

JUL'07

**Clock Generator**  
MLF68 15

**Intel**  
**Penryn LV/ULV SFF**  
**Processor** 3, 4

**Thermal**  
**Sensor**  
LM26 5

**ITP**  
**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	VCC5M 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
-------	---------

## 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.

Title

## Block Diagram

Size  
A3

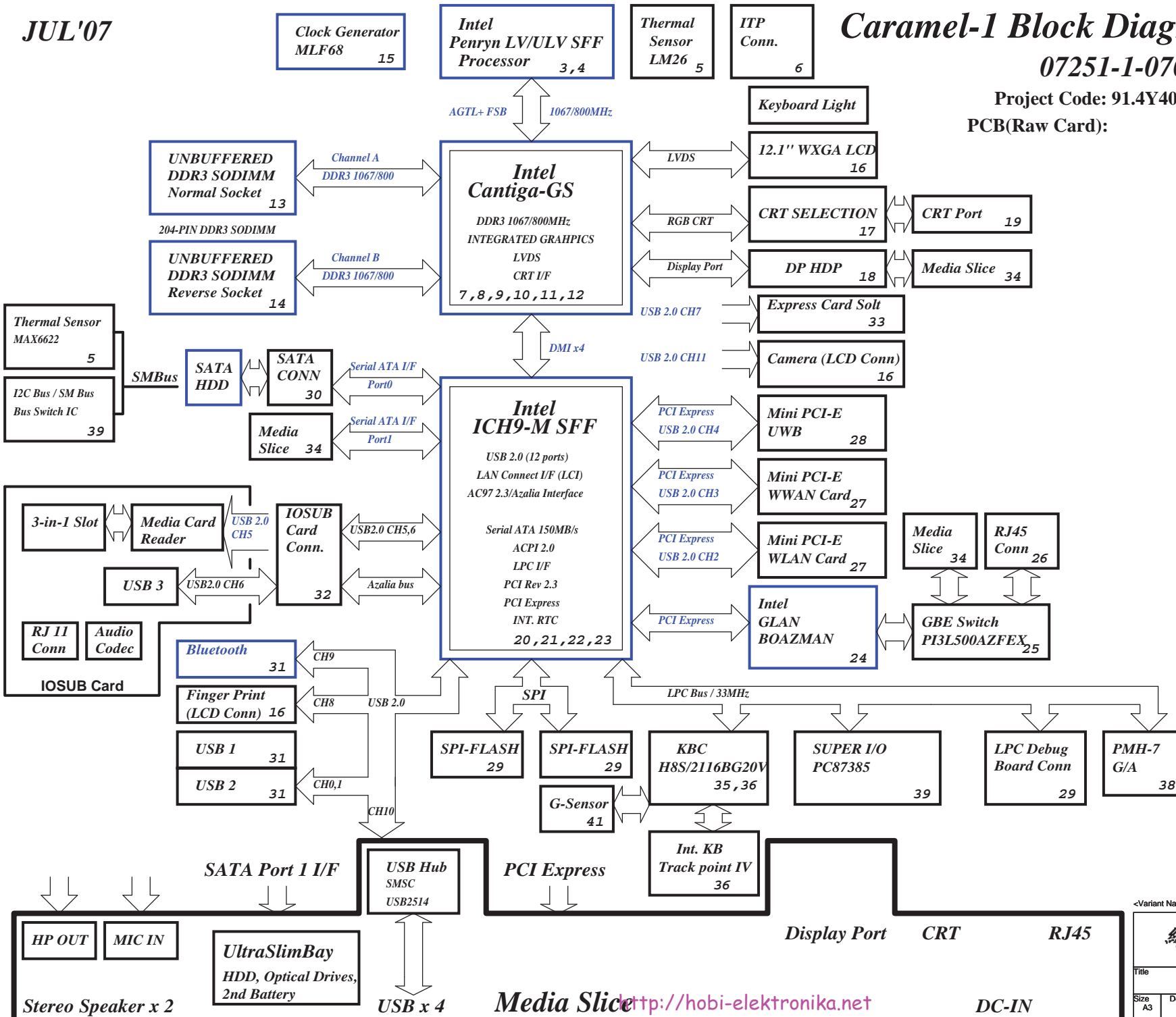
Document Number

Caramel-1

Rev  
SC

Date: Monday, July 14, 2008

Sheet 1 of 62


<http://hobi-elektronika.net>

## 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  
SCD1U10V2MX-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-DV/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	

<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
-------

## Reference

Size  
A3

Document Number
-----------------

### Caramel-1

Rev	
<b>SA</b>	

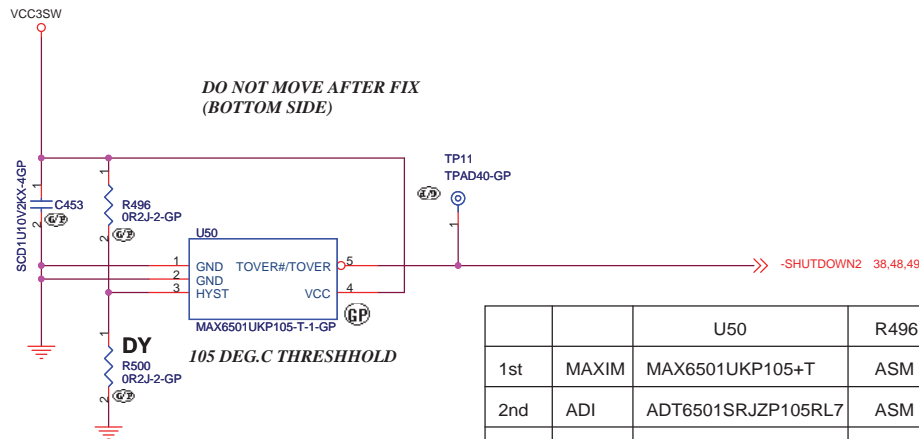
Date: Monday, July 14, 2008

Sheet 2 of 62

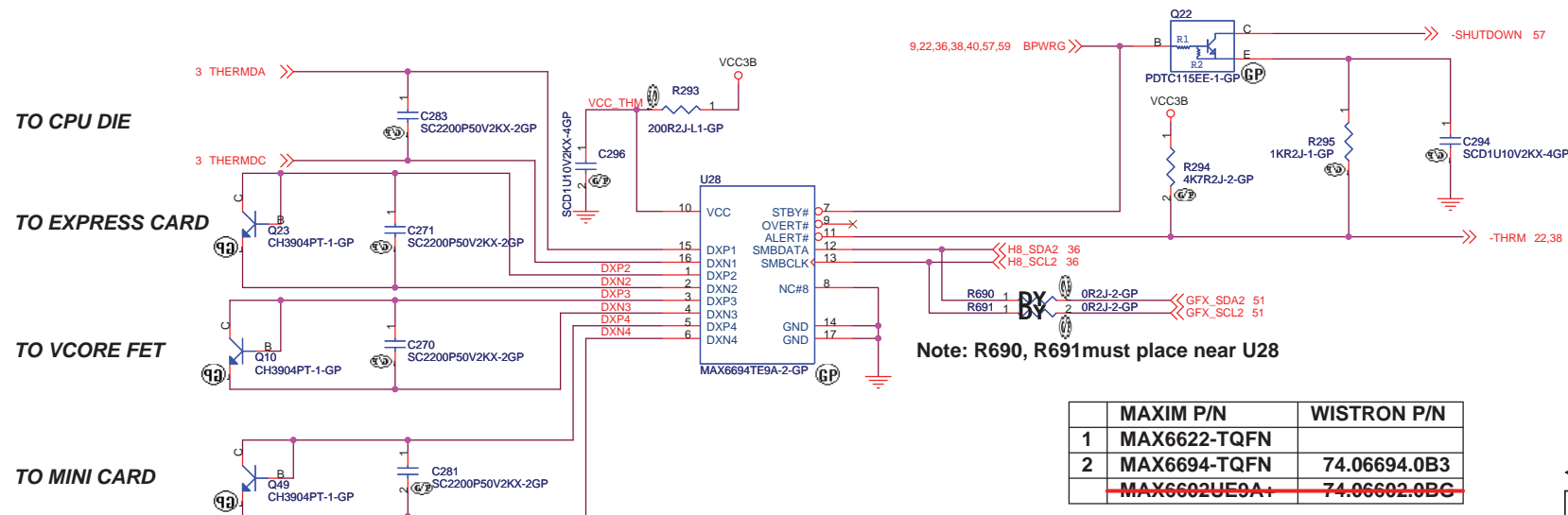




# Thermal Sensor for CPU



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



**Note: R690, R691 must place near U28**

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

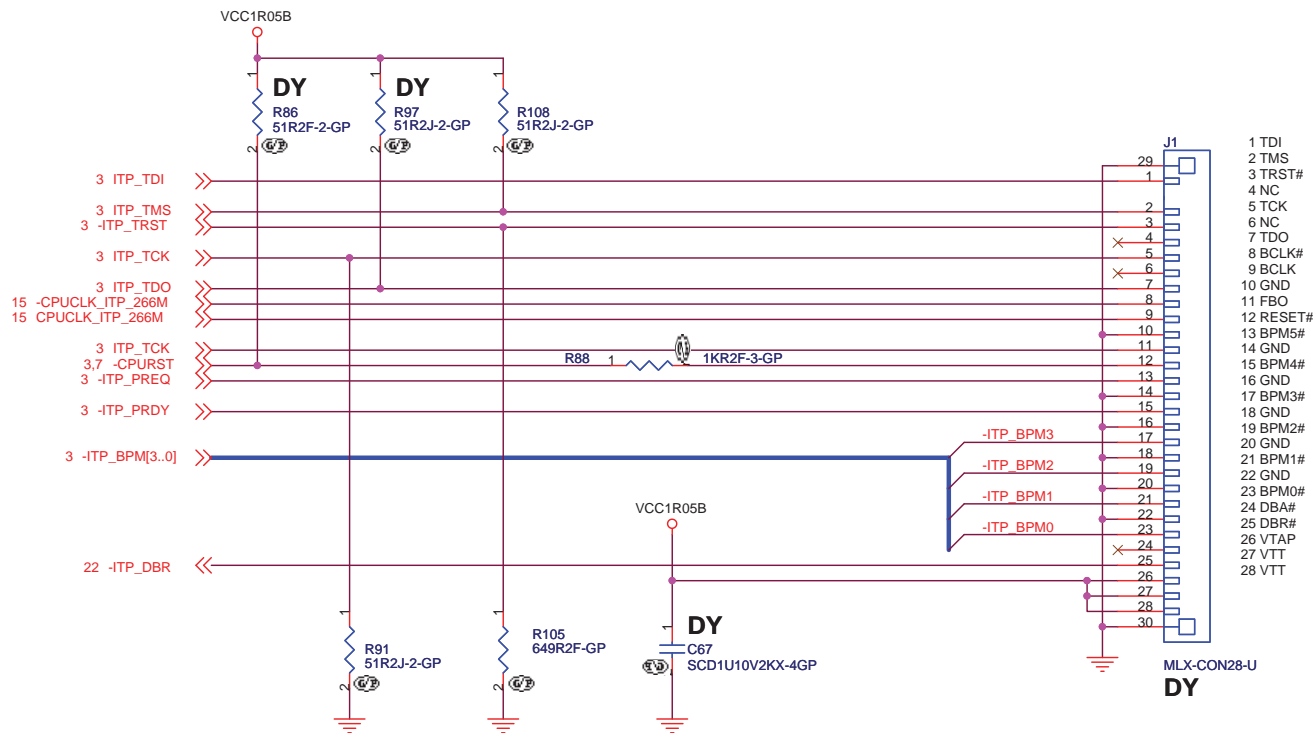
**Layout Comment :**

- (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.

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

<Variant Name>

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



- 1 TDI
- 2 TMS
- 3 TRST#
- 4 NC
- 5 TCK
- 6 NC
- 7 TDO
- 8 BCLK#
- 9 BCLK
- 10 GND
- 11 FBO
- 12 RESET#
- 13 BPM5#
- 14 GND
- 15 BPM4#
- 16 GND
- 17 BPM3#
- 18 GND
- 19 BPM2#
- 20 GND
- 21 BPM1#
- 22 GND
- 23 BPM0#
- 24 DBA#
- 25 DBR#
- 26 VTAP
- 27 VTT
- 28 VTT

(\*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>

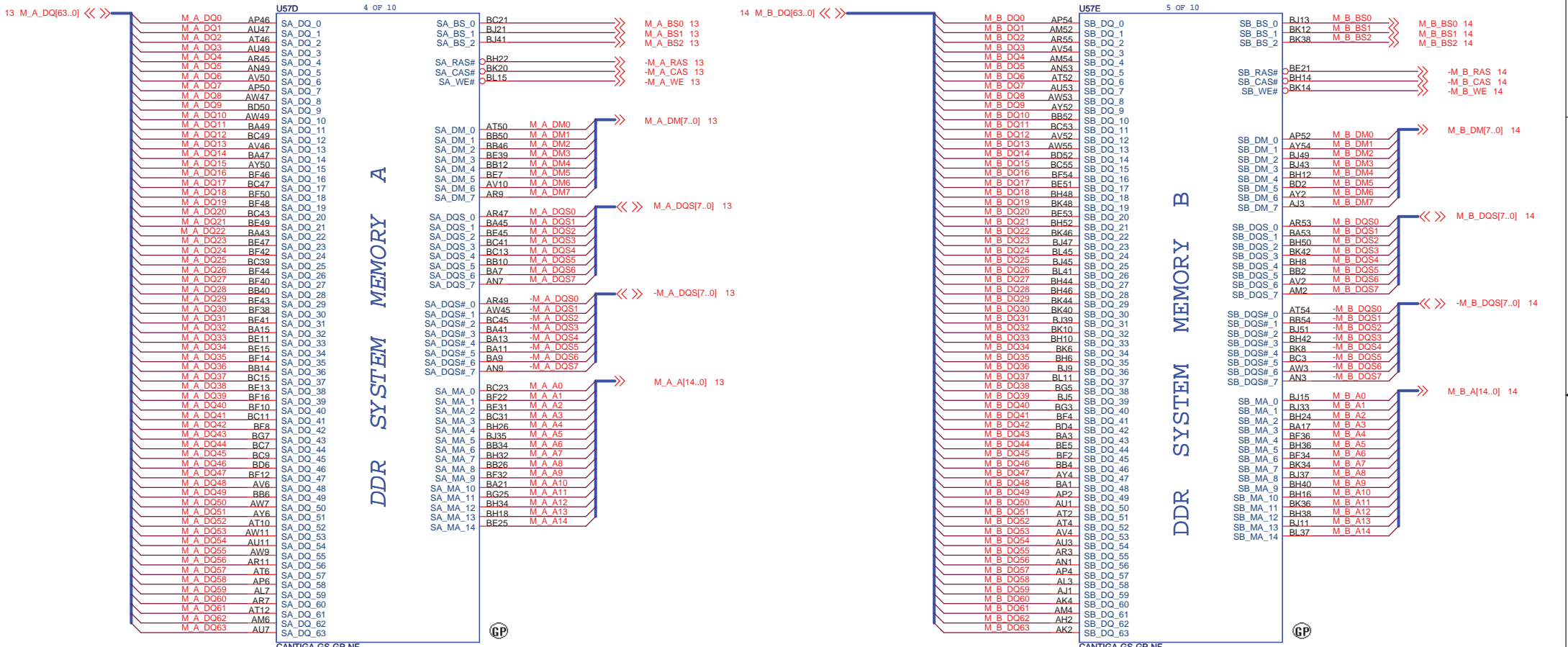
<b>緯創資通</b>		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>Title</b>			
<b>ITP_XDP CONN</b>			
Size	Document Number	Rev	
Custom		SC	
Date:	Monday, July 14, 2008	Sheet	6 of 62

<http://hobi-elektronika.net>

Route H\_XSWING & H\_YSWING  
10 mil wide / 20 mil spacing

<http://hobi-elektronika.net>





<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

Cantiga-GS (2/6):DDR3

Rev

SC

Size

A3

Document Number

Caramel-1

Date

Monday, July 14, 2008

Sheet

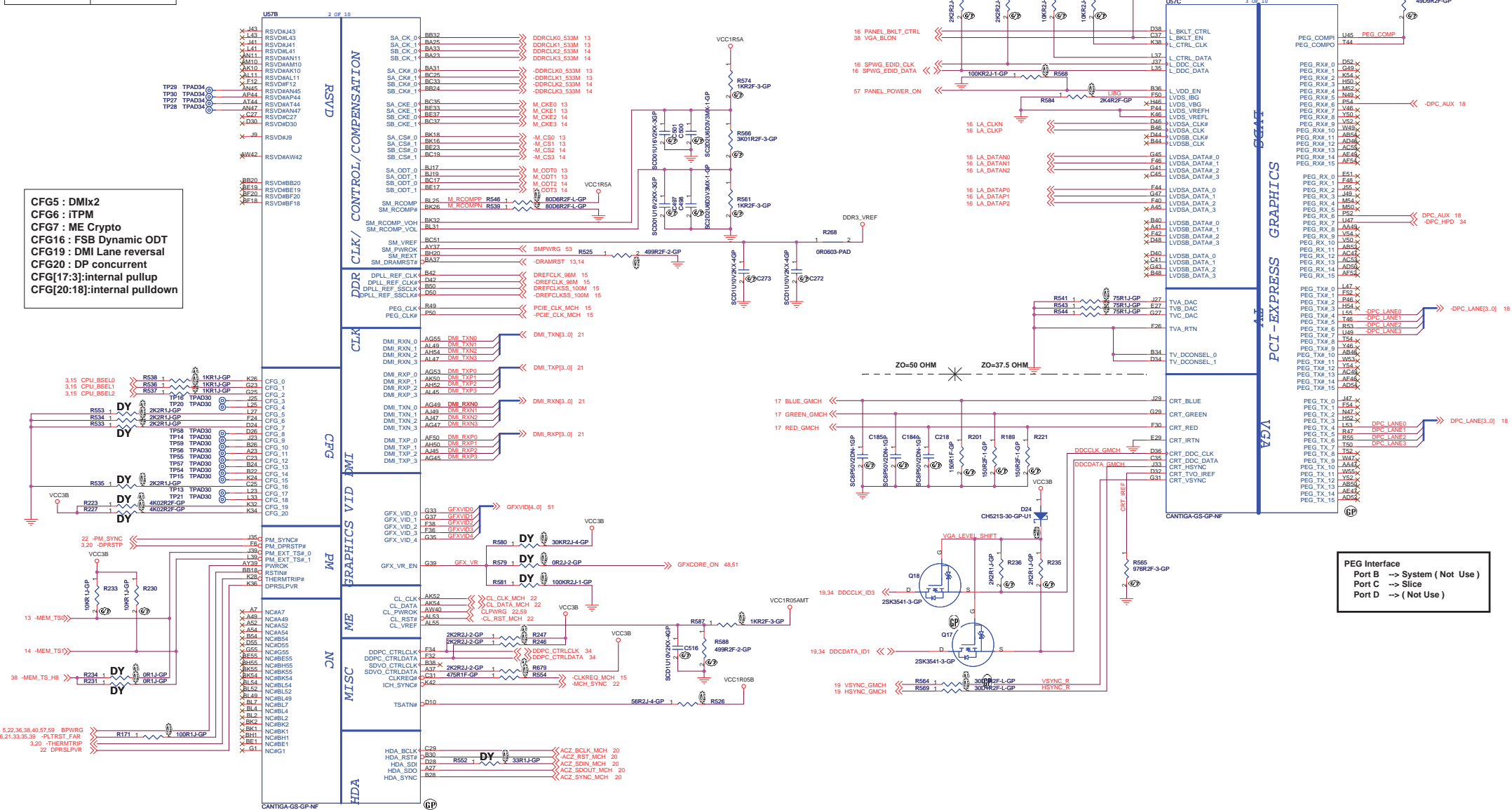
8

of

62



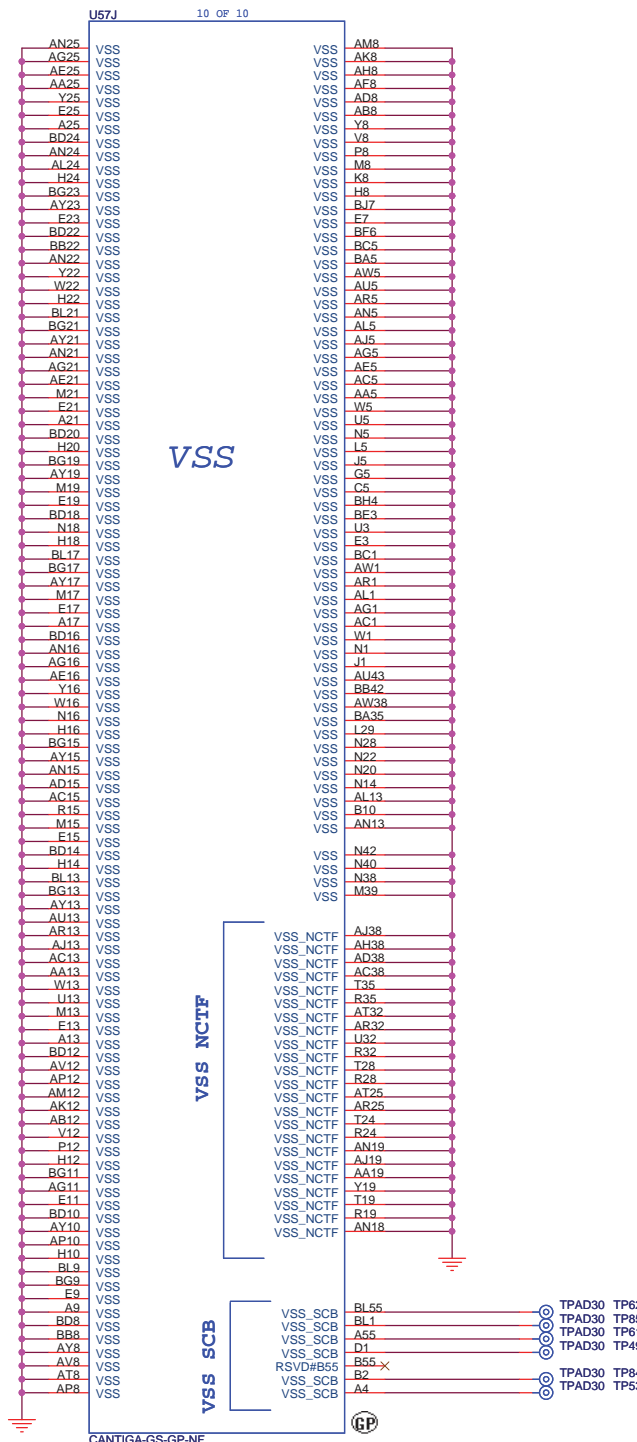
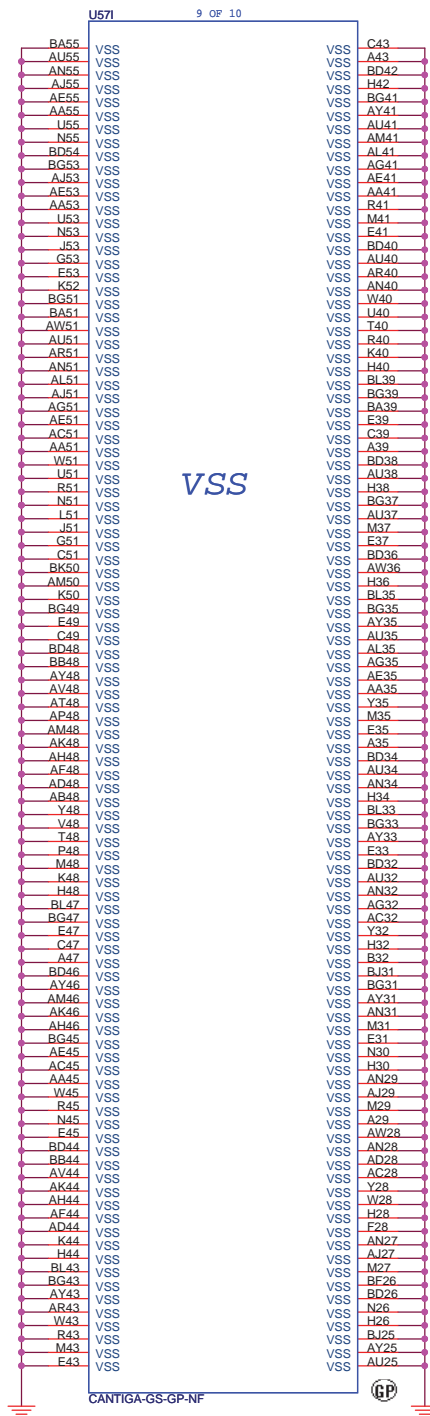
RESERVED#AN45	ME_JTAG_TCK
RESERVED#AP44	ME_JTAG_TDI
RESERVED#AT44	ME_JTAG_TDO
RESERVED#AN47	ME_JTAG_TMS



<Variant Name>			
緯創資通		Wistron Corporation 21F, 8F, Sec. 1, Hsin Tai Wu Rd., Hsinchu, Taipexi Hsin 221, Taiwan, R.O.C.	
File			
<b>Cantiga-GS (3/6):DMI/PM/CFG/GF</b>			
Size	Document Number	Caramel-1	Size
42			SC
Date:	Monday, July 14, 2008	Page: 9	of 62







<http://hobi-elektronika.net>

<Variant Name>

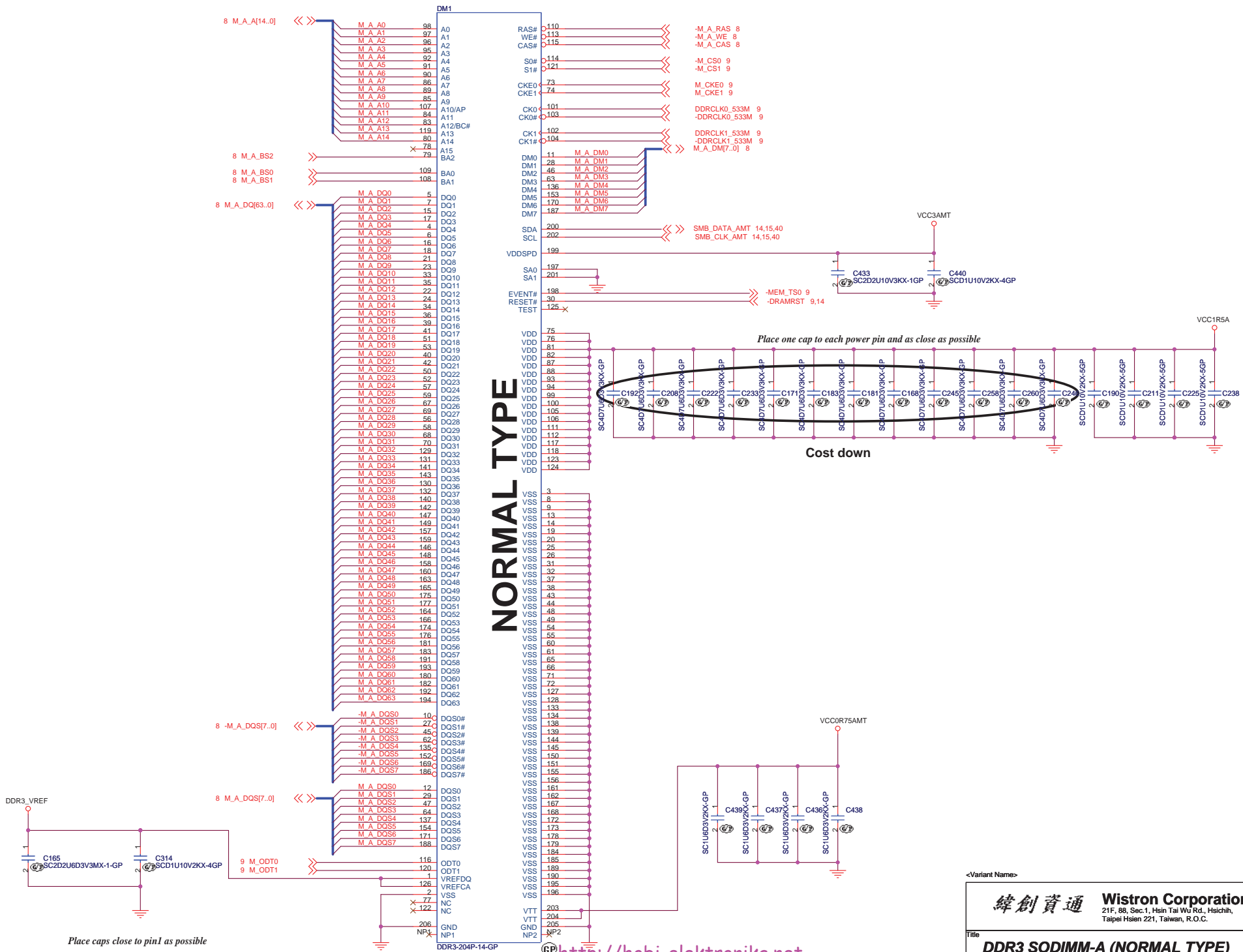
**緯創資通** **Wistron Corporation**  
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,  
Taipei Hsien 221, Taiwan, R.O.C.

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

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

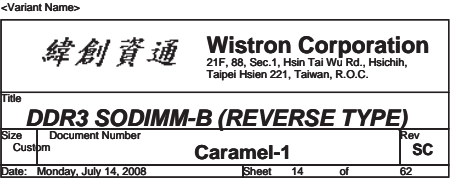
Date: Monday, July 14, 2008 Sheet 12 of 62

# NORMAL TYPE



<Variant Name>

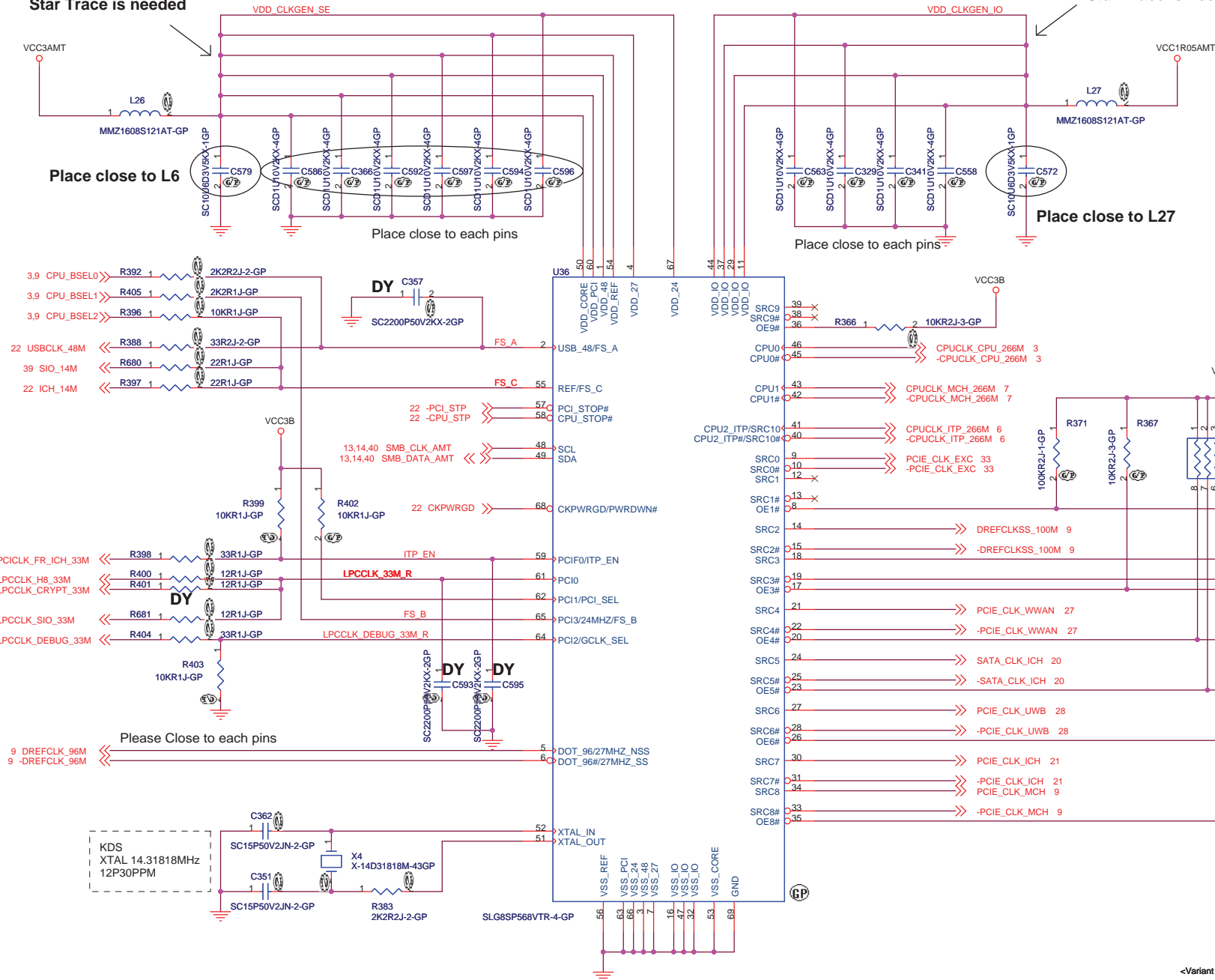
<b>緯創資通</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>DDR3 SODIMM-A (NORMAL TYPE)</b>			
Size	Document Number		Rev
Custom	<b>Caramel-1</b>		<b>SC</b>
Date:	Monday, July 14, 2008	Sheet	13 of 62





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

<http://hobi-elektronika.net>

<Variant Name>

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

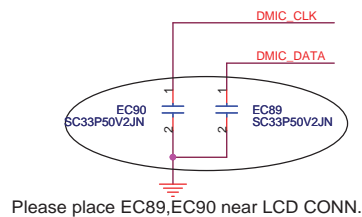
Title		
<b>CLOCK GEN(CK505)</b>		
Size A3	Document Number	Rev SC
Date: Monday, July 14, 2008		Sheet 15 of 62



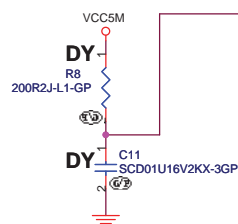
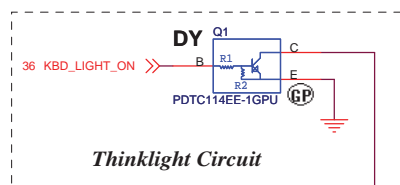
<Comment>

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

# LCD / Inverter Connector

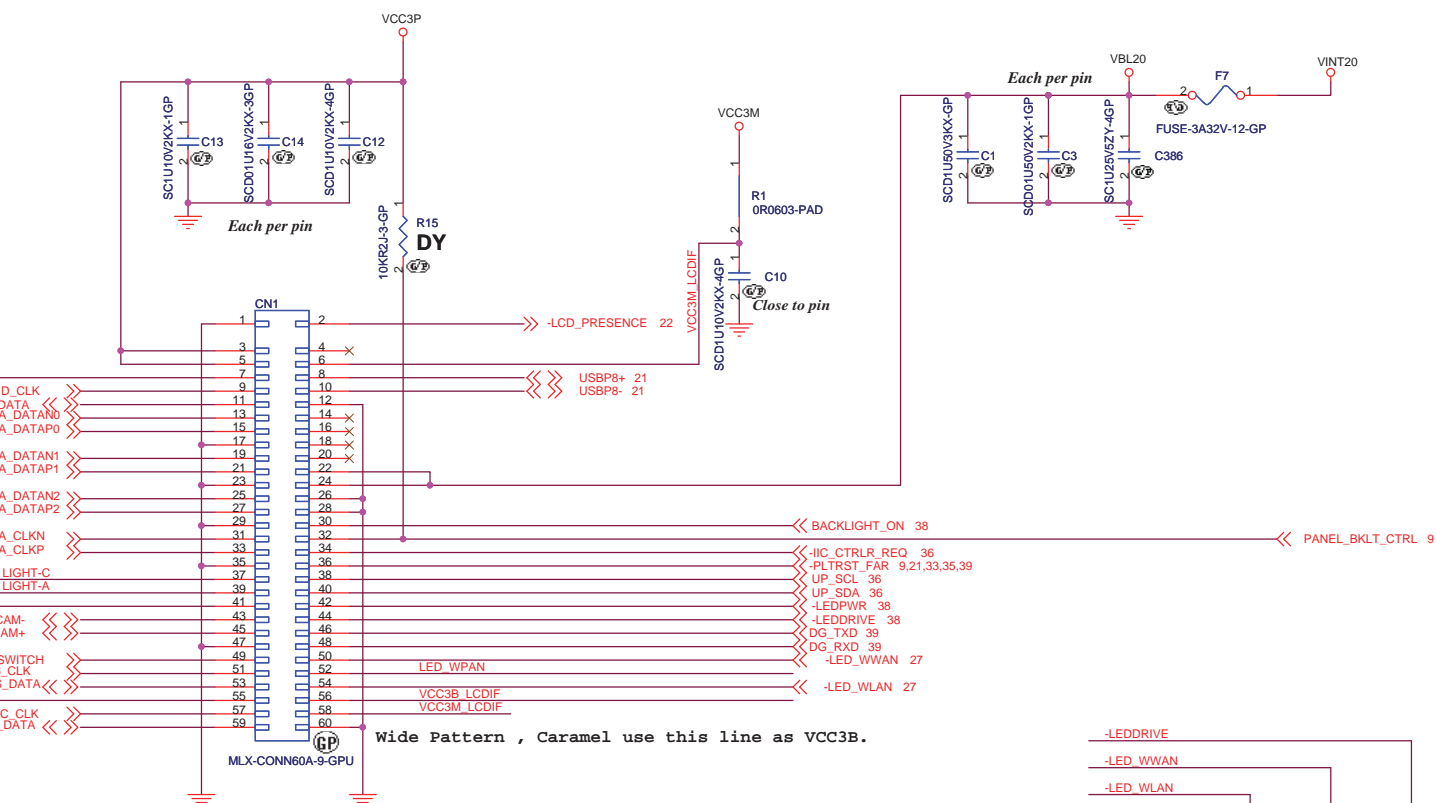
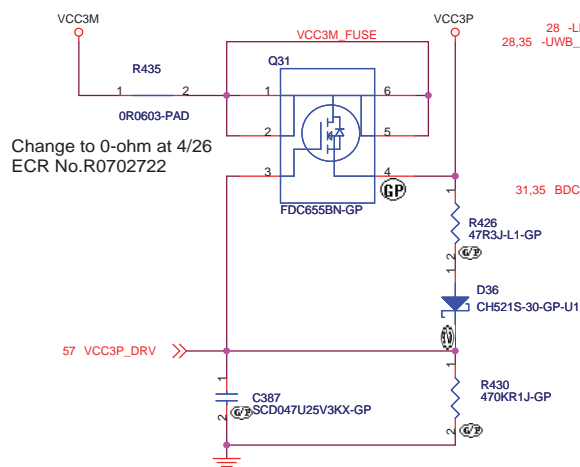


Wide Pattern

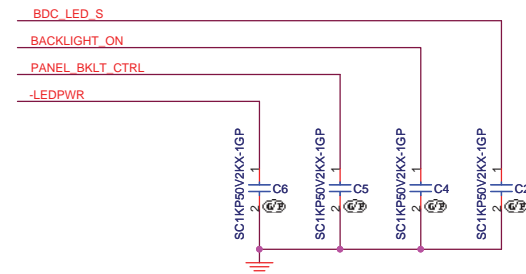
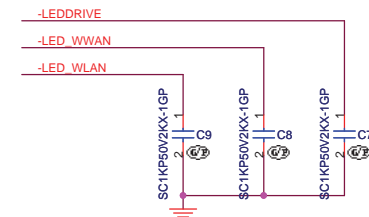


11/01

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



Wide Pattern , Caramel use this line as VCC3B.

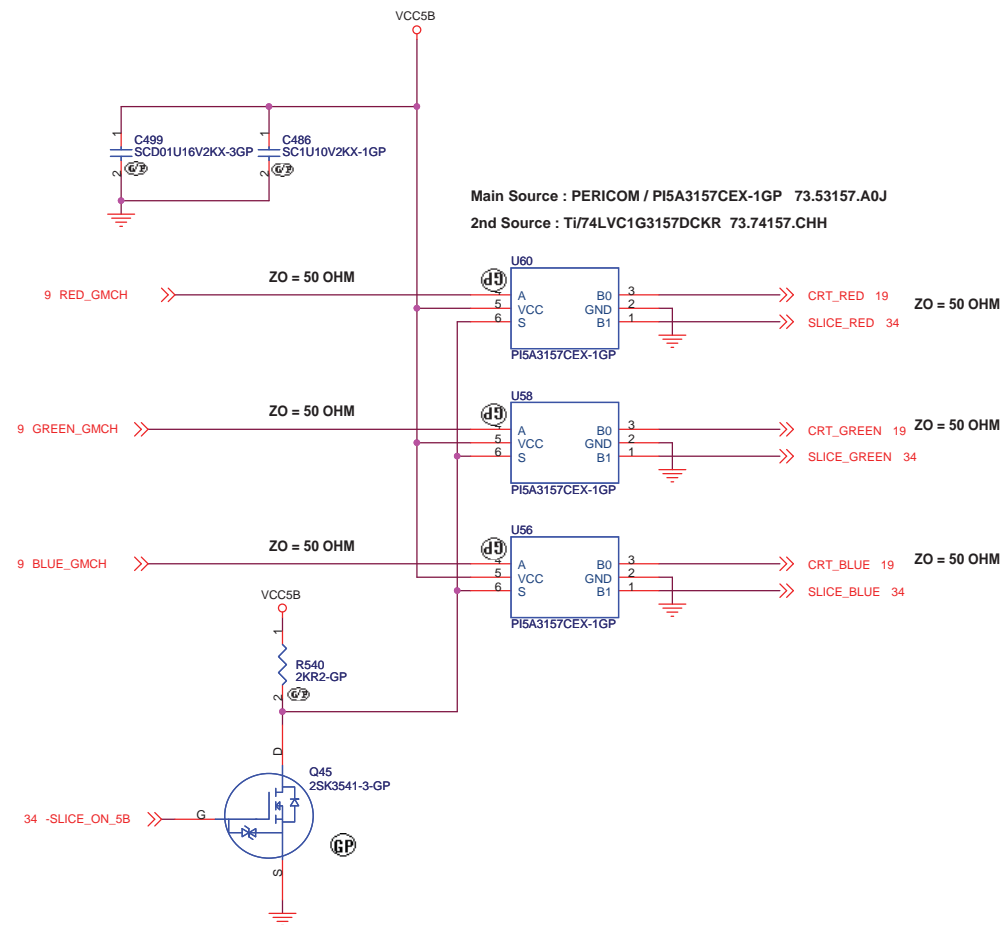


<Variant Name>

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

Title			
LCD CONNECTOR			
Size	Document Number	Rev	
A3		SC	
Date:	Monday, July 14, 2008	Sheet	16 of 61

<http://hobi-elektronika.net>

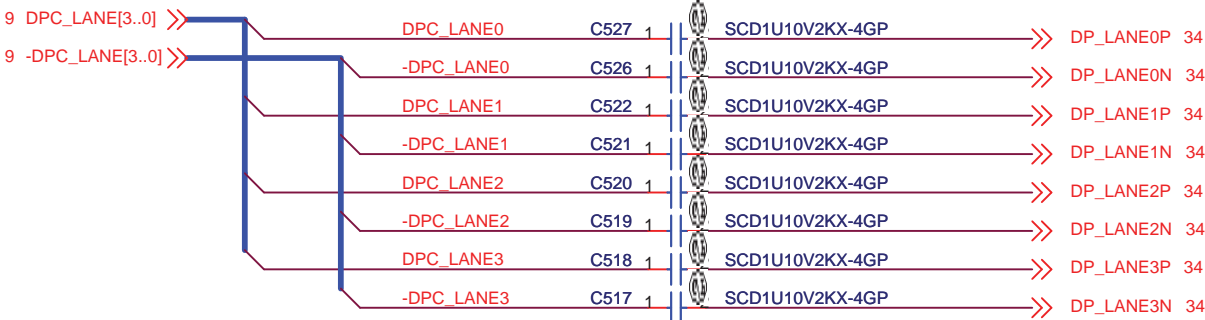


<http://hobi-elektronika.net>


<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	
CRT SELECTOR	
Size A3	Document Number Caramel-1
Date: Monday, July 14, 2008	Rev SC
Sheet 17	of 62

System DP: GMCH to SLICE Connector



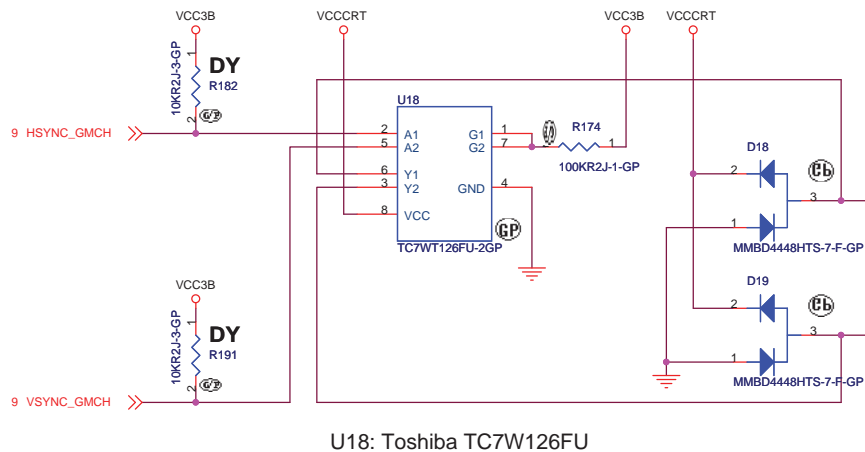
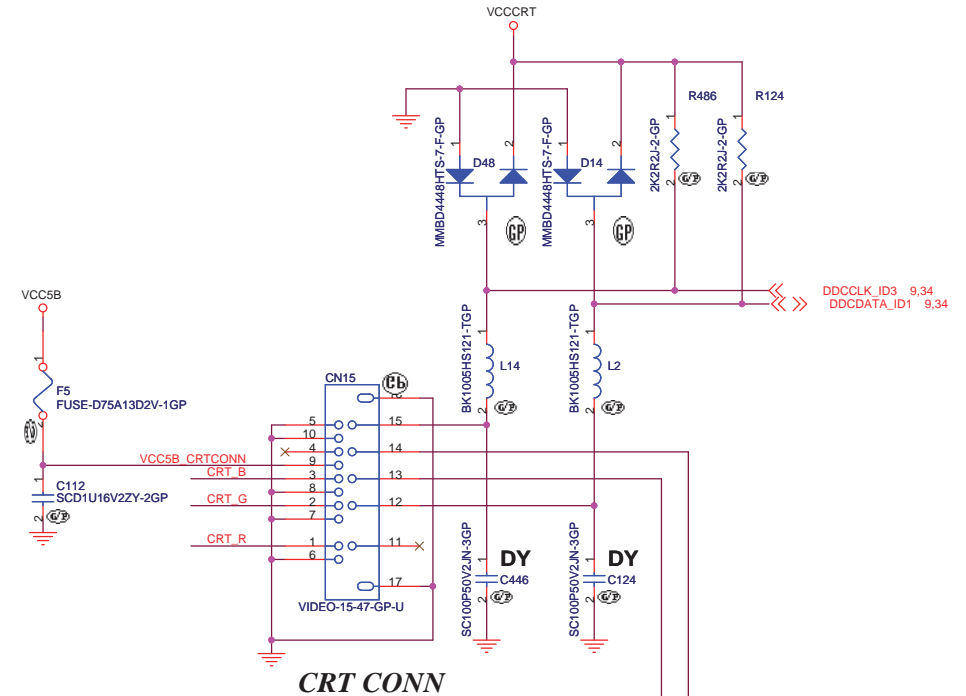
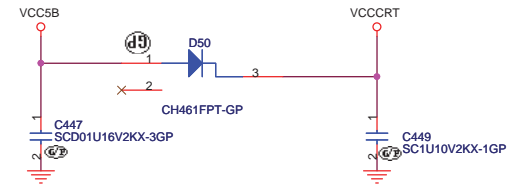
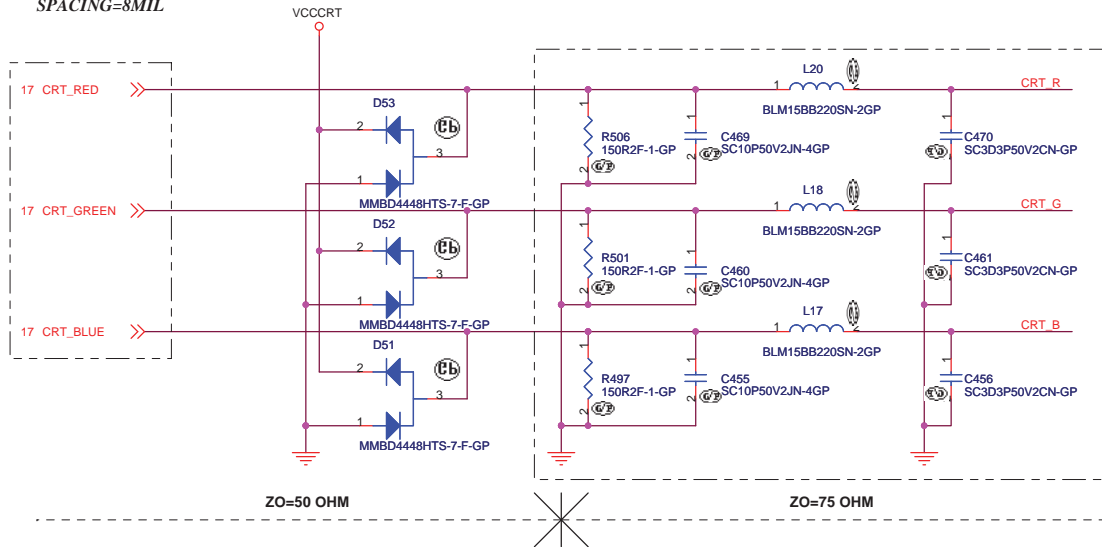
<Variant Name>

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

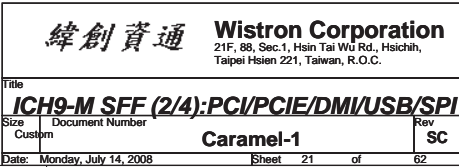


U18: Toshiba TC7W126FU

<http://hobi-elektronika.net>

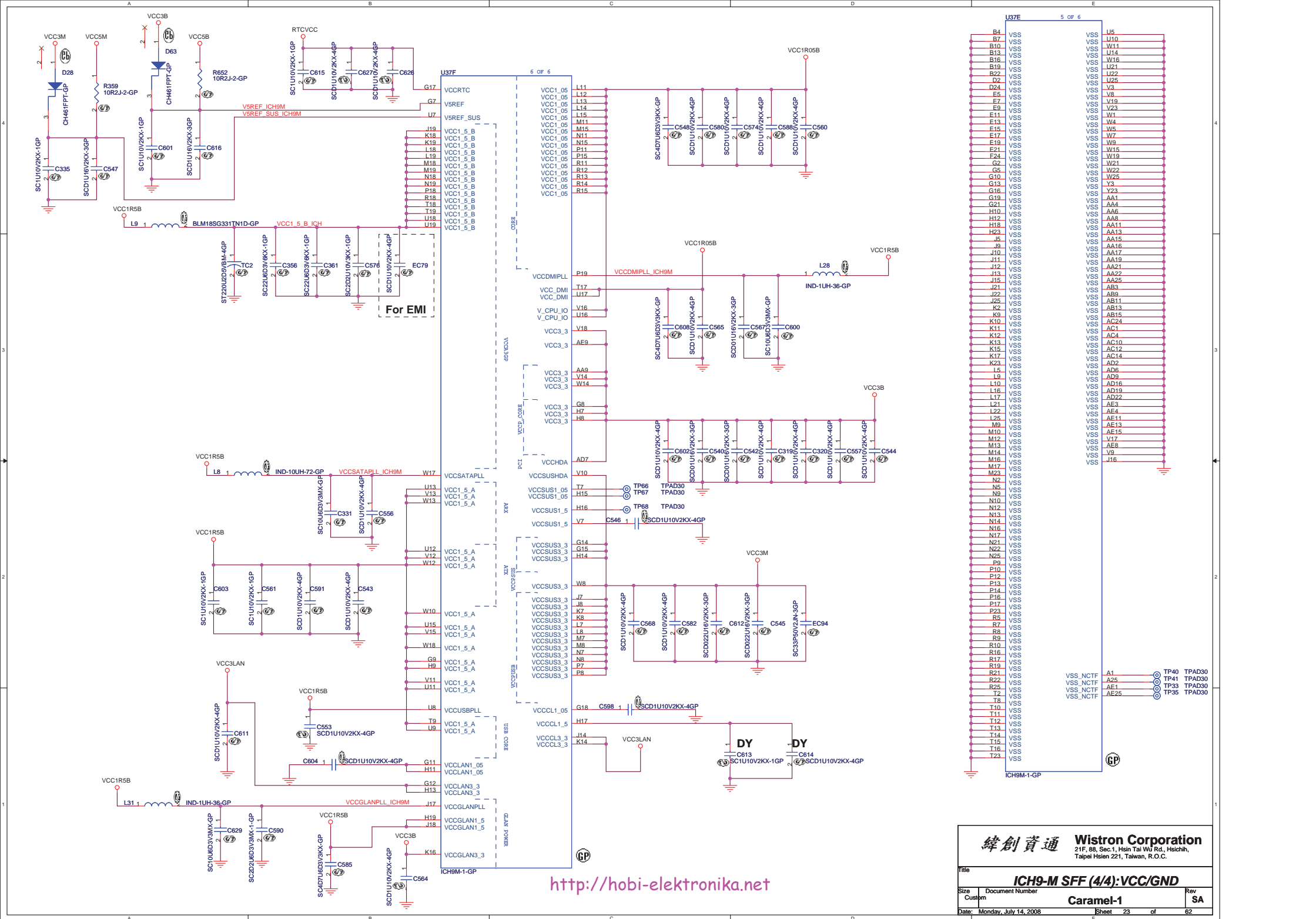
<b>緯創資通</b>		<b>Wistron Corporation</b>	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		Title	
Size		<b>EXT CRT INTERFACE</b>	
A3		Document Number	
Date: Monday, July 14, 2008		<b>Caramel-1</b>	
Sheet		19 of 62	
Rev		<b>SC</b>	







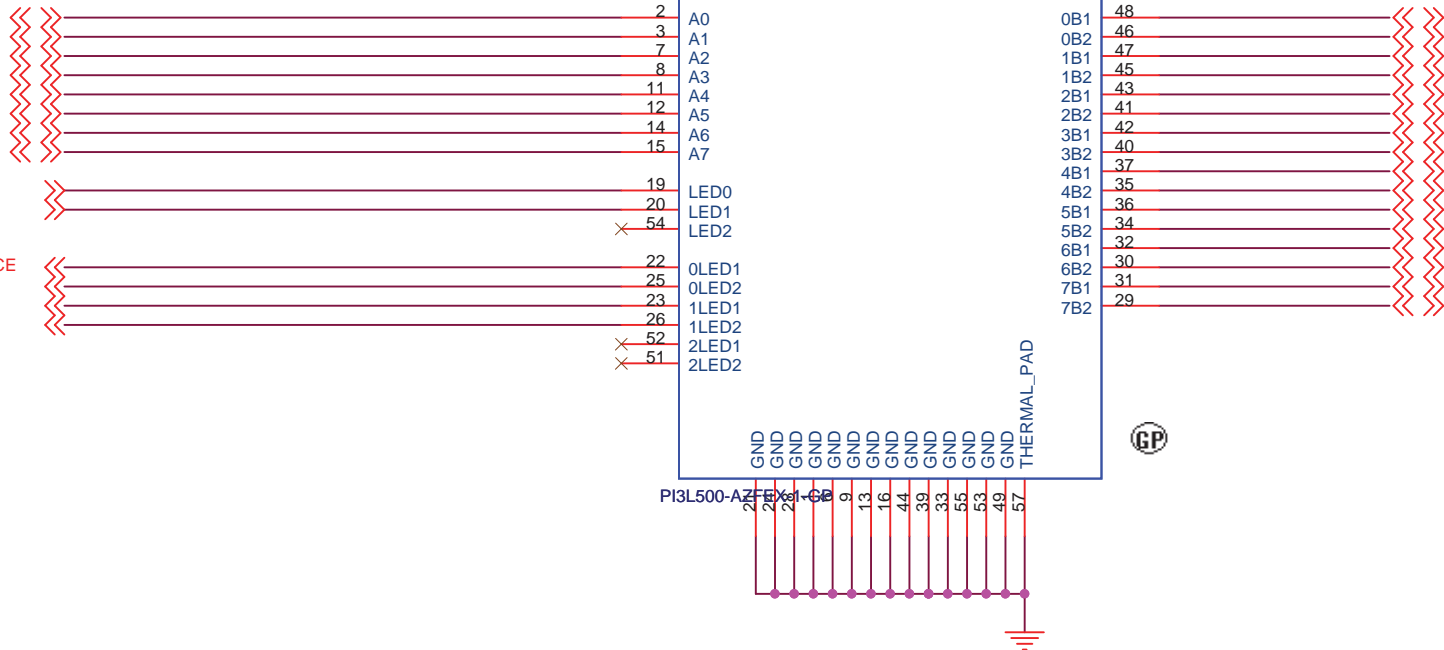






<http://hobi-elektronika.net>


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

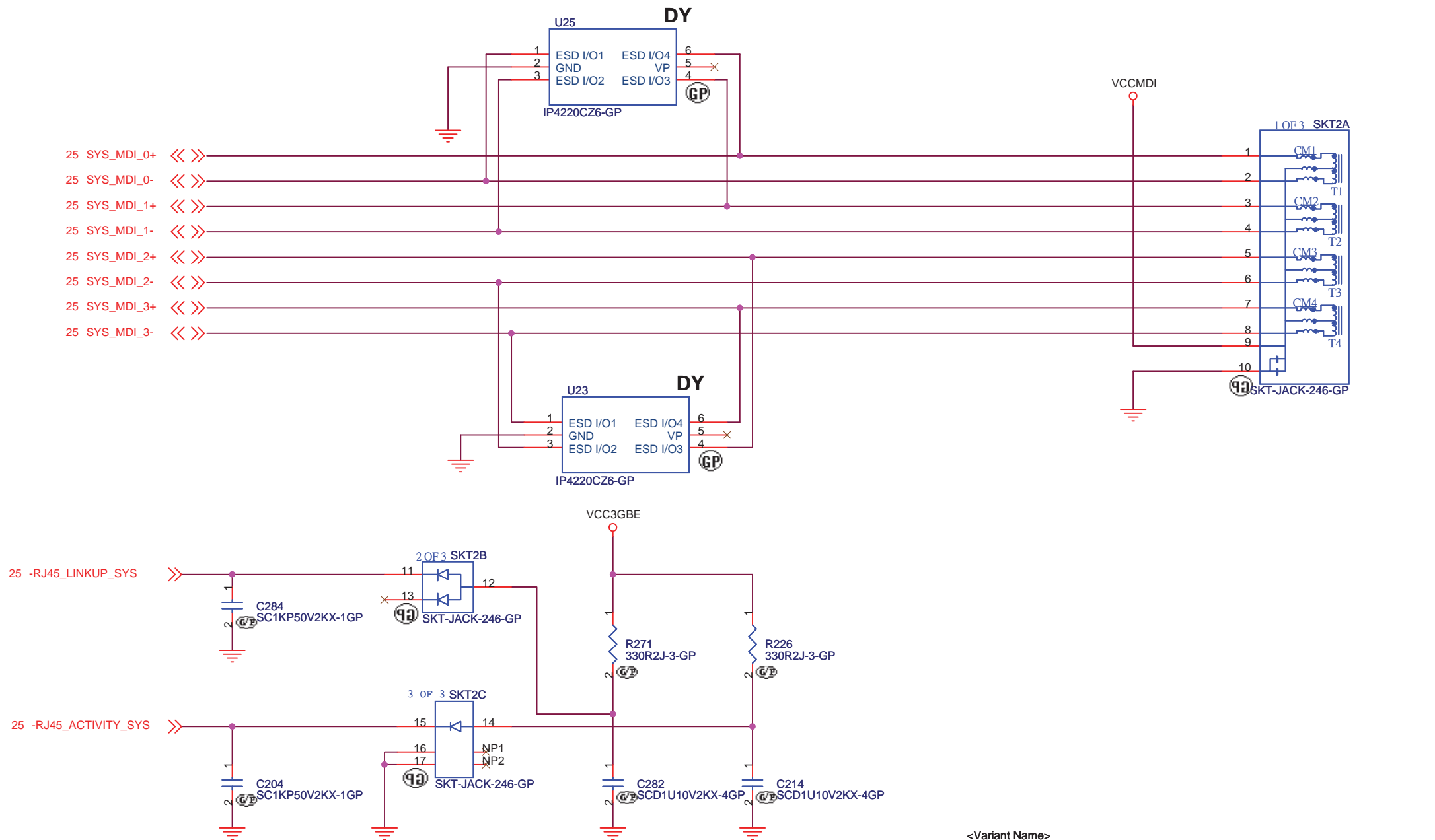


		Vendor P/N	Wistron P/N
1st	Pericom	PI3L500AZFEX	73.3L500.003
2nd	TI	TS3L500AERHUR	73.3L500.A0V
3rd	MAXIM	MAX4927ETN+	74.04927.073

<http://hobi-elektronika.net>

<Variant Name>

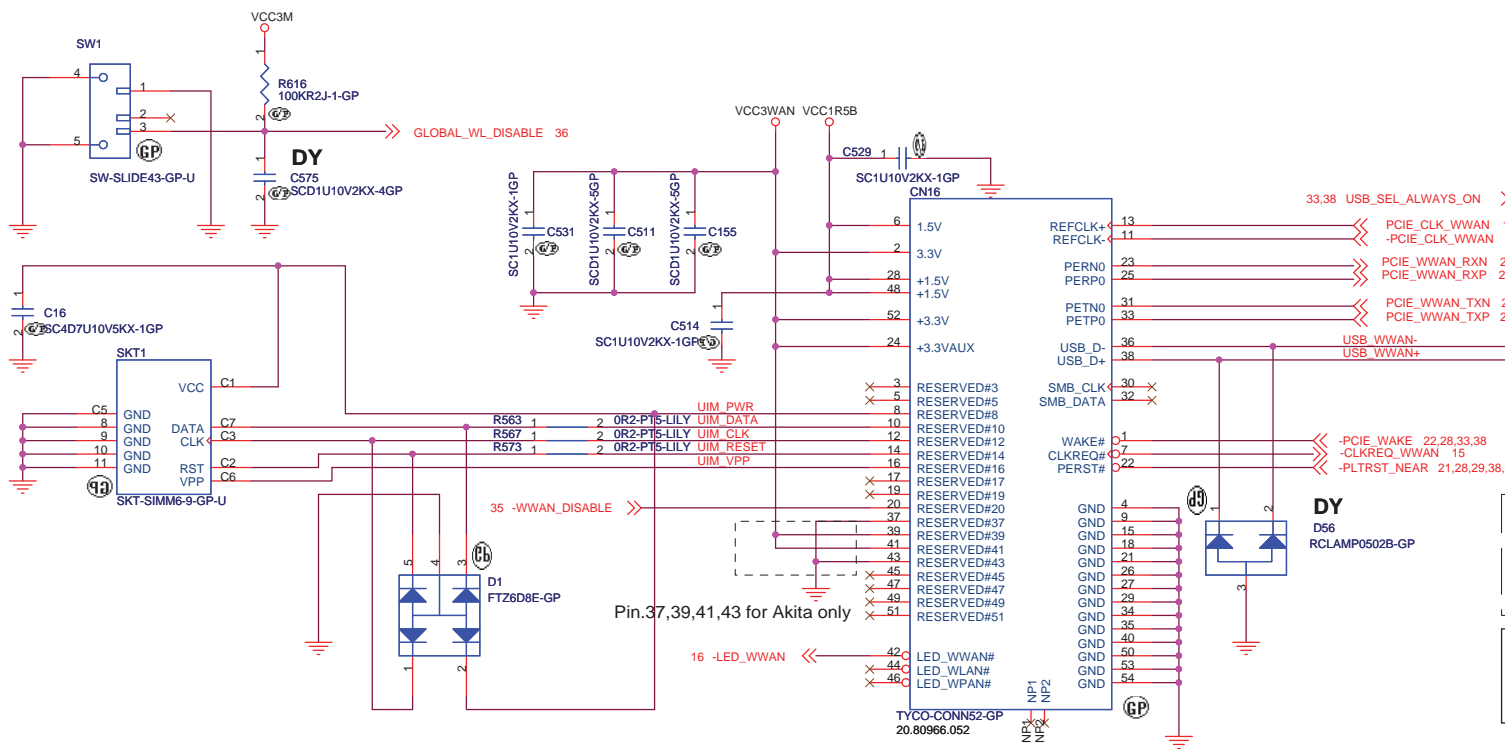
 <b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
<b>GBE LAN SW</b>	
Size A4	Document Number <b>Caramel-1</b>
Date Monday, July 14, 2008	Rev <b>SC</b>
Sheet 25 of 62	



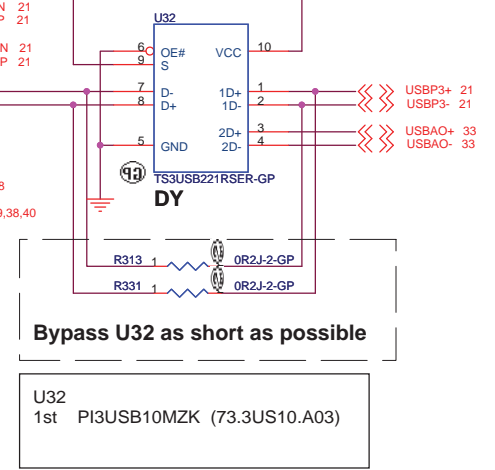
<http://hobi-elektronika.net>

<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	
RJ45 CONN	
Size A4	Document Number  Caramel-1
Date: Monday, July 14, 2008	Rev SC
Sheet 26 of 62	



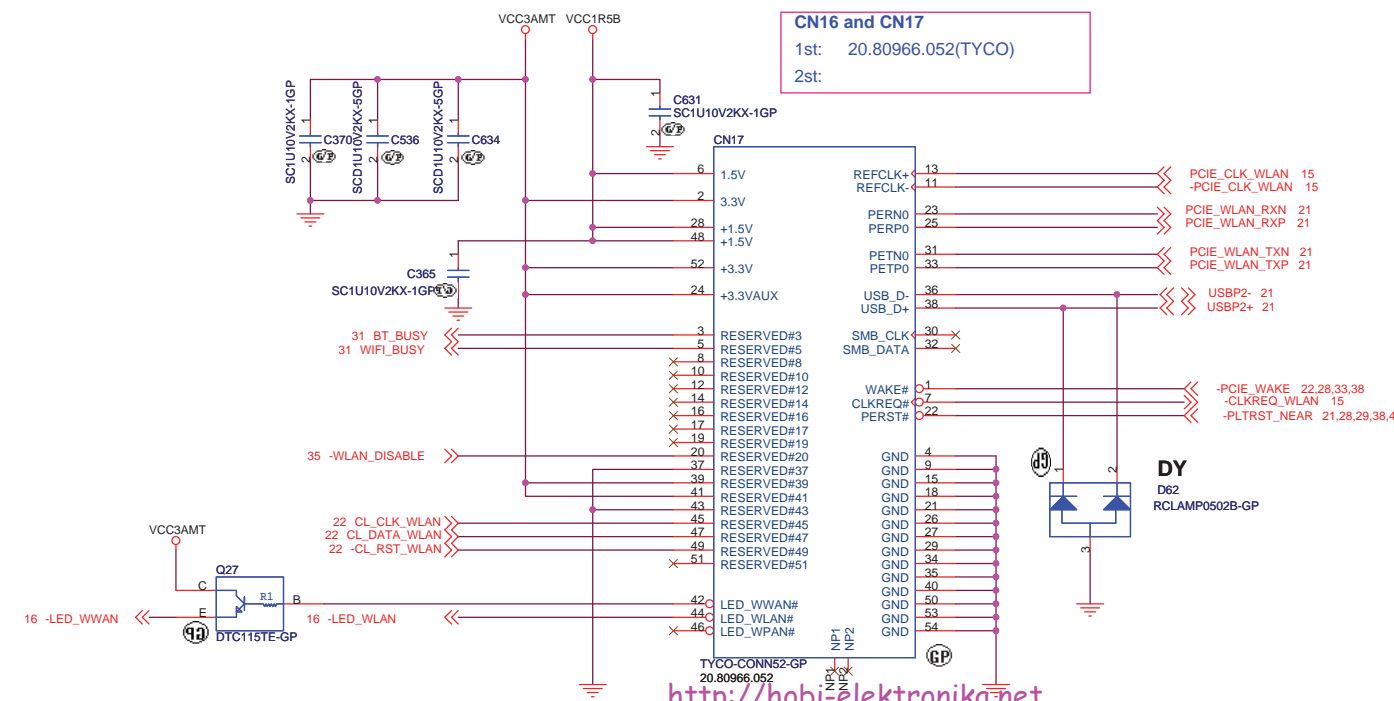
Always ON	Regular	Lite/BB/NO
U32	ASM	No_ASM
R313	No_ASM	ASM
R331	No_ASM	ASM



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**

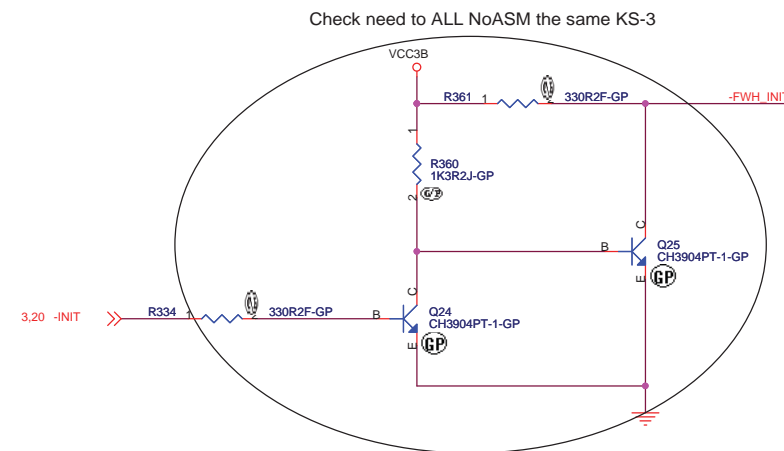
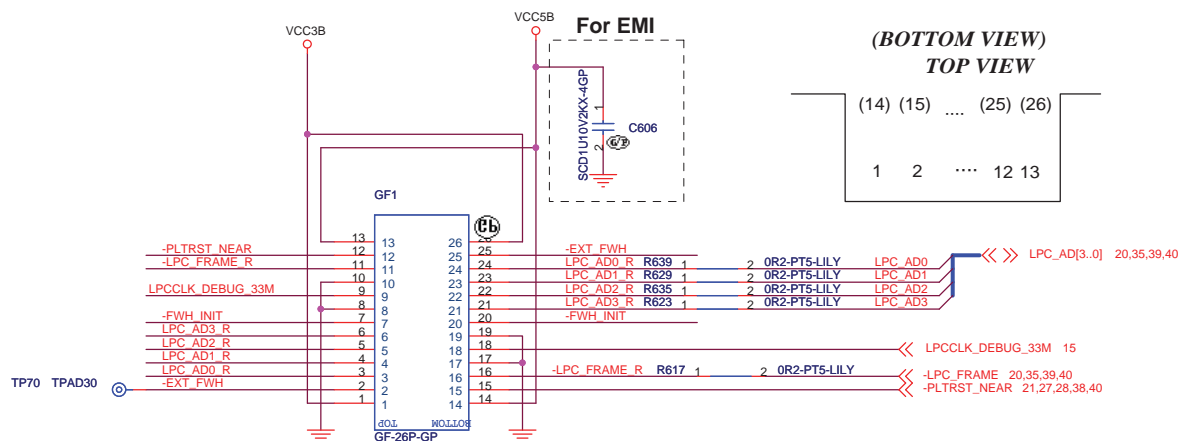
Size A3 Document Number Caramel-1 Rev SC

Date: Monday, July 14, 2008 Sheet 27 of 62

<http://hobi-elektronika.net>



# Golden Finger for Debug Board



64Mbit SPI FLASH :

Macronix MX25L6405DZNI-12G: 72.25640.B01

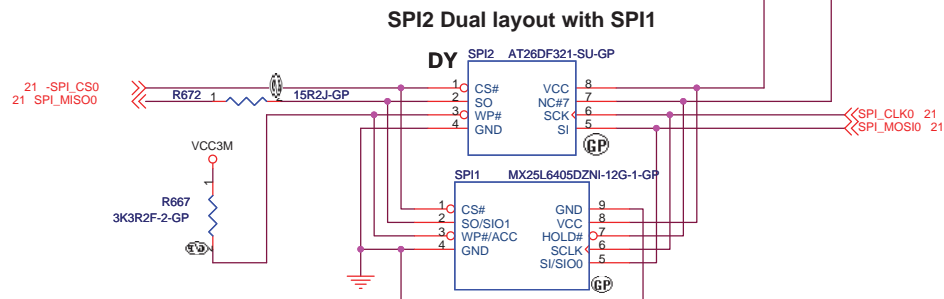
Winbond W25X64VZEIG

ATMEL XXXXXX

32Mbit SPI FLASH :

ATMEL/AT26DF321-SU:72.26321.A01

MXIC/MX25L3205DM2I-12G:72.25325.A01



SO8 and VSON8 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**

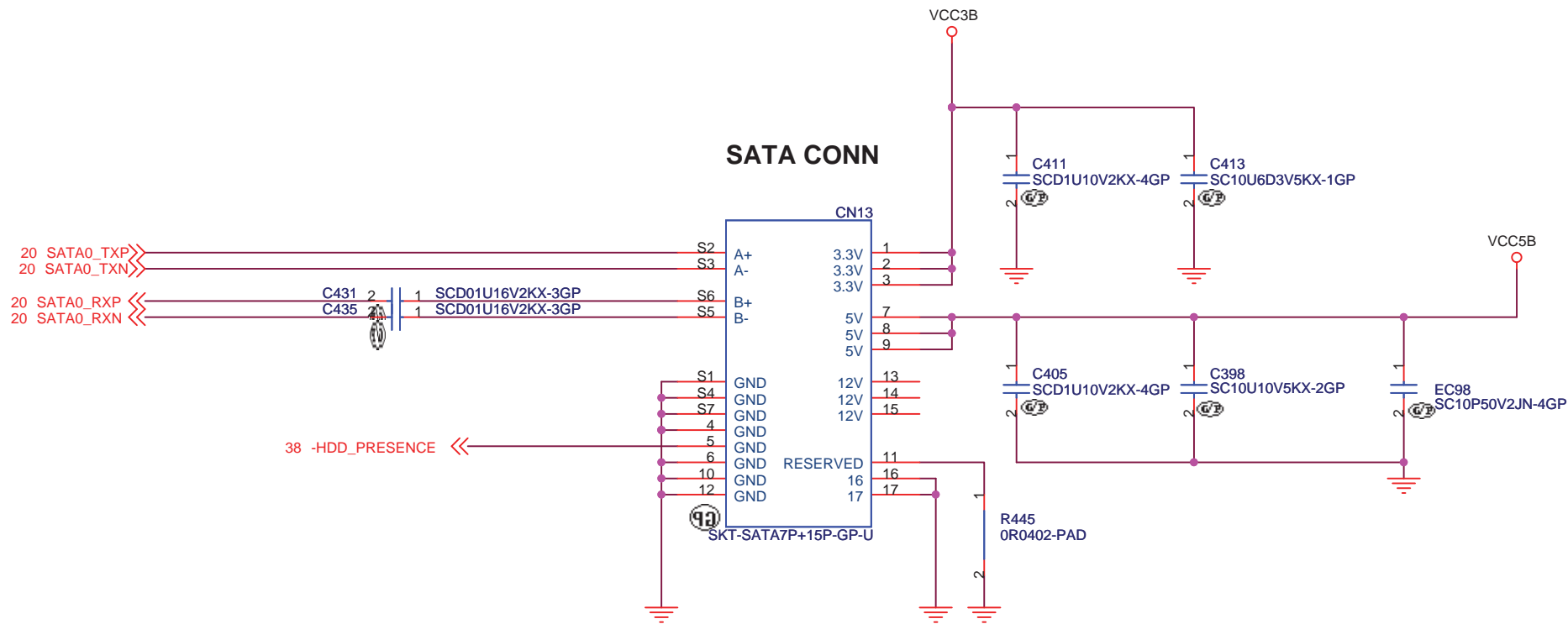
Rev

**SC**

Date: Monday, July 14, 2008


Sheet 29 of 62



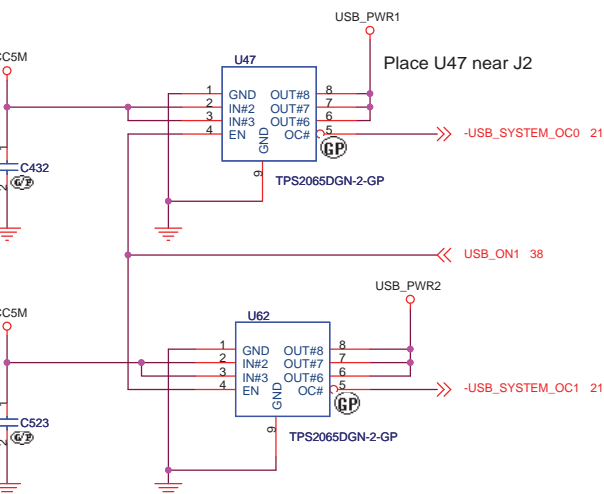
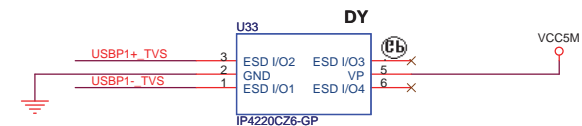
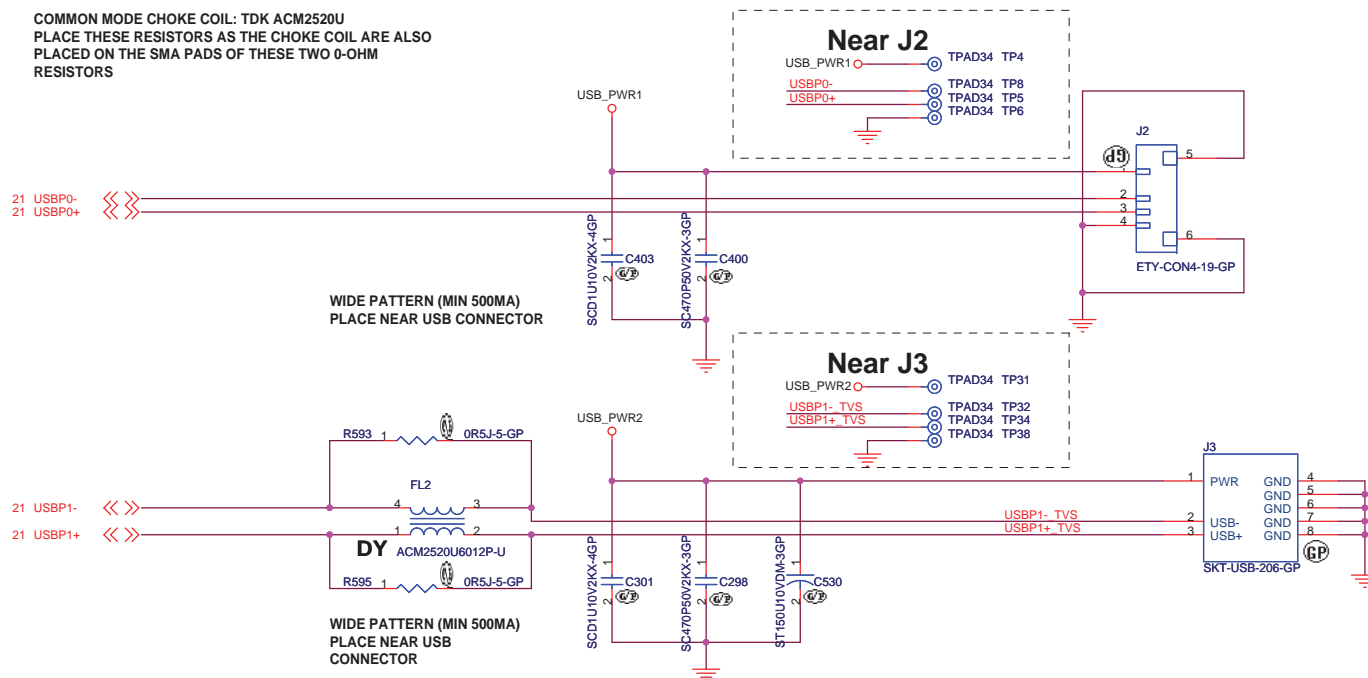


<http://hobi-elektronika.net>

<Core Design>

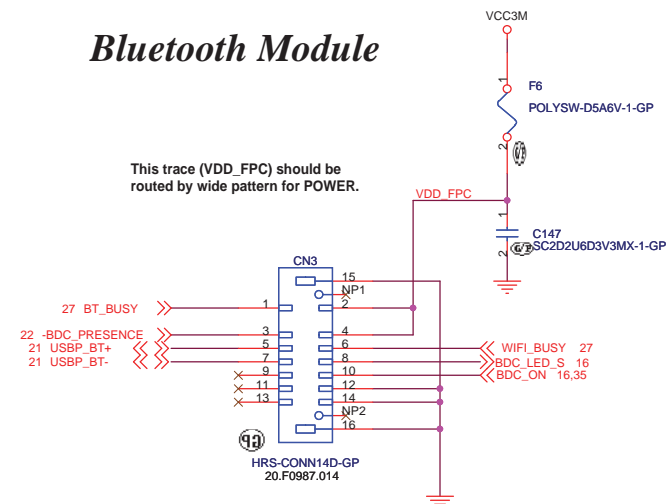
		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>2.5 inch SATA Connector</b>			
Size A4	Document Number <b>Caramel-1</b>		Rev <b>SC</b>
Date:	Monday, July 14, 2008	Sheet 30 of	62

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



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

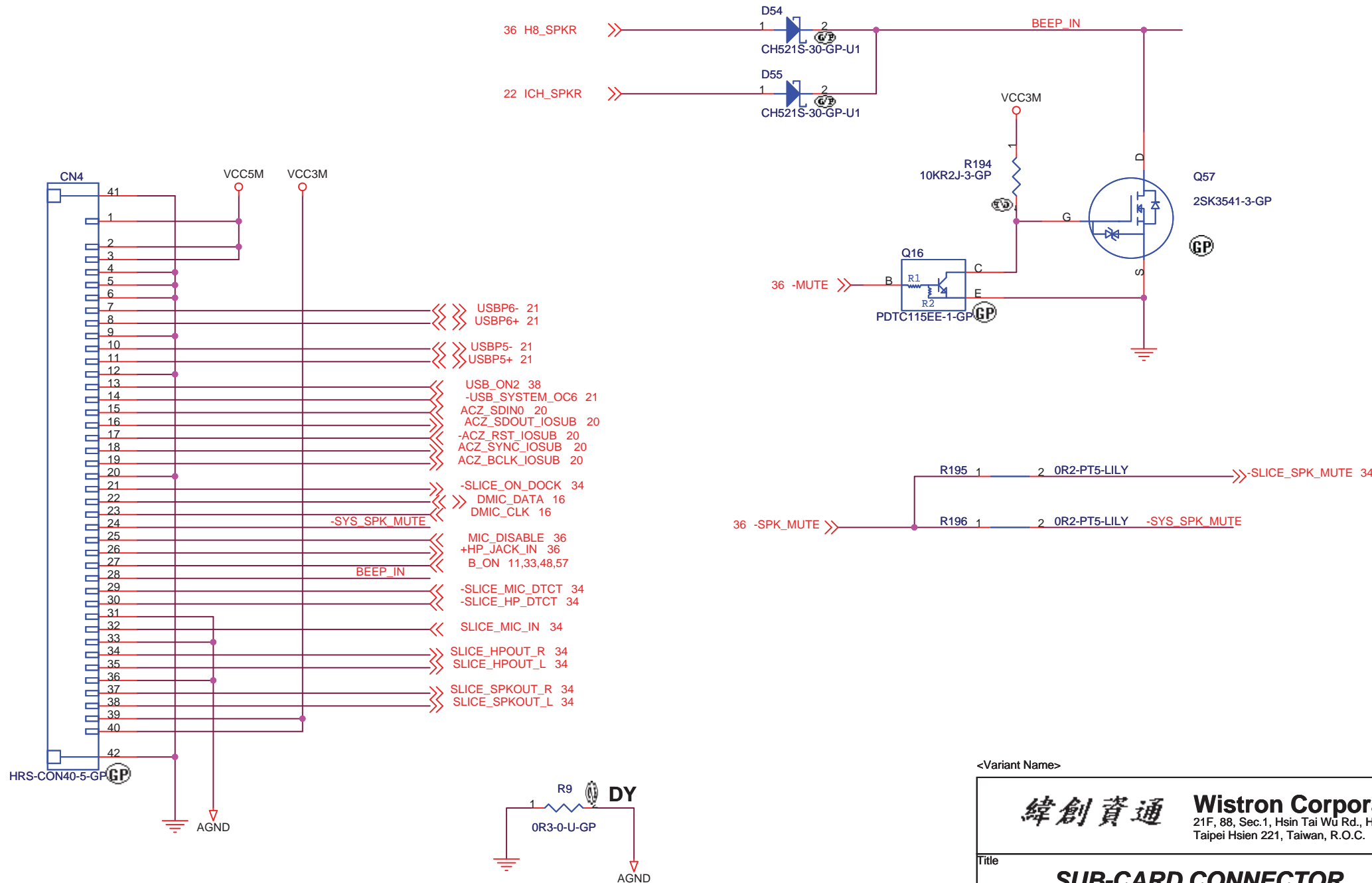
## Bluetooth Module



<Variant Name>

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

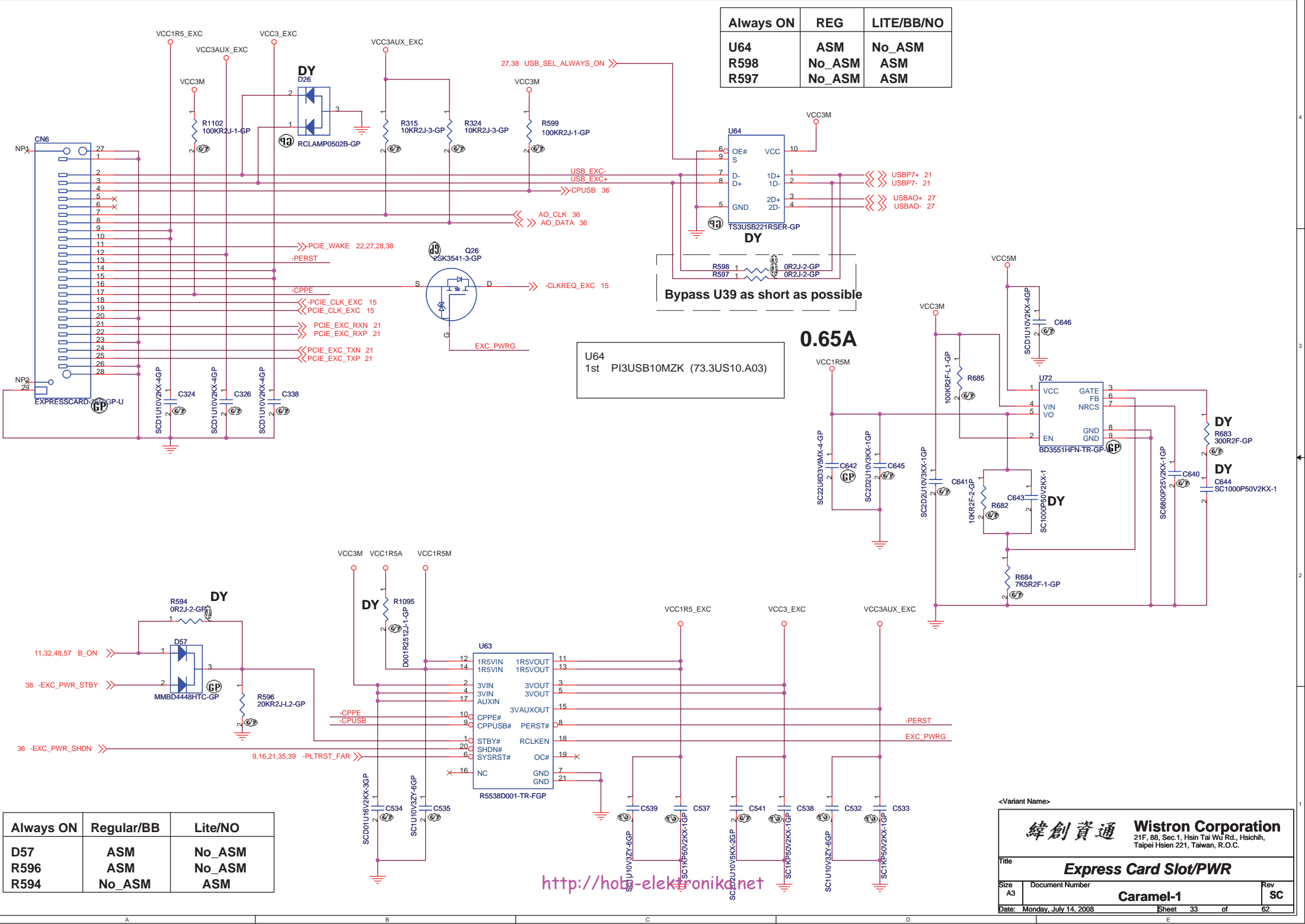
Title			
USB POWER / CONNECTOR			
Size	Document Number	Rev	
A3		SC	
Date:	Monday, July 14, 2008	Sheet	31 of 62



<http://hobi-elektronika.net>

<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>SUB-CARD CONNECTOR</b>			
Size A4	Document Number <b>Caramel-1</b>		Rev <b>SC</b>
Date: Monday, July 14, 2008		Sheet 32 of	62



Always ON	REG	LITE/BB/NO
U64	ASM	No_ASM
R598	No_ASM	ASM
R597	No_ASM	ASM

U64  
1st PI3USB10MZK (73.3US10.A03)

0.65A

Always ON	Regular/BB	Lite/NO
D57	ASM	No_ASM
R596	ASM	No_ASM
R594	No_ASM	ASM

緯創資通

Wistron Corporation

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

Title

Express Card Slot/PWR

Size

A3

Document Number

Caramel-1

Rev

SC

Date

Monday, July 14, 2008

Sheet

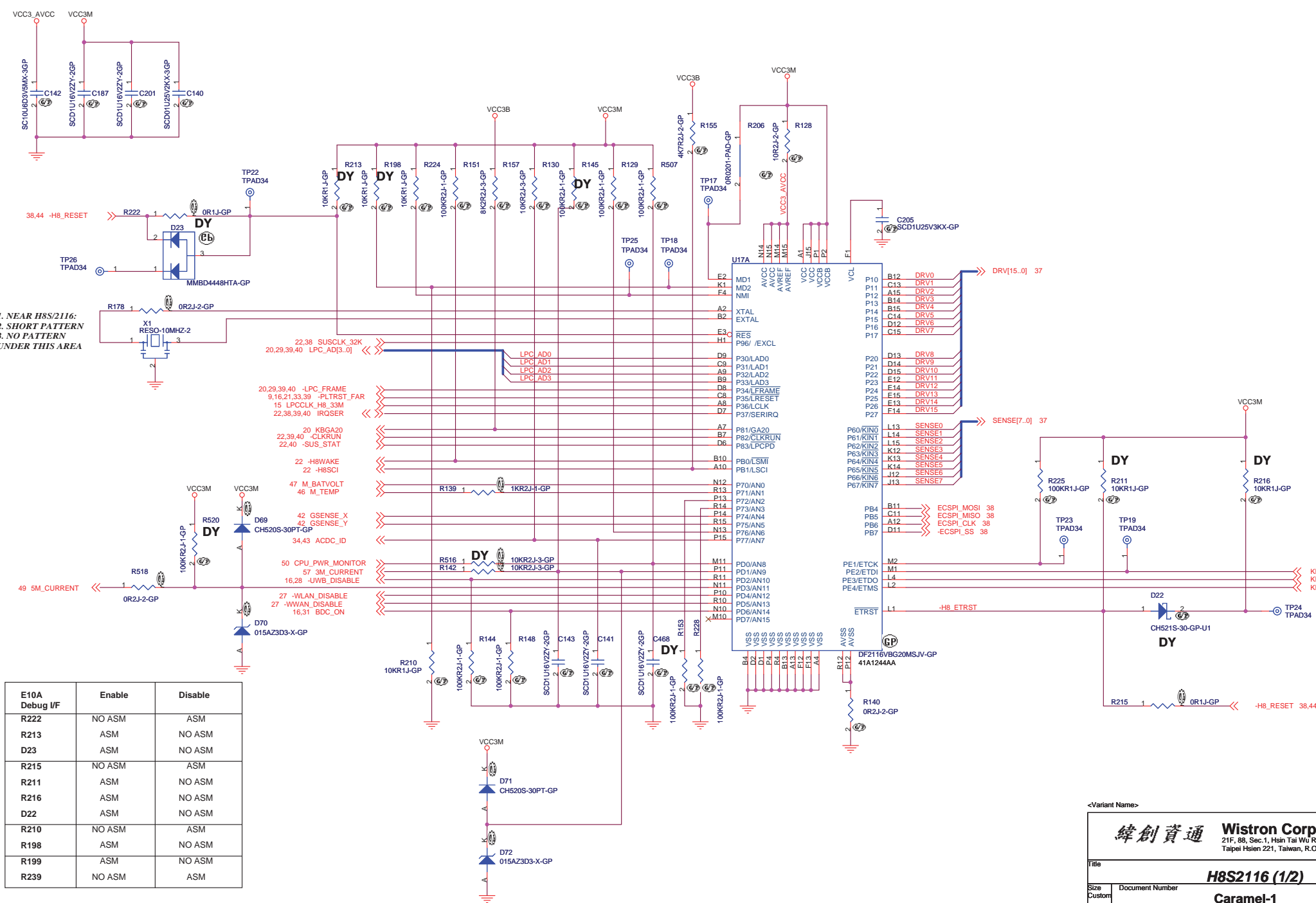
33

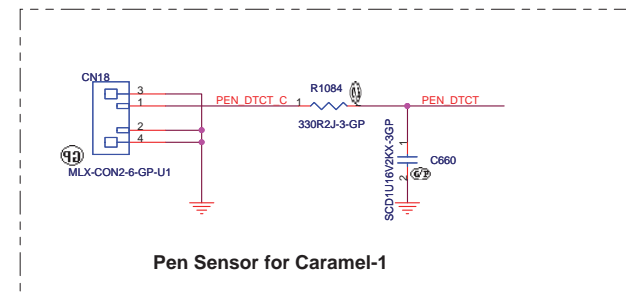
of

62

<http://hobu-elektronika.net>



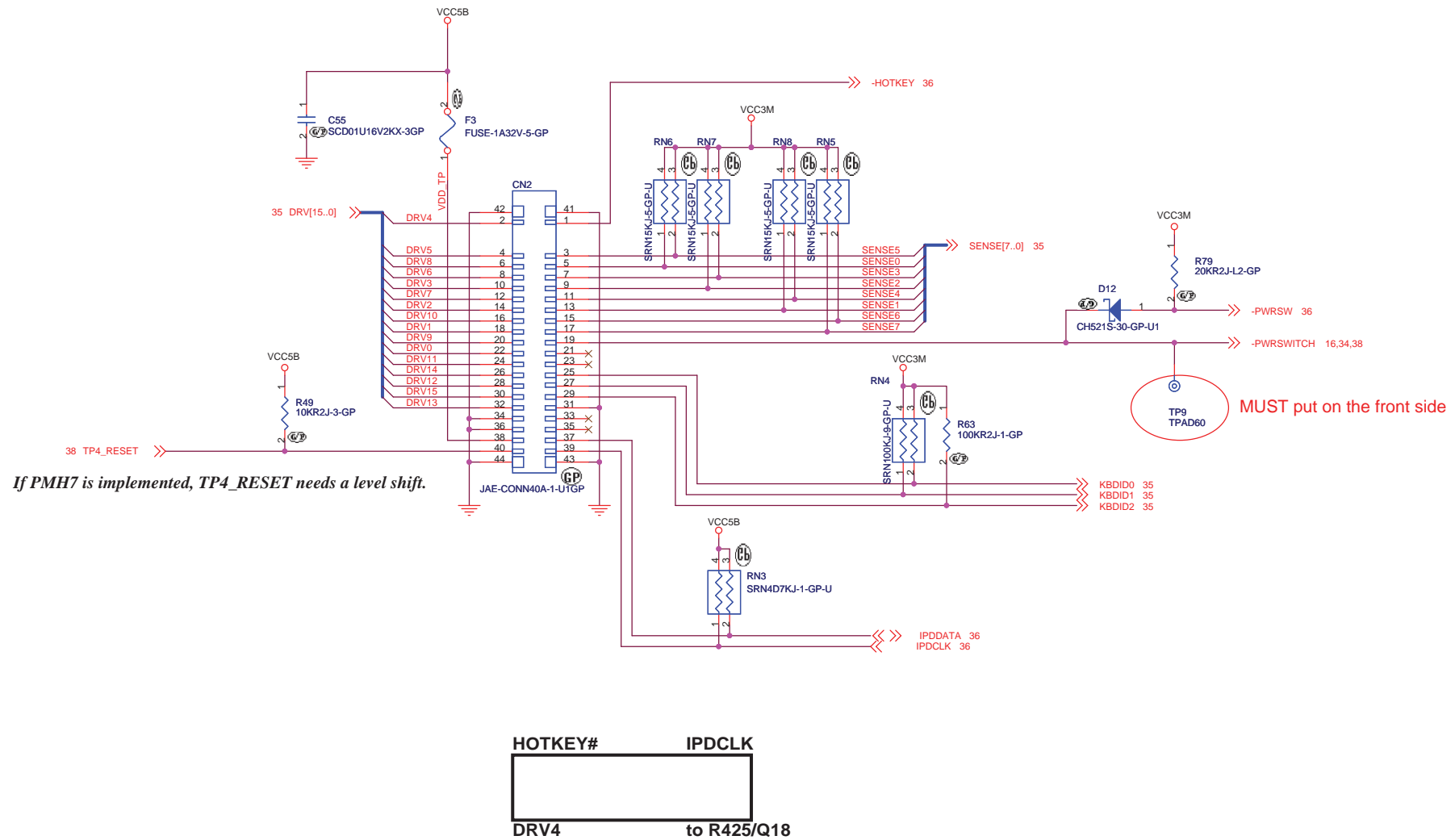




<http://hobi-elektronika.net>



# Keyboard Connector



Keyboard Connector Top View

<http://hobi-elektronika.net>



Always ON	AO_ID[1..0]
NO	11B
Lite	10B
Lite & BB	01B
Regular	00B

緯創資通

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

Title	Author	Year	Journal	Volume	Page
...	...	...	...	...	...

**MISC G/A (PMH-7)**

Size	
------	--

Document Number

Custom

---

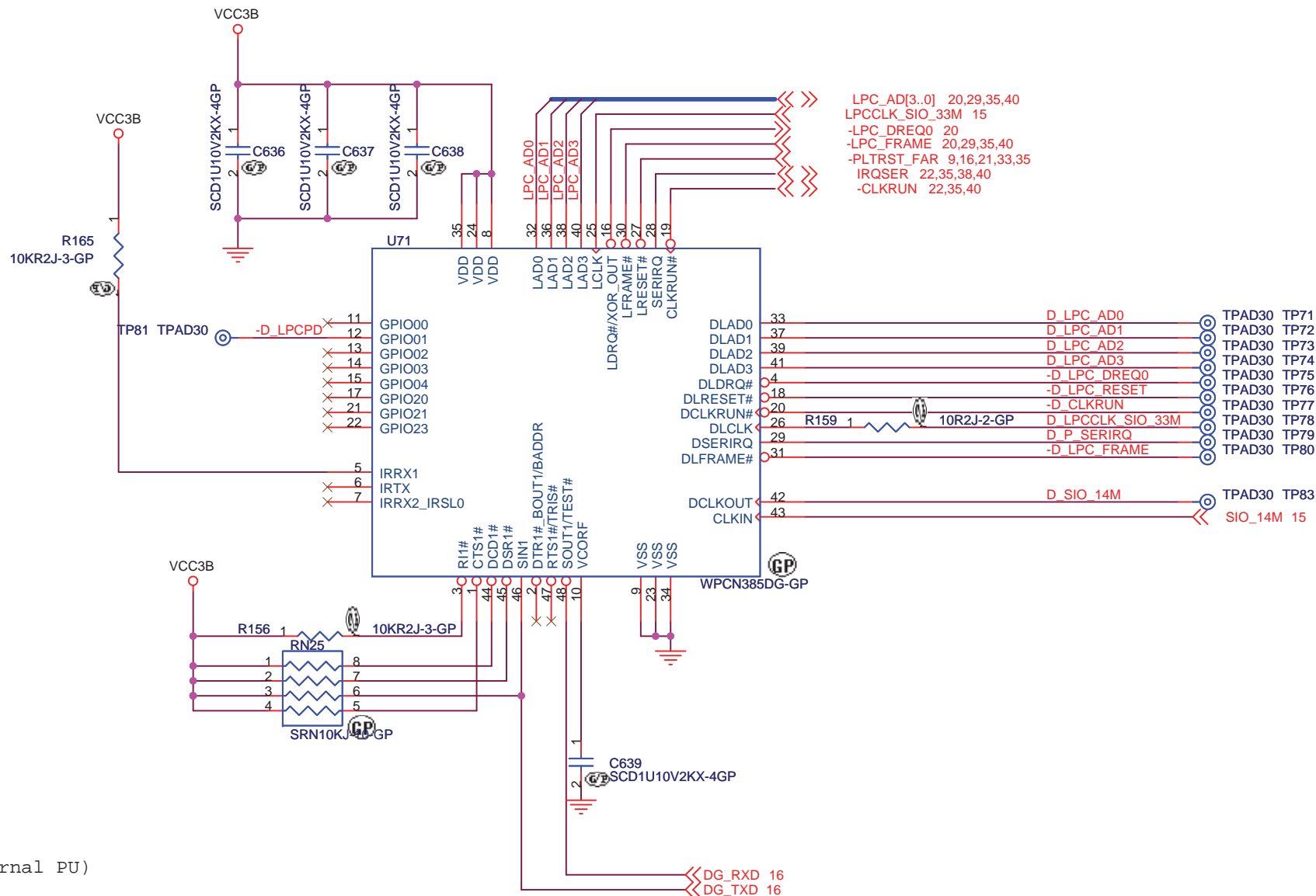
## Caramel-1

Date: Monday, July 14, 2008

Sheet 3

8

62



Power On strap pin

Pin2 : Base I/O address

NC : 164E/164F (Internal PU)

PD : 2E/2F

Pin31 : LPC Switch function

NC : Switch Enable(controlle by DLCON bit)

PD : Switch Disable(forced to be Disconnected)

Pin47 : Tristate

NC : Normal Operation

PD : All pins floting

Pin48 : Test

NC : Normal Operation

PD : Test mode

<http://hobi-elektronika.net>

<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

**WPCN385SDG**

Size  
A4

Document Number

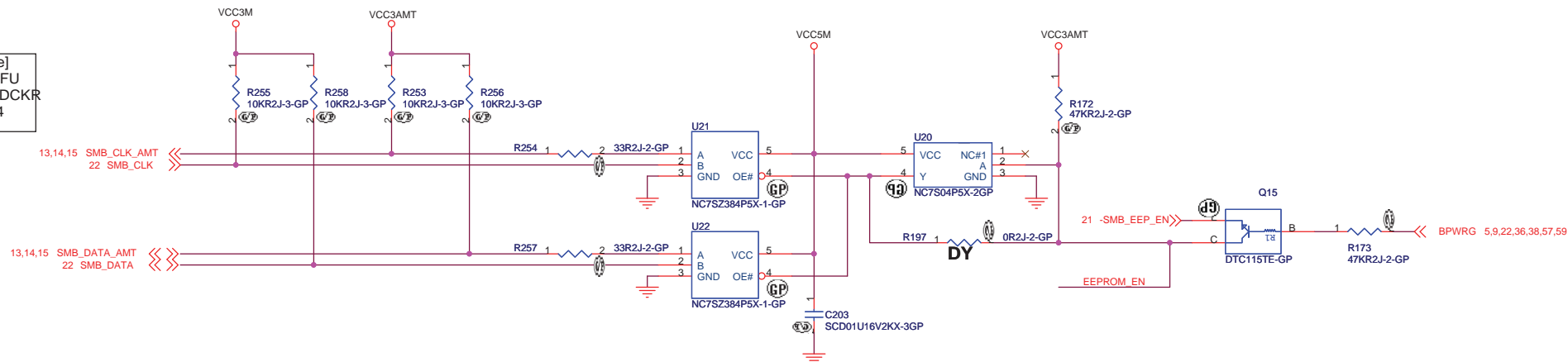
**Caramel-1**

Rev  
**SC**

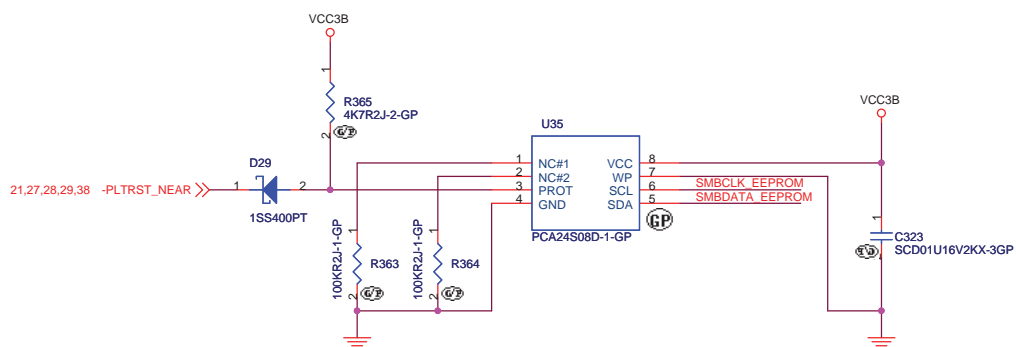
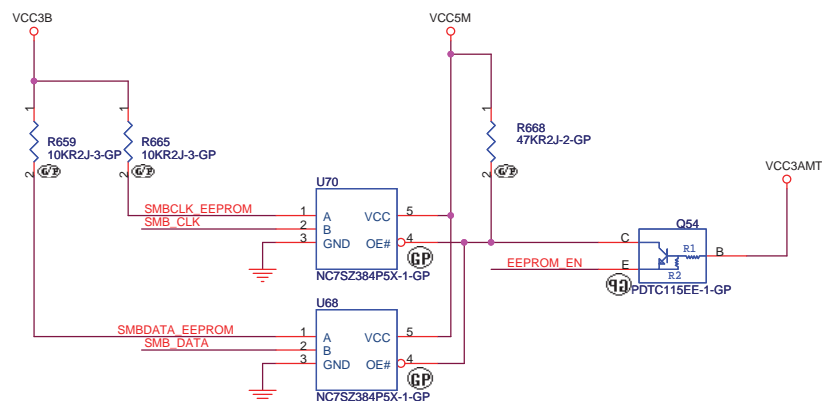
Date: Monday, July 14, 2008

Sheet 39 of 62

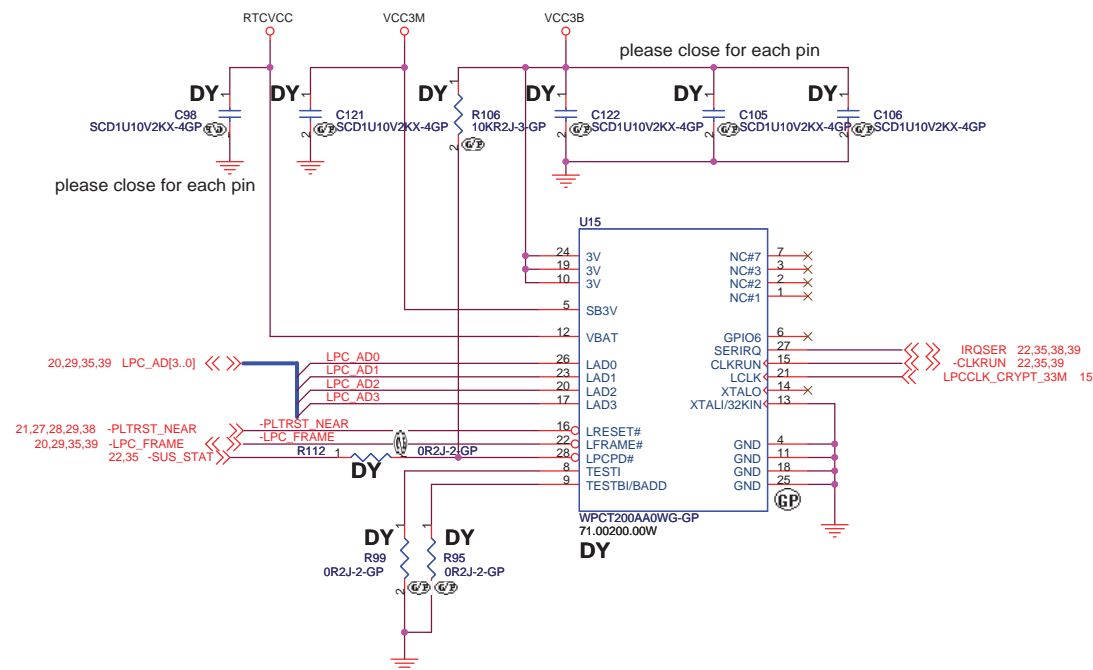
[Sourcing Candidate]  
Toshiba TC7SB384FU  
TI SN74CBT1G384DCKR  
Fairchild NC7SZ384



## EEPROM

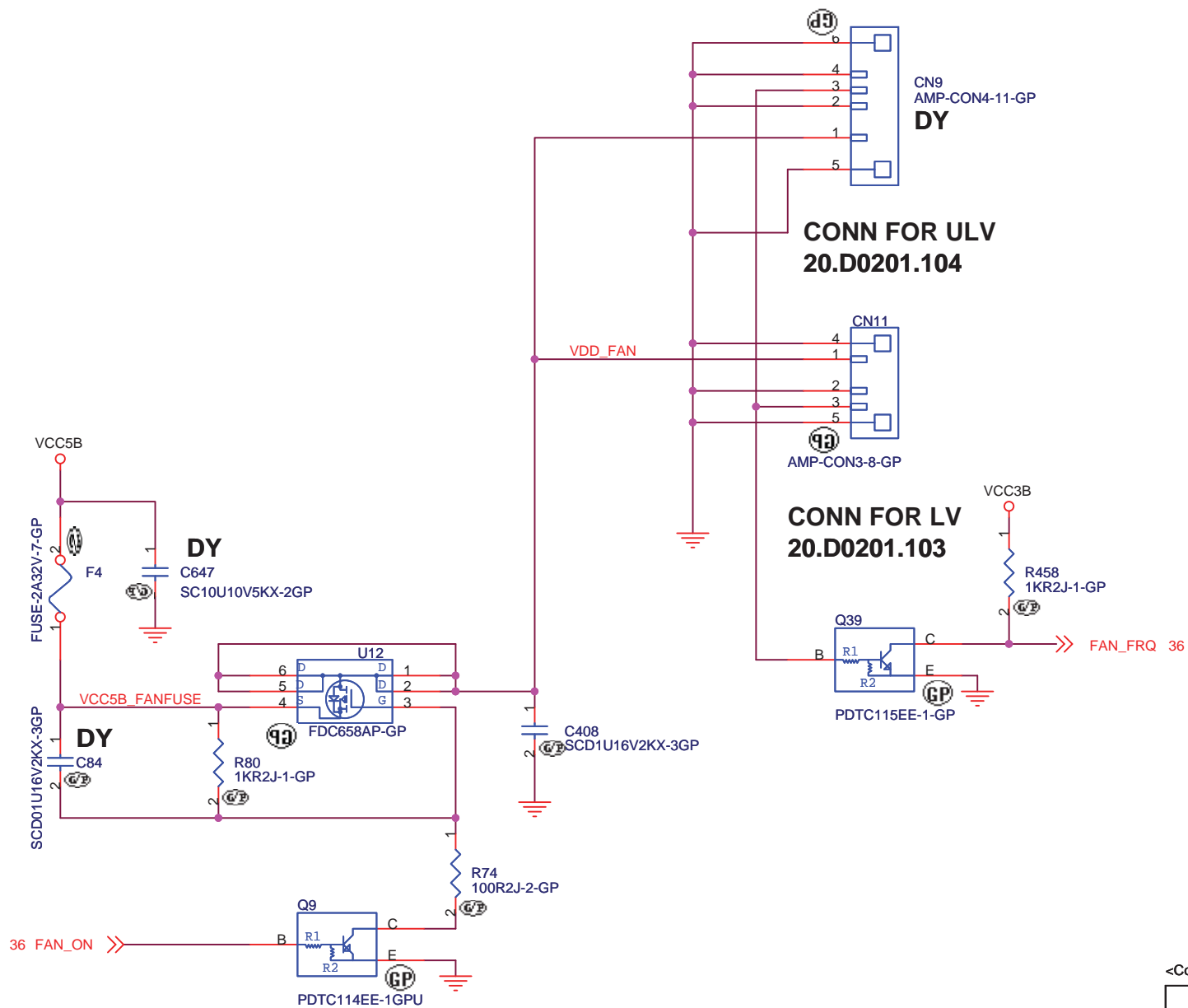


## TCPA



<http://hobi-elektronika.net>

<b>&lt;Core Design&gt;</b>	
<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>EEPROM/TCPA</b>	
Size	Document Number
A3	<b>Caramel-1</b>
Date: Monday, July 14, 2008	Rev SC
Sheet 40	of 62



<http://hobi-elektronika.net>

<Core Design>

緯創資通

**Wistron Corporation**

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

Title

**FAN CONTROL**

Size  
A4

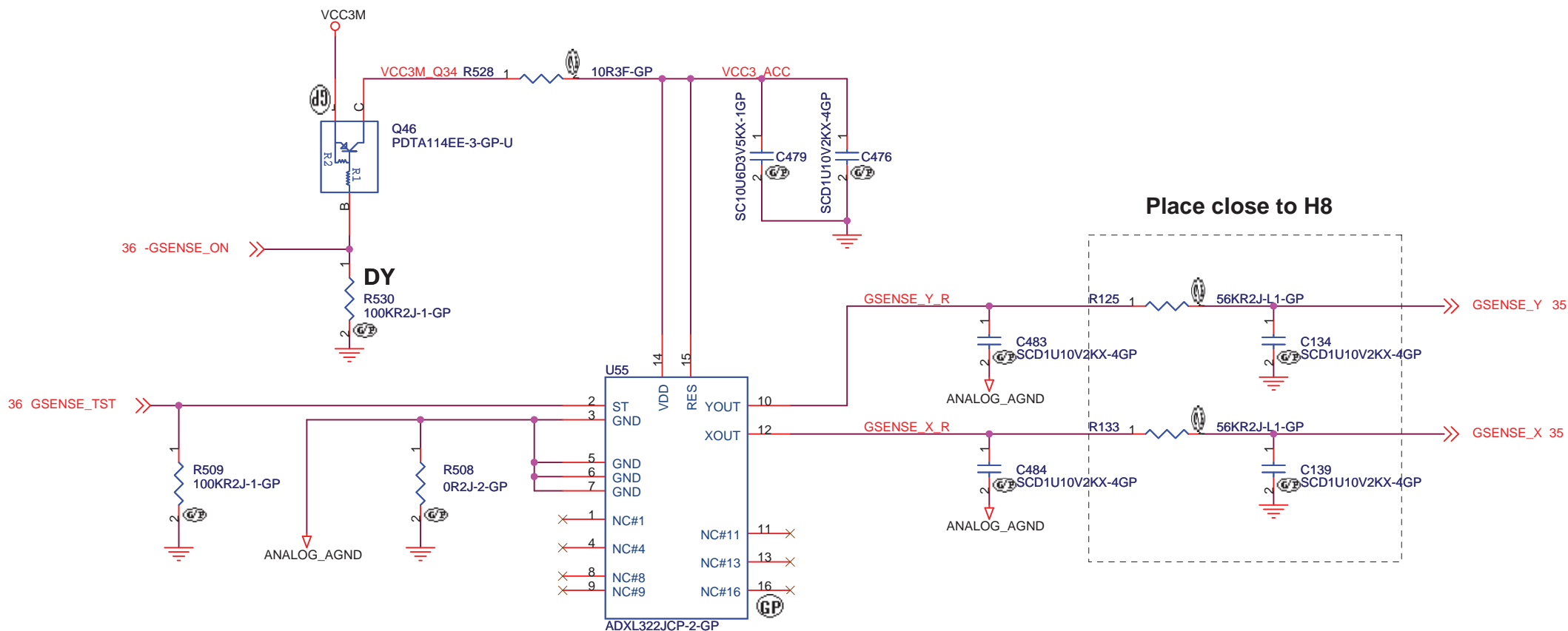
Document Number

**Caramel-1**

Rev  
**SC**

Date: Monday, July 14, 2008

Sheet 41 of 62



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.

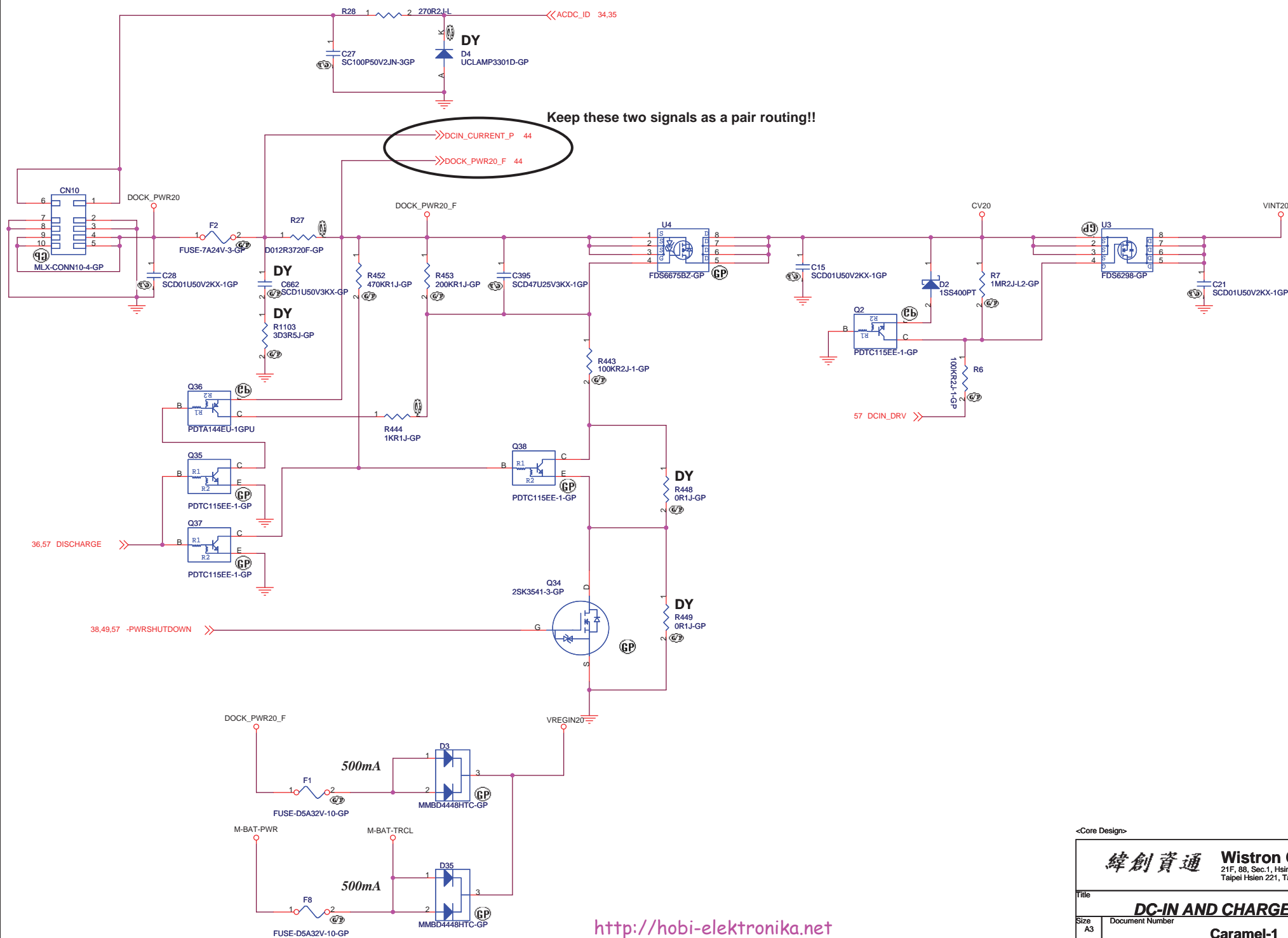
Width = 6 mil & Spacing = 10 mil  
 for three Output traces

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

<http://hobi-elektronika.net>

<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>G-SENSOR</b>	
Size A4	Document Number <b>Caramel-1</b>
Date: Monday, July 14, 2008	Rev <b>SC</b>
Sheet 42 of 62	



<http://hobi-elektronika.net>

<Core Design>

緯創資通

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

Title

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

Size

A3 Document Number

**Caramel-1**

Rev

**SC**

Date: Monday, July 14, 2008

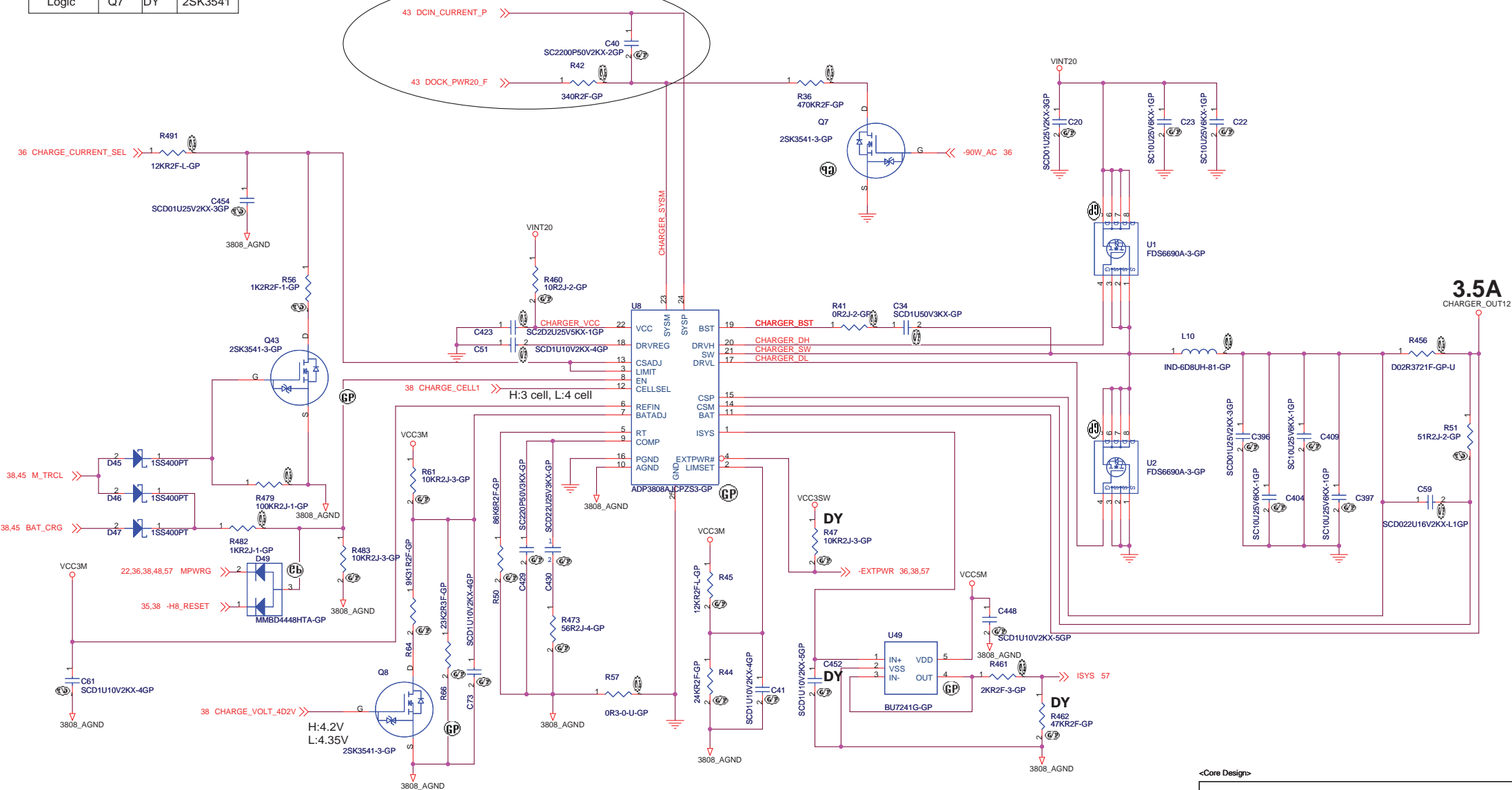
Sheet 43 of 62



90W, 65W, auto selection mode

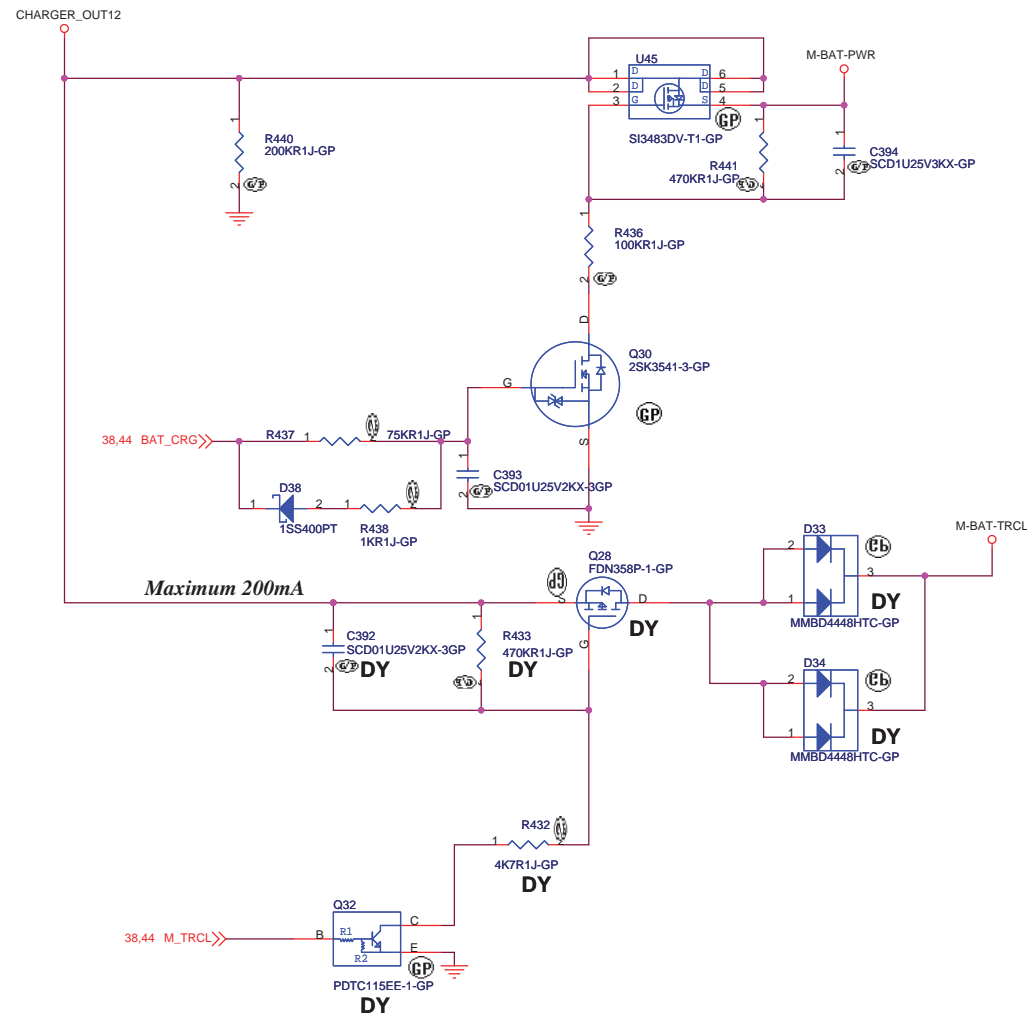
MAX Power Setting	65W	90W
-90W_AC	R36 DY	470K
Logic	Q7 DY	2SK3541

Keep these two signals as a pair routing !!



<Core Design>

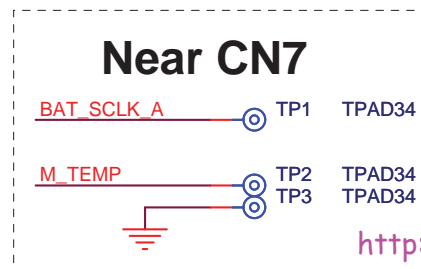
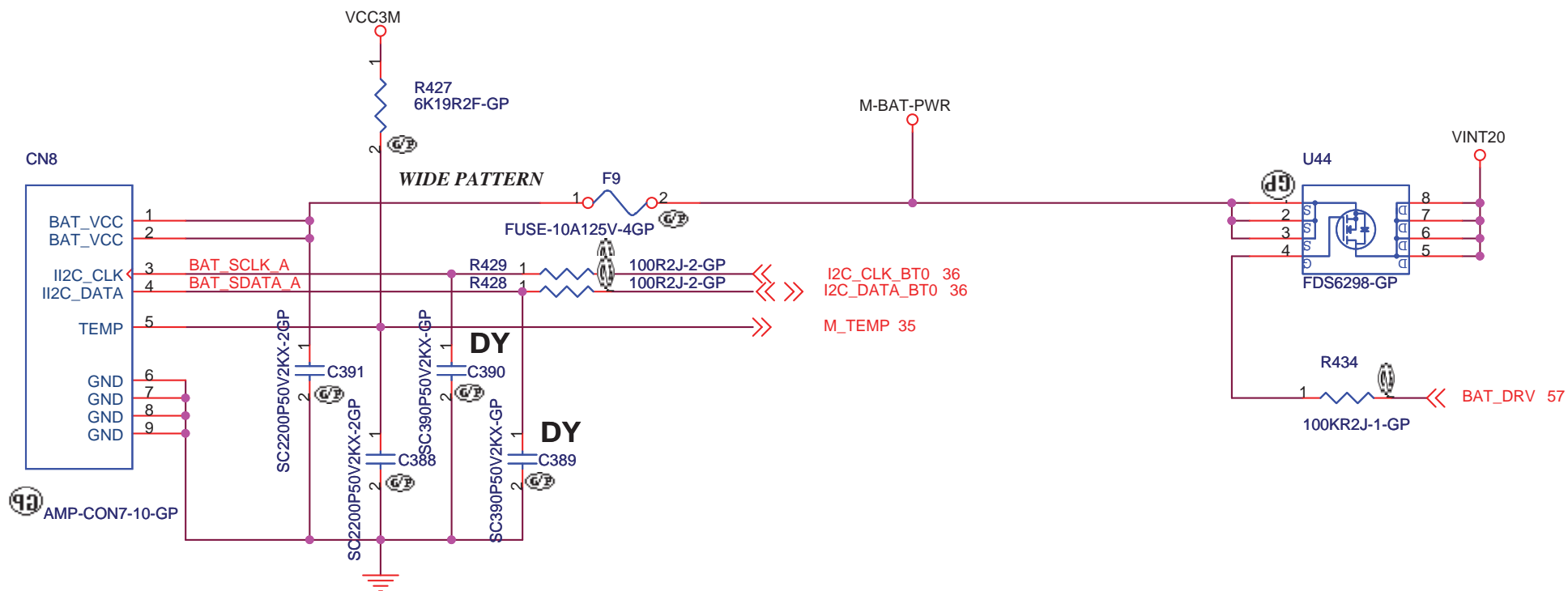
<b>緯創資通 Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title: <b>DC-IN AND CHARGER (2/2)</b>	
Size: Custom	Document Number: <b>Caramel-1</b>
Date: Monday, July 14, 2008	Sheet 44 of 62



<http://hobi-elektronika.net>

<Core Design>

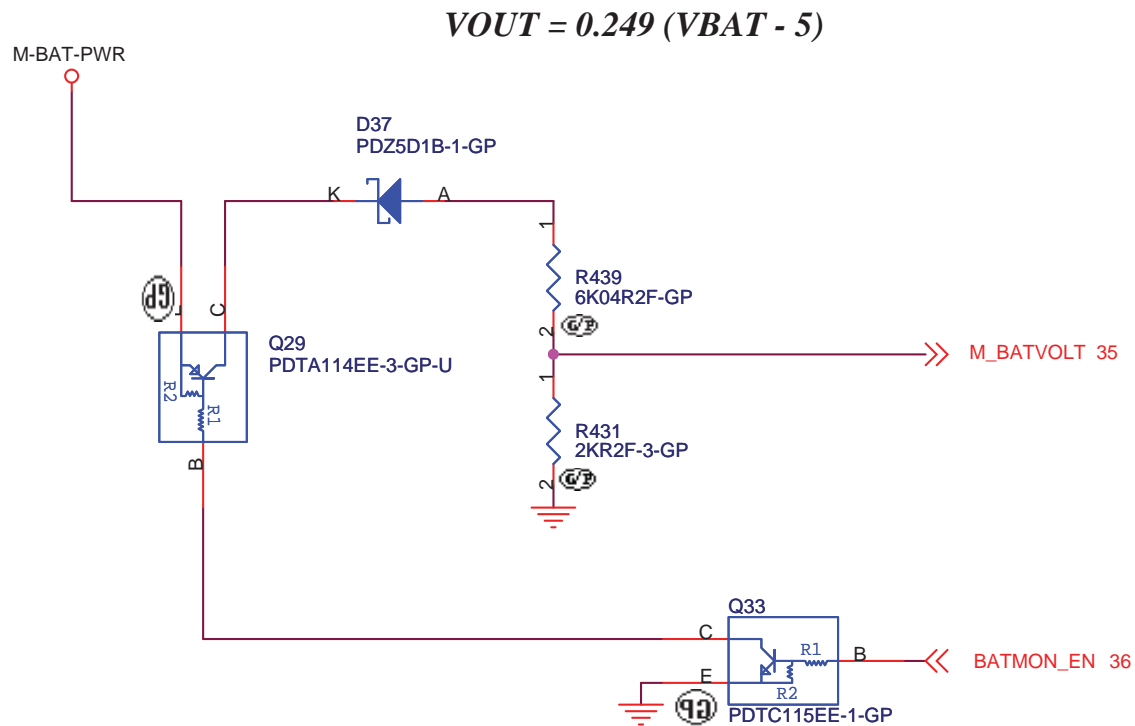
<b>緯創資通</b>		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>CHARGER SELECT</b>			
Size A3	Document Number	<b>Caramel-1</b>	Rev <b>SC</b>
Date: Monday, July 14, 2008	Sheet 45	of	62



<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			
<div>BATTERY INPUT</div>			
Size A	Document Number		Rev
	Caramel-1		SC
Date:	Monday, July 14, 2008	Sheet 46 of	62

<http://hobi-elektronika.net>



<Core Design>

緯創資通

**Wistron Corporation**

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

Title

**BATTERY MONITOR**

Size  
A

Document Number

**Caramel-1**

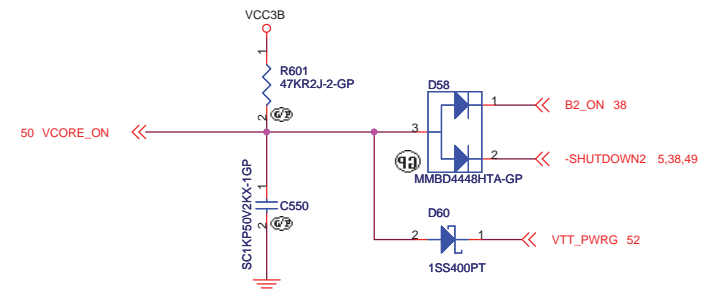
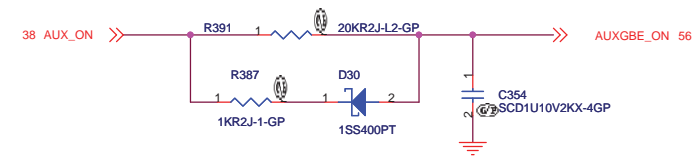
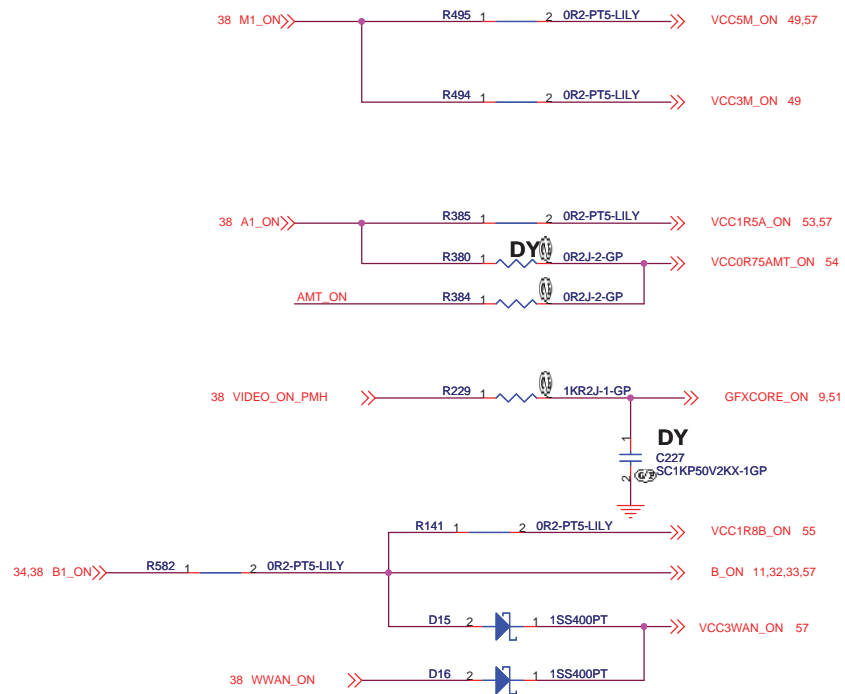
Rev  
SA

Date: Monday, July 14, 2008

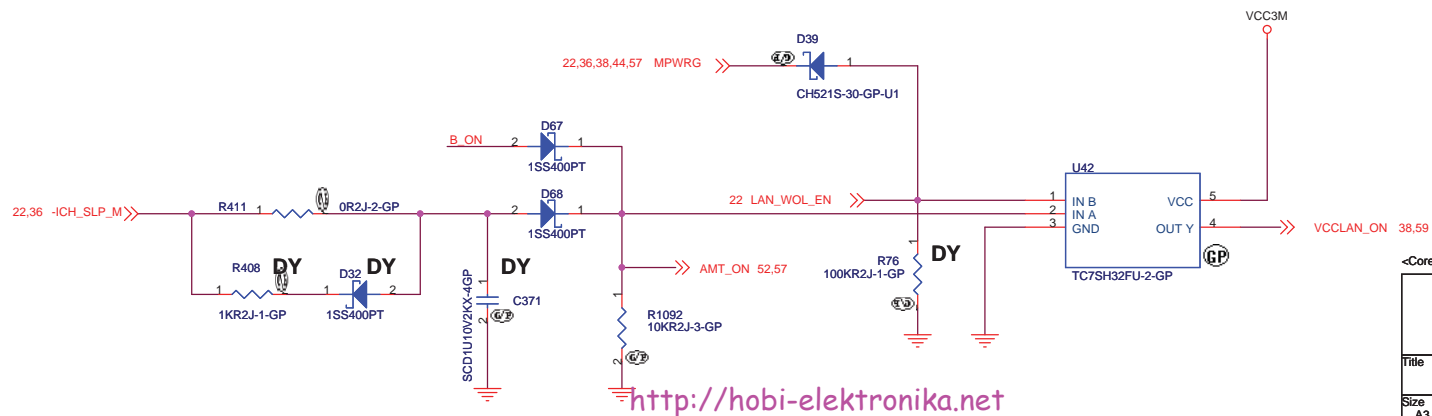
Sheet 47 of 62

62

<http://hobi-elektronika.net>



Always ON	Enable	Disale
D15	ASM	No_ASM
D16	ASM	No_ASM



<Core Design>

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

Title **POWER SEQUENCE**

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

Date: Monday, July 14, 2008 Sheet 48 of 62

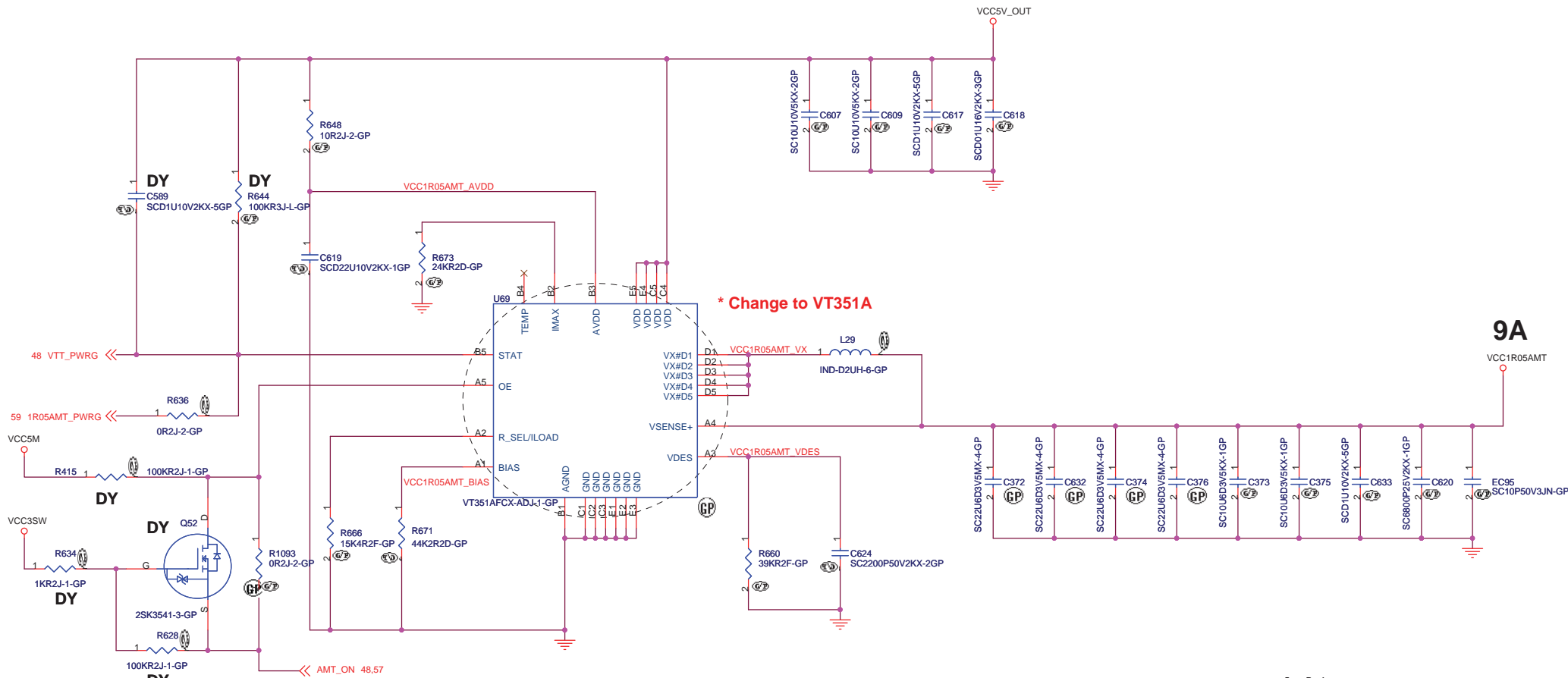
<http://hobi-elektronika.net>







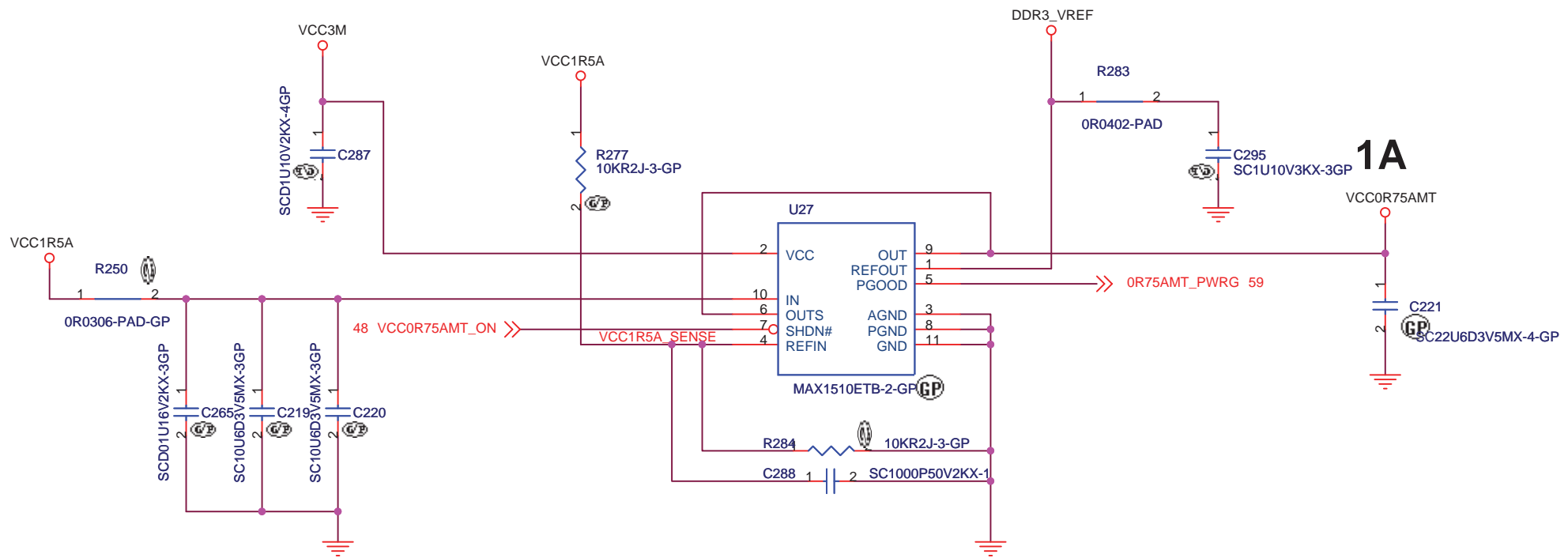




<Core Design>

<b>緯創資通 Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title <b>DC-DC VCC1R05AMT</b>		
Size Custom	Document Number <b>Caramel-1</b>	Rev <b>SC</b>
Date: Monday, July 14, 2008		Sheet 52 of 62

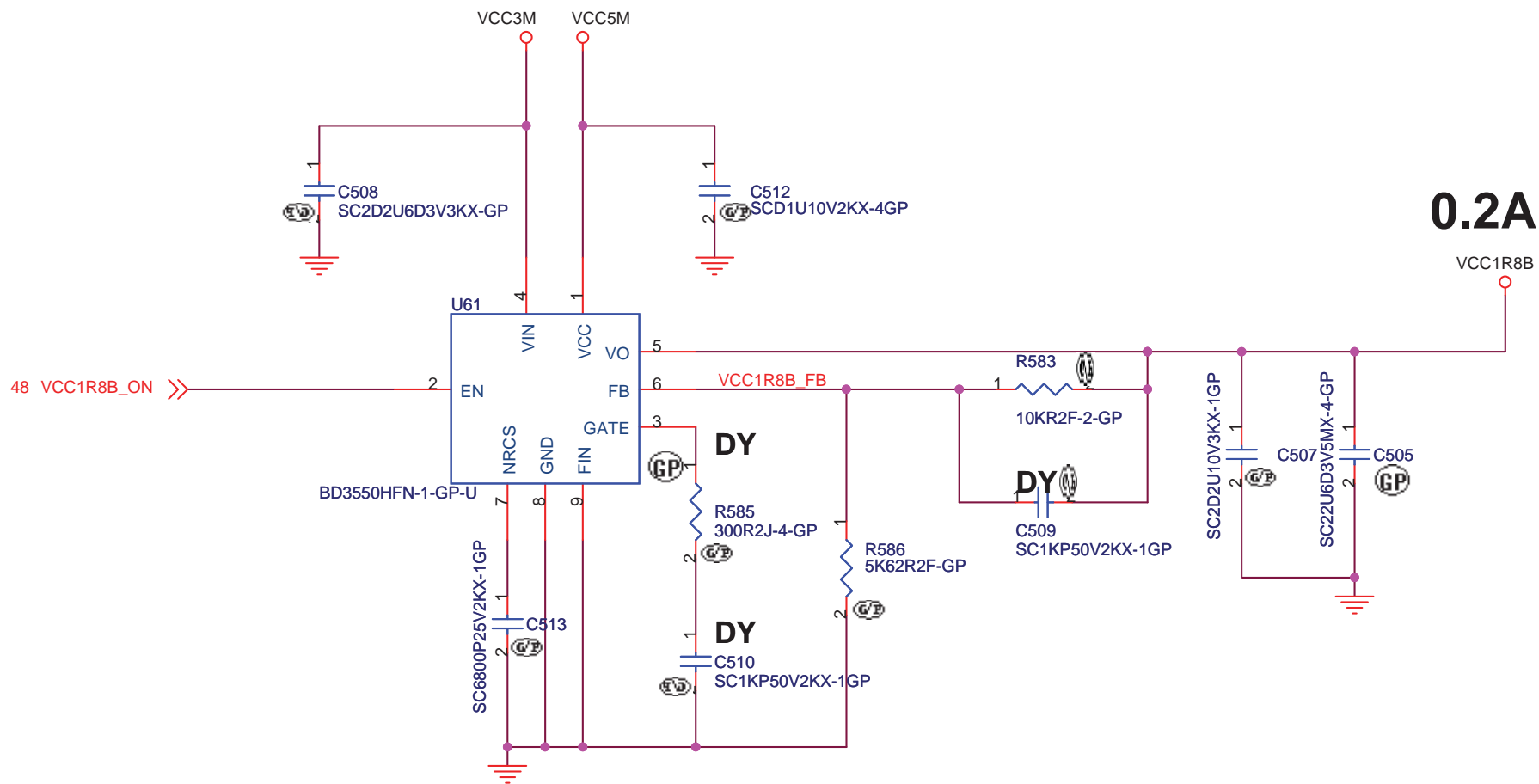




<Core Design>

<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 VCC0R75AMT			
Size A4	Document Number  Caramel-1		Rev SC
Date:	Monday, July 14, 2008	Sheet 54 of	62

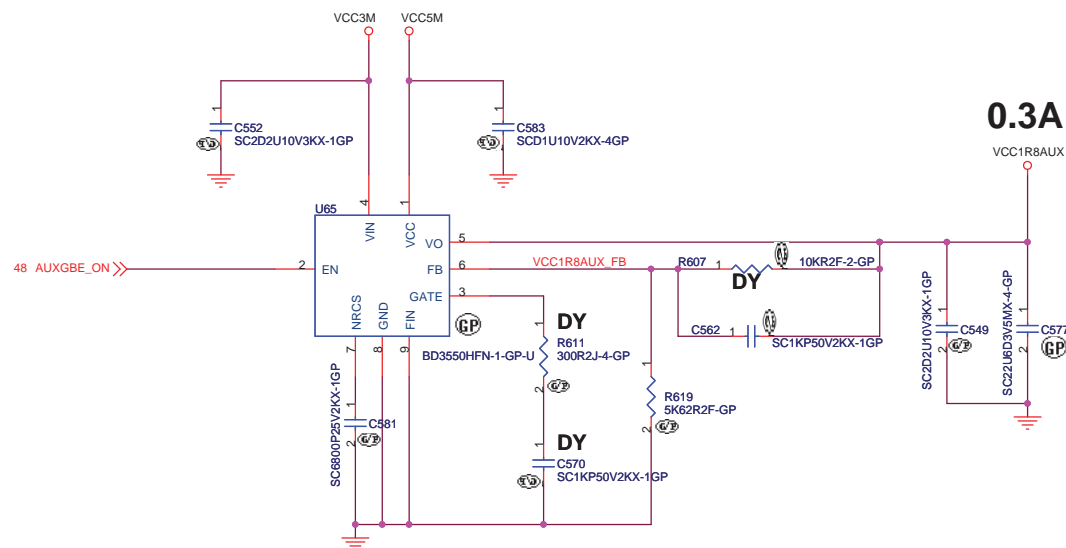
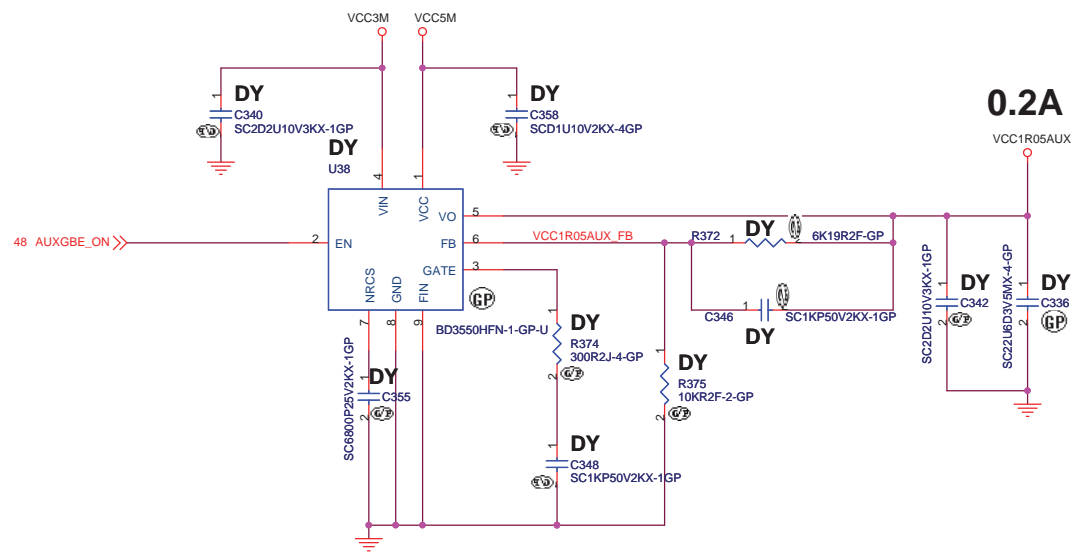
<http://hobi-elektronika.net>



<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	<b>DC-DC VCC1R8B</b>
Size A	<div>Document Number</div> <div>Caramel-1</div>
Date: Monday, July 14, 2008	<div>Rev</div> <div>SC</div>
Date: Monday, July 14, 2008	Sheet 55 of 62

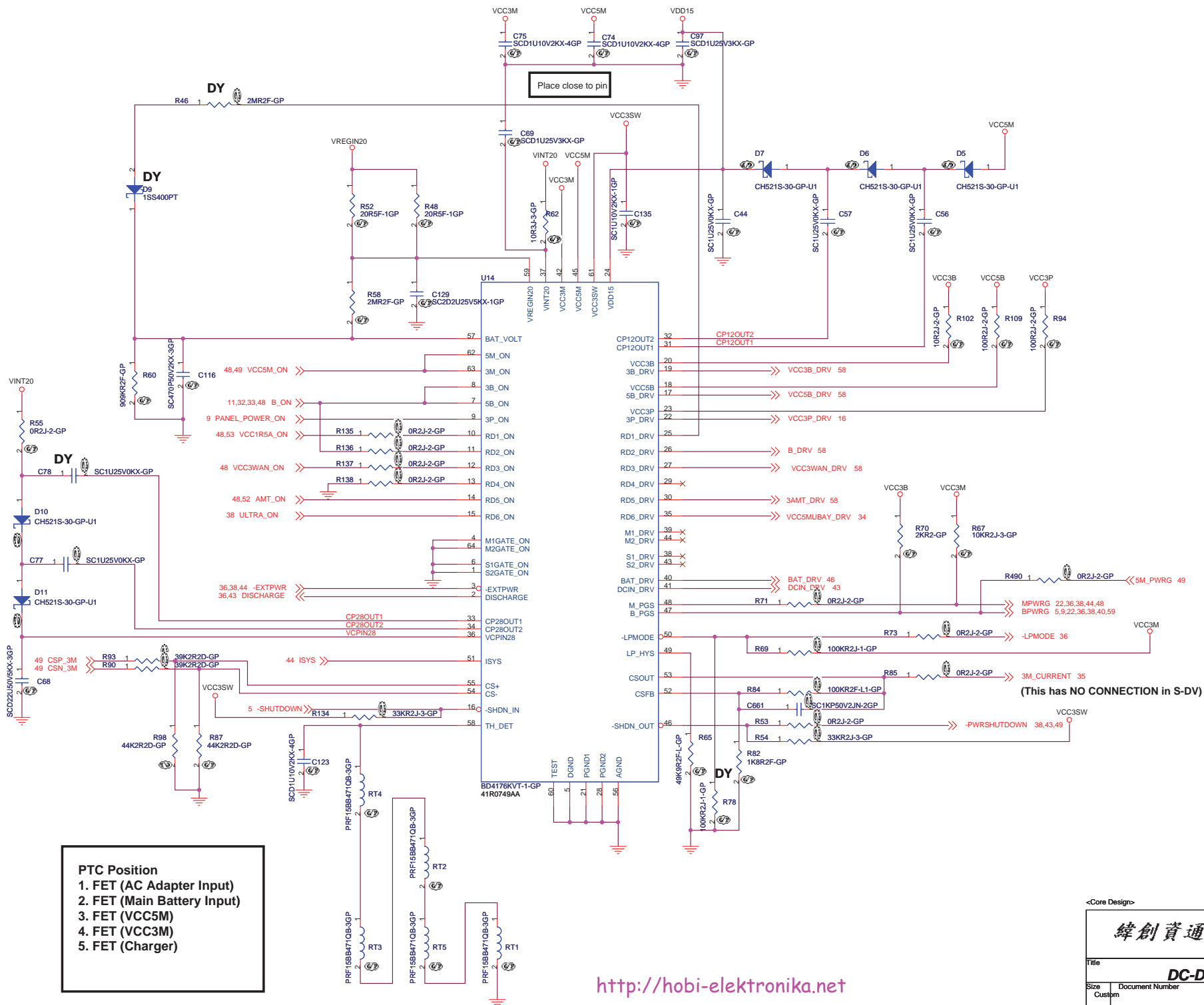
<http://hobi-elektronika.net>



<http://hobi-elektronika.net>

<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>DC-DC VCC1R05AUX/VCC1R8AUX</b>			
Size	Document Number	Rev	
A3		SC	
<b>Caramel-1</b>			
Date:	Monday, July 14, 2008	Sheet	56 of 62



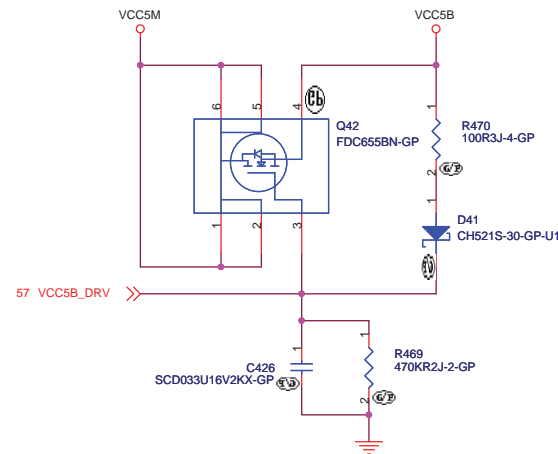
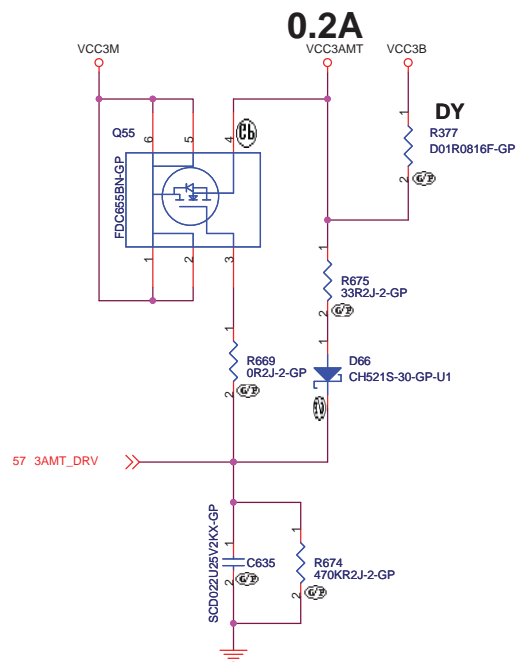
<http://hobi-elektronika.net>

<Core Design>

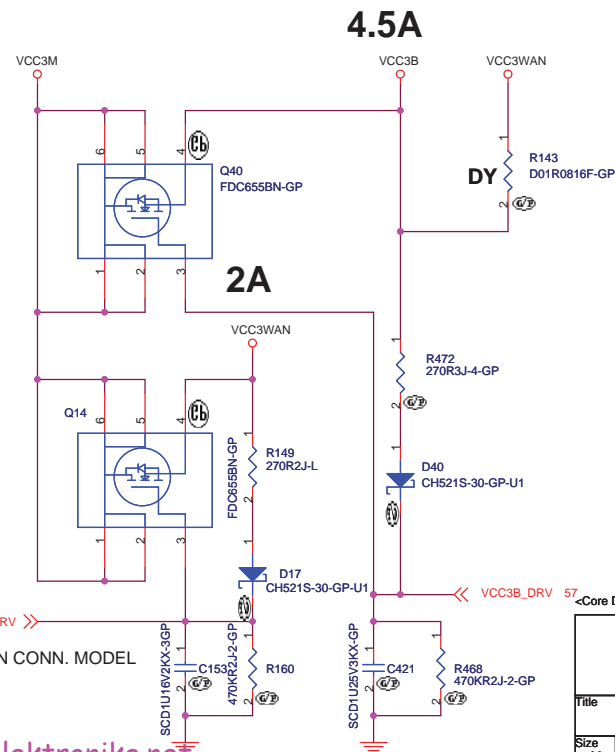
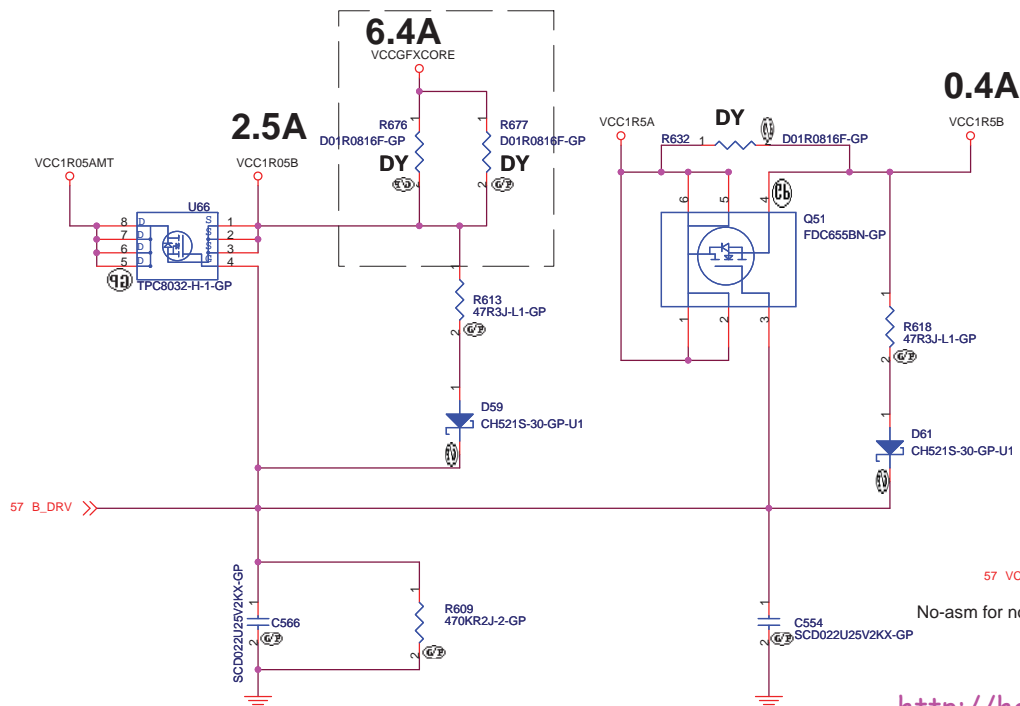
緯創資通

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

Title		<b>DC-DC RINKAN</b>	
Size	Document Number	<b>Caramel-1</b>	Rev <b>SC</b>
Custom			
Date:	Monday, July 14, 2008	Sheet	57 of 62



Place near VCCGFXCORE logic



No-asm for no WWAN CONN. MODEL

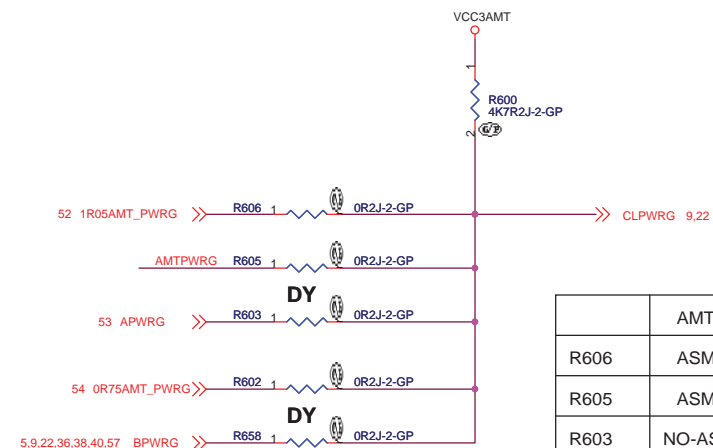
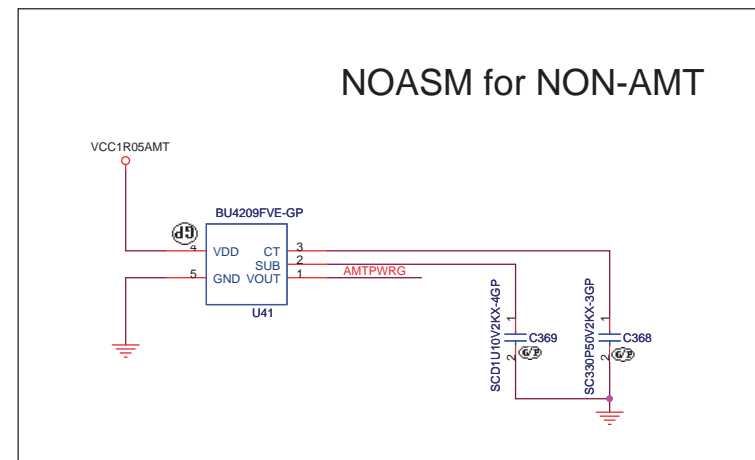
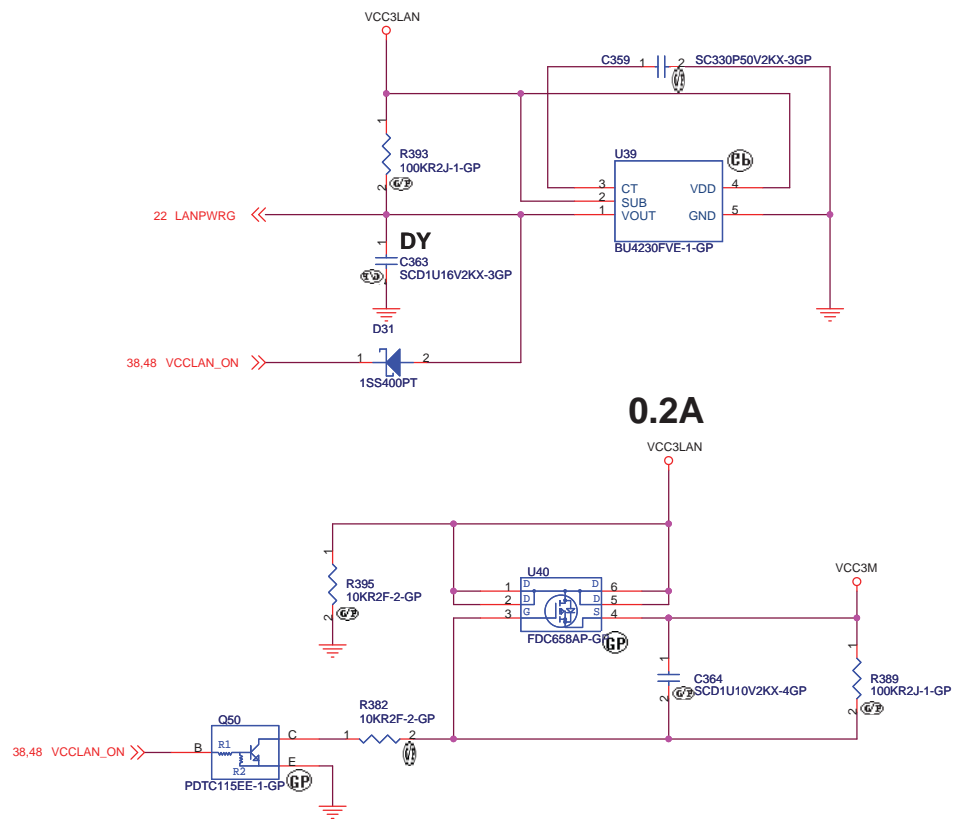
<http://hobi-elektronika.net>

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>

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

LOAD SW 1			
Size A3	Document Number	Caramel-1	Rev SC
Date: Monday, July 14, 2008	Sheet	58	of 62



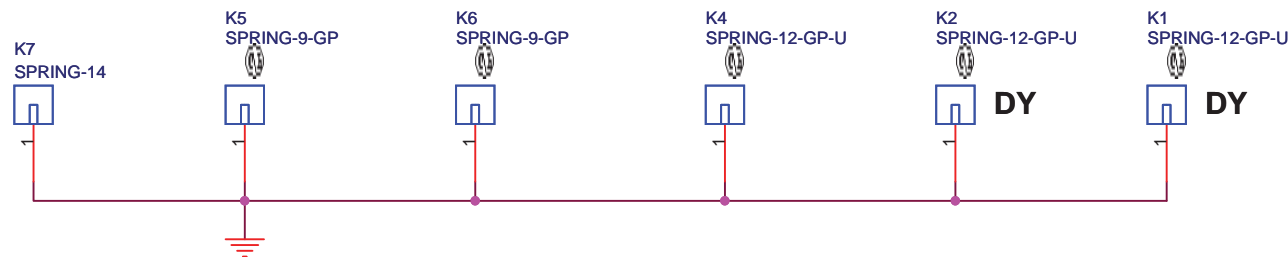
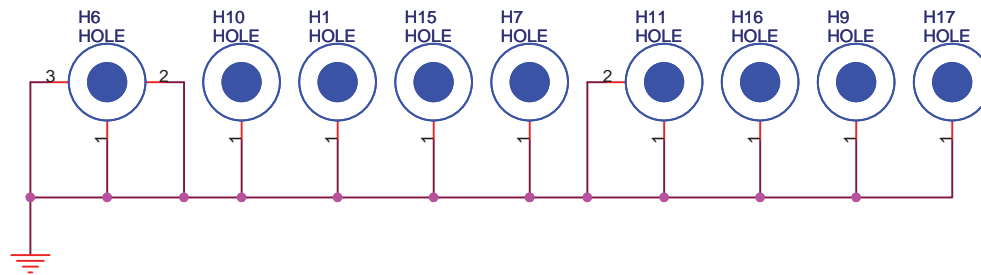
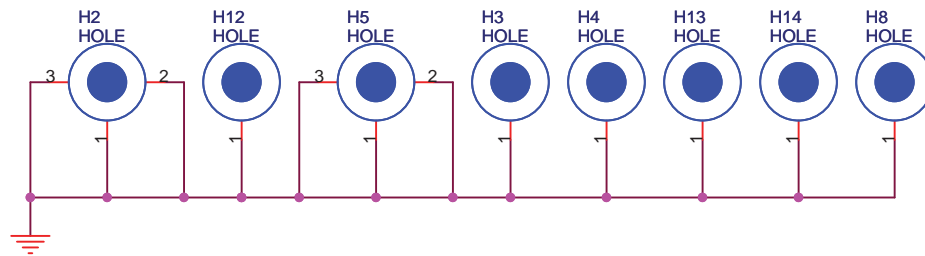
	AMT	NON-AMT
R606	ASM	NO-ASM
R605	ASM	NO-ASM
R603	NO-ASM	NO-ASM
R602	ASM	NO-ASM
R600	ASM	NO-ASM
R658	NO-ASM	ASM

<http://hobi-elektronika.net>

<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	
LOAD SW 2	
Size A3	Document Number Caramel-1
Date: Monday, July 14, 2008	Rev SB
Sheet 59	of 62





<http://hobi-elektronika.net>

<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			
HOLES/GND/PADS			
Size A4	Document Number Caramel-1		Rev SC
Date: Monday, July 14, 2008	Sheet 60	of	62

# 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		

<http://hobi-elektronika.net>

<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.		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>AMT FUNCTION CONTROL TABLE</b>			
Size A3	Document Number	Rev SC	
Date: Monday, July 14, 2008		Sheet 61 of 62	

### *Long power trace EMI decoupling caps*

