

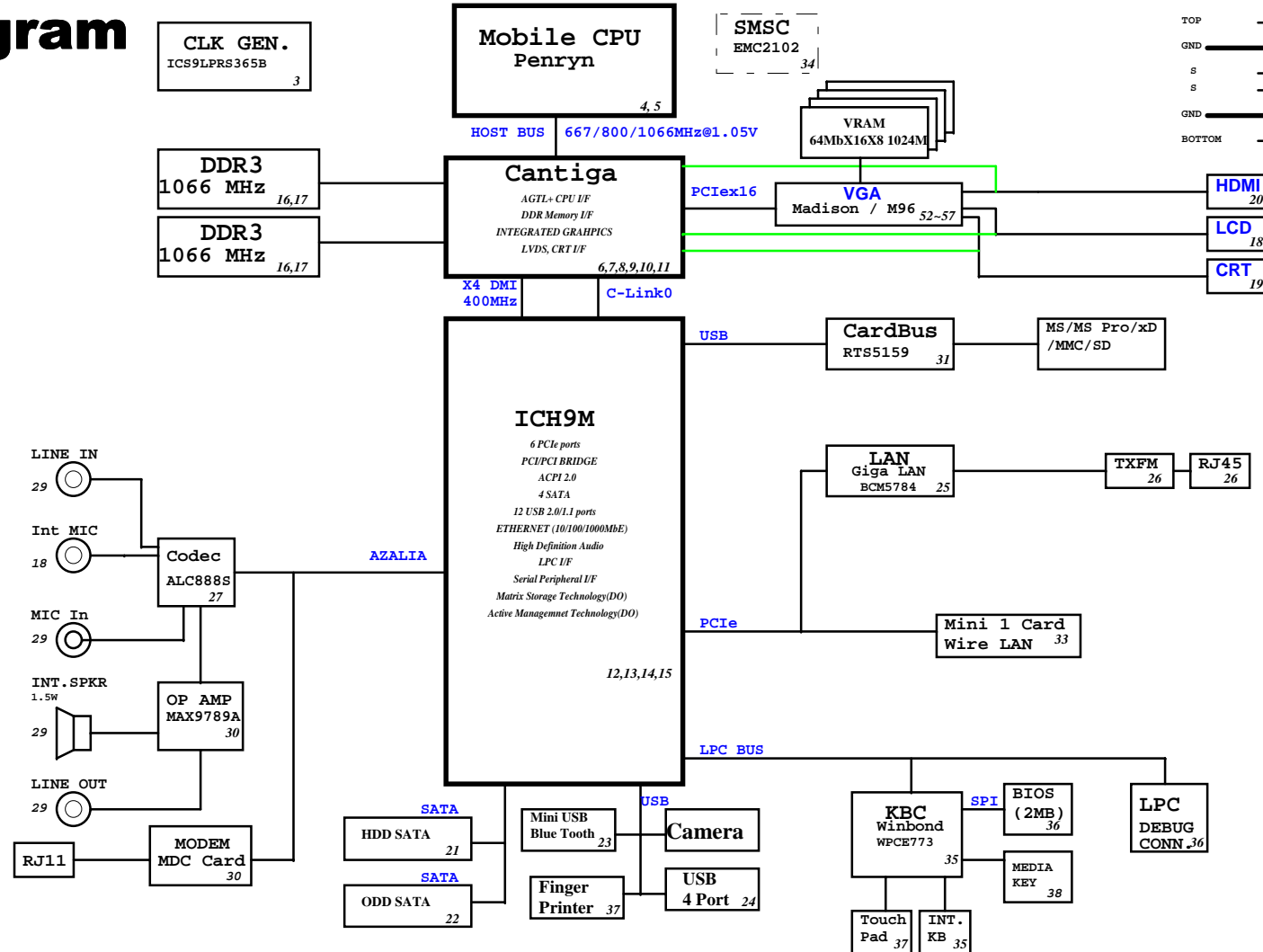
JV71-MV DDR3 Madison Block Diagram

Project code: 91.4FX01.001
 PCB P/N : 48.4FX01.001M
 REVISION : 09924 -1

SYSTEM DC/DC ISL62392 42	
INPUTS	OUTPUTS
DCBATOUT	SV_S5(6A) 3D3V_S5(7A) SV_AUX_S5 3D3V_AUX_S5
SYSTEM DC/DC TPS51124 43	
INPUTS	OUTPUTS
DCBATOUT	1D05V_S0(9A) 1D5V_S3(12A)
RT9026	44
1D5V_S3	DDR_VREF_S3 (1.2A)
RT9018	44
1D5V_S3	1D1V_S0(2A)
TPS51117	45
DCBATOUT	FBVDD(4A)
CHARGER ISL88731A 47	
INPUTS	OUTPUTS
DCBATOUT	BT+
CPU DC/DC ISL6266A 41	
INPUTS	OUTPUTS
DCBATOUT	VCC_CORE 38A
VGA_CORE RT8202A 47	
INPUTS	OUTPUTS
DCBATOUT	VGA_CORE 13A
GFXCORE ISL6263A 46	
INPUTS	OUTPUTS
DCBATOUT	VCC_GFXCORE (7A)

PCB STACKUP

TOP	---	L1
GND	---	L2
S	---	L3
S	---	L4
GND	---	L5
BOTTOM	---	L6



JV71-MV DDR3 Madison

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]#/FWH[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

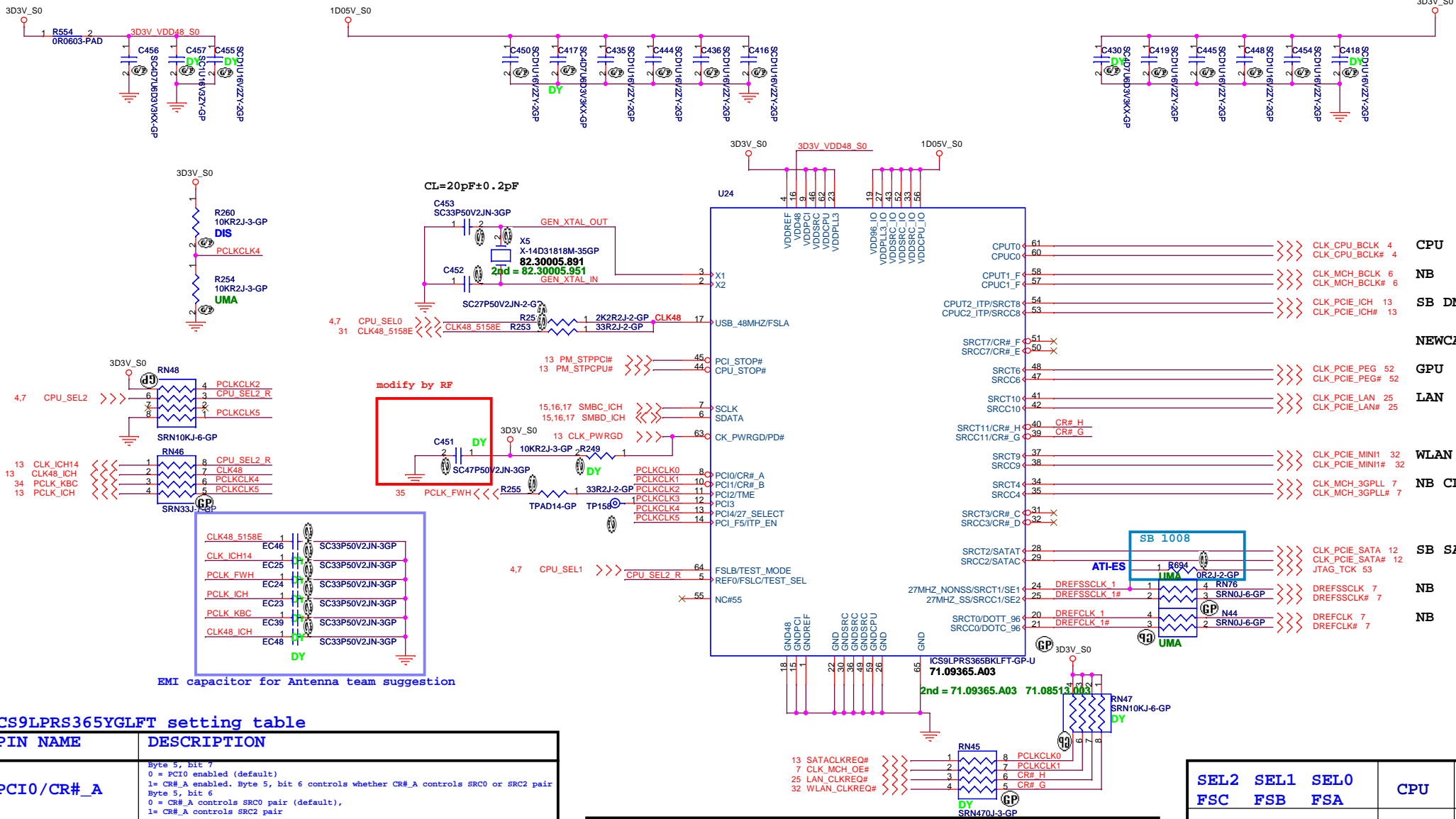
Pin Name	Strap Description	Configuration
CFG[2:0]	FSB Frequency Select	000 = FSB1067 011 = FSB667 010 = FSB800 others = Reserved
CFG[4:3] CFG8 CFG[15:14] CFG[18:17]	Reserved	
CFG5	DMI x2 Select	0 = DMI x2 1 = DMI x4 (Default)
CFG6	iTPM Host Interface	0= The iTPM Host Interface is enabled(Note2) 1=The 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 simulataneously 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:

- All strap signals are sampled with respect to the leading edge of the (G)MCH Power OK (PWROK) signal.
- 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.

JV71-MV DDR3 Madison

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Reference			
Title	Document Number		
Size A3	JV71-MV DDR3 Madison		Rev -1
Date: Wednesday, October 28, 2009	Sheet 2	of 62	



ICS9LPRS365YGLFT 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	
PCI4/27M_SEL	0 = Pin17 as SRC-1, Pin18 as SRC-1#, Pin13 as DOT96, Pin14 as DOT96# 1 = Pin17 as 27MHz, Pin 18 as 27MHz_SS, Pin13 as SRC-0, Pin14 as SRC-0#
PCI_F5/ITP_EN	0 = SRC8/SRC6# 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	1067M

JV71-MV DDR3 Madison

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

Title: **Clock Generator**

Size: Document Number: **JV71-MV DDR3 Madison** Rev: **-1**

Date: Wednesday, October 28, 2009 Sheet 3 of 62

6 H_A#(35..3) <<< H_A#(35..3)

H_DINV#(3..0) <<>> H_DINV#(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

CPU1A 1 OF 4

CPU1B 2 OF 4

H_A#3 J4 A3#
H_A#4 L5C A4#
H_A#5 L4C A5#
H_A#6 K5C A6#
H_A#7 M3C A7#
H_A#8 N2C A8#
H_A#9 J1C A9#
H_A#10 N3C A10#
H_A#11 P5C A11#
H_A#12 P2C A12#
H_A#13 L2C A13#
H_A#14 P4C A14#
H_A#15 P1C A15#
H_A#16 R1C A16#
M1C A16#

H_REQ#0 K3 REQ0#
H_REQ#1 H2C REQ1#
H_REQ#2 K2C REQ2#
H_REQ#3 J3C REQ3#
H_REQ#4 L1C REQ4#

H_A#17 Y2 A17#
H_A#18 U6C A18#
H_A#19 R3C A19#
H_A#20 W6C A20#
H_A#21 U4C A21#
H_A#22 Y5C A22#
H_A#23 U1C A23#
H_A#24 R4C A24#
H_A#25 T5C A25#
H_A#26 T3C A26#
H_A#27 W2C A27#
H_A#28 W5C A28#
H_A#29 Y4C A29#
H_A#30 U2C A30#
H_A#31 V4C A31#
H_A#32 W3C A32#
H_A#33 A4C A33#
H_A#34 AB2C A34#
H_A#35 AA3C A35#

H_ADSTB#0 <<<>> H_ADSTB#0 6
H_ADSTB#1 <<<>> H_ADSTB#1 6
H_A20M# <<<>> H_A20M# 12
H_FERR# <<<>> H_FERR# 12
H_IGNNE# <<<>> H_IGNNE# 12
H_STPCLK# <<<>> H_STPCLK# 12
H_INTR# <<<>> H_INTR# 12
H_NMI# <<<>> H_NMI# 12
H_SMI# <<<>> H_SMI# 12

RSVD#M4 M4
RSVD#N5 N5
RSVD#T2 T2
RSVD#V3 V3
RSVD#B2 B2
RSVD#C3 C3
RSVD#D2 D2
RSVD#D3 D3
RSVD#F6 F6

KEY_NC
BGA479-SKT6-GPU7
62.10079.001
2nd = 62.10053.401

ADDR_GROUP# 0
CONTROL

ADDR_GROUP# 1
STANDBY / I/O

THERMAL

ICLK

RESERVED

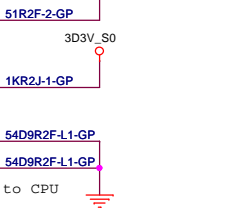
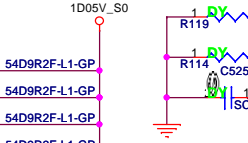
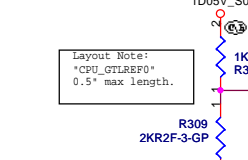
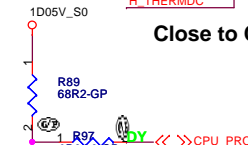
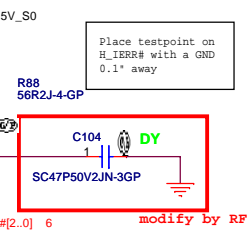
ADSA# H1 ADS# 6
BNRA# E2 H_BNR# 6
BPRIR# G5 H_BPRIR# 6
DEFER# H5 H_DEFER# 6
DRDY# F21 H_DRDY# 6
DBSY# E1 H_DBSY# 6
BROR# F1 H_BREQ# 6
D20 H_IERR#
IERR# B3 H_IERR# 12
INIT# B3 H_INIT# 12
LOCK# H4 H_LOCK# 6
A16# H_CPURST# 6.50
RESE# C1 H_RS#0
RSOR# F4 H_RS#1
RS1# G3 H_RS#2
RS2# G2 H_TRDY# 6
TRDY# G2
HIT# G6 HIT# 6
HITM# E4 HITM# 6

AD4 XDP BPM#0 1 TP28 TPAD14-GP
AD3 XDP BPM#1 1 TP27 TPAD14-GP
AD1 XDP BPM#2 1 TP26 TPAD14-GP
AC4 XDP BPM#3 1 TP32 TPAD14-GP
AC2 XDP BPM#4 1 TP29 TPAD14-GP
AC1 XDP BPM#5 1 TP30 TPAD14-GP
ACS XDP TCK 1 TP34 TPAD14-GP
AA6 XDP TDI 1 TP50 TPAD14-GP
AB3 XDP TDO 1 TP31 TPAD14-GP
AB5 XDP TMS 1 TP49 TPAD14-GP
AB6 XDP TRST# 1 TP33 TPAD14-GP
C20 XDP DBRESET# 1 TP88 TPAD14-GP

PROCHOT# D21 CPU PROCHOT# 1
A24 H_THERMDA 33
B25 H_THERMDC 33
C7 PM_THRMTRIP#A 7,12,38

STPCLK# A22
LINT0 C6
LINT1 B4
SMI# A3C

XDP TMS R54 54D9R2F-L1-GP
XDP TDI R55 54D9R2F-L1-GP
XDP BPM#5 R46 54D9R2F-L1-GP
XDP TDO R47 54D9R2F-L1-GP
H_CPURST# R113 51R2F-2-GP
XDP DBRESET# R105 1KR2J-1-GP
XDP TCK R32 54D9R2F-L1-GP
XDP TRST# R33 54D9R2F-L1-GP



Place testpoint on H_IERR# with a GND 0.1" away

Close to CPU

PM_THRMTRIP# should connect to ICH9 and MCH without T-ing PH # page48

Layout Note: "CPU_GTLREF0" 0.5" max length.

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

H DPRSTP# 1 TP76 TPAD14-GP
H DPSLP# 1 TP95 TPAD14-GP
H DPWR# 1 TP114 TPAD14-GP
H PWRGD 1 TP81 TPAD14-GP
H CPUSLP# 1 TP78 TPAD14-GP
H INIT# 1 TP92 TPAD14-GP
H_CPURST# 1 TP86 TPAD14-GP

Place these TP on button-side, easy to measure.

H_D#0 E2C D0#
H_D#1 E2C D1#
H_D#2 E2C D2#
H_D#3 G2C D3#
H_D#4 E2C D4#
H_D#5 G2C D5#
H_D#6 E2C D6#
H_D#7 E2C D7#
H_D#8 K2C D8#
H_D#9 G2C D9#
H_D#10 J2C D10#
H_D#11 J2C D11#
H_D#12 H2C D12#
H_D#13 E2C D13#
H_D#14 K2C D14#
H_D#15 H2C D15#
H_D#16 N2C D16#
H_D#17 K2C D17#
H_D#18 P2C D18#
H_D#19 R2C D19#
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H_D#26 P2C D26#
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H_D#28 R2C D28#
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H_D#190 J2C D190#
H_D#191 J2C D191#
H_D#192 J2C D192#
H_D#193 J2C D193#
H_D#194 J2C D194#
H_D#195 J2C D195#
H_D#196 J2C D196#
H_D#197 J2C D197#
H_D#198 J2C D198#
H_D#199 J2C D199#
H_D#200 J2C D200#

H_D#201 J2C D201#
H_D#202 J2C D202#
H_D#203 J2C D203#
H_D#204 J2C D204#
H_D#205 J2C D205#
H_D#206 J2C D206#
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H_D#265 J2C D265#
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H_D#267 J2C D267#
H_D#268 J2C D268#
H_D#269 J2C D269#
H_D#270 J2C D270#

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".

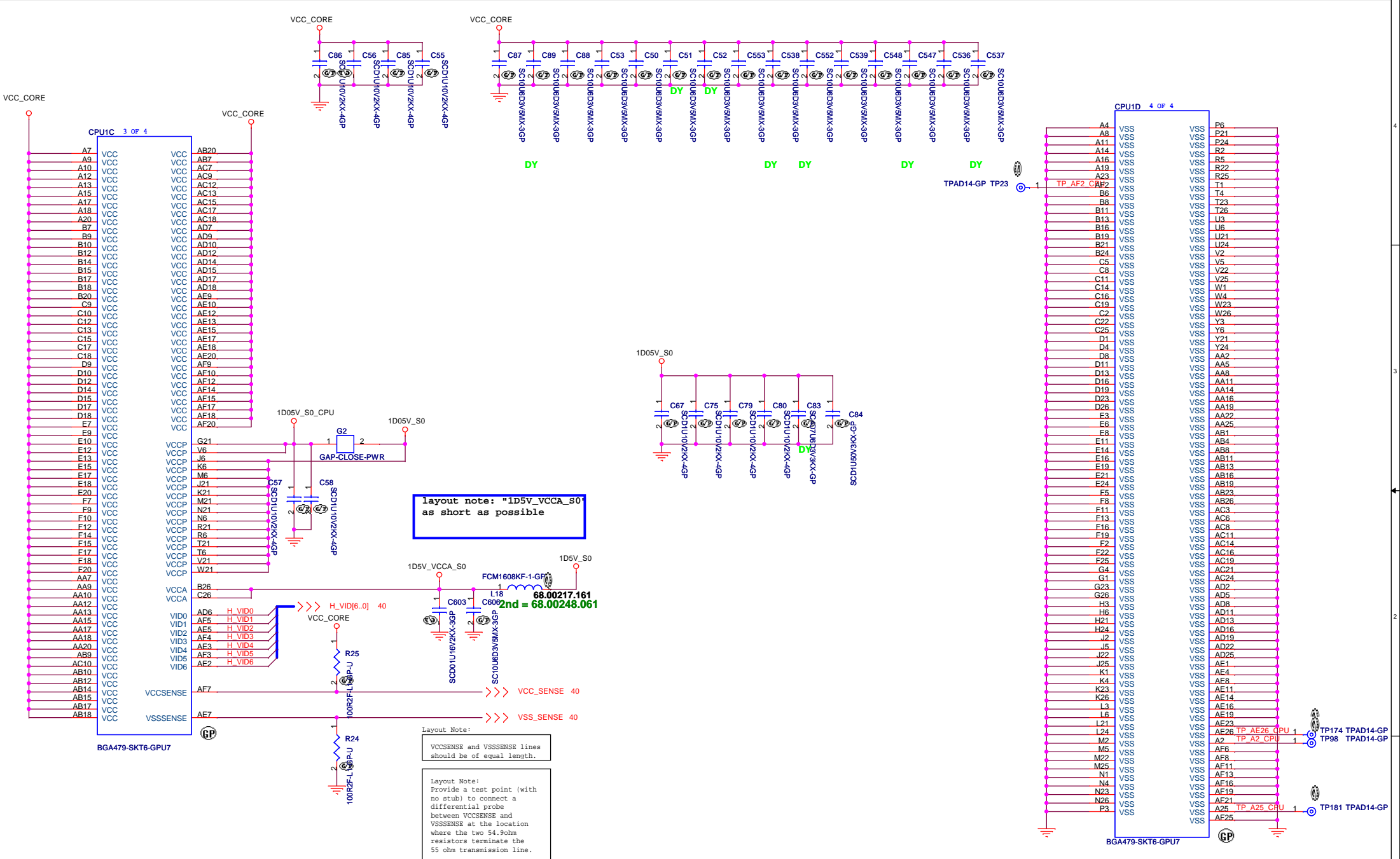
JV71-MV DDR3 Madison

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

Title: CPU (1 of 2)

Size: Document Number: Rev: -1

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layout note: "1D5V_VCCA_S0 as short as possible"

Layout Note:
VCCSENSE and VSSSENSE lines should be of equal length.

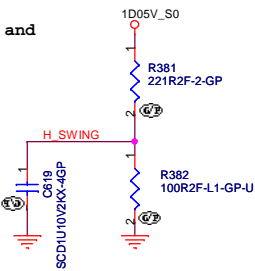
Layout Note:
Provide a test point (with no stub) to connect a differential probe between VCCSENSE and VSSSENSE at the location where the two 54.9ohm resistors terminate the 55 ohm transmission line.

68.00217.161
2nd = 68.00248.061

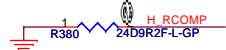
緯創資通		Wistron Corporation	
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
CPU (2 of 2)			
Title	Document Number		Rev
	JV71-MV DDR3 Madison		-1
Date: Wednesday, October 28, 2009	Sheet 5 of 62		

H_SWING routing Trace width and Spacing use 10 / 20 mil

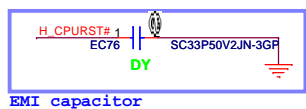
H_SWING Resistors and Capacitors close MCH 500 mil (MAX)



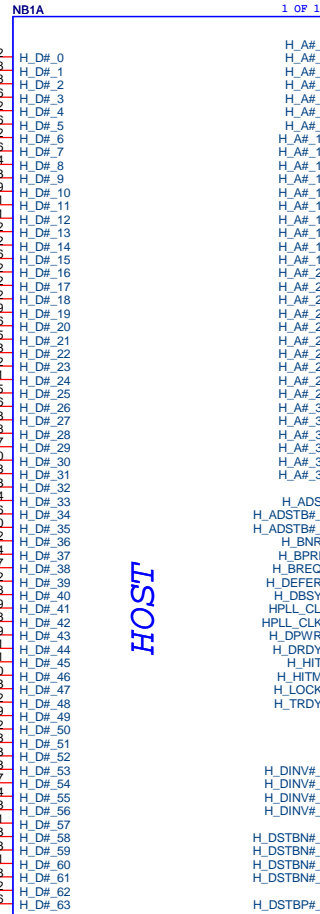
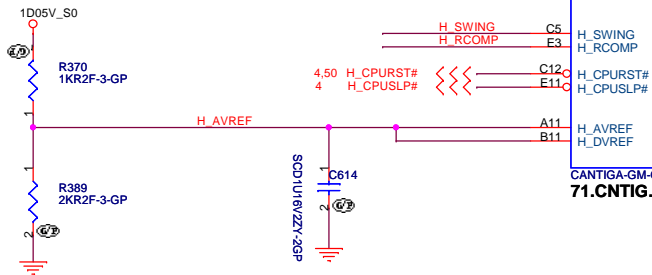
H_RCOMP routing Trace width and Spacing use 10 / 20 mil



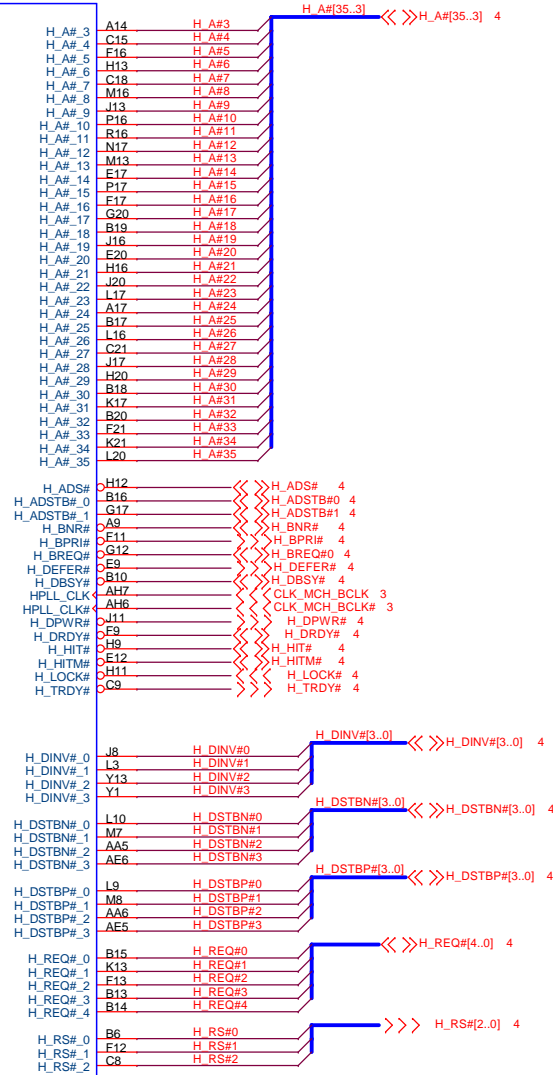
Place them near to the chip (< 0.5")



EMI capacitor

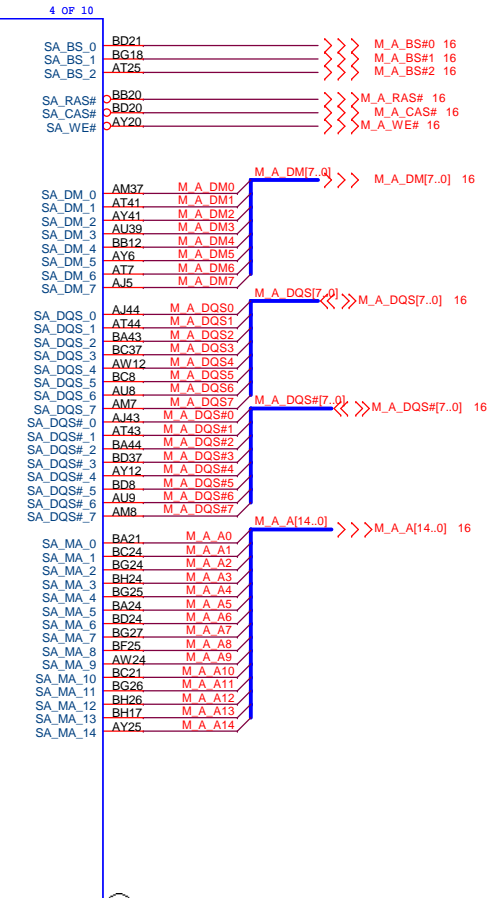
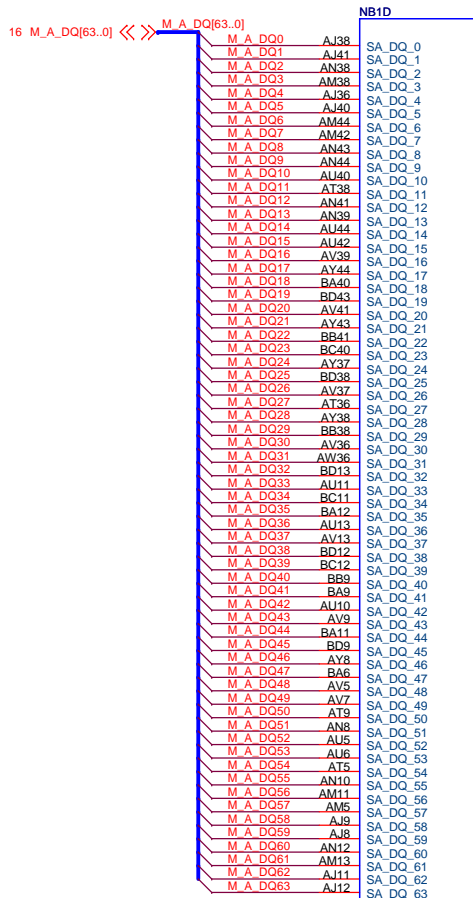


HOST

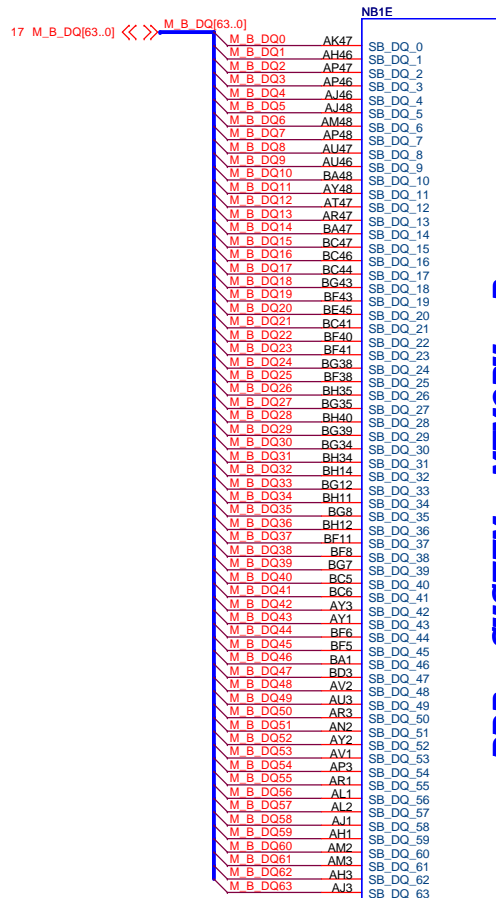


JV71-MV DDR3 Madison

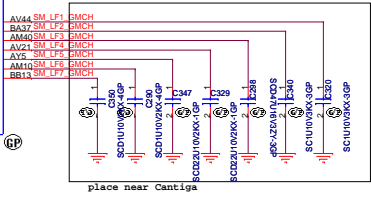
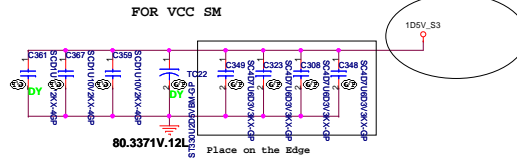
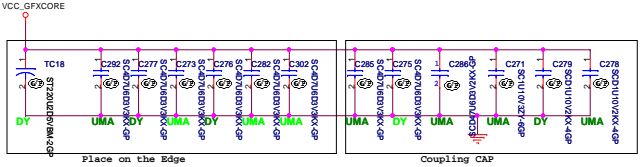
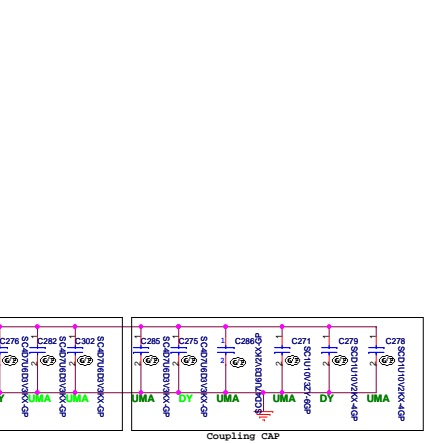
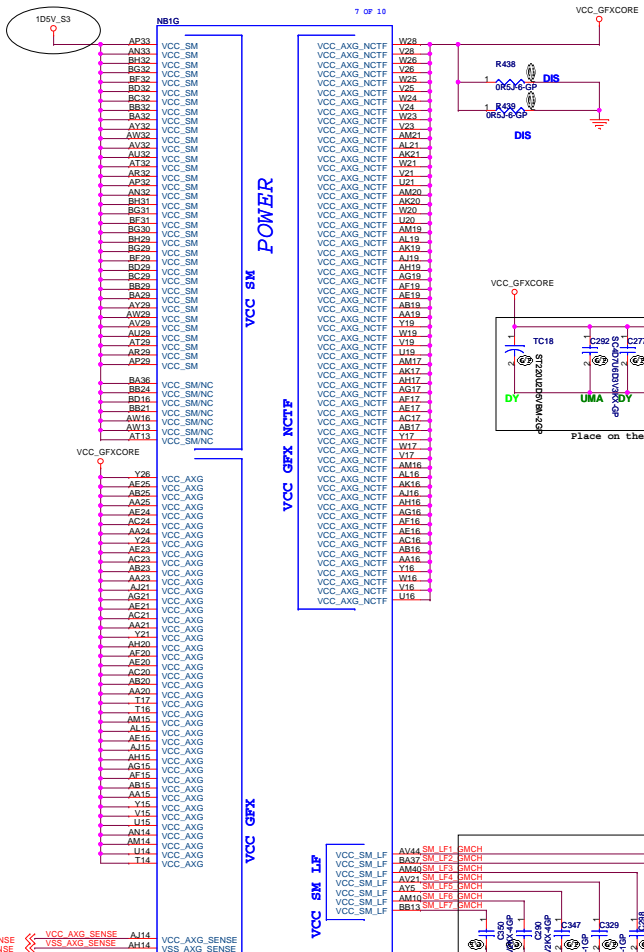
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CANTIGA-GM-GP-U-NF
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71.CNTIG.00U

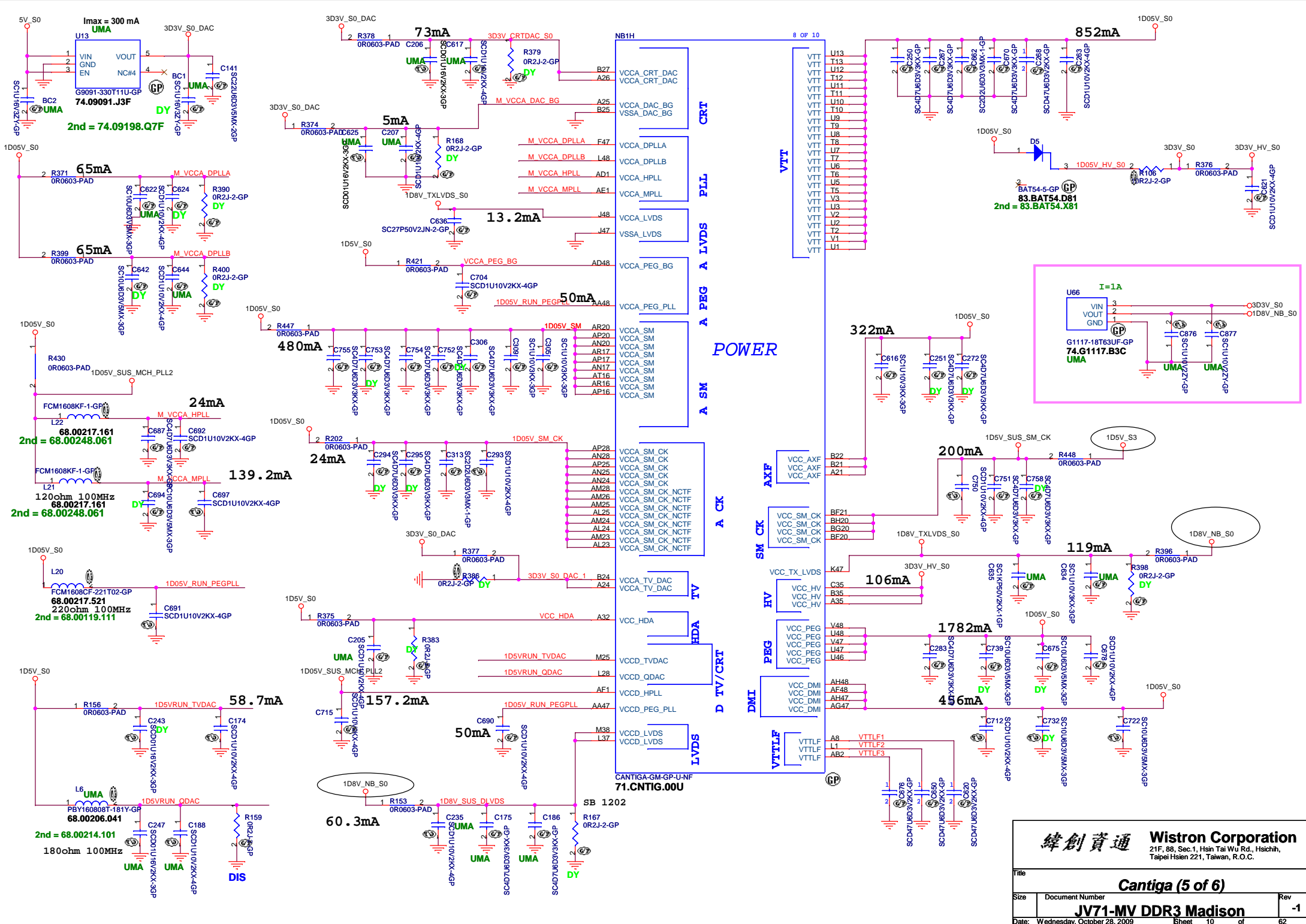


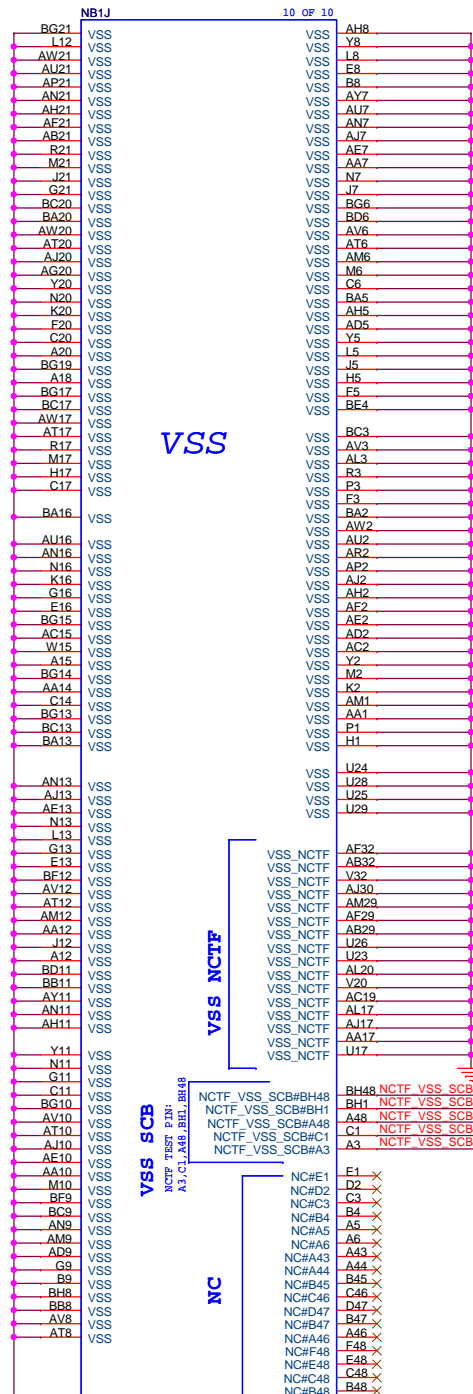
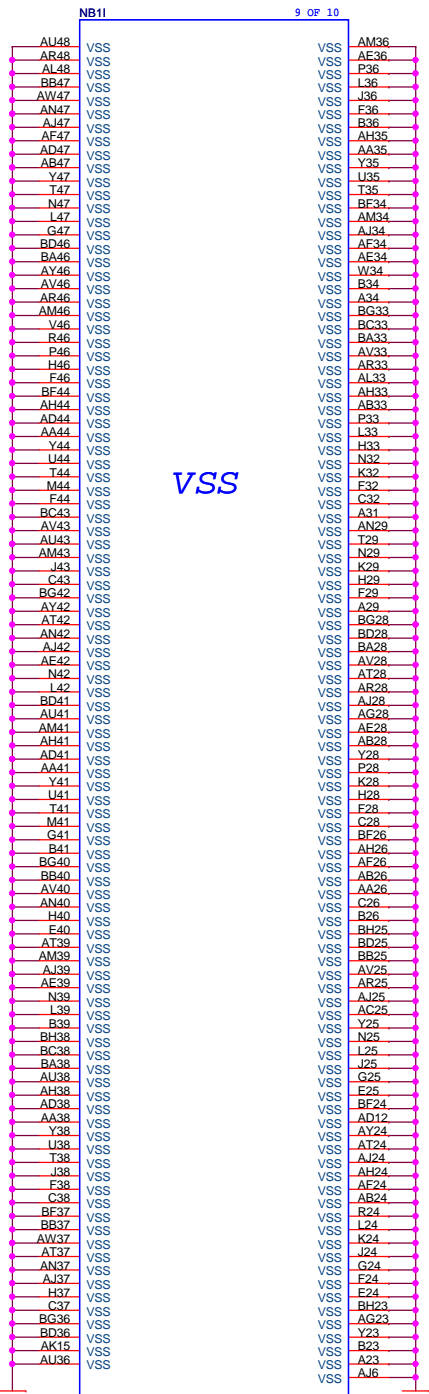
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 45 VSS_AXG_SENSE ← VSS_AXG_SENSE AH14

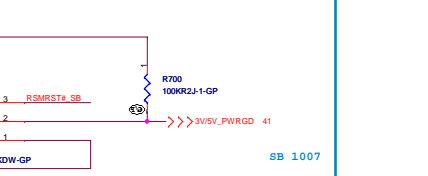
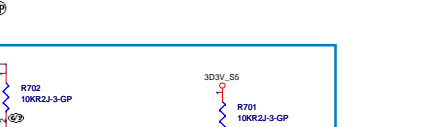
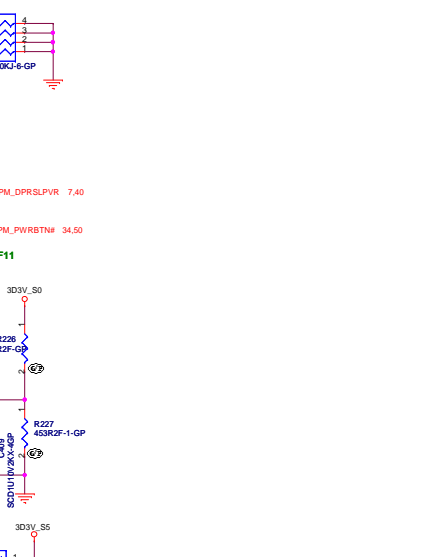
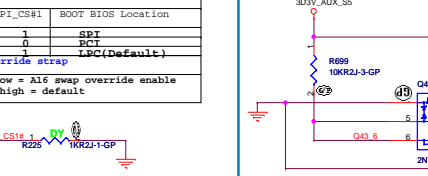
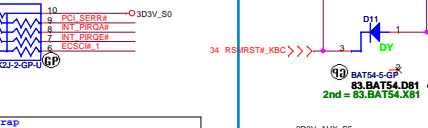
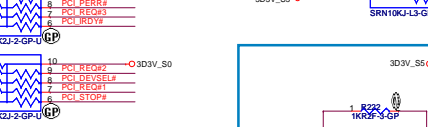
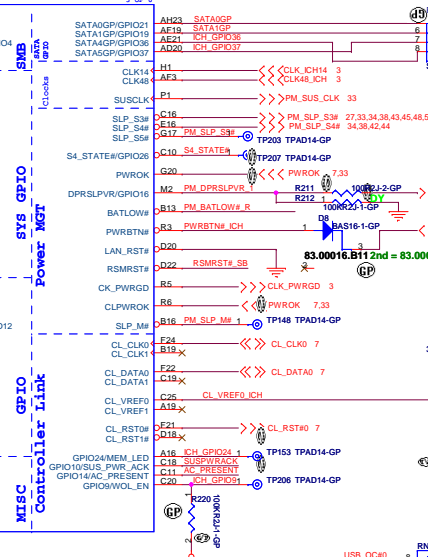
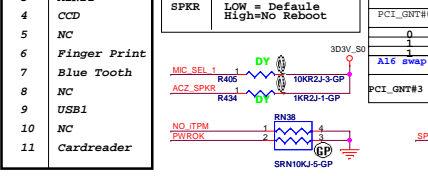
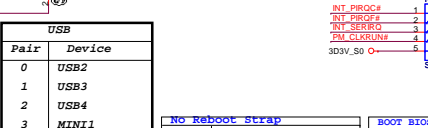
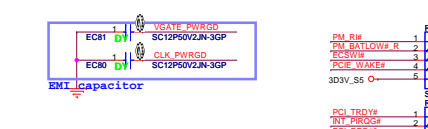
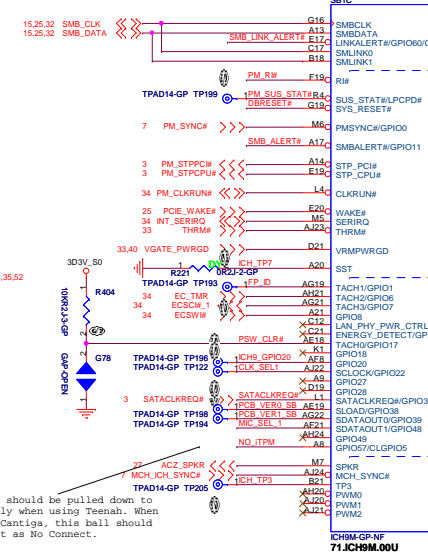
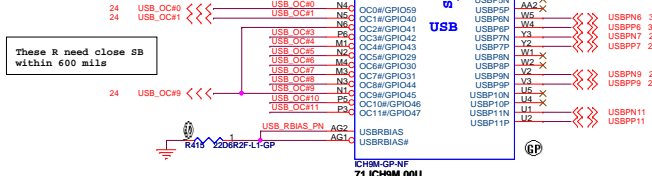
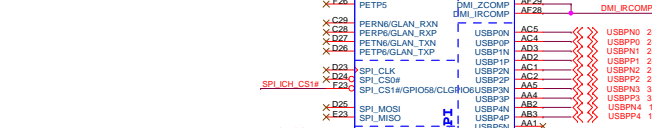
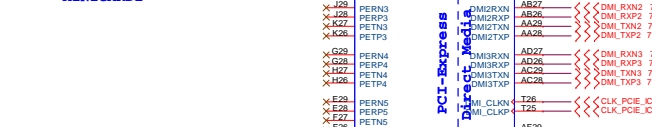
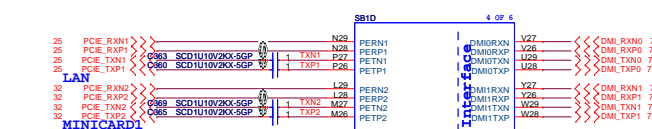
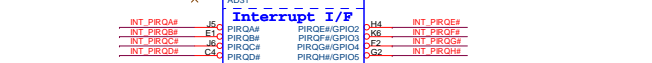
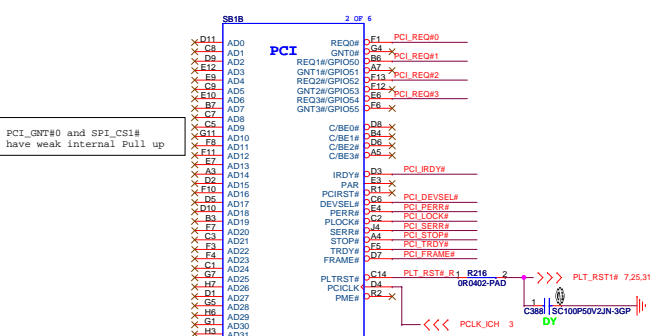
CANTIGA-GM-GP-U-NF
71.CNTIG.00U

U60 (ISL6263ACRZ-T-GP) place near Cantiga

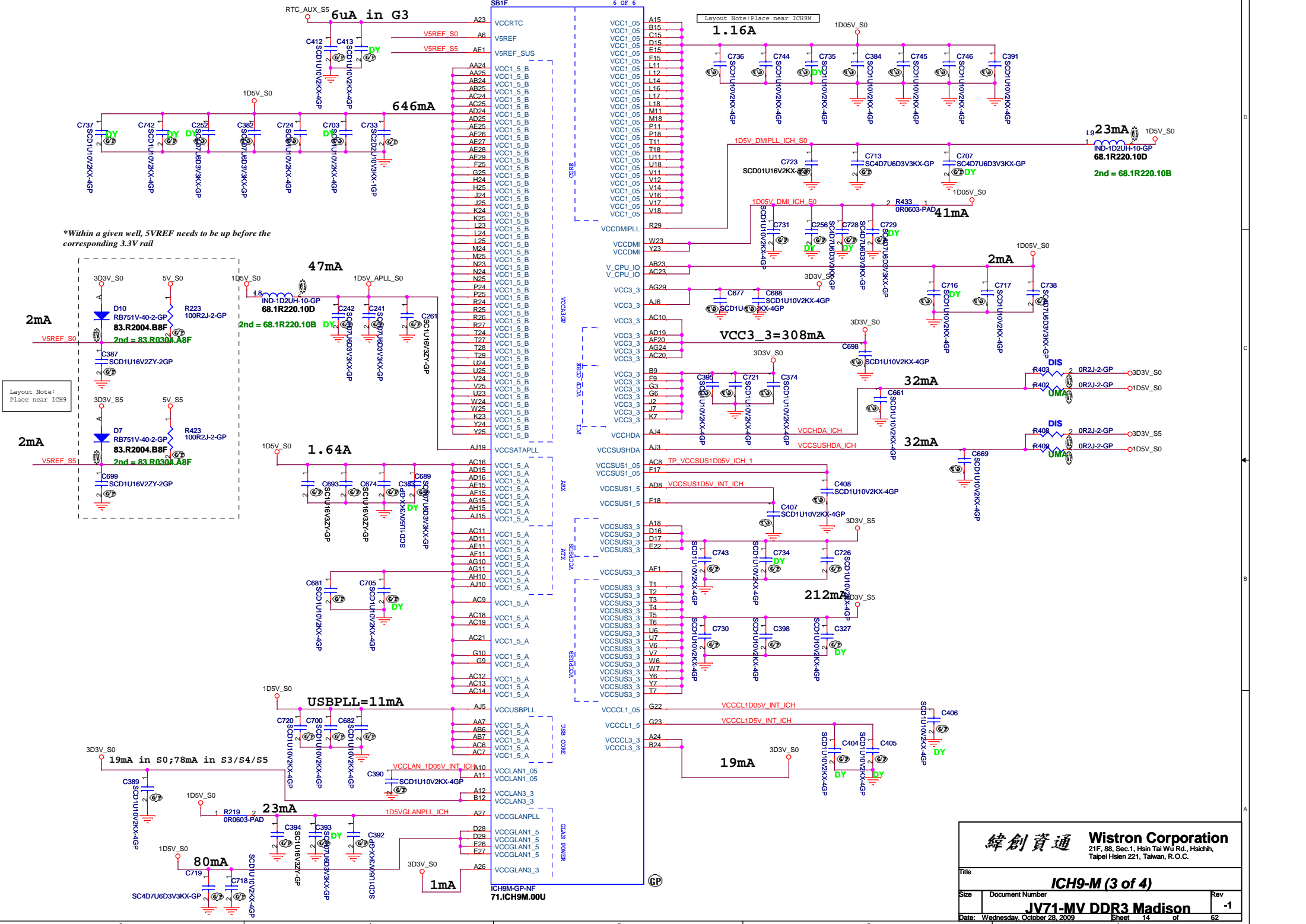
CANTIGA-GM-GP-U-NF
71.CNTIG.00U







Pair	Device
0	USB2
1	USB3
2	USB4
3	MINI1
4	CCD
5	NC
6	Finger Print
7	Blue Tooth
8	NC
9	USB1
10	NC
11	Cardreader



Layout Note: Place near ICH9M

*Within a given well, 5VREF needs to be up before the corresponding 3.3V rail

Layout Note: Place near ICH9

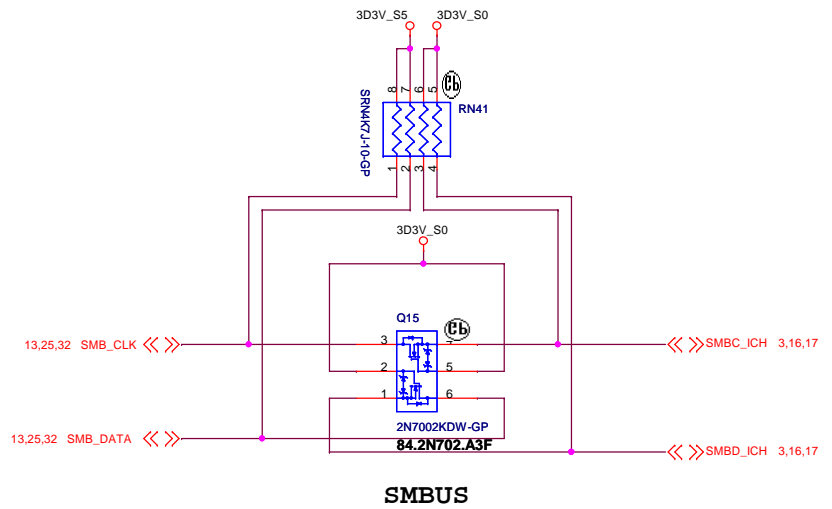
緯創資通 **Wistron Corporation**
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Title			IC9M (3 of 4)		
Size	Document Number	JV71-MV DDR3 Madison			Rev
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SB1E	5 OF 6				
AA26	VSS	VSS	J23	H5	
AA27	VSS	VSS	J26		
AA3	VSS	VSS	J27		
AA6	VSS	VSS	AC22		
AB1	VSS	VSS	K28		
AA23	VSS	VSS	K29		
AB28	VSS	VSS	L13		
AB29	VSS	VSS	L15		
AB4	VSS	VSS	L2		
AB5	VSS	VSS	L26		
AC17	VSS	VSS	L27		
AC26	VSS	VSS	L5		
AC27	VSS	VSS	L7		
AC3	VSS	VSS	M12		
AD1	VSS	VSS	M13		
AD10	VSS	VSS	M14		
AD12	VSS	VSS	M15		
AD13	VSS	VSS	M16		
AD14	VSS	VSS	M17		
AD17	VSS	VSS	M23		
AD18	VSS	VSS	M28		
AD21	VSS	VSS	M29		
AD28	VSS	VSS	N11		
AD29	VSS	VSS	N12		
AD4	VSS	VSS	N13		
AD5	VSS	VSS	N14		
AD6	VSS	VSS	N15		
AD7	VSS	VSS	N16		
AD9	VSS	VSS	N17		
AE12	VSS	VSS	N18		
AE13	VSS	VSS	N26		
AE14	VSS	VSS	N27		
AE16	VSS	VSS	P12		
AE17	VSS	VSS	P13		
AE2	VSS	VSS	P14		
AE20	VSS	VSS	P15		
AE24	VSS	VSS	P16		
AE3	VSS	VSS	P17		
AE4	VSS	VSS	P2		
AE6	VSS	VSS	P23		
AE9	VSS	VSS	P28		
AF13	VSS	VSS	P29		
AF16	VSS	VSS	P4		
AF18	VSS	VSS	P7		
AF22	VSS	VSS	R11		
AH26	VSS	VSS	R12		
AF26	VSS	VSS	R13		
AF27	VSS	VSS	R14		
AF5	VSS	VSS	R15		
AF7	VSS	VSS	R16		
AF9	VSS	VSS	R17		
AG13	VSS	VSS	R18		
AG16	VSS	VSS	R28		
AG18	VSS	VSS	T12		
AG20	VSS	VSS	T13		
AG23	VSS	VSS	T14		
AG3	VSS	VSS	T15		
AG6	VSS	VSS	T16		
AG9	VSS	VSS	T17		
AH12	VSS	VSS	T23		
AH14	VSS	VSS	B26		
AH17	VSS	VSS	U12		
AH19	VSS	VSS	U13		
AH2	VSS	VSS	U14		
AH22	VSS	VSS	U15		
AH25	VSS	VSS	U16		
AH28	VSS	VSS	U17		
AH5	VSS	VSS	AD23		
AH8	VSS	VSS	U26		
AJ12	VSS	VSS	U27		
AJ14	VSS	VSS	U3		
AJ17	VSS	VSS	V13		
AJ8	VSS	VSS	V15		
B11	VSS	VSS	V23		
B14	VSS	VSS	V28		
B17	VSS	VSS	V29		
B2	VSS	VSS	V5		
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B5	VSS	VSS	W3		
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G14	VSS	VSS			
G18	VSS	VSS			
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G24	VSS	VSS			
G26	VSS	VSS			
G27	VSS	VSS			
G8	VSS	VSS			
H2	VSS	VSS			
H23	VSS	VSS			
H28	VSS	VSS			
H29	VSS	VSS			

NCTF_VSS#A1	A1	TP A1	1	TP152	TPAD14-GP
NCTF_VSS#A2	A2	TP A2	1	TP151	TPAD14-GP
NCTF_VSS#B1	B1	TP B1	1	TP147	TPAD14-GP
NCTF_VSS#A29	A29	TP A29	1	TP149	TPAD14-GP
NCTF_VSS#A28	A28	TP A28	1	TP150	TPAD14-GP
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NCTF_VSS#AJ2	AH1	TP AH1	1	TP130	TPAD14-GP
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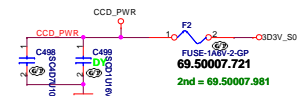
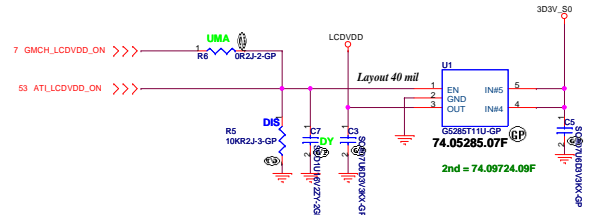
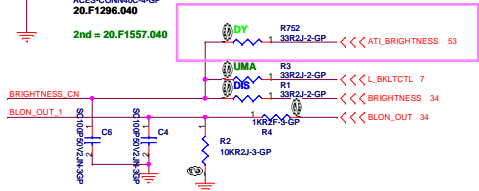
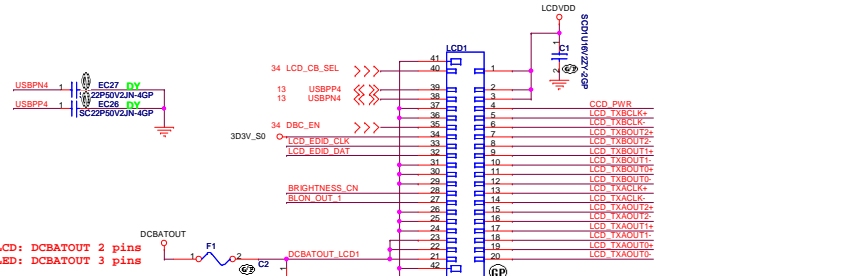
ICH9M-GP-NF
71.ICH9M.00U



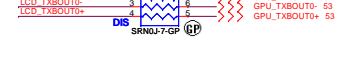
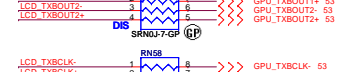
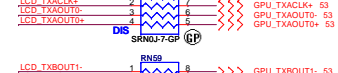
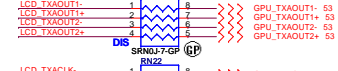
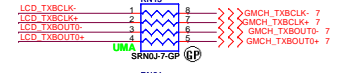
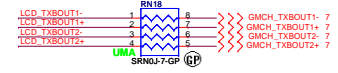
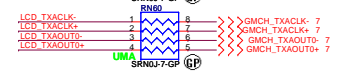
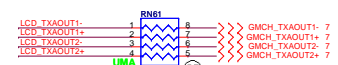
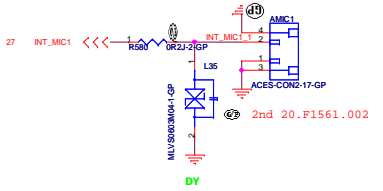
SMBUS

<p>緯創資通 Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</p>	
<p>Title: ICH9-M (4 of 4)</p>	
Size	Document Number
<p>JV71-MV DDR3 Madison</p>	
Date: Wednesday, October 28, 2009	Rev: -1
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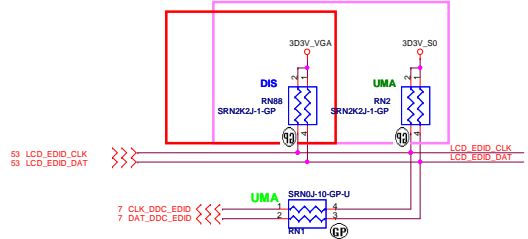
LCD/INVERTER/CCD CONN



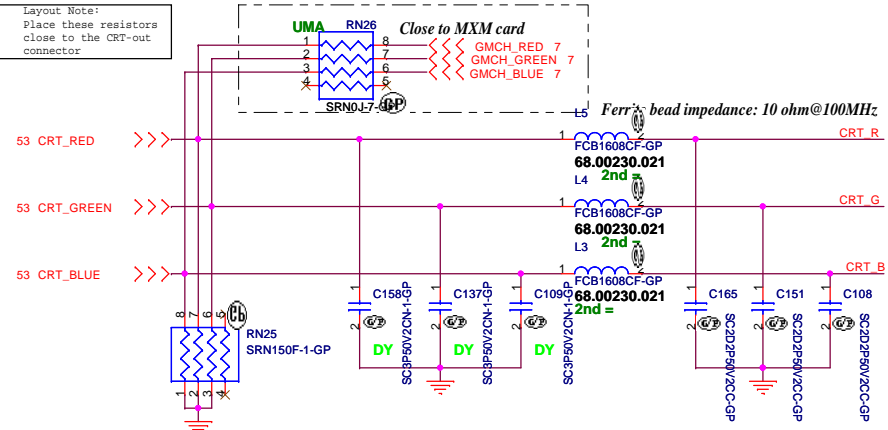
Internal Mic



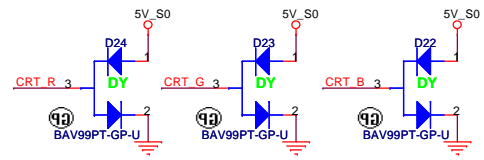
need confirm with VGA co-layout



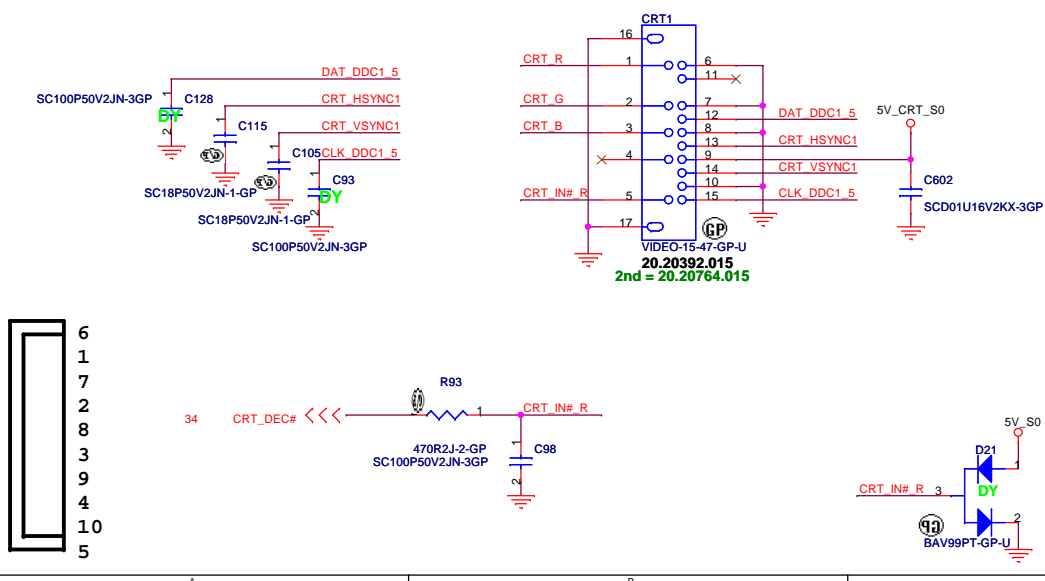
Layout Note:
Place these resistors
close to the CRT-out
connector



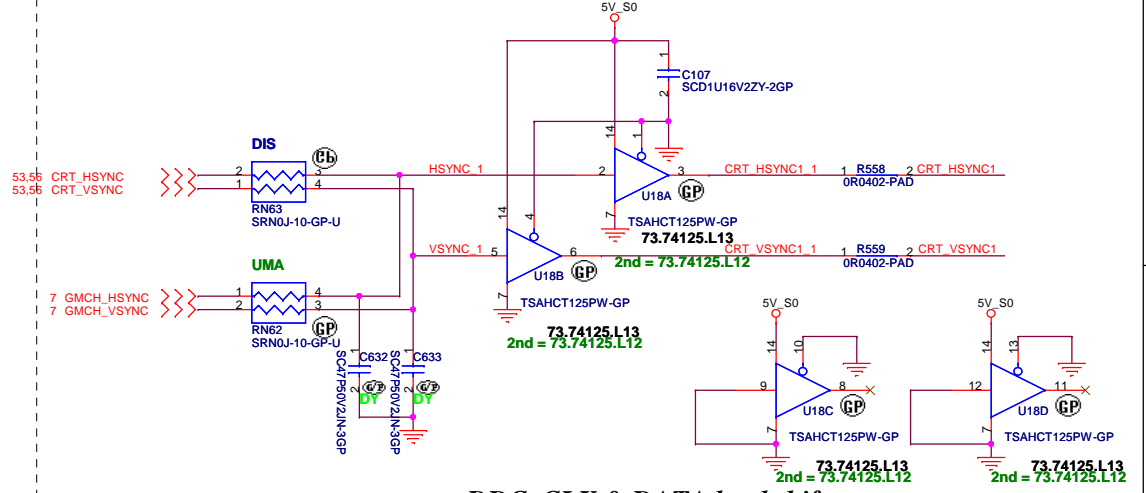
Layout Note:
* Must be a ground return path between this ground and the ground on the VGA connector.
Pi-filter & 150 Ohm pull-down resistors should be as close as to CRT CONN. RGB will hit 75 Ohm first, pi-filter, then CRT CONN.



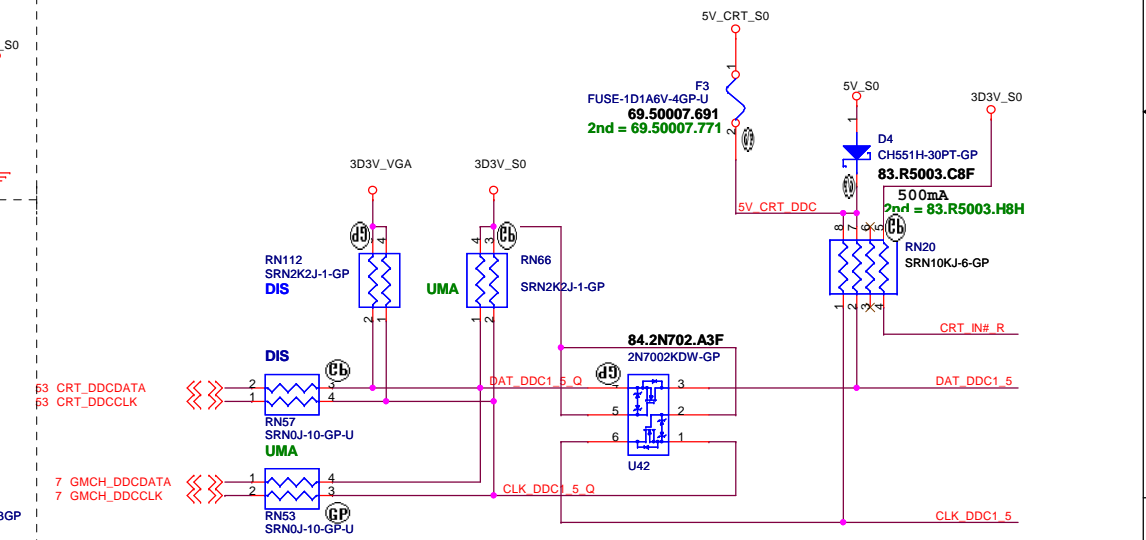
CRT I/F & CONNECTOR

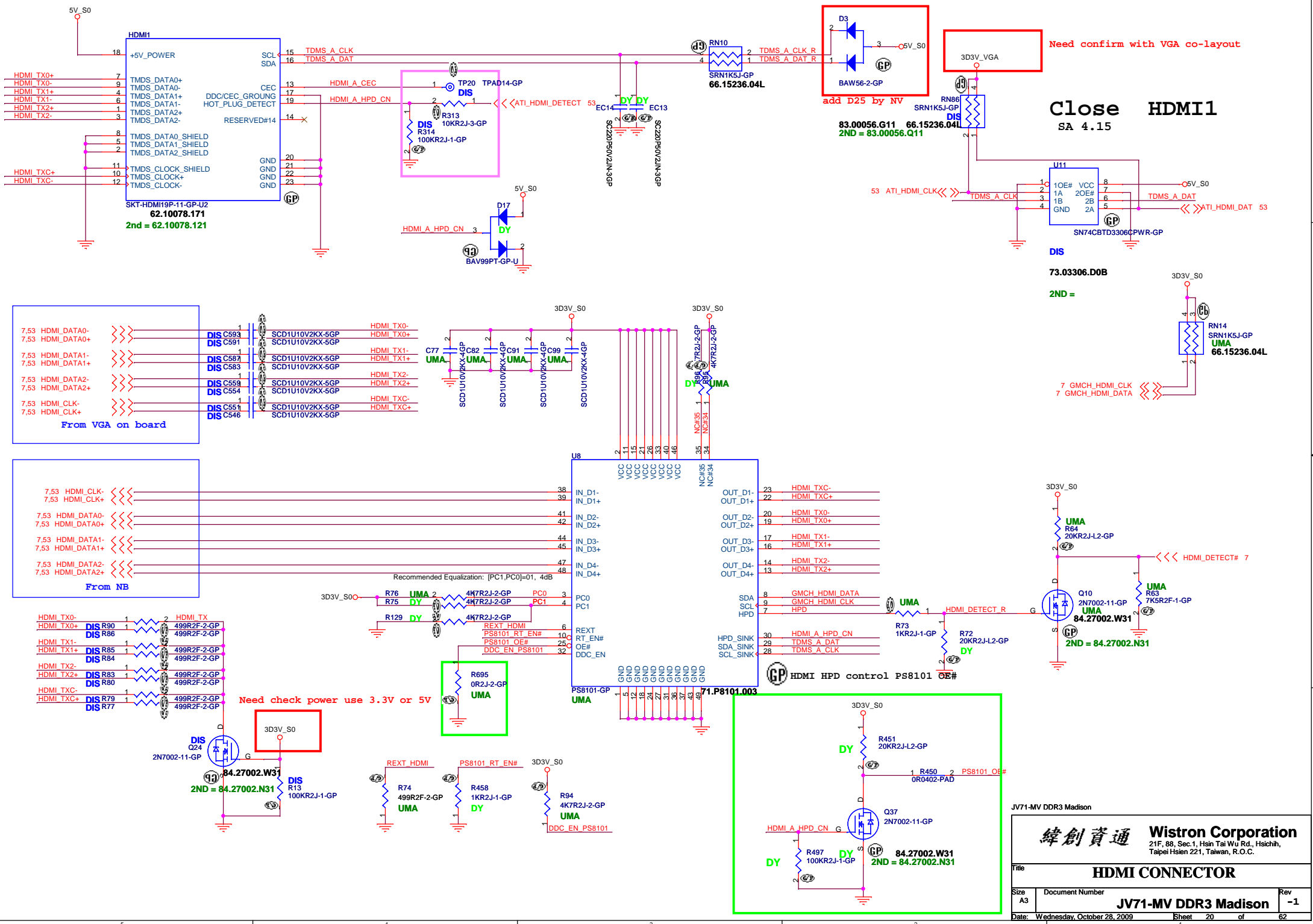


Hsync & Vsync level shift



DDC_CLK & DATA level shift





Close HDMI1
SA 4.15

DIS
73.03306.D0B
2ND =

7 GMCH_HDMI_CLK
7 GMCH_HDMI_DATA

HDMI_DETECT# 7

2ND = 84.27002.N31

2ND = 84.27002.N31

JV71-MV DDR3 Madison

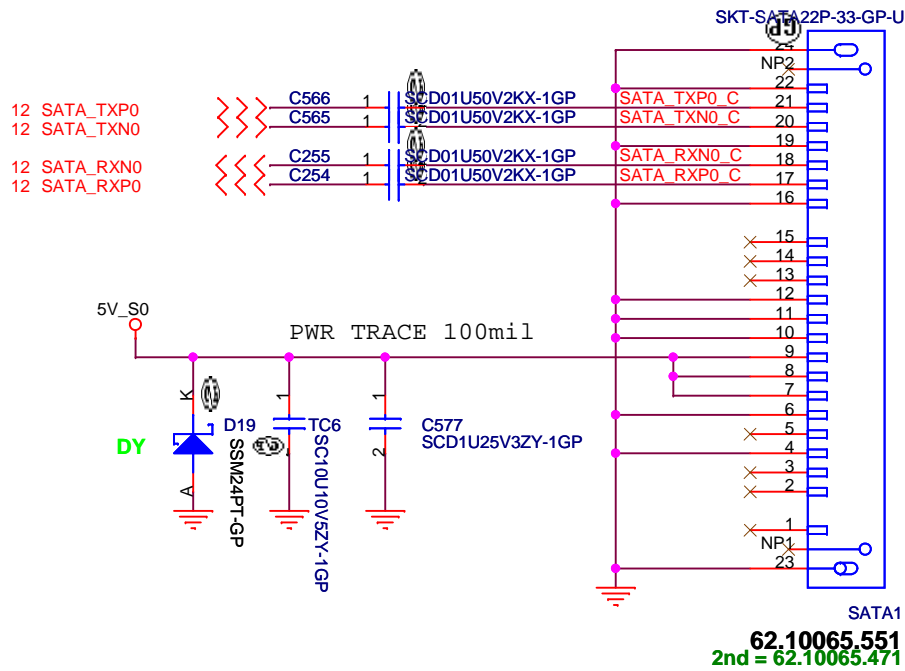
緯創資通 Wistron Corporation
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

HDMI CONNECTOR

File	Document Number	Rev
A3	JV71-MV DDR3 Madison	-1

Date: Wednesday, October 28, 2009 Sheet 20 of 62

SATA Connector

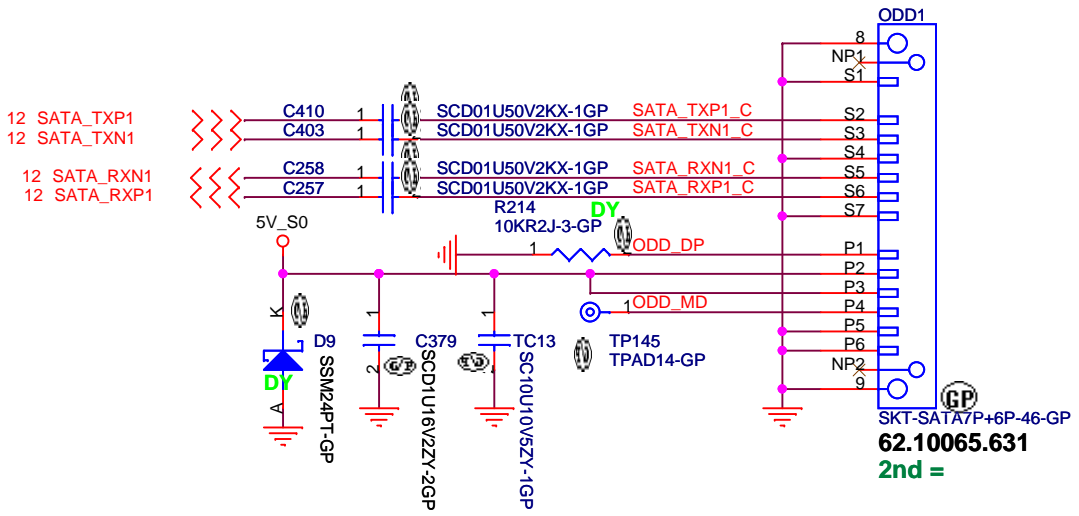


JV71-MV DDR3 Madison

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

Title			HDD CONN
Size	Document Number	Rev	JV71-MV DDR3 Madison
		-1	
Date: Wednesday, October 28, 2009			Sheet 21 of 62

ODD Connector



JV71-MV DDR3 Madison

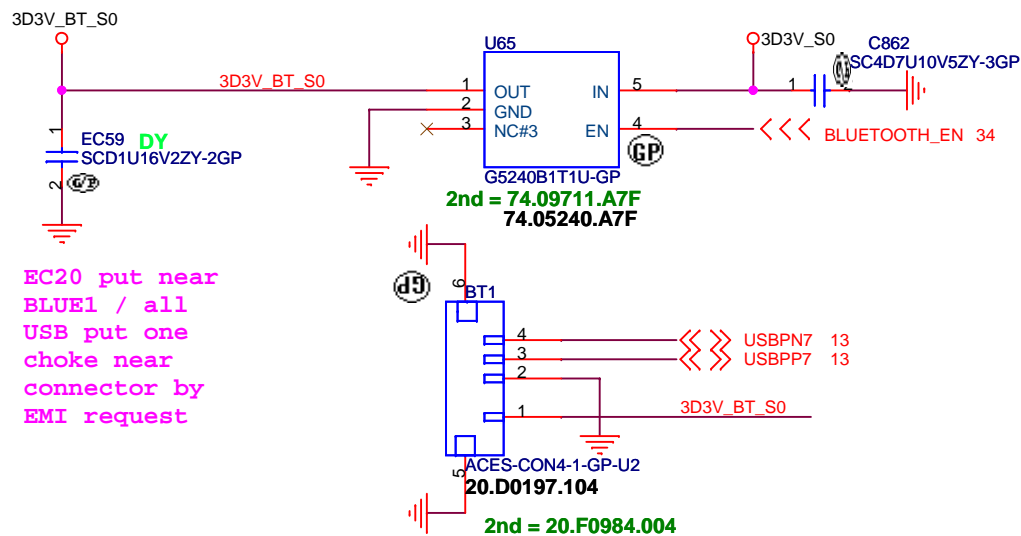
	Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
---	---

Title: **ODD**

Size	Document Number	Rev
------	-----------------	-----

JV71-MV DDR3 Madison

BLUETOOTH MODULE



JV71-MV DDR3 Madison

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

Title

BLUETOOTH

Size Document Number

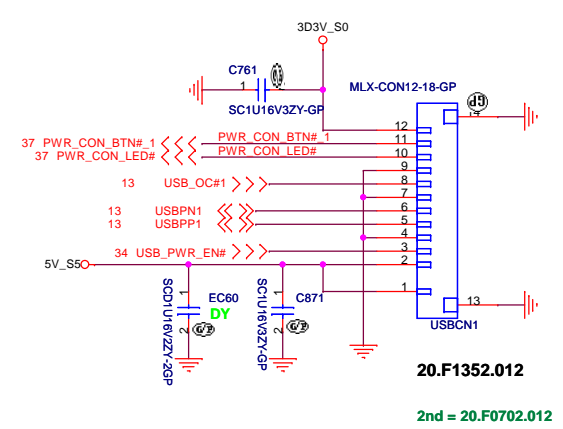
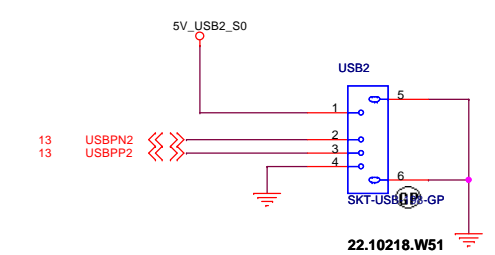
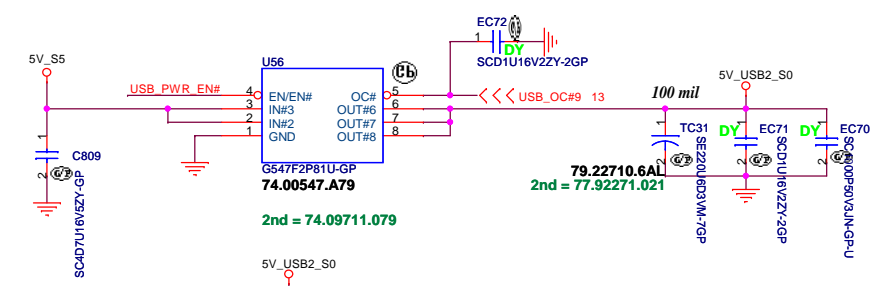
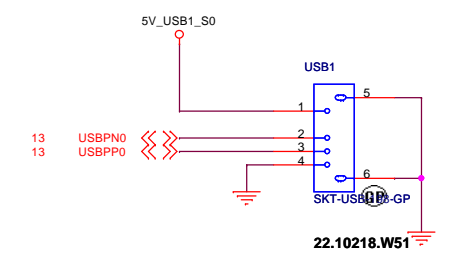
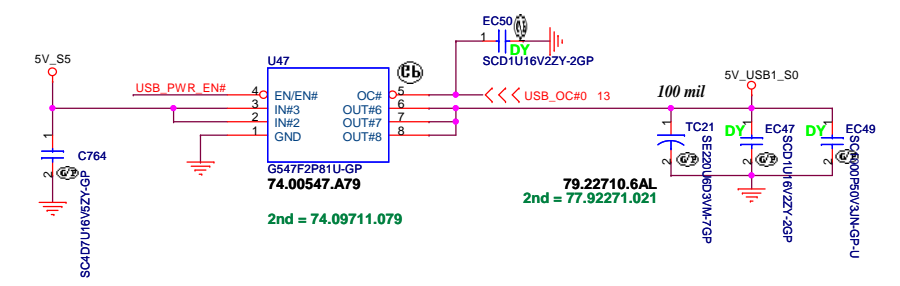
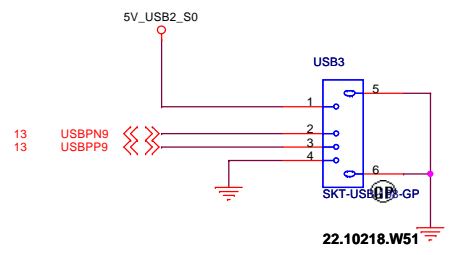
Rev

JV71-MV DDR3 Madison

-1

Date: Wednesday, October 28, 2009

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- PWR_CON_BTN# 1 EC36 2
- PWR_CON_LED# EC35 2
- USB_OC#1 EC34 2
- USB_PWR_EN# EC33 2

JV71-MV DDR3 Madison

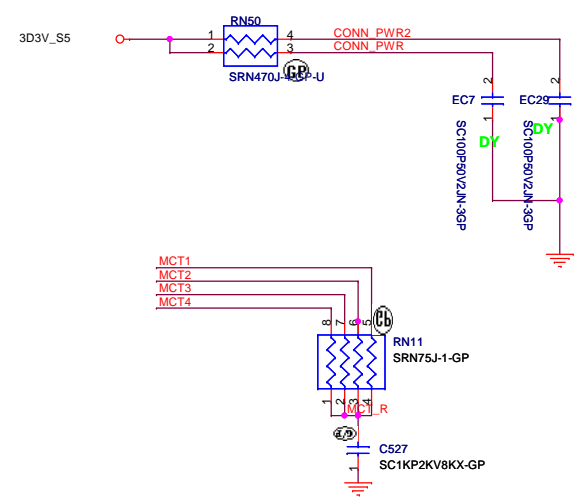
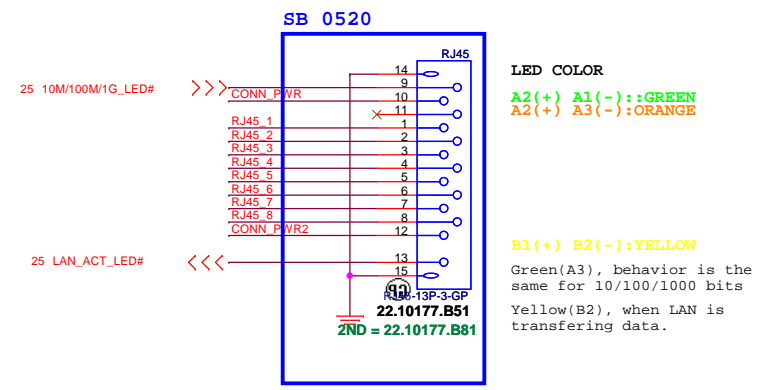
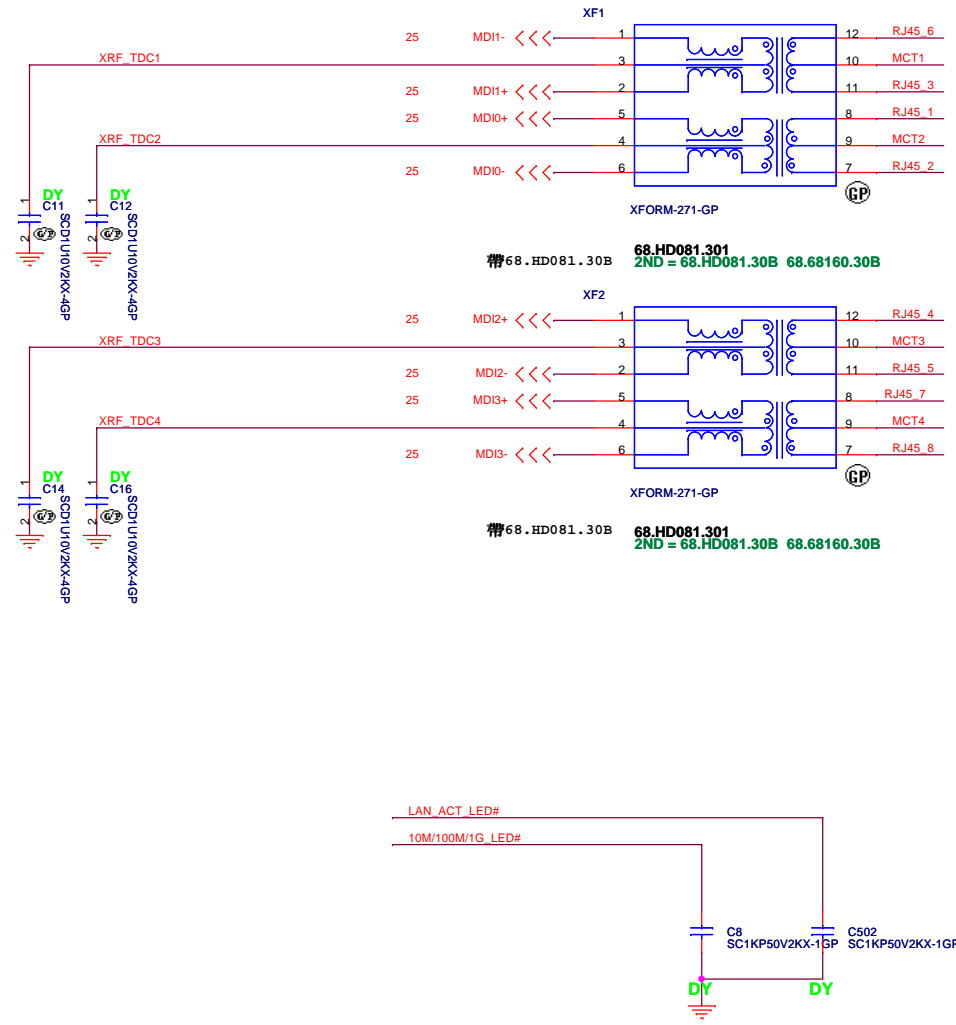
		Wistron Corporation 21F, 8B, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title: USB CONN			
Size	Document Number	Rev	
	JV71-MV DDR3 Madison	-1	
Date: Wednesday, October 26, 2009	Sheet	24	of 62

- 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.

LAN Connector

LAN Connector

GIGA Lan Transformer



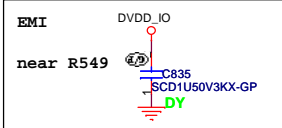
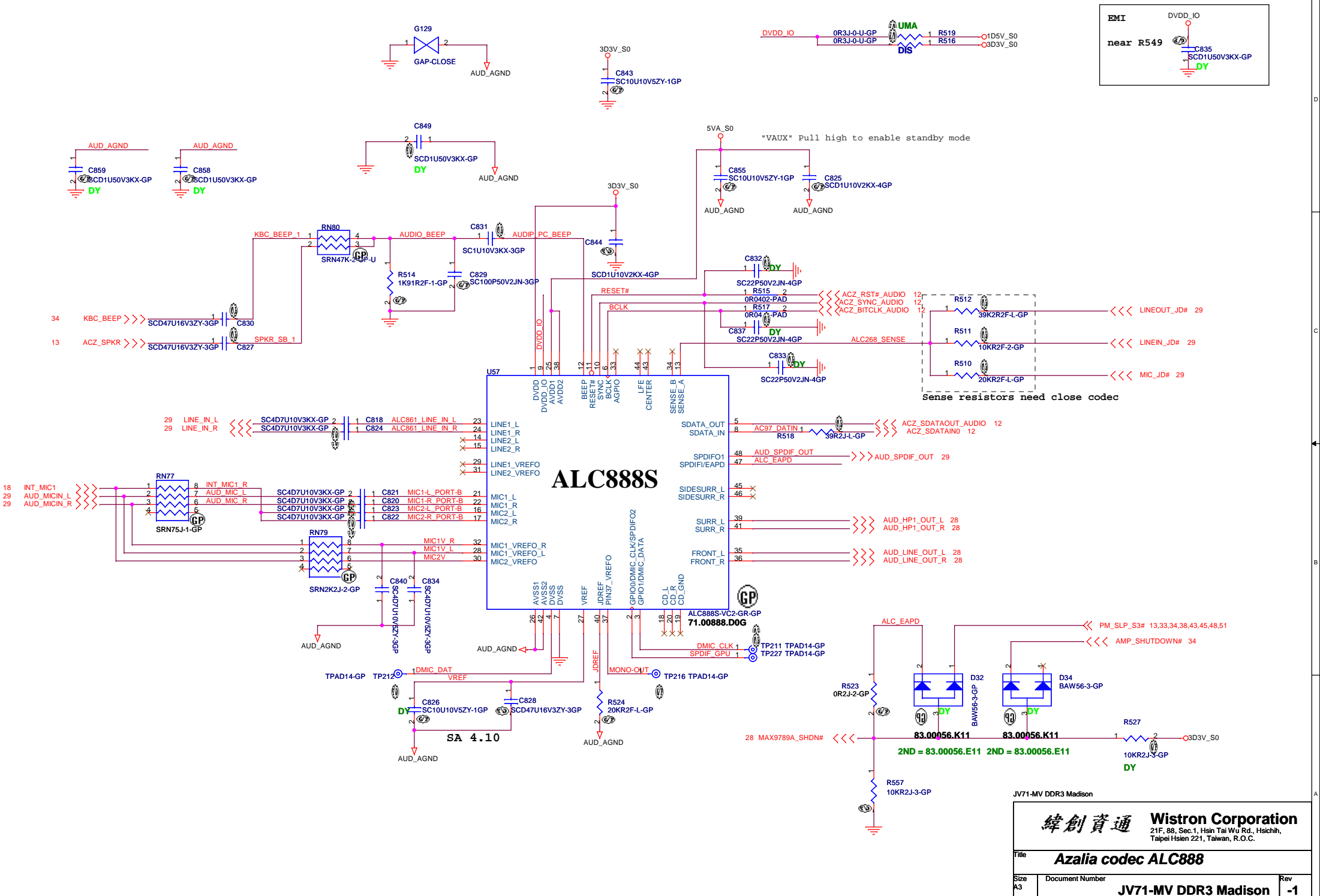
JV71-MV DDR3 Madison

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

Title: **LAN CONN**

Size A3	Document Number	Rev
	JV71-MV DDR3 Madison	-1

Date: Wednesday, October 28, 2009 Sheet 26 of 62



Sense resistors need close codec

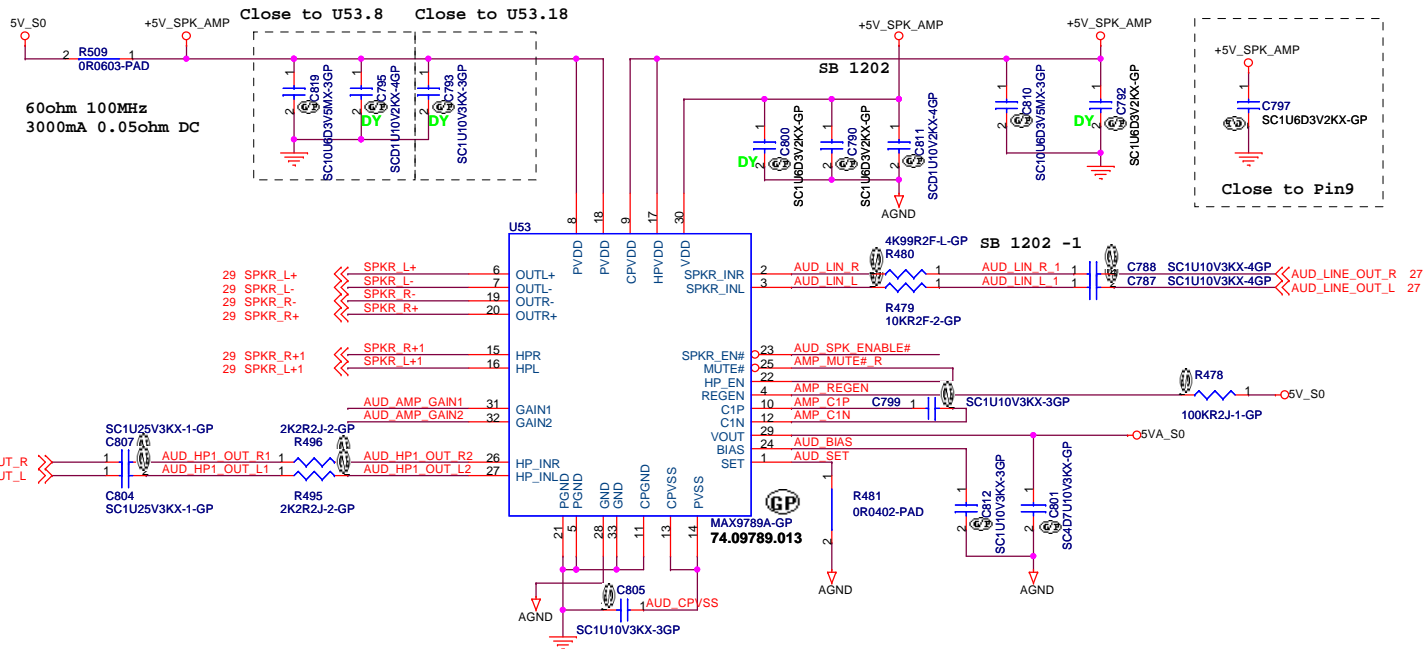
JV71-MV DDR3 Madison

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

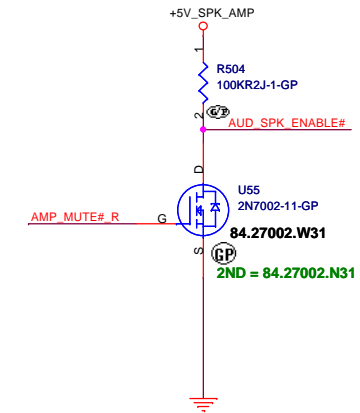
Title: **Azalia codec ALC888**

Size A3	Document Number	Rev
	JV71-MV DDR3 Madison	-1

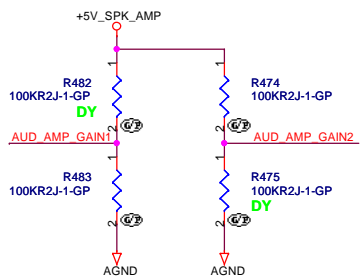
Date: Wednesday, October 28, 2009 Sheet 27 of 62



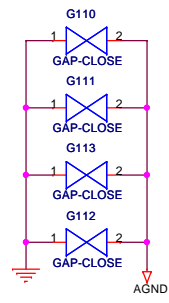
Signal inverter for speaker shutdown



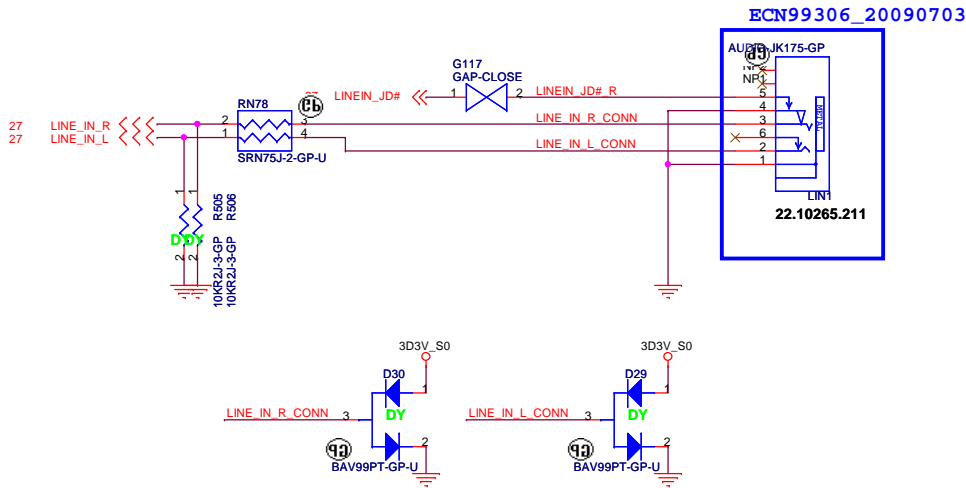
GAIN SETTING



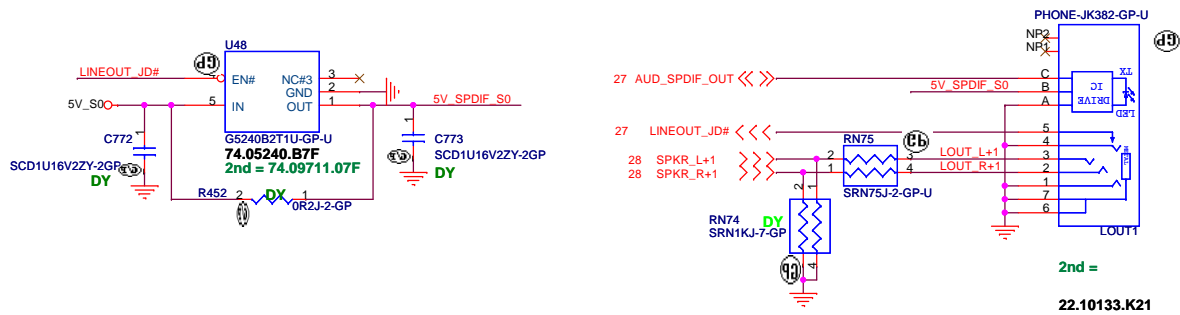
GAIN1	GAIN2	GAIN
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB



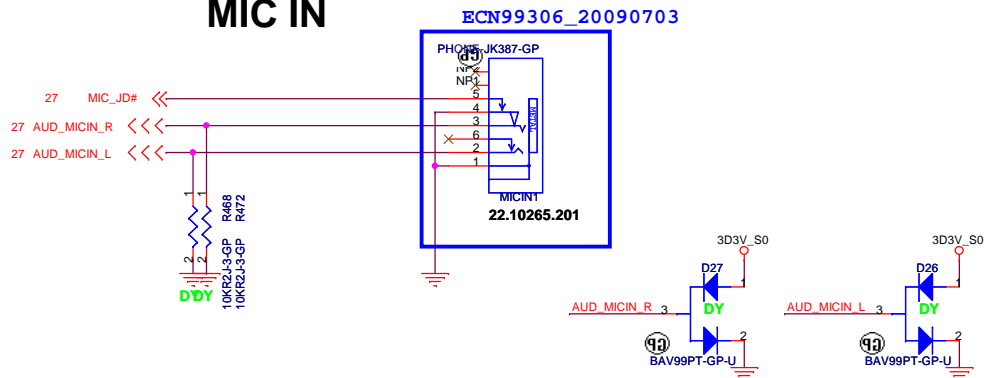
LINE IN



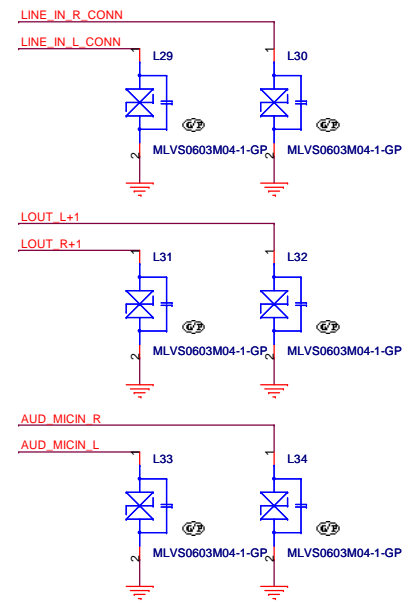
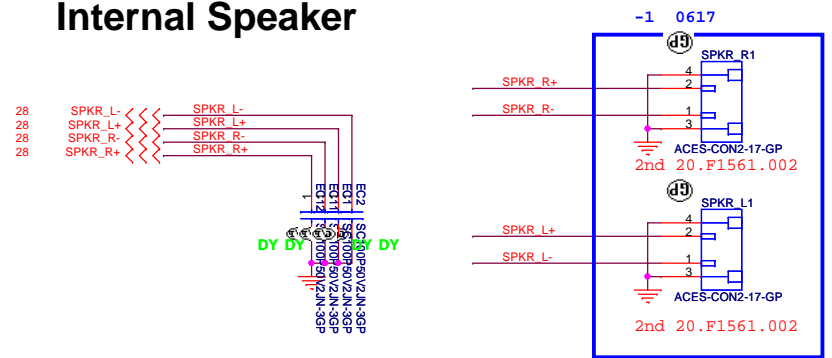
LINE OUT



MIC IN



Internal Speaker



JV71-MV DDR3 Madison

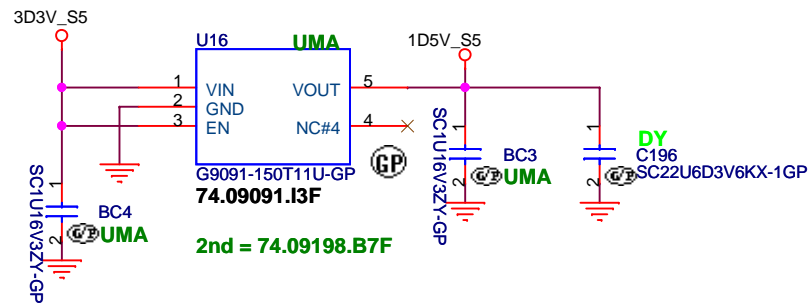
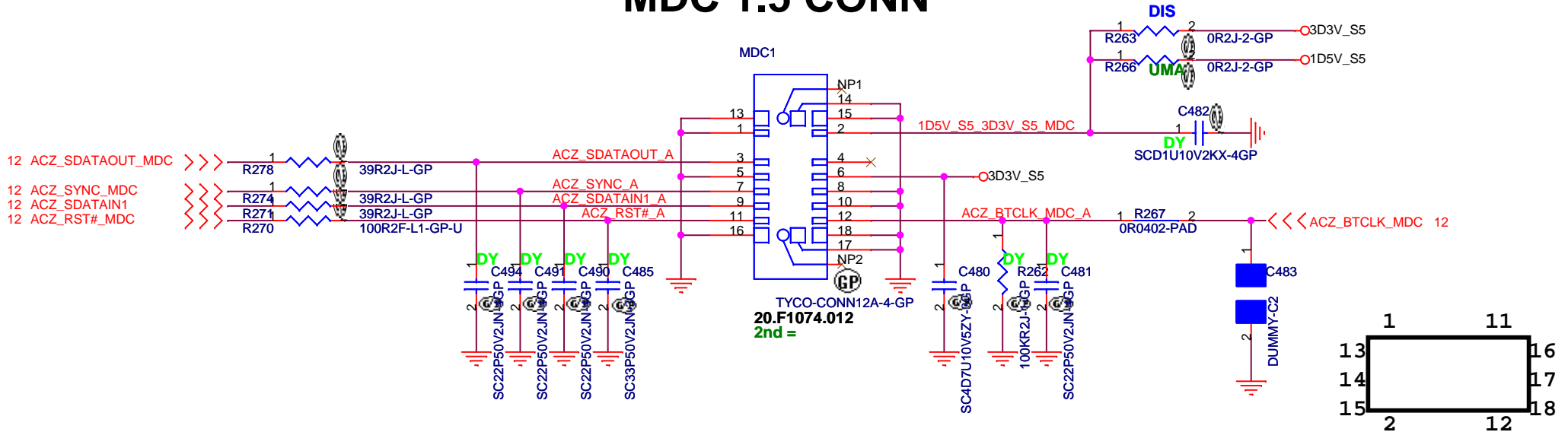
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **AUDIO jack**


Size: Document Number: **JV71-MV DDR3 Madison** Rev: **-1**

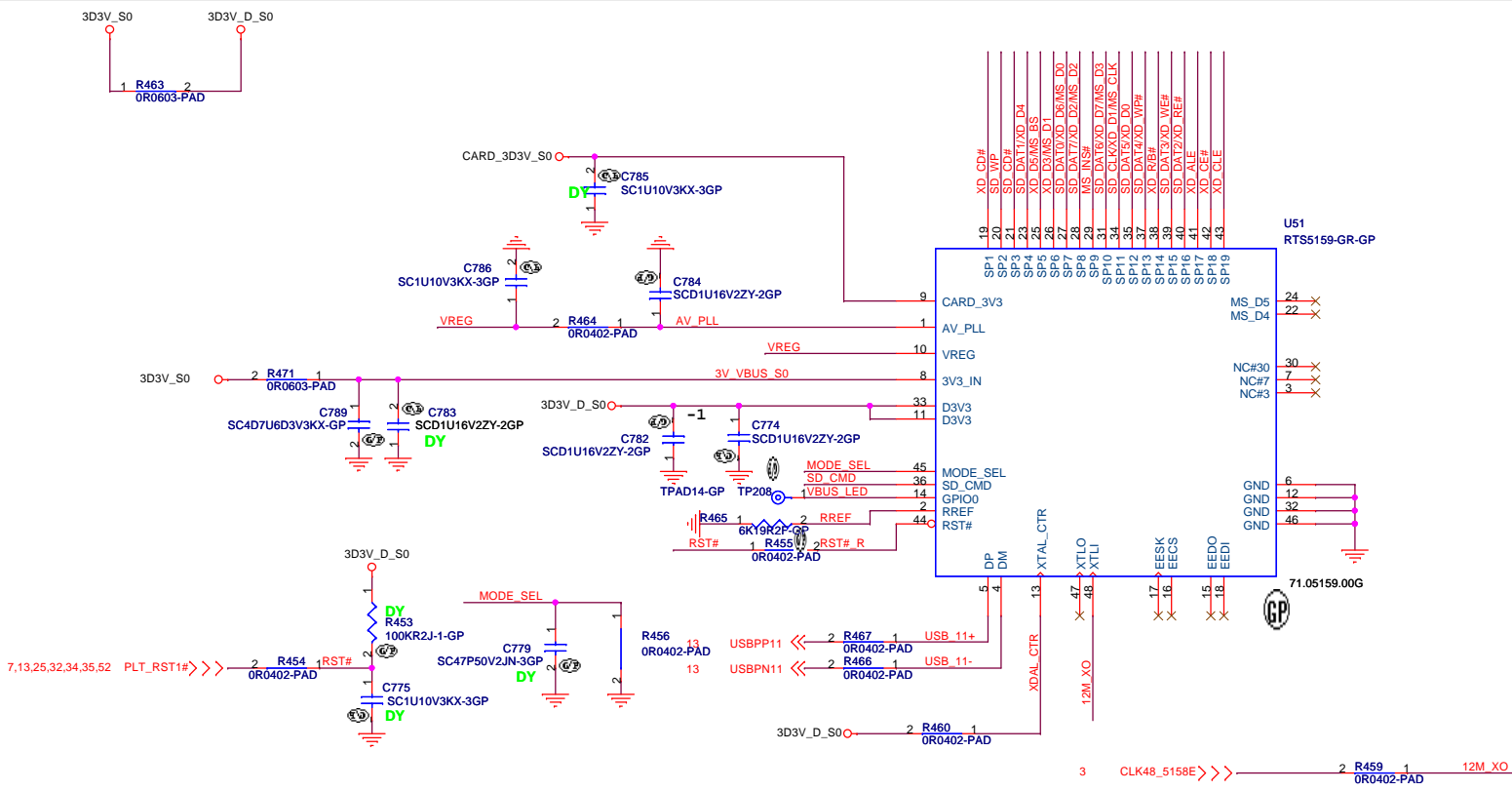
Date: Wednesday, October 28, 2009 Sheet: 29 of 62

MDC 1.5 CONN

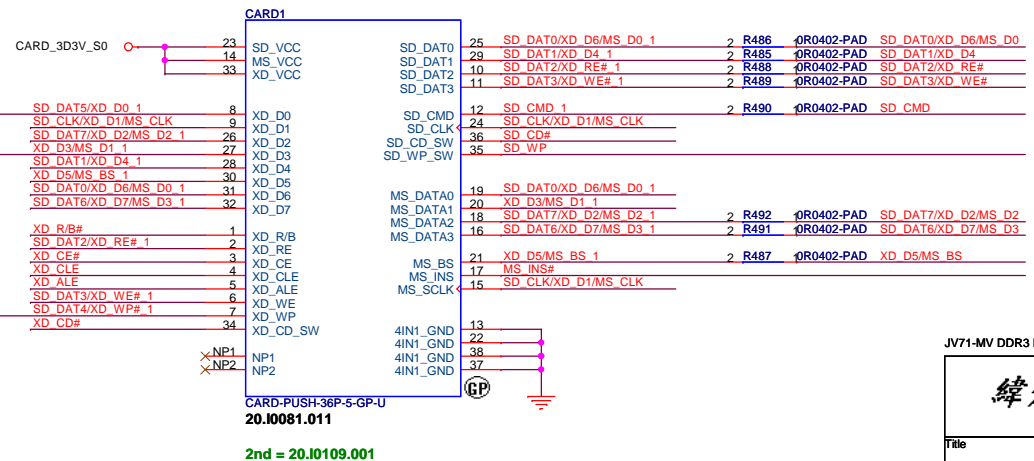
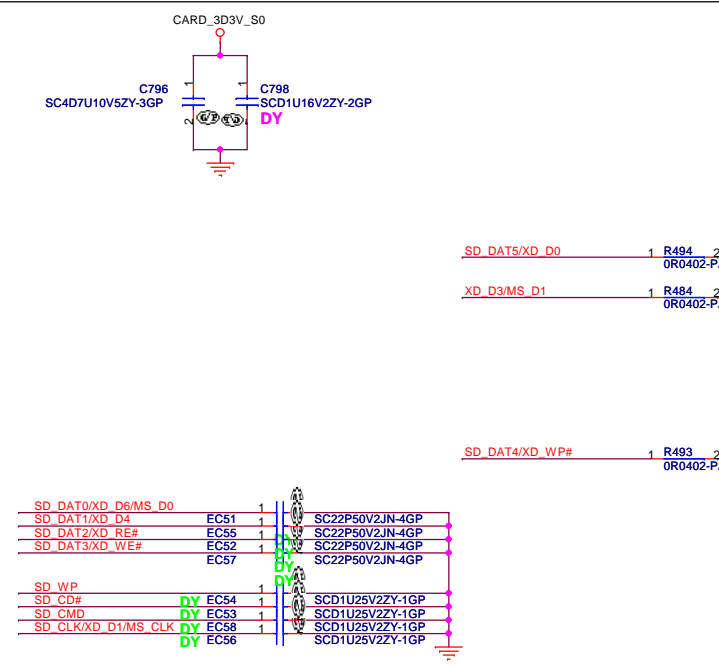


JV71-MV DDR3 Madison

 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title MDC	
Size	Document Number
JV71-MV DDR3 Madison	
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Rev	-1



5 IN 1 CARD-READER (SD/MMC/MS/XD/MS PRO)



JV71-MV DDR3 Madison

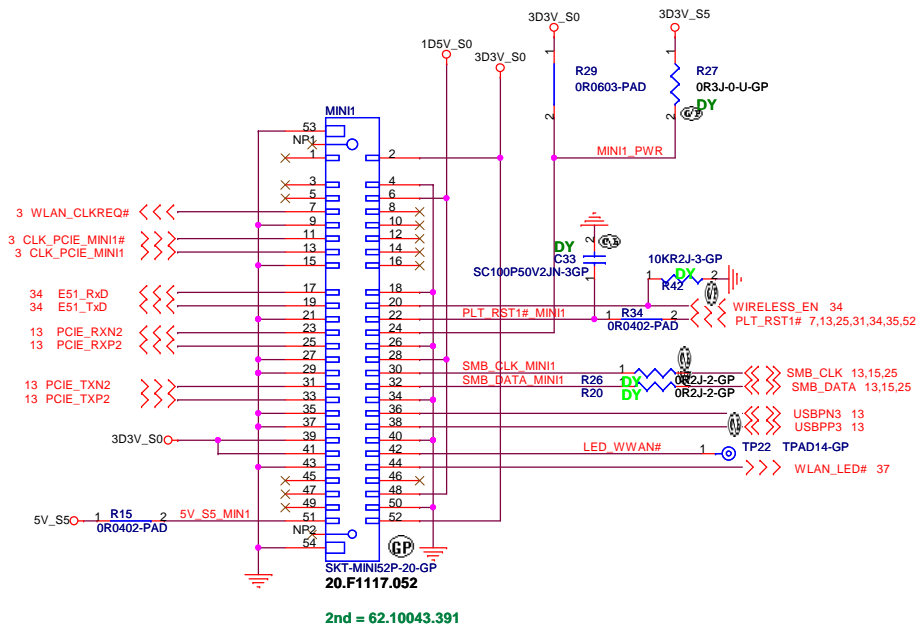
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **Cardreader RTS5159**

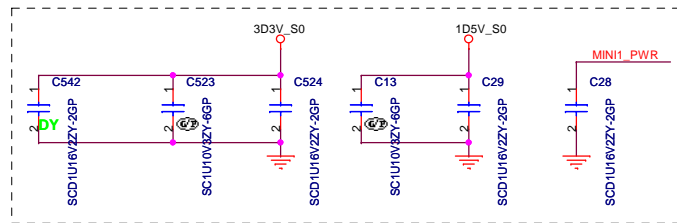
Size: Document Number: **JV71-MV DDR3 Madison** Rev: **-1**

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Mini Card Connector(WLAN) Support debug-card



Place near MINI1

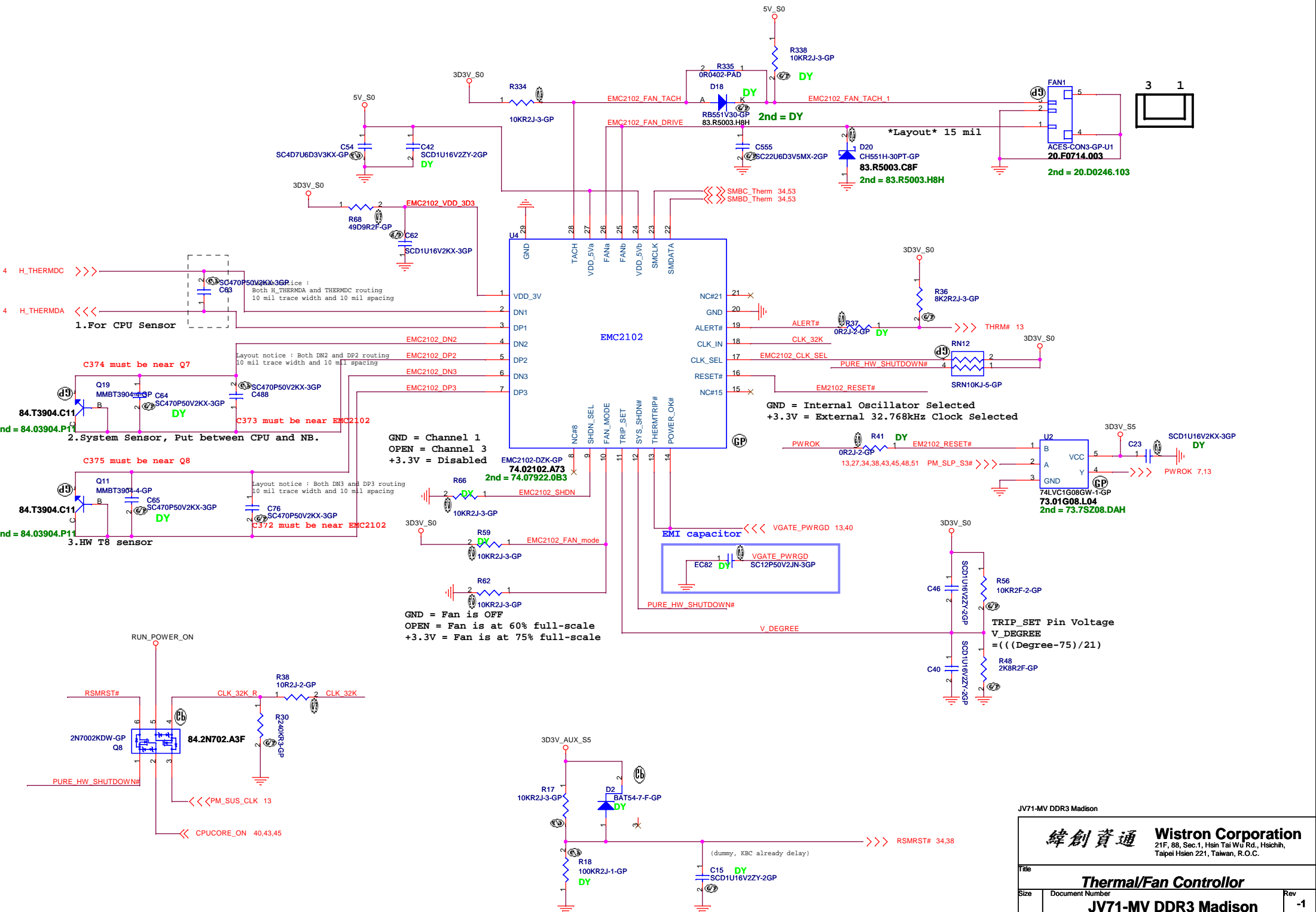


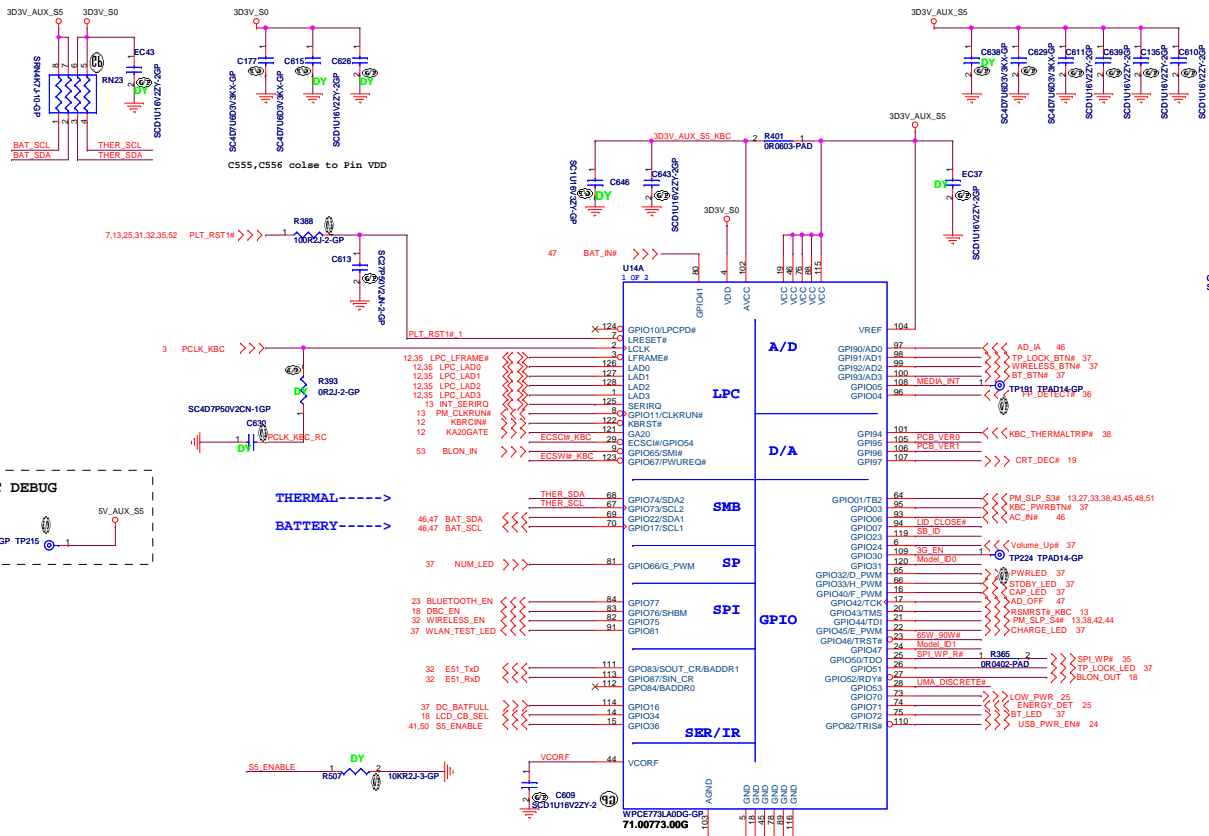
Mini Card Connector

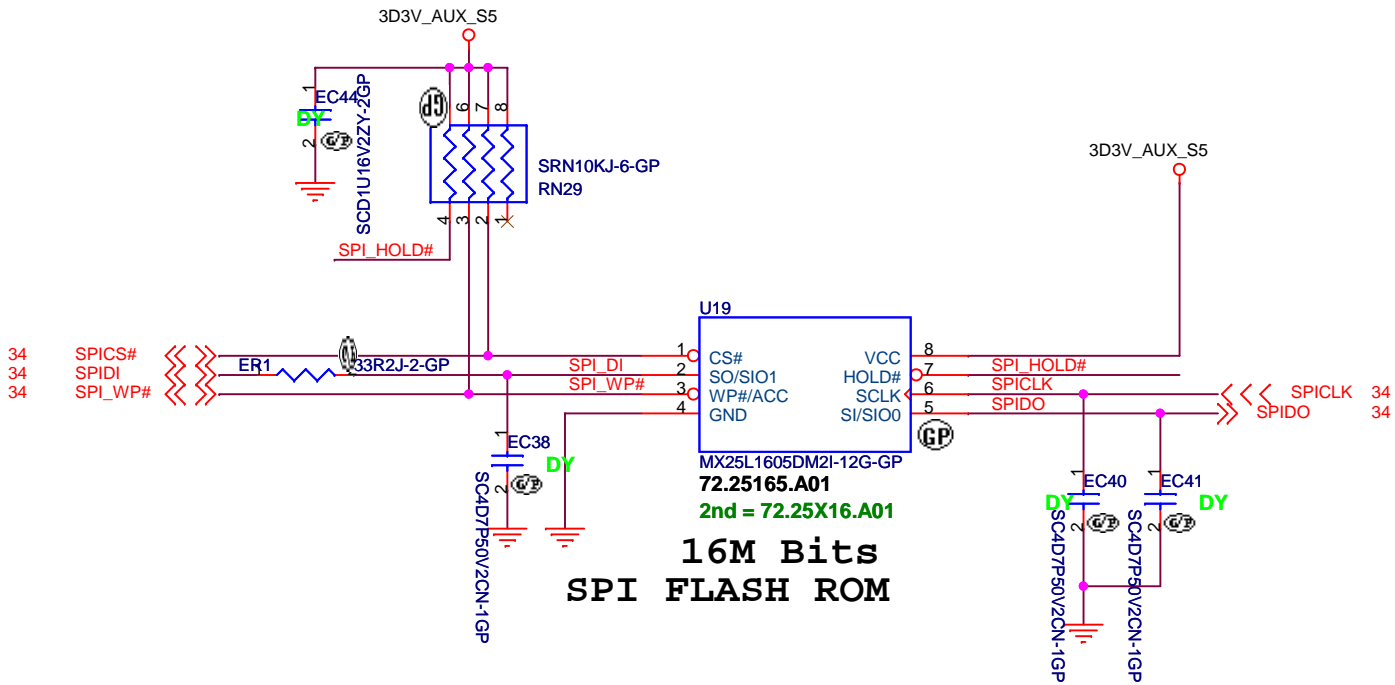
JV71-MV DDR3 Madison

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

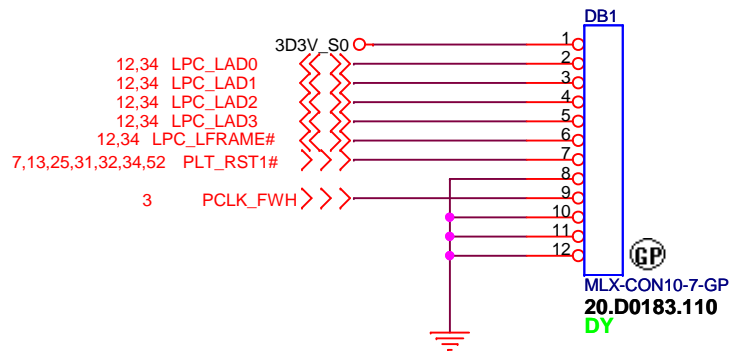
Title MINI CARD		
Size A3	Document Number JV71-MV DDR3 Madison	Rev -1
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GOLDEN FINGER FOR DEBUG BOARD



JV71-MV DDR3 Madison

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

Title

BIOS

Size

Document Number

JV71-MV DDR3 Madison

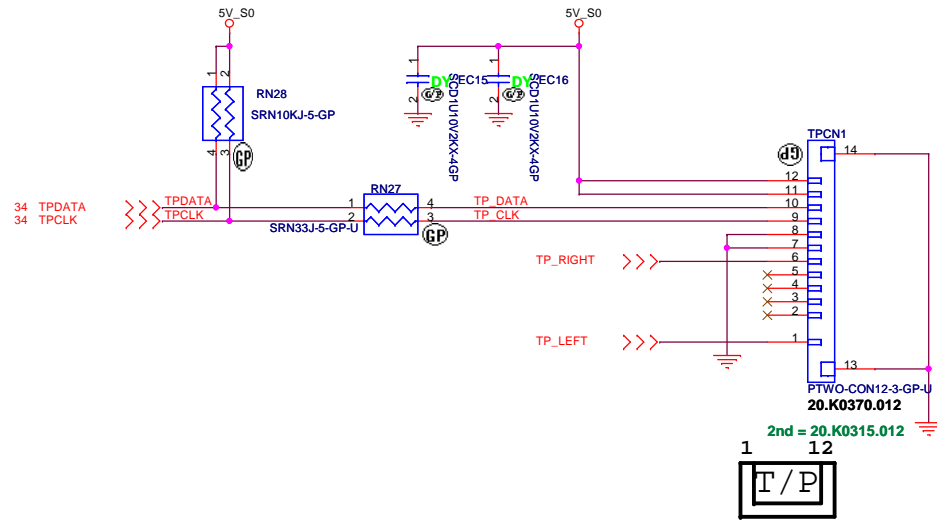
Rev

-1

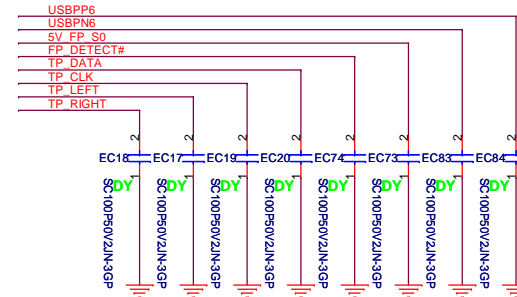
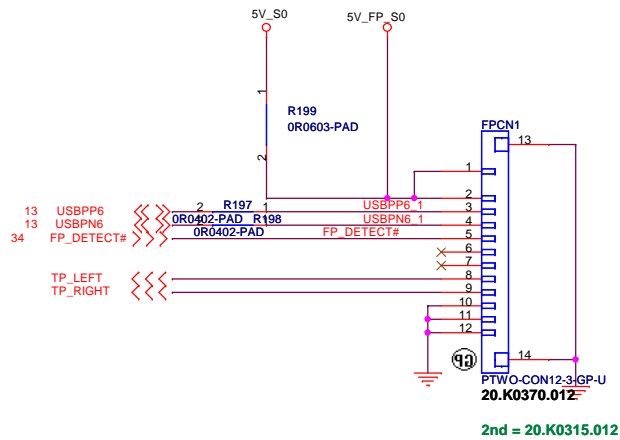
Date: Wednesday, October 28, 2009

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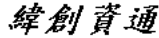
TOUCH PAD



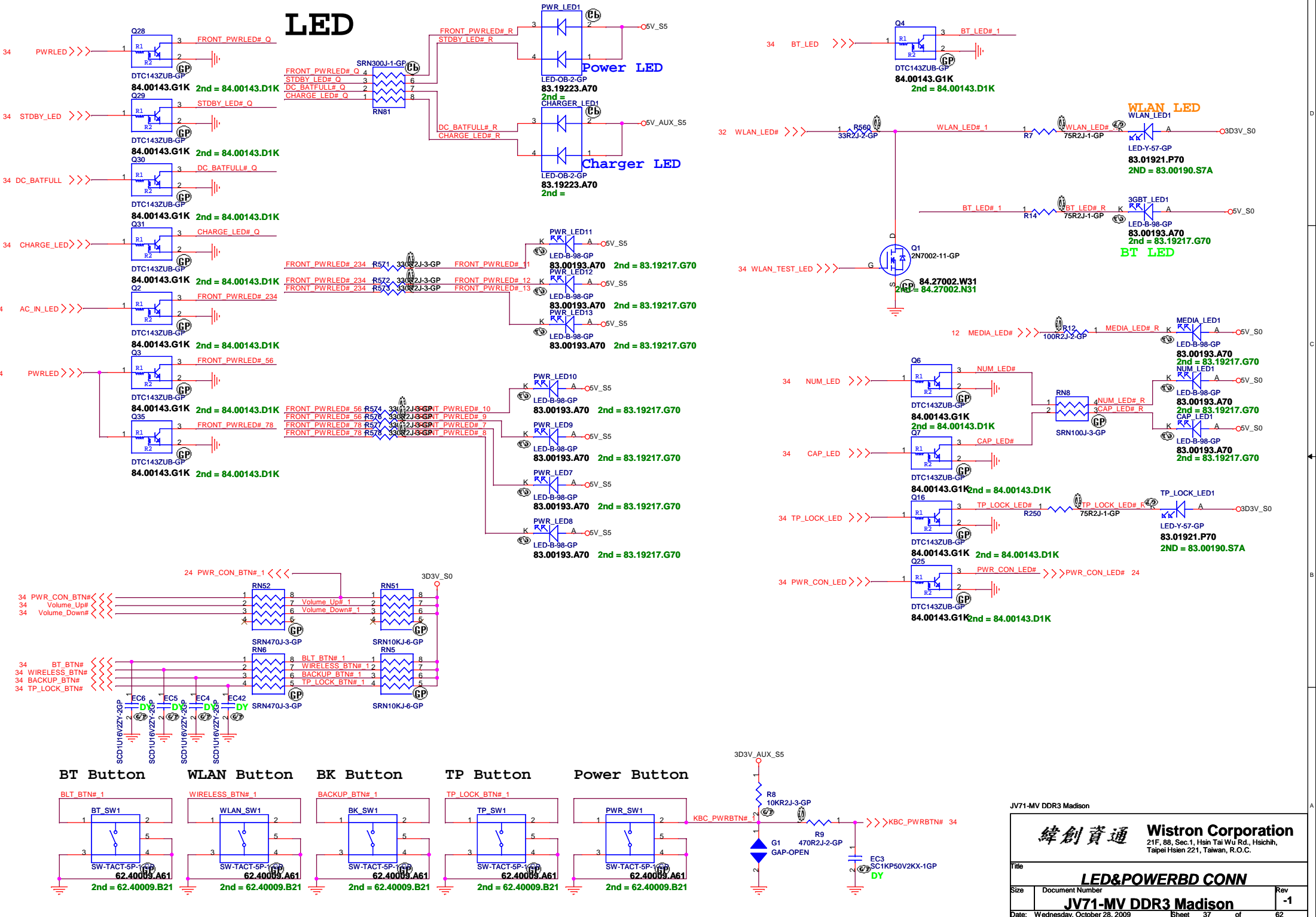
Finger printer



JV71-MV DDR3 Madison

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Title		
Touch PAD and FP		
Size	Document Number	Rev
	JV71-MV DDR3 Madison	-1
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LED



JV71-MV DDR3 Madison

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

Title: **LED&POWERBD CONN**

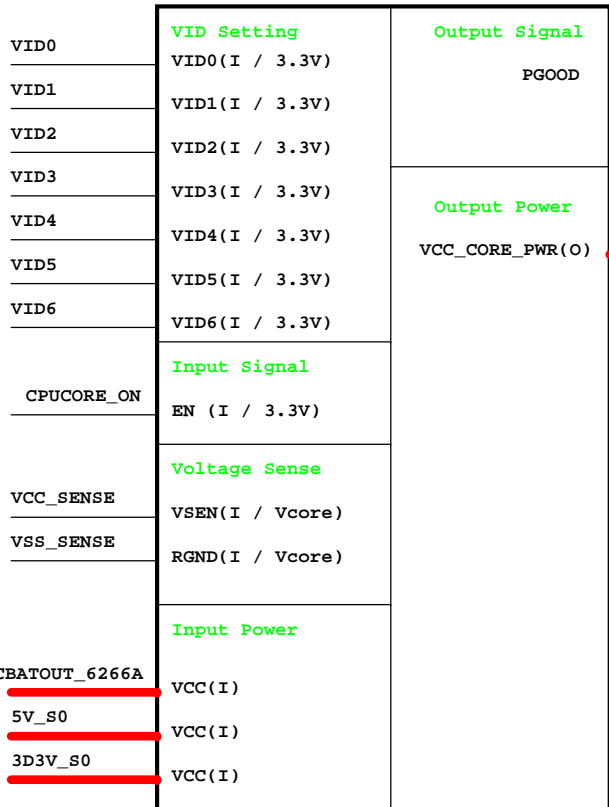
Size: Document Number

Date: Wednesday, October 28, 2009

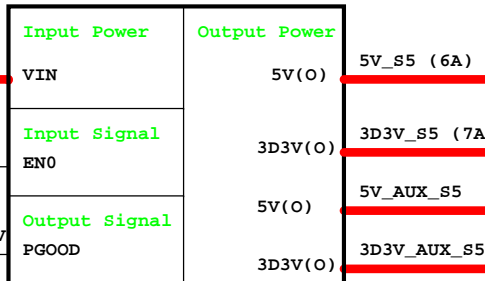
Sheet 37 of 62

Rev: -1

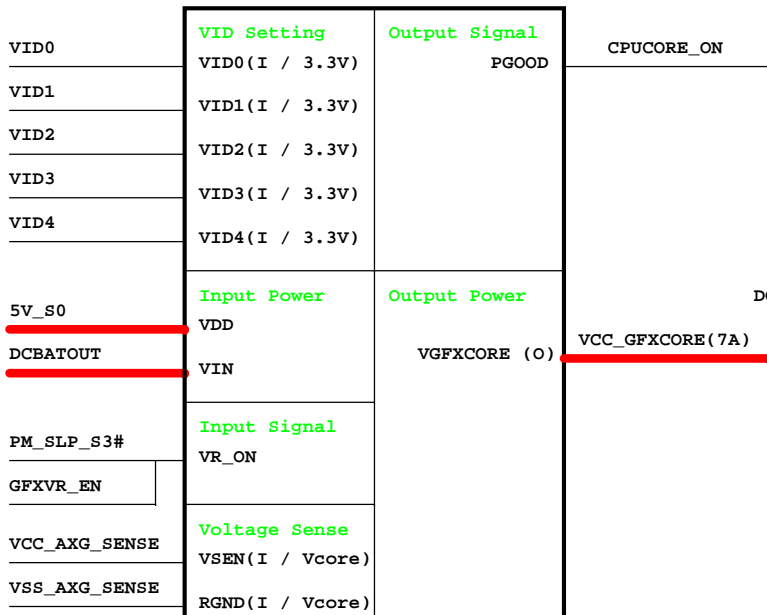
CPU_CORE
ISL6266A



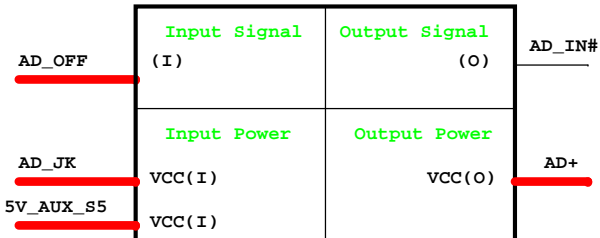
ISL62392
5V/3D3V



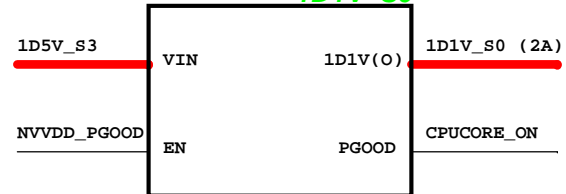
GFX_CORE
ISL6263A



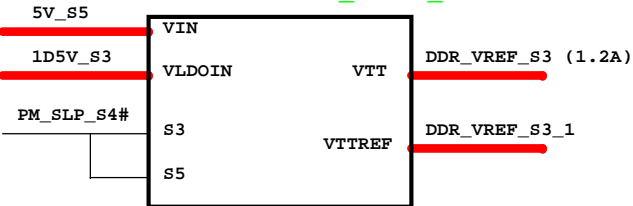
Adapter



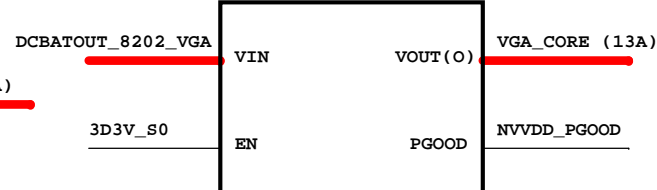
RT9018A 1D1V S0



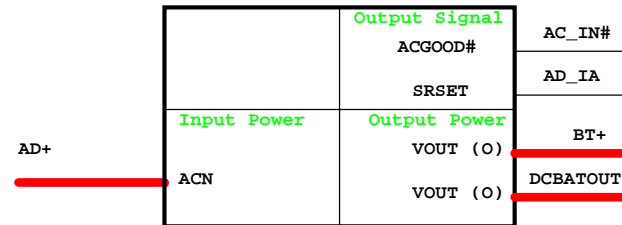
RT9026 DDR_VREF_S3



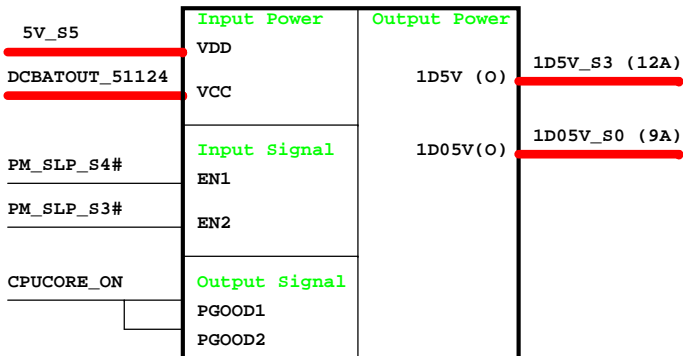
RT8202A VGA CORE



Charger ISL88731A



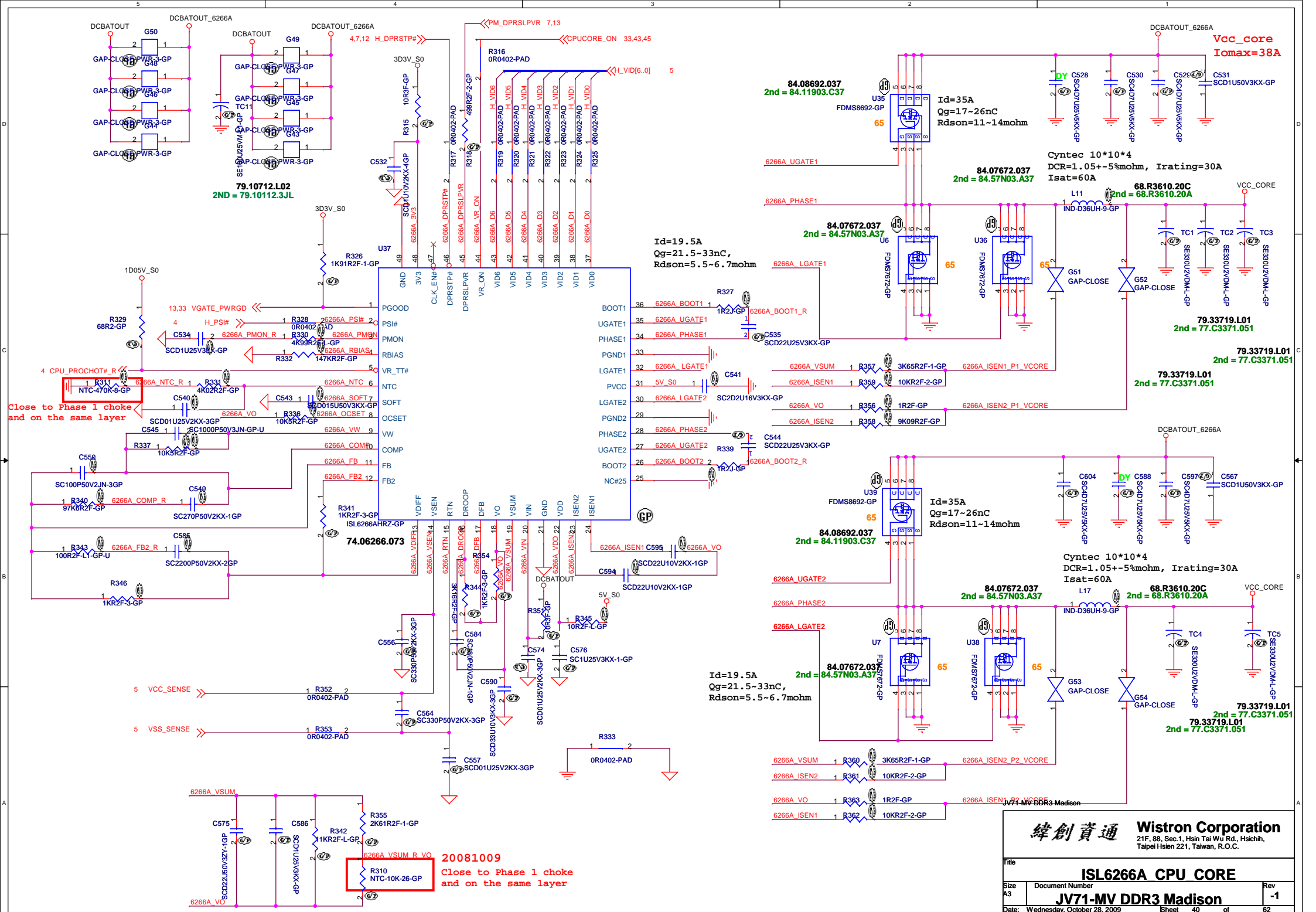
TPS51124
1D5V/1D05V



JV71-MV DDR3 Madison

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

Title Power Sequence Logic		
Size B	Document Number JV71-MV DDR3 Madison	Rev -1
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79.10712.L02
2ND = 79.10112.3JL

Close to Phase 1 choke
and on the same layer

20081009
R310
NTC-10K-26-GP
Close to Phase 1 choke
and on the same layer

84.08692.037
2nd = 84.11903.C37
FDM8692-GP
U35
Id=35A
Qg=17~26nC
Rdson=11~14mohm

84.07672.037
2nd = 84.57N03.A37
FDM8767Z-GP
U36
Id=19.5A
Qg=21.5~33nC,
Rdson=5.5~6.7mohm

84.07672.037
2nd = 84.57N03.A37
FDM8767Z-GP
U6
Id=19.5A
Qg=21.5~33nC,
Rdson=5.5~6.7mohm

84.08692.037
2nd = 84.11903.C37
FDM8692-GP
U39
Id=35A
Qg=17~26nC
Rdson=11~14mohm

84.07672.037
2nd = 84.57N03.A37
FDM8767Z-GP
U7
Id=19.5A
Qg=21.5~33nC,
Rdson=5.5~6.7mohm

84.07672.037
2nd = 84.57N03.A37
FDM8767Z-GP
U38
Id=19.5A
Qg=21.5~33nC,
Rdson=5.5~6.7mohm

Vcc_core
Iomax=38A
C528
C530
C529
C531
SCD1U50V3KX-GP

Cyntec 10*10*4
DCR=1.05+-5% μ ohm, Irating=30A
Isat=60A
L11
IND-D36UH-9-GP
2nd = 68.R3610.20A
68.R3610.20C
TC1
TC2
TC3
SE330U2VDM-L-GP

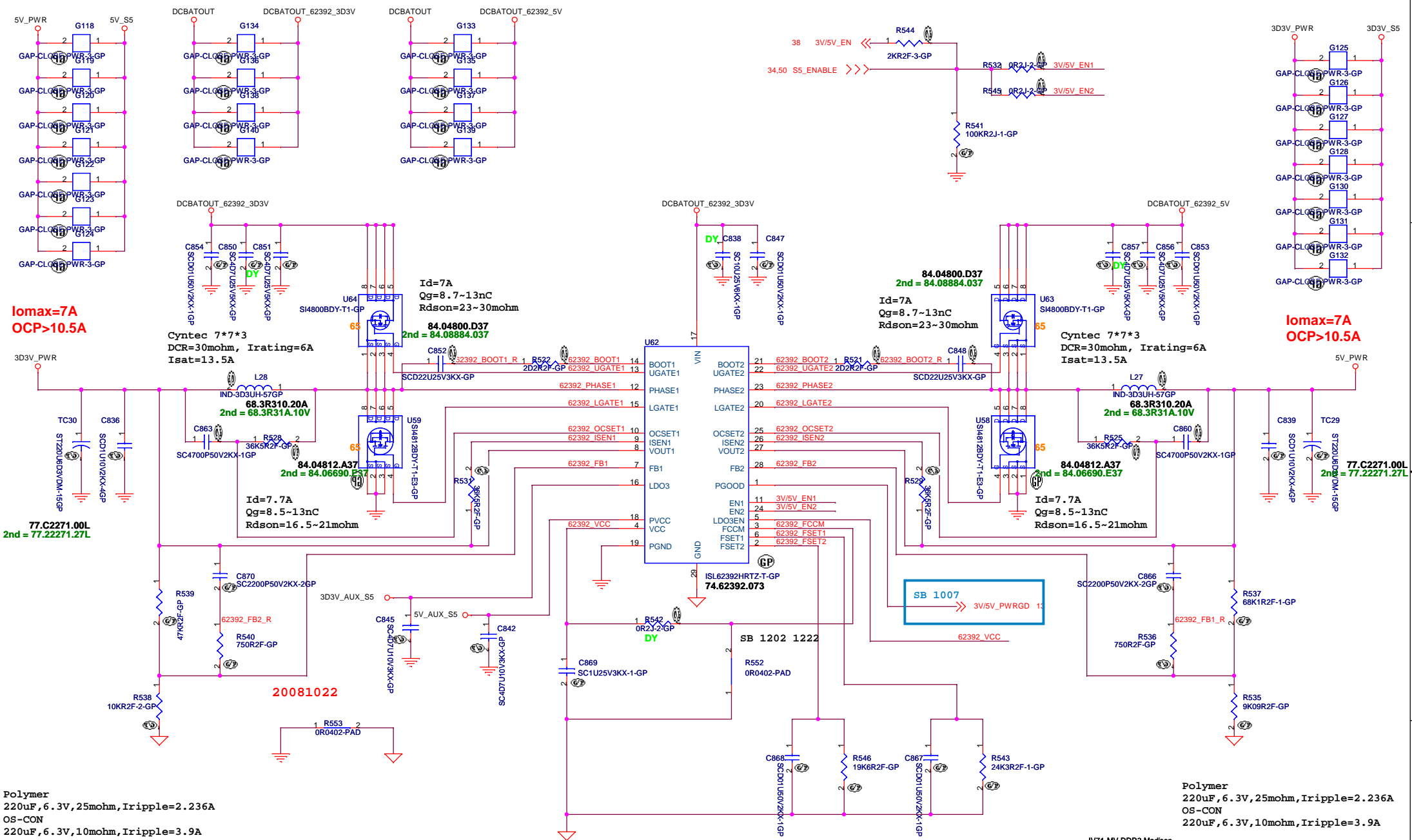
79.33719.L01
2nd = 77.C3371.051
79.33719.L01
2nd = 77.C3371.051

Cyntec 10*10*4
DCR=1.05+-5% μ ohm, Irating=30A
Isat=60A
L17
IND-D36UH-9-GP
2nd = 68.R3610.20A
68.R3610.20C
TC4
TC5
SE330U2VDM-L-GP

79.33719.L01
2nd = 77.C3371.051
79.33719.L01
2nd = 77.C3371.051

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	Document Number	Rev
A3	JV71-MV DDR3 Madison	-1
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Iomax=7A
OCP>10.5A

Iomax=7A
OCP>10.5A

Polymer
220uF, 6.3V, 25mohm, Irripple=2.236A
OS-CON
220uF, 6.3V, 10mohm, Irripple=3.9A

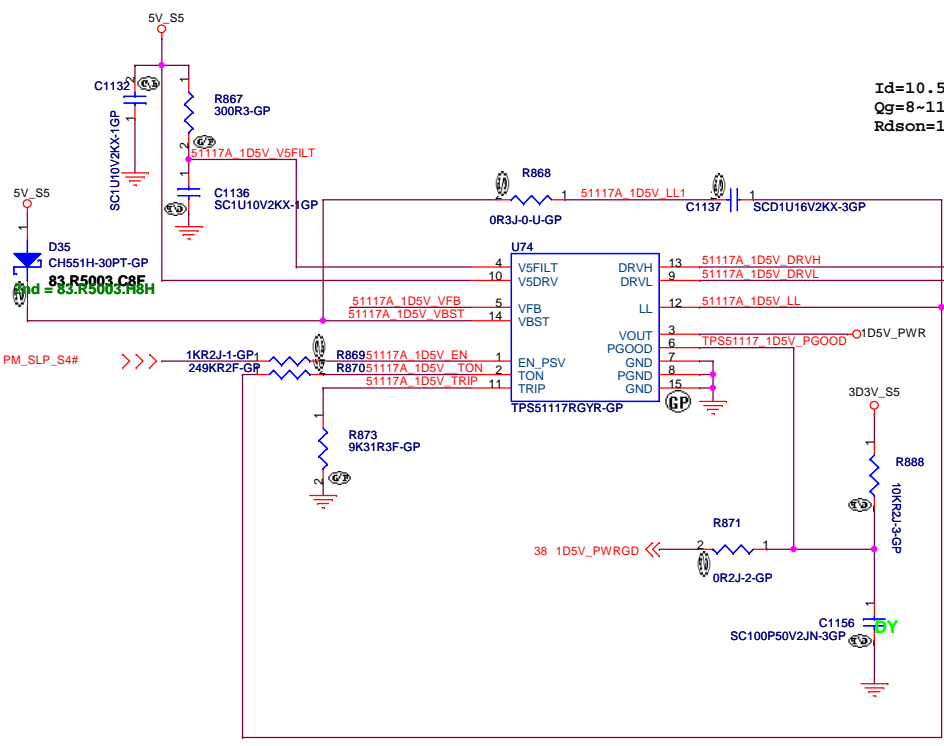
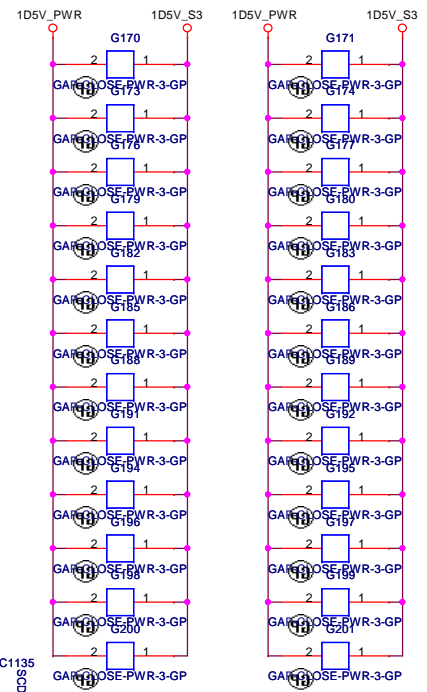
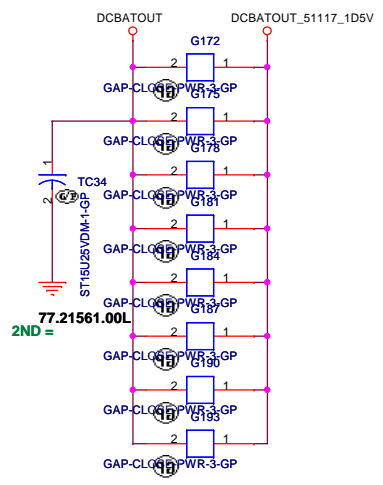
Polymer
220uF, 6.3V, 25mohm, Irripple=2.236A
OS-CON
220uF, 6.3V, 10mohm, Irripple=3.9A

$$V_{out} = 0.6 * (1 + R1/R2)$$

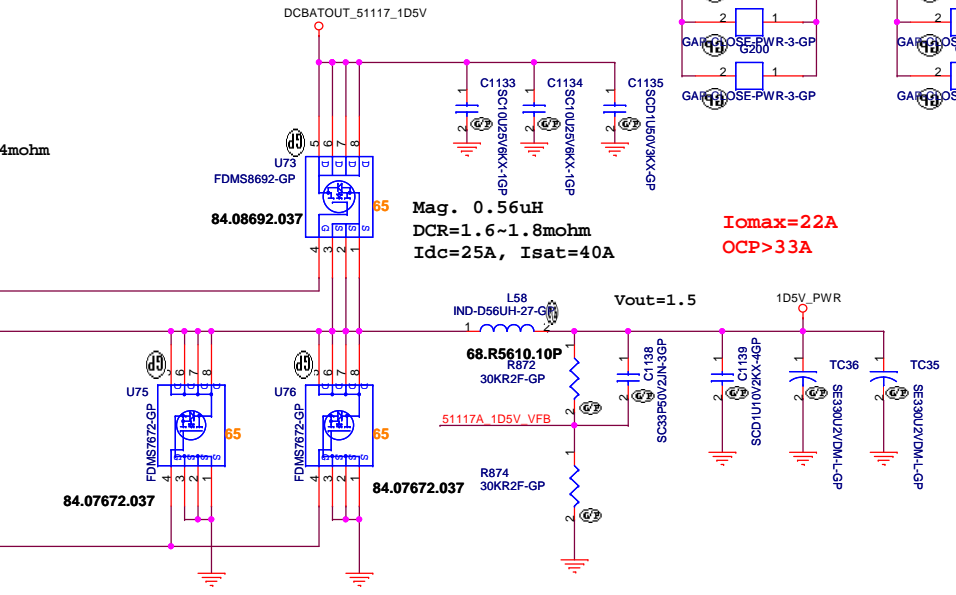
JV71-MV DDR3 Madison

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

Title ISL62392 5V/3D3V		
Size Custom	Document Number JV71-MV DDR3 Madison	Rev -1
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Id=10.5A
Qg=8~11nC,
Rdson=10.5~14mohm



Mag. 0.56uH
DCR=1.6~1.8mohm
Idc=25A, Isat=40A

Iomax=22A
OCP>33A

Id=15A
Qg=15~21nC,
Rdson=5.2~6.9mohm

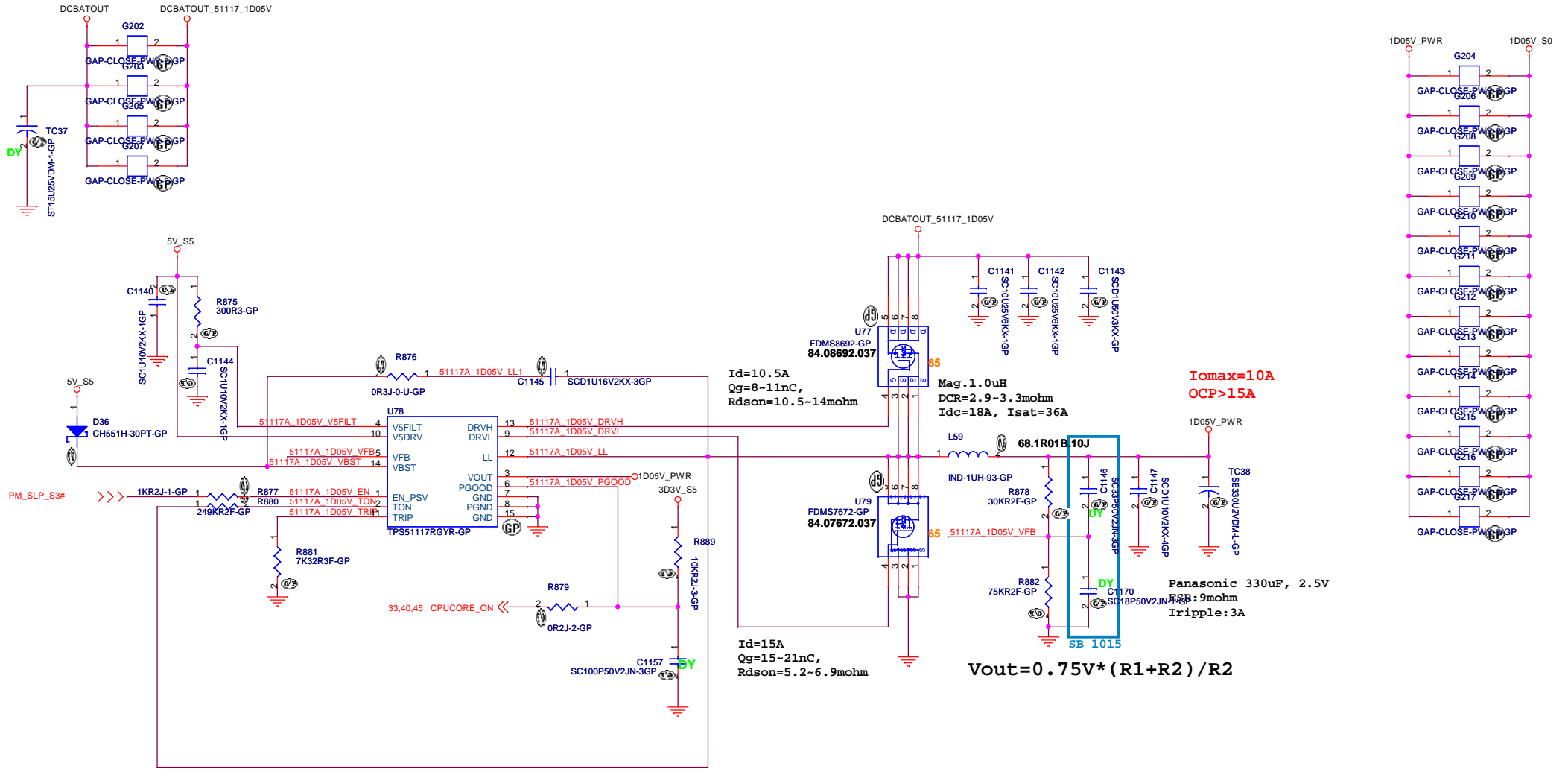
Panasonic 330uF, 2.5V
ESR:9mohm
Iripple:3A

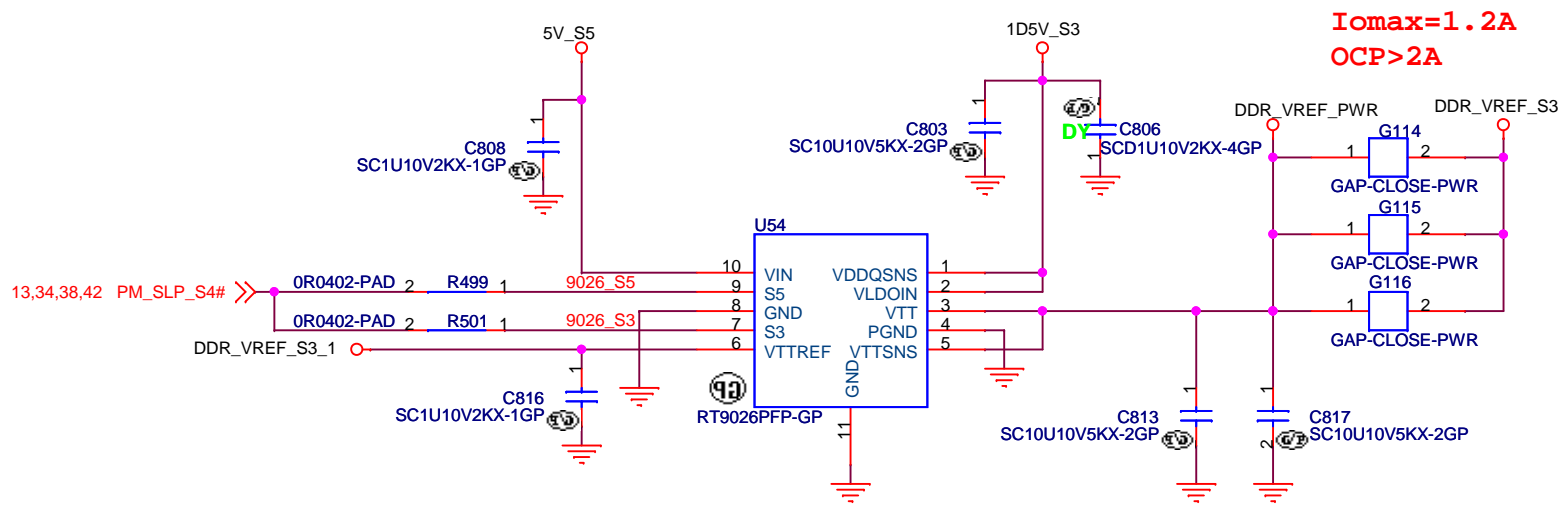
$$V_{out} = 0.75V * (R1 + R2) / R2$$

JV71-MV DDR3 Madison

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

Title		
TPS51117 1D5V		
Size	Document Number	Rev
A3	JV71-MV DDR3 Madison	-1
Date:	Wednesday, October 28, 2009	Sheet 42 of 62

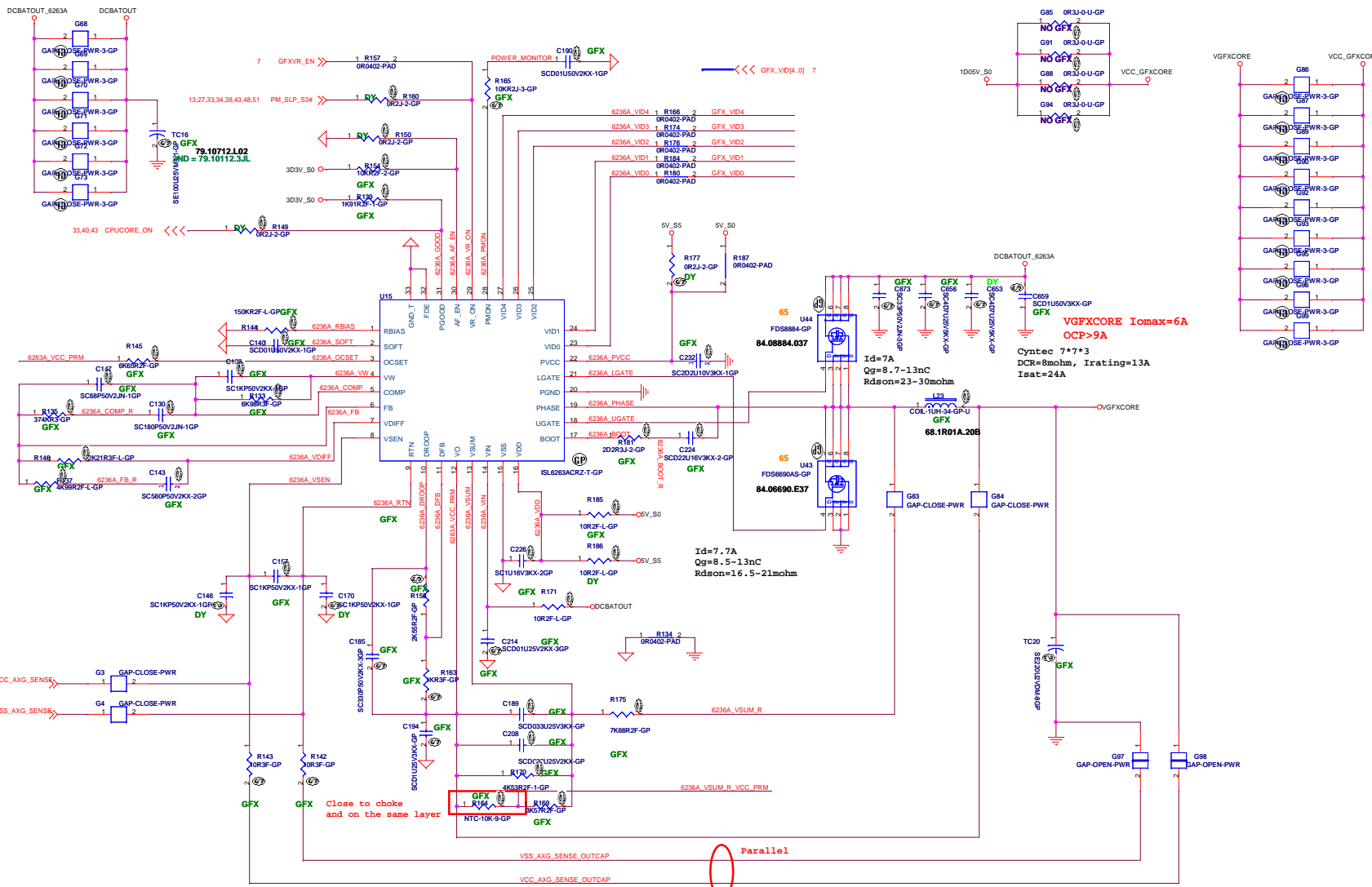




JV71-MV DDR3 Madison

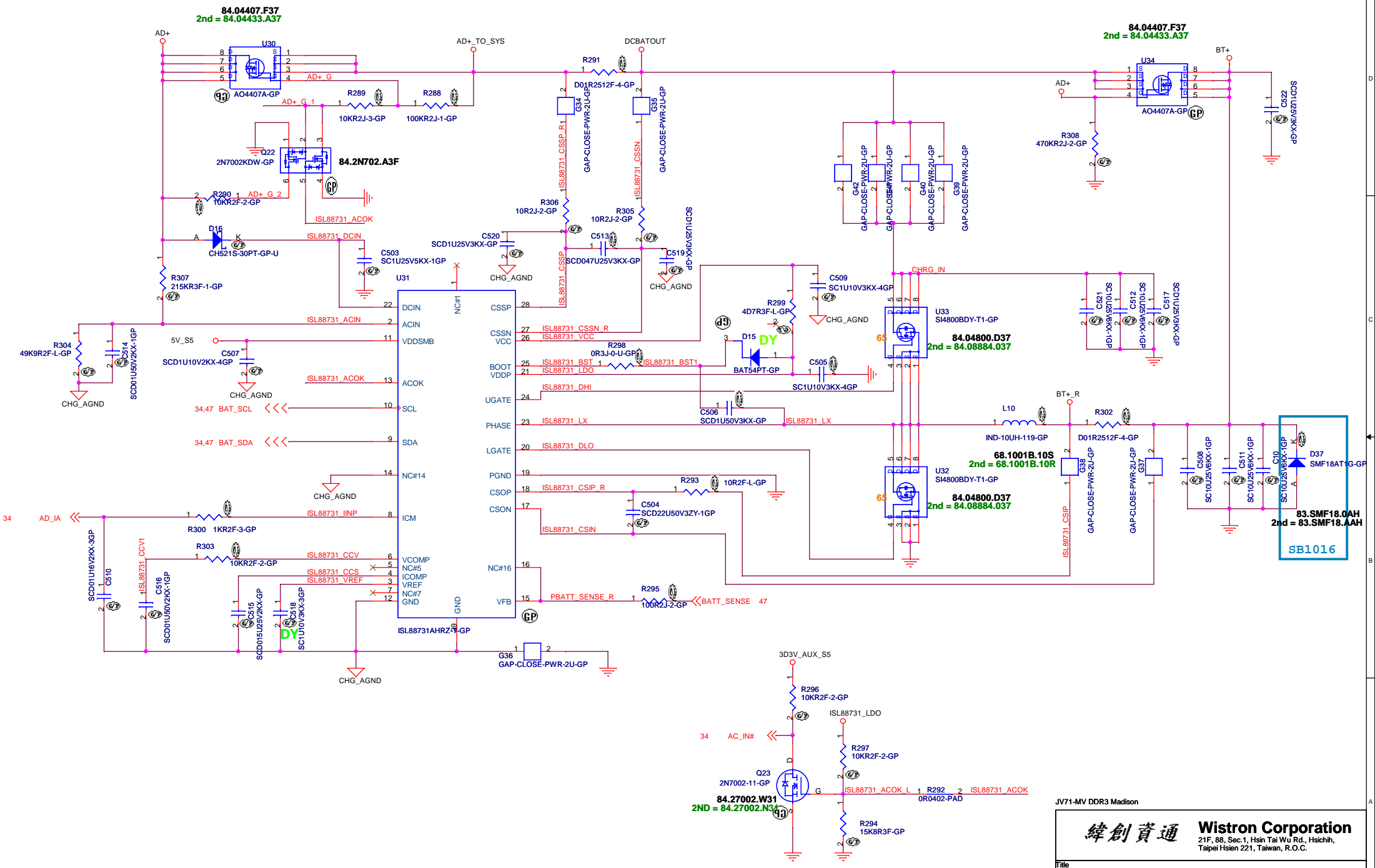
	Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
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Title		
0D75V		
Size A4	Document Number JV71-MV DDR3 Madison	Rev -1
Date: Wednesday, October 28, 2009		Sheet 44 of 62

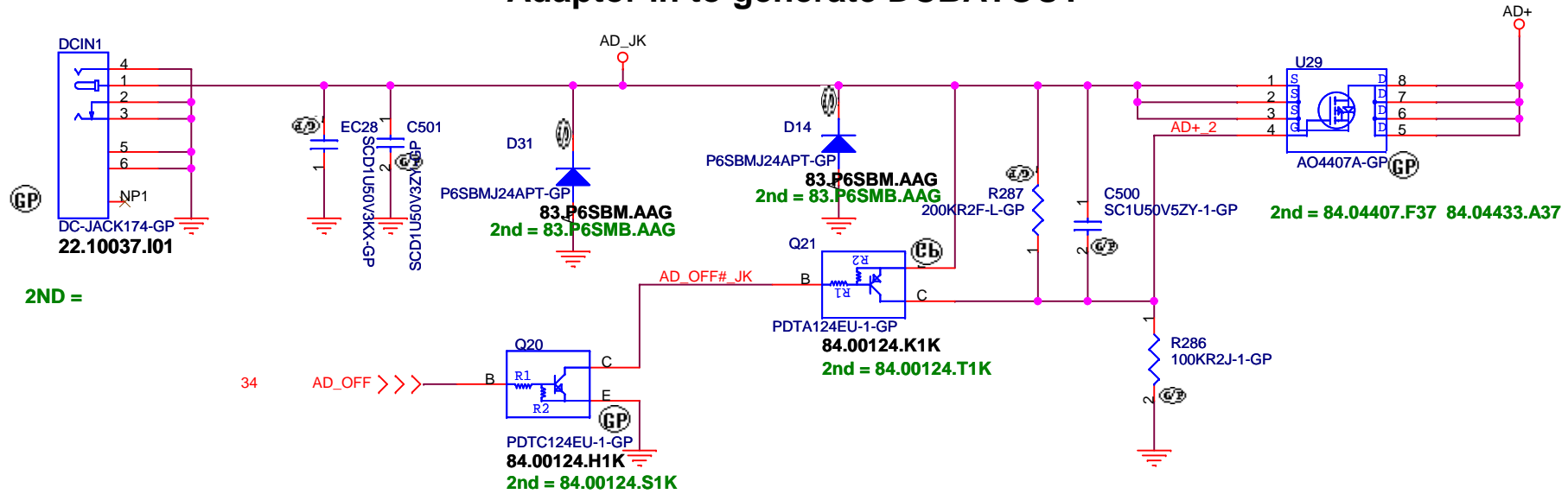


Close to choke and on the same layer

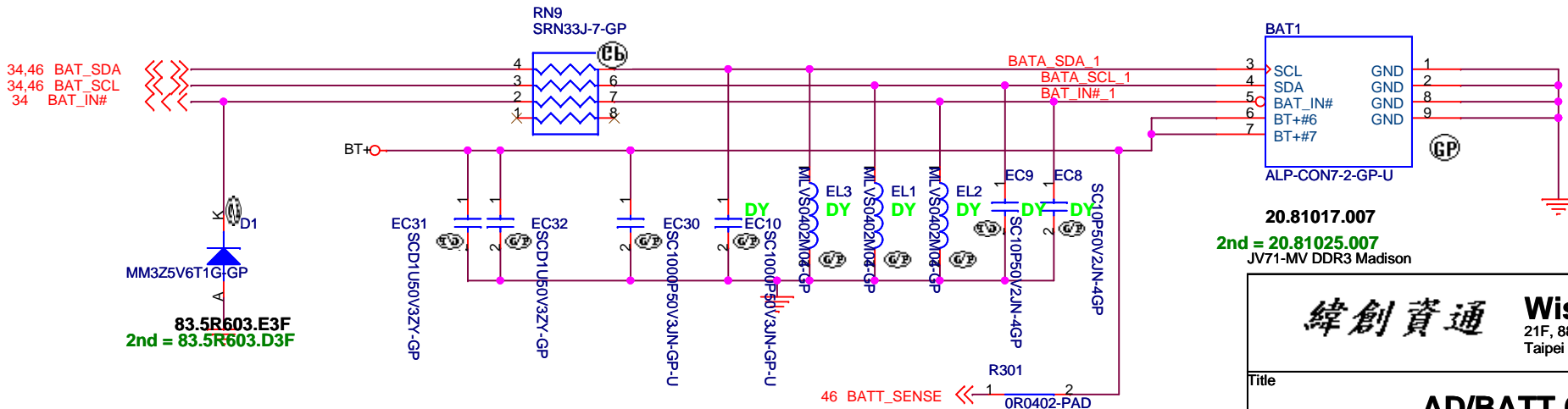
Parallel



Adaptor in to generate DCBATOUT

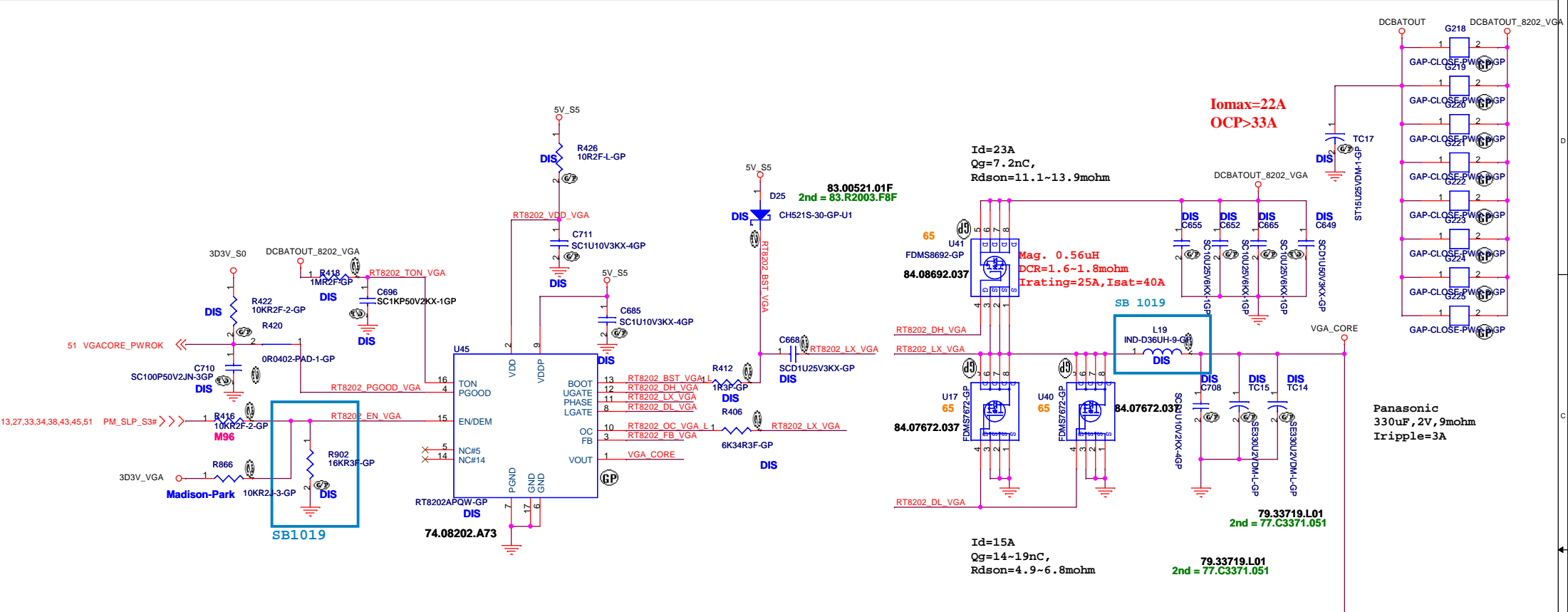


BATTERY CONNECTOR



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

Title		
AD/BATT CONN		
Size	Document Number	Rev
	JV71-MV DDR3 Madison	-1
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Iomax=22A
OCP>33A

Id=23A
Qg=7.2nC,
Rdson=11.1~13.9mohm

Mag. 0.56uH
DCR=1.6~1.8mohm
Irating=25A, Isat=40A

79.33719.L01
2nd = 77.C3371.051

Id=15A
Qg=14~19nC,
Rdson=4.9~6.8mohm

79.33719.L01
2nd = 77.C3371.051

$$V_{out} = 0.75 * (1 + R_h/R_l)$$

JV71-MV8 ENG 1002			
Designator	For M96-M2	For Madison	For PARK
R428	30k	73.2k	49.9K

64.30025.6DL 64.73225.6DL 64.49925.6DL

JV71-MV8 ENG 1002

M96 Pro		Madison Pro		PARK XT	
ALTVO	Vout	ALTVO	Vout	ALTVO	Vout
0	1.15V	0	1.00V	0	1.05V
1	0.9V	1	0.9V	1	0.9V

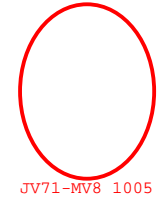
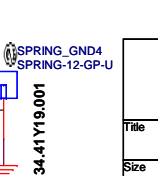
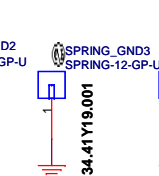
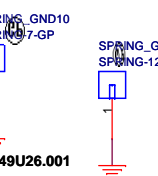
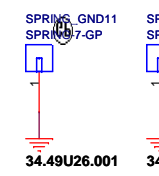
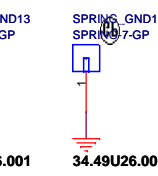
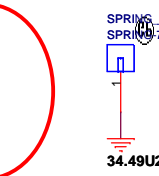
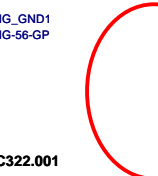
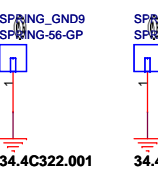
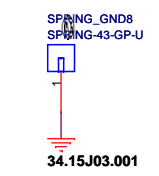
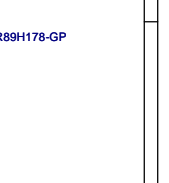
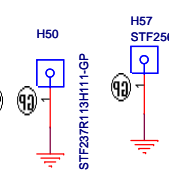
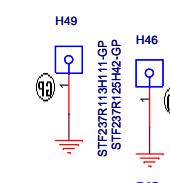
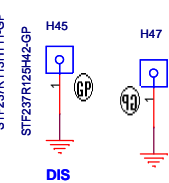
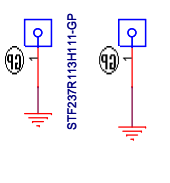
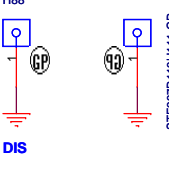
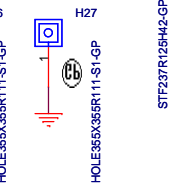
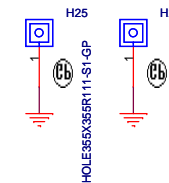
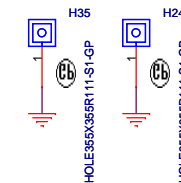
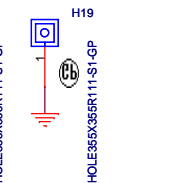
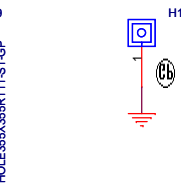
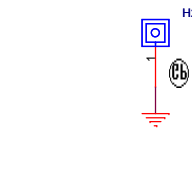
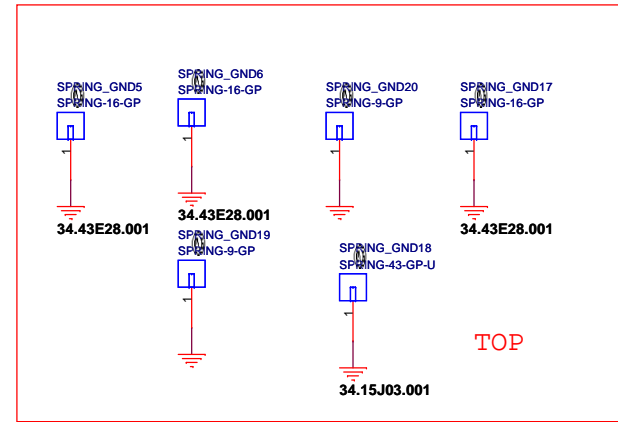
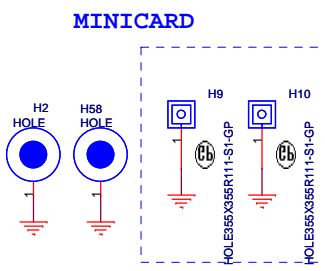
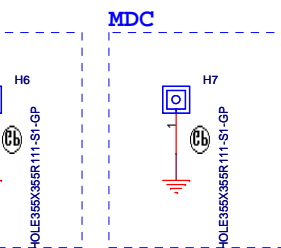
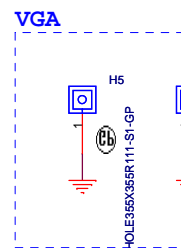
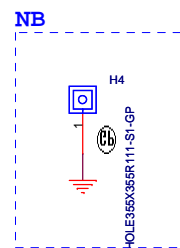
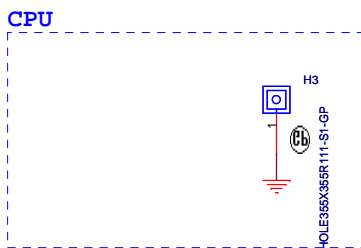
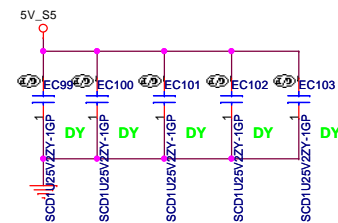
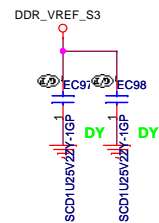
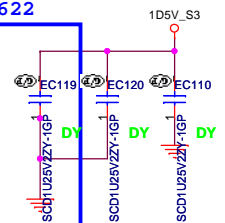
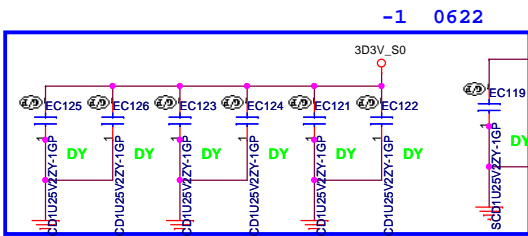
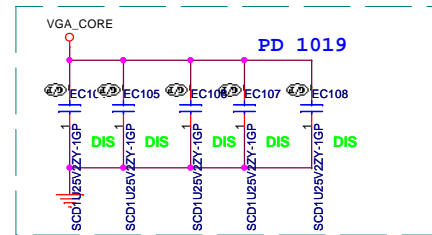
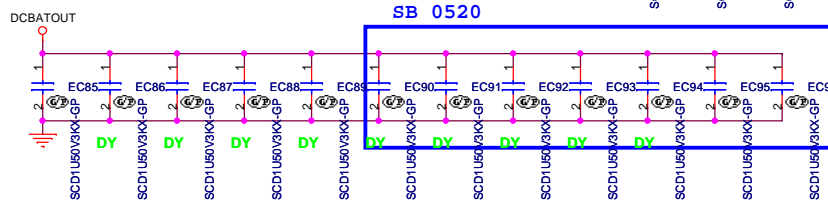
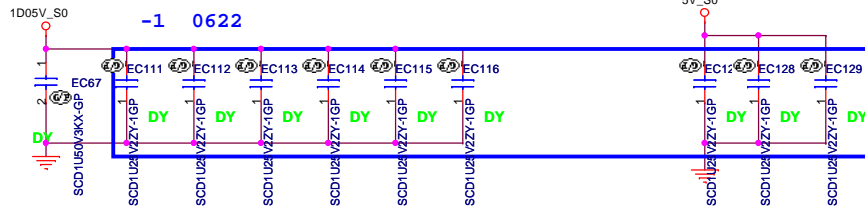
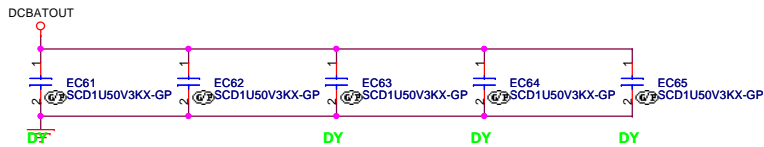
JV71-MV8 ENG 1002

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

Title: **RT8202A VGA CORE**

Size: A3 Document Number: **JV71-MV DDR3 Madison** Rev: **-1**

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JV71-MV DDR3 Madison

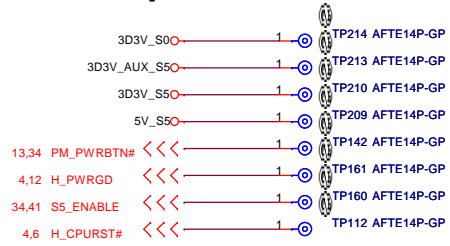
緯創資通 **Wistron Corporation**
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
 Taipei Hsien 221, Taiwan, R.O.C.

Title: **EMI/Spring/Boss**

Size: Document Number: **JV71-MV DDR3 Madison** Rev: **-1**

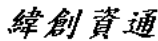
Date: Wednesday, October 28, 2009 Sheet 49 of 62

Check test point

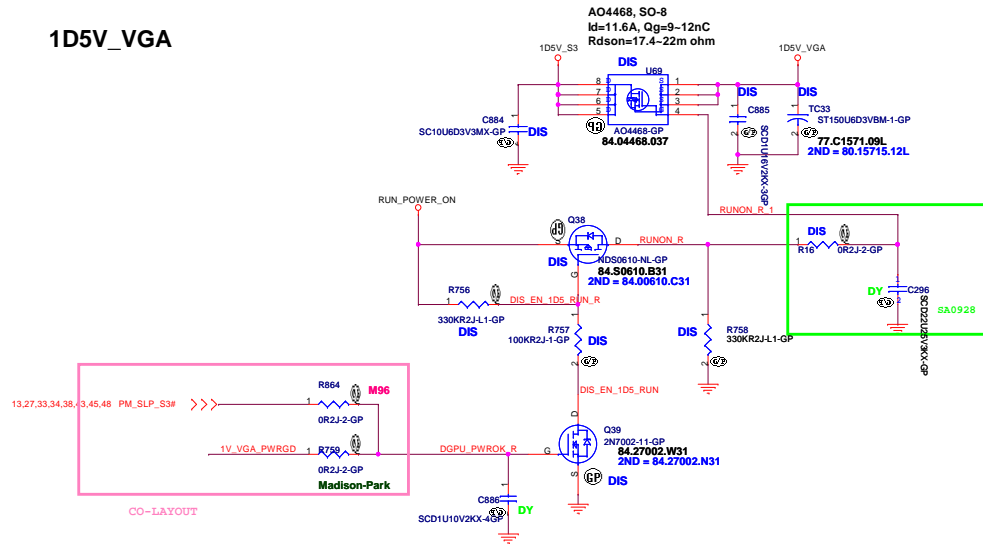


Test Point放在Dimm Door打開可量測處

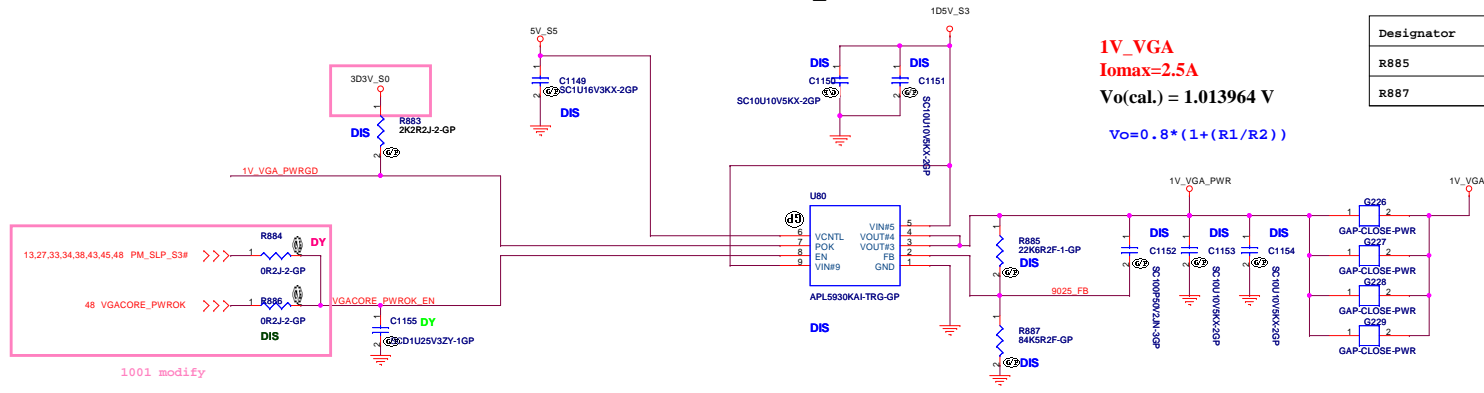
JV71-MV DDR3 Madison

 Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
AFTE TP		
Size A3	Document Number JV71-MV DDR3 Madison	Rev -1
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1D5V_VGA

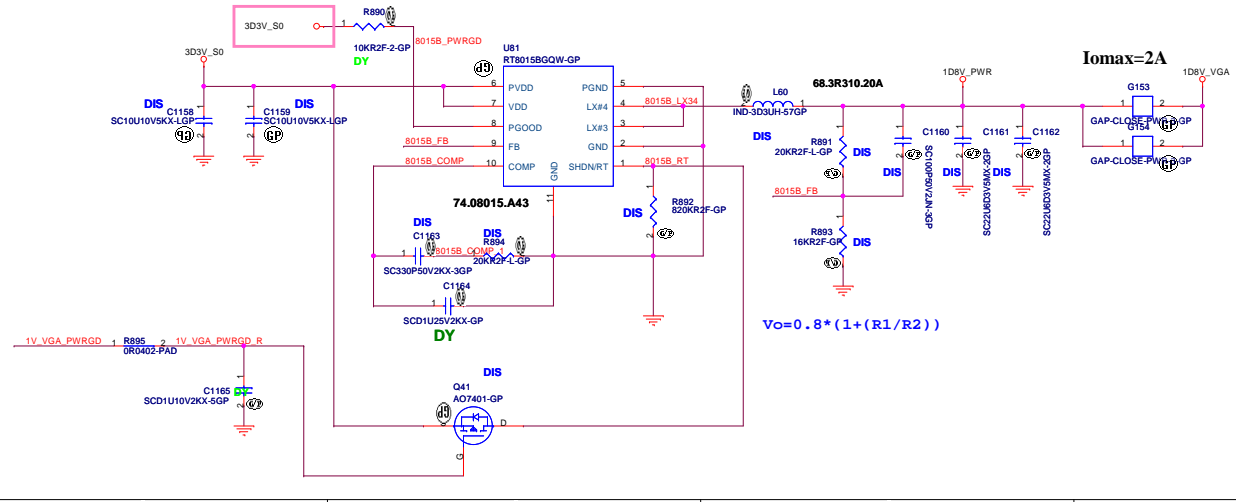


APL5930 for 1V_VGA



1V_VGA
Iomax=2.5A
Vo(cal.) = 1.013964 V
Vo = 0.8 * (1 + (R1/R2))

Designator	For M96-M2	For Madison
R885	7.87k	22.6k
R887	20.5k	84.5k



Iomax=2A

Vo = 0.8 * (1 + (R1/R2))

JV71-MV DDR3 Madison

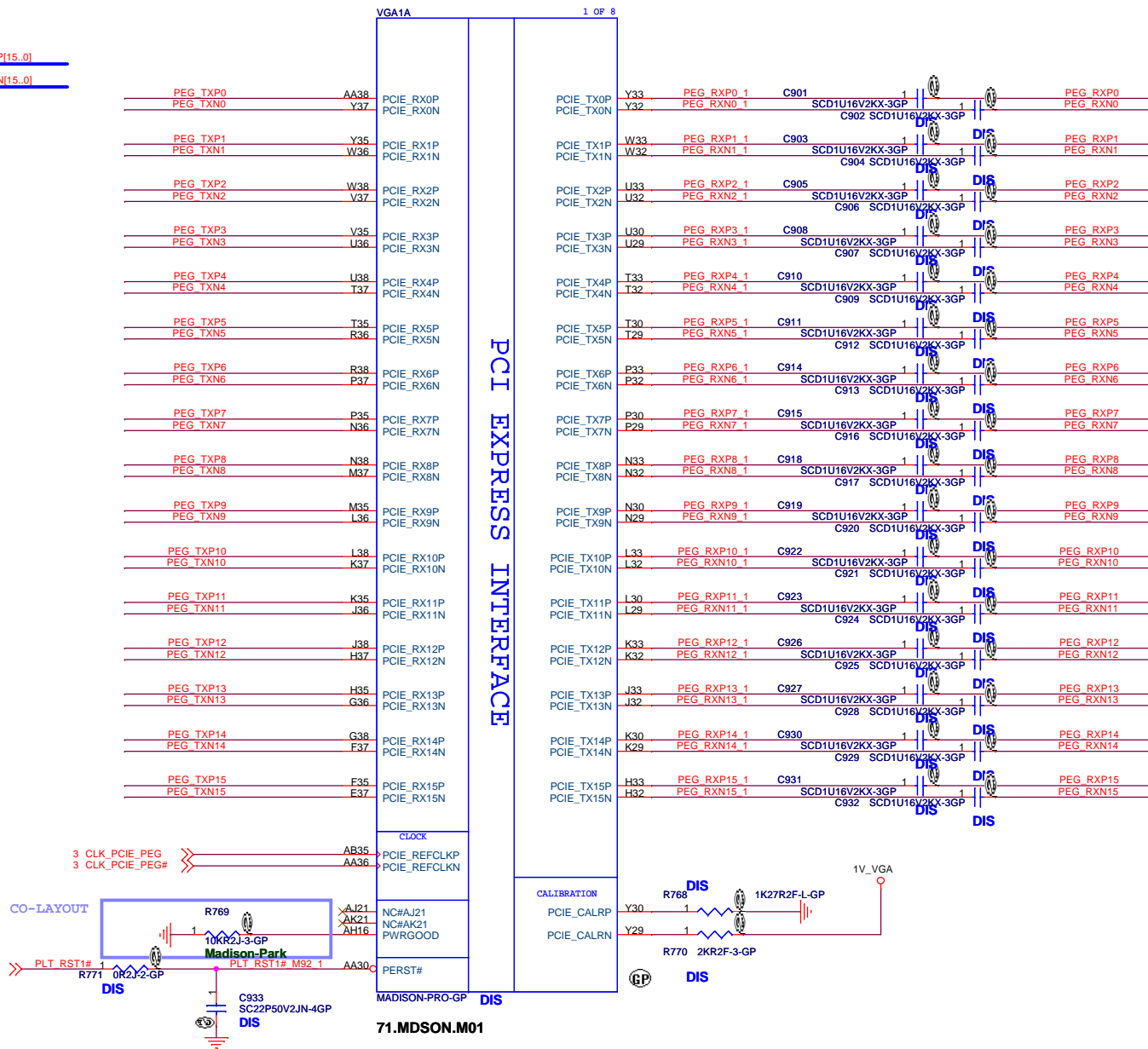
緯創資通 Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsin 221, Taiwan, R.O.C.

ATI POWER

Size	Document Number	Rev
Custom	JV71-MV DDR3 Madison	-1
Date	Wednesday, October 28, 2009	Sheet 51 of 52

7 PEG_TXP[15.0] << PEG_TXP[15.0]
 7 PEG_TXN[15.0] << PEG_TXN[15.0]

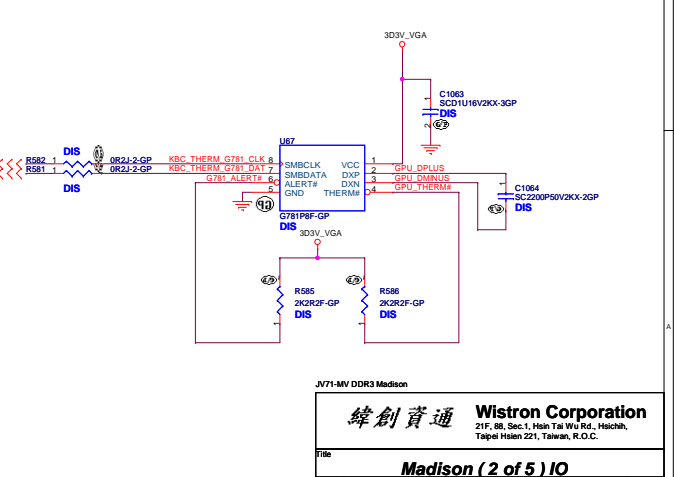
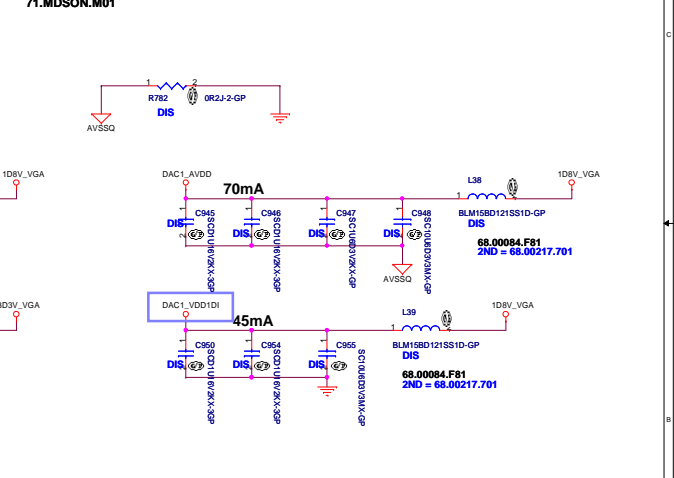
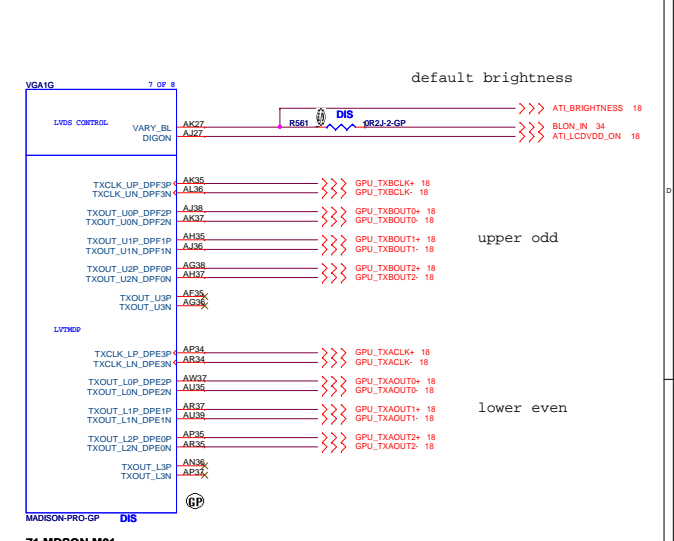
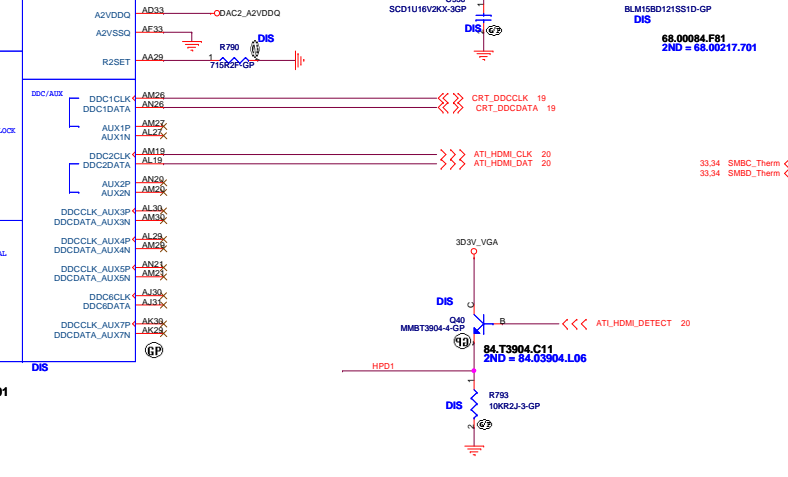
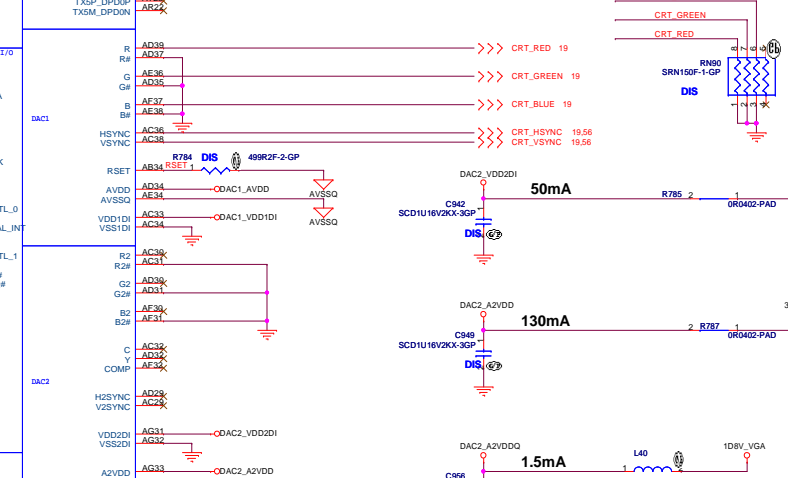
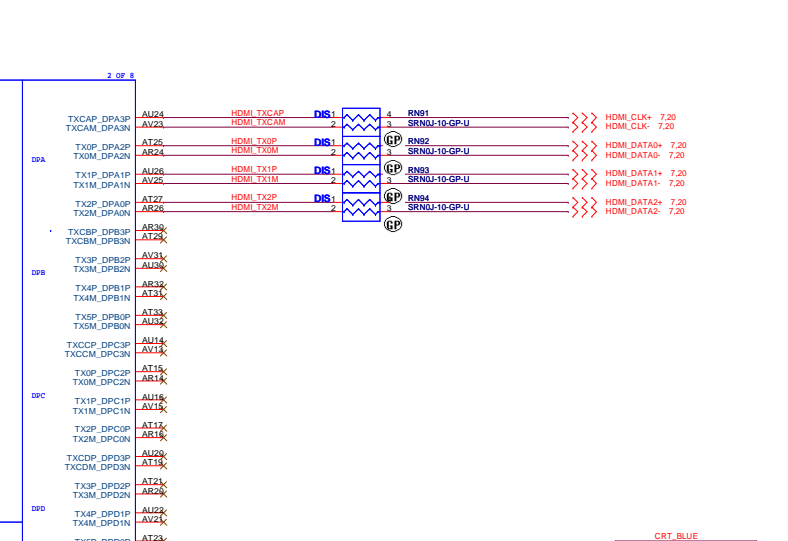
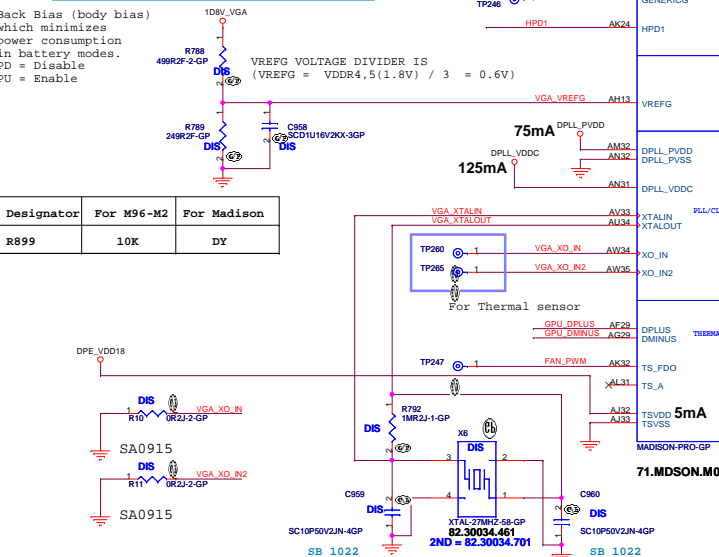
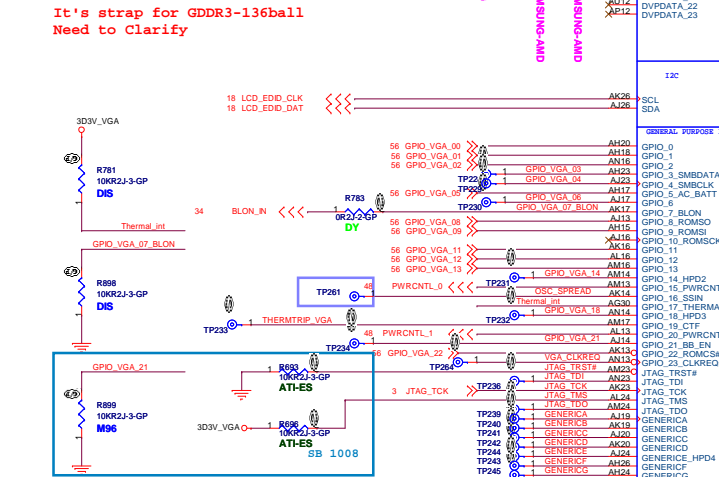
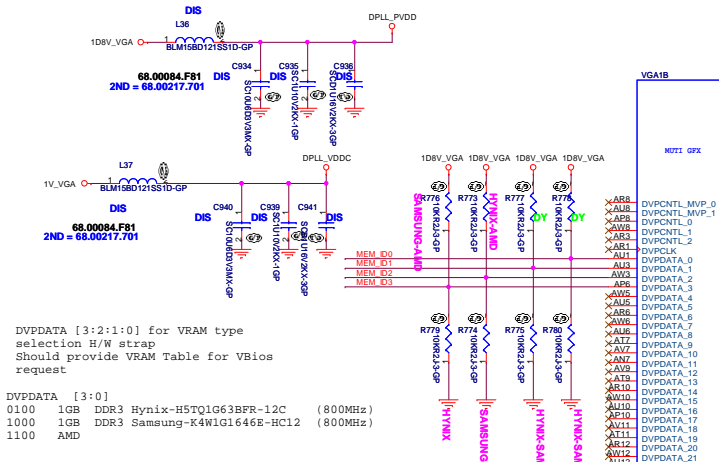
7 PEG_RXP[15.0] << PEG_RXP[15.0]
 7 PEG_RXN[15.0] << PEG_RXN[15.0]

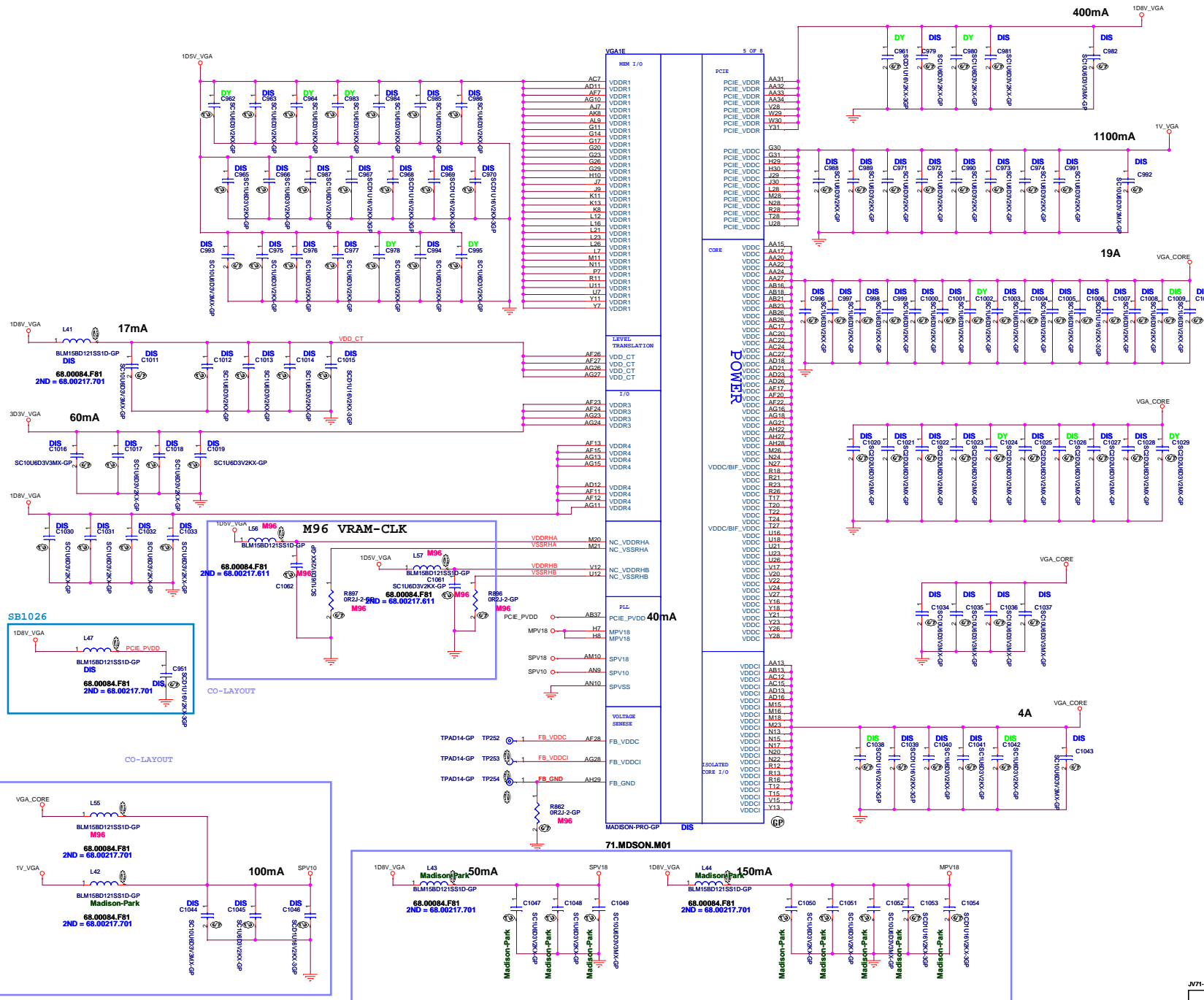


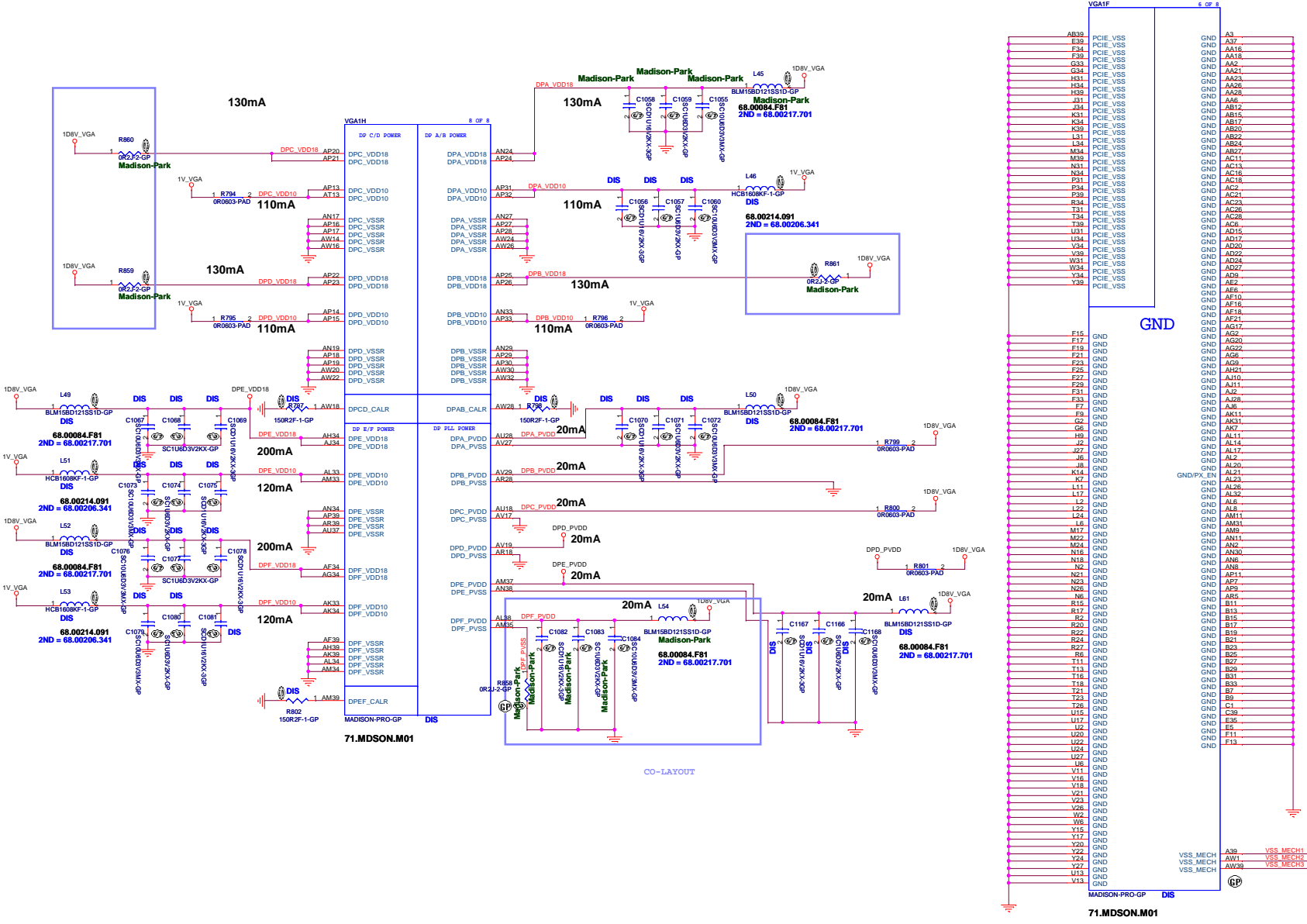
JV71-MV DDR3 Madison

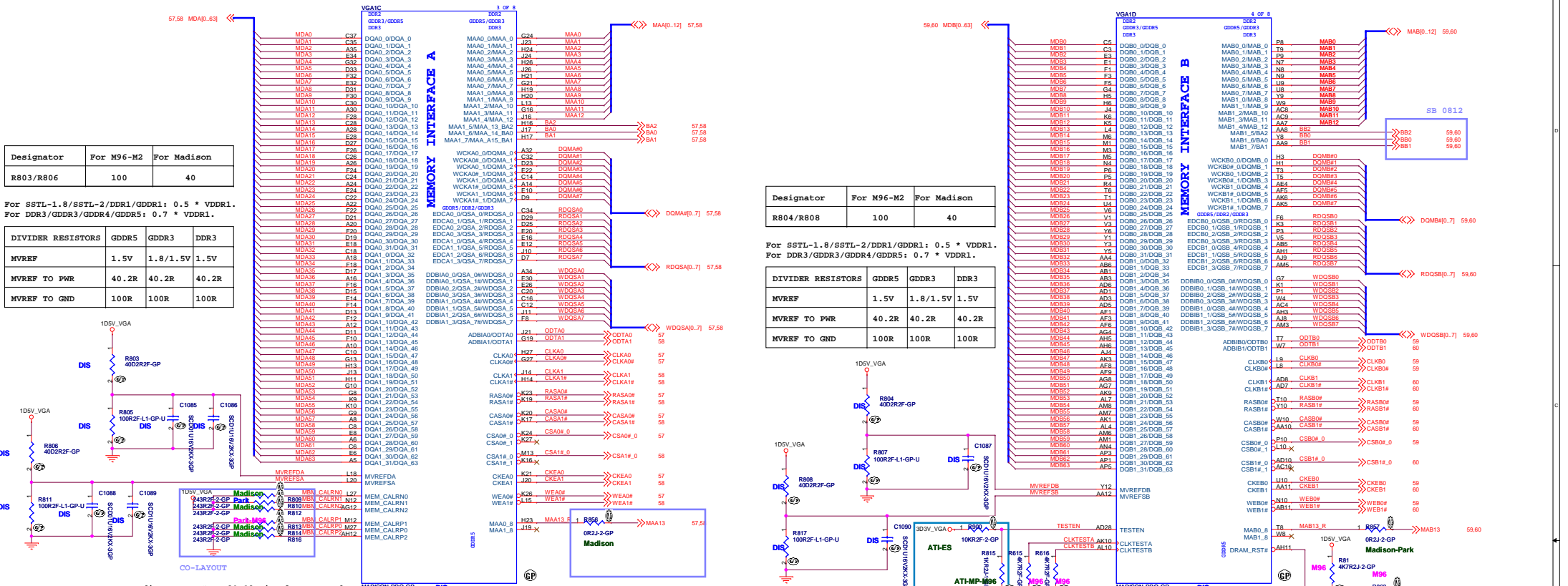
緯創資通 Wistron Corporation
 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih,
 Taipei Hsien 221, Taiwan, R.O.C.

Title Madison (1 of 5) PCIE		
Size A3	Document Number JV71-MV DDR3 Madison	Rev -1
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Designator	For M96-M2	For Madison
R803/R806	100	40

For SSTL-1.8/SSTL-2/DDR1/GDDR1: 0.5 * VDDR1.
For DDR3/GDDR3/GDDR4/GDDR5: 0.7 * VDDR1.

DIVIDER RESISTORS	GDDR5	GDDR3	DDR3
MVREF	1.5V	1.8/1.5V	1.5V
MVRREF TO PWR	40.2R	40.2R	40.2R
MVRREF TO GND	100R	100R	100R

Designator	For M96-M2	For Madison
R804/R808	100	40

For SSTL-1.8/SSTL-2/DDR1/GDDR1: 0.5 * VDDR1.
For DDR3/GDDR3/GDDR4/GDDR5: 0.7 * VDDR1.

DIVIDER RESISTORS	GDDR5	GDDR3	DDR3
MVREF	1.5V	1.8/1.5V	1.5V
MVRREF TO PWR	40.2R	40.2R	40.2R
MVRREF TO GND	100R	100R	100R

Madison: MEM_CALRP[0,2] signals are used.
Park: MEM_CALRP1 and MEM_CALRN1 are used

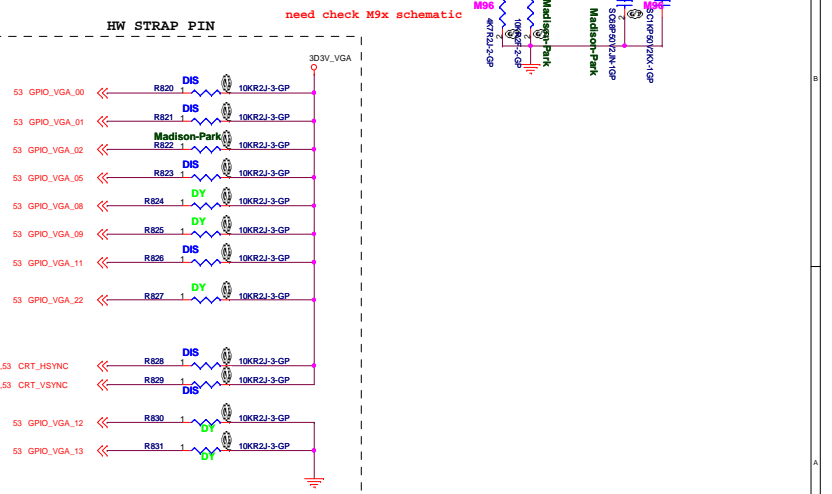
71.MDSON.M01

STRAPS	PIN	DESCRIPTION	RECOMMENDED SETTINGS
TX_PWRS_ENB (Internal PD)	GPIO0	PCIe Full TX Output Swing Transmitter Power Savings Enable 0= 50% Tx output swing 1= Full Tx output swing	X
TX_DEEMPH_EN (Internal PD)	GPIO1	Transmitter De-emphasis Enable 0= Tx de-emphasis disabled 1= Tx de-emphasis enabled	X
RESERVED	GPIO8	RESERVED	0
BIF_VGA_DIS	GPIO9	VGA ENABLED	0
RESERVED	GPIO21	RESERVED	0
BIOS_ROM_EN	GPIO22_ROMCSB	ENABLE EXTERNAL BIOS ROM	0
VIP_DEVICE_STRAP_ENA (Internal PD)	GPIO[13,12,11]	SERIAL ROM TYPE OR MEMORY APERTURE SIZE SELECT if BIOS_ROM_EN=1, then Config[3:0] defines the ROM type if BIOS_ROM_EN=0, then Config[3:0] defines the primary memory aperture size	X X X
RSVD	V2SYNC		0
RSVD	H2SYNC		0
AUD[1] (Internal PD)	VGA_HSYNC	AUD[1:0] 00:No audio function 01:Audio for DisplayPort and HDMI (if adapter is detected)	X
	VGA_VSYNC	10:Audio for DisplayPort only 11:Audio for both DisplayPort and HDMI	X

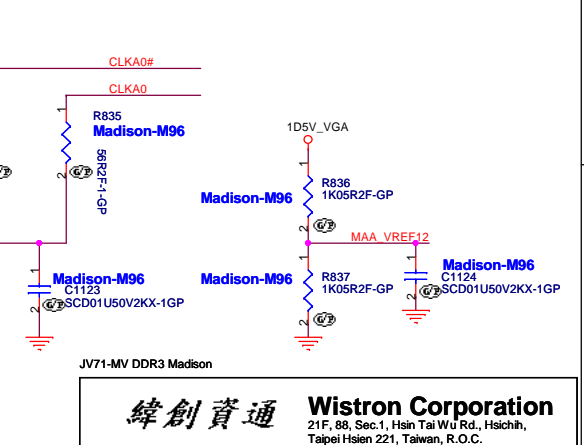
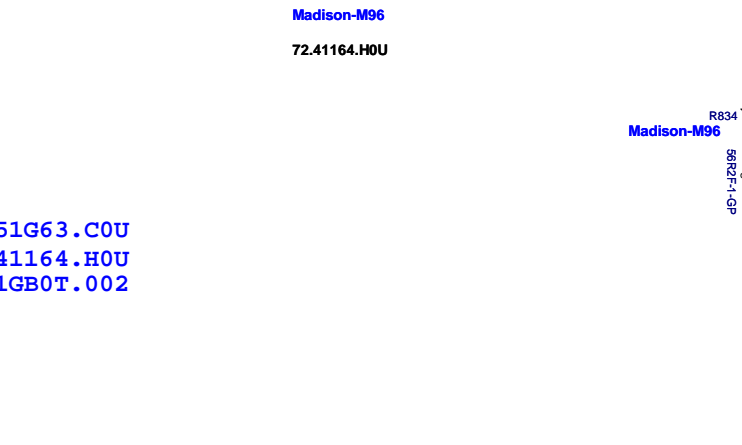
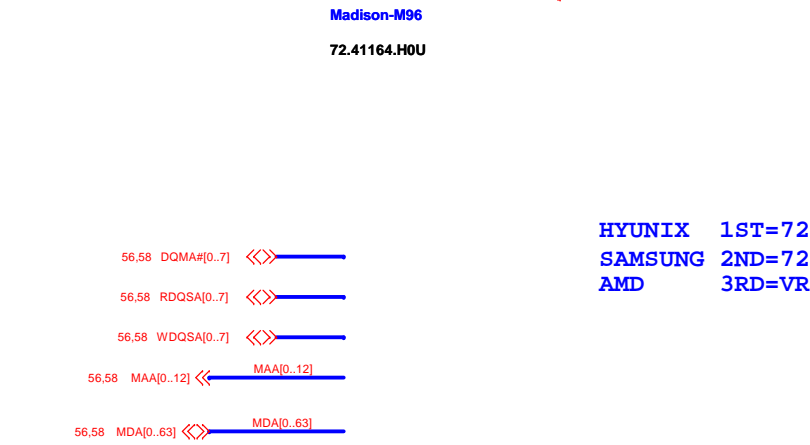
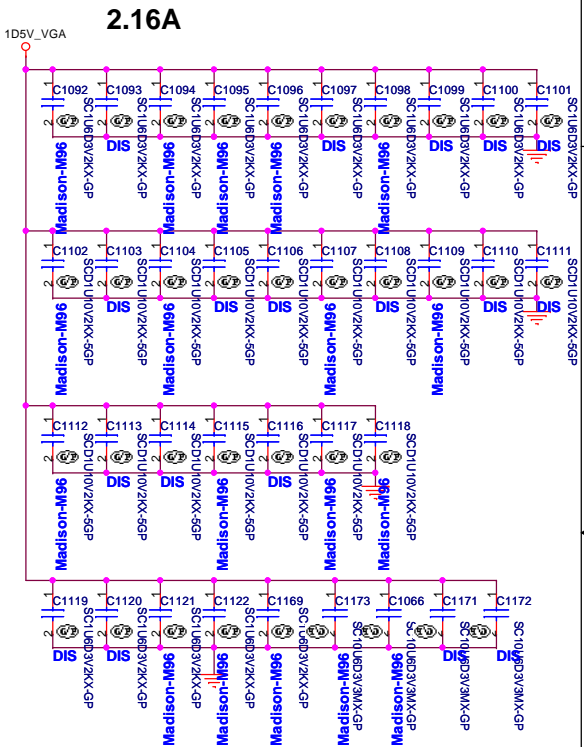
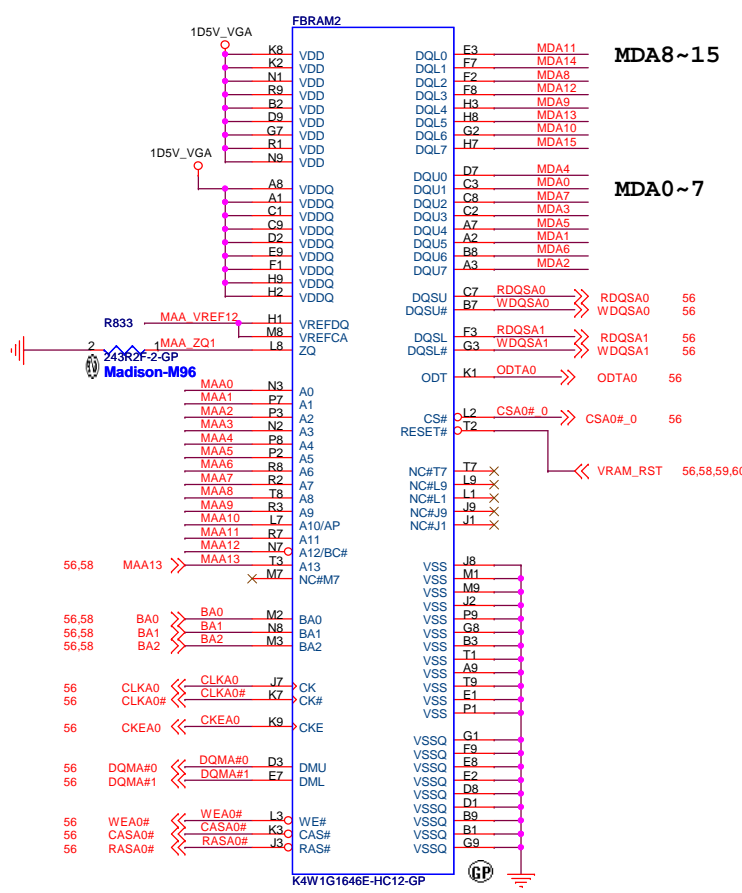
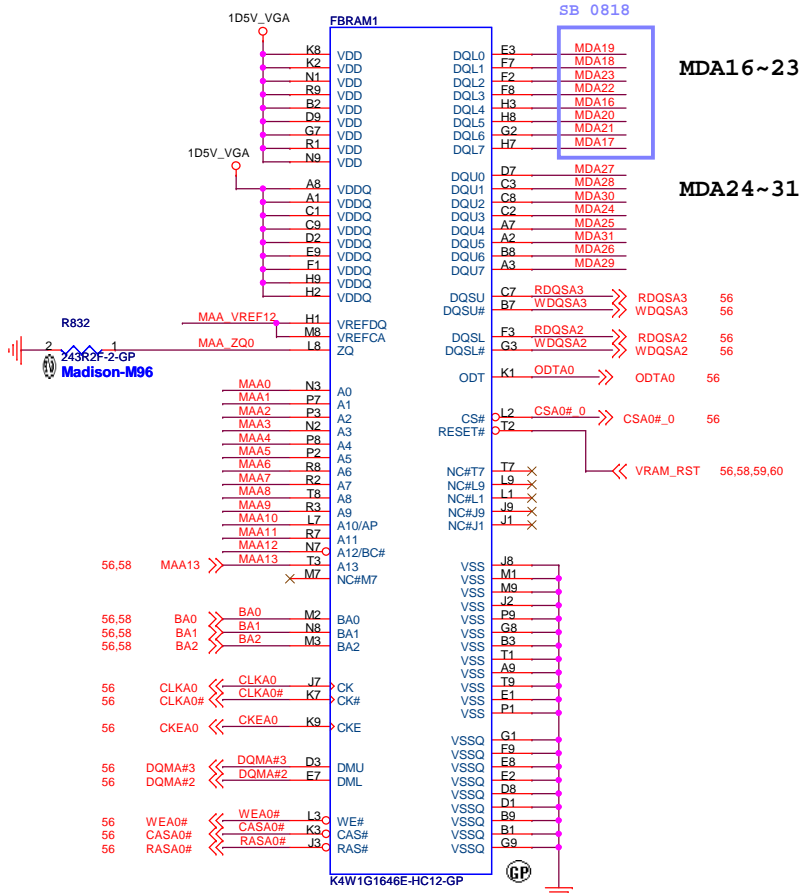
AMD RESERVED CONFIGURATION STRAPS

ALLOW FOR PULLUP PADS FOR THESE STRAPS AND IF THESE GPIOs ARE USED, THEY MUST NOT CONFLICT DURING RESET

If BIOS_ROM_EN (GPIO22) = 0		If BIOS_ROM_EN (GPIO22) = 1		
Size of the primary memory apertures	GPIO[13,12,11]	Manufacturer	Part Number	GPIO[13,12,11]
128MB	x000	ST	N25P05A	0100
256MB	x001		N25P10A	0101
64MB	x010		N25P20	0101
32MB	x		N25P40	0101
512MB	x		N25P80	0101
1GB	x			
2GB	x	Chingie (formerly FMC)	Pm25LV512A	0100
4GB	x		Pm25LV101A	0101



DDR3



HYUNIX 1ST=72.51G63.C0U
 SAMSUNG 2ND=72.41164.H0U
 AMD 3RD=VR.1GB0T.002

JV71-MV DDR3 Madison

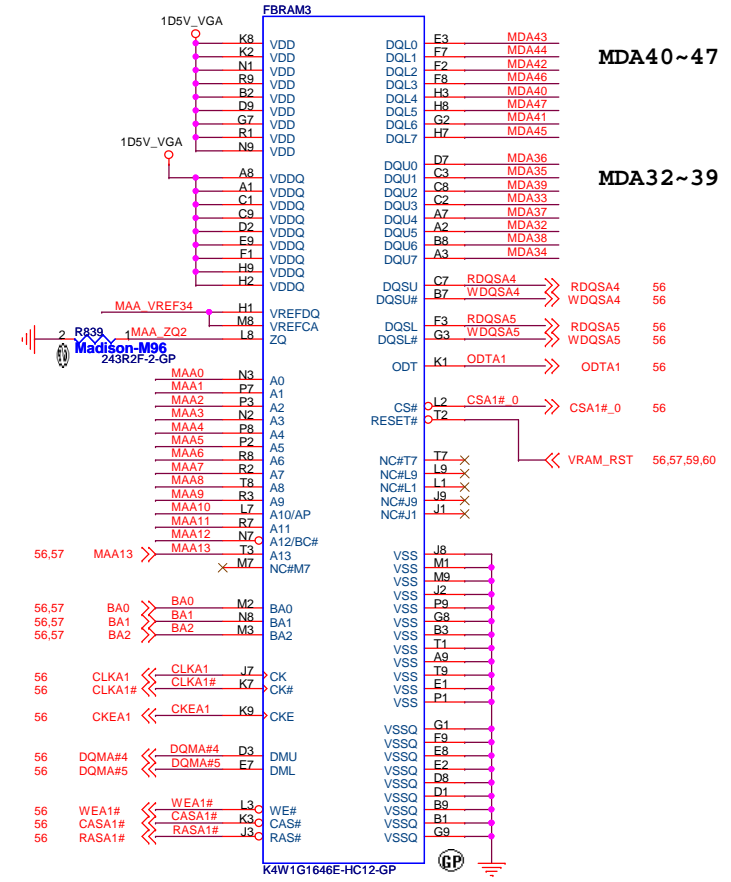
緯創資通 Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
 Taipei Hsien 221, Taiwan, R.O.C.

Title: **VRAM(1 of 4)**

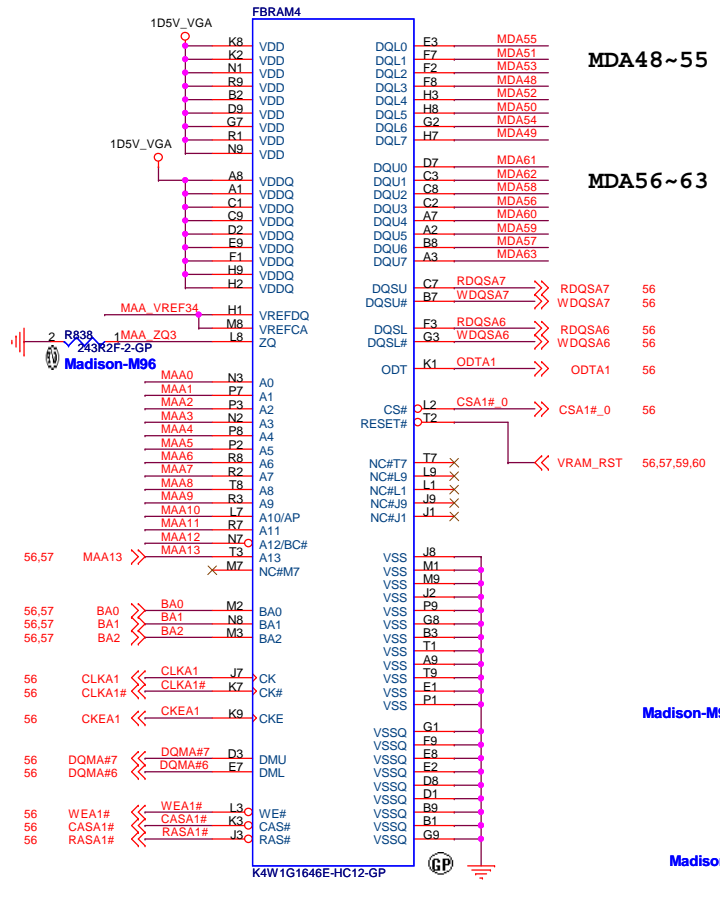
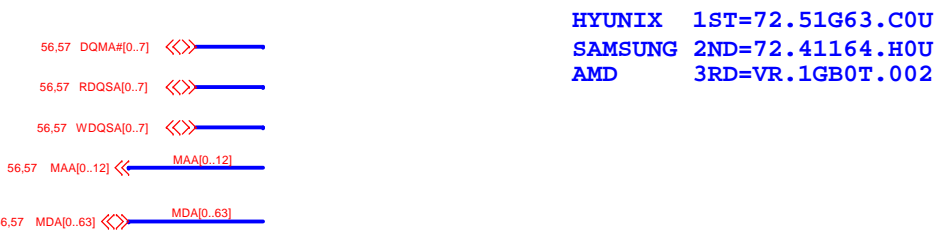
Size: A3 Document Number: **JV71-MV DDR3 Madison** Rev: -1

Date: Wednesday, October 28, 2009 Sheet: 57 of 62

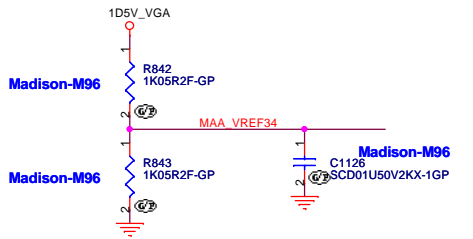
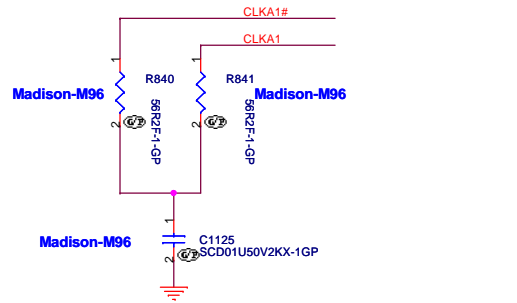
DDR3



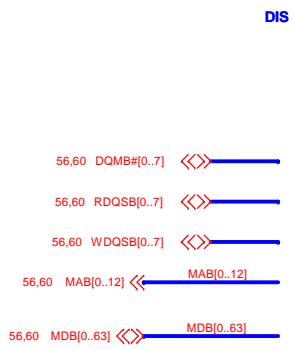
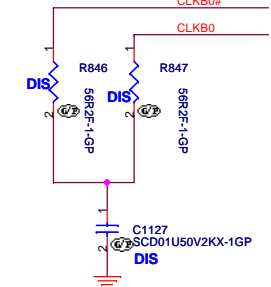
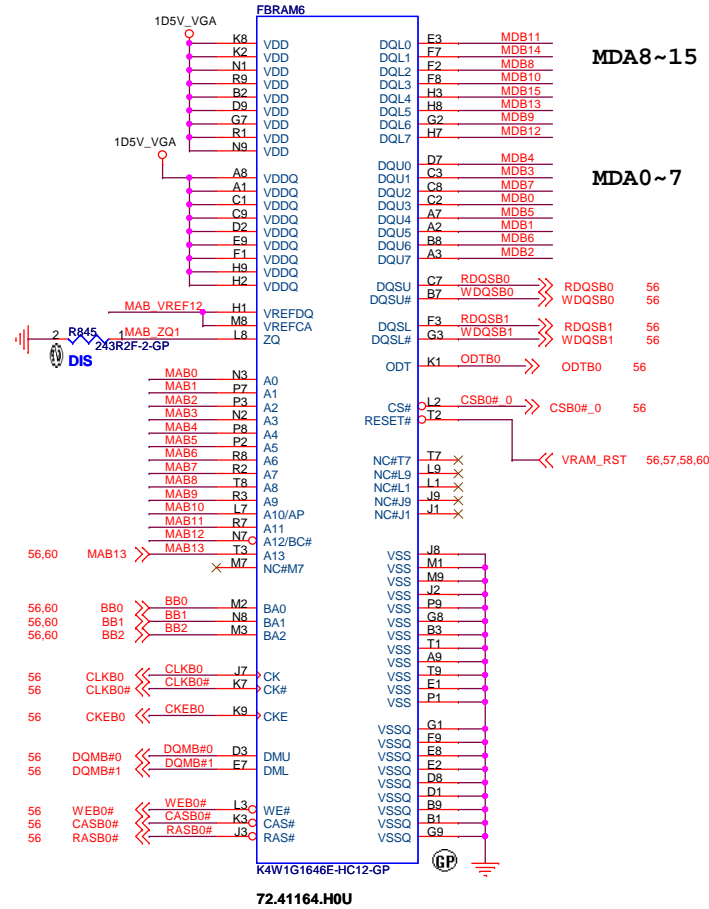
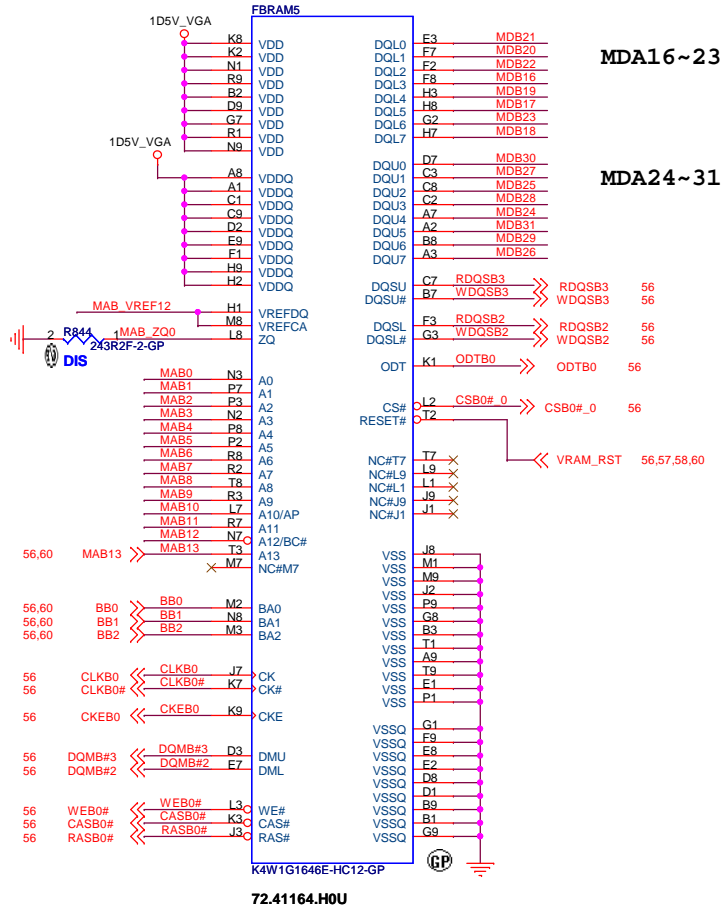
Madison-M96
243R2F-2-GP
K4W1G1646E-HC12-GP
72.41164.H0U



Madison-M96
243R2F-2-GP
K4W1G1646E-HC12-GP
72.41164.H0U



DDR3



HYUNIX 1ST=72.51G63.C0U
SAMSUNG 2ND=72.41164.H0U
AMD 3RD=VR.1GB0T.002

JV71-MV DDR3 Madison

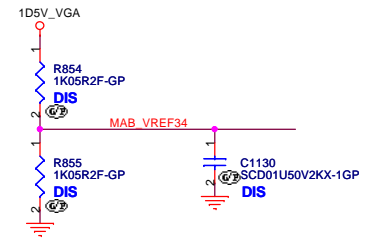
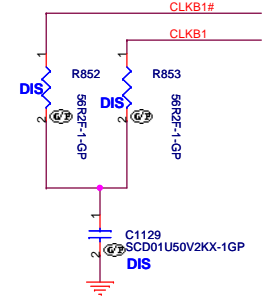
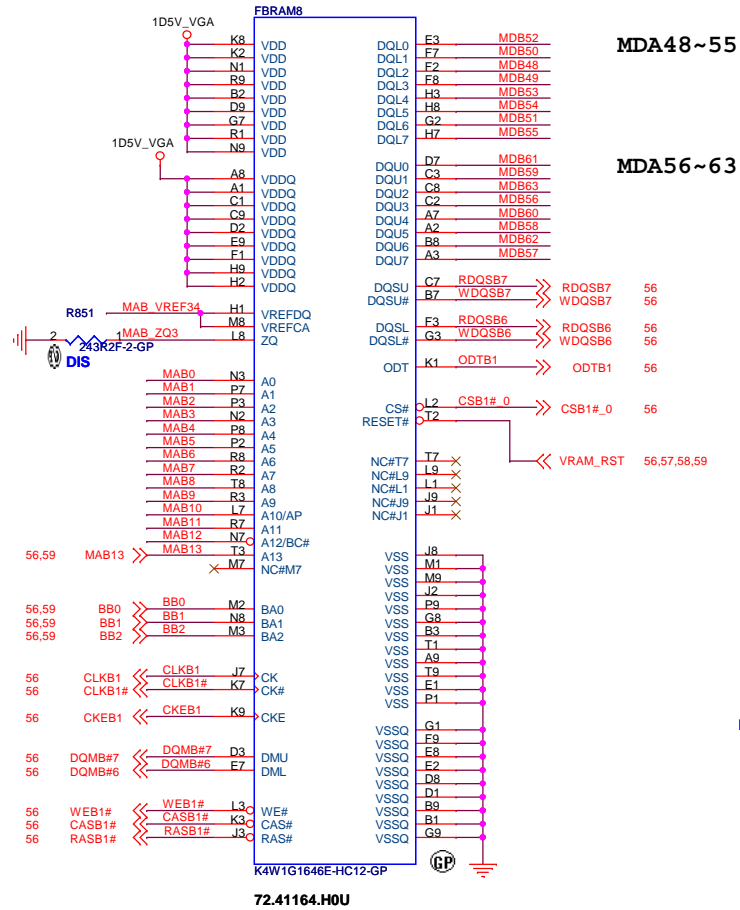
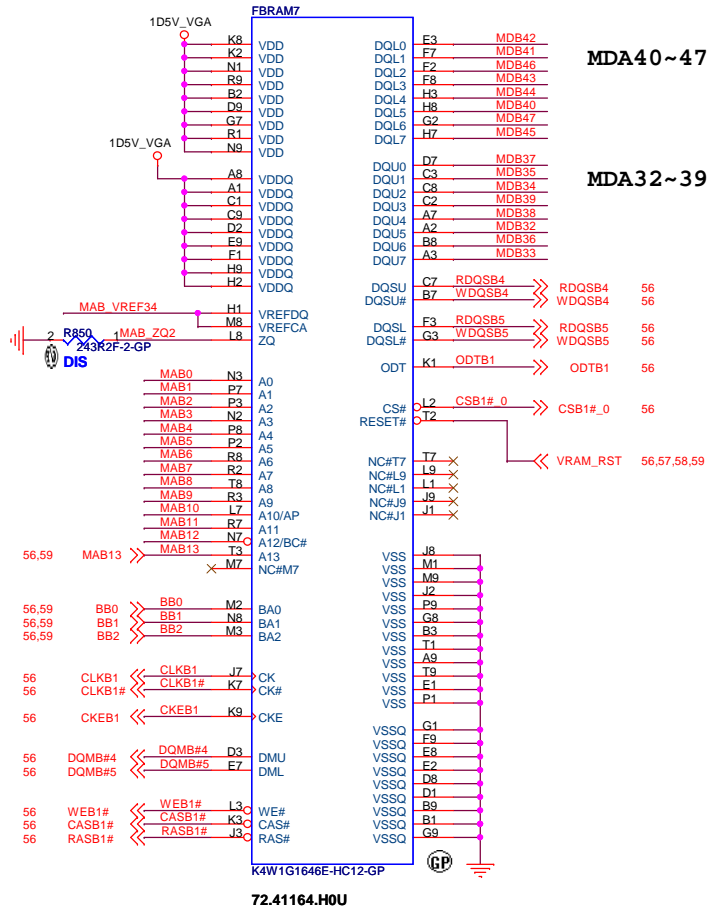
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21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **VRAM (3 of 4)**

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DDR3



- 56.59 DQMB#0..7] << [MAB0..12]
 - 56.59 RDQSB#0..7] << [MAB0..12]
 - 56.59 WDQSB#0..7] << [MAB0..12]
 - 56.59 MAB#0..12] << [MAB0..12]
 - 56.59 MDB#0..63] << [MDB0..63]
- HYUNIX 1ST=72.51G63.C0U
SAMSUNG 2ND=72.41164.H0U
AMD 3RD=VR.1GB0T.002

JV71-MV DDR3 Madison

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VRAM(4 of 4)			
Title			
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SA SB SC -1

JV71-MV DDR3 Madison

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

HISTORY		
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Group Name	SKU A	SKU B	SKU C	SKU D
DY,ZZ,65	X	X	X	X
GFX	X	X	X	O
NOGFX	X	X	X	X
DIS	O	O	O	X
M96	O	X	X	X
Madison	X	O	X	X
Madison-M96	O	O	X	X
Madison-Park	X	O	O	X
Park	X	X	O	X
Park-M96	O	X	O	X
UMA	X	X	X	O
Hynix	X	O	O	X
Hynix-AMD	X	O	O	X
Hynix-Samsung-AMD	O	O	O	X
Samsung	O	X	X	X
Samsung-AMD	O	X	X	X
ATI-ES	X	O	O	X
ATI-MP-M96	O	X	X	X

65 Main	65 2nd
65.4FXZZ.024	65.4FXZZ.025
65.4FXZZ.026	65.4FXZZ.027
65.4FXZZ.028	65.4FXZZ.029
65.4FXZZ.032	65.4FXZZ.033

Group Name	SKU E	SKU F	SKU G
DY,ZZ,65	X	X	X
GFX	X	X	X
NOGFX	X	X	X
DIS	O	O	O
M96	O	X	X
Madison	X	O	X
Madison-M96	O	O	X
Madison-Park	X	O	O
Park	X	X	O
Park-M96	O	X	O
UMA	X	X	X
Hynix	O	X	X
Hynix-AMD	O	X	X
Hynix-Samsung-AMD	O	O	O
Samsung	X	O	O
Samsung-AMD	X	O	O
ATI-ES	X	O	O
ATI-MP-M96	O	X	X

Part Name	SKU A PM45 M96 Samsung	SKU B PM45 Madison Hynix	SKU C PM45 Park Hynix	SKU D GM45 UMA
NB NB1	KI.G4501.002	KI.G4501.002	KI.G4501.002	KI.G4501.001
SB SB1	KI.80101.030	KI.80101.030	KI.80101.030	KI.80101.030
VGA VGA1	71.M96M2.M03	71.MDSON.M01	71.OPARK.M04	X
VRAM FBRAM1-4	VR.1GB0B.006	VR.1GB0G.004	X	X
VRAM FBRAM5-8	VR.1GB0B.006	VR.1GB0G.004	VR.1GB0G.004	X
lv_VGA/1.lv_VGA				
R885	64.78715.6DL	X	X	X
R887	64.20525.6DL	X	X	X
VGA_CORE R428	64.30025.6DL	64.73225.6DL	64.49925.6DL	X
RGB C165,151,108	X	X	X	78.6R874.1FL
TVDAC RN31	X	X	X	66.75036.08L
CRT RN30	X	X	X	66.15156.08L
TRANSFORMER XF1-2	68.HD081.30B	68.HD081.30B	68.HD081.30B	68.HD081.30B
MVREFDA R803	64.10005.6DL	X	X	X
MVREFSA R806	64.10005.6DL	X	X	X
MVREFDB R804	64.10005.6DL	X	X	X
MVREFSB R808	64.10005.6DL	X	X	X
90W/65W DCIN1	22.10037.I21	22.10037.I21	X	X
65BOM	65.4FXZZ.024	65.4FXZZ.024	65.4FXZZ.024	65.4FXZZ.032
	65.4FXZZ.026	65.4FXZZ.026	65.4FXZZ.026	65.4FXZZ.026
				65.4FXZZ.028

Part Name	SKU E PM45 M96 Hynix	SKU F PM45 Madison Samsung	SKU G PM45 Park Samsung
NB NB1	KI.G4501.002	KI.G4501.002	KI.G4501.002
SB SB1	KI.80101.030	KI.80101.030	KI.80101.030
VGA VGA1	71.M96M2.M03	71.MDSON.M01	71.OPARK.M04
VRAM FBRAM1-4	VR.1GB0G.004	VR.1GB0B.006	X
VRAM FBRAM5-8	VR.1GB0G.004	VR.1GB0B.006	VR.1GB0B.006
lv_VGA/1.lv_VGA			
R885	64.78715.6DL	X	X
R887	64.20525.6DL	X	X
VGA_CORE R428	64.30025.6DL	64.73225.6DL	64.49925.6DL
TVDAC RN31	X	X	X
CRT RN30	X	X	X
TRANSFORMER XF1-2	68.HD081.30B	68.HD081.30B	68.HD081.30B
MVREFDA R803	64.10005.6DL	X	X
MVREFSA R806	64.10005.6DL	X	X
MVREFDB R804	64.10005.6DL	X	X
MVREFSB R808	64.10005.6DL	X	X
90W/65W DCIN1	22.10037.I21	22.10037.I21	X
65BOM	65.4FXZZ.024	65.4FXZZ.024	65.4FXZZ.024
	65.4FXZZ.026	65.4FXZZ.026	65.4FXZZ.026

LAB-Stage BOM temporary change list

SKU-A,B

Delete R428 64.15035.6DL

Delete Q27 84.27002.W31

Delete R436 63.10334.1DL

Delete C741 78.10423.5FL

Change R429 from 64.75025.6DL to 64.49925.6DL

SKU-C

Delete R428 64.15035.6DL

Delete Q27 84.27002.W31

Delete R436 63.10334.1DL

Delete C741 78.10423.5FL

Change R429 from 64.75025.6DL to 64.37425.6DL

SKU-B change for Power-Team 2nd source

Change U73 from 84.08692.037 to 84.01426.037

Change U75 from 84.07672.037 to 84.01712.037

Change U76 from 84.07672.037 to 84.01712.037

Change U77 from 84.08692.037 to 84.01426.037

Change U79 from 84.07672.037 to 84.01712.037

Change U41 from 84.08692.037 to 84.01426.037

Change U17 from 84.07672.037 to 84.01712.037

Change U40 from 84.07672.037 to 84.01712.037

Change TC35 from 79.33719.L01 to 77.C3371.051

Change TC36 from 79.33719.L01 to 77.C3371.051

Change TC38 from 79.33719.L01 to 77.C3371.051

Change TC14 from 79.33719.L01 to 77.C3371.051

Change TC15 from 79.33719.L01 to 77.C3371.051

Change L58 from 68.R5610.10P to 68.R5610.10D

Change L59 from 68.1R01B.10J to 68.1R01A.20A

Change L19 from 68.R5610.10P to 68.R5610.10D

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HISTORY			
Rev	Document Number	Rev	
K2	JV71-MV DDR3 Madison	-1	
Date: Thursday, November 05, 2009	Sheet: 02	of	02