S Note-1 Block Diagram

03209-2-Final

Nov 12 '03

Clock Generator ICS950813 3

Intel Mobile CPU Banias/Dothan 4,5,6

AGTL+ FSB 400MHz

Keyboard Light

UNBUFFERED On-Board DDR SODIMM x 8 11,12,13,15,16

200-PIN DDR SODIMM

UNBUFFERED DDR SODIMM Socket 14,15,16

DDR 200/266/333

Intel Motara-GM Plus 7,8,9,10
AGTL+ CPU I/F
DDR Memory I/F
INTEGRATED GRAHPICS
LVDS, CRT I/F

LVDS

12.1'' XGA LCD 18

RGB CRT

CRT SELECTION 17

Media Slice 46

CRT Port 19

MediaBay I/F

RICOH R5C5811 26,27
Cardbus + SD Card

SD Socket 30

Power Switch TPS2205 28

PCMCIA SLOT 29

PCMCIA I/F

Thermal Sensor LM83+LM26+DS75 47

SMBus

ATMEL AT24RF08CN 48

Hub-LINK 66MHz

Media Slice 46

Secondary IDE ATA 66/100

HDD 23

Primary IDE ATA 66/100

Intel ICH4-M 20,21,22
USB 2.0 (2+2+2)
ETHERNET (10/100Mb)
AC97 2.2
ATA 66/100
ACPI 1.1
LPC I/F
PCI/PCI BRIDGE
INT. RTC

PCI Bus / 33MHz

LINE OUT

OP AMP MAX9750 39

Int. MIC

MIC IN

AC97 CODEC AD1981B 36,37,38

AC LINK

Intel Ethernet Giga LAN 82541EX 31,32

OR

Intel Ethernet 10/100 PHY 82562EZ 31,32

ATMEL AT93C46

LAN MII

RJ45 CONN 33

Mini-PCI 802.11a/b/g 34

PMH-4 G/A 43

RJ11 CONN 33

CDC Modem/Bluetooth 35

CH4

USB 2.0

LPC Bus / 33MHz

USB 1 24,25

USB 2 24,25

CH2,3

KBC H8S/2161B 41

NS FIR & LPC SW PC87382 45

FWH SST-49LF008 40

LPC Debug Board Conn 41

TCPA Chip 44

LPC Bus

Secondary IDE

USB Hub SMSC USB20H04

Int. KB Track point IV 42

FIR IRMS6452 39

NX SIO PC87392

Line In Line Out

UltraBay
HDD, Optical Drives
2nd Battery

PS/2 x2

CRT RJ11 RJ45

MAX3243 RS232 Transceiver

Stereo Speaker x 2

USB x 3

Media Slice

COM Port Parallel Port

DC-IN 46

PCB Layer Stackup

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

System DC/DC
MAX1977 53

INPUTS	OUTPUTS
VINT16	VCC5M VCC3M

Battery Charger/Selector
MAX1870 50

CV16	M-BAT-PWR S-BAT-PWR

GMCH CORE
MAX1992 55

VINT16	VCCGMCHCORE VCCCPUIO

CPU DC/DC
MAX1907 54

VINT16	VCCCPUCORE

VCCACPU/DDR_VREF
LP2996MR/MAX8873 57

VCC2R5A VCC3M	DDR_VREF VCCACPU

1.5/2.5 DC/DC
MAX1845 56

VINT16	VCC1R5M VCC2R5A

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Title: Block Diagram

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RESISTOR

Symbol name	Value	Tolerance (J: 5%, F: 1%, D: 0.5%, B: 0.1 %)	Rating 0402=> 1/16W, 25V 0603 => 1/16W, 75V 0805 => 1/10W, 100V	Size 2=>0402, 3=>0603, 5=>0805, 6=>1206, 0=>1210
10KR3	10K Ohm	If no letter, it means J: 5%	1/16W, 75V	0603
33D3R5	33.3 Ohm	If no letter, it means J: 5%	1/10W, 100V	0805
1KR3F	1K Ohm	F: 1%	1/16W, 75V	0603

The naming rule is value + R + size + tolerance
For the value, it can be read by the number before R. (R means resistor)
For the tolerance, it can be read from the last letter.
For the rating, we don't show on the symbol name.
For the size, R2=>0402, R3=>0603, R5=>0805,....

PCI TABLE

DEVICE	IDSEL	IRQ	REQ# / GNT#
MINIPCI SLOT	AD18	F, G	REQ# 2/ GNT#2
CARDBUS R5C593	AD16	SERIRQ	REQ#0 / GNT#0
AGP			
LAN(82562EX)	AD24(Int.)	E	
LAN(82541EI)	AD17	E	REQ#1 / GNT#1
USB UHCI	AD29	A, D, C	
USB 2.0 EHCI	AD29	H	
Hub-to-PCI	AD30		
LPC Bridge/ IDE/AC97/ SMBus	AD31		

CAPACITOR

Symbol name	Value	Tolerance (M: +/-20, K: +/-10, Z: +80/-20)	Rating	Size 2=>0402, 3=>0603, 5=>0805, 6=>1206, 0=>1210
SCD1U10V2MX-1	0.1uF	M/X5R	10V	0402
SC10U6D3V5MX	10uF	M/X5R	6.3V	0805
SC2D2U16V5ZY	2.2uF	Z/Y5V	16V	0805

The naming rule is
Capacitor type + value + rating + size + tolerance + material
SCD1U10V2MX-1
SC=> SMT Ceremic, TC=> POS cap or SP cap
D1U => 0.1uF
10V => the voltage rating is 10V
2=> 0402, 3=>0603, 5=>0805
M=>tolerance M, K, Z
X=> X7R/X5R, Y=> Y5V
-1 => symbol version, nonsense to EE characteristic

PLANAR_ID[2..0]

ICH4-M GPIOn	34	33	32	Snote-1 Planar ID Version	Planar PCB Version
PLANAR_IDn	2	1	0		
	0	0	0	SDV-1, SVT-R	03209-SA, 03209-2
	0	0	1	SDV-2	03209-SA
	0	1	0	SDV-3	03209-SA
	0	1	1	SIV	03209-SB
	1	0	0	SIV-R	03209-SC
	1	0	1	SIT	03209-SD
	1	1	0	SIT-R	03209-SE
	1	1	1	SVT	03209-1

MEM_BASE_ID[4..0]

ICH4-M GPIOn	39	38	37	36	35	Total Capacity	Density	Q'ty	Chip P/N
BASE_MEM_IDn	4	3	2	1	0				
	0	1	0	0	0	256MB	256Mb	8	Infineon p/n HYB25D256160CT-6 (Rev D11 / 0.11um)
	0	1	0	0	1	256MB	256Mb	8	Micron p/n MT46V16M16TG-6T C (Rev T16 / 0.13um)
	0	1	0	1	0	256MB	256Mb	8	Samsung p/n K4H561638D-TCB3 (Rev D / 0.13um)
	1	0	0	1	1	256MB	512Mb	4	Hynix p/n HY5DU121622AT-J (Rev PC / 0.13um)
	1	0	0	0	1	256MB	512Mb	4	Micron p/n MT46V32M16TG-6T C (Tev T27 / 0.11um)
	1	0	0	1	0	256MB	512Mb	4	Samsung p/n K4H511638B-TCB3 (Rev B / 0.10um)
	1	1	0	1	1	512MB	512Mb	8	Hynix p/n HY5DU121622AT-J (Rev PC / 0.13um)
	1	1	0	0	1	512MB	512Mb	8	Micron p/n MT46V32M16TG-6T C (Tev T27 / 0.11um)
	1	1	0	1	0	512MB	512Mb	8	Samsung p/n K4H511638B-TCB3 (Rev B / 0.10um)

MEM_BASE_ID[4..0]

ICH4 GPIO bit 39 : Memory technology bit
1 : 512Mbit technology
0 : 256Mbit technology
ICH4 GPIO bit 38 : population numbers(bank numbers)
1 : total 8pcs
0 : total 4pcs
ICH4 GPIO bit 37-35 : vendor name
0 - 1 - 1 : Hynix
0 - 1 - 0 : Samsung
0 - 0 - 1 : Micron
0 - 0 - 0 : Infiineon

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Title: ***Reference***

Size: A3 | Document Number: ***S Note-1*** | Rev: *-2*

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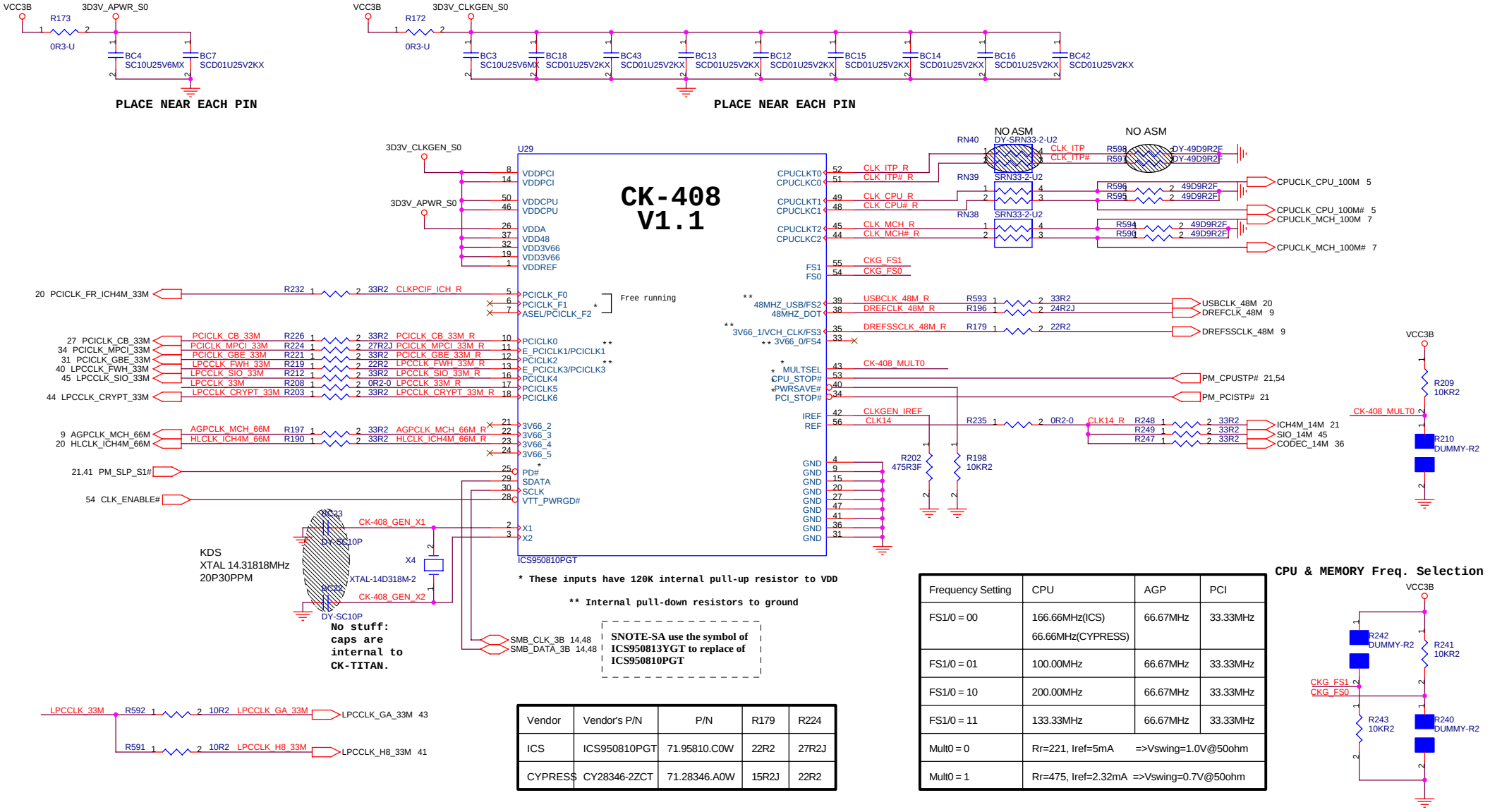

Vendor	Vendor's P/N	P/N	R179	R224
ICS	ICS950810PGT	71.95810.C0W	22R2	27R2J
CYPRESS	CY28346-2ZCT	71.28346.A0W	15R2J	22R2

Frequency Setting	CPU	AGP	PCI
FS1/0 = 00	166.66MHz(ICS) 66.66MHz(CYPRESS)	66.67MHz	33.33MHz
FS1/0 = 01	100.00MHz	66.67MHz	33.33MHz
FS1/0 = 10	200.00MHz	66.67MHz	33.33MHz
FS1/0 = 11	133.33MHz	66.67MHz	33.33MHz
Mult0 = 0	Rr=221, Iref=5mA	=>Vswing=1.0V@50ohm	
Mult0 = 1	Rr=475, Iref=2.32mA	=>Vswing=0.7V@50ohm	

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Title: *Clock GEN.*

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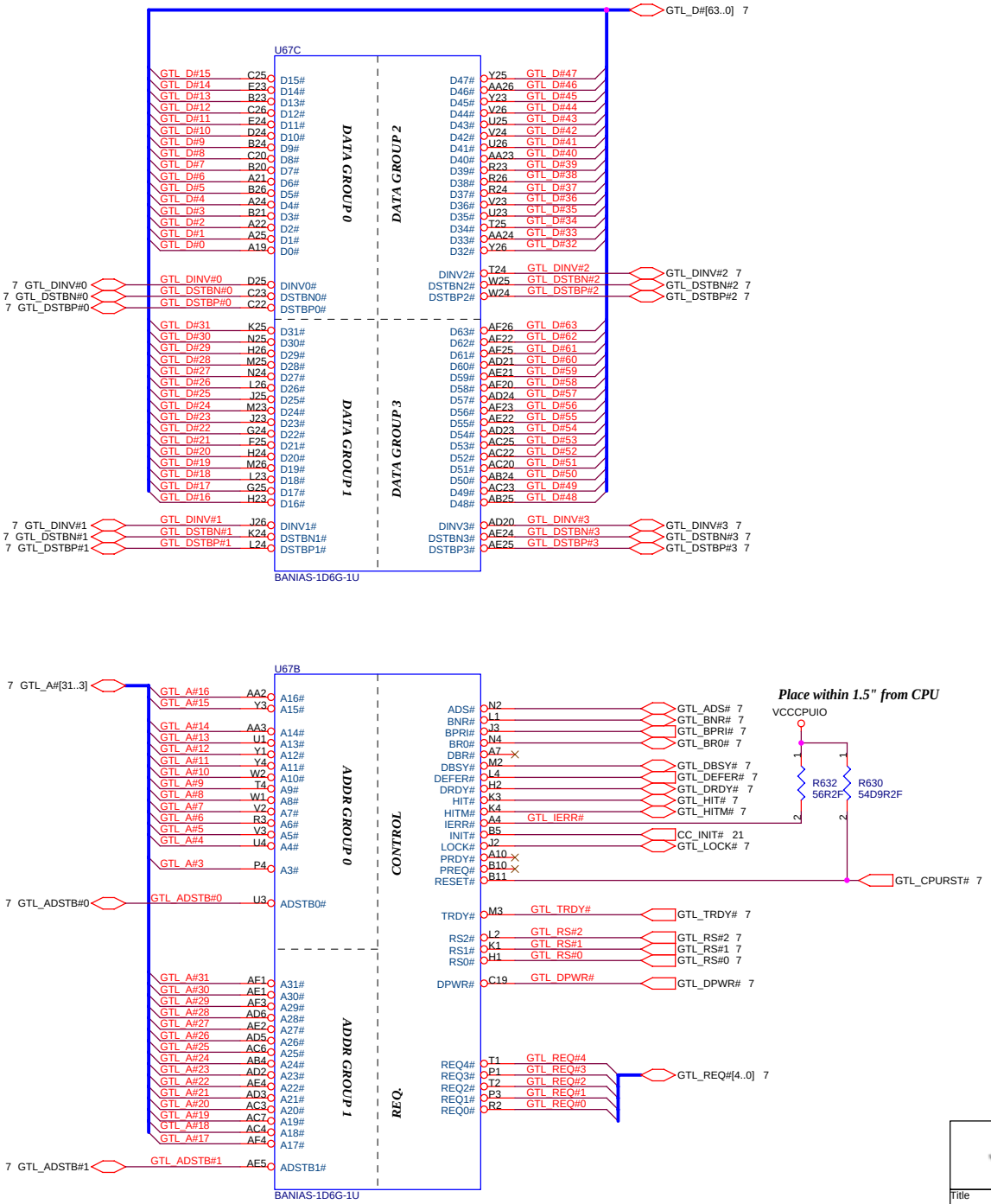

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Title	BANIAS CPU(1/3)
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	VCCACPU
BANIAS	1.80V
DOTHAN	1.50V

For CPU VCCA[0:3] PLL
place one 0.01u & 10u
for each VCCA pin

VCCACPU
Pin AC26
C587 SCD01U25V2KX
C598 SC10U25V6MX

VCCACPU
Pin N1
C189 SCD01U25V2KX
C624 SC10U25V6MX

VCCACPU
Pin B1
C221 SCD01U25V2KX
C619 SC10U25V6MX

VCCACPU
Pin F26
C604 SCD01U25V2KX
C605 SC10U25V6MX

VCC3SW
SHUTDOWN2 49,51
Q54 DTA114EE
C143 SCD1U10V2KX
U24
HYST
OS#
VTEMP
V+
GND
LM26CIM5-XPA-U
SHUTDOWN2# 43,54
TP2 TPAD34
TEST PAD FOR BOARD MFG TEST

U67D

H_CLK
3 CPUCLK_CPU_100M
3 CPUCLK_CPU_100M#
BCLK0
BCLK1
ITP_CLK0
ITP_CLK1

ITPI
21 CC_A20M#
21 CC_FERR#
21 CC_IGNNE#
A20M#
FERR#
IGNNE#
BPM3#
BPM2#
BPM1#
BPM0#
COMP3
COMP2
COMP1
COMP0
COMP0/2: Z0=27.4 OHM TRACE
COMP1/3: Z0=55.0 OHM TRACE
R159 54D9R2F
R139 27D4R2F
R585 54D9R2F
R582 27D4R2F
DPSLP#
CC_DPSLP# 21

MISC
21 CC_INTR
21 CC_NMI
LINT0
LINT1
21 CC_SMI#
21 CC_STPCLK#
SMI#
STPCLK#
VCCACPD
VCCA3
VCCA2
VCCA1
VCCA0
GTLREF3
GTLREF2
GTLREF1
GTLREF0
H_GTLREF_0
PROCHOT#
PWRGOOD
H_PROCHOT#
CC_CPUPWRGD 21

GTLREF voltage
VCCCPUIO
R577 1KR2F
R562 2KR2F
C568 SC1U10V3ZY
Close to the ball AD26, < 0.5"
VCCCPUIO
R634 56R2J
R259 330R2
Place within 1.5" from CPU

VCCCPUIO
NO ASM
R258 DY-1KR2
TP11 TPAD30
TEST3
PSI#
R257 150R2F
R633 27D4R2F
21 CC_CPUSLP#
H_TCK
H_TDI
SLP#
TCK
TDI
TDO
RSVD
TEST3
PSI#

TERM
TEST1
TEST2
THERMDA
THERMDC
THERMTRIP#
TMS
TRST#
NO ASM
R269 DY-1KR2
R233 DY-1KR2
THERMDA 47
C769 SC220P50V2JN
THERMDC 47
CC_THRMTRIP_S# 21
H_TMS
H_TRST#
TP1 TPAD30
R631 680R2
VCCCPUIO
R256 39D2R2F
TEST PAD FOR BOARD MFG TEST

VID
CPU_VCCSENSE
CPU_VSSSENSE
VCCSENSE
VSSSENSE
54 H_VID[5..0]
H_VID5
H_VID4
H_VID3
H_VID2
H_VID1
H_VID0
VID5
VID4
VID3
VID2
VID1
VID0

BANIAS-1D6G-1U

TP10 TPAD30
TP9 TPAD30
NO_ASM
R544 DY-54D9R2F
R543 DY-54D9R2F

Route these two signals:
1.Equal length.(Max. length < 100mils)
2.Width/Spacing=1/3.
3.50mil away from other signals.

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Title: *BANIAS CPU(2/3)*
Size: A3
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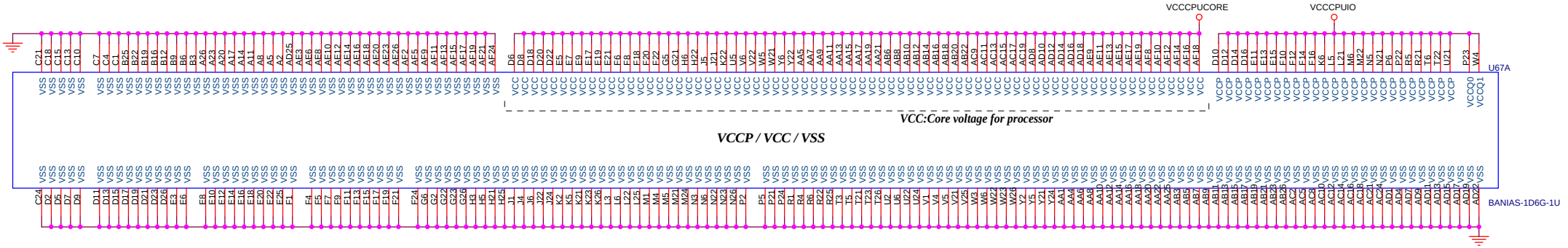
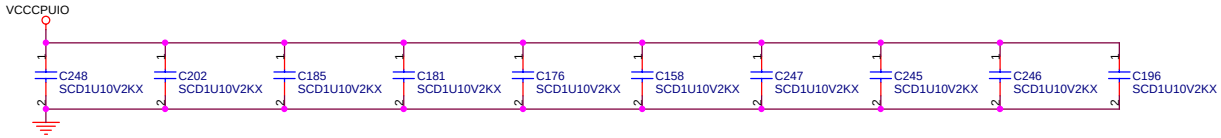
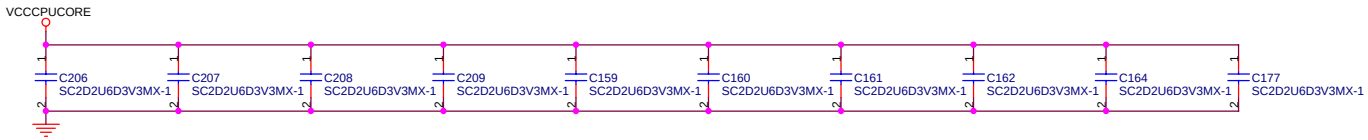
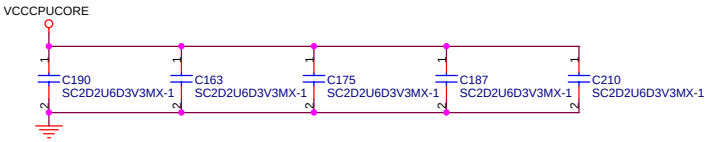
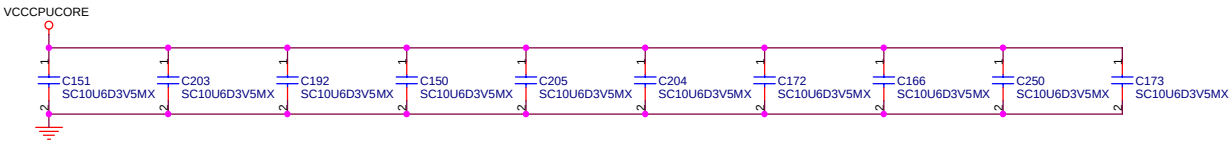


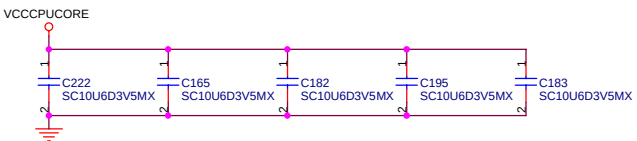






2.2UF X5R 0603 X15PCS





10UF X5R 0805 X15PCS

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Title: *BANIAS CPU(3/3)*

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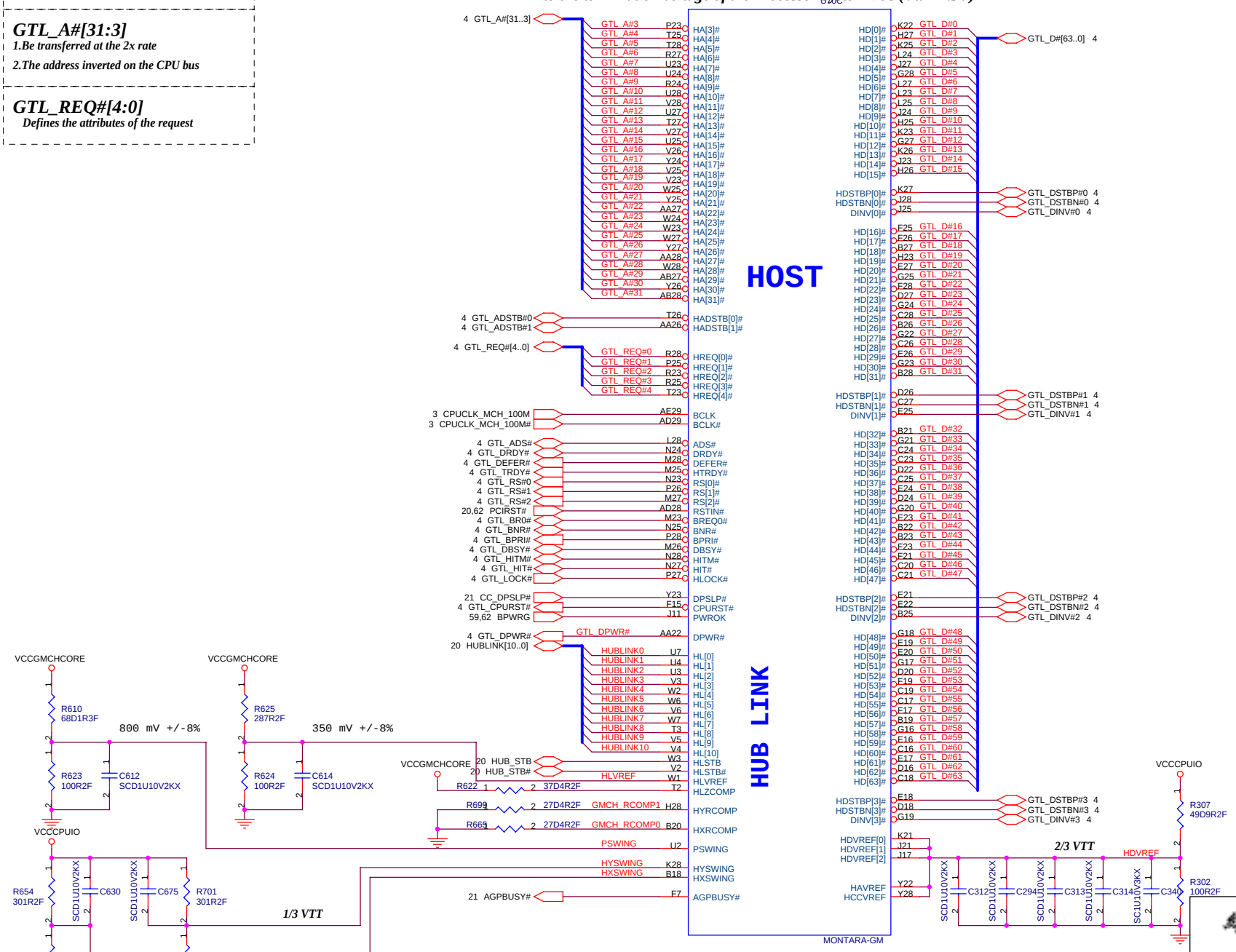
GTL_D#[63..0]
1.Be transferred at the 4x rate
2.These signals are inverted on the CPU bus

GTL_A#[31:3]
1.Be transferred at the 2x rate
2.The address inverted on the CPU bus

GTL_REQ#[4:0]
Defines the attributes of the request

Unless otherwise noted,the voltage level for all signal in this interface is tied to the termination voltage of the Processor System Bus (Vtt ~ 1.3V)



HSWING components should be placed within 0.5 inches of their respective pins and connected with a15-mil wide trace. Maintain at least 25 mils spacing.

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Title: *MONTARA GM+(1/4)*

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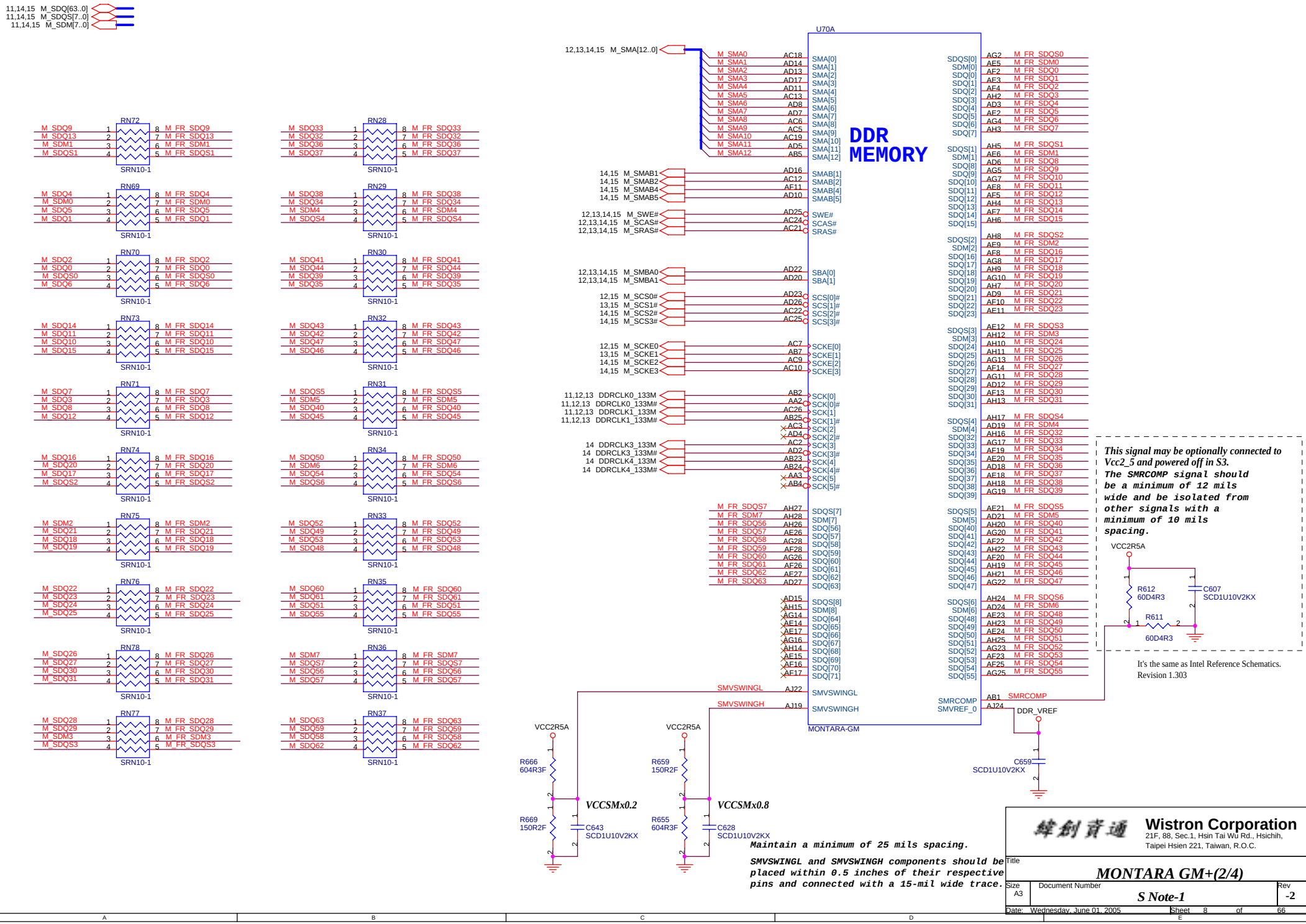

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Title: MONTARA GM+(2/4)

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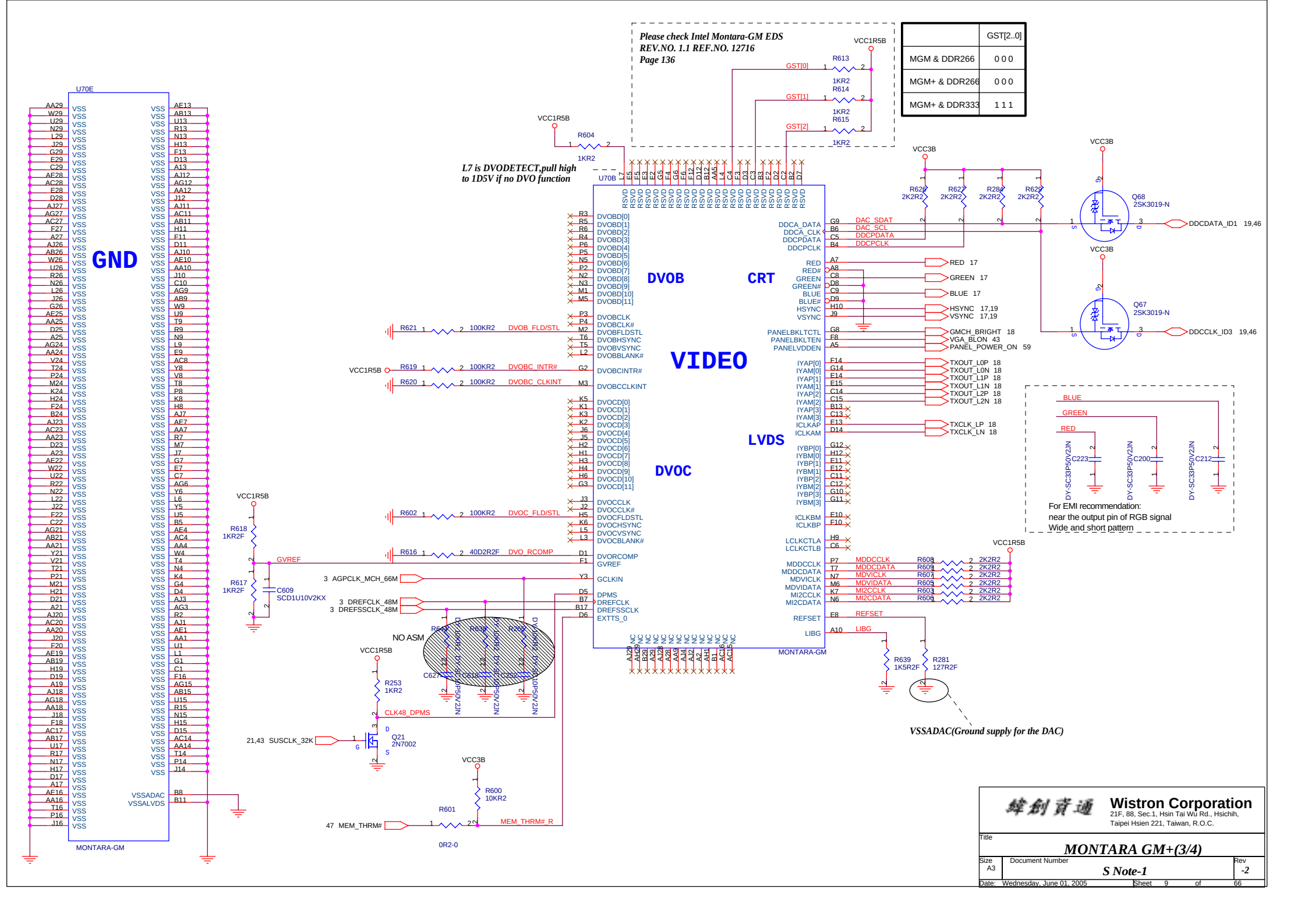
Please check Intel Montara-GM EDS
REV.NO. 1.1 REF.NO. 12716
Page 136
GST[2..0]
MGM & DDR266 0 0 0
MGM+ & DDR266 0 0 0
MGM+ & DDR333 1 1 1
L7 is DVODETECT,pull high to 1D5V if no DVO function
U70E
GND
MONTARA-GM
U70B
VIDEO
DVOB
DVOC
CRT
LVDS
DDCA_DATA
DDCA_CLK
DDCPDATA
DDCPCLK
DAC_SDAT
DAC_SCL
DDCPDATA
DDCPCLK
DDCDATA_ID1 19,46
DDCCLK_ID3 19,46
Q68 2SK3019-N
Q67 2SK3019-N
RED 17
GREEN 17
BLUE 17
HSYNC 17,19
VSYNC 17,19
GMCH_BRIGHT 18
VGA_BLON 43
PANEL_POWER_ON 59
TXOUT_L0P 18
TXOUT_L0N 18
TXOUT_L1P 18
TXOUT_L1N 18
TXOUT_L2P 18
TXOUT_L2N 18
TXCLK_LP 18
TXCLK_LN 18
MDDCCLK
MDDCDATA
MDVICLK
MDVIDATA
MI2CCLK
MI2CDATA
REFSET
LIBG
VSSADAC(Ground supply for the DAC)
For EMI recommendation:
near the output pin of RGB signal
Wide and short pattern
NO ASM
21,43 SUSCLK_32K
Q21 2N7002
47 MEM_THRM#
MEM_THRM# R
0R2-0
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MONTARA GM+(3/4)
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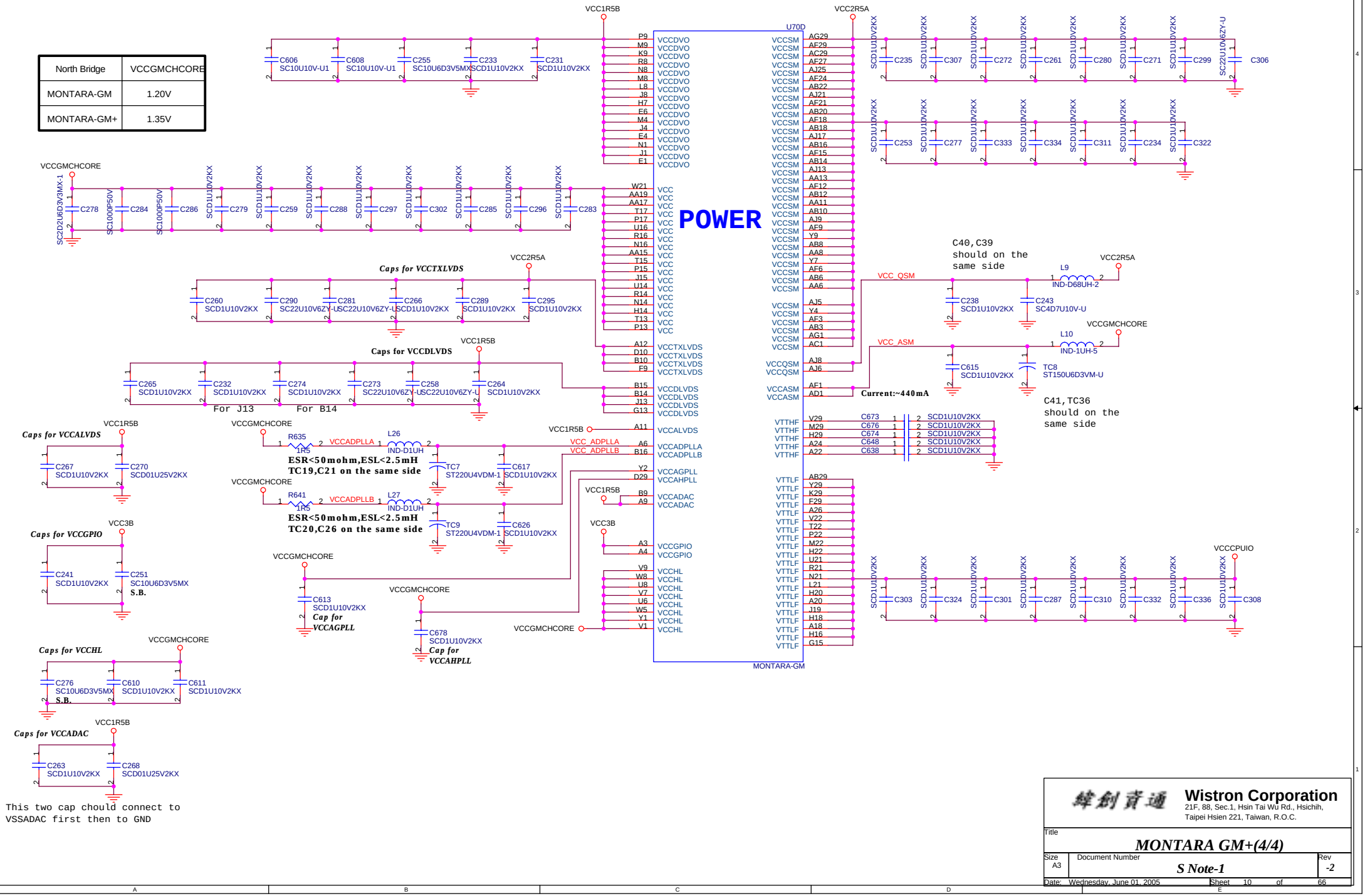
North Bridge | VCCGMCHCORE
MONTARA-GM | 1.20V
MONTARA-GM+ | 1.35V
POWER
U70D
MONTARA-GM
VCC1R5B
VCC2R5A
VCCGMCHCORE
VCC3B
VCCCPUIO
Caps for VCCTXLVDS
Caps for VCCDLVDS
Caps for VCCALVDS
Caps for VCCGPIO
Caps for VCCHL
Caps for VCCADAC
For J13
For B14
ESR<50mohm,ESL<2.5mH
TC19,C21 on the same side
ESR<50mohm,ESL<2.5mH
TC20,C26 on the same side
Cap for VCCAGPLL
Cap for VCCAHPLL
S.B.
C40,C39 should on the same side
C41,TC36 should on the same side
Current:~440mA
VCC_QSM
VCC_ASM
VCC_ADPLLA
VCC_ADPLLB
This two cap should connect to VSSADAC first then to GND
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MONTARA GM+(4/4)
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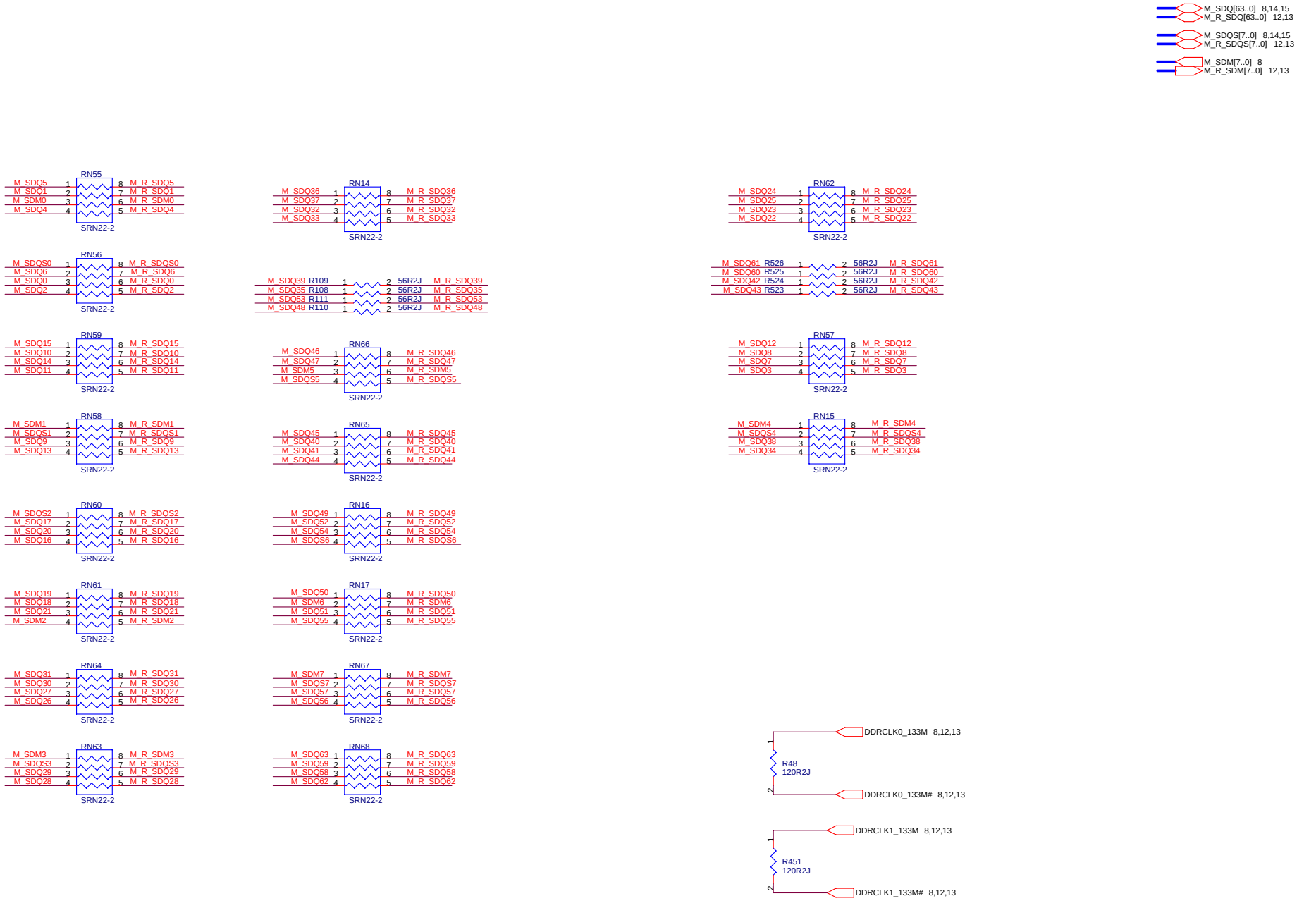

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Title	***DDR DATA RESISTOR***	
Size: Custom	Document Number: ***S Note-1***	Rev: ***-2***
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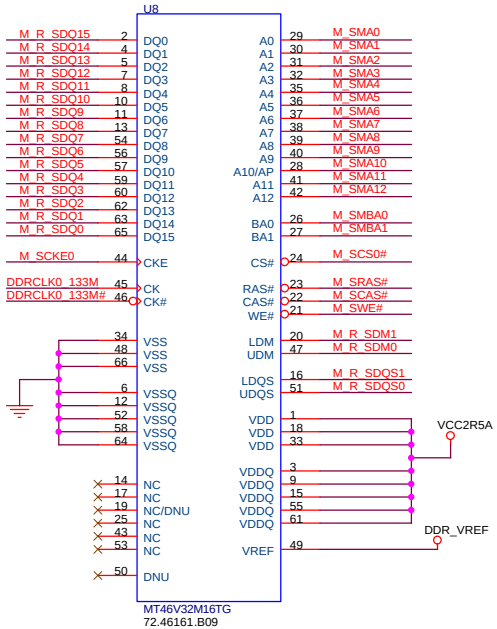
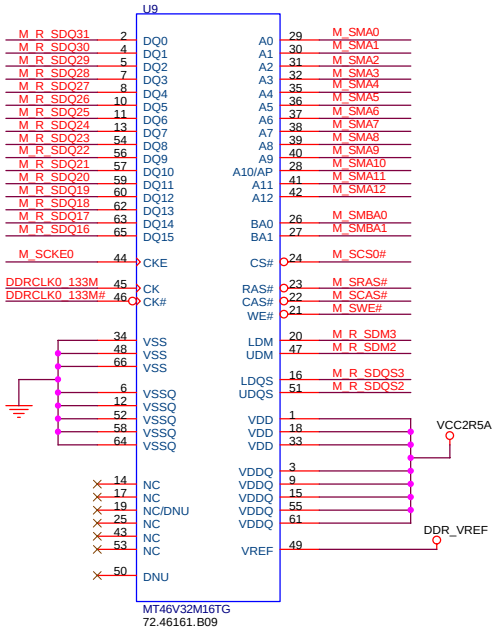
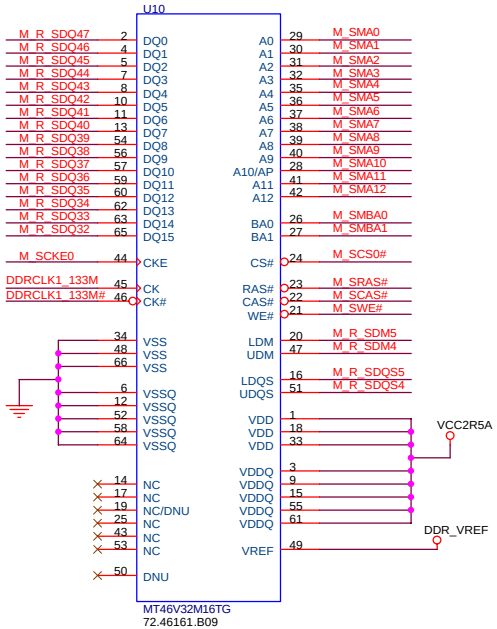
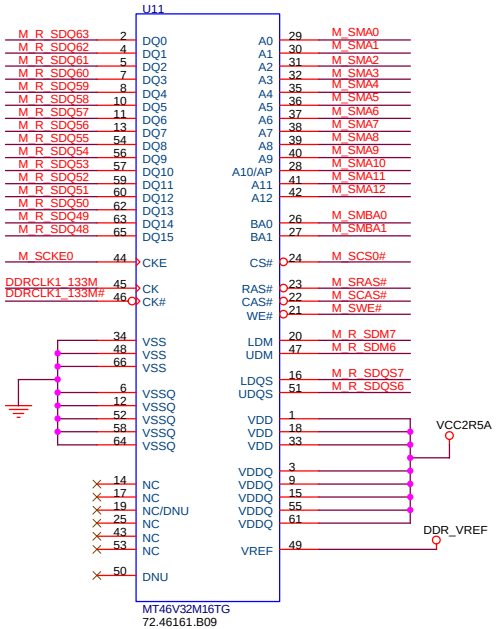
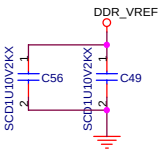
M_R_SDQS[7..0] 11,13
M_R_SDM[7..0] 11
M_R_SDQ[63..0] 11,13
M_SMA[12..0] 8
M_SMBA[1..0] 8
DDRCLK0_133M 8,11
DDRCLK0_133M# 8,11
DDRCLK1_133M 8,11
DDRCLK1_133M# 8,11
M_SWE# 8
M_SCAS# 8
M_SRAS# 8
M_SCS0# 8
M_SCKE0 8

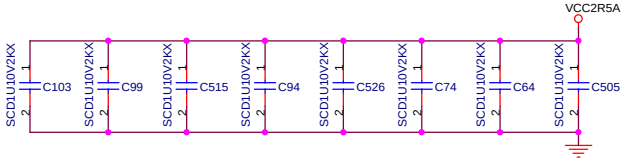






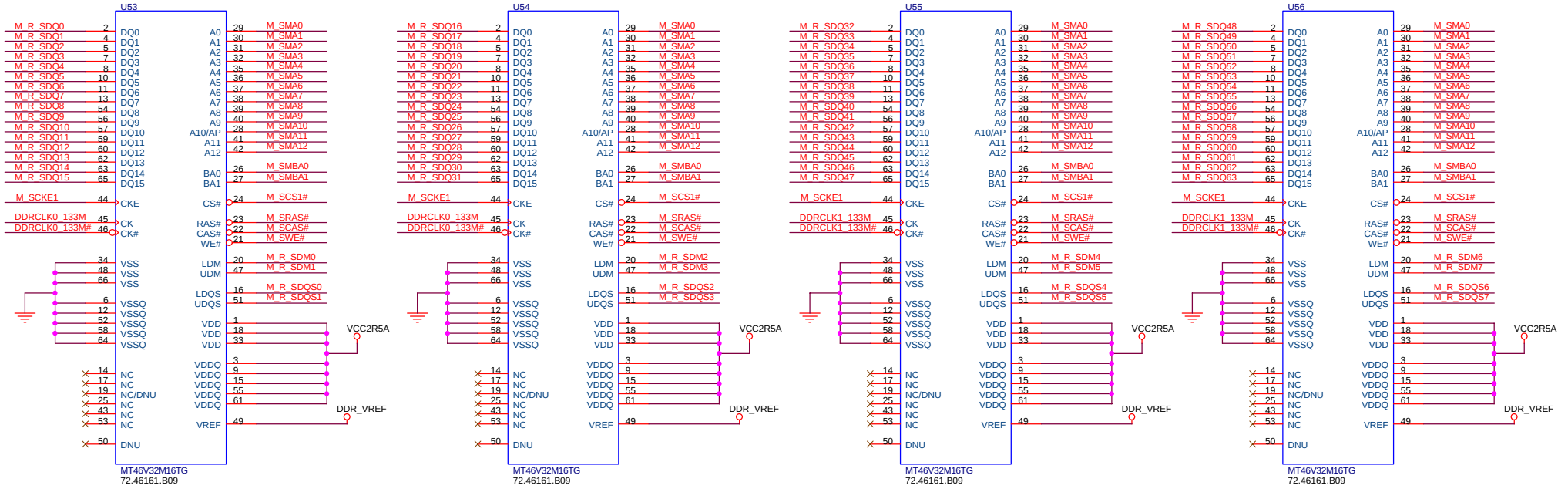


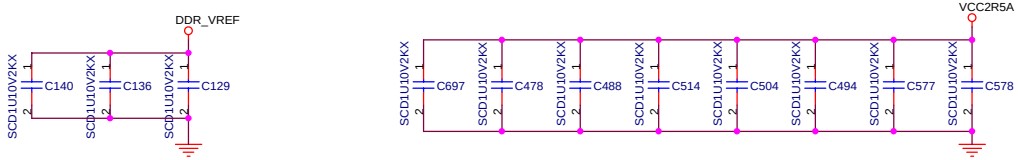




Company	Wistron Corporation
Address	21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title	BASE MEMORY BANK0
Size	Custom
Document Number	S Note-1
Rev	-2
Date	Wednesday, June 01, 2005
Sheet	12 of 66

M_R_SDQS[7..0] 11,12
M_R_SDM[7..0] 11
M_R_SDQ[63..0] 11,12
M_SMA[12..0] 8
M_SMBA[1..0] 8
DDRCLK1_133M 8,11
DDRCLK1_133M# 8,11
DDRCLK0_133M 8,11
DDRCLK0_133M# 8,11
M_SCKE1 8
M_SWE# 8
M_SCAS# 8
M_SRAS# 8
M_SCS1# 8





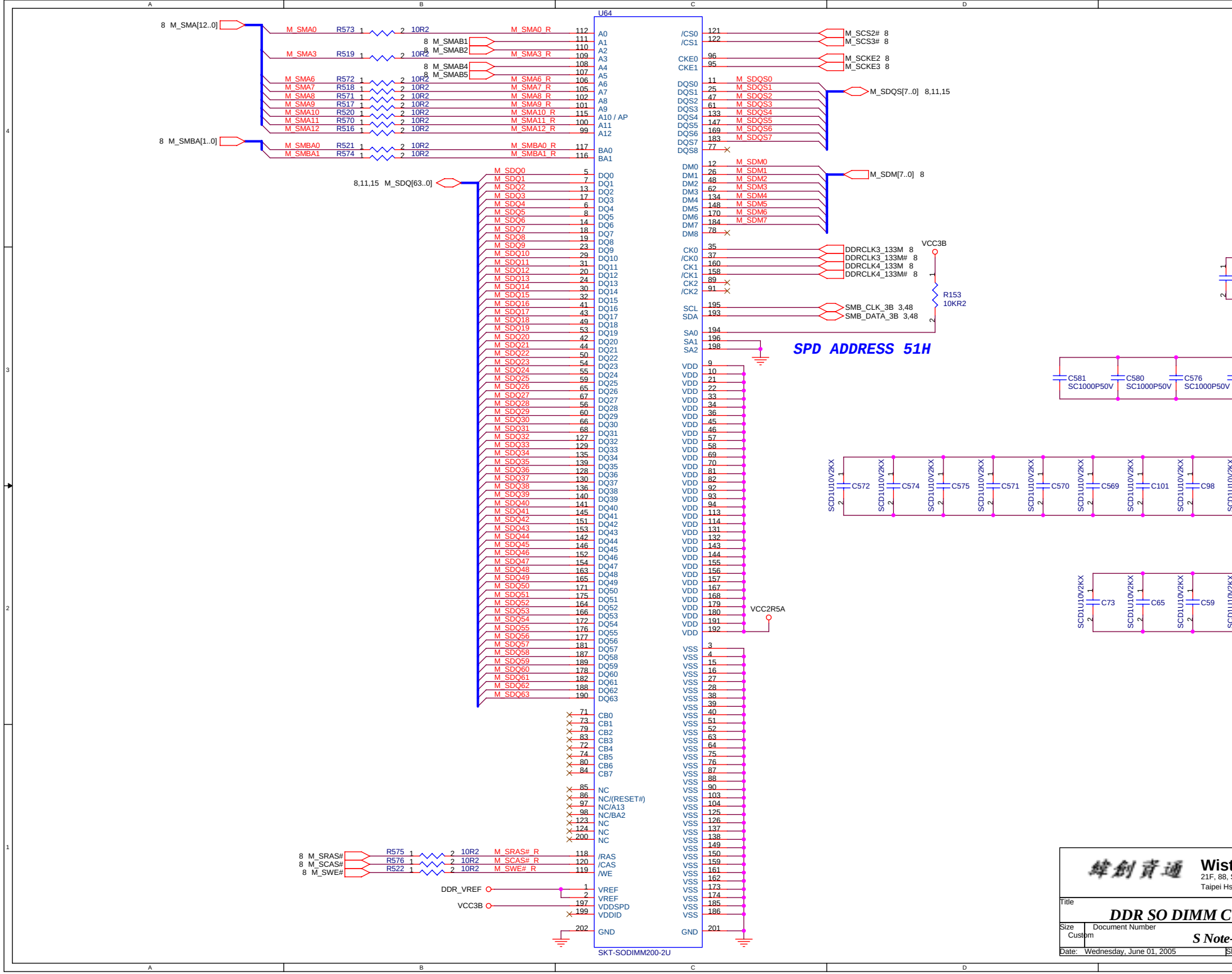
蜂創資通

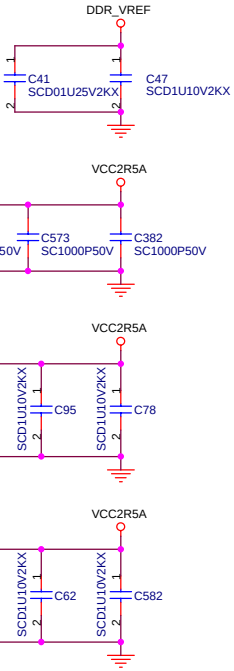
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***BASE MEMORY BANK1***

Size	Document Number	Rev
Custom	***S Note-1***	*-2*

Date: Wednesday, June 01, 2005 Sheet 13 of 66


U64
SKT-SODIMM200-2U
SPD ADDRESS 51H
VCC3B
VCC2R5A
R153
10KR2
C581
C580
C576
C572
C574
C575
C571
C570
C569
C101
C98
C73
C65
C59
SCD1U10V2KX
SC1000P50V
M_SMA[12..0]
M_SMBA[1..0]
M_SDQ[63..0]
M_SDQS[7..0]
M_SDM[7..0]
DDRCLK3_133M
DDRCLK3_133M#
DDRCLK4_133M
DDRCLK4_133M#
SMB_CLK_3B
SMB_DATA_3B
DDR_VREF
VCC3B
Wist
Taipei Hs
DDR SO DIMM C
S Note-
Size
Custom
Document Number
Date: Wednesday, June 01, 2005



istron Corporation

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

CONNECTOR

ote-1

Rev
-2

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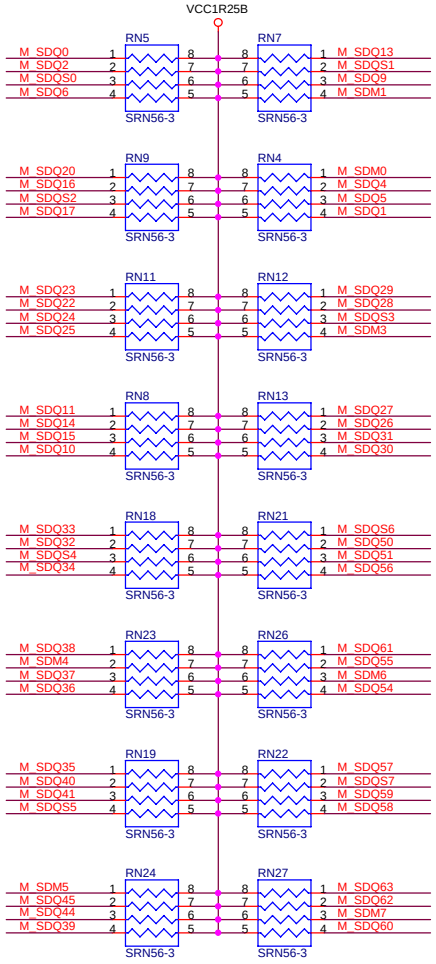
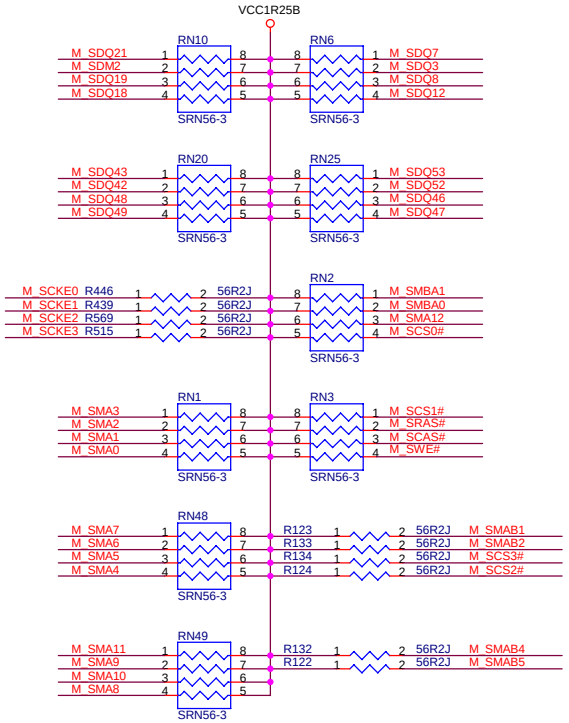




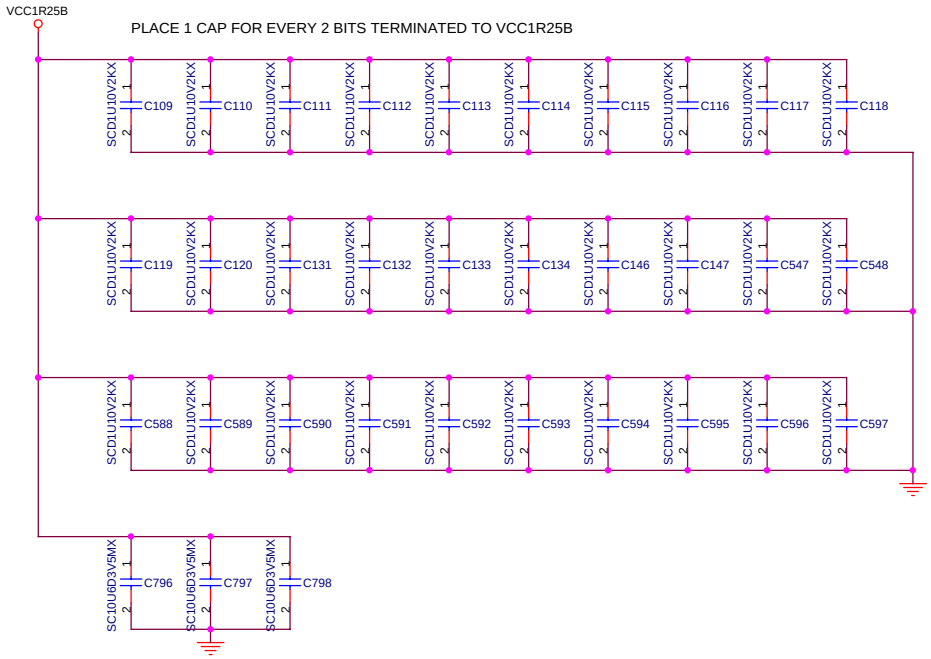
M_SDQ[63..0] 8,11,14
M_SDQS[7..0] 8,11,14
M_SDM[7..0] 8
M_SCKE[3..0] 8
M_SMA[12..0] 8
M_SMBA[1..0] 8
M_SRAS# 8
M_SCAS# 8
M_SWE# 8
M_SCS0# 8
M_SCS1# 8
M_SCS2# 8
M_SCS3# 8
M_SMAB1 8
M_SMAB2 8
M_SMAB4 8
M_SMAB5 8

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

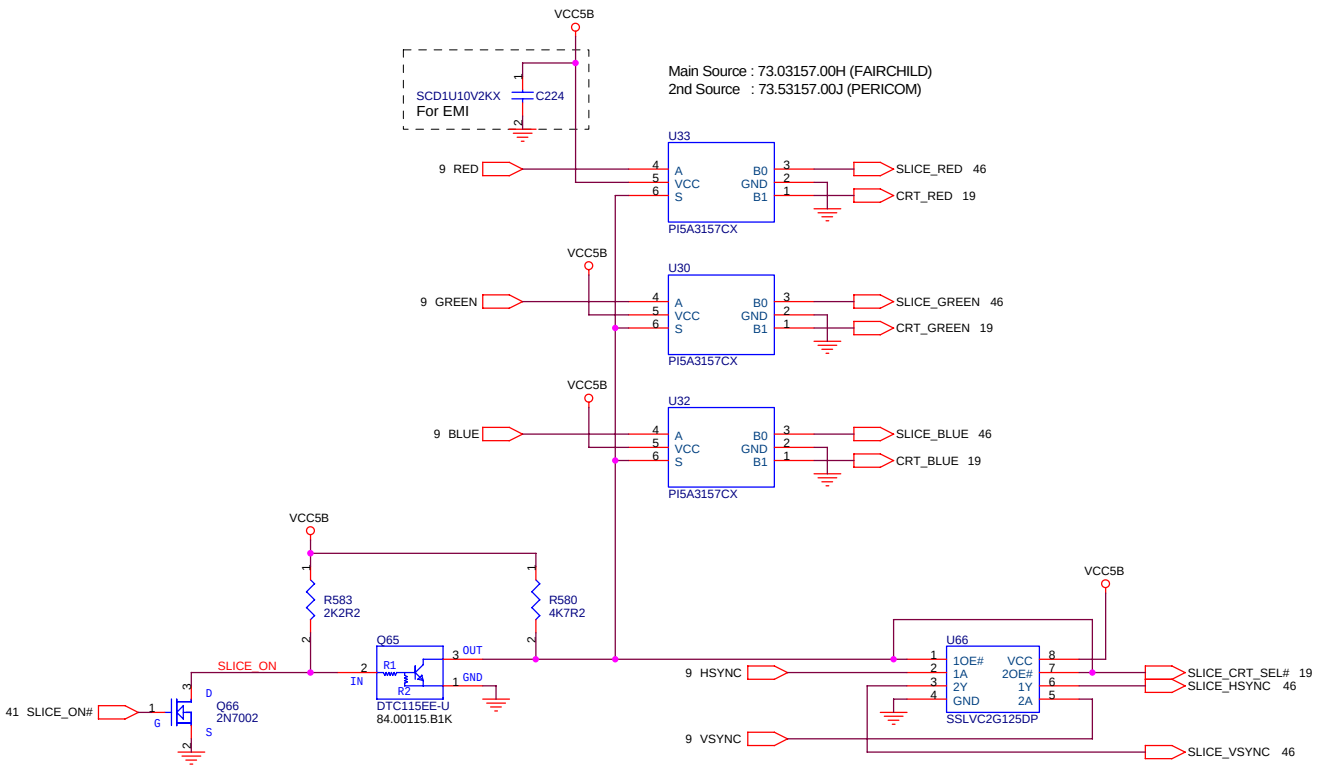
Title: **SSTL-2 TERMINATION**

Size	Document Number	Rev
A3	S Note-1	-2

Date: Wednesday, June 01, 2005 Sheet 15 of 66



Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: *SSTL-2 DECOUPLING*		
Size: A3	Document Number: *S Note-1*	Rev: *-2*
Date: Wednesday, June 01, 2005	Sheet 16 of 66	



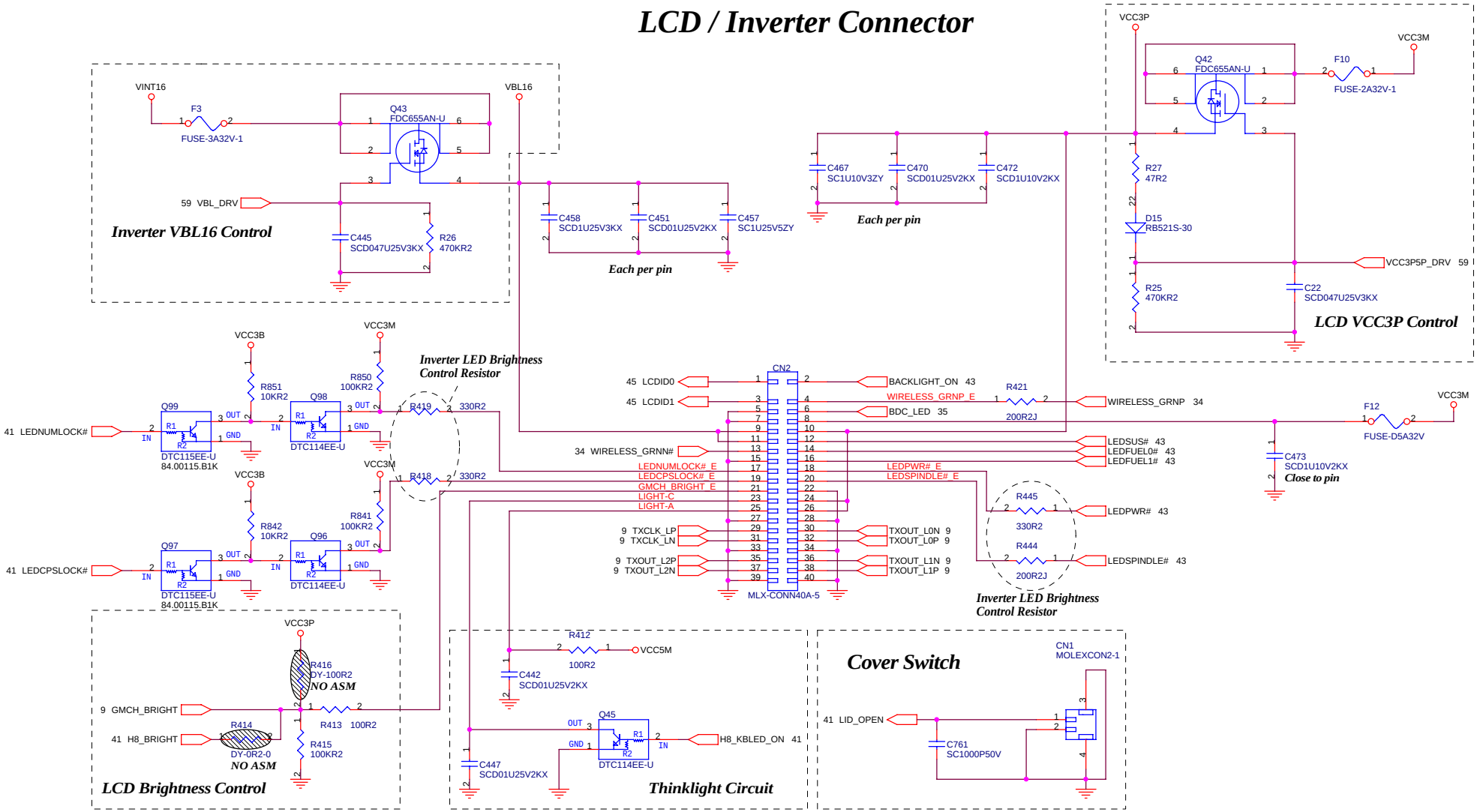
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***CRT SELECTION***

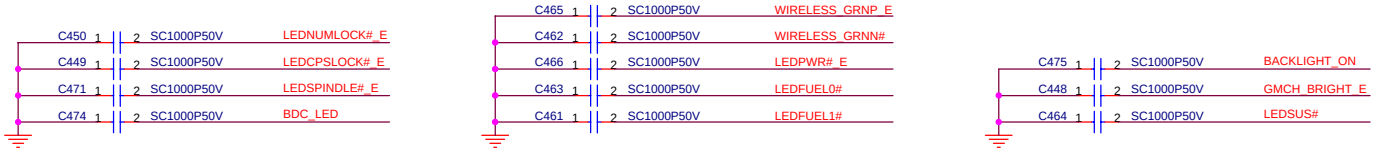
Size	Document Number	Rev
A3	***S Note-1***	***-2***

Date: Wednesday, June 01, 2005 Sheet 17 of 66

LCD / Inverter Connector



Capacitors For EMI

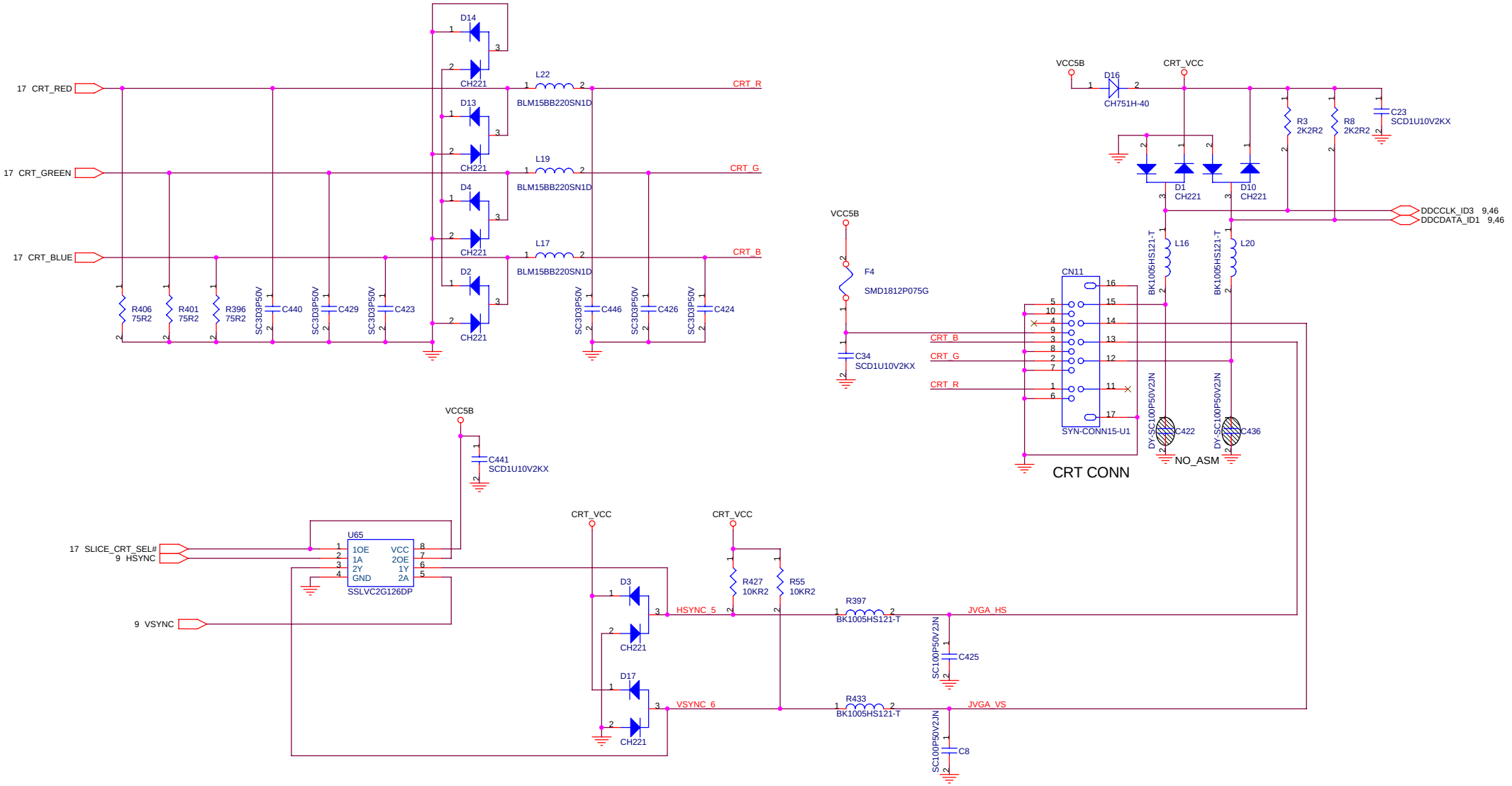


Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: LCD CONNECTOR		
Size: A3	Document Number: S Note-1	Rev: -2
Date: Wednesday, June 01, 2005	Sheet 18 of 66	

Pi-filter for RGB

Pi-filter & 75 Ohm pull-down resistors should be as close as to CRT CONN. RGB will hit 75 Ohm first, pi-filter, then CRT CONN.

Ferrite bead impedance: 22ohm@100MHz



緯創資通 **Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: ***EXT CRT CONNECTOR***		
Size: A3	Document Number: ***S Note-1***	Rev: ***-2***
Date: Wednesday, June 01, 2005	Sheet 19 of 66	

ICH4-M Integrated Pull-Ups and Pull-Downs

EE_DIN, EE_DOUT, LDRQ[1:0], PME#, GNT[B:A]#/GNT[5]#/GPIO[17:16] LAD[3:0]#/FWH[3:0]#, PWRBTN#	internal 20K pull-ups
LAN_RXD[2:0]	internal 10K pull-ups
AC_BITCLK, AC_RST#, AC_SDIN[2:0], AC_SDOUT, AC_SYNC, DPRSLPVR, SPKR	internal 20K pull-downs
PDD[7]/SDD[7], PDDREQ/SDDREQ	internal 11.5K pull-downs
LAN_CLK	internal 100K pull-downs
USB[5:0][P,N]	internal 15K pull-downs

REV.NO. 2.0
REF.NO. 12232
P.66

PLANAR_ID and BASE_MEM_ID are defined on page 2.

NO_ASM

	R803	R804
LV CPU	ASM	NO_ASM
ULV CPU	NO_ASM	ASM

USBRBIAS# should be connected to USBRBIAS as close to resistor as possible

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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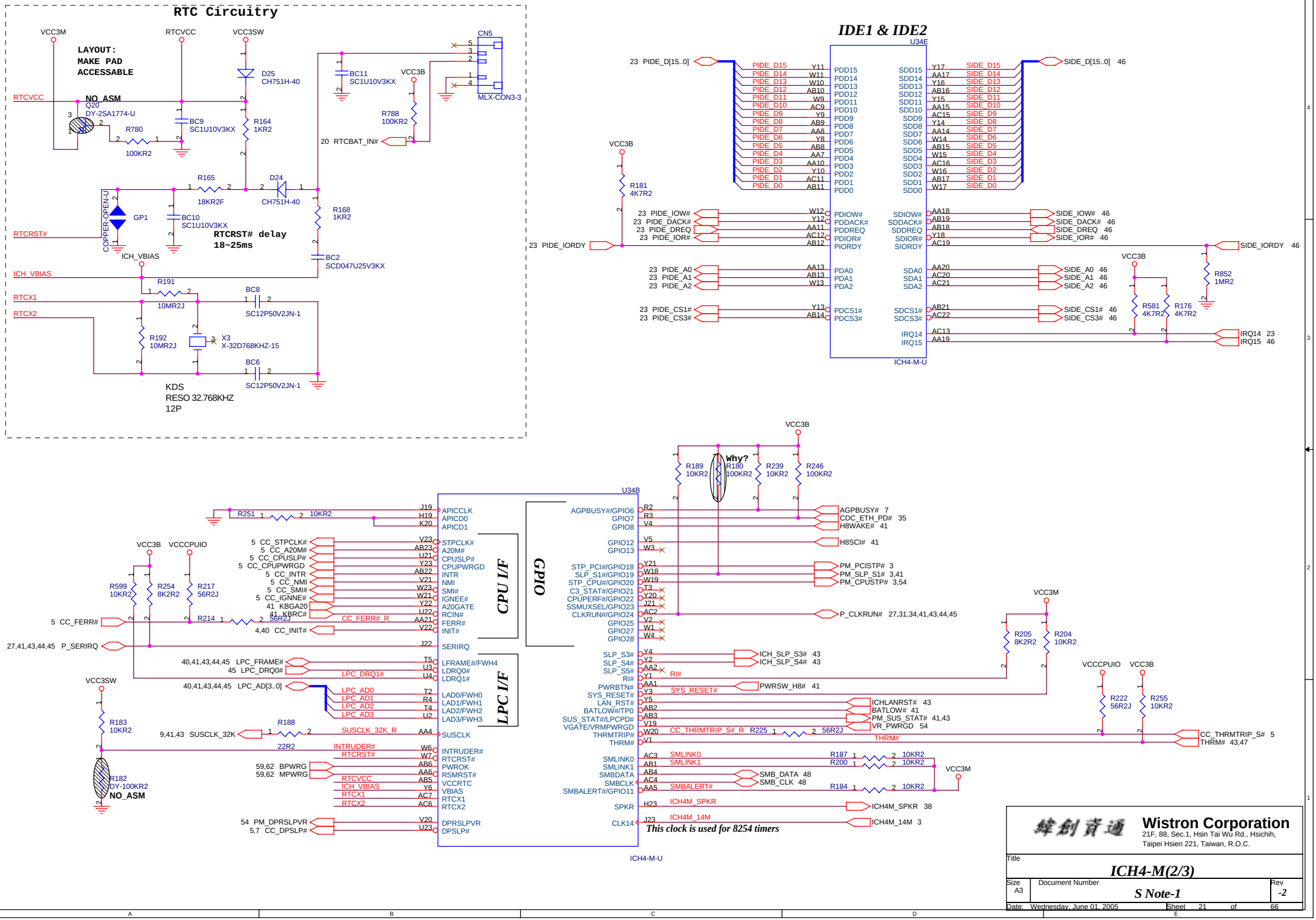
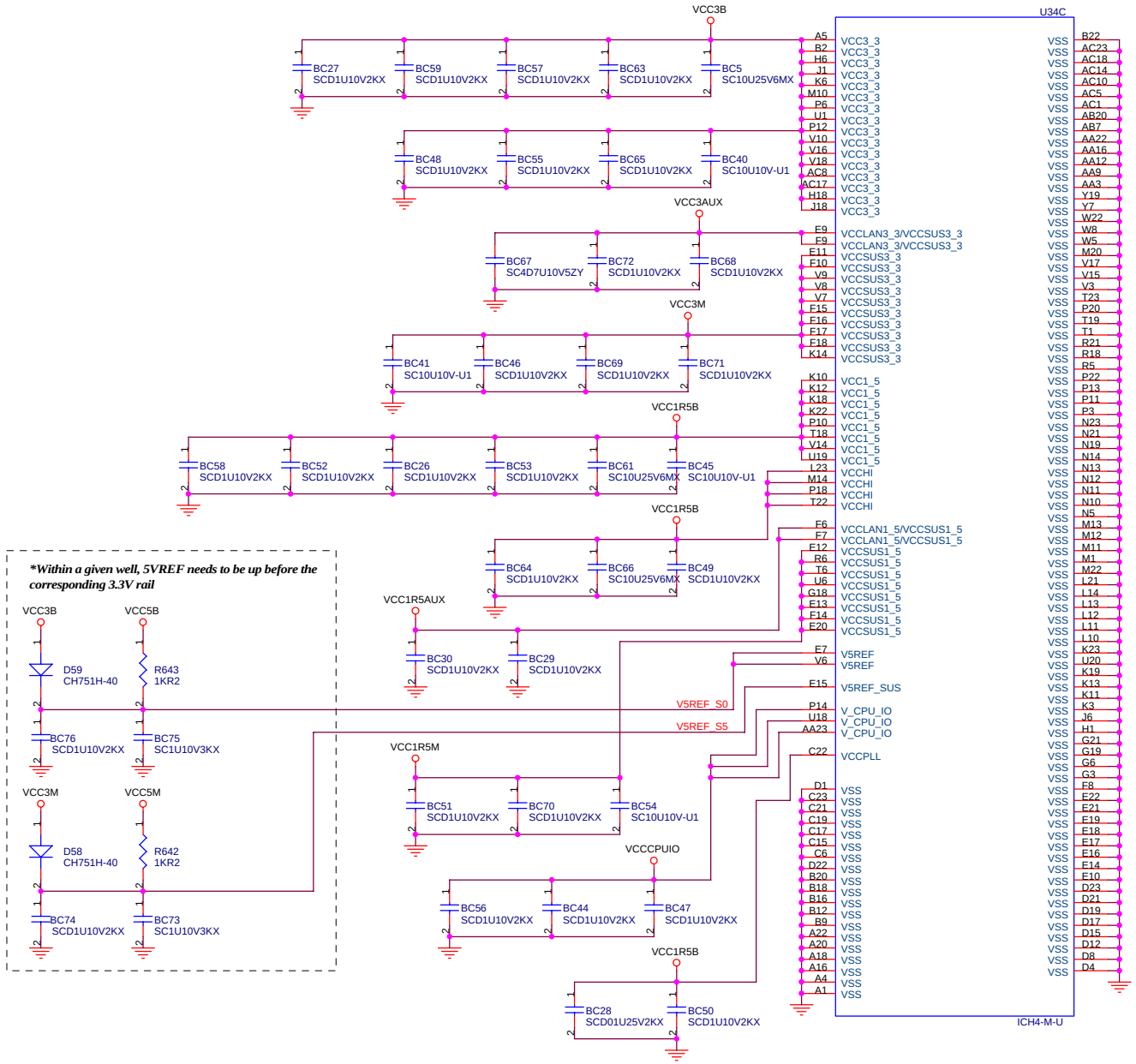
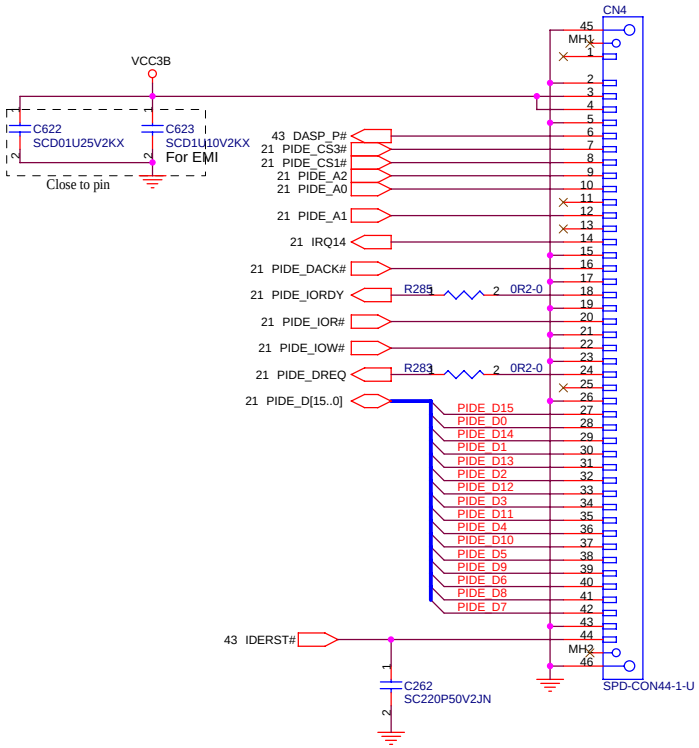
Title: ICH4-M(1/3)
Size: A3 | Document Number: S Note-1 | Rev: -2
Date: Wednesday, June 01, 2005 | Sheet 20 of 66


RTC Circuitry
LAYOUT:
MAKE PAD
ACCESSABLE
NO_ASM
RTCRST# delay
18~25ms
KDS
RESO 32.768KHZ
12P
IDE1 & IDE2
U34E
ICH4-M-U
U34B
CPU I/F
GPIO
LPC I/F
This clock is used for 8254 timers
Why?
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
ICH4-M(2/3)
S Note-1
Date: Wednesday, June 01, 2005
Sheet 21 of 66

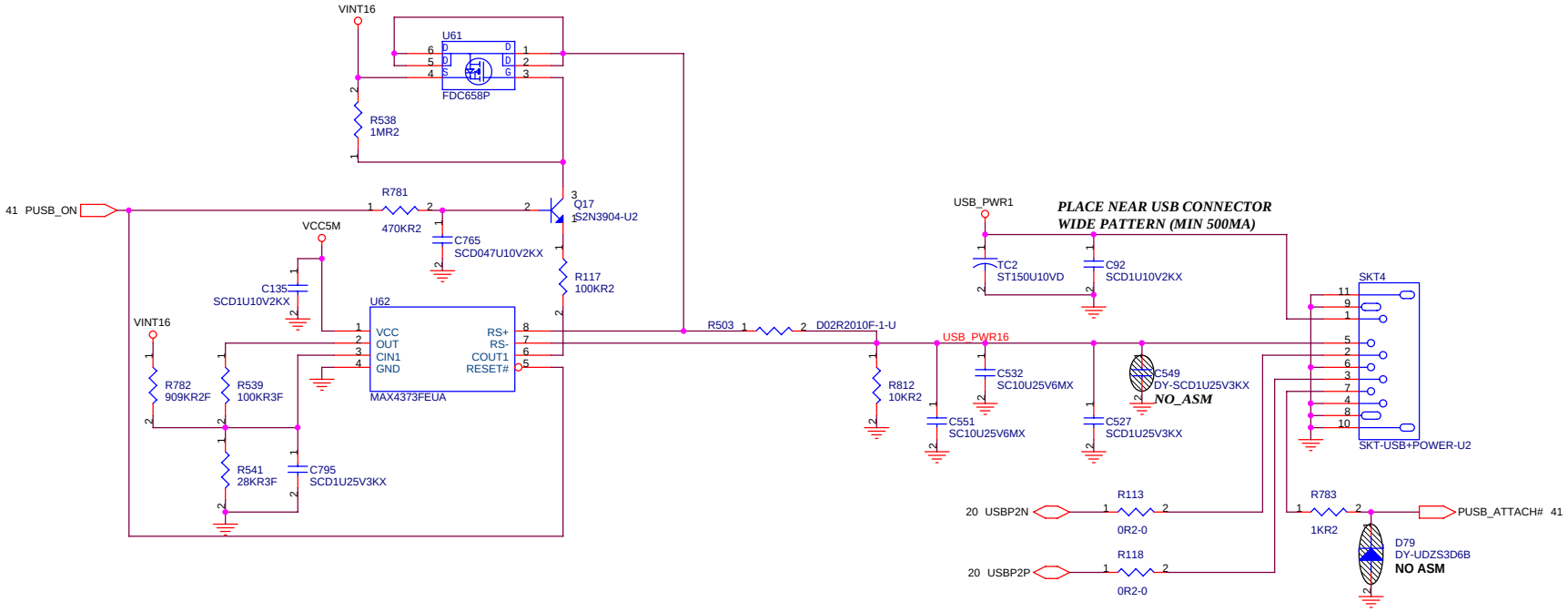


華創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***ICH4-M(3/3)***	
Size A3	Document Number ***S Note-1***	Rev ***-2***
Date: Wednesday, June 01, 2005	Sheet 22 of 66	

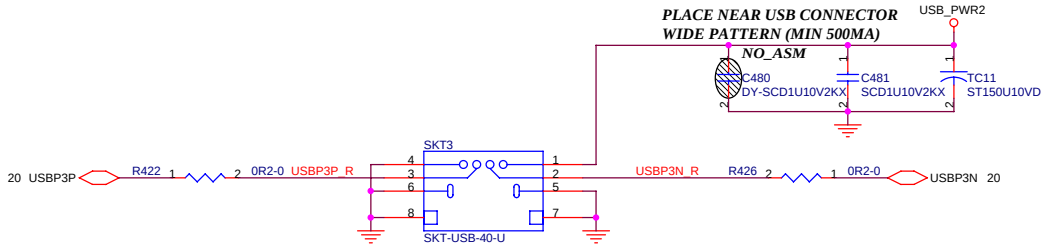


緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***HDD CONNECTOR***	
Size A3	Document Number ***S Note-1***	Rev ***-2***
Date: Wednesday, June 01, 2005	Sheet 23 of 66	

Powered USB Connector

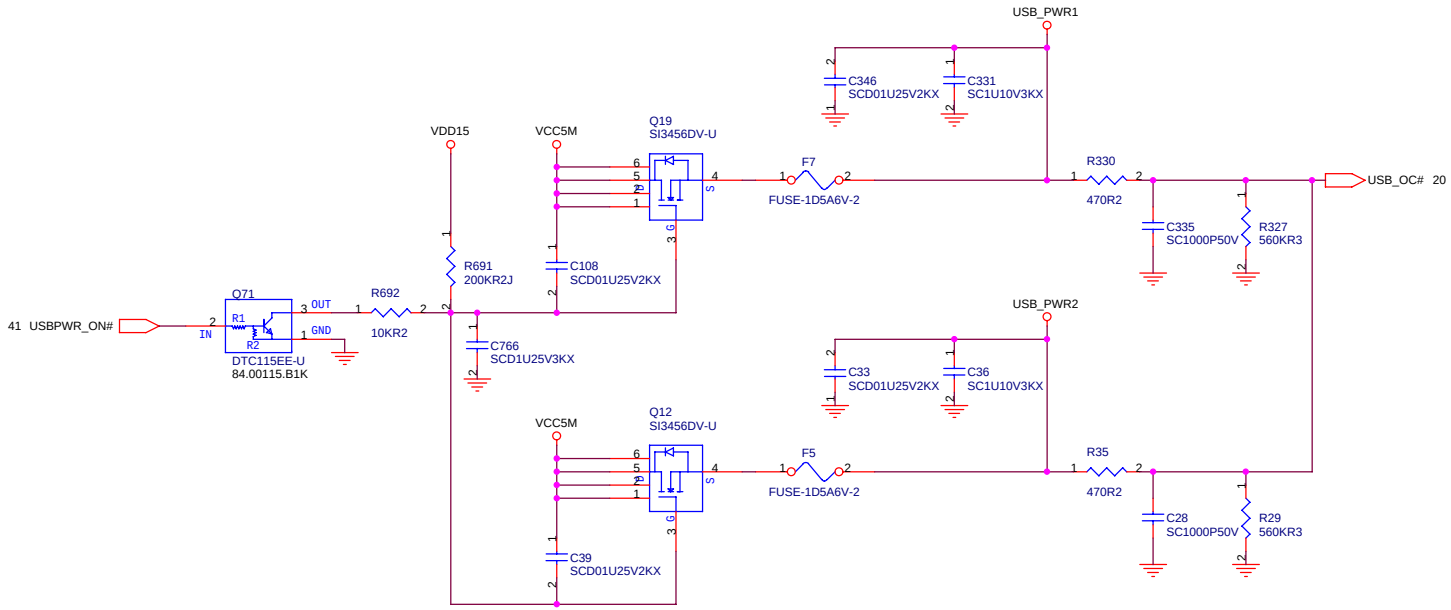


USB Connector

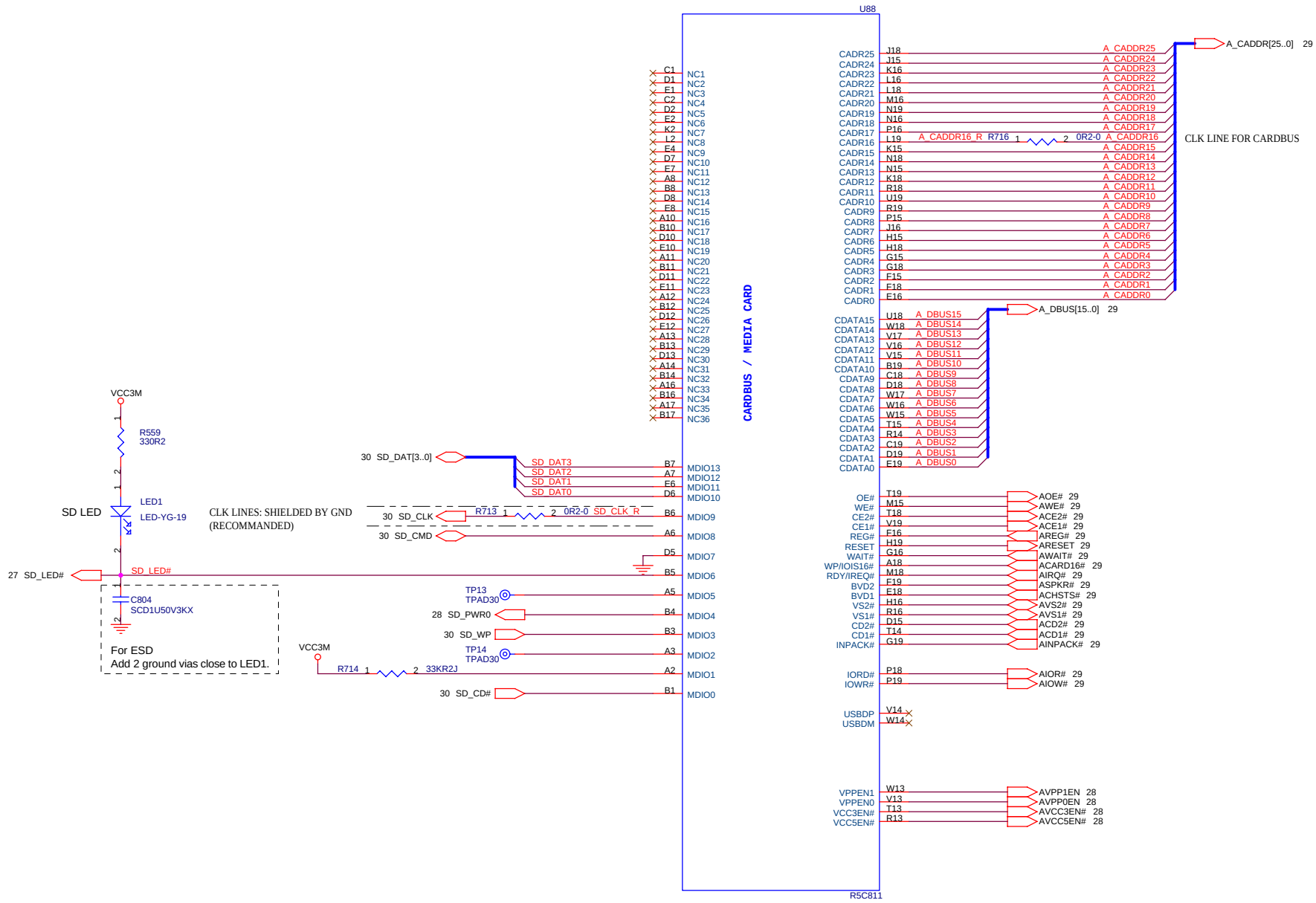


Symbol is updated.
6/13

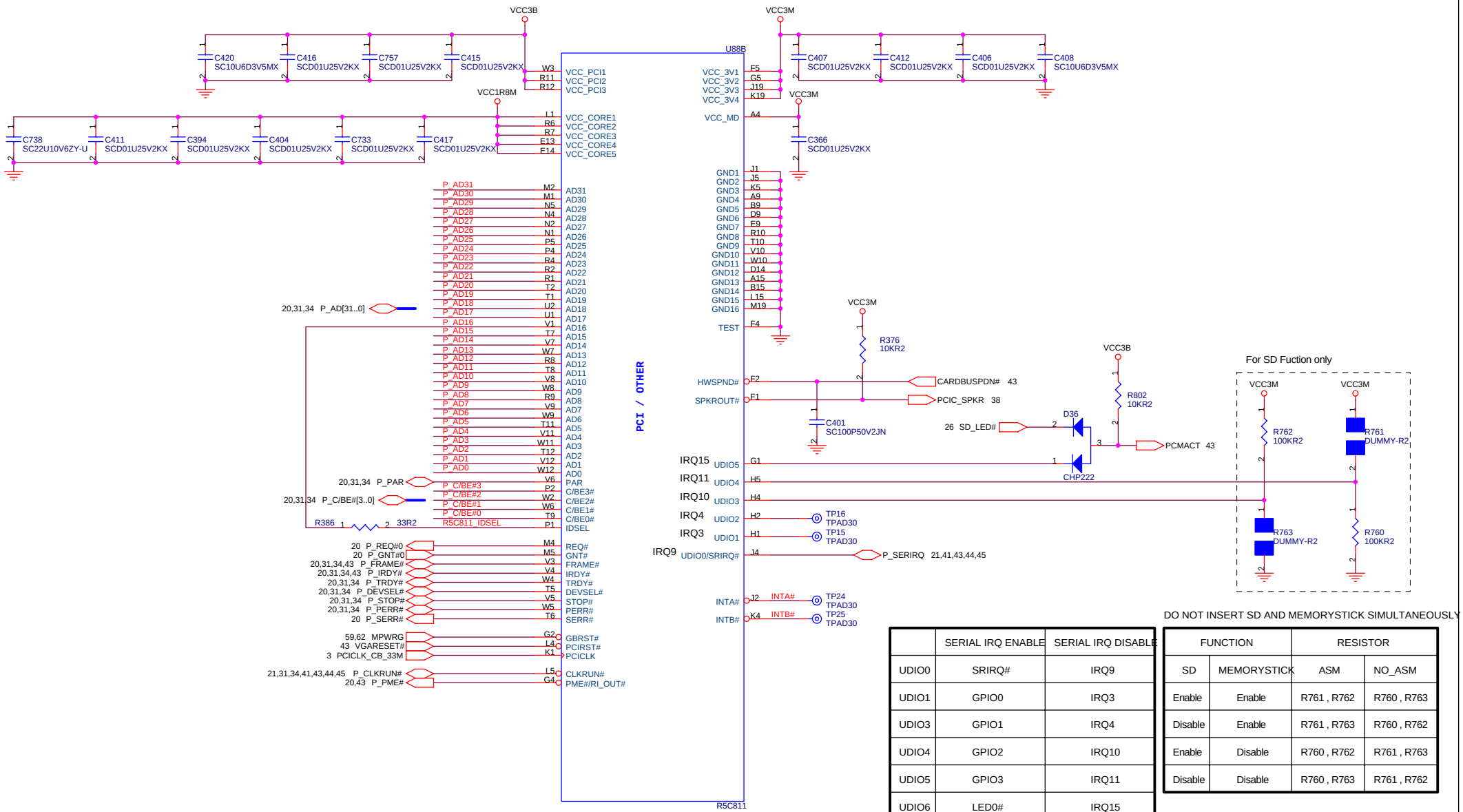
緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***USB CONNECTOR***	
Size A3	Document Number ***S Note-1***	Rev *-2*
Date: Wednesday, June 01, 2005	Sheet 24 of 66	



緯創資通 **Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: ***USB POWER***		
Size: A3	Document Number: ***S Note-1***	Rev: ***-2***
Date: Wednesday, June 01, 2005	Sheet 25 of 66	



Company	Wistron Corporation
Address	21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title	CARD BUS(1/2)
Size	A3
Document Number	S Note-1
Rev	-2
Date	Wednesday, June 01, 2005
Sheet	26 of 66



DO NOT INSERT SD AND MEMORYSTICK SIMULTANEOUSLY

	SERIAL IRQ ENABLE	SERIAL IRQ DISABLE
UDIO0	SRIRQ#	IRQ9
UDIO1	GPIO0	IRQ3
UDIO3	GPIO1	IRQ4
UDIO4	GPIO2	IRQ10
UDIO5	GPIO3	IRQ11
UDIO6	LED0#	IRQ15

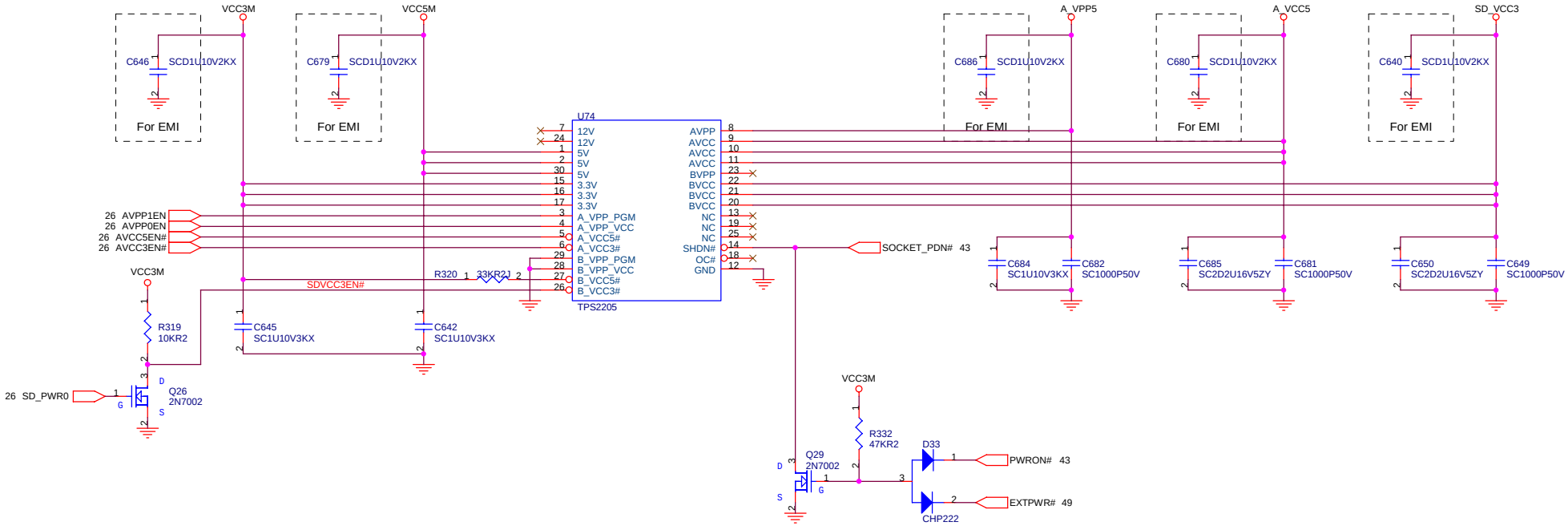
FUNCTION		RESISTOR	
SD	MEMORYSTICK	ASM	NO_ASM
Enable	Enable	R761 , R762	R760 , R763
Disable	Enable	R761 , R763	R760 , R762
Enable	Disable	R760 , R762	R761 , R763
Disable	Disable	R760 , R763	R761 , R762

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

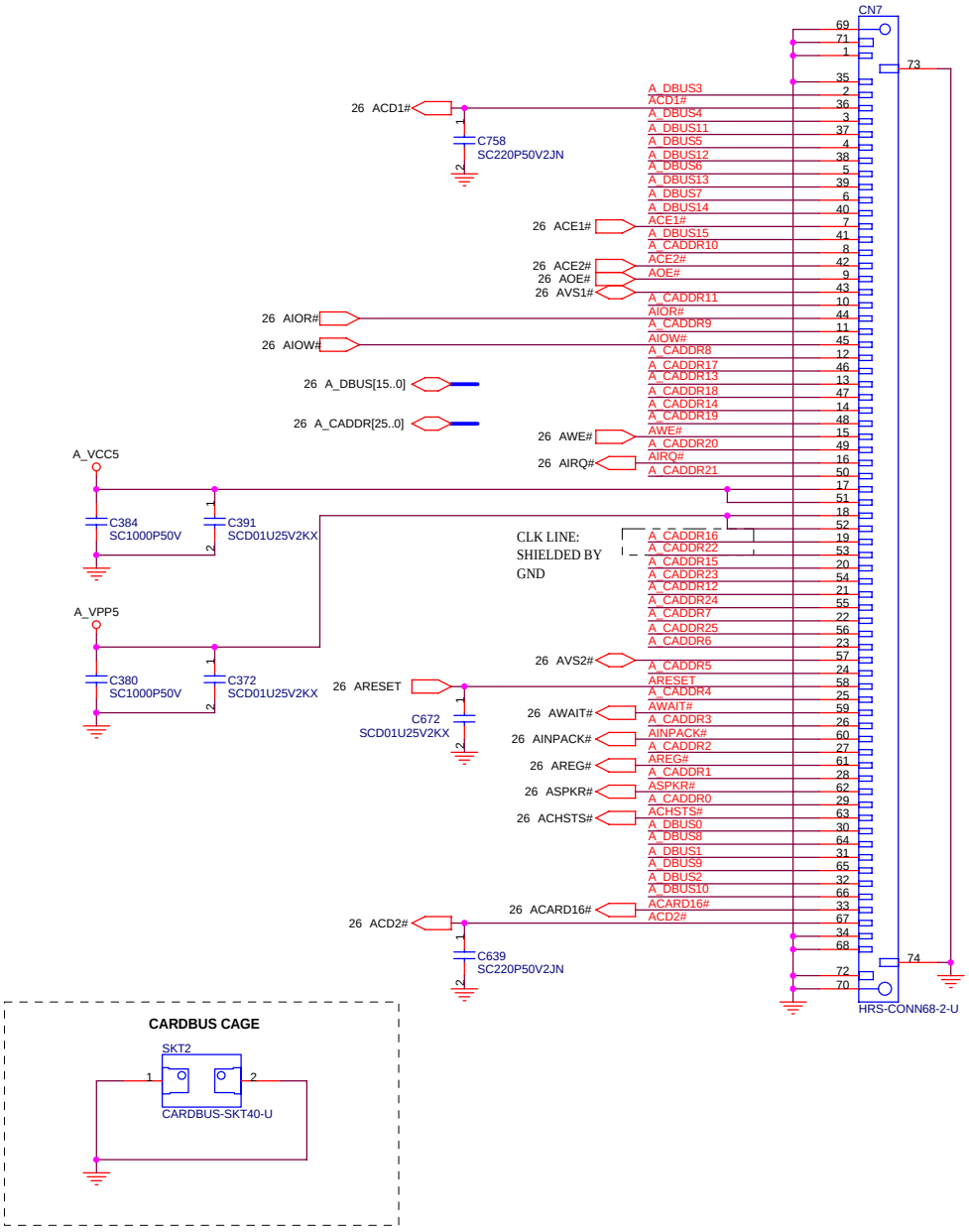
Title: CARD BUS(2/2)

Size: A3 | Document Number: S Note-1 | Rev: -2

Date: Wednesday, June 01, 2005 | Sheet 27 of 66

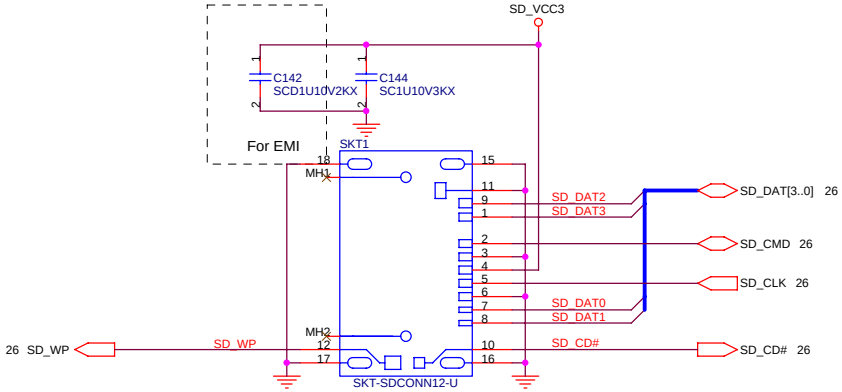


Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: *CARD BUS POWER CONTROL*		
Size: A3	Document Number: *S Note-1*	Rev: *-2*
Date: Wednesday, June 01, 2005	Sheet 28 of 66	

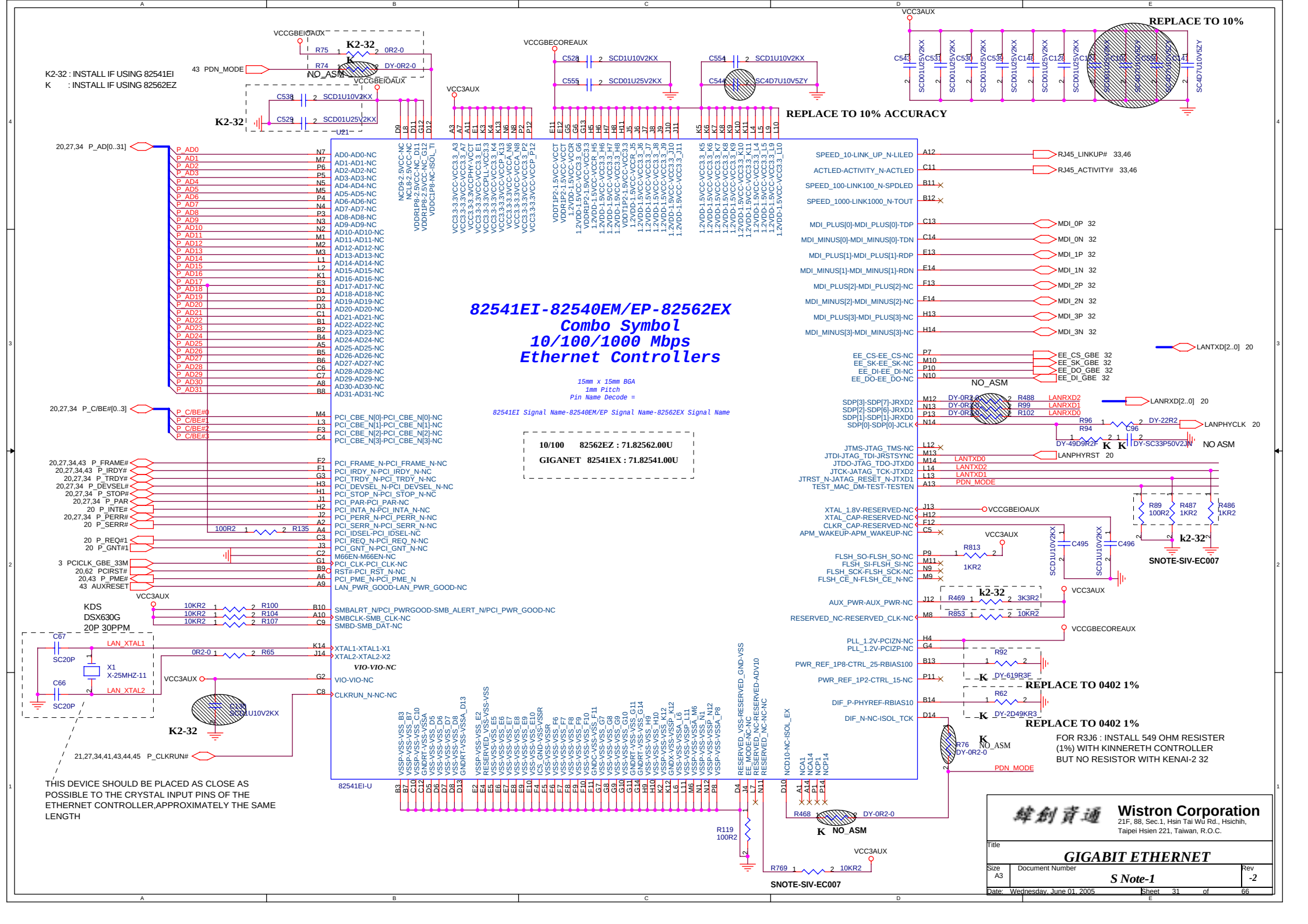


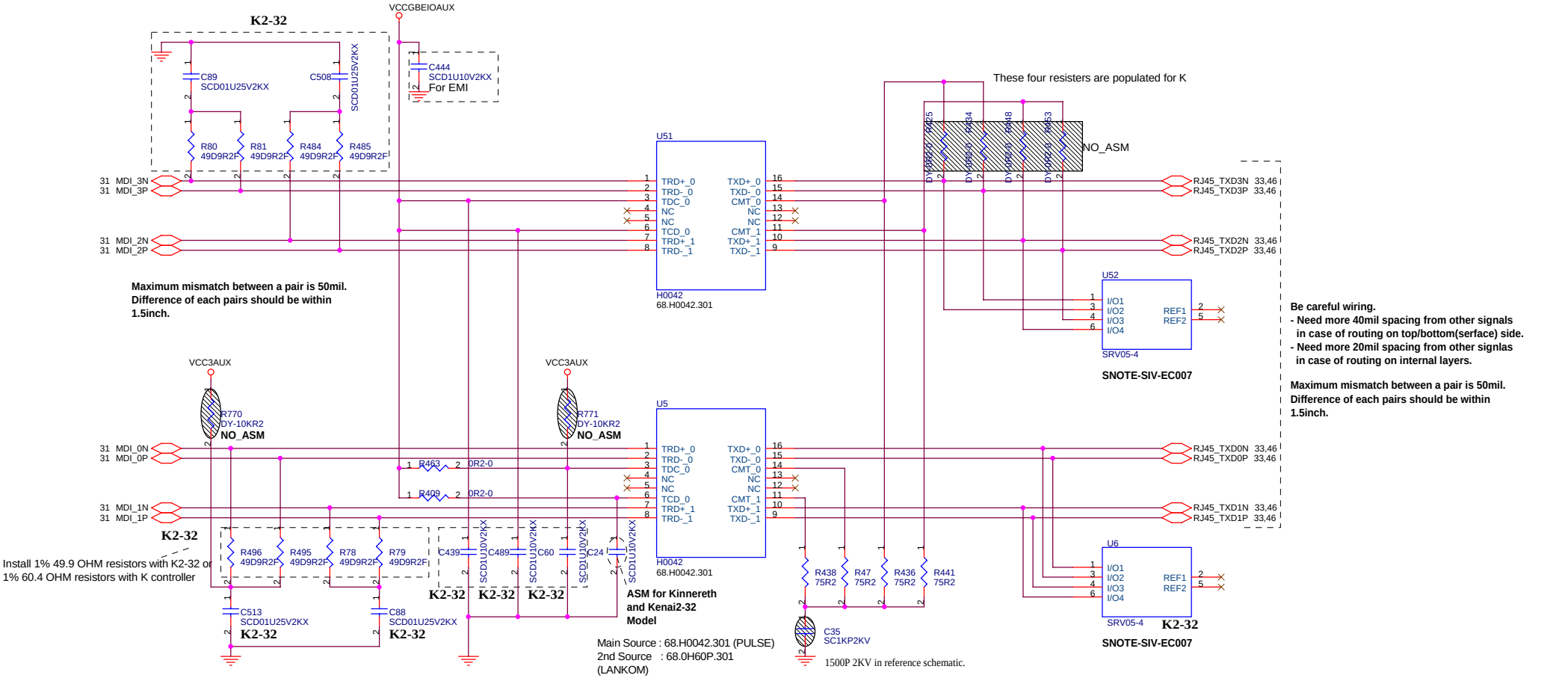
緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***CARD BUS SLOT***	
Size A3	Document Number ***S Note-1***	Rev ***-2***
Date: Wednesday, June 01, 2005	Sheet 29 of 66	

SD Slot



緯創資通 **Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: ***SD SLOT***		
Size: A3	Document Number: ***S Note-1***	Rev: ***-2***
Date: Wednesday, June 01, 2005	Sheet 30 of 66	


K2-32 : INSTALL IF USING 82541EI
K : INSTALL IF USING 82562EZ
82541EI-82540EM/EP-82562EX
Combo Symbol
10/100/1000 Mbps
Ethernet Controllers
15mm x 15mm BGA
1mm Pitch
Pin Name Decode =
82541EI Signal Name-82540EM/EP Signal Name-82562EX Signal Name
10/100 82562EZ : 71.82562.00U
GIGANET 82541EX : 71.82541.00U
REPLACE TO 10%
REPLACE TO 10% ACCURACY
REPLACE TO 0402 1%
REPLACE TO 0402 1%
FOR R3J6 : INSTALL 549 OHM RESISTER
(1%) WITH KINNERETH CONTROLLER
BUT NO RESISTOR WITH KENAI-2 32
NO_ASM
NO ASM
SNOTE-SIV-EC007
82541EI-U
KDS
DSX630G
20P 30PPM
THIS DEVICE SHOULD BE PLACED AS CLOSE AS
POSSIBLE TO THE CRYSTAL INPUT PINS OF THE
ETHERNET CONTROLLER,APPROXIMATELY THE SAME
LENGTH
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
Title
GIGABIT ETHERNET
Size A3
Document Number
S Note-1
Rev -2
Date: Wednesday, June 01, 2005
Sheet 31 of 66



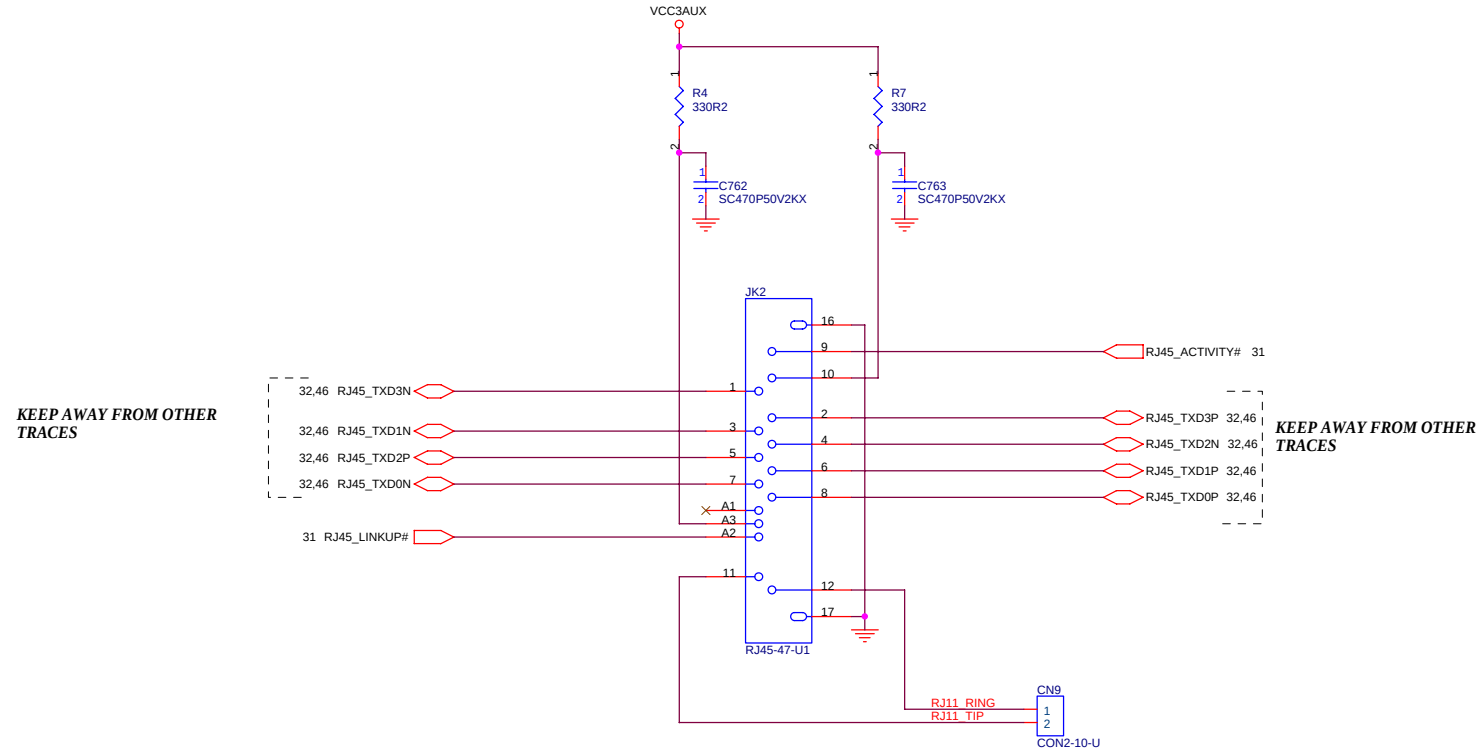
	KENAI2-32(K2-32)	KINNERETH-R(K)
U51	INSTALL	**NOASM**
U5	INSTALL	INSTALL
U52	INSTALL	**NOASM**
U6	INSTALL	INSTALL

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

Title: ***ETHERNET MAGNETICS***

Size: A3 | Document Number: ***S Note-1*** | Rev: *-2*

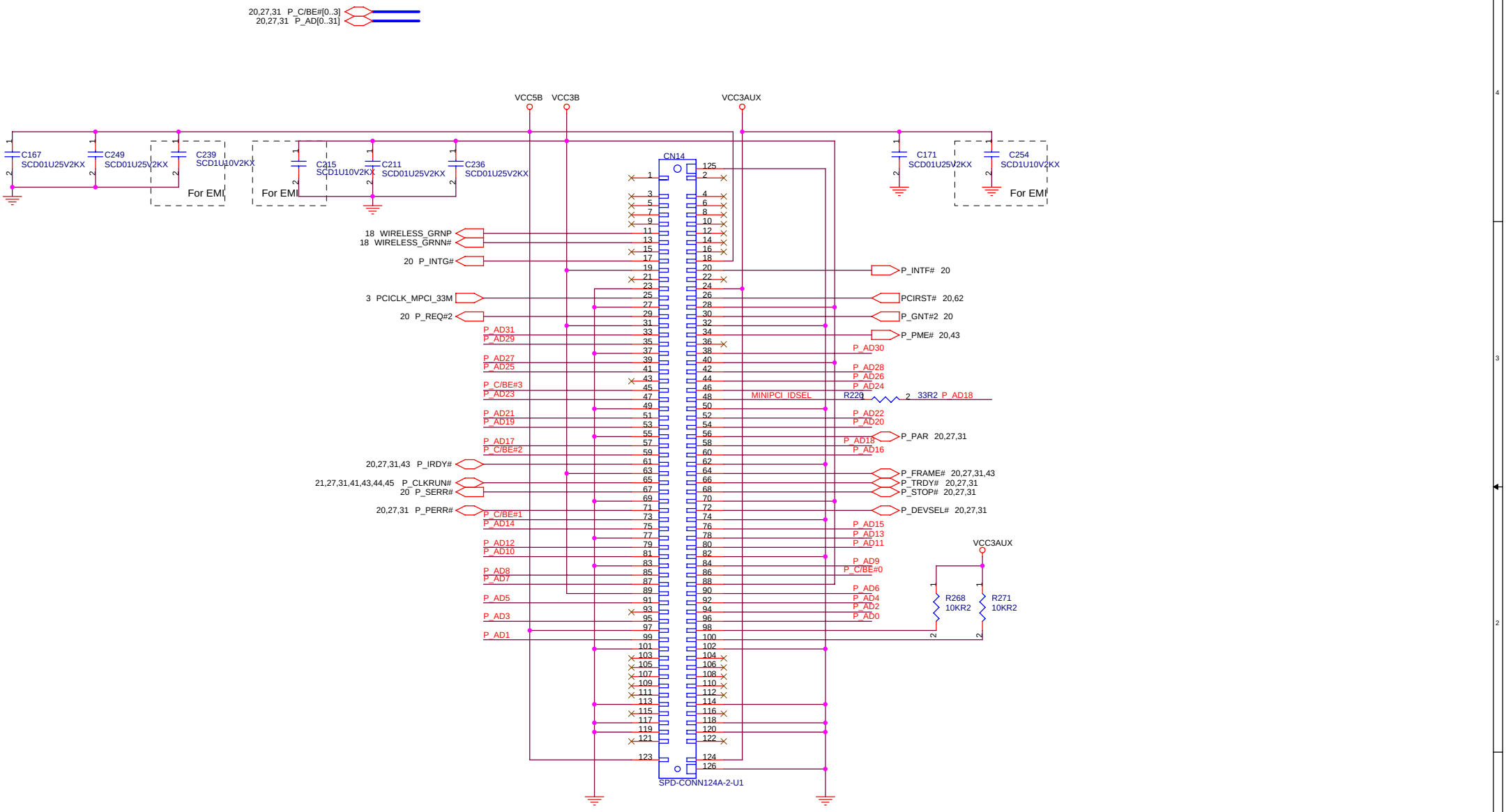
Date: Wednesday, June 01, 2005 | Sheet 32 of 66



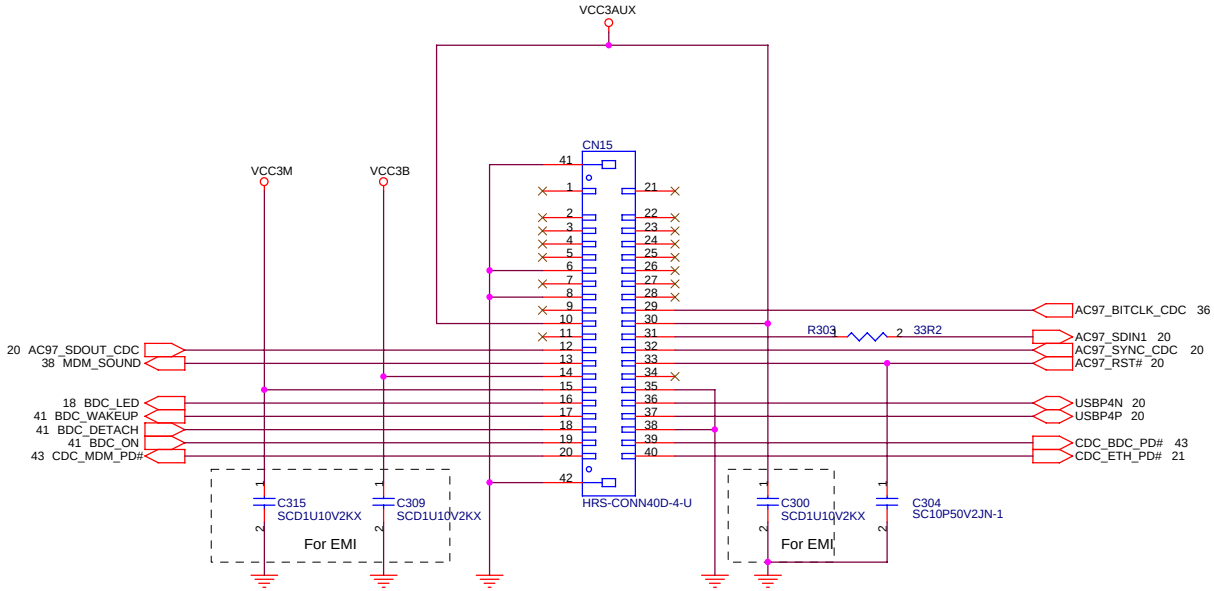
KEEP AWAY FROM OTHER TRACES

KEEP AWAY FROM OTHER TRACES

緯創資通 **Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: ***RJ11/RJ45 CONN***		
Size: A3	Document Number: ***S Note-1***	Rev: ***-2***
Date: Wednesday, June 01, 2005	Sheet 33 of 66	



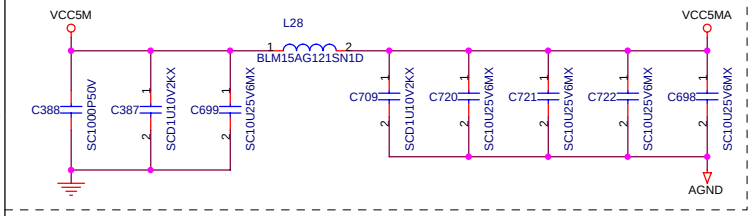
Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: *MINI PCI CONN*		
Size: A3	Document Number: *S Note-1*	Rev: *-2*
Date: Wednesday, June 01, 2005	Sheet 34 of 66	

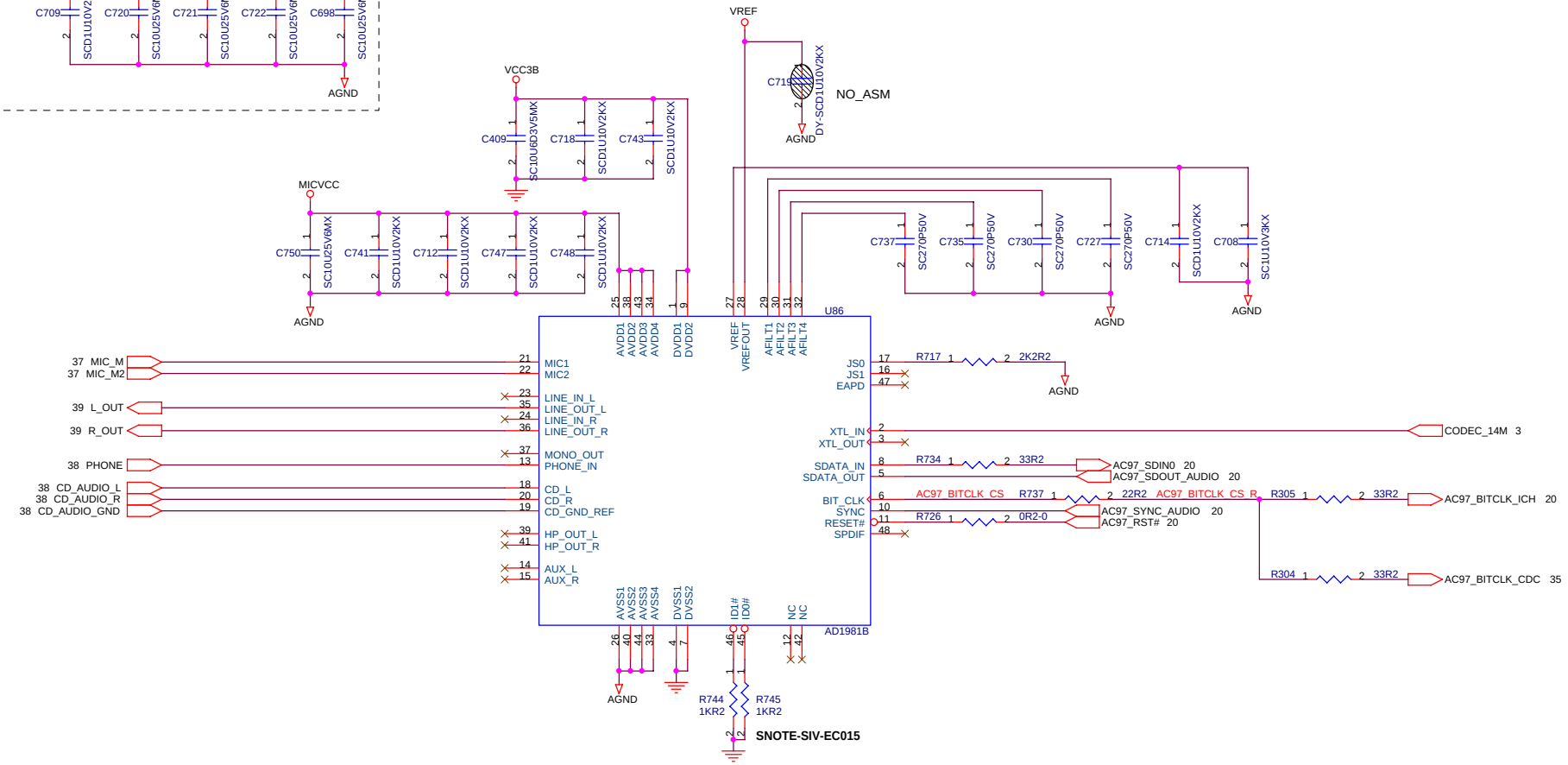


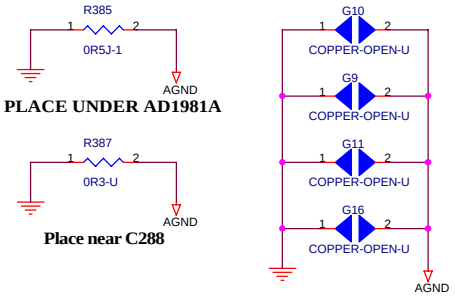
Part Number is updated to 20.F0430.040
New connector is going to rearrange the pin number.

緯創資通 **Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: ***CDC CONNECTOR***		
Size: A3	Document Number: ***S Note-1***	Rev: ***-2***
Date: Wednesday, June 01, 2005	Sheet 35 of 66	

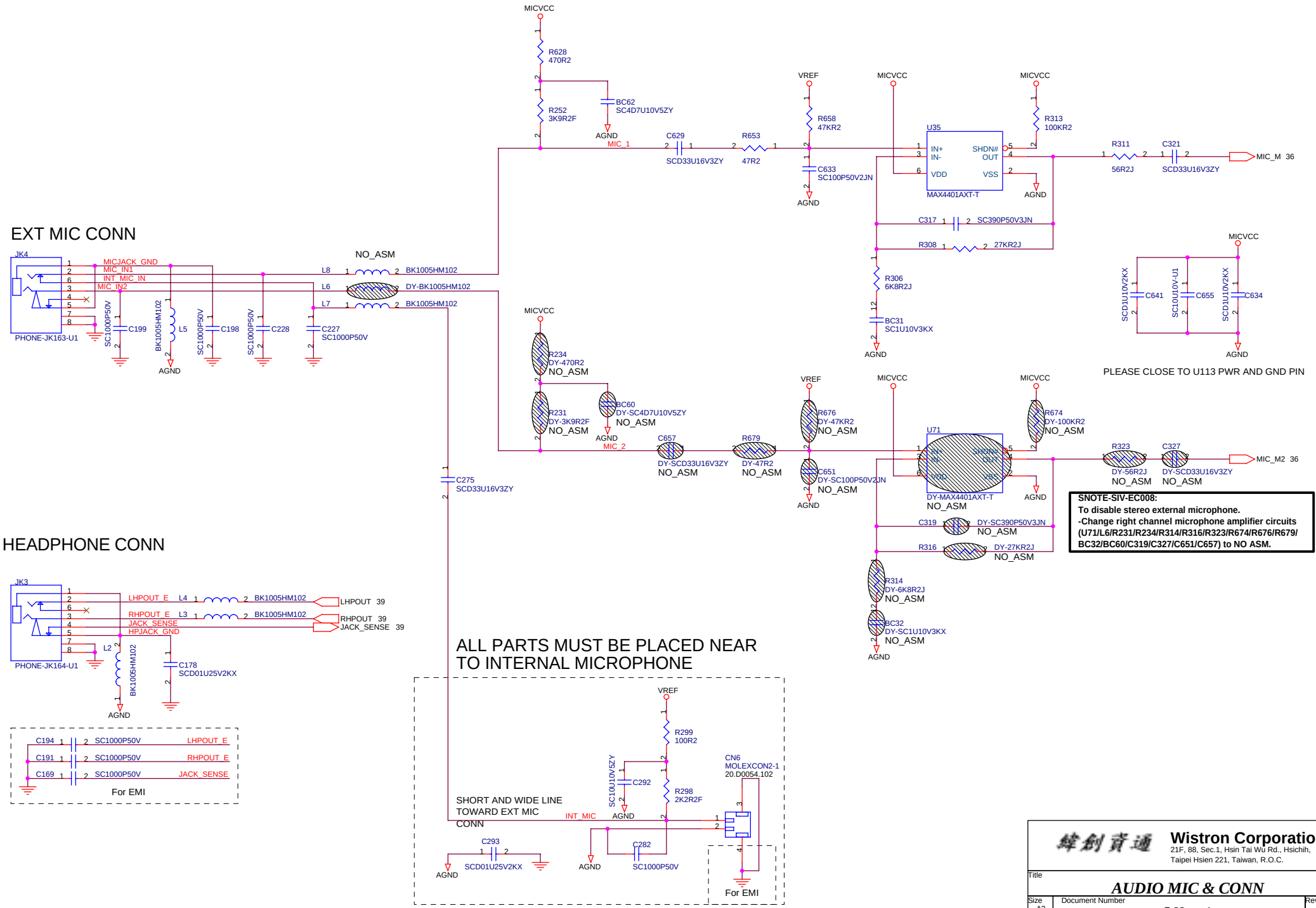
VCC5MA



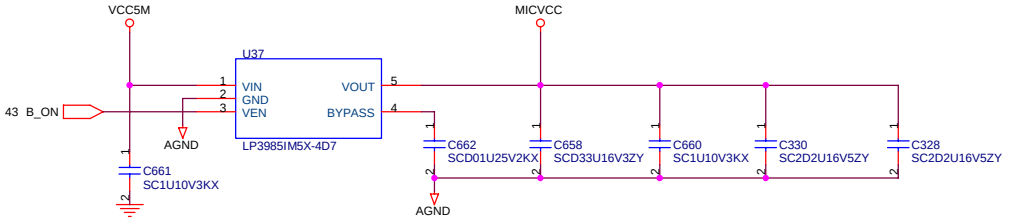


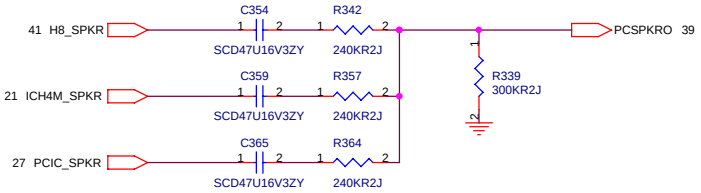


華創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***AUDIO 1981B***	
Size A3	Document Number ***S Note-1***	Rev *-2*
Date: Wednesday, June 01, 2005	Sheet 36 of 66	

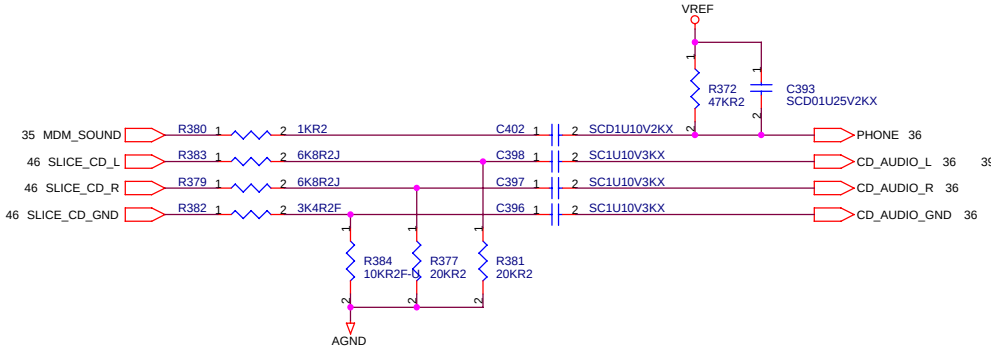


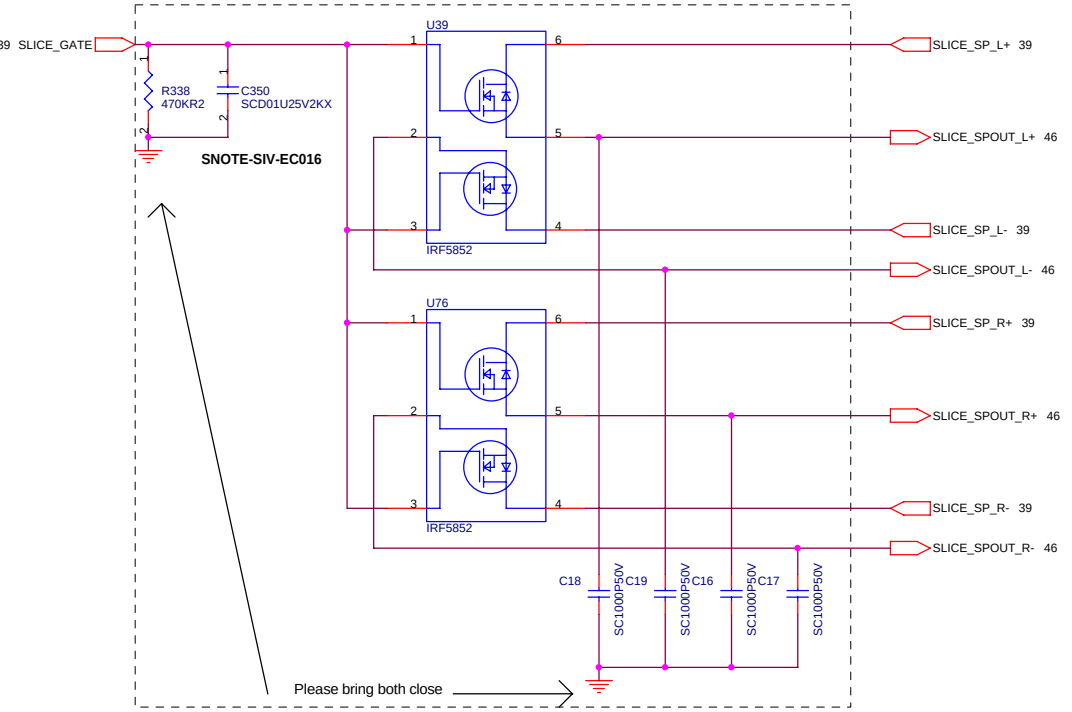
Wistron Corporation		
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title	AUDIO MIC & CONN	
Size A3	Document Number S Note-1	Rev -2
Date: Wednesday, June 01, 2005	Sheet 37 of 66	





SNOTE-SIV-EC016





Please put these components close to docking side

緯創資通 **Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: ***AUDIO MISC***		
Size: A3	Document Number: ***S Note-1***	Rev: ***-2***
Date: Wednesday, June 01, 2005	Sheet 38 of 66	

When G1=1 / G2=X HP=3dB
When G1=0 / G2=0 SP=6dB HP=0dB
When G1=0 / G2=1 SP=9dB HP=0dB

When G1=1 / G2=X HP=3dB
When G1=0 / G2=0 SP=6dB HP=0dB
When G1=0 / G2=1 SP=9dB HP=0dB

120ohm 0402 500mA

CPVDD_HPVDD L13 VCC3M

Wide Trace

C701 SC22U10V6ZY-U C700 SCD1U10V2KX C358 SCD1U10V2KX C363 SCD01U25V2KX

BLM15AG121SN1D

AGND

Place these capacitors as close Amplifier VDD pins

VCC5MA Wide Trace

C687 SC22U10V6ZY-U C668 SC22U10V6ZY-U C353 SCD1U10V2KX

C348 SCD047U16V3KX PCSPKRO 38

C689 SC1U10V3KX

U78

36 L_OUT
36 R_OUT
38 SLICE_SP_R+
38 SLICE_SP_R-
38 SLICE_SP_L+
38 SLICE_SP_L-

C670 C337 SC4D7U10V5ZY MAX9750_INL MAX9750_INR

INL INR OUTR+ OUTR- OUTL+ OUTL- C1N C1P

VDD CPVDD HPVDD PVDDR PVDDL BEEP VBIAS

GAIN1 GAIN2 VOL SHDN# HPL HPR HPS

CPVSS VSS PGNDL PGNDR CPGND GND GND

MAX9750CETI

R698 100KR2 SLICE_SPK_EN# 41

R720 4K7R2 R697 27KR2J AUDIO_VOLUME 41 MUTE# 41

C347 SC1U10V3KX C669 SCD01U25V2KX

SC33P50V2JN C692 C696 C352 C355

Please place close to the AMP

C707 SC1U10V3ZY

R368 68D1R3F LHPOUT 37

R369 68D1R3F RHPOUT 37

Wide Trace 20mils

C375 SC1U10V3ZY C376 SC1U10V3ZY CPVDD_HPVDD Wide Trace

VCC5MA R337 100KR2

Q32 DTC115EE-U 84.00115.B1K

R359 47KR2 SPK_MUTE 41 Q34 2N7002

JACK_SENSE 37

D82 DY-WBAV70T NO_ASM

Q88 DY-2N7002 NO_ASM

System Speaker CONN

CN8 MLXCON2

U87 IRF5852

R724 R729 0R2-0 0R2-0

C724 C713 SC1000P50V

VDD15 R758 330KR2 R759 470KR2 C752 SC1000P50V

Q75 2N7002

R757 330KR2 SLICE_GATE 38

Q76 2N7002 SLICE_ON# 41

Please bring both close

Please put these components to close Speaker CONN

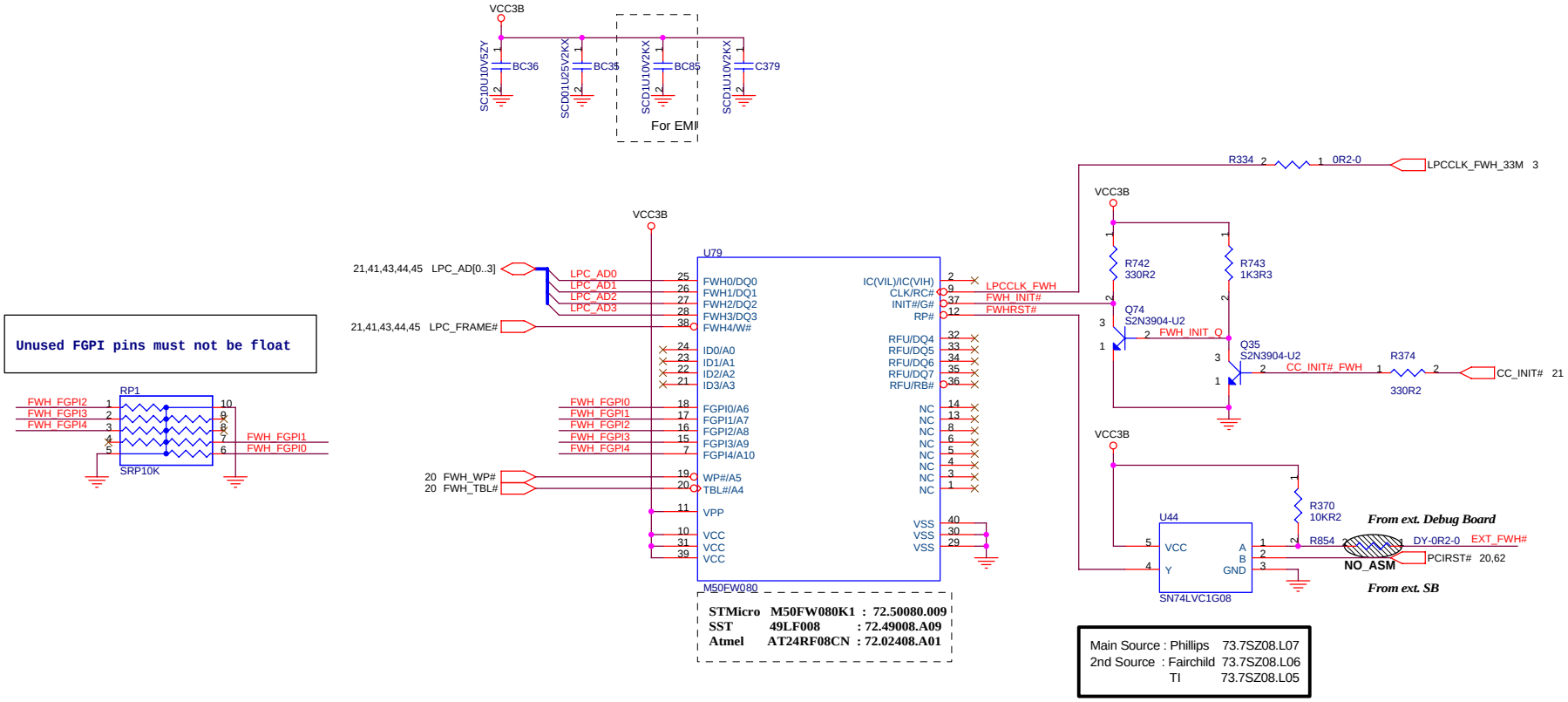
For EMI

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

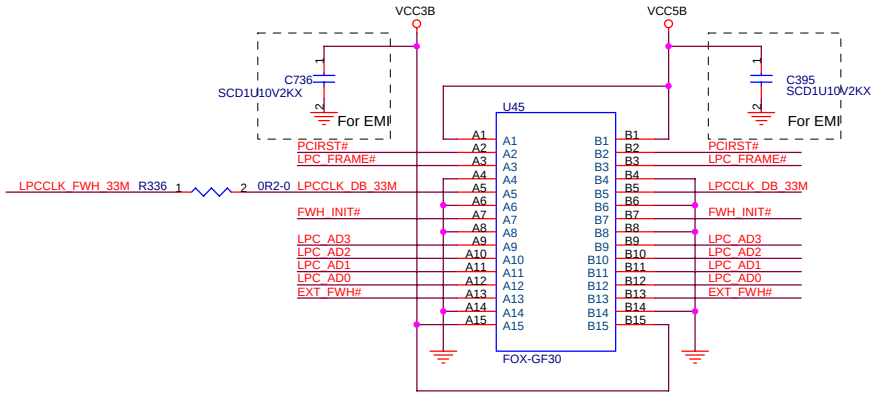
Title: AUDIO AMP MAX9750

Size: A3 Document Number: S Note-1 Rev: -2

Date: Wednesday, June 01, 2005 Sheet 39 of 66



Golden Finger for Debug Board



TOP VIEW

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

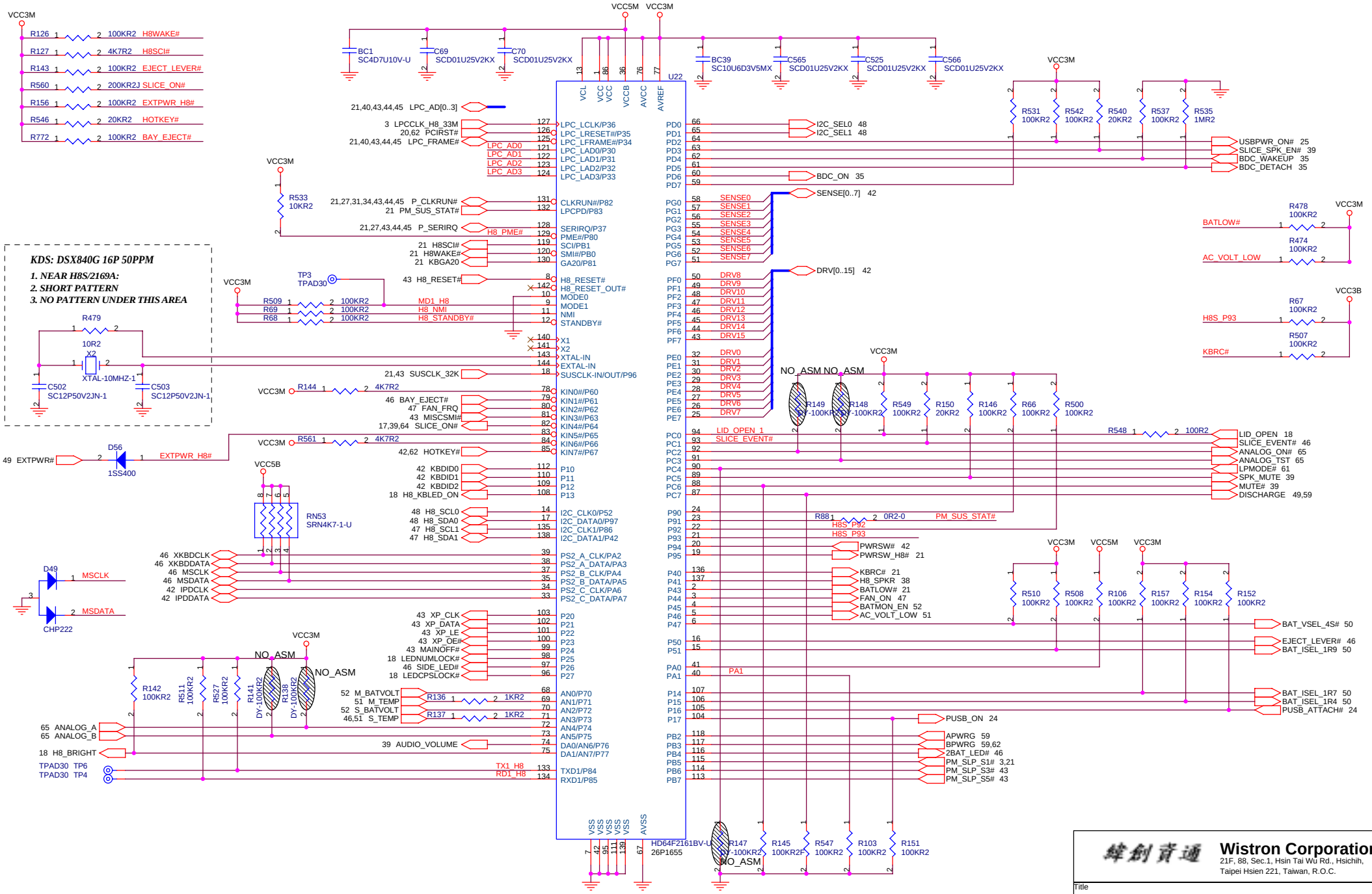
(BOTTOM VIEW)

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

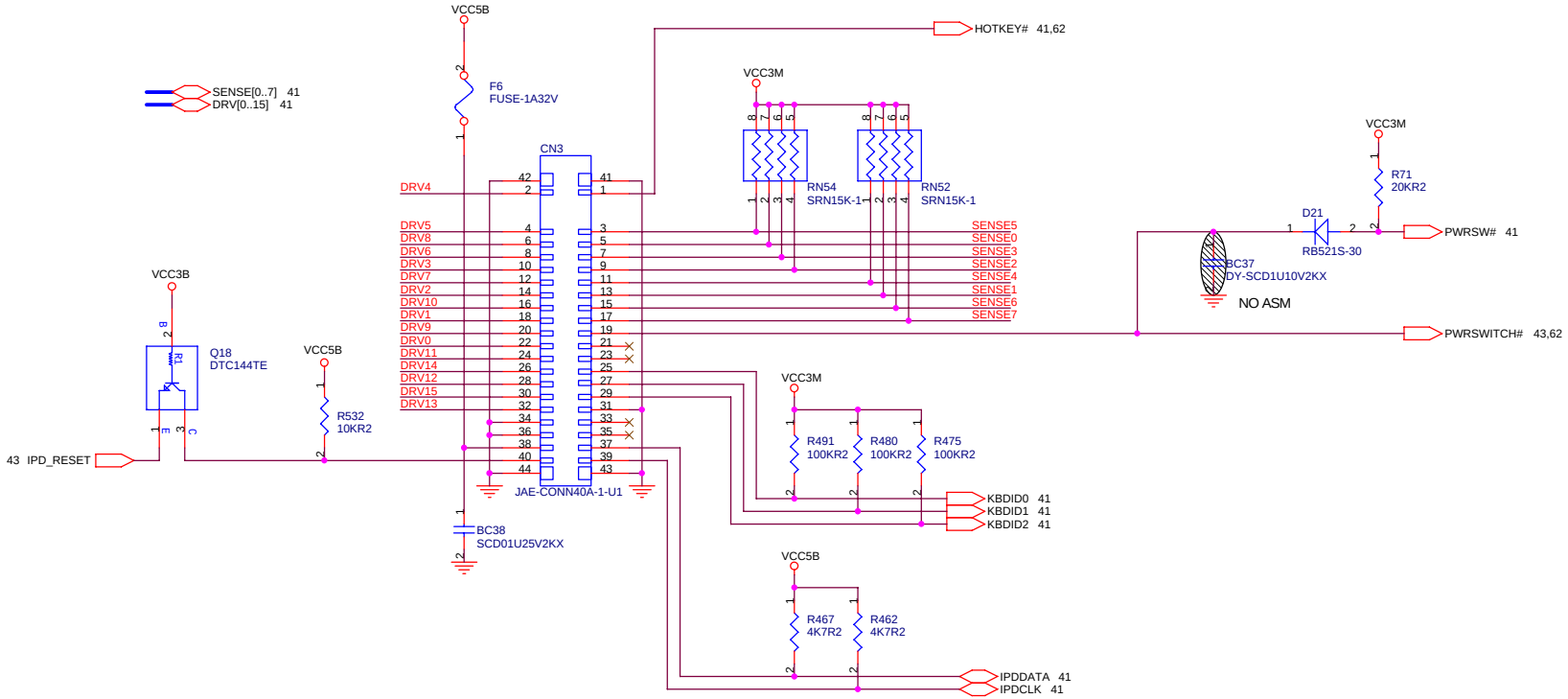
Title: ***FWH & Debug Board CONN***

Size: A3 | Document Number: ***S Note-1*** | Rev: ***-2***

Date: Wednesday, June 01, 2005 | Sheet 40 of 66


KDS: DSX840G 16P 50PPM
1. NEAR H8S/2169A:
2. SHORT PATTERN
3. NO PATTERN UNDER THIS AREA
U22
HD64F2161BV-U
26P1655
NO_ASM
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
Title
H8S/2161B
Size
A3
Document Number
S Note-1
Rev
-2
Date: Wednesday, June 01, 2005
Sheet 41 of 66

Keyboard Connector

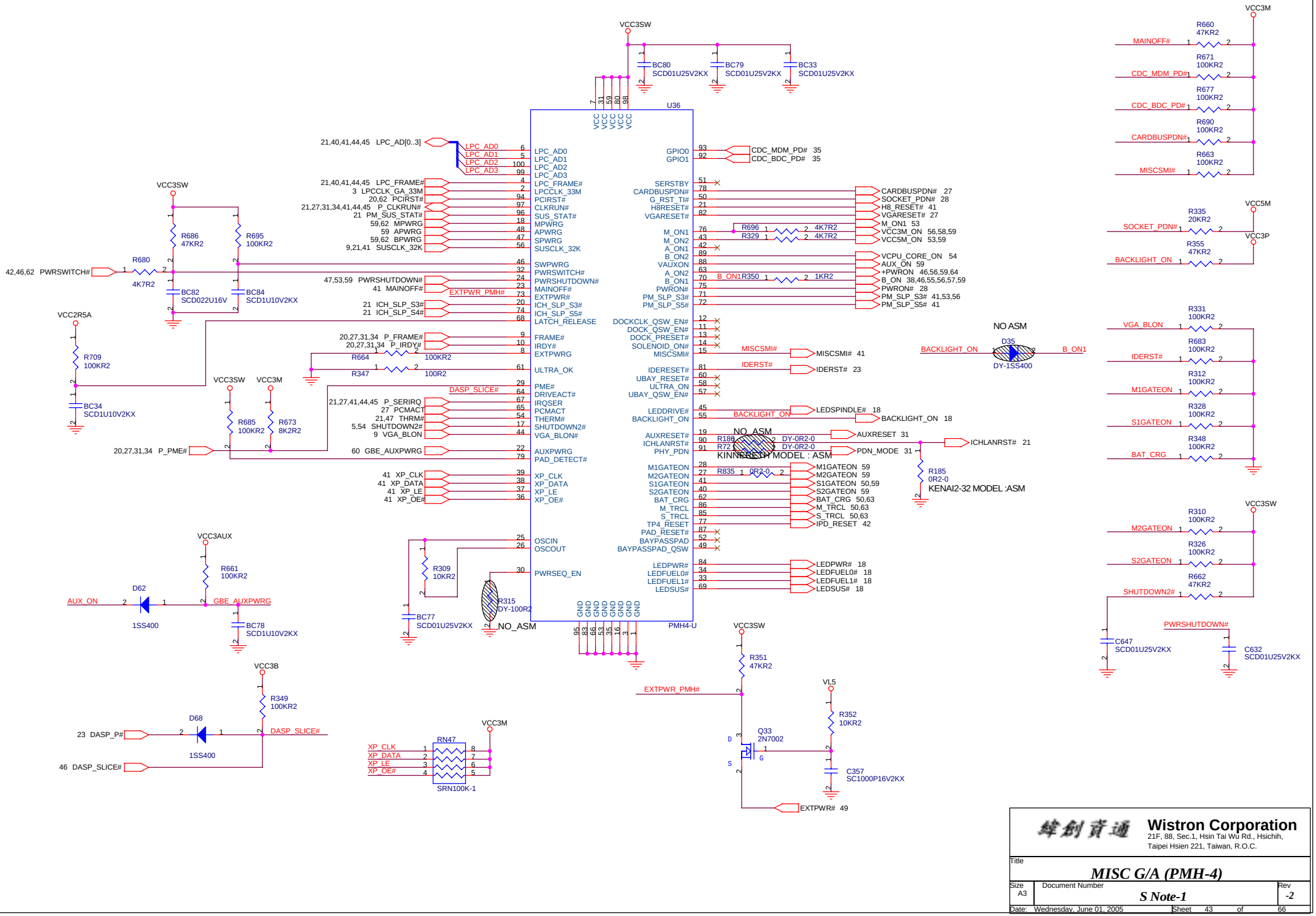


HOTKEY# **IPDCLK**

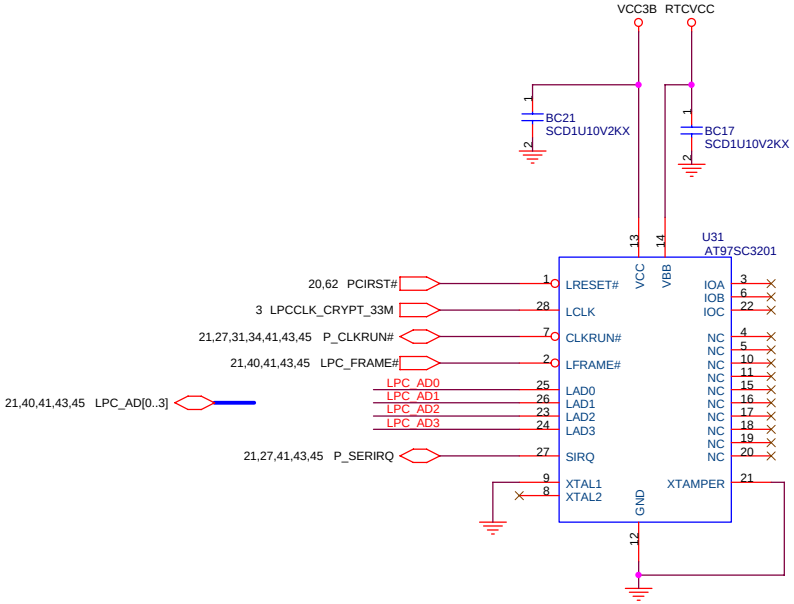
DRV4 **to R425/Q18**

Keyboard Connector Top View

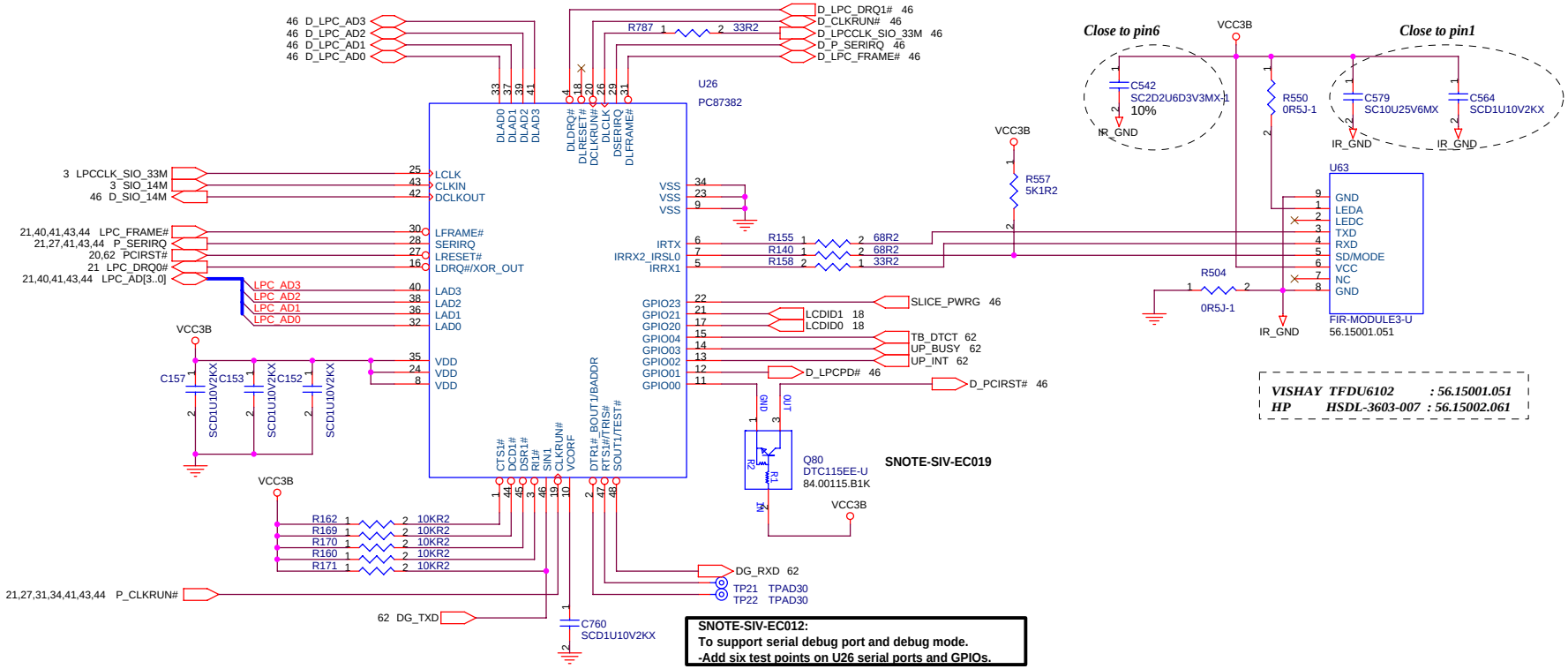
緯創資通 **Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: ***KEYBOARD CONN***		
Size: A3	Document Number: ***S Note-1***	Rev: ***-2***
Date: Wednesday, June 01, 2005	Sheet 42 of 66	



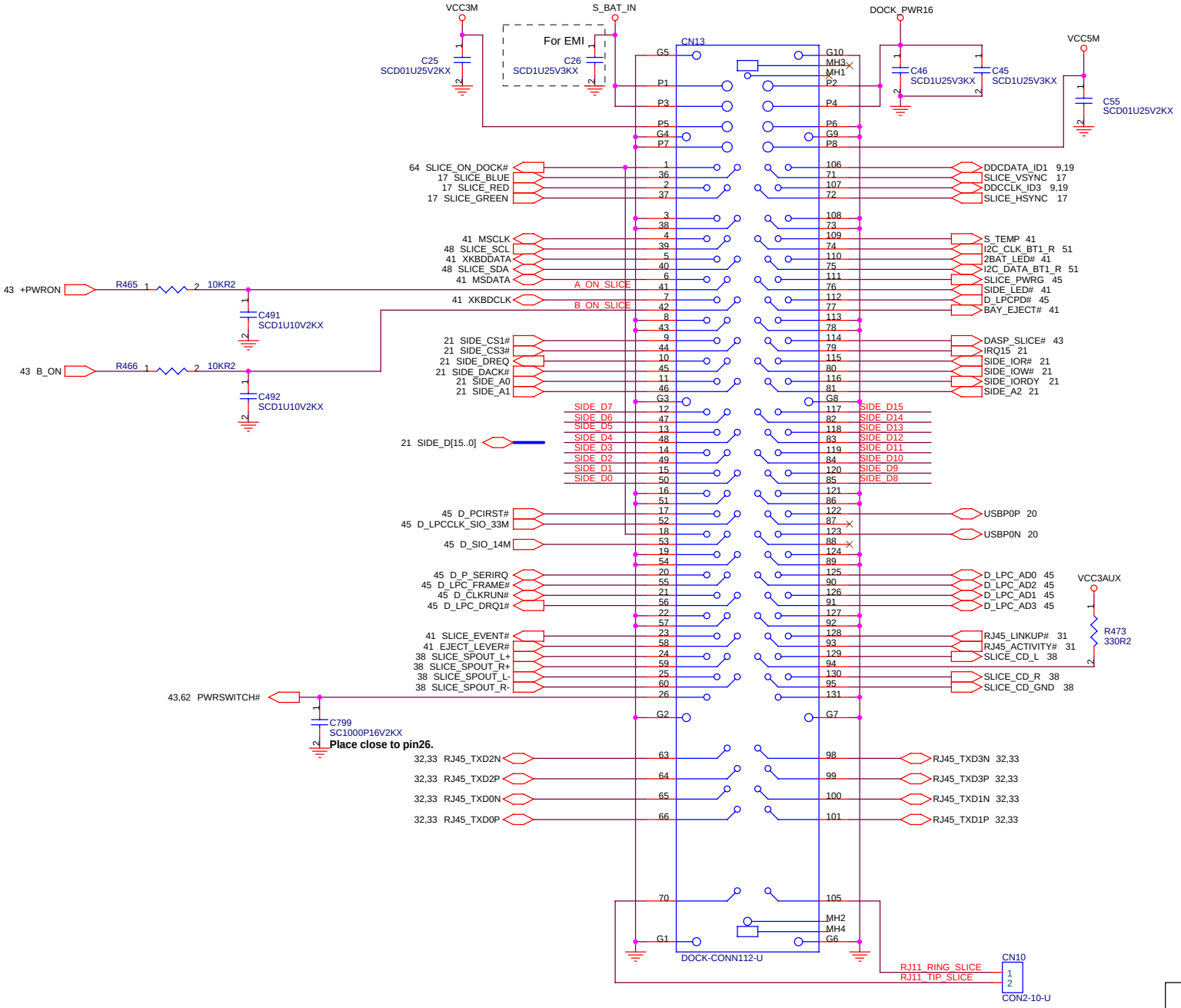
Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title	*MISC G/A (PMH-4)*	
Size A3	Document Number *S Note-1*	Rev *-2*
Date: Wednesday, June 01, 2005	Sheet 43 of 66	



緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***TCPA CRYPTO-3***	
Size A3	Document Number ***S Note-1***	Rev ***-2***
Date: Wednesday, June 01, 2005	Sheet 44 of 66	



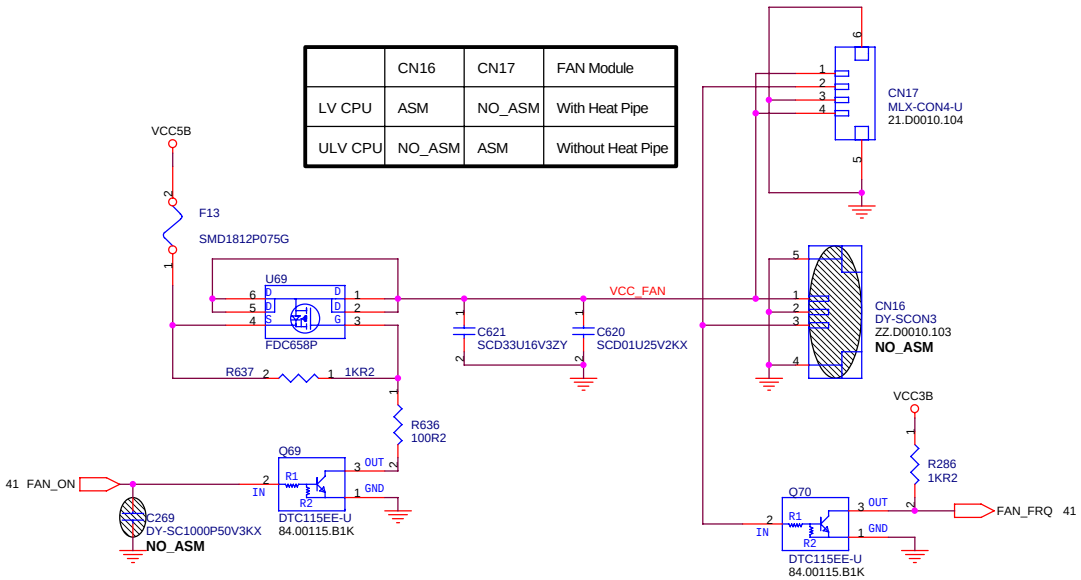
Wistron Corporation	21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title	SIO NS87382
Size: A3	Document Number: S Note-1
Rev: -2	
Date: Wednesday, June 01, 2005	Sheet 45 of 66



Wistron Corporation	21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title	*SLICE CONNECTOR*
Size A3	Document Number *S Note-1* Rev *-2*
Date: Wednesday, June 01, 2005	Sheet 46 of 66

Fan Power Control

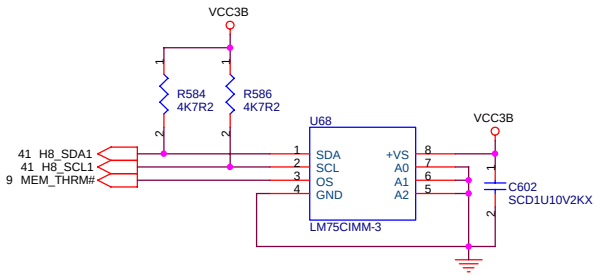
	CN16	CN17	FAN Module
LV CPU	ASM	NO_ASM	With Heat Pipe
ULV CPU	NO_ASM	ASM	Without Heat Pipe



Thermal Sensor LM75 for DDR module

(For DDR throttling implementation)

PLACE AT DDR SYSTEM MEMORY AREA



H8 I2C Bus 1 ADDRESS : 48H

Main Source : 74.00075.0B9 (NS)
2nd Source : 74.00075.CB1(MAXIM)
74.07416.0B9 (ADI)

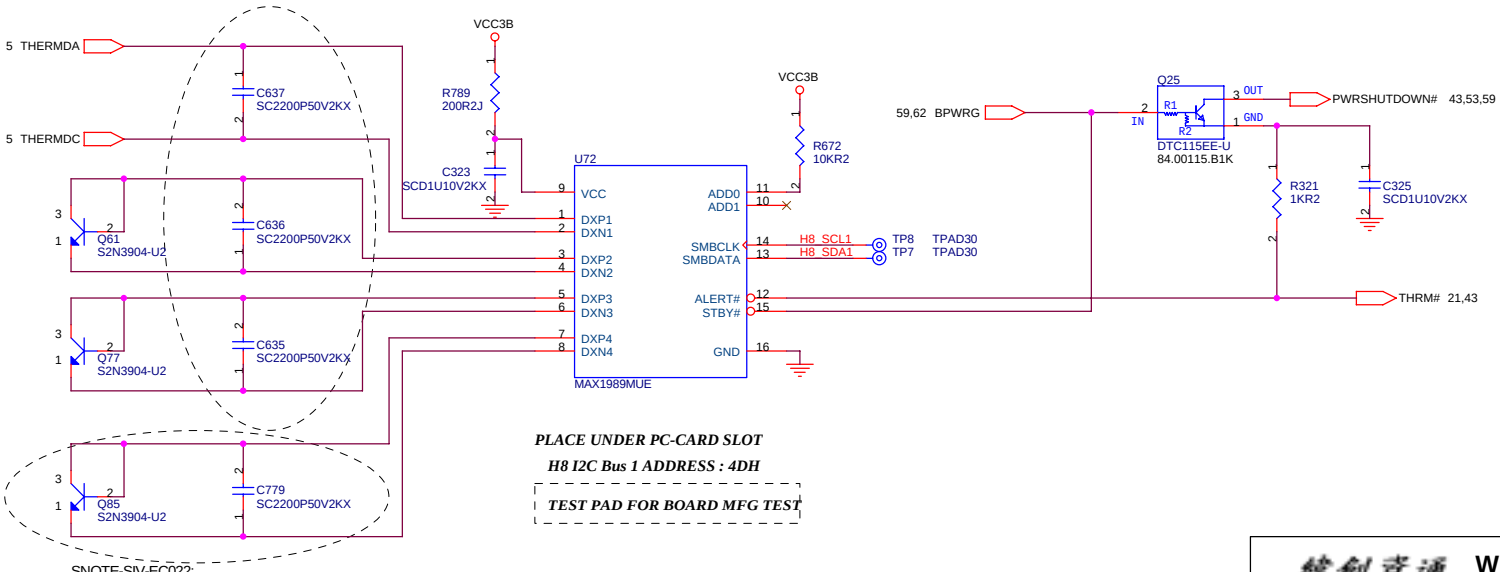
THESE CAPS MUST BE PLACED AS CLOSE AS POSSIBLE TO MAX1989

TO CPU DIE

PLACE UNDER DIMM

PLACE UNDER PALM REST

Reserved



PLACE UNDER PC-CARD SLOT

H8 I2C Bus 1 ADDRESS : 4DH

TEST PAD FOR BOARD MFG TEST

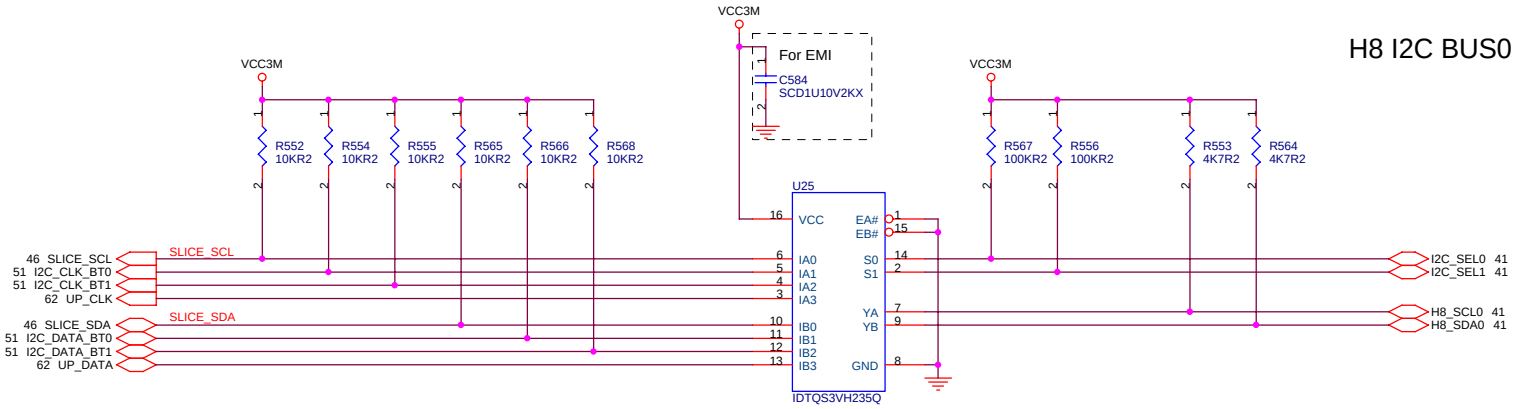
SNOTE-SIV-EC022:
Move near Analog parts.

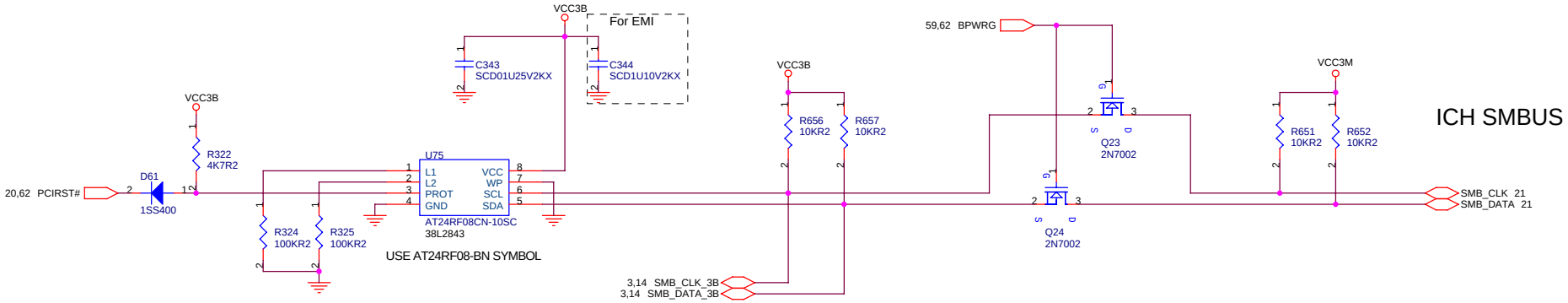
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **FAN & THERMAL SENSOR**

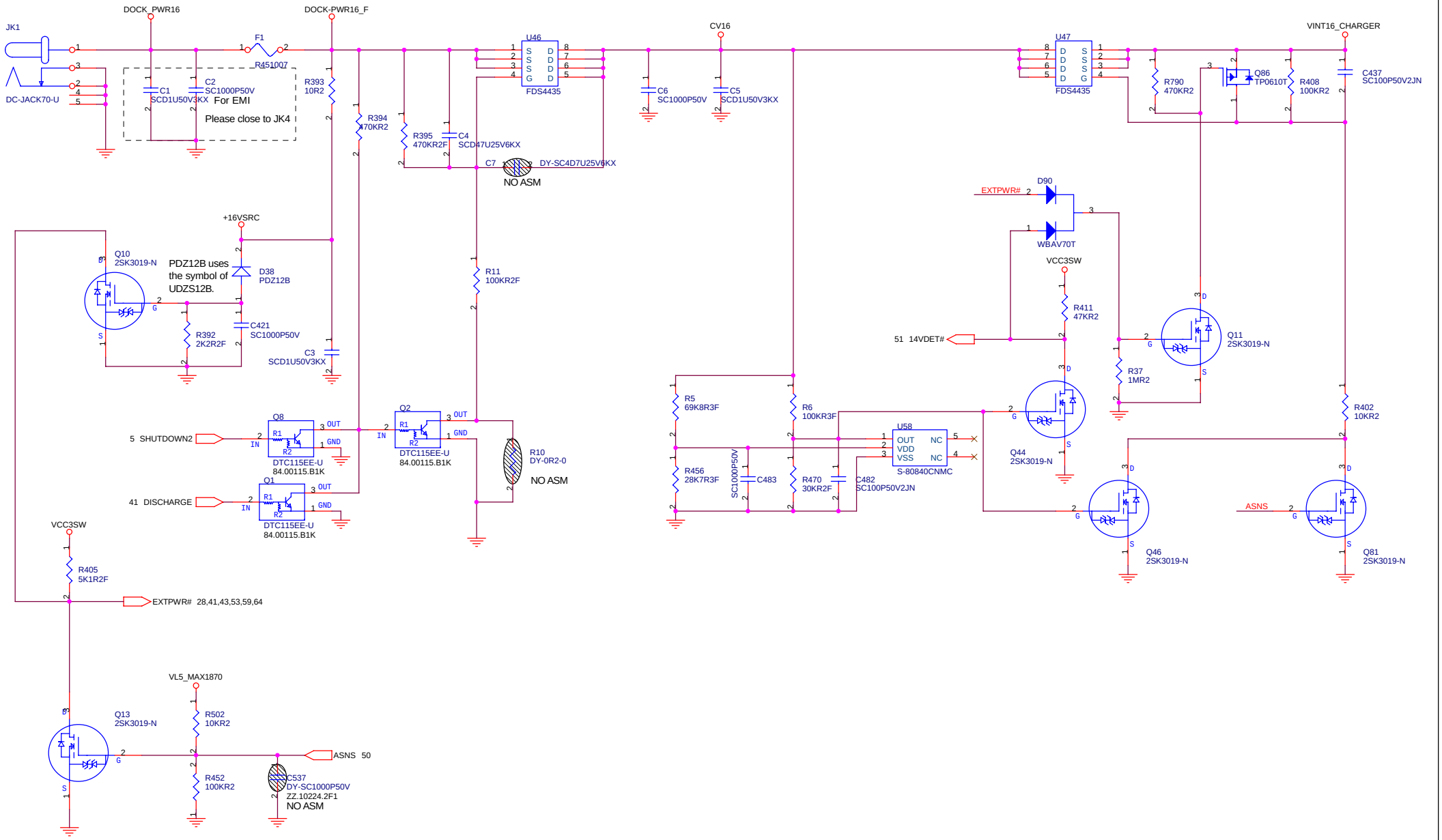
Size: A3 | Document Number: *S Note-1* | Rev: *-2*

Date: Wednesday, June 01, 2005 | Sheet 47 of 66

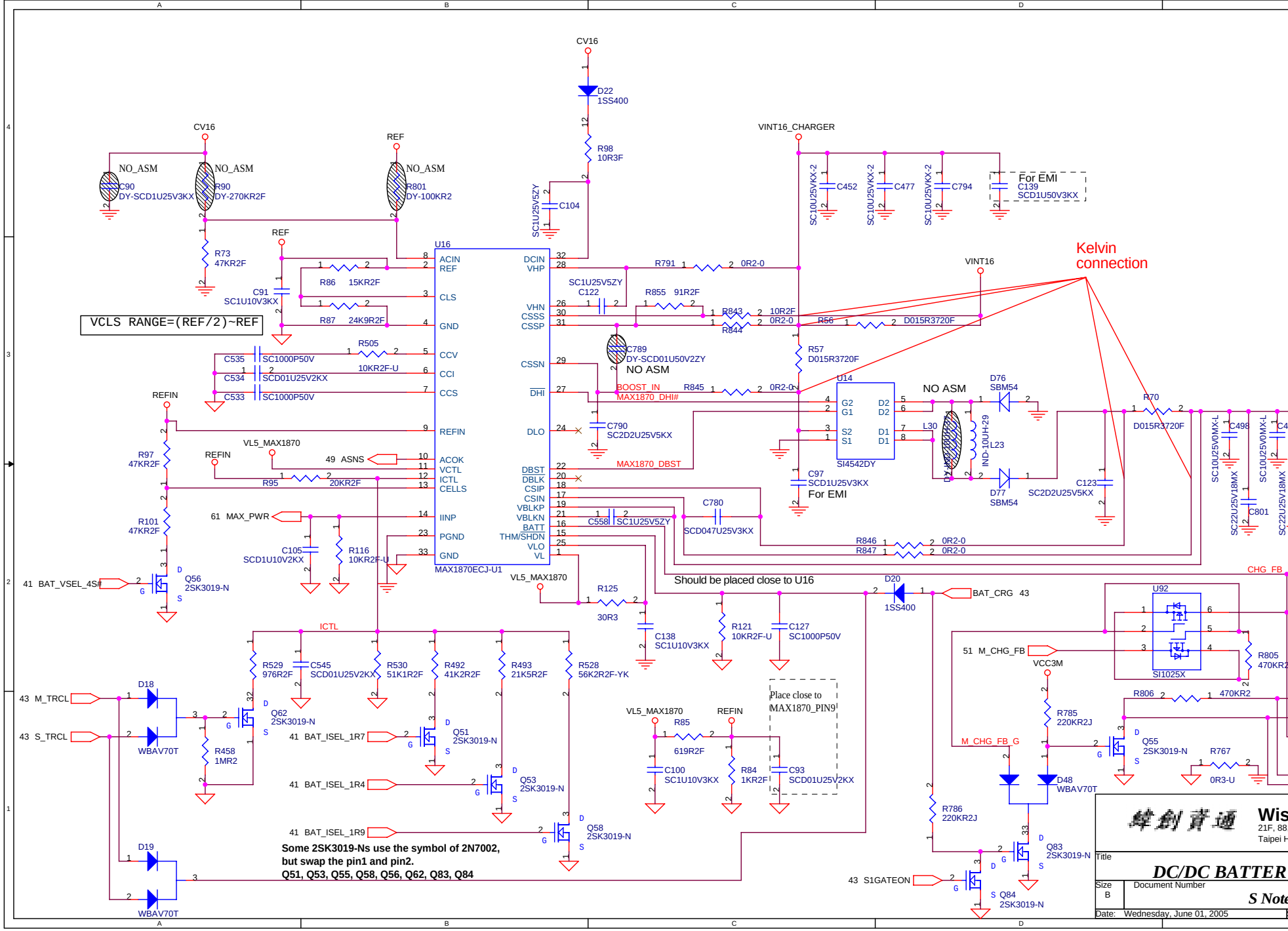


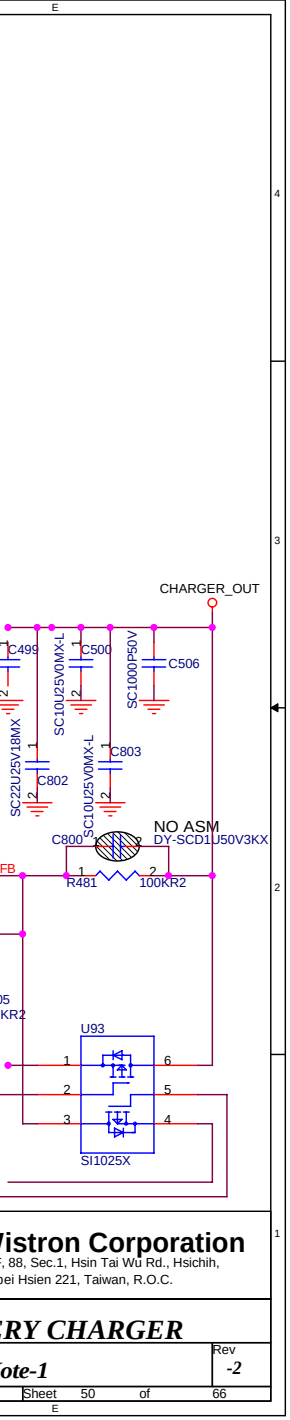


緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***I2CBUS/SMBUS***	
Size A3	Document Number ***S Note-1***	Rev ***-2***
Date: Wednesday, June 01, 2005	Sheet 48 of 66	



緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***DC/DC DC-IN***	
Size A3	Document Number ***S Note-1***	Rev ***-2***
Date: Wednesday, June 01, 2005	Sheet 49 of 66	


CV16
D22
1SS400
R98
10R3F
C104
SC1U25V5ZY
VINT16_CHARGER
SC10U25VKX-2
C452
C477
C794
For EMI
C139
SCD1U50V3KX
Kelvin
connection
VINT16
NO_ASM
C90
DY-SCD1U25V3KX
R90
DY-270KR2F
R801
DY-100KR2
REF
R73
47KR2F
C91
SC1U10V3KX
R86 15KR2F
R87 24K9R2F
VCLS RANGE=(REF/2)~REF
U16
ACIN
REF
CLS
GND
CCV
CCI
CCS
REFIN
ACOK
VCTL
ICTL
CELLS
IINP
PGND
GND
MAX1870ECJ-U1
DCIN
VHP
VHN
CSSS
CSSP
CSSN
DHI
DLO
DBST
DBLK
CSIP
CSIN
VBLKP
VBLKN
BATT
THM/SHDN
VLO
VL
R505
10KR2F-U
C535 SC1000P50V
C534 SCD01U25V2KX
C533 SC1000P50V
R791 0R2-0
R855 91R2F
R843 10R2F
R844 0R2-0
R56 D015R3720F
R57
D015R3720F
C789
DY-SCD01U50V2ZY
NO ASM
BOOST_IN
MAX1870_DHI#
R845 0R2-0
C790
SC2D2U25V5KX
MAX1870_DBST
C122
SC1U25V5ZY
C558 SC1U25V5ZY
C780
SCD047U25V3KX
C97
SCD1U25V3KX
For EMI
U14
SI4542DY
NO ASM
D76
SBM54
D77
SBM54
L30
L23
IND-10UH-29
C123
SC2D2U25V5KX
R70
D015R3720F
SC10U25V0MX-L
C498
SC22U25V18MX
C801
R846 0R2-0
R847 0R2-0
REFIN
R97
47KR2F
R101
47KR2F
VL5_MAX1870
R95 20KR2F
49 ASNS
61 MAX_PWR
C105
SCD1U10V2KX
R116
10KR2F-U
41 BAT_VSEL_4S#
Q56
2SK3019-N
R125
30R3
C138
SC1U10V3KX
R121
10KR2F-U
C127
SC1000P50V
Should be placed close to U16
D20
1SS400
BAT_CRG 43
CHG_FB
U92
SI1025X
R805
470KR2
R806 470KR2
51 M_CHG_FB
VCC3M
R785
220KR2J
M_CHG_FB_G
Q55
2SK3019-N
R767
0R3-U
D48
WBAV70T
R786
220KR2J
Q83
2SK3019-N
43 S1GATEON
Q84
2SK3019-N
ICTL
R529
976R2F
C545
SCD01U25V2KX
R530
51K1R2F
R492
41K2R2F
R493
21K5R2F
R528
56K2R2F-YK
43 M_TRCL
43 S_TRCL
D18
WBAV70T
D19
WBAV70T
R458
1MR2
Q62
2SK3019-N
41 BAT_ISEL_1R7
Q51
2SK3019-N
41 BAT_ISEL_1R4
Q53
2SK3019-N
41 BAT_ISEL_1R9
Q58
2SK3019-N
Some 2SK3019-Ns use the symbol of 2N7002,
but swap the pin1 and pin2.
Q51, Q53, Q55, Q58, Q56, Q62, Q83, Q84
VL5_MAX1870
R85
619R2F
C100
SC1U10V3KX
REFIN
R84
1KR2F
C93
SCD01U25V2KX
Place close to
MAX1870_PIN9
Wis
21F, 88
Taipei H
Title
DC/DC BATTER
Size
B
Document Number
S Note
Date: Wednesday, June 01, 2005



Vistron Corporation

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

ERY CHARGER

Note-1 Rev ***-2***

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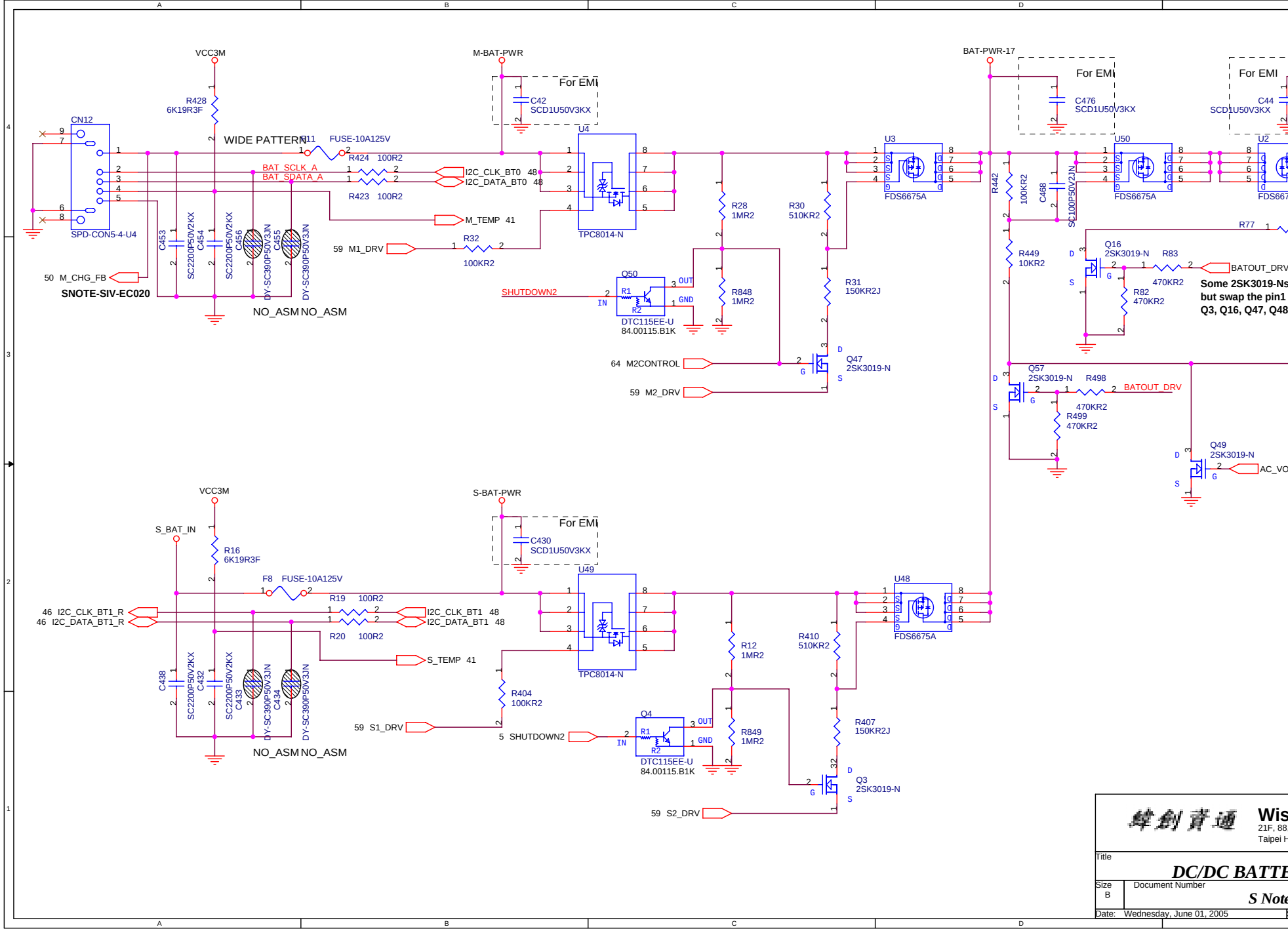
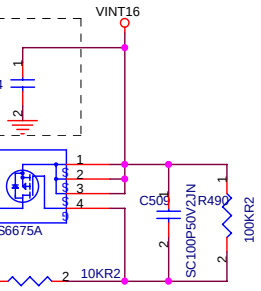
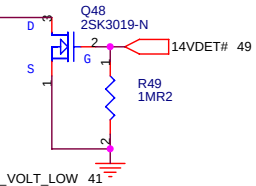

VCC3M
M-BAT-PWR
BAT-PWR-17
For EMI
C42
SCD1U50V3KX
C476
SCD1U50V3KX
C44
SCD1U50V3KX
R428
6K19R3F
CN12
SPD-CON5-4-U4
WIDE PATTERN
F11 FUSE-10A125V
R424 100R2
R423 100R2
BAT_SCLK_A
BAT_SDATA_A
I2C_CLK_BT0 48
I2C_DATA_BT0 48
M_TEMP 41
59 M1_DRV
R32
100KR2
U4
TPC8014-N
U3
U50
U2
FDS6675A
R28
1MR2
R30
510KR2
R31
150KR2J
R848
1MR2
Q50
DTC115EE-U
84.00115.B1K
SHUTDOWN2
64 M2CONTROL
59 M2_DRV
Q47
2SK3019-N
R442
100KR2
C468
SC100P50V2JN
R449
10KR2
Q16
2SK3019-N
R83
470KR2
R82
470KR2
R77
BATOUT_DRV
Some 2SK3019-Ns
but swap the pin1
Q3, Q16, Q47, Q48
Q57
2SK3019-N
R498
470KR2
R499
470KR2
Q49
2SK3019-N
AC_VO
50 M_CHG_FB
SNOTE-SIV-EC020
C453
C454
C456
C455
SC2200P50V2KX
SC2200P50V2KX
DY-SC390P50V3JN
DY-SC390P50V3JN
NO_ASM NO_ASM
S_BAT_IN
S-BAT-PWR
R16
6K19R3F
F8 FUSE-10A125V
R19 100R2
R20 100R2
46 I2C_CLK_BT1_R
46 I2C_DATA_BT1_R
I2C_CLK_BT1 48
I2C_DATA_BT1 48
S_TEMP 41
59 S1_DRV
R404
100KR2
5 SHUTDOWN2
C430
SCD1U50V3KX
U49
TPC8014-N
U48
FDS6675A
R12
1MR2
R410
510KR2
R407
150KR2J
R849
1MR2
Q4
DTC115EE-U
84.00115.B1K
Q3
2SK3019-N
59 S2_DRV
C438
C432
C433
C434
SC2200P50V2KX
SC2200P50V2KX
DY-SC390P50V3JN
DY-SC390P50V3JN
NO_ASM NO_ASM
Wis
21F, 88
Taipei H
Title
DC/DC BATTE
Size
B
Document Number
S Note
Date: Wednesday, June 01, 2005



DRV 59

**-Ns use the symbol of 2N7002,
in1 and pin2.
Q48, Q49, Q57**



Vistron Corporation
F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
pei Hsien 221, Taiwan, R.O.C.

TERY INPUT

ote-1 Rev ***-2***

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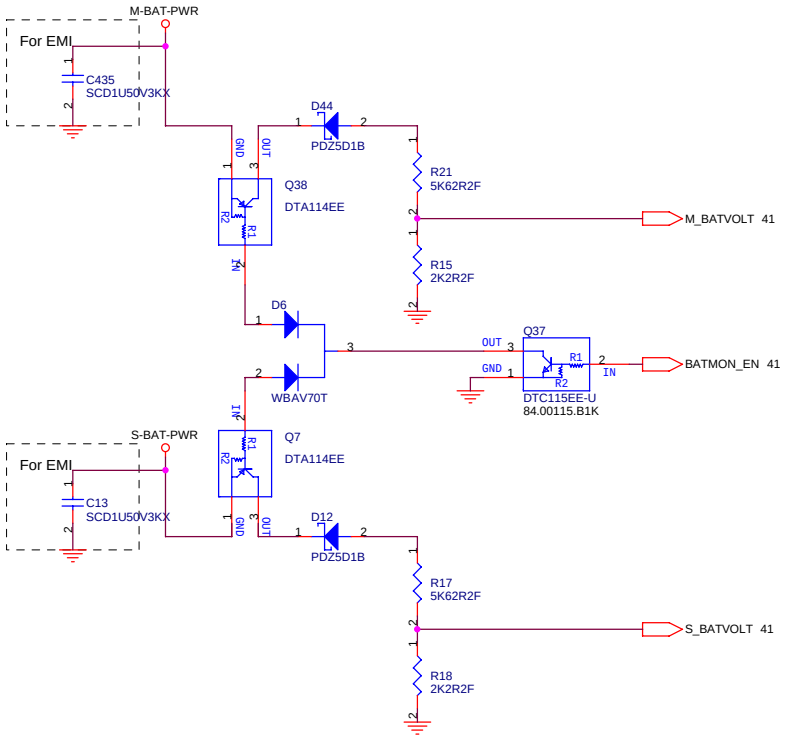

緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***DC/DC BATTERY MONITOR***	
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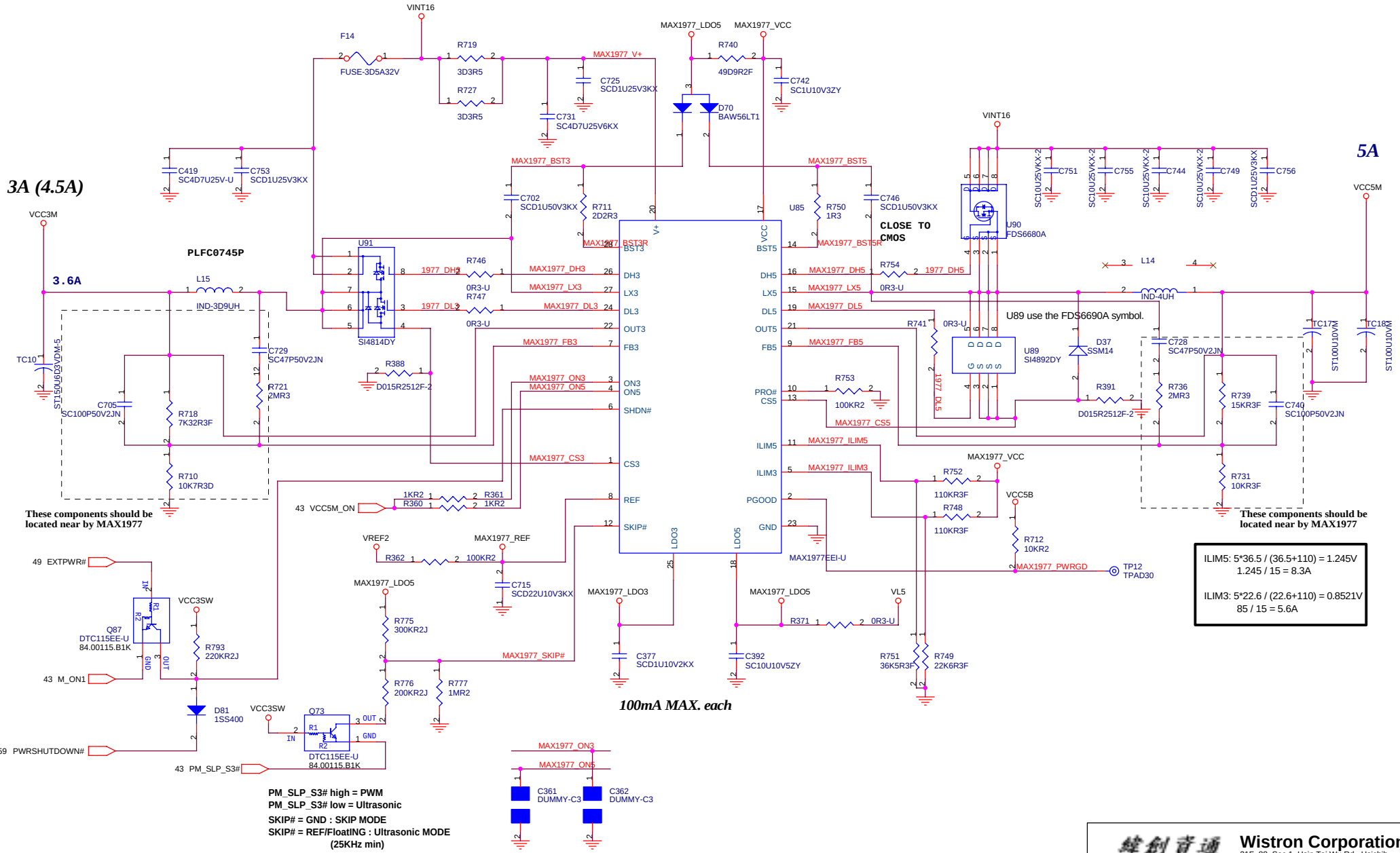
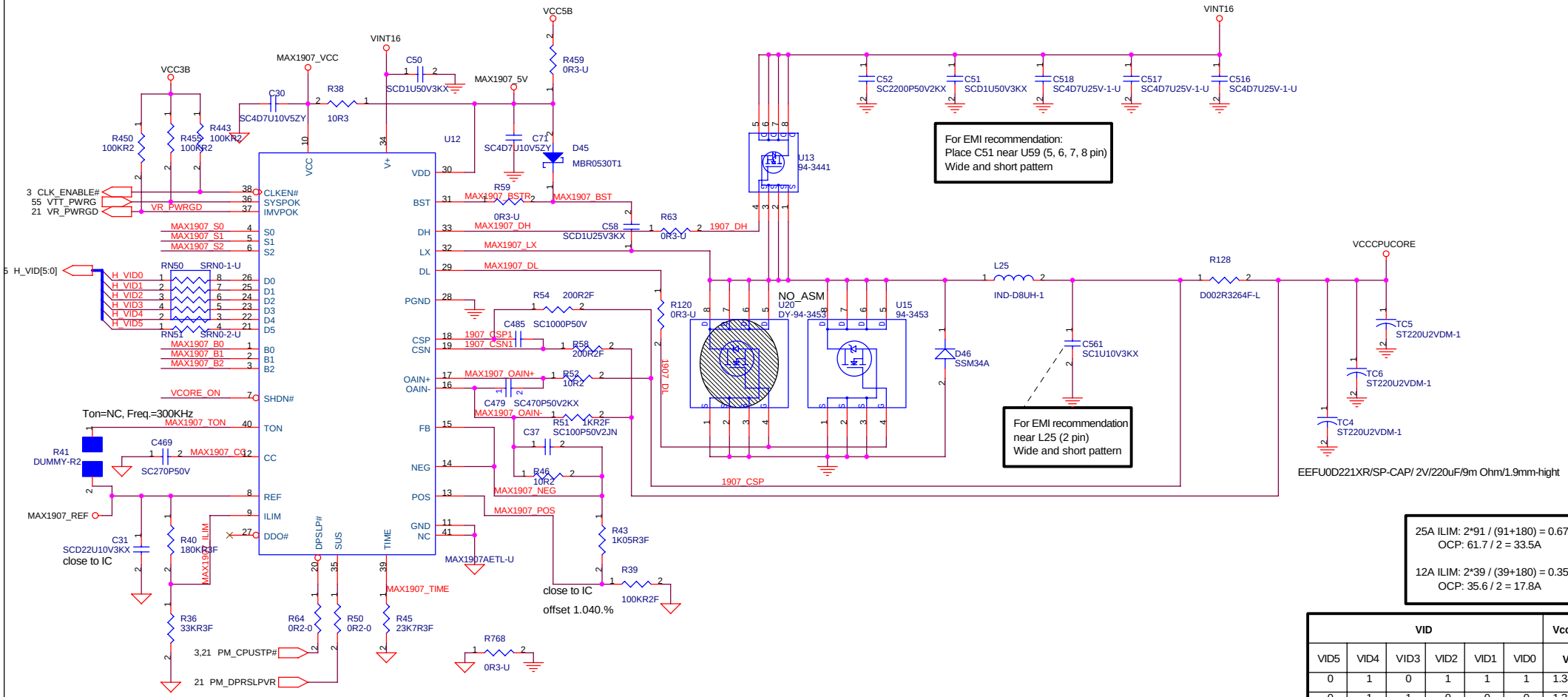
SYSTEM DC/DC 3D3V_S5/5V_S5/2D5V_S5



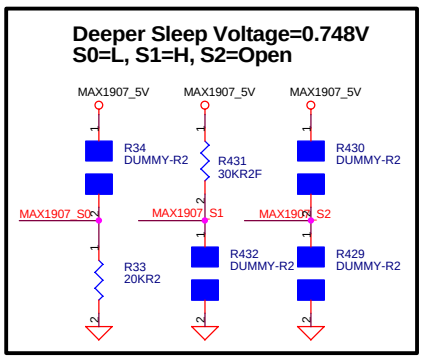
鋒創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: *DC/DC VCC3M/VCC5M*		
Size: A3	Document Number: *S Note-1*	Rev: *-2*
Date: Wednesday, June 01, 2005	Sheet 53 of 66	

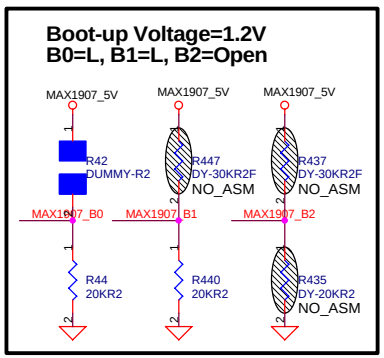


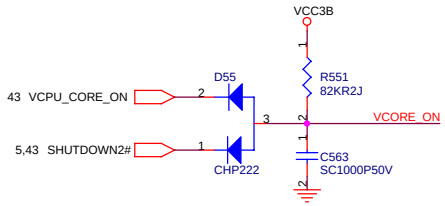
25A ILIM: 2*91 / (91+180) = 0.671V
OCP: 61.7 / 2 = 33.5A

12A ILIM: 2*39 / (39+180) = 0.356V
OCP: 35.6 / 2 = 17.8A

VID						Vcore
VID5	VID4	VID3	VID2	VID1	VID0	V
0	1	0	1	1	1	1.340
0	1	1	0	0	0	1.324
0	1	1	0	1	0	1.292
0	1	1	1	0	0	1.260
0	1	1	1	0	1	1.244
0	1	1	1	1	1	1.212
1	0	0	0	0	1	1.180
1	0	0	0	1	1	1.148
1	0	0	1	1	0	1.100
1	0	1	0	0	1	1.052
1	0	1	0	1	1	1.020
1	0	1	1	1	0	0.972
1	1	0	0	0	0	0.940







Wistron Corporation
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Title: DC/DC VCCCPUCORE

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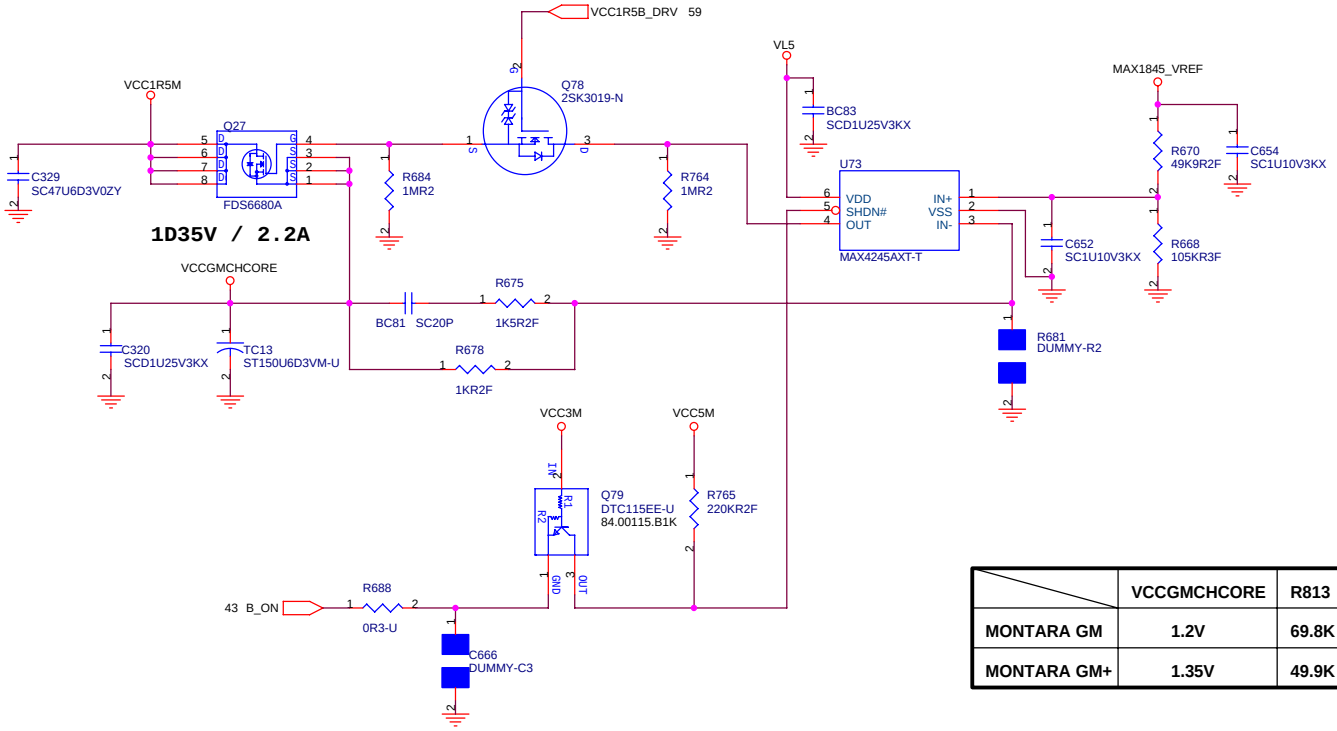
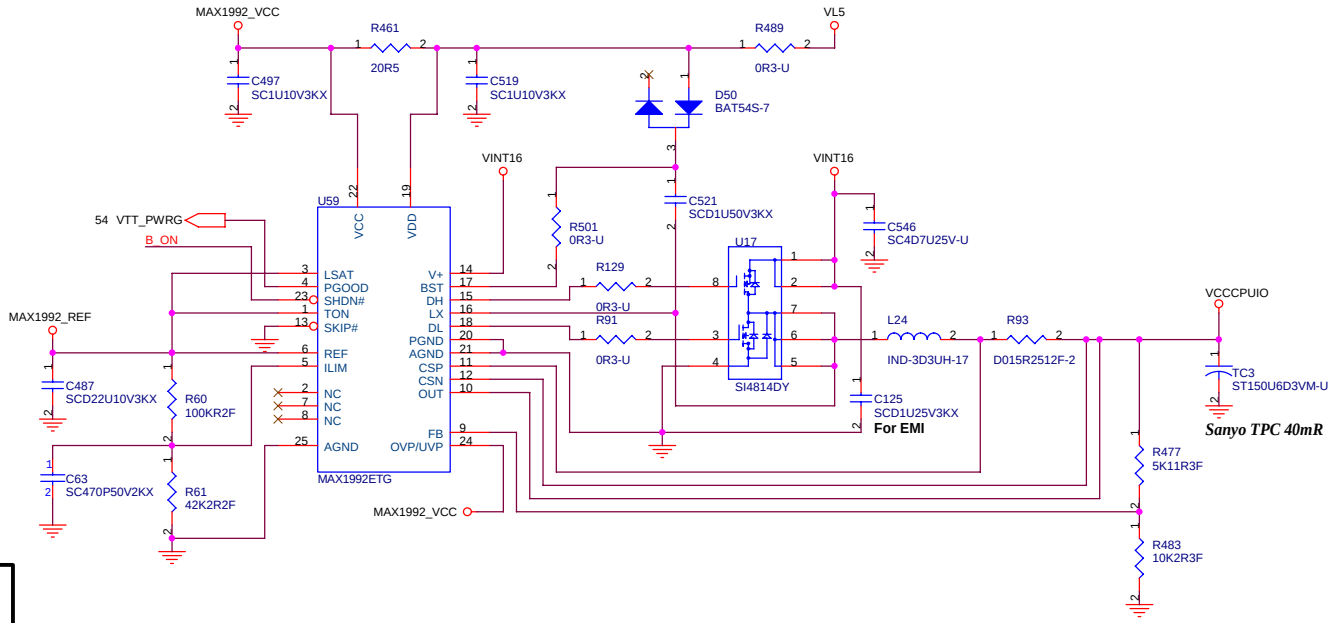
GMCH Core Power



	VCCGMCHCORE	R813	R814
MONTARA GM	1.2V	69.8K Ohm	105K Ohm
MONTARA GM+	1.35V	49.9K Ohm	105K Ohm

MAX1992 CPU I/O



Ton : Vref =>450KHz
OVP/UVP : Vcc =>Enable OVP and discharge mode, enable UVP

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

Title: *DC/DC VCCGMCHCORE & VCCCPUIO*

Size: A3 | Document Number: *S Note-1* | Rev: *-2*

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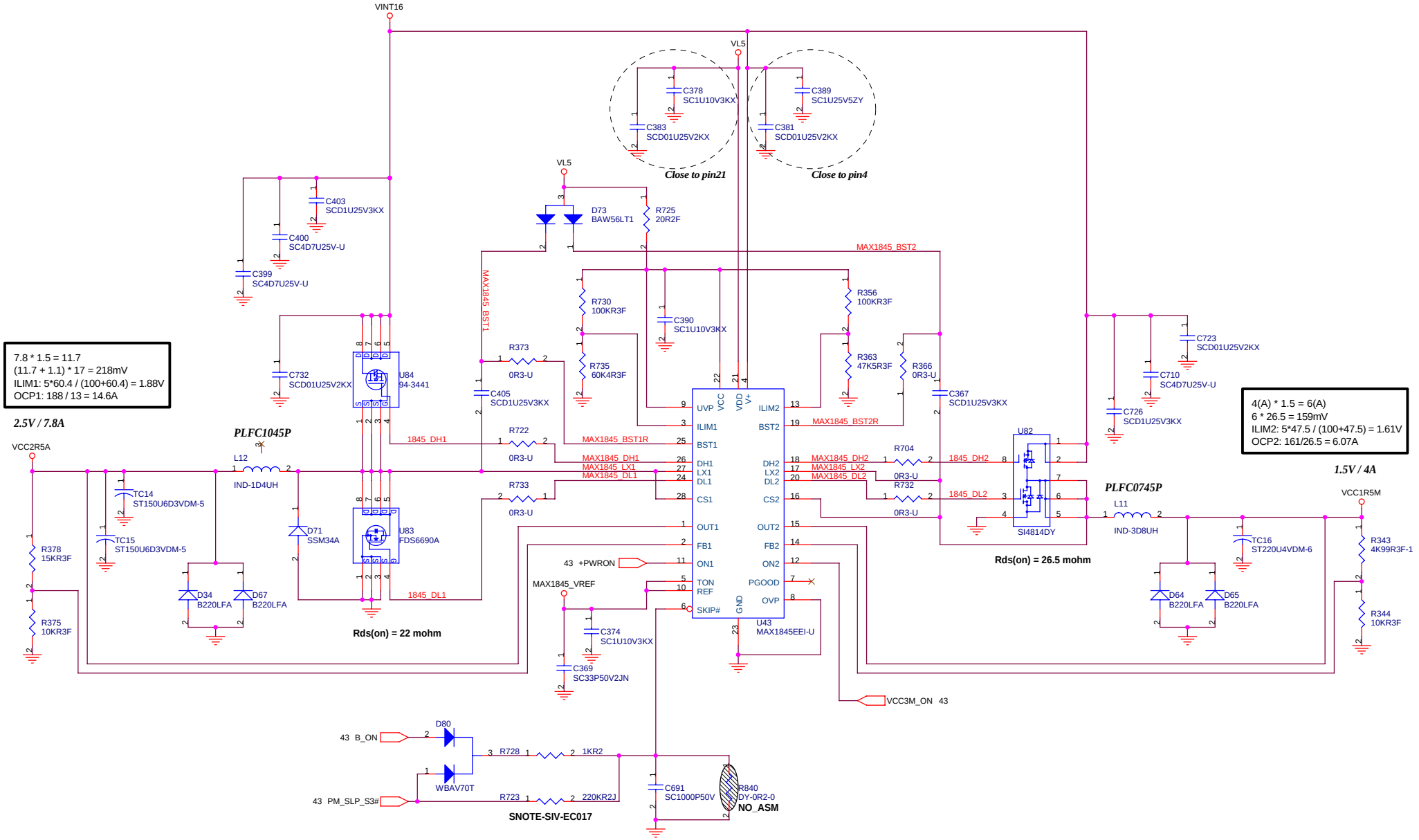

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: *DC/DC VCC2R5A & VCC1R5M*

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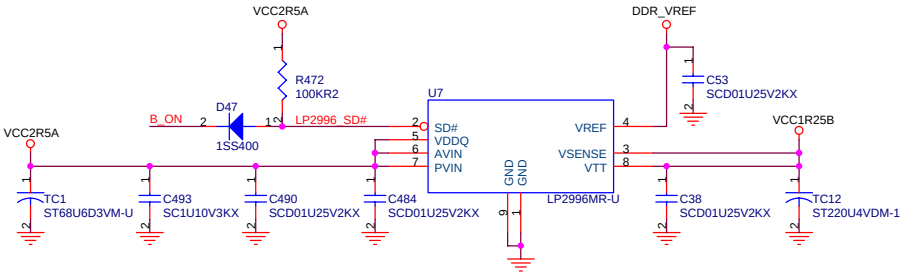
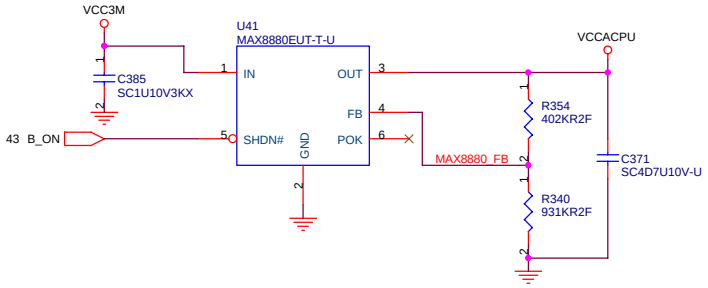
VCC1R25B & DDR_VREF



VCCACPU



	R354	VCCACPU
BANIAS	402Kohm	1.80V
DOTHAN	187Kohm	1.50V

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

Title: *VCC1R25B & VCCACPU*

Size: A3 | Document Number: *S Note-1* | Rev: *-2*

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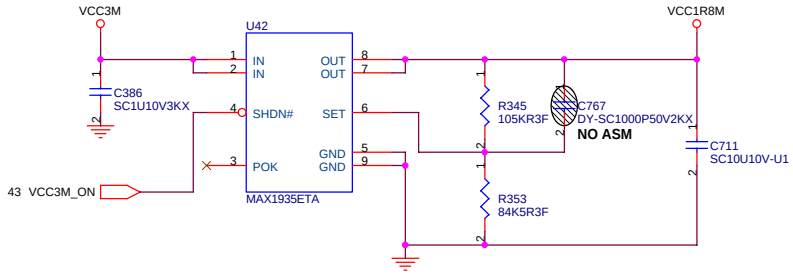
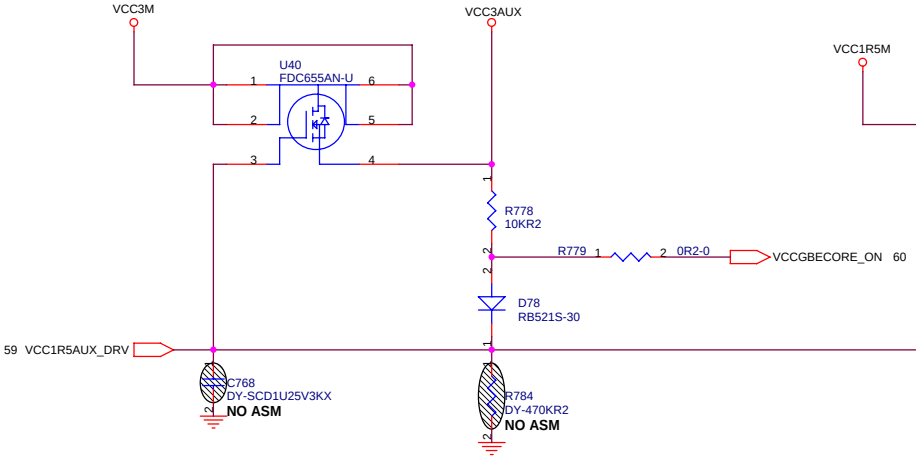
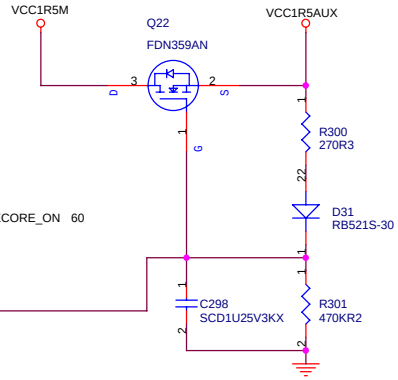
VCC1R8M



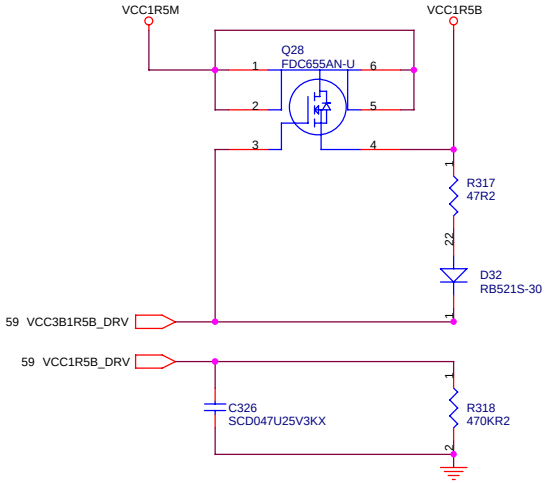
VCC3AUX



VCC1R5AUX



VCC1R5B



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

Title: *DC/DC VCC1R8M & LOAD SW*

Size	Document Number	Rev
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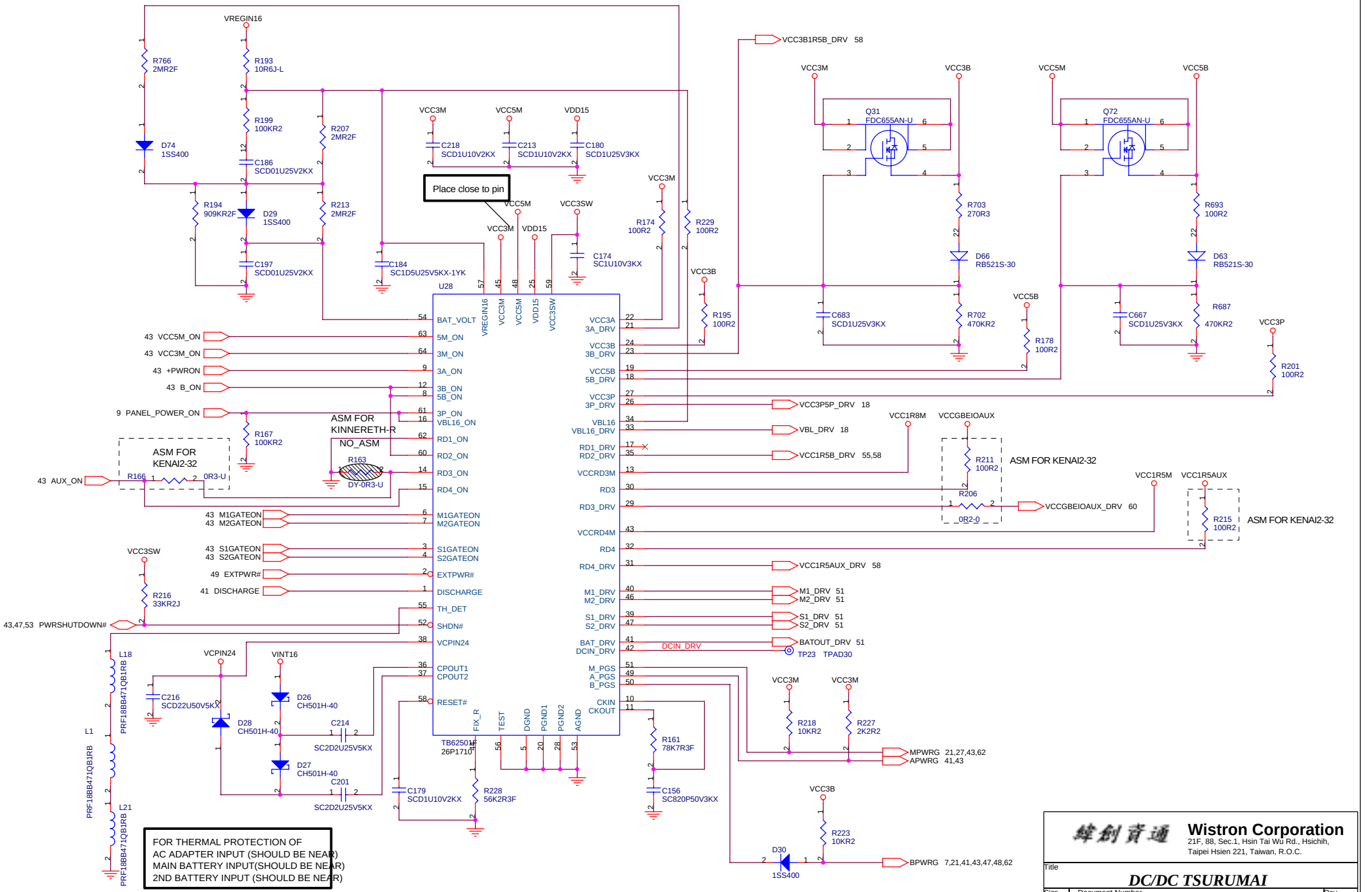
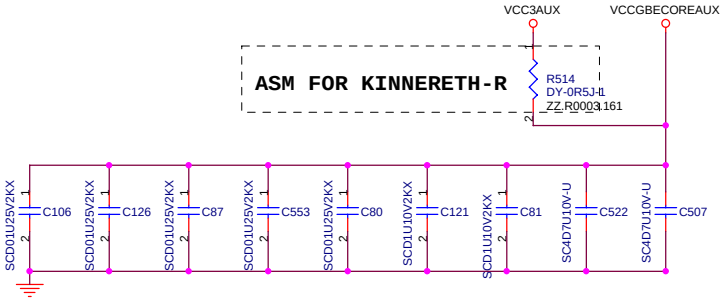
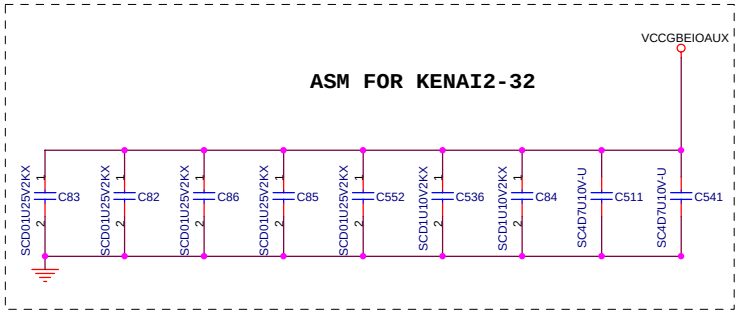
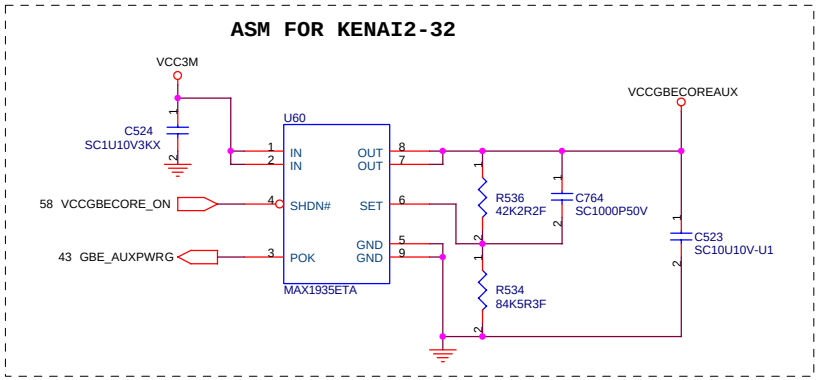
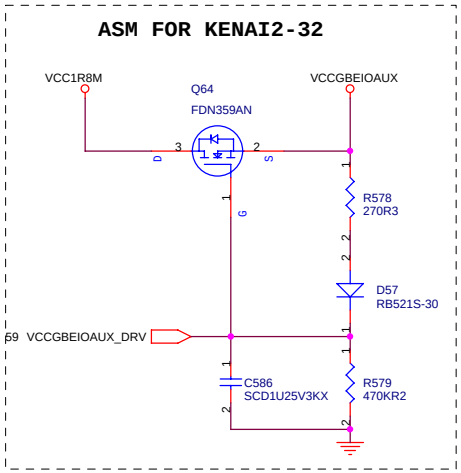


緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***DC/DC TSURUMAI***	
Size A3	Document Number ***S Note-1***	Rev ***-2***
Date: Wednesday, June 01, 2005	Sheet 59 of 66	









	KENAI2-32	KINNERETH-R
VCCGBECOREAUX	1.2V	3.3V
VCCGBEIOAUX	1.8V	N.C

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

Title: *DC/DC ETHERNET POWER*

Size: A3 | Document Number: *S Note-1* | Rev: *-2*

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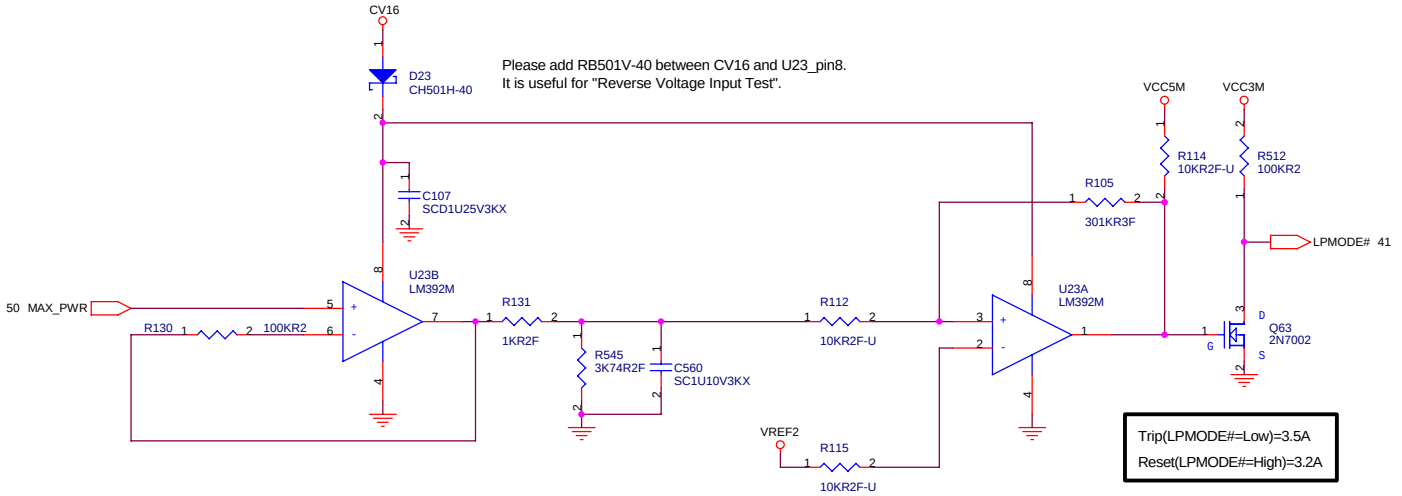

緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***MAX POWER CONTROL***	
Size: A3	Document Number: ***S Note-1***	Rev: ***-2***
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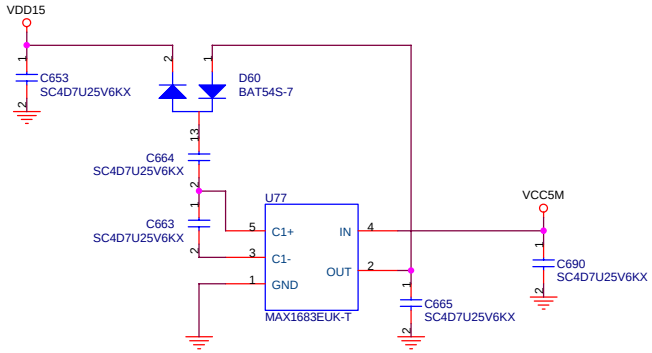
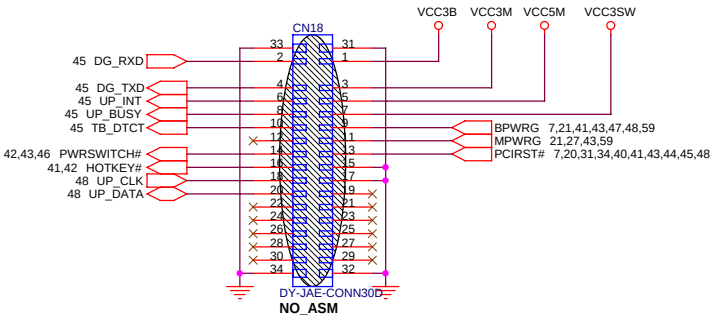
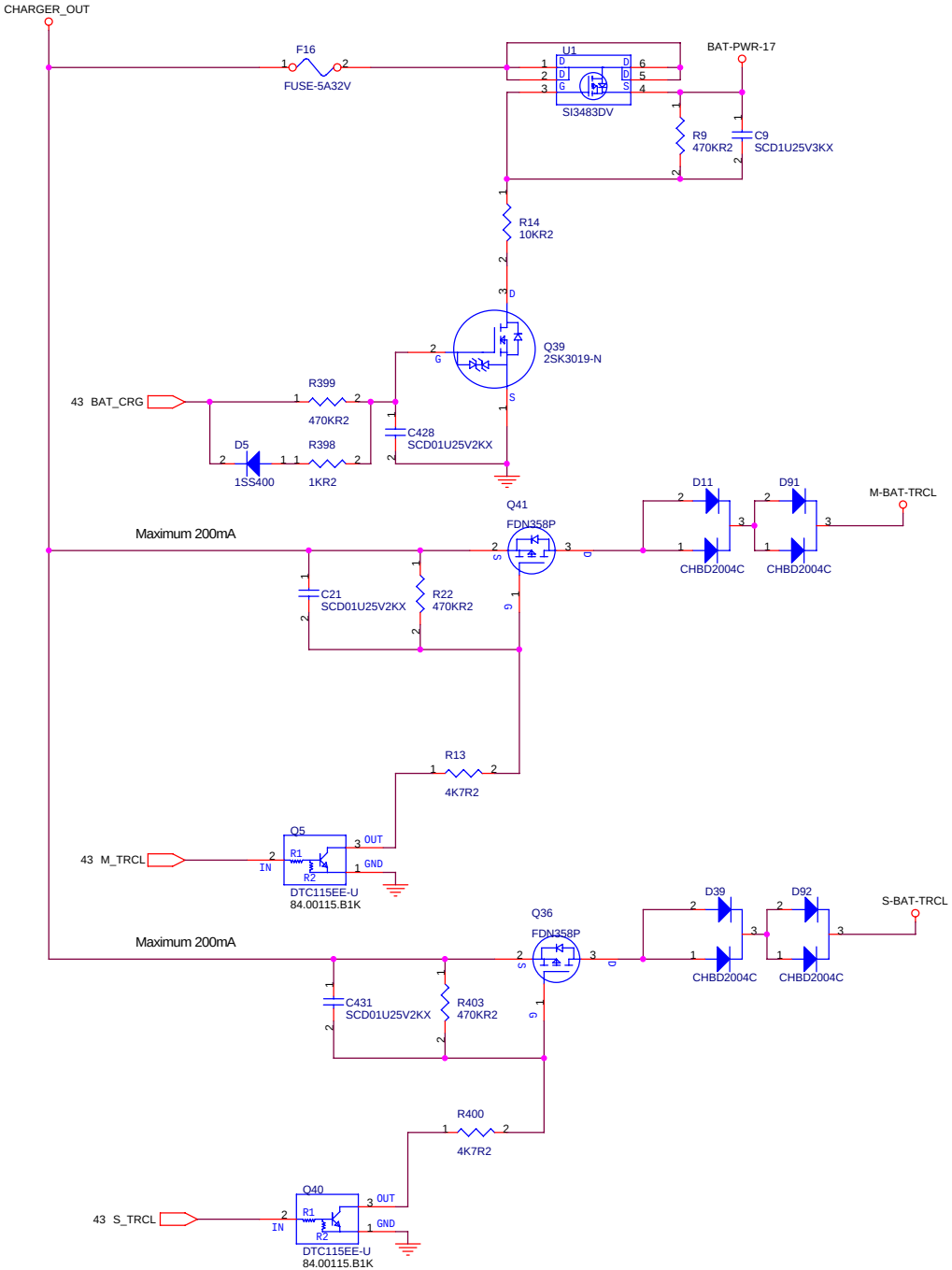
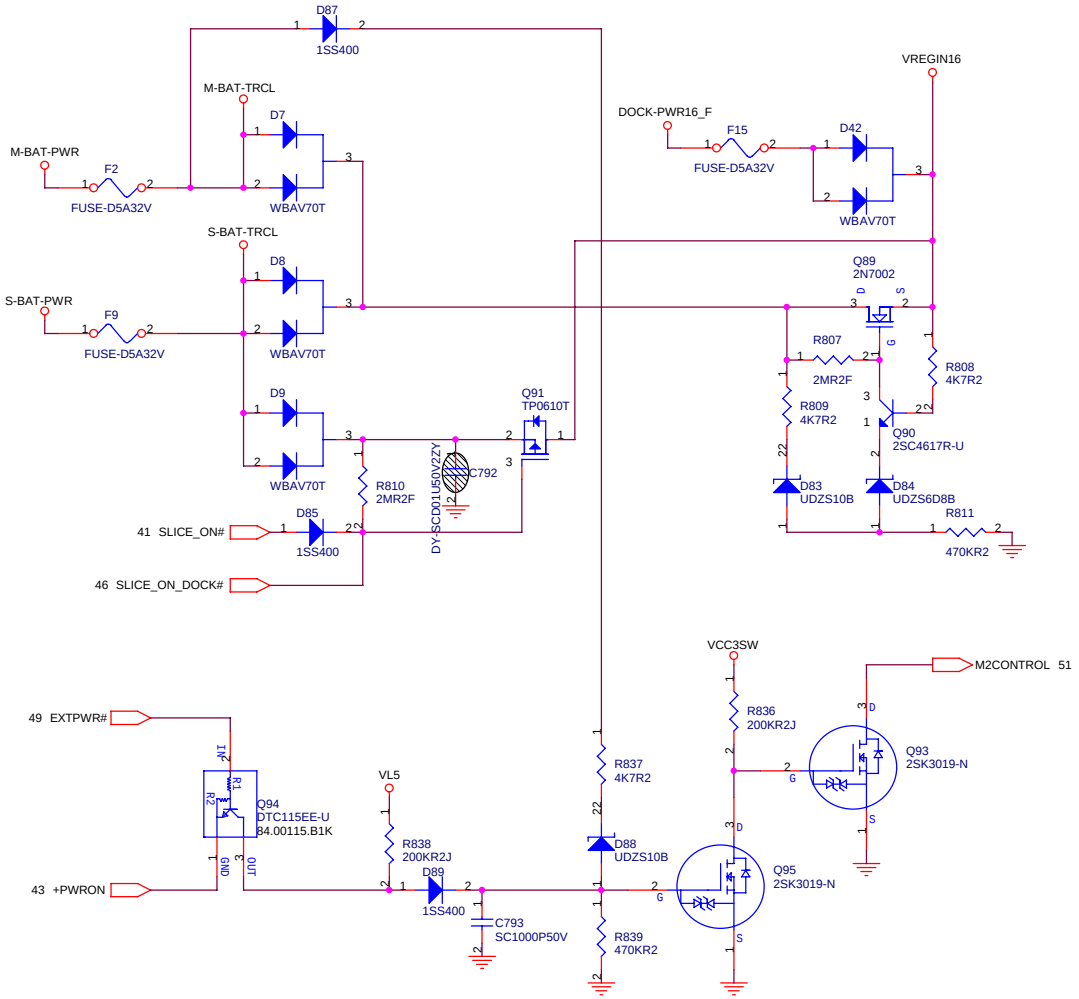




緯創資通 **Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: ***DC/DC VDD15 & DEBUG PORT***		
Size: A3	Document Number: ***S Note-1***	Rev: ***-2***
Date: Wednesday, June 01, 2005	Sheet 62 of 66	



緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***DC/DC CHARGER SELECT***	
Size A3	Document Number ***S Note-1***	Rev ***-2***
Date: Wednesday, June 01, 2005	Sheet 63 of 66	



華創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***VREGIN16***	
Size A3	Document Number ***S Note-1***	Rev ***-2***
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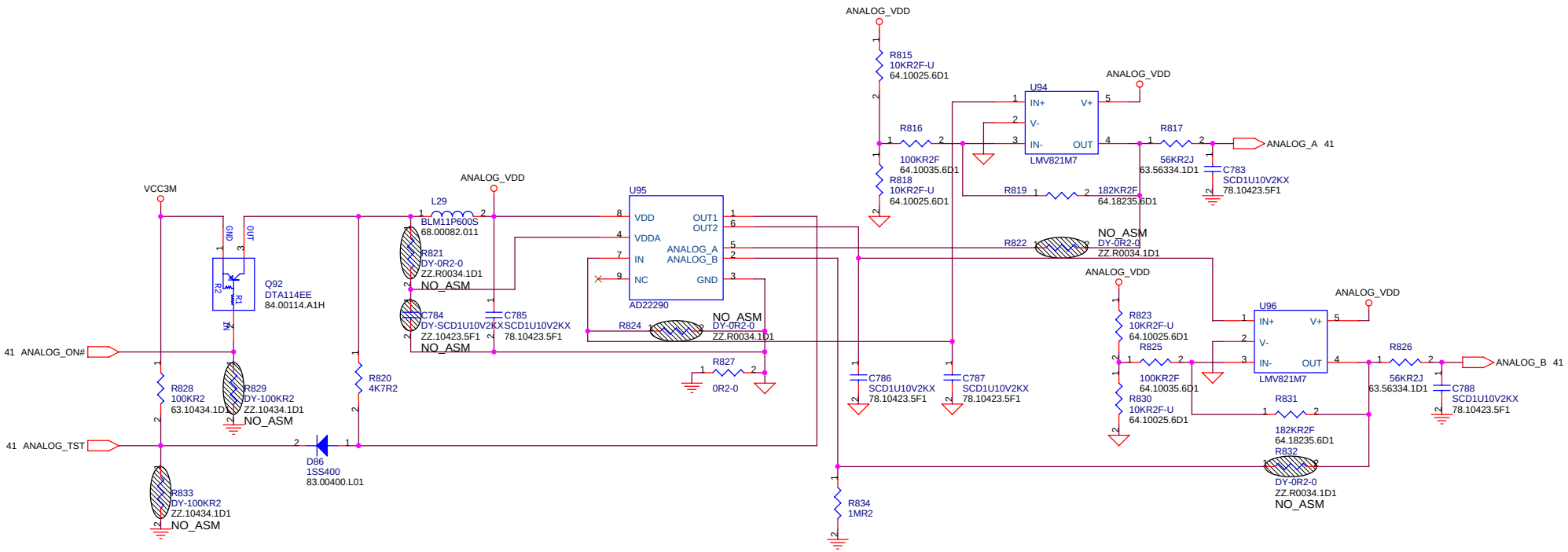

Accelero Meter Parts List

Page	Usage Code	AD22290	MEMSIC	NO ACC.
41	R138 (100K 5%)	NO_ASM	NO_ASM	ASM
41	R141 (100K 5%)	NO_ASM	NO_ASM	ASM
41	R148 (100K 5%)	NO_ASM	NO_ASM	NO_ASM
41	R149 (100K 5%)	NO_ASM	NO_ASM	NO_ASM
65	R829 (100K 5%)	NO_ASM	NO_ASM	ASM
65	R833 (100K 5%)	NO_ASM	ASM	ASM
65	U94 (LMV821M7)	ASM	NO_ASM	NO_ASM
65	U95 (AD22290)	ASM	MXA2500GL	NO_ASM
65	U96 (LMV821M7)	ASM	NO_ASM	NO_ASM
65	Q92 (DTA114EE)	ASM	ASM	NO_ASM
65	D86 (1SS400)	ASM	NO_ASM	NO_ASM
65	L29 (BLM11P600S)	ASM	ASM	NO_ASM
65	R815(10K 1%)	ASM	NO_ASM	NO_ASM
65	R816(100K 1%)	ASM	NO_ASM	NO_ASM
65	R817(56K 5%)	ASM	8.2K 5%	NO_ASM
65	R818(10K 1%)	ASM	NO_ASM	NO_ASM
65	R819(182K 1%)	ASM	NO_ASM	NO_ASM
65	R820(4.7K 5%)	ASM	NO_ASM	NO_ASM
65	R823(10K 1%)	ASM	NO_ASM	NO_ASM
65	R825(100K 1%)	ASM	NO_ASM	NO_ASM
65	R826(56K 5%)	ASM	8.2K 5%	NO_ASM
65	R827(0ohm 5%)	ASM	ASM	NO_ASM

Page	Usage Code	AD22290	MEMSIC	NO ACC.
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65	R830(10K 1%)	ASM	NO_ASM	NO_ASM
65	R831(182K 1%)	ASM	NO_ASM	NO_ASM
65	R834(1M 5%)	ASM	NO_ASM	NO_ASM
65	C783 (0.1u 10%10V)	ASM	ASM	NO_ASM
65	C785 (0.1u 10%10V)	ASM	ASM	NO_ASM
65	C786 (0.1u 10%10V)	ASM	NO_ASM	NO_ASM
65	C787 (0.1u 10%10V)	ASM	NO_ASM	NO_ASM
65	C788 (0.1u 10%10V)	ASM	ASM	NO_ASM
65	R821(0ohm 5%)	NO_ASM	ASM	NO_ASM
65	R822(0ohm 5%)	NO_ASM	ASM	NO_ASM
65	R824(0ohm 5%)	NO_ASM	ASM	NO_ASM
65	R832(0ohm 5%)	NO_ASM	ASM	NO_ASM
65	C784 (0.1u 10%10V)	NO_ASM	ASM	NO_ASM

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Title: ACCELERO METER

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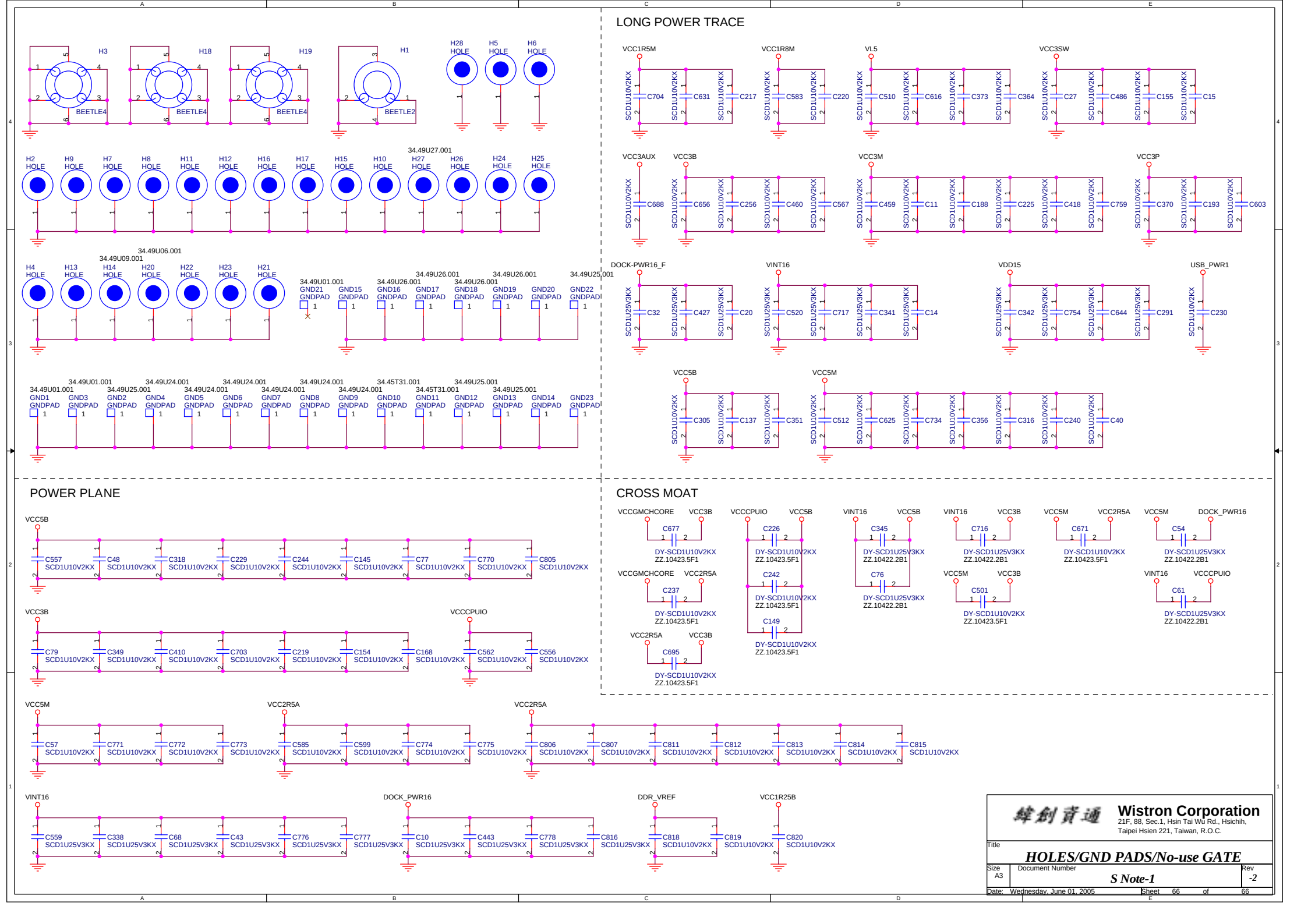
LONG POWER TRACE
H3
H18
H19
H1
BEETLE4
BEETLE4
BEETLE4
BEETLE2
H28 HOLE
H5 HOLE
H6 HOLE
H2 HOLE
H9 HOLE
H7 HOLE
H8 HOLE
H11 HOLE
H12 HOLE
H16 HOLE
H17 HOLE
H15 HOLE
H10 HOLE
H27 HOLE
H26 HOLE
H24 HOLE
H25 HOLE
34.49U27.001
H4 HOLE
H13 HOLE
H14 HOLE
H20 HOLE
H22 HOLE
H23 HOLE
H21 HOLE
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34.49U09.001
34.49U01.001 GND21 GNDPAD
34.49U26.001 GND15 GNDPAD
34.49U26.001 GND16 GNDPAD
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34.49U26.001 GND18 GNDPAD
34.49U26.001 GND19 GNDPAD
GND20 GNDPAD
34.49U25.001 GND22 GNDPAD
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34.49U01.001 GND3 GNDPAD
34.49U25.001 GND2 GNDPAD
34.49U24.001 GND4 GNDPAD
34.49U24.001 GND5 GNDPAD
34.49U24.001 GND6 GNDPAD
34.49U24.001 GND7 GNDPAD
34.49U24.001 GND8 GNDPAD
34.49U24.001 GND9 GNDPAD
34.45T31.001 GND10 GNDPAD
34.45T31.001 GND11 GNDPAD
34.49U25.001 GND12 GNDPAD
34.49U25.001 GND13 GNDPAD
GND14 GNDPAD
GND23 GNDPAD
VCC1R5M
VCC1R8M
VL5
VCC3SW
VCC3AUX
VCC3B
VCC3M
VCC3P
DOCK-PWR16_F
VINT16
VDD15
USB_PWR1
VCC5B
VCC5M
SCD1U10V2KX
SCD1U25V3KX
POWER PLANE
CROSS MOAT
VCCGMCHCORE VCC3B
VCCCPUIO VCC5B
VINT16 VCC5B
VINT16 VCC3B
VCC5M VCC2R5A
VCC5M DOCK_PWR16
VCCGMCHCORE VCC2R5A
VCC2R5A VCC3B
VCC5M VCC3B
VINT16 VCCCPUIO
DY-SCD1U10V2KX ZZ.10423.5F1
DY-SCD1U25V3KX ZZ.10422.2B1
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
Title
HOLES/GND PADS/No-use GATE
Size A3
Document Number
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Rev -2
Date: Wednesday, June 01, 2005
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