

March '18

KS-3 Block Diagram

06216-1-Final

Project Code: 91.4B401.001

PCB(Raw Card):

PCB Layer Stackup

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

Battery Charger/Selector

INPUTS	OUTPUTS
DOCK_PWR19_F	M-BAT-PWR S-BAT-PWR

System DC/DC

VINT19	VCC5M VCC3M
--------	----------------

CPU DC/DC

VINT19	VCCPCUCORE
--------	------------

GMCH GFX CORE

VINT19	VCCGFXCORE
--------	------------

VCC1R8M

VINT19	VCC1R8M
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VCC1R05B

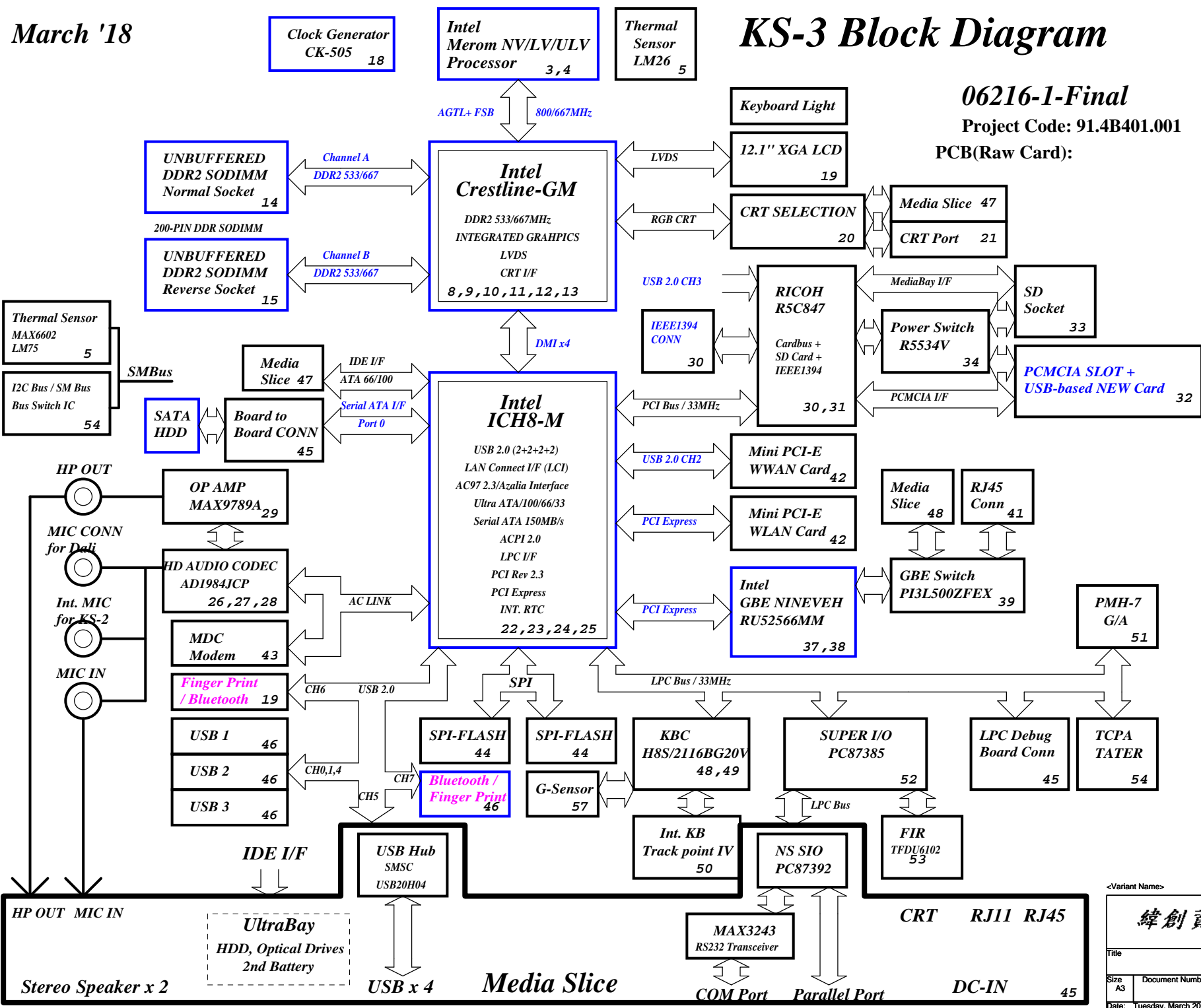
VCC3M	VCC1R05M
-------	----------

VCC1R5M

VCC3M	VCC1R5M
-------	---------

VCC1R25AMT

VCC1R5M	VCC1R25AMT
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<Variant Name>

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Block Diagram		
Size A3	Document Number	Rev
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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 Ceremic, TC=> POS cap or SP cap
D1U => 0.1uF
10V => the voltage rating is 10V
2=> 0402, 3=>0603, 5=>0805
M=>tolerance M, K, Z
X=> X7R/X5R, Y=> Y5V
-1 => symbol version, nonsense to EE characteristic

PLANAR_ID[3..0]

ICH8-M GPION	39	38	37	36	Planar ID Version	Planar PCB Version
PLANAR_IDn	3	2	1	0		
	0	0	0	0	KSnote-3 Pre-DV	SA
	0	0	0	1	DV1	SB
	0	0	1	0	FVT	SC
	0	0	1	1	DV2	SD
	0	1	0	0	DV2-R, SIT	SE, SF
	0	1	0	1	SIT (Dali-2)	SG
	0	1	1	0	SIT-R	SH
	0	1	1	1	SVT	-1

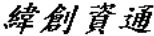
EC HISTORY

Stage	Date	EC No.	Page	Note
DV	7/19	EC019	69	Add R856 connect U22 pin.5 and MPWRG
DV	7/19	EC019	74	Add R857(DY)
DV1	7/21	EC001	56	Add 2nd FAN Control logic in P.56
DV1	7/21	EC001	18	Delete C590,C593,C589,C579,R833,R834 make DREFCLK_96M connect to U67 Pin.5 -DREFCLK_96M connect to U67 Pin.6 Reset R514,R515,R573 to 1ohm
DV1	7/21	EC001	11	Add C590,C905,C906,C593,C579,C589 and connect to U53F Pin.AC16
DV1	7/21	EC001	12	Reset C139,C145,C701 to 6.3V 10%
DV1	7/21	EC001	10	Reset U27 to Dummy, R250 to ASM
DV1	7/21	EC001	48	Reset R212 to DY Add -90W_AC connect to U26A Pin.11
DV1	7/21	EC001	49	Reset R291 to DY Add GSENSE_TST connected to U26B Pin.F3 Add FAN2_ON, FAN2_FRQ
DV1	7/21	EC001	24	Reset R337 to DY,R341 to ASM
DV1	7/21	EC001	19	Reset R649,U12,R49 to DY, R648 to ASM
DV1	7/21	EC001	46	Delete F6,Q25,R133,C224 and -2NDFAN_ON
DV1	DV1	EC001	68	Reset R427,R451,R442,R439,R420 to 22k ohm Change the power from VCC5M to VCC3M

PCI TABLE

DEVICE	IDSEL	IRQ (Default)	REQ# / GNT#
MINIPCI SLOT	AD18	F, G	REQ# 3/ GNT#3
CARDBUS R5C811	AD16	SERIRQ	REQ#0 / GNT#0
USB UHCI	AD29	A, C, D	
USB 2.0 EHCI	AD29	H	
DMI-to-PCI/ AC97 Modem/ AC97 Audio	AD30	B B	
LPC Bridge IDE SATA SMBus	AD31	C C B	
PCI Express	AD28	A, B, C, D	

<Variant Name>



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Title

Size
A3

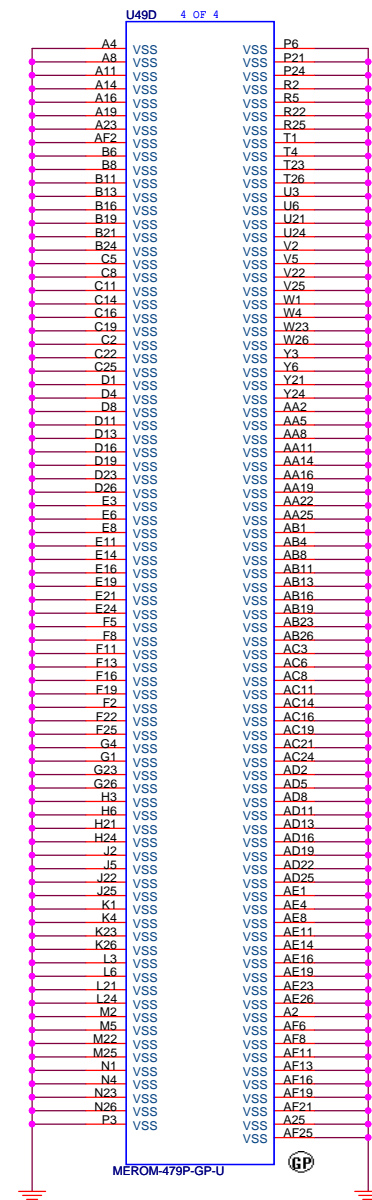
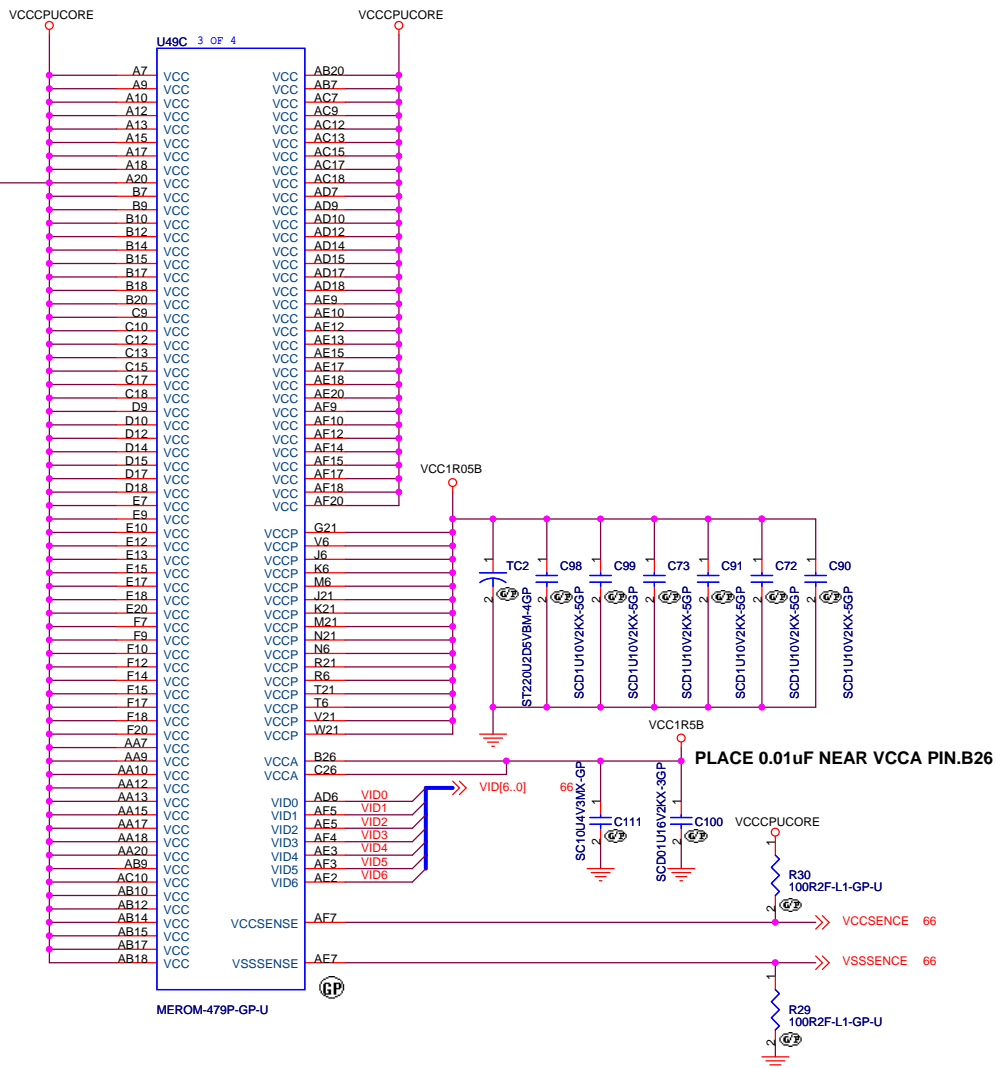
Document Number

Rev
-1

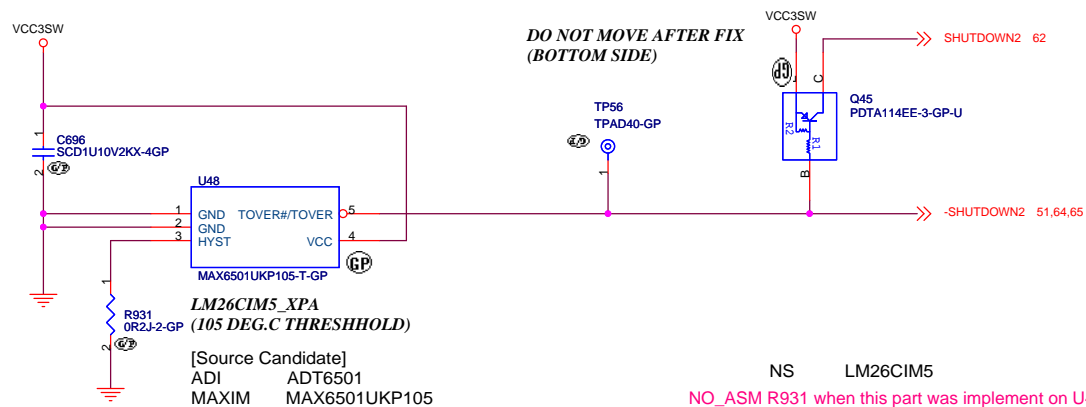
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Reference
KS Note-3



Thermal Sensor LM26 for CPU

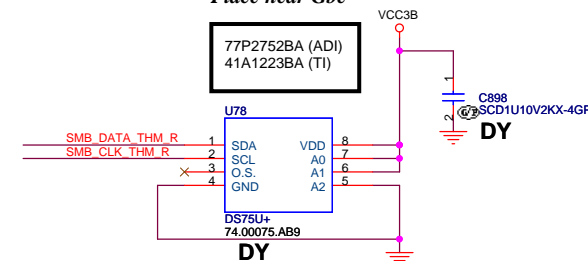


DALI2 uP/Thermal Sensor IIC BUS 19,49 I2C_CLK_DG

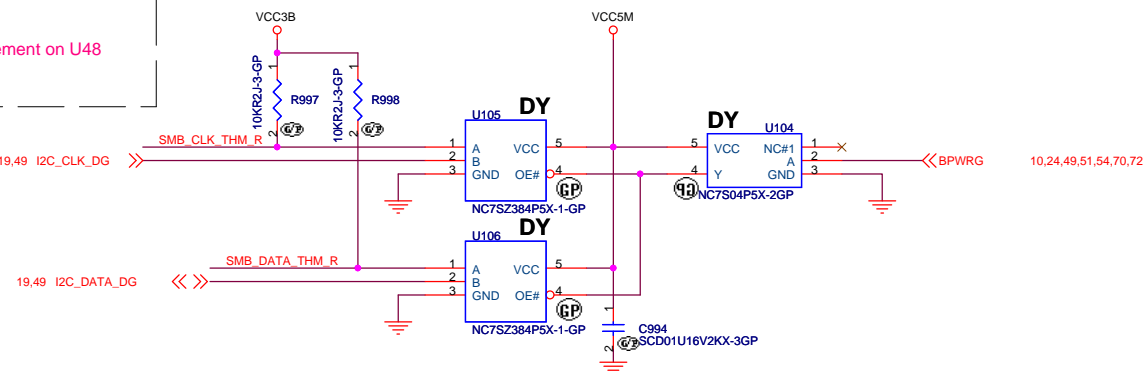
	KS3	Dali2
U104	NoASM	ASM
U105	NoASM	ASM
U106	NoASM	ASM

Thermal Sensor LM75 for Gbe module

Place near Gbe



H8 I2C Bus 2 ADDRESS : 4BH



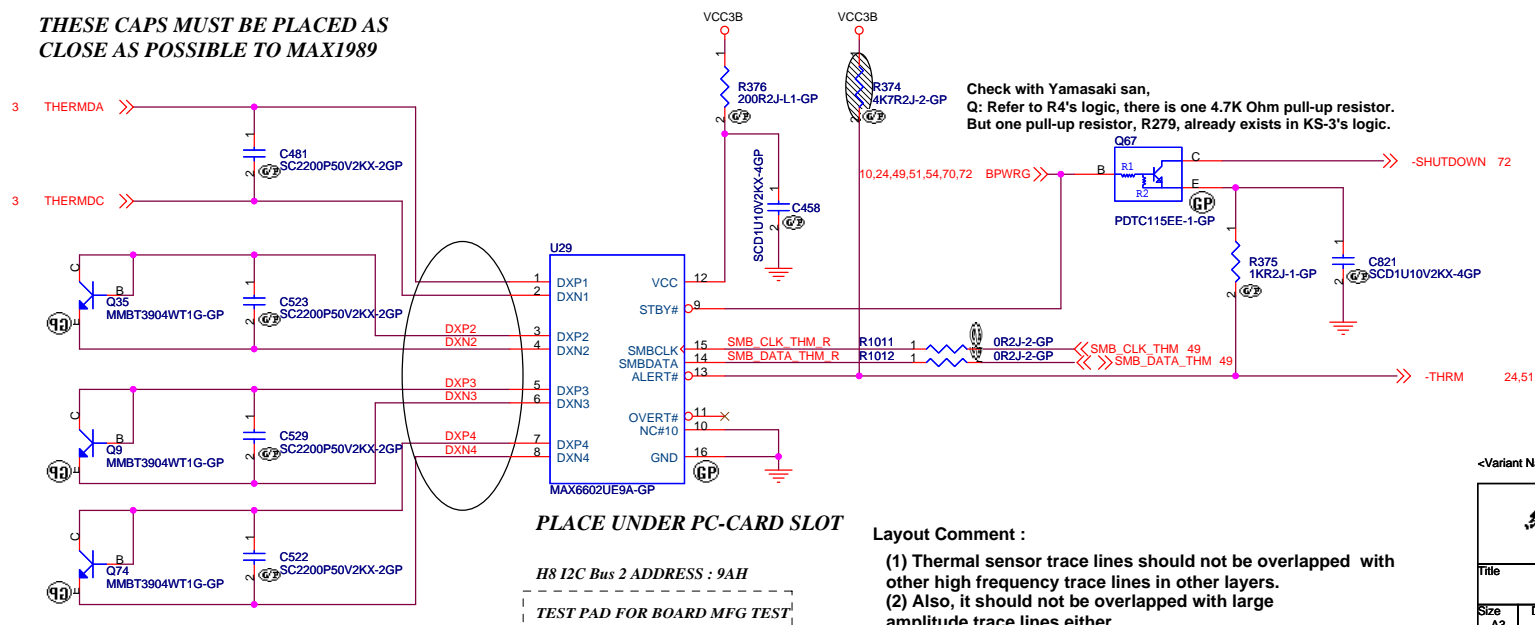
THESE CAPS MUST BE PLACED AS CLOSE AS POSSIBLE TO MAX1989

TO CPU DIE

DDR MODULE

TO VCORE FET

TO MINI CARD



Check with Yamasaki san,
Q: Refer to R4's logic, there is one 4.7K Ohm pull-up resistor.
But one pull-up resistor, R279, already exists in KS-3's logic.

Layout Comment :

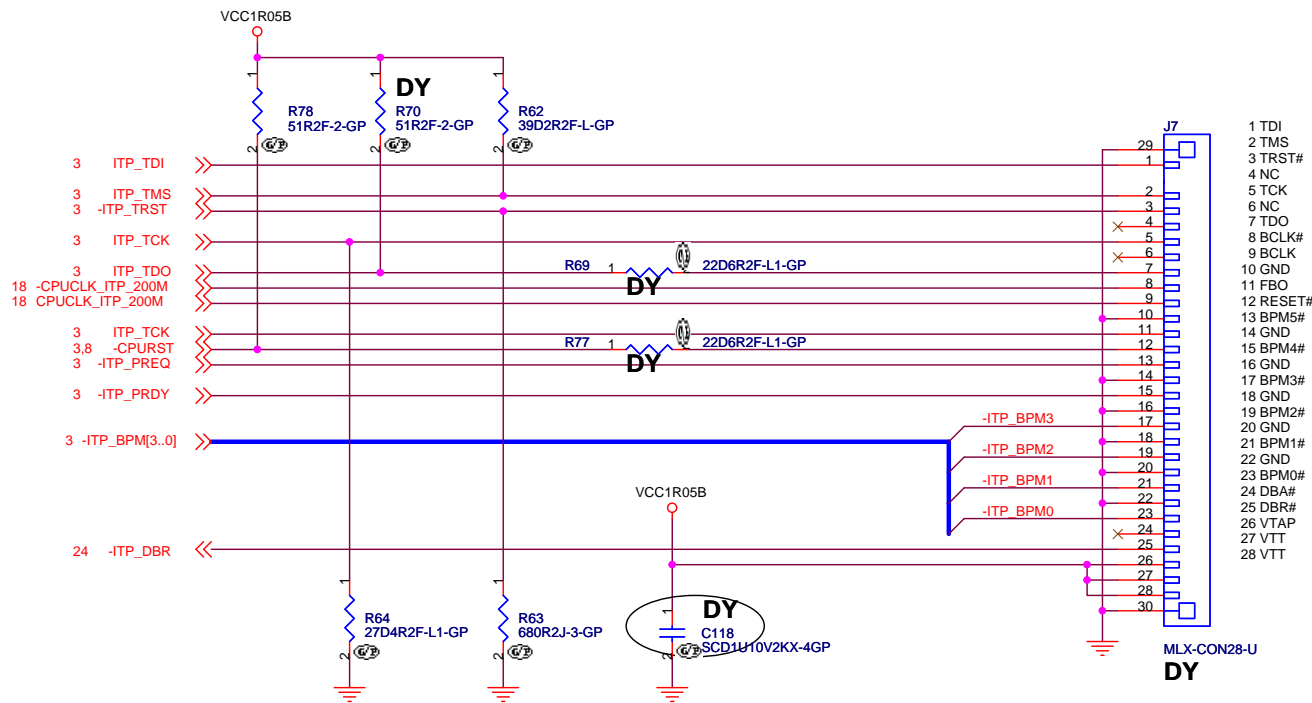
- (1) Thermal sensor trace lines should not be overlapped with other high frequency trace lines in other layers.
- (2) Also, it should not be overlapped with large amplitude trace lines either.

<Variant Name>

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THERMAL SENSOR		
Size A3	Document Number	Rev -1
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(*1) TCK SIGNAL IS BRANCHED AT CPU's PIN

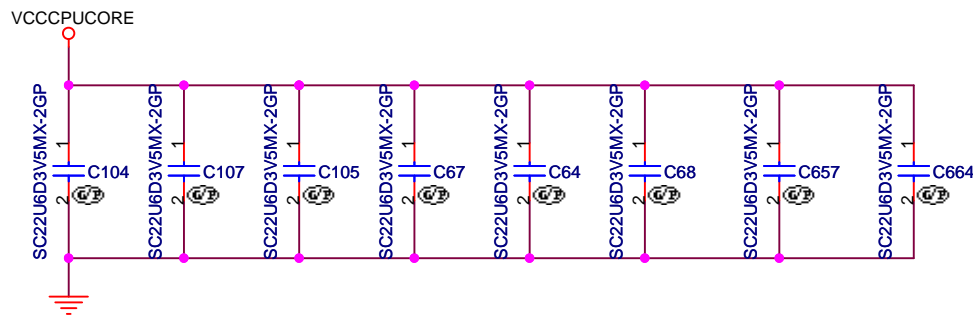
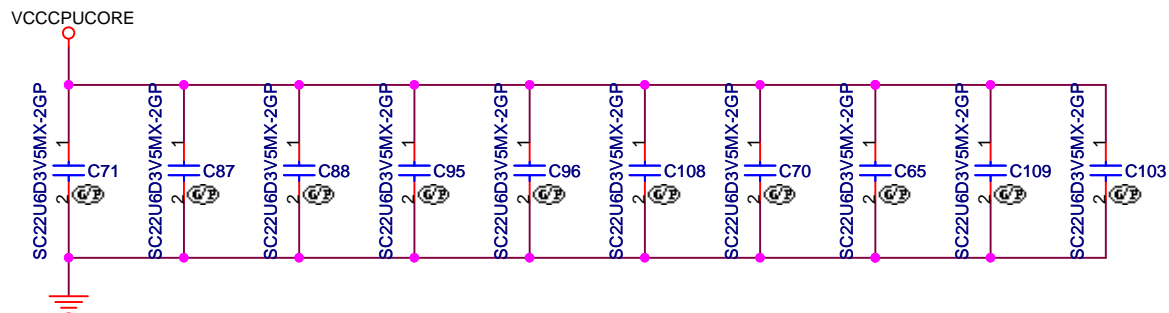
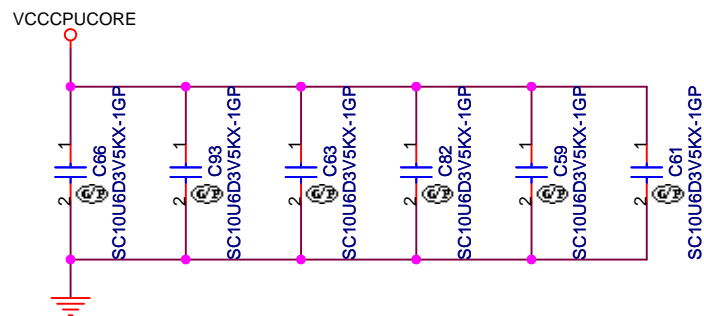
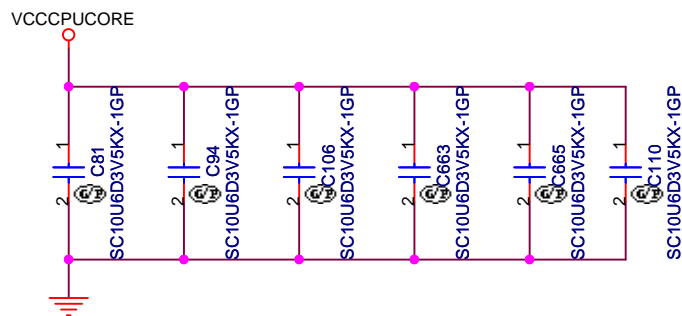
(*2) CPURST# SIGNAL IS BRANCHED AT GMCH's PIN

Ref Des	For ITP 700Flex	For ITP-XDP
J7	NO_ASM-->ASM	NO_ASM-->ASM
C118	NO_ASM-->ASM	NO_ASM-->ASM
R658	ASM (No Change)	ASM--> 51 5% ASM
R69	NO_ASM-->ASM	NO_ASM-->ASM
R77	NO_ASM-->ASM	NO_ASM-->1K 5% ASM
R63	ASM (No Change)	ASM (No Change)
R78	ASM (No Change)	ASM-->NO_ASM
R70	ASM (No Change)	ASM (No Change)
R64	ASM (No Change)	ASM-->51 5% ASM
R62	ASM (No Change)	ASM-->51 5% ASM

Rxxx(*) is the pull-up resistor on ITP_TDI

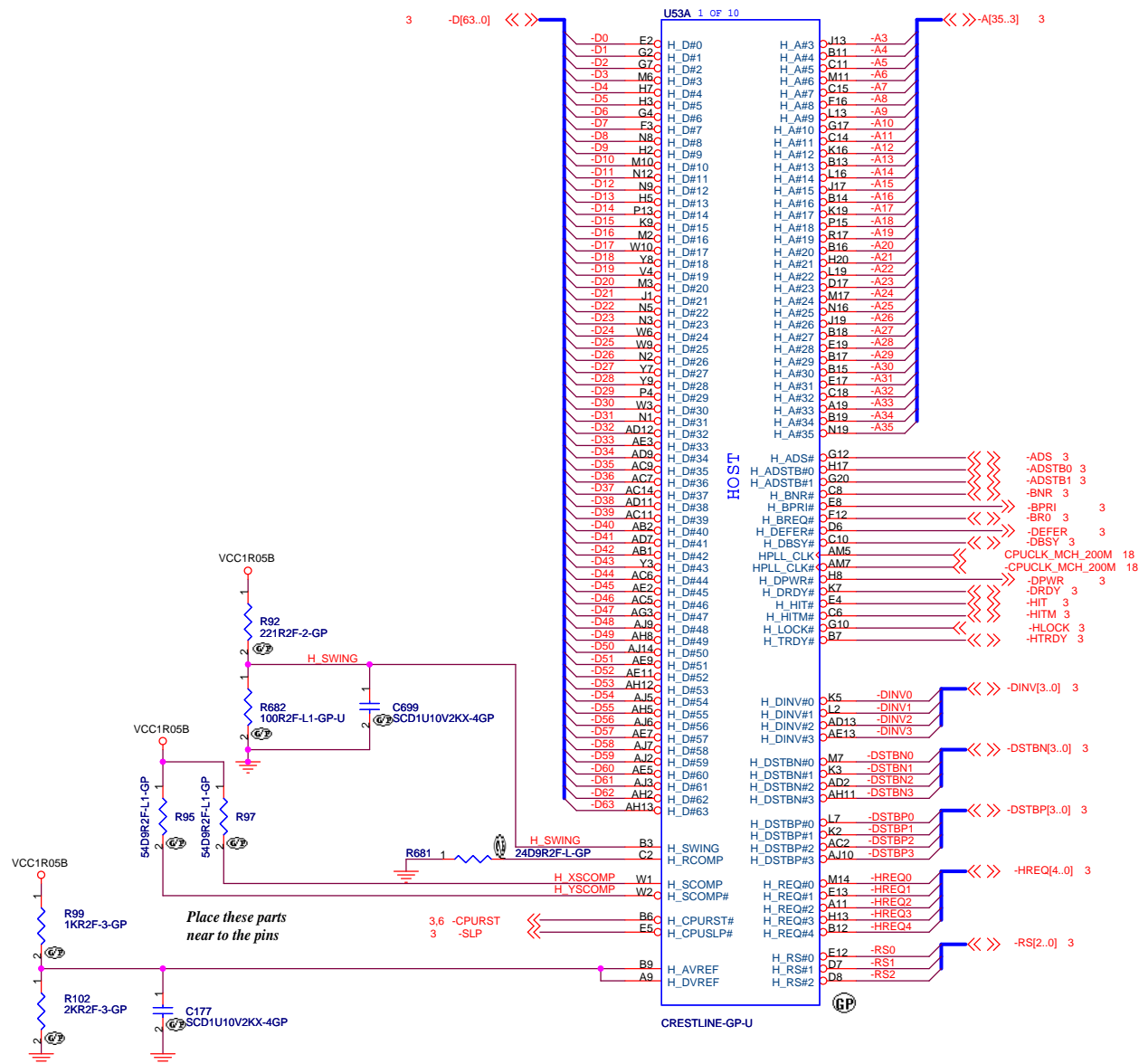
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Title			
ITP CONN			
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<Variant Name>

<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			
VCCCPUCORE DECOUPLING			
Size	Document Number		Rev
A4	KS note-3		-1
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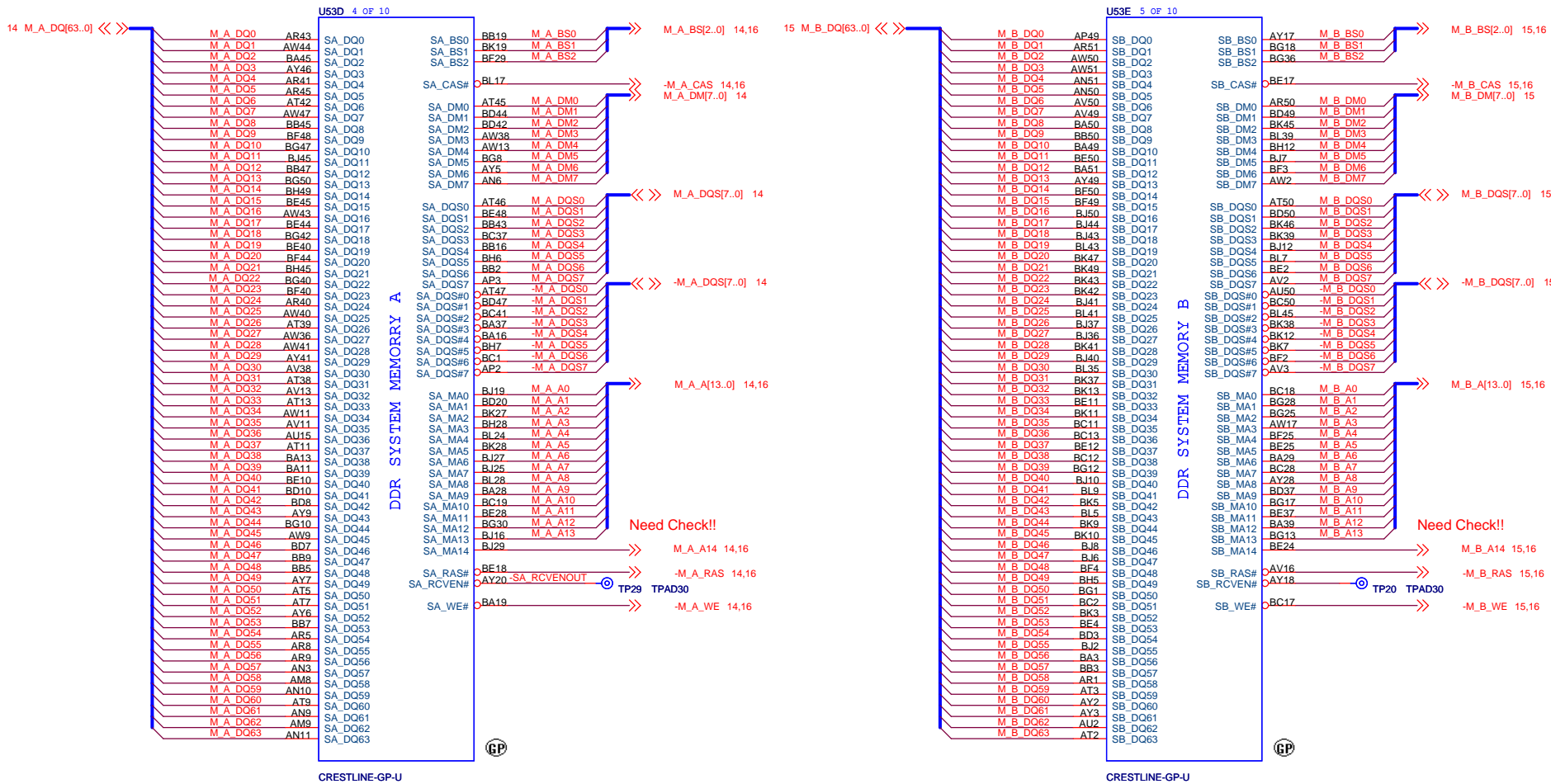
Route H_XSWING & H_YSWING
10 mil wide / 20 mil spacing

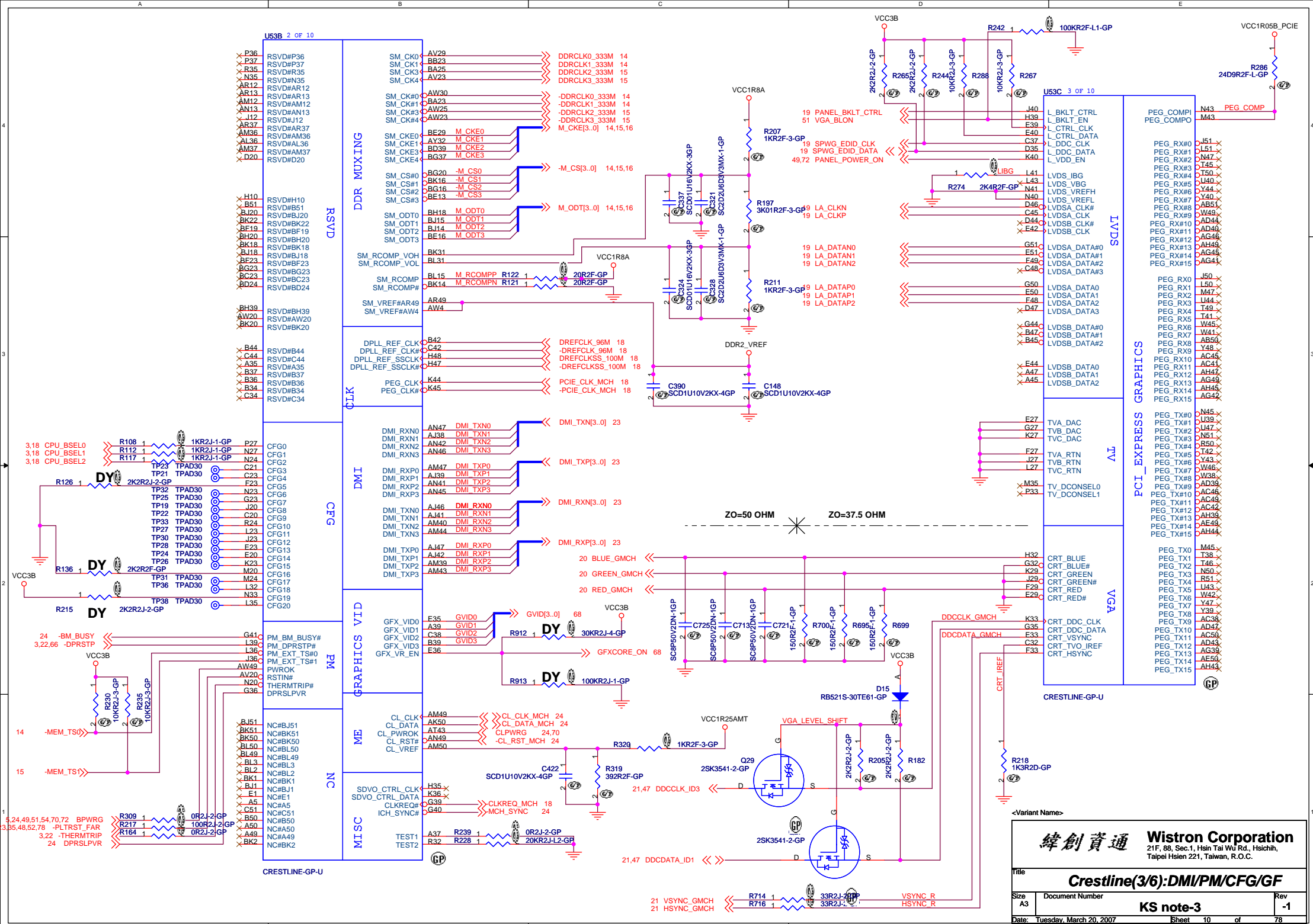
Route H_XRCOMP &
H_YRCOMP 10 mil wide /
20 mil spacing

<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 Crestline(1/6):HOST I/F	
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A13	VSS	VSS	AW24
A15	VSS	VSS	AW29
A17	VSS	VSS	AW32
A24	VSS	VSS	AW6
AA21	VSS	VSS	AW7
AA24	VSS	VSS	AY10
AA29	VSS	VSS	AY24
AB20	VSS	VSS	AY37
AB23	VSS	VSS	AY42
AB26	VSS	VSS	AY43
AB28	VSS	VSS	AY45
AB31	VSS	VSS	AY47
AC10	VSS	VSS	AY50
AC13	VSS	VSS	B10
AC3	VSS	VSS	B20
AC39	VSS	VSS	B24
AC43	VSS	VSS	B29
AC47	VSS	VSS	B30
AD1	VSS	VSS	B35
AD21	VSS	VSS	B38
AD26	VSS	VSS	B43
AD29	VSS	VSS	B46
AD3	VSS	VSS	B5
AD41	VSS	VSS	B8
AD45	VSS	VSS	BA1
AD49	VSS	VSS	BA17
AD5	VSS	VSS	BA18
AD50	VSS	VSS	BA2
AD8	VSS	VSS	BA24
AE10	VSS	VSS	BB12
AE14	VSS	VSS	BB25
AE6	VSS	VSS	BB40
AF20	VSS	VSS	BB44
AF23	VSS	VSS	BB49
AF24	VSS	VSS	BB8
AF31	VSS	VSS	BC18
AG2	VSS	VSS	BC24
AG38	VSS	VSS	BC25
AG43	VSS	VSS	BC36
AG47	VSS	VSS	BC40
AG50	VSS	VSS	BC51
AH3	VSS	VSS	J28
AH40	VSS	VSS	BD13
AH41	VSS	VSS	BD2
AH7	VSS	VSS	BD28
AH9	VSS	VSS	BD45
AJ11	VSS	VSS	BD48
AJ13	VSS	VSS	BD5
AJ21	VSS	VSS	BE1
AJ24	VSS	VSS	BE19
AJ29	VSS	VSS	BE23
AJ32	VSS	VSS	BE30
AJ43	VSS	VSS	BE42
AJ45	VSS	VSS	BE51
AJ49	VSS	VSS	BE8
AK20	VSS	VSS	BF12
AK21	VSS	VSS	BF16
AK26	VSS	VSS	BF36
AK28	VSS	VSS	BG19
AK31	VSS	VSS	BG2
AK31	VSS	VSS	BG24
AK51	VSS	VSS	BG29
AL1	VSS	VSS	BG39
AM11	VSS	VSS	BG48
AM13	VSS	VSS	BG5
AM3	VSS	VSS	BG51
AM4	VSS	VSS	BH17
AM41	VSS	VSS	BH30
AM45	VSS	VSS	BH44
AN1	VSS	VSS	BH46
AN38	VSS	VSS	BH8
AN39	VSS	VSS	BJ11
AN43	VSS	VSS	BJ13
AN5	VSS	VSS	BJ38
AN7	VSS	VSS	BJ4
AP4	VSS	VSS	BJ42
AP48	VSS	VSS	BJ46
AP50	VSS	VSS	BK15
AR11	VSS	VSS	BK17
AR2	VSS	VSS	BK25
AR39	VSS	VSS	BK29
AR44	VSS	VSS	BK36
AR47	VSS	VSS	BK40
AR7	VSS	VSS	BK44
AT10	VSS	VSS	BK6
AT14	VSS	VSS	BK8
AT41	VSS	VSS	BL11
AT49	VSS	VSS	BL13
AU1	VSS	VSS	BL19
AU23	VSS	VSS	BL22
AU29	VSS	VSS	BL37
AU3	VSS	VSS	BL47
AU36	VSS	VSS	C12
AU49	VSS	VSS	C16
AV51	VSS	VSS	C19
AV39	VSS	VSS	C28
AV48	VSS	VSS	C29
AW1	VSS	VSS	C33
AW12	VSS	VSS	C36
AW16	VSS	VSS	C41

CRESTLINE-GP-U

U53J10 OF 10

C46	VSS	VSS	W11
C50	VSS	VSS	W39
C7	VSS	VSS	W43
D13	VSS	VSS	W47
D24	VSS	VSS	W5
D3	VSS	VSS	W7
D32	VSS	VSS	Y13
D39	VSS	VSS	Y2
D45	VSS	VSS	Y41
D46	VSS	VSS	Y45
E10	VSS	VSS	Y49
E16	VSS	VSS	Y5
E24	VSS	VSS	Y50
E28	VSS	VSS	Y11
E32	VSS	VSS	P29
E47	VSS	VSS	T29
F19	VSS	VSS	T31
F36	VSS	VSS	T33
F4	VSS	VSS	R28
F40	VSS	VSS	
F50	VSS	VSS	
G1	VSS	VSS	
G13	VSS	VSS	
G16	VSS	VSS	AA32
G19	VSS	VSS	AB32
G24	VSS	VSS	AD32
G28	VSS	VSS	AF28
G29	VSS	VSS	AF29
G33	VSS	VSS	AT27
G42	VSS	VSS	AV25
G45	VSS	VSS	H50
G48	VSS	VSS	
G8	VSS	VSS	
H24	VSS	VSS	
H28	VSS	VSS	
H4	VSS	VSS	
H45	VSS	VSS	
J11	VSS	VSS	
J16	VSS	VSS	
J2	VSS	VSS	
J24	VSS	VSS	
J28	VSS	VSS	
J33	VSS	VSS	
J35	VSS	VSS	
J39	VSS	VSS	
K12	VSS	VSS	
K47	VSS	VSS	
K8	VSS	VSS	
L4	VSS	VSS	
L17	VSS	VSS	
L20	VSS	VSS	
L24	VSS	VSS	
L28	VSS	VSS	
L3	VSS	VSS	
L33	VSS	VSS	
L49	VSS	VSS	
M28	VSS	VSS	
M42	VSS	VSS	
M46	VSS	VSS	
M49	VSS	VSS	
M5	VSS	VSS	
M50	VSS	VSS	
M9	VSS	VSS	
N11	VSS	VSS	
N14	VSS	VSS	
N17	VSS	VSS	
N29	VSS	VSS	
N32	VSS	VSS	
N36	VSS	VSS	
N39	VSS	VSS	
N44	VSS	VSS	
N49	VSS	VSS	
N7	VSS	VSS	
P19	VSS	VSS	
P2	VSS	VSS	
P23	VSS	VSS	
P3	VSS	VSS	
P50	VSS	VSS	
R49	VSS	VSS	
T39	VSS	VSS	
T43	VSS	VSS	
T47	VSS	VSS	
U41	VSS	VSS	
U45	VSS	VSS	
U50	VSS	VSS	
V2	VSS	VSS	
V3	VSS	VSS	

VSS

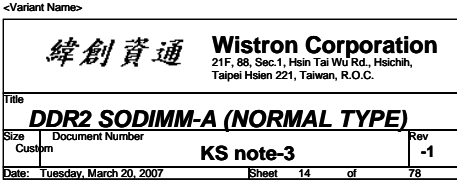
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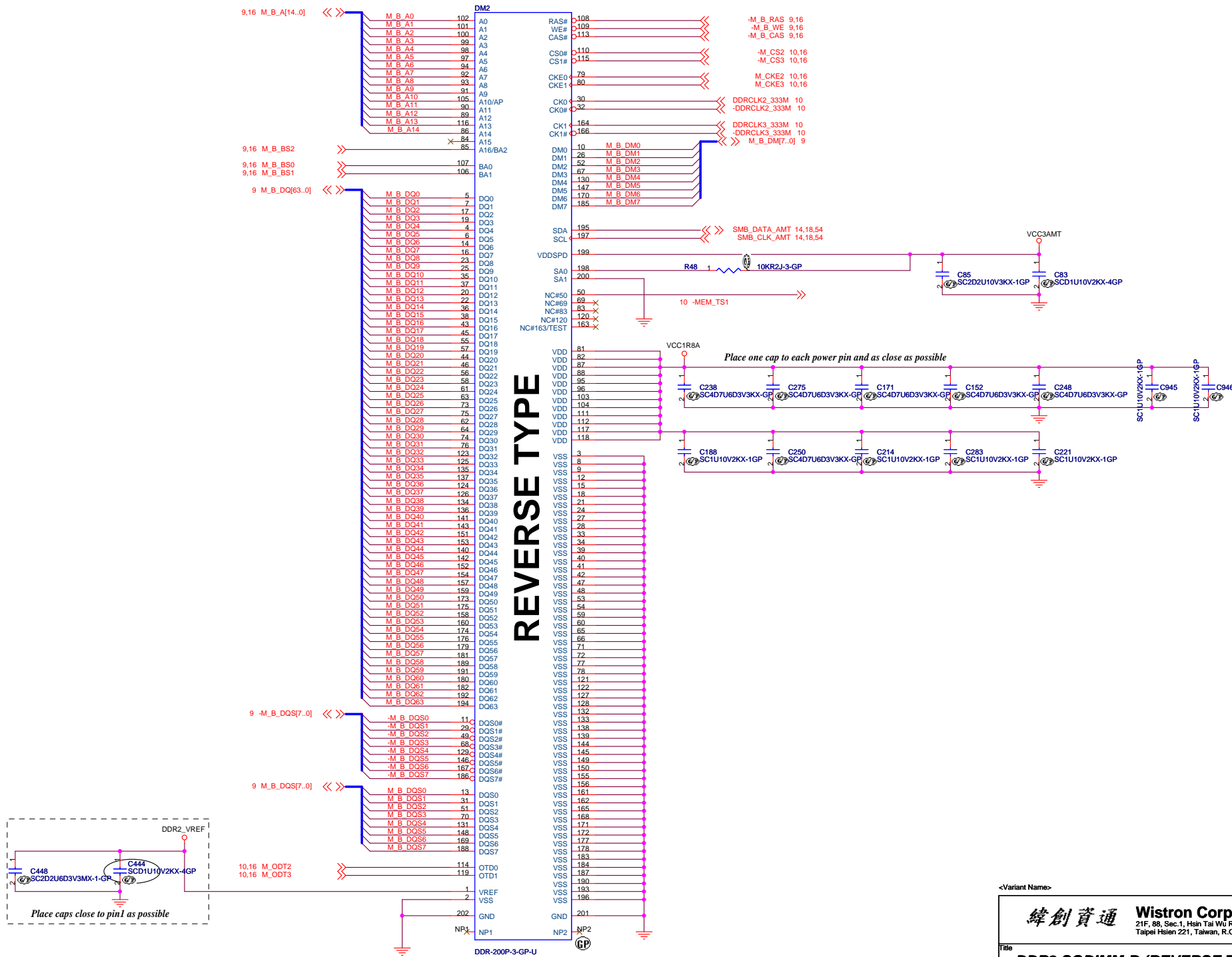
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緯創資通

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Title			
Crestline(6/6):GND			
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1st: 62.10017.B91 (Foxconn)
2nd: 62.10017.B81 (AMP)

<Variant Name>

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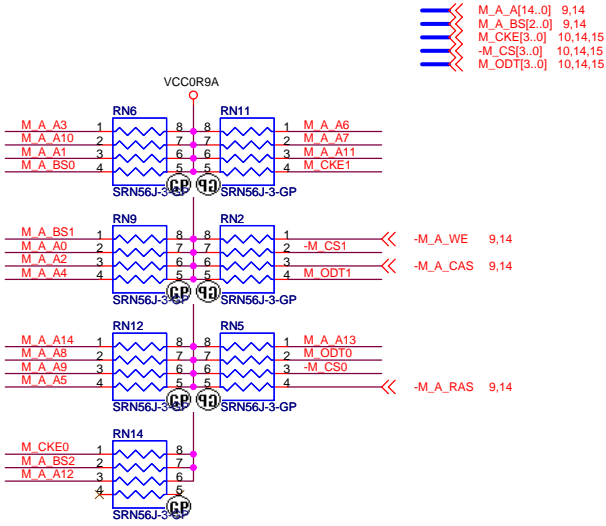
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Size Document Number
Custom KS note-3

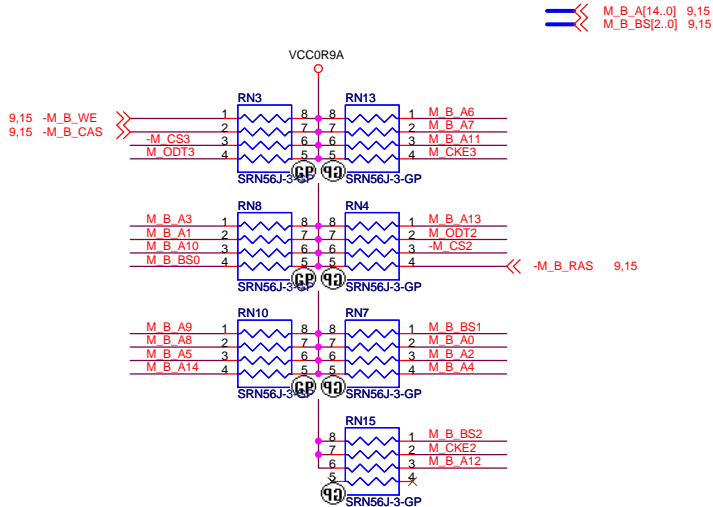
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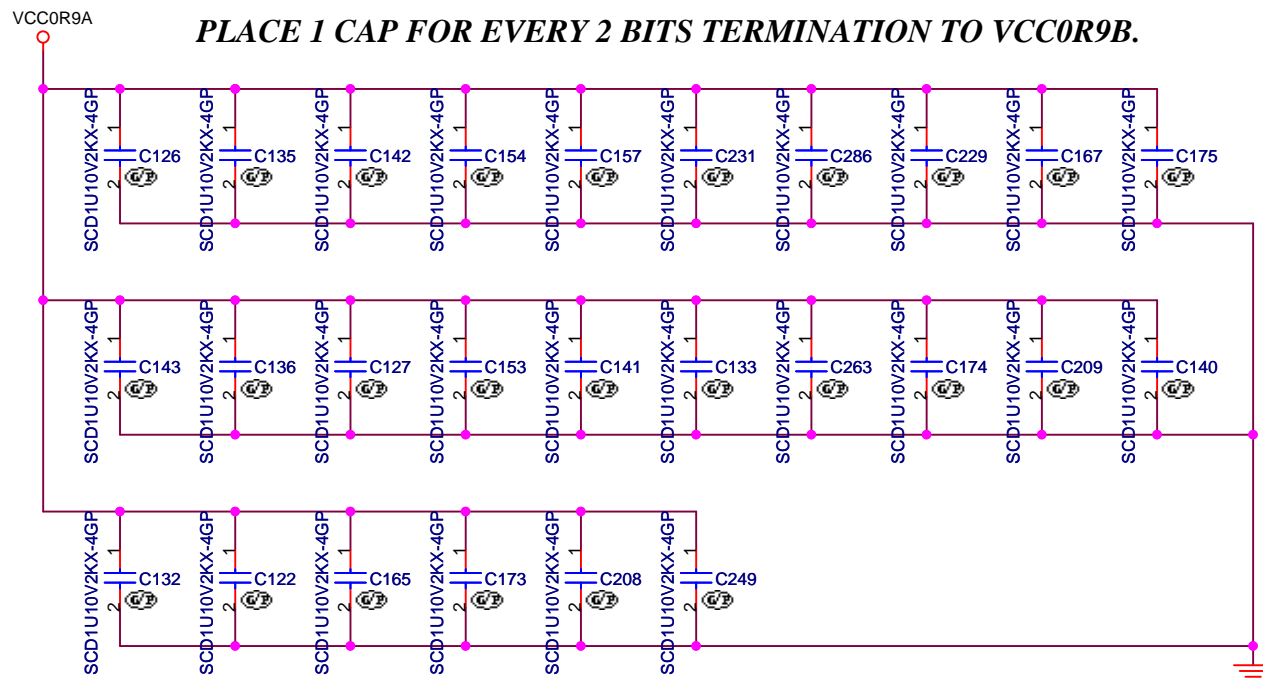
Rev -1

CHANNEL A PARALLEL TERMINATION




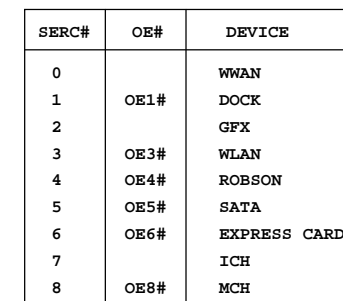
CHANNEL B PARALLEL TERMINATION

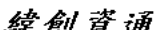




<Variant Name>

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
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DDR-2 DECOUPLING			
Size A4	Document Number KS note-3		Rev -1
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<Variant Name>				1
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title				
CLOCK GEN(CK505)				
Size A3	Document Number			Rev -1
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LCD / Inverter Connector

Place	Ks-3	Dali-2	Function
R85	Dummy	0Ω	-BDC_PRESENCE
R107	Dummy	0Ω	BCD_ON
R98	Dummy	0Ω	BT_BUSY
R96	Dummy	0Ω	WIFI_BUSY

R36	100Ω	0Ω	WLAN_LED/VCC3B
R668	200Ω	Dummy	ThinkLight
C691	ASM	Dummy	ThinkLight
C44	ASM	Dummy	ThinkLight

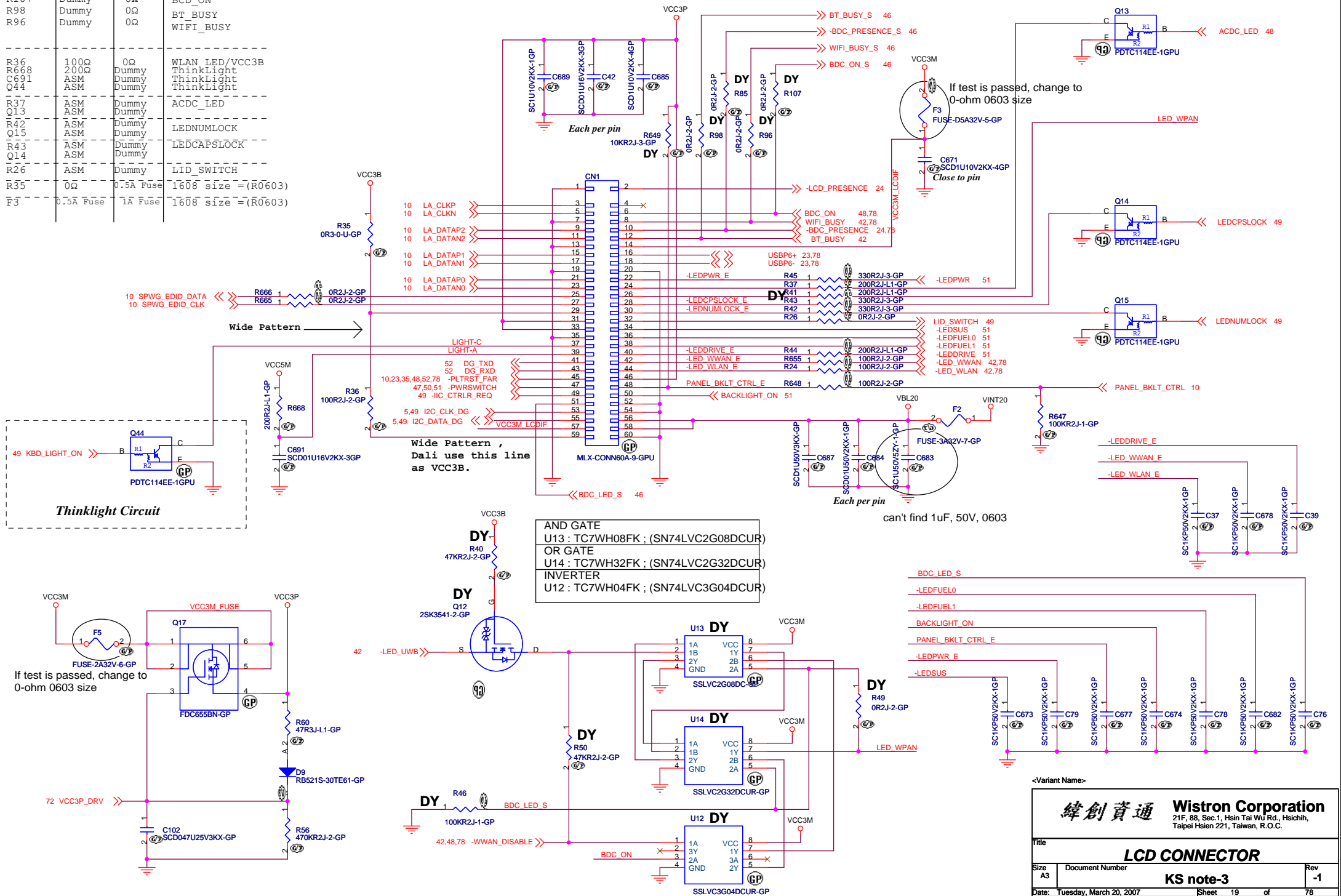
R37	ASM	Dummy	ACDC_LED
Q13	ASM	Dummy	

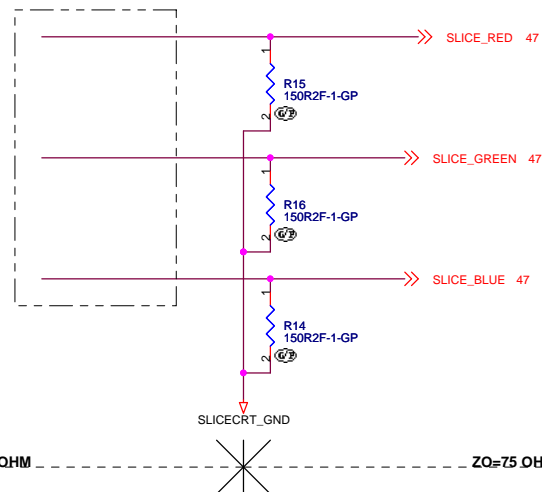
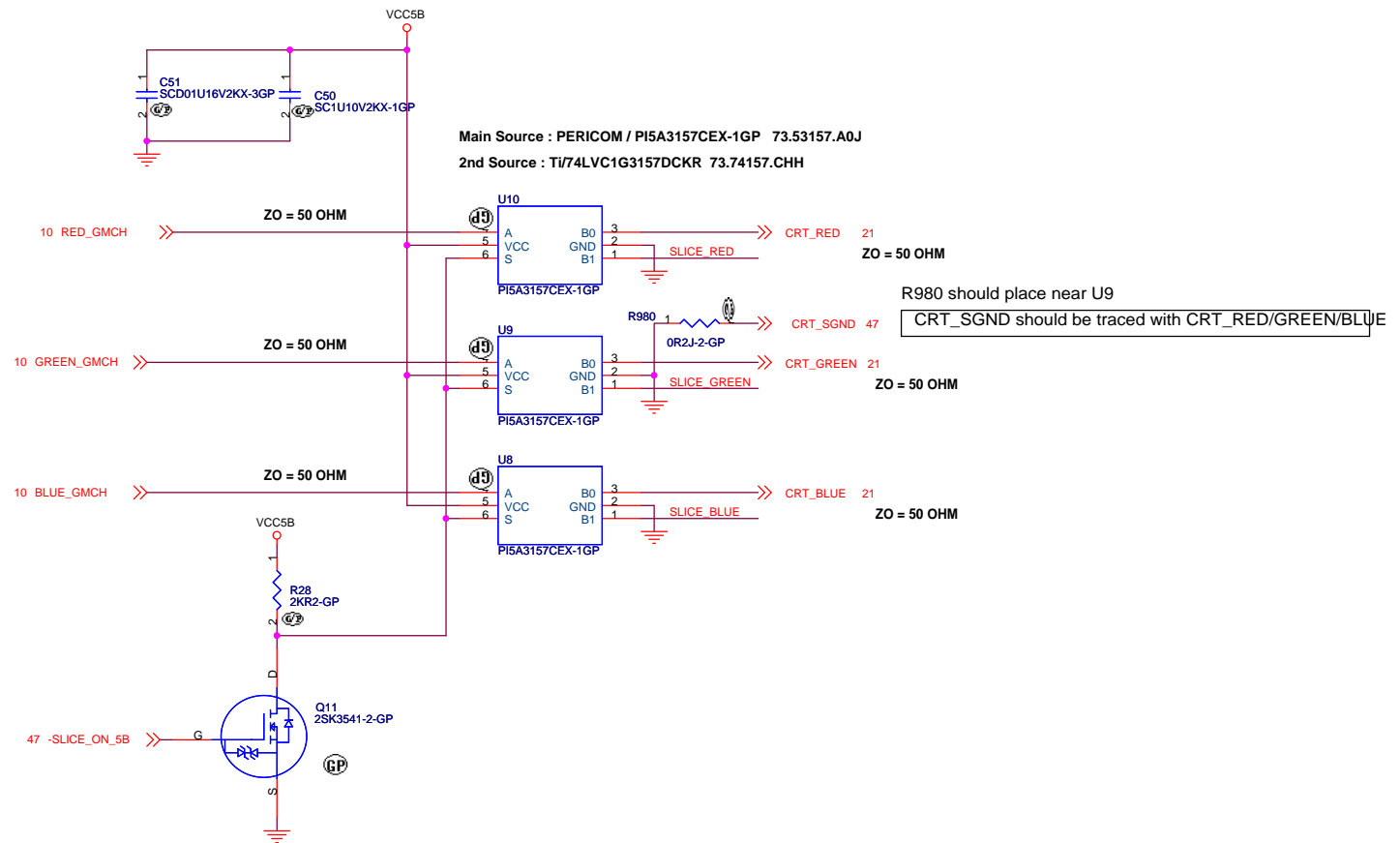
R42	ASM	Dummy	
Q15	ASM	Dummy	LEDNUMLOCK

R43	ASM	Dummy	
Q14	ASM	Dummy	LEDCAPSLOCK

R26	ASM	Dummy	LID_SWITCH

R35	0Ω	0.5A Fuse	1608_size=(R0603)
F3	0.5A Fuse	1A Fuse	1608_size=(R0603)



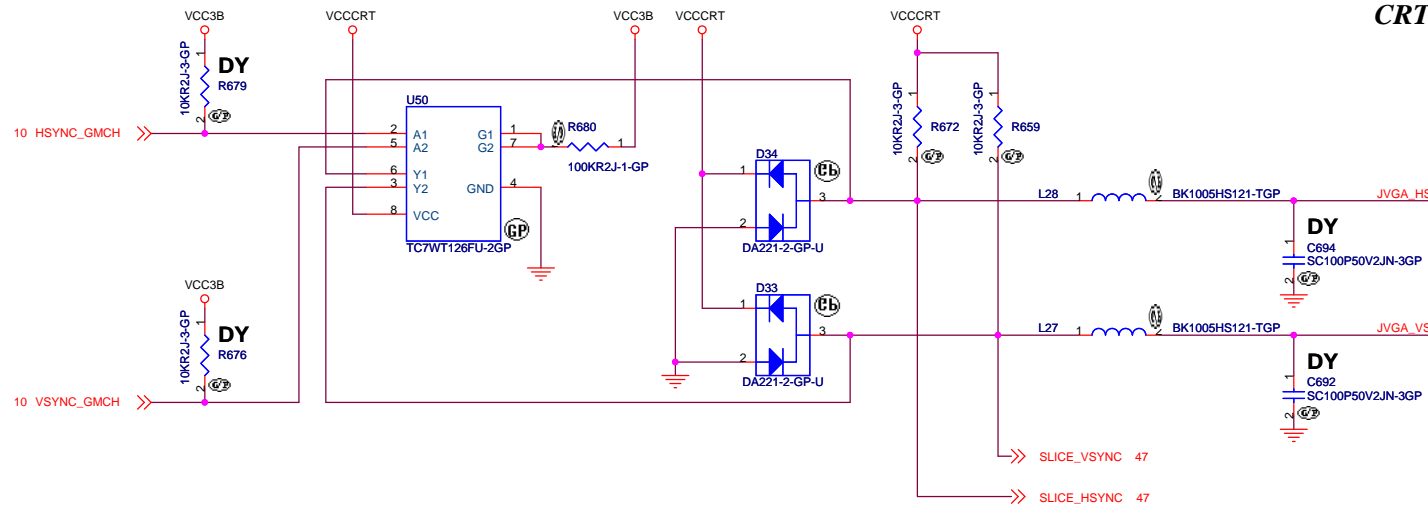
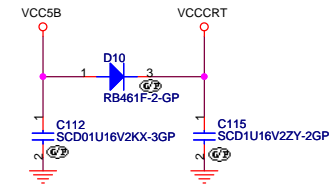


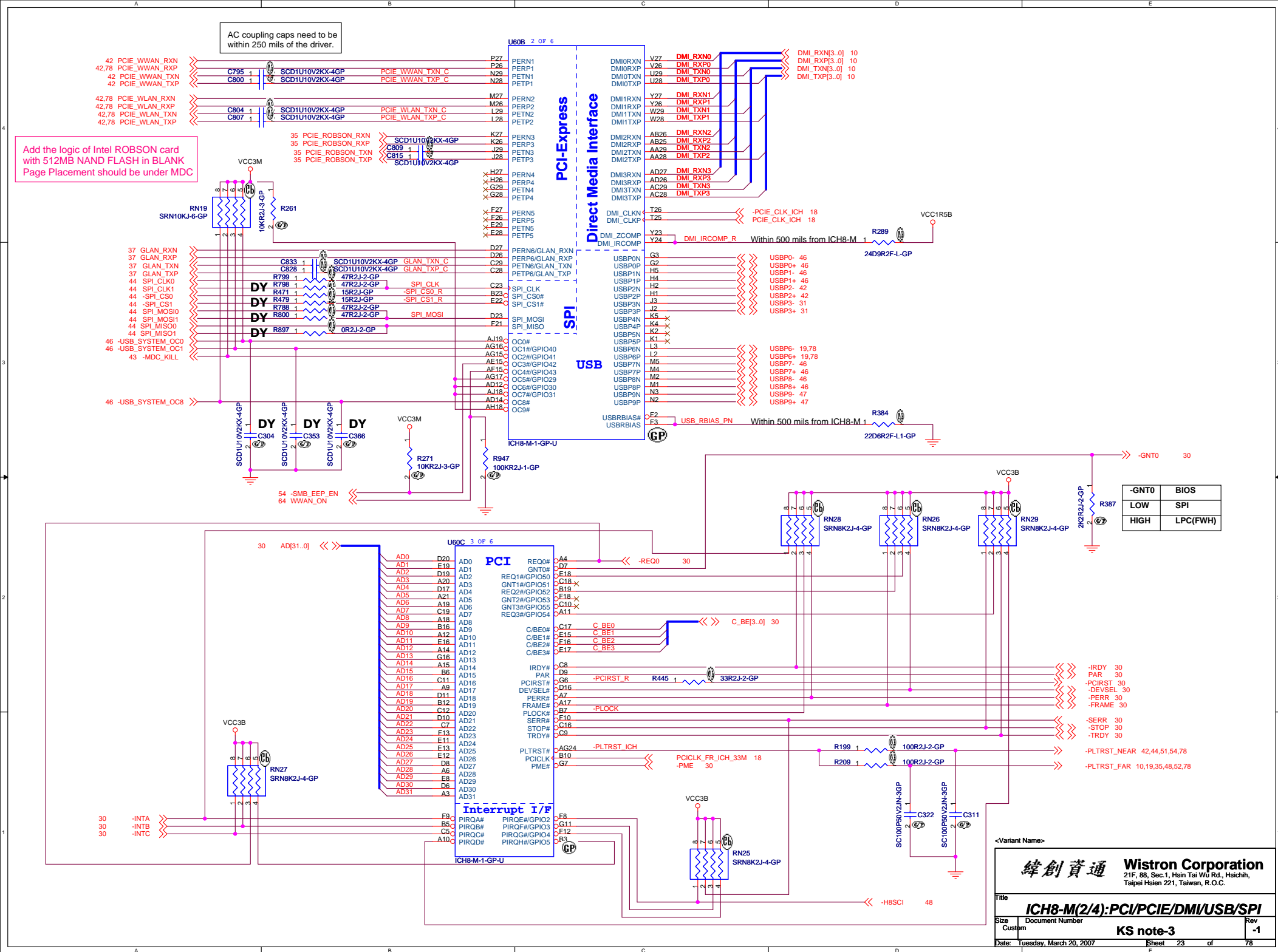
<Variant Name>

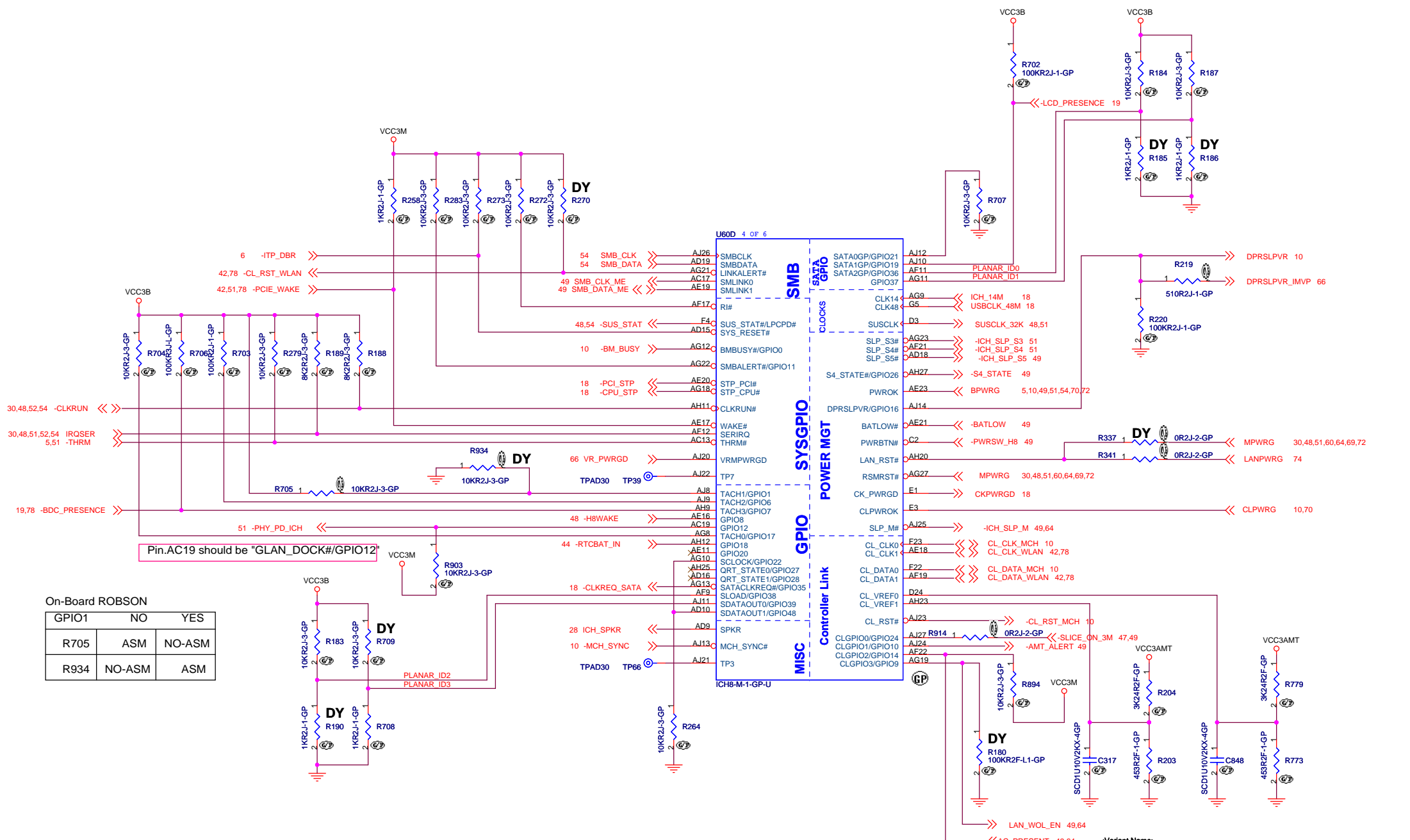
緯創資通 Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
 Taipei Hsien 221, Taiwan, R.O.C.

Title			CRT SELECTOR	
Size	Document Number	KS note-3		Rev
A3				-1
Date: Tuesday, March 20, 2007		Sheet	20	of 78

SPACING=8MIL







On-Board ROBSON

GPIO1	NO	YES
R705	ASM	NO-ASM
R934	NO-ASM	ASM

<Variant Name>

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

Title

ICH8-M(3/4):PM/SMB/GPIO

Size

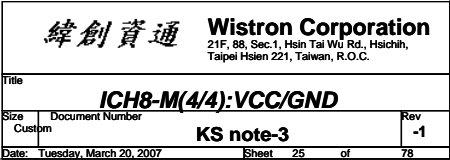
Document Number

KS note-3

Date: Tuesday, March 20, 2007

Sheet 24 of 78

Rev -1

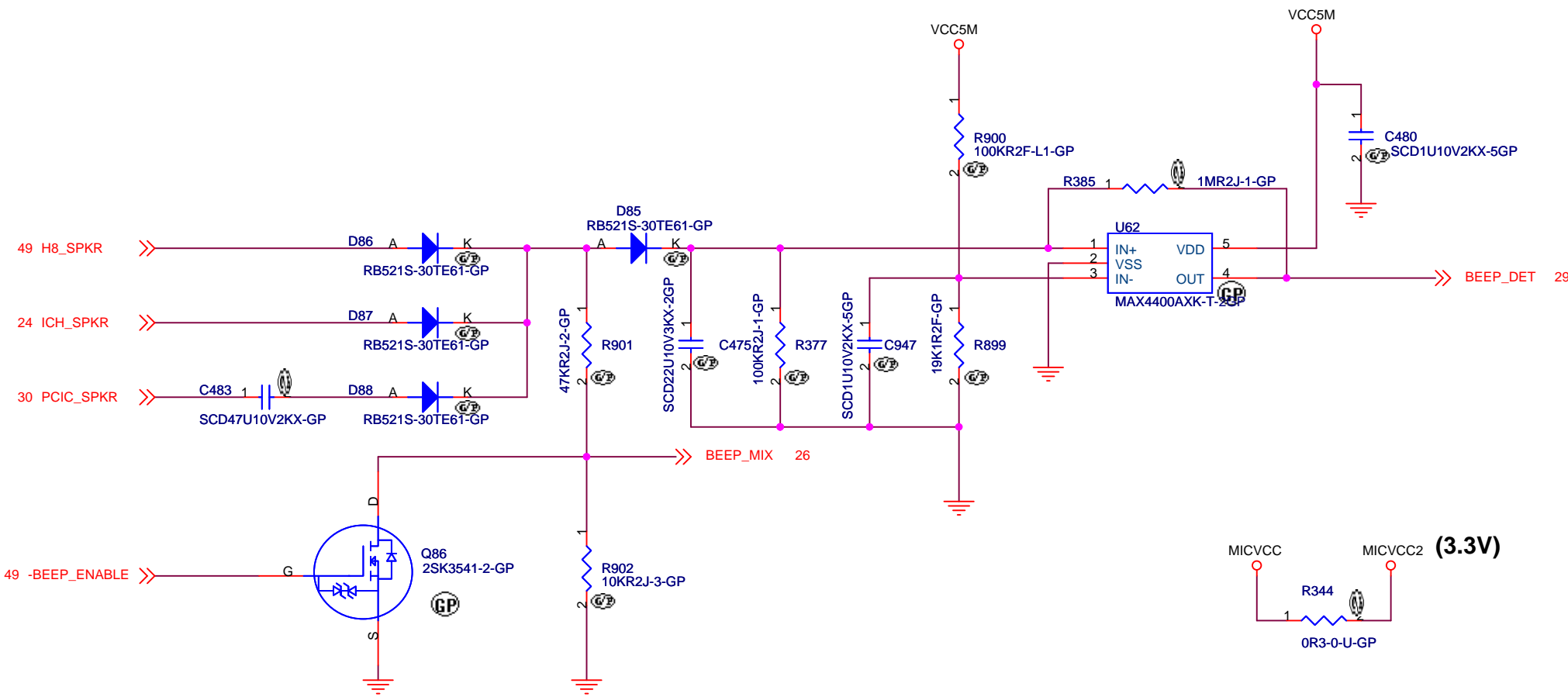


HEADPHONE

EXT MIC

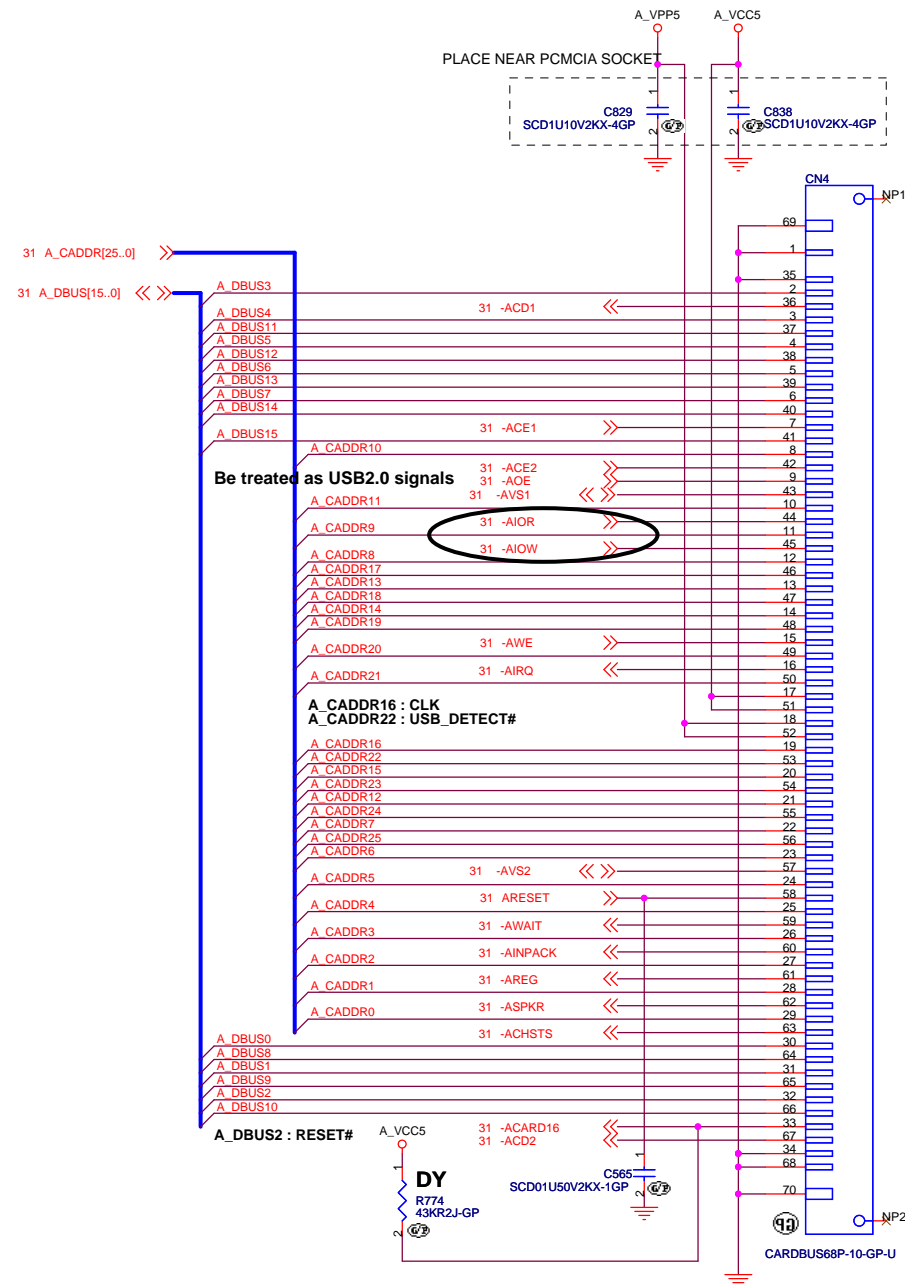
ALL PARTS MUST BE
PLACED NEAR TO
INTERNAL MICROPHONE

Place	KS-3	Dali-2
R819	ASM	Dummy
R804	ASM	Dummy
C872	ASM	Dummy
R813	ASM	Dummy
C877	ASM	Dummy
CN7	ASM	Dummy
CN6	Dummy	ASM
R567	Dummy	ASM
C578	Dummy	ASM



<Variant Name>

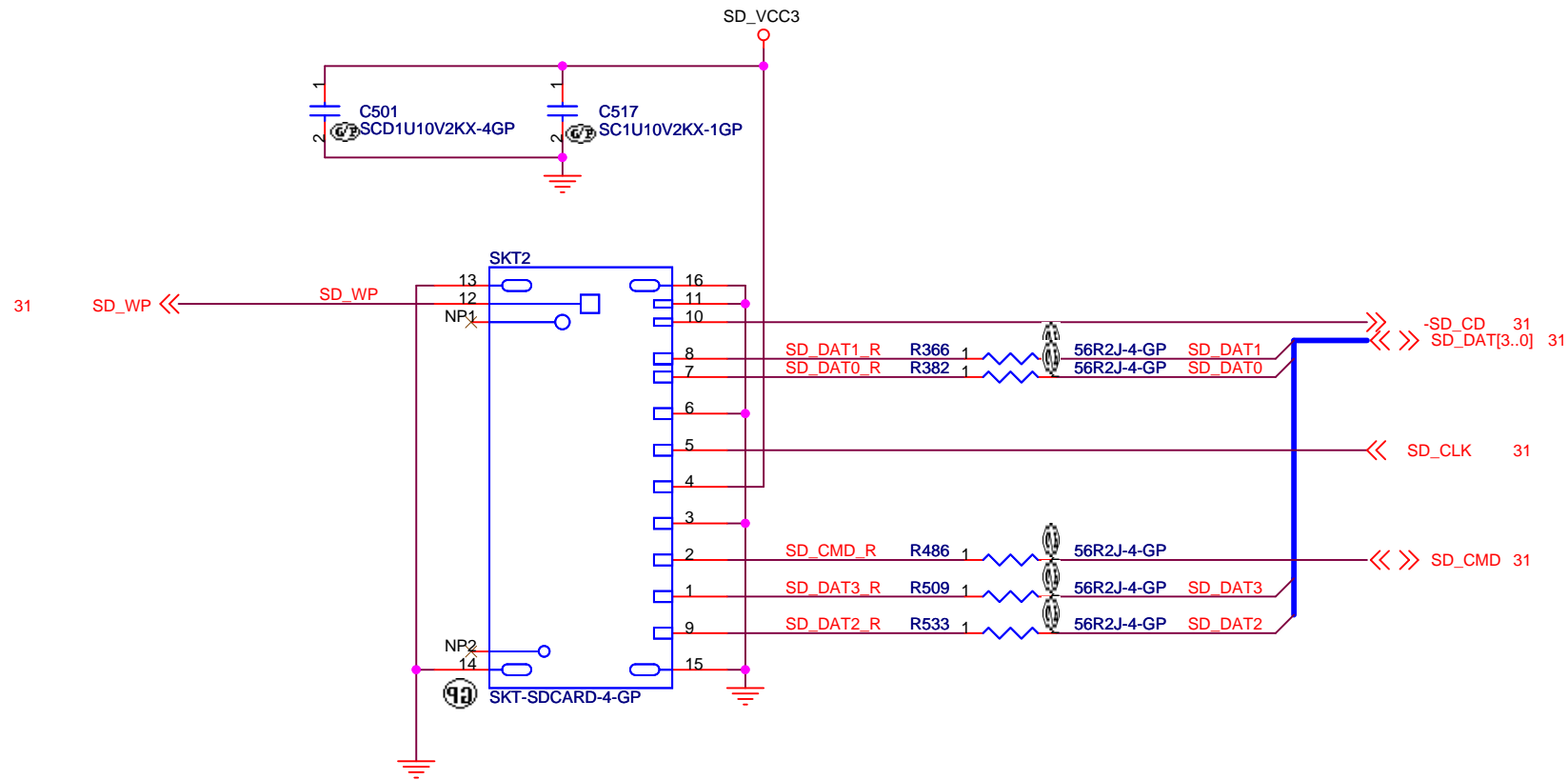
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
AUDIO MISC			
Size A4	Document Number KS note-3		Rev -1
Date:	Tuesday, March 20, 2007	Sheet 28 of	78



<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			
CARD BUS SLOT			
Size	Document Number	Rev	
A3	KS note-3	-1	
Date:	Tuesday, March 20, 2007	Sheet	32 of 78

SD Slot



<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

SD SLOT

Size
A4

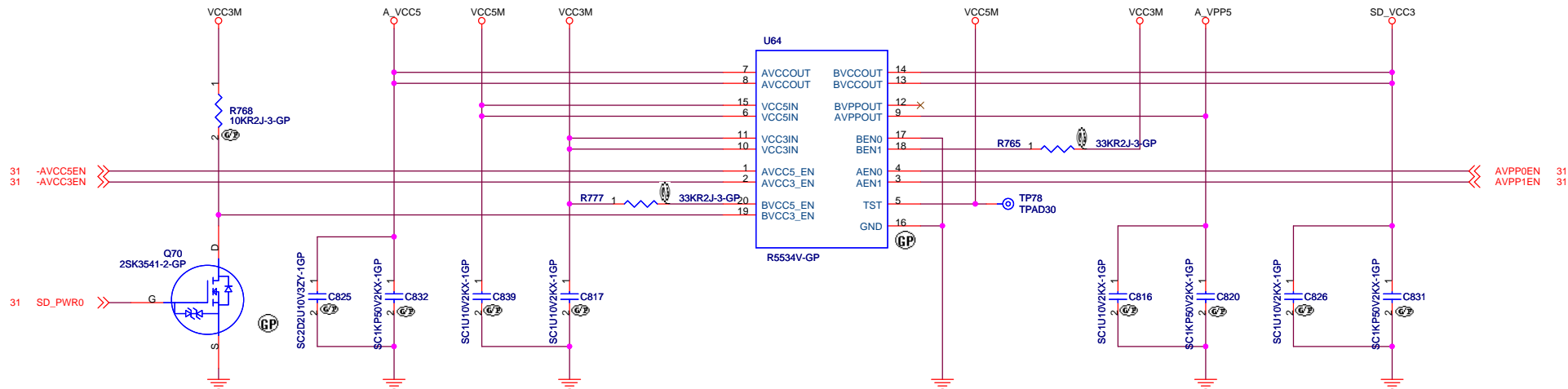
Document Number

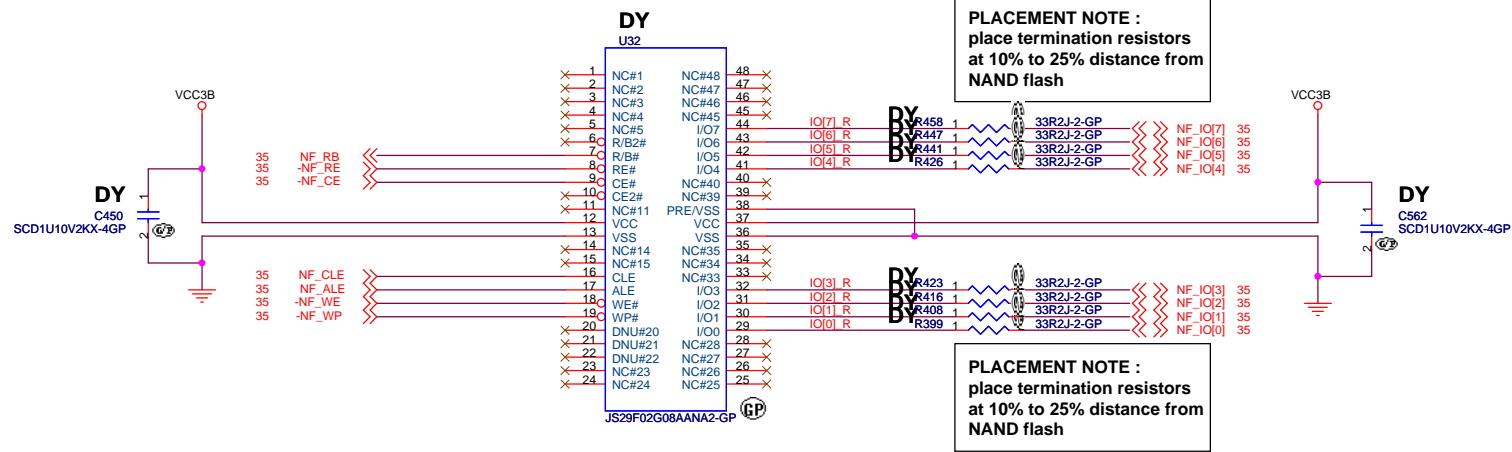
KS note-3

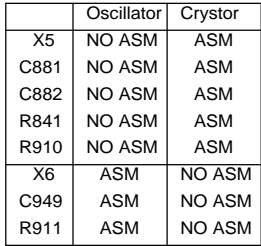
Rev
-1

Date: Tuesday, March 20, 2007

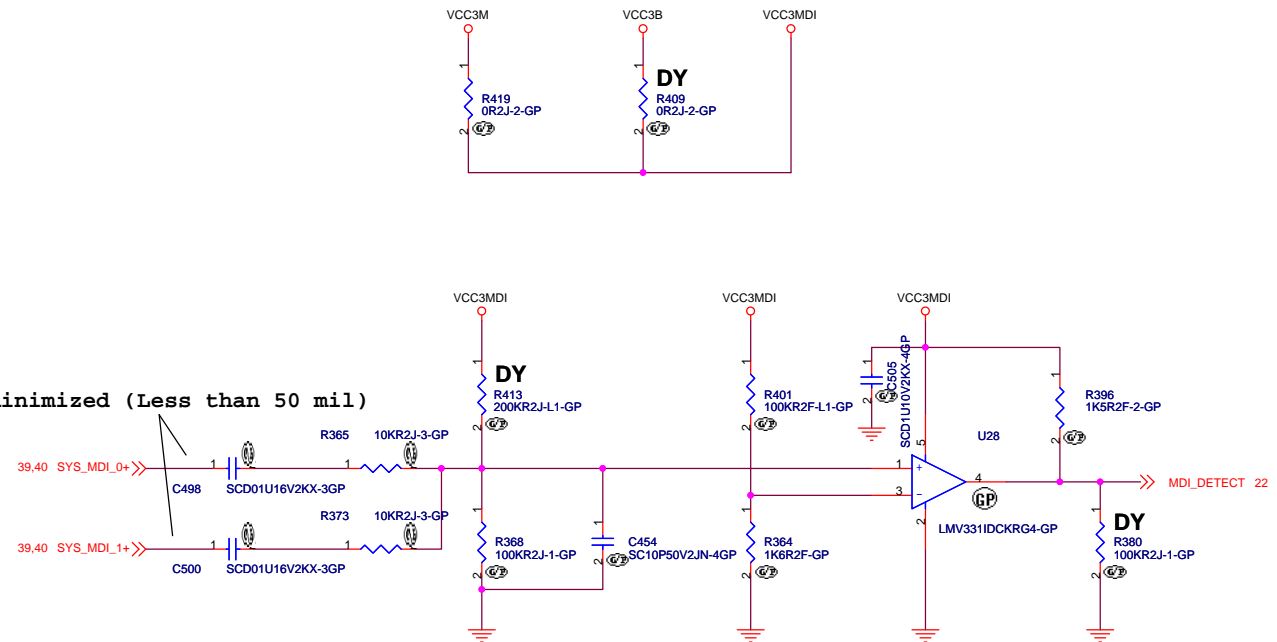
Sheet 33 of 78







STUB should be minimized (Less than 50 mil)



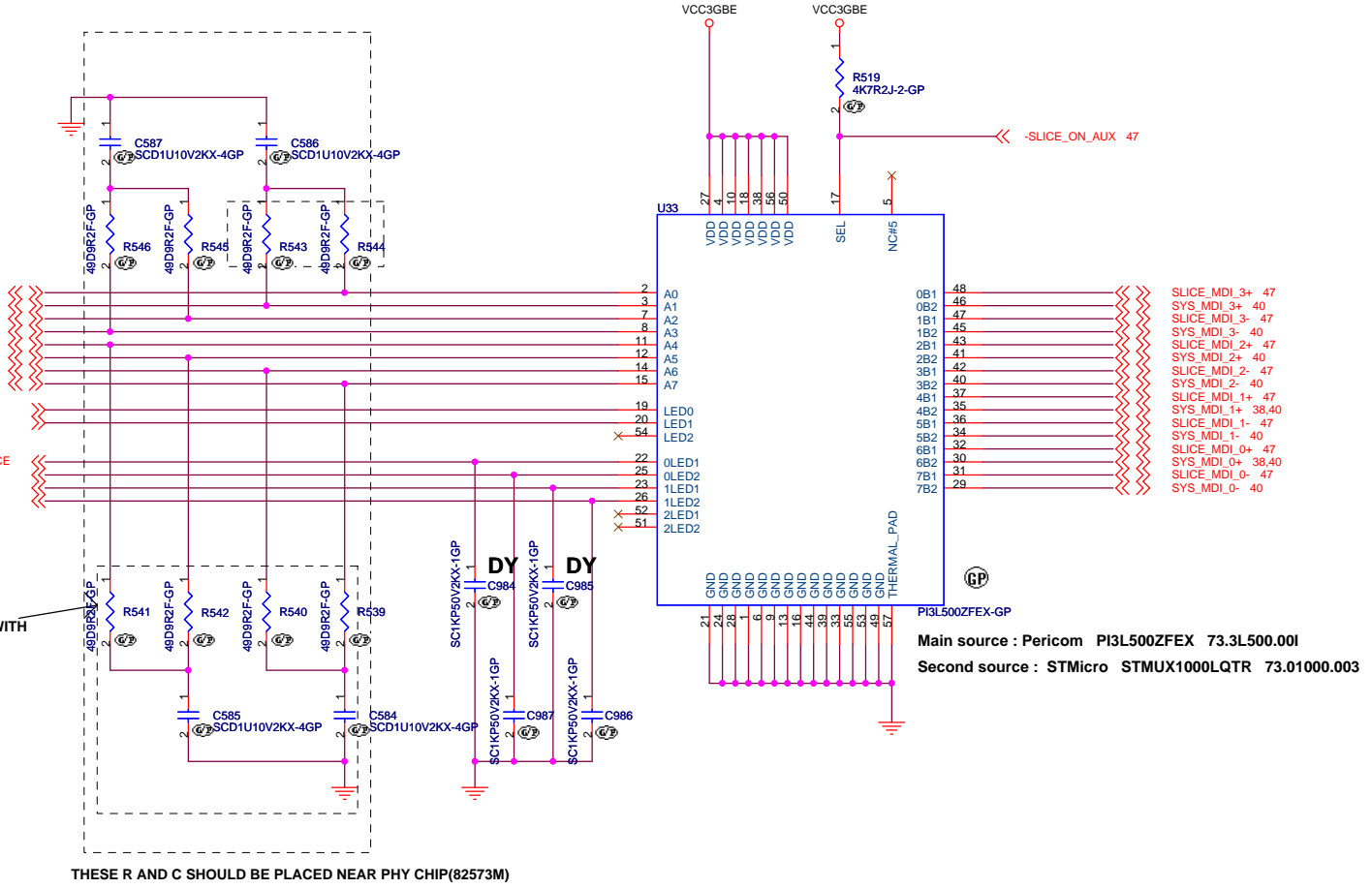
SVT 3/12
Change U28(LMV331) source from TI to NS

37 MDI_3+
37 MDI_3-
37 MDI_2+
37 MDI_2-
37 MDI_1+
37 MDI_1-
37 MDI_0+
37 MDI_0-

37 -RJ45_ACTIVITY
37 -RJ45_LINKUP

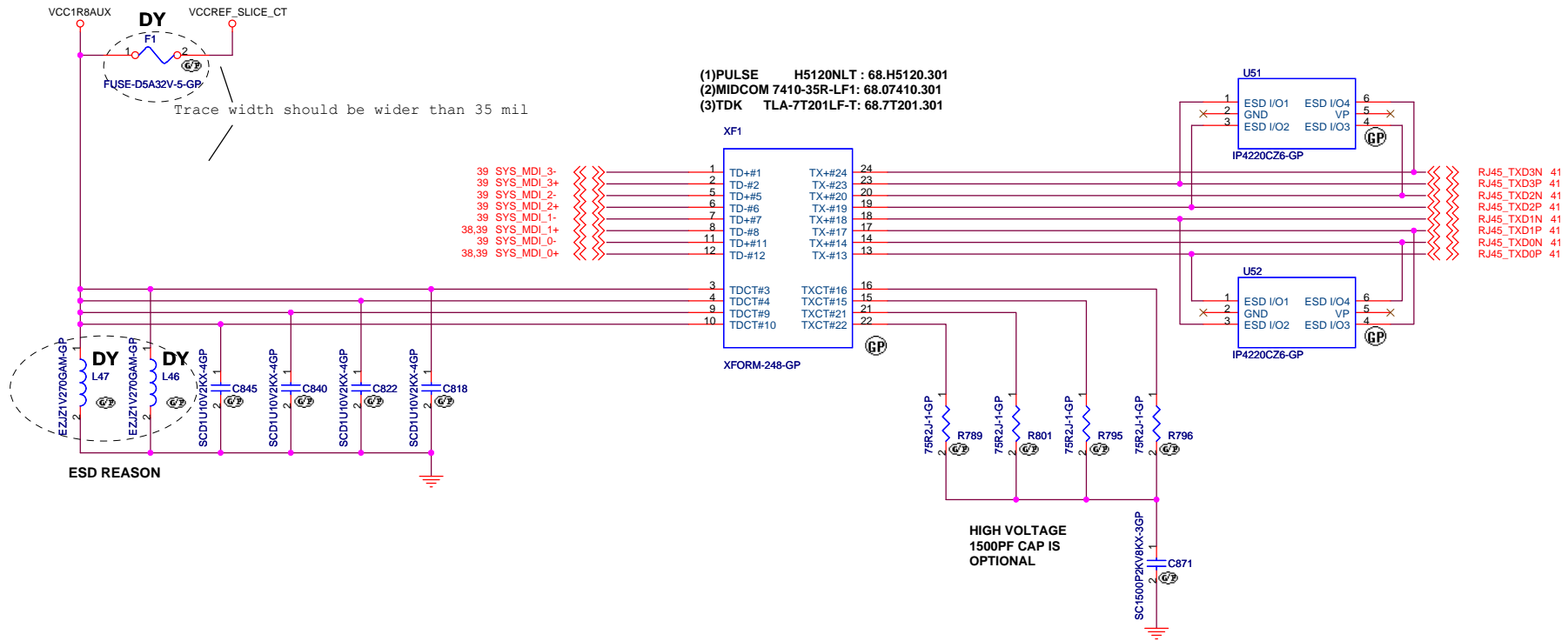
47 -RJ45_ACTIVITY_SLICE
41,78 -RJ45_ACTIVITY_SYS
47 -RJ45_LINKUP_SLICE
41,78 -RJ45_LINKUP_SYS

INSTALL 1% 49 OHM RESISTORS WITH
INTEL TEKOA 82573M

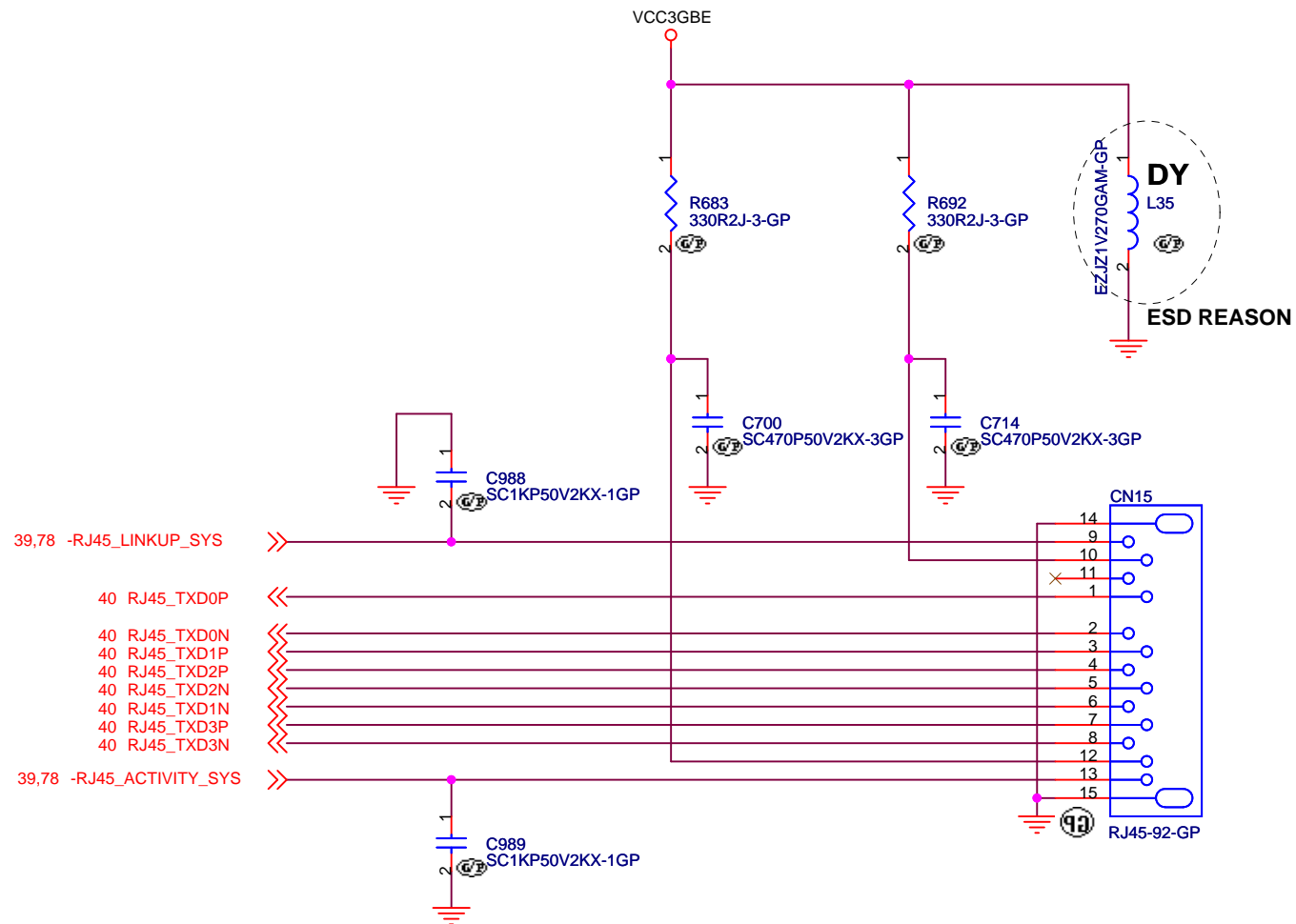


Main source : Pericom PI3L500ZFEX 73.3L500.001
Second source : STMicro STMUX1000LQTR 73.01000.003

This should be placed near LAN Magnetics, not Slice conn.



<Variant Name>



<Variant Name>

緯創資通

Wistron Corporation

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

Title

RJ11/RJ45 CONN

Size
A4

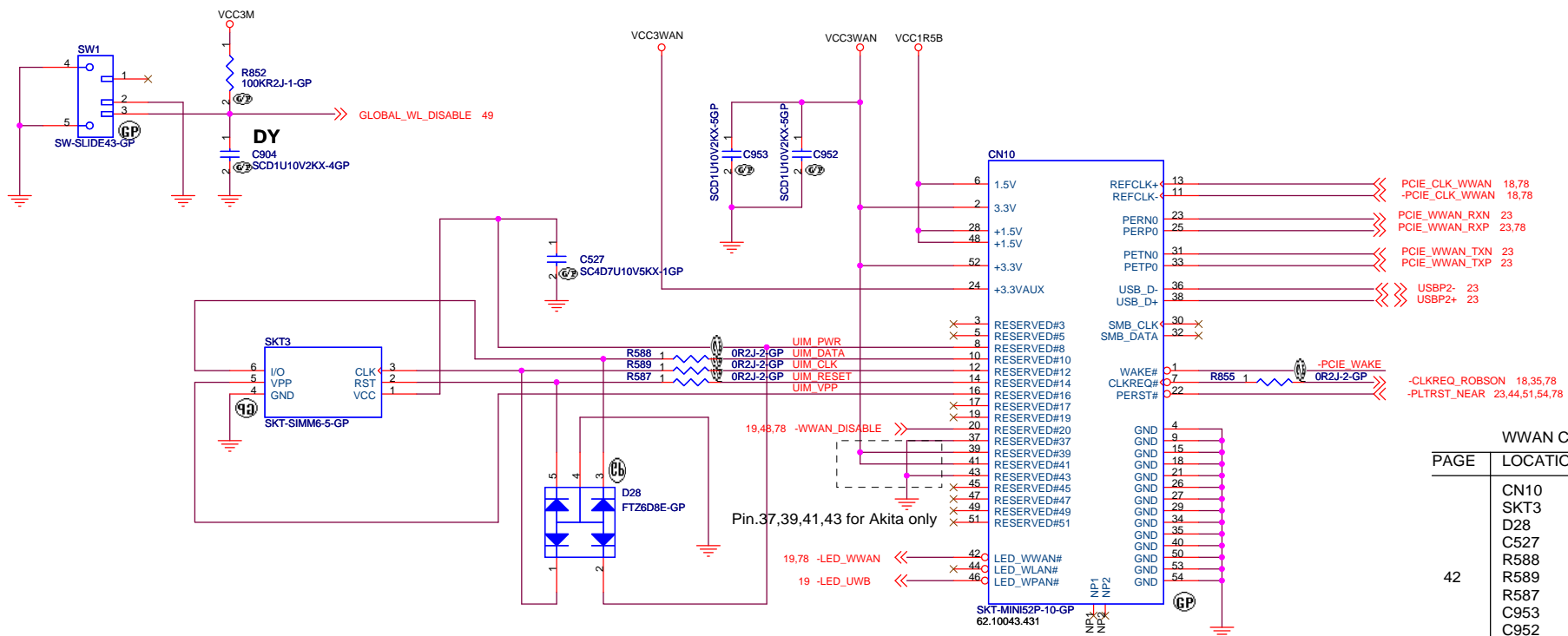
Document Number

KS note-3

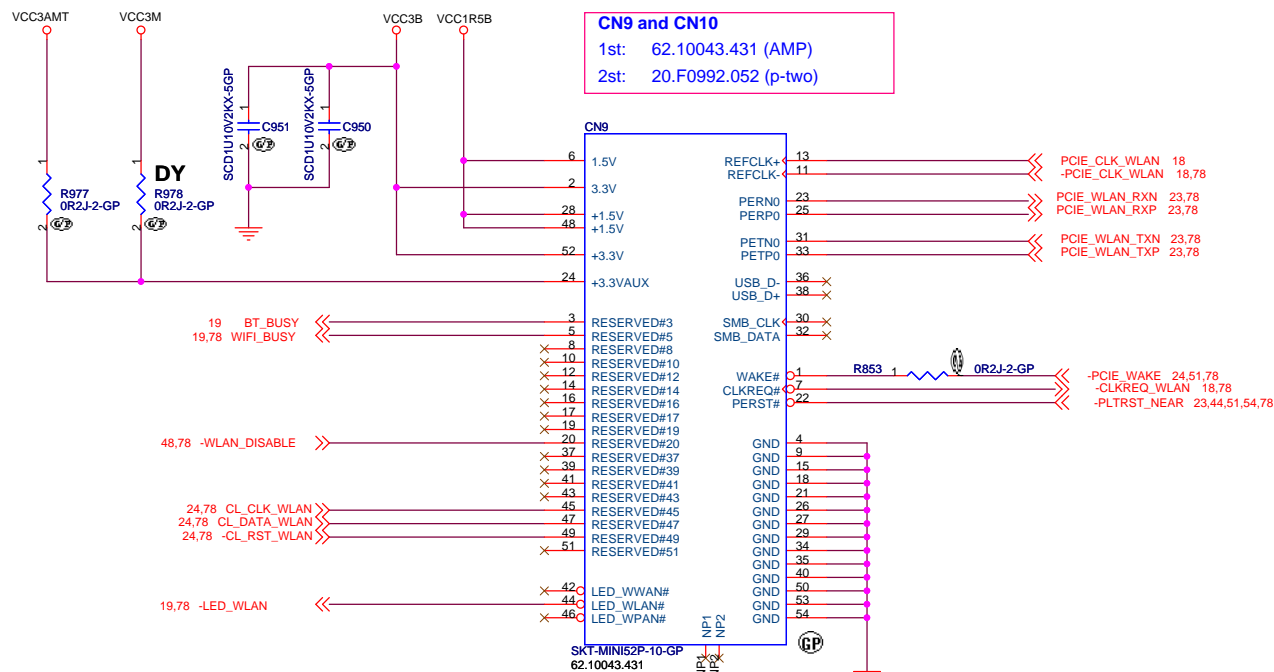
Rev
-1

Date: Tuesday, March 20, 2007

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WWAN CONTROL TABLE			
PAGE	LOCATION	YES	NO
42	CN10		
	SKT3		
42	D28		
	C527		
	R588		
	R589	ASM	NON_ASM
	R587		
	C953		
	C952		
	R855		
73	Q75		
	R949		
	D93		
	R950	ASM	NON_ASM
	C967		

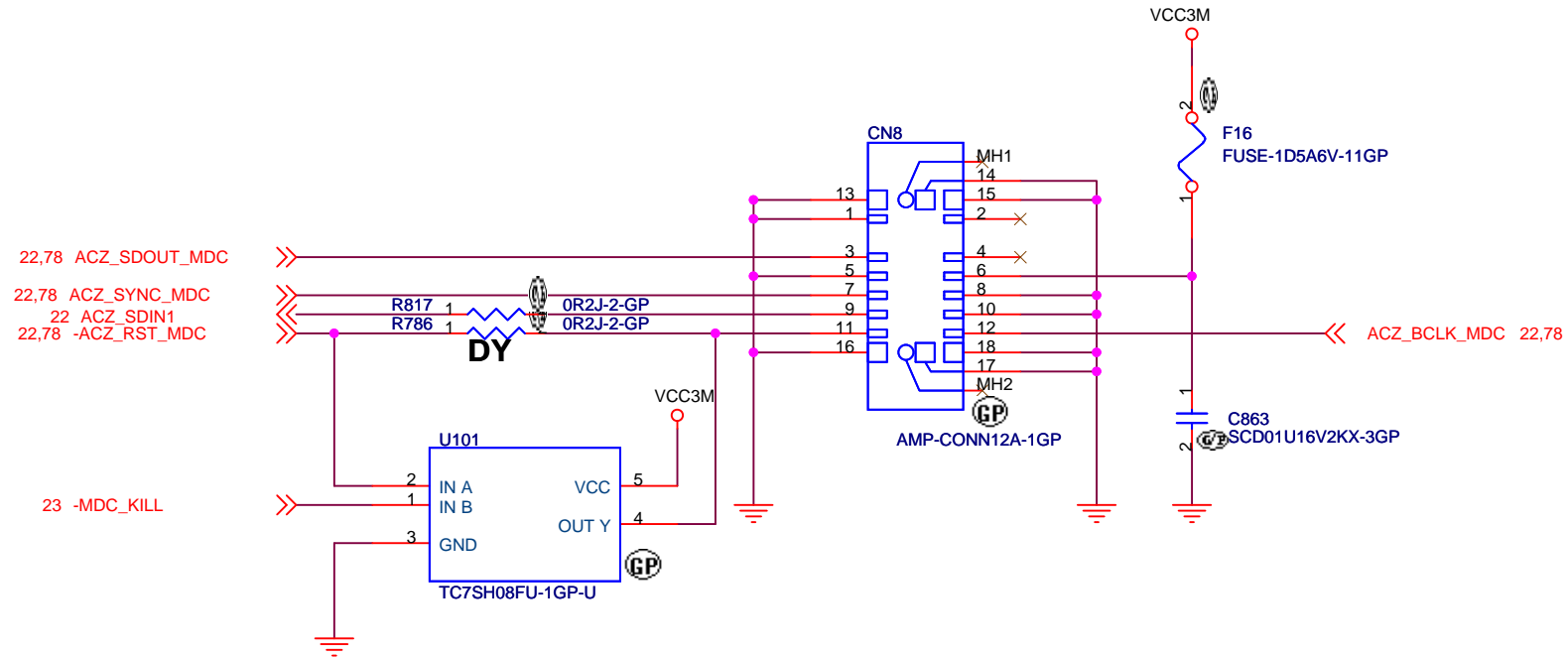


<Variant Name>

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

Title: **MINI CARD SLOT**
Size A3 Document Number: **KS note-3** Rev: **-1**
Date: Tuesday, March 20, 2007 Sheet 42 of 78

MDC CONN



<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

MDC 1.5 CONNECTOR

Size
A4

Document Number

KS note-3

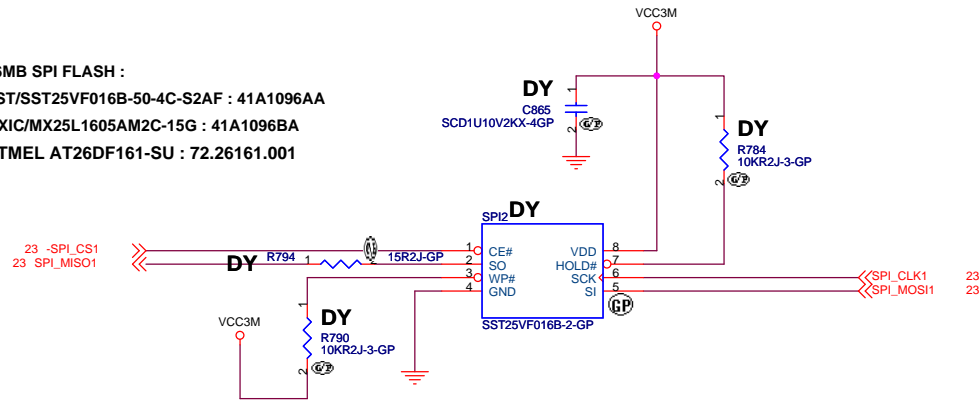
Rev
-1

Date: Tuesday, March 20, 2007

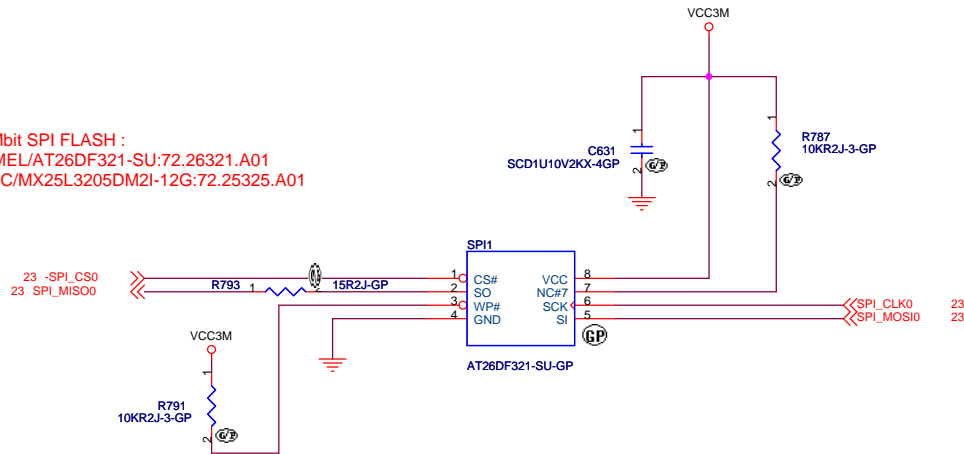
Sheet 43 of 78

Golden Finger for Debug Board

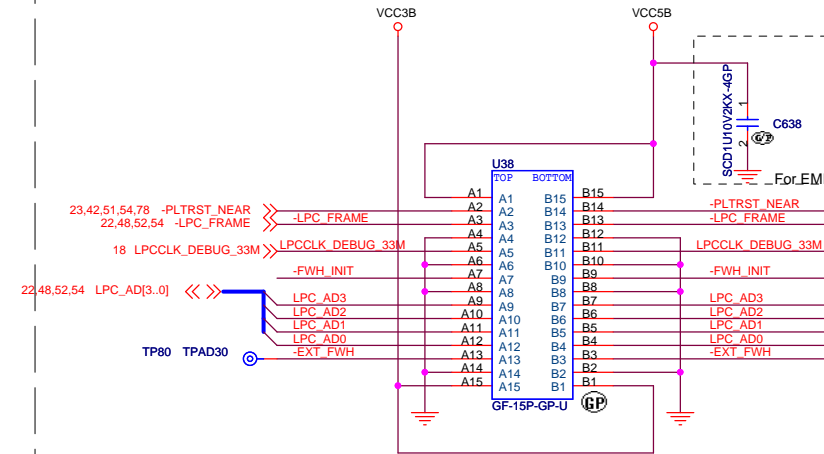
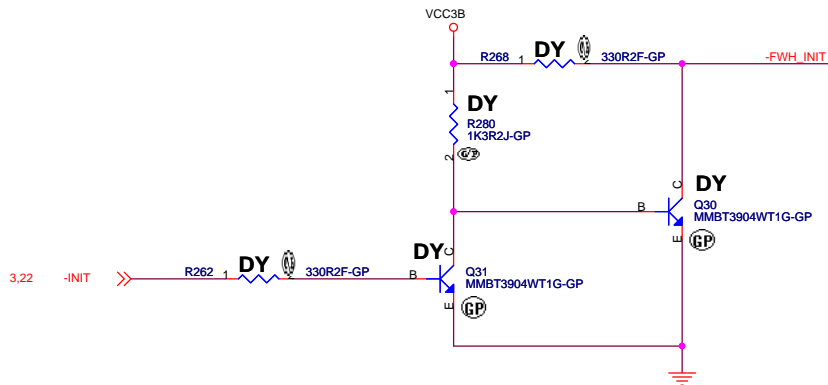
16MB SPI FLASH :
SST/SST25VF016B-50-4C-S2AF : 41A1096AA
MXIC/MX25L1605AM2C-15G : 41A1096BA
ATMEL AT26DF161-SU : 72.26161.001



32Mbit SPI FLASH :
ATMEL/AT26DF321-SU:72.26321.A01
MXIC/MX25L3205DM2I-12G:72.25325.A01



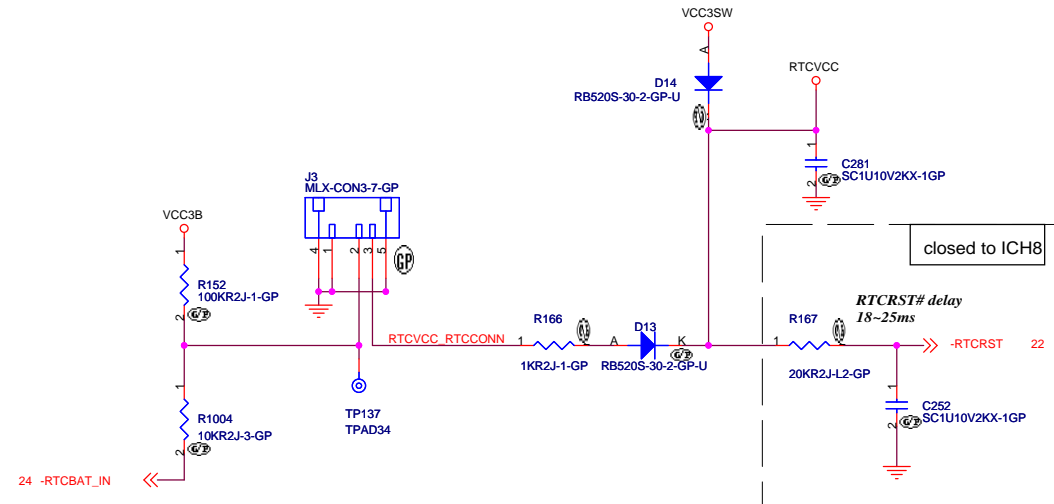
All Dummy in SVT stage



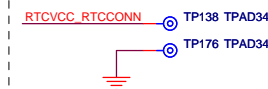
TOP VIEW

A15	(B1)
A14	(B2)
...	...
A2	(B14)
A1	(B15)

(BOTTOM VIEW)



Near J3

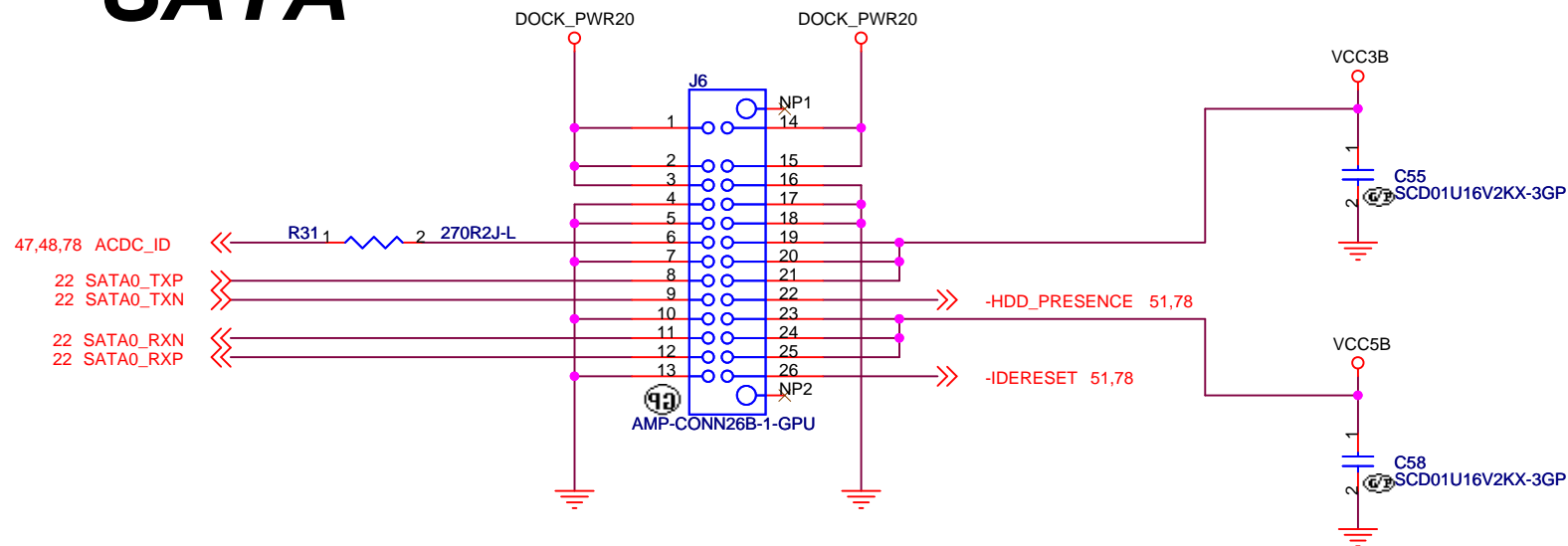


<Variant Name>

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 & SPI		
Size	Document Number	Rev
A3	KS note-3	-1
Date:	Tuesday, March 20, 2007	Sheet 44 of 78

SATA



<Core Design>

緯創資通

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

Title

Board To Board CONN

Size
A4

Document Number

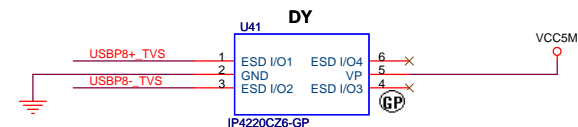
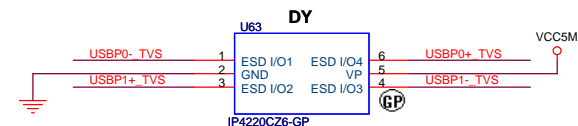
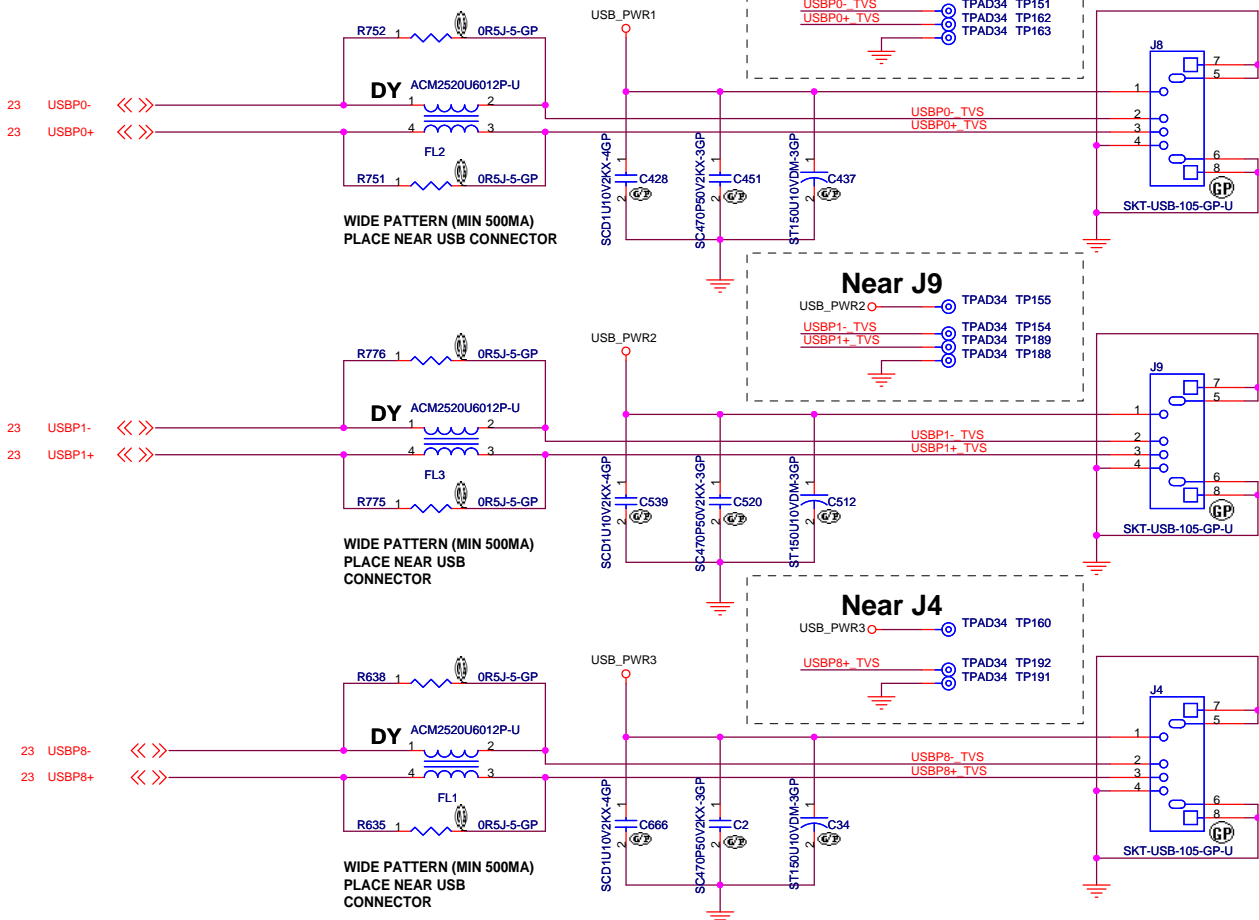
KS note-3

Rev
-1

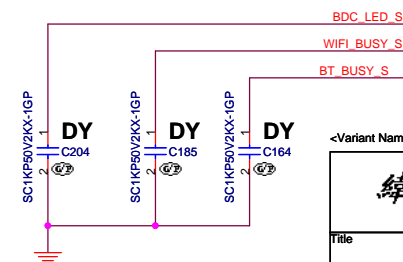
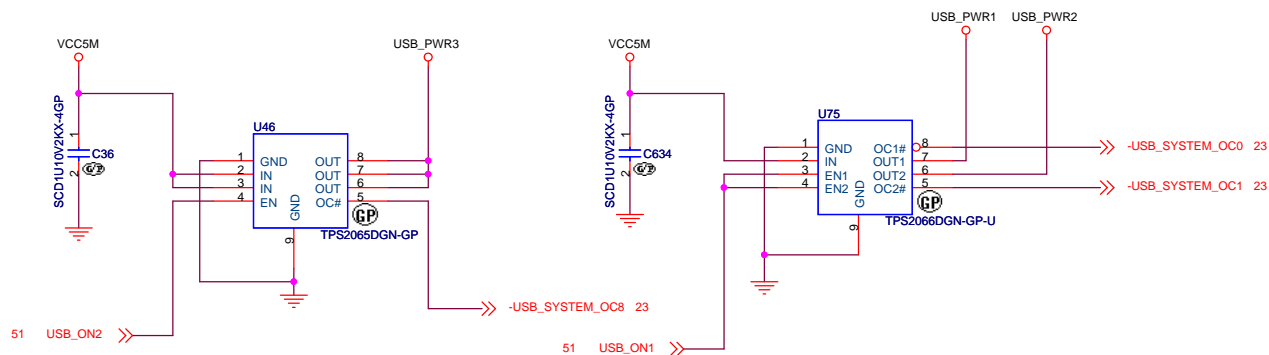
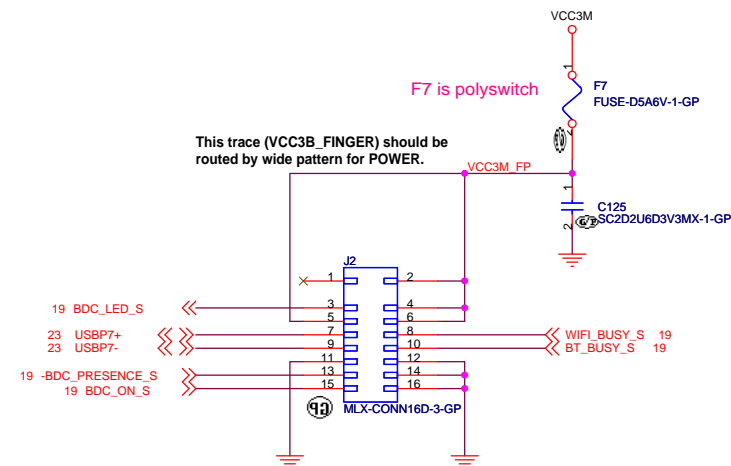
Date: Tuesday, March 20, 2007

Sheet 45 of 78

COMMON MODE CHOKE COIL: TDK ACM2520U
PLACE THESE RESISTORS AS THE CHOKE COIL ARE ALSO
PLACED ON THE SMA PADS OF THESE TWO 0-OHM
RESISTORS



Fingerprint Reader for KS-3 BDC for Dali-2



<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: **USB POWER / CONNECTOR**

Size: A3 Document Number: **KS note-3** Rev: -1

Date: Tuesday, March 20, 2007 Sheet: 46 of 78

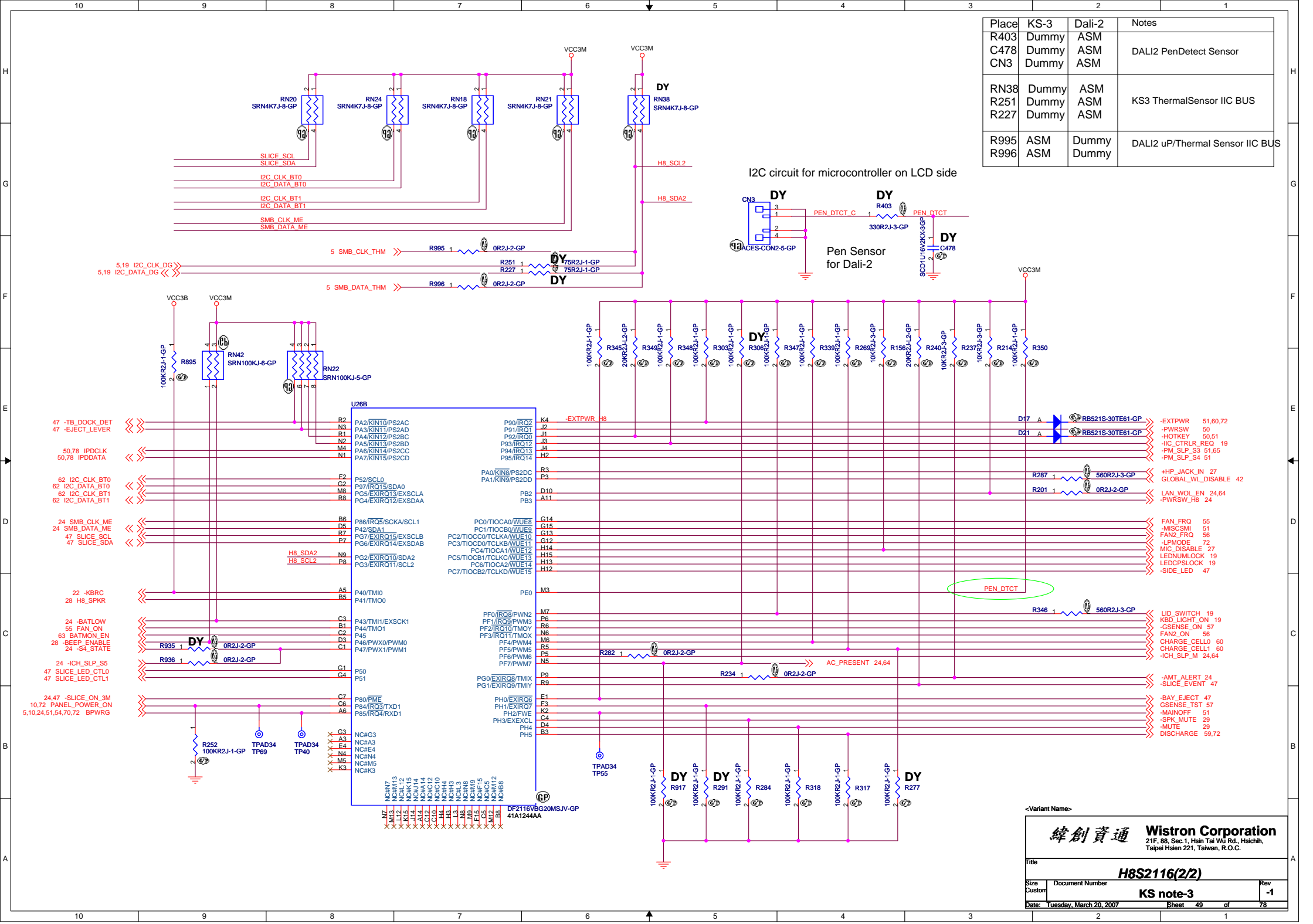


1. NEAR H8S/2116:
2. SHORT PATTERN
3. NO PATTERN
UNDER THIS AREA

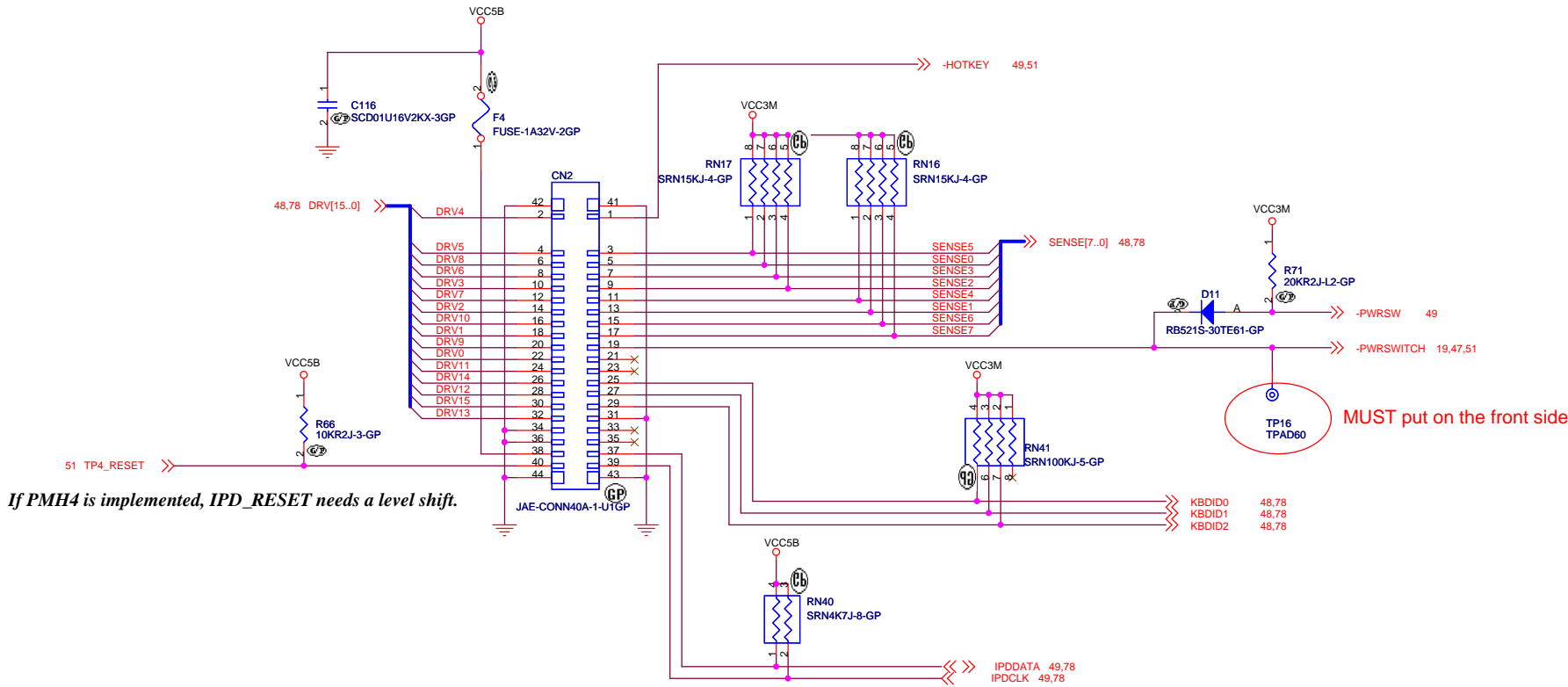
E10A Debug I/F	Enable	Disable
R301	NO ASM	ASM
R315	NO ASM	ASM
D18	ASM	NO ASM
D19	ASM	NO ASM
D20	ASM	NO ASM
R302	ASM	NO ASM
R304	ASM	NO ASM
R331	ASM	NO ASM
R343	ASM	NO ASM

<Variant Name>

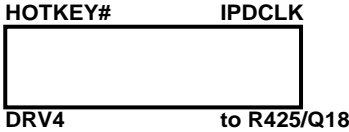
緯創資通 Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
H8S2116 (1/2)	
Size	Document Number
Custom	KS note-3
Date: Tuesday, March 20, 2007	Sheet 48 of 78



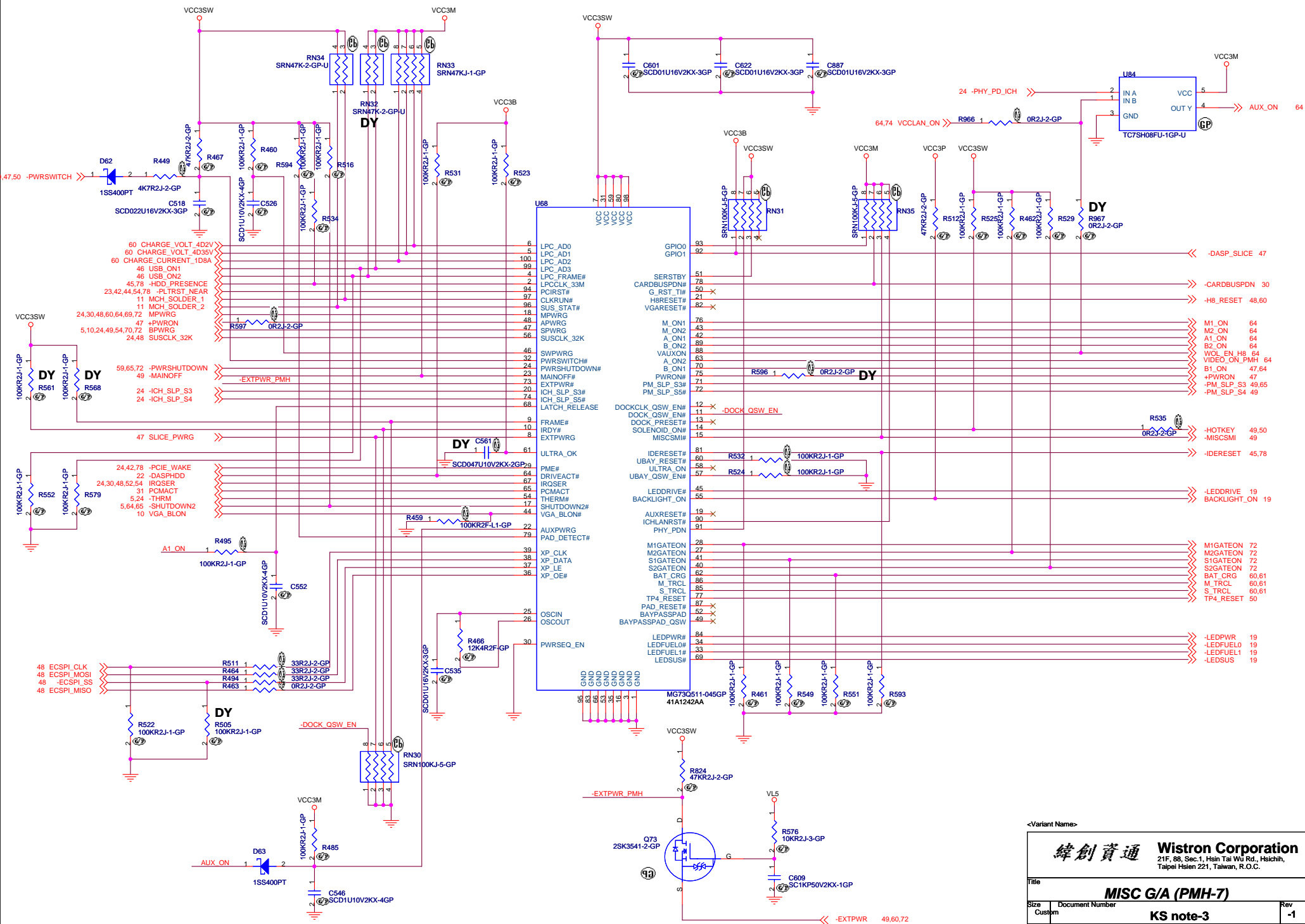
Keyboard Connector

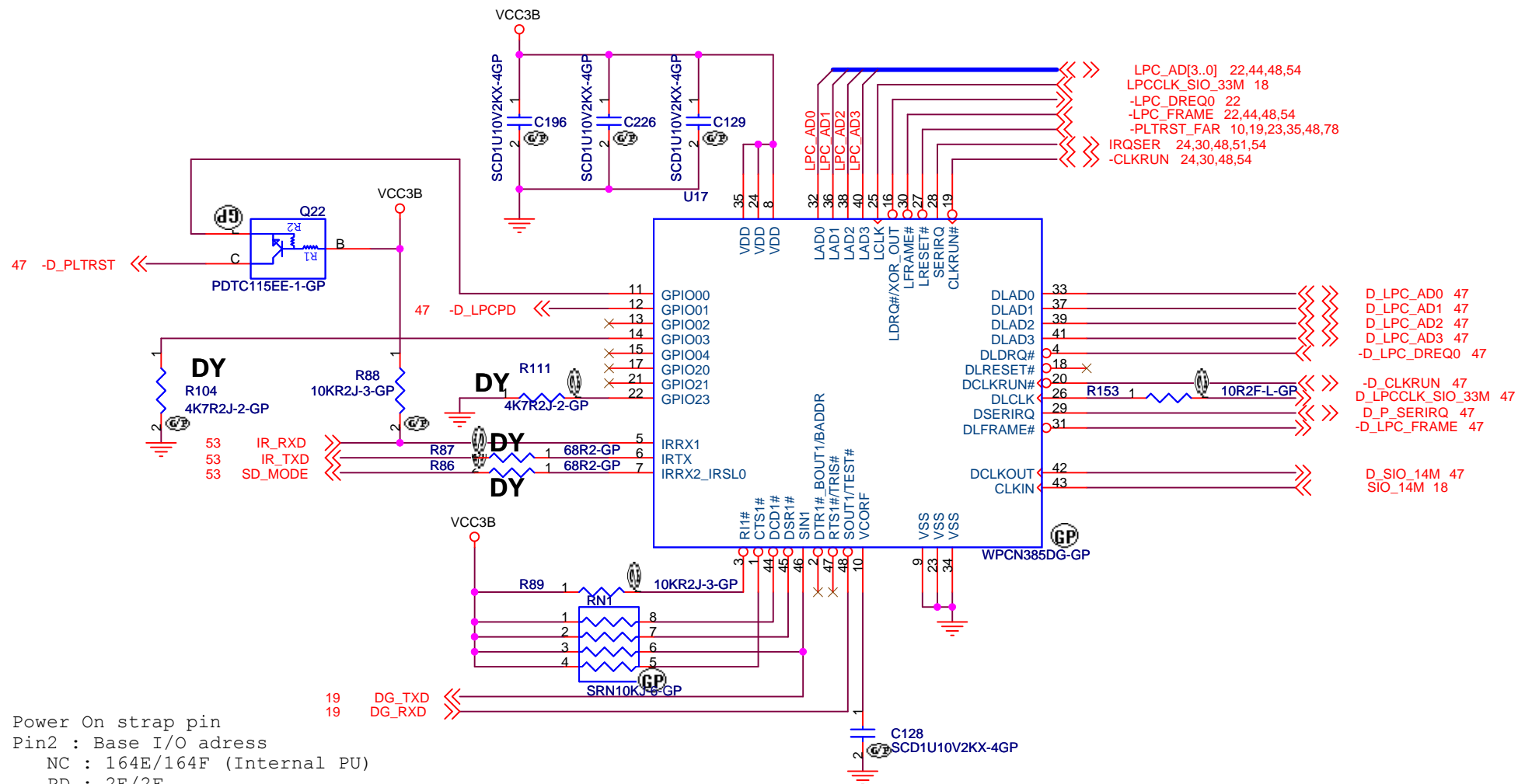


If PMH4 is implemented, IPD_RESET needs a level shift.



Keyboard Connector Top View

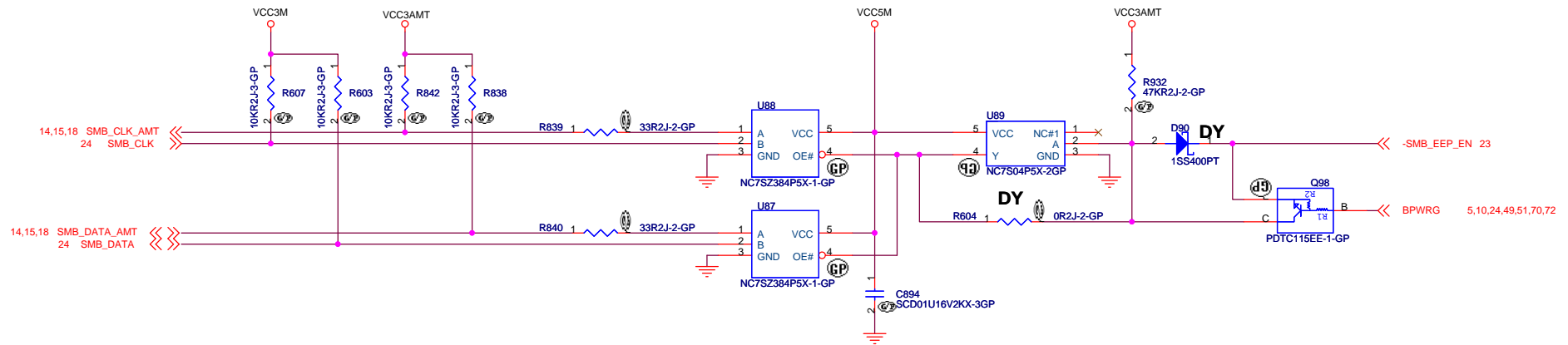




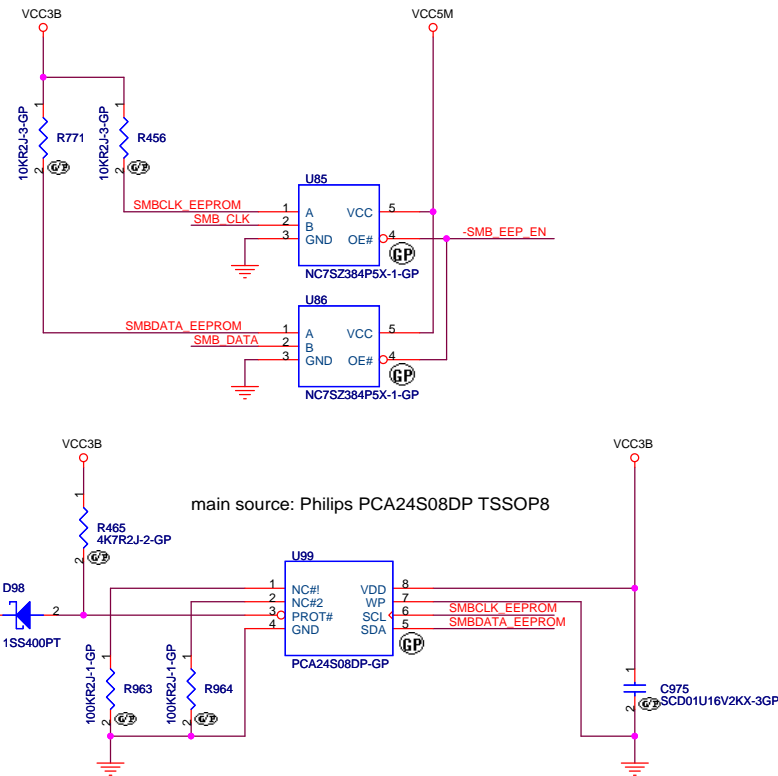
<Variant Name>

緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
SIO NS87382			
Size A4	Document Number KS note-3		Rev -1
Date:	Tuesday, March 20, 2007	Sheet 52 of 78	

U85, U86 U87, U88
[Sourcing Candidate]
Toshiba TC7SB384FU
TI SN74CBT1G384DCKR
Fairchild NC7SZ384

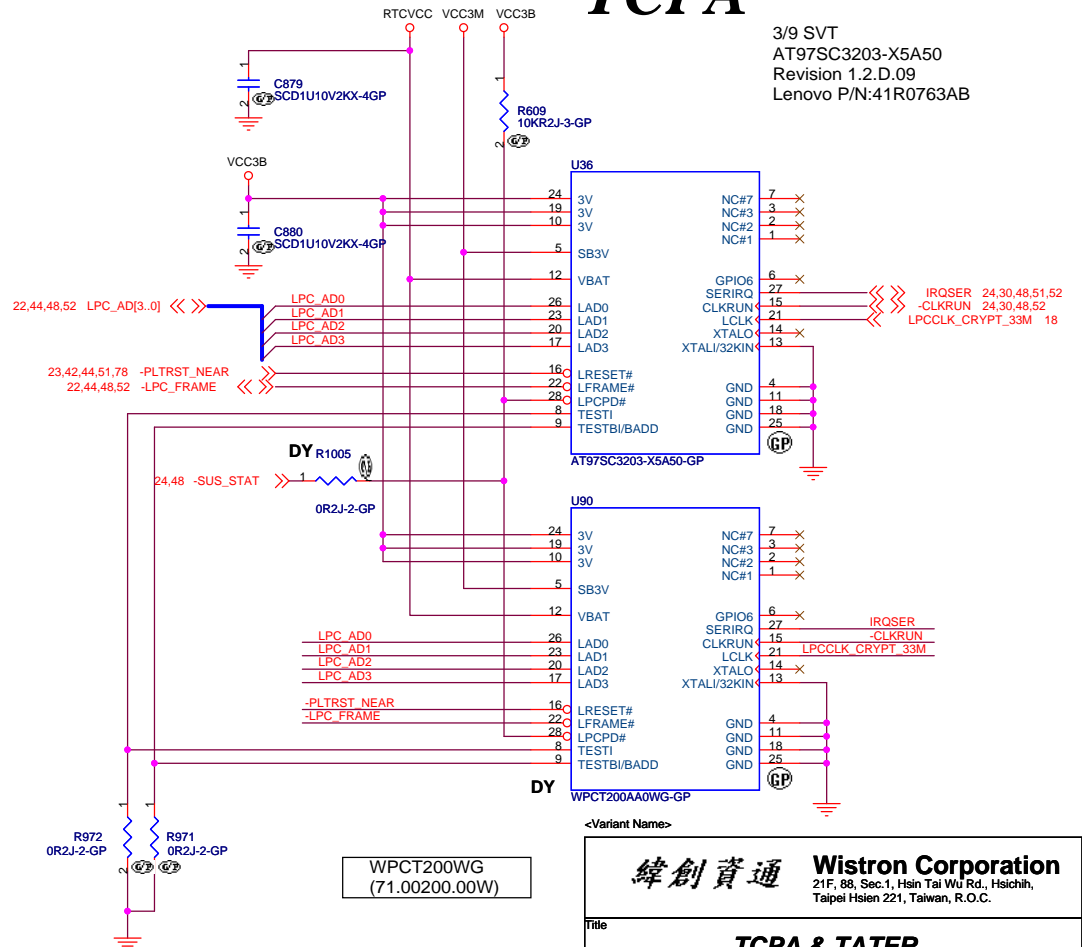


TATER



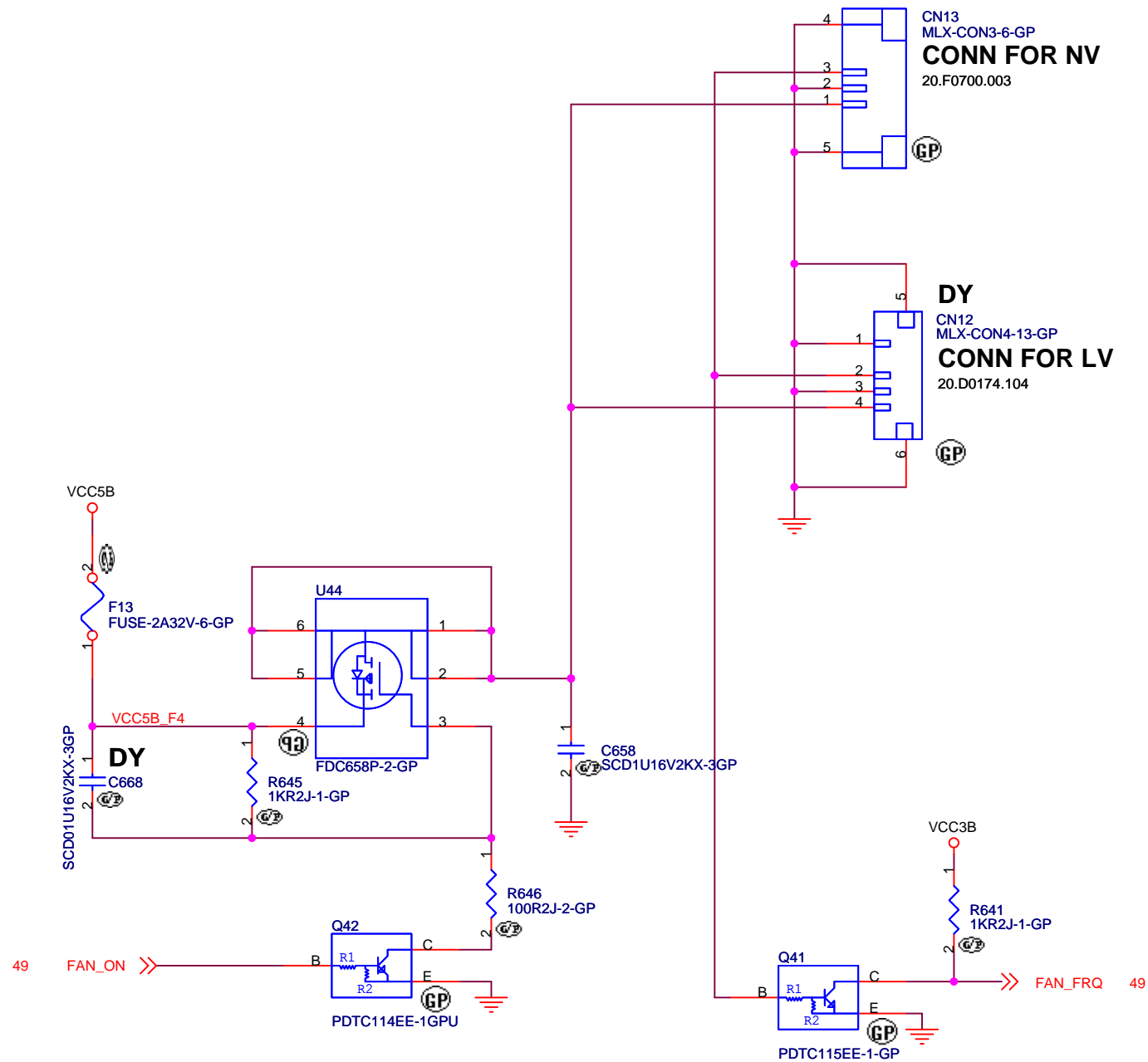
TCPA

3/9 SVT
AT97SC3203-X5A50
Revision 1.2.D.09
Lenovo P/N:41R0763AB



WPCT200WG
(71.00200.00W)

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title TCPA & TATER	
Size A3	Document Number KS note-3
Date: Tuesday, March 20, 2007	Sheet 54 of 78



<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 CONTROL

Size
A4

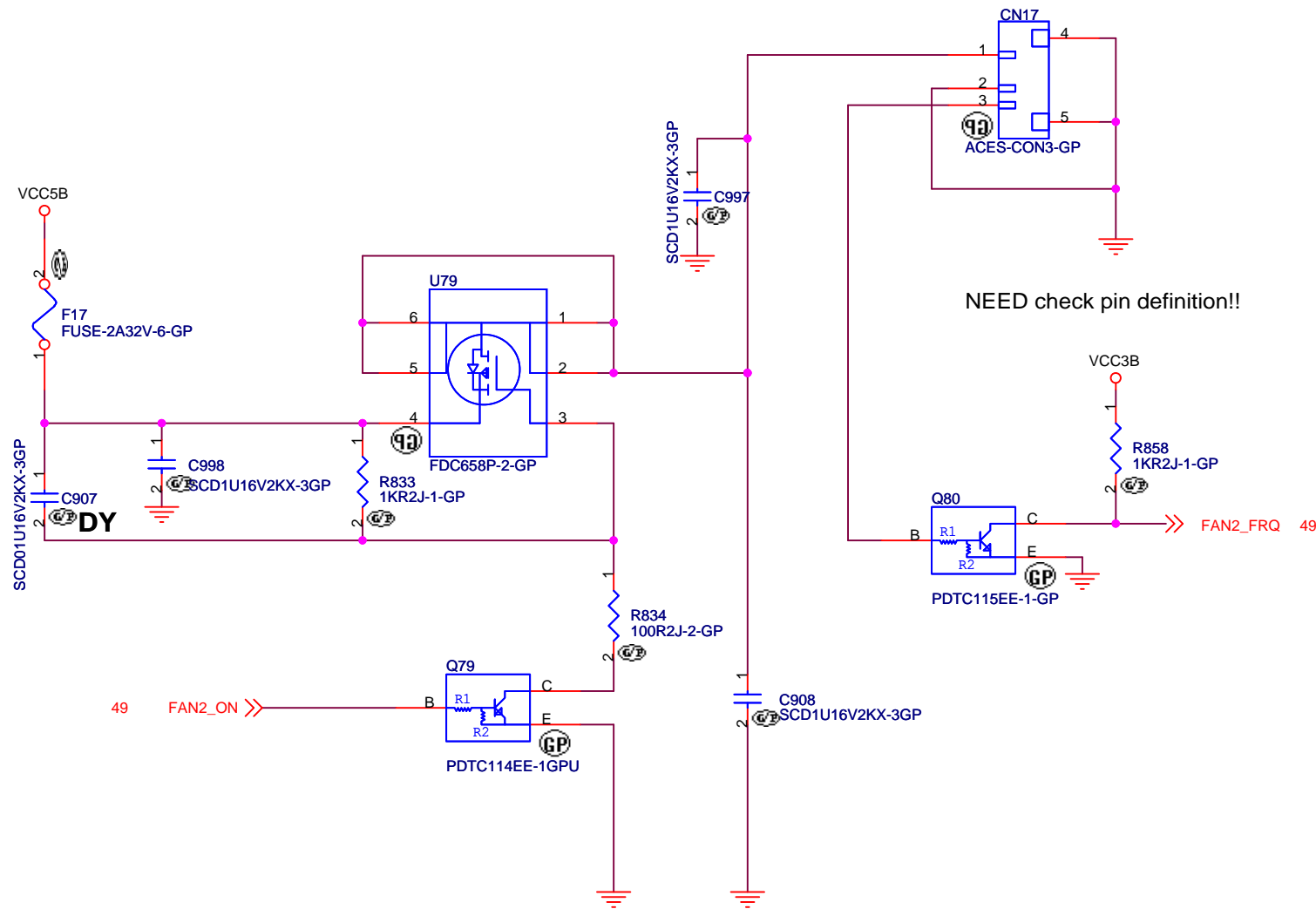
Document Number

KS note-3

Rev
-1

Date: Tuesday, March 20, 2007

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<Variant Name>

緯創資通

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

Title

2nd FAN CONTROL

Size
A4

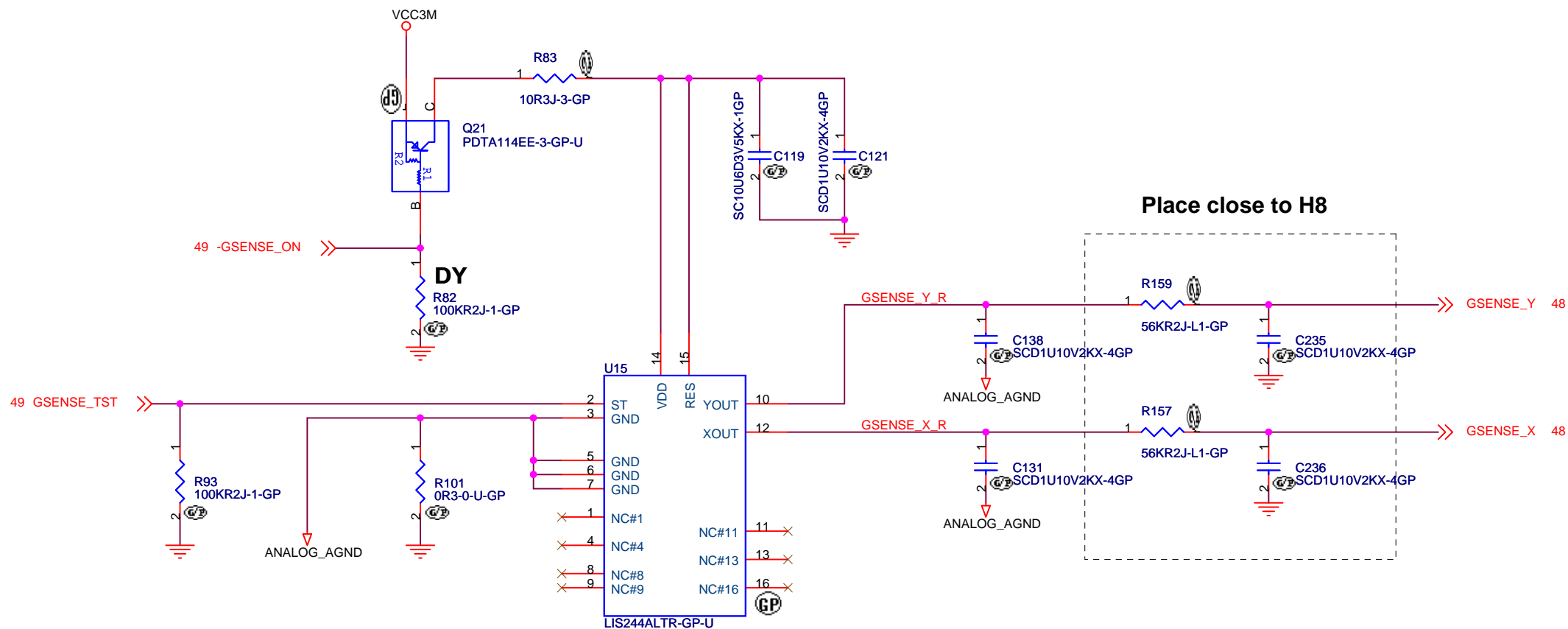
Document Number

KS note-3

Rev
-1

Date: Tuesday, March 20, 2007

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Primary : ADI ADXL322
2nd : STMicro LIS244AL

Layout Comment :

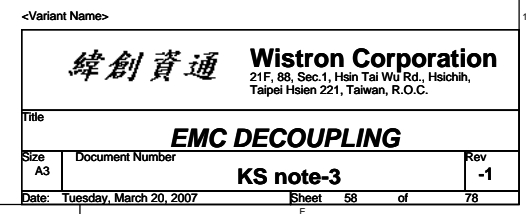
- (1) Place C138, C131, Q21, R82, R83, C119, C121, R93, R101 close to U15.
- (2) Avoid routing under DCDC switching area.

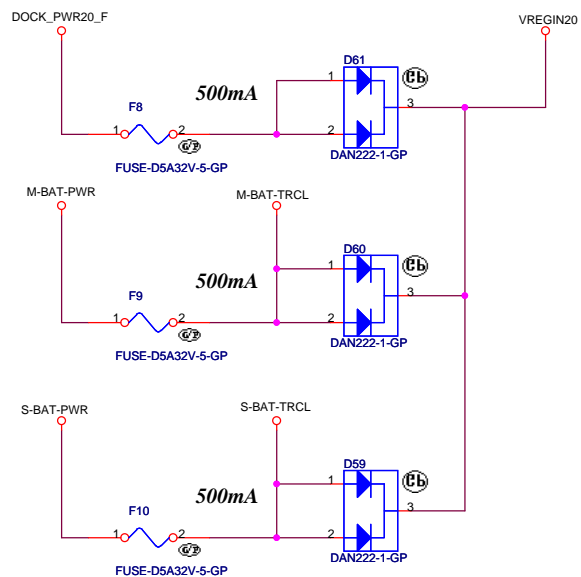
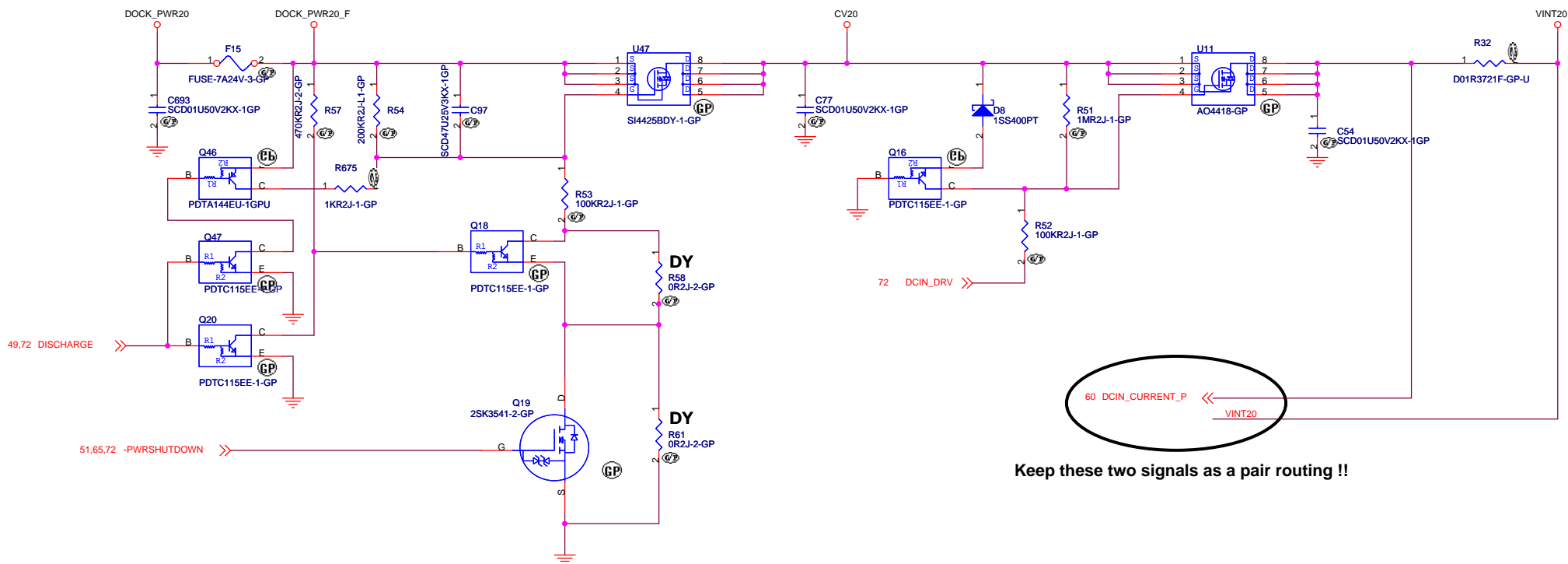
Width = 6 mil & Spacing = 10 mil
for three Output traces

	ADXL322 LIS244AL	No Accel
R82	NO_ASM	ASM
R93	ASM	ASM
All other	ASM	NO_ASM

<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	
G-SENSOR	
Size A4	Document Number KS note-3
Date: Tuesday, March 20, 2007	Rev -1
Sheet 57 of 78	





<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-IN AND CHARGER (1/2)

Size

Document Number

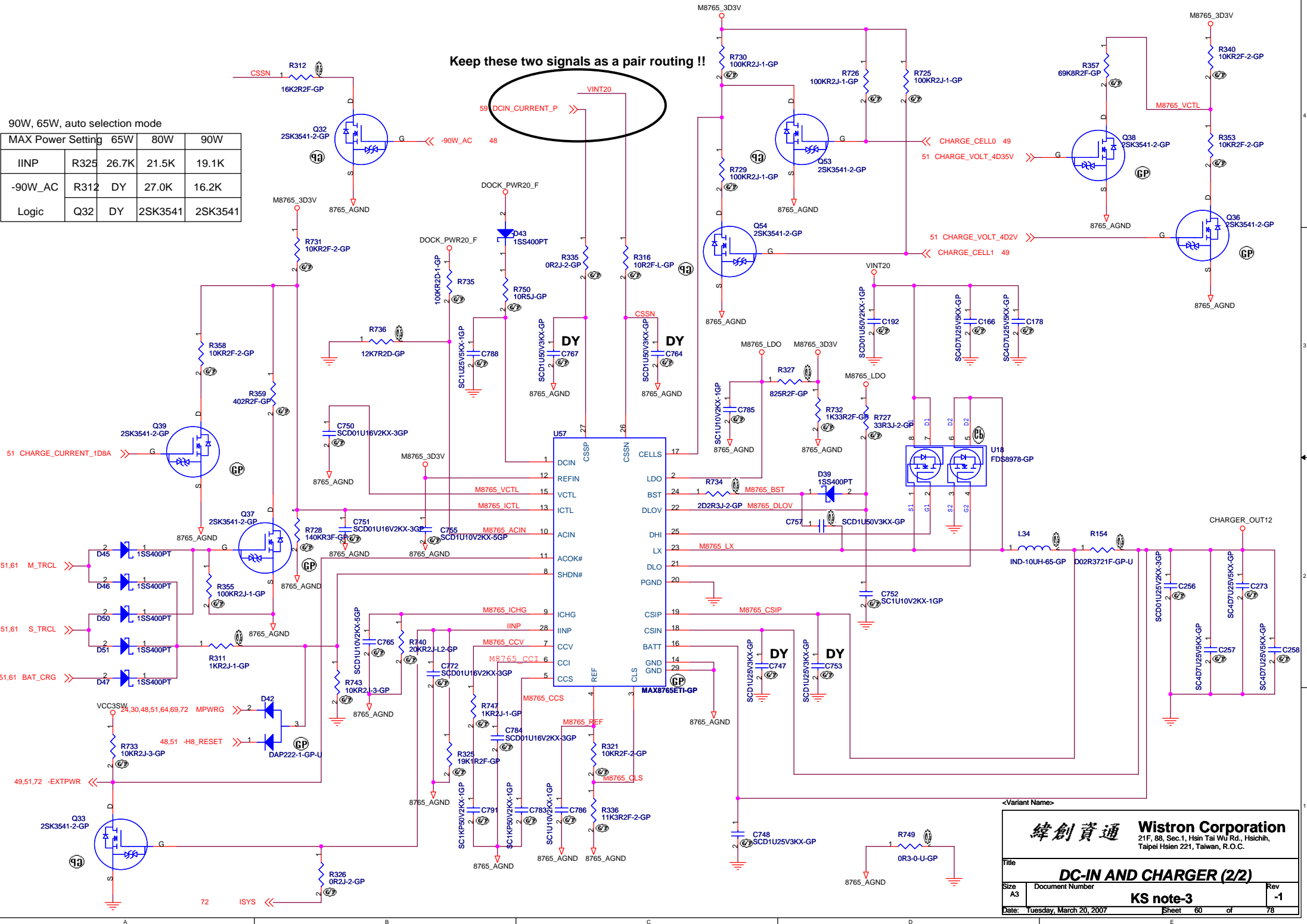
KS note-3

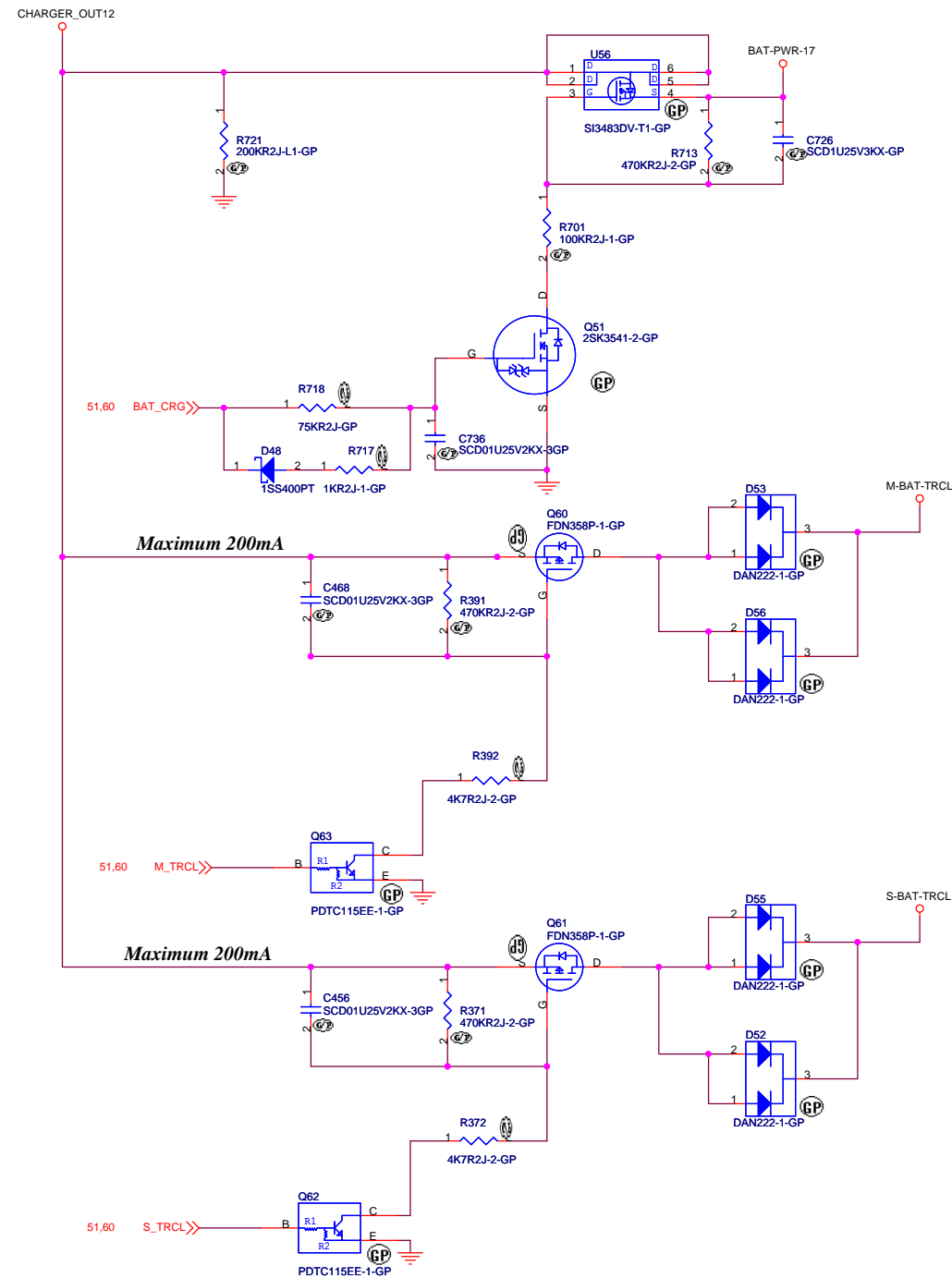
Rev

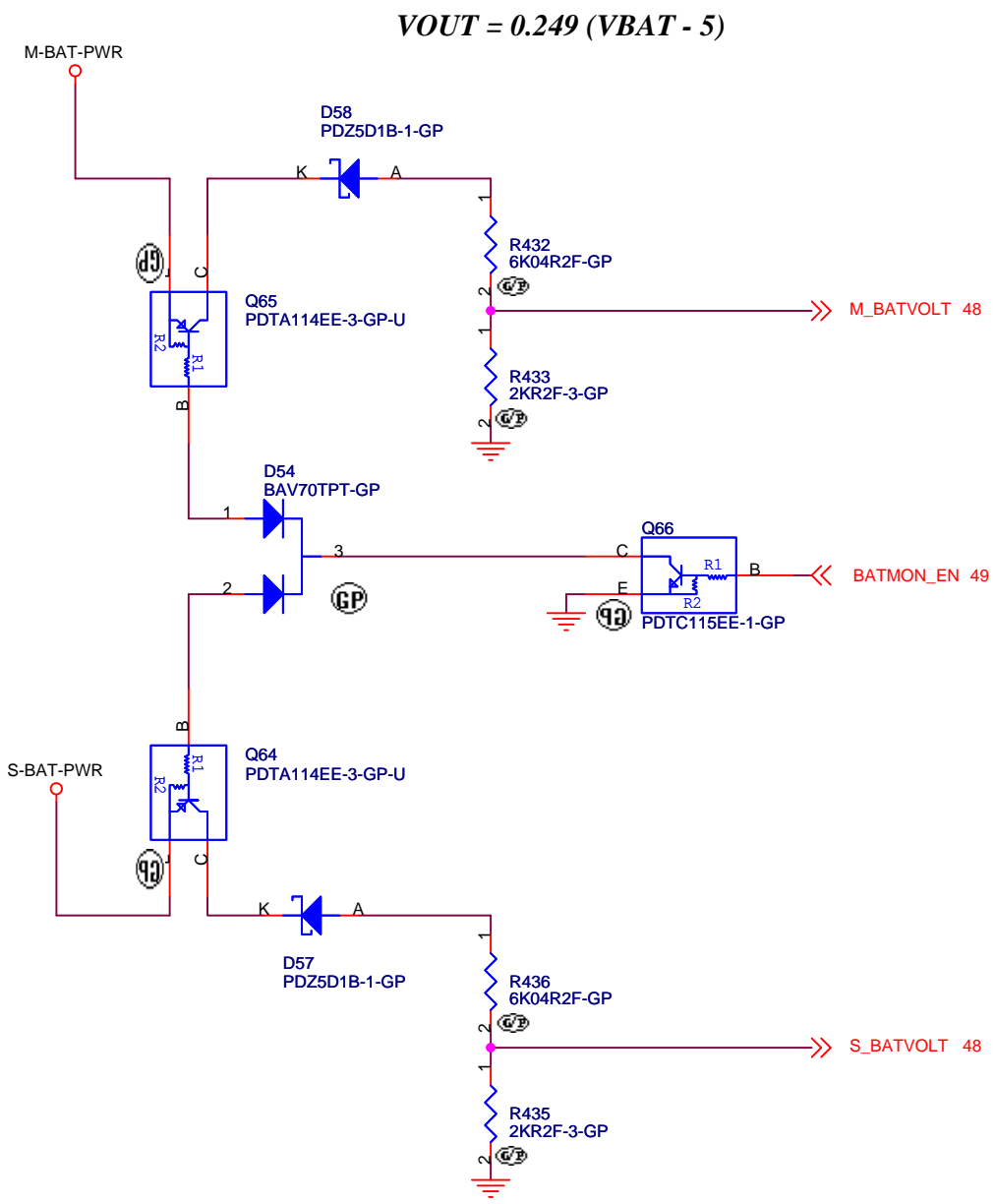
Date: Tuesday, March 20, 2007

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

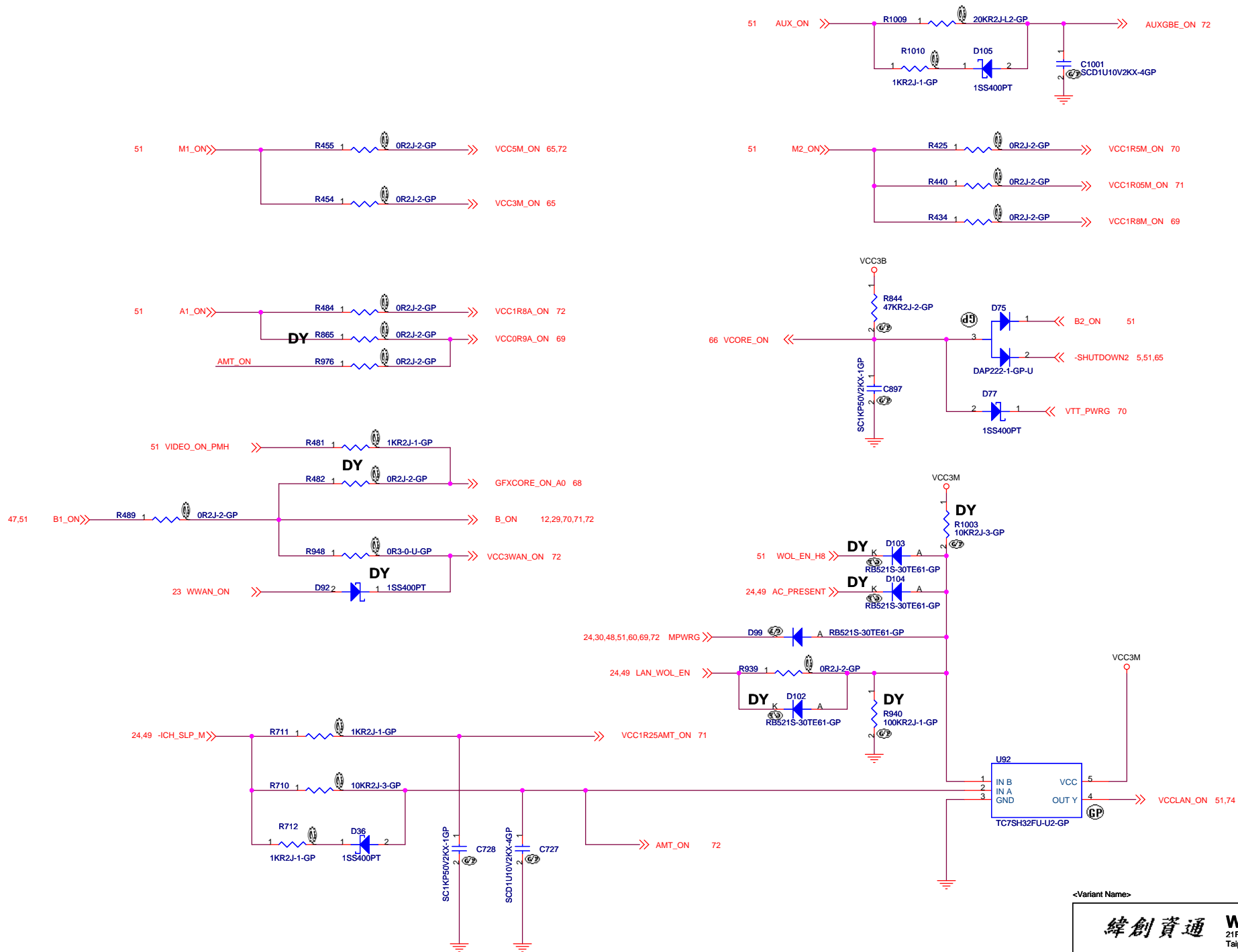






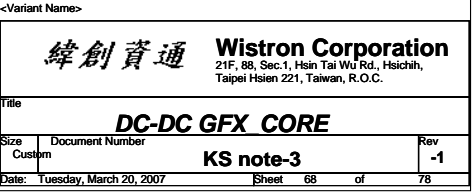
<Variant Name>

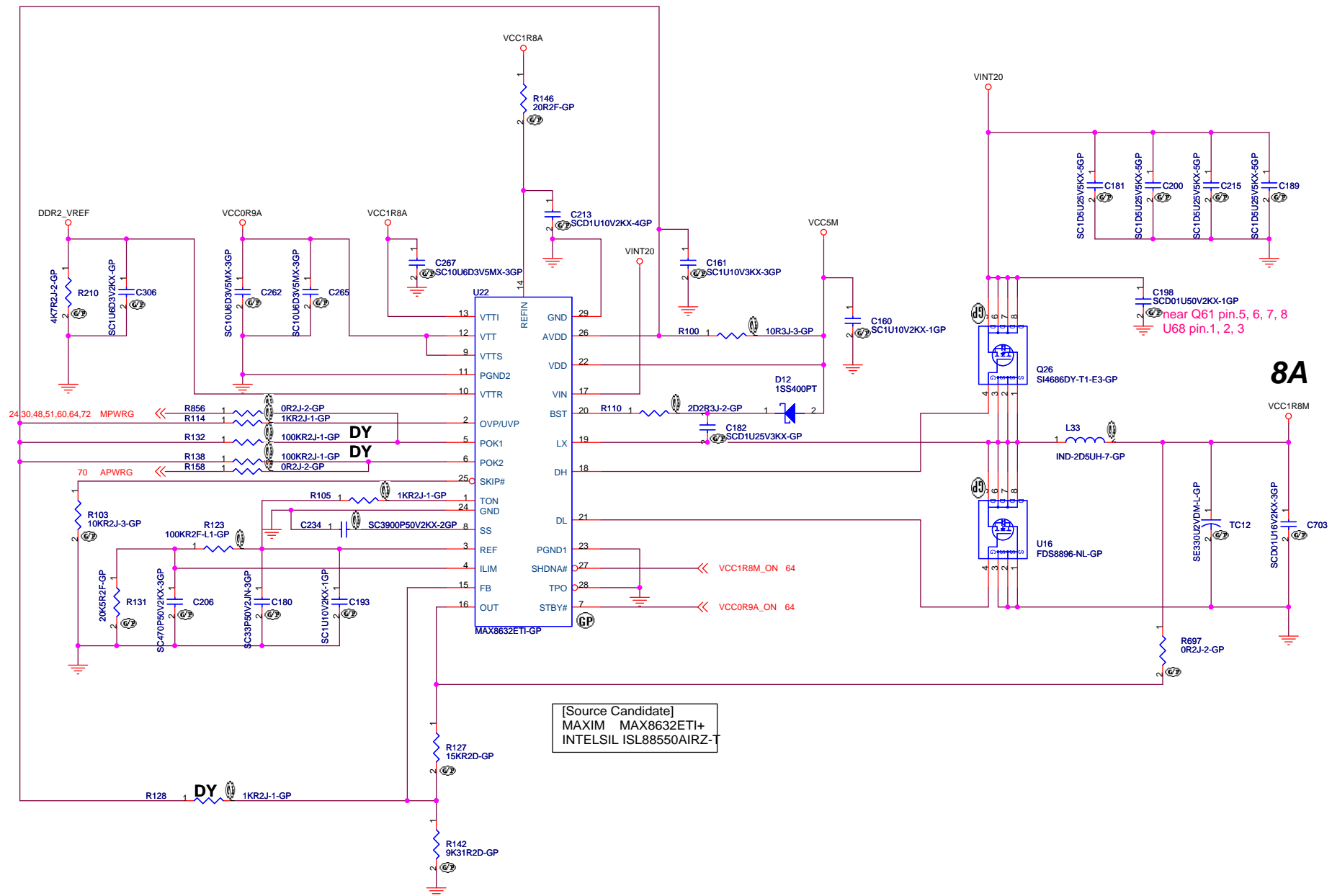
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
BATTERY MONITOR			
Size A4	Document Number KS note-3		Rev -1
Date:	Tuesday, March 20, 2007	Sheet 63 of	78



						</																							

1.NORMAL: 1.05V
2.GRAPHICS RENDER STANDBY MODE: 0.775V
VID <4..0>
01000 = 1.05V

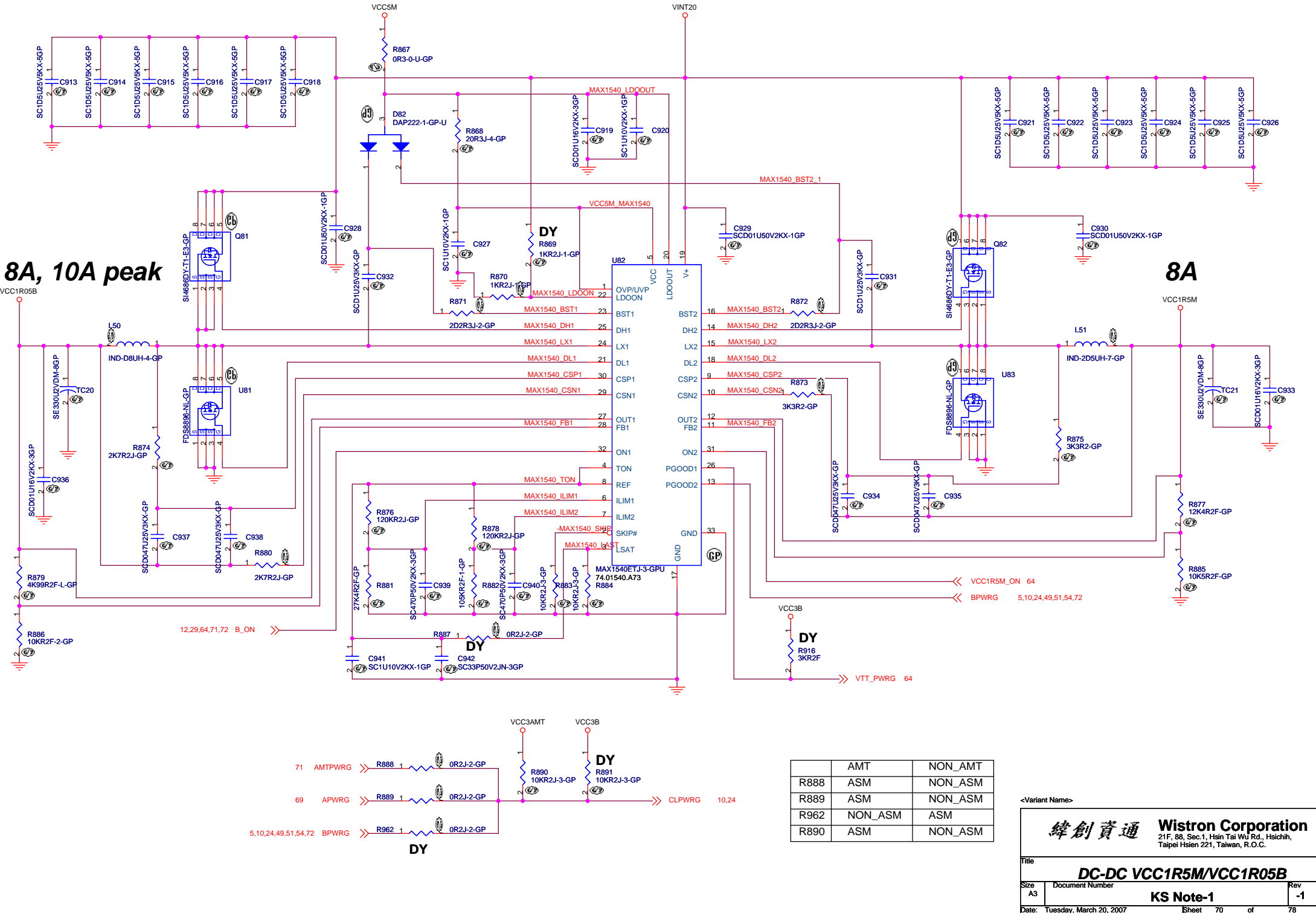




[Source Candidate]
MAXIM MAX8632ETI+
INTELSIL ISL88550AIRZ-T

8A, 10A peak

8A



	AMT	NON_AMT
R888	ASM	NON_ASM
R889	ASM	NON_ASM
R962	NON_ASM	ASM
R890	ASM	NON_ASM

<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 VCC1R5M/VCC1R05B

Size

Document Number

Rev

A3

KS Note-1

-1

Date:

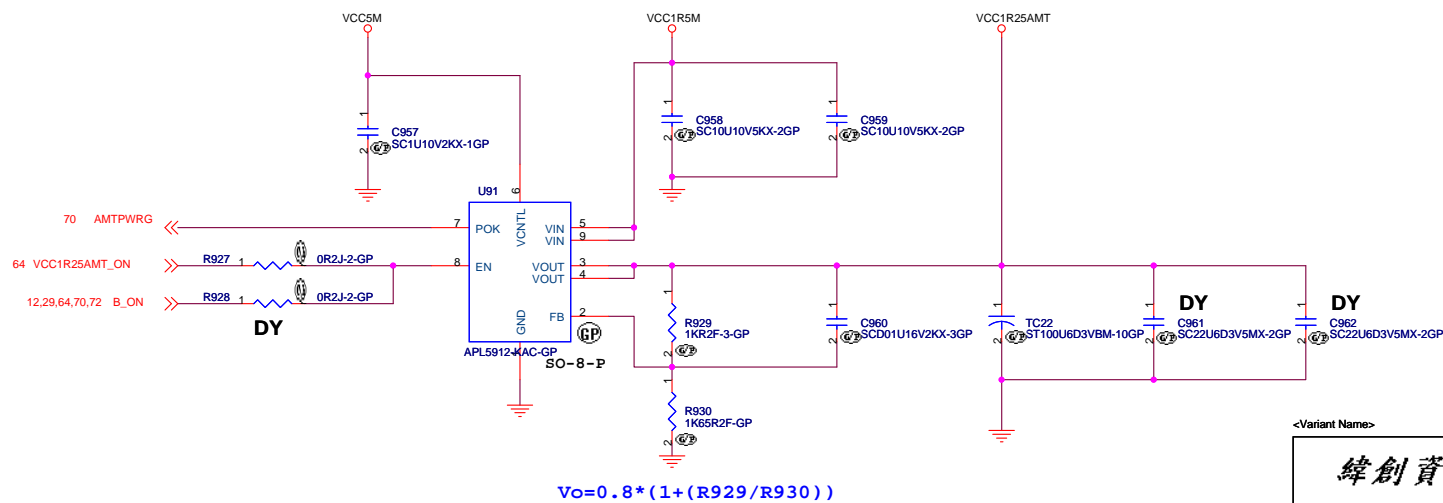
Tuesday, March 20, 2007

Sheet

70

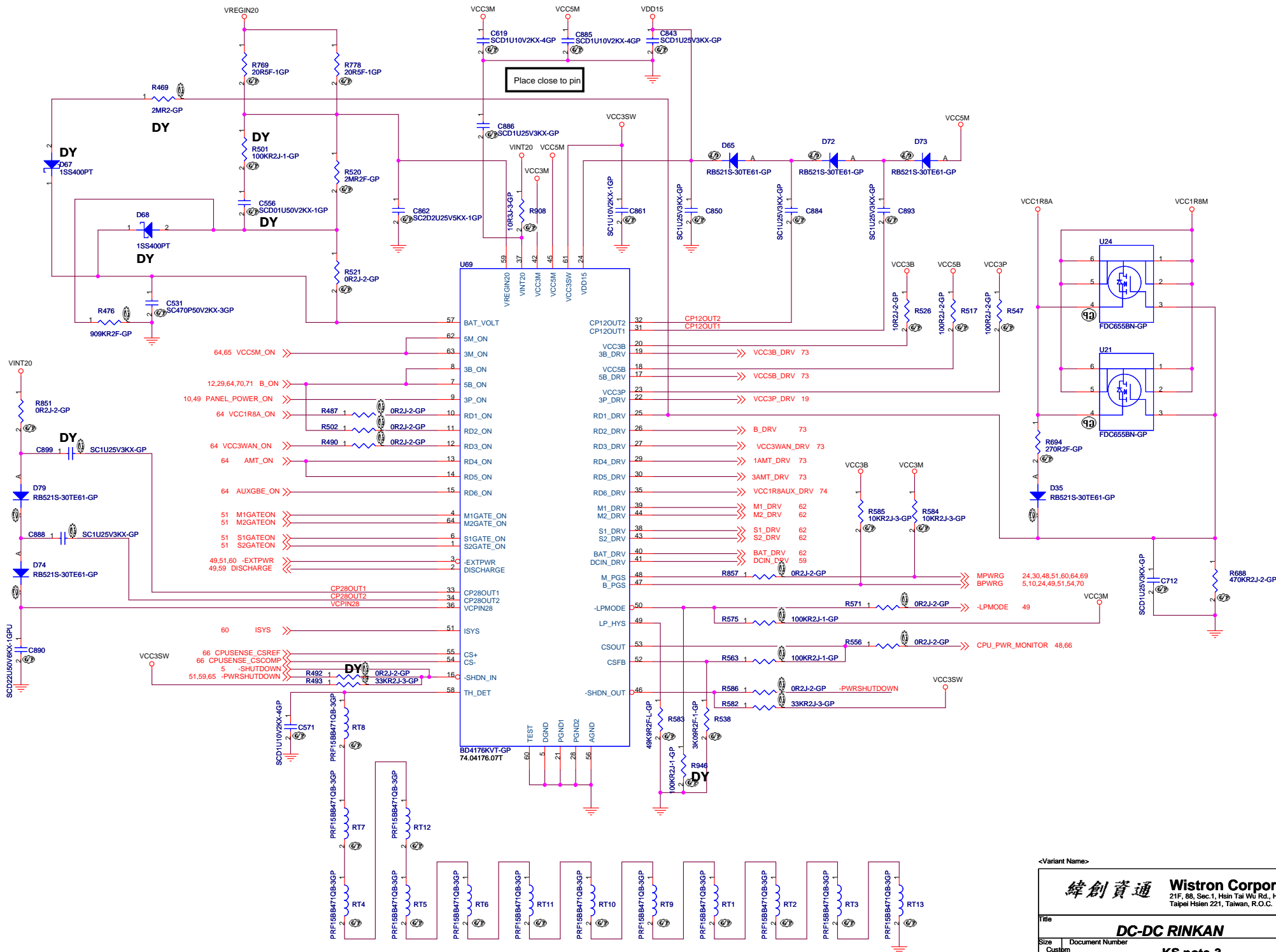
of

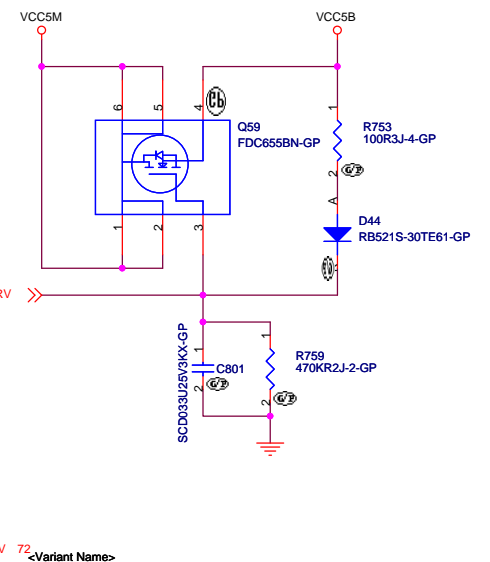
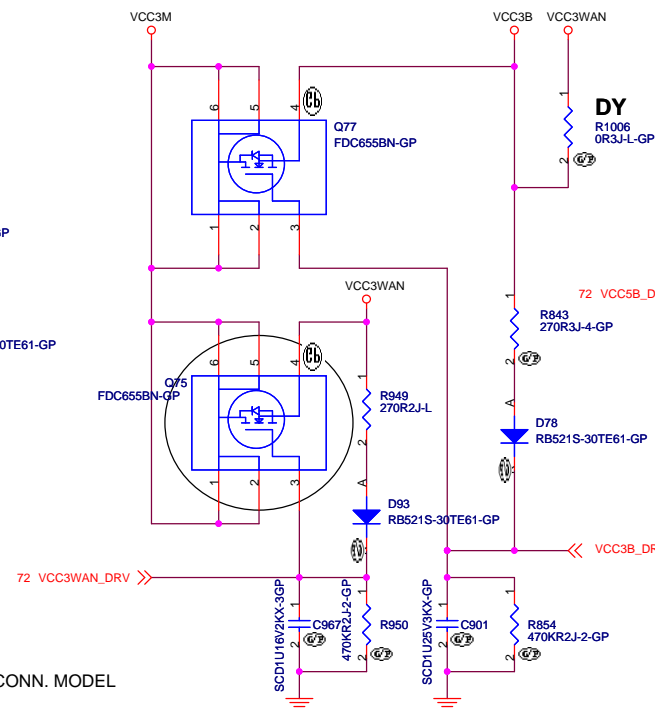
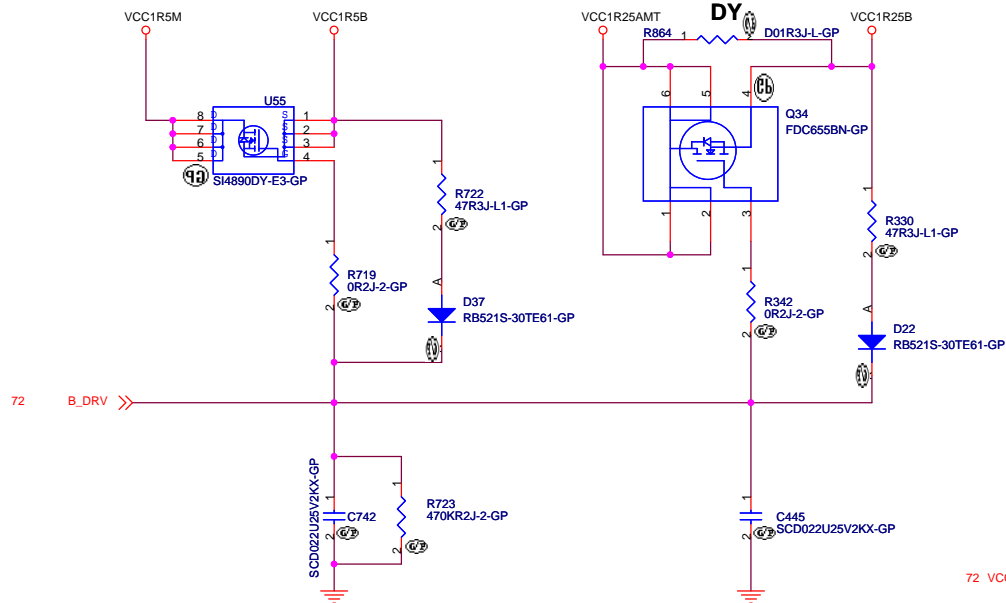
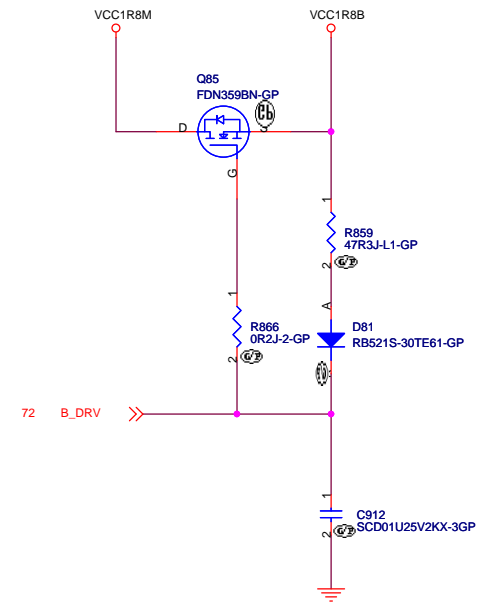
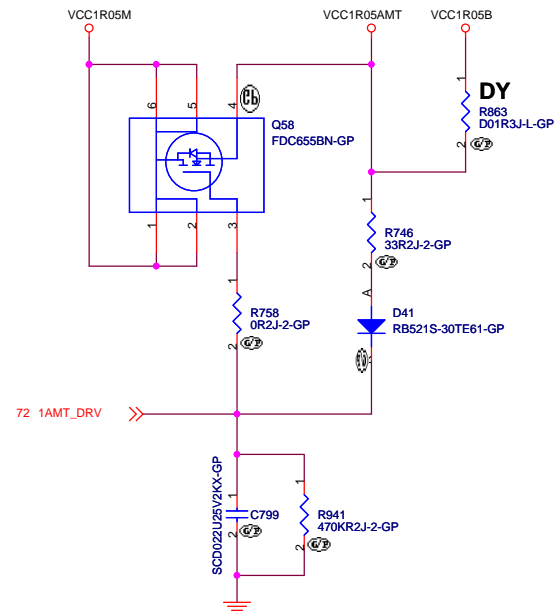
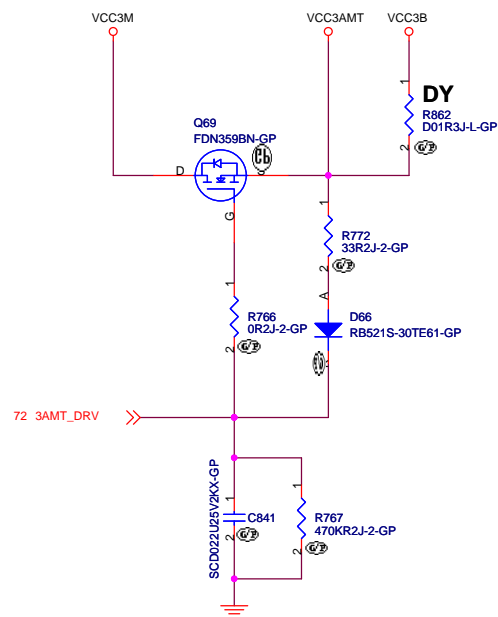
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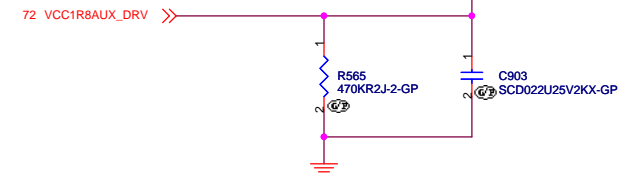
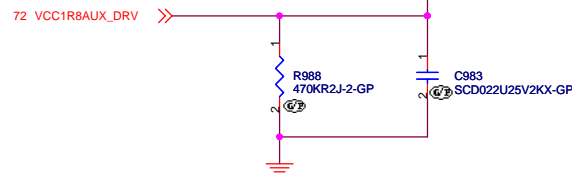
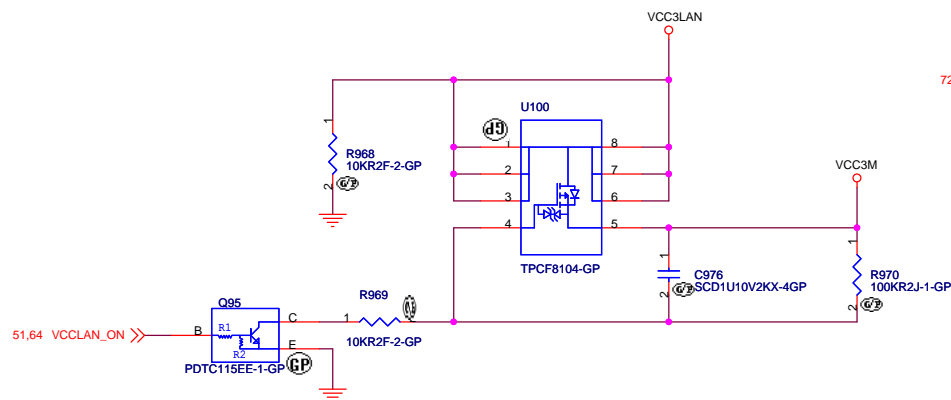
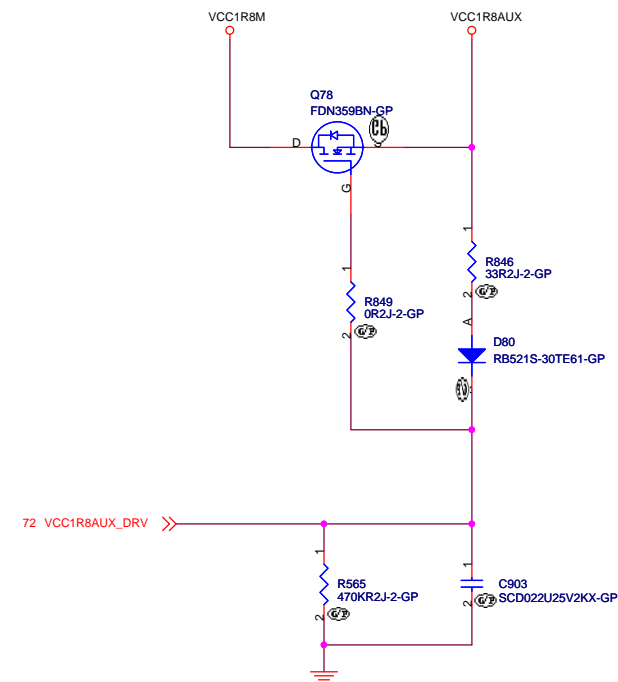
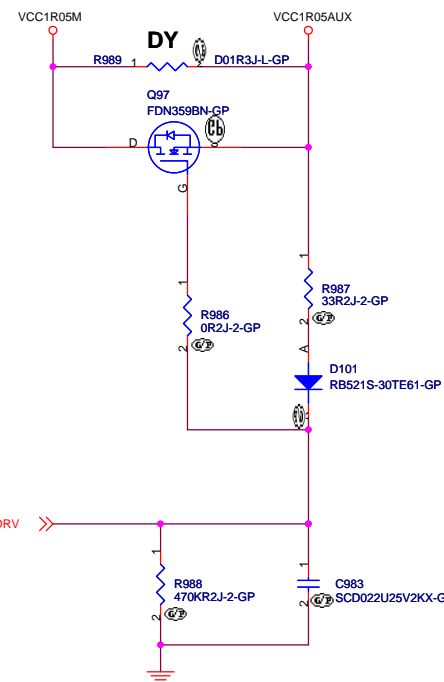
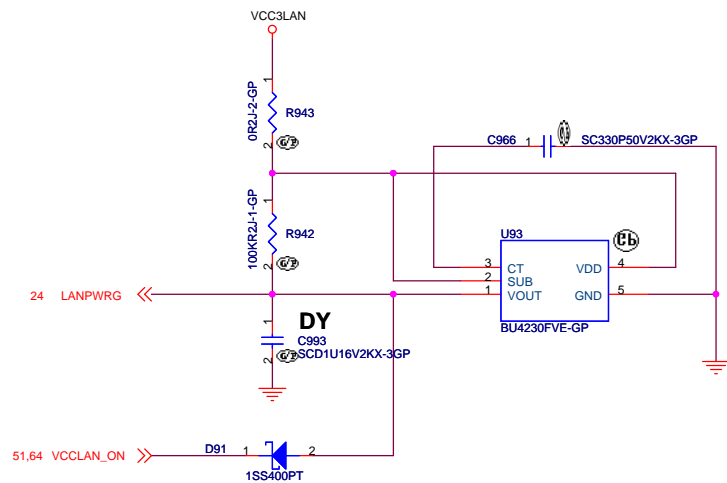
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Taipei Hsien 221, Taiwan, R.O.C.

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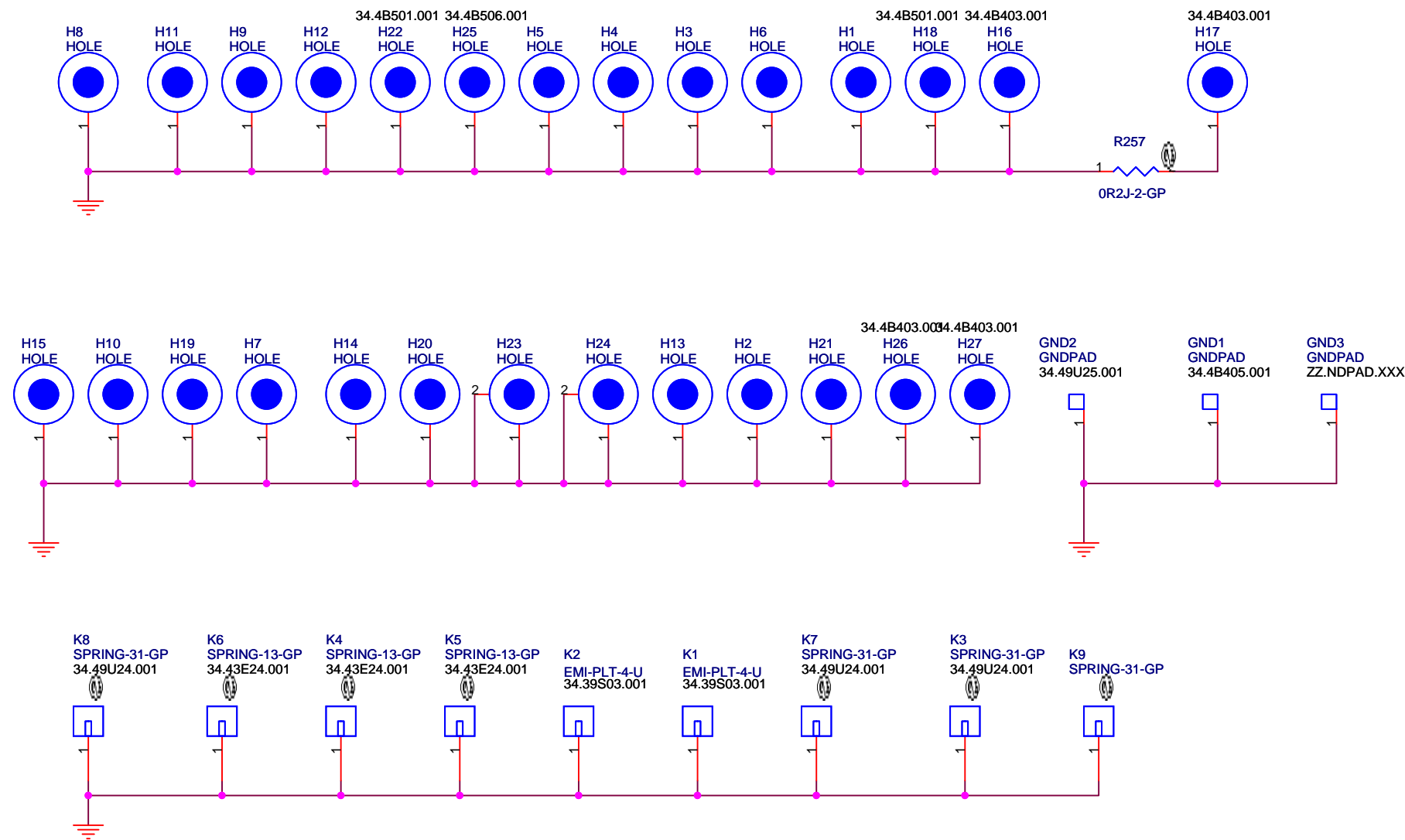
No-asm for no WWAN CONN. MODEL




<Variant Name>

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Title			LOAD SW 2
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Title			
HOLES/GND/PADS			
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Comparison chart , KS-3 and Dali-2

Item	Page	Location Netname	KS-3	Dali-2	Modify	Note
1	5	U104	Dummy	ASM		DALI2 uP/Thermal Sensor IIC BUS
		U105	Dummy	ASM		
		U106	Dummy	ASM		
2	19	R36	100Ω	0Ω		KS3: WLAN LED/Dali2 VCC3B
		R85	Dummy	0Ω		
		R107	Dummy	0Ω		
		R98	Dummy	0Ω		Bluettoth IO
		R96	Dummy	0Ω		
		R668	200Ω	Dummy		
		C691	ASM	Dummy		Think Light
		Q44	ASM	Dummy		
		Q13,Q14,Q15	PDTC114EE	Dummy		
		R37	200Ω	Dummy		LED ACDC
		R42	330Ω	Dummy		
		R43	330Ω	Dummy		
		R26	ASM	Dummy		LID SWITCH
		R35	0Ω	0.5A Fuse		
3	27	CN6	Dummy	ASM		DALI2 INTMIC LOGIC
		C578	Dummy	0.1uF		
		R567	Dummy	ASM		
		CN7	ASM	Dummy		MIC
		R819	1.2KΩ	Dummy		
		R804	2.2KΩ	Dummy		
		R813	ASM	Dummy		KS3 INTMIC LOGIC
		C872	10uF	Dummy		
		C877	1uF	Dummy		
4	49	R403	Dummy	330Ω		DALI2 PenDetect Sensor
		C478	Dummy	0.1uF		
		CN3	Dummy	ASM		
		RN38	Dummy	ASM		KS3 ThermalSensor IIC BUS
		R251	Dummy	ASM		
		R227	Dummy	ASM		
		R995	ASM	Dummy		DALI2 uP/Thermal Sensor IIC BUS
		R996	ASM	Dummy		
6	56	CN17	ASM	Dummy		2nd FAN connector
		C908	ASM	Dummy		2nd FAN logic
		F17	ASM	Dummy		
		Q79	ASM	Dummy		
		Q80	ASM	Dummy		
		R833	ASM	Dummy		
		R834	ASM	Dummy		
		R858	ASM	ASM		
5	75	U79	ASM	Dummy		ME ANTENNA ROUTING CLIP
		GND1	ASM	Dummy		
		GND2	ASM	Dummy		

<Variant Name>

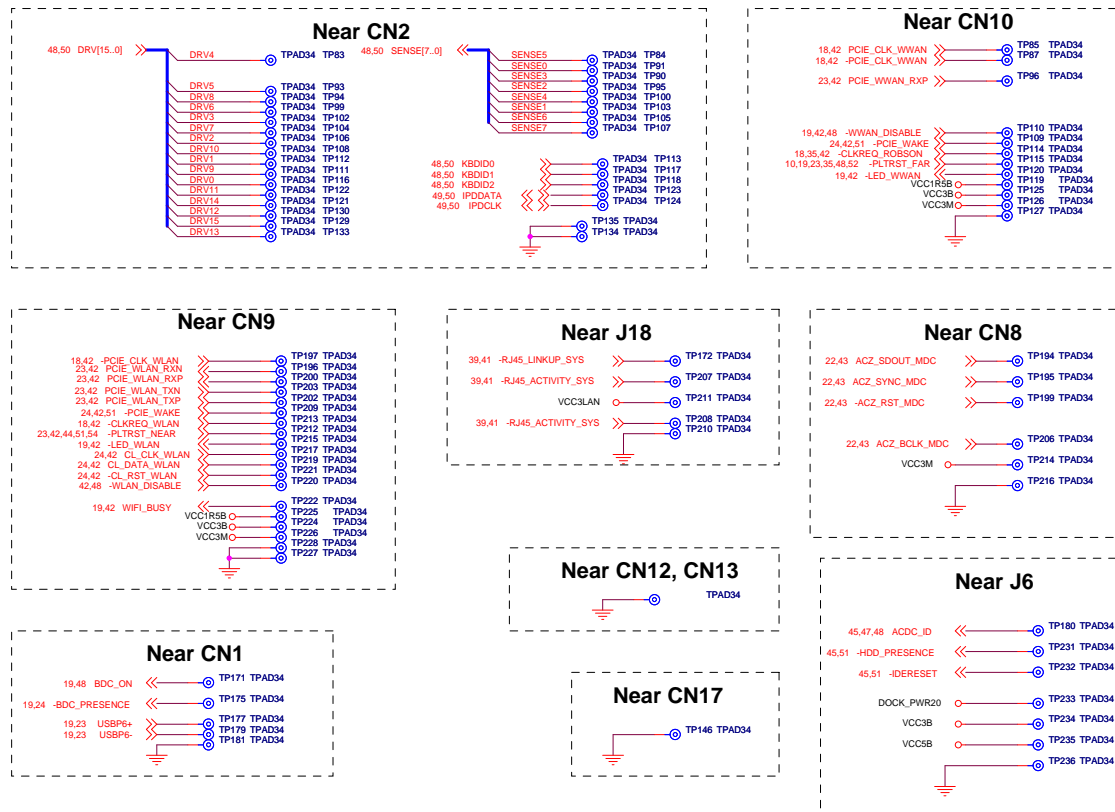
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Title Differents Between KS3 and Dali2			
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Comparison chart for AMT function

Item	Page	Location Netname	AMT	NON_AMT	Modify	Note
1	22	U60	ICH8m Enhanced	ICH8m		
	24	R270	NO_ASM	ASM		
	37	U74	Nineveh 82566MM	Nineveh 82566MC		
	44	SPI1	32Mbit	16Mbit		
	64	R711	ASM	NO_ASM		
		C728	ASM	NO_ASM		
	70	R888	ASM	NO_ASM		
		R889	ASM	NO_ASM		
		R962	NO_ASM	ASM		
		R890	ASM	NO_ASM		
		R891	NO_ASM	NO_ASM		
	71	R927	ASM	NO_ASM		
		R928	NO_ASM	ASM		
	73	R862	NO_ASM	ASM		
		Q69	ASM	NO_ASM		
		R766	ASM	NO_ASM		
		R772	ASM	NO_ASM		
		D66	ASM	NO_ASM		
		C841	ASM	NO_ASM		
		R767	ASM	NO_ASM		
		R941	ASM	NO_ASM		
		Q58	ASM	NO_ASM		
		R758	ASM	NO_ASM		
		R746	ASM	NO_ASM		
		D41	ASM	NO_ASM		
		C799	ASM	NO_ASM		
		R863	NO_ASM	ASM		
		Q34	ASM	NO_ASM		
		R342	ASM	NO_ASM		
		R330	ASM	NO_ASM		
		D22	ASM	NO_ASM		
		R864	NO_ASM	ASM		

<Variant Name>

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Title AMT FUNCTION CONTROL TABLE			
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<Variant Name>

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Title			
All I/O Test point			
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