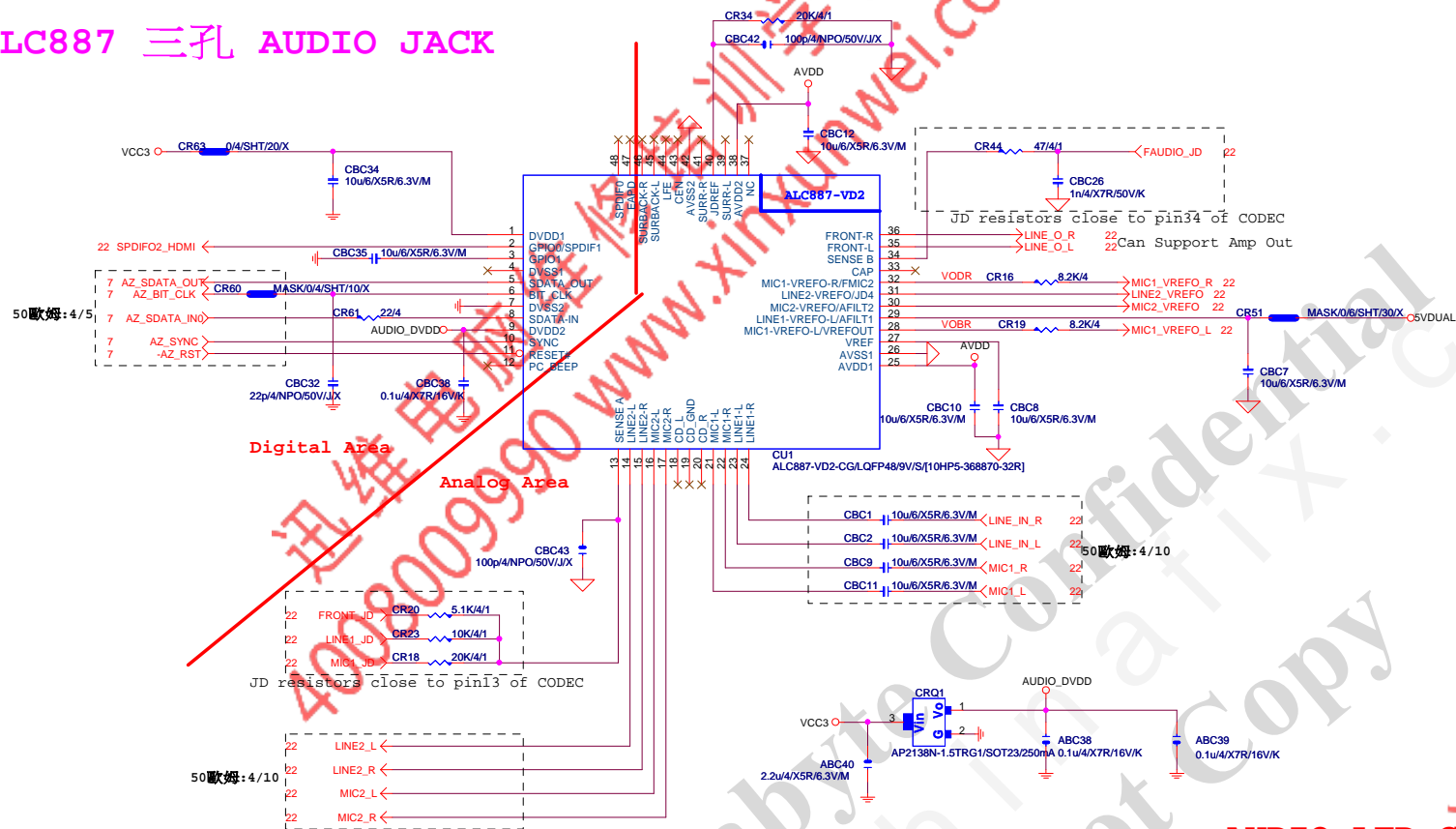
* 大電容 >0

22u*1PCS

GIGABYTE™

Title		
A_VDD1V8, A_VDDPS5		
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ALC887 三孔 AUDIO JACK



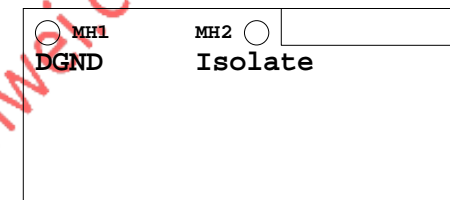
VALUE可變,LED顏色請自行修改
(預設:低亮度黃色LED:LED/Y/6/S)

AUDIO LED Control

	IO GP17
Still Mode	H
OFF Mode	L

LAYOUT注意:螺絲孔下GND方式

1. MH1空間夠,下DGND
2. MH2一律改為Isolate



LAYOUT注意:要加

GND切割線

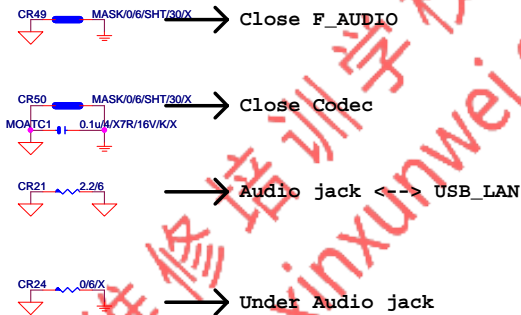


*料號後補

- BOM OPTION :
1. Chemicon 音效電容
 2. 金屬外罩 Reserve (上件與否,依照各Model spec)
 3. LED Reserve (上件與否和LED顏色,依照各Model spec)

Rev 0.5

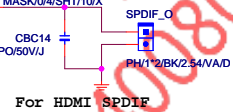
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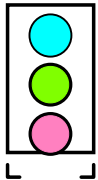
*量產前, 0ohm改short pad

SPDIF_OUT

SPDIF_IN



AZALIA JACK



AZALIA JACK

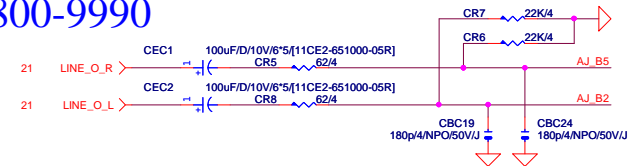
BLUE
LINE-IN

GREEN
LINE-OUT

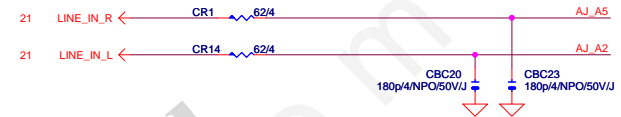
PINK
MIC-IN

A3RP/13P/BL/LI/PK/RA/D/1/B

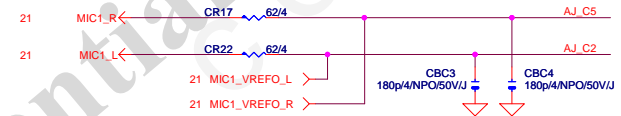
LINE-OUT



LINE-IN



MIC-IN

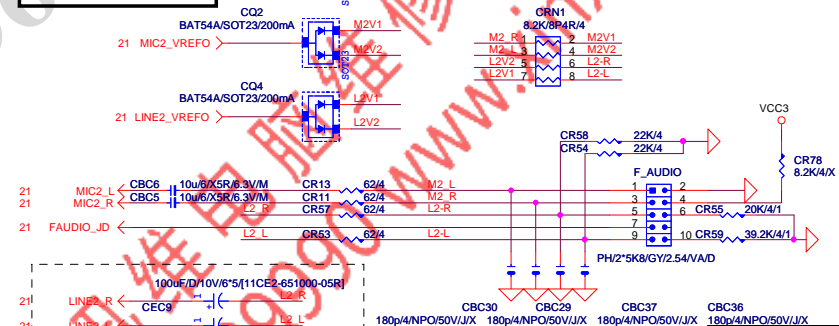


SURROUND

CEN/LFE

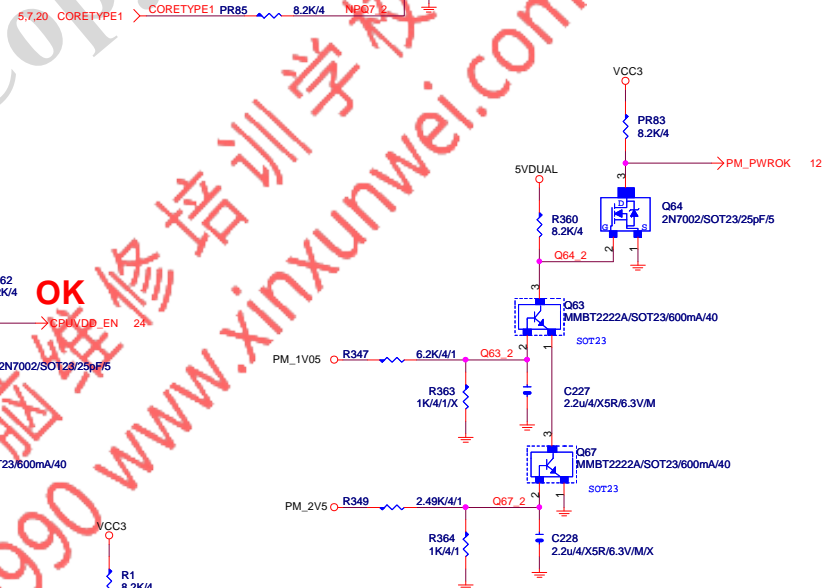
SURR BACK

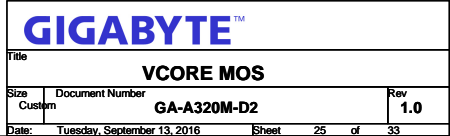
AZALIA FRONT PANEL



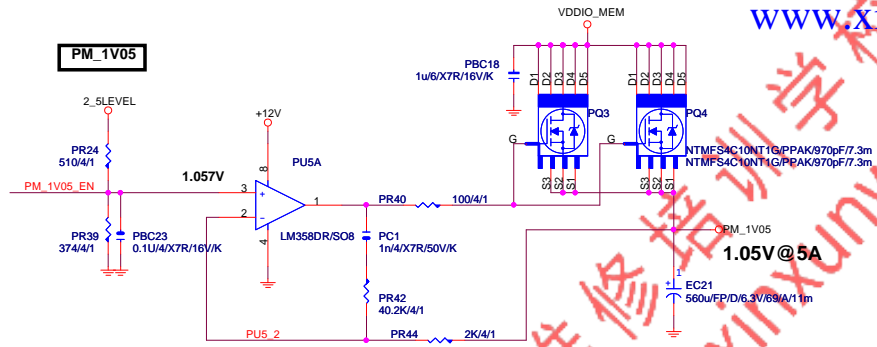
GIGABYTE™

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AUDIO JACK		
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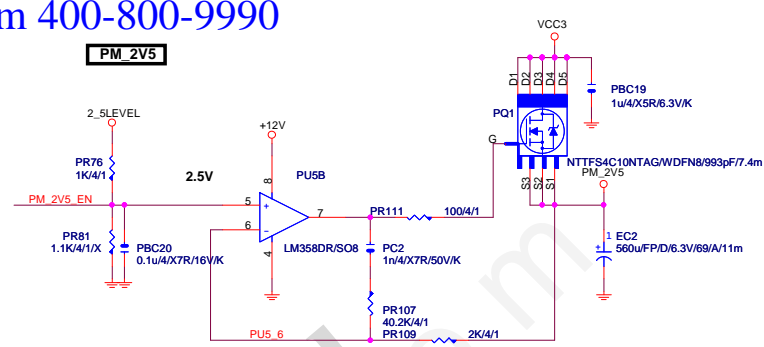




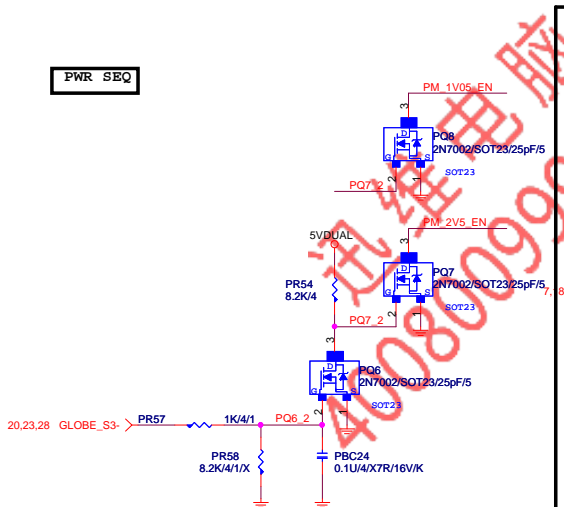
PM_1V05



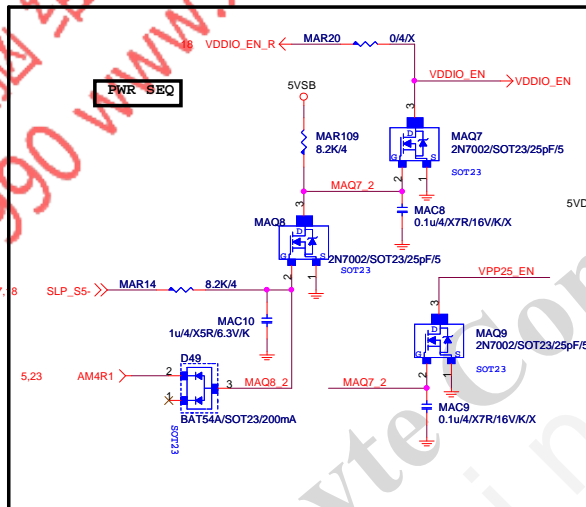
PM_2V5



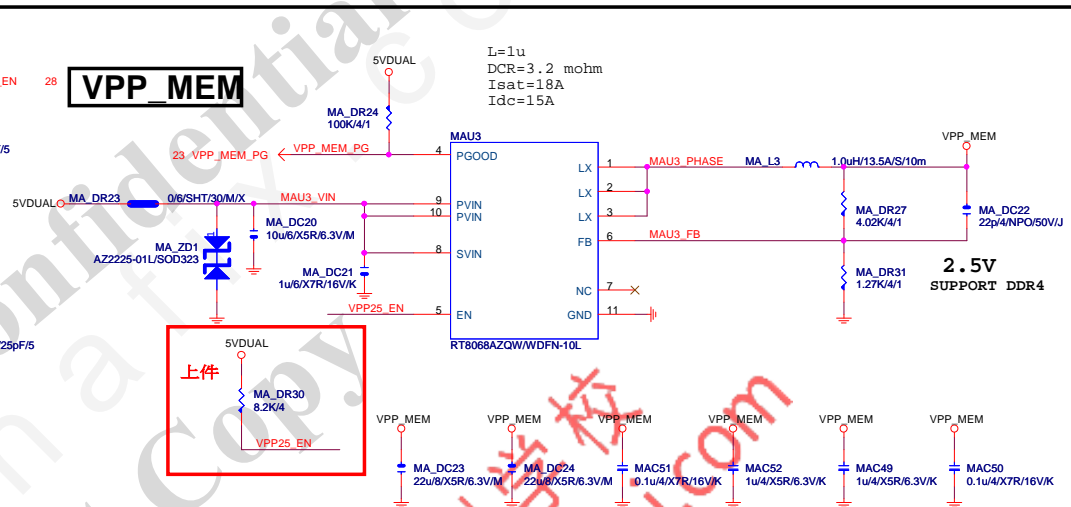
PWR_SEQ



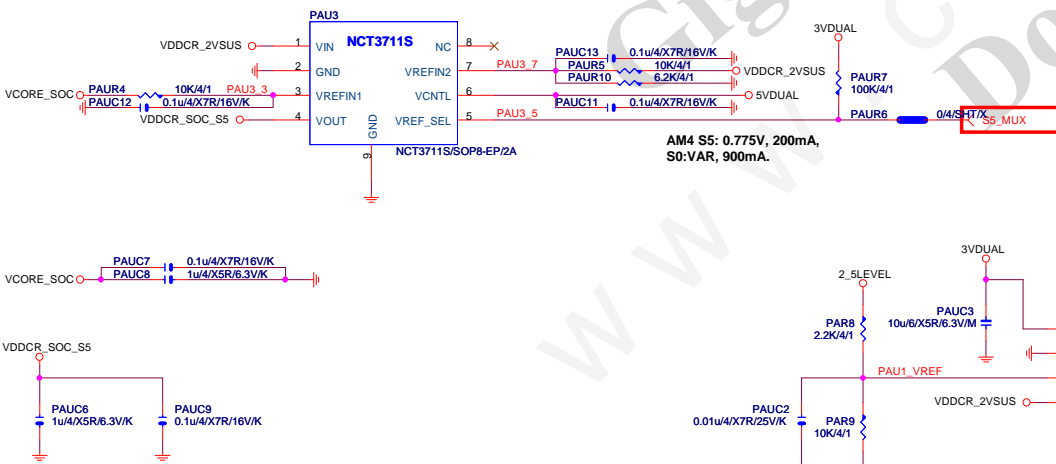
PWR_SEQ



VPP_MEM



VDDCR SOC S5



S5_MUX: S0-->High, S5-->Low

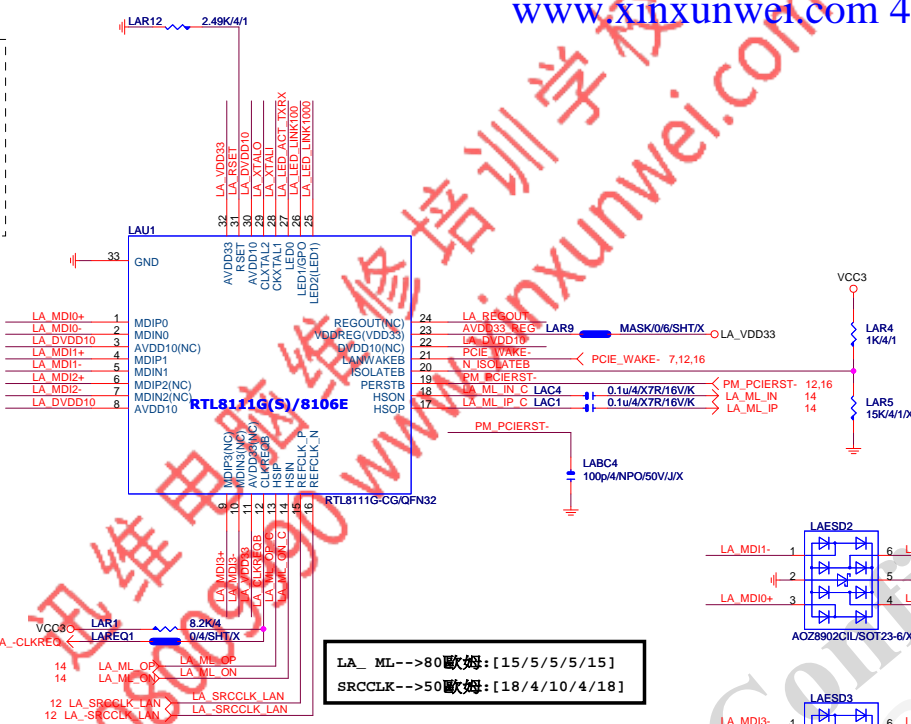
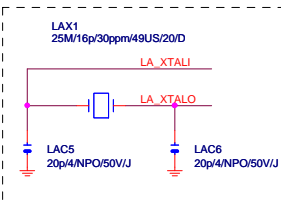
H: VDDCR_SOC_S5 will track VCORE_SOC.

L: If VCORE_SOC < 0.775V (OR 0.85V), VDDCR_SOC_S5=0.775V.
If VCORE_SOC >= 0.775V (OR 0.85V), VDDCR_SOC_S5 will track VCORE_SOC.

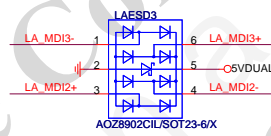
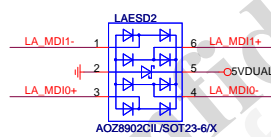
GIGABYTE

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PM PWR,VPP_MEM,VDDCR_SOC_S5		
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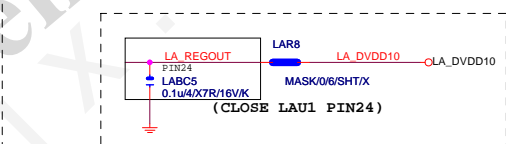
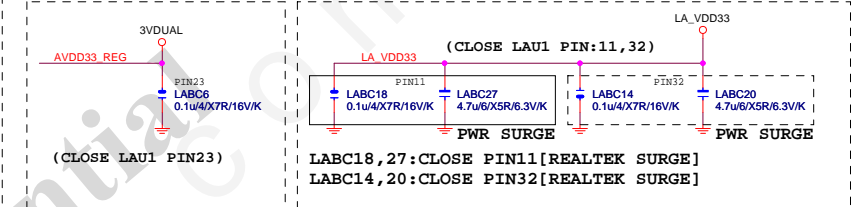
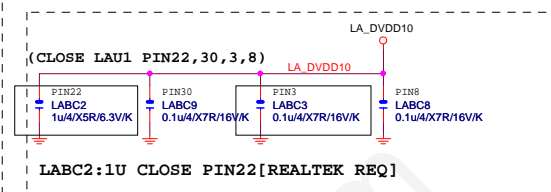
LAN:RTL8111G



LA_ML-->80欧姆:[15/5/5/5/15]
SRCCLK-->50欧姆:[18/4/10/4/18]

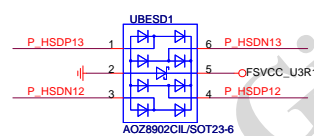


LAN POWER

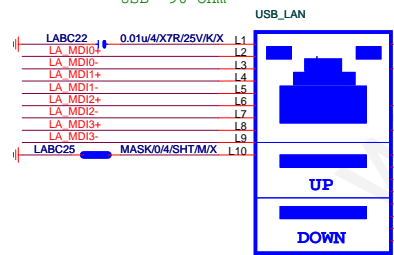


NOTE:
RT8106E:PIN3,11,22,24-->NC
LABC2LABC3,LABC5,LABC18,LABC27-->N/A

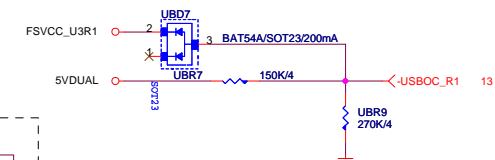
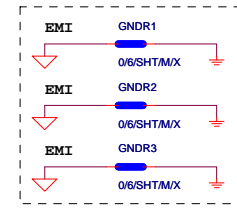
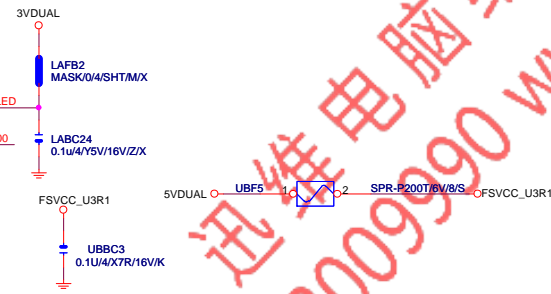
USB LAN



USB LAN CONNECTOR



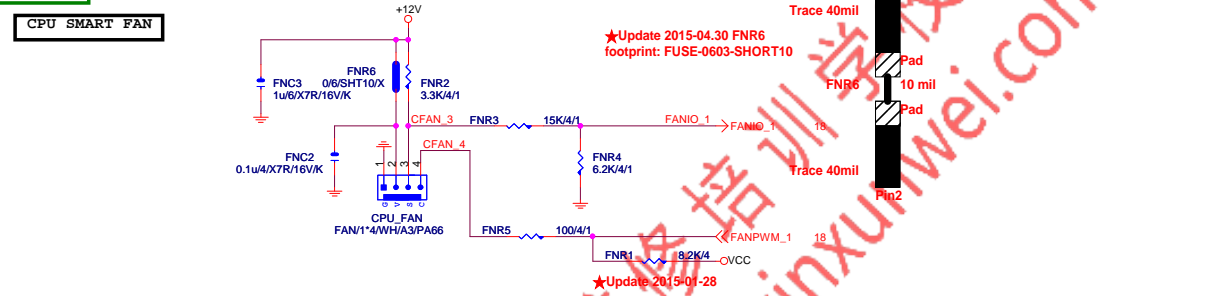
USB+LAN/1G/GO,Y/OS/RAD/12C/ES/[11NR6-702009-Z1R_11NR6-702009-R2R]



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CPU SMART FAN

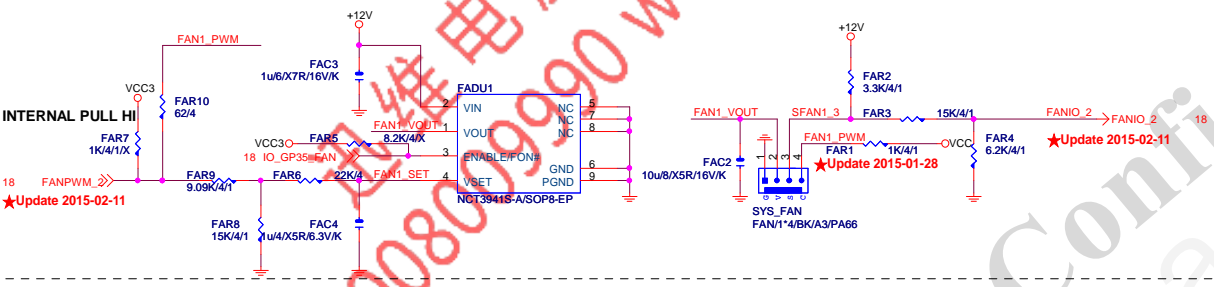


LPT PORT

SYSTEM FAN1

Linear SYS_FAN

Enable Function (NCT3941S)
Full Turn On Function (NCT3941S-A)

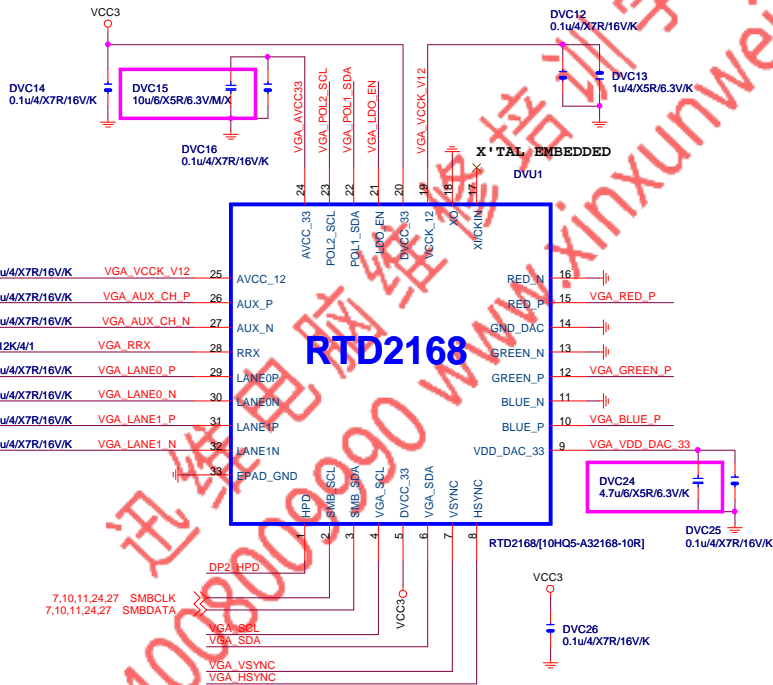
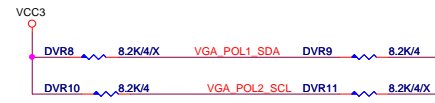


COM PORT

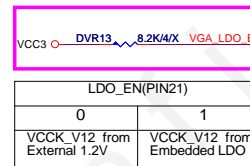
SYSTEM FAN2

SYSTEM FAN3

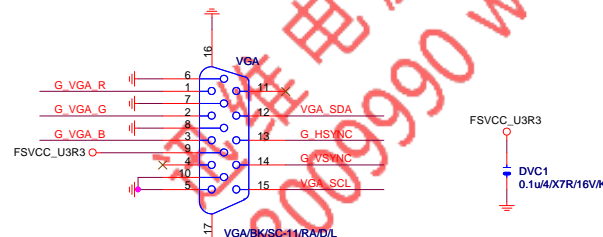
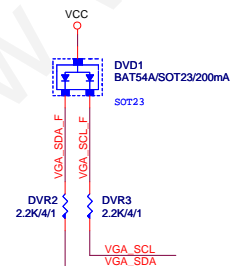
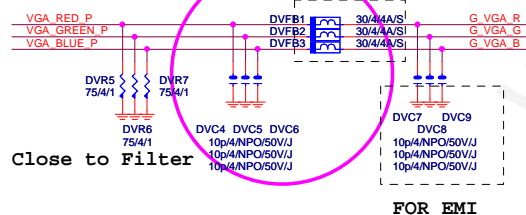
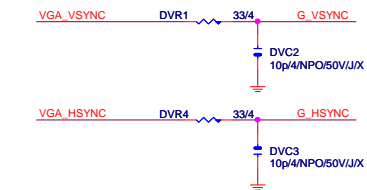
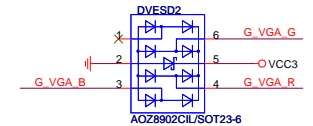
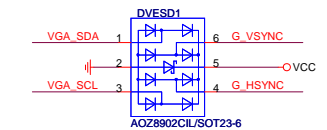
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FAN, LPT, COM			
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**Power on latch**

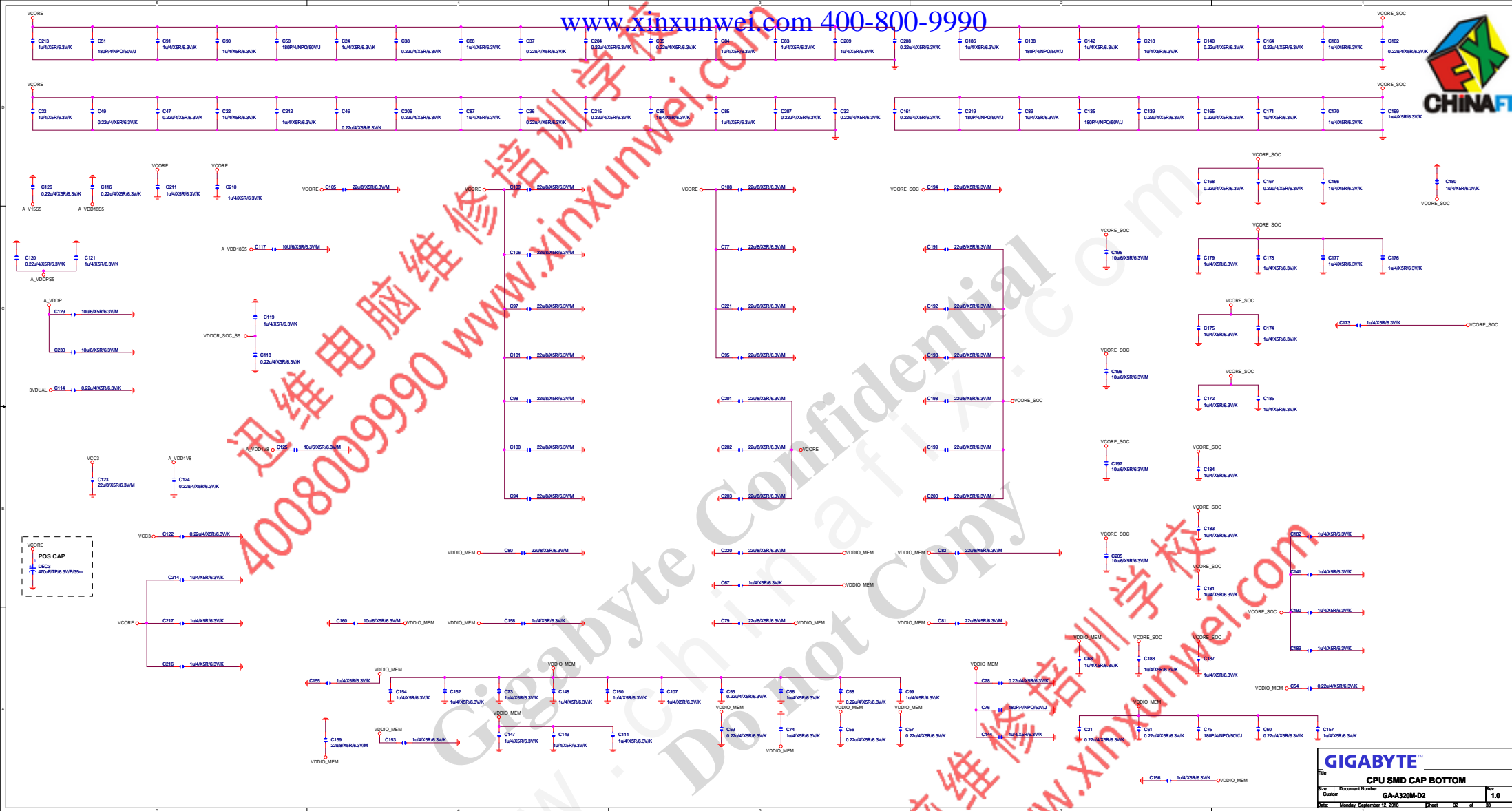
POL2_SCL (PIN23)	POL1_SDA(PIN22)	
	0	1
0	X	EP MODE
1	ROM ONLY MODE	EEPROM MODE

Embedded LDO**DP HPD**

Gigabyte Technology

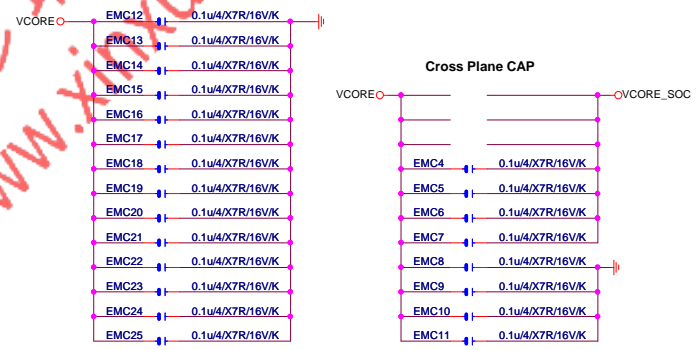
VGA ESD**GIGABYTE**

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CPU TOP CAVITY

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CPU SMD CAP TOP			
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