

CLEVO Tigerhill- Pineview System Block Diagram

AC-IN, CHARGER
SHEET 16

14.318 MHz
Clock Generator
SLG8SP510T
17.1mm*8.1mm*1.2mm
TSSOP 64PIN
SHEET 7

Intel
Pineview 45nm
C0/C1/C2/C3/C4
PROCESSOR
FCBGA 559 pin
22mm*22mm*2.35mm
SHEET 2,3,4,5

DDR2 One Channel
1GB & 2GB
Memory Termination
DDRII SO-DIMMO
SHEET 6

VDD3, VDD5
SHEET 18

3.3V, 5V, 3VS, 5VS
SHEET 17

1.05VS, 1.5VS
SHEET 20

1.8V, 0.9VS (VTT_MEM)
SHEET 19

VCORE
SHEET 21

LCD CONNECTOR
SHEET 12

1280x800
<8"

CRT OUT
SHEET 22

1400x1050
Direct X9

CLICK BOARD
TOUCH PAD
SHEET 15

EC
ITE 8502E
128pins LQFP
14*14*1.6mm
SHEET 15

X2-GEN1
10 Gbits/s
DMI
<=8"

SHEET 14
MIC IN
HP OUT

Azalia Codec
RealTek
ALC272
48pins QFN
9*9*1.6mm
SHEET 14

INT SPK R
SHEET 14

INT SPK L
SHEET 14

INT MIC
SHEET 14

SOUTH BRIDGE
Tiger Point
360 MMAP
17mm*17mm*1.06mm
SHEET 8,9,10,11

SYSTEM SMBUS
0.1"~13

AZALIA LINK
24 MHz

INT. K/B
SHEET 15

LPC ROM
SHEET 15

EC SMBUS
0.5"~11"

LPC 33 MHz

THERMAL SENSOR
EMC1402
SHEET 2

SMART FAN
SHEET 12

SMART BATTERY
SHEET 16

PCIE 100 MHz <12"

Mini Card
WLAN
Bluetooth(USB5)
SHEET 13

JMC251/ JMC261
LAN
CARD READER
SHEET 23

25 MHz
Card Reader
Socket
SHEET 23

SATA I/II 3.0Gb/s <12"

SATA HDD
SHEET 13

(USB2)
Port_2
SHEET 13

USB2.0 480 Mbps 1"~16"

(USB7)
CCD
SHEET 24

USB0
Port_0
SHEET 24

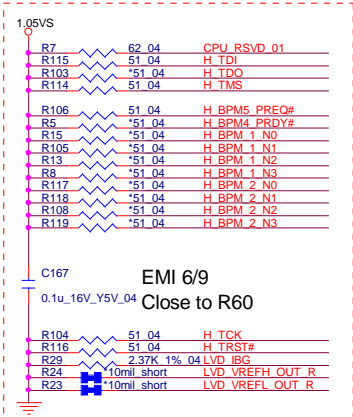
USB1
Port_1
SHEET 24

Mini PCIE
3G CARD (USB4)
SHEET 22

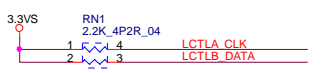
RJ-45
SHEET 23

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Title			
[01]BLOCK DIAGRAM			
Size	Document Number	Rev	
A3	6-7P-M1104-001	6-71-M1100-D01	1.0
Date:	Friday, December 04, 2009	Sheet	1 of 26

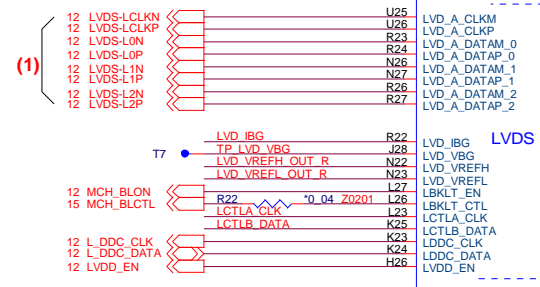


EMI 6/9
Close to R60

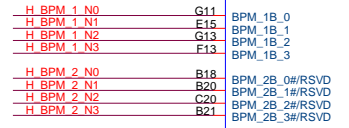


LAYOUT NOTE:
Place termination near CPU

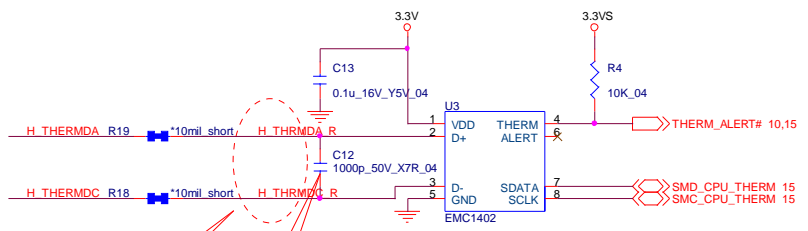
(1)
LVDS Clock & Data Signal Group
Zdiff = 90 Ohm ±10%
signal / space : 4 / 5 mils
length < 7850 mils



(2)
LVDS Control Signal Group
LBKLT_CTL, LBKLT_EN, LVDD_EN
Zo = 50 Ohm ±10%
signal : 5 mils
length < 6000 mils

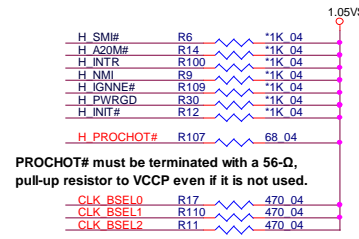
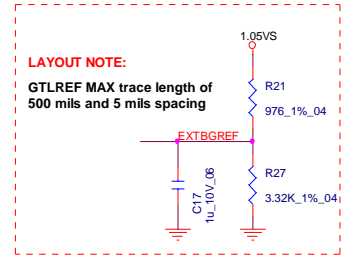
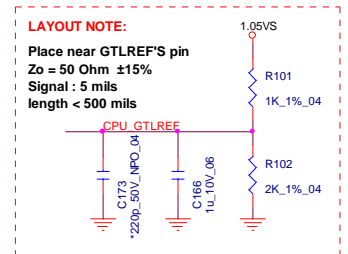
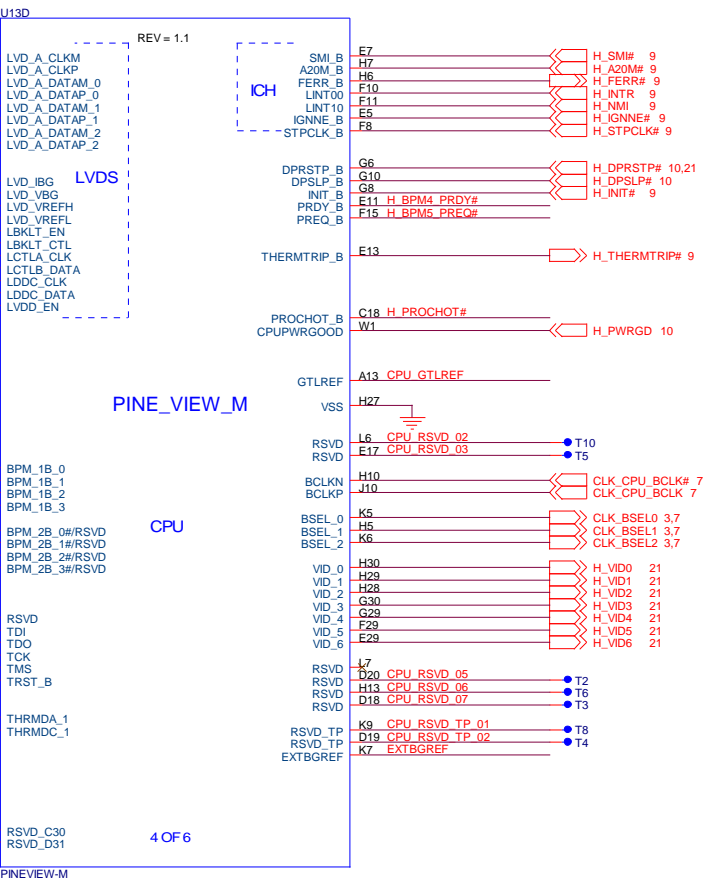


Thermal IC



LAYOUT NOTE:
Route H_THERMDA and H_THERMDC on same layer.
10 mils trace and 10 mils spacing.

LAYOUT NOTE:
Close to Thermal IC



PROCHOT# must be terminated with a 56-Ω, pull-up resistor to VCCP even if it is not used.

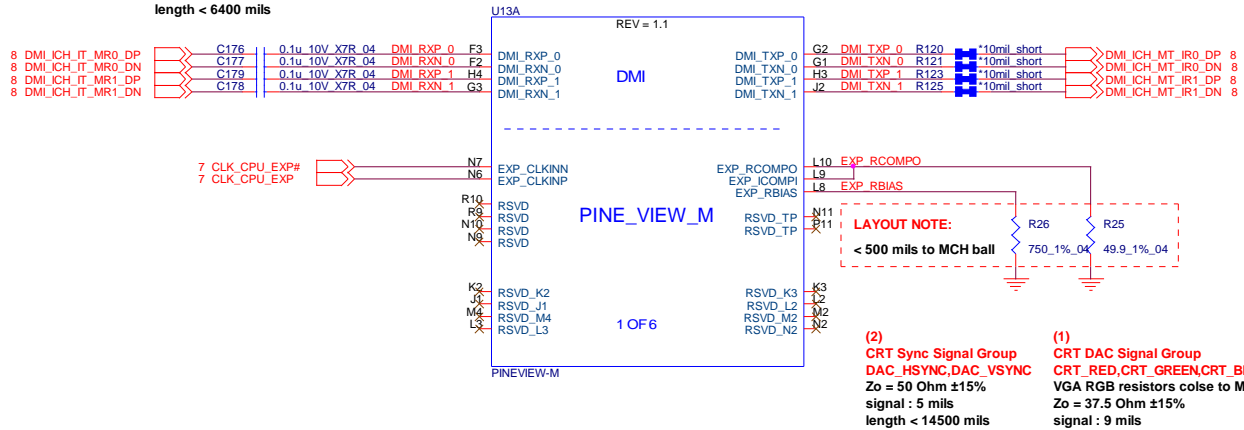


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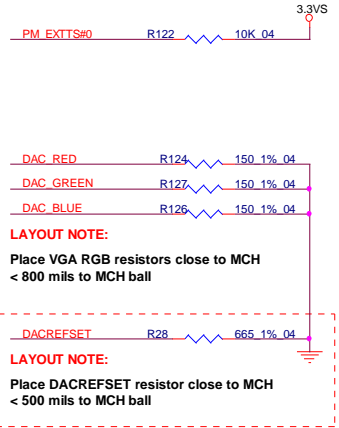
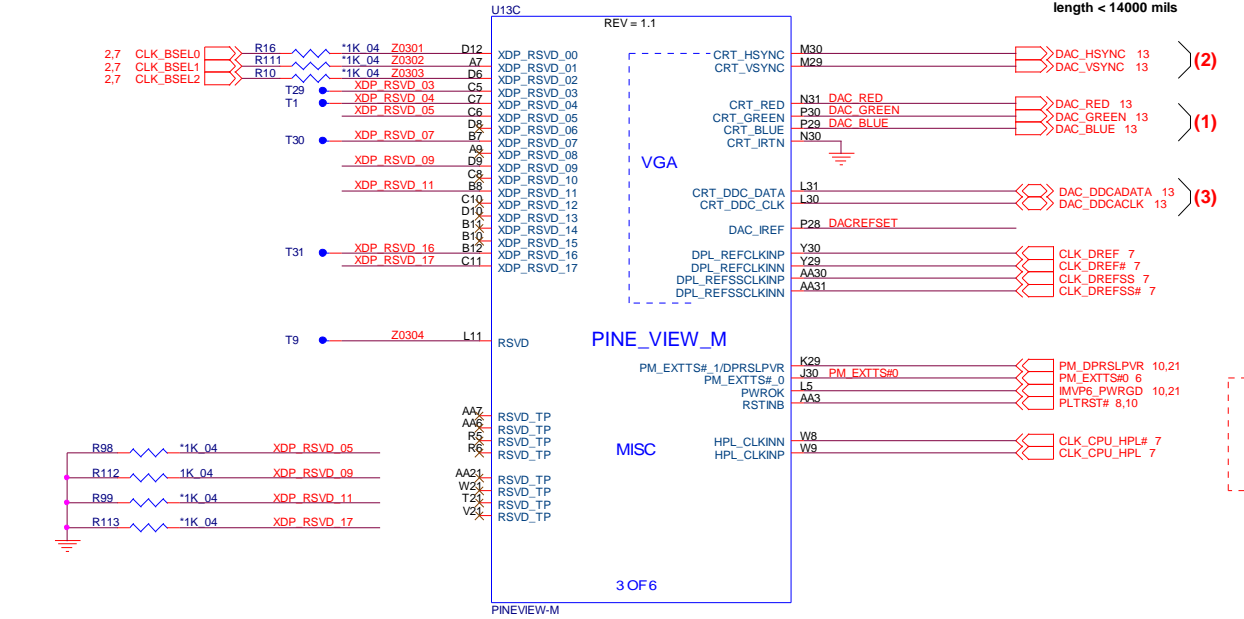
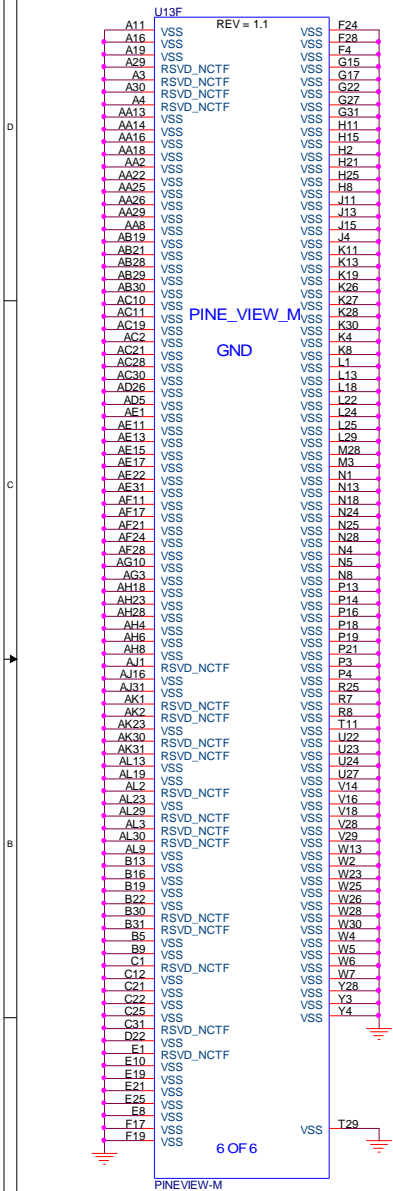
Title [02]PINEVIEW CPU 1/4

Size A3	Document Number 6-71-M1100-D01	Rev 1.0
Date: Friday, December 04, 2009	Sheet 2 of 26	

DMI Signal Group
 Zdiff = 85 Ohm ±10%
 signal / space : 6 / 6 mils
 length < 6400 mils

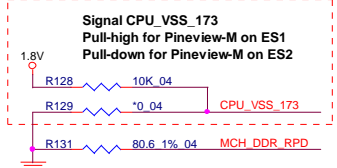
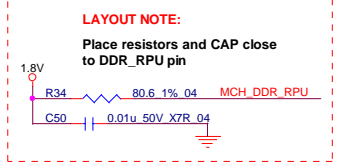
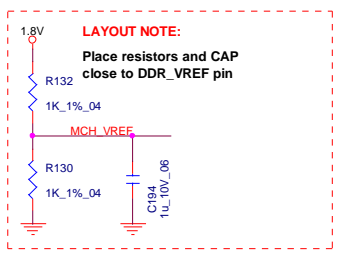
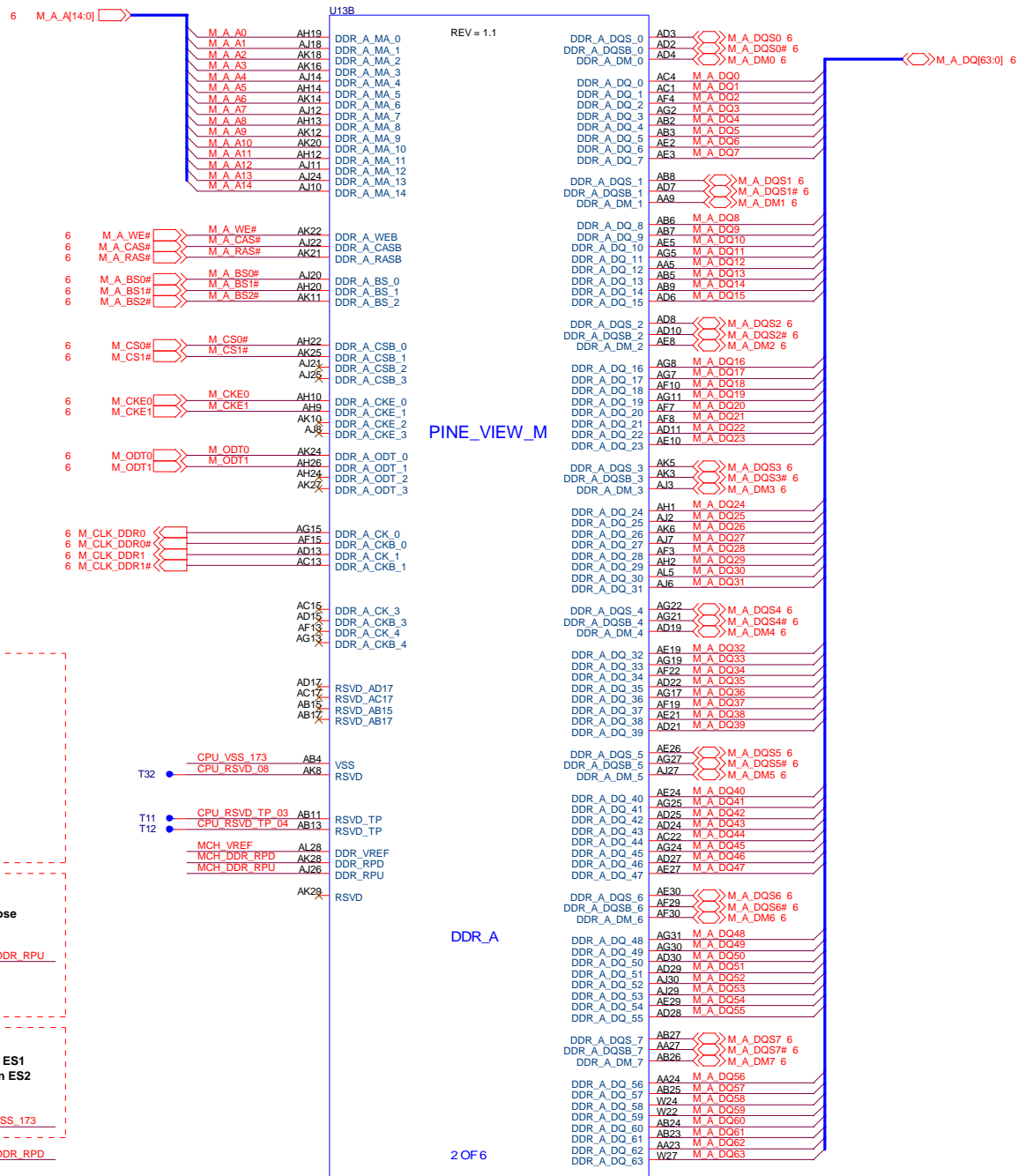


- (2) CRT Sync Signal Group
 DAC_HSYNC, DAC_VSYNC
 Zo = 50 Ohm ±15%
 signal : 5 mils
 length < 14500 mils
- (1) CRT DAC Signal Group
 CRT_RED, CRT_GREEN, CRT_BLUE
 VGA RGB resistors close to MCH ball
 Zo = 37.5 Ohm ±15%
 signal : 9 mils
 length < 800 mils
 Two VGA RGB resistors between
 Zo = 50 Ohm ±15%
 signal : 5 mils
 length < 14000 mils
- (3) CRT Control Signal Group
 CRT_DDC_CLK, CRT_DDC_DATA
 Zo = 50 Ohm ±15%
 signal : 5 mils
 length < 15100 mils



2,5,6,7,8,9,10,11,12,13,14,15,17,20,21 3.3VS

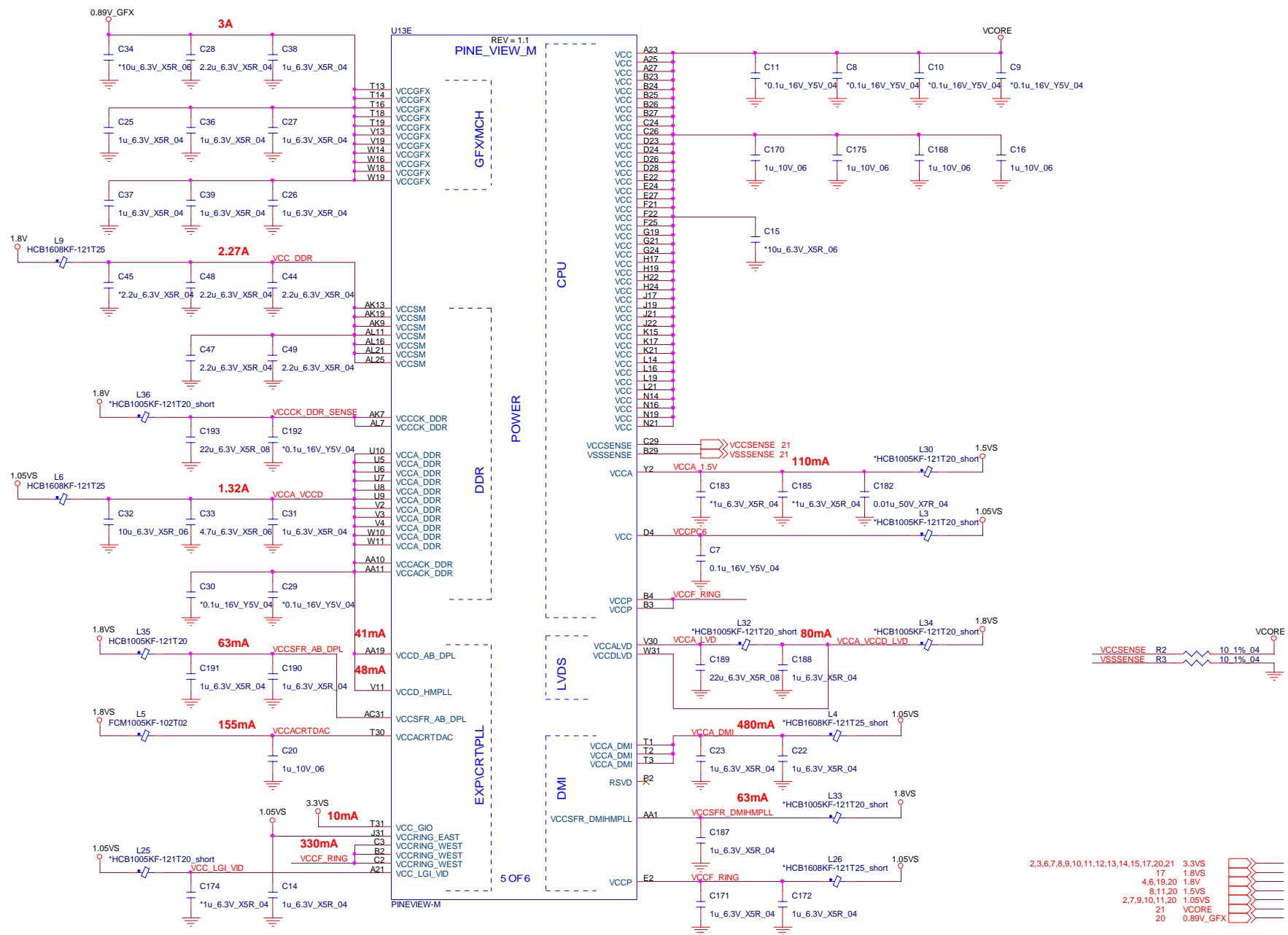
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Title [03]PINEVIEW CPU 2/4		
Size A3	Document Number 6-71-M1104-001	Rev 1.0
Date: Friday, December 04, 2009	Sheet 3 of 26	



5,6,19,20 1.8V

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Title			[04]PINEVIEW CPU 3/4		
Size	Document Number	6-71-M1100-D01		Rev	1.0
A3	6-7P-M1104-001				
Date:	Friday, December 04, 2009	Sheet	4	of	26

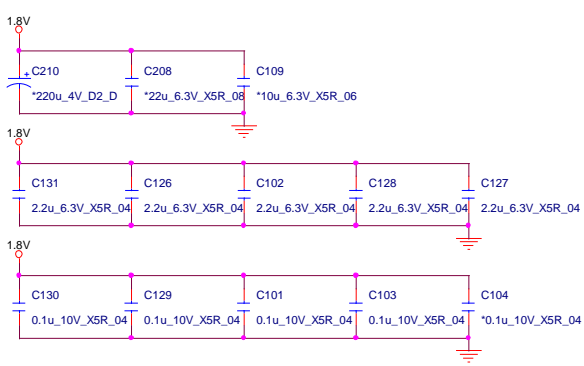
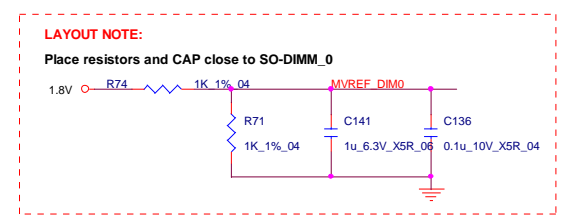
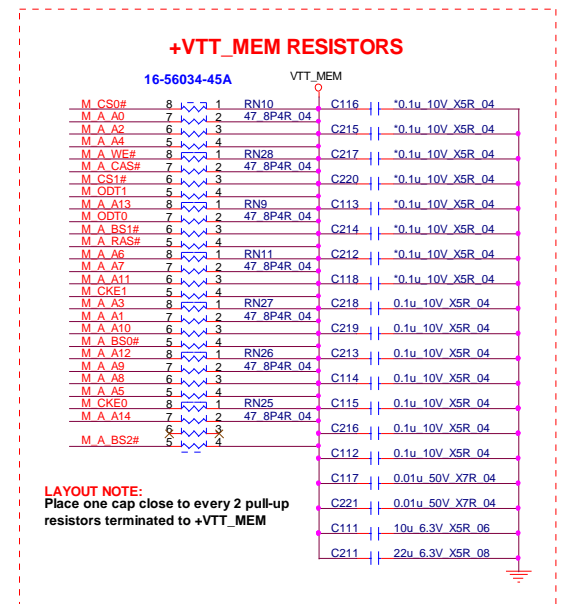
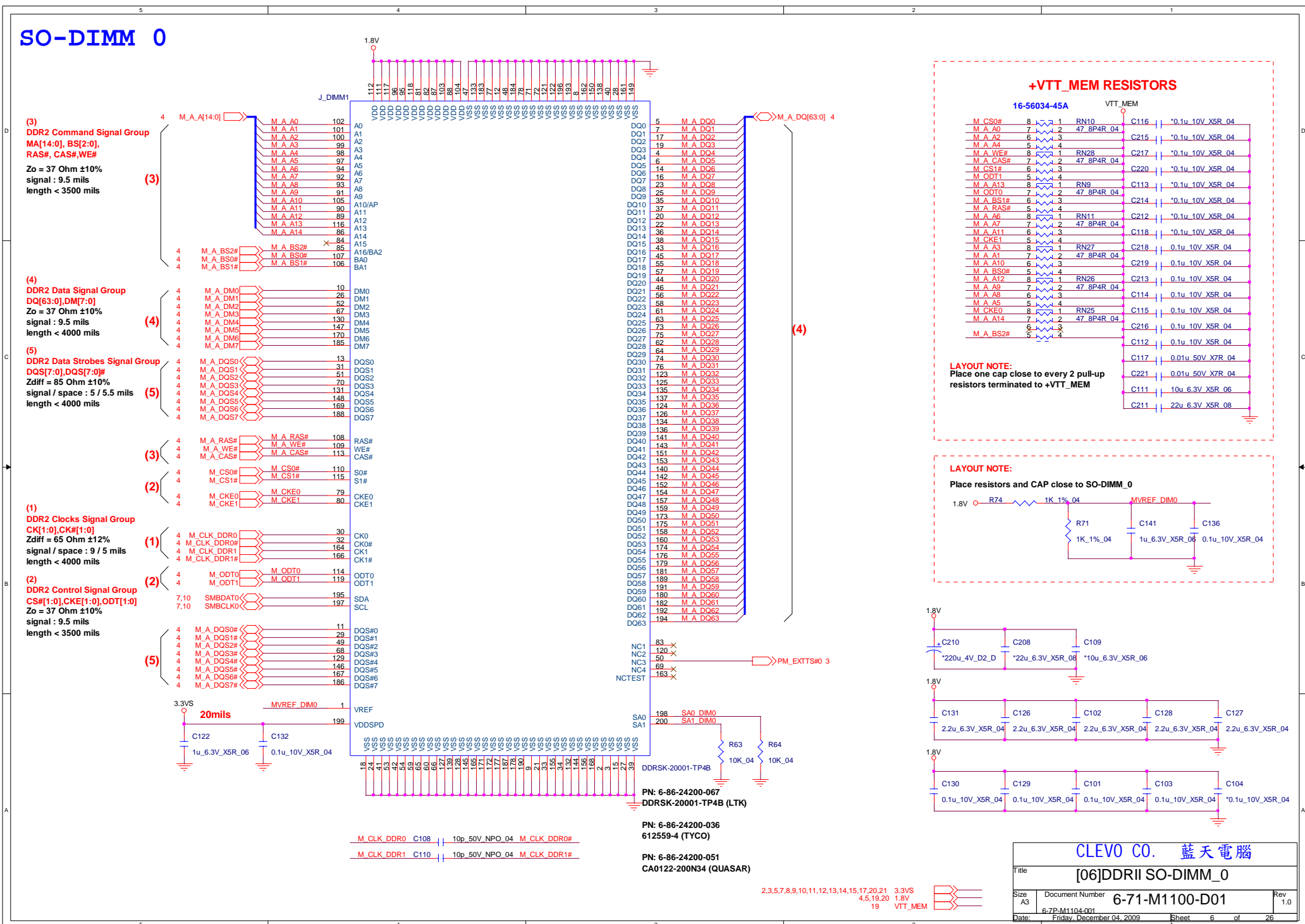


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[05]PINEVIEW CPU 4/4

Title		[05]PINEVIEW CPU 4/4	
Size	Document Number	6-71-M1100-D01	
A3	6-7P-M1104-001		
Date	Friday, December 04, 2009	Sheet	5 of 26

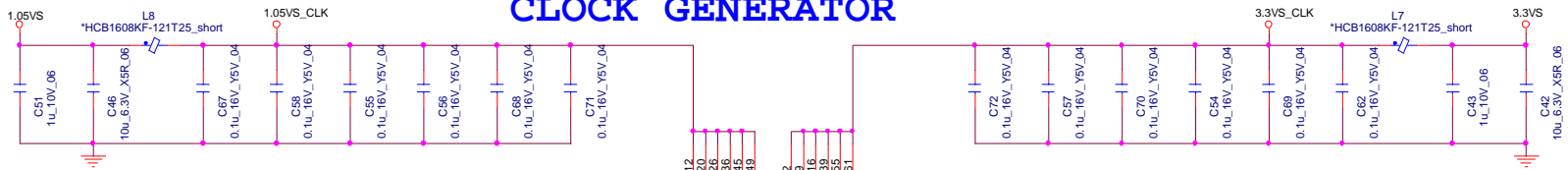
SO-DIMM 0



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Title [06]DDR2 SO-DIMM_0			
Size A3	Document Number 6-71-M1100-D01	Rev 1.0	
Date: Friday, December 04, 2009	Sheet 6 of 26		

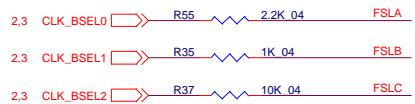
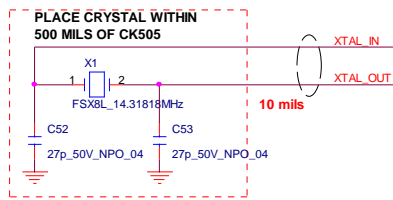
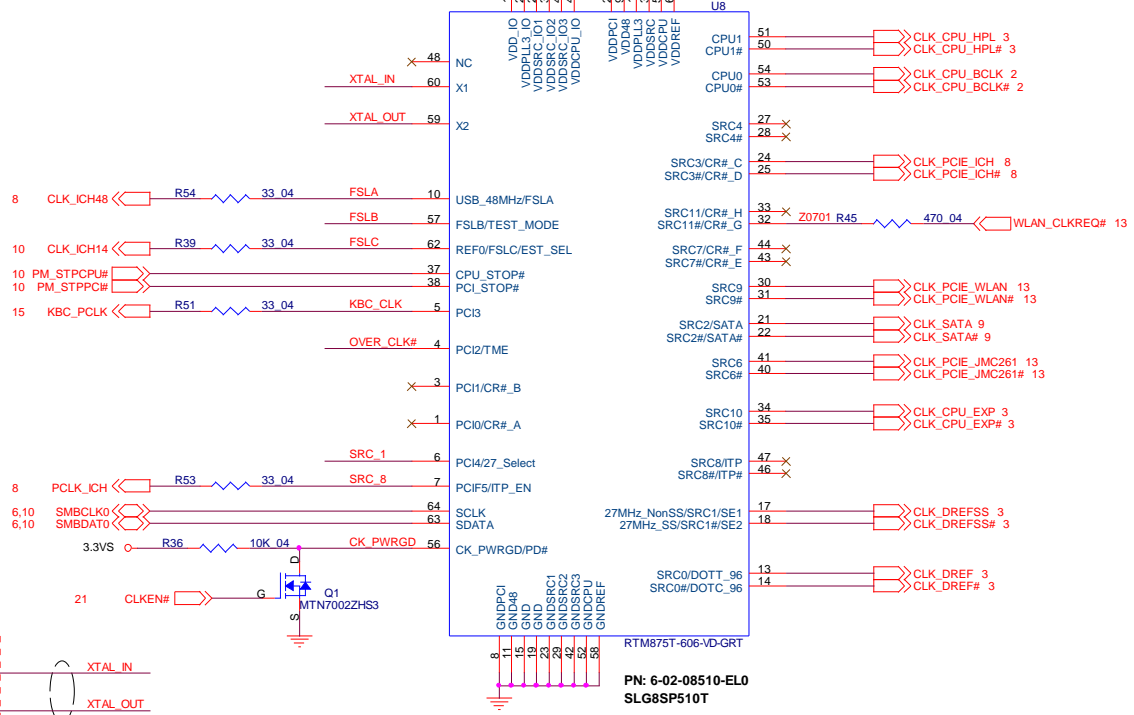


CLOCK GENERATOR

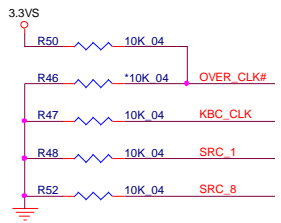


Zo = 55 Ohm ±15%
signal : 4 mils

Zo = 50 Ohm ±15%
signal : 5 mils
Zdiff = 92 Ohm ±10%
signal / space : 4 / 5.5 mils



FSLC	FSLB	FSLA	Host Clock
BSEL2	BSEL1	BSEL0	Frequency
---	---	---	CPU_SEL
0	1	1	166 MHz

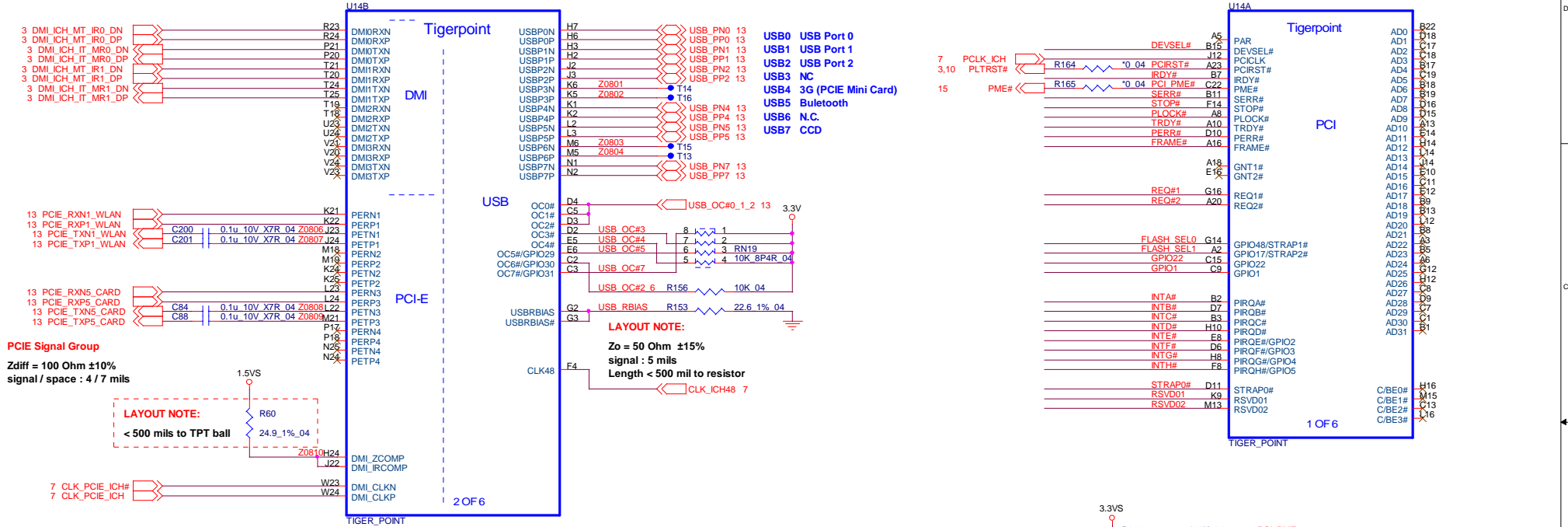


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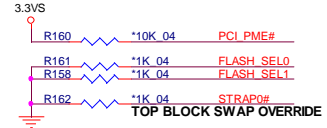
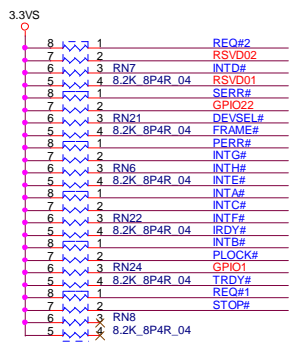
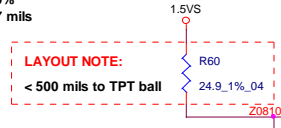
[07]CLOCK GENERATOR

Size A3	Document Number 6-71-M1100-D01	Rev 1.0
Date: Friday, December 04, 2009	Sheet 7 of 26	

USB Signal Group
Zdiff = 90 Ohm ±15%
signal / space : 5 / 6 mils



PCIe Signal Group
Zdiff = 100 Ohm ±10%
signal / space : 4 / 7 mils

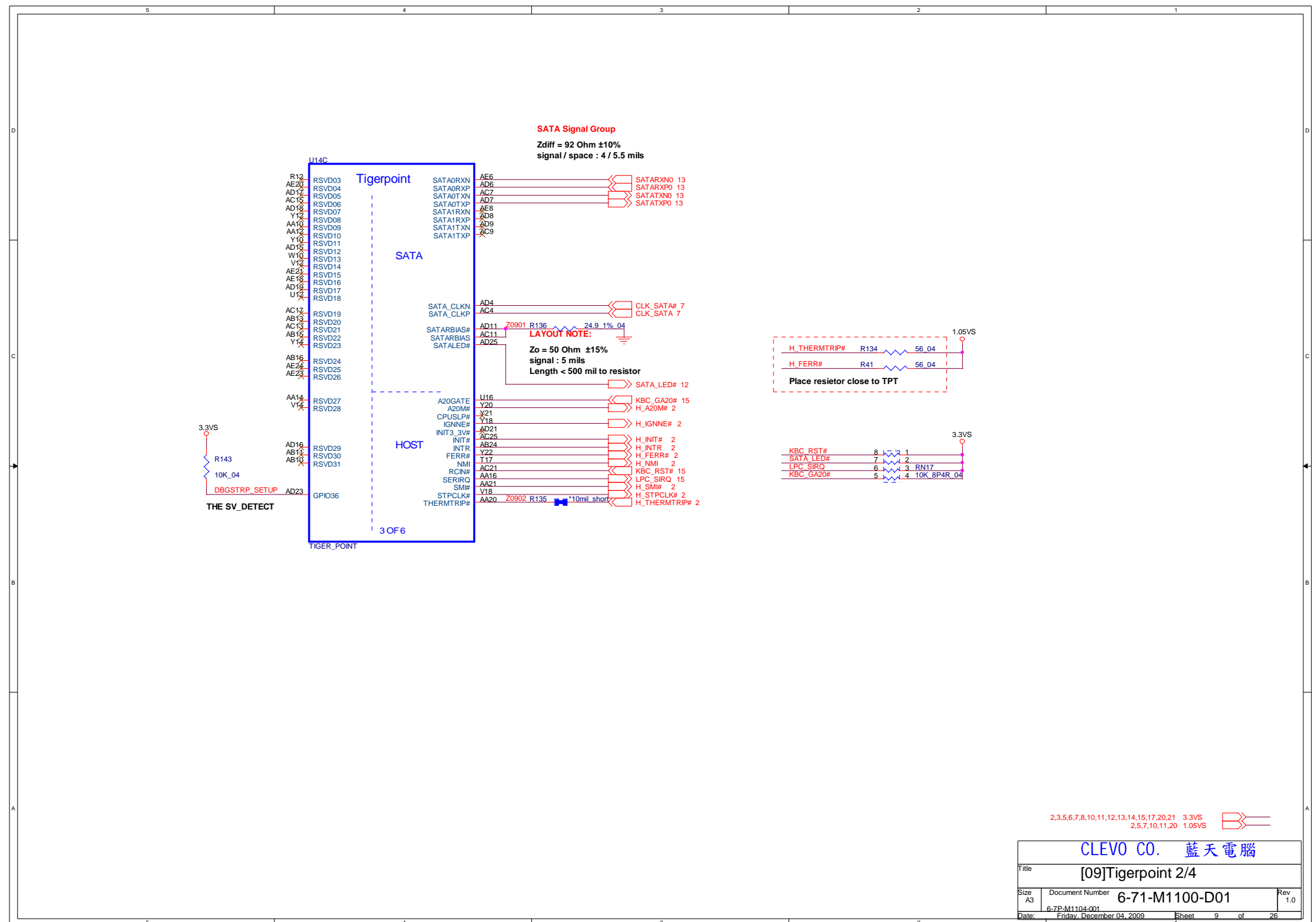


FLASH_SEL1	FLASH_SEL0	MODE
0	1	SPI
1	0	PCI
1	1	LPC

2,10,11,12,13,15,17,19 3.3V
 2,3,5,6,7,9,10,11,12,13,14,15,17,20,21 3.3V
 5,11,20 1.5VS

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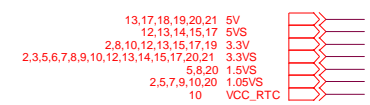
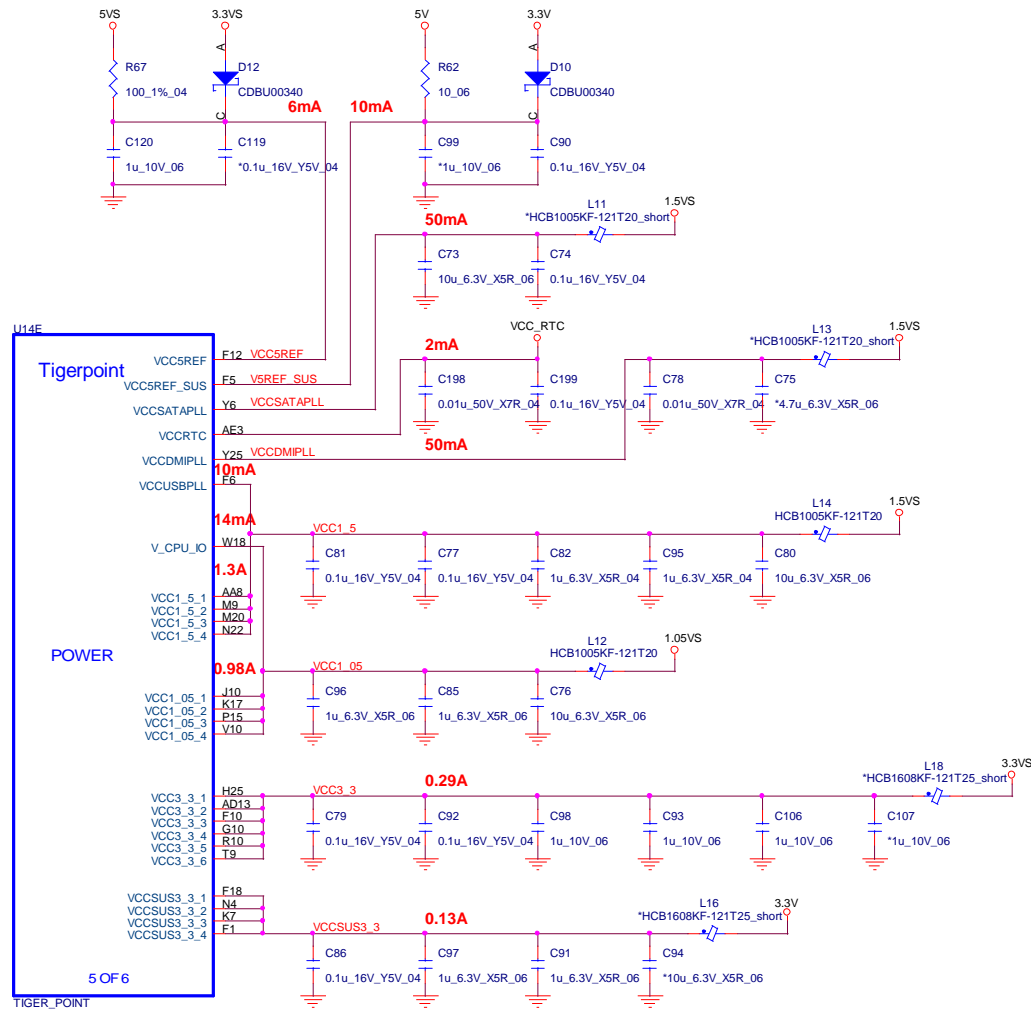
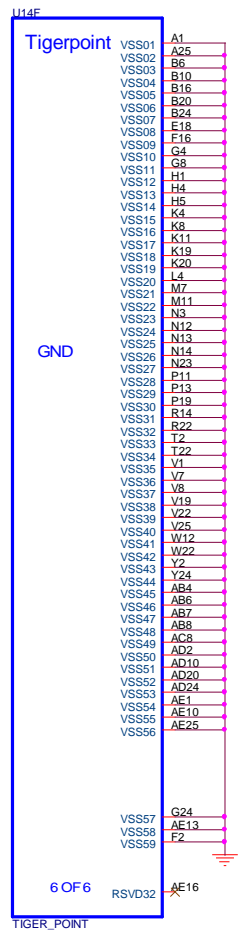
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Size	Document Number	6-71-M1100-D01	
A3	6-7P-M1104-001	Date:	Friday, December 04, 2009
Rev		Sheet	8 of 26
1.0			



2,3,5,6,7,8,10,11,12,13,14,15,17,20,21 3.3VS
 2,5,7,10,11,20 1.05VS

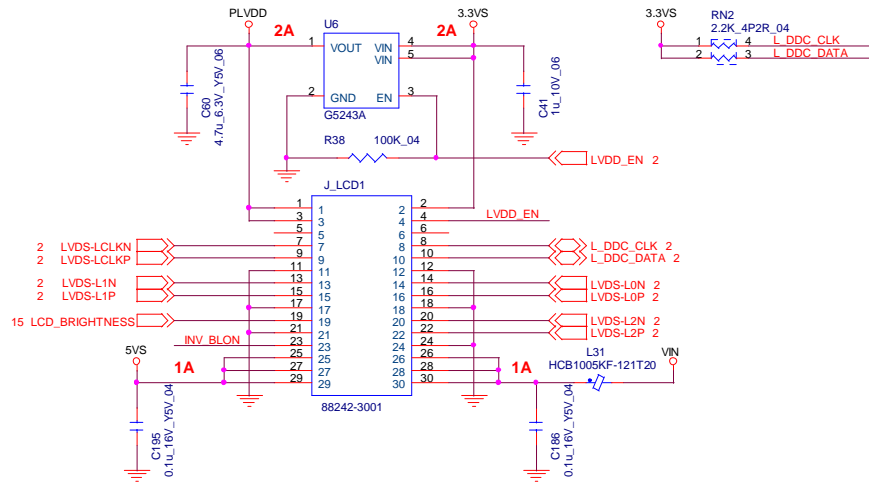
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Title			[09]Tigerpoint 2/4
Size	Document Number	6-71-M1100-D01	
A3	6-7P-M1104-001	Rev	1.0
Date:	Friday, December 04, 2009	Sheet	9 of 26

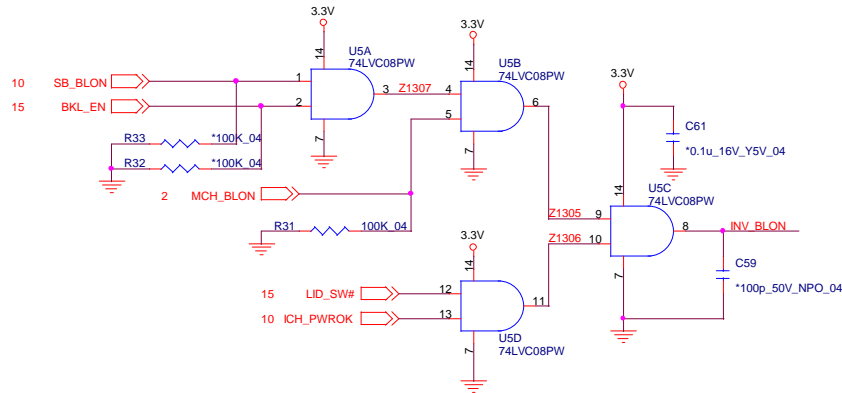


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Title [11]Tigerpoint 4/4		
Size A3	Document Number 6-71-M1100-D01	Rev 1.0
Date: Friday, December 04, 2009	Sheet 11	of 26

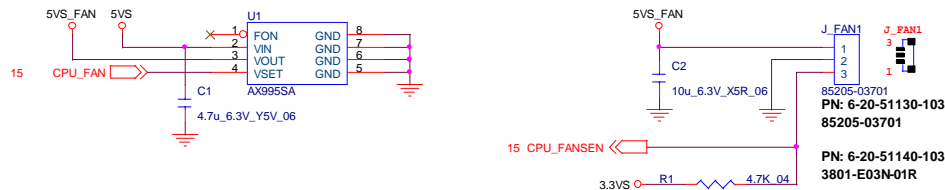
PANEL



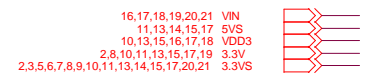
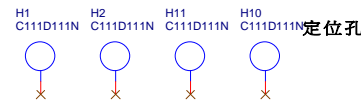
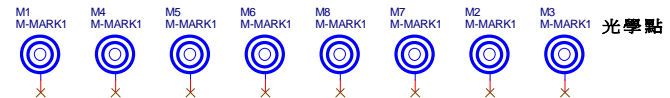
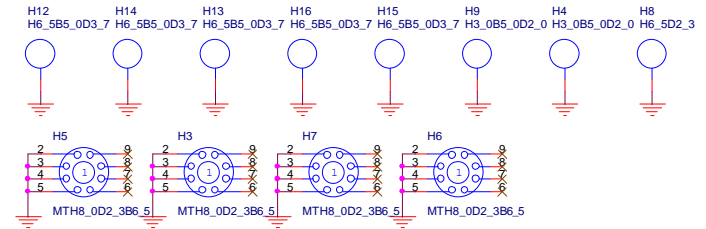
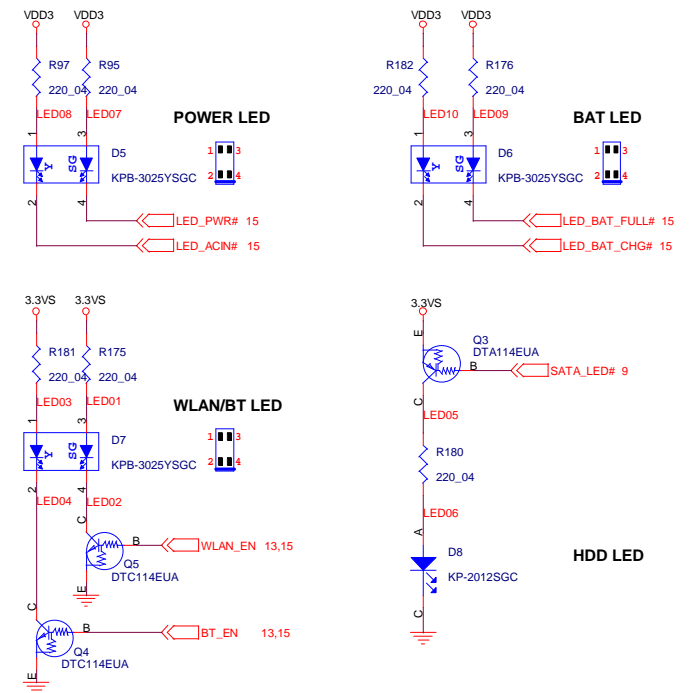
BACKLIGHT ON CONTROL



FAN CONTROL

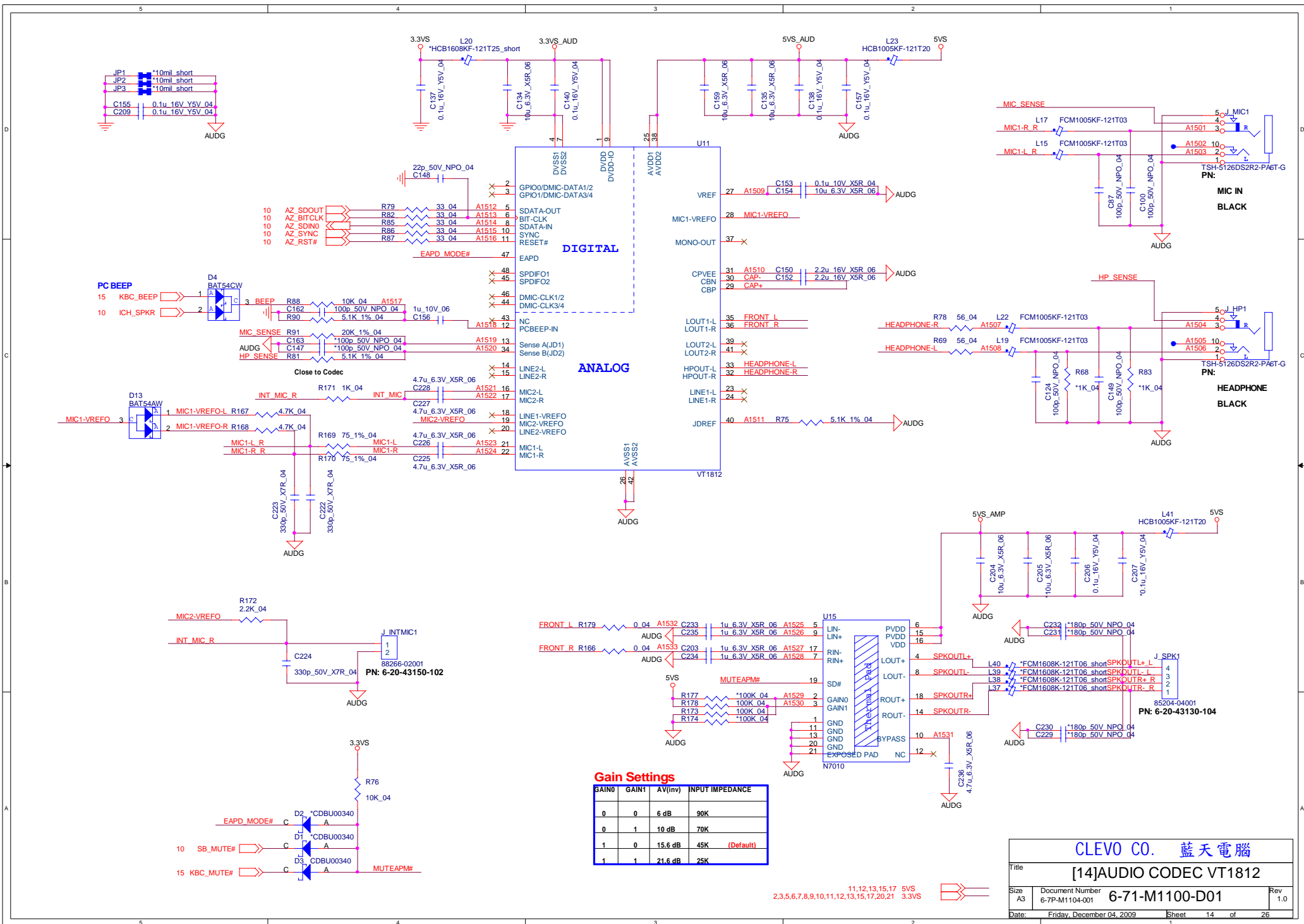


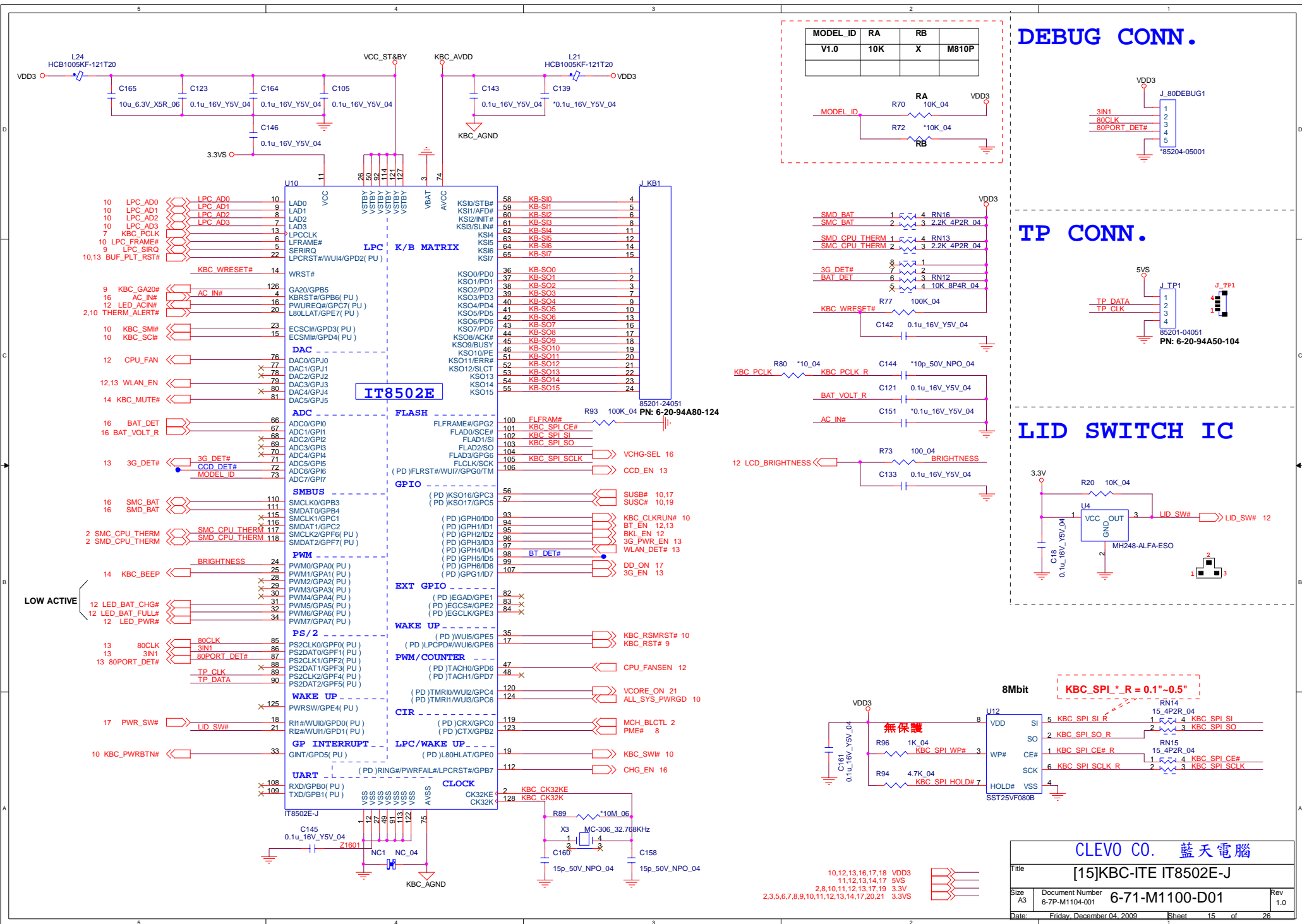
LED

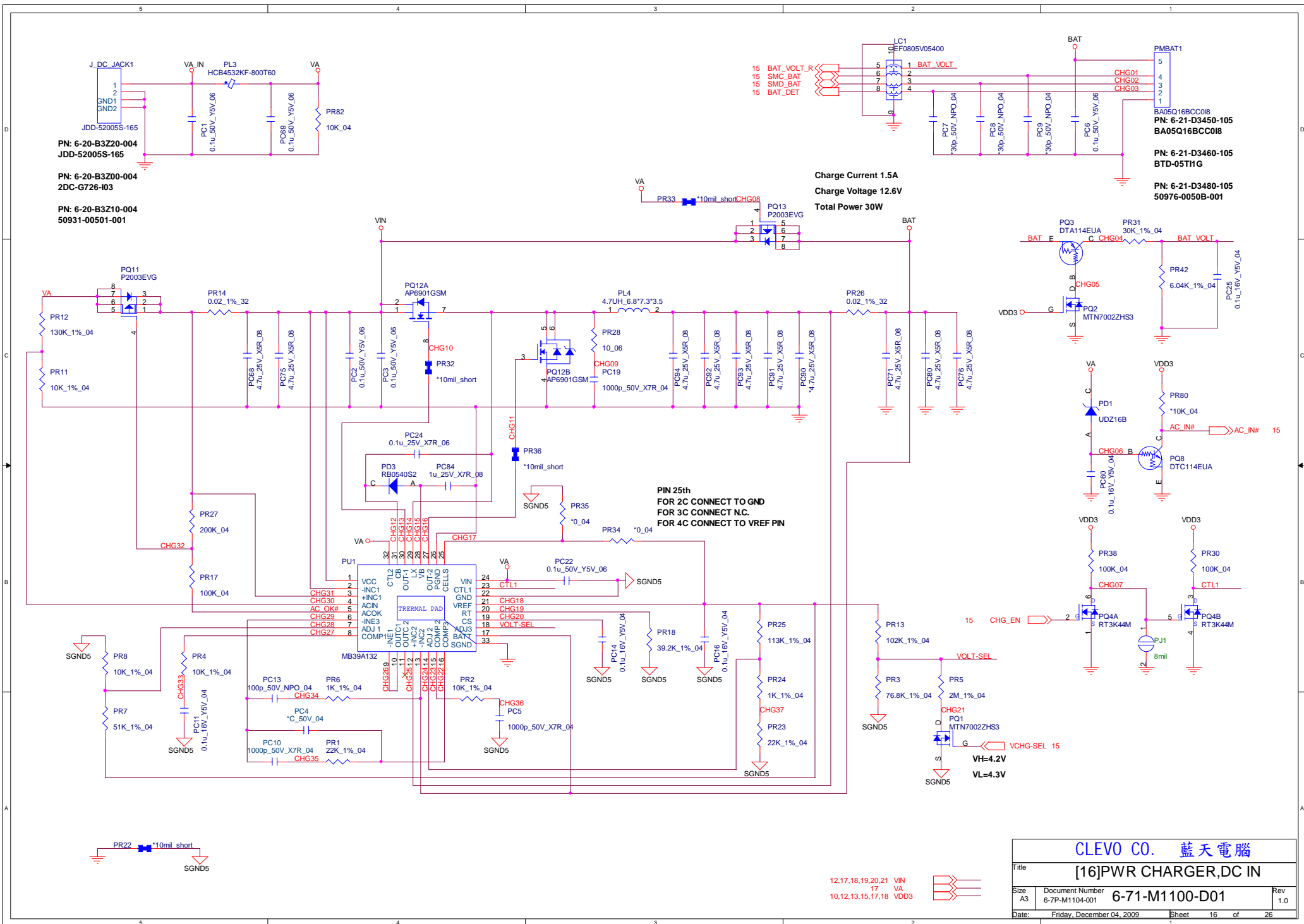


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Title		[12]PANEL,LED,FAN	
Size	Document Number	6-71-M1100-D01	
A3	6-7P-M1104-001	Rev 1.0	
Date:	Friday, December 04, 2009	Sheet	12 of 26



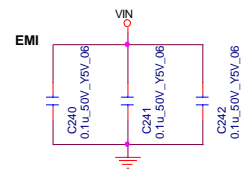
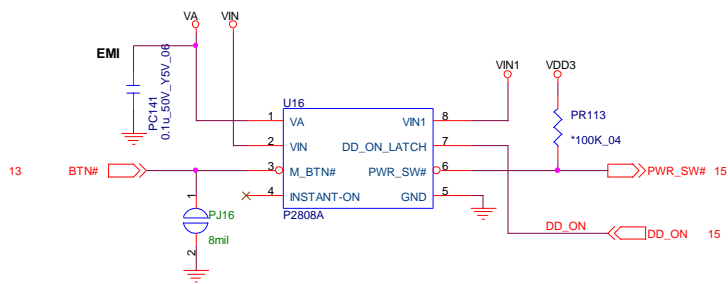
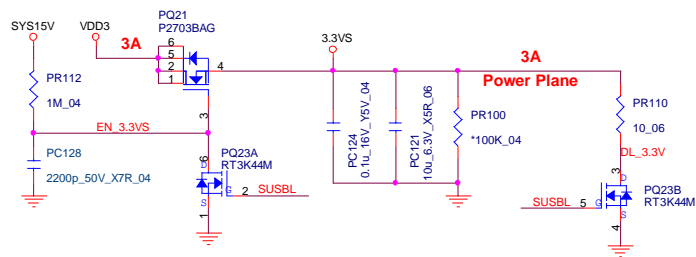
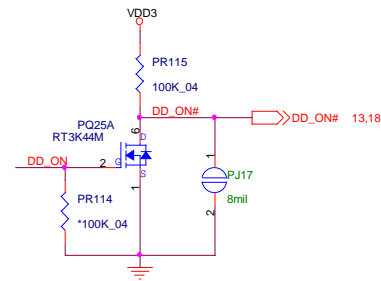
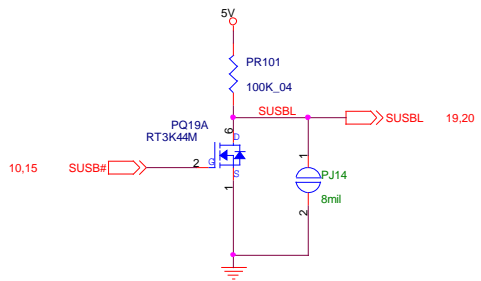
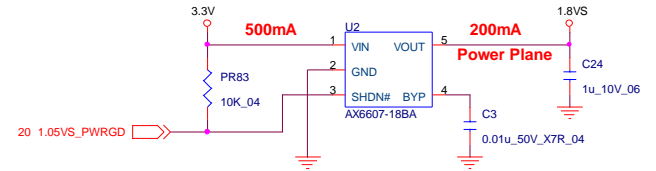
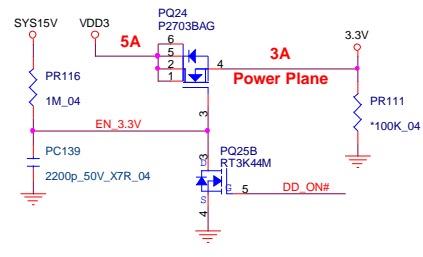
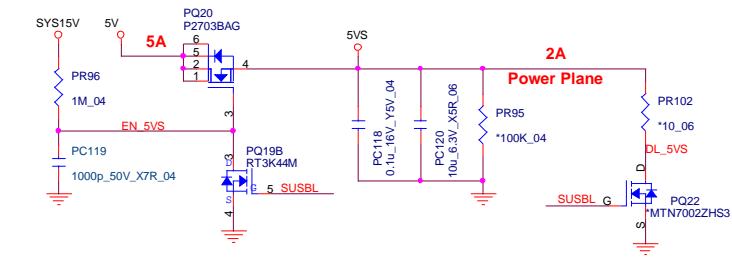




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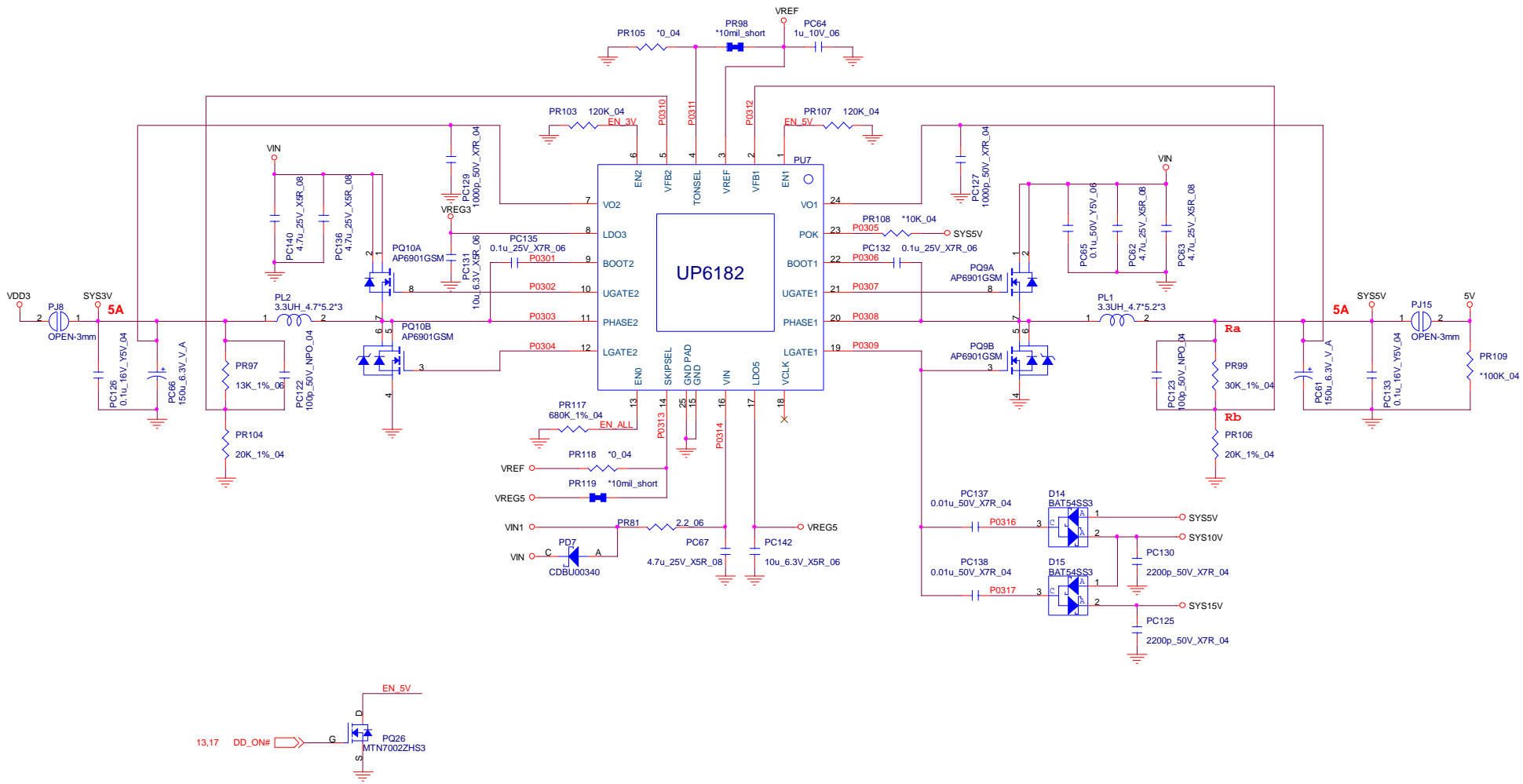
[16]PWR CHARGER,DC IN

Title	[16]PWR CHARGER,DC IN	
Size	Document Number	Rev
A3	6-7P-M1104-001	6-71-M1100-D01 1.0
Date:	Friday, December 04, 2009	Sheet 16 of 26



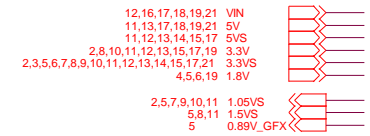
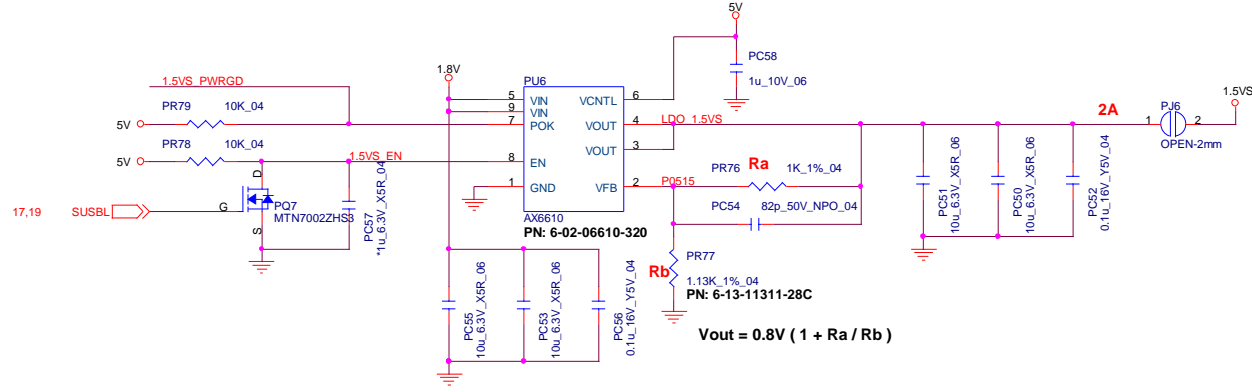
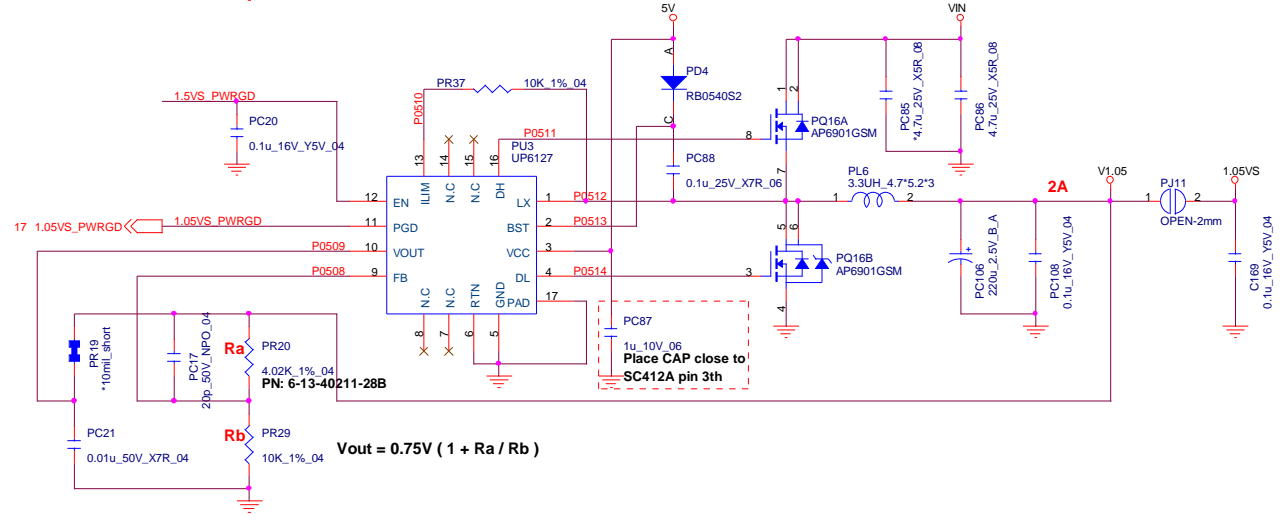
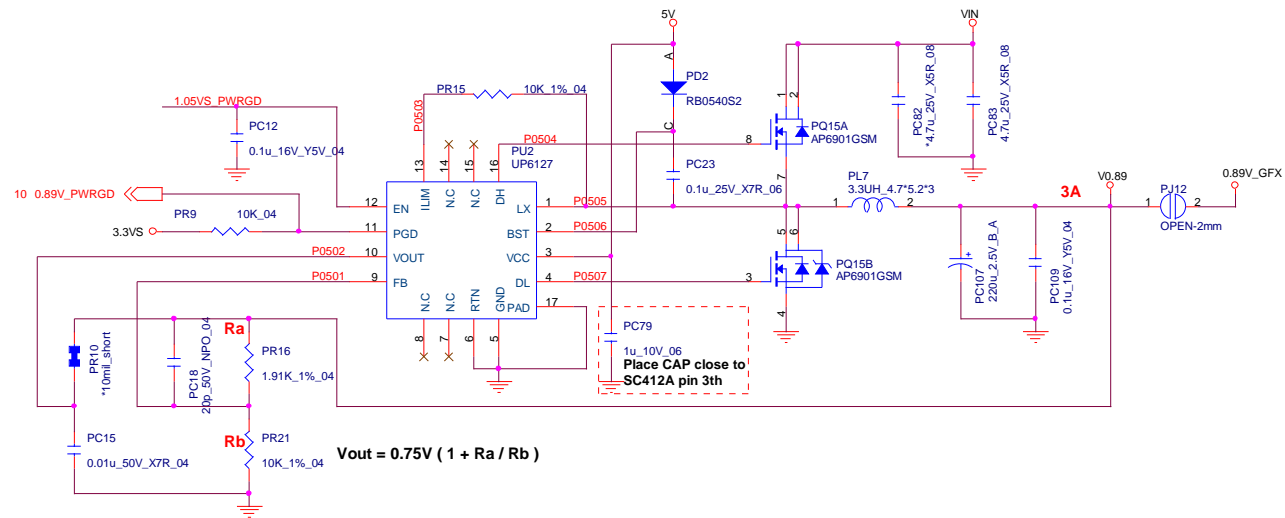
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Title		[17]PWR SW,1.8VS,3V,3VS,5VS	
Size	Document Number	6-71-M1100-D01	Rev
A3	6-7P-M1104-001		1.0
Date:	Friday, December 04, 2009	Sheet	17 of 26

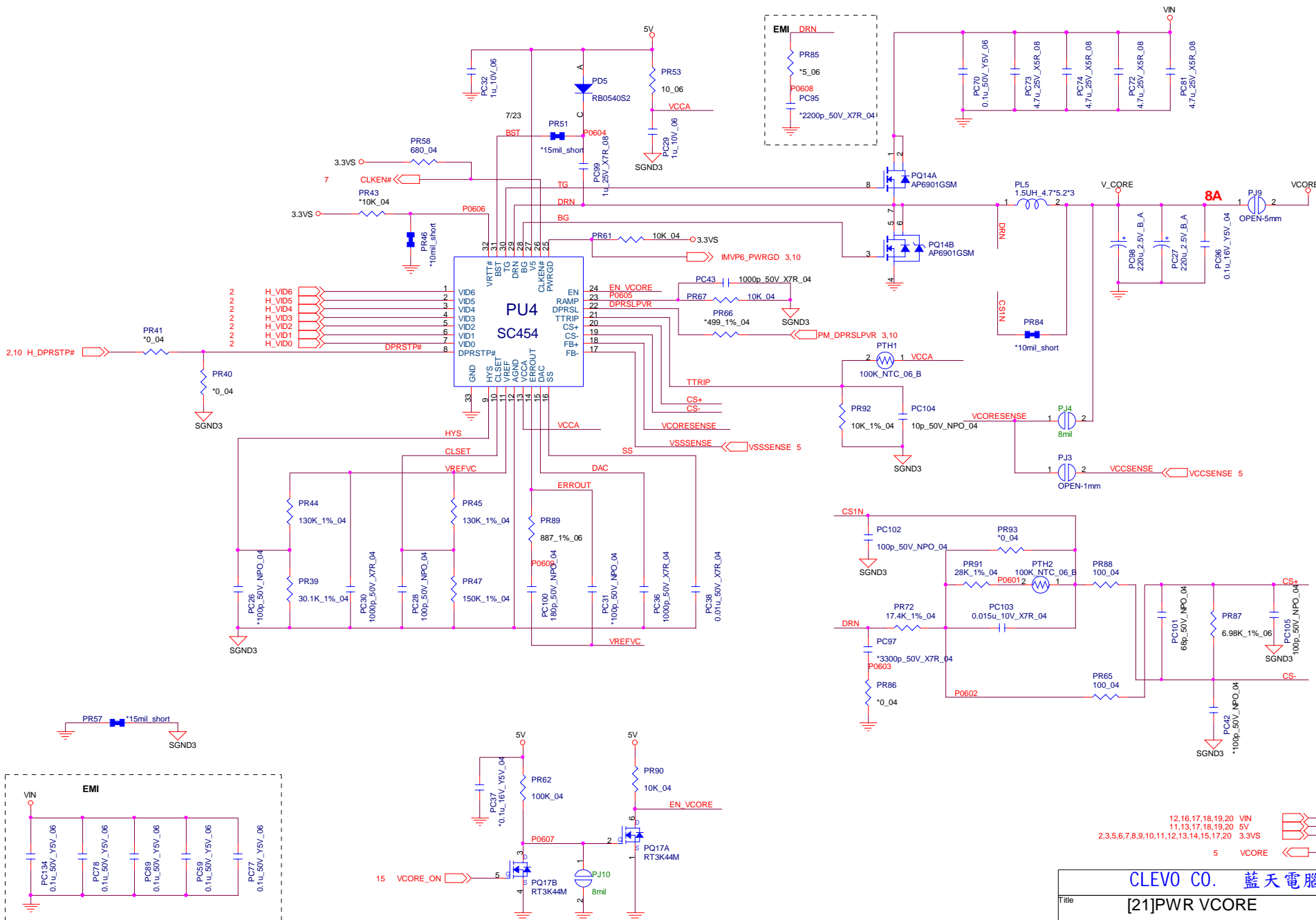


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Title		[18]PWR VDD3,5V,SYS15V	
Size	Document Number	6-71-M1100-D01	Rev
A3	6-7P-M1104-001		1.0
Date:	Friday, December 04, 2009	Sheet	18 of 26



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[20]PWR 0.89V,1.05VS,1.5VS		
Title		
Size	Document Number	Rev
A3	6-71-M1104-001	6-71-M1100-D01
Date:	Friday, December 04, 2009	Sheet 20 of 26

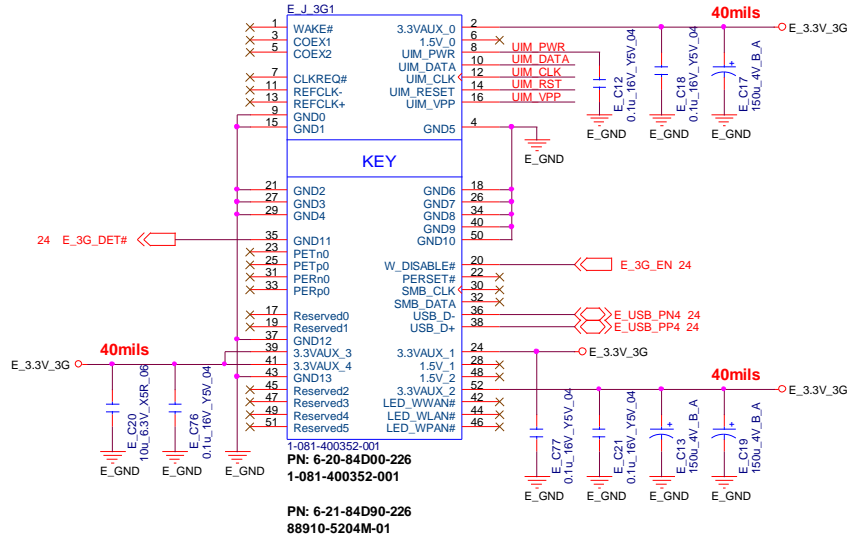


- 12,16,17,18,19,20 VIN
- 11,13,17,18,19,20 5V
- 2,3,5,6,7,8,9,10,11,12,13,14,15,17,20 3.3VS
- 5 VCCORE

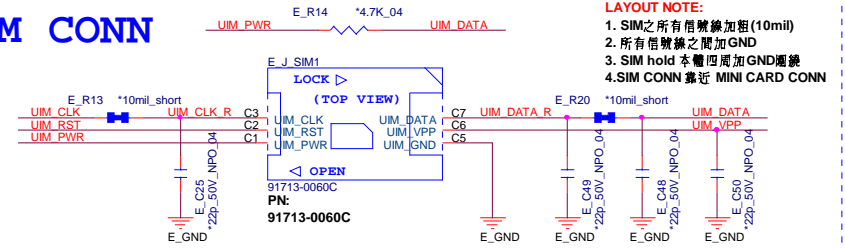
CLEVO CO. 藍天電腦

Title			[21]PWR VCORE
Size	Document Number	6-71-M1100-D01	
A3	6-7P-M1104-001		
Date:		Friday, December 04, 2009	Sheet 21 of 26
		Rev	1.0

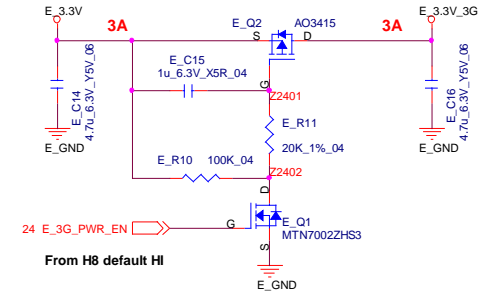
3G CARD



SIM CONN

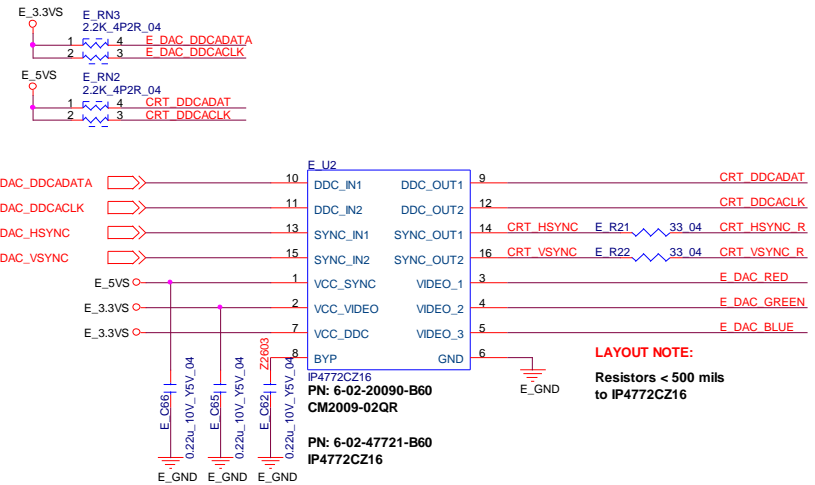
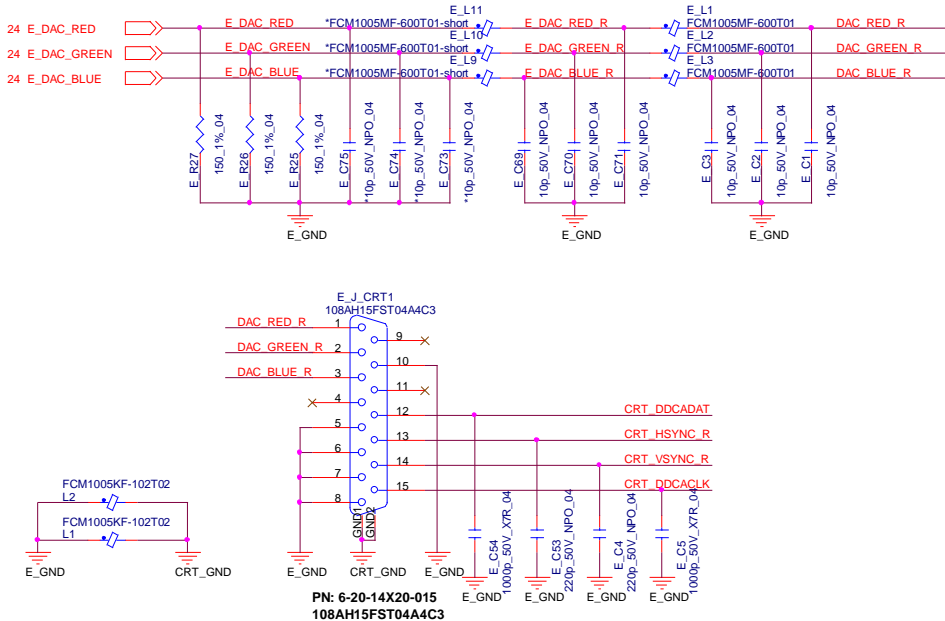


3G POWER



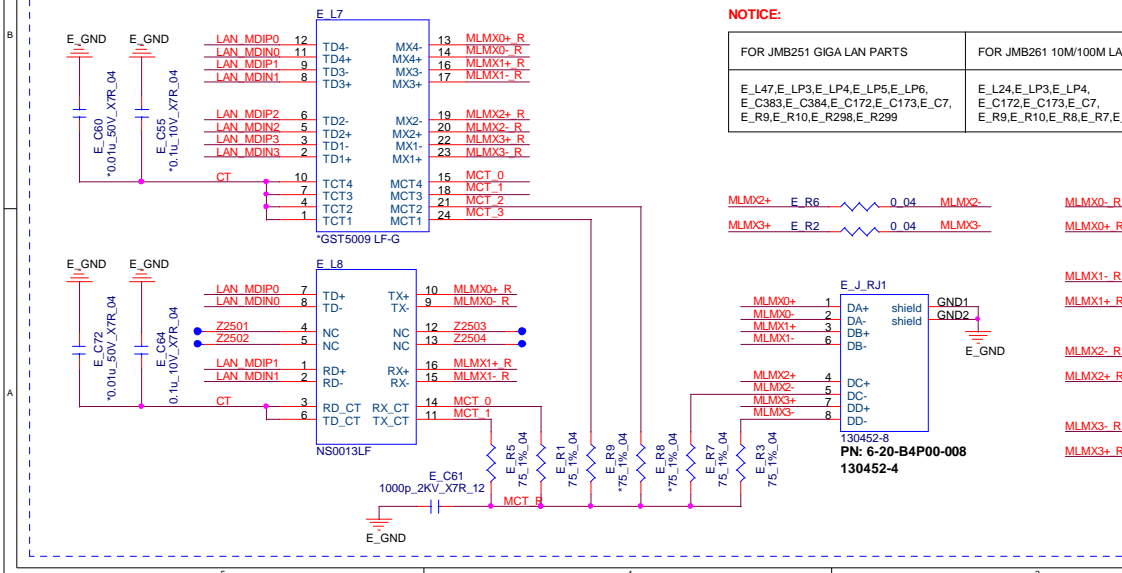
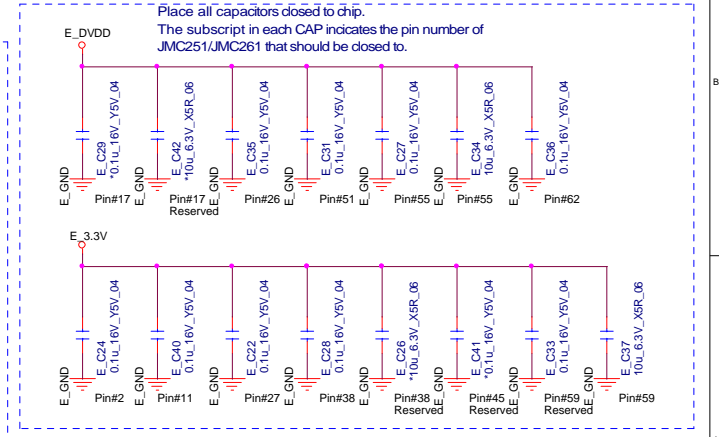
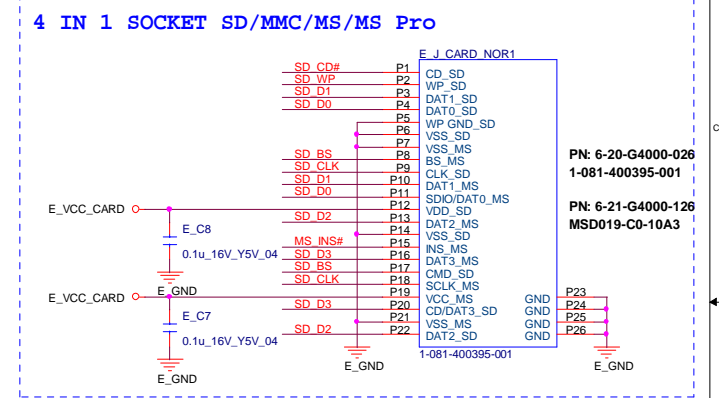
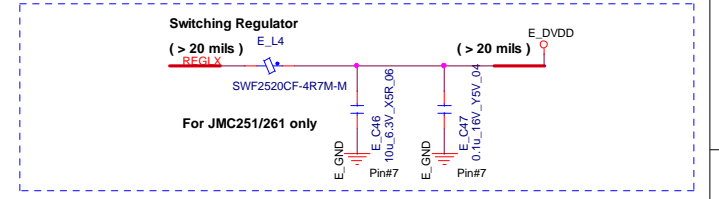
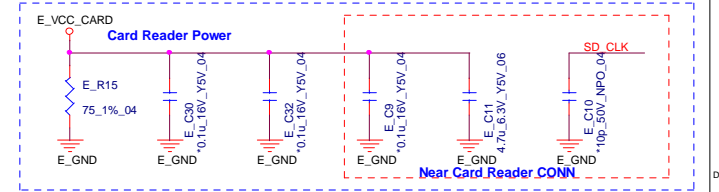
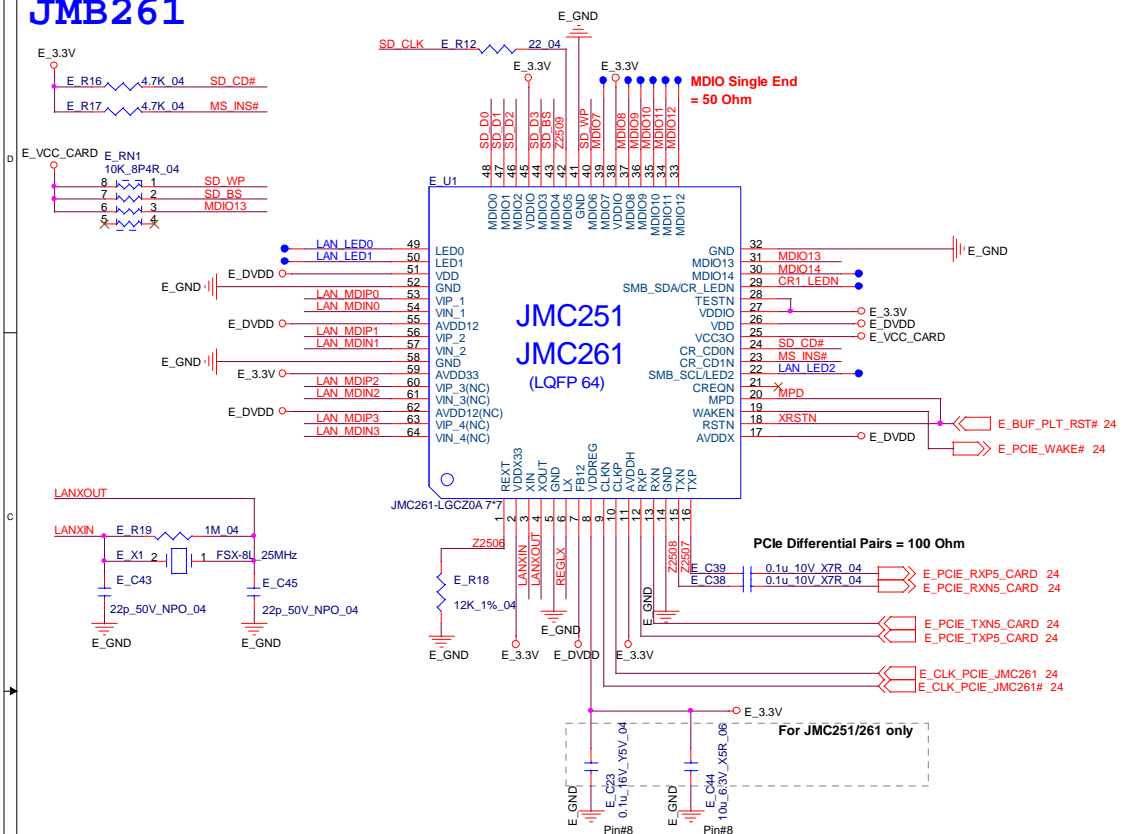
CRT

CRT DAC Signal Group
CRT_RED,CRT_GREEN,CRT_BLUE
 VGA RGB resistors colse to Connector
 $Z_0 = 55 \text{ Ohm} \pm 15\%$
 signal : 4 mils
 length < 500 mils



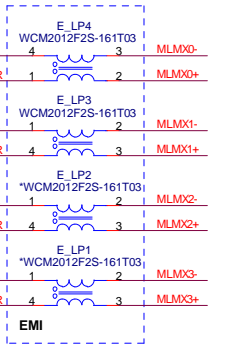
CLEVO CO. 藍天電腦			
Title [22]3G CARD,CRT			
Size A3	Document Number 6-7P-M1104-001	6-71-M1101-D01	Rev 1.0
Date: Friday, December 04, 2009	Sheet 22	of 26	

JMB261



NOTICE:

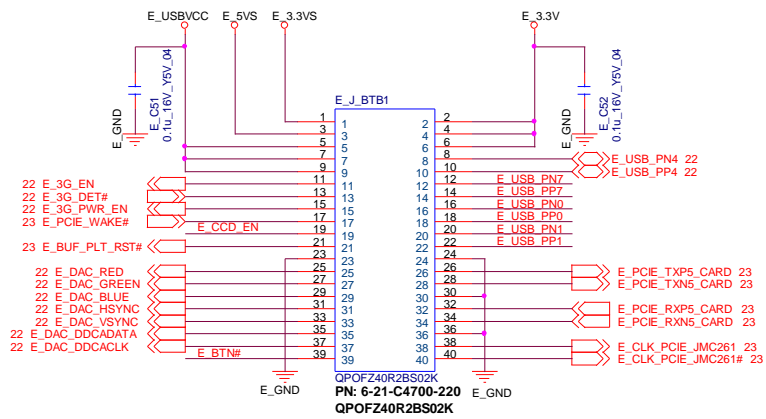
FOR JMB251 GIGA LAN PARTS	FOR JMB261 10M/100M LAN PARTS
E_L47, E_LP3, E_LP4, E_LP5, E_LP6, E_C383, E_C384, E_C172, E_C173, E_C7, E_R9, E_R10, E_R298, E_R299	E_L24, E_LP3, E_LP4, E_C172, E_C173, E_C7, E_R9, E_R10, E_R8, E_R7, E_R296, E_R297



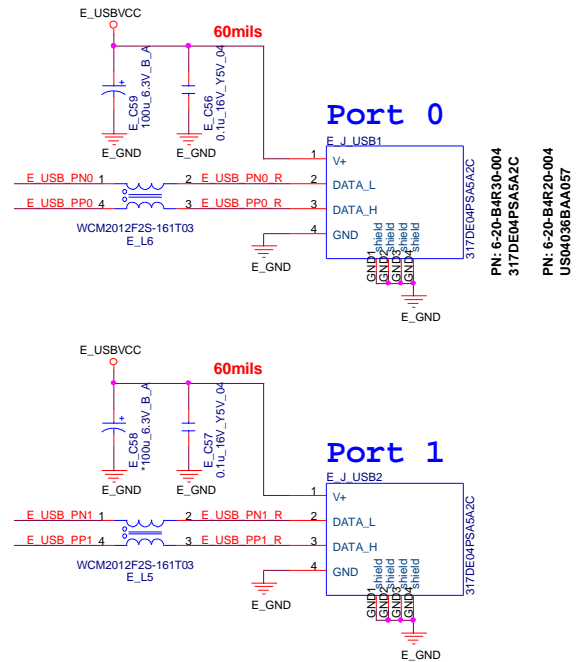
CLEVO CO. 藍天電腦

Title [23]LAN,CARD READER(JMB261)		
Size A3	Document Number 6-71-M1101-D01	Rev 1.0
Date: Friday, December 04, 2009	Sheet 23 of 26	

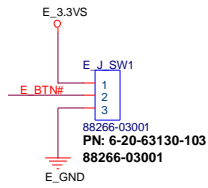
CONN. FOR CONT TO M/B



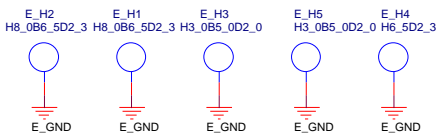
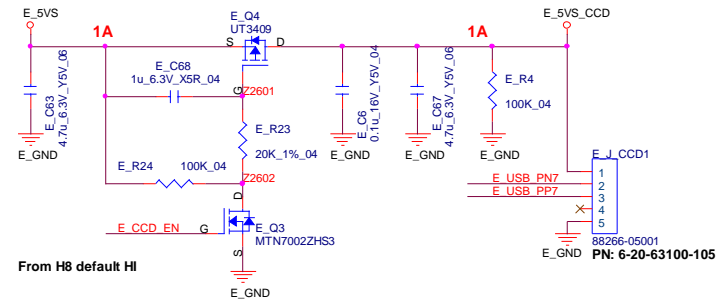
USB PORT_0&1



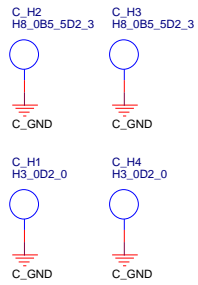
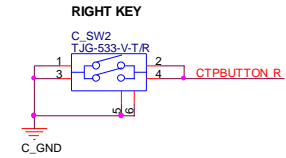
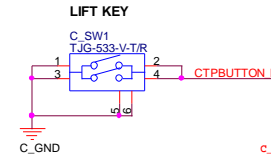
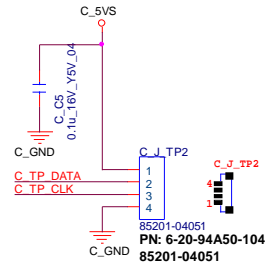
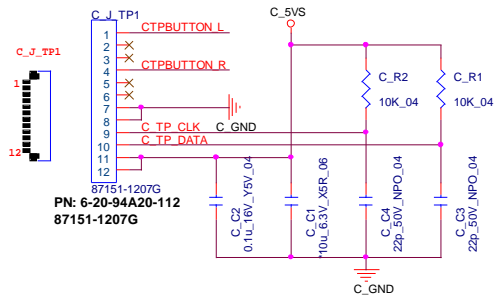
POWER SW CONN.



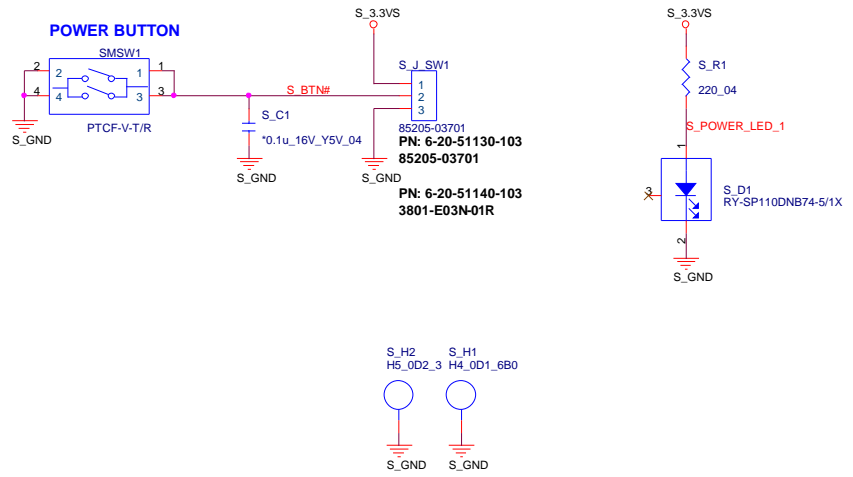
CCD CONN.



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Title [24]USB,CCD,PWR SW	
Size A3	Document Number 6-71-M1104-D01
Date: 6-7P-M1104-001	Rev 1.0
Date: Friday, December 04, 2009	Sheet 24 of 26



CLEVO CO. 藍天電腦			
Title [25]CLICK BOARD			
Size A3	Document Number 6-7P-M1104-001	6-71-M1102-D01	Rev 1.0
Date: Friday, December 04, 2009	Sheet 25	of 26	



CLEVO CO. 藍天電腦			
Title [26]POWER BOTTON BOARD			
Size A3	Document Number 6-7P-M1104-001	6-71-M110S-D01	Rev 1.0
Date: Friday, December 04, 2009	Sheet 26	of 26	