

GA-M68MT-S2P

SHEET	TITLE	P-Code:U96133-0
01	COVER SHEET	
02	BOM & PCB MODIFY HISTORY	
03	BLOCK DIAGRAM	
04	PROCESSOR HT INTERFACE	
05	PROCESSOR DDR INTERFACE	
06	PROCESSOR CONTROL & DEBUG	
07	PROCESSOR Power & Gnd	
08	DIMM 1,2	
09	MCP61-CPU	
10	MCP61-PCIE	
11	MCP61-DAC, RGMII	
12	MCP61-PCI	
13	MCP61-SATA, IDE	
14	MCP61-USB, HD-Audio, GPIO	
15	MCP61-Power, Gnd	
16	PCI EXPRESS x16, x1 SLOT	
17	PCI SLOT COM,LPT	
18	ITE 8720GB/JX	
19	Realtek 8211 CL	
20	H/W MONITOR & FAN CONTROL USB	
21	ALC888B HD-AUDIO AUDIO JACK	
22	POWER SEQ	
23	ATX, VCC12_DUAL, VDDA25 F_PANEL	
24	DDR POWER	
25	PWM ISL6324A	

[illegible]

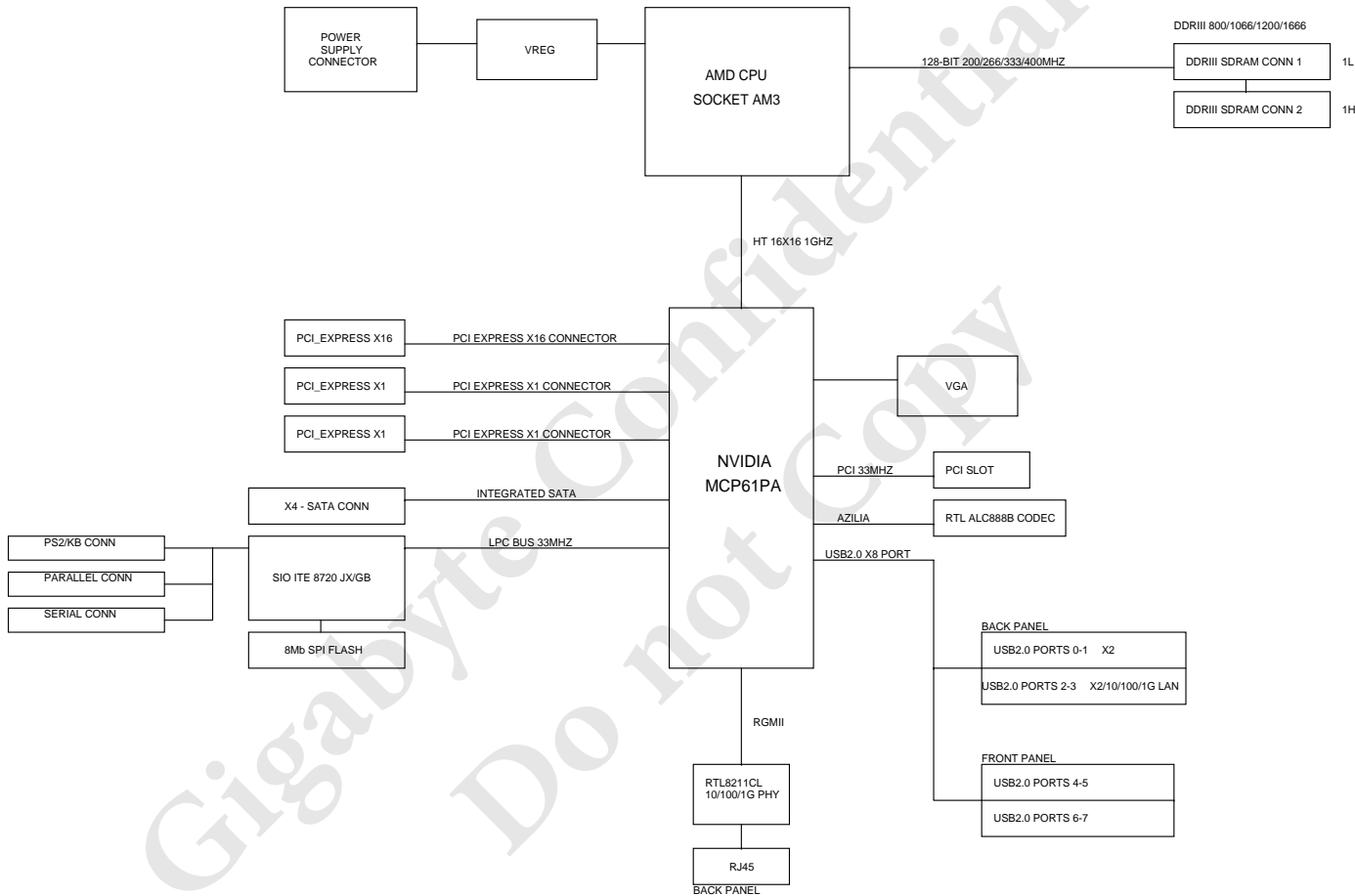
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Title			
BLOCK DIAGRAM			
Size	Document Number	Rev	
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P-Code: U96133-0

[illegible][illegible]

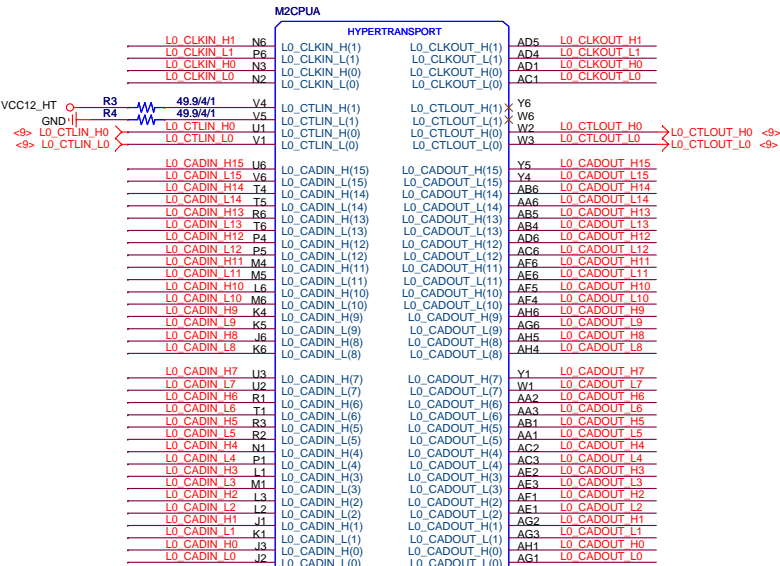
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Title BOM & PCB MODIFY HISTORY				
Size Custom	Document Number GA-M68MT-S2P			Rev 3.01
Date: Wednesday, December 22, 2010 Sheet 2 of 25				

BLOCK DIAGRAM



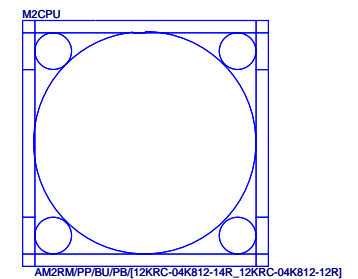
CPU_VDD_RUN = VCORE
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VLDT_RUN = VCC12_HT
CPU_VDDIO_SUS = DDR18V
CPU_VTT_SUS = DDRVTT

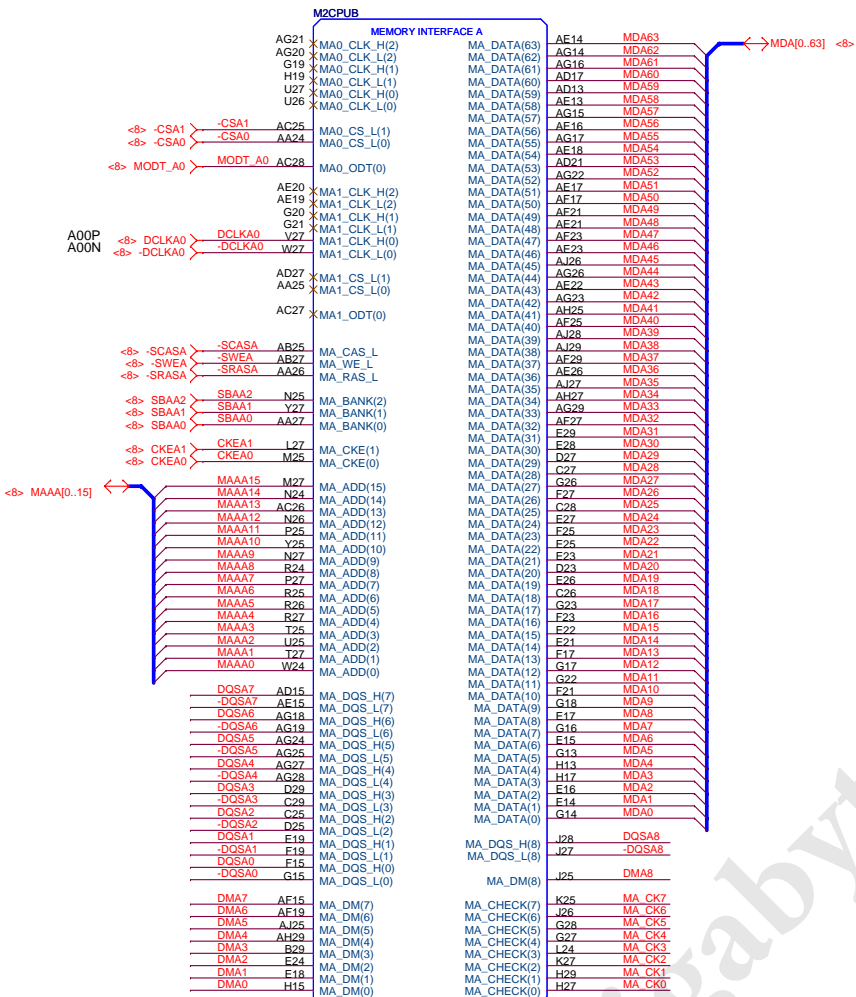
VLDT_A = VCC12_HT
VLDT_B = HT12B



CPU-SK/941AM3/S/15u/[10SC1-A01941-04R_10SC1-A01941-05R]

L0_CADIN_L[0..15] <9>
L0_CADIN_H[0..15] <9>
L0_CLKIN_L[0..1] <9>
L0_CLKIN_H[0..1] <9>
L0_CADOUT_L[0..15] <9>
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L0_CLKOUT_H[0..1] <9>

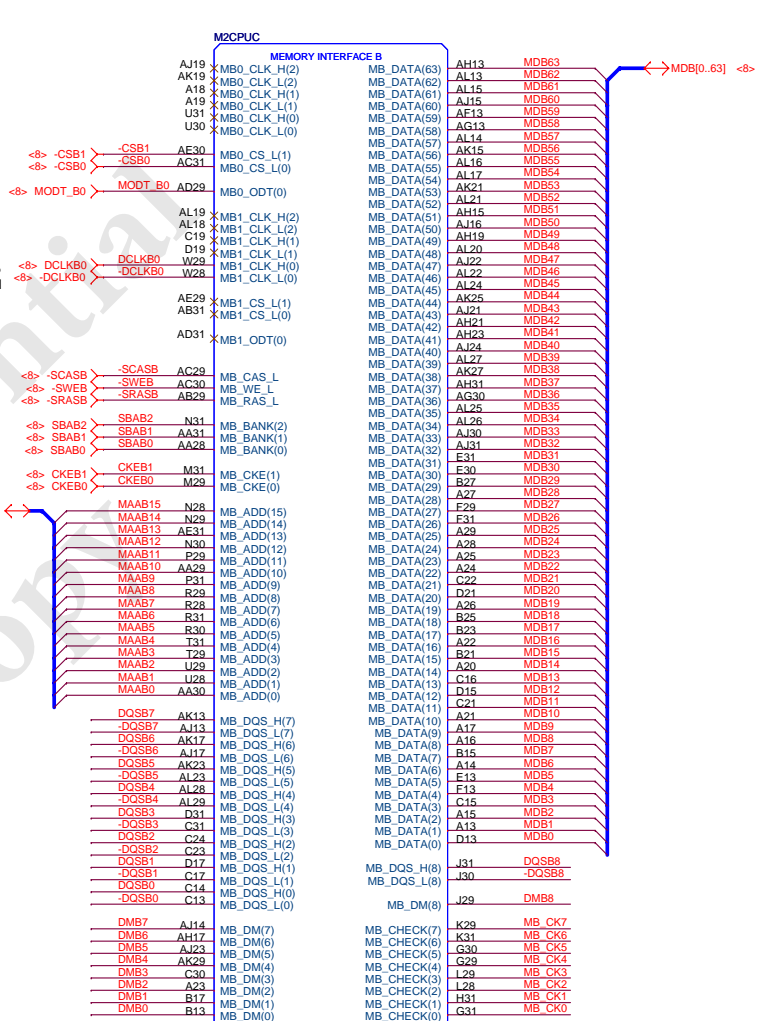




CPU-SK/941AM3/S15u[10SC1-A01941-04R_10SC1-A01941-05R]



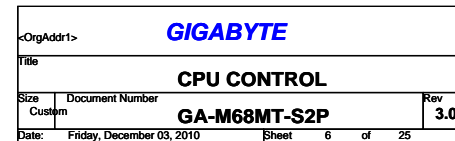
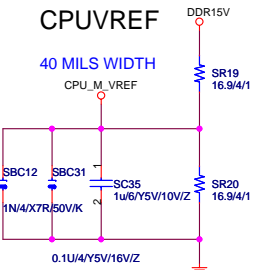
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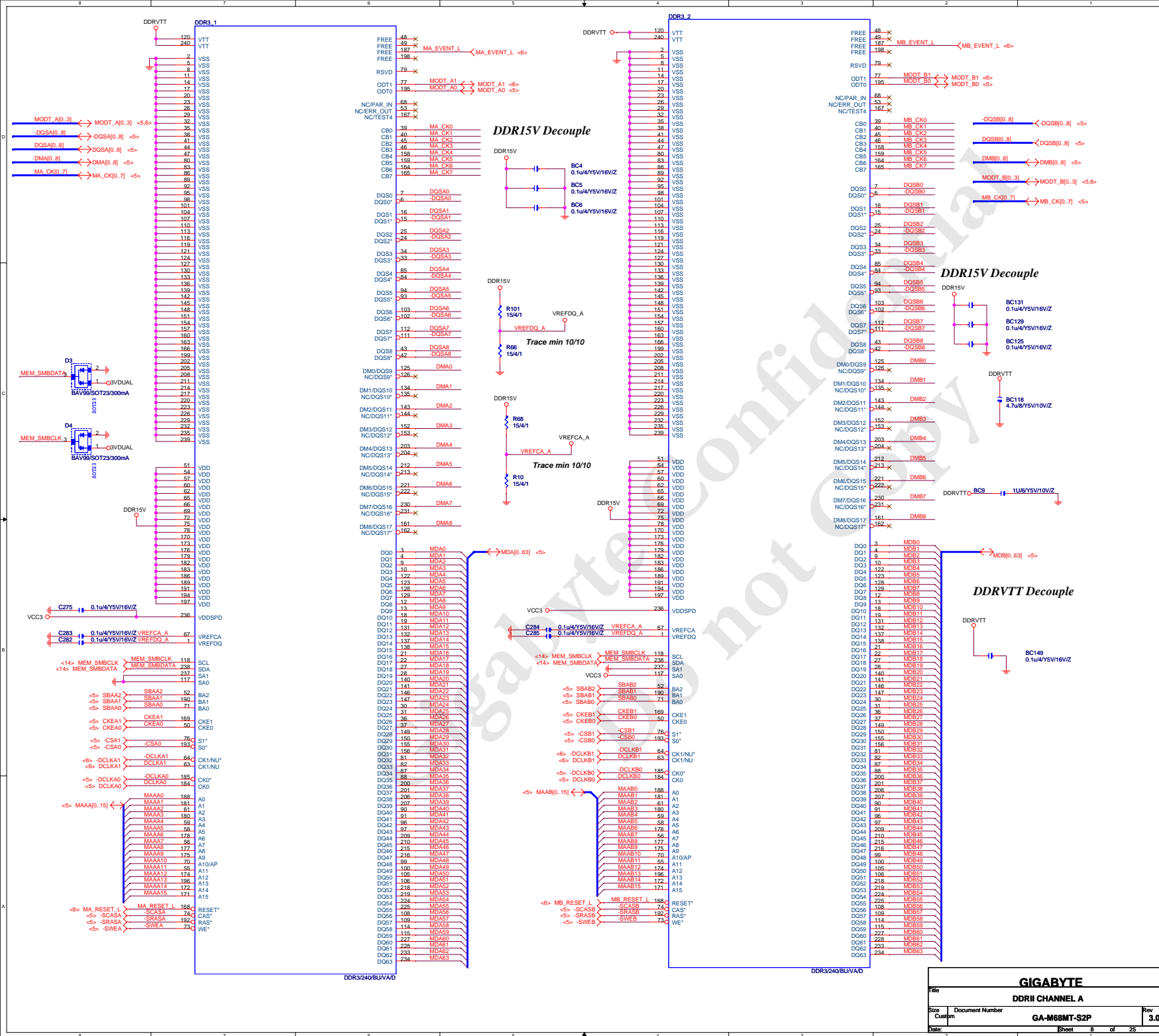


CPU-SK/941AM3/S15u[10SC1-A01941-04R_10SC1-A01941-05R]



GIGABYTE			
<OrgAddr1>			
Title			
CPU DDRII MEMORY			
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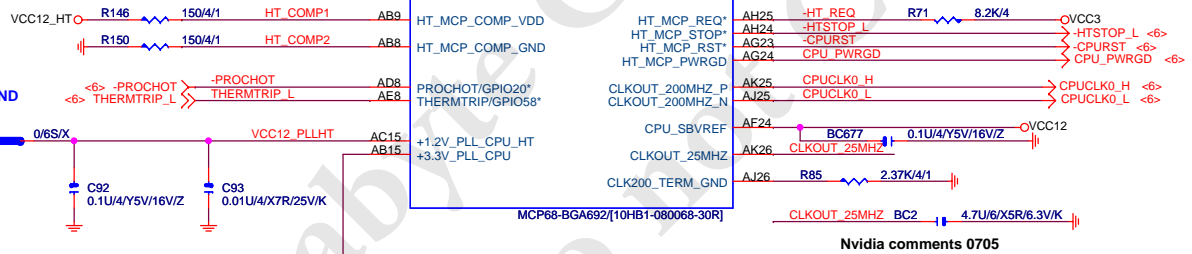


MCP61 1 of 8

L0 CADOUT H0	AG8	HT_MCP_RXD0_P	HT_MCP_TXD0_P	AH23	L0 CADIN H0
L0 CADOUT H1	AG9	HT_MCP_RXD1_P	HT_MCP_TXD1_P	AJ22	L0 CADIN H1
L0 CADOUT H2	AK9	HT_MCP_RXD2_P	HT_MCP_TXD2_P	AJ21	L0 CADIN H2
L0 CADOUT H3	AJ10	HT_MCP_RXD3_P	HT_MCP_TXD3_P	AH21	L0 CADIN H3
L0 CADOUT H4	AG12	HT_MCP_RXD4_P	HT_MCP_TXD4_P	AH19	L0 CADIN H4
L0 CADOUT H5	AG13	HT_MCP_RXD5_P	HT_MCP_TXD5_P	AH18	L0 CADIN H5
L0 CADOUT H6	AK13	HT_MCP_RXD6_P	HT_MCP_TXD6_P	AJ17	L0 CADIN H6
L0 CADOUT H7	AJ14	HT_MCP_RXD7_P	HT_MCP_TXD7_P	AH17	L0 CADIN H7
L0 CADOUT H8	AB10	HT_MCP_RXD8_P	HT_MCP_TXD8_P	AE22	L0 CADIN H8
L0 CADOUT H9	AF10	HT_MCP_RXD9_P	HT_MCP_TXD9_P	AB20	L0 CADIN H9
L0 CADOUT H10	AC12	HT_MCP_RXD10_P	HT_MCP_TXD10_P	AC20	L0 CADIN H10
L0 CADOUT H11	AC12	HT_MCP_RXD11_P	HT_MCP_TXD11_P	AE20	L0 CADIN H11
L0 CADOUT H12	AB11	HT_MCP_RXD12_P	HT_MCP_TXD12_P	AD18	L0 CADIN H12
L0 CADOUT H13	AB13	HT_MCP_RXD13_P	HT_MCP_TXD13_P	AE18	L0 CADIN H13
L0 CADOUT H14	AE14	HT_MCP_RXD14_P	HT_MCP_TXD14_P	AB17	L0 CADIN H14
L0 CADOUT H15	AE14	HT_MCP_RXD15_P	HT_MCP_TXD15_P	AC16	L0 CADIN H15
L0 CADOUT L0	AH8	HT_MCP_RXD0_N	HT_MCP_TXD0_N	AJ23	L0 CADIN L0
L0 CADOUT L1	AH9	HT_MCP_RXD1_N	HT_MCP_TXD1_N	AJ22	L0 CADIN L1
L0 CADOUT L2	AJ8	HT_MCP_RXD2_N	HT_MCP_TXD2_N	AK21	L0 CADIN L2
L0 CADOUT L3	AH10	HT_MCP_RXD3_N	HT_MCP_TXD3_N	AG21	L0 CADIN L3
L0 CADOUT L4	AH12	HT_MCP_RXD4_N	HT_MCP_TXD4_N	AJ19	L0 CADIN L4
L0 CADOUT L5	AH13	HT_MCP_RXD5_N	HT_MCP_TXD5_N	AJ18	L0 CADIN L5
L0 CADOUT L6	AJ13	HT_MCP_RXD6_N	HT_MCP_TXD6_N	AK17	L0 CADIN L6
L0 CADOUT L7	AH14	HT_MCP_RXD7_N	HT_MCP_TXD7_N	AG17	L0 CADIN L7
L0 CADOUT L8	AC10	HT_MCP_RXD8_N	HT_MCP_TXD8_N	AG22	L0 CADIN L8
L0 CADOUT L9	AE10	HT_MCP_RXD9_N	HT_MCP_TXD9_N	AB19	L0 CADIN L9
L0 CADOUT L10	AG10	HT_MCP_RXD10_N	HT_MCP_TXD10_N	AD20	L0 CADIN L10
L0 CADOUT L11	AD12	HT_MCP_RXD11_N	HT_MCP_TXD11_N	AE20	L0 CADIN L11
L0 CADOUT L12	AC11	HT_MCP_RXD12_N	HT_MCP_TXD12_N	AE18	L0 CADIN L12
L0 CADOUT L13	AB12	HT_MCP_RXD13_N	HT_MCP_TXD13_N	AG18	L0 CADIN L13
L0 CADOUT L14	AG14	HT_MCP_RXD14_N	HT_MCP_TXD14_N	AB16	L0 CADIN L14
L0 CADOUT L15	AD14	HT_MCP_RXD15_N	HT_MCP_TXD15_N	AD16	L0 CADIN L15

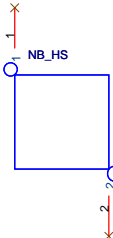
<4> L0_CLKOUT_H0	L0_CLKOUT_H0	AJ11	HT_MCP_RX_CLK0_P	HT_MCP_TX_CLK0_P	AH20	L0_CLKIN_H0	L0_CLKIN_H0	<4>
<4> L0_CLKOUT_L0	L0_CLKOUT_L0	AH11	HT_MCP_RX_CLK0_N	HT_MCP_TX_CLK0_N	AG20	L0_CLKIN_L0	L0_CLKIN_L0	<4>
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<4> L0_CLKOUT_L1	L0_CLKOUT_L1	AF12	HT_MCP_RX_CLK1_N	HT_MCP_TX_CLK1_N	AB18	L0_CLKIN_L1	L0_CLKIN_L1	<4>

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<4> L0_CTLOUT_L0	L0_CTLOUT_L0	AH15	HT_MCP_RXCTL0_N	HT_MCP_TXCTL0_N	AG16	L0_CTLIN_L0	L0_CTLIN_L0	<4>
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		AC14	RESERVED36	RESERVED34	AF16			

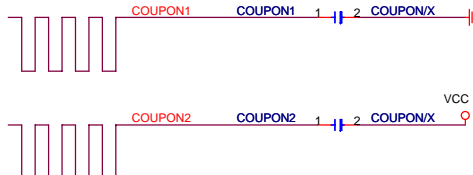


Nvidia comments 0705

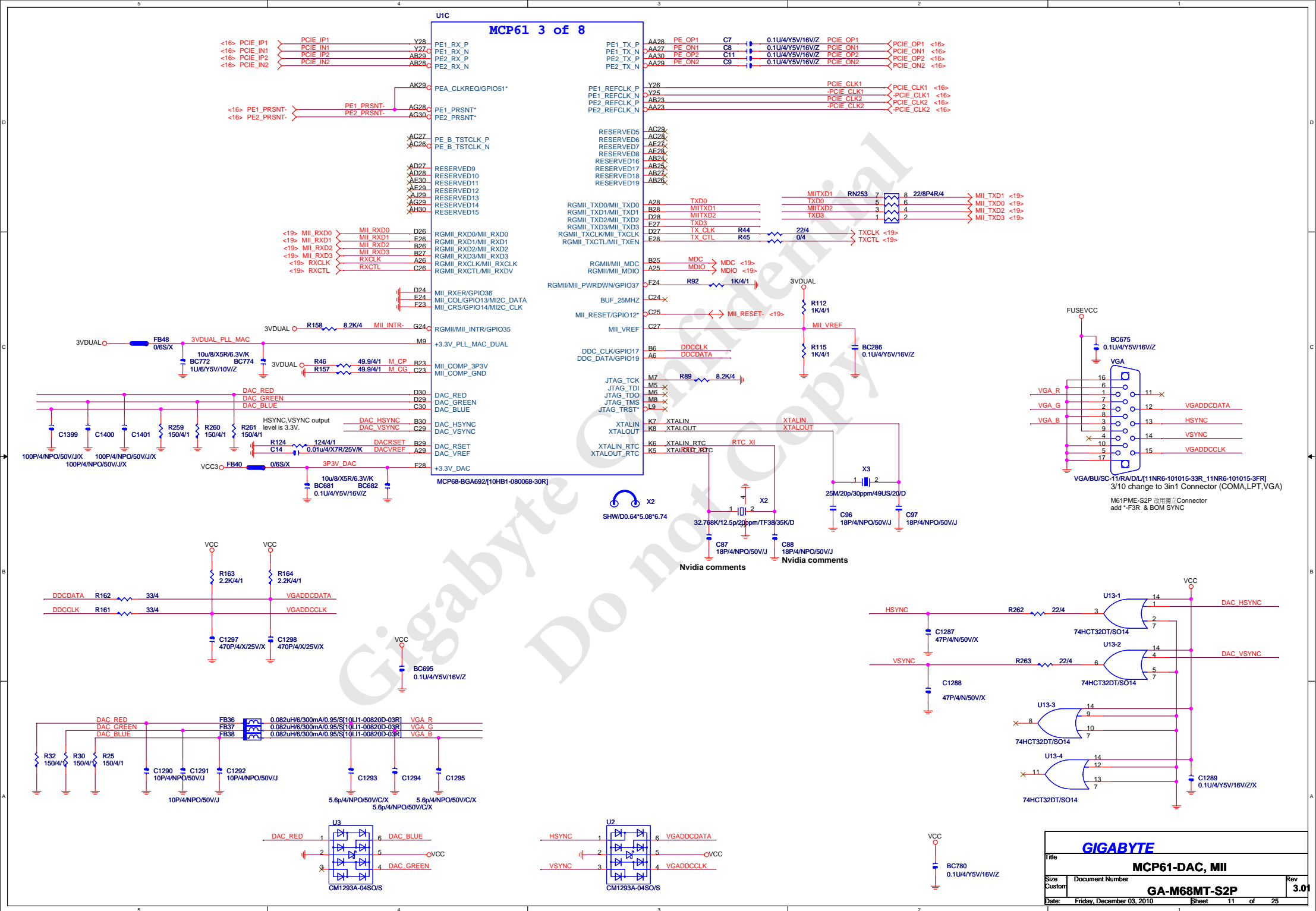
N.B HEATSINK

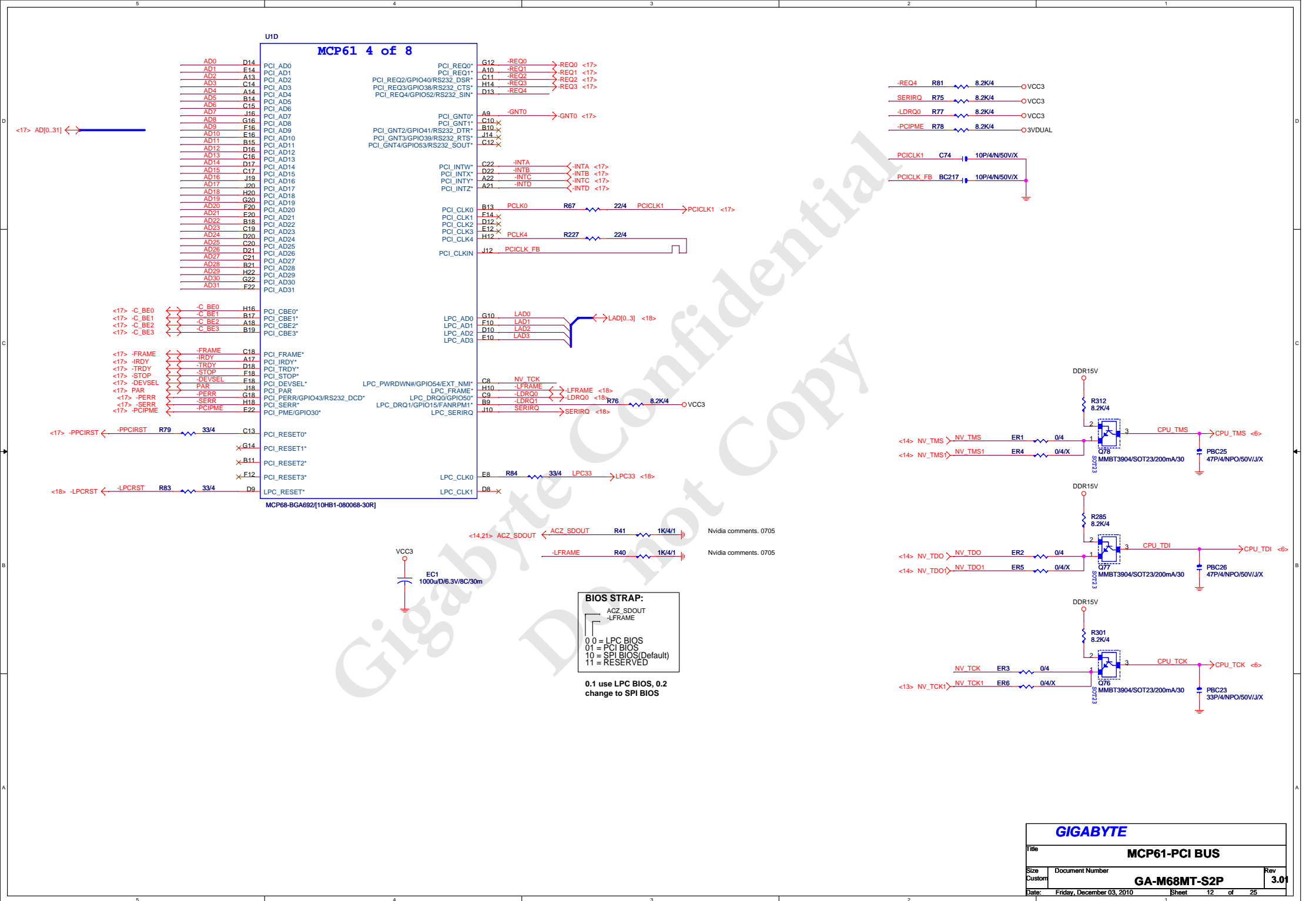


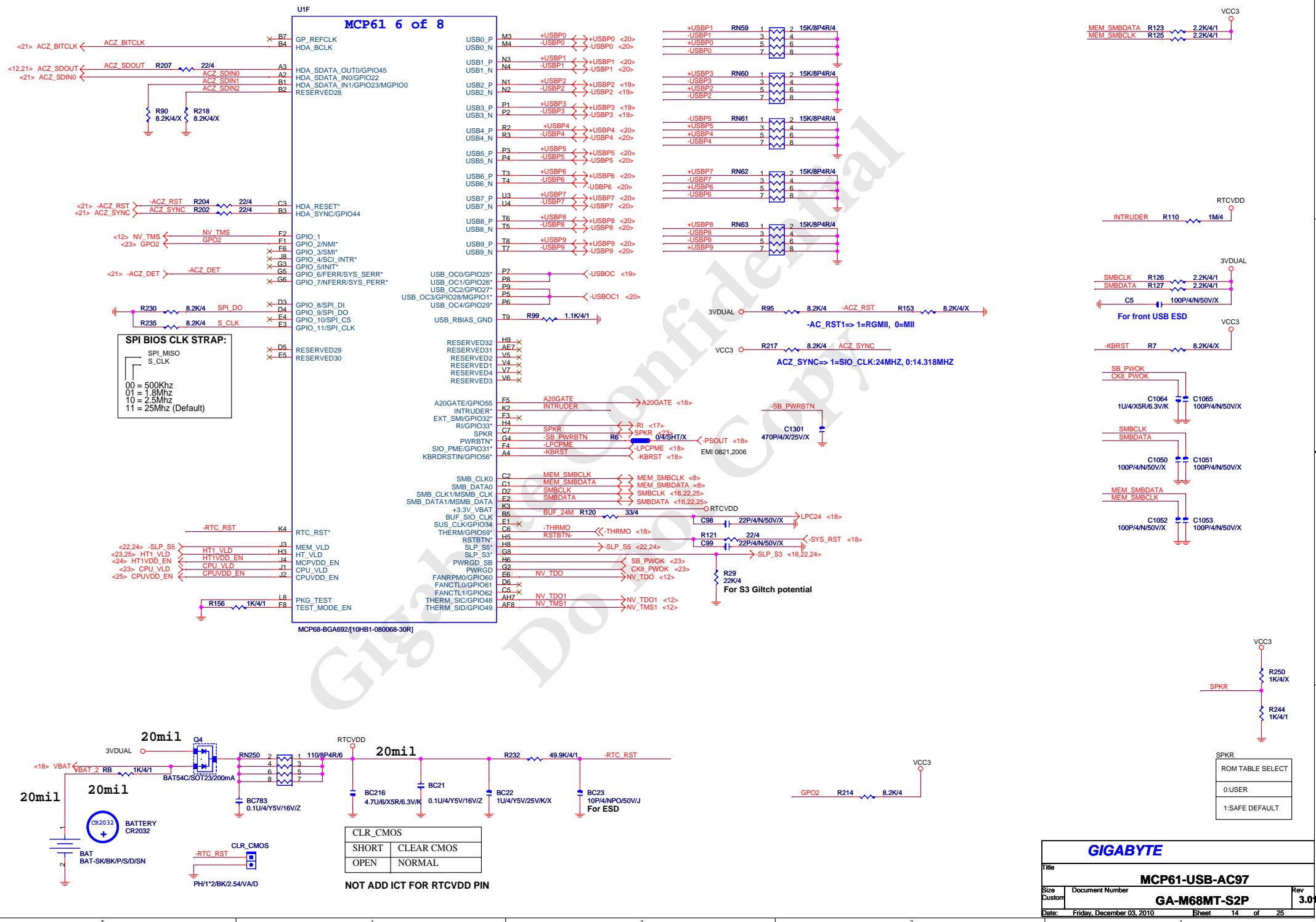
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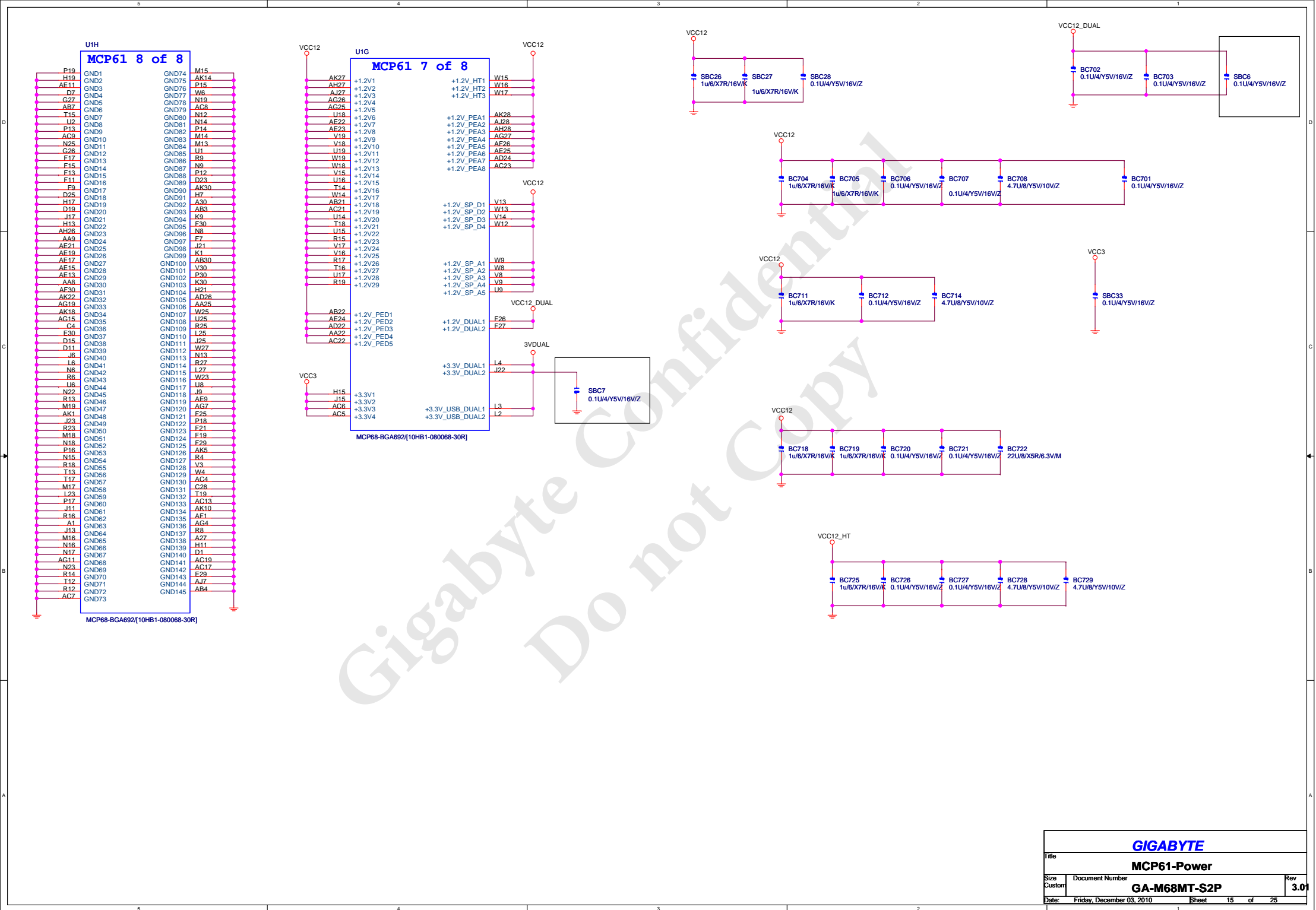


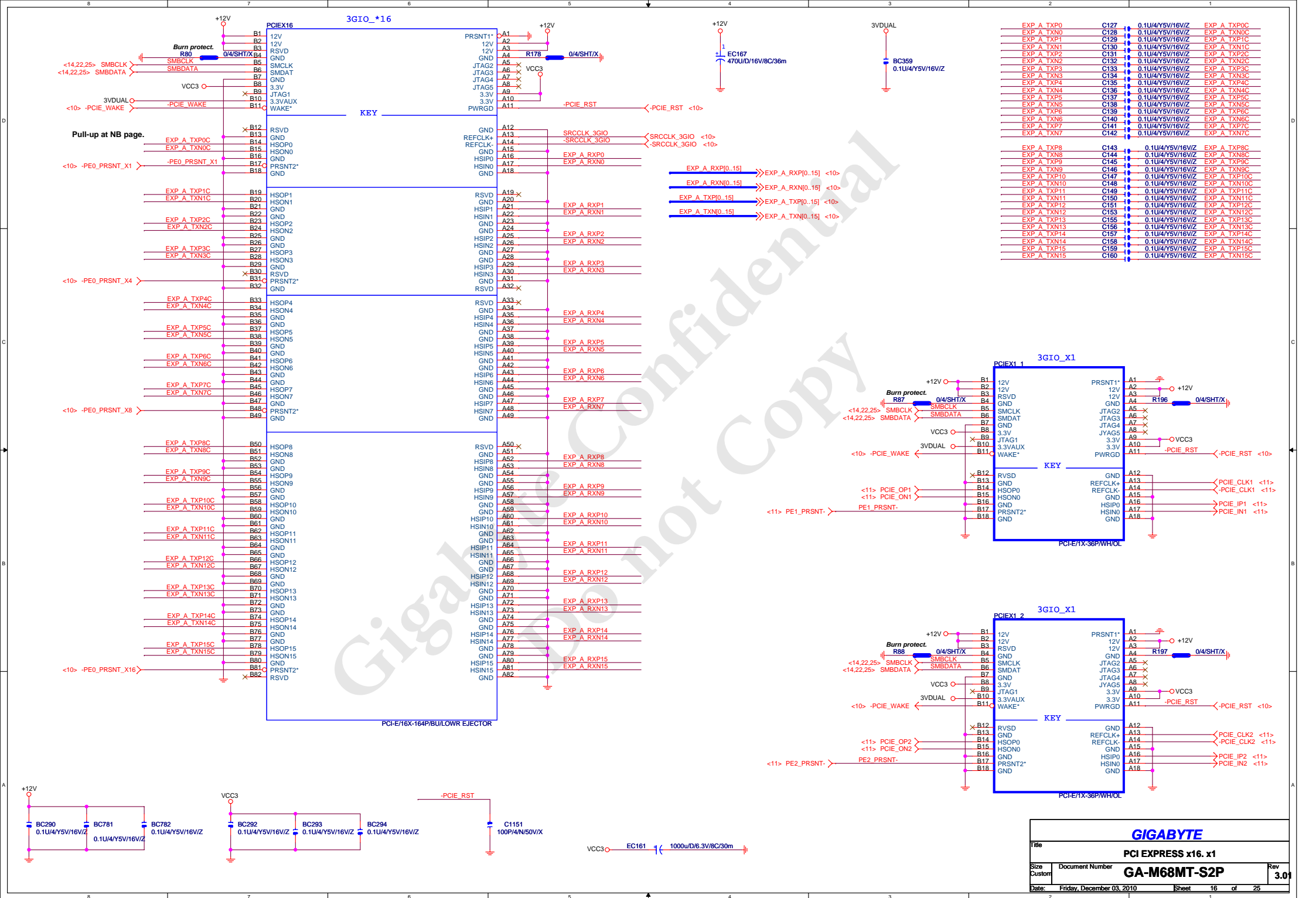
GIGABYTE			
MCP61-HOST			
GA-M68MT-S2P			
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Custom			
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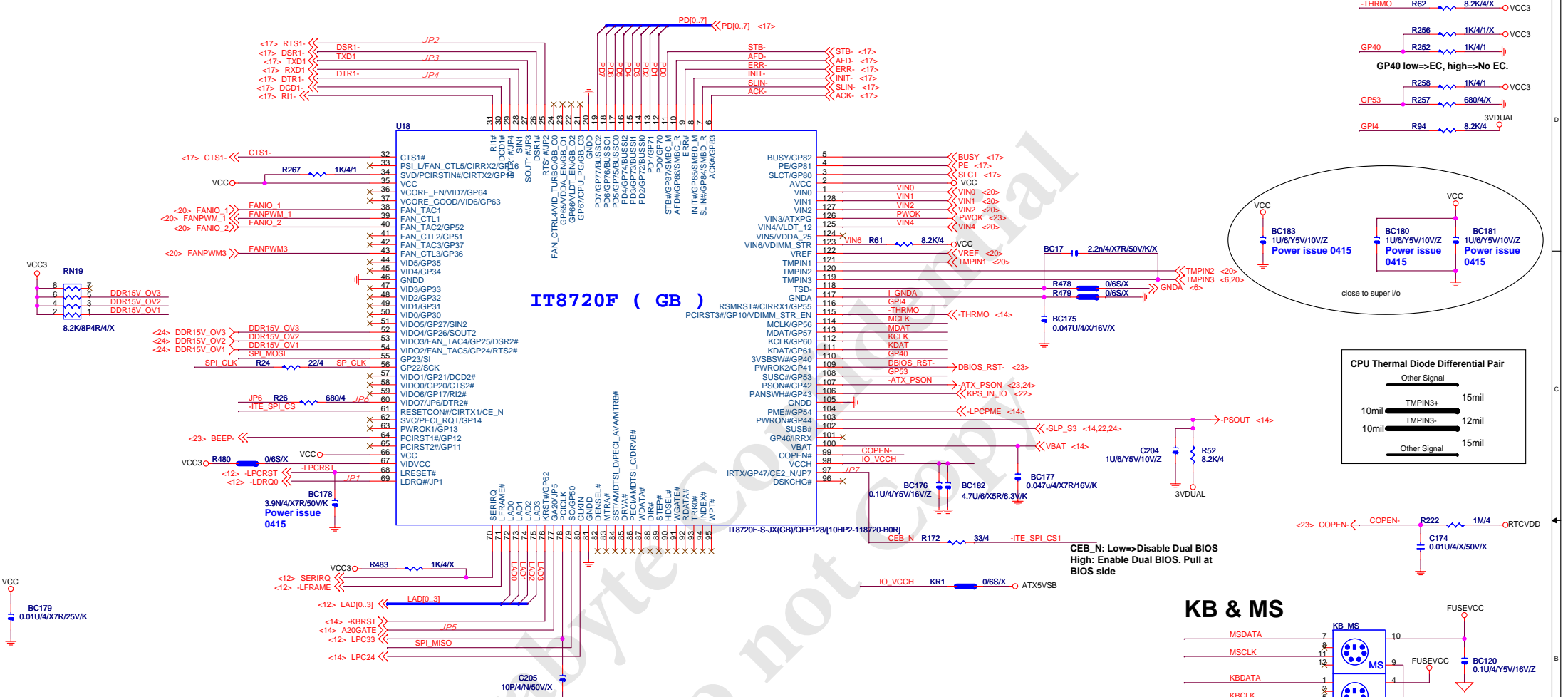






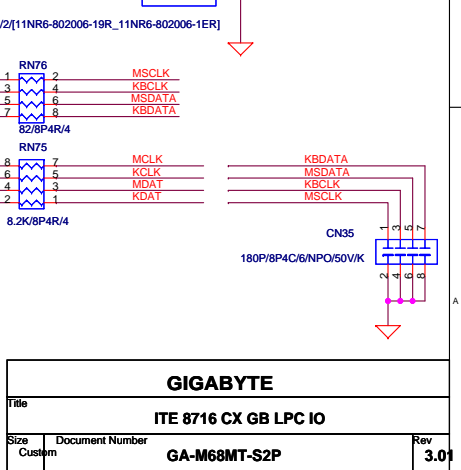
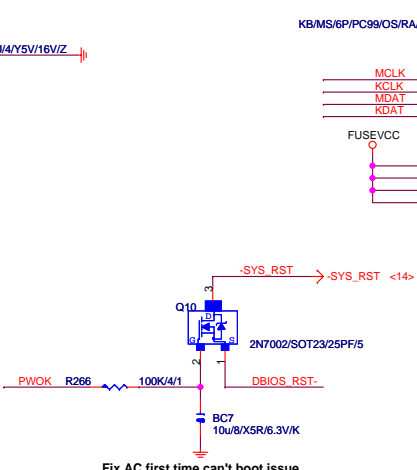
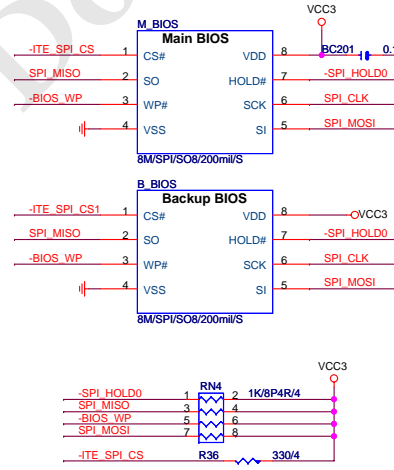
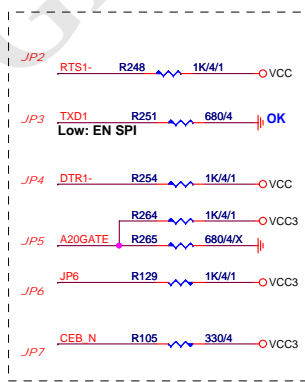




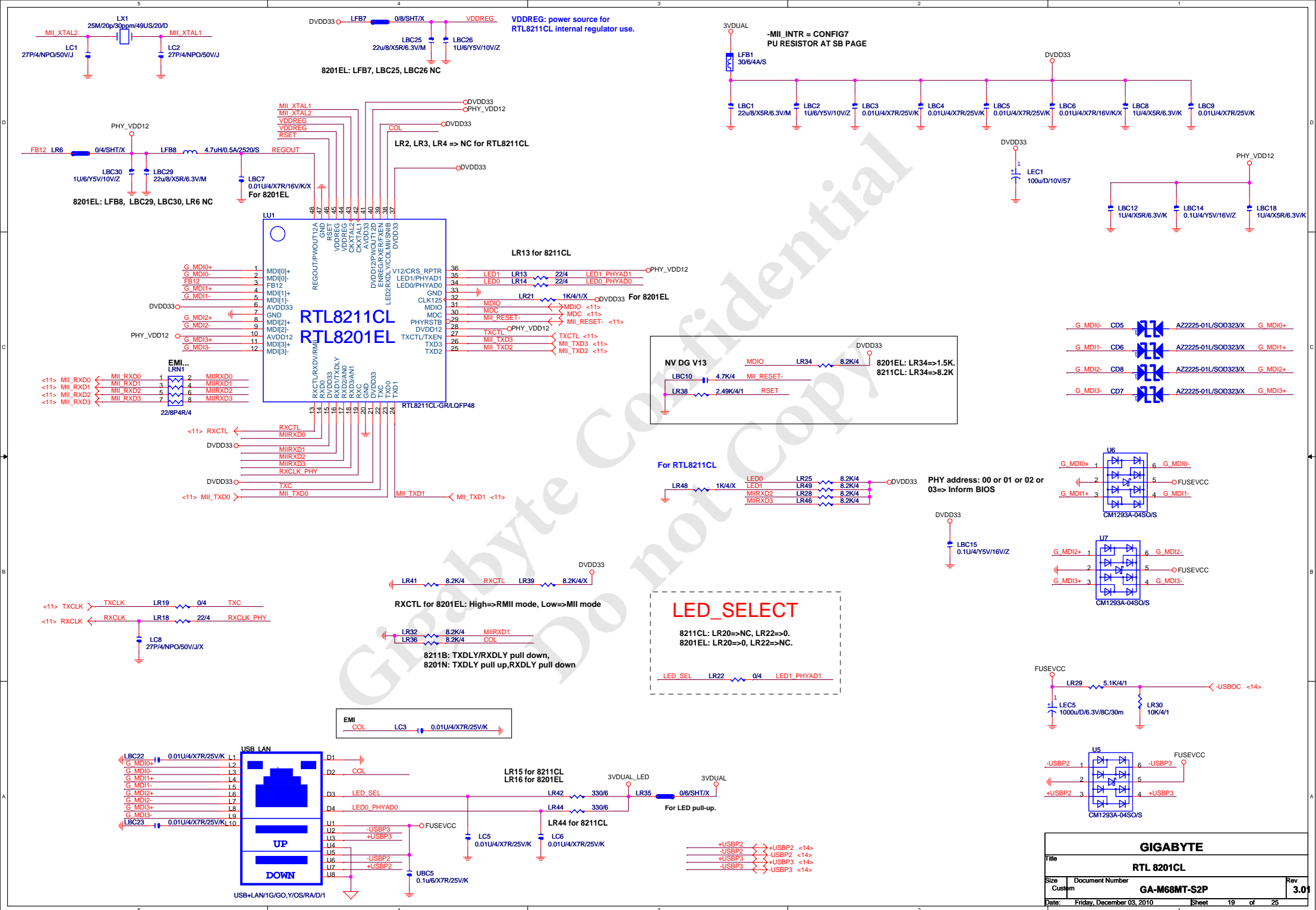


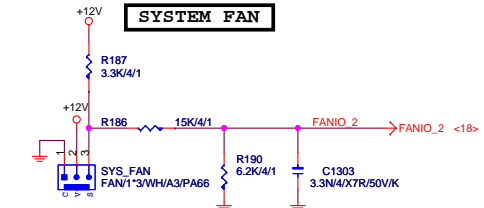
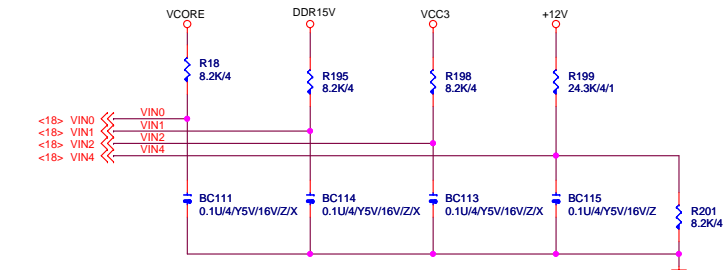
IT8720GB Power On Strapping Options				
	Symbol	value	Description	
JP2	VIDO_EN	1	Disable VID output pins	
Pin 25		0	Enable VID output pins	
JP3	CHIP_SEL		Chip selection in Configuration	
Pin 27				
JP4	K8PWR_EN	1	K8 power sequence disabled	
Pin 29		0	K8 power sequence enabled	
JP3 & JP5	FAN_CTL_SEL	11 Half Run	Default value of EC Index 15h/16h/17h is 40h	
Pin 27 & Pin 77		10 No Run	Default value of EC Index 15h/16h/17h is 7Fh	
		01 Full Run	Default value of EC Index 15h/16h/17h is 00h	
		00 75% Run	Default value of EC Index 15h/16h/17h is 20h	
JP5	WDT_EN	1	Disable WDT to rest PWROK	
Pin 77		0	Enable WDT to rest PWROK	
JP6	SVID_EN	1	Disable SVID Function	
Pin 60		0	Enable SVID Function	
JP7	Dual_BIOS_EN	1	Enable Dual BIOS Function for GigaByte Only	
Pin 97		0	Disable Dual BIOS Function for GigaByte Only	

IT8720CX->FX(and later) strapping change.
JP1 no use, JP3 change to Low.



GIGABYTE			
ITE 8716 CX GB LPC IO			
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5VDUAL

F7

SMD1812P350SLR/S

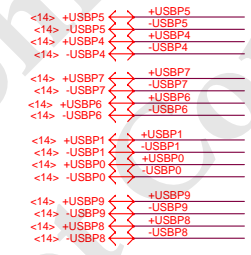
UBC2
0.1u4/Y5/16V/Z/X

1 2
3 4
5 6
7 8
9 10

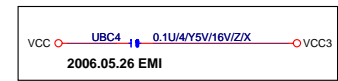
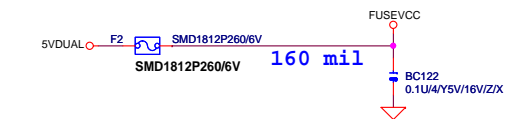
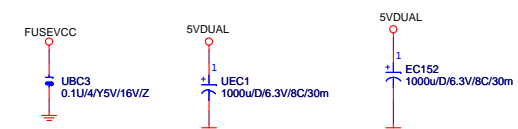
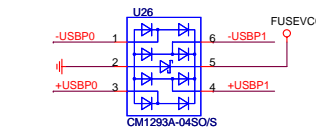
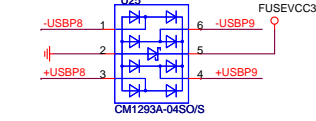
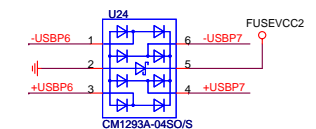
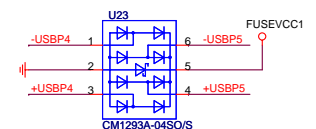
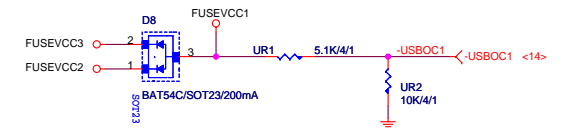
-USBP6
+USBP6

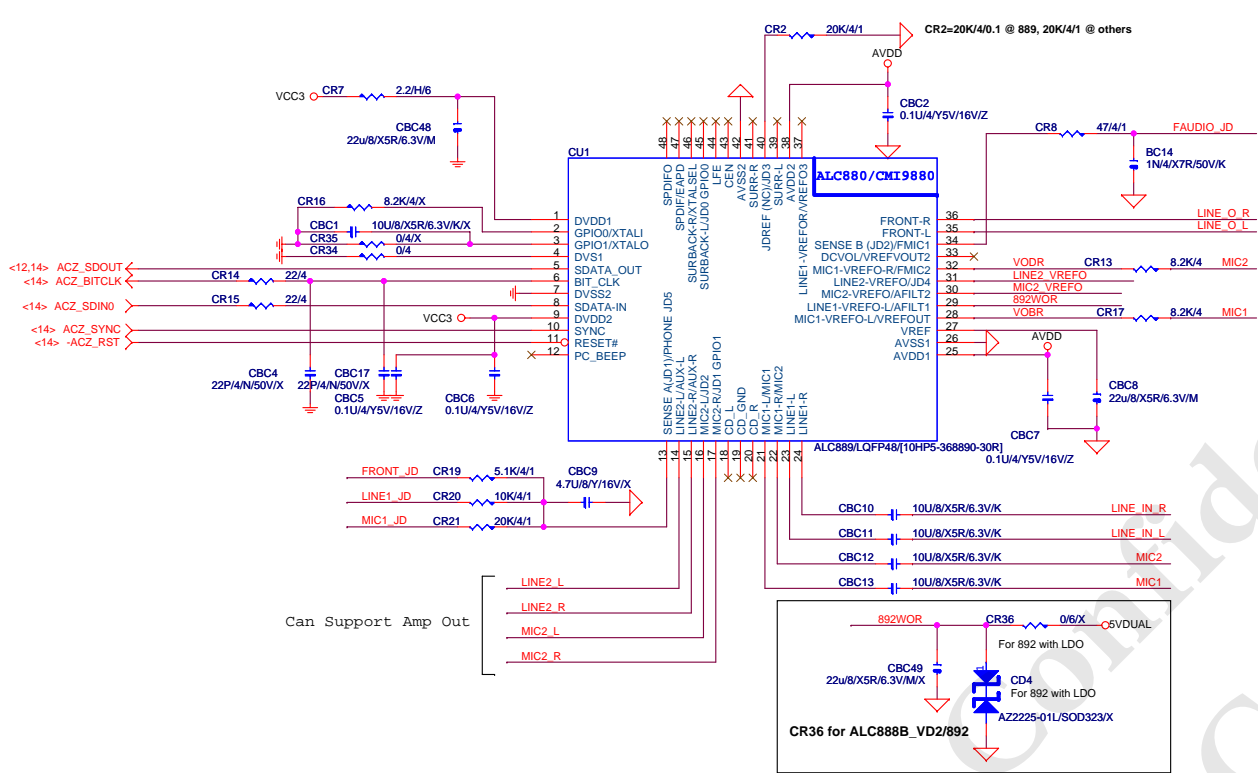
-USBP7
+USBP7

BH2'5K9/BU/BU/02.54VA/D/GF

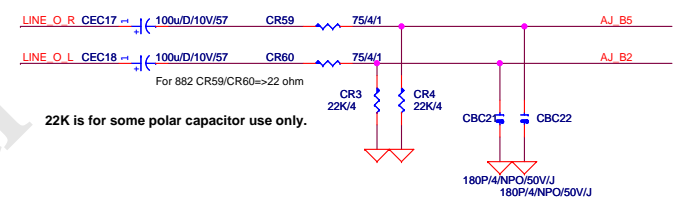


Pin configuration diagram for the R_USB module. The module is a blue square with pins 1-8 on the top and 9-12 on the bottom. Pin 1 is FUSEVCC, Pin 2 is FUSEVCC, Pin 3 is -USBP0, Pin 4 is -USBP1, Pin 5 is +USBP0, Pin 6 is +USBP1, Pin 7 is ground, Pin 8 is ground, Pin 9 is USB A/O/BLACK/GF/2/RA/D, Pin 10 is ground, Pin 11 is ground, Pin 12 is ground.

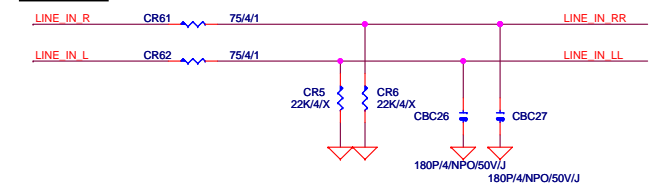




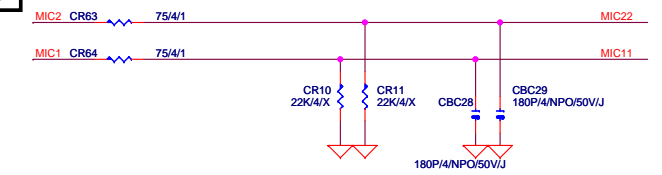
LINE OUT FRONT OUT



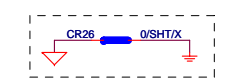
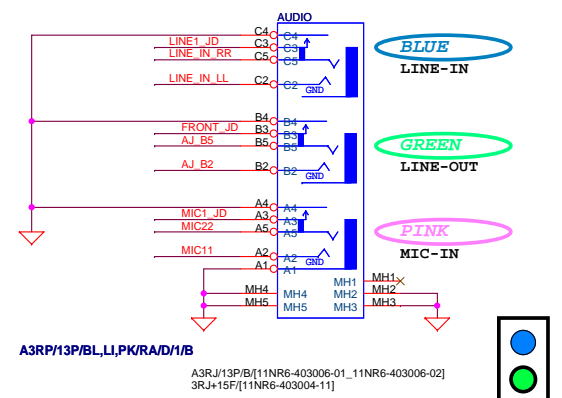
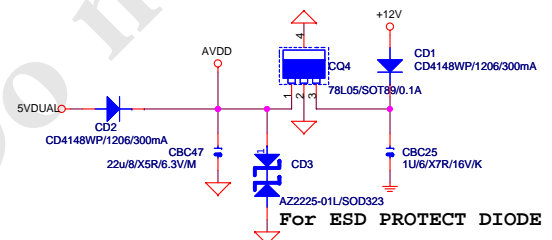
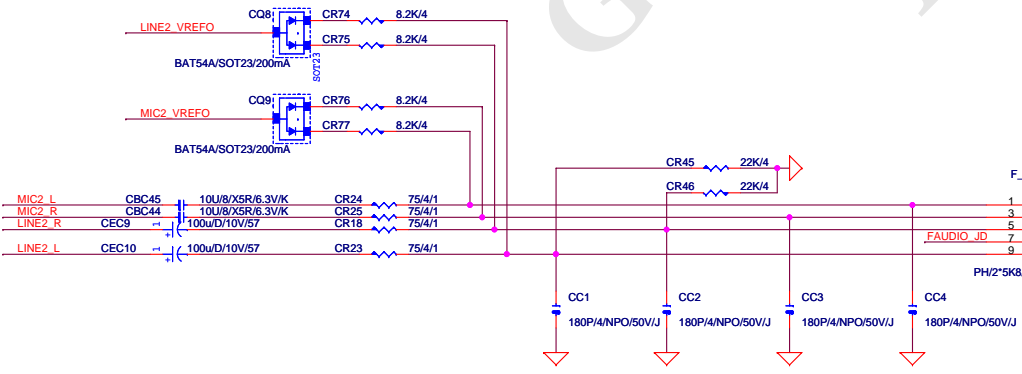
LINE-IN



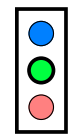
MIC

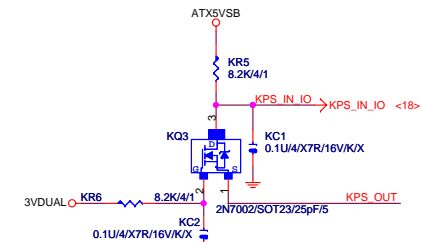
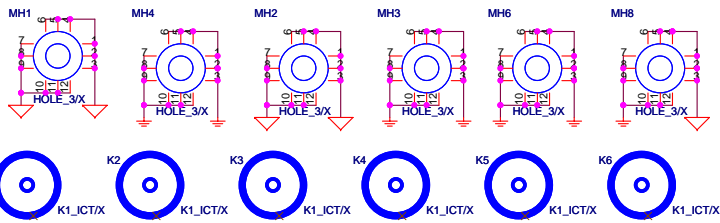


INTEL FRONT AUDIO



GIGABYTE			
Title			
ALC888			
Size			
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For 8720 power bottom 10 secs clear CMOS issue.

