

June 18 ' 08

N-note Block Diagram

07247-1

Project Code: 91.4Y901.001
PCB(Raw Card):

PCB Layer Stackup

- L1:Component
L2:GND
L3:Signal 1
L4:Signal 2
L5:GND
L6:VCC
L7:Signal 3
L8:Signal4
L9:GND
L10:Component

Battery Charger/Selector
MAX8765 57

<i>INPUTS</i>	<i>OUTPUTS</i>
<i>DOCK_PWR20_F</i>	<i>M-BAT-PWR</i> <i>S-BAT-PWR</i>

System DC/DC
TPS51221 61

<i>VINT20</i>	<i>VCC5M</i> <i>VCC3M</i>
---------------	------------------------------

CPU DC/DC
ADP3207ICPZ 62

<i>VINT20</i>	<i>VCCGFXCORE</i>
---------------	-------------------

VCC1R05AMT/VCC1R5A
MAX1540ETJ 65

<i>VCC5V_OUT</i>	<i>VCC1R05AMT</i> <i>VCC1R5A</i>
------------------	-------------------------------------

VCC0R75AMT
BD3533 66

<i>VCC1R5A</i>	<i>VCC0R75AMT</i>
----------------	-------------------

VCC1R8B	
BD3550	73

<i>VCC3M</i>	<i>VCC1R8B</i>
--------------	----------------

VCC1R05AUX/1R8AUX
BD3550 72

<i>VCC3M</i>	<i>VCCIR05AUX</i> <i>VCCIR8AUX</i>
--------------	---------------------------------------

<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

Block Diagram

Size	
Custom	

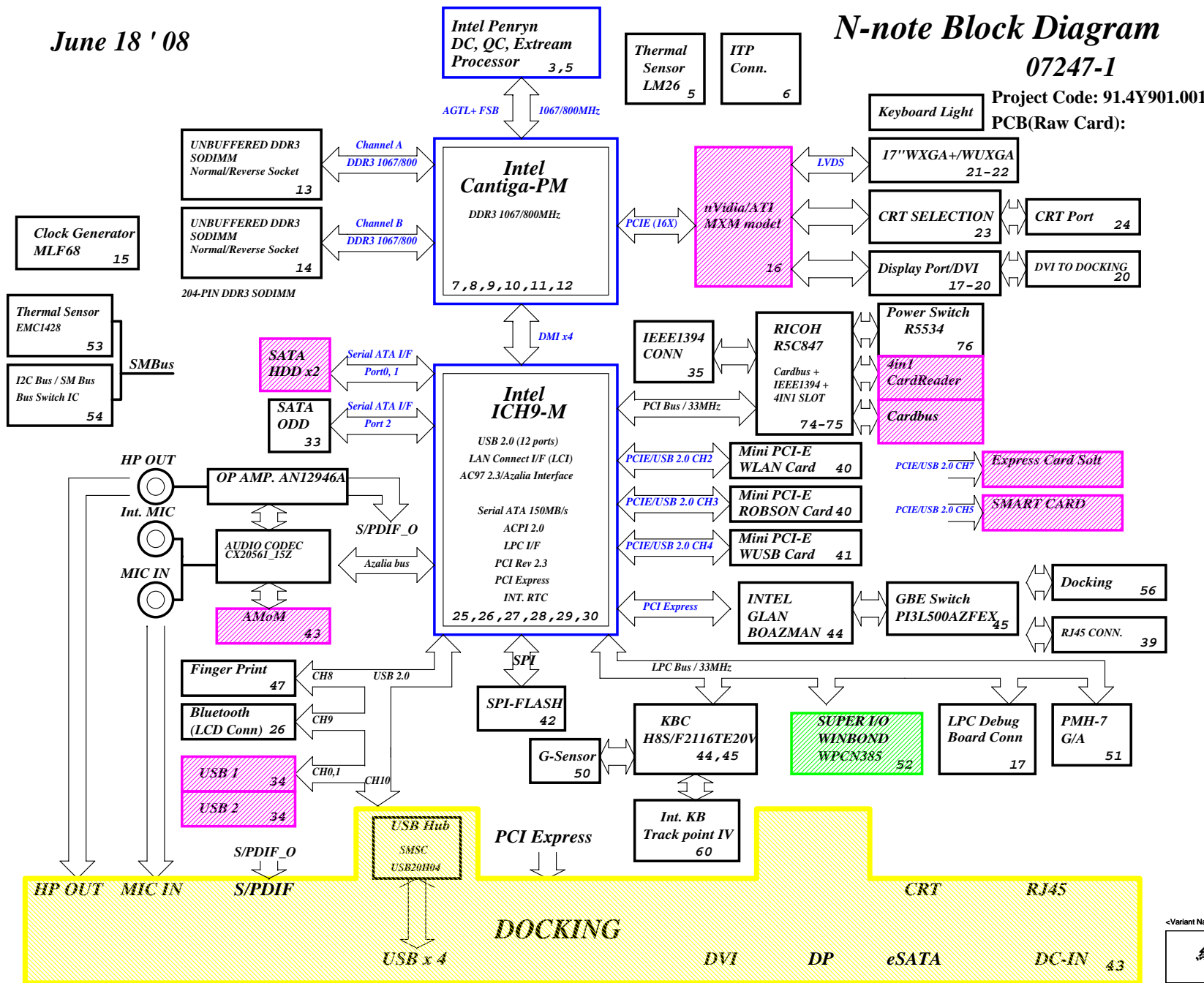
Document Number

N-Note

Date: Thursday, June 26, 2008

Sheet 1

REV 1



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#	39	38	37	36	Planar ID Version	Planar PCB Version
PLANAR_ID#	3	2	1	0		
	0	0	0	0	N-note Pre-DV	SA
	0	0	0	1		
	0	0	1	0		
	0	0	1	1		
	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>

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
...

Reference

Size	
Cust	

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

N-Note

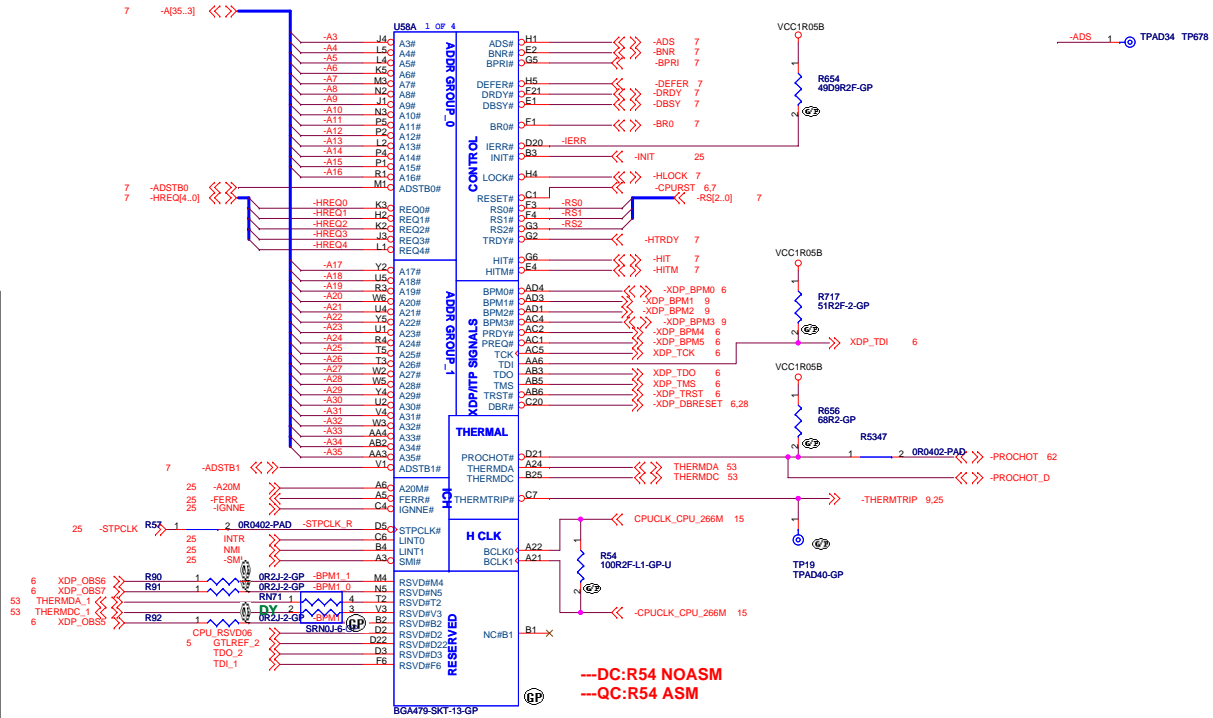
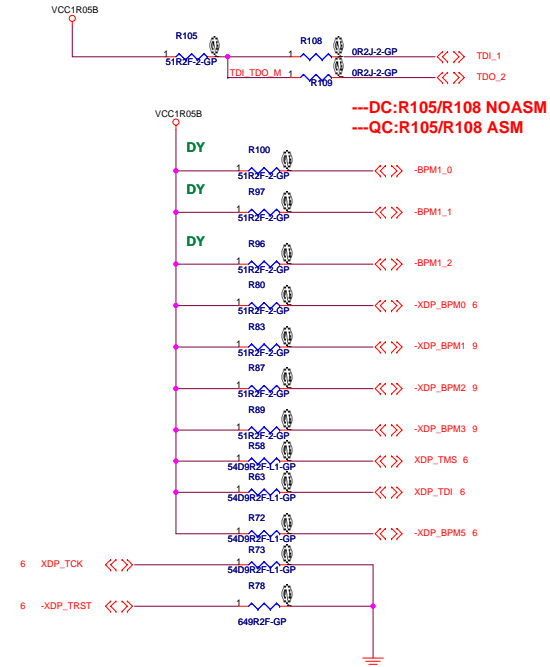
Rev
1

Date: Thursday, June 26, 2008

Sheet 2 of

33

XDP FOR QUAD CORE CPU

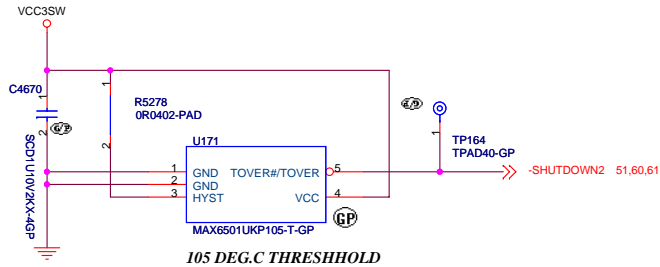


<Variant Name>

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

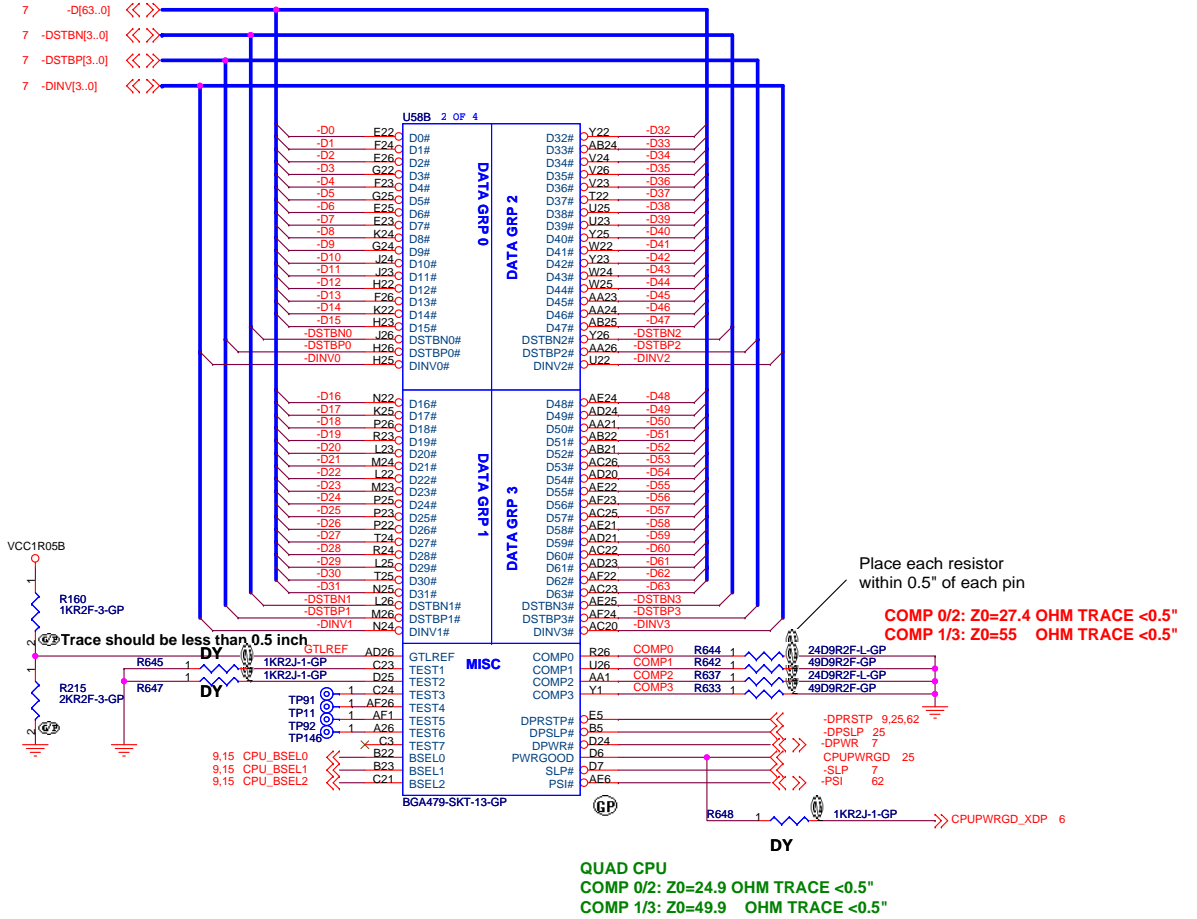
Penryn CPU(1/1)		
Size	Document Number	Rev
C		1
N-Note		
Date: Thursday, June 26, 2008	Sheet 3	of 63

Thermal Sensor for CPU



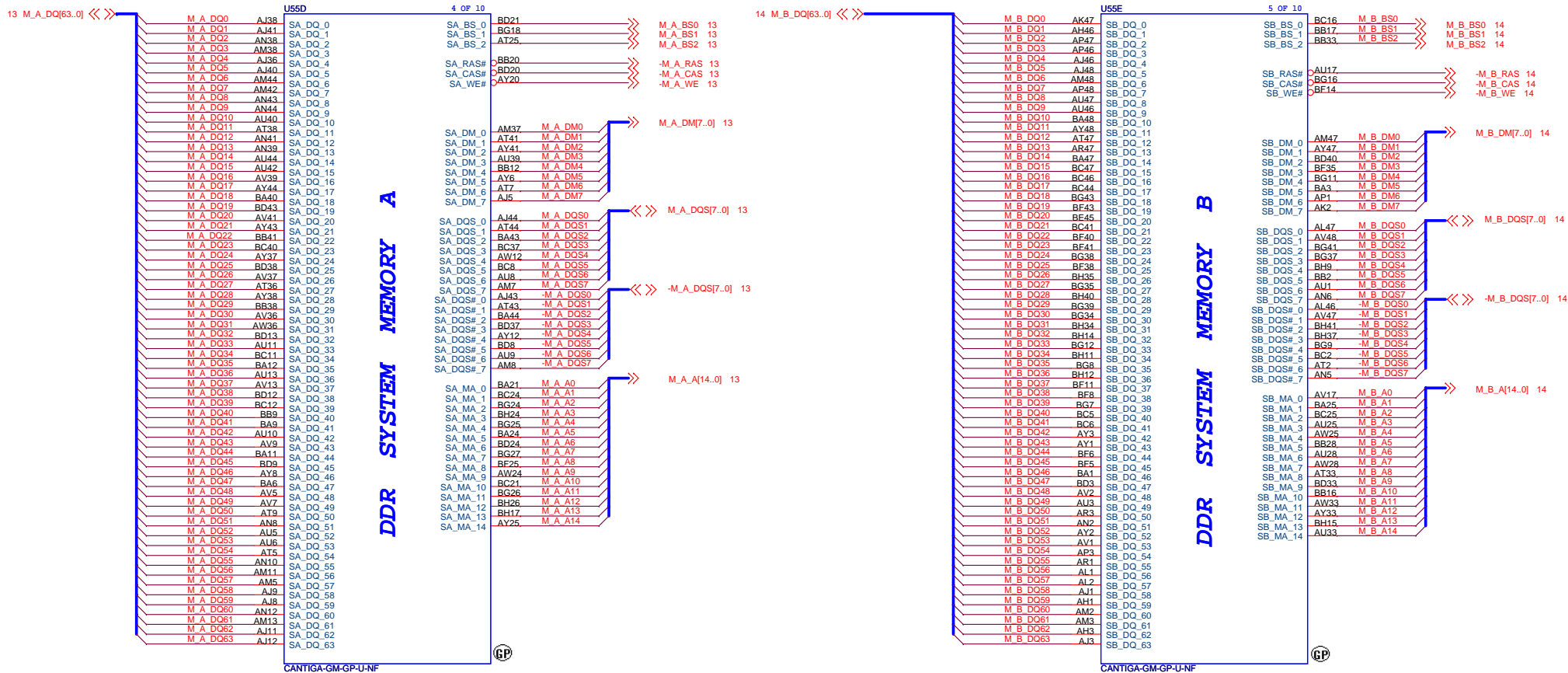
U1	R1601
NS LM26	NO_ASM
MAXIM MAX6519	
MAXIM MAX6501	ASM
ADI ADT6501	

PRIMARY



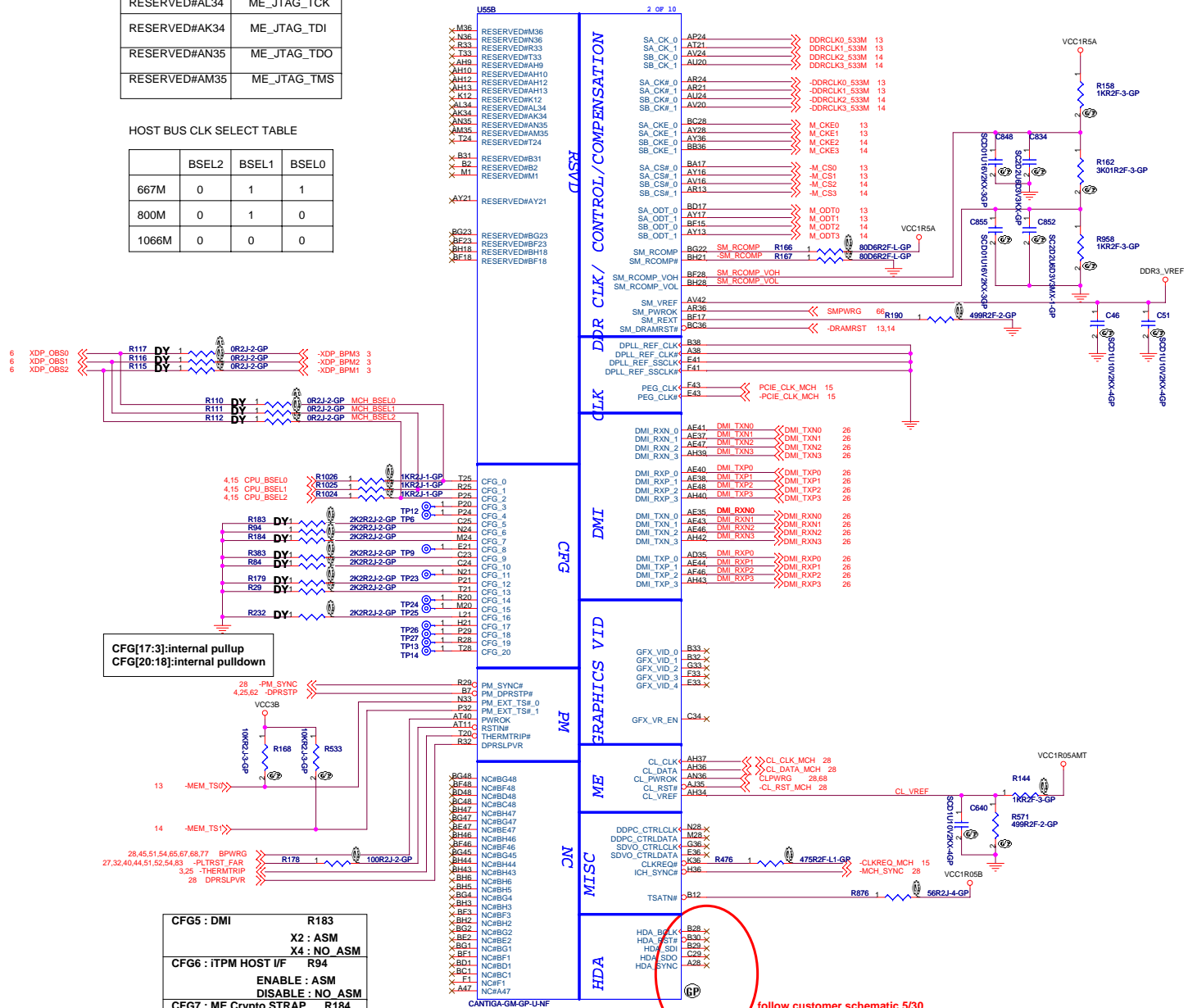
<Variant Name>

緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title: Penryn CPU(2/3)			
Size	Document Number	Rev	
Custom	N-Note	1	
Date: Thursday, June 26, 2008	Sheet 4 of 83		



RESERVED#AL34	ME_JTAG_TCK
RESERVED#AK34	ME_JTAG_TDI
RESERVED#AN35	ME_JTAG_TDO
RESERVED#AM35	ME_JTAG_TMS

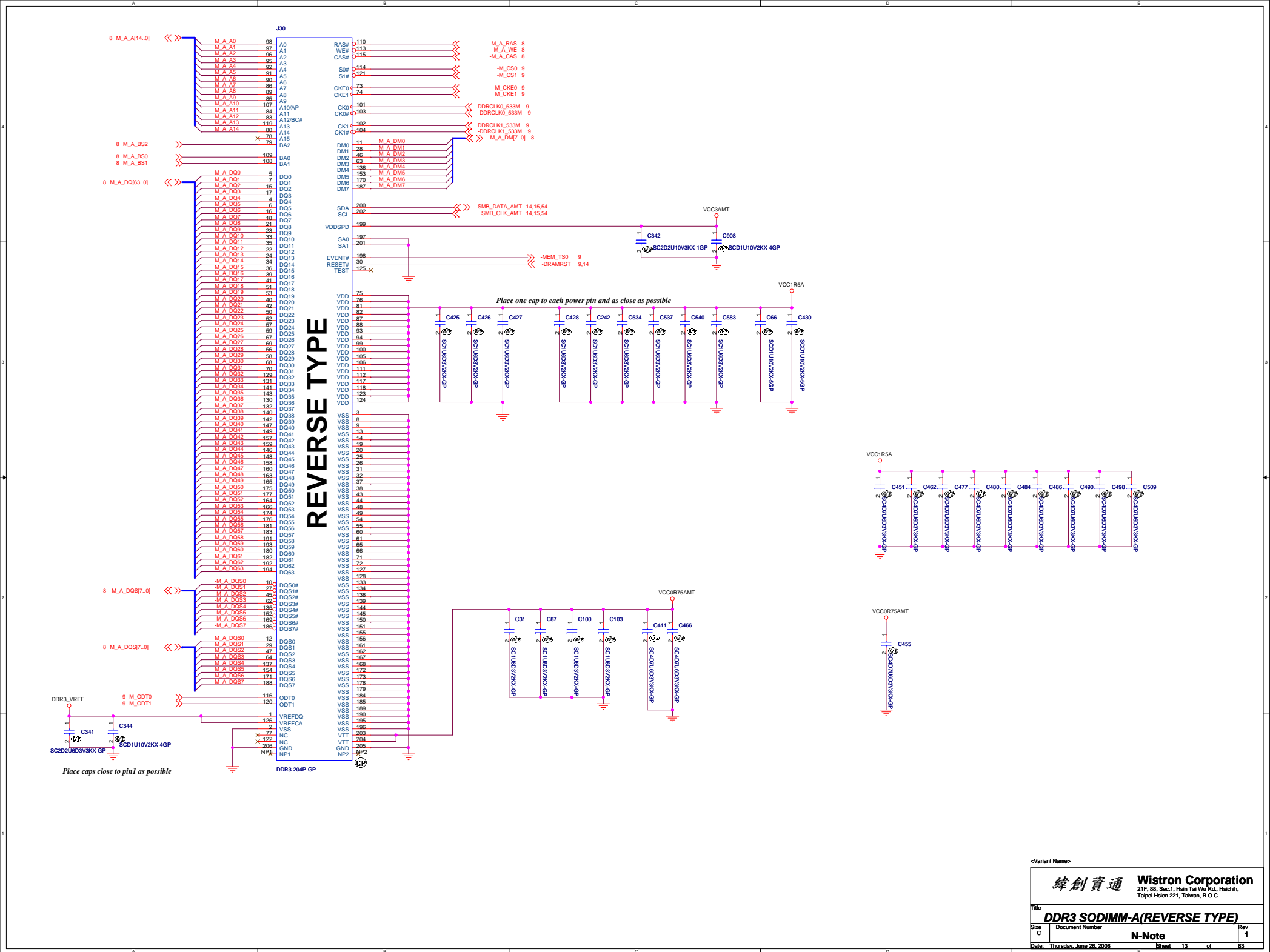
	BSEL2	BSEL1	BSEL0
667M	0	1	1
800M	0	1	0
1066M	0	0	0

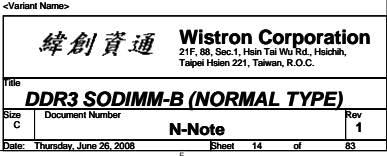


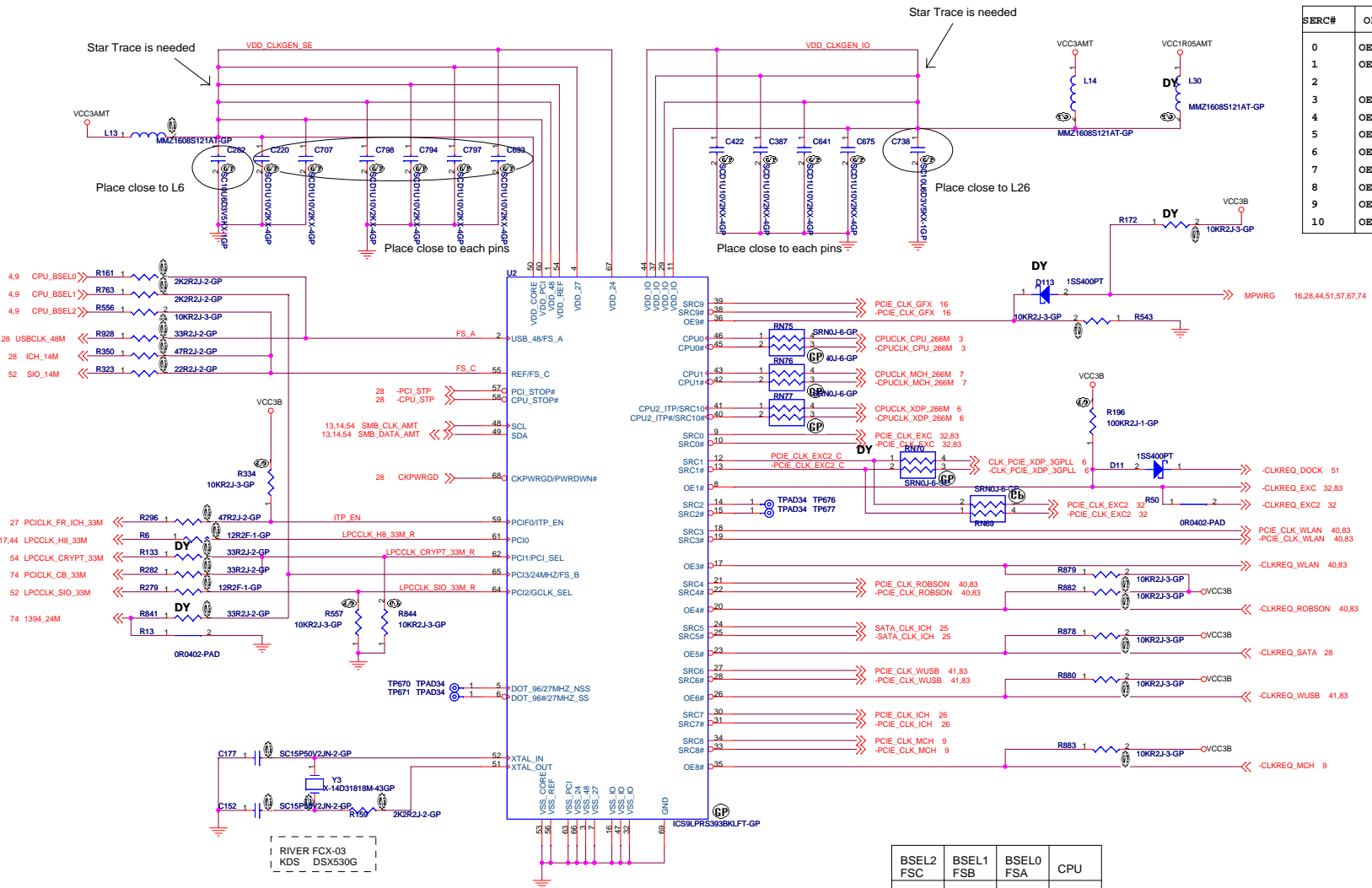
follow customer schematic 5/30

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

Title			
Cantiga(3/6):DMI/PM/CFG/GF			
Size	Document Number	Rev	
C	N-Note	1	
Date: Thursday, June 26, 2008		Sheet 9 of	83







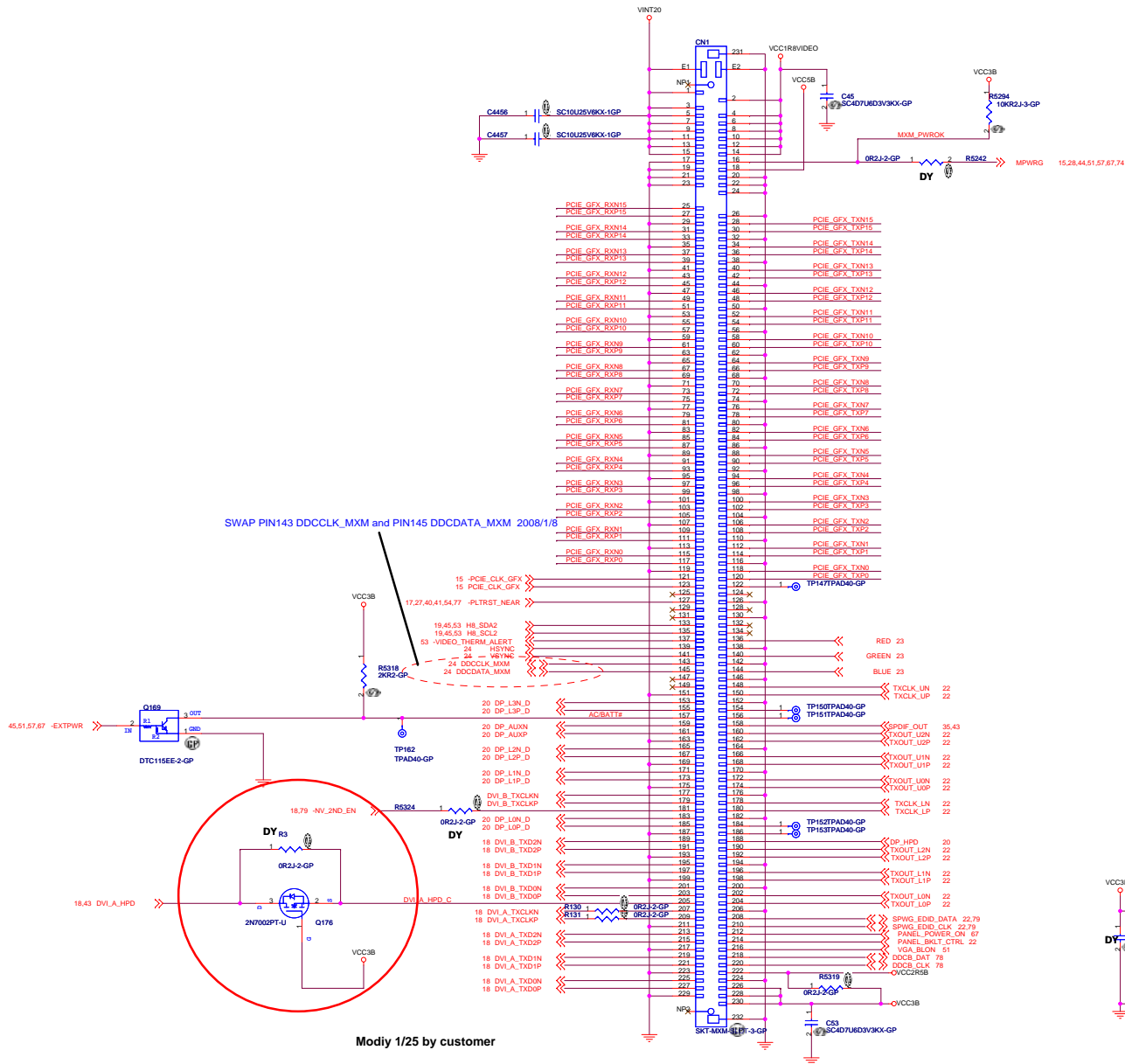
SERC#	OE#	DEVICE
0	OE0#	EXPRS
1	OE1#	EXPRESS2
2		NA
3	OE3#	WLAN
4	OE4#	ROBSON
5	OE5#	SATA
6	OE6#	WUSB
7	OE7#	PCIE_CLK_ICH
8	OE8#	MCH
9	OE9#	EXT GFX
10	OE10#	ITP/XDP

[Source Cadidate]		
ICS	ICS9LPRS393AKLFT	71.09393.A03
SILEGO	SLG8SP568V	71.08568.A03

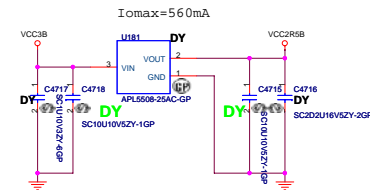
LOGIC →

BSEL2	BSEL1	BSEL0	CPU
0	1	1	166M
0	1	0	200M
0	0	0	266M
1	0	0	333M

PCIE_GFX_RXN[15..0] 10
PCIE_GFX_RXP[15..0] 10
PCIE_GFX_TXN[15..0] 10
PCIE_GFX_TXP[15..0] 10

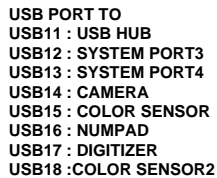


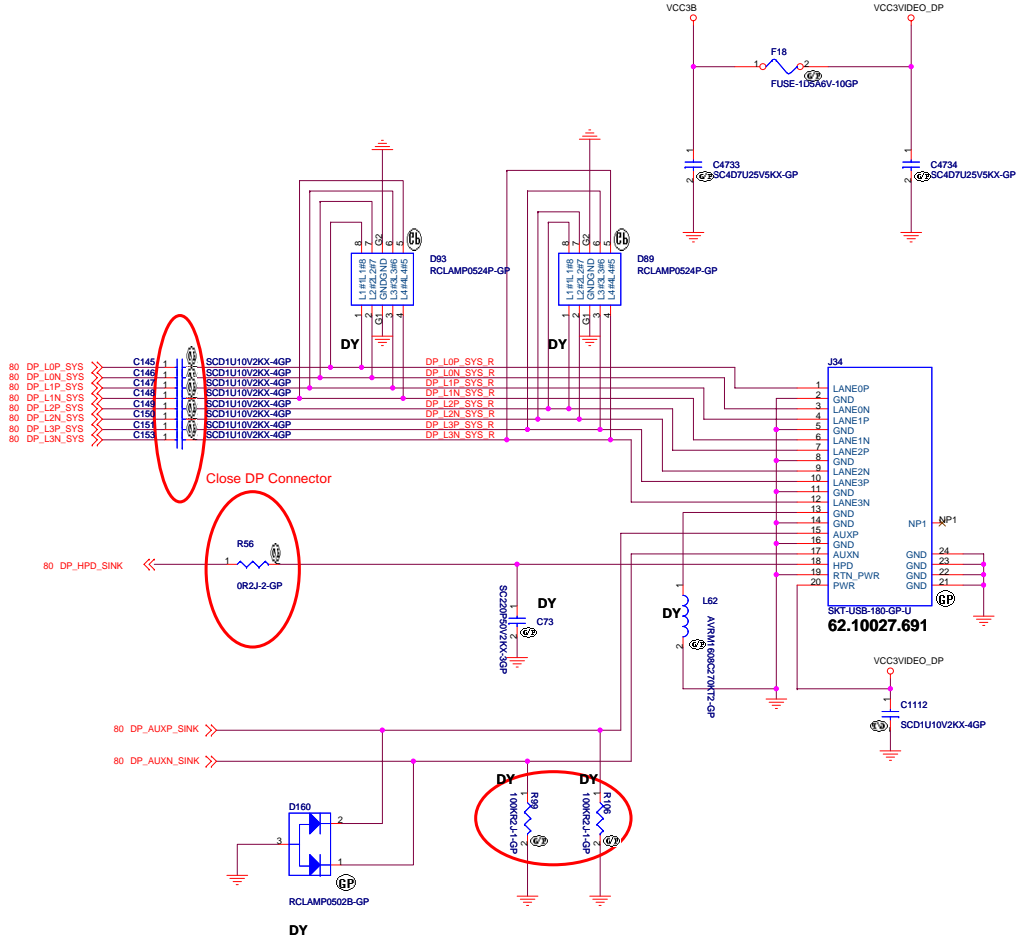
Modiy 1/25 by customer



12 ... 12 13

83





18,45,79 PANEL_STATUS >>

<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 SWITCH

Size
C
Date:

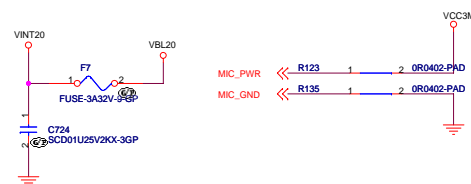
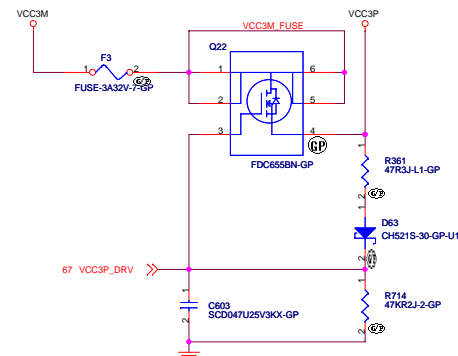
Document Number

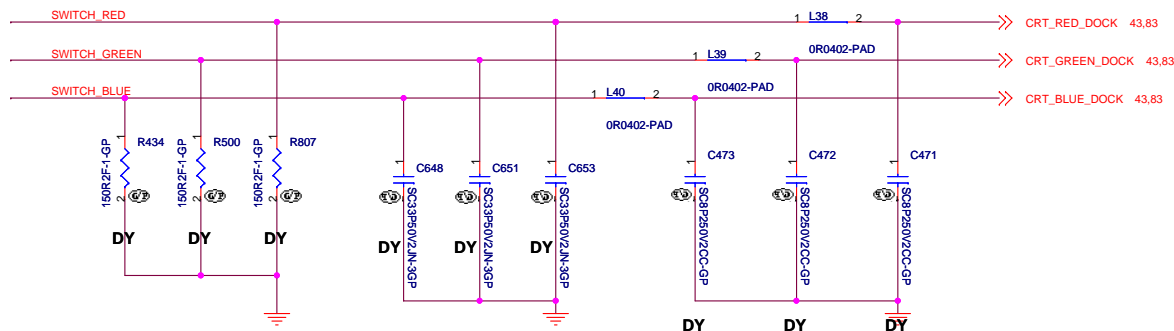
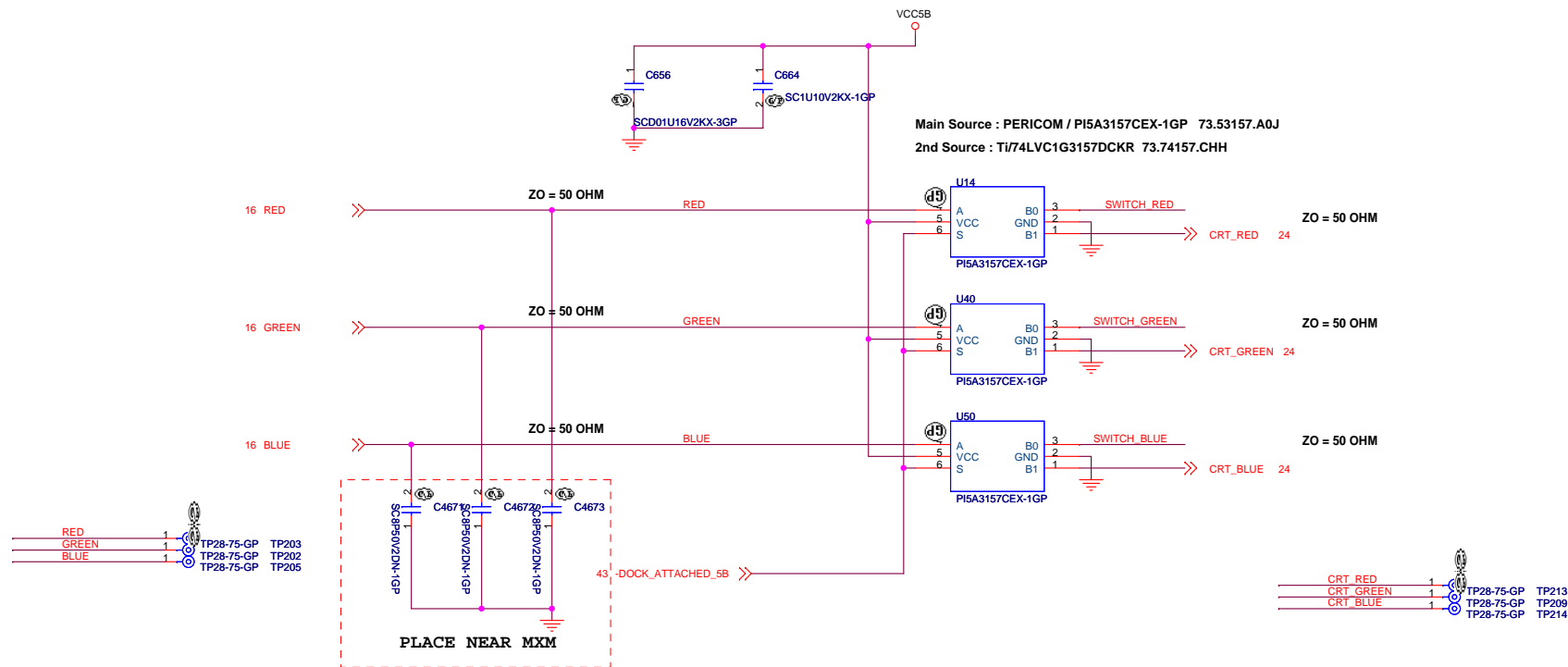
N-Note

Rev
1

Date: Thursday, June 26, 2008

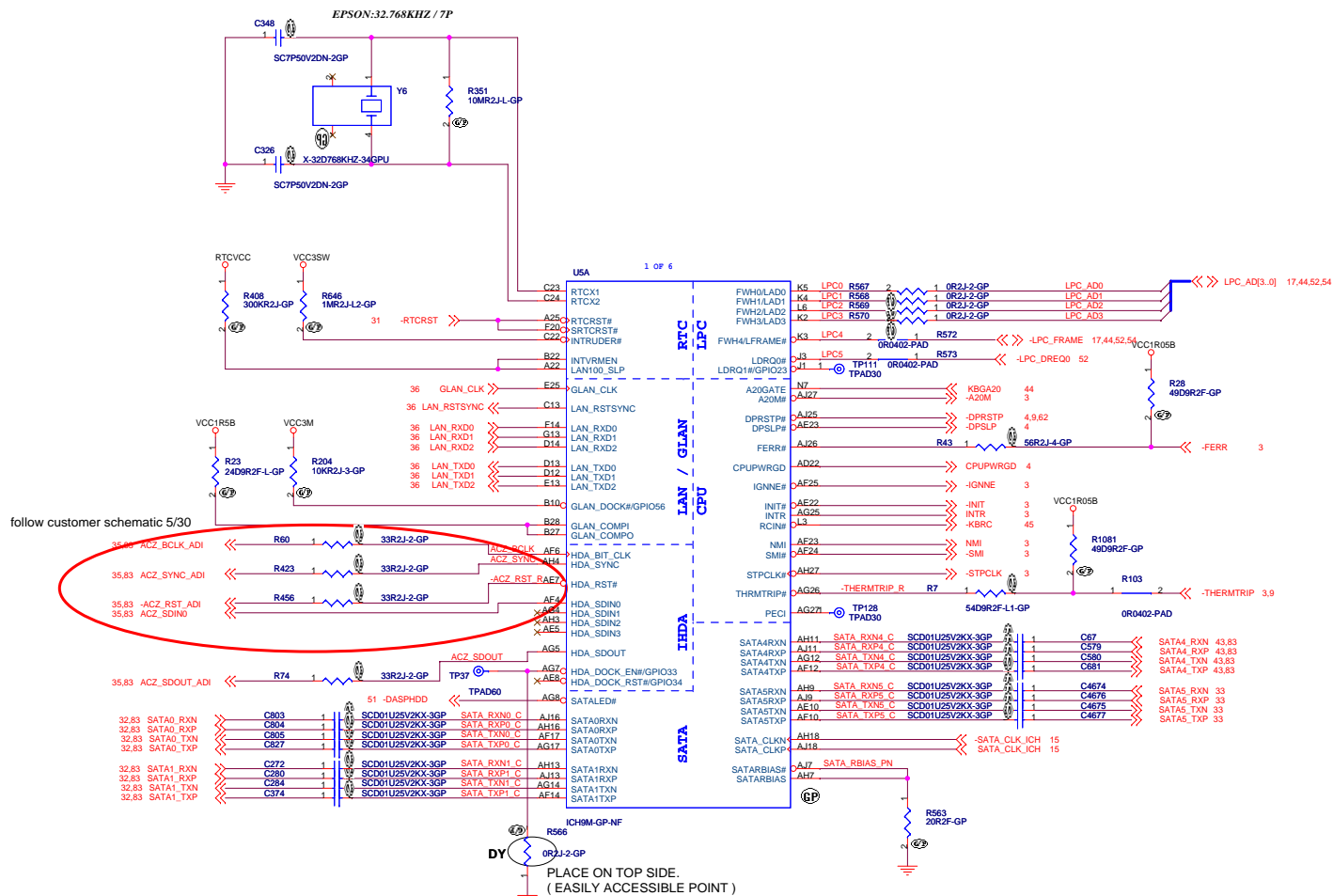
Sheet 21 of 83





<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	Document Number	Rev	
Custom		N-Note 1	
Date: Thursday, June 26, 2008		Sheet 23 of	83



<Variant Name>

緯創資通

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

File

ICH9-M(1/4):ATA/AC97/LPC

Size

Document Number

N-Note

Rev

Date

Thursday, June 26, 2008

Sheet

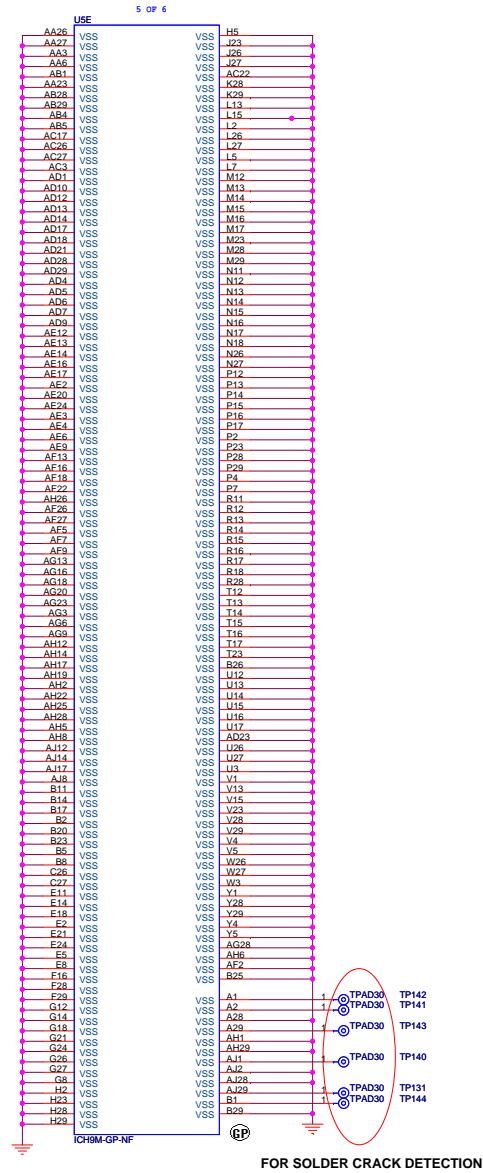
25

of

83

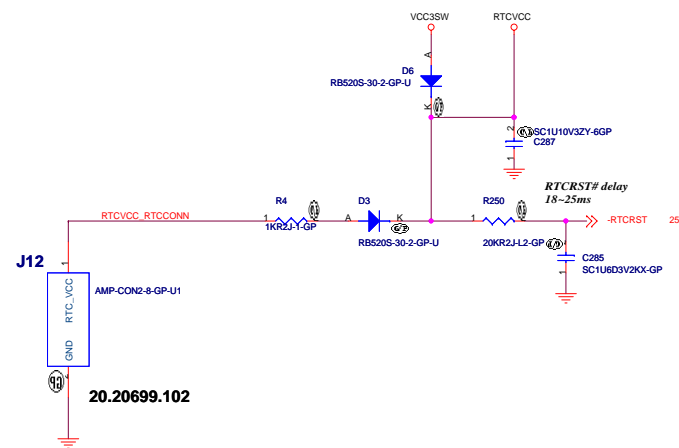


USB PORT TO
USB0 : SYSTEM PORT1
USB1 : SYSTEM PORT2
USB2 : MINICARD SLOT (WLAN)
USB3 : MINICARD SLOT (WWAN)
USB4 : MICROCARD SLOT (WUSB)
USB5 :SMARTCARD
USB6 : EXPRESS CARD
USB7 :SYSTEM PORT5
USB8 : BLUETOOTH
USB9 : FPR
USB10 : PORTREPLICATOR
USB11 : USB HUB
USB12 : SMARTCARD
USB13 : EXPRESS CARD
USB14 : CAMERA
USB15 : COLOR SENSOR
USB16 : NUMPAD
USB17 : DIGITIZER
USB18 : COLOR SENSOR2



<Variant Name>

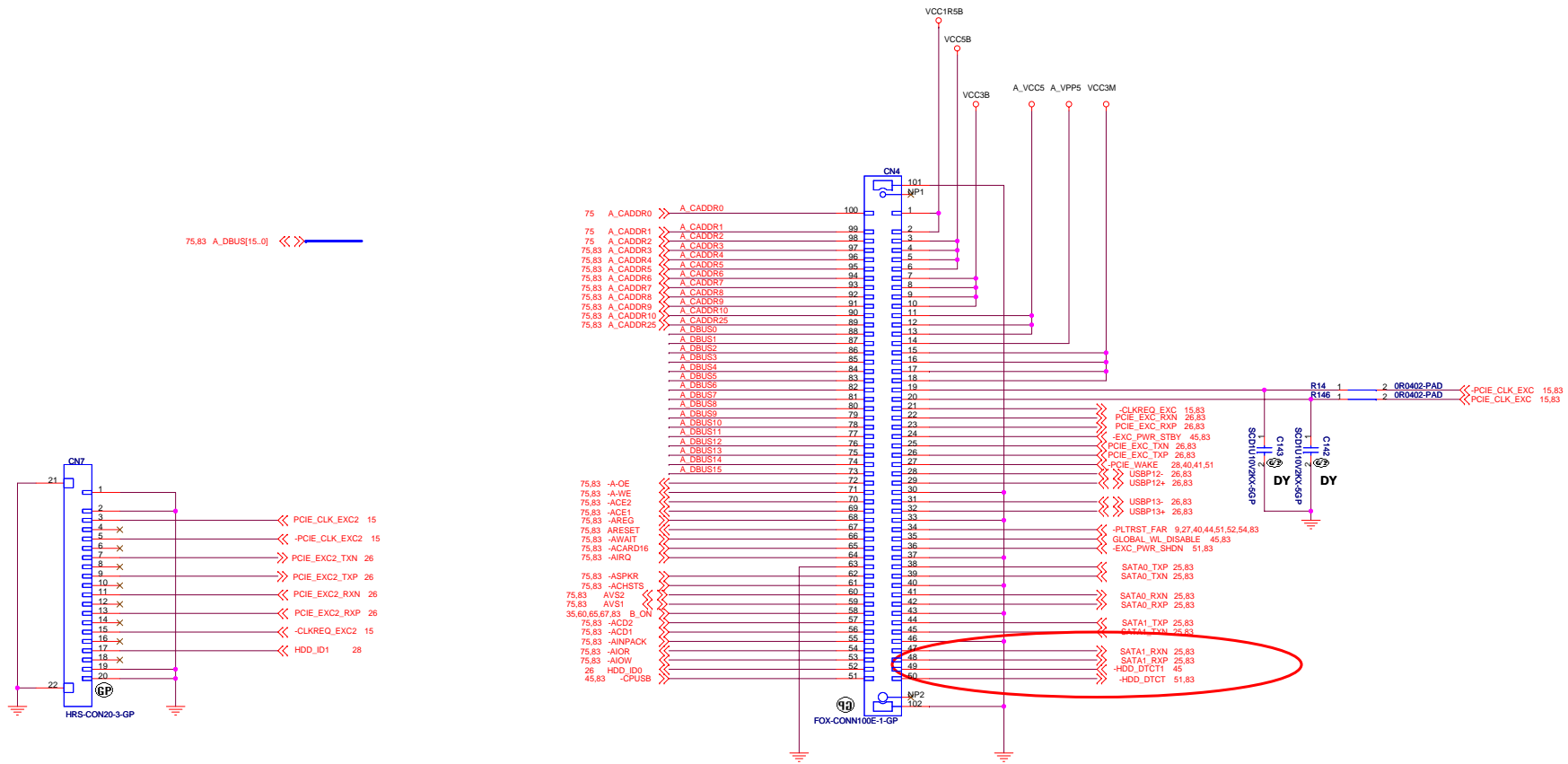
緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsuehshih, Taipei Hsien 221, Taiwan, R.O.C.	
File			
ICH9-M:(6/6)GND			
Size	Document Number		Rev
C			1
N-Note			
Date:	Thursday, June 26, 2008	Sheet 30 of 83	



<Variant Name>

緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
File		RTC BATTERY	
Size C	Document Number	N-Note	Rev 1
Date: Thursday, June 26, 2008		Sheet 31 of 63	

HDD IO SUB CARD Connector



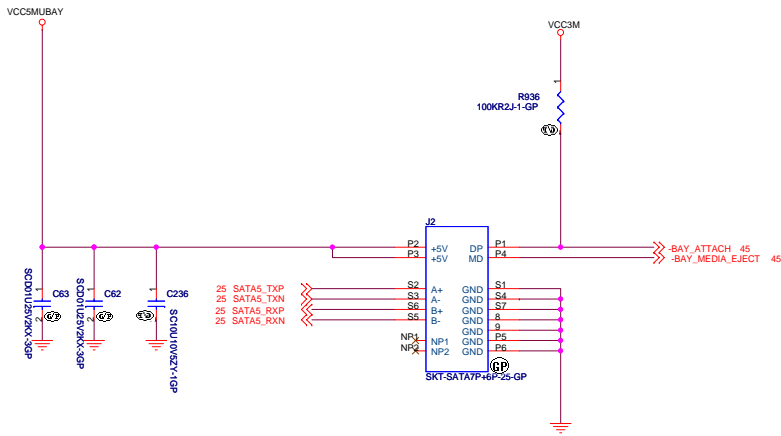
<Variant Name>

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

SATA HDD CONN			
Size	Document Number	Rev	SE
C	N-Note		
Date: Thursday, June 26, 2008	Sheet 32	of	63

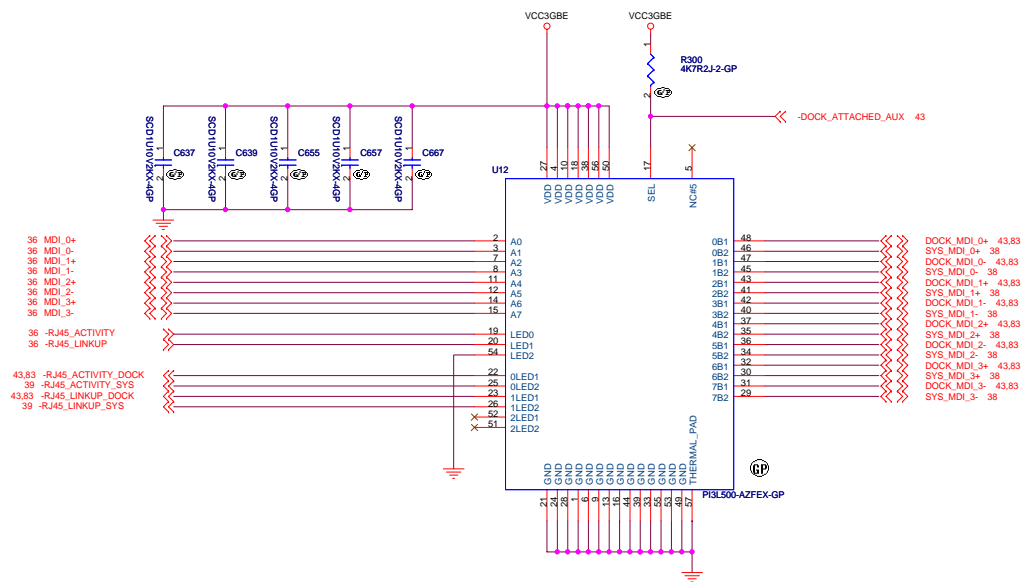
SATA SIGNAL SEGMENT		
S1	GND	Differential signal pair from host controller
S2	A+	
S3	A-	
S4	GND	Differential signal pair to host controller
S5	B-	
S6	B+	
S7	GND	

SATA POWER SEGMENT		
P1	DP	Device Present
P2	+5V	
P3	+5V	
P4	MD	Manufacturing Diagnostic
P5	GND	
P6	GND	

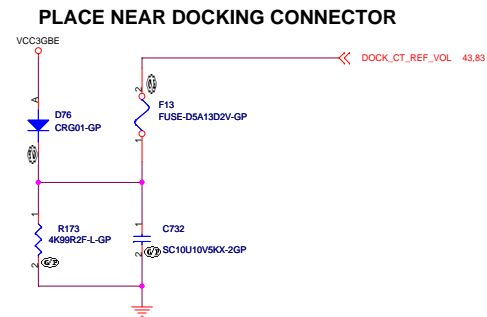


SATA ODD Connector





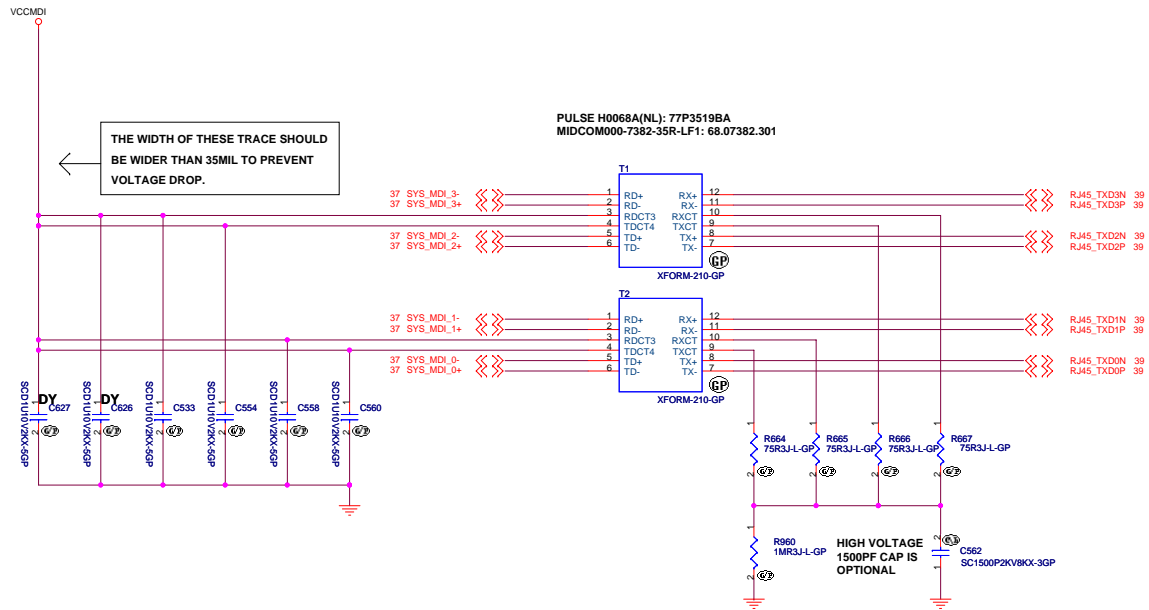
36 MDI_0+
36 MDI_0-
36 MDI_1+
36 MDI_1-
36 MDI_2+
36 MDI_2-
36 MDI_3+
36 MDI_3-
36 -RJ45_ACTIVITY
36 -RJ45_LINKUP
43.83 -RJ45_ACTIVITY_DOCK
39 -RJ45_ACTIVITY_SYS
43.83 -RJ45_LINKUP_DOCK
39 -RJ45_LINKUP_SYS



		Vendor P/N	Wistron P/N
1st	Pericom	PI3L500AZFEX	73.3L500.003
2nd	TI	TS3L500AERHUR	73.3L500.A0V

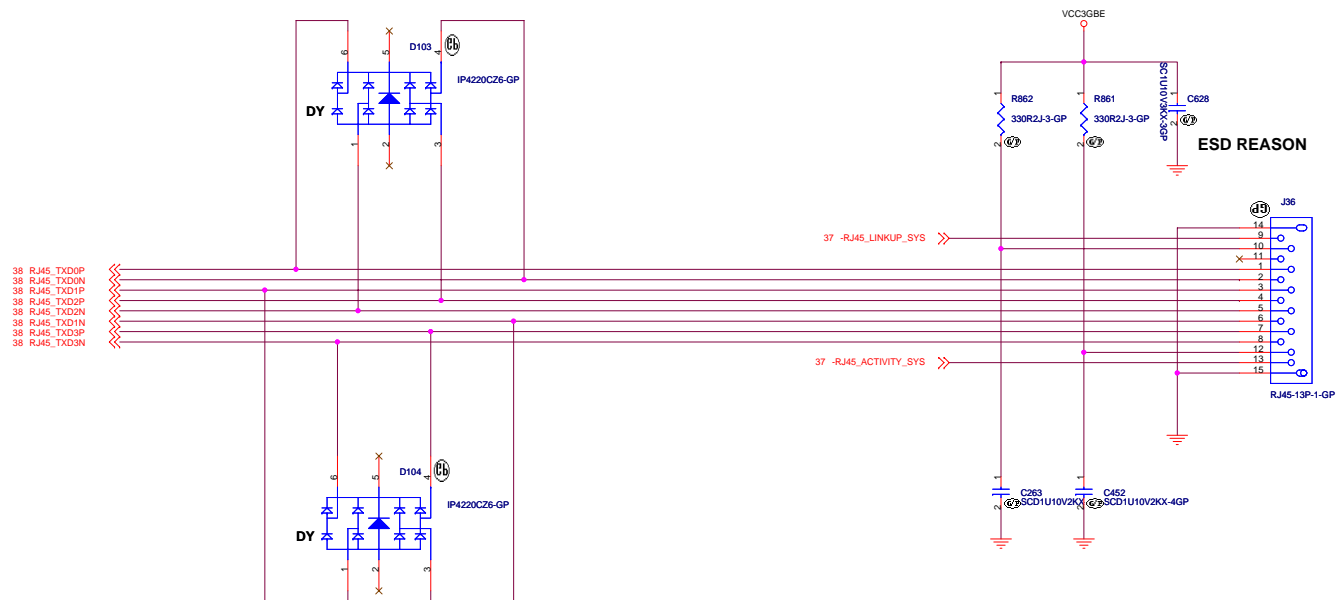
<Variant Name>

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
GBE LAN SWITCH			
Size C	Document Number	N-note	Rev 1
Date: Thursday, June 26, 2008		Sheet 37 of	63



<Variant Name>

緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
GBE MAGNETICS			
Size	Document Number	Rev	
C		1	
Date:	Thursday, June 26, 2008	Sheet	38 of 63



<Variant Name>

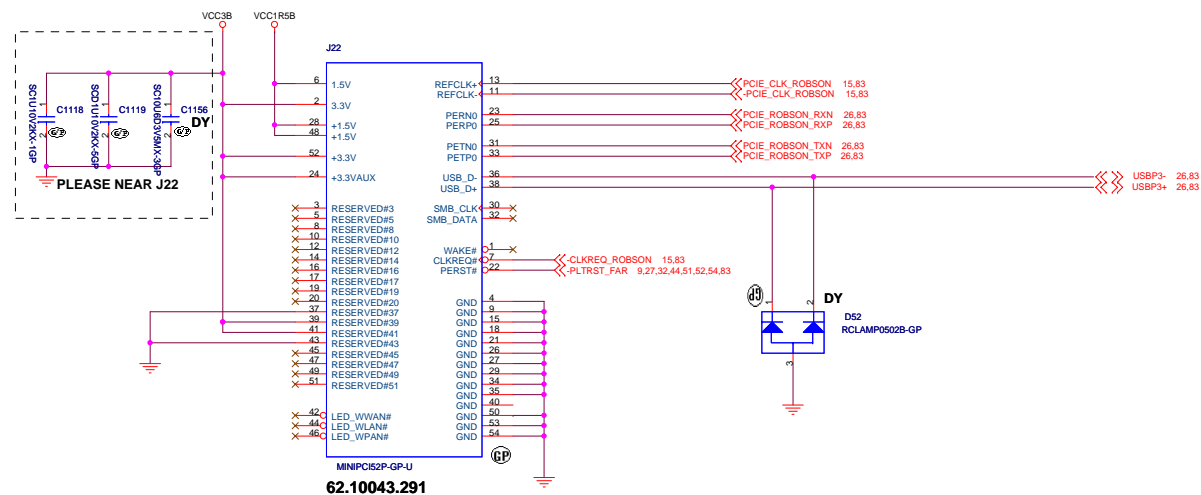
緯創資通

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

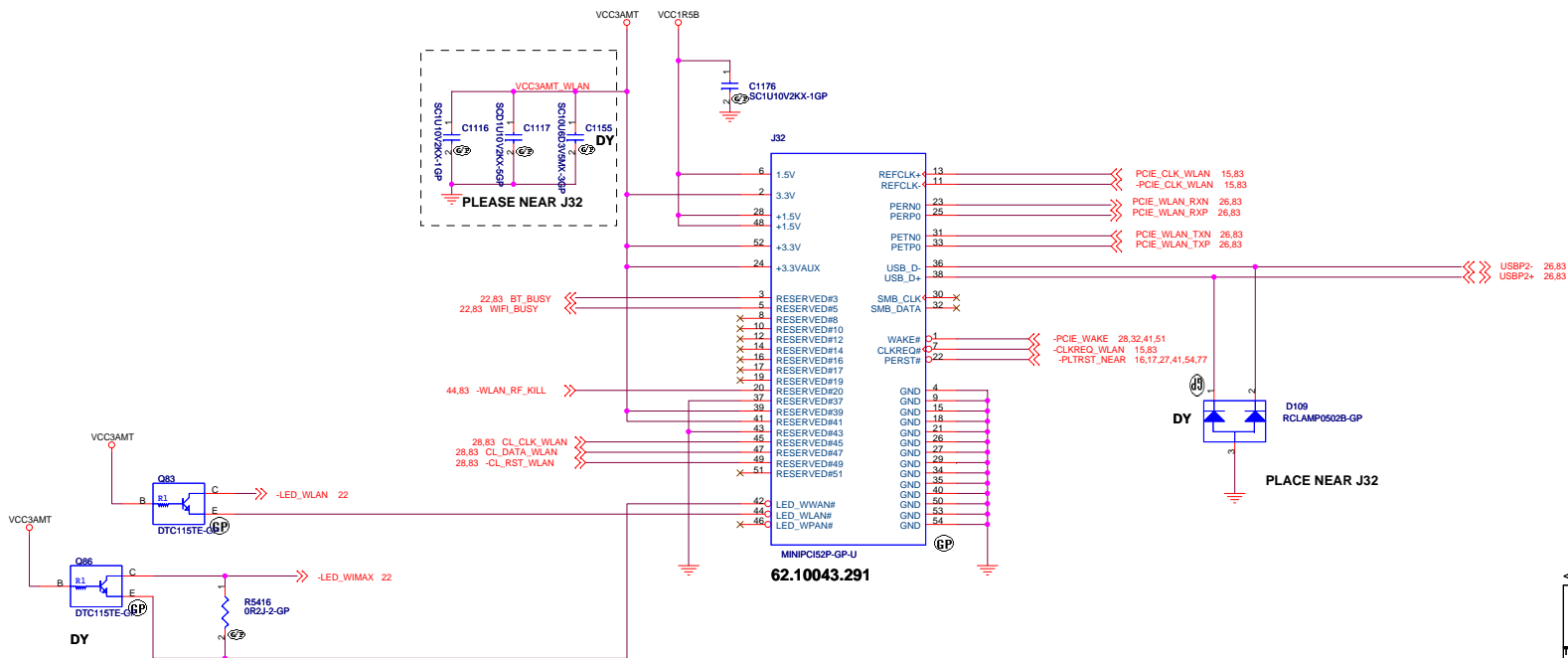
File **RJ11/RJ45 CONNECTOR**

Size C	Document Number N-note	Rev 1
Date Thursday, June 26, 2008	Sheet 39	of 63

MINI PCIE CONN-1 FOR ROBSON



MINI PCIE CONN-2 FOR WLAN



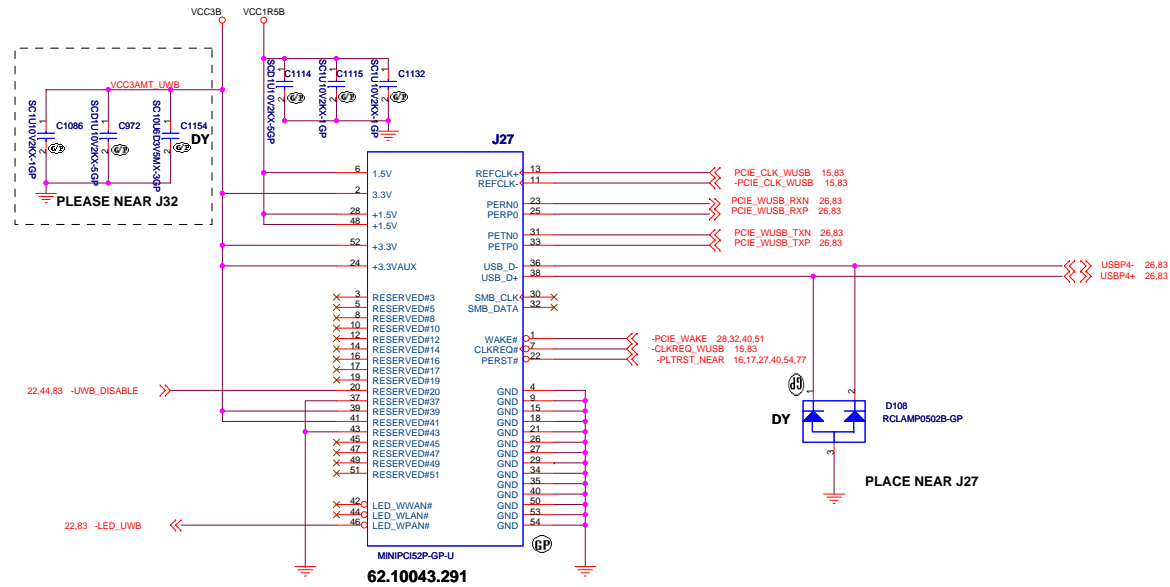
<Variant Name>

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

File PCIE MINI CARD SLOT

Size C	Document Number	N-note	Rev 1
Date: Thursday, June 26, 2008	Sheet 40	of	63

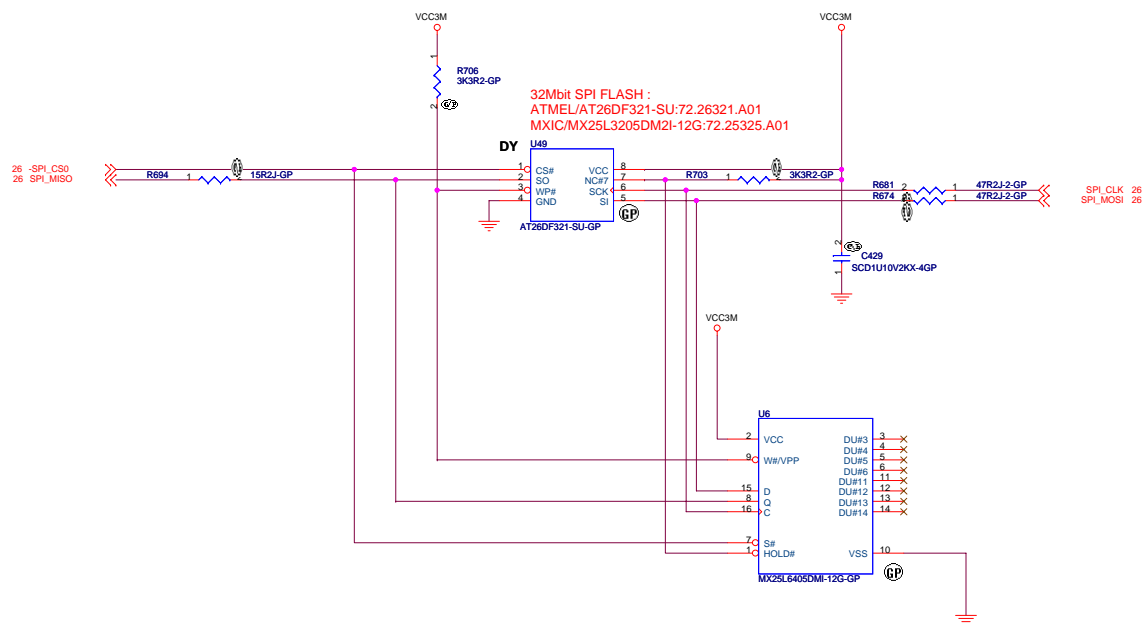
MICRO_PCIE_CONN-3



<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			
PCIE HALF MINI CARD SLOT			
Size C	Document Number N-note		Rev 1
Date: Thursday, June 26, 2008	Sheet 41	of	83

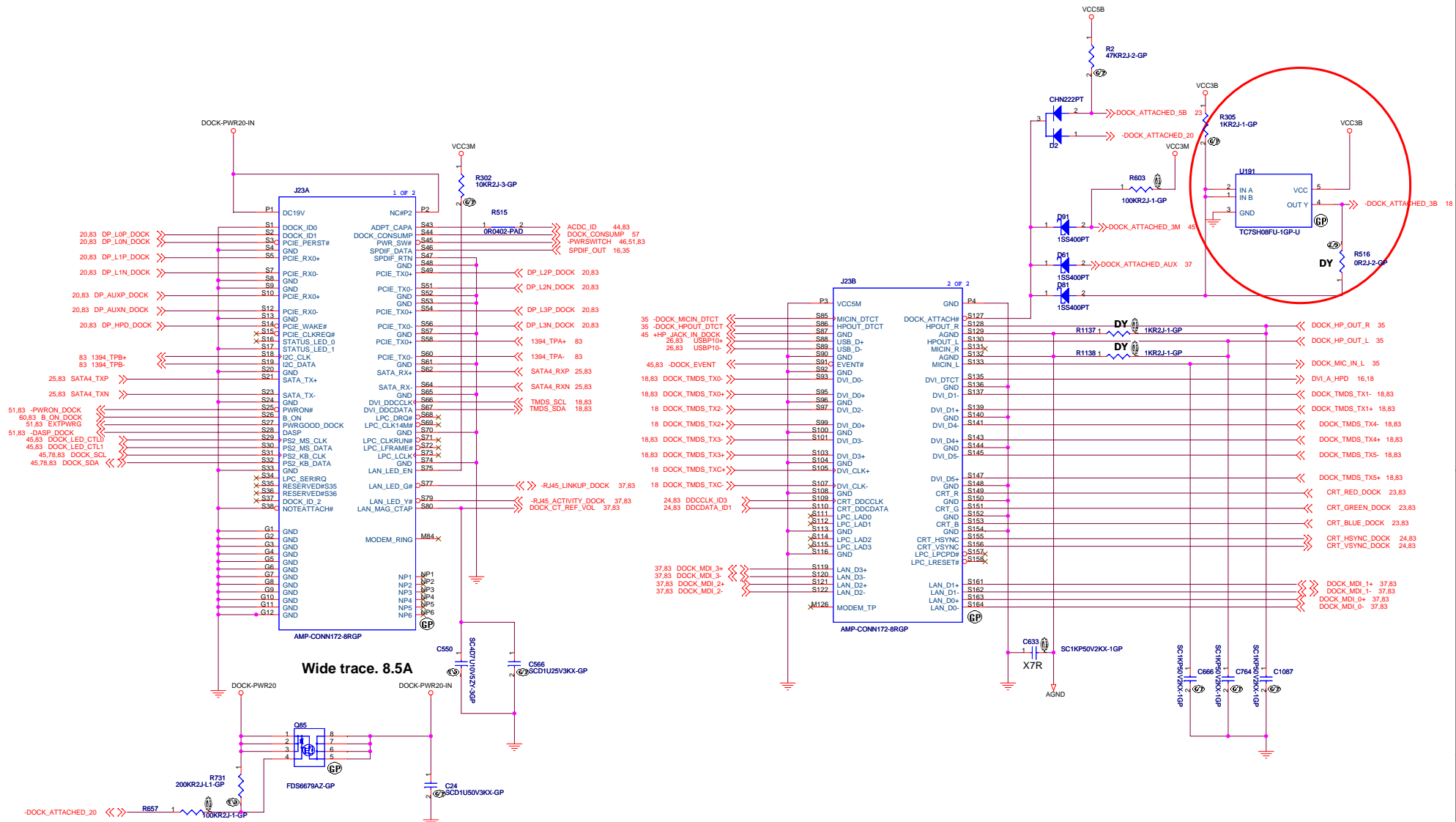


SO8 and SO16 are both supported!

64Mbit SPI FLASH :
WINBOND/W25X64VSFIG:72.25X64.001
MXIC/MX25L6405DMI-12G :72.25640.C01

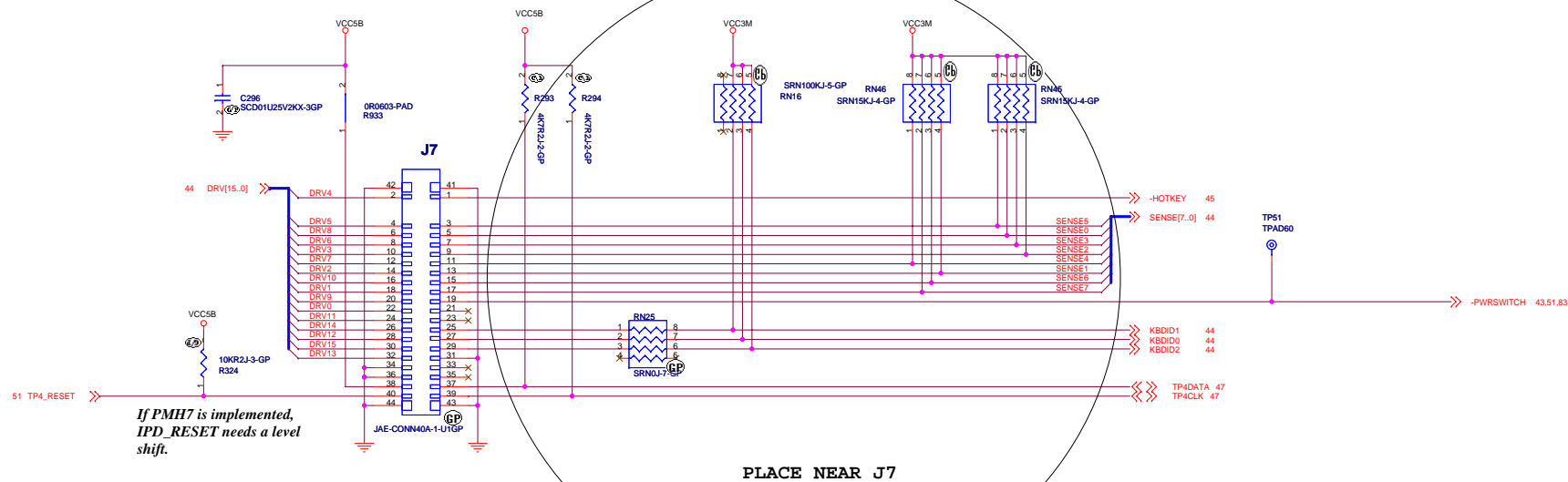
<Variant Name>

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
SPI FLASH		
Size	Document Number	Rev
C	N-note	1
Date:	Thursday, June 26, 2008	Sheet 42 of 63



<Variant Name>





If PMH7 is implemented,
IPD_RESET needs a level
shift.

<Variant Name>

緯創資通

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

File

KEYBOARD CONN

Size

Document Number

N-note

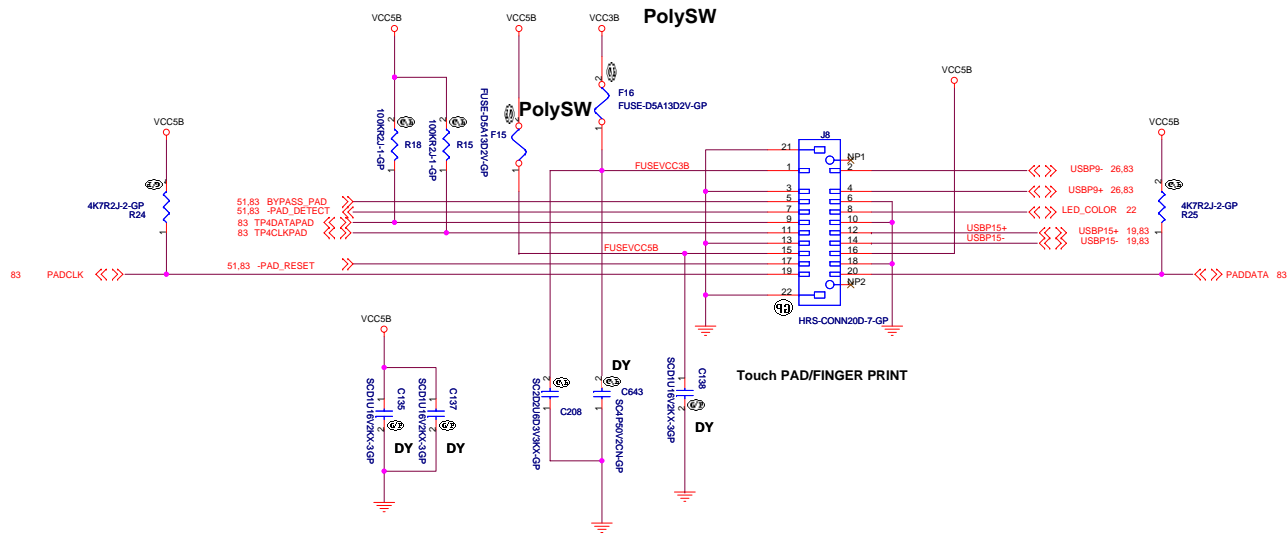
Rev

1

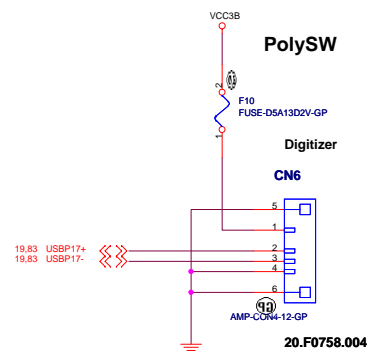
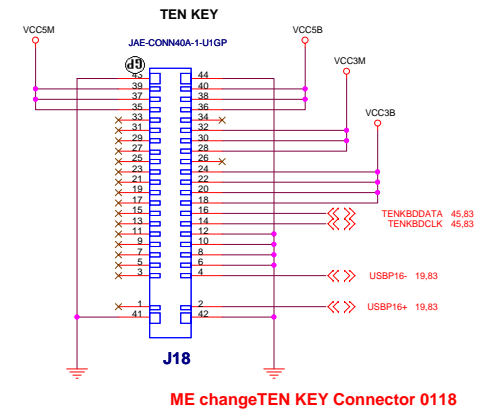
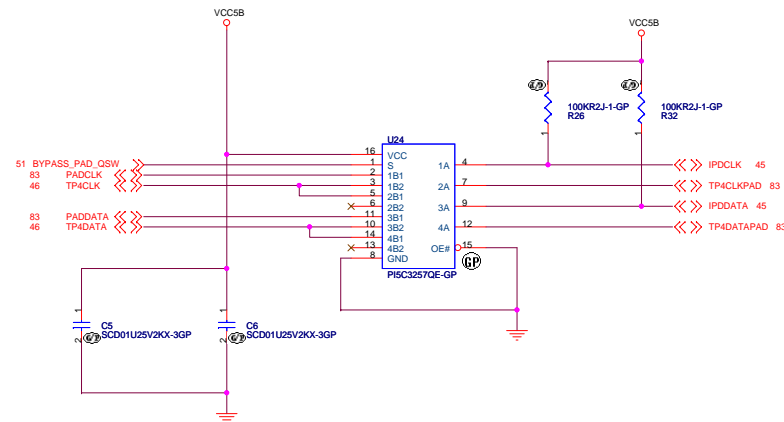
Date: Thursday, June 26, 2008

Sheet 46

of 63



USE FSTU3257(FAIRCHILD) OR PI5C3257C(PERICOM)



<Variant Name>

	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.

File

WIRELESS DISABLE SW

Size
C

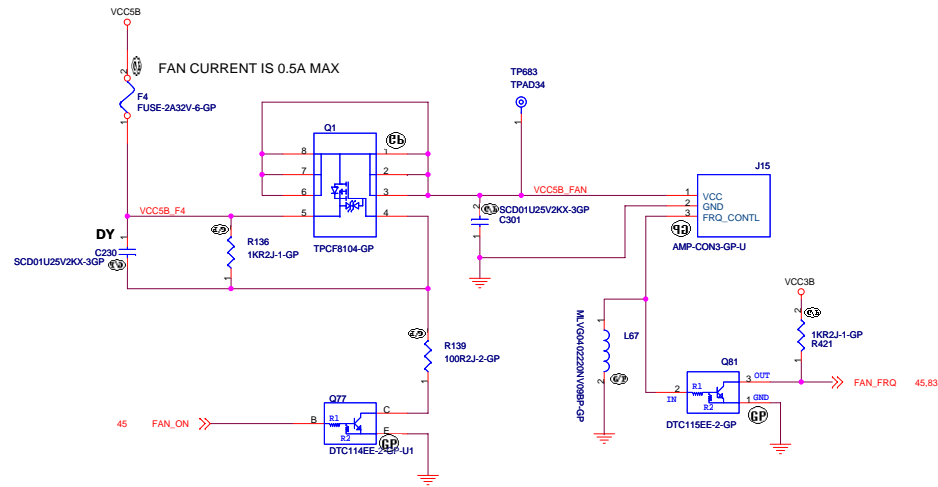
Document Number
N-note

Rev
1

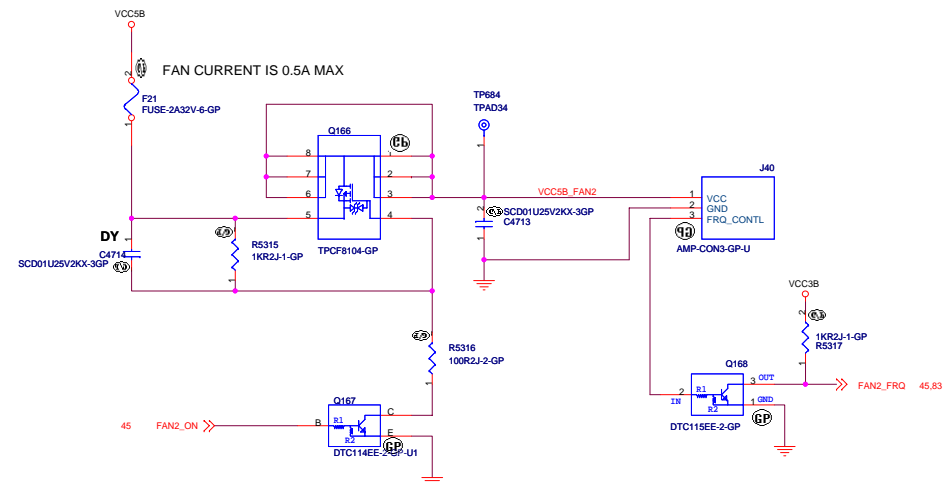
Date: Thursday, June 26, 2008

Sheet 48 of 63

CPU FAN



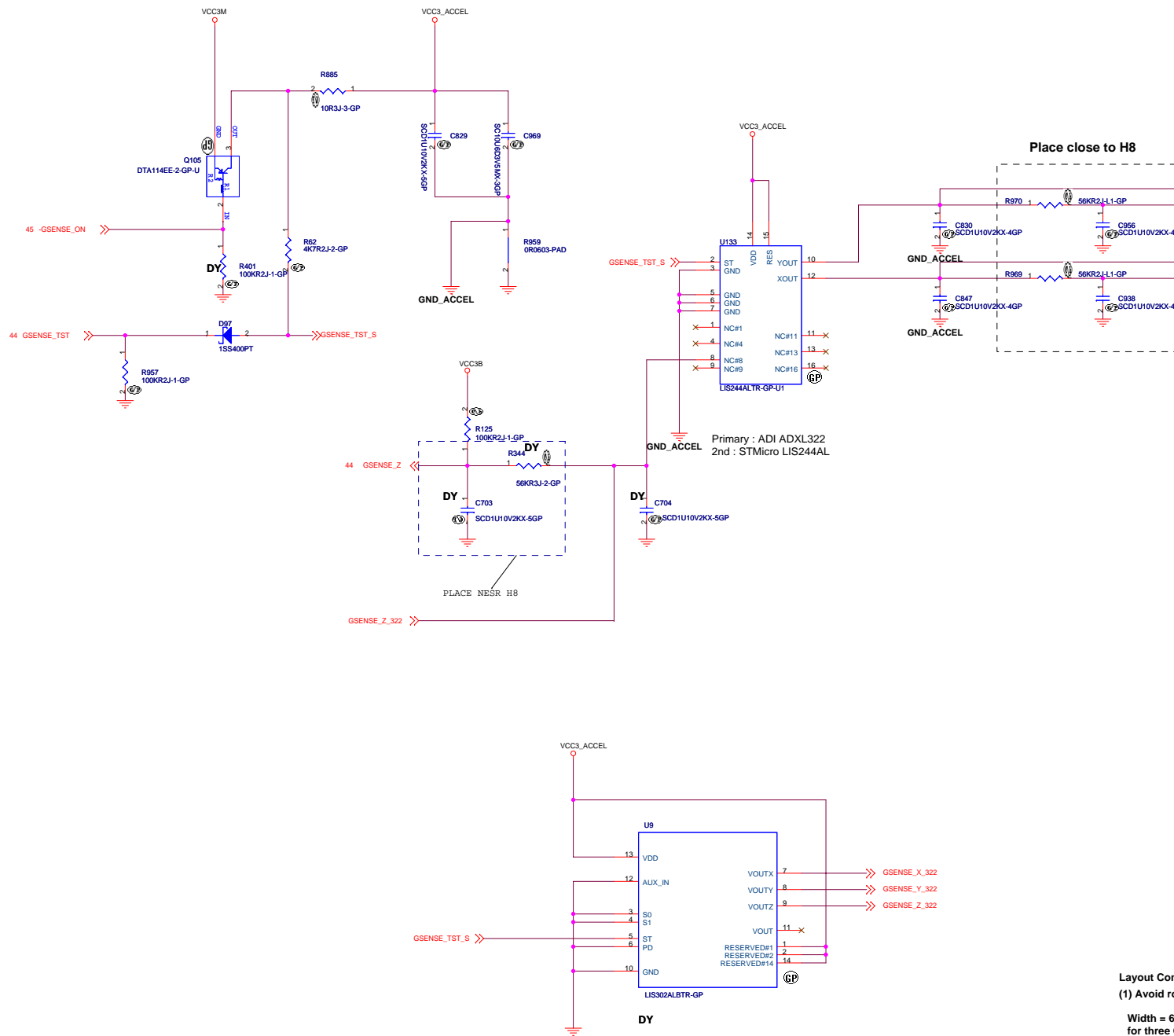
MxM FAN



<Variant Name>

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

FAN CONTROL			
Size	Document Number	Rev	
C	N-note	1	
Date:	Thursday, June 26, 2008	Sheet	49 of 63



LOGIC

TABLE

N-note	ADXL322 /LIS244AL	LIS302ALB	No Accel.
	ADXL322	ST-MICRO	NO Accel.
R401	NO_ASM	NO_ASM	NO_ASM
R957	ASM	NO_ASM	NO_ASM
U9	NO_ASM	ASM	NO_ASM
U65	ASM	NO_ASM	NO_ASM
Q105	ASM	ASM	NO_ASM
D97	ASM	ASM	NO_ASM
R62	ASM	ASM	NO_ASM
R885	10 Ohm	ASM	NO_ASM
C829	ASM	ASM	NO_ASM
C969	ASM	ASM	NO_ASM
R969	56K	56K	NO_ASM
C830	ASM	ASM	NO_ASM
C847	ASM	ASM	NO_ASM
R969	56K	56K	NO_ASM
C938	ASM	ASM	NO_ASM
C956	ASM	ASM	NO_ASM
C704	NO_ASM	ASM	NO_ASM
R344	NO_ASM	ASM	NO_ASM
C703	NO_ASM	ASM	NO_ASM
R125	ASM	NO_ASM	ASM

Layout Comment :

(1) Avoid routing under DCDC switching area.

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

<Variant Name>

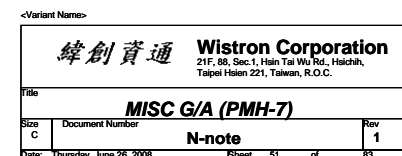


TABLE	
4IN1 SLOT	R561
YES	ASM
NO	NO_ASM

LOGIC

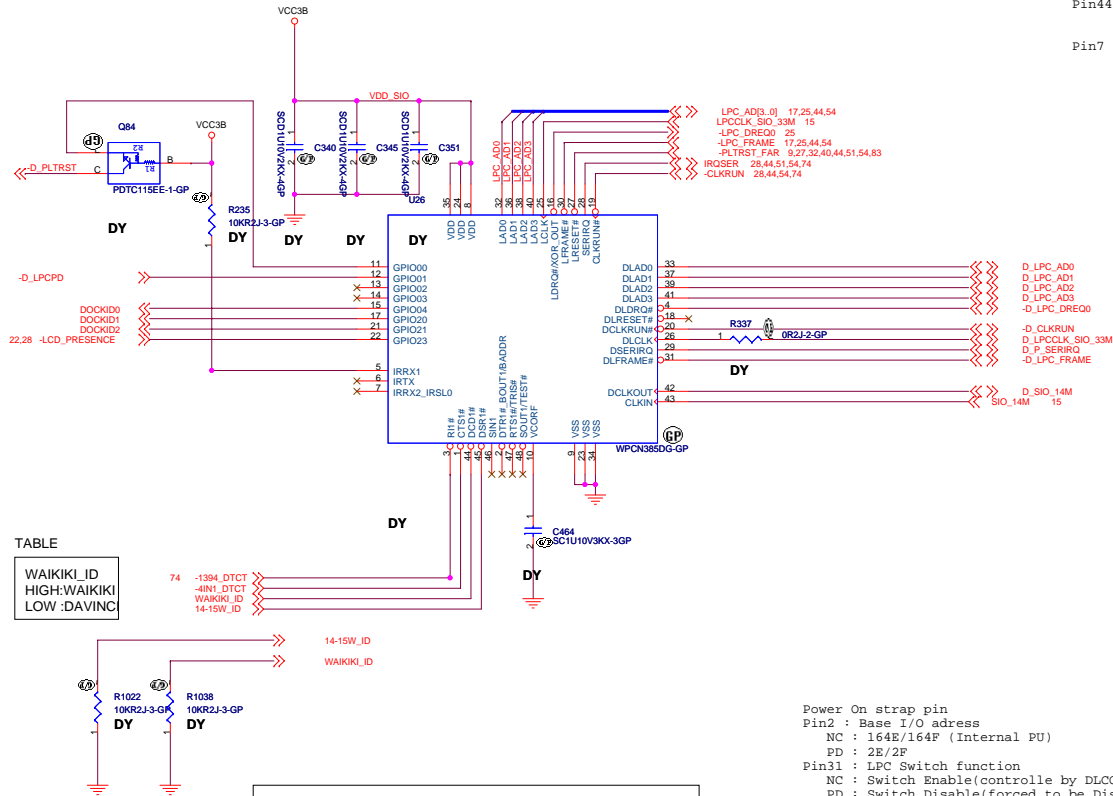


TABLE	
WAIKIKI_ID	HIGH:WAIKIKI
LOW	:DAVINC

TABLE	
14"	NO_ASM
15"W	ASM

LOGIC

GPIO ASSIGNMENT LIST

GPIO00 :LPC RESET# FOR DOCKING LPC DEVICE
 GPIO01 :LPC POWER DOWN FOR DOCKING LPC DEVICE
 GPIO02 :RESERVED(INTERNAL PULLUP ENABLE)
 GPIO03 :RESERVED(INTERNAL PULLUP ENABLE)
 GPIO04 :DOCK ID 0(INTERNAL PULLUP ENABLE)
 GPIO20 :DOCK ID 1(INTERNAL PULLUP ENABLE)
 GPIO21 :DOCK ID 2(INTERNAL PULLUP ENABLE)
 GPIO23 :LCD PRESENCE DETECT(INTERNAL PULLUP ENABLE)

GPIO PORT1 ASSIGNMENT LIST

Pin3: GPIO10:1394 PORT DETECT
 (INTERNAL PULLUP ENABLE)
 Pin1 : GPIO11:4-IN-1 SLOT DETECT
 (INTERNAL PULLUP ENABLE)
 Pin48 : GPIO12:RESERVED(NC)
 Pin47 : GPIO13:RESERVED(NC)
 Pin46 : GPIO14:RESERVED(NC)
 (INTERNAL PULLUP ENABLE)
 Pin45 : GPIO15:14/15W ID
 (INTERNAL PULLUP ENABLE)
 Pin44 : GPIO16:WAIKIKI ID
 (INTERNAL PULLUP ENABLE)
 Pin7 : GPIO17:RESERVED(NC)
 (INTERNAL PULLUP ENABLE)

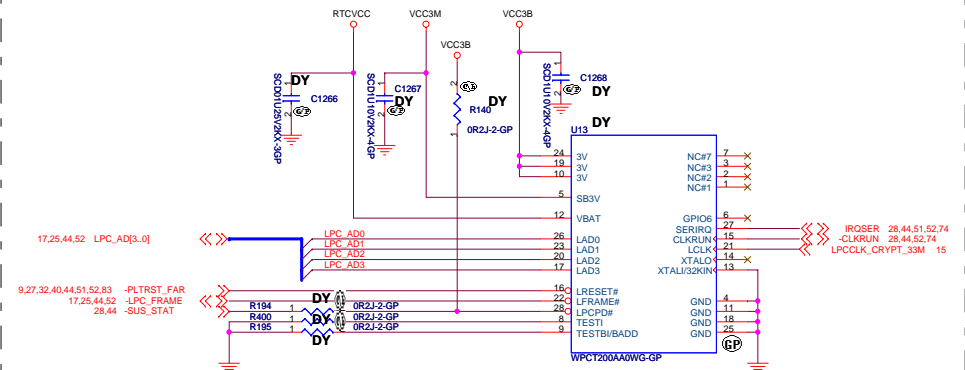
Power On strap pin
 Pin2 : Base I/O address
 NC : 164E/164F (Internal PU)
 PD : 2E/2F
 Pin31 : LPC Switch function
 NC : Switch Enable(controlle by DLCON bit)
 PD : Switch Disable(forced to be Disconnected)
 Pin47 : Tristate
 NC : Normal Operation
 PD : All pins floting
 Pin48 : Test
 NC : Normal Operation
 PD : Test mode

<Variant Name>

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsuehshih, Taipei Hsien 221, Taiwan, R.O.C.	
File	SUPER I/O WPCN385SDG
Size	Document Number
C	N-note
Date	Thursday, June 26, 2008
Sheet	82 of 83
Rev	1

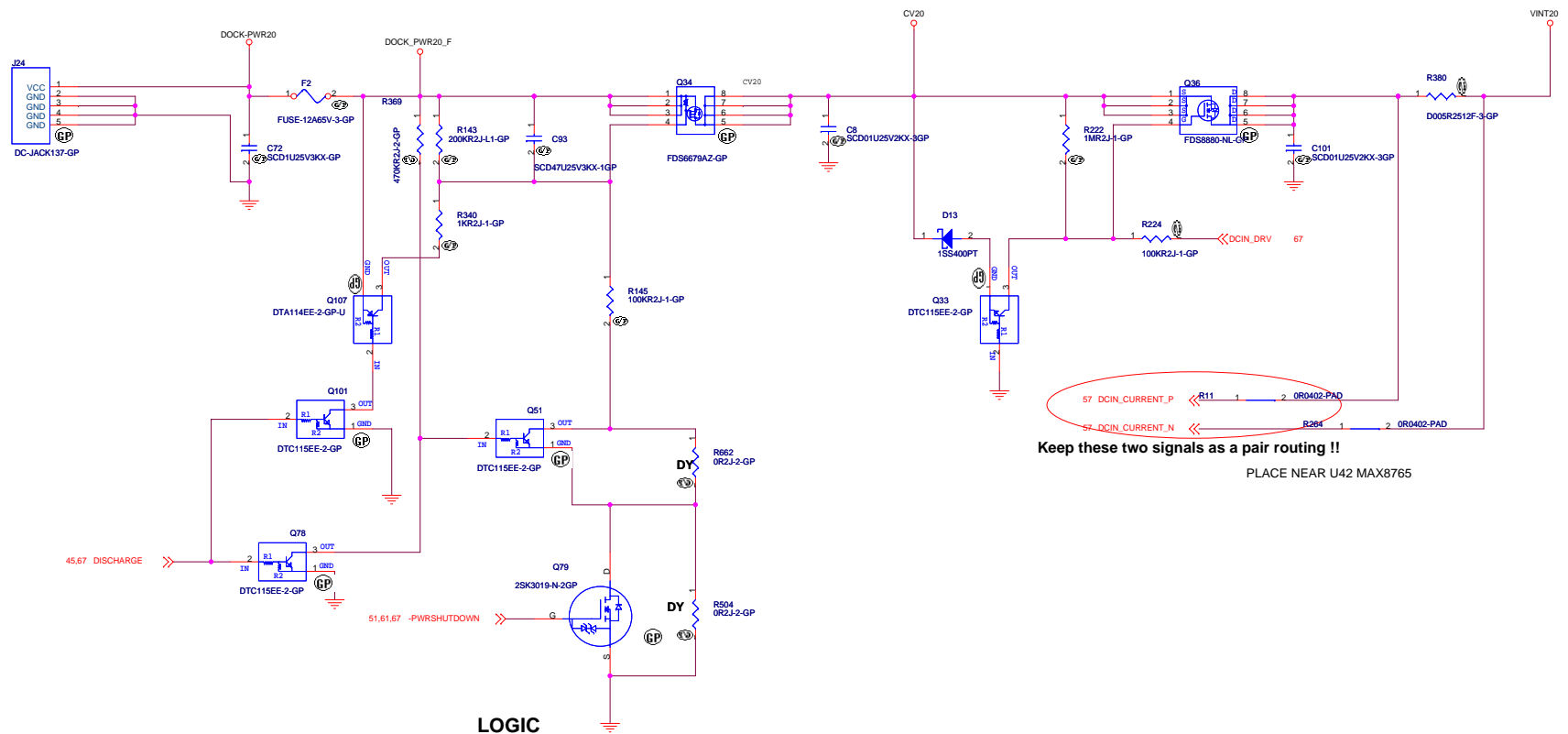


TCPA



Schematic diagram of the EEPROM circuit for the 16C45 module. The circuit includes two TC7SB385FU-GP buffers (U1, U2) and an EEPROM (U12). The buffers are connected to SMBus signals (SMB_CLK_AMT, SMB_CLK, SMB_DATA_AMT, SMB_DATA) and their outputs are connected to the EEPROM. The EEPROM is connected to the BPWRG signal. The circuit is powered by VCC3AMT and VCC3M.

Title			
<i>EEPROM/SMBUS SW/TPM</i>			
Size	Document Number	Rev	
C	N-note	1	
Date:	Thursday, June 26, 2008	Sheet	54 of 83

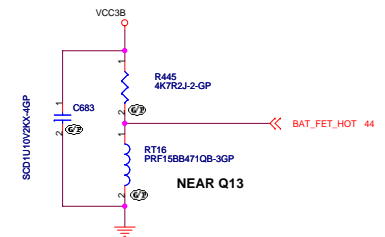
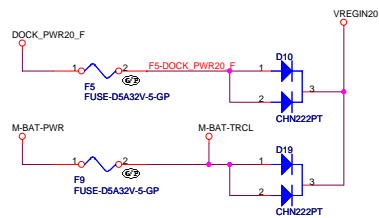
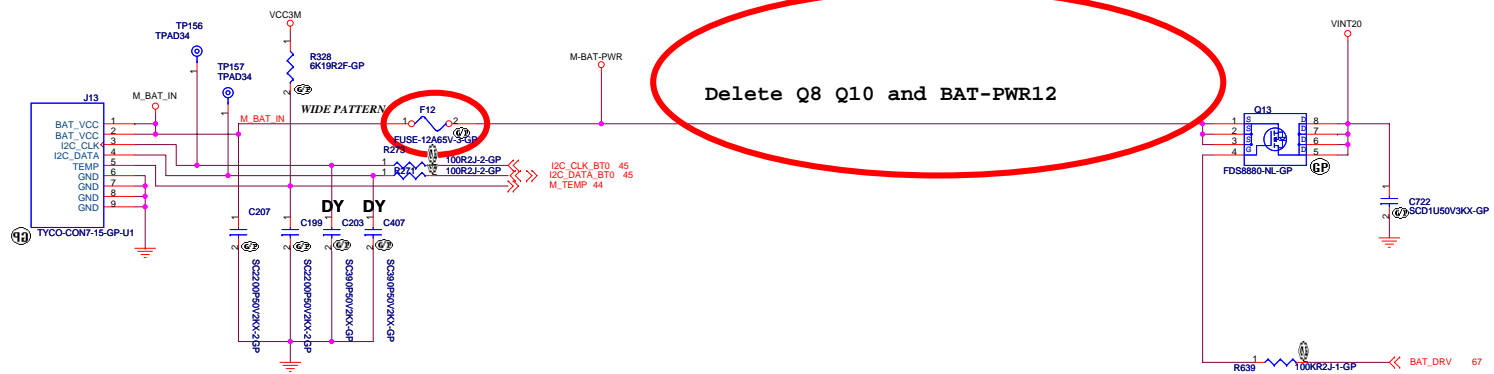


LOGIC

PEAK SHIFT	YES	NO
R662	NO-ASM	ASM
R369	ASM	NO-ASM
Q78	ASM	NO-ASM
Q51	ASM	NO-ASM

<Variant Name>

緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsuehshih, Taipei Hsien 221, Taiwan, R.O.C.			
File		DC-IN	
Size	Document Number	N note	Rev
C			1
Date	Thursday, June 26, 2008	Sheet	56 of 63



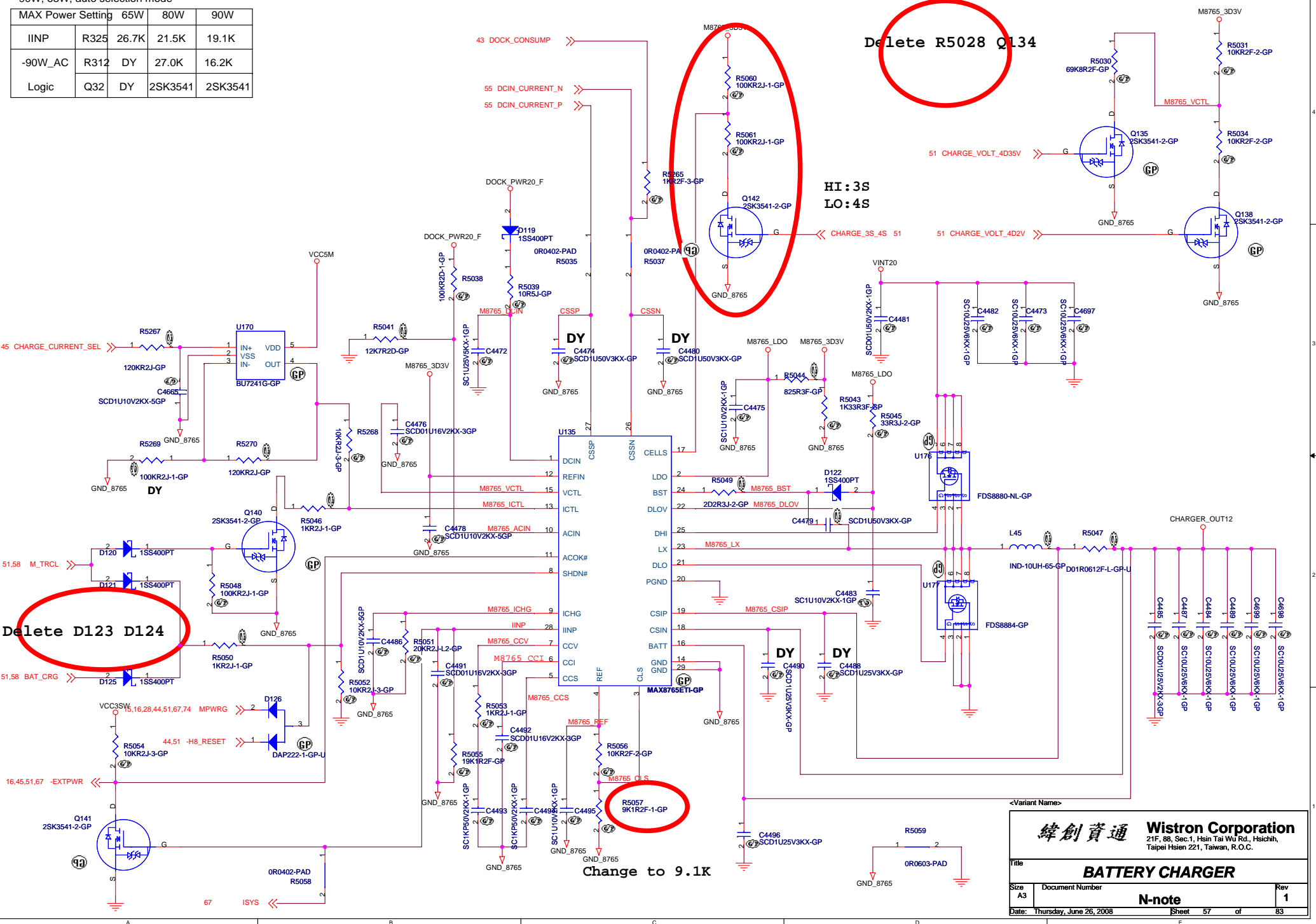
<Variant Name>

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

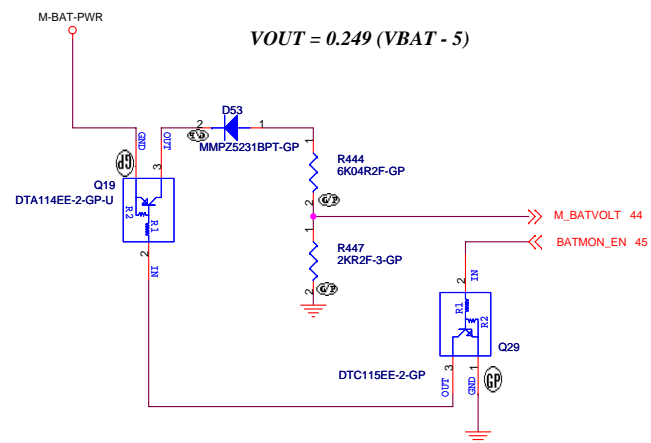
BATTERY INPUT			
Size	Document Number	Rev	1
C			
Date:	Thursday, June 26, 2008	Sheet	56 of 63

90W, 65W, auto selection mode

MAX Power Setting	65W	80W	90W
IINP	R325 26.7K	21.5K	19.1K
-90W_AC	R312 DY	27.0K	16.2K
Logic	Q32 DY	2SK3541	2SK3541



緯創資通 Wistron Corporation			
21F, 8B, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title BATTERY CHARGER			
Size A3	Document Number	N-note	
Date: Thursday, June 26, 2008	Sheet 57	of 83	Rev 1



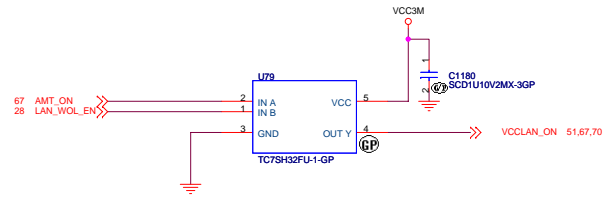
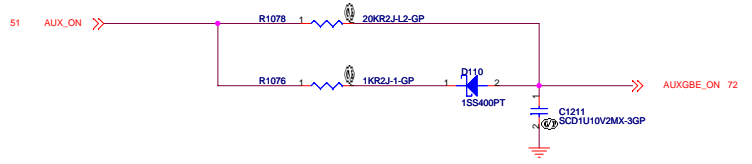
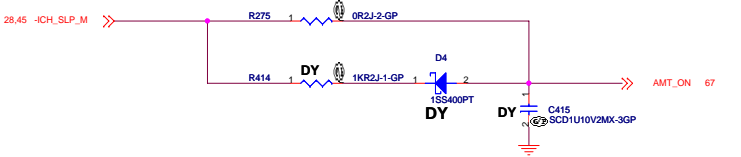
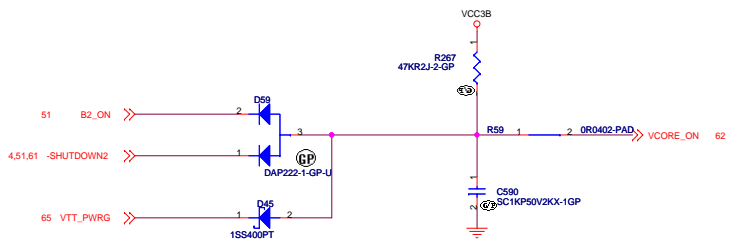
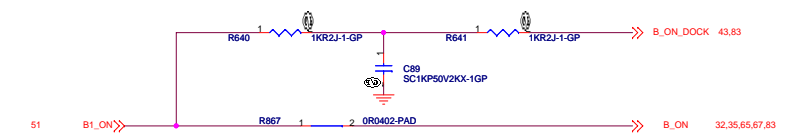
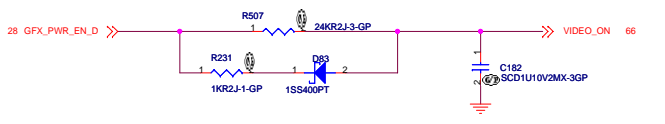
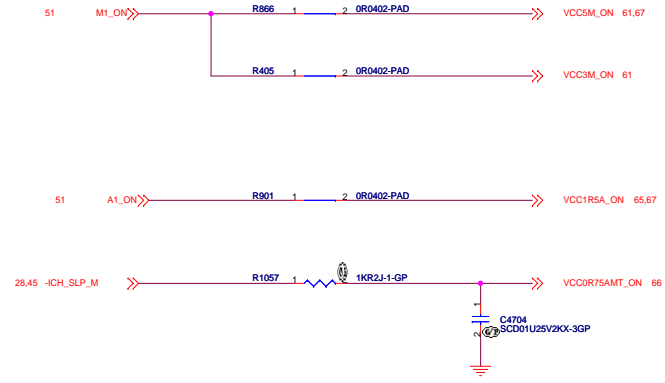
緯創資通

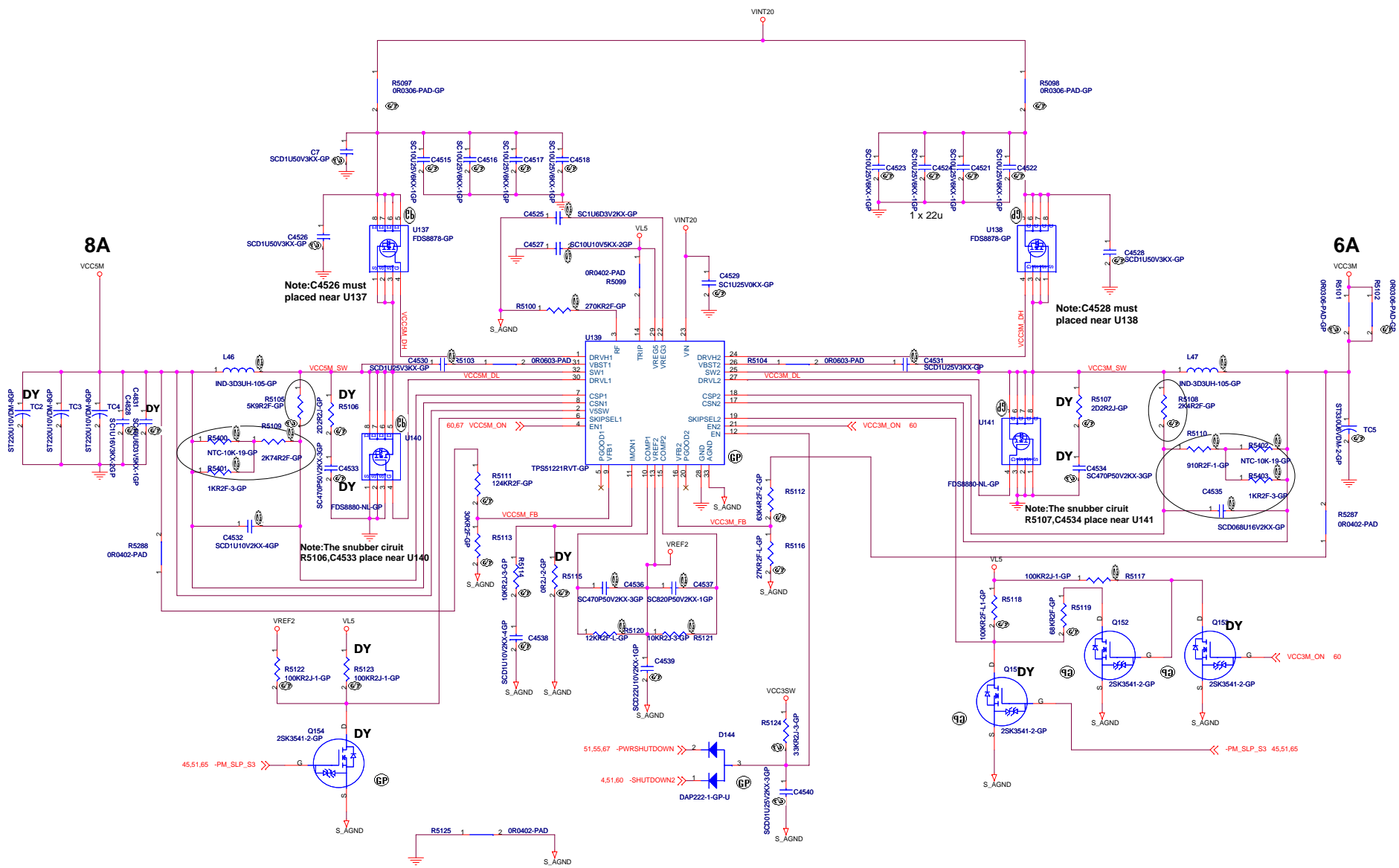
Title

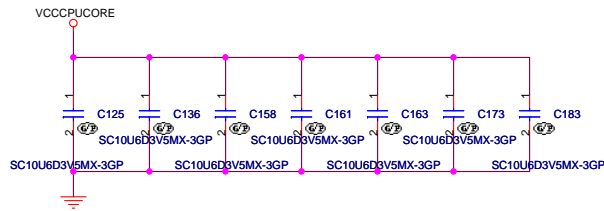
Size
C

N note

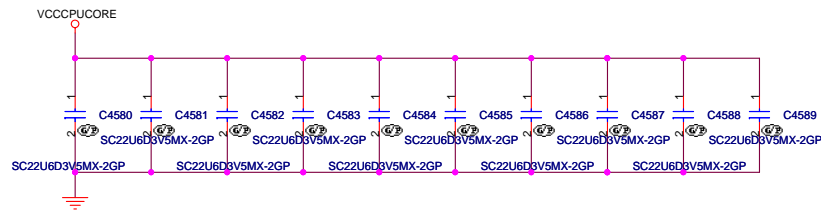
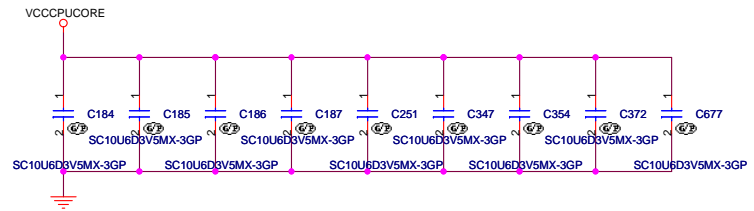
Date: Thursday, June 26, 2008



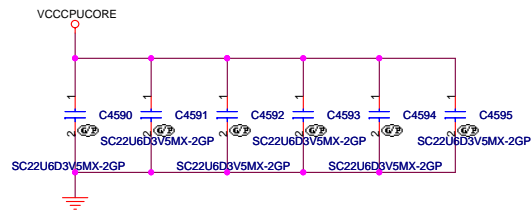




10UF 6.3V X5R 2125 1/16W X16 PCS



22UF 6.3V X5R 2125 1/16W X16 PCS

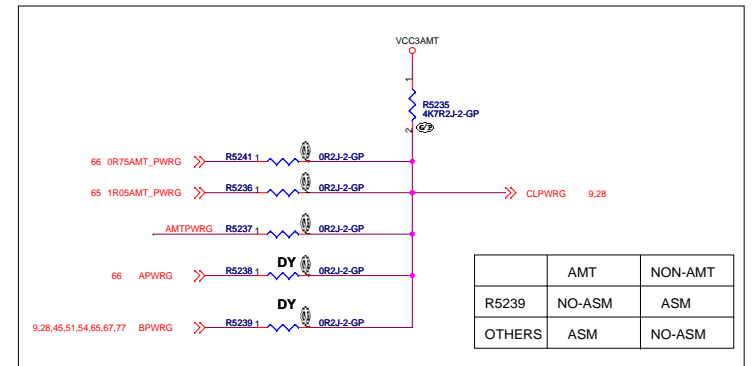
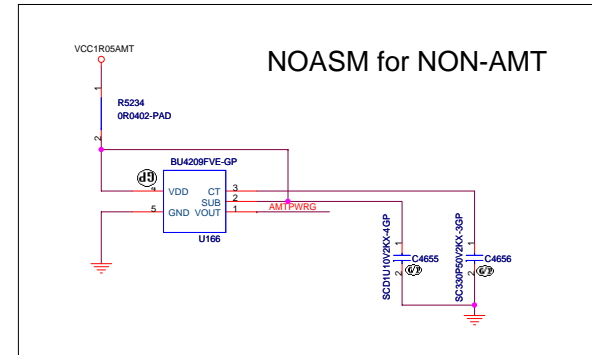
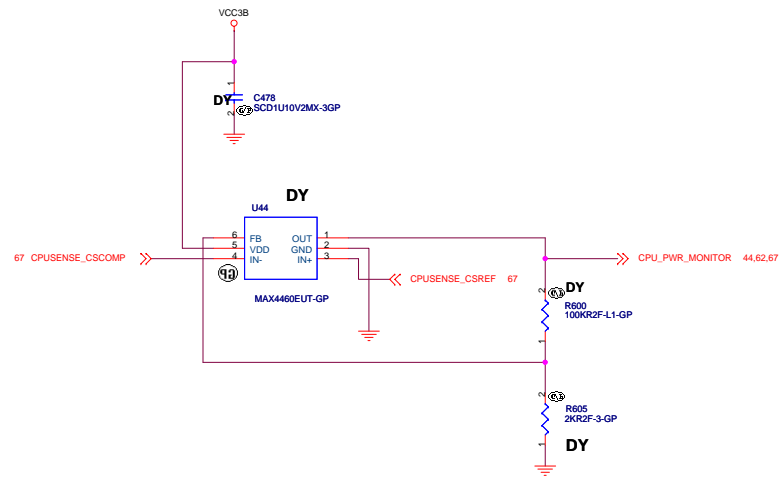


<Variant Name>

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title VCCCPUCORE DECOUPLING	
Size C	Document Number N note
Date: Thursday, June 26, 2008	Sheet 63 of 83
Rev 1	

<Variant Name>

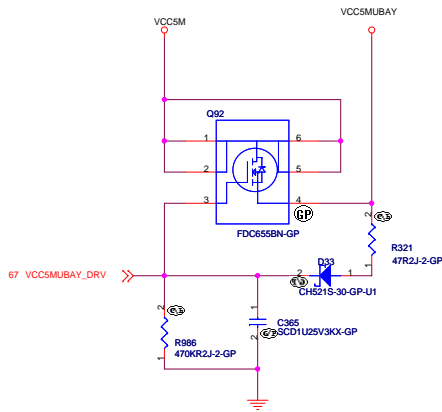
緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
DC-DC GFX CORE			
Size	Document Number		Rev
Custom	N-note		1
Date:	Thursday, June 26, 2008	Sheet 64 of	83

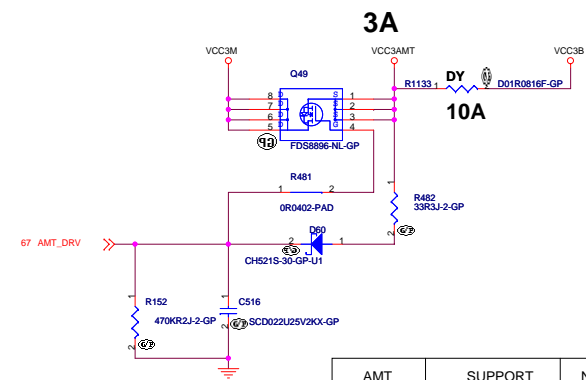
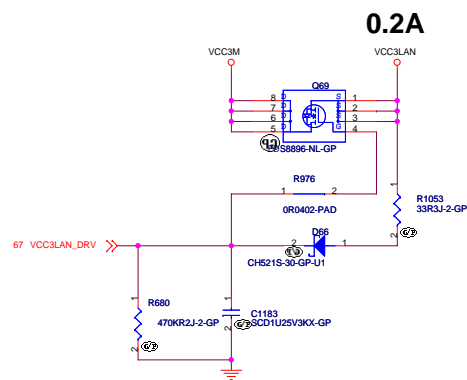
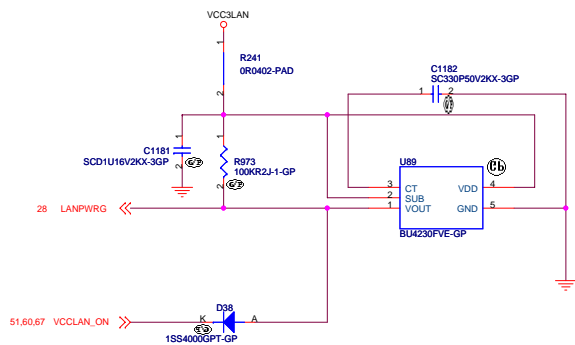


<Variant Name>

Ultrabay Power Load Switch

1.8A





AMT	SUPPORT	NON
R1133	NO_ASM	ASM
THEE OTHER	ASM	NO_ASM

↑
LOGIC

<Variant Name>

緯創資通

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

File

LOAD SE AMT & LAN

Size

Document Number

N-note

Rev

Date: Thursday, June 26, 2008

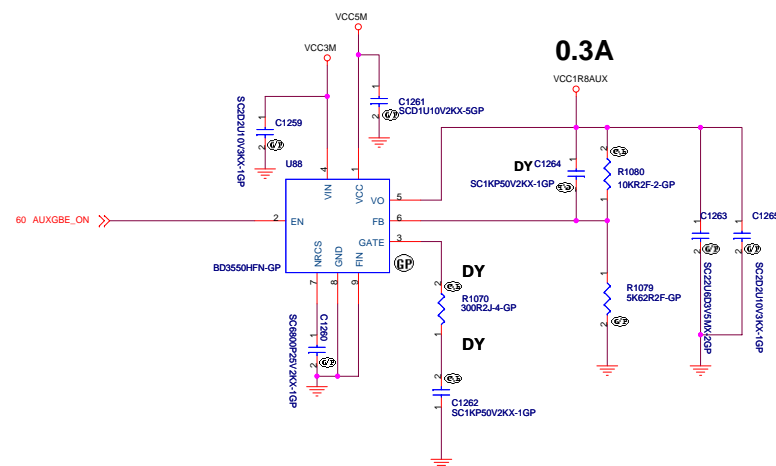
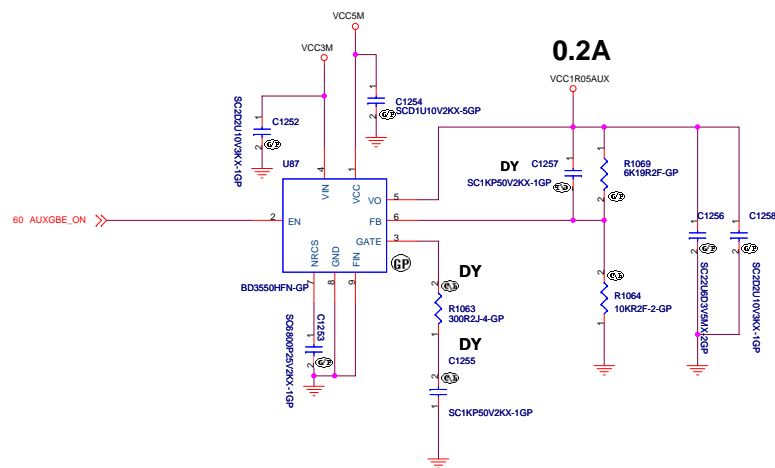
Sheet 70 of 83

1

<Variant Name>

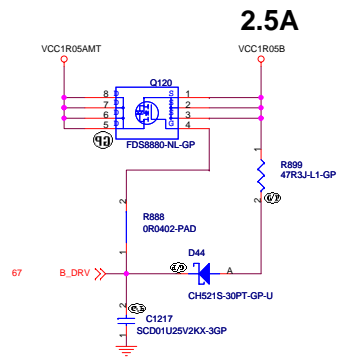
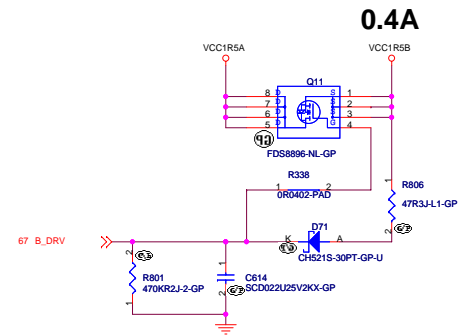
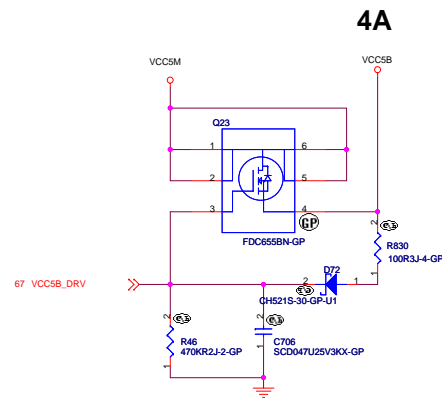
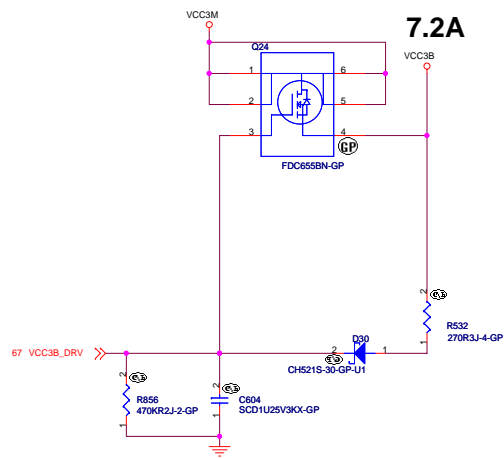
緯創資通		Wistron Corporation	
		21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
File			
LOAD SW VIDEO			
Size	Document Number		Rev
C	N-note		1
Date	Thursday, June 26, 2008		Sheet 71 of 83

VCC1R8AUX
 1.8V : R1079 : 5.62KOHM
 2.5V: R1079: 3.48KOHM



<Variant Name>

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Part Number LOAD SW AUX	
Size C	Rev 1
Date: Thursday, June 26, 2008	Sheet 72 of 63



<Variant Name>

緯創資通

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

File

LOAD SW B

Size

Document Number

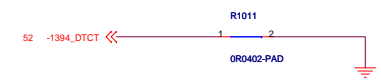
N-note

Rev

1

Date: Thursday, June 26, 2008

Sheet 73 of 83



NO-1394 YES-1394

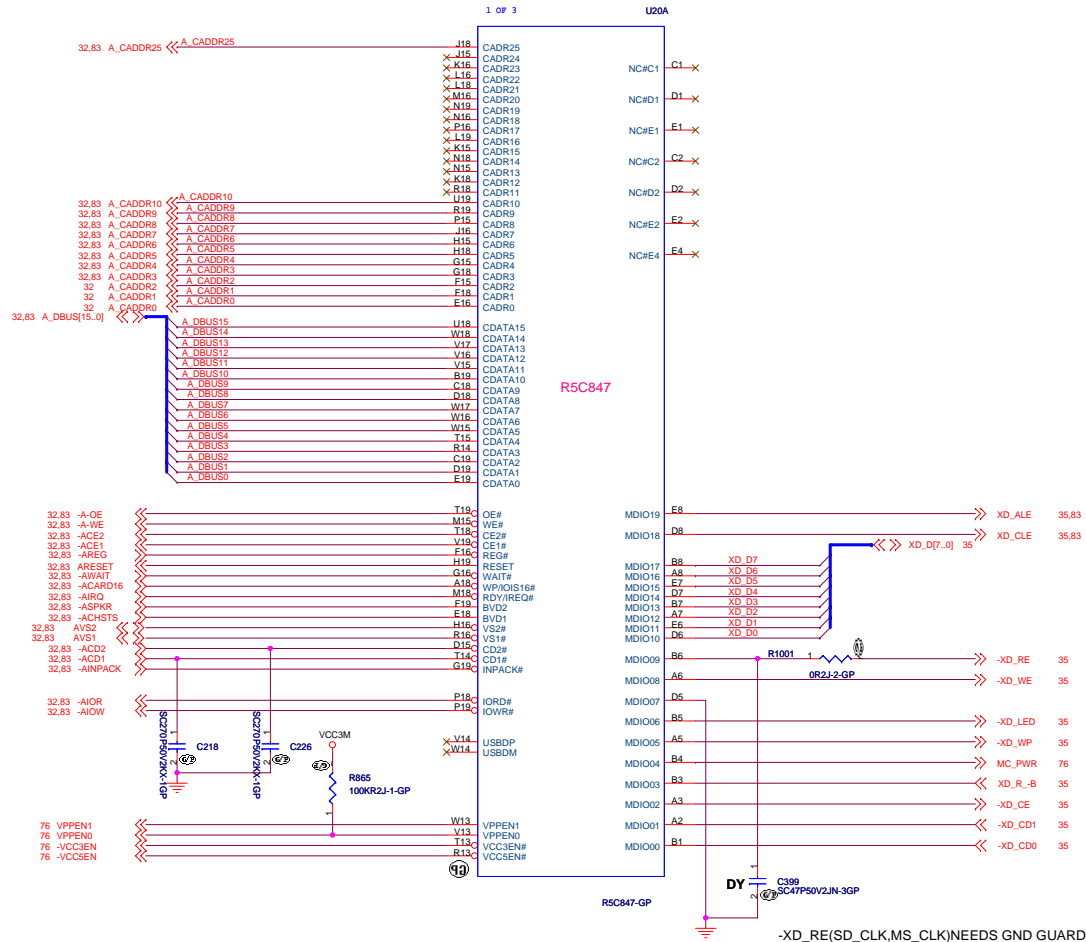
U20	R5C804	R5C847/ R5C803
FL6	0ohm	MPZ1608S600A
R931	NO_ASM	ASM
C256	NO_ASM	ASM
R988	NO_ASM	ASM
R989	NO_ASM	ASM
R998	NO_ASM	ASM
R999	NO_ASM	ASM
C877	NO_ASM	ASM
R997	NO_ASM	ASM
C891	NO_ASM	ASM
C894	NO_ASM	ASM
J28	NO_ASM	ASM
C801	NO_ASM	ASM
R985	NO_ASM	ASM
Y7	NO_ASM	ASM
C858	NO_ASM	ASM
C871	NO_ASM	ASM
R1011	NO_ASM	ASM
D106	NO_ASM	ASM
FL2	NO_ASM	ASM
FL8	NO_ASM	ASM

**Trace Length match
require for Pair A and
Pair B**

TP343 TPAD34 1 A_CADDR0
 TP344 TPAD34 1 A_CADDR1
 TP345 TPAD34 1 A_CADDR2

TP373 TPAD34 1 A_DBUS0
 TP374 TPAD34 1 A_DBUS1
 TP438 TPAD34 1 A_DBUS2
 TP445 TPAD34 1 A_DBUS3
 TP444 TPAD34 1 A_DBUS4

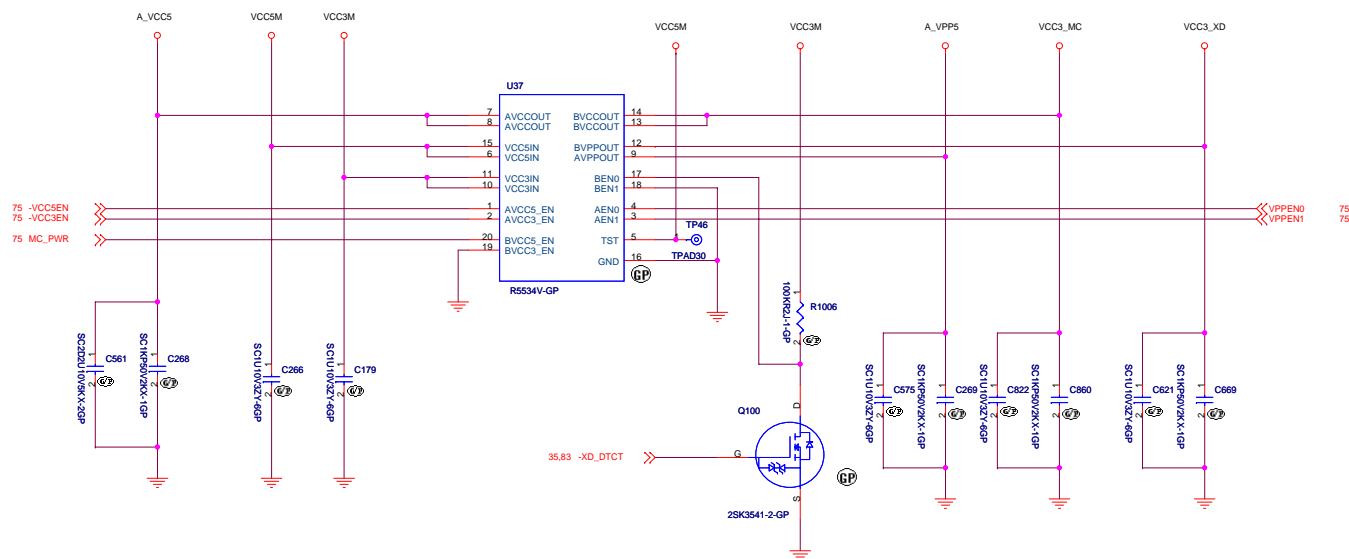
TP435 TPAD34 1 A_DBUS11
 TP432 TPAD34 1 A_DBUS12
 TP434 TPAD34 1 A_DBUS15



<Variant Name>

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

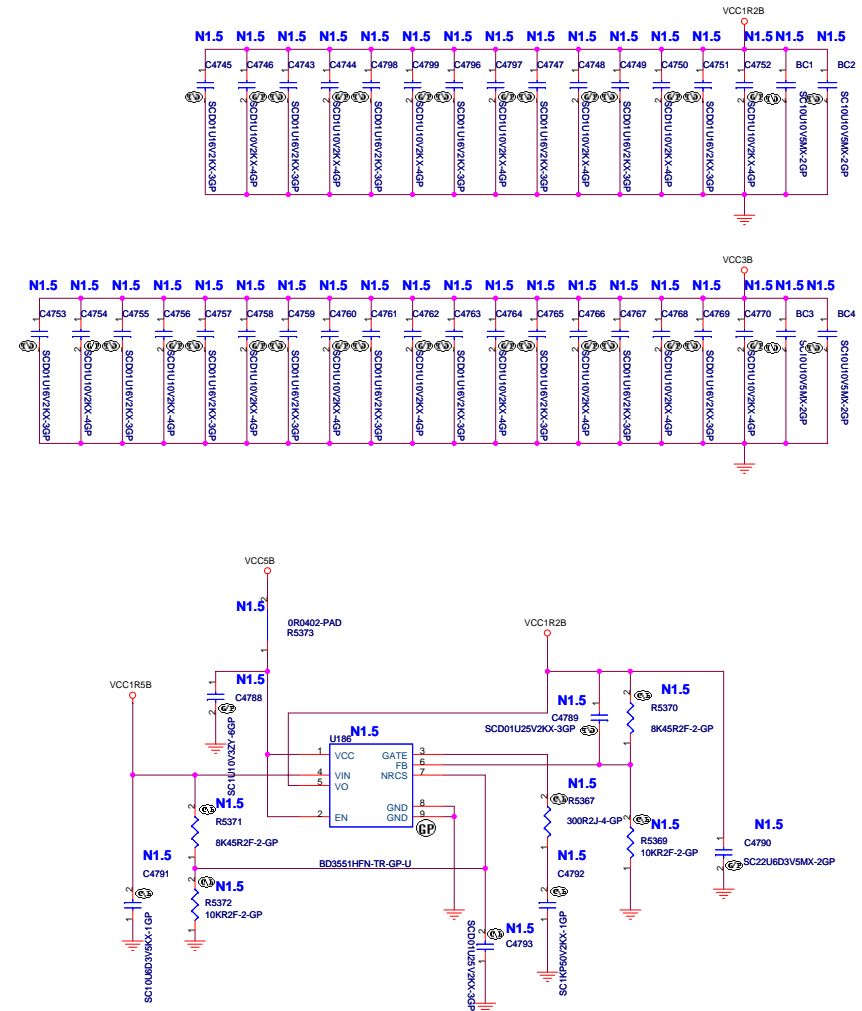
CARD BUS CONTROLLER (2/2)			
Size	Document Number	Rev	
C		1	
Date: Thursday, June 26, 2008		Sheet 75 of 83	



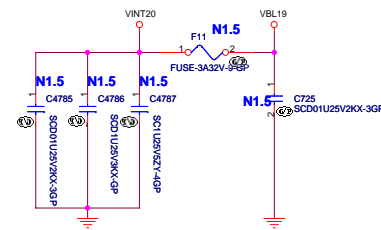
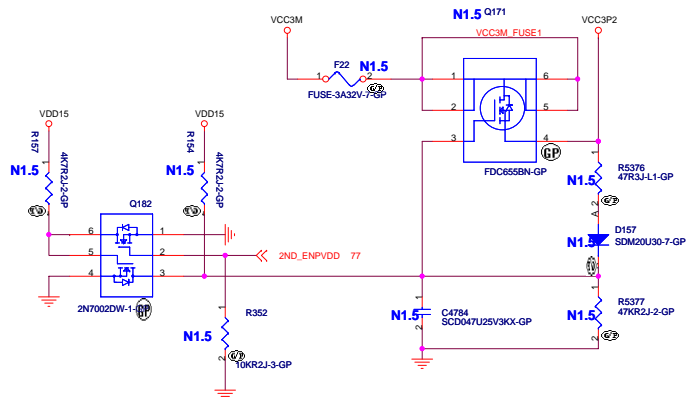
U20	R5C847	R5C803/4
C822	ASM	NO_ASM
C860	ASM	NO_ASM
C621	ASM	NO_ASM
C669	ASM	NO_ASM

↑
LOGIC

<Variant Name>

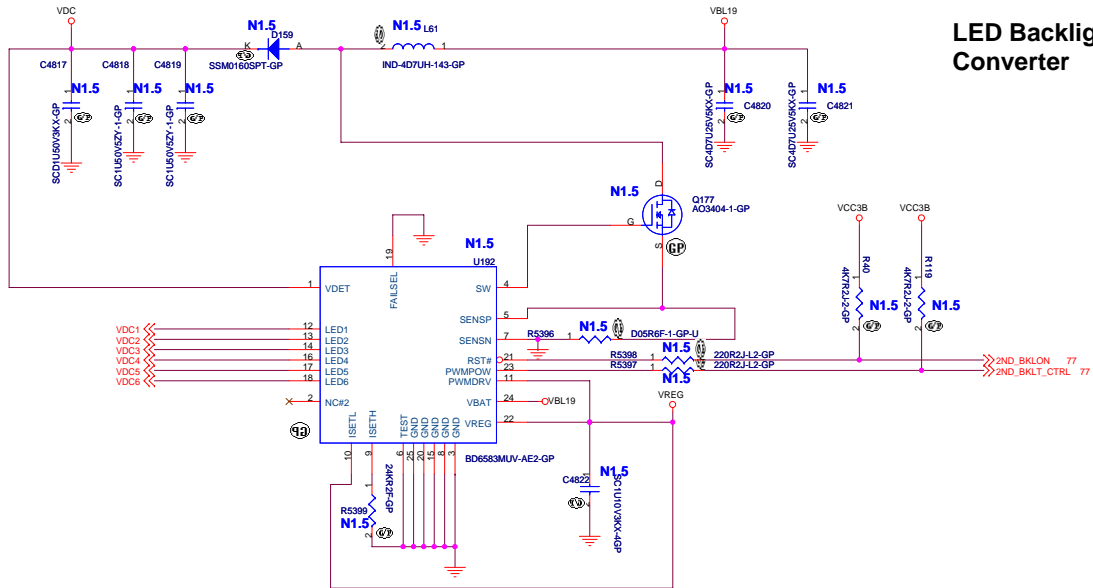
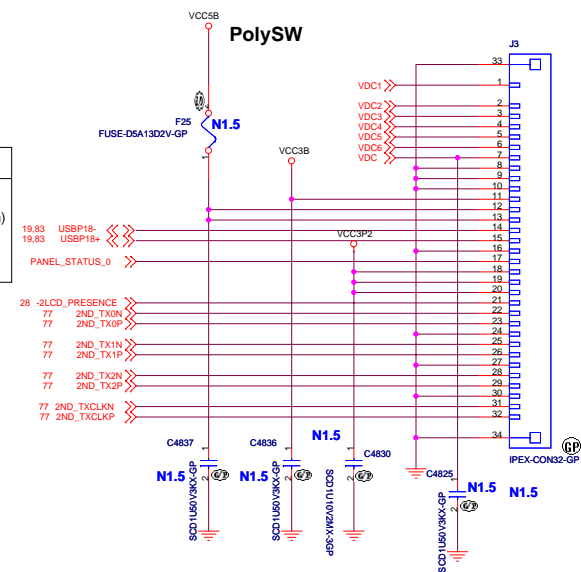
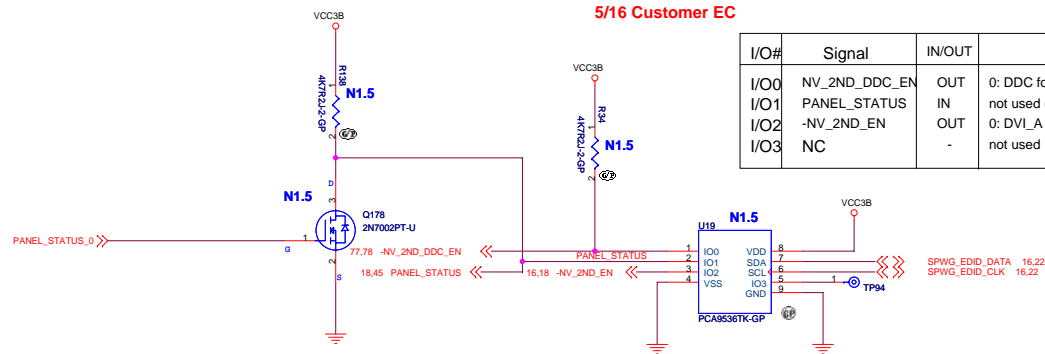


DP601	Internal XTAL	External XTAL
X2	NO-ASM	ASM
C4771	NO-ASM	ASM
C4772	0 Ohm	ASM



5/16 Customer EC

I/O#	Signal	IN/OUT	Description
I/O0	NV_2ND_DDC_EN	OUT	0: DDC for 2nd LCD, 1: DDC for System DVI
I/O1	PANEL_STATUS	IN	not used (0: 2nd LCD Lid Close, 1: 2nd LCD Lid Open)
I/O2	-NV_2ND_EN	OUT	0: DVI_A to 2nd LCD, 1: DVI_A to System DVI
I/O3	NC	-	not used

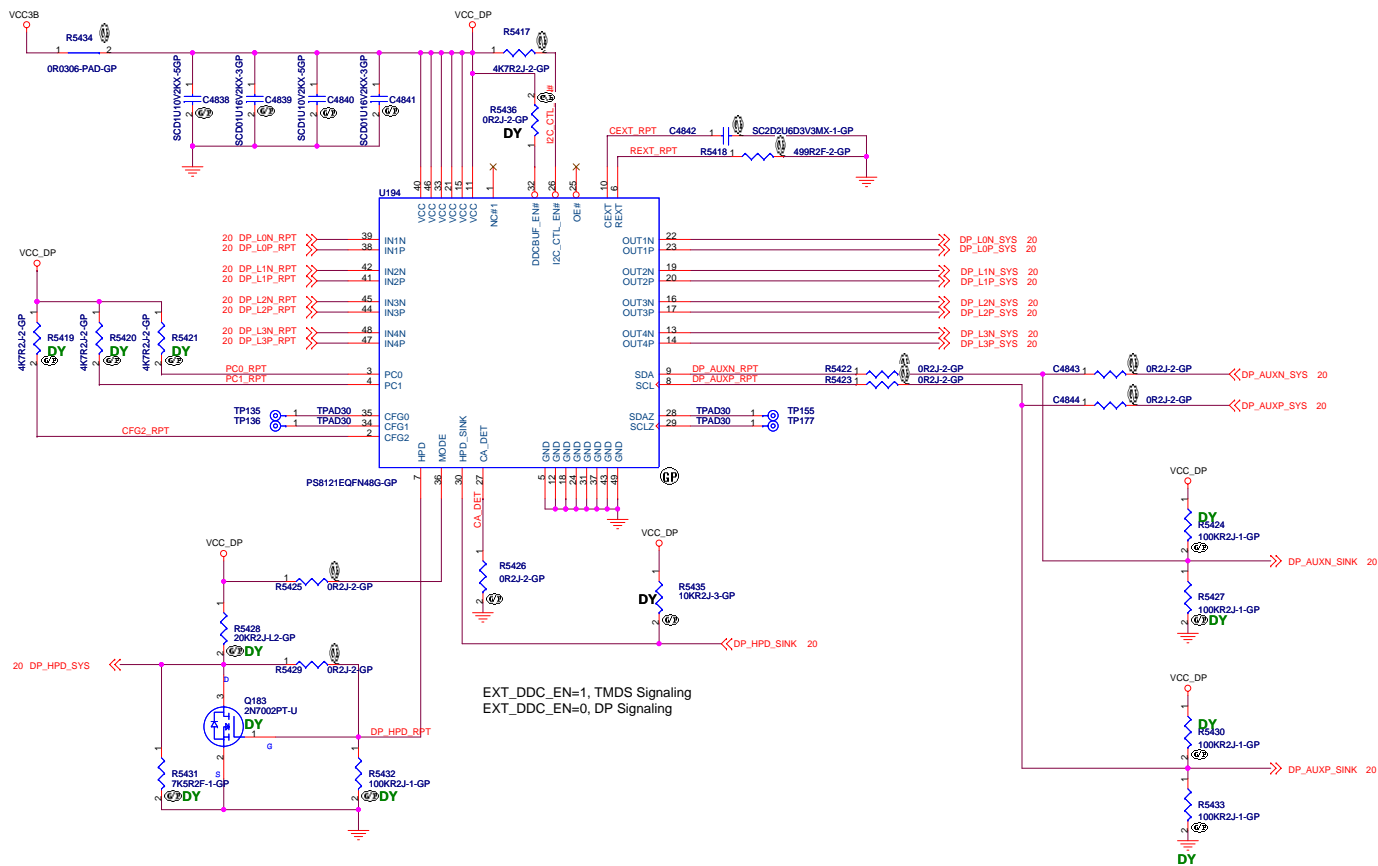


LED Backlight Converter

U19 I/O Usage
 I/O# Signal In/Out Description
 I/O0 -NV_2ND_DDC_ENOUT0: DDC for 2nd LCD, 1: DDC for System DVI
 I/O1 PANEL_STATUSINNot used (0: 2nd LCD Lid Close, 1: 2nd LCD Lid Open)
 I/O2+2ND_ENINnot used
 I/O3-NV_2ND_ENOUT0: DVI_A to 2nd LCD, 1: DVI_A to System DVI

EQUALIZATION SETTING		
PC1	PC0	
0	0	4dB
0	1	1.5dB
1	0	9dB
1	1	7dB

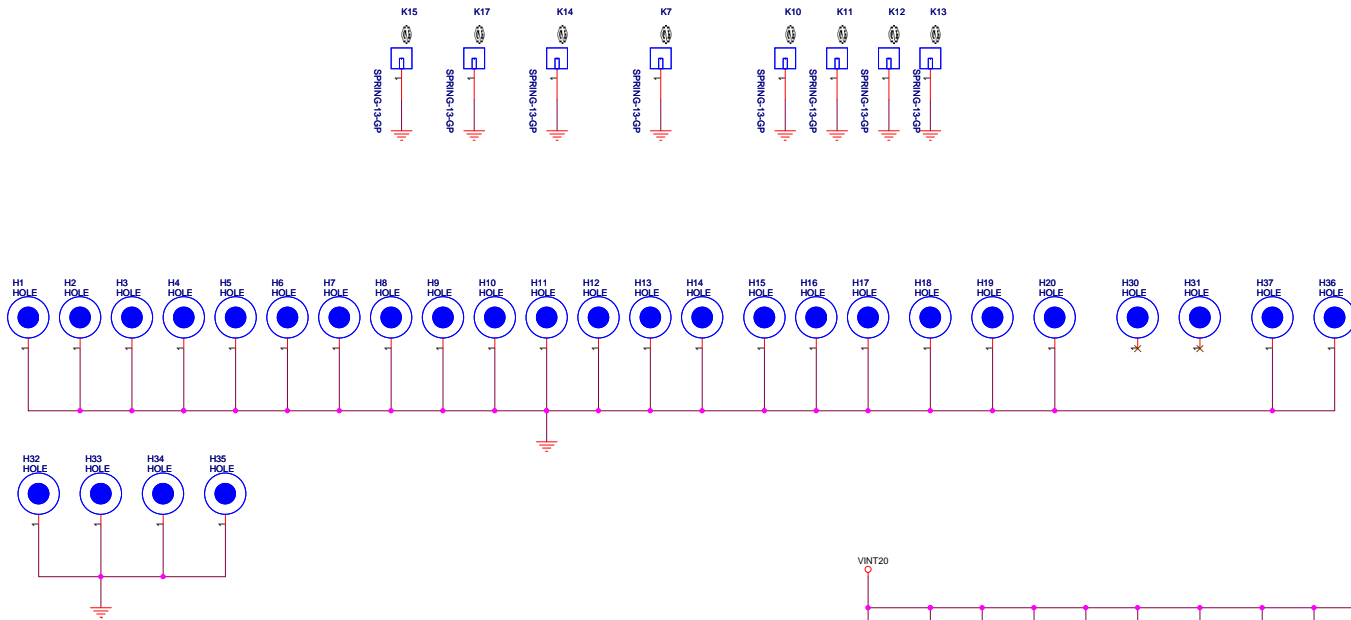
CFG2=LOW, DDC Passive Switch
CFG2=HIGH, DDC Active buffer



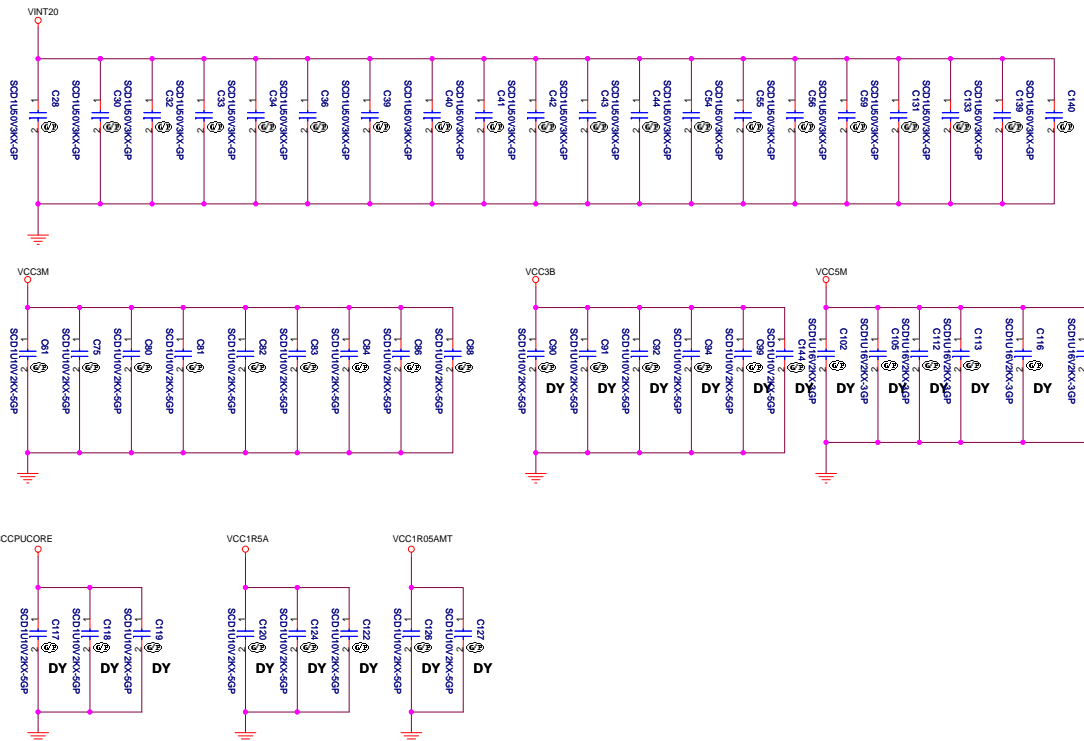
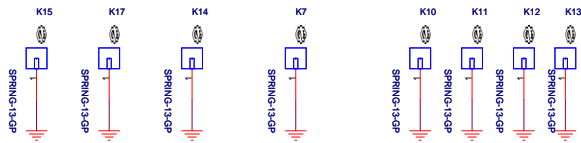
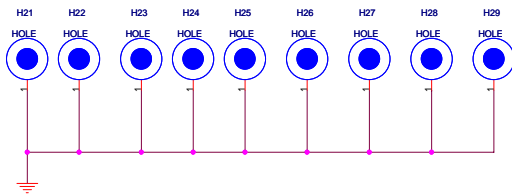
<Variant Name>

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

DP Repeater		
Size	Document Number	Rev
C	N-Note	1
Date:	Thursday, June 26, 2008	Sheet 60 of 63



H5,H6,H3,H4,H1,H2,H11,H36,H37 P/N are 34.4B502.001.
H7/H8 P/N are 34.4B403.001.



N-note SDV

01. N-note Block Diagram

02. Reference

03. CPU(1/3)

04. CPU(2/3)

05. CPU(3/3)

06. XDP CONNECTOR

07. CANTIGA(1/6):HOST I/F

08. CANTIGA(2/6):DDR3 CH A/B

09. CANTIGA(3/6):DMI/PM/CFG/GF

10. CANTIGA(4/6):PEG/GRAPHICS

11. CANTIGA(5/6):VCC

12. CANTIGA(6/6):GND

13. DDR3 SODIMM-A(REVERSE TYPE)

14. DDR3 SODIMM-B(NORMAL TYPE)

15. CLOCK GEN(CK505)

16. MXM CONN.

17. LPC Debug Board

18. DVI DUAL CONN.

19. USB HUB(USB2507-ADT)

20. Display Port

21. LVDS SWITCH(BLANK)

22. LCD CONNECTOR

23. RGB SWTICH

24. EXT CRT INTERFACE

25. ICH9-M(1/6):SATA/AC97/LPC

26. ICH9-M(2/6):PCI/PCIE/DMI/USB

27. ICH9-M(3/6):PCI/INTERRUPT

28. ICH9-M(4/6):GPIO/CLK/PM

29. ICH9-M(5/6):POWER

30. ICH9-M:(6/6):GND

31. RTC BATTERY

32. SATA HDD IO SUB CARD CONN
33. SATA ODD CONN

34. USB POWER/CONNECTOR

35. AUDIO IO SUB CARD

36. GBE BOAZMAN

37. GBE LAN SWITCH

38. GBE MAGNETICS

39. RJ45 CONNECTOR

40. PCIE MINI SLOT(ROBSON/WLAN)

41. PCIE HALF MINI SLOT(WUSB)

42. SPI FLASH

43. DOCKING CONNECTOR

44. H8S/2116B(1/2)

45. H8S/2116B(2/2)

46. KEYBOARD CONNECTOR

47. TOUCH PAD CONNECTOR

48. WIRELESS DISABLE SW

49. FAN CONNECTOR

50. G-SENSOR

51. MISC G/A (PMH7)

52. SUPER I/O(WPCN385SDG)

53. THERMAL SENSOR(EMC1428)

54. EEPROM/SMBUS SW/TPM

55. DC-IN

56. BATTERY INPUT

57. BATTERY CHARGER (MAX8765)

58. CHARGER SELECT

59. BATTERY MONITOR

60. POWER SEQUENCE

61. DC-DC VCC3M/VCC5M(TPS51221)

62. DCDC VCCCPUCORE(ADP3207JCPZ)

63. VCCCPUCORE DECOUPLING

64. UMA DC-DC GFX_CORE(BLANK)
65. DC-DC VCC1R5A/VCC1R05AMT

66. DC-DC VCC1R8VIDEO/VCC0R75AMT

67. DC/DC RINKAN(BD4176KVT)

68. CPU POWER MONITOR

69. LOAD SW UBAY &WWAN

70. LOAD SW AMT&LAN

71. LOAD SW VIDEO

72. LOAD SW AUX

73. LOAD SW B

74. CARD BUS CONTROLLER (1/2)847

75. CARDBUS CONTROLLER (2/2)847

76. CARDBUS/EXC PWR CTRL

77. DP601 1/2

78. DP601 2/2

79. 2'ND LCD CONN.

80. PTH FOR SCREW HOLES

81. N-NOTE SHEET INDEX

