

JUL'07

Clock Generator  
MLF68 15Intel  
Penryn LV/ULV SFF  
Processor 3, 4Thermal  
Sensor  
LM26 5ITP  
Conn. 6

## Caramel-1 Block Diagram

07251-1-0709

Project Code: 91.4Y401.001  
PCB(Raw Card):

## PCB Layer Stackup

L1:TOP  
L2:Signal 1  
L3:GND  
L4:Signal 2  
L5:VCC  
L6:GND  
L7:Signal 3  
L8:BOTTOM

Battery Charger/Selector  
ADP3808 43

INPUTS	OUTPUTS
DOCK_PWR20_F	M-BAT-PWR S-BAT-PWR

System DC/DC  
TPS51221 49

VINT20	VCC5M VCC3M
--------	----------------

CPU DC/DC  
VT1311 50

VINT20	VCCPUCORE VCC3M
--------	--------------------

GMCH GFX CORE  
VT451&VT450 51

VINT20	VCCGFXCORE
--------	------------

VCC1R05AMT/VCC1R5A  
VT351 52, 53

VCC5V_OUT	VCC1R05AMT VCC1R5A
-----------	-----------------------

VCC0R75AMT  
MAX1510 54

VCC1R5A	VCC0R75AMT
---------	------------

VCC1R8B  
BD3550 55

VCC3M	VCC1R8B
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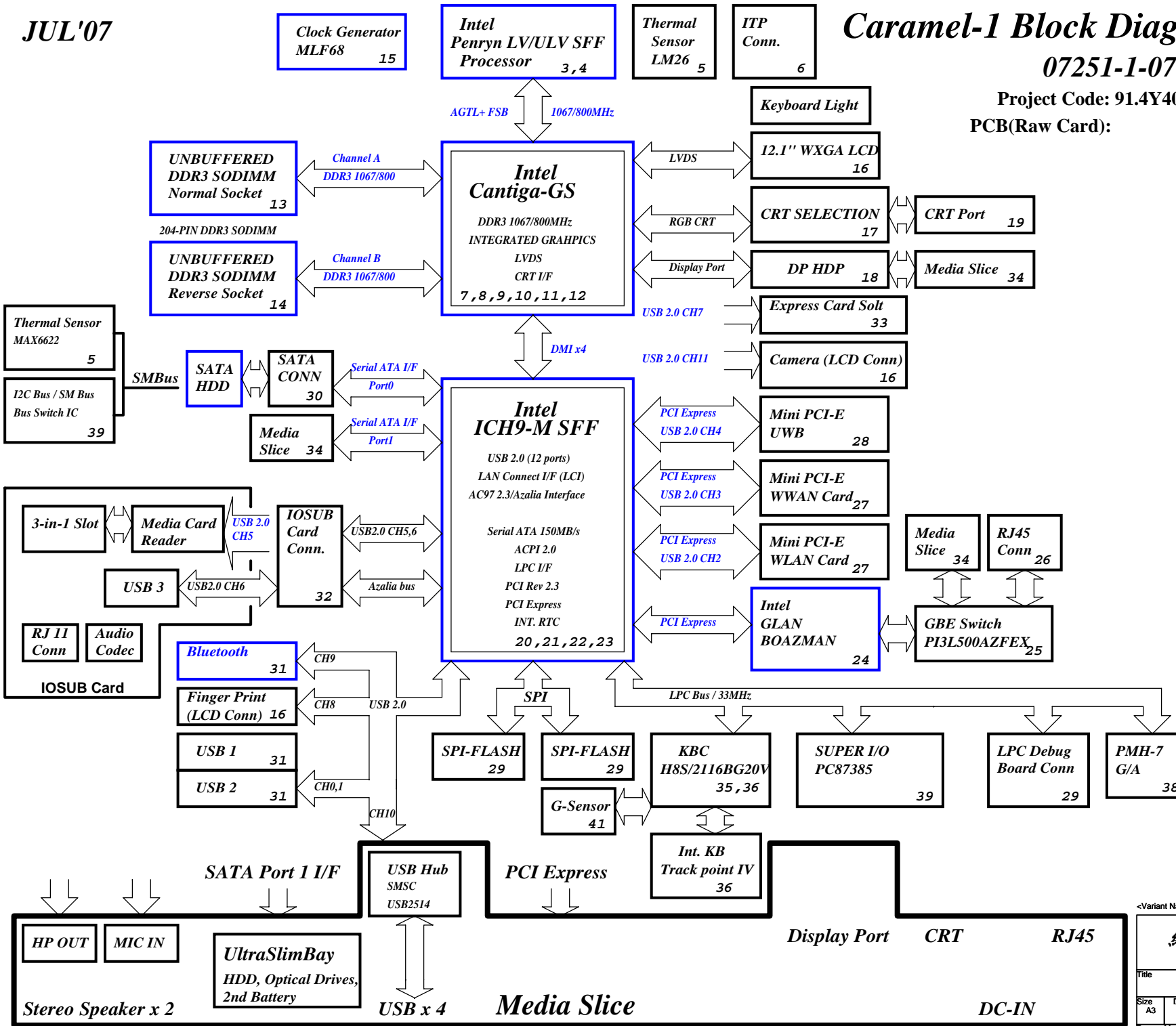
VCC1R05AUX/1R8AUX  
BD3550 56

VCC3M	VCC1R05AUX VCC1R8AUX
-------	-------------------------

&lt;Variant Name&gt;

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

Block Diagram			
Size A3	Document Number Caramel-1	Rev SC	
Date: Monday, July 14, 2008	Sheet 1	of 62	



## RESISTOR

Symbol name	Value	Tolerance (J: 5%, F: 1%, D: 0.5%, B: 0.1 %)	Rating 0402=> 1/16W, 25V 0603 => 1/16W, 75V 0805 => 1/10W, 100V	Size 2=>0402, 3=>0603, 5=>0805, 6=>1206, 0=>1210
10KR3	10K Ohm	If no letter, it means J: 5%	1/16W, 75V	0603
33D3R5	33.3 Ohm	If no letter, it means J: 5%	1/10W, 100V	0805
1KR3F	1K Ohm	F: 1%	1/16W, 75V	0603

The naming rule is value + R + size + tolerance  
 For the value, it can be read by the number before R. (R means resistor)  
 For the tolerance, it can be read from the last letter.  
 For the rating, we don't show on the symbol name.  
 For the size, R2=>0402, R3=>0603, R5=>0805,....

## CAPACITOR

Symbol name	Value	Tolerance (M: +/-20, K: +/-10, Z: +80/-20)	Rating	Size 2=>0402, 3=>0603, 5=>0805, 6=>1206, 0=>1210
SCD1U10V2MX-1	0.1uF	M/X5R	10V	0402
SC10U6D3V5MX	10uF	M/X5R	6.3V	0805
SC2D2U16V5ZY	2.2uF	Z/Y5V	16V	0805

The naming rule is  
 Capacitor type + value + rating + size + tolerance + material  
 SC1U10V2MX-1  
 SC=> SMT Ceramic, TC=> POS cap or SP cap  
 D1U => 0.1uF  
 10V => the voltage rating is 10V  
 2=> 0402, 3=>0603, 5=>0805  
 M=>tolerance M, K, Z  
 X=> X7R/X5R, Y=> Y5V  
 -1 => symbol version, nonsense to EE characteristic

## PLANAR\_ID[3..0]

ICH8-M GPIO <sub>n</sub>	39	38	37	36	Planar ID Version	Planar PCB Version
PLANAR_ID <sub>n</sub>	3	2	1	0		
	0	0	0	0	Caramel-1 Pre-DW/DV	SA
	0	0	0	1	Caramel-1 SIV	SB
	0	0	1	0	Caramel-1 SIT	SC
	0	0	1	1	Caramel-1 SVT	
	0	1	0	0		
	0	1	0	1		
	0	1	1	0		
	0	1	1	1		

## EC HISTORY

[illegible]

## PCI TABLE

DEVICE	IDSEL	IRQ (Default)	REQ# / GNT#
MINIPCI SLOT	AD18	F, G	REQ# 3/ GNT#
CARDBUS R5C811	AD16	SERIRQ	REQ#0 / GNT#
USB UHCI	AD29	A, C, D	
USB 2.0 EHCI	AD29	H	
DMI-to-PCI/ AC97 Modem/ AC97 Audio	AD30	B B	
LPC Bridge IDE SATA SMBus	AD31	C C B	
PCI Express	AD28	A, B, C, D	

<Variant Name>

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Title
-------

## Reference

Size  
A3

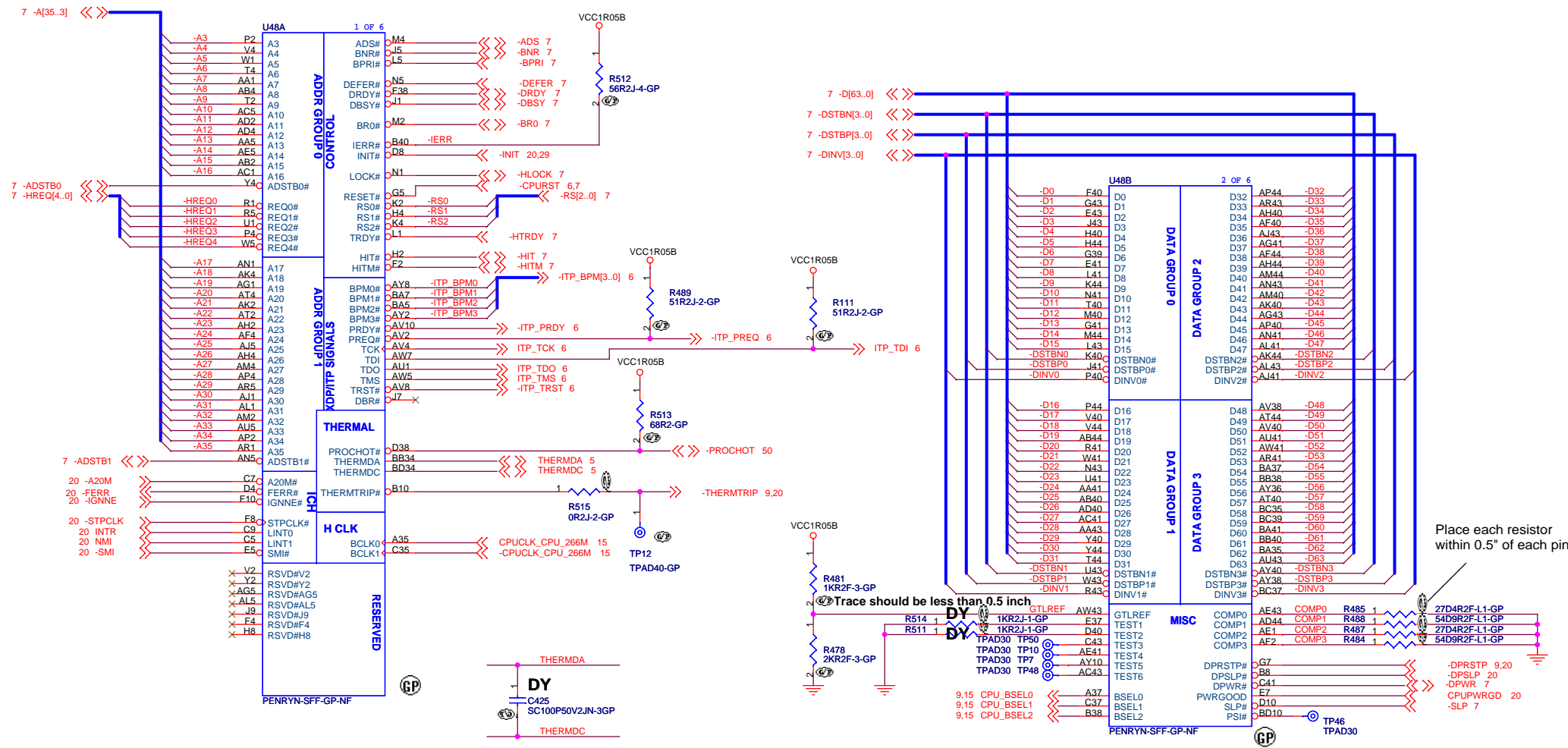
Document Number
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### Caramel-1

Rev	SA
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Date: Monday, July 14, 2008

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<Variant Name>

**緯創資通 Wistron Corporation**  
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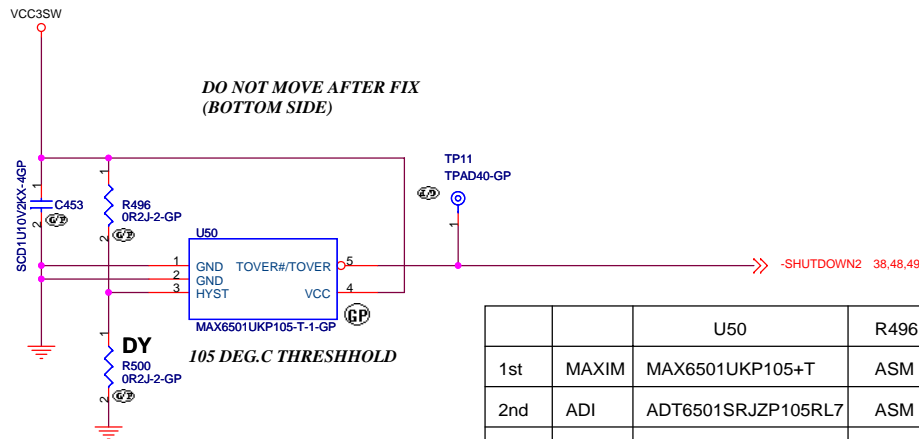
Title: **Penryn CPU SFF (1/2)**

Size: A3 Document Number: **Caramel-1** Rev: **SC**

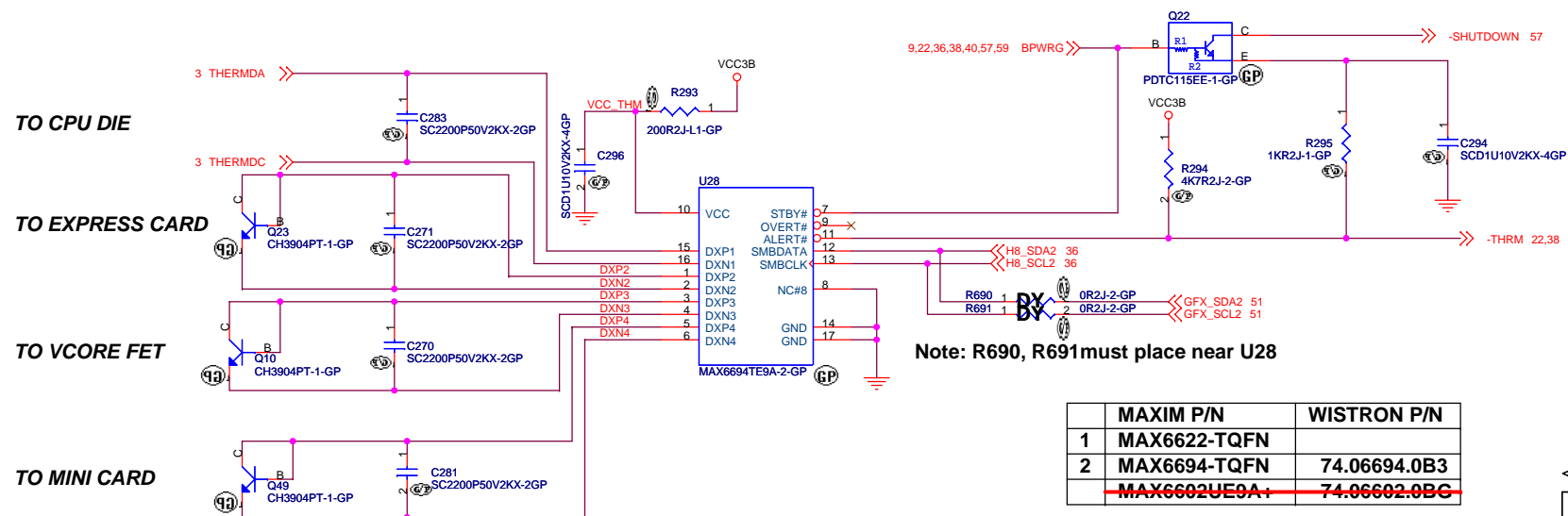
Date: Monday, July 14, 2008 Sheet: 3 of 62



# Thermal Sensor for CPU



**THESE CAPS MUST BE PLACED AS CLOSE AS POSSIBLE TO MAX6602**



	MAXIM P/N	WISTRON P/N
1	MAX6622-TQFN	
2	MAX6694-TQFN	74.06694.0B3
	<del>MAX6602UE9A-1</del>	<del>74.06602.0B3</del>

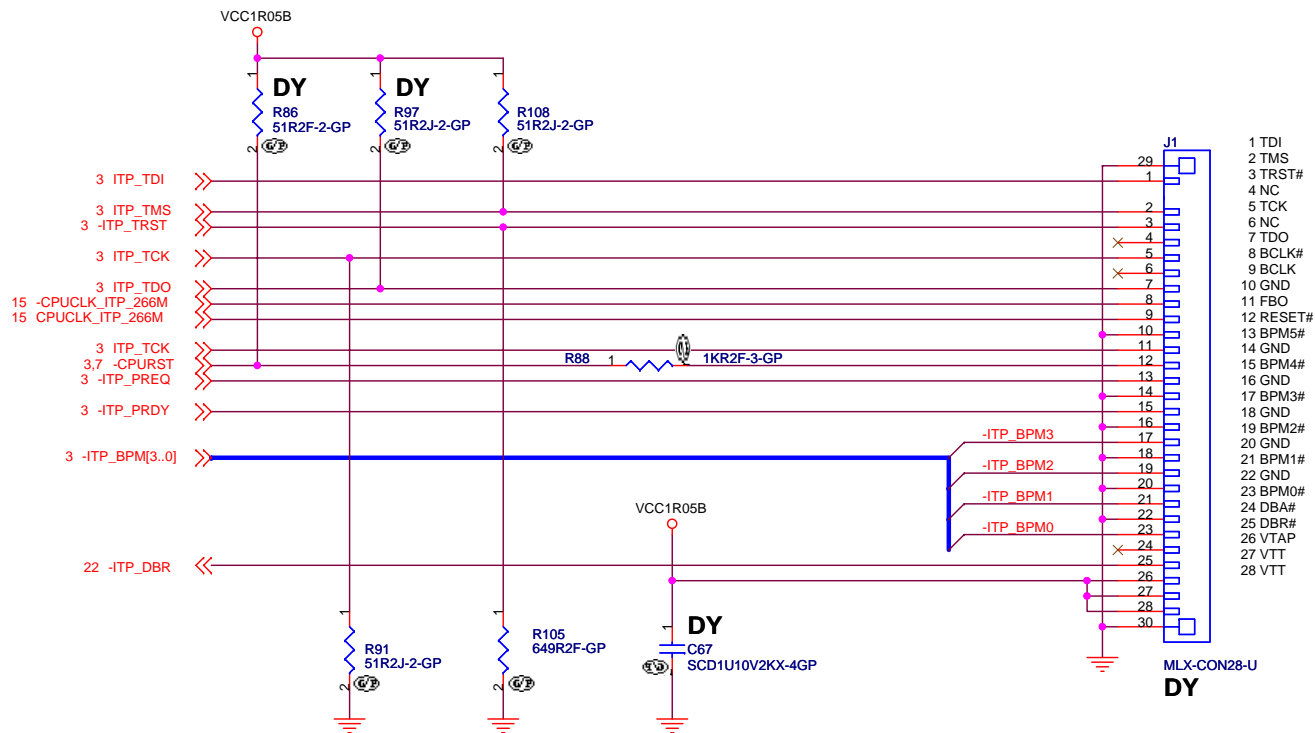
**PLACE UNDER PC-CARD SLOT**  
H8 I2C Bus 2 ADDRESS : 9AH  
TEST PAD FOR BOARD MFG TEST

**Layout Comment :**

- (1) Thermal sensor trace lines should not be overlapped with other high frequency trace lines in other layers.
- (2) Also, it should not be overlapped with large amplitude trace lines either.

<Variant Name>

<b>緯創資通</b>		<b>Wistron Corporation</b>	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title: <b>THERMAL SENSOR</b>			
Size: A3	Document Number:	<b>Caramel-1</b>	Rev: SC
Date: Monday, July 14, 2008		Sheet: 5	of: 62



(\*1) TCK SIGNAL IS BRANCHED AT CPU's PIN

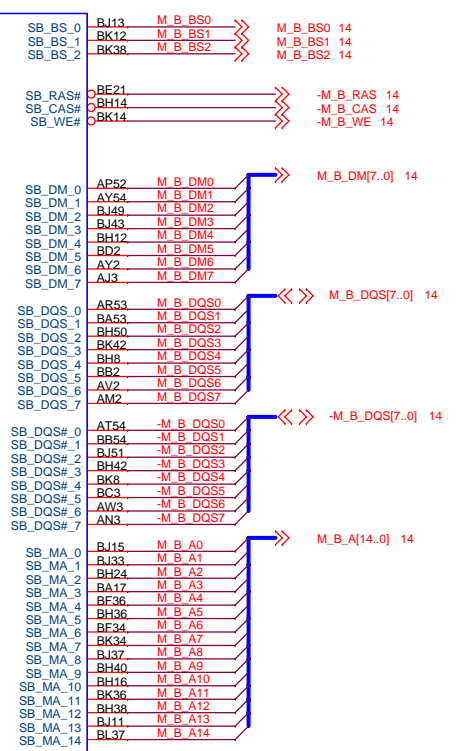
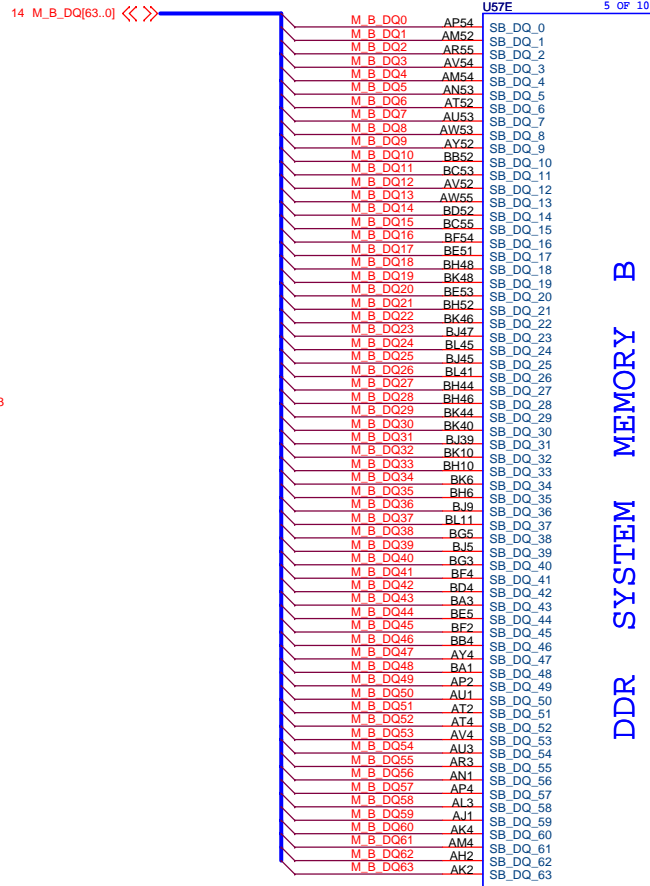
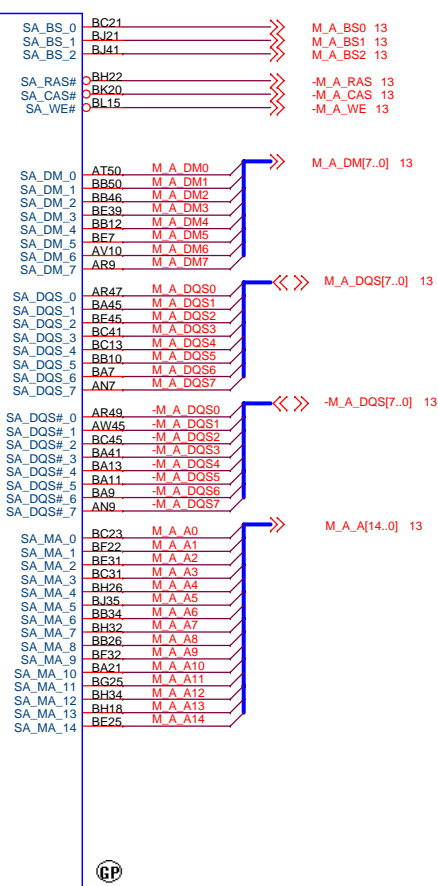
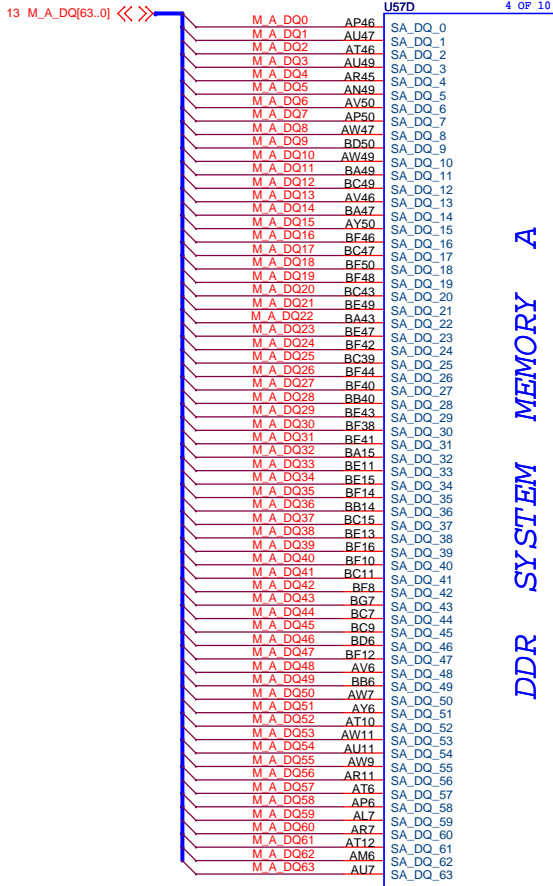
(\*2) CPURST# SIGNAL IS BRANCHED AT GMCH's PIN

Ref Des	For ITP-XDP
J1	NO_ASM-->ASM
C67	NO_ASM-->ASM
R88	NO_ASM-->1K 5% ASM
R105	ASM (No Change)
R86	ASM-->NO_ASM
R97	ASM (No Change)
R91	ASM-->51 5% ASM
R108	ASM-->51 5% ASM

<Variant Name>

<b>緯創資通</b>		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title		<b>ITP_XDP CONN</b>	
Size	Document Number	Rev	
Custom	<b>Caramel-1</b>	<b>SC</b>	
Date:	Monday, July 14, 2008	Sheet	6 of 62

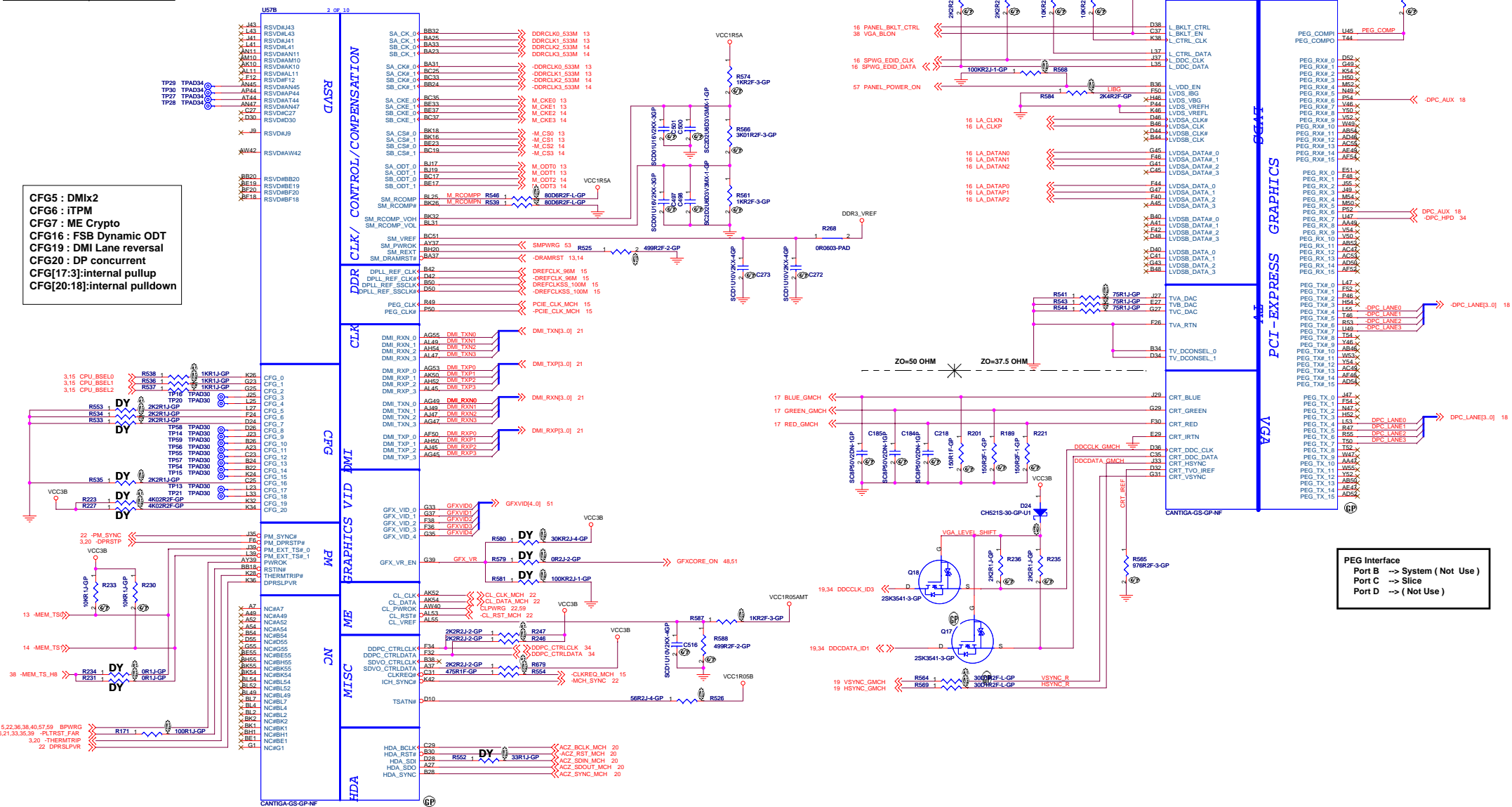






ME DEBUG PORT PIN OUT TABLE

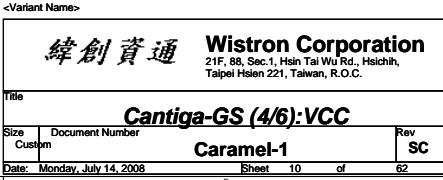
RESERVED#AN45	ME_JTAG_TCK
RESERVED#AP44	ME_JTAG_TDI
RESERVED#AT44	ME_JTAG_TDO
RESERVED#AN47	ME_JTAG_TMS



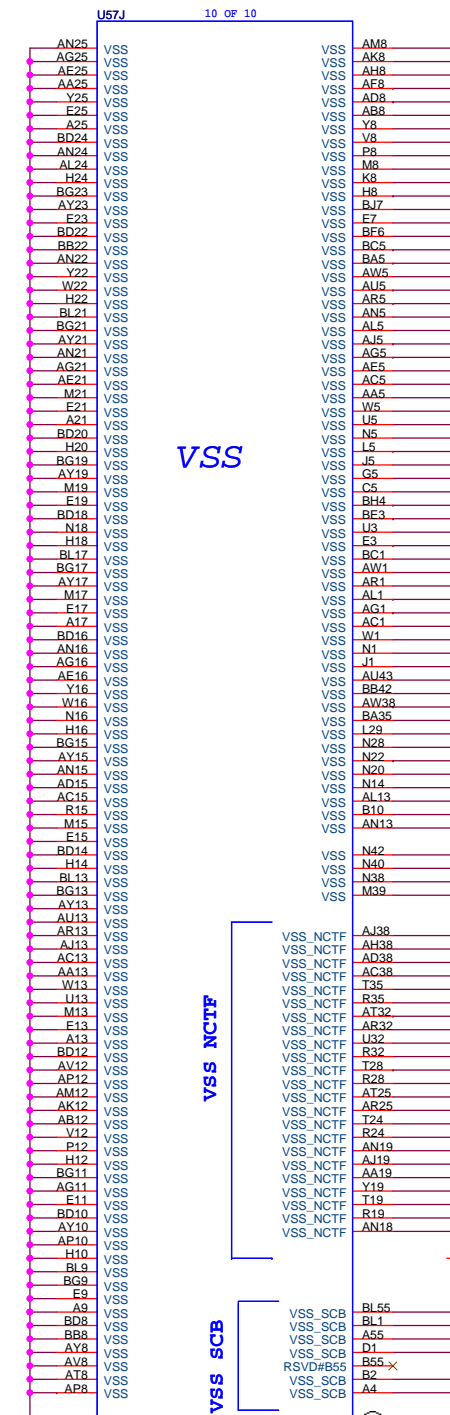
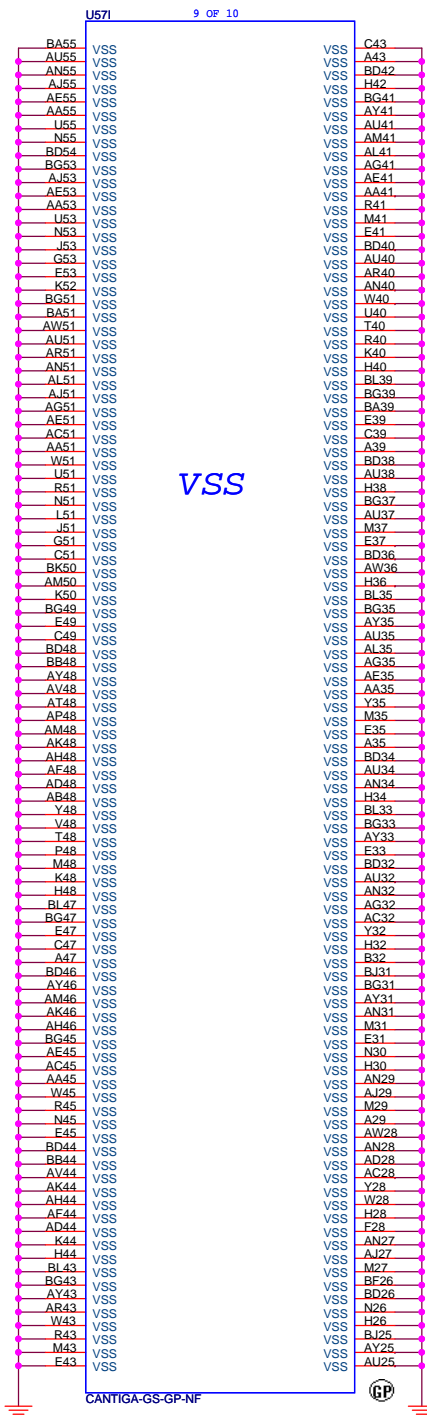
The resistor within 500 mils (1.27mm) of the (G)MCH.

PEG Interface  
 Port B → System (Not Use)  
 Port C → Slice  
 Port D → (Not Use)

&lt;Variant Name&gt;







<Variant Name>

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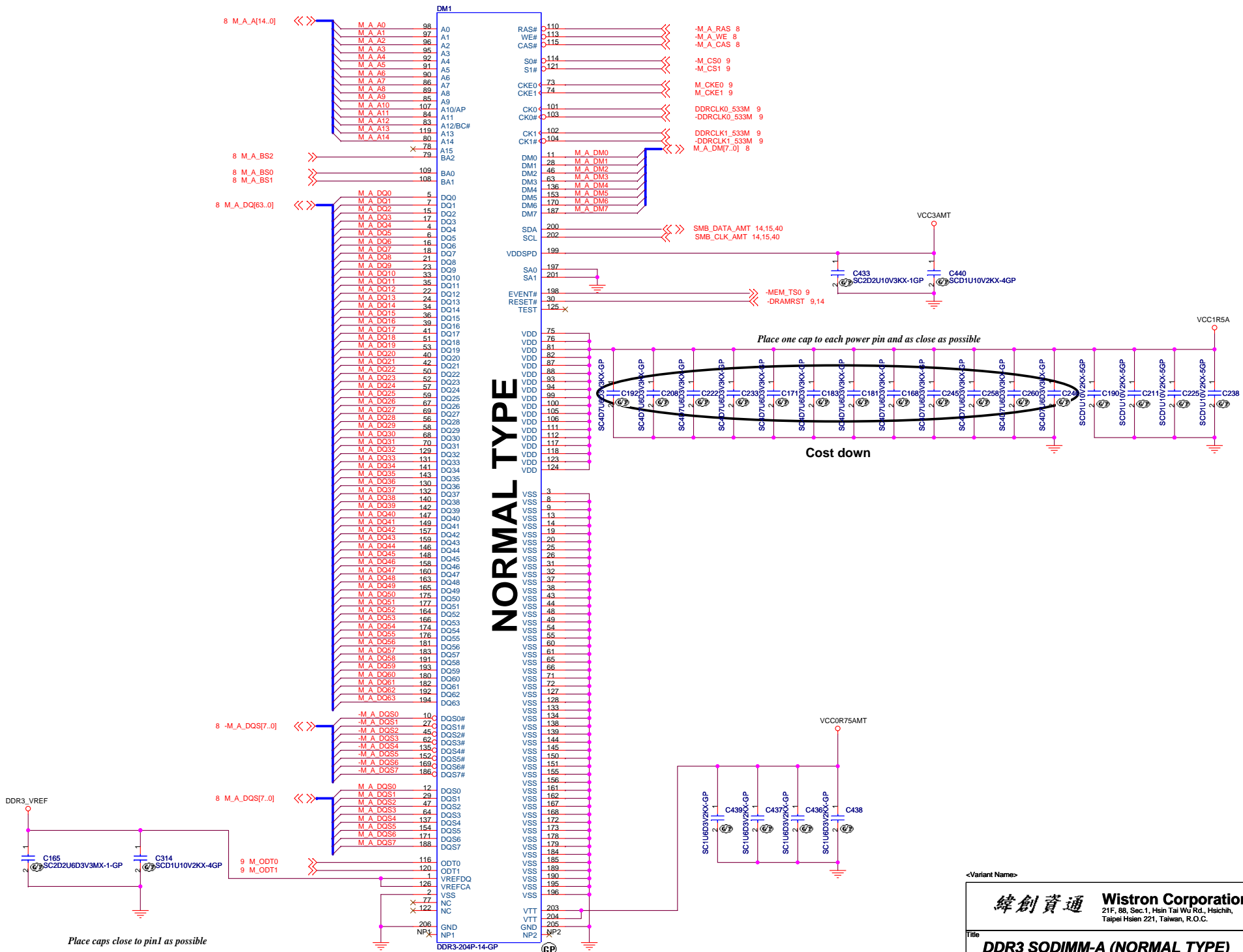
Title  
**Cantiga-GS (6/6):GND**

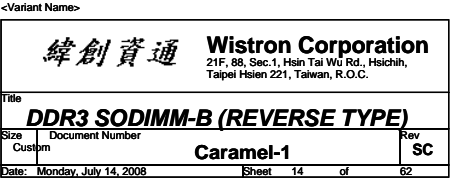
Size A3 Document Number  
**Caramel-1**

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Rev SC

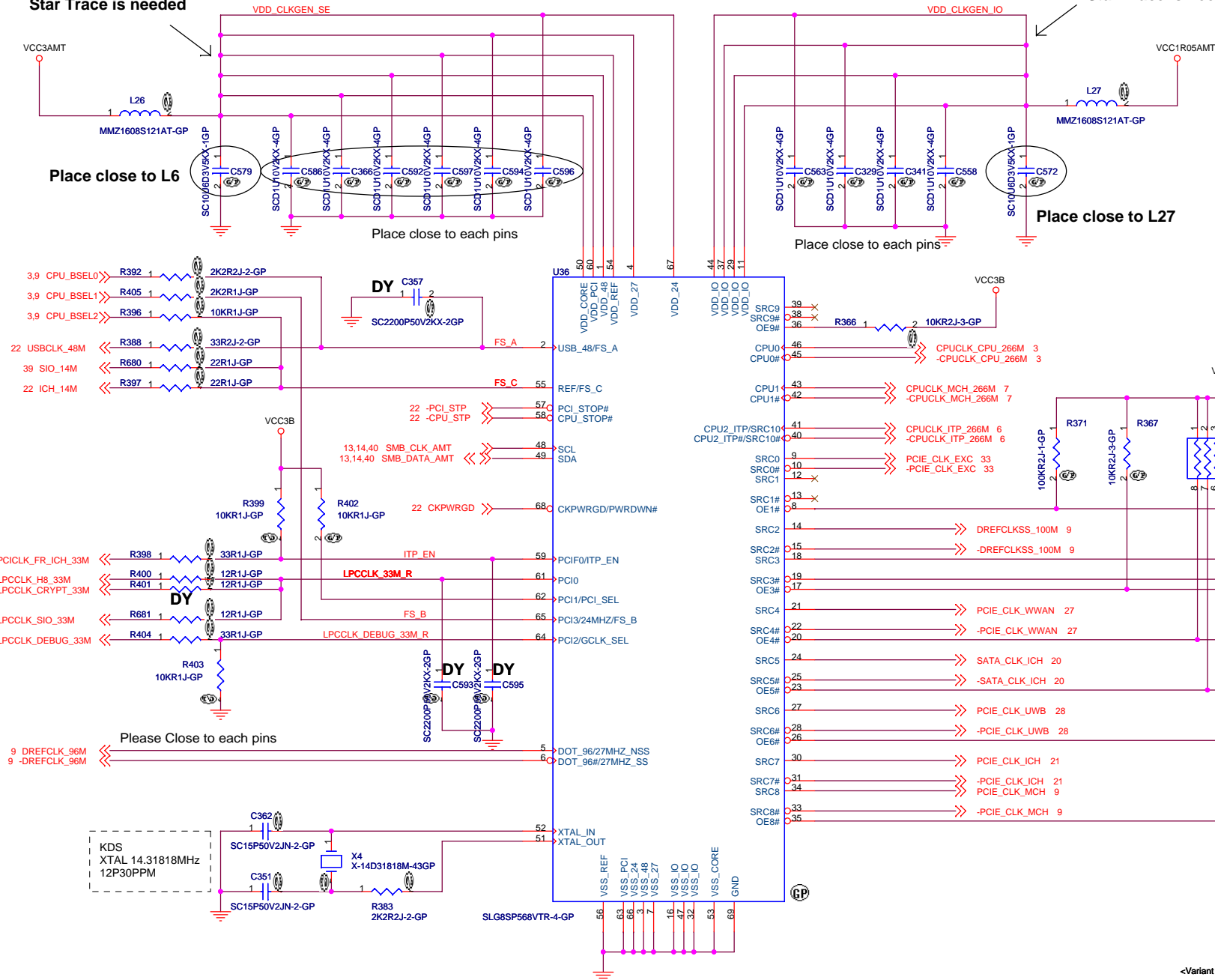
# NORMAL TYPE





Star Trace is needed

Star Trace is needed



SERC#	OE#	DEVICE
0		EXPRESS
1	OE1#	SLICE
2		GFX
3	OE3#	WLAN
4	OE4#	WWAN
5	OE5#	SATA
6	OE6#	UWB
7		ICH
8	OE8#	MCH
9	OE9#	Reserved
10		ITP

[Source Cadidate]		
SILEGO	SLG8SP568V	71.08568.C03

<Variant Name>

**緯創資通 Wistron Corporation**  
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Title: **CLOCK GEN(CK505)**

Size A3 Document Number **Caramel-1** Rev **SC**

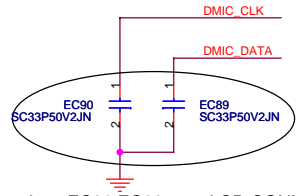
Date: Monday, July 14, 2008 Sheet 15 of 62



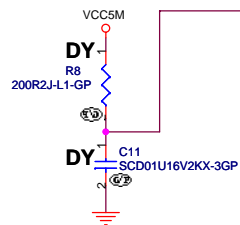
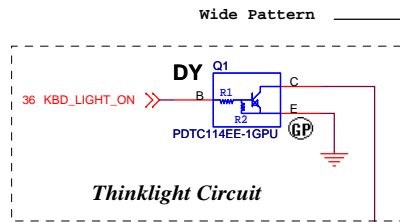
# LCD / Inverter Connector

<Comment>

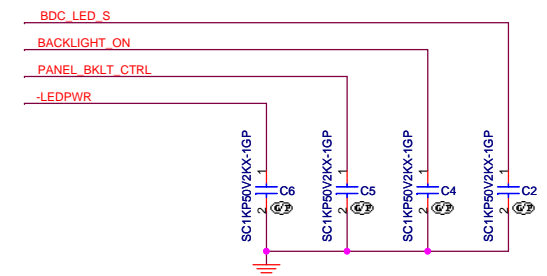
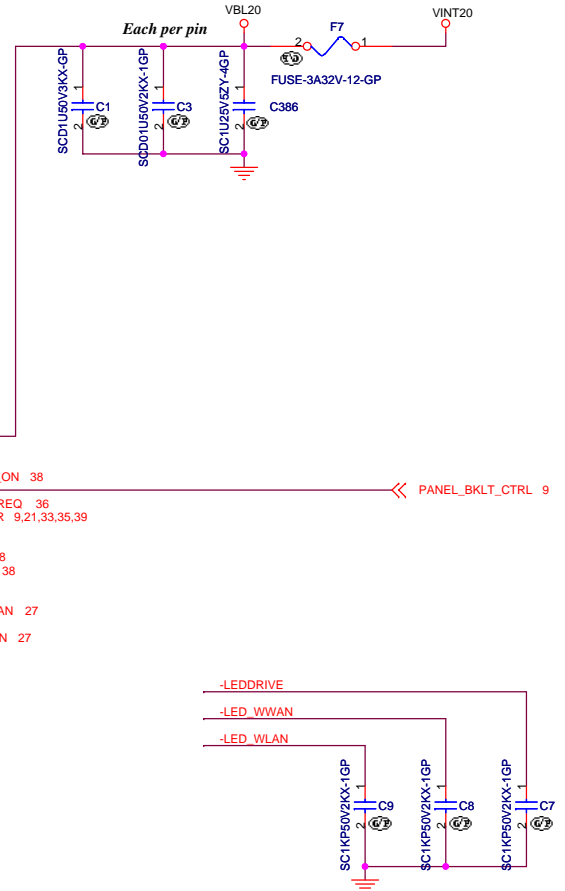
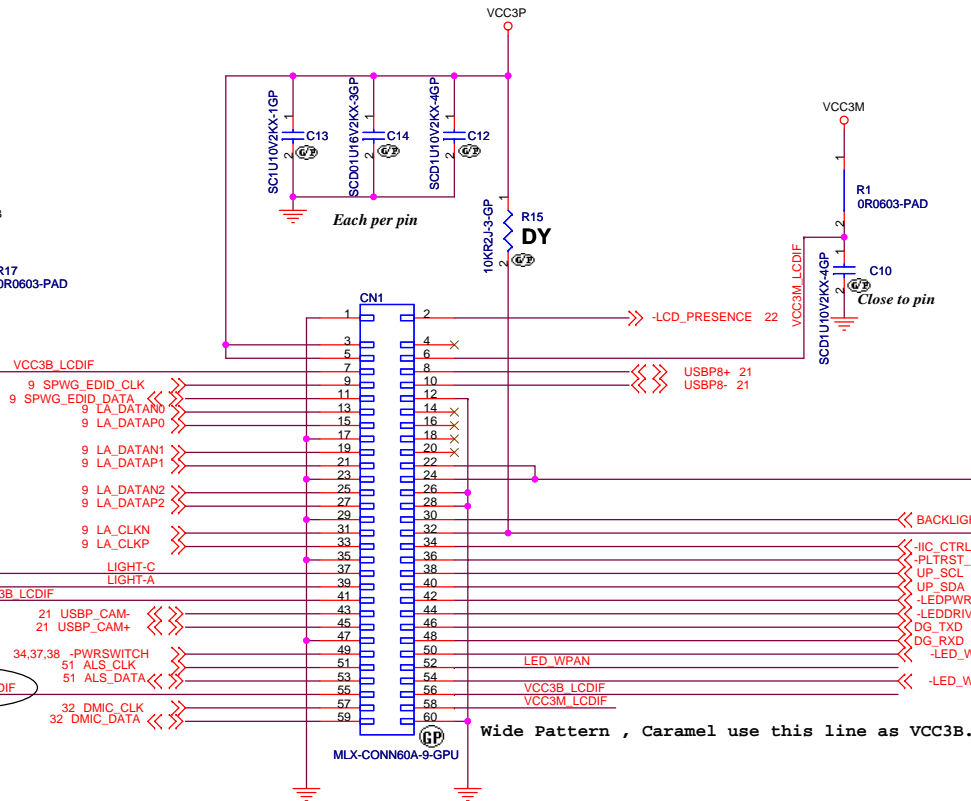
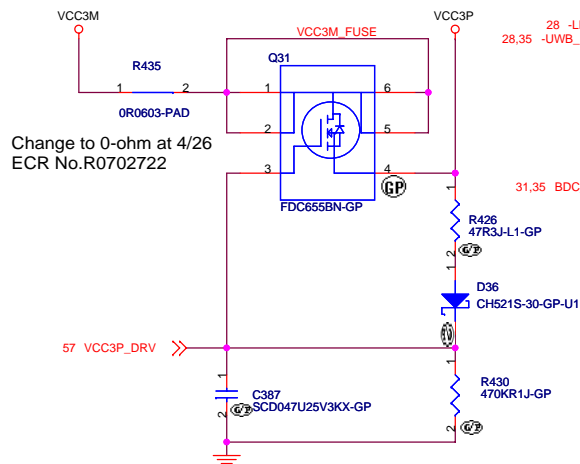
R19, R18, R2, R3, R4, R14, R5 and R16  
will be removed after SDV evaluation.



Please place EC89,EC90 near LCD CONN.



AND GATE
U51 U52 : TC7SH08FU
OR GATE
U53 : TC7SH32FU
NAND GATE
U16 : TC7SH00FU

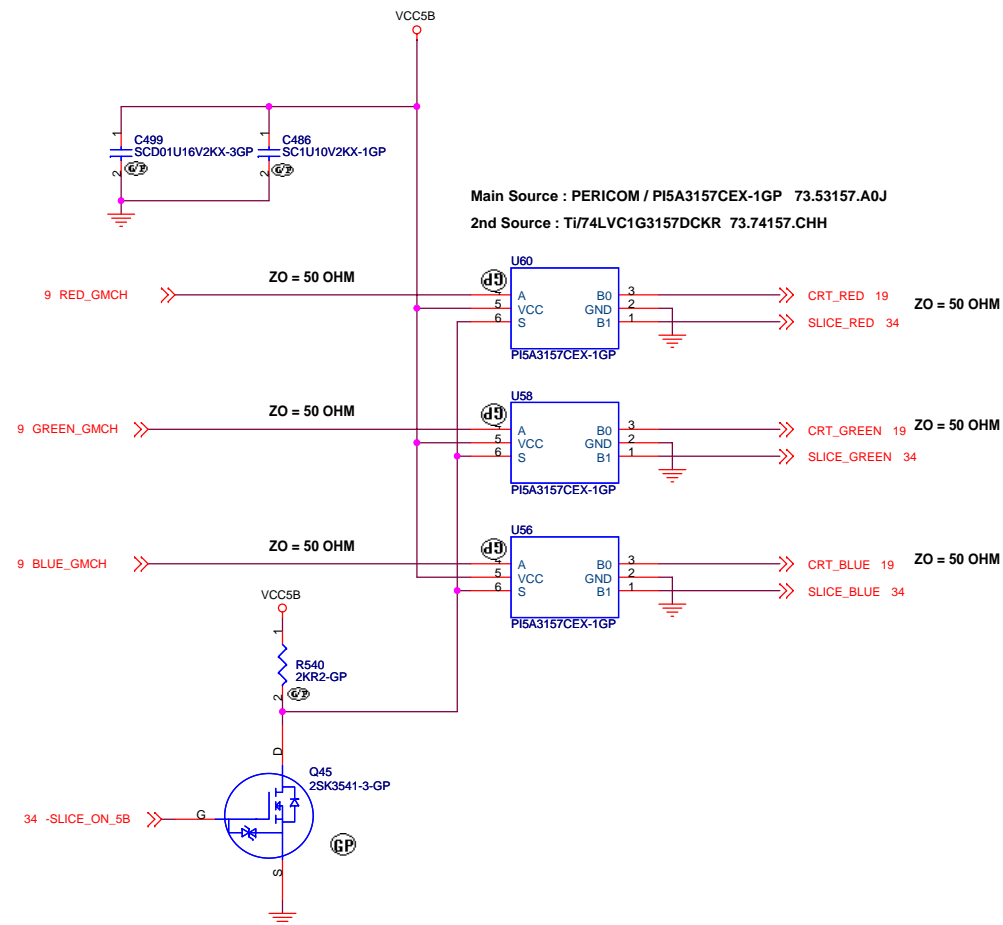


<Variant Name>

**緯創資通 Wistron Corporation**  
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,  
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Title			
LCD CONNECTOR			
Size	Document Number	Rev	
A3		SC	
Date:	Monday, July 14, 2008	Sheet	16 of 61

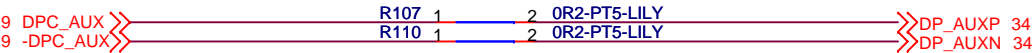
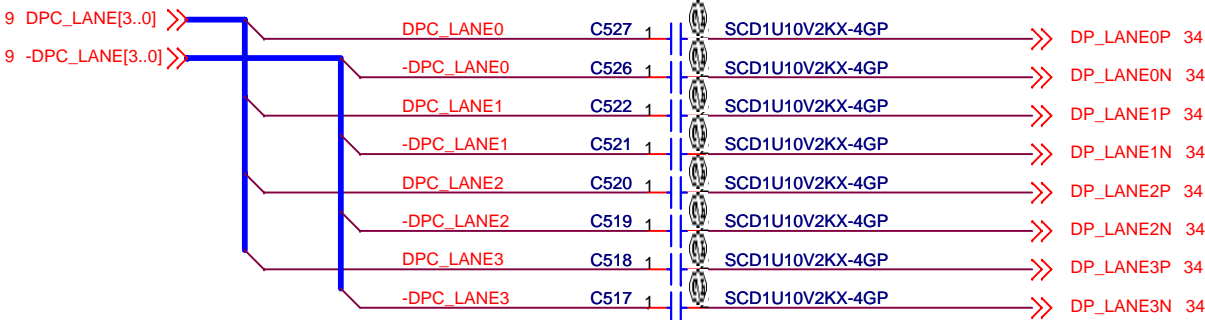




<Variant Name>

<b>緯創資通</b>		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>CRT SELECTOR</b>			
Size A3	Document Number <b>Caramel-1</b>		Rev <b>SC</b>
Date: Monday, July 14, 2008		Sheet 17 of	62

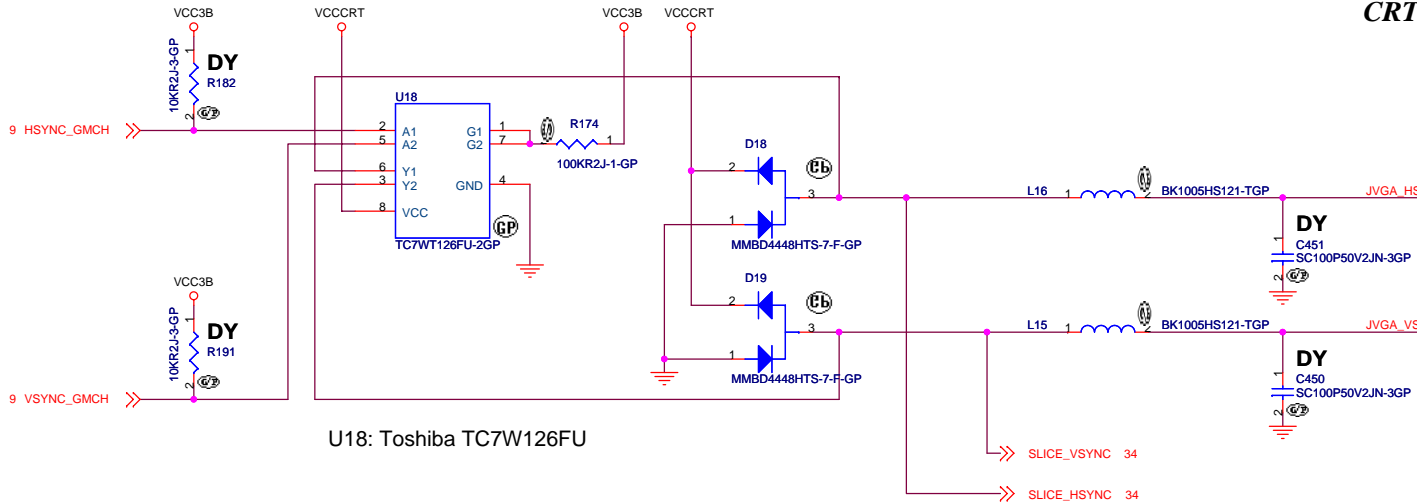
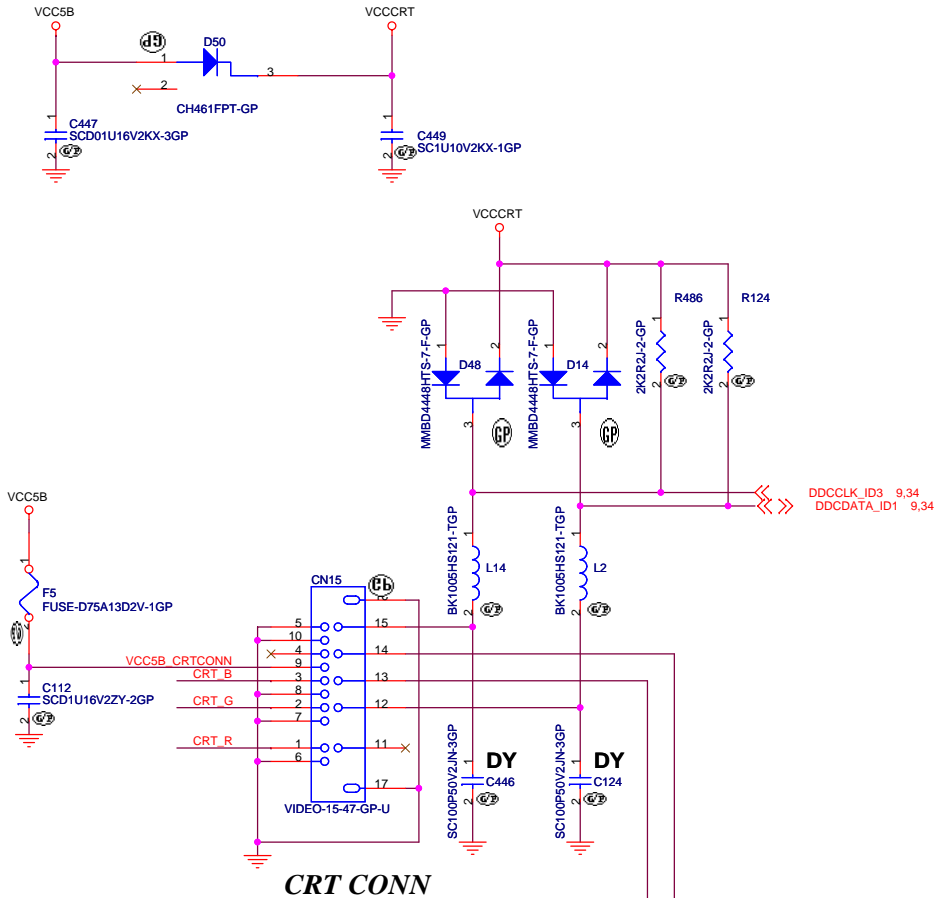
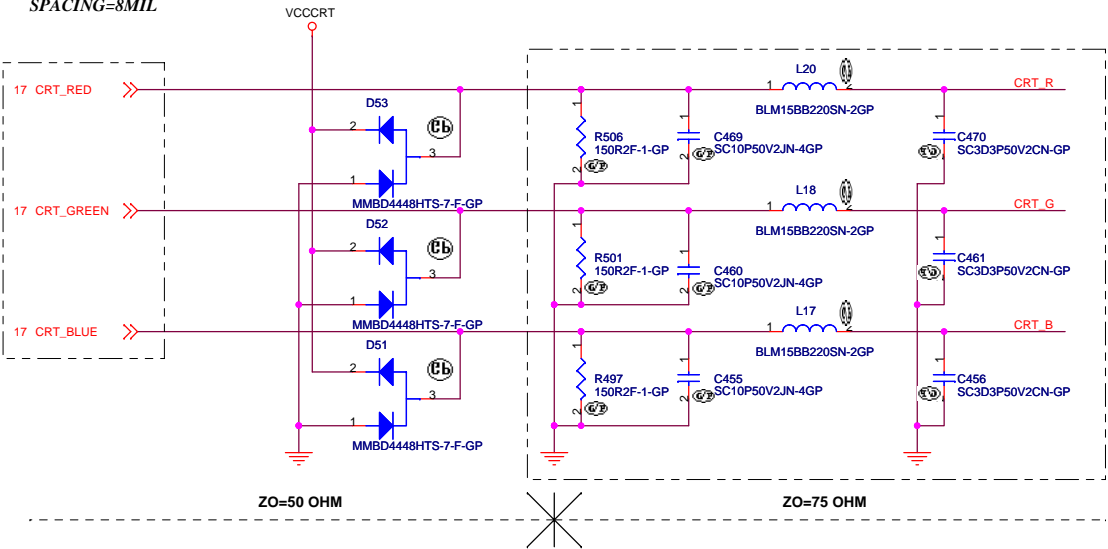
System DP: GMCH to SLICE Connector



<Variant Name>

<div>緯創資通</div> <div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>		
Title <b>Display Port AC Coupling</b>		
Size A4	Document Number <b>Caramel-1</b>	Rev <b>SC</b>
Date: Monday, July 14, 2008		Sheet 18 of 62

GND GUARDING  
EACH SIGNAL WIDTH DEPENDS ON ZO(TRACE IMPEDANCE)  
SPACING=8MIL



U18: Toshiba TC7W126FU

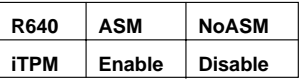
<Variant Name>

**緯創資通 Wistron Corporation**  
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Taipei Hsien 221, Taiwan, R.O.C.

Title  
**EXT CRT INTERFACE**

Size A3	Document Number <b>Caramel-1</b>	Rev <b>SC</b>
Date: Monday, July 14, 2008		
Sheet 19 of 62		

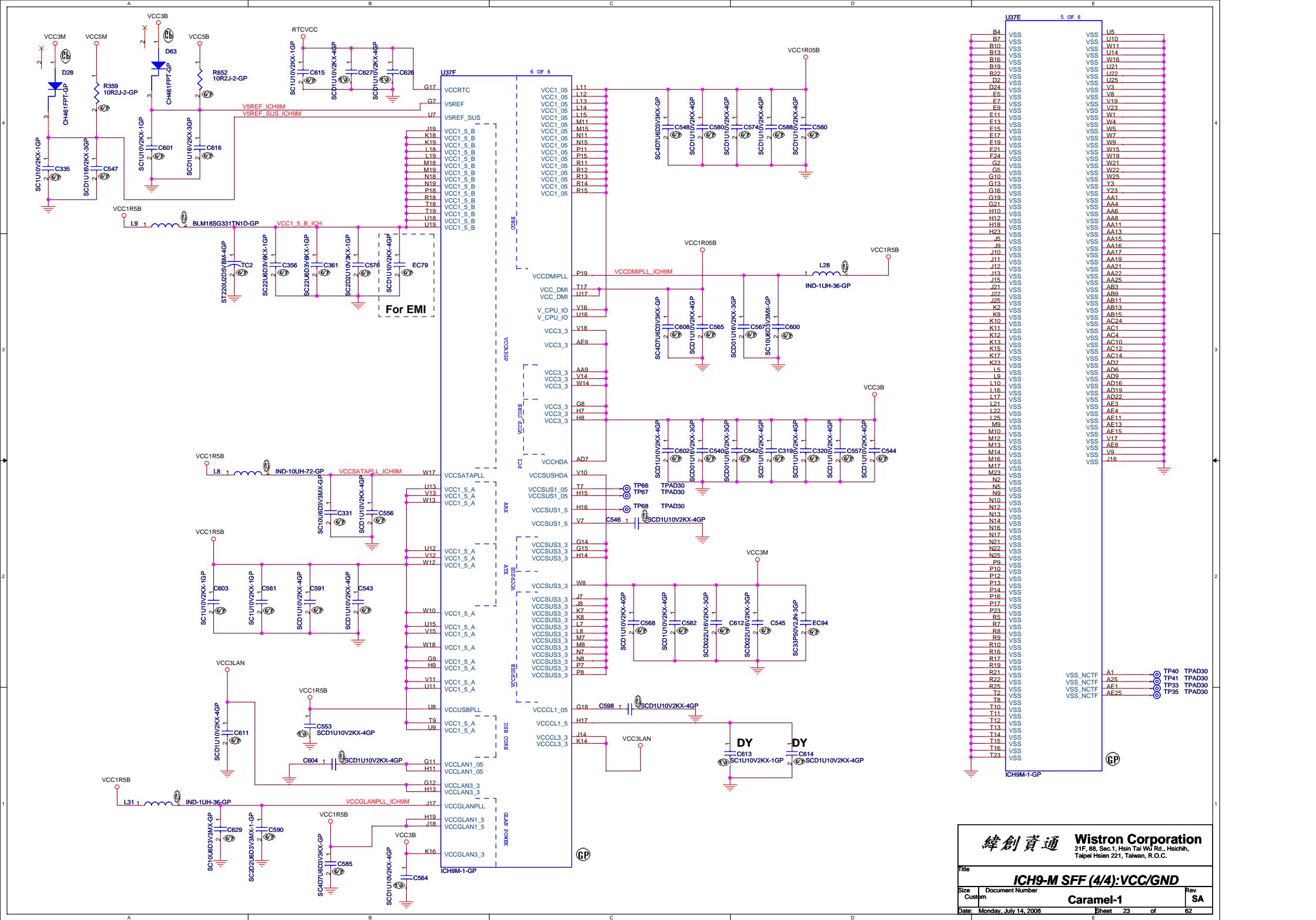


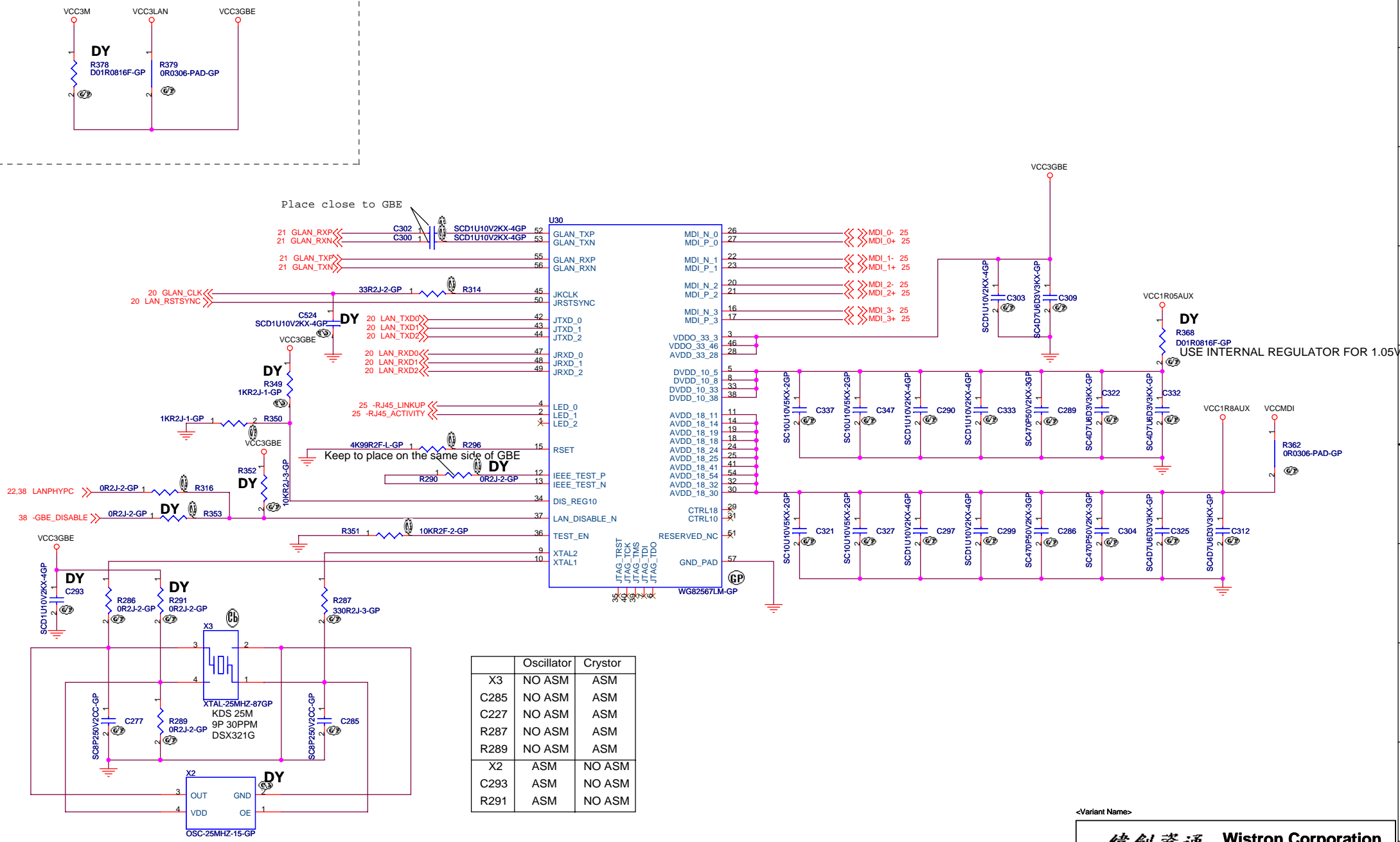


USB0 : Port0 (USB EXT BOARD)  
USB1 : Port1  
USB2 : WLAN  
USB3 : WWAN  
USB4 : UWB  
USB5 : 3-in-1  
USB6 : Port3 (IOSUB CARD)  
USB7 : Express  
USB8 : FPR (LCD CONN)  
USB9 : BDC  
USB10 : Slice  
USB11 : Camera (LCD CONN)

-GNT0	BIOS
LOW	SPI
HIGH	LPC(FWH)

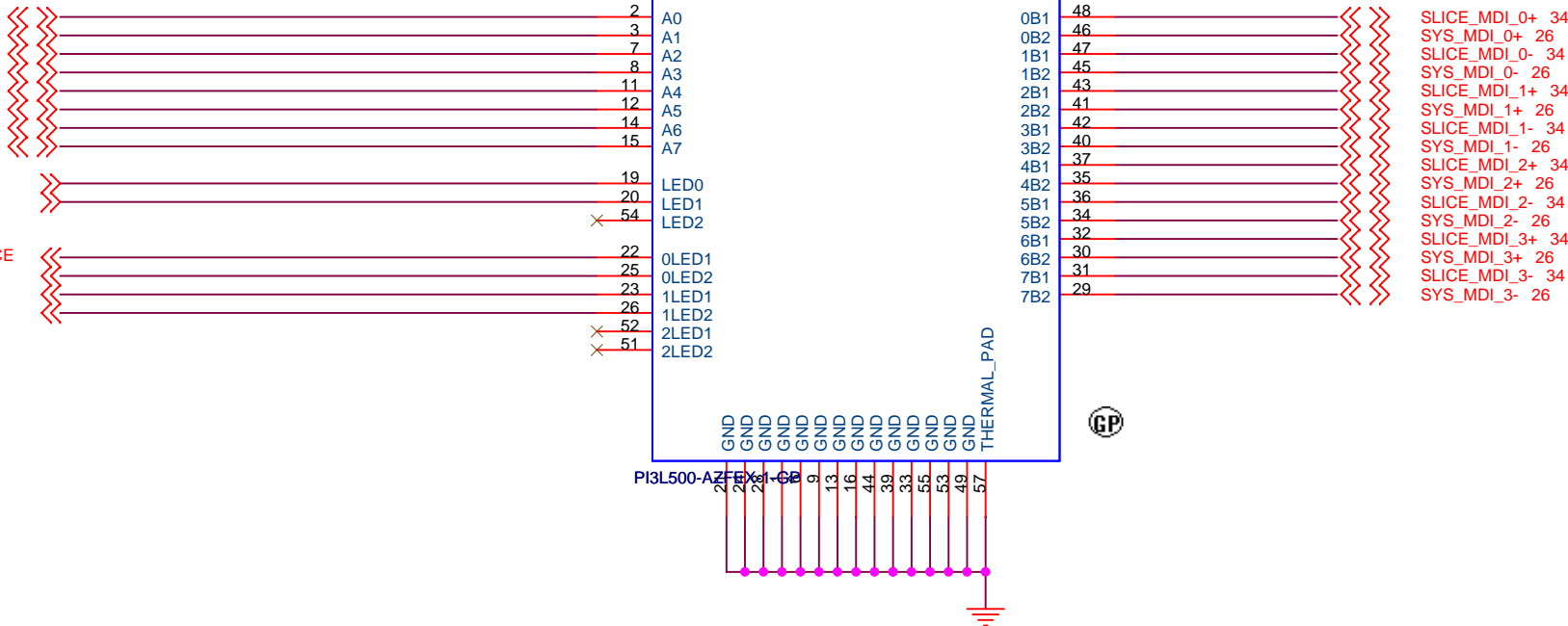








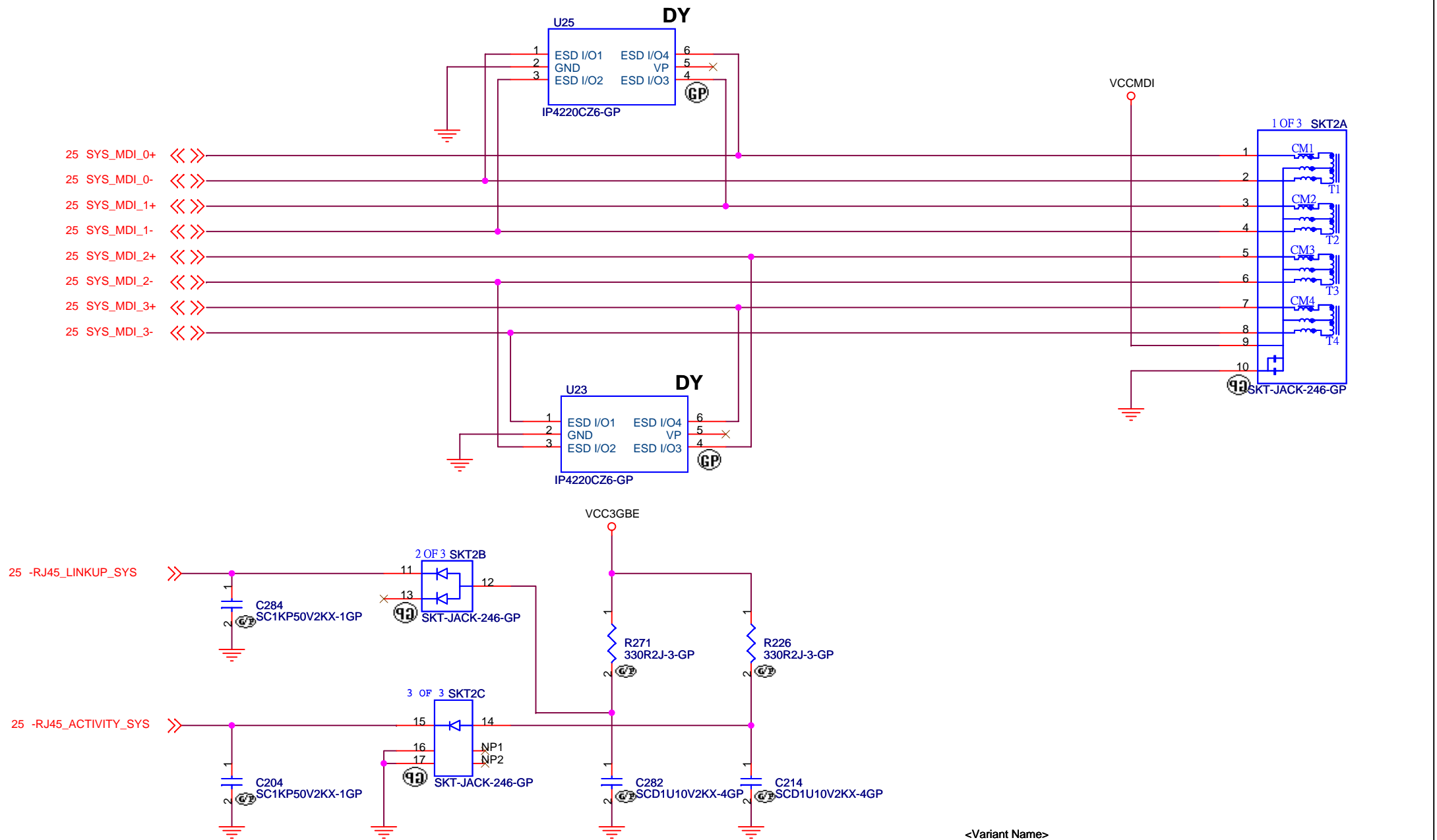
24 MDI\_0+  
24 MDI\_0-  
24 MDI\_1+  
24 MDI\_1-  
24 MDI\_2+  
24 MDI\_2-  
24 MDI\_3+  
24 MDI\_3-  
  
24 -RJ45\_ACTIVITY  
24 -RJ45\_LINKUP  
  
34 -RJ45\_ACTIVITY\_SLICE  
26 -RJ45\_ACTIVITY\_SYS  
34 -RJ45\_LINKUP\_SLICE  
26 -RJ45\_LINKUP\_SYS



		Vendor P/N	Wistron P/N
1st	Pericom	PI3L500AZFEX	73.3L500.003
2nd	TI	TS3L500AERHUR	73.3L500.A0V
3rd	MAXIM	MAX4927ETN+	74.04927.073

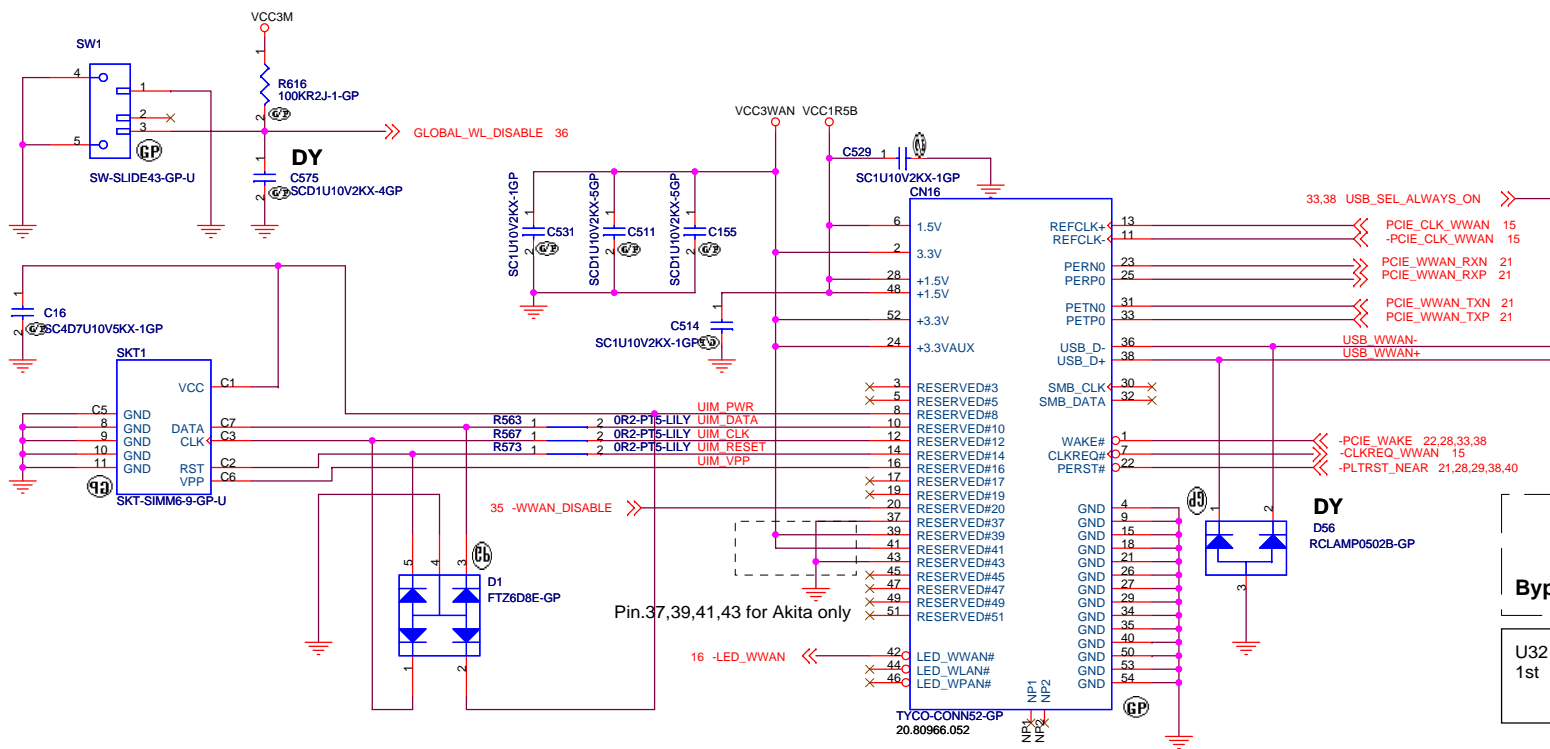
<Variant Name>

<b>緯創資通</b>		<b>Wistron Corporation</b>	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title			
<b>GBE LAN SW</b>			
Size A4	Document Number		Rev SC
Date: Monday, July 14, 2008		Sheet 25 of 62	

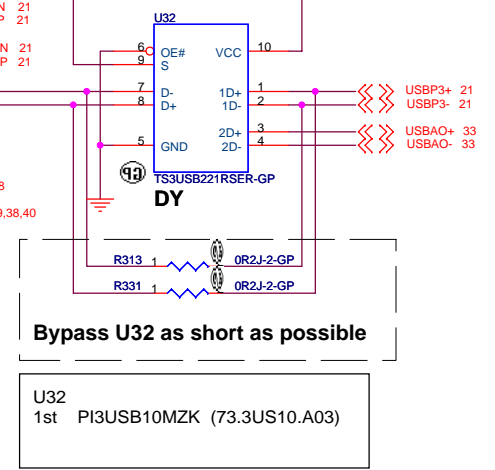


<Variant Name>

<b>緯創資通</b>		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>RJ45 CONN</b>			
Size A4	Document Number <b>Caramel-1</b>		Rev <b>SC</b>
Date:	Monday, July 14, 2008	Sheet 26 of	62

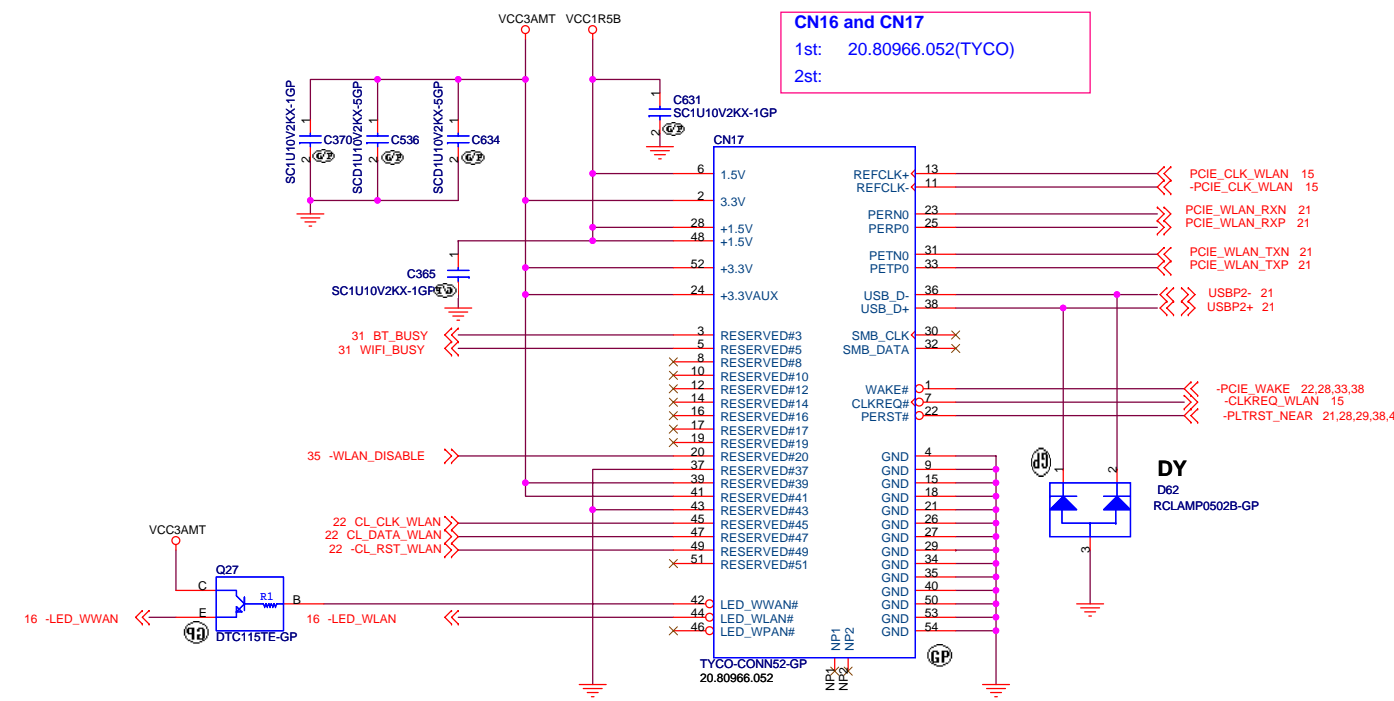


Always ON	Regular	Lite/BB/NO
U32	ASM	No_ASM
R313	No_ASM	ASM
R331	No_ASM	ASM



**Bypass U32 as short as possible**

U32  
1st PI3USB10MZK (73.3US10.A03)



**CN16 and CN17**  
1st: 20.80966.052(TYCO)  
2st:

WWAN CONTROL TABLE			
PAGE	LOCATION	YES	NO
27	CN16 SKT1 D1 C16 C531 C511 C155 C529	ASM	NON_ASM
58	Q14 R149 D17 R160 C153 R143	ASM	NON_ASM
60	H12 H13	ASM	NON_ASM

<Variant Name>

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

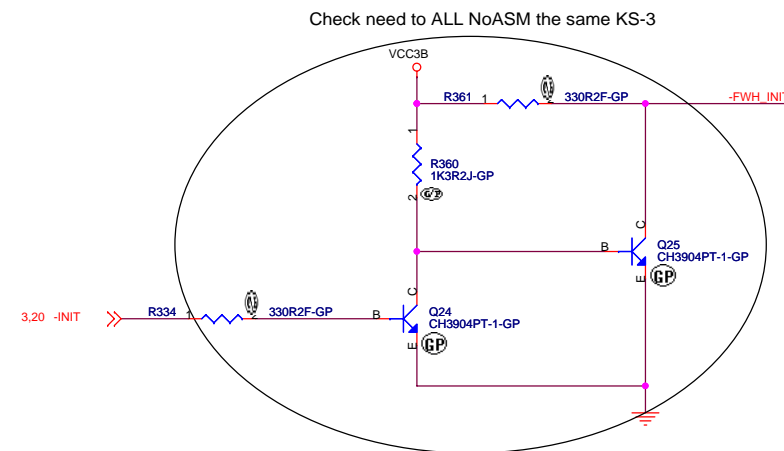
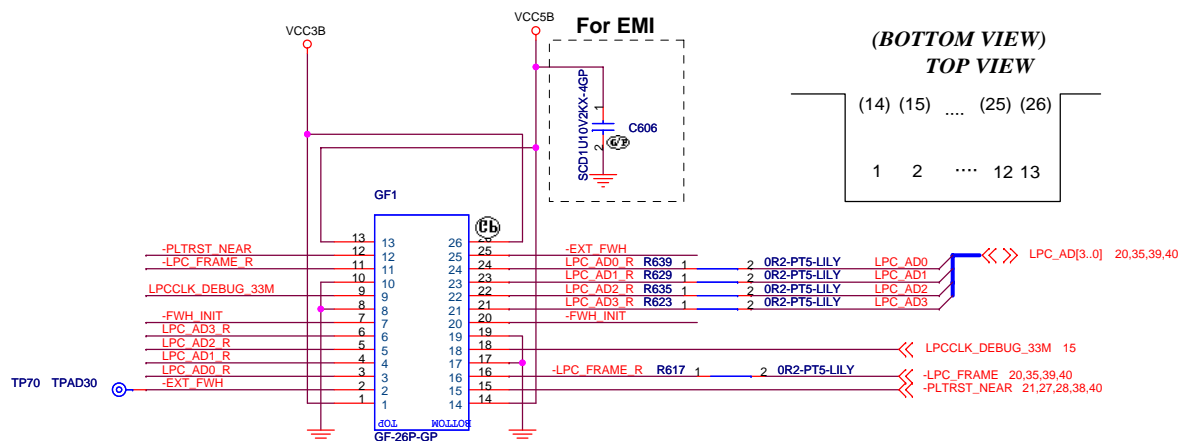
Title: **MINI CARD SLOT**

Size A3 Document Number **Caramel-1** Rev **SC**

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# Golden Finger for Debug Board



64Mbit SPI FLASH :

Macronix MX25L6405DZNI-12G: 72.25640.B01

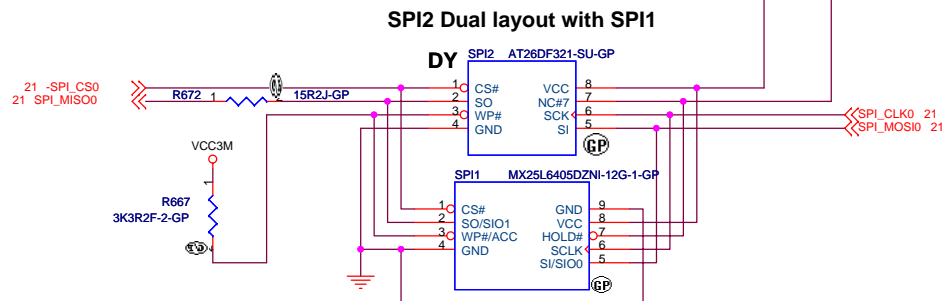
Winbond W25X64VZEIG

ATMEL XXXXXX

32Mbit SPI FLASH :

ATMEL/AT26DF321-SU:72.26321.A01

MXIC/MX25L3205DM2I-12G:72.25325.A01



SO8 and WSON8 are both supported!

<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

**SPI**

Size

Document Number

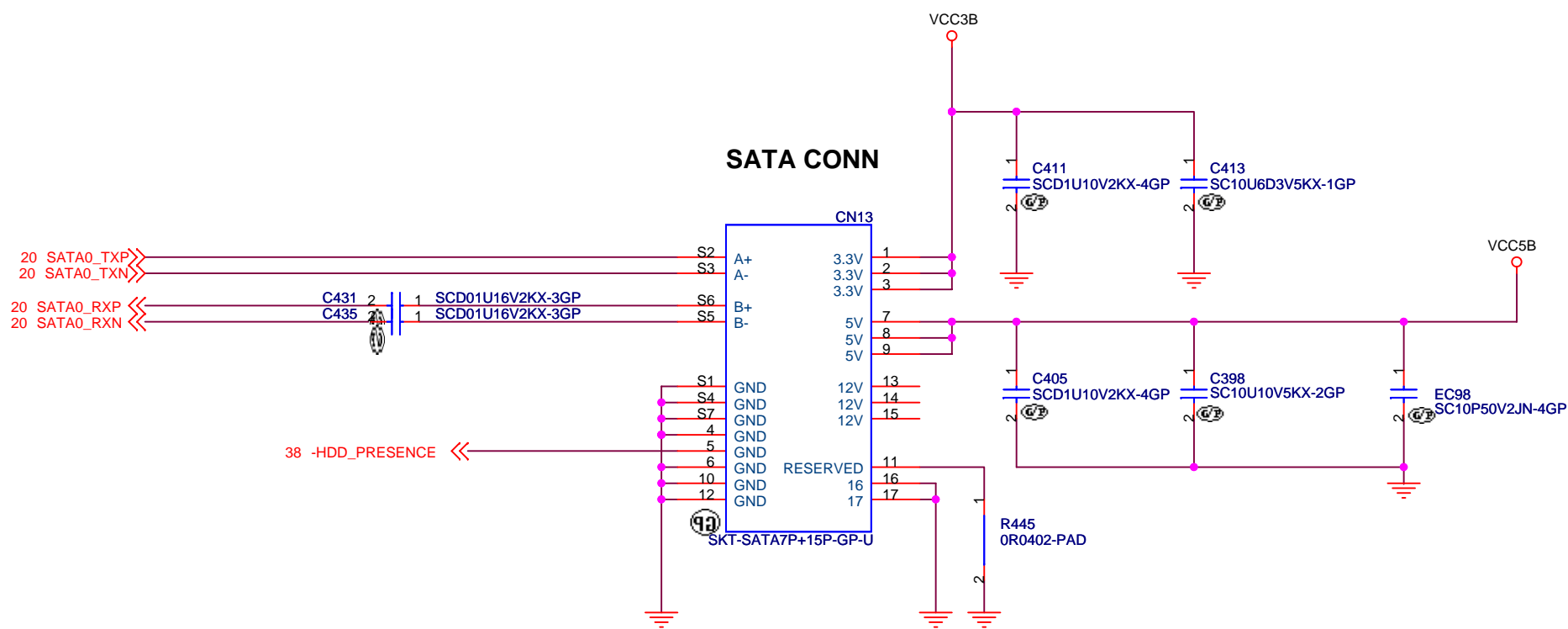
**Caramel-1**

Rev

**SC**

Date: Monday, July 14, 2008

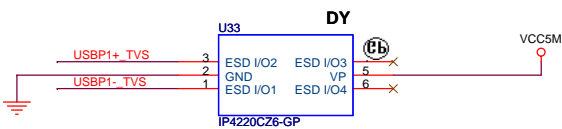
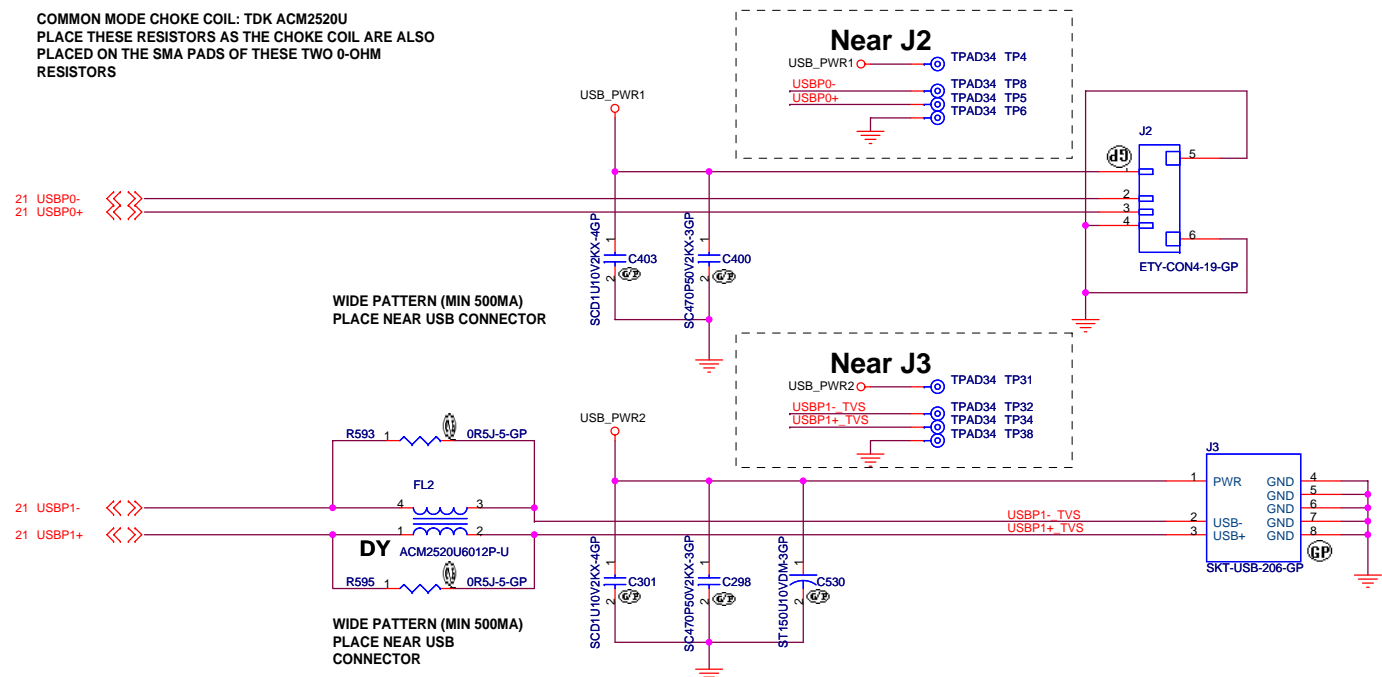
Sheet 29 of 62



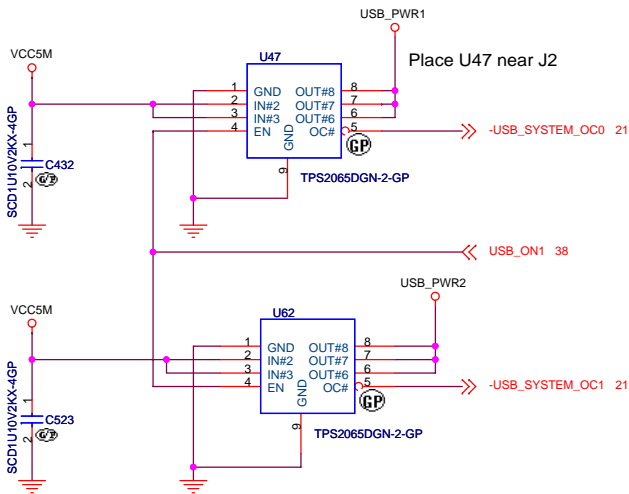
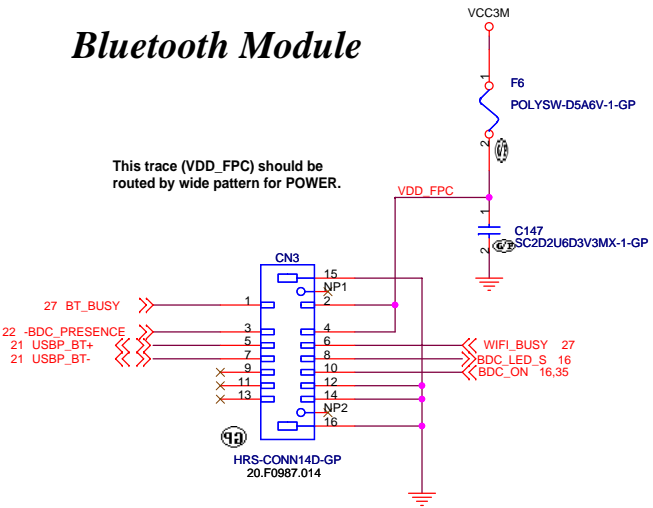
<Core Design>

<b>緯創資通</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>Title</b>			
<b>2.5 inch SATA Connector</b>			
<b>Size</b>	<b>Document Number</b>		<b>Rev</b>
A4	<b>Caramel-1</b>		<b>SC</b>
<b>Date:</b> Monday, July 14, 2008		<b>Sheet</b> 30 <b>of</b>	62

COMMON MODE CHOKE COIL: TDK ACM2520U  
PLACE THESE RESISTORS AS THE CHOKE COIL ARE ALSO  
PLACED ON THE SMA PADS OF THESE TWO 0-OHM  
RESISTORS



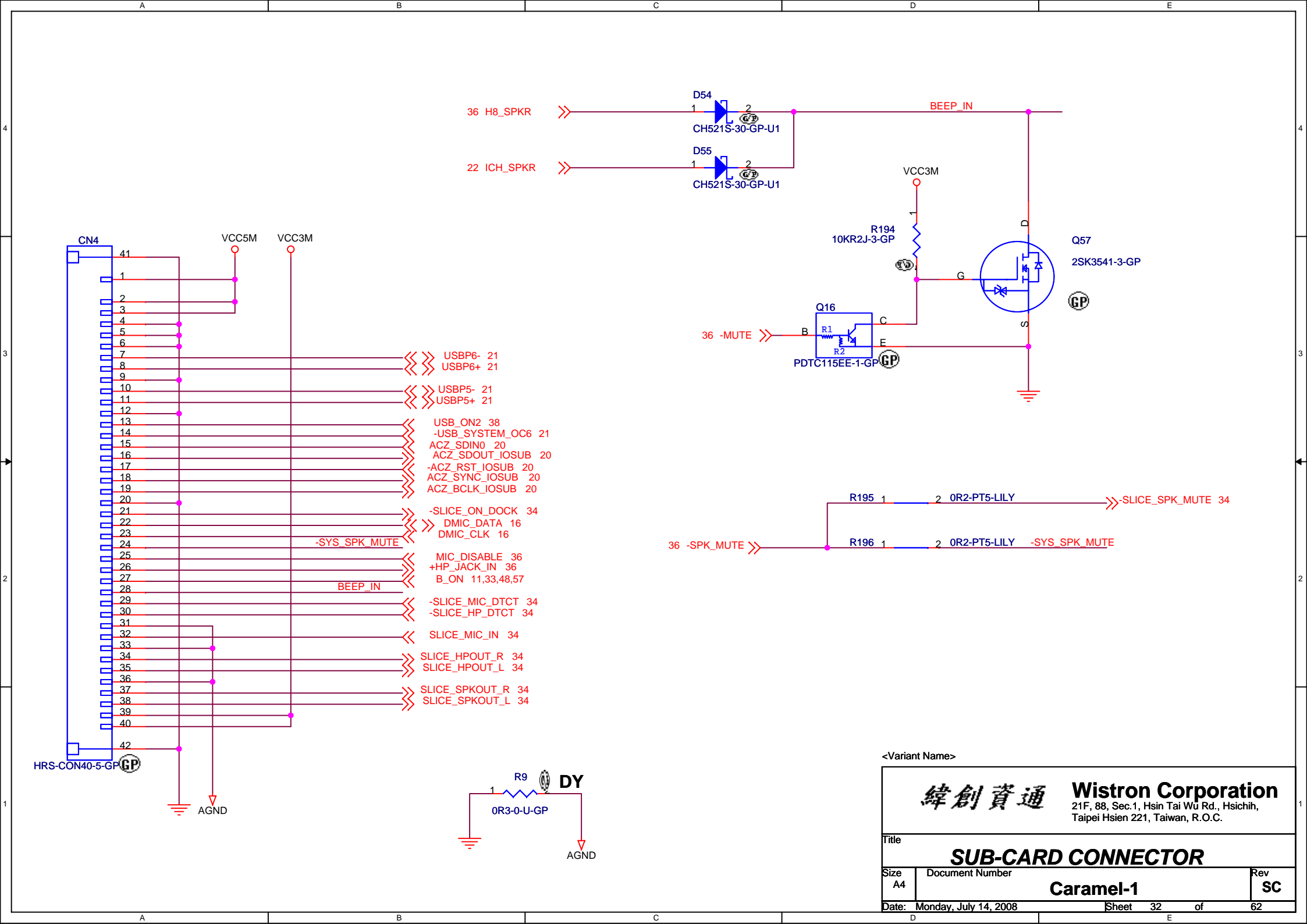
## Bluetooth Module



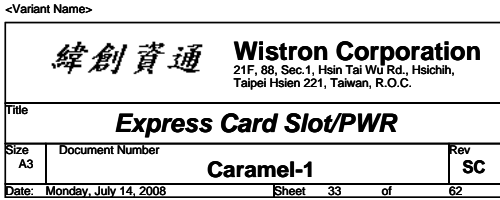
	TI P/N	WISTRON P/N
1	TPS2065DGN-GP	74.02065.079
2	TPS2065DGN-1-GP	74.02065.A79

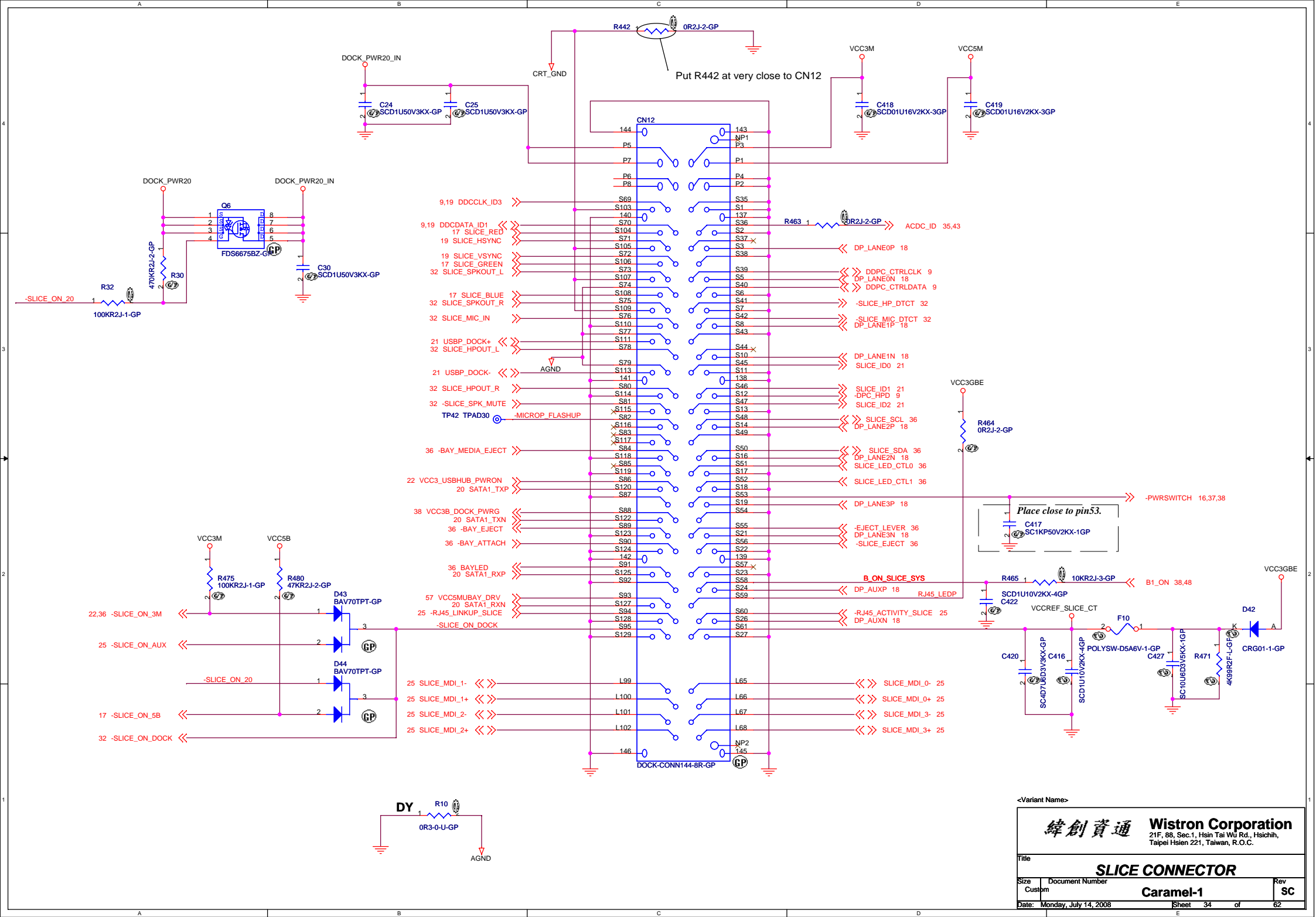
<Variant Name>

緯創資通 Wistron Corporation	
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Title	
USB POWER / CONNECTOR	
Size A3	Document Number
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<Variant Name>

緯創資通

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Title

**SLICE CONNECTOR**

Size  
Custom

**Caramel-1**

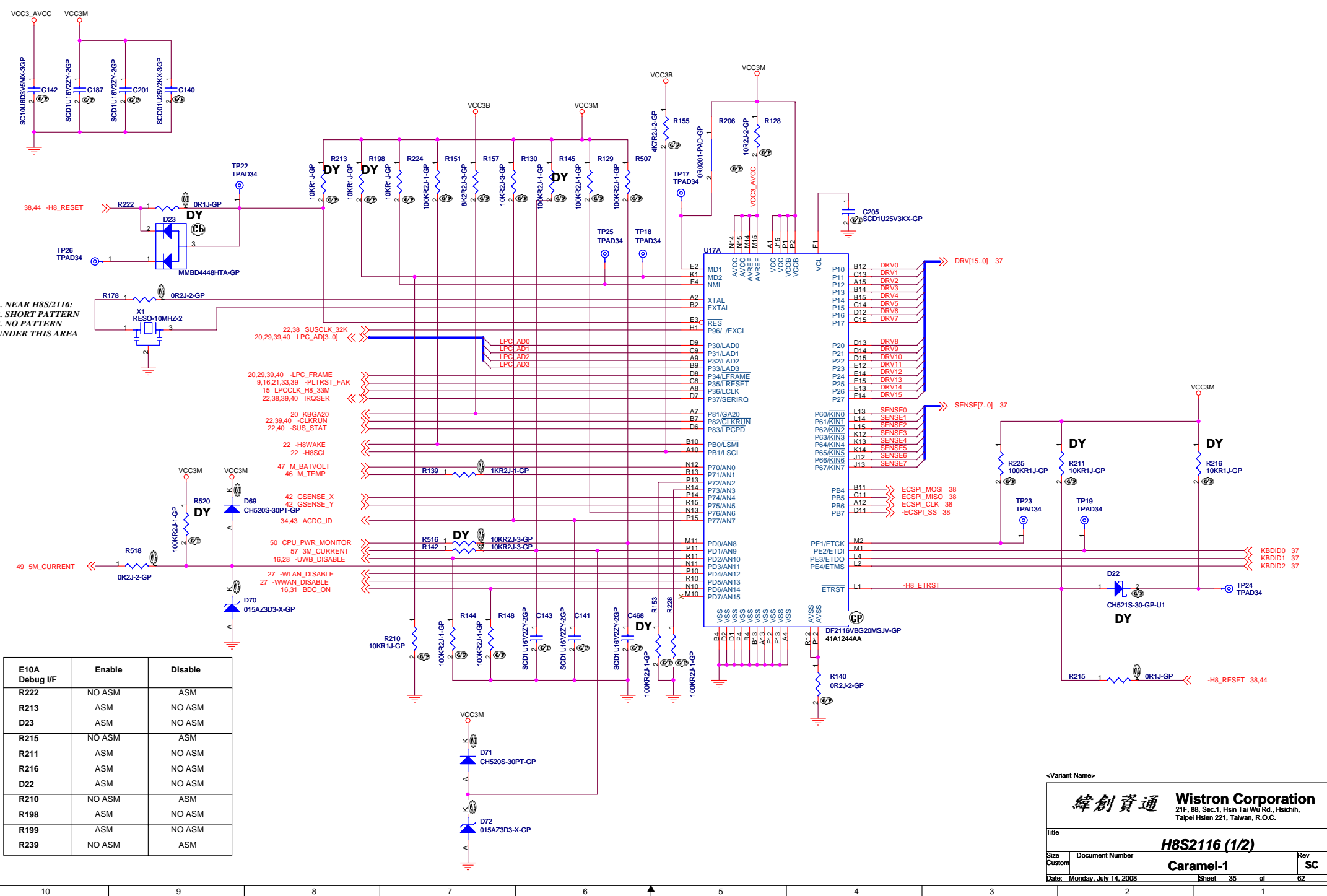
Rev  
SC

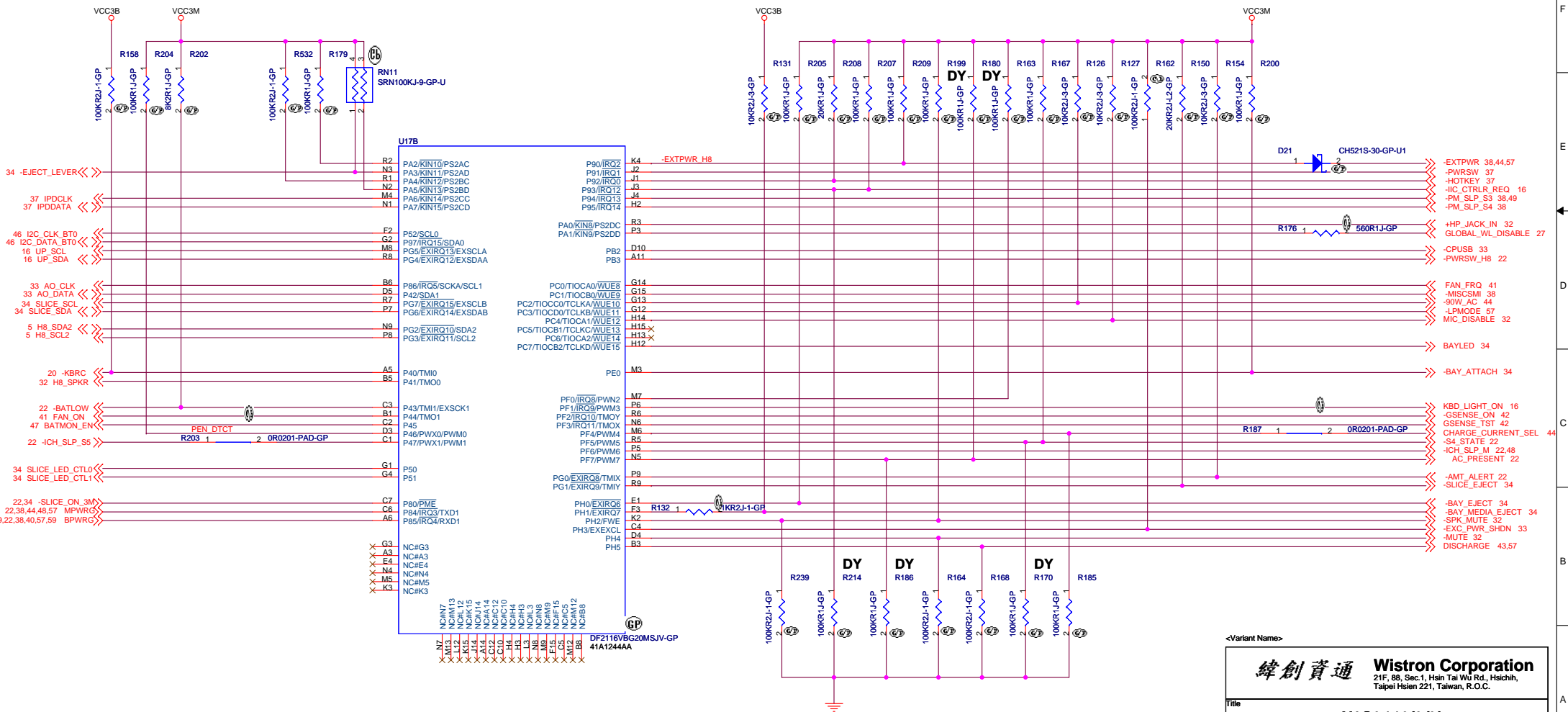
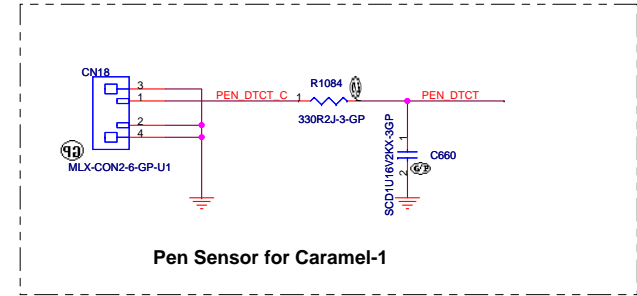
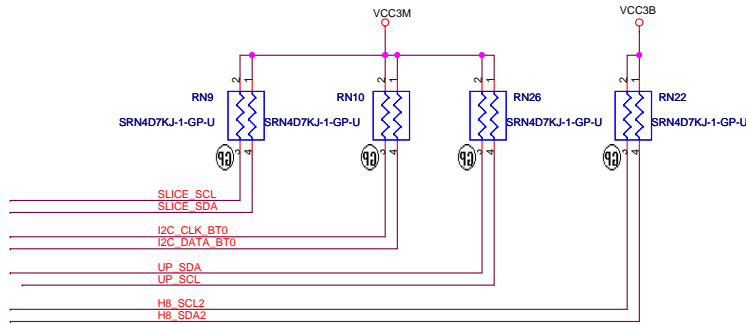
Date: Monday, July 14, 2008

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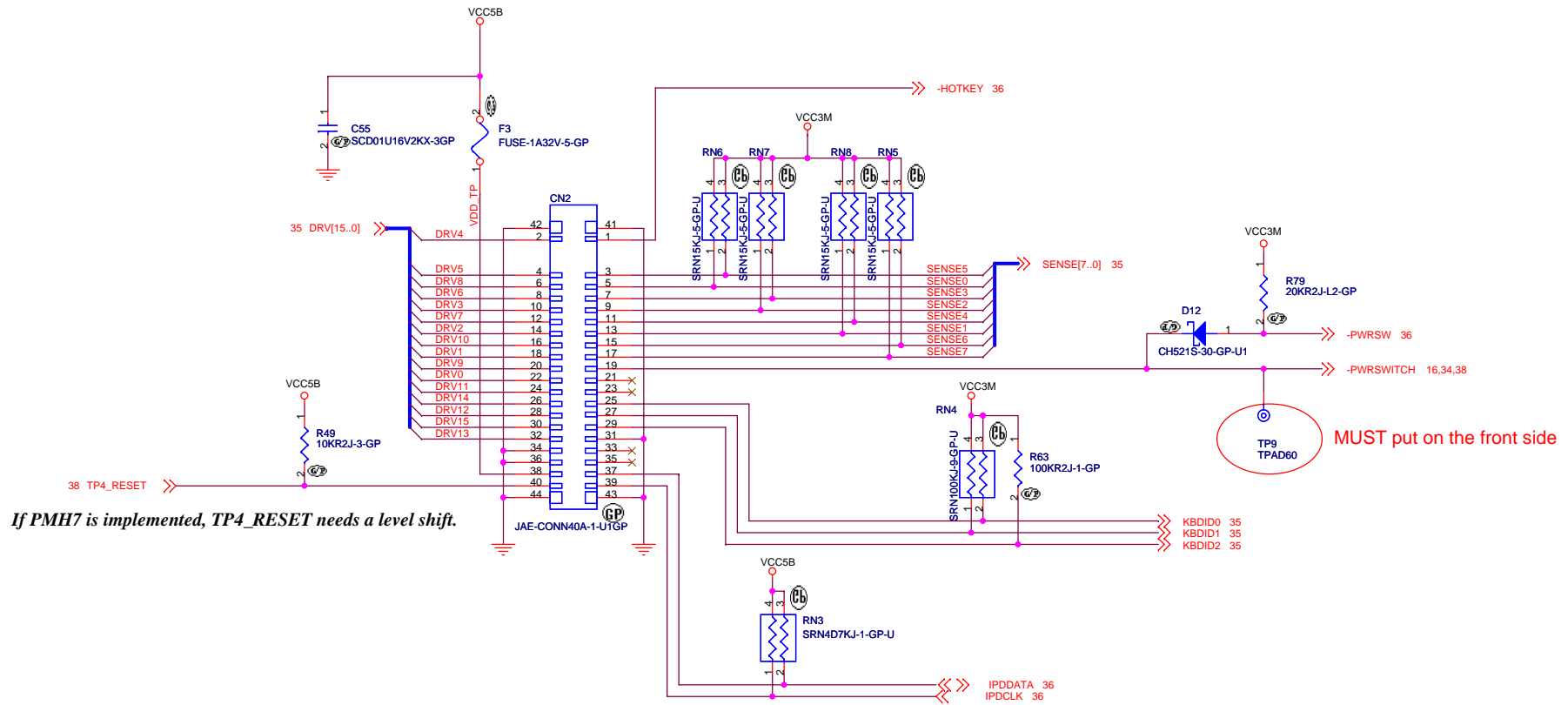
1. NEAR H8S/2116:  
2. SHORT PATTERN  
3. NO PATTERN  
UNDER THIS AREA

E10A Debug I/F	Enable	Disable
R222	NO ASM	ASM
R213	ASM	NO ASM
D23	ASM	NO ASM
R215	NO ASM	ASM
R211	ASM	NO ASM
R216	ASM	NO ASM
D22	ASM	NO ASM
R210	NO ASM	ASM
R198	ASM	NO ASM
R199	ASM	NO ASM
R239	NO ASM	ASM

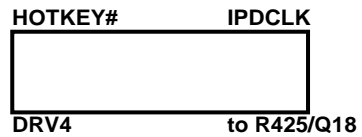




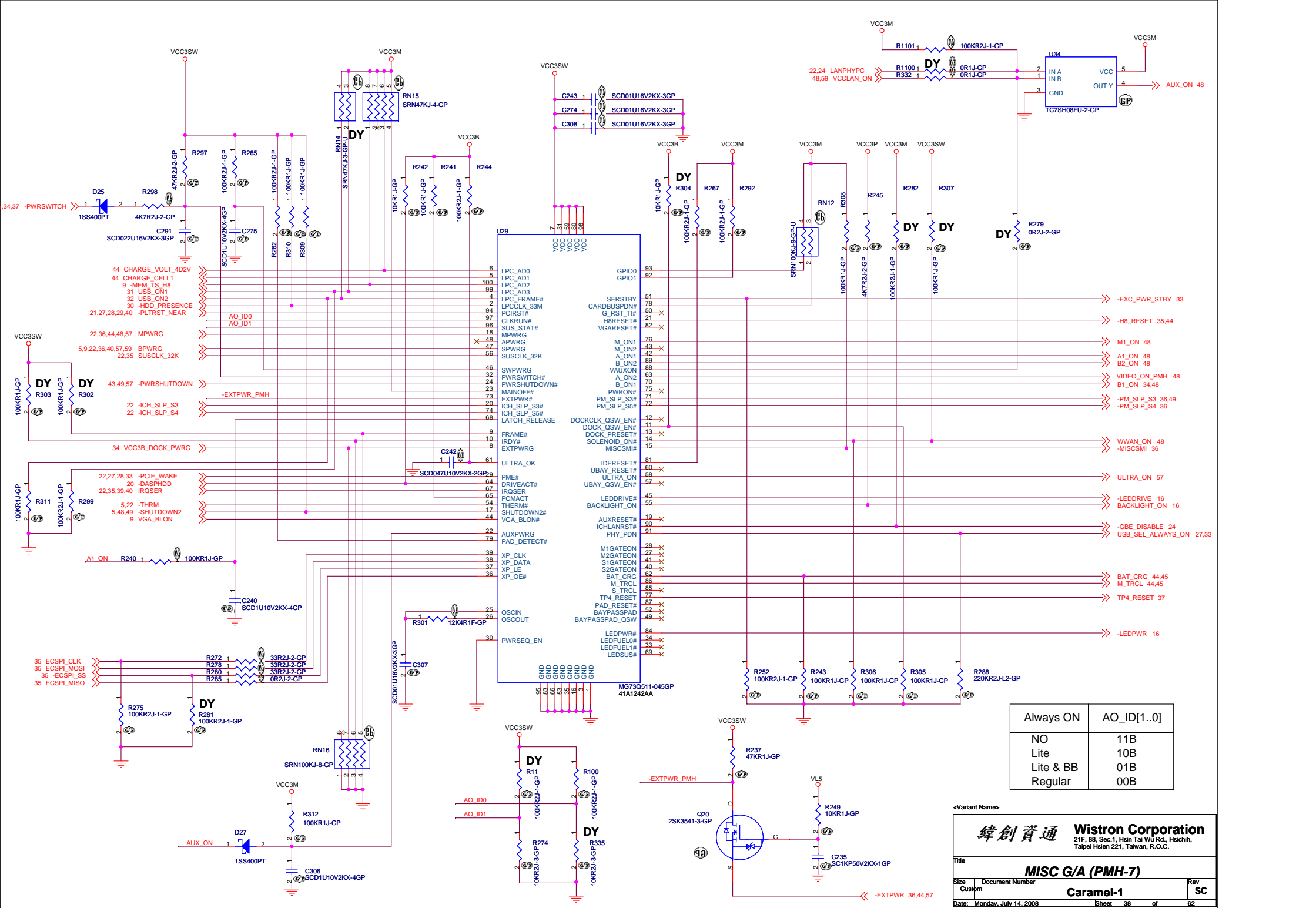
## Keyboard Connector

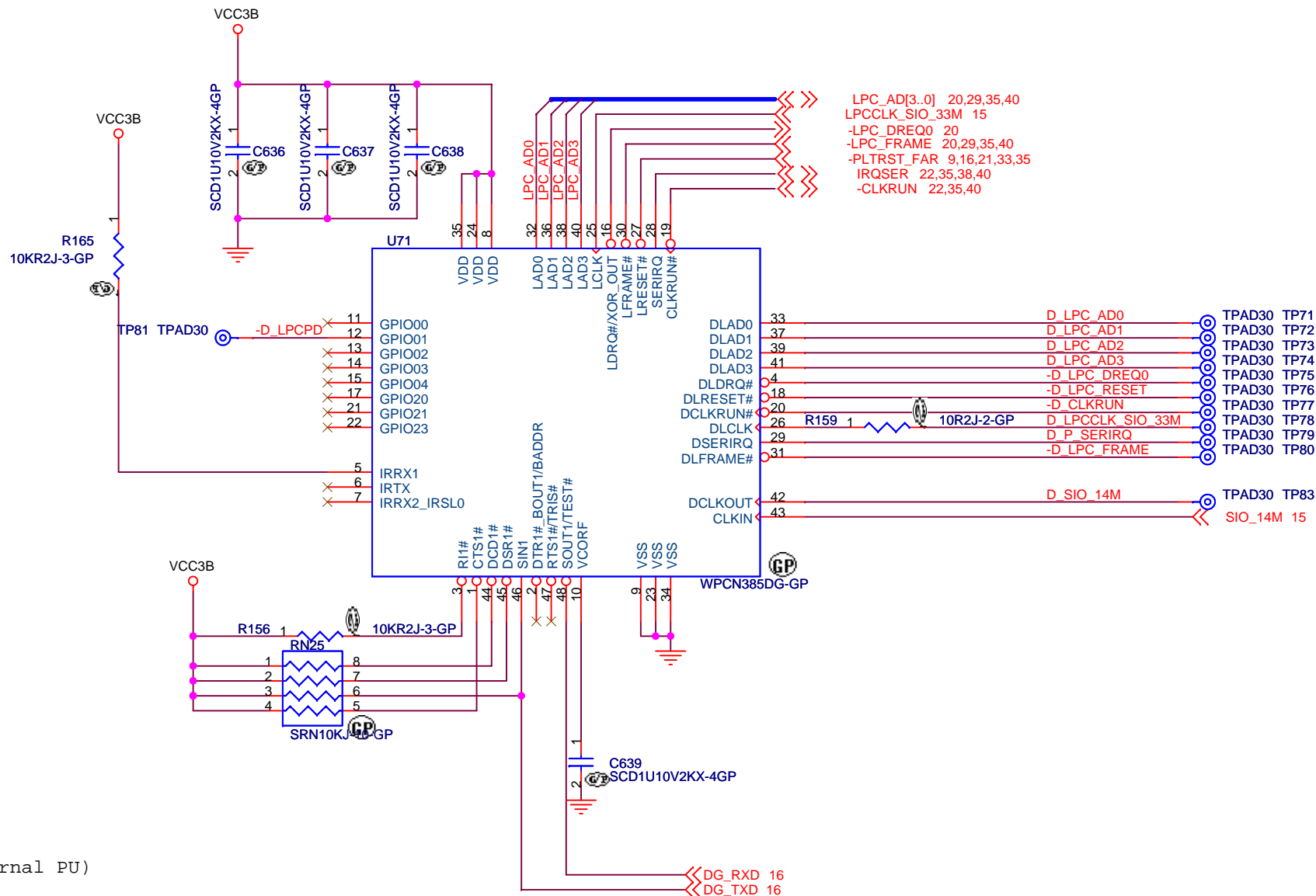


*If PMH7 is implemented, TP4\_RESET needs a level shift.*




### Keyboard Connector Top View

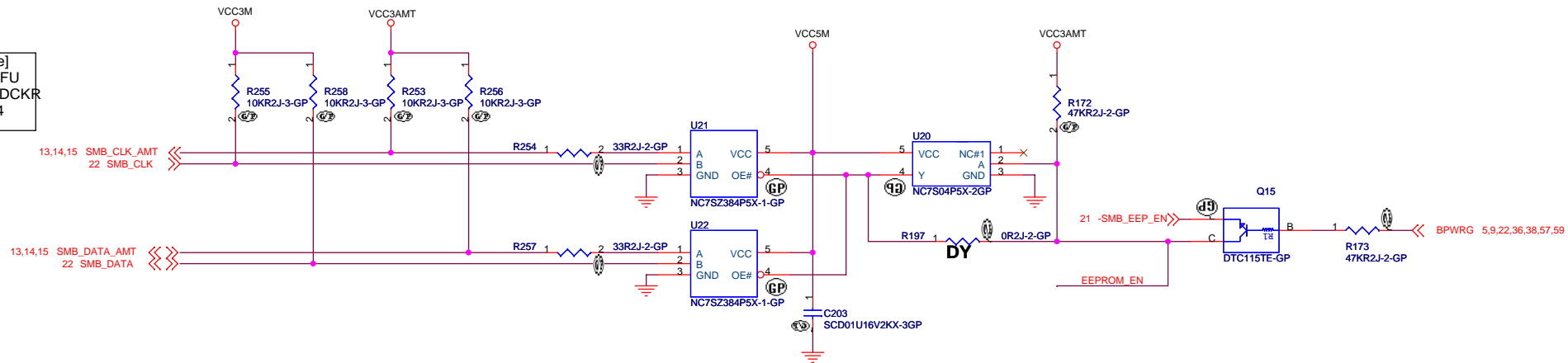




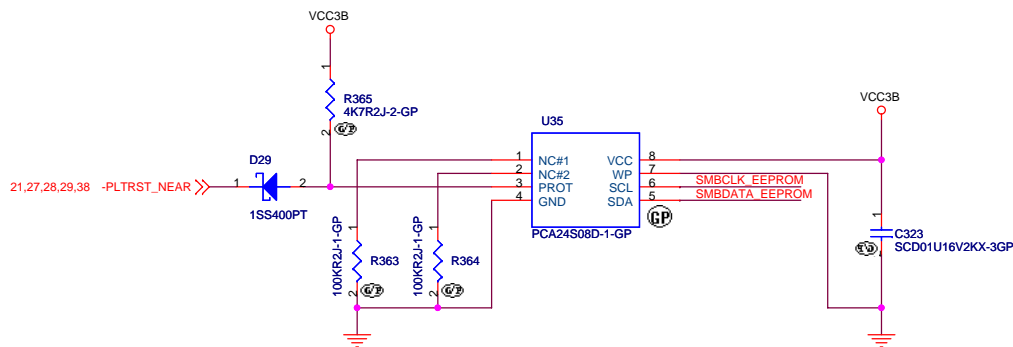
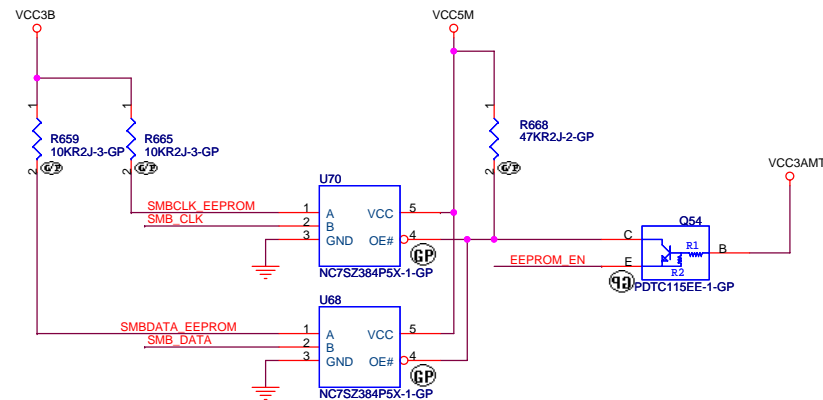
<Variant Name>

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>WPCN385SDG</b>			
Size A4	Document Number <b>Caramel-1</b>		Rev <b>SC</b>
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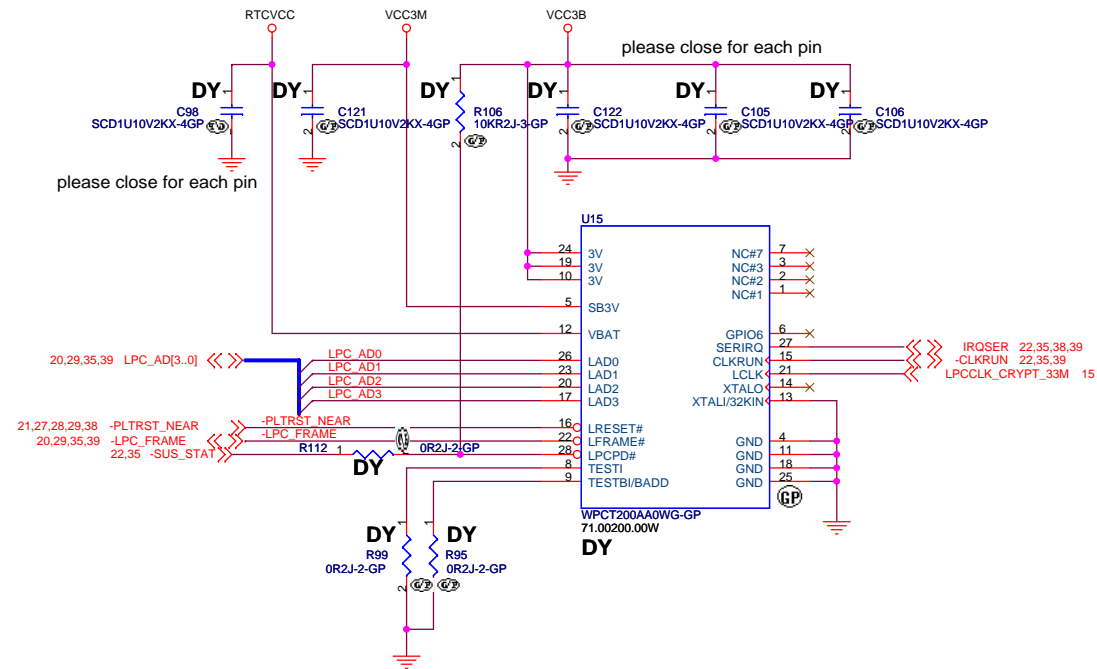
[Sourcing Candidate]  
Toshiba TC7SB384FU  
TI SN74CBT1G384DCKR  
Fairchild NC7SZ384



## EEPROM



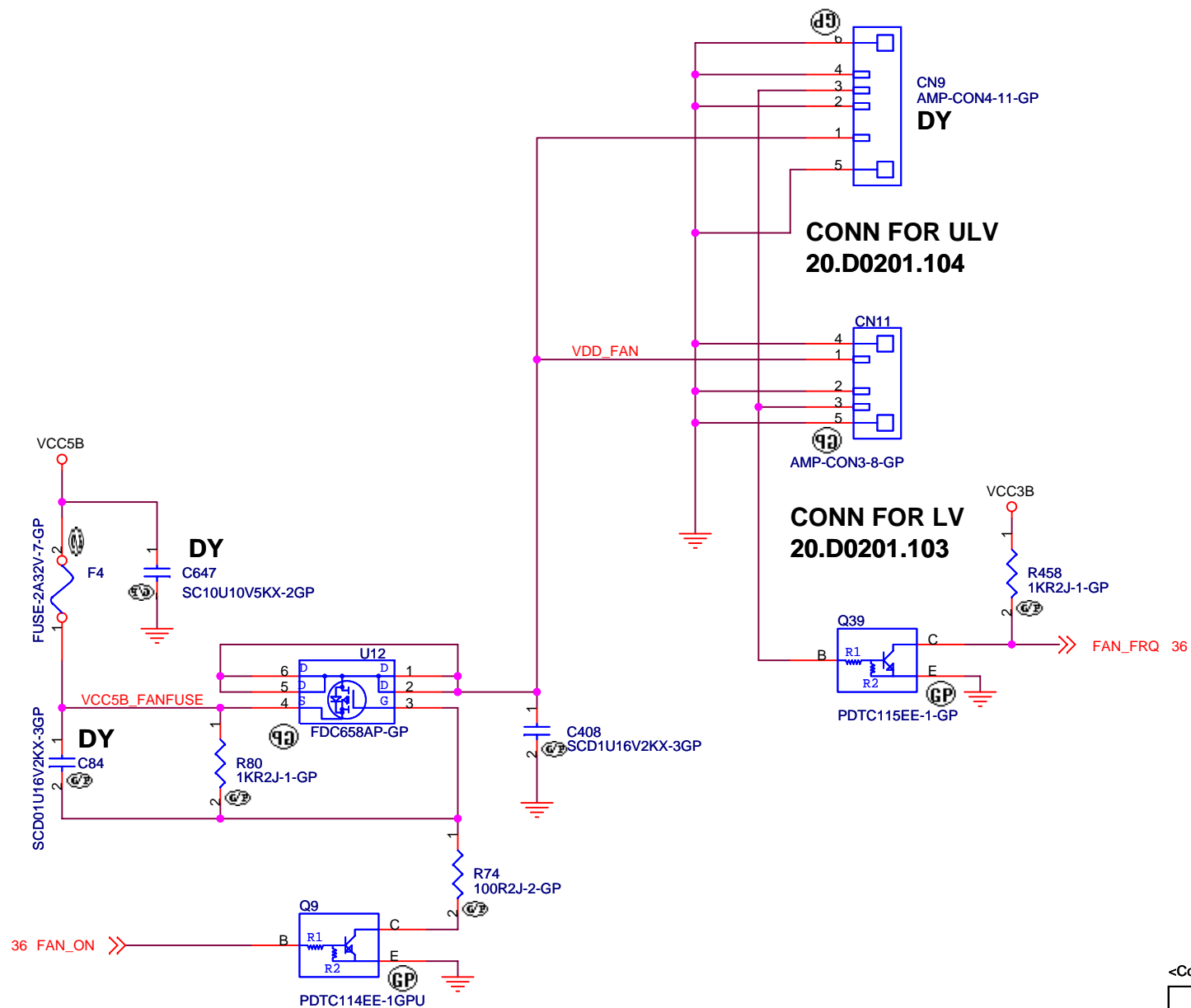
## TCPA



<Core Design>

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Title			
EEPROM/TCPA			
Size	Document Number	Rev	
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緯創資通

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Title

**FAN CONTROL**

Size  
A4

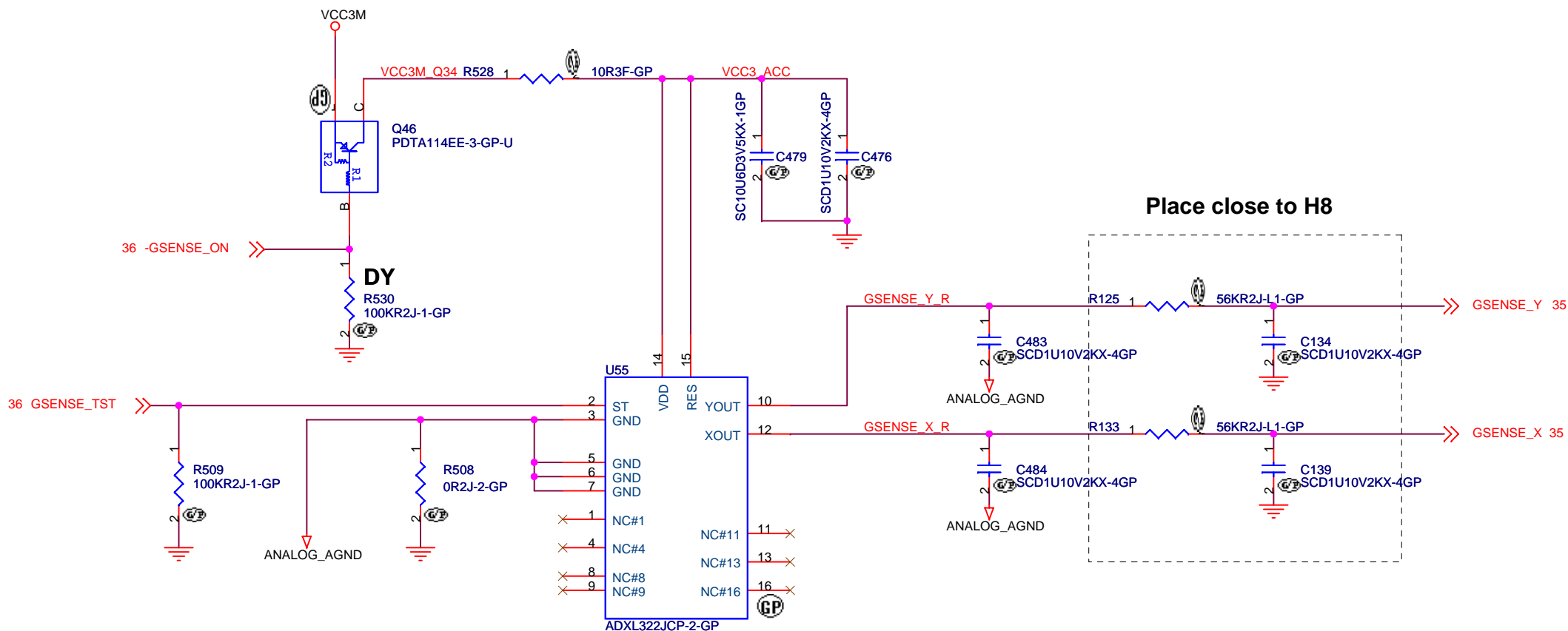
Document Number

**Caramel-1**

Rev  
SC

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Primary : ADI ADXL322  
 2nd : STMicro LIS244AL  
 3rd : STMicro LIS34AL: 74.00034.0BZ

#### Layout Comment :

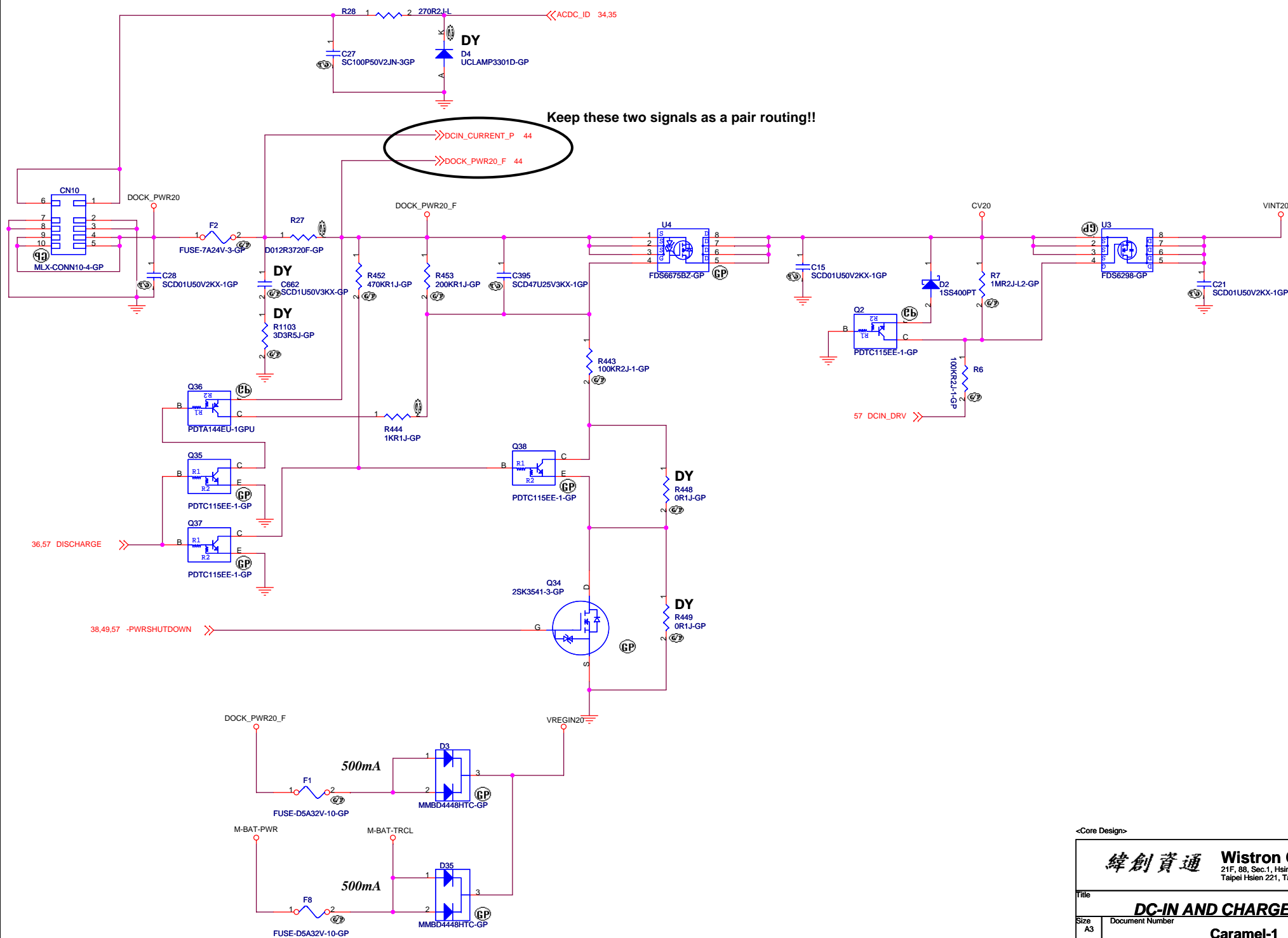
- (1) Place C483, C484, Q46, R528, R530, C479, C476, R509, R508 close to U55.
- (2) Avoid routing under DCDC switching area.

Width = 6 mil & Spacing = 10 mil  
 for three Output traces

	ADXL322	
	LIS244AL	No Accel
	LIS34AL	
R530	NO_ASM	ASM
R509	ASM	ASM
All other	ASM	NO_ASM

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Title	
<b>G-SENSOR</b>	
Size A4	Document Number <b>Caramel-1</b>
Date: Monday, July 14, 2008	Rev <b>SC</b>
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Title

**DC-IN AND CHARGER (1/2)**

Size

A3 Document Number

**Caramel-1**

Rev

**SC**

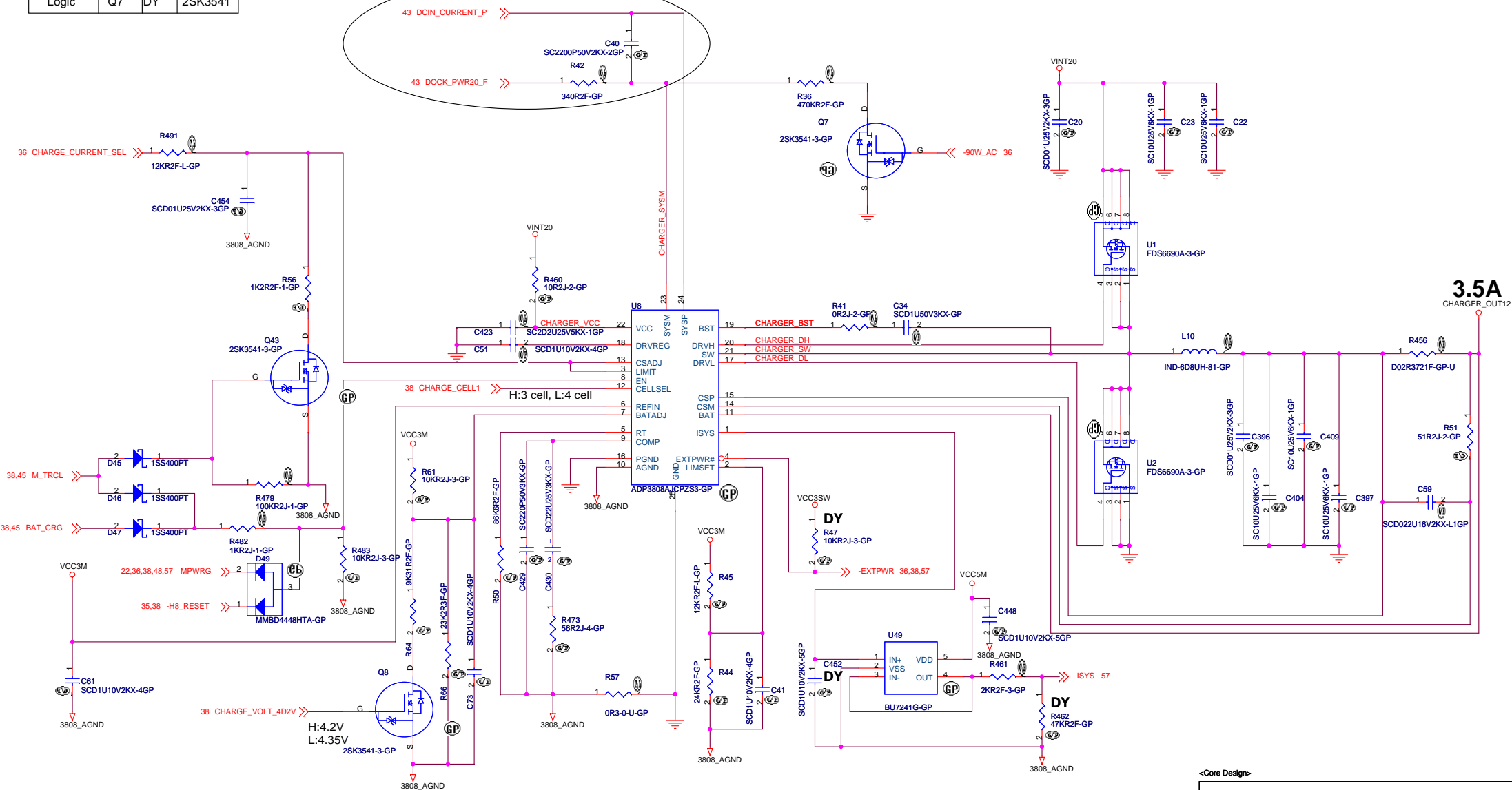
Date: Monday, July 14, 2008

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90W, 65W, auto selection mode

MAX Power Setting	65W	90W
-90W_AC	R36 DY	470K 470K
Logic	Q7 DY	2SK3541 2SK3541

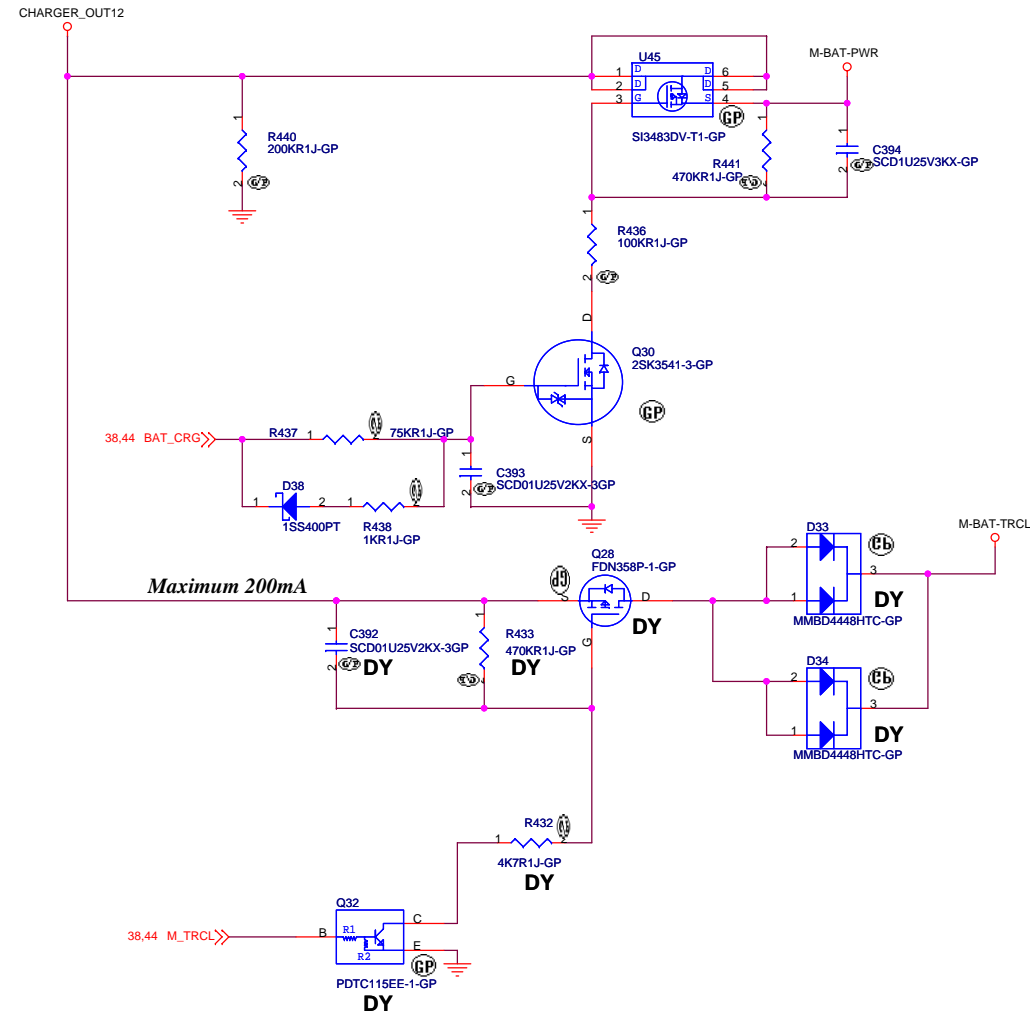
Keep these two signals as a pair routing !!



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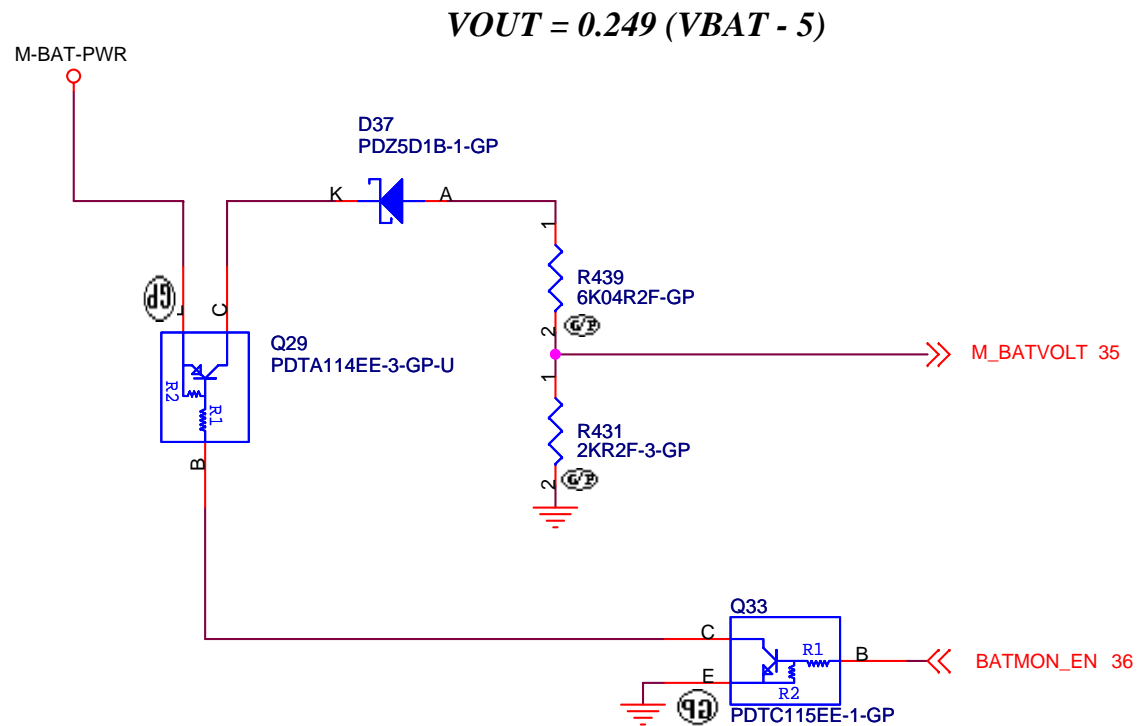
Title				
<b>DC-IN AND CHARGER (2/2)</b>				
Size	Document Number			Rev
Custom	<b>Caramel-1</b>			<b>SC</b>
Date:	Monday, July 14, 2008	Sheet	44	of 62



<Core Design>

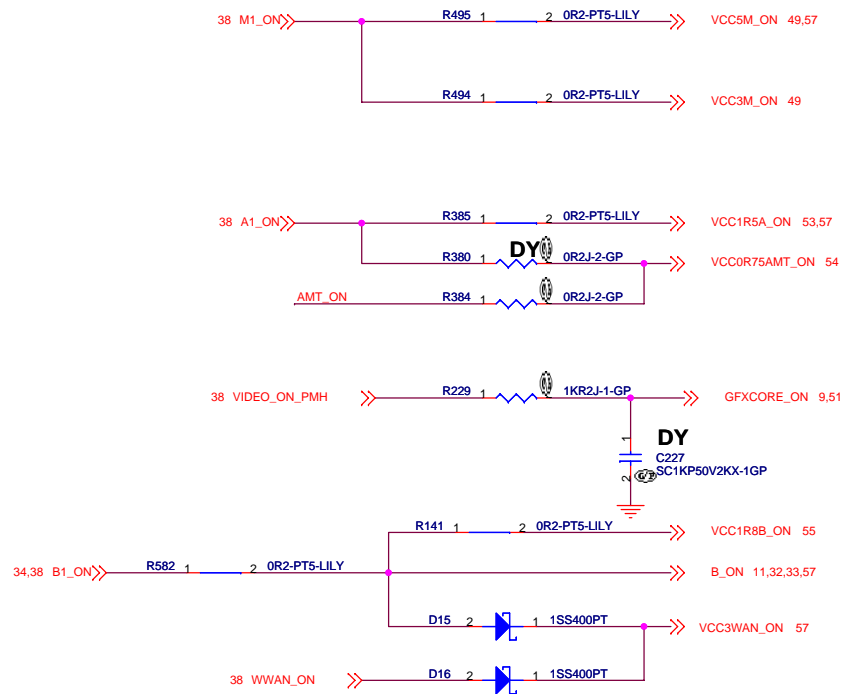
<b>緯創資通</b>		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>CHARGER SELECT</b>			
Size A3	Document Number	<b>Caramel-1</b>	Rev <b>SC</b>
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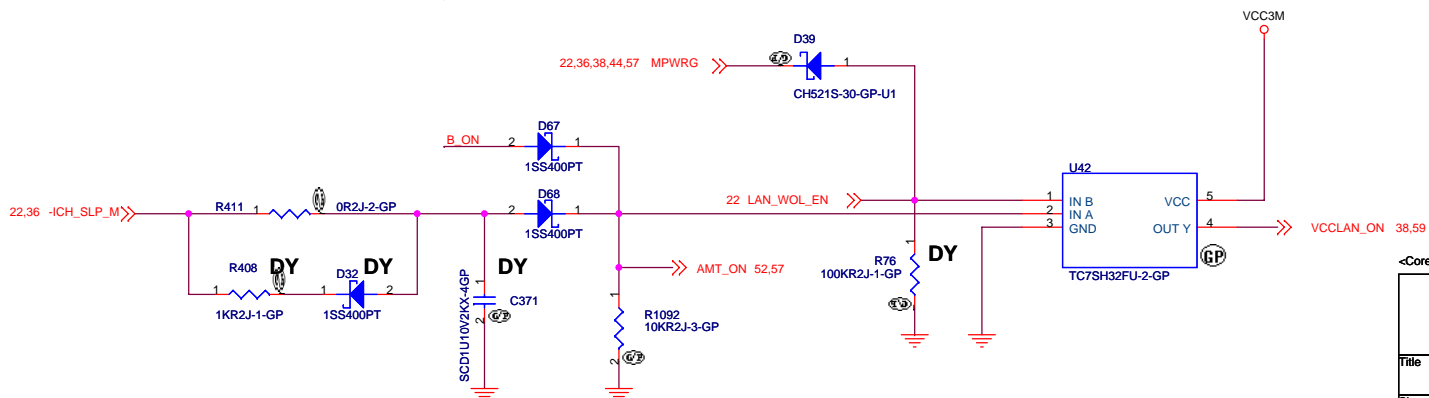
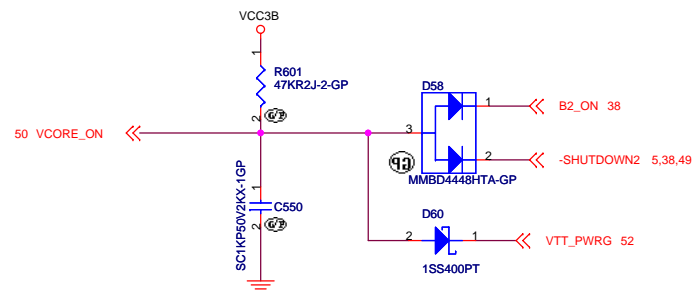
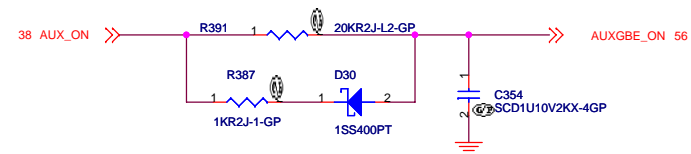


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<div>緯創資通</div>		<div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>	
Title			
BATTERY MONITOR			
Size A	Document Number		Rev SA
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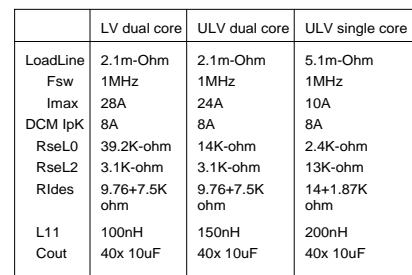


Always ON	Enable	Disable
D15	ASM	No_ASM
D16	ASM	No_ASM



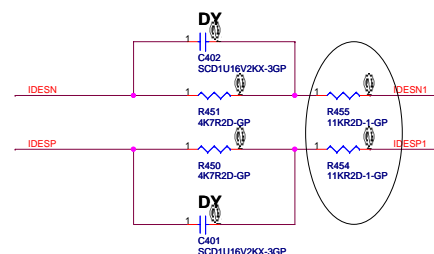






1000

	Pre DV	DV
R455	12.1k ohm	11k ohm
R454	12.1k ohm	11k ohm



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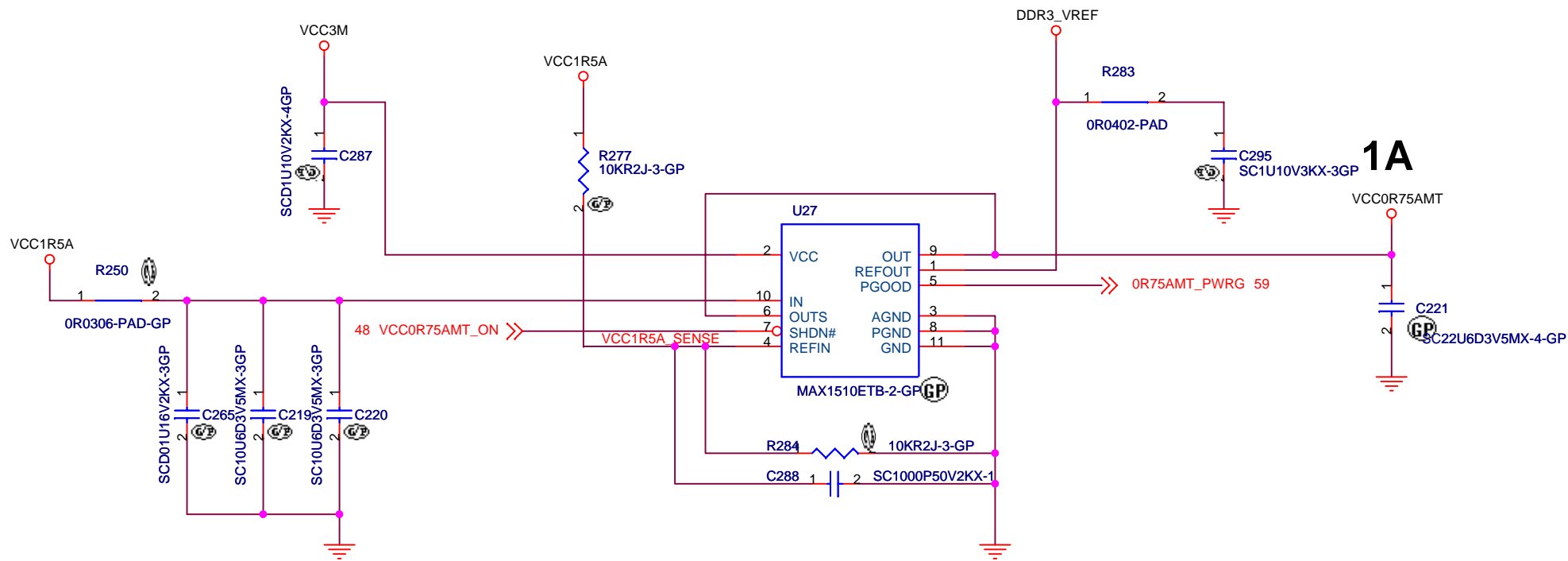
Rev  
SC

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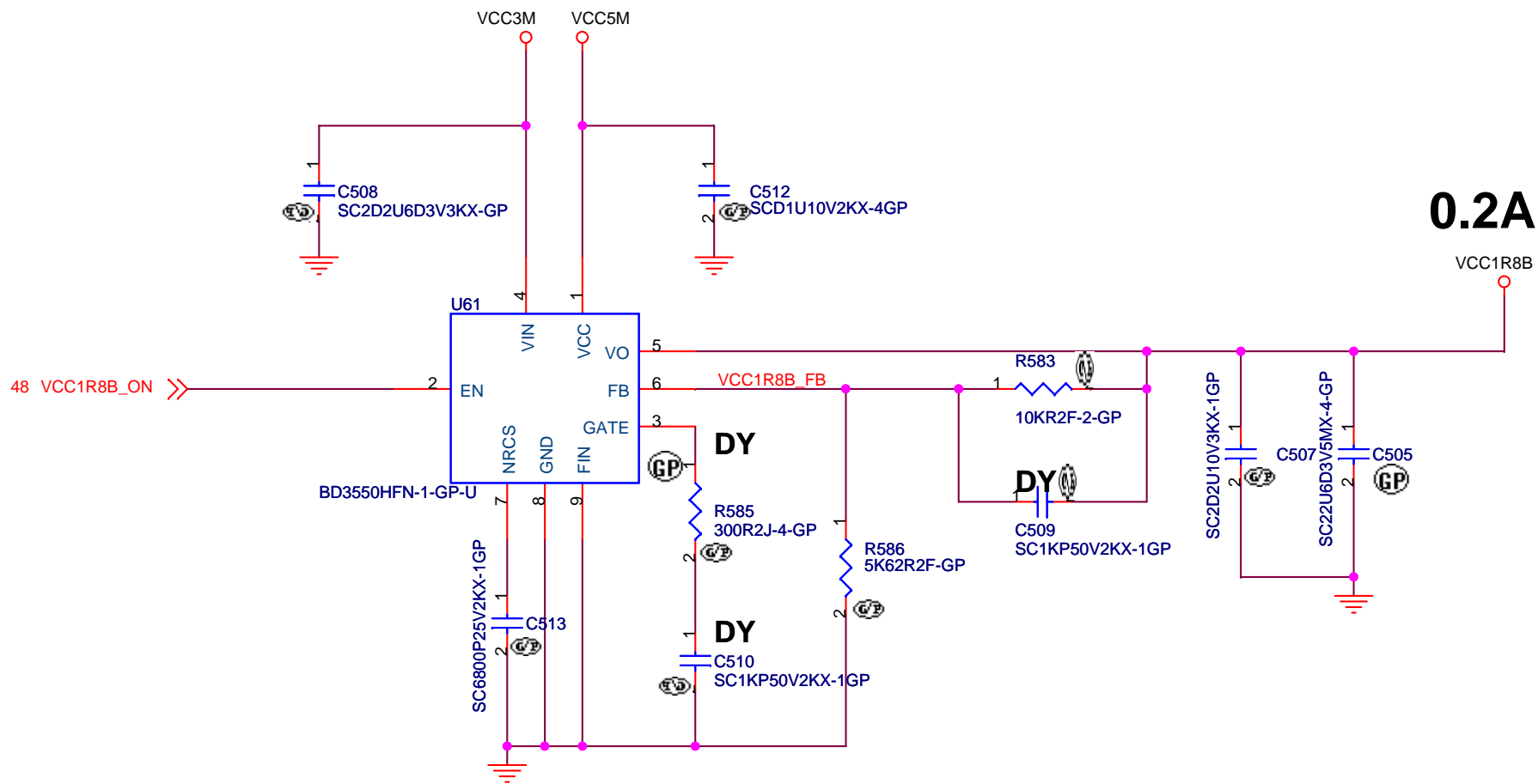






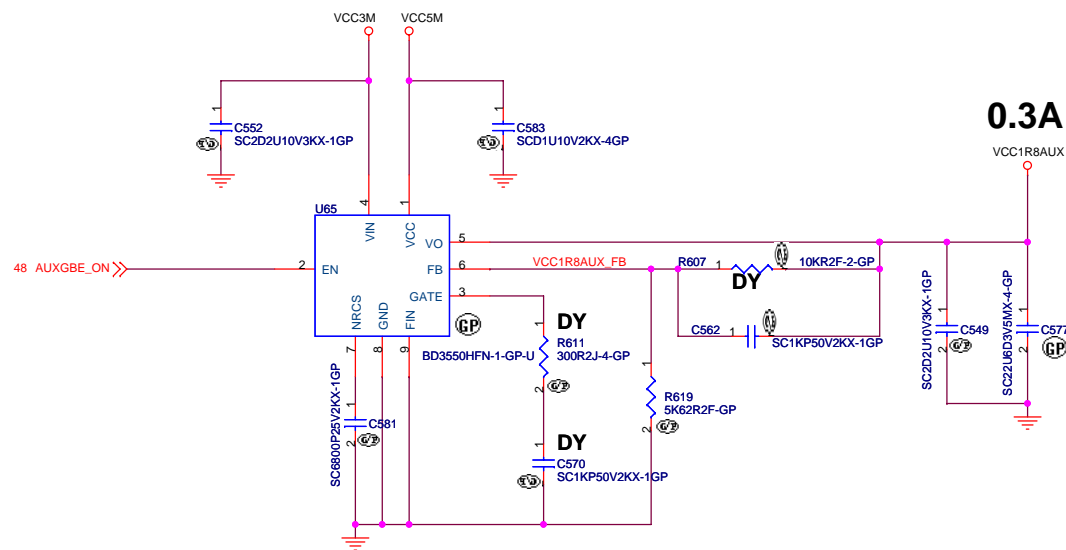
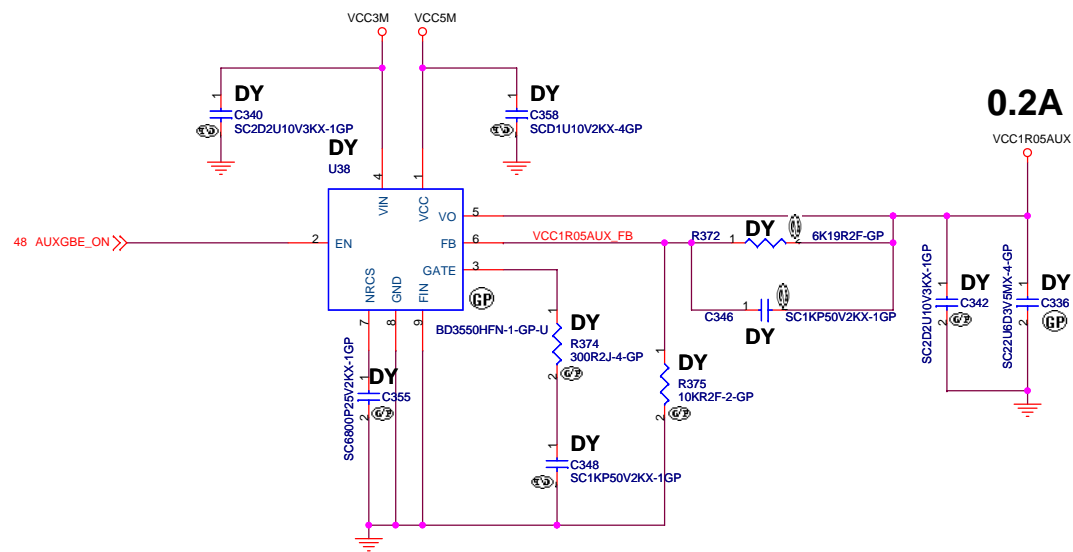
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<div>緯創資通</div>		<div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>	
Title			
DC-DC VCC0R75AMT			
Size A4	Document Number		Rev SC
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<Core Design>

<div>緯創資通</div> <div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>	
Title	DC-DC VCC1R8B
Size A	<div>Document Number</div> <div>Caramel-1</div>
Rev	SC
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Title
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### DC-DC VCC1R05AUX/VCC1R8AUX

Size	A3
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Document Number

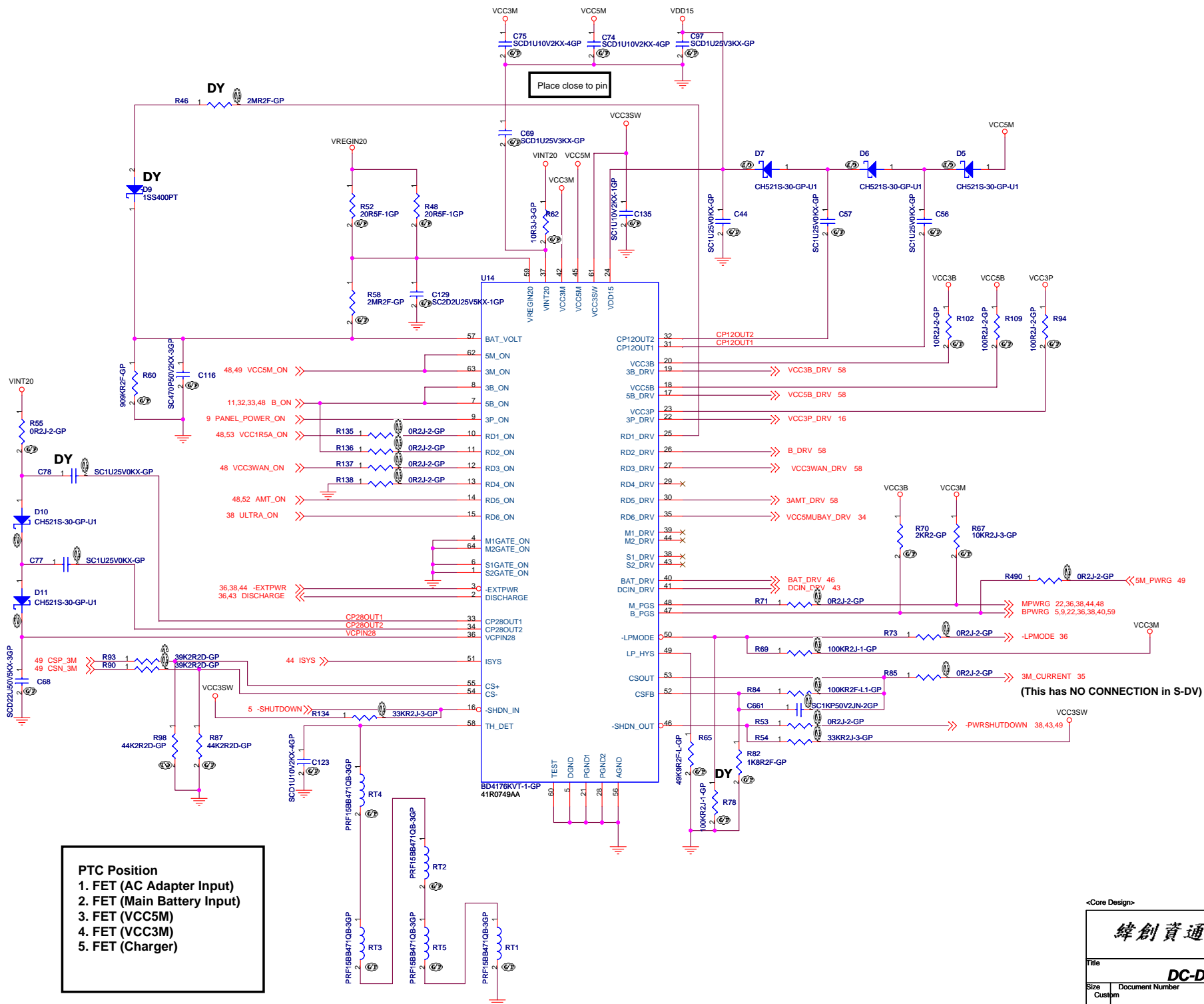
### Caramel-1

Rev  
**SC**

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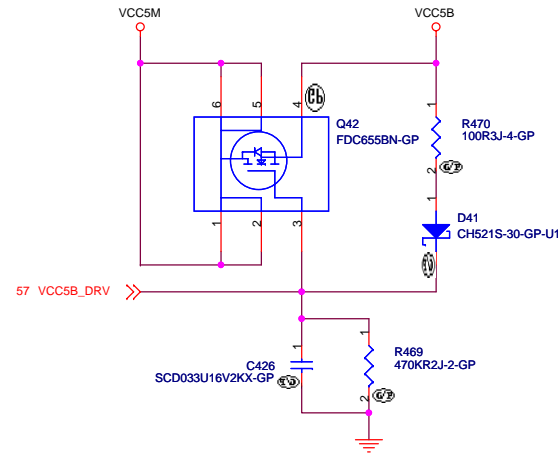
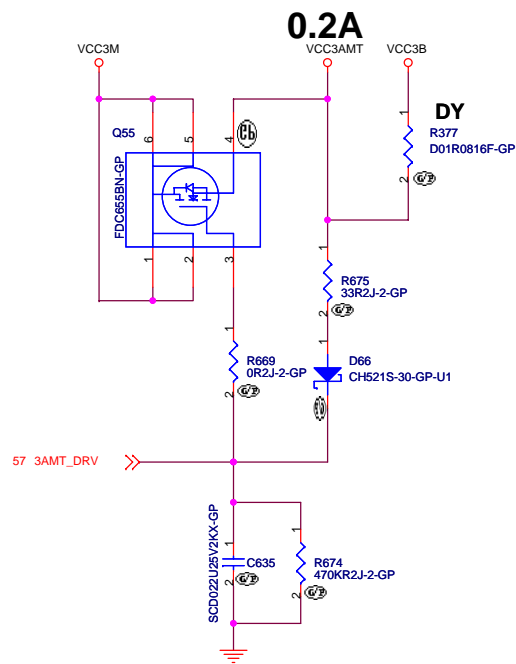


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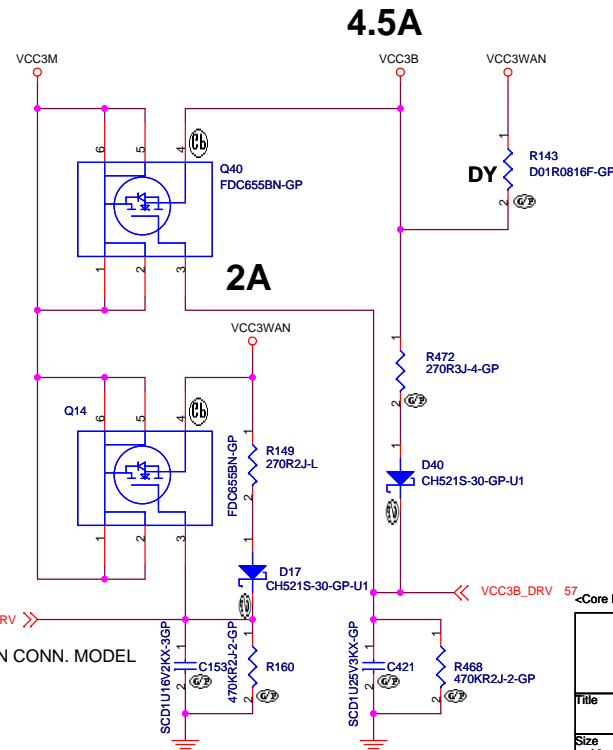
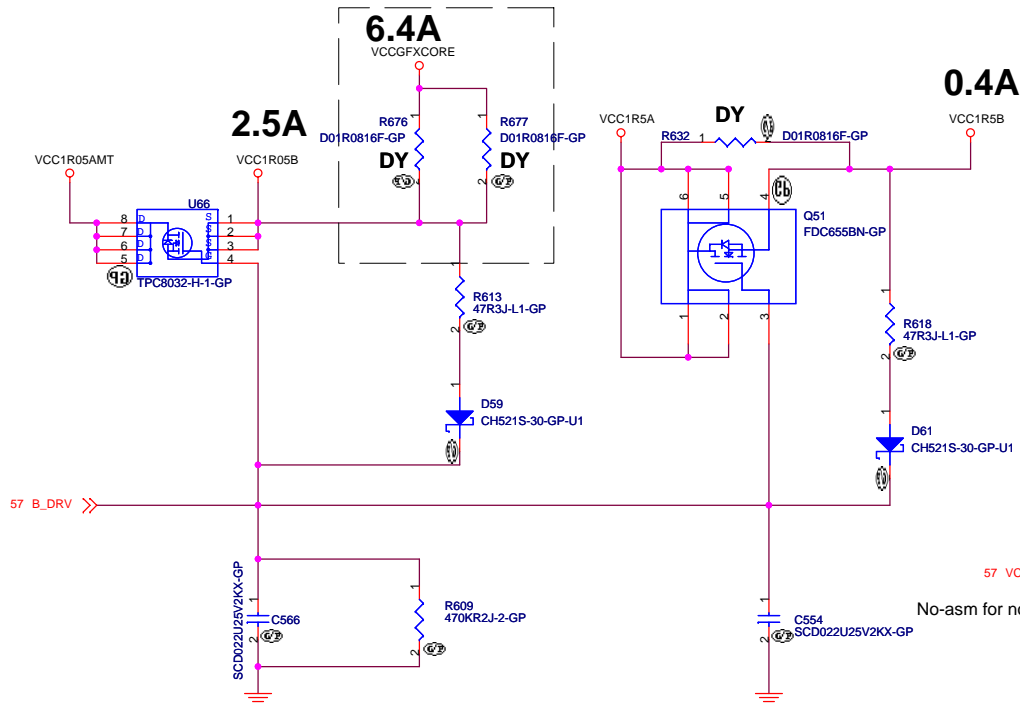
緯創資通

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Title		DC-DC RINKAN	
Size	Document Number	Caramel-1	Rev SC
Custom			
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Place near VCCGFXCORE logic

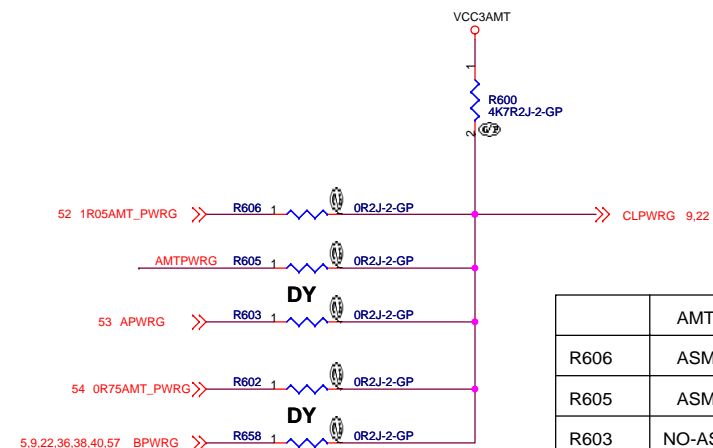
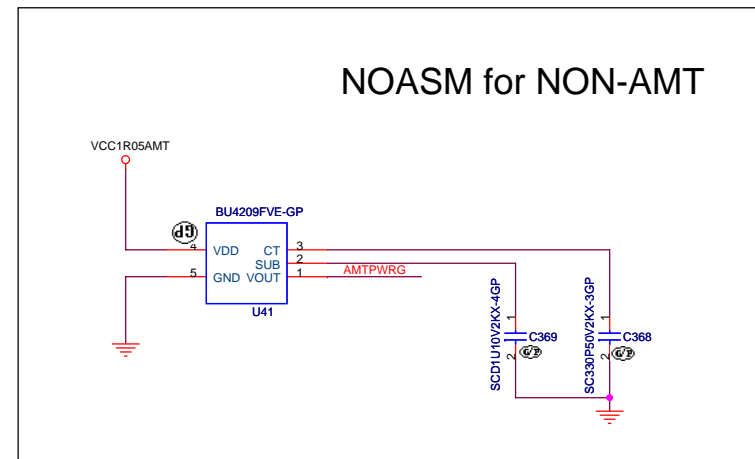
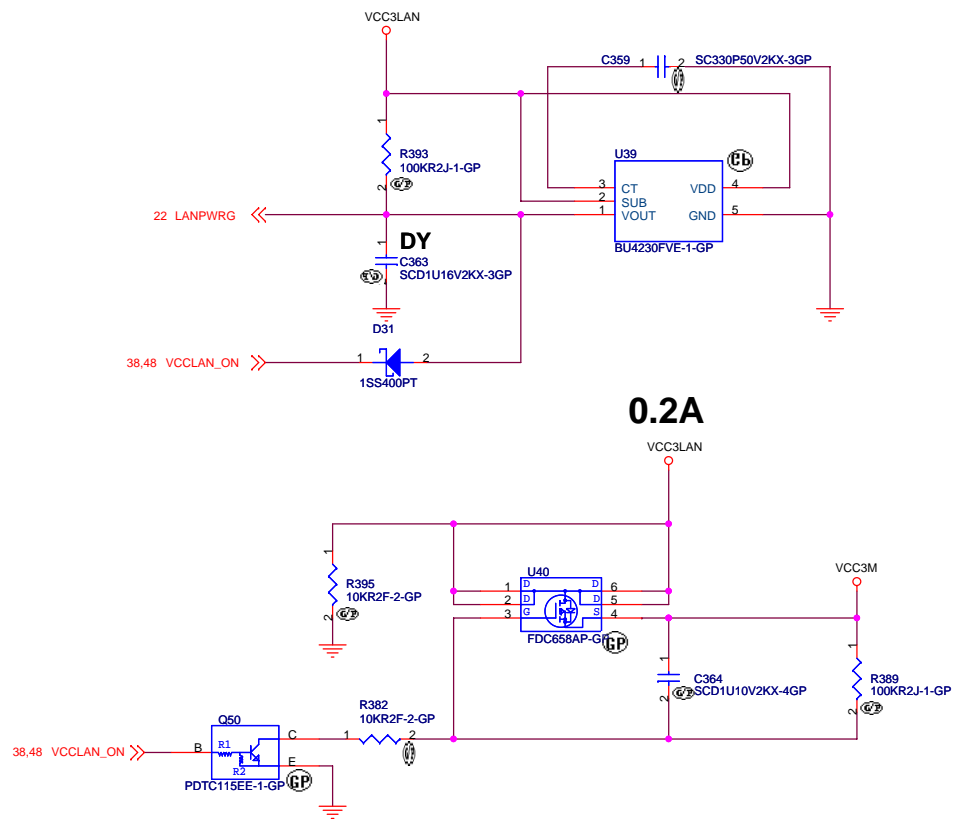


Always ON	Enable	Disable
Q14	ASM	No_ASM
R149	ASM	No_ASM
D17	ASM	No_ASM
R160	ASM	No_ASM
C153	ASM	No_ASM
R143	No_ASM	ASM

<Core Design>

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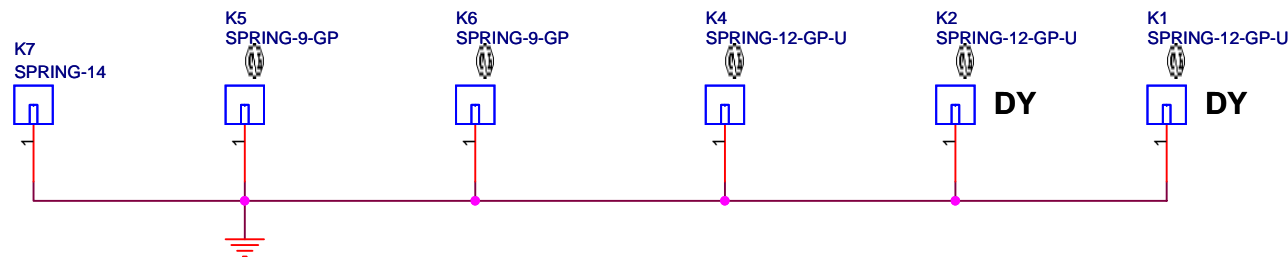
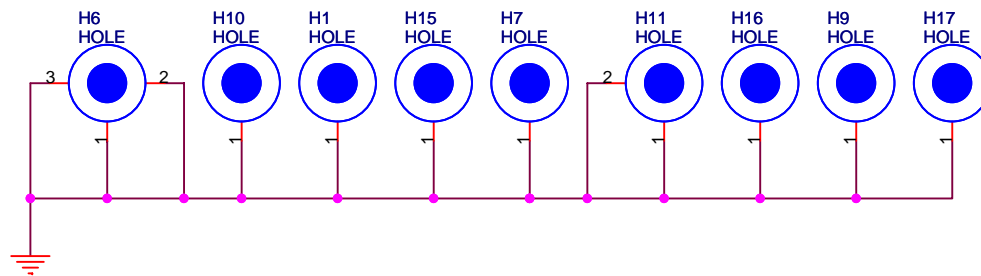
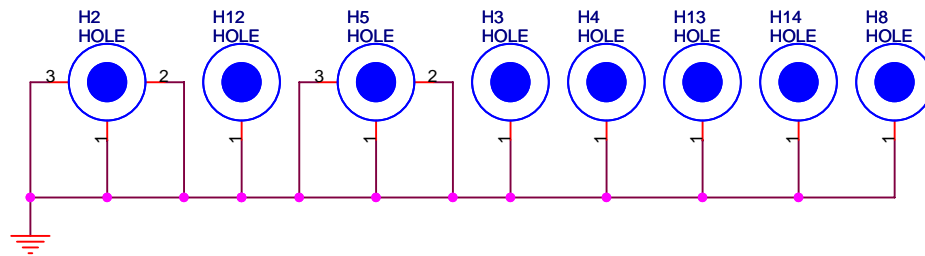
LOAD SW 1		
Size A3	Document Number	Rev SC
Caramel-1		
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	AMT	NON-AMT
R606	ASM	NO-ASM
R605	ASM	NO-ASM
R603	NO-ASM	NO-ASM
R602	ASM	NO-ASM
R600	ASM	NO-ASM
R658	NO-ASM	ASM

<Core Design>

<b>緯創資通</b>		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>LOAD SW 2</b>			
Size A3	Document Number		Rev SB
<b>Caramel-1</b>			
Date: Monday, July 14, 2008		Sheet 59 of 62	



<Core Design>

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Title			
<b>HOLES/GND/PADS</b>			
Size A4	Document Number <b>Caramel-1</b>		Rev <b>SC</b>
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# Comparison chart for AMT function

Item	Page	Location Netname	AMT	NON_AMT	Modify	Note
1	22	U37	ICH9-M Enhanced	ICH9-M		
	22	R424	NO_ASM	ASM		
	24	U30	BOAZMAN 82567LM			
	29	SPI1	64Mbit			
	49	R411	ASM	NO_ASM		
	52	R636	ASM	NO_ASM		
	59	R603	ASM	NO_ASM		
		R605	ASM	NO_ASM		
		R606	ASM	NO_ASM		
	58	R377	NO_ASM	ASM		
		Q55	ASM	NO_ASM		
		R669	ASM	NO_ASM		
		R675	ASM	NO_ASM		
		D66	ASM	NO_ASM		
		C635	ASM	NO_ASM		
		R674	ASM	NO_ASM		
		U66	ASM	NO_ASM		
		R613	ASM	NO_ASM		
		D59	ASM	NO_ASM		
		C566	ASM	NO_ASM		
		R609	ASM	NO_ASM		

Long power trace EMI decoupling caps

