

Alviso Strapping Signals and Configuration

page 7

Pin Name	Strap Description	Configuration
CFG[2:0]	FSB Frequency Select	000 = Reserved 001 = FSB533 010 = FSB800 011-111 = Reversed
CFG[3:4]	Reversed	
CFG5	DMI x2 Select	0 = DMI x2 1 = DMI x4 (Default)
CFG6	DDR I / DDR II	0 = DDR II 1 = DDR I
CFG7	CPU Strap	0 = Prescott 1 = Dothan (Default)
CFG[8:11]	Reversed	
CFG[12:13]	XOR/ALL Z test straps	00 = Reserved 01 = XOR mode enabled 10 = All Z mode enabled 11 = Normal Operation (Default)
CFG[14:15]	Reversed	
CFG16	FSB Dynamic ODT	0 = Dynamic ODT Disabled 1 = Dynamic ODT Enabled (Default)
CFG17	Reversed	
CFG18	CPU core VCC Select	0 = 1.05V (Default) 1 = 1.5V
CFG19	CPU VTT Select	0 = 1.05V (Default) 1 = 1.2V
CFG20	Reversed	
SDVOCTRL_DATA	SDVO Present	0 = No SDVO device present (Default) 1 = SDVO device present

NOTE: All strap signals are sampled with respect to the leading edge of the Alviso GMCH FWORK In signal.

PCI Routing

	IDSEL	IRQ	REQ/GNT
1410	25	B.F.G	0
MiniPCI	21	F	1
LAN	23	E	2

ICH6-M Integrated Pull-up and Pull-down Resistors

ICH6-M EDS 14308 0.8V1

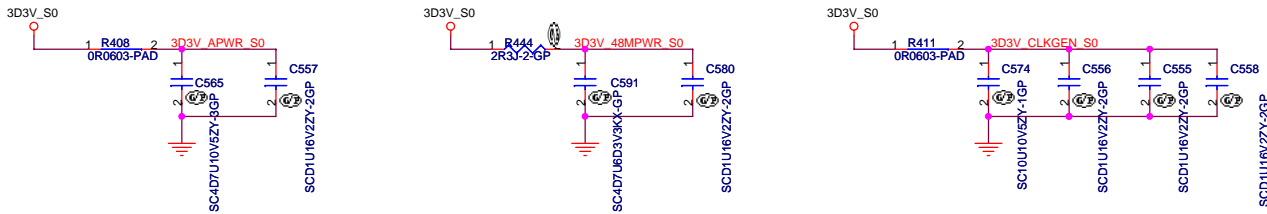
ACZ_BIT_CLK, DPRSLP#, EE_DIN, EE_DOUT, GNT[5]#/GPO[17], GNT[6]#/GPO[16], LDRQ[1]/GPI[41], LAD[3:0]#/FB[3:0]#, LDRQ[0], PME#, PWRBTN#, TP[3]	ICH6 internal 20K pull-ups
LAN_RXD[2:0]	ICH6 internal 10K pull-ups
ACZ_RST#, ACZ_SDIN[2:0], ACZ_SYNC, ACZ_SDOUT, ACZ_BITCLK, DPRSLPVR, SPKR, EE_CS,	ICH6 internal 20K pull-downs
USB[7:0][P,N]	ICH6 internal 15K pull-downs
DD[7], SDDREQ	ICH6 internal 11.5K pull-downs
LAN_CLK	ICH6 internal 100K pull-downs

ICH6-M IDE Integrated Series Termination Resistors

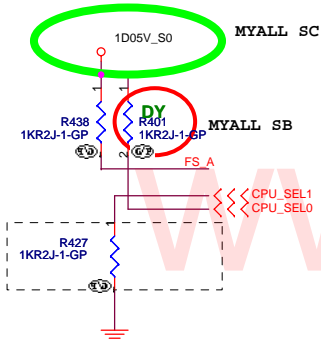
DD[15:0], DIOW#, DIOR#, DREQ, DDACK#, IORDY, DA[2:0], DCS1#, DCS3#, IDEIRQ	approximately 33 ohm
--	----------------------

<Core Design>

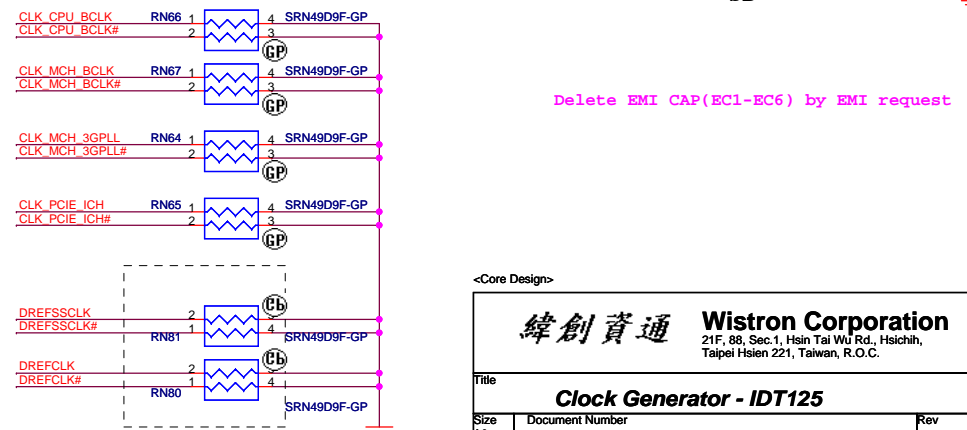
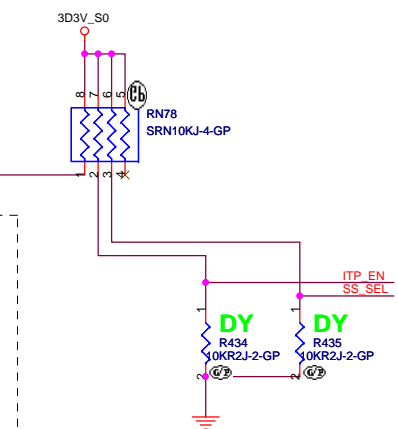
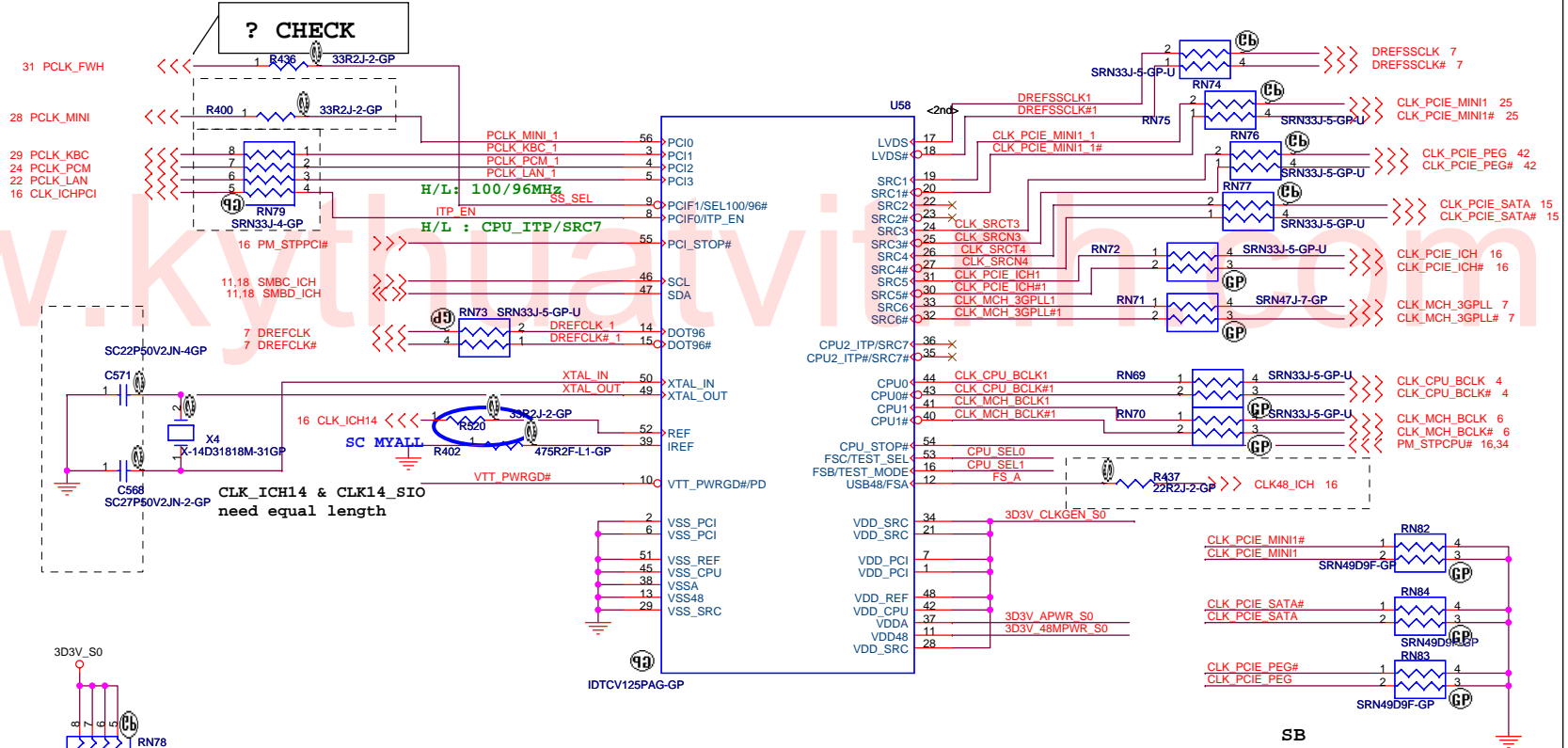
緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Memo			
Size A3	Document Number	Rev	
	MYALL	SA	
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IN (3D3V_S0)	EN (6218_PGOOD)	OUT (VTT_PWRGD#)
H	L	H
X	H	Hi - Z



FS_C	FS_B	FS_A	CPU
0	0	0	266M
0	0	1	133M
0	1	0	200M
0	1	1	166M
1	0	0	333M
1	0	1	100M
1	1	0	400M
1	1	1	Reserved



Delete EMI CAP(EC1-EC6) by EMI request

<Core Design>

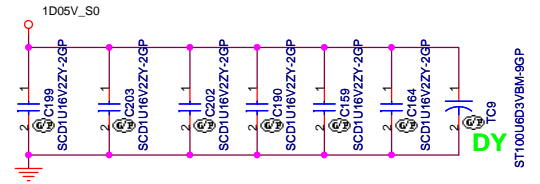
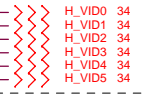
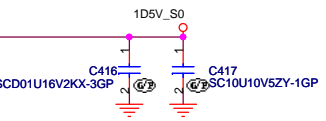
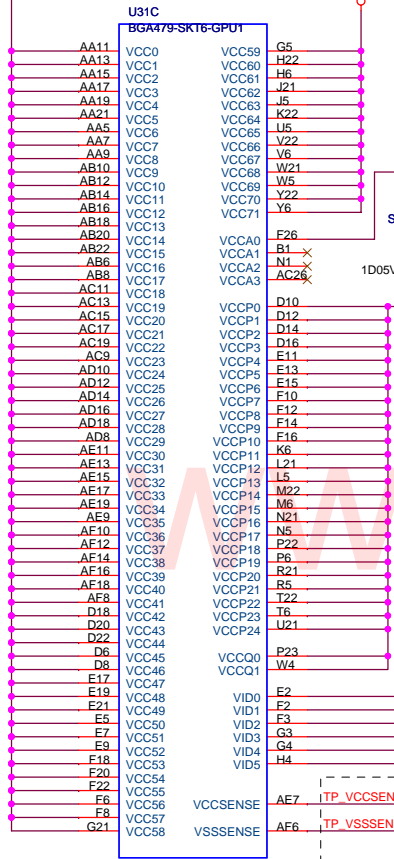
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **Clock Generator - IDT125**

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VCC_CORE_S0

VCC_CORE_S0

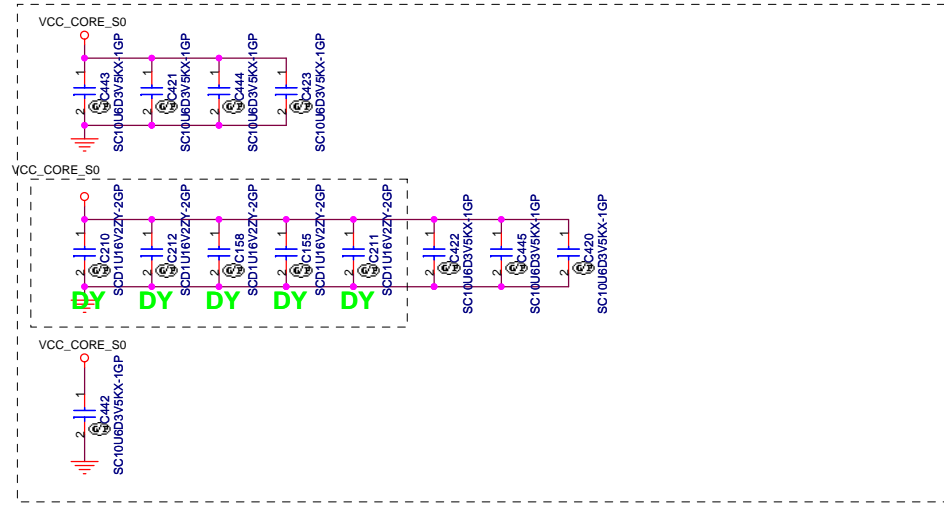


62.10079.001
 <connector>
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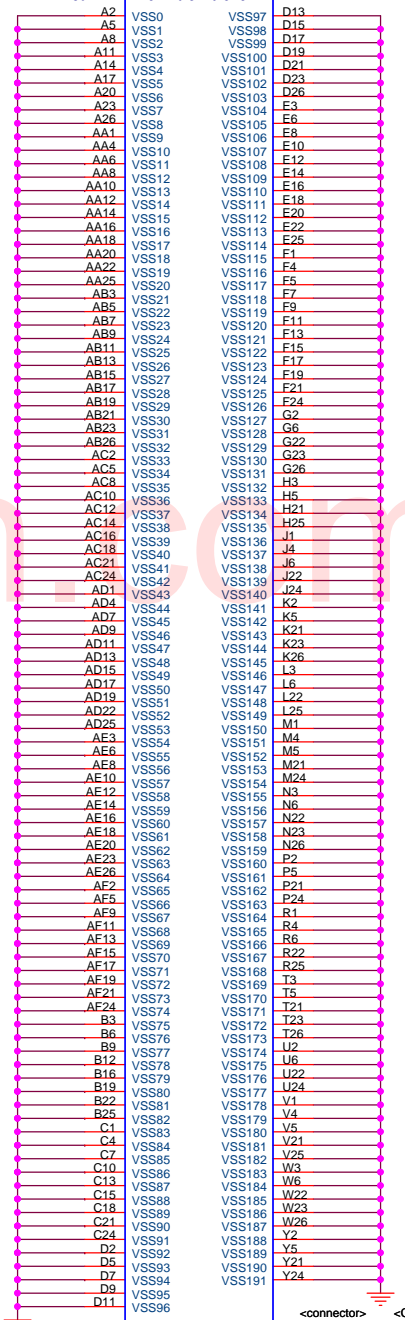
Layout Note:

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.



U31D BGA479-SKT6-GPU1



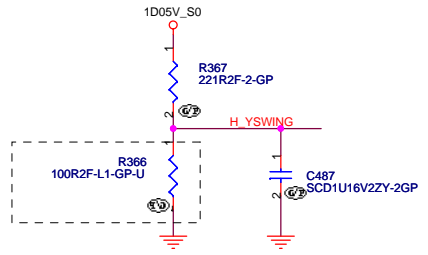
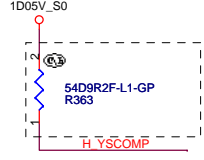
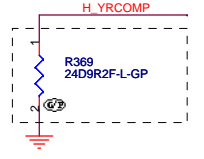
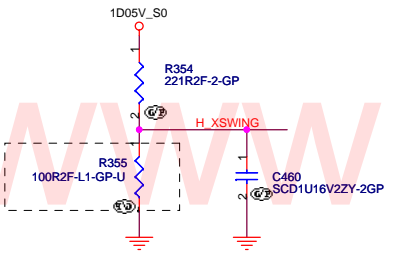
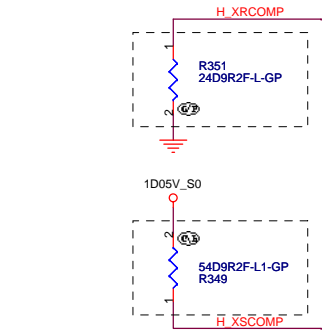
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緯創資通 Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **CPU (2 of 2)**

Size A3 Document Number **MYALL** Rev **SA**

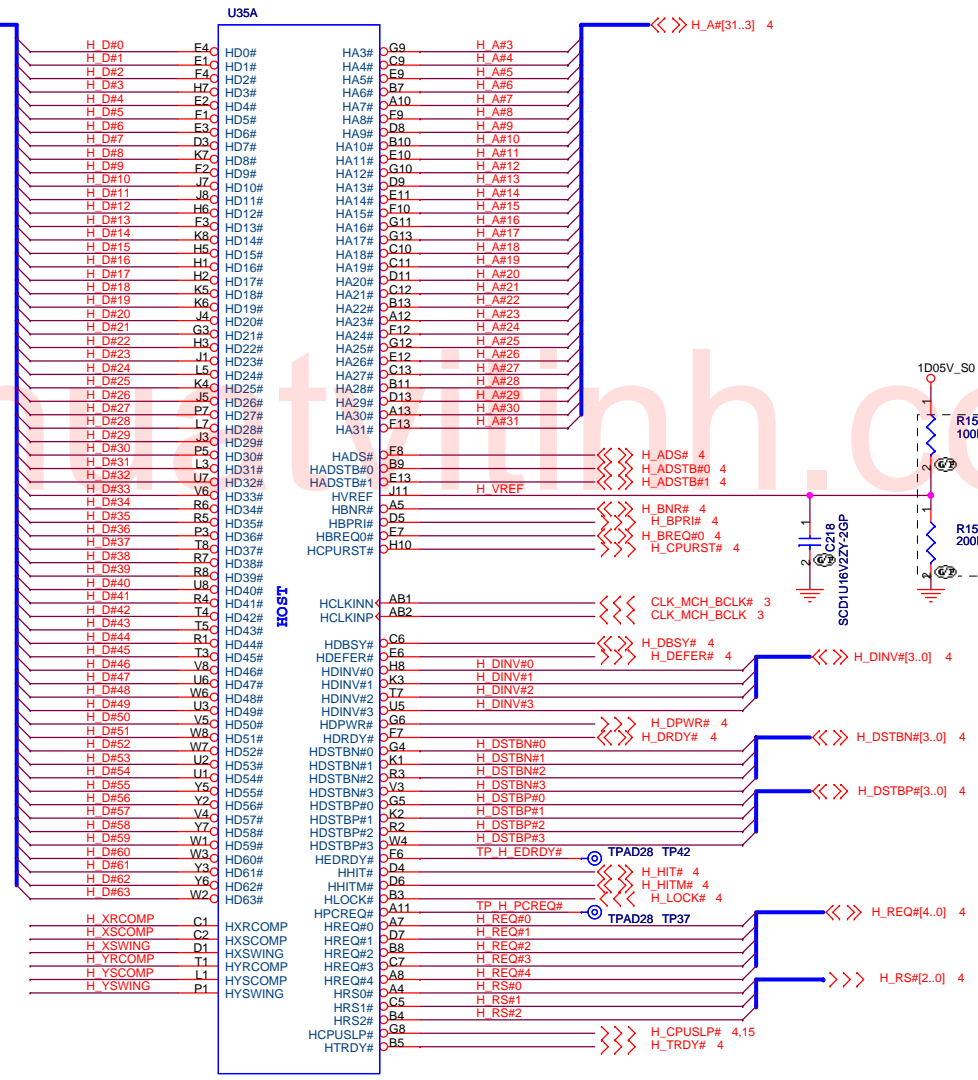
Date: Friday, February 10, 2006 Sheet 5 of 52



Place them near to the chip

4 H_D#[63.0]

4 H_A#[31.3]



71.0GMCH.08U

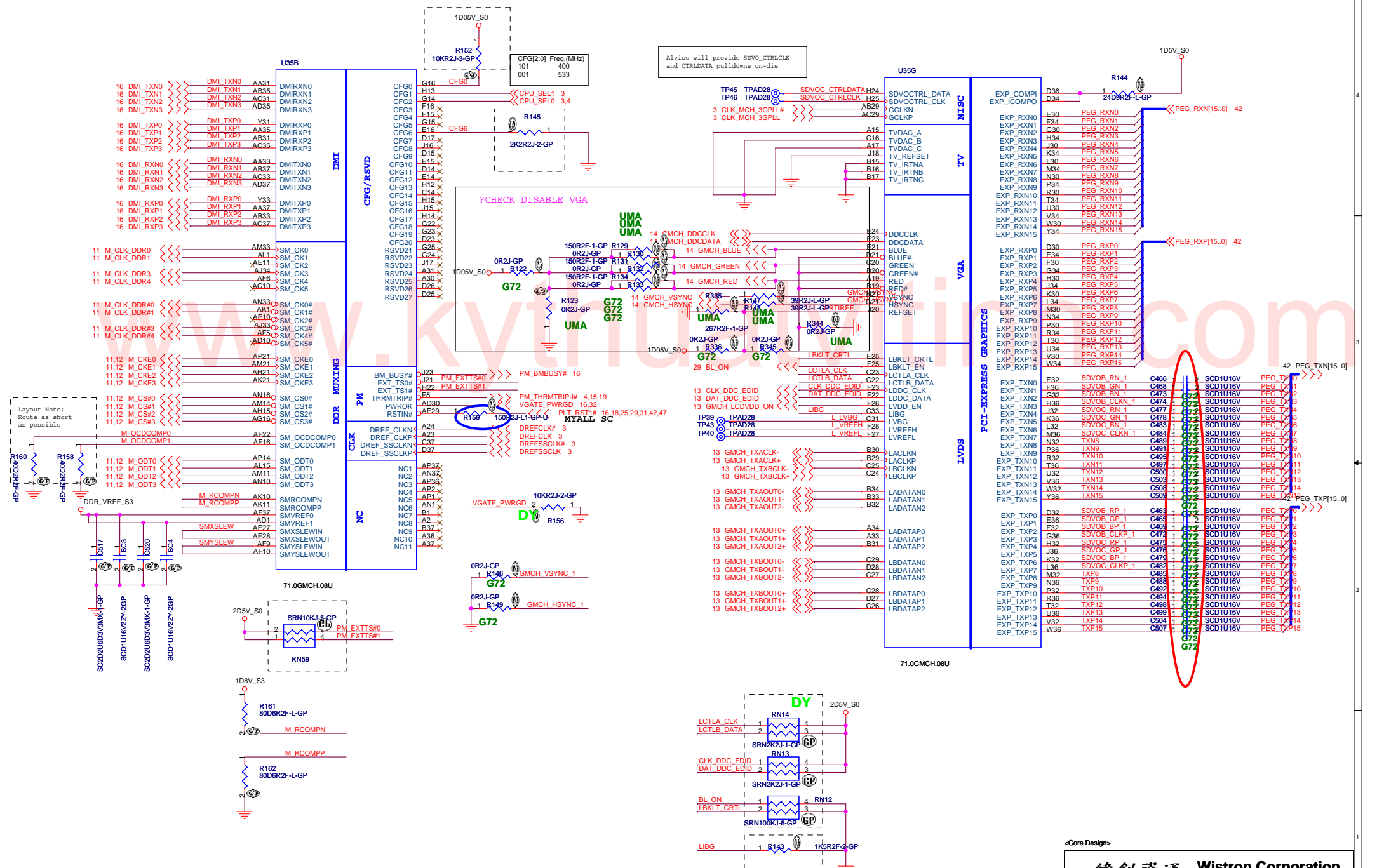
<Core Design>

緯創資通 Wistron Corporation
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Title: **GMCH (1 of 5)**

Size A3 Document Number **MYALL** Rev **SA**

Date: Friday, February 10, 2006 Sheet 6 of 52

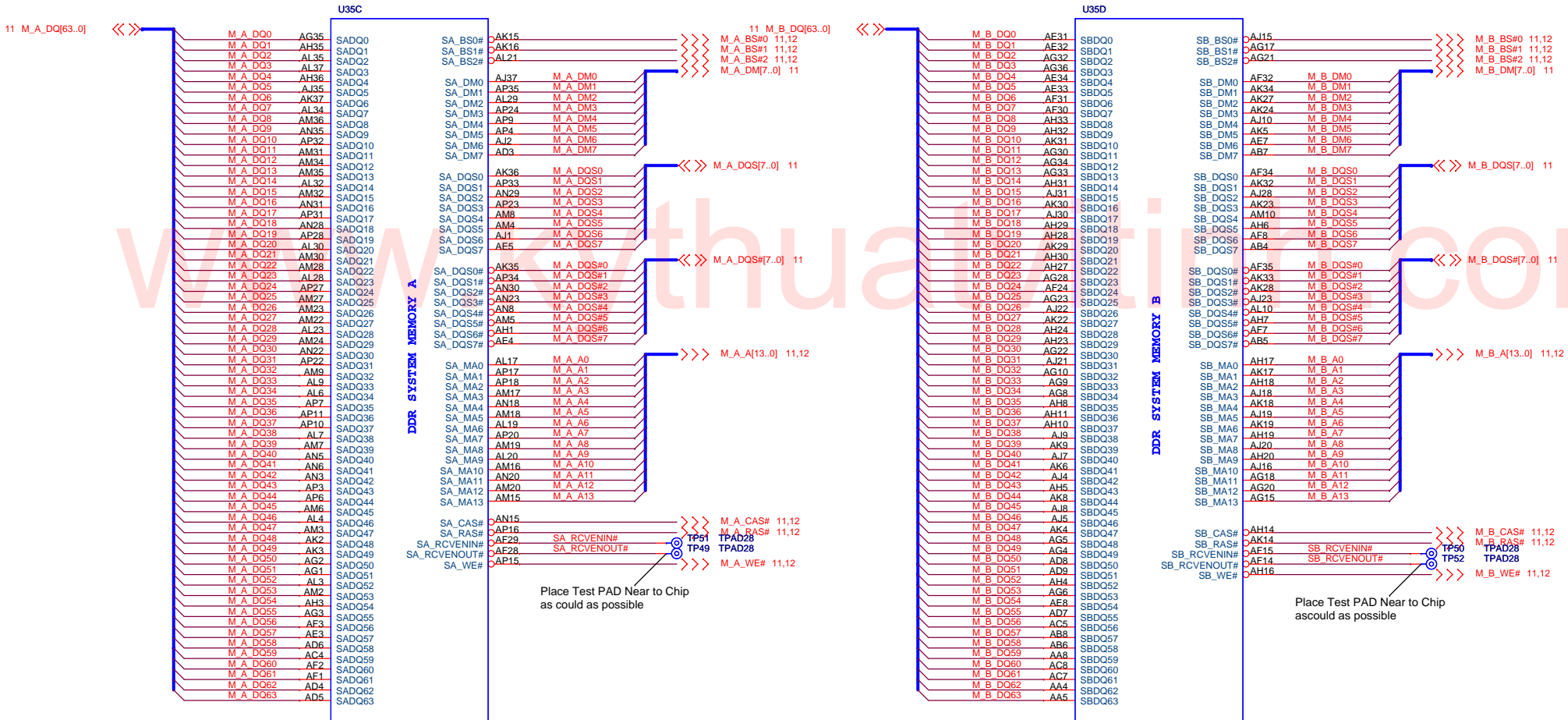


U358

16 DMI_TXN0	DMI_TXN0	AA31	DMIRXN0
16 DMI_TXN1	DMI_TXN1	AB35	DMIRXN1
16 DMI_TXN2	DMI_TXN2	AC31	DMIRXN2
16 DMI_TXN3	DMI_TXN3	AD35	DMIRXN3
16 DMI_TXP0	DMI_TXP0	Y31	DMIRXP0
16 DMI_TXP1	DMI_TXP1	AA35	DMIRXP1
16 DMI_TXP2	DMI_TXP2	AB31	DMIRXP2
16 DMI_TXP3	DMI_TXP3	AC35	DMIRXP3
16 DMI_RXN0	DMI_RXN0	AA33	DMITXN0
16 DMI_RXN1	DMI_RXN1	AB37	DMITXN1
16 DMI_RXN2	DMI_RXN2	AC33	DMITXN2
16 DMI_RXN3	DMI_RXN3	AD37	DMITXN3
16 DMI_RXP0	DMI_RXP0	Y33	DMITXP0
16 DMI_RXP1	DMI_RXP1	AA37	DMITXP1
16 DMI_RXP2	DMI_RXP2	AB33	DMITXP2
16 DMI_RXP3	DMI_RXP3	AC37	DMITXP3
11 M_CLK_DDR0	AM33	SM_CK0	RSVD21
11 M_CLK_DDR1	AL1	SM_CK1	RSVD22
11 M_CLK_DDR2	AM1	SM_CK2	RSVD23
11 M_CLK_DDR3	AJ34	SM_CK3	RSVD24
11 M_CLK_DDR4	AF6	SM_CK4	RSVD25
	AC10	SM_CK5	RSVD26
11 M_CLK_DDR#0	AN33	SM_CK#0	RSVD27
11 M_CLK_DDR#1	AK1	SM_CK#1	
11 M_CLK_DDR#2	AE10	SM_CK#2	
11 M_CLK_DDR#3	AJ33	SM_CK#3	
11 M_CLK_DDR#4	AF5	SM_CK#4	
	AD10	SM_CK#5	
11,12 M_CKE0	AP21	SM_CKE0	
11,12 M_CKE1	AM21	SM_CKE1	
11,12 M_CKE2	AH21	SM_CKE2	
11,12 M_CKE3	AK21	SM_CKE3	
11,12 M_CS#0	AN16	SM_CS#0	
11,12 M_CS#1	AM14	SM_CS#1	
11,12 M_CS#2	AH15	SM_CS#2	
11,12 M_CS#3	AG16	SM_CS#3	
M_OCDCOMP0	AF22	SM_OCDCOMP0	
M_OCDCOMP1	AF16	SM_OCDCOMP1	
11,12 M_ODT0	AP14	SM_ODT0	
11,12 M_ODT1	AL15	SM_ODT1	
11,12 M_ODT2	AM11	SM_ODT2	
11,12 M_ODT3	AN10	SM_ODT3	
M_RCOMP	AK10	SMRCOMP	
M_RCOMP	AK11	SMRCOMP	
SMX_SLEW	AE27	SMX_SLEW	
SMX_SLEW	AE28	SMX_SLEW	
SMX_SLEW	AE29	SMX_SLEW	
SMX_SLEW	AE10	SMX_SLEW	

U35G

EXP_COMP1	D36	PEG_RXN0	
EXP_ICOMPO	D34	PEG_RXN1	
	E30	PEG_RXN2	
	F34	PEG_RXN3	
	G30	PEG_RXN4	
	H34	PEG_RXN5	
	J30	PEG_RXN6	
	K34	PEG_RXN7	
	L30	PEG_RXN8	
	M34	PEG_RXN9	
	N30	PEG_RXN10	
	P34	PEG_RXN11	
	T34	PEG_RXN12	
	U30	PEG_RXN13	
	V34	PEG_RXN14	
	W30	PEG_RXN15	
	X34	PEG_RXN16	
EXP_RXP0	D30	PEG_RXP0	
EXP_RXP1	E34	PEG_RXP1	
EXP_RXP2	F30	PEG_RXP2	
EXP_RXP3	G34	PEG_RXP3	
EXP_RXP4	H30	PEG_RXP4	
EXP_RXP5	J34	PEG_RXP5	
EXP_RXP6	K34	PEG_RXP6	
EXP_RXP7	L34	PEG_RXP7	
EXP_RXP8	M30	PEG_RXP8	
EXP_RXP9	N34	PEG_RXP9	
EXP_RXP10	P30	PEG_RXP10	
EXP_RXP11	R34	PEG_RXP11	
EXP_RXP12	T30	PEG_RXP12	
EXP_RXP13	U34	PEG_RXP13	
EXP_RXP14	V30	PEG_RXP14	
EXP_RXP15	W34	PEG_RXP15	
EXP_TXN0	E32	SDVOB RN 1	C466
EXP_TXN1	F36	SDVOB GN 1	C468
EXP_TXN2	G32	SDVOB BN 1	C473
EXP_TXN3	H36	SDVOB CLKN 1	C474
EXP_TXN4	J32	SDVOB RN 1	C477
EXP_TXN5	K36	SDVOB GN 1	C478
EXP_TXN6	L32	SDVOB BN 1	C483
EXP_TXN7	N36	SDVOB CLKN 1	C484
EXP_TXN8	N32	TXN8	C489
EXP_TXN9	P36	TXN9	C491
EXP_TXN10	R32	TXN10	C495
EXP_TXN11	T36	TXN11	C497
EXP_TXN12	U32	TXN12	C500
EXP_TXN13	V36	TXN13	C503
EXP_TXN14	W32	TXN14	C508
EXP_TXN15	X36	TXN15	C509
EXP_TXP0	D32	SDVOB RP 1	C463
EXP_TXP1	E36	SDVOB GP 1	C465
EXP_TXP2	F32	SDVOB BP 1	C469
EXP_TXP3	G36	SDVOB CLKP 1	C472
EXP_TXP4	H32	SDVOB RP 1	C475
EXP_TXP5	J36	SDVOB GP 1	C476
EXP_TXP6	K32	SDVOB BP 1	C479
EXP_TXP7	L36	SDVOB CLKP 1	C482
EXP_TXP8	M32	TXP8	C485
EXP_TXP9	N36	TXP9	C488
EXP_TXP10	P32	TXP10	C492
EXP_TXP11	R36	TXP11	C494
EXP_TXP12	T32	TXP12	C498
EXP_TXP13	U36	TXP13	C499
EXP_TXP14	V32	TXP14	C504
EXP_TXP15	W36	TXP15	C507



71.0GMCH.08U

71.0GMCH.08U

Place Test PAD Near to Chip as could as possible

Place Test PAD Near to Chip as could as possible

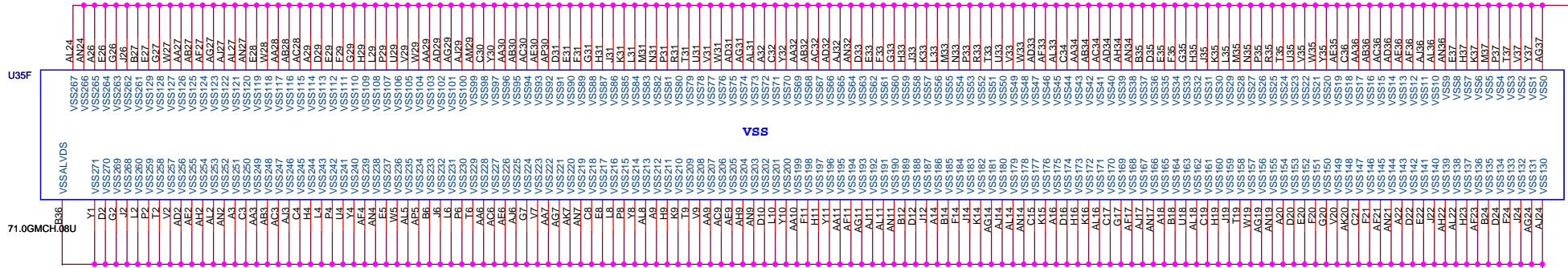
<Core Design>

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

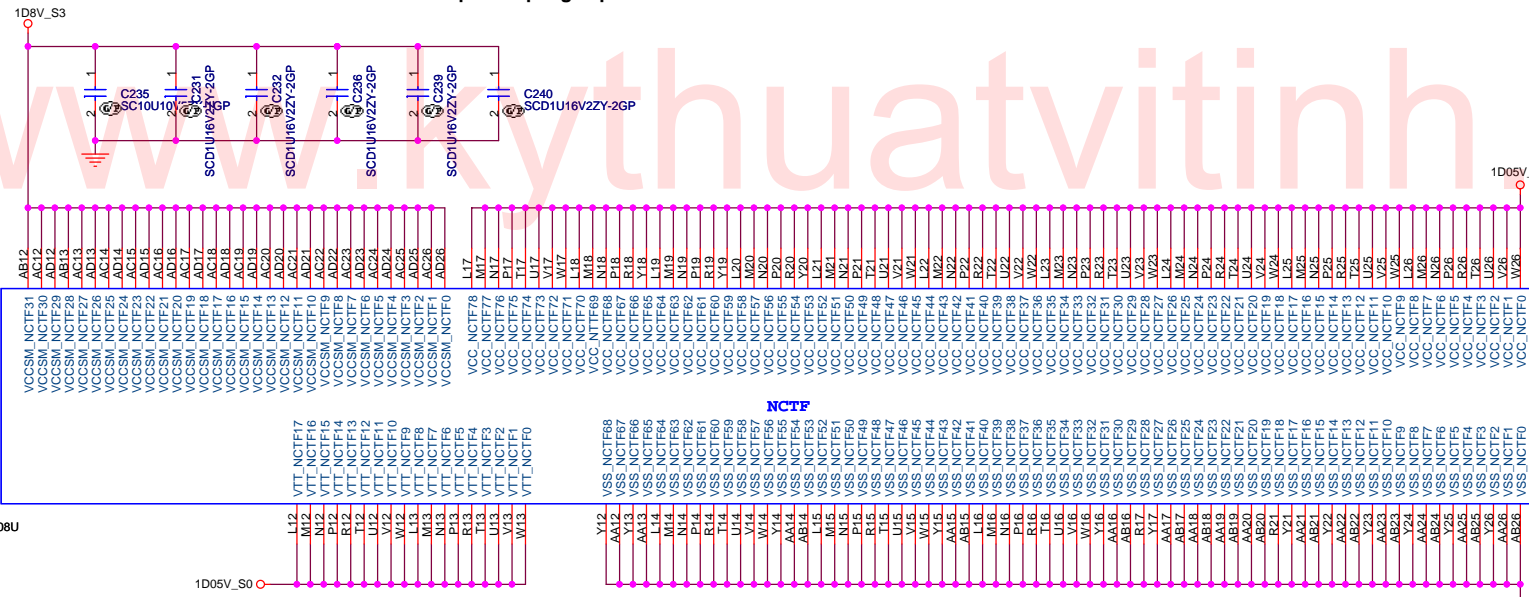
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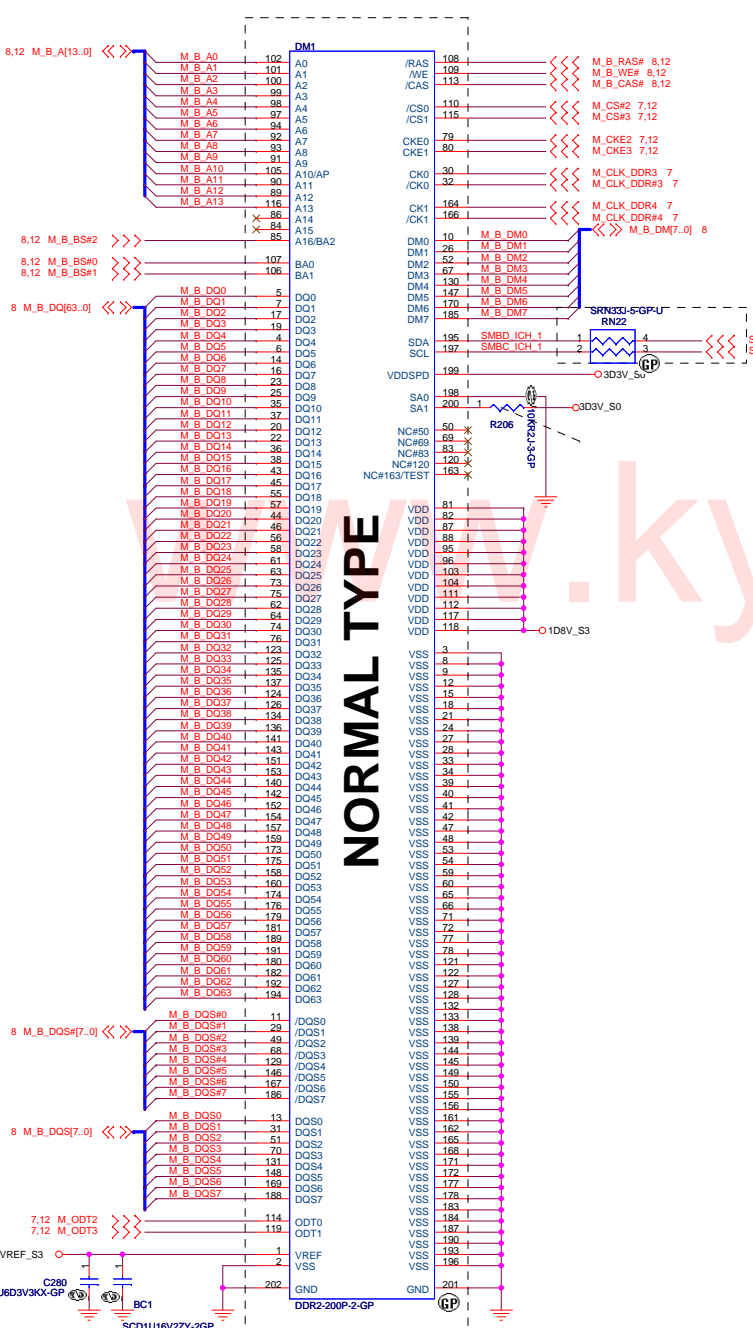
Size A3 Document Number **MYALL** Rev **SA**

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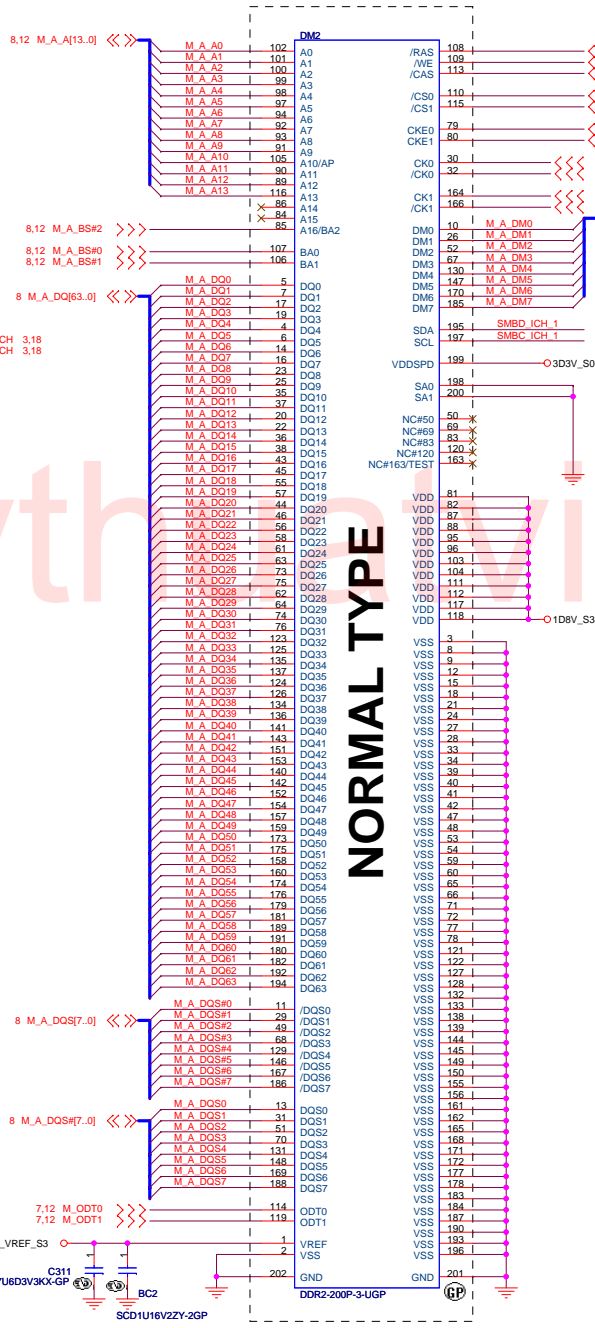
Place these Hi-Freq decoupling caps near GMCH





NORMAL TYPE

High 5.2mm
2nd source:62.10017.661



NORMAL TYPE

High 9.2mm
2nd source:62.10017.A61

<Core Design>

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

Title: **DDR Socket**

Size: Custom
Date: Friday, February 10, 2006

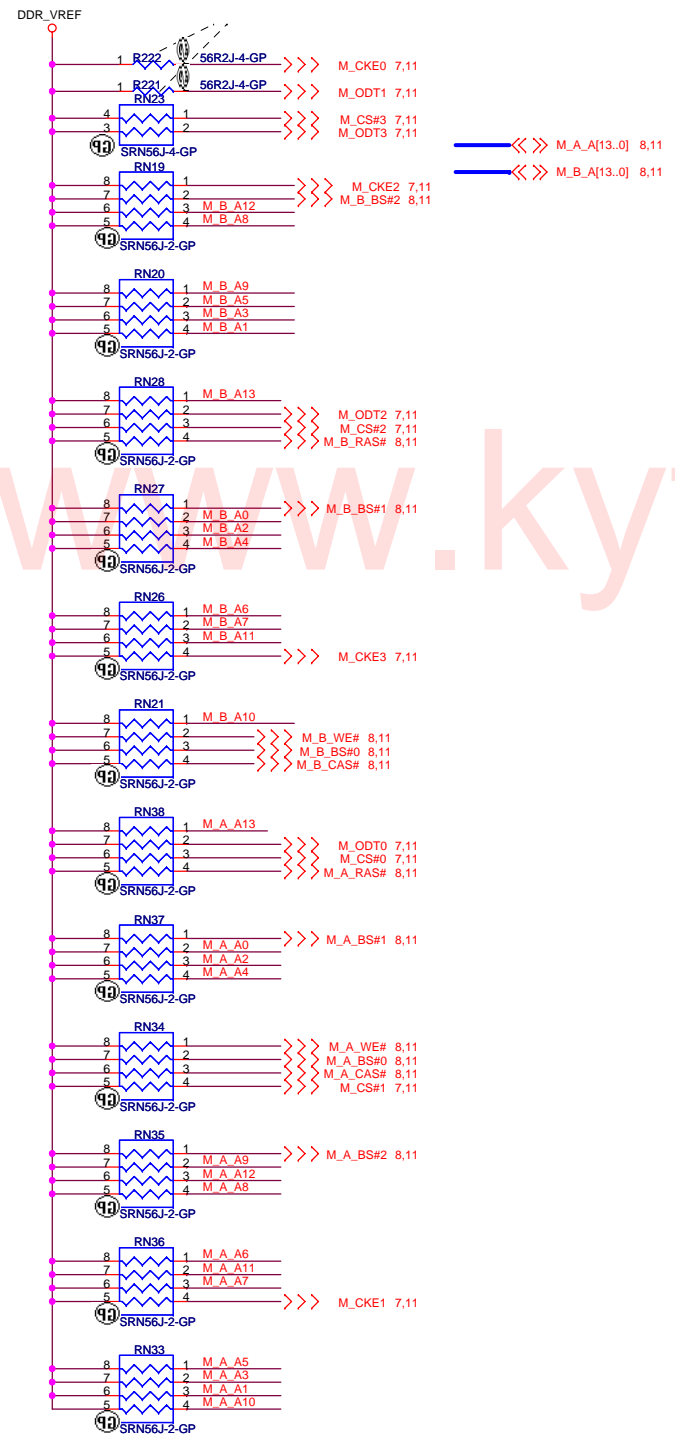
Document Number: **MYALL**

Rev: **SA**

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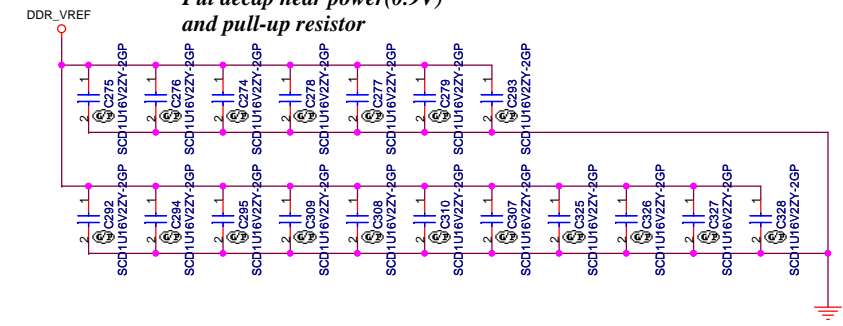
PARALLEL TERMINATION

Put decap near power(0.9V) and pull-up resistor

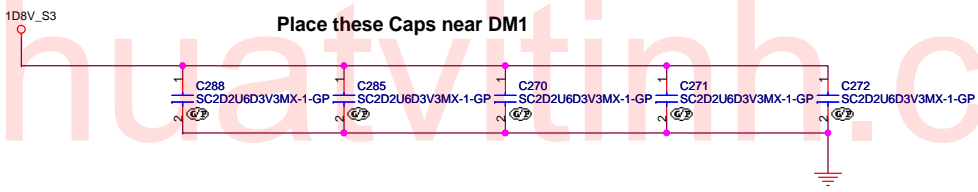


Decoupling Capacitor

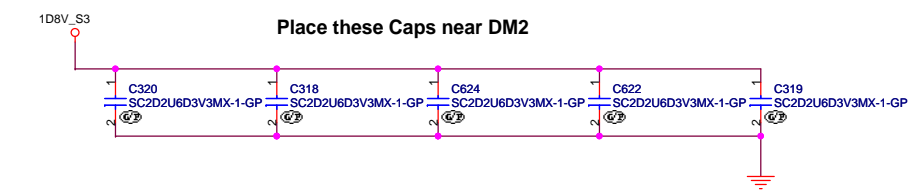
Put decap near power(0.9V) and pull-up resistor



Place these Caps near DM1



Place these Caps near DM2



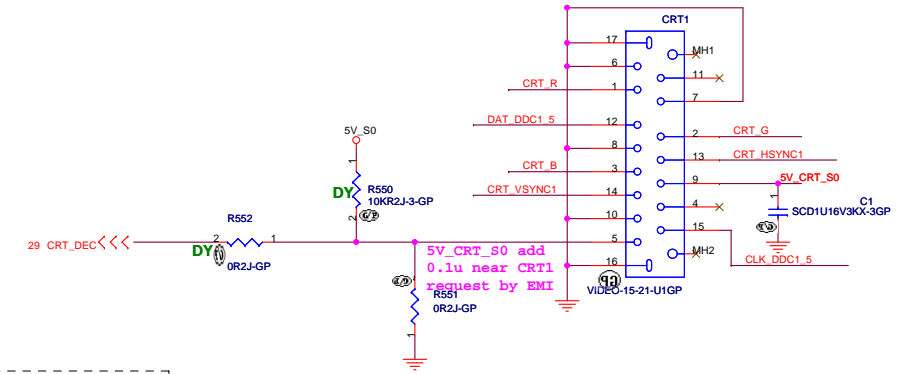
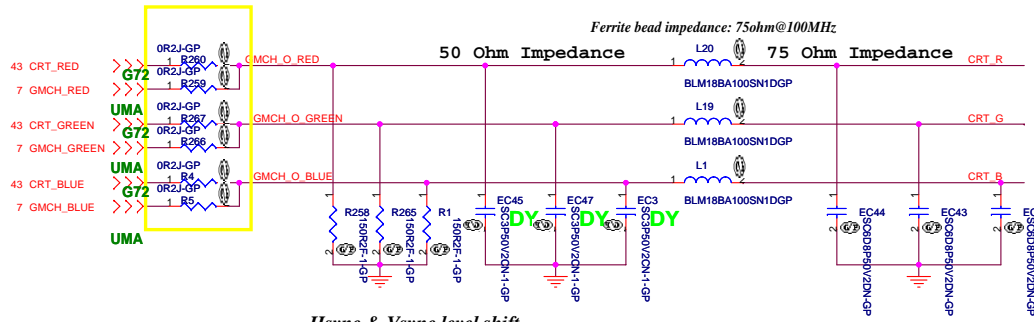
<Core Design>

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

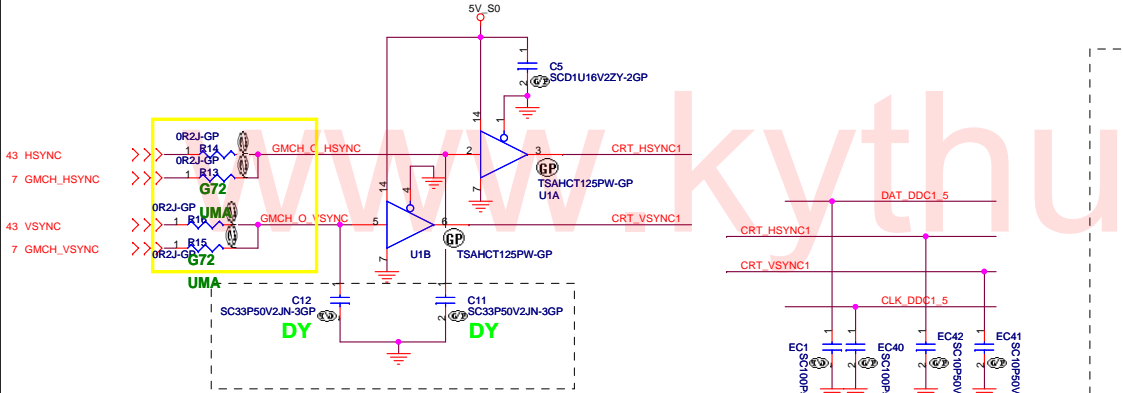
Title: **DDR2 Termination Resistor**

Size: A3	Document Number: MYALL	Rev: SA
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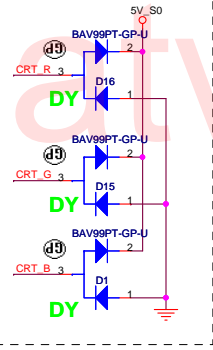
CRT CONNECTOR



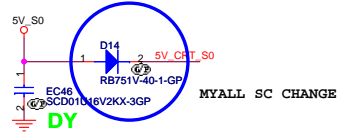
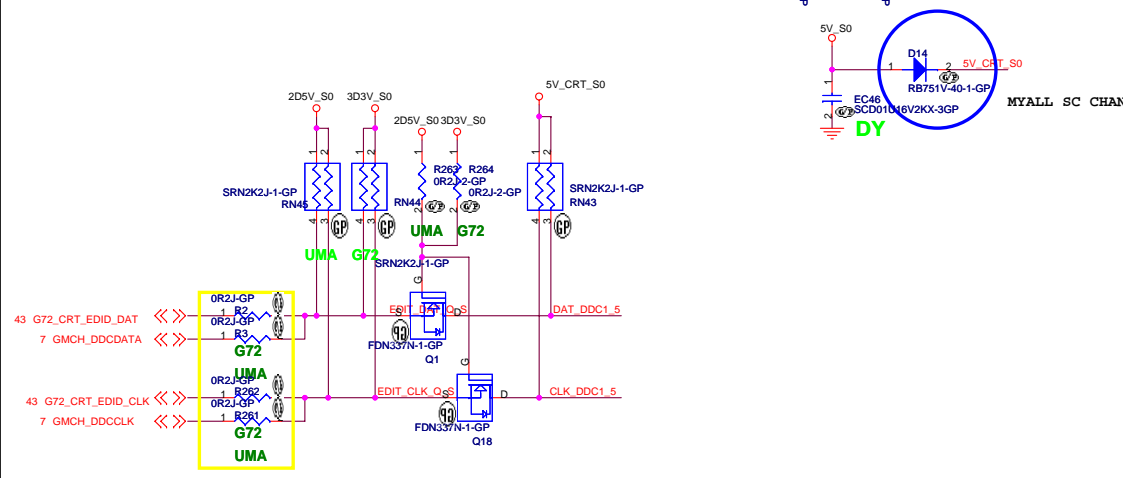
Hsync & Vsync level shift



ESD Protection Diode

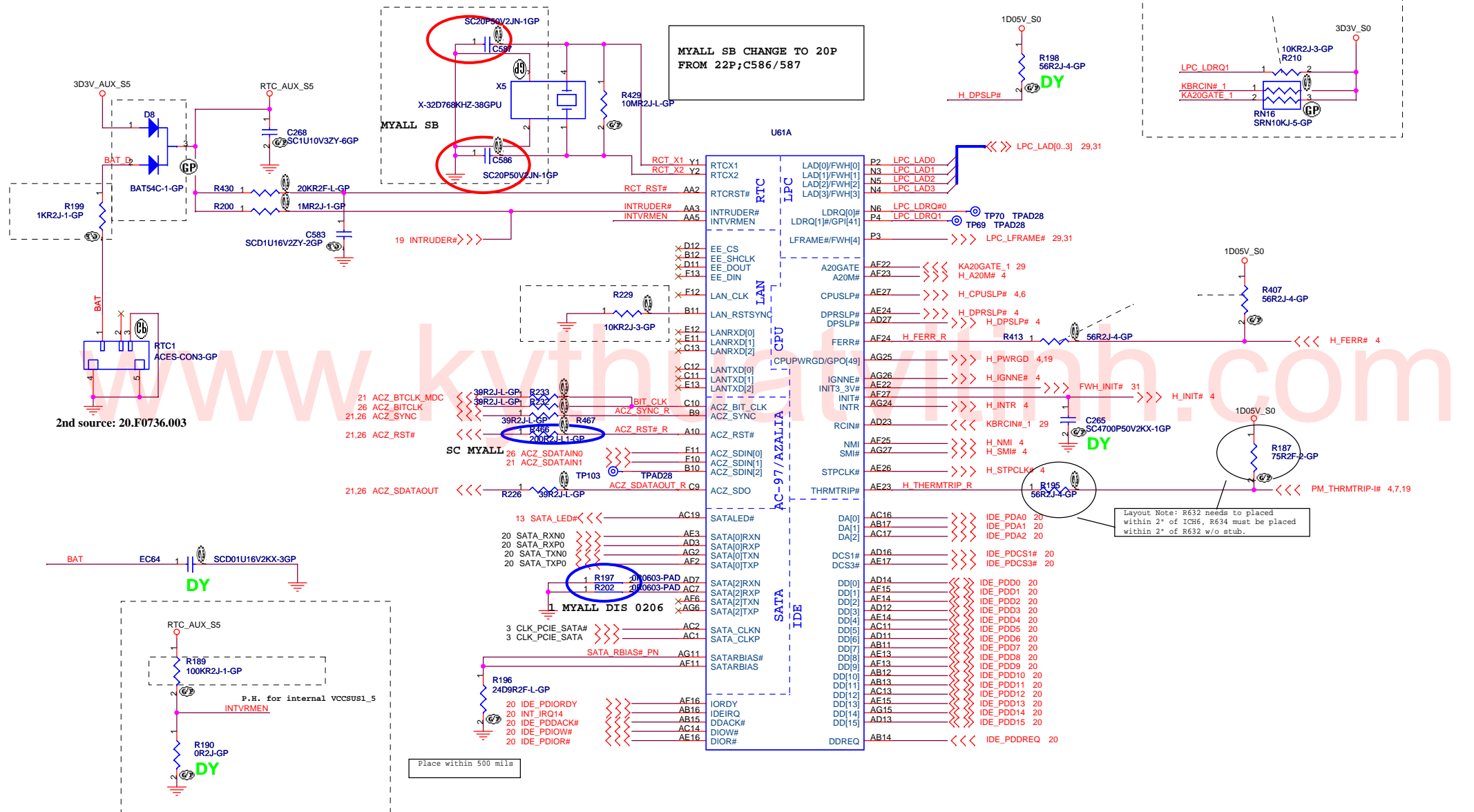


DDC_CLK & DATA level shift



<Core Design>

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
CRT Connector			
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Custom	MYALL	SA	
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MYALL SB CHANGE TO 20P
FROM 22P; C586/587

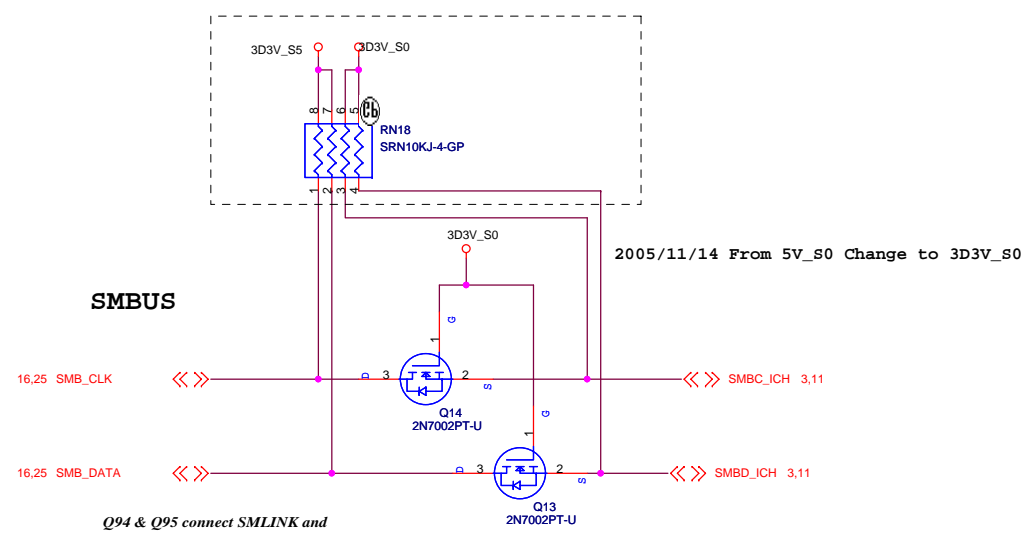
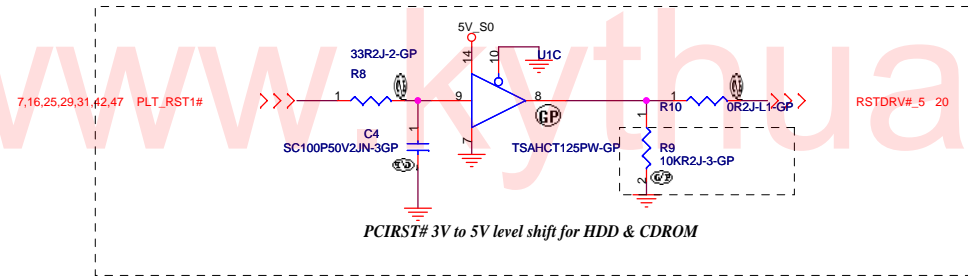
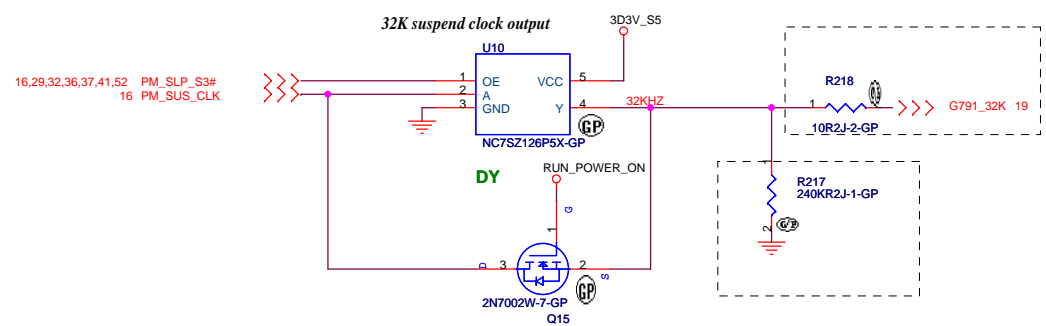
U61A

RTCX1	RTCX2	LAD[0]/FWH[0]	P2	LPC LAD0
RCT X2 Y2	RCT X1 Y1	LAD[1]/FWH[1]	N3	LPC LAD1
INTRUDER#	AA2	LAD[2]/FWH[2]	N5	LPC LAD2
INTRVMEN	AA5	LAD[3]/FWH[3]	N4	LPC LAD3
EE_CS	D12	LDRQ[0]	N6	LPC LDRQ#0
EE_SHCLK	B12	LDRQ[1]#/GPI[41]	P4	LPC LDRQ1
EE_DOUT	D11	LFRAME#/FWH[4]	P3	LPC.LFRAME# 29,31
EE_DIN	F13	AE22	AE23	KA20GATE_1 29
LAN_CLK	F12	AE27	AE27	H_CPUSLP# 4,6
LAN_RSTSYNC	B11	AE24	AE24	H_DPRSPLP# 4
LANRXD[0]	E12	AE27	AD27	H_DPUSLP# 4
LANRXD[1]	E11	AE24	H_FERR_R	R413 1 56R2J-4-GP
LANRXD[2]	C13	AG25	AG25	H_PWRGD 4,19
LANTXD[0]	C12	AC26	AC26	H_IGNNE# 4
LANTXD[1]	C11	AE27	AE27	H_DPUSLP# 4
LANTXD[2]	E13	AE27	AG24	H_INTR# 4
ACZ_BIT_CLK	C10	INTR#	INTR#	H_INIT# 4
ACZ_SYNC R	B9	RCIN#	AD23	KBRCIN#_1 29
ACZ_RST# R	A10	AE25	AE25	H_NMI 4
ACZ_SYNC	B9	AG27	AG27	H_SM# 4
ACZ_SDIN[0]	F11	AE26	AE26	H_STPCLK# 4
ACZ_SDIN[1]	F10	THRMTRIP#	AE23	H_THERMTRIP R
ACZ_SDIN[2]	B10	DA[0]	AC16	IDE_PDA0 20
ACZ_SDO	C9	DA[1]	AB17	IDE_PDA1 20
SATALED#	AC19	DA[2]	AC17	IDE_PDA2 20
SATA[0]RXN	AE3	DCS1#	AD16	IDE_PDCS1# 20
SATA[0]RXP	AD3	DCS3#	AE17	IDE_PDCS3# 20
SATA[0]TXN	AG2	DD[0]	AD14	IDE_PDD0 20
SATA[0]TXP	AF2	DD[1]	AE15	IDE_PDD1 20
SATA[2]RXN	AD7	DD[2]	AE14	IDE_PDD2 20
SATA[2]RXP	AC7	DD[3]	AD12	IDE_PDD3 20
SATA[2]TXN	AE6	DD[4]	AE14	IDE_PDD4 20
SATA[2]TXP	AG6	DD[5]	AD11	IDE_PDD5 20
SATA_CLKN	AC2	DD[6]	AB11	IDE_PDD6 20
SATA_CLKP	AC1	DD[7]	AE13	IDE_PDD7 20
SATARBIAS#	AG11	DD[8]	AE13	IDE_PDD8 20
SATARBIAS	AF11	DD[9]	AE12	IDE_PDD9 20
IORDY	AF16	DD[10]	AB12	IDE_PDD10 20
IDEIRQ	AB16	DD[11]	AB13	IDE_PDD11 20
DIOW#	AB15	DD[12]	AC13	IDE_PDD12 20
DIOR#	AC14	DD[13]	AG15	IDE_PDD13 20
DDREQ	AE16	DD[14]	AD13	IDE_PDD14 20
		DD[15]	AD13	IDE_PDD15 20
		DDREQ	AB14	IDE_PDDREQ 20

Layout Note: R632 needs to be placed within 2" of ICH6, R634 must be placed within 2" of R632 w/o stub.

2nd source: 20.F0736.003

Place within 500 mils



Q94 & Q95 connect SMLINK and SMBUS in S) for SMBus 2.0 compliance

U61D

E27	VSS	F4
Y6	VSS	F22
Y27	VSS	F19
Y26	VSS	F17
Y23	VSS	E25
W7	VSS	E19
W25	VSS	E18
W24	VSS	E15
W23	VSS	E14
W1	VSS	D7
V4	VSS	D22
V27	VSS	D18
V26	VSS	D14
V23	VSS	D13
U25	VSS	D10
U24	VSS	D1
U23	VSS	C4
U15	VSS	C22
U13	VSS	C20
I7	VSS	C18
T27	VSS	C14
T26	VSS	B25
T23	VSS	B24
T16	VSS	B23
T15	VSS	B21
T14	VSS	B19
T13	VSS	B15
T12	VSS	B13
T1	VSS	B13
R4	VSS	AG7
R25	VSS	AG3
R24	VSS	AG22
R23	VSS	AG20
R17	VSS	AG17
R16	VSS	AG14
R15	VSS	AG12
R14	VSS	AG1
R13	VSS	AF7
R12	VSS	AF3
R11	VSS	AF26
P22	VSS	AF12
P16	VSS	AF10
P15	VSS	AF1
P14	VSS	AE7
P13	VSS	AE6
P12	VSS	AE25
N7	VSS	AE21
N17	VSS	AE2
N16	VSS	AE12
N15	VSS	AE11
N14	VSS	AE10
N13	VSS	AD6
N12	VSS	AD24
N11	VSS	AD2
N1	VSS	AD18
M4	VSS	AD15
M27	VSS	AD10
M26	VSS	AD1
M23	VSS	AC6
M16	VSS	AC3
M15	VSS	AC26
M14	VSS	AC24
M13	VSS	AC23
M12	VSS	AC22
L25	VSS	AC12
L24	VSS	AC10
L23	VSS	AB9
L15	VSS	AB7
L13	VSS	AB2
K7	VSS	AB19
K27	VSS	AB10
K26	VSS	AB1
K23	VSS	AA4
K1	VSS	AA16
J4	VSS	AA13
J25	VSS	AA11
J24	VSS	A9
J23	VSS	A7
H27	VSS	A4
H26	VSS	A26
H23	VSS	A23
G9	VSS	A21
G7	VSS	A19
G21	VSS	A15
G12	VSS	A12
G1	VSS	A1
VSS	VSS	VSS

<Core Design>

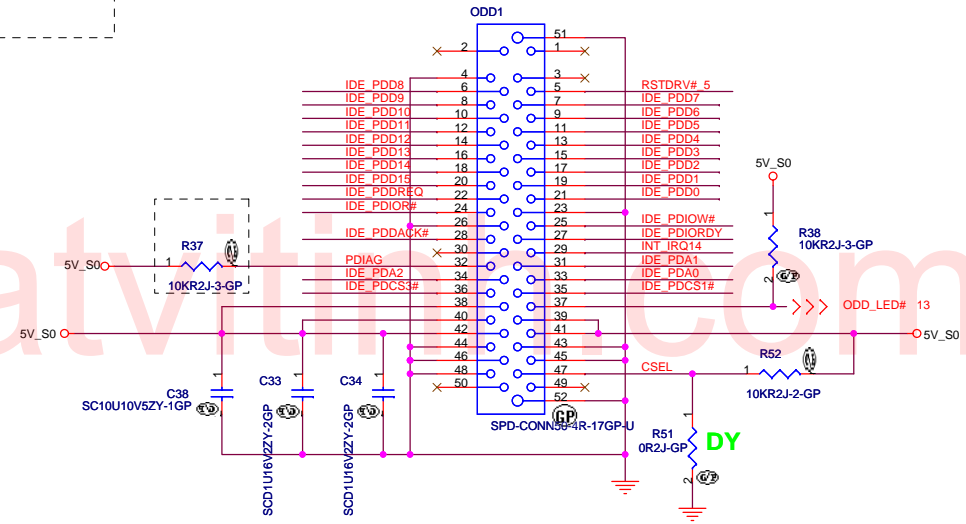
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title ICH6-M (4 of 4)

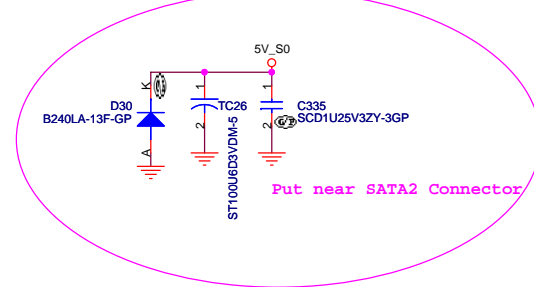
Size A3 Document Number MYALL Rev SA

Date: Friday, February 10, 2006 Sheet 18 of 52

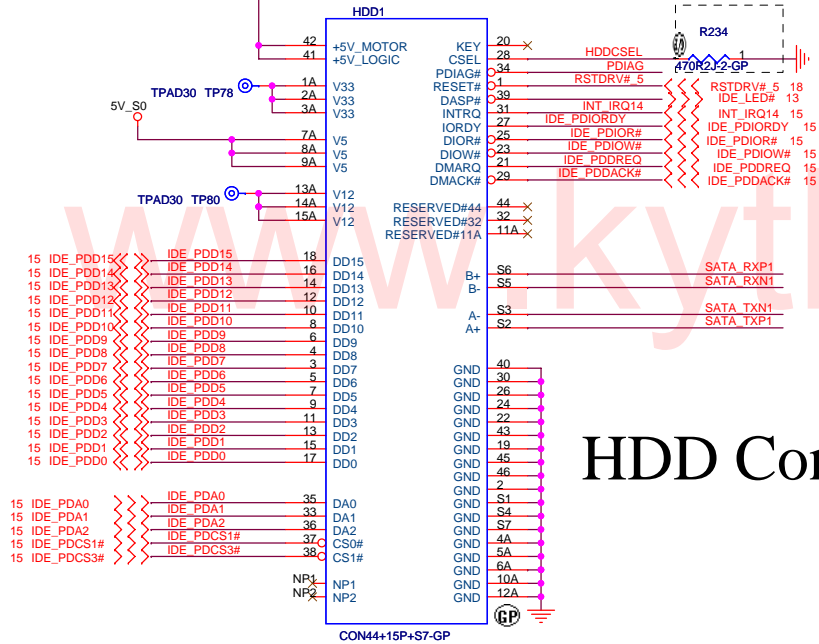
CD-ROM Connector



For HDD & SATA both

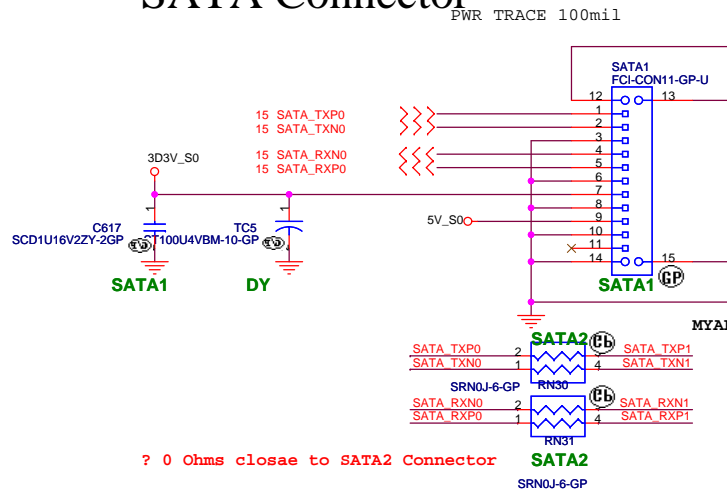


HDD Connector

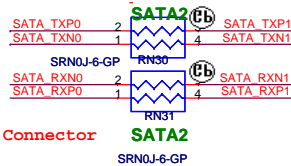


TC33 CLOSE BETWEEN HDD1 AND SATA1 CONNECTOR.

SATA Connector



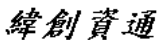
MYALL SB RELOAD SYMBOL ADD PIN 12-15



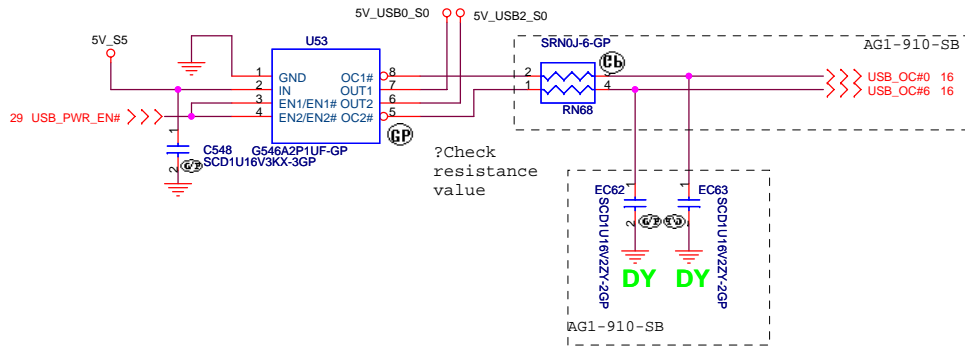
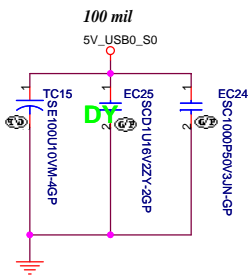
? 0 Ohms close to SATA2 Connector

Dummy when use IDE

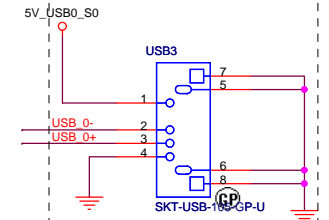
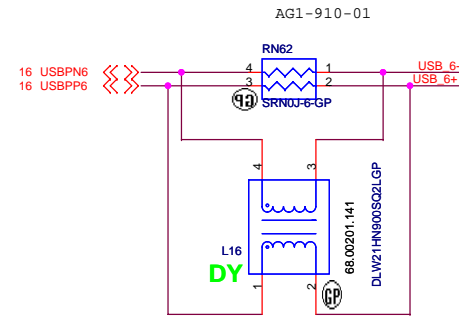
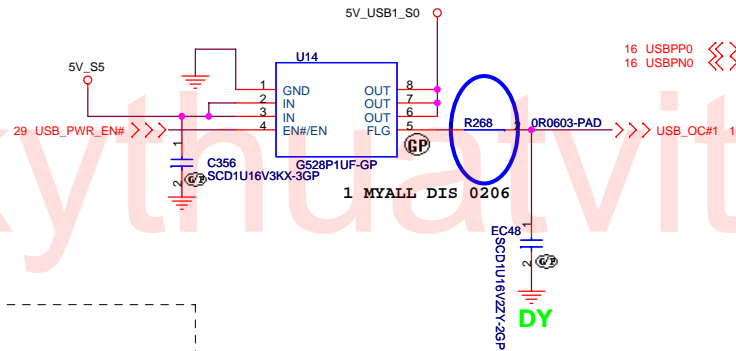
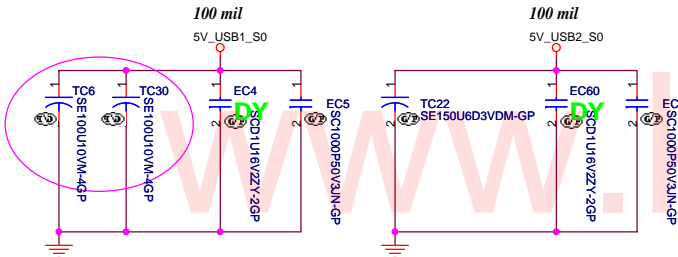
<Core Design>

 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
HDD and CDROM		
Title		
Size A3	Document Number MYALL	Rev SA
Date: Monday, February 13, 2006		
Sheet 20 of 52		ME : 20.F0777.022

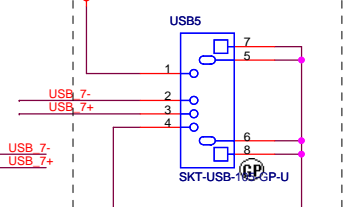
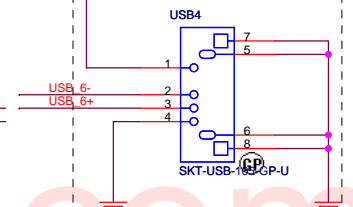
USB PORT



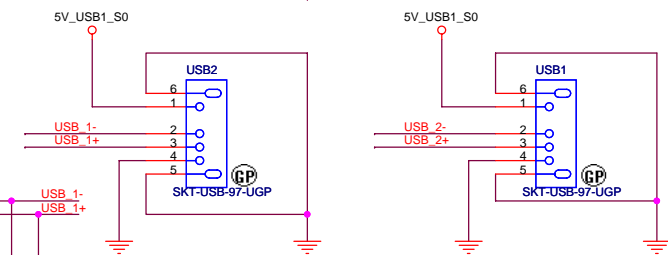
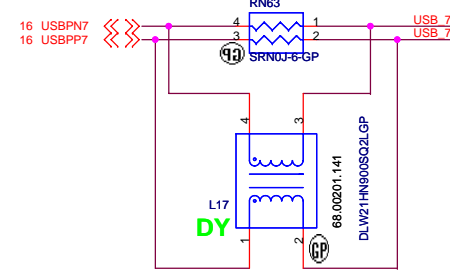
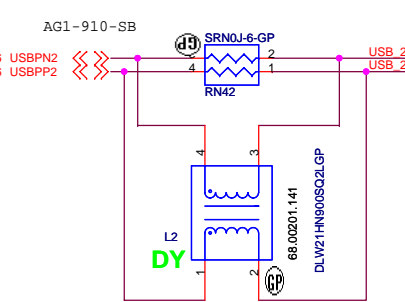
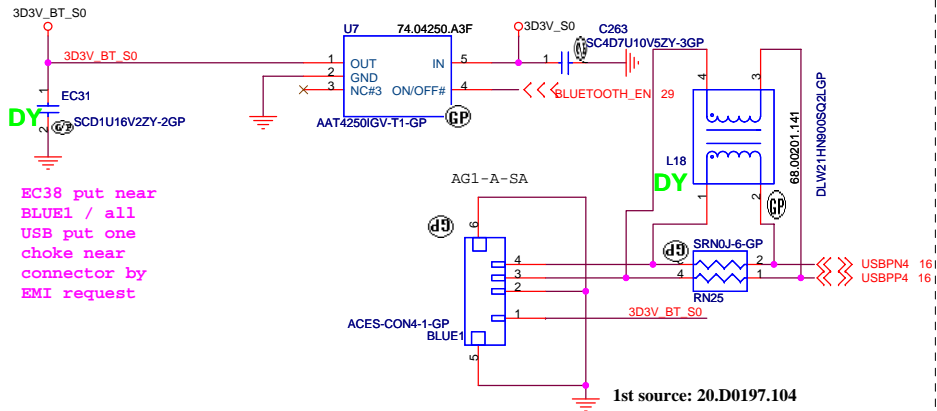
MYALL SB CHANGE TO 100U*2 FROM 150U.



Right side



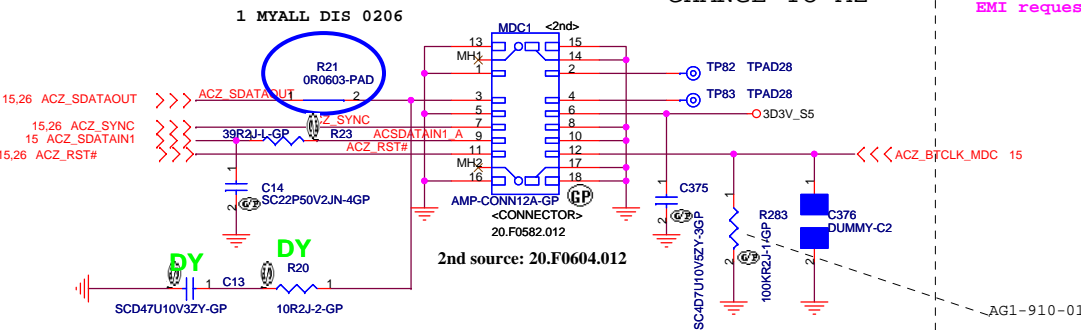
BLUETOOTH MODULE



EC38 put near BLUE1 / all USB put one choke near connector by EMI request

MDC 1.5 CONNECTOR

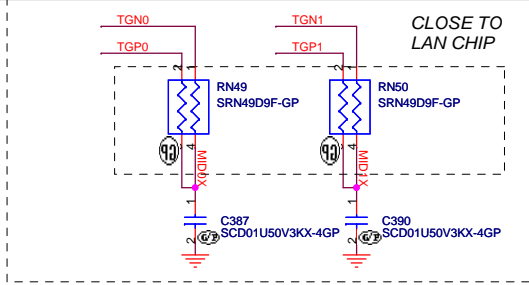
CHANGE TO AZ



<Core Design>

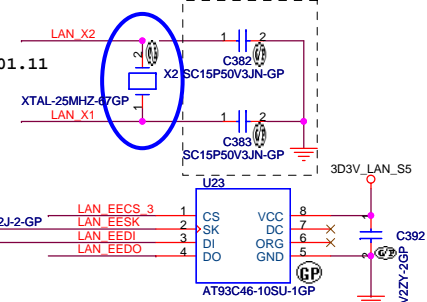
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title		
USB / MDC / BLUETOOTH		
Size	Document Number	Rev
A3	MYALL	SA
Date:	Friday, February 10, 2006	Sheet 21 of 52

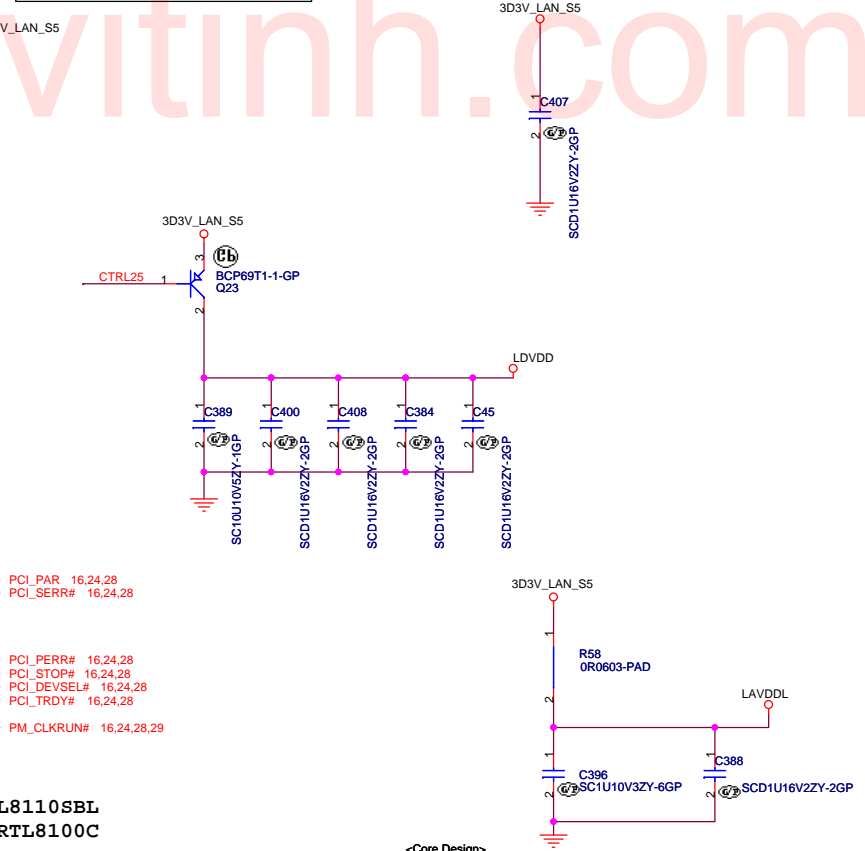
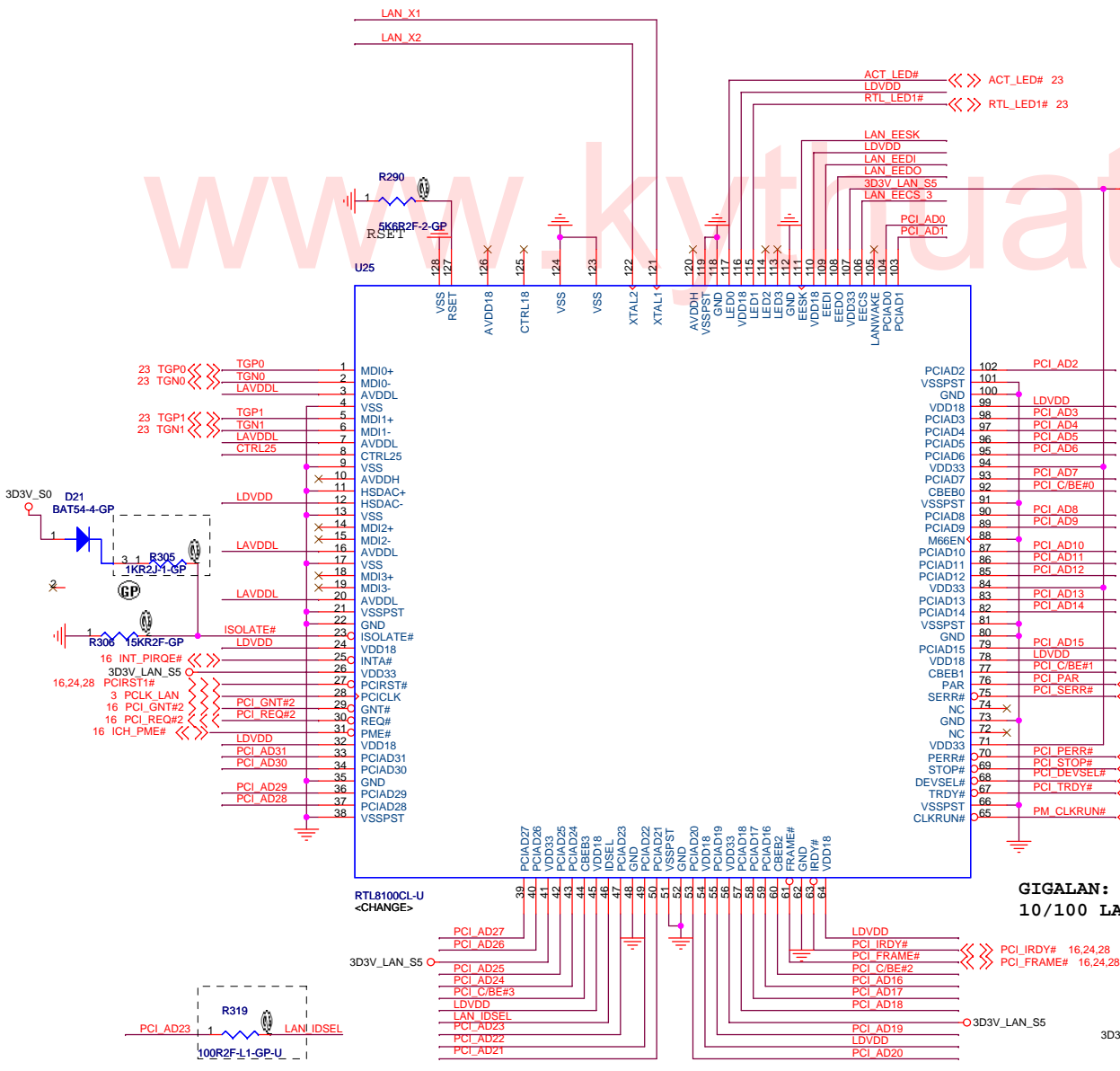


16,24,28 PCI_C/BE#(3..0) <<< <<<
 16,24,28 PCI_AD(31..0) <<< <<<

SC MYALL CHANGE 2006.01.11



EEPROM LED OPTION USE '01'
 (DEFINED IN SPEC)
 => LED0 : ACT
 => LED1 : LINK
 (BOTH 10/100 AND GIGA CHIP)



GIGALAN: RTL810SBL
10/100 LAN: RTL8100C

<Core Design>

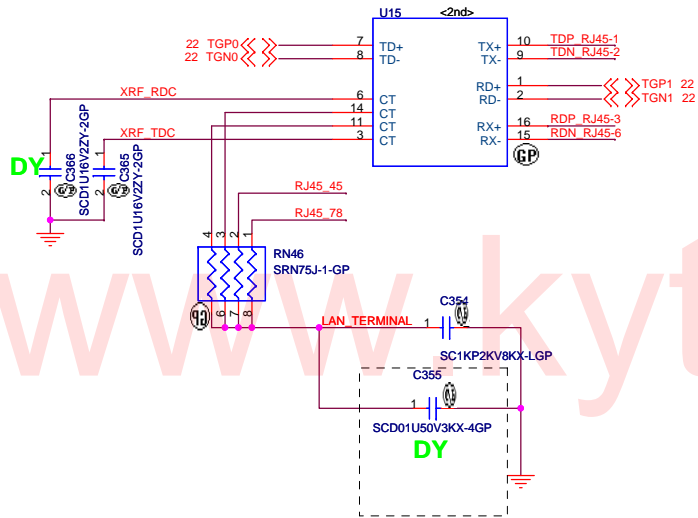
緯創資通 Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **RTL8100CL**

Size: A3	Document Number: MYALL	Rev: SA
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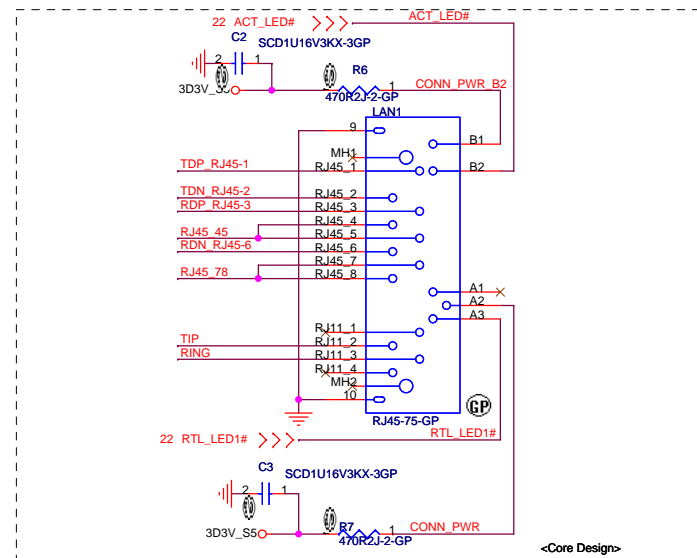
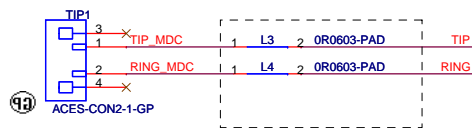
Date: Friday, February 10, 2006 Sheet 22 of 52

10/100M Lan Transformer



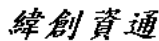
LAN Connector

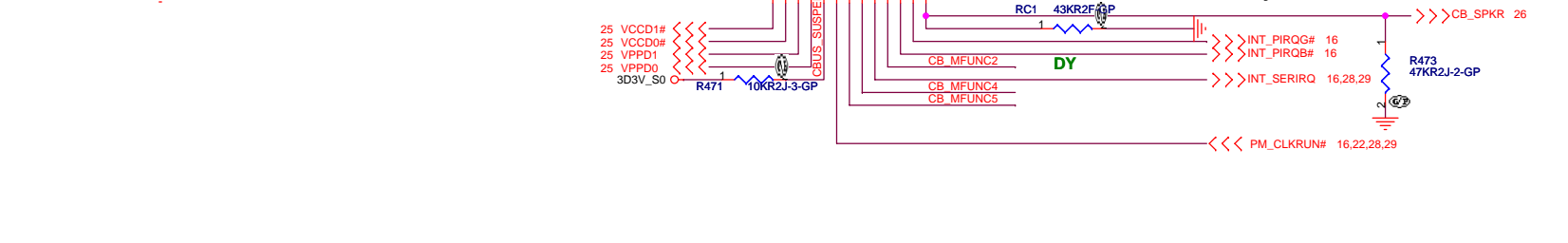
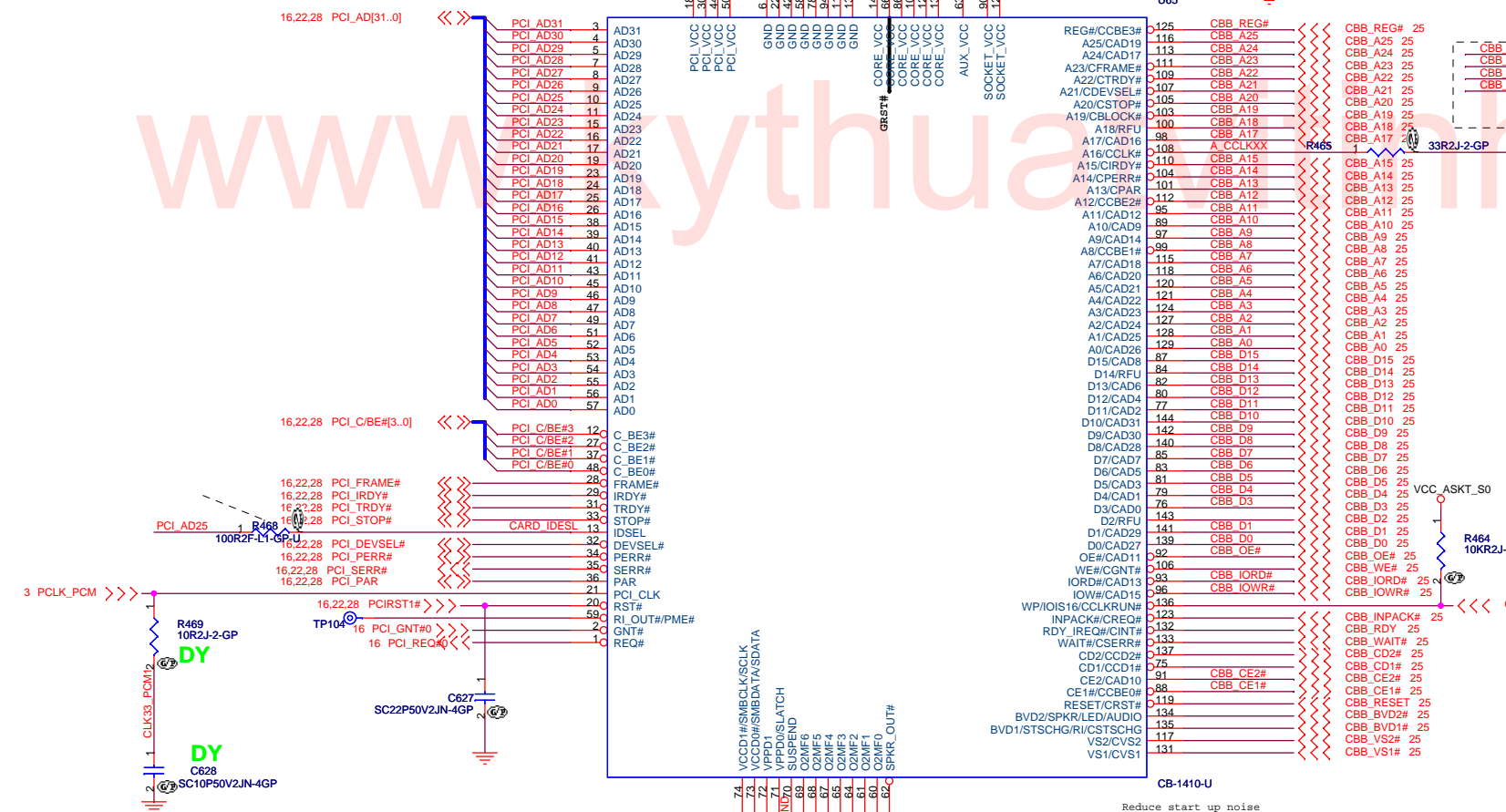
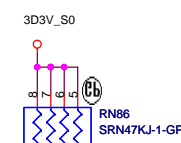
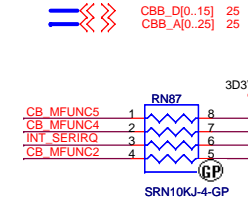
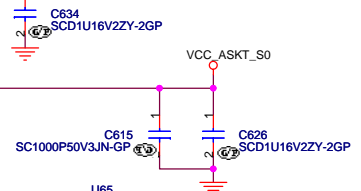
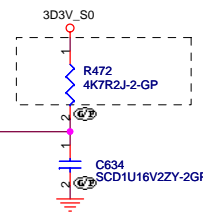
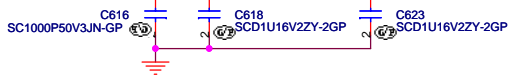
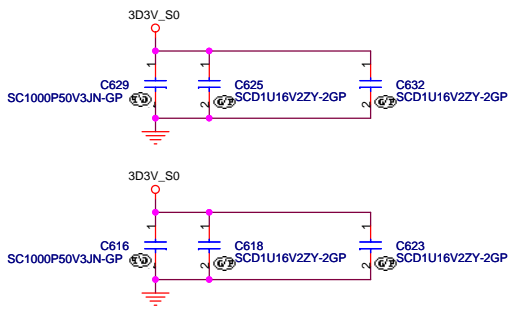
1. route on bottom as differential pairs.
2. Tx+/Tx- are pairs. Rx+/Rx- are pairs.
3. No vias, No 90 degree bends.
4. pairs must be equal lengths.
5. 6mil trace width, 12mil separation.
6. 36mil between pairs and any other trace.
7. Must not cross ground moat, except RJ-45 moat.



- B2 : YELLOW
- A1 : ORANGE
- A3 : GREEN

3D3V_S5 add 0.1u near LAN1 by EMI request

 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
LAN CONN		
Title	LAN CONN	
Size	Document Number	Rev
A3	MYALL	SA
Date: Friday, February 10, 2006	Sheet 23 of 52	



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

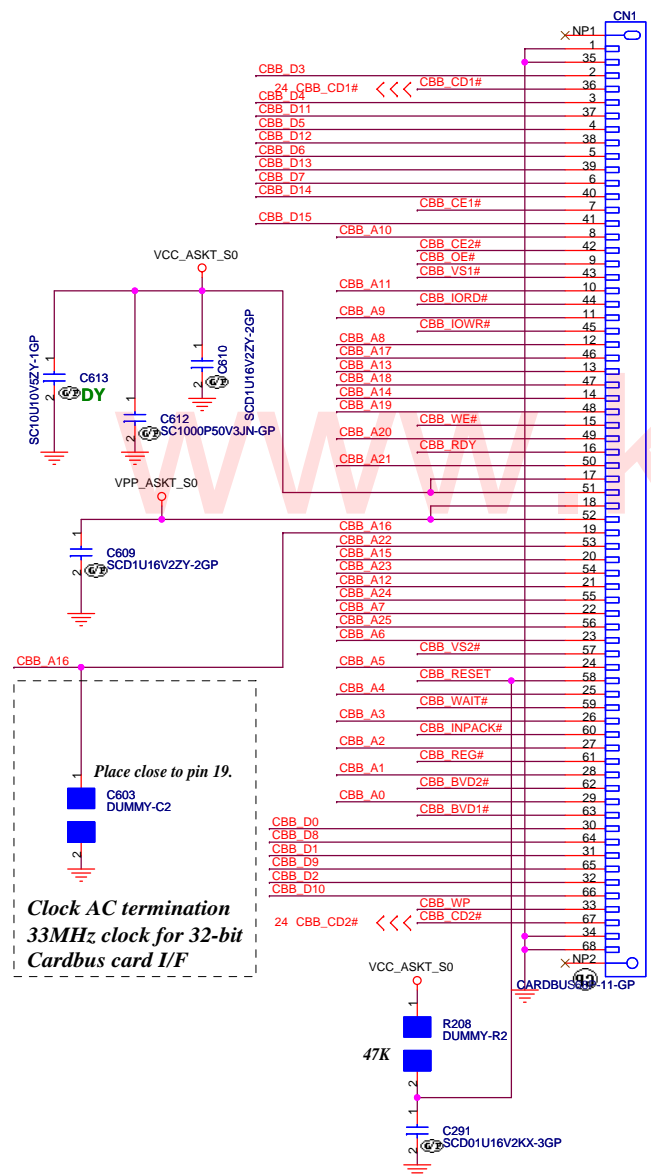
CardBus_ENE CB1410

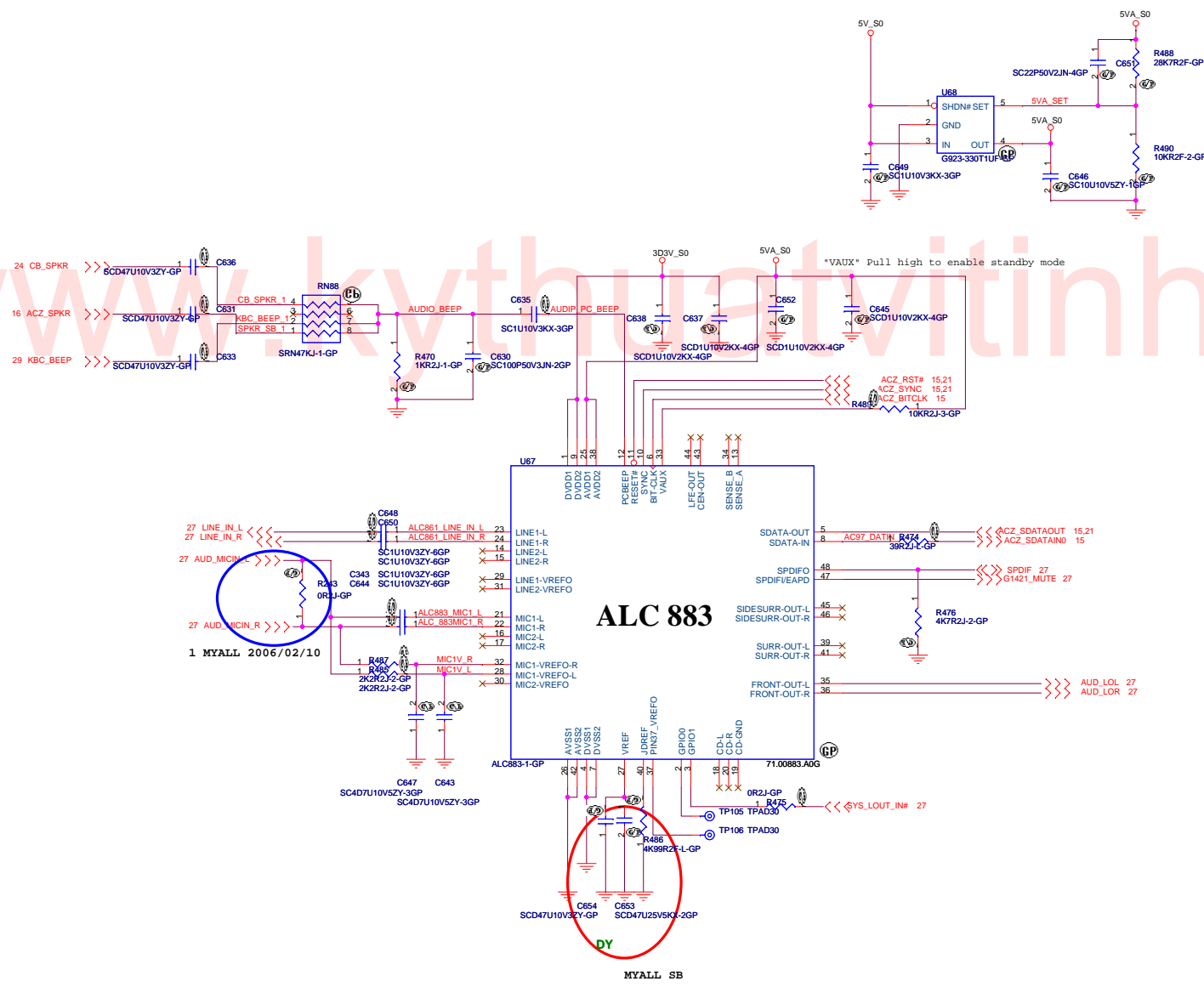
Title: **CardBus_ENE CB1410**

Size: A3 Document Number: **MYALL** Rev: **SA**

Date: Friday, February 10, 2006 Sheet: 24 of 52

PCMCIA Socket



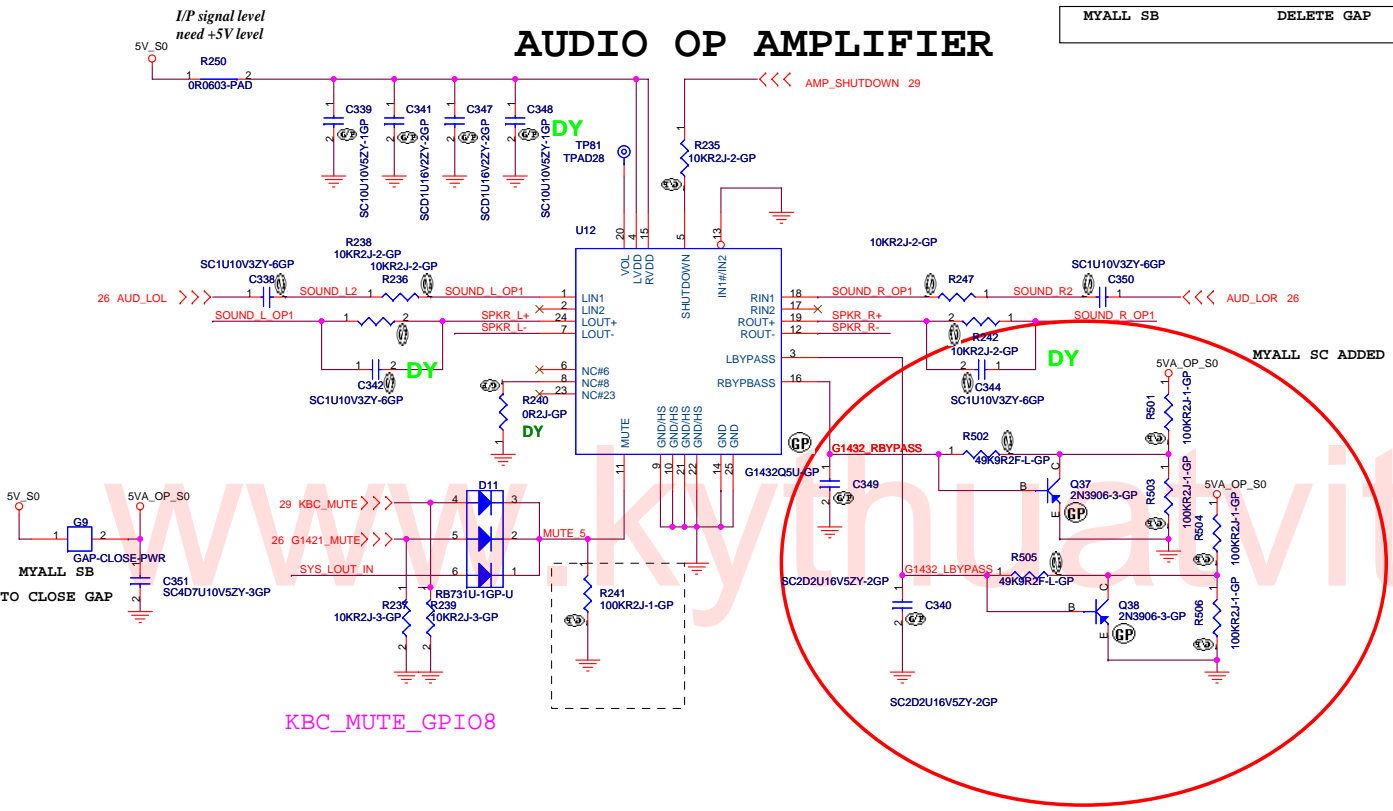


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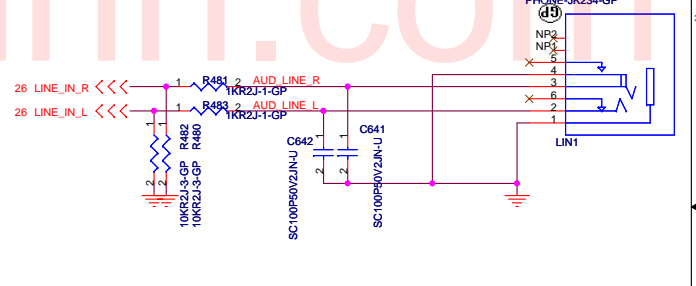
緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title			
AZALIA CODEC - ALC883			
Size	Document Number	Rev	
Custom	MYALL	SA	
Date:	Friday, February 10, 2006	Sheet	26 of 52

AUDIO OP AMPLIFIER

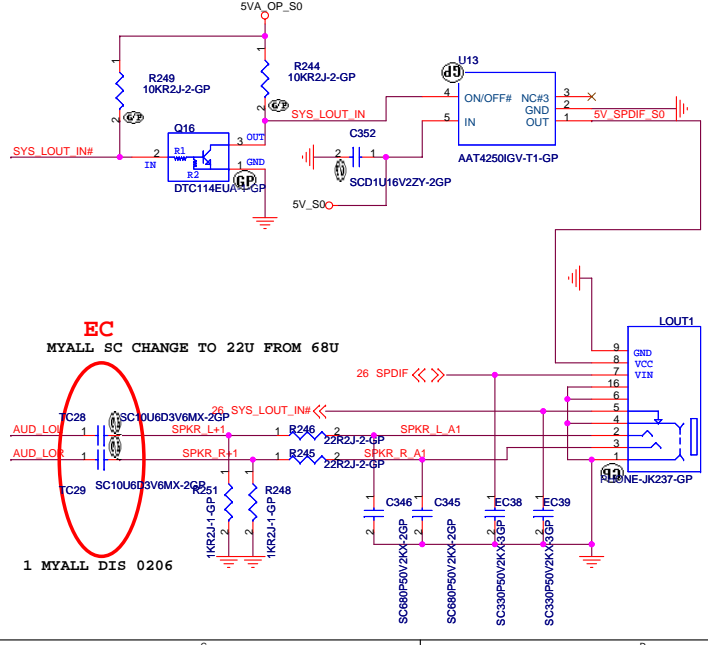
MYALL SB DELETE GAP



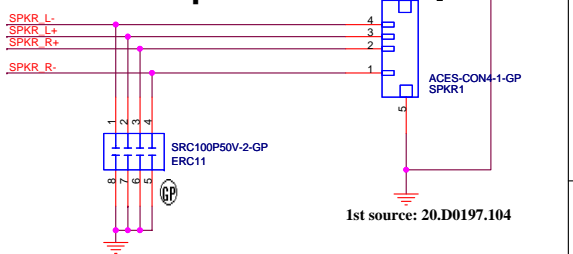
LINE IN



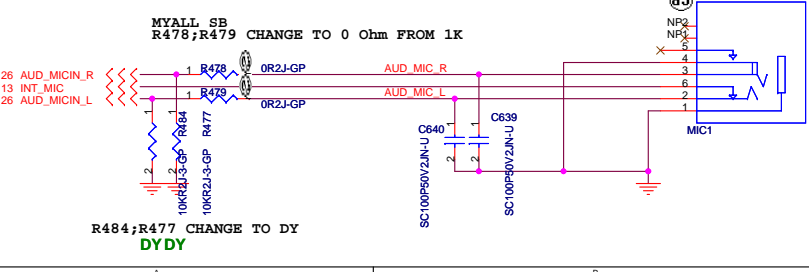
LINE OUT



Internal Speaker



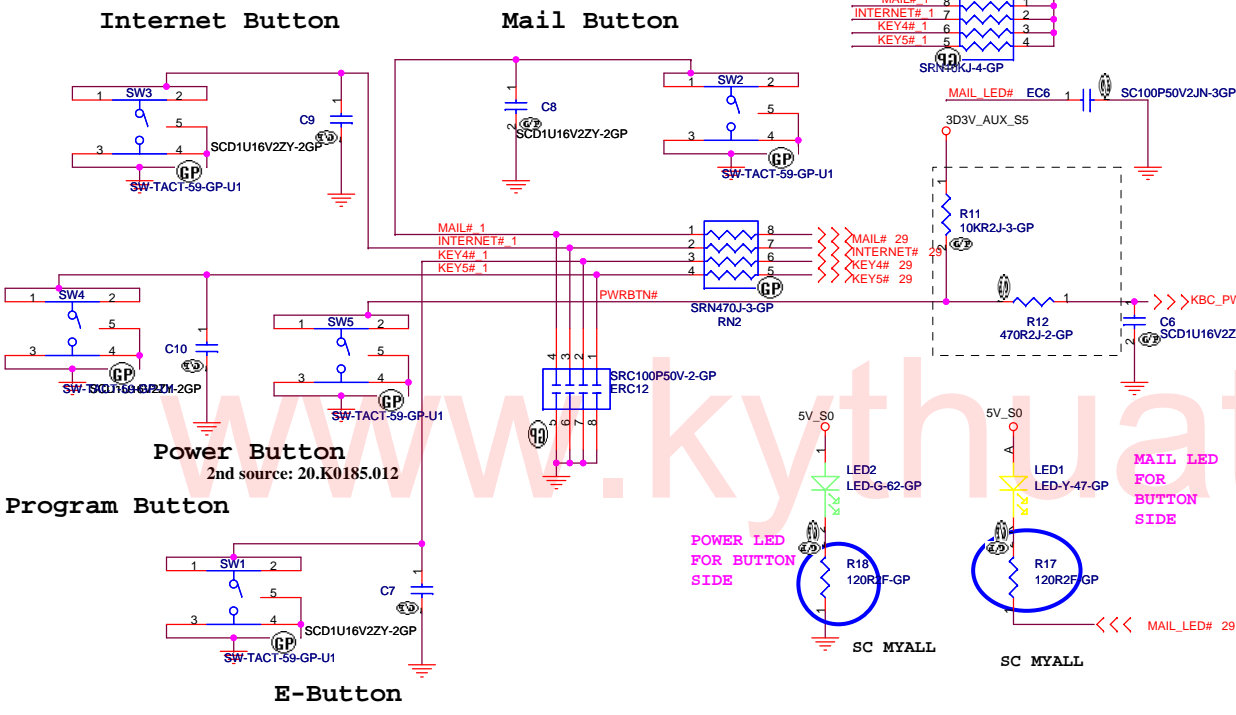
MIC IN



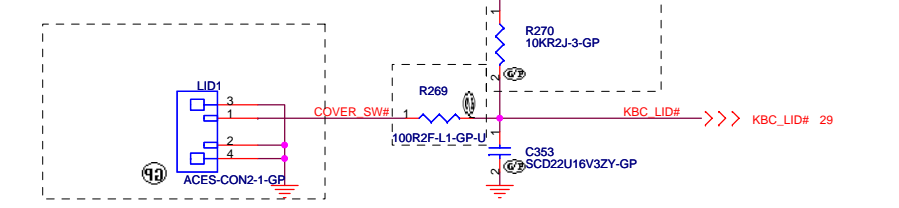
EC
MYALL SC CHANGE TO 22U FROM 68U
1 MYALL DIS 0206

<Core Design>
緯創資通 Wistron Corporation
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title: AUDIO AMP AND JACK
Size: Document Number: MYALL
Date: Friday, February 10, 2006 Sheet 27 of 52
Rev SA

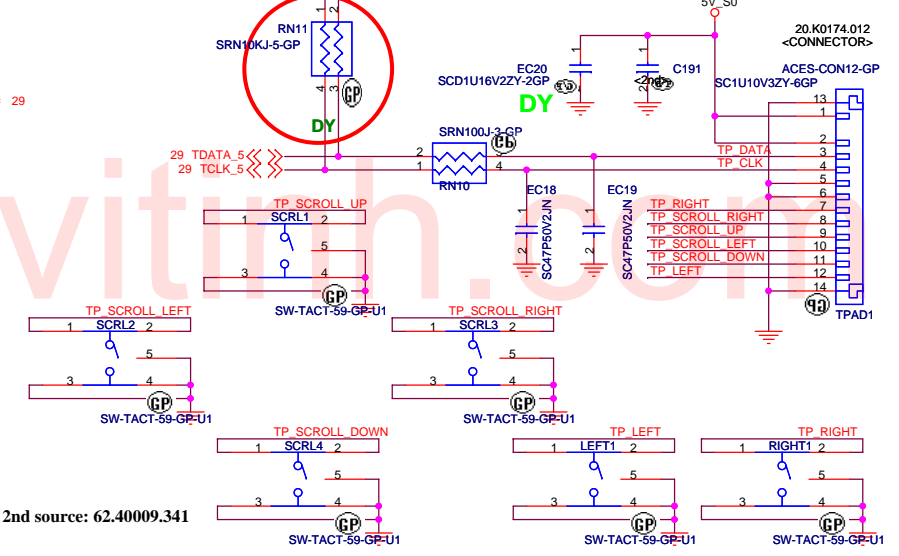
LAUNCH BD CONN



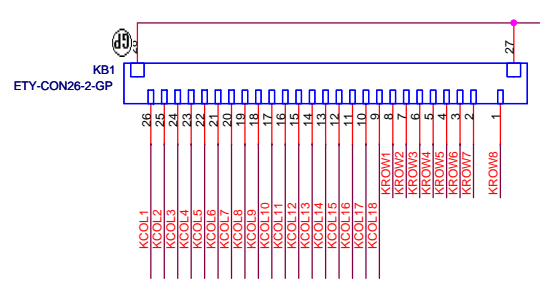
Cover Up Switch



TOUCH PAD



====>>> KROW[1..8] 29
KC0L[1..18] 29

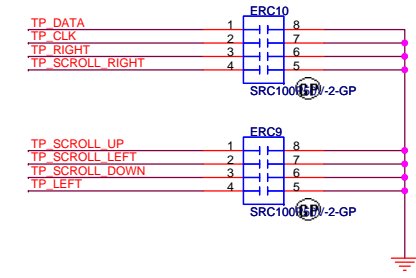
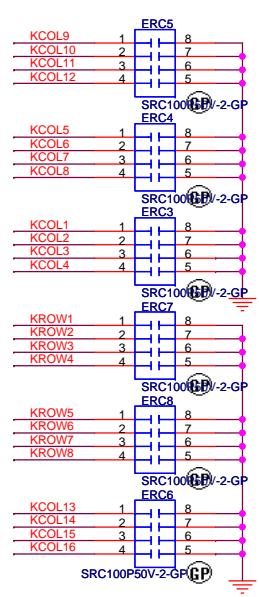


Internal KeyBoard CONN



CHECK KB SPEC. AND PIN DEFINE

EMI Bypass cap.



<Core Design>

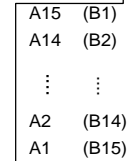
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **BUTTONS / KB / TOUCHPAD**

Size: A3 Document Number: **MYALL** Rev: SA

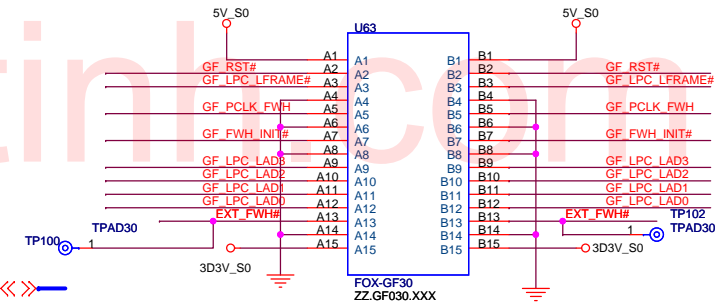
Date: Friday, February 10, 2006 Sheet 30 of 52

TOP VIEW

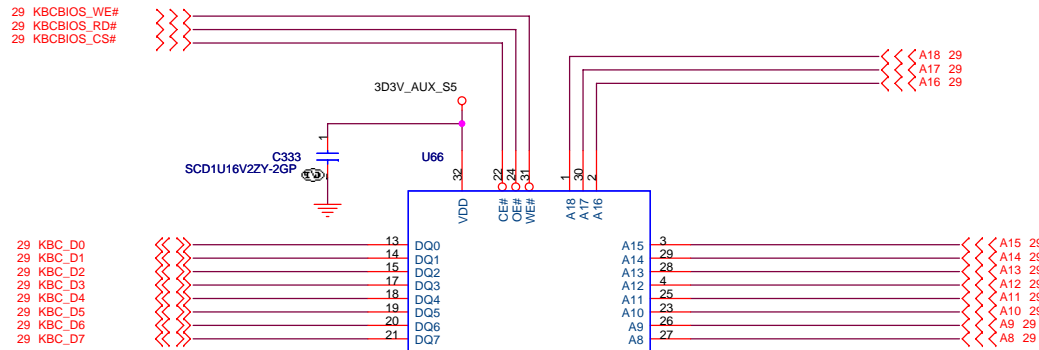
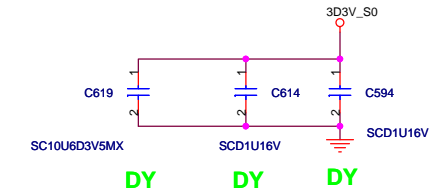


(BOTTOM VIEW)

GOLDEN FINGER FOR DEBUG BOARD



Boot Device must have ID[3:0] = 0000
Has internal pull-down resistors
All may be left floated
FPET7 Elec. P3-46



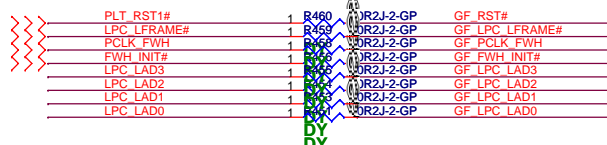
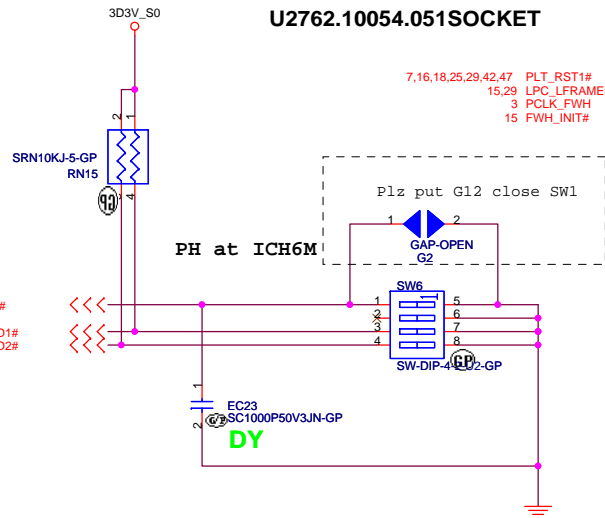
NEED PUT SOCKET
P/N AND FLASH
ROM P/N IN BOM
72.39040.H03 FOR LEAD FREE
ROM SIZE MAX. 512KBYTE

MYALL SB DELETE BIOS SOCKET

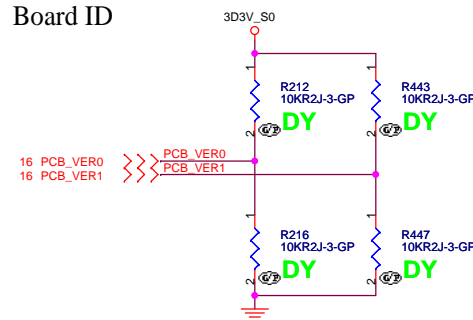


PLCC32 Socket P/N:

U2762.10054.051 SOCKET



Board ID



Planar ID(2,1,0)

SA:
SB:
-1 :

Keyboard matrix (from vendor)

	US	Jap	Eur	Other	
Low Bit	MATRIXID1#	1	1	0	0
High Bit	MATRIXID2#	1	0	1	0

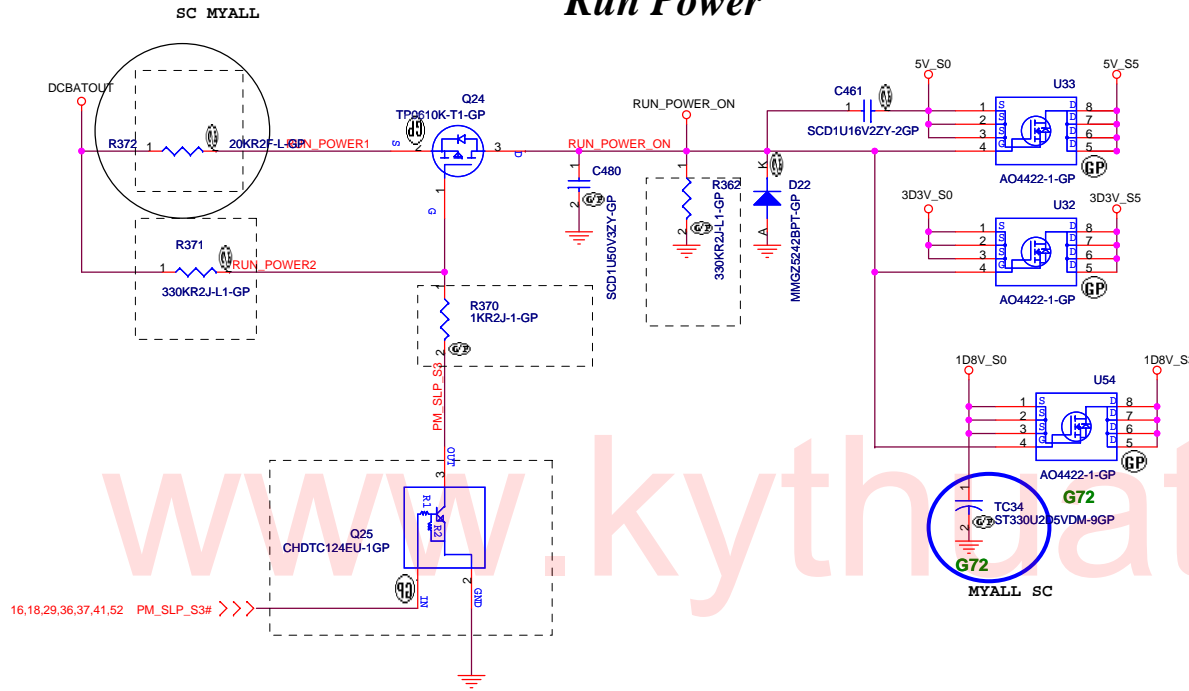
<Core Design>

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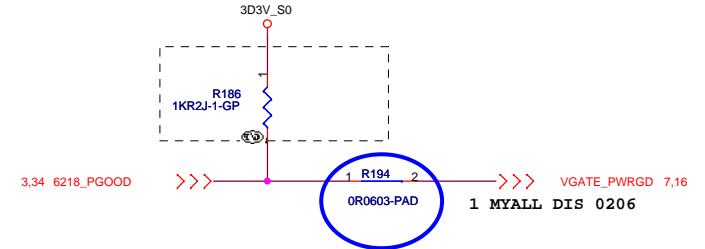
Title: BIOS ROM

Size: A3	Document Number: MYALL	Rev: SA
Date: Friday, February 10, 2006	Sheet: 31	of: 52

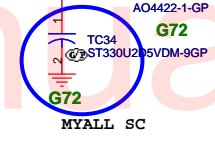
Run Power



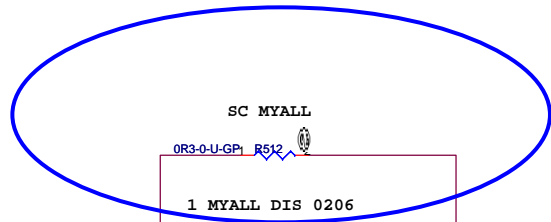
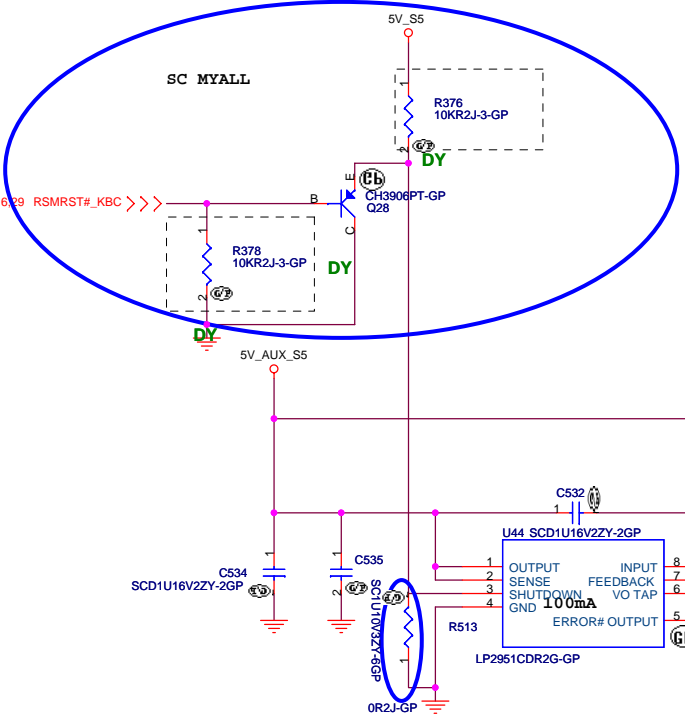
PWRGD for NB and SB



PWRGD to Turn on CPU_Core_Power

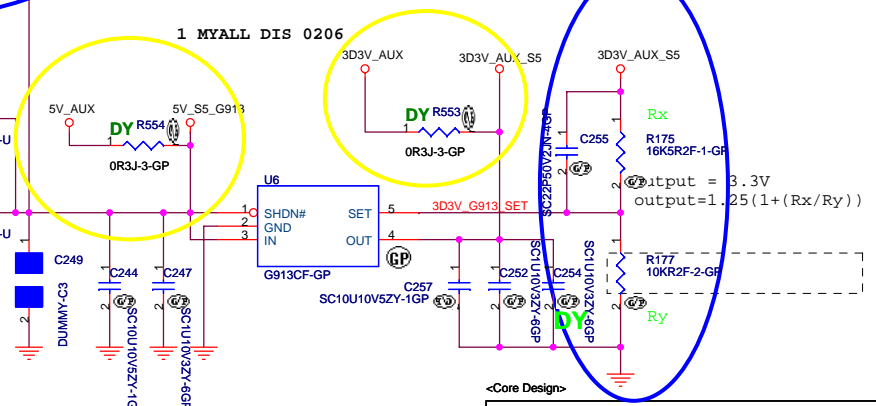


www.kythatvith.com



Aux Power

3D3V_AUX_S5



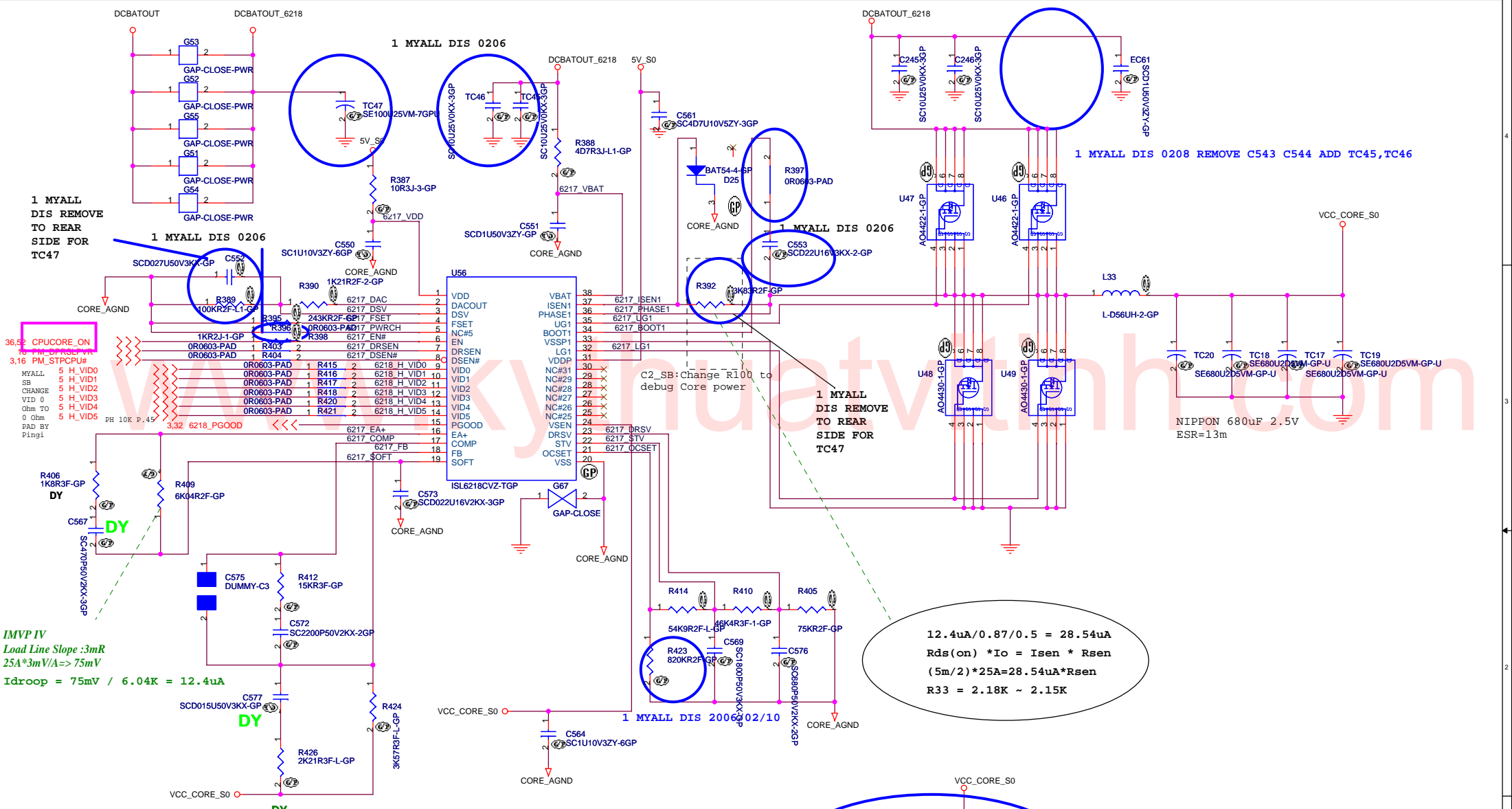
<Core Design>

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

Title: **RUN POWER and 3D3V AUX S5**

Size: A3 Document Number: **MYALL** Rev: **SA**

Date: Tuesday, February 14, 2006 Sheet 32 of 52



36.52 CPUCORE ON
 3.16 PM_STPCPUW

IMVP IV
 Load Line Slope :3mR
 25A*3mV/A=>75mV
 Idroop = 75mV / 6.04K = 12.4uA

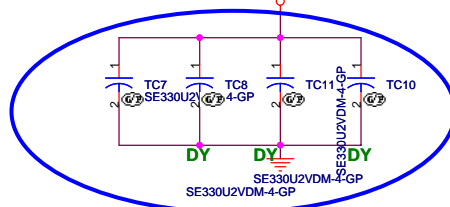
$$12.4\mu A / 0.87 / 0.5 = 28.54\mu A$$

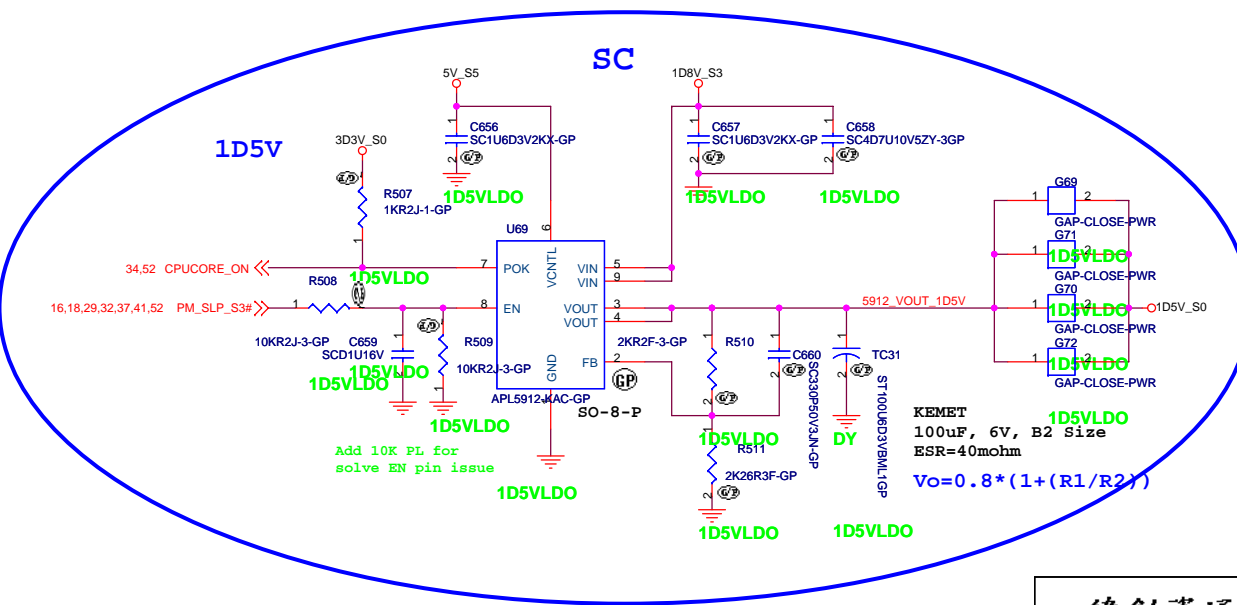
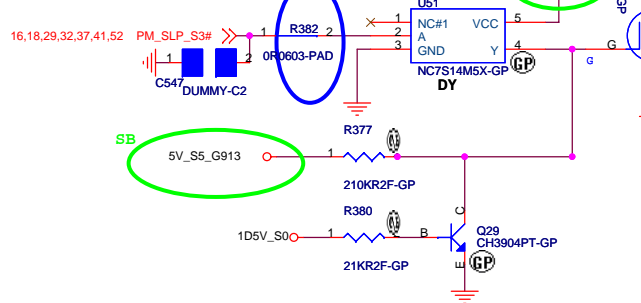
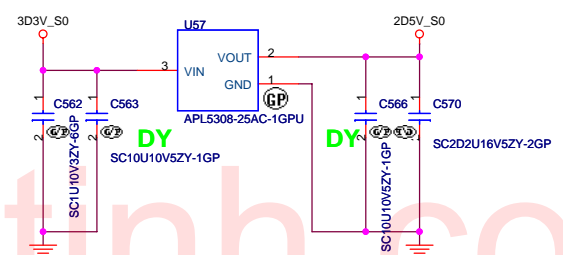
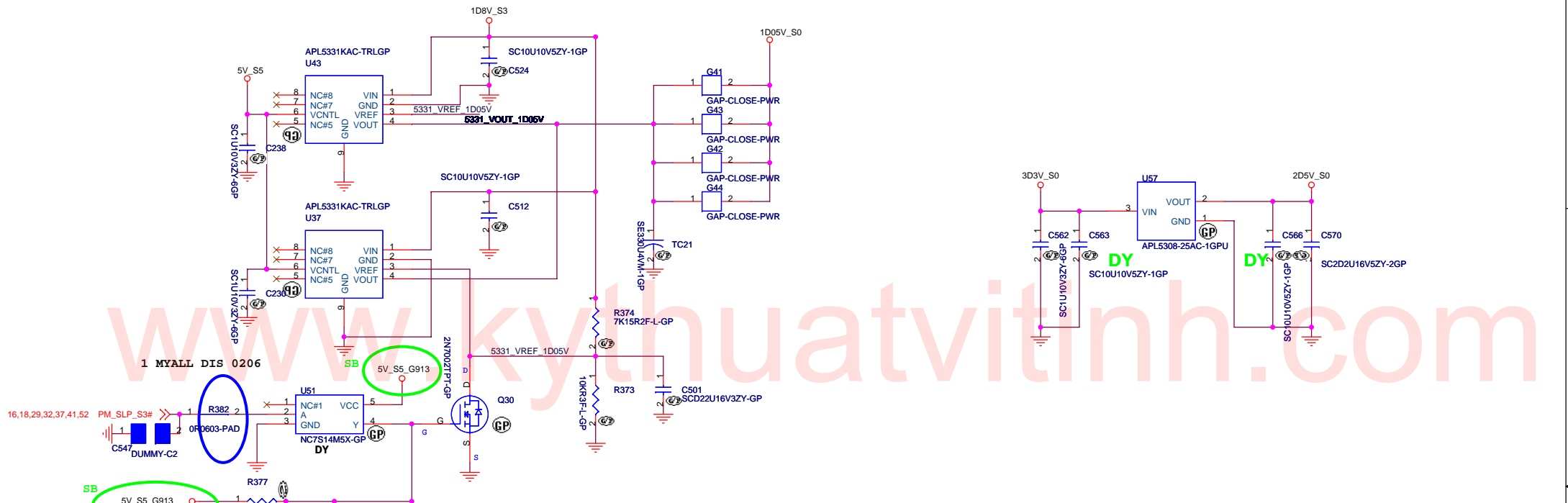
$$R_{ds(on)} * I_o = I_{sen} * R_{sen}$$

$$(5m/2) * 25A = 28.54\mu A * R_{sen}$$

$$R33 = 2.18K \sim 2.15K$$

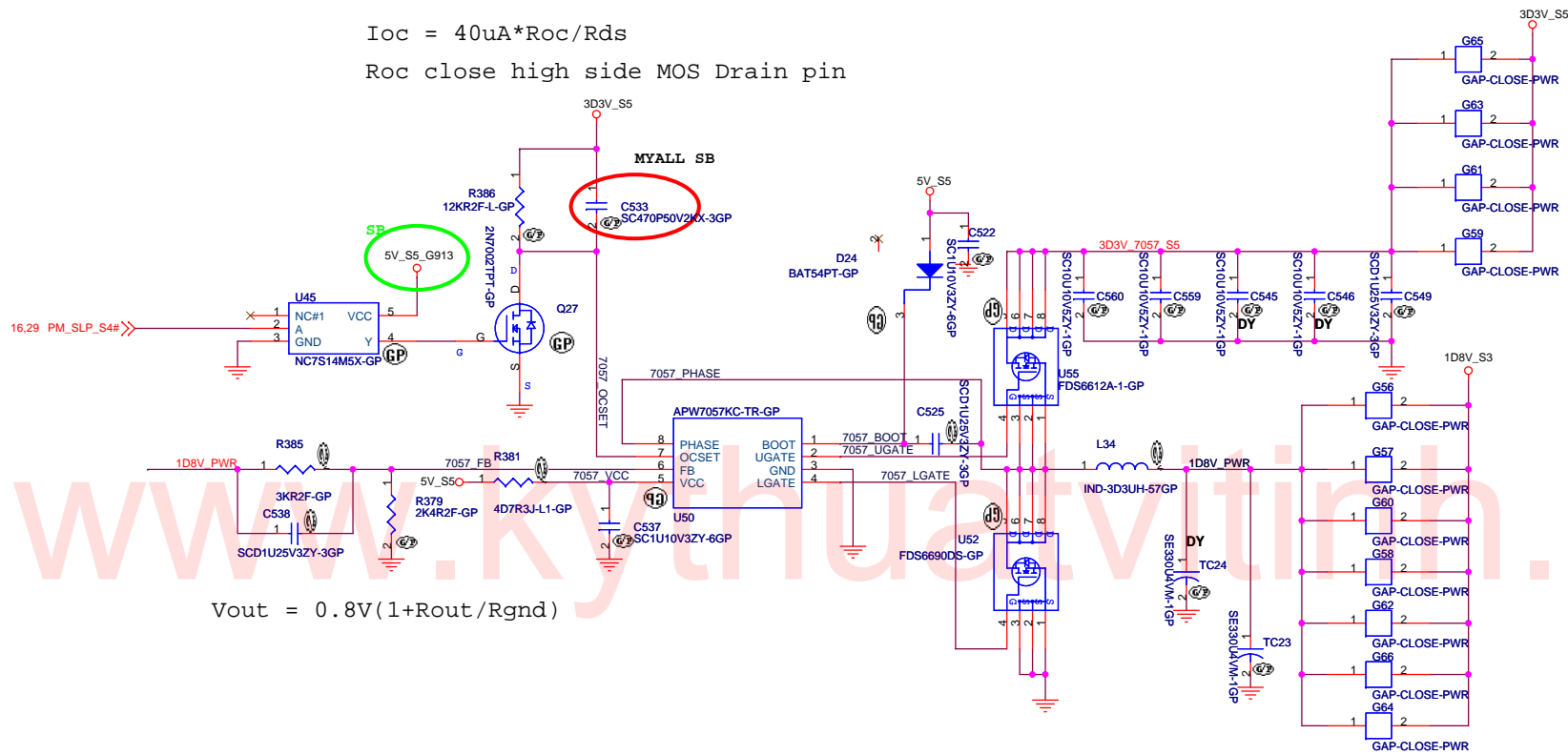
- U12,U14:AO4422 84.04422.037
 U13,U15:AO4430 84.04430.B37
 R100:3K83R2F
- U12,U14:IRF7413 84.07413.037
 U13,U15:IRF7832-U 84.07832.037
 R100:2K43R2F





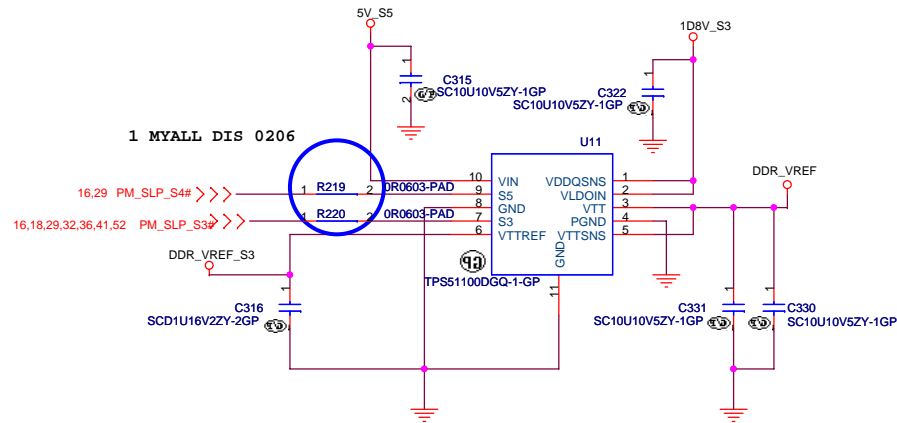
KEMET
100uF, 6V, B2 Size
ESR=40mohm
 $V_o = 0.8 * (1 + (R1/R2))$

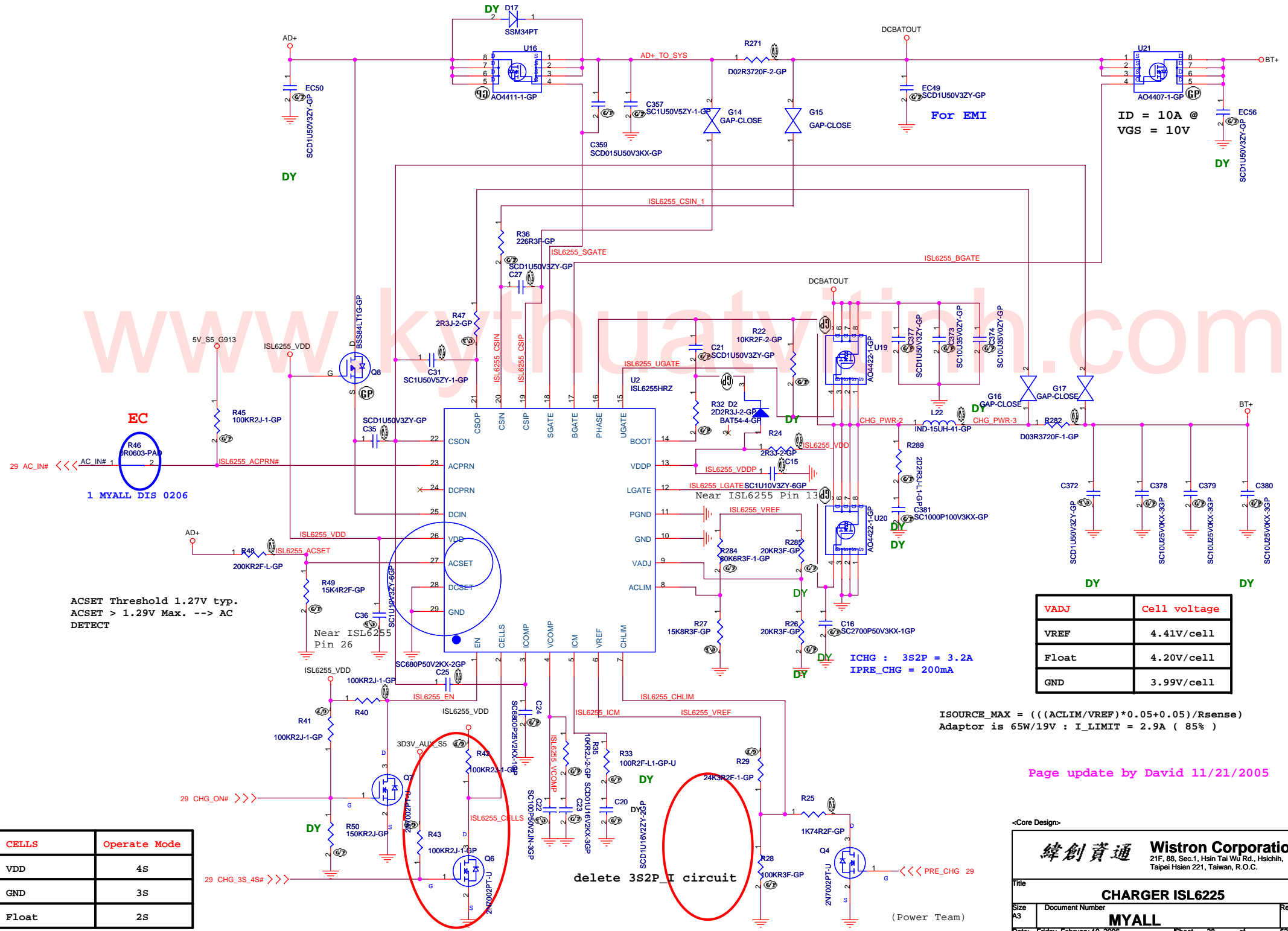
$I_{oc} = 40\mu A \cdot R_{oc} / R_{ds}$
 R_{oc} close high side MOS Drain pin



$V_{out} = 0.8V(1 + R_{out} / R_{gnd})$

0D9V





ID = 10A @
VGS = 10V

EC

1 MYALL DIS 0206

ACSET Threshold 1.27V typ.
ACSET > 1.29V Max. --- AC
DETECT

ICHG : 3S2P = 3.2A
IPRE_CHG = 200mA

ISOURCE_MAX = (((ACLIM/VREF)*0.05+0.05)/Rsense)
Adaptor is 65W/19V : I_LIMIT = 2.9A (85%)

VADJ	Cell voltage
VREF	4.41V/cell
Float	4.20V/cell
GND	3.99V/cell

Page update by David 11/21/2005

CELLS	Operate Mode
VDD	4S
GND	3S
Float	2S

delete 3S2P_I circuit

(Power Team)

<Core Design>

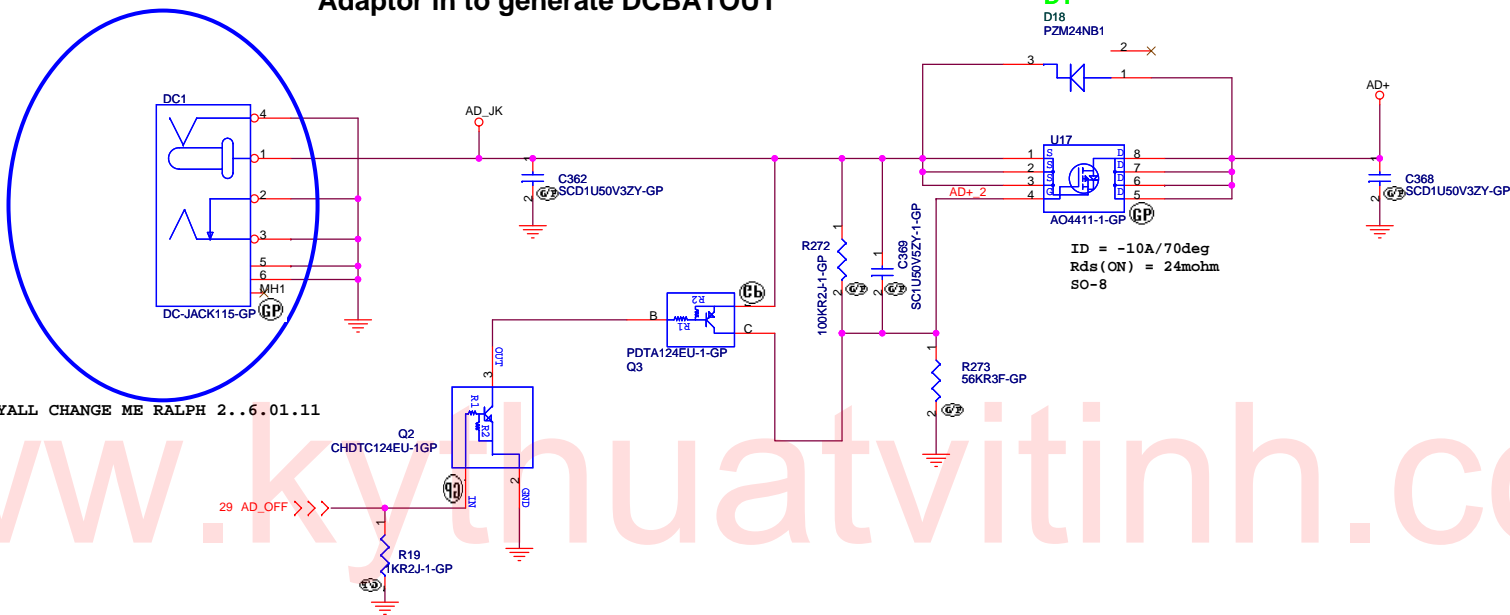
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **CHARGER ISL6255**

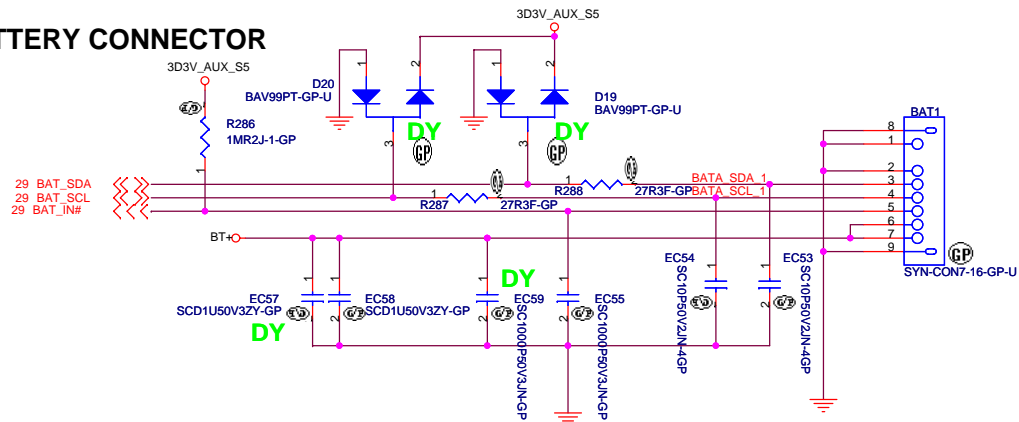
Size A3	Document Number	Rev SA
MYALL		

Date: Friday, February 10, 2006 Sheet 38 of 52

Adaptor in to generate DCBATOUT



BATTERY CONNECTOR



Page update by David 11/21/2005

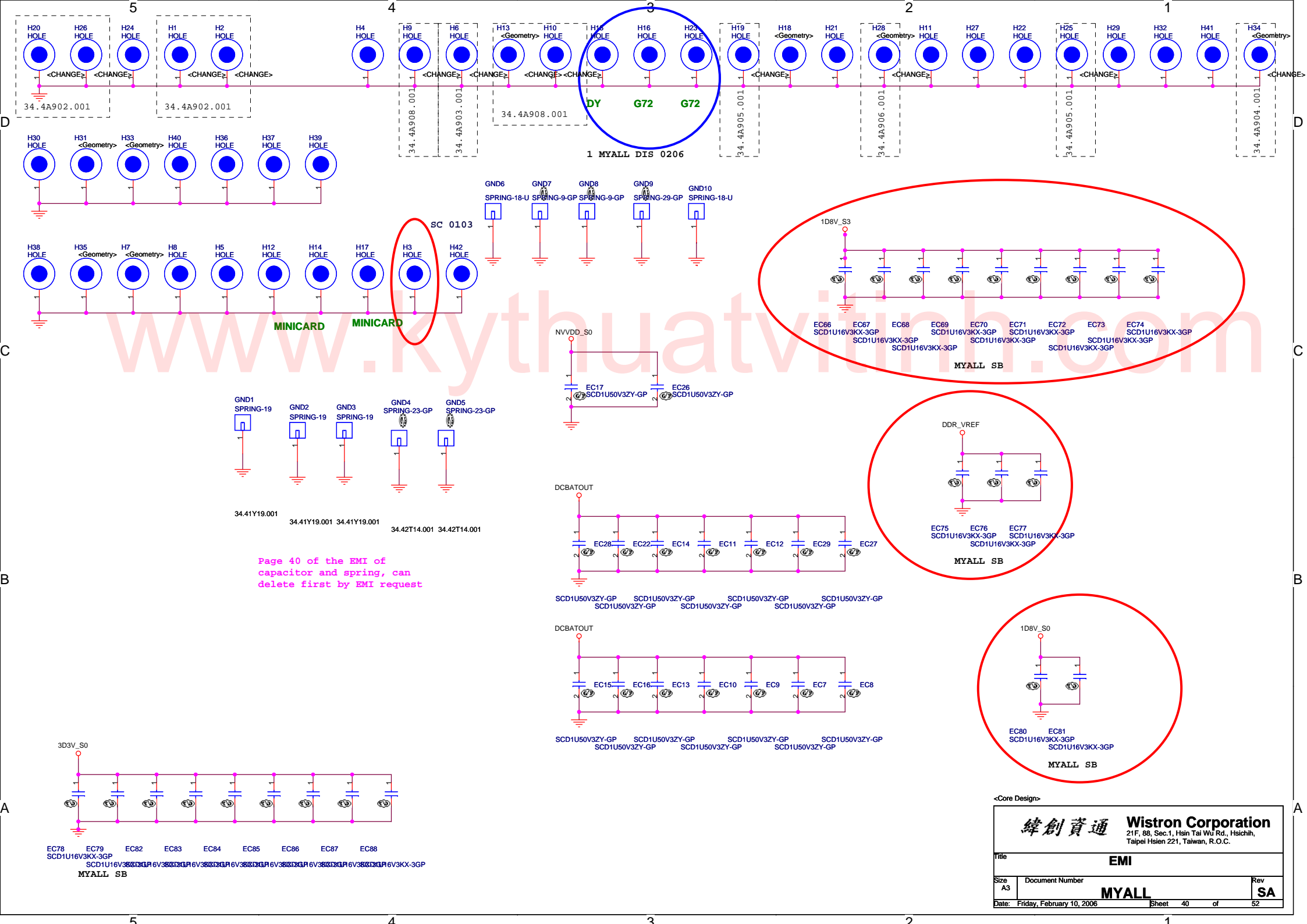
<Core Design>

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Title: **AD/BATT CONN**

Size: A3 Document Number: **MYALL** Rev: **SA**

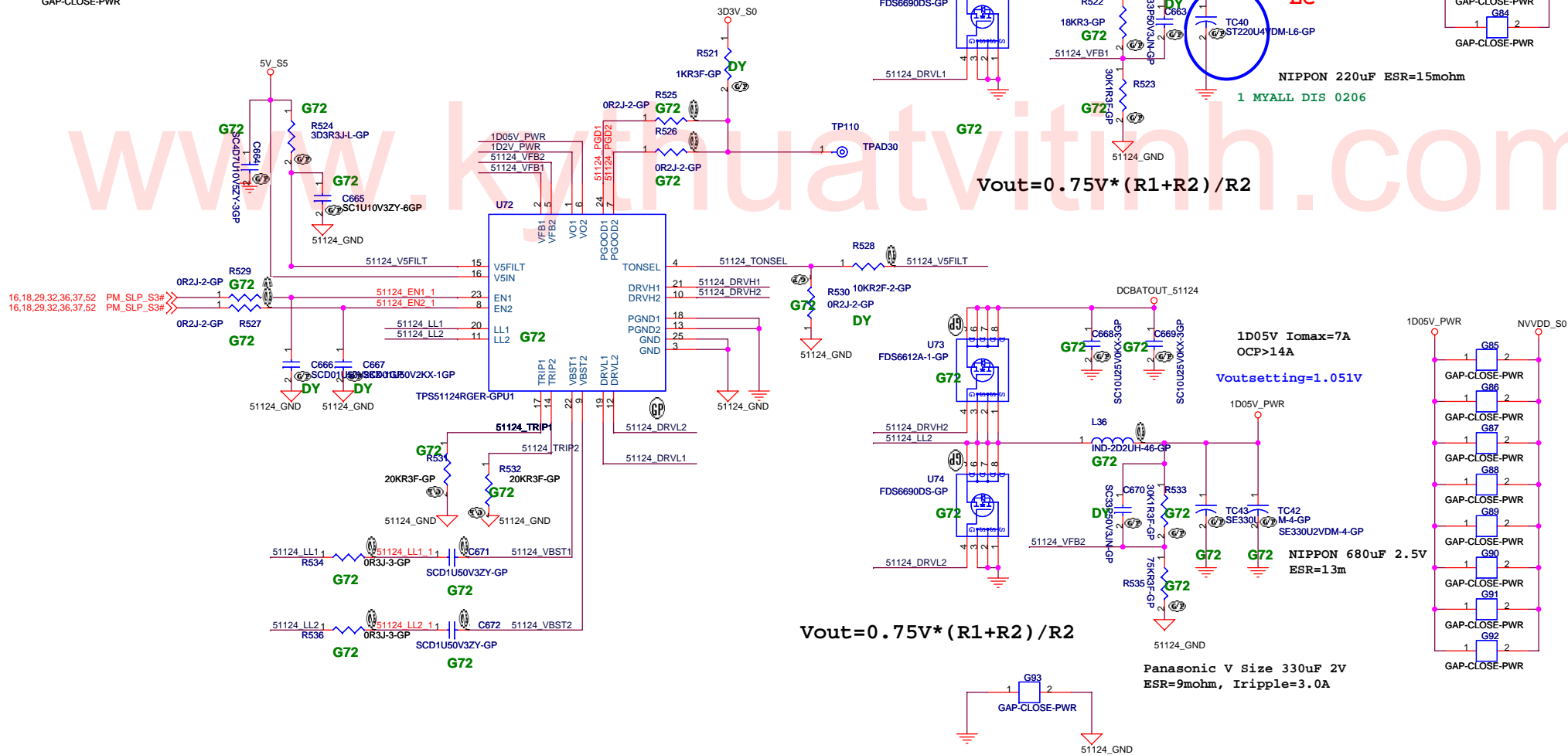
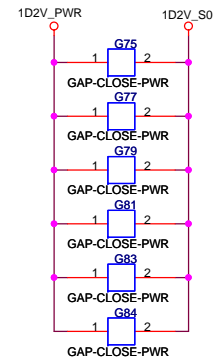
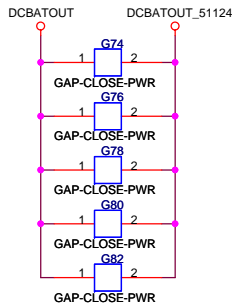
Date: Friday, February 10, 2006 Sheet 39 of 52



Page 40 of the EMI of capacitor and spring, can delete first by EMI request

<Core Design>

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Title	EMI
Size A3	Document Number
Date: Friday, February 10, 2006	MYALL
Sheet 40	of 52



16,18,29,32,36,37,52 PM_SLP_S3#
16,18,29,32,36,37,52 PM_SLP_S3#

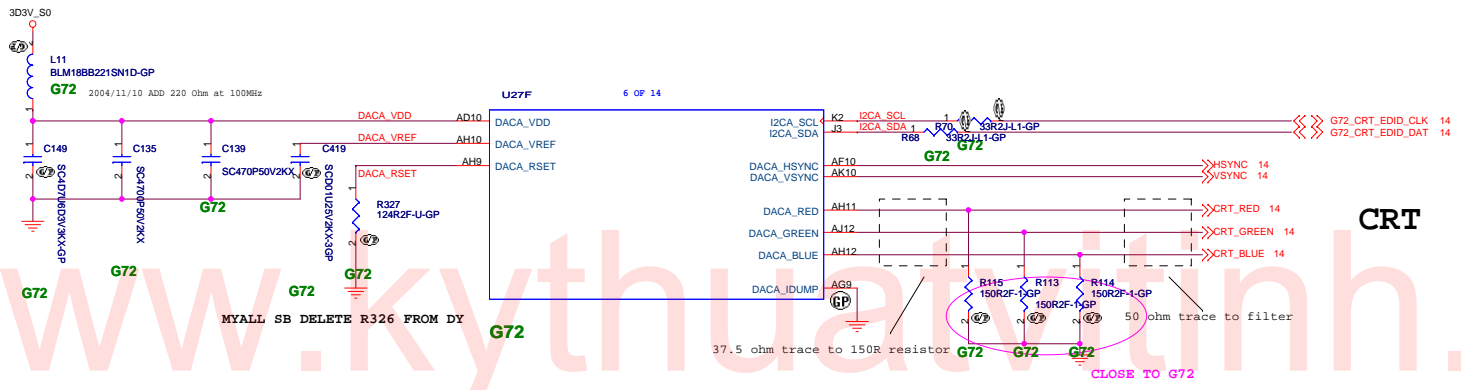
	GND	OPEN	V5FILT
TONSEL	230k/CH1 283k/CH2	283k/CH1 346k/CH2	346k/CH1 423k/CH2

<Core Design>

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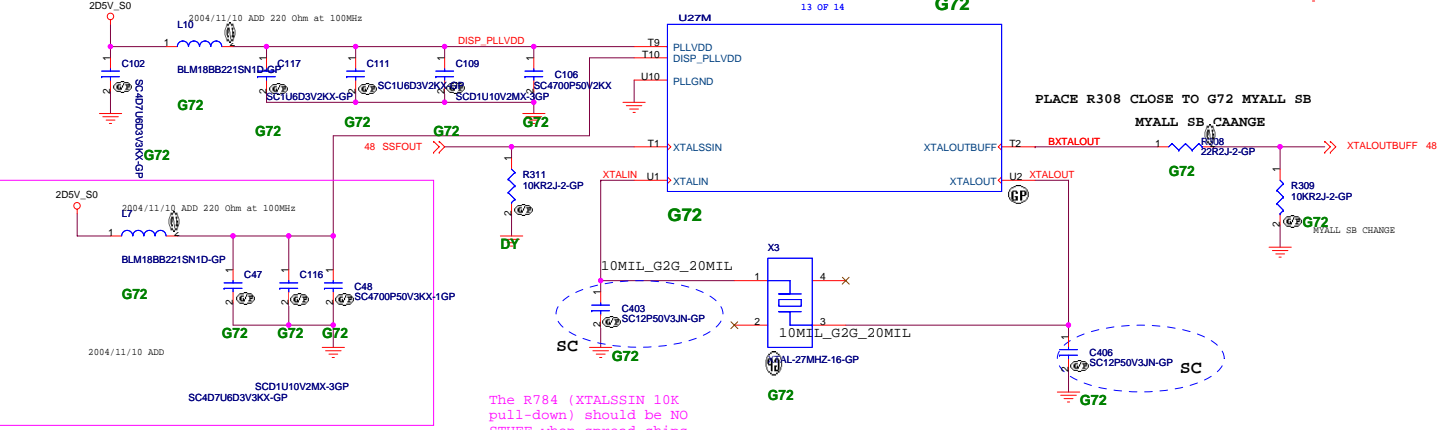
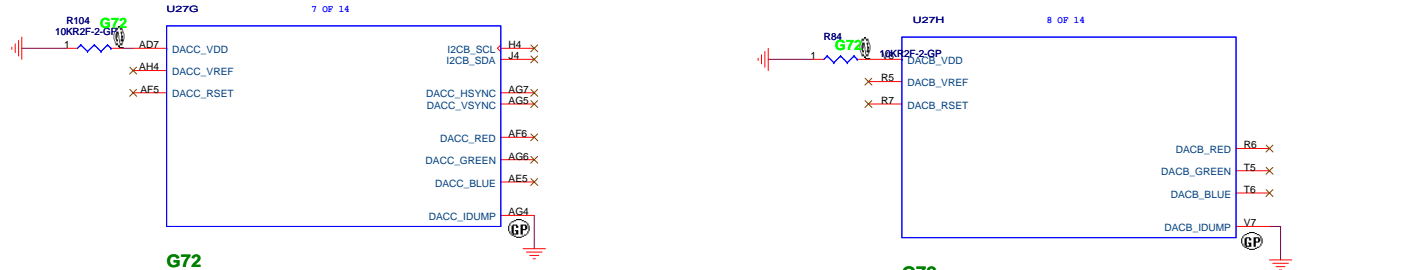
Title: **TPS51124 / NVDD/1D2V**

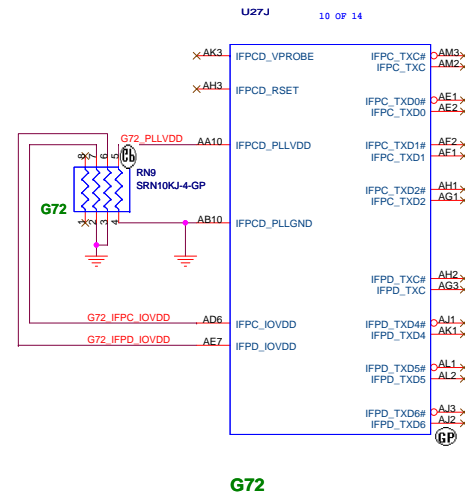
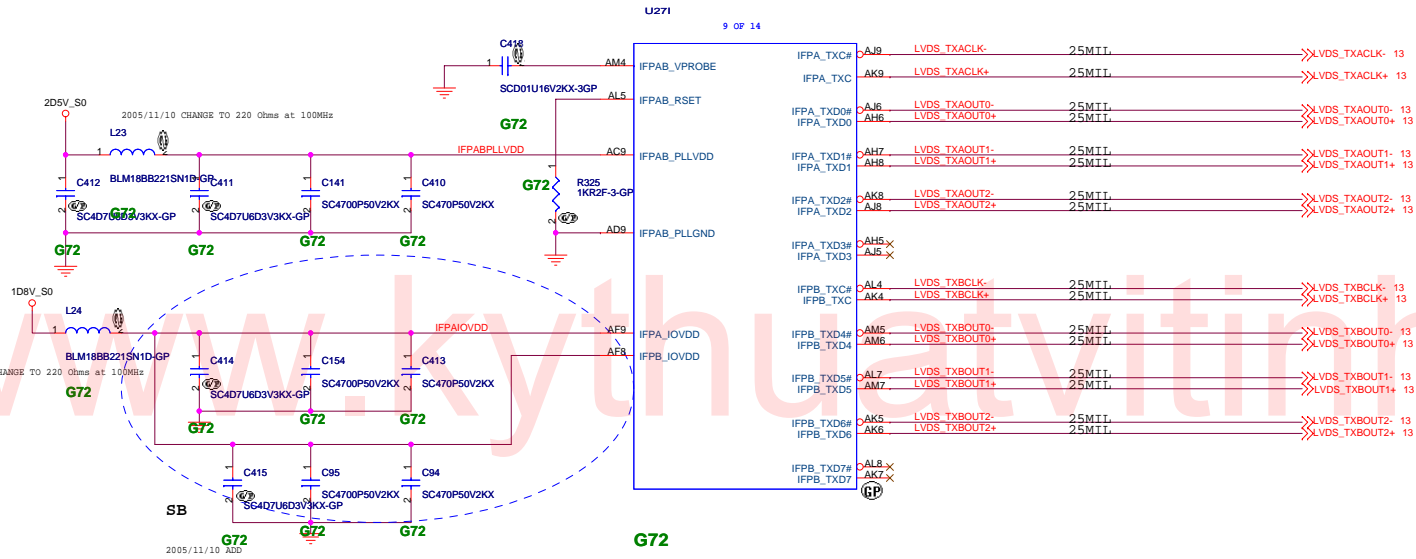
Size: A3	Document Number: MYALL	Rev: SC
Date: Friday, February 10, 2006	Sheet 41 of 52	



CRT

2004/11/10 CHANGE TO 3D3V_S0

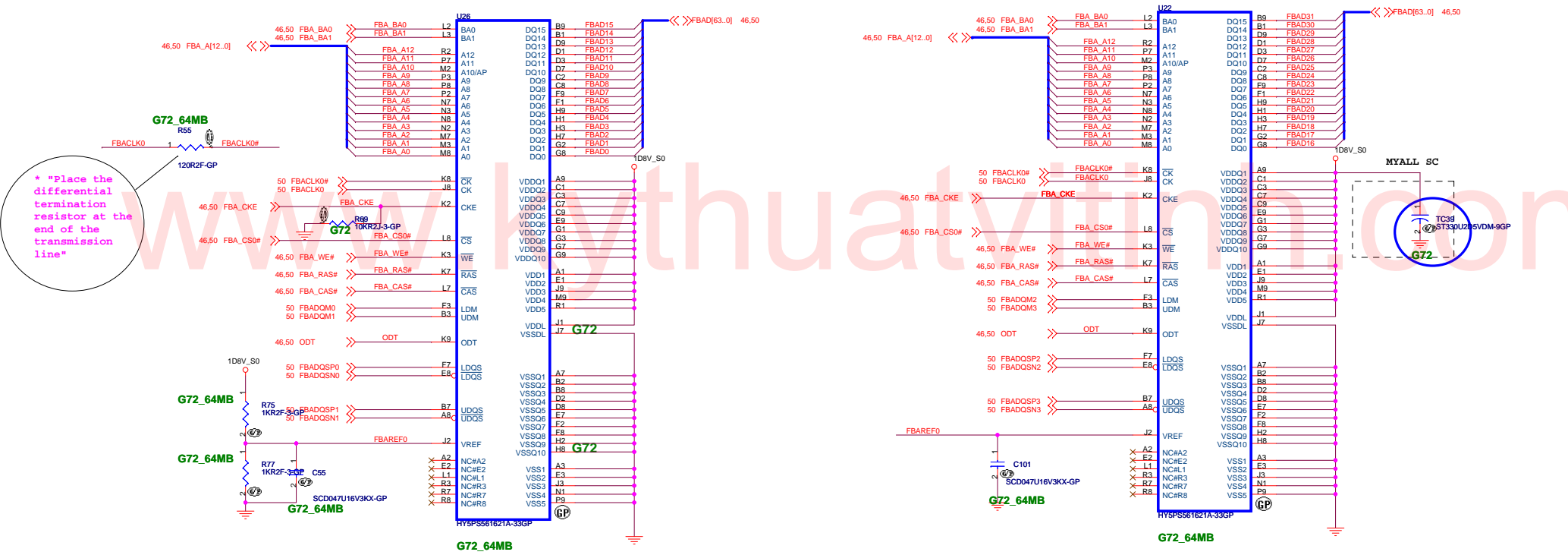




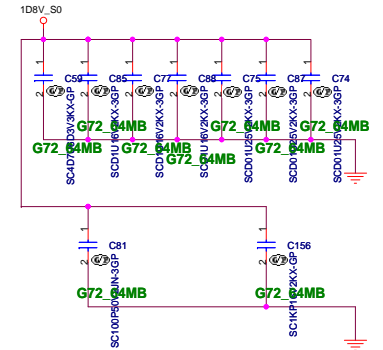
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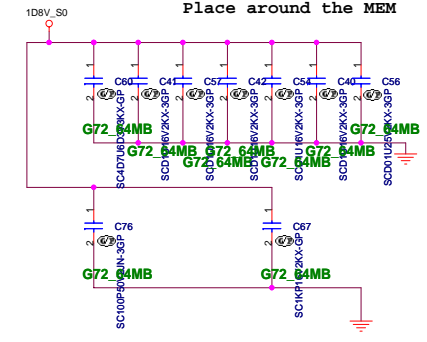
Title		LVDS, TMDS	
Size	Document Number	Rev	
Custom	MYALL	SA	
Date:	Friday, February 10, 2006	Sheet	44 of 52



Decoupling for left MEMORY
Place around the MEM



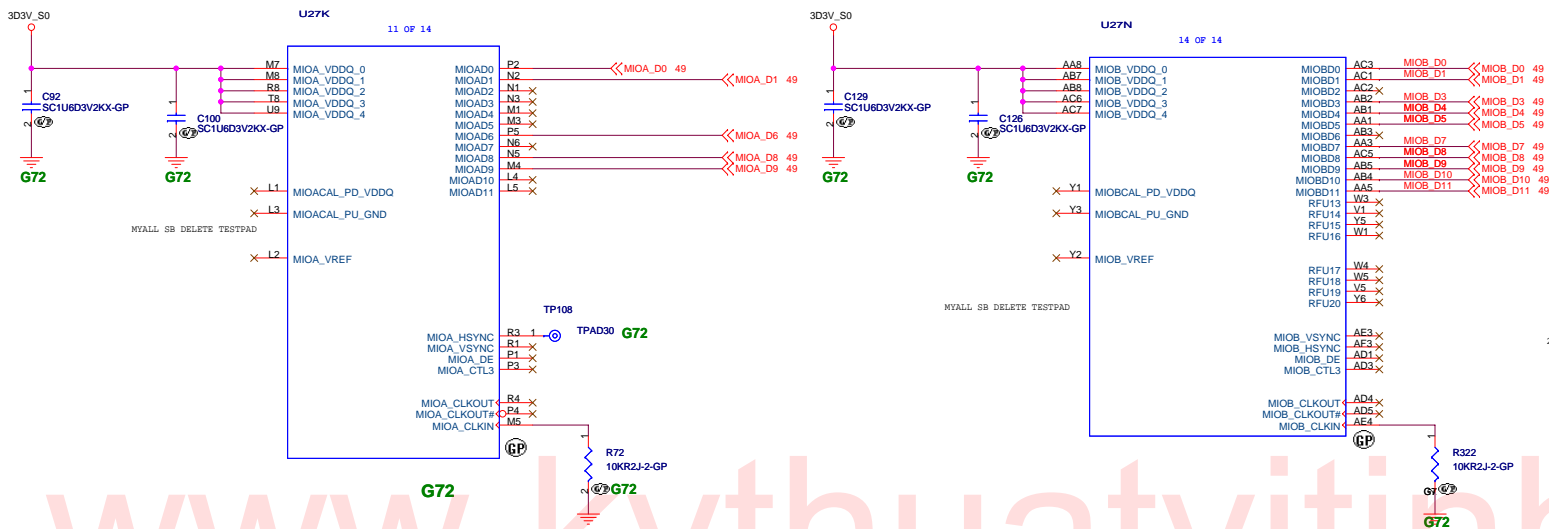
Decoupling for right MEMORY
Place around the MEM



<Core Design>

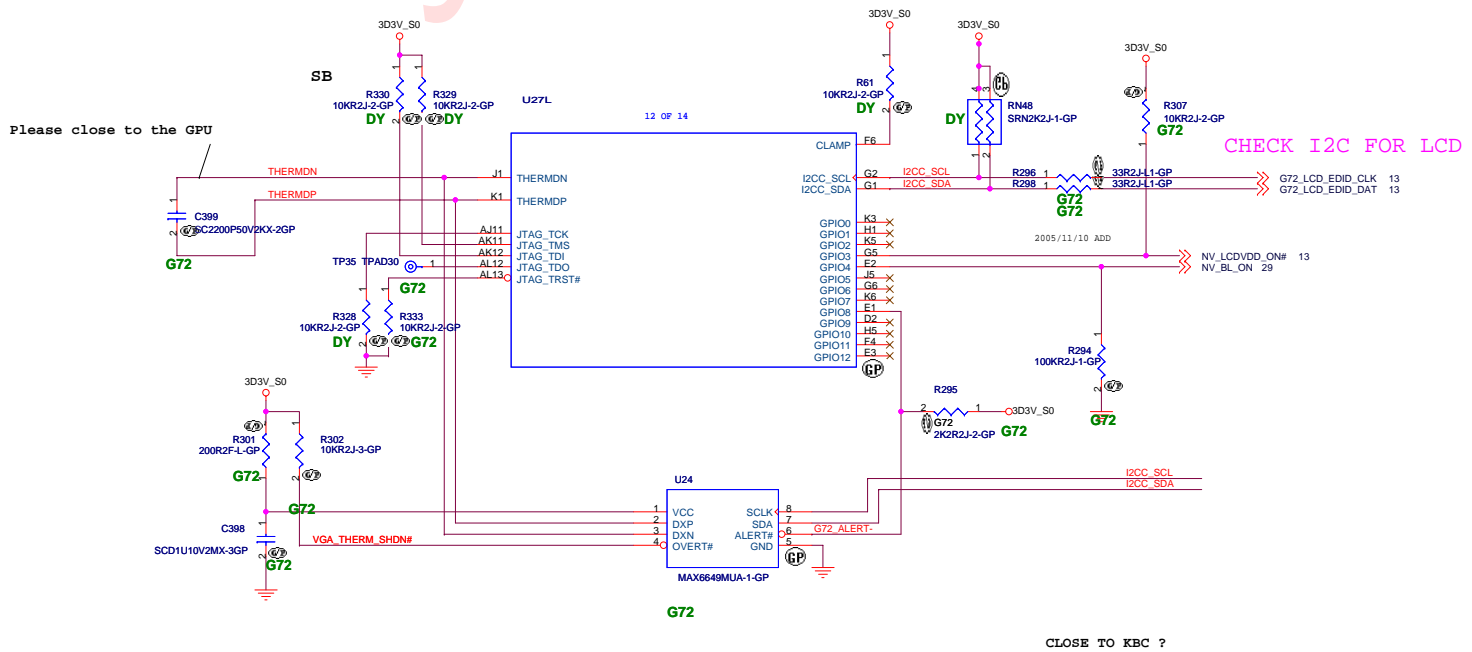
緯創資通 Wistron Corporation
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Title		VRAM (1ST 1/2)	
Size	Document Number	Rev	SA
Custom	MYALL		
Date: Friday, February 10, 2006	Sheet 45 of 52		



2005/11/10 ADD

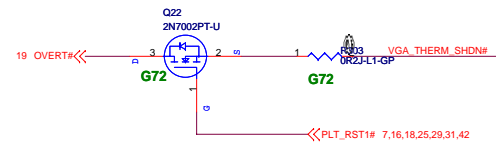
www.kythuatvith.com



Please close to the GPU

CHECK I2C FOR LCD

CLOSE TO KBC ?



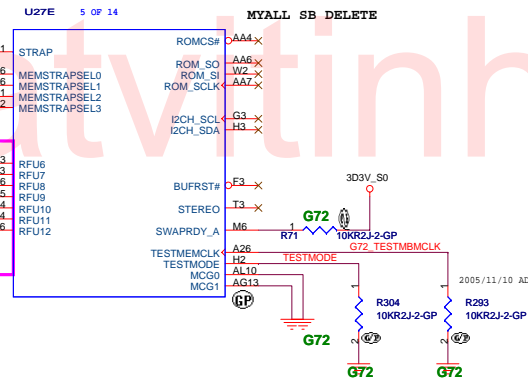
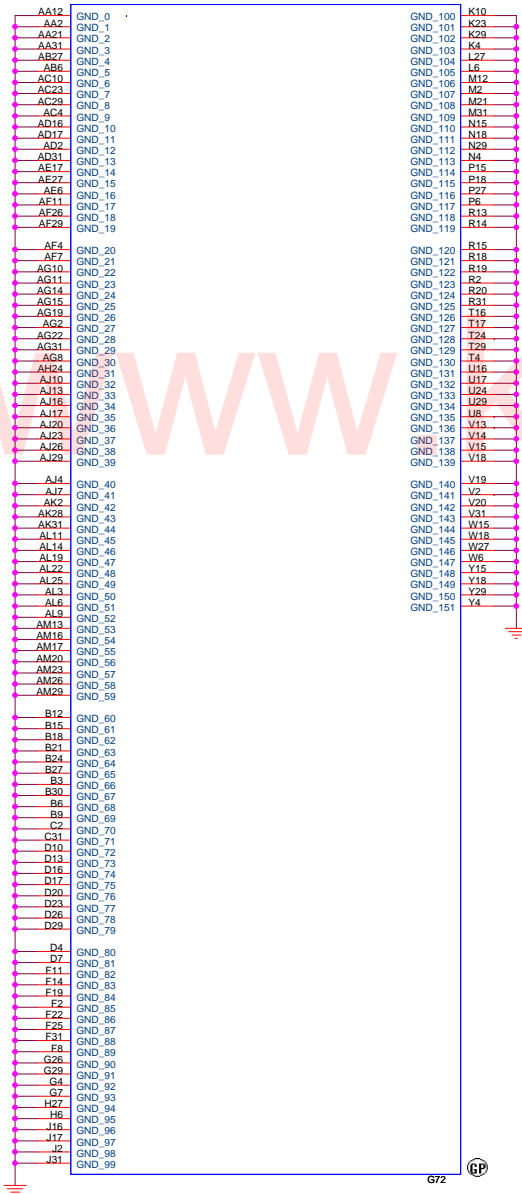
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緯創資通 **Wistron Corporation**
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 Taipei Hsien 221, Taiwan, R.O.C.

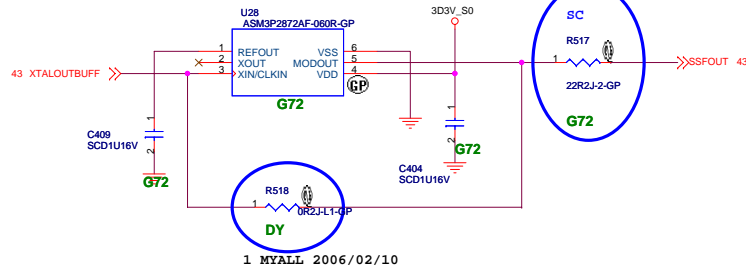
Title: **ROM , Spread Spectrum**

Size: Custom Document Number: **MYALL** Rev: **SA**

Date: Friday, February 10, 2006 Sheet: 47 of 52



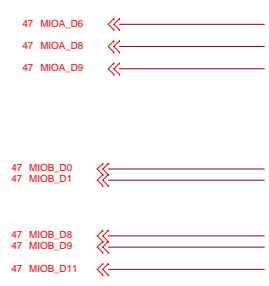
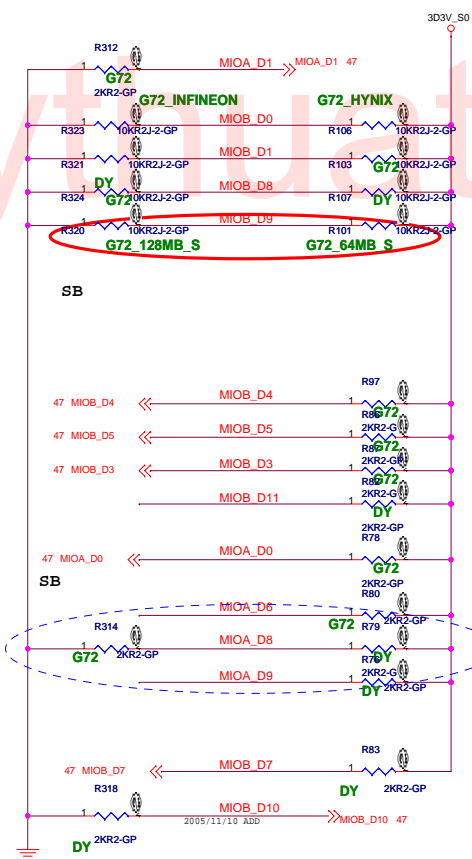
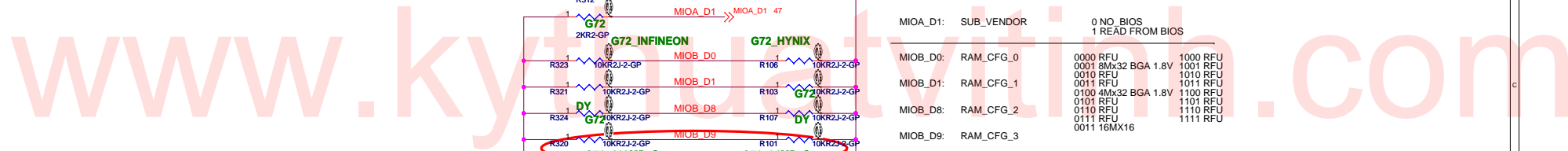
Spread Spectrum



<Core Design>

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ROM , Spread Spectrum			
Title	Document Number		Rev
Size	Custom		SA
Date:	Friday, February 10, 2006	Sheet	48 of 52

STRAPS, Mechanical Parts



Bit Signal	Values
MIOA_D1: SUB_VENDOR	0 NO_BIOS 1 READ FROM BIOS
MIOB_D0: RAM_CFG_0	0000 RFU 0001 8Mx32 BGA 1.8V 0010 RFU 0011 RFU
MIOB_D1: RAM_CFG_1	0100 4Mx32 BGA 1.8V 0101 RFU 0110 RFU 0111 RFU
MIOB_D8: RAM_CFG_2	0011 RFU 1110 RFU 1111 RFU
MIOB_D9: RAM_CFG_3	0011 16MX16
MIOB_D2: CRYSTAL_0	00 13.500 MHz 01 14.31818 MHz
MIOB_D6: CRYSTAL_1	10 27.000 MHz 11 UNKNOWN
MIOA_D7: TV_MODE_0	00 SECAM 01 NTSC 10 PAL 11 CRT
MIOA_D10: TV_MODE_1	
MIOB_D4: PCI_DEVID_0	
MIOB_D5: PCI_DEVID_1	1000 (default 0x0FC)
MIOB_D3: PCI_DEVID_2	
MIOB_D11: PCI_DEVID_3	0111 G72MV
MIOA_D0: PEX_PLL_EN_TERM100	0 ENABLED 1 DISABLED
MIOA_D6: 3GIO_PADCFG_LUT_ADDR[0]	0 DESKTOP 1 MOBILE
MIOA_D8: 3GIO_PADCFG_LUT_ADDR[1]	
MIOA_D9: 3GIO_PADCFG_LUT_ADDR[2]	010 DEFAULT
MIOB_D7: MOBILE_GPIO	0 GPIO_PULLDN 1 GPIO_FLOAT

For MEM strapping, Please use below table,

RAM_CFG[3:0]	Config	FB Bus Width	Definitions
0000	16Mx16	DDR2	64-bit Elpida
0001	16Mx16	DDR2	64-bit Samsung
0010	16Mx16	DDR2	64-bit Infineon
0011	16Mx16	DDR2	64-bit Hynix

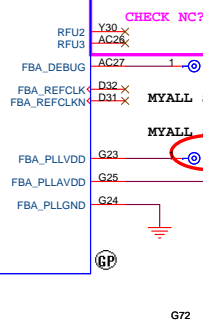
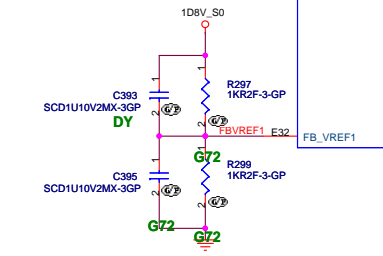
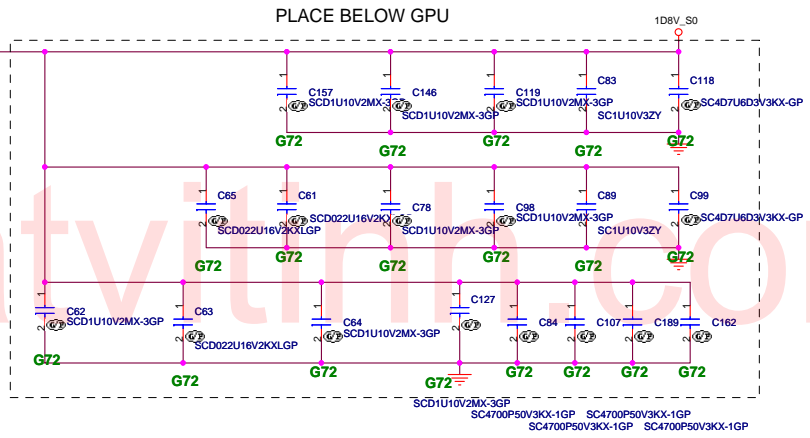
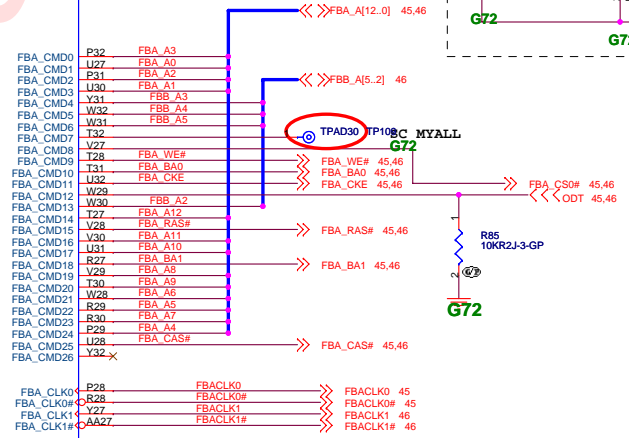
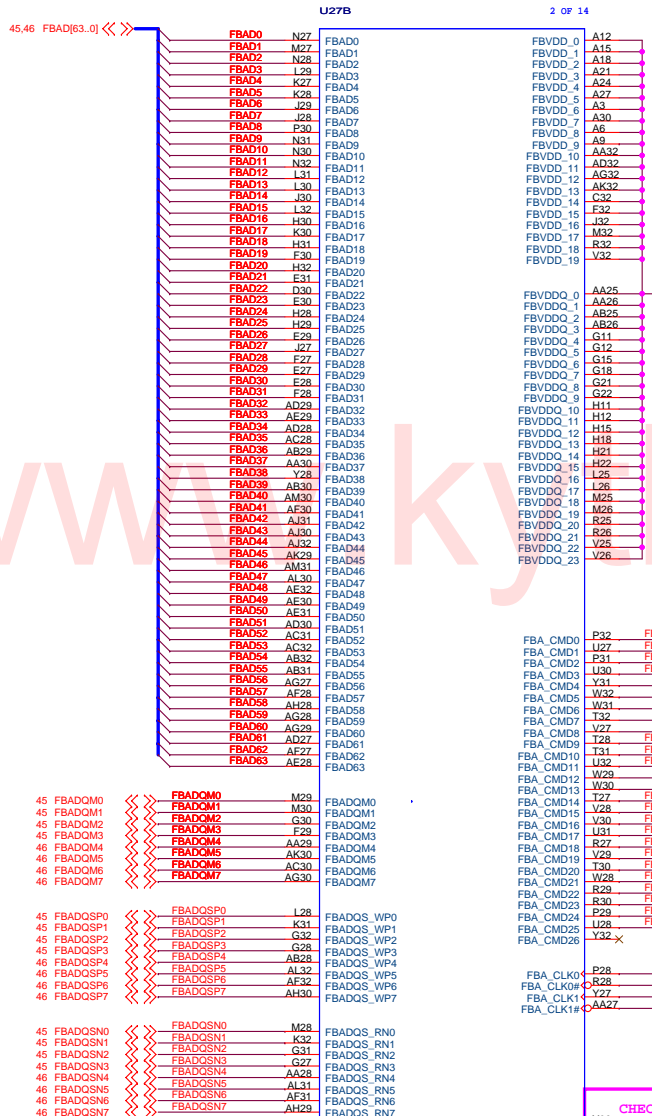
SC CHANGE 001

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Title: **ROM, Spread Spectrum**

Size: Custom	Document Number: MYALL	Rev: SA
Date: Friday, February 10, 2006	Sheet 49 of 52	



<Core Design>

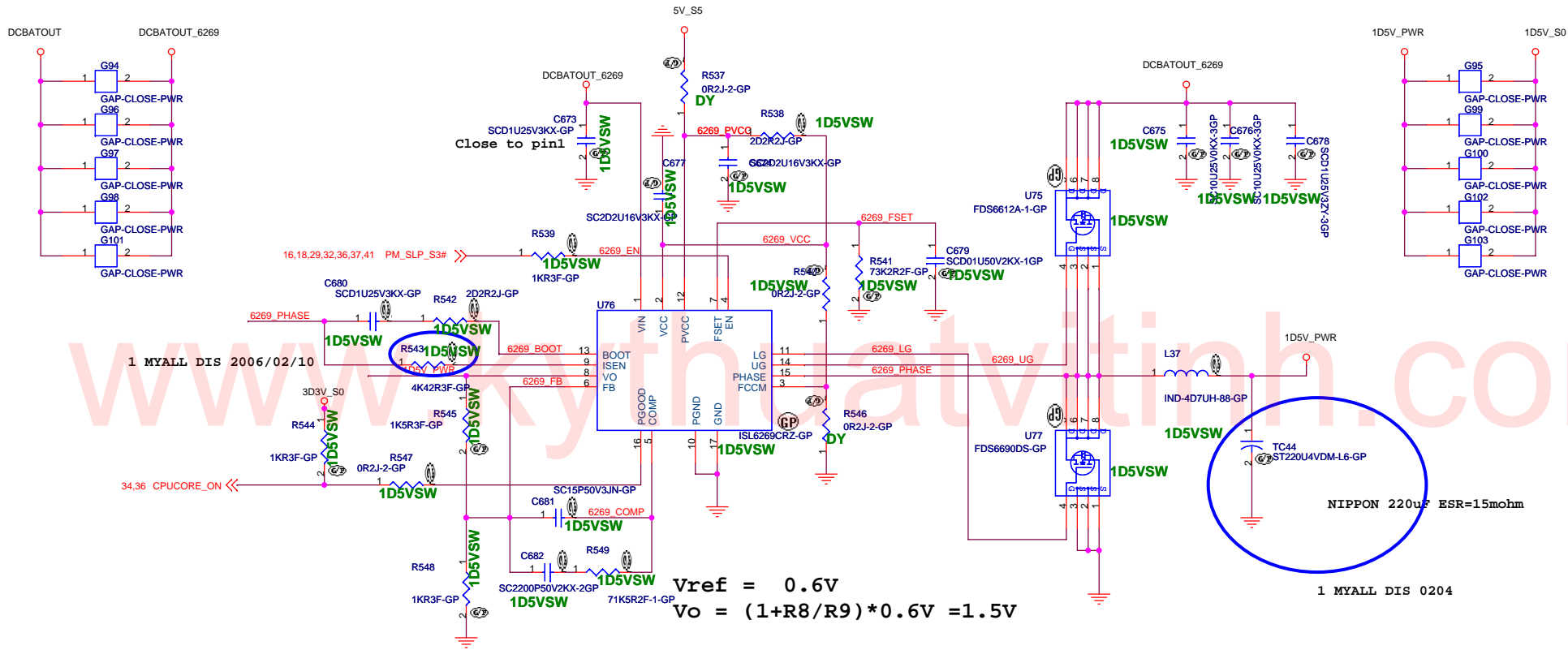
緯創資通 Wistron Corporation

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

Title: MEMORY IF 1

Size: Custom Document Number: MYALL Rev: SA

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1 MYALL DIS 2006/02/10

Vref = 0.6V
 $V_o = (1+R8/R9) * 0.6V = 1.5V$

NIPPON 220uF ESR=15mohm
 1 MYALL DIS 0204