

SHEET

TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1155-A
05	CPU_LGA1155-B
06	CPU_LGA1155-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*1x2 SLOT
16	ITE 8728 LPC IO
17	COMA,KB_MS,R_USB,-PROCHOT
18	HWM,FAN CTRL,OV
19	DUAL BIOS
20	FP,FUSB,SPK,SATALED
21	ALC887
22	REAR AUDIO JACK
23	REALTEK 8111E/USB_LAN
24	DISCRETE POWER
25	ATX,-S_WARN,-S_ACK,5VDUAL
26	Richtek_RT8120_CPU_VTT
27	VCORE INTERSIL_95836_1

SHEET

TITLE

28	VCORE INTERSIL_95836_2
29	VCORE INTERSIL_95836_3
30	LPT
31	HDMI

Revision 1.0 1

## Component value change history

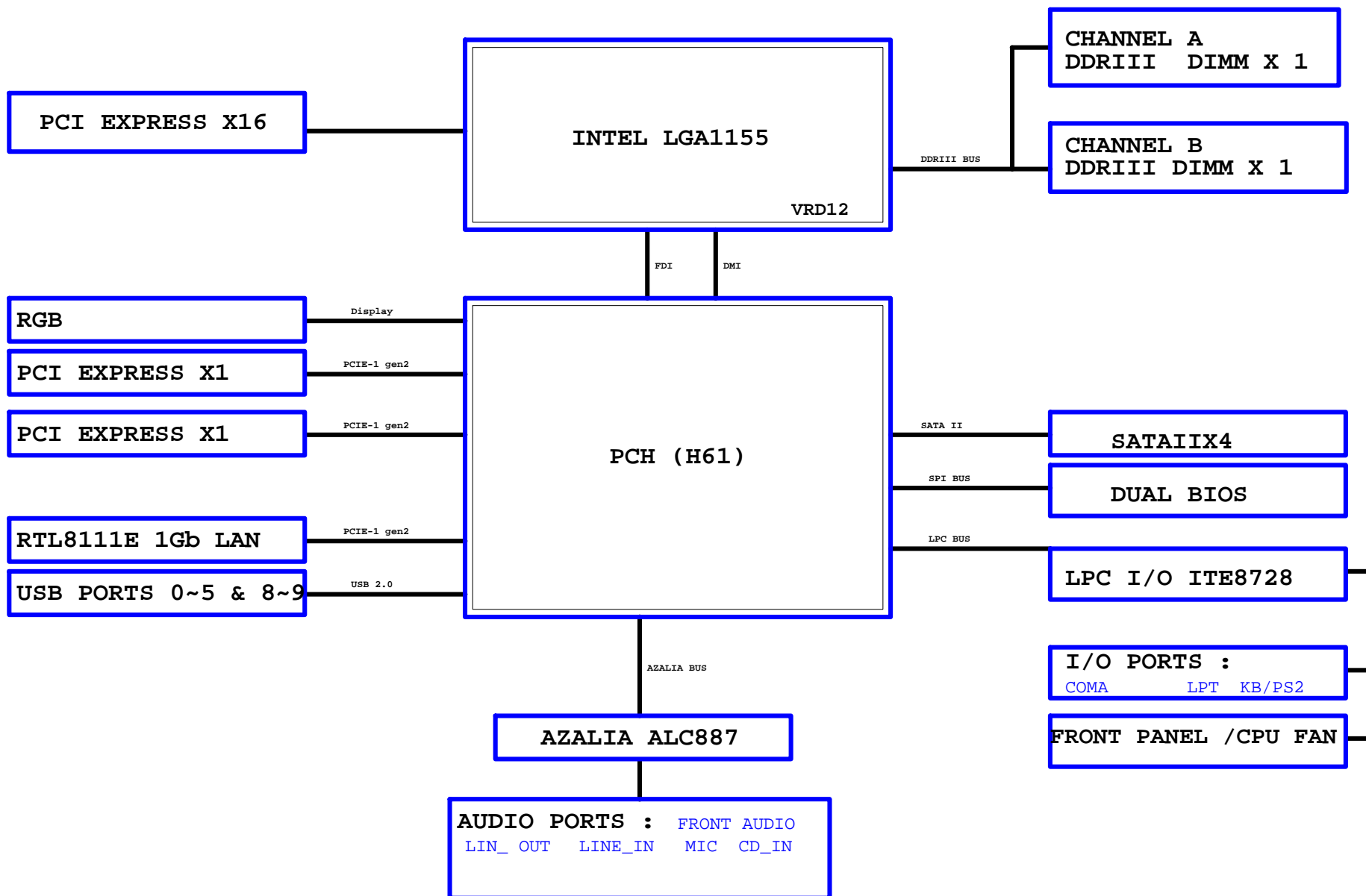
2012/09/19

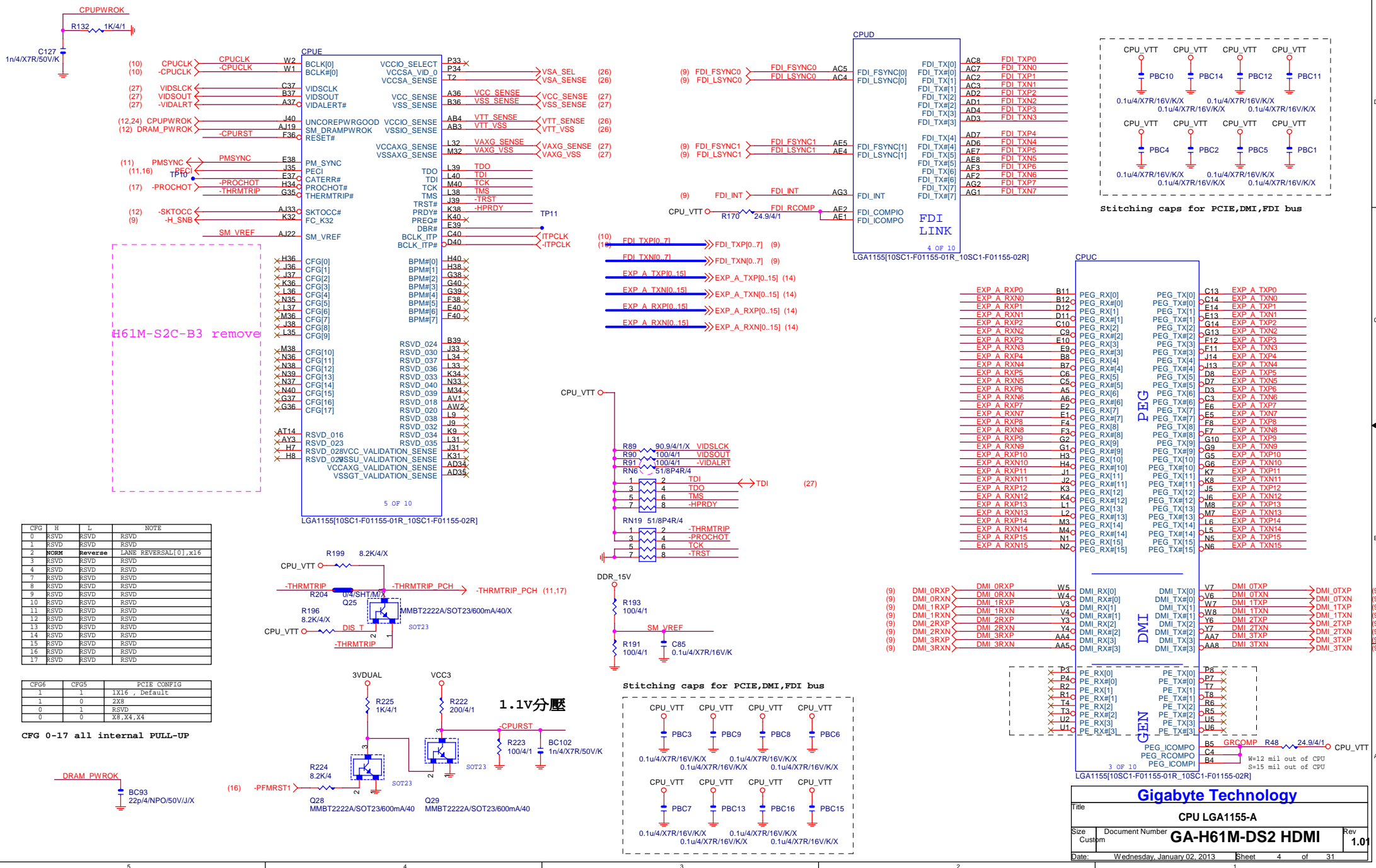
[illegible]

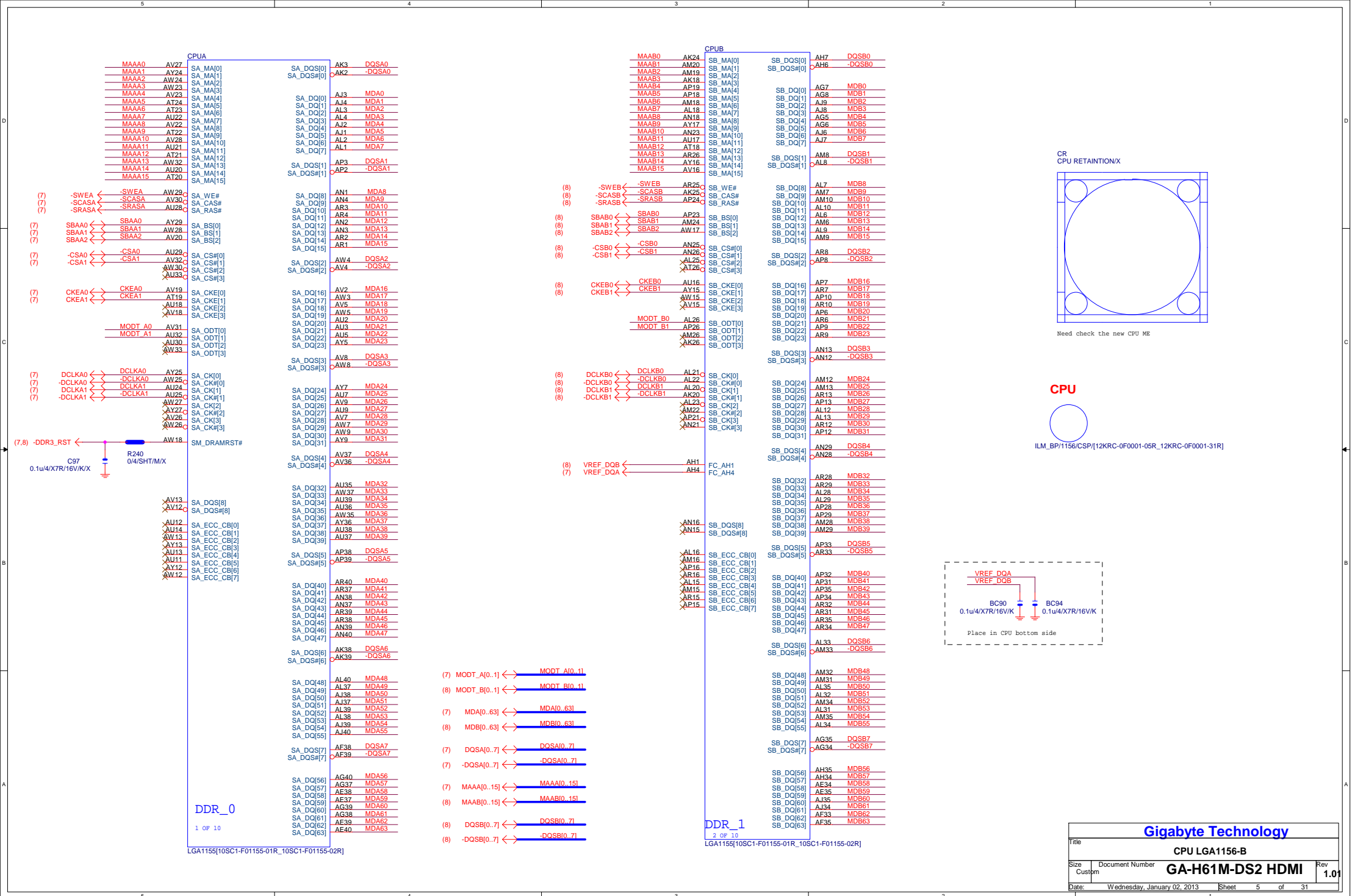
## Circuit or PCB layout change

[illegible]

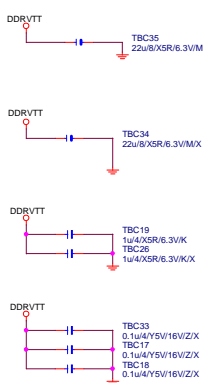
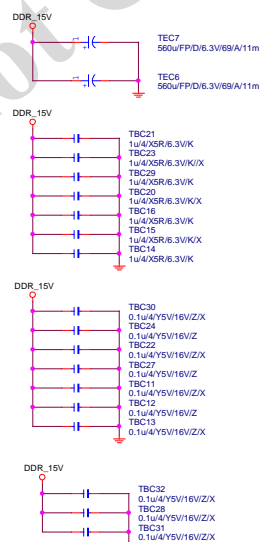
# BLOCK DIAGRAM



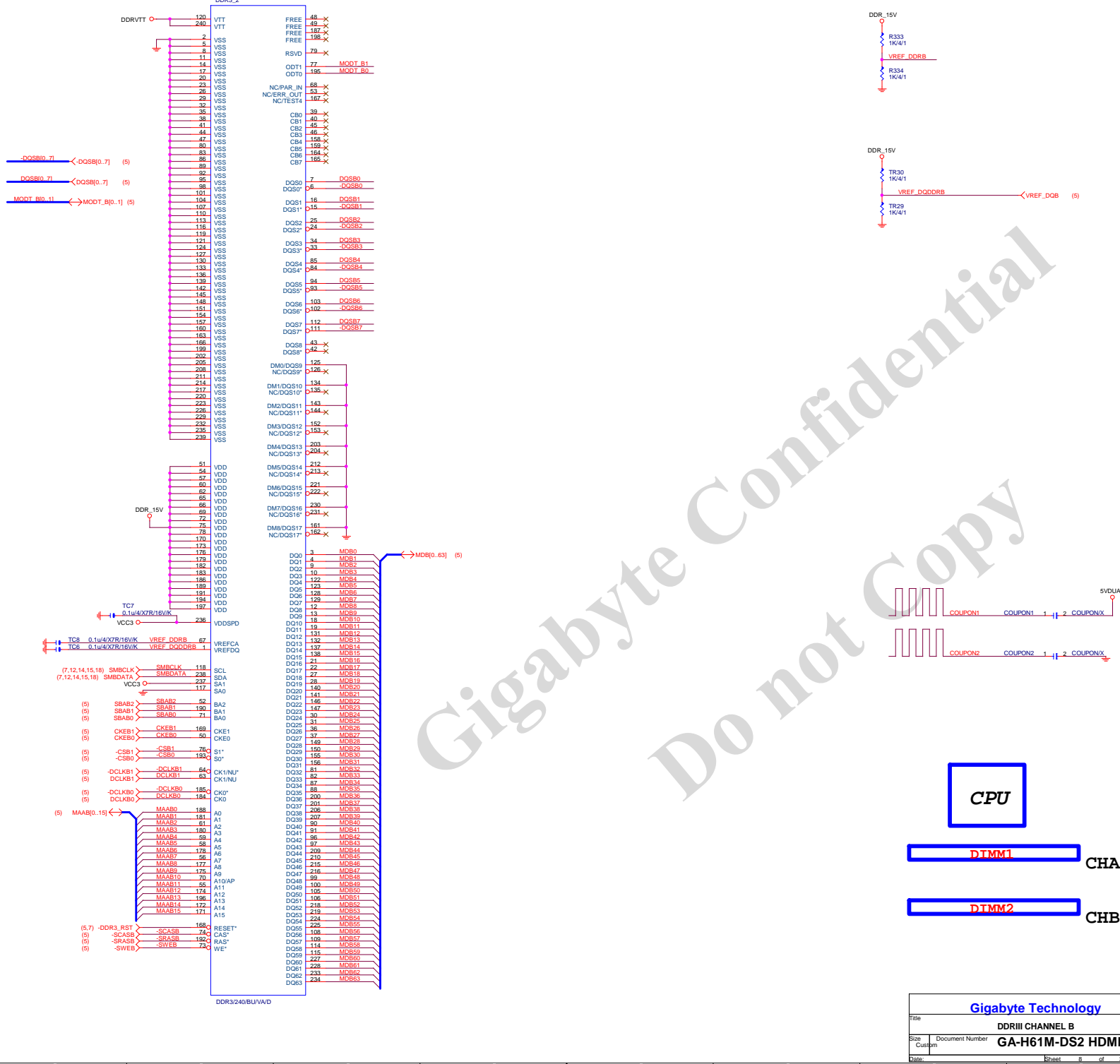




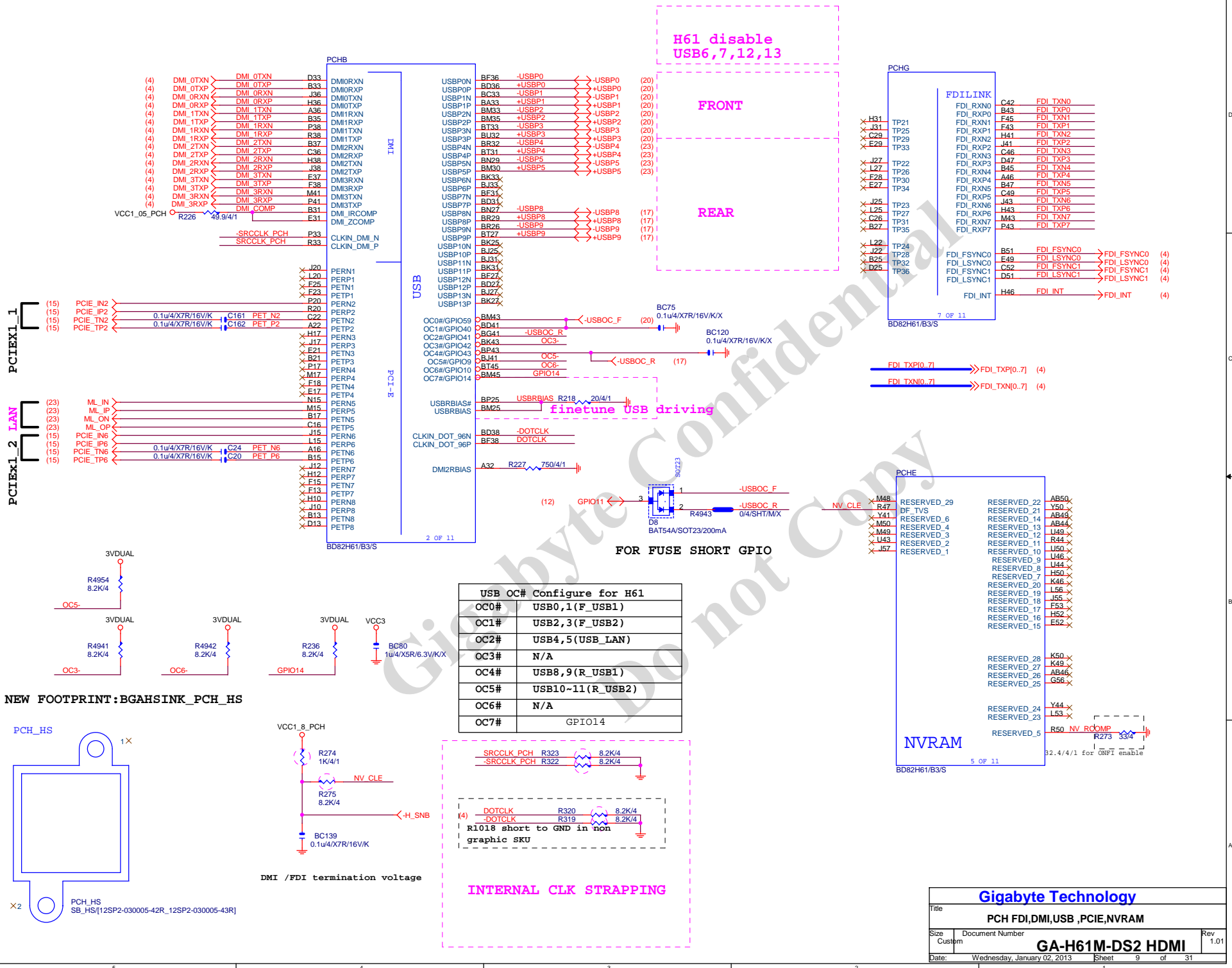


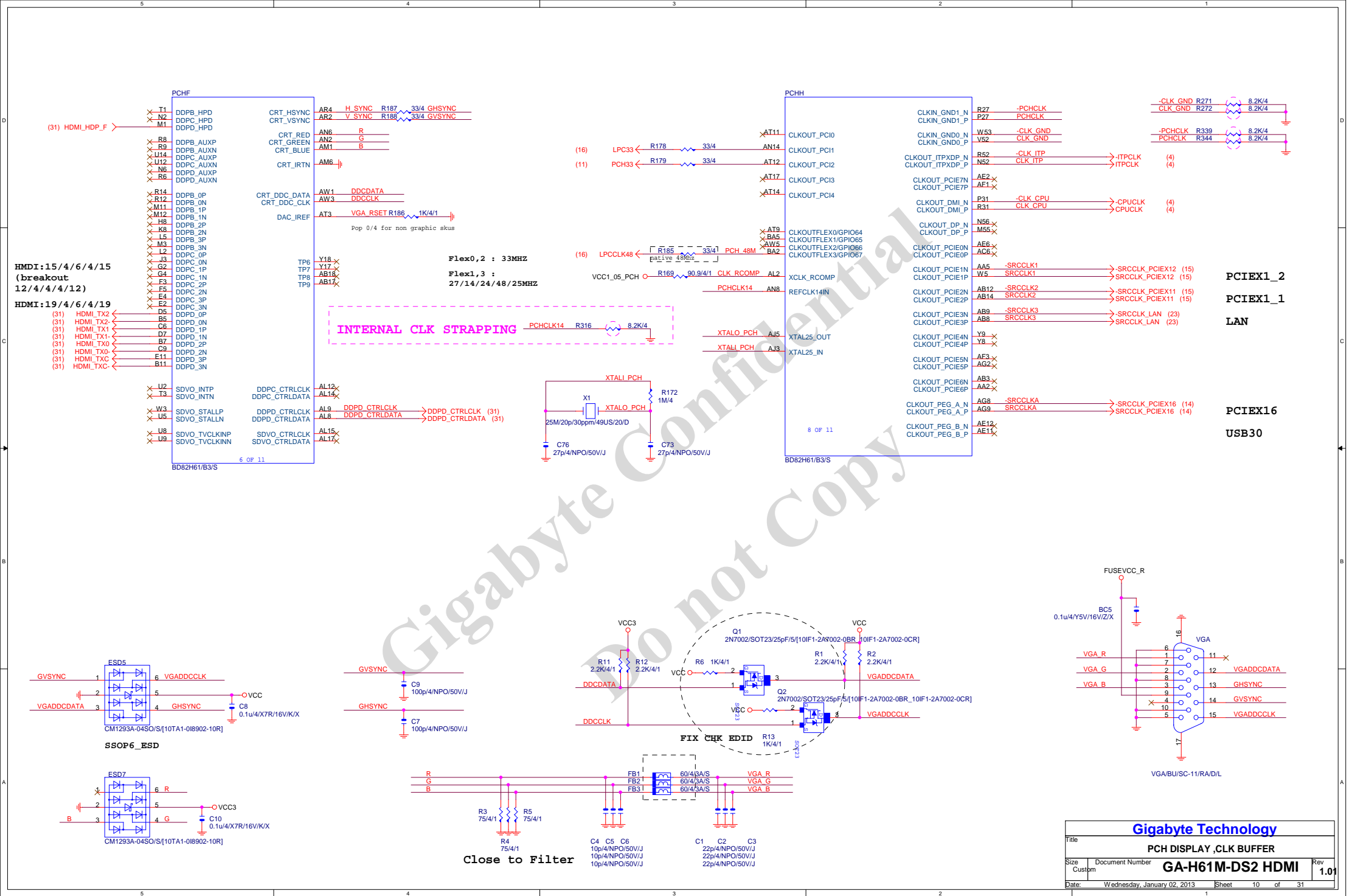




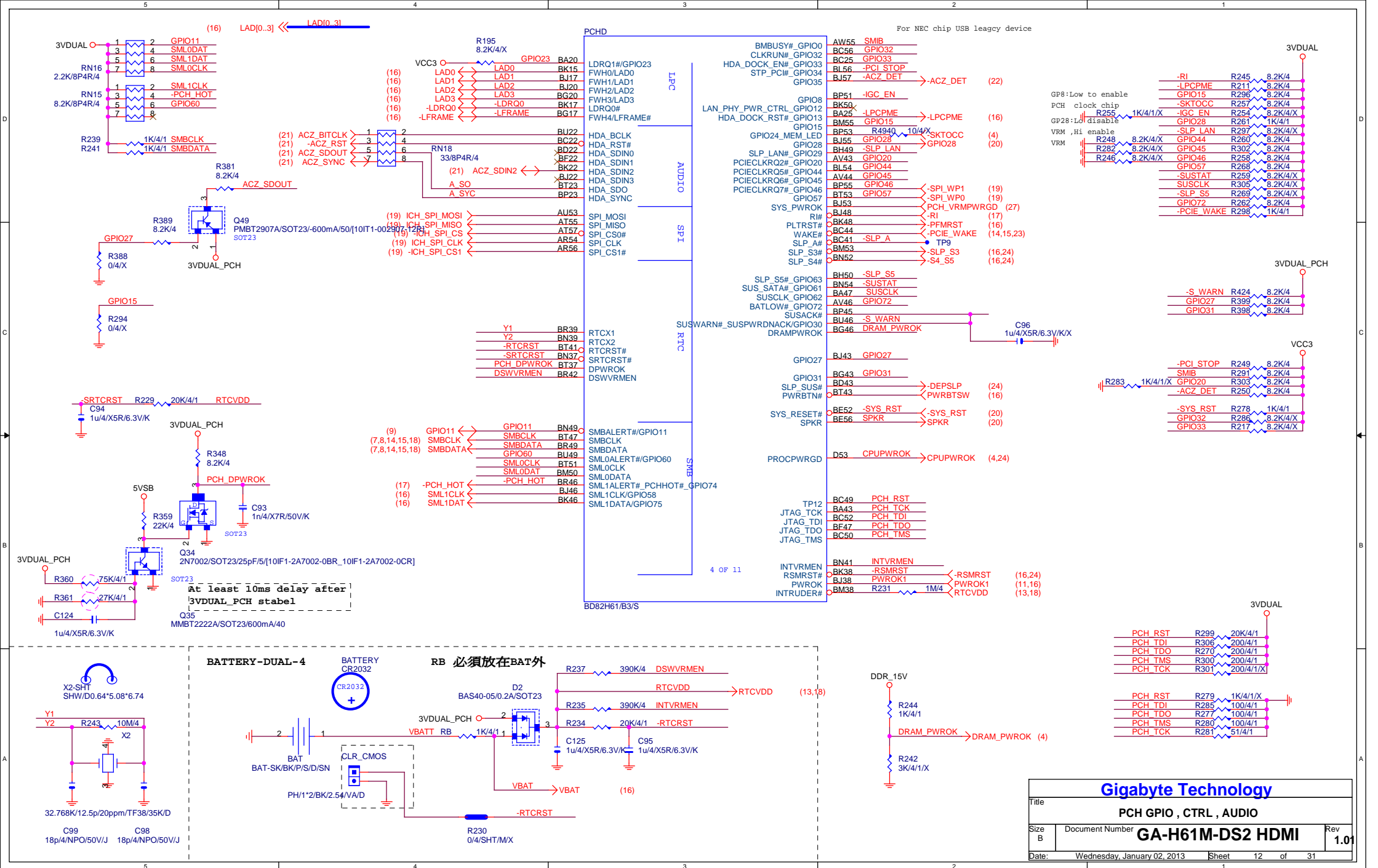


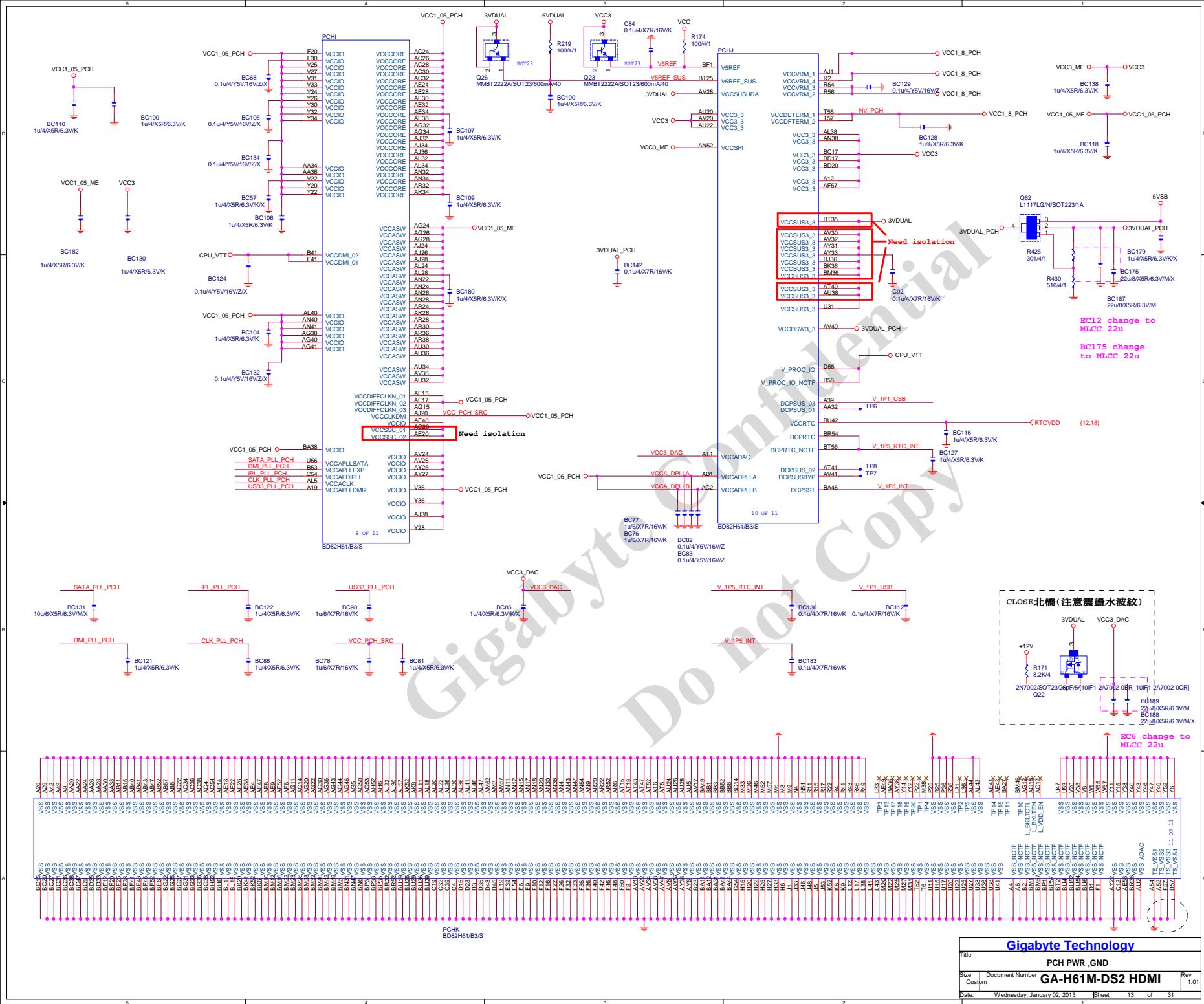




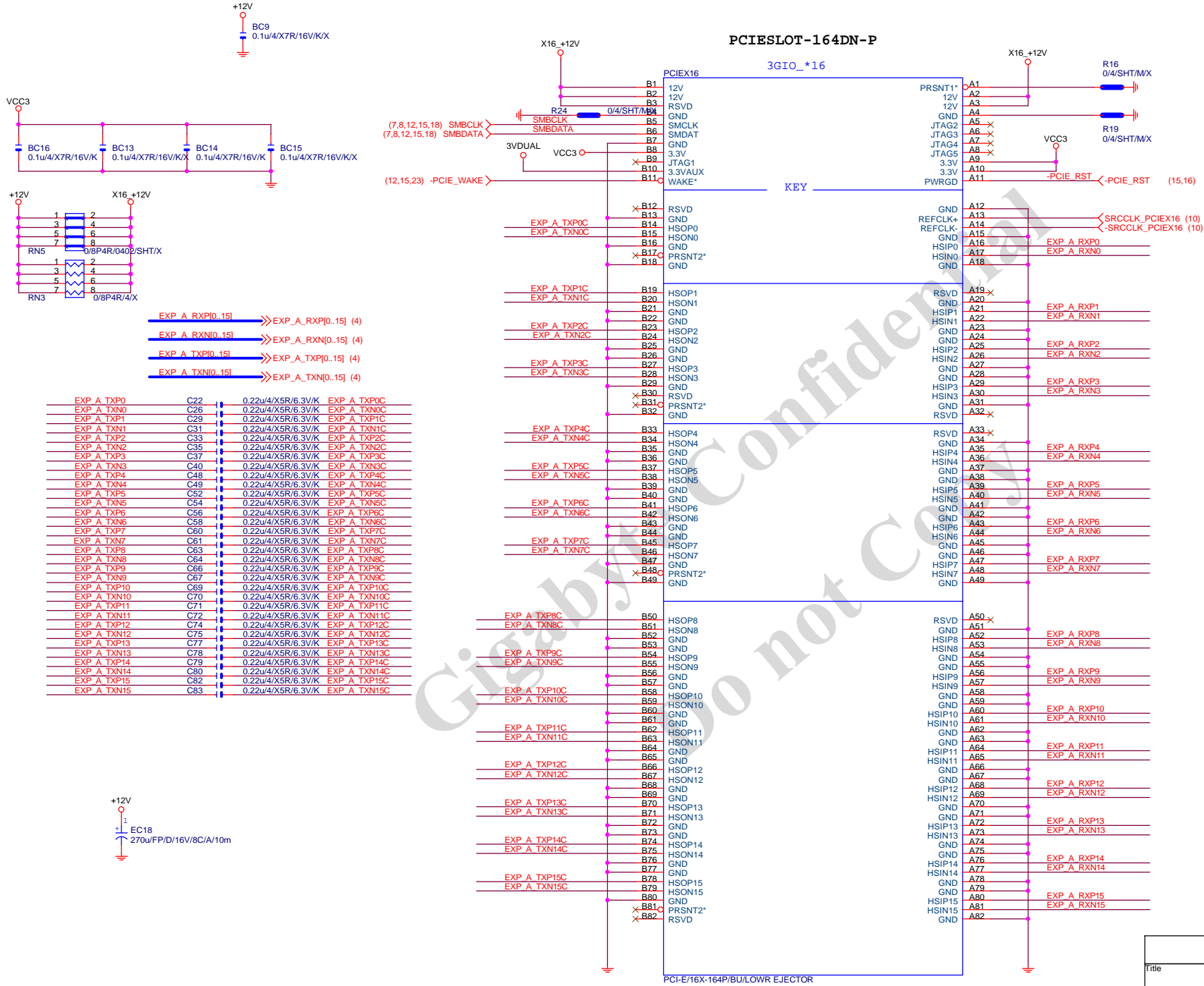




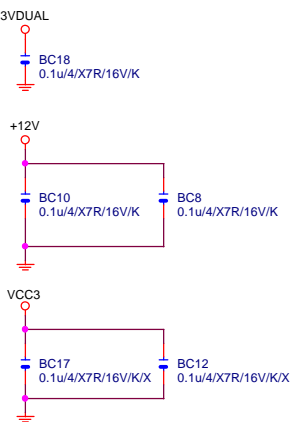
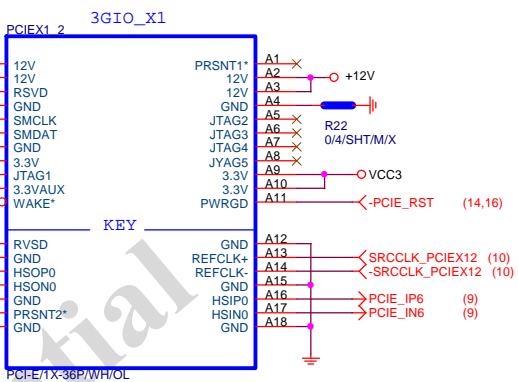
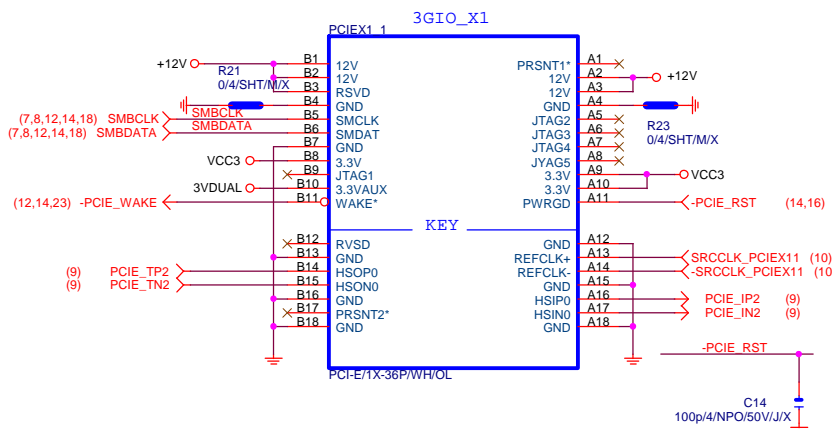








PCIE\*1

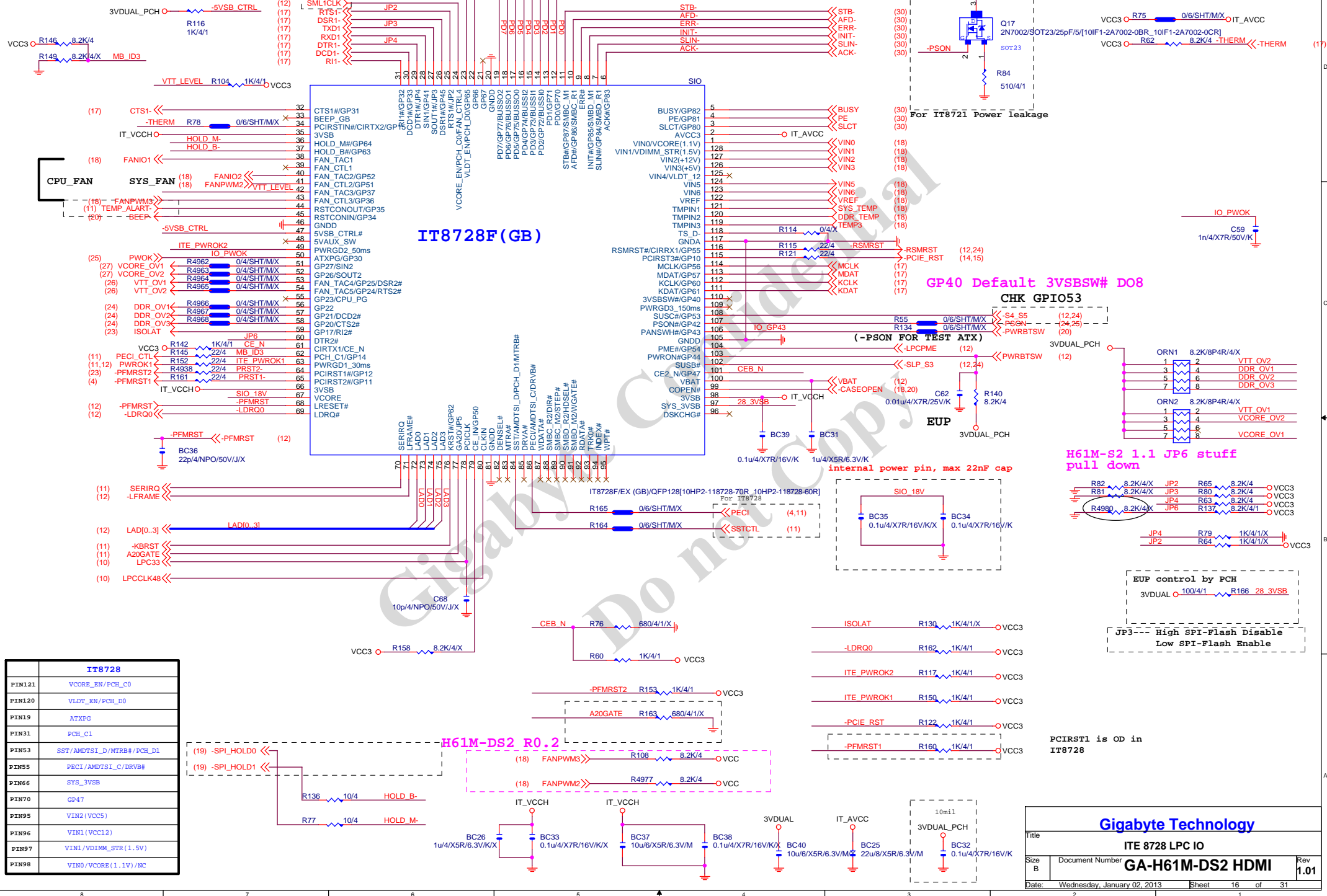


CLK GEN

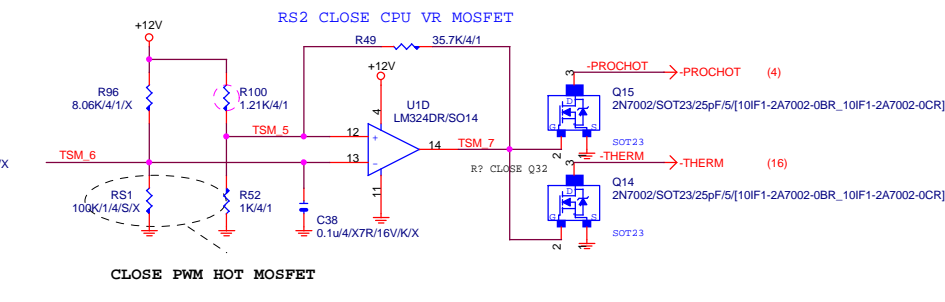
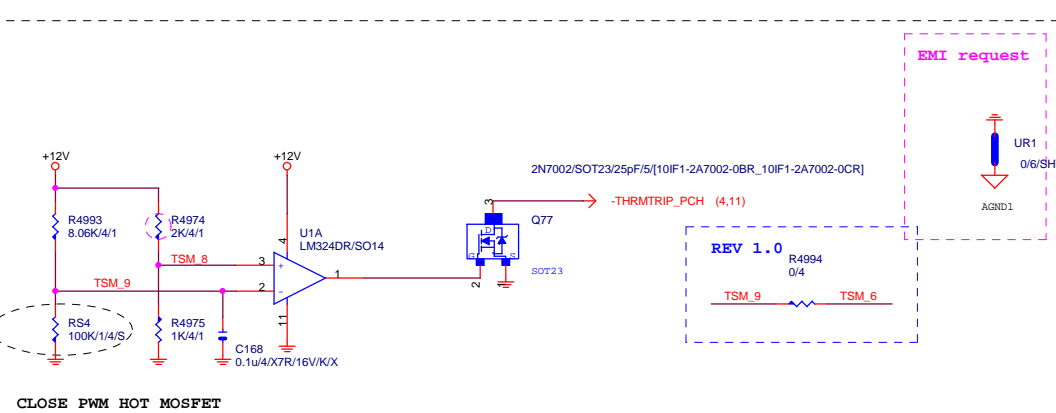
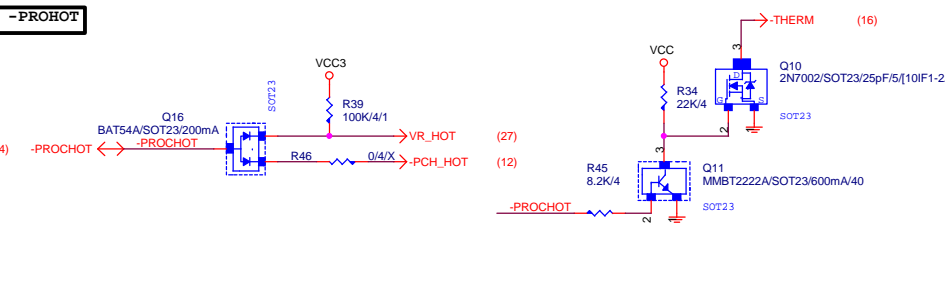
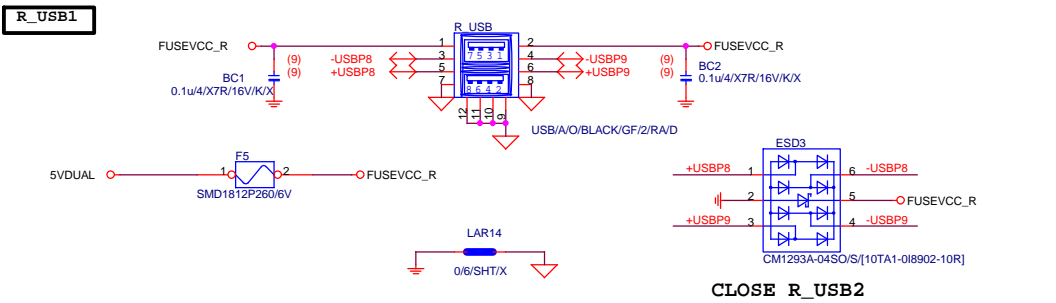
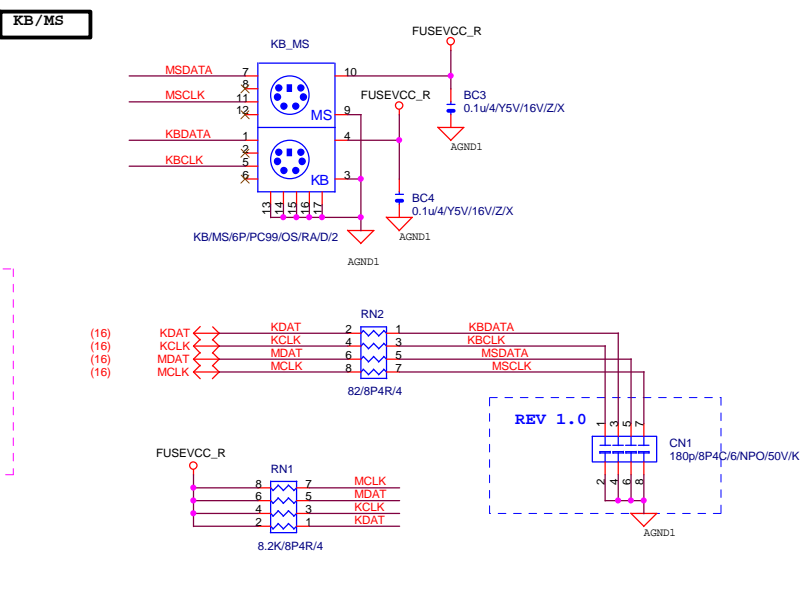
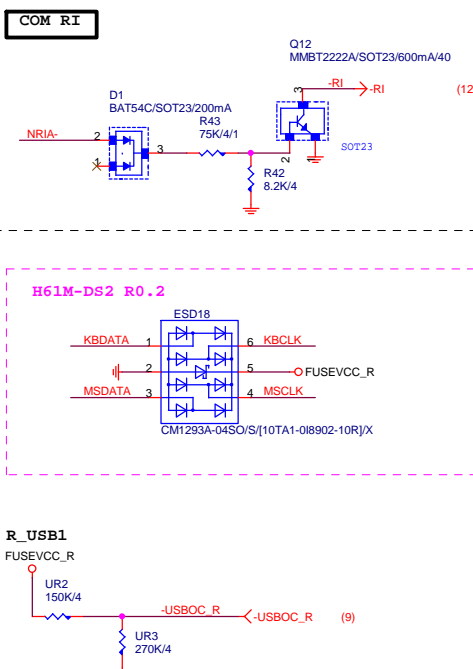
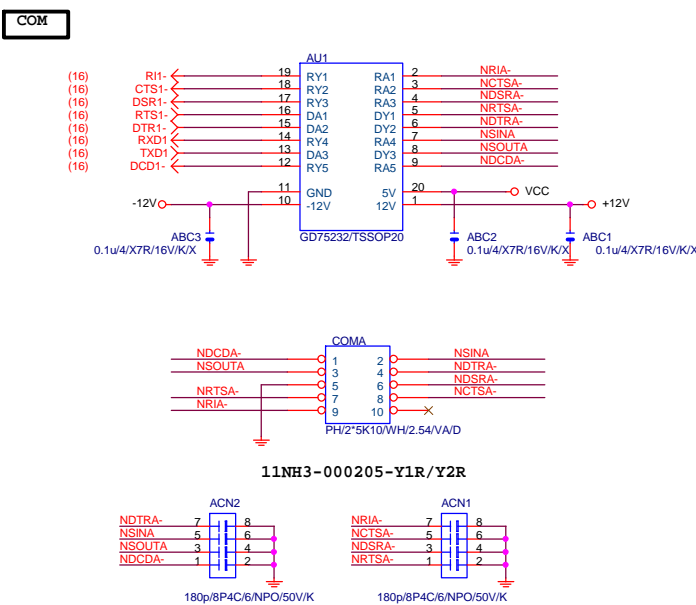
Gigabyte Technology			
Title			
PCIEX1,X2/CLK GEN			
Size	Document Number	GA-H61M-DS2 HDMI	
Custom		Rev 1.01	
Date:	Wednesday, January 02, 2013	Sheet	15 of 31



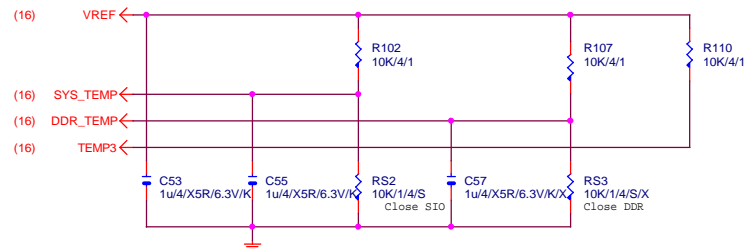
## GP23 Default CPU\_PG DOD8



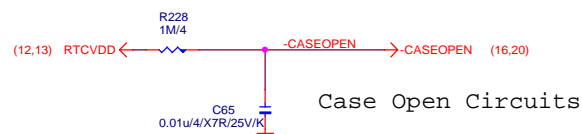
	<b>IT8728</b>
PIN121	VCORE_EN/PCH_C0
PIN120	VLDT_EN/PCH_D0
PIN19	ATXPG
PIN31	PCH_C1
PIN53	SST/AMDTSI_D/MTRB#/PCH_D1
PIN55	PECI/AMDTSI_C/DRV#
PIN66	SYS_3VSB
PIN70	GP47
PIN95	VIN2(VCC5)
PIN96	VIN1(VCC12)
PIN97	VIN1/VDIMM_STR(1.5V)
PIN98	VIN0/VCORE(1.3V)/NC



# TEMP H/W MONITOR

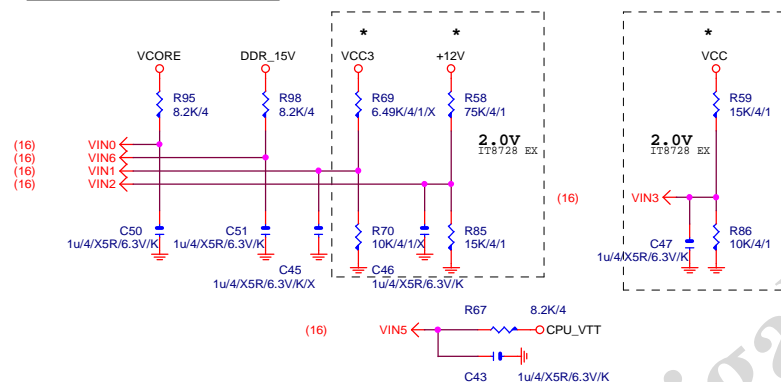


# CASE OPEN

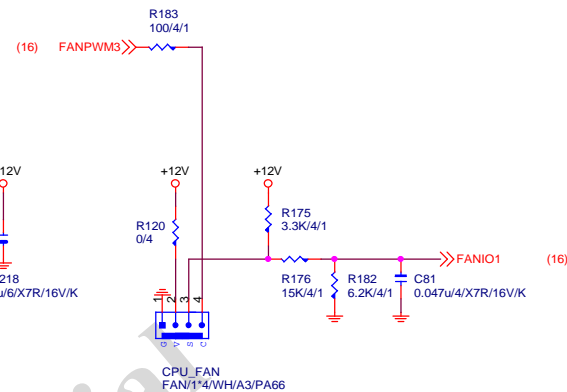


# VOLTAGE-- H/W MONITOR

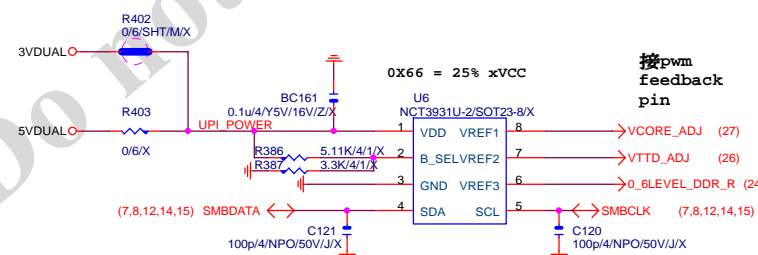
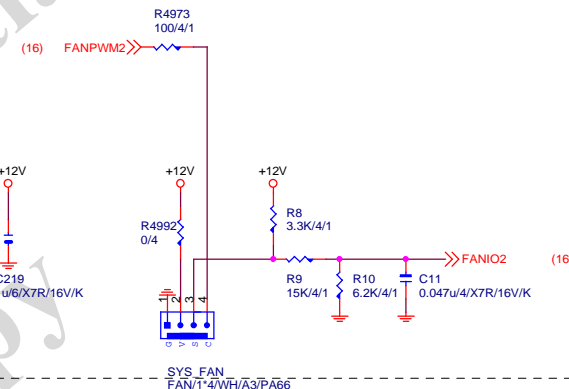
I (VAXG)



# CPU SMART FAN



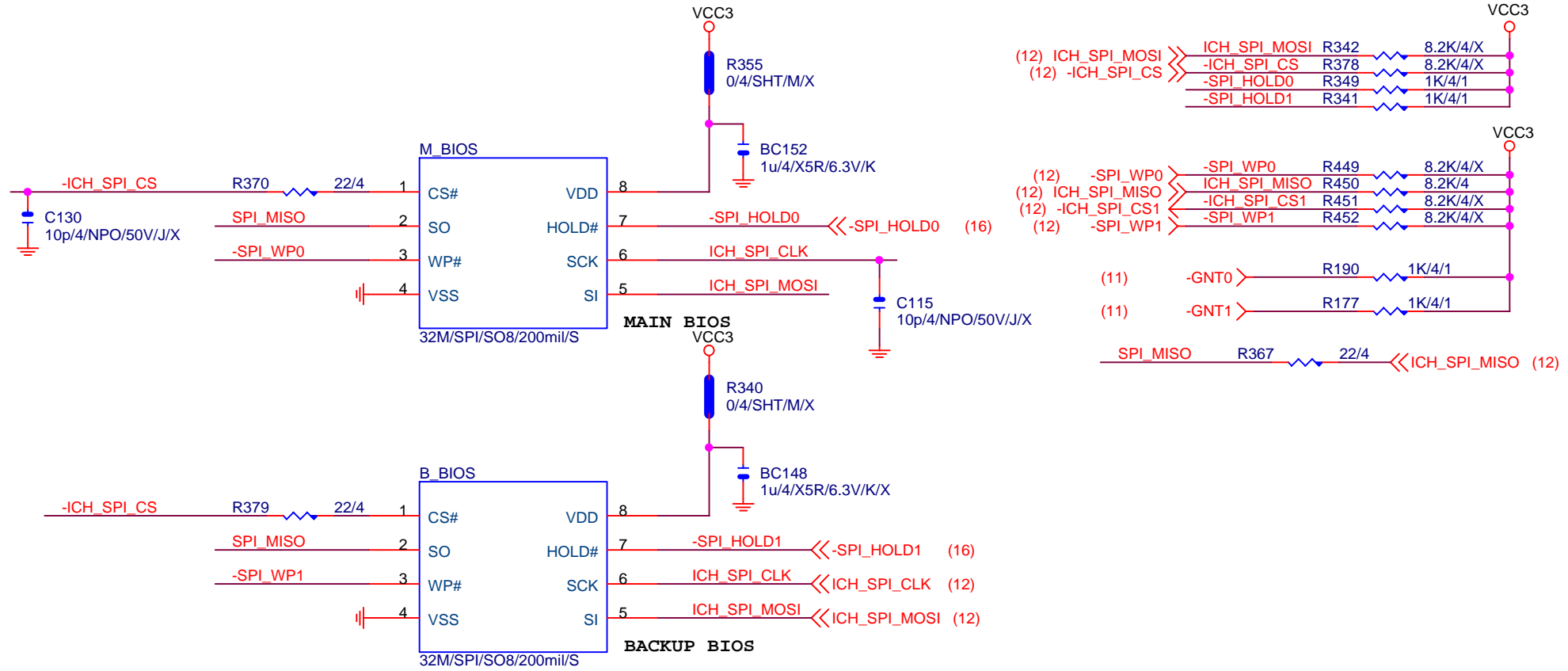
# SYS SMART FAN



Gigabyte Technology

Title			HWM, FAN CTRL, OV	
Size	Document Number	GA-H61M-DS2 HDMI		Rev
Custom				1.01
Date:	Wednesday, January 02, 2013	Sheet	18	of 31

# DUAL BIOS



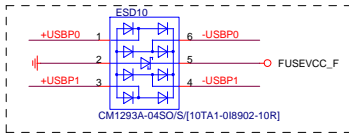
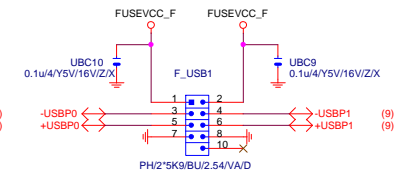
BOOT DEVICE	GNT1	GNT0
LPC	0	0
PCI	0	1
SPI	1	1

1 means floating  
0 means PD 1K

**Gigabyte Technology**

Title		
DUAL BIOS		
Size A	Document Number	Rev
	GA-H61M-DS2 HDMI	1.01
Date:	Wednesday, January 02, 2013	Sheet 19 of 31

# FRONT USB1

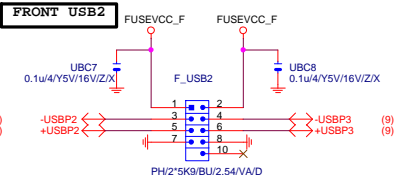
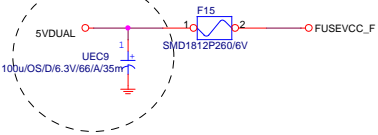


Close to connector

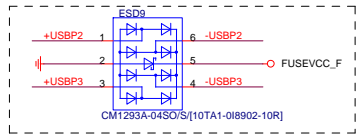
# SATA LED



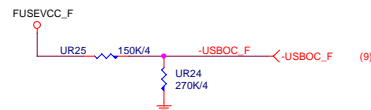
# CLOSE F\_USB1



# FRONT USB3

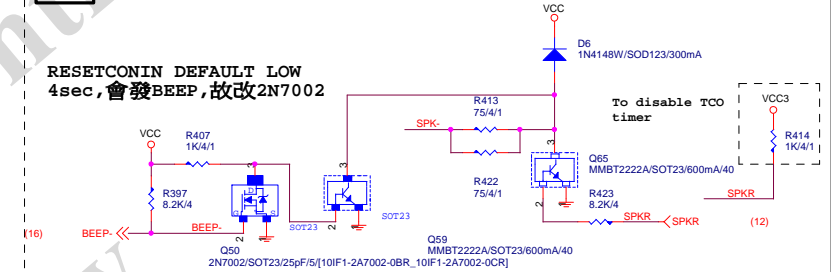


Close to connector

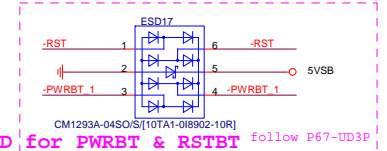


# SPKR

RESETCONIN DEFAULT LOW  
4sec, 會發BEEP, 故改2N7002

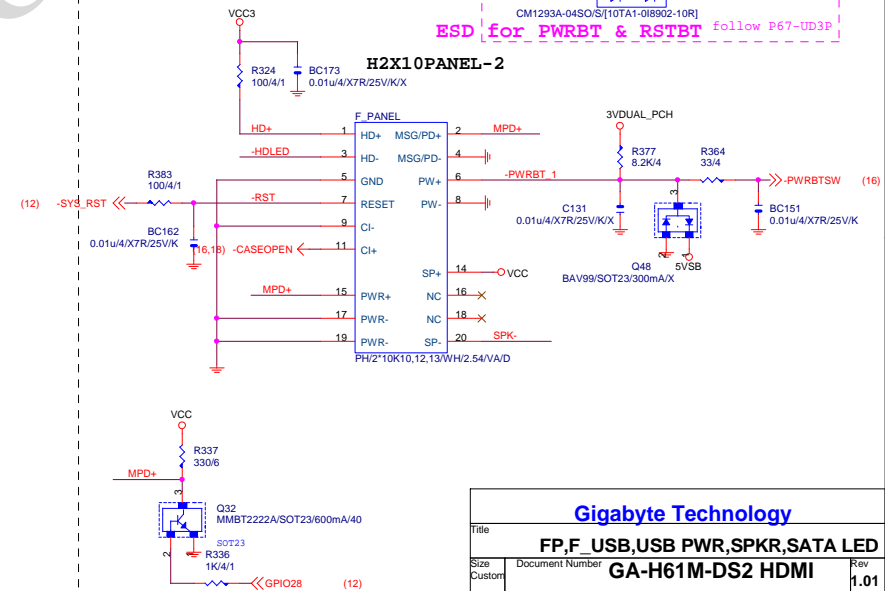


# INTEL FRONT PANEL



ESD for PWRBT & RSTBT follow P67-UD3P

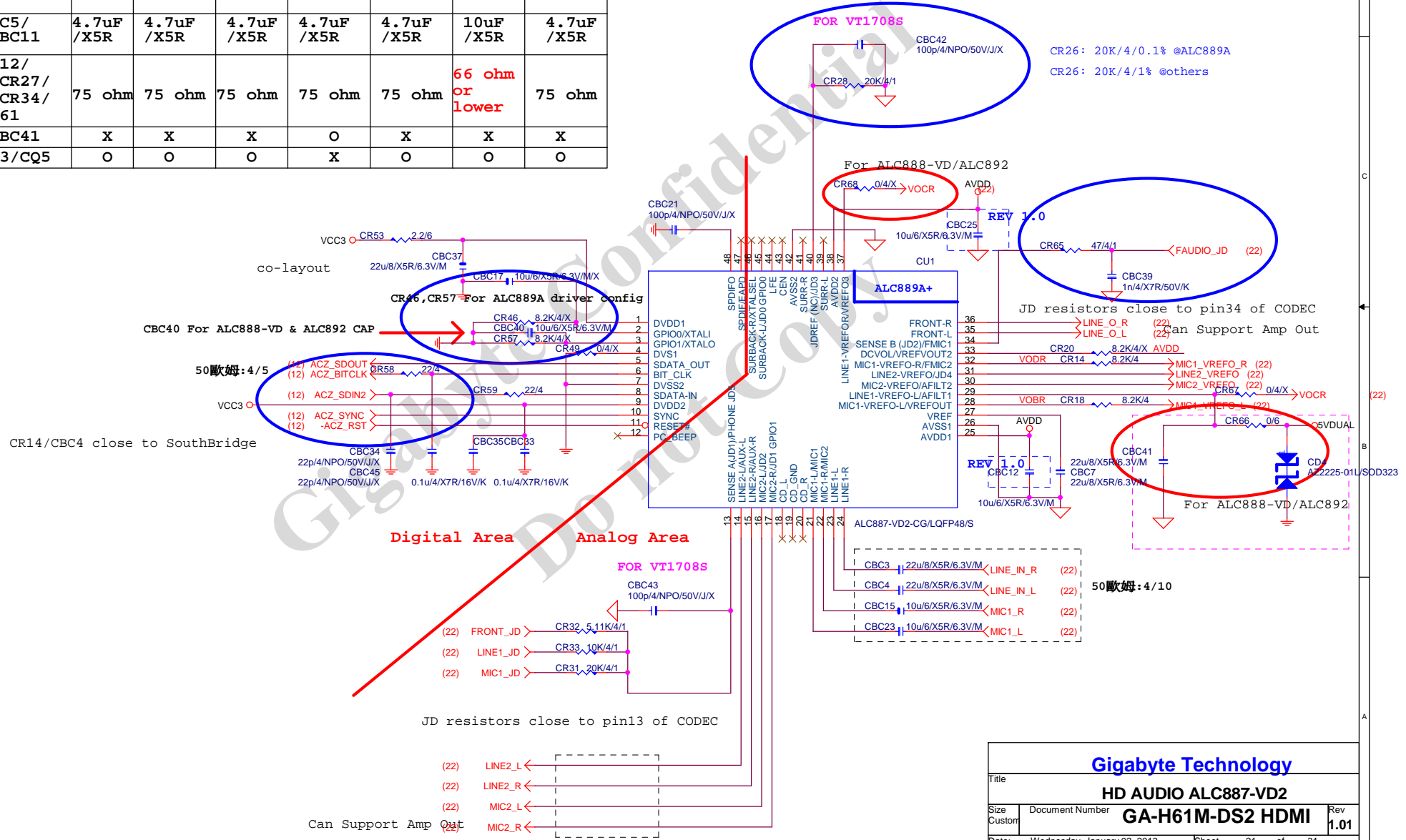
# H2X10PANEL-2



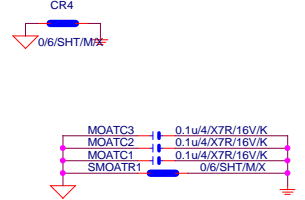
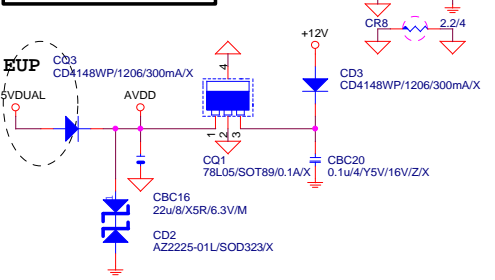
Gigabyte Technology

Title	FP,F_USB,USB PWR,SPKR,SATA LED		
Size	Document Number	GA-H61M-DS2 HDMI	
Custom			Rev 1.01
Date:	Wednesday, January 02, 2013	Sheet 20 of 31	

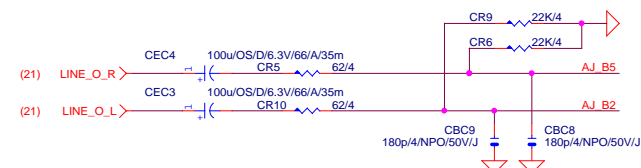
	ALC883	ALC888-VA	ALC888B	ALC888-VD	ALC892R	ALC889	ALC889A
CR46	X	X	X	X	X	X	O
CR57	X	X	X	X	X	X	O
CR49	O	O	X	X	X	O	O
CBC40	X	X	X	10uF/X5R	10uF/X5R	X	X
CR20	O	X	X	X	X	X	X
CR26	20K/1%	20K/1%	20K/1%	20K/1%	20K/1%	20K/1%	20K/0.1%
CR47	X	X	O	X	O	O	X
CR48	O	O	X	O	X	X	O
CBC2/CBC4/CBC5/ CBC6/CBC10/CBC11	4.7uF /X5R	4.7uF /X5R	4.7uF /X5R	4.7uF /X5R	4.7uF /X5R	10uF /X5R	4.7uF /X5R
CR1/CR3/CR10/CR12/ CR15/CR19/CR56/CR27/ CR55/CR37/CR28/CR34/ CR6/CR9/CR51/CR61	75 ohm	75 ohm	75 ohm	75 ohm	75 ohm	66 ohm or lower	75 ohm
CR66/CR68/CD3/CBC41	X	X	X	O	X	X	X
CR67/CD1/CD2/CQ3/CQ5	O	O	O	X	O	O	O



CODEC POWER/EMI PAD

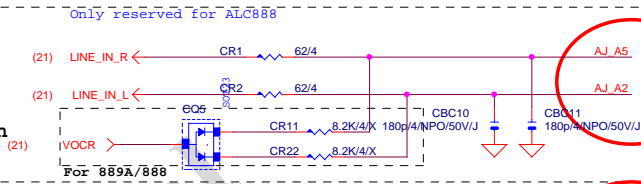


LINE-OUT

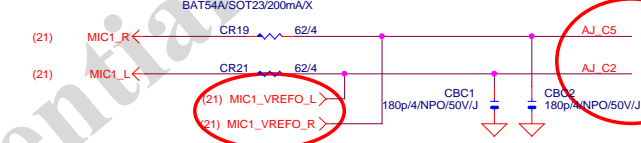


LINE-IN

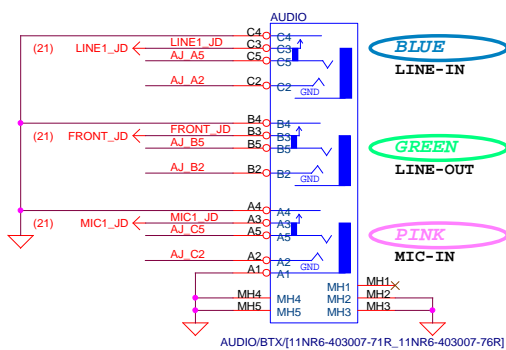
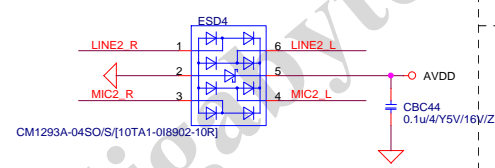
Verify MIC function in LINE-in



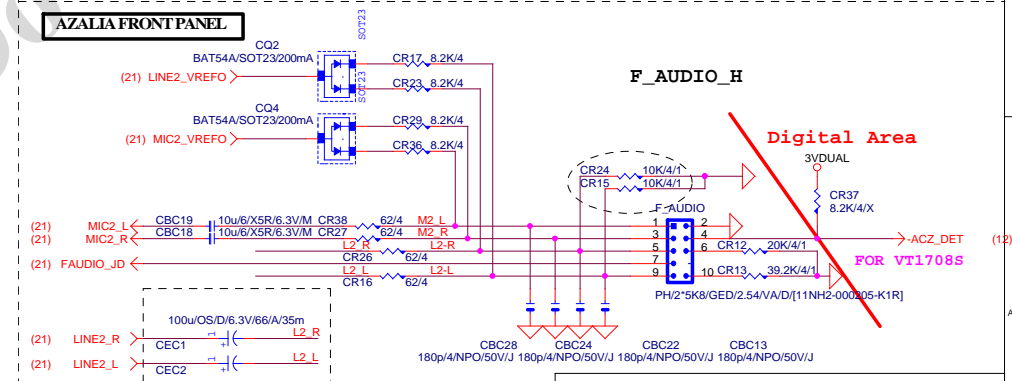
MIC-IN



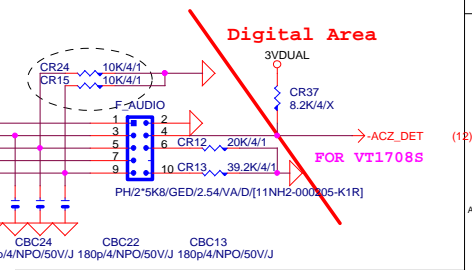
AZALIA JACK



AZALIA FRONT PANEL



F\_AUDIO\_H



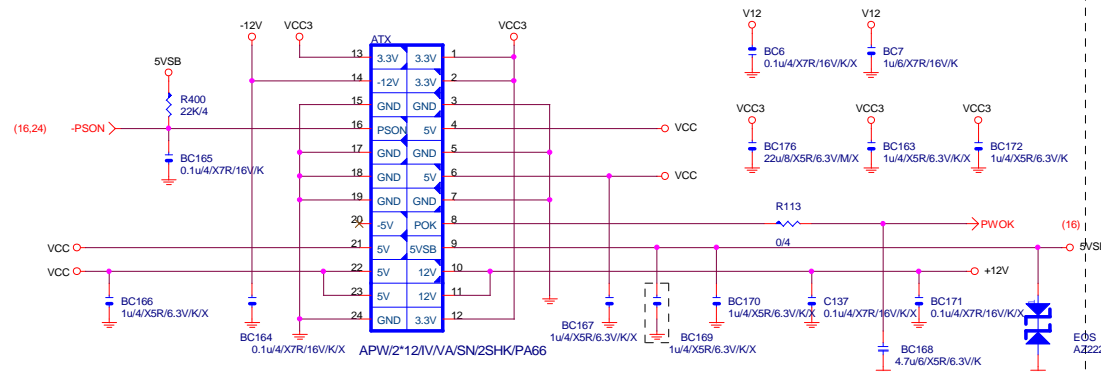
Gigabyte Technology			
AUDIO JACK			
Title	Document Number	GA-H61M-DS2 HDMI	Rev 1.01
Size Custom	Wednesday, January 02, 2013	Sheet 22 of 31	



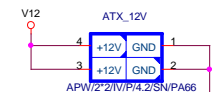




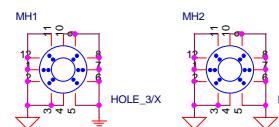
# ATXX24 POWER CONNECTOR



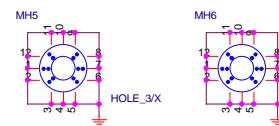
# ATXX4 POWER CONNECTOR



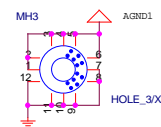
ATX\_4-4



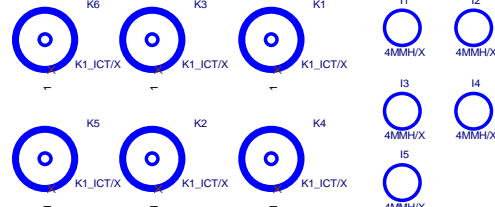
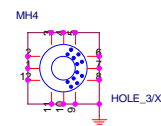
HOLE\_4-RH-1



HOLE\_4-RH-5MM-1



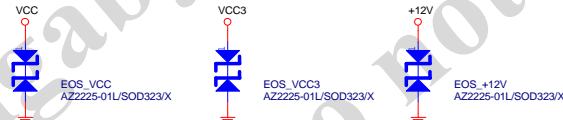
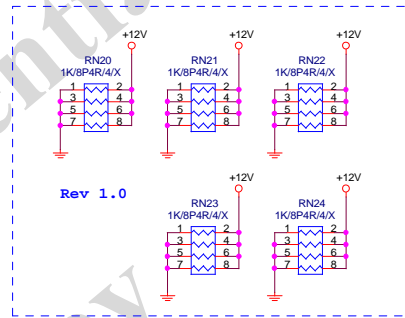
HOLE\_4-RH-5MM-1



To prevent the 5VSB under loading when boot

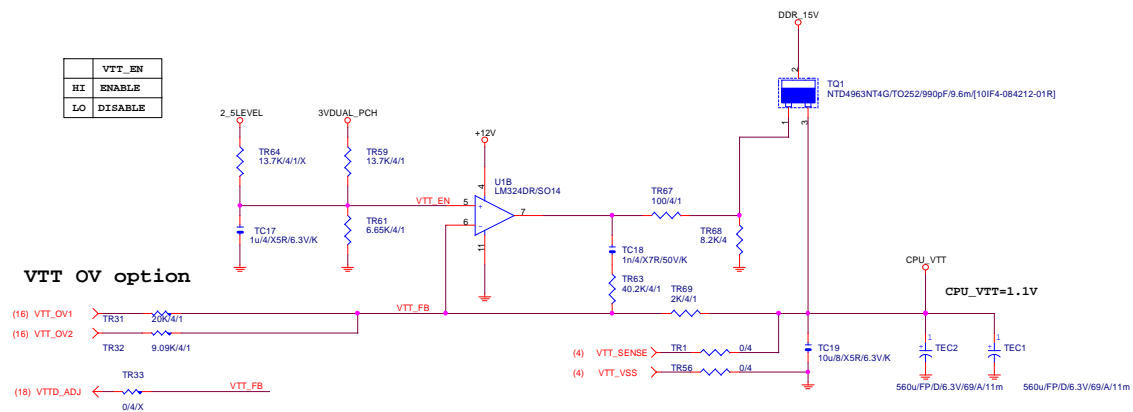
5VDUAL1(USB PORT/DDRIII POWER)  
5VDUAL( 3VDUAL/OTHER)

-S\_WARN-->5VDUAL1-->-S\_ACK(PCH)-->-DEPSLP/-RSMRST-->5VDUAL-->3VDUAL



## CPU\_VTT

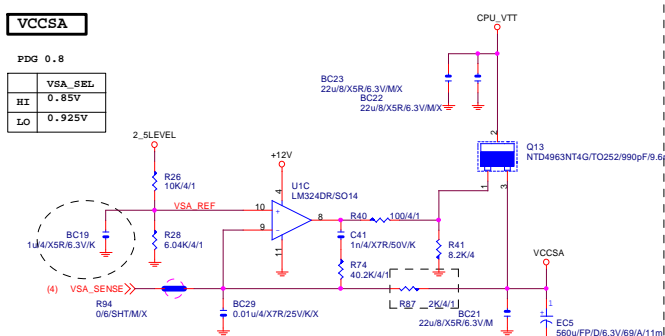
	VTT_EN
HI	ENABLE
LO	DISABLE



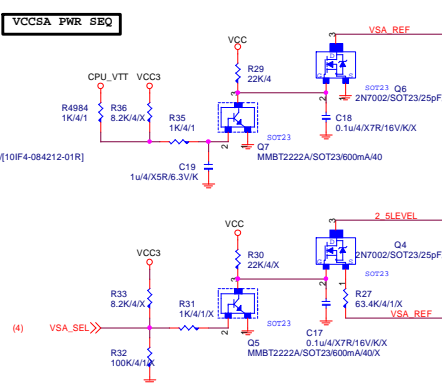
## VCCSA

PDG 0.8

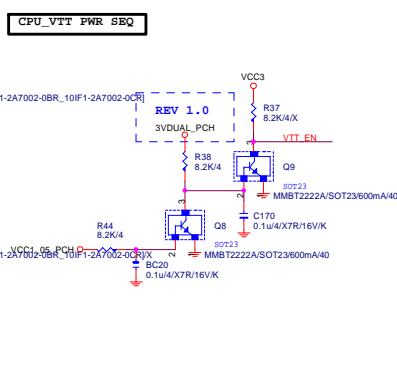
	VSA_SEL
HI	0.85V
LO	0.925V



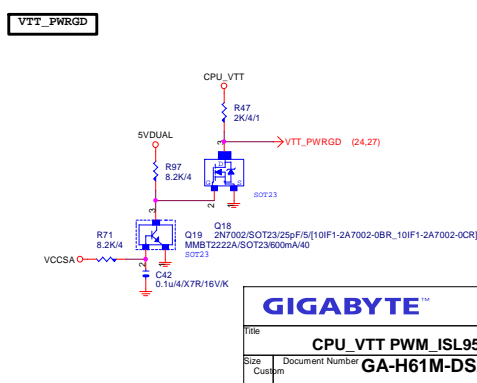
## VCCSA PWR SEQ

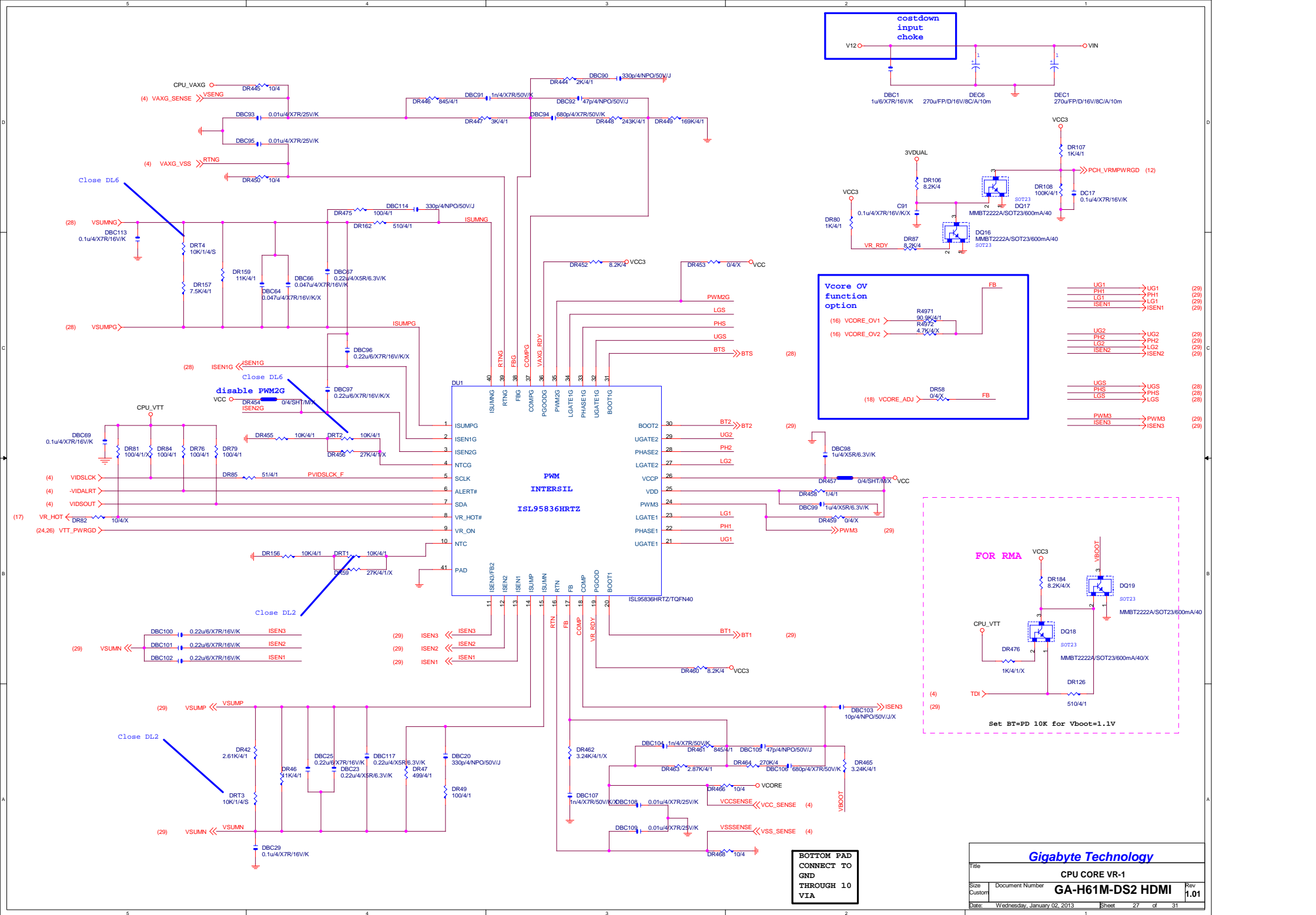


CPU_VTT	PWR	SEQ
0	0	0
0	0	1
0	0	2
0	0	3
0	0	4
0	0	5
0	0	6
0	0	7
0	0	8
0	0	9
0	0	10
0	0	11
0	0	12
0	0	13
0	0	14
0	0	15
0	0	16
0	0	17
0	0	18
0	0	19
0	0	20
0	0	21
0	0	22
0	0	23
0	0	24
0	0	25
0	0	26
0	0	27
0	0	28
0	0	29
0	0	30
0	0	31
0	0	32
0	0	33
0	0	34
0	0	35
0	0	36
0	0	37
0	0	38
0	0	39
0	0	40
0	0	41
0	0	42
0	0	43
0	0	44
0	0	45
0	0	46
0	0	47
0	0	48
0	0	49
0	0	50
0	0	51
0	0	52
0	0	53
0	0	54
0	0	55
0	0	56
0	0	57
0	0	58
0	0	59
0	0	60
0	0	61
0	0	62
0	0	63
0	0	64
0	0	65
0	0	66
0	0	67
0	0	68
0	0	69
0	0	70
0	0	71
0	0	72
0	0	73
0	0	74
0	0	75
0	0	76
0	0	77
0	0	78
0	0	79
0	0	80
0	0	81
0	0	82
0	0	83
0	0	84
0	0	85
0	0	86
0	0	87
0	0	88
0	0	89
0	0	90
0	0	91
0	0	92
0	0	93
0	0	94
0	0	95
0	0	96
0	0	97
0	0	98
0	0	99
0	0	100
0	0	101
0	0	102
0	0	103
0	0	104
0	0	105
0	0	106
0	0	107
0	0	108
0	0	109
0	0	110
0	0	111
0	0	112
0	0	113
0	0	114
0	0	115
0	0	116
0	0	117
0	0	118
0	0	119
0	0	120
0	0	121
0	0	122
0	0	123
0	0	124
0	0	125
0	0	126
0	0	127
0	0	128
0	0	129
0	0	130
0	0	131
0	0	132
0	0	133
0	0	134
0	0	135
0	0	136
0	0	137
0	0	1

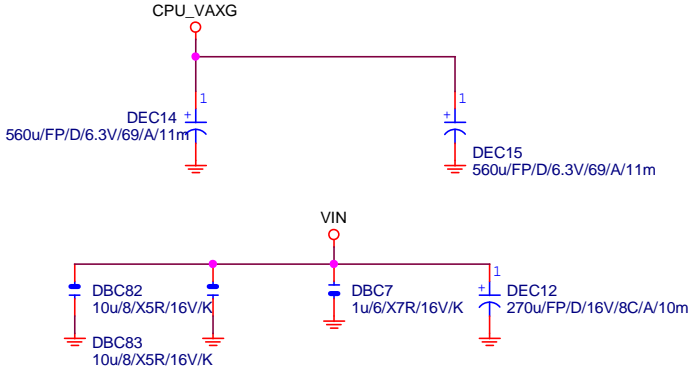
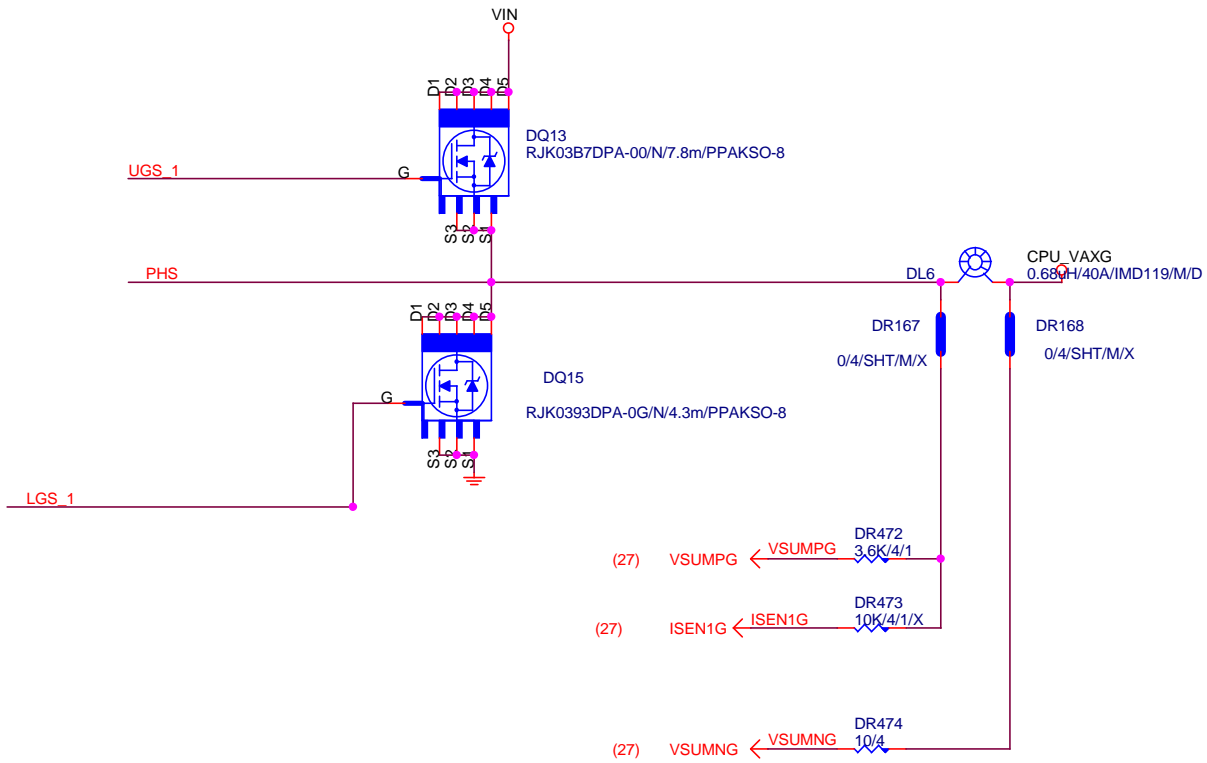
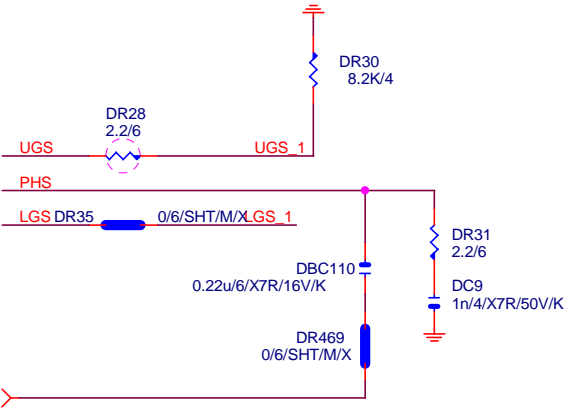
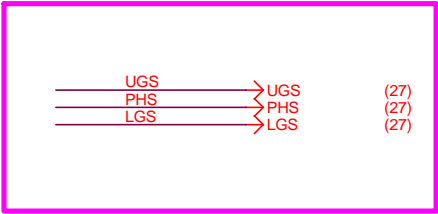


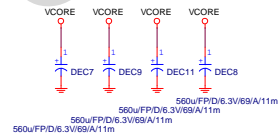
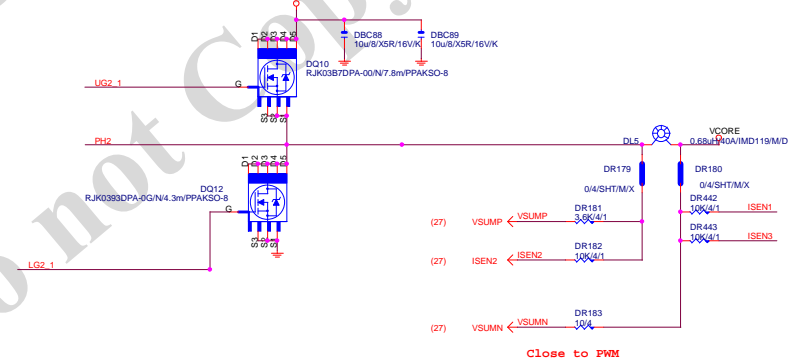
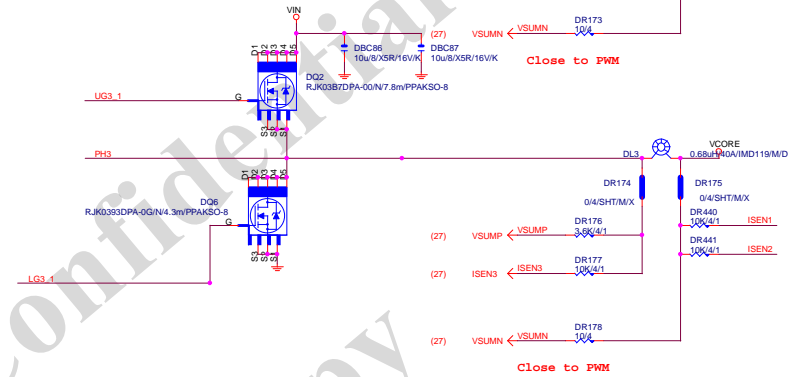
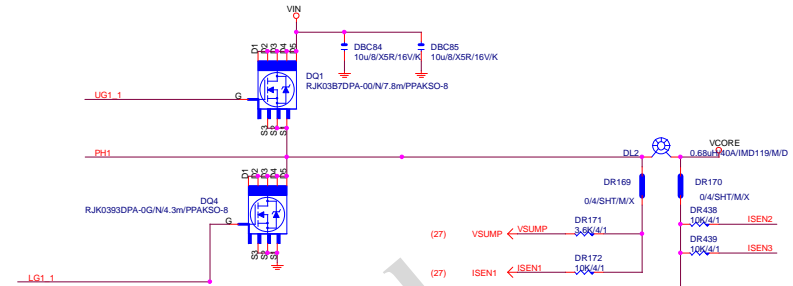
## VTT\_PWRGD





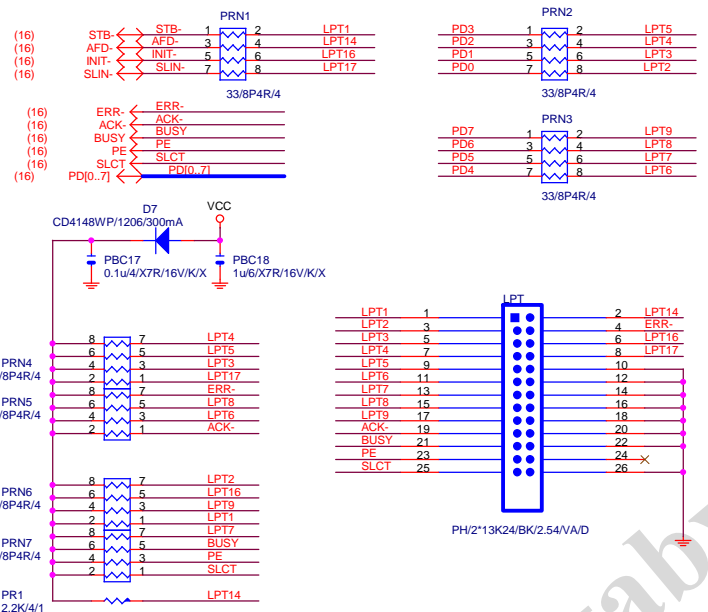
VAXG





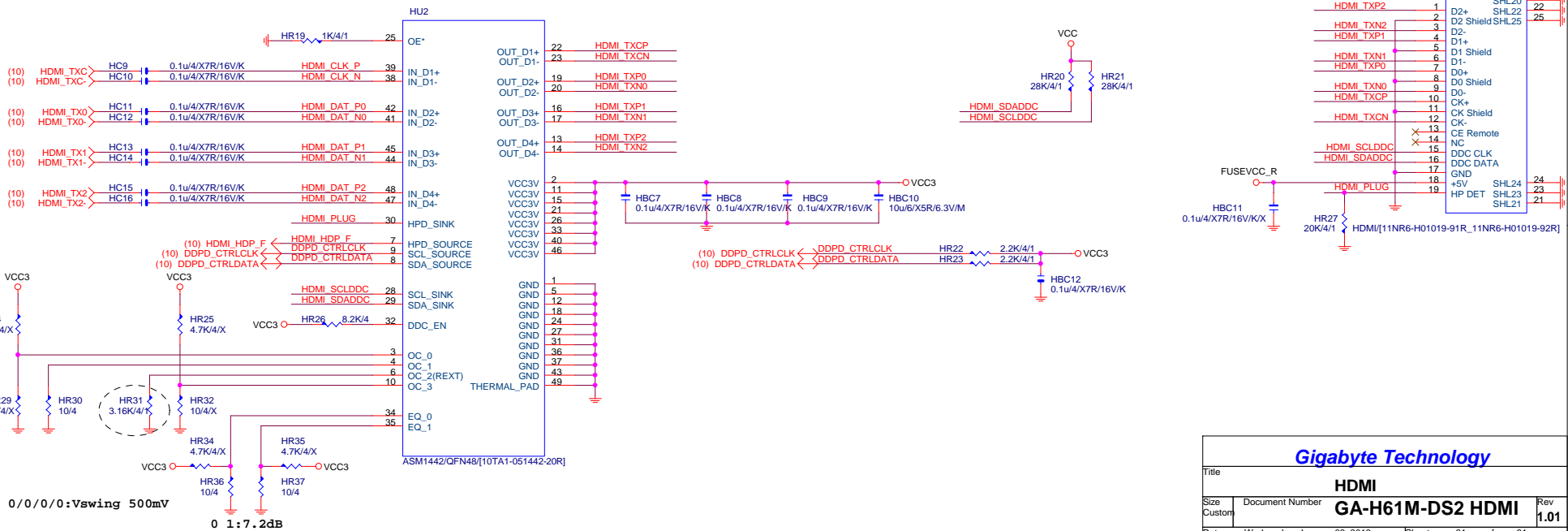


LPT PORT



# HDMI LEVEL SHIFT

HDMI: 20/4/6/4/20  
Impedance=85 +- 17.5%



Gigabyte Technology			
Title		HDMI	
Size	Document Number	GA-H61M-DS2 HDMI	
Custom			Rev 1.01
Date:	Wednesday, January 02, 2013	Sheet	31 of 31