

June 18 '08

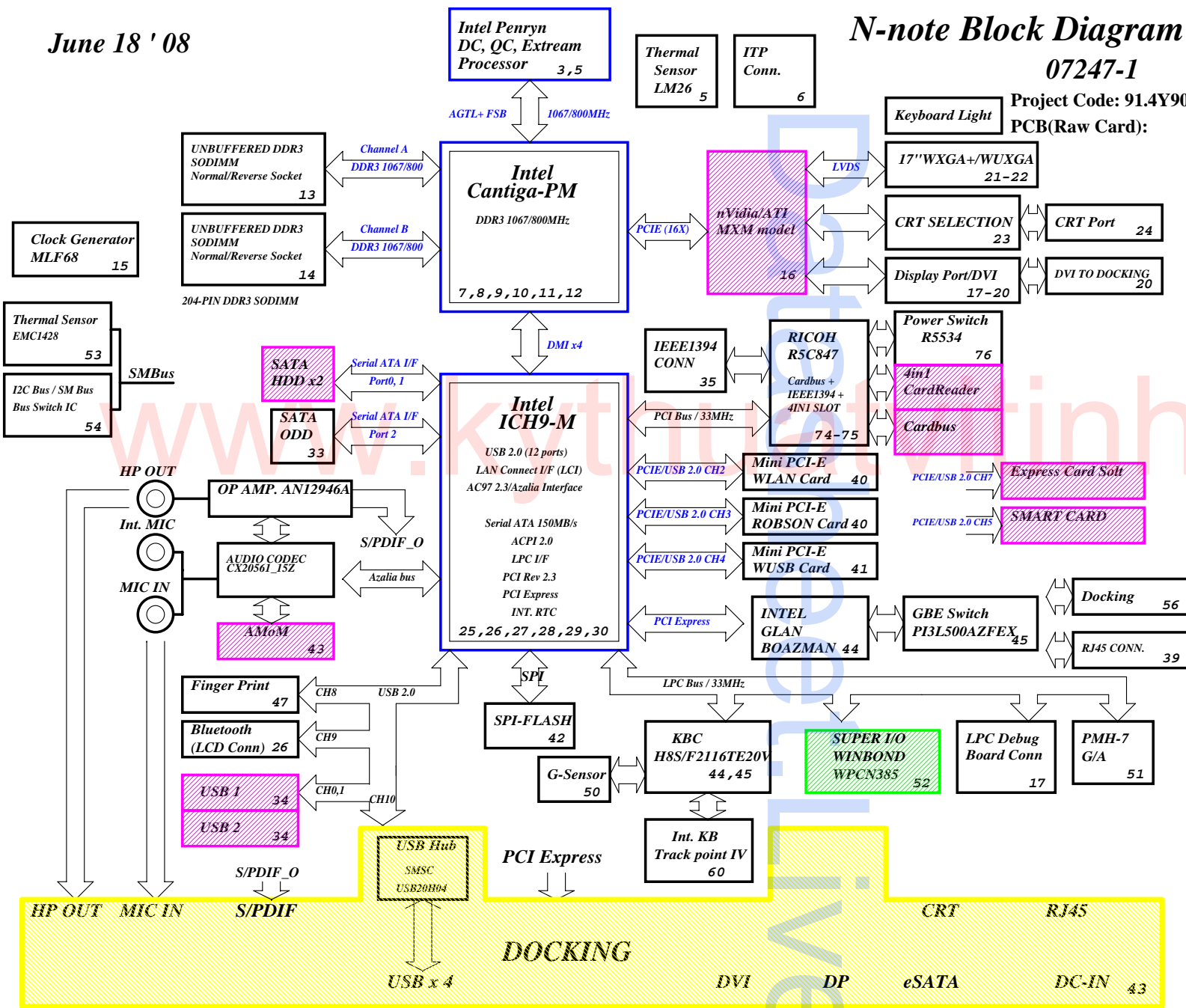
N-note Block Diagram

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

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

System DC/DC
TPS51221 61

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

CPU DC/DC
ADP3207JCPZ 62

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

VCCIR05AMT/VCCIR5A
MAX1540ETJ 65

VCCSV_OUT	VCCIR05AMT VCCIR5A
-----------	-----------------------

VCC0R75AMT
BD3533 66

VCCIR5A	VCC0R75AMT
---------	------------

VCCIR8B
BD3550 73

VCC3M	VCCIR8B
-------	---------

VCCIR05AUX/IR8AUX
BD3550 72

VCC3M	VCCIR05AUX VCCIR8AUX
-------	-------------------------

<Variant Name>

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

Title: **Block Diagram**

Size: Custom Document Number: N-Note Rev: 1

Date: Thursday, June 26, 2008 Sheet: 1 of 83

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

EC HISTORY

Stage	Date	EC No.	Page	Note

PLANAR_ID[3..0]

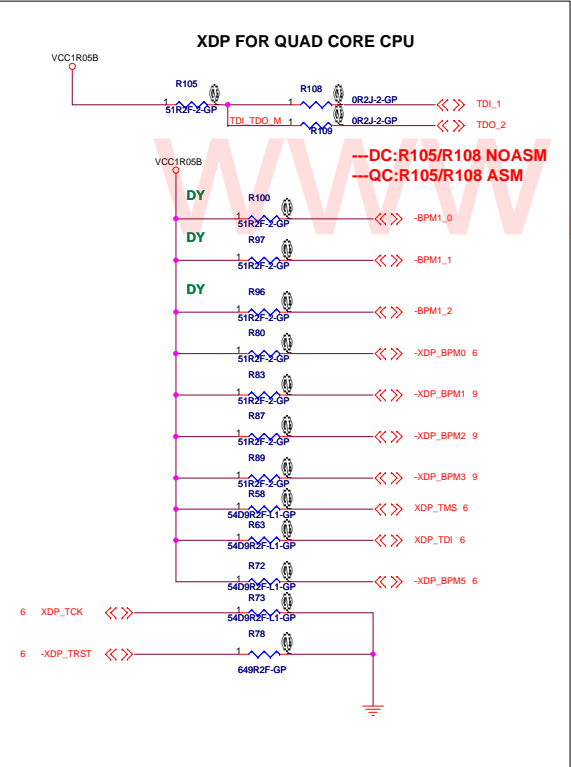
ICH8-M GPIOn	39	38	37	36	Planar ID Version	Planar PCB Version
PLANAR_IDn	3	2	1	0		
	0	0	0	0	N-note Pre-DV	SA
	0	0	0	1		
	0	0	1	0		
	0	0	1	1		
	0	1	0	0		
	0	1	0	1		
	0	1	1	0		
	0	1	1	1		

PCI TABLE

DEVICE	IDSEL	IRQ (Default)	REQ# / GNT#
MINIPCI SLOT	AD18	F, G	REQ# 3/ GNT#3
CARDBUS R5C811	AD16	SERIRQ	REQ#0 / GNT#0
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	

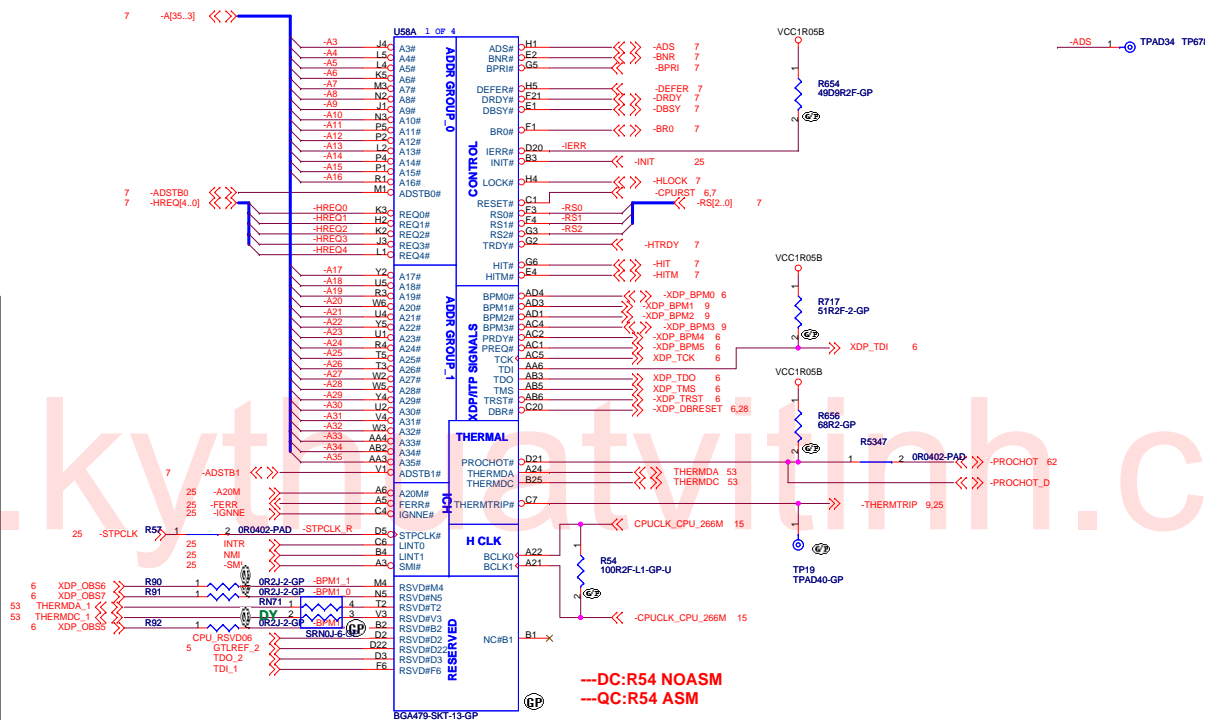
<Variant Name>

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

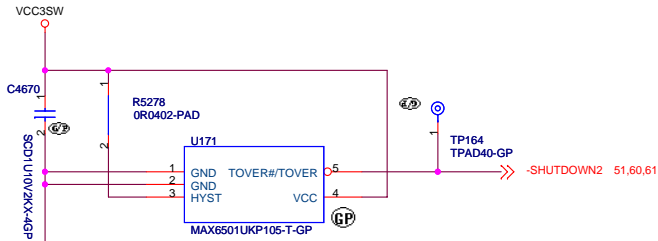


--DC:R105/R108 NOASM
--QC:R105/R108 ASM

--DC:R54 NOASM
--QC:R54 ASM

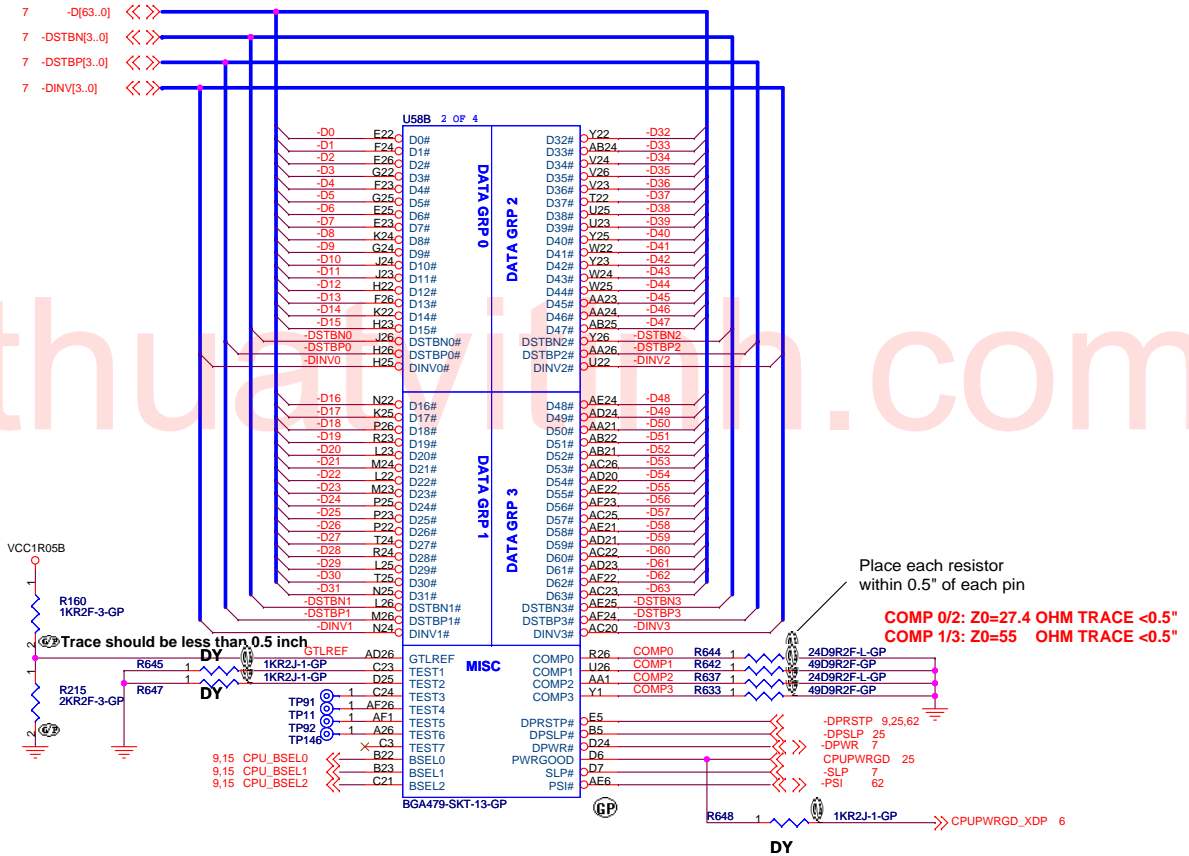


Thermal Sensor for CPU



105 DEG.C THRESHHOLD

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



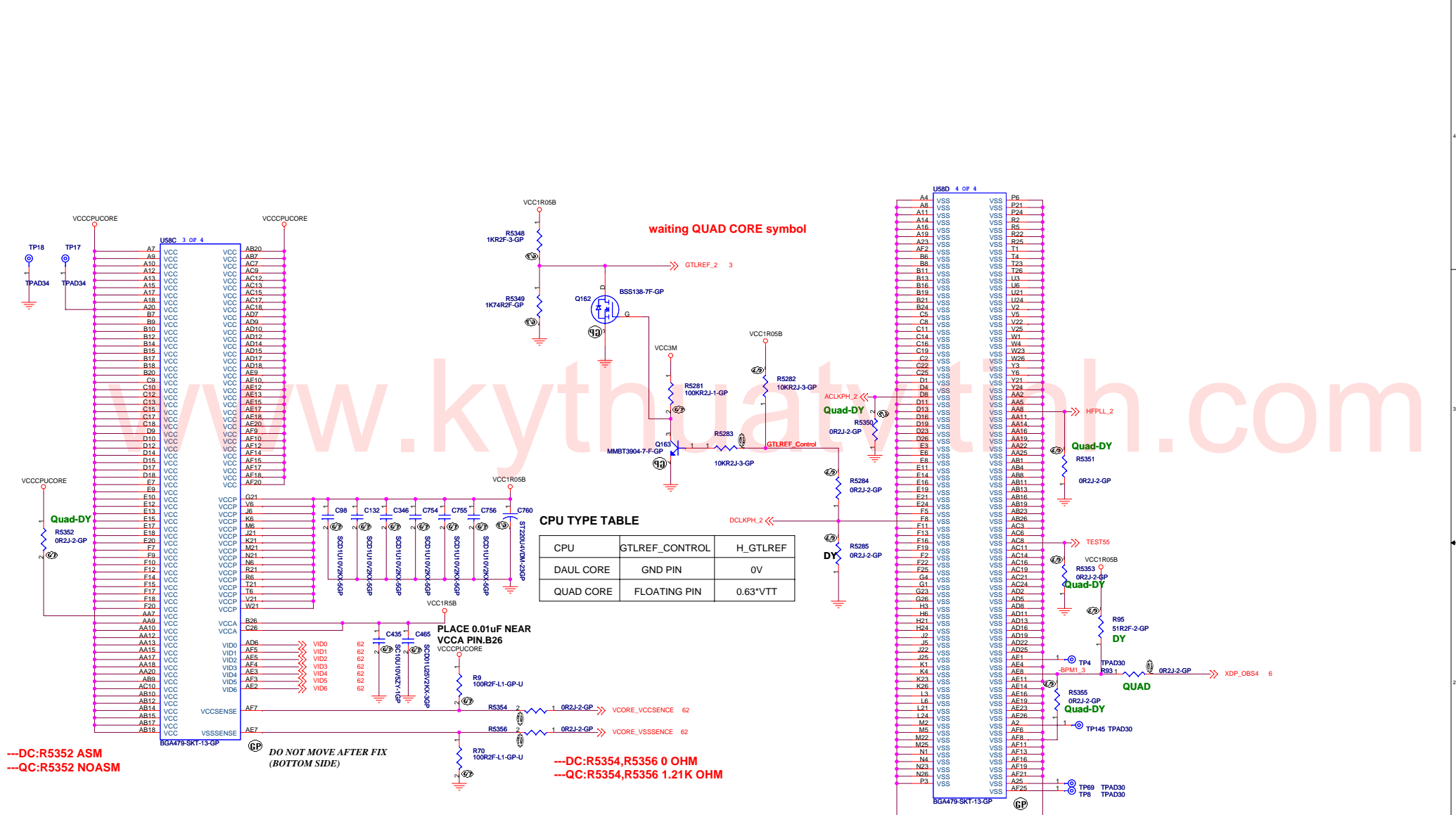
Trace should be less than 0.5 inch

Place each resistor within 0.5" of each pin
 COMP 0/2: Z0=27.4 OHM TRACE <0.5"
 COMP 1/3: Z0=55 OHM TRACE <0.5"

QUAD CPU
 COMP 0/2: Z0=24.9 OHM TRACE <0.5"
 COMP 1/3: Z0=49.9 OHM TRACE <0.5"

<Variant Name>

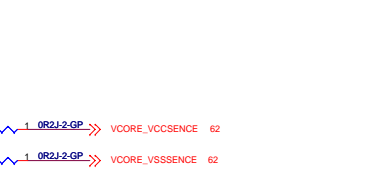
Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title Penryn CPU(2/3)	
Size	Document Number
Custom	N-Note
Date: Thursday, June 26, 2008	Sheet 4 of 83
Rev	1



waiting QUAD CORE symbol

CPU TYPE TABLE

CPU	GTLREF_CONTROL	H_GTLREF
DAUL CORE	GND PIN	0V
QUAD CORE	FLOATING PIN	0.63*VTT



---DC:R5352 ASM
---QC:R5352 NOASM

DO NOT MOVE AFTER FIX (BOTTOM SIDE)

---DC:R5354,R5356 0 OHM
---QC:R5354,R5356 1.21K OHM

CPU	R5354	R5356
DAUL CORE	0 OHM	0 OHM
QUAD CORE	1.21K 1%	1.21K 1%

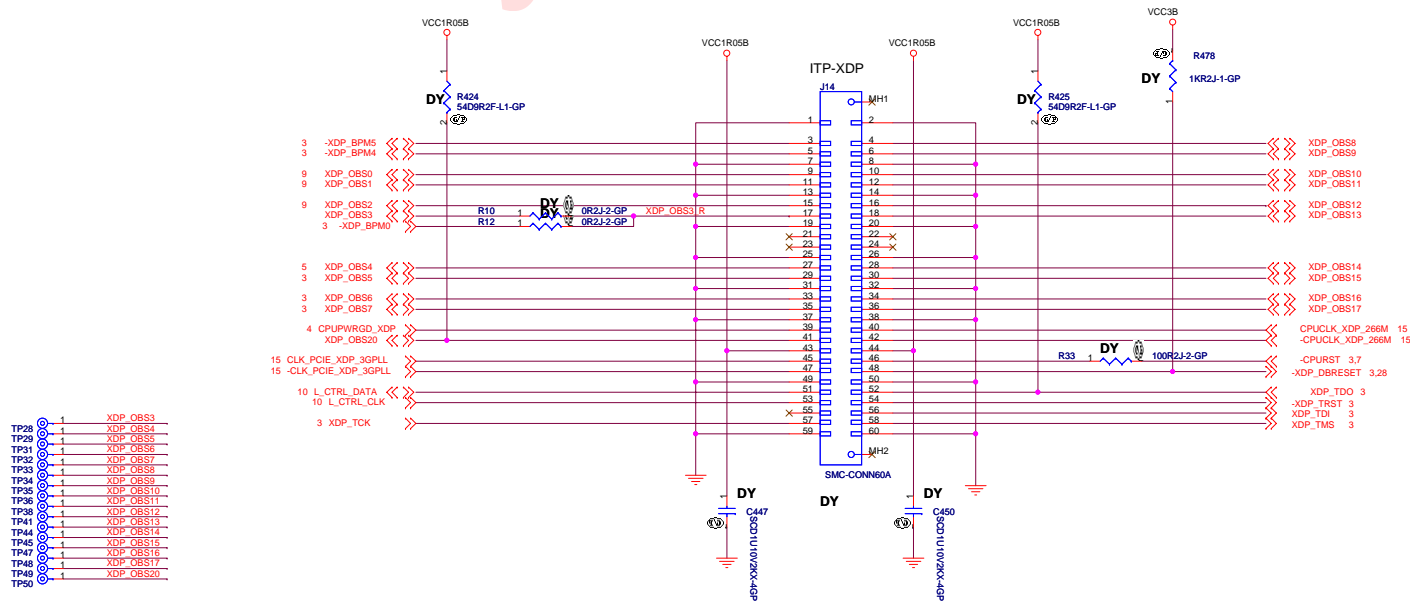
Logic
↓

Ref Des	For ITP-XDP
J14	NO_ASM-->ASM
R424	ASM (No Change)
R425	ASM (No Change)
R478	ASM (No Change)
R478	ASM (No Change)
R10	ASM (No Change)
R12	ASM (No Change)
R33	ASM (No Change)
C447	ASM (No Change)
C450	ASM (No Change)

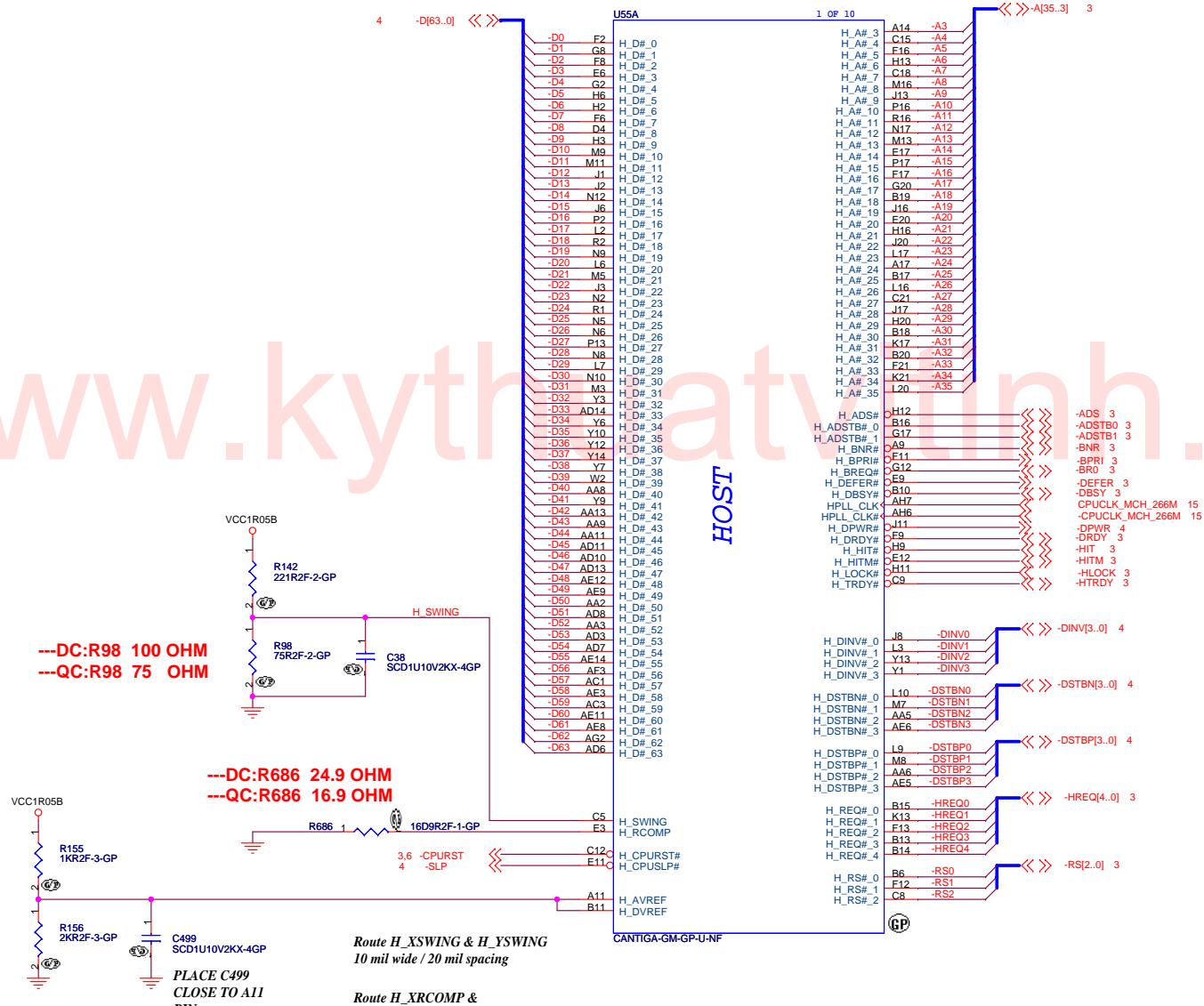
(*1) TCK SIGNAL IS BRANCHED AT CPU'S PIN

(*2) -CPURST SIGNAL IS BRANCHED AT GMCH'S PIN

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www.kythin.com



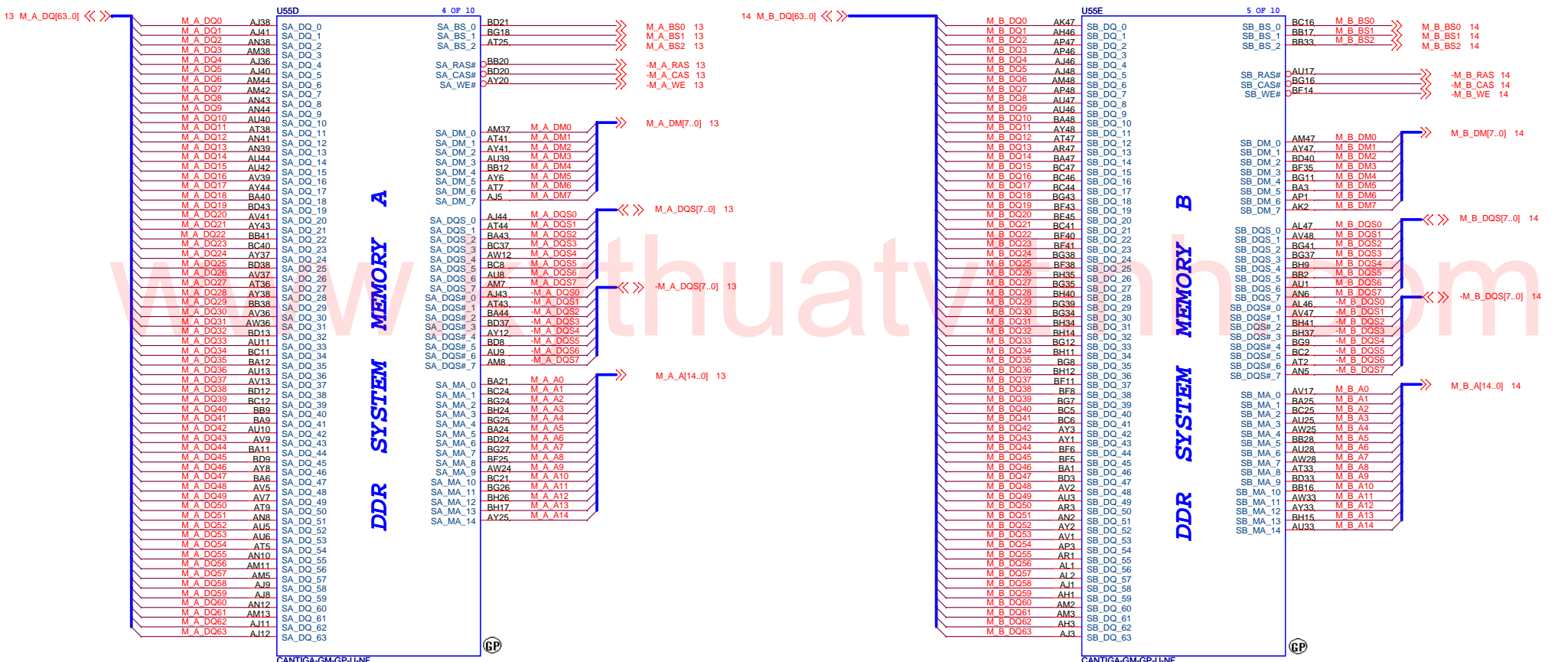
Route H_XSWING & H_YSWING
10 mil wide / 20 mil spacing

Route H_XRCOMP & H_YRCOMP
10 mil wide / 20 mil spacing

PLACE C499
CLOSE TO ALL
PIN

<Variant Name>

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Cantiga(1/6):HOST I/F			
Size	Document Number	Rev	
Custm	N-Note	1	
Date: Thursday, June 26, 2008		Sheet	7 of 83



CANTIGA-GM-GP-U-NF

CANTIGA-GM-GP-U-NF

<Variant Name>

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Cantiga(2/6):DDR3 A/B CHANNEL			
Title		Rev	
Size		1	
Document Number		N-Note	
Date: Thursday, June 26, 2008		Sheet 8 of 83	

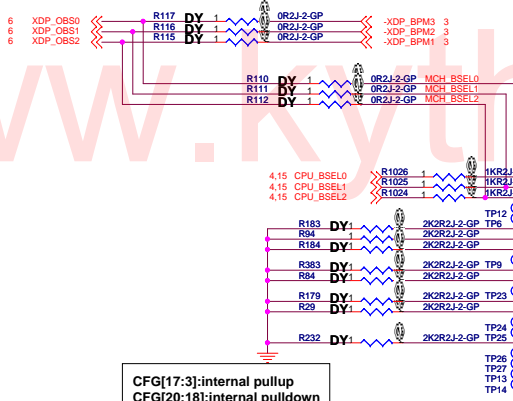
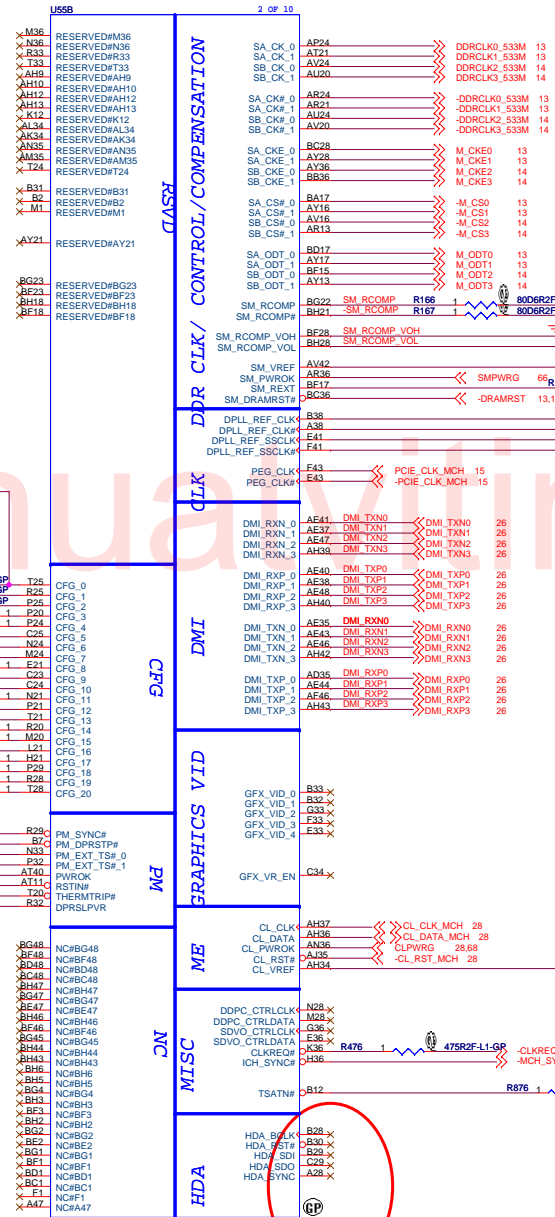
ME DEBUG PORT PIN OUT TABLE

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

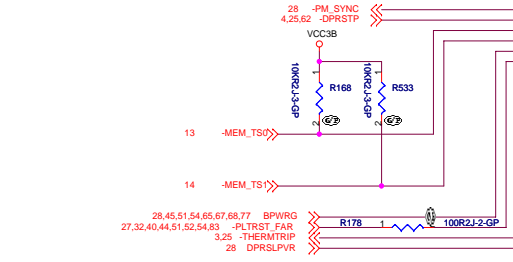
HOST BUS CLK SELECT TABLE

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

X M36 RESERVED#M36
 X N36 RESERVED#N36
 X R33 RESERVED#R33
 X T33 RESERVED#T33
 X AH9 RESERVED#AH9
 X AH10 RESERVED#AH10
 X AH12 RESERVED#AH12
 X AH13 RESERVED#AH13
 X AK12 RESERVED#AK12
 X AL34 RESERVED#AL34
 X AN35 RESERVED#AN35
 X AM35 RESERVED#AM35
 X T24 RESERVED#T24
 X B31 RESERVED#B31
 X B2 RESERVED#B2
 X M1 RESERVED#M1
 X Y21 RESERVED#AY21
 X B23 RESERVED#B23
 X B22 RESERVED#B22
 X BH18 RESERVED#BH18
 X BF18 RESERVED#BF18



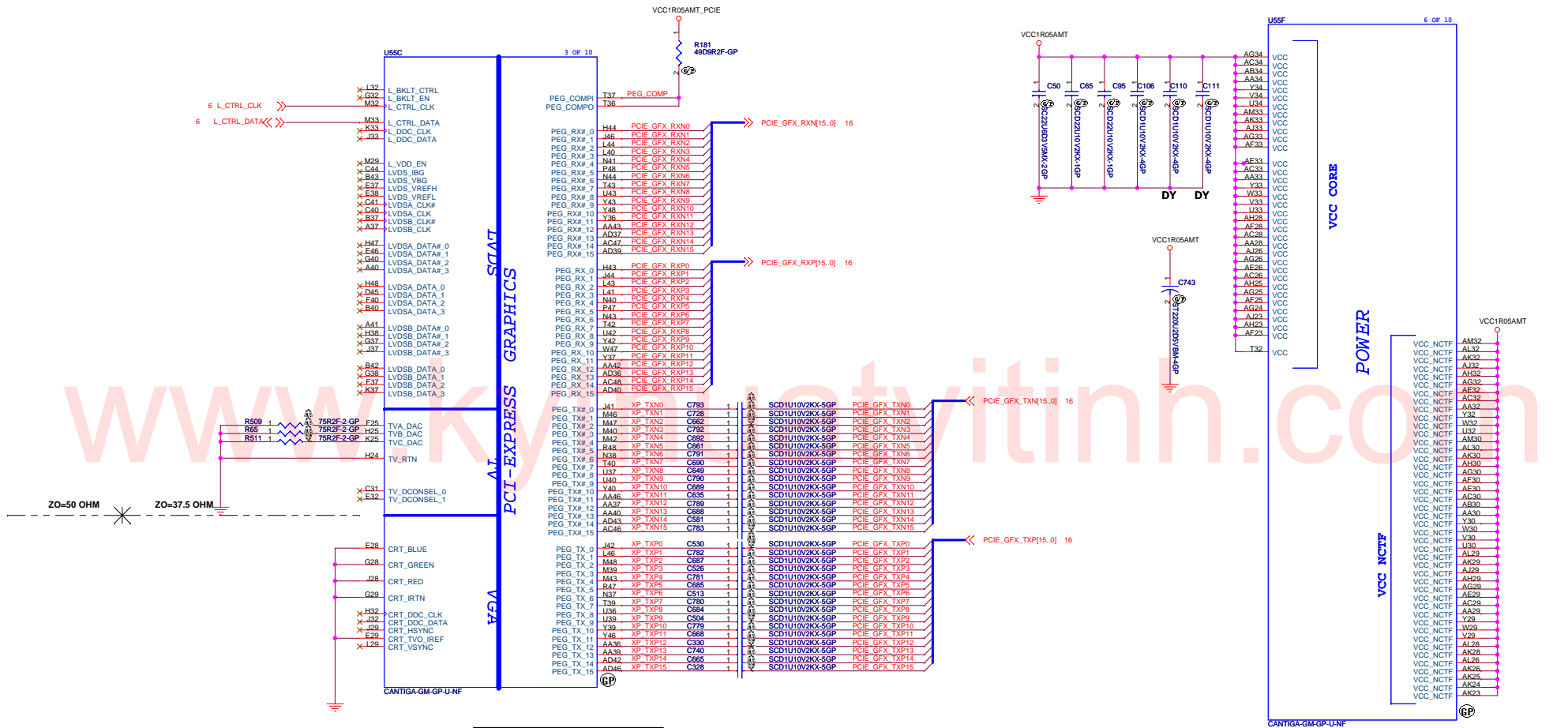
CFG5 [17:3]:internal pullup
CFG6 [20:18]:internal pulldown



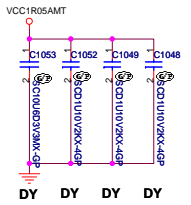
CFG5 : DMI	R183	X2 : ASM	X4 : NO_ASM
CFG6 : ITPM HOST I/F	R94	ENABLE : ASM	DISABLE : NO_ASM
CFG7 : ME Crypto STRAP	R184	NO CONFIDENTIALITY : ASM	
		WITH CONFIDENTIALITY : NO_ASM	
CFG9 PEG PORT	R383	LANE REVERSAL : ASM	NORMAL : NO_ASM

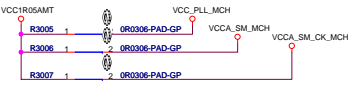
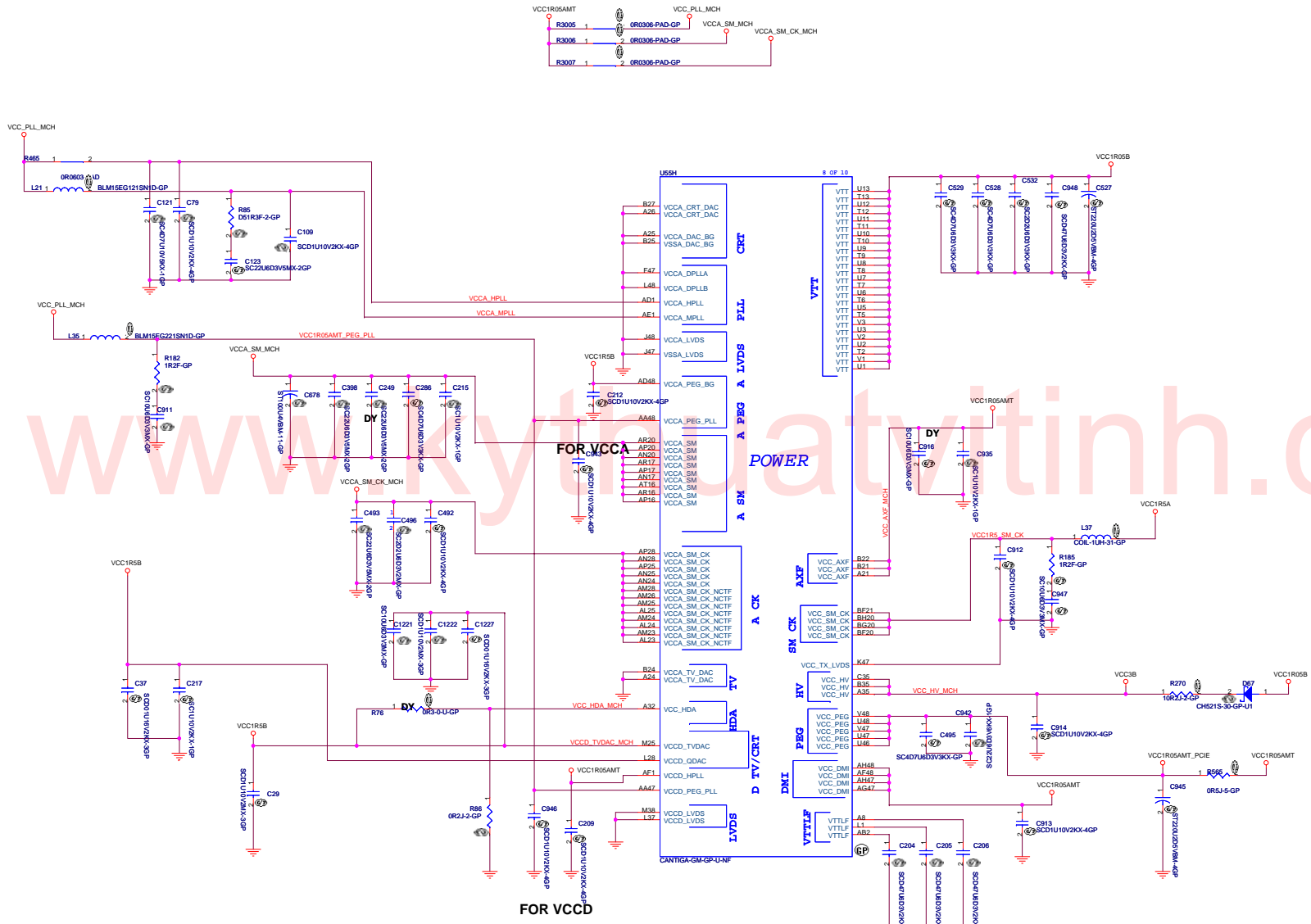
follow customer schematic 5/30

<Variant Name>



PEG Interface
 Port B --> System (Not Use)
 Port C --> Docking
 Port D --> (Not Use)



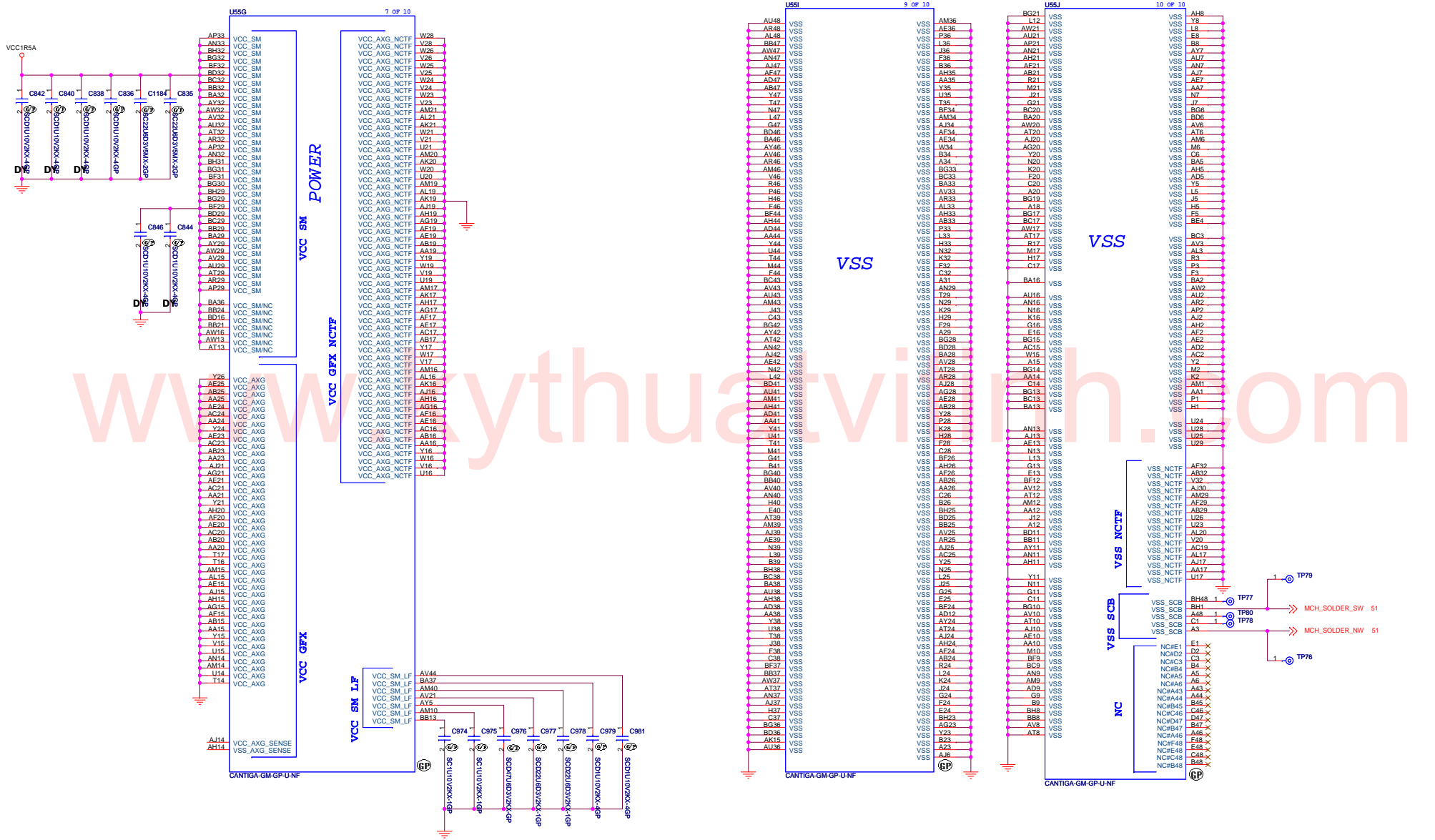


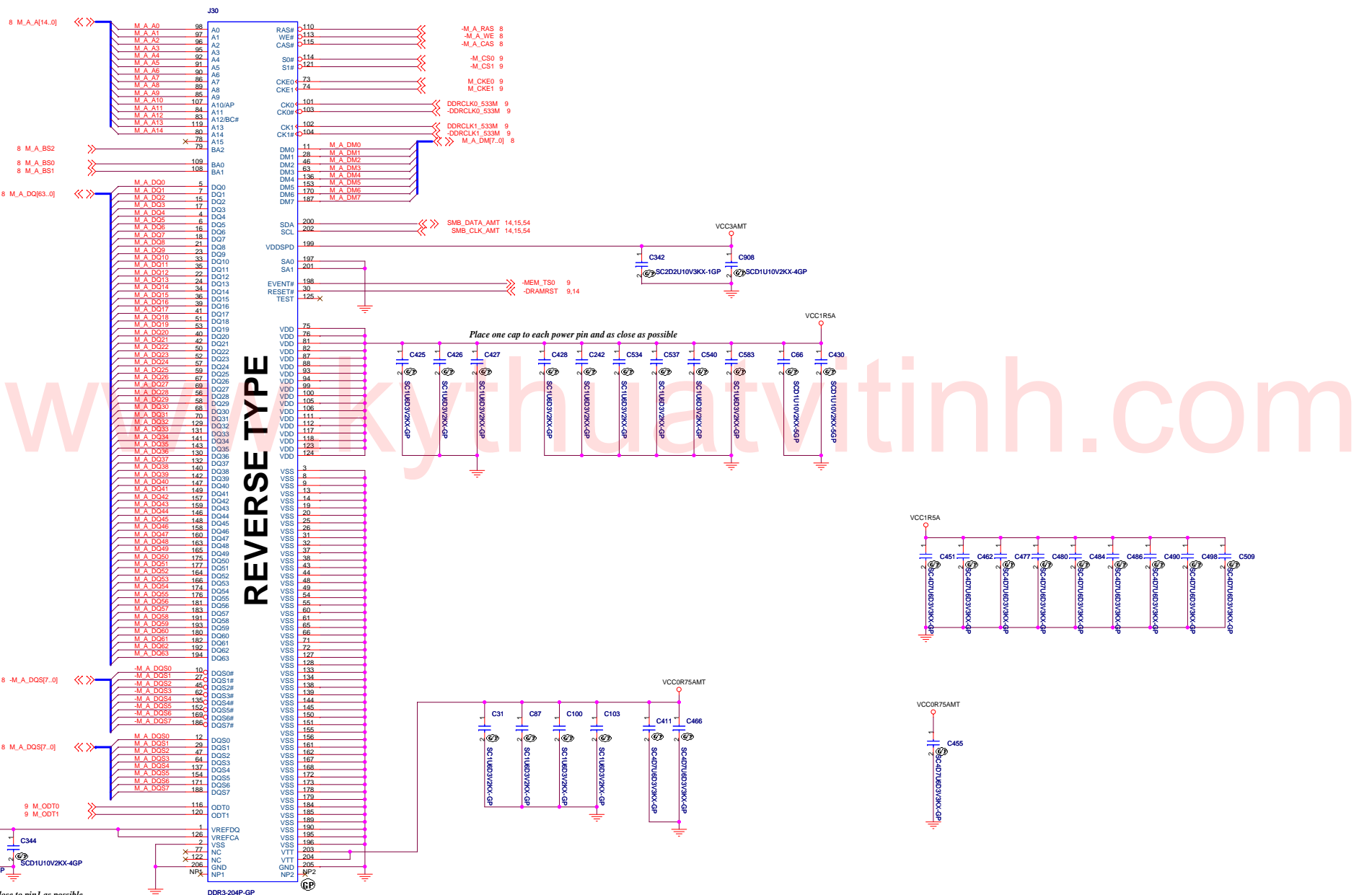
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Variant Name: **緯創資通 Wistron Corporation**
 21F, 8th, Sec. 1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsein 321, Taiwan, R.O.C.

File: **Cantiga(5/6):VCC**

Size	Document Number	Rev
Client	N-Note	1
Date: Thursday, June 28, 2006	Sheet 11 of 83	

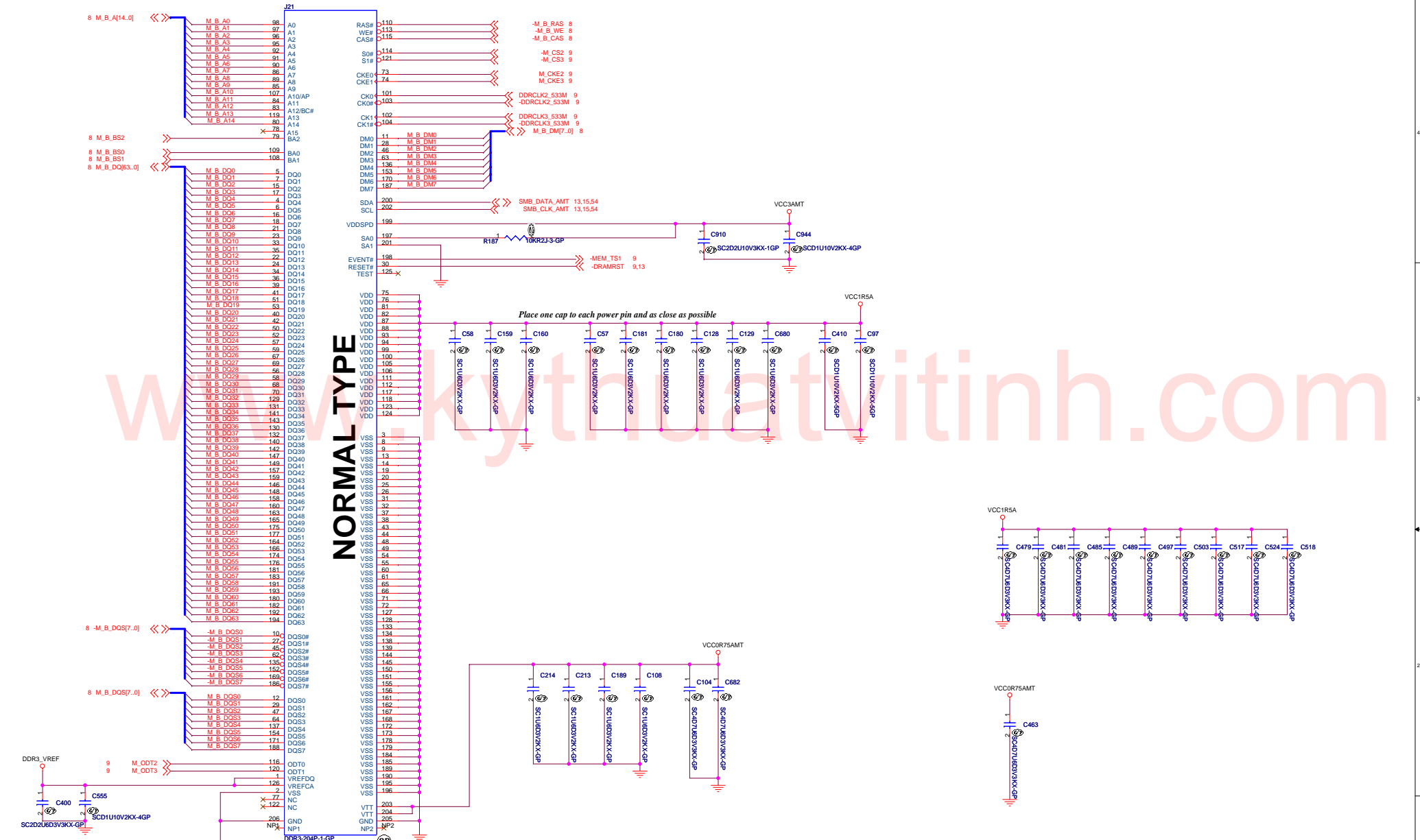


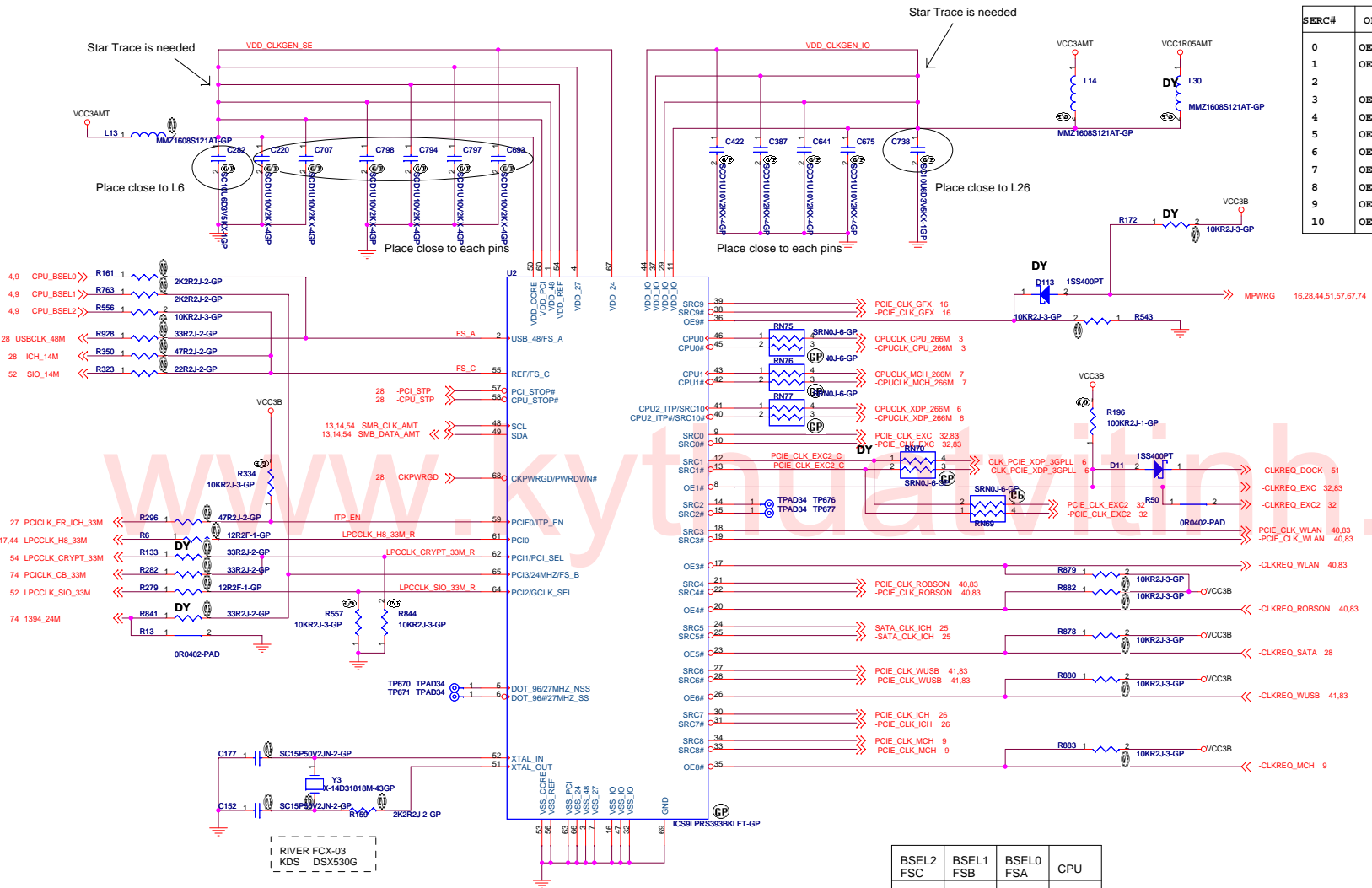


REVERSE TYPE

Place one cap to each power pin and as close as possible

Place caps close to pin1 as possible





SERC#	OE#	DEVICE
0	OE0#	EXPRESS
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

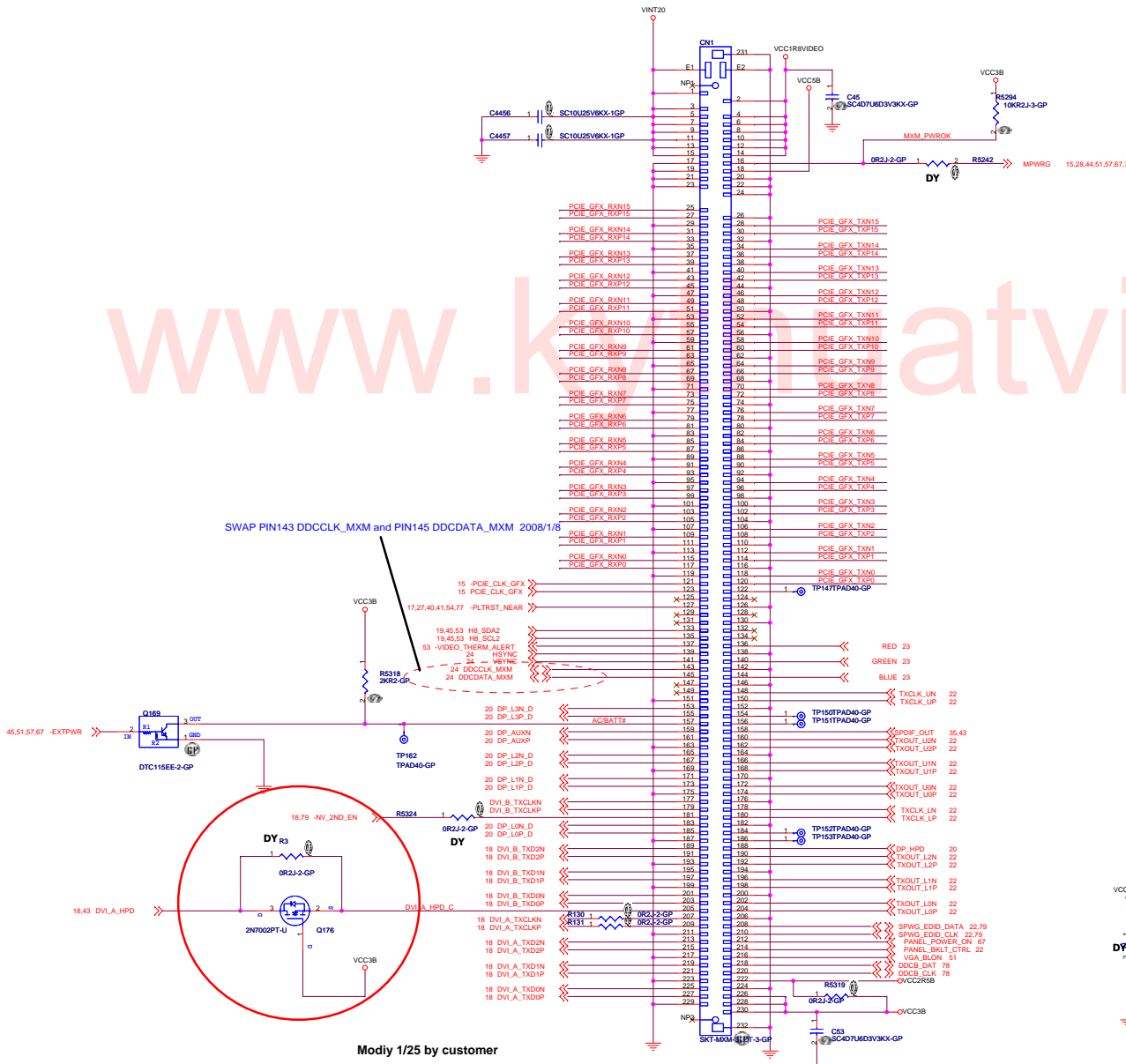
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ICS	ICS9LPRS393AKLFT	71.09393.A03
SILEGO	SLG8SP568V	71.08568.A03

LOGIC →

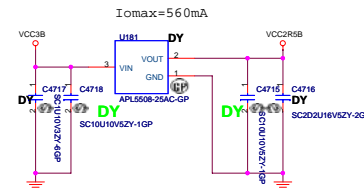
BSEL2	BSEL1	BSEL0	CPU
0	1	1	166M
0	1	0	200M
0	0	0	266M
1	0	0	333M

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PCI_E_GFX_RXN15_0 10
 PCI_E_GFX_RXP15_0 10
 PCI_E_GFX_TXN15_0 10
 PCI_E_GFX_TXP15_0 10



Modiy 1/25 by customer



<Variant Name>

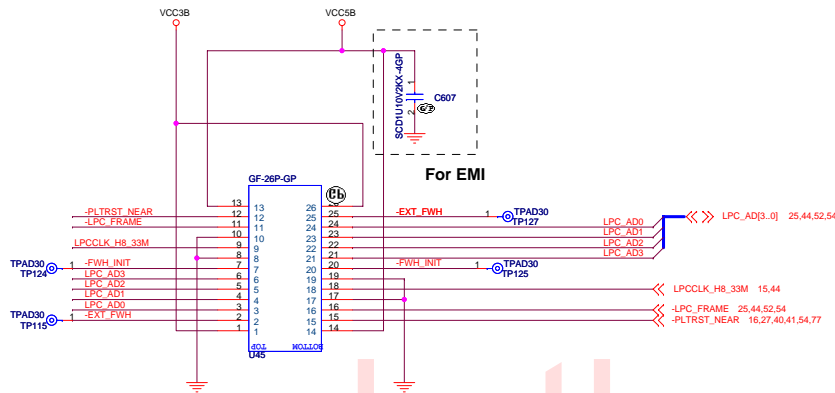
緯創資通 **Wistron Corporation**
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsuehshih
 Taipei Hsien 221, Taiwan, R.O.C.

File	MXM_CONN.		Rev	1
Site	Customer	N-Note	Sheet	16 of 83
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Golden Finger for Debug Board

(BOTTOM VIEW)

TOP VIEW

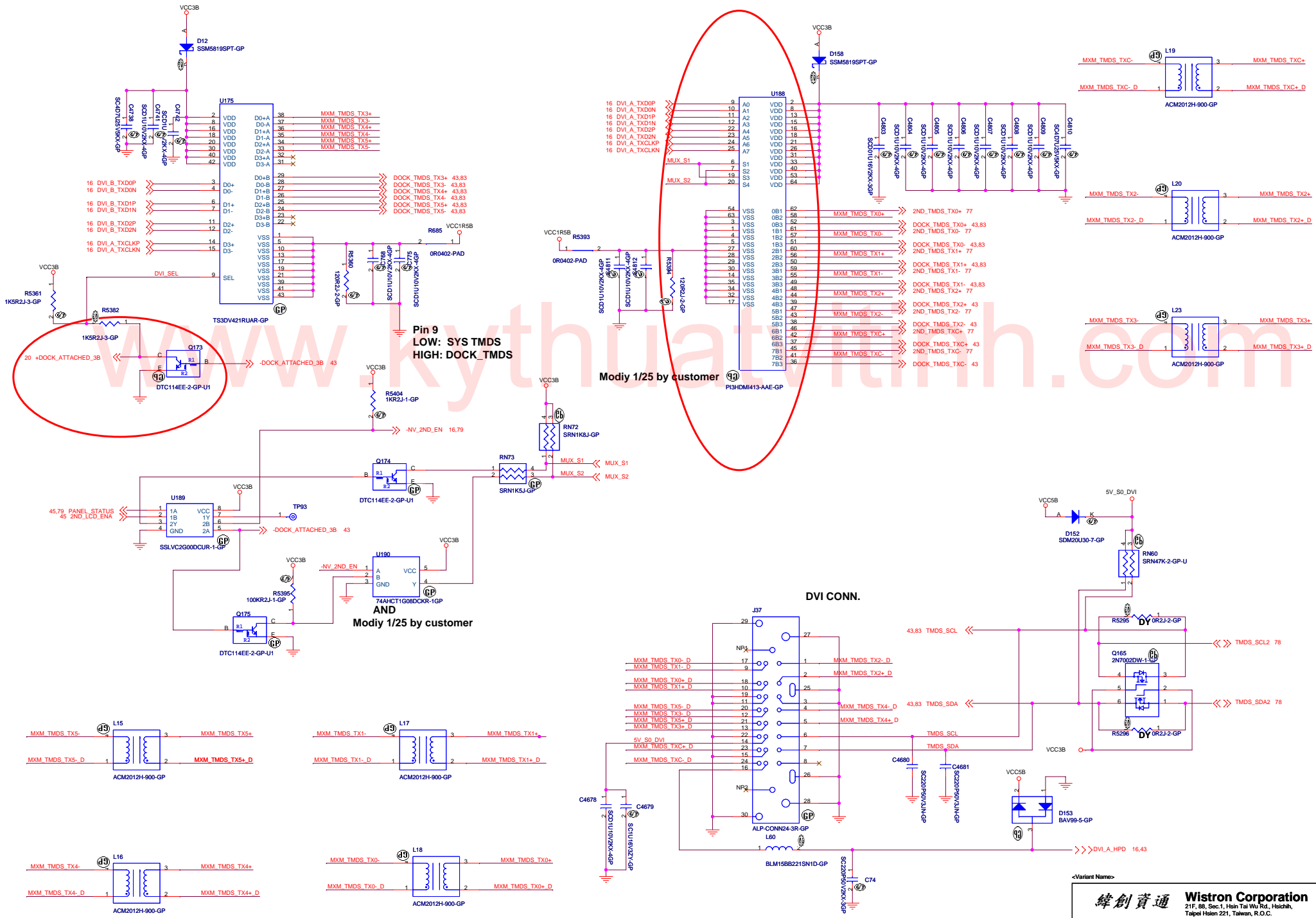


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<Variant Name>

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

Title		
Debug Board		
Size	Document Number	Rev
C	N-Note	1
Date:	Thursday, June 26, 2008	Sheet 17 of 63



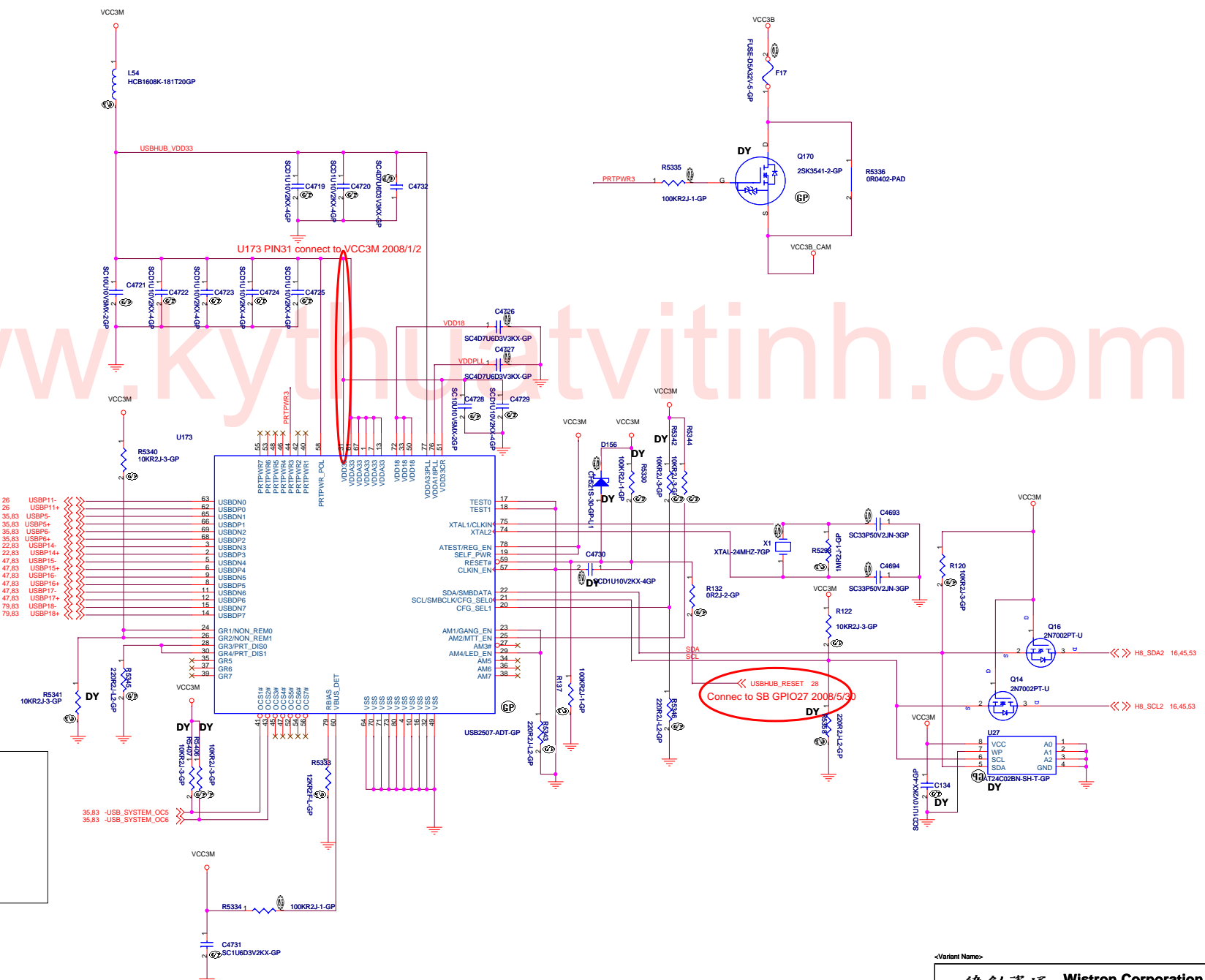
Pin 9
 LOW: SYS TMDMS
 HIGH: DOCK TMDMS

Modiy 1/25 by customer

AND
 Modiy 1/25 by customer

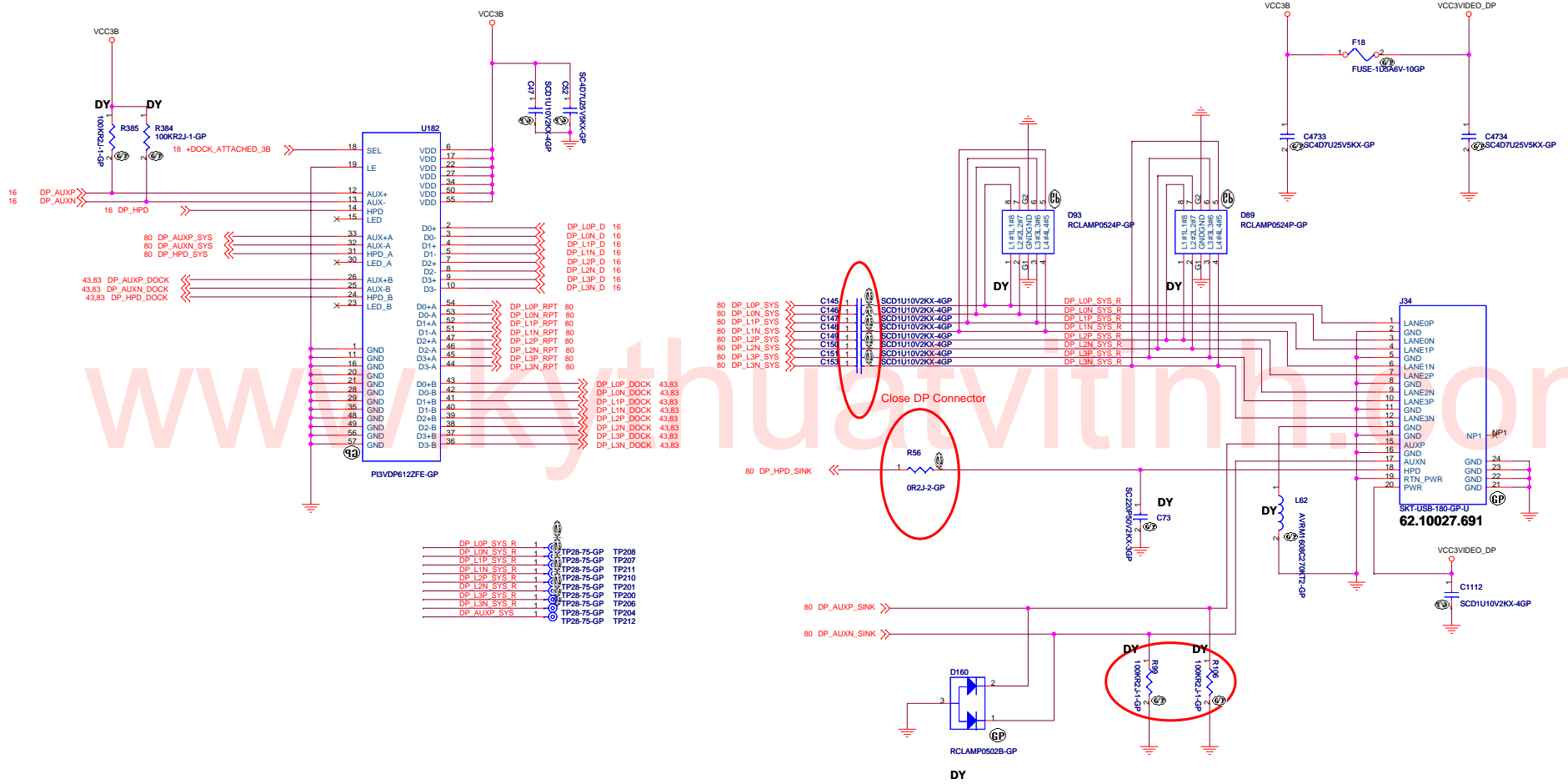
DVI CONN.

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USB PORT TO
 USB11 : USB HUB
 USB12 : SYSTEM PORT3
 USB13 : SYSTEM PORT4
 USB14 : CAMERA
 USB15 : COLOR SENSOR
 USB16 : NUMPAD
 USB17 : DIGITIZER
 USB18 : COLOR SENSOR2

USBHUB_RESET 28
 Connect to SB GPIO27 2008/5/30

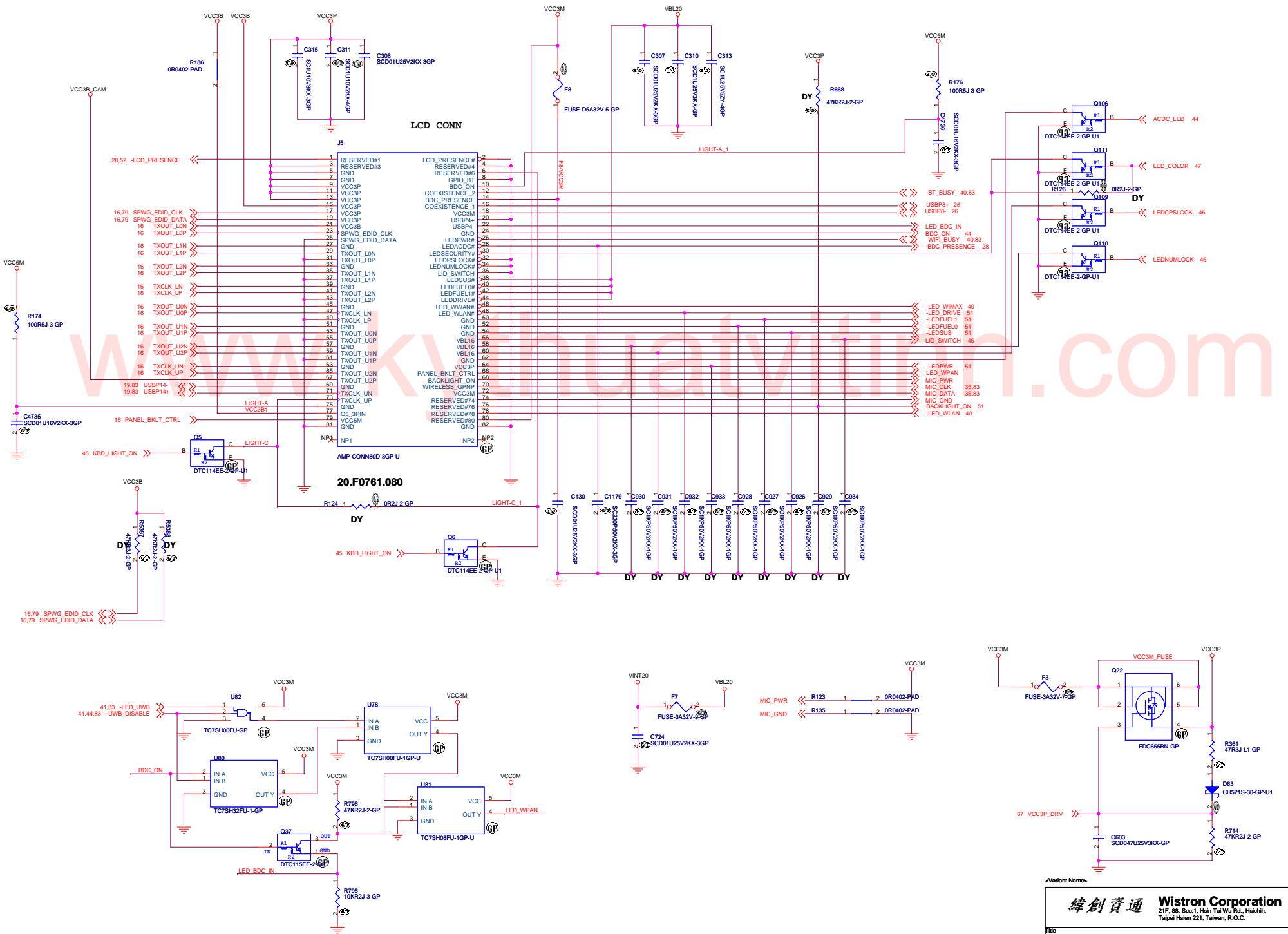


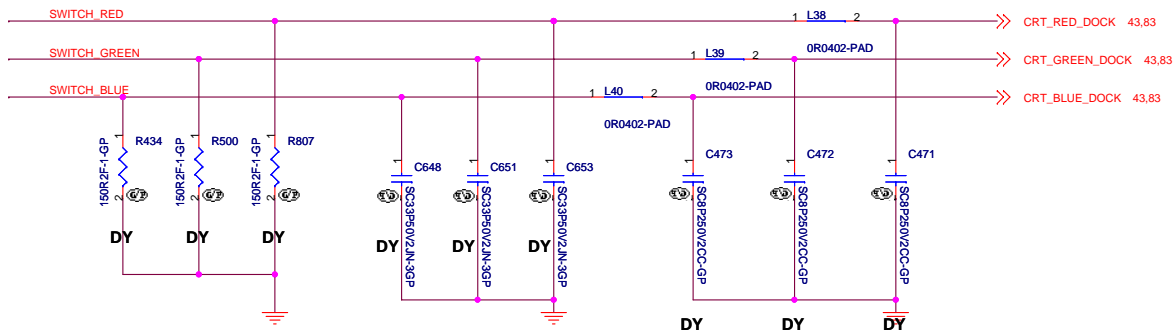
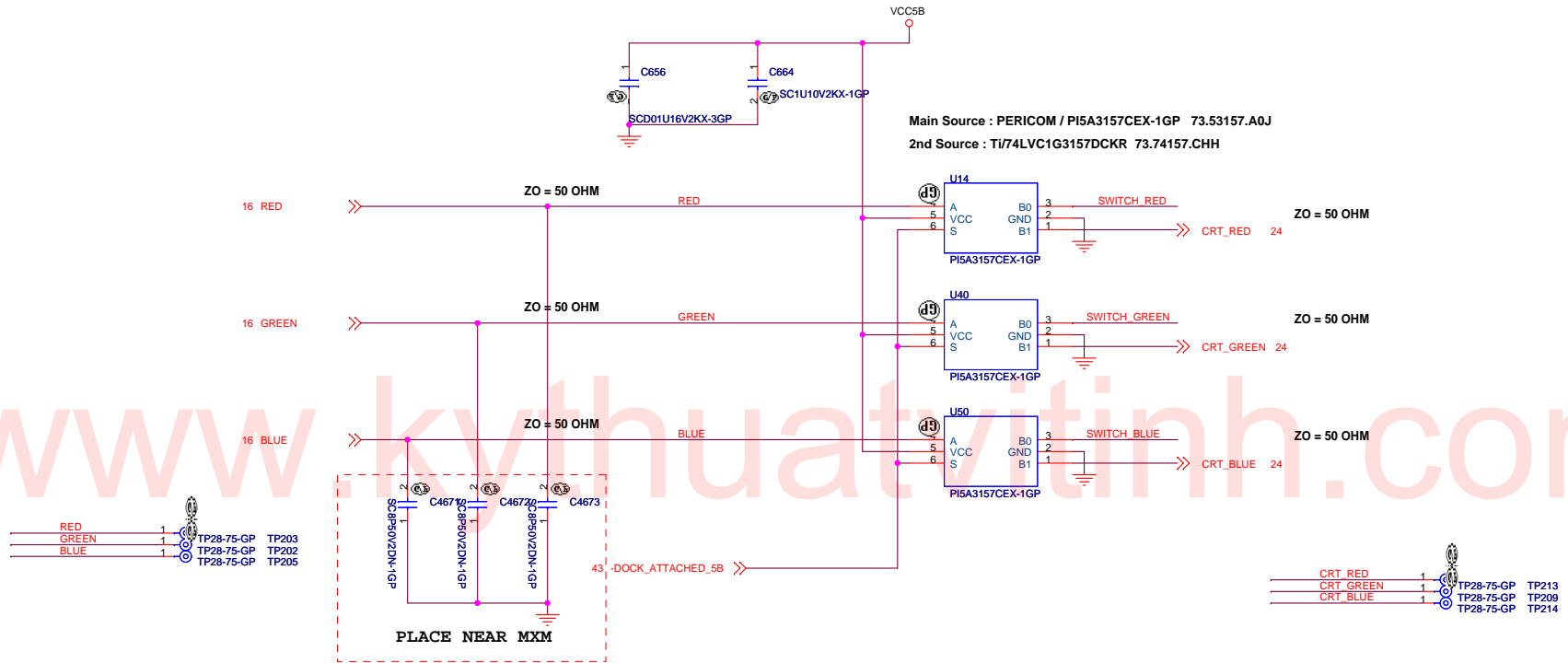
DP_L0P_SYS_R	1	TP28-75-GP	TP208
DP_L0N_SYS_R	1	TP28-75-GP	TP207
DP_L1P_SYS_R	1	TP28-75-GP	TP211
DP_L1N_SYS_R	1	TP28-75-GP	TP210
DP_L2P_SYS_R	1	TP28-75-GP	TP201
DP_L2N_SYS_R	1	TP28-75-GP	TP200
DP_L3P_SYS_R	1	TP28-75-GP	TP206
DP_L3N_SYS_R	1	TP28-75-GP	TP204
DP_AUXP_SYS	1	TP28-75-GP	TP212

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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.
LCD SWITCH		
Size C	Document Number N-Note	Rev 1
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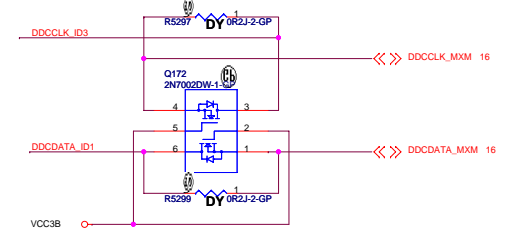
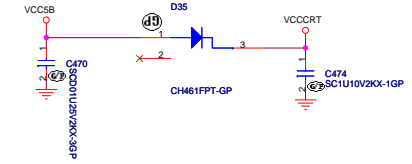
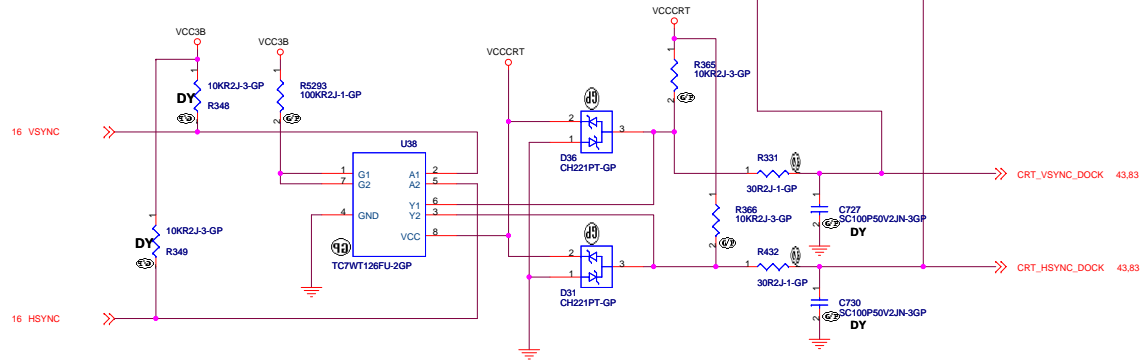
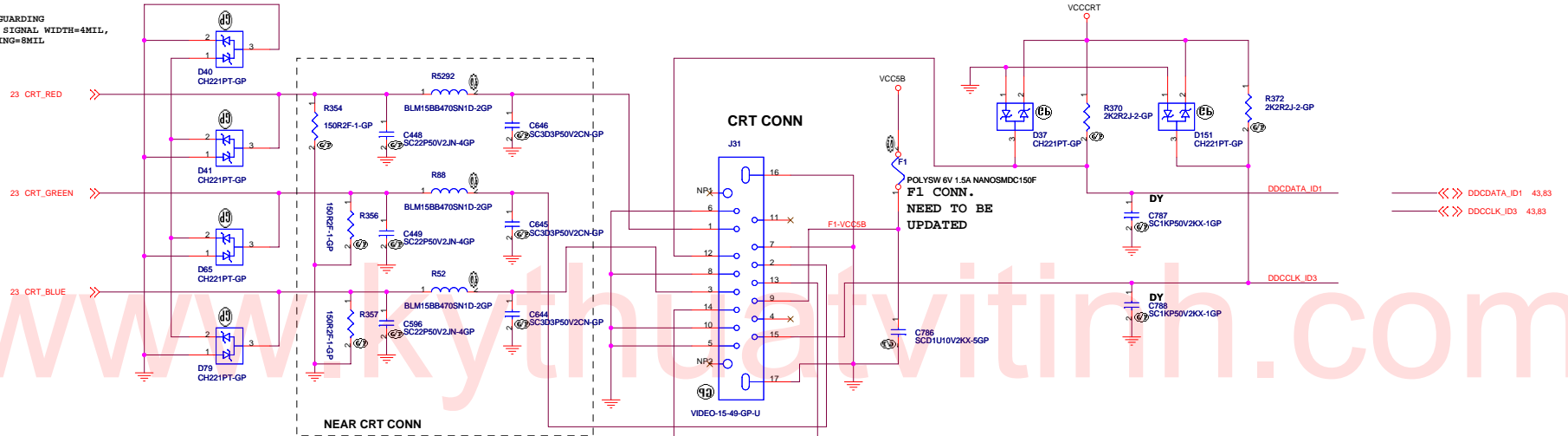


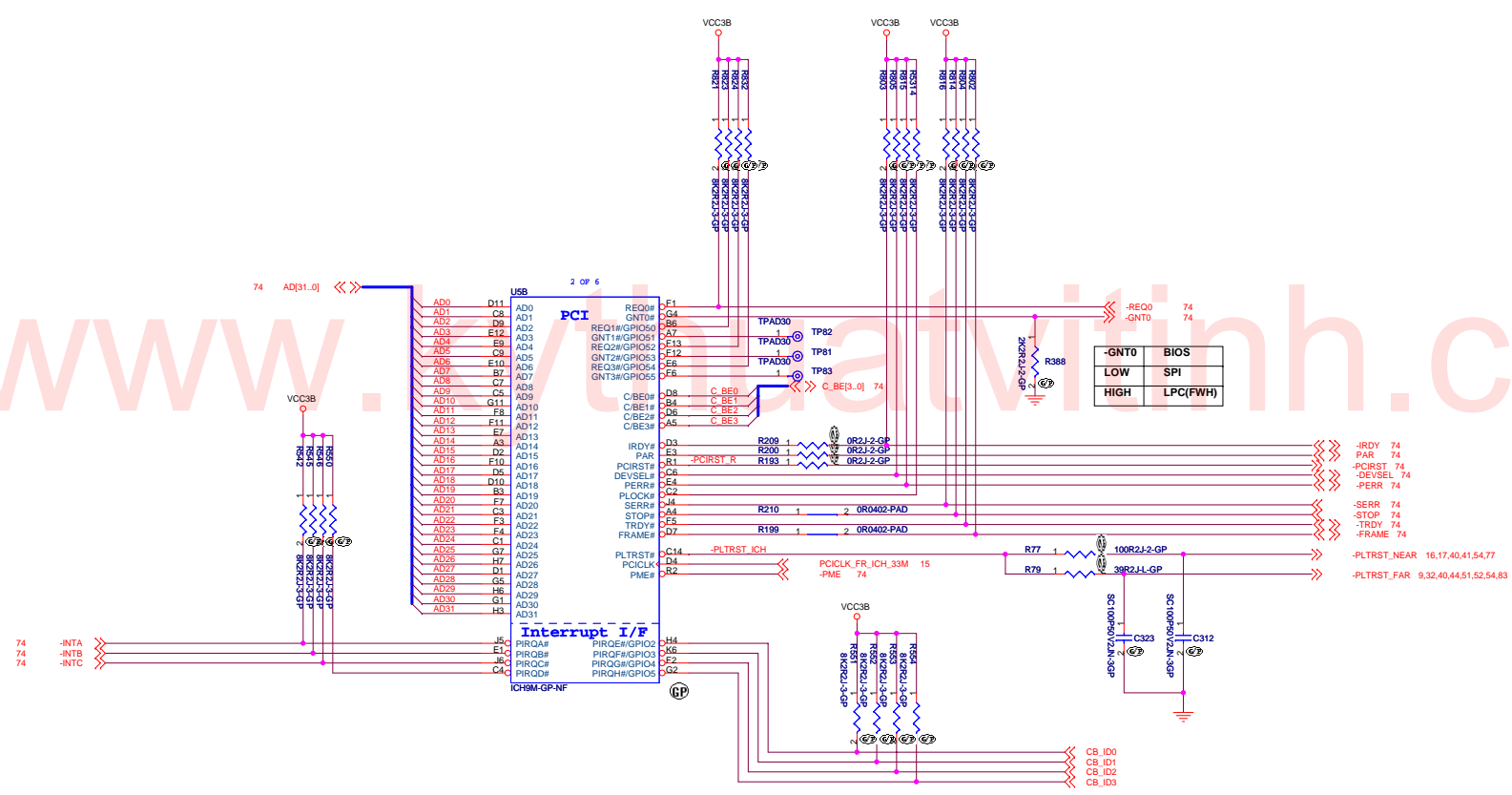


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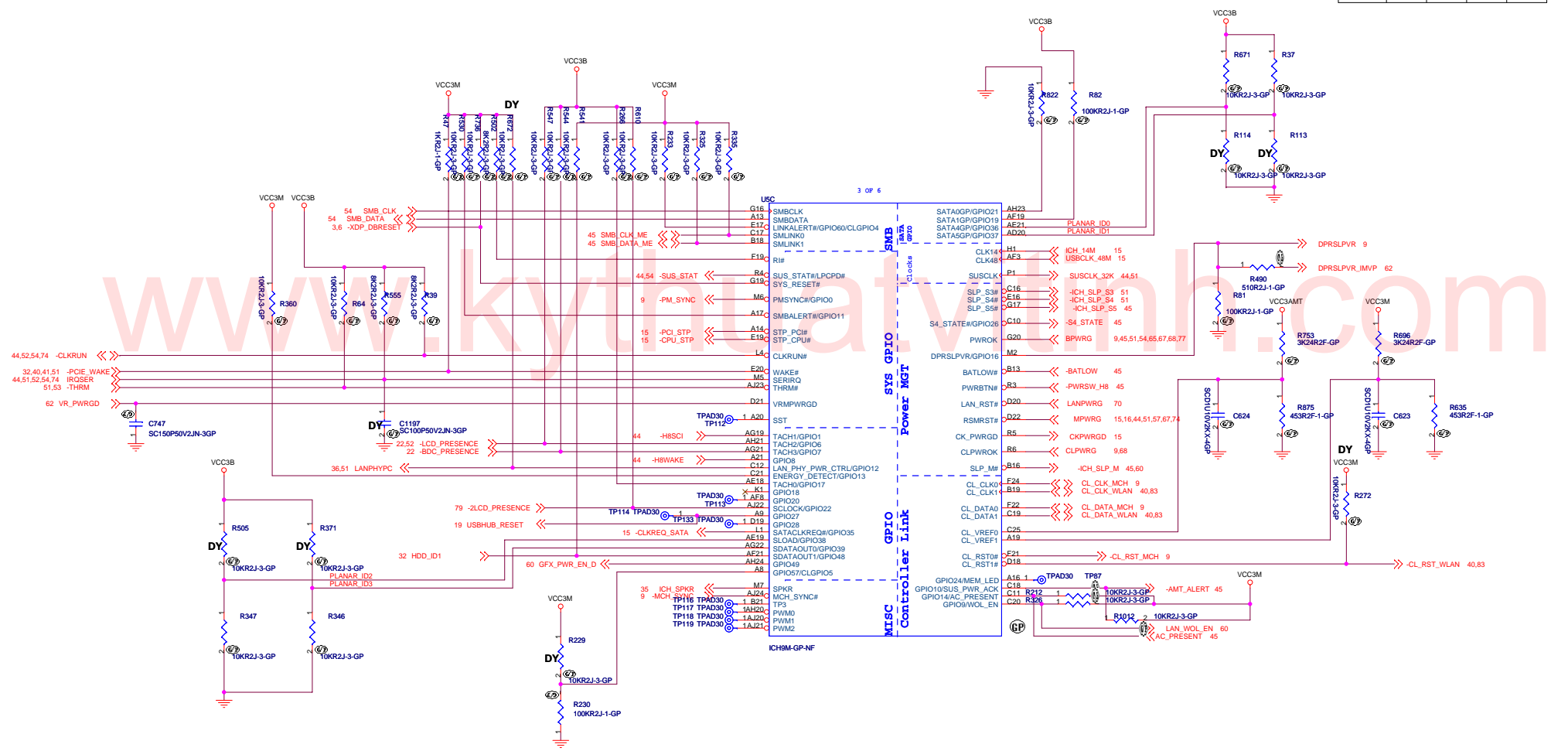
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Title			
CRT SELECTOR			
Size	Document Number	Rev	
Custom		N-Note	
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GND GUARDING
EACH SIGNAL WIDTH=4MIL,
SPACING=8MIL





PLANAR ID				
	3	2	1	0
1	R371	R505	R37	R671
0	R346	R347	R113	R114



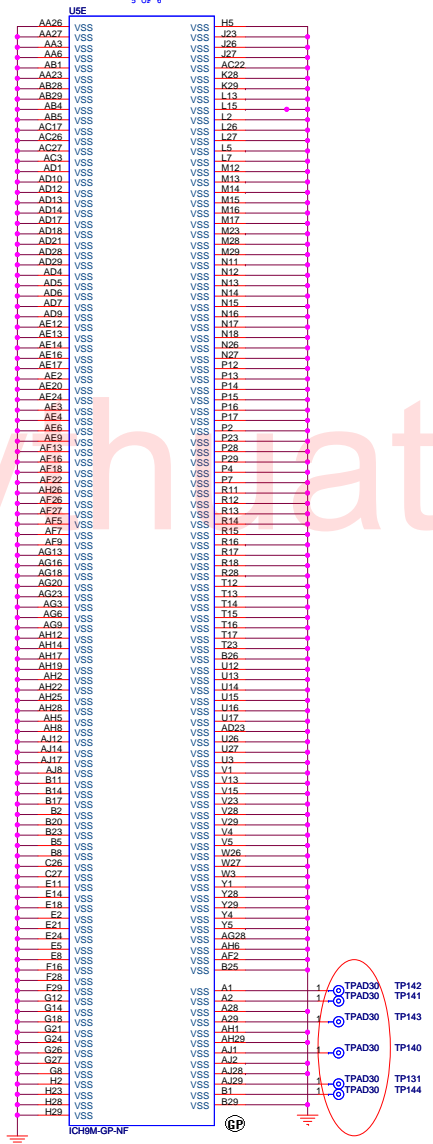
LEVEL	PLANARID[3..0]
PREDV	0000B
SDV	0001B
SIV	0010B
SIT	0011B

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

ICH9-M(4):VCC/GND

Rev 1

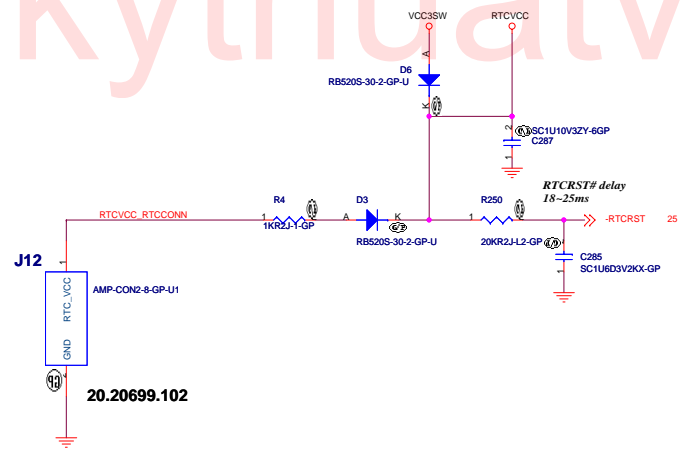
Date: Thursday, June 26, 2008



FOR SOLDER CRACK DETECTION

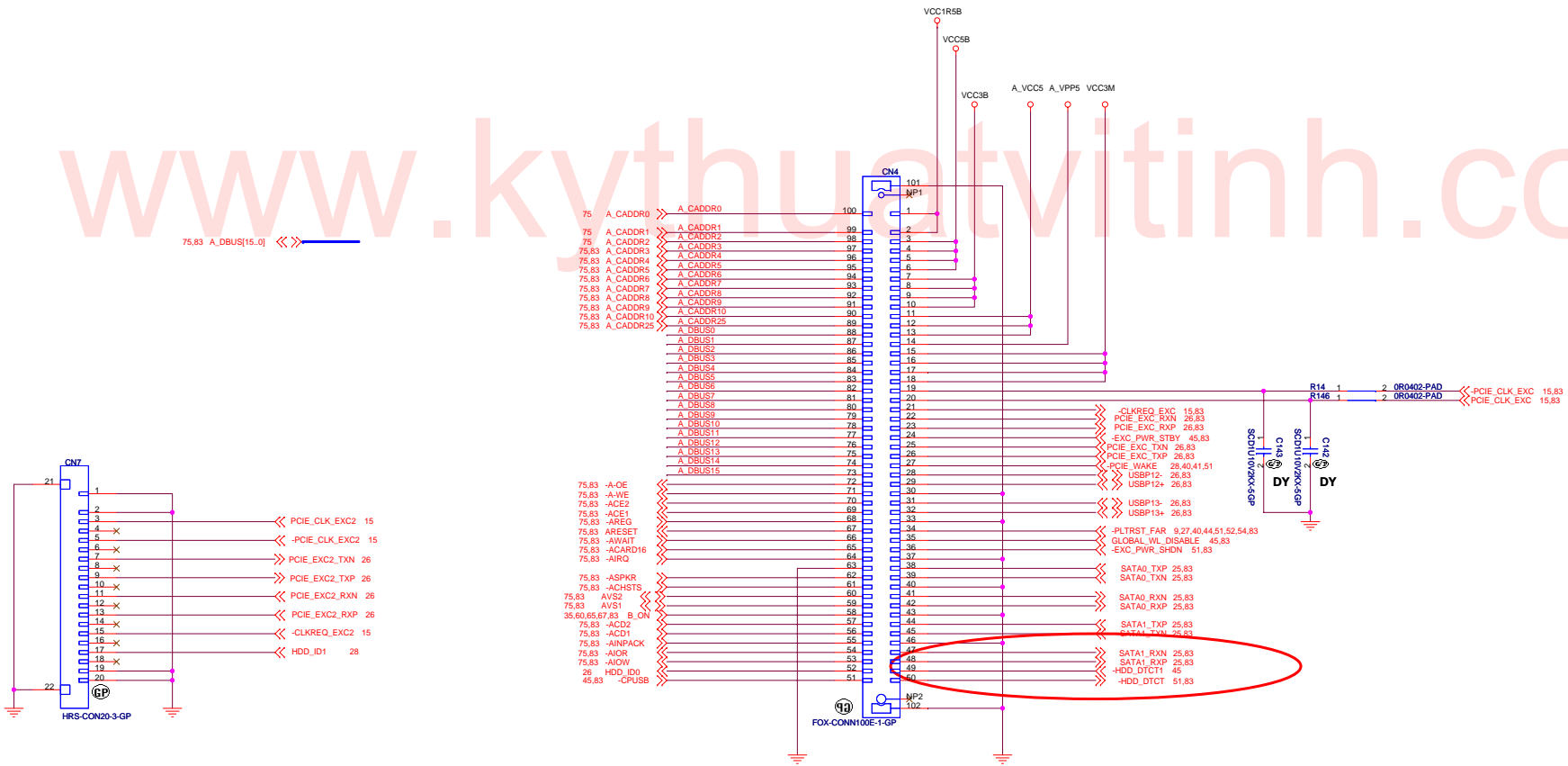
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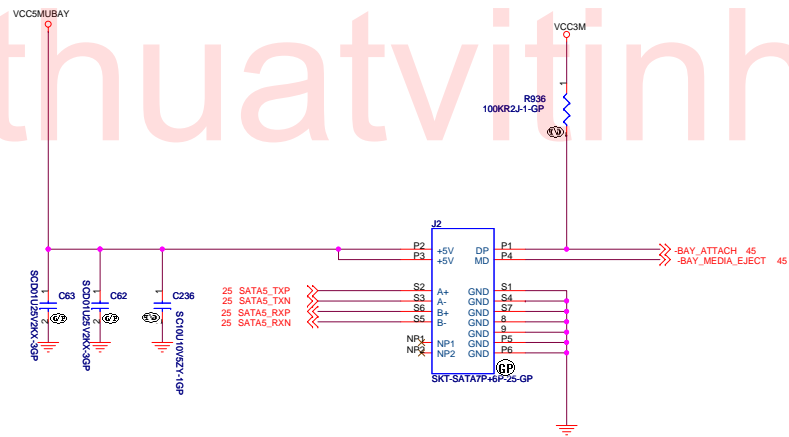
HDD IO SUB CARD Connector

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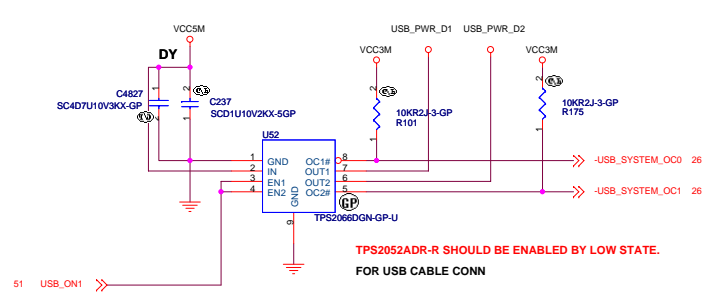
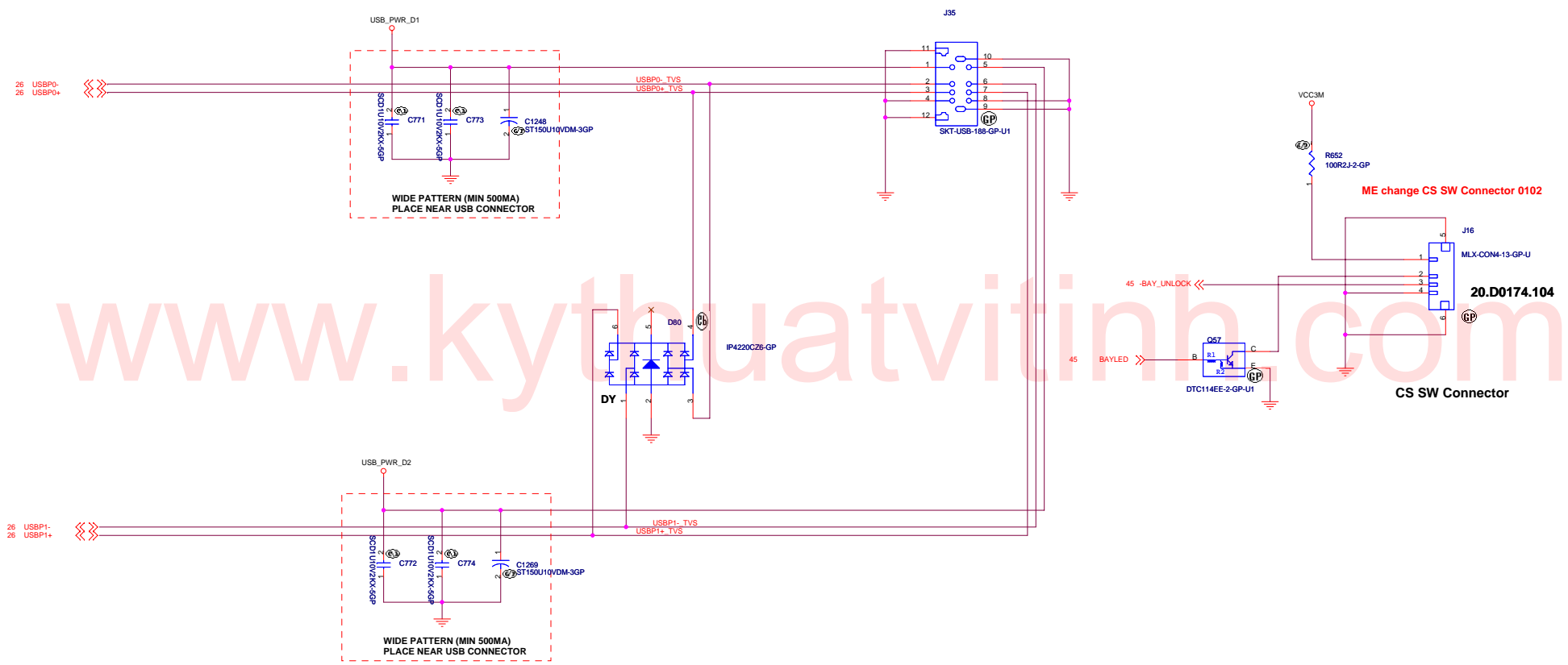


SATA SIGNAL SEGMENT		
S1	GND	
S2	A+	Differential signal pair from host controller
S3	A-	
S4	GND	
S5	B-	Differential signal pair to host controller
S6	B+	
S7	GND	

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

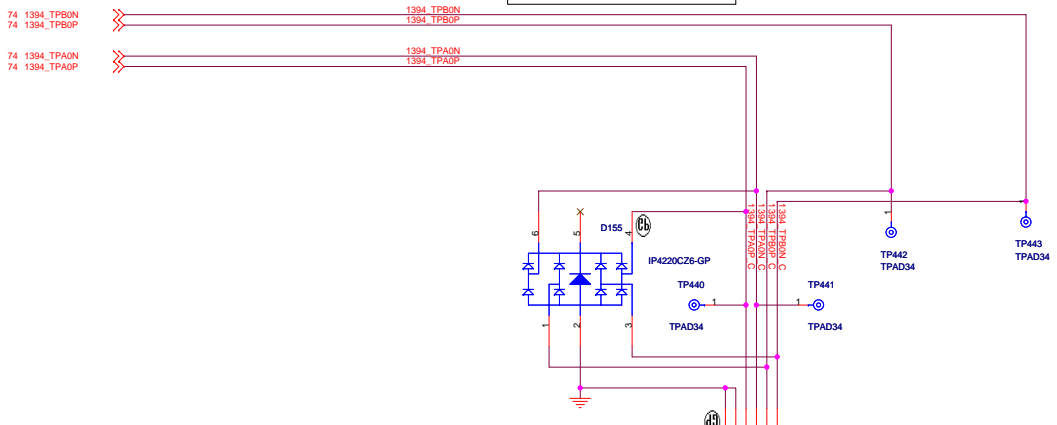


SATA ODD Connector

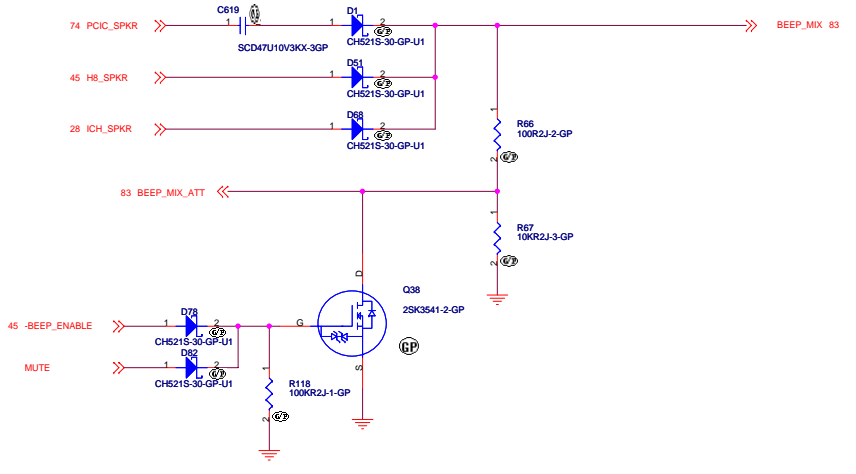


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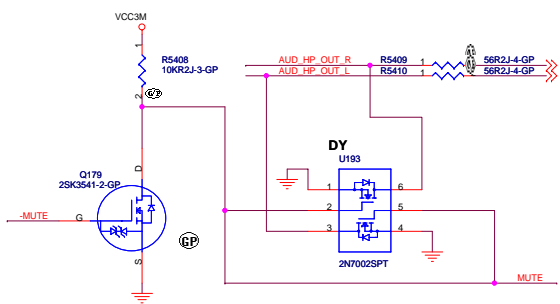
Trace Length match
require for Pair A and
Pair B



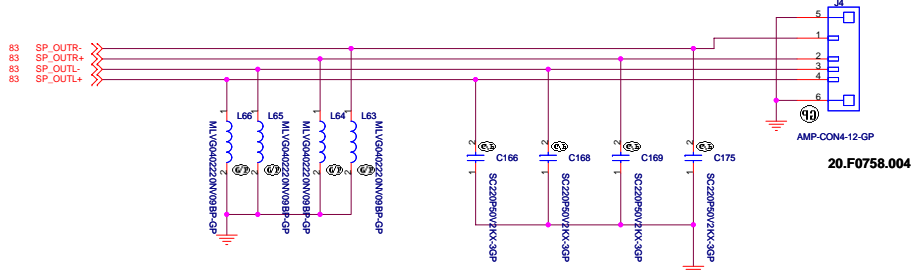
PLACE NEAR J28
1394 CONN



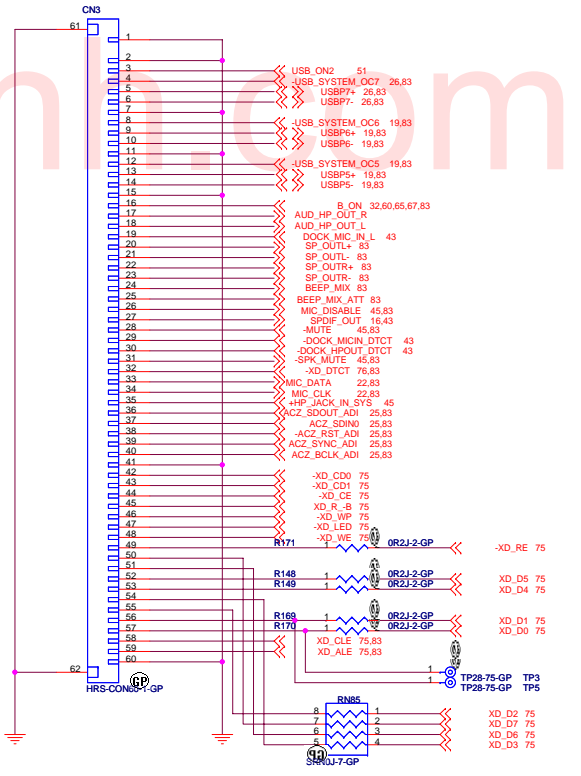
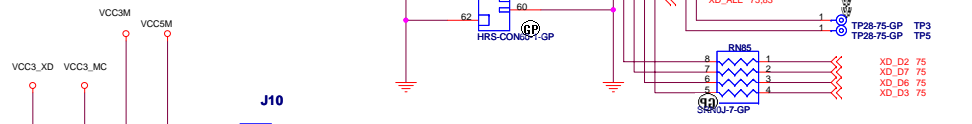
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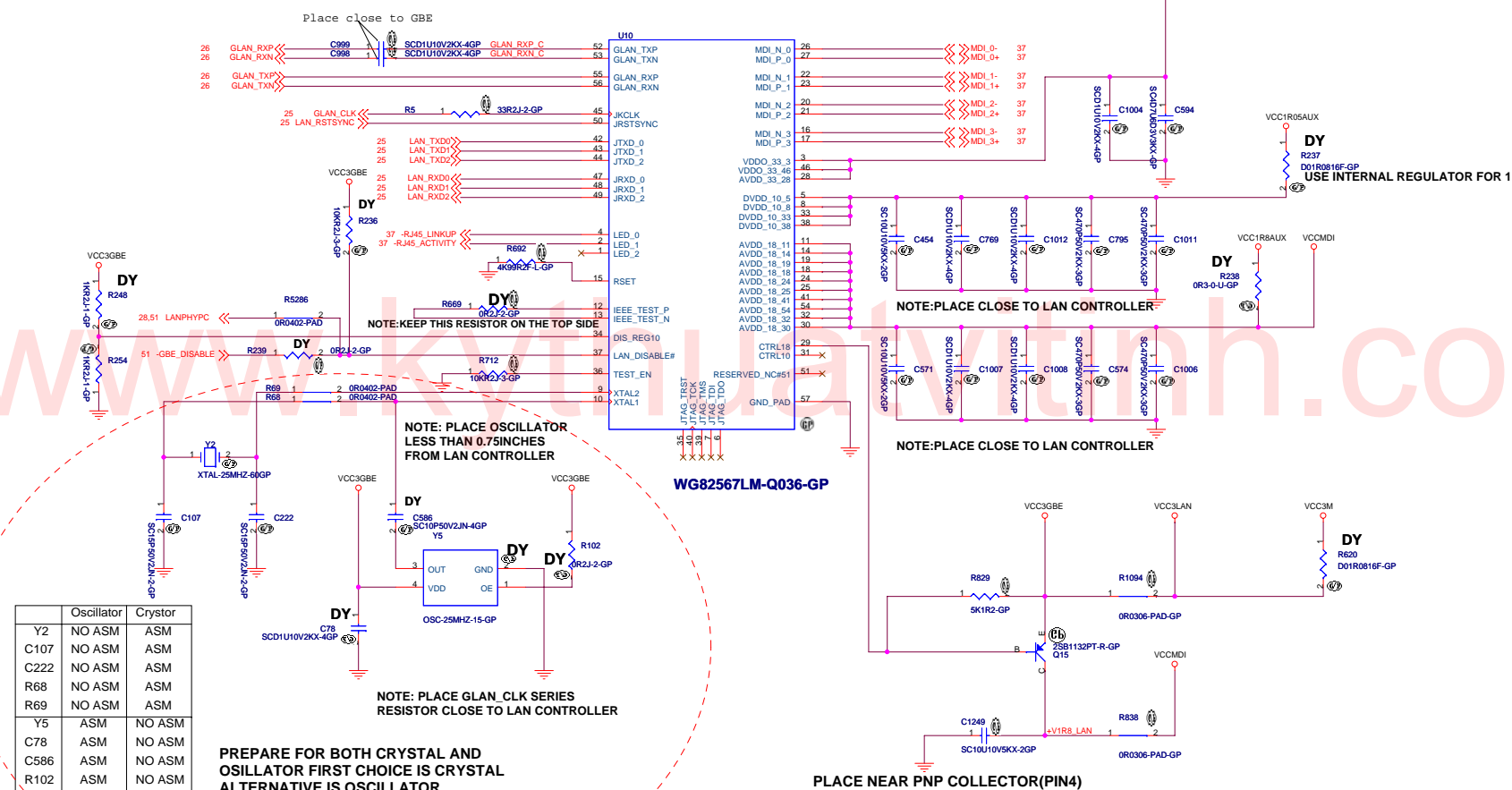


System Speaker CONN



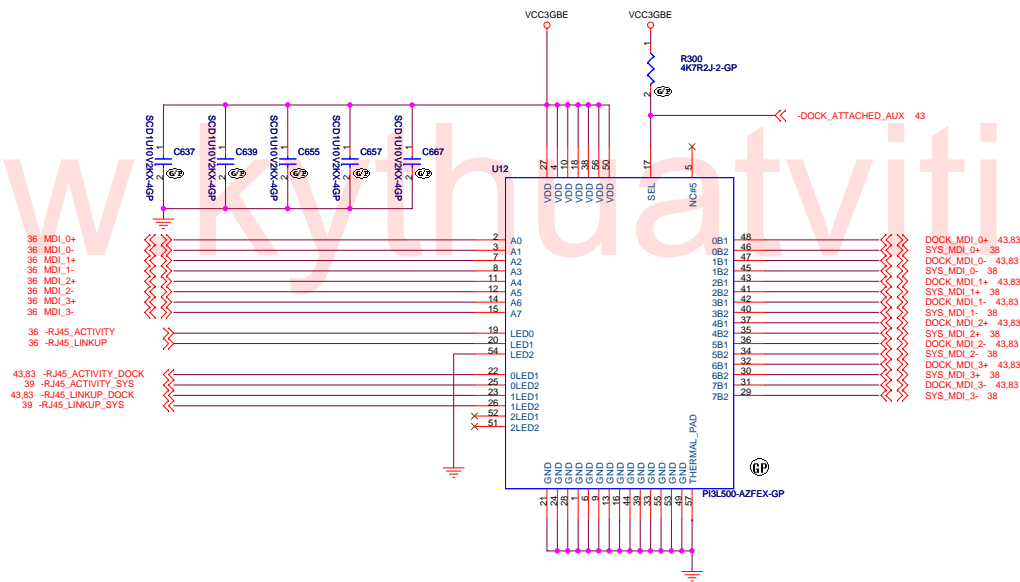
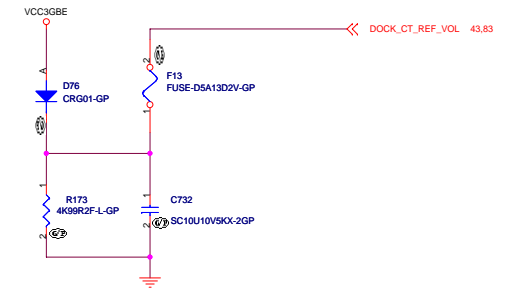
PLACE NEAR SPEAKER CONNECTOR





AFTER INTEL'S EVALUATION, WE WILL DISIDE TO USE VCC1R8AUX OR VCC2R5AUX.

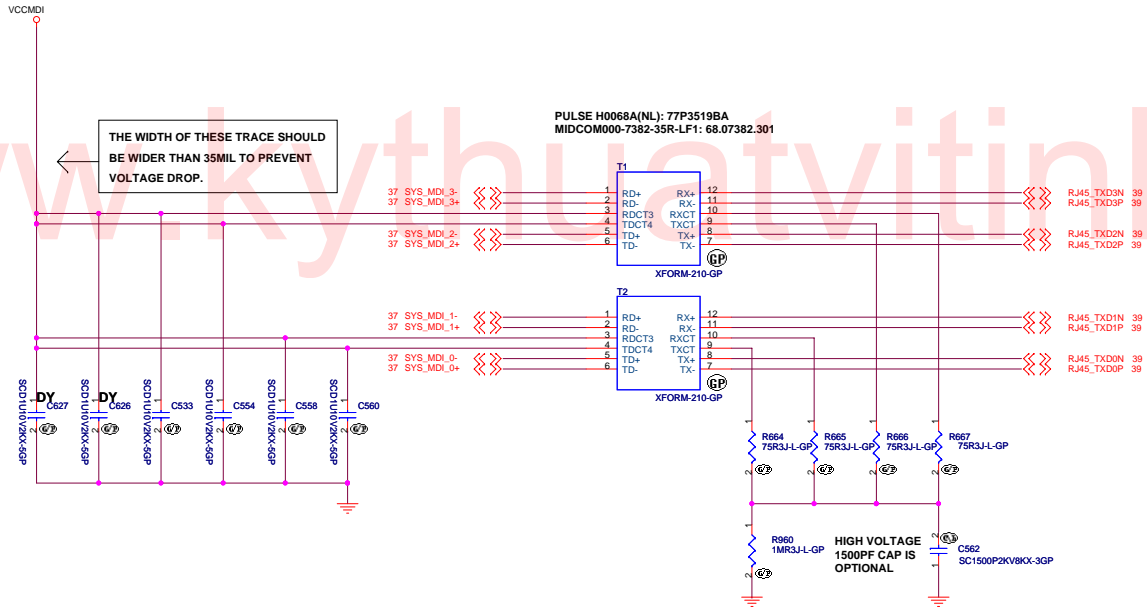
PLACE NEAR DOCKING CONNECTOR



- 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

- DOCK_MDI_0+ 43.83
- SYS_MDI_0+ 38
- DOCK_MDI_0- 43.83
- SYS_MDI_0- 38
- DOCK_MDI_1+ 43.83
- SYS_MDI_1+ 38
- DOCK_MDI_1- 43.83
- SYS_MDI_1- 38
- DOCK_MDI_2+ 43.83
- SYS_MDI_2+ 38
- DOCK_MDI_2- 43.83
- SYS_MDI_2- 38
- DOCK_MDI_3+ 43.83
- SYS_MDI_3+ 38
- DOCK_MDI_3- 43.83
- SYS_MDI_3- 38

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

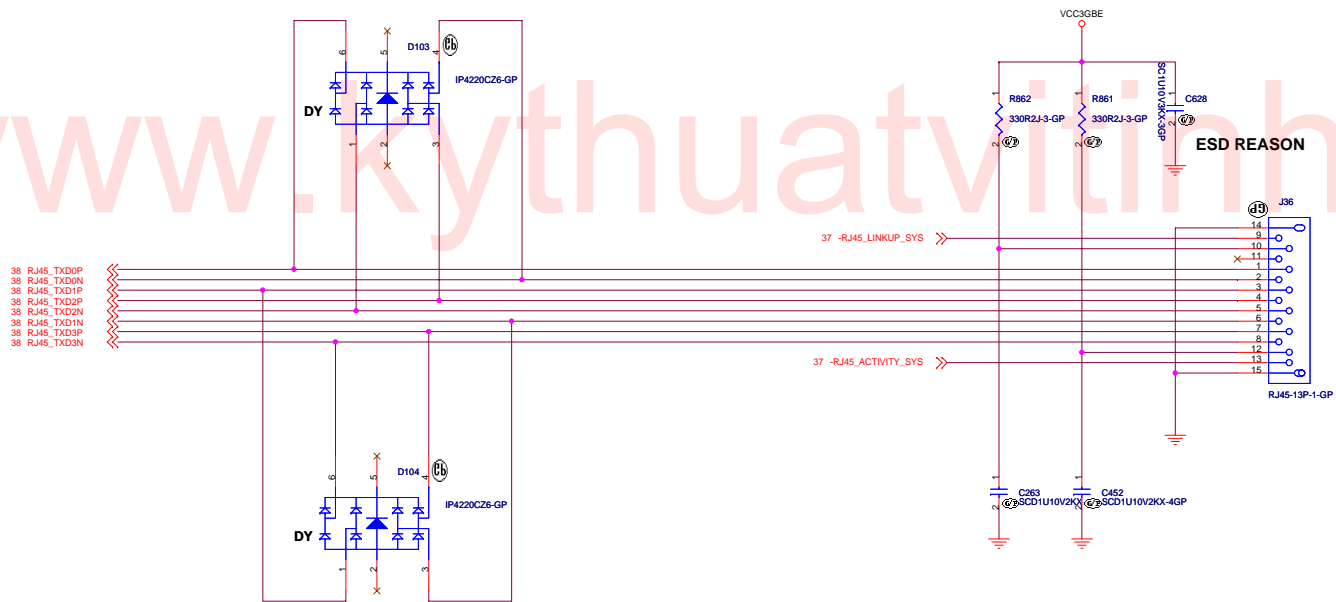


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緯創資通 Wistron Corporation
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Taipei Hsien 221, Taiwan, R.O.C.

File			GBE MAGNETICS		
Size	Document Number		N-note		Rev
C					1
Date:	Thursday, June 26, 2008	Sheet	38	of	63

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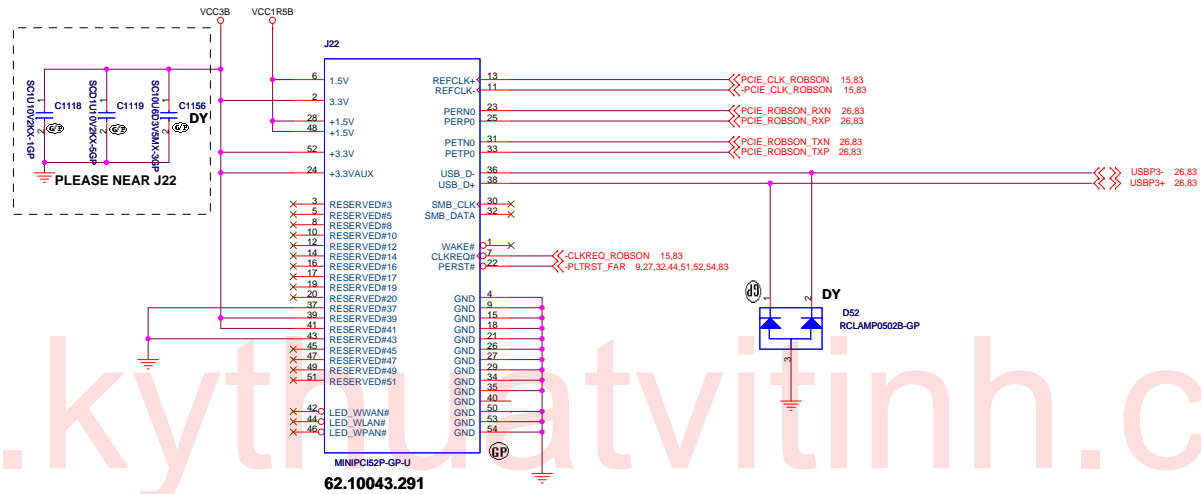


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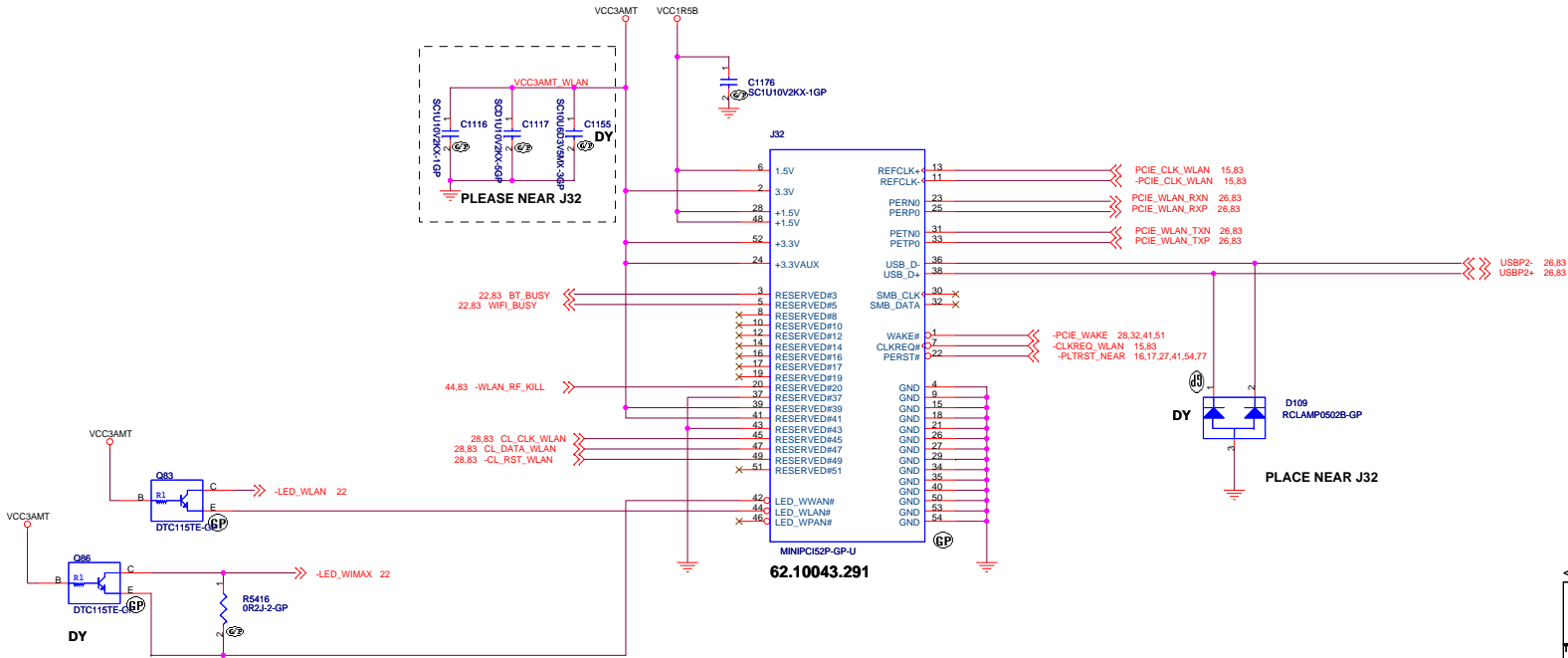
緯創資通 Wistron Corporation
 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichin,
 Taipei Hsien Z21, Taiwan, R.O.C.

File			RJ11/RJ45 CONNECTOR
Size	Document Number	N-note	Rev
C			1
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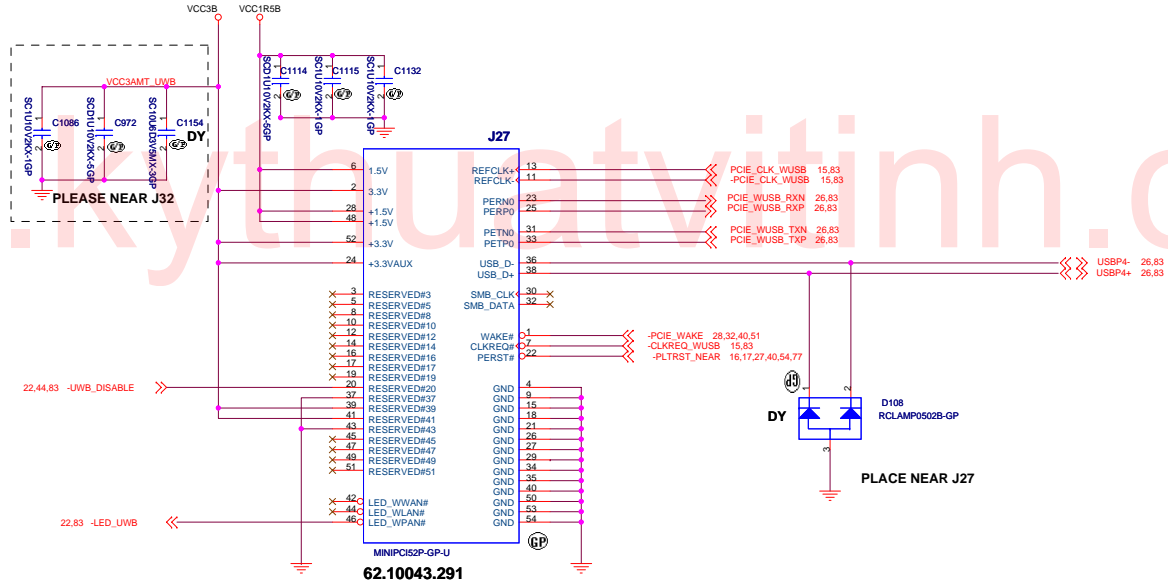
MINI PCIE CONN-1 FOR ROBSON

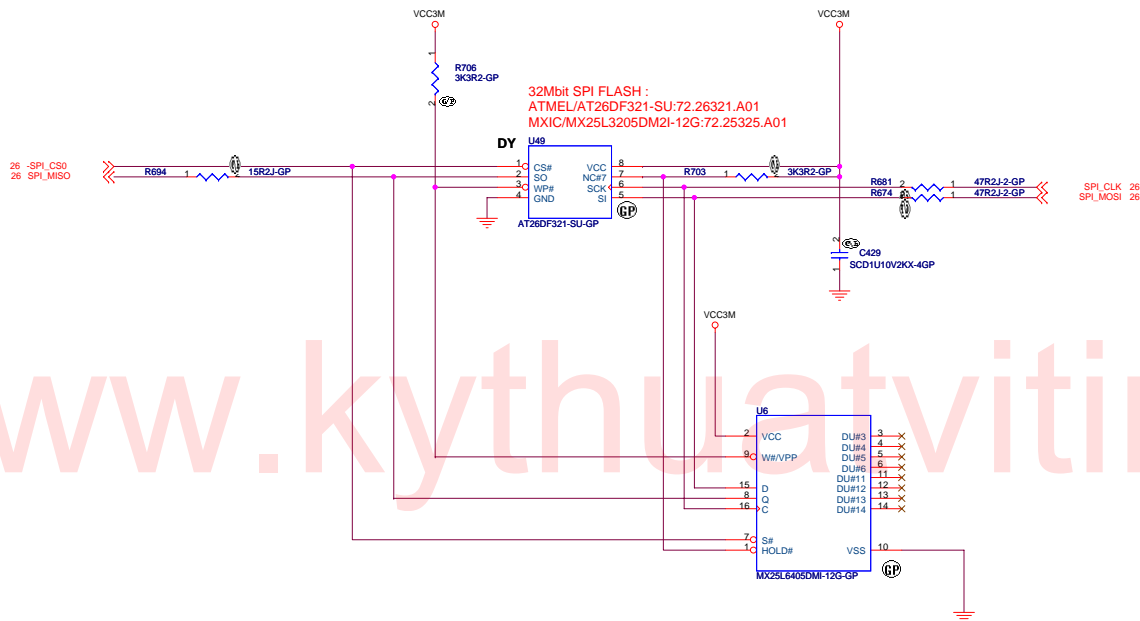


MINI PCIE CONN-2 FOR WLAN



MICRO PCIE CONN-3

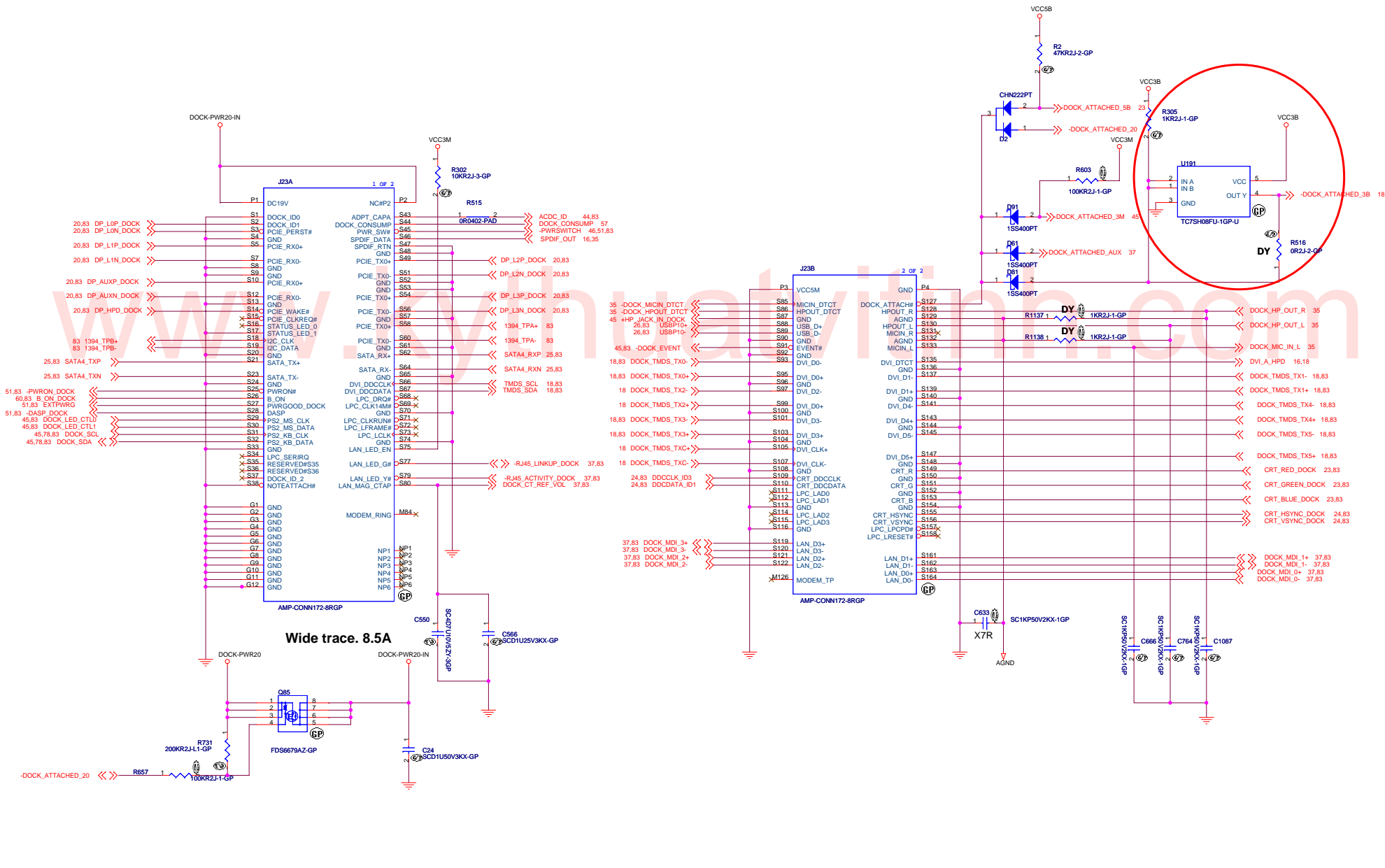




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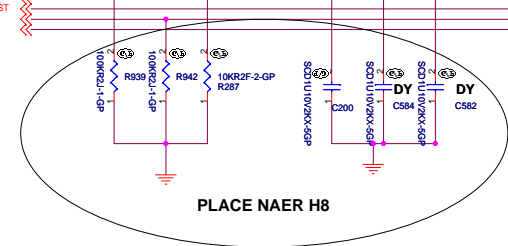
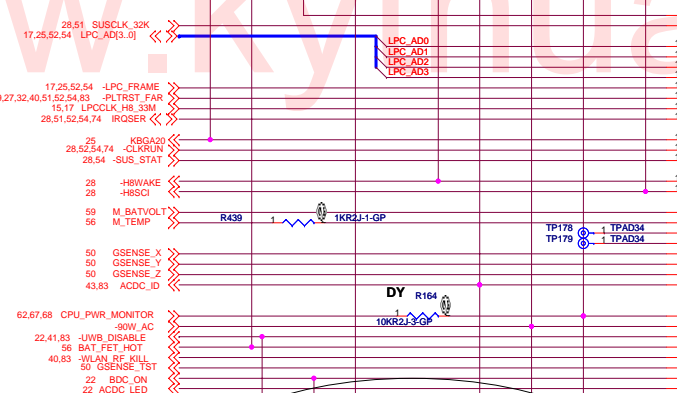
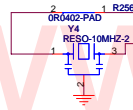
SO8 and SO16 are both supported!

64Mbit SPI FLASH :
 WINBOND/W25X64VFIG:72.25X64.001
 MXIC/ MX25L6405DMI-12G :72.25640.C01



Wide trace. 8.5A

51,57 -H8_RESET
 1. NEAR H8S2116:
 2. SHORT PATTERN
 3. NO PATTERN
 UNDER THIS AREA



E10A DEBUG I/F	ENABLE	DISABLE(FINAL LOGIC)
R955	NO_ASM	ASM
R971	NO_ASM	ASM
D58	ASM	NO_ASM
D69	ASM	NO_ASM
R289	ASM	NO_ASM
D75	ASM	NO_ASM
R831	ASM	NO_ASM
R327	ASM	NO_ASM
RN25	NO_ASM	ASM

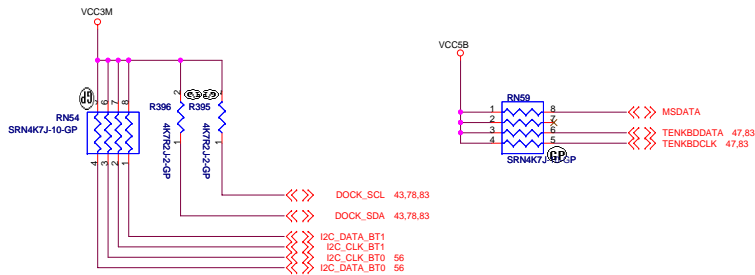
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緯創資通 Wistron Corporation
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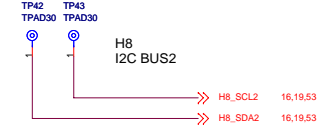
Title: **H8S/2161B(1/2)**

Size C Document Number **N-note** Rev 1

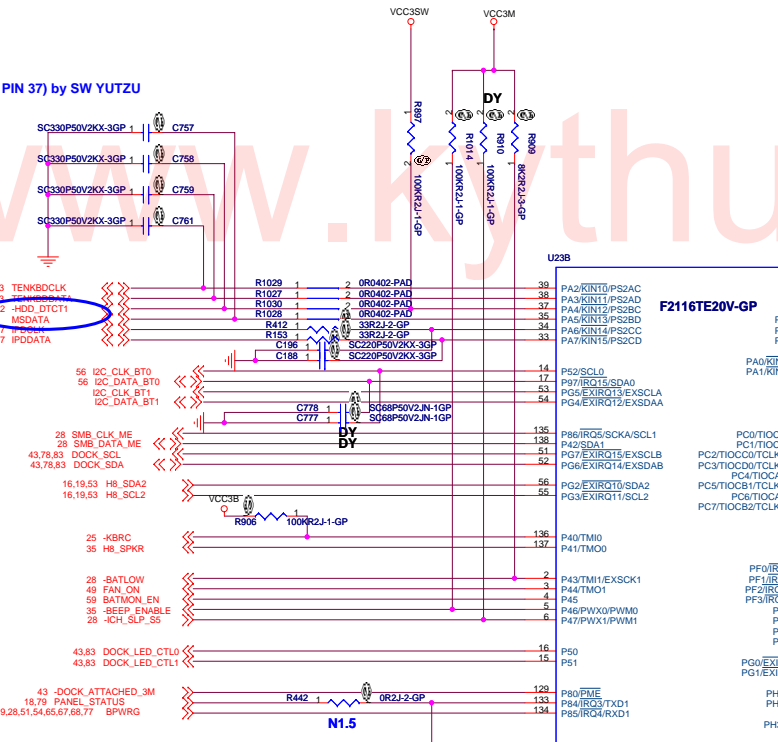
Date: Thursday, June 26, 2008 Sheet 44 of 63



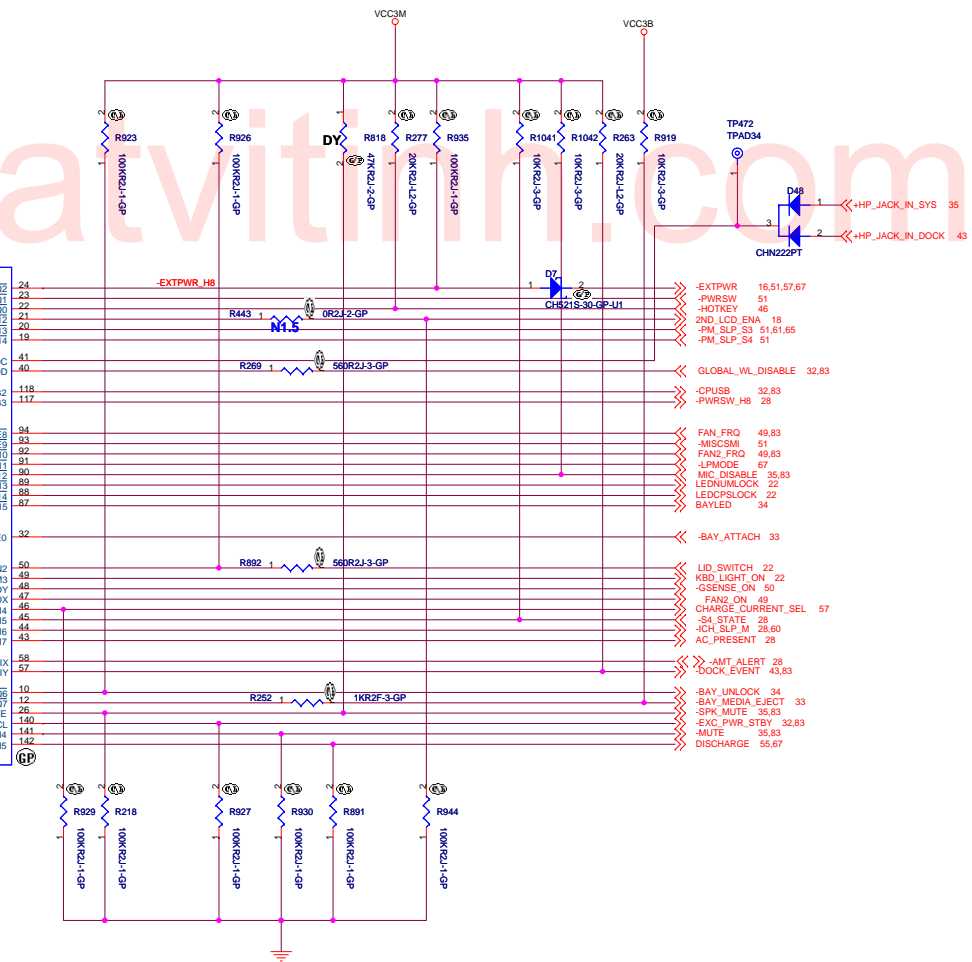
TEST PAD X2
BOTTOM SIDE
DO NOT MOVE AFTER FIX



2'nd HDD detect pin define(U23B PIN 37) by SW YUTZU



	R443	R944	R442	R690
NON 2nd LCD Model	No	Yes	No	Yes
2nd LCD Model	Yes	No	Yes	No



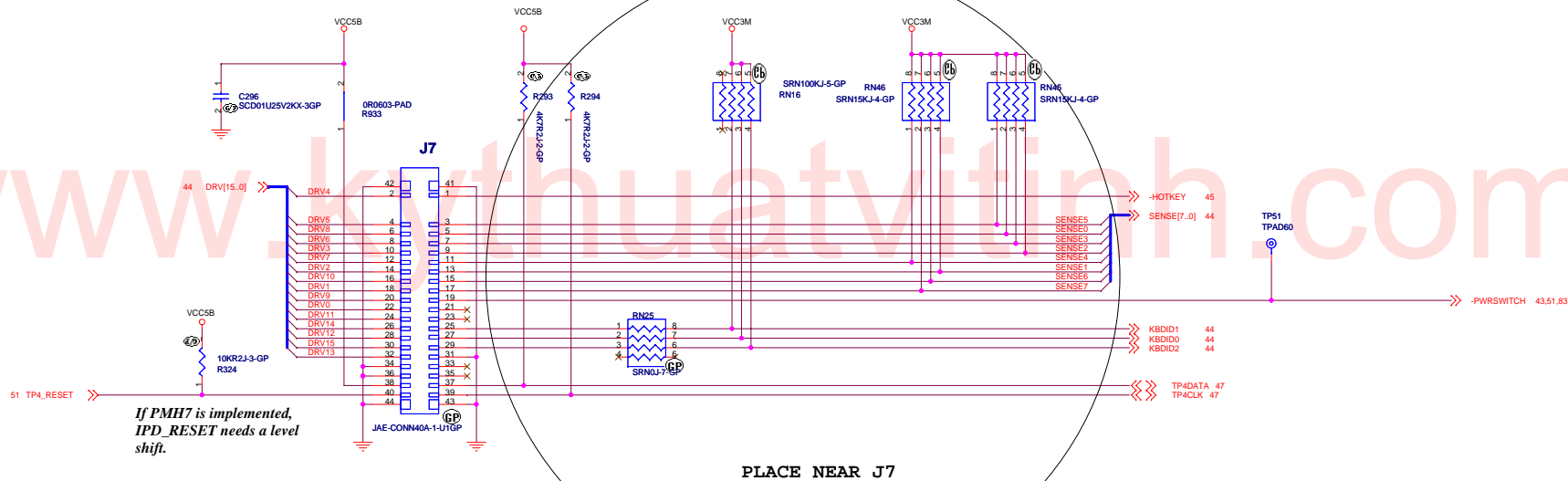
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緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

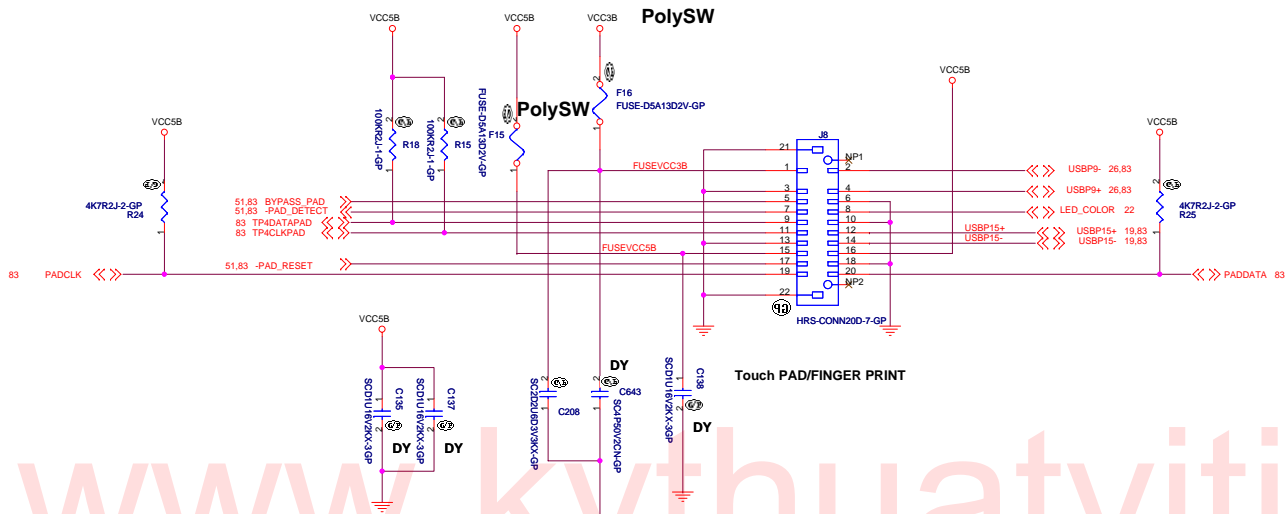
File: **H8S/2116B(2/2)**

Size C	Document Number	Rev
	N-note	1

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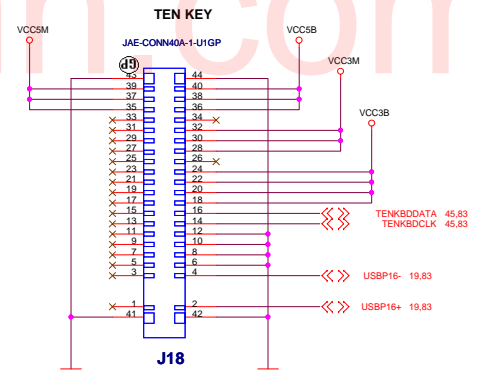
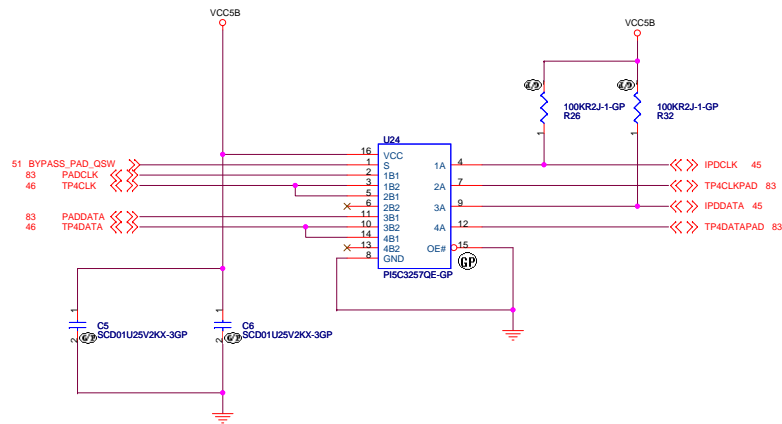


If PMH7 is implemented,
IPD_RESET needs a level
shift.

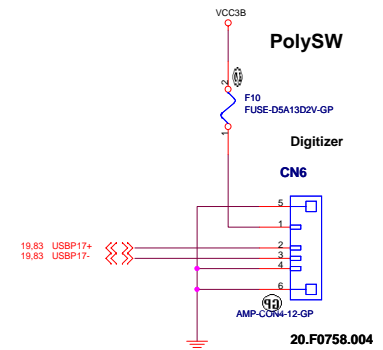


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USE FSTU3257(FAIRCHILD) OR PI5C3257C(PERICOM)



ME changeTEN KEY Connector 0118

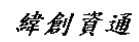


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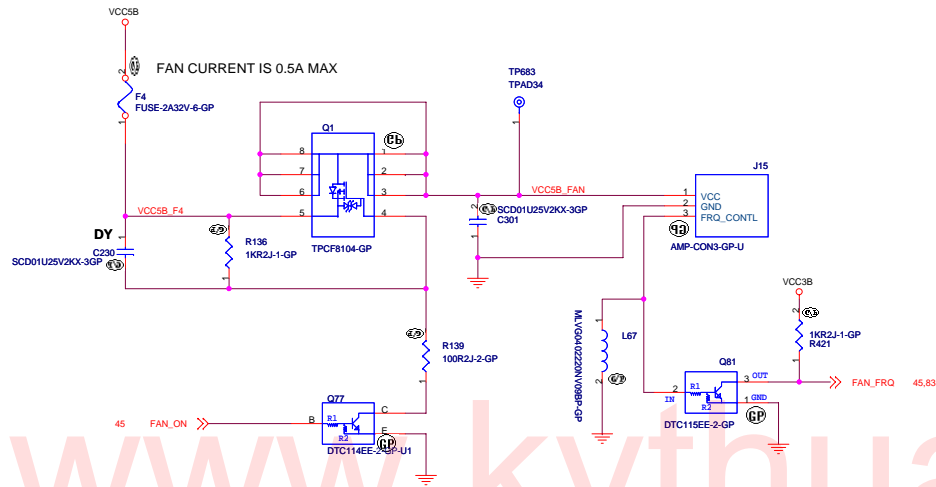
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
TOUCH PAD CONNECTOR		
File		
Size	Document Number	Rev
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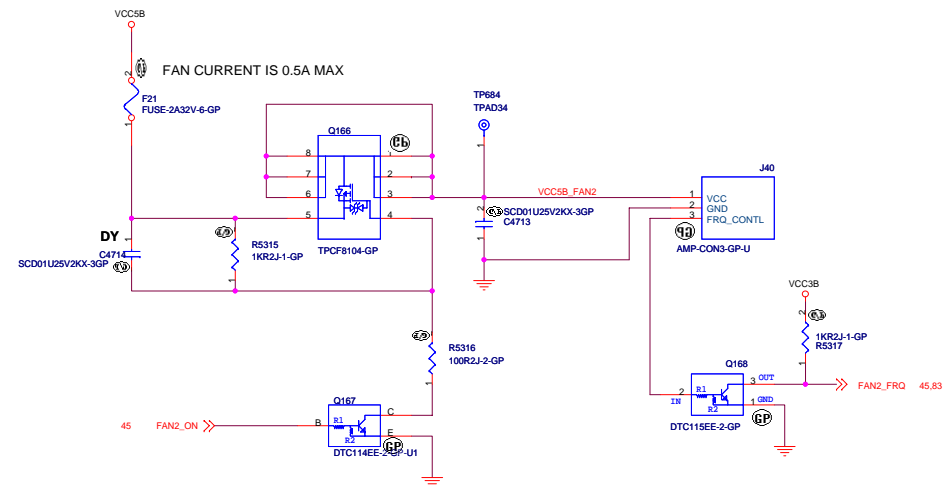
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		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
WIRELESS DISABLE SW		
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CPU FAN



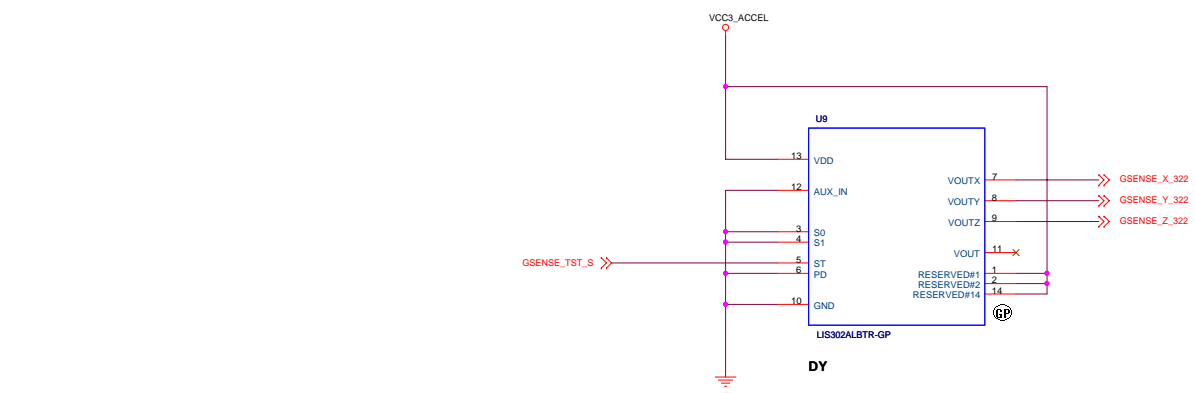
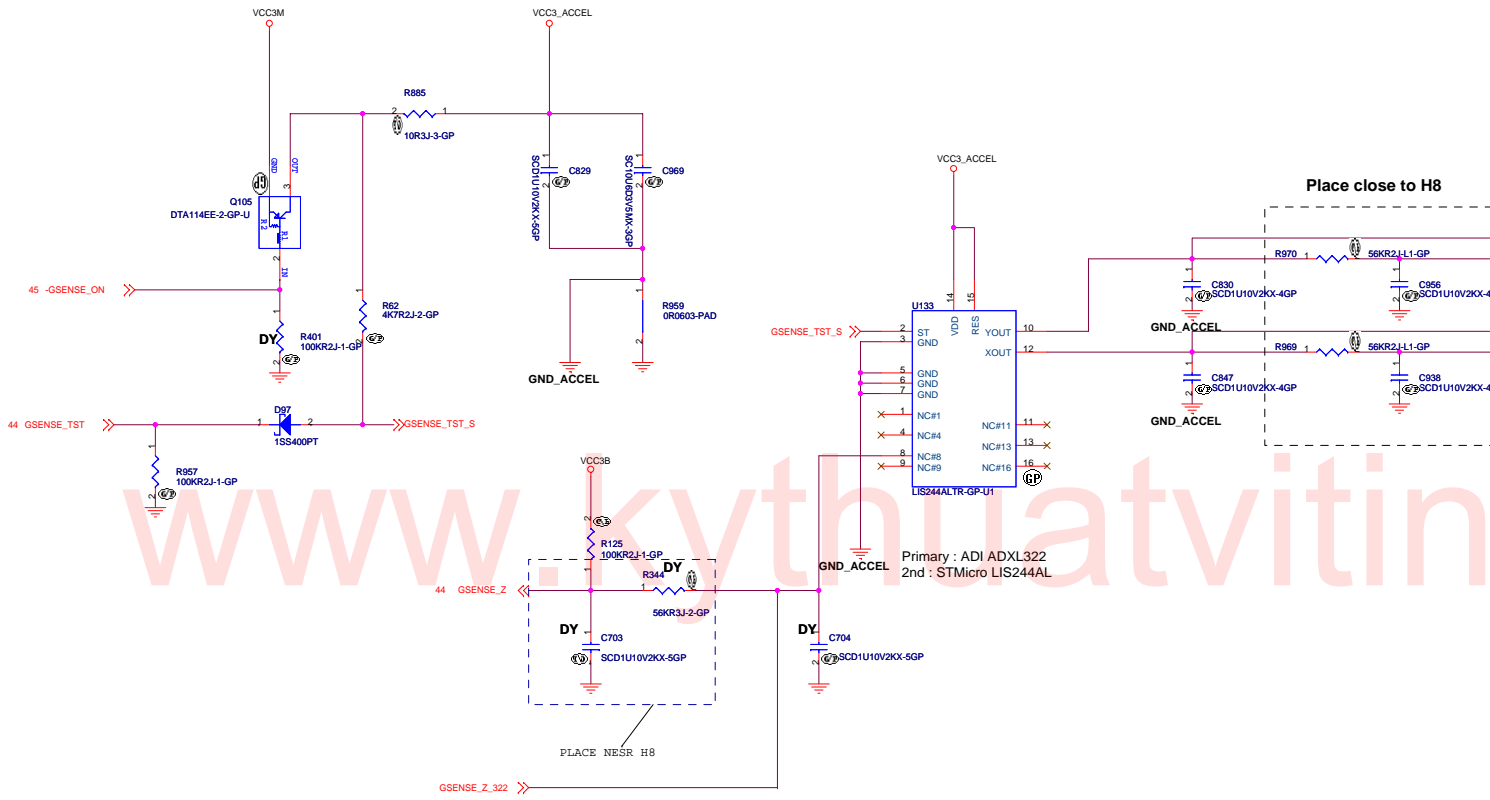
MxM FAN



<Variant Name>

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File	FAN CONTROL	
Size	Document Number	Rev
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Place close to H8

LOGIC

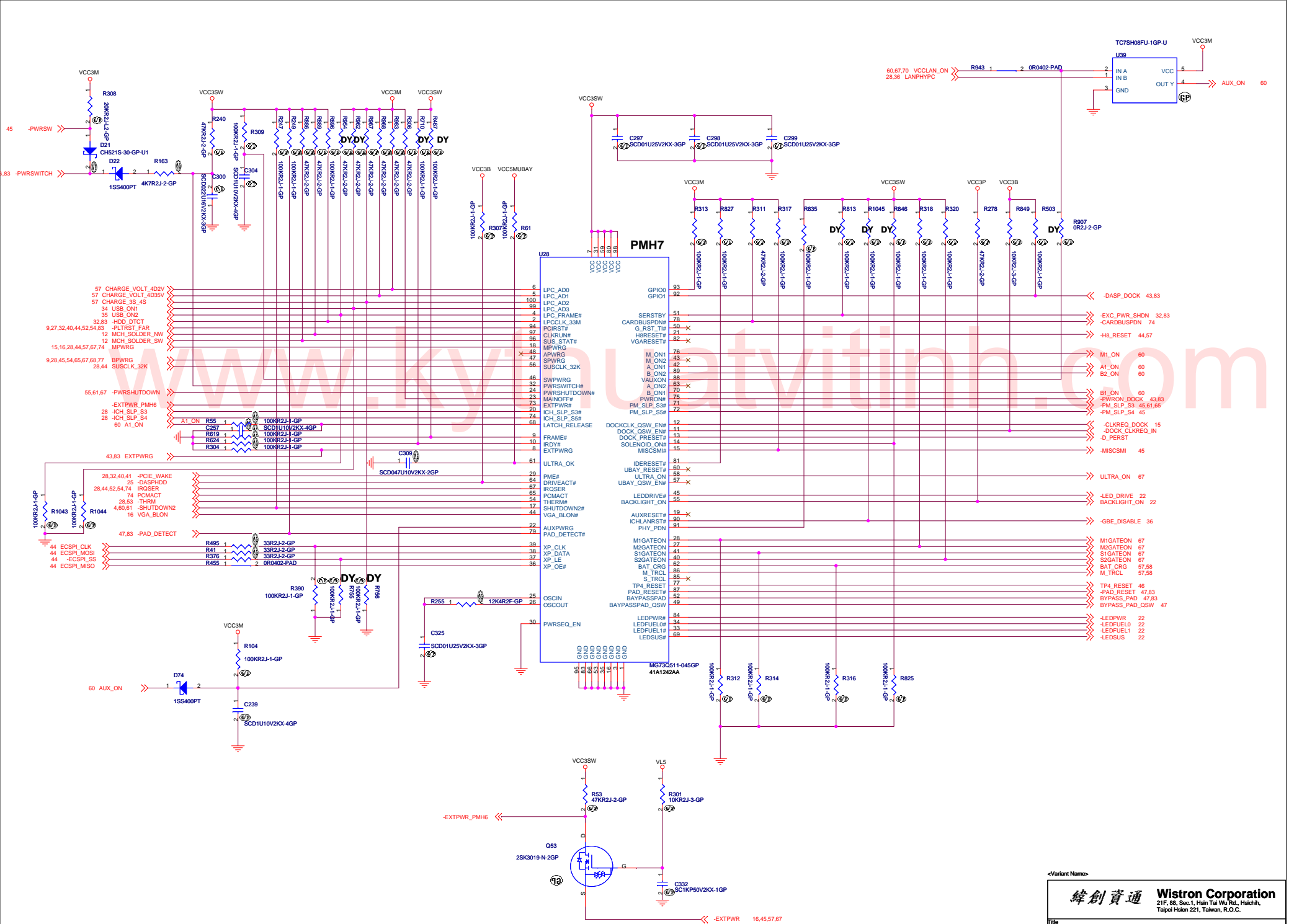
TABLE

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
R959	ASM	ASM	NO_ASM
C830	ASM	ASM	NO_ASM
C847	ASM	ASM	NO_ASM
R969	56K	56K	NO_ASM
C938	ASM	ASM	NO_ASM
R970	56K	56K	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.

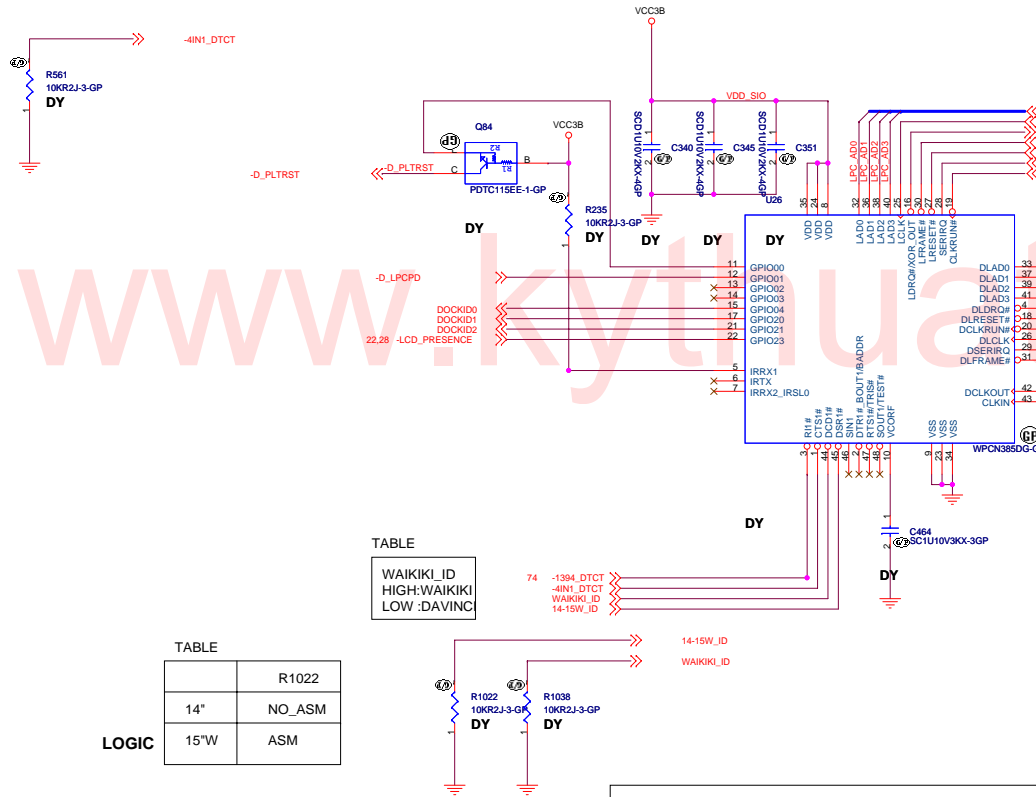
Width = 6 mil & Spacing = 10 mil for three Output traces



TABLE

4IN1 SLOT	R561
YES	ASM
NO	NO_ASM

LOGIC



TABLE

WAIKIKI_ID	HIGH:WAIKIKI
LOW :DAVINIC	

TABLE

	R1022
14"	NO_ASM
15"W	ASM

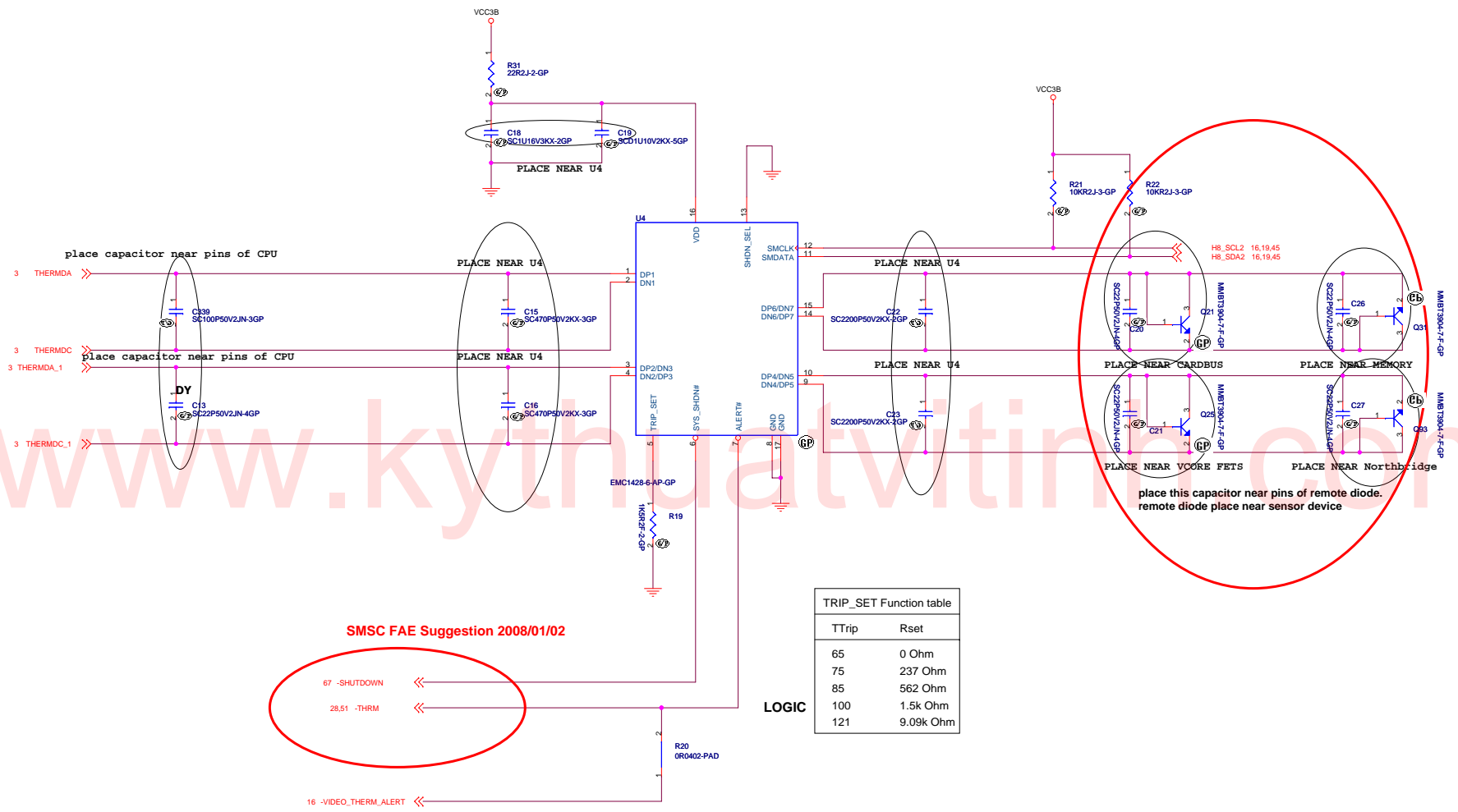
LOGIC

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 Dissconnected)
- Pin47 : Tristate
 - NC : Normal Operation
 - PD : All pins floting
- Pin48 : Test
 - NC : Normal Operation
 - PD : Test mode



SMSC FAE Suggestion 2008/01/02



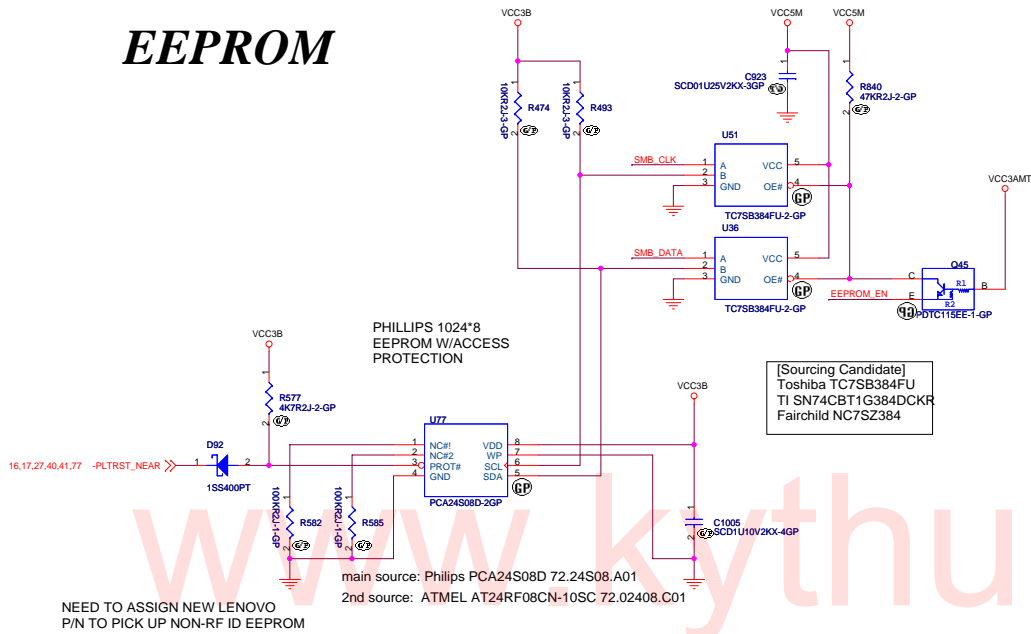
TRIP_SET Function table

TTrip	Rset
65	0 Ohm
75	237 Ohm
85	562 Ohm
100	1.5k Ohm
121	9.09k Ohm

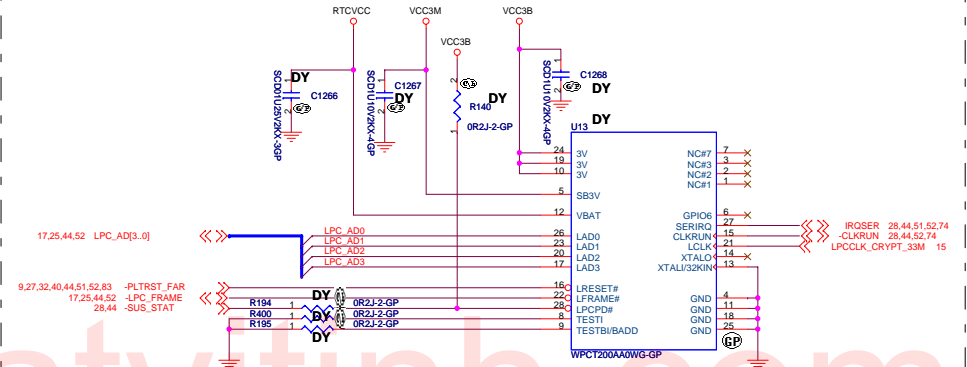
LOGIC

SMBUS ADDRESS: 1001_100xb
PLACE NEAR GLAN CHIP

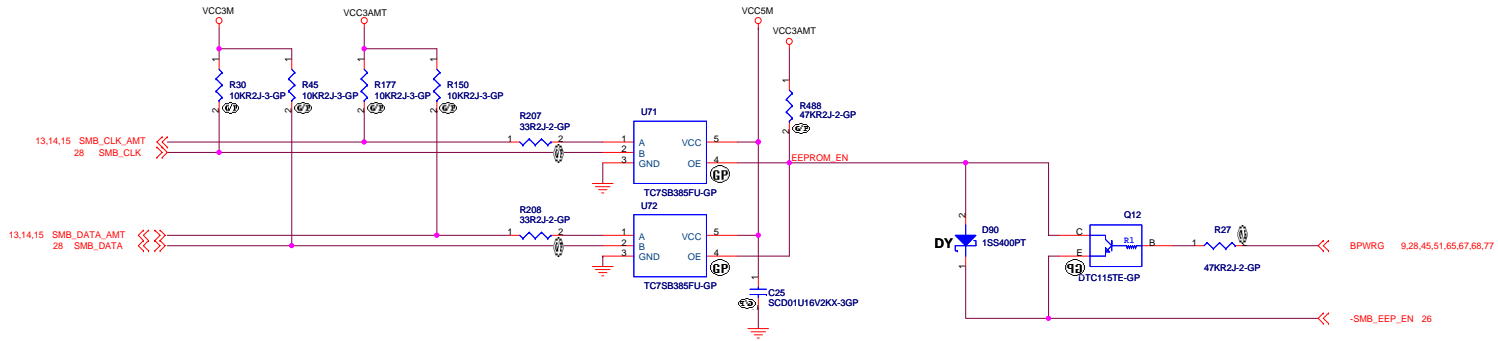
EEPROM



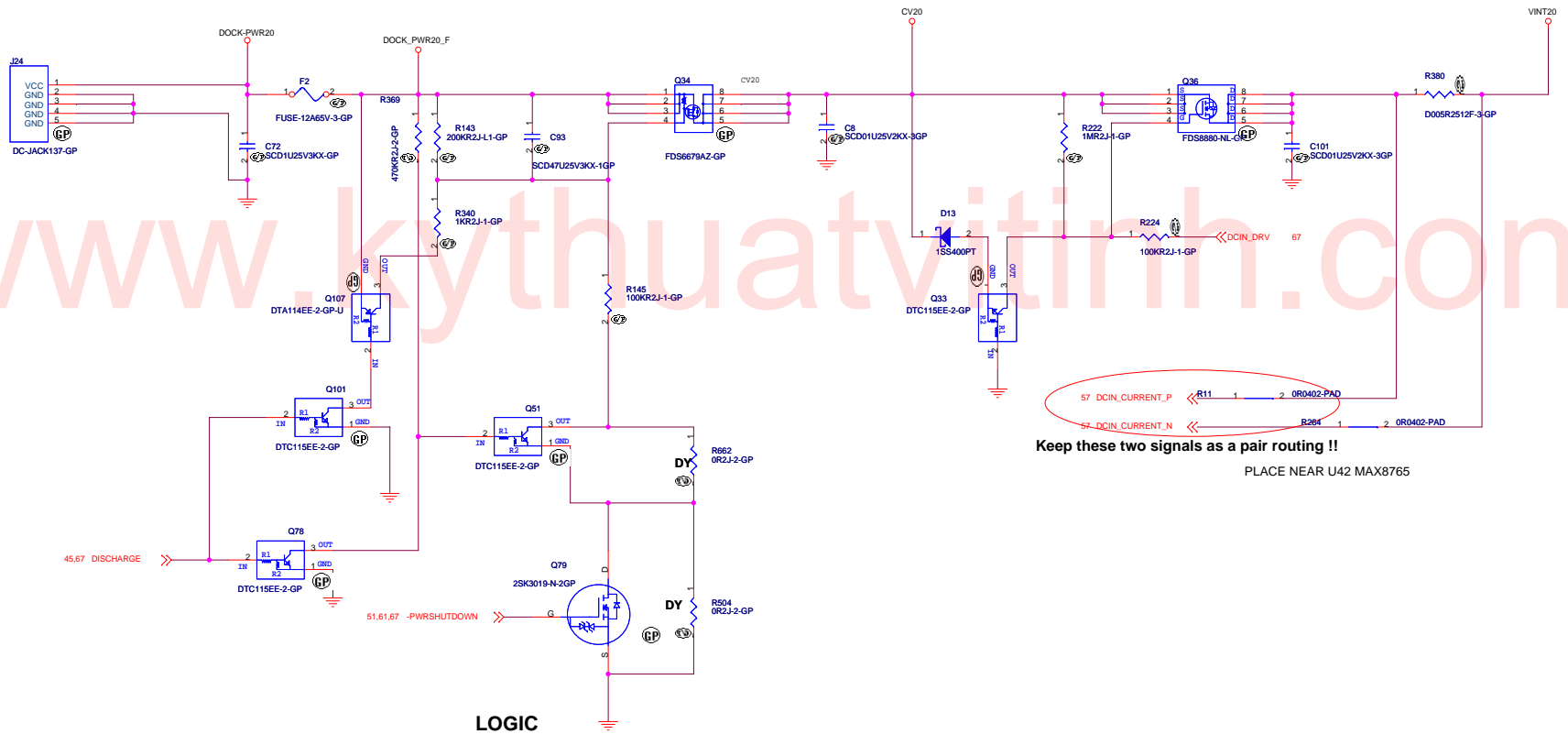
TCPA



SM BUS SW



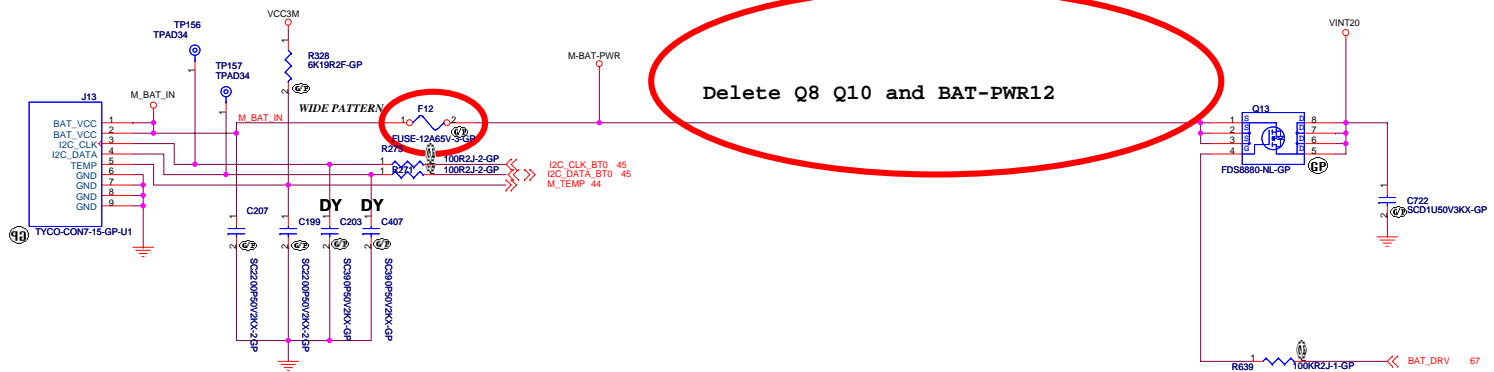
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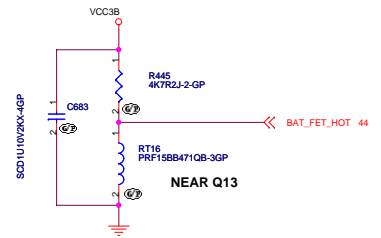
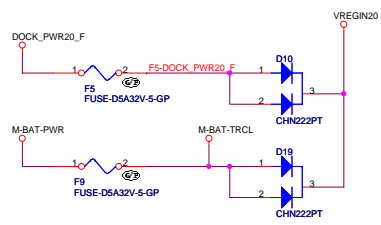
57 DCIN_CURRENT_P << R11 1 2 0R0402-PAD
 57 DCIN_CURRENT_N << R264 1 2 0R0402-PAD
Keep these two signals as a pair routing !!
 PLACE NEAR U42 MAX8765

LOGIC
 ↓

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

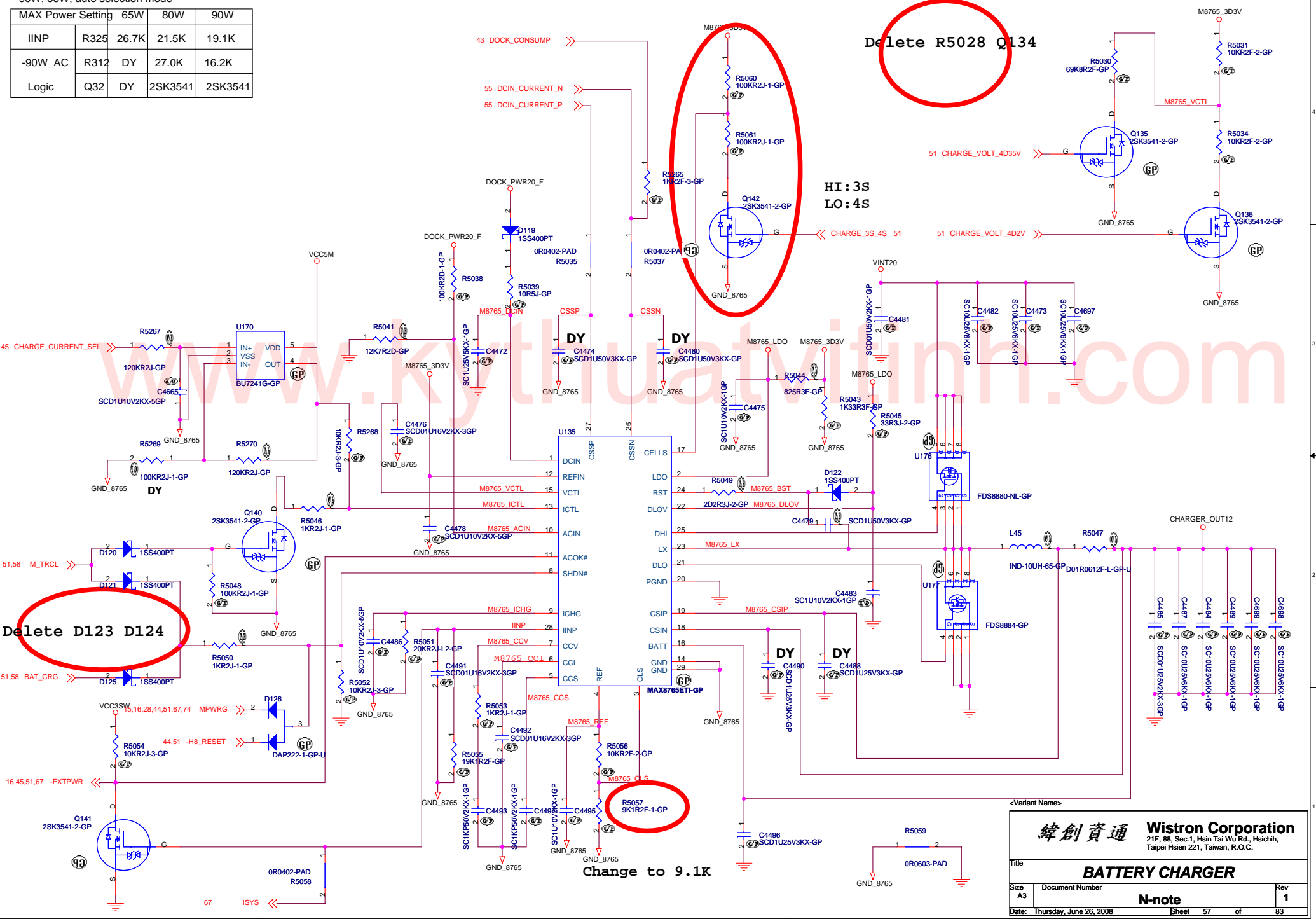


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90W, 65W, auto selection mode

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



Delete R5028 Q134

HI : 3S
LO : 4S

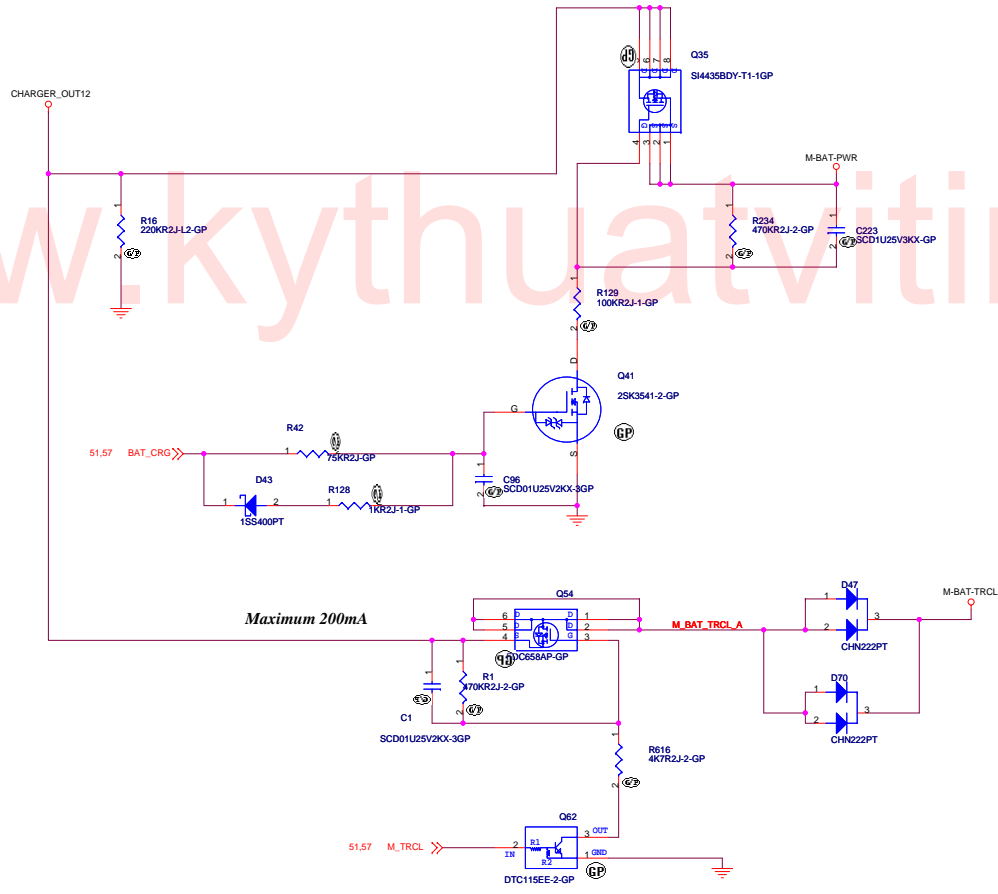
Delete D123 D124

Change to 9.1K

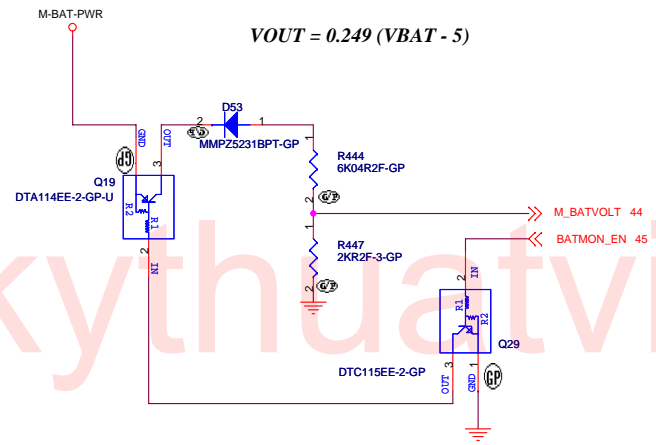
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Title BATTERY CHARGER		
Size A3	Document Number N-note	Rev 1
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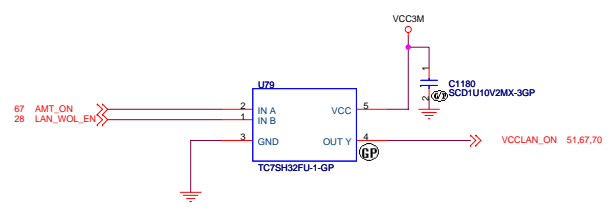
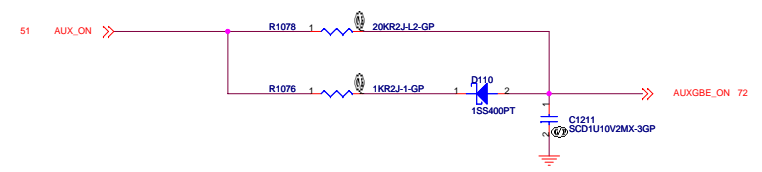
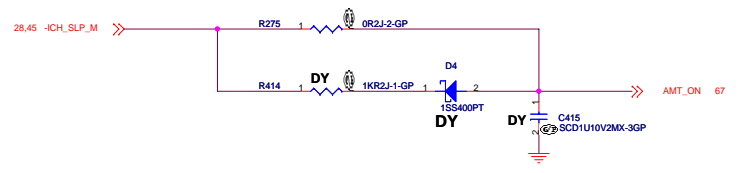
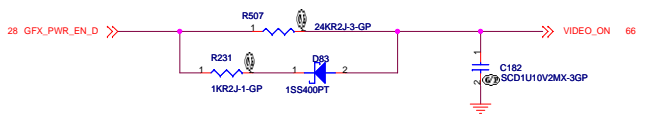
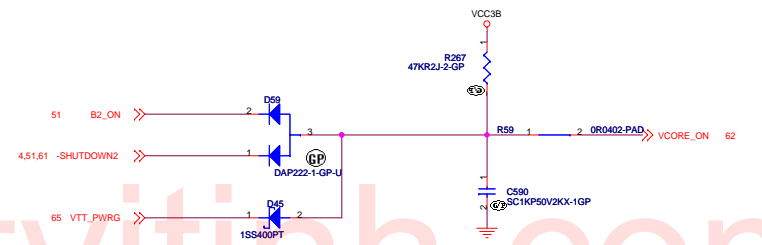
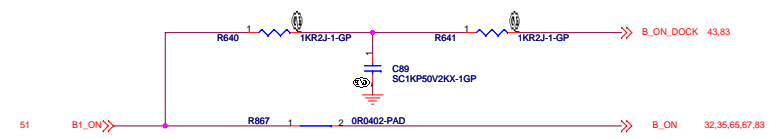
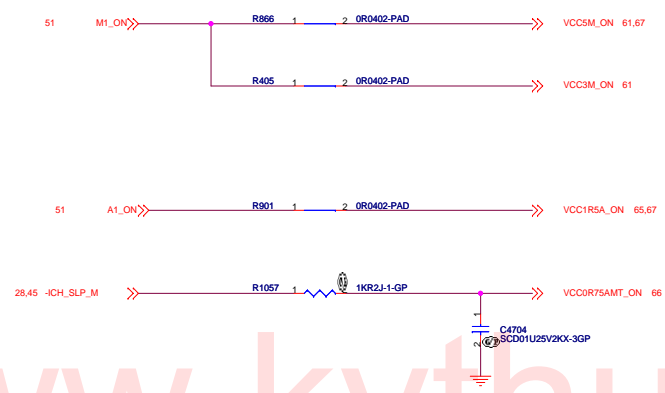


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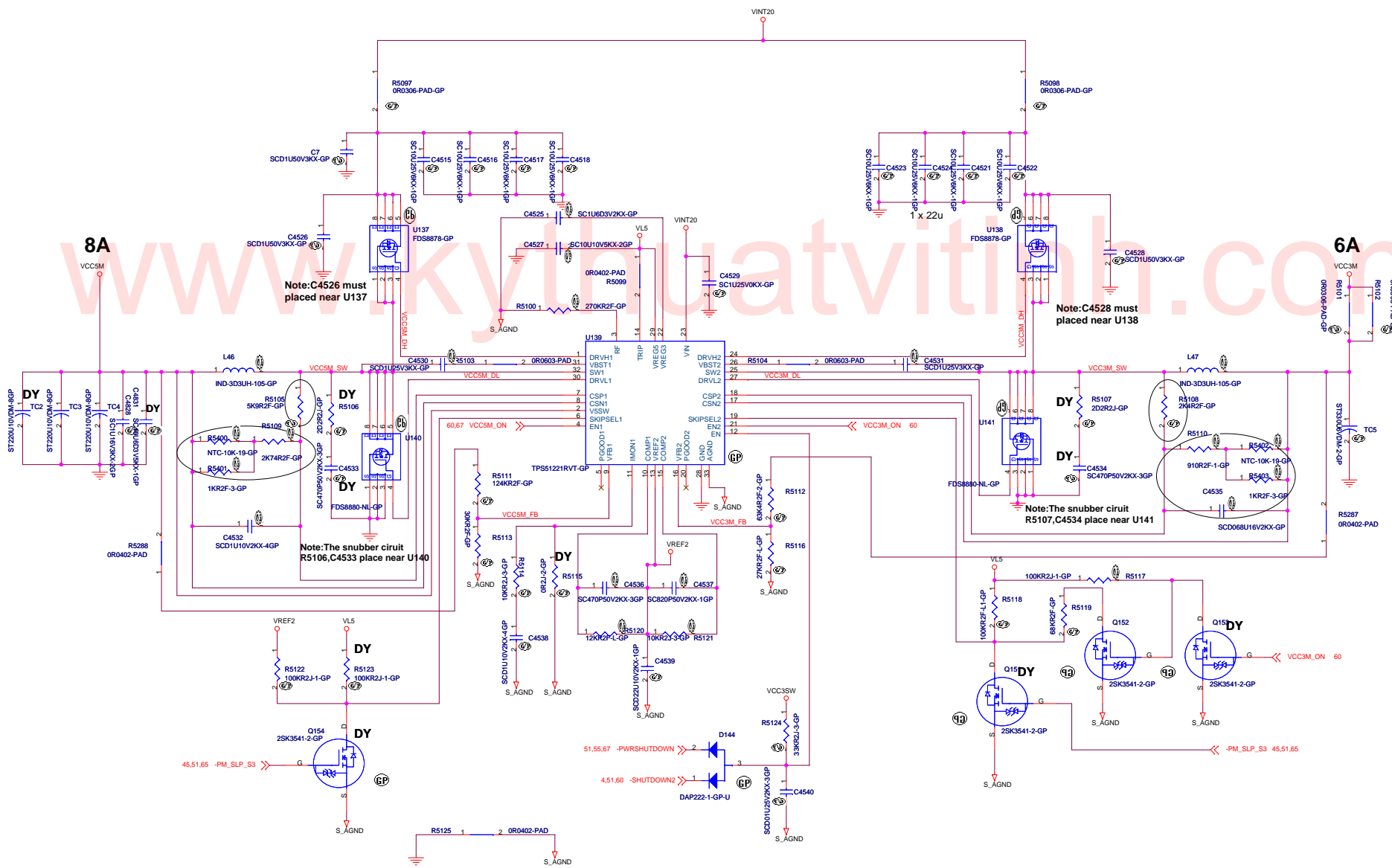


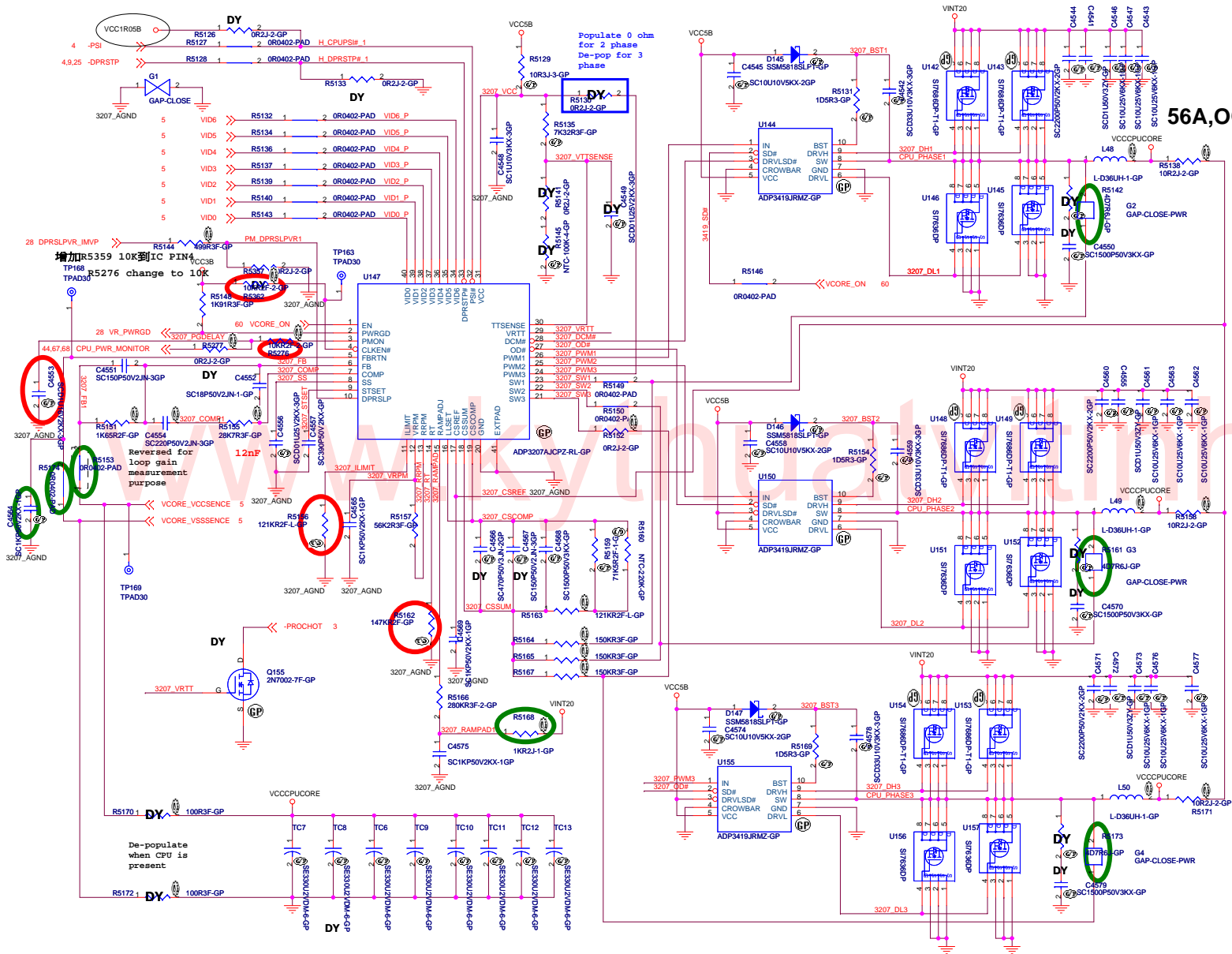
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<small>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</small>		<small>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</small>	
BATTERY MONITOR			
Size C	Document Number	N note	Rev 1
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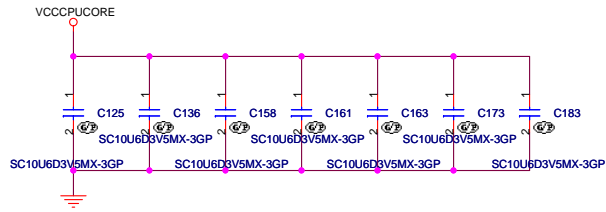


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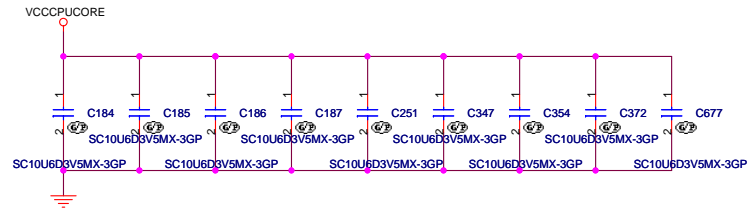




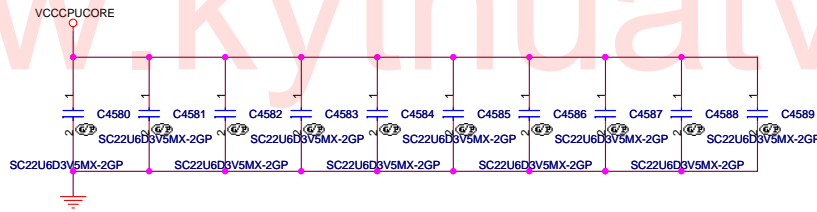
56A, OCP>64A



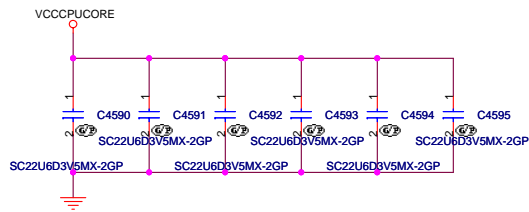
10UF 6.3V X5R 2125 1/16W X16 PCS



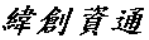
www.kythuatvithinh.com



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



<Variant Name>

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

Rev 1

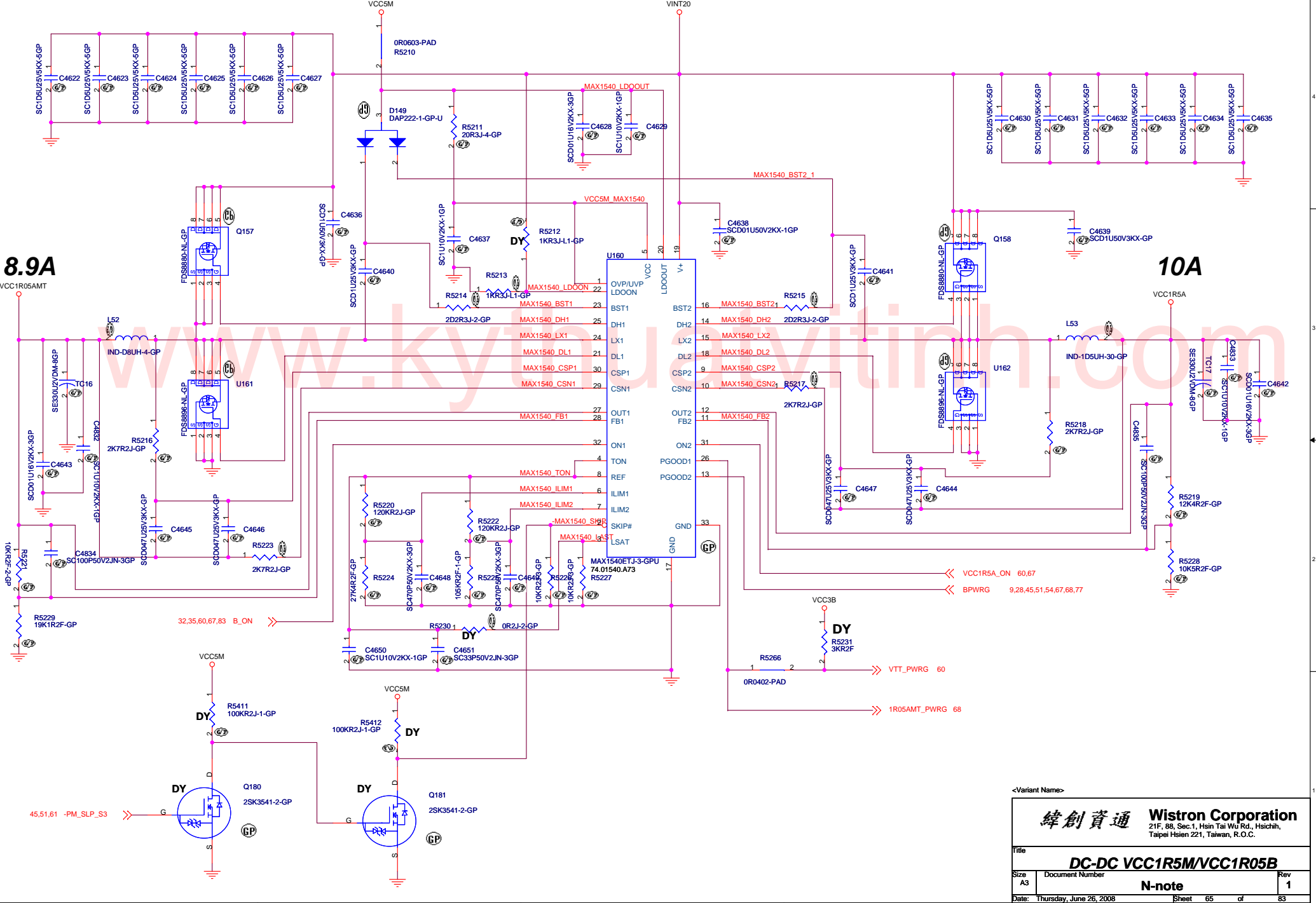
www.kythuatvitinh.com

<Variant Name>

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

8.9A

10A



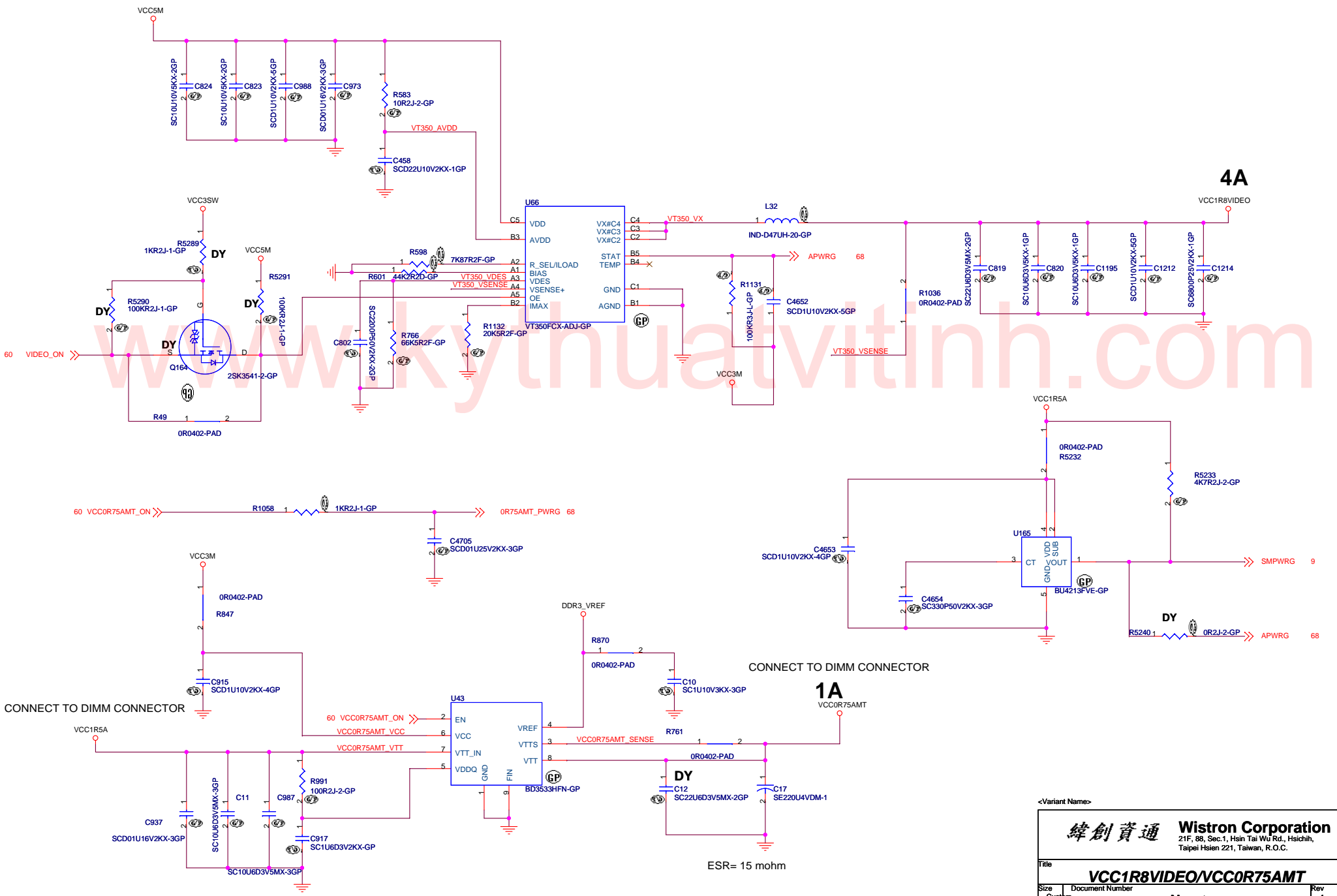
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緯創資通 Wistron Corporation
 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **DC-DC VCC1R5M/VCC1R05B**

Size A3 Document Number **N-note** Rev 1

Date: Thursday, June 26, 2008 Sheet 65 of 83



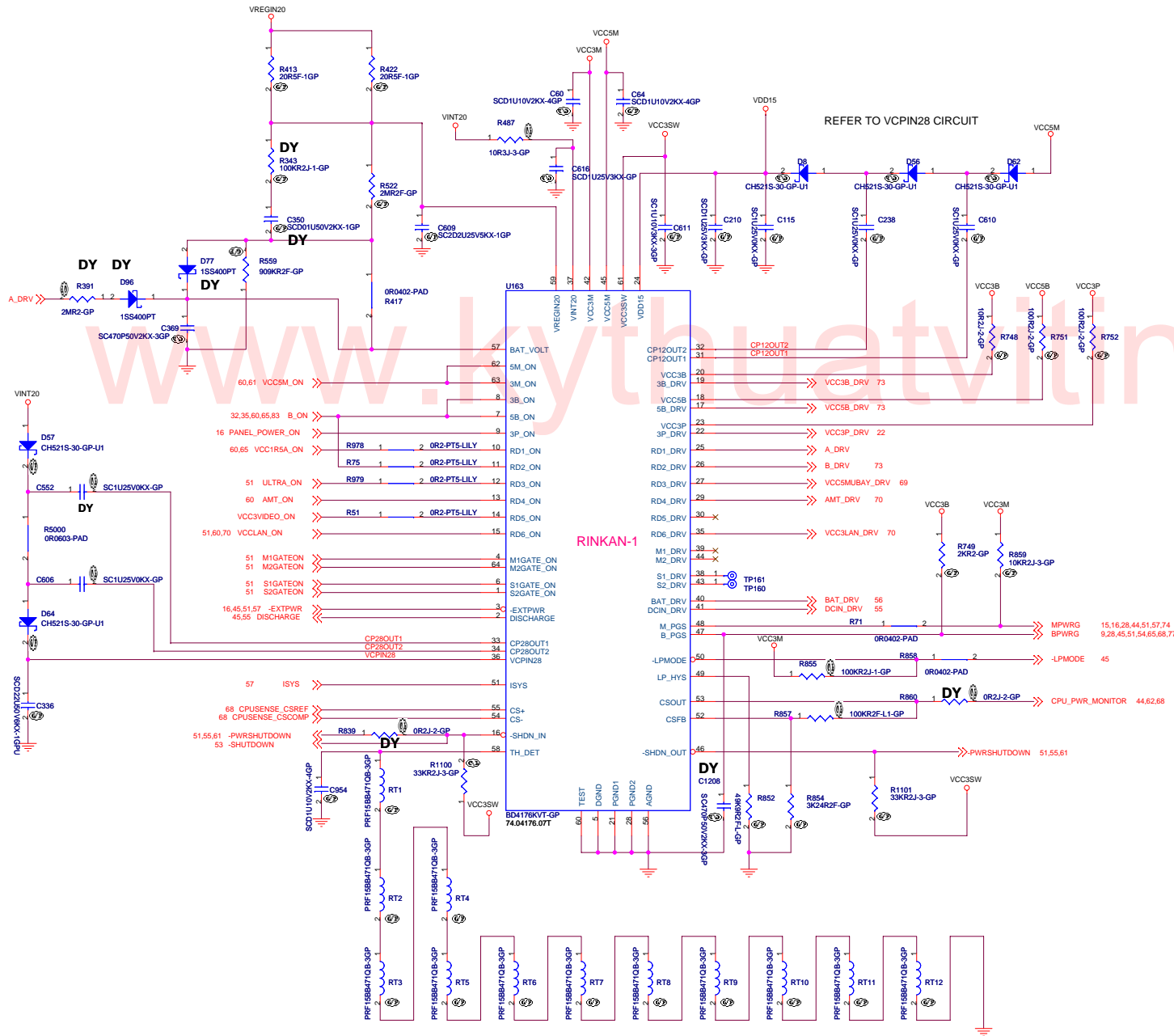
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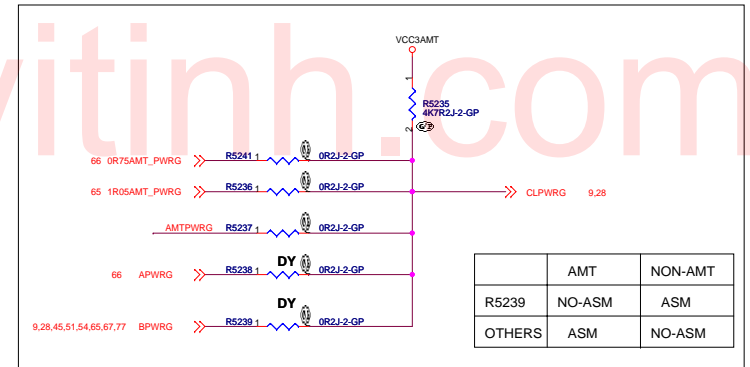
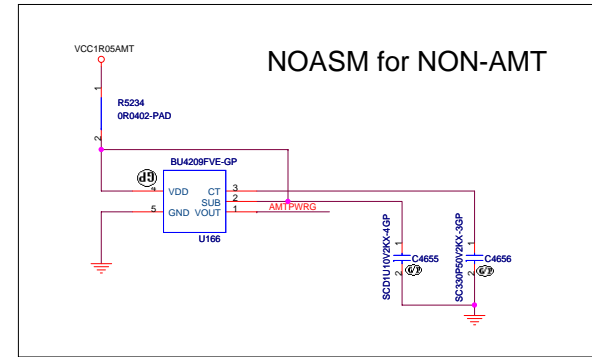
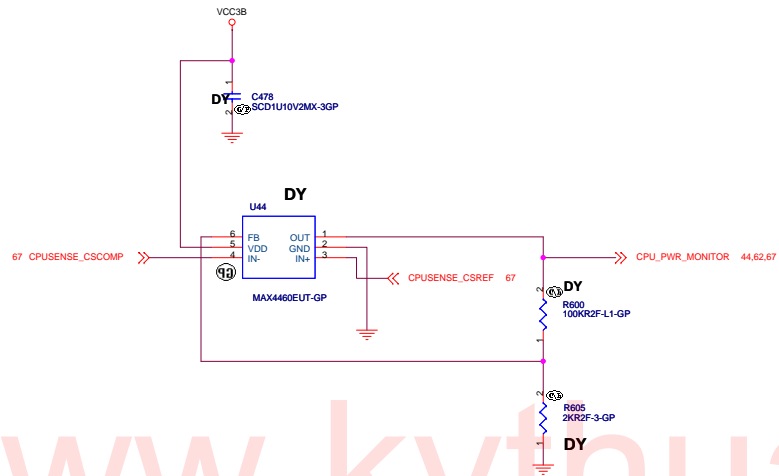
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 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **VCC1R8VIDEO/VCC0R75AMT**

Size	Document Number	Rev
Custom	N-note	1

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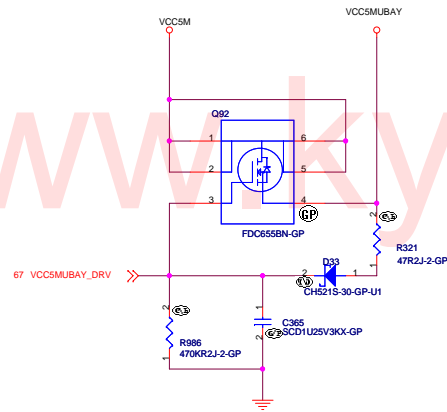
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緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

File			
CPU POWER MOMITOR			
Size	Document Number	Rev	
C	N-note	1	
Date:	Thursday, June 26, 2008	Sheet	68 of 63

Ultrabay Power Load Switch

1.8A

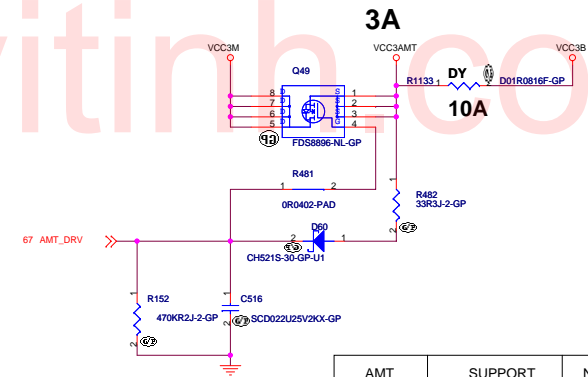
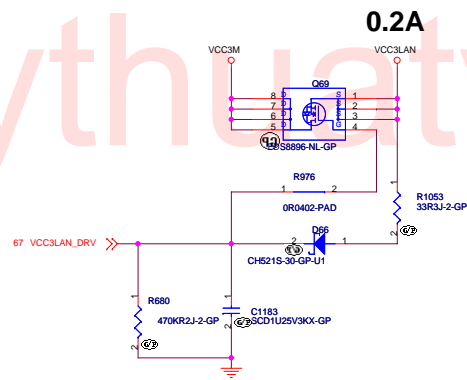
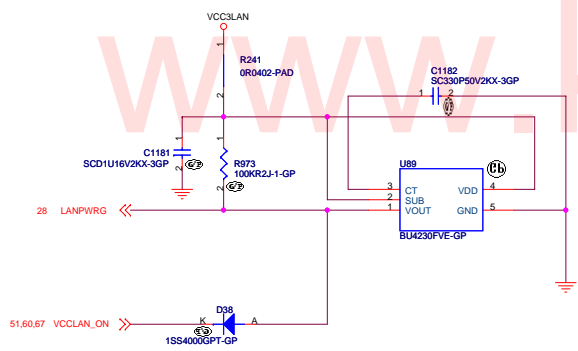


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<Variant Name>

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(B&UBAY)		
Size	Document Number	Rev
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Date:	Thursday, June 26, 2008	Sheet 69 of 83



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., Hsichin,
Taipei Hsien Z21, Taiwan, R.O.C.

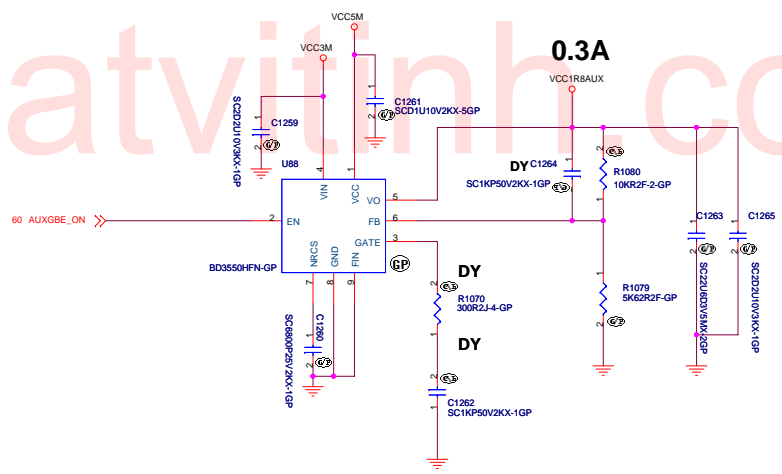
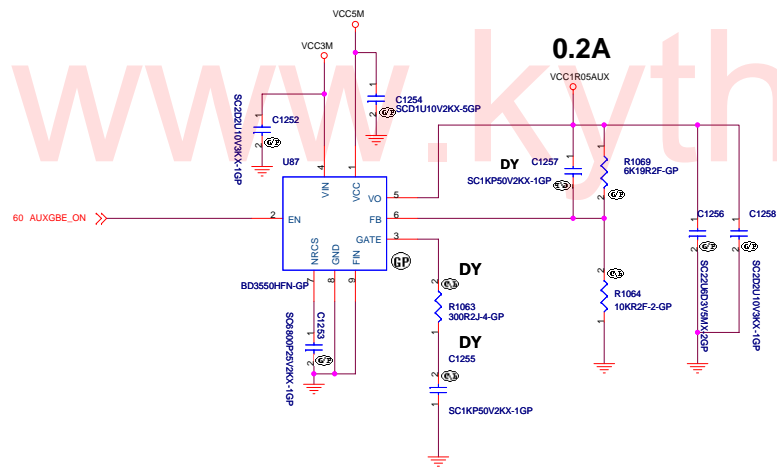
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Size	Document Number	N-note	Rev 1
C			
Date:	Thursday, June 26, 2008	Sheet	70 of 83

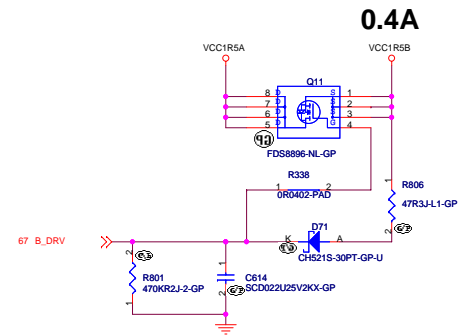
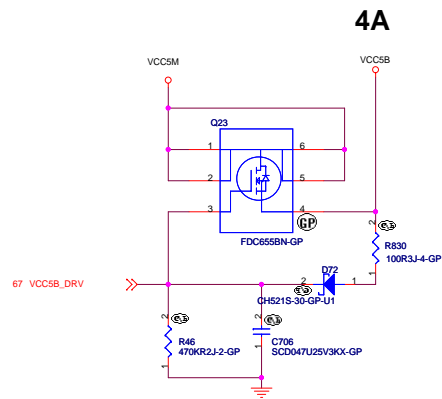
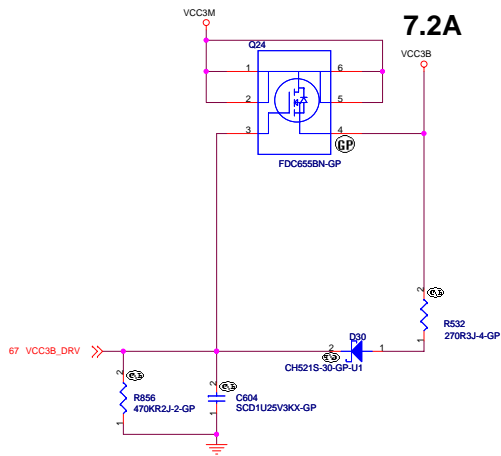
www.kythuatvitinh.com

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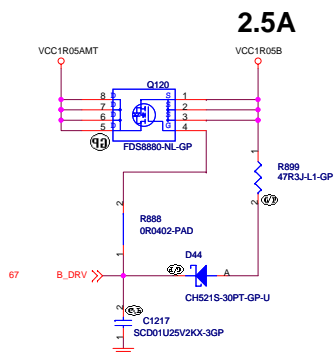
緯創資通		Wistron Corporation	
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
File		LOAD SW VIDEO	
Size	Document Number		Rev
C	N-note		1
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VCC1R8AUX
 1.8V : R1079 : 5.62KOHM
 2.5V: R1079: 3.48KOHM





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<Variant Name>

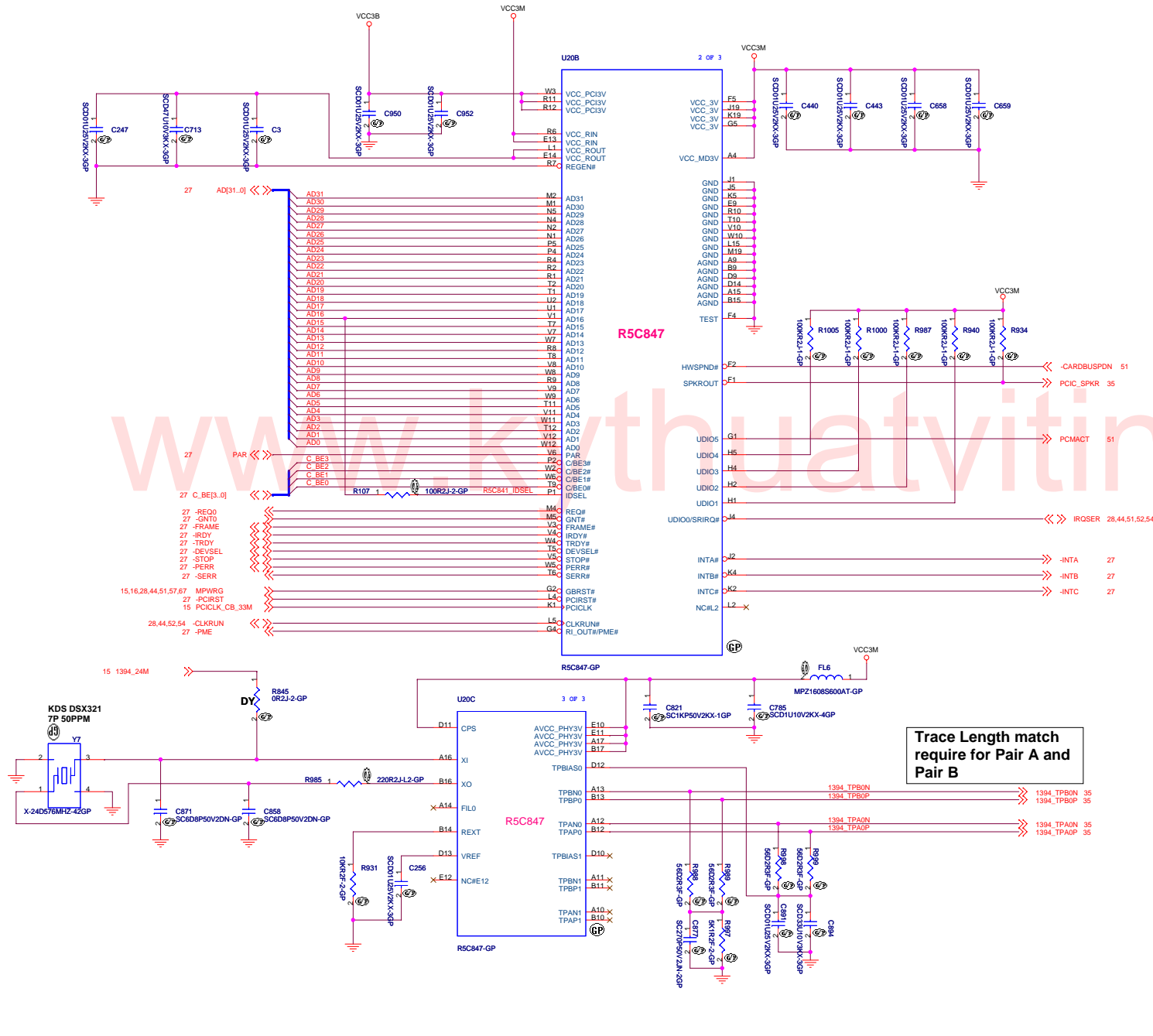
緯創資通 Wistron Corporation
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichin,
Taipei Hsien 221, Taiwan, R.O.C.

File		LOAD SW B	
Size	Document Number	Rev	
C		1	
Date:	Thursday, June 26, 2008	Sheet	73 of 83

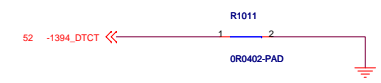
TABLE 1394

NO-1394 YES-1394

U20	R5C804	R5C847/ R5C803
FL6	0ohm	MPZ1608S600A
R931	NO_ASM	ASM
R256	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



<Variant Name>

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

Title: **CARBUS CONTROLLER (1/2)**

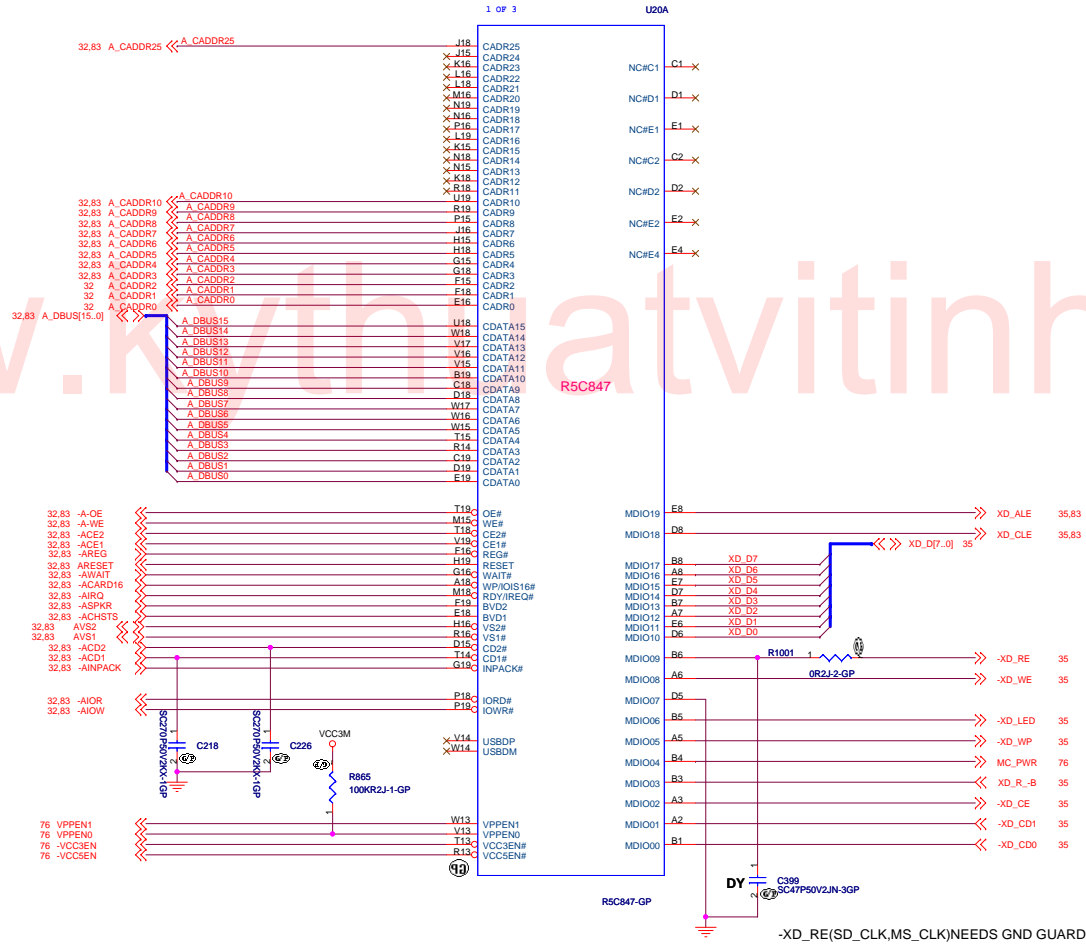
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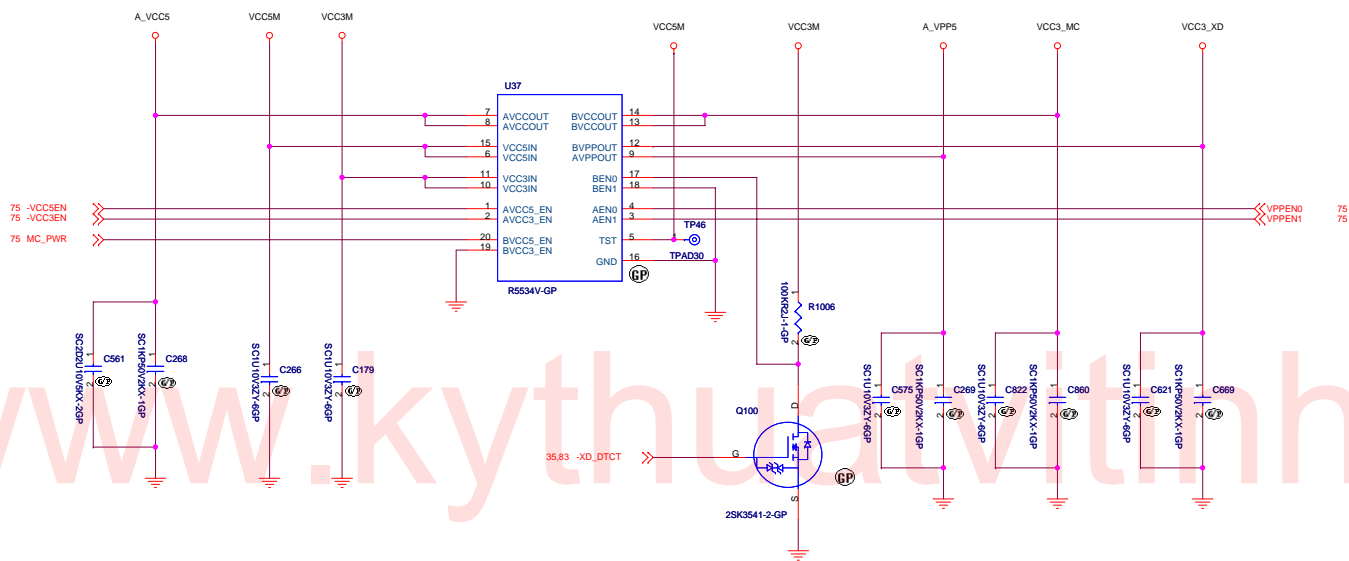
Date: Thursday, June 26, 2008 Sheet 74 of 83

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





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

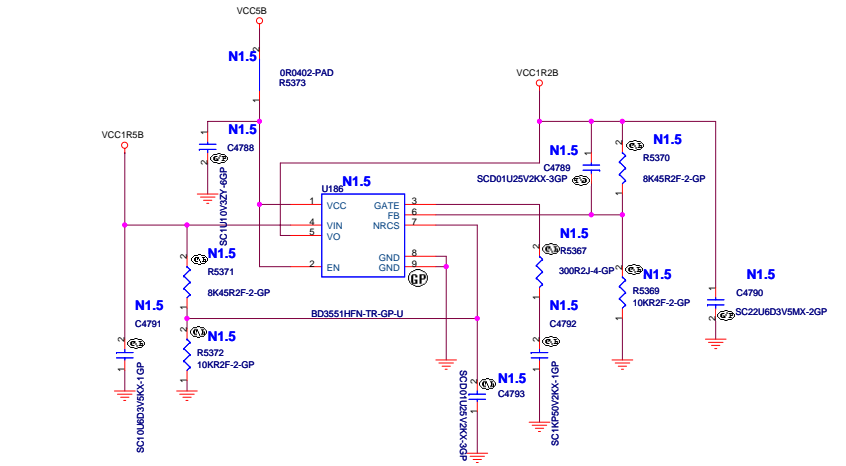
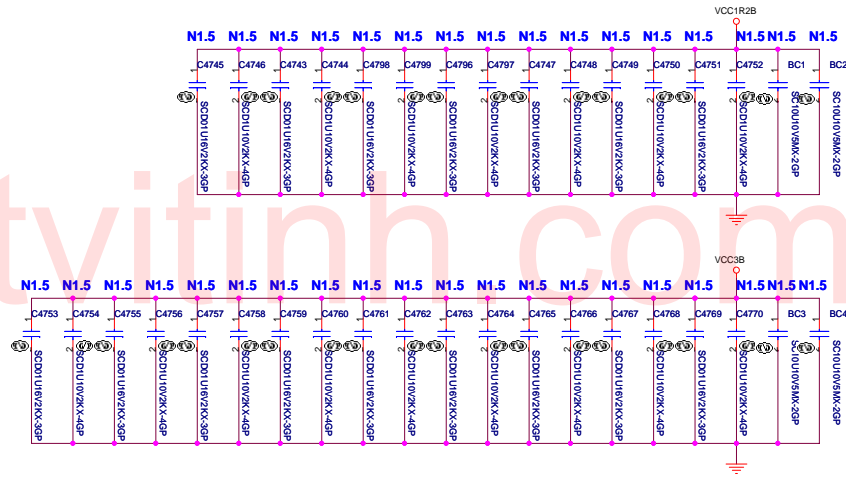
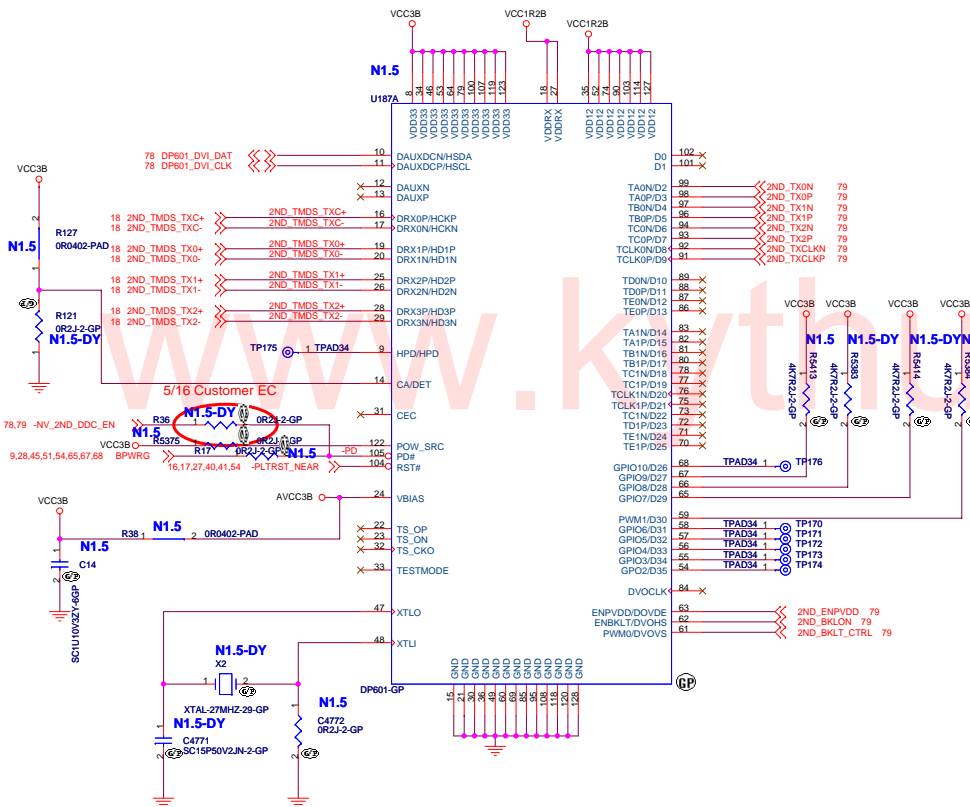
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LOGIC

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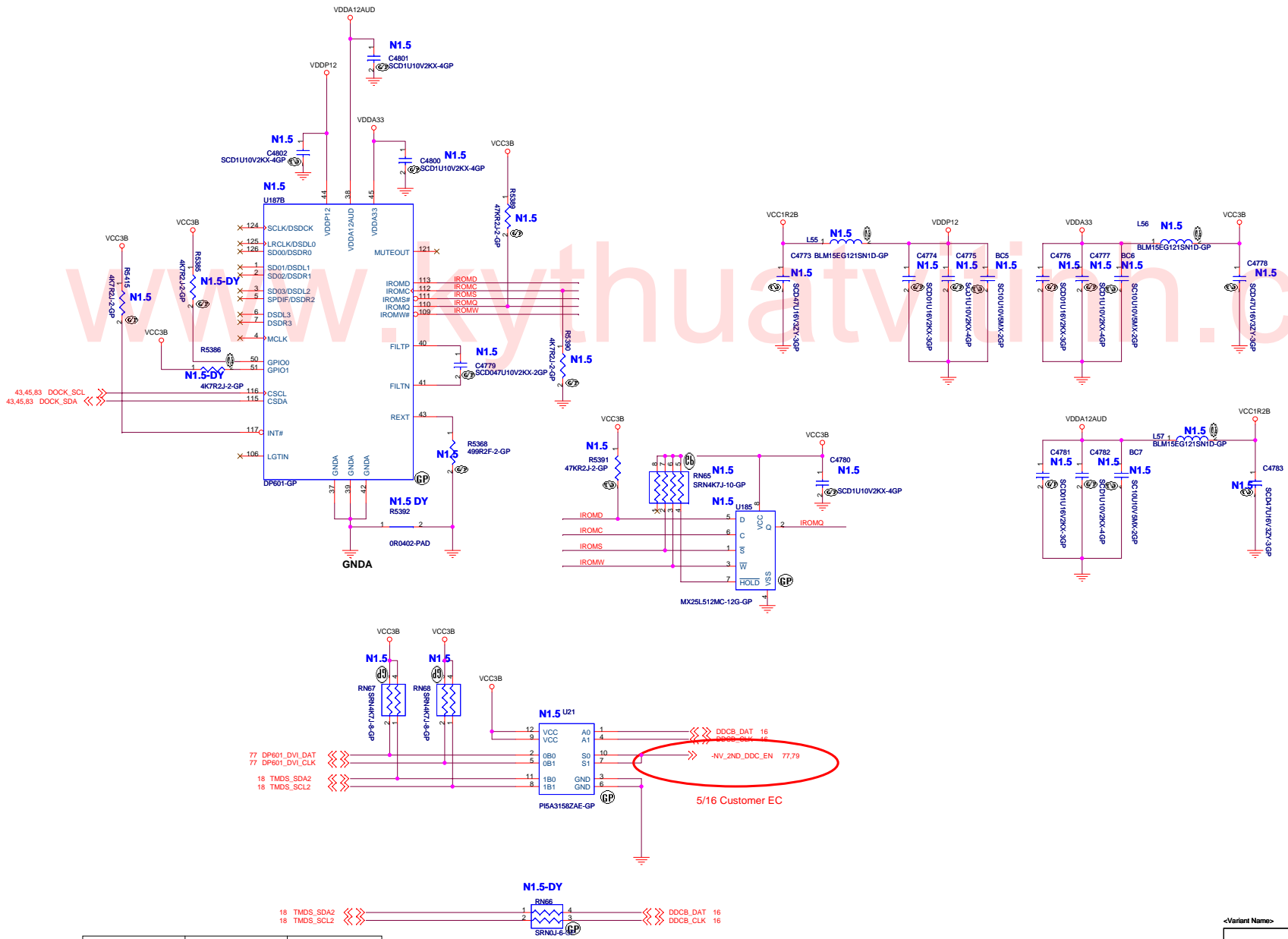
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緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

File			CARDBUS/EXC POWER CONTROL		
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C					
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DP601	Internal XTAL	External XTAL
X2	NO-ASM	ASM
C4771	NO-ASM	ASM
C4772	0 Ohm	ASM



RN66 Dummy is supported 2'nd LCD.

	2nd LCD	NON 2nd LCD
U21	Yes	No
RN66	No	Yes

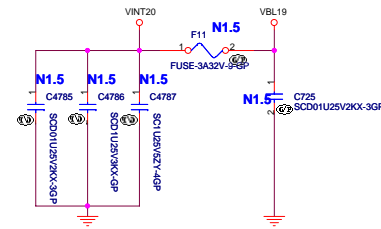
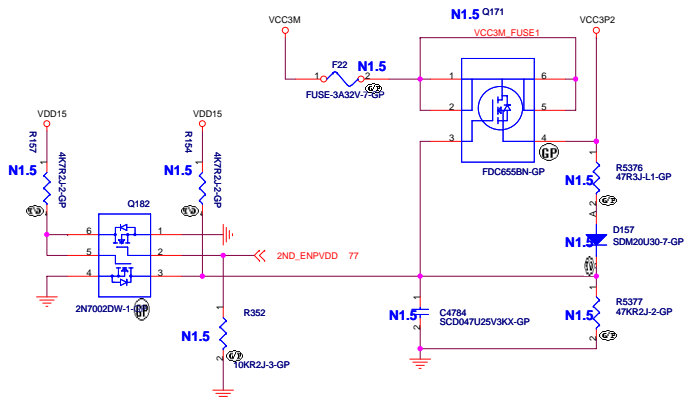
<Variant Name>

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

File: **DP601 (2/2)**

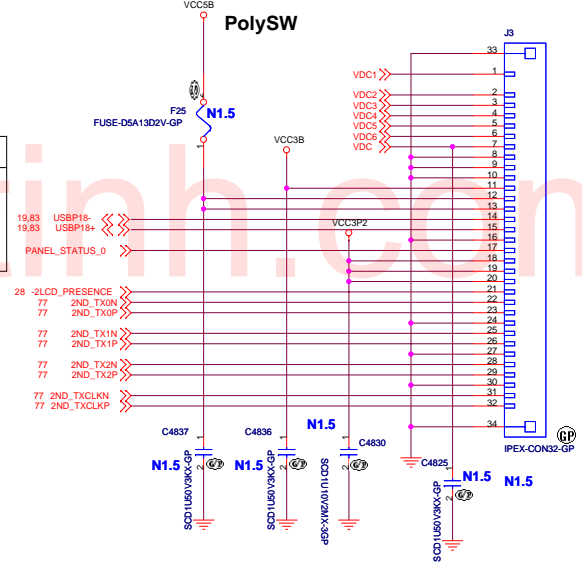
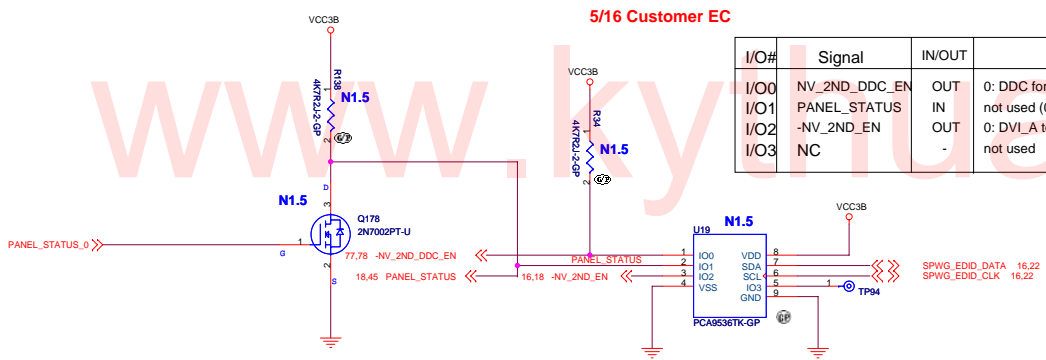
Size C	Document Number	Rev
	N-note	1

Date: Thursday, June 26, 2008 Sheet 78 of 83

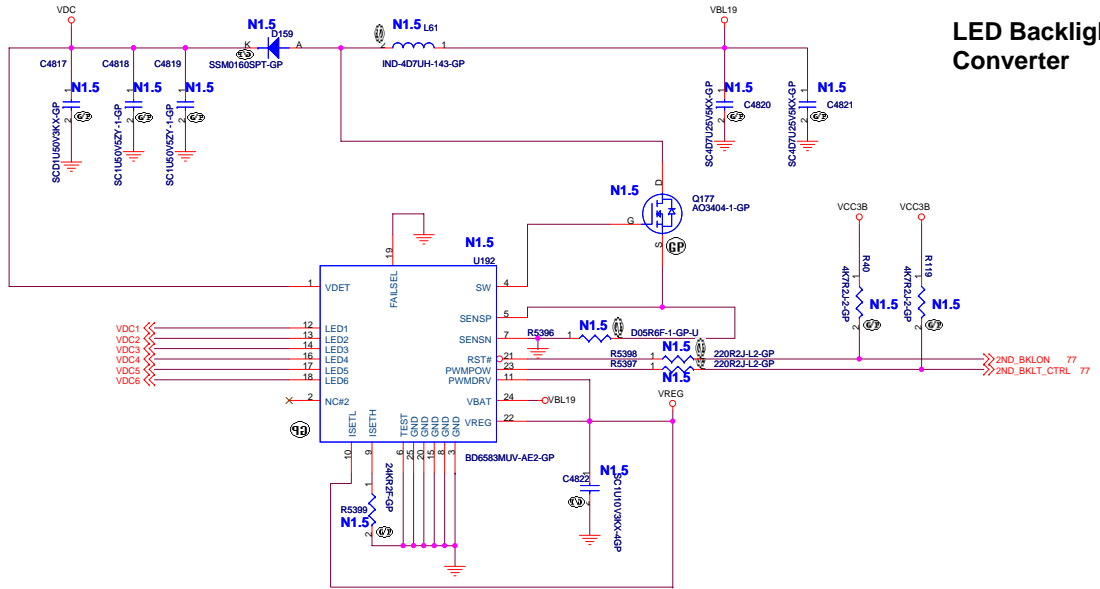


5/16 Customer EC

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



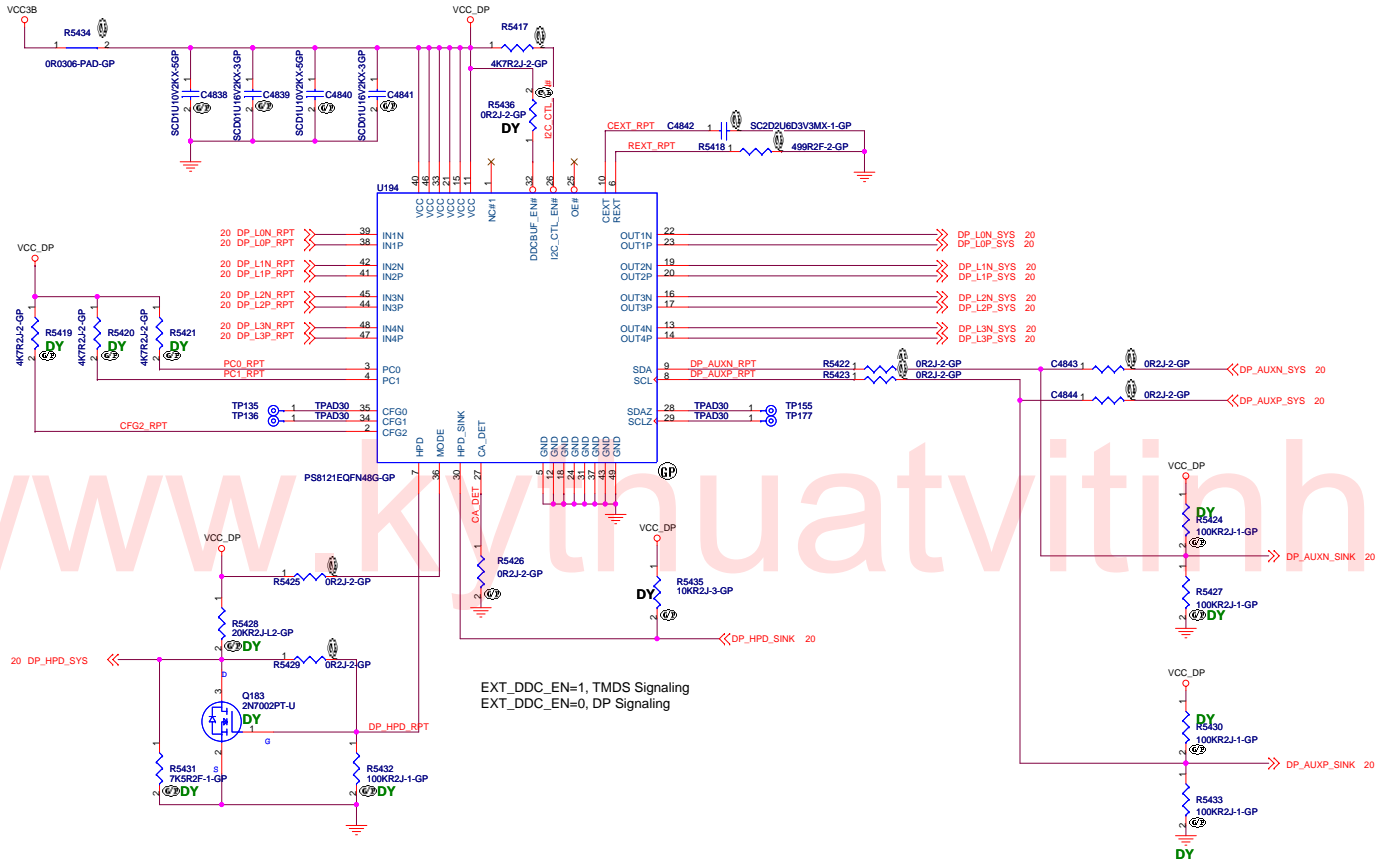
LED Backlight Converter



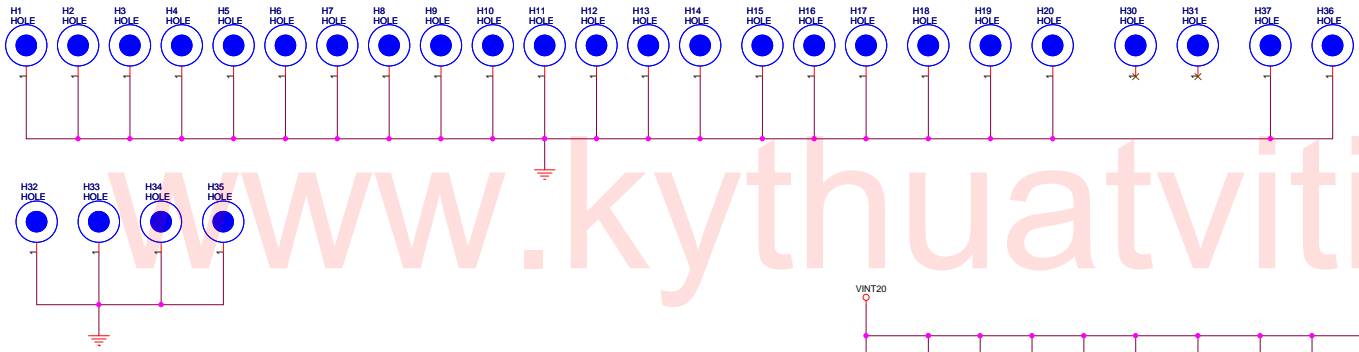
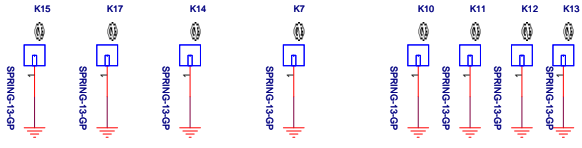
U19 I/O Usage
 I/O# Signal In/Out Description
 I/O0 -NV_2ND_DDC_EN OUT 0: DDC for 2nd LCD, 1: DDC for System DVI
 I/O1 PANEL_STATUS IN Not used (0: 2nd LCD Lid Close, 1: 2nd LCD Lid Open)
 I/O2 -NV_2ND_EN OUT Not used
 I/O3 -NV_2ND_EN OUT 0: DVI_A to 2nd LCD, 1: DVI_A to System DVI

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

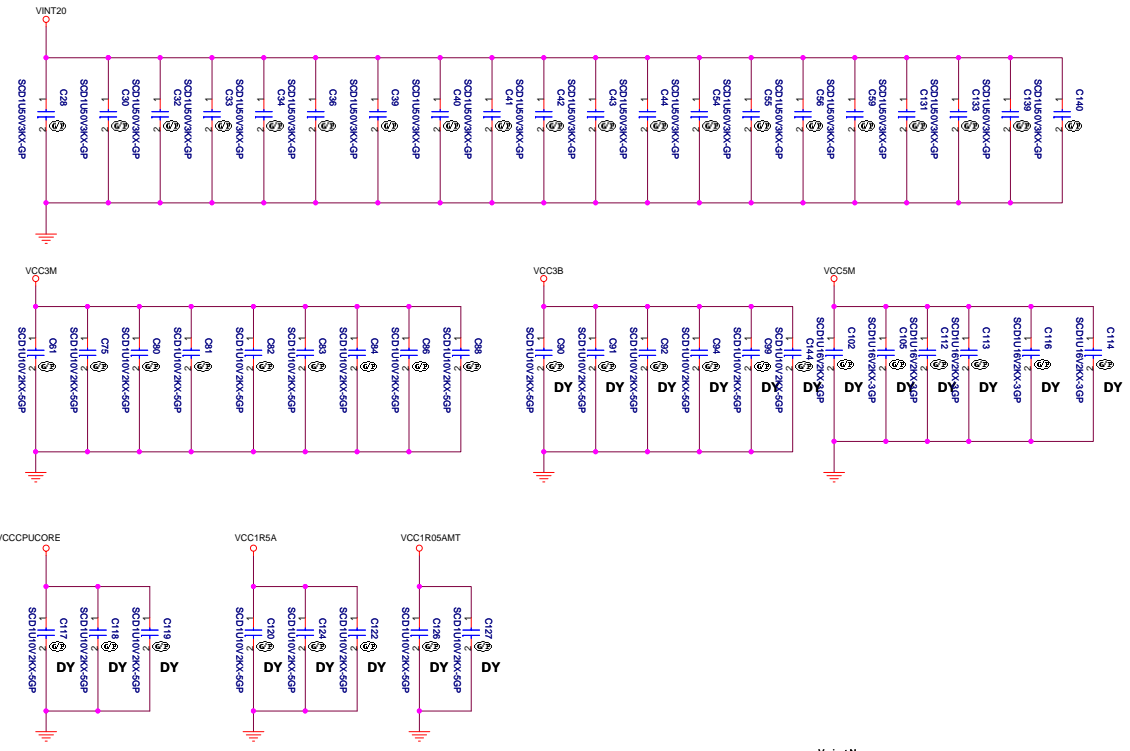
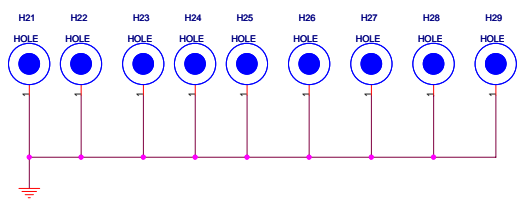
CFG2=LOW, DDC Passive Switch
CFG2=HIGH, DDC Active buffer



EXT_DDC_EN=1, TMS Signaling
EXT_DDC_EN=0, DP Signaling



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

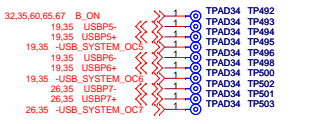
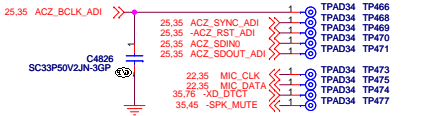
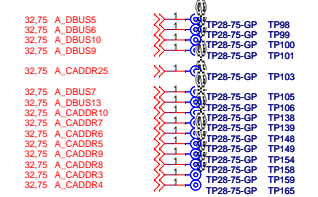
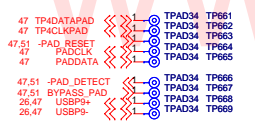
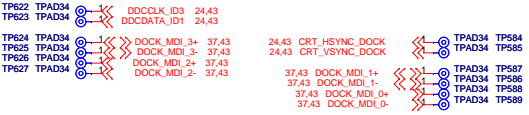
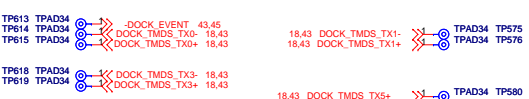
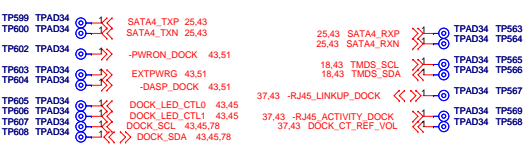
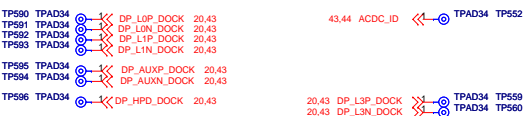
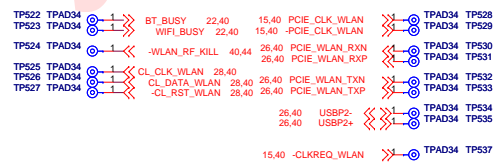
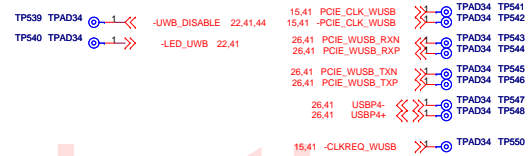
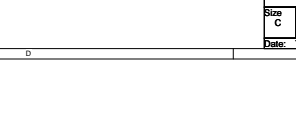
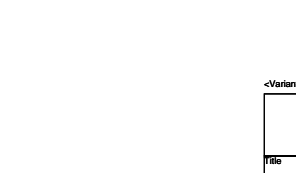
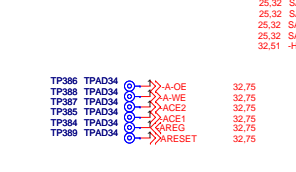
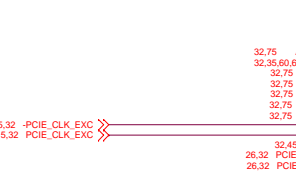
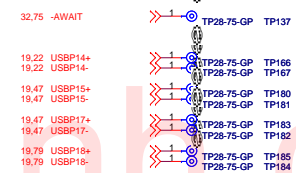
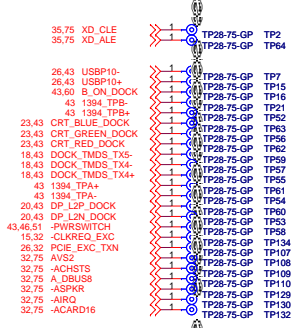
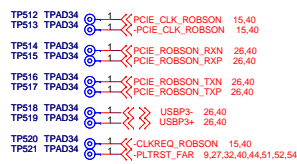
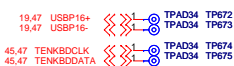


N-note SDV

- | | | |
|----------------------------------|----------------------------------|----------------------------------|
| 01. N-note Block Diagram | 33. SATA ODD CONN | 65. DC-DC VCC1R5A/VCC1R05AMT |
| 02. Reference | 34. USB POWER/CONNECTOR | 66. DC-DC VCC1R8VIDEO/VCC0R75AMT |
| 03. CPU(1/3) | 35. AUDIO IO SUB CARD | 67. DC/DC RINKAN(BD4176KVT) |
| 04. CPU(2/3) | 36. GBE BOAZMAN | 68. CPU POWER MONITOR |
| 05. CPU(3/3) | 37. GBE LAN SWITCH | 69. LOAD SW UBAY &WWAN |
| 06. XDP CONNECTOR | 38. GBE MAGNETICS | 70. LOAD SW AMT&LAN |
| 07. CANTIGA(1/6):HOST I/F | 39. RJ45 CONNECTOR | 71. LOAD SW VIDEO |
| 08. CANTIGA(2/6):DDR3 CH A/B | 40. PCIE MINI SLOT(ROBSON/WLAN) | 72. LOAD SW AUX |
| 09. CANTIGA(3/6):DMI/PM/CFG/GF | 41. PCIE HALF MINI SLOT(WUSB) | 73. LOAD SW B |
| 10. CANTIGA(4/6):PEG/GRAPHICS | 42. SPI FLASH | 74. CARD BUS CONTROLLER (1/2)847 |
| 11. CANTIGA(5/6):VCC | 43. DOCKING CONNECTOR | 75. CARDBUS CONTROLLER (2/2)847 |
| 12. CANTIGA(6/6):GND | 44. H8S/2116B(1/2) | 76. CARDBUS/EXC PWR CTRL |
| 13. DDR3 SODIMM-A(REVERSE TYPE) | 45. H8S/2116B(2/2) | 77. DP601 1/2 |
| 14. DDR3 SODIMM-B(NORMAL TYPE) | 46. KEYBOARD CONNECTOR | 78. DP601 2/2 |
| 15. CLOCK GEN(CK505) | 47. TOUCH PAD CONNECTOR | 79. 2'ND LCD CONN. |
| 16. MXM CONN. | 48. WIRELESS DISABLE SW | 80. PTH FOR SCREW HOLES |
| 17. LPC Debug Board | 49. FAN CONNECTOR | 81. N-NOTE SHEET INDEX |
| 18. DVI DUAL CONN. | 50. G-SENSOR | |
| 19. USB HUB(USB2507-ADT) | 51. MISC G/A (PMH7) | |
| 20. Display Port | 52. SUPER I/O(WPCN385SDG) | |
| 21. LVDS SWITCH(BLANK) | 53. THERMAL SENSOR(EMC1428) | |
| 22. LCD CONNECTOR | 54. EEPROM/SMBUS SW/TPM | |
| 23. RGB SWTICH | 55. DC-IN | |
| 24. EXT CRT INTERFACE | 56. BATTERY INPUT | |
| 25. ICH9-M(1/6):SATA/AC97/LPC | 57. BATTERY CHARGER (MAX8765) | |
| 26. ICH9-M(2/6):PCI/PCIE/DMI/USB | 58. CHARGER SELECT | |
| 27. ICH9-M(3/6):PCI/INTERRUPT | 59. BATTERY MONITOR | |
| 28. ICH9-M(4/6):GPIO/CLK/PM | 60. POWER SEQUENCE | |
| 29. ICH9-M(5/6):POWER | 61. DC-DC VCC3M/VCC5M(TPS51221) | |
| 30. ICH9-M:(6/6):GND | 62. DCDC VCCCPUCORE(ADP3207JCPZ) | |
| 31. RTC BATTERY | 63. VCCCPUCORE DECOUPLING | |
| 32. SATA HDD IO SUB CARD CONN | 64. UMA DC-DC GFX_CORE(BLANK) | |

<Variant Name>

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