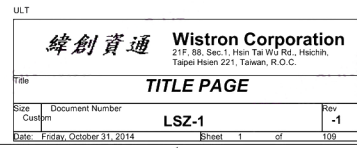


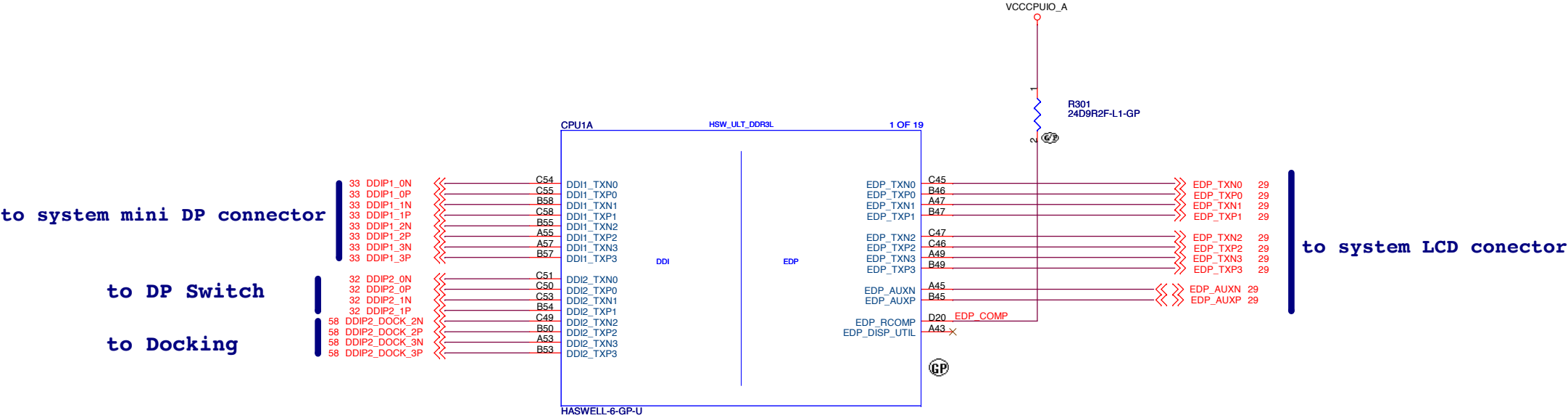
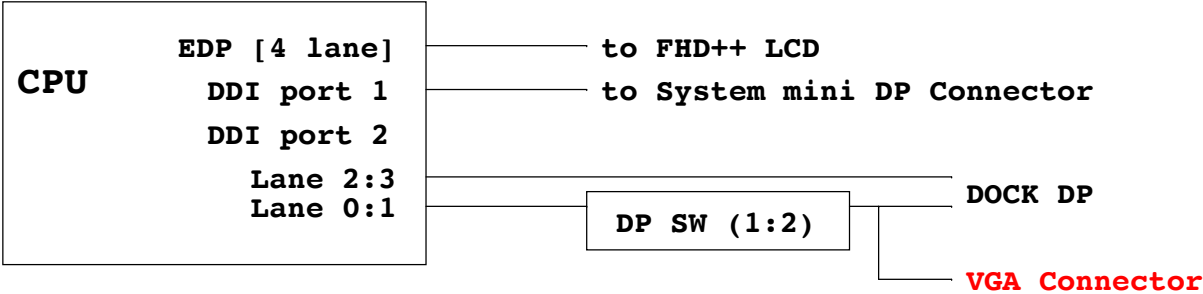
PCB(Raw Card): 13251-SE

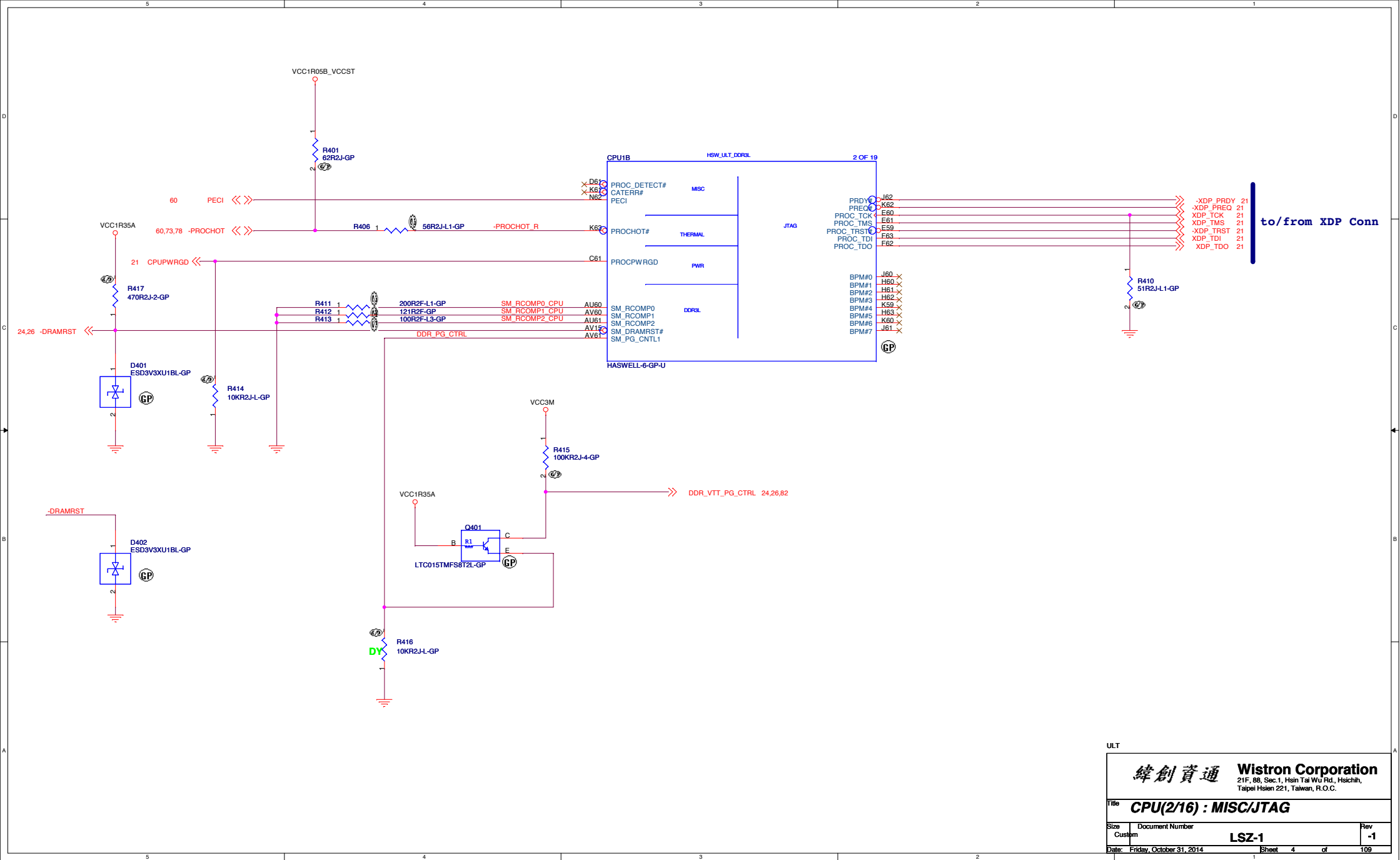


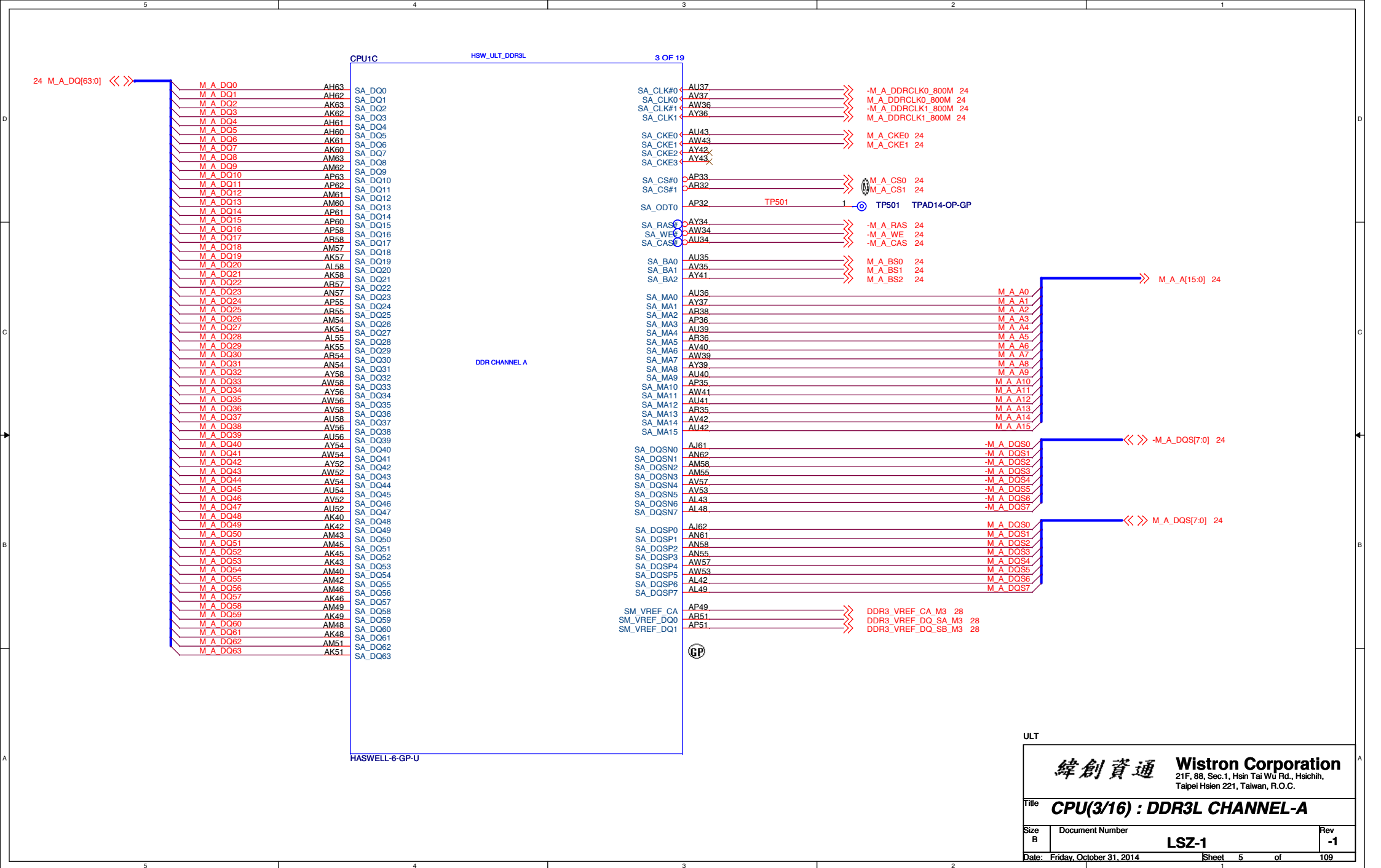
RESISTOR

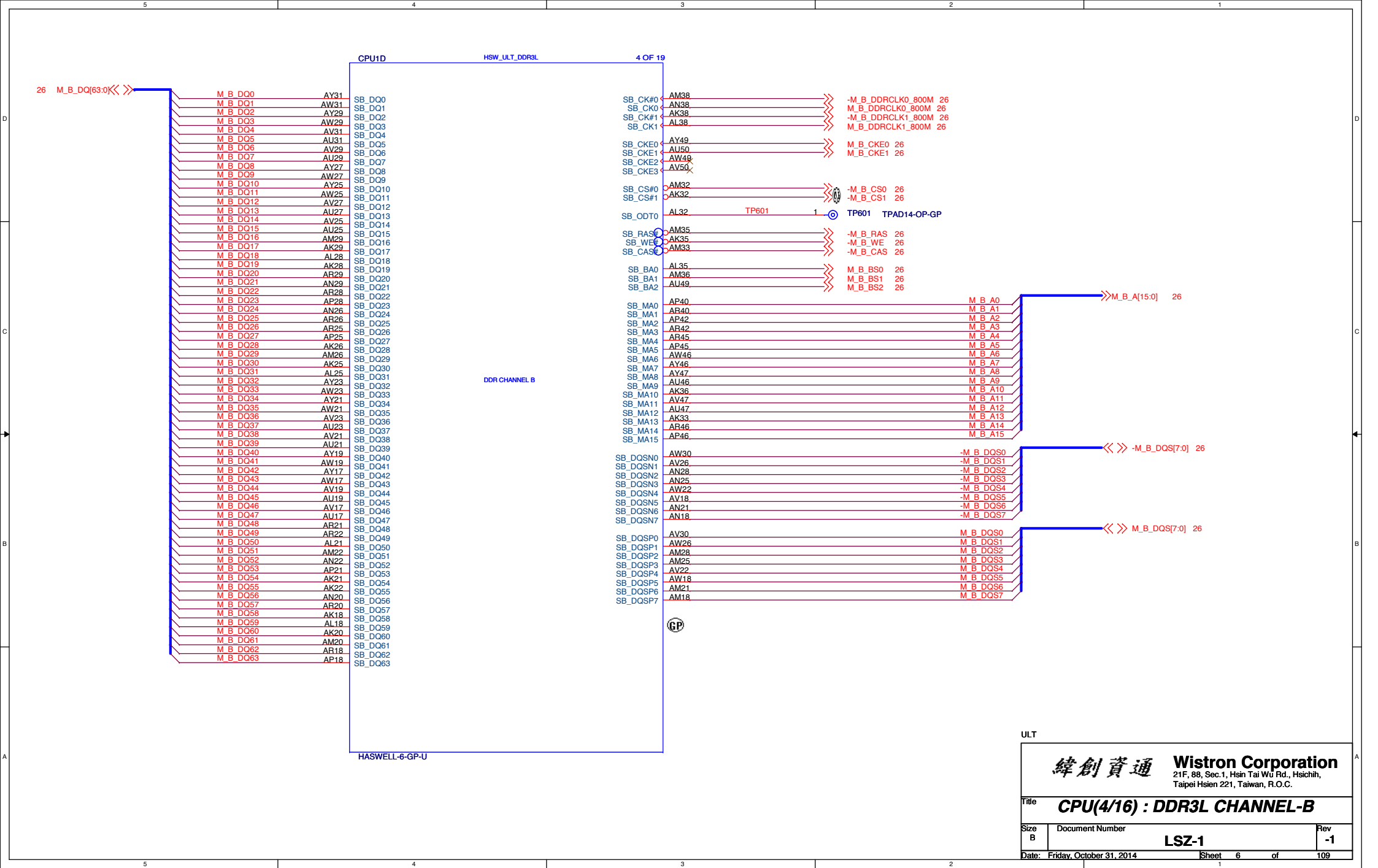
CAPACITOR

DisplayTopology









	KDS	TXC	EPSON
Y701	082.30003.0241	082.30003.0231	082.30003.0191
R701	10M	10M	10M
C701	10P	15P	15P
C702	8P	12P	12P



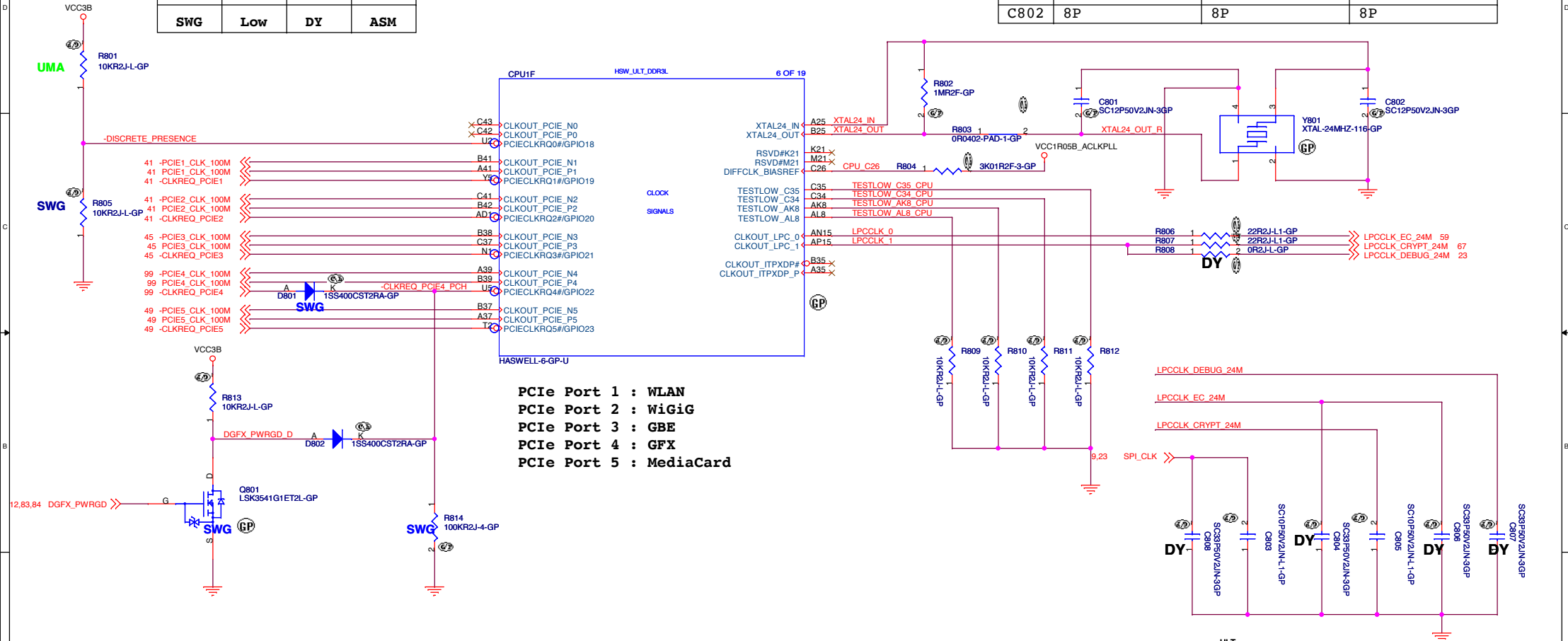
Model	Logic	R801	R805
UMA	Hi	ASM	DY
SWG	Low	DY	ASM

Y801
KDS
TXC
Epson

1ZZCAA24000CC0B
8Y24080002
Q22FA1280027100

82.30023.991
82.30023.981
82.30023.961

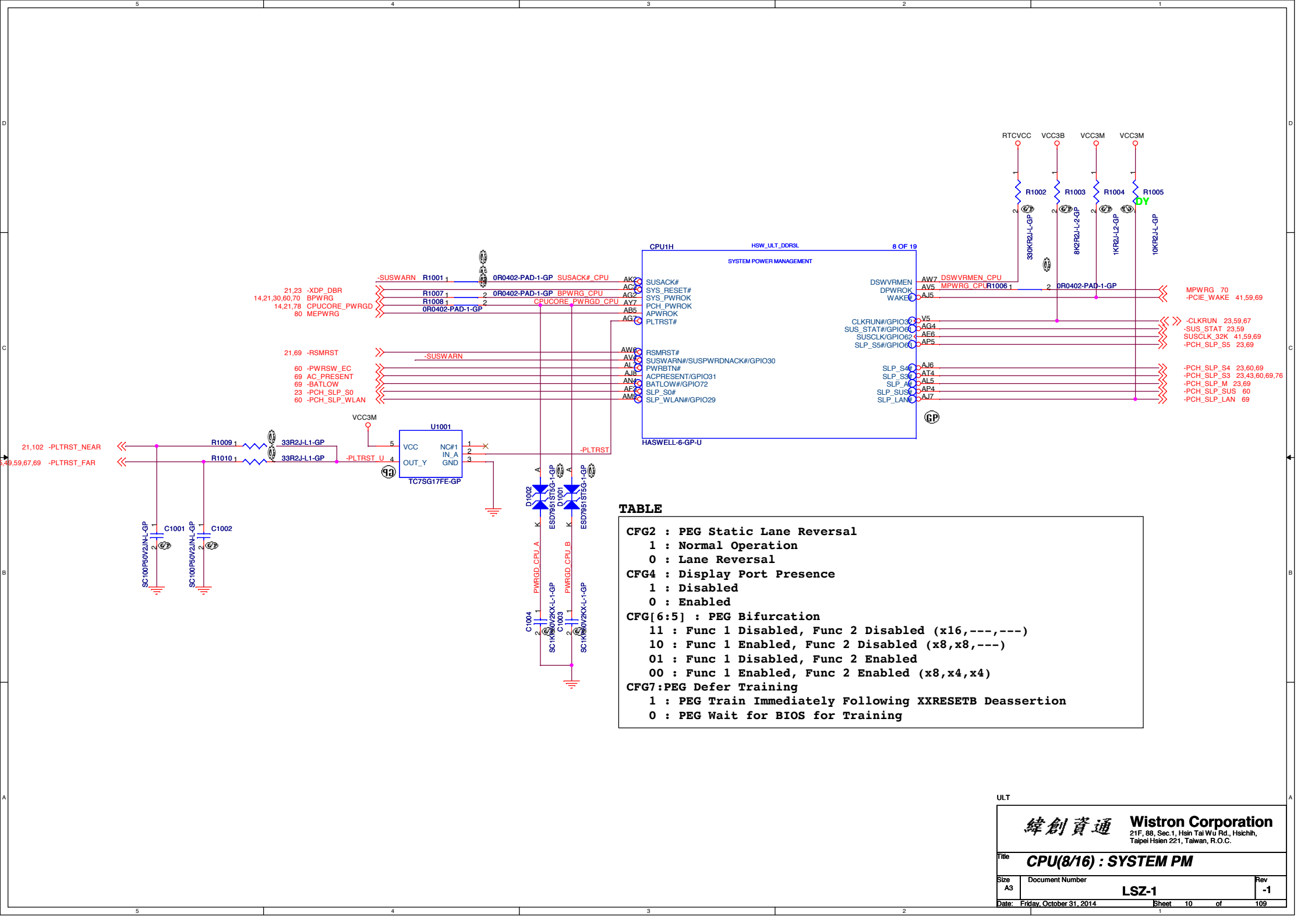
	KDS	TXC	EPSON
Y801	82.30023.991	82.30023.981	82.30023.961
R802	1M	1M	1M
C801	8P	8P	8P
C802	8P	8P	8P



PCie Port 1 : WLAN
PCie Port 2 : WiGiG
PCie Port 3 : GBE
PCie Port 4 : GFX
PCie Port 5 : MediaCard

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(6/16) : CLOCK SIGNALS			
Size Custom	Document Number LSZ-1		Rev -1
Date: Friday, October 31, 2014	Sheet 8	of	109



ULT

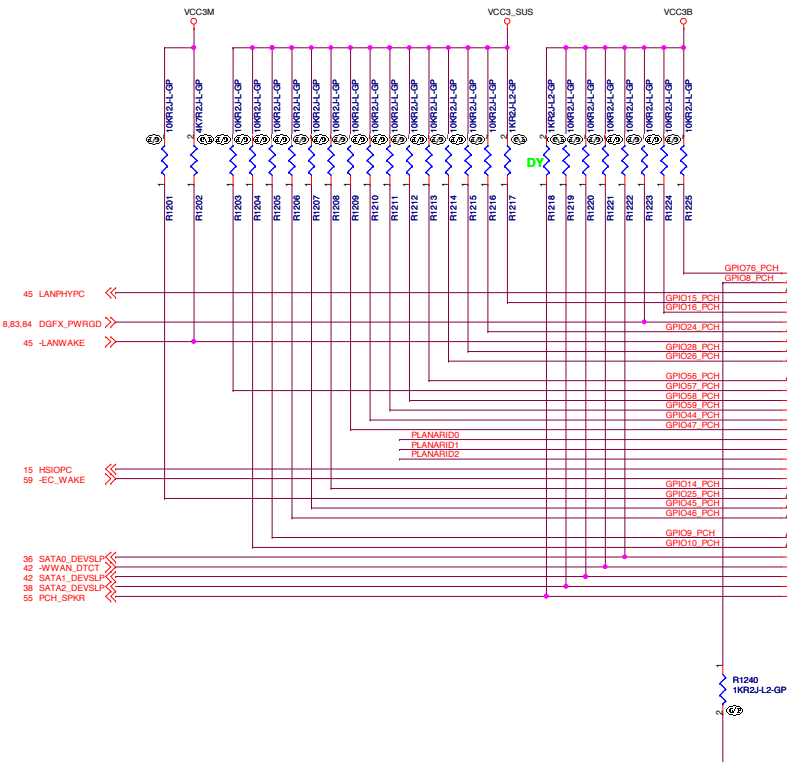
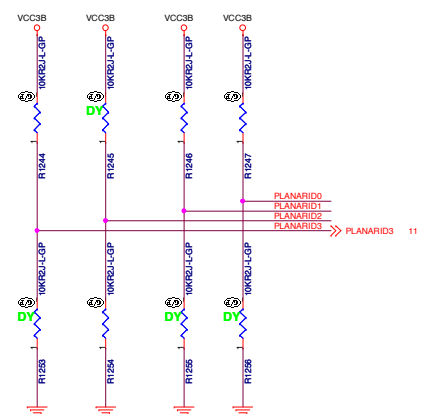
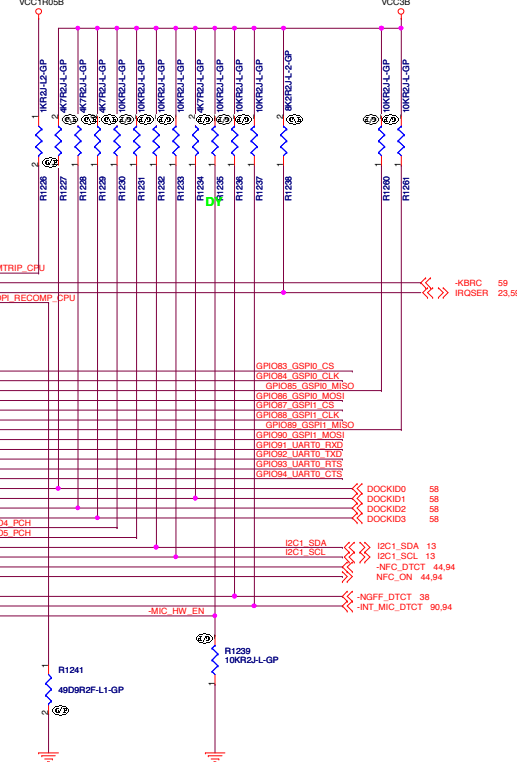
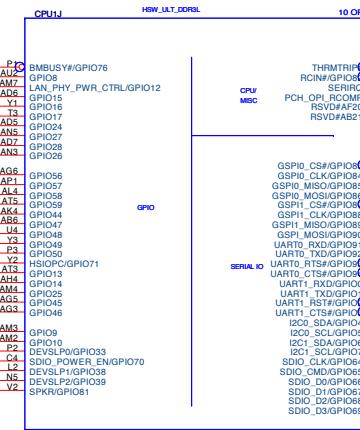
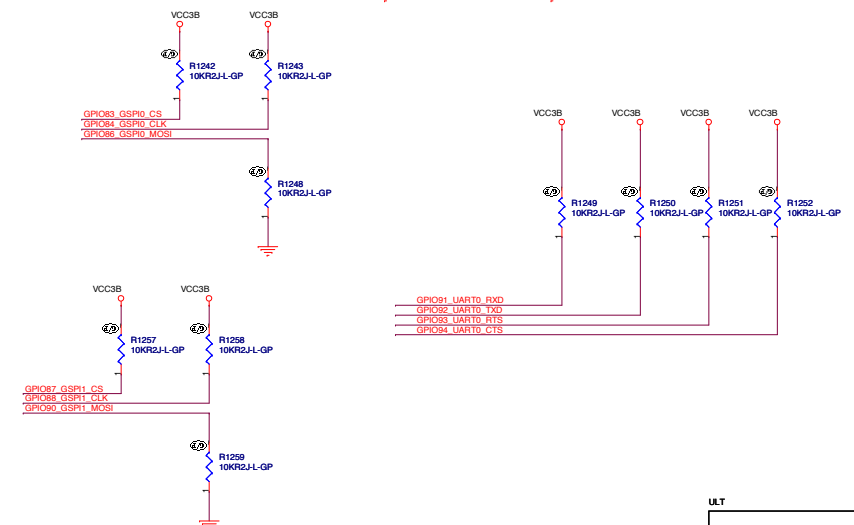


TABLE	
SPKR TCO TIMER SYSTEM REBOOT	
HIGH	DISABLED (NO REBOOT)
LOW	ENABLED



PLANAR ID TABLE

LEVEL	PLANARID[3..0]
SDV	0000B
MEFVT	0001B
FVT	0010B
SIT	0011B
28WFVT	0100B
SIT2	0101B
SIT3	0110B
SVT	0111B
Quadro-SDV	1001B
Quadro-FVT	1010B
Quadro-SIT	1011B
Quadro-SVT	1100B
940M FVT	1000B
940M SIT	1101B
940M SVT	1110B
Reserve	1111B



Logic	PLANARID			
	3	2	1	0
1	R1244	R1245	R1246	R1247
0	R1253	R1254	R1255	R1256

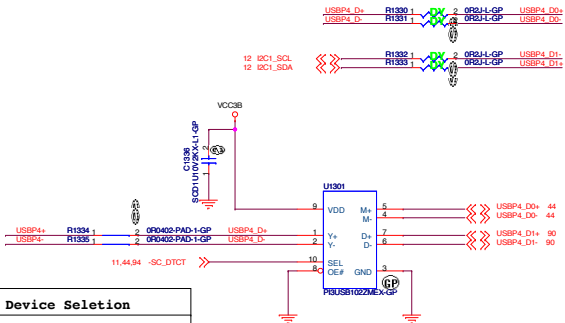
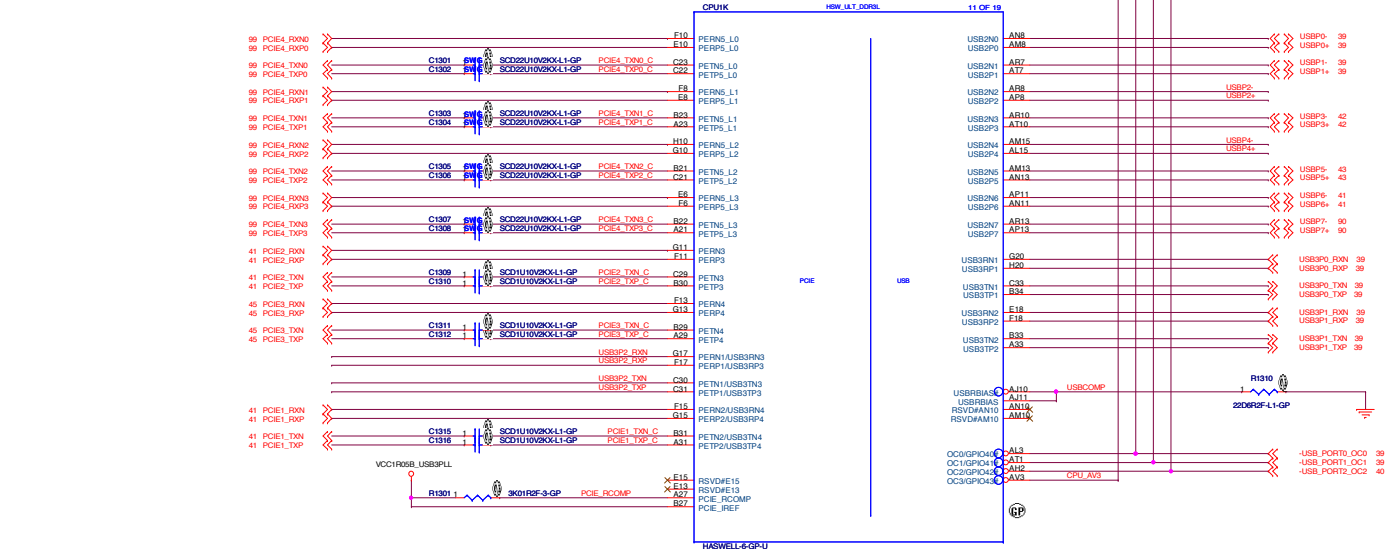
Flexible I/O Configuration			
I/O	High Speed Signals	Configuration	Net Name
Port 1	USB3 1	USB3 1	USB3P0
Port 2	USB3 2	USB3 2	USB3P1
Port 3	PCIE 1/USB3 3	USB3 3	USB3P2
Port 4	PCIE 2/USB3 4	PCIE 2	PCIE1
Port 5	PCIE 3	PCIE 3	PCIE2
Port 6	PCIE 4	PCIE 4	PCIE3
Port 7	PCIE 5 L0	PCIE 5 L0	PCIE4_0
Port 8	PCIE 5 L1	PCIE 5 L1	PCIE4_1
Port 9	PCIE 5 L2	PCIE 5 L2	PCIE4_2
Port 10	PCIE 5 L3	PCIE 5 L3	PCIE4_3
Port 11	PCIE 6 L0	PCIE 6 L0	PCIE5
Port 12	SATA 2/PCIE 6 L1	SATA 2	SATA 2
Port 13	SATA 1/PCIE 6 L2	SATA 1	SATA 1
Port 14	SATA 0/PCIE 6 L3	SATA 0	SATA 0

PCIe Port Assignment	
1	NGFF WLAN Slot Port 1
2	NGFF WLAN Slot Port 0
3	GbE PHY
4 (x4)	Discrete GFX
5 (x1)	Media Card Controller

Vinafix

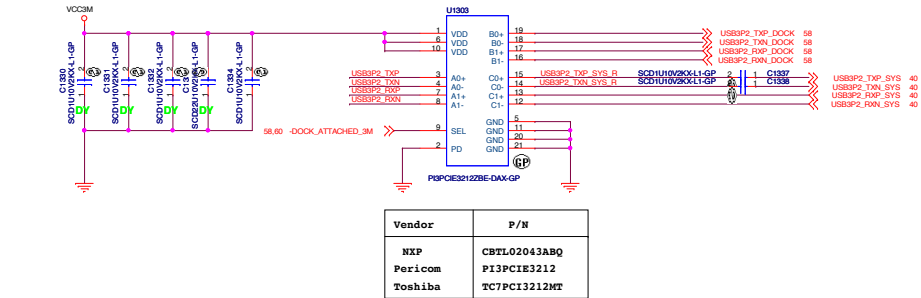
USB Port Assignment	
0	USB 3.0 System Port (AOU)
1	USB 3.0 System Port (Debug)
2	USB 3.0 Docking/3rd USB3.0 System Port
3	NGFF WWAN Slot
4	Smart Card/Touch Panel
5	Fingerprint Reader
6	NGFF WLAN Slot
7	USB Camera

USB 3.0 Port Assignment	
0	USB 3.0 System Port (AOU)
1	USB 3.0 System Port (Debug)
2	USB 3.0 Docking



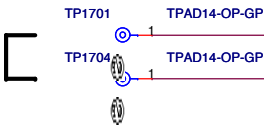
Device Seletion	
0	Smart Card Slot
1	Touch Panel

Vendor	P/N
Pericom	P13USB102ZME
NXP	NX3DV42GU



Vendor	P/N
NXP	CBTL02043ABQ
Pericom	P13PCIE3212
Toshiba	TC7PCI3212MT

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

CPU1Q

HSW_ULT_DDR3L

17 OF 19

HASWELL-6-GP-U

GP

DAISY_CHAIN_NCTF_AY2

DAISY_CHAIN_NCTF_AY3

DAISY_CHAIN_NCTF_AY60

DAISY_CHAIN_NCTF_AY61

DAISY_CHAIN_NCTF_AY62

DAISY_CHAIN_NCTF_B2

DAISY_CHAIN_NCTF_B3

DAISY_CHAIN_NCTF_B61

DAISY_CHAIN_NCTF_B62

DAISY_CHAIN_NCTF_B63

DAISY_CHAIN_NCTF_C1

DAISY_CHAIN_NCTF_C2

DAISY_CHAIN_NCTF_A3

DAISY_CHAIN_NCTF_A4

DAISY_CHAIN_NCTF_A60

DAISY_CHAIN_NCTF_A61

DAISY_CHAIN_NCTF_A62

DAISY_CHAIN_NCTF_AV1

DAISY_CHAIN_NCTF_AW1

DAISY_CHAIN_NCTF_AW2

DAISY_CHAIN_NCTF_AW3

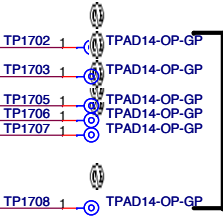
DAISY_CHAIN_NCTF_AW61

DAISY_CHAIN_NCTF_AW62

DAISY_CHAIN_NCTF_AW63

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



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(15/16) : NCTF

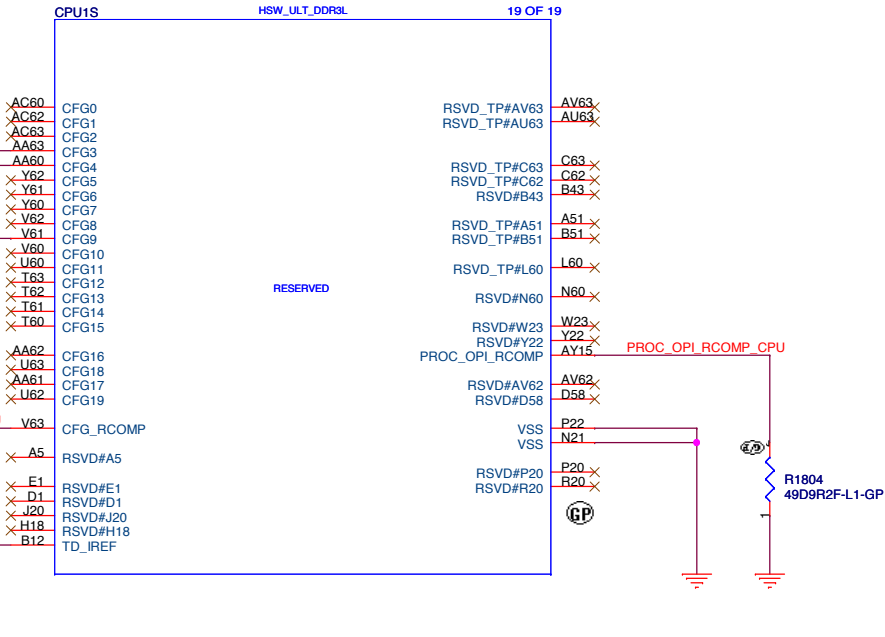
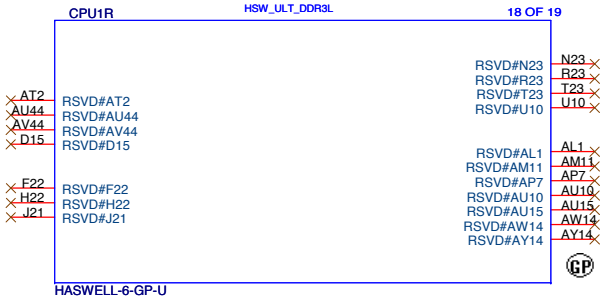
Size B Document Number LSZ-1 Rev -1

Date: Friday, October 31, 2014 Sheet 17 of 109

TABLE

CFG4 : Display Port Presence

1 : Disabled
0 : Enabled



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(16/16) : CFG/RESERVED

Size B Document Number LSZ-1 Rev -1

Date: Friday, October 31, 2014 Sheet 18 of 109

BLANK

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>	
<div>Title</div> <div>Reserved(for Quad Core CPU/PCH)</div>			
<div>Size</div> <div>A</div>	<div>Document Number</div> <div>LSZ-1</div>		<div>Rev</div> <div>-1</div>
<div>Date: Friday, October 31, 2014</div>		<div>Sheet</div> <div>19</div>	<div>of</div> <div>109</div>

BLANK

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>Reserved(for Quad Core CPU/PCH)</div>	
Size <div>A</div>	Document Number <div>LSZ-1</div>
Date: Friday, October 31, 2014	
Sheet	20 of 109
Rev	-1

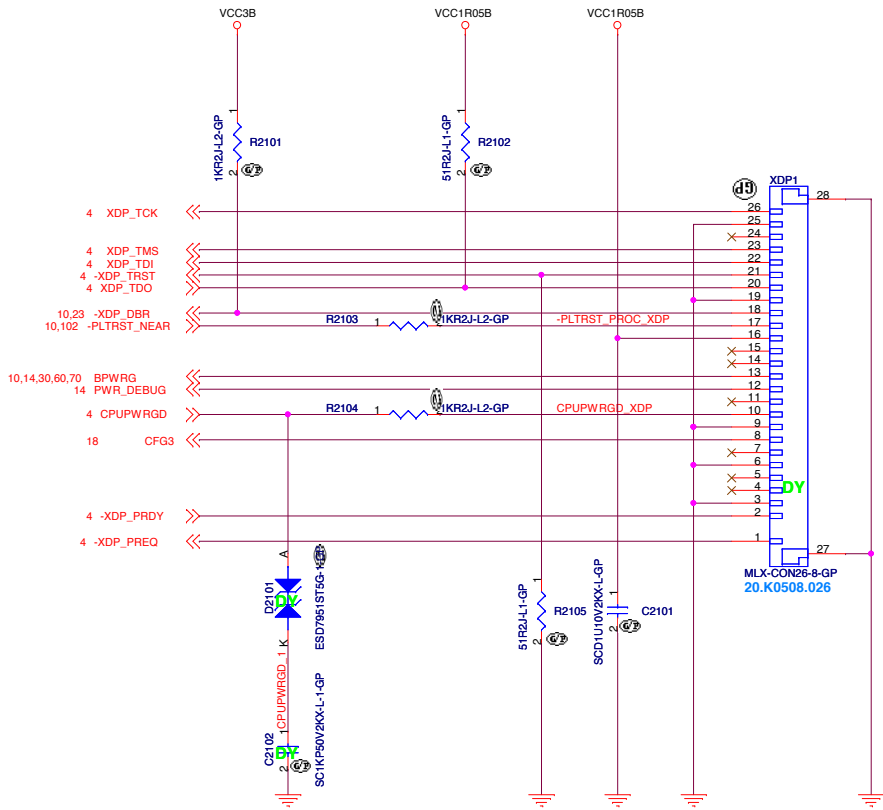


TABLE NOTE: XDP1 "ASM" FOR PDV/SDV ONLY.

SIGNAL	REF DES	ENABLE	DISABLE
TDO	R2102	ASM	NO ASM
TRST#	R2105	ASM	ASM
DBRST#	R2101	ASM	ASM
RESET#	R2103	ASM	NO ASM
PWRGD	R2104	ASM	NO ASM
	XDP1	ASM	NO ASM

↑
LOGIC

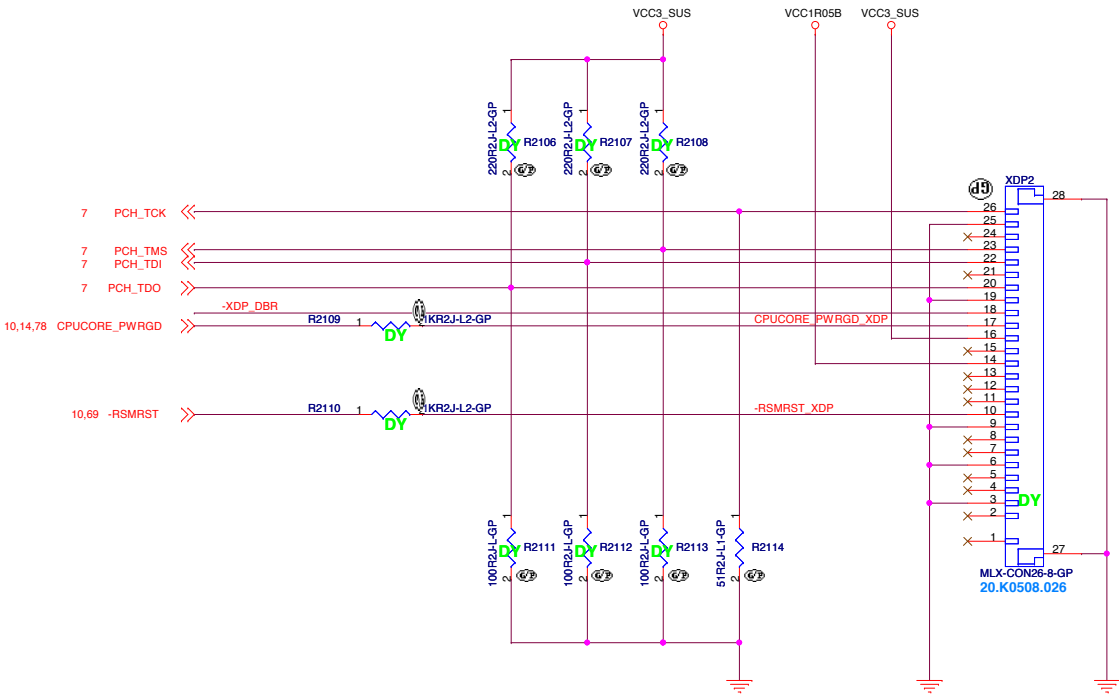


TABLE NOTE: XDP2 "ASM" FOR PDV/SDV ONLY.

SIGNAL	REF DES	ENABLE	DISABLE
TDO	R2106	220	NO ASM
	R2111	100	NO ASM
TMS	R2108	220	NO ASM
	R2113	100	NO ASM
TDI	R2107	220	NO ASM
	R2112	100	NO ASM
TCK	R2114	51	51
CPUCORE_PWRGD	R2109	ASM	NO ASM
-RSMRST	R2110	ASM	NO ASM
	XDP2	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

XDP CONNECTOR and APS interface

Size

Custom

Document Number

LSZ-1

Rev

-1

Date:

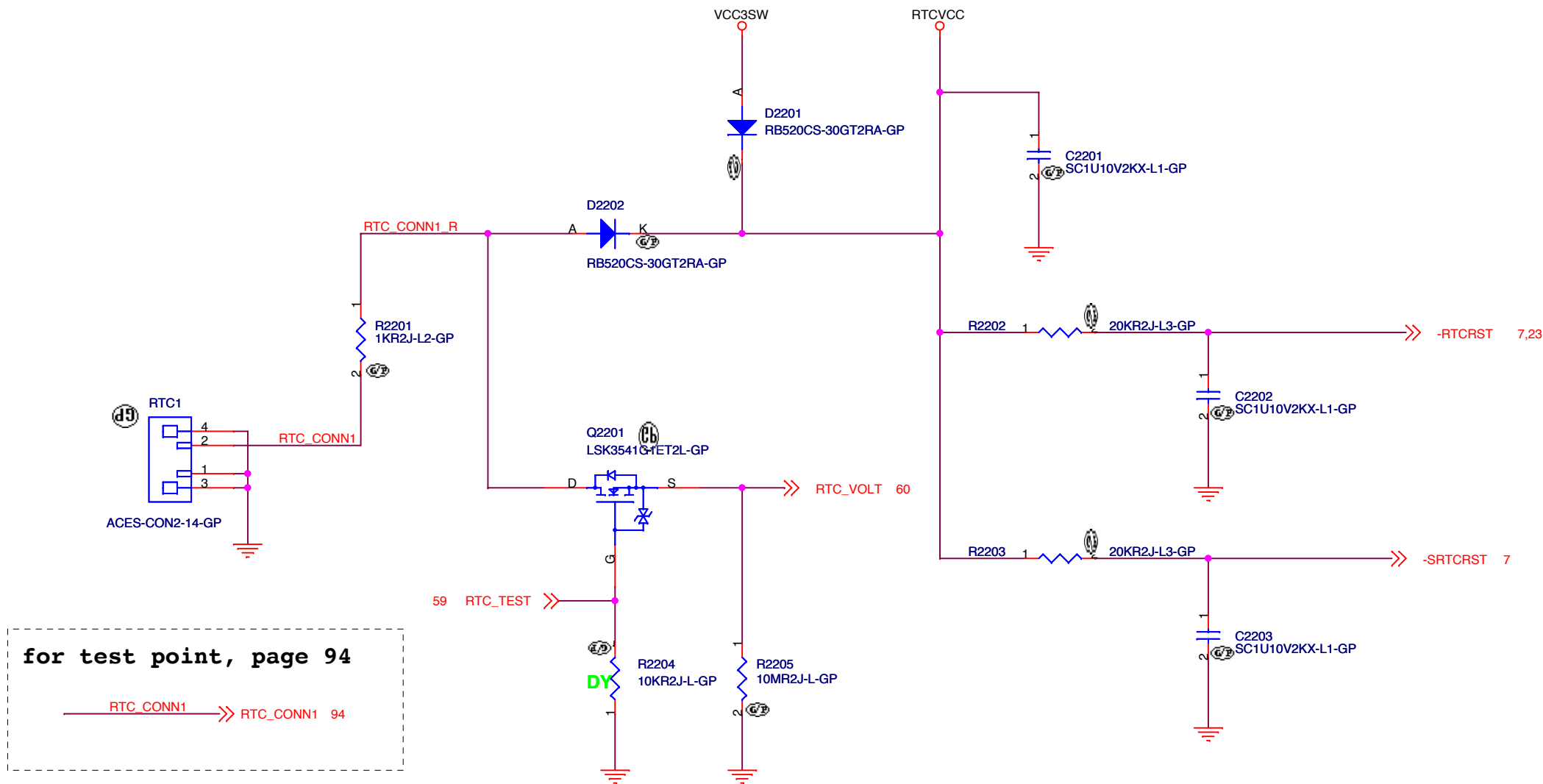
Friday, October 31, 2014

Sheet

21

of

109



for test point, page 94

RTC_CONN1 >> RTC_CONN1 94

<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

RTC BATTERY

Size
A4

Document Number

LSZ-1

Rev	-1
-----	----

Date: Friday, October 31, 2014

Sheet 22 of 109

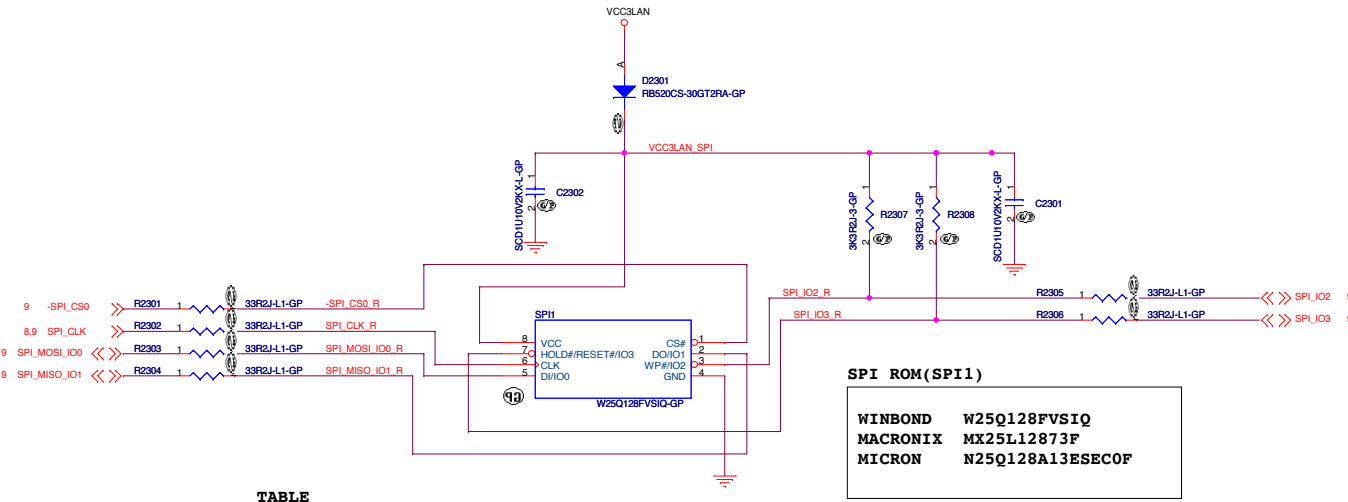
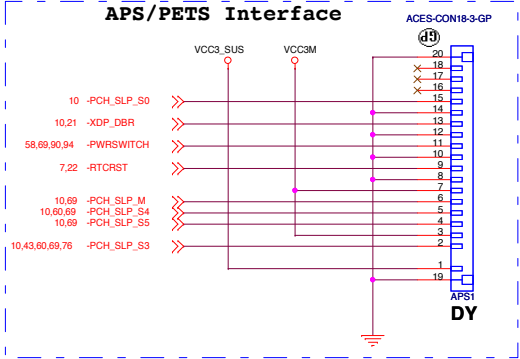
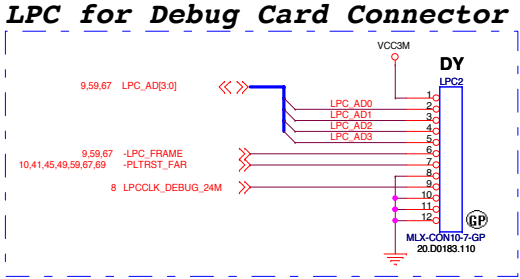


TABLE					
SF100 PIN HEADER INTERFACE (TOP VIEW)					
1	VCC	D2301.K	GND	GND	2
3	CS#	R2307.2	R2302.2	CLK	4
5	MISO	R2304.2	R2303.2	MOSI	6
7	KEY	N/A	N/A	(RESET)	8

SPI ROM(SPI1)	
WINBOND	W25Q128FVSIQ
MACRONIX	MX25L12873F
MICRON	N25Q128A13ESEC0F

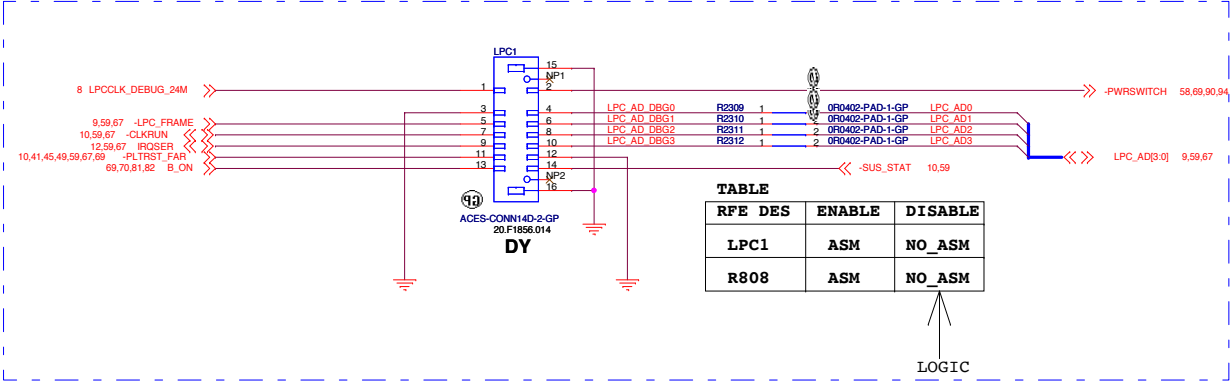


LEVEL	APS1
SDV	---
ME FVT	NO ASM
FVT	NO ASM
SIT	NO ASM
SVT	NO ASM



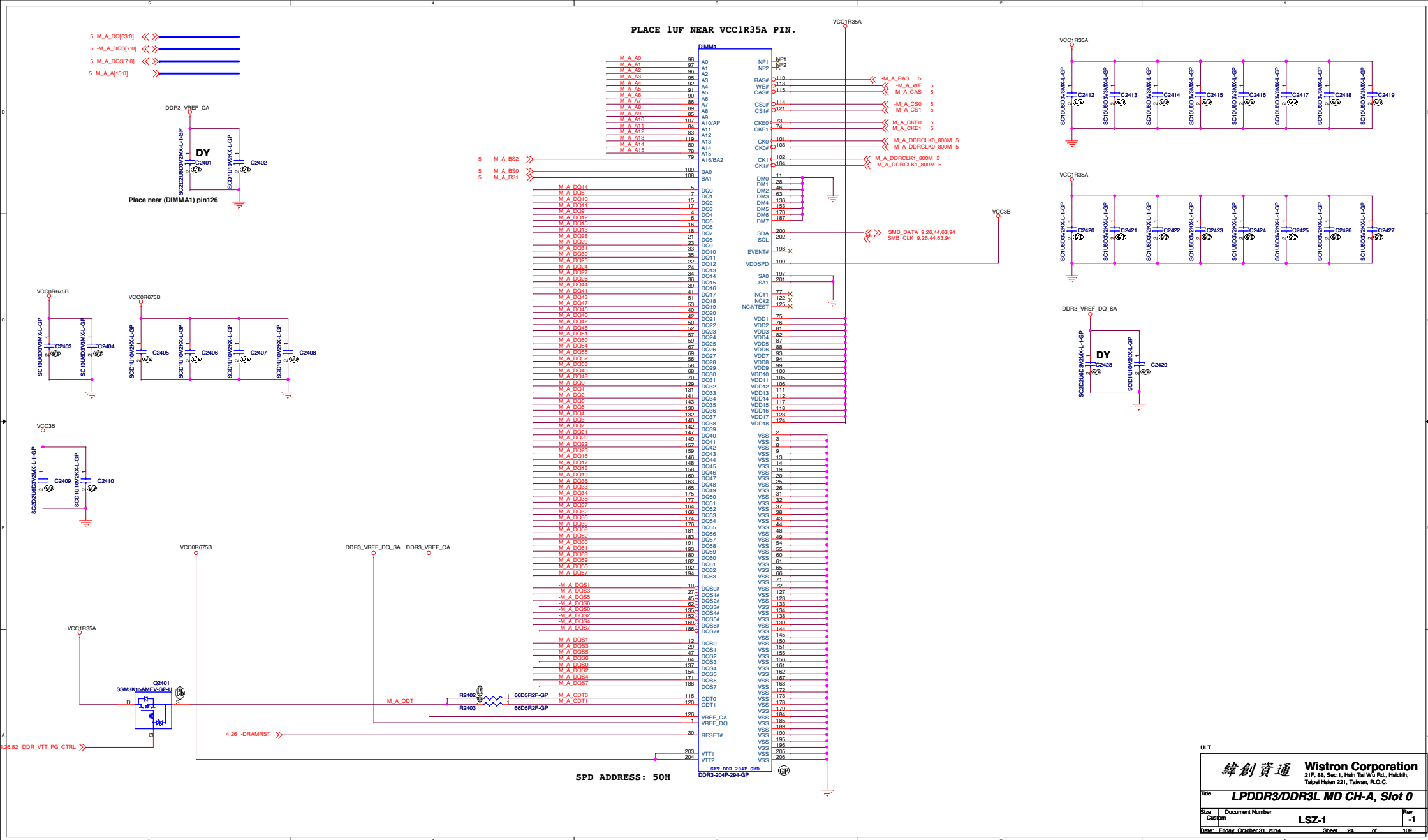
LEVEL	LPC2
SDV	---
ME FVT	NO ASM
FVT	NO ASM
SIT	NO ASM
SVT	NO ASM

Lenovo Debug Tool I/F



RFE DES	ENABLE	DISABLE
LPC1	ASM	NO_ASM
R808	ASM	NO_ASM

LEVEL	LPC1
SDV	ASM
ME FVT	ASM
FVT	ASM
SIT	NO ASM
SVT	NO ASM

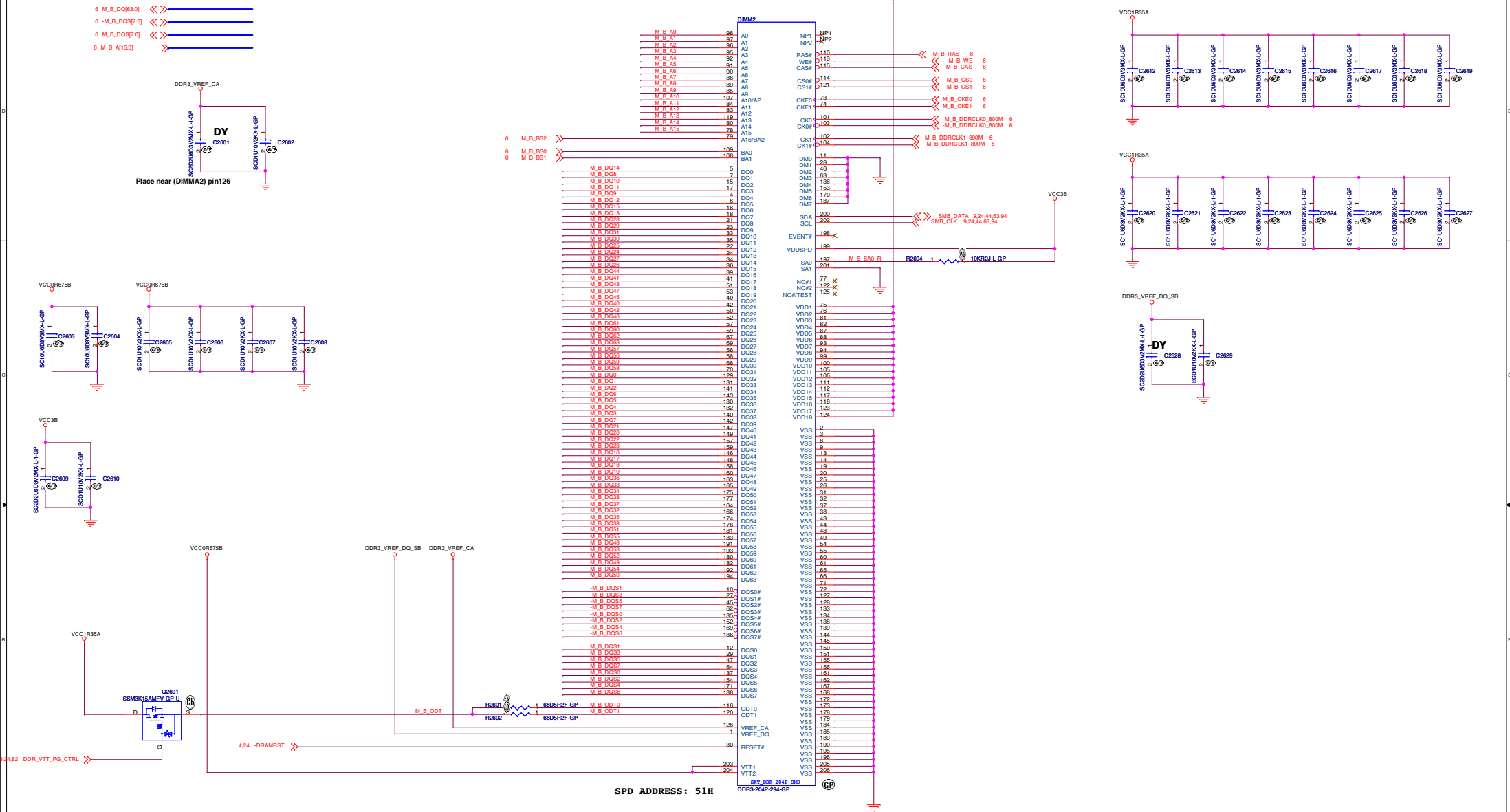


BLANK

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>	
<div>Title</div> <div>LPDDR3/DDR3L MD CH-A, Slot 1</div>			
<div>Size</div> <div>A</div>	<div>Document Number</div> <div>LSZ-1</div>		<div>Rev</div> <div>-1</div>
<div>Date: Friday, October 31, 2014</div>		<div>Sheet</div> <div>25</div>	<div>of</div> <div>109</div>

PLACE 1UF NEAR VCC1R35A PIN.



ULT

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

Title	LPDDR3/DDR3L MD CH-B, Slot 1
-------	-------------------------------------

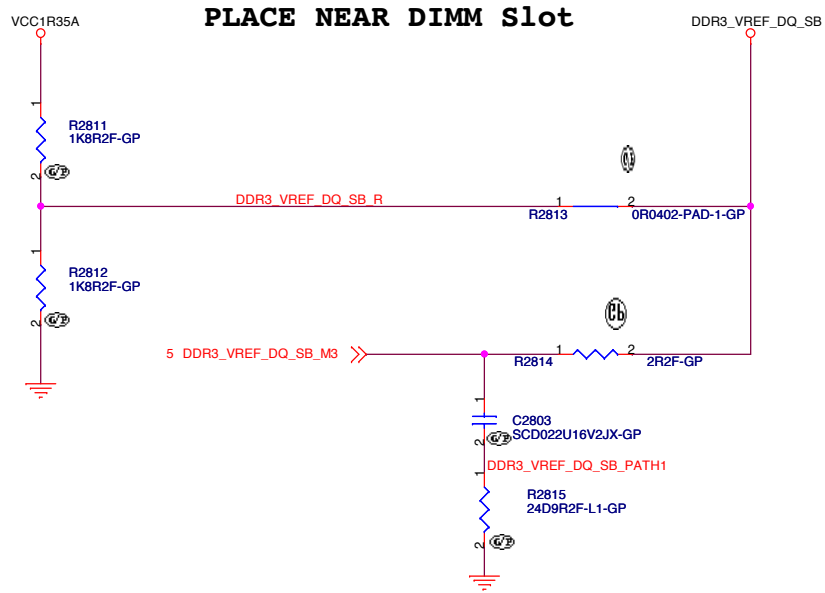
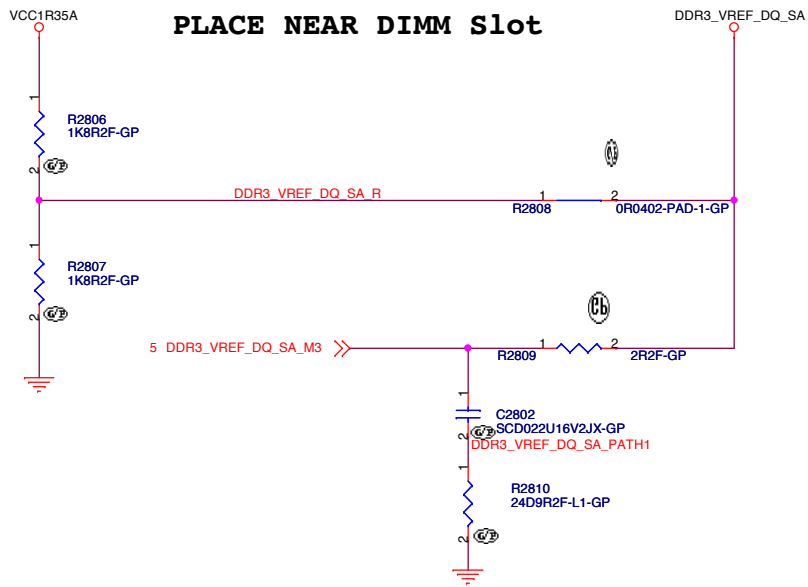
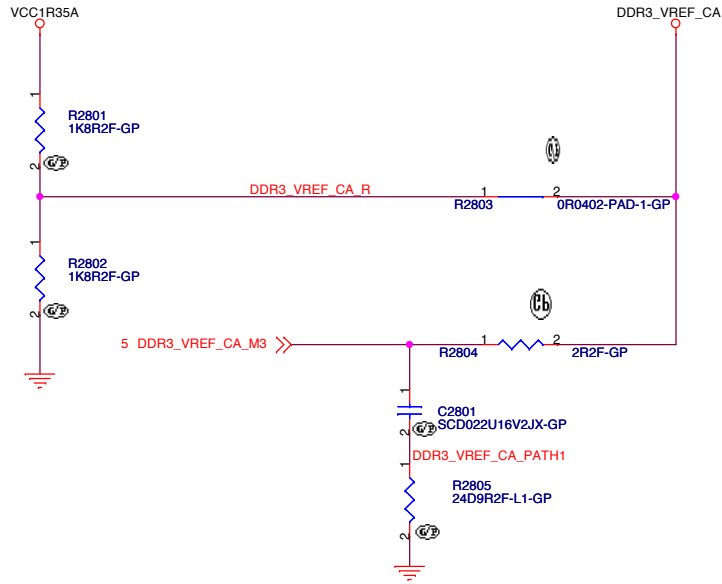
Size	Document Number	Rev
A2	1631	1

Date: Friday, October 31, 2014		Sheet 26 of 109
--------------------------------	--	-----------------

BLANK

ULT

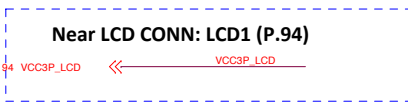
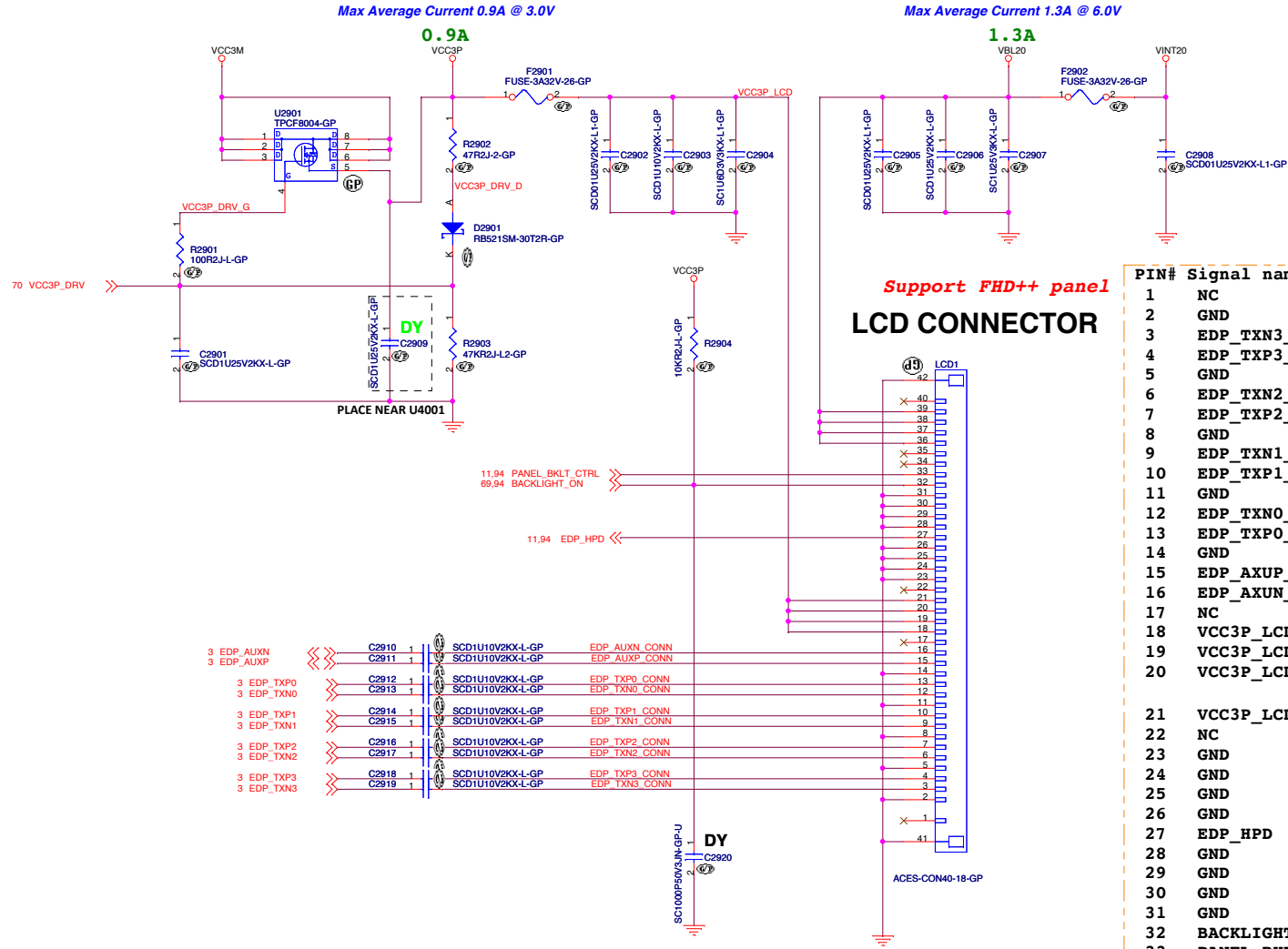
<div>緯創資通</div>		<div>Wistron Corporation</div>	
		<div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>	
<div>Title</div> <div>LPDDR3/DDR3L MD CH-B, Slot 1</div>			
<div>Size</div> <div>A</div>	<div>Document Number</div> <div>LSZ-1</div>		<div>Rev</div> <div>-1</div>
<div>Date: Friday, October 31, 2014</div>		<div>Sheet</div> <div>27</div>	<div>of</div> <div>109</div>



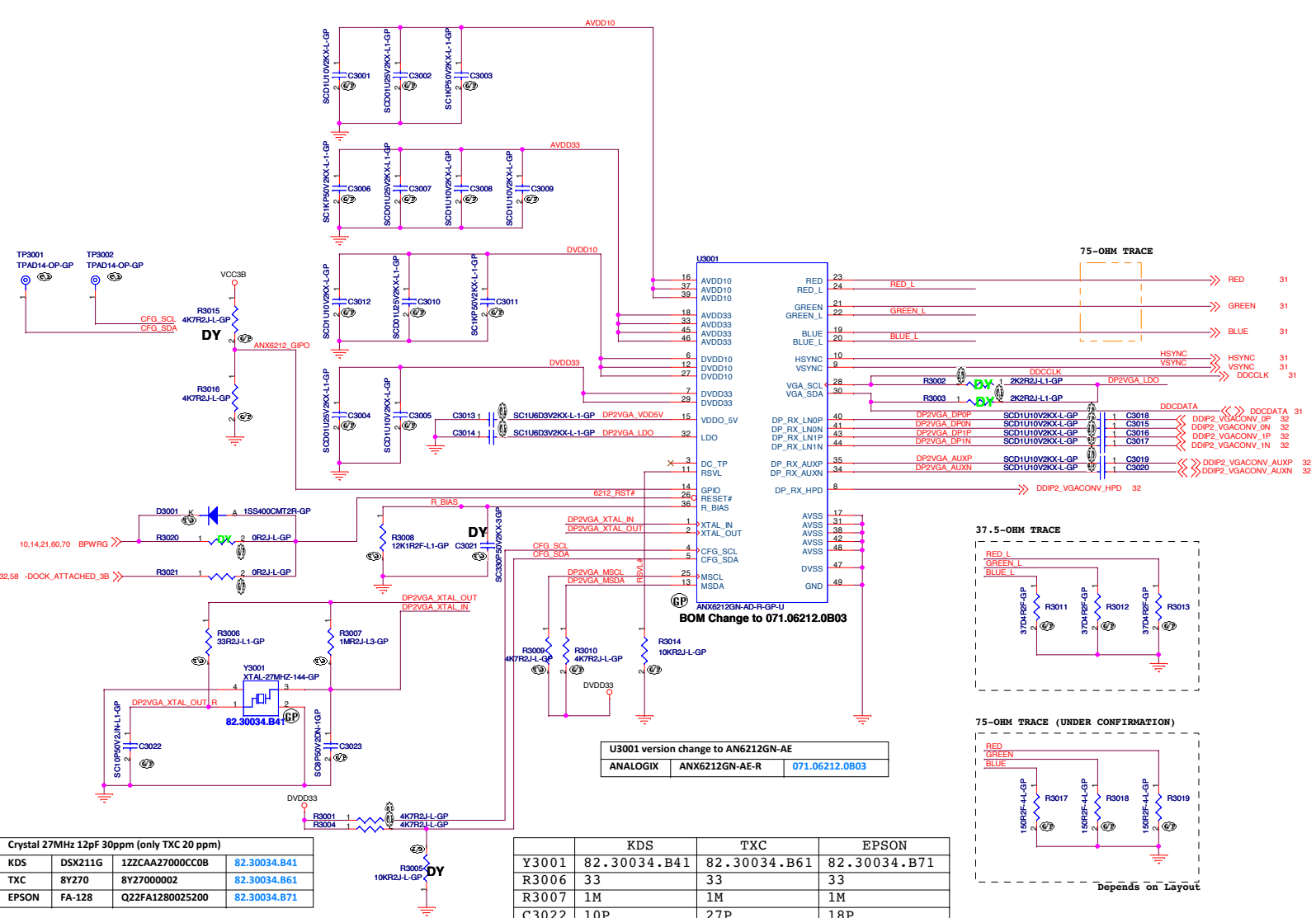
ULT

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title LPDDR3/DDR3L REFERENCE			
Size	Document Number	LSZ-1	Rev
Custom			-1
Date:	Friday, October 31, 2014	Sheet 28 of	109

LCD CONN



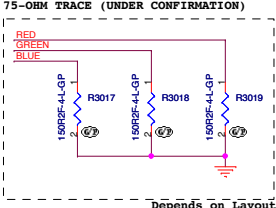
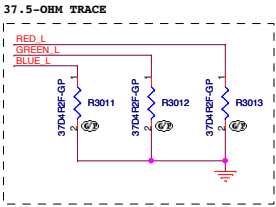
PIN#	Signal name
1	NC
2	GND
3	EDP_TXN3_CONN
4	EDP_TXP3_CONN
5	GND
6	EDP_TXN2_CONN
7	EDP_TXP2_CONN
8	GND
9	EDP_TXN1_CONN
10	EDP_TXP1_CONN
11	GND
12	EDP_TXN0_CONN
13	EDP_TXP0_CONN
14	GND
15	EDP_AXUP_CONN
16	EDP_AXUN_CONN
17	NC
18	VCC3P_LCD
19	VCC3P_LCD
20	VCC3P_LCD
21	VCC3P_LCD
22	NC
23	GND
24	GND
25	GND
26	GND
27	EDP_HPD
28	GND
29	GND
30	GND
31	GND
32	BACKLIGHT_ON
33	PANEL_BKLT_CTRL
34	NC
35	NC
36	VBL20
37	VBL20
38	VBL20
39	VBL20
40	NC



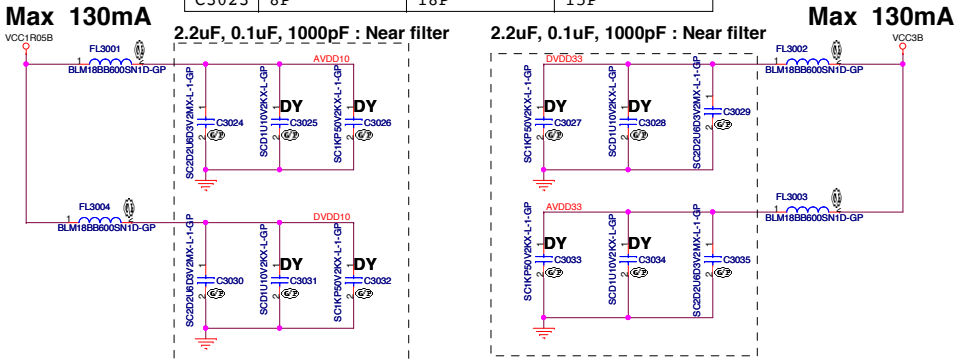
Crystal 27MHz 12pF 30ppm (only TXC 20 ppm)

KDS	DSX211G	1ZZCAA27000CC08	82.30034.B41
TXC	8Y270	8Y27000002	82.30034.B61
EPSON	FA-128	Q22FA1280025200	82.30034.B71

	KDS	TXC	EPSON
Y3001	82.30034.B41	82.30034.B61	82.30034.B71
R3006	33	33	33
R3007	1M	1M	1M
C3022	10P	27P	18P
C3023	8P	18P	15P



XTAL USED 27MHZ 12pF



UL T

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

Title
VGA CONVERTER(DP to VGA)

Size
Custom

Document Number
LSZ-1

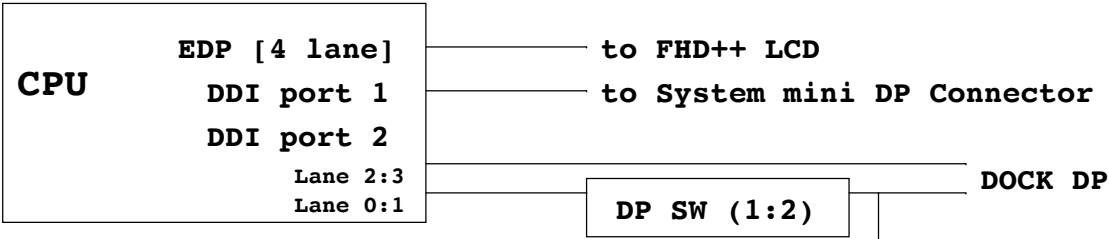
Rev
-1

Date
Friday, October 31, 2014

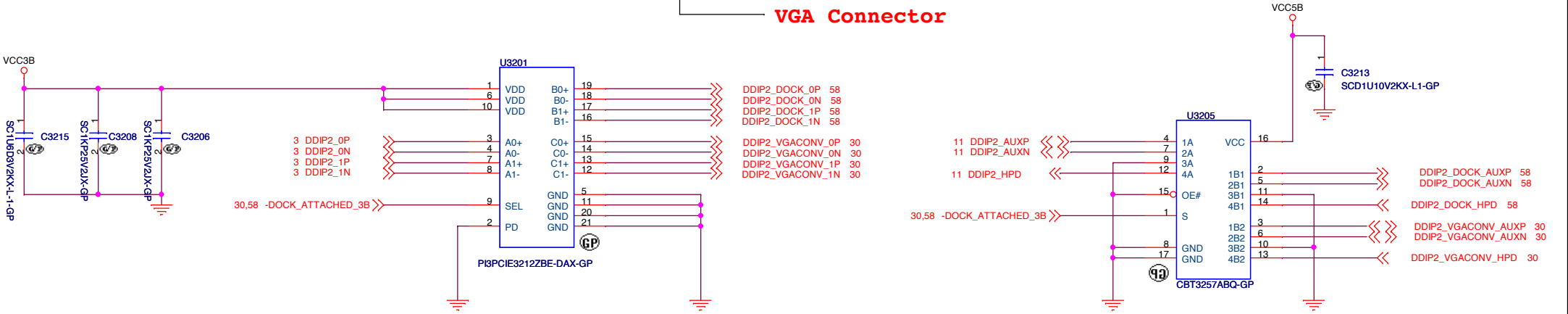
Sheet
30

of
109

DisplayTopology



VGA Connector



Vendor	P/N
NXP	CBTL02043ABQ
Pericom	PI3PCIE3212
Toshiba	TC7PCI3212MT

Vendor	P/N
NXP	CBT3257ABQ
On-semi	74FST3257MNTWG

ULT

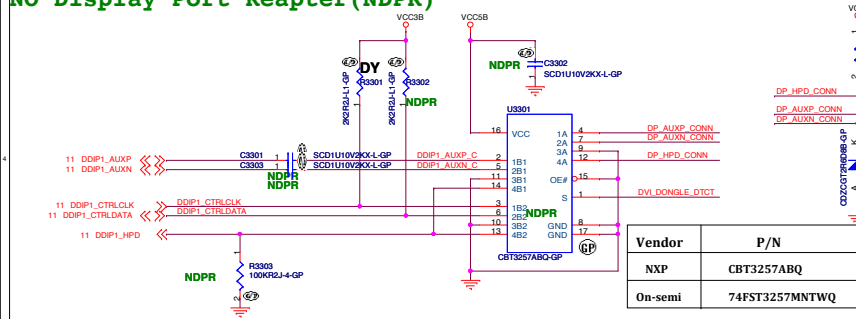
緯創資通

Wistron Corporation

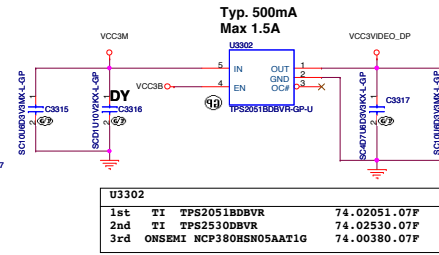
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title			DP BUS SW		
Size B	Document Number				Rev
	LSZ-1				-1
Date: Friday, October 31, 2014		Sheet	32	of	109

Display Port Reapter(DPR)



Vendor	P/N
NXP	CBT3257ABQ
On-semi	74FST3257MNTWQ



Pin 1 to 20 connection diagram for the DP1 connector. The diagram shows a blue box labeled 'DP1' with pins 1 through 20 on the left. To the left of the box are labels for each pin: 1: DVI_DONGLE_DETECT (DP_CONFIG2), 2: (blank), 3: DVI_LANE0_DETECT (DP_CONFIG2), 4: (blank), 5: DVPIN_DPPP, 6: DVPIN_DPPP, 7: DVPIN_DPPP, 8: DVPIN_DPPP, 9: DVPIN_DPPP, 10: DVPIN_DPPP, 11: DVPIN_DPPP, 12: DVPIN_DPPP, 13: DVPIN_DPPP, 14: DVPIN_DPPP, 15: DVPIN_DPPP, 16: DVPIN_DPPP, 17: DVPIN_DPPP, 18: DVPIN_DPPP, 19: DVPIN_DPPP, 20: DVPIN_DPPP. To the right of the box are labels for each pin: 1: AUX_CH1, 2: AUX_CH2, 3: CHASSIS#21, 4: CHASSIS#22, 5: CHASSIS#23, 6: CHASSIS#24, 7: NP1, 8: NP2, 9: GND, 10: GND, 11: GND, 12: GND, 13: GND, 14: GND, 15: GND, 16: GND, 17: GND, 18: GND, 19: GND, 20: GND. The diagram also shows connections to VCC3VIDEODP, DP_HPD_CONN, and DP_FWR/PWR_OUT. A legend at the bottom right shows a blue box labeled 'DP1' and a red box labeled 'NIM1_DP'.

DP3N_1	C3304	1	SCD110V2KXLL-GP	DP3N
DP3P_1	C3305	1	SCD110V2KXLL-GP	DP3P
DP2N_1	C3306	1	SCD110V2KXLL-GP	DP2N
DP2P_1	C3308	1	SCD110V2KXLL-GP	DP2P
DP1N_1	C3309	1	SCD110V2KXLL-GP	DP1N
DP1P_1	C3310	1	SCD110V2KXLL-GP	DP1P
DP0N_1	C3311	1	SCD110V2KXLL-GP	DP0N
DP0P_1	C3312	1	SCD110V2KXLL-GP	DP0P

D3304

6 NC#6 1 TMDS_CH1- DP AUXIN CONN

5 NC#5 2 TMDS_CH1+ DP AUX+ CONN

4 GND 3 GND

IP4282C26-GP

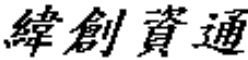
NEAR DP CONN

Pin connection diagram for the D3306 component. The component is a blue rectangle with pins 1 through 10. Pin 1 is labeled DP2N, pin 2 is DP2P, pin 3 is DP1N, and pin 4 is DP1P. Pin 5 is labeled U/I#5, pin 6 is U/I#6, pin 7 is U/I#7, pin 8 is U/I#8, pin 9 is U/I#9, and pin 10 is U/I#10. The component is connected to a GND symbol. The component is labeled D3306 and ESD7004MUTAG-GP.

ULT		緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wn Rd., Hsinchu, Taipei Hsien 221, Taiwan, R.O.C.	
Title		DISPLAY PORT CONNECTOR	
Size	Document Number	Rev	
Custm	LSZ-1	-1	
Date:	Fri, October 31, 2014	Sheet	33 of 109

BLANK

ULT

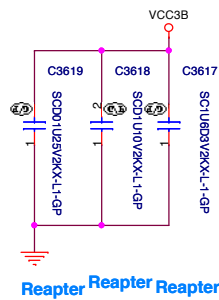
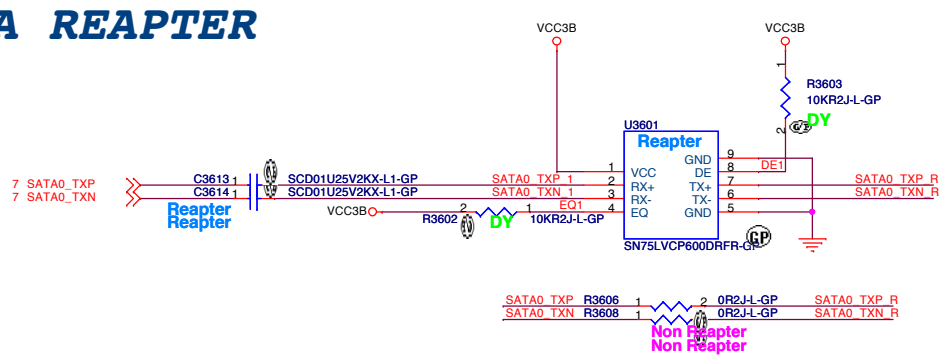
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title HDMI CONNECTOR			
Size A	Document Number LSZ-1		Rev -1
Date: Friday, October 31, 2014	Sheet	34 of	109

BLANK

ULT

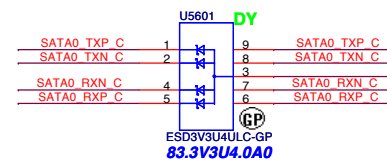
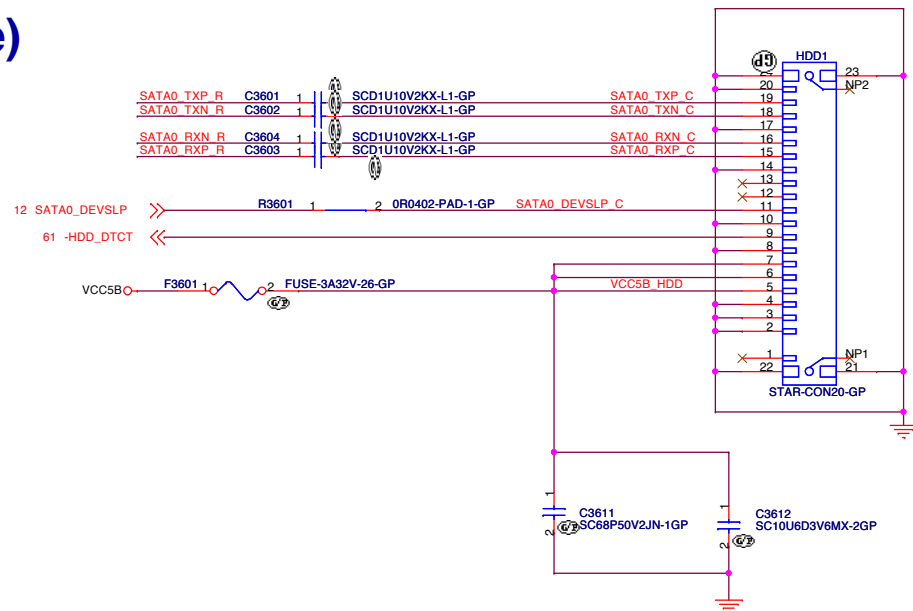
<div>緯創資通</div> <div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>	
Title <div>Reserved HDMI(HEAC)</div>	
Size <div>A</div>	Document Number <div>LSZ-1</div>
Date: Friday, October 31, 2014	Rev <div>-1</div>
Sheet 35 of 109	

SATA REAPTER



HDD(Wire)

HDD



<Variant Name>

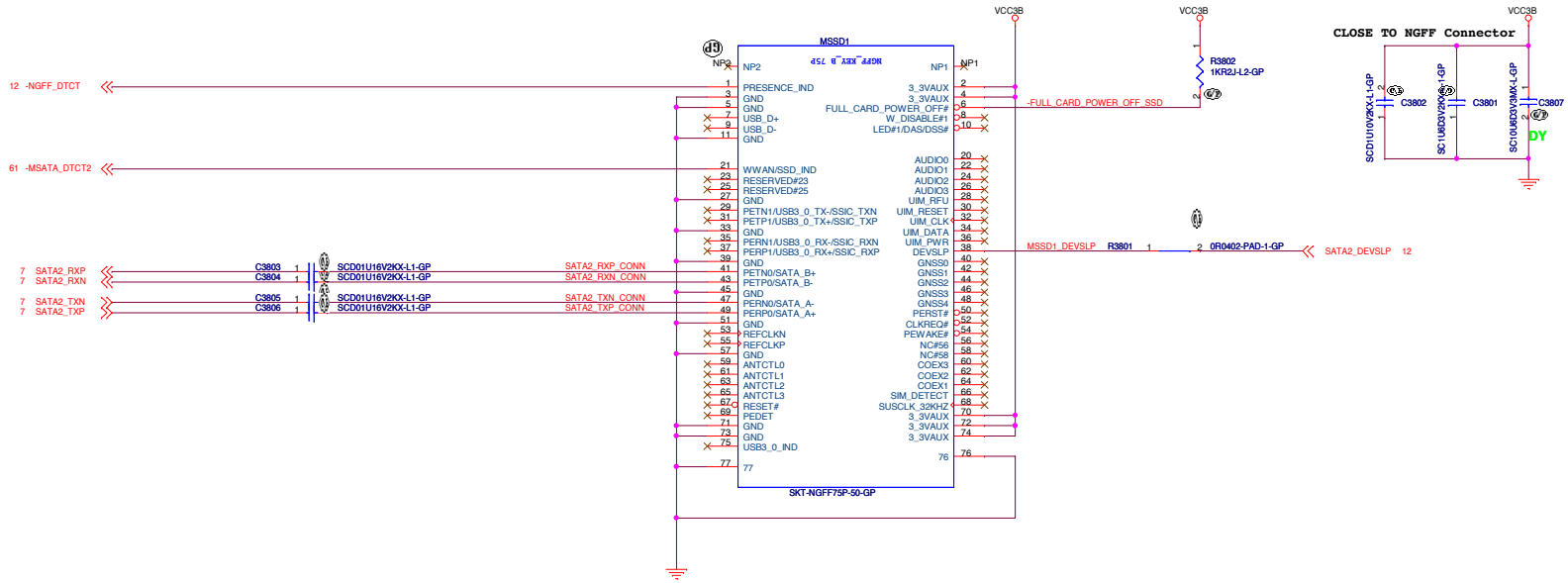
緯創資通 Wistron Corporation		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title		SATA HDD(BTB)	
Size	Document Number	Rev	
Custom	LSZ-1	-1	
Date: Friday, October 31, 2014		Sheet 36	of 109

BLANK

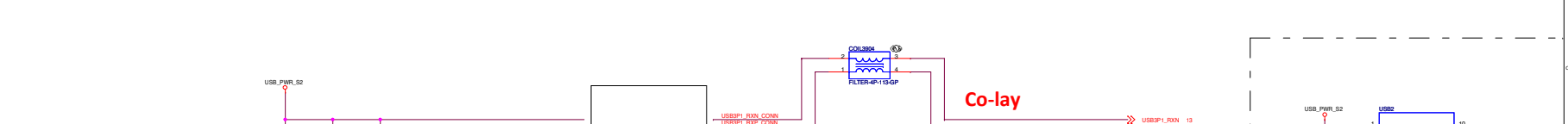
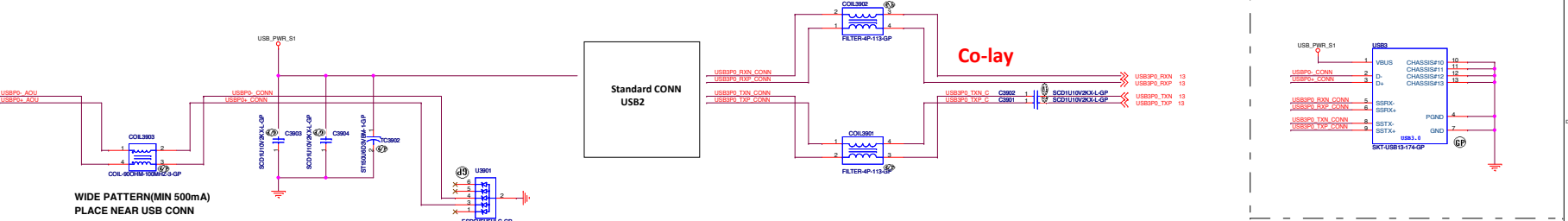
ULT

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title BLANK			
Size A	Document Number LSZ-1		Rev -1
Date: Friday, October 31, 2014		Sheet 37 of	109

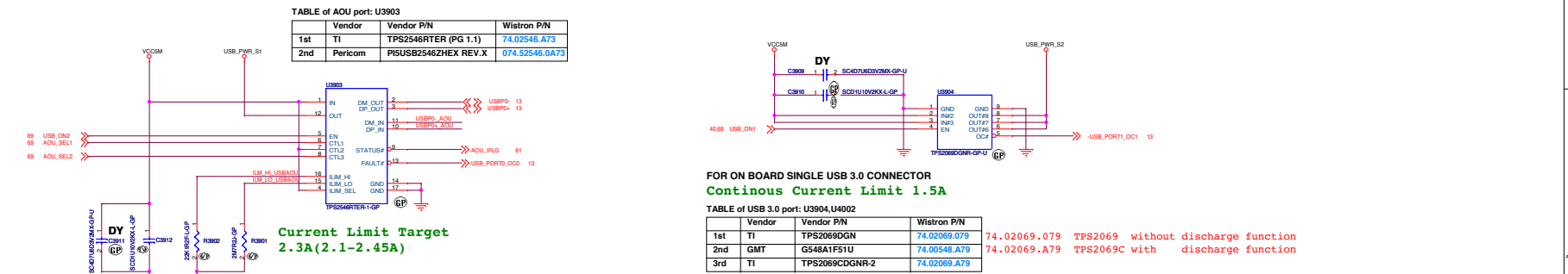
TYPE-B NGFF CARD FOR SSD CACHE



USB3.0x2 (Port 0 ,AOU ;Port1 , Debug)



USB POWER



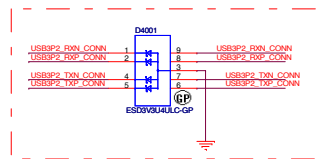
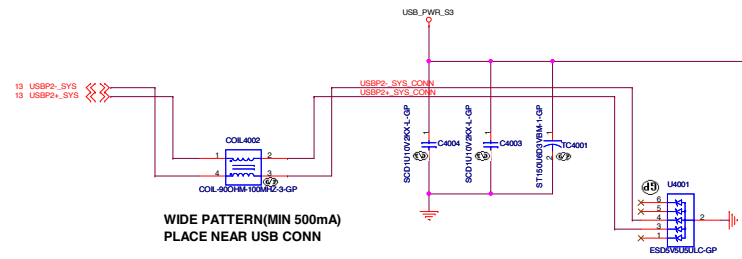
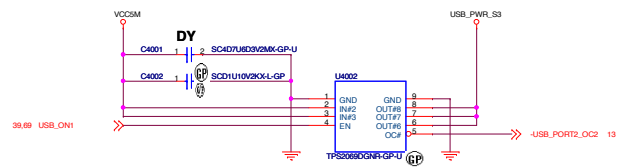
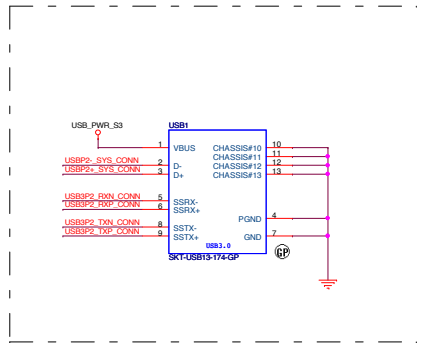
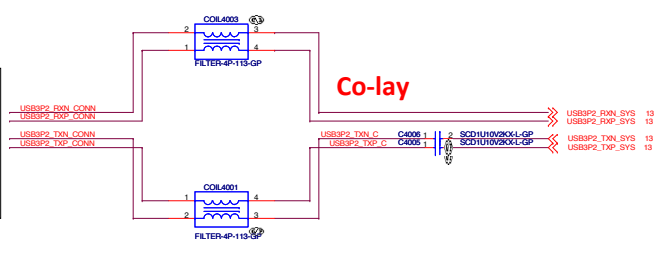


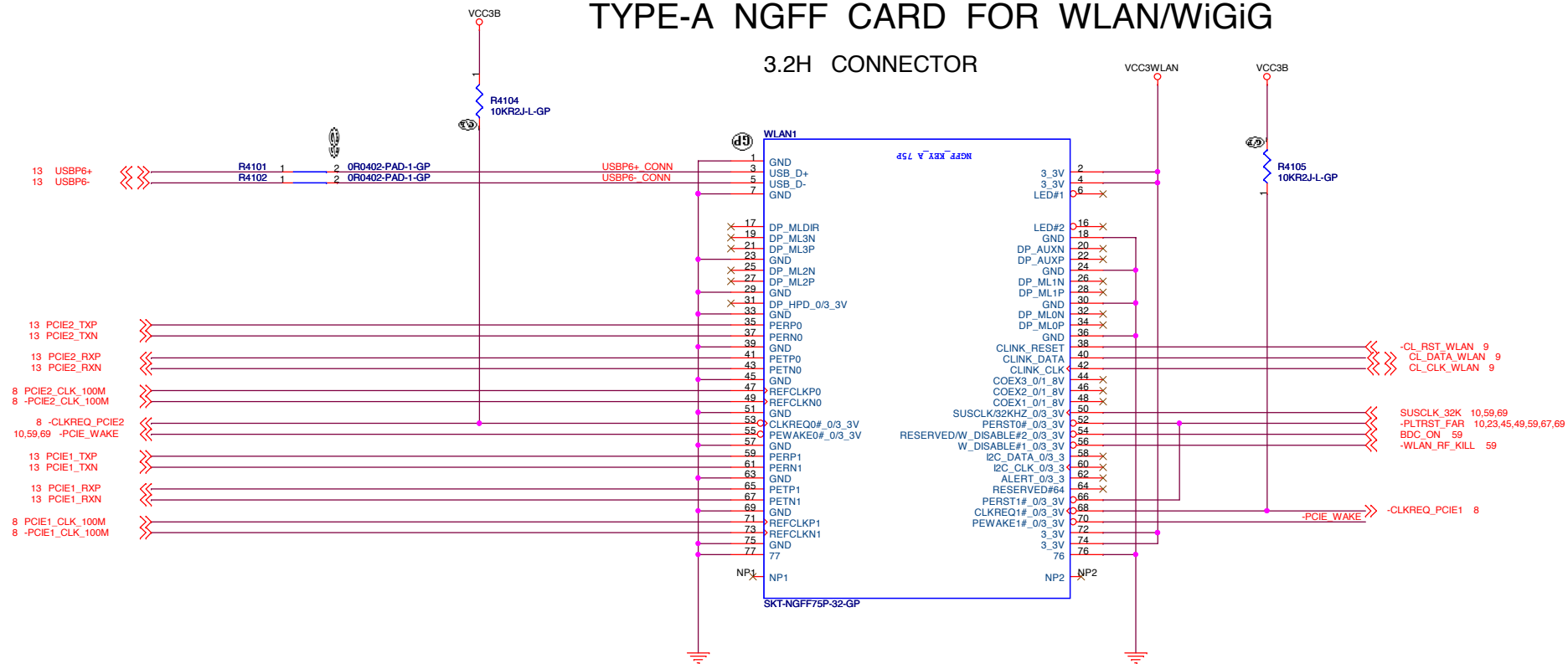
TABLE of TVS DIODE: D4001		
	Vendor	Vendor P/N
1st	Infineon	ESD3V3U4ULC
2nd	Littelfuse	SP3012-04UTG
3rd	NXP	IP4294CZ10-TBR



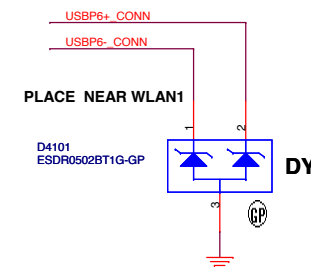
ULT

TYPE-A NGFF CARD FOR WLAN/WiGiG

3.2H CONNECTOR



EMC solution



ULT

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

Title **PCIE NGFF CARD SLOT**

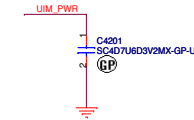
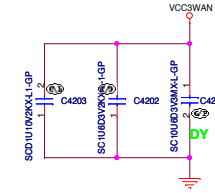
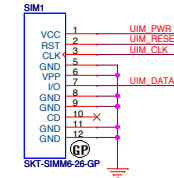
Size	Document Number	Rev
Custom	LSZ-1	-1
Date:	Friday, October 31, 2014	Sheet 41 of 109

TYPE-B NGFF CARD FOR WWAN/SSD

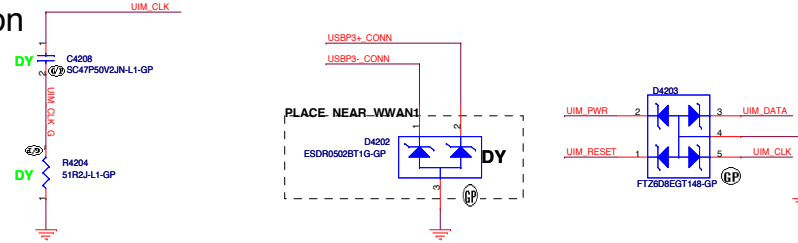
for test point, page 94

94 UIM_RESET
94 UIM_CLK
94 UIM_DATA
94 UIM_PWR

SIM CONN



EMC solution



ULT

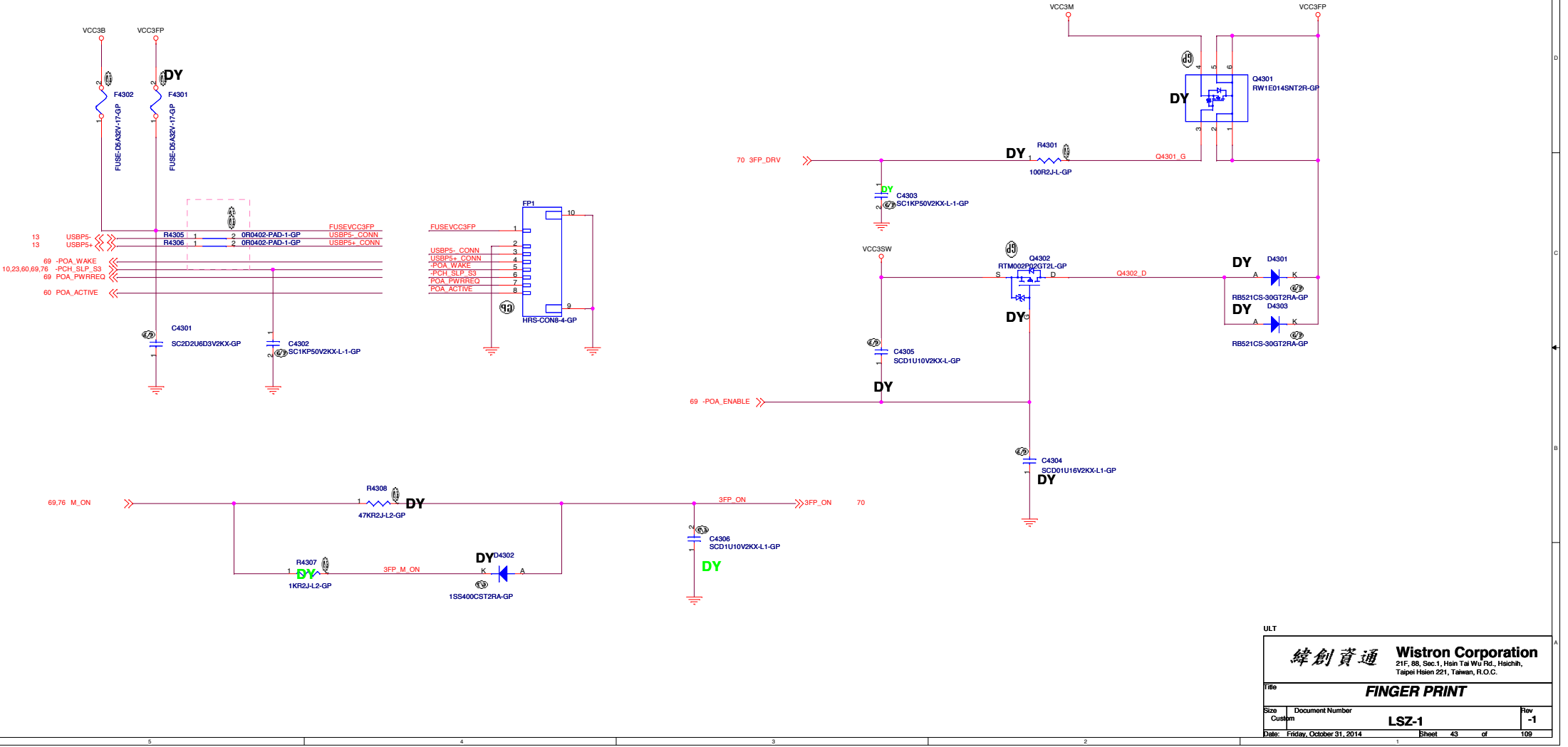
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsin 221, Taiwan, R.O.C.

Title **PCIE NGFF CARD SLOT**

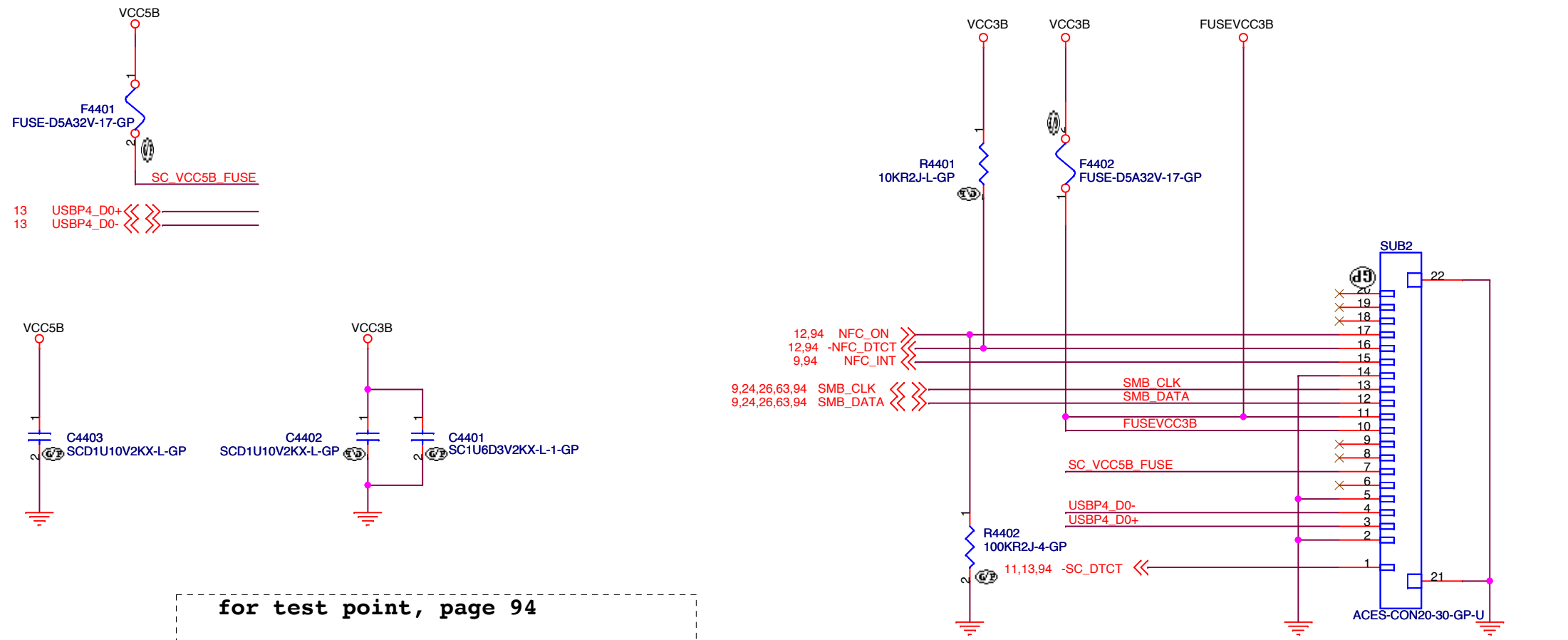
Size C Document Number **LSZ-1** Rev **-1**

Date: Friday, October 31, 2014 Sheet 42 of 109

Finger Print

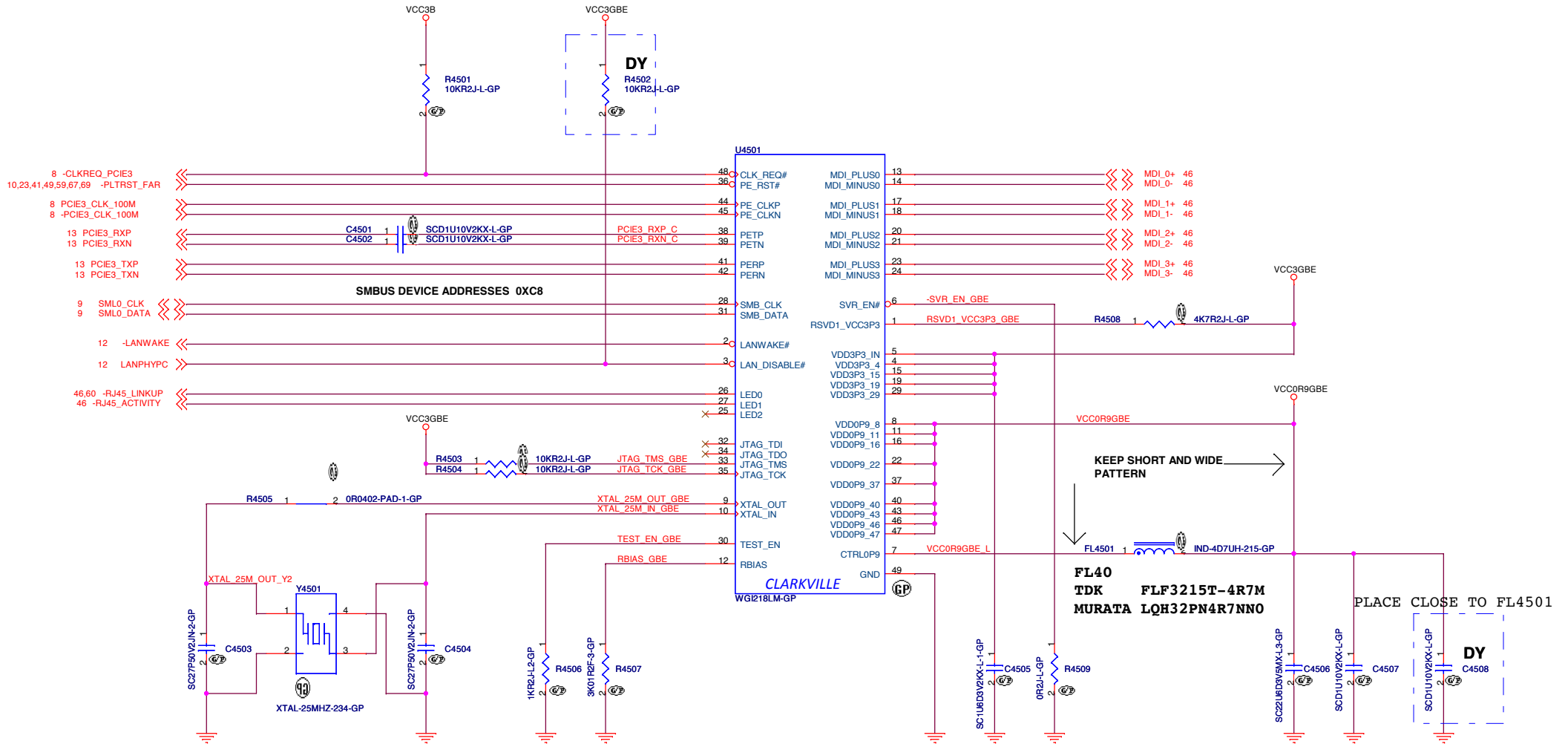


NFC+Smart Card



<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.		
Title					
SMART CARD					
Size A4	Document Number				Rev -1
LSZ-1					
Date: Friday, October 31, 2014		Sheet 44		of 109	

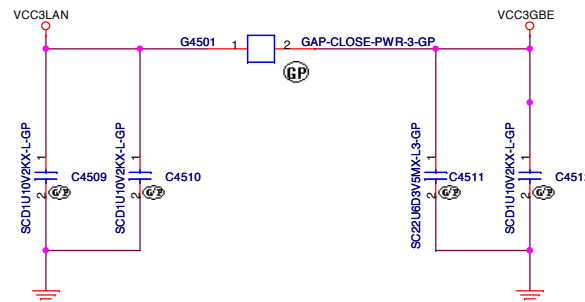


TXC 8Y25000004
KDS 1ZZHAE25000CC0A
ESPON Q22FA1280023800

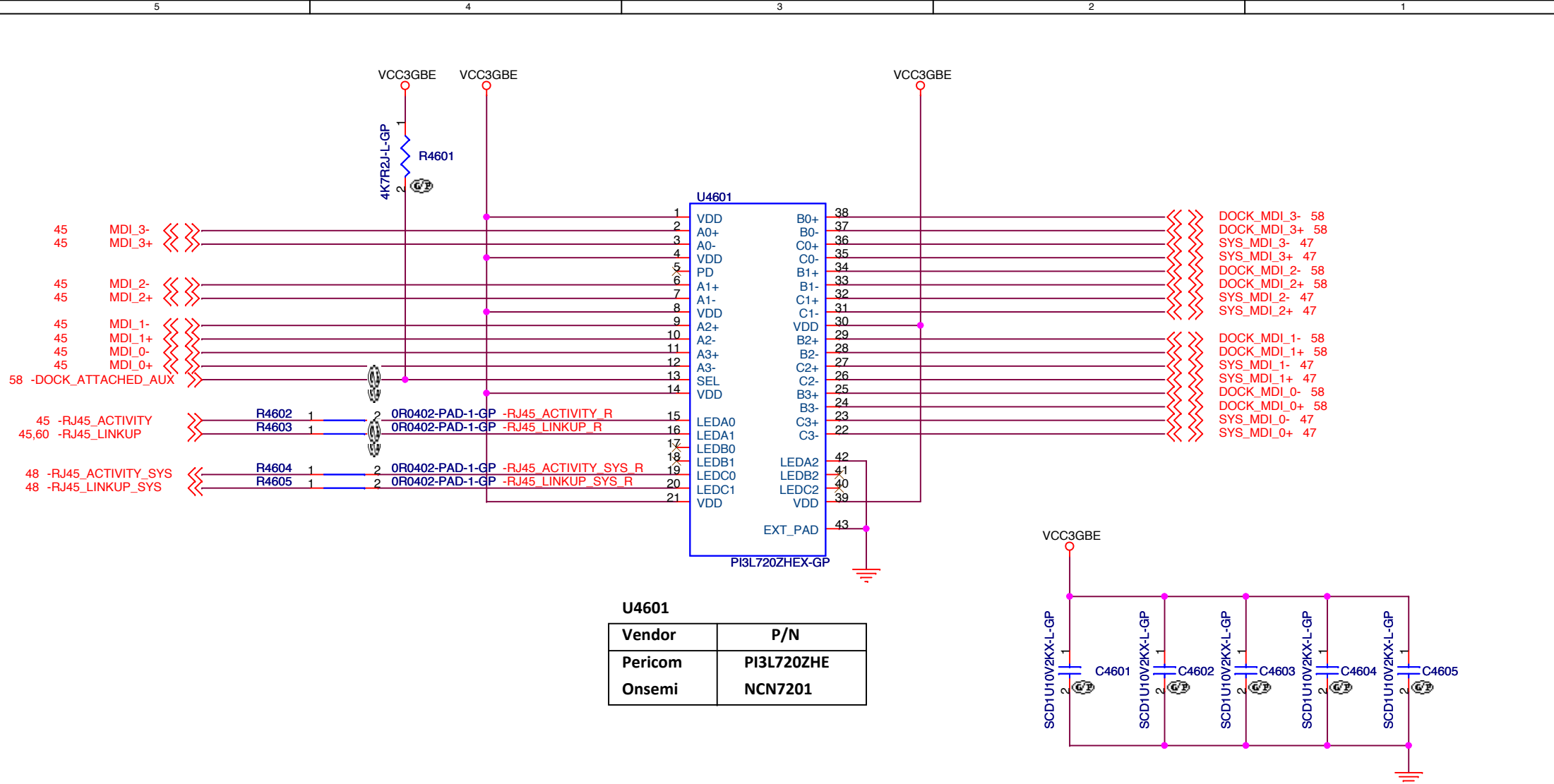
	KDS	TXC	EPSON
Y4501	82.30020.N81	82.20026.191	82.30020.P51
R4505	0	0	0
C4503	9P	27P	27P
C4504	9P	27P	27P

U4501 GBE PHY

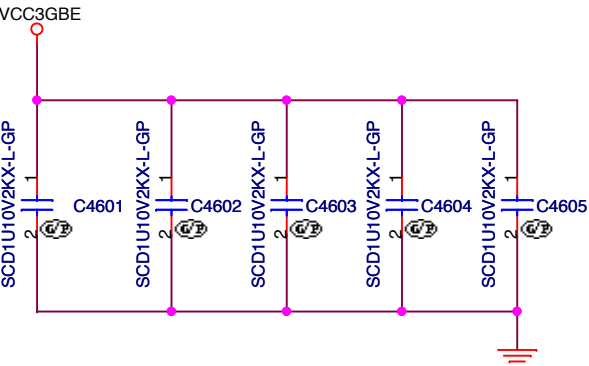
vPRO model	Non-vPRO model
I218LM	I218V



<Variant Name>



U4601	
Vendor	P/N
Pericom	PI3L720ZHE
Onsemi	NCN7201



<Variant Name>

緯創資通

Wistron Corporation

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

Title

GBE LAN Switch

LSZ-1

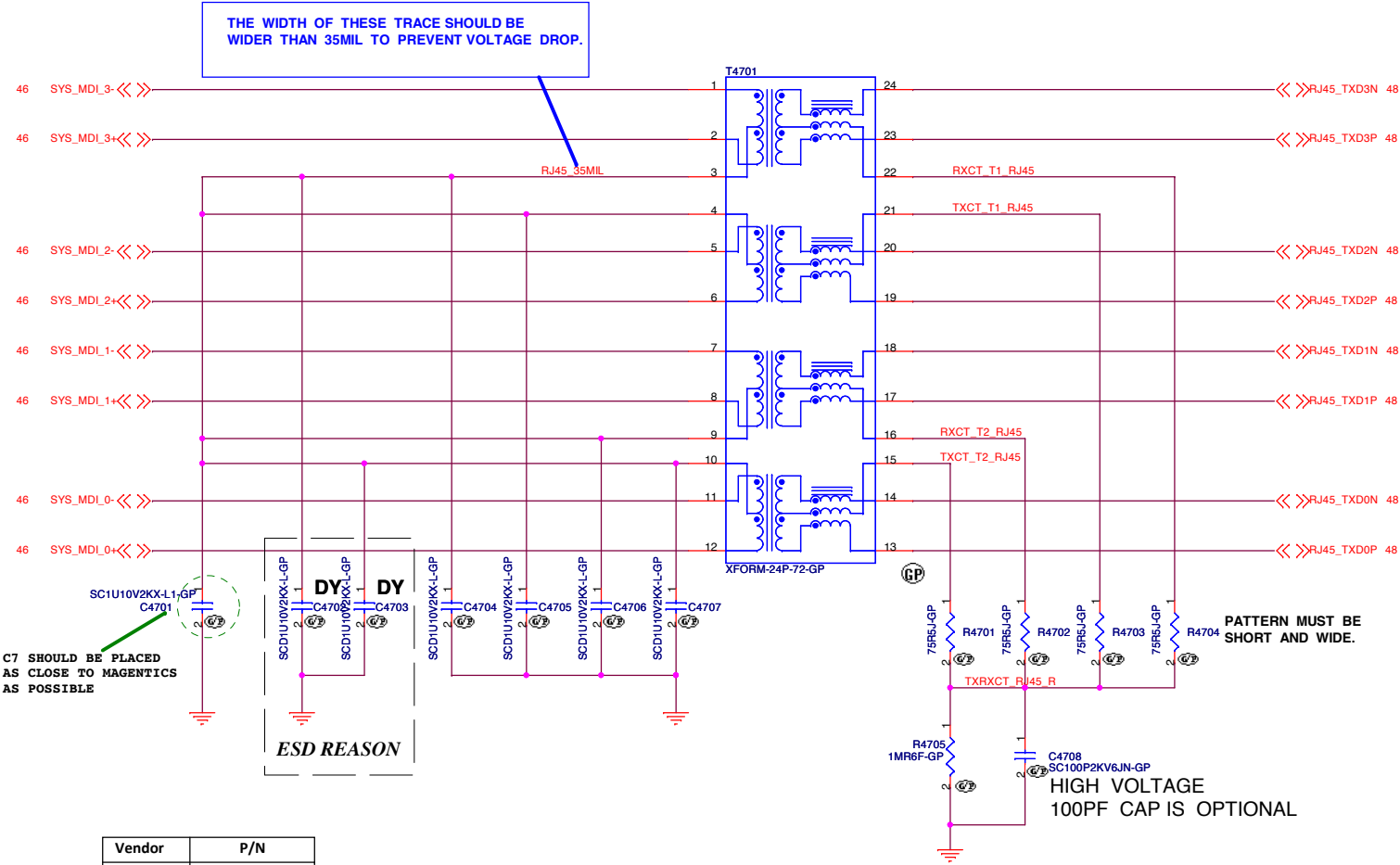
Size
A4

Document Number

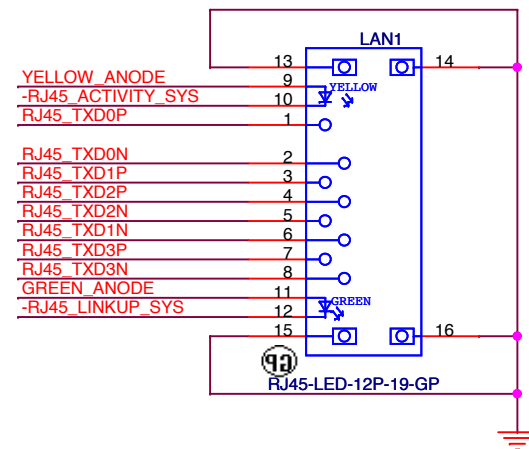
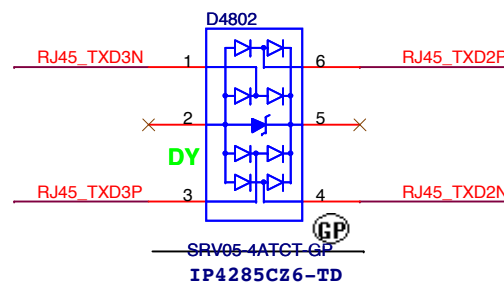
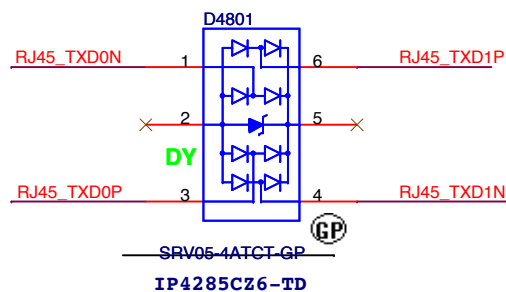
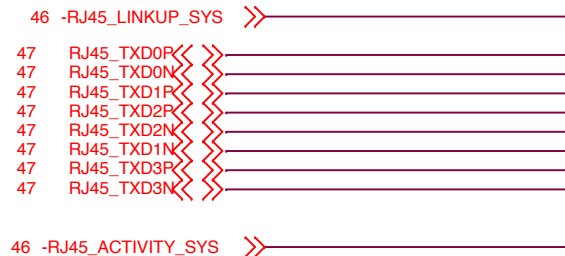
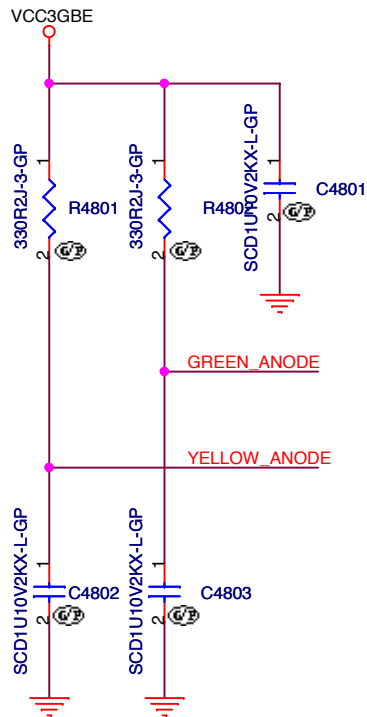
Rev
-1

Date: Friday, October 31, 2014

Sheet 46 of 109



Vendor	P/N
TDK	TLA-7T231HF-T
TAIMAG	IH-115-F
Bothhand	NA69LF
TDK	TLA-7T201HF-T



<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

RJ45 CONNECTOR

Size
Custom

Document Number

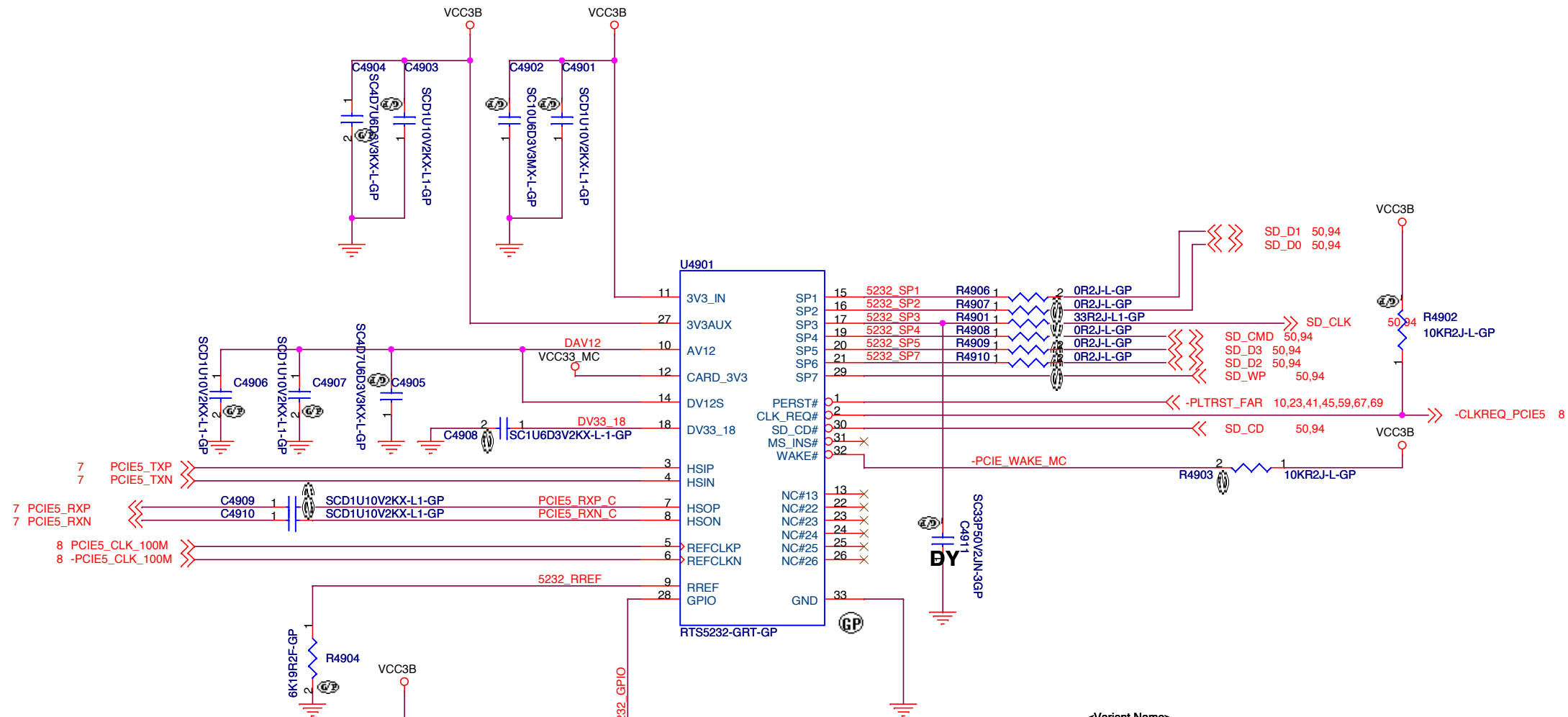
LSZ-1

Rev
-1

Date: Friday, October 31, 2014

Sheet 48 of 109

Card Reder (RTS5232)



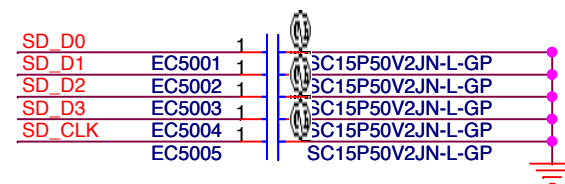
<Variant Name>

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

Title	<i>MEDIA CARD CONTROLLER</i>
-------	-------------------------------------

Size	Document Number	Rev
Custom	LSZ-1	-1

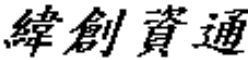
Date: Friday, October 31, 2014 Sheet 49 of 109

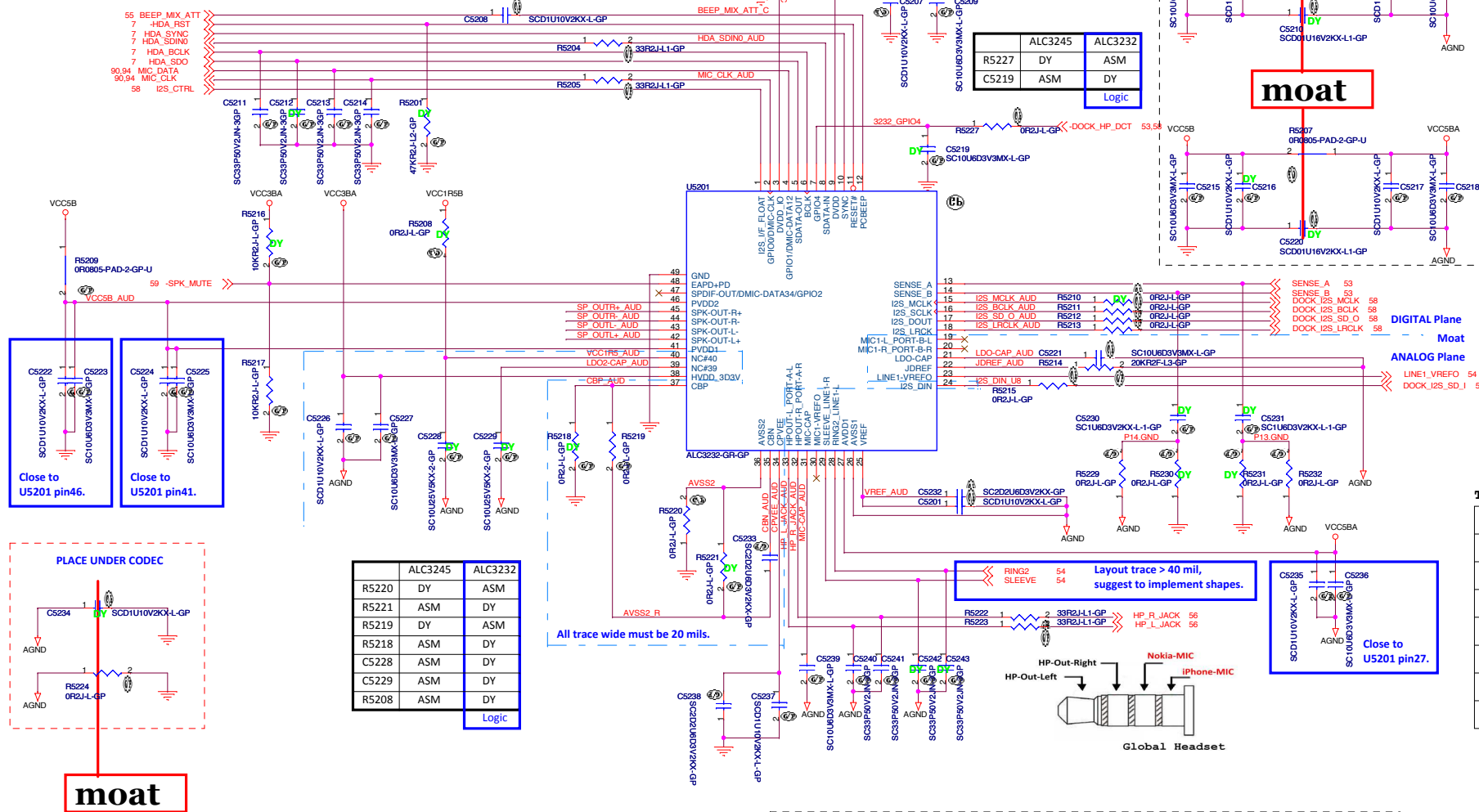


Sheet 50 of 109

BLANK

ULT

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title EXPRESS SLOT			
Size A	Document Number LSZ-1		Rev -1
Date: Friday, October 31, 2014		Sheet 51 of	109



Pin No	ALC3245	ALC3232
7	LDO3-CAP	GPIO4
13	HP/MIC1-JD(JD1)	Sense A
14	I2S_IN/I2S_OUT-JD(JD2)	Sense B
22	AUX Mode/LINE1-JD(JD3)	JDREF
36	CBP	AVSS2
37	AVSS2	CBP
38	CPVDD	HVDD(3.3V)
39	LDO2-CAP	NC
40	AVDD2	NC

	ALC3245	ALC3232
R5214	DY	ASM
R5229	DY	ASM
R5230	ASM	DY
R5231	ASM	DY
R5232	DY	ASM

To DOCK
To System Jack

TABLE Mic HW Enable/Disable

	Enable	Disable	Page
R1235	No ASM	ASM	12
R1239	ASM	No ASM	12
R5205	ASM	No ASM	52
L5401	ASM	No ASM	54
L5402	ASM	No ASM	54
R5405	No ASM	ASM	54
R5407	No ASM	ASM	54

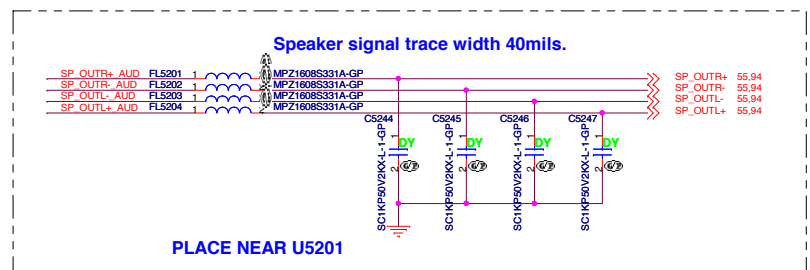
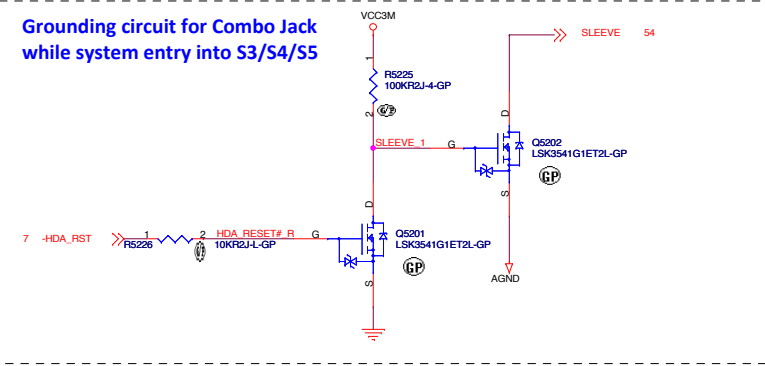
	ALC3245	ALC3232
R5220	DY	ASM
R5221	ASM	DY
R5219	DY	ASM
R5218	ASM	DY
C5228	ASM	DY
C5229	ASM	DY
R5208	ASM	DY

	ALC3245	ALC3232
R5227	DY	ASM
C5219	ASM	DY

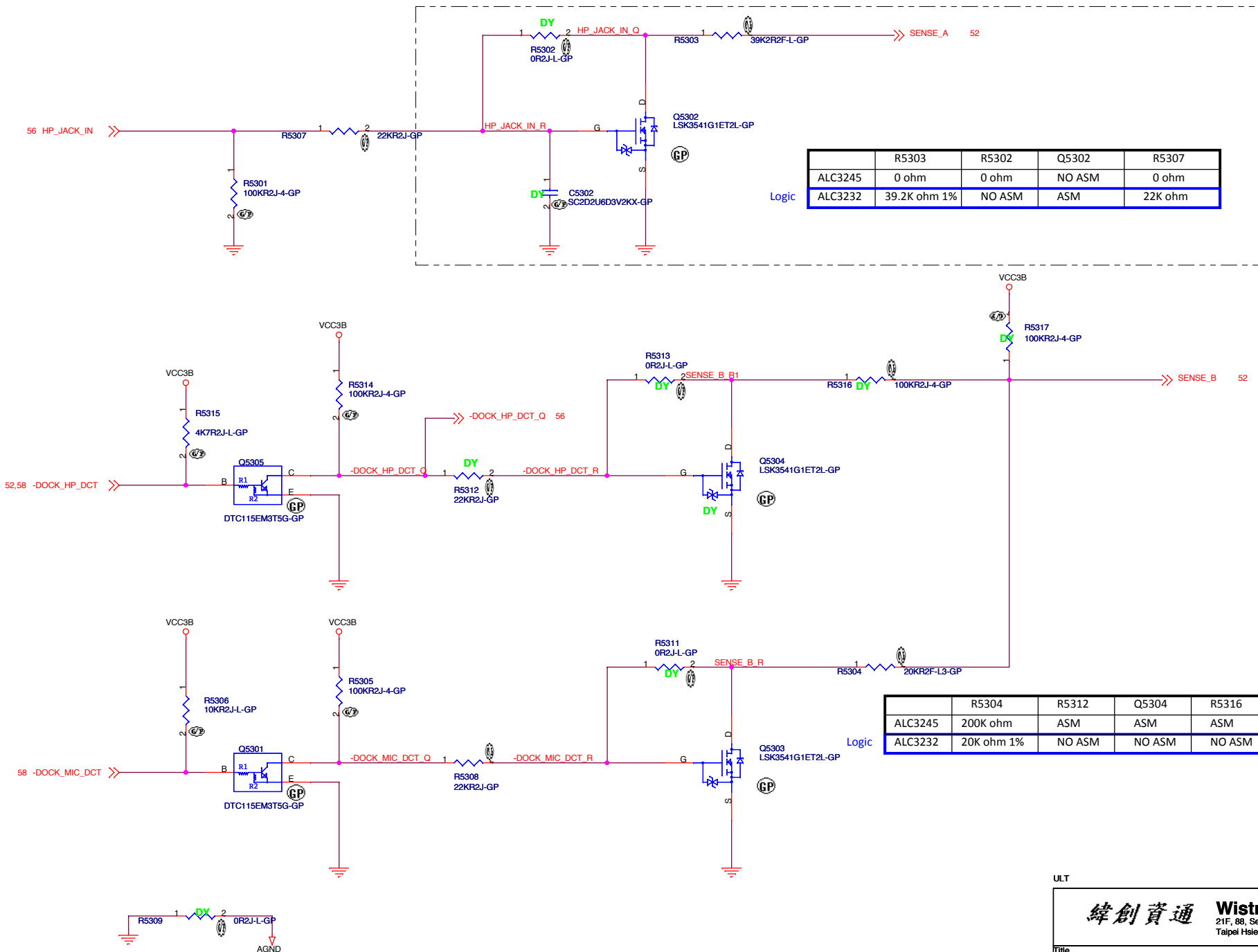
moat

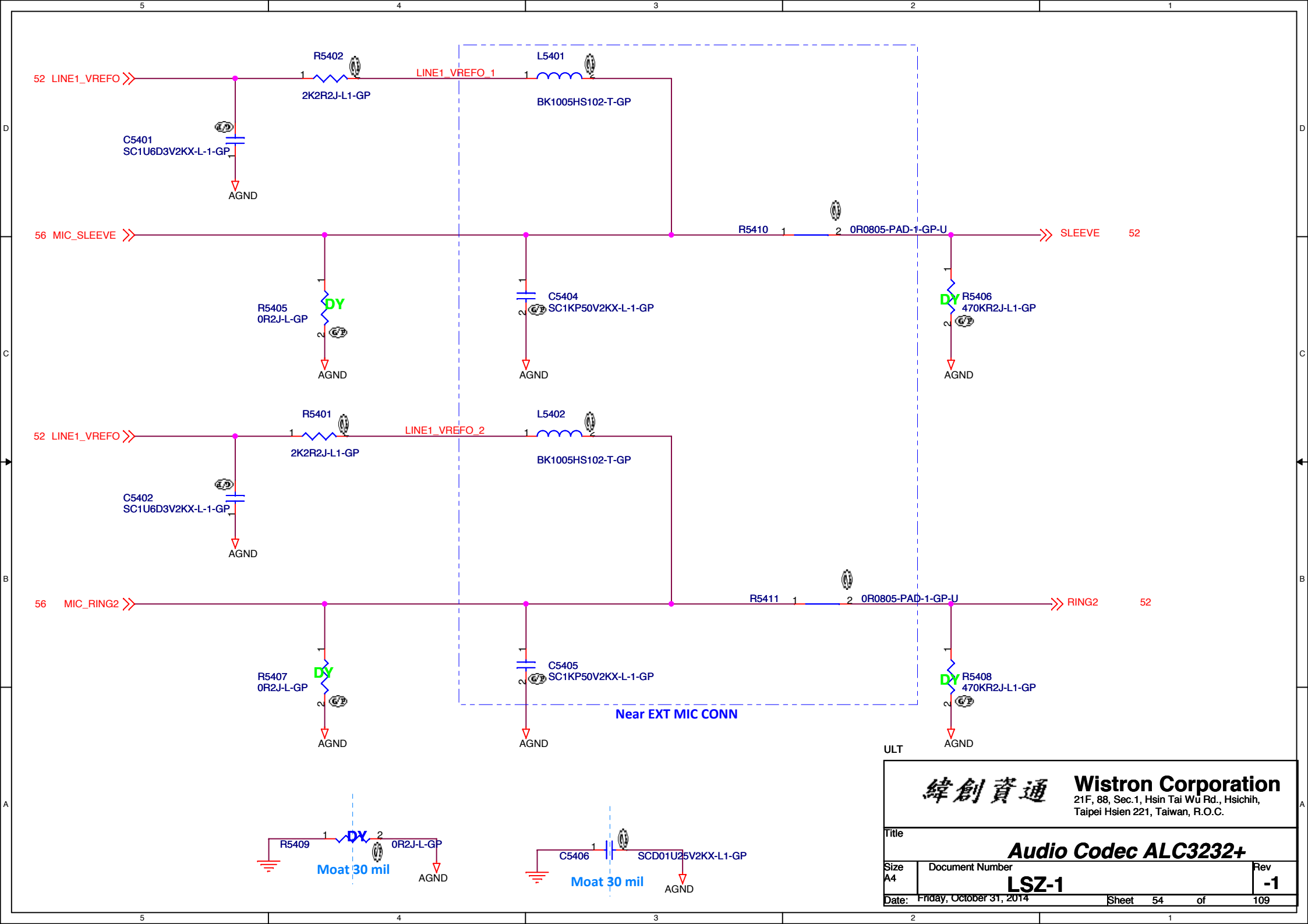
Layout trace > 40 mil, suggest to implement shapes.

Close to U5201 pin27.



Place near to U5201 pin 13



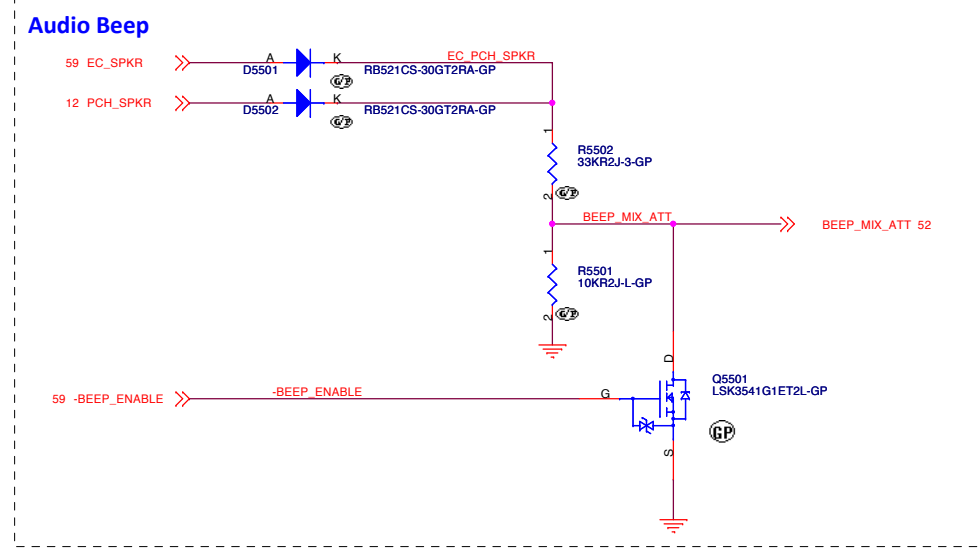


緯創資通

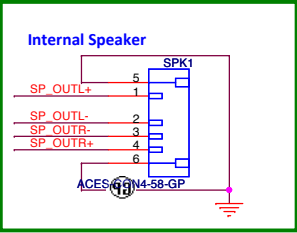
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title				
Audio Codec ALC3232+				
Size A4	Document Number			Rev
	LSZ-1			-1
Date:	Friday, October 31, 2014		Sheet 54 of	109

Audio BEEP

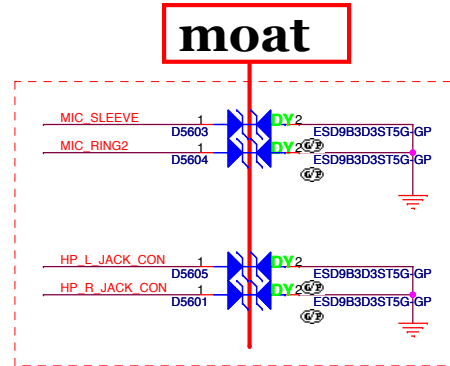
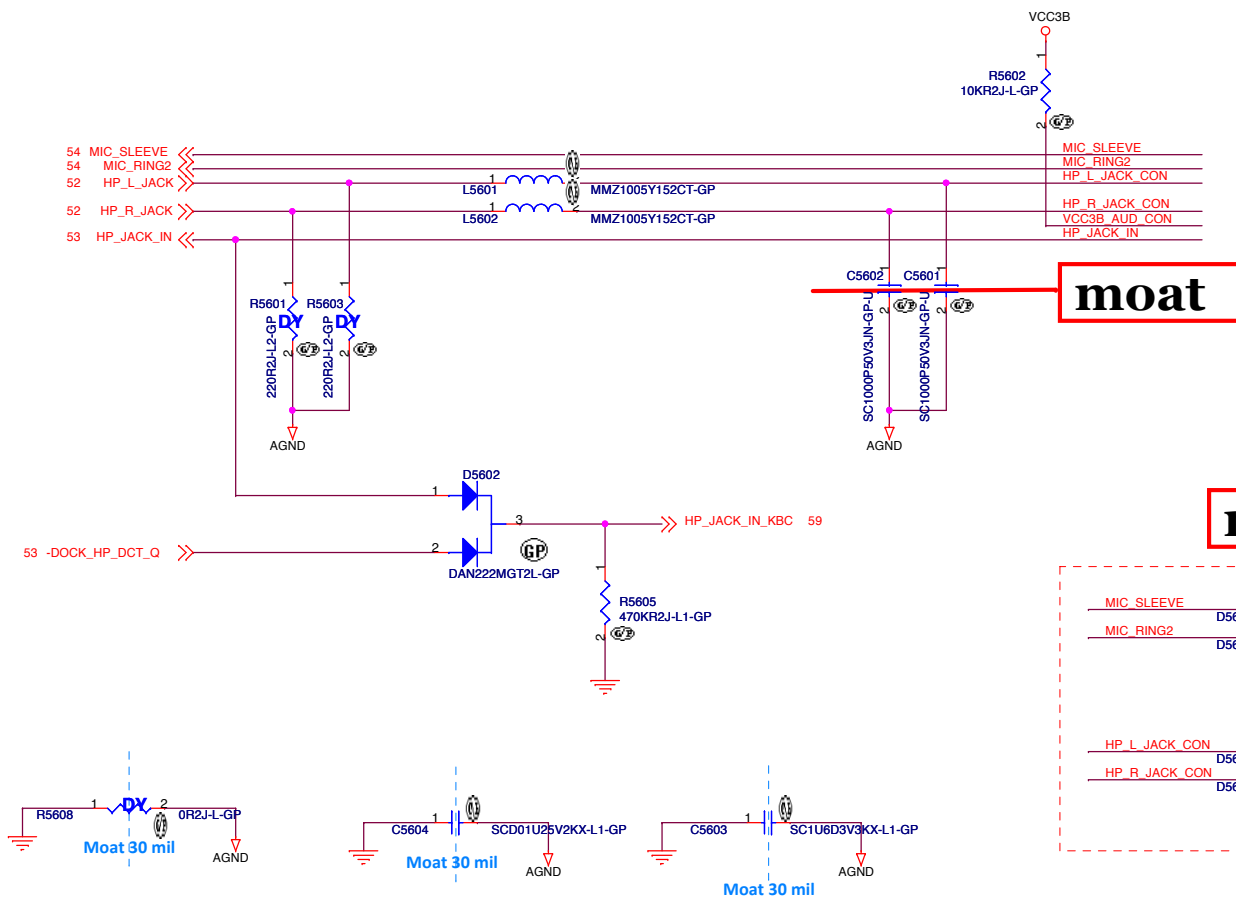


Connector

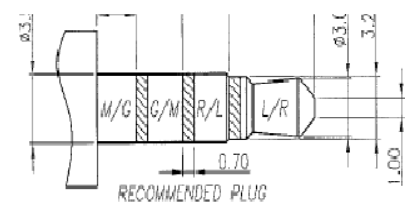
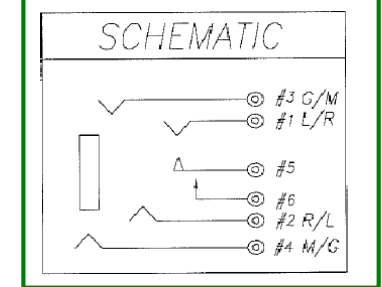
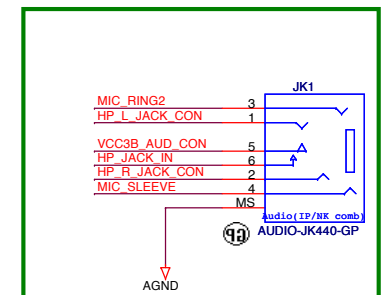


Trace width for SPK-L+ / SPK-L- / SPK-R+ / SPK-R-
Speaker 4 ohm : 40 mil
Speaker 8 ohm : 20 mil

<<Note>>
Place these EMI compinents next to codec (U2801);
For EMI issue, please also refer Layout guide document.



Audio Jack



ULT

緯創資通 Wistron Corporation

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

Title **Audio Codec ALC3232+**

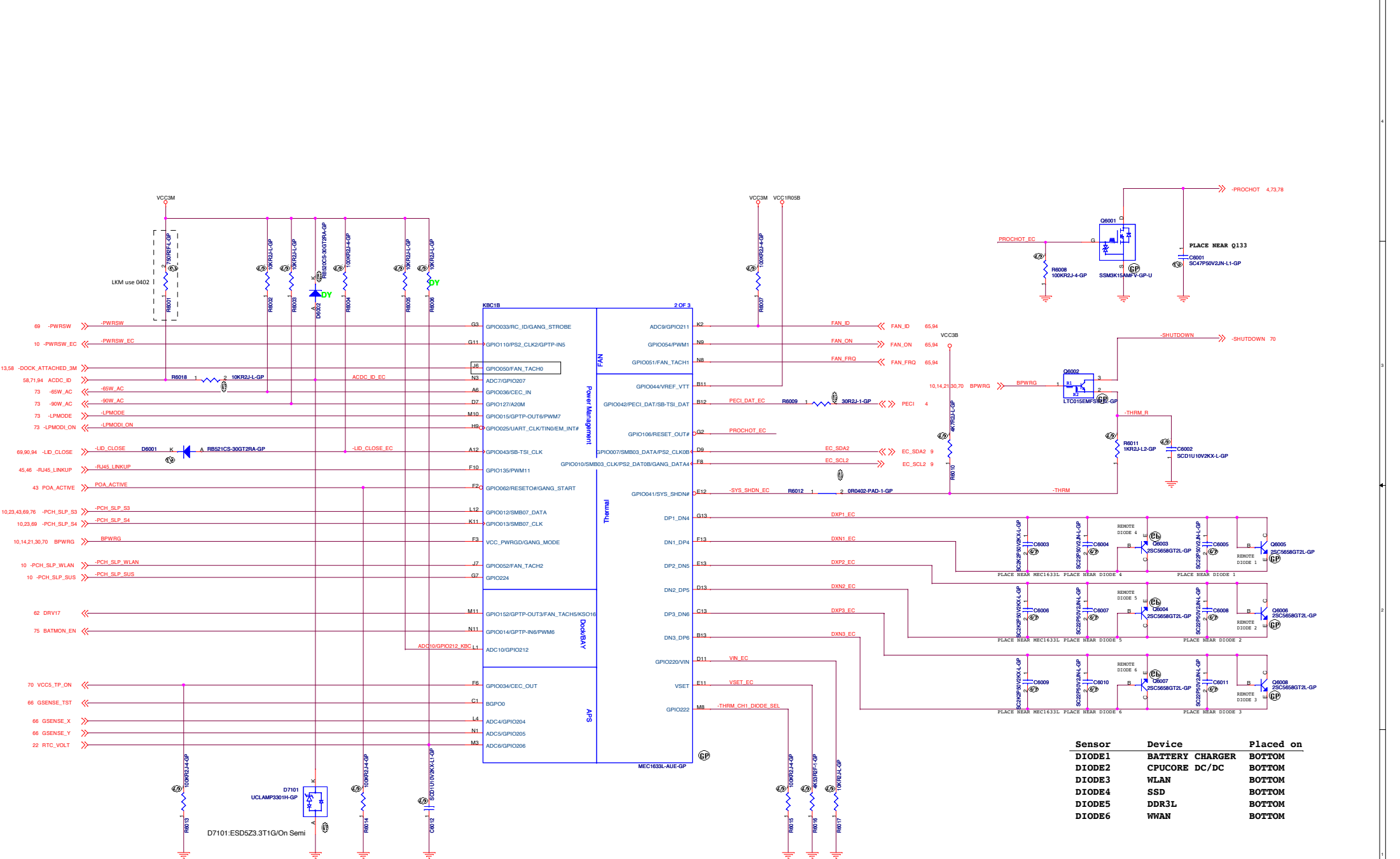
Size Custom Document Number **LSZ-1** Rev **-1**

Date: Friday, October 31, 2014 Sheet 56 of 109

BLANK

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			
Audio Codec ALC3232+			
Size A	Document Number LSZ-1		Rev -1
Date:	Friday, October 31, 2014	Sheet 57 of	109



Sensor	Device	Placed on
DIODE1	BATTERY CHARGER	BOTTOM
DIODE2	CPUCORE DC/DC	BOTTOM
DIODE3	WLAN	BOTTOM
DIODE4	SSD	BOTTOM
DIODE5	DDR3L	BOTTOM
DIODE6	WWAN	BOTTOM

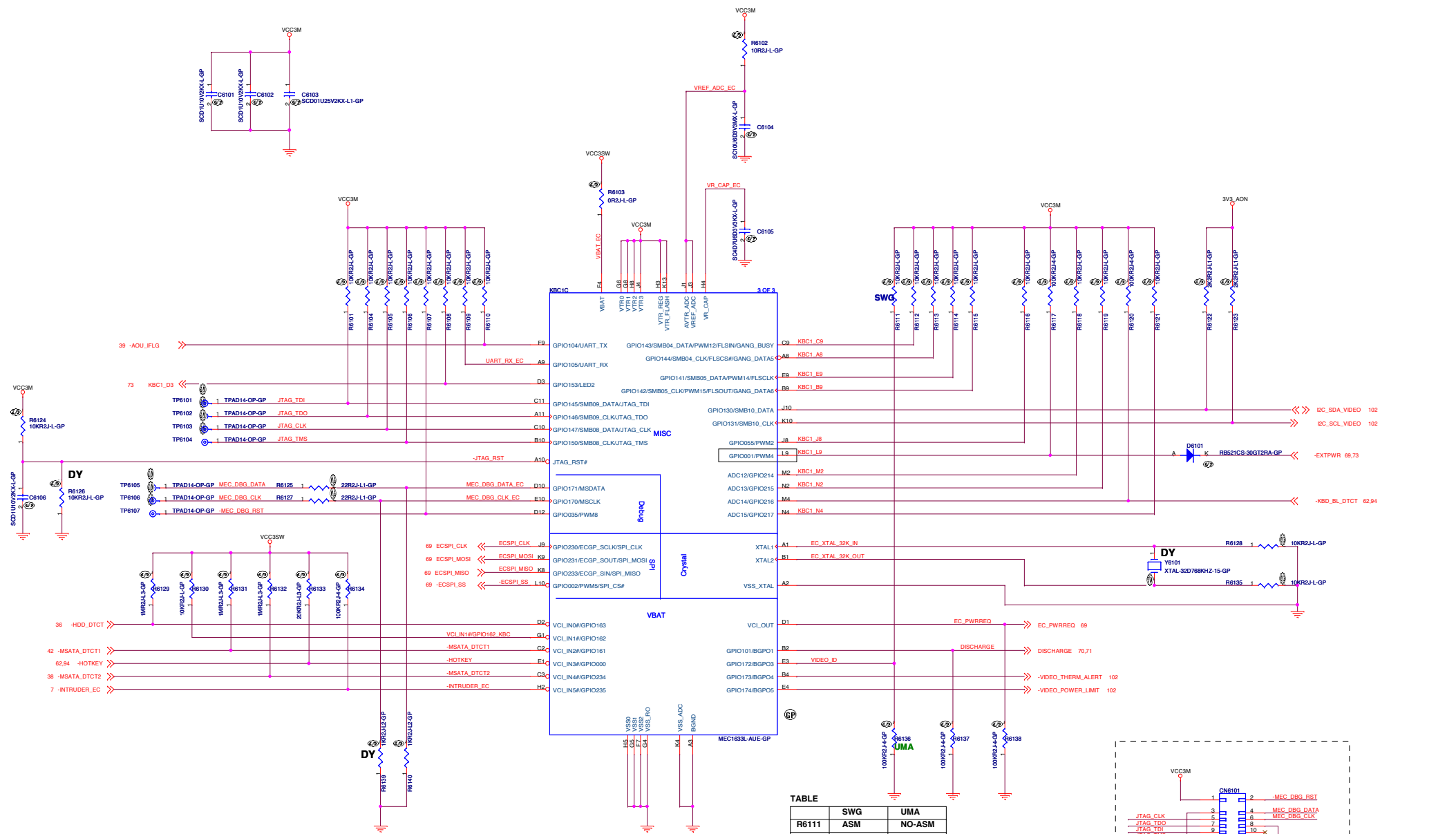


TABLE		
	SWG	UMA
R6111	ASM	NO-ASM
R6136	NO-ASM	ASM

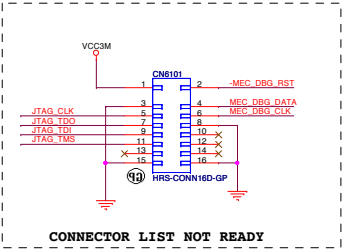


TABLE		
JTAG debug port		
	Enable	Disable
R6124	ASM	NO-ASM
R6126	NO-ASM	ASM

LOGIC

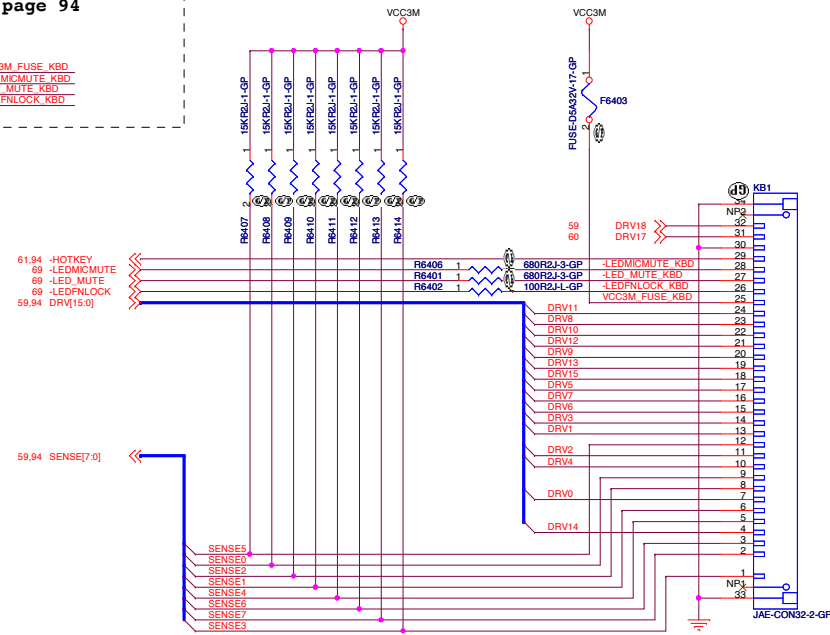
TABLE		
trace FIFO debug port		
	Enable	Disable
R6125	ASM	NO-ASM
R6127	ASM	NO-ASM
R6139	NO-ASM	ASM

LOGIC

LEVEL	CN6101
SDV	ASM
ME FVT	NO ASM
FVT	NO ASM
SIT	NO ASM
SVT	NO ASM

KBD (32PIN)

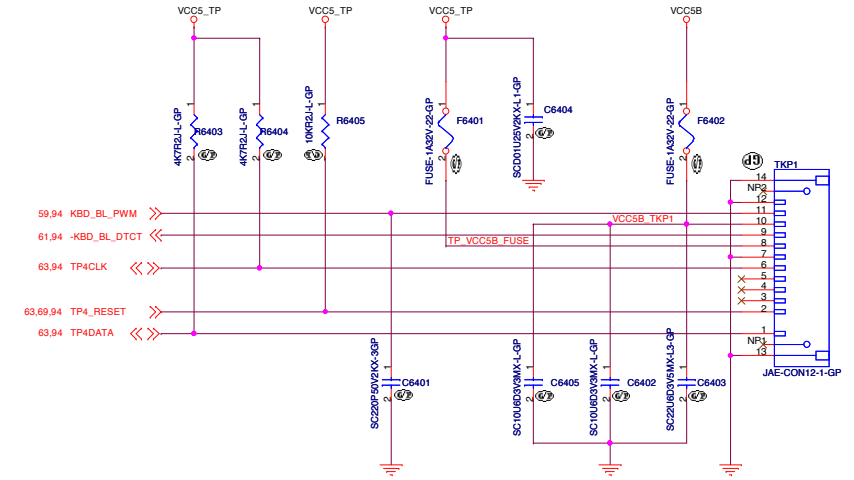
for test point, page 94



TRACKPOINT (12PIN)

for test point, page 94

94 VCC5B_TKP1 <<< VCC5B_TKP1
 94 TP_VCC5B_FUSE <<< TP_VCC5B_FUSE



ULT

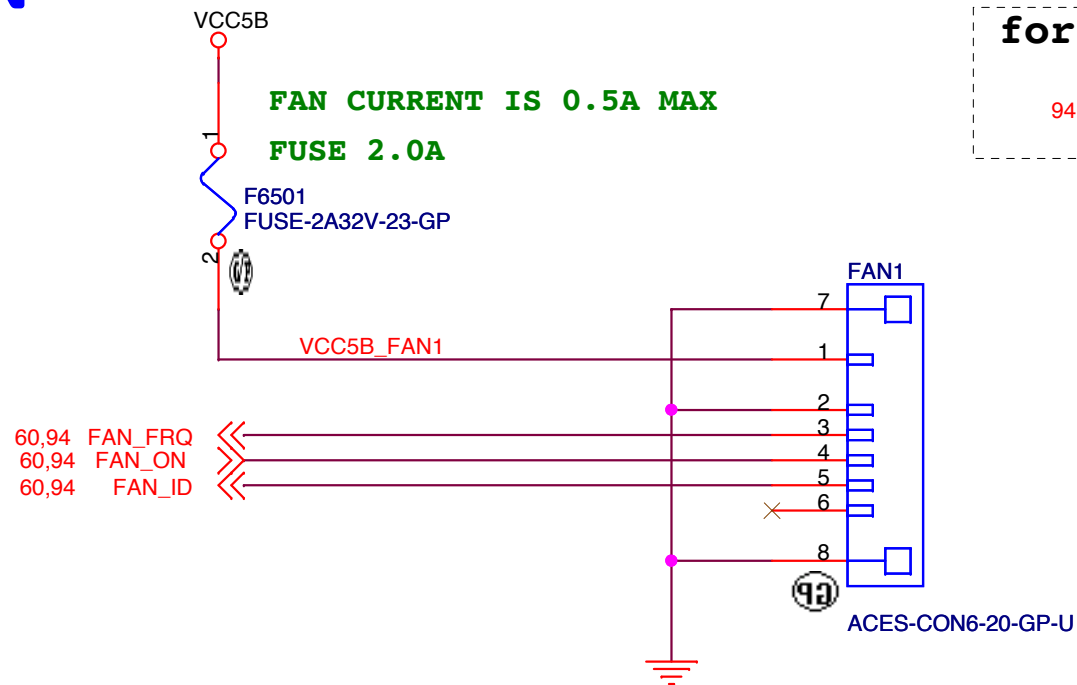
緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Haichih, Taipei Hsien 221, Taiwan, R.O.C.	
KEYBOARD CONNECTOR	
Title Size Custom	Document Number LSZ-1
Date: Friday, October 31, 2014	Sheet 62 of 109

BLANK

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>	
<div>Title</div> <div>TOUCH SCREEN/DIGITIZER</div>			
<div>Size</div> <div>A</div>	<div>Document Number</div> <div>LSZ-1</div>		<div>Rev</div> <div>-1</div>
<div>Date: Friday, October 31, 2014</div>		<div>Sheet</div> <div>64</div>	<div>of</div> <div>109</div>

FAN



for test point, page 94

94 VCC5B_FAN1 << VCC5B_FAN1

<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

FAN I/F

Size

Custom

Document Number

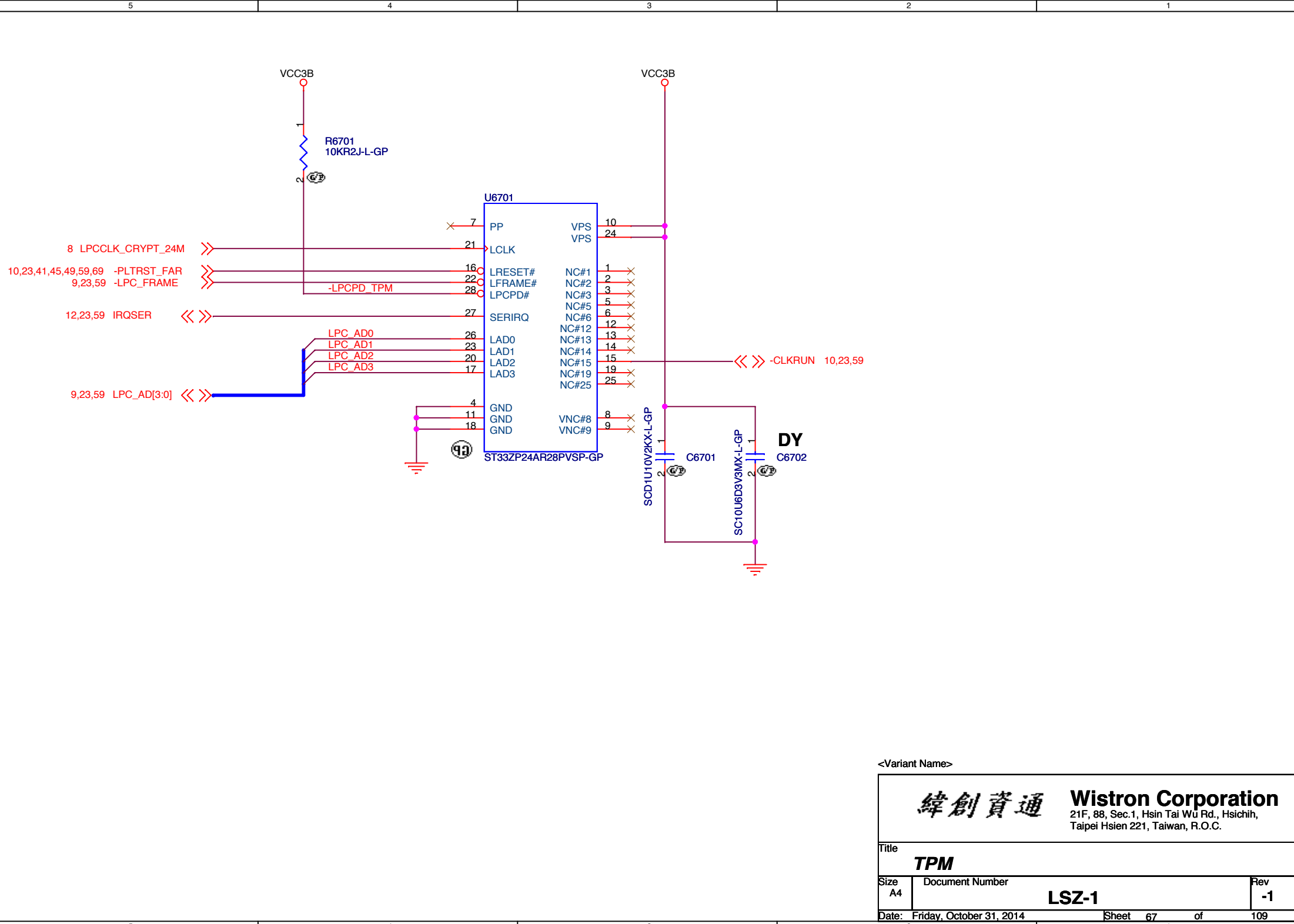
LSZ-1

Rev

-1

Date: Friday, October 31, 2014

Sheet 65 of 109



<Variant Name>

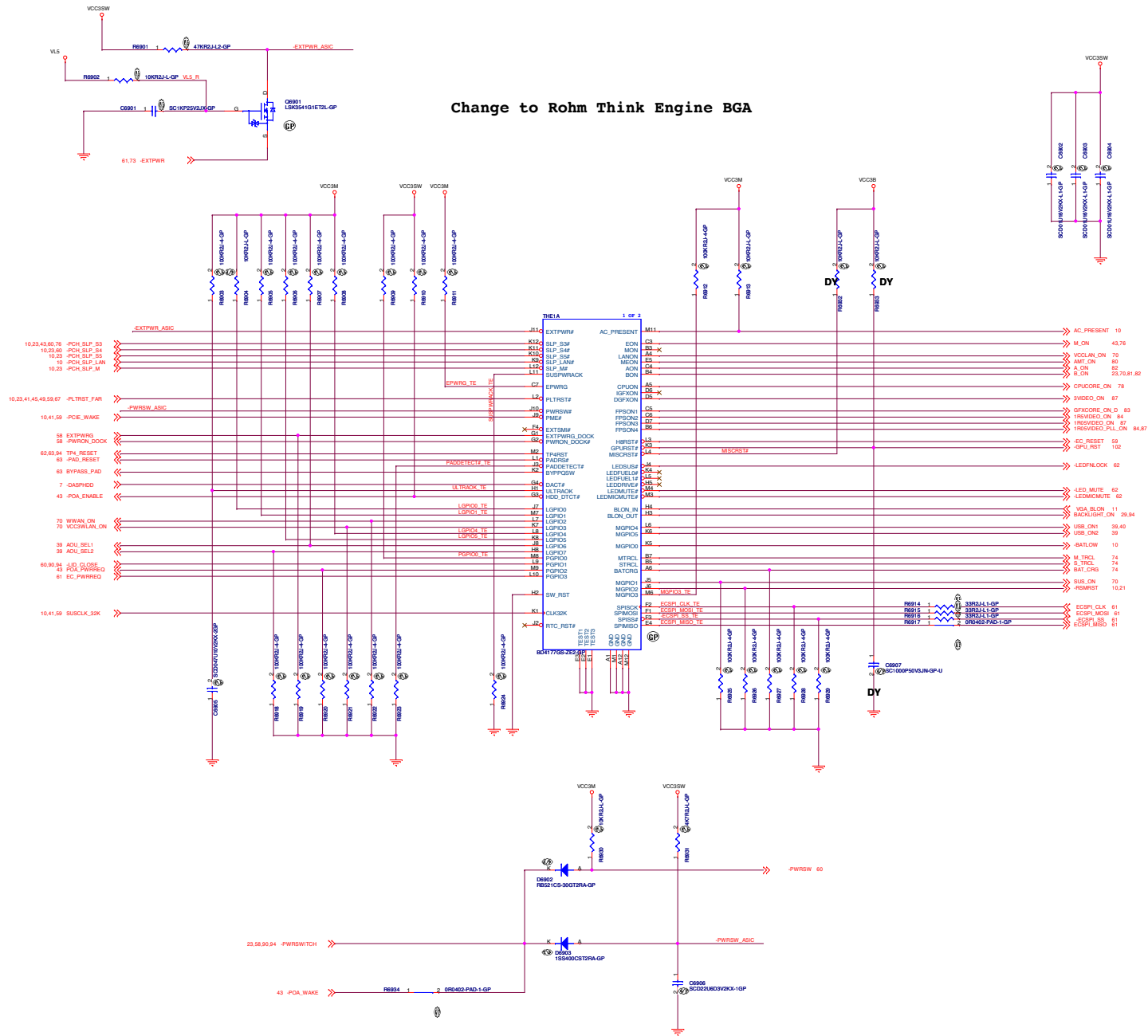
<div>緯創資通</div> <div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>		
Title TPM		
Size A4	Document Number LSZ-1	Rev -1
Date: Friday, October 31, 2014	Sheet 67 of 109	

BLANK

<Core Design>

<div>緯創資通</div>		<div>Wistron Corporation</div>	
<div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>			
Title			
EEPROM/SMBUS SW			
Size	Document Number		Rev
Custom	LSZ-1		-1
Date:	Friday, October 31, 2014		Sheet 66 of 109

Change to Rohm Think Engine BGA



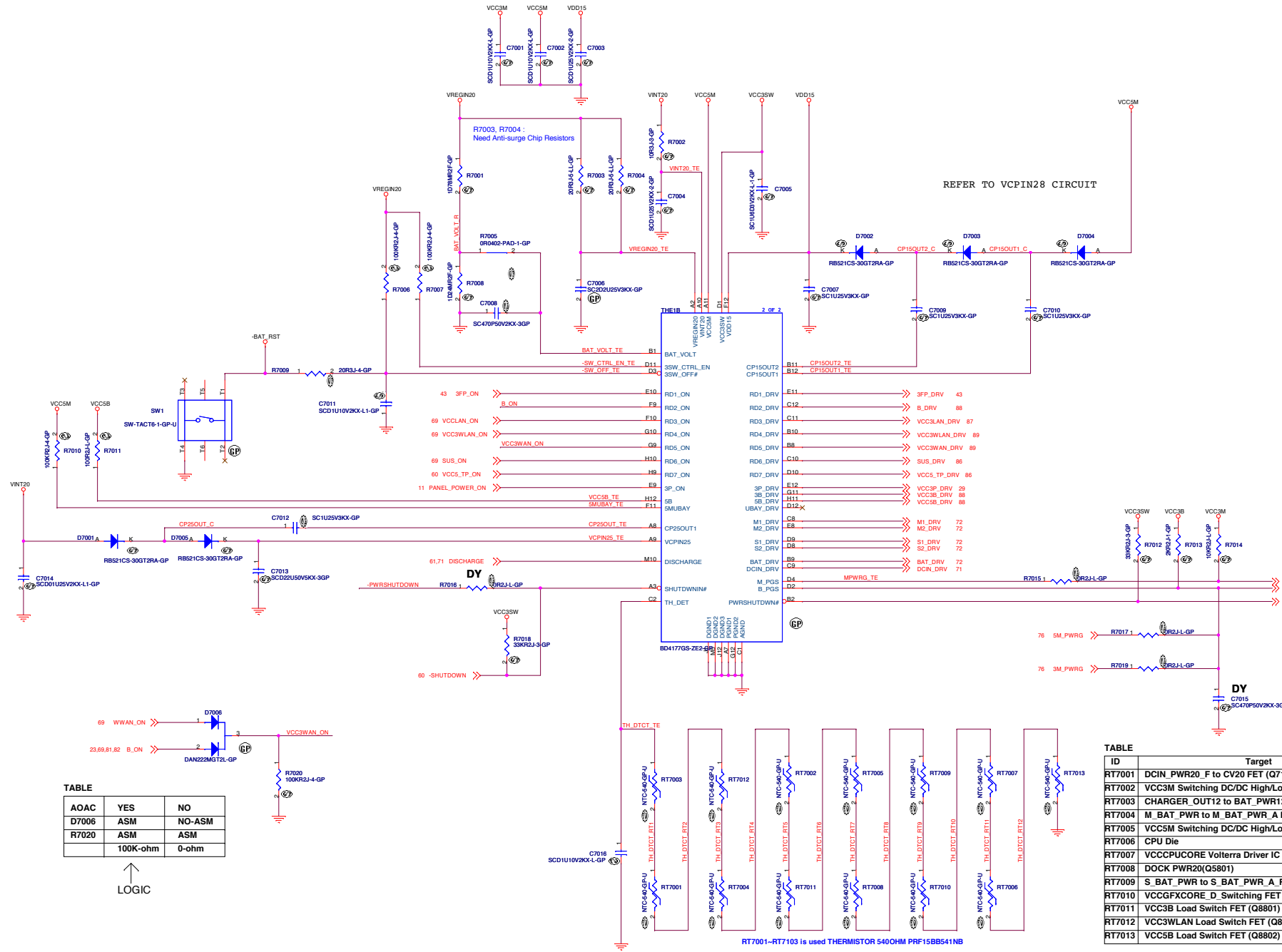
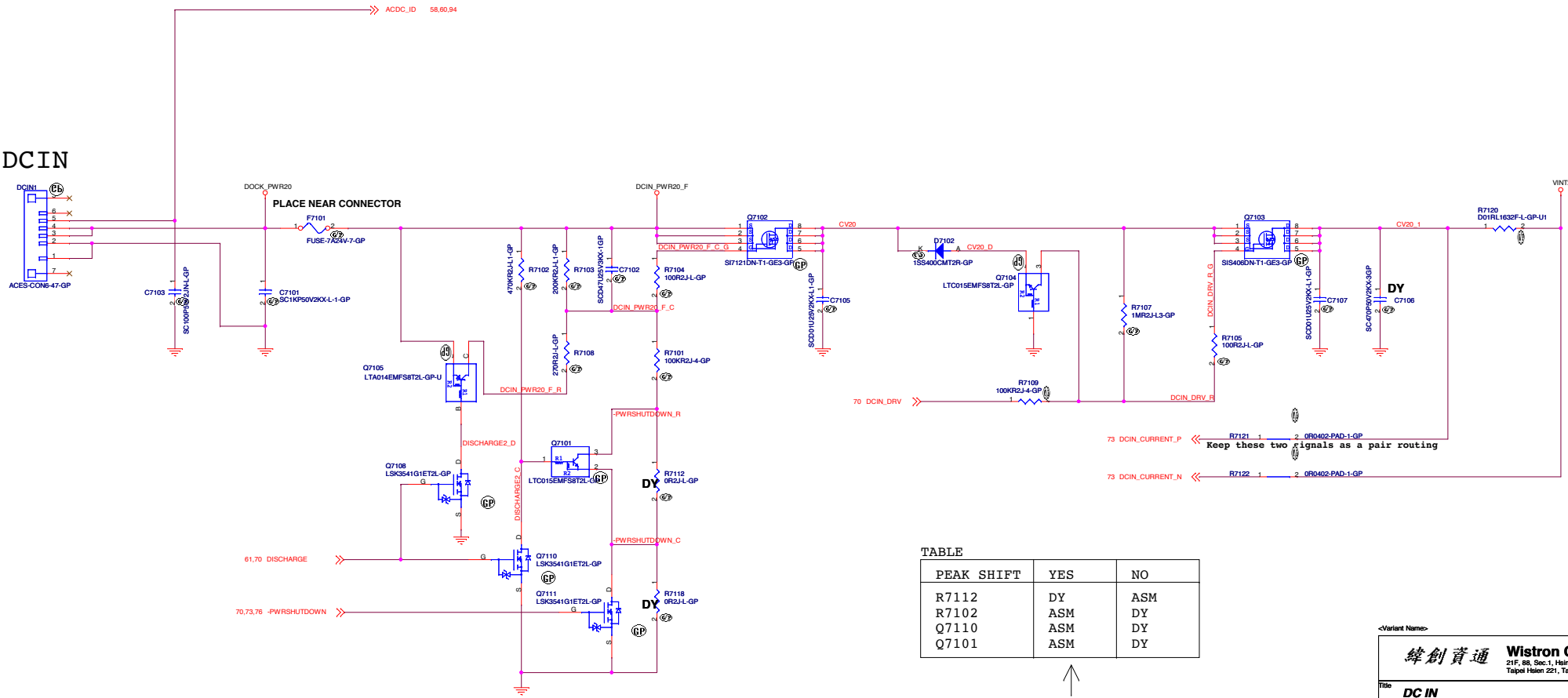


TABLE		
AOAC	YES	NO
D7006	ASM	NO-ASM
R7020	ASM	ASM
	100K-ohm	0-ohm

LOGIC

TABLE	
ID	Target
RT7001	DCIN_PWR20_F to CV20 FET (Q7102)
RT7002	VCC3M Switching DC/DC High/Low Side FET (Q7602)
RT7003	CHARGER_OUT12 to BAT_PWR12FET (Q7401)
RT7004	M_BAT_PWR to M_BAT_PWR_A FET (Q7201)
RT7005	VCC3M Switching DC/DC High/Low Side FET (Q7601)
RT7006	CPU Die
RT7007	VCCCPUCORE Volterra Driver IC VT1334S (U7901)
RT7008	DOCK_PWR20(Q5801)
RT7009	S_BAT_PWR to S_BAT_PWR_A_FET (Q7204,Q7205)
RT7010	VCCGFXCORE_D Switching FET (Q8301,Q8302)
RT7011	VCC3B Load Switch FET (Q8801)
RT7012	VCC3WLAN Load Switch FET (Q8901)
RT7013	VCC3B Load Switch FET (Q8802)

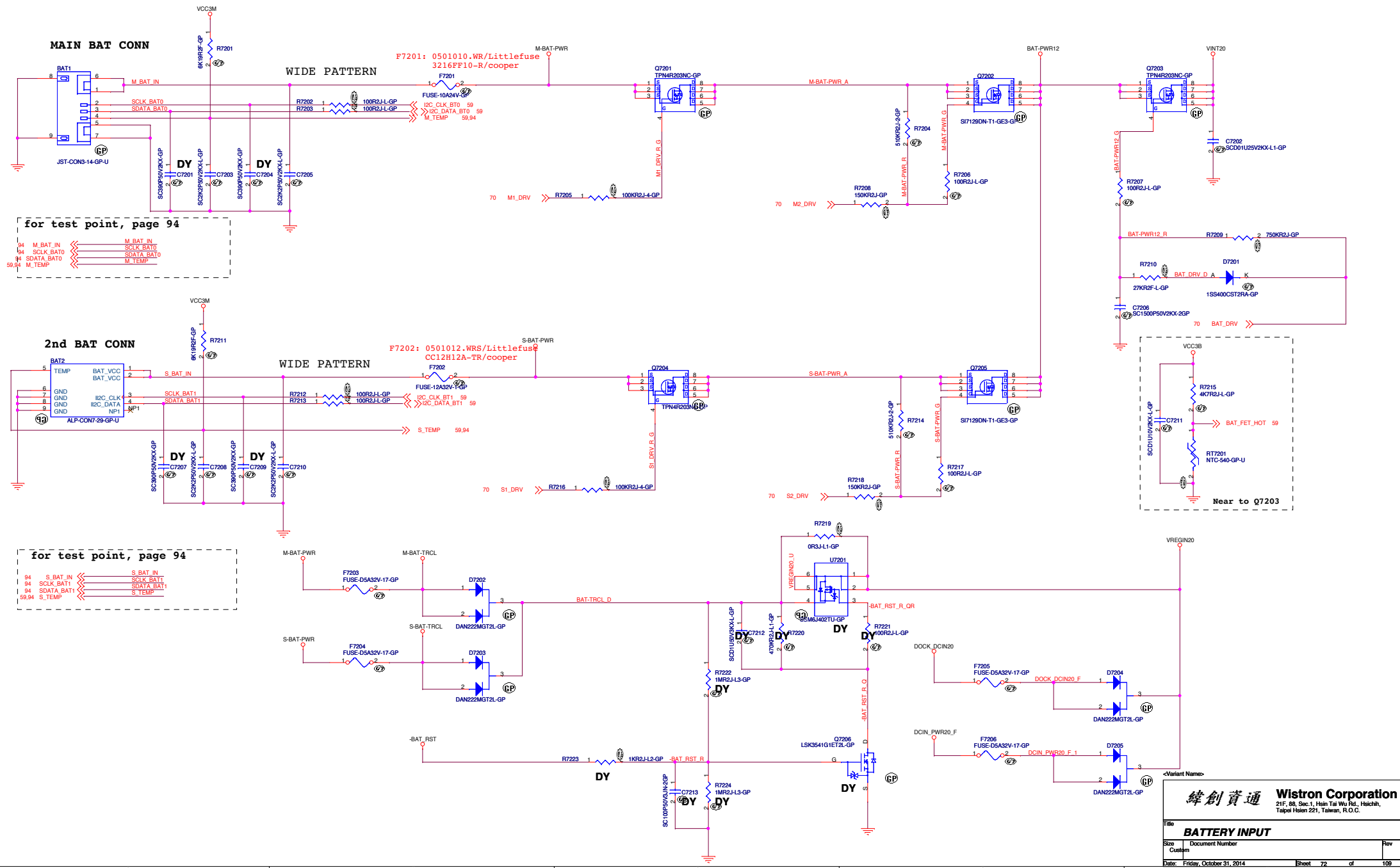
DCIN



TABLE

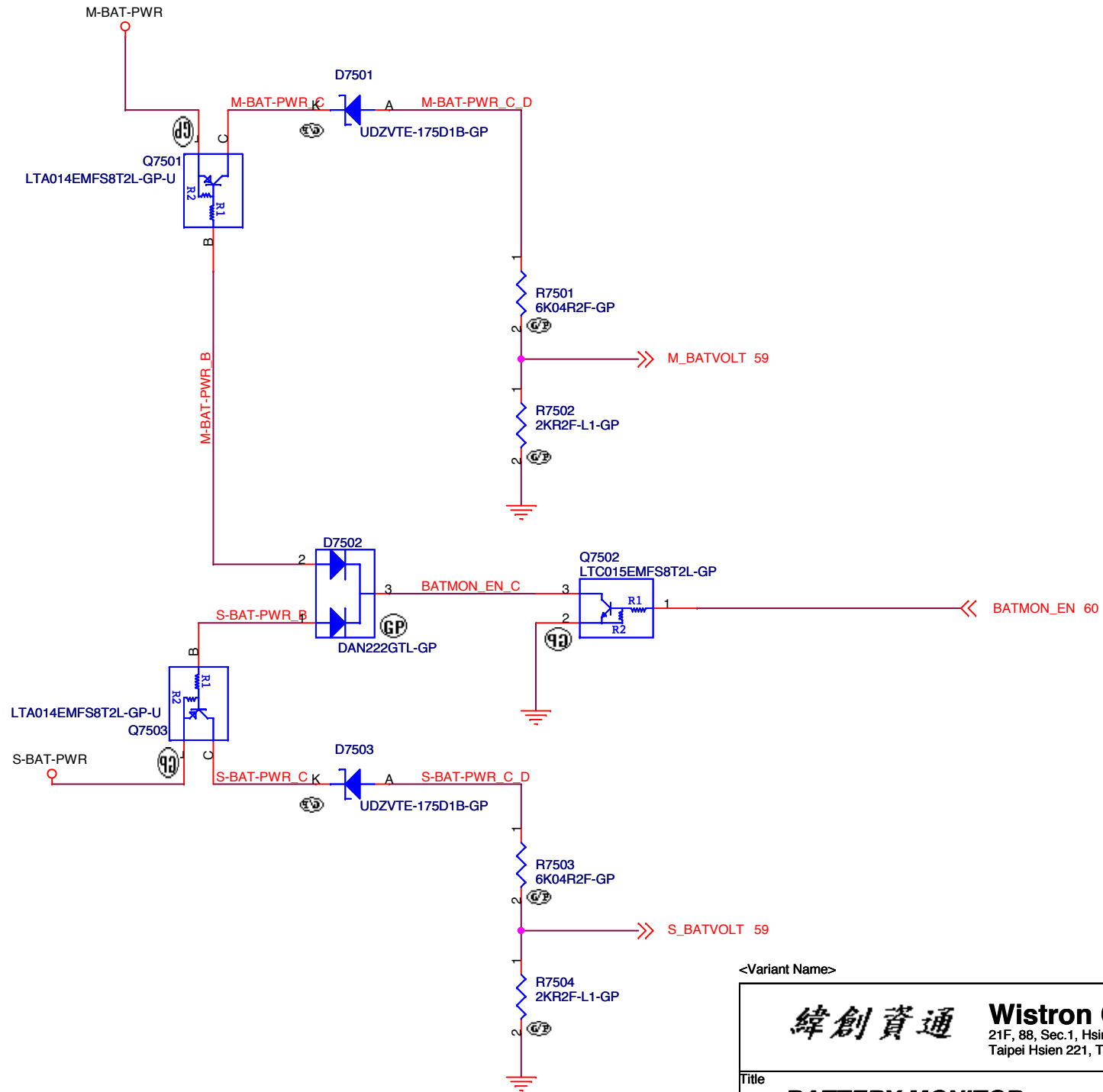
PEAK SHIFT	YES	NO
R7112	DY	ASM
R7102	ASM	DY
Q7110	ASM	DY
Q7101	ASM	DY

↑
LOGIC





Title BATTERY CHARGER		
Size A2	Document Number	Rev
Date: Friday, October 31, 2014	Sheet 73 of	109



<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

BATTERY MONITOR

Size
A4

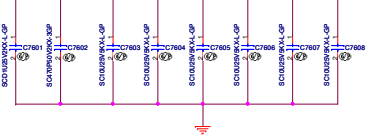
Document Number

Rev
-1

Date: Friday, October 31, 2014

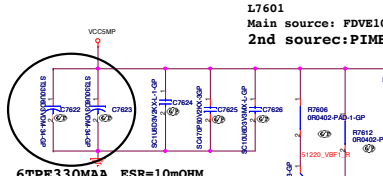
Sheet 75 of 109

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

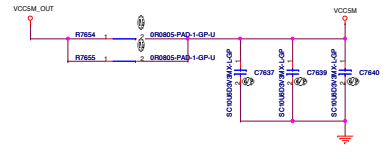
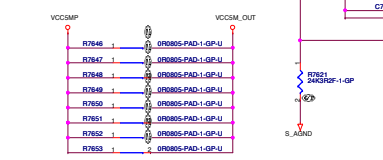


Q7601	
1st	BSC0921NDI 84.00921.030
2nd	AON6970 084.06970.0037

19A(TDC:12.5A) for 28W CPU
18A(TDC:10.2A) for 15W CPU & 18W Gfx

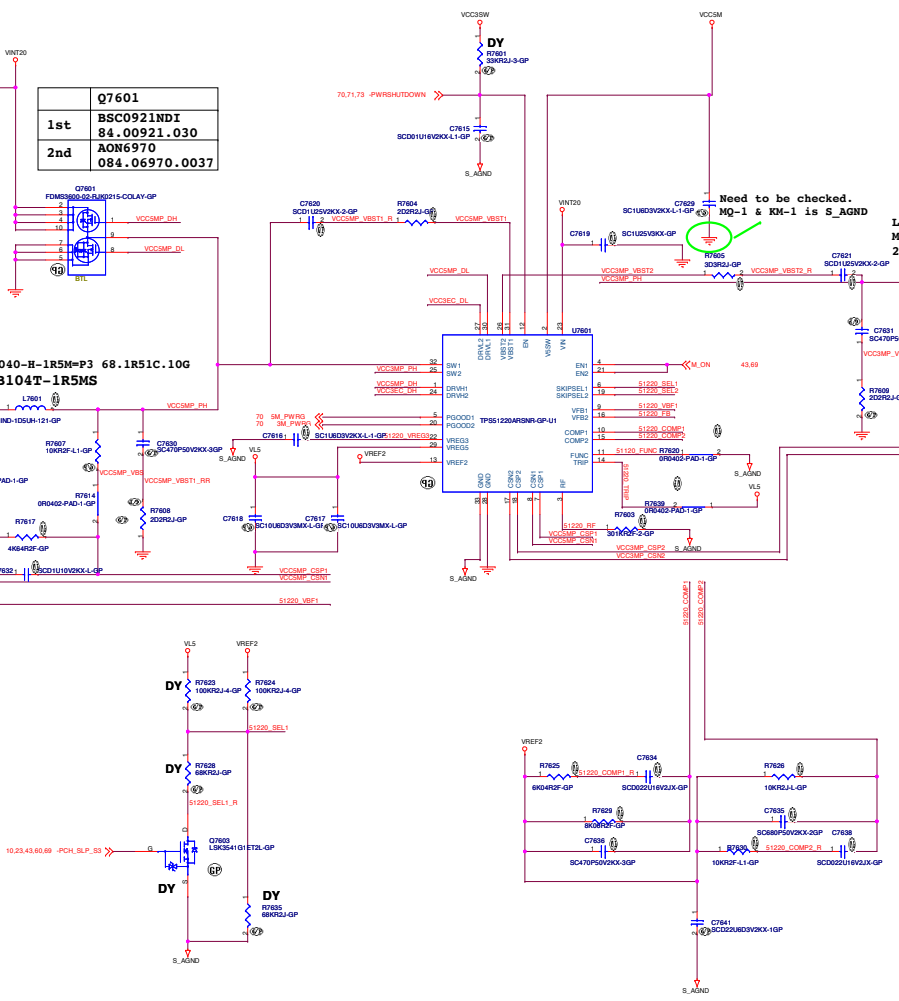


6TPE330MAA ESR=10mOHM



L7601

Main source: PDVE1040-H-1R5M-P3 68.1R51C.10G
2nd source: PIMB104T-1R5MS

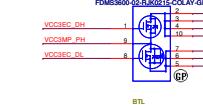
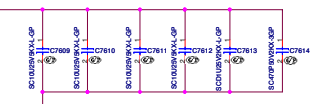


Need to be checked.
MQ-1 & KM-1 is S_AGND

L7602
Main source: SPM6530T-2R2M 68.2R21E.10X
2nd Source: FDS0630-H-2R2M 68.2R21E.10T

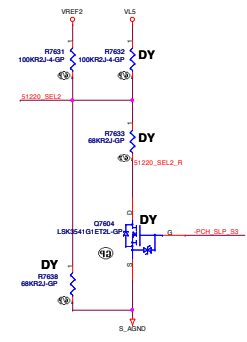
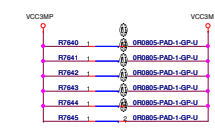
Q7602	
1st	HP8K22TB-GP 84.00822.037
2nd	BSC0924NDI 075.00924.0073
3rd	AON6934A 075.06934.0073

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

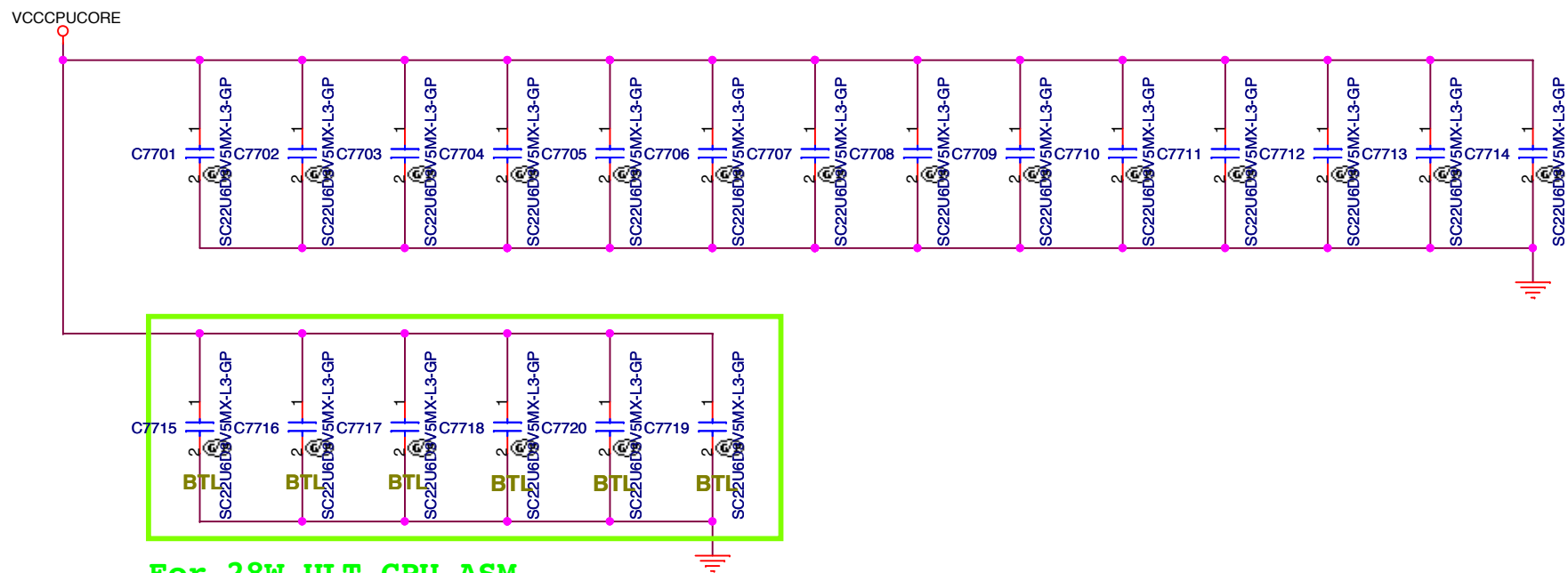


10A
(TDC 7.5A)
ESR=15mOHM

TC7601	
1st	4TPE470MFL 77.24771.07L
2nd	PSKD0G477M015B 077.C4771.0021



U/LT



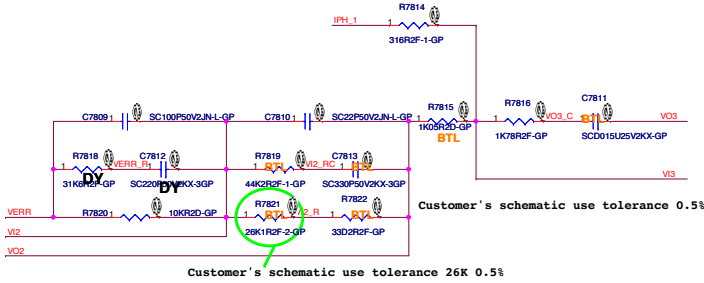
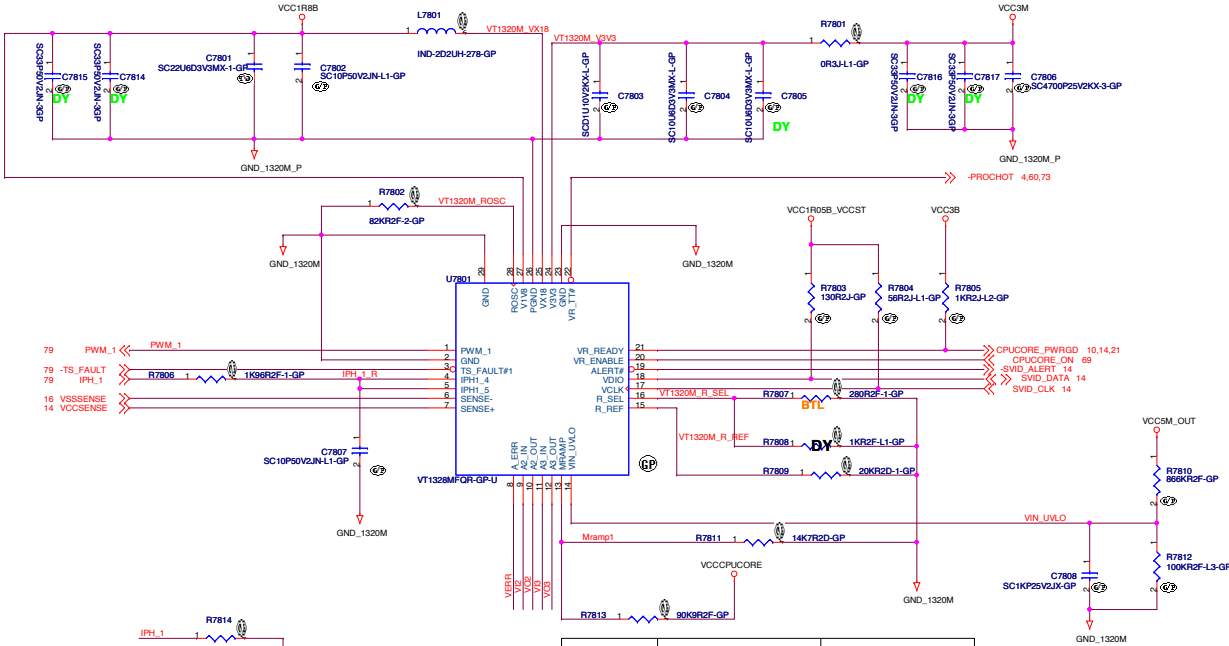
For 28W ULT CPU,ASM
For 15W ULT CPU,DY

ULT

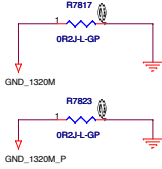
<div>緯創資通</div> <div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>		
Title VCCCPUCORE DECOUPLING		
Size A4	Document Number	Rev -1
Date: Friday, October 31, 2014		
Sheet 77 of 109		

L7801
TDK MLP1608V2R2B 68.2R21G.10D
TOKO MDT1608-CH2R2N 68.2R25B.10S

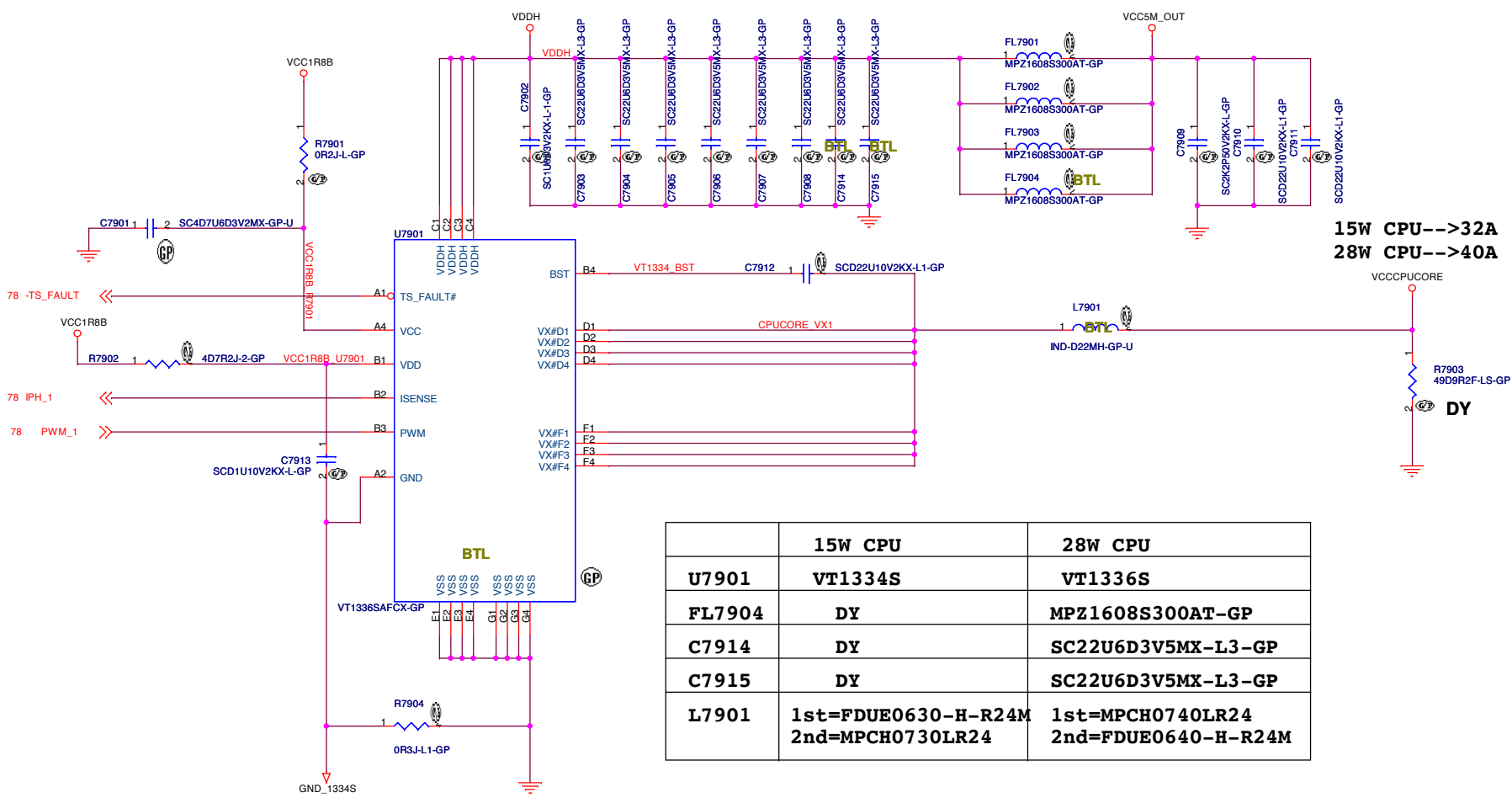
R8831 if noise is visible,
option to place chip bead instead of resistor to reduce noise



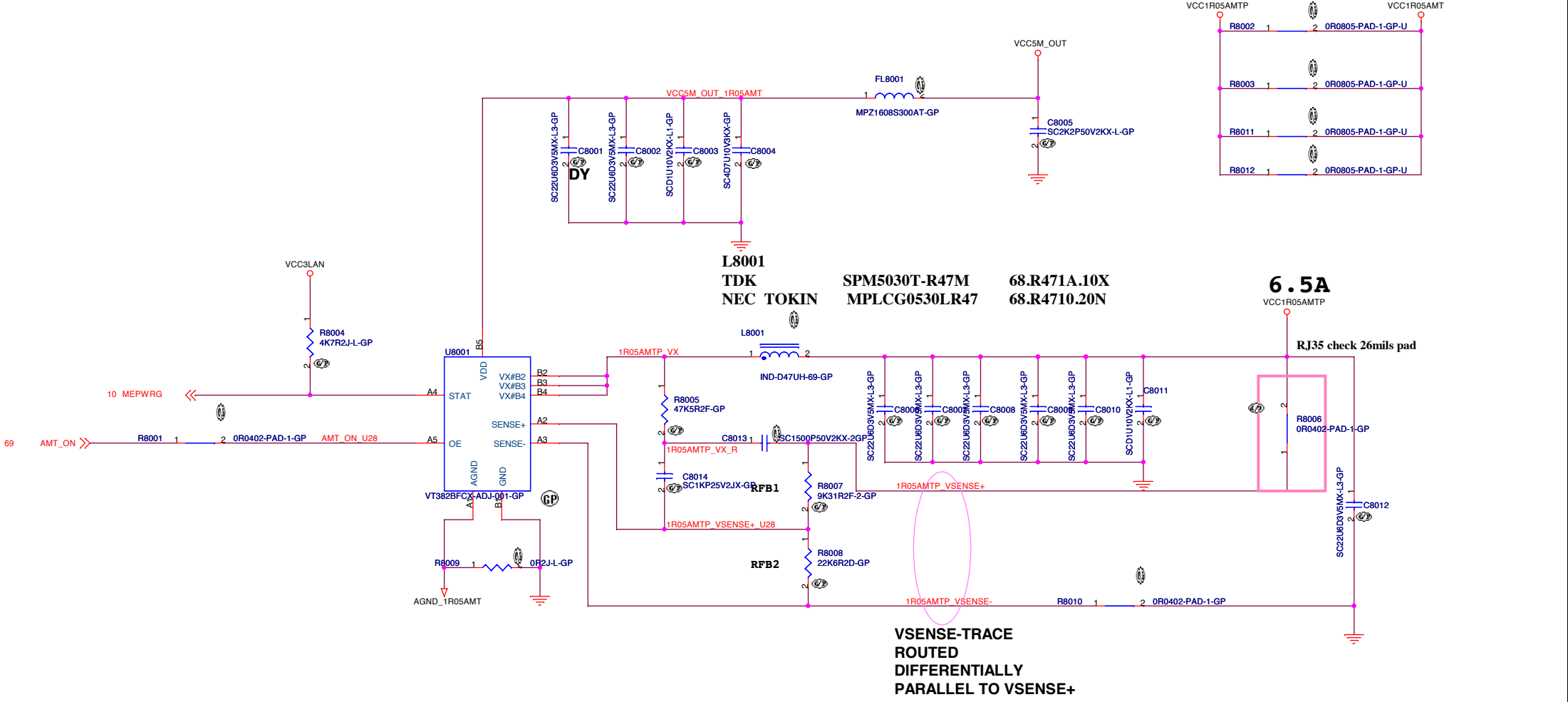
	15W CPU	28W CPU
R7807	0 ohm	280 ohm
R7815	1.47K ohm 0.5%	1.05K ohm 0.5%
R7819	61.9K ohm 1%	44.2K ohm 1%
R7821	34.8K ohm 0.5%	26.1K ohm 0.5%
R7822	2.05K ohm 1%	33.2 ohm 1%
C7811	0.022uF	0.015uF
C7813	220pF	330pF

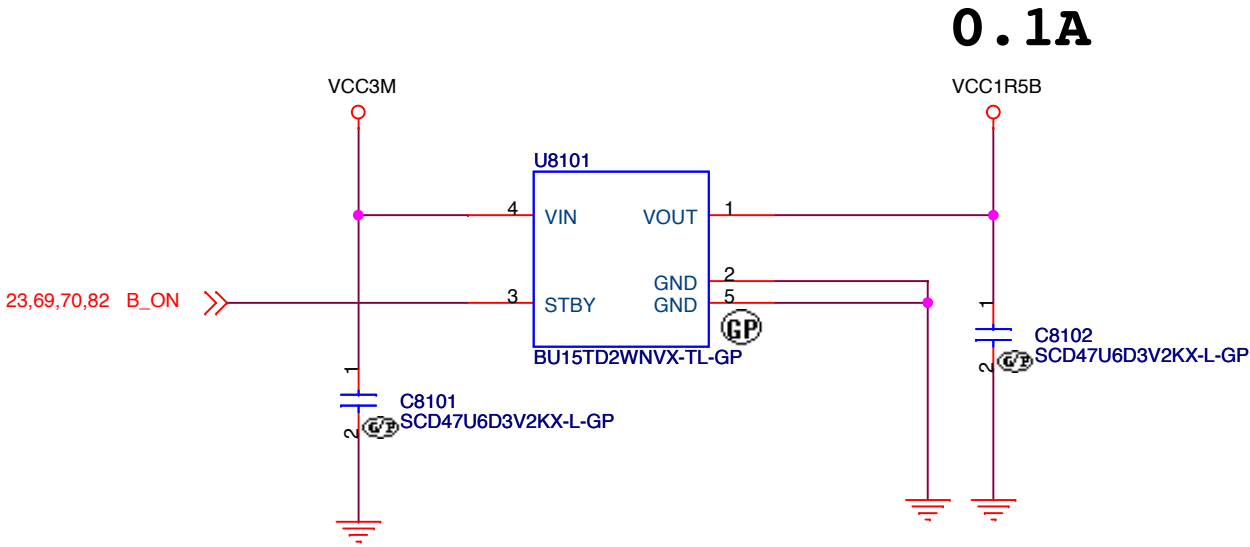


ULT



15W CPU-->32A
28W CPU-->40A





<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 VCC1R5B

Size

A

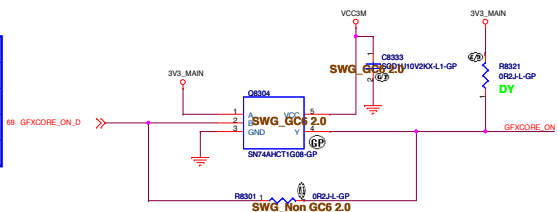
Document Number

Rev

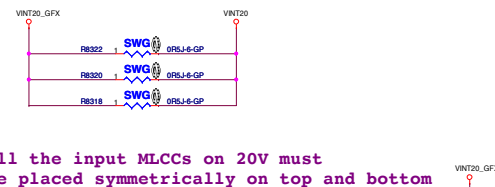
Date: Friday, October 31, 2014

Sheet 81 of 109

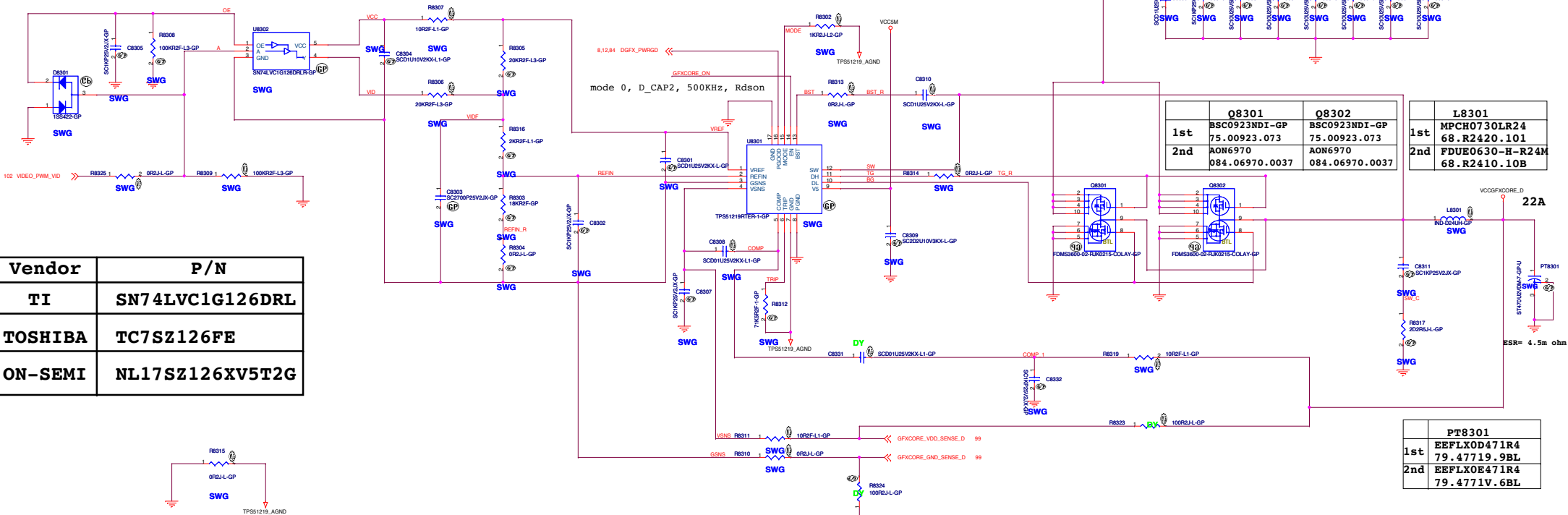
	Support GC6 2.0	No Support GC6 2.0
Q8304	ASM	No-ASM
Q8333	ASM	No-ASM
R8301	No-ASM	ASM
		Logic



R8302	C8308	C8331	Mode	SW Freq.
1kohm	ASM	No ASM	D-CAP2	500kHz
200kohm	No ASM	ASM	D-CAP	400kHz
100kohm	No ASM	ASM	D-CAP	300kHz



All the input MLCCs on 20V must be placed symmetrically on top and bottom



	Q8301	Q8302		L8301
1st	BSC0923NDI-GP 75.00923.073	BSC0923NDI-GP 75.00923.073	1st	MPCH0730LR24 68.R2420.101
2nd	A0N6970 084.06970.0037	A0N6970 084.06970.0037	2nd	FDUE0630-H-R241 68.R2410.10B

	PT8301
1st	EEFLX0D471R4 79.47719.9BL
2nd	EEFLX0E471R4 79.4771V.6BL

ULT	
緯創資通	Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Heichih, Taipei Hsien 221, Taiwan, R.O.C.
Title	DC/DC VCCGFXCORE_D(TPS5121)
Size	Custom Document Number Rev
Date: Friday, October 31, 2014	Sheet 83 of 109

D

D

C

C

B

B

A

A

<Variant Name>

緯創資通

Wistron Corporation

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

Title	Author	Year	Journal	Volume	Issue	Page
1. The Effect of the 1997 Asian Financial Crisis on the U.S. Economy	John H. Coatsworth	1998	Journal of International Economics	50	1	1-15
2. The Impact of the 1997 Asian Financial Crisis on the U.S. Economy	John H. Coatsworth	1998	Journal of International Economics	50	1	16-30
3. The Effect of the 1997 Asian Financial Crisis on the U.S. Economy	John H. Coatsworth	1998	Journal of International Economics	50	1	31-45
4. The Impact of the 1997 Asian Financial Crisis on the U.S. Economy	John H. Coatsworth	1998	Journal of International Economics	50	1	46-60
5. The Effect of the 1997 Asian Financial Crisis on the U.S. Economy	John H. Coatsworth	1998	Journal of International Economics	50	1	61-75
6. The Impact of the 1997 Asian Financial Crisis on the U.S. Economy	John H. Coatsworth	1998	Journal of International Economics	50	1	76-90
7. The Effect of the 1997 Asian Financial Crisis on the U.S. Economy	John H. Coatsworth	1998	Journal of International Economics	50	1	91-105
8. The Impact of the 1997 Asian Financial Crisis on the U.S. Economy	John H. Coatsworth	1998	Journal of International Economics	50	1	106-120
9. The Effect of the 1997 Asian Financial Crisis on the U.S. Economy	John H. Coatsworth	1998	Journal of International Economics	50	1	121-135
10. The Impact of the 1997 Asian Financial Crisis on the U.S. Economy	John H. Coatsworth	1998	Journal of International Economics	50	1	136-150

Reserved(DC/DC)

Size	A
------	---

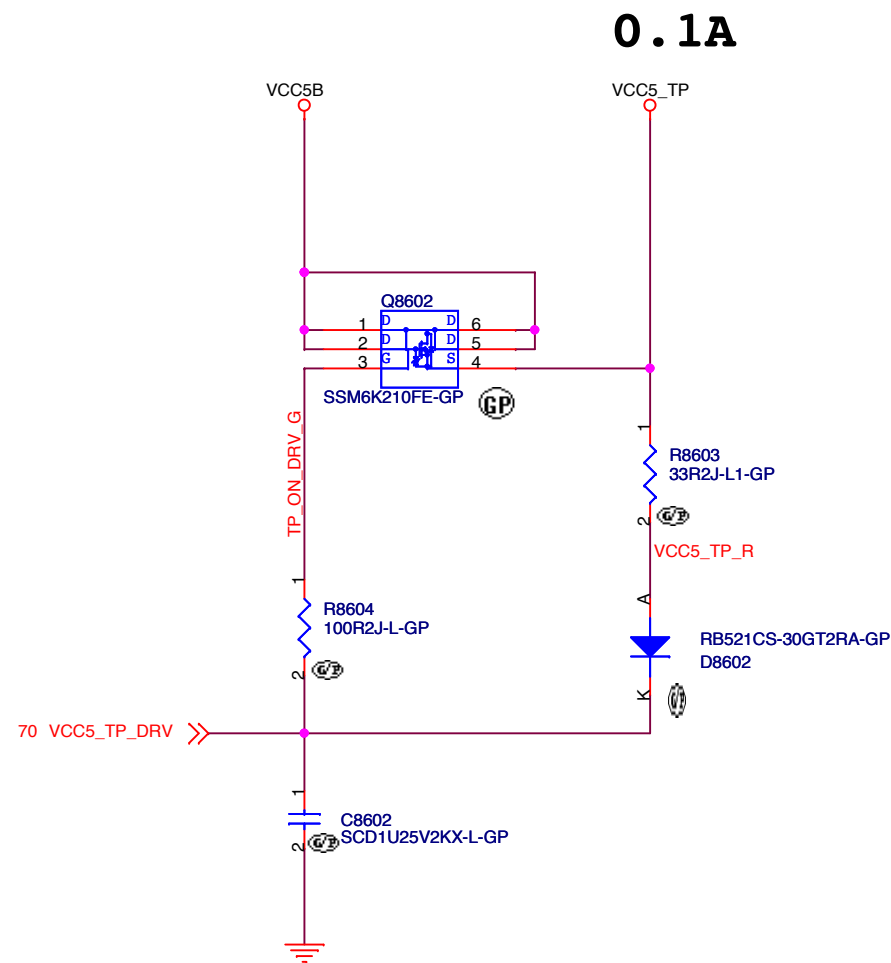
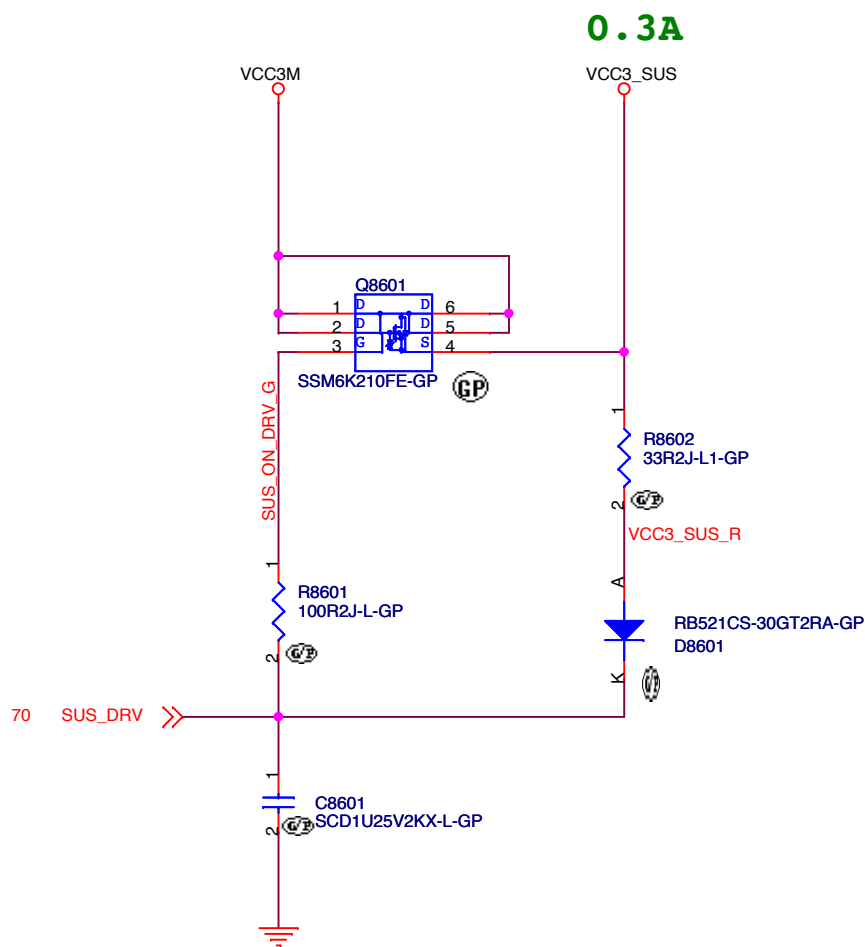
Document Number

LSZ-1

Rev	
-----	--

Date: Friday, October 31, 2014

Sheet 85 of 109



<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 PCH SUS

Size
A4

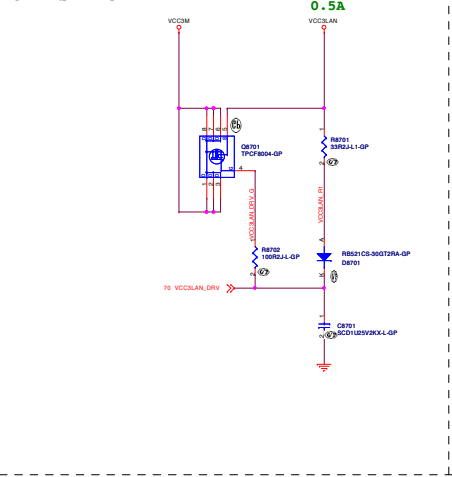
Document Number

Rev

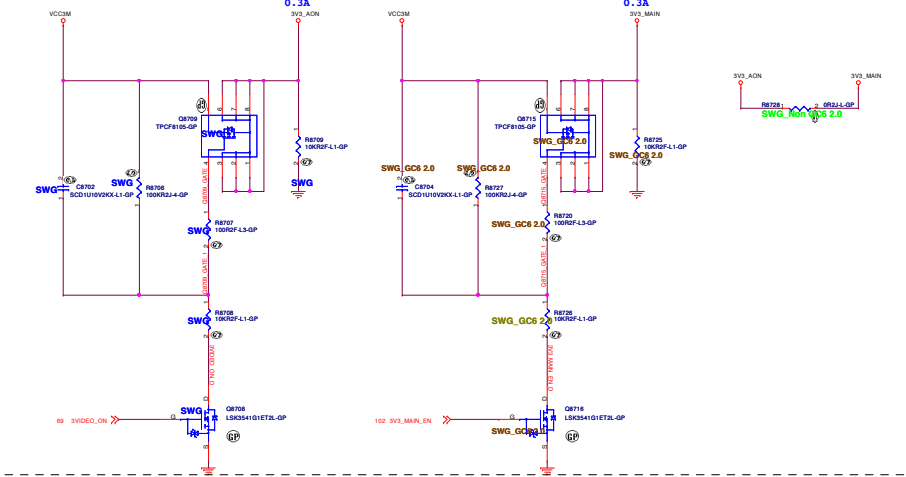
Date: Friday, October 31, 2014

Sheet 86 of 109

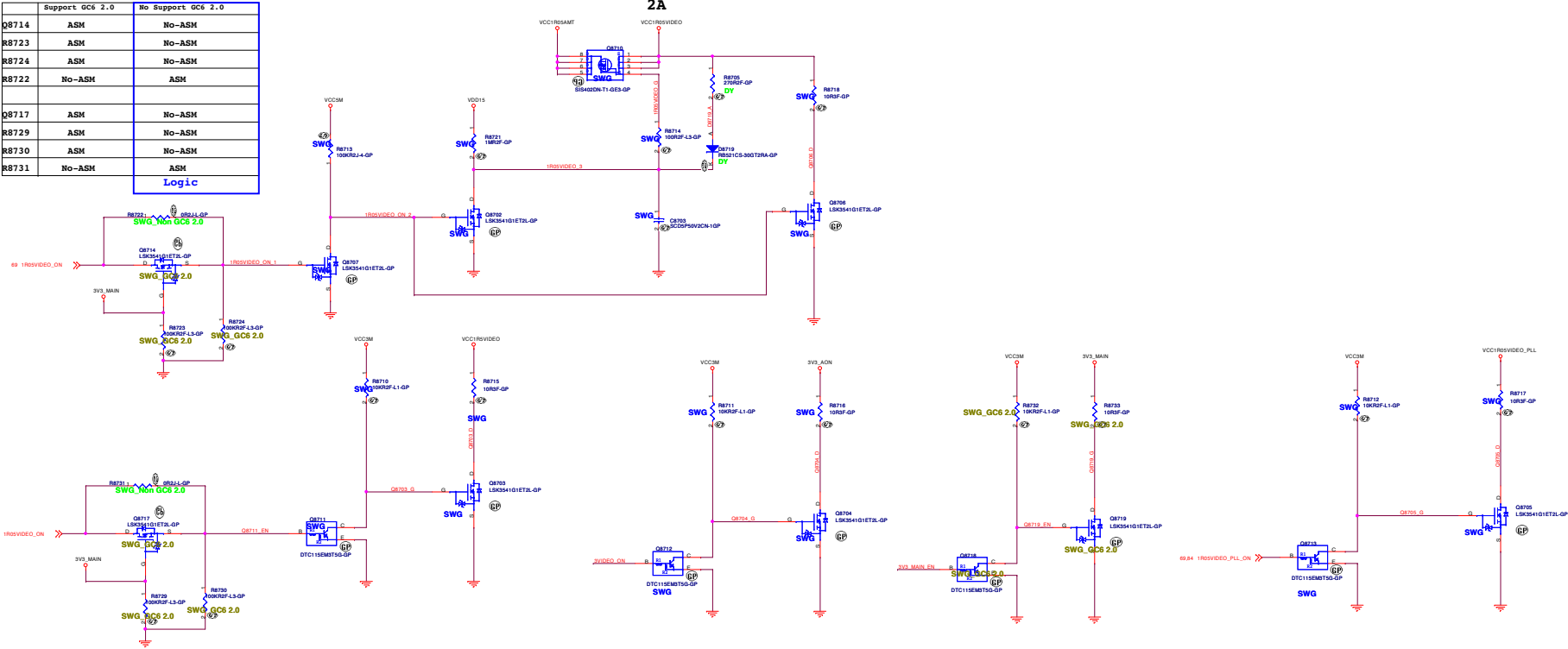
LOAD SWITCH LAN

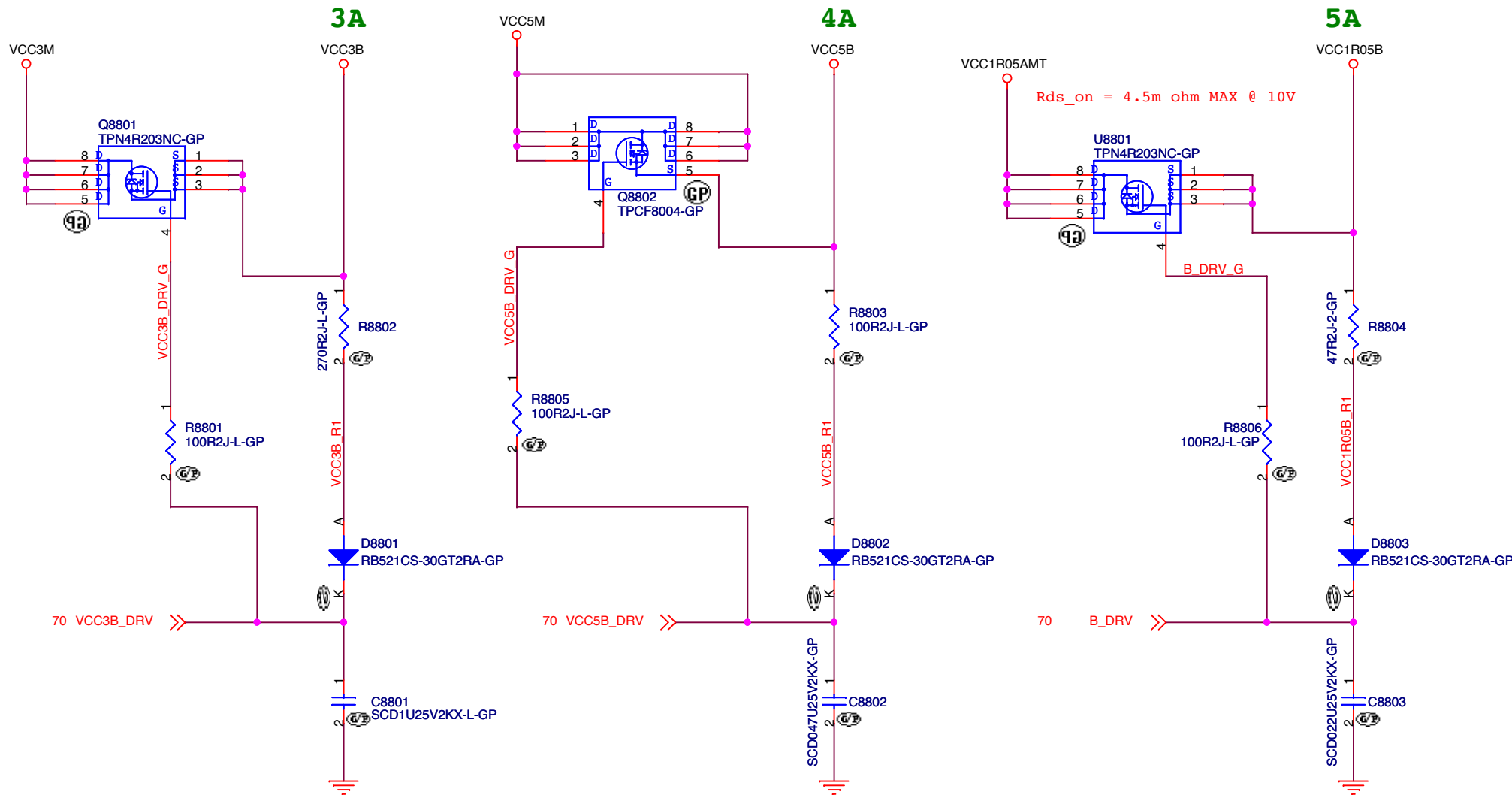


LOAD SWITCH VIDEO



	Support GC6 2.0	No Support GC6 2.0
Q8714	ASM	No-ASM
R8723	ASM	No-ASM
R8724	ASM	No-ASM
R8722	No-ASM	ASM
Q8717	ASM	No-ASM
R8729	ASM	No-ASM
R8730	ASM	No-ASM
R8731	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

LOAD SW VCCB

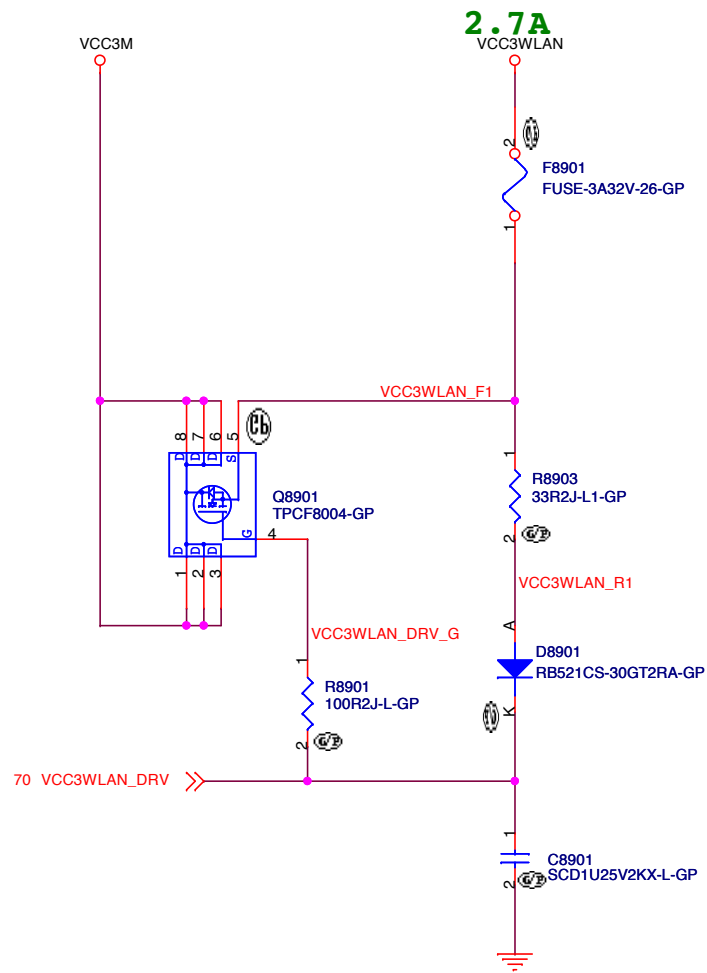
Size
A4

Document Number

Rev

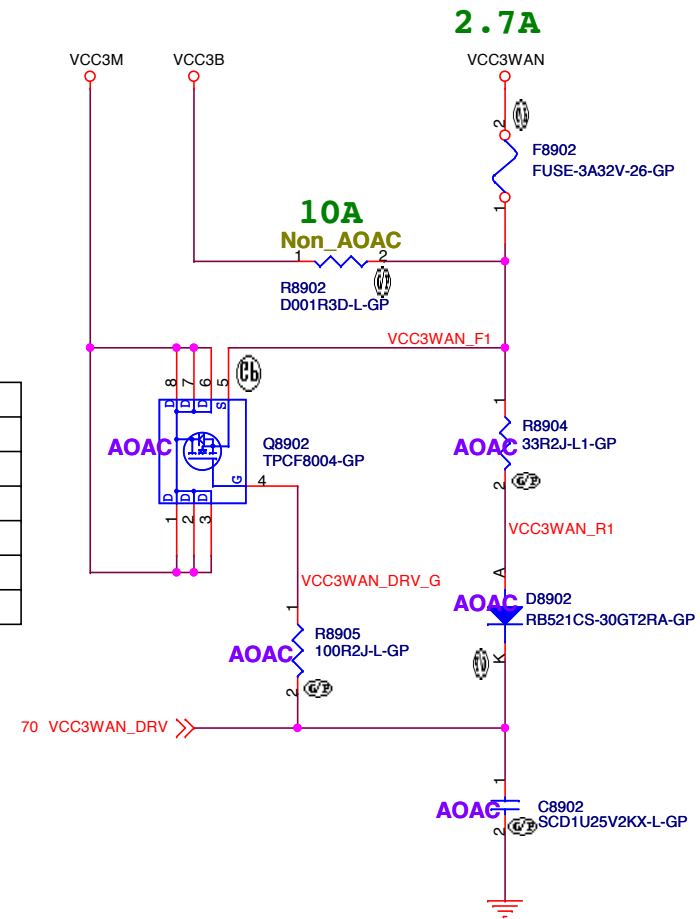
Date: Friday, October 31, 2014

Sheet 88 of 109



AOAC	YES	NO
R8902	DY	ASM
R8904	ASM	DY
R8905	ASM	DY
Q8902	ASM	DY
D8902	ASM	DY
C8902	ASM	DY

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

LOAD SW WWAN&WLAN

Size

Document Number

Rev

Custom

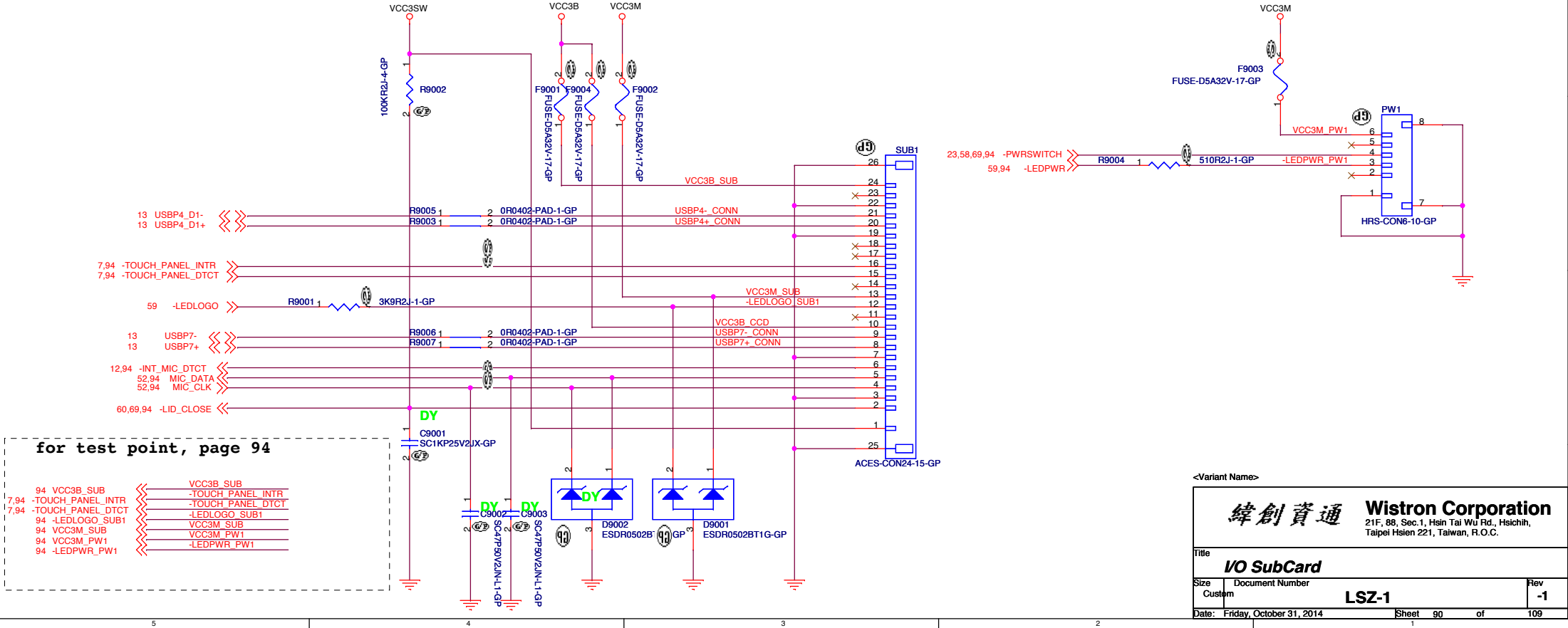
Date: Friday, October 31, 2014

Sheet 89 of 109

SubCard

Subcard has Mic/Camera/Lid/Touch Screen function.

Power BTN



<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 I/O SubCard		
Size Custom	Document Number LSZ-1	Rev -1
Date: Friday, October 31, 2014		Sheet 90 of 109

5	4	3	2	1
D				D
C				C
B				B
A				A

BLANK

ULT

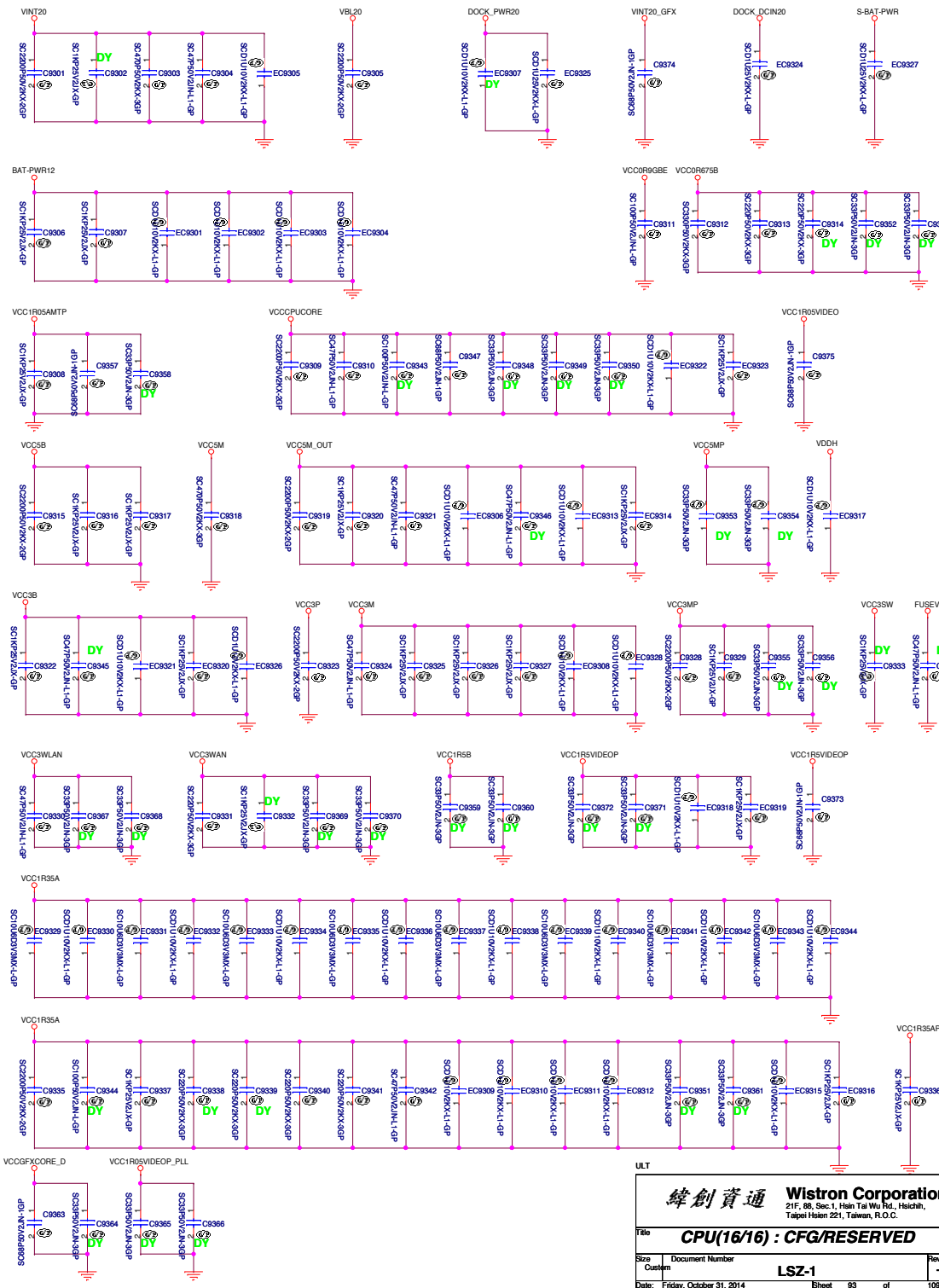
<div>緯創資通</div>		<div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>	
Title <div>CPU(16/16) : CFG/RESERVED</div>			
Size <div>A</div>	Document Number <div>LSZ-1</div>		Rev <div>-1</div>
Date:	Friday, October 31, 2014	Sheet 91 of	109

5	4	3	2	1
D				D
C				C
B				B
A				A

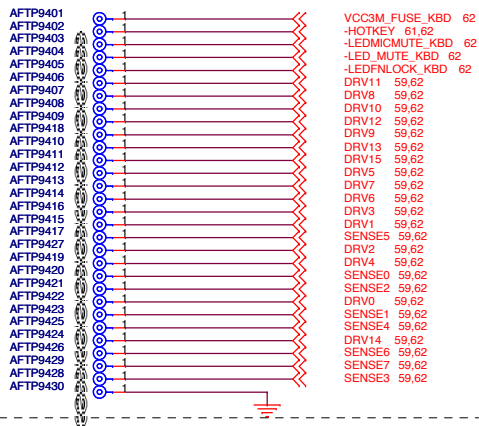
BLANK

ULT

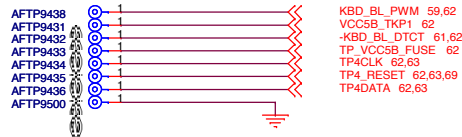
<div>緯創資通</div>		<div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>	
Title <div>CPU(16/16) : CFG/RESERVED</div>			
Size <div>A</div>	Document Number <div>LSZ-1</div>		Rev <div>-1</div>
Date:	Friday, October 31, 2014	Sheet 92 of	109



Near KB1(Keyboard connector)



Near TKP1(Track point connector)



Near DC1(Adapter in)



Near USB3(USB 3.0 conn)



Near BAT1(Battery in)



Near USB2(USB 3.0 conn)



Near BAT2(Battery in)



Near USB1(USB 3.0 conn)



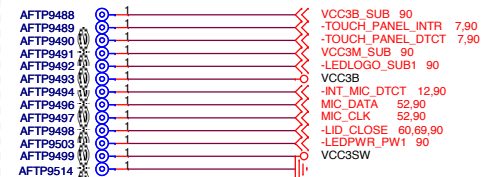
Near SPK1(Speaker)



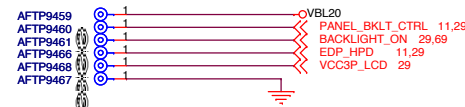
Near RTC1(RTC Battery)



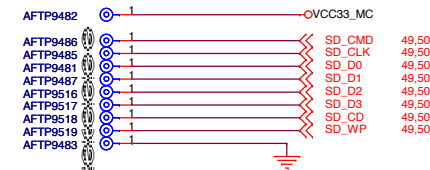
Near SUB1(Mic/CCD/Lid/Touch Screen)



Near LCD1(eDP connector)



Near MCS1 (MediaCard Slot)



Near SIM1(SIM Card)



Near SUB2(NFC + SMART CARD)



For Power Switch



Bottom side



Near PW1(Power Button)



Near DP1(Display port)



Near CRT1

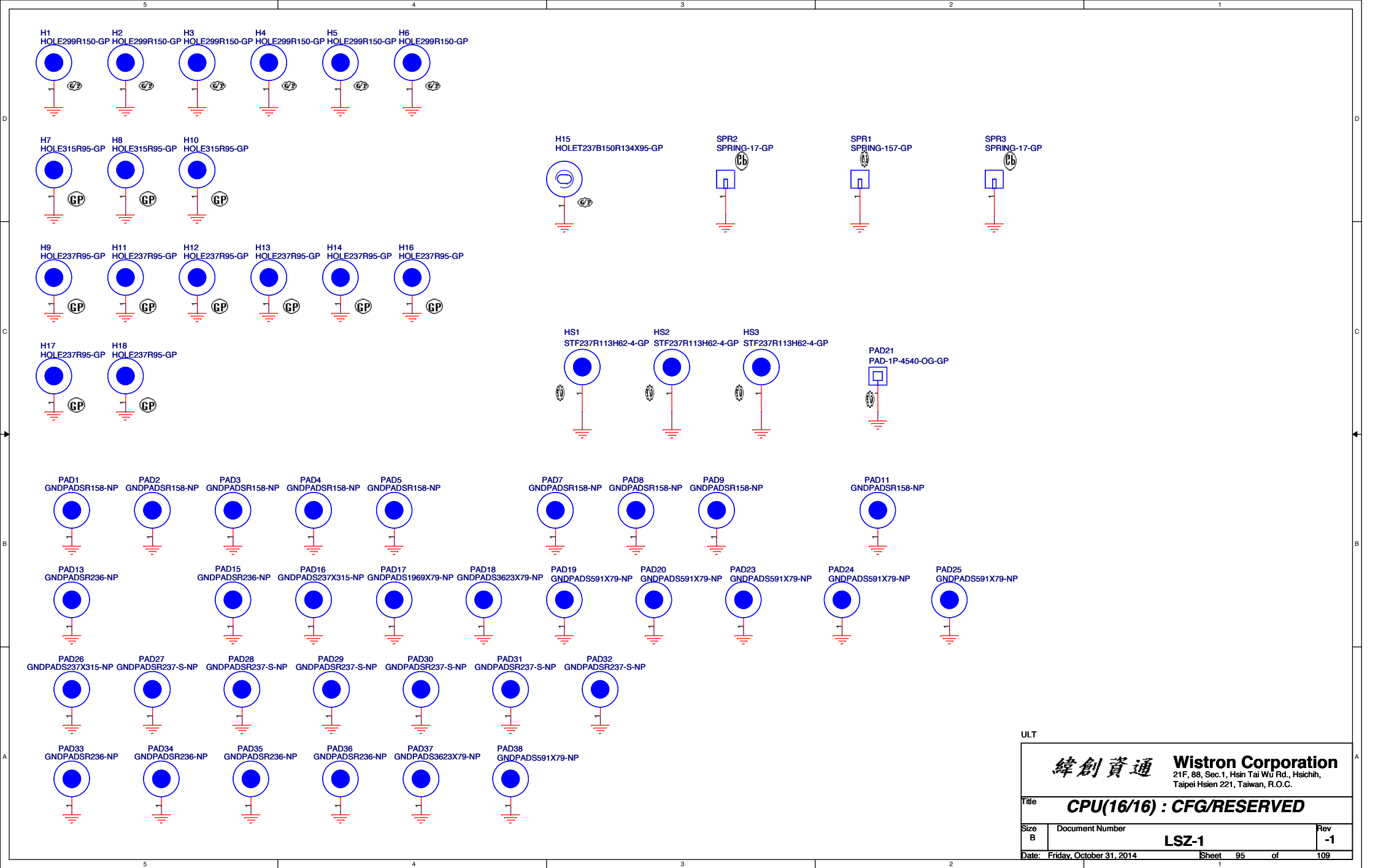


ULT

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

Title CPU(16/16) : CFG/RESERVED

Size Document Number LSZ-1 Rev -1
Custom
Date: Friday, October 31, 2014 Sheet 94 of 109



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(16/16) : CFG/RESERVED			
Size B	Document Number LSZ-1		Rev -1
Date:	Friday, October 31, 2014	Sheet 95 of	109

5	4	3	2	1
D				D
C				C
B				B
A				A

BLANK

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>CPU(16/16) : CFG/RESERVED</div>			
Size <div>A</div>	Document Number <div>LSZ-1</div>		Rev <div>-1</div>
Date:	Friday, October 31, 2014	Sheet 96 of	109

BLANK

ULT

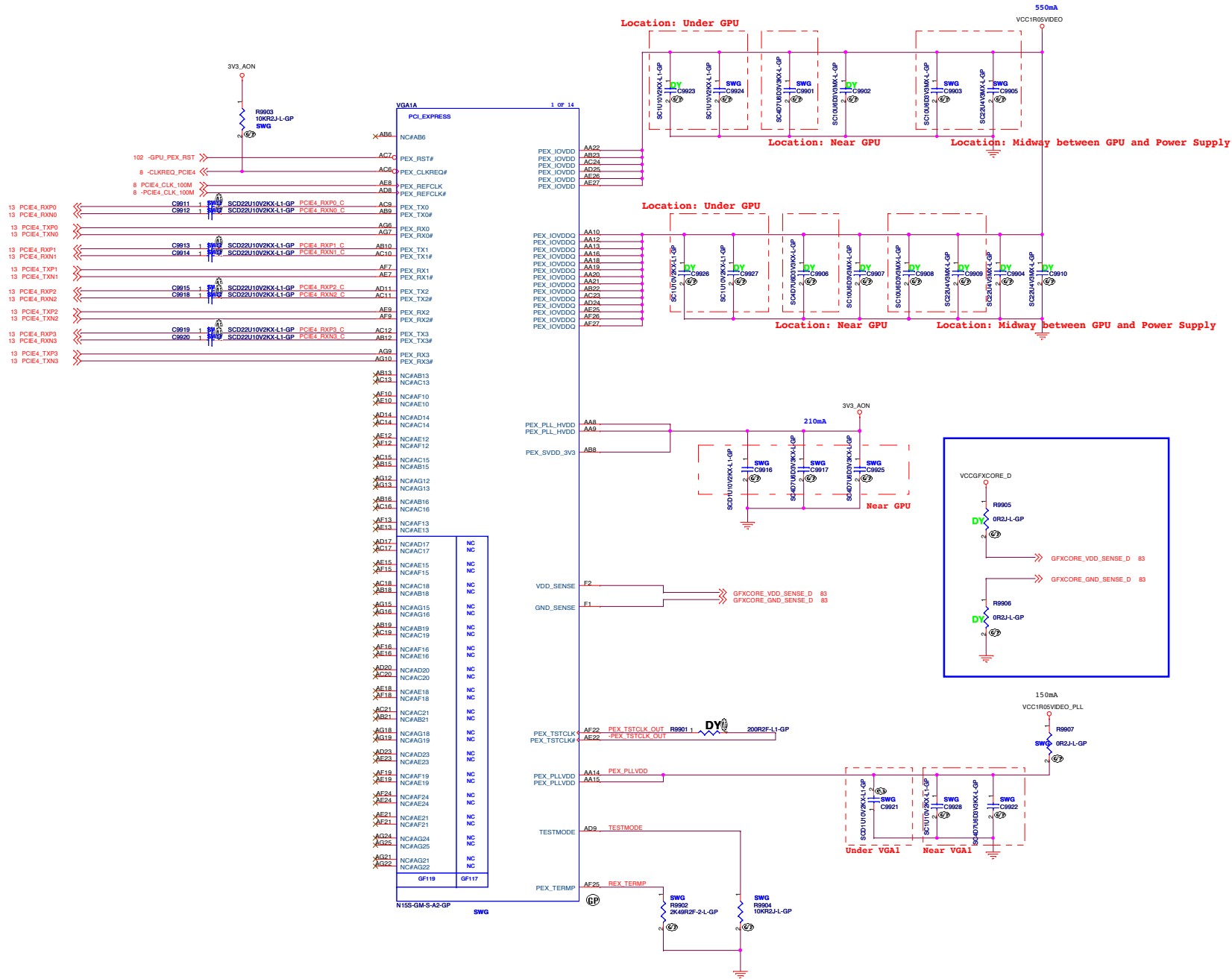
<div>緯創資通</div>		<div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>	
Title <div>CPU(16/16) : CFG/RESERVED</div>			
Size <div>A</div>	Document Number <div>LSZ-1</div>		Rev <div>-1</div>
Date:	Friday, October 31, 2014	Sheet 97 of	109

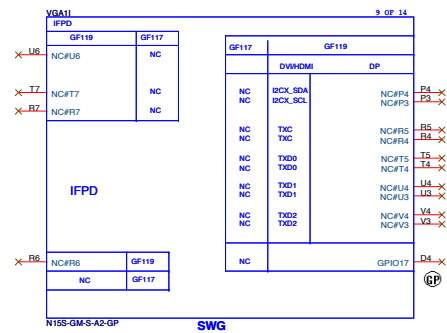
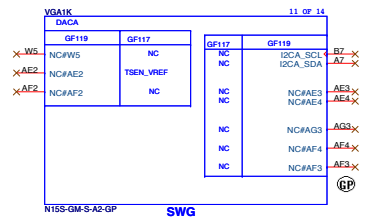
5	4	3	2	1
D				D
C				C
B				B
A				A

BLANK

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>CPU(16/16) : CFG/RESERVED</div>			
Size A	Document Number <div>LSZ-1</div>		Rev <div>-1</div>
Date:	Friday, October 31, 2014	Sheet 98 of	109







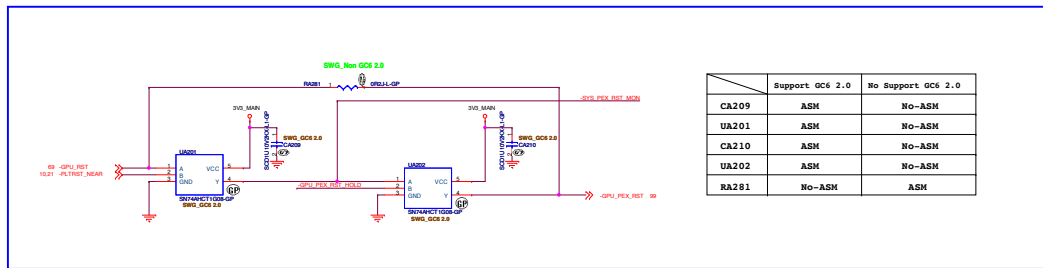
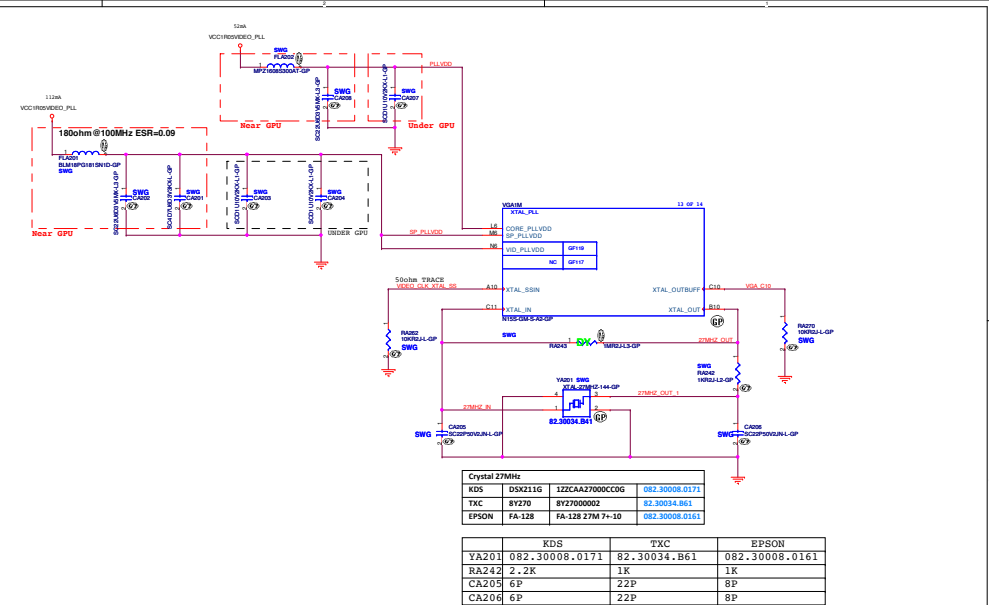
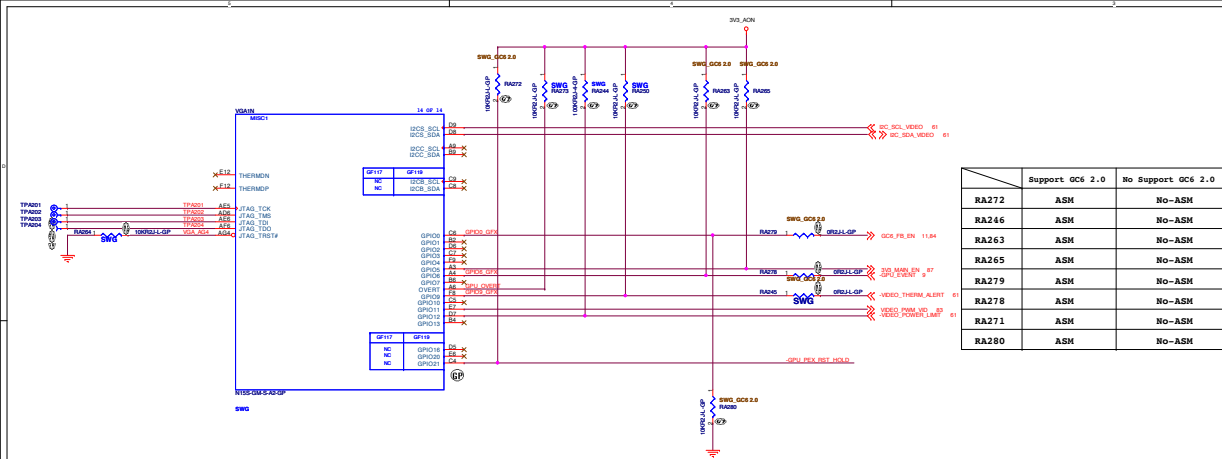
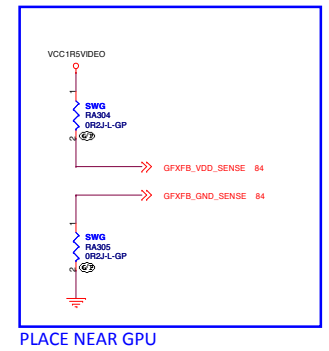
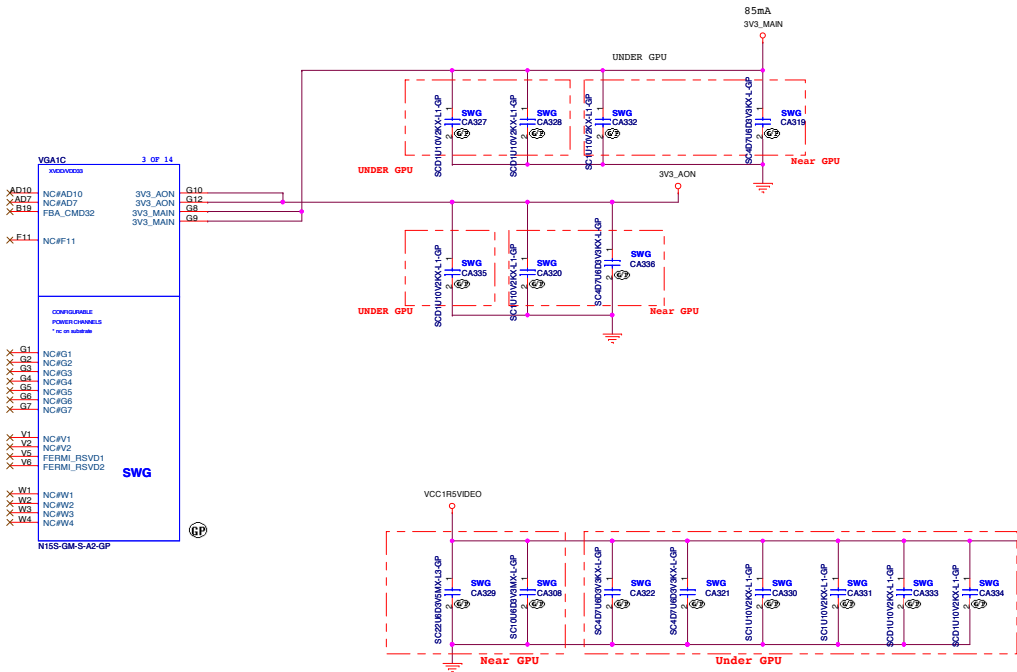
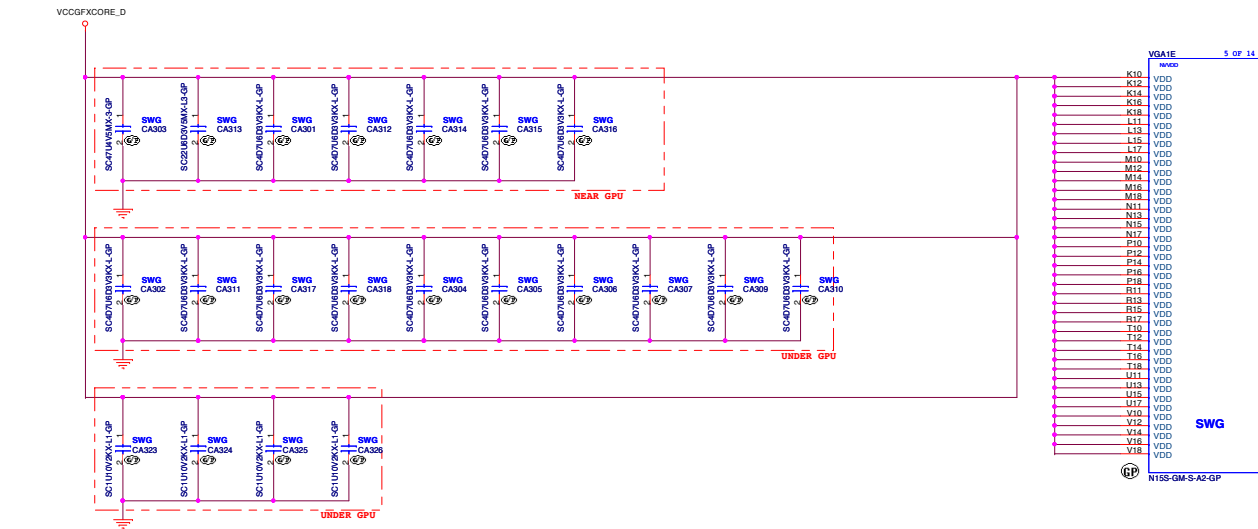
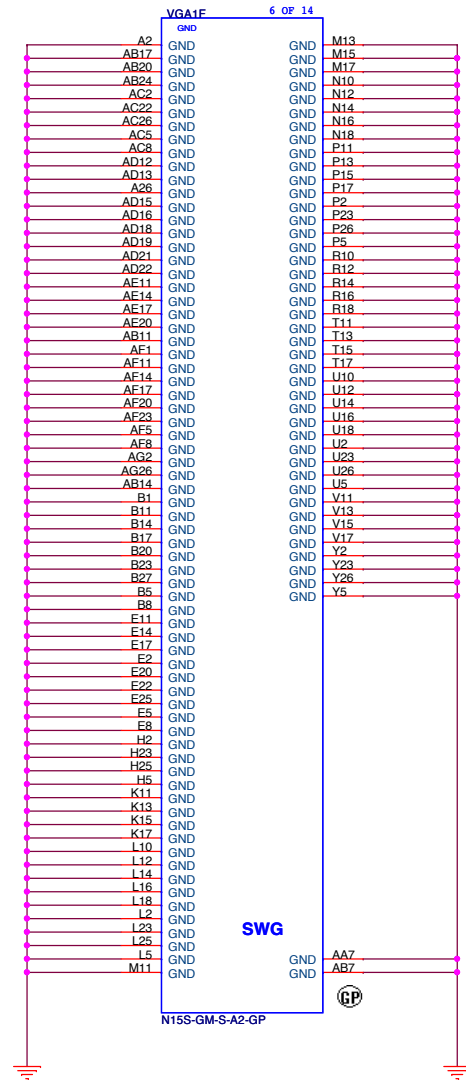


TABLE
VIDEO MEMORY

	For N16S-GT			For N15M-Q3		
ROM_SI	Hynix 128Mx16 VH1G@	Micron 128Mx16 VM1G@	Samsung 128Mx16 VS1G	Hynix 256Mx16 VH2G@	Micron 256Mx16 VM2G@	Samsung 256Mx16 VS2G
RA249	34.8Kohm 64.34825.6DL	45.3Kohm 64.45325.6DL	DY	4.99Kohm 64.49915.6DL	10.0Kohm 64.10025.10L	15.0Kohm 64.15025.6DL
RA247	DY	DY	4.99Kohm 64.49915.6DL	DY	DY	DY





ULT

Title		Wistron Corporation	
Size		21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
A3		Document Number	
Date: Friday, October 31, 2014		Sheet 104 of 109	
Rev		-1	

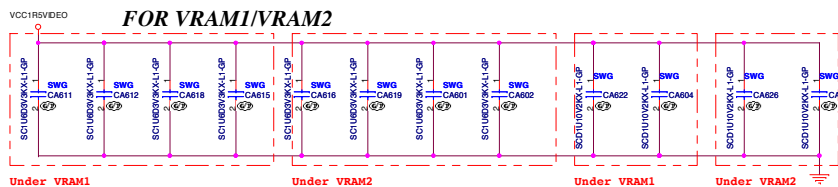
BLANK

ULT

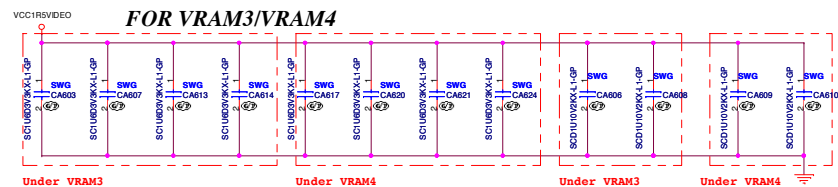
<div>緯創資通</div>		<div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>	
Title <div>CPU(16/16) : CFG/RESERVED</div>			
Size <div>A</div>	Document Number <div>LSZ-1</div>		Rev <div>-1</div>
Date:	Friday, October 31, 2014	Sheet 105 of	109

FBA CMD mapping Mode D-N14x

	For N16S-GT			For N15M-Q3		
	Hynix 2GBITS (128Mx16)	Micron 2GBITS (128Mx16)	SAMSUNG 2GBITS (128Mx16)	Hynix 4GBITS (256Mx16)	Micron 4GBITS (256Mx16)	SAMSUNG 4GBITS (256Mx16)
VRAM1 VRAM2 VRAM3 VRAM4	H5TC2G63FFR-11C	MT41J128M16JT-093G:K	K4W2G1646Q-8C1A	H5TC4G63AFR-11C	MT41J256M16HA-093G	K4W4G1646D-BC1A
BOM Structure	VH1G@	VM1G@	VS1G@	VH2G@	VM2G@	VS2G@

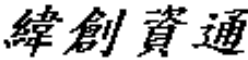


VCC1R5VIDEO **FOR VRAM3/VRAM4**



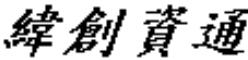
BLANK

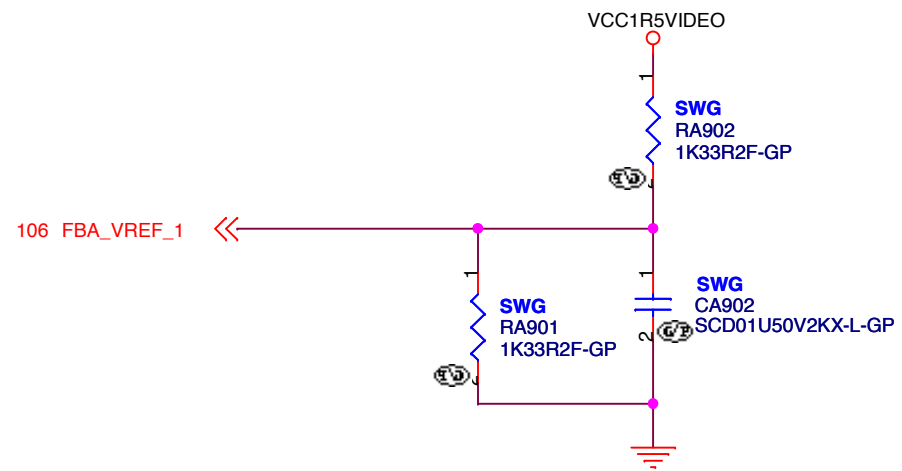
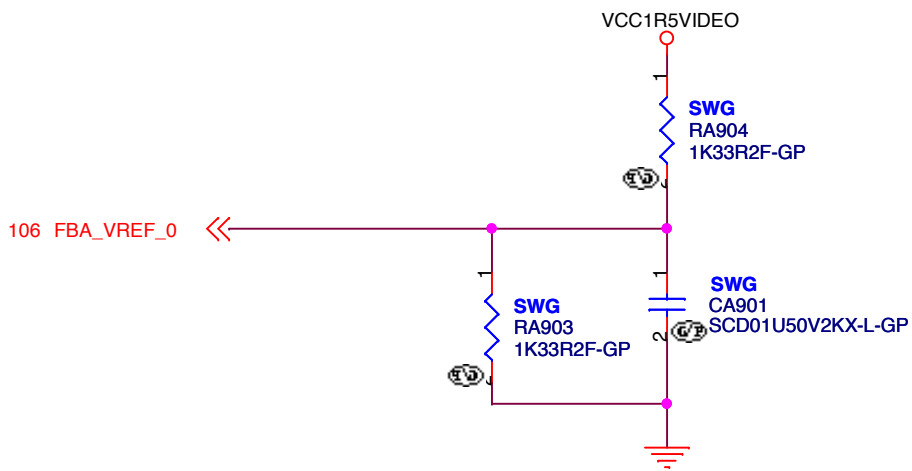
ULT

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title VRAM CHANNEL-B			
Size A	Document Number LSZ-1		Rev -1
Date: Friday, October 31, 2014		Sheet 107 of	109

BLANK

ULT

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title VRAM POWER			
Size A	Document Number LSZ-1		Rev -1
Date: Friday, October 31, 2014		Sheet 108 of	109



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 VRAM TERMINATION	
Size A	Document Number LSZ-1
Date: Friday, October 31, 2014	Sheet 109 of 109

