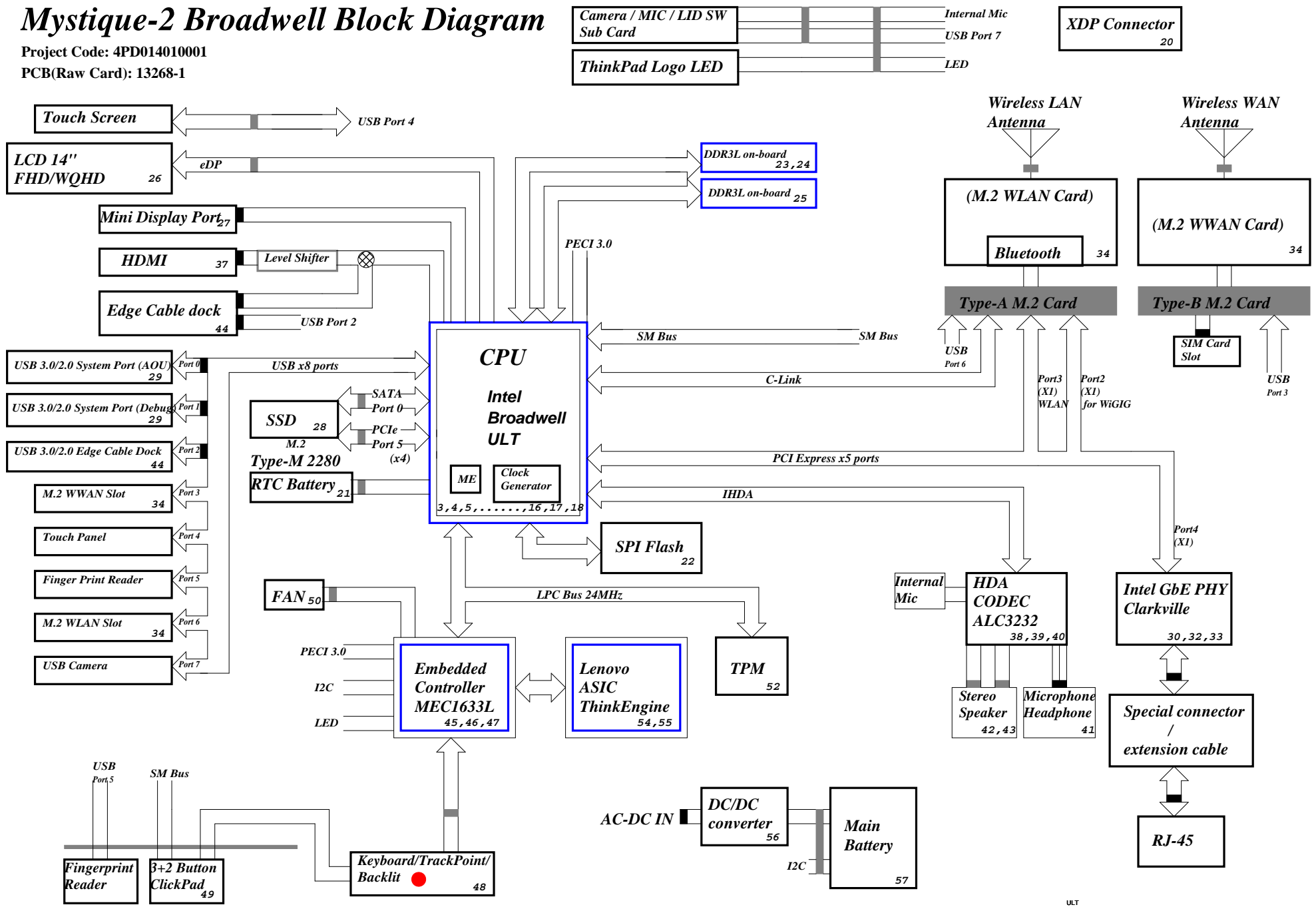


# Mystique-2 Broadwell Block Diagram

Project Code: 4PD014010001  
PCB(Raw Card): 13268-1



- External Connector/Socket
- Internal Connector/Socket
- Internal Switch

RESISTOR

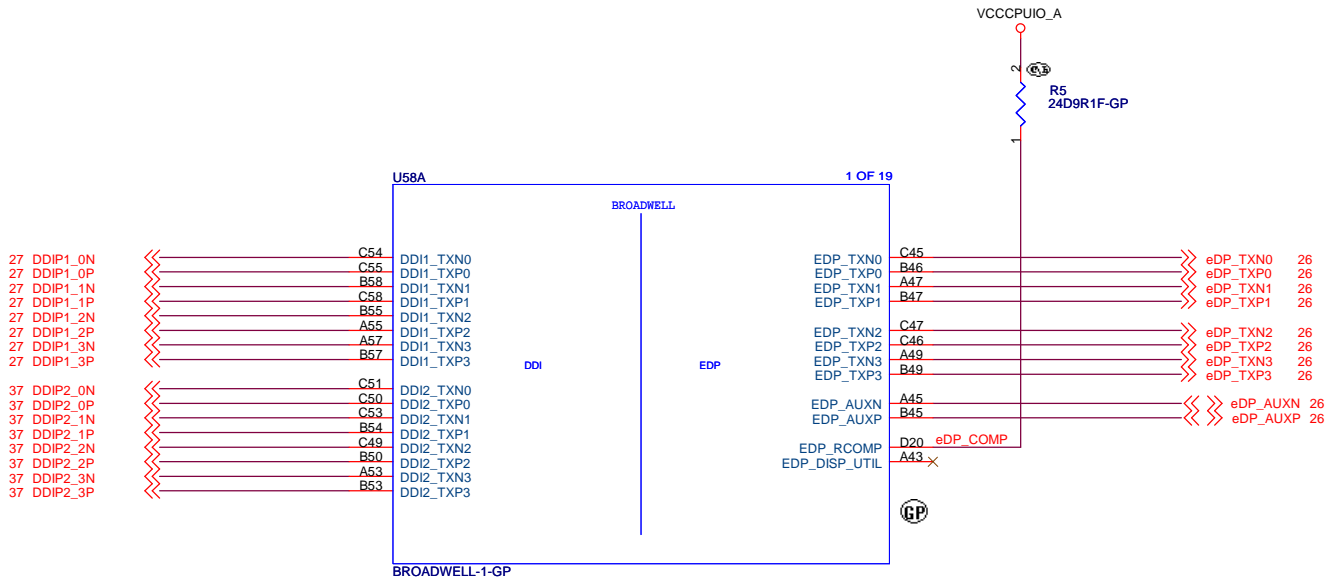
Symbol name	Value	Tolerance (J: 5%, F: 1%, D: 0.5%, B: 0.1 %)	Rating 0402=> 1/16W, 25V 0603 => 1/16W, 75V 0805 => 1/10W, 100V	Size 2=>0402, 3=>0603, 5=>0805, 6=>1206, 0=>1210
10KR3	10K Ohm	If no letter, it means J: 5%	1/16W, 75V	0603
33D3R5	33.3 Ohm	If no letter, it means J: 5%	1/10W, 100V	0805
1KR3F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

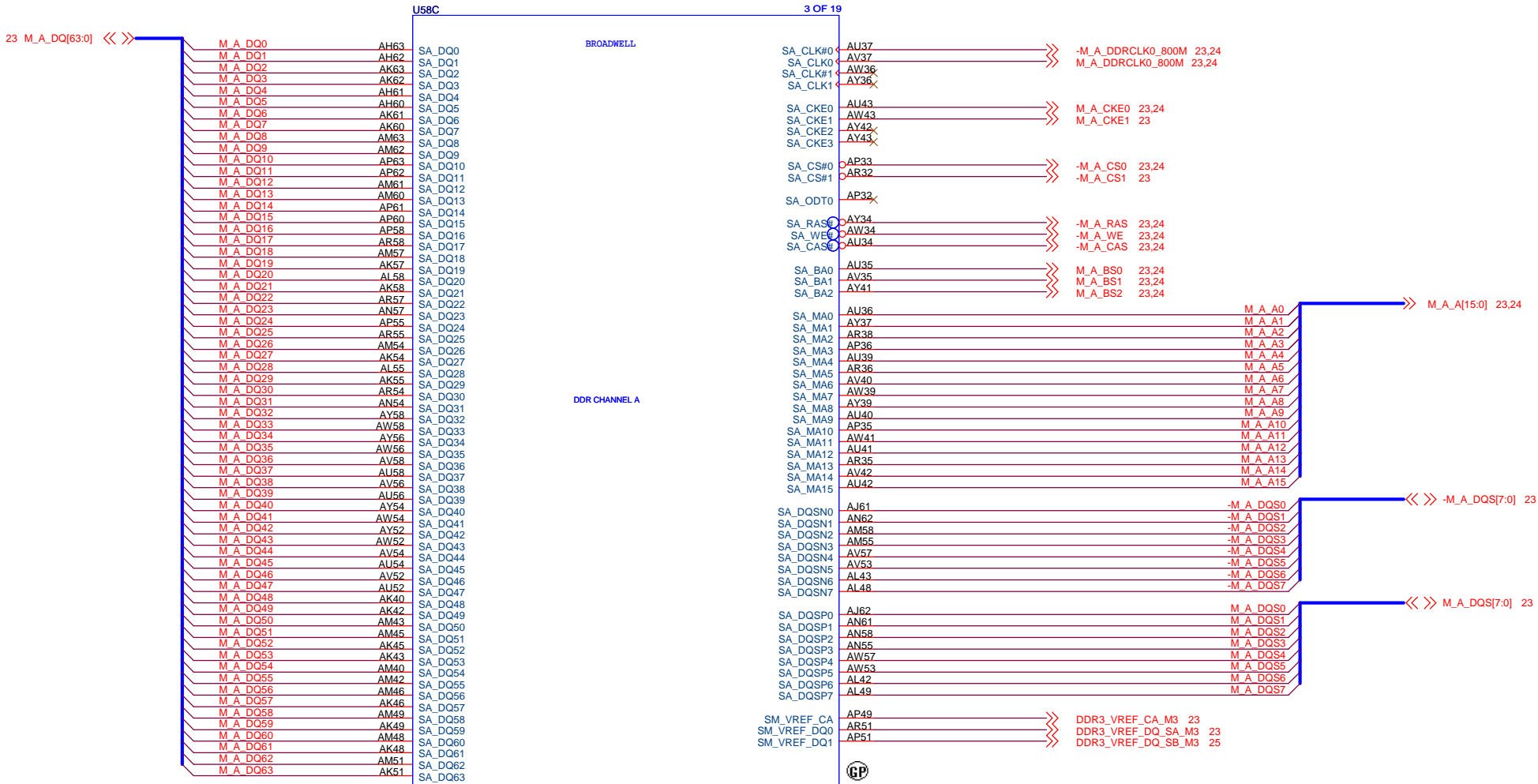
CAPACITOR

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







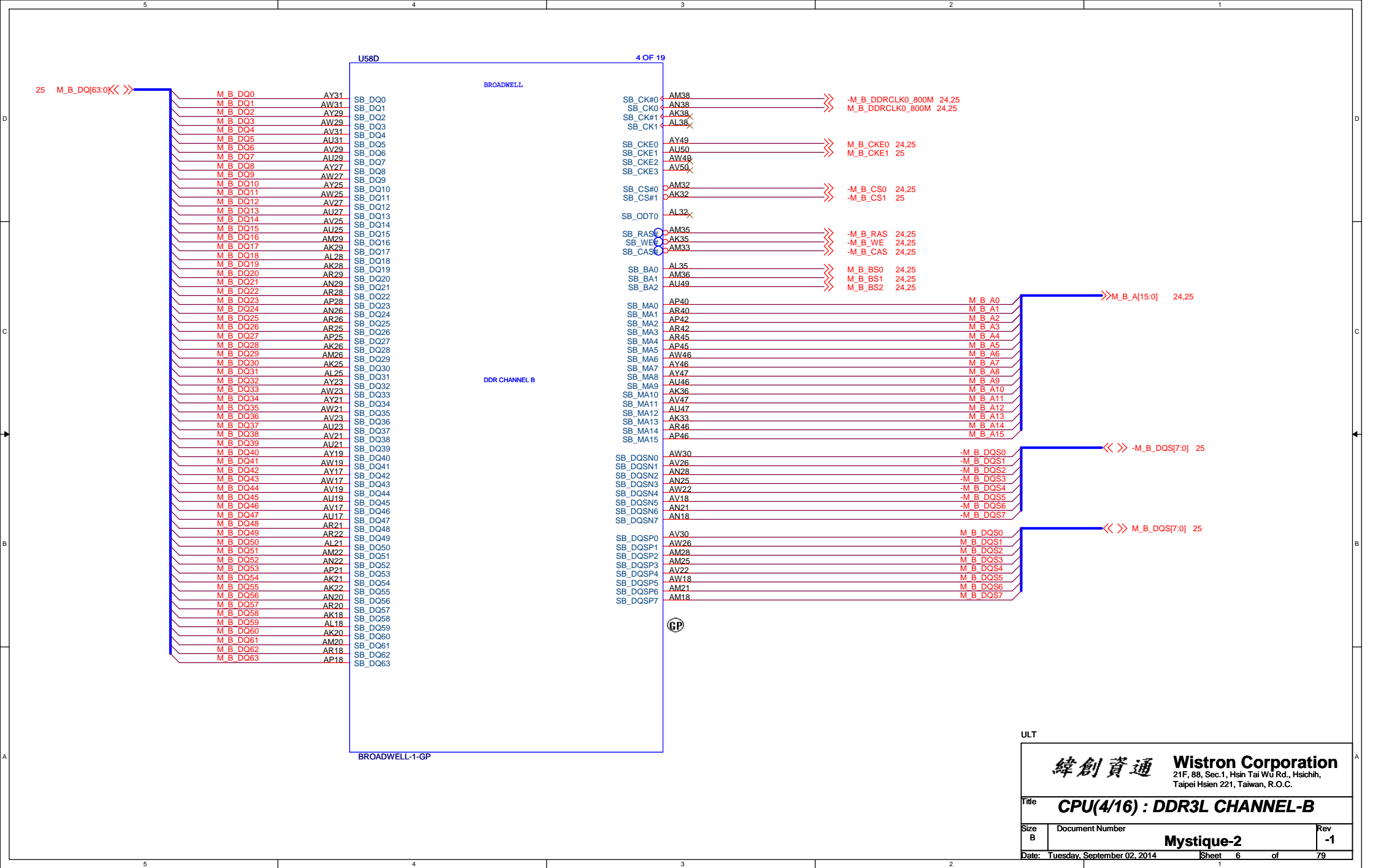
ULT

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

Title CPU(3/16) : DDR3L CHANNEL-A

Size B Document Number Mystique-2 Rev -1

Date: Tuesday, September 02, 2014 Sheet 5 of 79



ULT

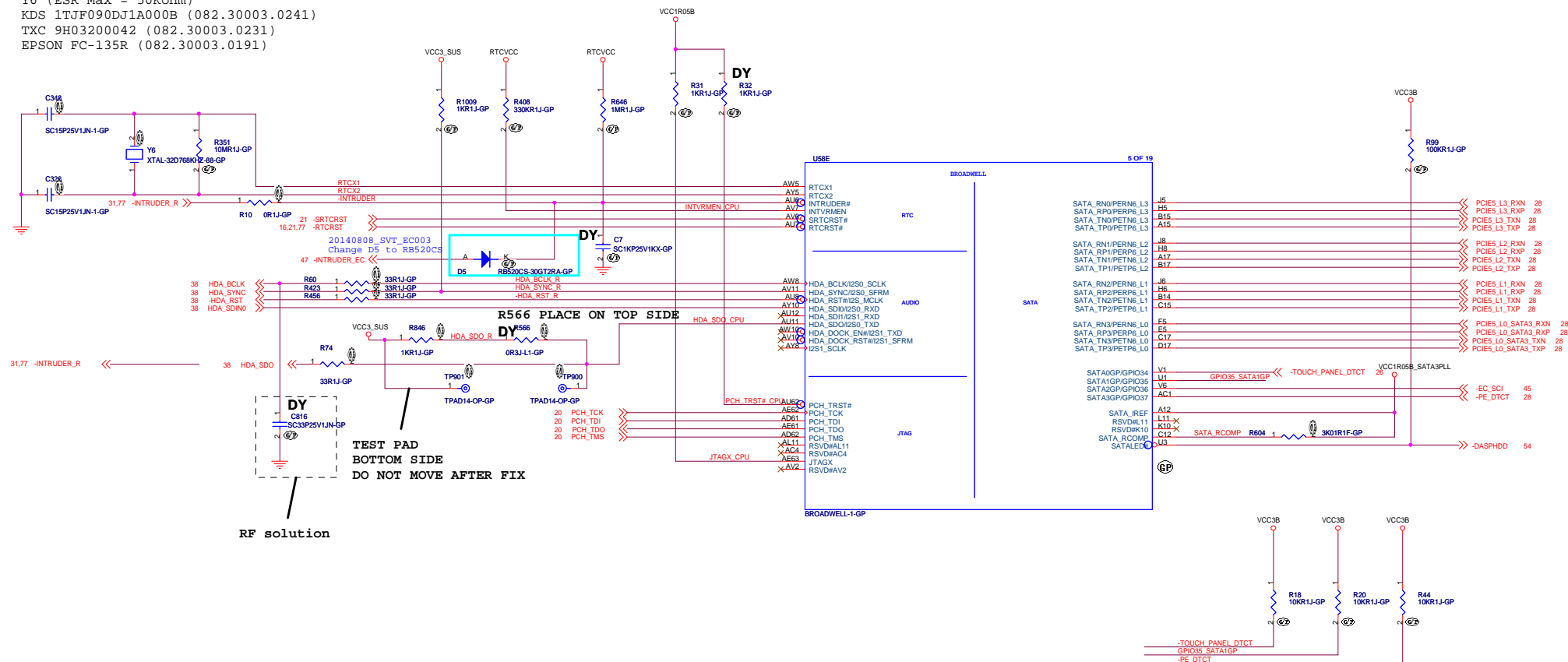
緯創資通 Wistron Corporation  
21F, 88, Sec.1, Hsin Tai Wuj Rd., Hsichih,  
Taipei Hsien 221, Taiwan, R.O.C.

Title CPU(4/16) : DDR3L CHANNEL-B

Size B Document Number Mystique-2 Rev -1

Date: Tuesday, September 02, 2014 Sheet 6 of 79

Y6 (ESR Max = 50Kohm)  
KDS 1TJF090DJ1A000B (082.30003.0241)  
TXC 9H03200042 (082.30003.0231)  
EPSON FC-135R (082.30003.0191)



ULT

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

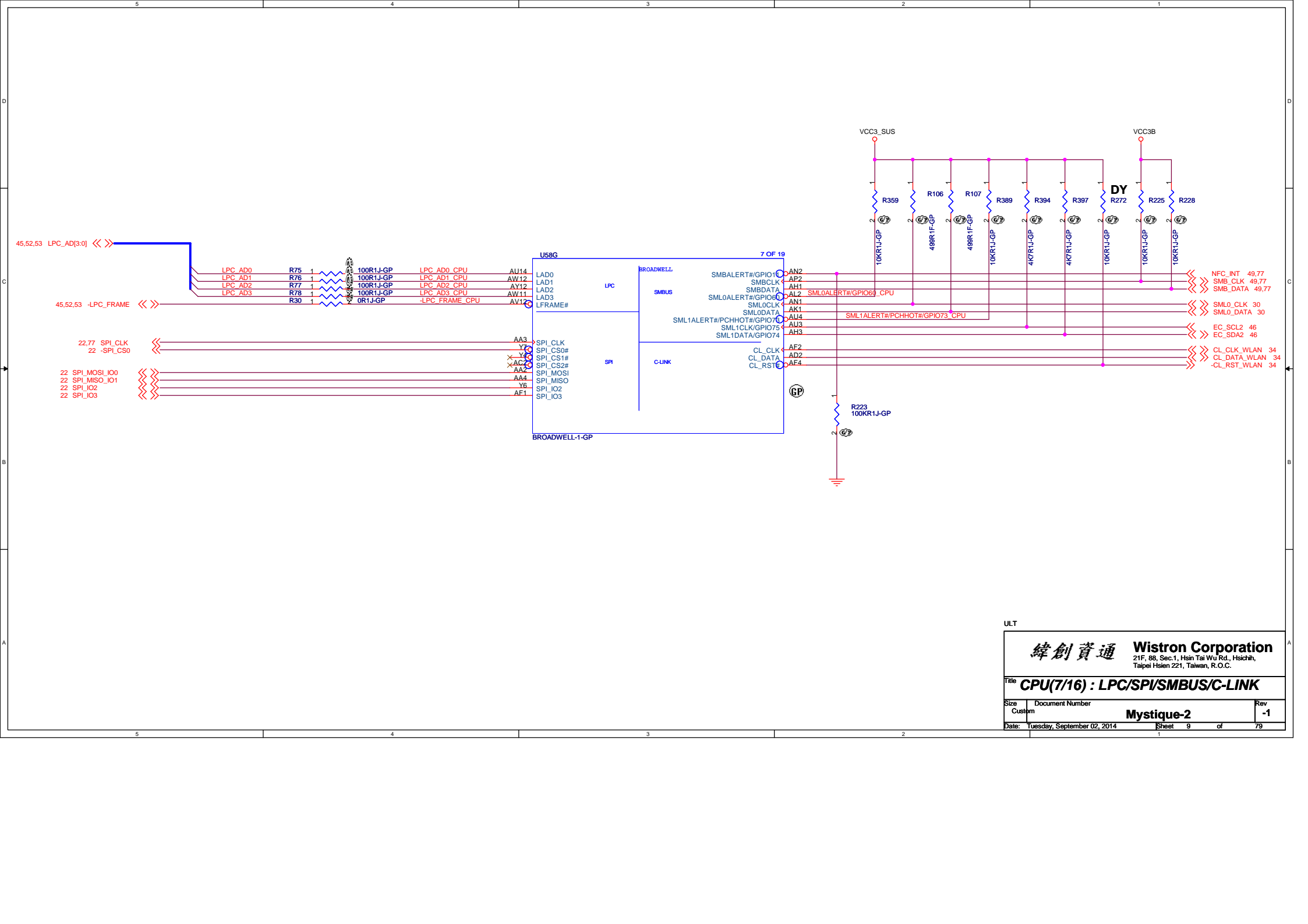
Tipo	CPU(5/16) · BTC/HDA/SATA/ITAG
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Size	Document Number	Page
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Date: Tuesday, September 02, 2014 Sheet 7 of 7







ULT

<b>緯創資通</b>		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>CPU(7/16) : LPC/SPI/SMBUS/C-LINK</b>			
Size Custom	Document Number  <b>Mystique-2</b>		Rev  <b>-1</b>
Date: Tuesday, September 02, 2014		Sheet 9 of 79	

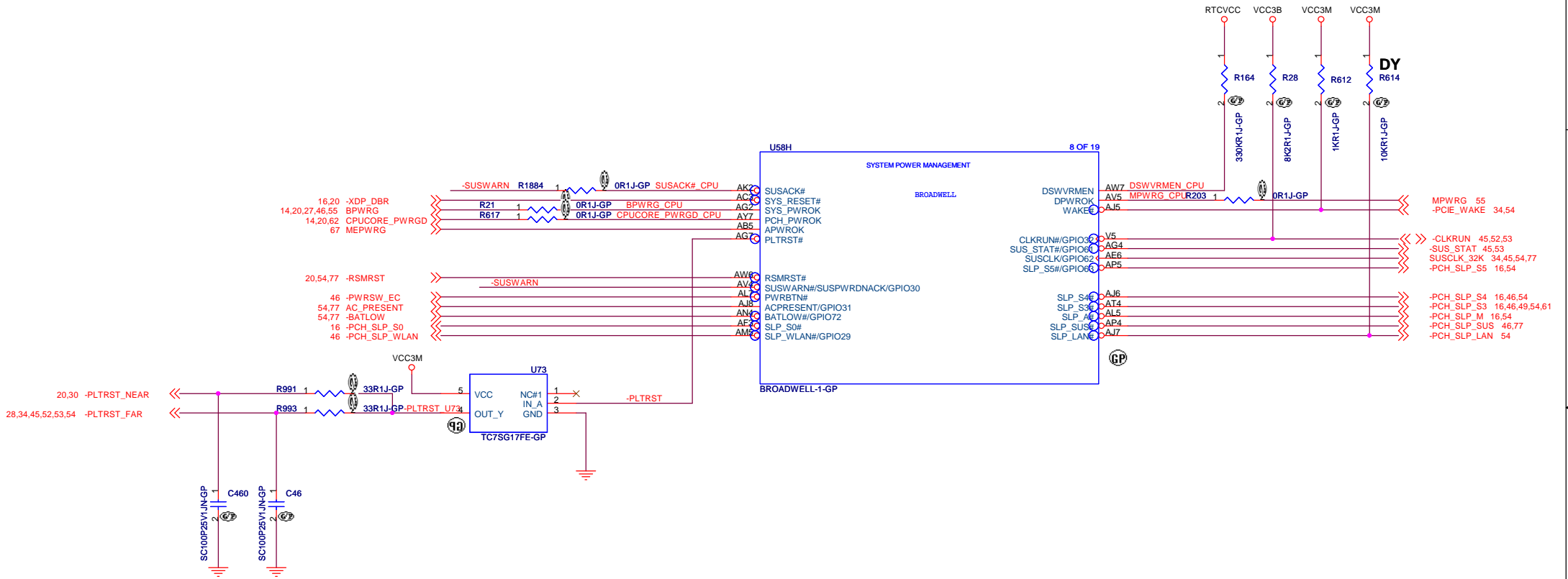




TABLE	
GPI015	ME CRYPTO STRAP
HIGH	WITH CONFIDENTIALITY
LOW	NO CONFIDENTIALITY

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

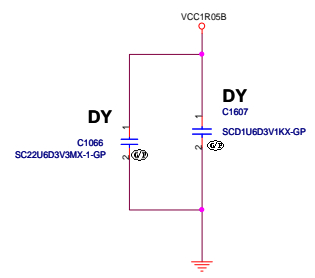
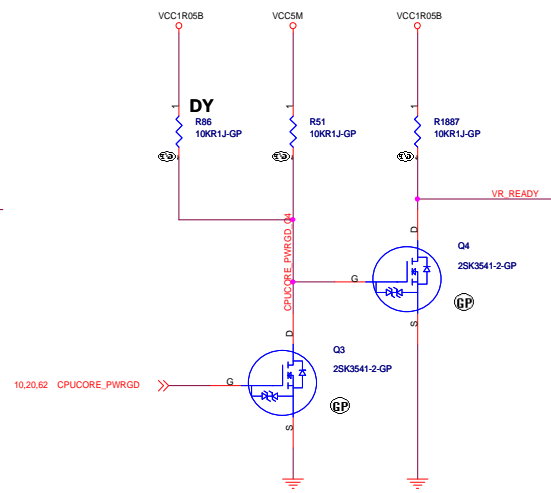
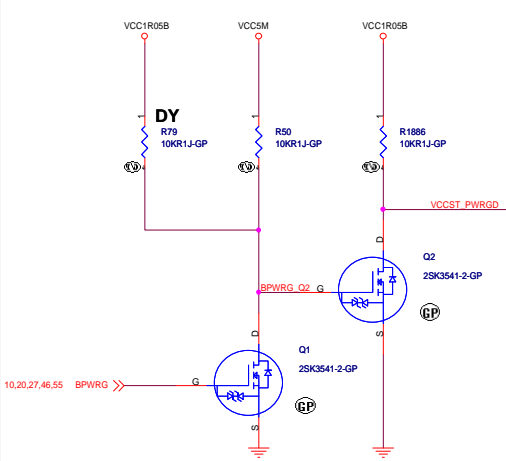
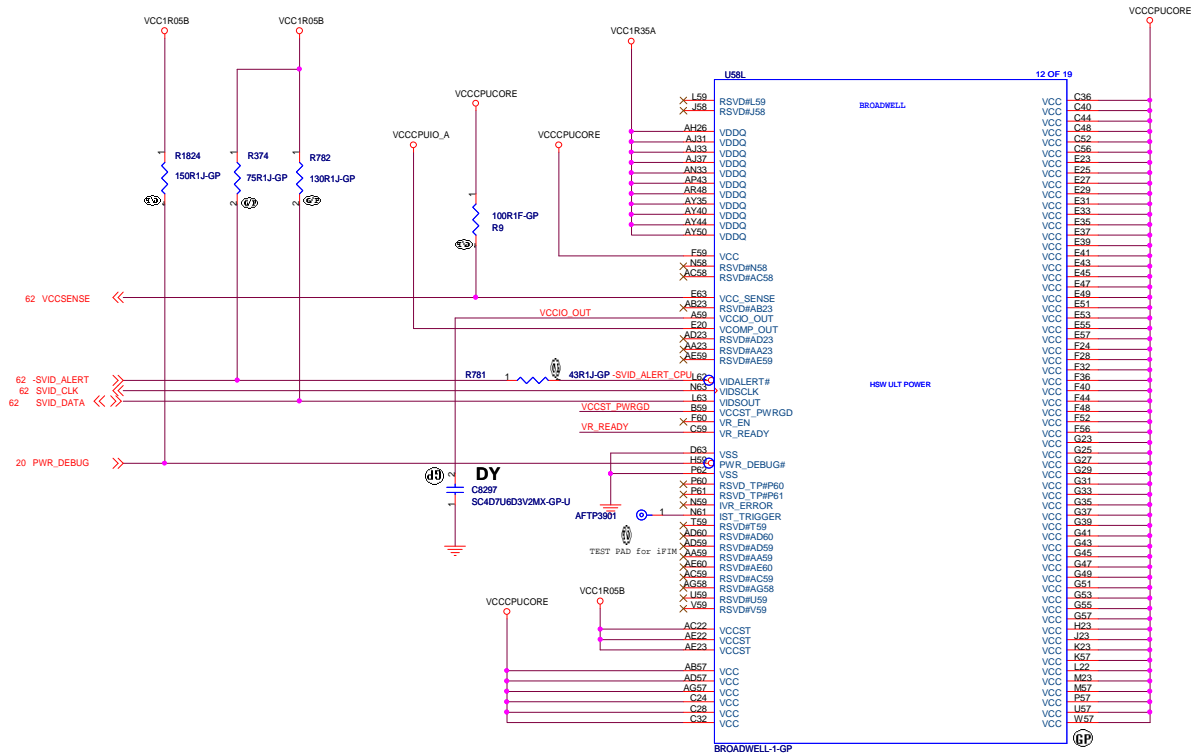
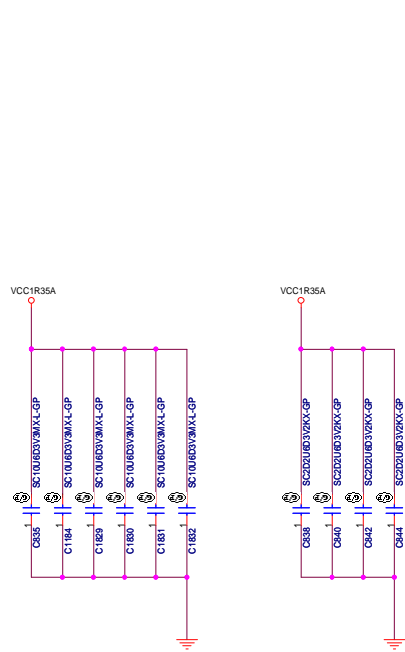
TABLE	
GPI08	INTEGRATED CLOCKING
HIGH	DISABLED (BTM)
LOW	ENABLED (FCIM)

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

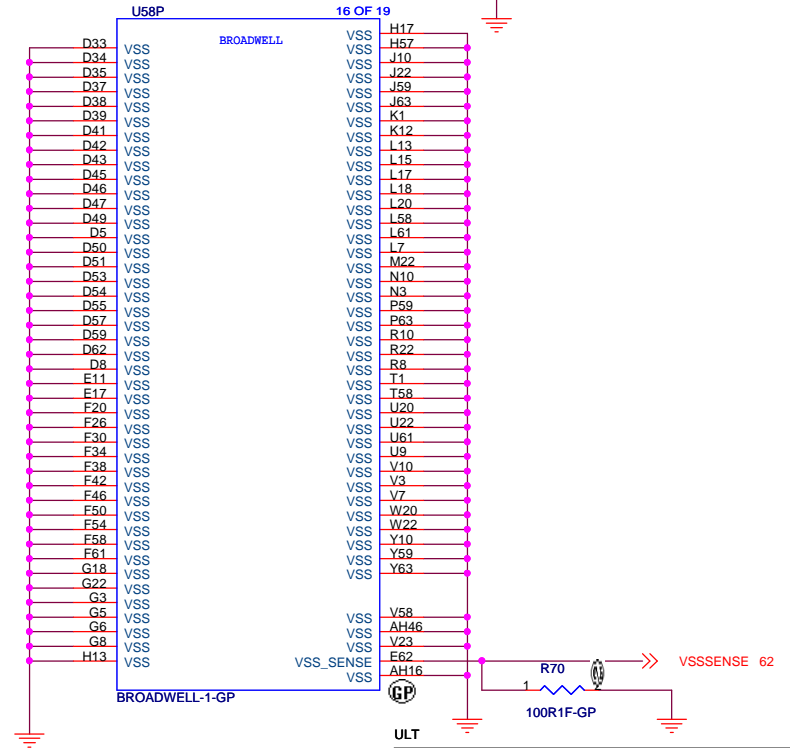
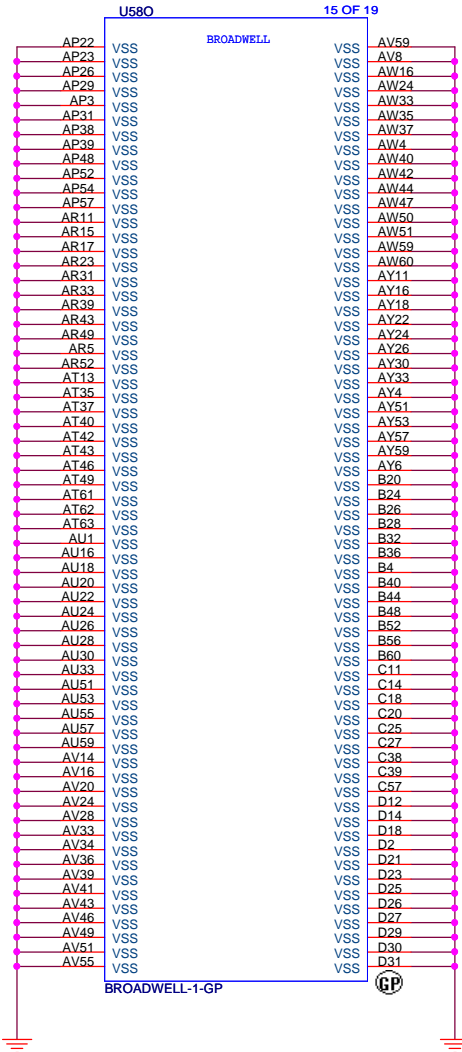
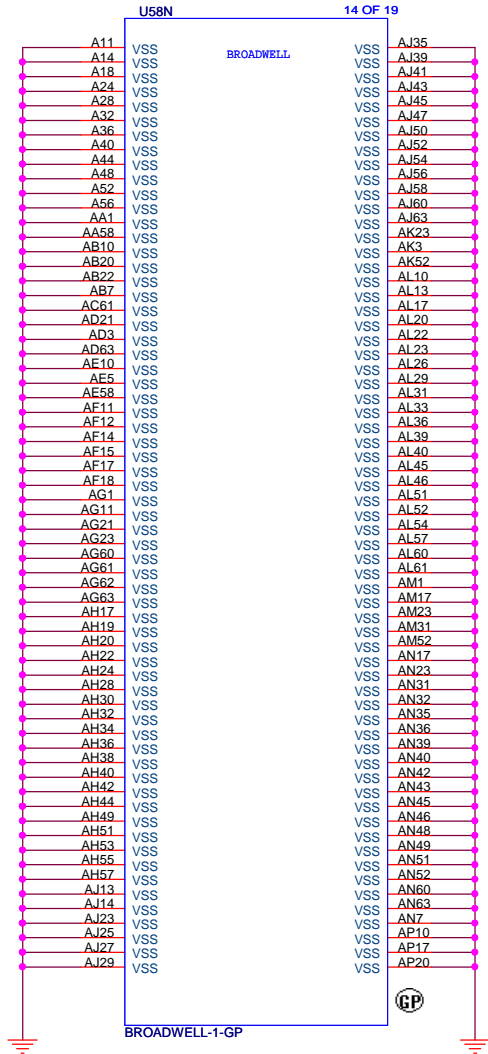
20140829\_SVT\_EC011  
Add planar ID for SIT1-R & SIT2 / SVT  
R571: A3M  
R48: DY

TABLE	
LEVEL	PLANARID[3..0]
PreDV	0000B
SDV	0001B
FVT	0010B
FVT-R	0011B
PreMESIT	0100B
PreSIT/SIT	0101B
SIT1-R	0110B
SIT2 / SVT	0111B



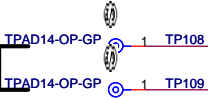




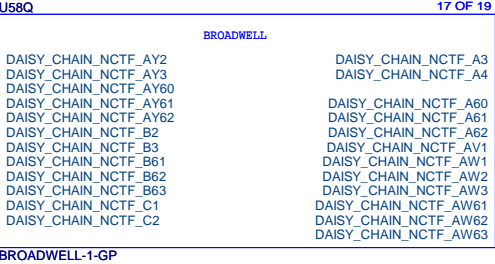




FOR SOLDER CRACK DETECTION

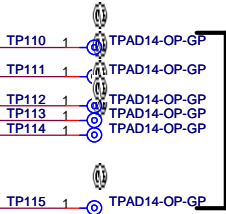


DC TEST AY2 AW2	AY2
DC TEST AY3 AW3	AY3
TP DC TEST AY60	AY60
DC TEST AY61 AW61	AY61
DC TEST AY62 AW62	AY62
TP DC TEST B2	B2
DC TEST A3 B3	B3
DC TEST A61 B61	B61
DC TEST B62 B63	B62
DC TEST C1 C2	B63
	C1
	C2



A3	DC TEST A3 B3
A4	TP DC TEST A4
A60	TP DC TEST A60
A61	DC TEST A61 B61
A62	TP DC TEST A62
AV1	TP DC TEST AV1
AW1	TP DC TEST AW1
AW2	DC TEST AY2 AW2
AW3	DC TEST AY3 AW3
AW61	DC TEST AY61 AW61
AW62	DC TEST AY62 AW62
AW63	TP DC TEST AW63

FOR SOLDER CRACK DETECTION



緯創資通

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

TitleCPU(15/16) : NCTF

Size B

Document Number

Mystique-2

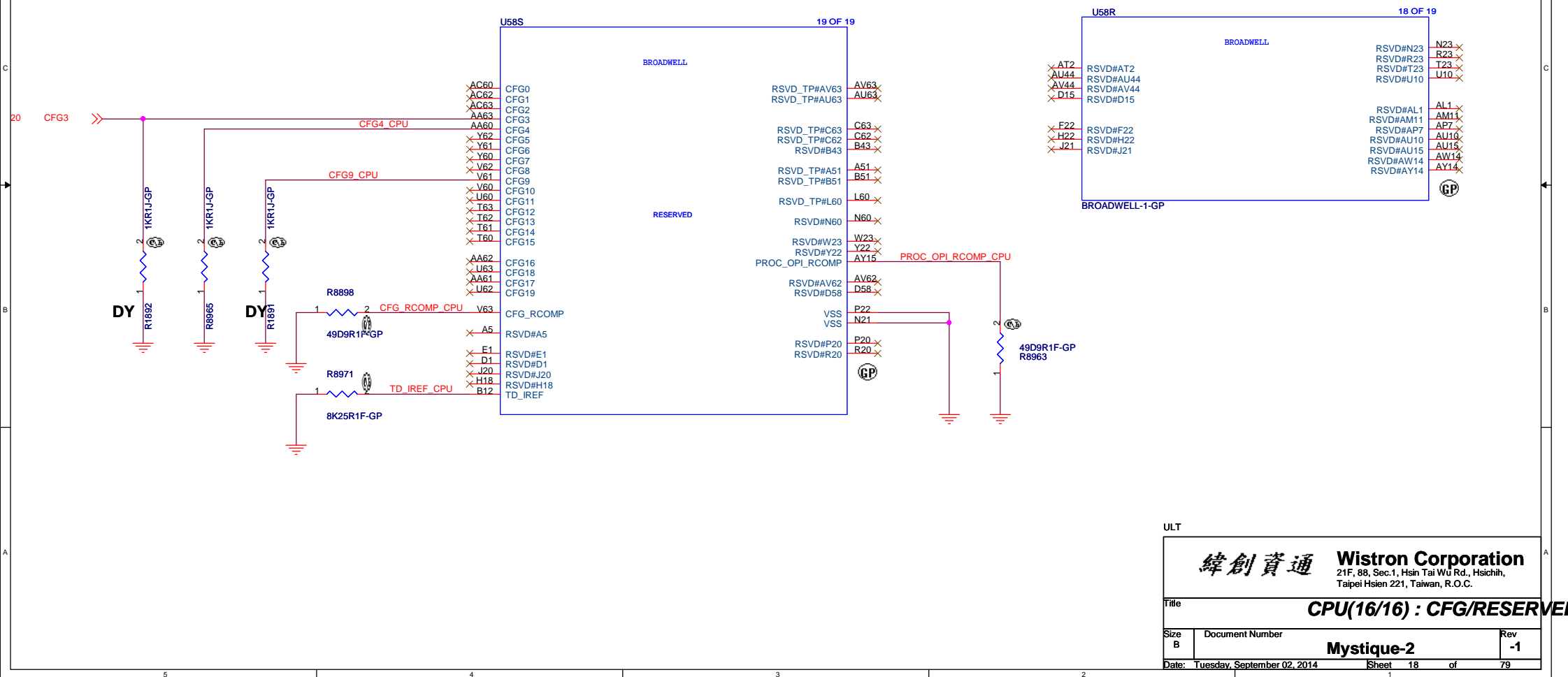
Rev -1

Date: Tuesday, August 19, 2014Sheet 17 of 79

TABLE

CFG4 : Display Port Presence
1 : Disabled
0 : Enabled

CFG9 : SVID Bus Communication
1 : Enabled
0 : Disabled



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ULT

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>BLANK</b>			
Size A	Document Number <b>Mystique-2</b>		Rev <b>-1</b>
Date: Tuesday, August 19, 2014		Sheet 19 of	79

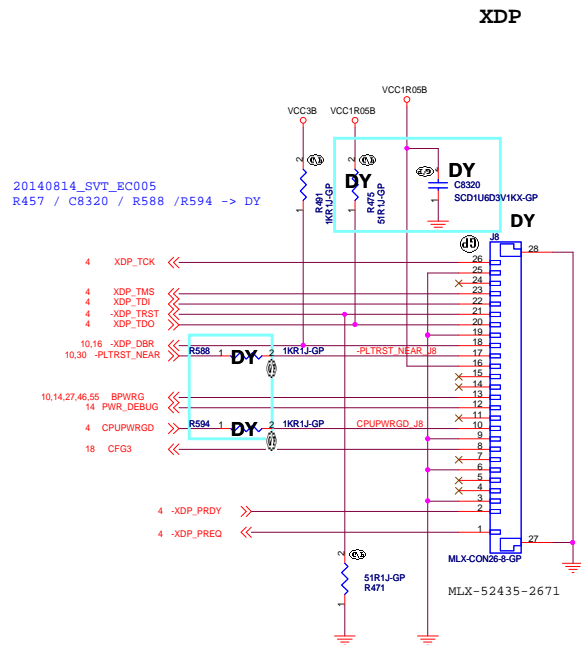


TABLE NOTE: J8 "ASM" FOR PDV ONLY.

SIGNAL	REF DES	ENABLE	DISABLE
TDO	R475	ASM	NO ASM
TRST#	R471	ASM	ASM
DBRST#	R491	ASM	ASM
RESET#	R588	ASM	NO ASM
PWRGD	R594	ASM	NO ASM
	J8	ASM	NO ASM
	C8320	ASM	NO ASM

LOGIC

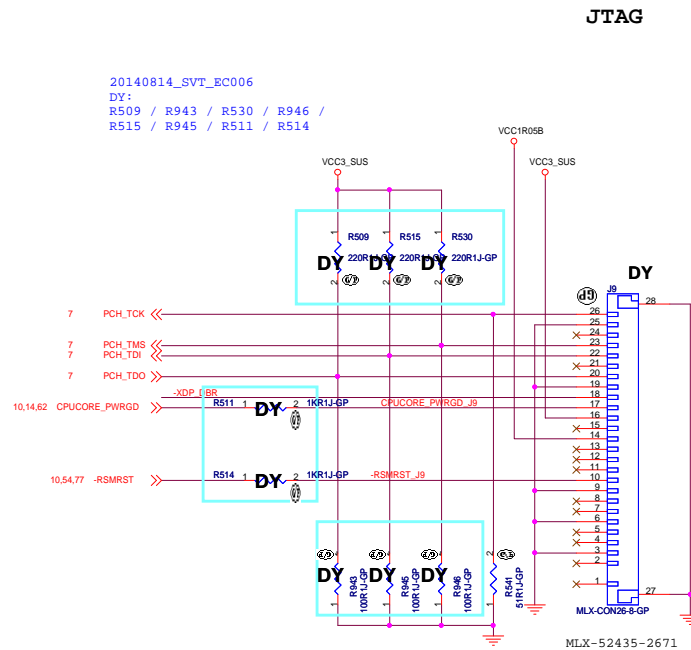


TABLE NOTE: J9 "ASM" FOR PDV ONLY.

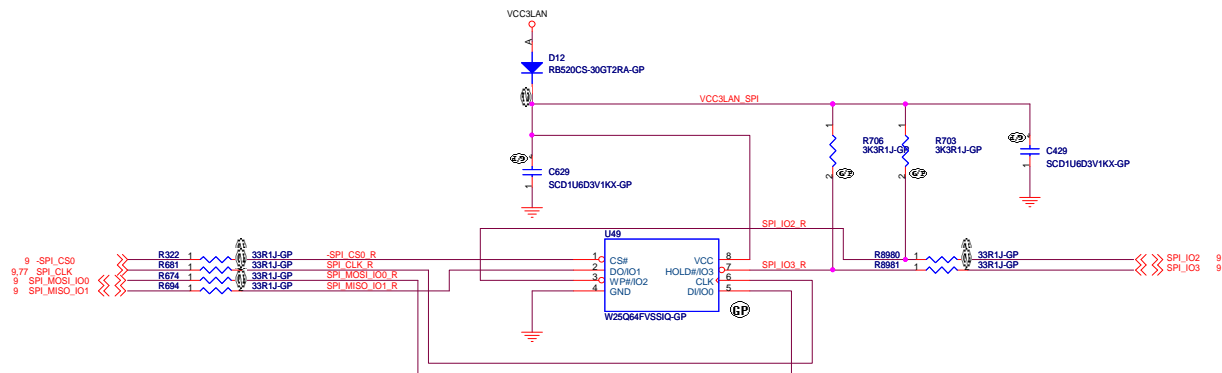
SIGNAL	REF DES	ENABLE	DISABLE
TDO	R509 R943	220 100	NO ASM NO ASM
TMS	R530 R946	220 100	NO ASM NO ASM
TDI	R515 R945	220 100	NO ASM NO ASM
TCK	R541	51	51
CPUCORE_PWRGD	R511	ASM	NO ASM
-RSMRST	R514	ASM	NO ASM
	J9	ASM	NO ASM

LOGIC

ULT



U49	16MB	16MB
-----	------	------



TABLE

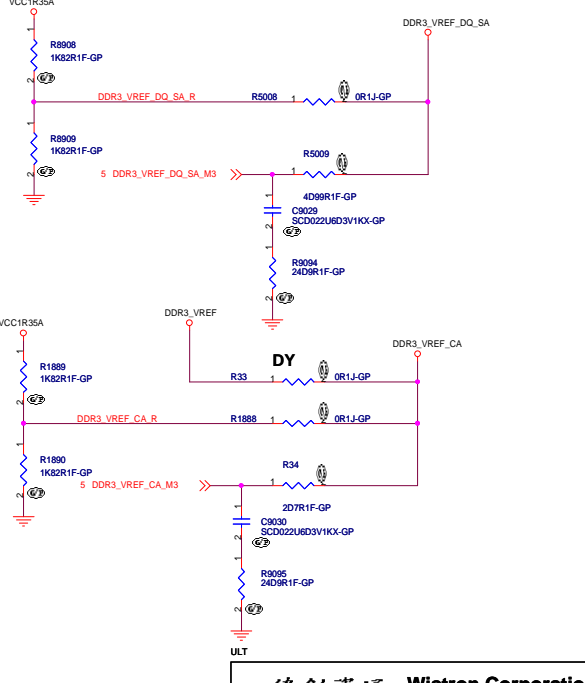
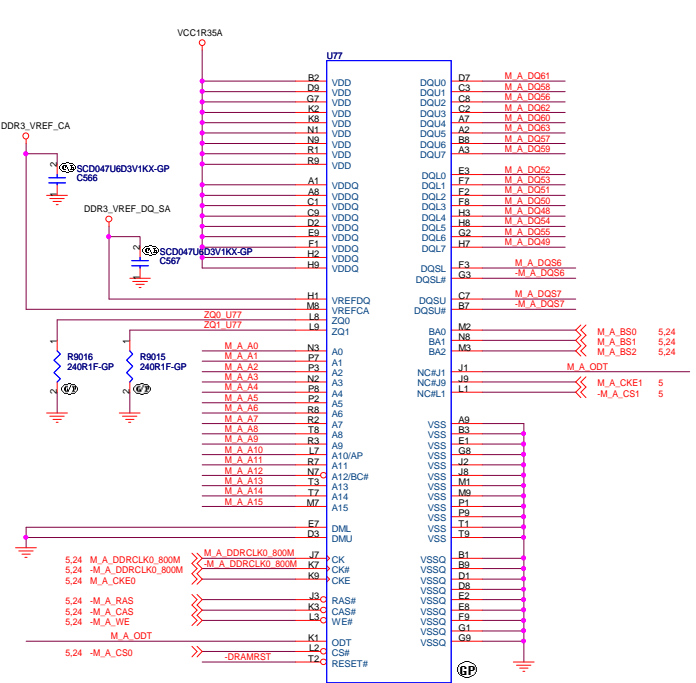
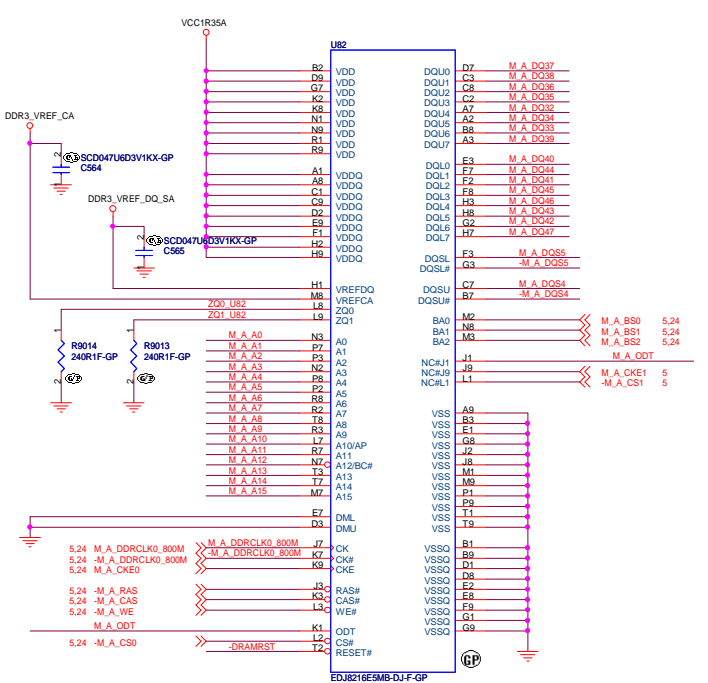
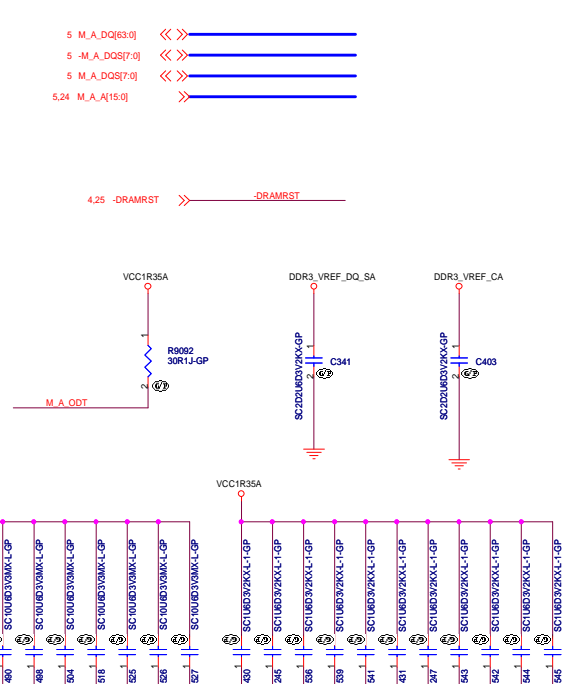
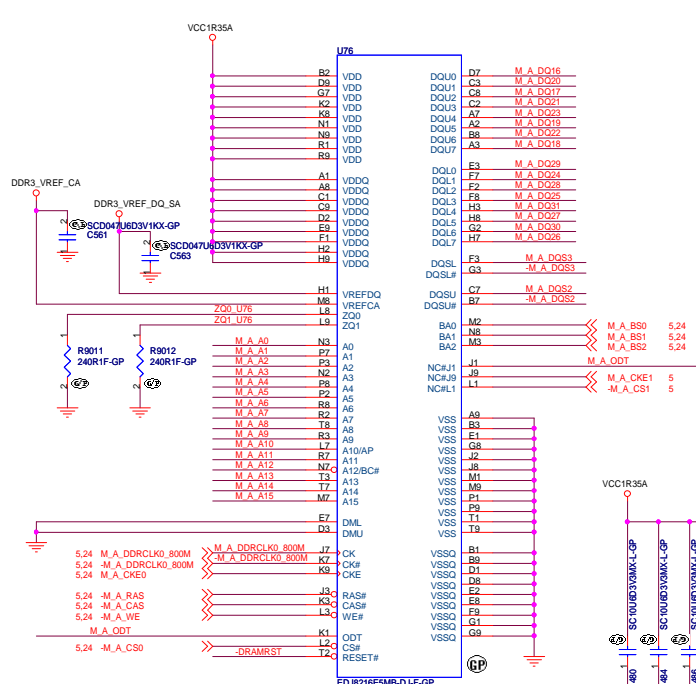
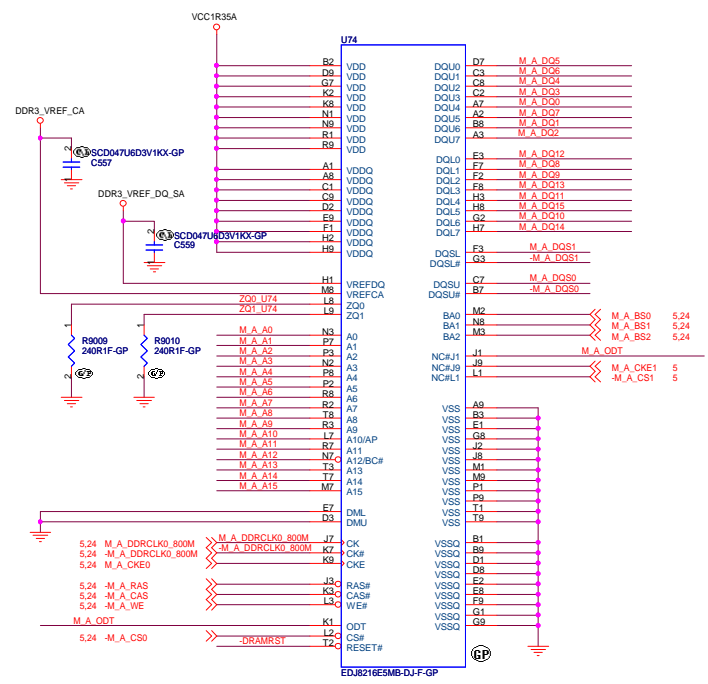
SF100	PIN	HEADER	INTERFACE	(TOP VIEW)
1	VCC	D12.1	GND	2
3	CS#	R322.2	R681.2	CLK 4
5	MISO	R694.2	R674.2	MOSI 6
7	(KEY)	N/A	N/A	(RESET) 8

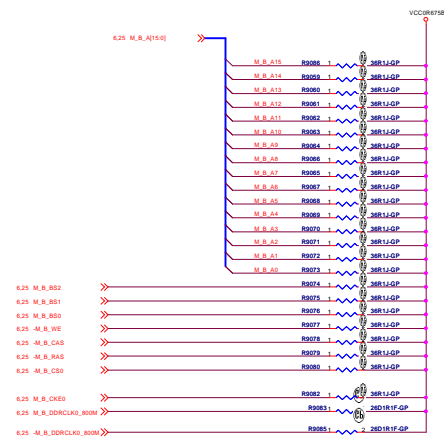
16MB SOIC8

WINBOND      W25Q128FVSIQ      72.25128.0E1

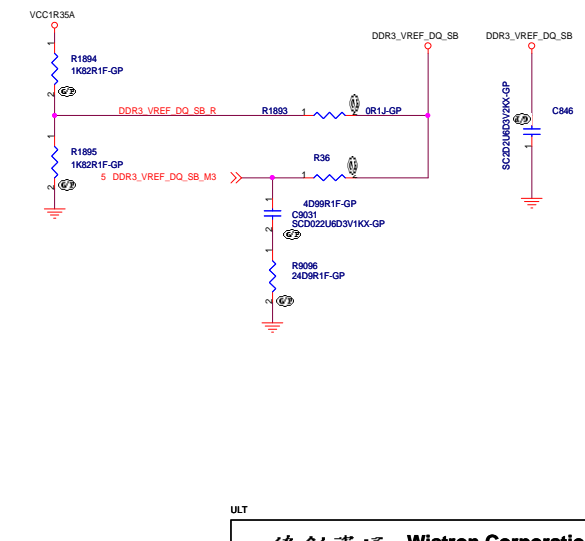
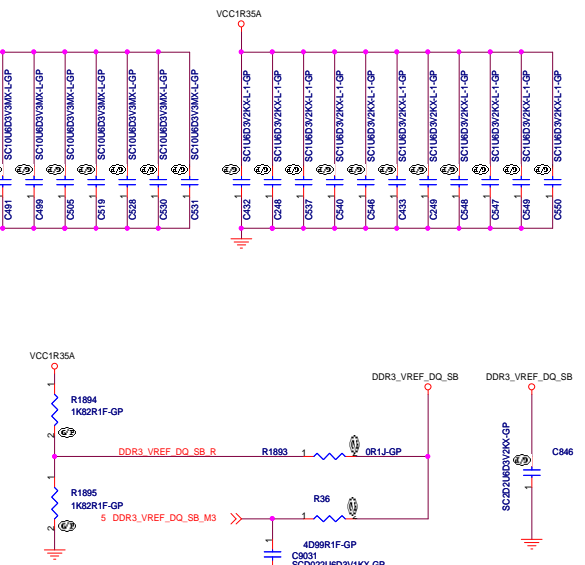
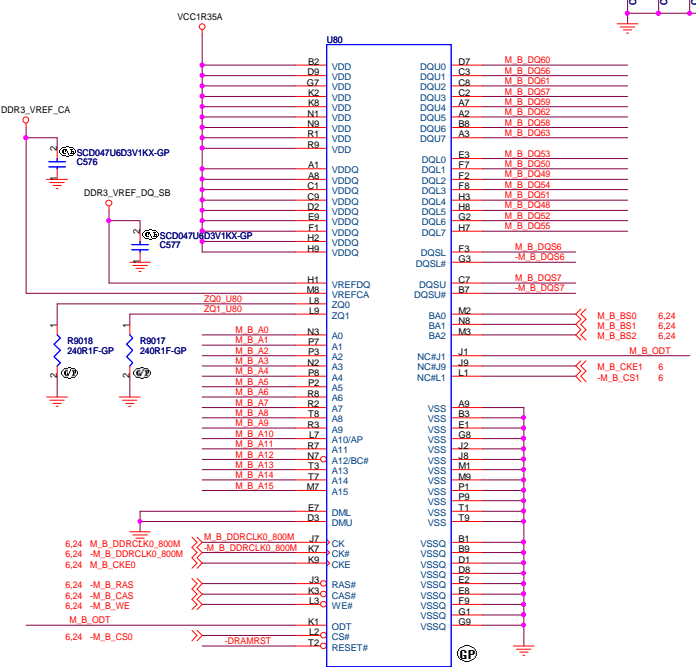
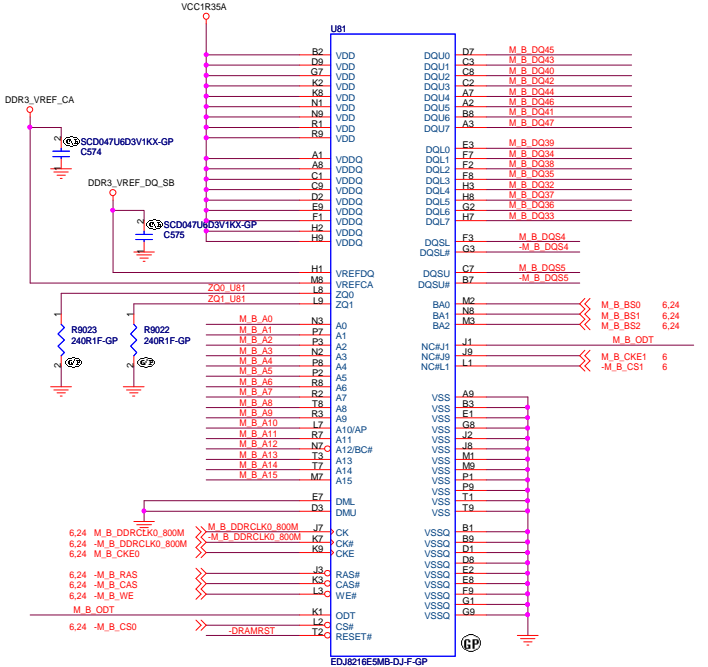
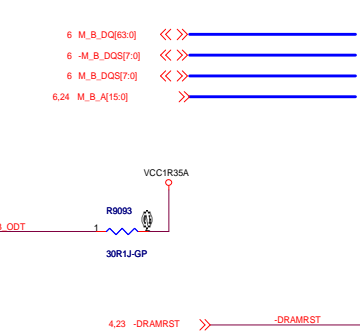
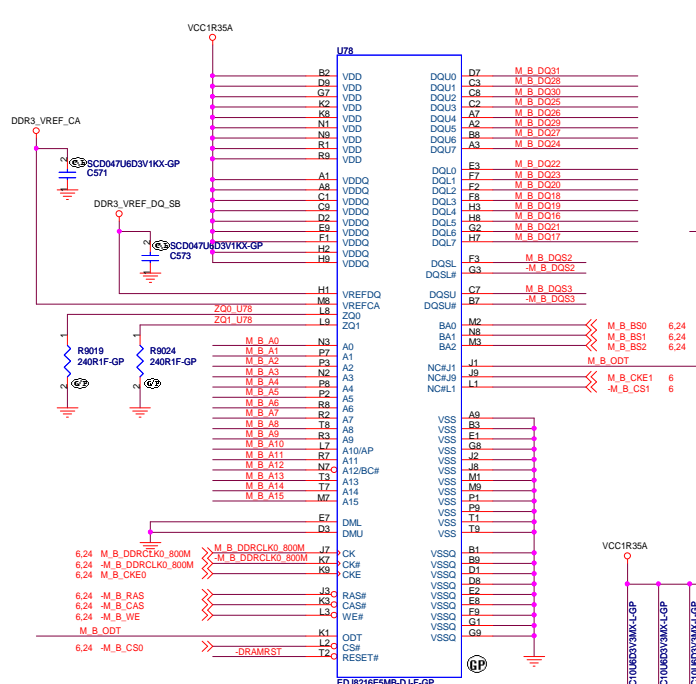
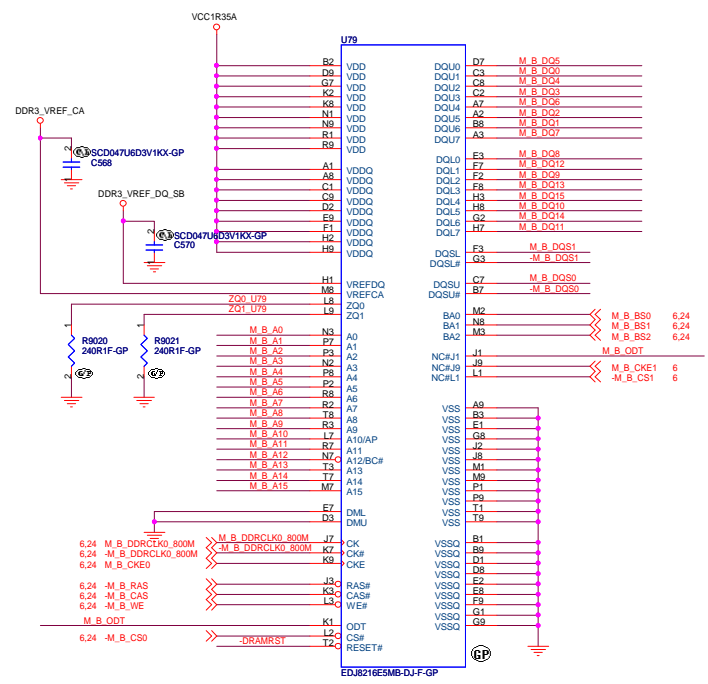
MACRONIX MX25L12875FM2I-10G 72.12873.001

MICRON      N25Q128A13ESEC0F      72.25128.0B1

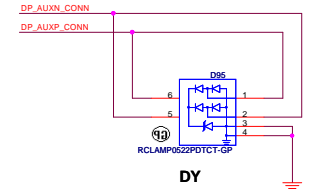
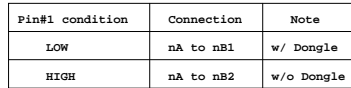




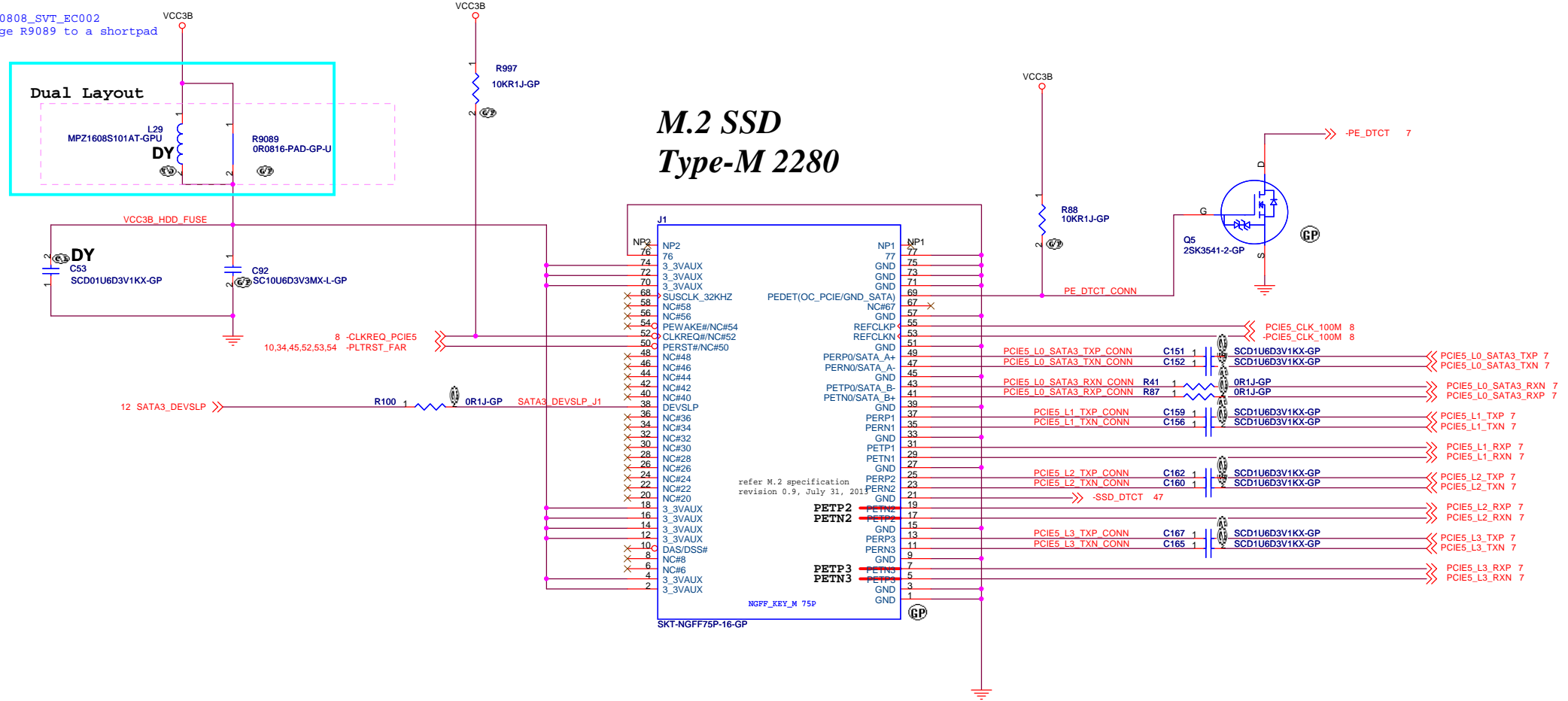






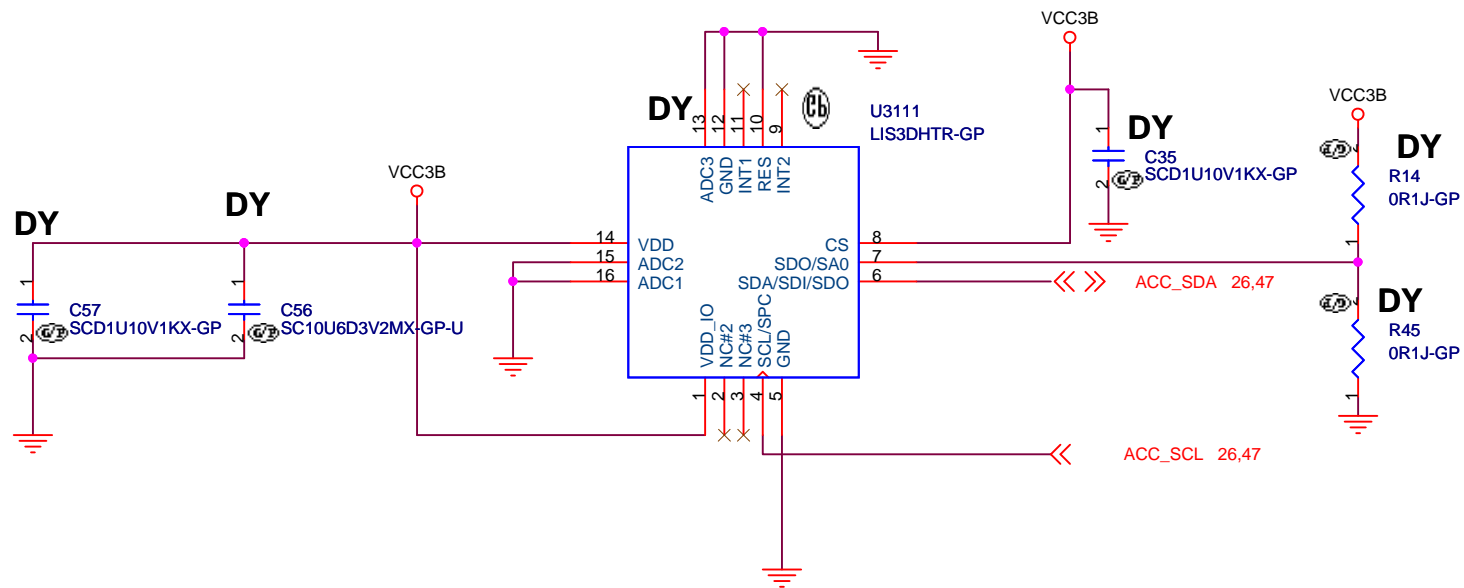


20140808\_SVT\_EC002  
Change R9089 to a shortpad



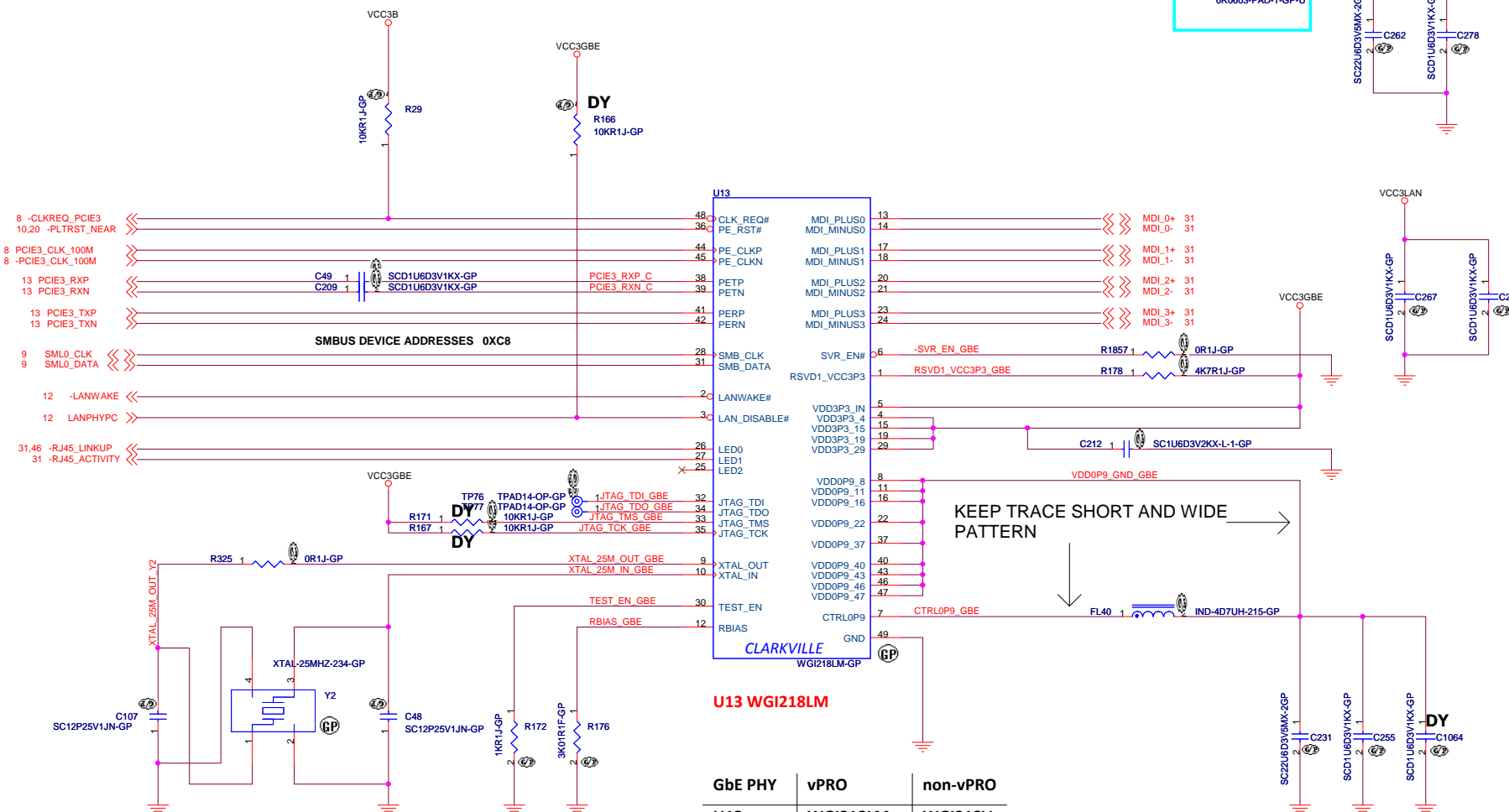
ULT

緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title <b>SATA / PCIe SSD connector</b>			
Size A3	Document Number	Rev	
Date: Tuesday, September 02, 2014		Mystique-2	
Sheet 28 of 79		-1	



ULT

<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	
G-SENSOR	
Size A4	Document Number <div>Mystique-2</div>
Date: Tuesday, September 02, 2014	Rev -1
Sheet 29 of 79	



20140808\_SVT\_EC002  
Change R8709 to a shortpad

8 -CLKREQ\_PCIE3  
10-20 -PLTRST\_NEAR  
8 PCIE3\_CLK\_100M  
8 -PCIE3\_CLK\_100M  
13 PCIE3\_RXP  
13 PCIE3\_RXN  
13 PCIE3\_TXP  
13 PCIE3\_TXN  
9 SML0\_CLK  
9 SML0\_DATA  
12 -LANWAKE  
12 LANPHYPC  
31,46 -RJ45\_LINKUP  
31 -RJ45\_ACTIVITY

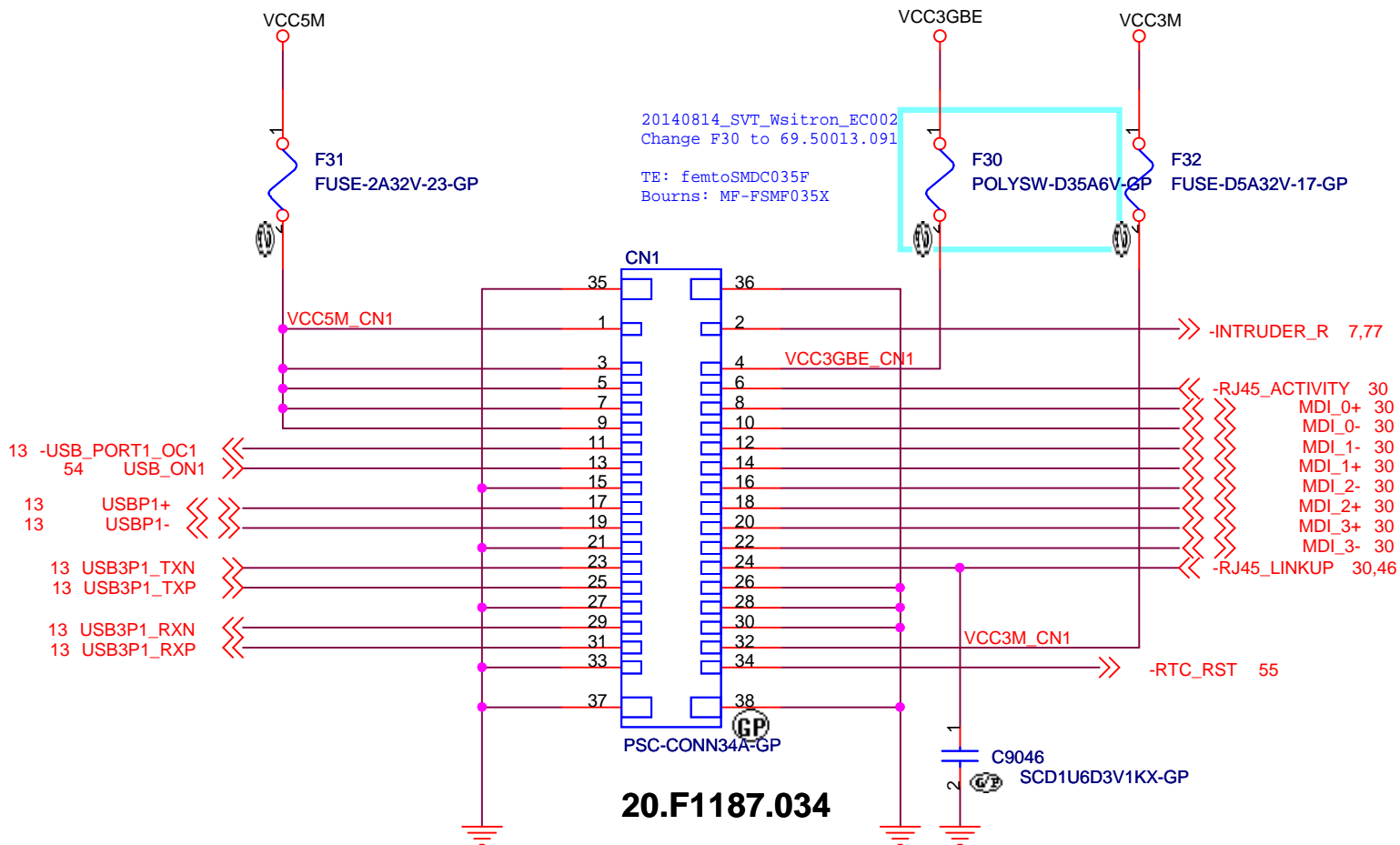
SMBUS DEVICE ADDRESSES 0XC8

KEEP TRACE SHORT AND WIDE PATTERN

U13 WGI218LM

GbE PHY	vPRO	non-vPRO
U13	WGI218LM	WGI218V

Y2  
KDS 1ZZCAA25000CC0C 82.30020.N91 [12P capacitor]  
TXC 8Y25000004 82.20026.191 [27P capacitor]  
Epson EP.FA-128 25M20+-30 82.30020.P51 [27P capacitor]



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<p>緯創資通 Wistron Corporation</p> <p>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</p>	
<p>Title <b>GBE / USB3.0 BTB CONNECTOR</b></p>	
<p>Size A</p>	<p>Document Number</p>
<p>Date: Tuesday, September 02, 2014</p>	
<p>Sheet 31 of 79</p>	
<p>Rev -1</p>	

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		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title <b>BLANK</b>		
Size A4	Document Number	Rev <b>-1</b>
Date: Tuesday, August 19, 2014		Sheet 32 of 79



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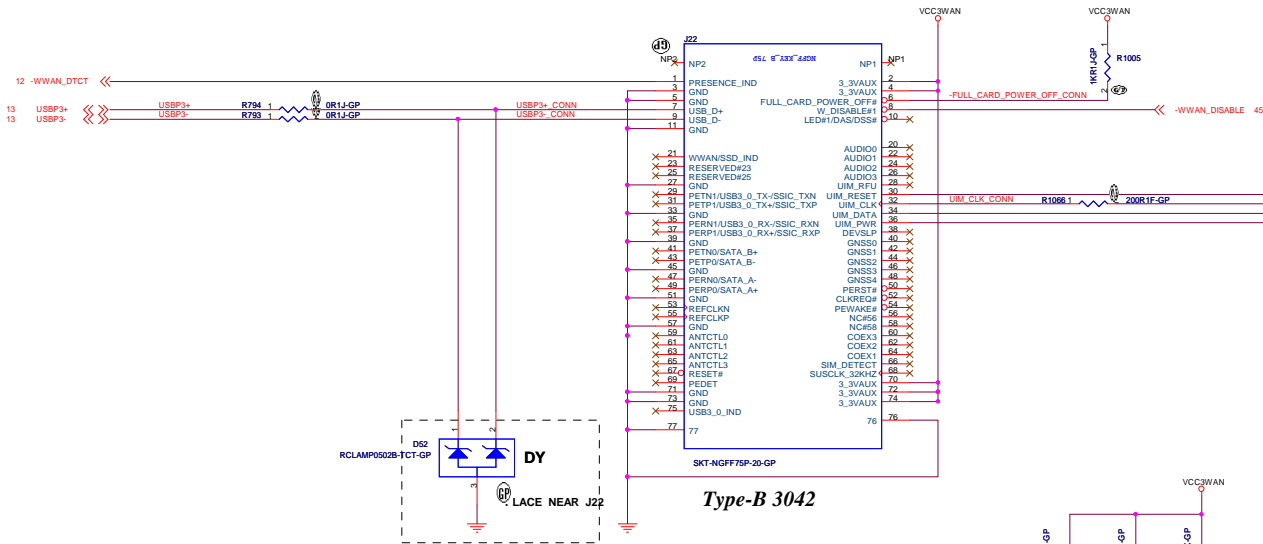
ULT

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>BLANK</b>			
Size A4	Document Number <b>Mystique-2</b>		Rev <b>-1</b>
Date: Tuesday, August 19, 2014		Sheet 33 of	79

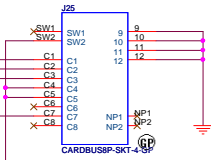
# TYPE-B M.2 CARD FOR WWAN/SSD

3.2H CONNECTOR

for test point, page 77.

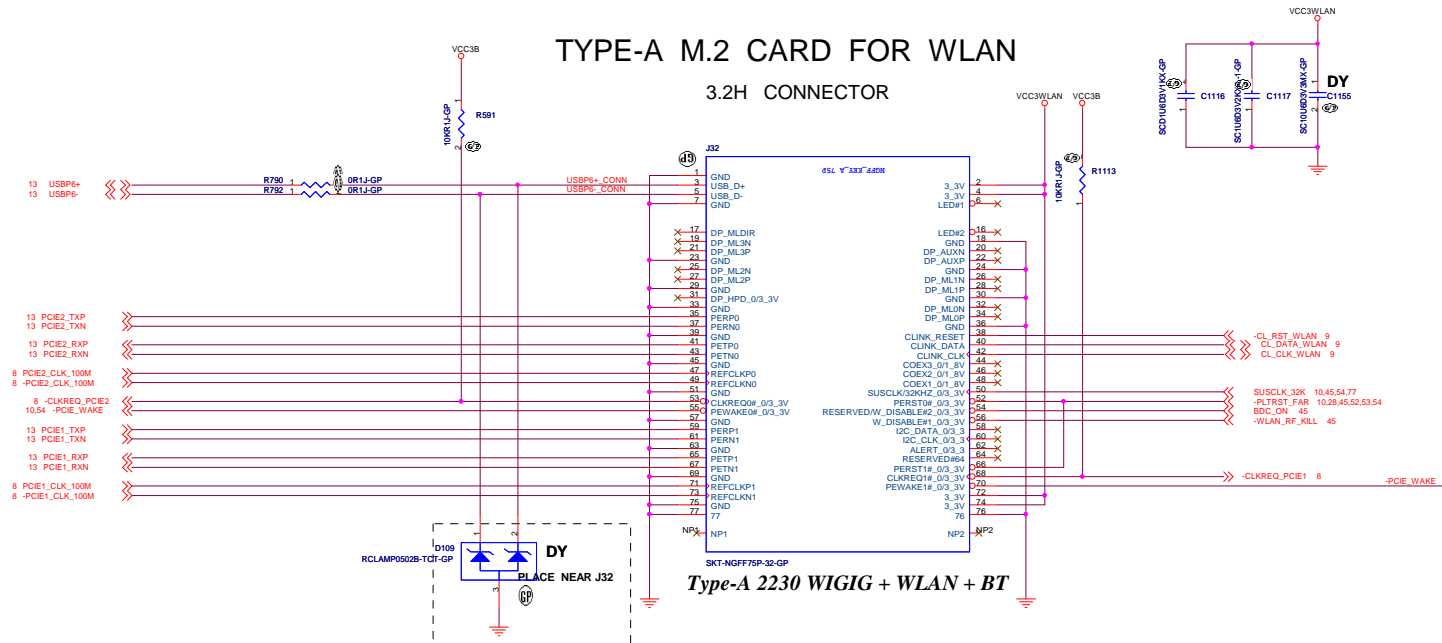


77 UIM\_RESET  
77 UIM\_CLK  
77 UIM\_DATA  
77 UIM\_PWR



# TYPE-A M.2 CARD FOR WLAN

3.2H CONNECTOR



ULT

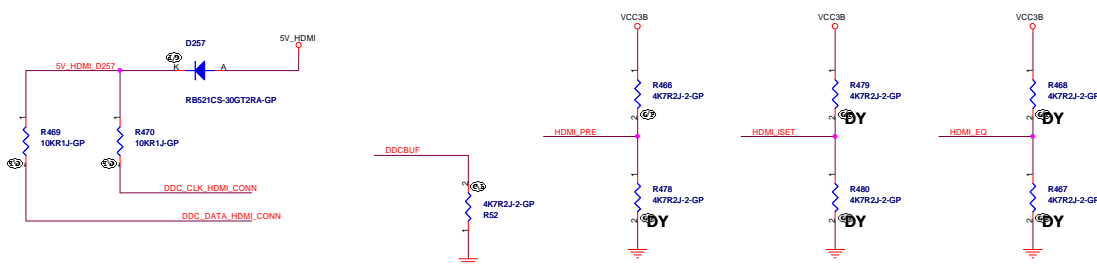
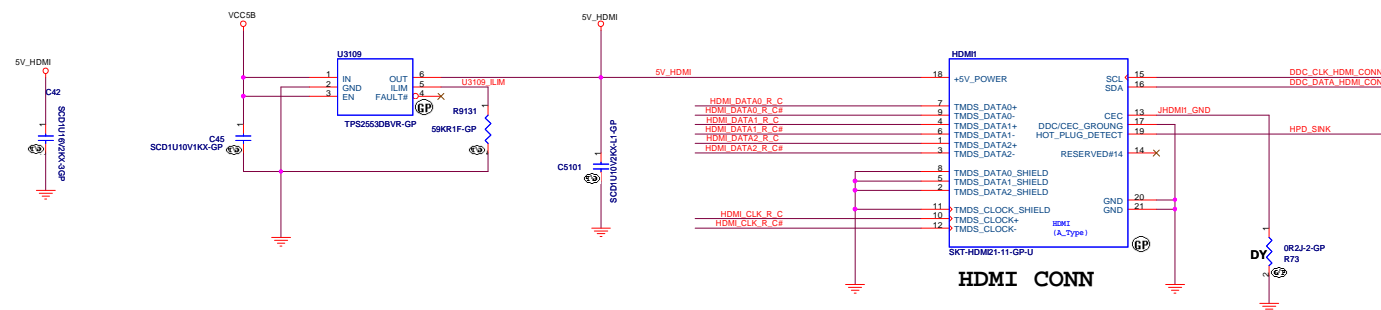
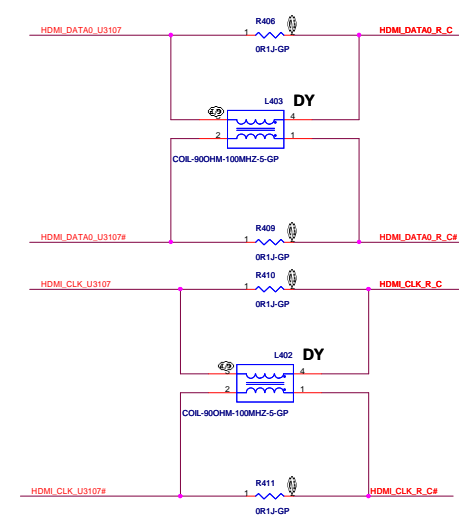
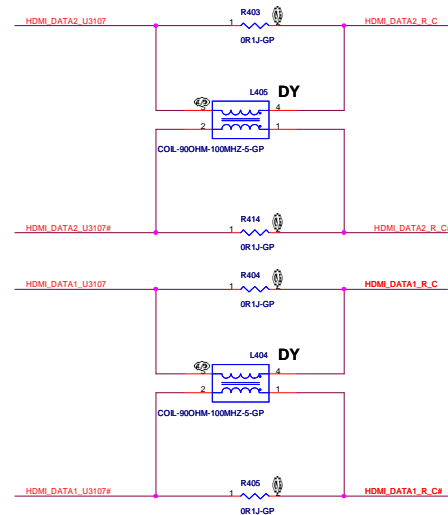
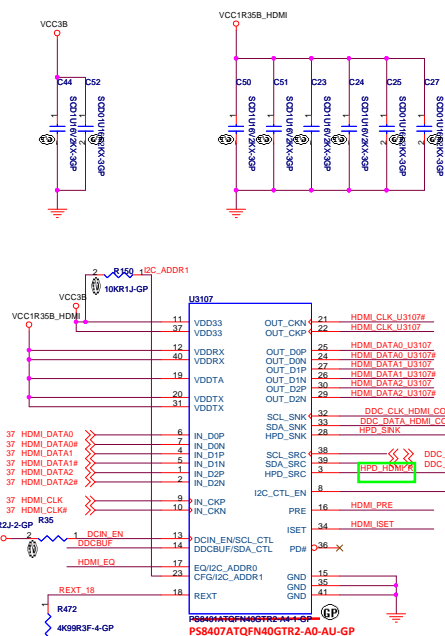
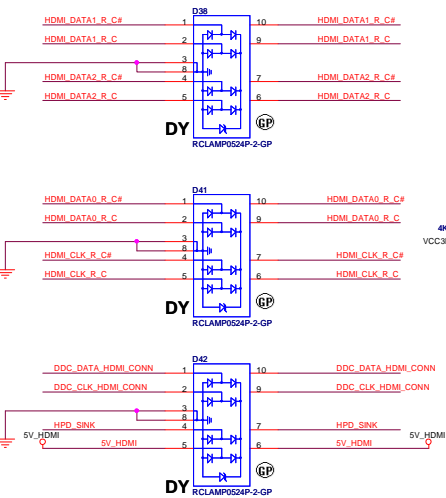
緯創資通 Wistron Corporation  
21F, 68, Sec.1, Hsin Ta Wu Rd., Hsichia, Taipei Hsien 221, Taiwan, R.O.C.

PCIE M.2 CARD SLOT			
Size	Document Number	Mystique-2	Rev -1
Date:	Tuesday, September 02, 2014	Sheet 34	of 79

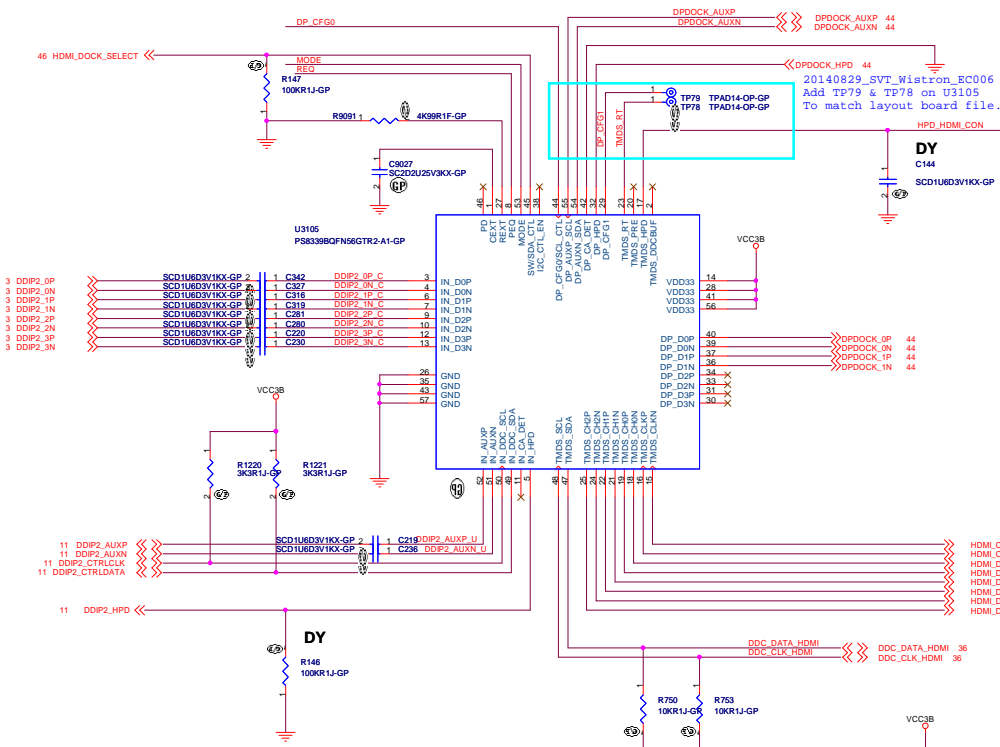
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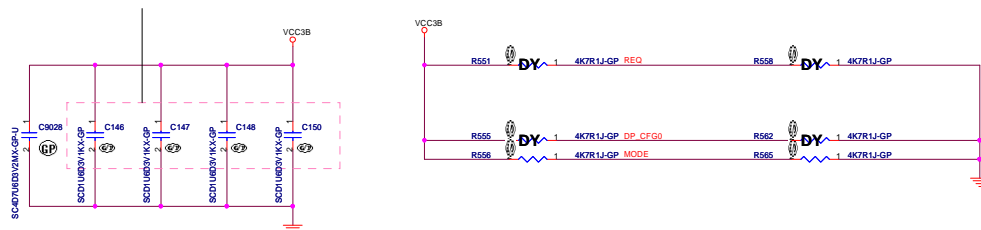
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Title <b>BLANK</b>			
Size A4	Document Number <b>Mystique-2</b>		Rev <b>-1</b>
Date: Tuesday, August 19, 2014		Sheet 35 of	79



HDMI\_DOCK\_SELECT  
H: HDMI is higher priority than DOCKDP  
L: DOCKDP is higher priority than HDMI



0.1uF caps are near of each VDD33 pin



TMDS\_PRE1 = L: no pre-emphasis  
= H: 1.5dB pre-emphasis  
= M: 3.0dB pre-emphasis  
The pin Internal pull down at ~150K, 3.3V I/O.

TMDS\_RT1 = L: Standard open drain driver  
= H: Open drain driver with termination resistors  
The pin Internal pull down at ~150K, 3.3V I/O.

TMDS\_DDCBUF1 = L: DDC pass through  
= H: DDC active buffer  
= M: DDC pass through with 40 kohm pull up resistor  
The pin Internal pull down at ~150K, 3.3V I/O.

PEQ1 = L: default, LEO, compensate channel loss up to 12dB @ HBR2  
= H: HEO, compensate channel loss up to 15dB @ HBR2  
= M: LLEO, compensate channel loss up to 5dB @ HBR2  
The pin Internal pull down at ~150K, 3.3V I/O.

DP1\_CFG1 = L: default, auto test disable & input offset cancellation enable  
= H: auto test enable & input offset cancellation enable  
= M: auto test disable & input offset cancellation disable  
The pin Internal pull down at ~150K, 3.3V I/O.

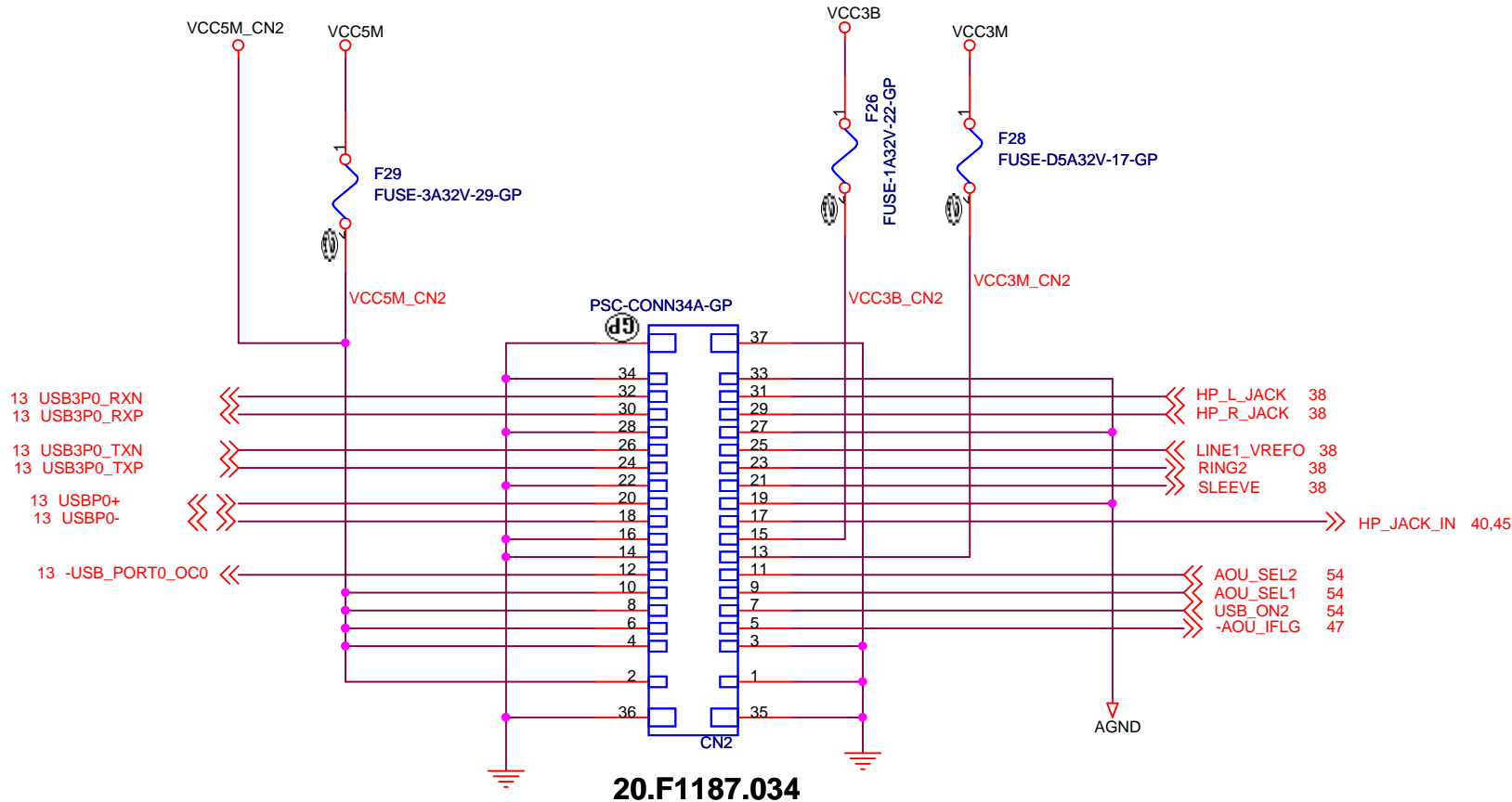
DP1\_CFG0 = L: default, automatic EQ enable & AUX interception enable  
= H: automatic EQ disable & AUX interception enable  
= M: automatic EQ disable & AUX interception disable, no pre-emphasis, 800mVpp swing  
The pin Internal pull down at ~150K, 3.3V I/O.

MODE1 = L: Control Switching Mode, HDMI ID disable  
= H: Automatic Switching Mode, HDMI ID disable  
= M: Automatic Switching Mode, HDMI ID enable  
The pin Internal pull down at ~150K, 3.3V I/O.

For Control Switching:  
SW 1= L: DP output is selected  
SW 1= H: TMDS output is selected

For Automatic Switching:  
SW1 = L: DP output has higher priority  
The pin Internal pull down at ~150K, 3.3V I/O.  
SW1 = H: TMDS output has higher priority.

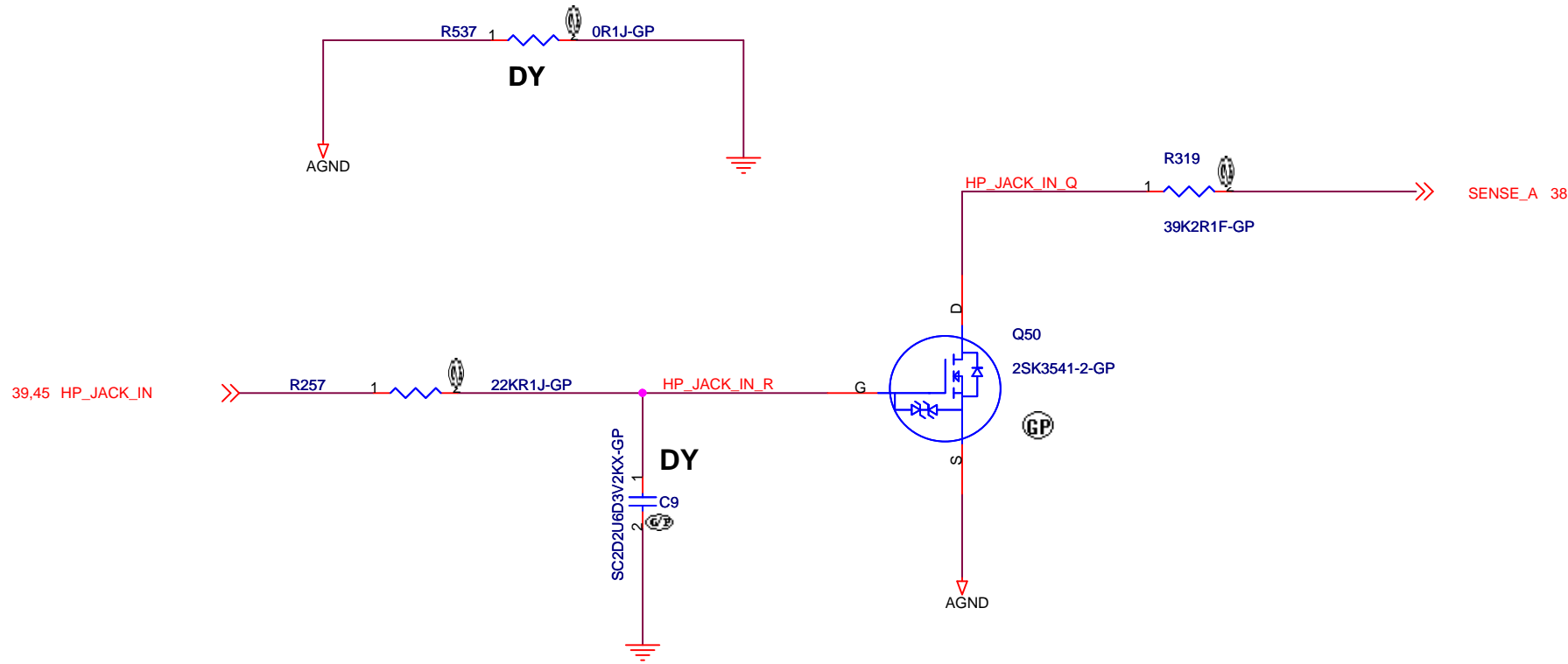




20.F1187.034

ULT

<b>緯創資通</b>			<b>Wistron Corporation</b>		
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.					
<b>Title</b> <b>AUDIO /USB3.0 BTB CONNECTOR</b>					
<b>Size</b> A4	<b>Document Number</b>				<b>Rev</b> -1
<b>Mystique-2</b>					
<b>Date:</b> Tuesday, September 02, 2014			<b>Sheet</b> 39 <b>of</b> 79		



ULT

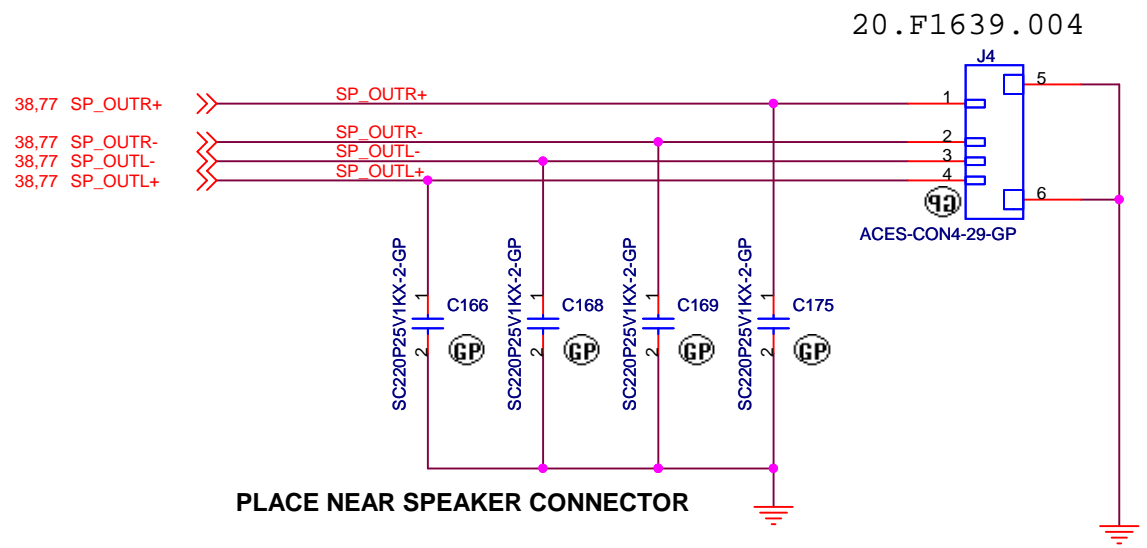
<div>緯創資通</div> <div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>	
Title <div>AUDIO JACK SENSE</div>	
Size <div>A4</div>	<div>Document Number</div> <div>Mystique-2</div>
Date: <div>Tuesday, September 02, 2014</div>	<div>Rev</div> <div>-1</div>
Sheet <div>40</div> of <div>79</div>	



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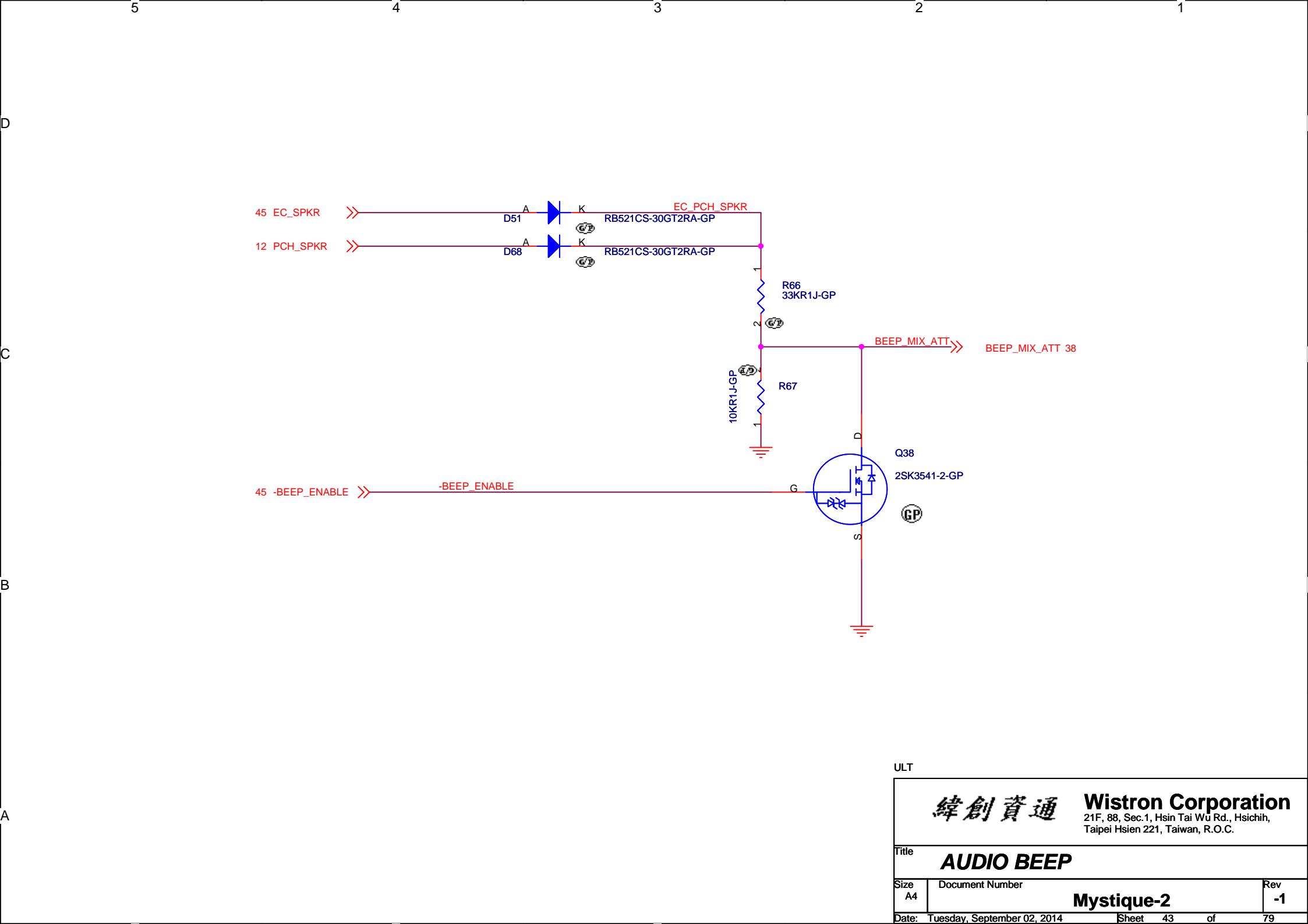
ULT

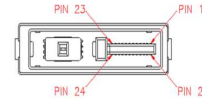
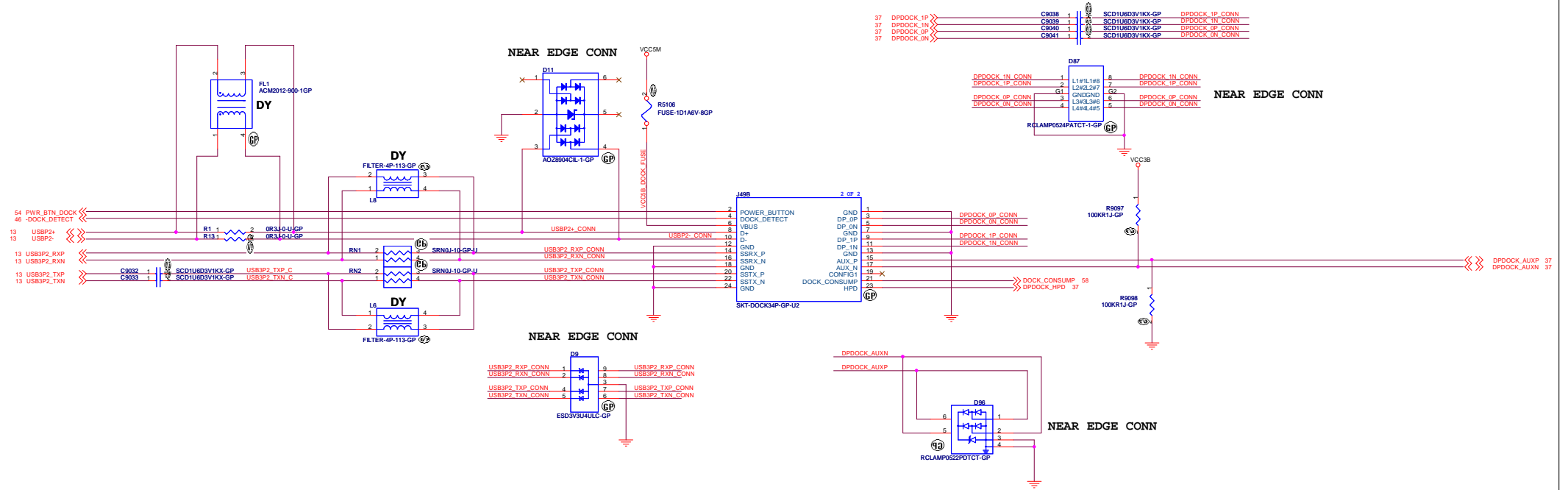
<b>緯創資通</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>BLANK</b>			
Size B	Document Number		Rev <b>-1</b>
<b>Mystique-2</b>			
Date: Tuesday, August 19, 2014	Sheet 41	of	79



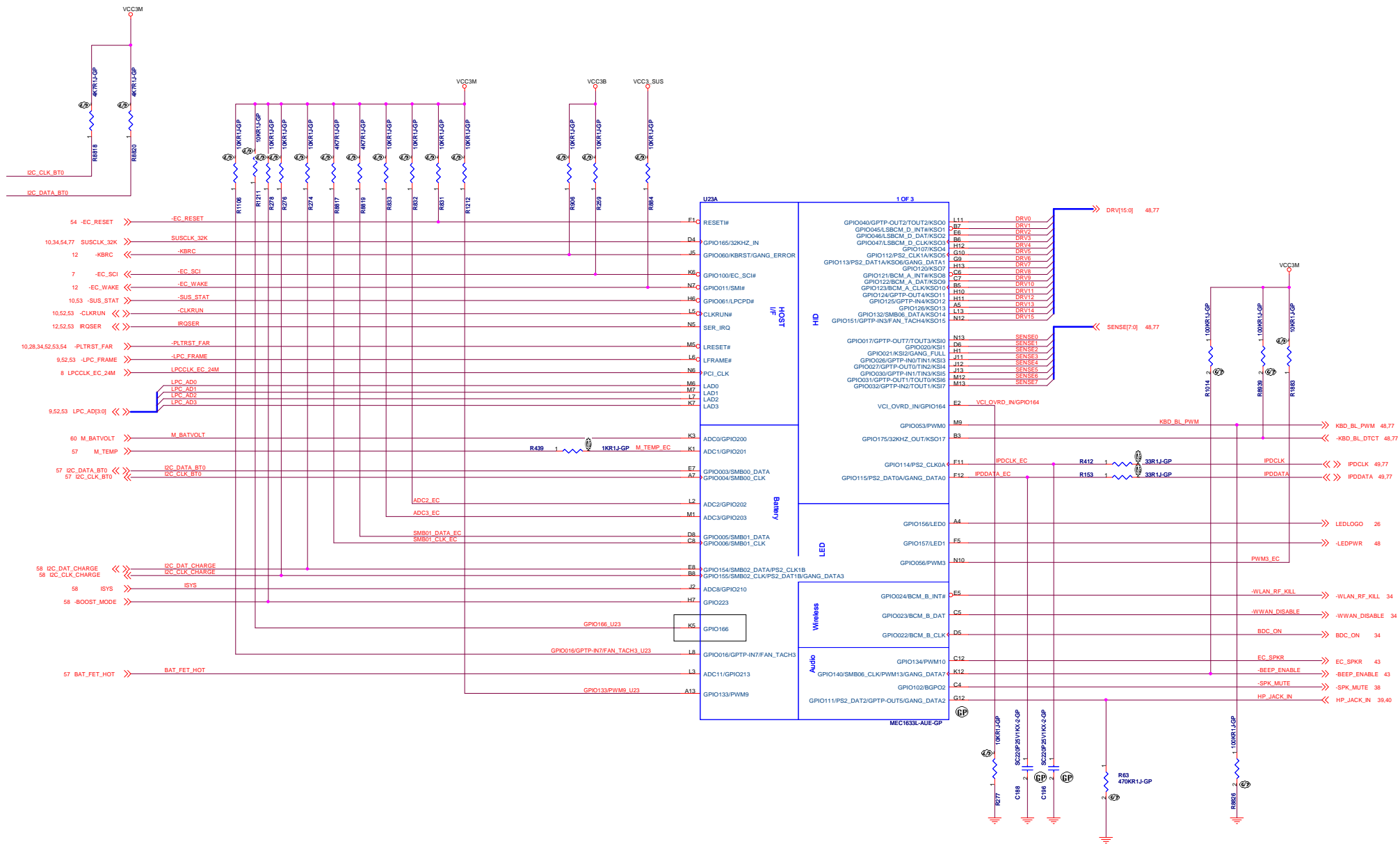
ULT

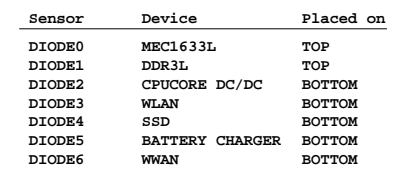
<b>緯創資通</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>AUDIO SPEAKER</b>			
Size A4	Document Number		Rev <b>-1</b>
Date:	Tuesday, September 02, 2014		Sheet 42 of 79





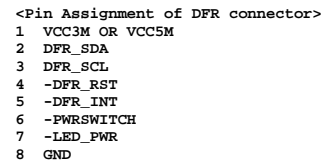
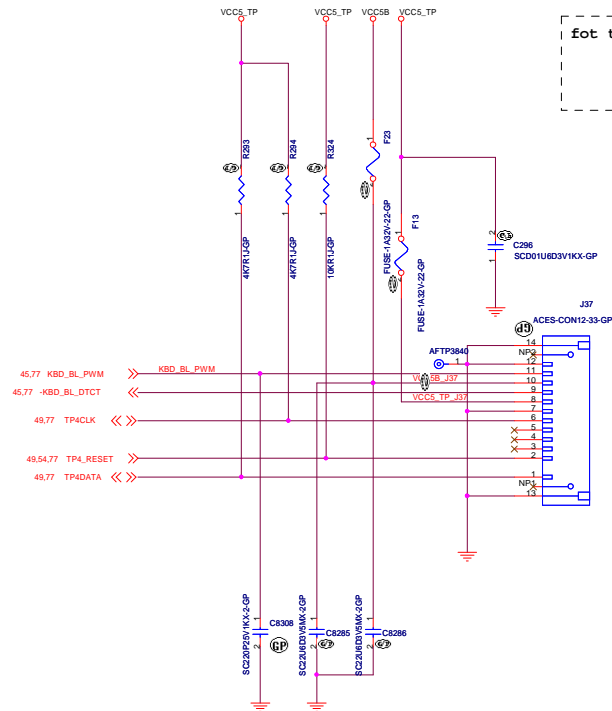
P/n	Signal
Pin#P24	Pin#P23
Pin#P22	Pin#P21
Pin#P20	Pin#P19
Pin#P18	Pin#P17
Pin#P16	Pin#P15
Pin#P14	Pin#P13
Pin#P12	Pin#P11
Pin#P10	Pin#P9
Pin#P8	Pin#P7
Pin#P6	Pin#P5
Pin#P4	Pin#P3
Pin#P2	Pin#P1
	Signal
	GND
	USB3.0 Tx(n)
	USB3.0 Tx(p)
	GND
	USB3.0 Rx(n)
	USB3.0 Rx(p)
	GND
	USB2.0(n)
	USB2.0(p)
	VBUS
	Return/Detect
	Power button
	Hot Plug Detect
	DOCK_CONSUMP
	CONFIG1 (no connect)
	AUX_CH(n)
	AUX_CH(p)
	GND
	ML_Lane1(n)
	ML_Lane1(p)
	GND
	ML_Lane0(n)
	ML_Lane0(p)
	GND







## TRACKPOINT (12PIN)

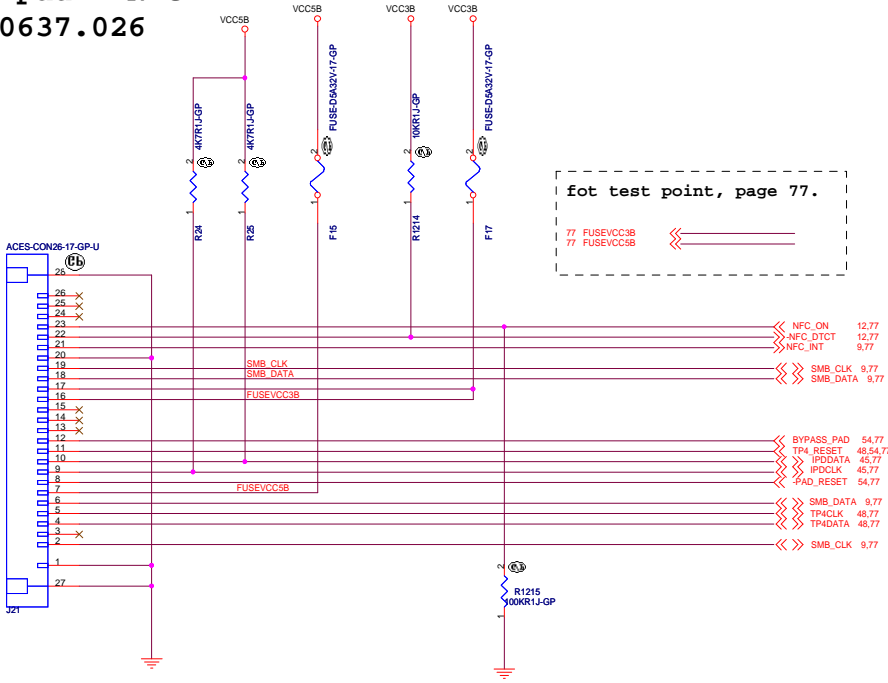
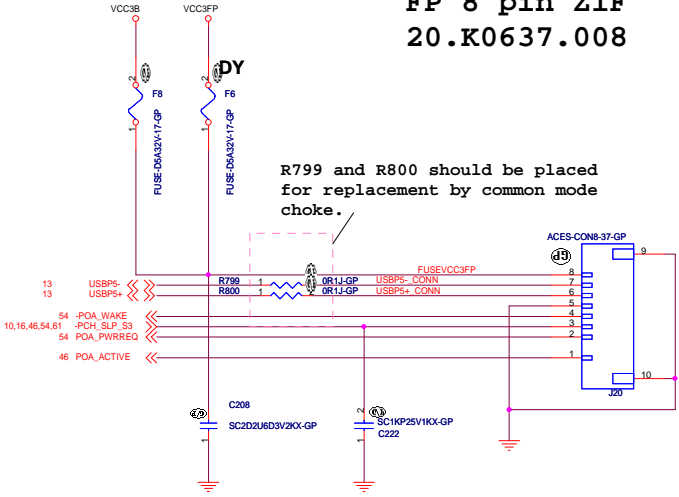




Clickpad + NFC  
20.K0637.026

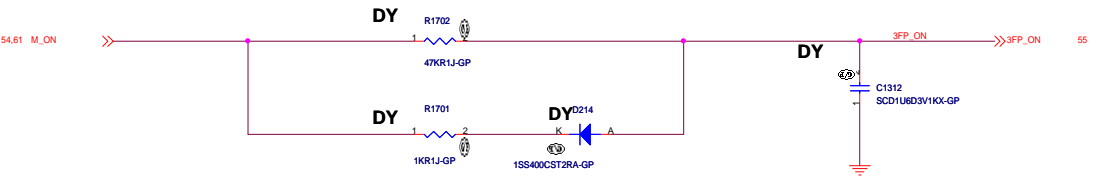
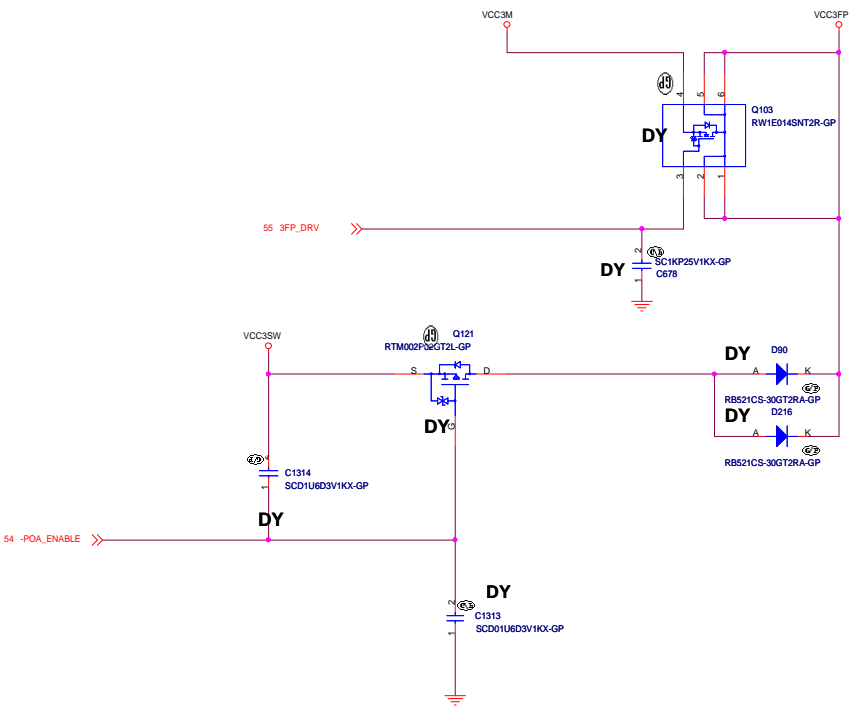
FP 8 pin ZIF  
20.K0637.008

R799 and R800 should be placed  
for replacement by common mode  
choke.



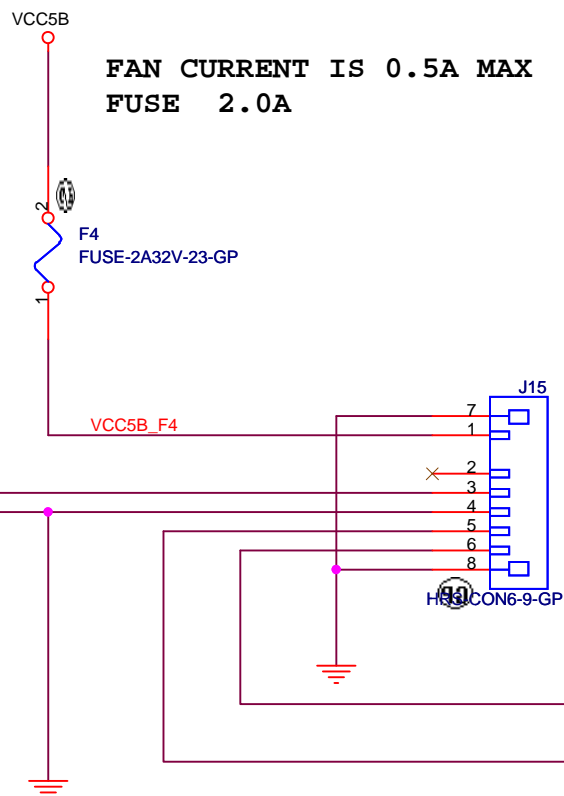
NFC

Clickpad



for test point, page 77.

77 VCC5B\_F4



FAN CURRENT IS 0.5A MAX  
FUSE 2.0A

## PIN# NET NAME

PIN1 VCC5B\_F4  
PIN2 NC  
PIN3 FAN\_ON  
PIN4 GND  
PIN5 FAN\_FRQ  
PIN6 FAN\_ID

FAN\_ID 46,77  
FAN\_FRQ 46,77

ULT

緯創資通

**Wistron Corporation**

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

Title

**FAN CONNECTOR**

Size  
A4

Document Number

**Mystique-2**

Rev  
-1

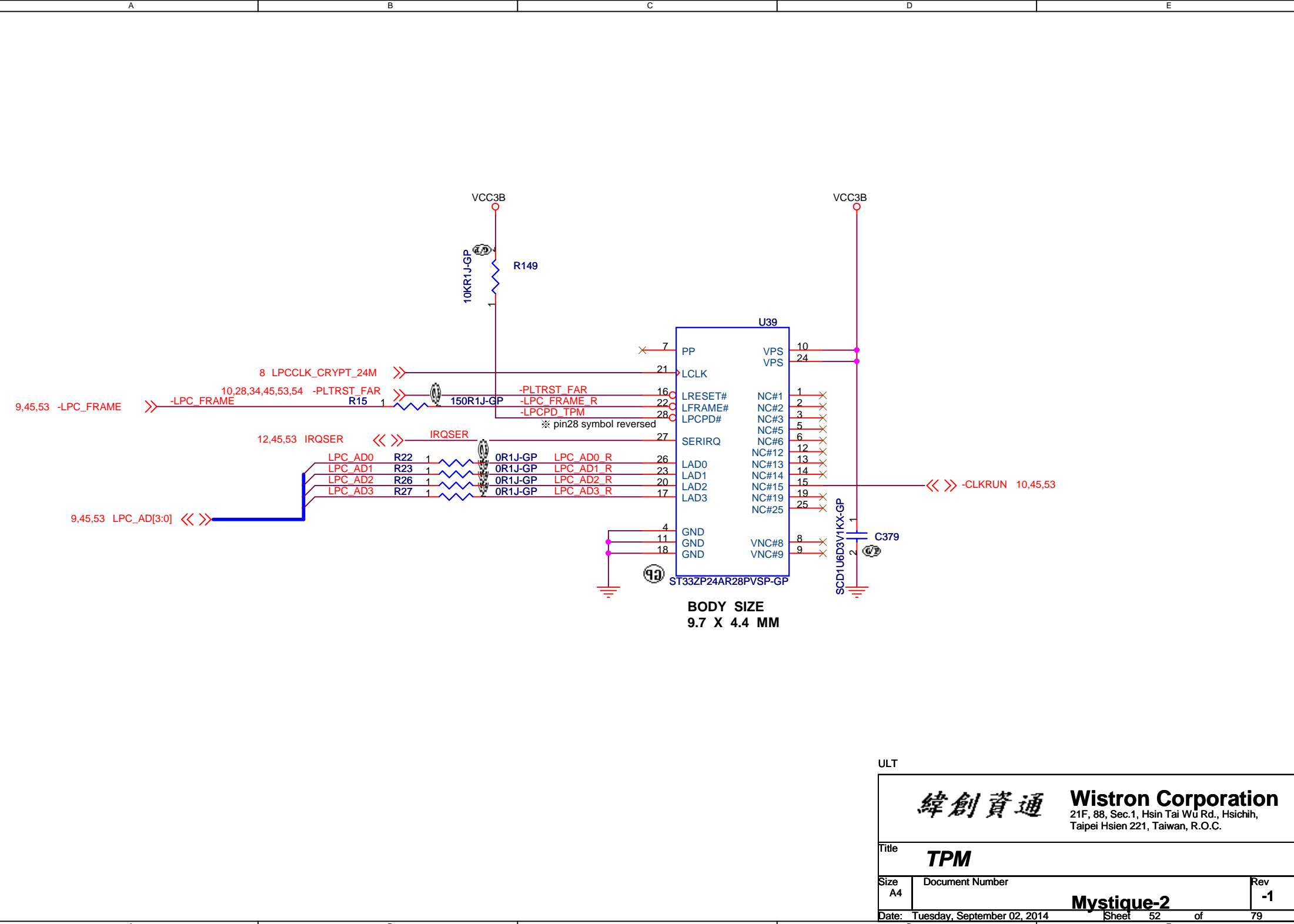
Date: Tuesday, September 02, 2014

Sheet 50 of 79

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ULT

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
BLANK			
Size	Document Number		Rev
A4	Mystique-2		-1
Date:	Tuesday, August 19, 2014		Sheet 51 of 79



ULT

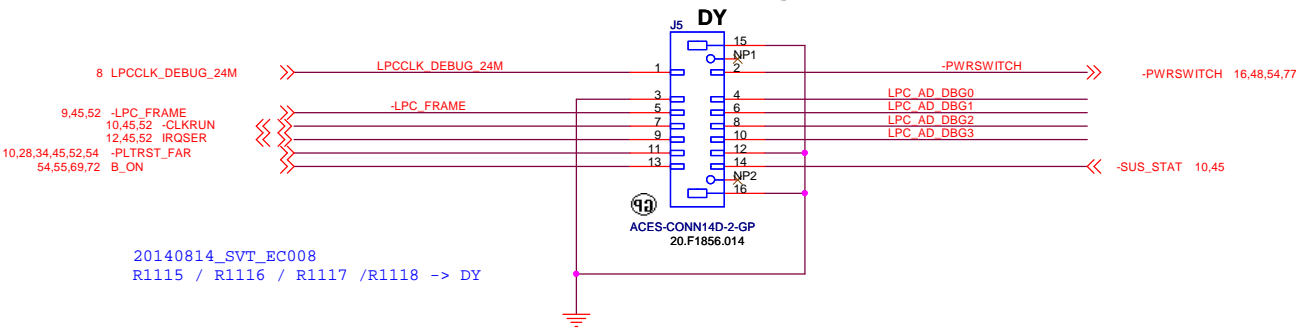
<b>緯創資通</b>			<b>Wistron Corporation</b>		
			21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title <b>TPM</b>					
Size A4	Document Number				Rev -1
Date: Tuesday, September 02, 2014			Sheet 52 of 79		

TABLE

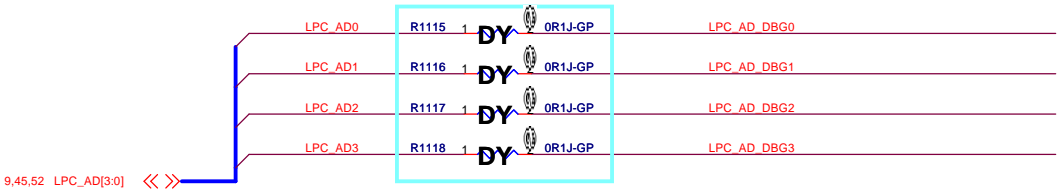
REF DES	ENABLE	DISABLE
J5	ASM	NO_ASM
R220	ASM	NO_ASM
R1115	ASM	NO_ASM
R1116	ASM	NO_ASM
R1117	ASM	NO_ASM
R1118	ASM	NO_ASM

LOGIC

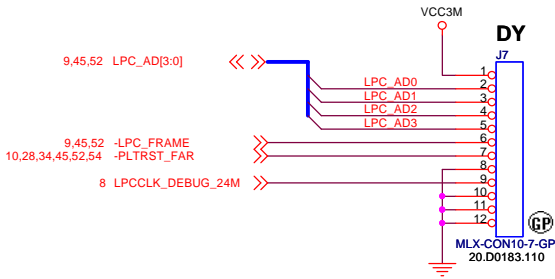
Lenovo Debug Tool I/F



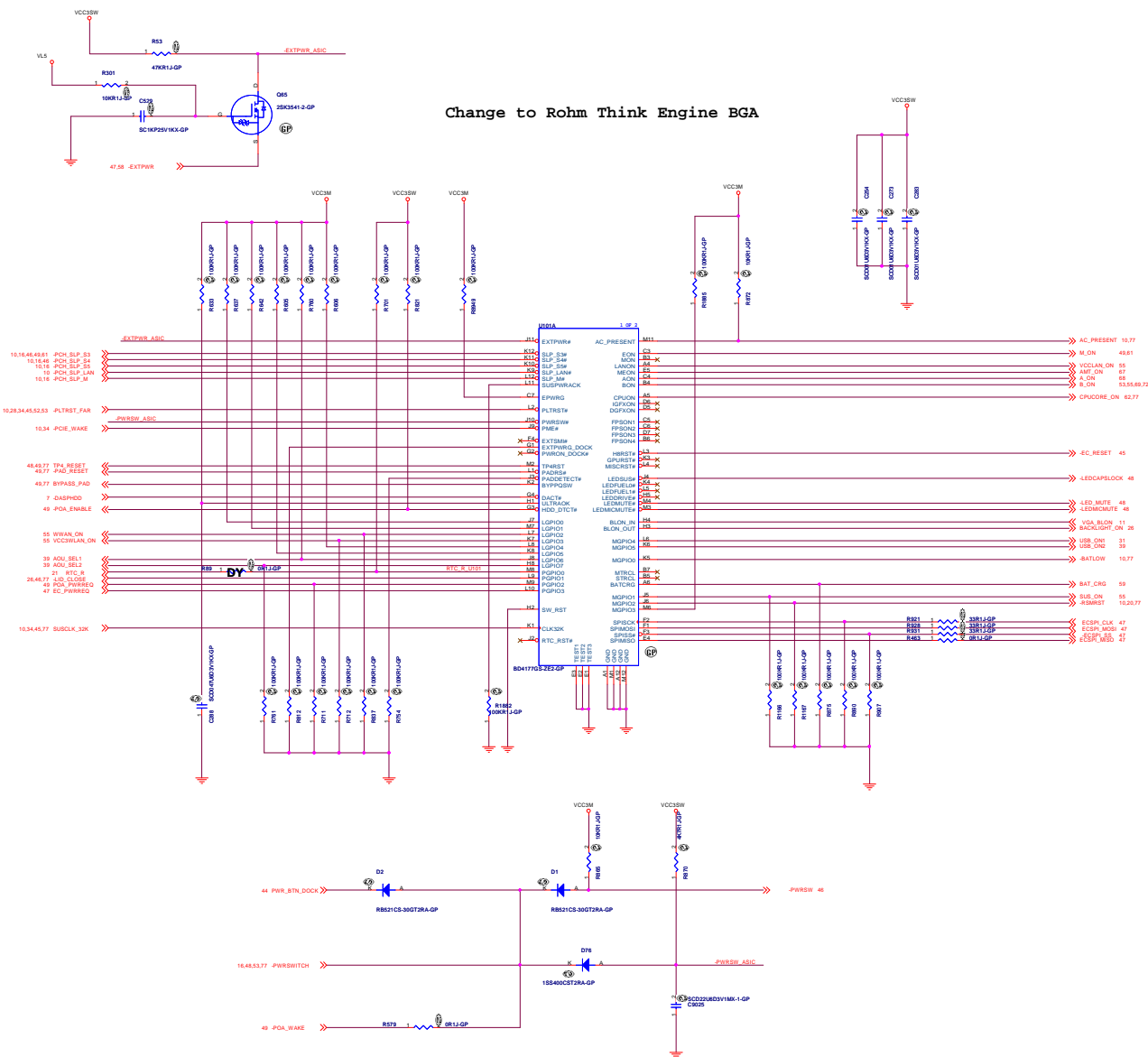
20140814\_SVT\_EC008  
R1115 / R1116 / R1117 / R1118 -> DY



LPC for Debug Card Connector



ULT



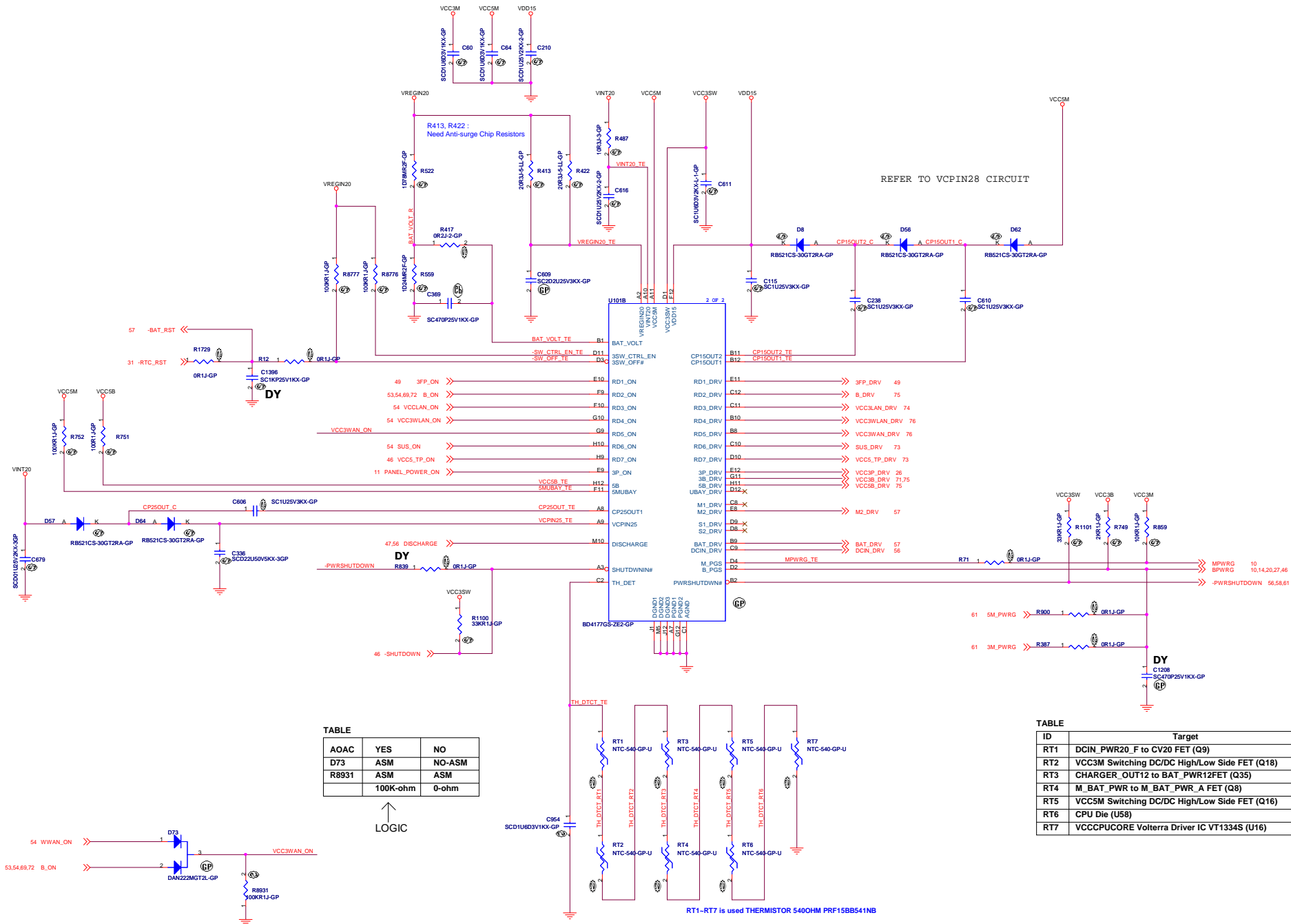
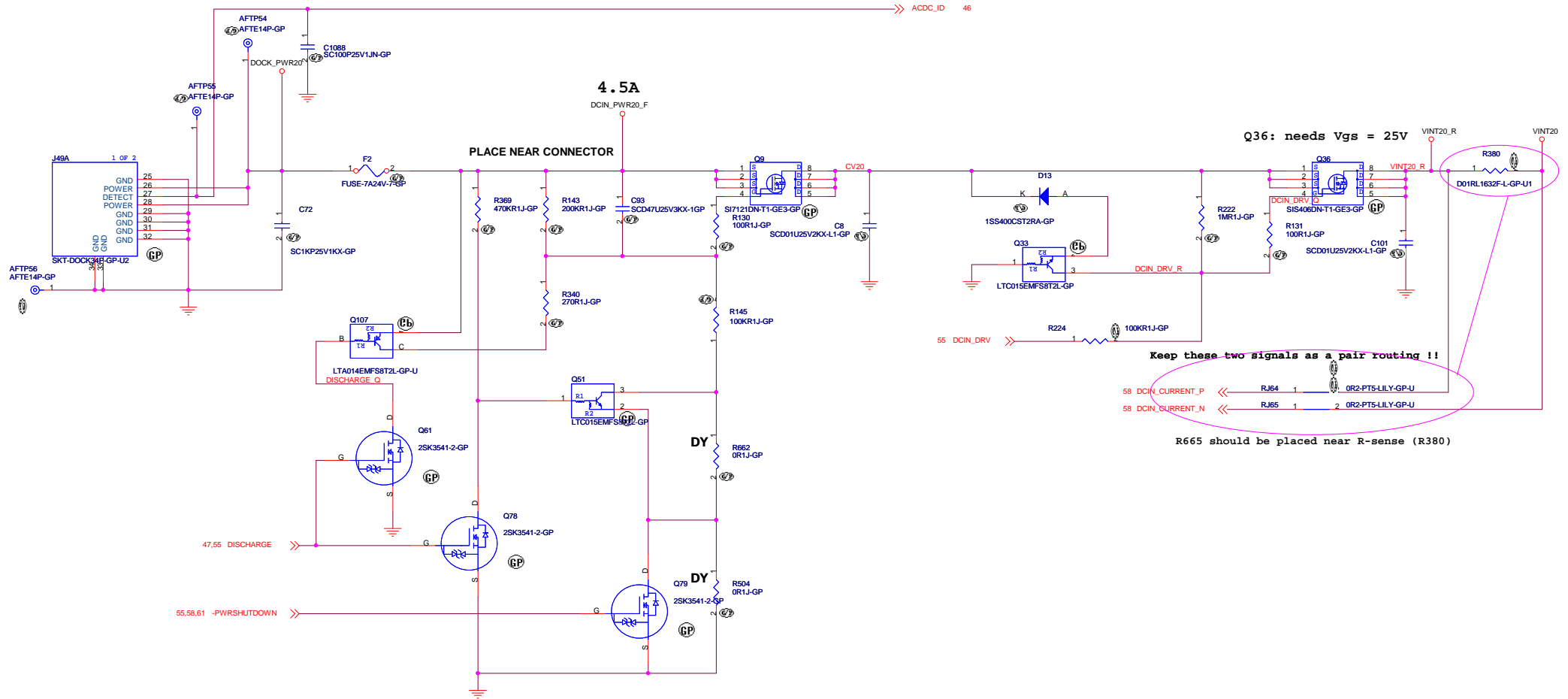


TABLE		
AOAC	YES	NO
D73	ASM	NO-ASM
R8931	ASM	ASM
	100K-ohm	0-ohm

↑  
LOGIC

TABLE	
ID	Target
RT1	DCIN_PWR20_F to CV20 FET (Q9)
RT2	VCC3M Switching DC/DC High/Low Side FET (Q18)
RT3	CHARGER_OUT12 to BAT_PWR12FET (Q35)
RT4	M_BAT_PWR to M_BAT_PWR_A FET (Q8)
RT5	VCC5M Switching DC/DC High/Low Side FET (Q16)
RT6	CPU Die (U58)
RT7	VCCCPUCORE Volterra Driver IC VT1334S (U16)

```
D77
ESD5Z3.3T1G/On Semi 83.ESD5Z.0AF
uClamp3301H/SEMTECH 83.03301.AAF
```



TABLE

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

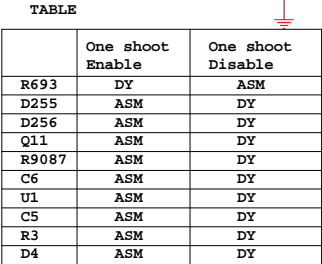
Logic

ULT

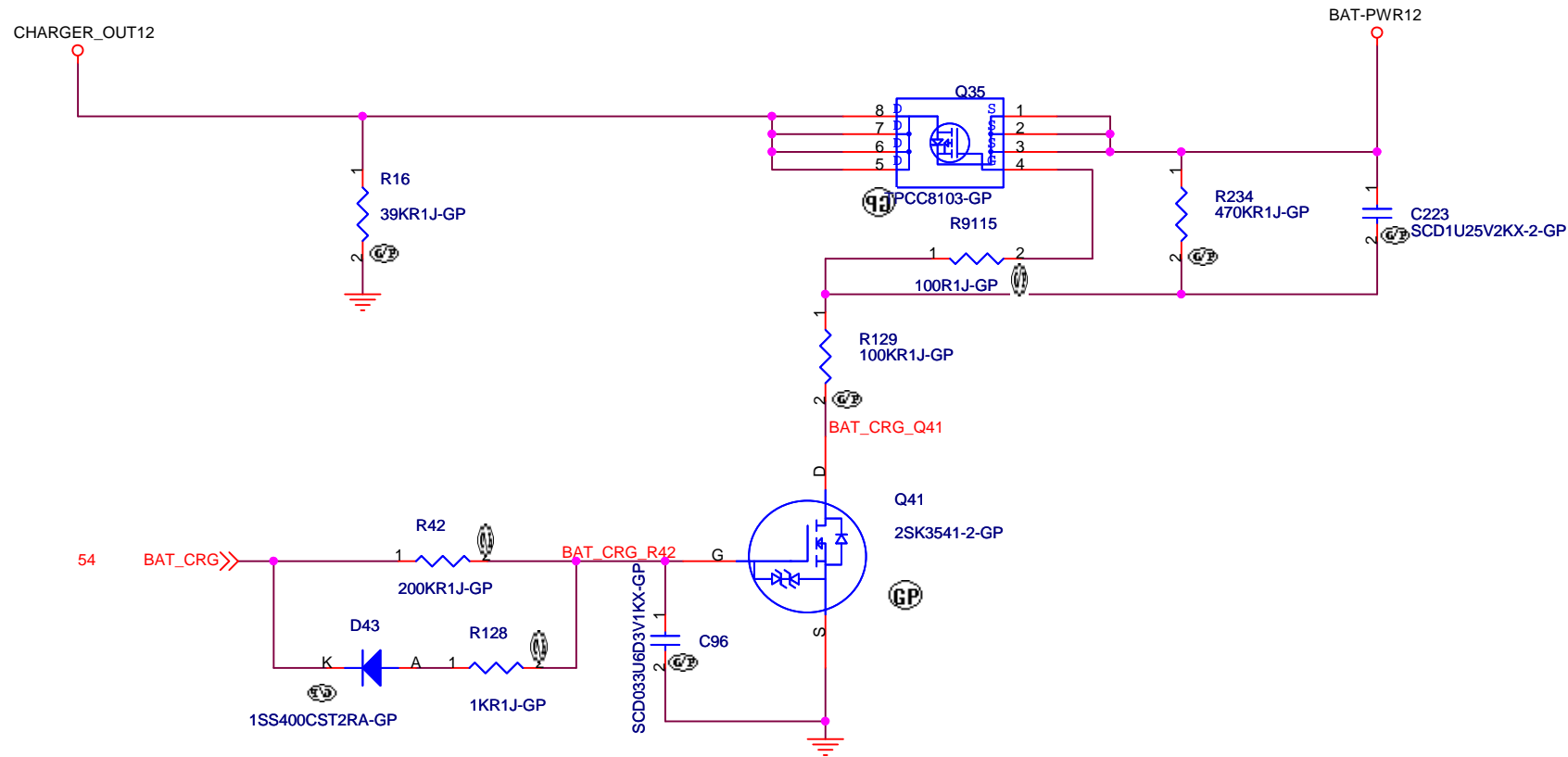
 <b>Wistron Corporation</b> 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>DC-IN</b>	
Document Number	Rev
<b>Mystique-2</b>	
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ULT			
緯創資通		Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>BATTERY CHARGER(BQ24760)</b>			
Size	Document Number	Rev	
A2	Mystique-2	-1	
Date: Tuesday, September 02, 2014		Sheet 58	of 79

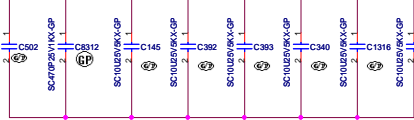


ULT

緯創資通 <b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>CHARGER SELECTOR</b>	
Size A4	Document Number <b>Mystique-2</b>
Date: Tuesday, September 02, 2014	Rev -1
Sheet 59 of 79	

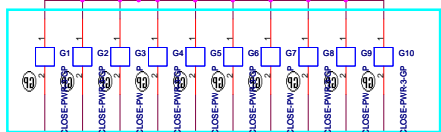
Sheet 60 of 79

All the input MLCCs on 20V must be placed symmetrically on Top and Bottom.

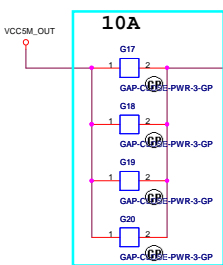


14A  
(TDC 8A)

20140811\_SVT\_EC004  
Remove R8710, R8711, R8712.  
Change to shortpads G1 ~ G10 as LMQ-1



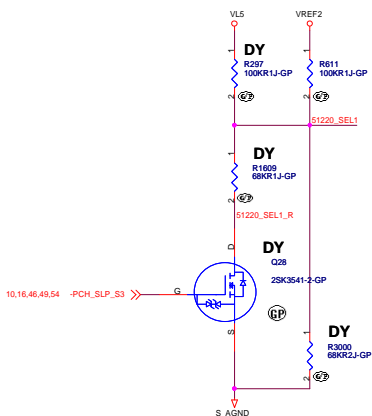
ESR=18mOHM



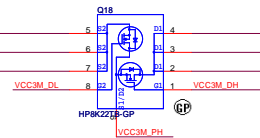
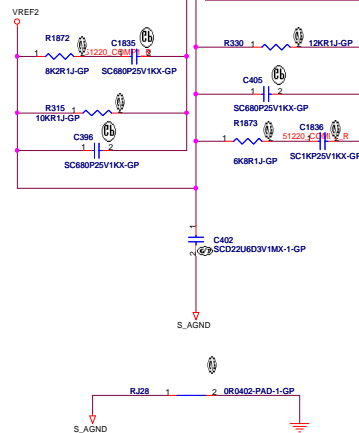
20140811\_SVT\_EC004  
Remove R49  
Change to shortpads G17 ~ G20 as LMQ-1

L3  
Main source: FDSD0630-H-1R5N  
2nd Source : SPM6530T-1R5M100

68.1R550.10X  
68.1R51A.10R



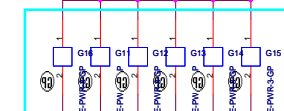
R725 = 301K : 330KHz  
R725 = 232K : 430KHz  
R725 = 220K : 455KHz



All the input MLCCs on 20V must be placed symmetrically on Top and Bottom.

9A  
(TDC 7A)

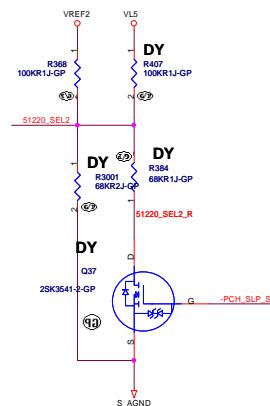
20140811\_SVT\_EC004  
Remove R8713, R8714.  
Change to shortpads G11 ~ G16 as LMQ-1



ESR=12mOHM

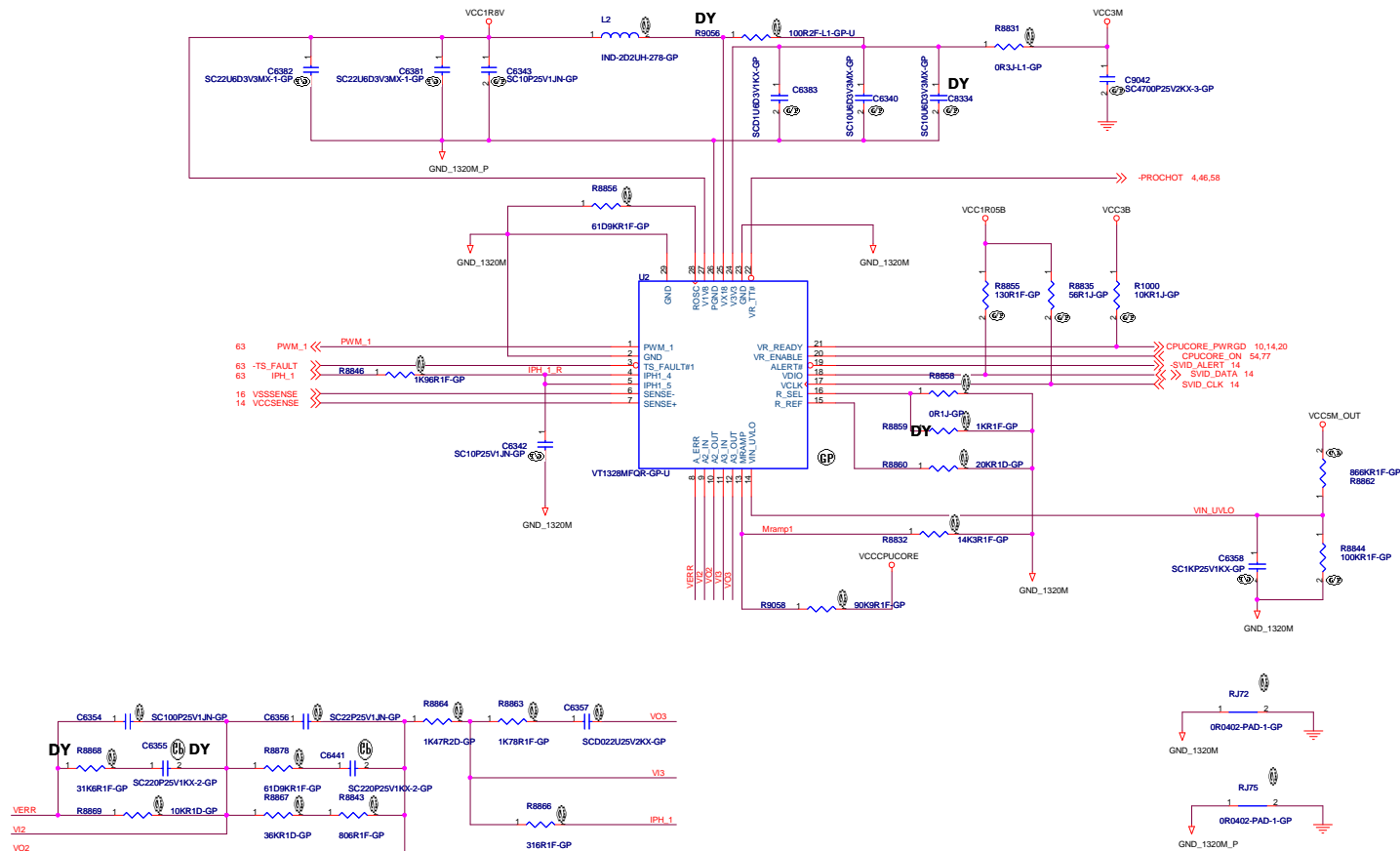
Use 1 pcs of 4TPF470ML

L4  
Main source: SPM6530T-2R2M  
2nd Source : FDSD0630-H-2R2M



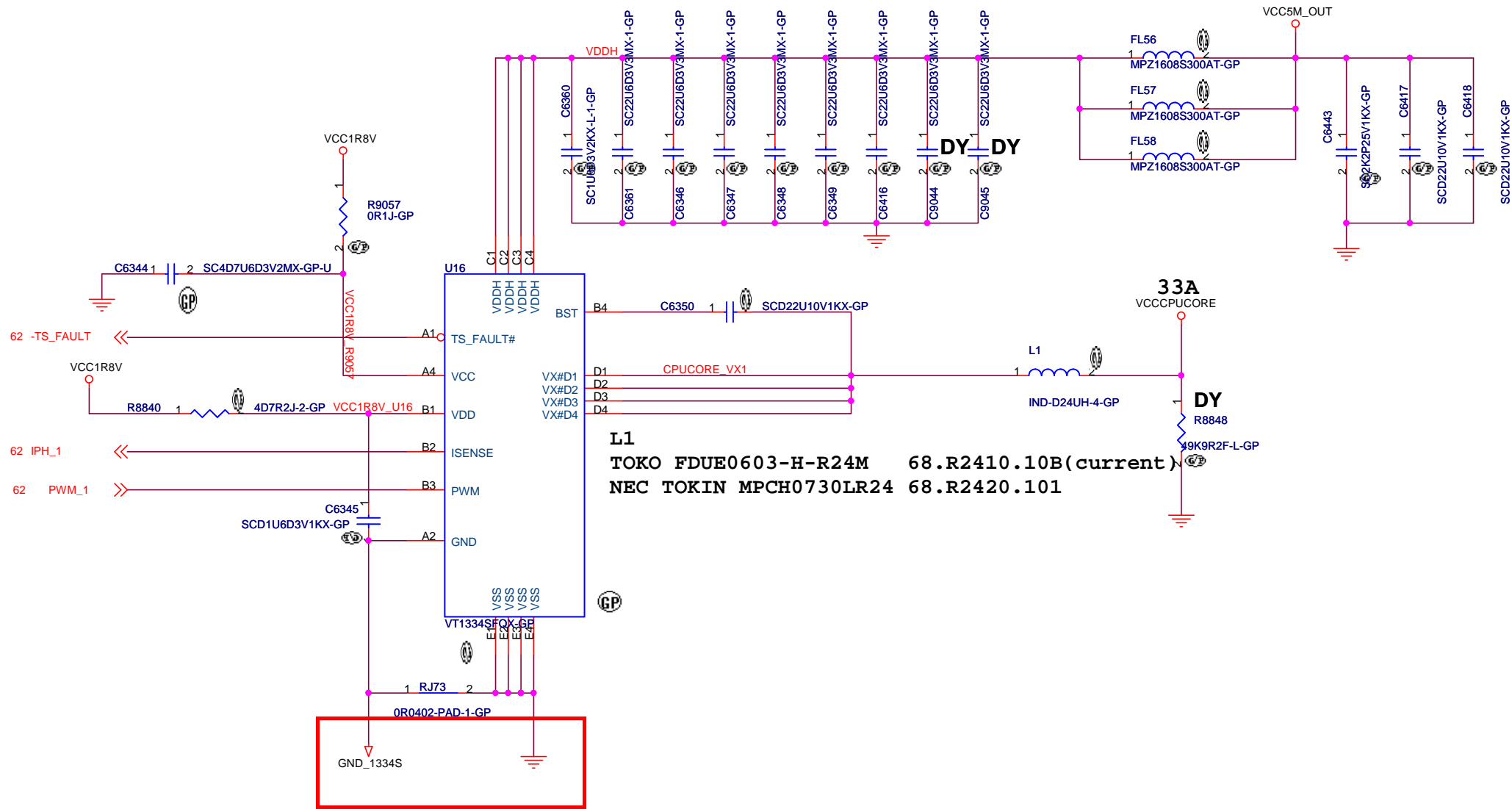
L2  
TDK MLP1608V2R2B 68.2R21G.10D  
TOKO MDT1608-CH2R2N 68.2R25B.10S

R8831 if noise is visible,  
option to place chip bead instead of resistor to reduce noise



ULT

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 VCCCPUCORE(VT1328M)	
Size		Document Number	
Custom		Mystique-2	
Date: Tuesday, September 02, 2014		Sheet 62 of 79	
		Rev -1	



ULT

<b>緯創資通</b>		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>DC/DC VCCCPUCORE(VT1334S)</b>			
Size Custom	Document Number <b>Mystique-2</b>		Rev <b>-1</b>
Date:	Tuesday, September 02, 2014	Sheet 63 of 79	

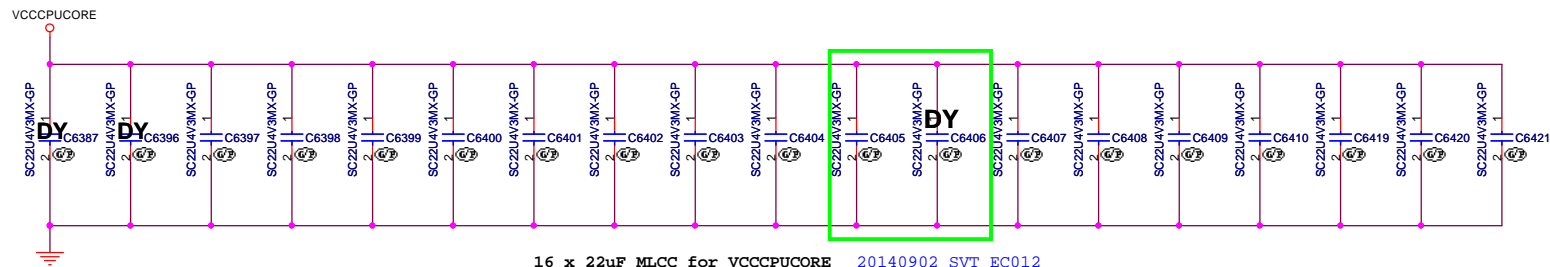
Sheet 63 of 79

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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			
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Size	Document Number		Rev
A4	Mystique-2		-1
Date:	Tuesday, August 19, 2014		Sheet 64 of 79



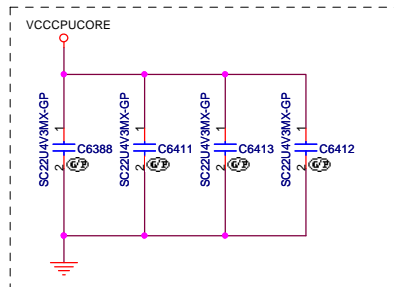


16 x 22uF MLCC for VCCCPUCORE

20140902\_SVT\_EC012

C6405; ASM

C6406; DY



5 x 22uF MLCC for VCCCPUCORE

Lenovo: If change to 0603 size, the number of capacitors must increased 20% minimum.

these five caps are the 25% additional.

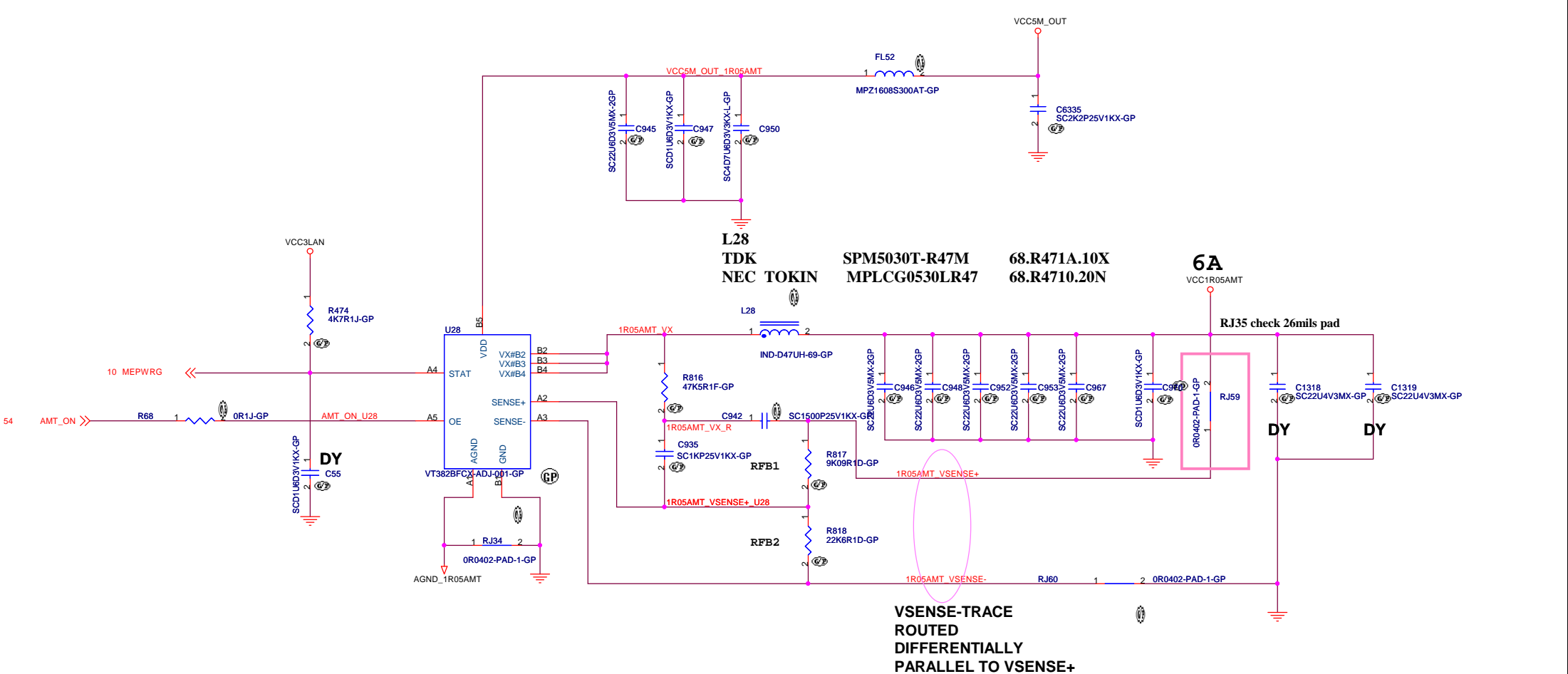
ULT

<b>緯創資通</b>		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>VCCCPUCORE DECOUPLING</b>			
Title Size A3	Document Number <b>Mystique-2</b>		Rev -1
Date: Tuesday, September 02, 2014		Sheet 65 of 79	

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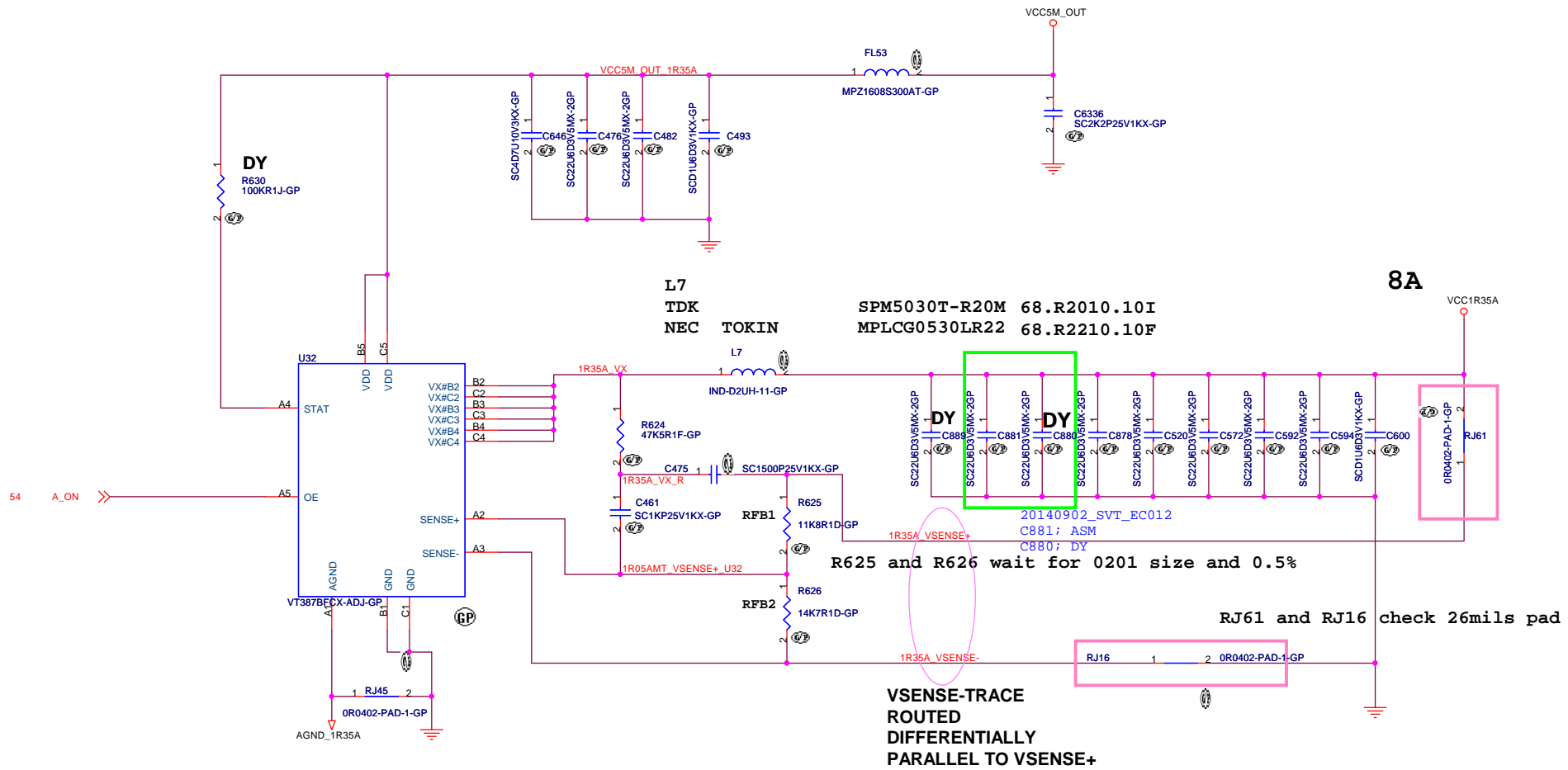
ULT

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>BLANK</b>			
Size A4	Document Number <b>Mystique-2</b>		Rev <b>-1</b>
Date: Tuesday, August 19, 2014		Sheet 66	of 79



TABLE

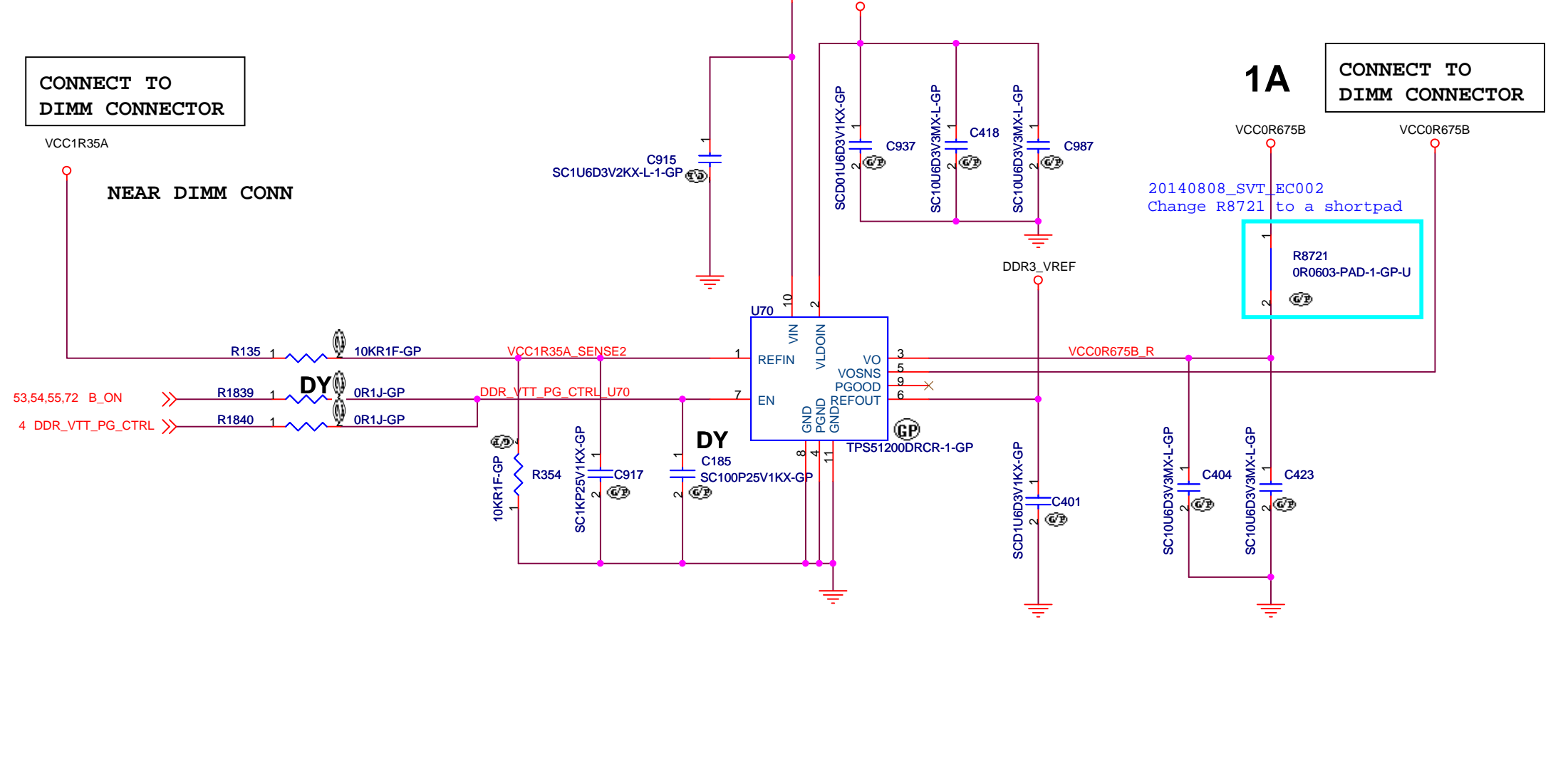
$V_{OUT} = 0.75 \times (1 + R817/R818)$		
RFB1	RFB2	
R817	R818	
9.31K	22.6K	for 1.059V



TABLE

$V_{OUT} = 0.75 \times (1 + R_{FB1}/R_{FB2})$	
RFB1	RFB2
R625	R626
11.8K	14.7K for 1.35V
13.3K	13.3K for 1.50V
12.1K	14.7K for 1.367V
13.3K	13.0K for 1.517V

ULT

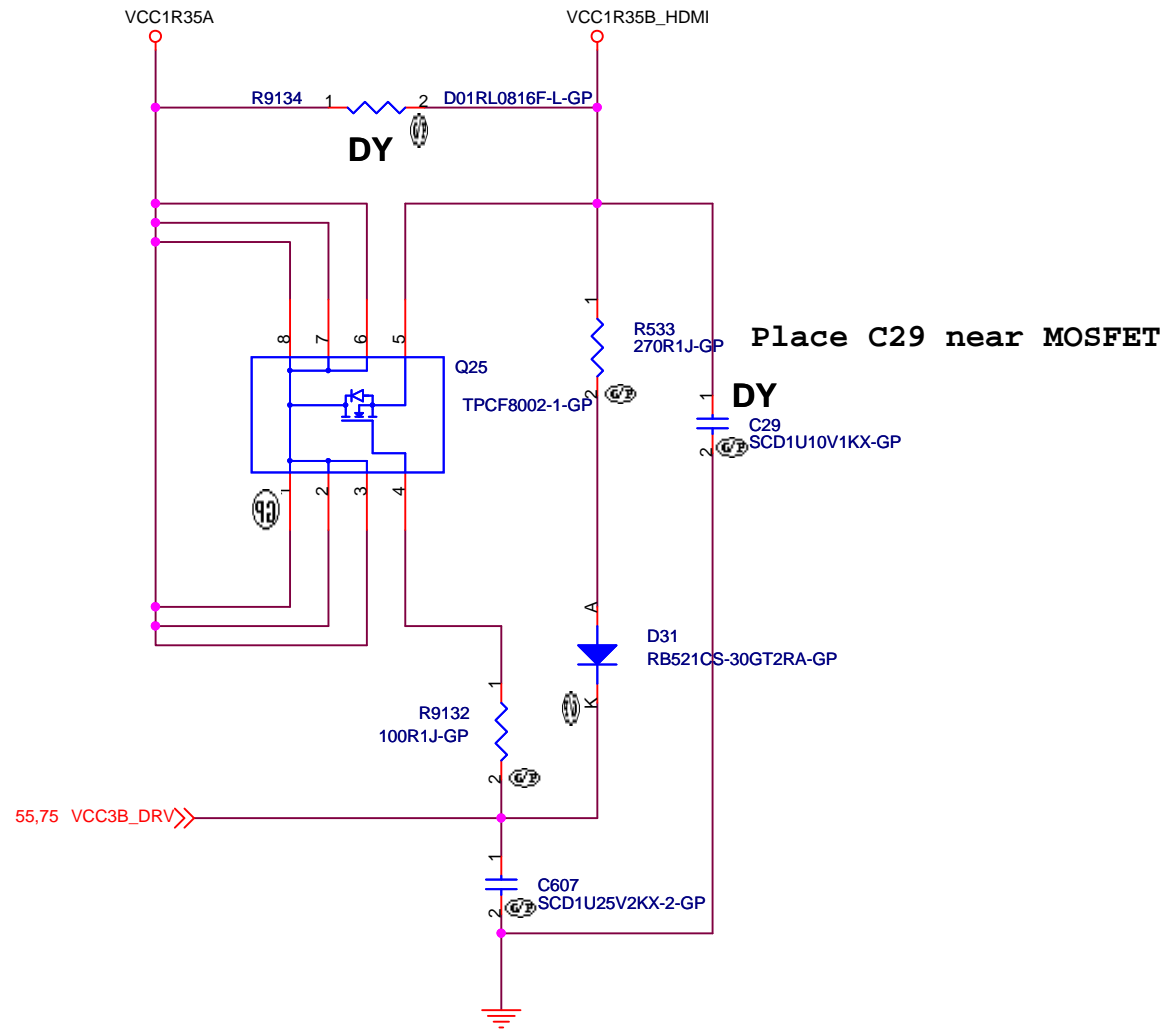


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ULT

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>BLANK</b>			
Size A4	Document Number <b>Mystique-2</b>		Rev <b>-1</b>
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500mA



ULT

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 HDMI

Size

A4

Document Number

Mystique-2

Rev

-1

Date: Tuesday, September 02, 2014

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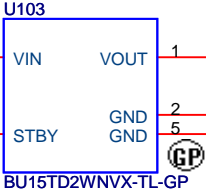
53,54,55,69 B\_ON



VCC3M



C1837  
SCD47U6D3V2KX-L-GP



BU15TD2WNVX-TL-GP



10mA

VCC1R5B



C1838  
SCD47U6D3V2KX-L-GP

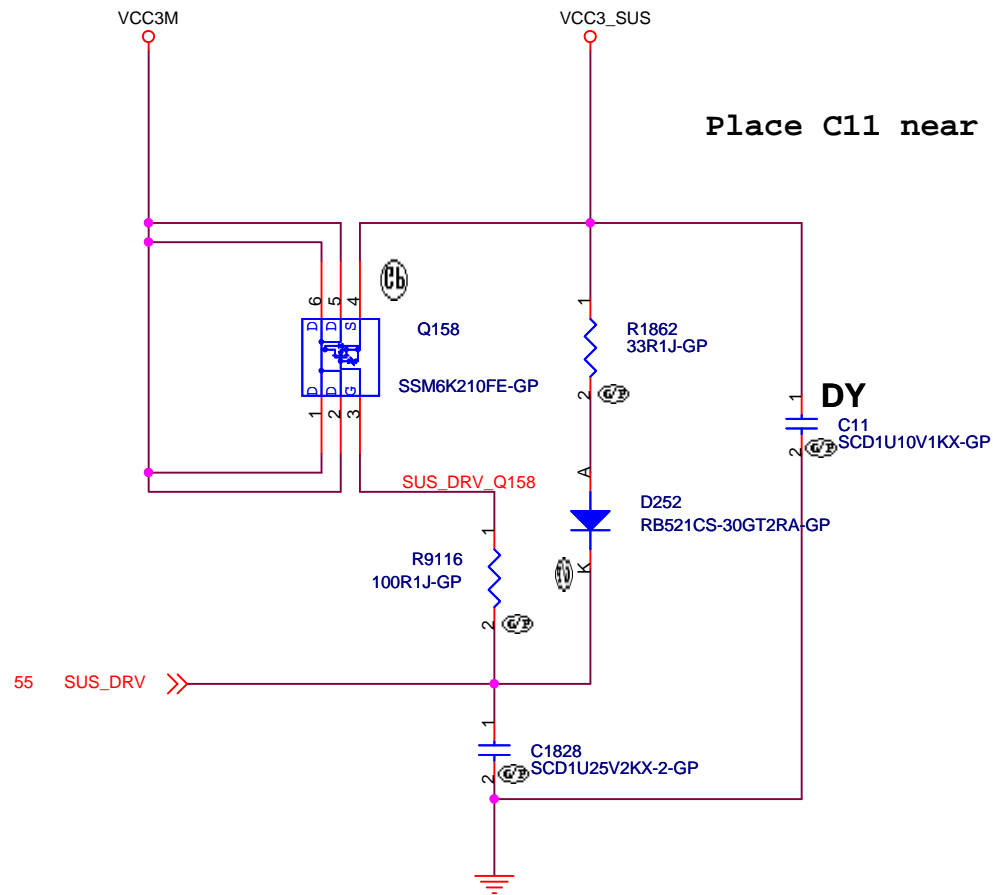


ULT

<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>DC/DC VCC1R5B(BU15TD2WNVX)</div>					
Size	Document Number		Rev		
A4	<div>Mystique-2</div>		-1		
Date: Tuesday, September 02, 2014					
		Sheet 72 of 79			

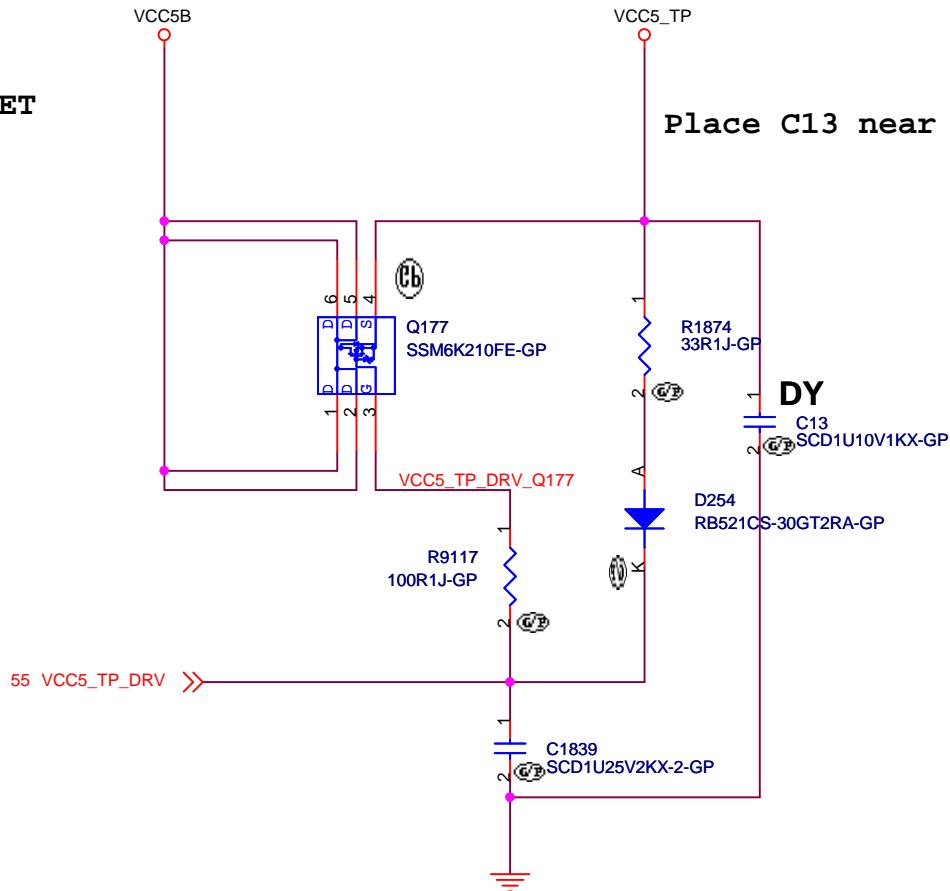


0.3A



Place C11 near MOSFET

15mA



Place C13 near MOSFET

ULT

緯創資通

Wistron Corporation

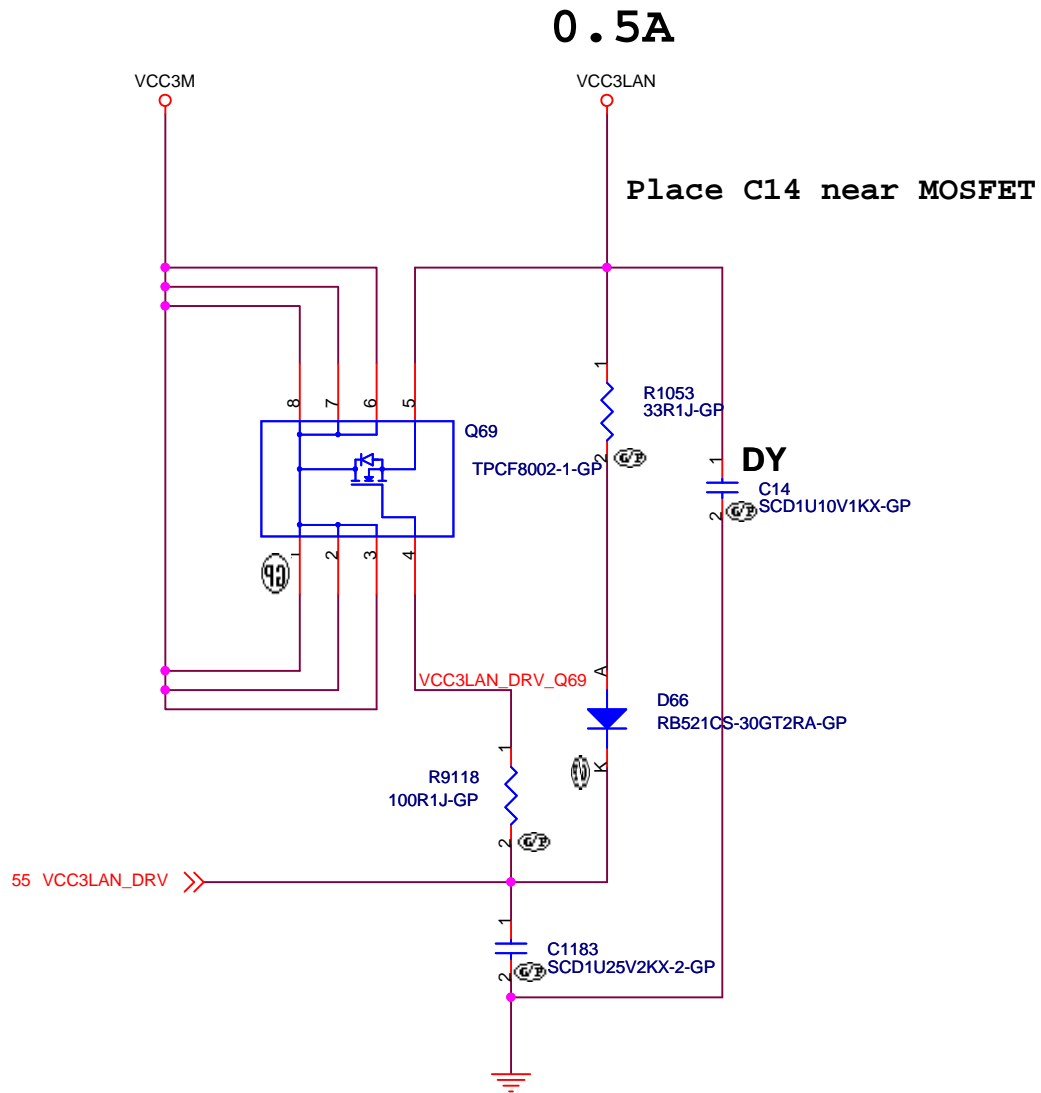
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,  
Taipei Hsien 221, Taiwan, R.O.C.

Title **LOAD SW PCH SUS**

Size A4	Document Number	Rev -1
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**Mystique-2**

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Title

**LOAD SW LAN**

Size  
A4

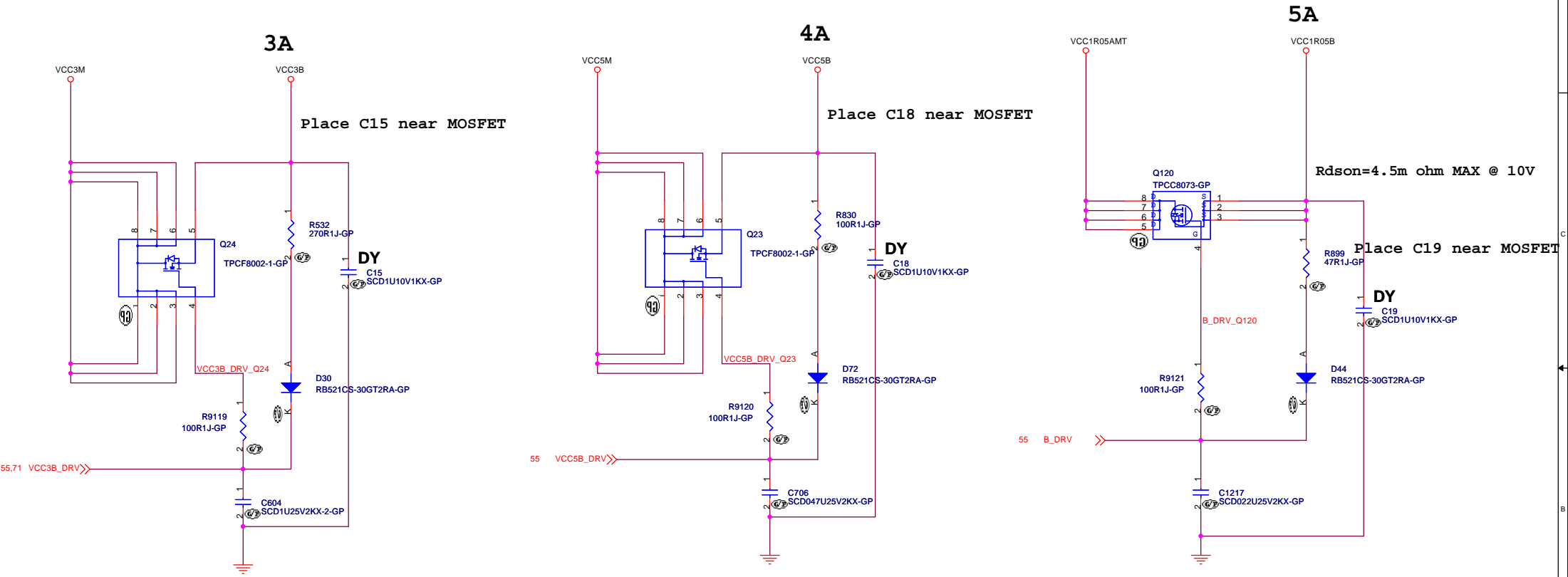
Document Number

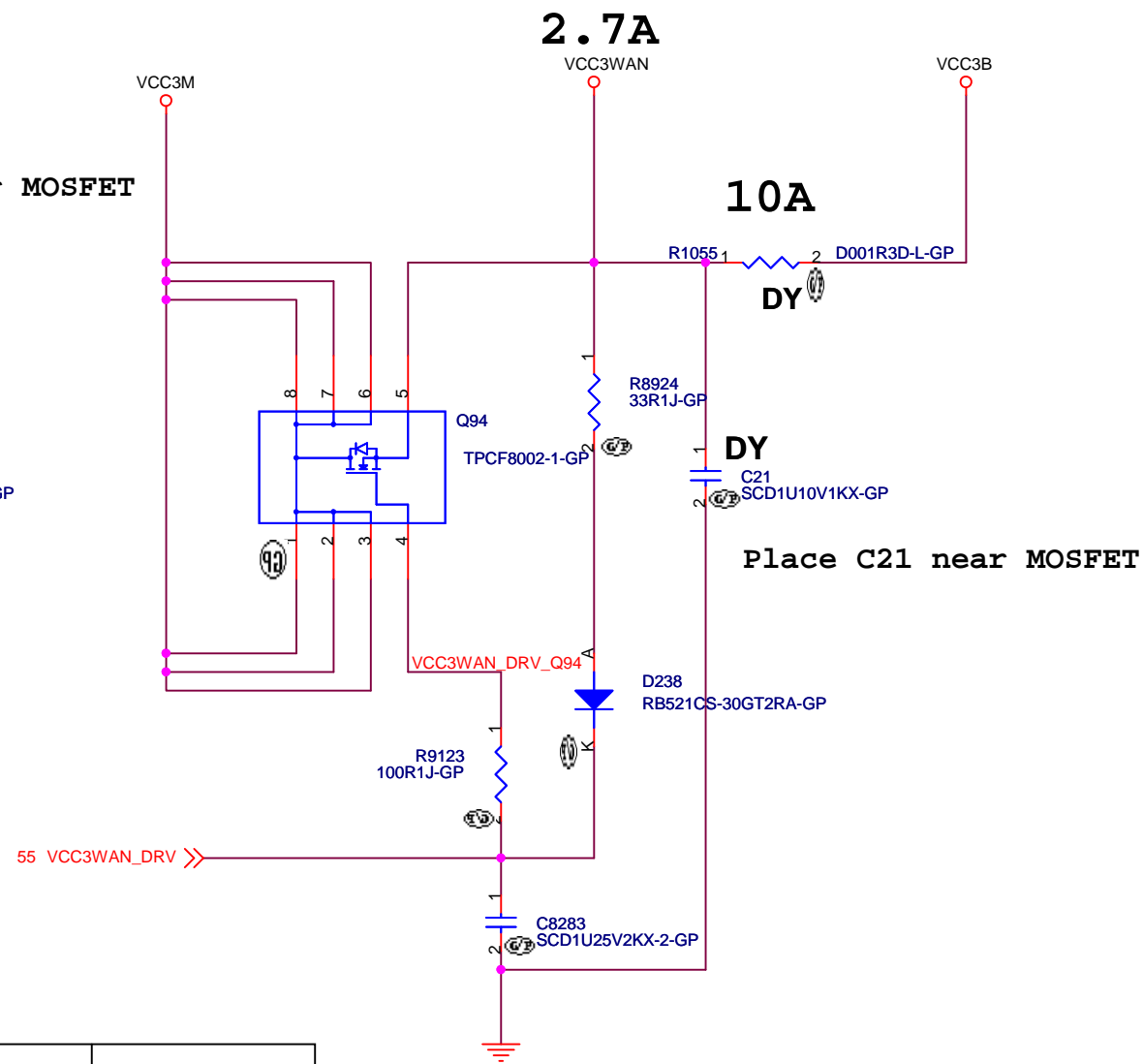
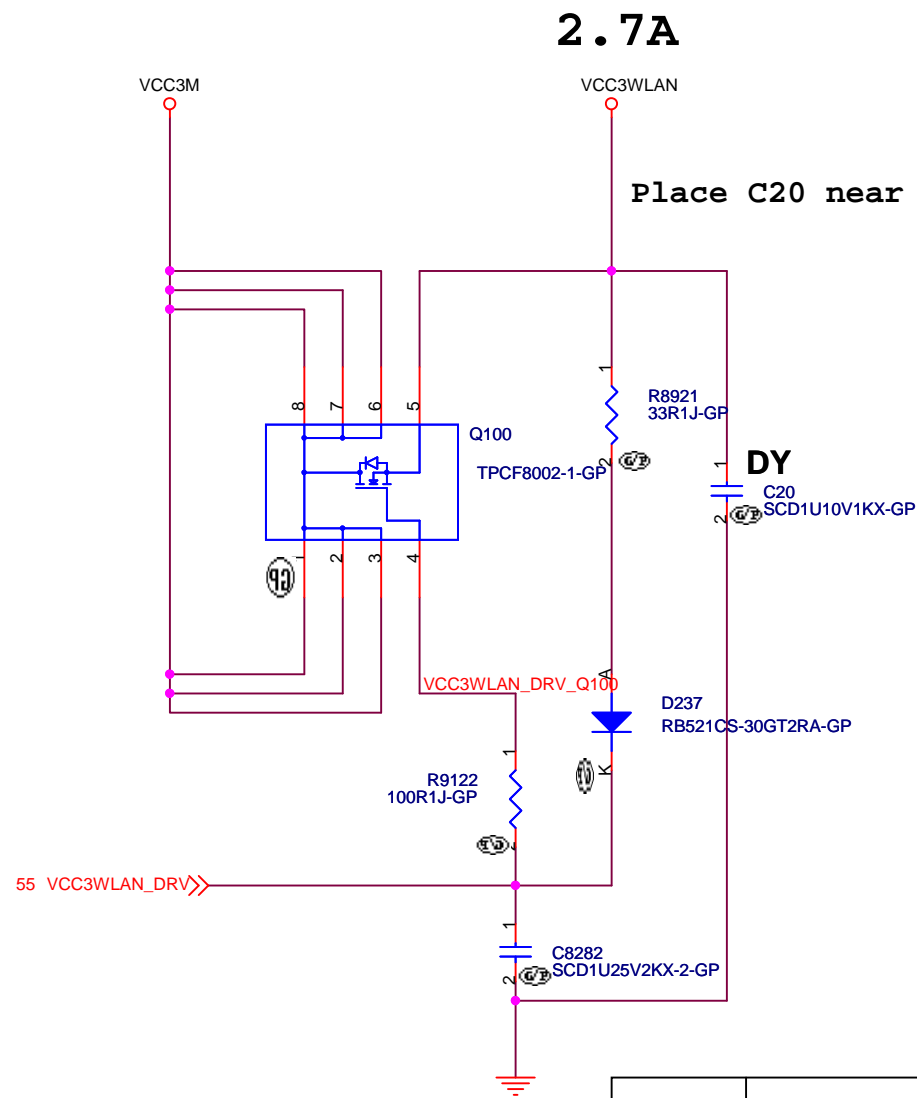
**Mystique-2**

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-1

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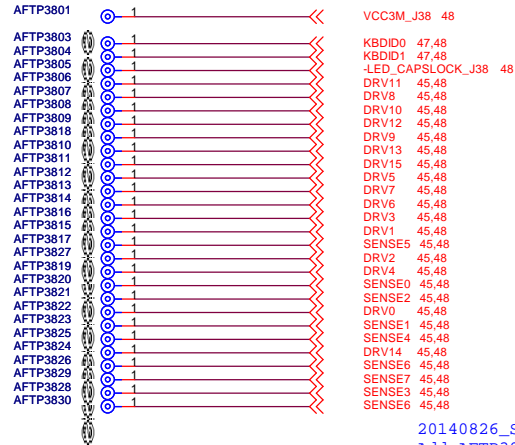
AOAC	YES	NO
R1055	NO-ASM	ASM
Q94	ASM	NO-ASM
R8924	ASM	NO-ASM
R8926	ASM	NO-ASM
C8283	ASM	NO-ASM
D238	ASM	NO-ASM

LOGIC

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<b>Title</b> <i>LOAD SW WWAN &amp; WLAN</i>			
<b>Size</b> A4	<b>Document Number</b> <div style="text-align: center;"><b>Mystique-2</b></div>		<b>Rev</b> -1
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## Near J38(Keyboard connector)



20140826\_SYT\_Wistron\_EC004  
Add AFTP3914  
WKS request, for RTC assembly checking

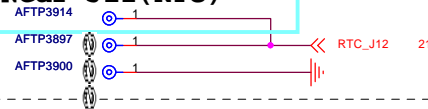
## Near J37(Track point connector)



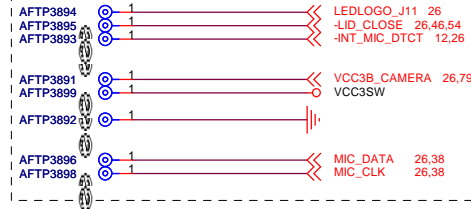
## Near J15(FAN Connector)



## Near J12(RTC)



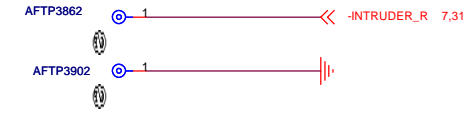
## Near J11(LED)



## Near J21 (Clickpad + NFC)



## Near S3



## For Power Switch

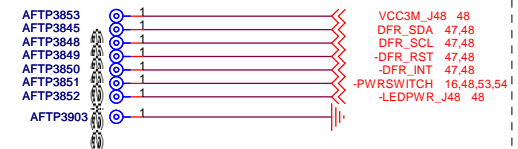
### Top side



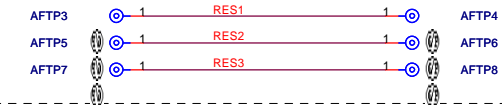
### Bottom side



## For J48 (DFR)



## For PCB resistance measurement when temperature is vary.



## Near J4 (Speaker)



## Near J25(SIM)



MFG request

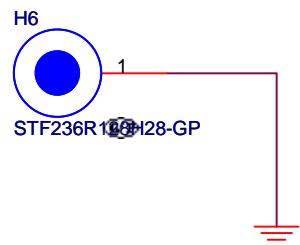
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Taipei Hsien 221, Taiwan, R.O.C.

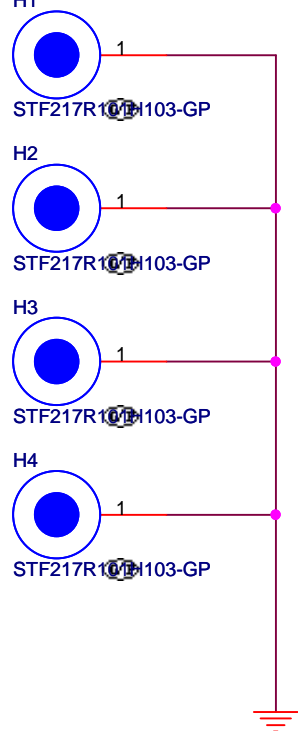
Title TEST POINT

Size A3 Document Number Mystique-2 Rev -1  
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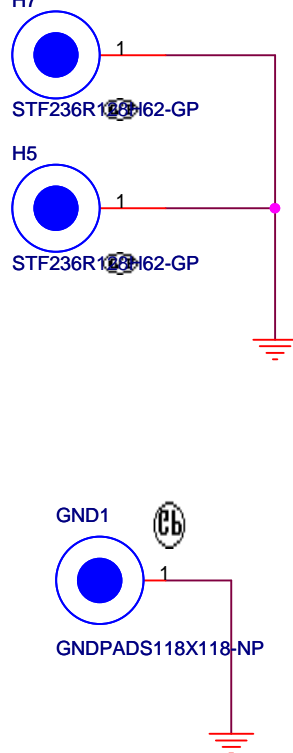
34.4LY01.001  
NGFF



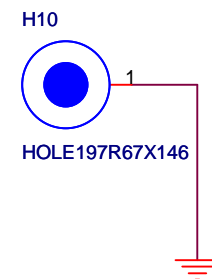
34.4LY02.001  
CPU BOSS



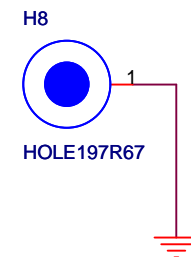
34.4LY03.001  
NGFF SSD



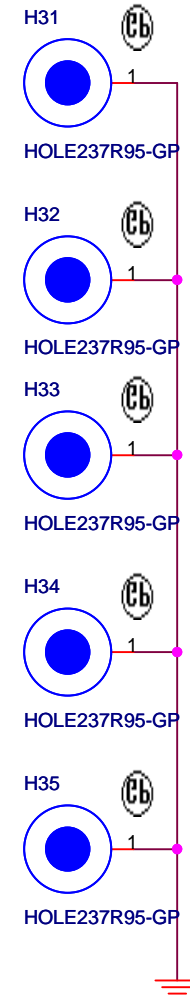
KN1.PAD.01



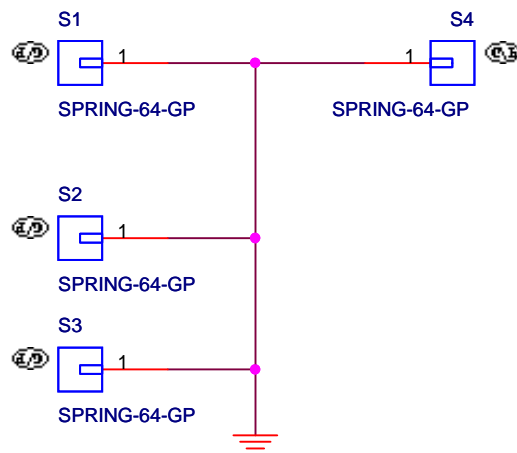
NL1.PAD.01



ZZ.00PAD.921



34.4H602.001  
mount antenna cable



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Title	<b>HOLES/GND/PADS/TEMP</b>
Size A	<div>Document Number</div> <div><b>Mystique-2</b></div>
Date: Tuesday, August 19, 2014	<div>Rev</div> <div><b>-1</b></div>
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