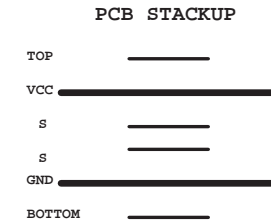
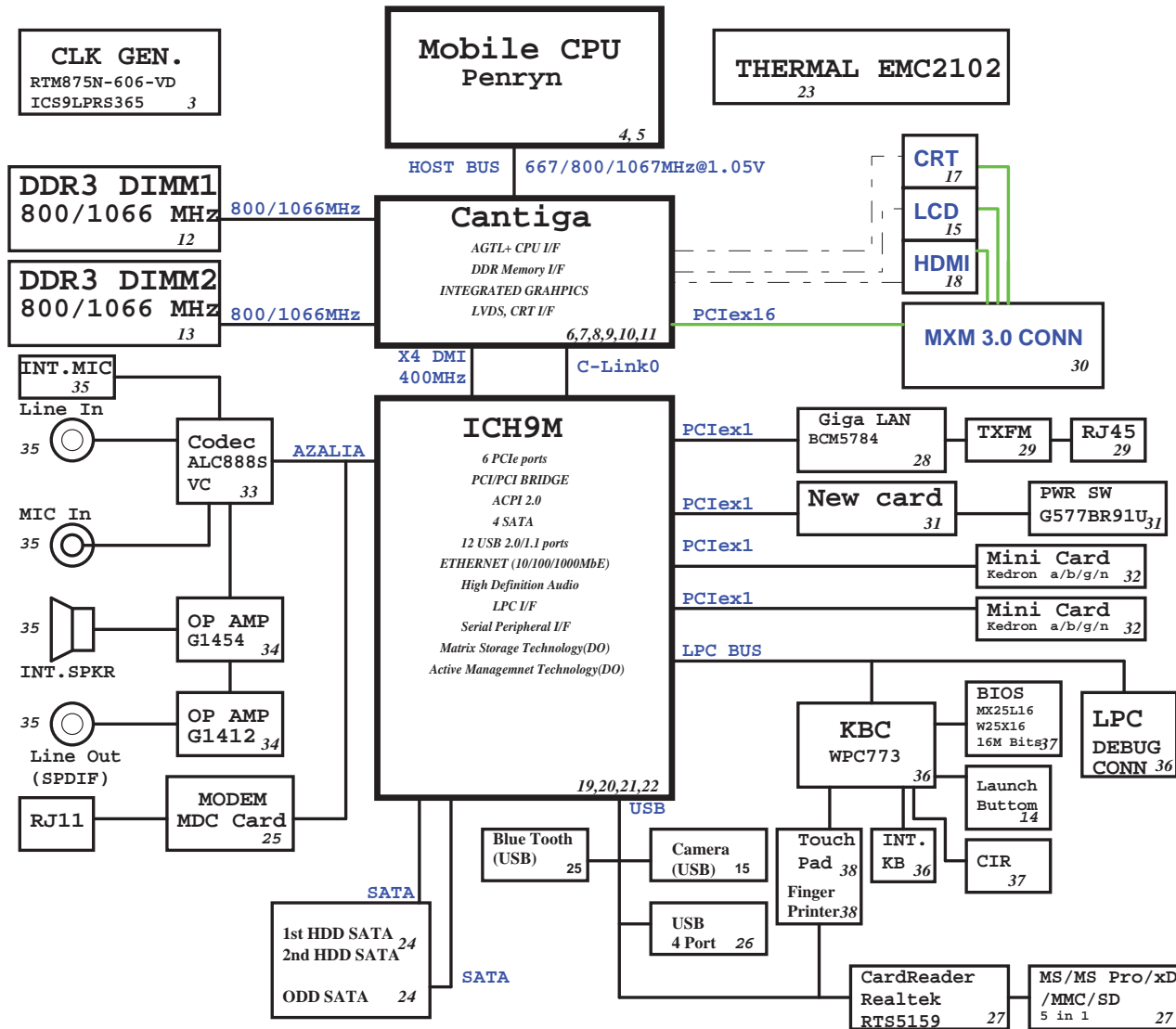


# SJM80\_MV/JV80\_MV Block Diagram

Project code: 91.4DW01.001  
 PCB P/N : 48.4DW01.0SB  
 REVISION : 09221 -1



SYSTEM DC/DC TPS51125 43	
INPUTS	OUTPUTS
DCBATOUT	5V_S5 3D3V_S5
SYSTEM DC/DC TPS51124 45	
INPUTS	OUTPUTS
DCBATOUT	1D05V_S0 1D5V_S3
RT9026 44	
1D5V_S3	DDR_VREF_S3 DDR_VREF_S3_1
AO4468 44	
1D5V_S3	1D5V_S0
GFXCORE DC/DC ISL6263A 46	
INPUTS	OUTPUTS
DCBATOUT	VGFXCORE 0.7-1.25V
CPU DC/DC ISL6266A 42	
INPUTS	OUTPUTS
DCBATOUT	VCC_CORE_S0 0.35-1.5V
CHARGER MAX8731A 47	
INPUTS	OUTPUTS
DCBATOUT	BT+ DCBATOUT

SJM80 UMA ONLY SB

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Title: **BLOCK DIAGRAM**

Size: Custom	Document Number: <b>SJM80/JV80</b>	Rev: -1
Date: Monday, May 25, 2009	Sheet 1 of 51	

# ICH9M Functional Strap Definitions

ICH9 EDS 642879 Rev.1.5 page 92

Signal	Usage/When Sampled	Comment
HDA_SDOUT	XOR Chain Entrance/ PCIE Port Config1 bit1, Rising Edge of PWROK	Allows entrance to XOR Chain testing when TP3 pulled low. When TP3 not pulled low at rising edge of PWROK, sets bit1 of RPC.PC(Config Registers: offset 224h). This signal has weak internal pull-down
HDA_SYNC	PCIE config1 bit0, Rising Edge of PWROK.	This signal has a weak internal pull-down. Sets bit0 of RPC.PC(Config Registers:Offset 224h)
GNT2#/GPIO53	PCIE config2 bit2, Rising Edge of PWROK.	This signal has a weak internal pull-up. Sets bit2 of RPC.PC2(Config Registers:Offset 0224h)
GPIO20	Reserved	This signal should not be pulled high.
GNT1#/GPIO51	ESI Strap (Server Only) Rising Edge of PWROK	ESI compatible mode is for server platforms only. This signal should not be pulled low for desktop and mobile.
GNT3#/GPIO55	Top-Block Swap Override. Rising Edge of PWROK.	Sampled low:Top-Block Swap mode(inverts A16 for all cycles targeting FWH BIOS space). Note: Software will not be able to clear the Top-Swap bit until the system is rebooted without GNT3# being pulled down.
GNT0#:SPI_CS1#/GPIO58	Boot BIOS Destination Selection 0:1. Rising Edge of PWROK.	Controllable via Boot BIOS Destination bit (Config Registers:Offset 3410h:bit 11:10). GNT0# is MSB, 01-SPI, 10-PCI, 11-LPC.
SPI_MOSI	Integrated TPM Enable, Rising Edge of CLPWROK	Sample low: the Integrated TPM will be disabled. Sample high: the MCH TPM enable strap is sampled low and the TPM Disable bit is clear, the Integrated TPM will be enable.
GPIO49	DMI Termination Voltage, Rising Edge of PWROK.	The signal is required to be low for desktop applications and required to be high for mobile applications.
SATALED#	PCI Express Lane Reversal. Rising Edge of PWROK.	Signal has weak internal pull-up. Sets bit 27 of MPC.LR(Device 28:Function 0:Offset D8)
SPKR	No Reboot. Rising Edge of PWROK.	If sampled high, the system is strapped to the "No Reboot" mode(ICH9 will disable the TCO Timer system reboot feature). The status is readable via the NO REBOOT bit.
TP3	XOR Chain Entrance. Rising Edge of PWROK.	This signal should not be pull low unless using XOR Chain testing.
GPIO33/ HDA_DOCK_EN#	Flash Descriptor Security Override Strap Rising Edge of PWROK	Sampled low:the Flash Descriptor Security will be overridden. If high,the security measures will be in effect.This should only be enabled in manufacturing environments using an external pull-up resistor.

# ICH9M Integrated Pull-up and Pull-down Resistors

ICH9 EDS 642879 Rev.1.5

SIGNAL	Resistor Type/Value
CL_CLK[1:0]	PULL-UP 20K
CL_DATA[1:0]	PULL-UP 20K
CL_RST0#	PULL-UP 20K
DPRSPLVR/GPIO16	PULL-DOWN 20K
ENERGY_DETECT	PULL-UP 20K
HDA_BIT_CLK	PULL-DOWN 20K
HDA_DOCK_EN#/GPIO33	PULL-UP 20K
HDA_RST#	PULL-DOWN 20K
HDA_SDIN[3:0]	PULL-DOWN 20K
HDA_SDOUT	PULL-DOWN 20K
HDA_SYNC	PULL-DOWN 20K
GLAN_DOCK#	The pull-up or pull-down active when configured for native LAN DOCK# functionality and determined by LAN controller
GNT[3:0]#/GPIO[55,53,51]	PULL-UP 20K
GPIO[20]	PULL-DOWN 20K
GPIO[49]	PULL-UP 20K
LDA[3:0]#/FHW[3:0]#	PULL-UP 20K
LAN_RXD[2:0]	PULL-UP 20K
LDRQ[0]	PULL-UP 20K
LDRQ[1]/GPIO23	PULL-UP 20K
PME#	PULL-UP 20K
PWRBTN#	PULL-UP 20K
SATALED#	PULL-UP 15K
SPI_CS1#/GPIO58/CLGPIO6	PULL-UP 20K
SPI_MOSI	PULL-DOWN 20K
SPI_MISO	PULL-UP 20K
SPKR	PULL-DOWN 20K
TACH_[3:0]	PULL-UP 20K
TP[3]	PULL-UP 20K
USB[11:0][P,N]	PULL-DOWN 15K

# Cantiga chipset and ICH9M I/O controller Hub strapping configuration

Montevina Platform Design guide 22339 0.5 page 218

Pin Name	Strap Description	Configuration
CFG[2:0]	FSB Frequency Select	000 = FSB1067 011 = FSB667 010 = FSB800 others = Reserved
CFG[4:3] CFG8 CFG[15:14] CFG[18:17]	Reserved	
CFG5	DMI x2 Select	0 = DMI x2 1 = DMI x4 (Default)
CFG6	iTPM Host Interface	0 = The iTPM Host Interface is enabled(Note2) 1 = The iTPM Host Interface is disabled(default)
CFG7	Intel Management engine Crypto strap	0 = Transport Layer Security (TLS) cipher suite with no confidentiality 1 = TLS cipher suite with confidentiality (default)
CFG9	PCIE Graphics Lane	0 = Reverse Lanes,15->0,14->1 ect.. 1 = Normal operation(Default):Lane Numbered in order
CFG10	PCIE Loopback enable	0 = Enable (Note 3) 1 = Disabled (default)
CFG[13:12]	XOR/ALL	00 = Reserve 10 = XOR mode Enabled 01 = ALLZ mode Enabled (Note 3) 11 = Disabled (default)
CFG16	FSB Dynamic ODT	0 = Dynamic ODT Disabled 1 = Dynamic ODT Enabled (Default)
CFG19	DMI Lane Reversal	0 = Normal operation(Default): Lane Numbered in Order 1 = Reverse Lanes DMI x4 mode[MCH -> ICH]:(3->0,2->1,1->2and0->3 DMI x2 mode[MCH -> ICH]:(3->0,2->1)
CFG20	Digital Display Port (SDVO/DP/IHDMI) Concurrent with PCIE	0 = Only Digital Display Port or PCIE is operational (Default) 1 = Digital display port and PCIE are operating simultaneously via the PEG port
SDVO_CTRLDATA	SDVO Present	0 =No SDVO Card Present (Default) 1 = SDVO Card Present
L_DDC_DATA	Local Flat Panel (LFP) Present	0 = LFP Disabled (Default) 1 = LFP Card Present; PCIE disabled

**NOTE:**  
1. All strap signals are sampled with respect to the leading edge of the (G)MCH Power OK (PWROK) signal.  
2. iTPM can be disabled by a 'Soft-Strap' option in the Flash-decriptor section of the Firmware. This 'Soft-Strap' is activated only after enabling iTPM via CFG6.  
Only one of the CFG10/CFG12/CFG13 straps can be enabled at any time.

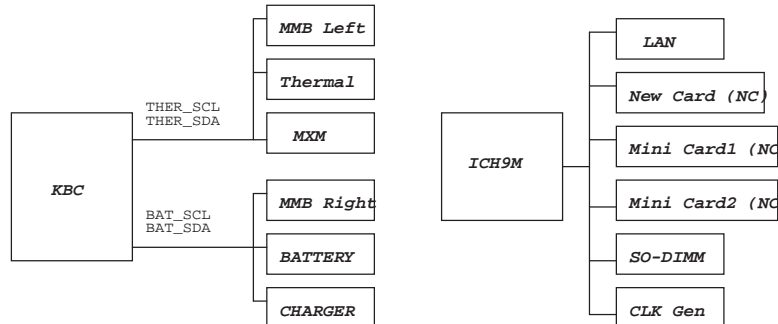
## USB Table

USB	
Pair	Device
0	USB2
1	USB3
2	USB4
3	MINI1 (WL)
4	CCD
5	NEW CARD
6	FP
7	BT
8	NC
9	USB1
10	MINI2
11	CARD READER

## PCIE Routing

LANE1	LAN Broadcom 5784
LANE2	MiniCard WLAN
LANE3	MiniCard TV
LANE4	NC
LANE5	NewCard
LANE6	NC

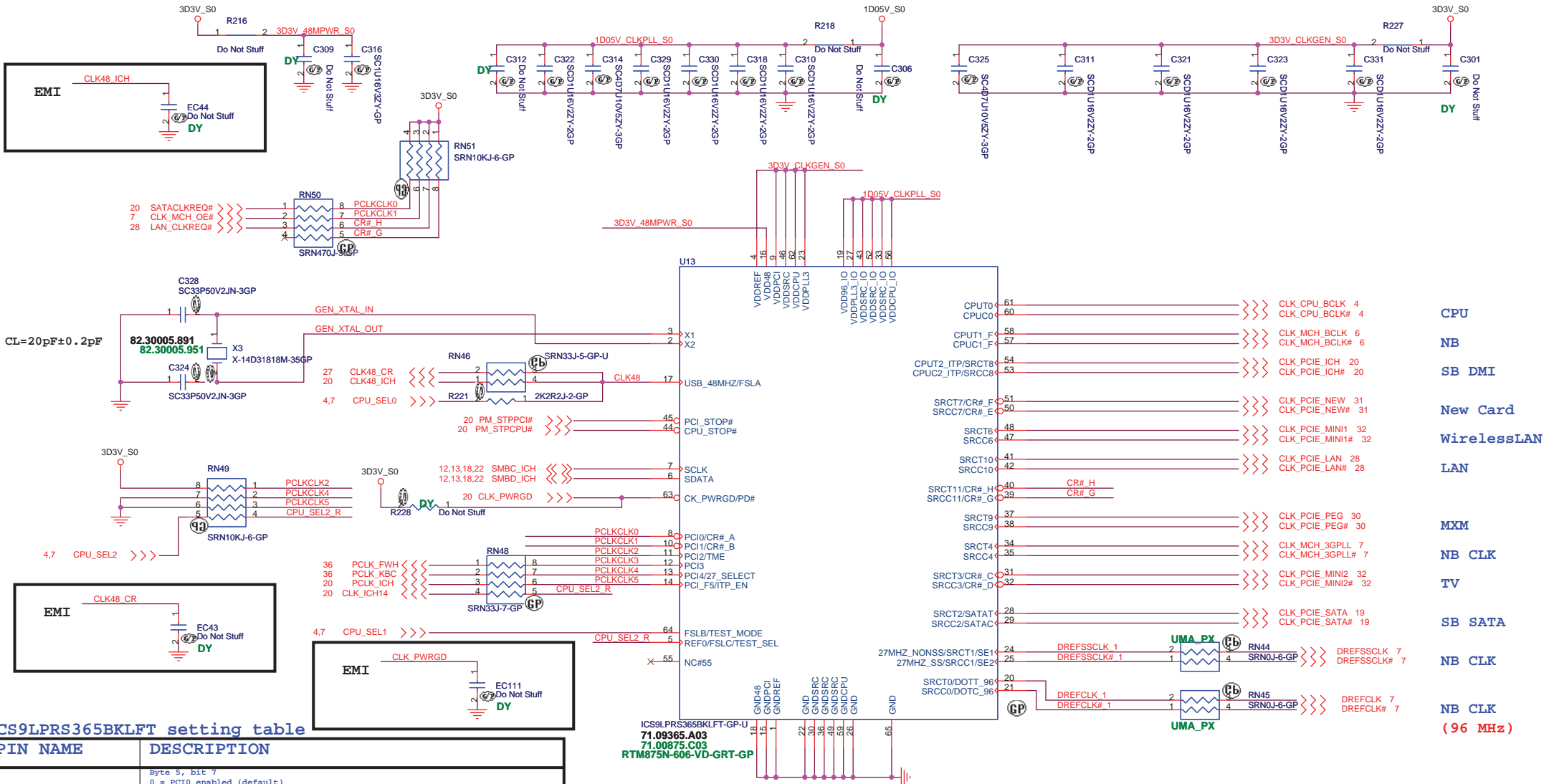
## SMBus



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<b>Reference</b>			
Title	Document Number		
Size A3	<b>SJM80/JV80</b>		Rev -1
Date: Monday, May 25, 2009	Sheet 2	of	51



ICS9LPRS365BKLF setting table

PIN NAME	DESCRIPTION
PCI0/CR#_A	Byte 5, bit 7 0 = PCI0 enabled (default) 1 = CR#_A enabled. Byte 5, bit 6 controls whether CR#_A controls SRC0 or SRC2 pair Byte 5, bit 6 0 = CR#_A controls SRC0 pair (default), 1 = CR#_A controls SRC2 pair
PCI1/CR#_B	Byte 5, bit 5 0 = PCI1 enabled (default) 1 = CR#_B enabled. Byte 5, bit 6 controls whether CR#_B controls SRC1 or SRC4 pair Byte 5, bit 4 0 = CR#_B controls SRC1 pair (default) 1 = CR#_B controls SRC4 pair
PCI2/TME	0 = Overclocking of CPU and SRC Allowed 1 = Overclocking of CPU and SRC NOT allowed
PCI3	3.3V PCI clock output
PCI4/27M_SEL	0 = Pin24 as SRC-1, Pin25 as SRC-1#, Pin20 as DOT96, Pin21 as DOT96# 1 = Pin24 as 27MHz, Pin25 as 27MHz_SS, Pin20 as SRC-0, Pin21 as SRC-0#
PCI_F5/ITP_EN	0 = SRC8/SRC8# 1 = ITP/ITP#
SRCT3/CR#_C	Byte 5, bit 3 0 = SRC3 enabled (default) 1 = CR#_C enabled. Byte 5, bit 2 controls whether CR#_C controls SRC0 or SRC2 pair Byte 5, bit 2 0 = CR#_C controls SRC0 pair (default), 1 = CR#_C controls SRC2 pair

PIN NAME	DESCRIPTION
SRCC3/CR#_D	Byte 5, bit 1 0 = SRC3 enabled (default) 1 = CR#_D enabled. Byte 5, bit 0 controls whether CR#_D controls SRC1 or SRC4 pair Byte 5, bit 0 0 = CR#_D controls SRC1 pair (default) 1 = CR#_D controls SRC4 pair
SRCC7/CR#_E	Byte 6, bit 7 0 = SRC7 enabled (default) 1 = CR#_F controls SRC6
SRCT7/CR#_F	Byte 6, bit 6 0 = SRC7 enabled (default) 1 = CR#_F controls SRC8
SRCC11/CR#_G	Byte 6, bit 5 0 = SRC11 enabled (default) 1 = CR#_G controls SRC9
SRCT11/CR#_H	Byte 6, bit 4 0 = SRC11 enabled (default) 1 = CR#_H controls SRC10

SEL2	SEL1	SEL0	CPU	FSB
FSC	FSB	FSA		
1	0	1	100M	X
0	0	1	133M	533M
0	1	1	166M	667M
0	1	0	200M	800M
0	0	0	266M	1066M

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Title: **Clock Generator**

Size: Document Number **SJM80/JV80** Rev: -1

Date: Monday, May 25, 2009 Sheet 3 of 51

6 H\_A#(35..3) <<<

H\_DIN#(3..0) <<<>>H\_DIN#(3..0) 6  
H\_DSTBN#(3..0) <<<>>H\_DSTBN#(3..0) 6  
H\_DSTBP#(3..0) <<<>>H\_DSTBP#(3..0) 6  
H\_D#(63..0) <<<>>H\_D#(63..0) 6

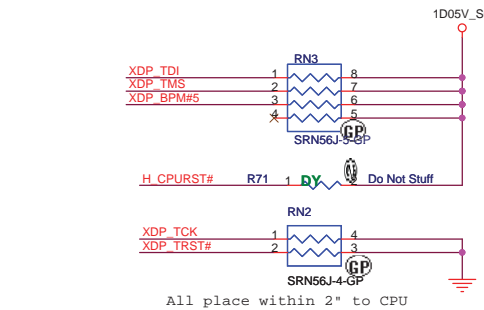
Place testpoint on H\_IERR# with a GND 0.1" away

Side Band Non GTL

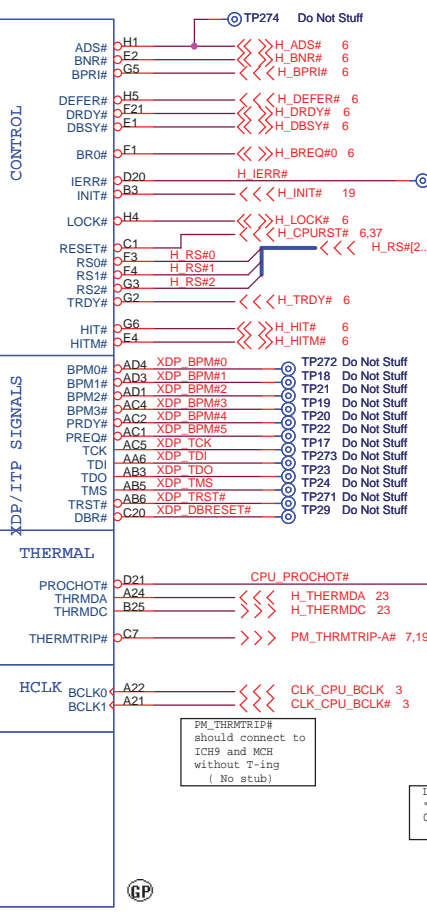
6 H\_ADSTB#1 <<<>>  
19 H\_A20M# <<<>>  
19 H\_FERR# <<<>>  
19 H\_IGNNE# <<<>>  
19 H\_STPCLK# <<<>>  
19 H\_INTR <<<>>  
19 H\_NMI <<<>>  
19 H\_SMI# <<<>>

6 H\_ADSTB#0 <<<>>  
6 H\_REQ#(4..0) <<<>>  
6 H\_ADSTB#1 <<<>>  
19 H\_A20M# <<<>>  
19 H\_FERR# <<<>>  
19 H\_IGNNE# <<<>>  
19 H\_STPCLK# <<<>>  
19 H\_INTR <<<>>  
19 H\_NMI <<<>>  
19 H\_SMI# <<<>>

BGA479-SKT6-GPU7  
62.10079.001  
62.10053.401

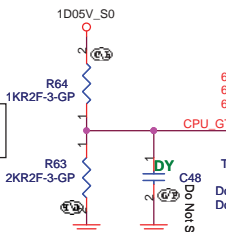
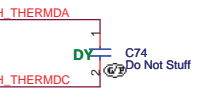
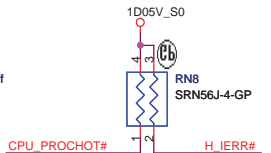


All place within 2" to CPU

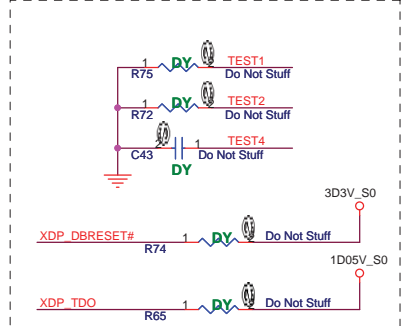


Layout Note: \*CPU\_GTLREF0\* 0.5" max length.

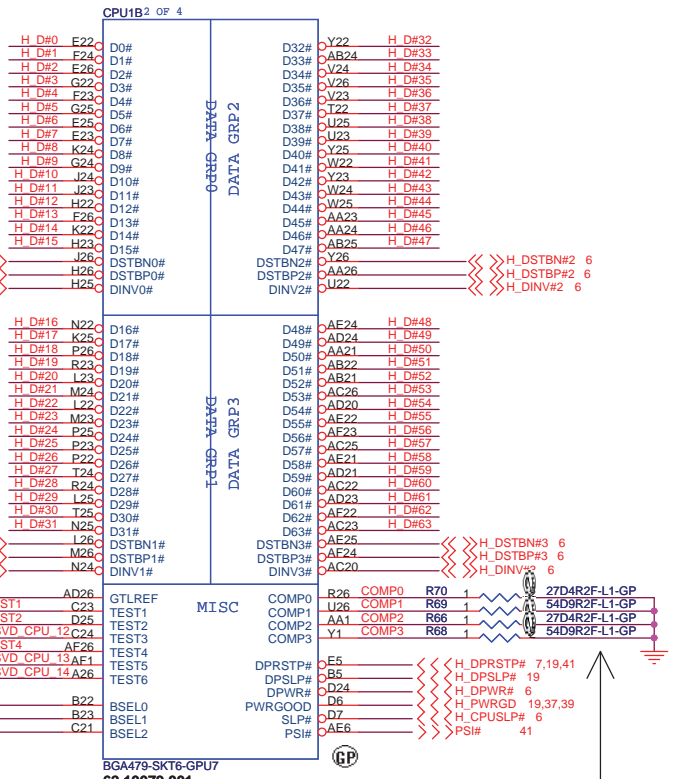
PM\_THRMTRIP# should connect to ICH9 and MCH without T-ling (No stub)



Follow Demo Circuit



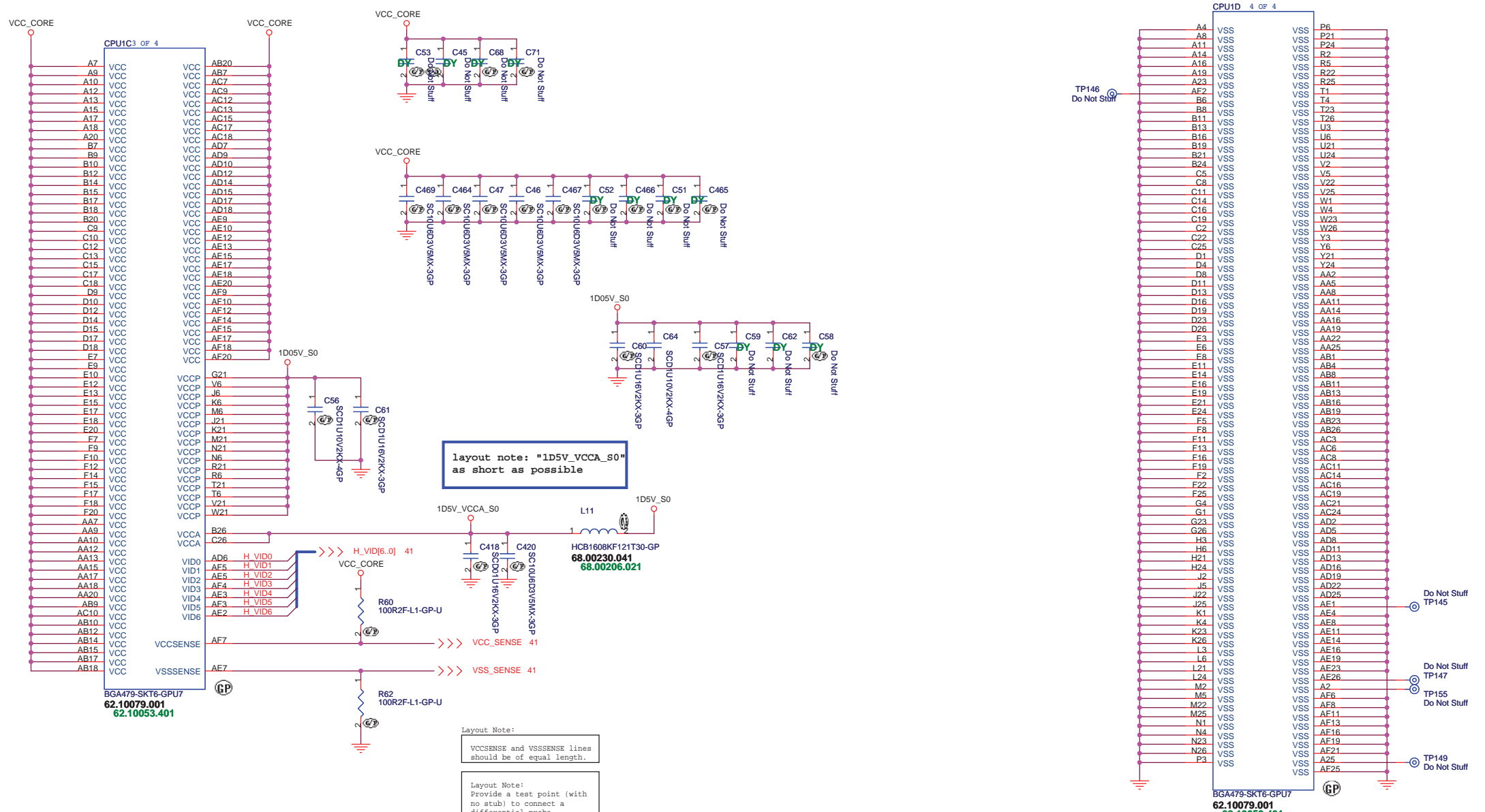
Net "TEST4" as short as possible, make sure "TEST4" routing is reference to GND and away other noisy signals

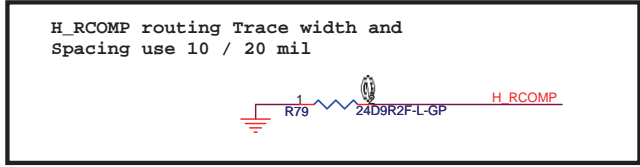
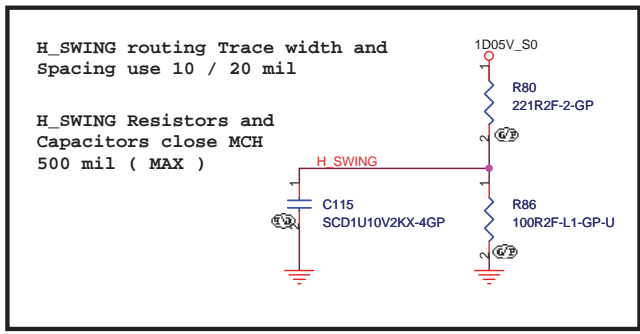


Layout Note: Comp0, 2 connect with Zo=27.4 ohm, make trace length shorter than 0.5" Comp1, 3 connect with Zo=55 ohm, make trace length shorter than 0.5"

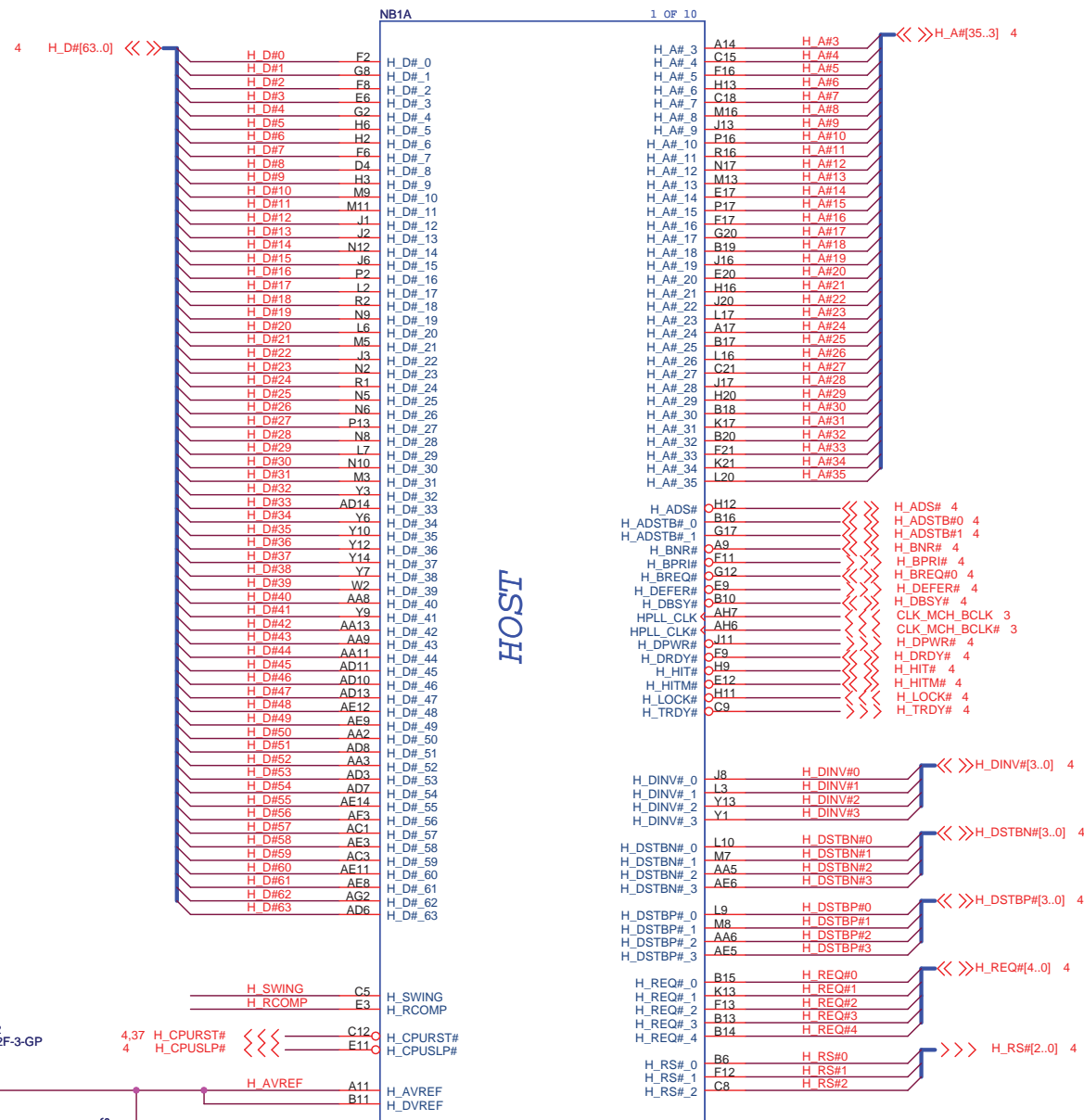
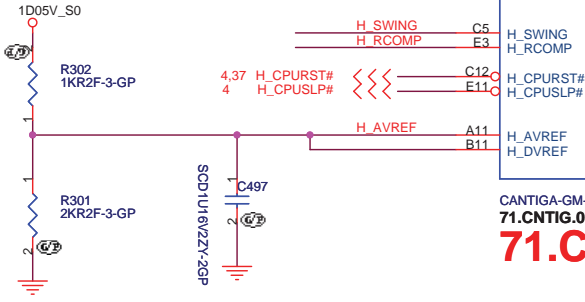
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Wistron Corporation logo and contact information, including address (21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.), title (CPU (1 of 2)), document number (SJM80/JV80), date (Monday, May 25, 2009), and sheet number (4 of 51).





Place them near to the chip ( < 0.5" )



CANTIGA-GM-GP-U-NF  
71.CNTIG.00U  
**71.CNTIG.D1U**

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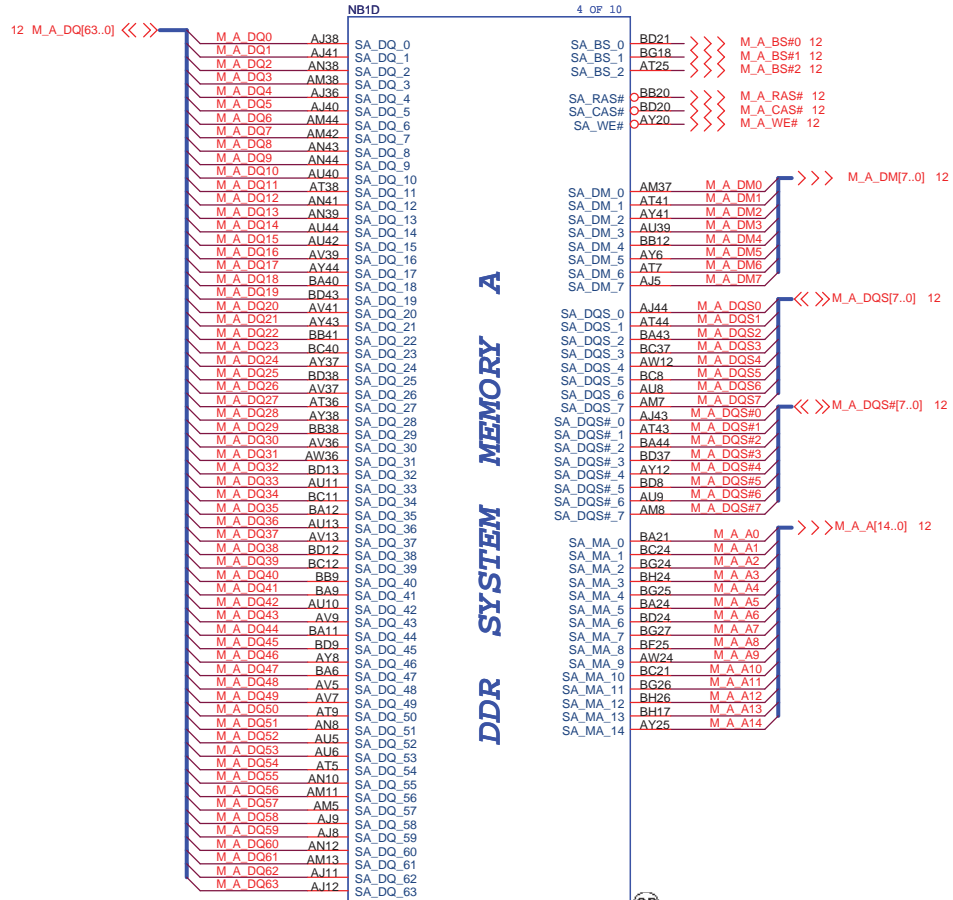
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Title: **Cantiga (1 of 6)**

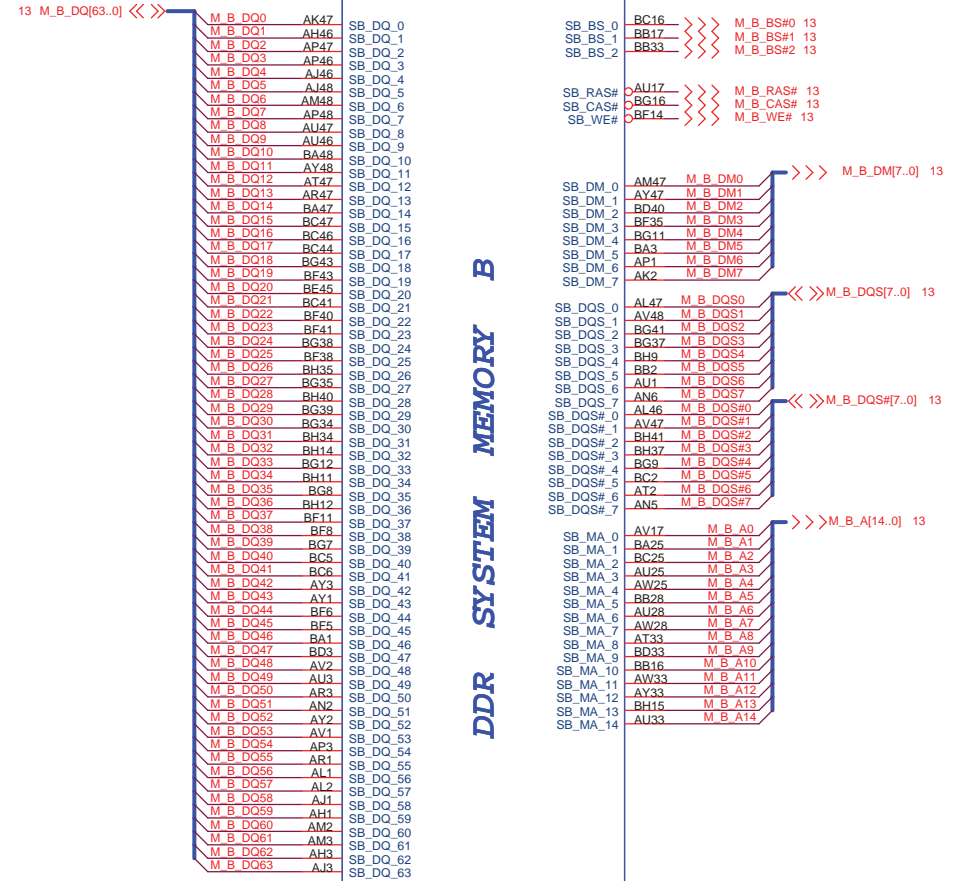
Size	Document Number	Rev
		-1

Date: Monday, May 25, 2009 Sheet 6 of 51



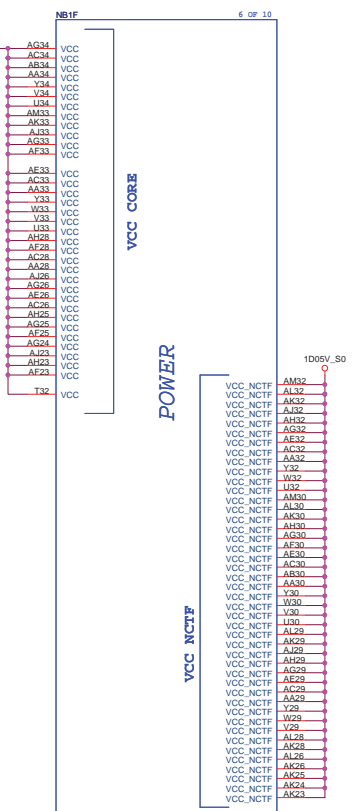
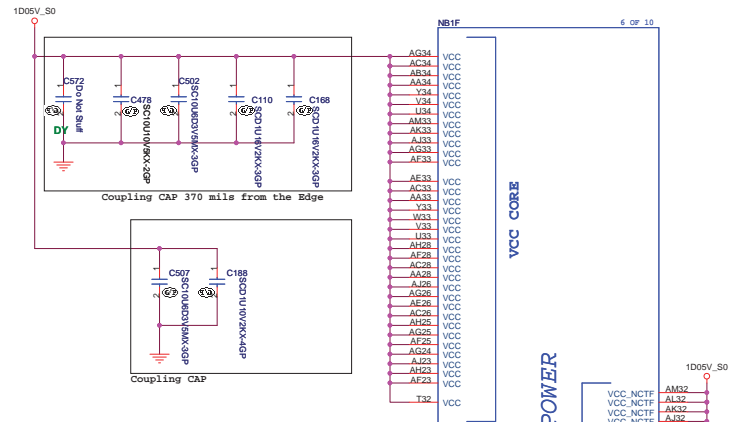
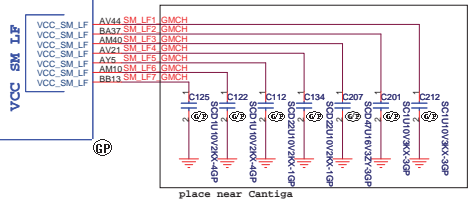
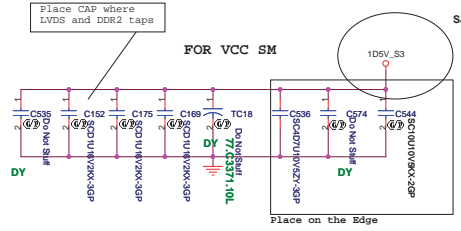
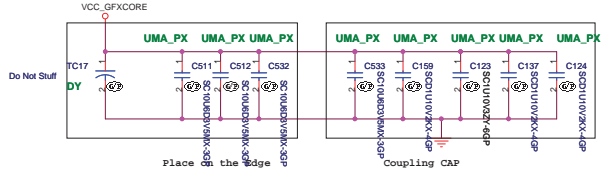
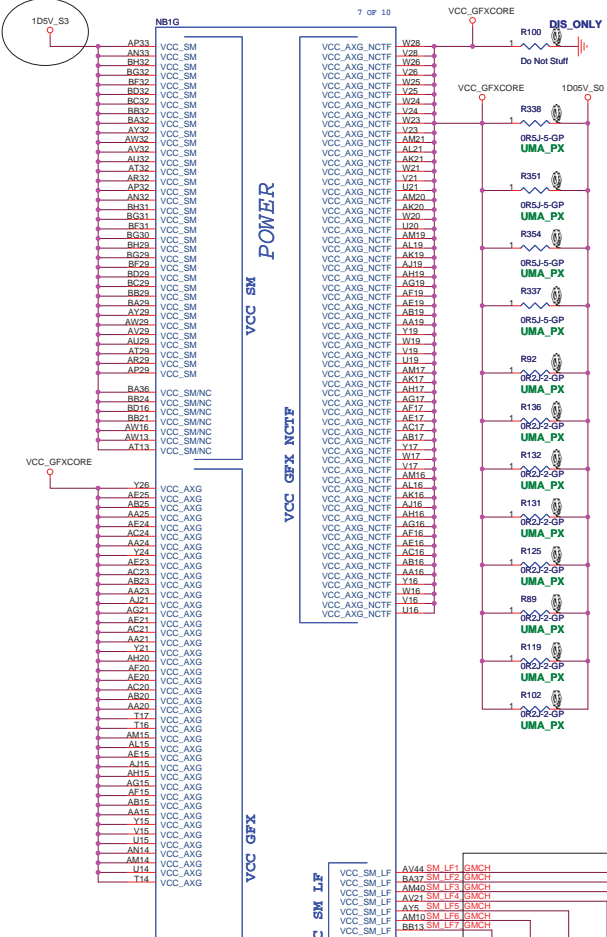


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71.CNTIG.00U



CANTIGA-GM-GP-U-NF  
71.CNTIG.00U





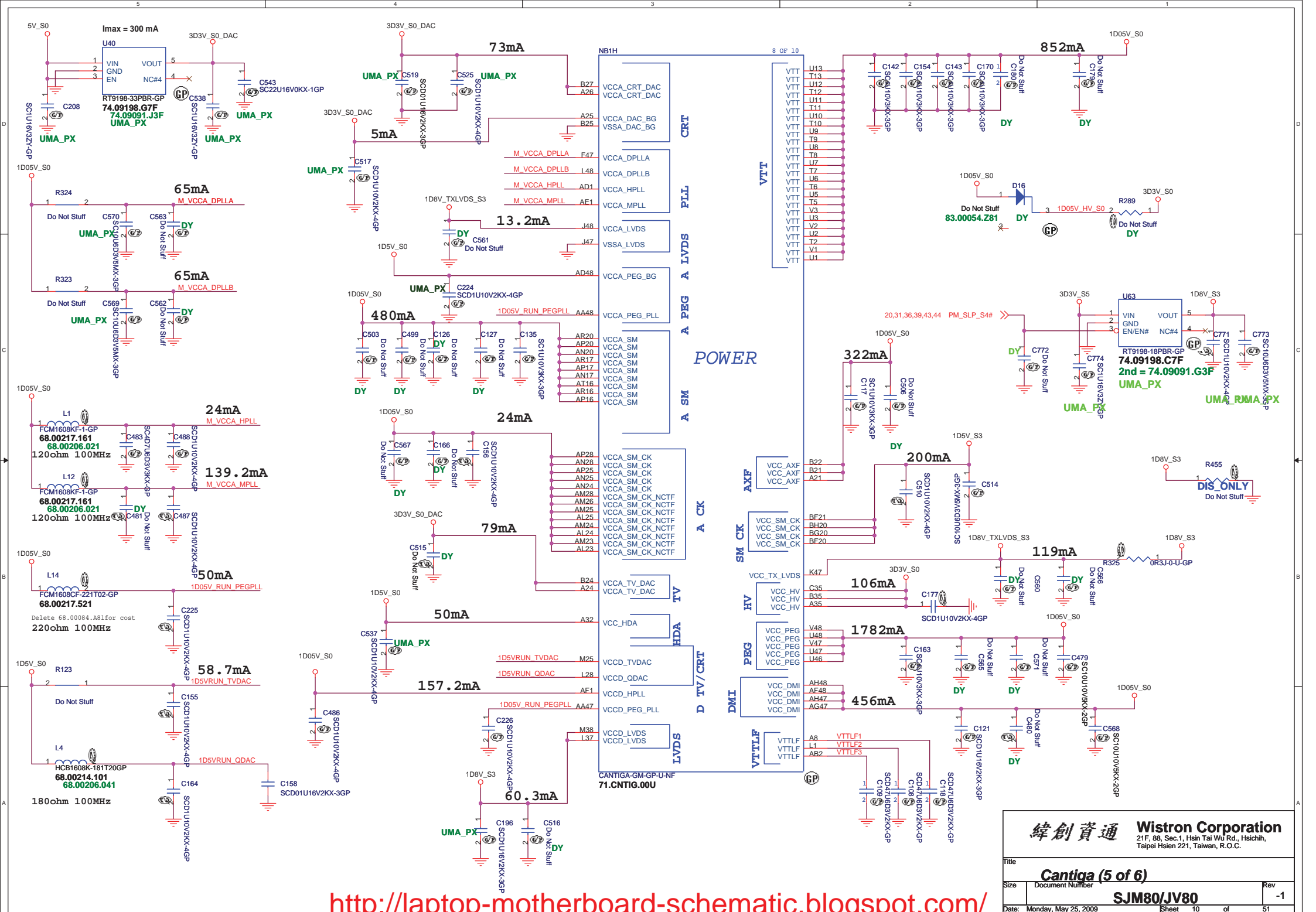
45 VCC\_AXG\_SENSE AH14  
45 VSS\_AXG\_SENSE AH14

CANTIGA-GM-GP-LH-NF  
71.CNTIG.000

CANTIGA-GM-GP-LH-NF  
71.CNTIG.000

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File		Cantiga (4 of 6)	
Size	Document Number	SJM80/JV80	
Date: Monday, May 25, 2009	Sheet	9	of 61



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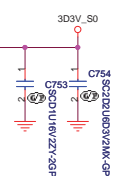
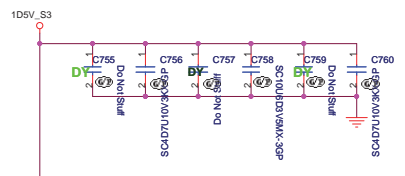
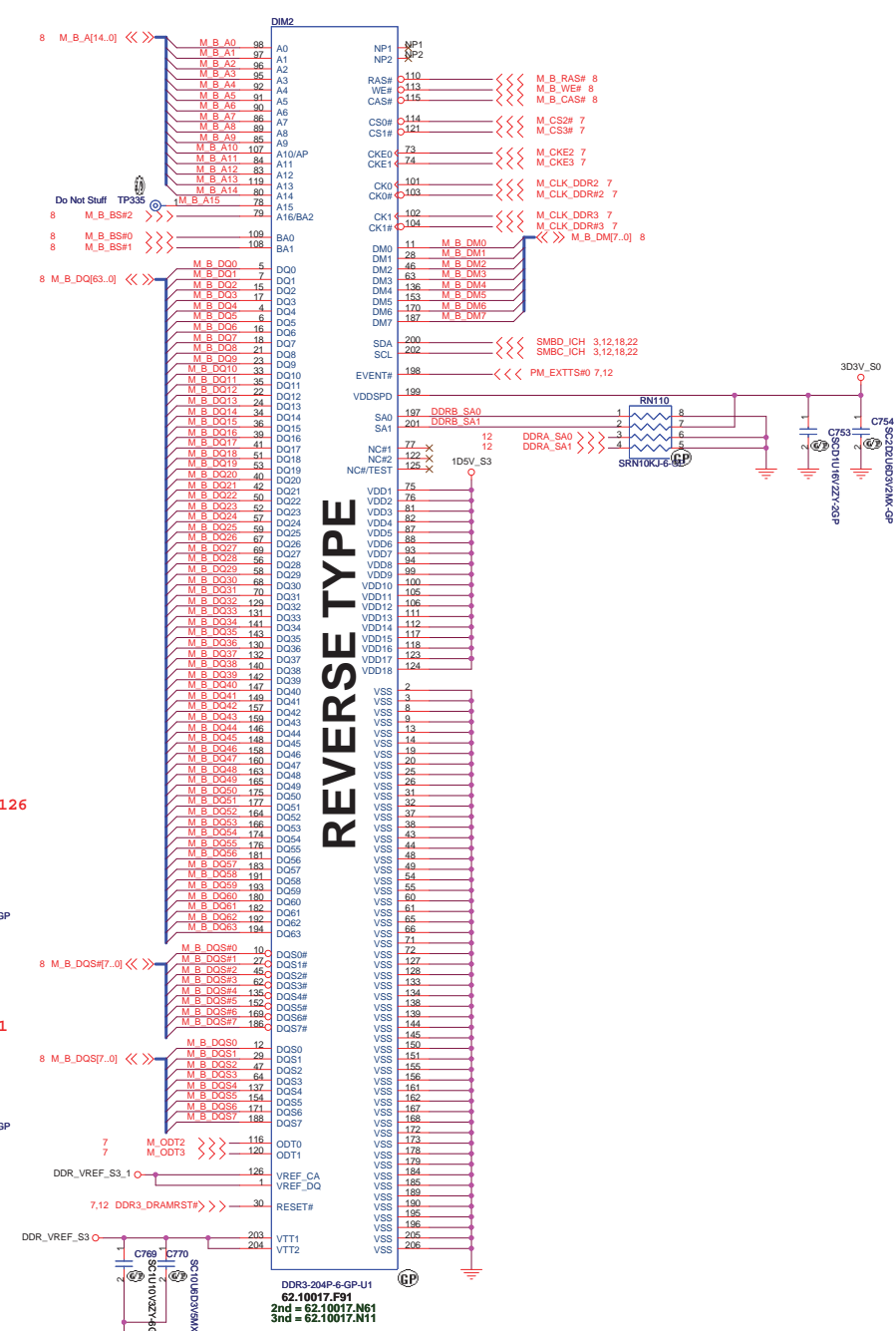
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 Taipei Hsien 221, Taiwan, R.O.C.

File: **Cantiga (5 of 6)**  
 Size: Document Number  
 Date: Monday, May 25, 2009 Sheet 10 of 51  
 Rev: -1  
**SJM80/JV80**

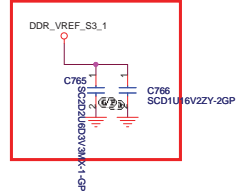




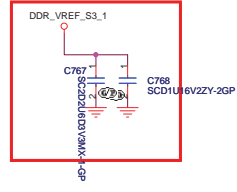
# DDR3 SOCKET\_2



Layout Note : Near Pin 126



Layout Note : Near Pin 1



REVERSE TYPE

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Title: **DDR3 Socket2**  
 Document Number: **SJM80JV80**  
 Date: Monday, May 25, 2009 Sheet 13 of 51

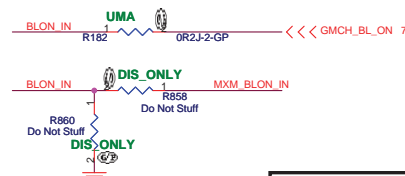
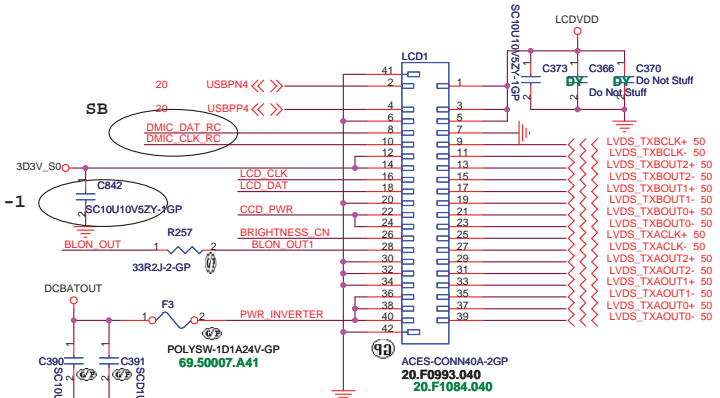
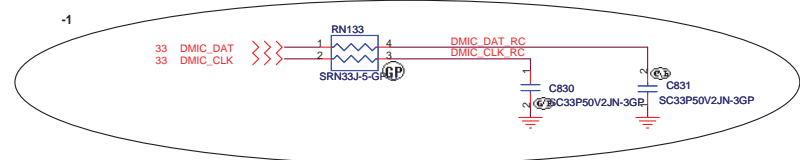


# LCD/INVERTER/CCD CONN

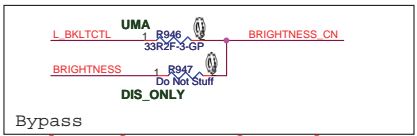
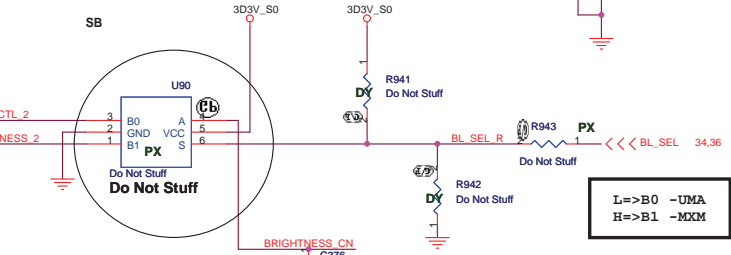
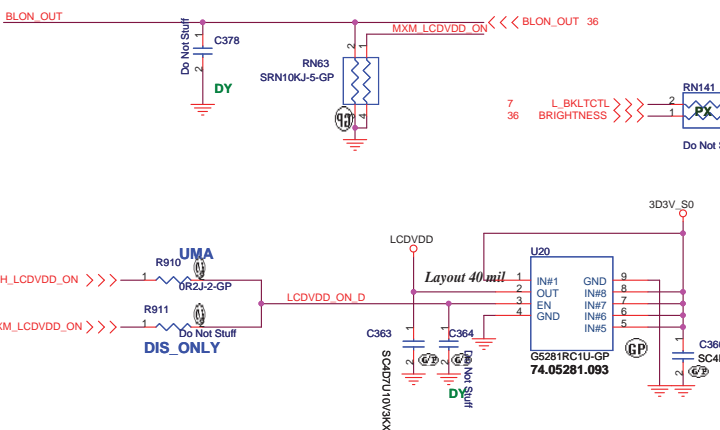
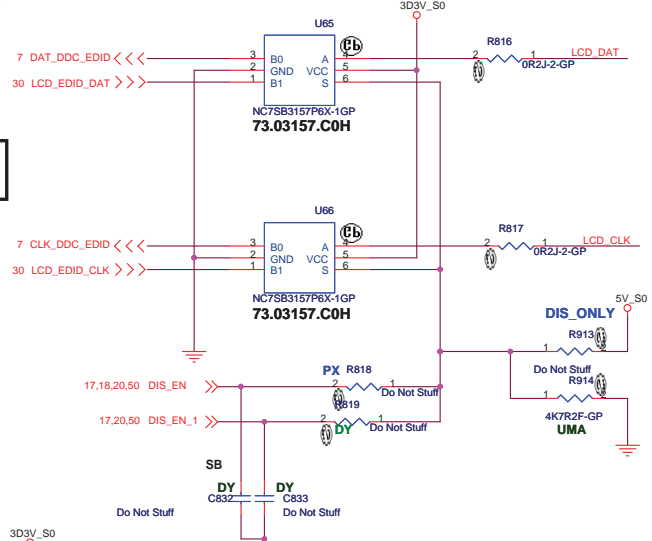
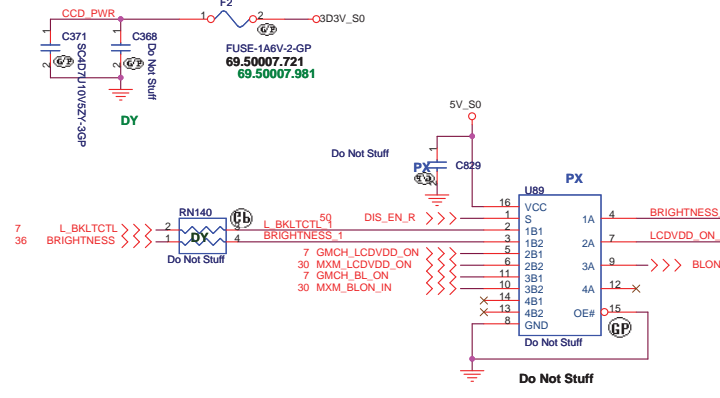
Pin	Symbol
1	Vin
2	Vin
3	Brightness
4	BLON
5	GND
6	GND

Pin	Symbol
1	CCD_PWR
2	USB-
3	USB+
4	GND
5	GND

EMI request RN133 22R change 33R  
C830/C831 22P change 33P



L=>B0 -UMA  
H=>B1 -MXM



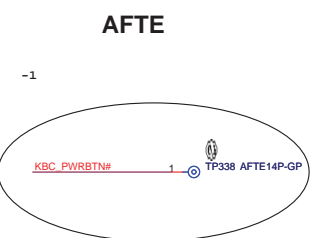
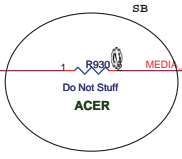
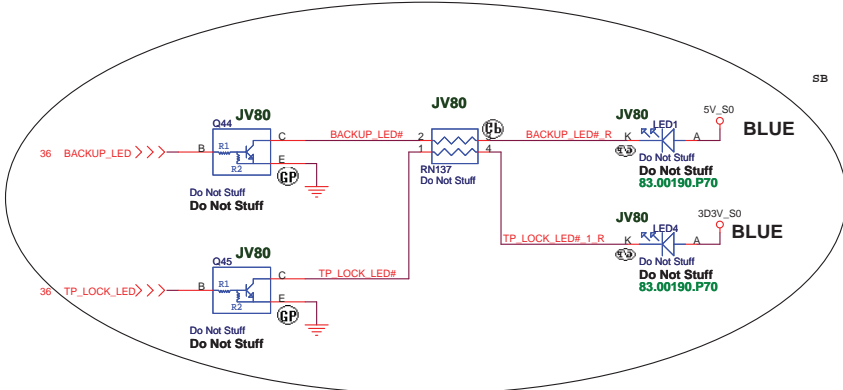
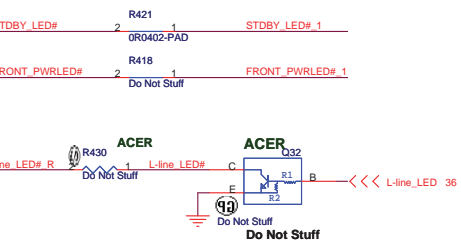
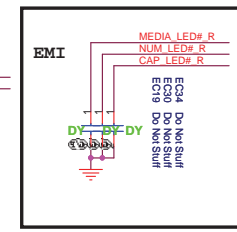
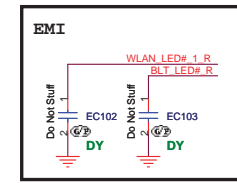
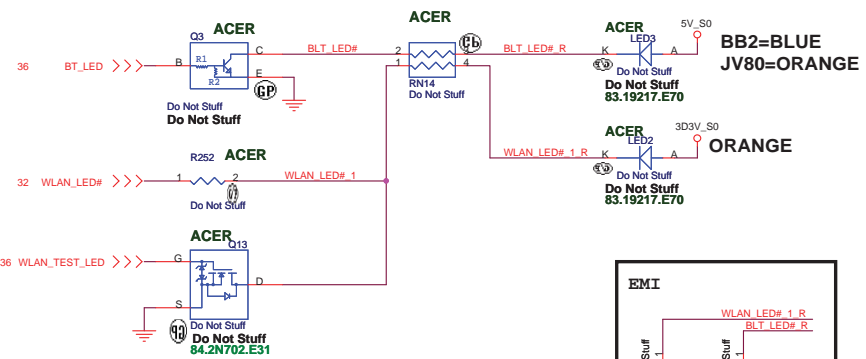
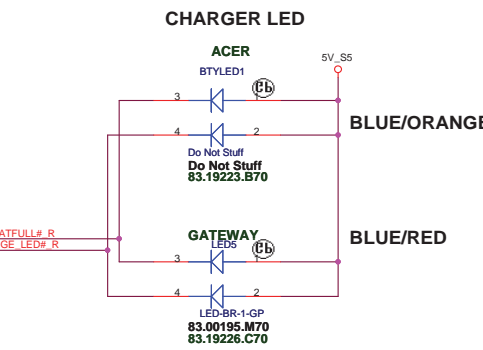
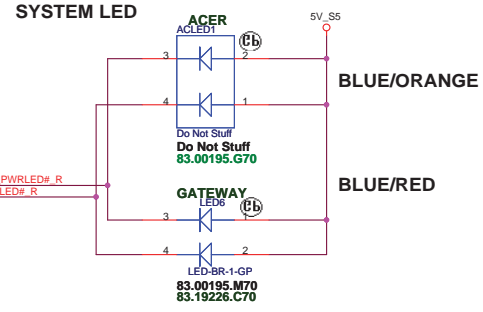
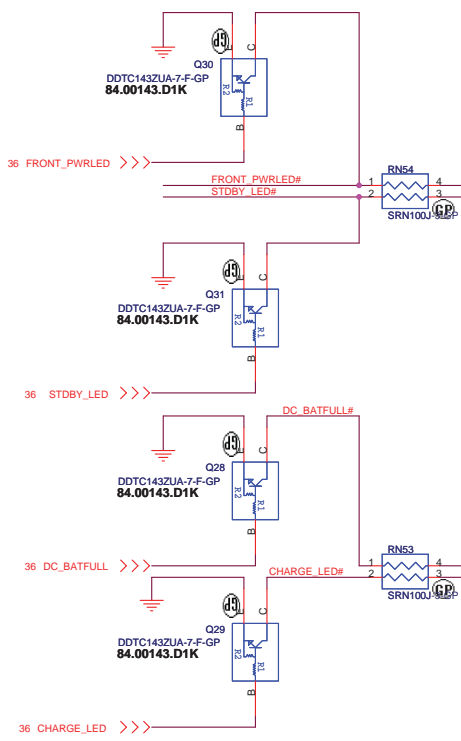
SJM80 UMA ONLY SB

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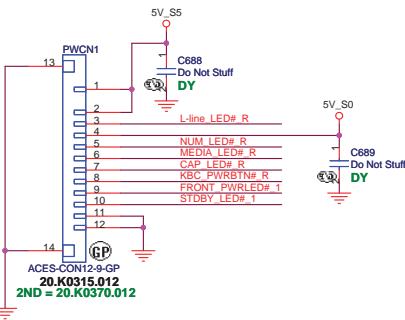
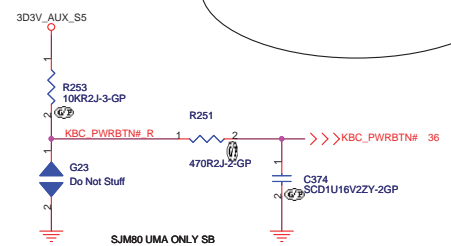
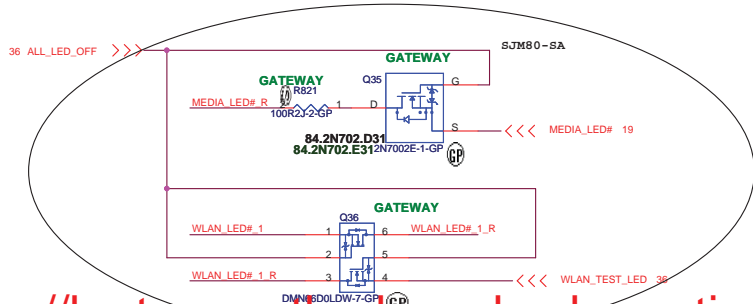
Title: **LCD CONN**

Size: Document Number: **SJM80/JV80** Rev: -1

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### ALL LED OFF FUNCTION For GATEWAY



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File: **Power & LED Board**  
Size: **SJM80/JV80**  
Date: Monday, May 25, 2009  
Sheet: 18 of 51

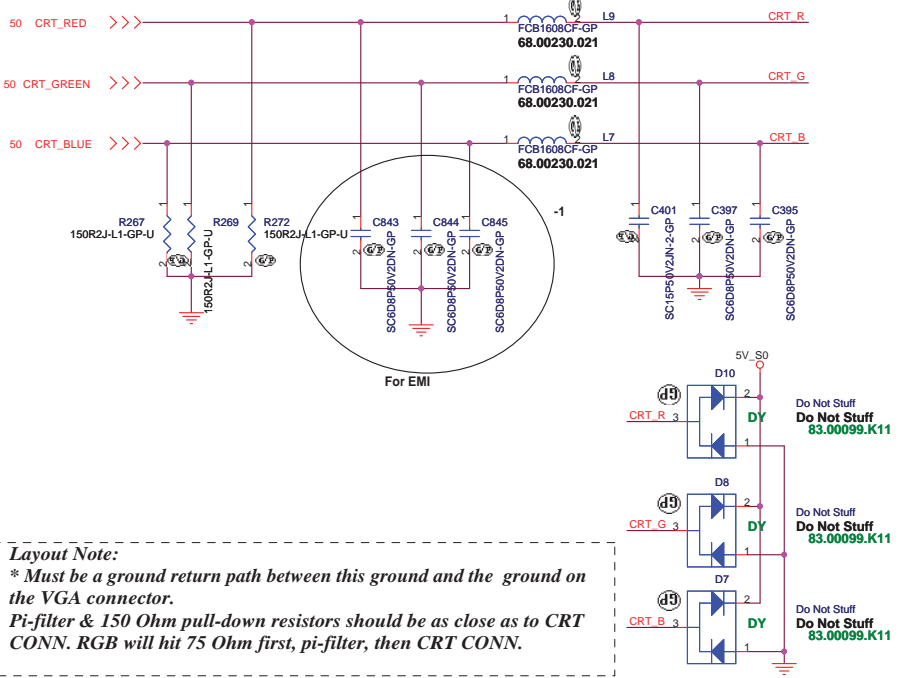
Rev: -1



Layout Note:  
Place these resistors  
close to the CRT-out  
connector

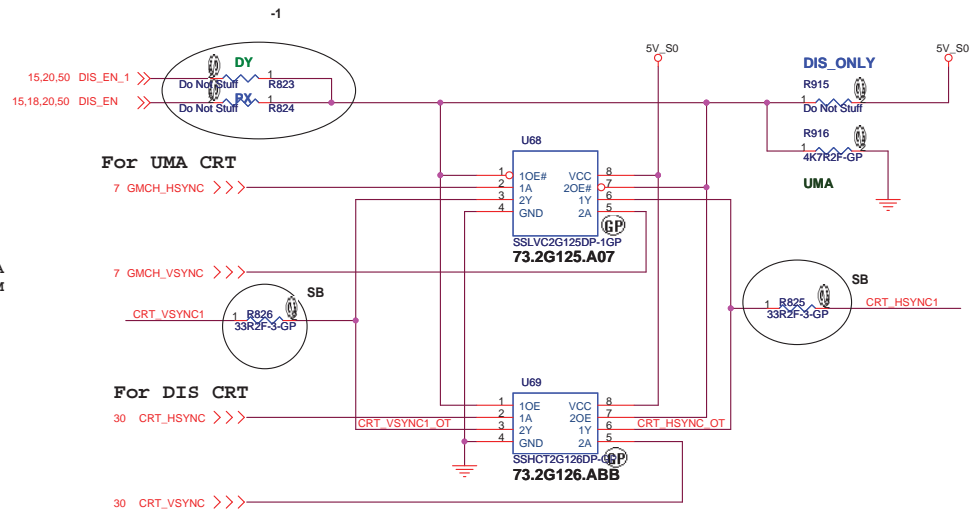
### 2nd =68.00119.081 source Check

Ferrite bead impedance: 10 ohm@100MHz



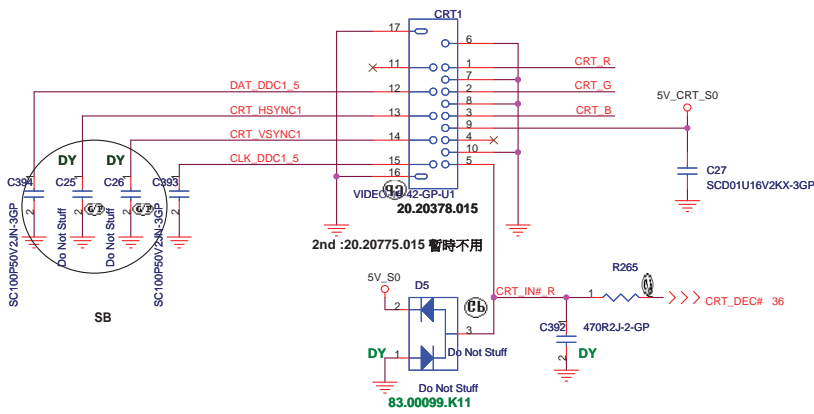
Layout Note:  
\* Must be a ground return path between this ground and the ground on the VGA connector.  
Pi-filter & 150 Ohm pull-down resistors should be as close as to CRT CONN. RGB will hit 75 Ohm first, pi-filter, then CRT CONN.

### Hsync & Vsync level shift

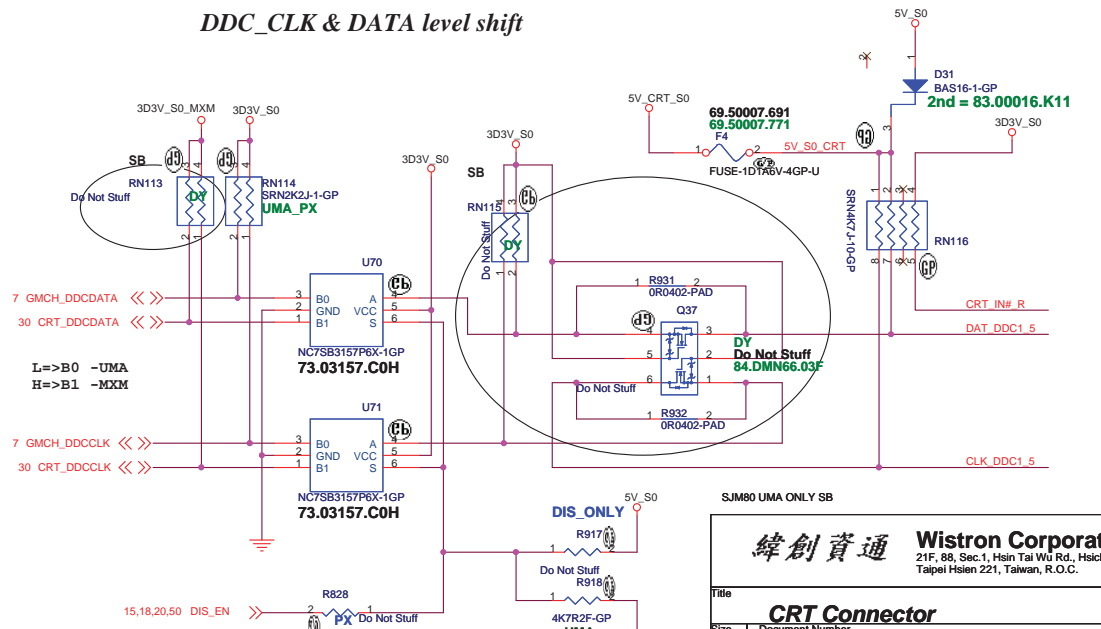


L=>B0 -UMA  
H=>B1 -MXM

### CRT I/F & CONNECTOR



### DDC\_CLK & DATA level shift



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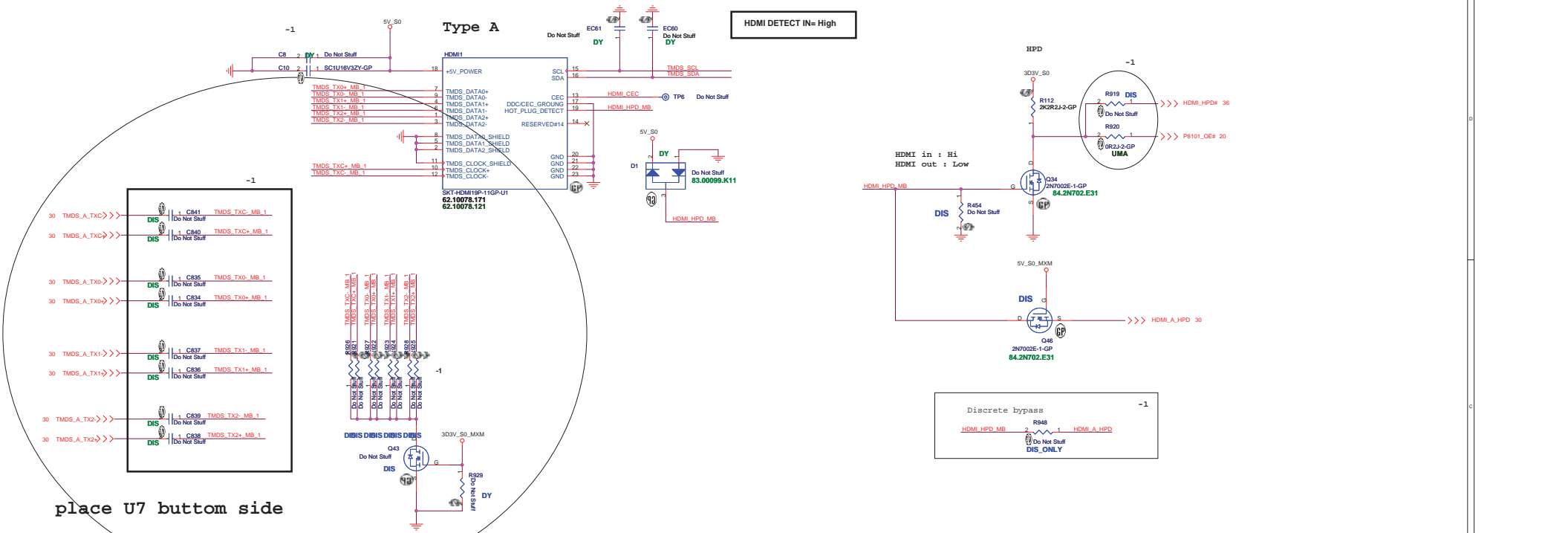
Title: **CRT Connector**

Size: Document Number

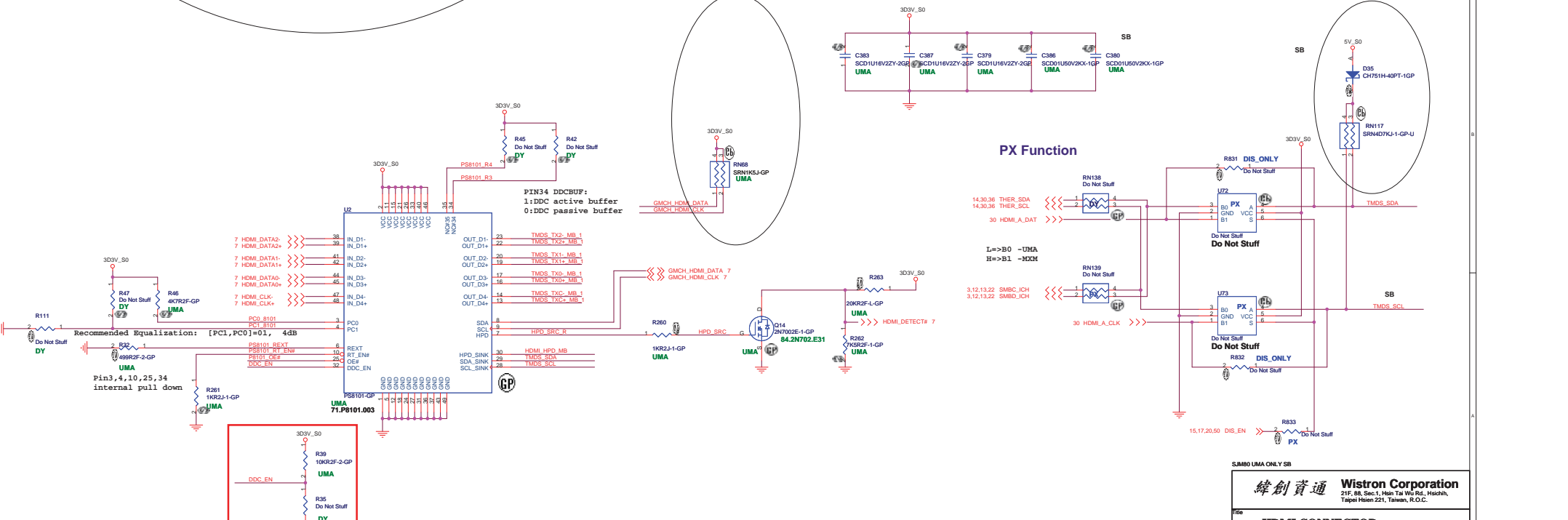
Date: Monday, May 25, 2009 Sheet 17 of 51

Rev: -1

SJM80/JV80

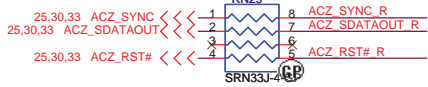
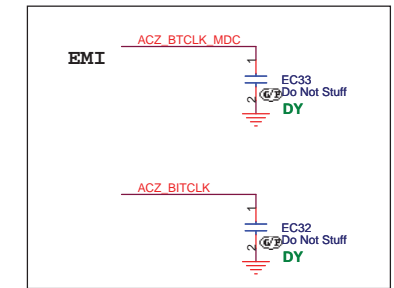
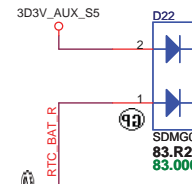
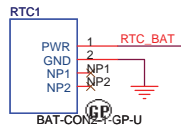


place U7 bottom side

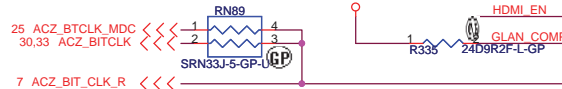


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62.70001.011



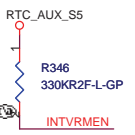
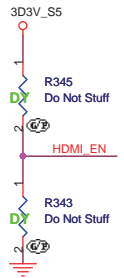
GLAN\_COMP place within 500 mil of ICH9M



1st HDD

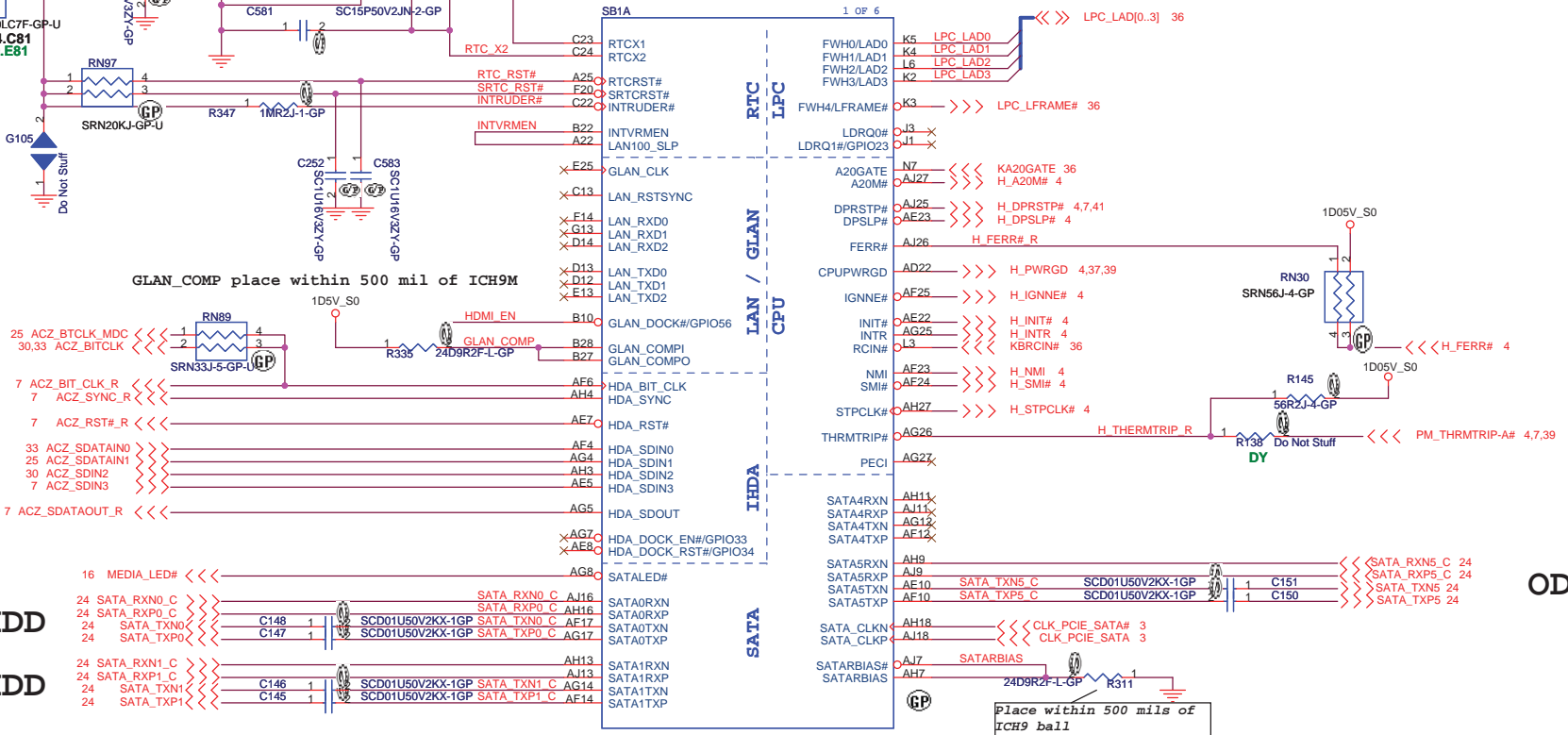
2nd HDD

PH=HDMI  
PL=NO HDMI



integrated VccSus1_05,VccSus1_5,VccCL1_5		
INTVRMEN	High=Enable	Low=Disable
integrated VccLan1_05VccCL1_05		
LAN100_SLP	High=Enable	Low=Disable

ICH9M-GP-NF  
71.ICH9M.00U  
**71.ICH9M.C1U**



Place within 500 mils of ICH9 ball

ODD

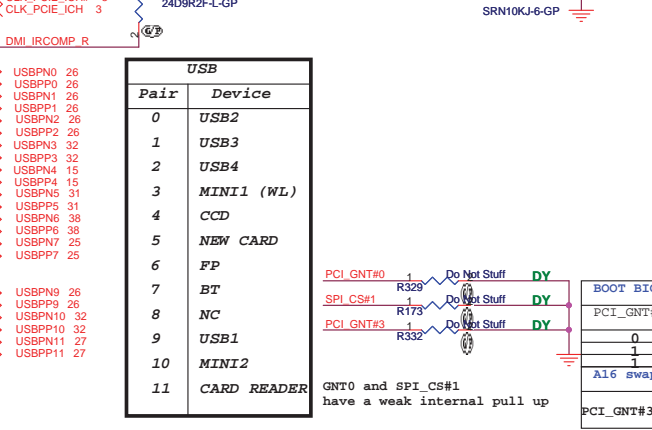
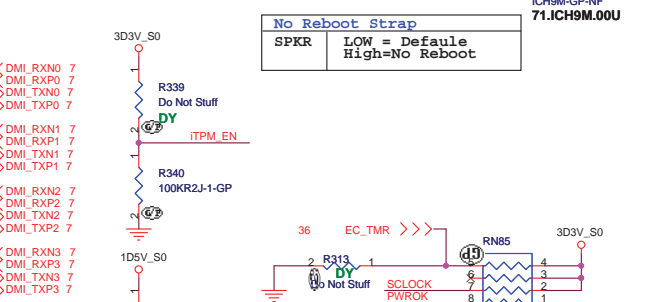
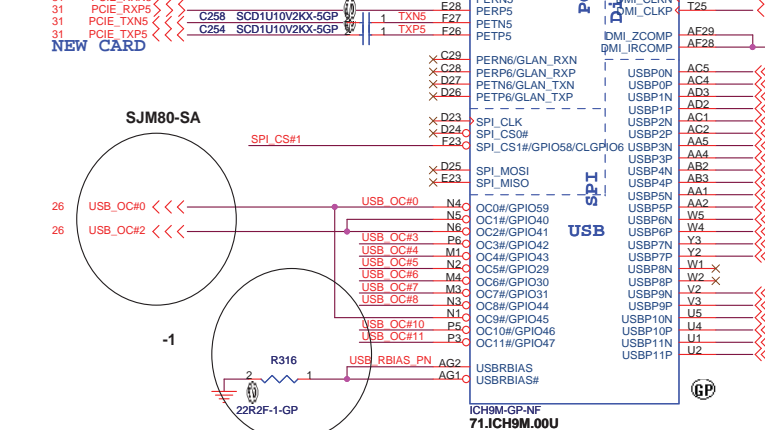
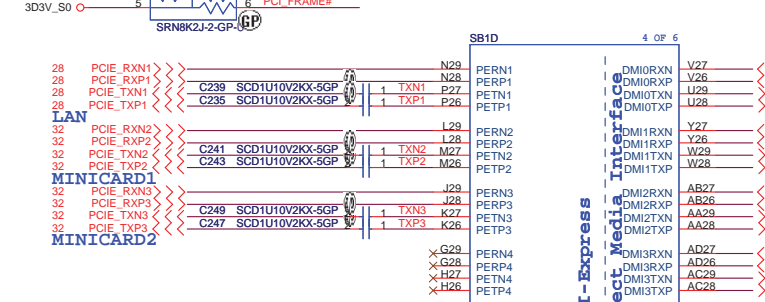
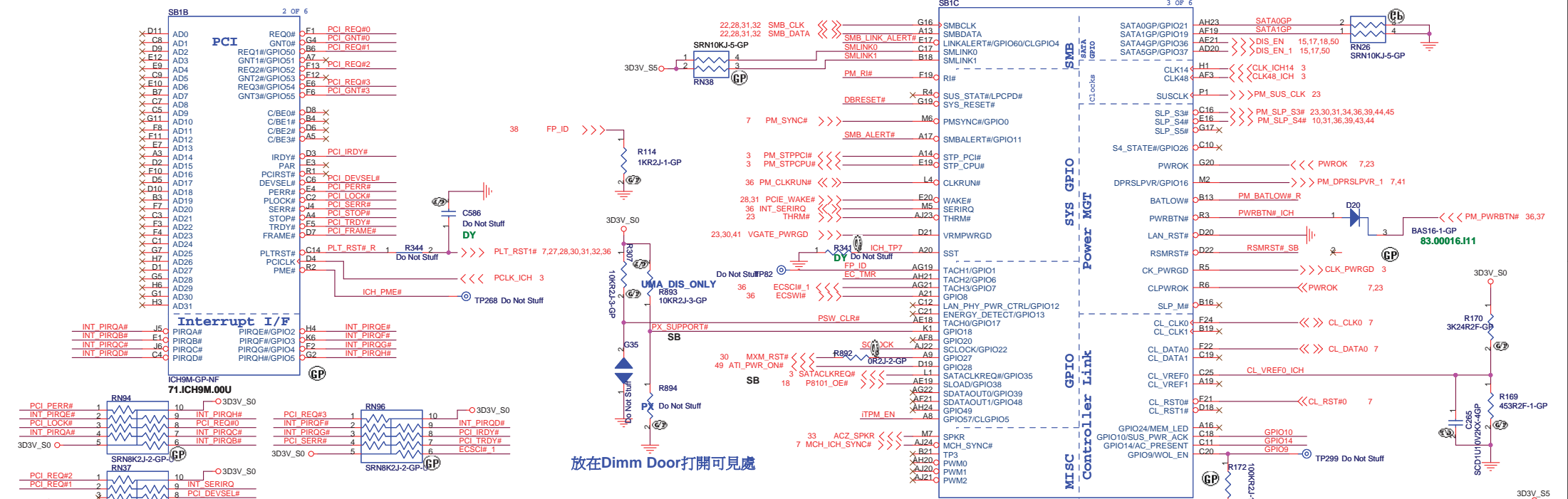
SJM80 UMA ONLY SB

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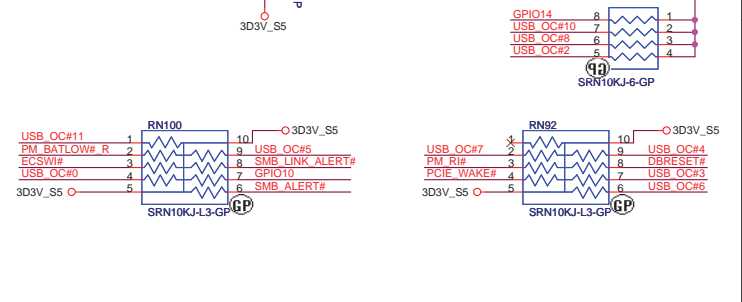
Title: **ICH9-M (1 of 4)**

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Pair	Device
0	USB2
1	USB3
2	USB4
3	MINI1 (WL)
4	CCD
6	FP
7	BT
8	NC
9	USB1
10	MINI2
11	CARD READER



**BOOT BIOS Strap**

PCI_GNT#0	SPI_CS#1	BOOT BIOS Location
0	1	SPT
1	0	PCI
1	1	EC(Default)

A16 swap override strap

PCI_GNT#3	low = A16 swap override enable
	high = default

**SJM80 UMA ONLY SB**

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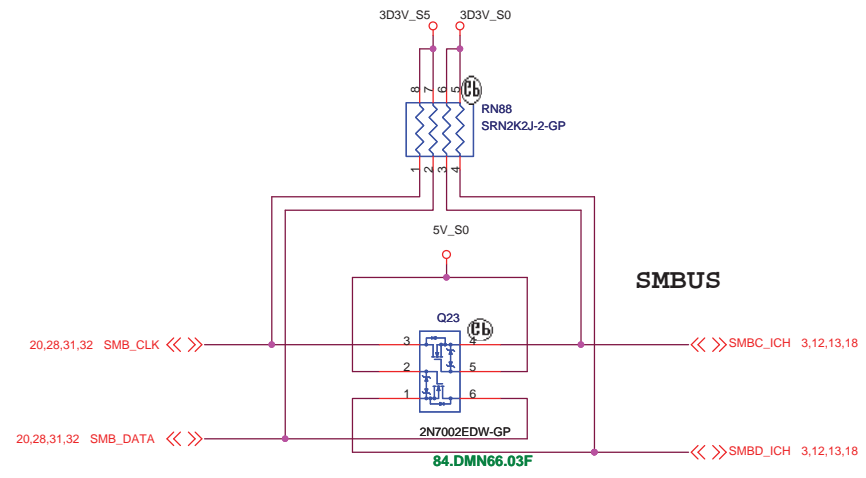
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title		<b>ICH9-M (2 of 4)</b>	
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SB1E		5 OF 6
AA26	VSS	H5
AA27	VSS	J23
AA3	VSS	J26
AA6	VSS	J27
AB1	VSS	AC22
AA23	VSS	K28
AB28	VSS	K29
AB29	VSS	L13
AB4	VSS	L15
AB5	VSS	L2
AC17	VSS	L26
AC26	VSS	L27
AC27	VSS	L5
AC3	VSS	L7
AD1	VSS	M12
AD10	VSS	M13
AD12	VSS	M14
AD13	VSS	M15
AD14	VSS	M16
AD17	VSS	M17
AD18	VSS	M23
AD21	VSS	M28
AD28	VSS	M29
AD29	VSS	N11
AD4	VSS	N12
AD5	VSS	N13
AD6	VSS	N14
AD7	VSS	N15
AD9	VSS	N16
AE12	VSS	N17
AE13	VSS	N18
AE14	VSS	N26
AE16	VSS	N27
AE17	VSS	P12
AE2	VSS	P13
AE20	VSS	P14
AE24	VSS	P15
AE3	VSS	P16
AE4	VSS	P17
AE6	VSS	P2
AE9	VSS	P23
AE13	VSS	P28
AE16	VSS	P29
AF18	VSS	P4
AF22	VSS	P7
AH26	VSS	R11
AF26	VSS	R12
AF27	VSS	R13
AF5	VSS	R14
AF7	VSS	R15
AF9	VSS	R16
AG13	VSS	R17
AG16	VSS	R18
AG18	VSS	R28
AG20	VSS	T12
AG23	VSS	T13
AG3	VSS	T14
AG6	VSS	T15
AG9	VSS	T16
AH12	VSS	T17
AH14	VSS	T23
AH17	VSS	B26
AH19	VSS	U12
AH2	VSS	U13
AH22	VSS	U14
AH25	VSS	U15
AH28	VSS	U16
AH5	VSS	U17
AH8	VSS	AD23
AJ12	VSS	U26
AJ17	VSS	U27
AJ8	VSS	U3
B11	VSS	V1
B14	VSS	V13
B17	VSS	V15
B2	VSS	V23
B20	VSS	V28
B23	VSS	V29
B5	VSS	V4
B8	VSS	V5
C26	VSS	W26
C27	VSS	W27
E11	VSS	W3
E14	VSS	Y1
E18	VSS	Y28
E2	VSS	Y29
E21	VSS	Y4
E24	VSS	Y5
E5	VSS	AG28
E8	VSS	AH6
F18	VSS	AF2
F28	VSS	B25
F29	VSS	
G12	VSS	
G14	VSS	
G18	VSS	
G21	VSS	
G24	VSS	
G26	VSS	
G27	VSS	
G8	VSS	
H2	VSS	
H23	VSS	
H29	VSS	

NCTF TEST PIN:		
A1, A2, B1, A26, A29, B30	NCTF_VSS#A1	A1 TP195 Do Not Stuff
AH1, AH11, AH17, AH27, AH28, AH29	NCTF_VSS#A2	A2 TP194 Do Not Stuff
	NCTF_VSS#B1	B1 TP190 TPAD14-GP
	NCTF_VSS#A29	A29 TP193 Do Not Stuff
	NCTF_VSS#A28	A28 TP197 Do Not Stuff
	NCTF_VSS#B29	B29 TP191 Do Not Stuff
	NCTF_VSS#B29	AJ1 TP313 Do Not Stuff
	NCTF_VSS#AJ1	AJ2 TP314 Do Not Stuff
	NCTF_VSS#AJ2	AH1 TP174 Do Not Stuff
	NCTF_VSS#AH1	AJ28 TP315 Do Not Stuff
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	NCTF_VSS#AH29	



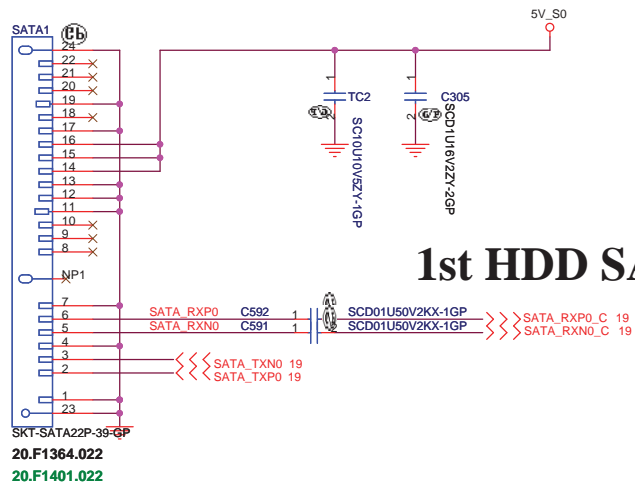
ICH9M-GP-NF  
71.ICH9M.00U

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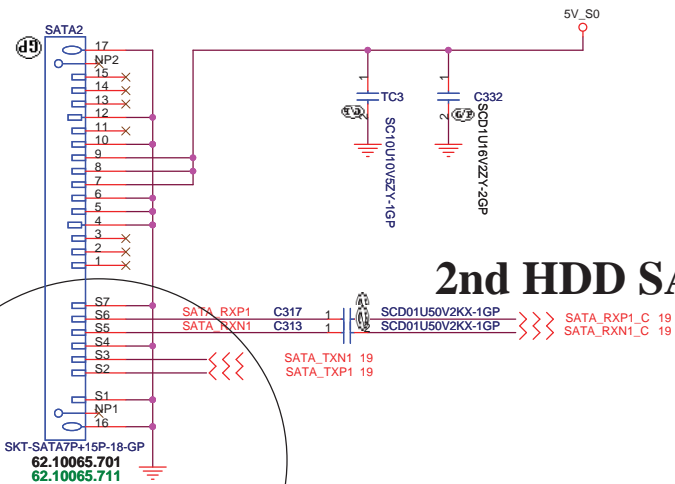
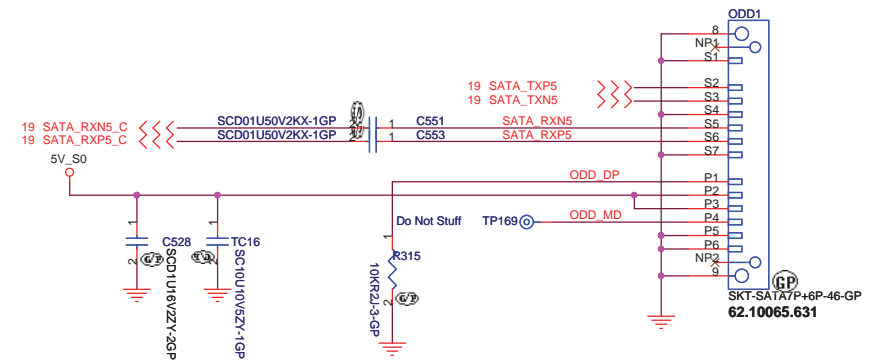
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Title		<b>ICH9-M (4 of 4)</b>	
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## SATA ODD Connector



SB 不打Main source

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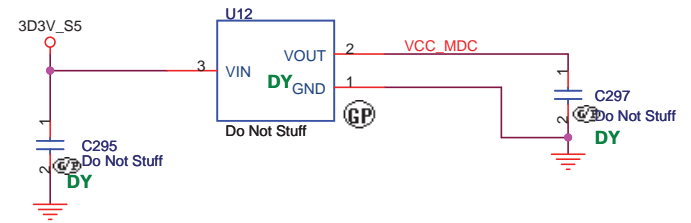
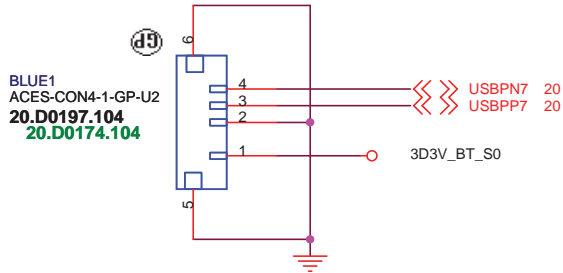
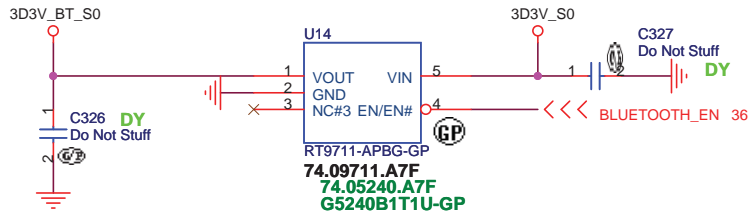
緯創資通 Wistron Corporation  
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Taipei Hsien 221, Taiwan, R.O.C.

Title		
<b>HDD &amp; ODD</b>		
Size	Document Number	Rev
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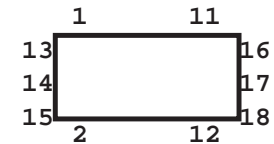
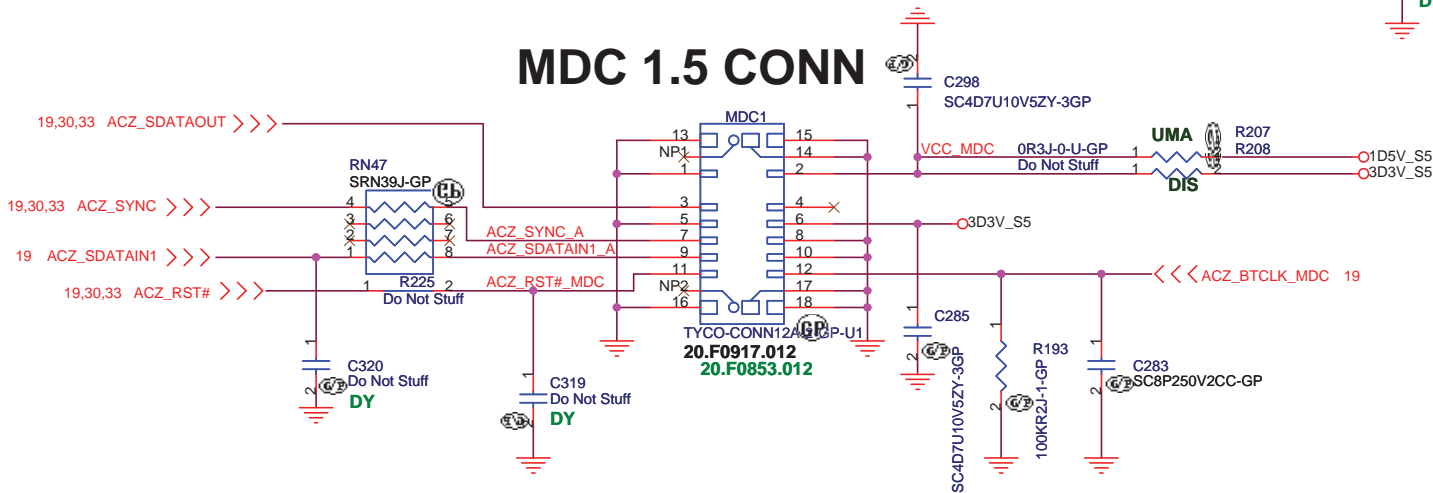


# BLUETOOTH MODULE


1.5A / High Active Voltage 2V

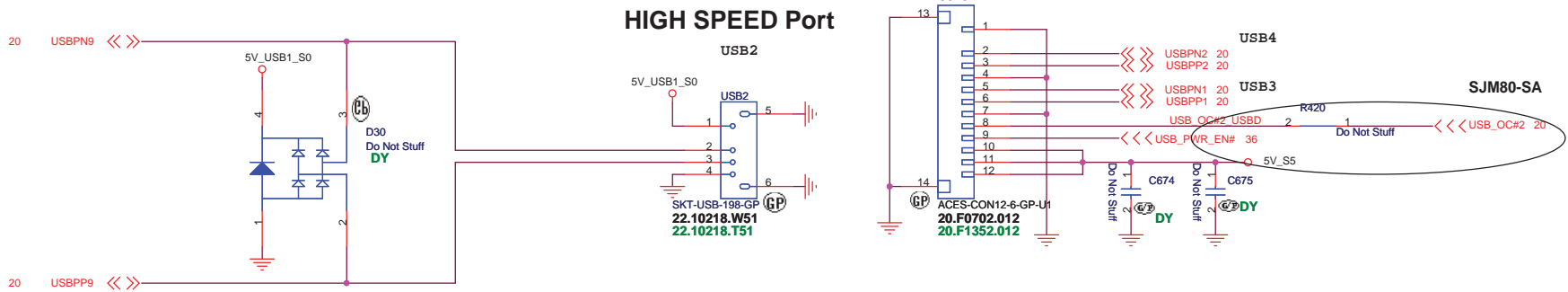
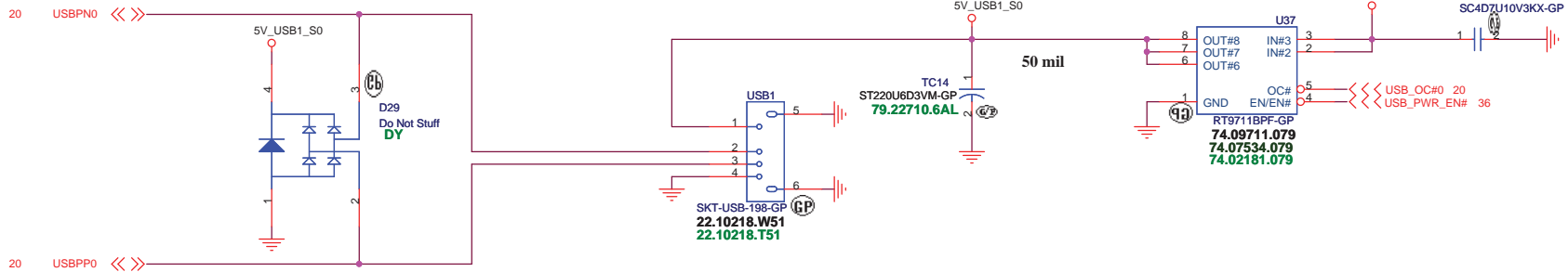


## MDC 1.5 CONN

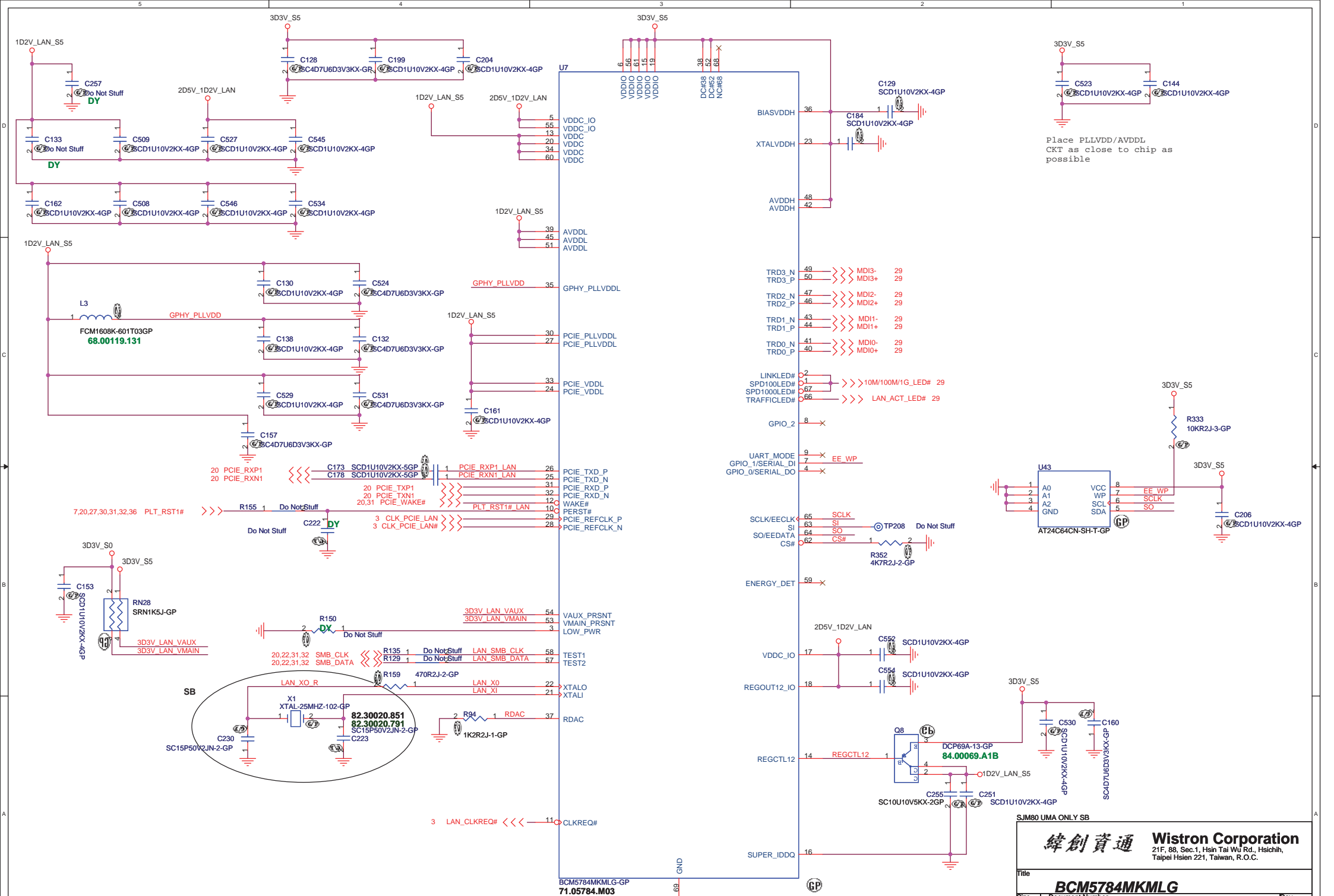


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<b>BLUETOOTH &amp; MDC</b>	
Size	Document Number
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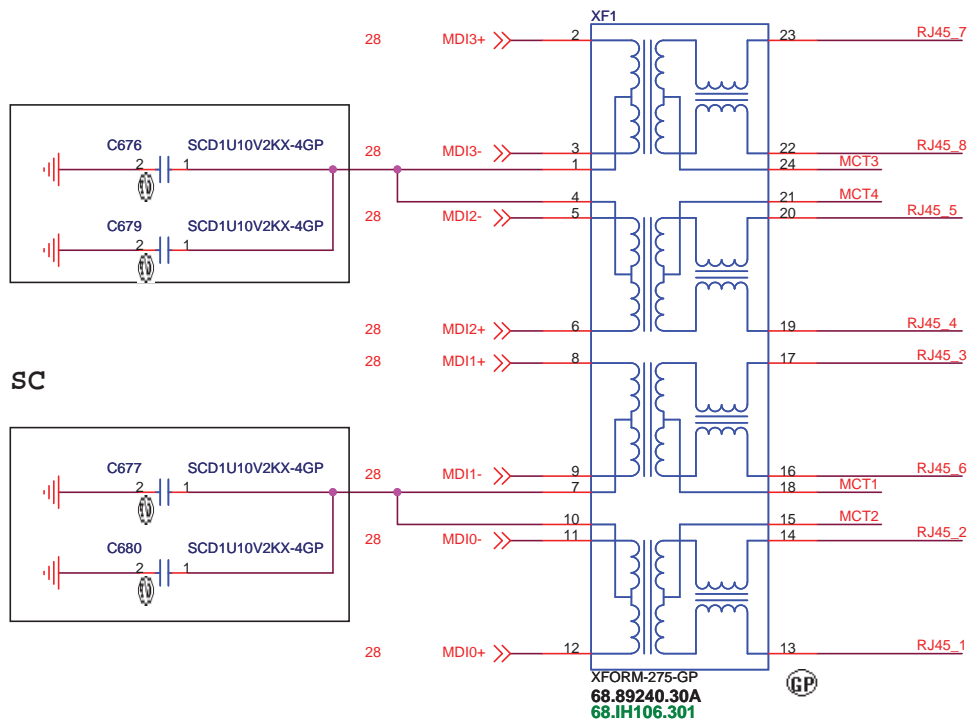
Place PLLVDD/AVDDL  
CKT as close to chip as  
possible

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Title		<b>BCM5784MKMLG</b>	
Size	Document Number	Rev	
A3	<b>SJM80/JV80</b>	<b>-1</b>	
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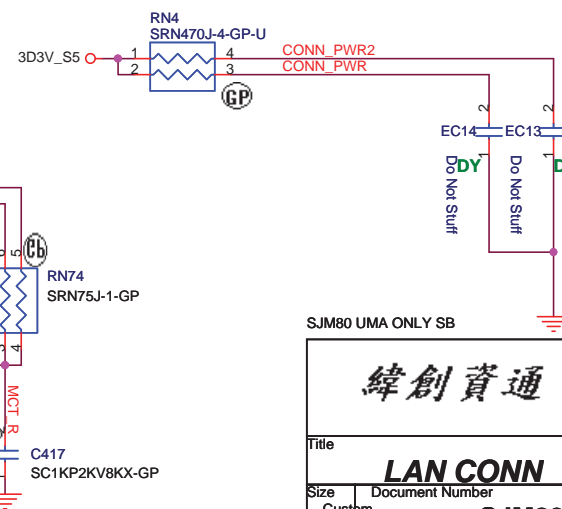
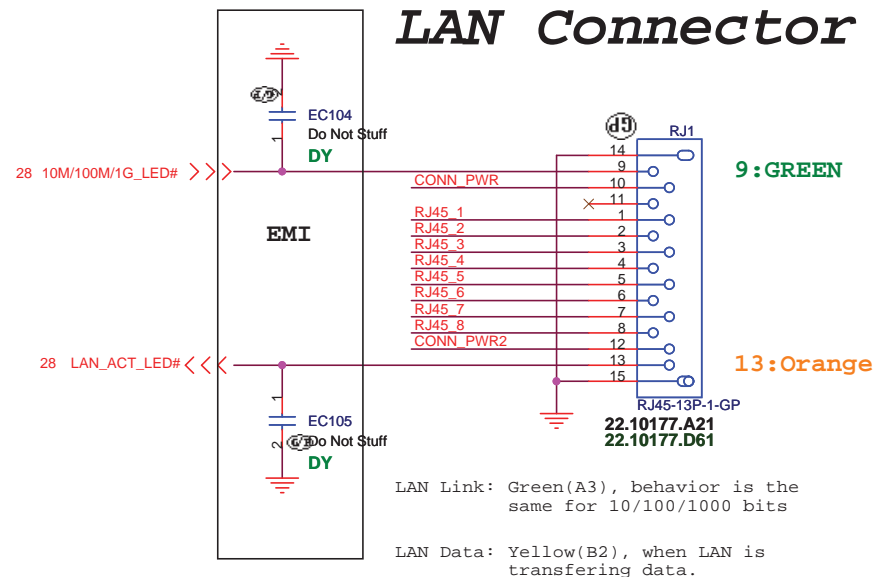
# LAN Connector

- 1.route on bottom as differential pairs.
- 2.Tx+/Tx- are pairs. Rx+/Rx- are pairs.
- 3.No vias, No 90 degree bends.
- 4.pairs must be equal lengths.
- 5.6mil trace width, 12mil separation.
- 6.36mil between pairs and any other trace.
- 7.Must not cross ground moat,except RJ-45 moat.



SC

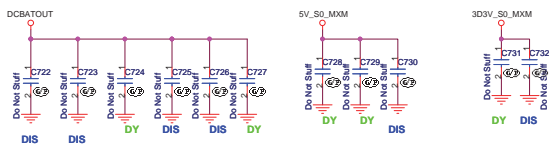
# LAN Connector



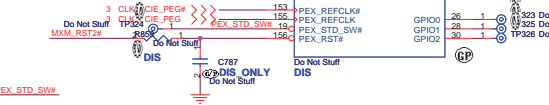
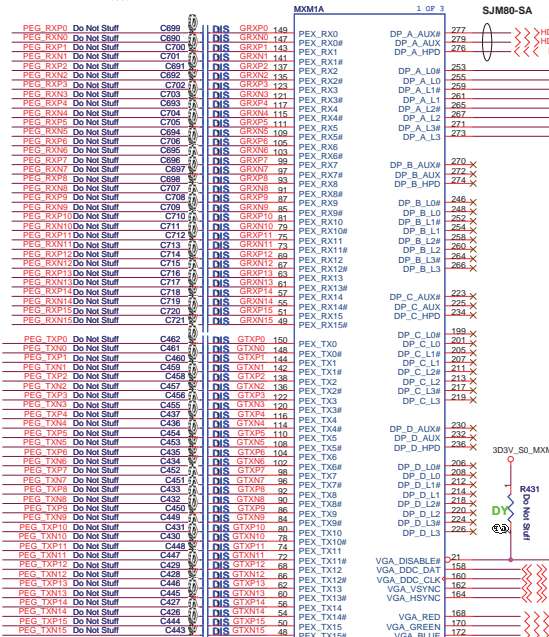
SJM80 UMA ONLY SB

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>LAN CONN</b>			
Size	Document Number	Rev	
Custom	<b>SJM80/JV80</b>	<b>-1</b>	
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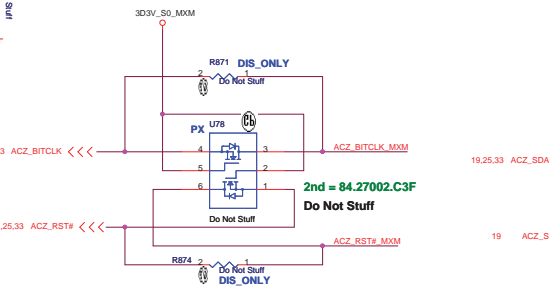
PX Function



7 PEG\_TXP1[15..0] <<< DIS  
7 PEG\_TXN[15..0] <<< DIS  
7 PEG\_RXP1[15..0] <<< DIS  
7 PEG\_RXN[15..0] <<< DIS

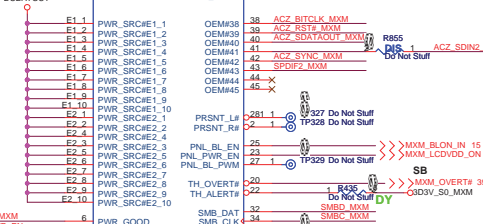
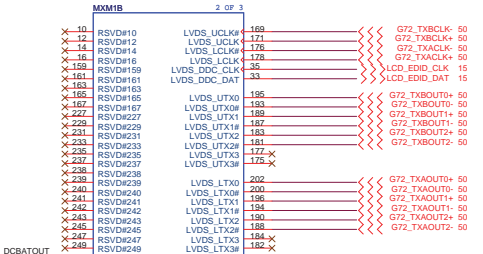
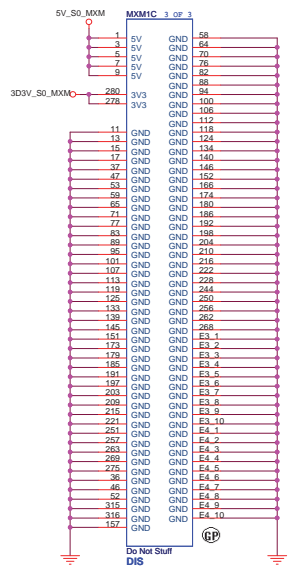


PX Function

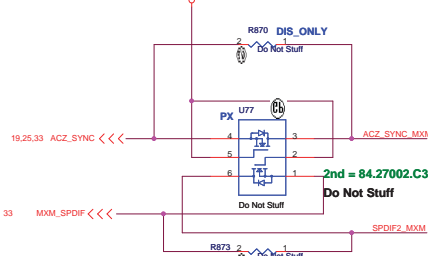


<http://laptop-motherboard-schematic.blogspot.com/>

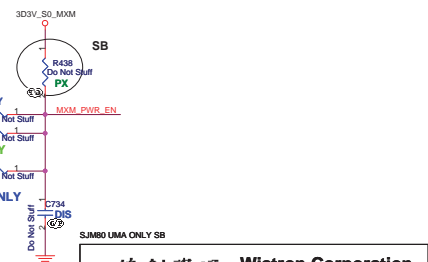
PX Function



PX Function



PX Function

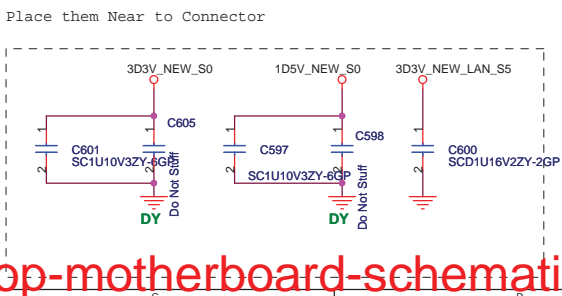
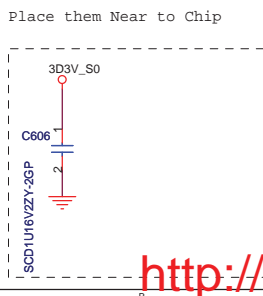
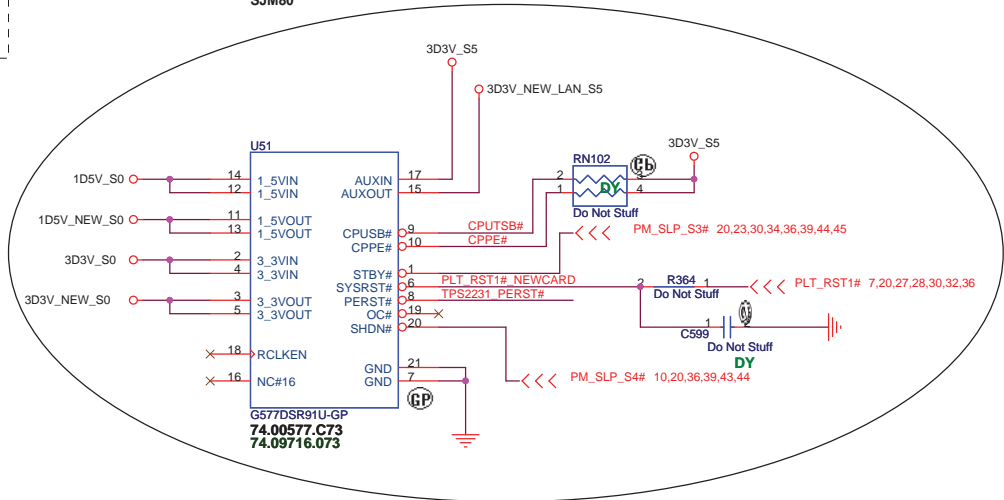
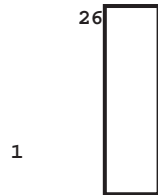
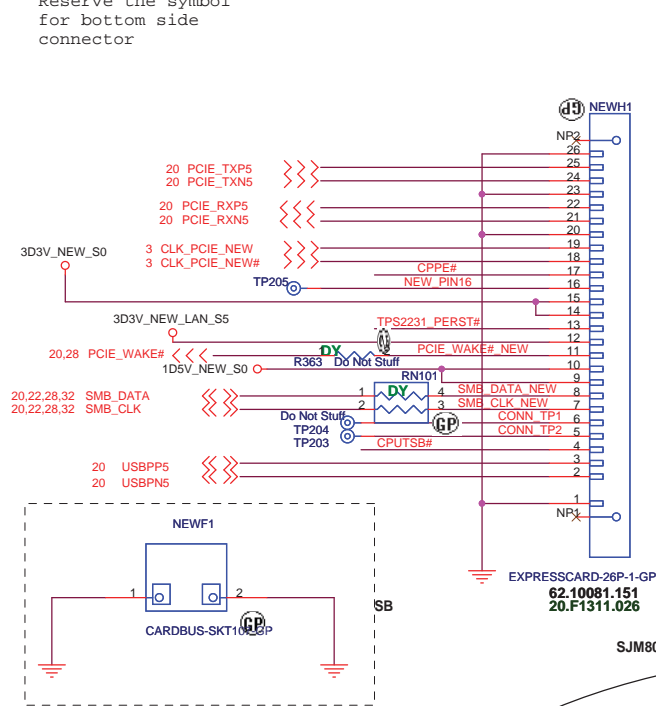


Wistron Corporation  
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsein 221, Taiwan, R.O.C.  
File: Graphic MXM CONN  
Size: A2 Document Number: SJM80/JV80 Rev: 1  
Date: Monday, May 25, 2009 Sheet: 30 of 91

# NEWCARD Connector

Reserve the symbol for bottom side connector

## TOP VIEW



SJM80 UMA ONLY SB

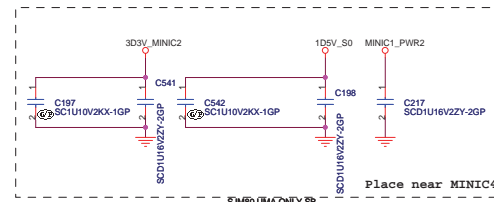
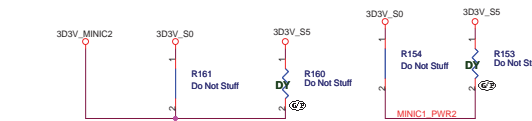
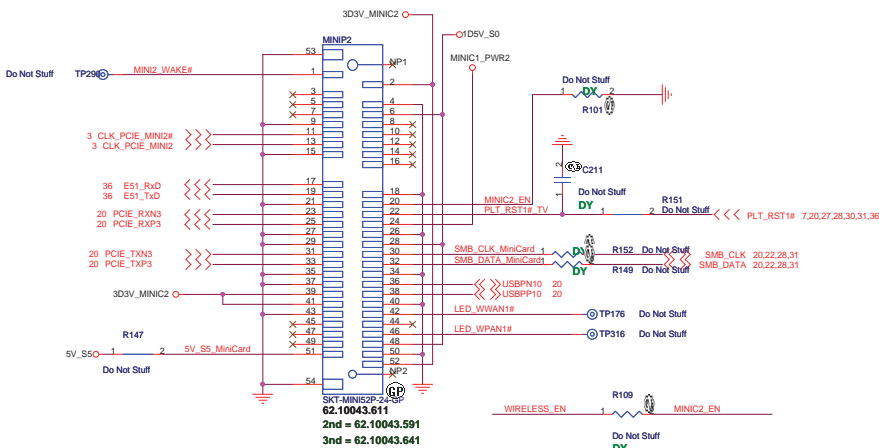
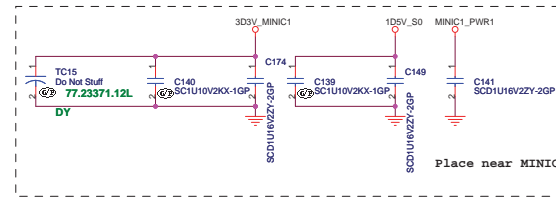
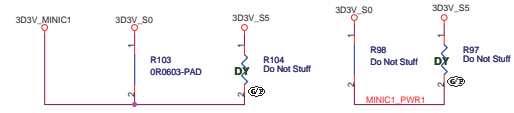
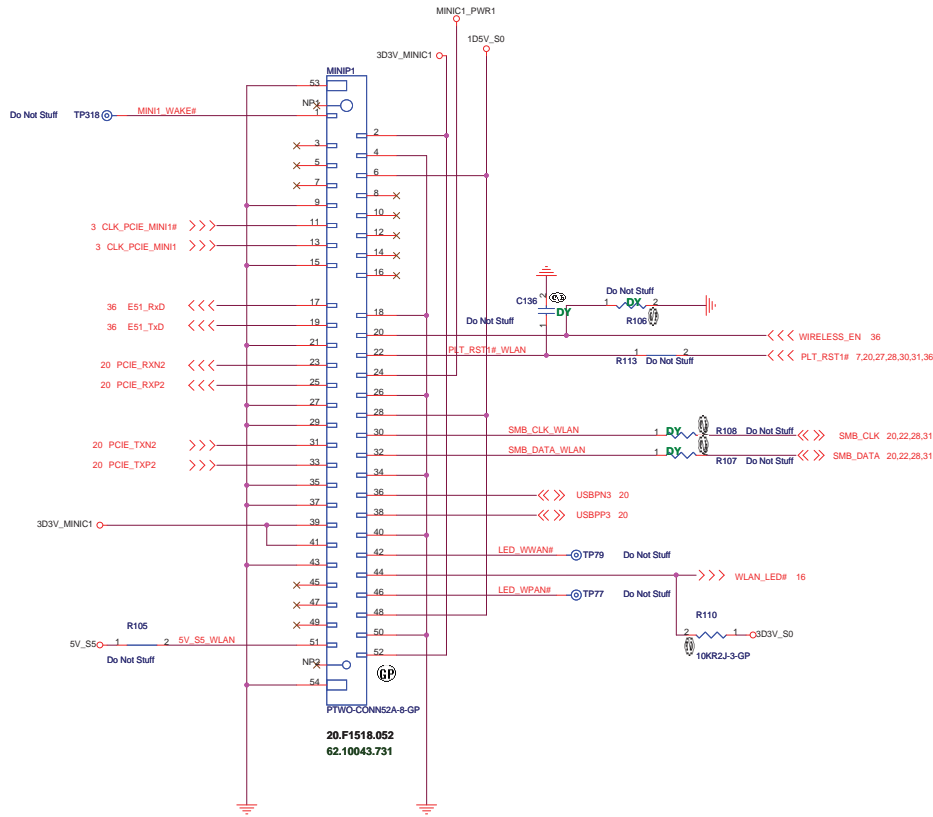
**緯創資通 Wistron Corporation**  
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **NEW CARD**

Size: Document Number: **SJM80/UV80** Rev: **-1**

Date: Mar 18, 11 12/25/2010 Page: 31 of 51

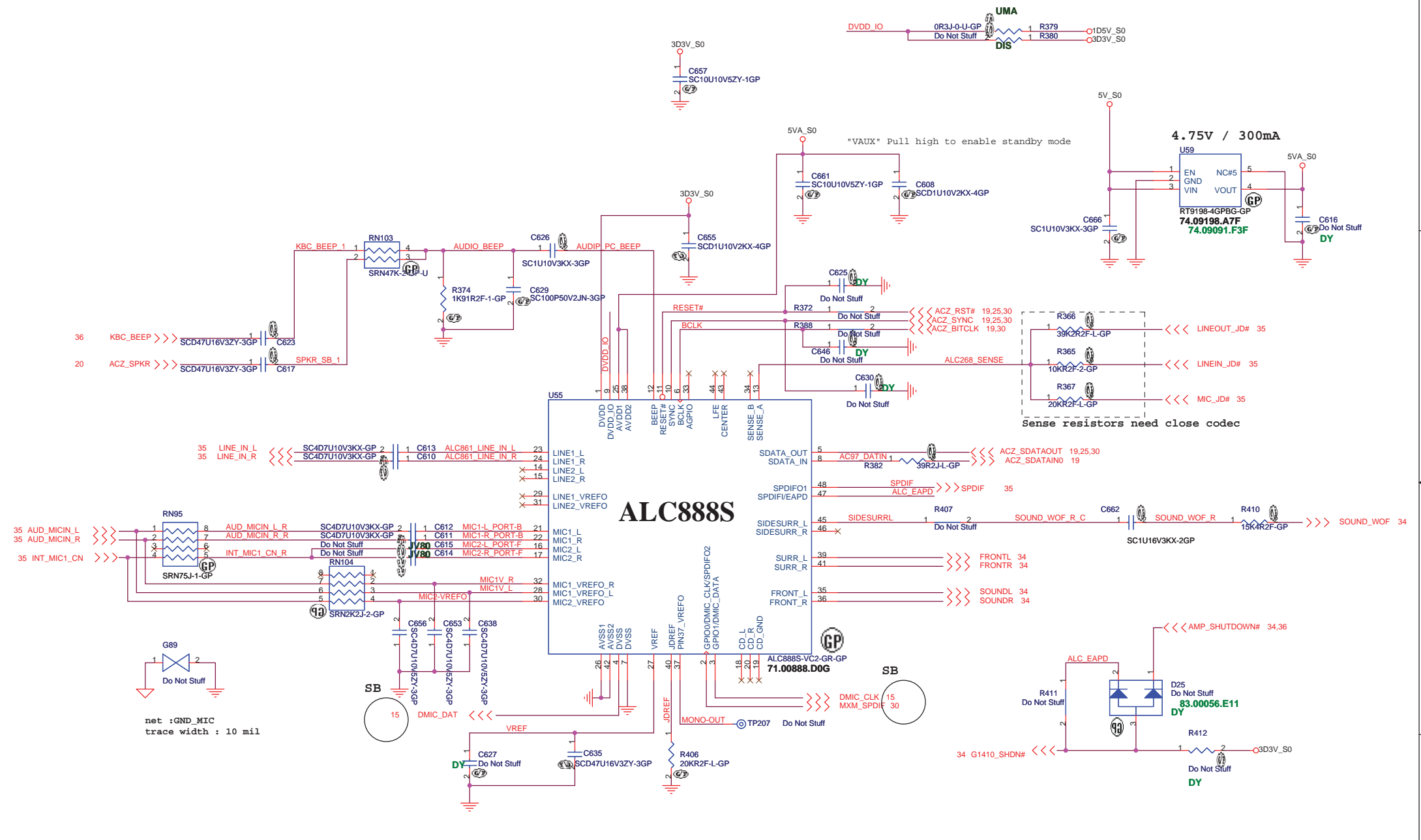
# Mini Card Connector(WLAN)



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

Title		MINI CARD	
Size	Document Number	Rev	
Customer	W1073180		-1
Rev	1	Rev	51





net :GND\_MIC  
trace width : 10 mil

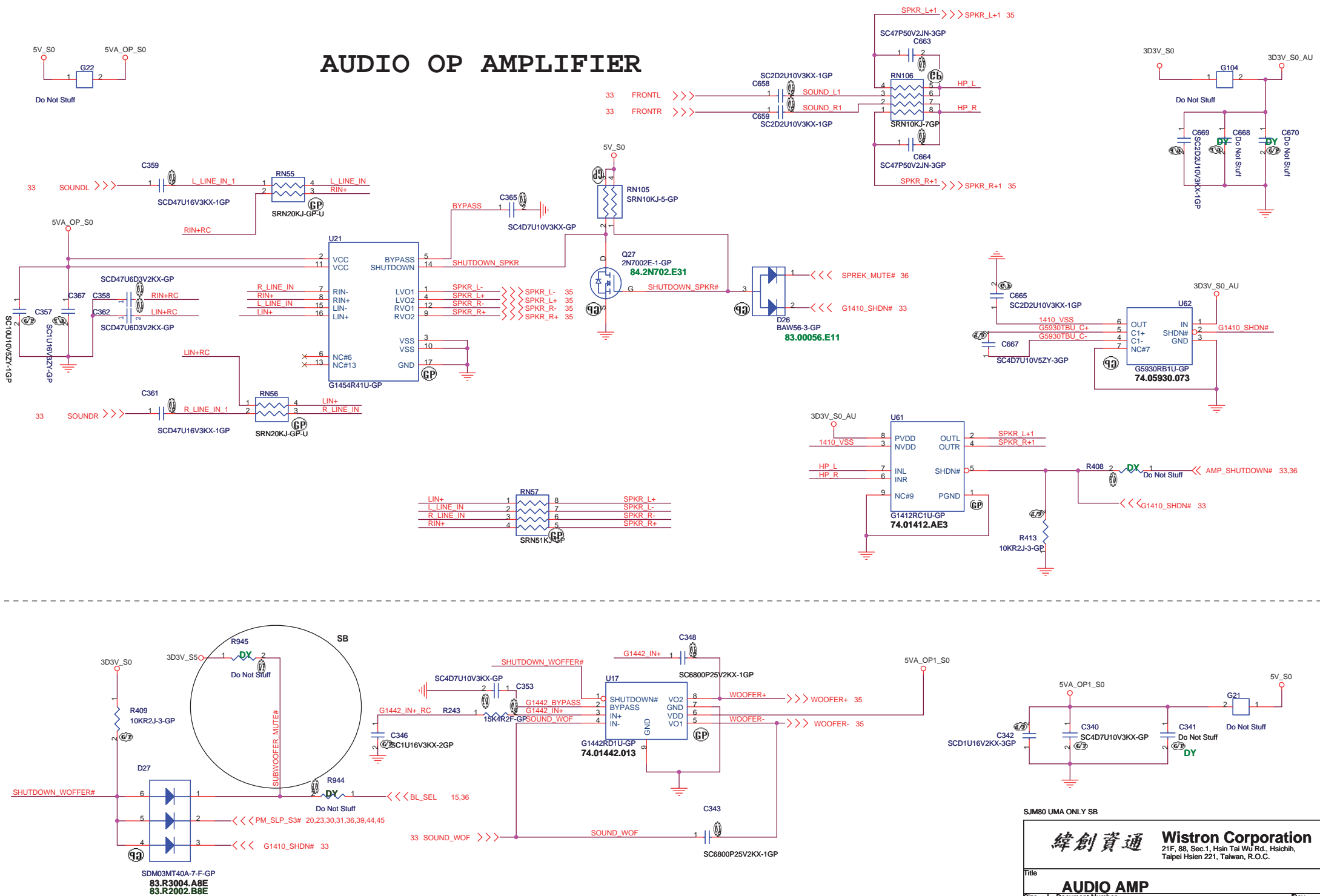
SJM80 UMA ONLY SB

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

Title: **Azalia codec ALC888**

Size A3	Document Number	Rev
	<b>SJM80/JV80</b>	<b>-1</b>
Date: Monday, May 25, 2009	Sheet 33 of 51	

# AUDIO OP AMPLIFIER



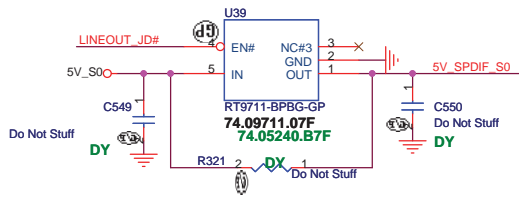
SJM80 UMA ONLY SB

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

Title: **AUDIO AMP**

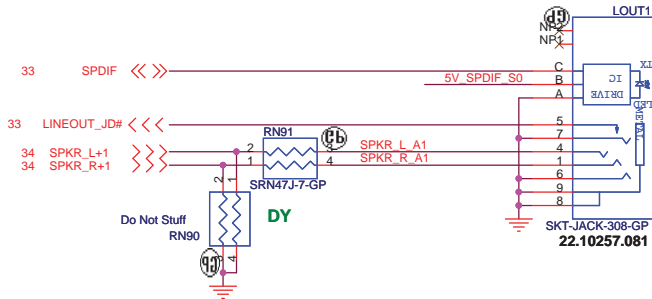
Size: Document Number: **SJM80/JV80** Rev: -1

Date: Monday, May 25, 2009 Sheet: 34 of 51

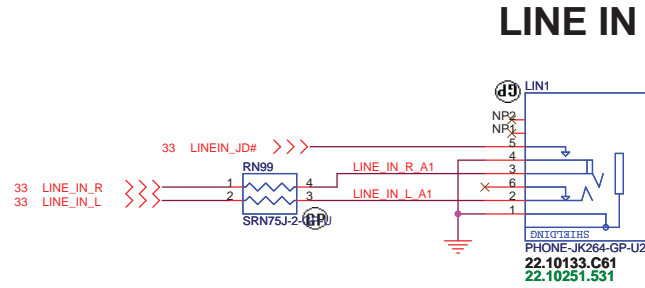
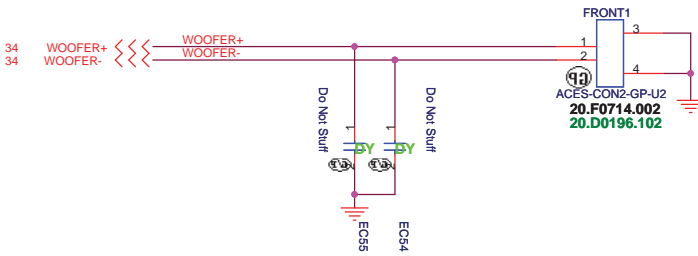


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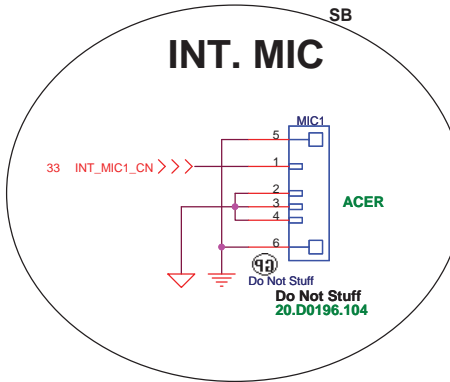
Delete 2nd source



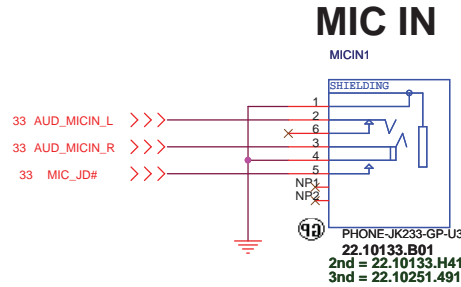
## SUBWOOFER



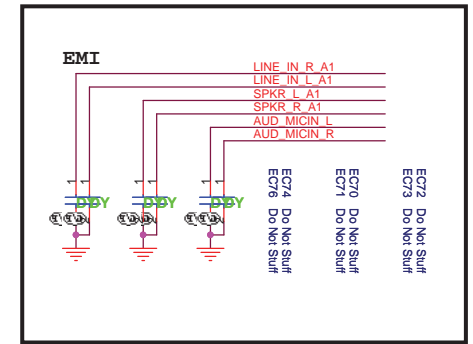
## LINE IN



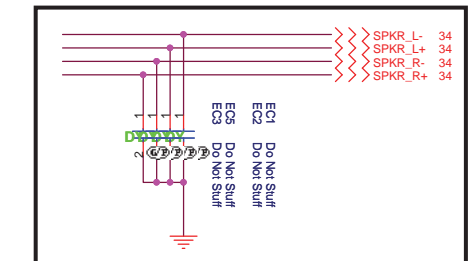
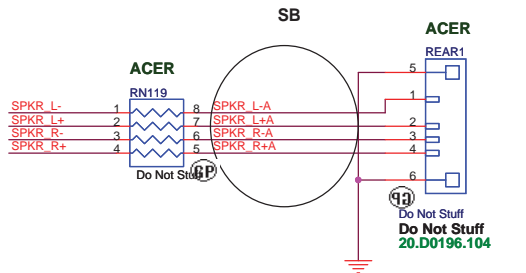
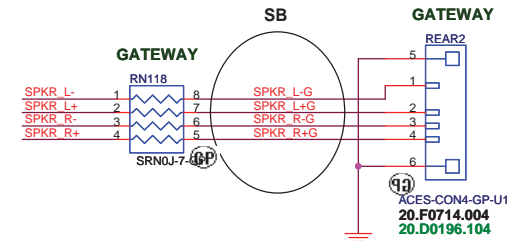
## INT. MIC



## MIC IN



## REAR Speaker

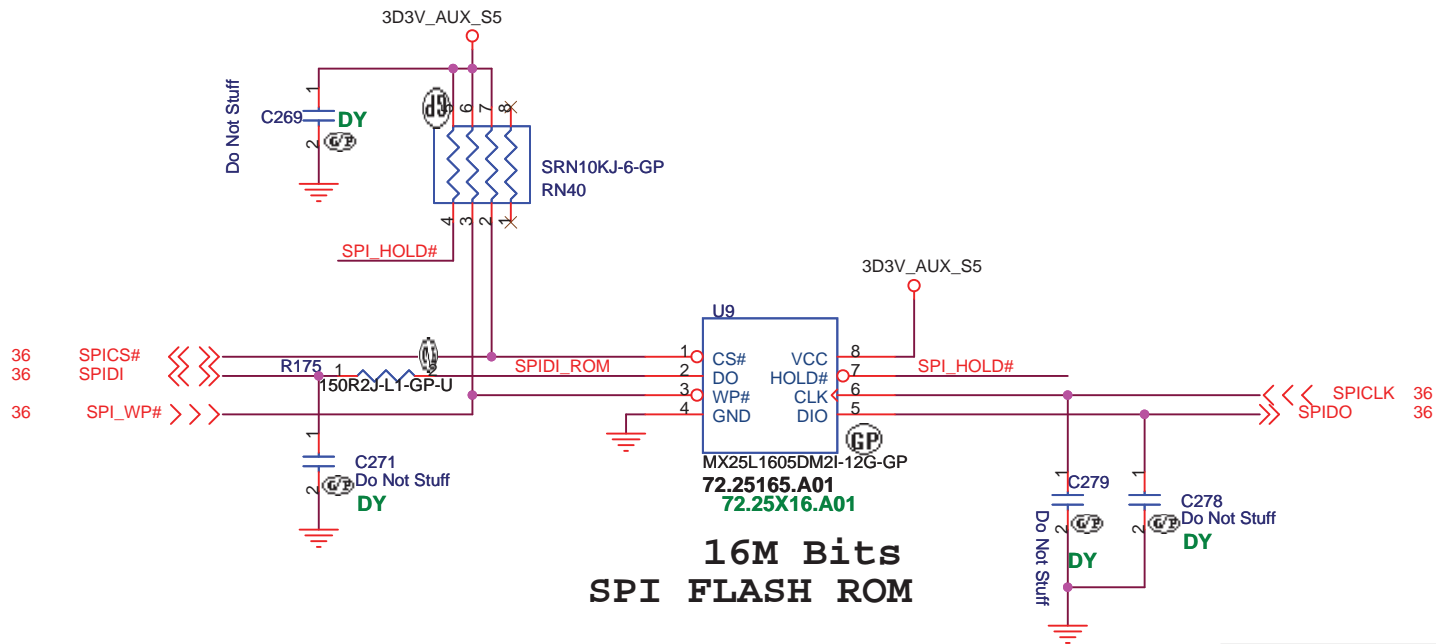


SJM80 UMA ONLY SB

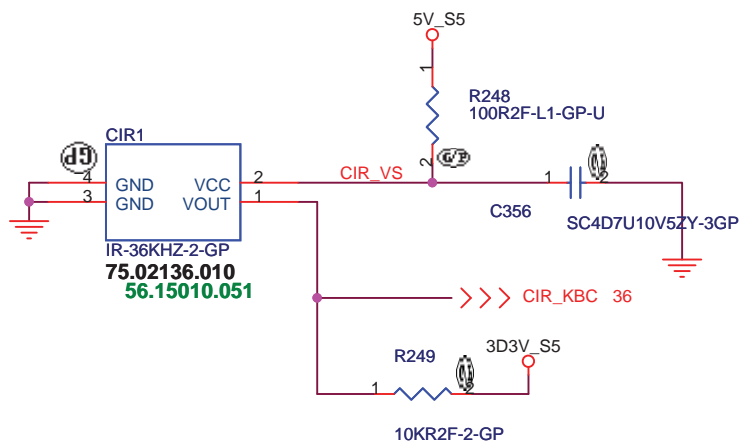
緯創資通 Wistron Corporation  
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,  
Taipei Hsien 221, Taiwan, R.O.C.

Title		AUDIO JACK	
Size	Document Number	SJM80/JV80	Rev -1
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## CIR Module



### Check test point

- 3D3V\_S0 ○ ———— ⊙ TP202 TPAD14-GP
- 3D3V\_AUX\_S5 ○ ———— ⊙ TP141 Do Not Stuff
- 3D3V\_S5 ○ ———— ⊙ TP120 Do Not Stuff
- 5V\_S5 ○ ———— ⊙ TP130 Do Not Stuff
- 20,36 PM\_PWRBTN# <<< ———— ⊙ TP115 Do Not Stuff
- 4,19,39 H\_PWRGD <<< ———— ⊙ TP320 Do Not Stuff
- 36,39 S5\_ENABLE <<< ———— ⊙ TP110 Do Not Stuff
- 4,6 H\_CPURST# <<< ———— ⊙ TP278 Do Not Stuff

Test Point 放在 Dimm Door 打開可量測處

SJM80 UMA ONLY SB

緯創資通

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Title

**BIOS**

Size Document Number

**SJM80/JV80**

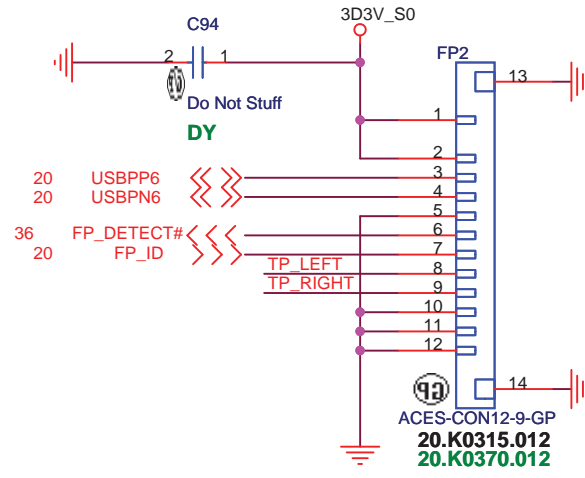
Rev

-1

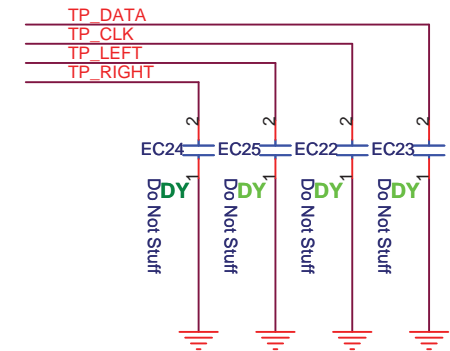
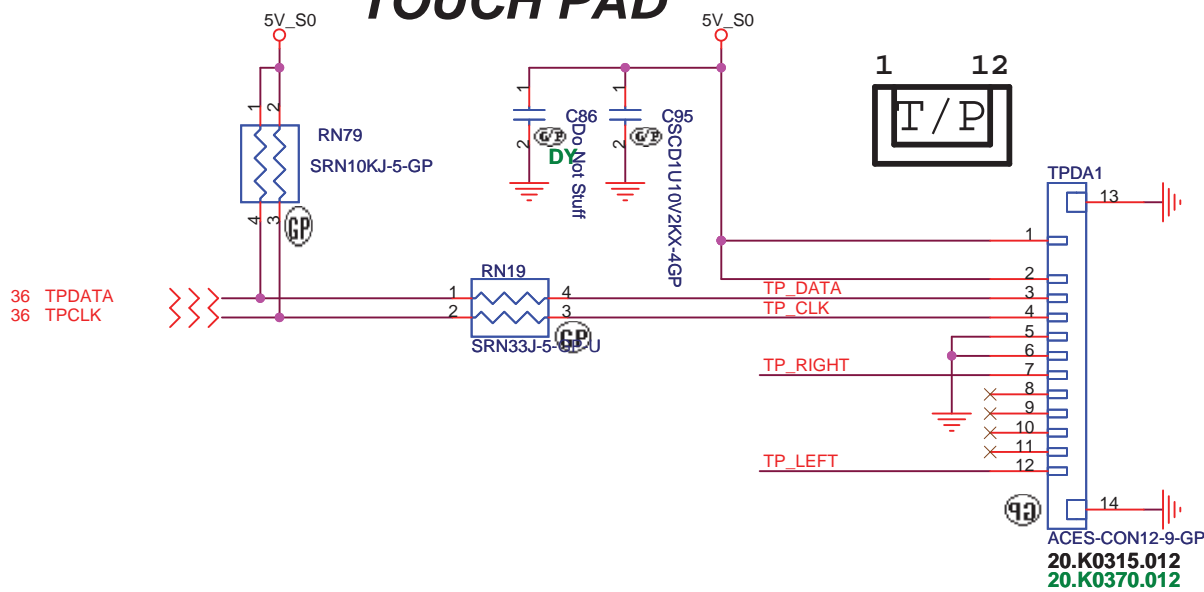
Date: Monday, May 25, 2009

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# Finger printer



# TOUCH PAD

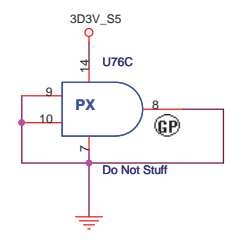
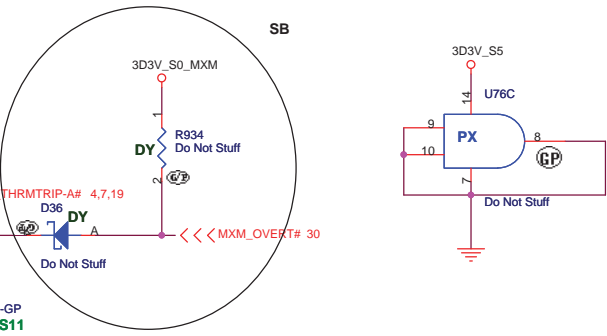
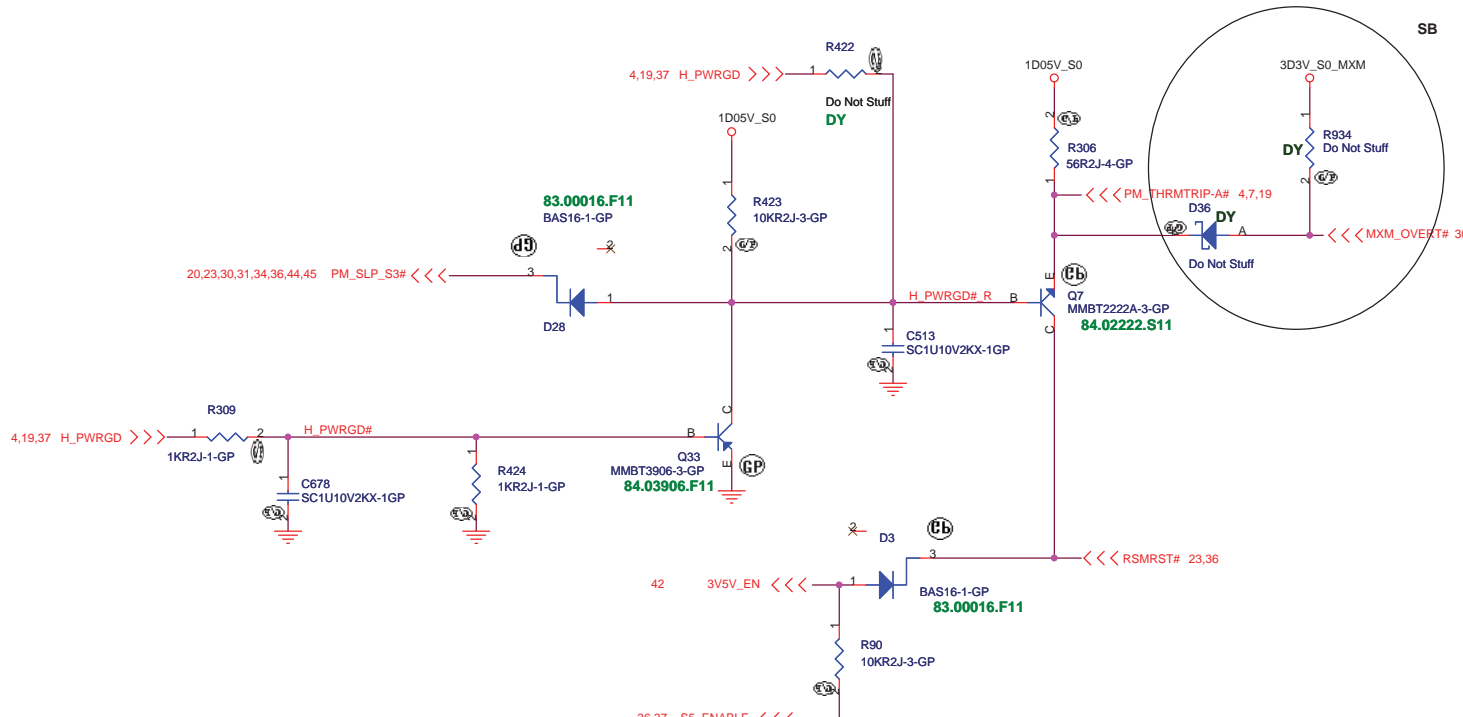
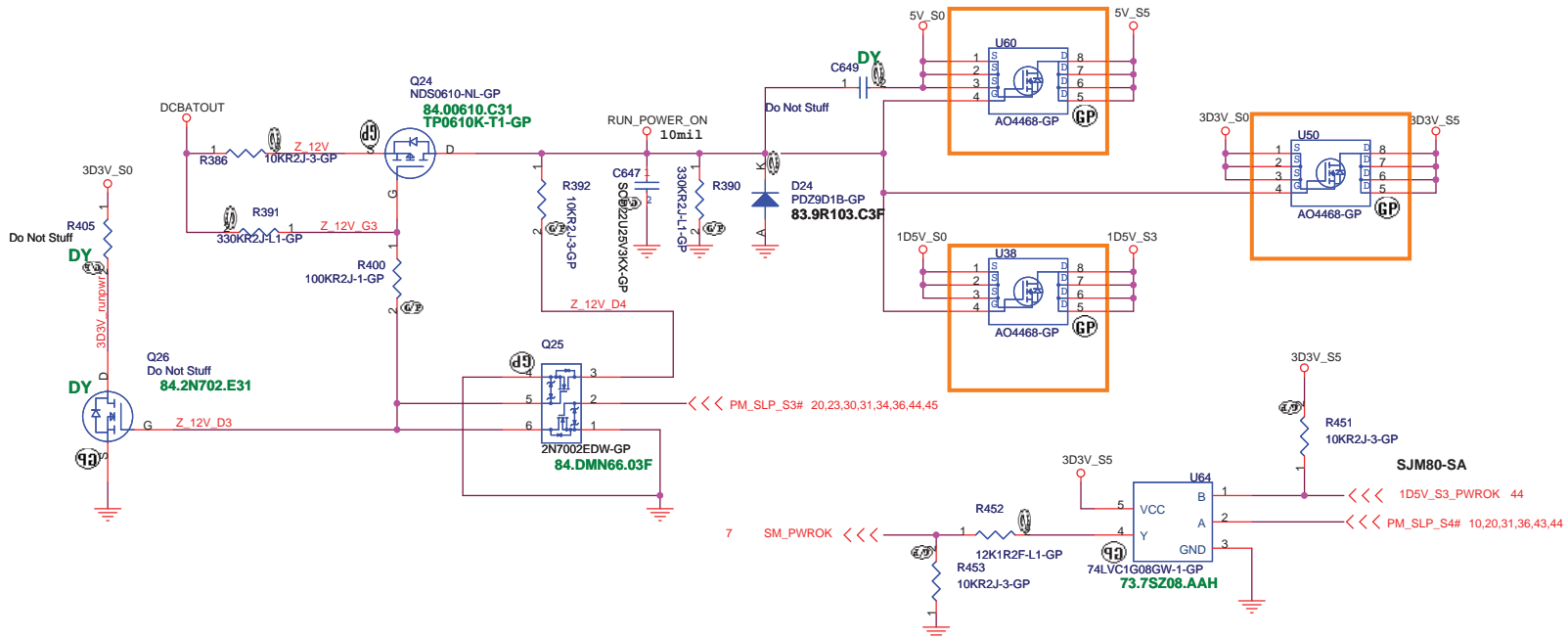


SJM80 UMA ONLY SB


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 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,  
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<b>Finger Printer and Touch PAD</b>		
Title	Document Number	Rev
	<b>SJM80/JV80</b>	<b>-1</b>
Size A4	Date: Monday, May 25, 2009	Sheet 38 of 51

# Run Power

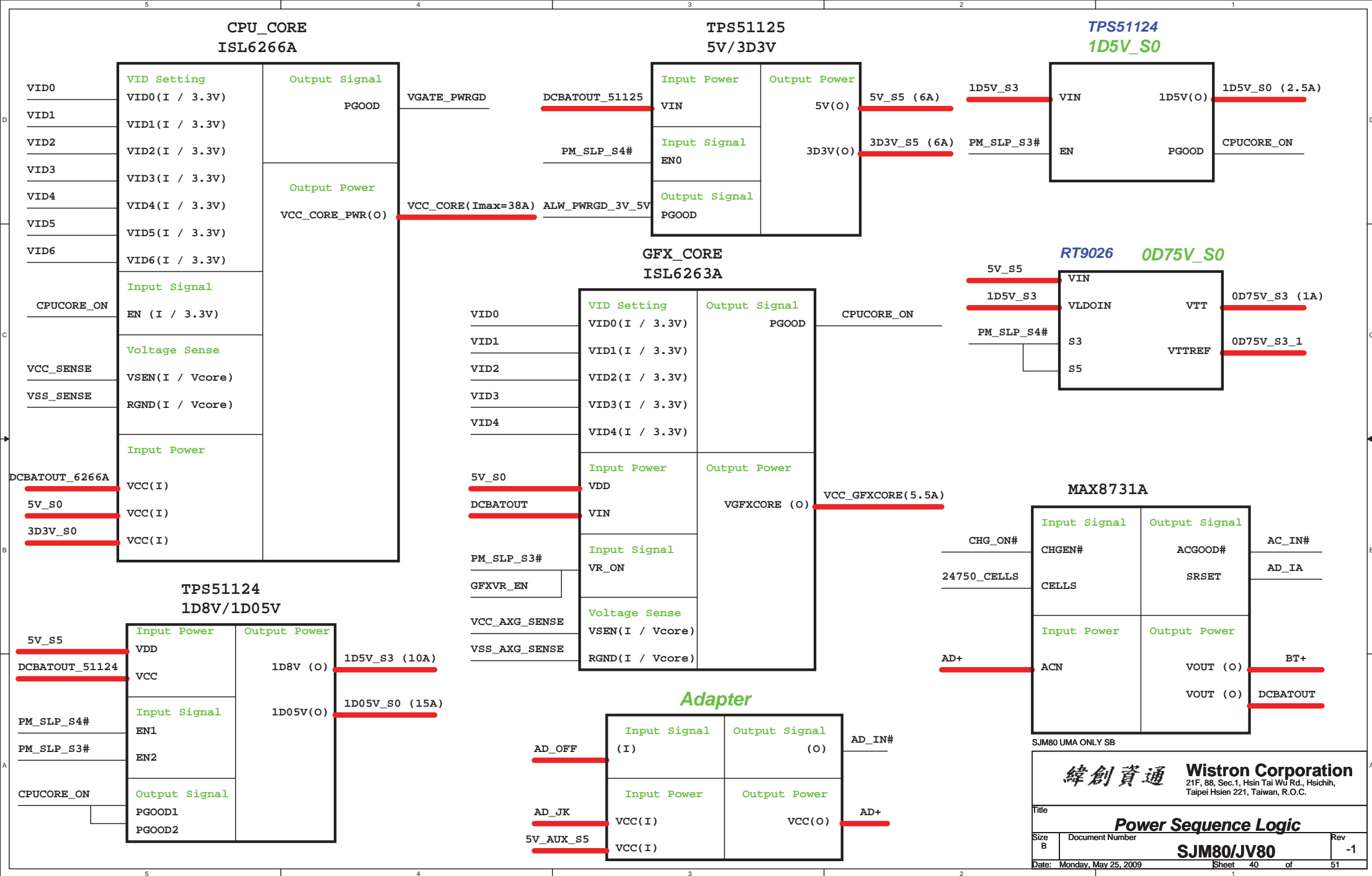


SJM80 UMA ONLY SB

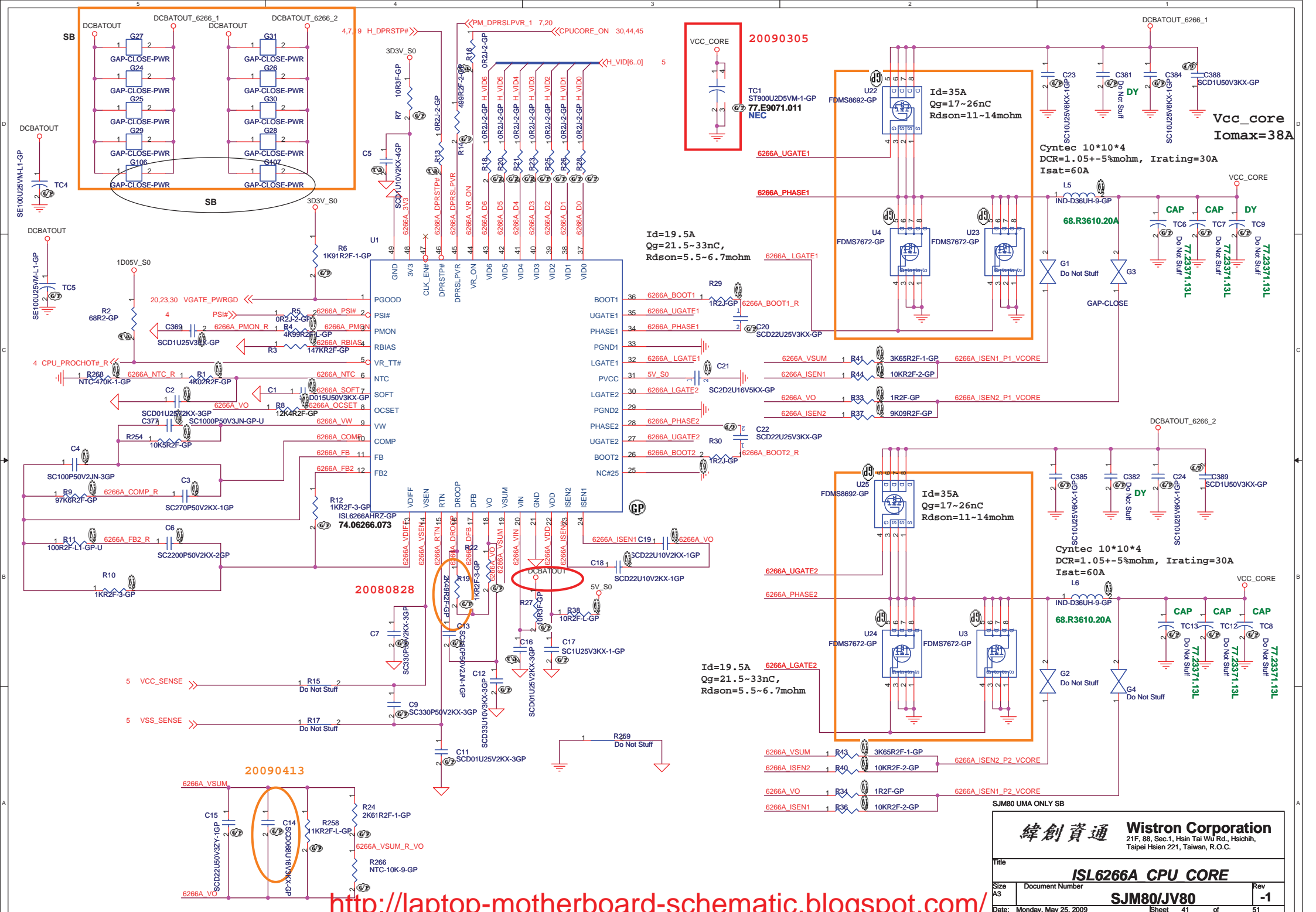
緯創資通 Wistron Corporation  
21F, 88, Sec.1, Hsin Tai WJ Rd., Hsichih,  
Taipei Hsien 221, Taiwan, R.O.C.

Title		
<b>RUN POWER</b>		
Size	Document Number	Rev
	<b>SJM80/JV80</b>	-1
Date: Monday, May 25, 2009	Sheet 39	of 51

<http://laptop-motherboard-schematic.blogspot.com/>







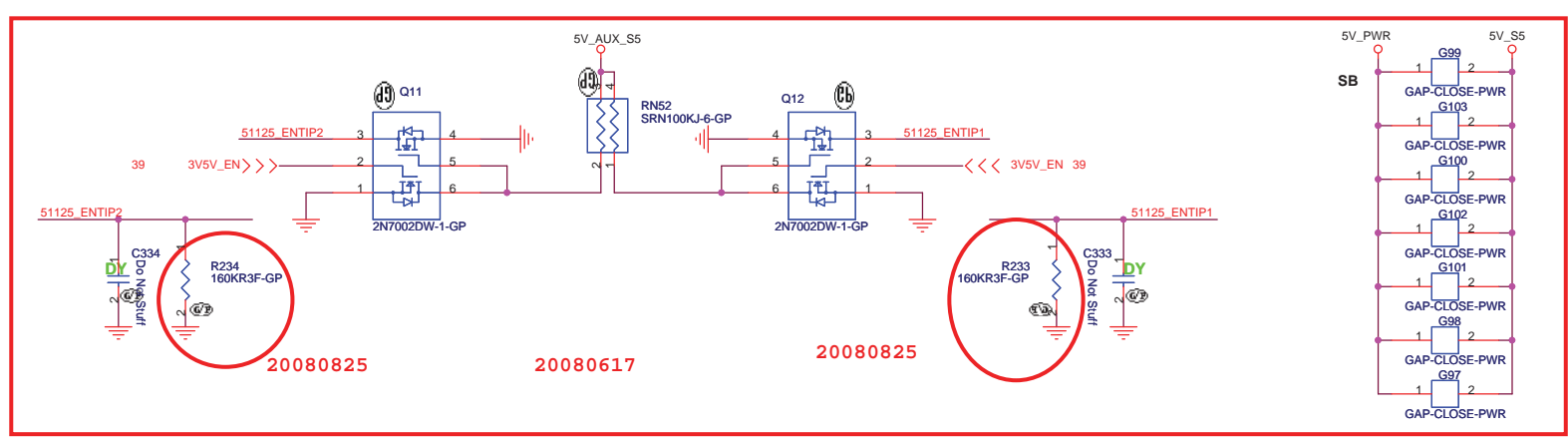
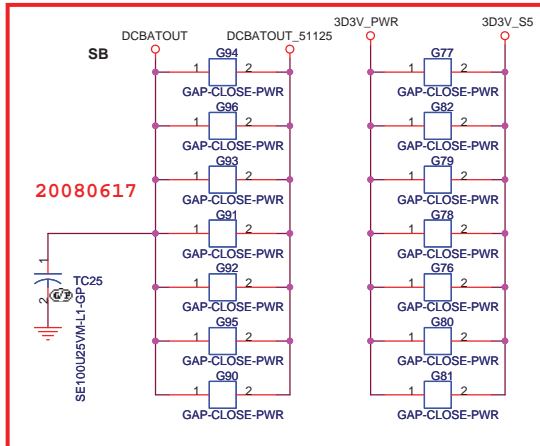
<http://laptop-motherboard-schematic.blogspot.com/>

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

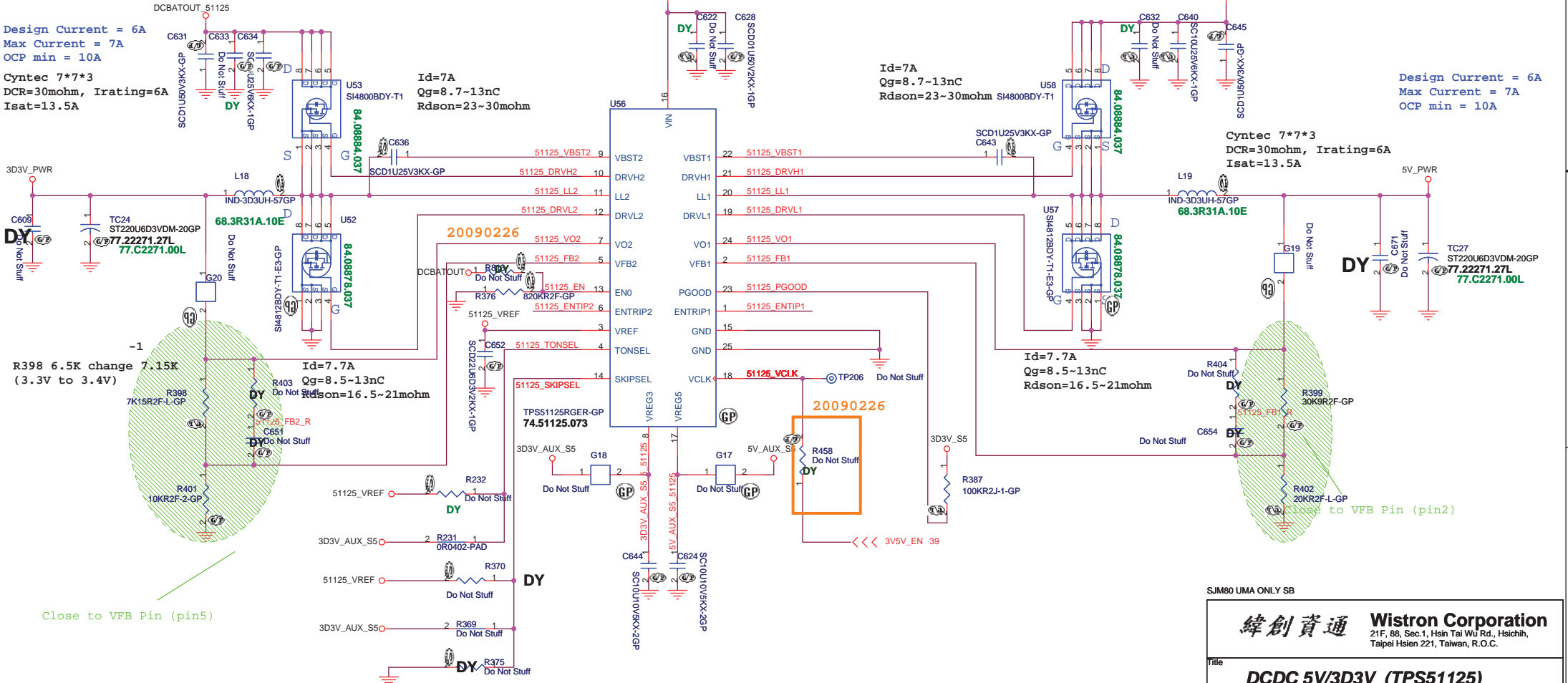
Title: **ISL6266A CPU CORE**

Size A3 Document Number: **SJM80/JV80** Rev: **-1**

Date: Monday, May 25, 2009 Sheet 41 of 51



Design Current = 6A  
 Max Current = 7A  
 OCP min = 10A  
 Cyntec 7\*7\*3  
 DCR=30mohm, Irating=6A  
 Isat=13.5A



<http://laptop-motherboard-schematic.blogspot.com/>

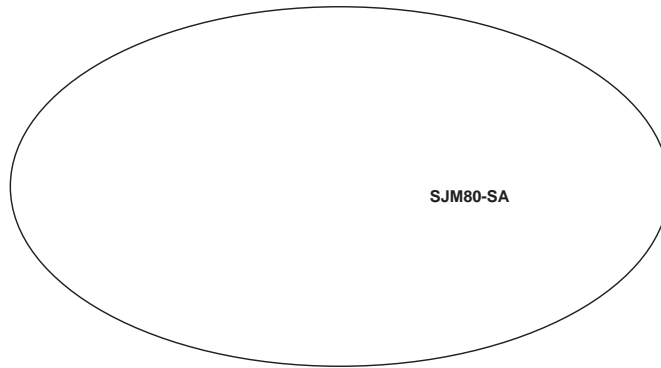
SJM80 UMA ONLY SB

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

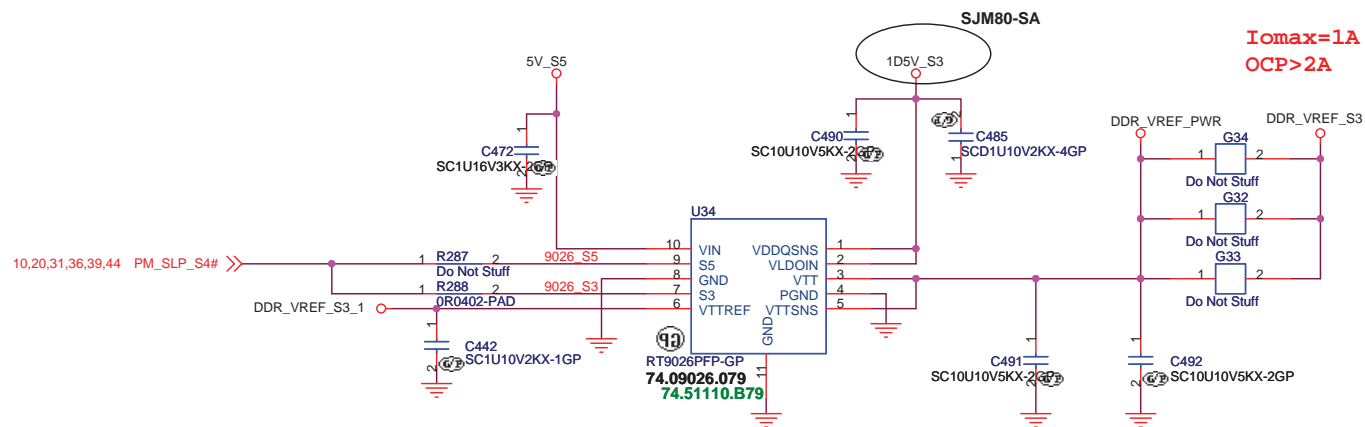
Title: **DCDC 5V/3D3V (TPS51125)**

Size A3 Document Number **SJM80/JV80** Rev **-1**

Date: Monday, May 25, 2009 Sheet 42 of 51



SJM80-SA



SJM80 UMA ONLY SB

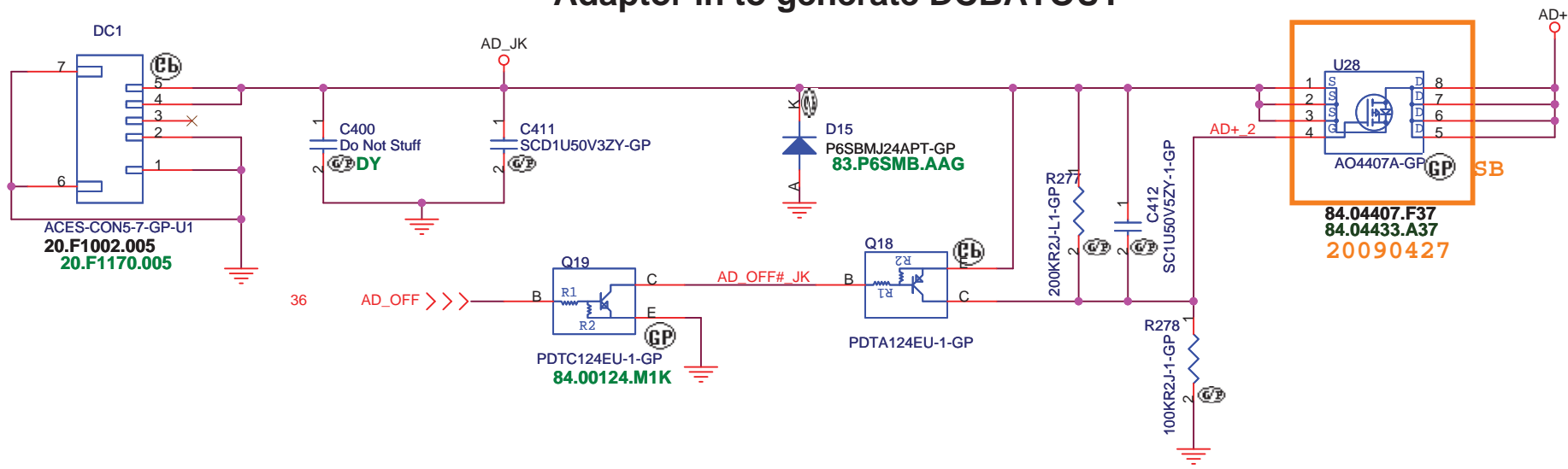
<b>緯創資通</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>Title</b>			
<b>1D5V &amp; 0D75V</b>			
Size	Document Number		Rev
Custom	<b>SJM80/JV80</b>		<b>-1</b>
Date:	Monday, May 25, 2009	Sheet	43 of 51



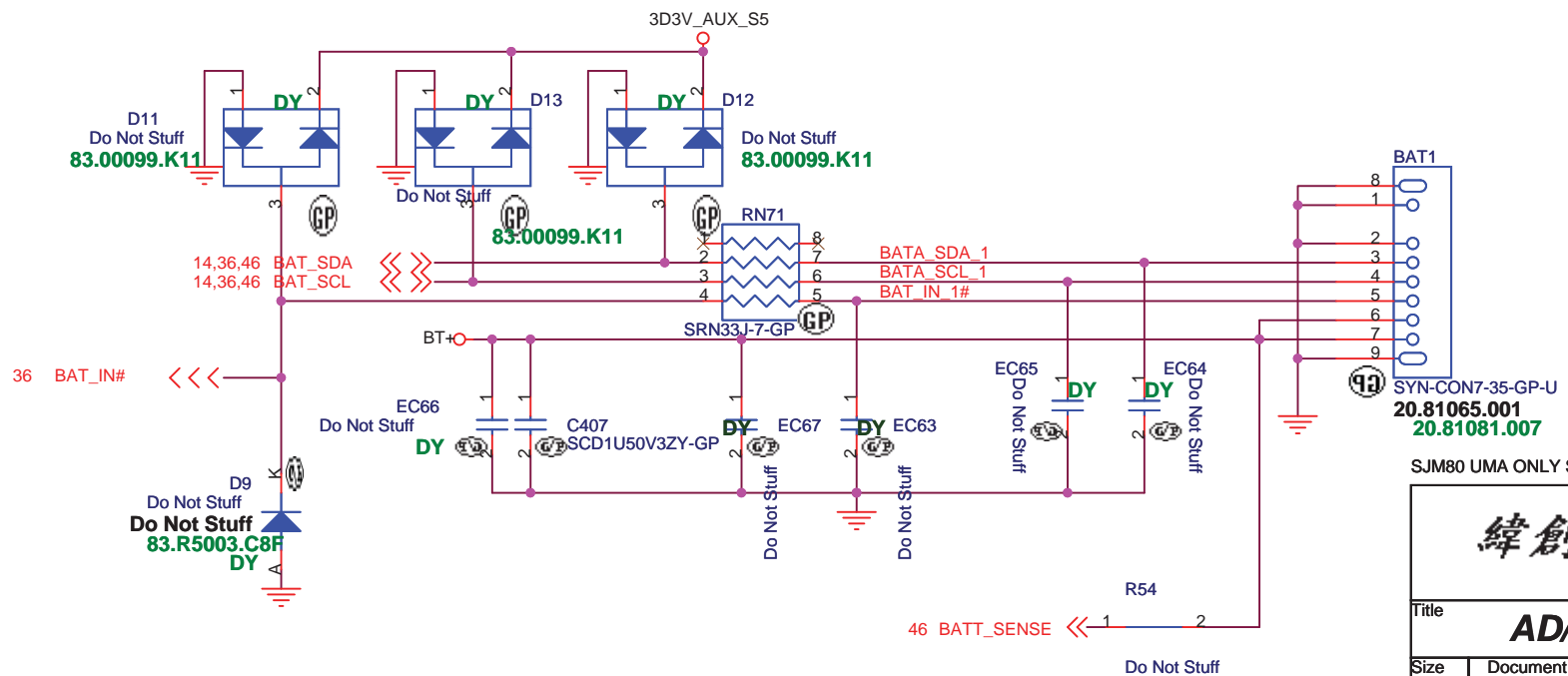




# Adaptor in to generate DCBATOUT



# BATTERY CONNECTOR



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

Title **AD/BATT CONN**

Size Document Number **SJM80/JV80** Rev -1

Date: Monday, May 25, 2009 Sheet 47 of 51

STAND OFF

SPRING ON BOTTOM

CPU & NB

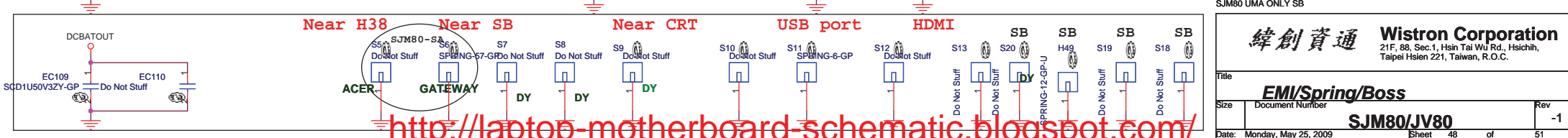
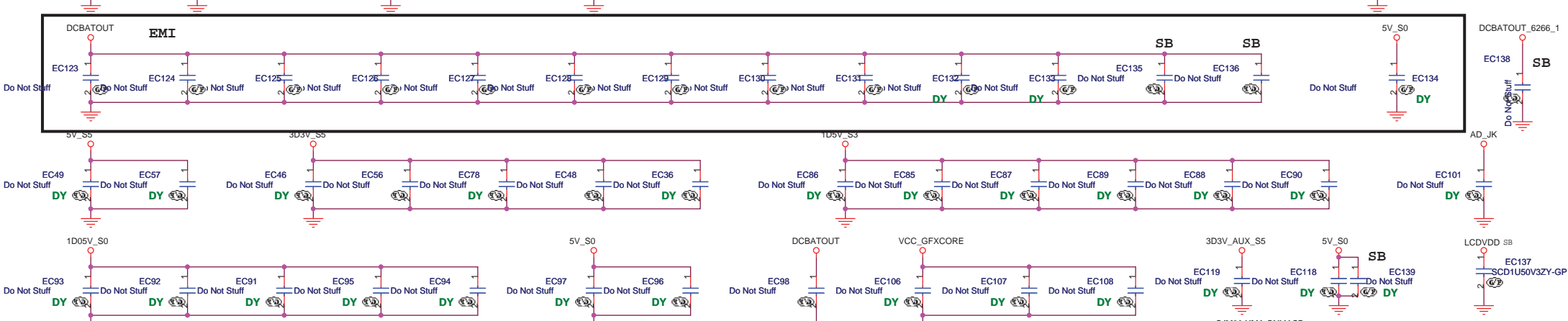
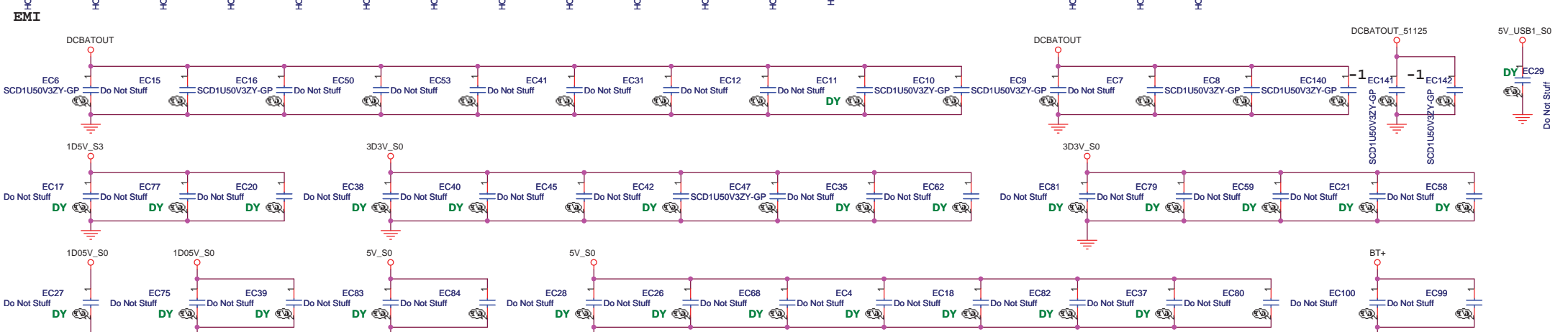
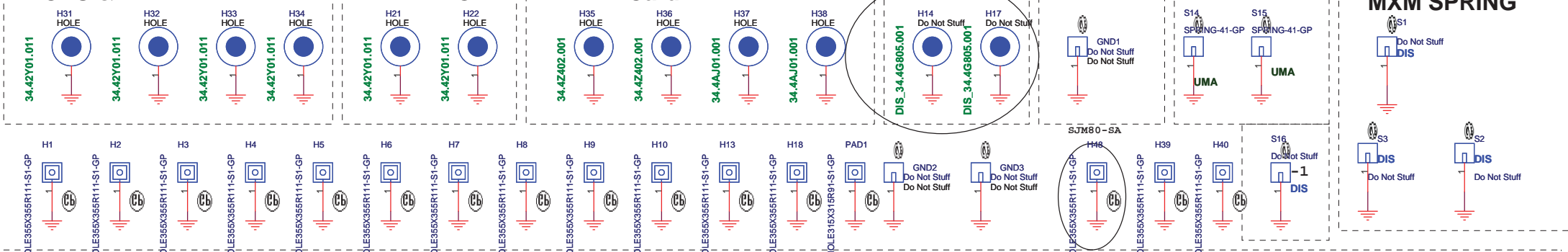
MDC

Mini Card

MXM

DIMM

MXM SPRING



<http://laptop-motherboard-schematic.blogspot.com/>

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

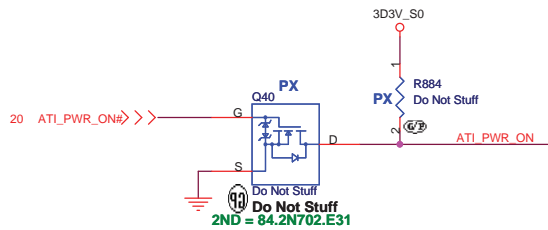
Title: **EMI/Spring/Boss**

Size: Document Number

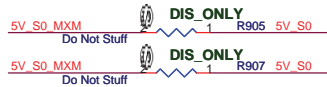
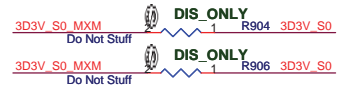
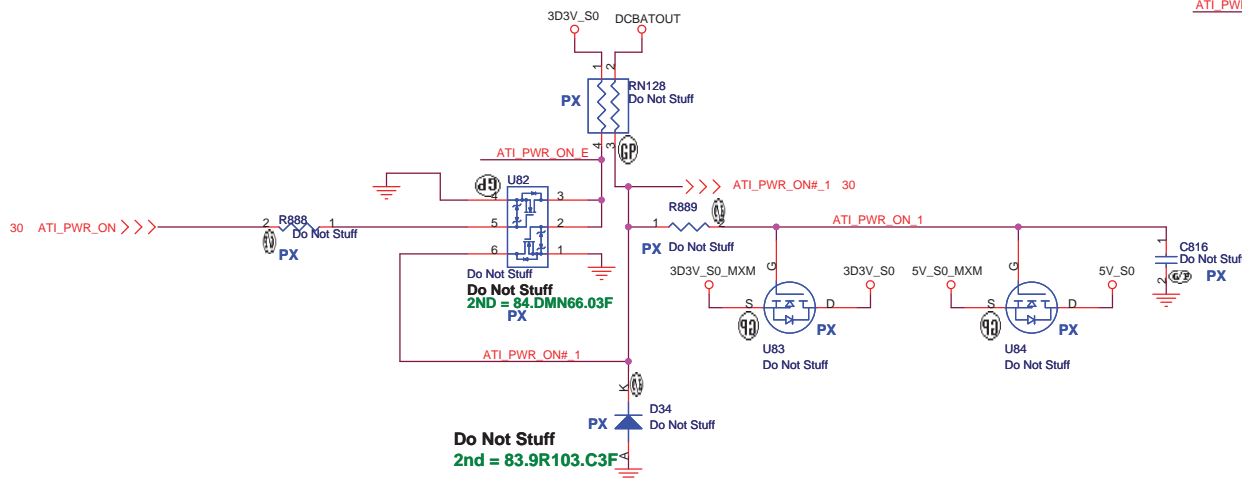
Rev: **-1**

Date: Monday, May 25, 2009 Sheet 48 of 51

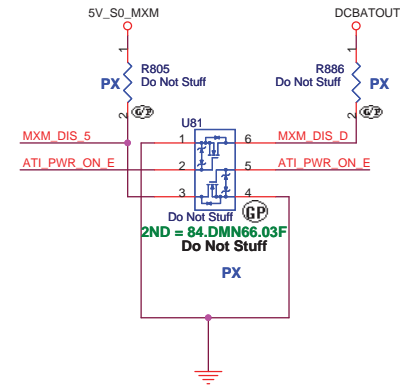




**PX Function**



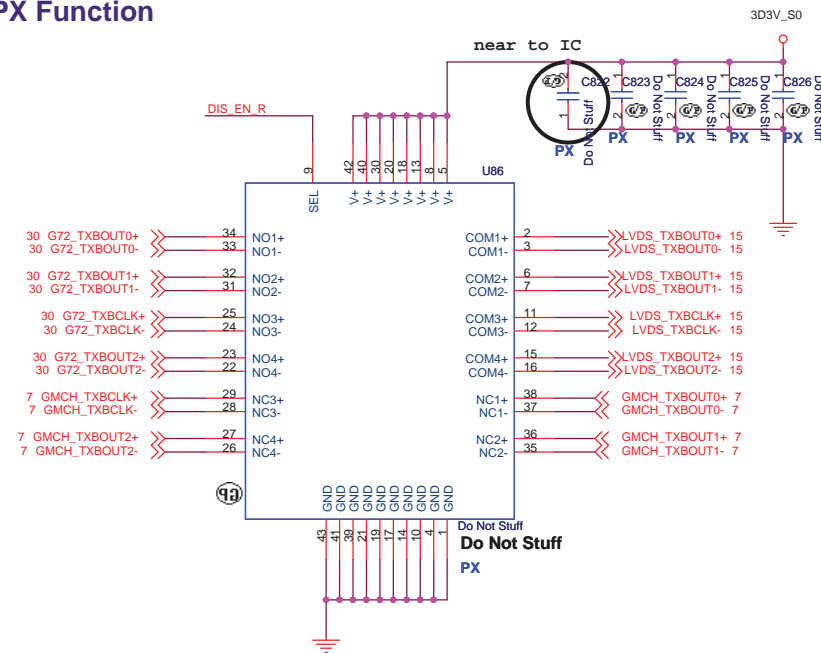
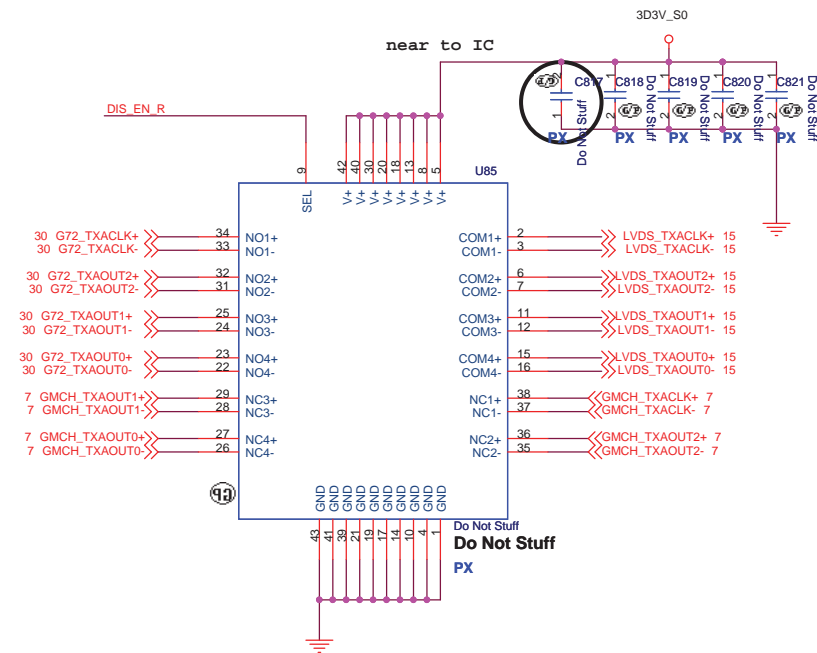
**PX Function**  
*PX Run Power Discharge circuit*



SJM80 UMA ONLY SB

<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
<b>PX Run Power</b>	
Size	Document Number
<b>SJM80/JV80</b>	
Date: Monday, May 25, 2009	Sheet 49 of 51

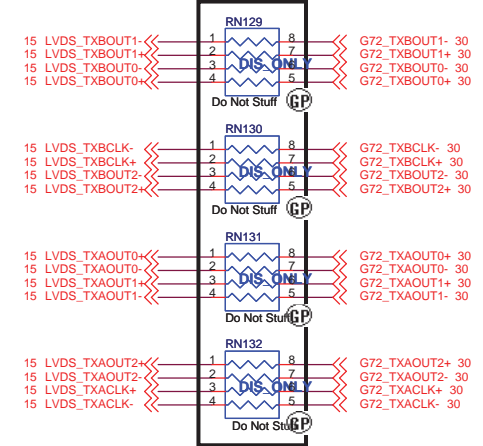
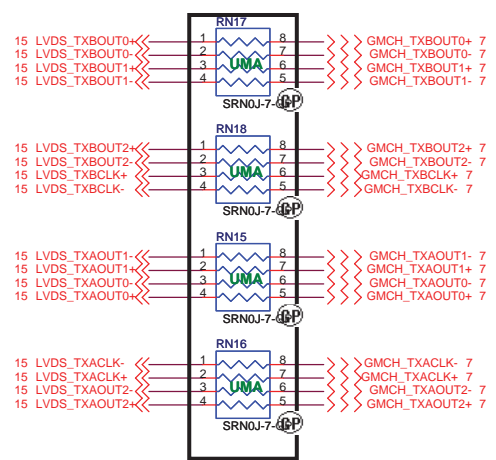
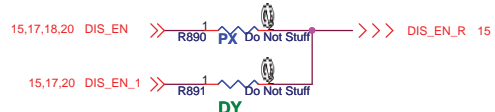
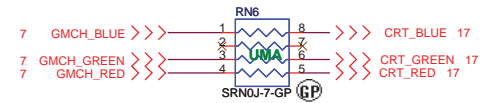
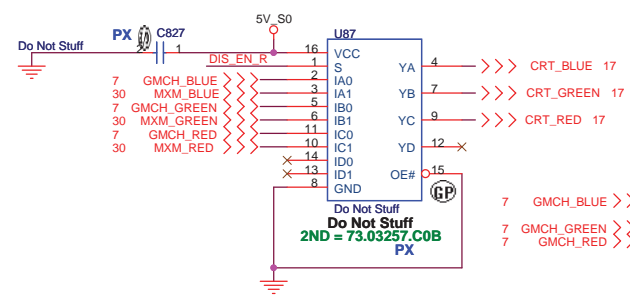
# PX Function



$\bar{E}$	S	YA	YB	YC	YD	Function
H	X	Hi-Z	Hi-Z	Hi-Z	Hi-Z	Disable
L	L	IA0	IB0	IC0	ID0	S = 0
L	H	IA1	IB1	IC1	ID1	S = 1

DIS\_EN\_R Low = UMA  
DIS\_EN\_R High = DIS

## PX Function



SJM80 UMA ONLY SB

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Title			PX Switch		
Size	Document Number		Rev		-1
Date: Monday, May 25, 2009			Sheet 50 of 51		

**SJM80 Schematic EC Tracking Record LAB 0325 , 2009**  
**EC #/ Page / Description / Part Affected**

- EC SB03/26/change R359 R360 上件(for PX function)
- EC SB03/26/change RN27 RN31 RN32 RN33 上件(for PX function)
- EC SC03/30 change REAR1,REAR2 Net name
- EC SB03/31 add digital Mic function
- EC SB04/03 change Brightness setting from NB
- EC SB04/03 modify MMB BD add switch
- EC SB04/06 Change LAN Crystal setting
- EC SB04/07 Close Power GAP
- EC SB04/07 Change PCB Version
- EC SB04/13 Keep JV80 GPIO and Function Key
- EC SB04/20 add R946 R947 for BRIGHTNESS Bypass
- EC -105/03 change C834-C841 to 0 ohm for HDMI no display design
- EC -105/03 add R948 for DIS ONLY HDP
- EC -105/03 change R823 to R824 for CRT no display
- EC -105/13 change MXM Card Stand off part number
- EC -105/19 MMBCN1 power 3D3V change 5V (for MMB LED light display)
- EC -105/19 Modify HDMI hot plug schematic Location Q46
- EC -105/20 change R316 to 22R2 (For USB eye diagram)
- EC -105/20 change R398 6.5k to 7.1K increase 3.3V to 3.4V
- EC -105/21 Q46 HDMI hot plug change power 3D3V\_S0\_MXM to 5V\_S0
- EC -105/22 add Cap for EMI at CRT RGB

EC -1 01/20/Change R316 to 22D6R2F(For USB eye diagram)

SJM80 UMA ONLY SB

<b>緯創資通 Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
<b>EC Tracking Record</b>		
Title		
Size	Document Number	Rev
	<b>SJM80/JV80</b>	-1
Date: Monday, May 25, 2009	Sheet 51	of 51