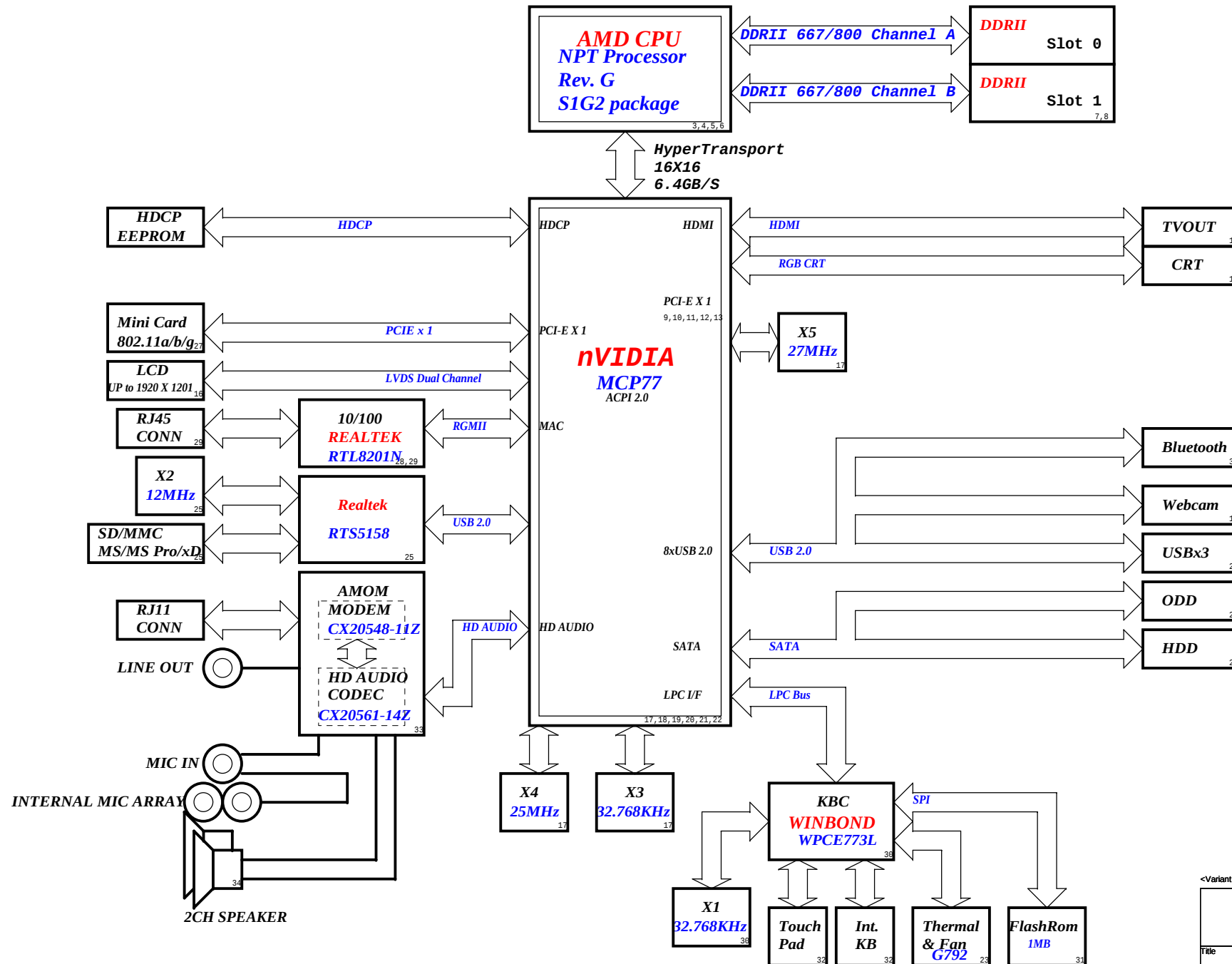


Astrosphere Block Diagram



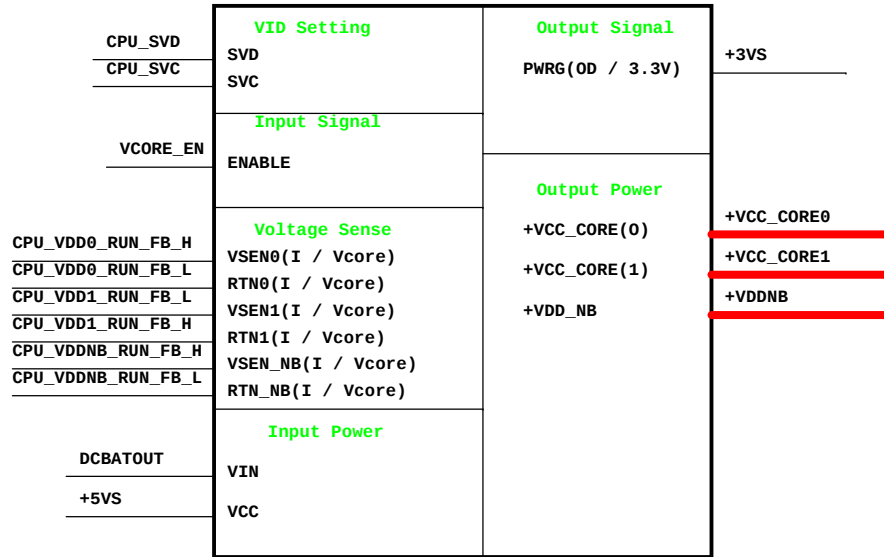
SYSTEM DC/DC TPS51125	
INPUTS	OUTPUTS
DCBATOUT	+3VALW +5VALW
SYSTEM DC/DC TPS51116	
INPUTS	OUTPUTS
DCBATOUT	+1.8V +0.9V
SYSTEM DC/DC G973	
INPUTS	OUTPUTS
+1.8V	+1.2V

MAXIM CHARGER MAX8731AETI	
INPUTS	OUTPUTS
DCBATOUT	BT+ 18V 3.0A 5V 100mA

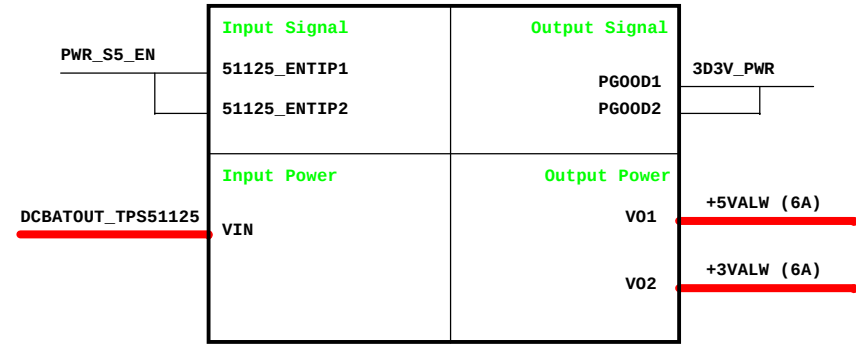
CPU DC/DC ISL6265	
INPUTS	OUTPUTS
DCBATOUT	VCC_CORE 1.35V 35A

PCB LAYER
L1:SIGNAL 1
L2:VCC
L3:SIGNAL 2
L4:SIGNAL 3
L5:GND
L6:SIGNAL 4

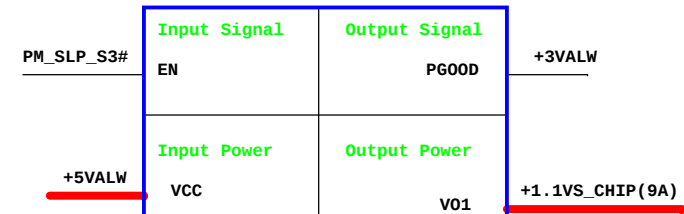
CPU_CORE
ISL6265



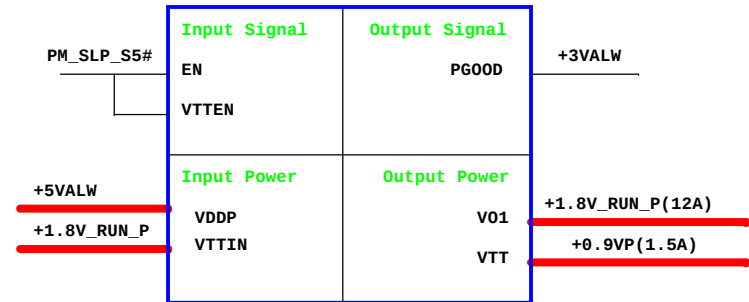
5V/3.3V
TI TPS51125



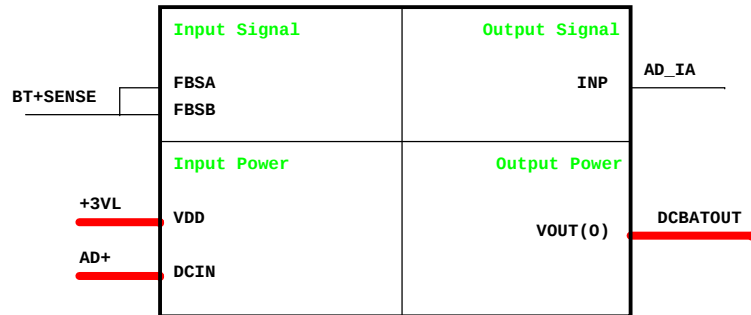
+1.1VS_CHIP
SC412A



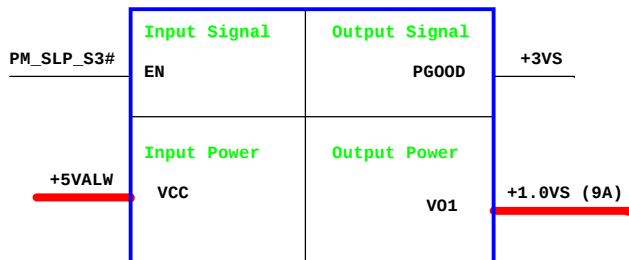
+1.8V/ +0.9VP
TPS51116



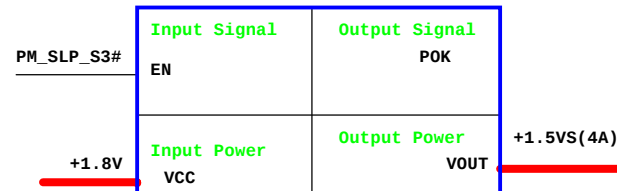
Charger
MAX8731A



+1.0VS SC471A

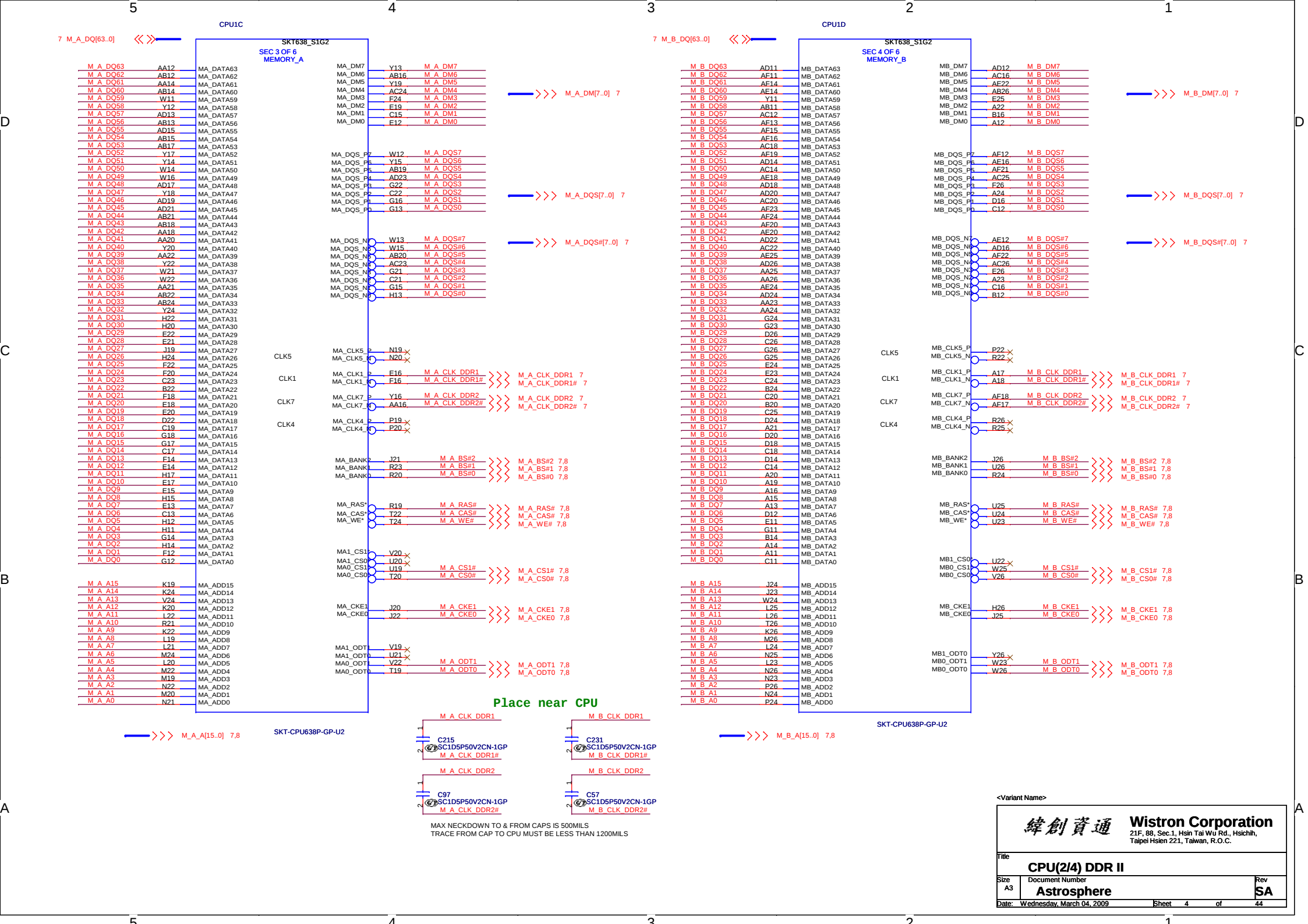


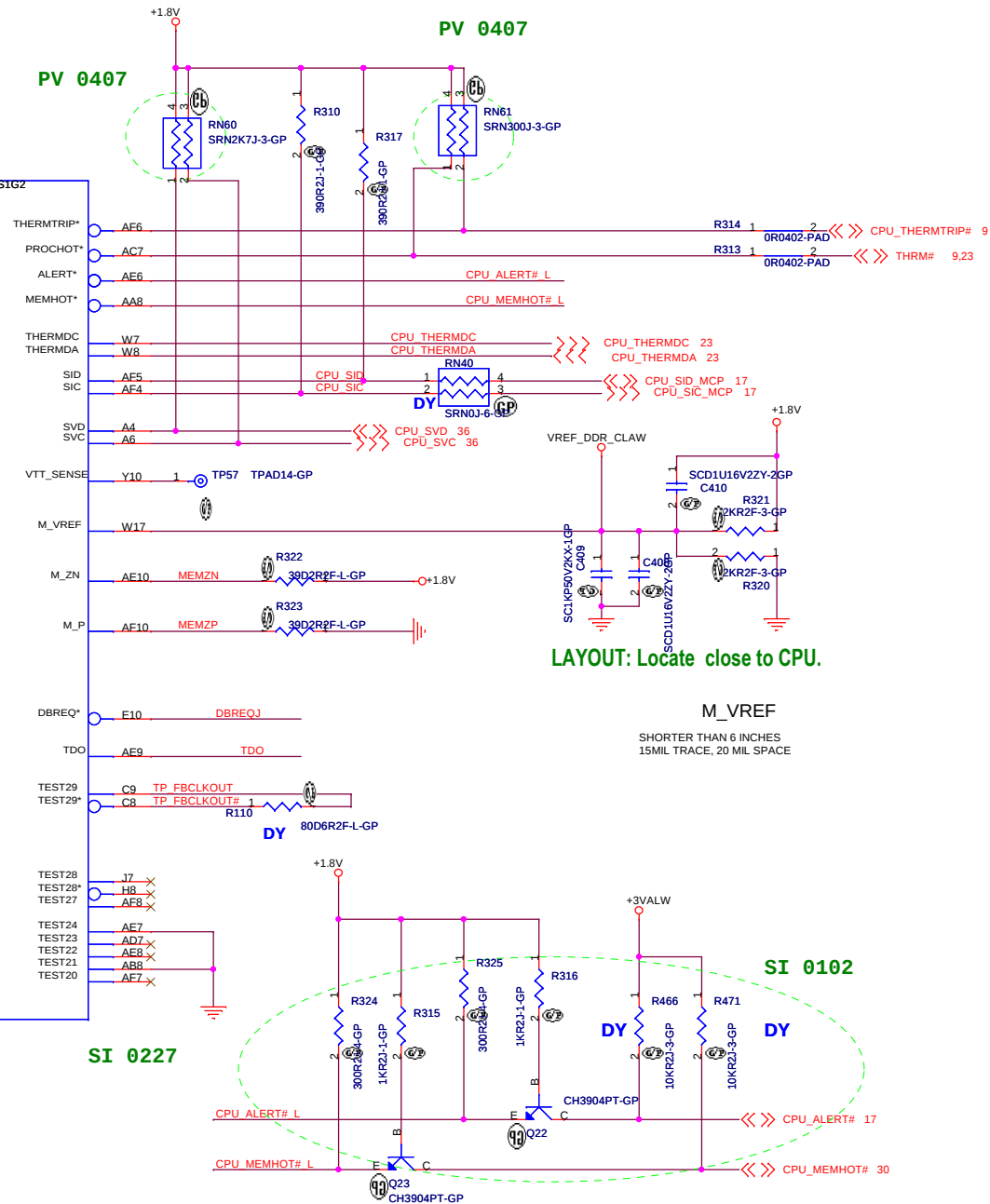
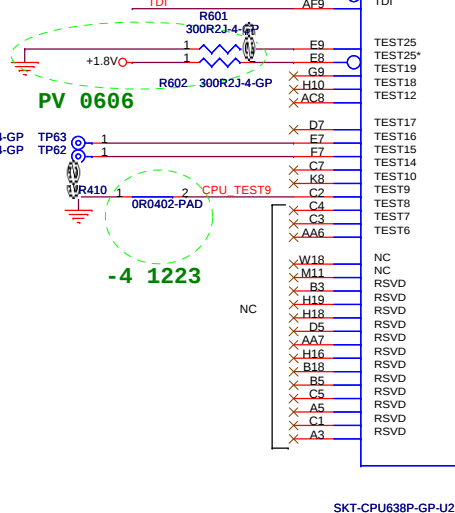
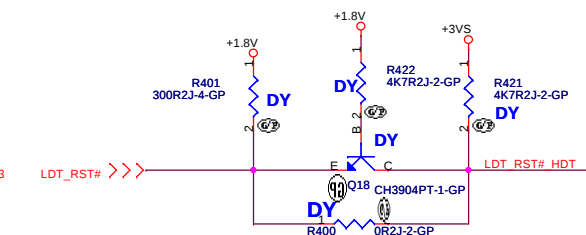
+1.5V_VS
APL5913



<Variant Name>

Rev
SA





<Variant Name>

緯創資通

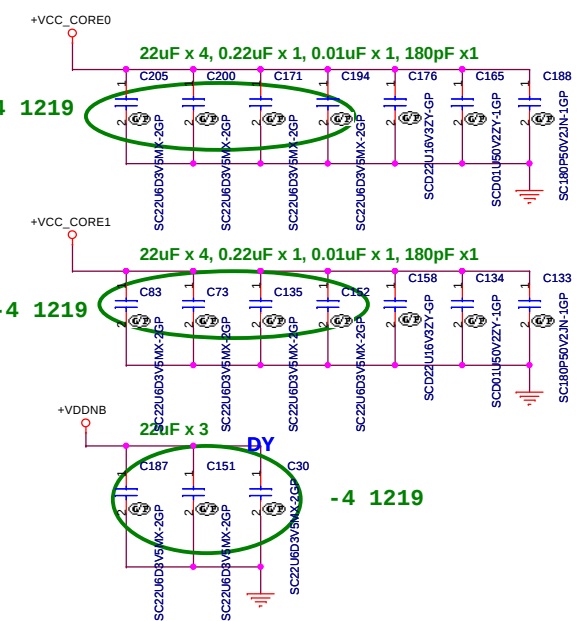
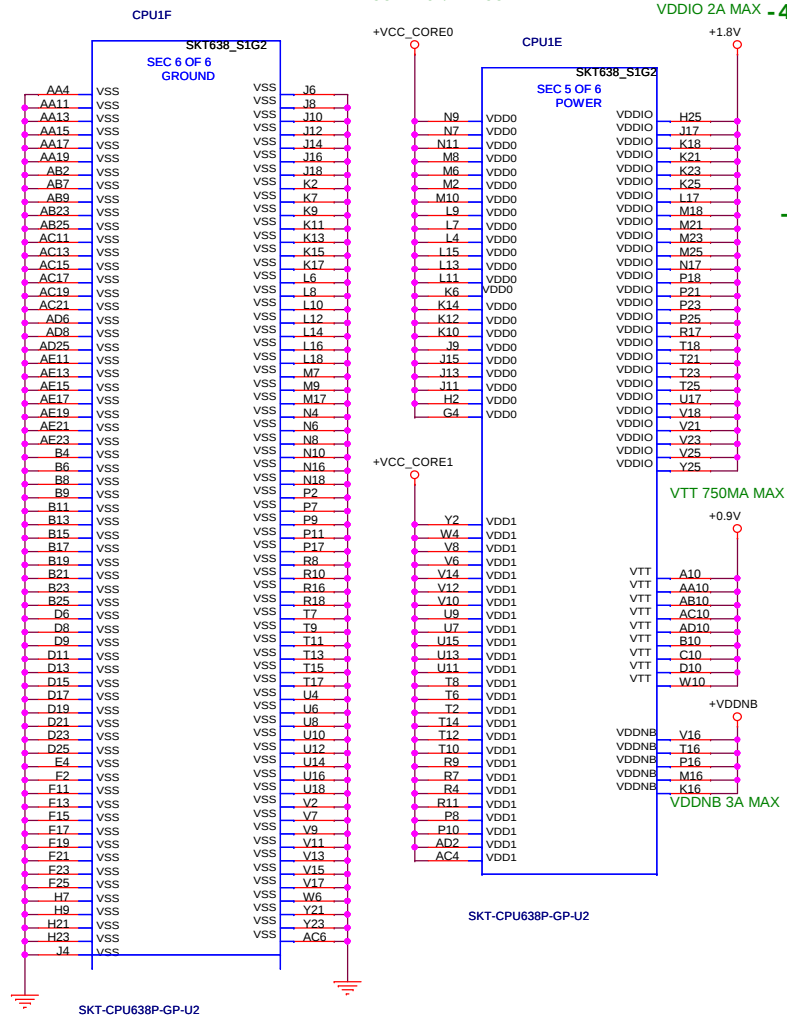
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title	CPU(3/4) CONTROL
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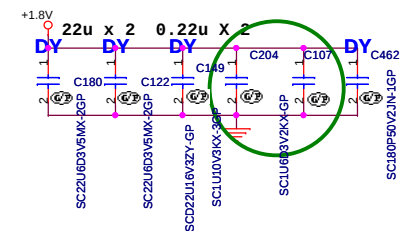
Size A3	Document Number Astrosphere
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SA

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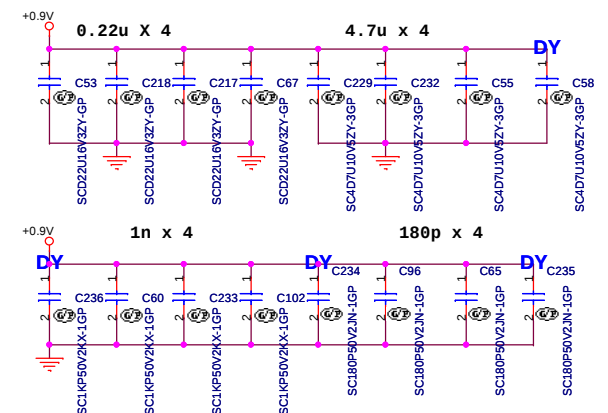


CPU VDDIO



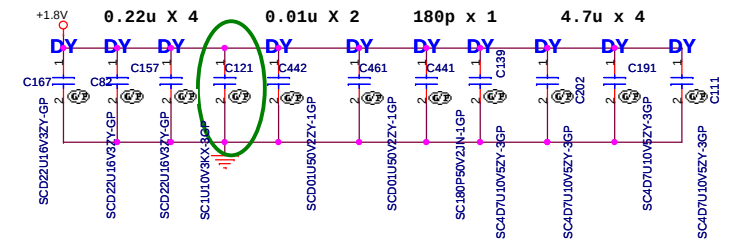
CPU MEMORY VTT

LAYOUT: PLACE CLOSE TO CPU
BETWEEN CPU AND MEMORY

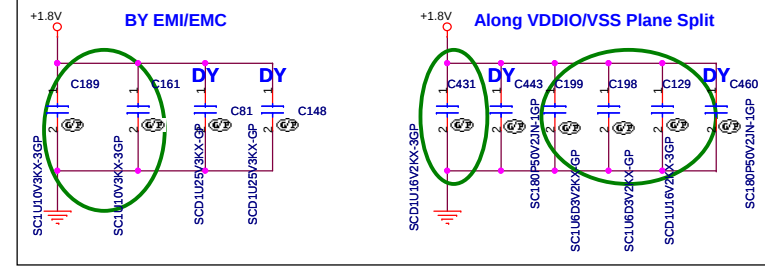


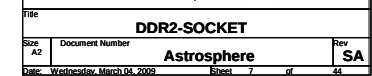
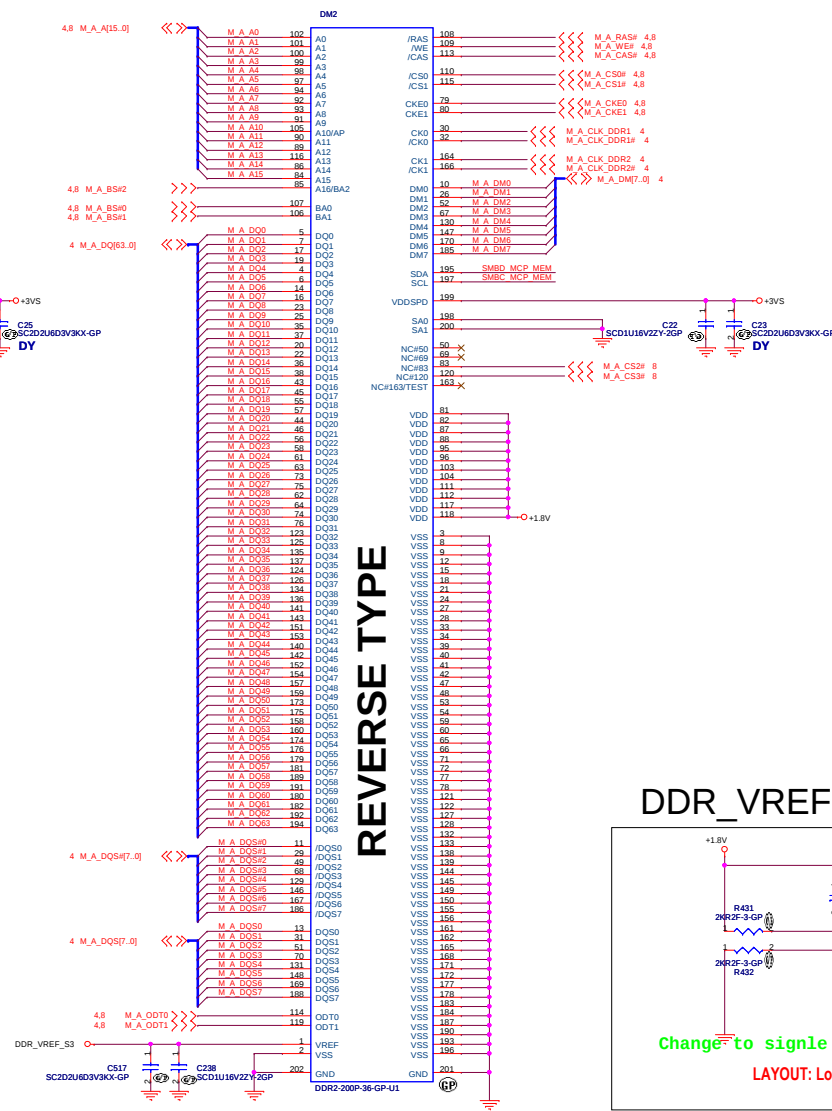
-5 0226

LAYOUT: PLACE CLOSE TO CPU BETWEEN CPU AND MEMORY

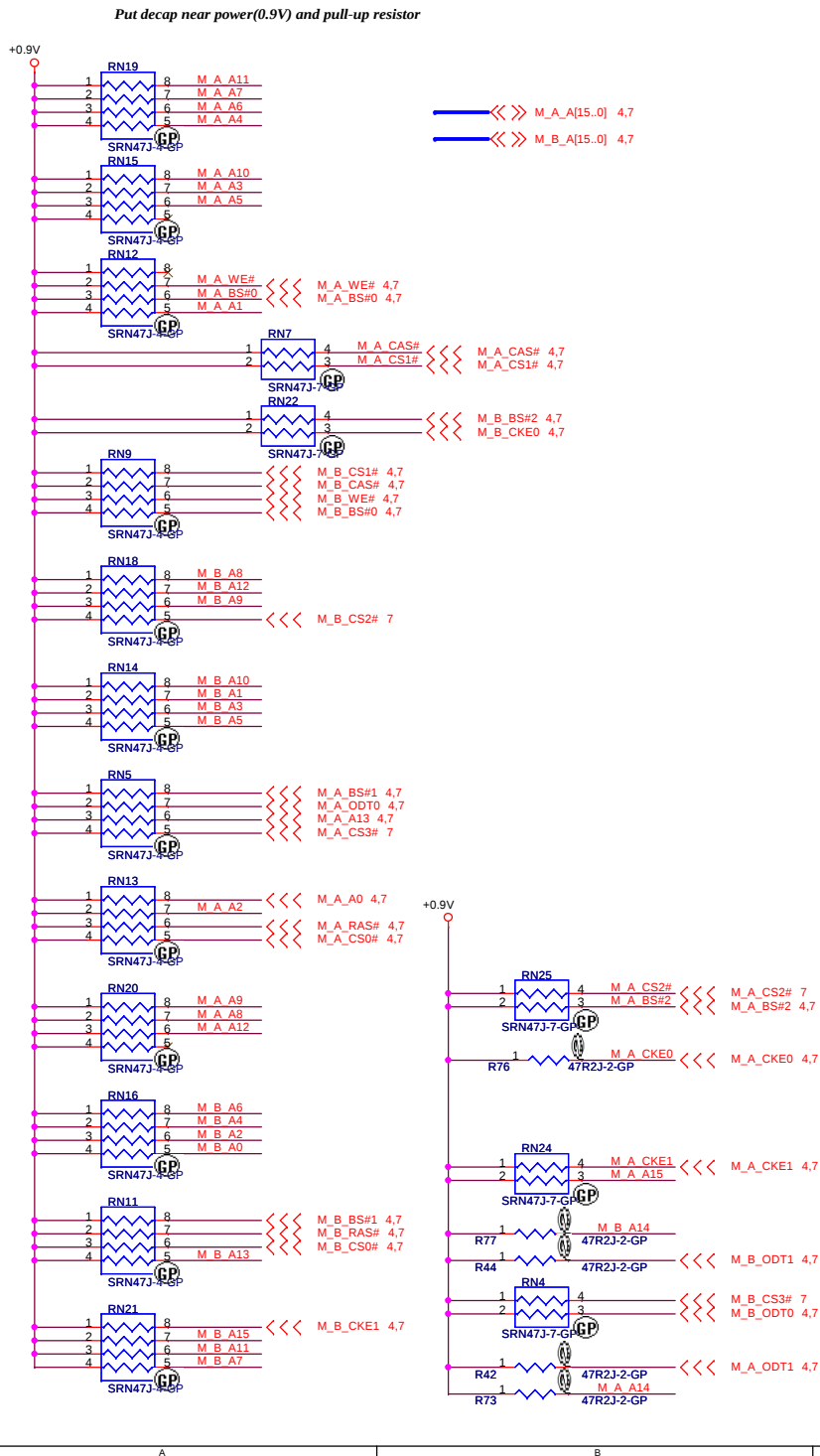


LAYOUT: PLACE CAPS BETWEEN CPU AND MEMORY

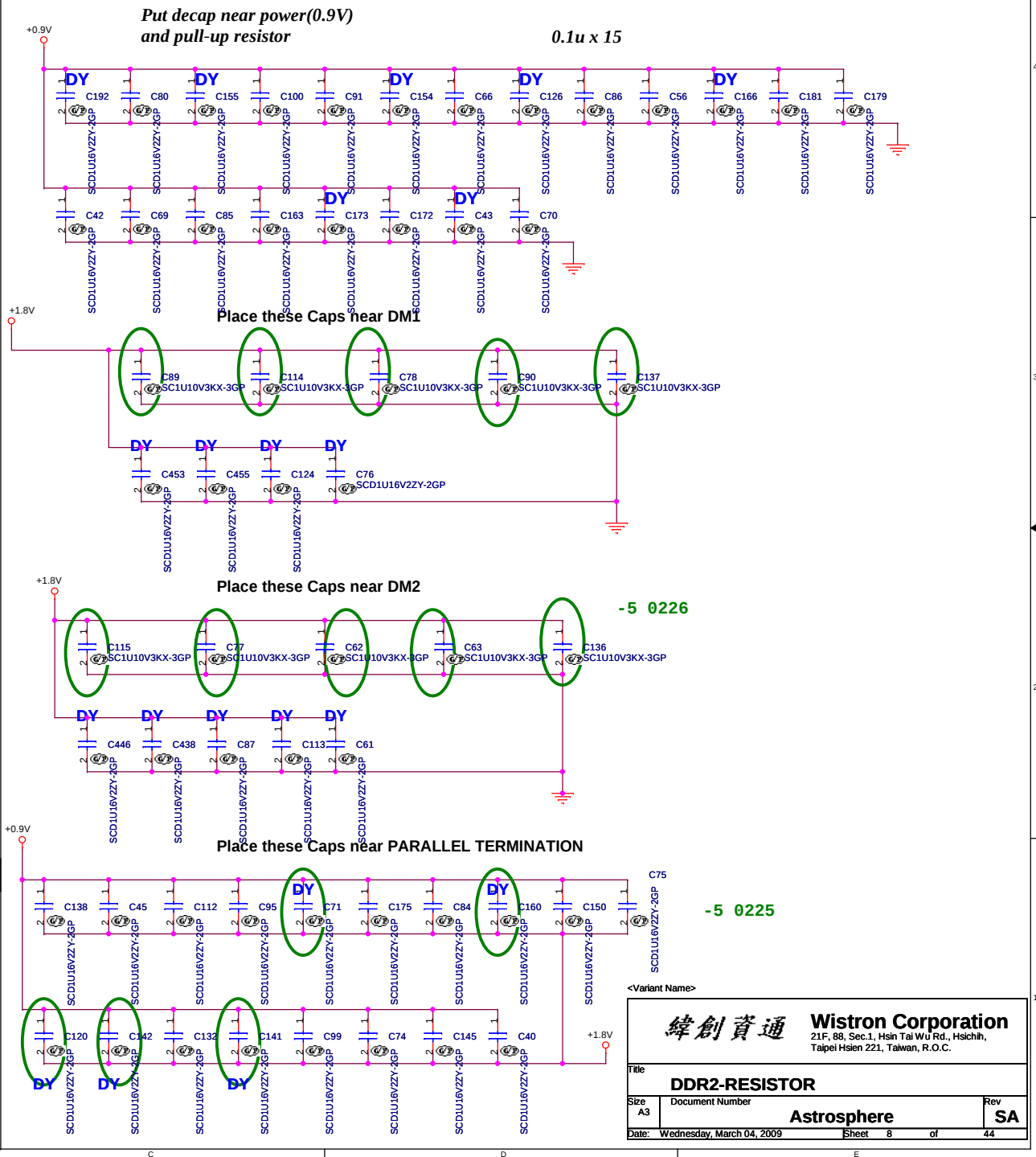


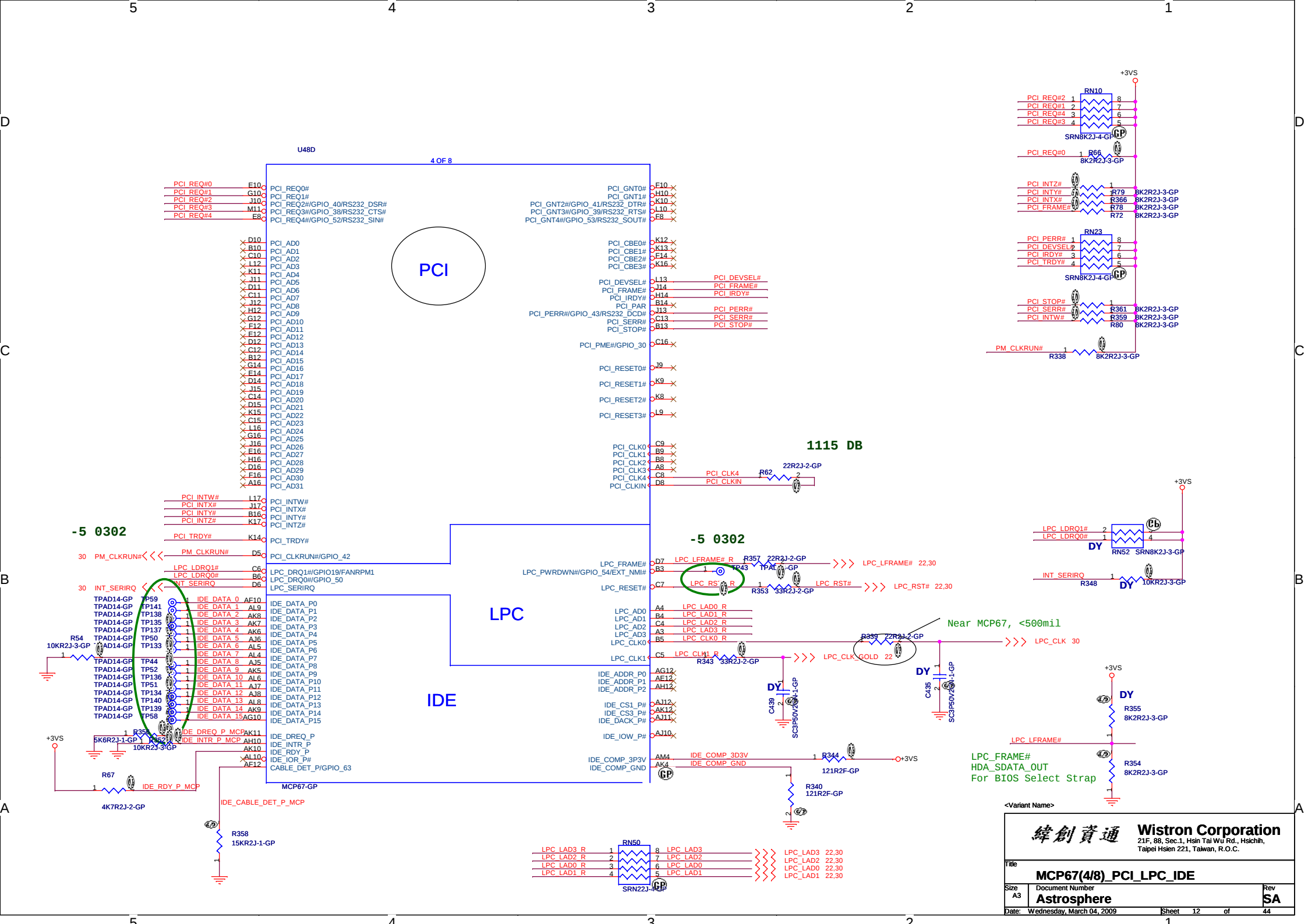


PARALLEL TERMINATION



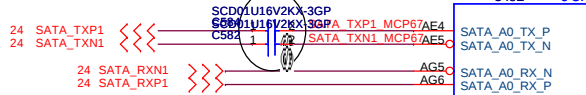
Decoupling Capacitor





If no 1394
Port 0 for NVidia Win-debug

place near MCP67



place near MCP67



SATA

USB

Single USB

CARD READER

Bluetooth

Camera

MINI CARD

USB2

USB1

HDA

Only MCP77
1.1K on MCP67

SI 0317

PV 0327

Check this NEW_OC#

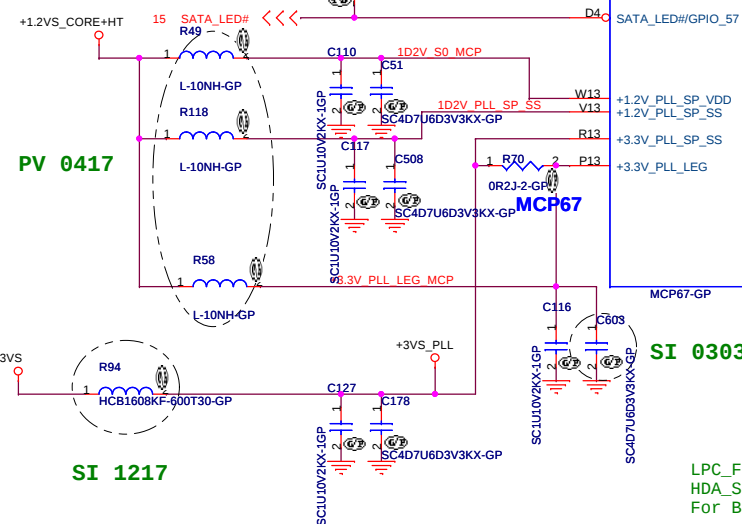
SI 1217

SI 0227

SI 0303

LPC_FRAME#
HDA_SDATA_OUT
For BIOS Select Strap

MCP77_ 1.1V



PV 0417

SI 1217

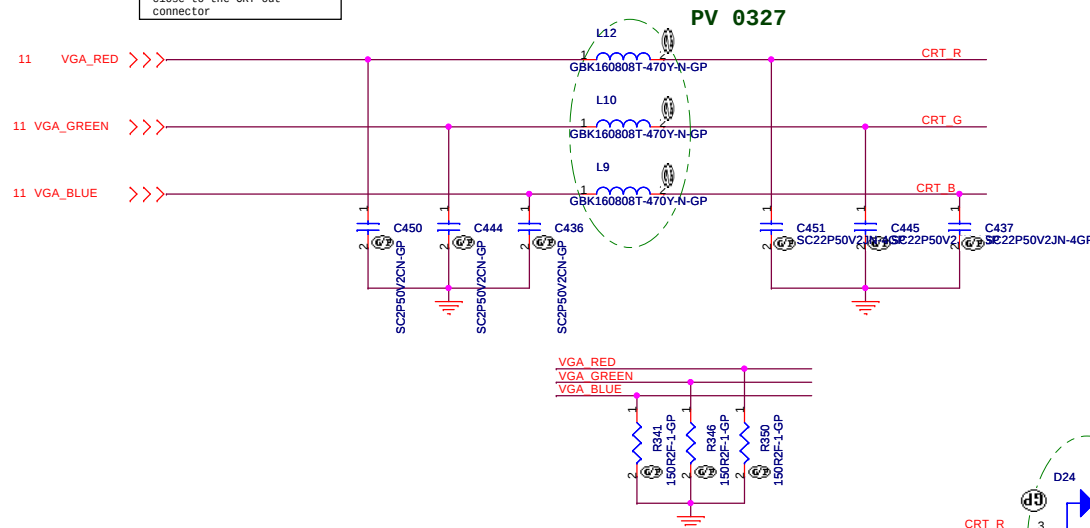
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緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

MCP67(5/8)_SATA_USB_HDA			
Size	Document Number	Rev	
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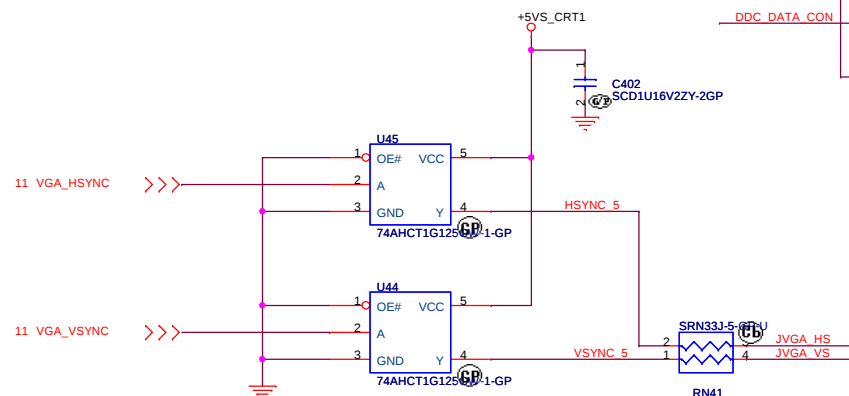
CRT I/F & CONNECTOR

Layout Note:
Place these resistors
close to the CRT-out
connector

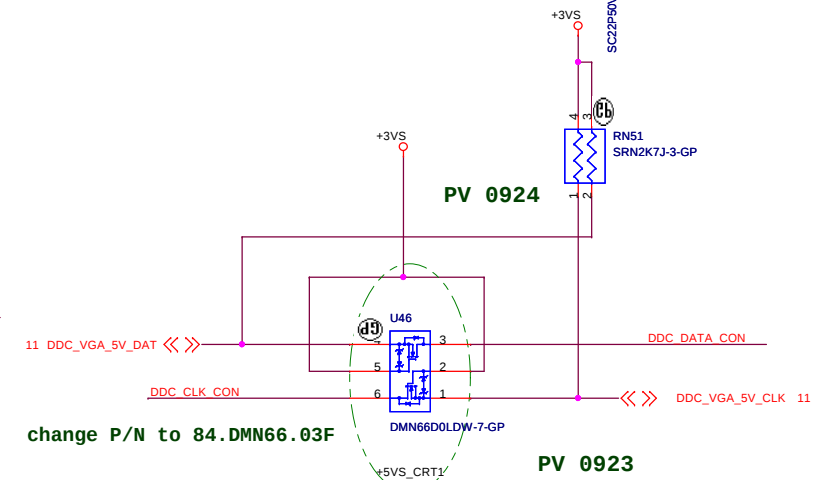
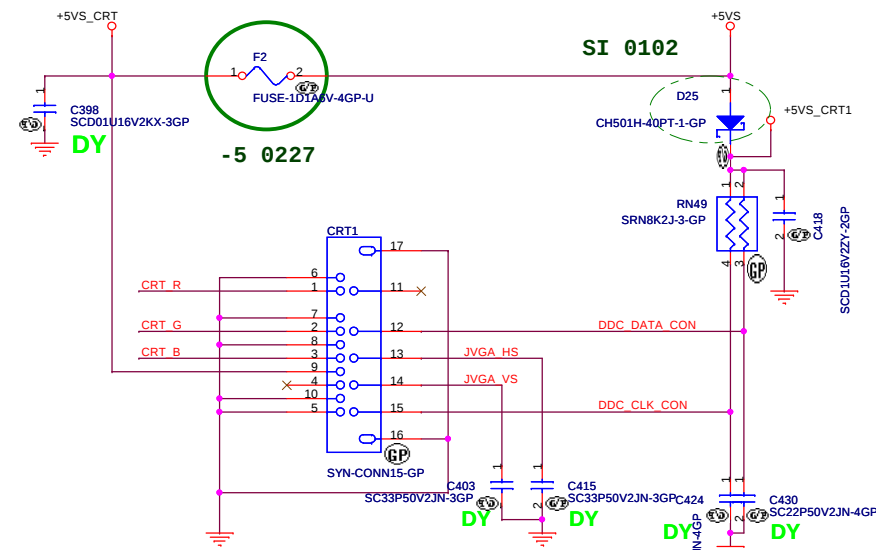
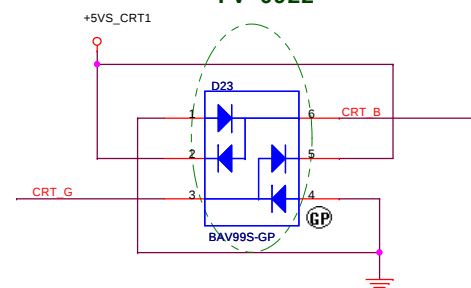
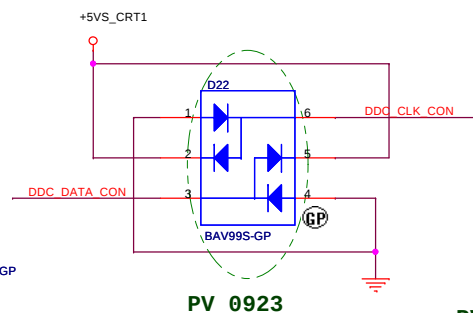
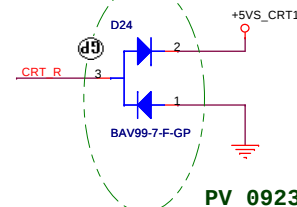


Layout Note:

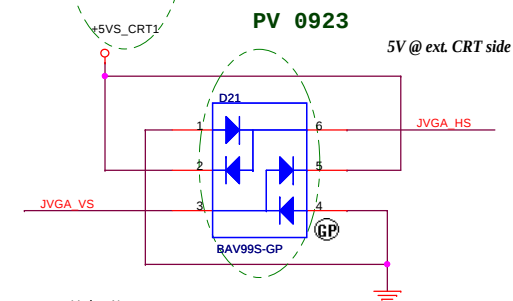
* Must be a ground return path between this ground and the ground on the VGA connector.
Pi-filter & 150 Ohm pull-down resistors should be as close as to CRT CONN. RGB will hit 75 Ohm first, pi-filter, then CRT CONN.



Hsync & Vsync level shift



change P/N to 84.DMN66.03F

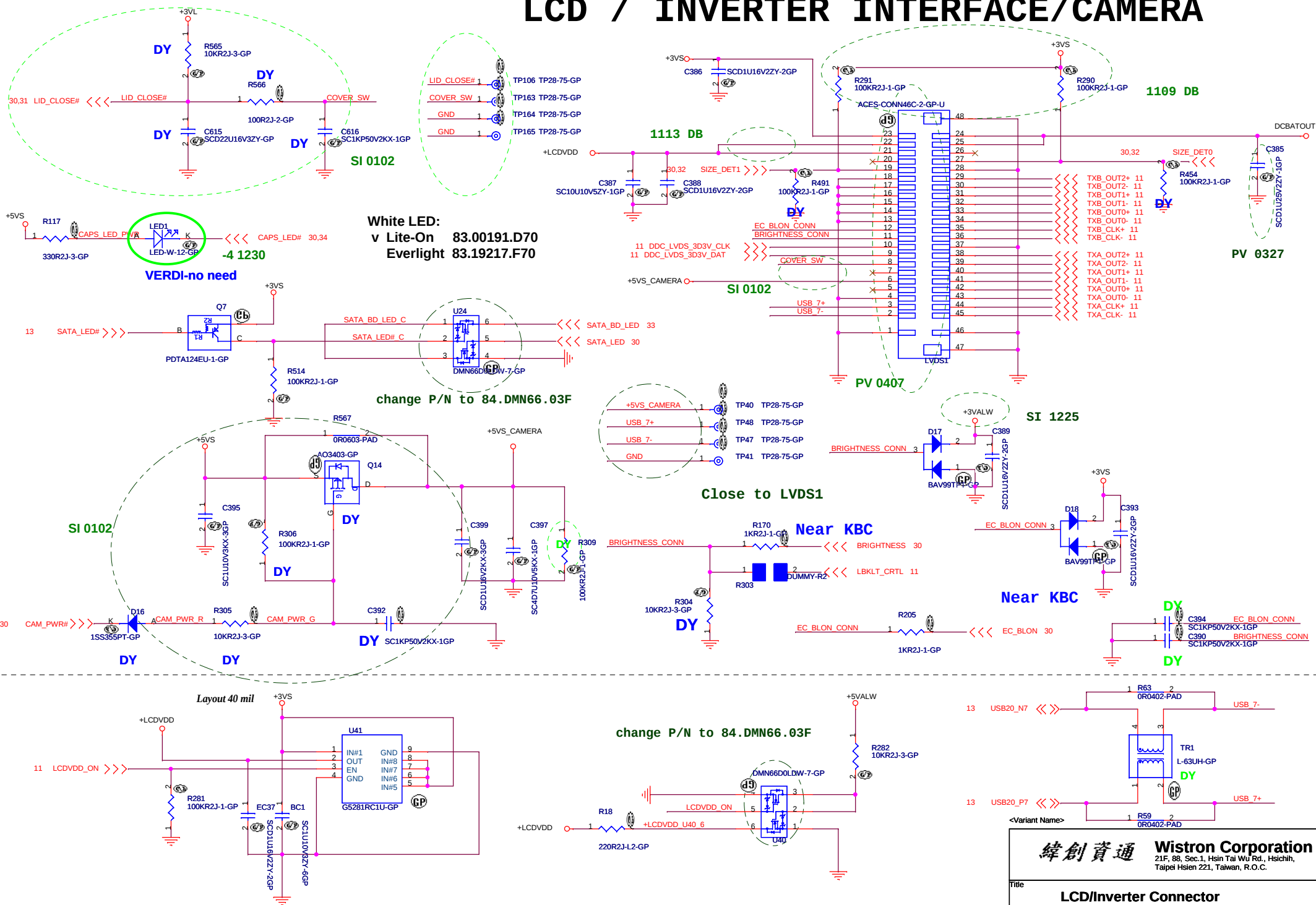


<Variant Name>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

CRT/TV CONNECTOR		
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LCD / INVERTER INTERFACE/CAMERA



	A	B	C	D	E
4					
3					
2					
1					

<Variant Name>

緯創資通

Wistron Corporation

21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title

Board to board conn/ Docking

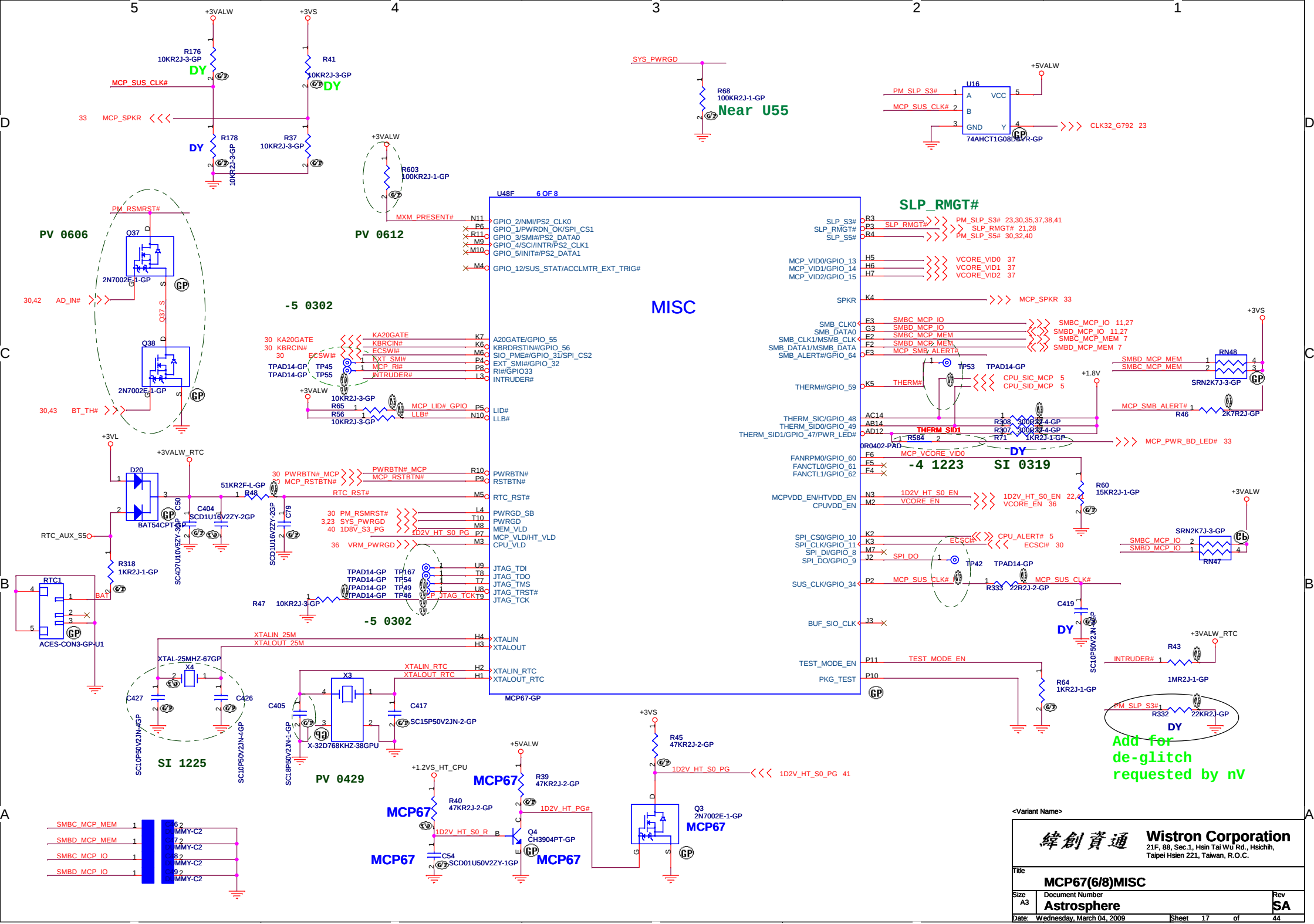
Size
A3

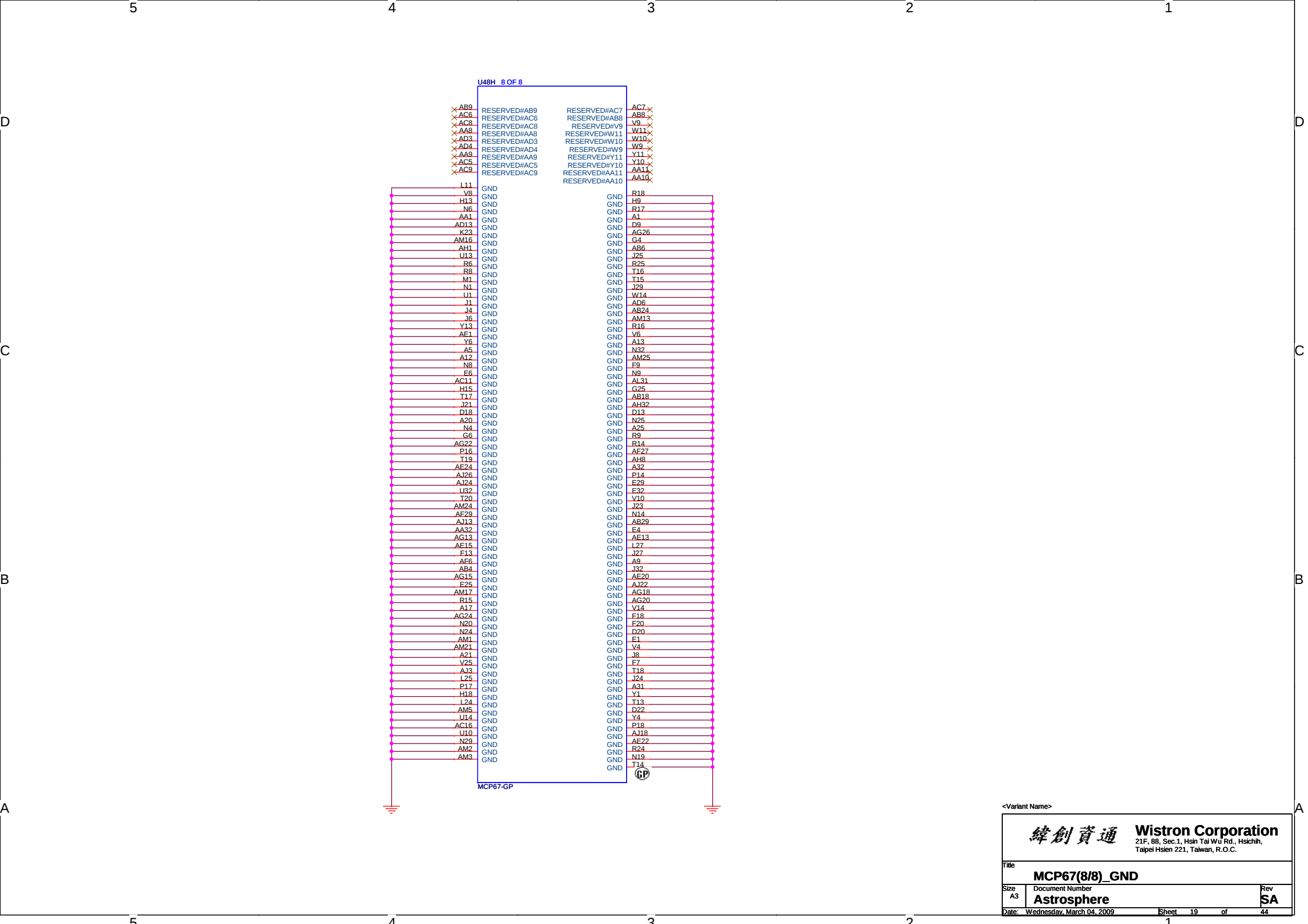
Document Number

Rev
SA

Date: Wednesday, March 04, 2009

Sheet 16 of 44

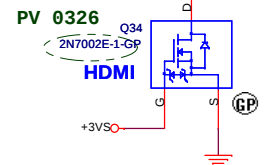
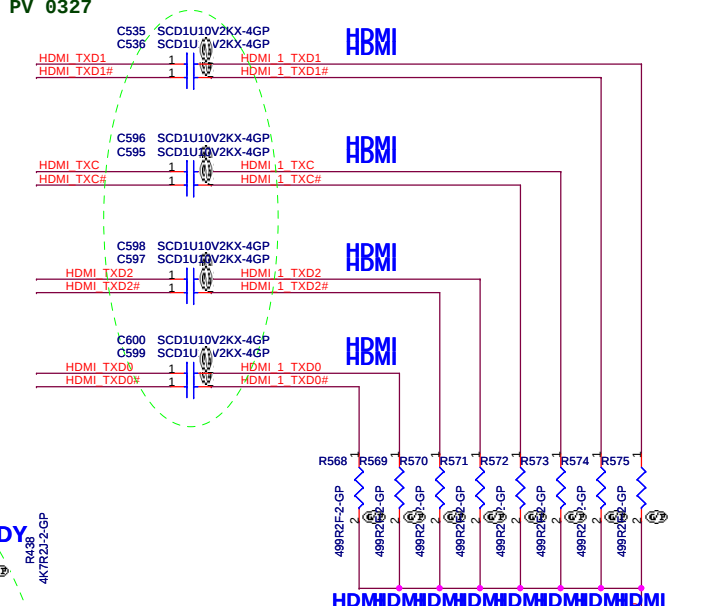
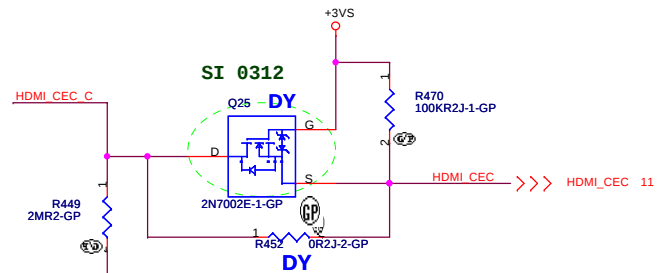
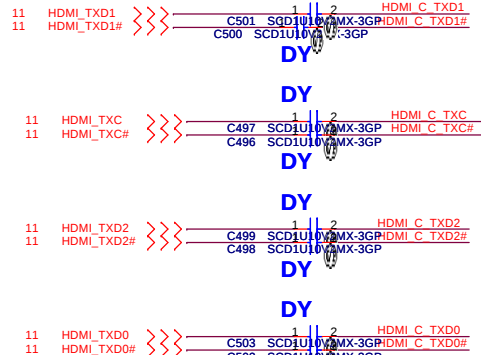




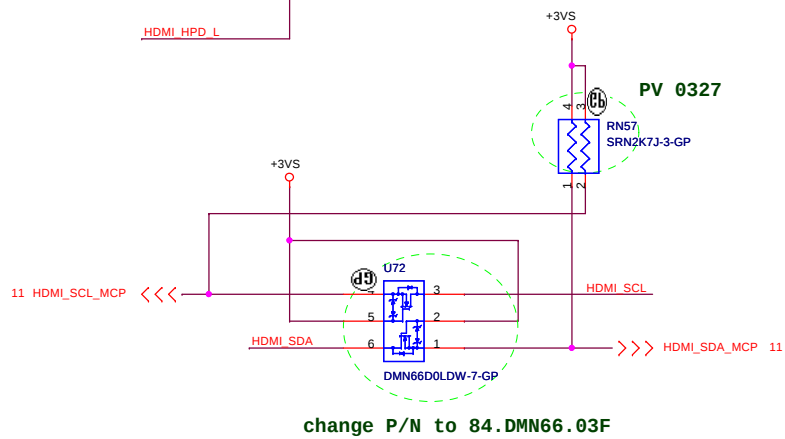
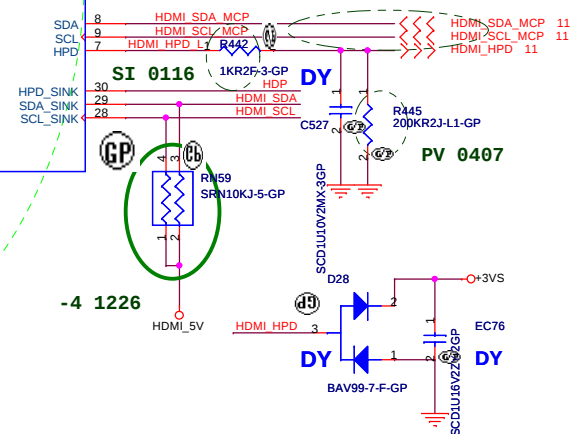
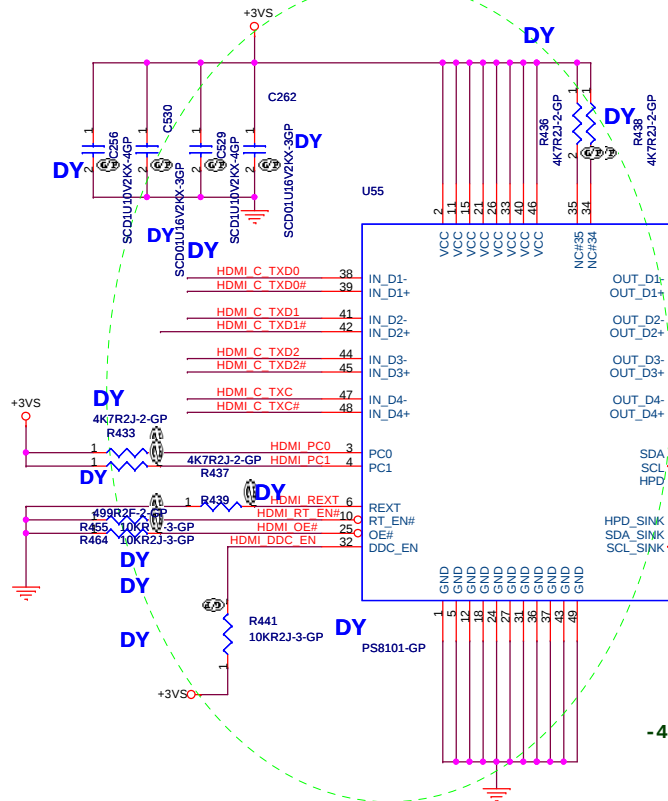
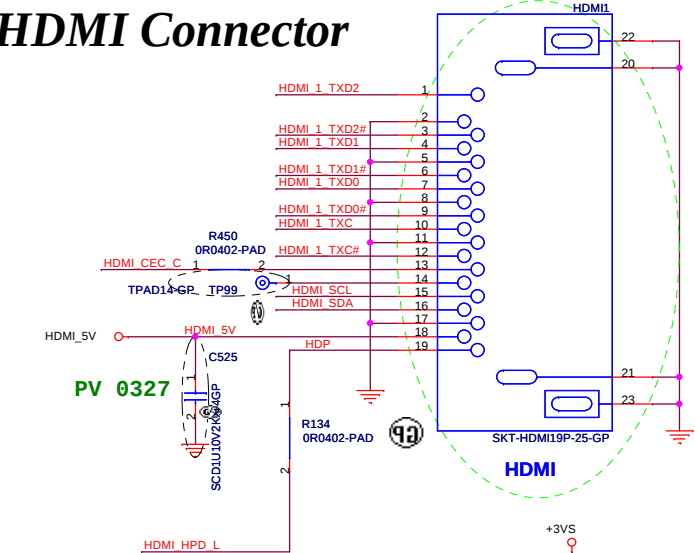
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緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsh Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title			
MCP67(8/8)_GND			
Size	Document Number	Rev	
A3	Astrosphere	SA	
Date: Wednesday, March 04, 2009		Sheet 19	of 44

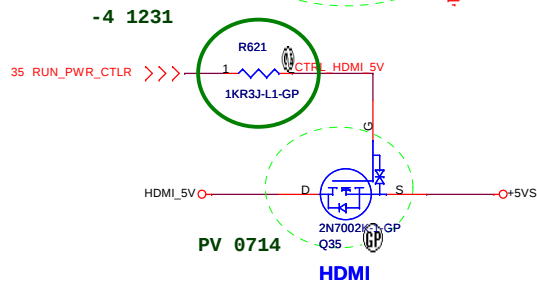
Place near MCP67

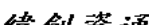


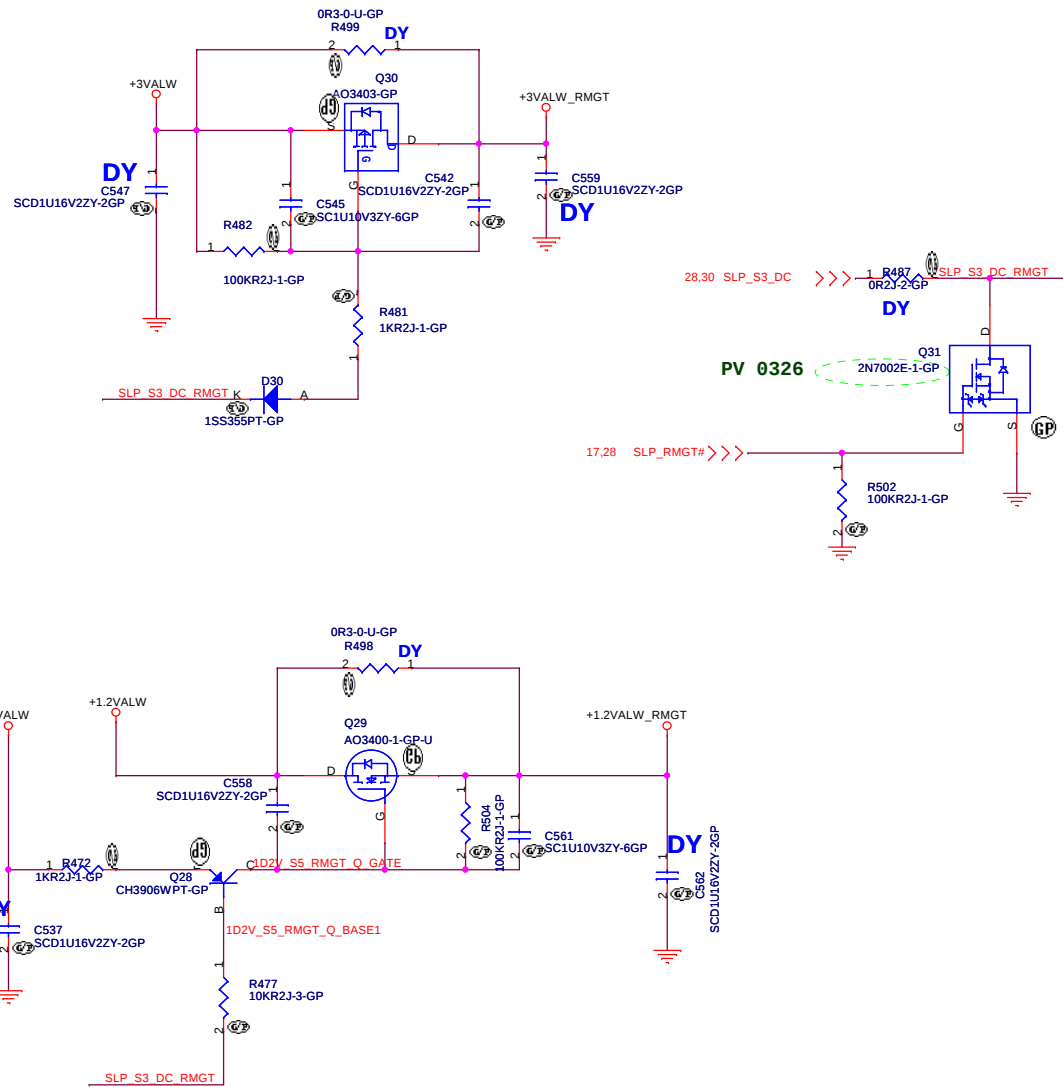
HDMI Connector



change P/N to 84.DMN66.03F

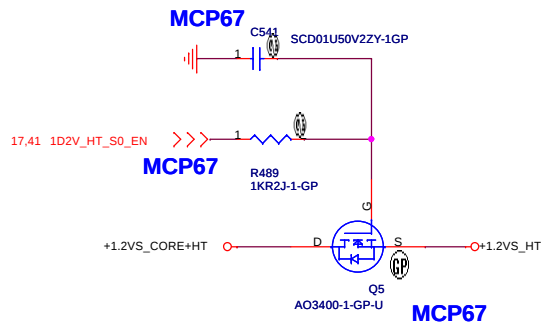


<Variant Name>			
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
HDMI			
Size A3	Document Number	Rev	
	Astrosphere	SA	
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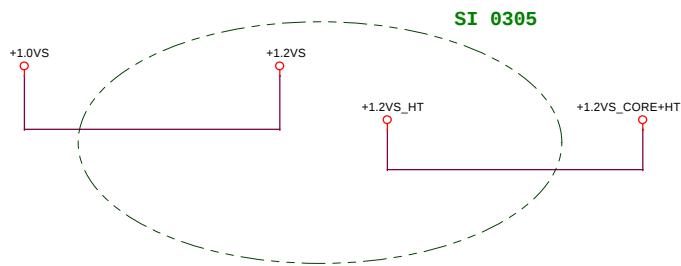


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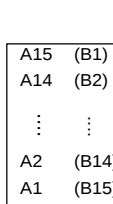
MCP67



MCP77

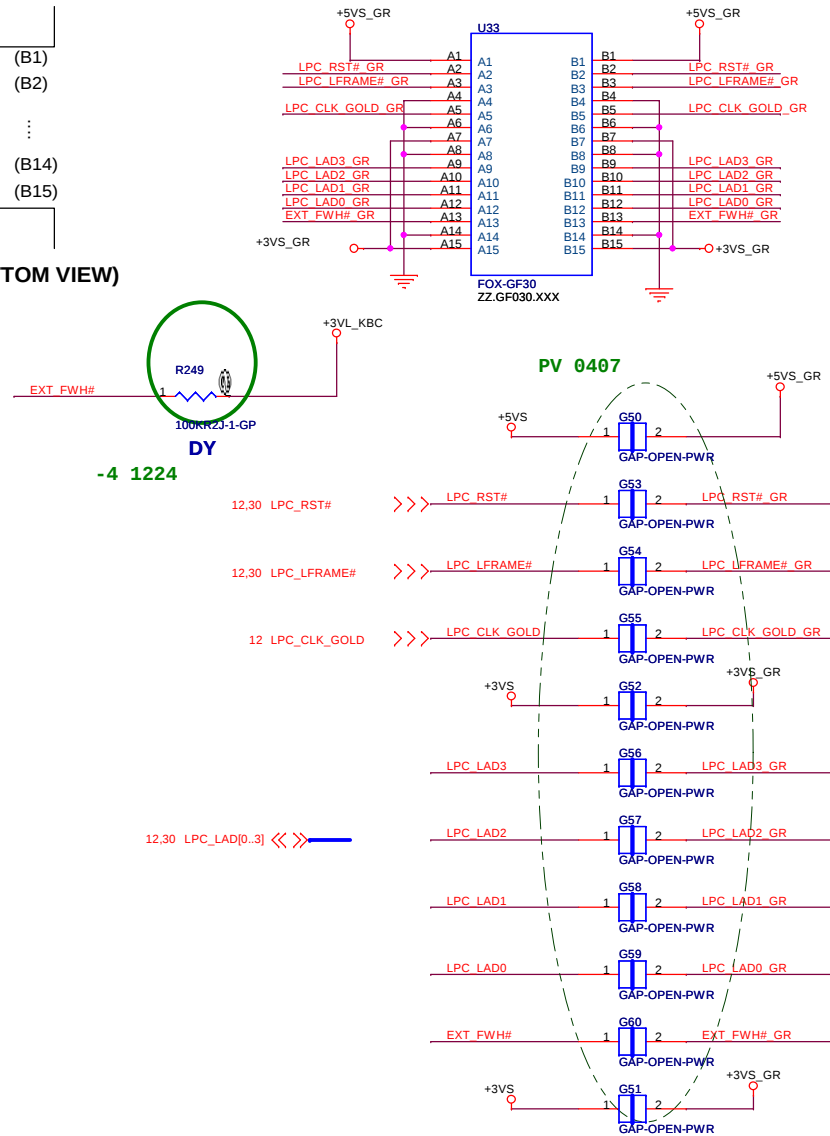


TOP VIEW



(BOTTOM VIEW)

GOLDEN FINGER FOR DEBUG BOARD

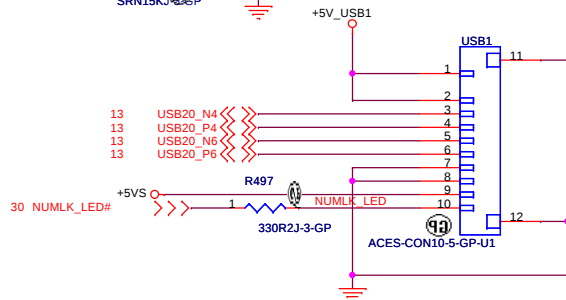
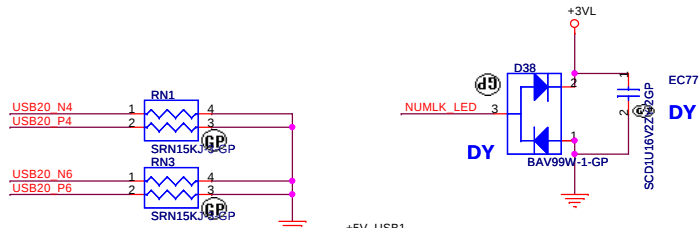
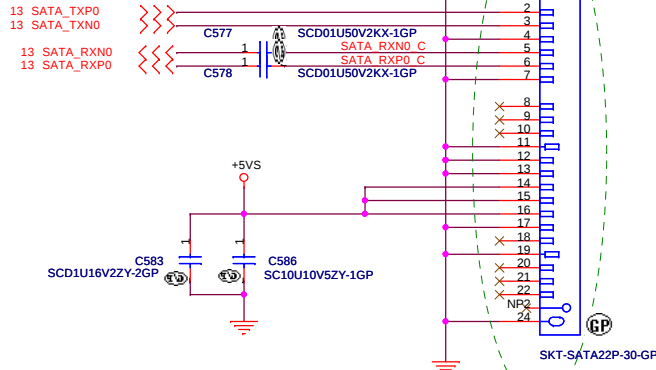
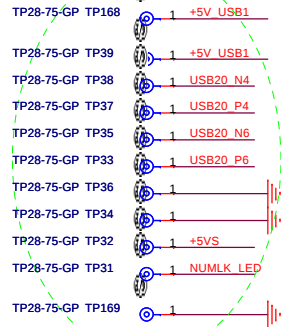


Put near board edge

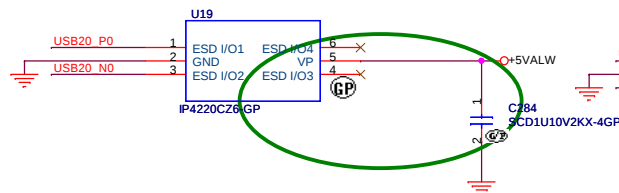
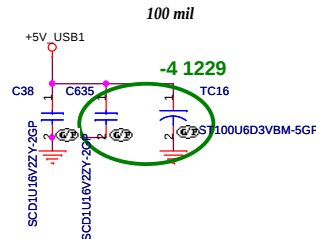
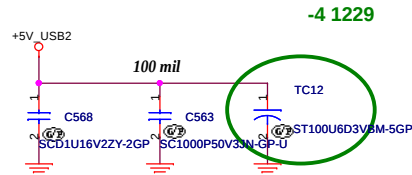
PV 0407

Close to USB1

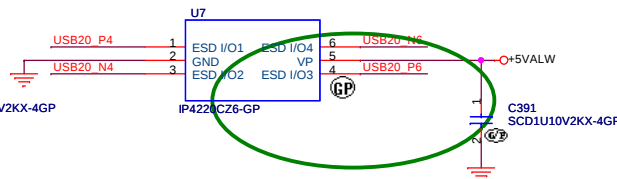
1115 DB SATA HD Connector



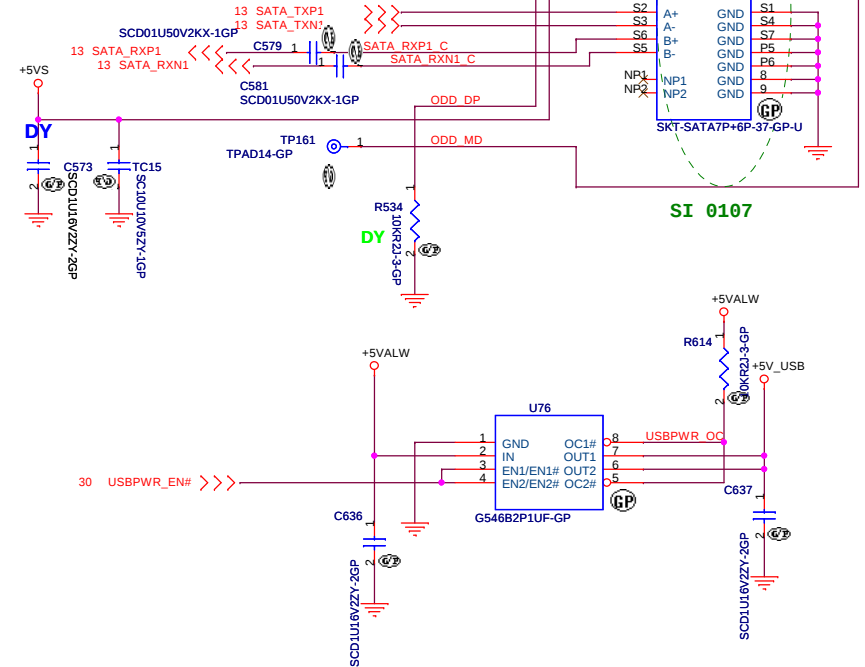
USB PORT



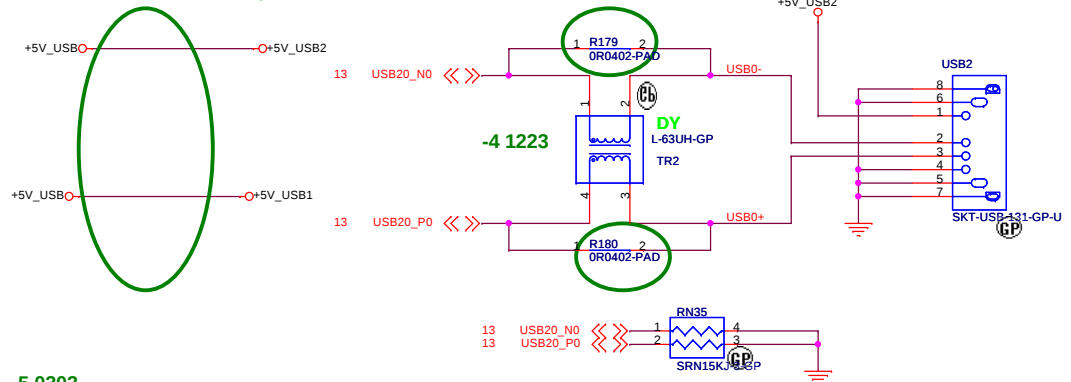
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ODD Connector



-4 1226



<Variant Name>

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
HD/CDROM			
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A3	Astrophere	SA	
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	A	B	C	D	E
4					
3					
2					
1					

<Variant Name>

緯創資通

Wistron Corporation

21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title

R5C832/IEEE1394/SD

Size
A3

Document Number

Rev

Date: Wednesday, March 04, 2009

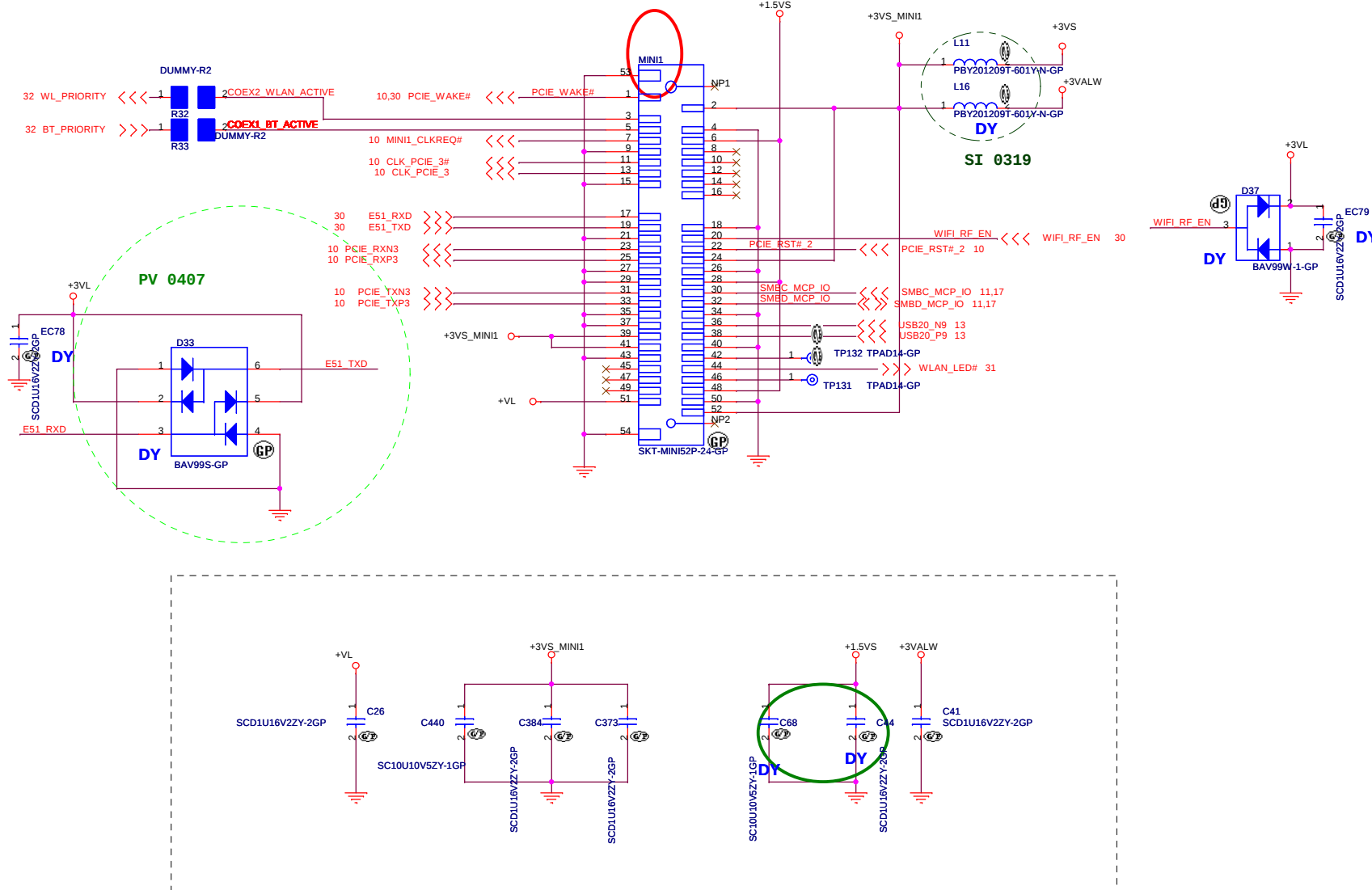
Sheet 26 of 44

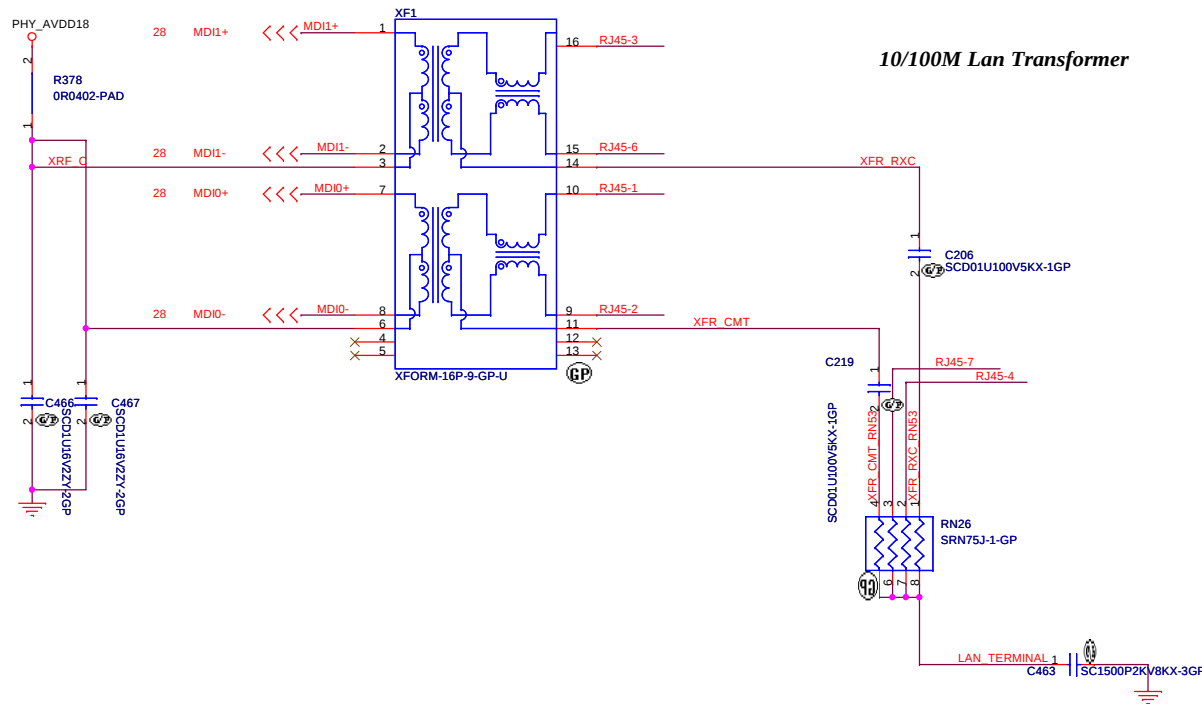
SA

Mini Card Connector 1

Wireless Card

Change P/N to 62.10043.611

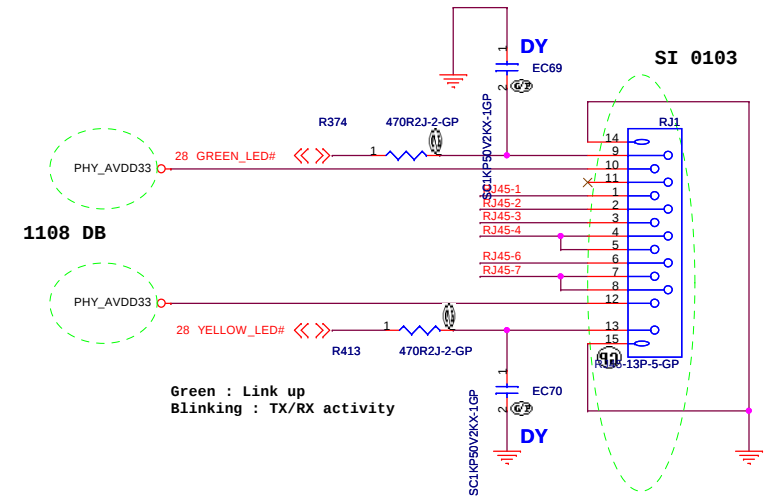




10/100M Lan Transformer

- 1.route on bottom as differential pairs.
- 2.Tx+/Tx- are pairs. Rx+/Rx- are pairs.
- 3.No vias, No 90 degree bends.
- 4.pairs must be equal lengths.
- 5.6mil trace width,12mil separation.
- 6.36mil between pairs and any other trace.
- 7.Must not cross ground moat,except RJ-45 moat.

PIN A1 : GREEN
PIN A3 : ORANGE
PIN B2 : YELLOW



1108 DB

Green : Link up
Blinking : TX/RX activity

Remark:

Add trace width to 20mils
for RJ1 pin4, 5 and pin 7, 8.

<Variant Name>

緯創資通

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title

LAN CONN

Size
A3

Document Number

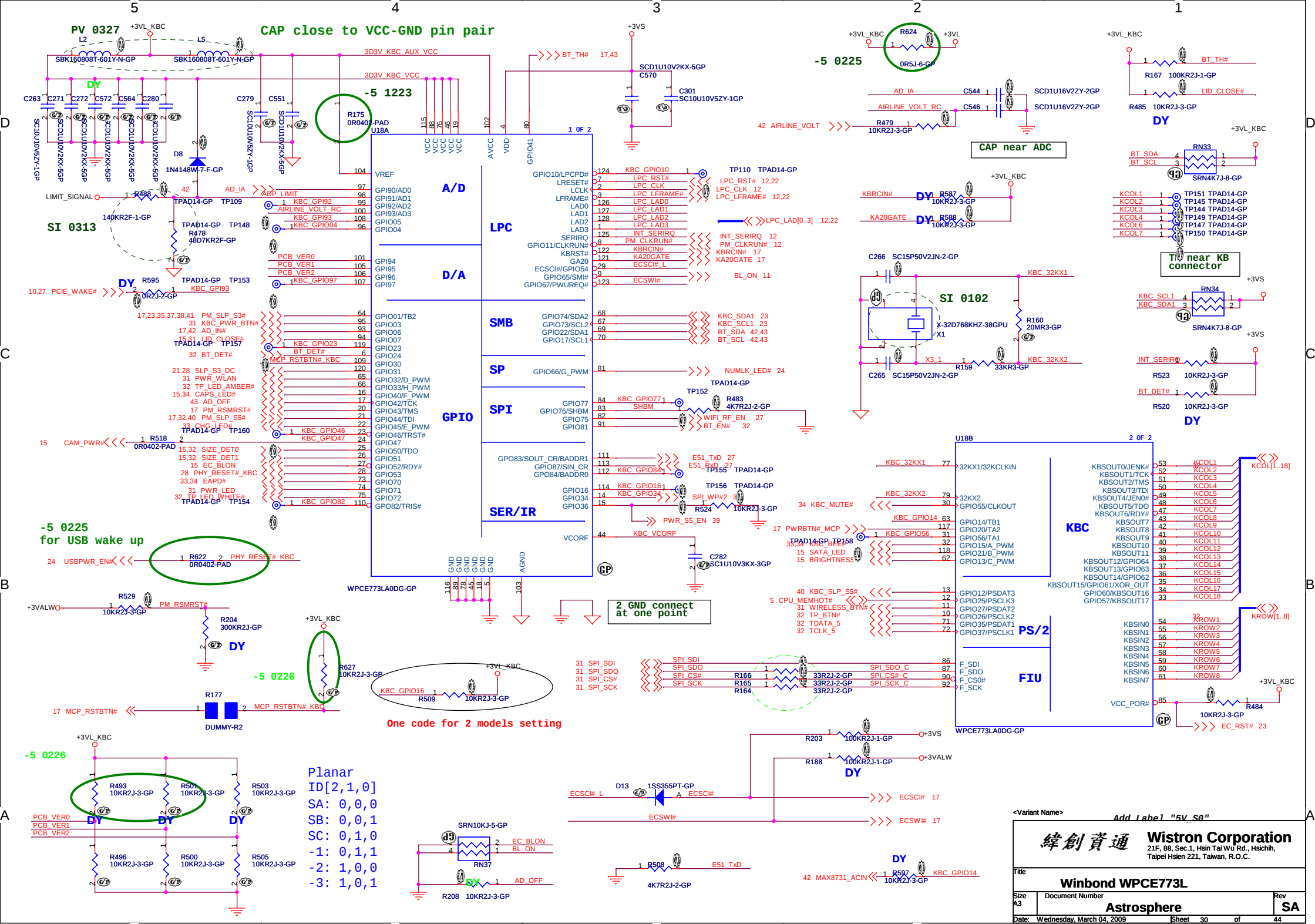
Astrosphere

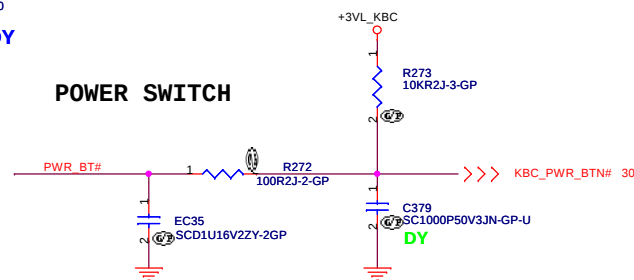
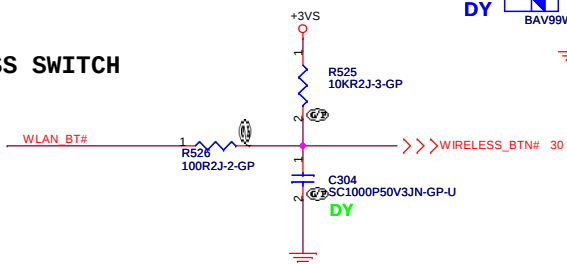
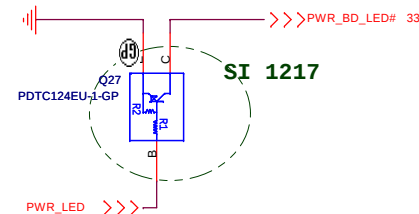
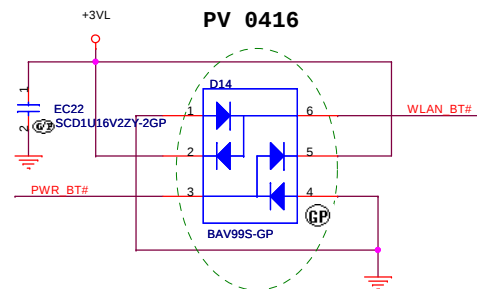
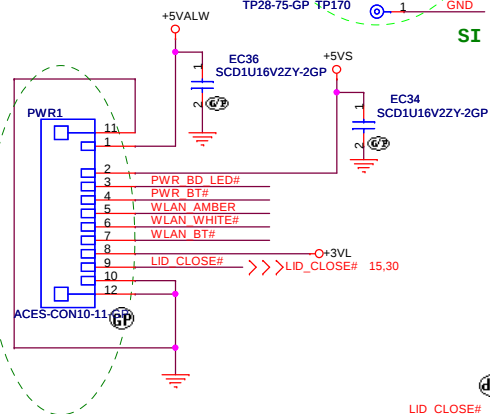
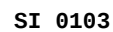
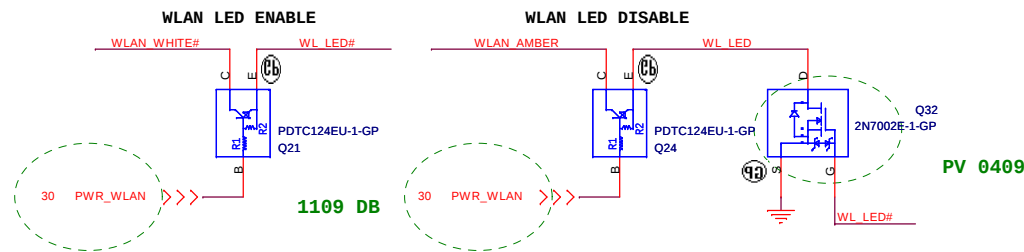
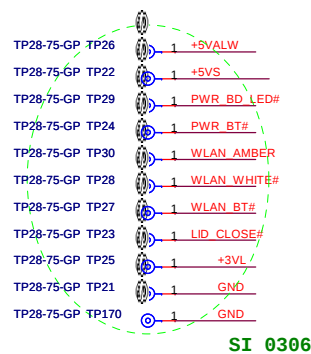
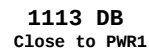
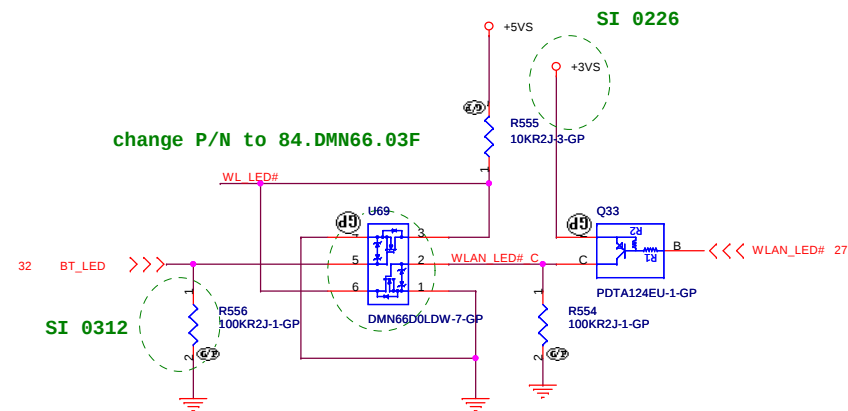
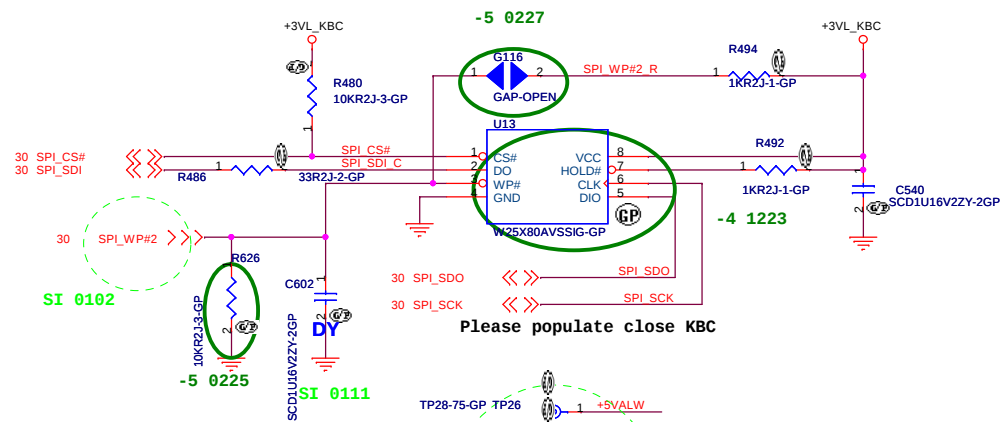
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```
30 KROW[1..8]      <<< _____
30 KCOL[1..18]     <<< _____
```

	US	Eur	Jap
MATRIXID1#	0	1	0
MATRIXID2#	0	0	1



Diagram of the 1114 DB connector showing pin assignments and signal names. The connector is labeled "1114 DB" and "Close to K81". The pins are numbered 1 through 27. The signal names are listed next to the pin numbers:

- Pin 1: KROW2
- Pin 2: KROW8
- Pin 3: KROW7
- Pin 4: KCOLD1
- Pin 5: KROW5
- Pin 6: KROW4
- Pin 7: KCOLD2
- Pin 8: KROW3
- Pin 9: KROW6
- Pin 10: KCOLD3
- Pin 11: KCOLD4
- Pin 12: KROW1
- Pin 13: KCOLD5
- Pin 14: KCOLD6
- Pin 15: KCOLD7
- Pin 16: KCOLD8
- Pin 17: KCOLD9
- Pin 18: KCOLD10
- Pin 19: KCOLD11
- Pin 20: KCOLD12
- Pin 21: KCOLD13
- Pin 22: KCOLD14
- Pin 23: KCOLD15
- Pin 24: KCOLD16
- Pin 25: KCOLD17
- Pin 26: KCOLD18
- Pin 27: KROW9

The diagram also shows the "ACES-CONV" connector and the "GND" (Ground) connection. The signal names are listed next to the pin numbers: TP97, TP28-75-GP, TP98, TP28-75-GP, TP99, TP28-75-GP, TP100, TP28-75-GP, TP95, TP28-75-GP, TP79, TP28-75-GP, TP94, TP28-75-GP, TP98, TP28-75-GP, TP77, TP28-75-GP, TP92, TP28-75-GP, TP76, TP28-75-GP, TP91, TP28-75-GP, TP75, TP28-75-GP, TP90, TP28-75-GP, TP72, TP28-75-GP, TP89, TP28-75-GP, TP73, TP28-75-GP, TP88, TP28-75-GP, TP72, TP28-75-GP, TP71, TP28-75-GP, TP96, TP28-75-GP, TP70, TP28-75-GP, TP85, TP28-75-GP, TP69, TP28-75-GP, TP83, TP28-75-GP, TP82, TP28-75-GP.

17,30,40 PM_SLP_SS# >>>

TouchPad Connector

The diagram illustrates the electrical connections for the TouchPad Connector. Key components and connections include:

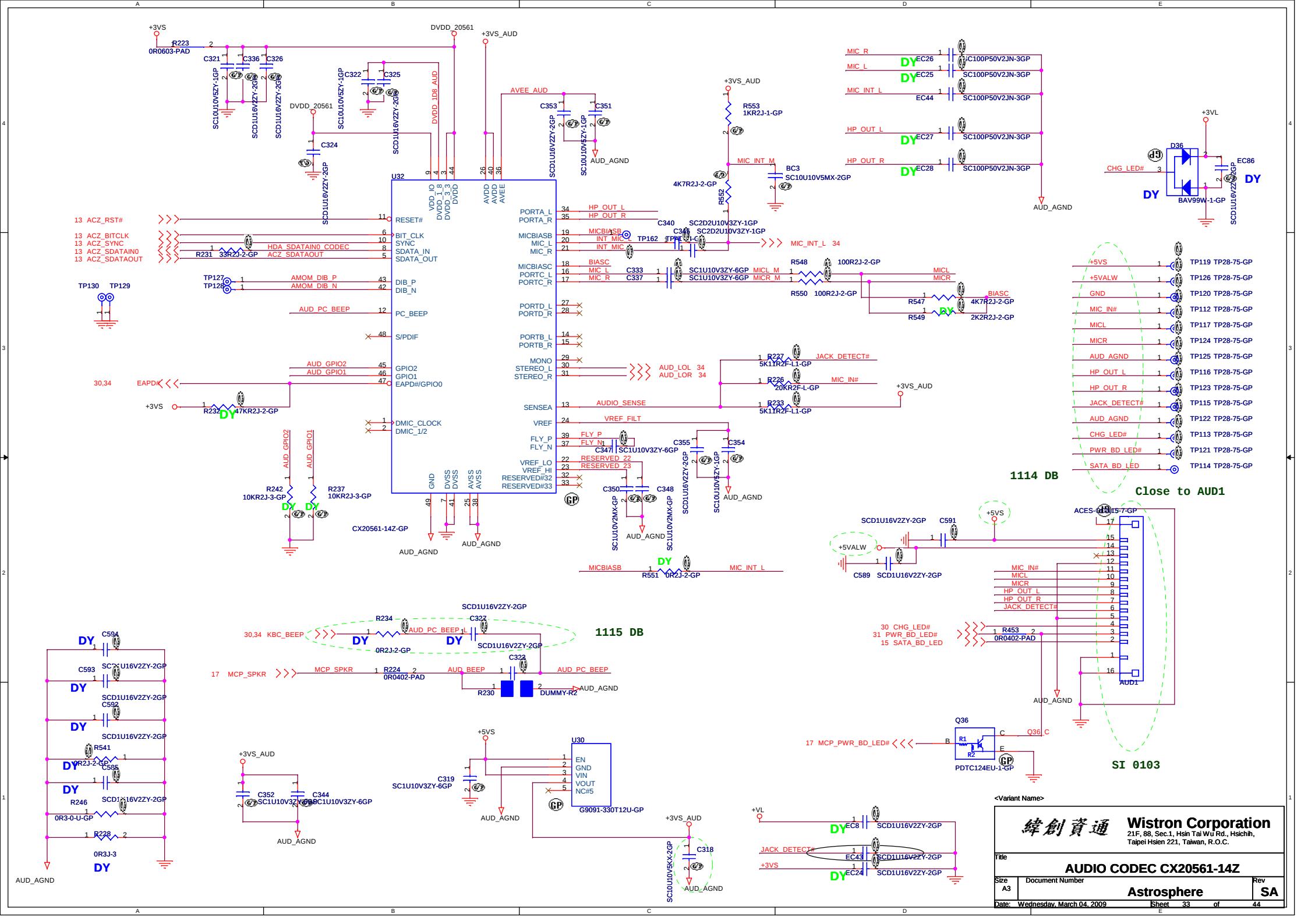
- Capacitors:** C242 (SC1U10V32Y-GP), C259 (SC1U10V22Y-2GP), C513 (SC3P50V23N-3GP), C520 (SC3P50V23N-3GP), C244 (SC100P50V3N-GP-U), and EC42 (SC1U10V22Y-2GP).
- Resistors:** R432 (SRN10KJ-11-GP-U), R434 (10KR23-3-GP), and R435 (100R2J2-GP).
- Connectors:** ACES-CON10-11, TPAD1, TP101, TP100, TP_LED_AMBER#, TP_LED_WHITE#, TP_BTN#, and TP_BTN#.
- Other Components:** EC85 (BAV99W-1-GP), EC85 (SC1U10V22Y-2GP), and EC85 (SC1U10V22Y-2GP).
- Labels:** DY, SI 0103, TP_ON/OFF, TP_BTN#, TP_LED_AMBER#, TP_LED_WHITE#, TP_BTN#, TP_BTN#.

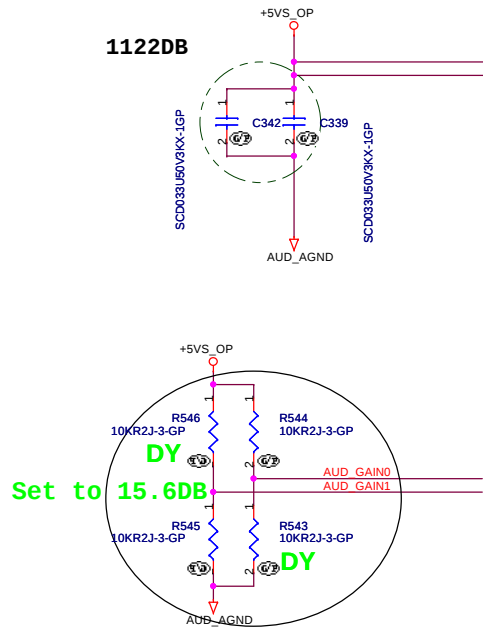
TP28-75-GP TP101 (+5V)
 TP28-75-GP TP100 (+5V)
 TP28-75-GP TP64 (+5V)
 TP28-75-GP TP102 (TP ON/OFF)
 TP28-75-GP TP105 (TP LED WHITE)
 TP28-75-GP TP103 (TP LED AMBER)
 TP28-75-GP TP66 (Ground)
 TP28-75-GP TP68 (TCLK 5)
 TP28-75-GP TP65 (TOATA 5)
 TP28-75-GP TP104 (+5V TP)

BT

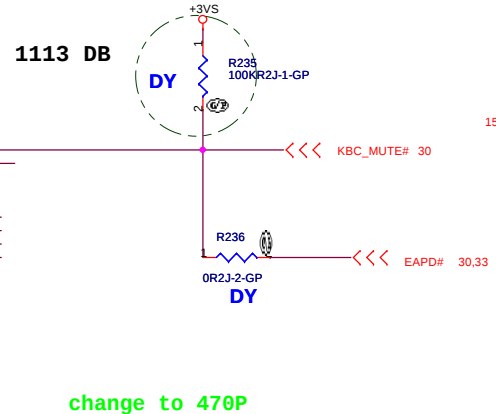
[illegible]

Label	Module Pin
+3V5_BT	TP176 TP28-75-GP
GND	TP174 TP28-75-GP
USB20_P3	TP173 TP28-75-GP
USB20_N3	TP175 TP28-75-GP
BT_LED	TP172 TP28-75-GP
WL_PRIORITY	TP178 TP28-75-GP
BT_PRIORITY	TP177 TP28-75-GP
BT_DET#	TP179 TP28-75-GP

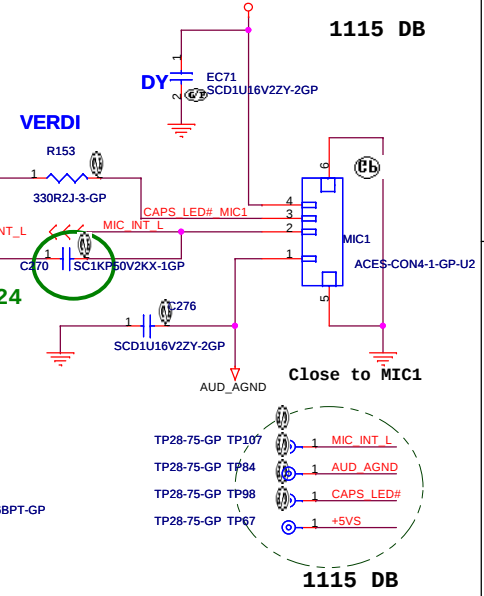




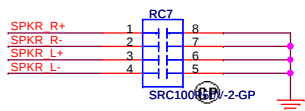
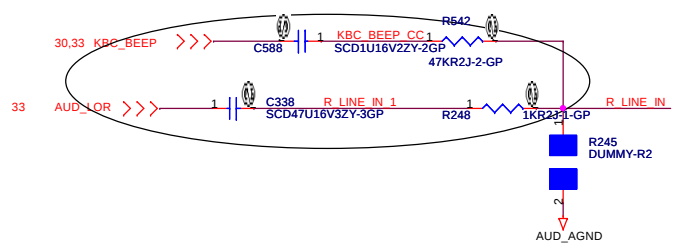
GAIN0	GAIN1	Av(dB)
0	0	6
0	1	10
1	0	15.6
1	1	21.6



MIC

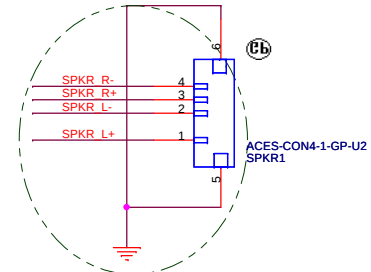
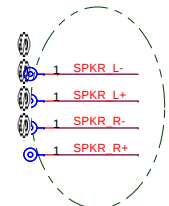


Speaker

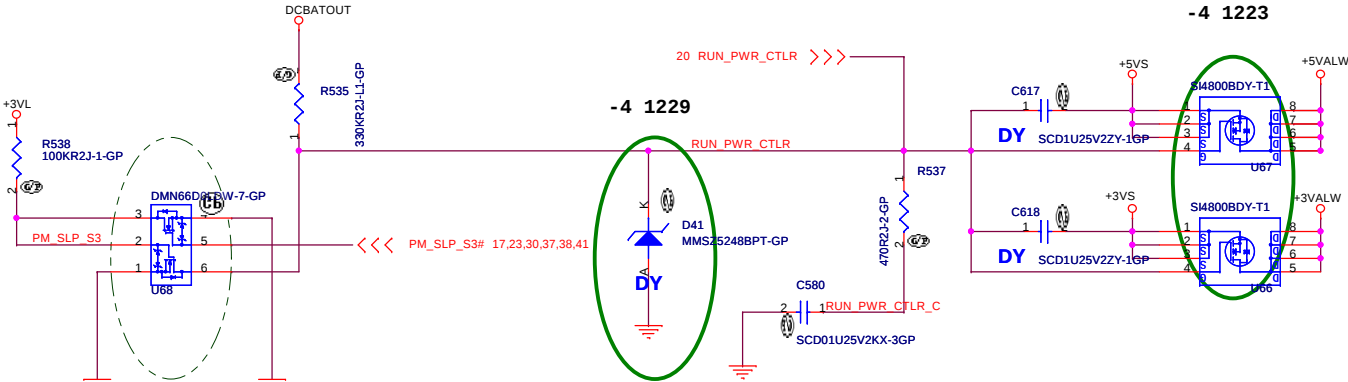


1113 DB

Close to SPKR1

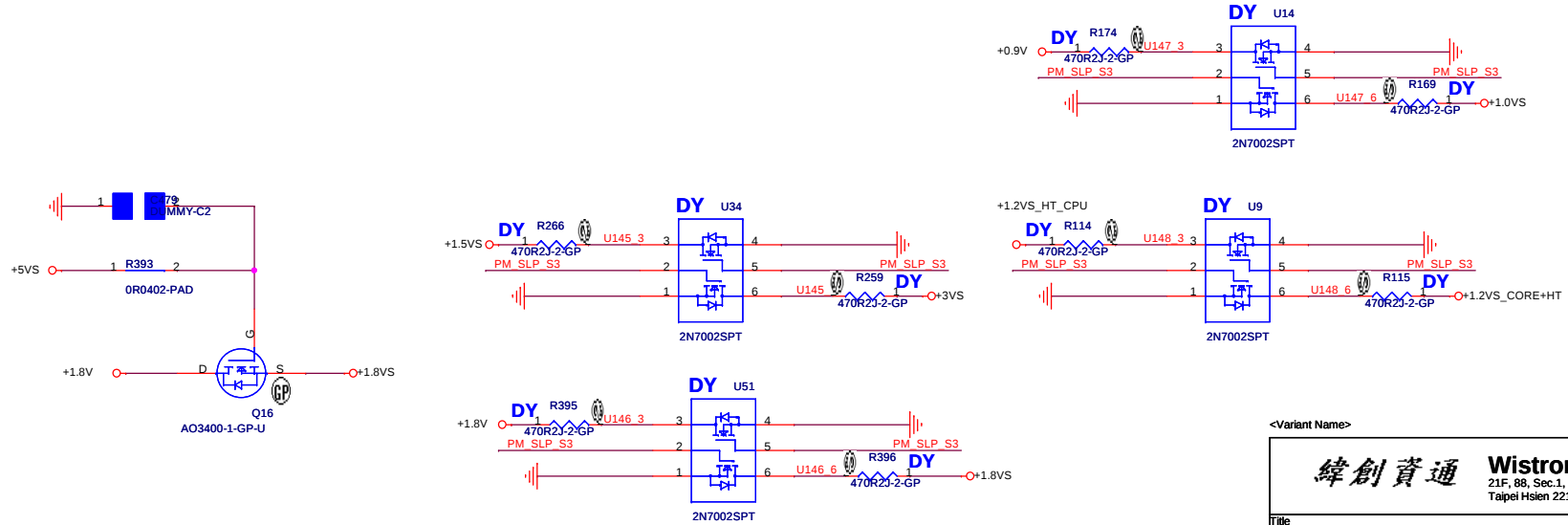


Run Power

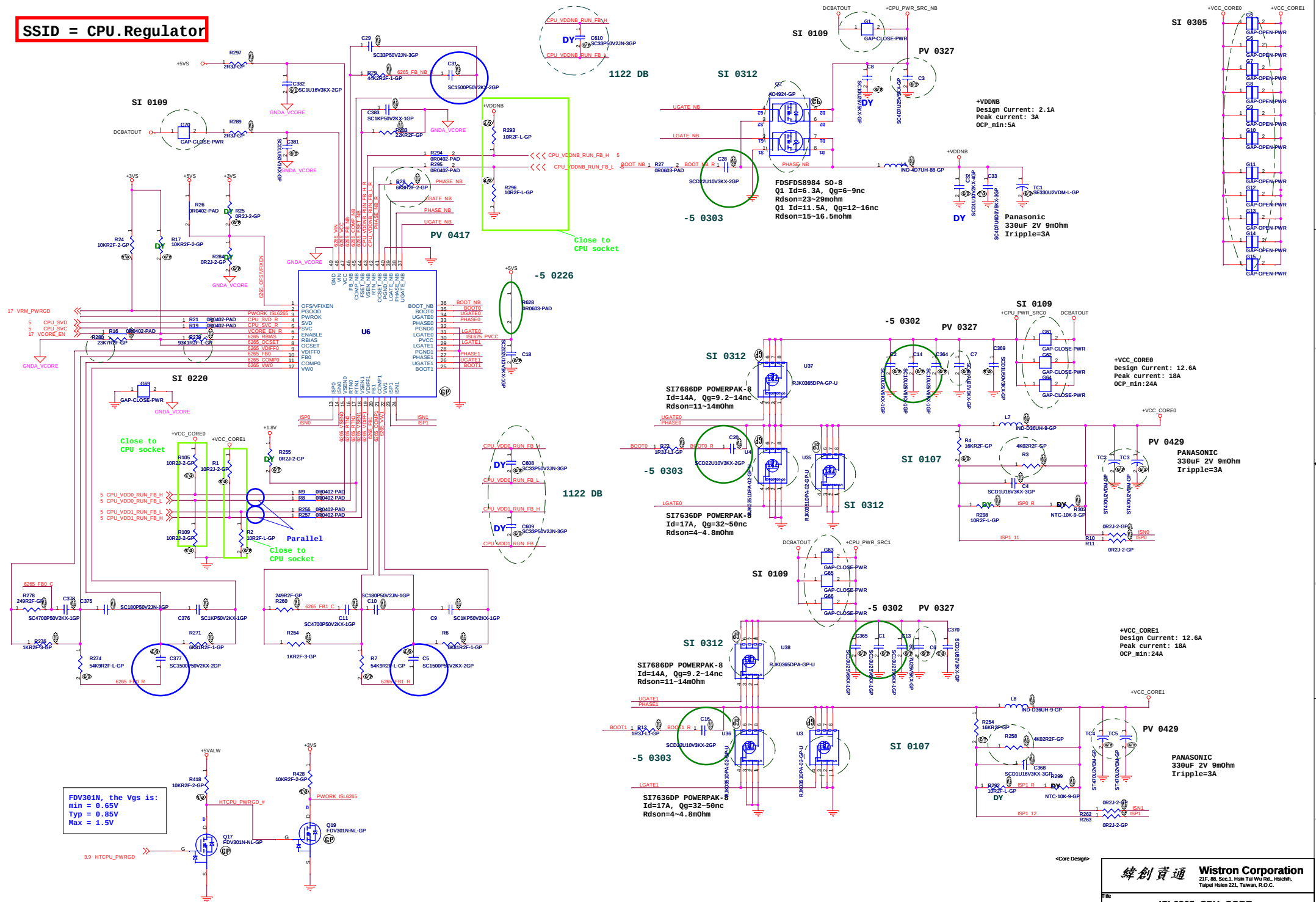


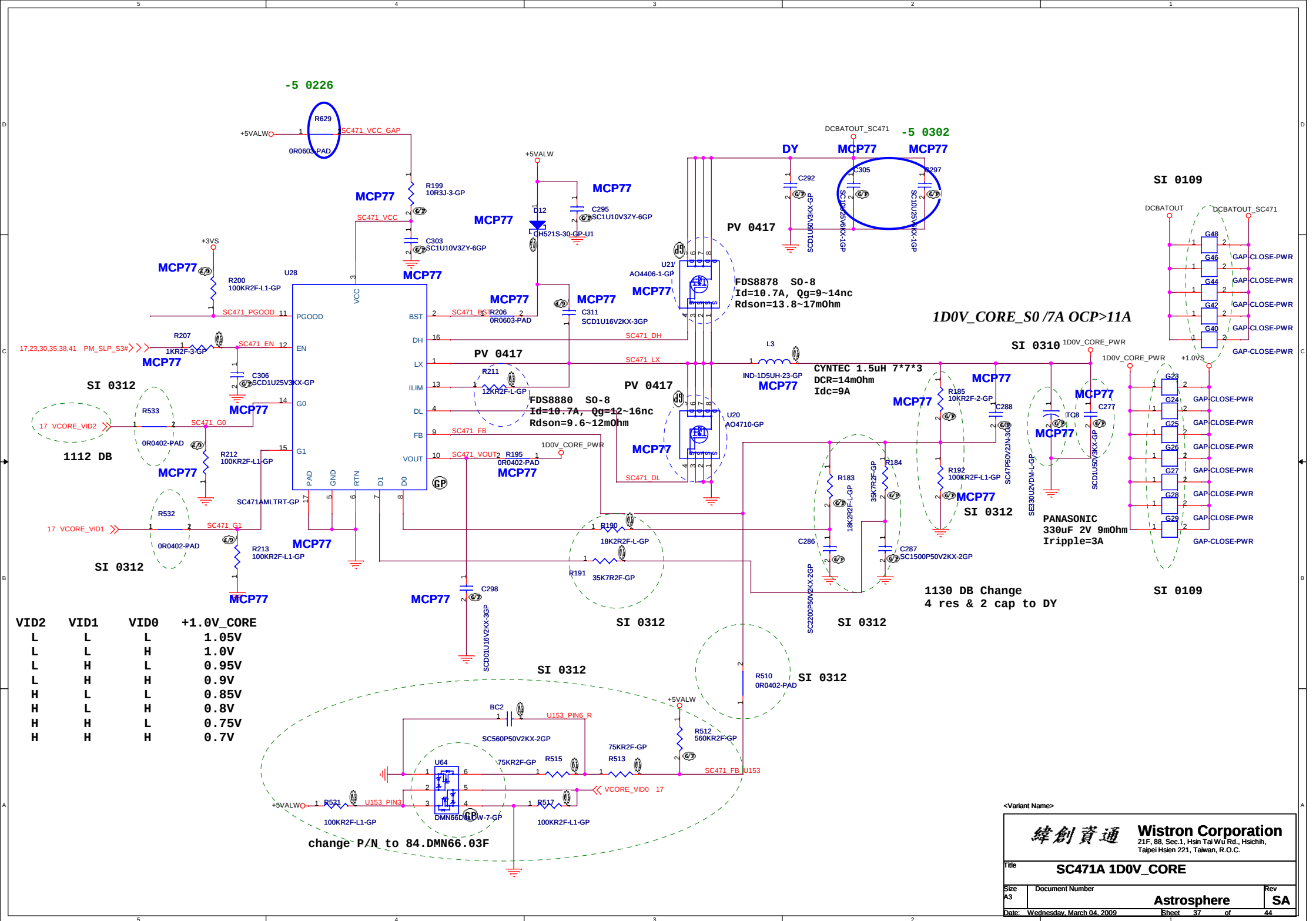
change P/N to 84.DMN66.03F

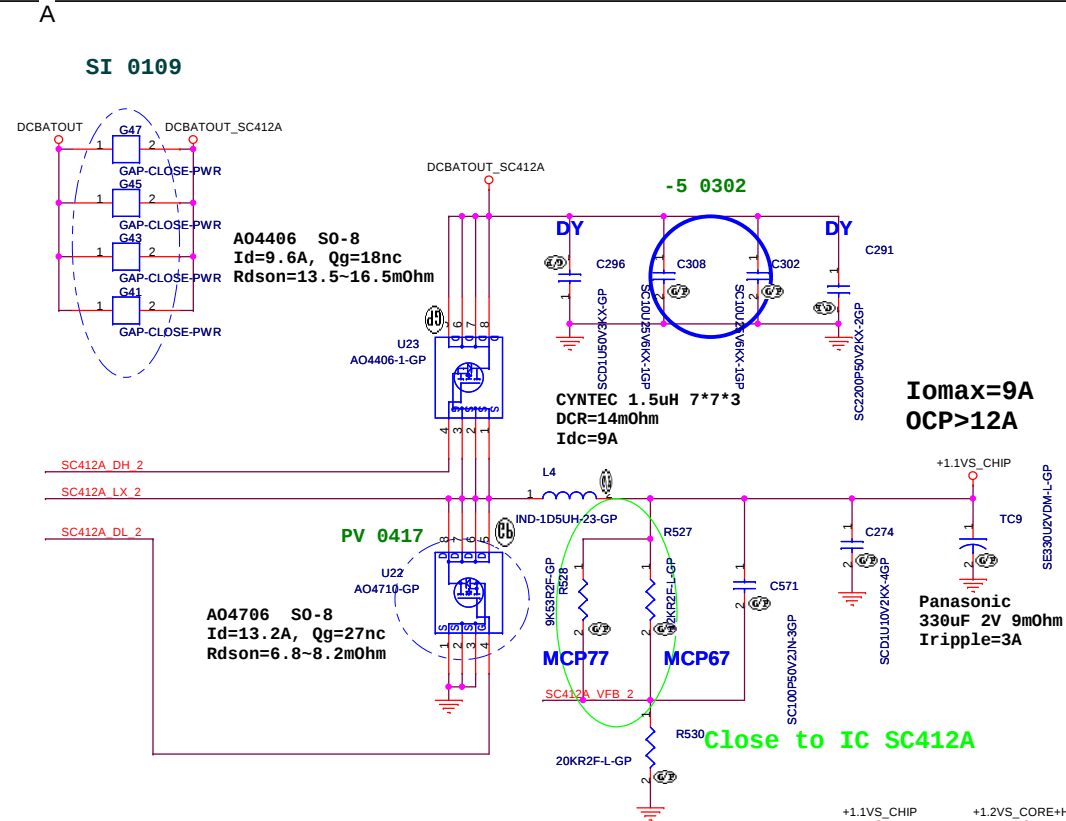
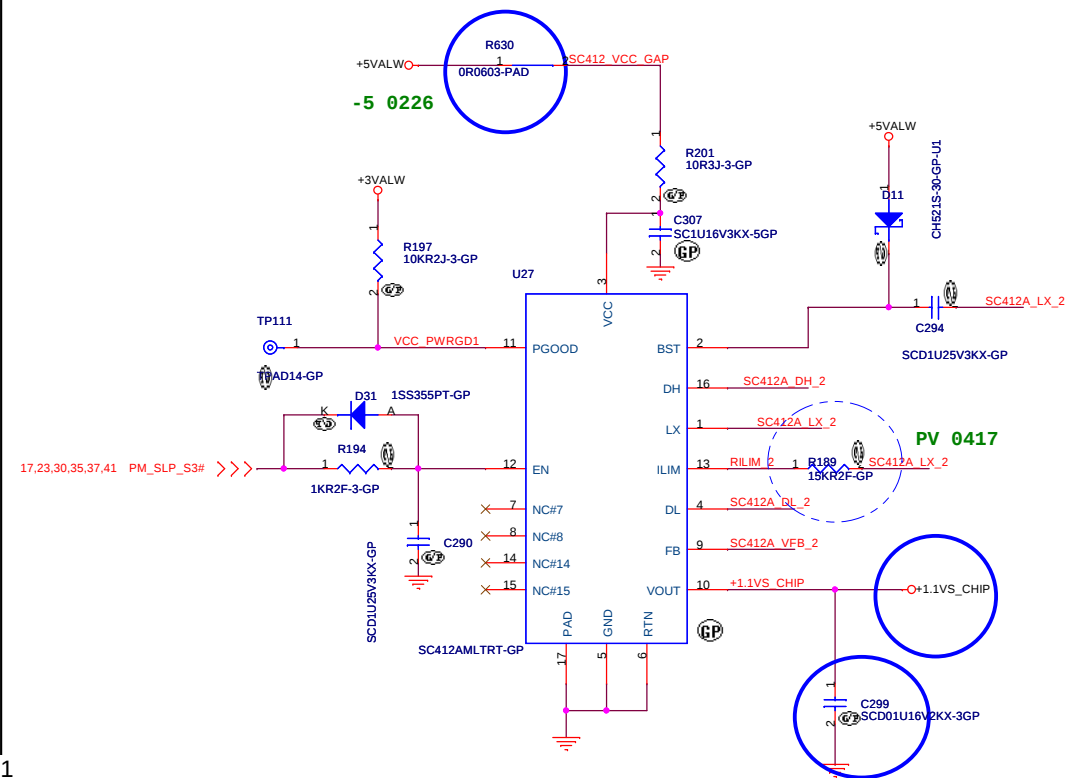
Run Power



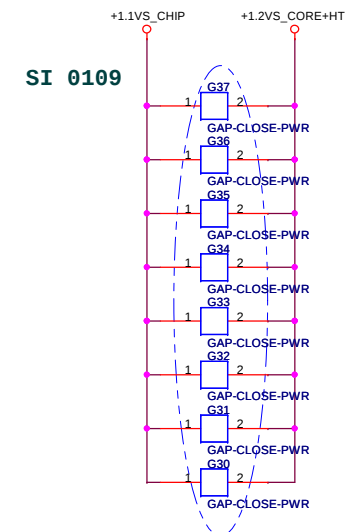
SSID = CPU.Regulator

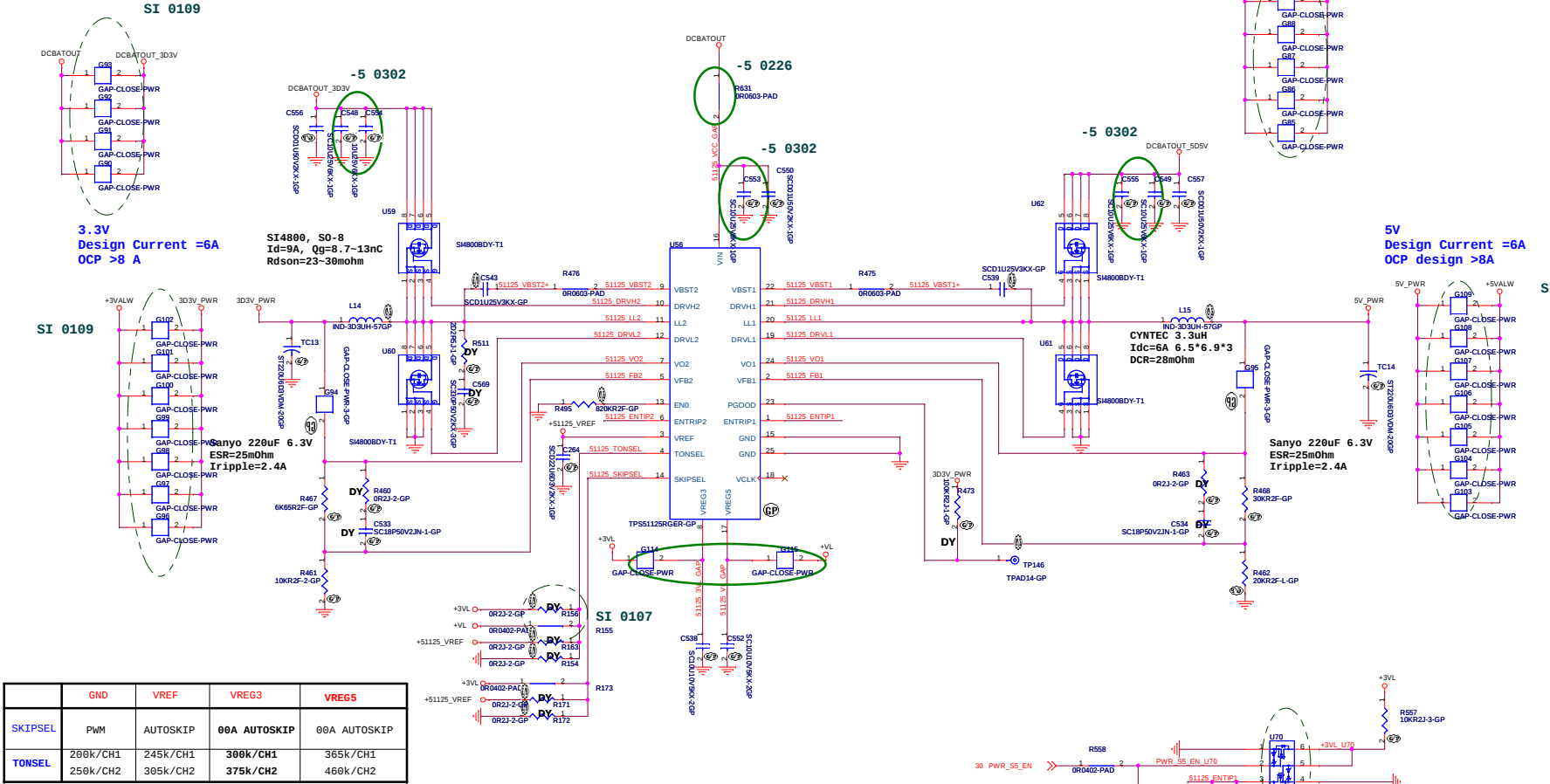




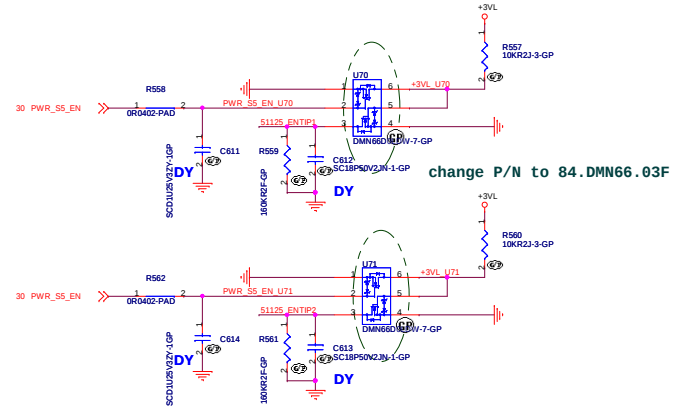


MCP67: 1.2V (R425/R426) = (12K/20K)
MCP77: 1.1V (R425/R426) = (9.53K/20K)

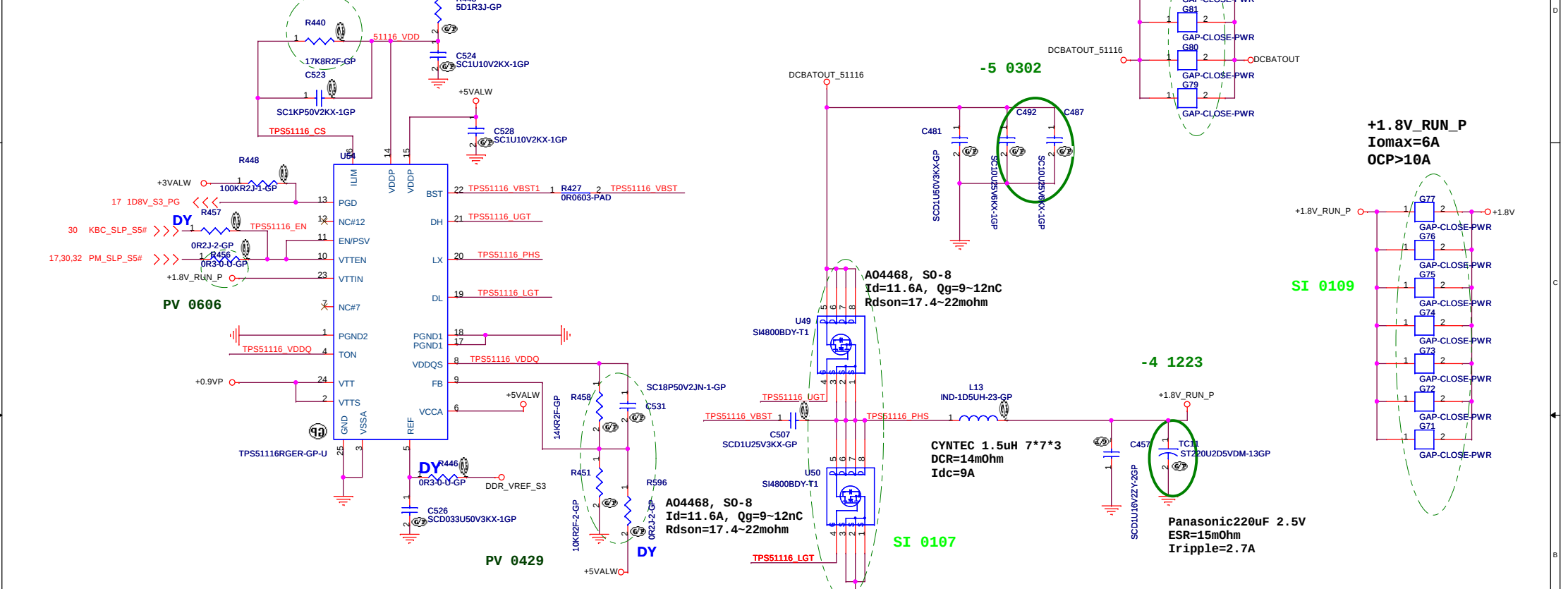




	GND	VREF	VREG3	VREG5
SKIPSEL	PWM	AUTOSKIP	00A AUTOSKIP	00A AUTOSKIP
TONSEL	200k/CH1	245k/CH1	300k/CH1	365k/CH1
	250k/CH2	305k/CH2	375k/CH2	460k/CH2



5	4	3	2	1
---	---	---	---	---



State	S3	S5	VDDR	VTTREF	VTT
S0	Hi	Hi	On	On	On
S3	Lo	Hi	On	On	Off (Hi-Z)
S4/S5	Lo	Lo	Off	Off	Off

<Core Design>	A
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緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title	TPS51116 1D8V/0D9V
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5

4

3

2

1

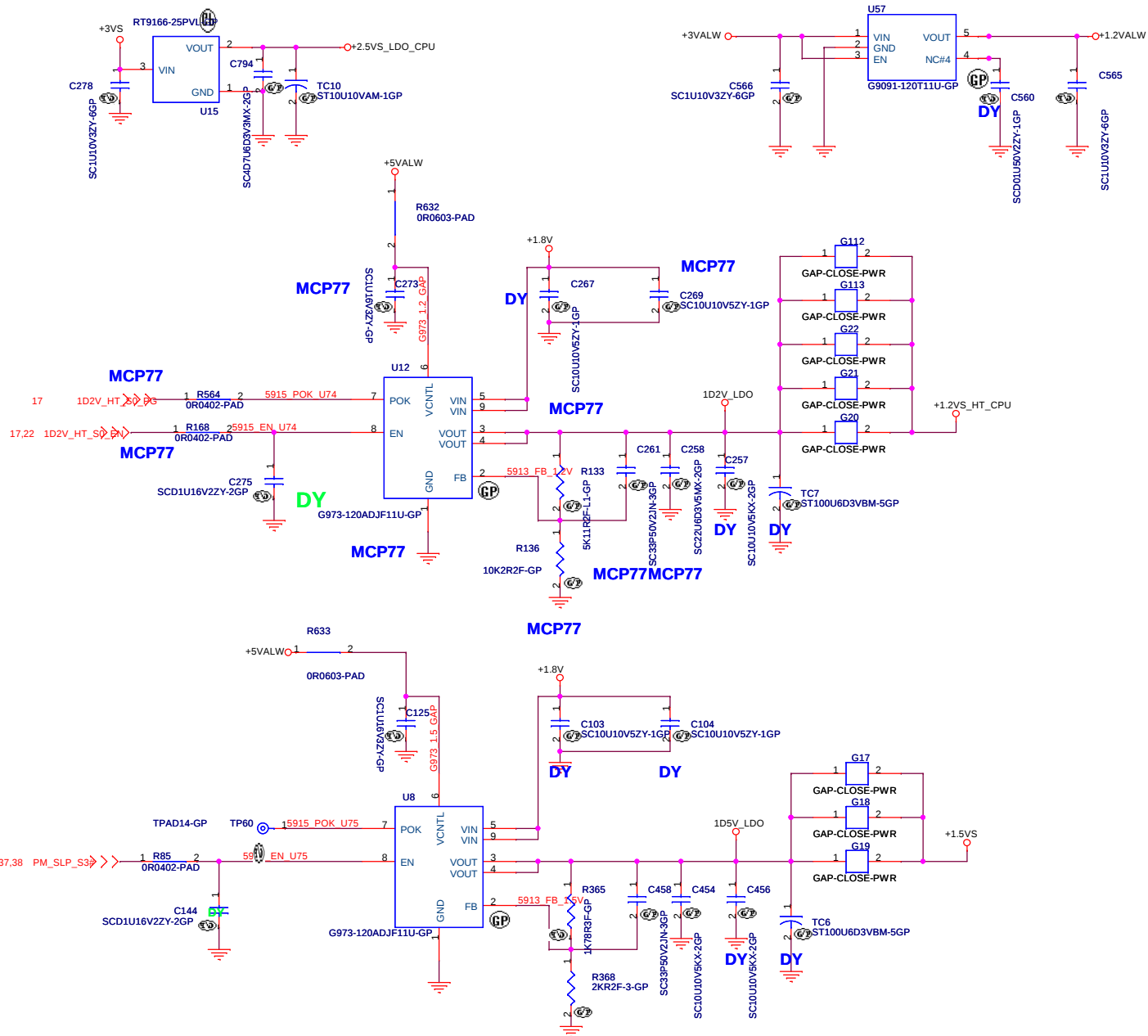
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4

3

2

1



<Variant Name>

緯創資通

Wistron Corporation

21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title

1D5V/2D5V/3D3V/5V_AUX

Size
A3

Document Number

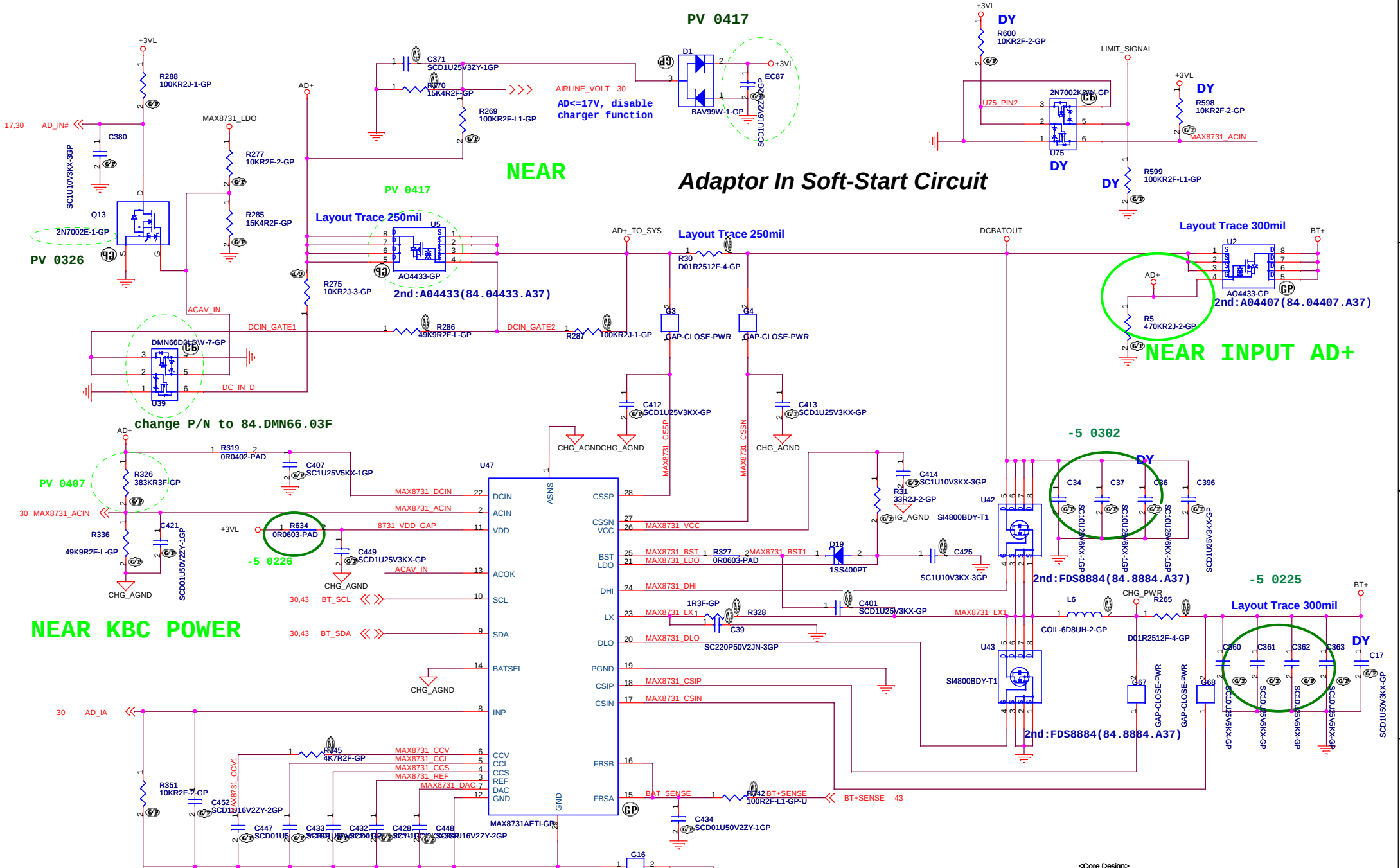
Astrosphere

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Adaptor in to generate DCBATOUT

SI 0218

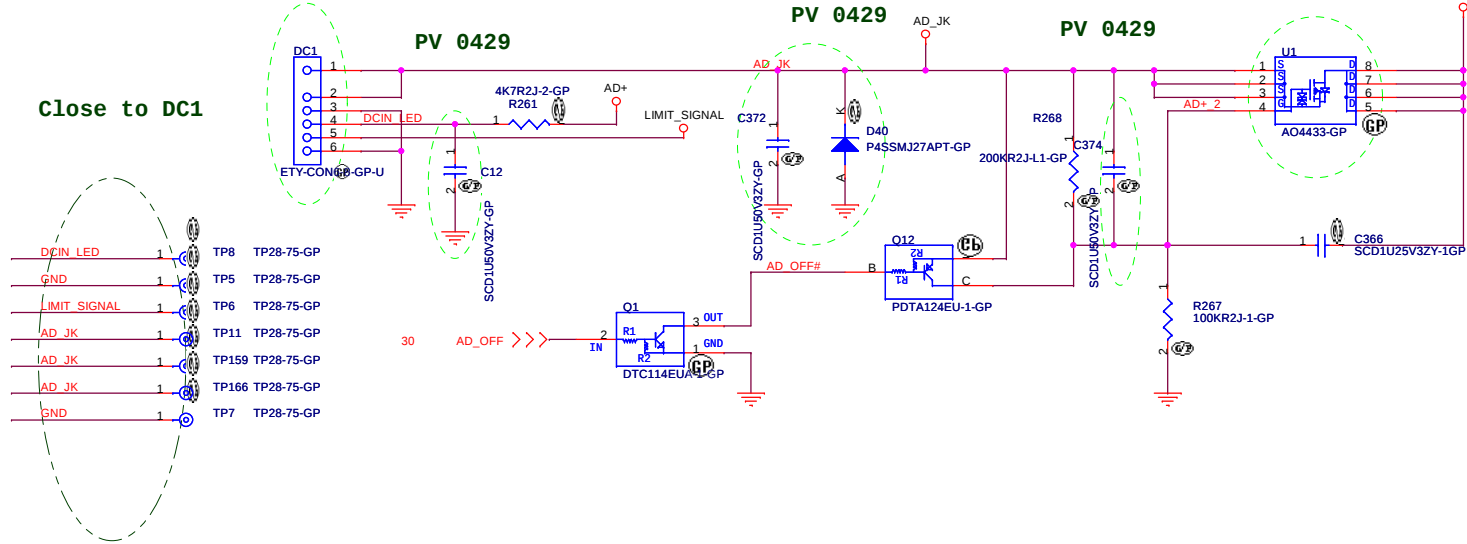
Close to DC1

PV 0429

PV 0429

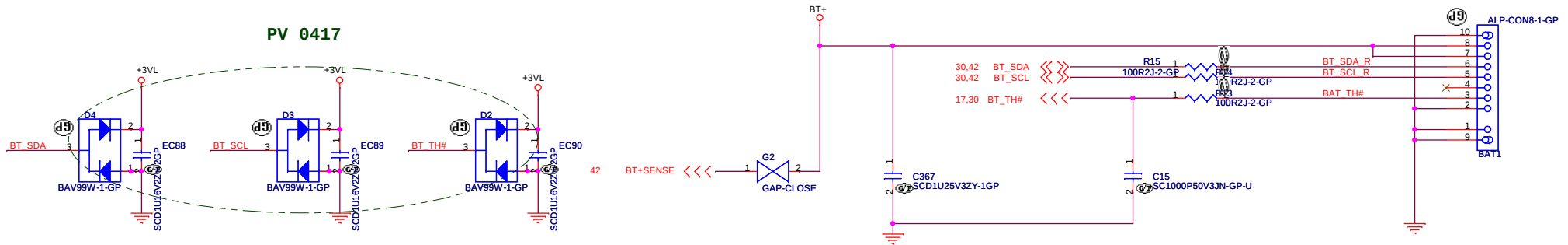
PV 0429

PV 0429

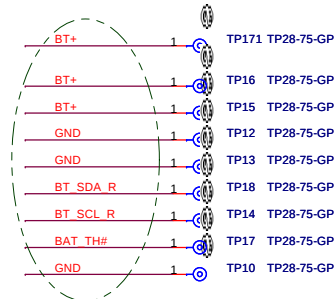


BATTERY CONNECTOR

PV 0417



SI 0306



Close to BAT1

<Core Design>

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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title		
AD/BATT CONN		
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