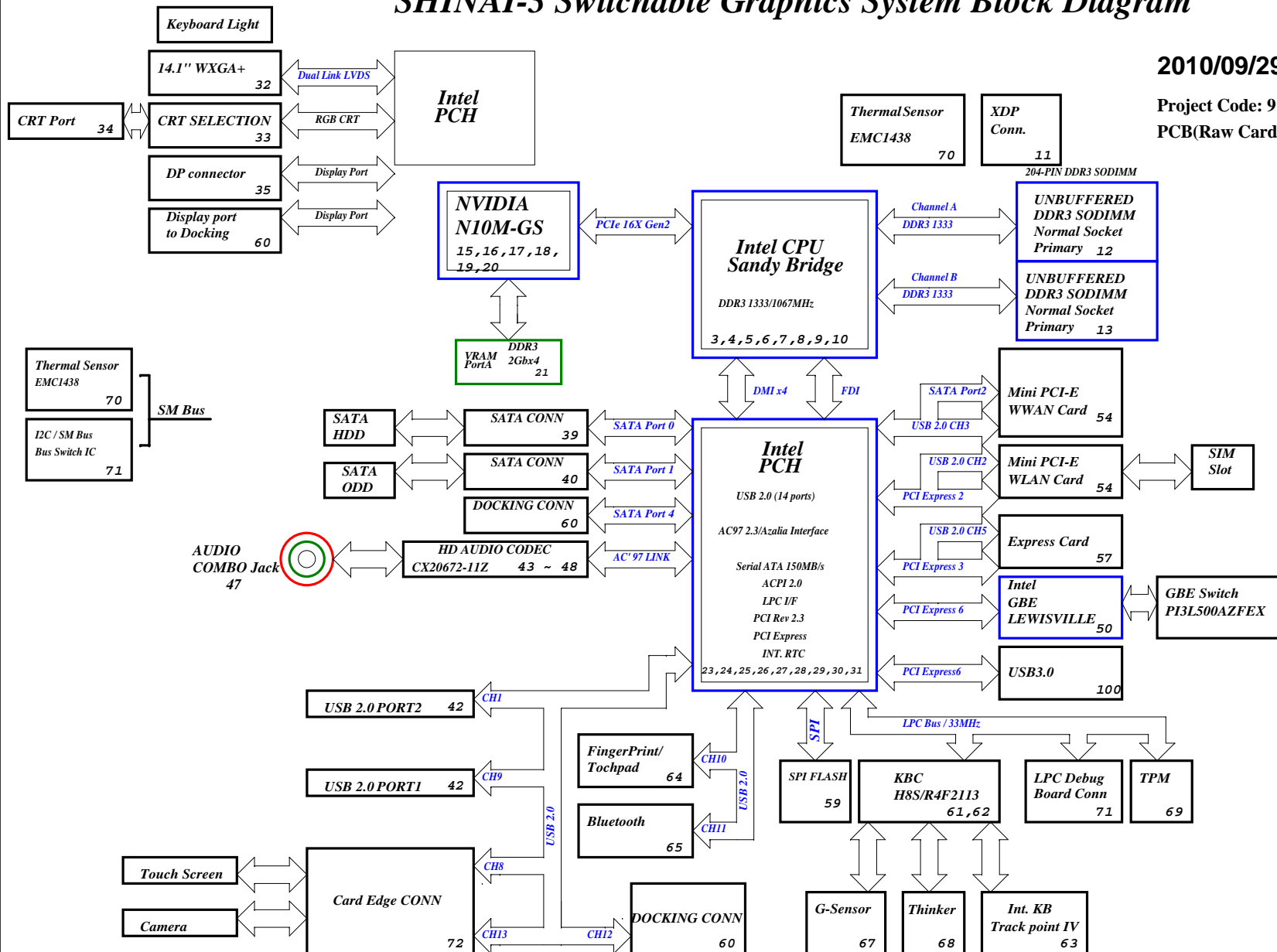


SHINAI-3 Switchable Graphics System Block Diagram

2010/09/29

Project Code: 91.4KF01.001
PCB(Raw Card): 10226-SB



PCB Layer Stackup	
L1:	TOP
L2:	SIGNAL
L3:	G/P
L4:	SIGNAL
L5:	G/P
L6:	G/P
L7:	SIGNAL
L8:	G/P
L9:	SIGNAL
L10:	BOTTOM
Battery Charger/Selector BQ24742 74	
INPUTS OUTPUTS	
DCIN_PWR20_F	M-BAT-PWR
TPS51222	VCC5M
VINT20	VCC3M
System DC/DC 78	
CPU DC/DC 79	
VT1316/VT1317	VCC5M_OUT
VCC5M_OUT	VCCPUCORE
GFX CORE_D 83	
ADP3211	VINT20
VINT20	VCCGFXCORE_D
GFX CORE_I 81	
VT1317	VCC5M_OUT
VCC5M_OUT	VCCGFXCORE_I
VCC1R5A 86	
VT358FCX	VCC5M_OUT
VCC5M_OUT	VCC1R5A
VCC0R75B 87	
MAX1510	VCC1R5A
VCC1R5A	VCC0R75B
VCC1R8B 89	
TPS62290	VCC5M
VCC5M	VCC1R8B
VCC1R05AMT 85	
VT356FCX	VCC5M_OUT
VCC5M_OUT	VCC1R05LAN
VCC1R05B_VTT 84	
VT357FCX	VCC5M_OUT
VCC5M_OUT	VCC1R05B_VTT

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

Block Diagram

SHINAI-3 SWG

SB

Date: Wednesday, September 28, 2010 Sheet 1 of 102

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]

ICH9-M GPIOn	39	38	37	36	Planar ID Version	Planar PCB Version
PLANAR_IDn	3	2	1	0		
	0	0	0	0	SHINAI-3 SWG PDV	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
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Taipei Hsien 221, Taiwan, R.O.C.

Title	Author	Date	Page	Page	Page	Page	Page	Page	Page	Page	Page
Title	Author	Date	Page	Page	Page	Page	Page	Page	Page	Page	
Title	Author	Date	Page	Page	Page	Page	Page	Page	Page	Page	
Title	Author	Date	Page	Page	Page	Page	Page	Page	Page	Page	
Title	Author	Date	Page	Page	Page	Page	Page	Page	Page	Page	
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Title	Author	Date	Page	Page	Page	Page	Page				

EC HISTORY

Size	A3
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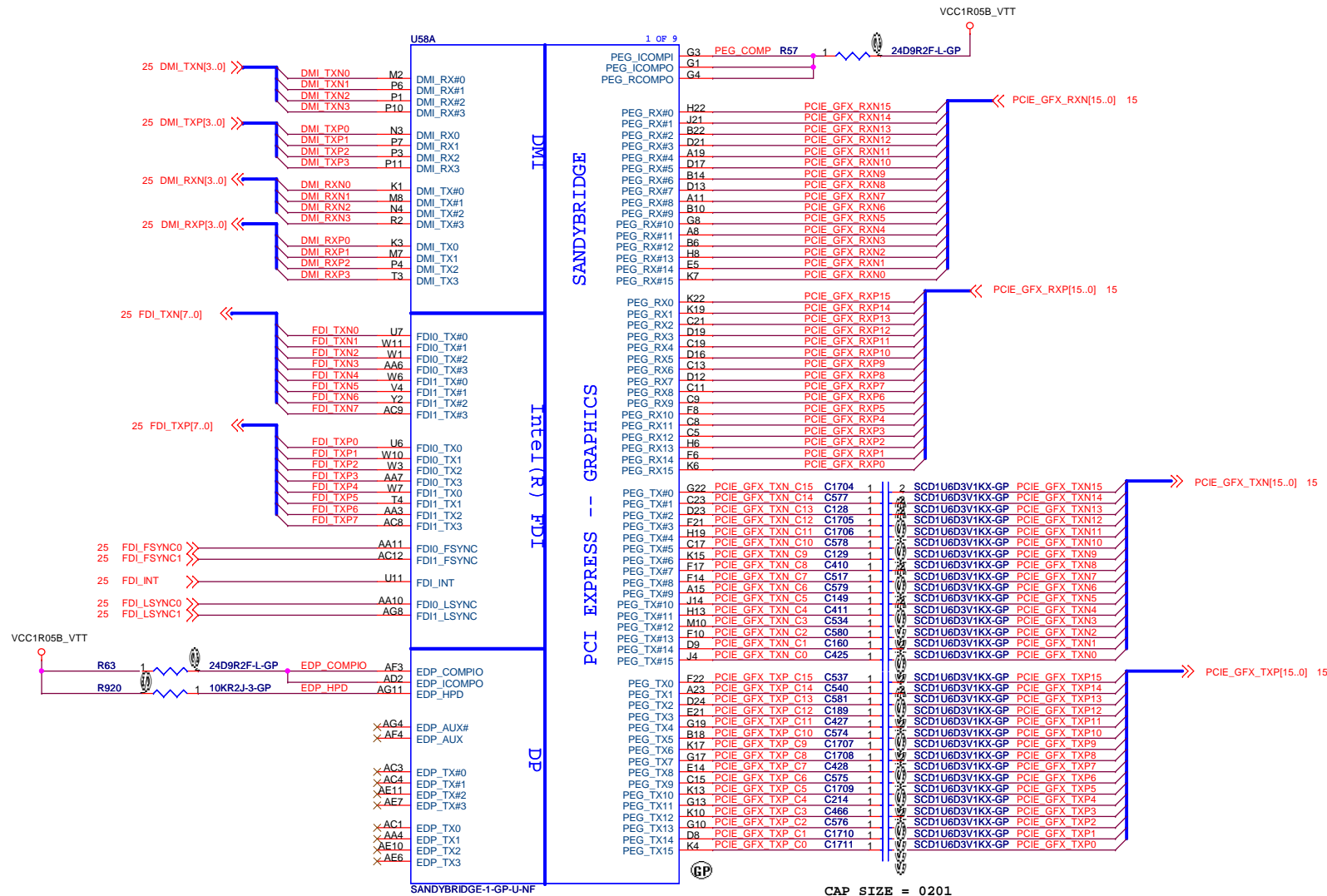
Document Number

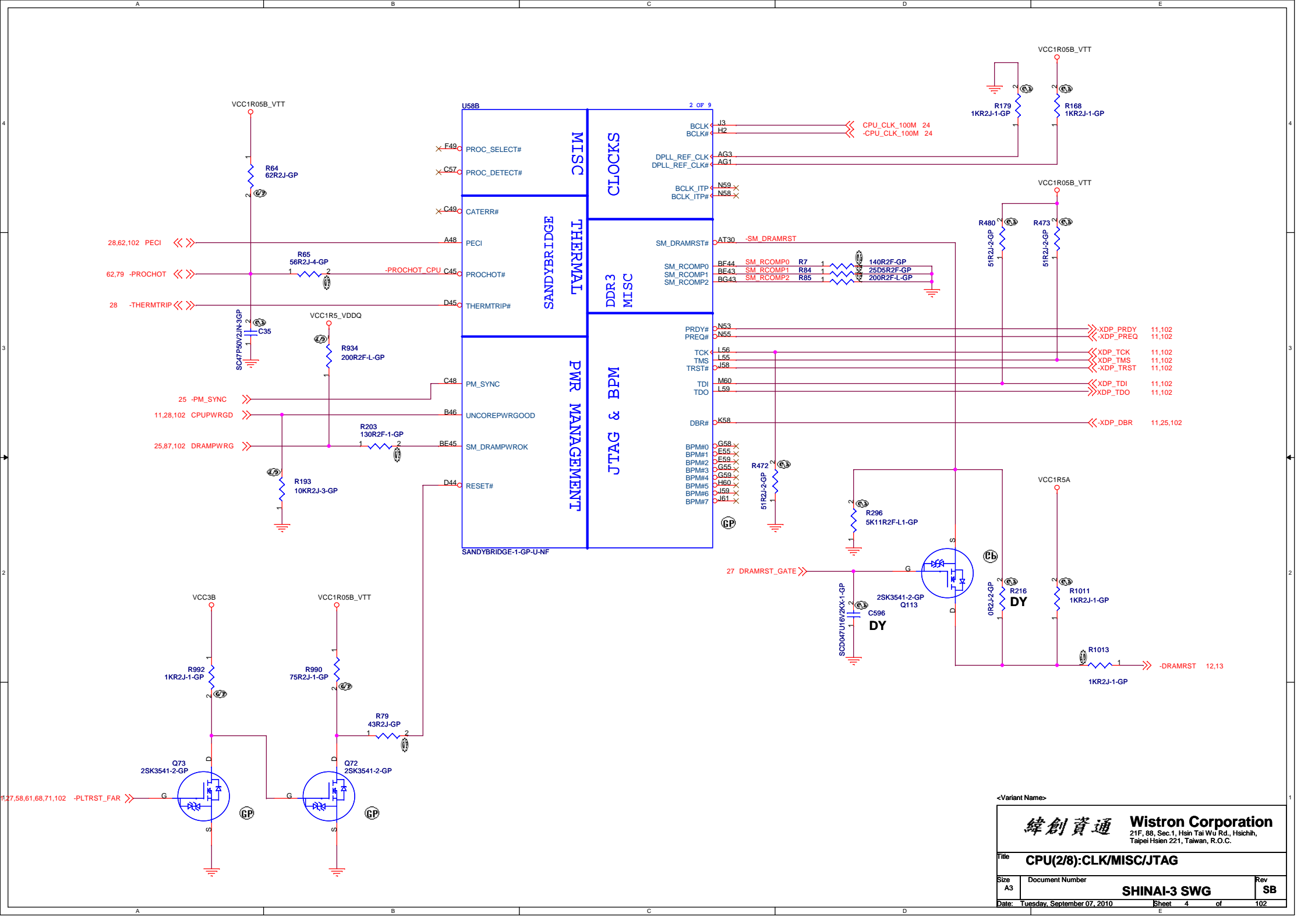
SHINAI-3 SWG

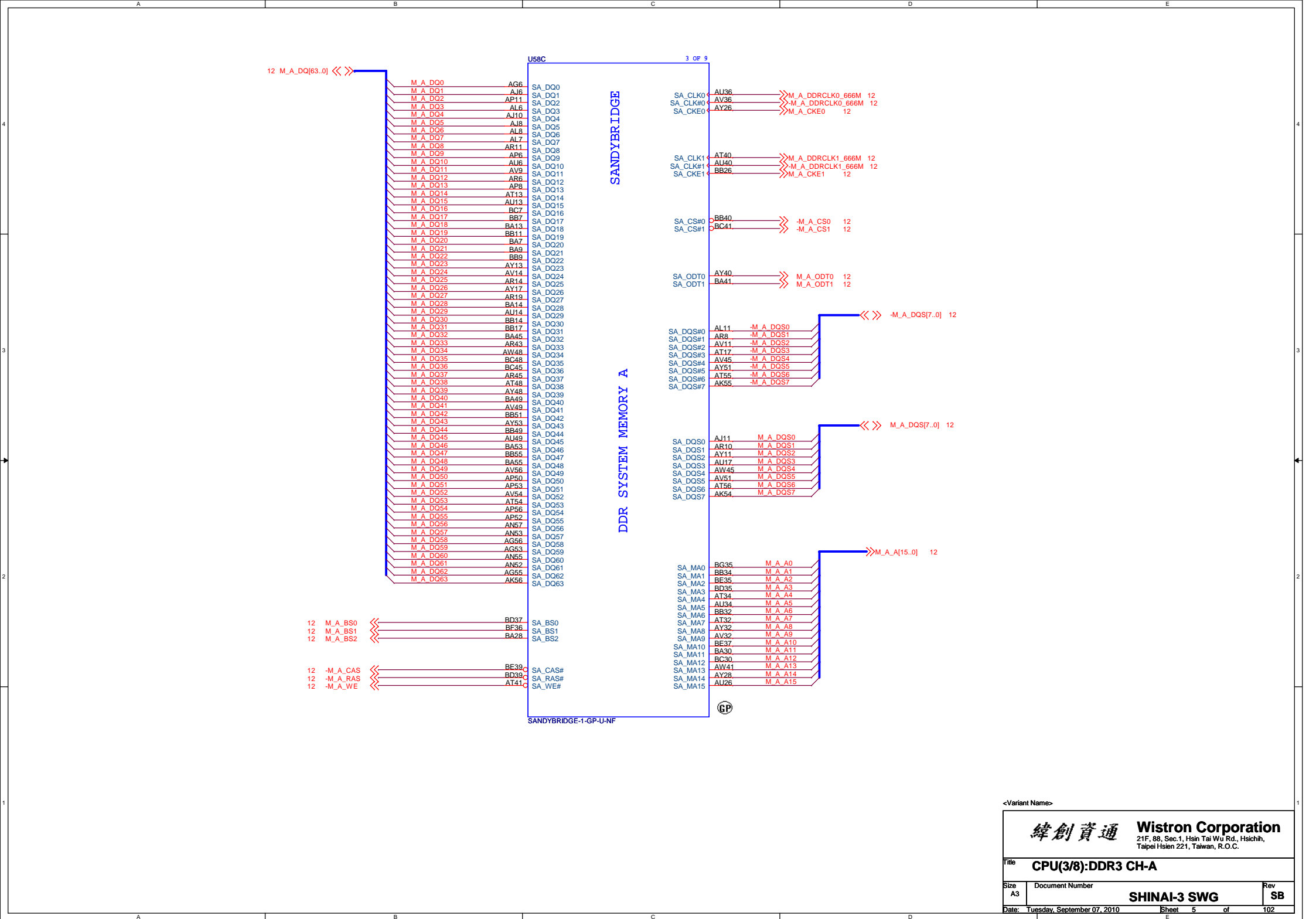
Rev	SB
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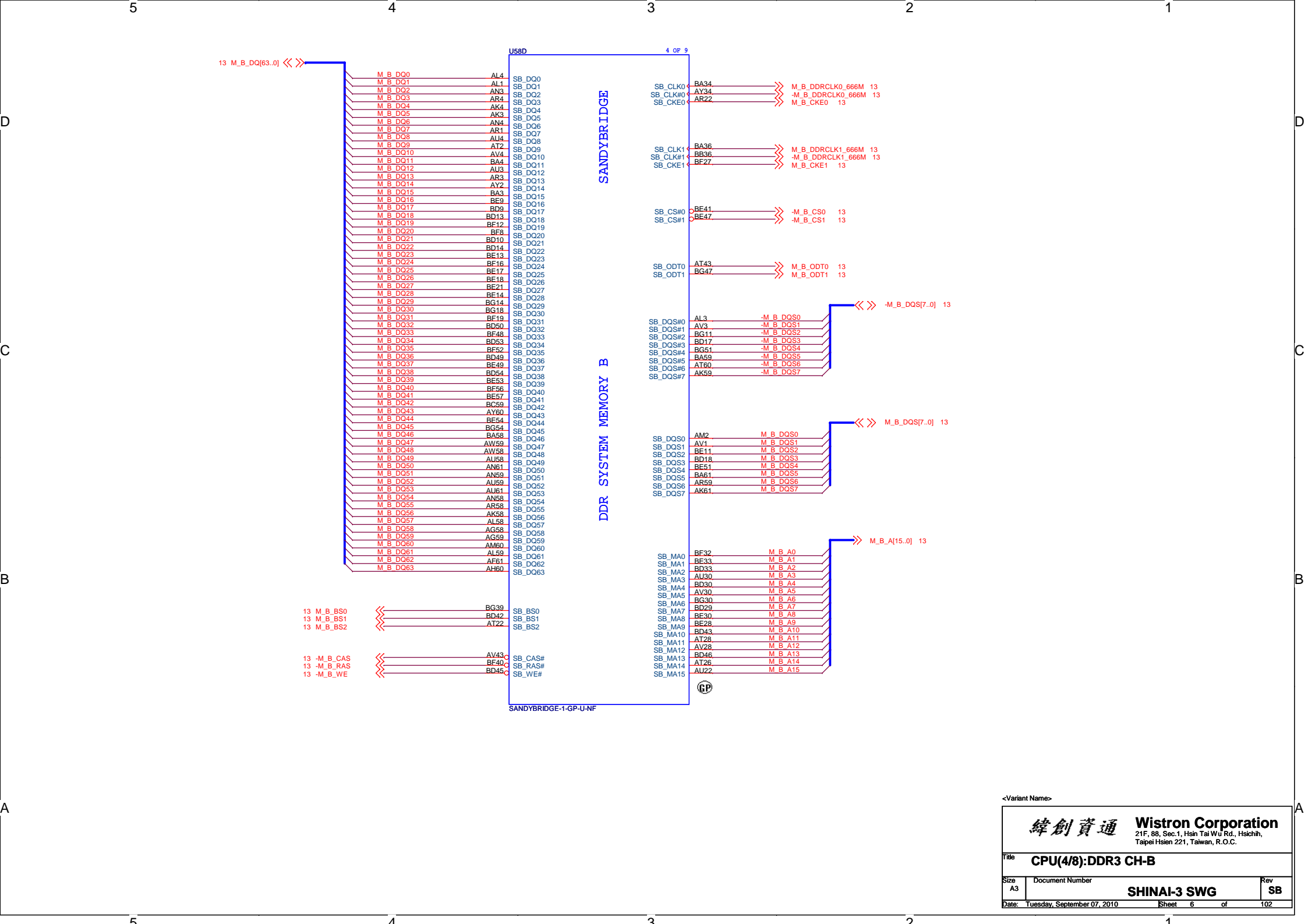
Date: Tuesday, September 07, 2010

Sheet 2 of 102

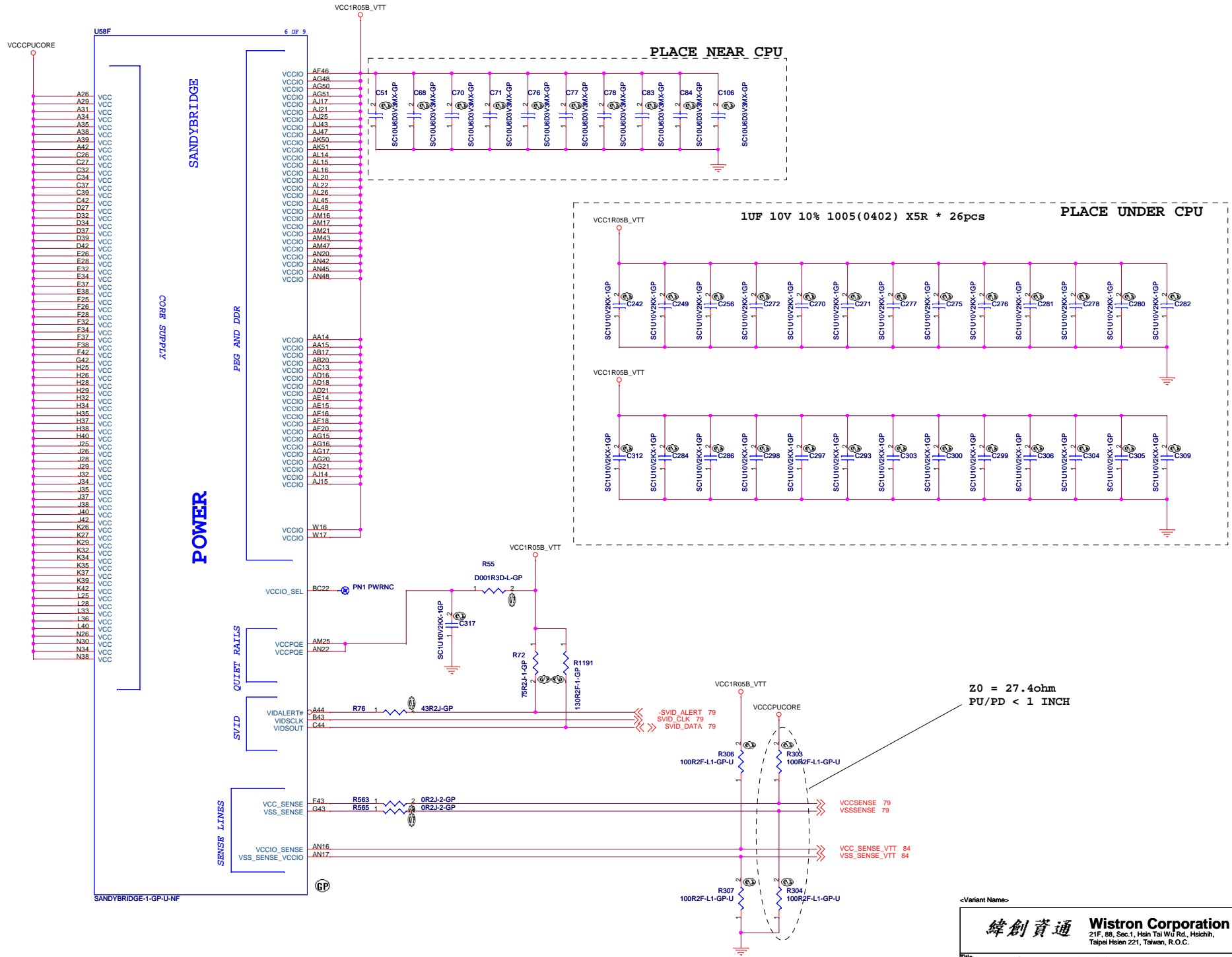




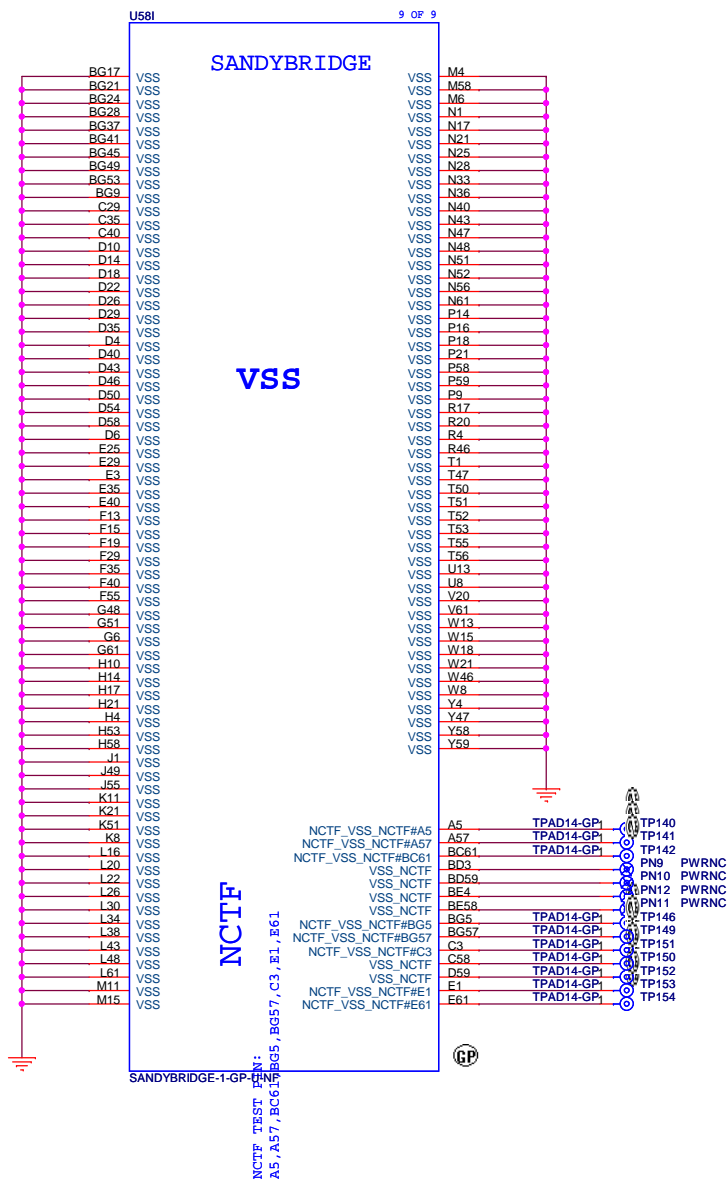
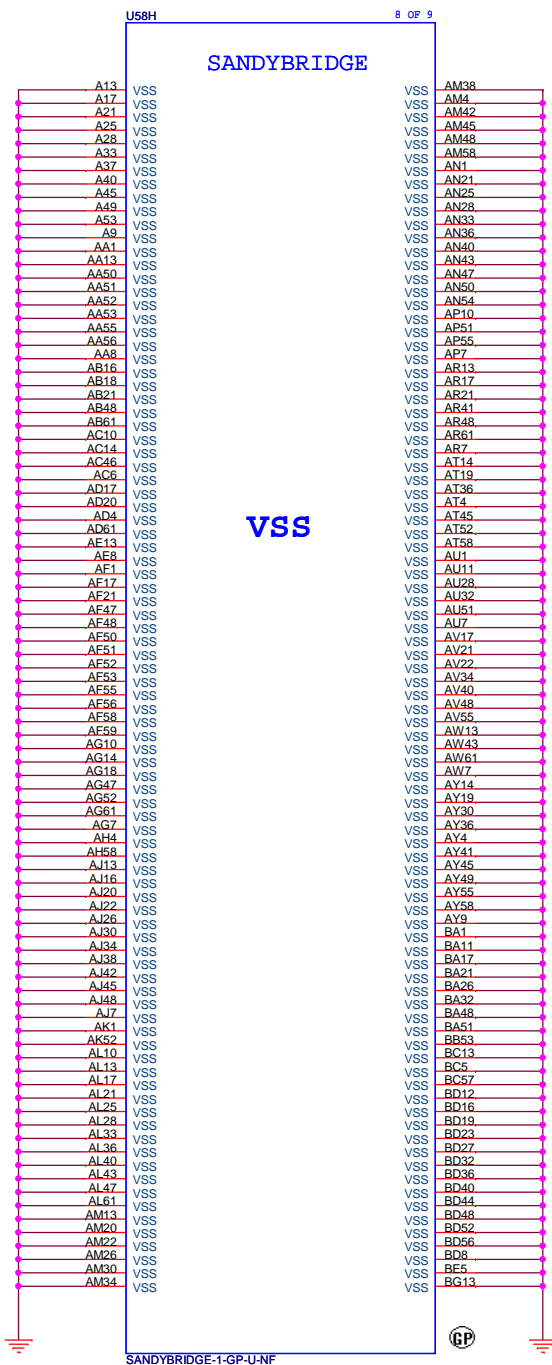




<Variant Name>



Z0 = 27.4ohm
PU/PD < 1 INCH

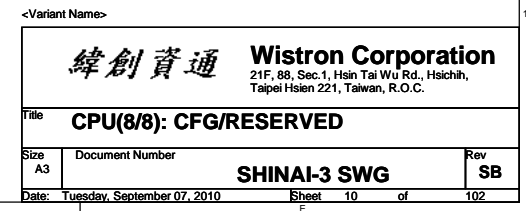


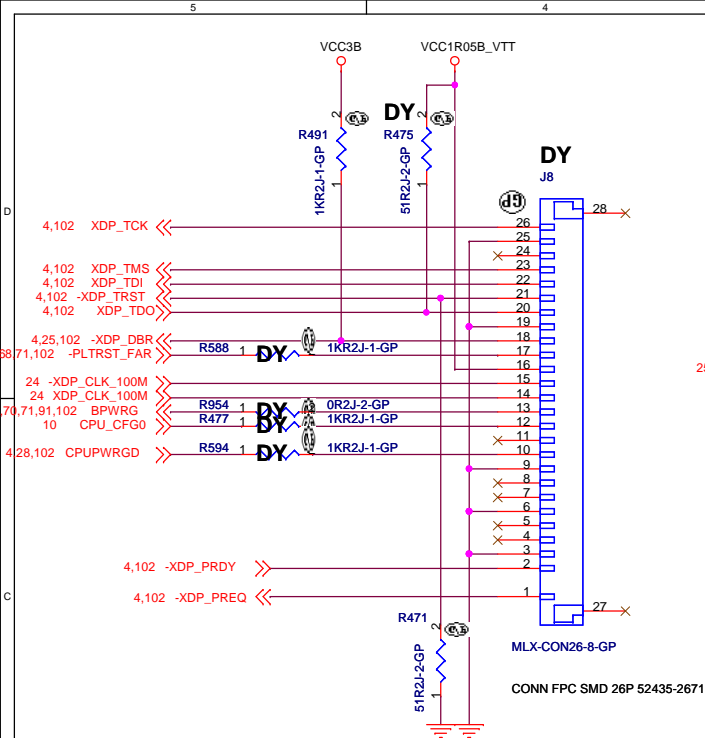
```
CFG2    PEG LANE REVERSAL
1 -NO_ASM: NORMAL
0 -ASM: RESVERSE

CFG4    DISPLAY PORT PRESENCE
1 -NO_ASM: DISABLE
0 -ASM: ENABLE

CFG[6:5] PEG BIFURCATION CONFIG
11 -SINGLE 16 LANES (D01:F1 AND D01:F2 DISABLED)
10 -2X8 LANES (D01:F1 ENABLED: D01:F2 DISABLED)
01 -RESERVED
00 -8 LANES AND 2X4 LANES (D01:F1 AND D01:F2 ENABLED)

CFG7    PEG DEFER TRAINING
1 -NO_ASM: PEG TRAIN IMMEDIATELY FOLLOWING XXRESETB DEASSERTION
0 -ASM: PEG WAIT FOR BIOS FOR TRAINING
```



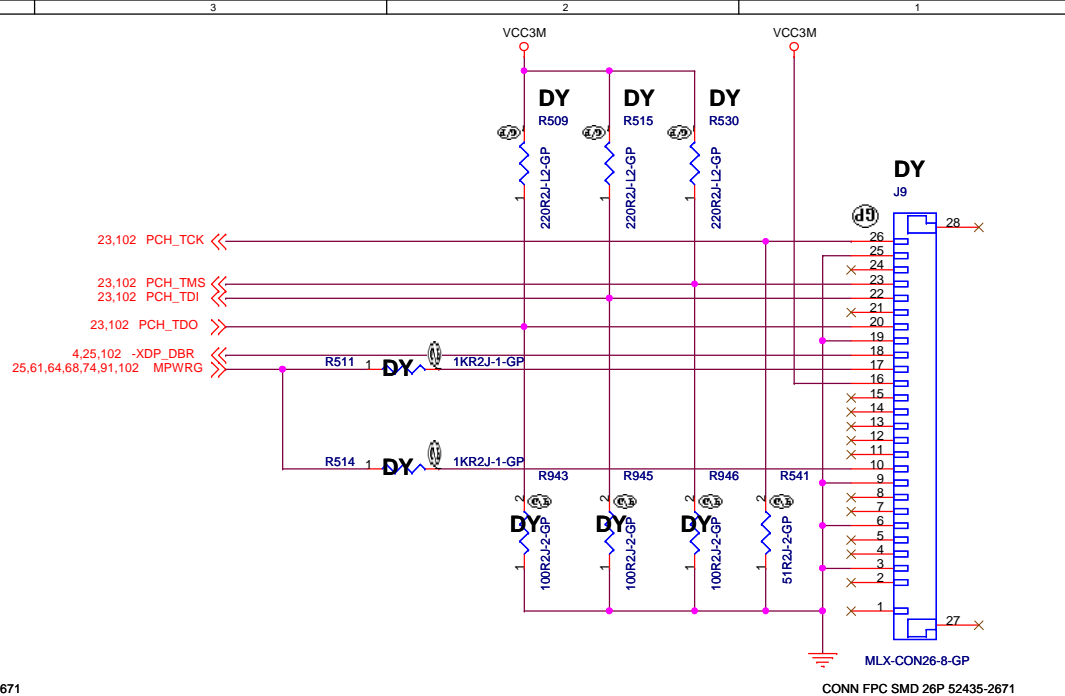


DEBUG Interface for Processor.

TABLE NOTE: J8 "ASM" FOR PRE-DV ONLY

SIGNAL	REF DES	ENABLE	DISABLE
TDO	R475	ASM	NO_ASM
TRST#	R471	ASM	ASM
DBRST#	R491	ASM	ASM
RESET#	R588	ASM	NO_ASM
CFG0	R477	ASM	NO_ASM
PWRGD	R594	ASM	NO_ASM
BPWRG	R954	ASM	NO_ASM
	J8	ASM	NO_ASM

LOGIC



DEBUG Interface for PCH.

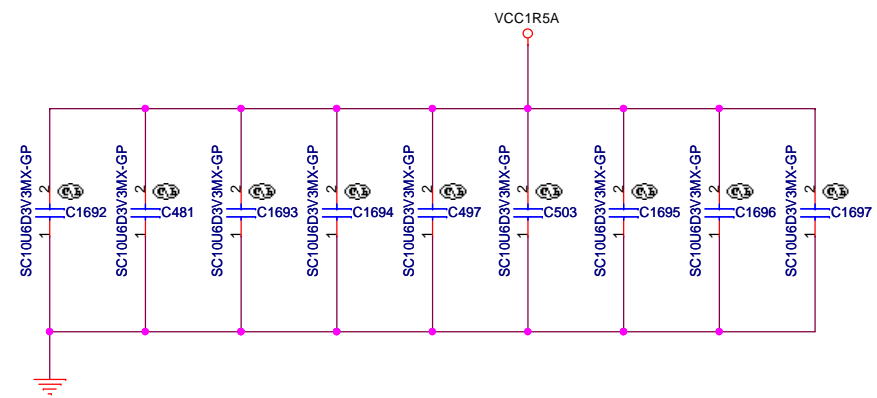
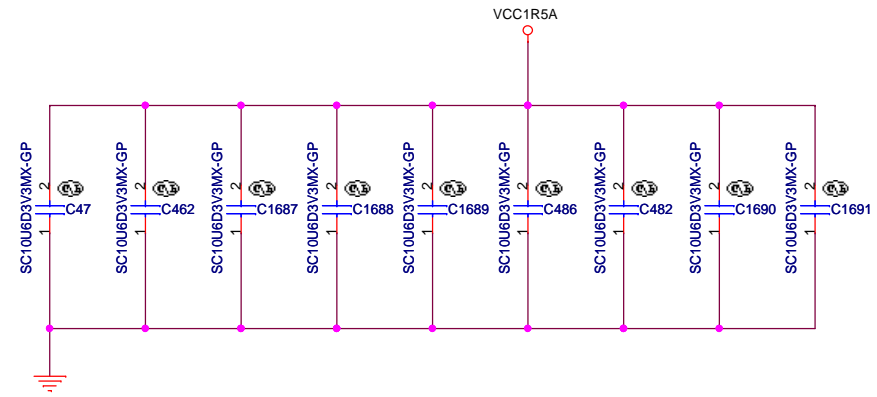
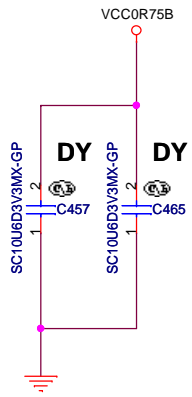
TABLE NOTE: J9 "ASM" FOR PRE-DV ONLY

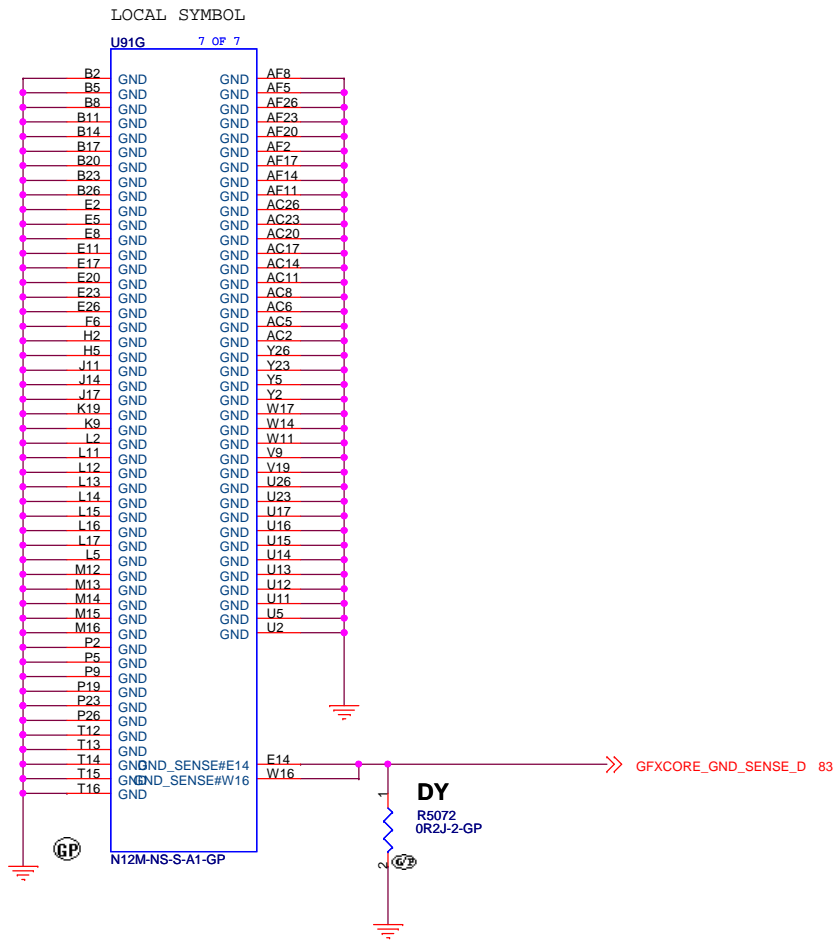
SIGNAL	REF DES	ENABLE	DISABLE
TDO	R509	220	NO_ASM
	R943	100	NO_ASM
TMS	R530	220	NO_ASM
	R946	100	NO_ASM
TDI	R515	220	NO_ASM
	R945	100	NO_ASM
TCK	R541	51	51
MPWRG	R511	ASM	NO_ASM
	R514	ASM	NO_ASM
	J9	ASM	NO_ASM

LOGIC

<Variant Name>

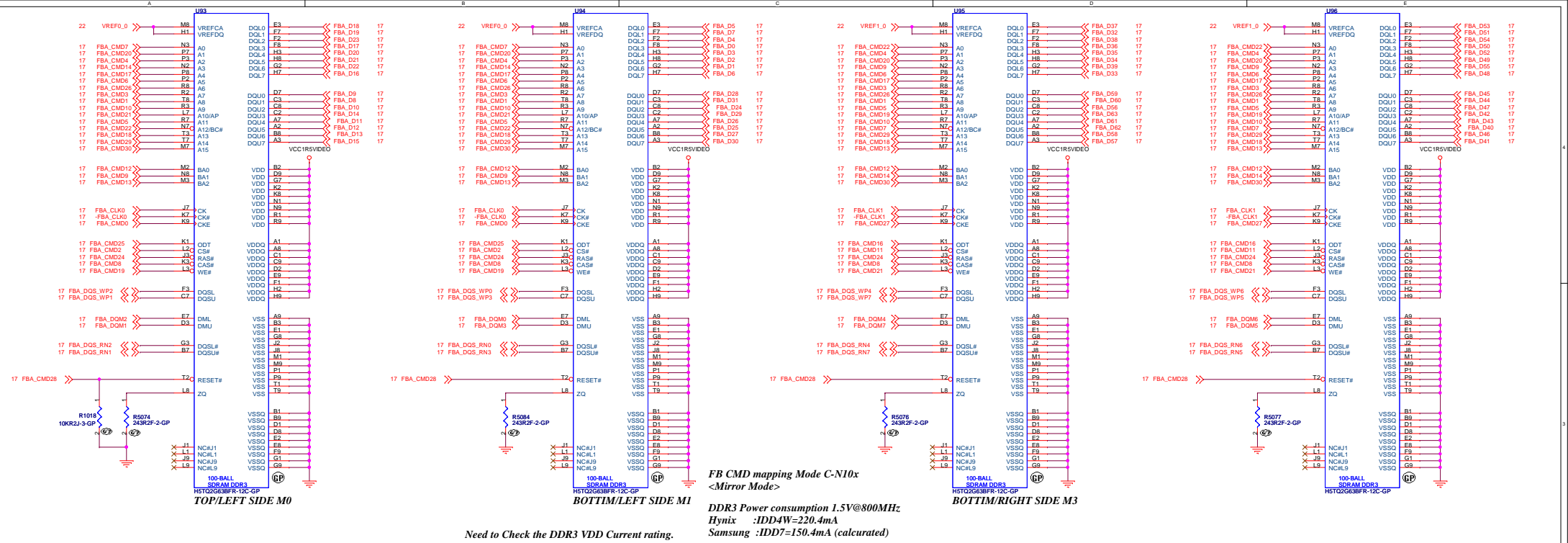
緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Size Custom		Document Number XDP CONNECTOR SHINAI-3 SWG	
Date: Tuesday, September 07, 2010		Sheet 11 of 102	
		Rev SB	





<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			
N12M-NS(6/6): GND			
Size	Document Number		Rev
B	SHINAI-3 SWG		SB
Date:	Tuesday, September 07, 2010	Sheet 20 of	102



Need to Check the DDR3 VDD Current rating.

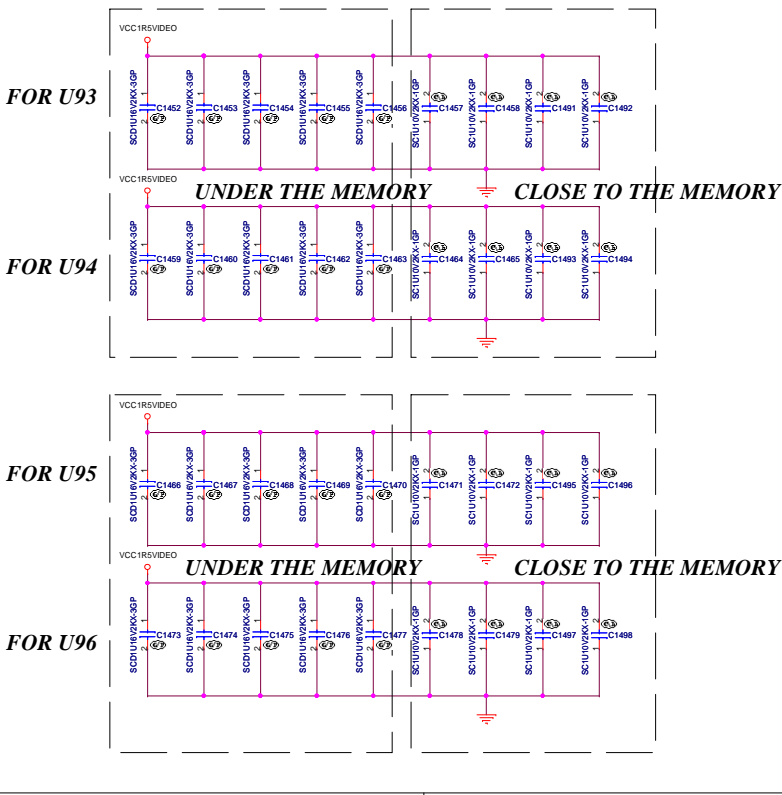


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DDR3 VIDEO MEMORY

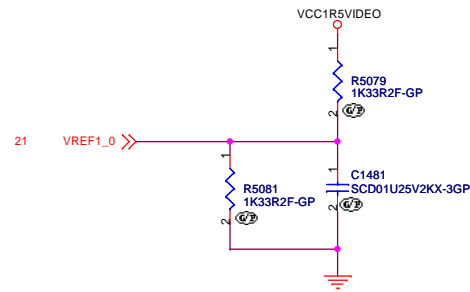
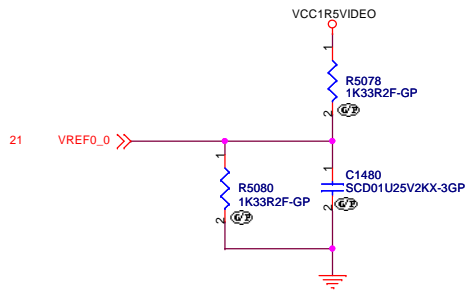
	SAMSUNG	HYNIX
U93	K4W1G1646E-HC12	H5TQ1G63BFR-12C
U94		
U95		
U96		

↑
LOGIC

MEMORY CHANNEL A

<Core Design>

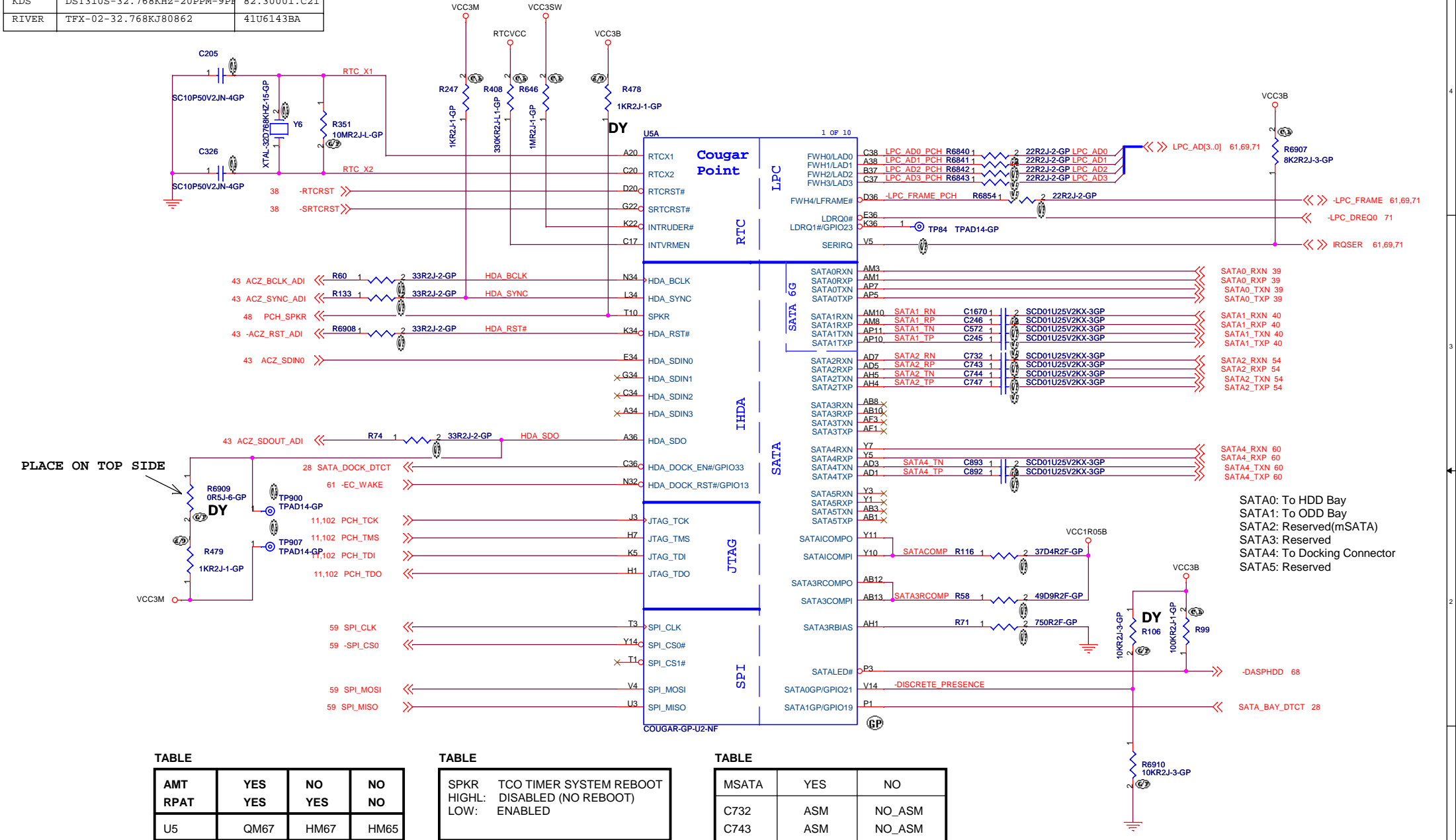
緯創資通 Wistron Corporation 21F, 8B, Sec.1, Hsin Tai Wu Rd., Hsueh, Taipei Hsien 221, Taiwan, R.O.C.		
Title VRAM CHANNEL-A		
Size A2	Document Number SHINAI-3 SWG	Rev SB
Date: Tuesday, September 07, 2010	Sheet 21	of 102



<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 DYNAMIC MEMORY TERMINATION			
Size A3	Document Number SHINAI-3 SWG		Rev SB
Date:	Tuesday, September 07, 2010	Sheet 22 of	102

TABLE		
VENDOR	PART	WISTRON P/N
KDS	DST310S-32.768KHz-20PPM-9PF	82.30001.C21
RIVER	TFX-02-32.768KJ80862	41U6143BA



TABLE

AMT	YES	NO	NO
RPAT	YES	YES	NO
U5	QM67	HM67	HM65

LOGIC

TABLE

SPKR	TCO TIMER SYSTEM REBOOT
HIGH:	DISABLED (NO REBOOT)
LOW:	ENABLED

LOGIC

TABLE

MSATA	YES	NO
C732	ASM	NO_ASM
C743	ASM	NO_ASM
C744	ASM	NO_ASM
C747	ASM	NO_ASM

緯創資通

Wistron Corporation

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Title

PCH (1/9):HDA/JTAG/SATA

Size

A3

Document Number

SHINAI-3 SWG

Rev

SB

Date:

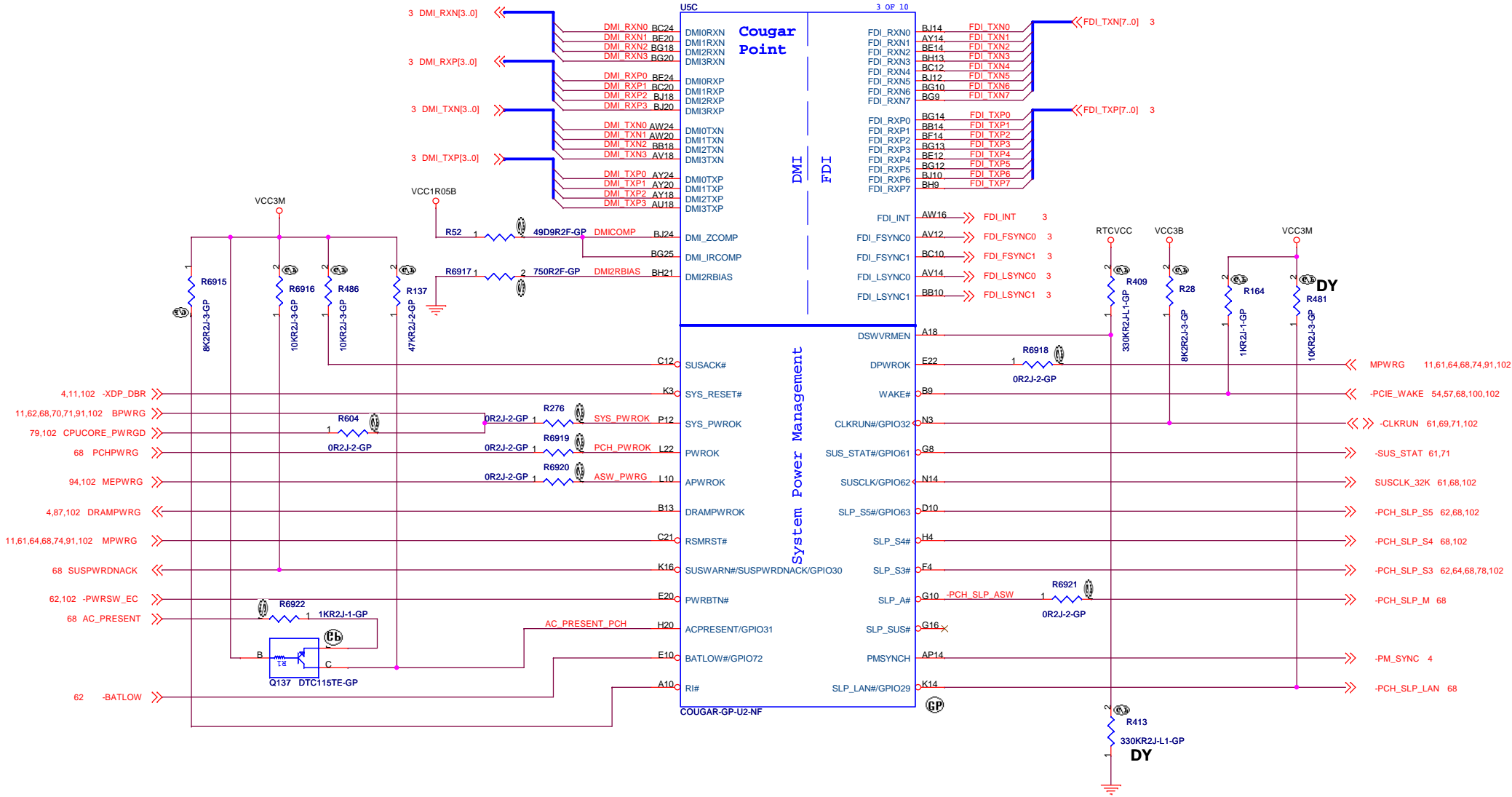
Tuesday, September 07, 2010

Sheet

23

of

102



TABLE

OPTIMUS_ENABLE	
LVDS/VGA	
HIGH	IGPU
LOW	DGPU

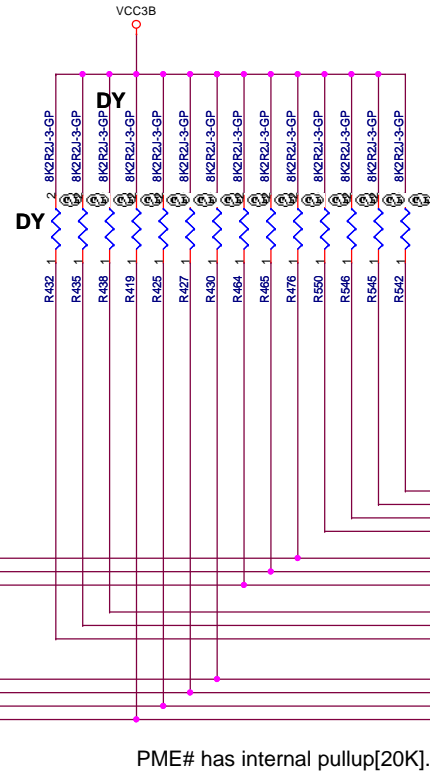
57,102 -SC_DTCT
33,36 OPTIMUS_ENABLE
65,102 -BDC_PRESENCE

32 -LCD_PRESENCE
DOCKID0
DOCKID1
DOCKID2
60 DOCKID[2..0]

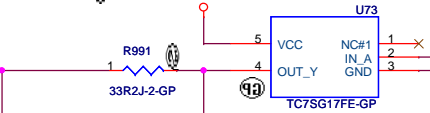
69 LPCCLK_CRYPT_33M
71 LPCCLK_DEBUG_33M
61 LPCCLK_EC_33M
24,102 PCICLK_FB_33M

50,54,69,71,72,100,102 -PLTRST_NEAR

4,11,58,61,68,71,102 -PLTRST_FAR



PME# has internal pullup[20K].



Cougar Point

RSVD

NVRAM

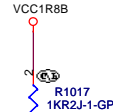
USB

PCI

COUGAR-GP-U2-NF

5 OF 10

RSVD#AY7
RSVD#AV7
RSVD#AU3
RSVD#BG4
RSVD#AT10
RSVD#BC8
RSVD#AU2
RSVD#AT4
RSVD#AT3
RSVD#AT1
RSVD#AY3
RSVD#AT5
RSVD#AV3
RSVD#AV1
RSVD#BB1
RSVD#BA3
RSVD#BB5
RSVD#BB3
RSVD#BB7
RSVD#BE8
RSVD#BD4
RSVD#BF6
RSVD#AV5
DF_TVS
RSVD#AV10
RSVD#AT8
RSVD#AY5
RSVD#BA2
RSVD#AT12
RSVD#BF3
USBP0N
USBP0P
USBP1N
USBP1P
USBP2N
USBP2P
USBP3N
USBP3P
USBP4N
USBP4P
USBP5N
USBP5P
USBP6N
USBP6P
USBP7N
USBP7P
USBP8N
USBP8P
USBP9N
USBP9P
USBP10N
USBP10P
USBP11N
USBP11P
USBP12N
USBP12P
USBP13N
USBP13P
USBRBIAS#
USBRBIAS
OC0#/GPIO59
OC1#/GPIO40
OC2#/GPIO41
OC3#/GPIO42
OC4#/GPIO43
OC5#/GPIO9
OC6#/GPIO10
OC7#/GPIO14



TABLE

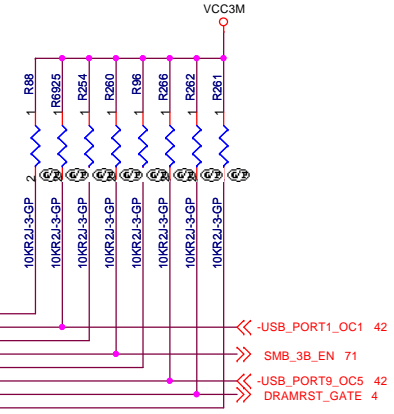
NV_ALE

HIGH: ENABLE AT-D
LOW : DISABLE AT-D

NV_CLE

HIGH: VCCIO TERMINATION

USB0 : RESERVED
USB1 : SYSTEM PORT 2 (To system port)
USB2 : HALF MINICARD (WLAN)
USB3 : FULL MINICARD (WWAN)
USB4 : SMART CARD SLOT
USB5 : EXPRESS CARD SLOT
USB6 : RESERVED
USB7 : RESERVED
USB8 : TOUCH PANEL
USB9 : SYSTEM PORT 1 (To USBAO)
USB10: FPR (TOUCH PAD)
USB11:BLUETOOTH
USB12:DOCKING
USB13:USB CAMERA (LCD)



<Variant Name>

緯創資通

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Taipei Hsien 221, Taiwan, R.O.C.

Title

PCH (5/9):PCI/USB/NVRAM

Size

Document Number

SHINAI-3 SWG

Rev

SB

Date: Tuesday, September 07, 2010

Sheet 27 of 102

TABLE

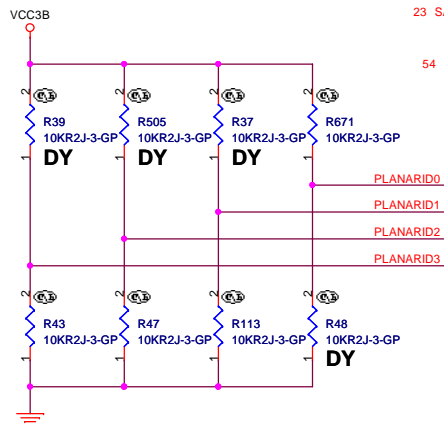
GPIO15: ME CRYPTO STRAP
HIGH: WITH CONFIDENTIALITY
LOW: NO CONFIDENTIALITY

TABLE

GPIO8: INTEGRATED
HIGH: DISABLED(BTM)
LOW: ENABLED(FCIM)

TABLE

DGFX_VRAM_ID
HIGH: 1GB
LOW: 2GB

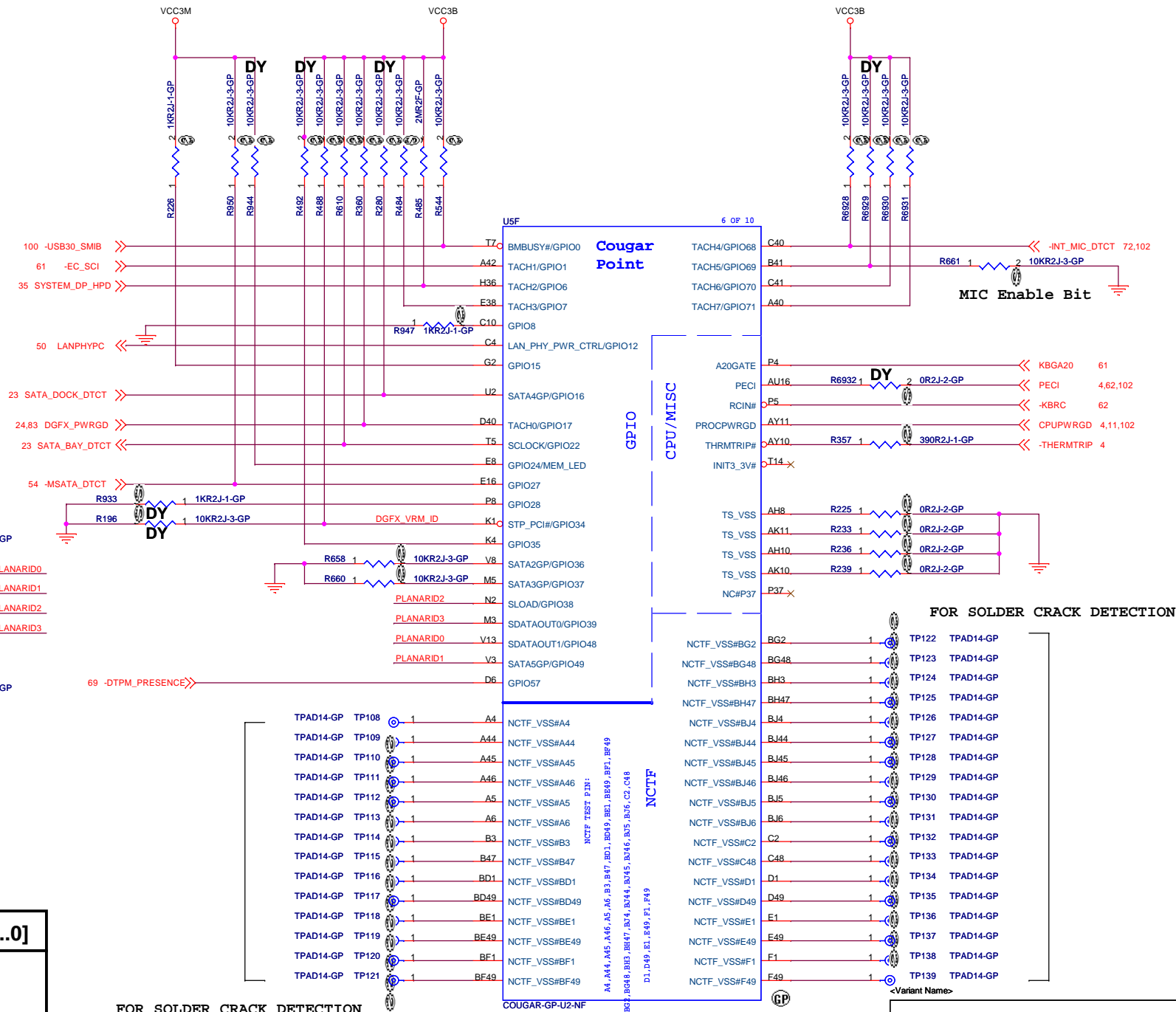


TABLE

LEVEL	PLANAR ID			
	3	2	1	0
1	R39	R505	R37	R671
0	R43	R47	R113	R48

LEVEL PLANARID[3..0]

PDV 0000B
FVT 0001B



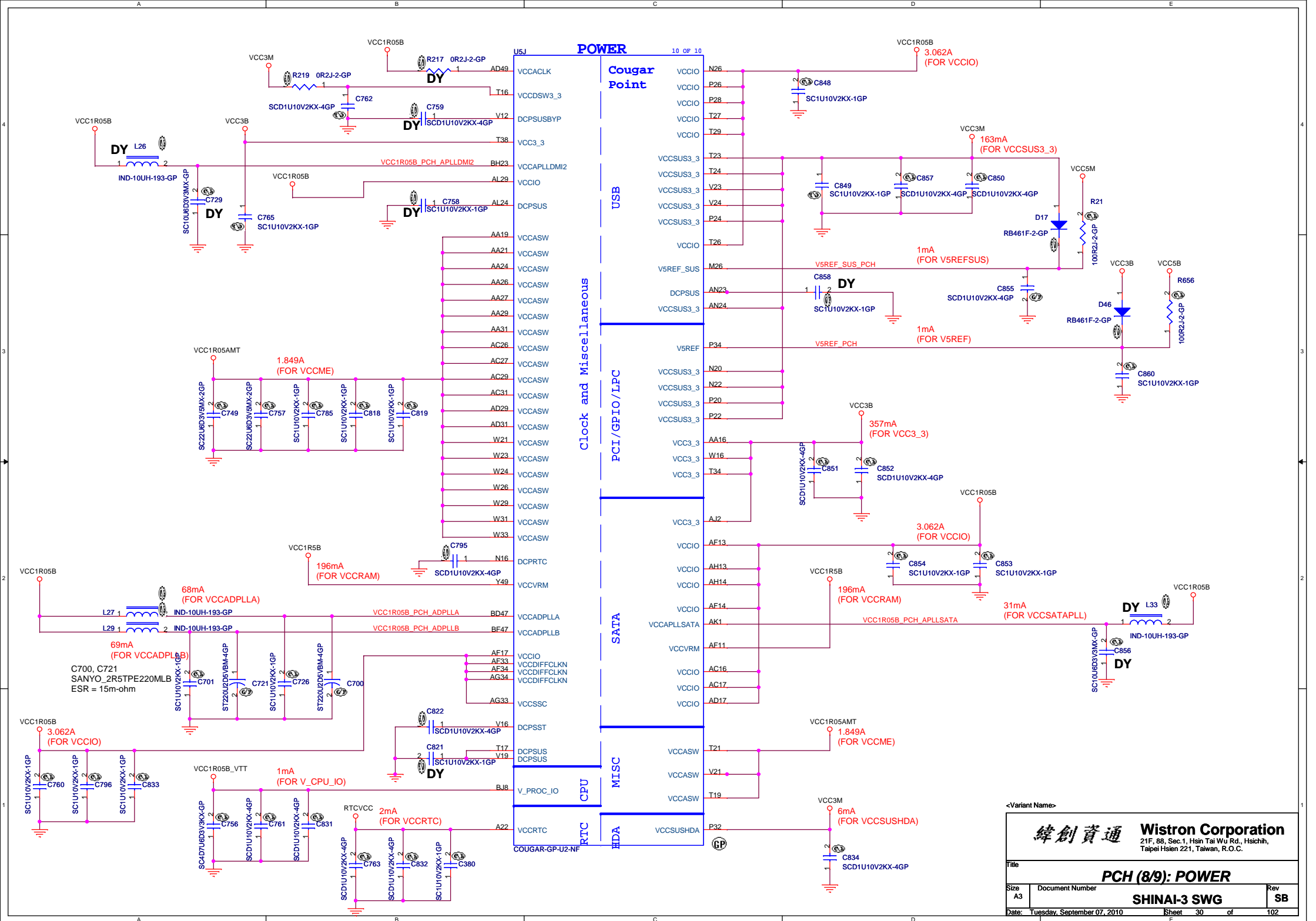
FOR SOLDER CRACK DETECTION

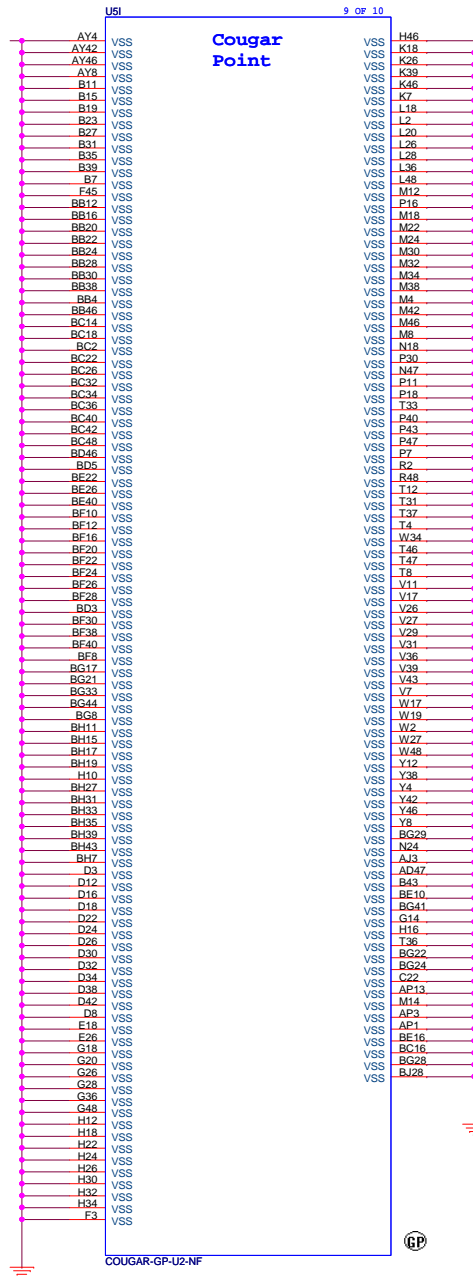
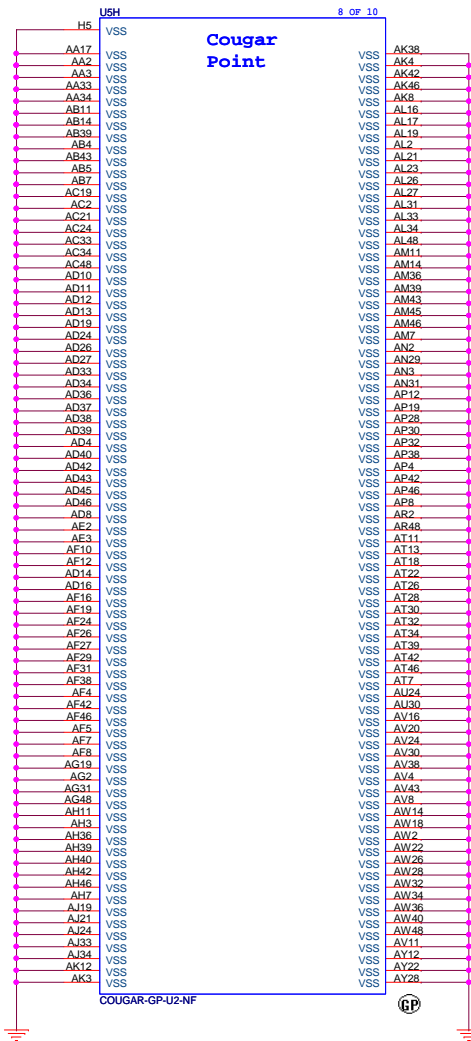
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title PCH (6/9):GPIO/NCTF/RSVD

Size A3 Document Number SHINAI-3 SWG Rev SB

Date: Tuesday, September 07, 2010 Sheet 28 of 102





緯創資通

Wistron Corporation

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Taipei Hsien 221, Taiwan, R.O.C.

Title

PCH (9/9):GND

Size

Document Number

Rev

Custom

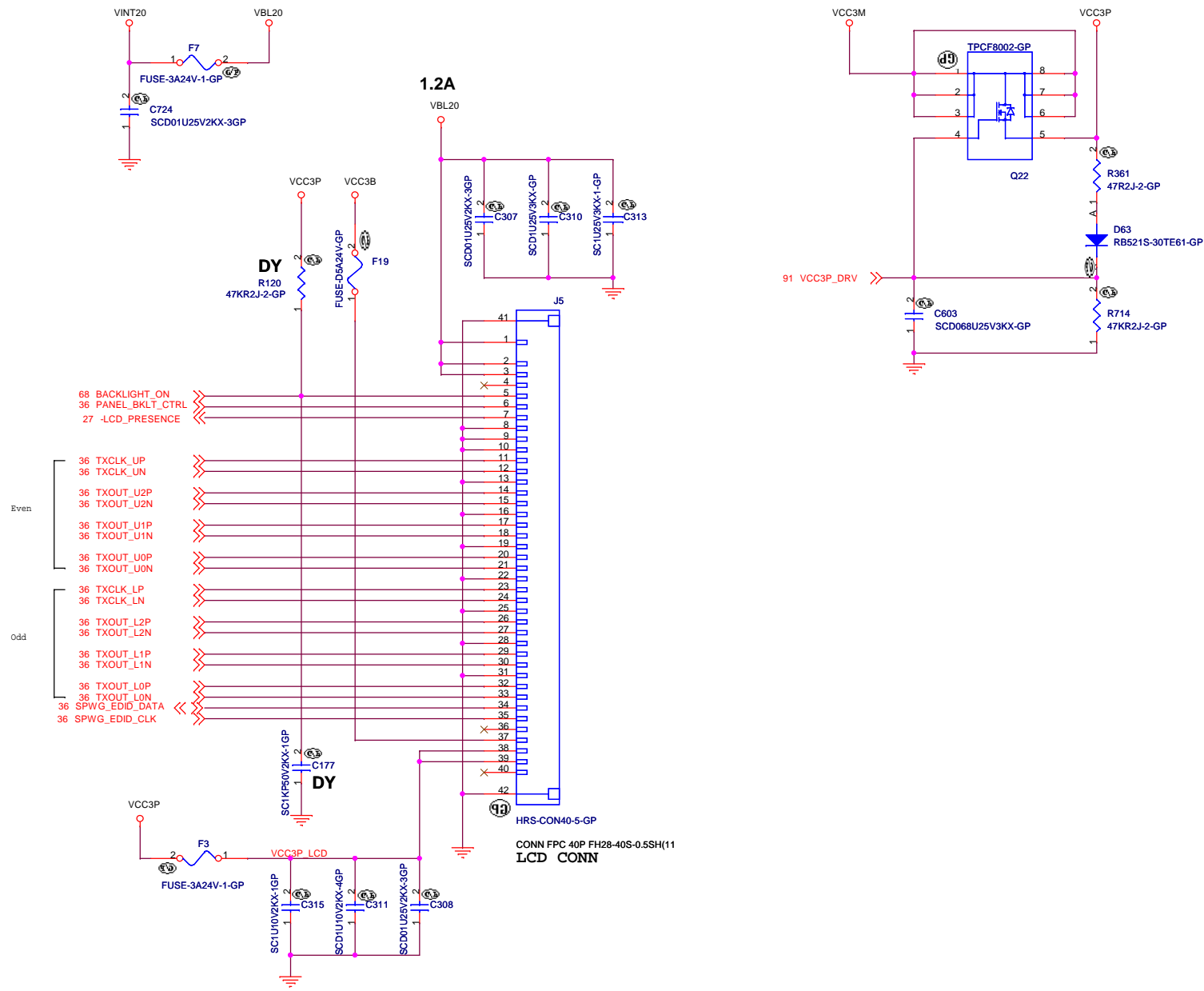
SHINAI-3 SWG

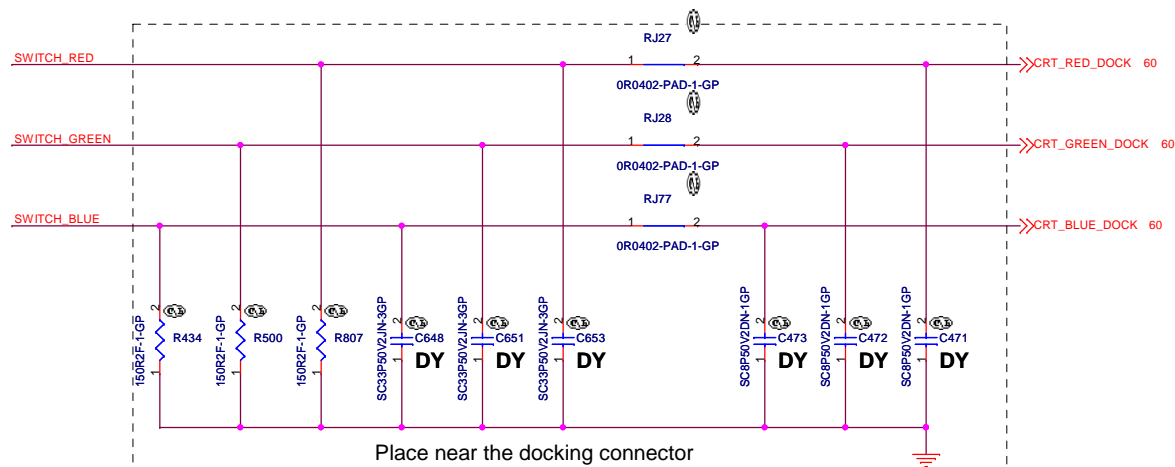
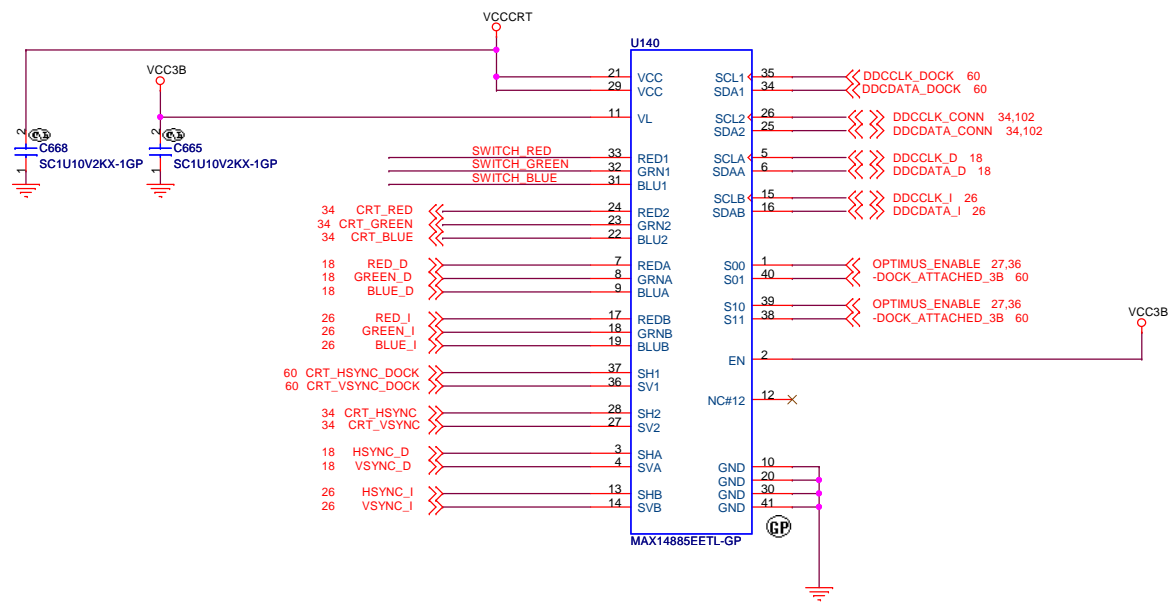
SB

Date: Tuesday, September 07, 2010

Sheet 31 of 102

LCD / Inverter Connector

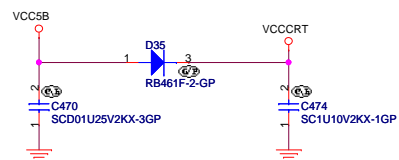
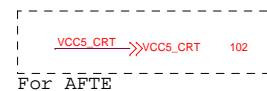
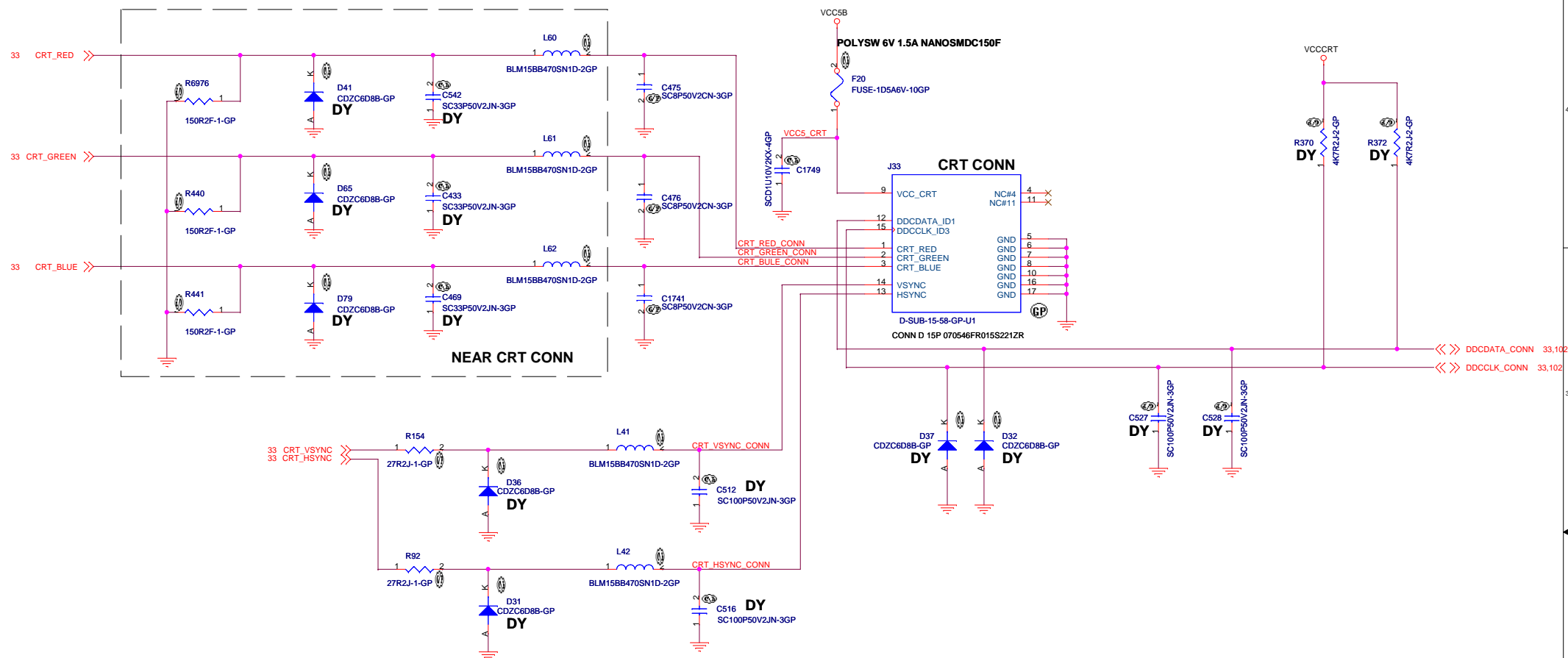


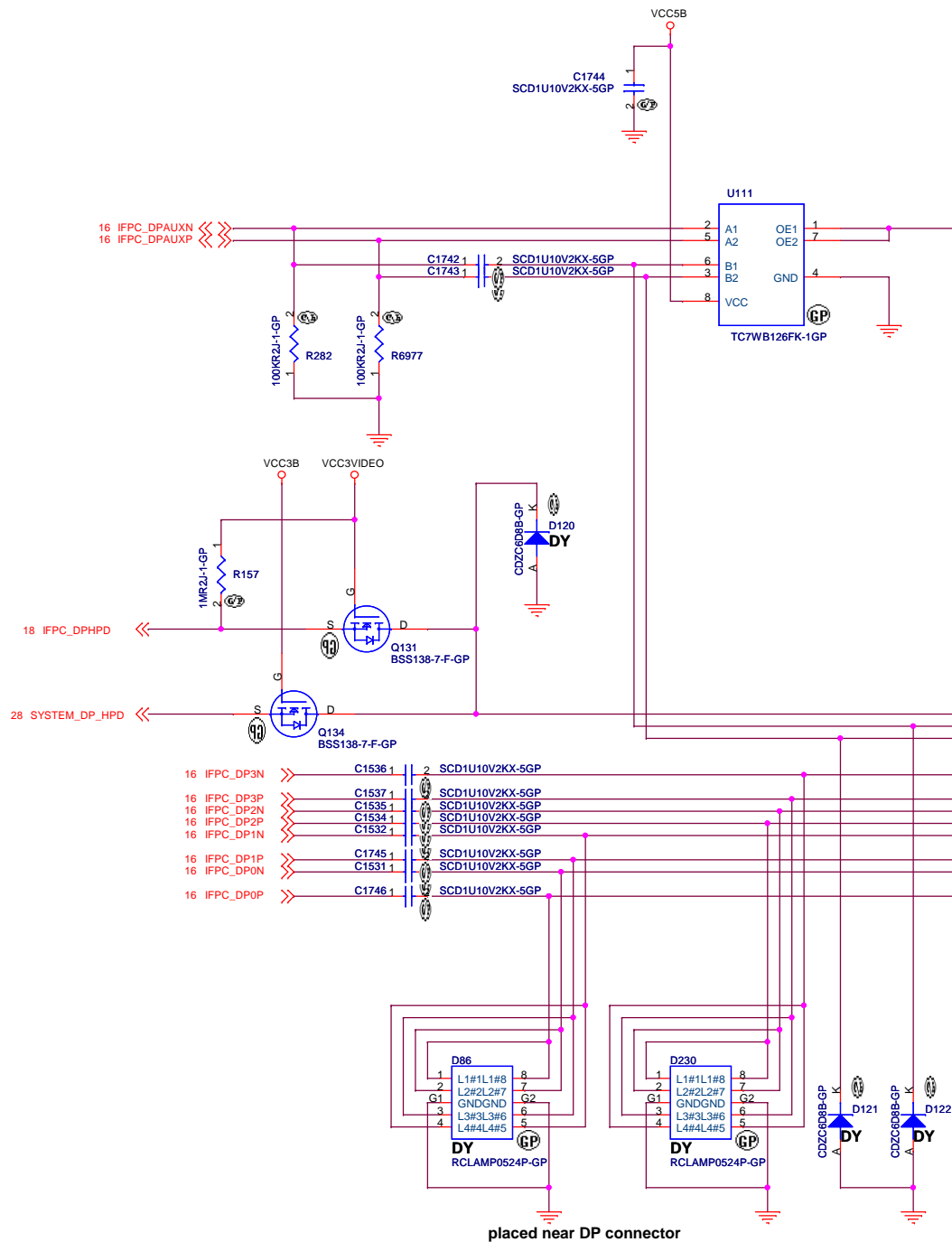


<Variant Name>

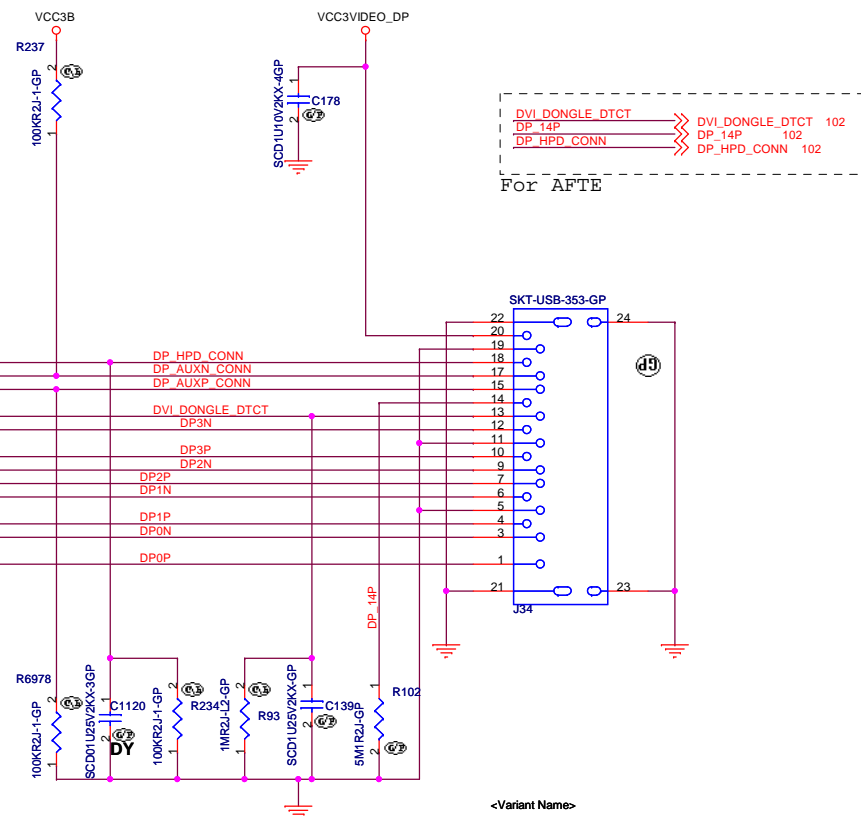
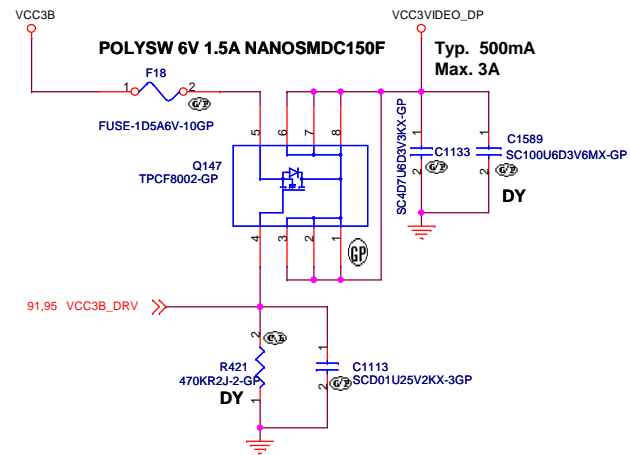
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			
RGB SWITCH			
Size A3	Document Number	Rev	
	SHINAI-3 SWG	SB	
Date: Tuesday, September 07, 2010	Sheet 33	of 102	

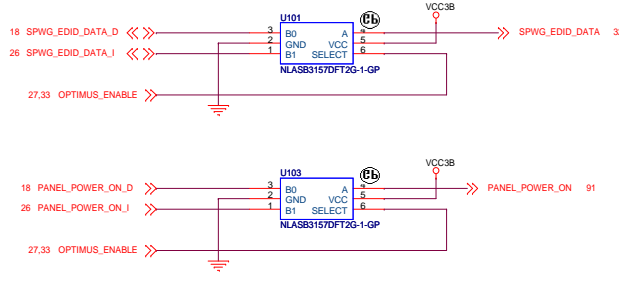
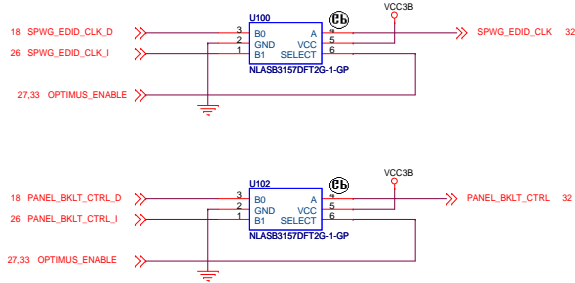
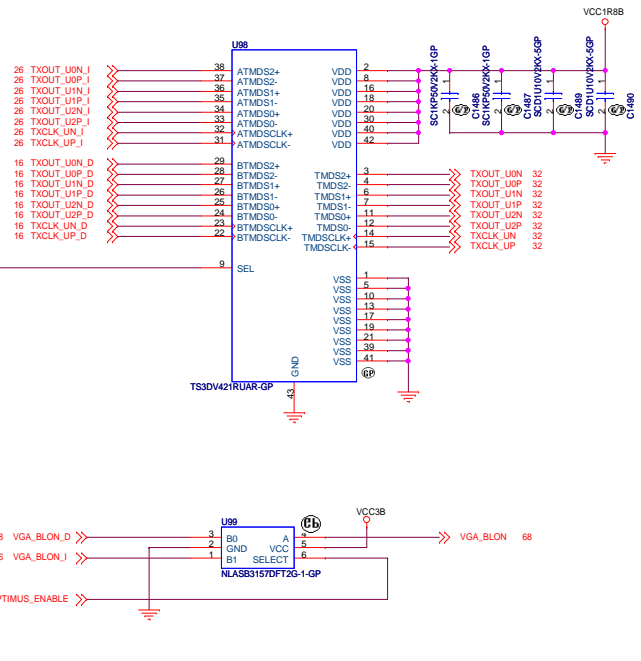
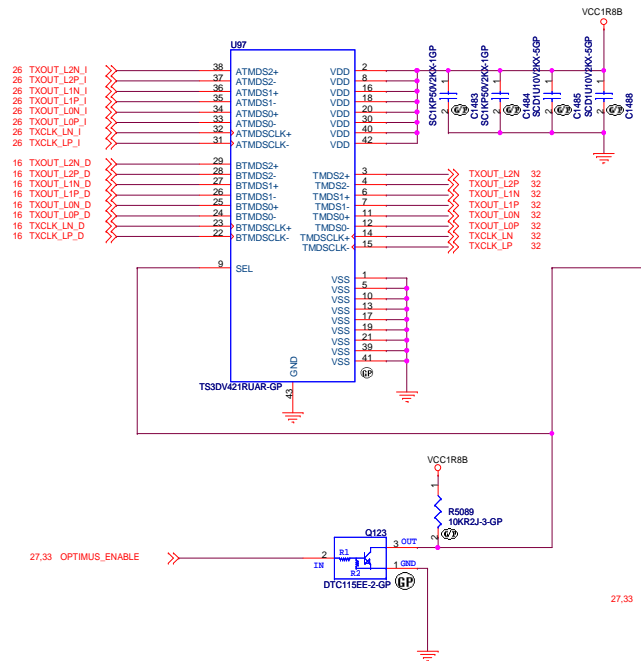




To prevent leakage current from DP monitor



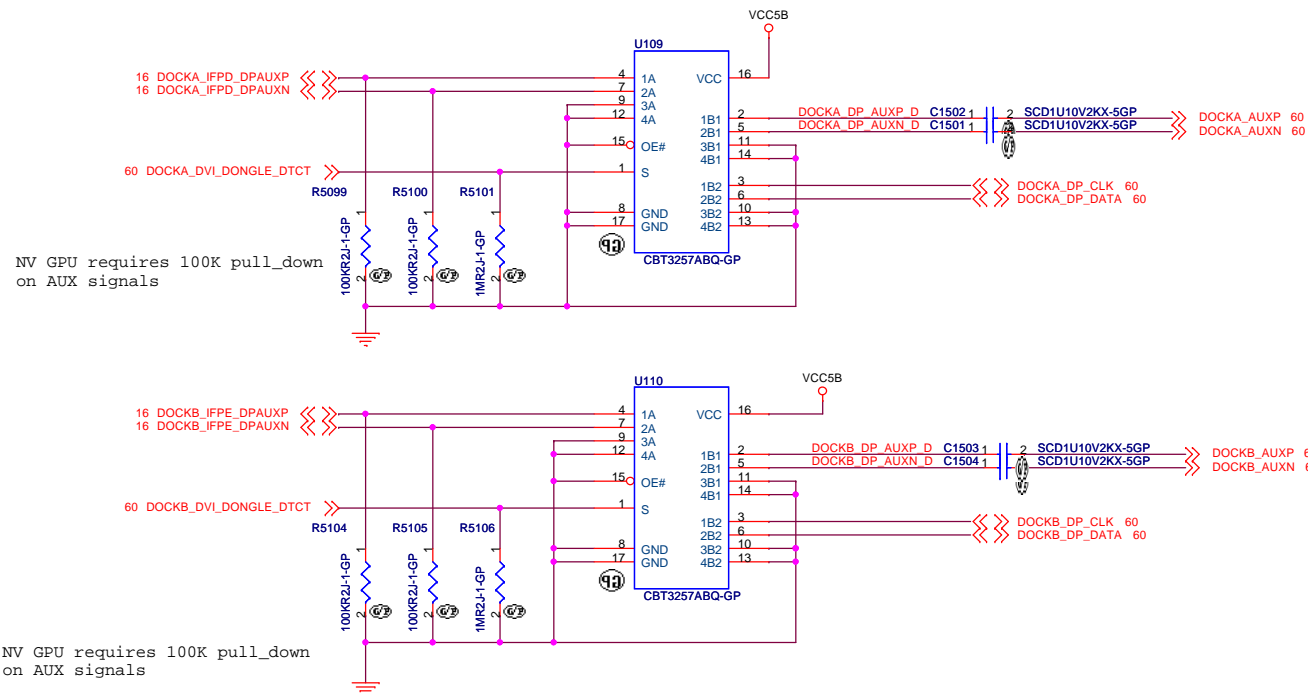
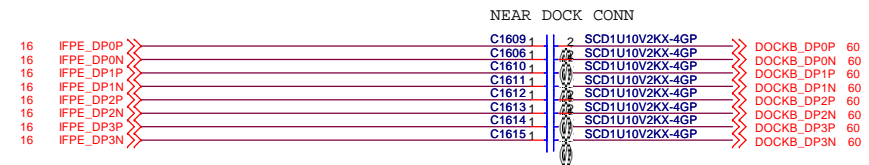
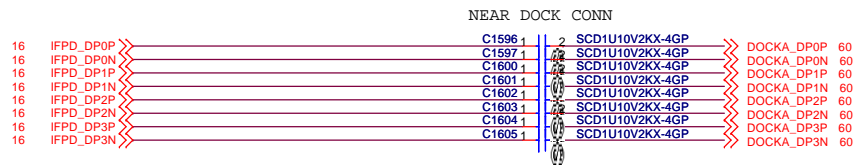
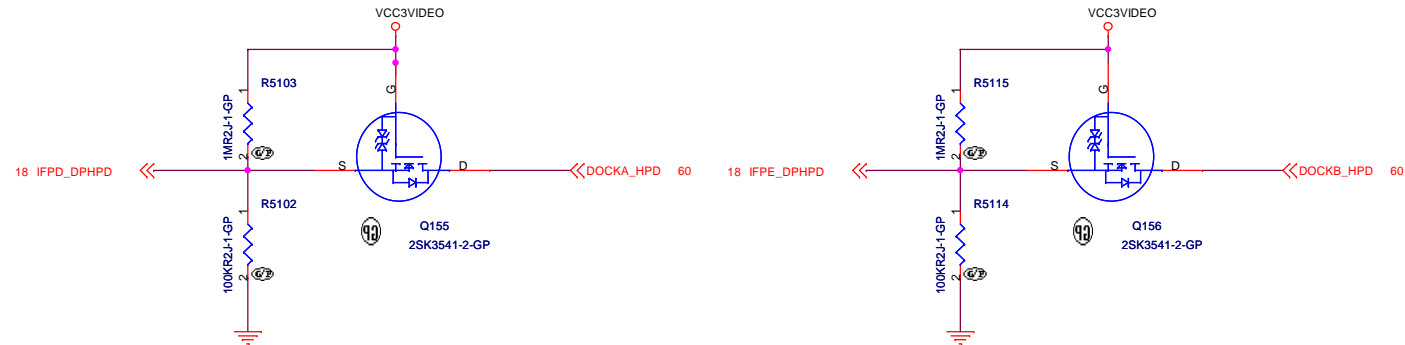
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<Core Design>

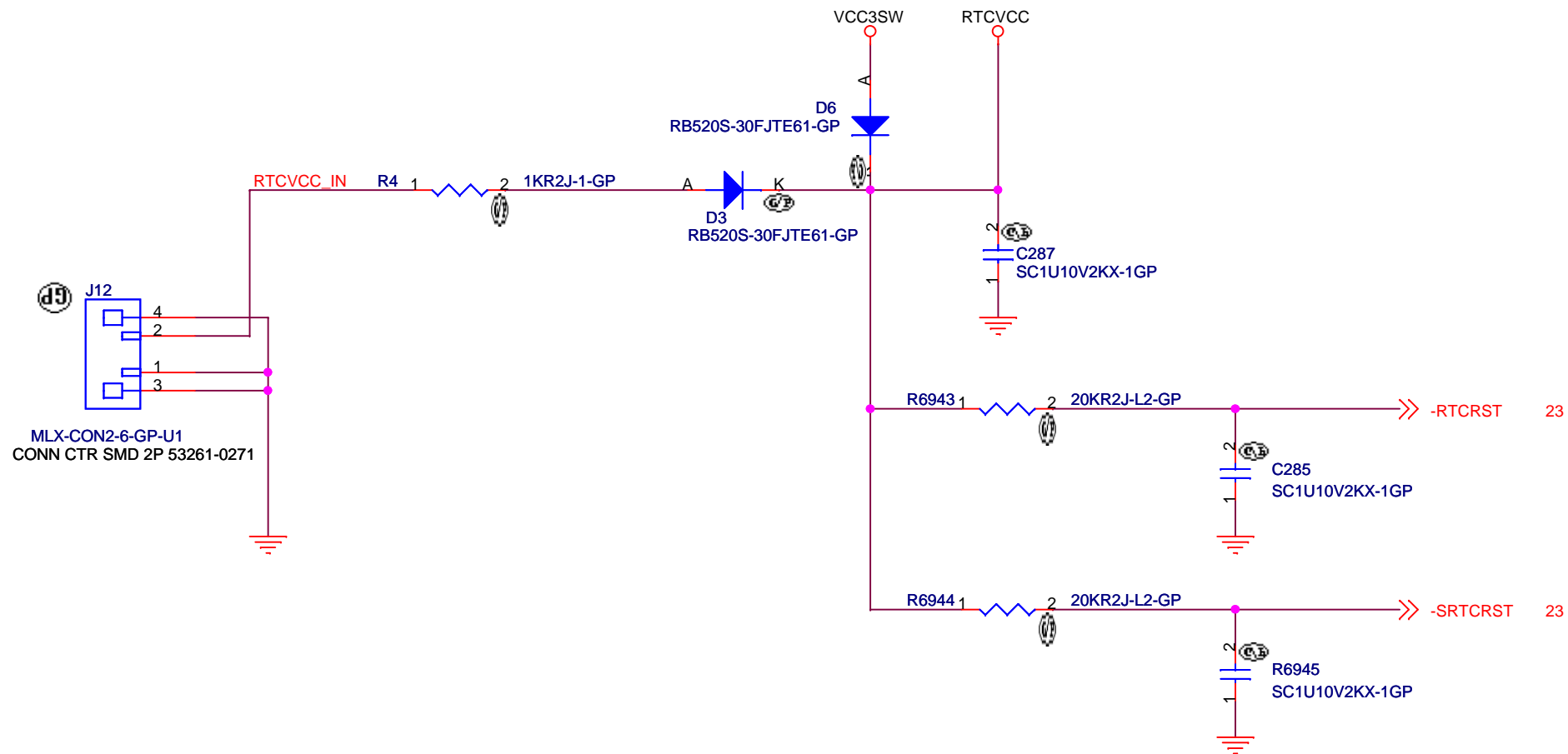
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

File	LVDS SWITCH		
Size	Document Number	SHINAI-3 SWG	Rev SB
C	Date: Tuesday, September 07, 2010	Sheet 36 of 102	



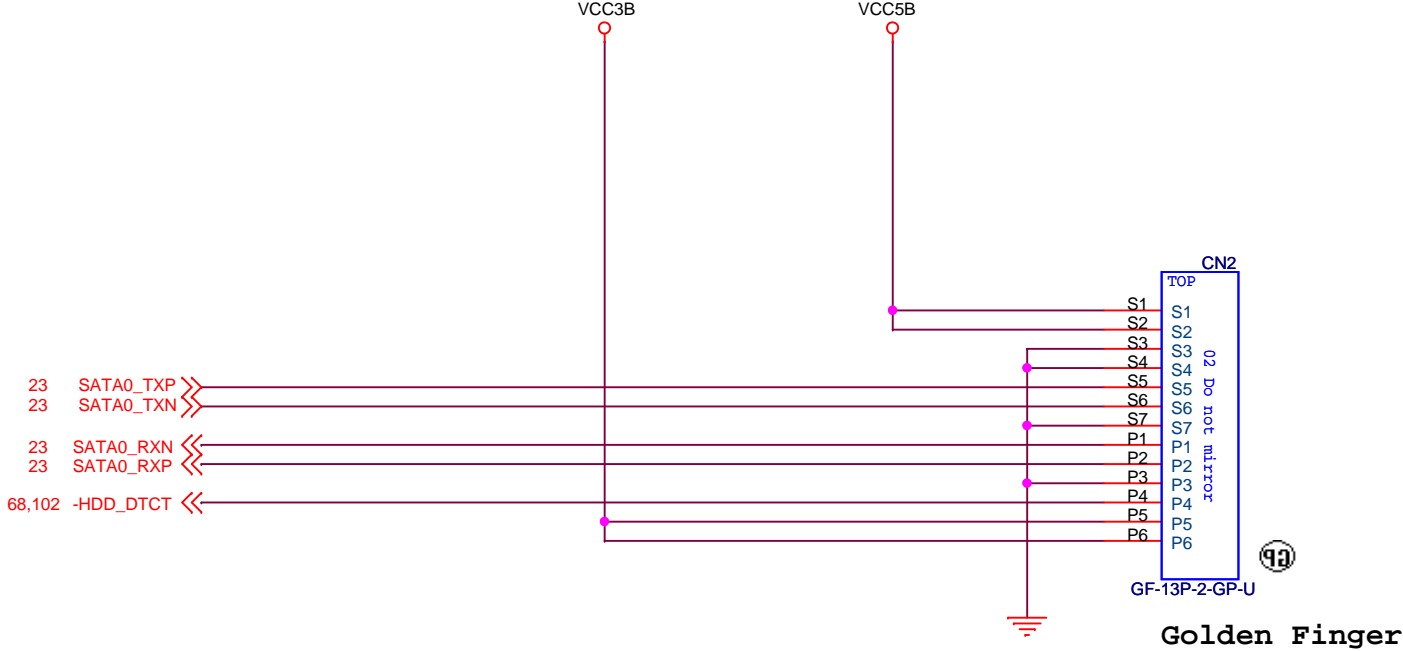
	Vendor P/N	WISTRON P/N
NXP	CBT3257ABQ-GP	45K0213AA
ONSEMI	74FST3257MNTWG-GP	45K0213BA

INPUTS		INPUT/OUTPUT	FUNCTION
OE#	S	A	
L	L	B1	A port = B1 port
L	H	B2	A port = B2 port
H	X	Z	Disconnect



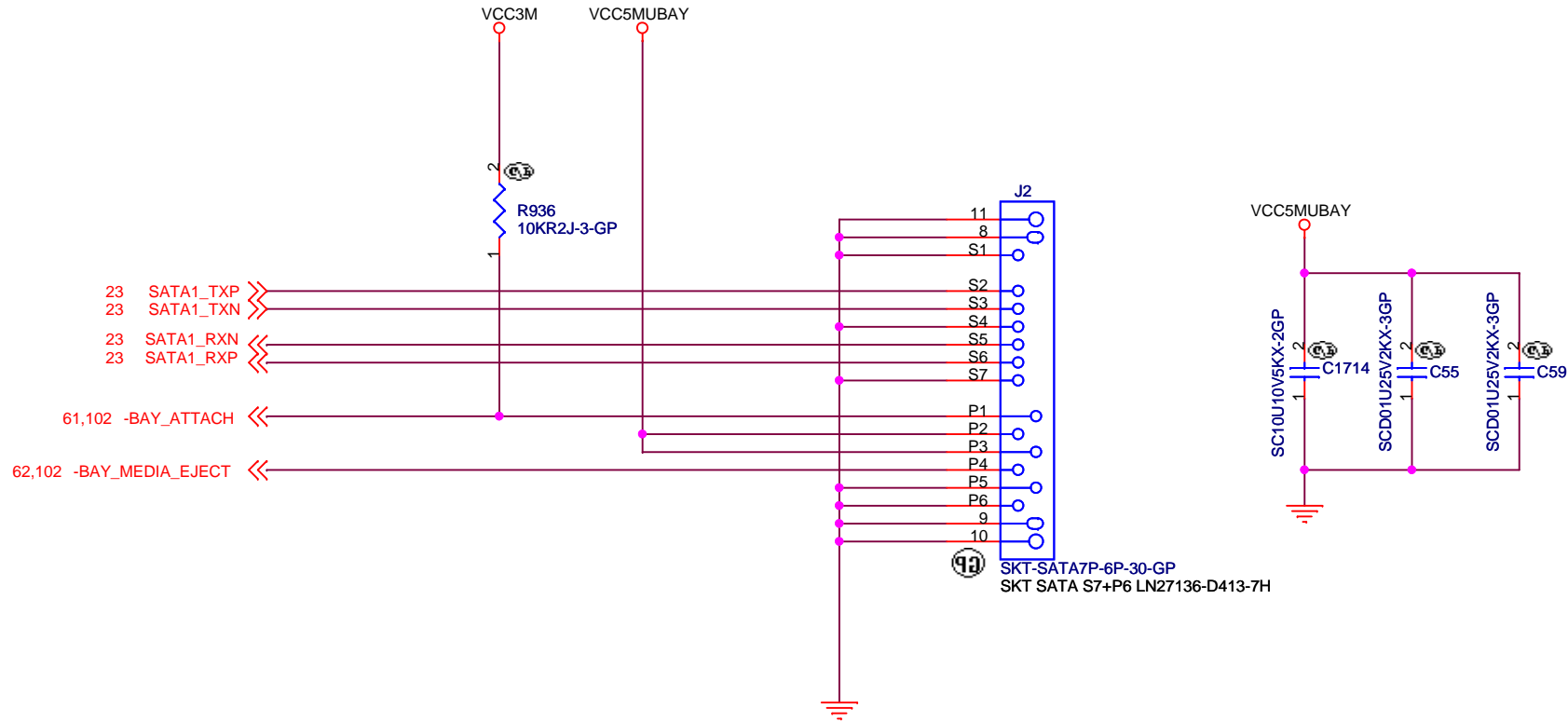
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<div>緯創資通</div>		<div>Wistron Corporation</div>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<div>RTC BATTERY</div>			
Size A	Document Number		Rev
	SHINAI-3 SWG		SB
Date:	Tuesday, September 07, 2010	Sheet 38 of	102



<Variant Name>

<div>緯創資通</div>		<div>Wistron Corporation</div>			
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title					
<div>SATA HDD CONN</div>					
Size A4	Document Number <div>SHINAI-3 SWG</div>		Rev SB		
Date:	Tuesday, September 07, 2010	Sheet 39 of	102		

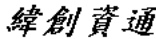


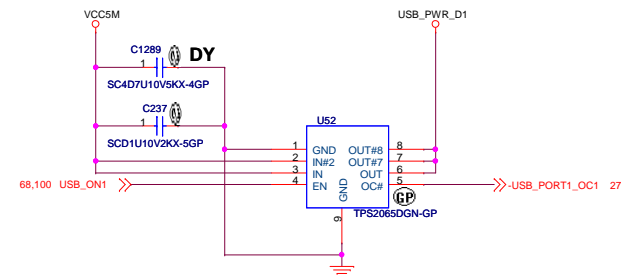
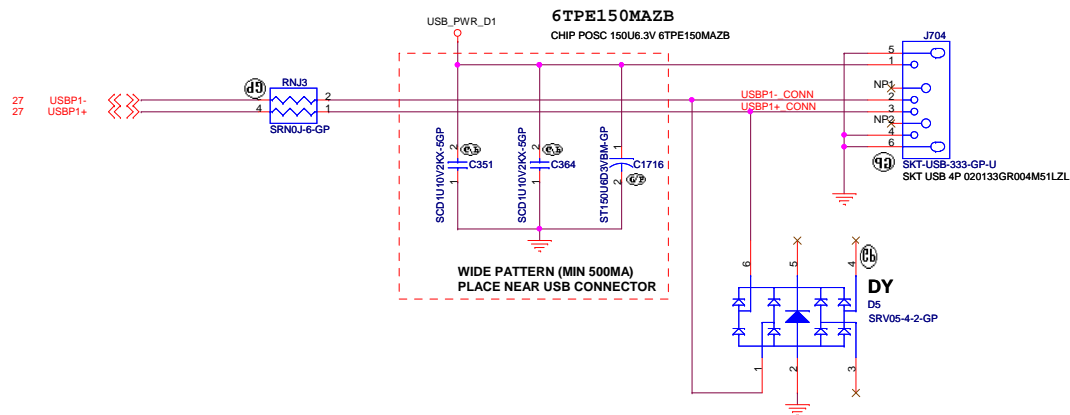
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Title SATA ODD BAY			
Size A4	Document Number SHINAI-3 SWG		Rev SB
Date: Tuesday, September 07, 2010		Sheet 40 of	102

ESATA + USB CONN is not used on SN3

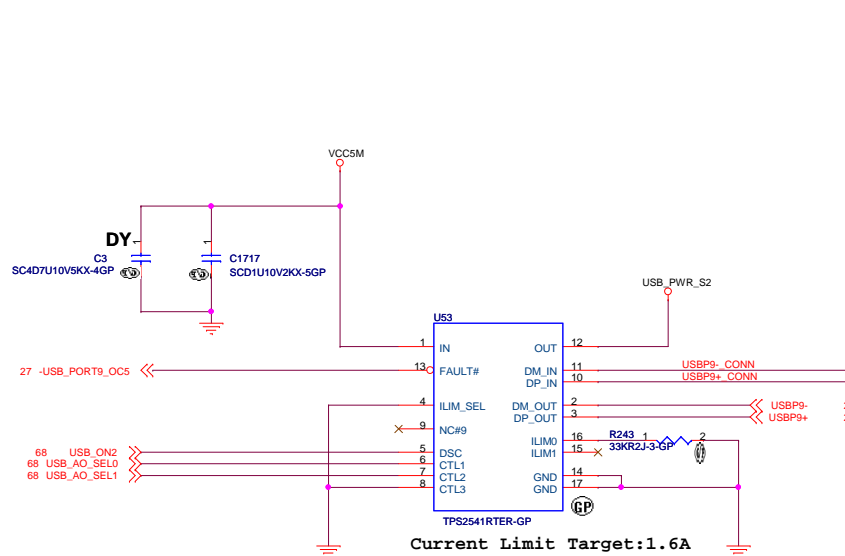
<Core Design>

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
ESATA CONNECTOR			
Size A3	Document Number		Rev SB
Date: Tuesday, September 07, 2010		Sheet 41 of	102



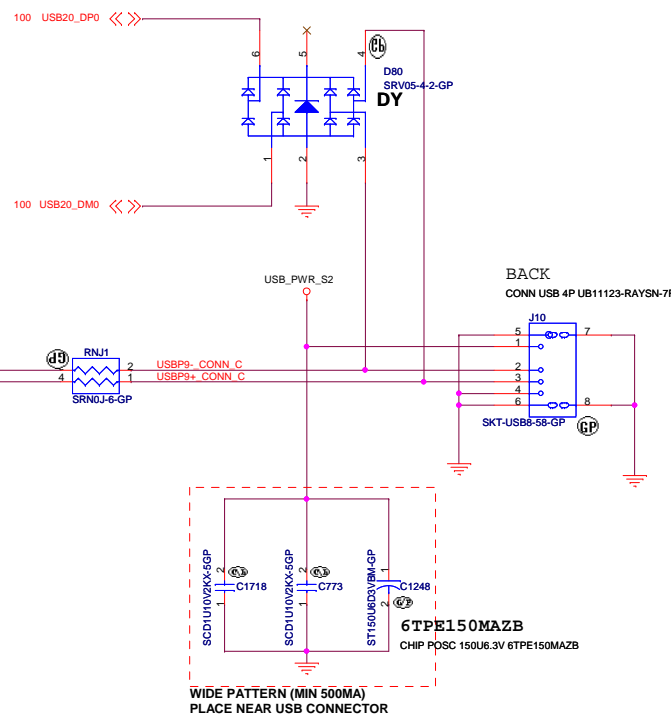
1ch USB Power Switch w/o Discharge Function

	Supplier	Vendor P/N	WISTRON P/N
1	TI	TPS2065DGN-GP	74.02065.079



2ch USB Power Switch

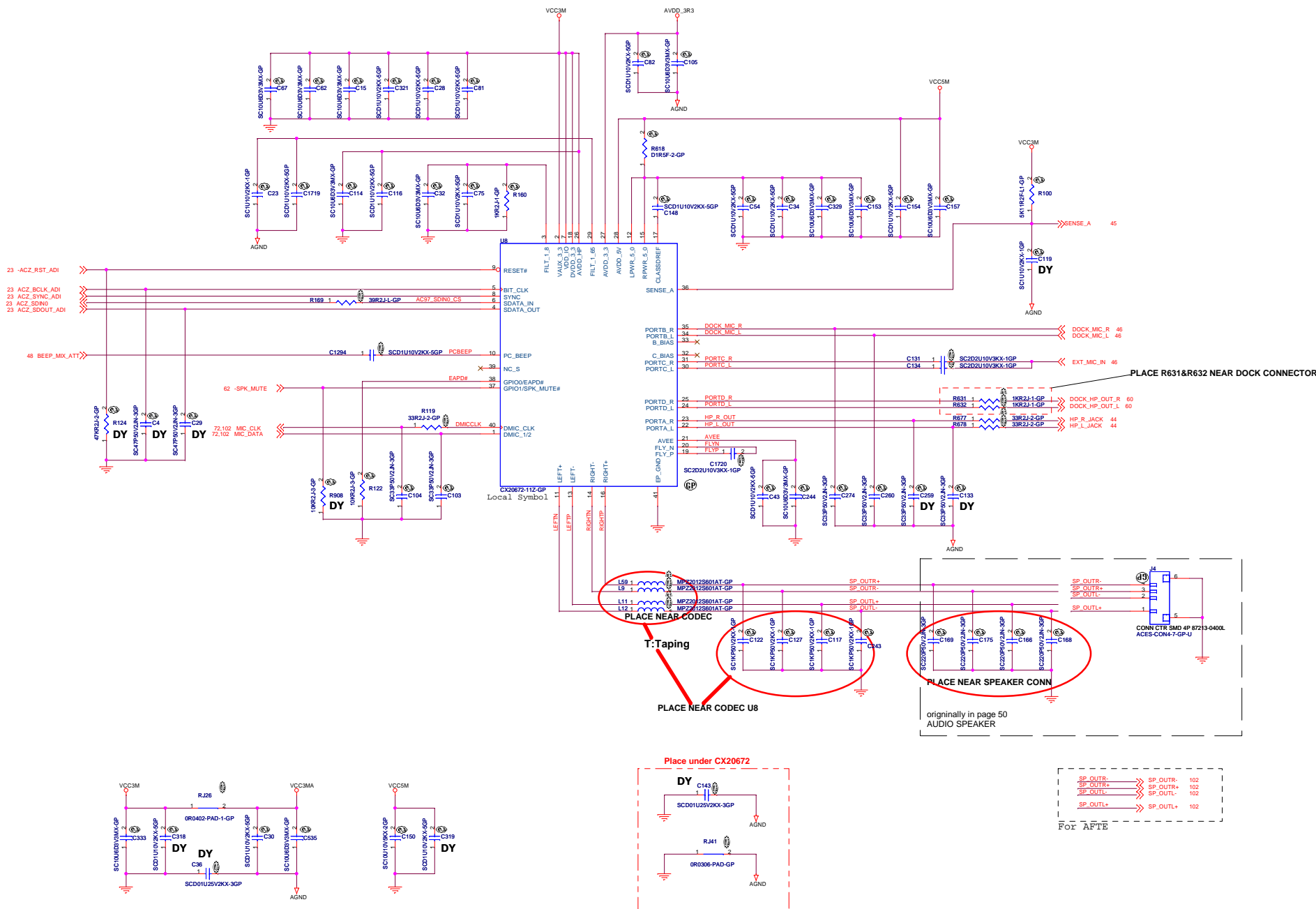
	Supplier	Vendor P/N	WISTRON P/N
1	TI	TPS2541RTE	74.02541.073



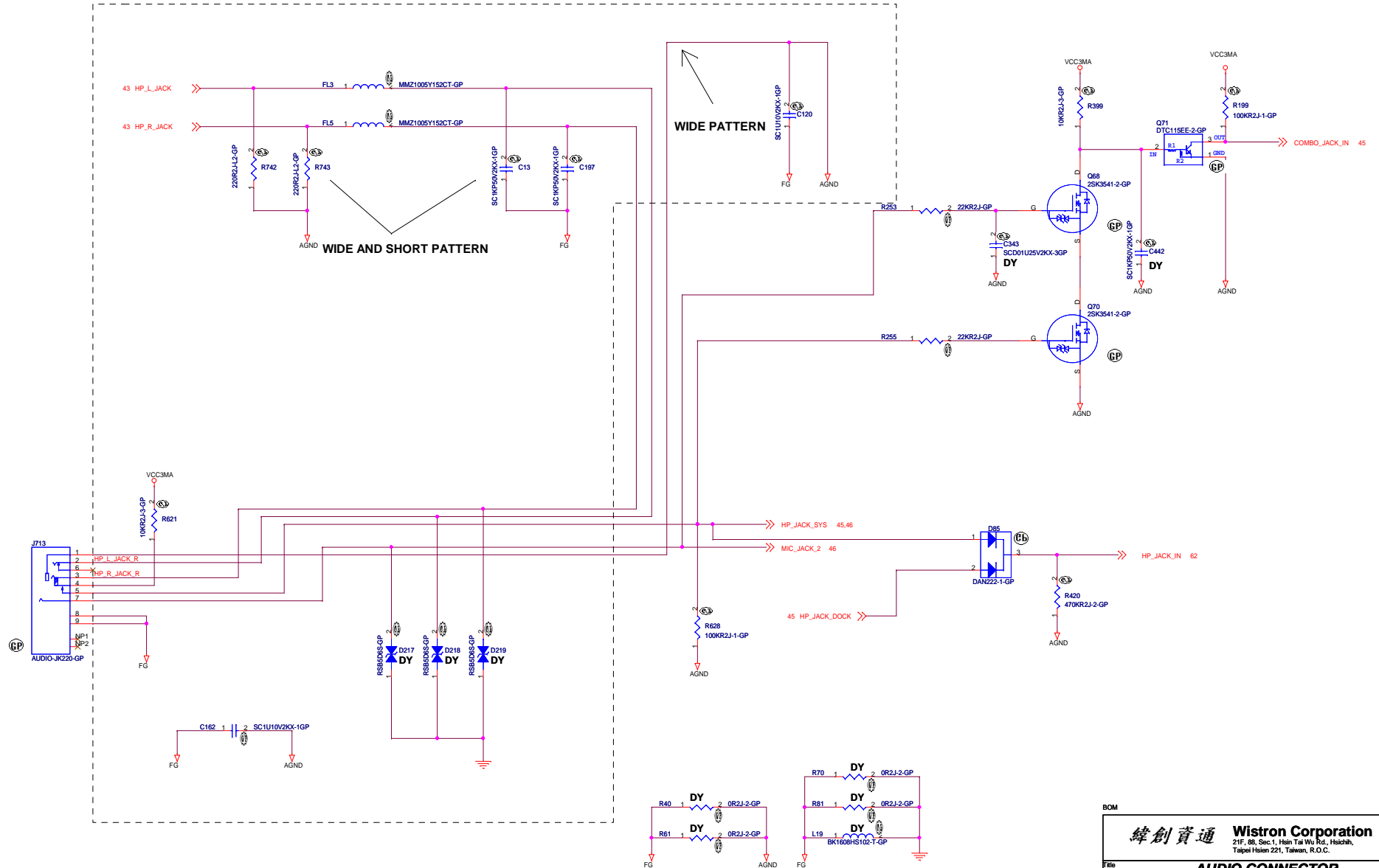
BACK
CONN USB 4P UB1123-RAYSN-7F

<Variant Name>

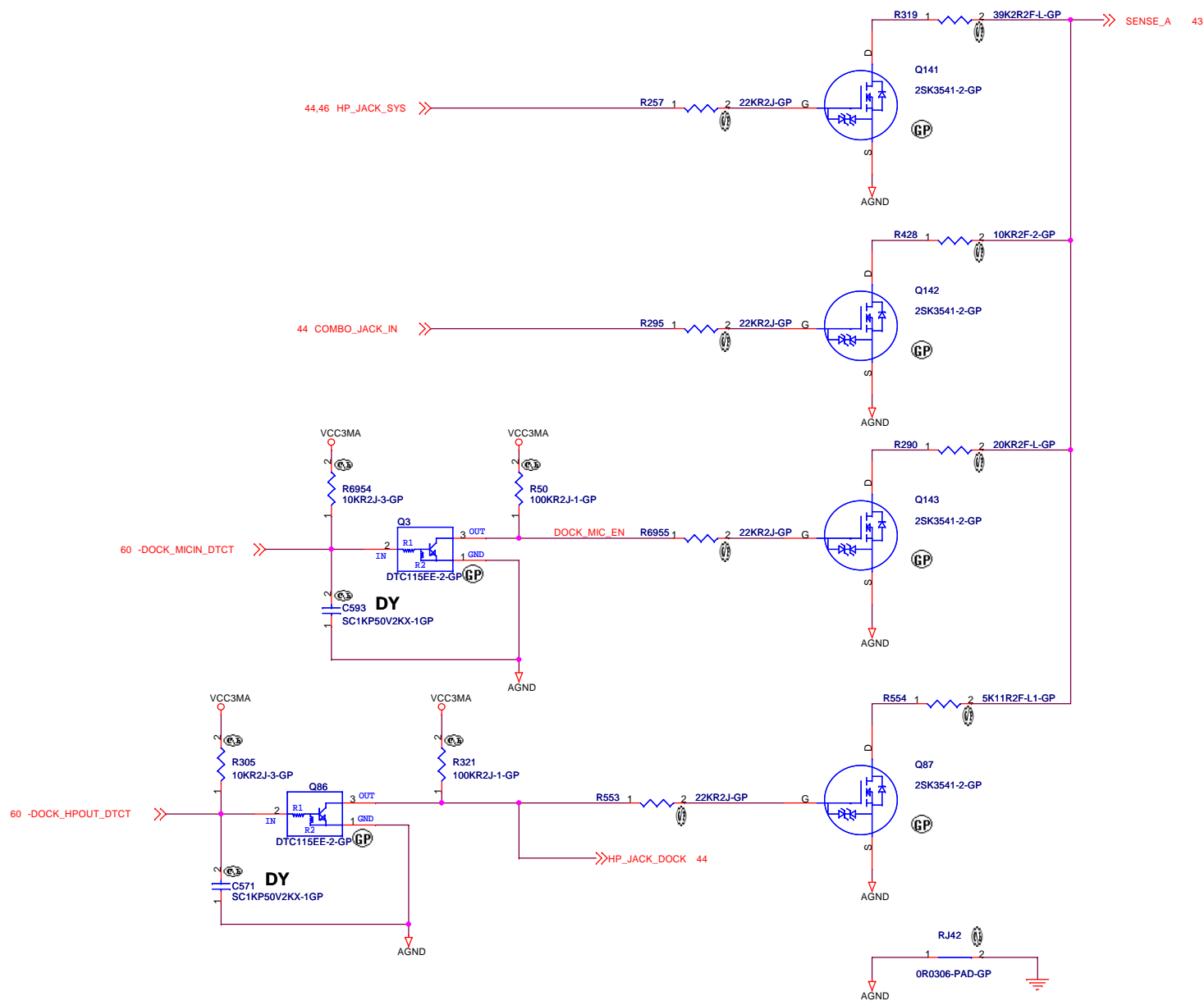
緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title		USB2.0 CONN&PWR	
Size	Document Number	SHINAI-3 SWG	Rev SB
Date	Tuesday, September 07, 2010	Sheet 42 of 102	



NEAR HEADPHONE CONN

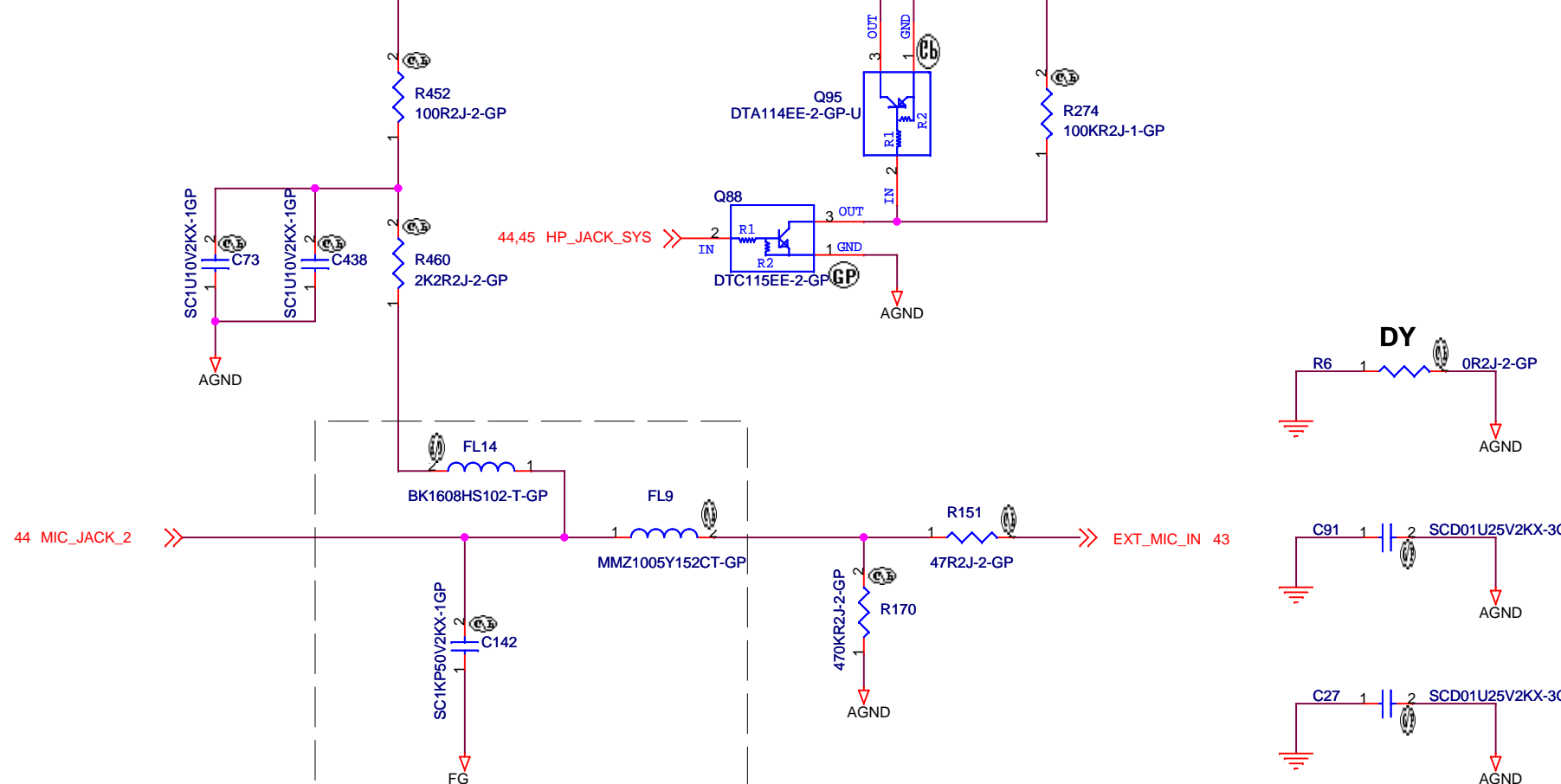


BOM			
緯創資通 Wistron Corporation			
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
File AUDIO CONNECTOR			
Size C	Document Number	SHINAI-3 SWG	
Date: Thursday, September 23, 2010	Sheet	44	of 102
Rev		SB	



BOM

緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
AUDIO JACK SENSE			
Size A3	Document Number	SHINAI-3 SWG	Rev SB
Date: Tuesday, September 07, 2010		Sheet 45 of 102	

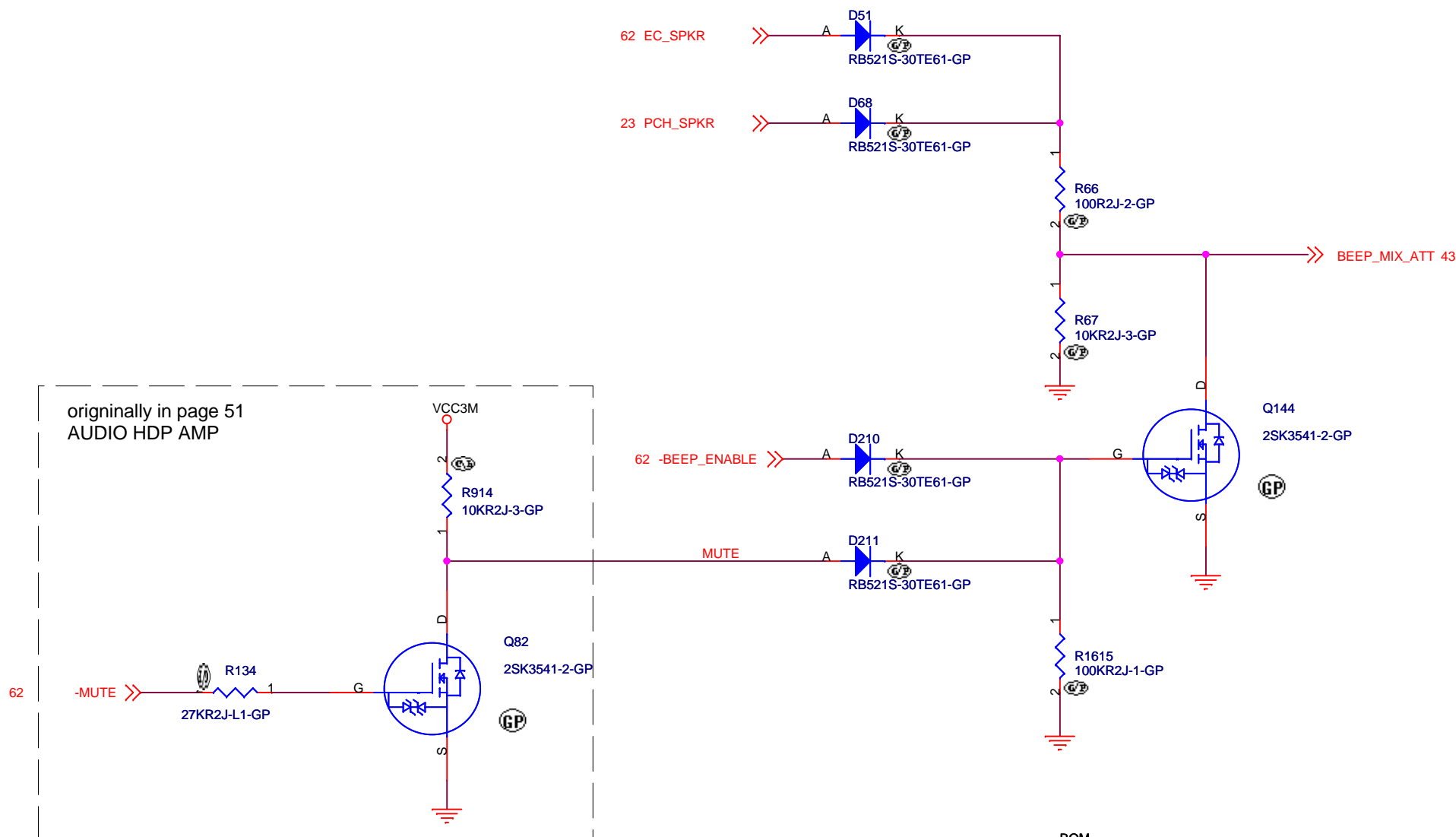


BOM		
<div><div>緯創資通</div><div>Wistron Corporation</div><div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div></div>		
Title		
AUDIO EXT MIC I/F		
Size	Document Number	Rev
A4		SB
SHINAI-3 SWG		
Date:	Tuesday, September 07, 2010	Sheet 46 of 102

AUDIO SPEAKER
MOVE TO CODEC PAGE

<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			
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Date: Tuesday, September 07, 2010		Sheet 47 of	102



BOM

緯創資通

Wistron Corporation

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

Title

AUDIO BEEP

Size
A4

Document Number

SHINAI-3 SWG

Rev
SB

Date: Tuesday, September 07, 2010

Sheet 48 of 102

D

C

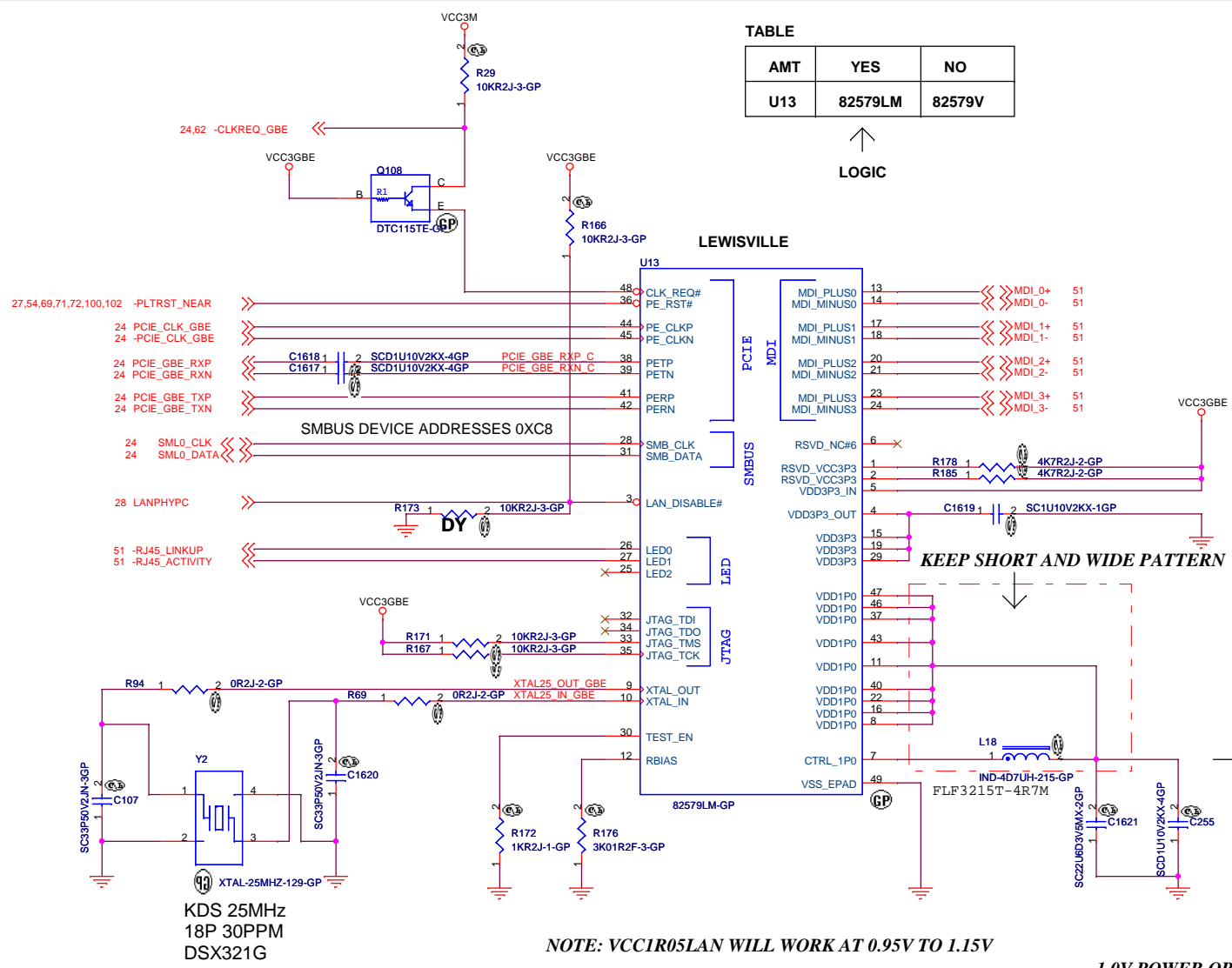
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A

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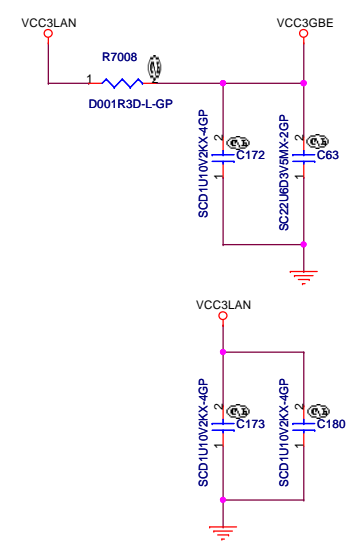
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Title <div>BLANK</div>		
Size <div>A4</div>	Document Number <div>SHINAI-3 SWG</div>	Rev <div>SB</div>
Date: Tuesday, September 07, 2010		
Sheet 49 of 102		



TABLE

AMT	YES	NO
U13	82579LM	82579V

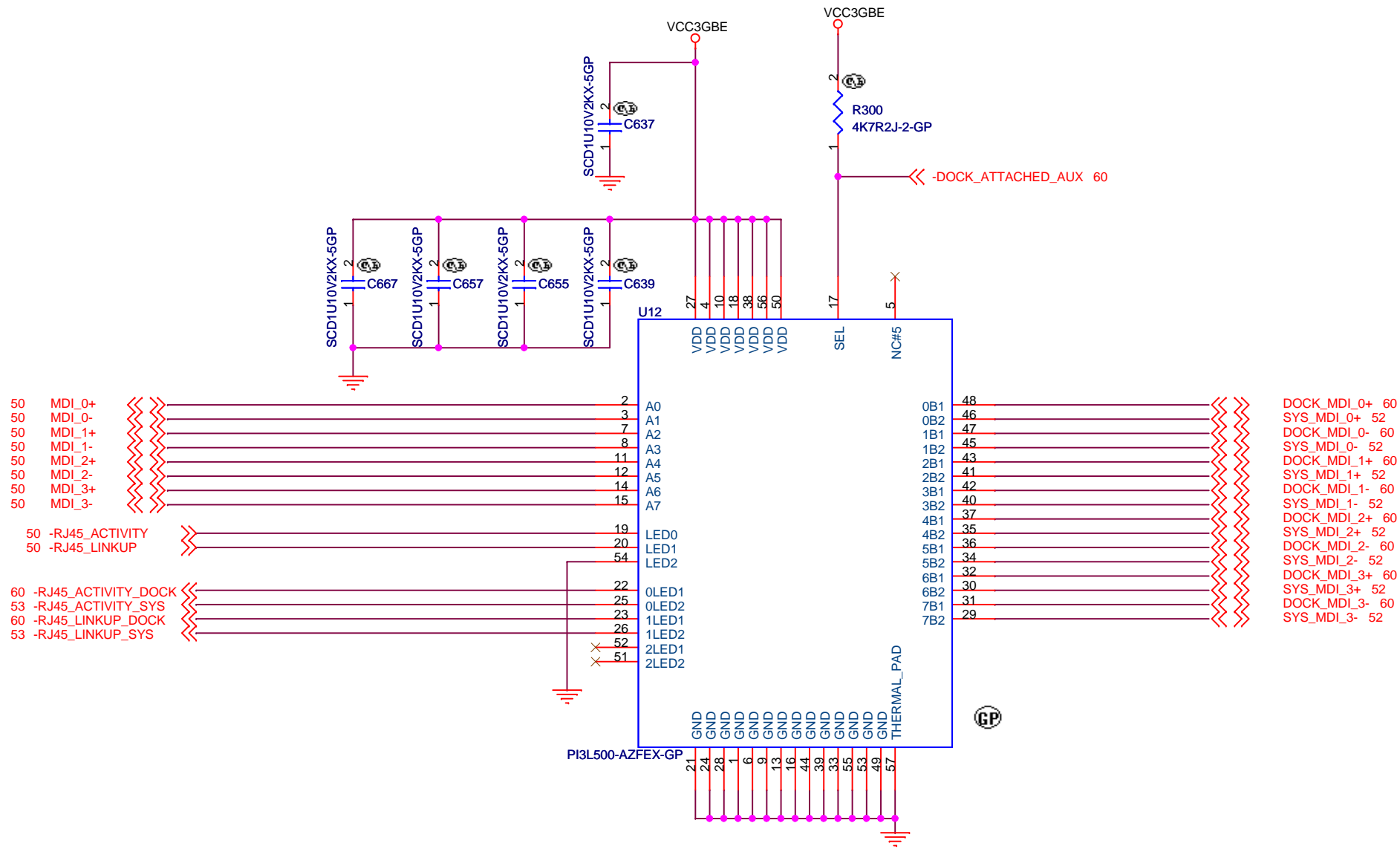
LOGIC



	Supplier	Vendor P/N	WISTRON P/N
1	KDS	DSX321G 25M 18P 30PPM	82.30020.B11
2	TXC	7V25020001 25M 18PF 30PPM	41U6141AA
3	RIVER	FCX-04-25MJ90141	82.30020.E51

1.0V POWER OPTIONS

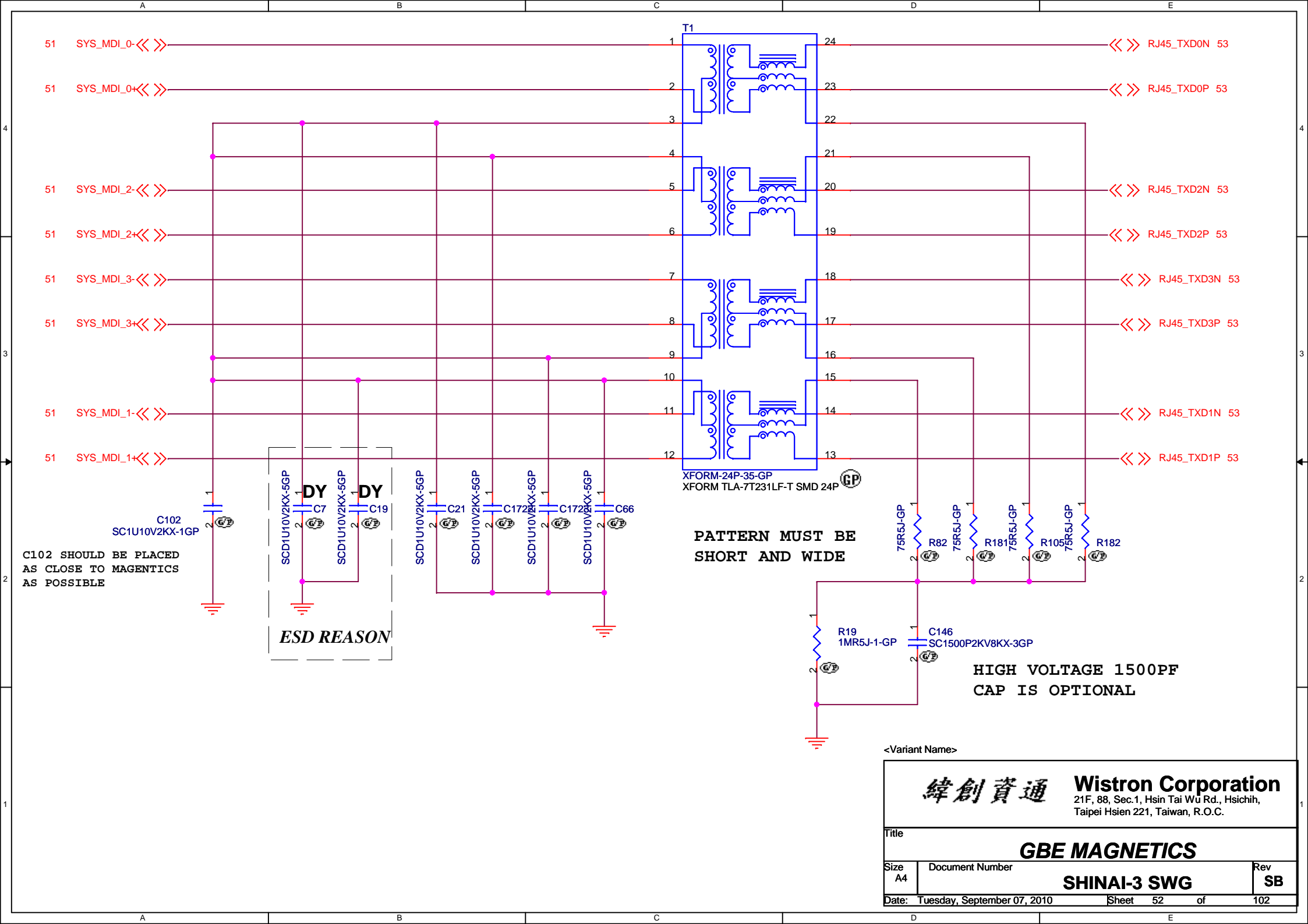
	L18	R918
SHARED WITH PCH VCC1R05LAN SVR	NO ASM	ASM
ISVR	ASM	NO ASM

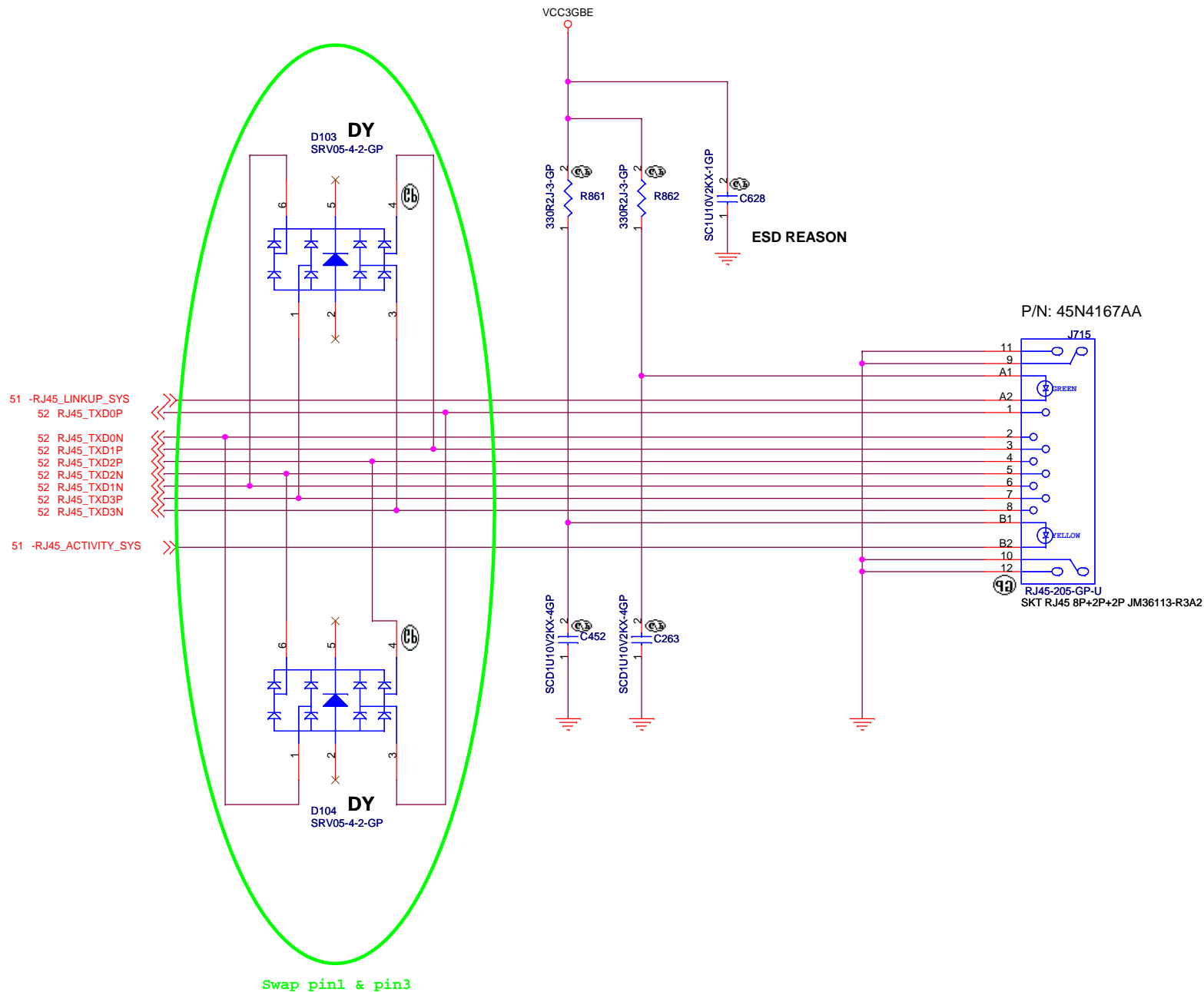


[Source Cadidate]			
1st	Pericom	PI3L500-AZFEX	41R0539AA
2nd	TI	TS3L500AERHUR	41R0539BA

<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 SW			
Size A4	Document Number SHINAI-3 SWG		Rev SB
Date: Tuesday, September 07, 2010	Sheet	51 of	102





緯創資通

Wistron Corporation

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

Title

RJ45 CONN

Size
A4

Document Number

SHINAI-3 SWG

Rev

SB

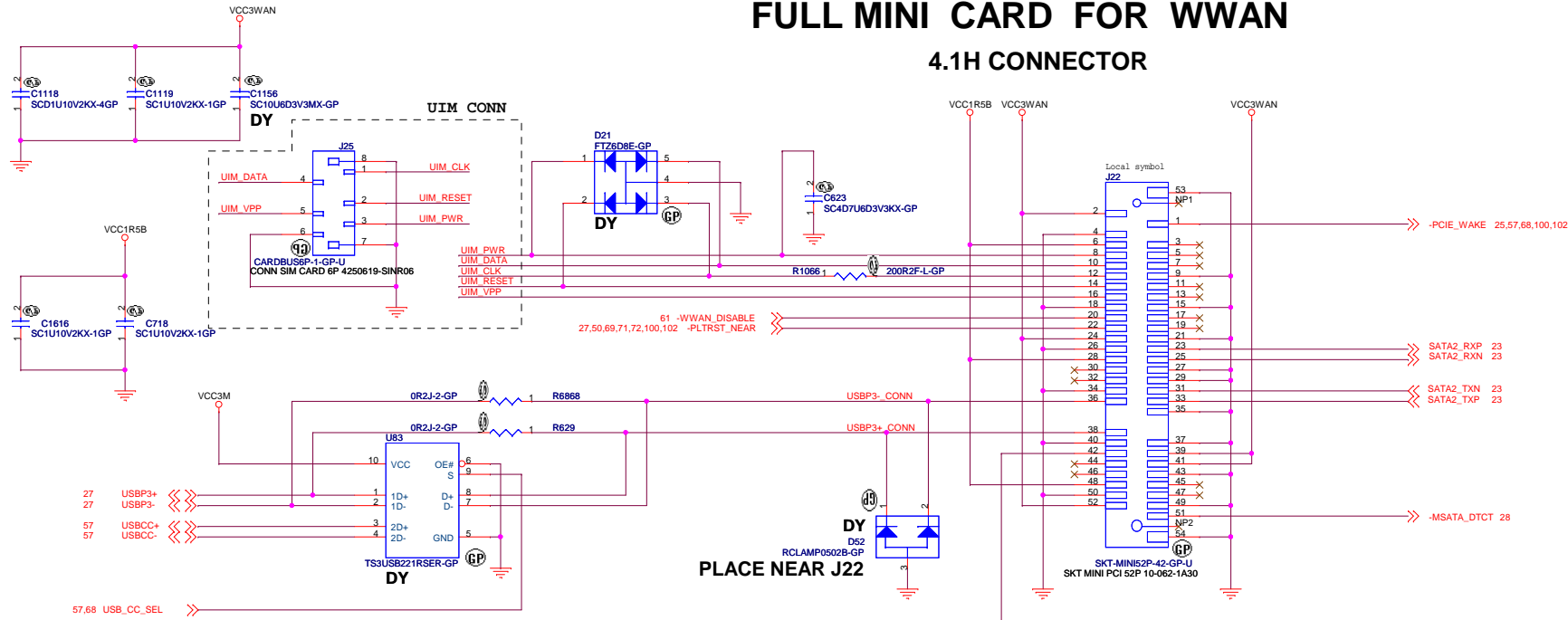
Date: Tuesday, September 07, 2010

Sheet 53 of

102

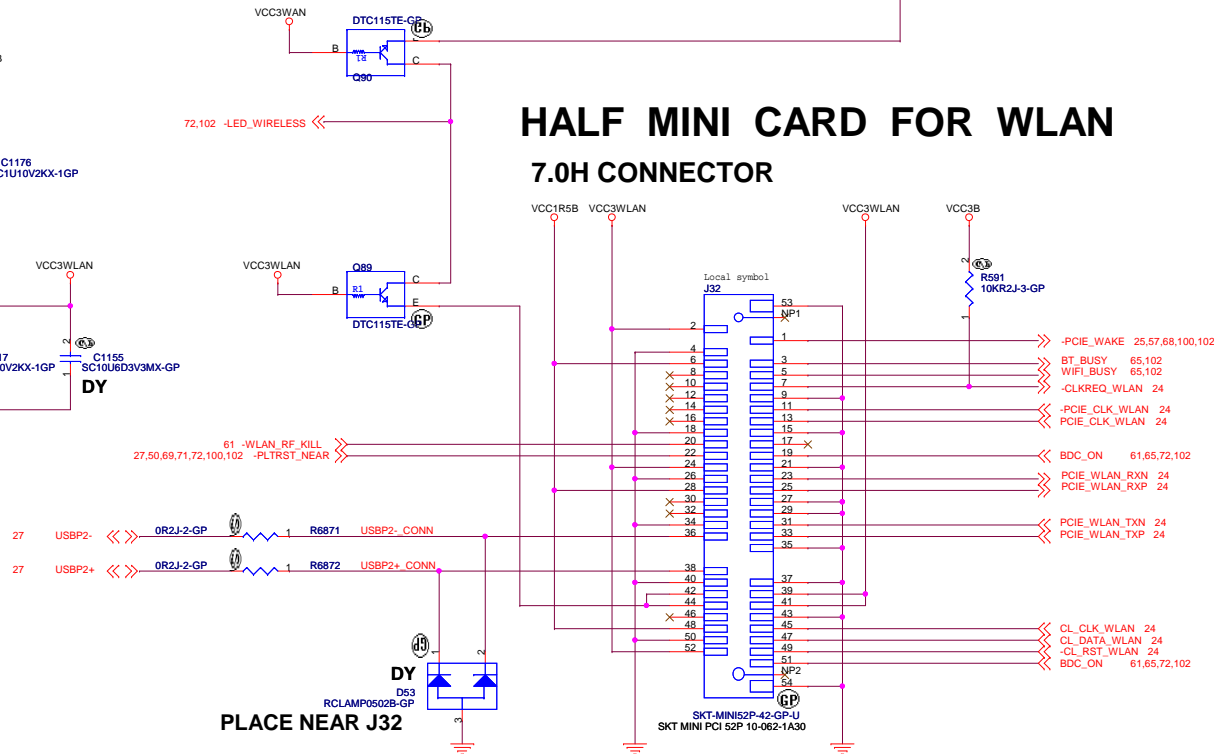
FULL MINI CARD FOR WWAN

4.1H CONNECTOR



HALF MINI CARD FOR WLAN

7.0H CONNECTOR



TABLE

WWAN CONSTANT CONNECT	W/WWAN VER.2	W/WWAN VER.1/NO	W/O WWAN NO
J22	ASM	ASM	NO_ASM
J25	ASM	ASM	NO_ASM
C1118	ASM	ASM	NO_ASM
C1119	ASM	ASM	NO_ASM
R1066	ASM	ASM	NO_ASM
C623	ASM	ASM	NO_ASM
D21	ASM	ASM	NO_ASM
U83	ASM	NO_ASM	NO_ASM
R629	NO_ASM	ASM	NO_ASM
R651	NO_ASM	ASM	NO_ASM

LOGIC

<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 MINI CARD SLOT		
Size Custom	Document Number SHINAI-3 SWG	Rev SB
Date: Tuesday, September 07, 2010	Sheet 54	of 102

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<Variant Name>

<div>緯創資通</div>		<div>Wistron Corporation</div>	
<div>21F, 88, Sec.1, Hsin Tai Wuj Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>			
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<div>Size B</div>	<div>Document Number</div>		<div>Rev SB</div>
<div>Date: Tuesday, September 07, 2010</div>		<div>Sheet E</div>	<div>55 of 102</div>

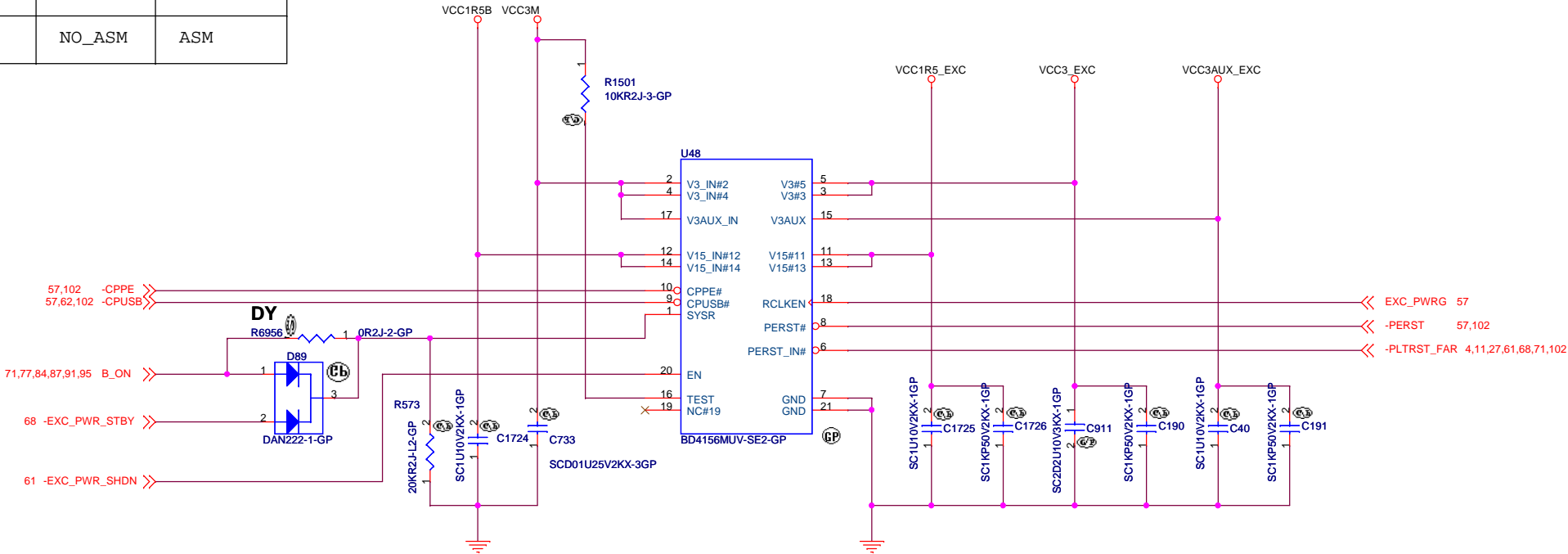
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<Variant Name>

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<div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,</div>		<div>Taipei Hsien 221, Taiwan, R.O.C.</div>	
Title			
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Size	Document Number		Rev
A3	SHINAI-3 SWG		SB
Date:	Tuesday, September 07, 2010	Sheet	56 of 102

TABLE

CONSTANT CONNECT	YES	NO
D89	ASM	NO_ASM
R573	ASM	NO_ASM
R6956	NO_ASM	ASM



TABLE

CONSTANT CONNECT	VER. 2 / VER. 1	NO
U48	BD4156MUV TPS2231MRGPR-3	TPS2231MRGPR-3 BD4156MUV W83L351YG
R1501	ASM	ASM

↑
LOGIC

<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

SLOT POWER CONTRL

Size B

Document Number

SHINAI-3 SWG

Rev

SB

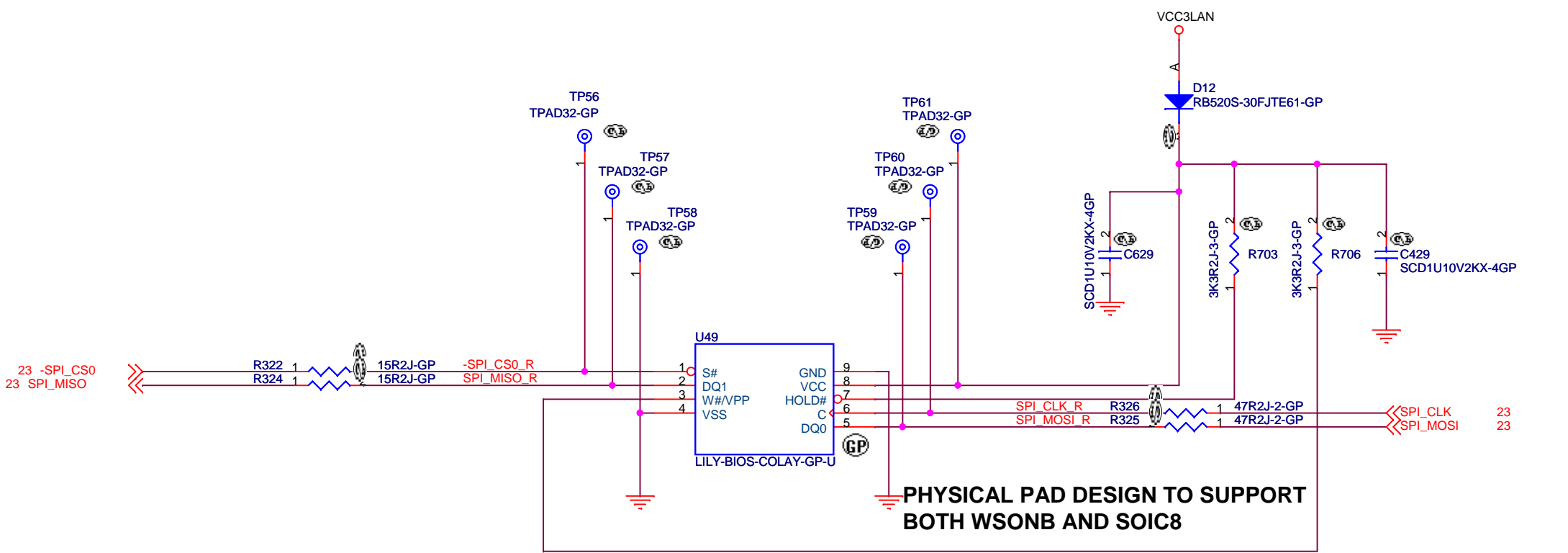
Date: Tuesday, September 07, 2010

Sheet

58

of

102




TABLE

	WISTRON P/N
8MB SOIC8	
MACRONIX MX25L6436EM2I-10G	72.25643.001
MACRONIX MX25L6406EM2I-10G	Wait Wistron PN
WINBAOND W25Q64CVSSIG	72.25Q64.B01
8MB WSON8	
NUMONYX M25PX64-VDM6TG	72.25P64.E01

TABLE

SF100 PIN HEADER IN TERFACE (TOP VIEW)					
1	VCC	D12.1	GND	GND	2
3	CS#	R322.2	R326.2	CLK	4
5	MISO	R324.2	R325.2	MOSI	6
7	(KEY)	N/A	N/A	(RESET)	8

<Variant Name>



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

SPI FLASH

Size
A4

Document Number
SHINAI-3 SWG

Rev
SB

Date: Tuesday, September 07, 2010Sheet 59 of 102

TABLE

LOCAL	WISTRON	NET
149	1A	DOCK_PWR20_IN
150	2A	DOCK_PWR20_IN
151	3A	GND
152	4A	GND
153	5A	S_BAT_IN
154	6A	S_BAT_IN
155	7A	NA
156	8A	NA
157	149	GND
158	150	GND
159	151	GND
160	152	GND
161	153	GND
162	154	GND
163	NP1	NA
164	NP2	NA

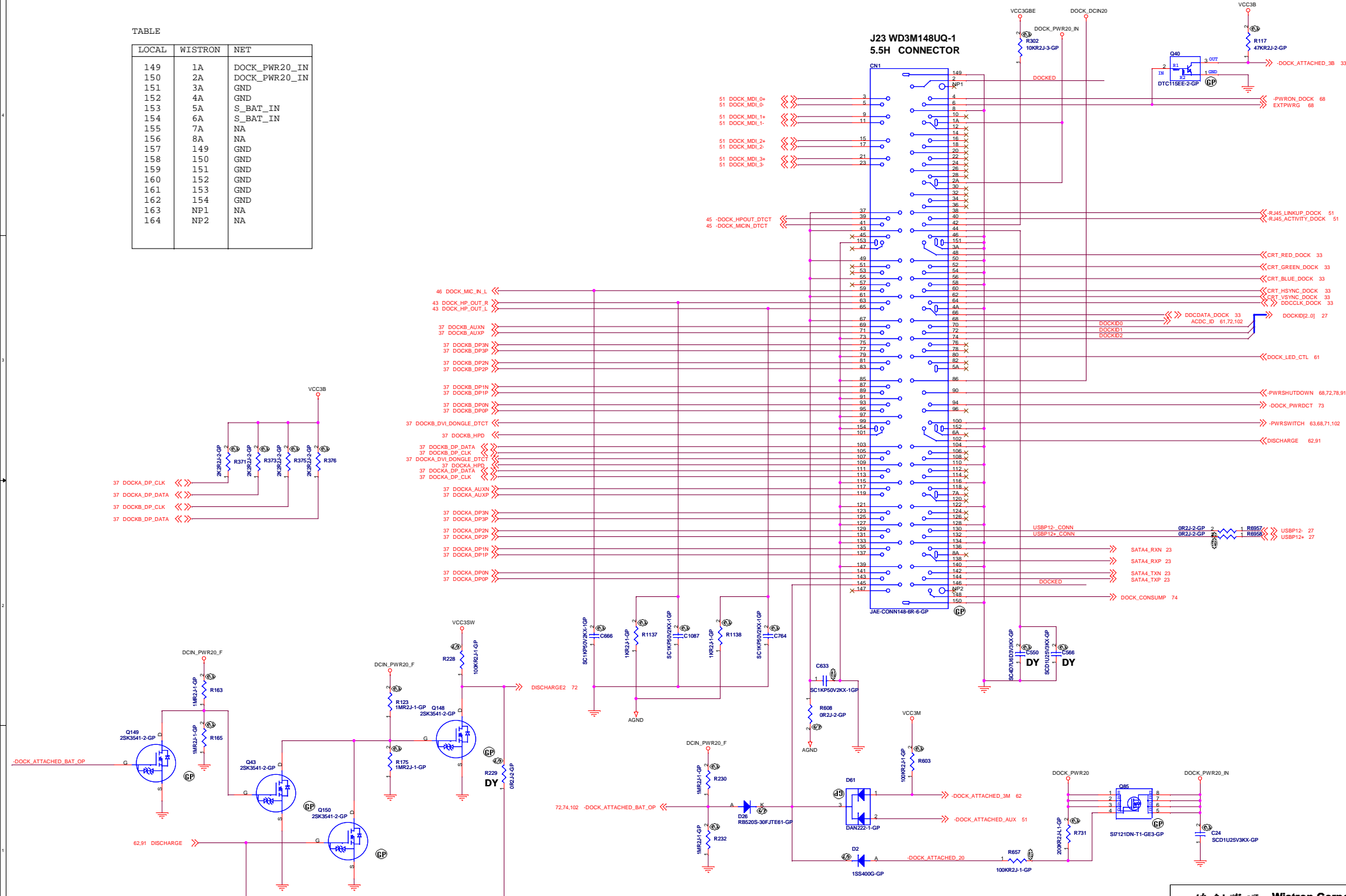
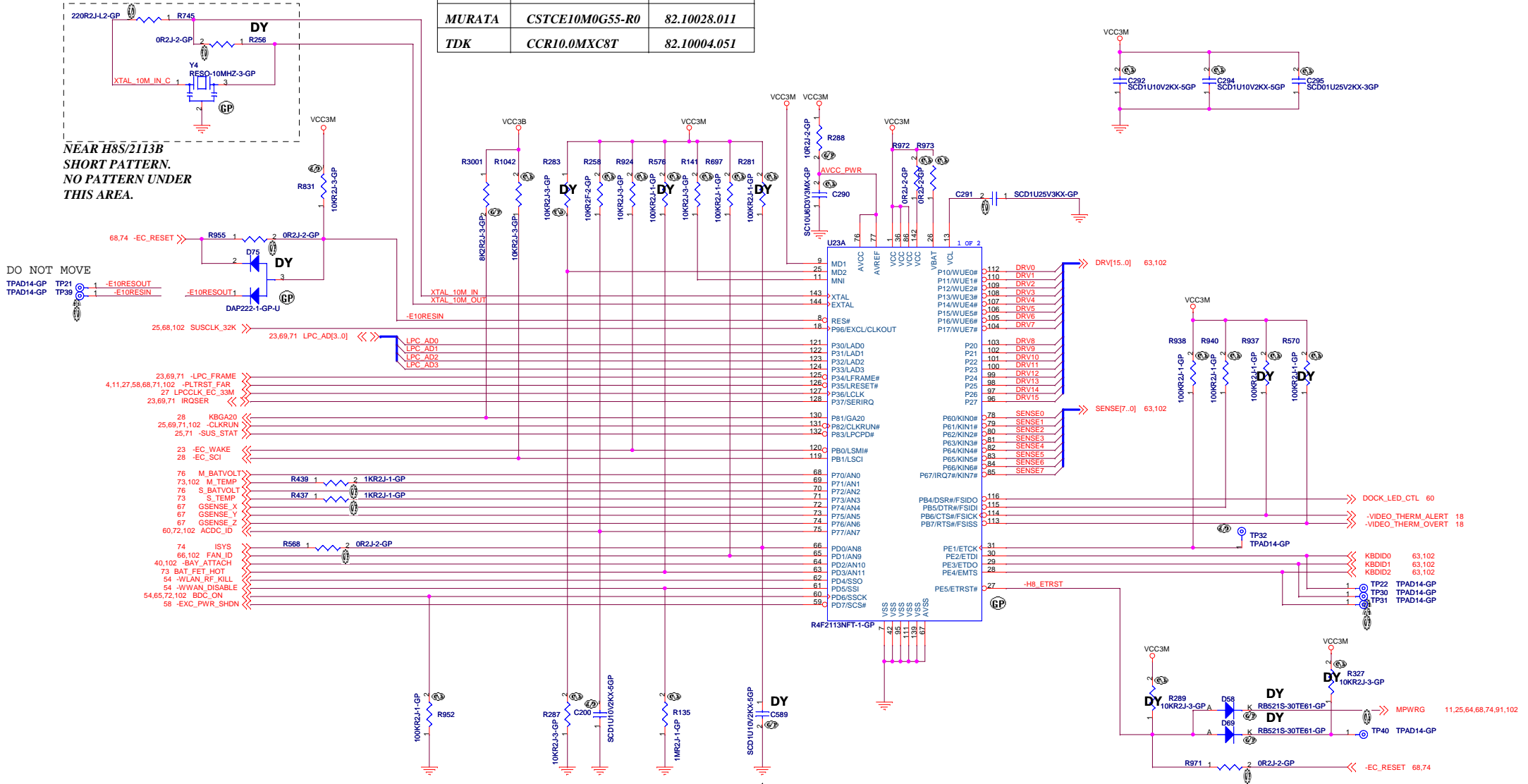


TABLE P/N 41A1205		
VENDOR	PART	WISTRON P/N
MURATA	CSTCE10M0G55-R0	82.10028.011
TDK	CCR10.0MXC8T	82.10004.051



TABLE

E10A DEBUG I/F	ENABLE	DISABLE(FINAL LOGIC)
R955 R631	NO_ASM ASM ASM	ASM NO_ASM ASM
R971 D69 R289 R327	NO_ASM ASM ASM ASM ASM	ASM NO_ASM NO_ASM NO_ASM NO_ASM
R283 R287	ASM NO_ASM	NO_ASM ASM
R881 R218	ASM NO_ASM	NO_ASM ASM
RN25	NO_ASM	ASM

PLACE NEAR H8

LOGIC

<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

Size

Size	Document Number
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	Deta
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Date: Tuesday, September 07, 2010

H8S/2113 (1/2)

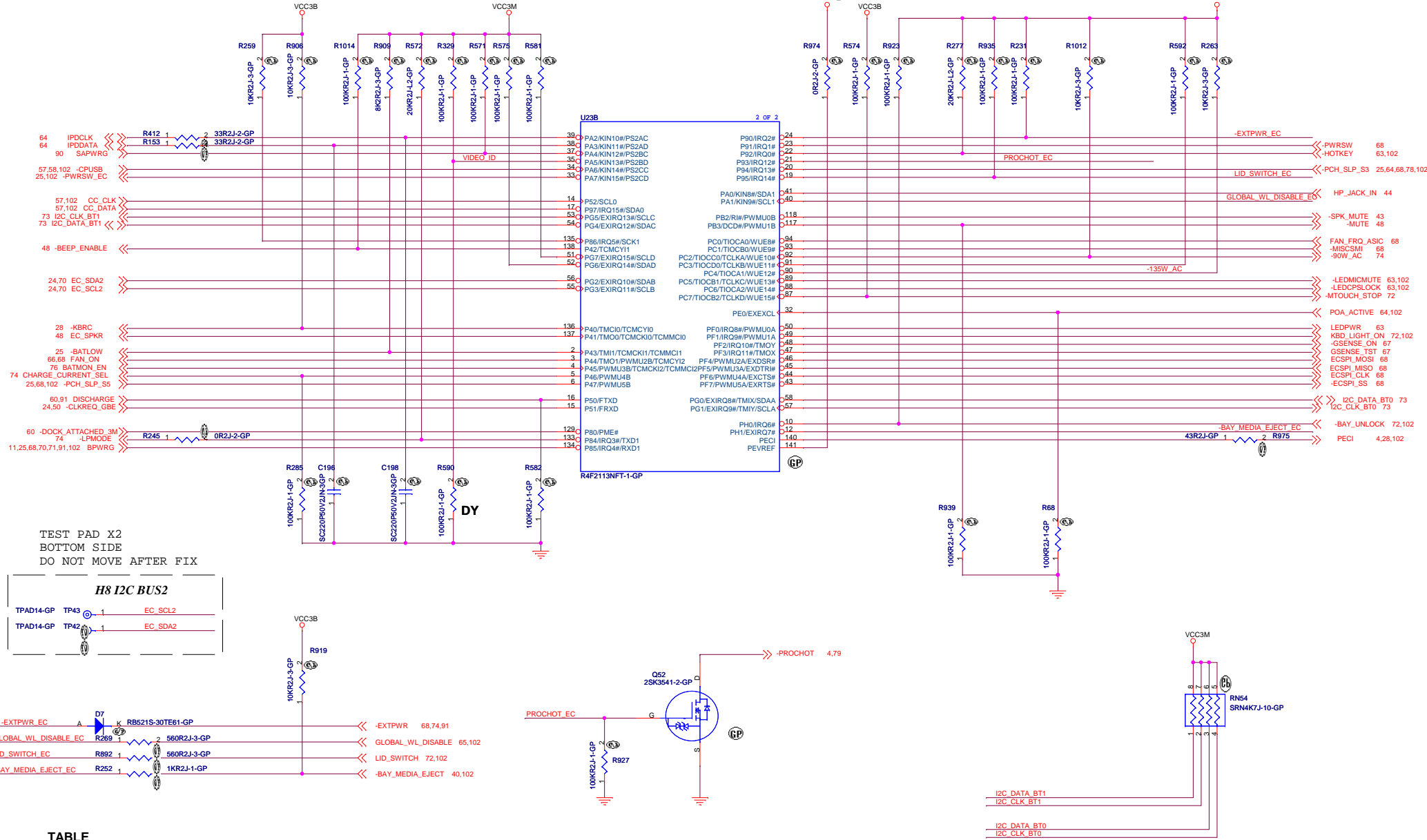
SHINAI-3 SWG

Rev
SB

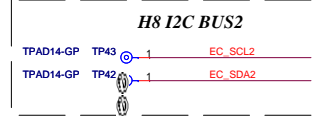
Date _____

Sheet

102



TEST PAD X2
BOTTOM SIDE
DO NOT MOVE AFTER FIX



TABLE

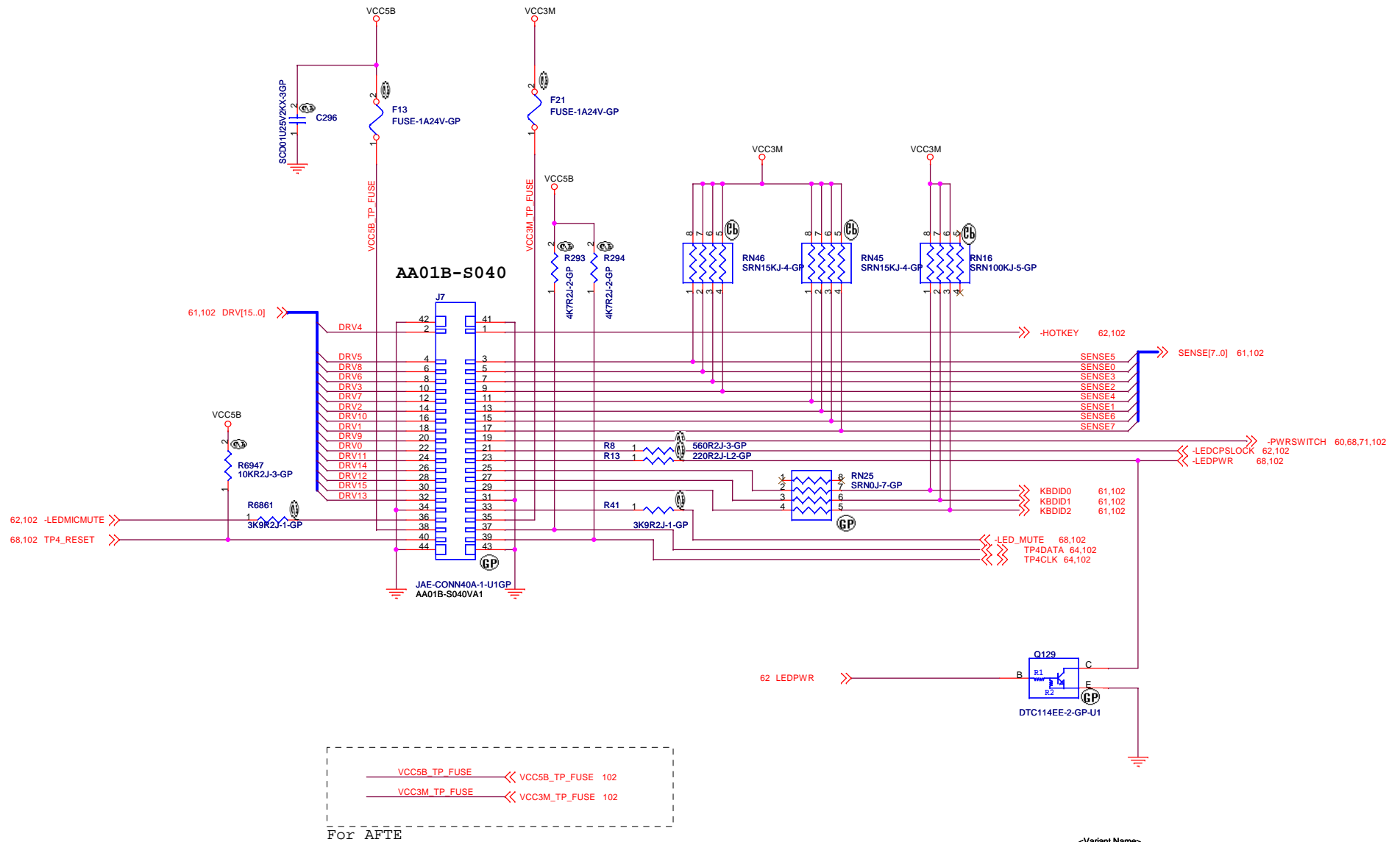
GFX	EXT	INT.
R329	ASM	NO_ASM
R590	NO_ASM	ASM

LOGIC

<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			
H8S/2113(2/2)			
Size	Document Number	Rev	SB
Custom	SHINAI-3 SWG		
Date:	Tuesday, September 07, 2010	Sheet	62 of 102

Keyboard 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.

Title

KEYBOARD CONNECTOR

Size

Document Number

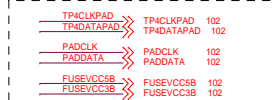
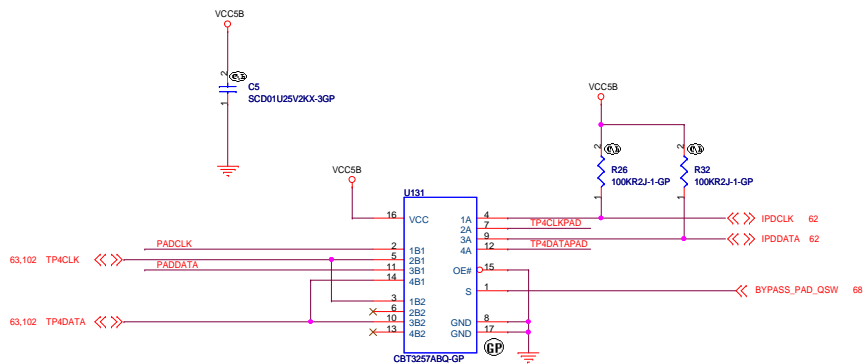
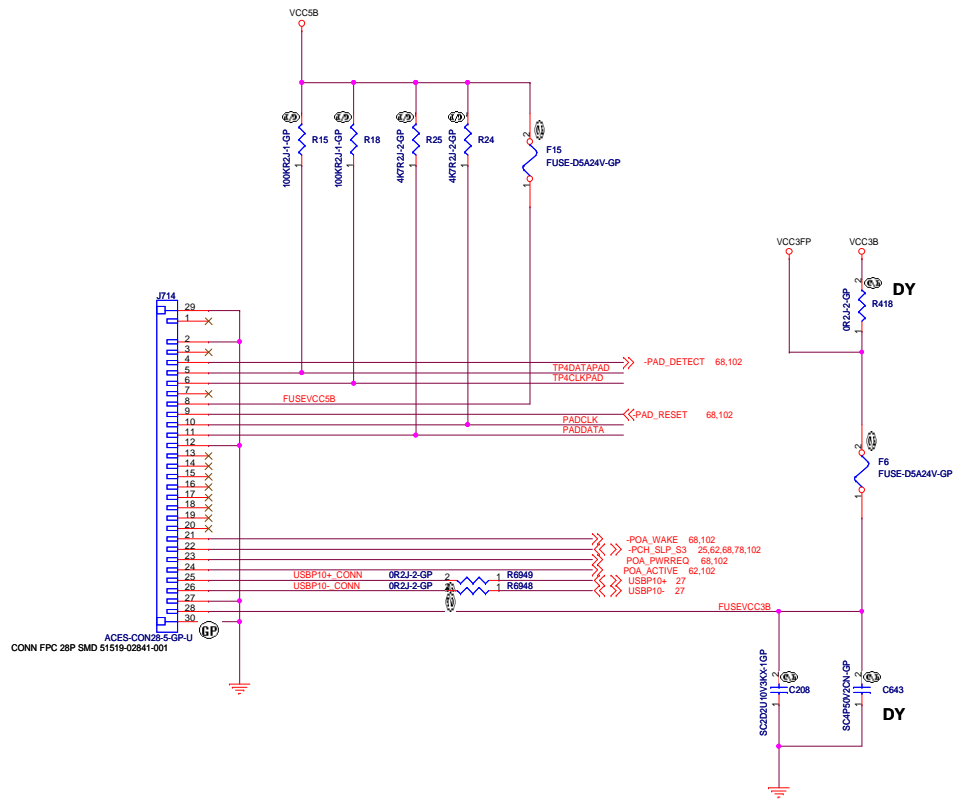
SHINAI-3 SWG

Rev

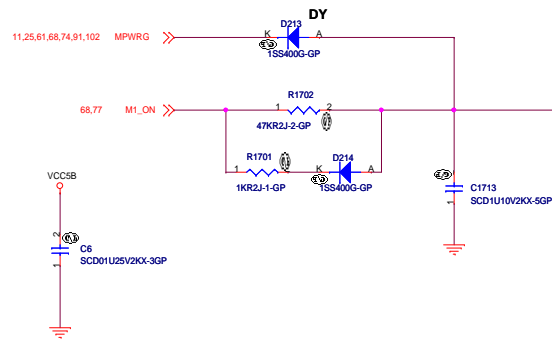
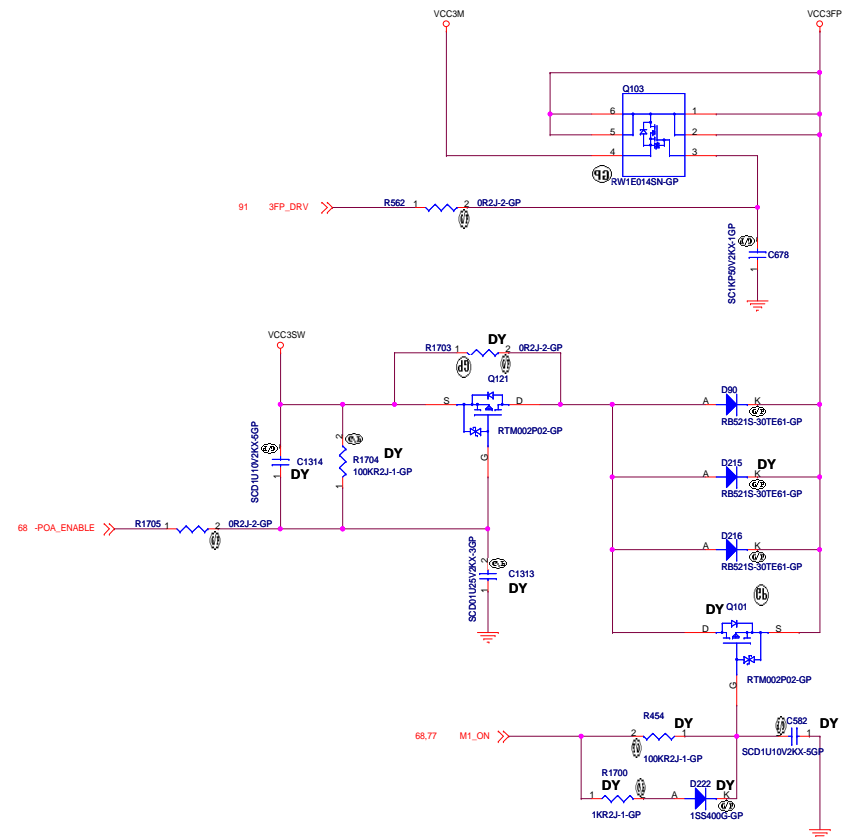
SB

Date: Thursday, September 23, 2010

Sheet 63 of 102



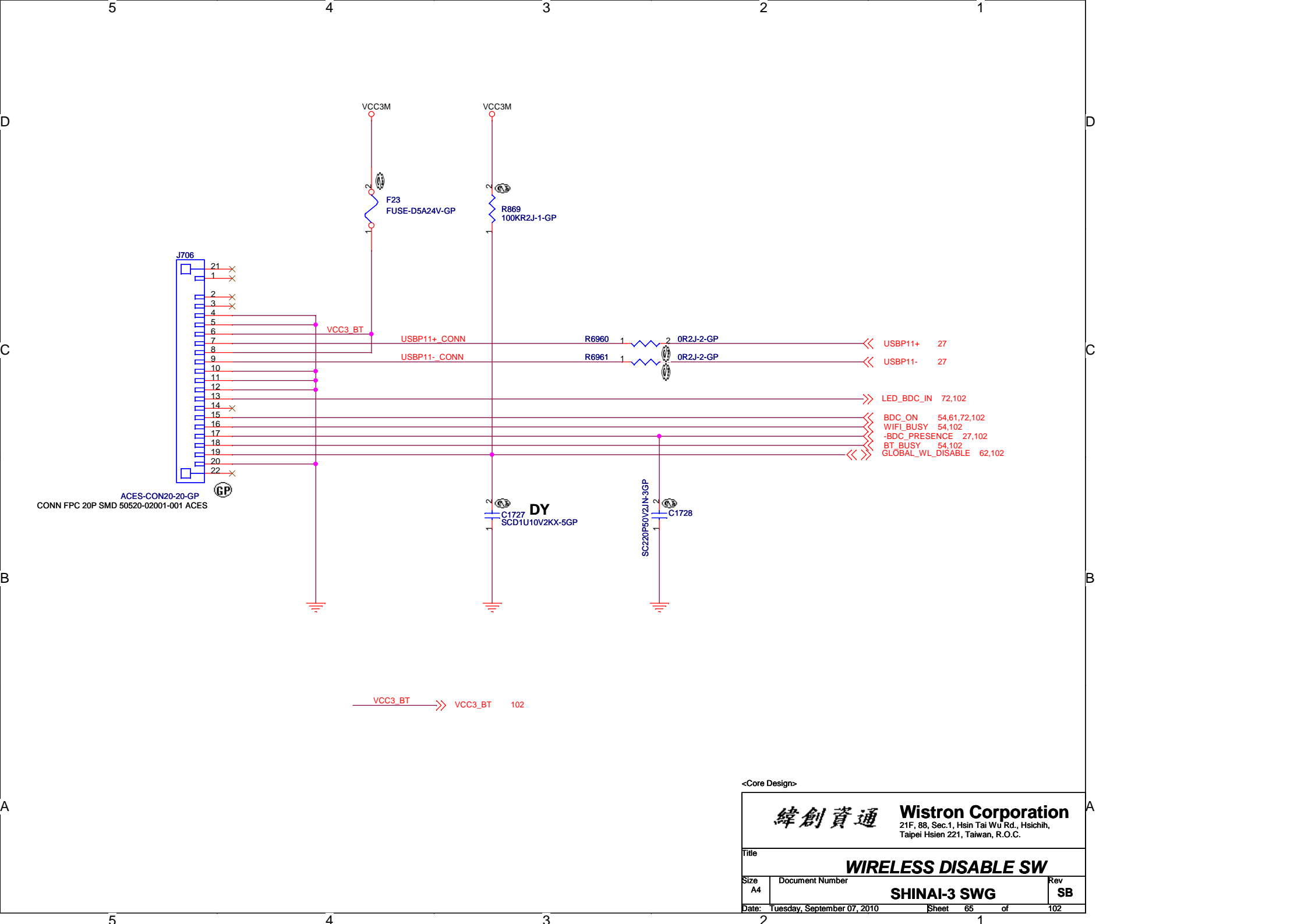
FOR AFTE



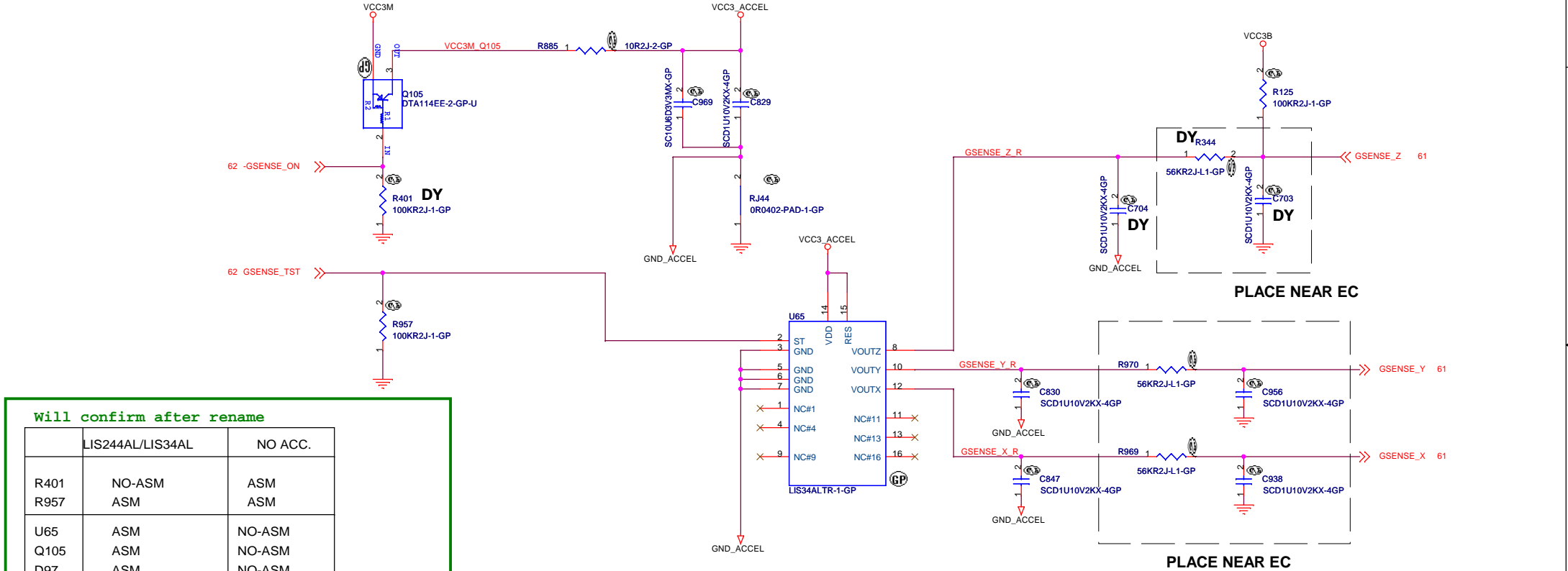
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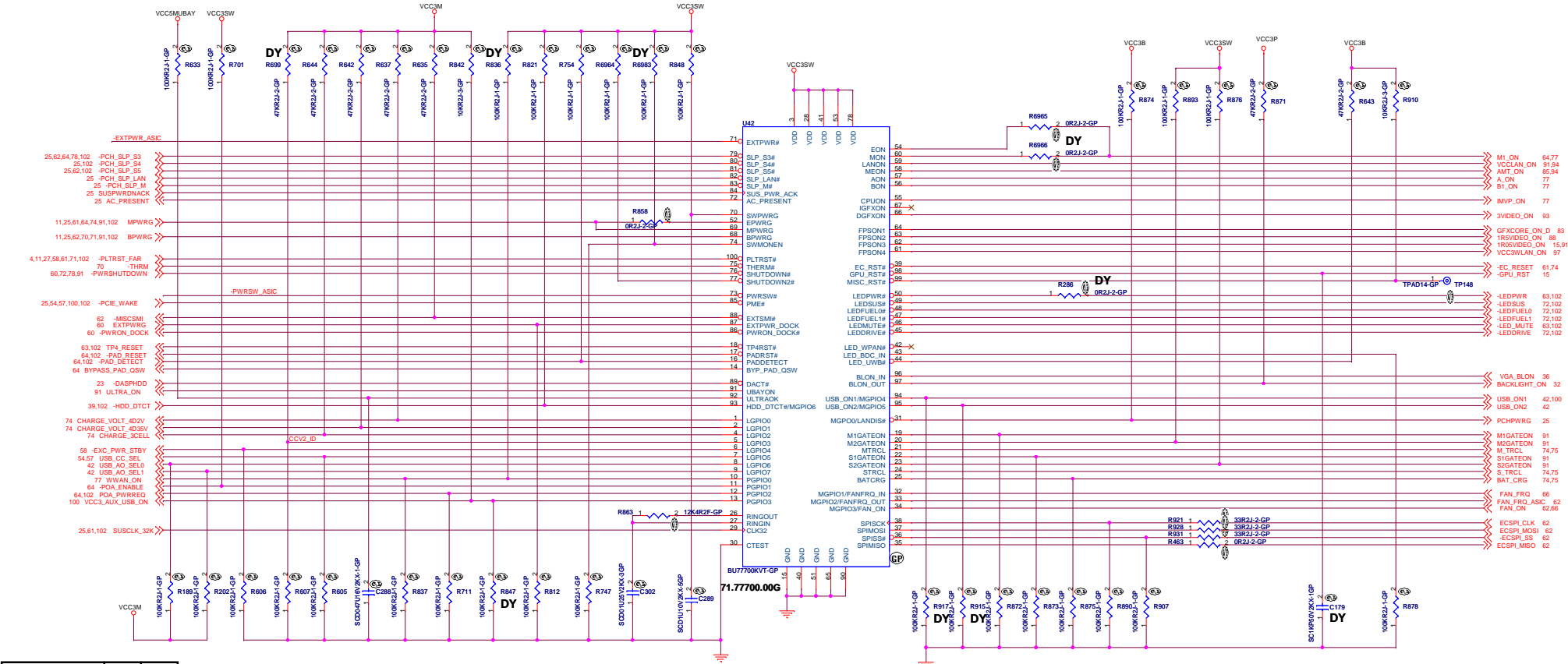
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

TOUCH PAD CONNECTOR			
File	Document Number	SHINAI-3 SWG	Rev SB
Size C	Document Number	SHINAI-3 SWG	Rev SB
Date: Tuesday, September 07, 2010	Sheet 64	of 102	



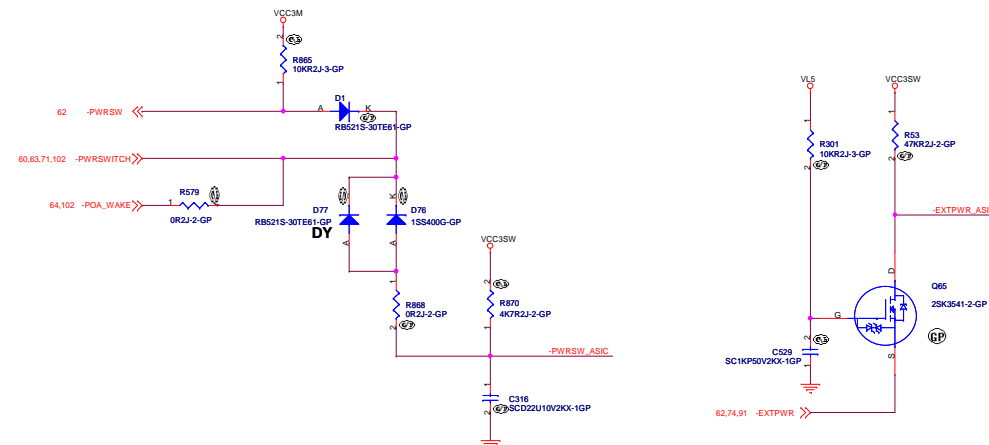
Will confirm after rename		
	LIS244AL/LIS34AL	NO ACC.
R401	NO-ASM	ASM
R957	ASM	ASM
U65	ASM	NO-ASM
Q105	ASM	NO-ASM
D97	ASM	NO-ASM
R62	ASM	NO-ASM
R885	10-OHM	NO-ASM
C829	ASM	NO-ASM
C969	ASM	NO-ASM
C830	ASM	NO-ASM
C847	ASM	NO-ASM
R969	56K	NO-ASM
C938	ASM	NO-ASM
R970	56K	NO-ASM
C956	ASM	NO-ASM
C704	NO-ASM	NO-ASM
R344	NO-ASM	NO-ASM
C703	NO-ASM	NO-ASM
R125	ASM	ASM



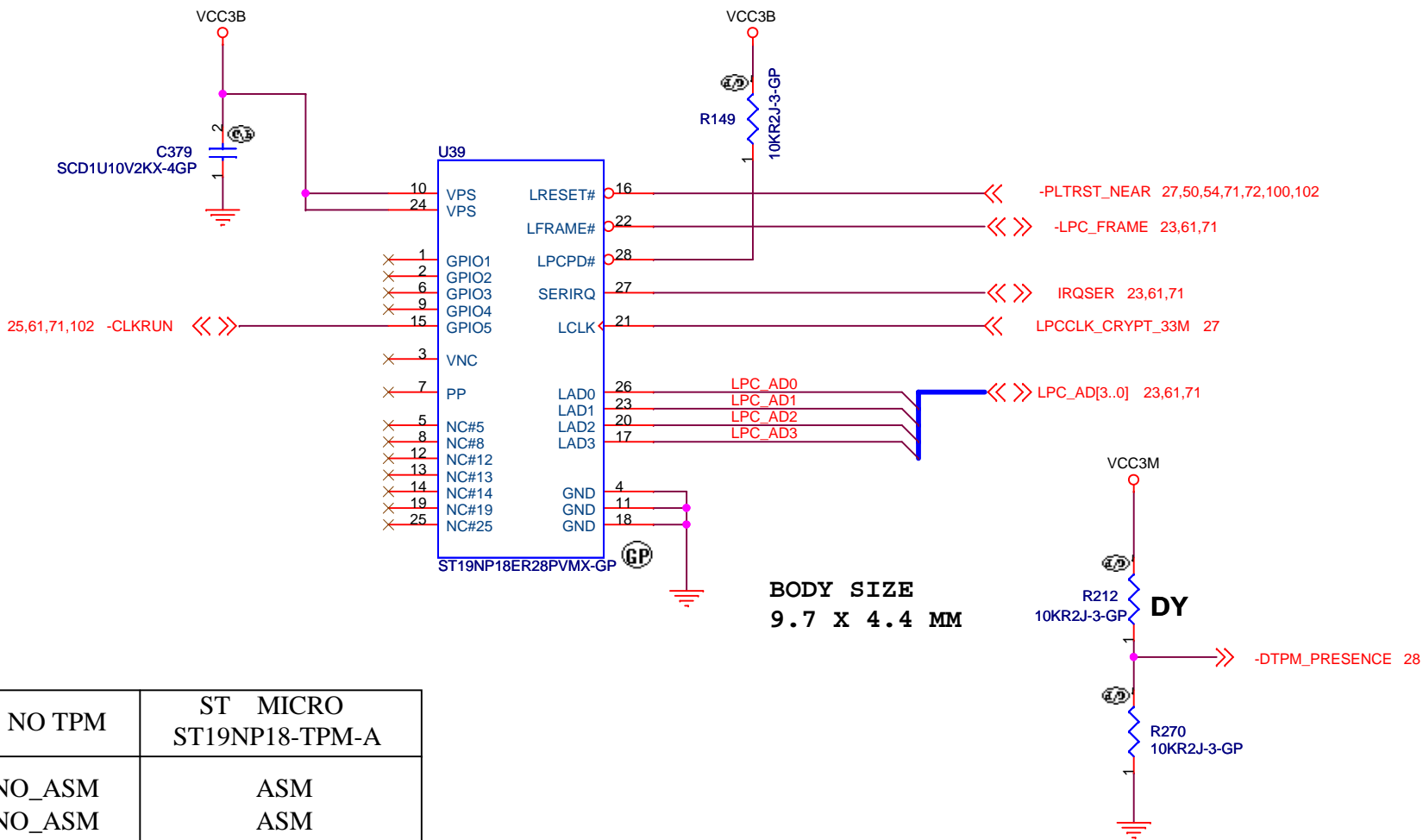


Constant Connect	Yes	No
Version. 2		
R699	AS01	80 AS01
R607	80 AS01	AS01

LOGIC

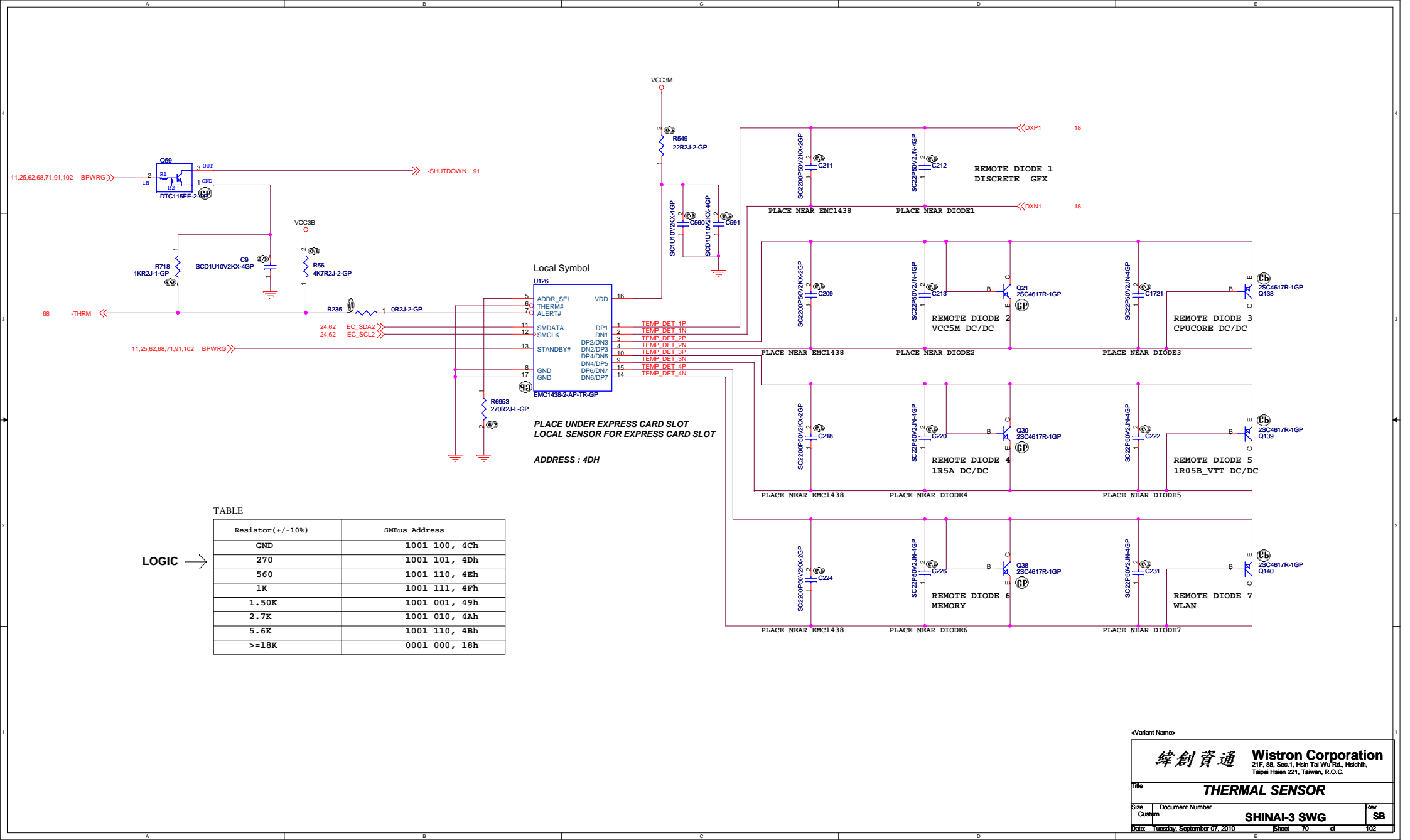


TPM



<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 <div>TPM</div>		
Size <div>A4</div>	Document Number <div>SHINAI-3 SWG</div>	Rev <div>SB</div>
Date: Tuesday, September 07, 2010		
Sheet 69 of 102		

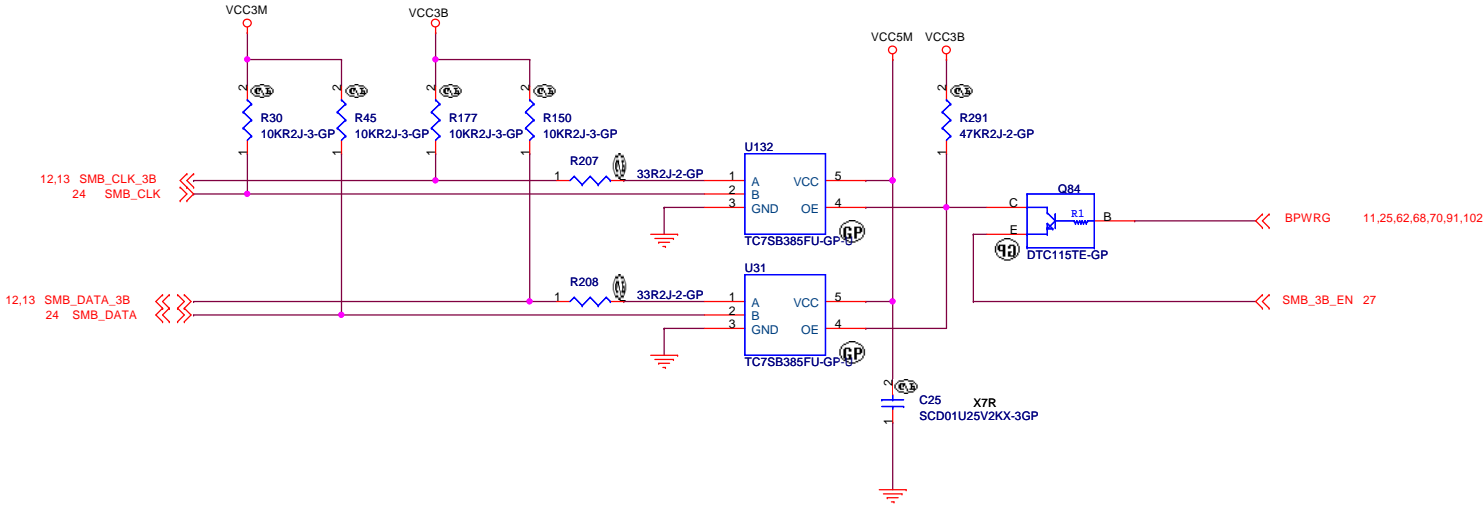
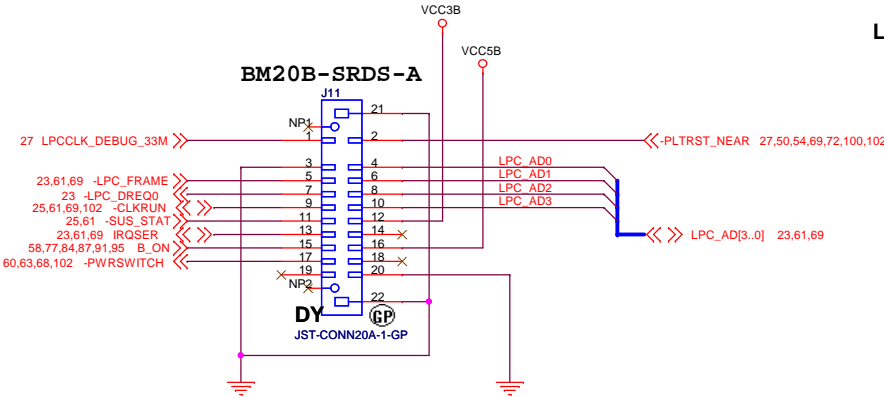
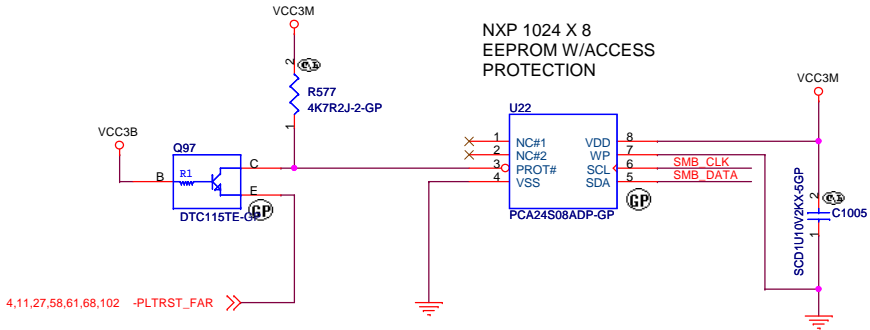


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1	NXP	PCA24S08ADP	72.24S08.A0Q
2	ROHM	BUL08-1FVJ-W	72.BUL08.00Q
3	SANYO	LE26CAP08TT-TLM-H	72.26C08.00R

TABLE

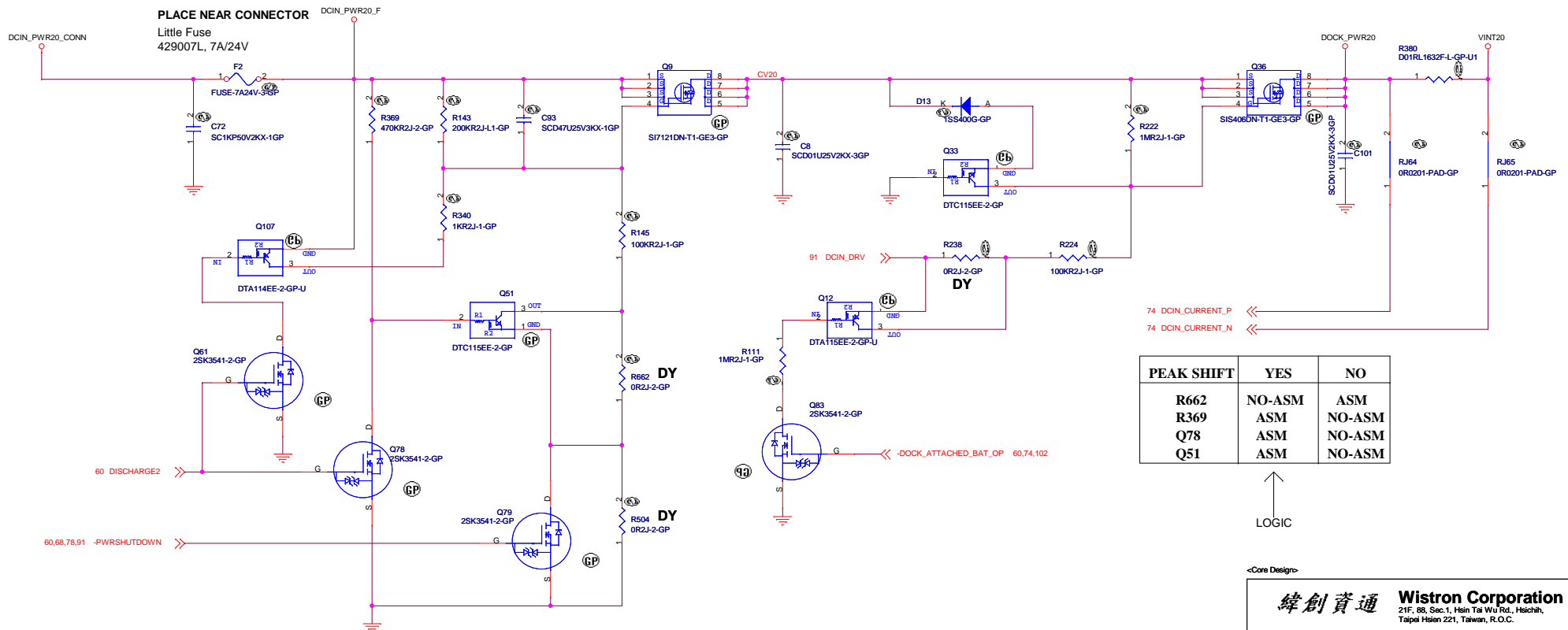
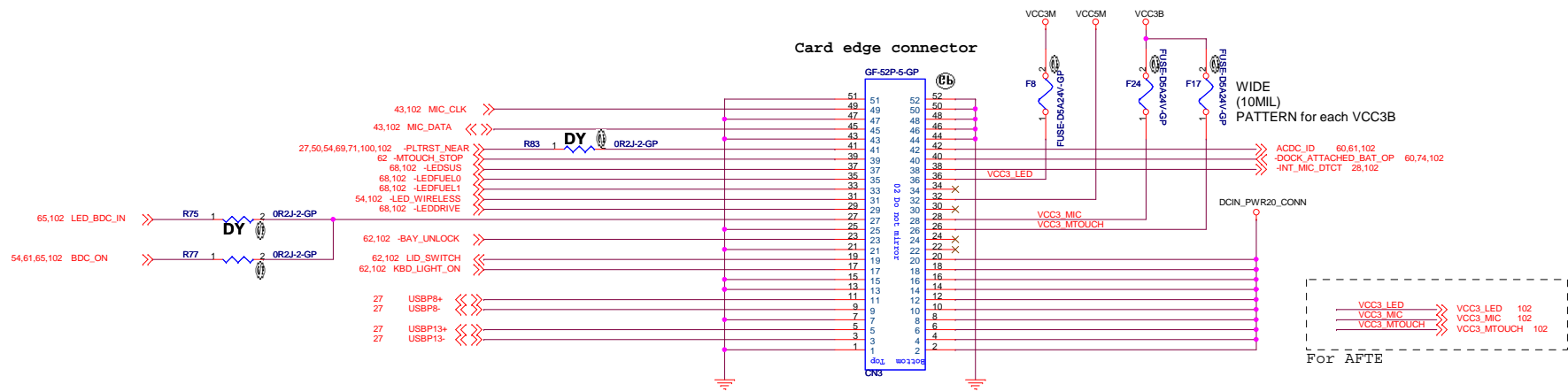
REF DES	ENABLE	DISABLE
J11	ASM	NO_ASM

↑
LOGIC



<Core Design>

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		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
EEPROM/SMBUS SW			
Size	Document Number		Rev
A3			SB
SHINAI-3 SWG			
Date:	Tuesday, September 07, 2010	Sheet 71 of	102



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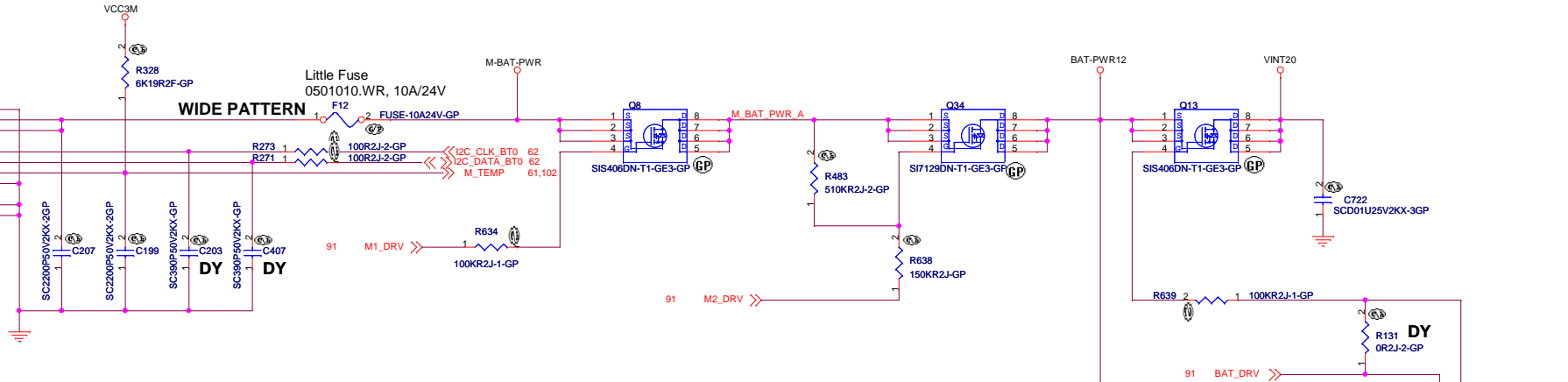
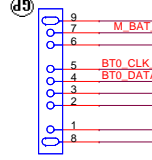
緯創資通

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

DC-IN			
Title			
Size	Document Number	Rev	
Custom	SHINAI-3 SWG	SB	
Date:	Tuesday, September 07, 2010	Sheet	72 of 102

P/N: 45N4219

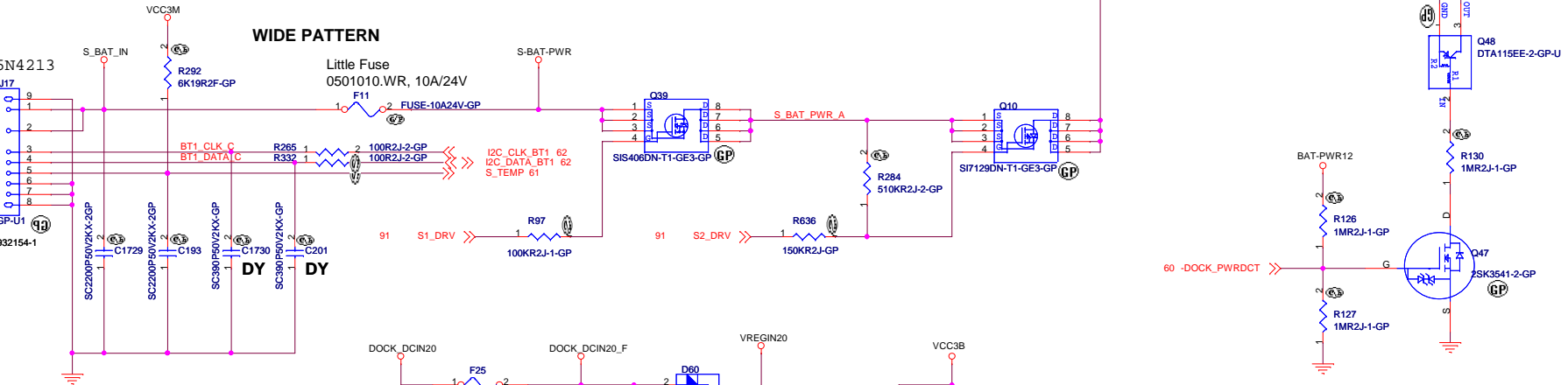
J13
TYCO-CON7-22-GP-U



P/N: 45N4213

J17
TYCO-CON7-28-GP-U1
CONN CTR 7P 1932154-1

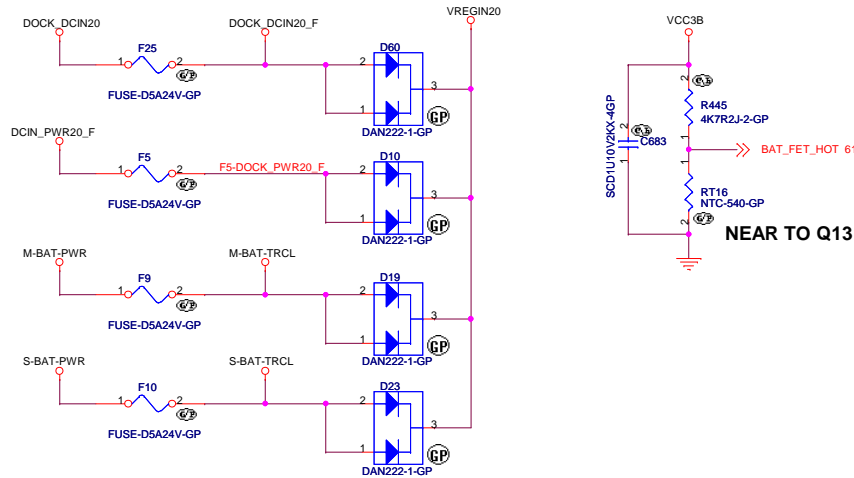
SC2200P50V2KX-2GP
SC2200P50V2KX-2GP
SC390P50V2KX-2GP
SC390P50V2KX-2GP



M_BAT_IN
BT0_CLK_C
BT0_DATA_C

M_BAT_IN 102
BT0_CLK_C 102
BT0_DATA_C 102

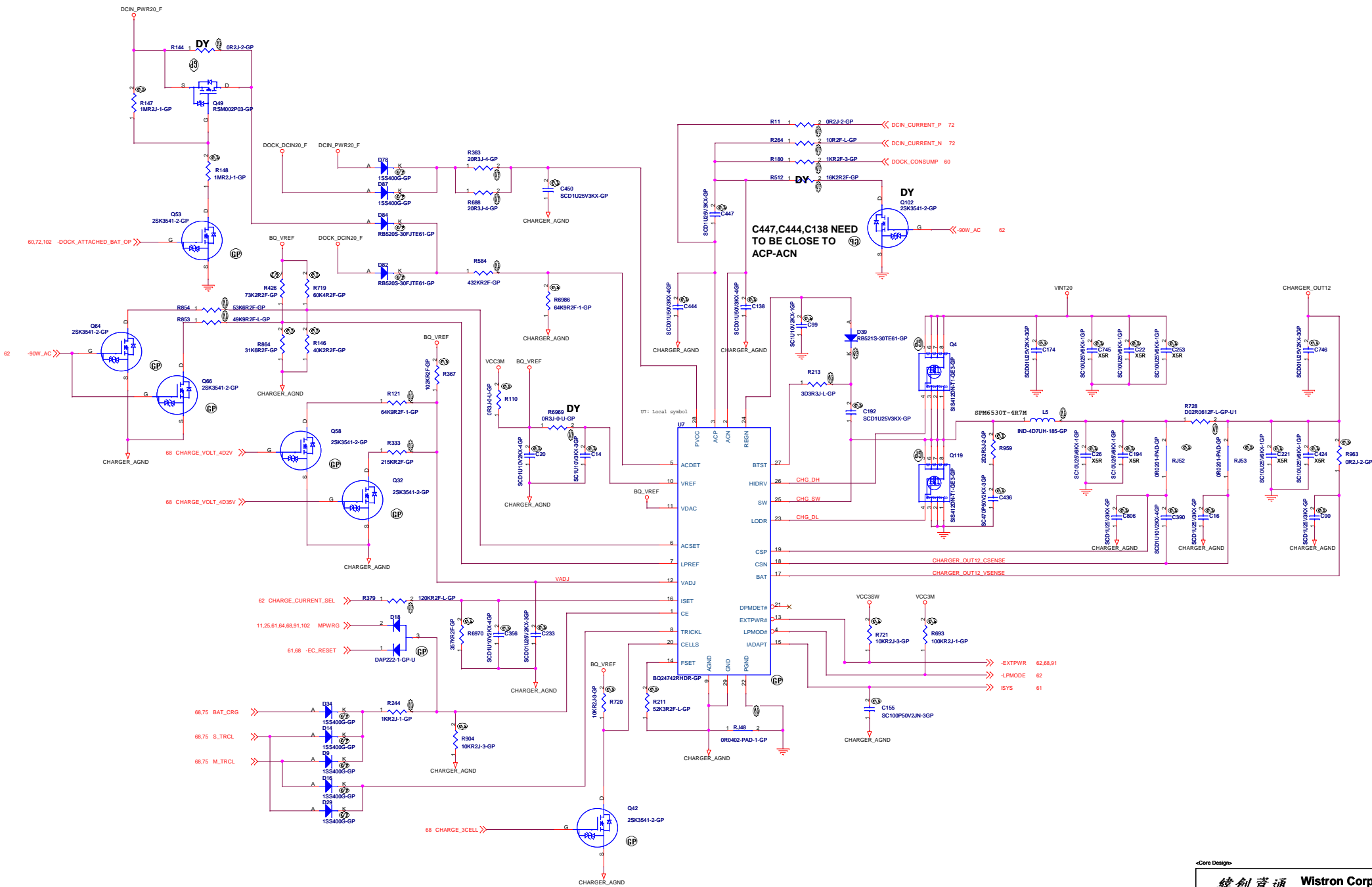
For AFTE



<Core Design>

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	SB
Custom	SHINAI-3 SWG		
Date:	Tuesday, September 07, 2010	Sheet	73 of 102





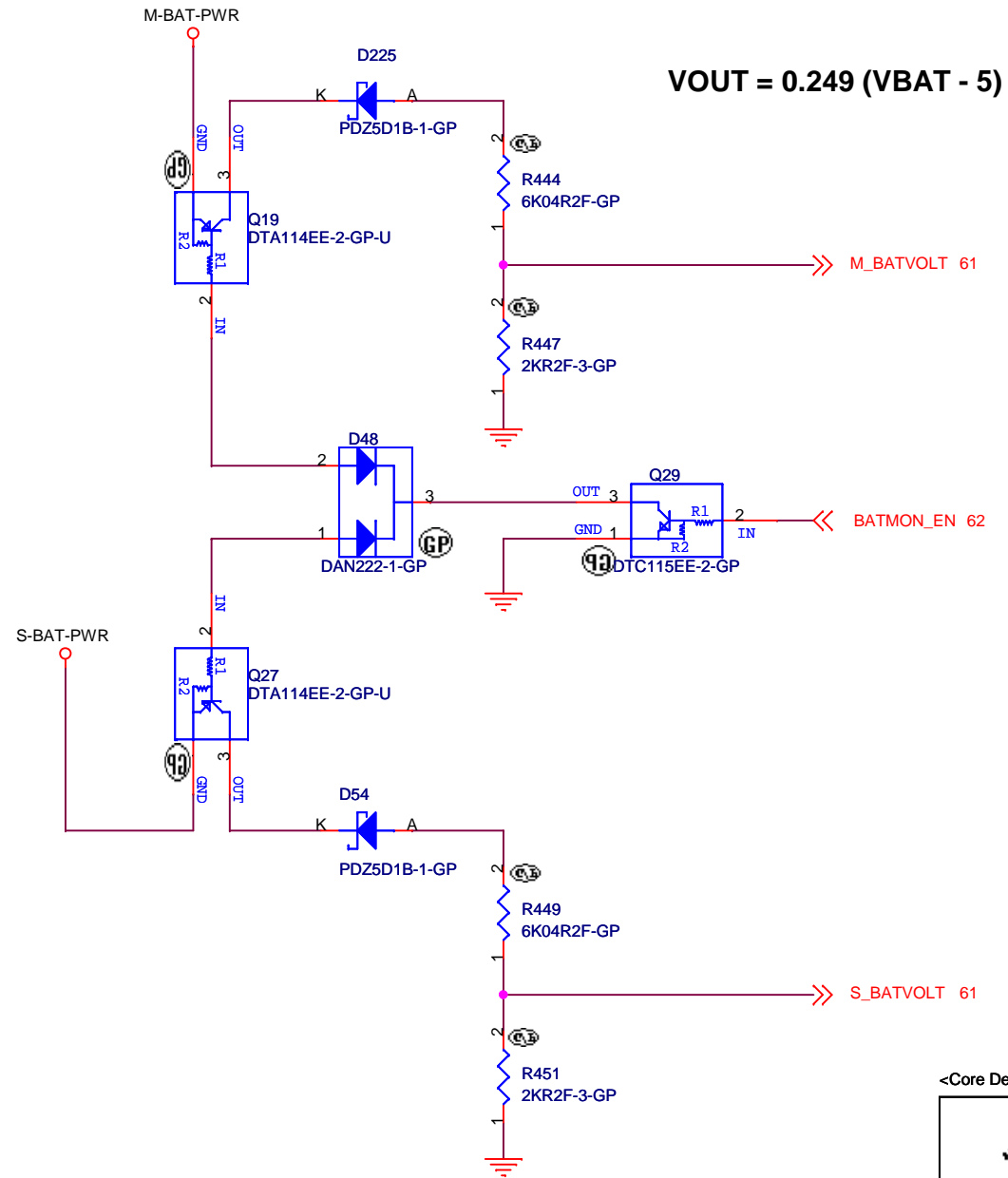
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Document Number

SHINAI-3 SWG

Document Number	
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Sheet 75 of 102



<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
A4

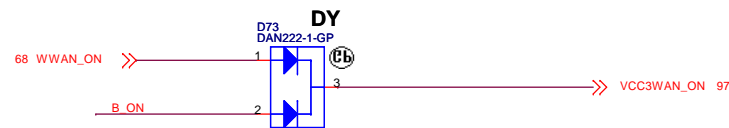
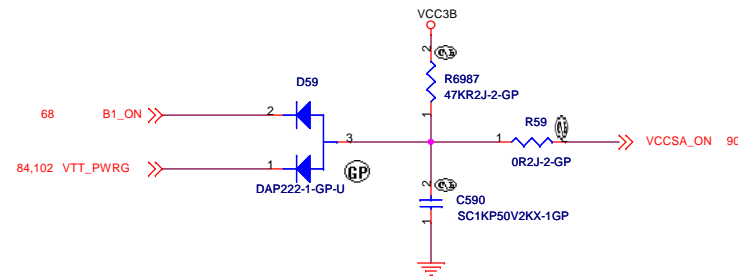
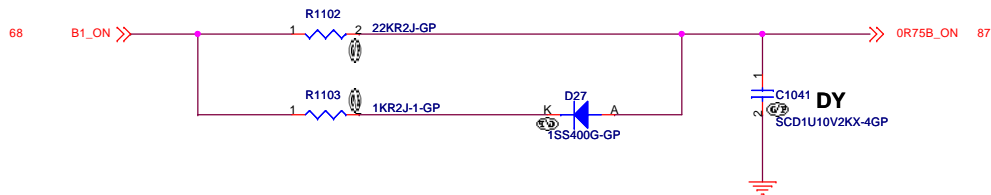
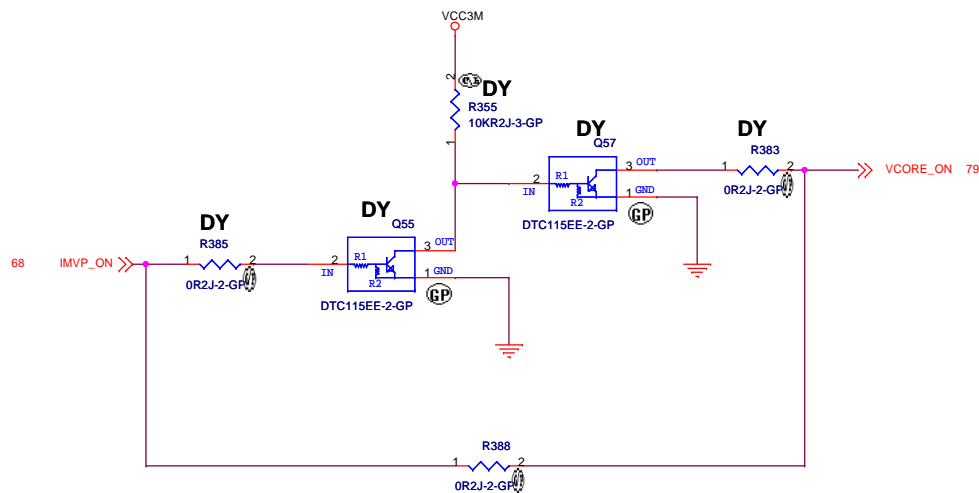
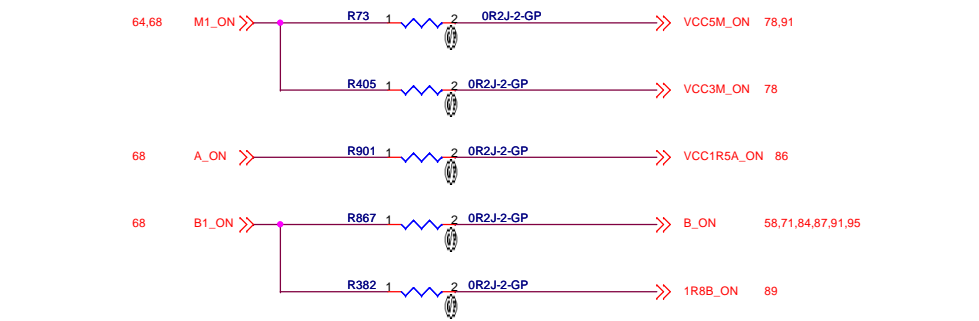
Document Number

SHINAI-3 SWG

Rev
SB

Date: Tuesday, September 07, 2010

Sheet 76 of 102



Table

CONSTANT CONNECT	VER.2	VER.1/NO
D73	ASM	NO_ASM

LOGIC

<Core Design>

緯創資通 Wistron Corporation		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
POWER SEQUENCE		
Size A3	Document Number	Rev SB
Date: Tuesday, September 07, 2010	Sheet 77 of 102	

16A

VCC5M_OUT

ESR 18mOHM
6TPE330MILTOKO
FDA1055-2R2M

Q31,Q16: Add RENESAS "RJK03E2DNS"
Need common pad with
Toshiba, Infineon, Vishay, etc

Q50,Q46: Add RENESAS "RJK03E0DNS"
Need common pad with
Toshiba, Infineon, Vishay, etc

25.62,64,68,102 -PCH_SLP_S3>>

VCC3SW
R903
33K2R2F-GP
DY

<<PWRSHUTDOWN 60,68,72,91

V5

VINT20

9A

VCC3M

SANYO
4TPF470MIL
ESR10mOHM

Q18: Add RENESAS "RJK03E2DNS"
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Toshiba, Infineon, Vishay, etc

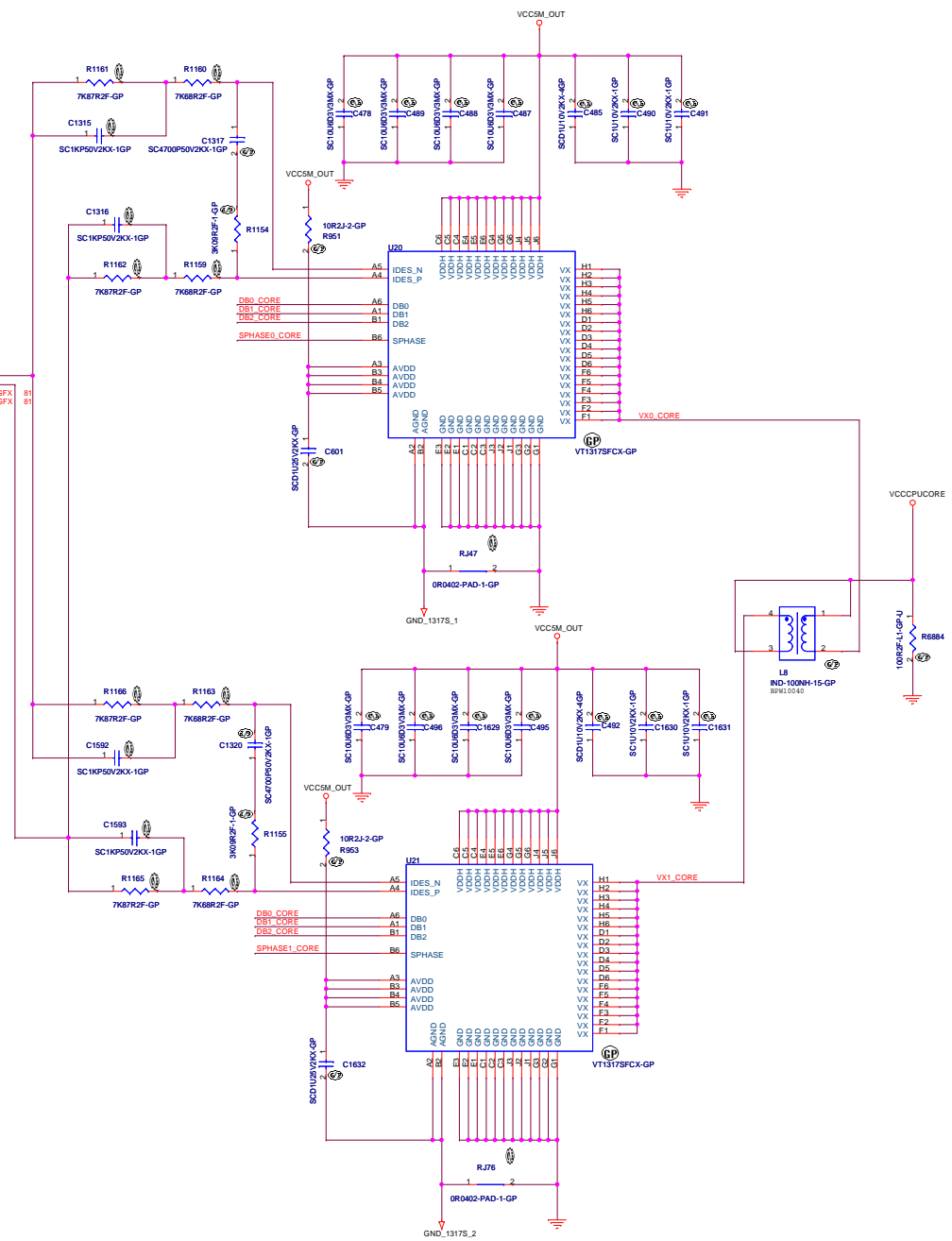
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Need common pad with
Toshiba, Infineon, Vishay, etc

<<-PCH_SLP_S3 25.62,64,68,102

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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.

DC-DC VCC3M/VCC5M(TPS51222)			
Size	Document Number	SHINAI-3 SWG	Rev SB
Date:	Tuesday, September 07, 2010	Sheet 78	of 102



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<Variant Name>

緯創資通

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Taipei Hsien 221, Taiwan, R.O.C.

Title

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Size
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Document Number

Rev
SB

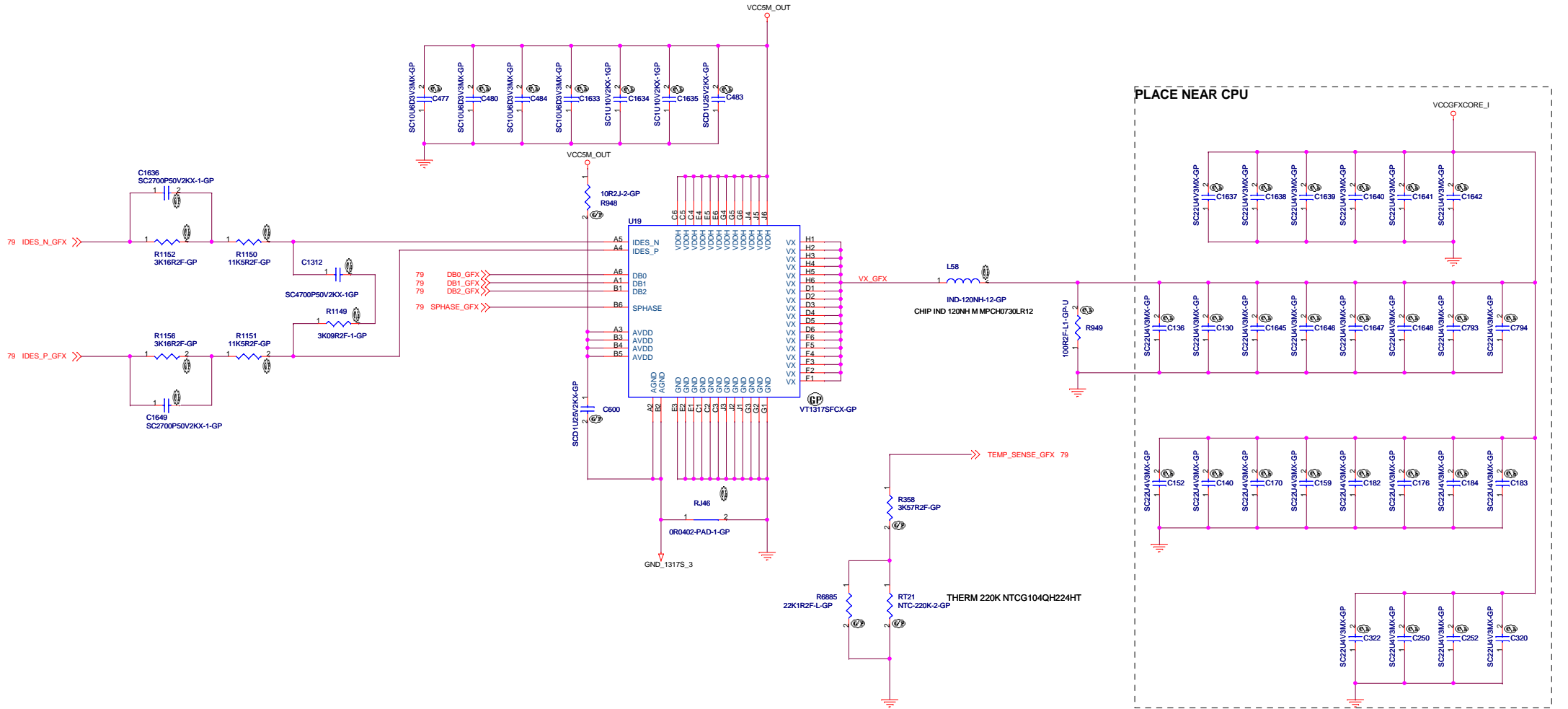
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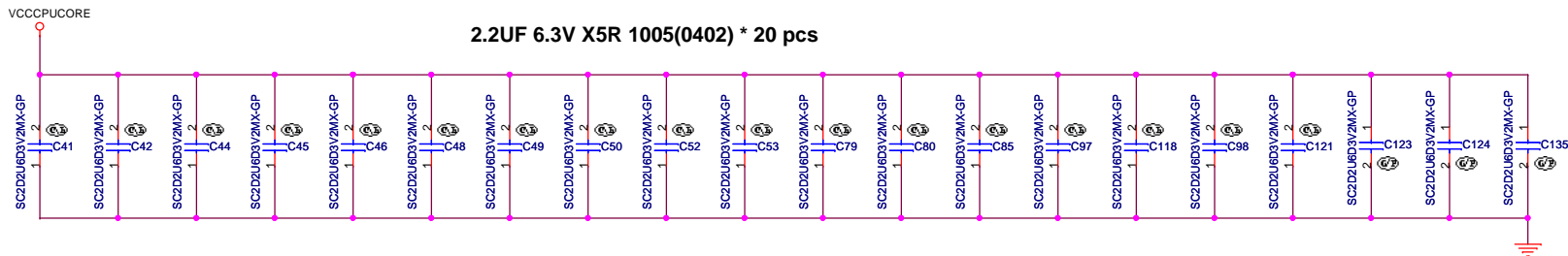
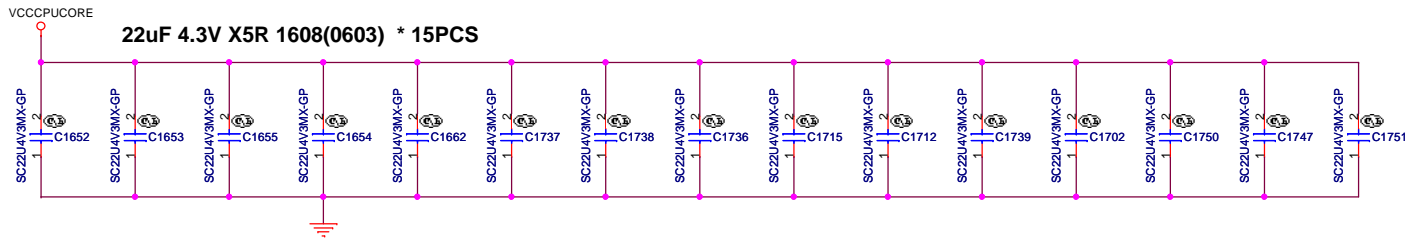
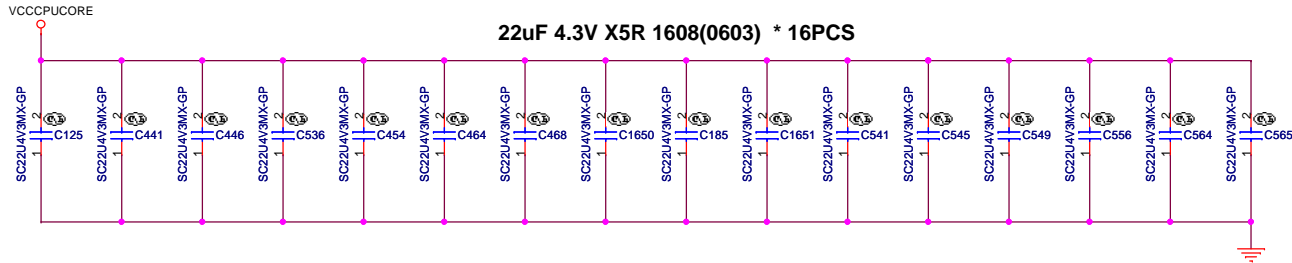
Sheet
E

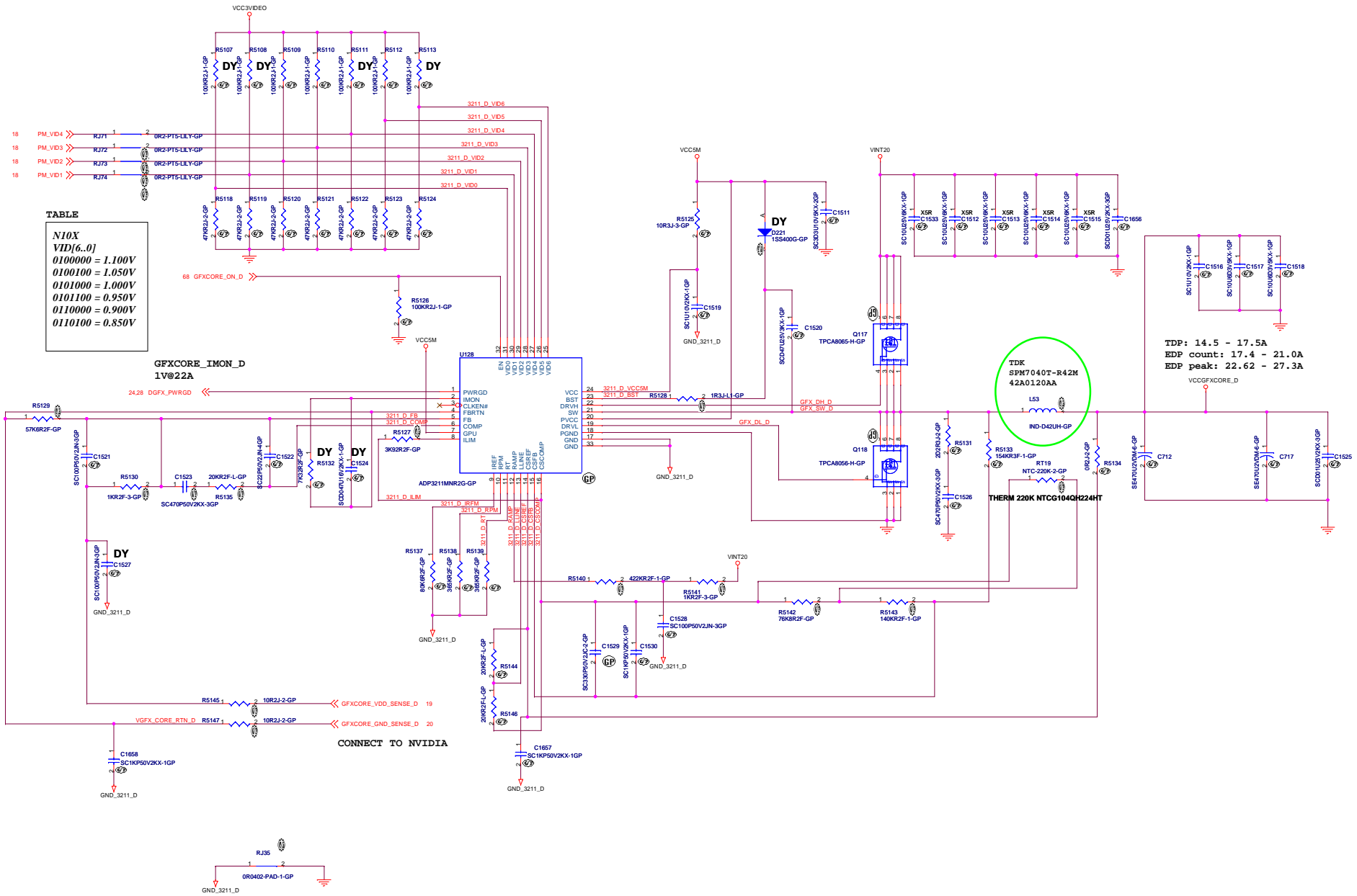
80

of

102







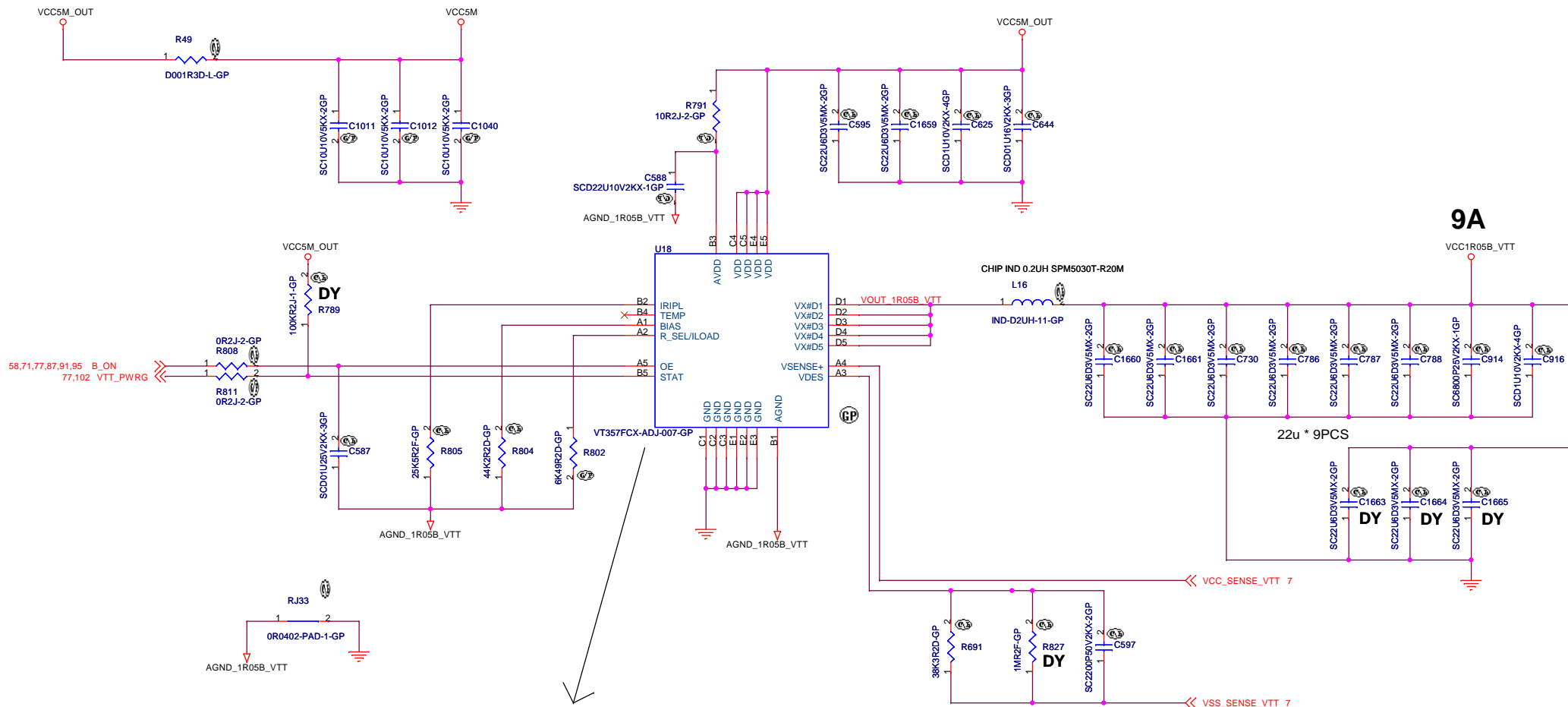


TABLE OF VCC1R05B_VTT POWER SOLUTION

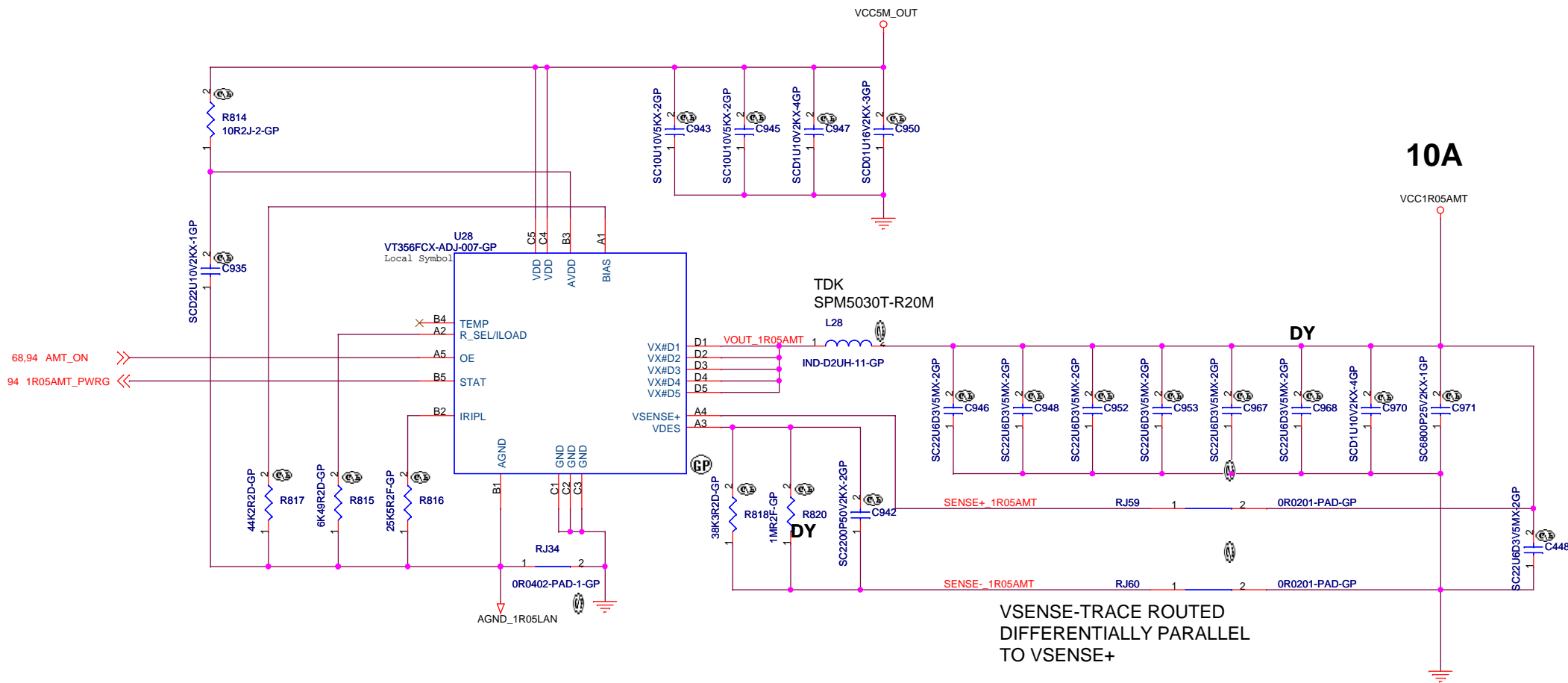
	U18	R802	R805
1	VT356FCX-ADJ-007	6.49K/0.5%	25.5K/1%
2	VT357FCX-ADJ-007	5.9K/0.5%	35.7K/1%

LOGIC

VSENSE-TRACE
ROUTED DIFFERENTIALLY
PARALLEL TO VSENSE+

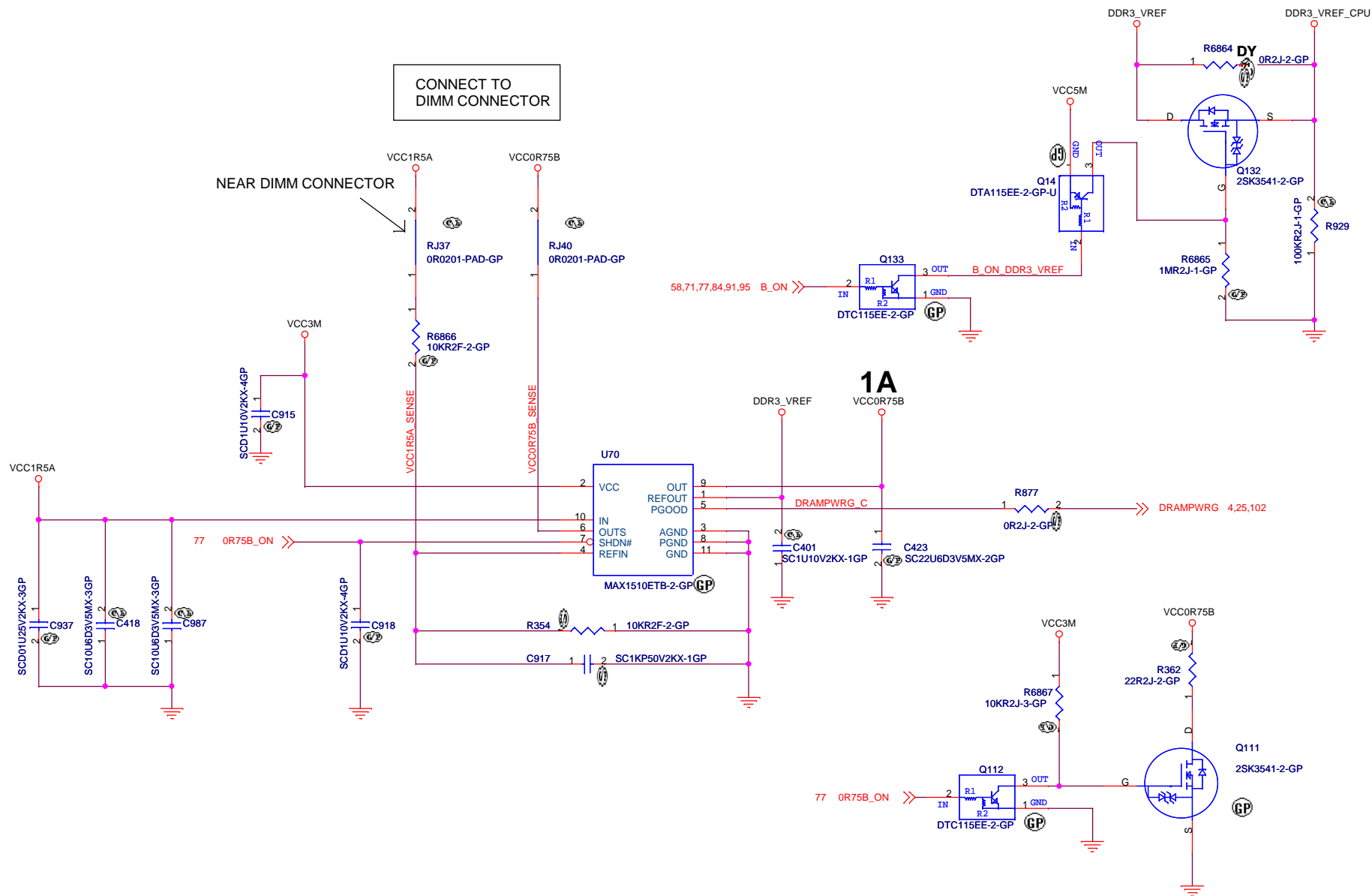
1.10V R691 = 40.2K
1.05V R691 = 38.3K
VOUT = 1.212 * R691 / 44.2K

<Variant Name>



<Variant Name>

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.	
DC-DC VCC1R05AMT(VT356)			
Title	Document Number	Rev	SB
Size Custom	SHINAI-3 SWG	Date: Tuesday, September 07, 2010	Sheet 85 of 102



<Variant Name>

緯創資通

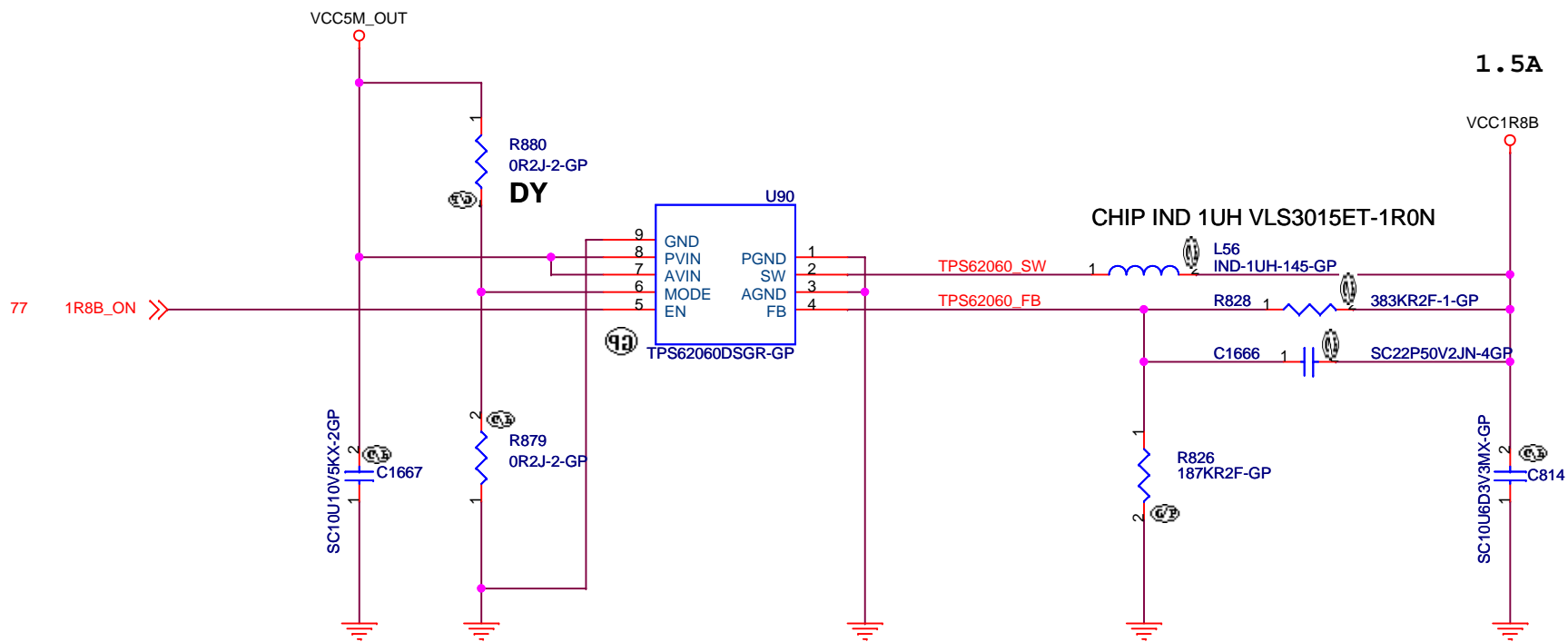
Wistron Corporation

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

Title **DC-DC VCC0R75B(MAX1510)**

Size Custom Document Number **SHINAI-3 SWG** Rev **SB**

Date: Tuesday, September 07, 2010 Sheet 87 of 102



<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-DC VCC1R8B (TPS62290)

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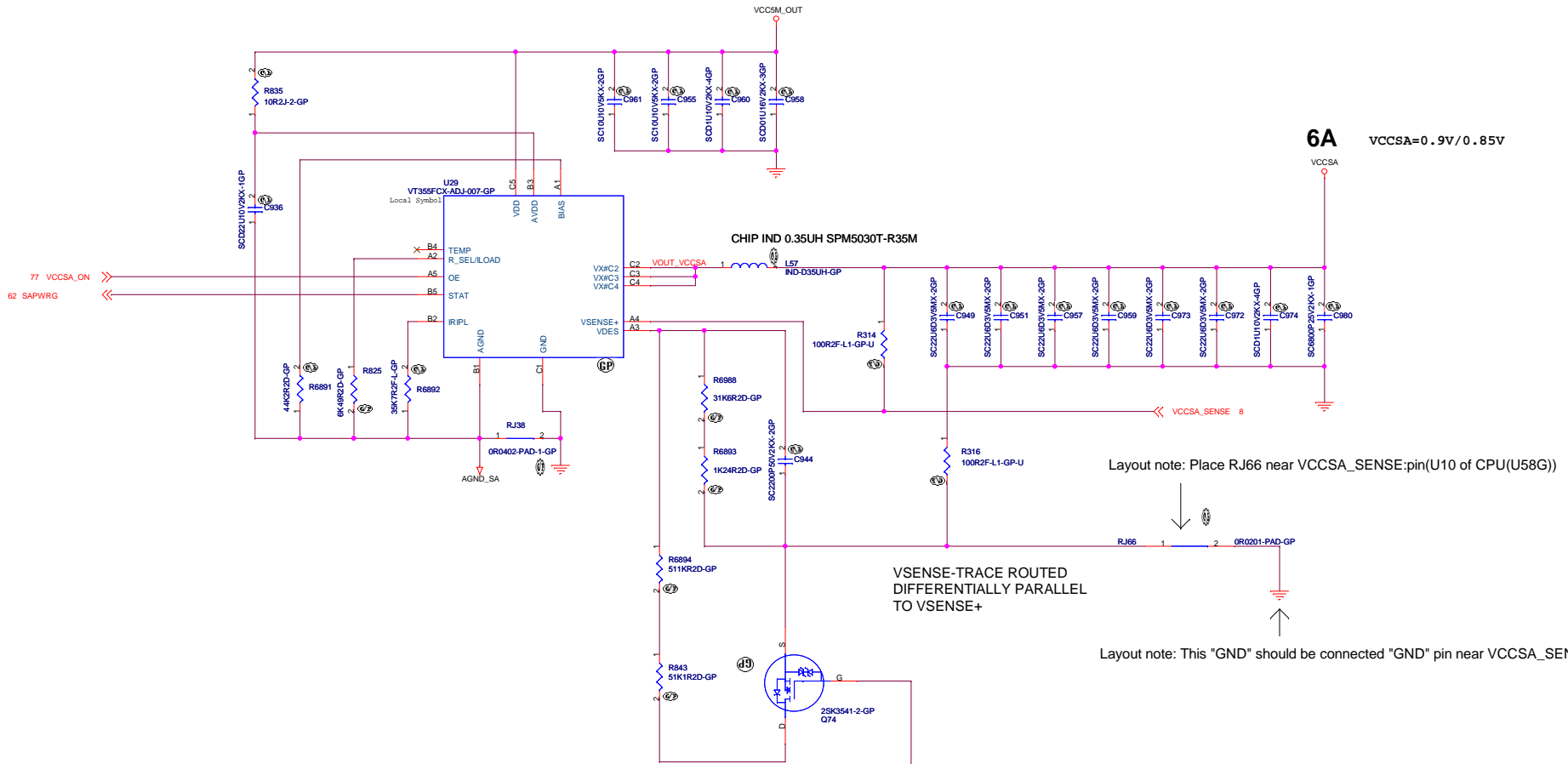
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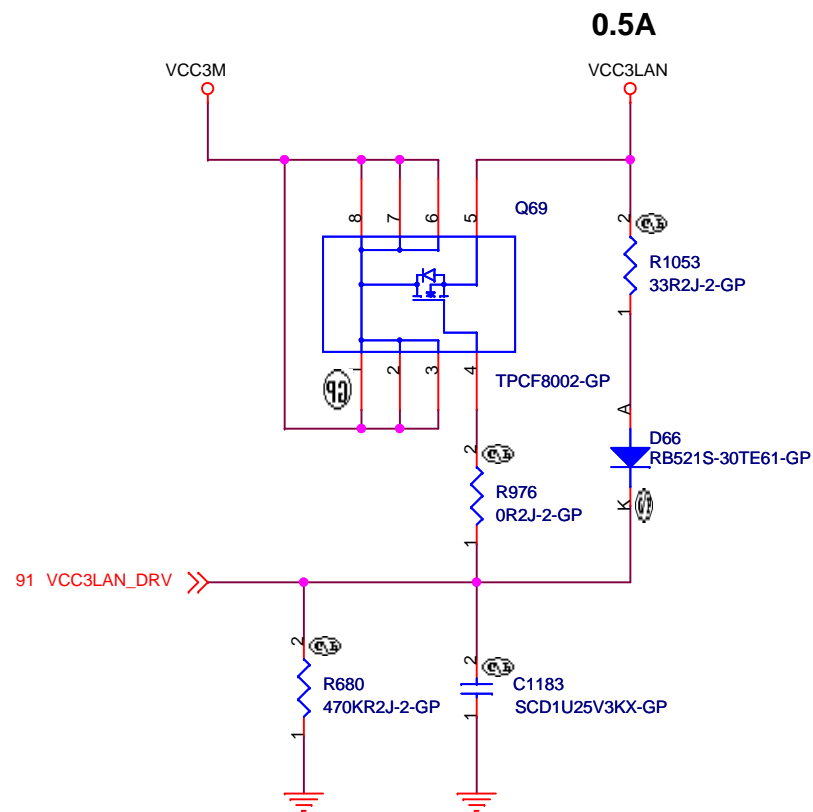
SHINAI-3 SWG

Rev
SB

Date: Tuesday, September 07, 2010

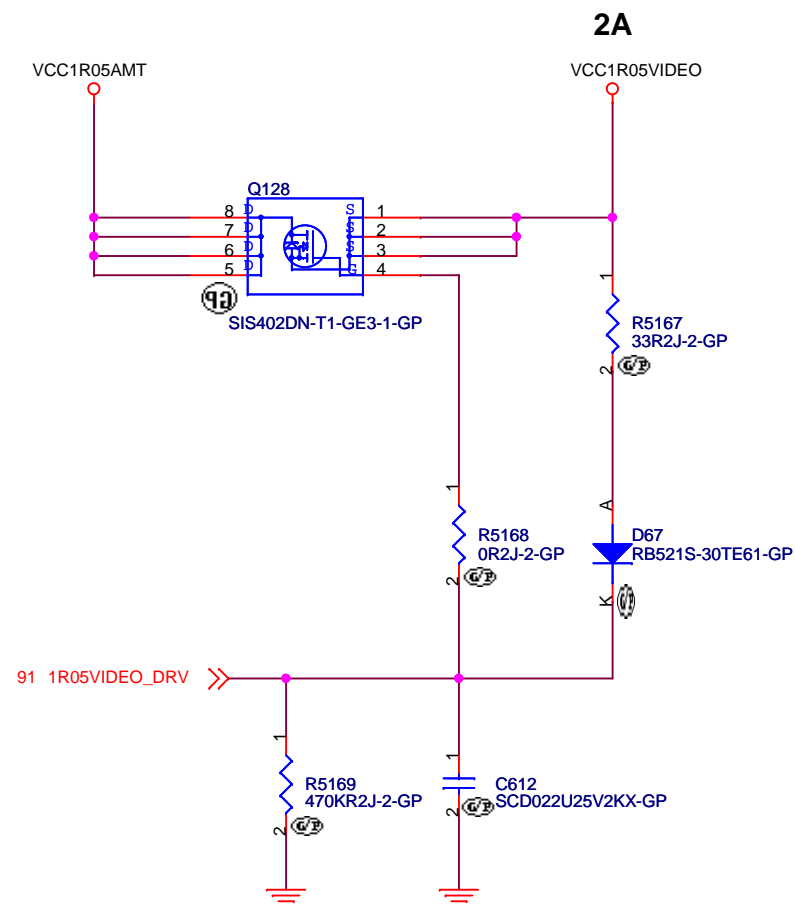
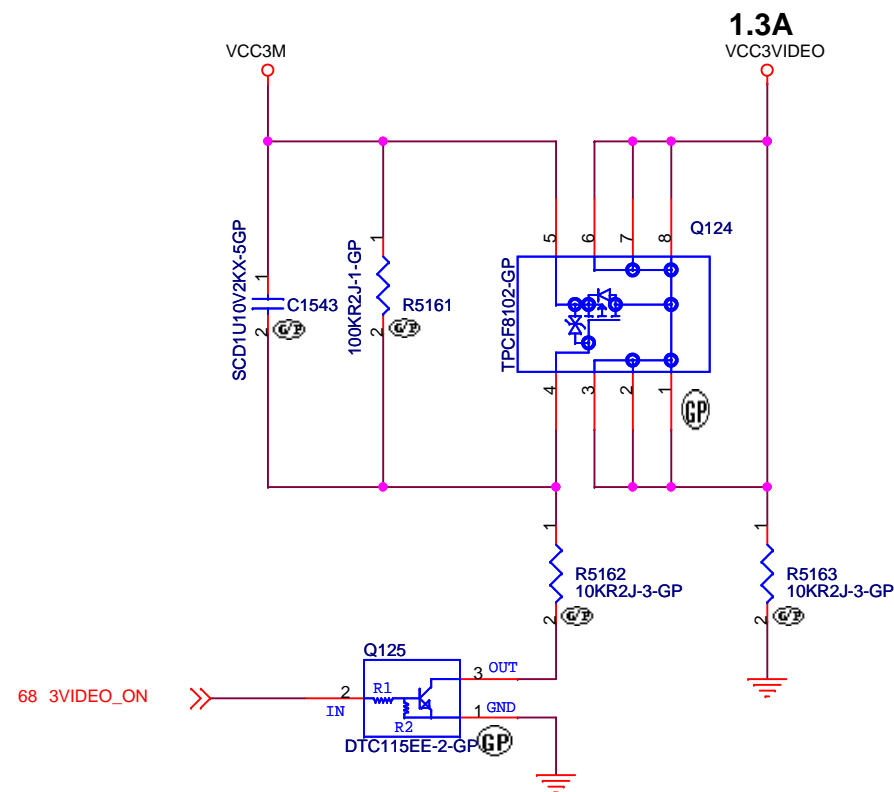
Sheet 89 of 102





BOM

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Size	Document Number		Rev		
A4	SHINAI-3 SWG		SB		
Date:	Tuesday, September 07, 2010	Sheet 92 of	102		



<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

LOAD SW VIDEO

Size
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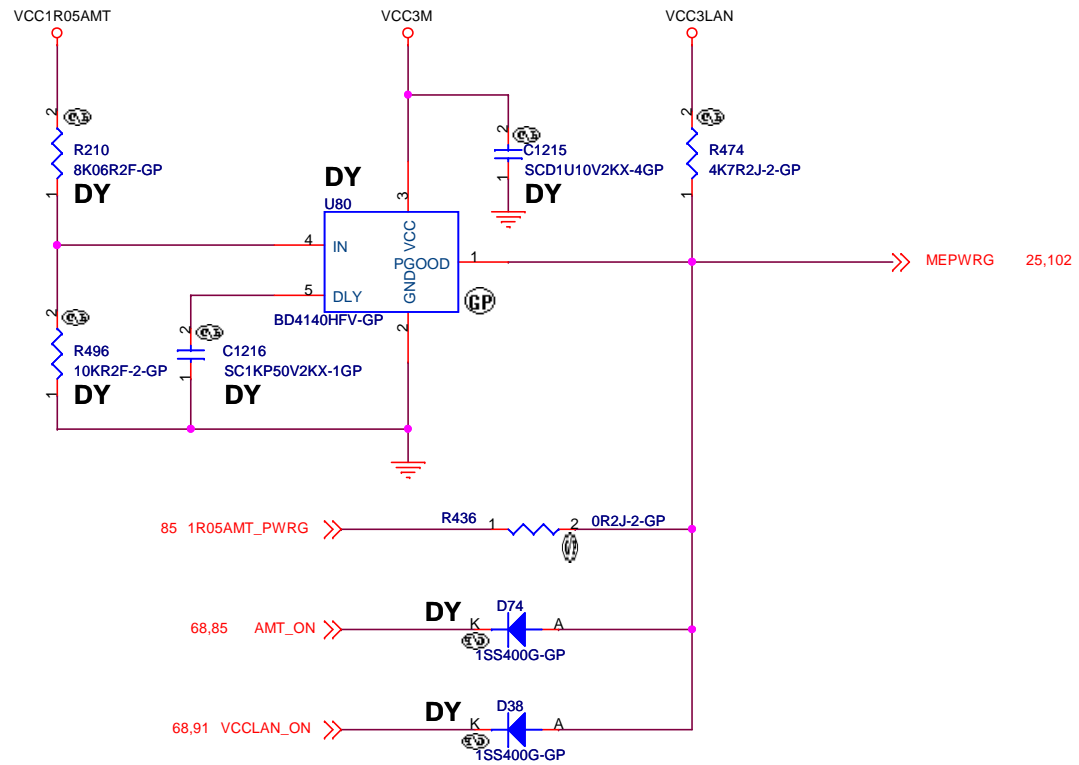
Document Number

SHINAI-3 SWG

Rev
SB

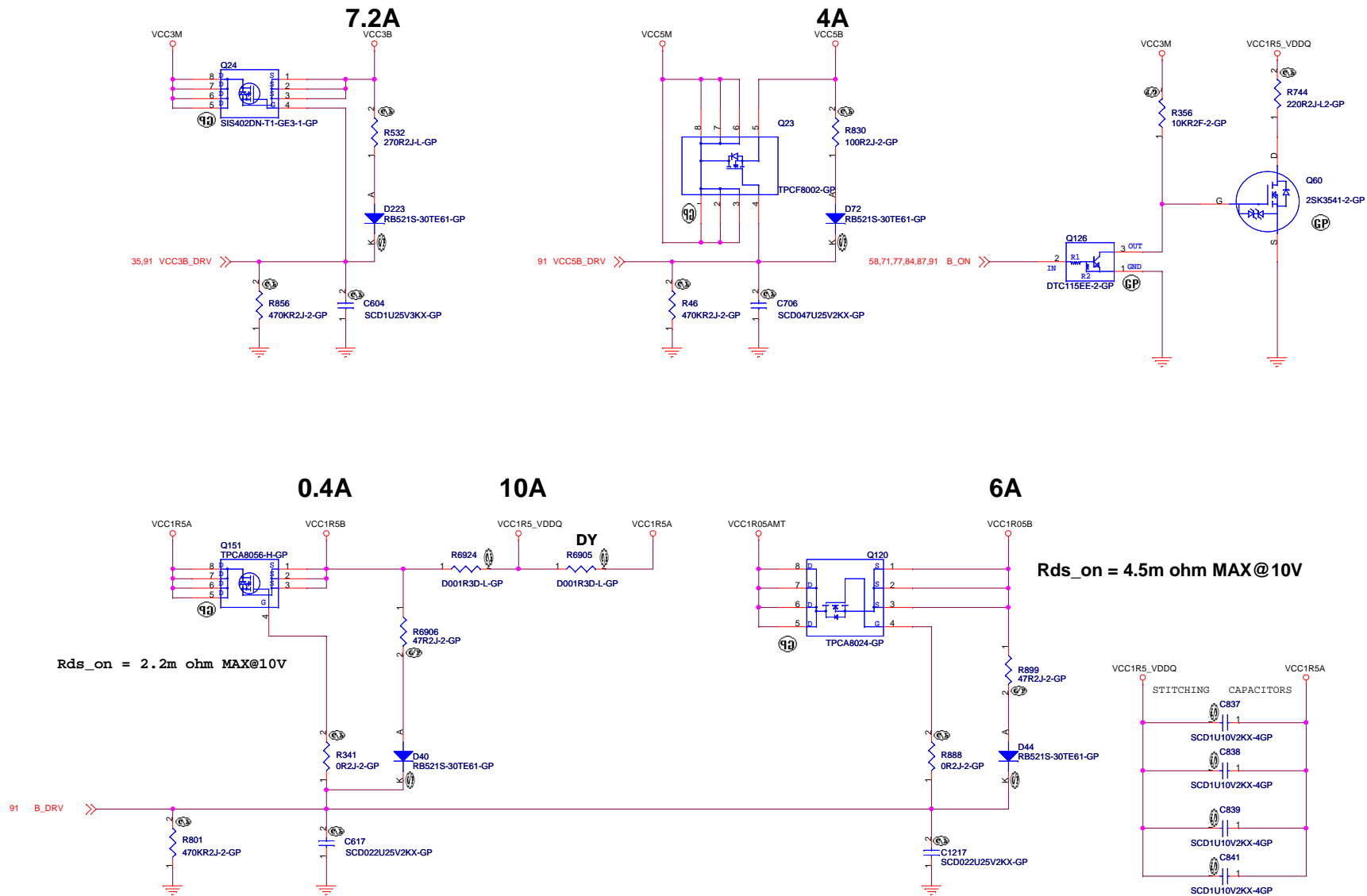
Date: Tuesday, September 07, 2010

Sheet 93 of 102



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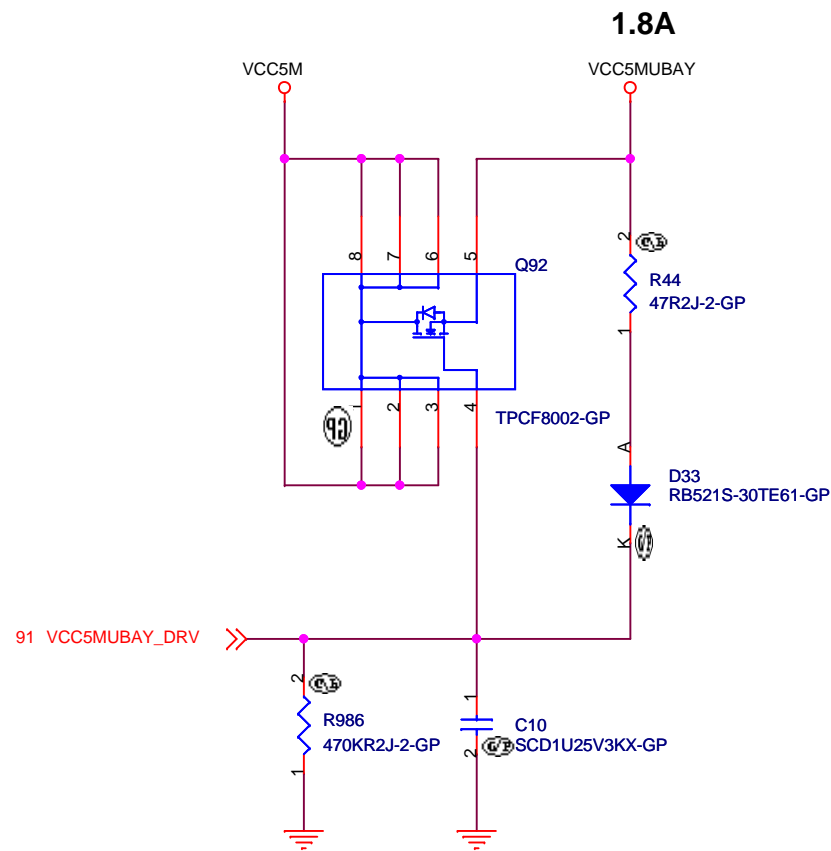
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Size	Document Number		Rev
Custom	SHINAI-3 SWG		SB
Date:	Tuesday, September 07, 2010	Sheet 94 of	102



BOM

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

Title			Rev
LOAD SW B			SB
Size	Document Number	SHINAI-3 SWG	
Custom			
Date:	Tuesday, September 07, 2010	Sheet	95 of 102



<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

LOAD SW VCC5MUBAY

Size

A4

Document Number

SHINAI-3 SWG

Rev

SB

Date: Tuesday, September 07, 2010

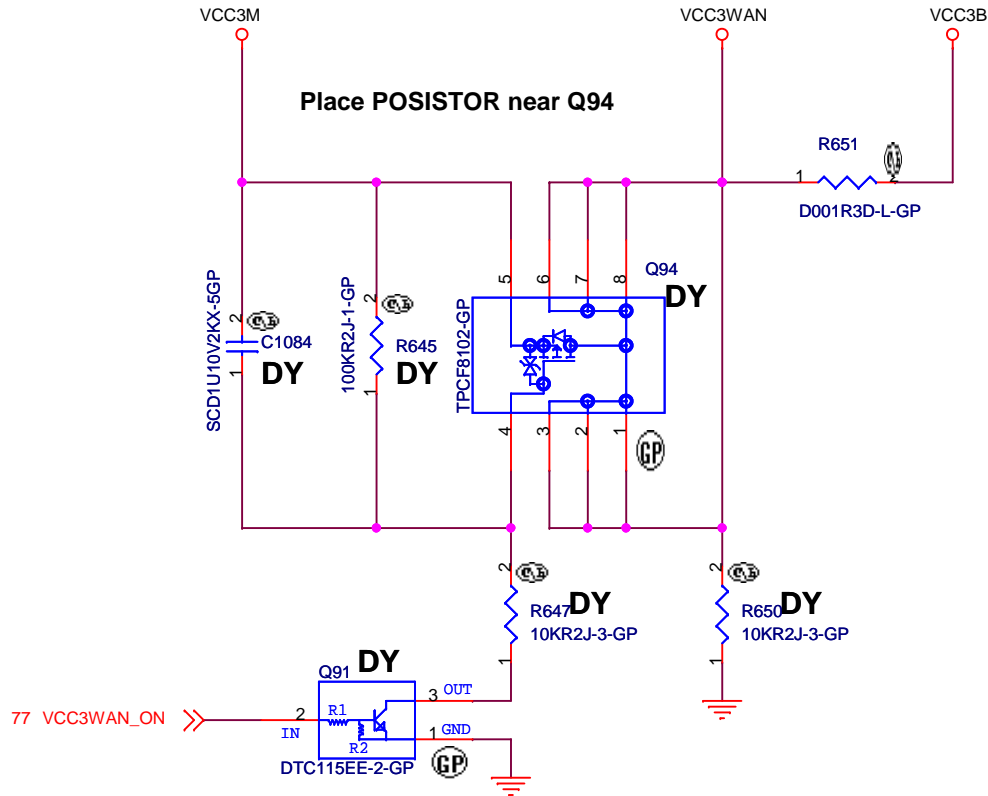
Sheet 96 of 102

2.7A

VCC3WAN

VCC3B

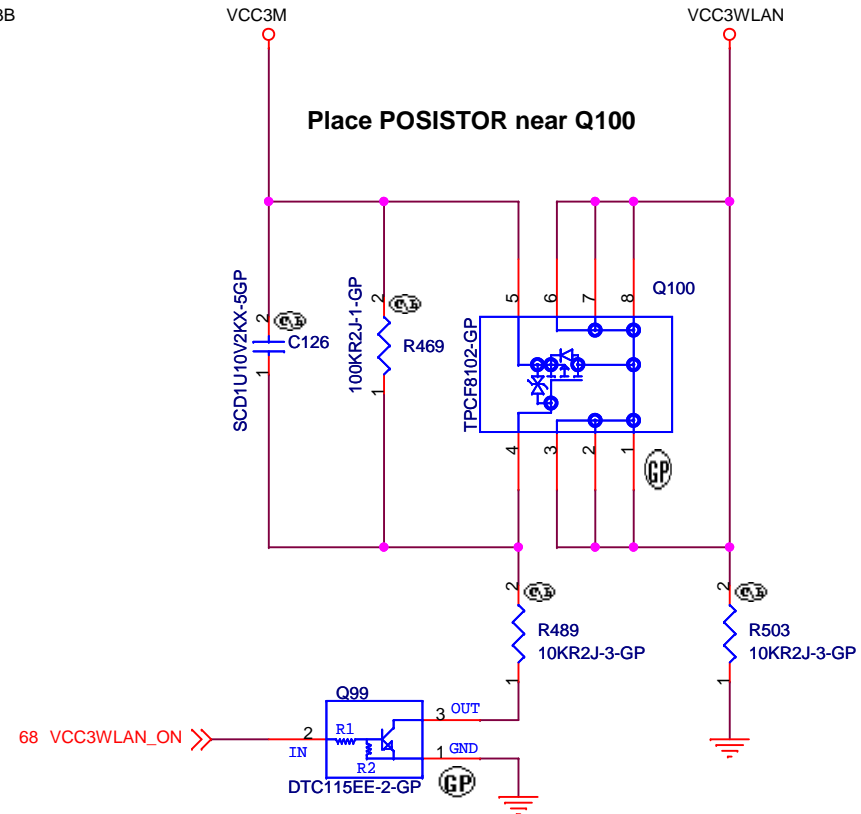
Place POSISTOR near Q94



2.7A

VCC3WLAN

Place POSISTOR near Q100



TABLE

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Q94	ASM	NO_ASM
R650	ASM	NO_ASM
R645	ASM	NO_ASM
C1084	ASM	NO_ASM
R647	ASM	NO_ASM
Q91	ASM	NO_ASM

LOGIC

BOM

緯創資通

Wistron Corporation

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

Title

LOAD SW WAN & WLAN

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A4

Document Number

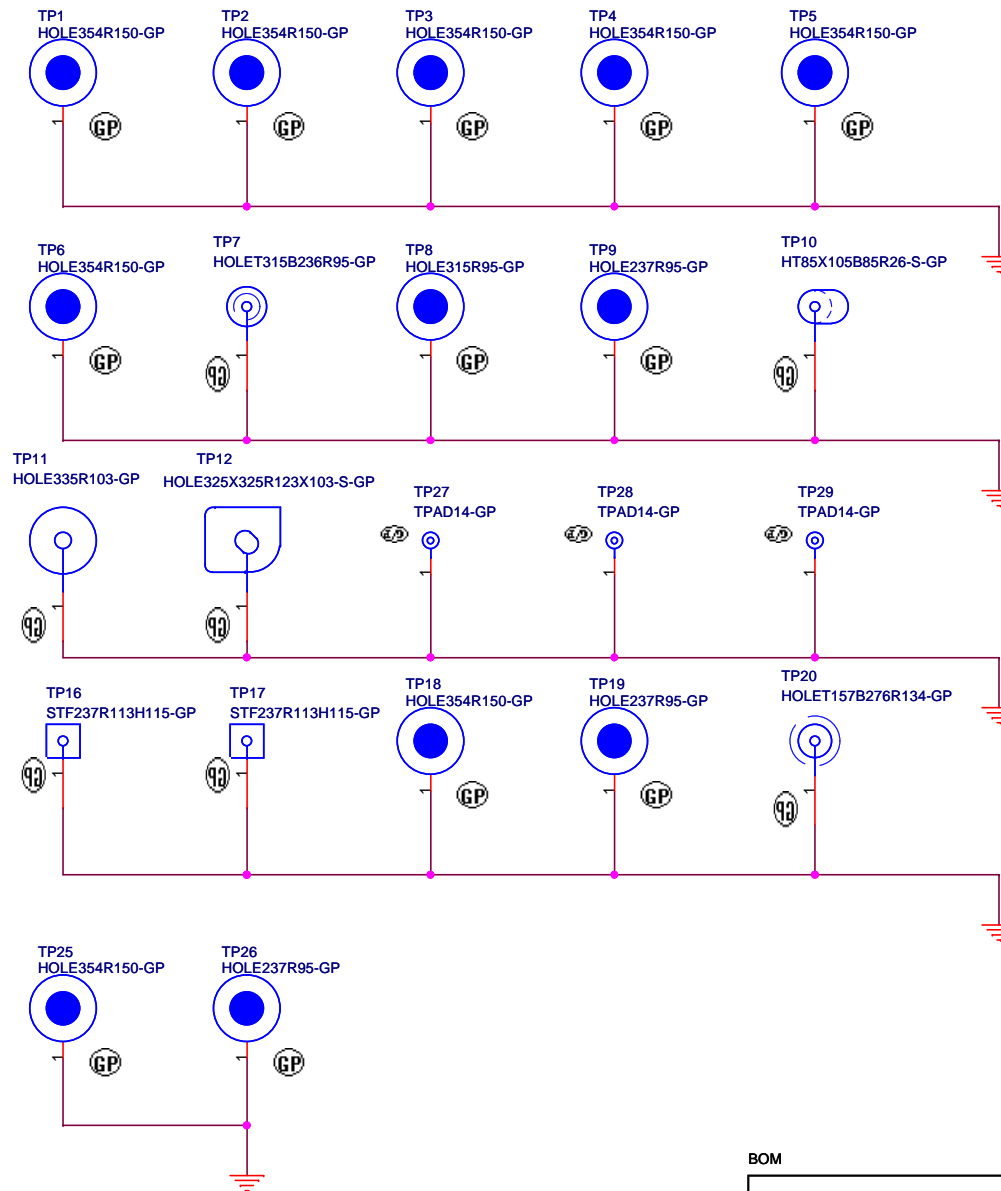
SHINAI-3 SWG

Rev
SB

Date: Tuesday, September 07, 2010

Sheet 97 of 102

PTH FOR SCREW HOLE



BOM

緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title PTH FOR SCREW HOLES			
Size Custom	Document Number SHINAI-3 SWG		Rev SB
Date: Tuesday, September 07, 2010		Sheet 98 of	102

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緯創資通

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

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Size
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Document Number

Rev
SB

Date: Tuesday, September 07, 2010

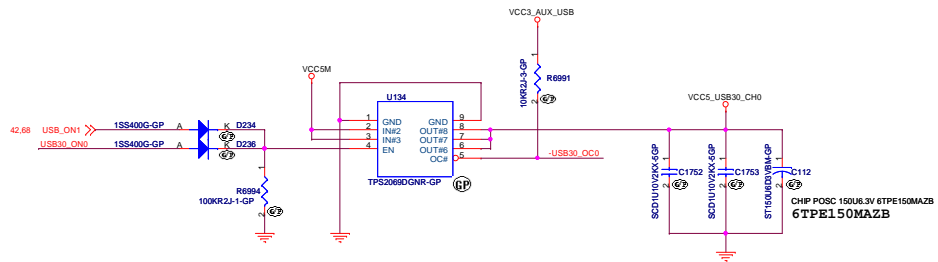
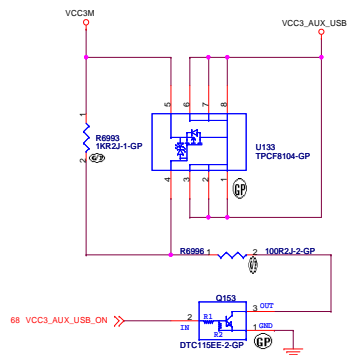
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E

99

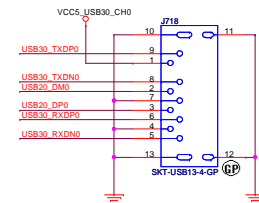
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102

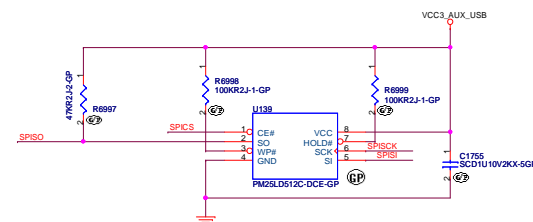
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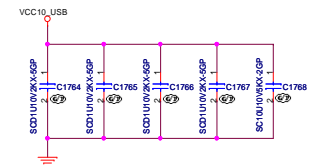
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U134	TI	TPS2069DGNR-GP	74.02069.079



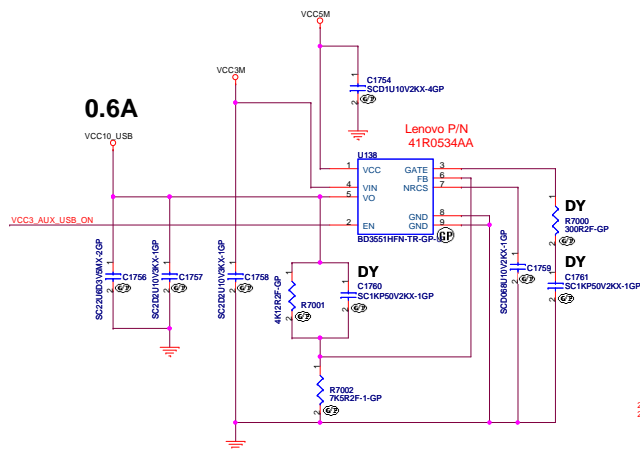
USB3.0 CONNECTOR



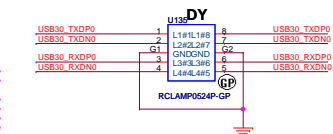
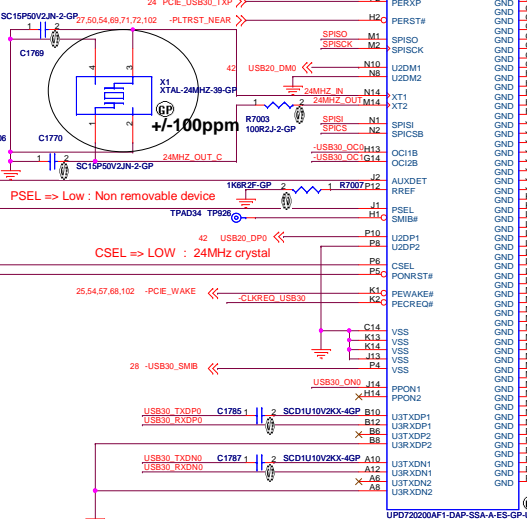
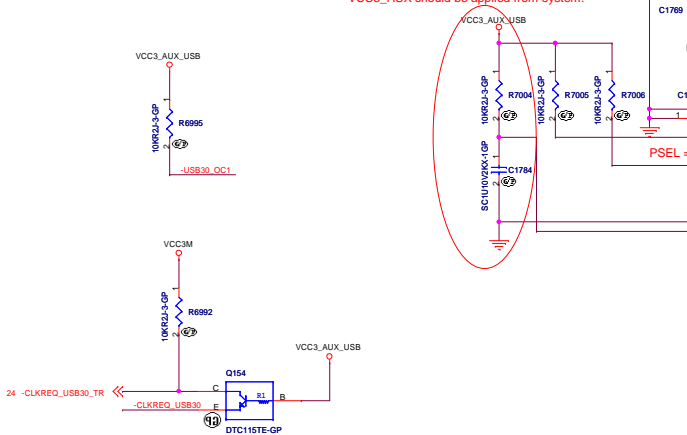
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1	Chingis	Pm25LD512C	72.25512.B09
2			
3			



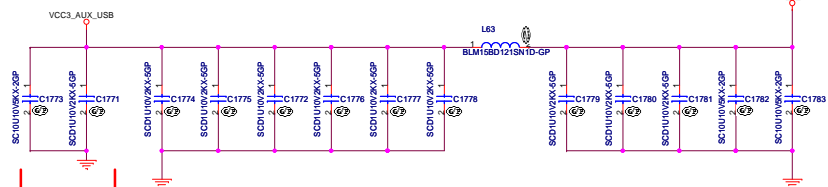
0.6A



If Wakeup function from D3 cold is required,
VCC3_AUX_USB should be applied from system.



NOT MANDATORY TO PLACE.

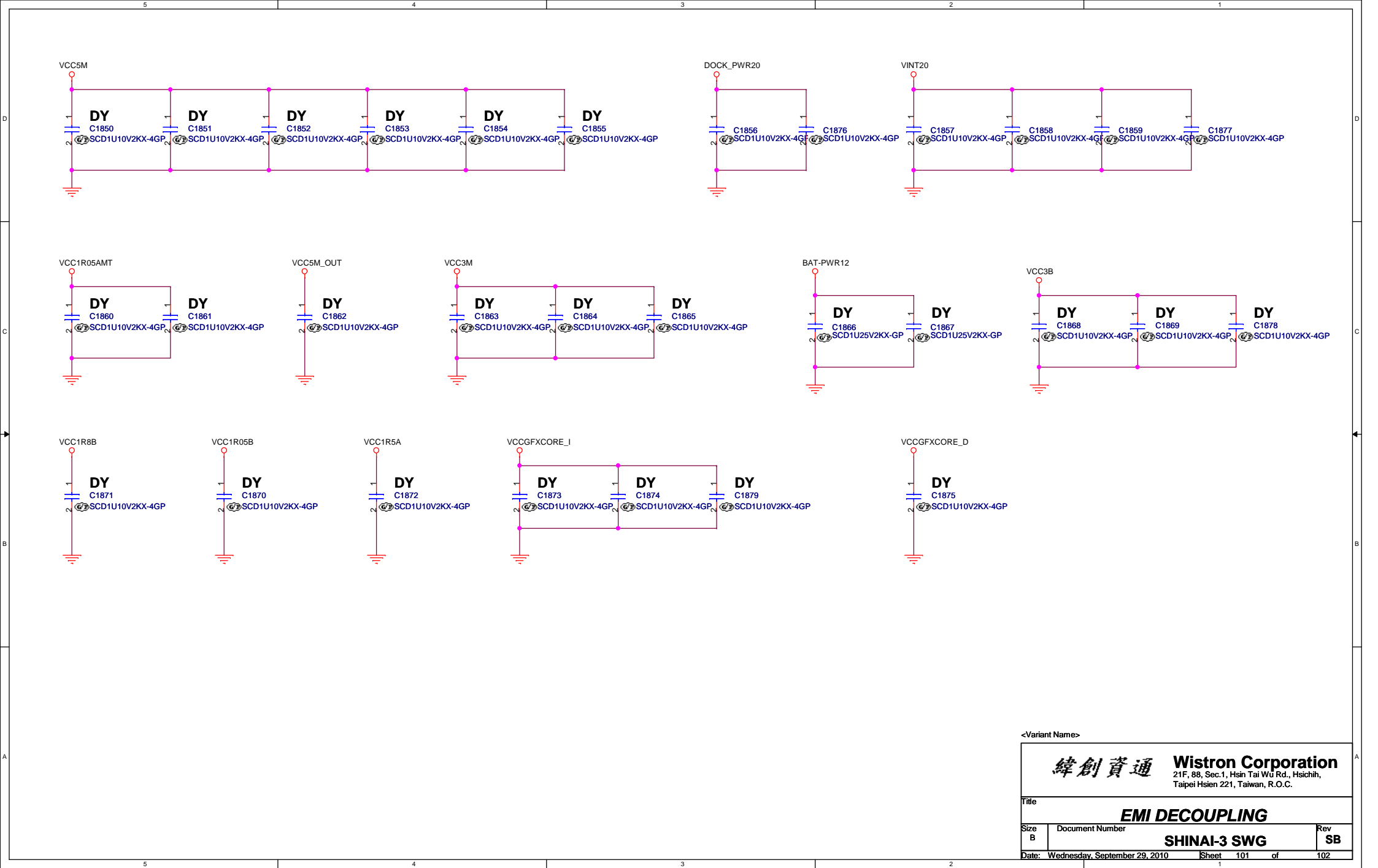


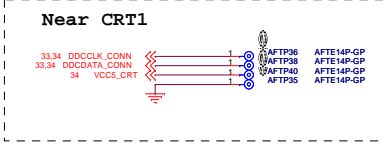
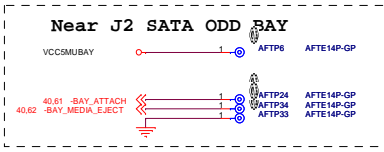
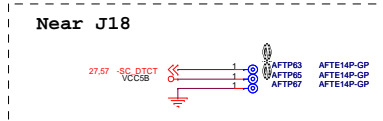
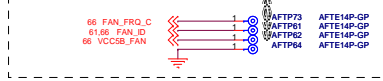
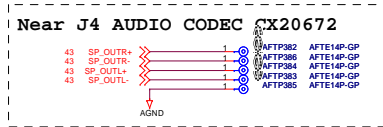
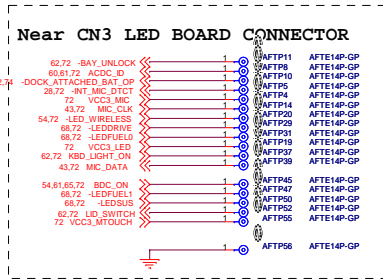
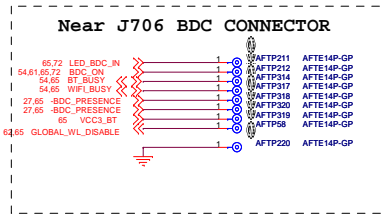
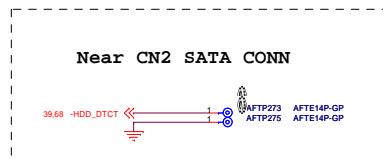
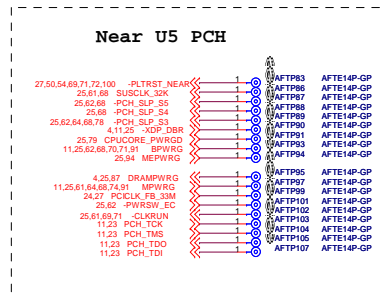
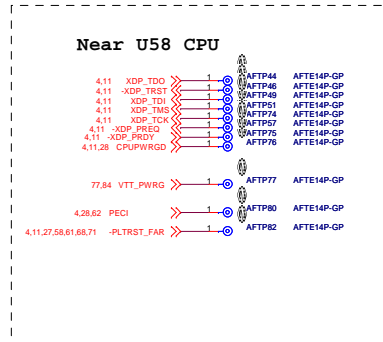
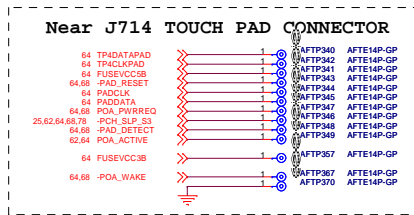
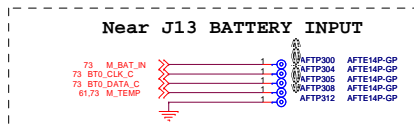
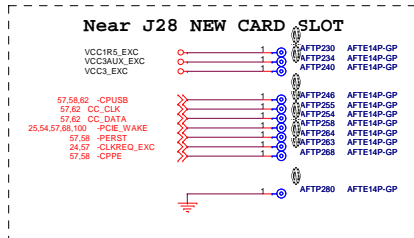
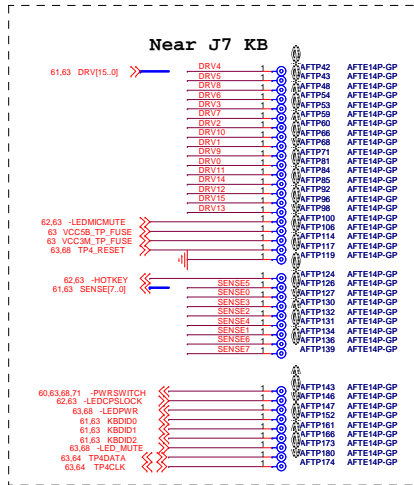
HELE Recommended Conditions:
Normal Frequency: 24MHz.
Frequency Tolerance: +/- 30ppm.
Load Frequency: 12pF.
Effective Series Resistance: 50-ohm.
Effective Shunt Capacitance: 2pF.

<Variant Name>

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USB 3.0			
Size	Document Number	Rev	
A2	SHINAI-3 SWG	SB	
Date:	Tuesday, September 07, 2010	Sheet	100 of 102





<Core Design>