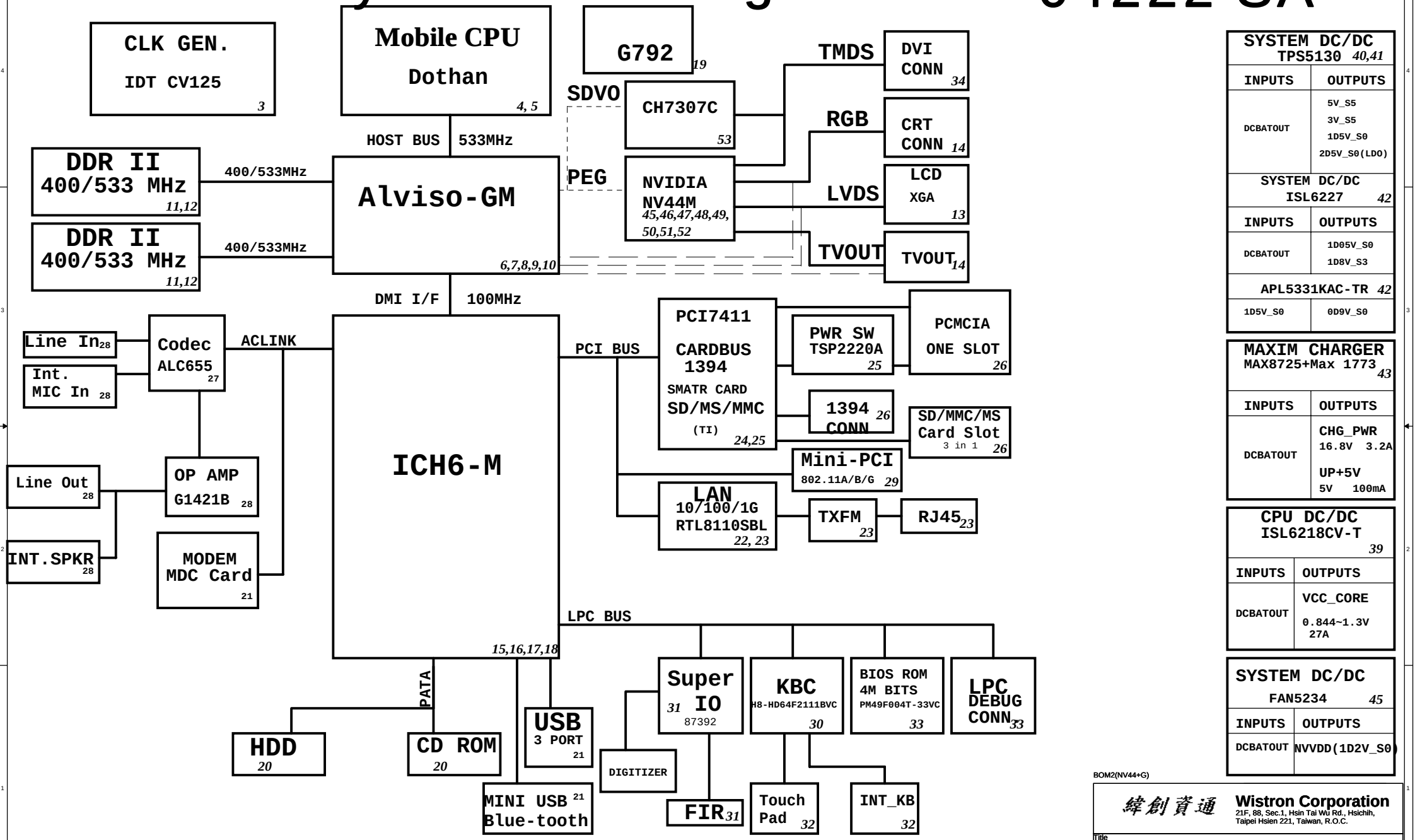
Canary2 Block Diagram 04222-SA



SYSTEM DC/DC TPS5130 40,41	
INPUTS	OUTPUTS
DCBATOUT	5V_S5 3V_S5 1D5V_S0 2D5V_S0(LDO)

SYSTEM DC/DC ISL6227 42	
INPUTS	OUTPUTS
DCBATOUT	1D05V_S0 1D8V_S3

APL5331KAC-TR 42	
1D5V_S0	0D9V_S0

MAXIM CHARGER MAX8725+Max 1773 43	
INPUTS	OUTPUTS
DCBATOUT	CHG_PWR 16.8V 3.2A UP+5V 5V 100mA

CPU DC/DC ISL6218CV-T 39	
INPUTS	OUTPUTS
DCBATOUT	VCC_CORE 0.844~1.3V 27A

SYSTEM DC/DC FAN5234 45	
INPUTS	OUTPUTS
DCBATOUT	NVVDD(1D2V_S0)

Port Replicator 4 (124 PIN)

AC IN | RJ45-11 | SEARIAL PORT | CRT | PRINTER | PS2 | MIC | LINE IN | LINE OUT | TV OUT | DVI | PCIeX2 | SMBUS

BOM2(NV44+G)

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

Title: BLOCK DIAGRAM

Size: Custom | Document Number: CANARY2 | Rev: SA

Date: Thursday, January 13, 2005 | Sheet 1 of 55

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	
SDVOCRTL_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 PWORK In signal.

CY28411ZC Spread Spectrum Select

page 3

SS3	SS2	SS1	Spread Mode	Spread Amount%
0	0	0	Down	0.8
0	0	1	Down	1.25
0	1	0	Down	1.75
0	1	1	Down	2.5
1	0	0	Center	+-0.3
1	0	1	Center	+-0.5
1	1	0	Center	+-0.8
1	1	1	Center	+-1.25

PCI Routing

	IDSEL	IRQ	REQ/GNT
7411	25	B.F.G	0
MiniPCI	21	E	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

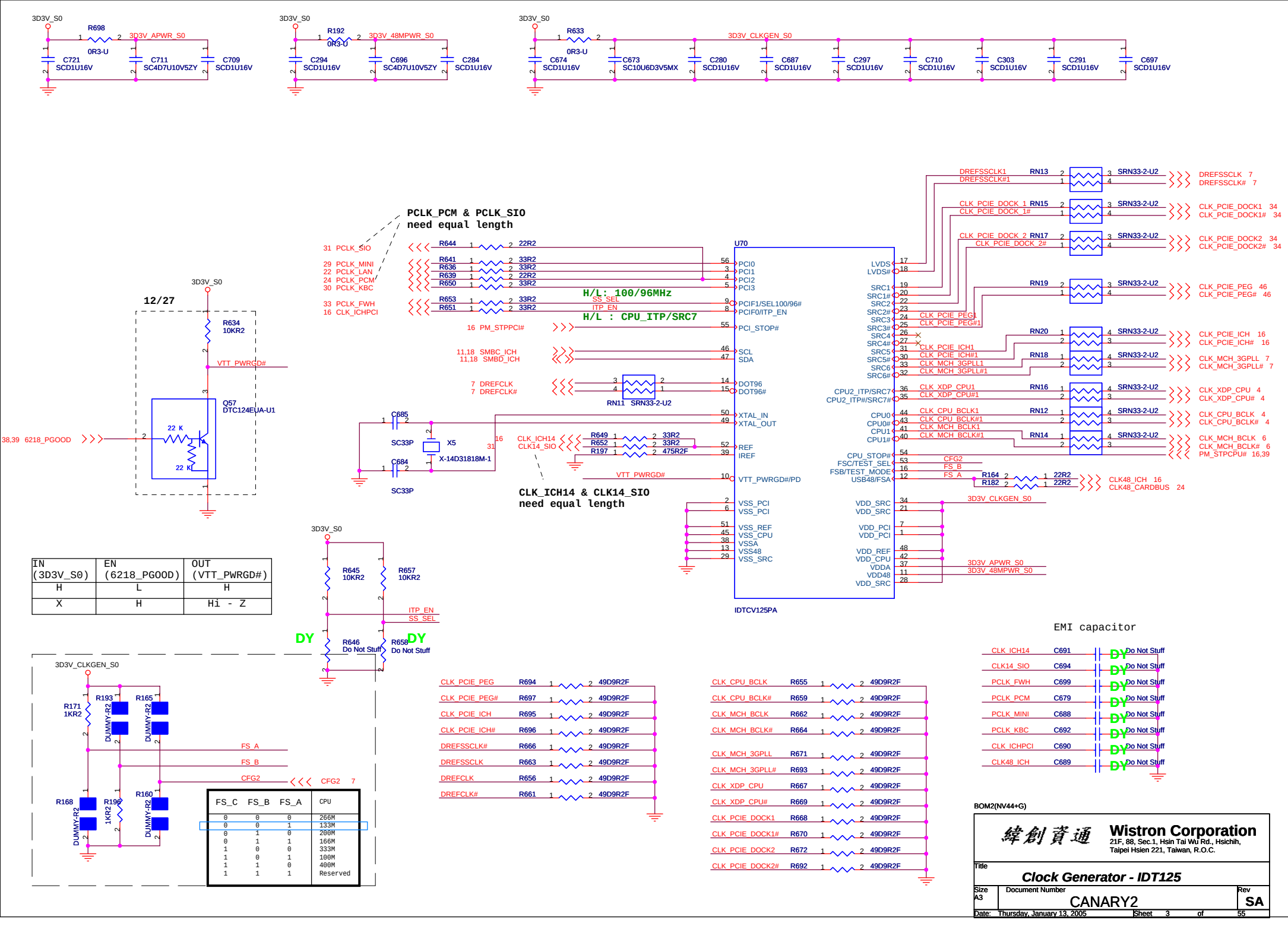
BOM2(NV44+G)

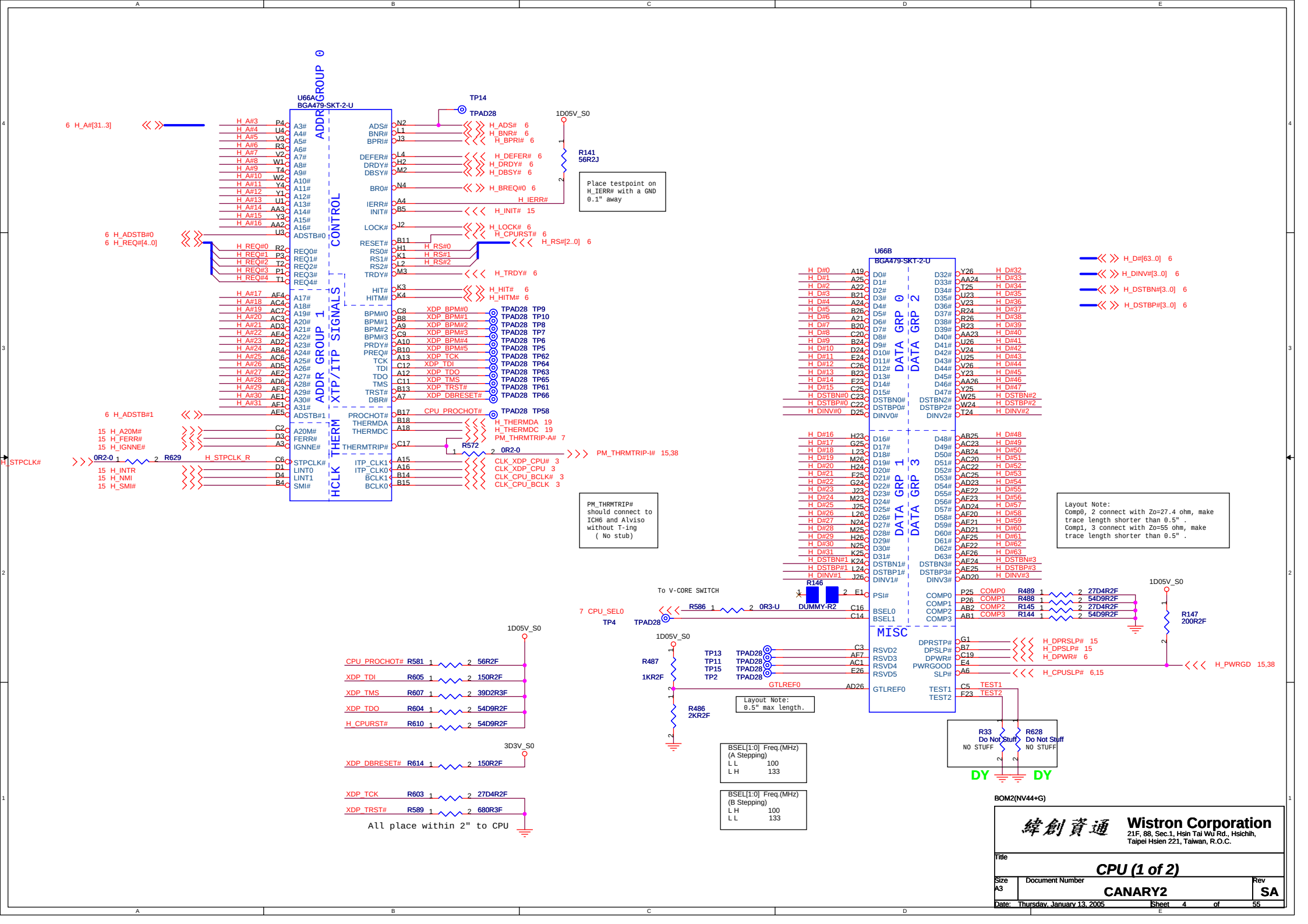
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

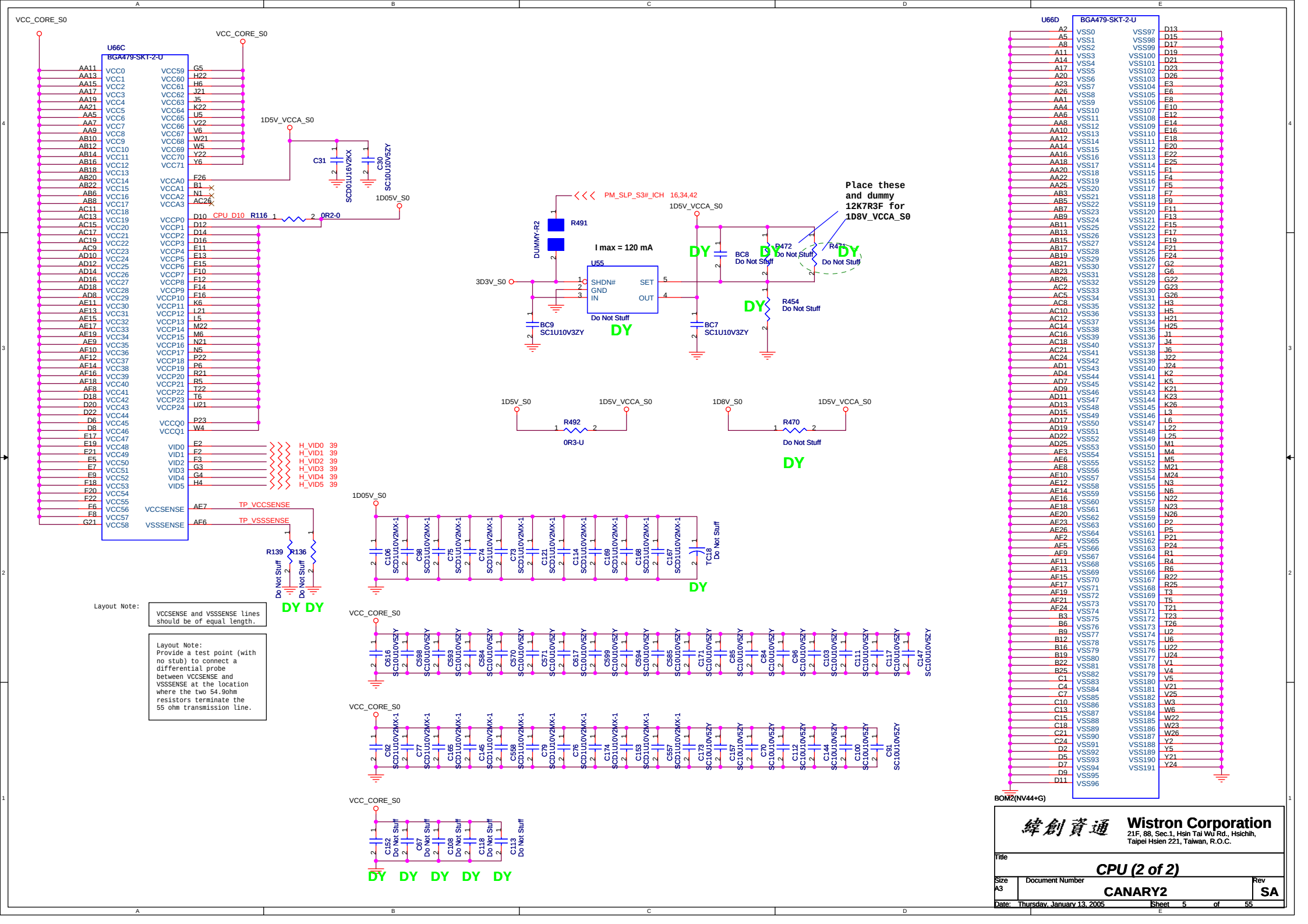
Title: ITP

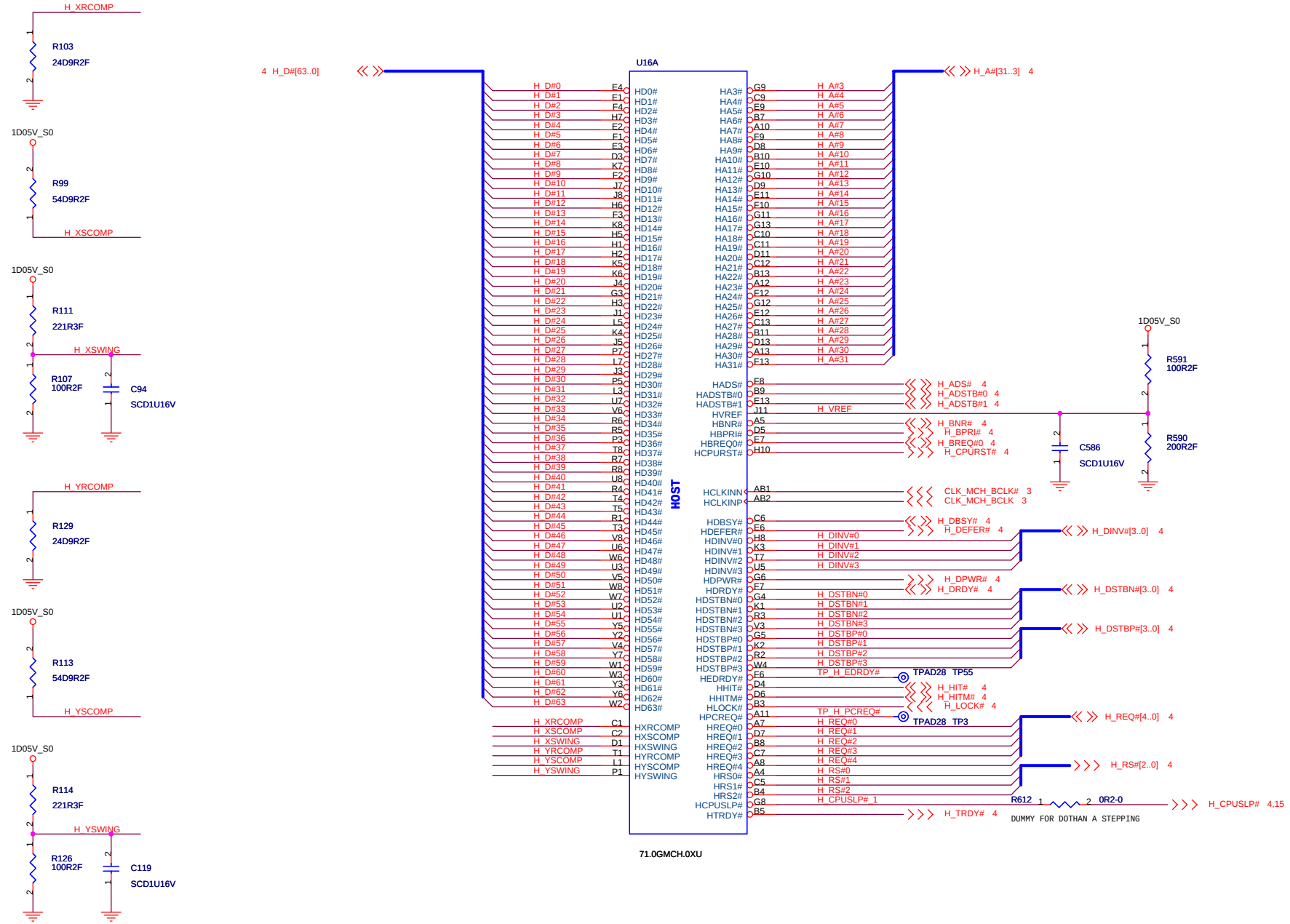
Size: A3 | Document Number: CANARY2 | Rev: SA

Date: Thursday, January 13, 2005 | Sheet 2 of 55


3D3V_S0
R698
0R3-U
3D3V_APWR_S0
C721 SCD1U16V
C711 SC4D7U10V5ZY
C709 SCD1U16V
R192
0R3-U
3D3V_48MPWR_S0
C294 SCD1U16V
C696 SC4D7U10V5ZY
C284 SCD1U16V
R633
0R3-U
3D3V_CLKGEN_S0
C674 SCD1U16V
C673 SC10U6D3V5MX
C280 SCD1U16V
C687 SCD1U16V
C297 SCD1U16V
C710 SCD1U16V
C303 SCD1U16V
C291 SCD1U16V
C697 SCD1U16V
12/27
R634 10KR2
VTT_PWRGD#
Q57 DTC124EUA-U1
22 K
22 K
38,39 6218_PGOOD
PCLK_PCM & PCLK_SIO need equal length
31 PCLK_SIO
29 PCLK_MINI
22 PCLK_LAN
24 PCLK_PCM
30 PCLK_KBC
33 PCLK_FWH
16 CLK_ICHPCI
R644 22R2
R641 33R2
R636 33R2
R639 22R2
R650 33R2
R653 33R2
R651 33R2
H/L: 100/96MHz
SS_SEL
ITP_EN
H/L : CPU_ITP/SRC7
16 PM_STPPCI#
11,18 SMBC_ICH
11,18 SMBD_ICH
7 DREFCLK
7 DREFCLK#
RN11 SRN33-2-U2
U70
PCI0
PCI1
PCI2
PCI3
PCIF1/SEL100/96#
PCIF0/ITP_EN
PCI_STOP#
SCL
SDA
DOT96
DOT96#
XTAL_IN
XTAL_OUT
REF
IREF
VTT_PWRGD#/PD
VSS_PCI
VSS_PCI
VSS_REF
VSS_CPU
VSSA
VSS48
VSS_SRC
C685
SC33P
X5
X-14D31818M-1
C684
SC33P
CLK_ICH14
CLK14_SIO
R649 33R2
R652 33R2
R197 475R2F
CLK_ICH14 & CLK14_SIO need equal length
LVDS
LVDS#
SRC1
SRC1#
SRC2
SRC2#
SRC3
SRC3#
SRC4
SRC4#
SRC5
SRC5#
SRC6
SRC6#
CPU2_ITP/SRC7
CPU2_ITP#/SRC7#
CPU0
CPU0#
CPU1
CPU1#
CPU_STOP#
FSC/TEST_SEL
FSB/TEST_MODE
USB48/FSA
VDD_SRC
VDD_SRC
VDD_PCI
VDD_PCI
VDD_REF
VDD_CPU
VDDA
VDD48
VDD_SRC
DREFSSCLK1
DREFSSCLK#1
RN13
SRN33-2-U2
DREFSSCLK 7
DREFSSCLK# 7
CLK_PCIE_DOCK_1
CLK_PCIE_DOCK_1#
RN15
CLK_PCIE_DOCK1 34
CLK_PCIE_DOCK1# 34
CLK_PCIE_DOCK_2
CLK_PCIE_DOCK_2#
RN17
CLK_PCIE_DOCK2 34
CLK_PCIE_DOCK2# 34
RN19
CLK_PCIE_PEG 46
CLK_PCIE_PEG# 46
CLK_PCIE_PEG
CLK_PCIE_PEG#
RN20
CLK_PCIE_ICH 16
CLK_PCIE_ICH# 16
CLK_PCIE_ICH
CLK_PCIE_ICH#
RN18
CLK_MCH_3GPLL 7
CLK_MCH_3GPLL# 7
CLK_MCH_3GPLL1
CLK_MCH_3GPLL#1
RN16
CLK_XDP_CPU 4
CLK_XDP_CPU# 4
CLK_XDP_CPU1
CLK_XDP_CPU#1
RN12
CLK_CPU_BCLK 4
CLK_CPU_BCLK# 4
CLK_CPU_BCLK1
CLK_CPU_BCLK#1
CLK_MCH_BCLK1
RN14
CLK_MCH_BCLK 6
CLK_MCH_BCLK# 6
PM_STPCPU# 16,39
CLK_MCH_BCLK#1
CFG2
FS_B
FS_A
R164 22R2
R182 22R2
CLK48_ICH 16
CLK48_CARDBUS 24
3D3V_CLKGEN_S0
3D3V_APWR_S0
3D3V_48MPWR_S0
IDTCV125PA
IN (3D3V_S0) | EN (6218_PGOOD) | OUT (VTT_PWRGD#)
H | L | H
X | H | Hi - Z
R645 10KR2
R657 10KR2
ITP_EN
SS_SEL
DY
R646 Do Not Stuff
R658 Do Not Stuff
DY
3D3V_CLKGEN_S0
R171 1KR2
R193 DUMMY-R2
R165 DUMMY-R2
FS_A
FS_B
CFG2
CFG2 7
R168 DUMMY-R2
R196 1KR2
R160 DUMMY-R2
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
CLK_PCIE_PEG R694 49D9R2F
CLK_PCIE_PEG# R697 49D9R2F
CLK_PCIE_ICH R695 49D9R2F
CLK_PCIE_ICH# R696 49D9R2F
DREFSSCLK# R666 49D9R2F
DREFSSCLK R663 49D9R2F
DREFCLK R656 49D9R2F
DREFCLK# R661 49D9R2F
CLK_CPU_BCLK R655 49D9R2F
CLK_CPU_BCLK# R659 49D9R2F
CLK_MCH_BCLK R662 49D9R2F
CLK_MCH_BCLK# R664 49D9R2F
CLK_MCH_3GPLL R671 49D9R2F
CLK_MCH_3GPLL# R693 49D9R2F
CLK_XDP_CPU R667 49D9R2F
CLK_XDP_CPU# R669 49D9R2F
CLK_PCIE_DOCK1 R668 49D9R2F
CLK_PCIE_DOCK1# R670 49D9R2F
CLK_PCIE_DOCK2 R672 49D9R2F
CLK_PCIE_DOCK2# R692 49D9R2F
EMI capacitor
CLK_ICH14 C691 DY Do Not Stuff
CLK14_SIO C694 DY Do Not Stuff
PCLK_FWH C699 DY Do Not Stuff
PCLK_PCM C679 DY Do Not Stuff
PCLK_MINI C688 DY Do Not Stuff
PCLK_KBC C692 DY Do Not Stuff
CLK_ICHPCI C690 DY Do Not Stuff
CLK48_ICH C689 DY Do Not Stuff
BOM2(NV44+G)
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
Size A3
Document Number
CANARY2
Rev SA
Date: Thursday, January 13, 2005
Sheet 3 of 55


U66A
BGA479-SKT-2-U
ADDR GROUP 0
ADDR GROUP 1
XTP/ITP SIGNALS
CONTROL
HCLK THERM
TP14
TPAD28
1D05V_S0
R141
56R2J
Place testpoint on H_IERR# with a GND 0.1" away
U66B
DATA GRP 0
DATA GRP 1
DATA GRP 2
DATA GRP 3
MISC
R146
DUMMY-R2
To V-CORE SWITCH
R586
0R3-U
CPU_SEL0
TP4
R487
1KR2F
R486
2KR2F
GTLREF0
Layout Note:
0.5" max length.
R147
200R2F
R489
27D4R2F
R488
54D9R2F
R145
27D4R2F
R144
54D9R2F
Layout Note:
Comp0, 2 connect with Zo=27.4 ohm, make trace length shorter than 0.5" .
Comp1, 3 connect with Zo=55 ohm, make trace length shorter than 0.5" .
PM_THRMTRIP# should connect to ICH6 and Alviso without T-ing (No stub)
R572
0R2-0
R629
0R2-0
R33
Do Not Stuff
NO STUFF
R628
Do Not Stuff
NO STUFF
DY
DY
All place within 2" to CPU
BSEL[1:0] Freq.(MHz) (A Stepping)
L L 100
L H 133
BSEL[1:0] Freq.(MHz) (B Stepping)
L H 100
L L 133
BOM2(NV44+G)
緯創資通
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
Title
CPU (1 of 2)
Size A3
Document Number CANARY2
Rev SA
Date: Thursday, January 13, 2005
Sheet 4 of 55


VCC_CORE_S0
U66C
BGA479-SKT-2-U
1D5V_VCCA_S0
C31
SCD01U16V2KX
C30
SC10U10V5ZY
1D5V_S0
CPU_D10
R116
0R2-0
H_VID0 39
H_VID1 39
H_VID2 39
H_VID3 39
H_VID4 39
H_VID5 39
TP_VCCSENSE
TP_VSSSENSE
R139
R136
Do Not Stuff
DY DY
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.
PM_SLP_S3#_ICH 16,34,42
R491
DUMMY-R2
I max = 120 mA
U55
SHDN#
GND
IN
SET
OUT
3D3V_S0
BC9
SC1U10V3ZY
BC8
BC7
R472
R471
R454
R492
0R3-U
R470
1D8V_S0
Place these and dummy 12K7R3F for 1D8V_VCCA_S0
C106
C98
C75
C74
C73
C121
C114
C169
C168
C167
C118
C616
C598
C593
C584
C570
C571
C617
C599
C594
C585
C171
C85
C84
C96
C103
C111
C117
C147
C92
C77
C165
C145
C558
C79
C76
C174
C153
C557
C173
C157
C70
C112
C144
C100
C91
C152
C67
C108
C118
C113
DY DY DY DY DY
U66D
BGA479-SKT-2-U
BOM2(NV44+G)
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
CANARY2
Rev
SA
Date: Thursday, January 13, 2005
Sheet 5 of 55



Place them near to the chip

BOM2(NV44+G)

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

Title: ***GMCH (1 of 5)***

Size	Document Number	Rev
A3	CANARY2	SA

Date: Thursday, January 13, 2005 Sheet 6 of 55

When GM replace to PM

U16B

U16G

Alviso will provide SDVO_CTRLCLK and CTRLDATA pulldowns on-die

Lane Reversal enable

Layout Note: Route as short as possible

When High 1K Ohm

When Low choice lower than 3.5K Ohm

For B stepping

For A stepping

Place near C916,C917,C896,C897

Place near U104

71.0GMCH.0XU

CFG[2:0]	Freq.(MHz)
101	400
001	533

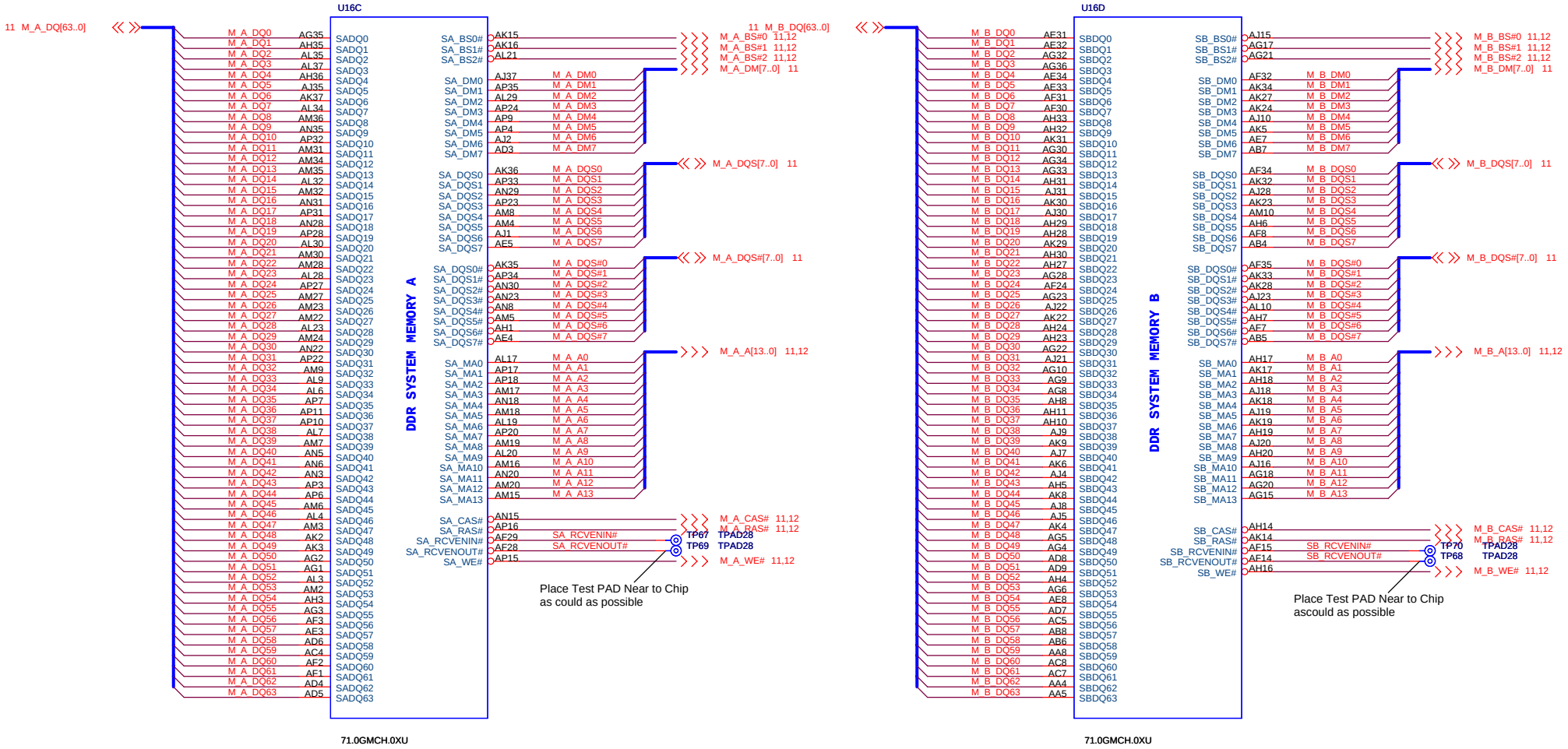
BOM2(NV44+G)

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

Title: GMCH (2 of 5)

Size	Document Number	Rev
Custom	CANARY2	SA

Date: Thursday, January 13, 2005 Sheet 7 of 55



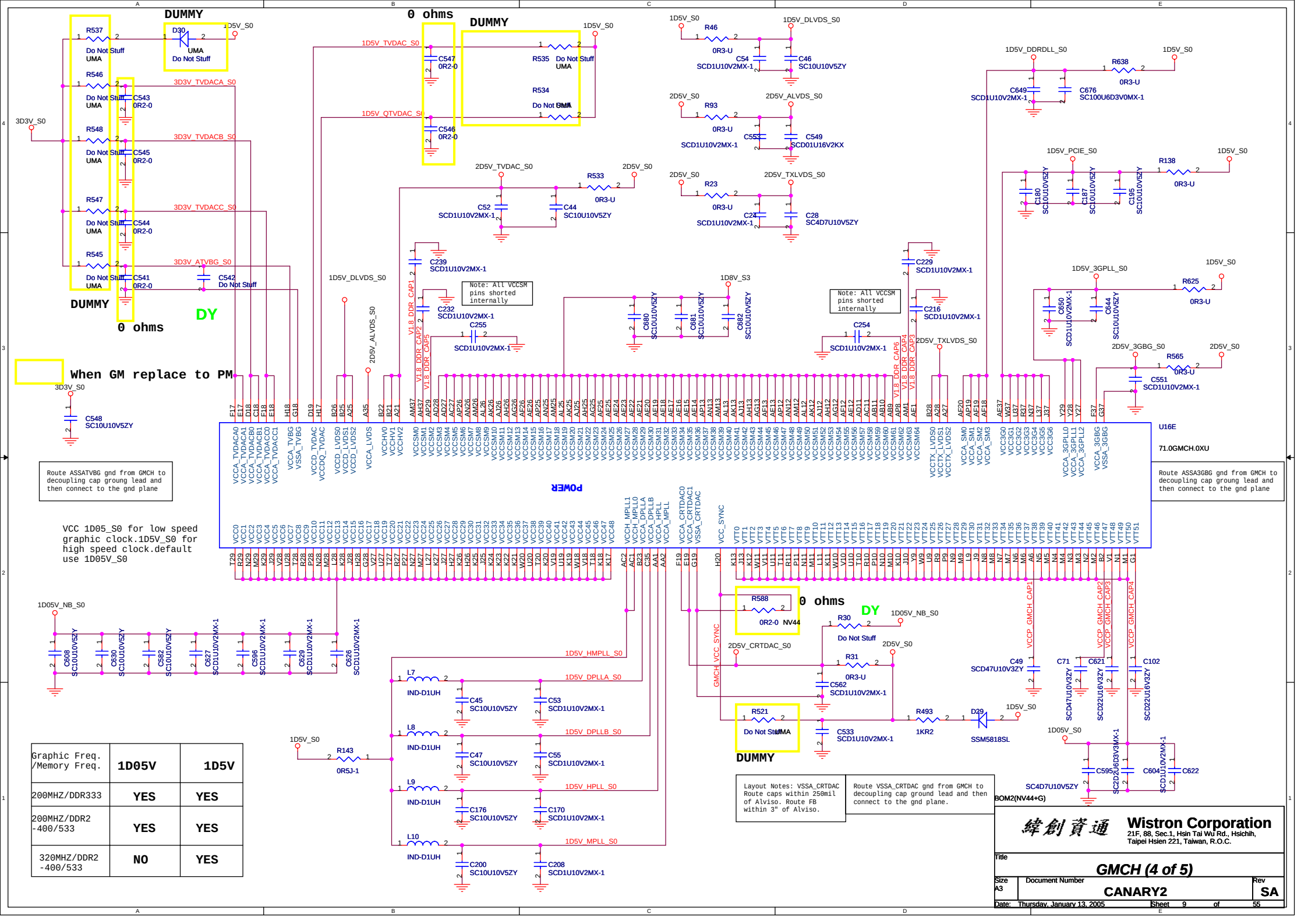
BOM2(NV44+G)

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

Title: ***GMCH (3 of 5)***

Size	Document Number	Rev
A3	CANARY2	SA

Date: Thursday, January 13, 2005 Sheet 8 of 55



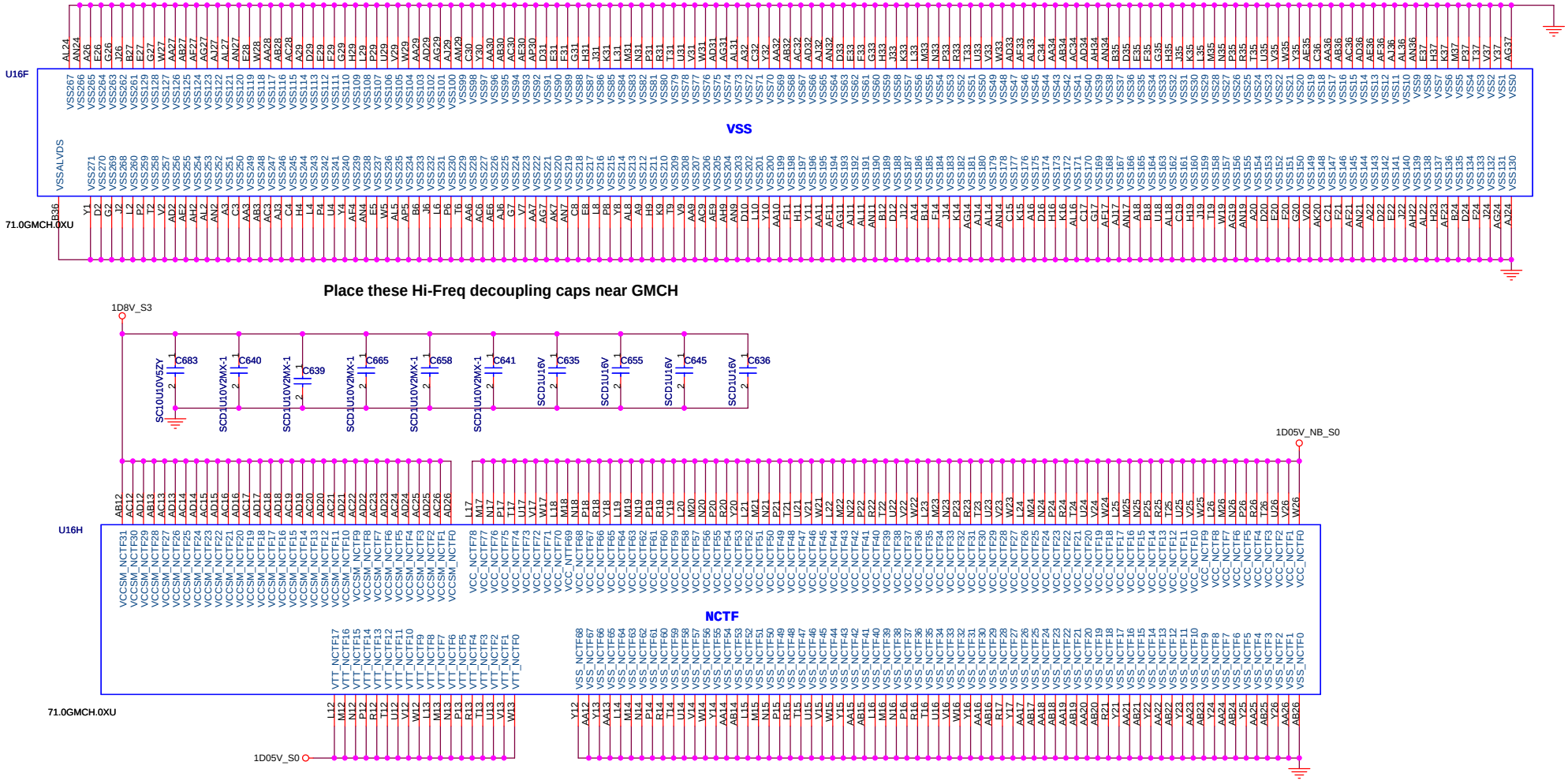
Graphic Freq. /Memory Freq.	1D05V	1D5V
200MHZ/DDR333	YES	YES
200MHZ/DDR2 -400/533	YES	YES
320MHZ/DDR2 -400/533	NO	YES

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

Title: **GMCH (4 of 5)**

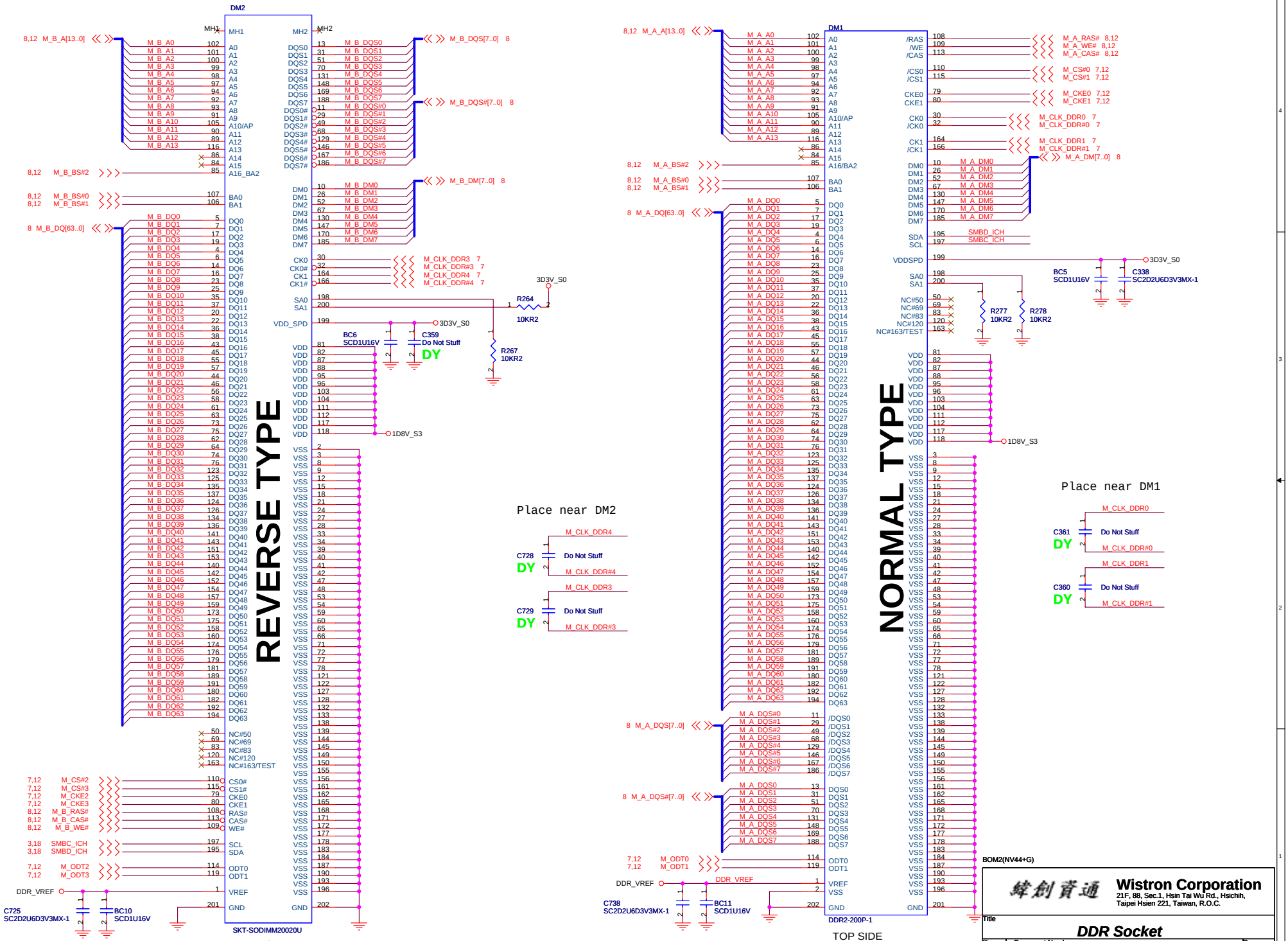
Size: A3 | Document Number: **CANARY2** | Rev: **SA**

Date: Thursday, January 13, 2005 | Sheet 9 of 55



BOM2(NV44+G)

緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***GMCH (5 of 5)***	
Size A3	Document Number **CANARY2**	Rev **SA**
Date: Thursday, January 13, 2005	Sheet 10 of 55	



BOM2(NV44+G)

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

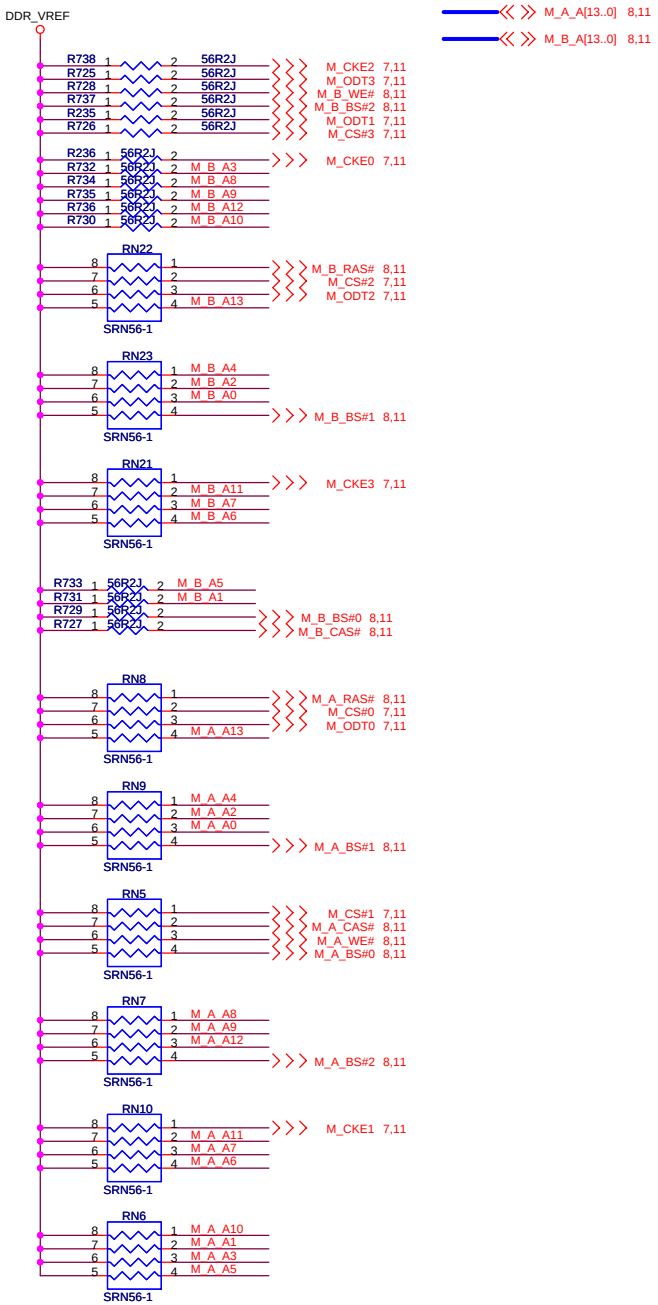
Title: ***DDR Socket***

Size	Document Number	Rev
Custom	CANARY2	SA

Date: Thursday, January 13, 2005 Sheet 11 of 55

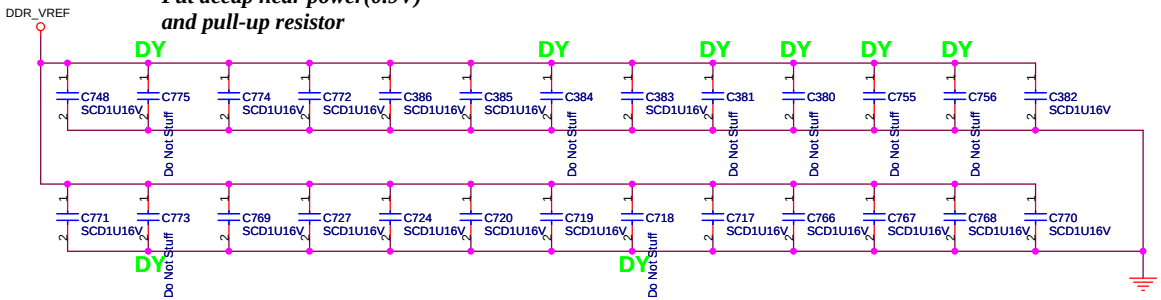
PARALLEL TERMINATION

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

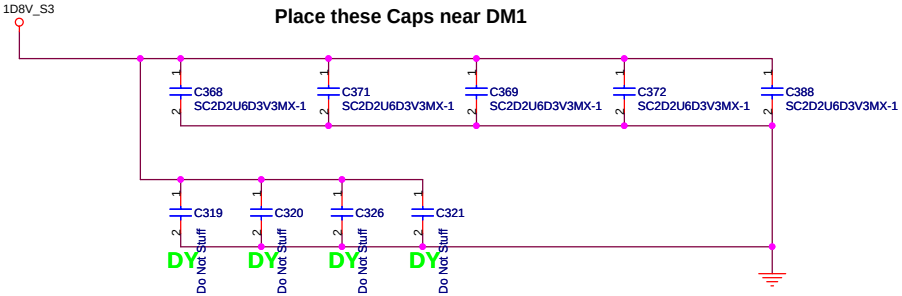


Decoupling Capacitor

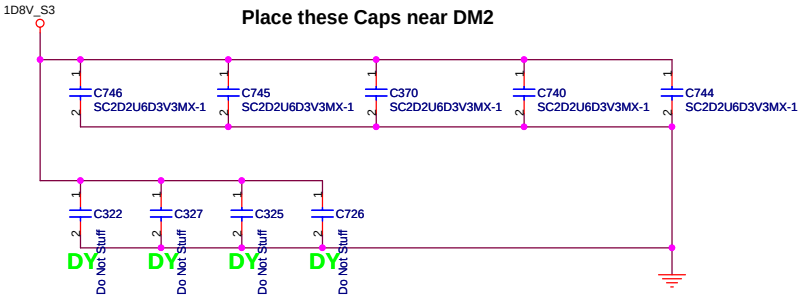
Put decap near power(0.9V) and pull-up resistor



Place these Caps near DM1



Place these Caps near DM2



BOM2(NV44+G)

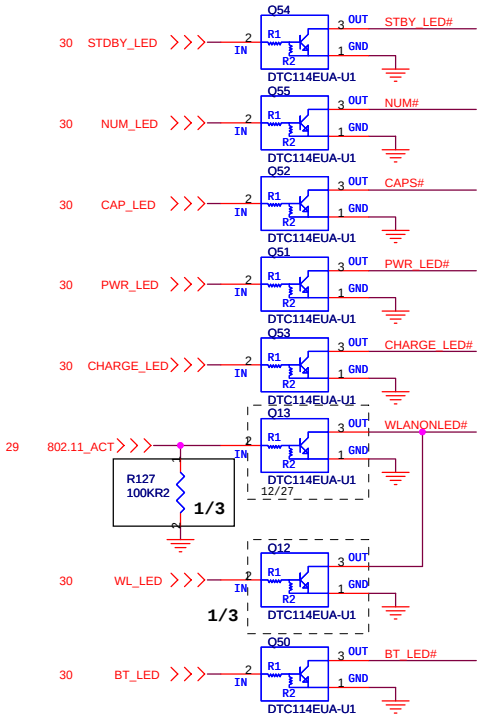
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

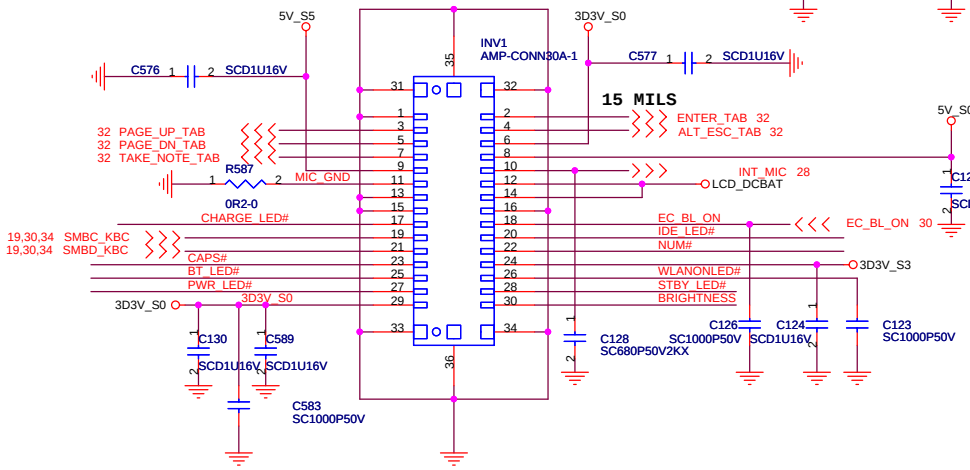
Title: ***DDR2 Termination Resistor***

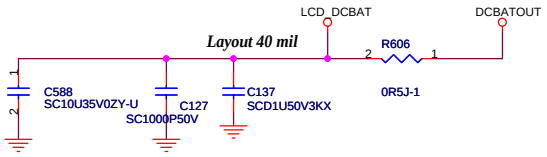
Size	Document Number	Rev
A3	CANARY2	SA

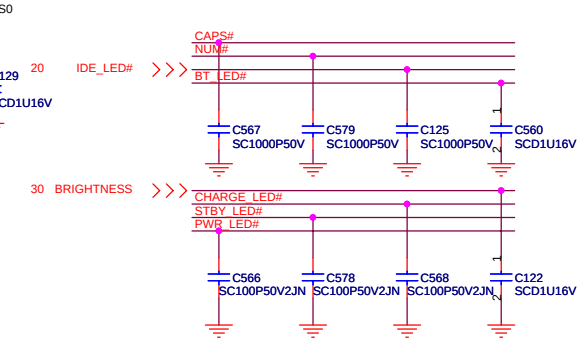
Date: Thursday, January 13, 2005 Sheet 12 of 55

INVERTER INTERFACE

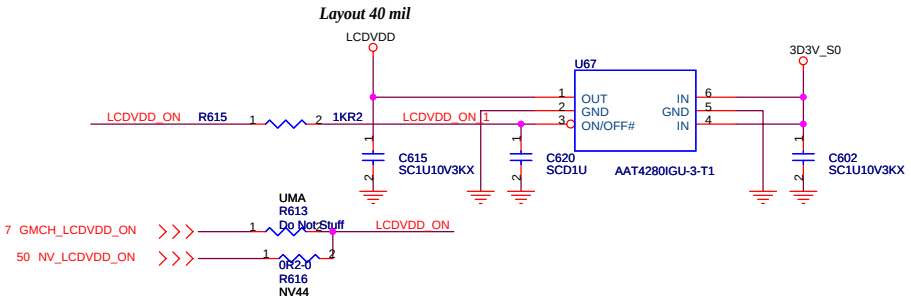




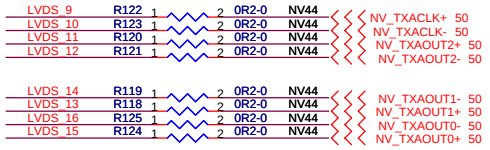




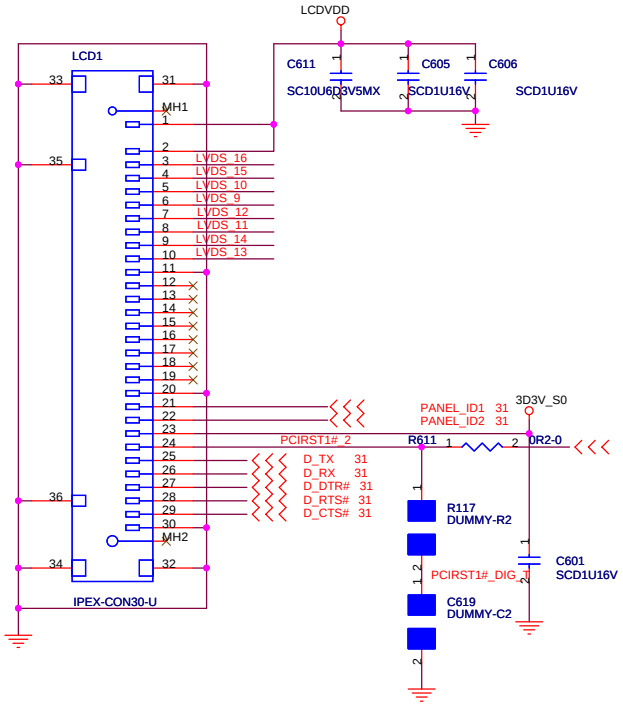
LCD CONN

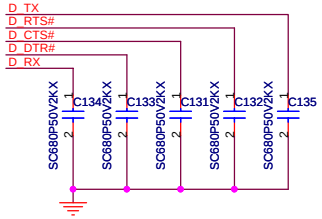


Place them as close to LCD as possible



Place them as close to LCD as possible





BOM2(NV44+G)

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

Title: LCD/Inverter Connector

Size: A3 | Document Number: CANARY2 | Rev: SA

Date: Thursday, January 13, 2005 | Sheet 13 of 55

CRT I/F &TV CONNECTOR

Ferrite bead impedance: 75ohm@100MHz

50 Ohm Impedance

75 Ohm Impedance

34 CRT_R_SYS — CRT_R_SYS — L4 BLM11B750S — CRT_R
34 CRT_G_SYS — CRT_G_SYS — L5 BLM11B750S — CRT_G
34 CRT_B_SYS — CRT_B_SYS — L6 BLM11B750S — CRT_B

R11 150R2F, R19 150R2F, R20 150R2F
C13 SC3P50V2CN, C21 SC3P50V2CN, C22 SC3P50V2CN
C494 SC3P50V2CN, C496 SC3P50V2CN, C498 SC3P50V2CN

5V_S0, 5V_CRT_S0

5V @ ext. CRT side

D22 SDMK0340L-7
C499 SCD01U16V2KX
R458 10KR2, R8 2K2R2, R459 2K2R2

CRT1 VIDEO-15-34

CRT_R, CRT_G, CRT_B, CRT_IN#, DAT_DDC1_5, JVGA_HS, JVGA_VS, CLK_DDC1_5

C493 SC100P50V2JN, C495 SC100P50V2JN, C500 SC100P50V2JN
C501 SC100P50V2JN, C497 SC100P50V2JN

DDC_CLK & DATA level shift

2D5V_S0, 3D3V_S0

For GMCH: R499 Do Not Stuff UMA
For NV: R482 0R2-0 NV44

34 CLK_DDC1_5 — CLK_DDC1_5
34 DAT_DDC1_5 — DAT_DDC1_5

R484 2K2R2, R485 2K2R2, R483 2K2R2

For GMCH / For NV

7 GMCH_DDCDATA — R465 — UMA Do Not Stuff — DAT_DDC1_5
49 NV_DDCDATA — R466 — NV44 0R2-0 — For NV
49 NV_DDCCLK — R468 — NV44 0R2-0 — For NV
7 GMCH_DDCCLK — R467 — UMA Do Not Stuff — CLK_DDC1_5

Q2 2N7002
Q1 2N7002

Hsync & Vsync level shift

5V_S0
C504 SCD1U16V

49 NV_HSYNC — R4 NV44 0R2-0 — CRT_HSYNC
7 GMCH_HSYNC — R9 UMA Do Not Stuff
49 NV_VSYNC — R16 NV44 0R2-0 — CRT_VSYNC
7 GMCH_VSYNC — R14 Do Not Stuff UMA

U52B
U52A TSAHCT125
TSAHCT125

For System CRT

R12 JVGA_HS 39R2J
R13 JVGA_VS 39R2J

5V_S0
U1 PACDN009

CRT_HSYNC1, CRT_R, CRT_VSYNC1 → CRT_G, CRT_B

For Dock CRT

R461 VSYNC_5 39R2J — VSYNC_5 34
R452 HSYNC_5 39R2J — HSYNC_5 34

34 TV_CRMA_SYS — R5 150R2F — C6 SC150P — L1 IND-1D2UH — C5 SC33P — C2 SC270P50V2JN — CRMA_1
34 TV_LUMA_SYS — R6 150R2F — C10 SC150P — L2 IND-1D2UH — C9 SC33P — C7 SC270P50V2JN — LUMA_1
34 TV_COMP_SYS — R7 150R2F — C12 SC150P — L3 IND-1D2UH — C11 SC33P — C4 SC270P50V2JN — COMP_1

TVCONN_12
C492 DY Do Not Stuff
R448 0R2-0

TV1 MINDIN7-9

12/29

150 Ohm close to connector

6 MHz Low-Pass filter close to CONN

ESD Protection Diode

3D3V_S0
D24 BAV99LT1 — LUMA_1
D25 BAV99LT1 — CRMA_1
D23 BAV99LT1 — COMP_1
12/29

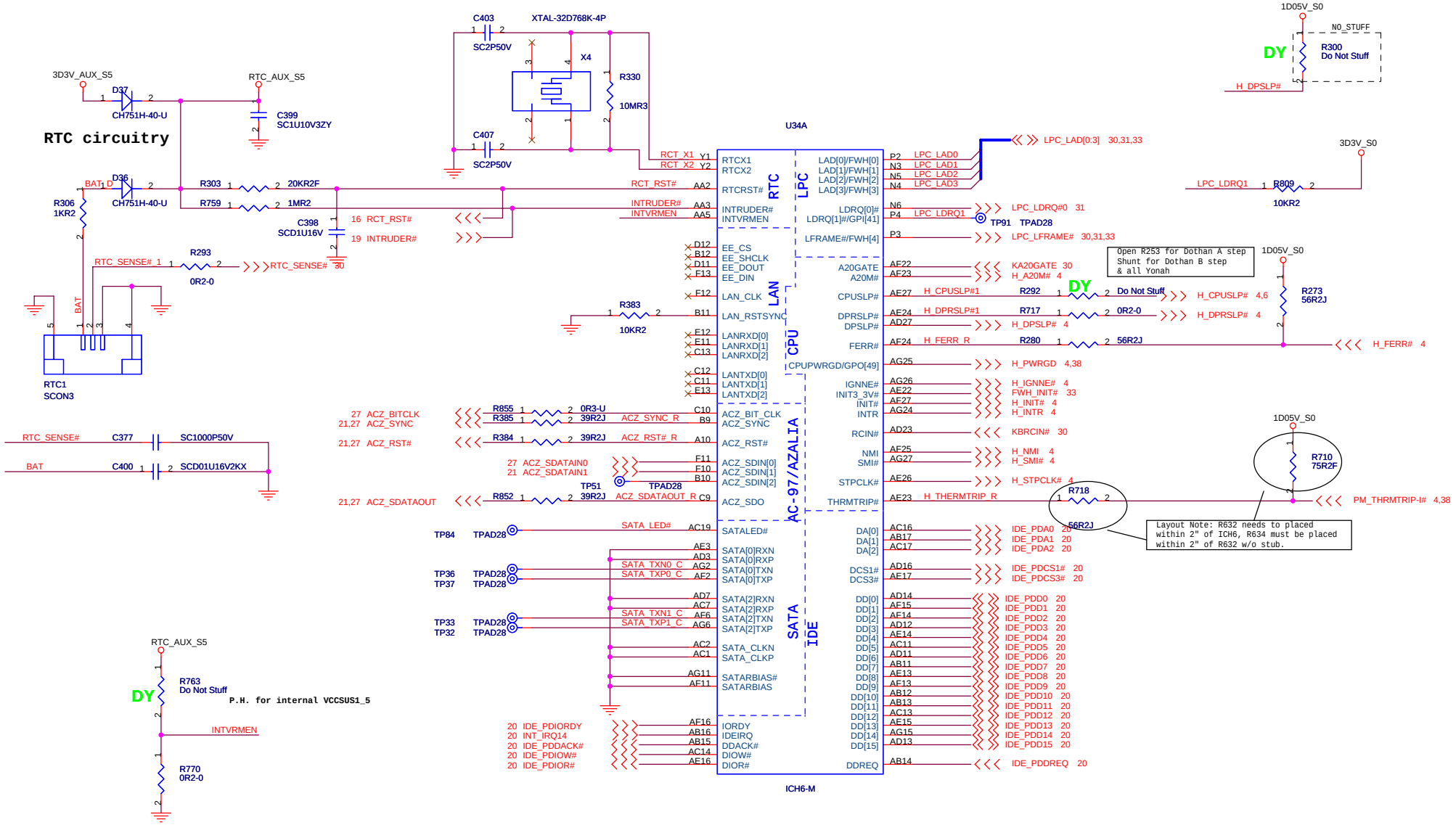
BOM2(NV44+G)

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

Title: **CRT Connector**

Size	Document Number	Rev
Custom	CANARY2	SA

Date: Thursday, January 13, 2005 Sheet 14 of 55



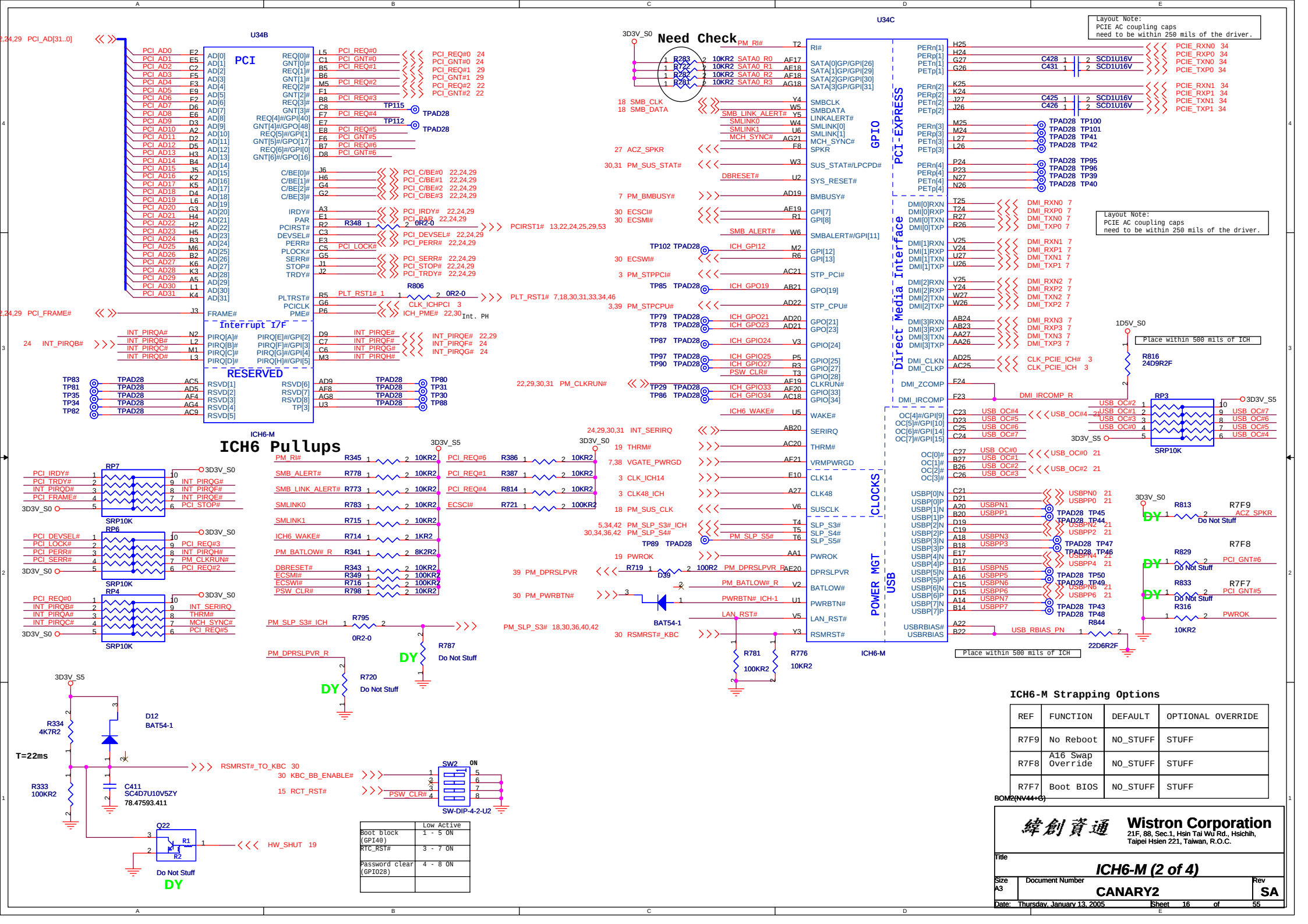
BOM2(NV44+G)

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 (1 of 4)**

Size	Document Number	Rev
A3	CANARY2	SA

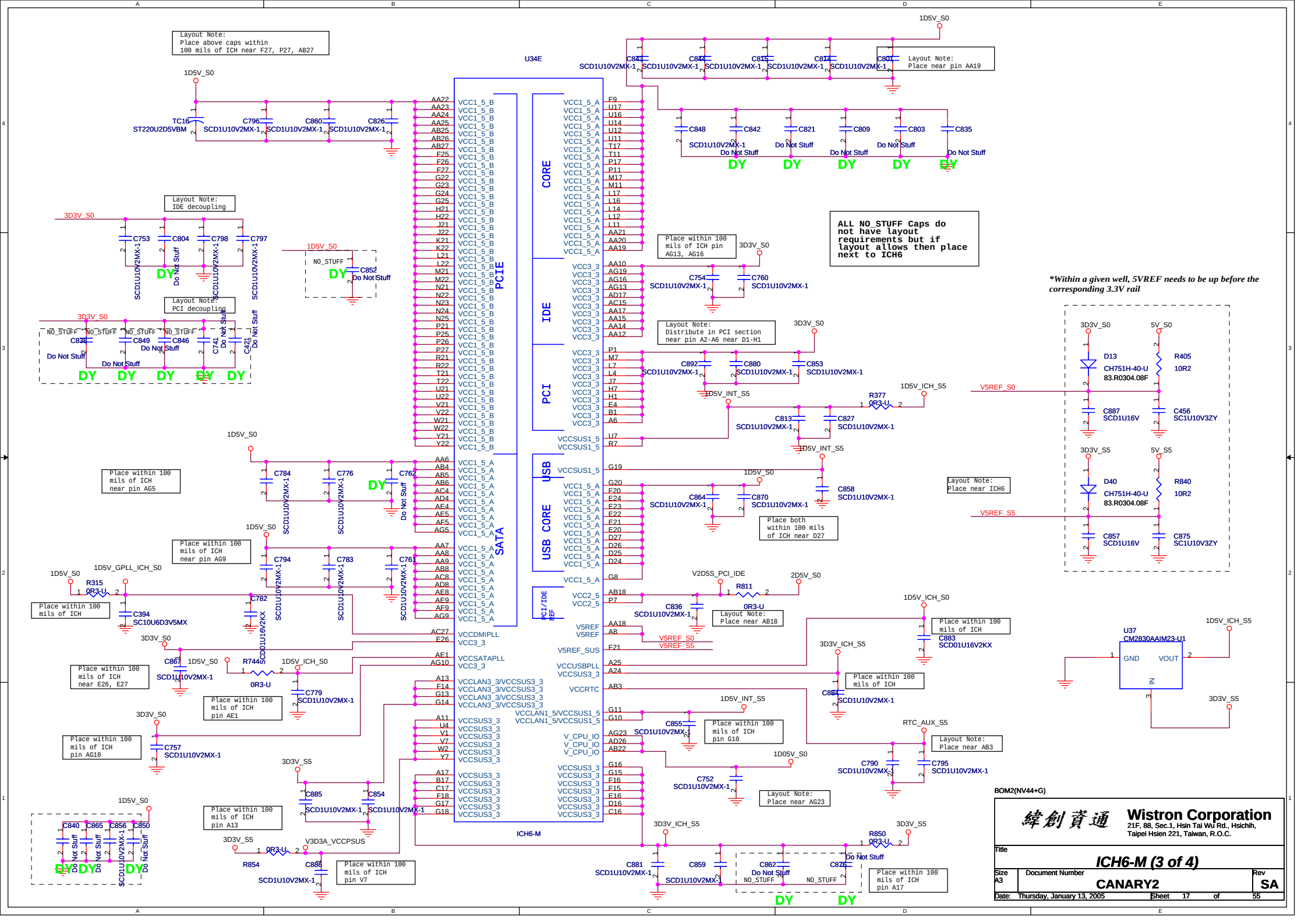
Date: Thursday, January 13, 2005 Sheet 15 of 55

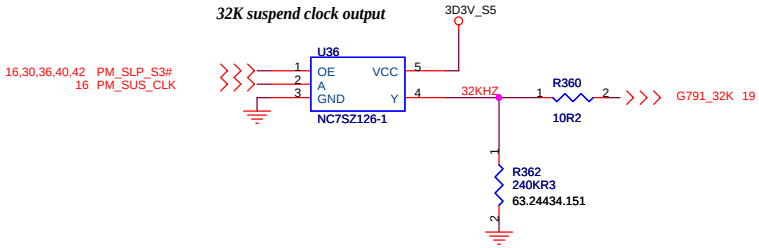


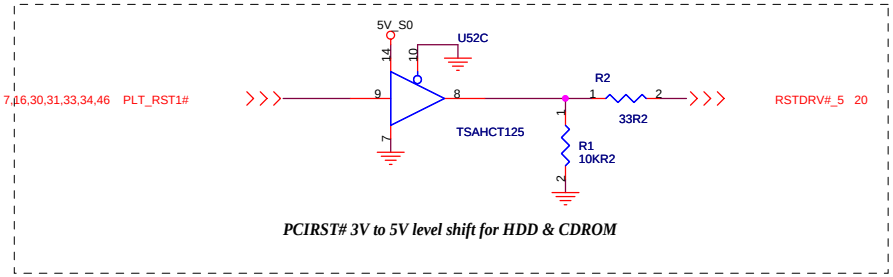
ICH6-M Strapping Options

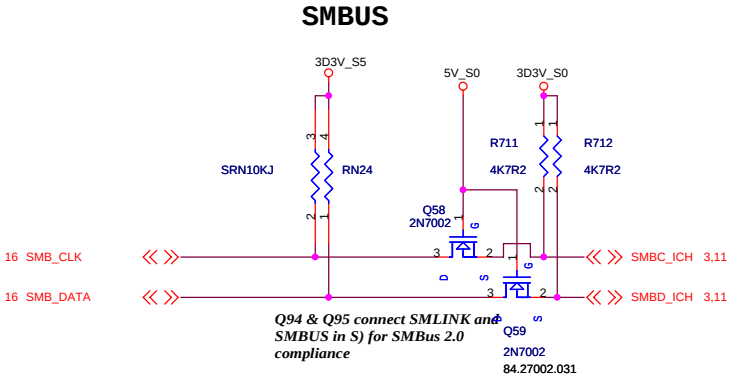
REF	FUNCTION	DEFAULT	OPTIONAL OVERRIDE
R7F9	No Reboot	NO_STUFF	STUFF
R7F8	A16 Swap Override	NO_STUFF	STUFF
R7F7	Boot BIOS	NO_STUFF	STUFF

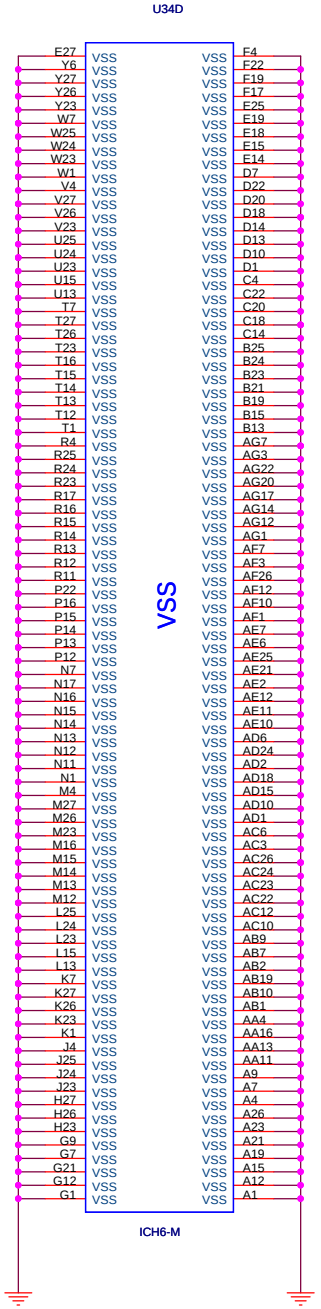
BOM2(NV44+G)


U34E
PCIE
SATA
CORE
IDE
PCI
USB
USB CORE
PCI/IDE REF
ICH6-M
Layout Note: Place above caps within 100 mils of ICH near F27, P27, AB27
Layout Note: Place near pin AA19
Layout Note: IDE decoupling
Layout Note: PCI decoupling
ALL NO_STUFF Caps do not have layout requirements but if layout allows then place next to ICH6
Place within 100 mils of ICH pin AG13, AG16
Layout Note: Distribute in PCI section near pin A2-A6 near D1-H1
Place within 100 mils of ICH near pin AG5
Place within 100 mils of ICH near pin AG9
Place within 100 mils of ICH
Place within 100 mils of ICH near E26, E27
Place within 100 mils of ICH pin AE1
Place within 100 mils of ICH pin AG10
Place within 100 mils of ICH pin A13
Place within 100 mils of ICH pin V7
Place within 100 mils of ICH pin G10
Place within 100 mils of ICH pin A17
Place both within 100 mils of ICH near D27
Layout Note: Place near AB18
Layout Note: Place near AB3
Layout Note: Place near AG23
Layout Note: Place near ICH6
*Within a given well, 5VREF needs to be up before the corresponding 3.3V rail
BOM2(NV44+G)
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title
ICH6-M (3 of 4)
Size A3
Document Number
CANARY2
Rev SA
Date: Thursday, January 13, 2005
Sheet 17 of 55



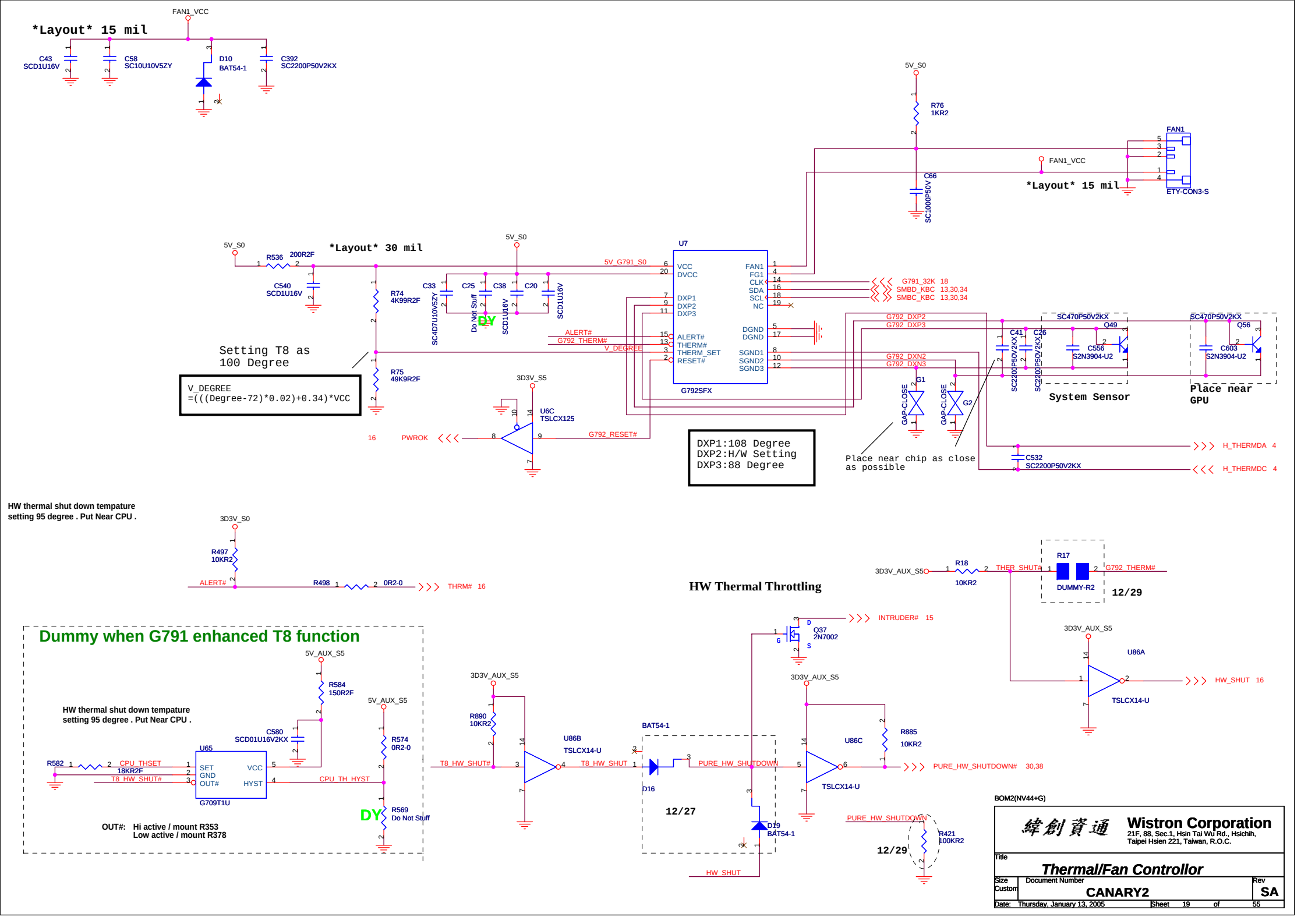






BOM2(NV44+G)

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 **CANARY2**	Rev **SA**
Date: Thursday, January 13, 2005	Sheet 18 of 55	



BOM2(NV44+G)

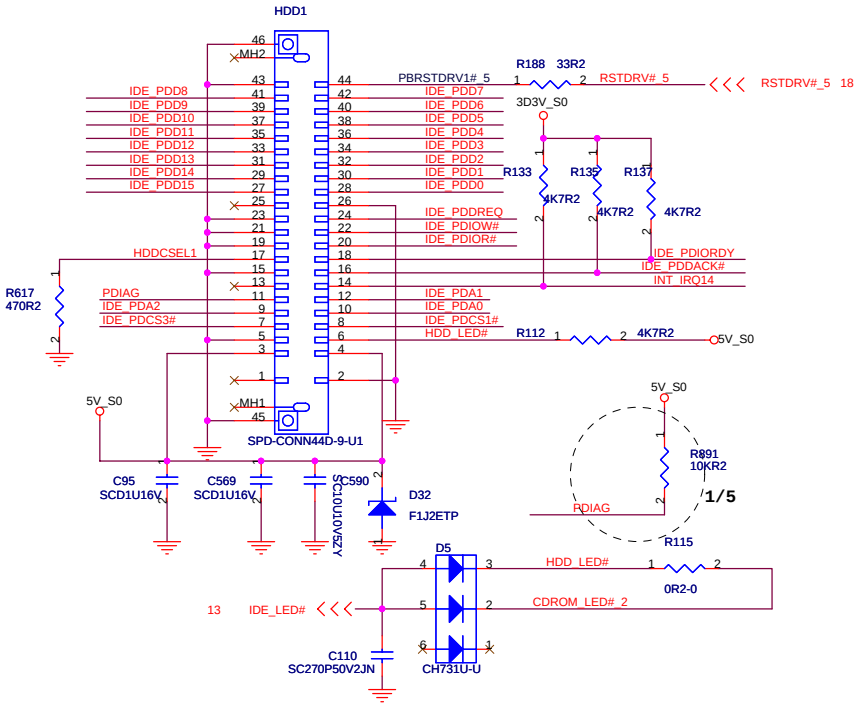
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***Thermal/Fan Controllor***

Size	Document Number	Rev
Custom	CANARY2	SA

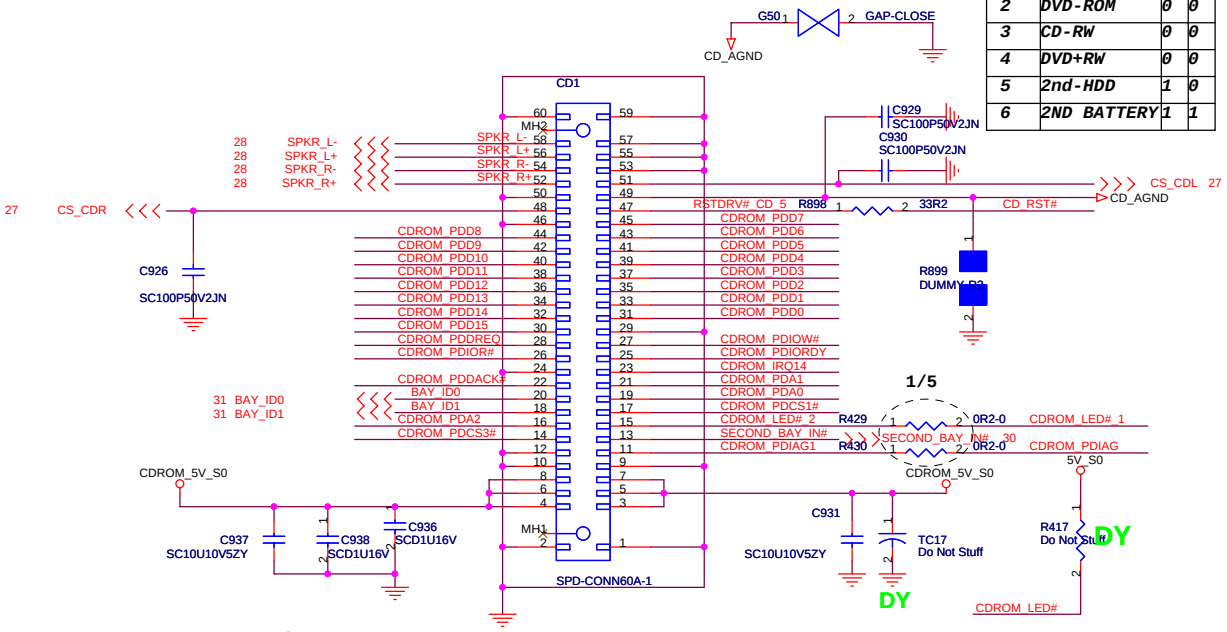
Date: Thursday, January 13, 2005 Sheet 19 of 55

HDD Connector



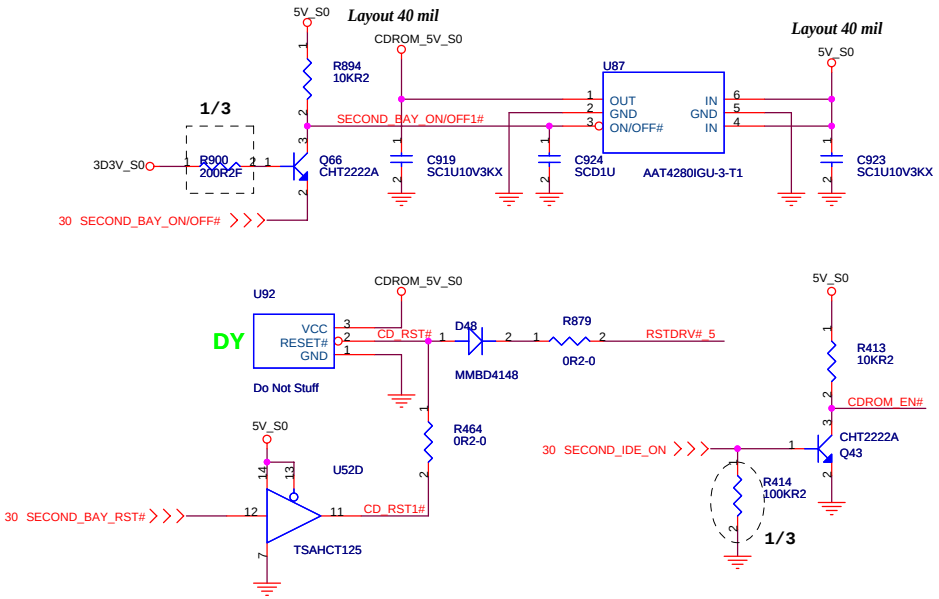
CD-ROM Connector

BAY Option Table			
Type	Device Description	BAYID 0	1
1	CD-ROM	0	0
2	DVD-ROM	0	0
3	CD-RW	0	0
4	DVD+RW	0	0
5	2nd-HDD	1	0
6	2ND BATTERY	1	1

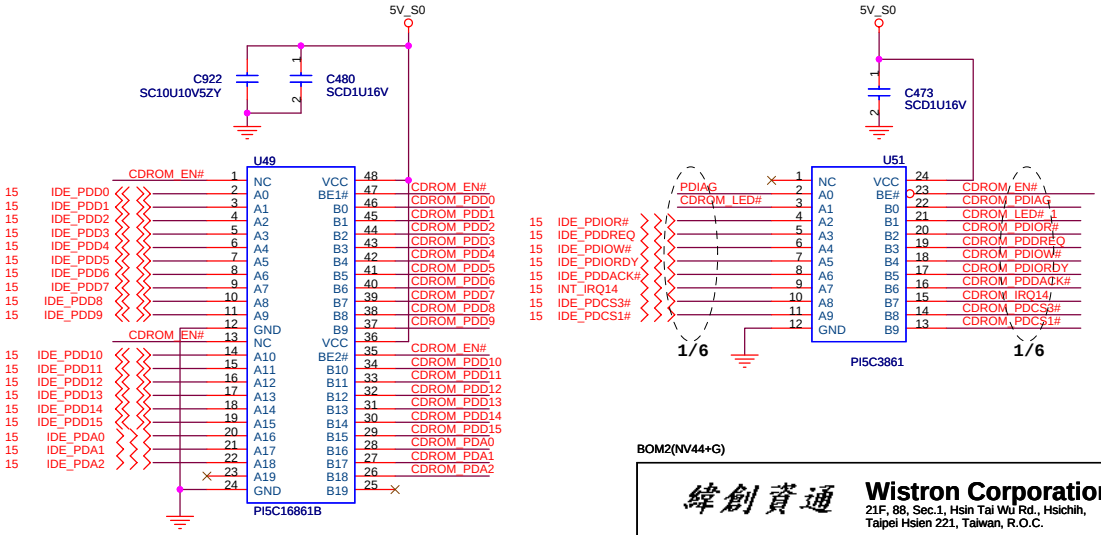


CHECK PIDE/SIDE DIAG# PIN

HOT SWAP CIRCUIT



TRI-STATE SWITCH FOR CDROM HOT SWAP

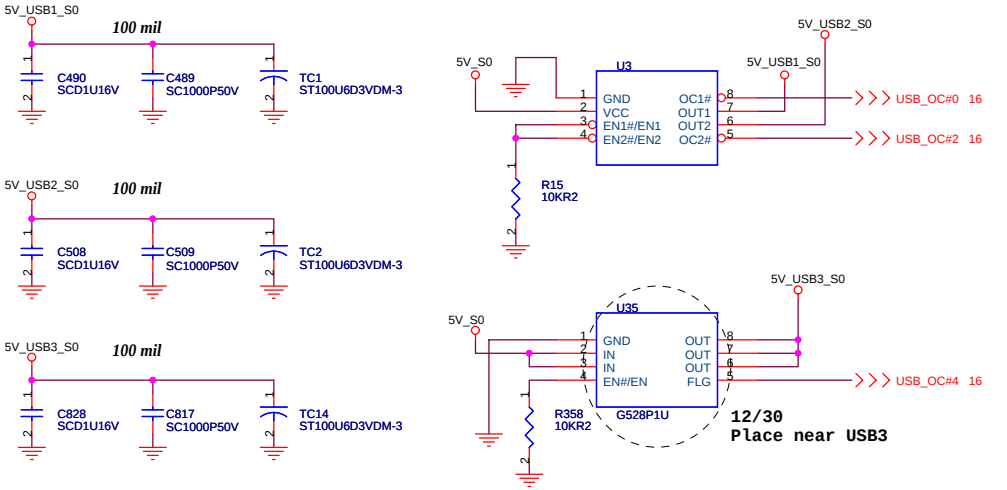


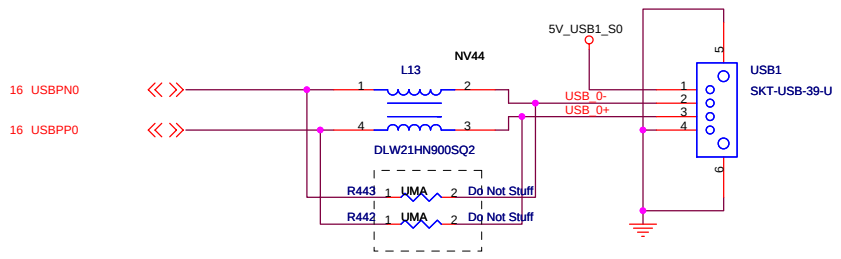
BOM2(NV44+G)

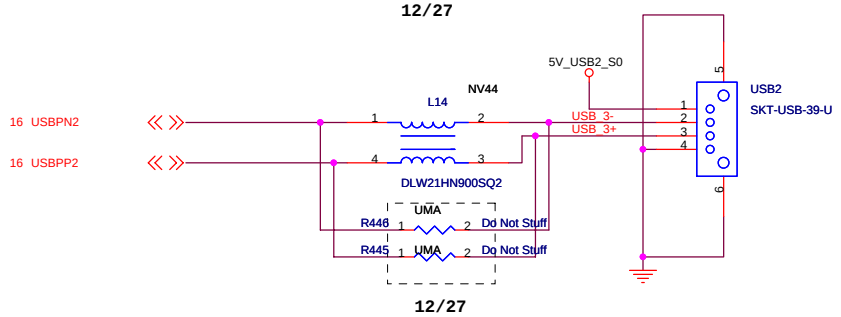
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

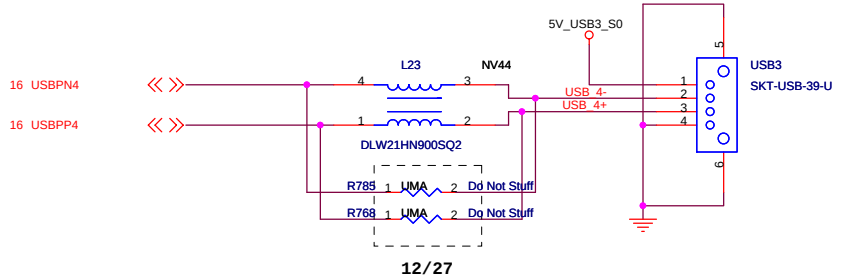
Title	HDD and CDROM	
Size A3	Document Number CANARY2	Rev SA
Date: Thursday, January 13, 2005	Sheet 20 of 55	

USB PORT

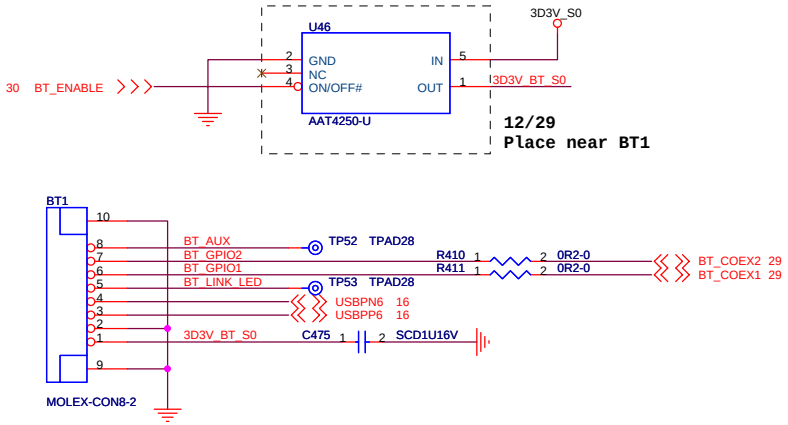




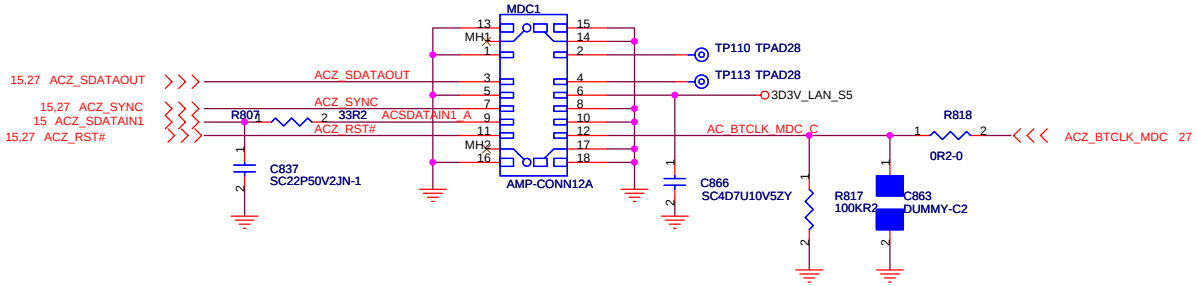




BLUETOOTH MODULE CONNECTOR

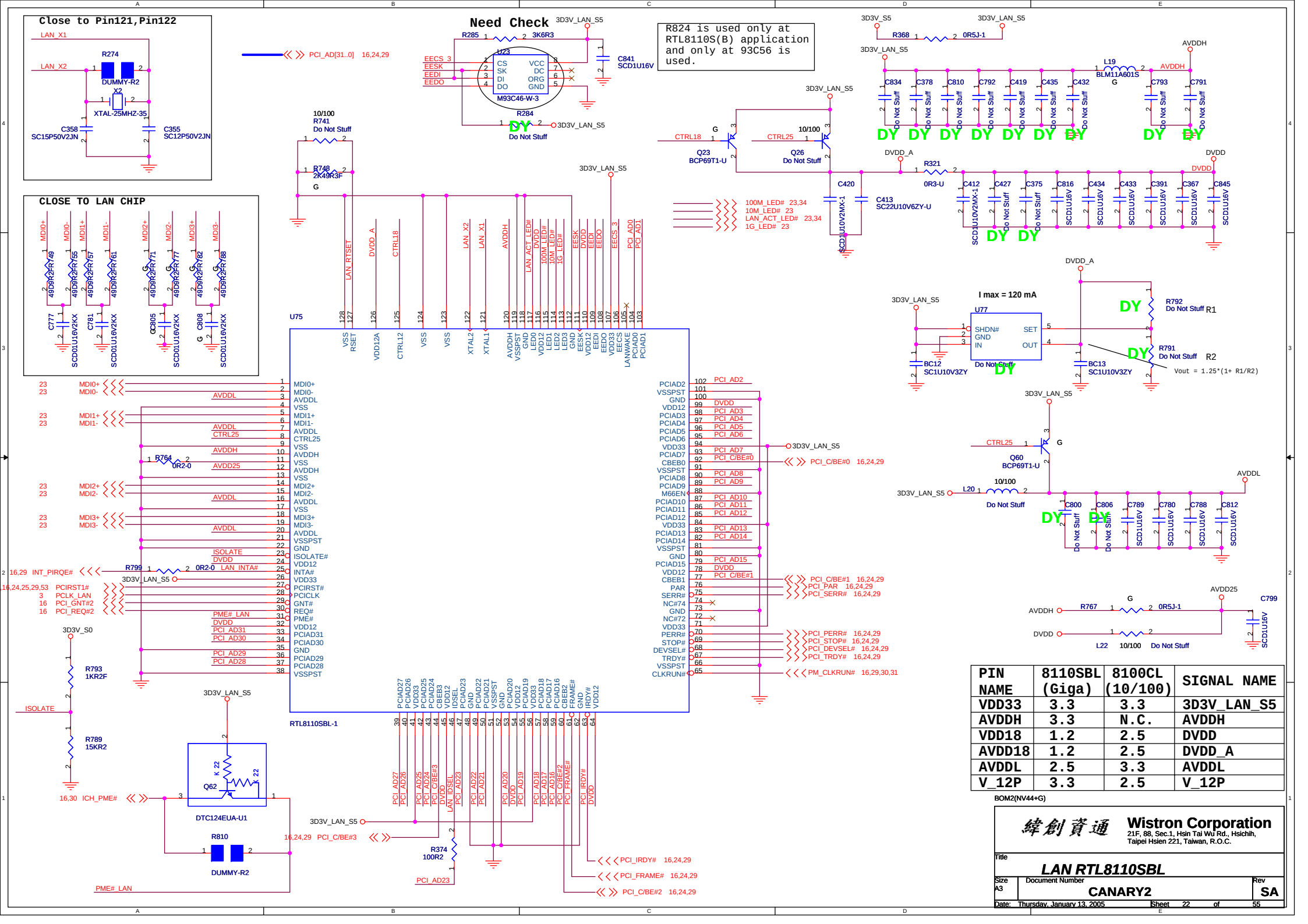


MDC 1.5 CONNECTOR



BOM2(NV44+G)

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 & BTOOTH		
Size: A3	Document Number: CANARY2	Rev: SA
Date: Thursday, January 13, 2005	Sheet 21 of 55	



PIN NAME	8110SBL (Giga)	8100CL (10/100)	SIGNAL NAME
VDD33	3.3	3.3	3D3V_LAN_S5
AVDDH	3.3	N.C.	AVDDH
VDD18	1.2	2.5	DVDD
AVDD18	1.2	2.5	DVDD_A
AVDDL	2.5	3.3	AVDDL
V_12P	3.3	2.5	V_12P

BOM2(NV44+G)

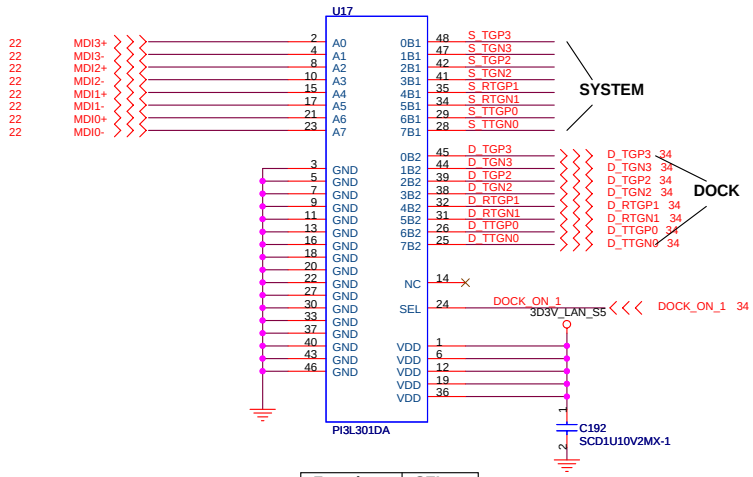
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: LAN RTL8110SBL

Size: A3 | Document Number: CANARY2 | Rev: SA

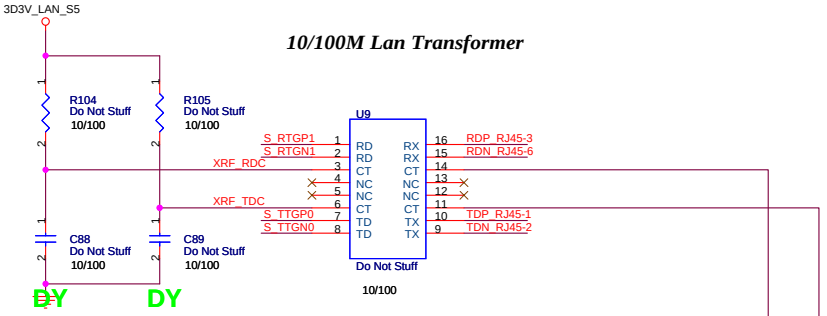
Date: Thursday, January 13, 2005 | Sheet 22 of 55

LAN switch



Function	SEL
An to nB1	L
An to nB2	H

10/100M Lan Transformer



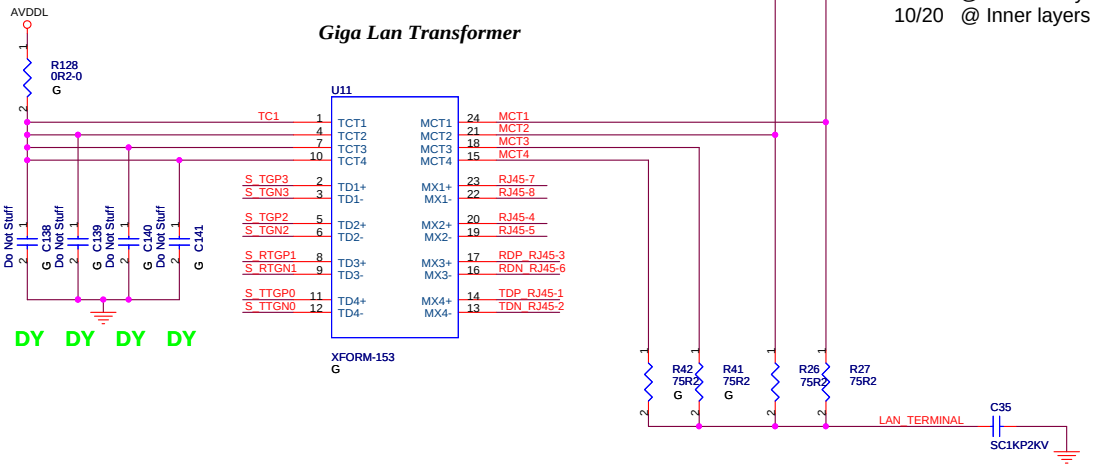
1.route on bottom as differential pairs.
2.Tx+/Tx- are pairs. Rx+/Rx- are pairs.
3.No vias, No 90 degree bends.
4.pairs must be equal lengths.
5.6mil trace width,12mil separation.
6.36mil between pairs and any other trace.
7.Must not cross ground moat,except RJ-45 moat.

Green LED: Speed 100: ON / Speed 10:OFF
Yellow LED: Link: ON, TX/RX: ~~Flash(10Hz)~~

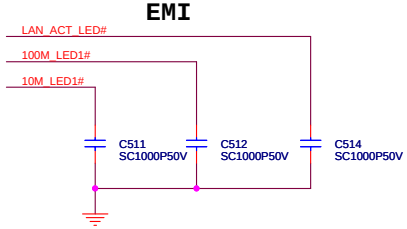
RJ11 signal must leave the other signal or power plane 100mil.

DOC_TIP,DOC_RING,TIP,RING:
W/S : 10/100 @ Surface layers
10/20 @ Inner layers

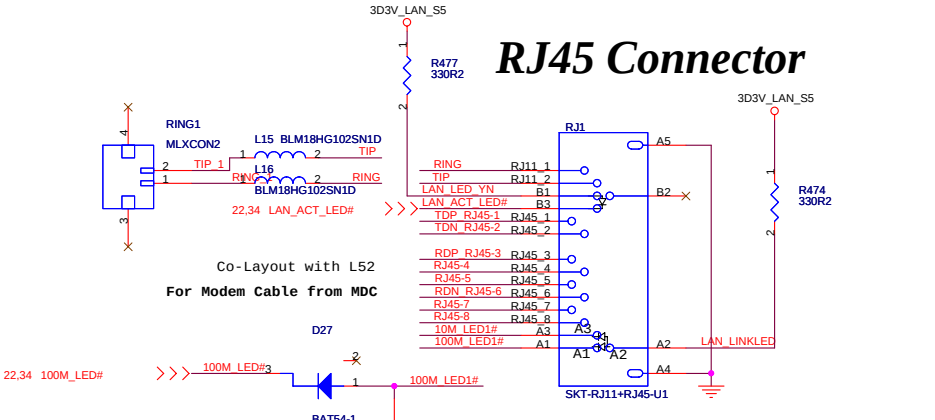
Giga Lan Transformer

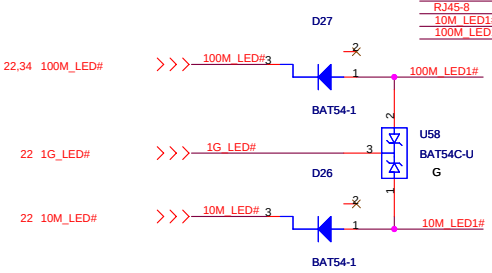


EMI



RJ45 Connector





Link: Green - 10Mbps/802.11b
Orange - 100Mbps/802.11a
Yellow - 1Gbps
Activity: Yellow

BOM2(NV44+G)

鋒創資通 **Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: ***LAN Connector***		
Size: Custom	Document Number: CANARY2	Rev: SA
Date: Thursday, January 13, 2005	Sheet 23 of 55	

INTA# CARBUS 1
INTB# CARBUS 2
INTC# 1394
INTD# CARD READER

U26A — 1 of 4 — PCI7411

CARD BUS: VCCP, AD31–AD0, C/BE3#–C/BE0#, PAR, FRAME#, TRDY#, IRDY#, STOP#, DEVSEL#, IDSEL, PERR#, SERR#, REQ#, GNT#, PCLK, PRST#, GRST#, RI_OUT#/PME#, SUSPEND#, DATA, CLOCK, LATCH, SPKROUT

1394: MFUNC0–MFUNC6, CLK_48, AVDD, VDPLL_33, VSSPLL, VDPLL_15, R0, R1, TPBIAS0, TPA0P, TPA0N, TPB0P, TPB0N, PHY_TEST_MA, CPS, CNA, XO, XI, PC0(TEST1), PC1(TEST2), PC2(TEST3), AGND, TPBIAS1, TPA1P, TPA1N, TPB1P, TPB1N

SD/SDIO: MC_PWR_CTRL_0, MC_PWR_CTRL_1, SD_CD#, MS_CD#, SM_CD#, MS_CLK/SD_CLK/SM_EL_WP#, MS_BS/SD_CMD/SM_WE#, MS_DATA3/SD_DAT3/SM_D3, MS_DATA2/SD_DAT2/SM_D2, MS_DATA1/SD_DAT1/SM_D1, MS_SDIO(DATA0)/SD_DAT0/SM_D0, SD_CLK/SM_RE#, SD_CMD/SM_ALE, SD_DAT0/SM_D4, SD_DAT1/SM_D5, SD_DAT2/SM_D6, SD_DAT3/SM_D7, SD_WP/SM_CE, SM_CLE, SM_R/B#, SM_PHYS_WP#

UNUSED TERMINALS: B_USB_EN#, A_USB_EN#, SDA, SCL, NC#W17, RSVD, TEST0, RSVD

* All 1394 signals must be routed on top side only
* Differential pairs of each ports should have equal trace length
* Stubs must be keep as short as possible

Place it near to chip

Bypass/Decupoling Capacitors
Should be places as close to
PCI7421 as possible

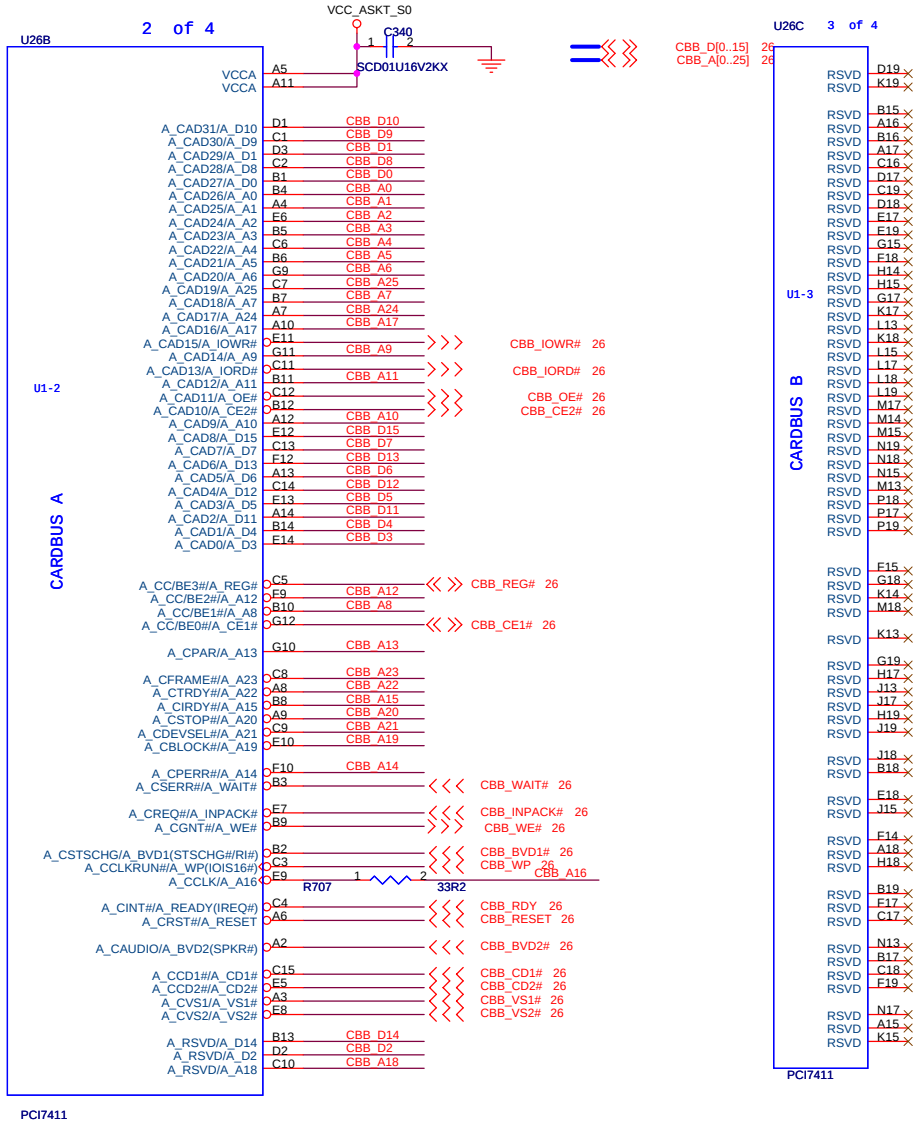
MS/MS_pro

SD

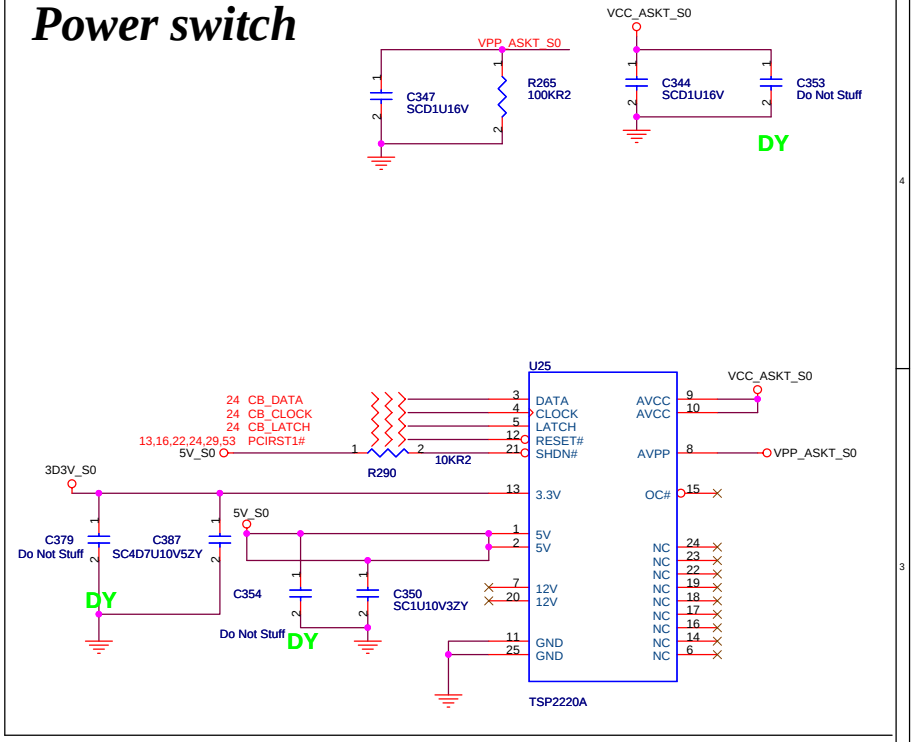
XD

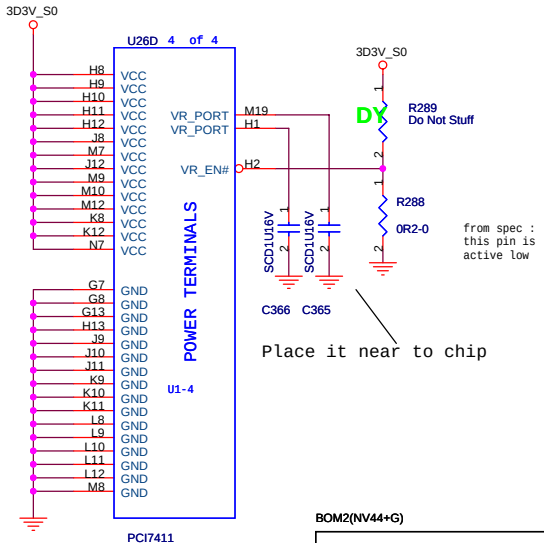
BOM2(NV44+G)

緯創資通	Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	TI PCI7411 GHK (1 of 2)	
Size A3	Document Number CANARY2	Rev SA
Date: Thursday, January 13, 2005	Sheet 24 of 55	



Power switch



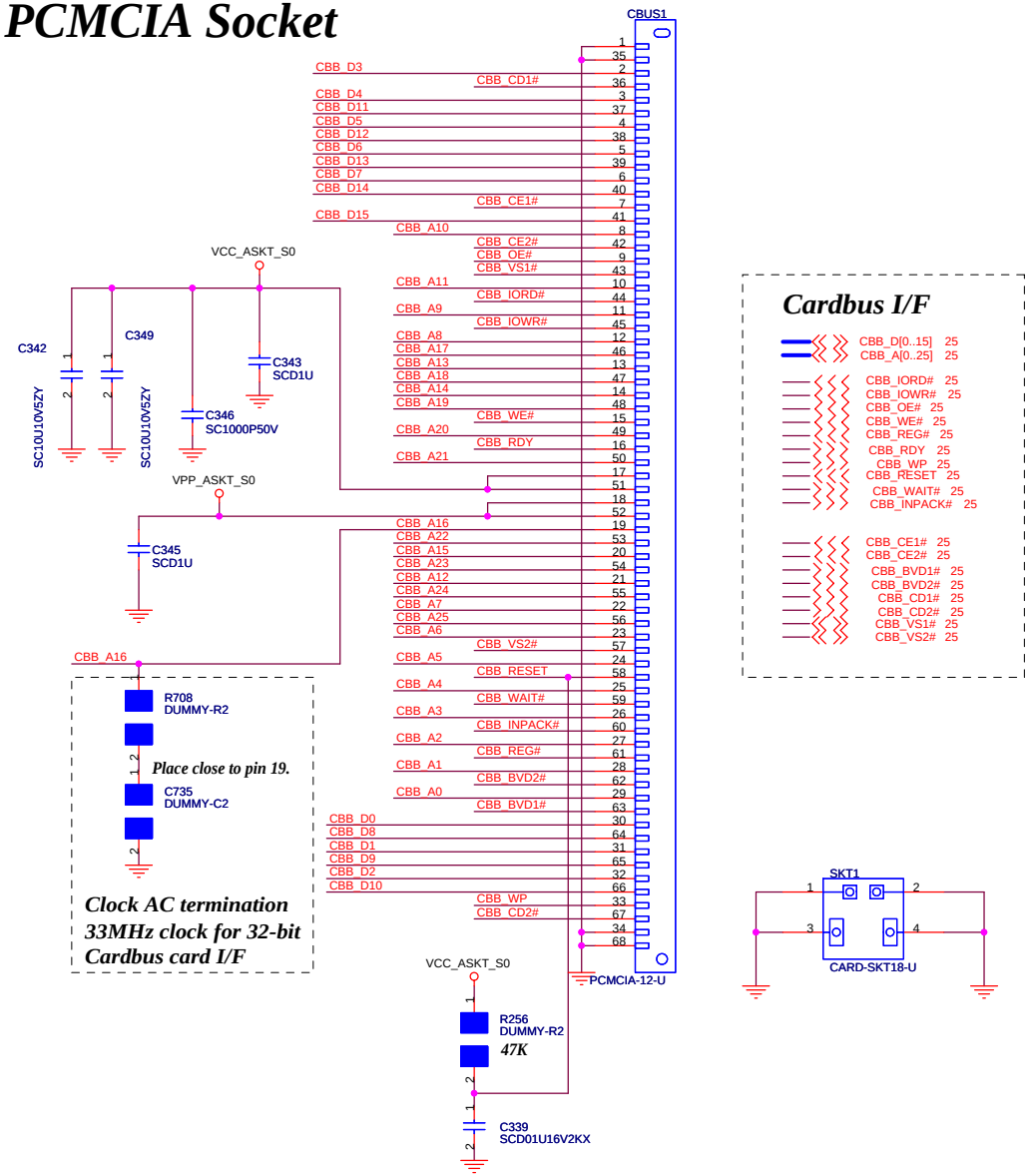


BOM2(NV44+G)

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

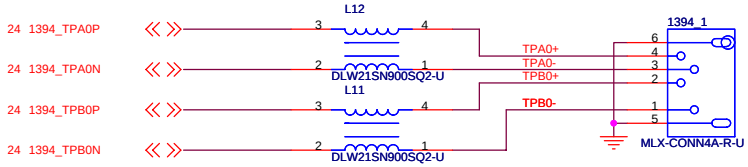
Title	*TI PCI7411 GHK (2 of 2)*	
Size A3	Document Number CANARY2	Rev SA
Date: Thursday, January 13, 2005	Sheet 25 of 55	

PCMCIA Socket

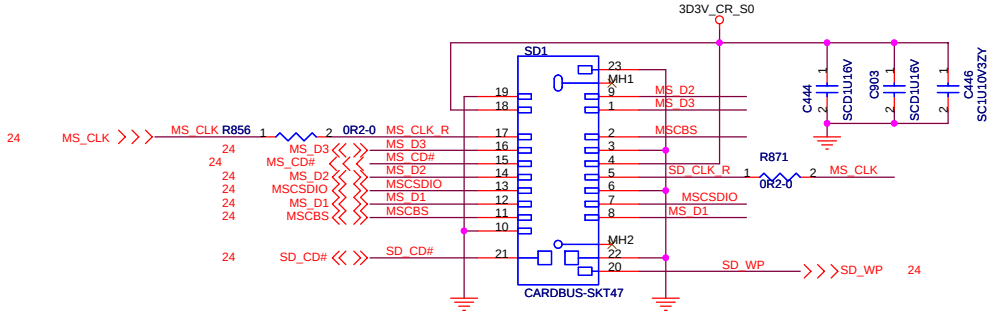


Cardbus I/F

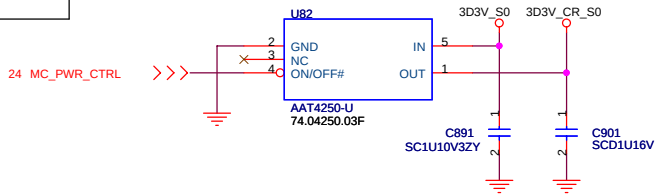
1394 Connector



SD/MMC/MS CONN.



POWER SWITCH



BOM2(NV44+G)

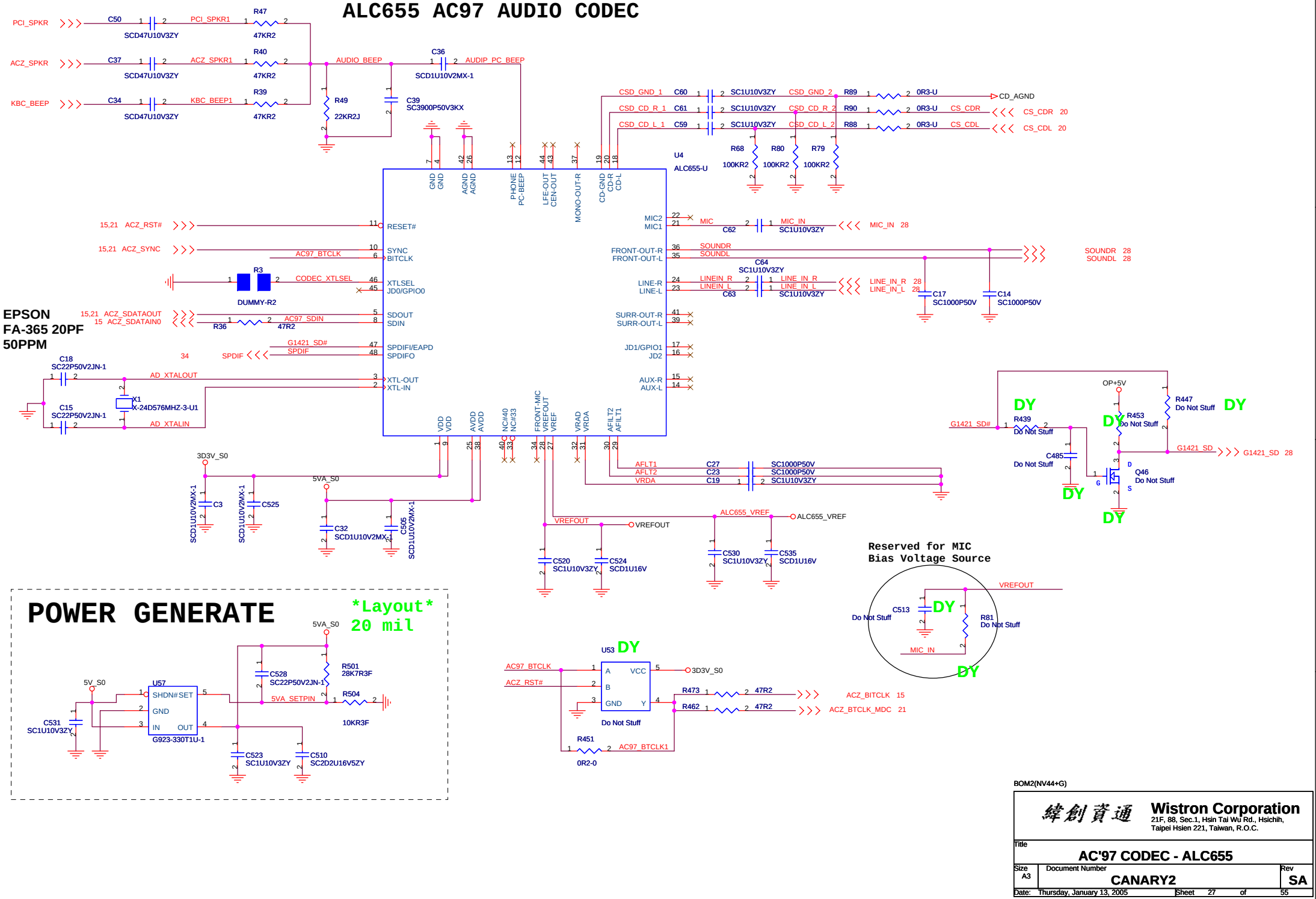
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: PCMCIA SLOT / 1394 CONN.

Size	Document Number	Rev
A3	CANARY2	SA

Date: Thursday, January 13, 2005 Sheet 26 of 55

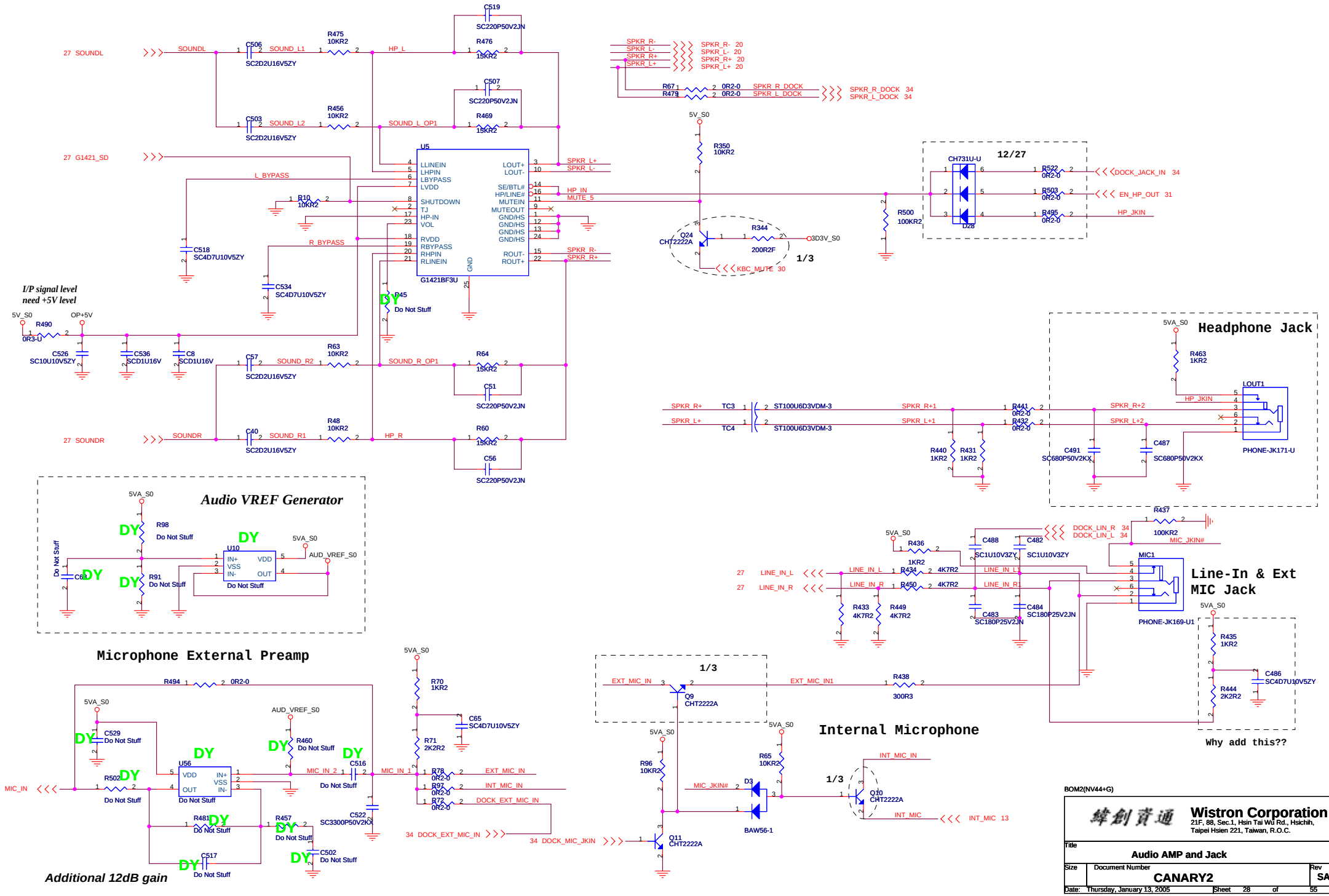
ALC655 AC97 AUDIO CODEC



BOM2(NV44+G)

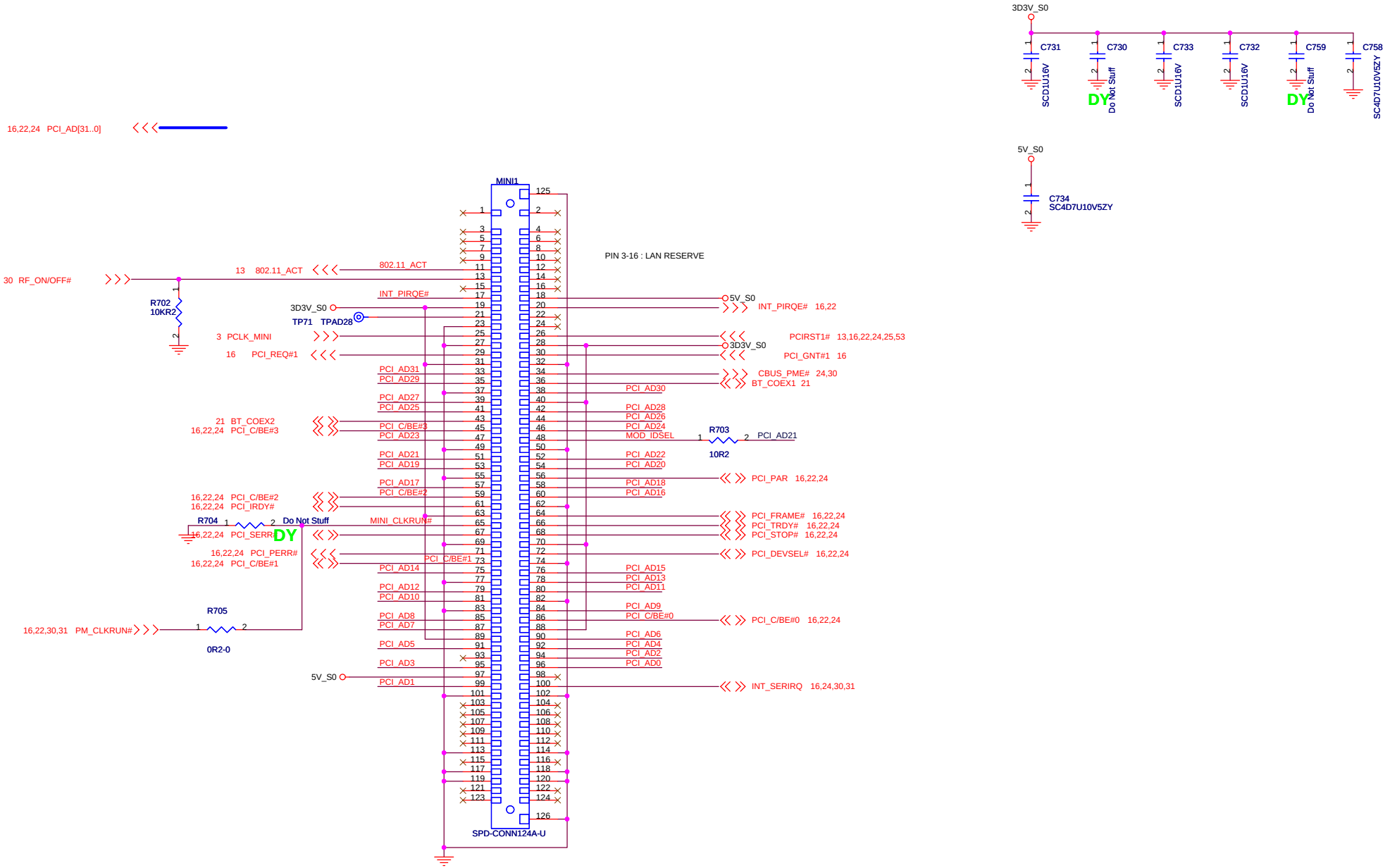
緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	**AC'97 CODEC - ALC655**	
Size: A3	Document Number: **CANARY2**	Rev: **SA**
Date: Thursday, January 13, 2005	Sheet 27 of 55	

AUDIO OP AMPLIFIER



BOM2(NV44+G)

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 **CANARY2**	Rev **SA**
Date: Thursday, January 13, 2005	Sheet 28 of 55	



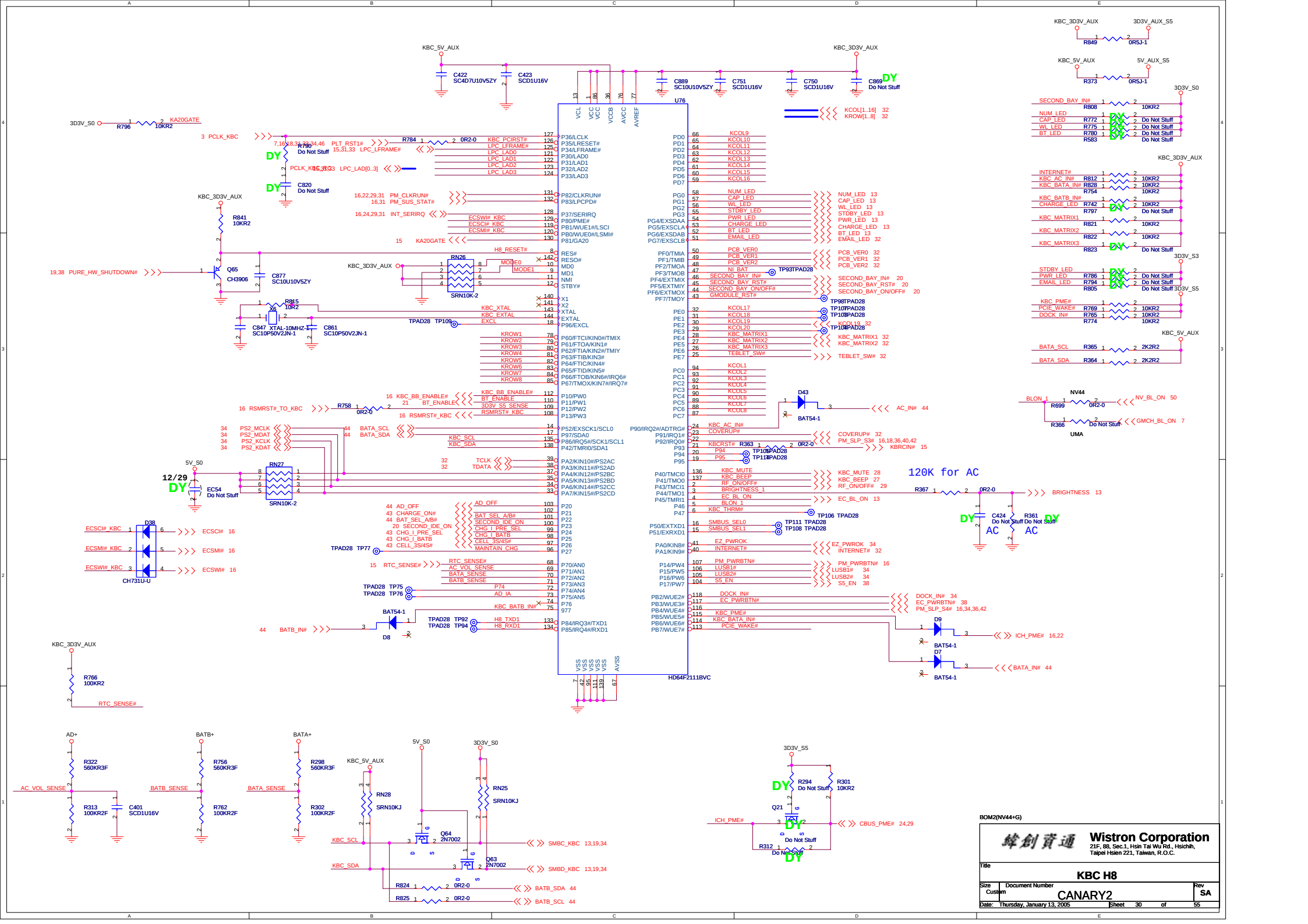
BOM2(NV44+G)

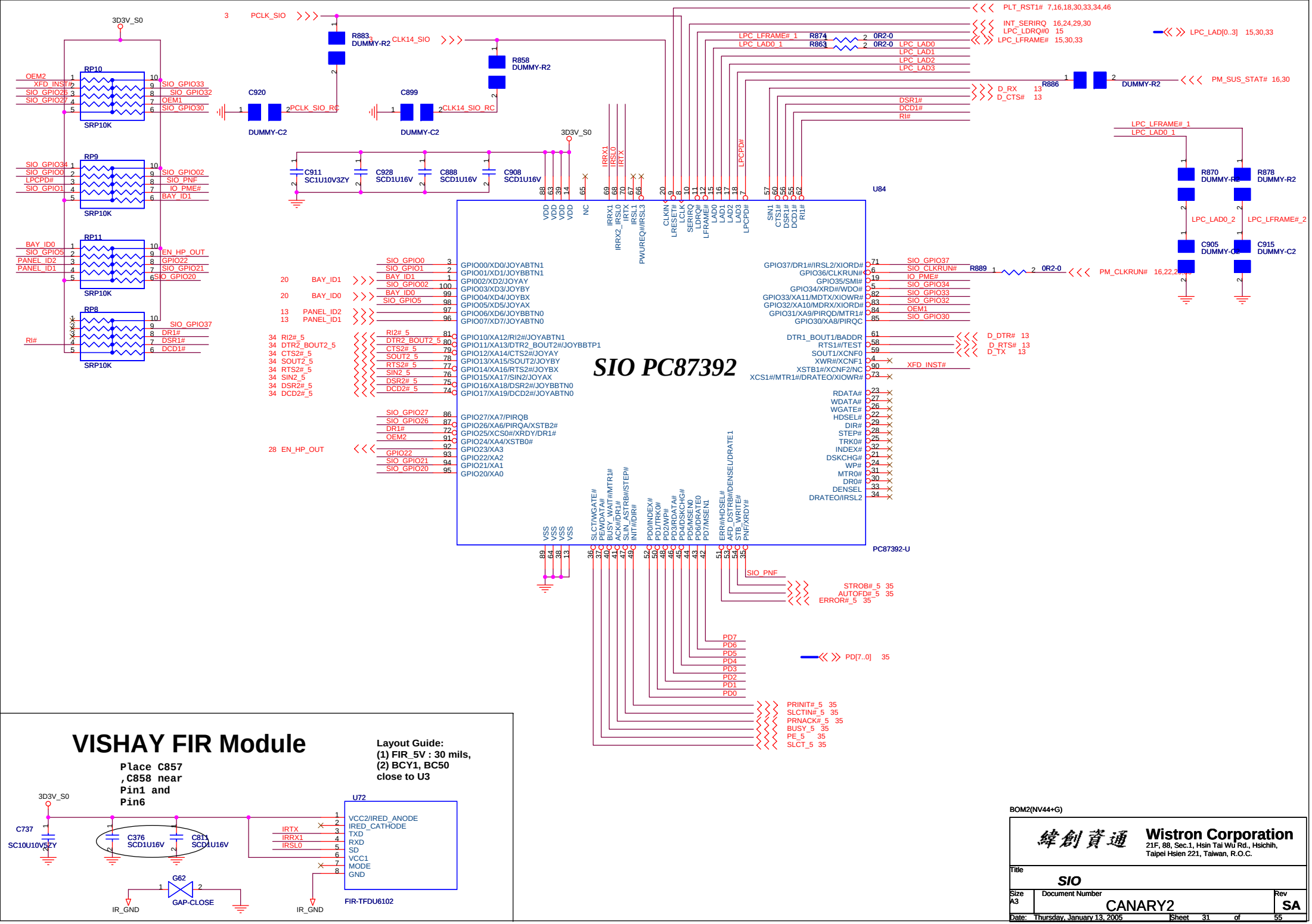
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***MINI-PCI***

Size	Document Number	Rev
A3	CANARY2	SA

Date: Thursday, January 13, 2005 Sheet 29 of 55


KBC_5V_AUX
KBC_3D3V_AUX
U76
HD64F2111BVC
3D3V_S0
KA20GATE
R796 10KR2
PCLK_KBC
PLT_RST1#
LPC_LFRAME#
LPC_LAD0
LPC_LAD1
LPC_LAD2
LPC_LAD3
LPC_LAD[0..3]
R784 0R2-0
R790 Do Not Stuff
C820 Do Not Stuff
PM_CLKRUN#
PM_SUS_STAT#
INT_SERIRQ
ECSWI# KBC
ECSCI# KBC
ECSMI# KBC
KA20GATE
H8_RESET#
PURE_HW_SHUTDOWN#
R841 10KR2
Q65 CH3906
C877 SC10U10V5ZY
RN26 SRN10K-2
MODE0
MODE1
R815 10R2
X6 XTAL-10MHZ-1
C847 SC10P50V2JN-1
C861 SC10P50V2JN-1
KBC_XTAL
KBC_EXTAL
EXCL
TPAD28 TP109
KROW1
KROW2
KROW3
KROW4
KROW5
KROW6
KROW7
KROW8
KBC_BB_ENABLE#
BT_ENABLE
3D3V_S5_SENSE
RSMRST# KBC
RSMRST#_TO_KBC
R758 0R2-0
PS2_MCLK
PS2_MDAT
PS2_KCLK
PS2_KDAT
BATA_SCL
BATA_SDA
KBC_SCL
KBC_SDA
TCLK
TDATA
5V_S0
12/29 DY
EC54 Do Not Stuff
RN27 SRN10K-2
AD_OFF
CHARGE_ON#
BAT_SEL_A/B#
SECOND_IDE_ON
CHG_I_PRE_SEL
CHG_I_BATB
CELL_3S/4S#
MAINTAIN_CHG
TPAD28 TP77
RTC_SENSE#
AC_VOL_SENSE
BATA_SENSE
BATB_SENSE
TPAD28 TP75
TPAD28 TP76
P74
AD_IA
KBC_BATB_IN#
BAT54-1 D8
TPAD28 TP92
TPAD28 TP94
H8_TXD1
H8_RXD1
BATB_IN#
D38 CH731U-U
ECSCI# 16
ECSMI# 16
ECSWI# 16
KBC_3D3V_AUX
R766 100KR2
RTC_SENSE#
C422 SC4D7U10V5ZY
C423 SCD1U16V
C889 SC10U10V5ZY
C751 SCD1U16V
C750 SCD1U16V
C869 DY Do Not Stuff
KCOL[1..16] 32
KROW[1..8] 32
NUM_LED 13
CAP_LED 13
WL_LED 13
STDBY_LED 13
PWR_LED 13
CHARGE_LED 13
BT_LED 13
EMAIL_LED 32
SECOND_BAY_IN# 20
SECOND_BAY_RST# 20
SECOND_BAY_ON/OFF# 20
GMODULE_RST#
TP93 TPAD28
TP97 TPAD28
TP107 TPAD28
TP103 TPAD28
TP104 TPAD28
KCOL19 32
KBC_MATRIX1 32
KBC_MATRIX2 32
KBC_MATRIX3 32
TEBLET_SW# 32
PCB_VER0 32
PCB_VER1 32
PCB_VER2 32
NI_BAT
D43 BAT54-1
AC_IN# 44
KBC_AC_IN#
COVERUP# 32
PM_SLP_S3# 16,18,36,40,42
KBRCIN# 15
KBRST# R363 0R2-0
TP105 TPAD28
TP114 TPAD28
KBC_MUTE 28
KBC_BEEP 27
RF_ON/OFF# 29
BRIGHTNESS_1
EC_BL_ON 13
BLON_1
TP106 TPAD28
SMBUS_SEL0
SMBUS_SEL1
TP111 TPAD28
TP108 TPAD28
EZ_PWROK 34
INTERNET# 32
PM_PWRBTN# 16
LUSB1# 34
LUSB2# 34
S5_EN 38
DOCK_IN# 34
EC_PWRBTN# 38
PM_SLP_S4# 16,34,36,42
KBC_PME#
KBC_BATA_IN#
PCIE_WAKE#
D9 BAT54-1
ICH_PME# 16,22
D7 BAT54-1
BATA_IN# 44
120K for AC
R367 0R2-0
BRIGHTNESS 13
C424 Do Not Stuff AC
R361 Do Not Stuff AC
EC_BL_ON 13
KBC_3D3V_AUX
3D3V_AUX_S5
R849 0R5J-1
KBC_5V_AUX
5V_AUX_S5
R373 0R5J-1
3D3V_S0
SECOND_BAY_IN# R808 10KR2
NUM_LED
CAP_LED R772
WL_LED R775
BT_LED R780
R583
KBC_3D3V_AUX
INTERNET# R812 10KR2
KBC_AC_IN# R828 10KR2
KBC_BATA_IN# R754 10KR2
KBC_BATB_IN# R742 10KR2
CHARGE_LED R797
KBC_MATRIX1 R821 10KR2
KBC_MATRIX2 R822 10KR2
KBC_MATRIX3 R823
Do Not Stuff
3D3V_S3
STDBY_LED R786
PWR_LED R794
EMAIL_LED R805
3D3V_S5
KBC_PME# R769 10KR2
PCIE_WAKE# R765 10KR2
DOCK_IN# R774 10KR2
KBC_5V_AUX
BATA_SCL R365 2K2R2
BATA_SDA R364 2K2R2
NV44
BLON_1 R699 0R2-0
NV_BL_ON 50
R366 Do Not Stuff
GMCH_BL_ON 7
UMA
AD+
BATB+
BATA+
R322 560KR3F
R313 100KR2F
C401 SCD1U16V
R756 560KR3F
R762 100KR2F
R298 560KR3F
R302 100KR2F
RN28 SRN10KJ
RN25 SRN10KJ
Q64 2N7002
Q63 2N7002
SMBC_KBC 13,19,34
SMBD_KBC 13,19,34
R824 0R2-0
R825 0R2-0
BATB_SDA 44
BATB_SCL 44
3D3V_S5
R294 Do Not Stuff
R301 10KR2
Q21
R312 Do Not Stuff
CBUS_PME# 24,29
BOM2(NV44+G)
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
Title
KBC H8
Size Custom
Document Number CANARY2
Rev SA
Date: Thursday, January 13, 2005
Sheet 30 of 55



VISHAY FIR Module

Place C857 ,C858 near Pin1 and Pin6

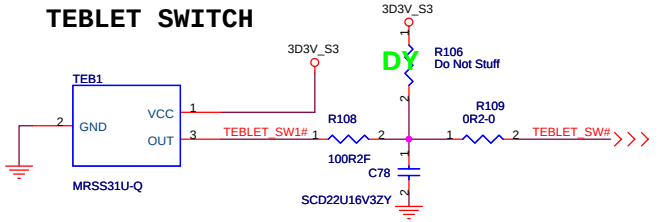
Layout Guide:
(1) FIR_5V : 30 mils,
(2) BCY1, BC50 close to U3

BOM2(NV44+G)

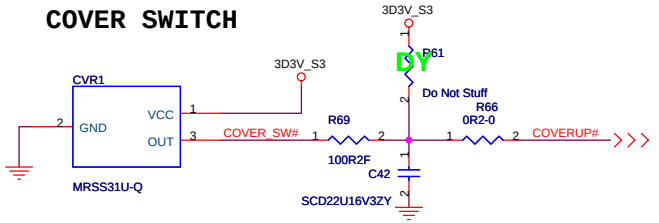
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title	SIO	
Size A3	Document Number CANARY2	Rev SA
Date: Thursday, January 13, 2005	Sheet 31 of 55	

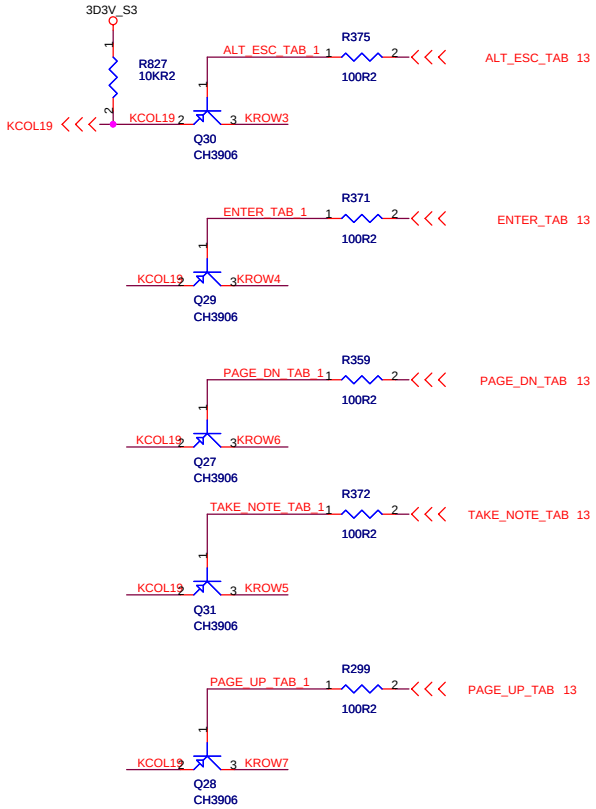
TEBLET SWITCH



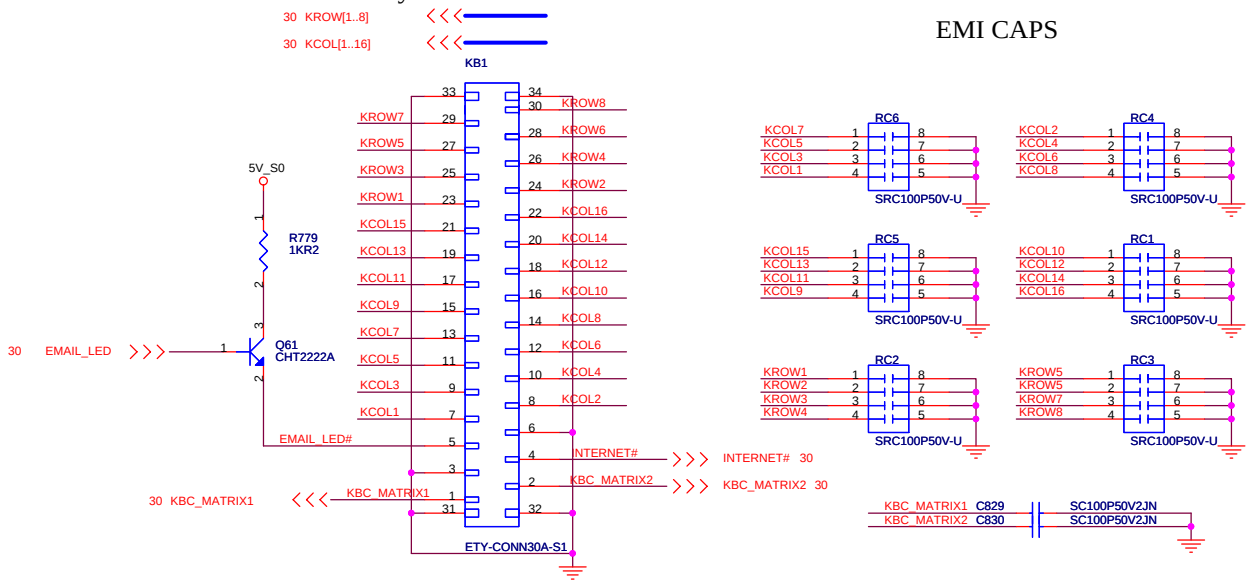
COVER SWITCH



TABLET FUNCTION BUTTON

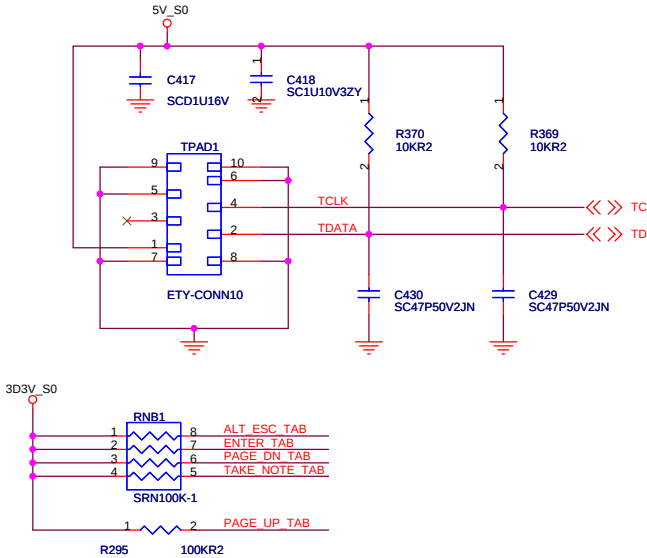


Internal KeyBoard Connector

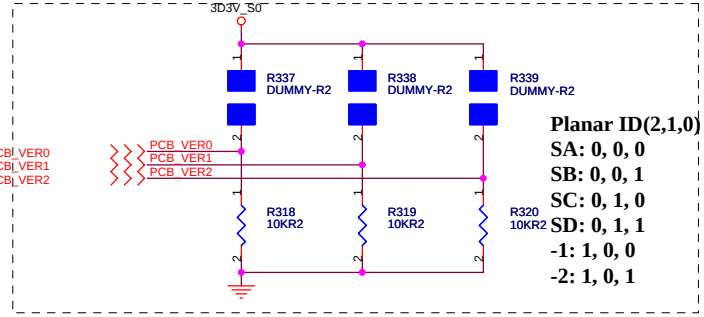


EMI CAPS

TouchPad Connector



Board ID



Keyboard matrix

	US	Jap	Europe	US international
MATRIX1	HIGH	LOW	HIGH	HIGH
MATRIX2	HIGH	HIGH	LOW	HIGH

BOM2(NV44+G)

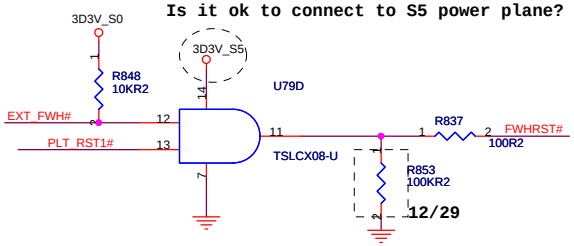
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **KBC&TPAD CONN**

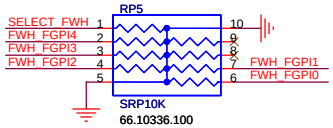
Size: A3 | Document Number: **CANARY2** | Rev: **SA**

Date: Thursday, January 13, 2005 | Sheet 32 of 55

Is it ok to connect to S5 power plane?



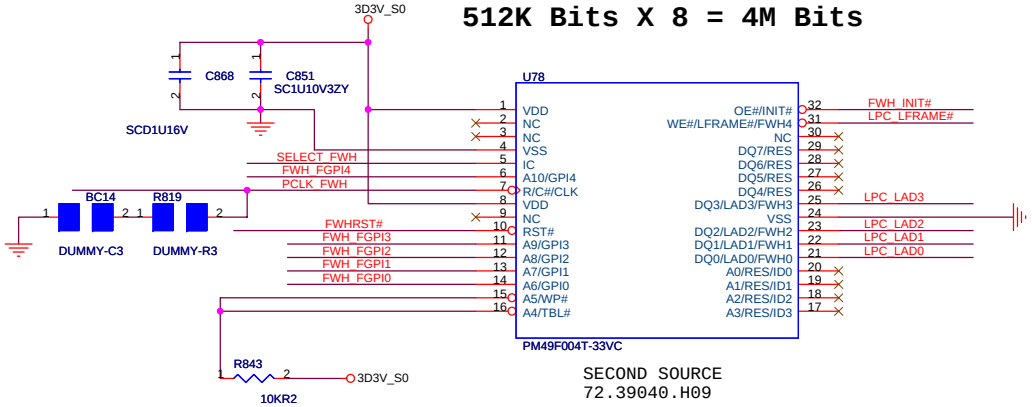
Unused FGPI pins must not be float



15,30,31 LPC_LAD[0:3]

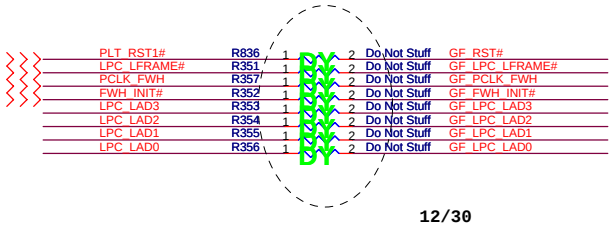
FLASH ROM

512K Bits X 8 = 4M Bits



SECOND SOURCE
72.39040.H09

7,16,18,30,31,34,46 PLT_RST1#
15,30,31 LPC_LFRAME#
3 PCLK_FWH
15 FWH_INIT#



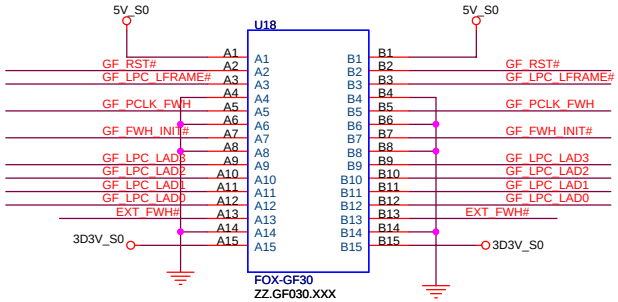
12/30

TOP VIEW

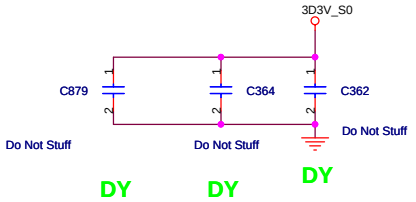
A15	(B1)
A14	(B2)
⋮	⋮
A2	(B14)
A1	(B15)

(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



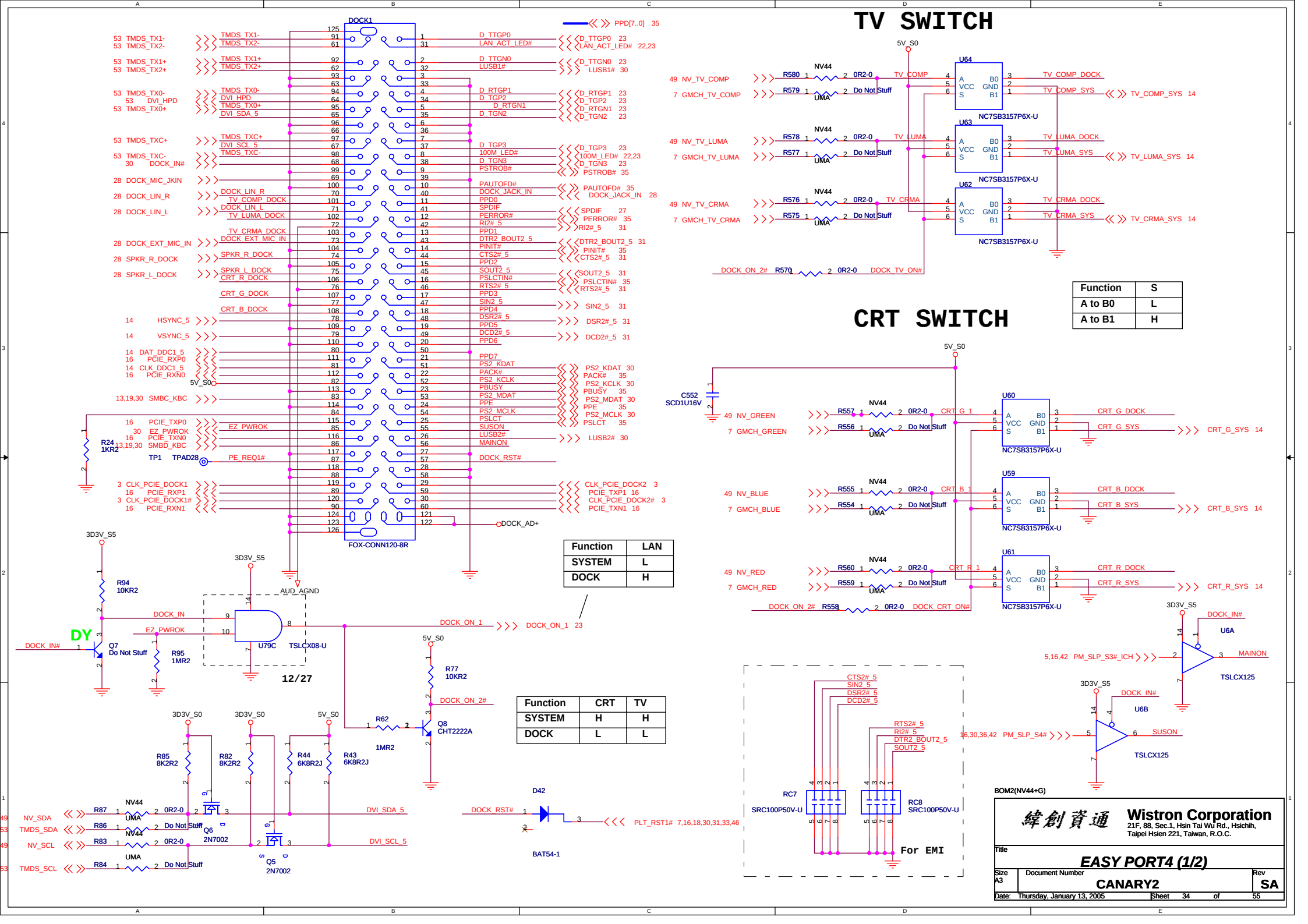
BOM2(NV44+G)

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

Title: FWH and Debug

Size	Document Number	Rev
A3	CANARY2	SA

Date: Thursday, January 13, 2005 Sheet 33 of 55

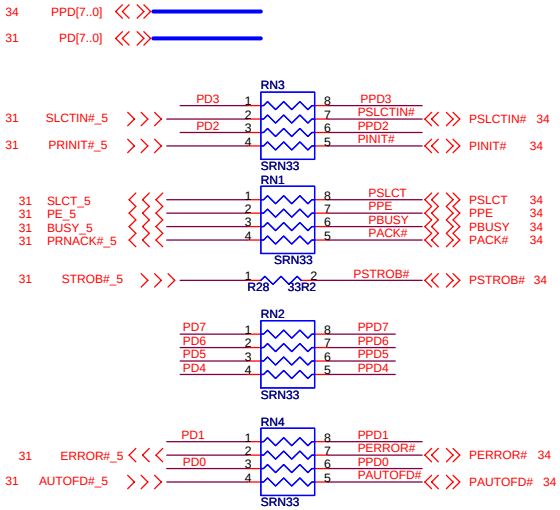


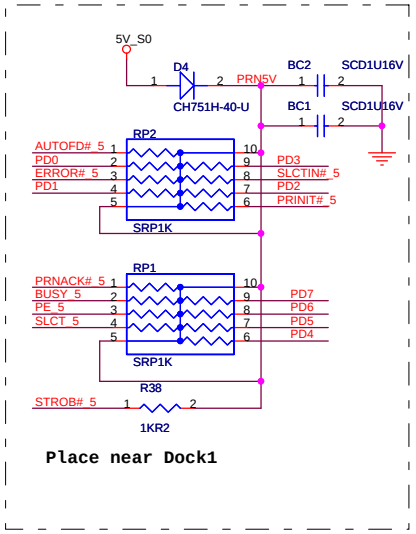
Function	S
A to B0	L
A to B1	H

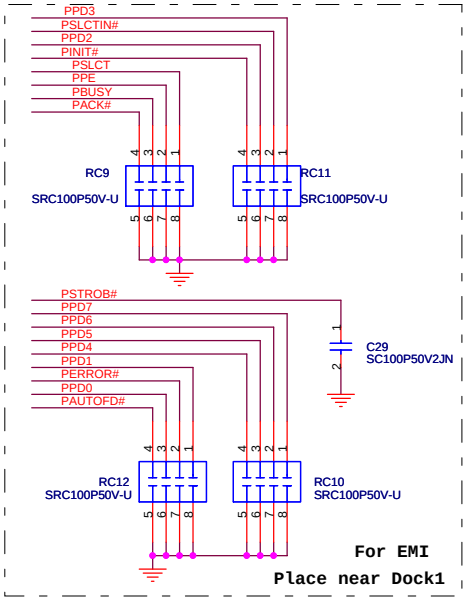
Function	LAN
SYSTEM	L
DOCK	H

Function	CRT	TV
SYSTEM	H	H
DOCK	L	L

PRINT PORT





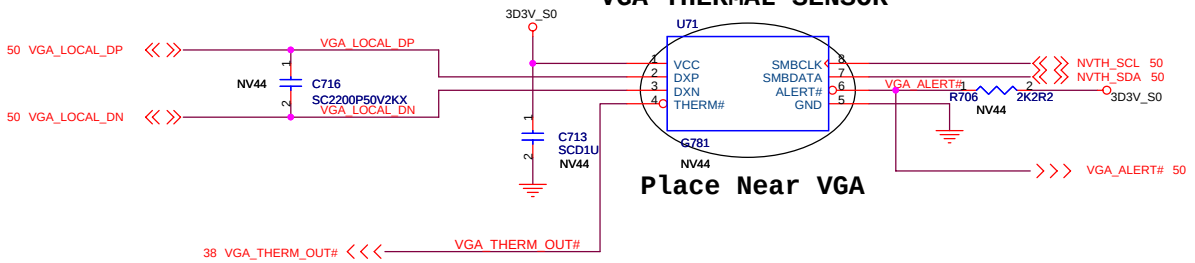


BOM2(NV44+G)

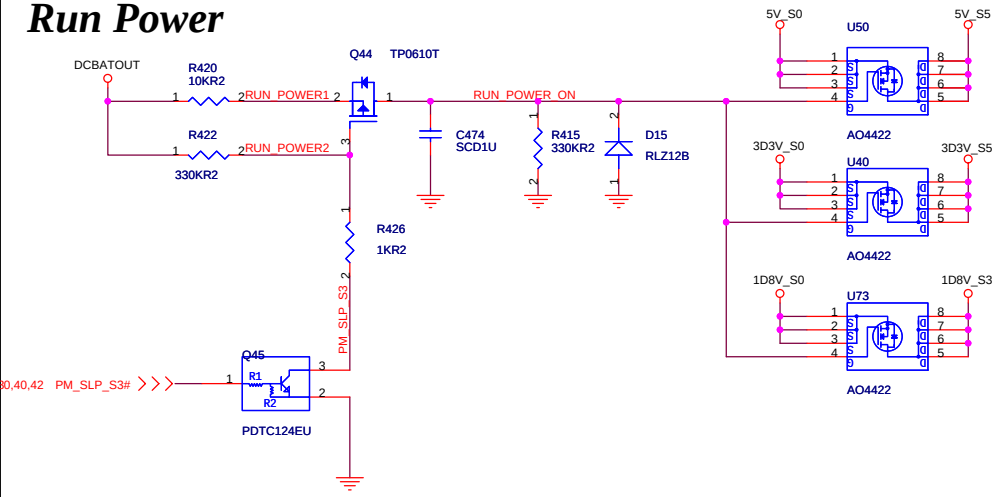
緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: *EASY PORT4 (2/2)*		
Size: A3	Document Number: CANARY2	Rev: SA
Date: Thursday, January 13, 2005	Sheet 35 of 55	

I2C ADDRESS: 0x98H

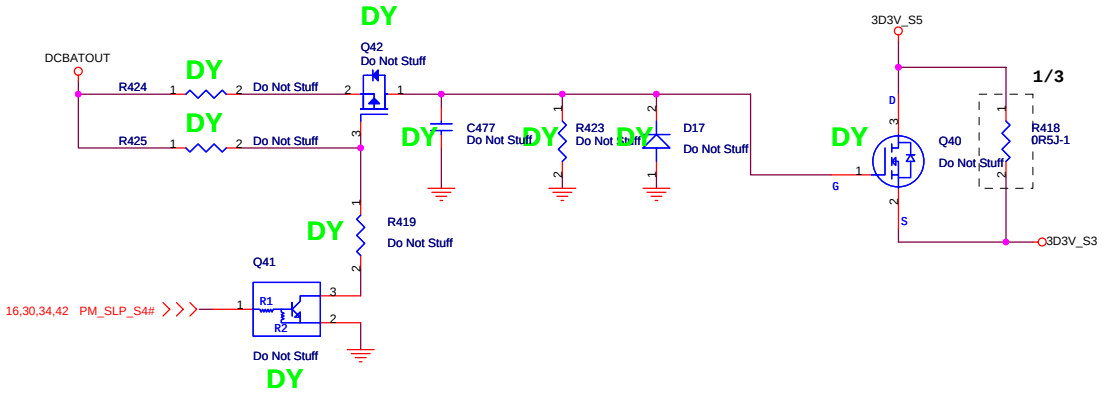
VGA THERMAL SENSOR



Run Power



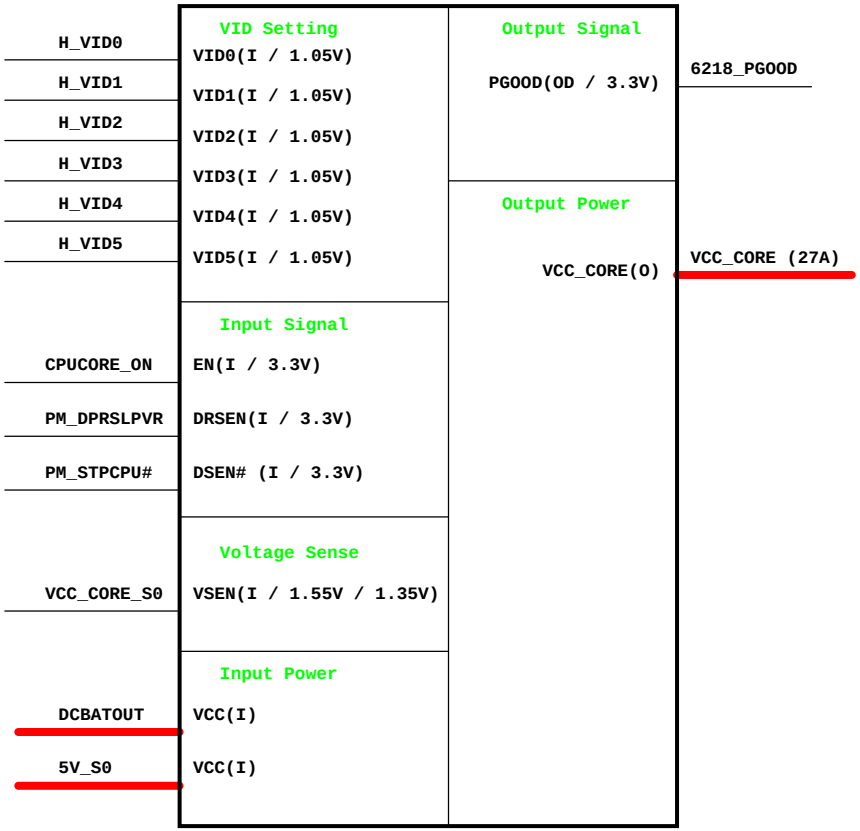
Suspend Power



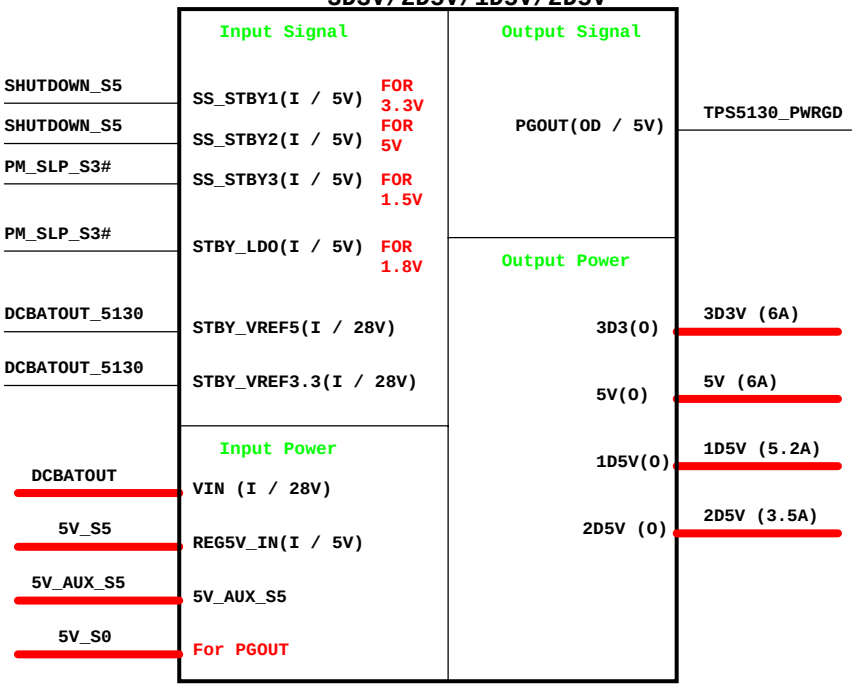
BOM2(NV44+G)

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: *RUN and SUSPEND Power*		
Size: A3	Document Number: CANARY2	Rev: SA
Date: Thursday, January 13, 2005	Sheet 36 of 55	

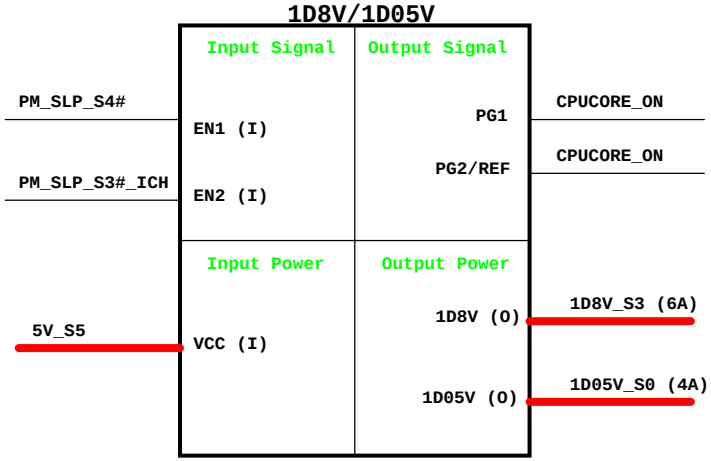
CPU_CORE ISL6218CV



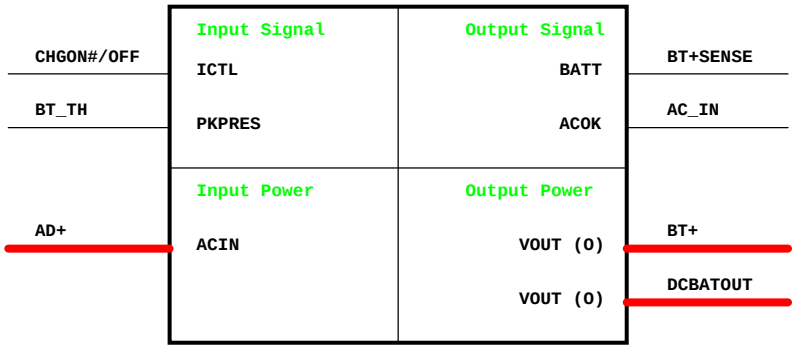
TPS5130 3D3V/2D5V/1D5V/2D5V



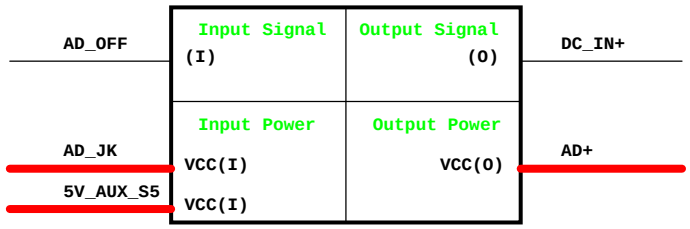
ISL6227 1D8V/1D05V



Charger Max8725



Adapter



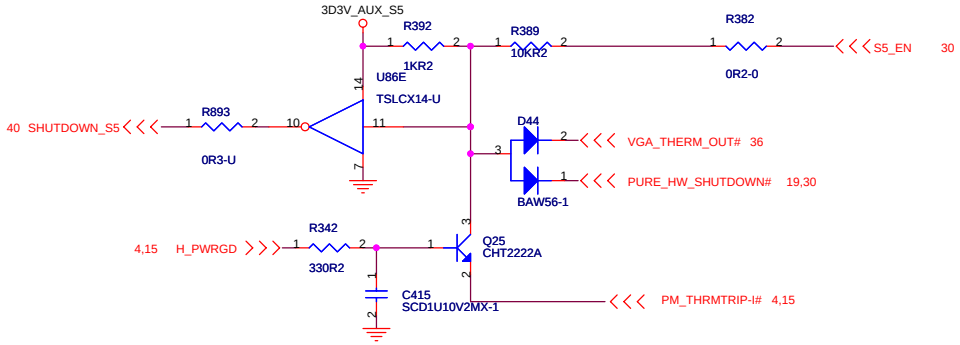
BOM2(NV44+G)

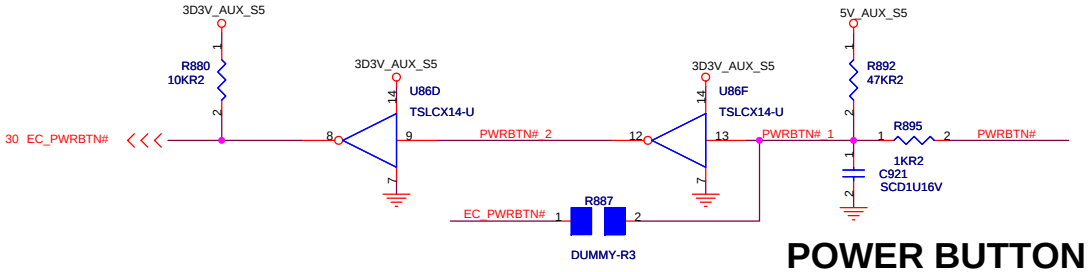
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **Power Diagram**

Size	Document Number	Rev
A3	CANARY2	SA

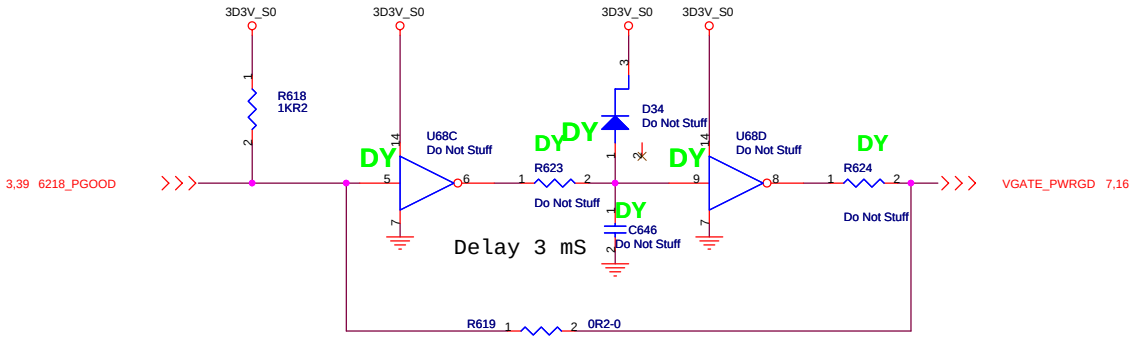
Date: Thursday, January 13, 2005 Sheet 37 of 55



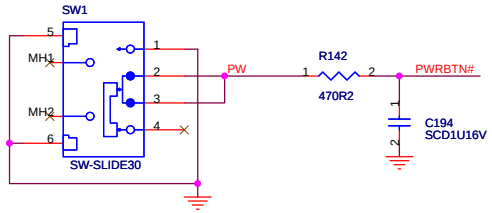


POWER BUTTON

PWRGD for NB and SB

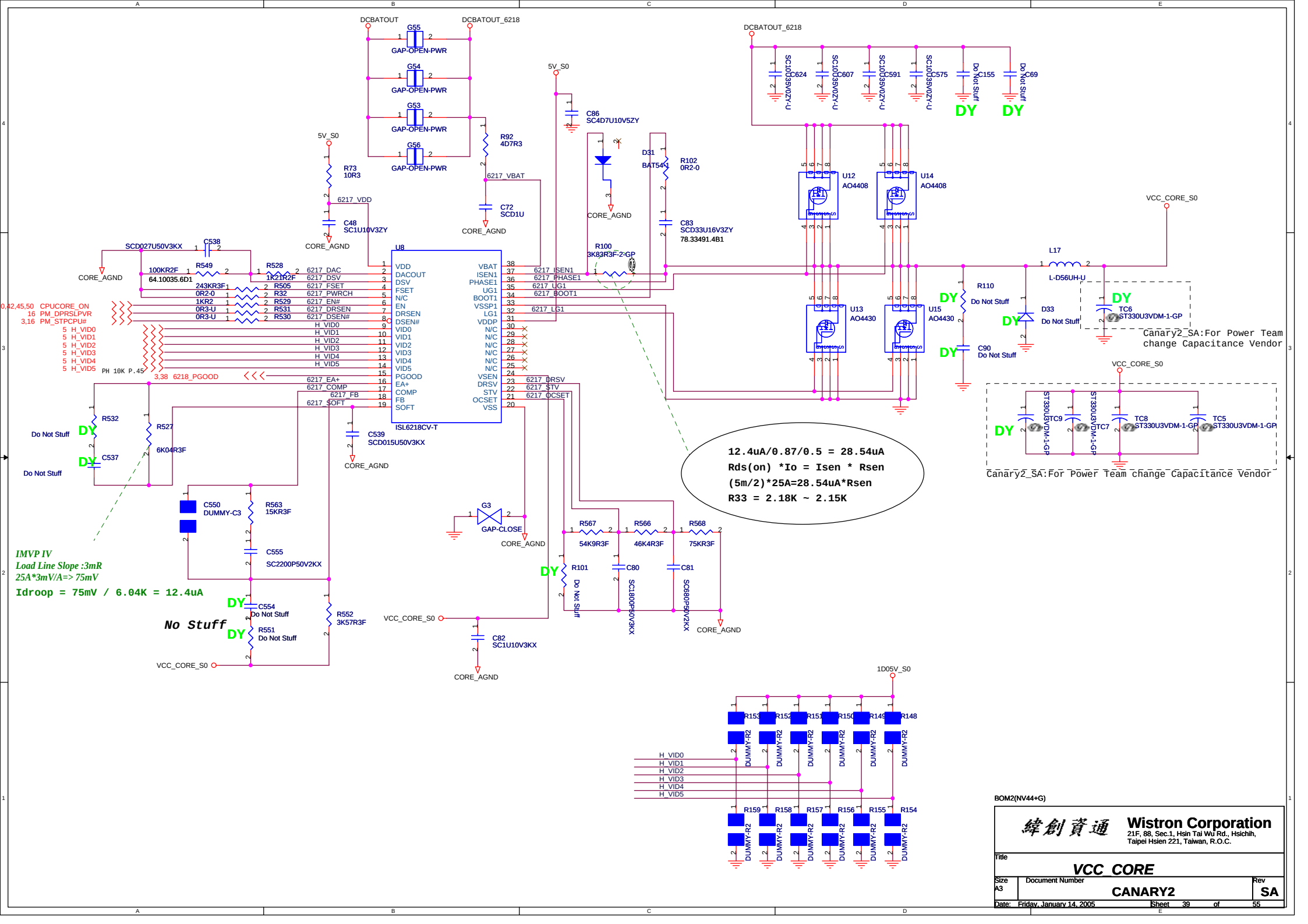


POWERSWITCH



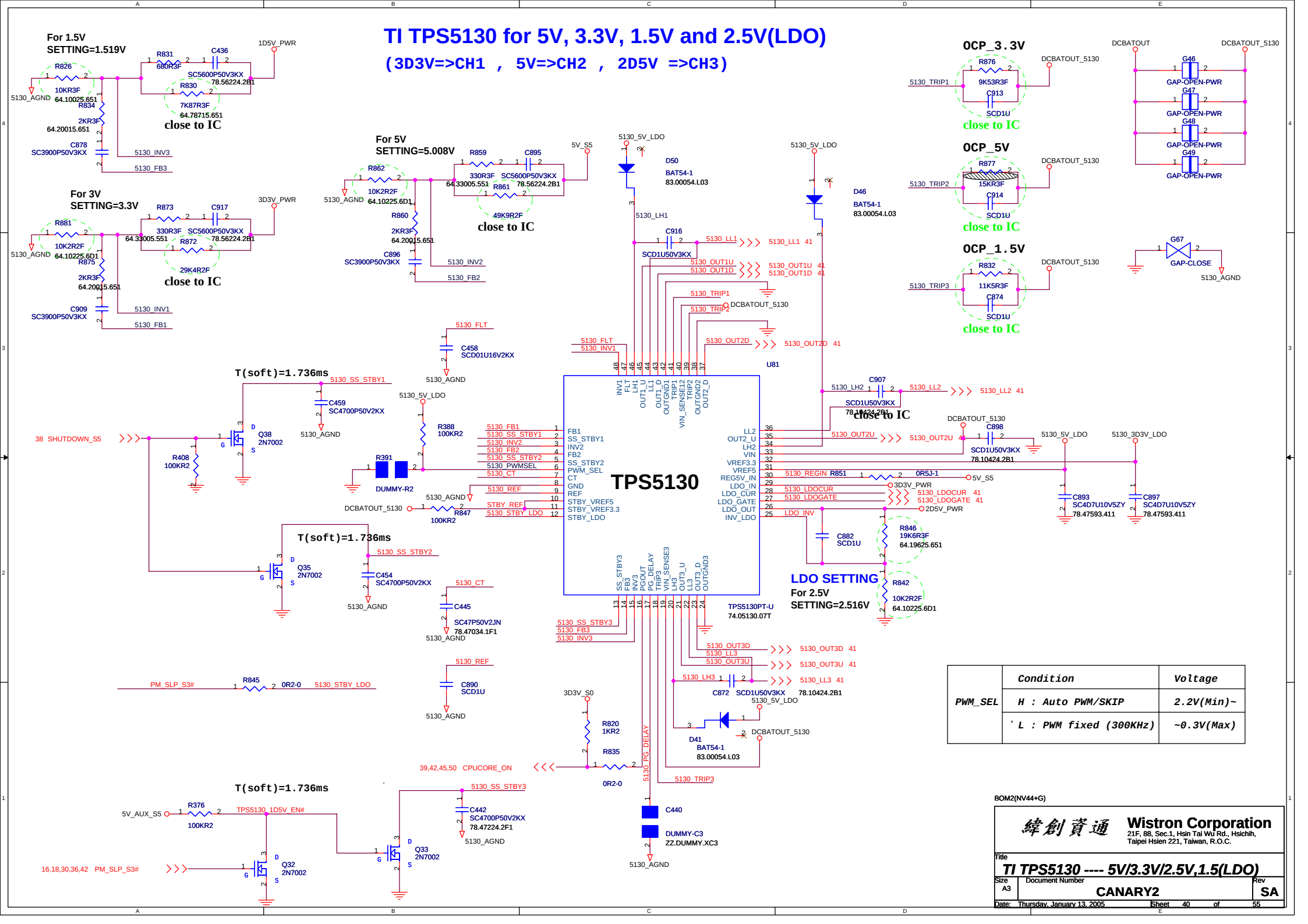
BOM2(NV44+G)

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: ***POWER ON CIRCUIT***		
Size: A3	Document Number: CANARY2	Rev: SA
Date: Thursday, January 13, 2005	Sheet 38 of 55	


DCBATOUT
DCBATOUT_6218
G55
GAP-OPEN-PWR
G54
GAP-OPEN-PWR
G53
GAP-OPEN-PWR
G56
GAP-OPEN-PWR
R92
4D7R3
6217_VBAT
C72
SCD1U
CORE_AGND
5V_S0
R73
10R3
6217_VDD
C48
SC1U10V3ZY
C86
SC4D7U10V5ZY
D31
BAT54-1
R102
0R2-0
C83
SCD33U16V3ZY
78.33491.4B1
R100
3K83R3F-2-GP
U8
ISL6218CV-T
VDD
DACOUT
DSV
FSET
N/C
EN
DRSEN
DSEN#
VID0
VID1
VID2
VID3
VID4
VID5
PGOOD
EA+
COMP
FB
SOFT
VBAT
ISEN1
PHASE1
UG1
BOOT1
VSSP1
LG1
VDDP
N/C
VSEN
DRSV
STV
OCSET
VSS
6217_DAC
6217_DSV
6217_FSET
6217_PWRCH
6217_EN#
6217_DRSEN
6217_DSEN#
H_VID0
H_VID1
H_VID2
H_VID3
H_VID4
H_VID5
6218_PGOOD
6217_EA+
6217_COMP
6217_FB
6217_SOFT
6217_ISEN1
6217_PHASE1
6217_UG1
6217_BOOT1
6217_LG1
6217_DRSV
6217_STV
6217_OCSET
SCD027U50V3KX
C538
R549
100KR2F
64.10035.6D1
R528
1K21R2F
R505
243KR3F
R532
Do Not Stuff
R527
6K04R3F
C537
C539
SCD015U50V3KX
C550
DUMMY-C3
R563
15KR3F
C555
SC2200P50V2KX
C554
Do Not Stuff
R551
Do Not Stuff
R552
3K57R3F
VCC_CORE_S0
G3
GAP-CLOSE
R567
54K9R3F
R566
46K4R3F
R568
75KR3F
R101
Do Not Stuff
C80
SC1800P50V3KX
C81
SC680P50V2KX
C82
SC1U10V3KX
12.4uA/0.87/0.5 = 28.54uA
Rds(on) *Io = Isen * Rsen
(5m/2)*25A=28.54uA*Rsen
R33 = 2.18K ~ 2.15K
IMVP IV
Load Line Slope :3mR
25A*3mV/A=> 75mV
Idroop = 75mV / 6.04K = 12.4uA
No Stuff
U12
AO4408
U14
AO4408
U13
AO4430
U15
AO4430
L17
L-D56UH-U
R110
Do Not Stuff
D33
Do Not Stuff
C90
Do Not Stuff
TC6
ST330U3VDM-1-GP
TC9
TC7
TC8
TC5
Canary2_SA:For Power Team
change Capacitance Vendor
C624
C607
C591
C575
Do Not Stuff
C155
Do Not Stuff
C69
1D05V_S0
R153
R152
R151
R150
R149
R148
R159
R158
R157
R156
R155
R154
DUMMY-R2
H_VID0
H_VID1
H_VID2
H_VID3
H_VID4
H_VID5
BOM2(NV44+G)
緯創資通
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
Title
VCC_CORE
Size
A3
Document Number
CANARY2
Rev
SA
Date: Friday, January 14, 2005
Sheet 39 of 55

TI TPS5130 for 5V, 3.3V, 1.5V and 2.5V(LDO)

(3D3V=>CH1 , 5V=>CH2 , 2D5V =>CH3)



PWM_SEL	Condition	Voltage
	H : Auto PWM/SKIP	2.2V(Min)~
	* L : PWM fixed (300KHz)	~0.3V(Max)

BOM2(NV44+G)

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

Title: TI TPS5130 ---- 5V/3.3V/2.5V,1.5(LDO)

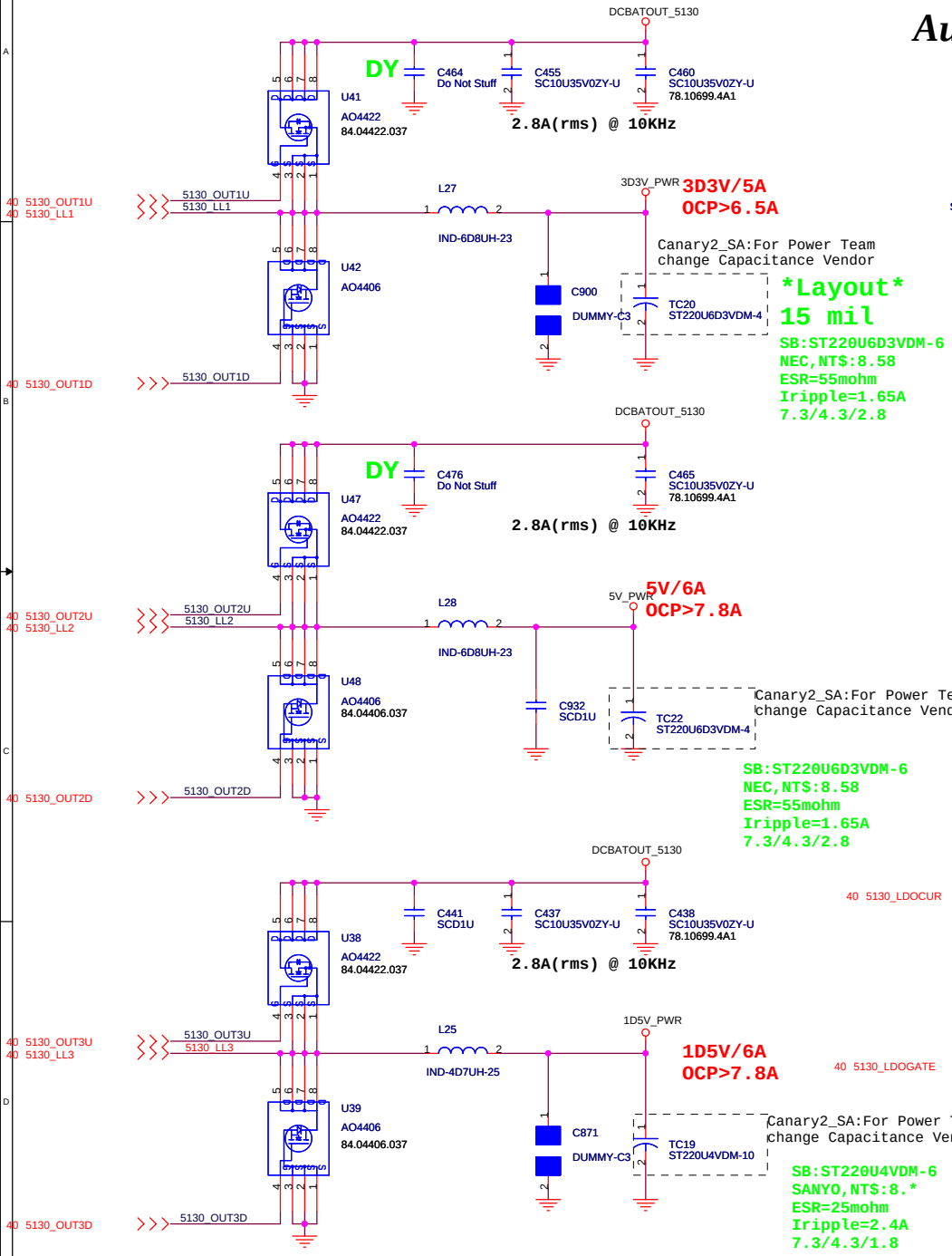
Size	Document Number	Rev
A3	CANARY2	SA

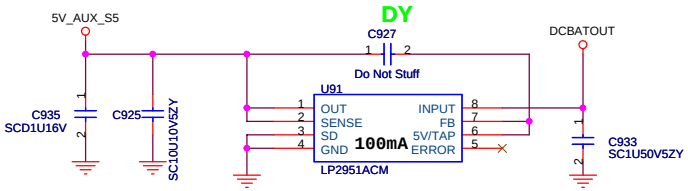
Date: Thursday, January 13, 2005 Sheet 40 of 55

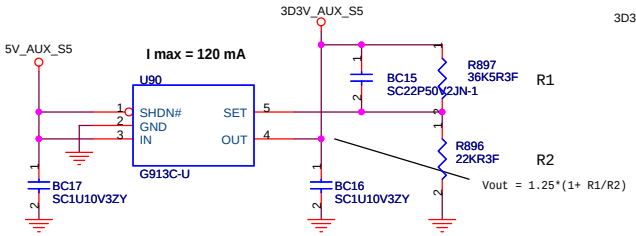
TI TPS5130 for 5V, 3.3V, 1.5V and 2.5V(LDO)

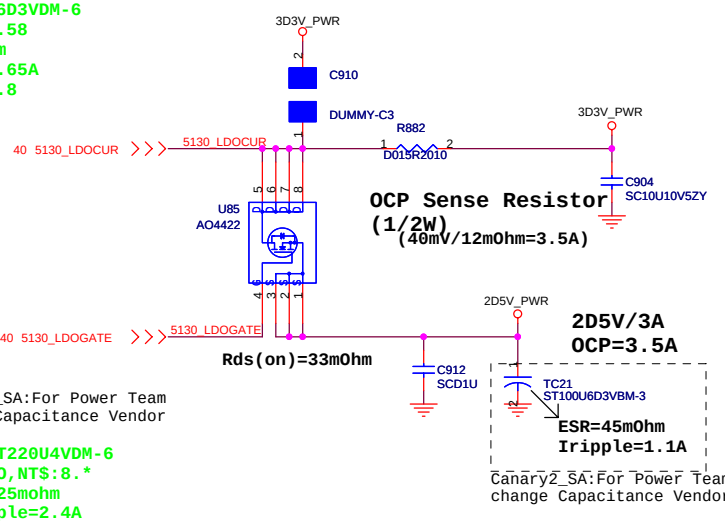
(3D3V=>CH1 , 5V=>CH2 , 2D5V =>CH3)

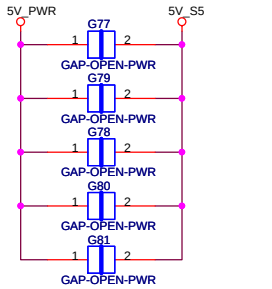
Aux Power

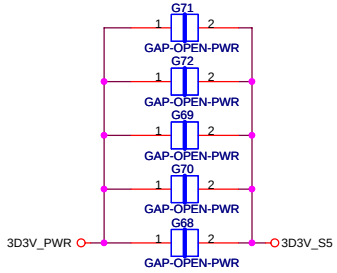


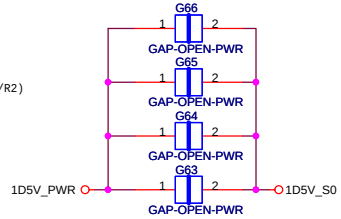


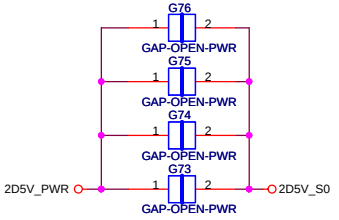












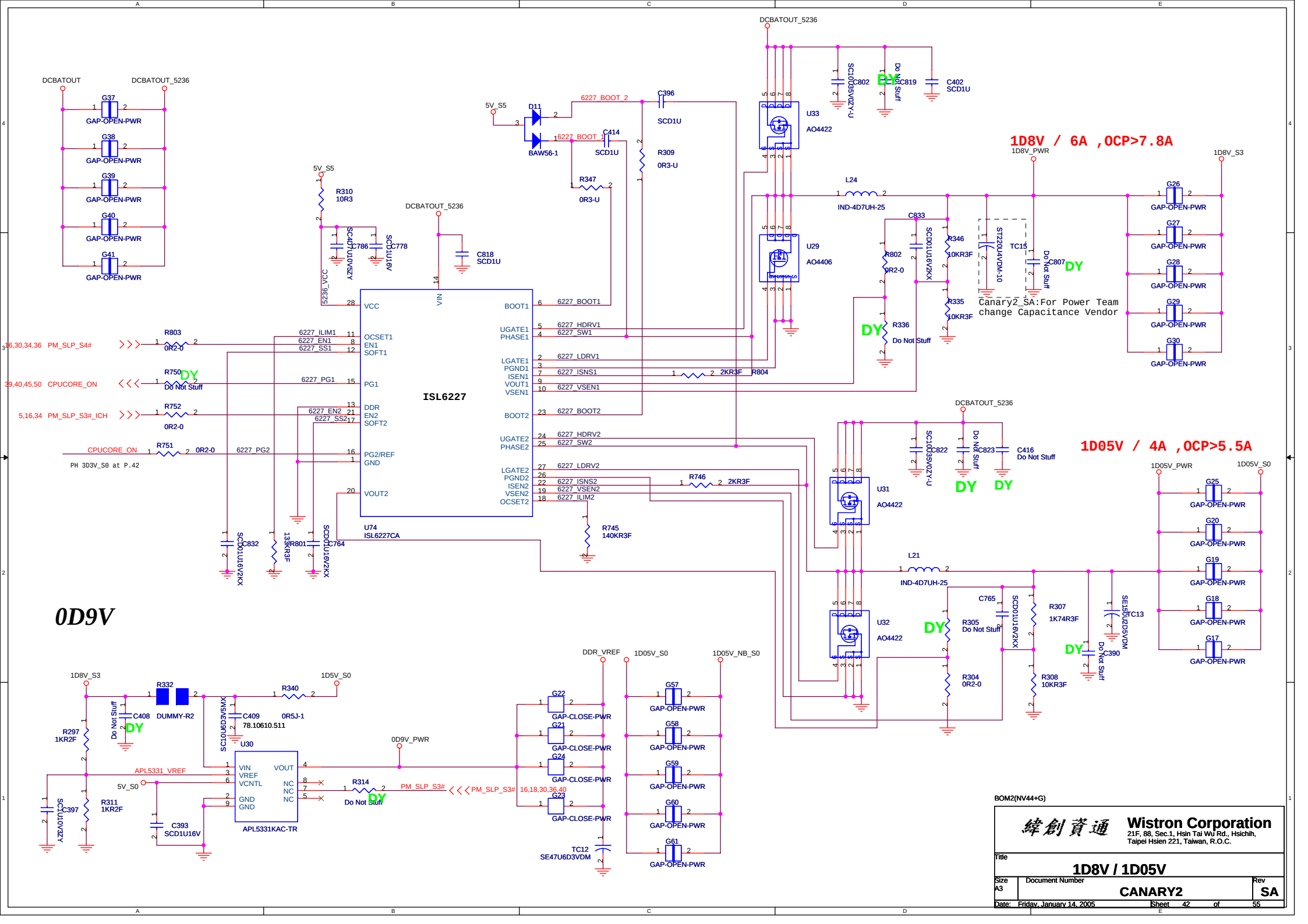
BOM2(NV44+G)

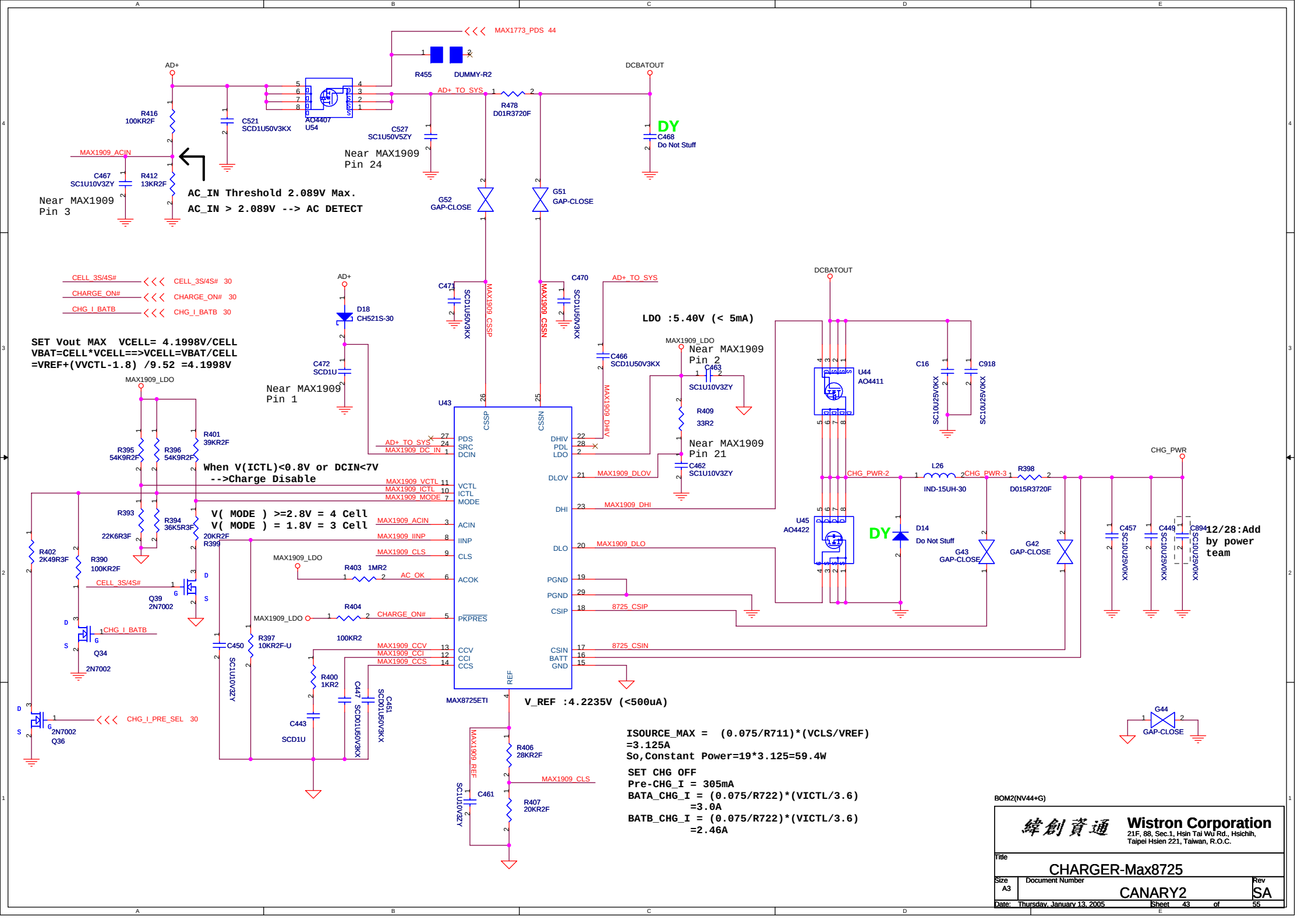
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***TI TPS5130 ---- 5V/3.3V/1.5V,2.5(LDO)***

Size	Document Number	Rev
A3	CANARY2	SA

Date: Friday, January 14, 2005 Sheet 41 of 55

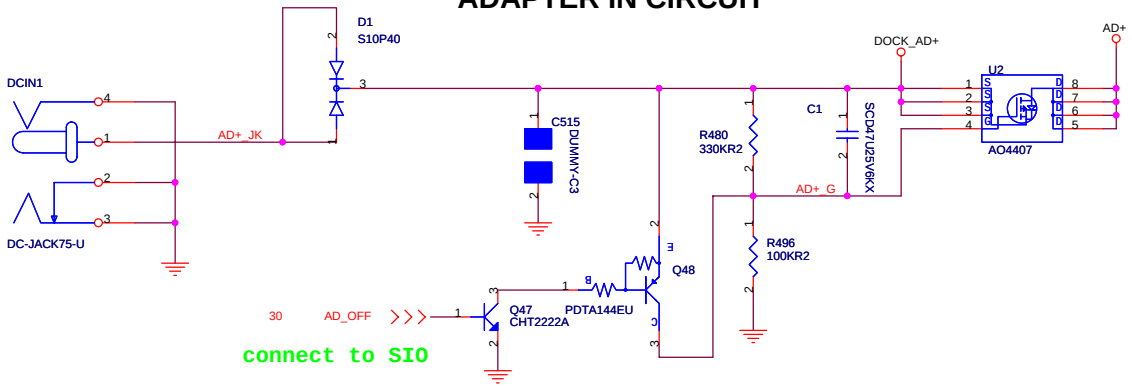

1D8V / 6A ,OCP>7.8A
1D05V / 4A ,OCP>5.5A
0D9V
ISL6227
U74
ISL6227CA
APL5331KAC-TR
Canary2_SA:For Power Team
change Capacitance Vendor
DCBATOUT
DCBATOUT_5236
1D8V_PWR
1D8V_S3
1D05V_PWR
1D05V_S0
1D05V_NB_S0
0D9V_PWR
DDR_VREF
5V_S5
BOM2(NV44+G)
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
Title
1D8V / 1D05V
Size A3
Document Number
CANARY2
Rev SA
Date: Friday, January 14, 2005
Sheet 42 of 55

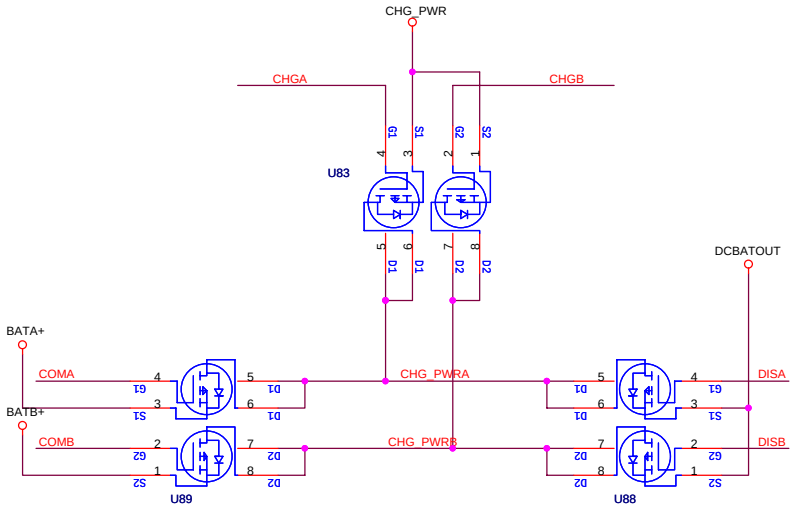


BOM2(NV44+G)

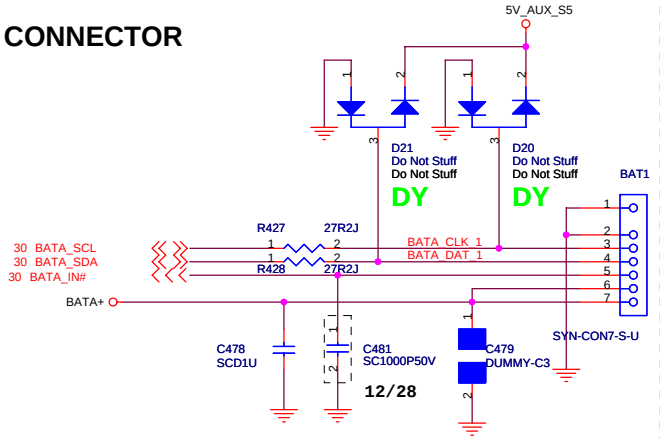
緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: CHARGER-Max8725		
Size: A3	Document Number: CANARY2	Rev: SA
Date: Thursday, January 13, 2005	Sheet 43 of 55	

ADAPTER IN CIRCUIT

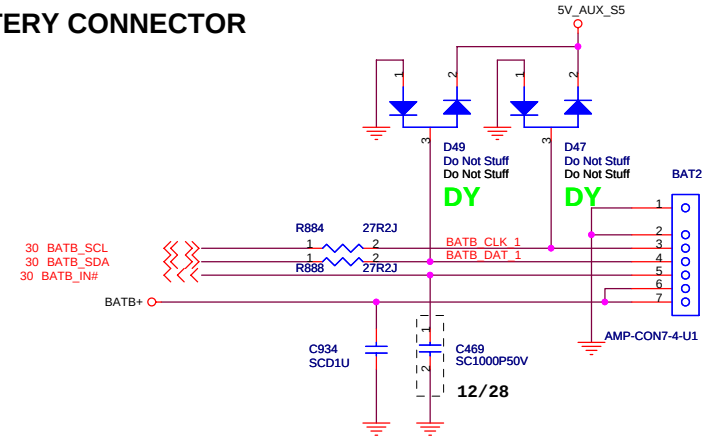




MAIN BATTERY CONNECTOR

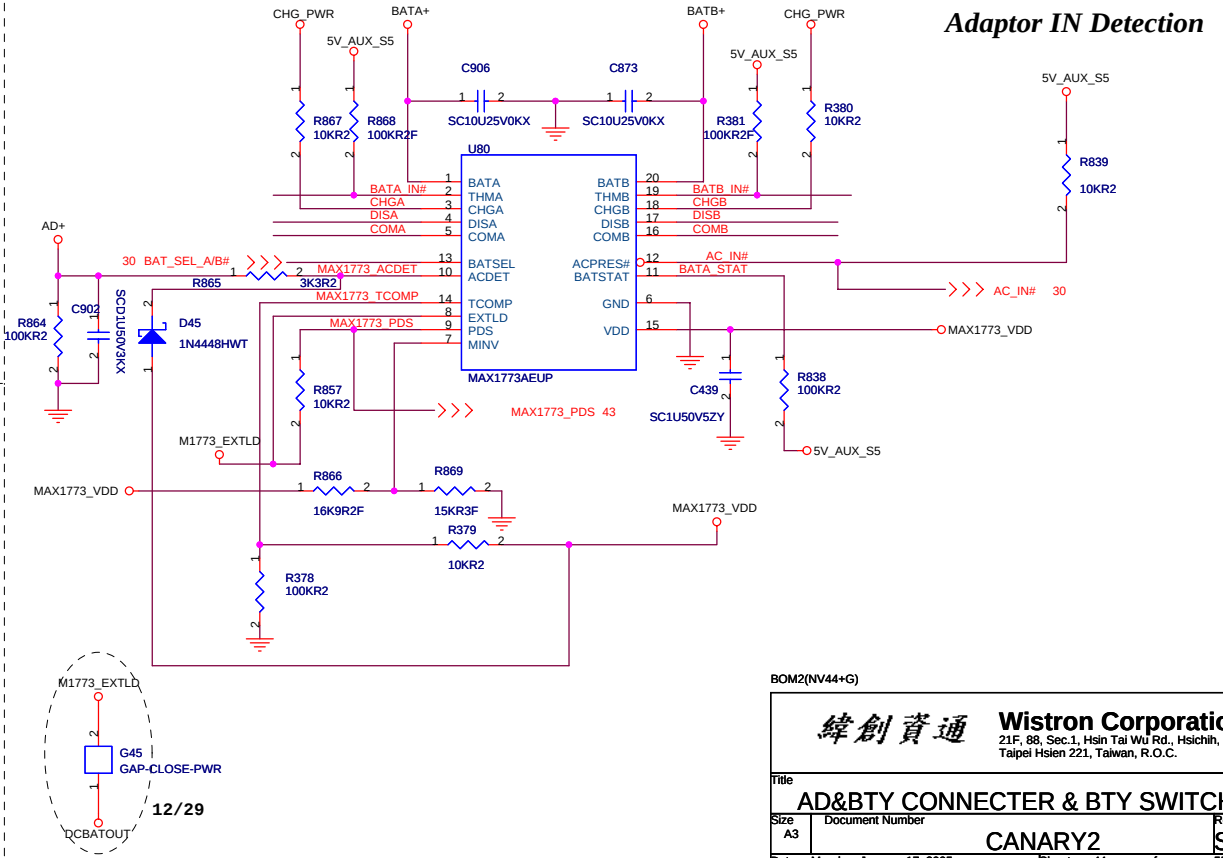


2ND BATTERY CONNECTOR



BATTERY SWITCH

Adaptor IN Detection



BOM2(NV44+G)

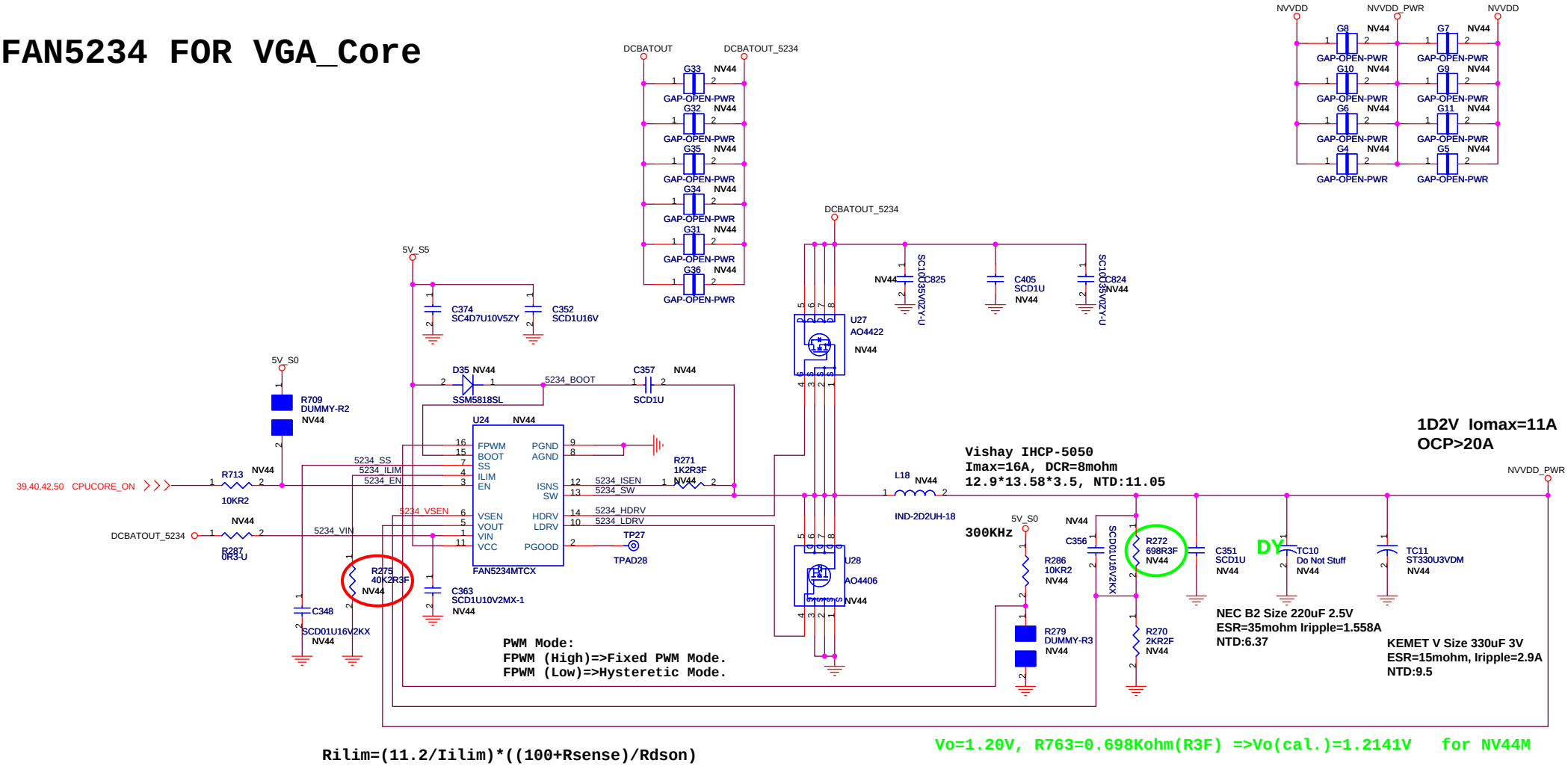
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: AD&BTY CONNECTER & BTY SWITCH

Size	Document Number	Rev
A3	CANARY2	SA

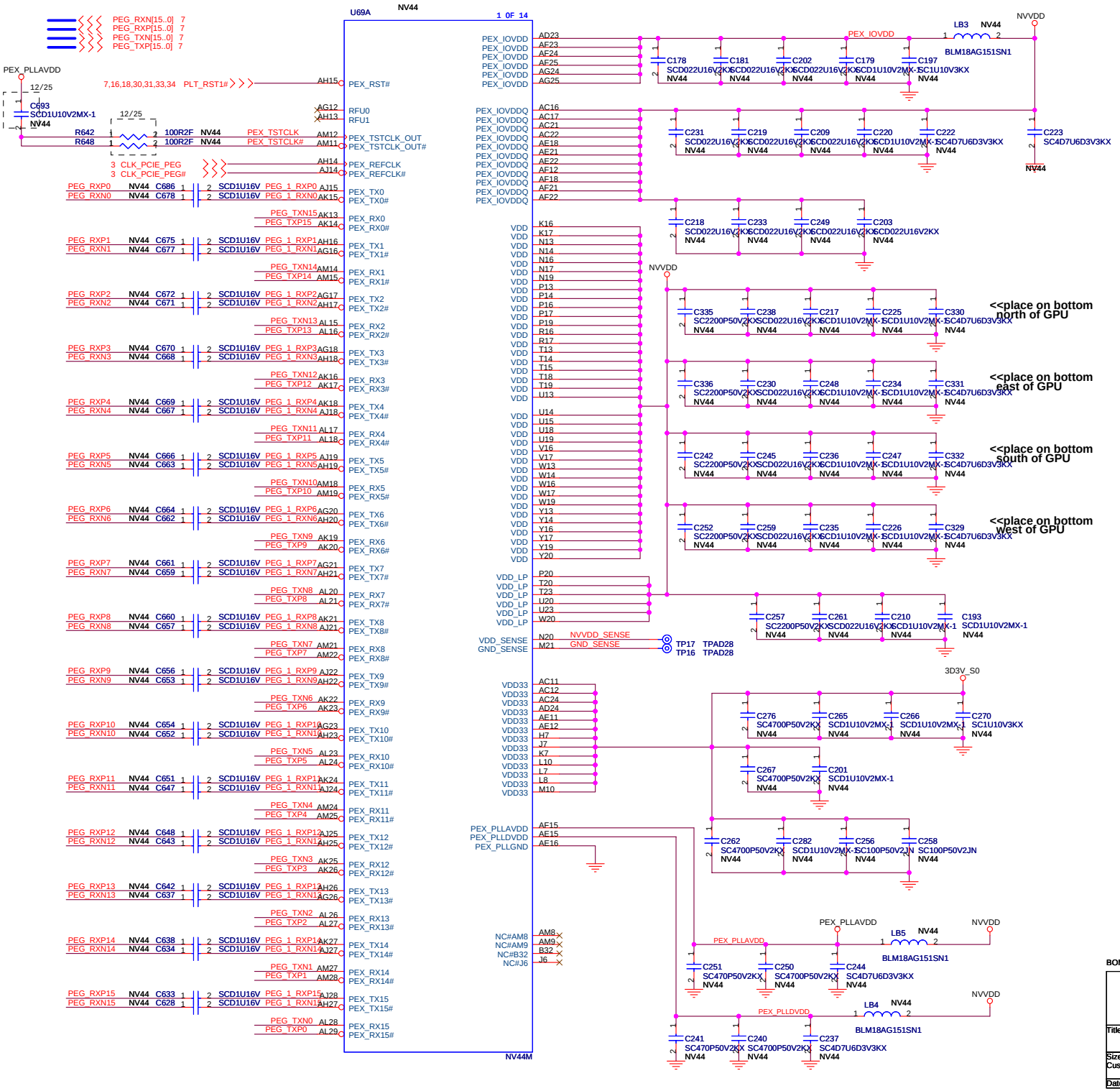
Date: Monday, January 17, 2005 Sheet 44 of 55

FAN5234 FOR VGA_Core



BOM2(NV44+G)

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: FAN5234_VGA_CORE_1D20V or 1D15V		
Size: A3	Document Number: CANARY2	Rev: SA
Date: Thursday, January 13, 2005	Sheet 45 of 55	



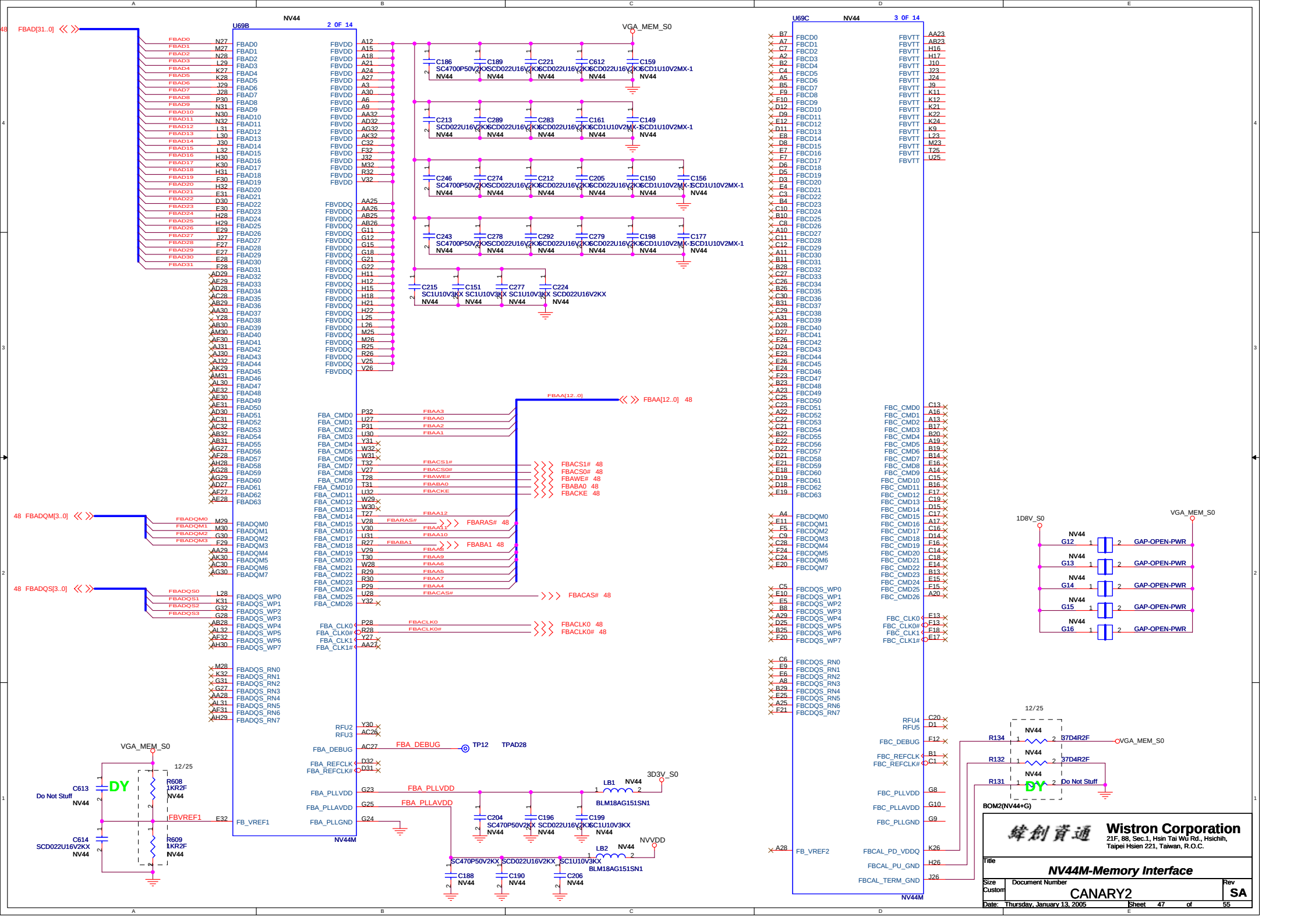
BOM2(NV44+G)

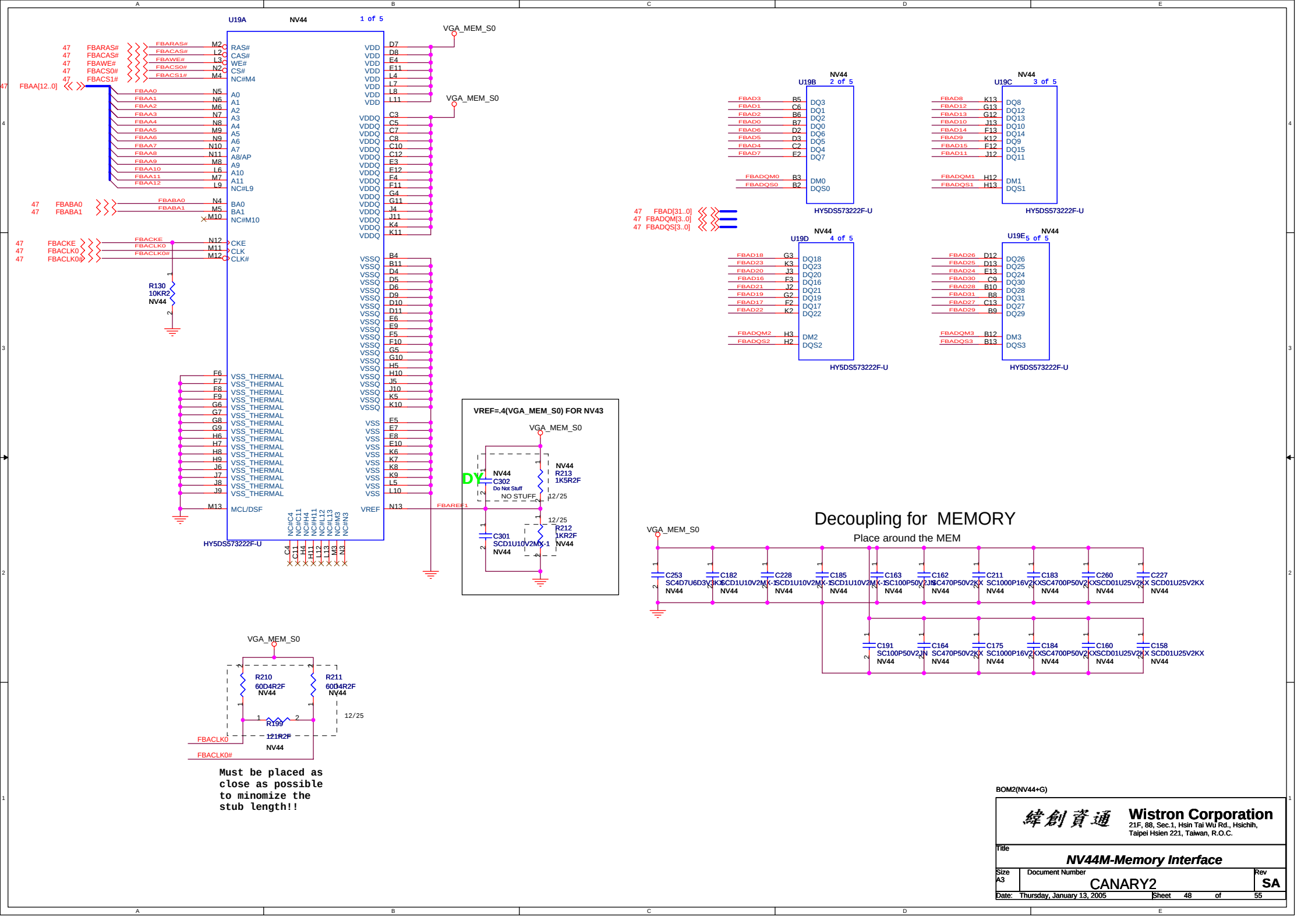
蜂創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **NV44M-PCIE**

Size	Document Number	Rev
Custom	CANARY2	SA

Date: Thursday, January 13, 2005 Sheet 46 of 55


NV44
U69B
2 OF 14
FBAD[31..0]
FBAD0 N27
FBAD1 M27
FBAD2 N28
FBAD3 L29
FBAD4 K27
FBAD5 K28
FBAD6 J29
FBAD7 J28
FBAD8 P30
FBAD9 N31
FBAD10 N30
FBAD11 N32
FBAD12 L31
FBAD13 L30
FBAD14 J30
FBAD15 L32
FBAD16 H30
FBAD17 K30
FBAD18 H31
FBAD19 E30
FBAD20 H32
FBAD21 E31
FBAD22 D30
FBAD23 E30
FBAD24 H28
FBAD25 H29
FBAD26 E29
FBAD27 J27
FBAD28 F27
FBAD29 F27
FBAD30 E28
FBAD31 F28
AD29 AE29 AD28 AC28 AB29 AA30 Y28 AB30 AM30 AF30 AJ31 AJ30 AJ32 AK29 AM31 AL30 AE32 AE30 AE31 AD30 AC31 AC32 AB32 AB31 AG27 AF28 AH28 AG28 AG29 AD27 AF27 AE28
FBAD0 FBAD1 FBAD2 FBAD3 FBAD4 FBAD5 FBAD6 FBAD7 FBAD8 FBAD9 FBAD10 FBAD11 FBAD12 FBAD13 FBAD14 FBAD15 FBAD16 FBAD17 FBAD18 FBAD19 FBAD20 FBAD21 FBAD22 FBAD23 FBAD24 FBAD25 FBAD26 FBAD27 FBAD28 FBAD29 FBAD30 FBAD31 FBAD32 FBAD33 FBAD34 FBAD35 FBAD36 FBAD37 FBAD38 FBAD39 FBAD40 FBAD41 FBAD42 FBAD43 FBAD44 FBAD45 FBAD46 FBAD47 FBAD48 FBAD49 FBAD50 FBAD51 FBAD52 FBAD53 FBAD54 FBAD55 FBAD56 FBAD57 FBAD58 FBAD59 FBAD60 FBAD61 FBAD62 FBAD63
VGA_MEM_S0
FBVDD A12 A15 A18 A21 A24 A27 A3 A30 A6 A9 AA32 AD32 AG32 AK32 C32 F32 J32 M32 R32 V32
FBVDDQ AA25 AA26 AB25 AB26 G11 G12 G15 G18 G21 G22 H11 H12 H15 H18 H21 H22 L25 L26 M25 M26 R25 R26 V25 V26
C186 SC4700P50V2KX NV44
C189 SCD022U16V2KX NV44
C221 SCD022U16V2KX NV44
C612 SCD022U16V2KX NV44
C159 SCD1U10V2MX-1 NV44
C213 SCD022U16V2KX NV44
C289 SCD022U16V2KX NV44
C283 SCD022U16V2KX NV44
C161 SCD1U10V2MX-1 NV44
C149 SCD1U10V2MX-1 NV44
C246 SC4700P50V2KX NV44
C274 SCD022U16V2KX NV44
C212 SCD022U16V2KX NV44
C205 SCD022U16V2KX NV44
C150 SCD1U10V2MX-1 NV44
C156 SCD1U10V2MX-1 NV44
C243 SC4700P50V2KX NV44
C278 SCD022U16V2KX NV44
C292 SCD022U16V2KX NV44
C279 SCD022U16V2KX NV44
C198 SCD1U10V2MX-1 NV44
C177 SCD1U10V2MX-1 NV44
C215 SC1U10V3KX NV44
C151 SC1U10V3KX NV44
C277 SC1U10V3KX NV44
C224 SCD022U16V2KX NV44
FBAA[12..0] 48
FBA_CMD0 P32 FBAA3
FBA_CMD1 U27 FBAA0
FBA_CMD2 P31 FBAA2
FBA_CMD3 U30 FBAA1
FBA_CMD4 Y31
FBA_CMD5 W32
FBA_CMD6 W31
FBA_CMD7 T32 FBACS1# FBACS1# 48
FBA_CMD8 V27 FBACS0# FBACS0# 48
FBA_CMD9 T28 FBAWE# FBAWE# 48
FBA_CMD10 T31 FBABA0 FBABA0 48
FBA_CMD11 U32 FBACKE FBACKE 48
FBA_CMD12 W29
FBA_CMD13 W30
FBA_CMD14 T27 FBAA12
FBA_CMD15 V28 FBARAS# FBARAS# 48
FBA_CMD16 V30 FBAA11
FBA_CMD17 U31 FBAA10
FBA_CMD18 R27 FBABA1 FBABA1 48
FBA_CMD19 V29 FBAA8
FBA_CMD20 T30 FBAA9
FBA_CMD21 W28 FBAA6
FBA_CMD22 R29 FBAA5
FBA_CMD23 R30 FBAA7
FBA_CMD24 P29 FBAA4
FBA_CMD25 U28 FBACAS# FBACAS# 48
FBA_CMD26 Y32
48 FBADQM[3..0]
FBADQM0 M29
FBADQM1 M30
FBADQM2 G30
FBADQM3 F29
AA29 AK30 AC30 AG30
FBADQM0 FBADQM1 FBADQM2 FBADQM3 FBADQM4 FBADQM5 FBADQM6 FBADQM7
48 FBADQS[3..0]
FBADQS0 L28
FBADQS1 K31
FBADQS2 G32
FBADQS3 G28
AB28 AL32 AE32 AH30
FBADQS_WP0 FBADQS_WP1 FBADQS_WP2 FBADQS_WP3 FBADQS_WP4 FBADQS_WP5 FBADQS_WP6 FBADQS_WP7
M28 K32 G31 G27 AA28 AL31 AE31 AH29
FBADQS_RN0 FBADQS_RN1 FBADQS_RN2 FBADQS_RN3 FBADQS_RN4 FBADQS_RN5 FBADQS_RN6 FBADQS_RN7
FBA_CLK0 P28 FBACLK0 FBACLK0 48
FBA_CLK0# R28 FBACLK0# FBACLK0# 48
FBA_CLK1 Y27
FBA_CLK1# AA27
RFU2 Y30
RFU3 AC26
FBA_DEBUG AC27 FBA_DEBUG TP12 TPAD28
FBA_REFCLK D32
FBA_REFCLK# D31
FBA_PLLVDD G23 FBA_PLLVDD
FBA_PLLAVDD G25 FBA_PLLAVDD
FBA_PLLGND G24
3D3V_S0
LB1 NV44 BLM18AG151SN1
C204 SC470P50V2KX NV44
C196 SCD022U16V2KX NV44
C199 SC1U10V3KX NV44
NVVDD
LB2 NV44 BLM18AG151SN1
C188 SC470P50V2KX NV44
C190 SCD022U16V2KX NV44
C206 SC1U10V3KX NV44
FBVREF1 E32
FB_VREF1
NV44M
VGA_MEM_S0
12/25
C613 DY Do Not Stuff NV44
R608 1KR2F NV44
C614 SCD022U16V2KX NV44
R609 1KR2F NV44
U69C
NV44
3 OF 14
FBCD0 B7
FBCD1 A7
FBCD2 C7
FBCD3 A2
FBCD4 B2
FBCD5 C4
FBCD6 A5
FBCD7 B5
FBCD8 F9
FBCD9 E10
FBCD10 D12
FBCD11 D9
FBCD12 E12
FBCD13 D11
FBCD14 E8
FBCD15 D8
FBCD16 E7
FBCD17 F7
FBCD18 D6
FBCD19 D5
FBCD20 D3
FBCD21 E4
FBCD22 C3
FBCD23 B4
FBCD24 C10
FBCD25 B10
FBCD26 C8
FBCD27 A10
FBCD28 C11
FBCD29 C12
FBCD30 A11
FBCD31 B11
FBCD32 B28
FBCD33 C27
FBCD34 C26
FBCD35 B26
FBCD36 C30
FBCD37 B31
FBCD38 C29
FBCD39 A31
FBCD40 D28
FBCD41 D27
FBCD42 F26
FBCD43 D24
FBCD44 E23
FBCD45 E26
FBCD46 E24
FBCD47 F23
FBCD48 B23
FBCD49 A23
FBCD50 C25
FBCD51 C23
FBCD52 A22
FBCD53 C22
FBCD54 C21
FBCD55 B22
FBCD56 E22
FBCD57 D22
FBCD58 D21
FBCD59 E21
FBCD60 E18
FBCD61 D19
FBCD62 D18
FBCD63 E19
FBCDQM0 A4
FBCDQM1 E11
FBCDQM2 F5
FBCDQM3 C9
FBCDQM4 C28
FBCDQM5 F24
FBCDQM6 C24
FBCDQM7 E20
FBCDQS_WP0 C5
FBCDQS_WP1 E10
FBCDQS_WP2 E5
FBCDQS_WP3 B8
FBCDQS_WP4 A29
FBCDQS_WP5 D25
FBCDQS_WP6 B25
FBCDQS_WP7 E20
FBCDQS_RN0 C6
FBCDQS_RN1 E9
FBCDQS_RN2 E6
FBCDQS_RN3 A8
FBCDQS_RN4 B29
FBCDQS_RN5 E25
FBCDQS_RN6 A25
FBCDQS_RN7 F21
FB_VREF2 A28
FBVTT AA23 AB23 H16 H17 J10 J23 J24 J9 K11 K12 K21 K22 K24 K9 L23 M23 T25 U25
FBC_CMD0 C13
FBC_CMD1 A16
FBC_CMD2 A13
FBC_CMD3 B17
FBC_CMD4 B20
FBC_CMD5 A19
FBC_CMD6 B19
FBC_CMD7 B14
FBC_CMD8 E16
FBC_CMD9 A14
FBC_CMD10 C15
FBC_CMD11 B16
FBC_CMD12 F17
FBC_CMD13 C19
FBC_CMD14 D15
FBC_CMD15 C17
FBC_CMD16 A17
FBC_CMD17 C16
FBC_CMD18 D14
FBC_CMD19 F16
FBC_CMD20 C14
FBC_CMD21 C18
FBC_CMD22 E14
FBC_CMD23 B13
FBC_CMD24 E15
FBC_CMD25 F15
FBC_CMD26 A20
FBC_CLK0 E13
FBC_CLK0# F13
FBC_CLK1 F18
FBC_CLK1# E17
RFU4 C20
RFU5 D1
FBC_DEBUG F12
FBC_REFCLK B1
FBC_REFCLK# C1
FBC_PLLVDD G8
FBC_PLLAVDD G10
FBC_PLLGND G9
FBCAL_PD_VDDQ K26
FBCAL_PU_GND H26
FBCAL_TERM_GND J26
NV44M
1D8V_S0
VGA_MEM_S0
NV44 G12 GAP-OPEN-PWR
NV44 G13 GAP-OPEN-PWR
NV44 G14 GAP-OPEN-PWR
NV44 G15 GAP-OPEN-PWR
NV44 G16 GAP-OPEN-PWR
12/25
R134 NV44 37D4R2F VGA_MEM_S0
R132 NV44 37D4R2F
R131 NV44 DY Do Not Stuff
BOM2(NV44+G)
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
Title
NV44M-Memory Interface
Size Custom
Document Number CANARY2
Rev SA
Date: Thursday, January 13, 2005
Sheet 47 of 55



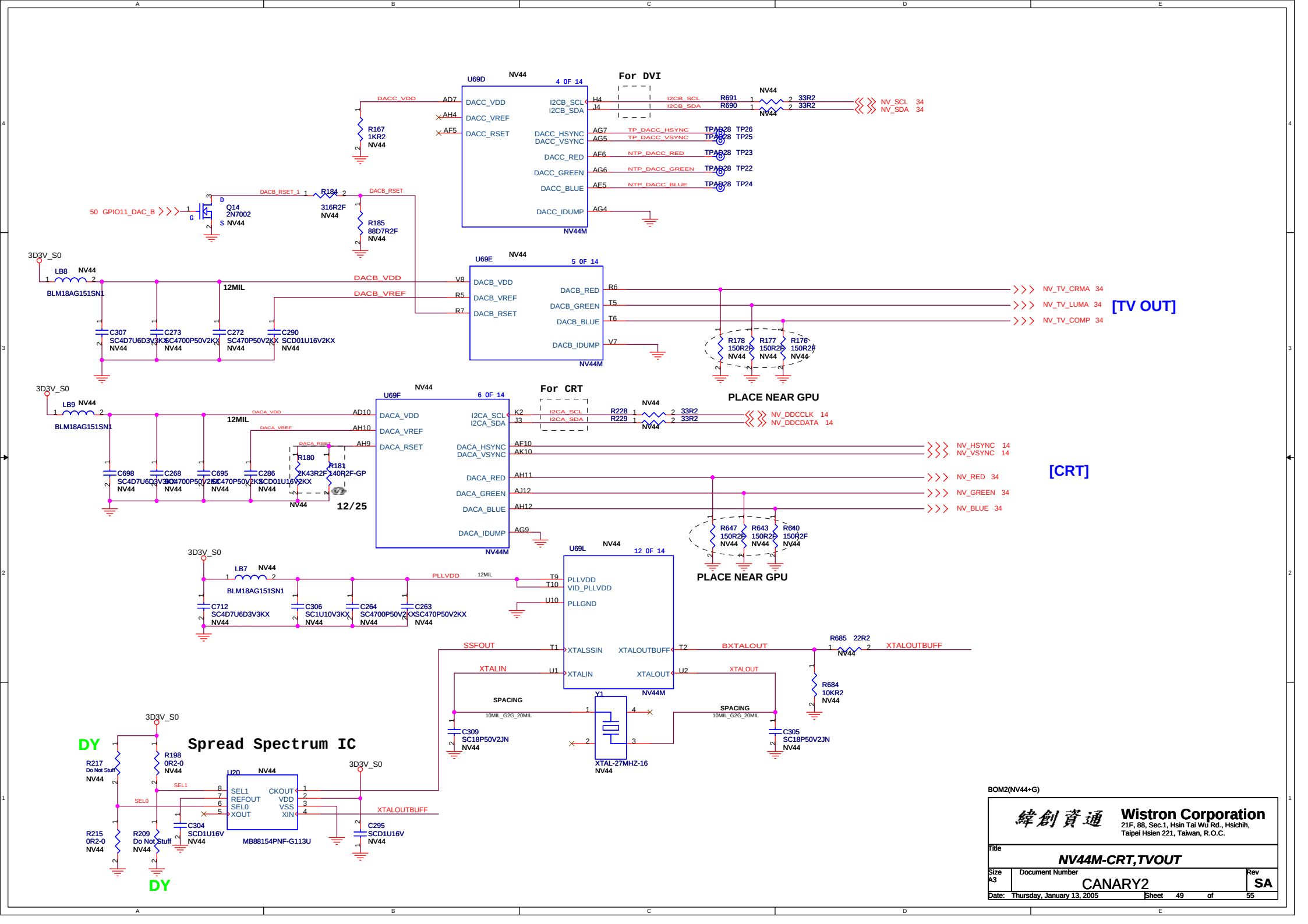
BOM2(NV44+G)

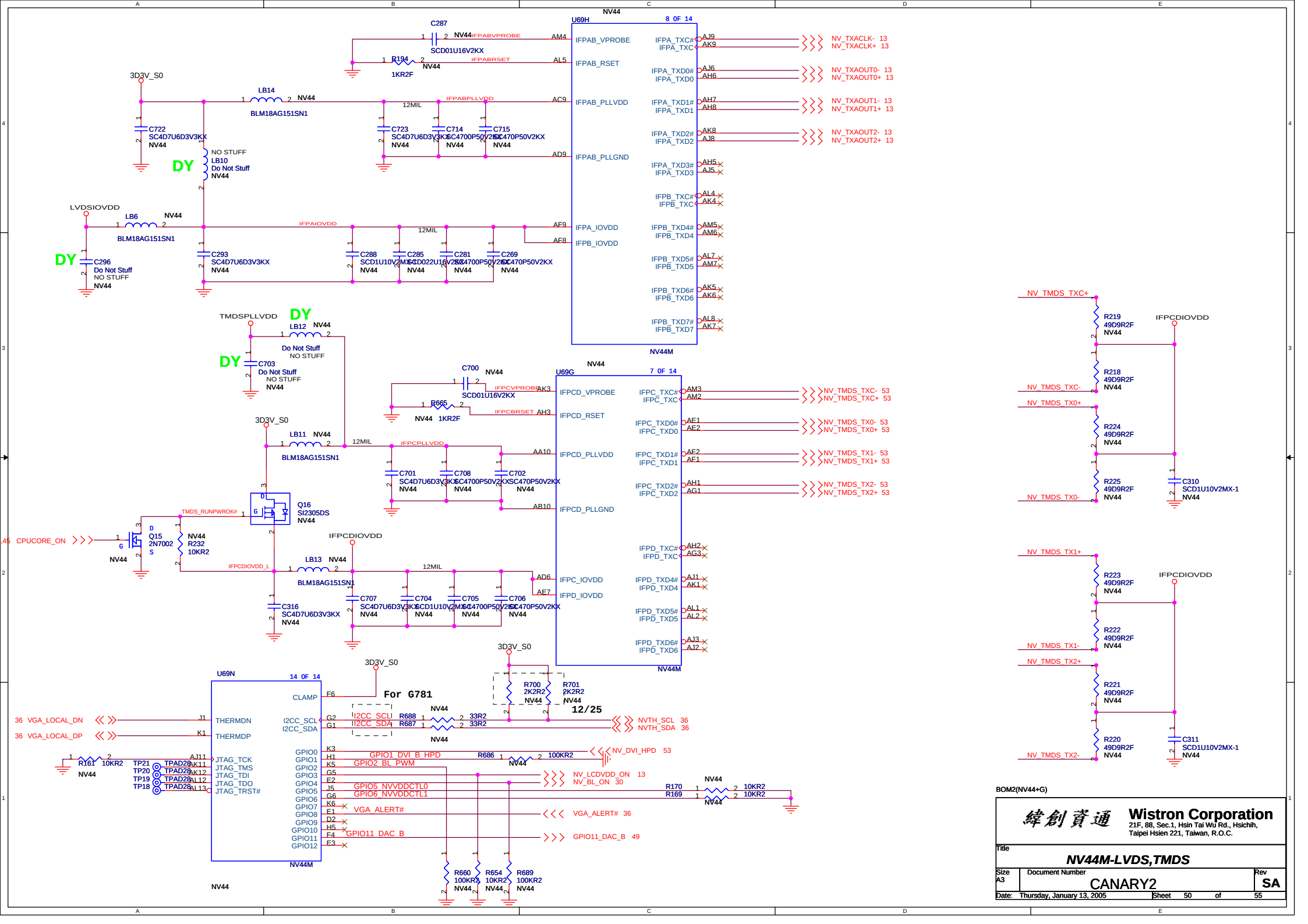
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

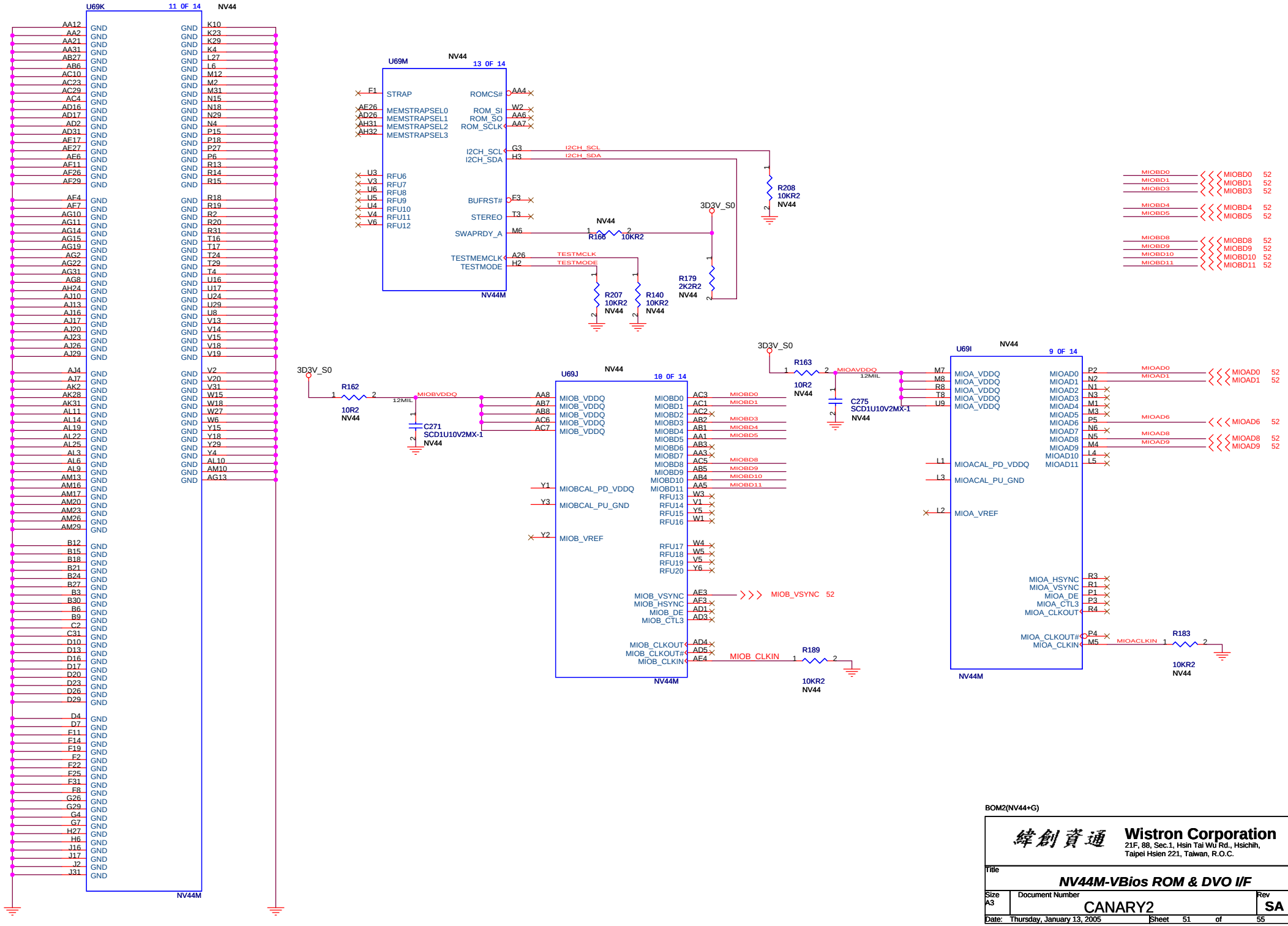
Title: ***NV44M-Memory Interface***

Size	Document Number	Rev
A3	CANARY2	SA

Date: Thursday, January 13, 2005 Sheet 48 of 55

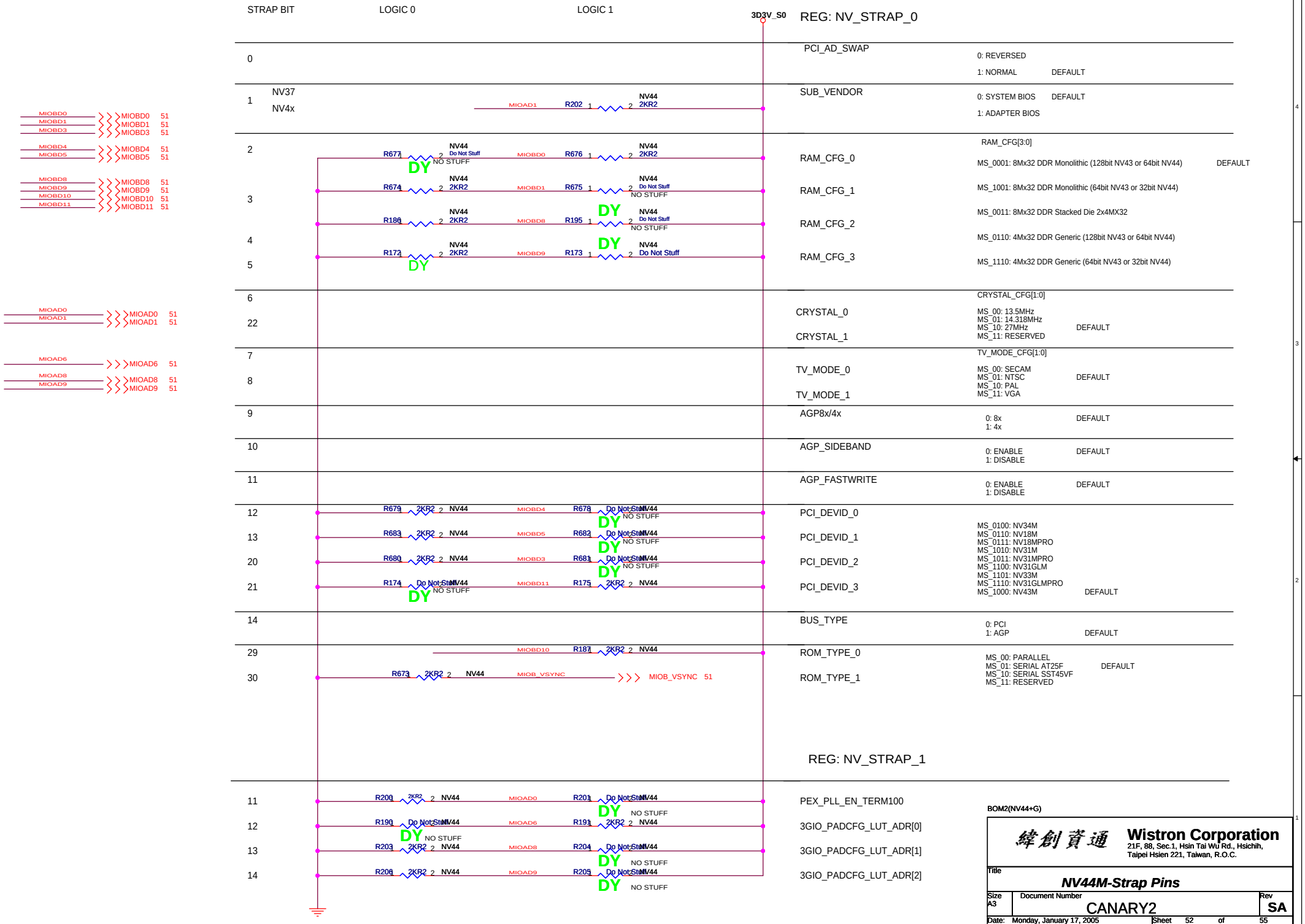

For DVI
U69D
NV44
4 OF 14
DACC_VDD
DACC_VREF
DACC_RSET
I2CB_SCL
I2CB_SDA
DACC_HSYNC
DACC_VSYNC
DACC_RED
DACC_GREEN
DACC_BLUE
DACC_IDUMP
NV44M
R167 1KR2 NV44
R691 33R2
R690 33R2
NV_SCL 34
NV_SDA 34
TP_DACC_HSYNC
TP_DACC_VSYNC
NTP_DACC_RED
NTP_DACC_GREEN
NTP_DACC_BLUE
TP26
TP25
TP23
TP22
TP24
Q14 2N7002 NV44
R184 316R2F NV44
R185 88D7R2F NV44
50 GPIO11_DAC_B
DACB_RSET_1
DACB_RSET
U69E
5 OF 14
DACB_VDD
DACB_VREF
DACB_RSET
DACB_RED
DACB_GREEN
DACB_BLUE
DACB_IDUMP
3D3V_S0
LB8 BLM18AG151SN1
12MIL
C307 SC4D7U6D3V3KX
C273 SC4700P50V2KX
C272 SC470P50V2KX
C290 SCD01U16V2KX
R178 150R2F
R177 150R2F
R176 150R2F
NV_TV_CRMA 34
NV_TV_LUMA 34
NV_TV_COMP 34
[TV OUT]
PLACE NEAR GPU
For CRT
U69F
6 OF 14
DACA_VDD
DACA_VREF
DACA_RSET
I2CA_SCL
I2CA_SDA
DACA_HSYNC
DACA_VSYNC
DACA_RED
DACA_GREEN
DACA_BLUE
DACA_IDUMP
LB9 BLM18AG151SN1
C698 SC4D7U6D3V3KX
C268 SC4700P50V2KX
C695 SC470P50V2KX
C286 SCD01U16V2KX
R180 2K43R2F
R181 140R2F-GP
12/25
R228 33R2
R229 33R2
NV_DDCCLK 14
NV_DDCDATA 14
NV_HSYNC 14
NV_VSYNC 14
NV_RED 34
NV_GREEN 34
NV_BLUE 34
R647 150R2F
R643 150R2F
R640 150R2F
[CRT]
PLACE NEAR GPU
U69L
12 OF 14
PLLVDD
VID_PLLVDD
PLLGND
XTALSSIN
XTALIN
XTALOUTBUFF
XTALOUT
LB7 BLM18AG151SN1
C712 SC4D7U6D3V3KX
C306 SC1U10V3KX
C264 SC4700P50V2KX
C263 SC470P50V2KX
SSFOUT
XTALIN
BXTALOUT
XTALOUTBUFF
R685 22R2
R684 10KR2
SPACING
10MIL_G2G_20MIL
Y1
XTAL-27MHZ-16
C309 SC18P50V2JN
C305 SC18P50V2JN
DY
Spread Spectrum IC
R217 Do Not Stuff
R198 0R2-0
R215 0R2-0
R209 Do Not Stuff
U20
SEL1
REFOUT
SEL0
XOUT
CKOUT
VDD
VSS
XIN
MB88154PNF-G113U
C304 SCD1U16V
C295 SCD1U16V
BOM2(NV44+G)
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
Title
NV44M-CRT,TVOUT
Size A3
Document Number
CANARY2
Rev SA
Date: Thursday, January 13, 2005
Sheet 49 of 55

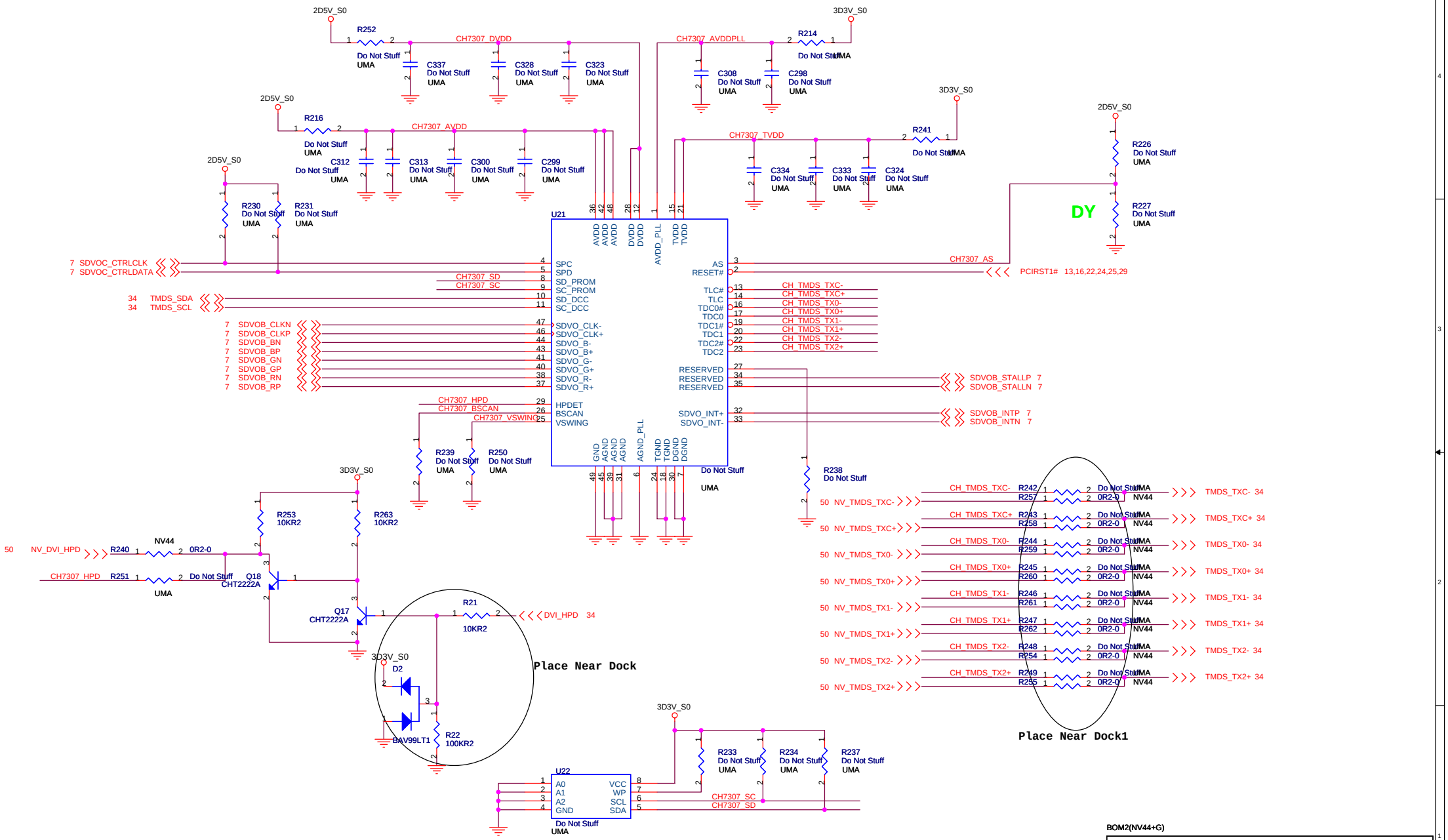

U69H
8 OF 14
NV44M
IFPAB_VPROBE
IFPAB_RSET
IFPAB_PLLVDD
IFPAB_PLLGND
IFPA_IOVDD
IFPB_IOVDD
IFPA_TXC#
IFPA_TXC
IFPA_TXD0#
IFPA_TXD0
IFPA_TXD1#
IFPA_TXD1
IFPA_TXD2#
IFPA_TXD2
IFPA_TXD3#
IFPA_TXD3
IFPB_TXC#
IFPB_TXC
IFPB_TXD4#
IFPB_TXD4
IFPB_TXD5#
IFPB_TXD5
IFPB_TXD6#
IFPB_TXD6
IFPB_TXD7#
IFPB_TXD7
NV_TXACLK- 13
NV_TXACLK+ 13
NV_TXAOUT0- 13
NV_TXAOUT0+ 13
NV_TXAOUT1- 13
NV_TXAOUT1+ 13
NV_TXAOUT2- 13
NV_TXAOUT2+ 13
U69G
7 OF 14
IFPCD_VPROBE
IFPCD_RSET
IFPCD_PLLVDD
IFPCD_PLLGND
IFPC_IOVDD
IFPD_IOVDD
IFPC_TXC#
IFPC_TXC
IFPC_TXD0#
IFPC_TXD0
IFPC_TXD1#
IFPC_TXD1
IFPC_TXD2#
IFPC_TXD2
IFPD_TXC#
IFPD_TXC
IFPD_TXD4#
IFPD_TXD4
IFPD_TXD5#
IFPD_TXD5
IFPD_TXD6#
IFPD_TXD6
NV_TMDS_TXC- 53
NV_TMDS_TXC+ 53
NV_TMDS_TX0- 53
NV_TMDS_TX0+ 53
NV_TMDS_TX1- 53
NV_TMDS_TX1+ 53
NV_TMDS_TX2- 53
NV_TMDS_TX2+ 53
U69N
14 OF 14
CLAMP
I2CC_SCL
I2CC_SDA
THERMDN
THERMDP
JTAG_TCK
JTAG_TMS
JTAG_TDI
JTAG_TDO
JTAG_TRST#
GPIO0
GPIO1
GPIO2
GPIO3
GPIO4
GPIO5
GPIO6
GPIO7
GPIO8
GPIO9
GPIO10
GPIO11
GPIO12
For G781
12/25
NVTH_SCL 36
NVTH_SDA 36
NV_DVI_HPD 53
NV_LCDVDD_ON 13
NV_BL_ON 30
VGA_ALERT# 36
GPIO11_DAC_B 49
36 VGA_LOCAL_DN
36 VGA_LOCAL_DP
45 CPUCORE_ON
3D3V_S0
LVDSIOVDD
TMDSPLLVDD
IFPCDIOVDD
IFPAIOVDD
IFPABPLLVDD
IFPCPLLVDD
IFPCDIOVDD_L
TMDS_RUNPWROK#
IFPABVPROBE
IFPABRSET
IFPCVPROBE
IFPCBRSET
NV_TMDS_TXC+
NV_TMDS_TXC-
NV_TMDS_TX0+
NV_TMDS_TX0-
NV_TMDS_TX1+
NV_TMDS_TX1-
NV_TMDS_TX2+
NV_TMDS_TX2-
BOM2(NV44+G)
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
Title
NV44M-LVDS,TMDS
Size A3
Document Number
CANARY2
Rev SA
Date: Thursday, January 13, 2005
Sheet 50 of 55



BOM2(NV44+G)

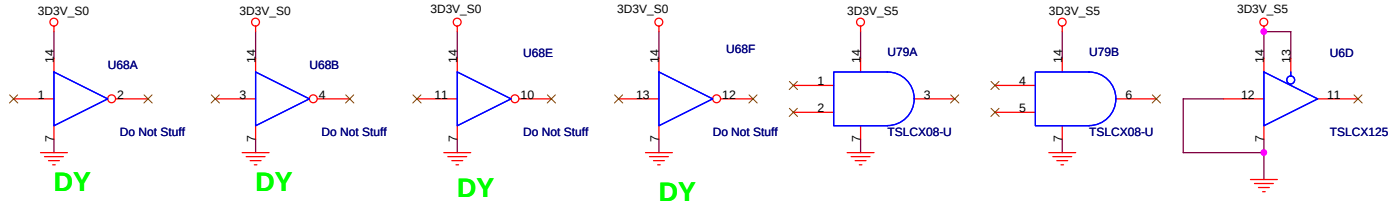
緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***NV44M-VBios ROM & DVO I/F***	
Size A3	Document Number CANARY2	Rev **SA**
Date: Thursday, January 13, 2005	Sheet 51 of 55	

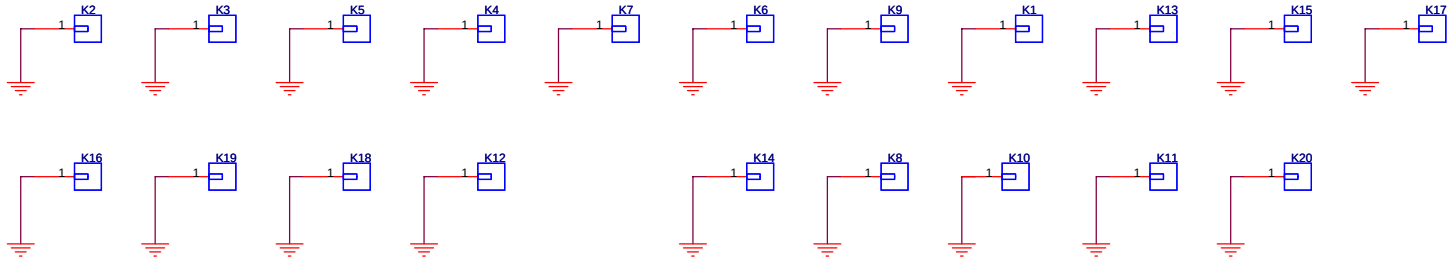

STRAP BIT
LOGIC 0
LOGIC 1
3D3V_S0
REG: NV_STRAP_0
0
PCI_AD_SWAP
0: REVERSED
1: NORMAL DEFAULT
1
NV37
NV4x
SUB_VENDOR
0: SYSTEM BIOS DEFAULT
1: ADAPTER BIOS
MIOAD1 R202 NV44 2KR2
2
3
4
5
RAM_CFG[3:0]
RAM_CFG_0
RAM_CFG_1
RAM_CFG_2
RAM_CFG_3
MS_0001: 8Mx32 DDR Monolithic (128bit NV43 or 64bit NV44) DEFAULT
MS_1001: 8Mx32 DDR Monolithic (64bit NV43 or 32bit NV44)
MS_0011: 8Mx32 DDR Stacked Die 2x4MX32
MS_0110: 4Mx32 DDR Generic (128bit NV43 or 64bit NV44)
MS_1110: 4Mx32 DDR Generic (64bit NV43 or 32bit NV44)
R677 R676 R674 R675 R186 R195 R172 R173
NV44 2KR2
Do Not Stuff
NO STUFF
DY
MIOBD0 MIOBD1 MIOBD3 MIOBD4 MIOBD5 MIOBD8 MIOBD9 MIOBD10 MIOBD11
6
22
CRYSTAL_CFG[1:0]
CRYSTAL_0
CRYSTAL_1
MS_00: 13.5MHz
MS_01: 14.318MHz
MS_10: 27MHz DEFAULT
MS_11: RESERVED
MIOAD0 MIOAD1
7
8
TV_MODE_CFG[1:0]
TV_MODE_0
TV_MODE_1
MS_00: SECAM
MS_01: NTSC DEFAULT
MS_10: PAL
MS_11: VGA
MIOAD6 MIOAD8 MIOAD9
9
AGP8x/4x
0: 8x DEFAULT
1: 4x
10
AGP_SIDEBAND
0: ENABLE DEFAULT
1: DISABLE
11
AGP_FASTWRITE
0: ENABLE DEFAULT
1: DISABLE
12
13
20
21
PCI_DEVID_0
PCI_DEVID_1
PCI_DEVID_2
PCI_DEVID_3
MS_0100: NV34M
MS_0110: NV18M
MS_0111: NV18MPRO
MS_1010: NV31M
MS_1011: NV31MPRO
MS_1100: NV31GLM
MS_1101: NV33M
MS_1110: NV31GLMPRO
MS_1000: NV43M DEFAULT
R679 R683 R680 R174 R175
2KR2
Do Not Stuff
14
BUS_TYPE
0: PCI
1: AGP DEFAULT
29
30
ROM_TYPE_0
ROM_TYPE_1
MS_00: PARALLEL
MS_01: SERIAL AT25F DEFAULT
MS_10: SERIAL SST45VF
MS_11: RESERVED
MIOBD10 R187 2KR2 NV44
R673 2KR2 NV44 MIOB_VSYNC MIOB_VSYNC 51
REG: NV_STRAP_1
11
12
13
14
PEX_PLL_EN_TERM100
3GIO_PADCFG_LUT_ADR[0]
3GIO_PADCFG_LUT_ADR[1]
3GIO_PADCFG_LUT_ADR[2]
R200 R190 R203 R206
MIOAD0 MIOAD6 MIOAD8 MIOAD9
R201 R191 R204 R205
MIOBD0 51
MIOBD1 51
MIOBD3 51
MIOBD4 51
MIOBD5 51
MIOBD8 51
MIOBD9 51
MIOBD10 51
MIOBD11 51
MIOAD0 51
MIOAD1 51
MIOAD6 51
MIOAD8 51
MIOAD9 51
BOM2(NV44+G)
緯創資通
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.
Title
NV44M-Strap Pins
Size A3
Document Number
CANARY2
Rev SA
Date: Monday, January 17, 2005
Sheet 52 of 55



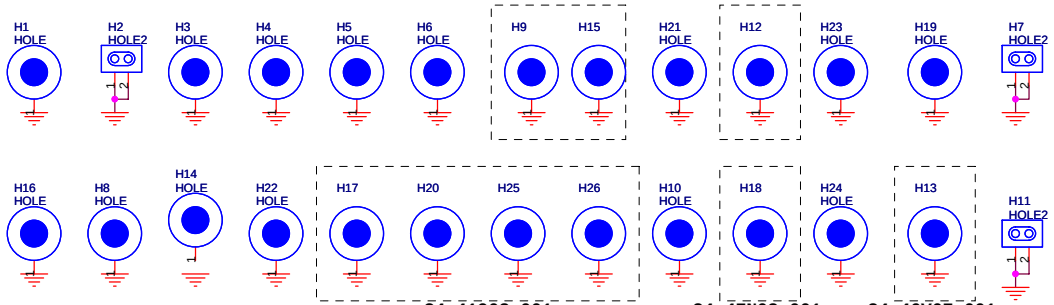
BOM2(NV44+G)

緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title	***DVI Transmitter-CH7307C***
Size A3	Document Number: CANARY2 — Rev: **SA**
Date: Thursday, January 13, 2005	Sheet 53 of 55





34.49Y02.001 34.47N04.001



34.41Q08.001 34.47N03.001 34.46V07.001

BOM2(NV44+G)

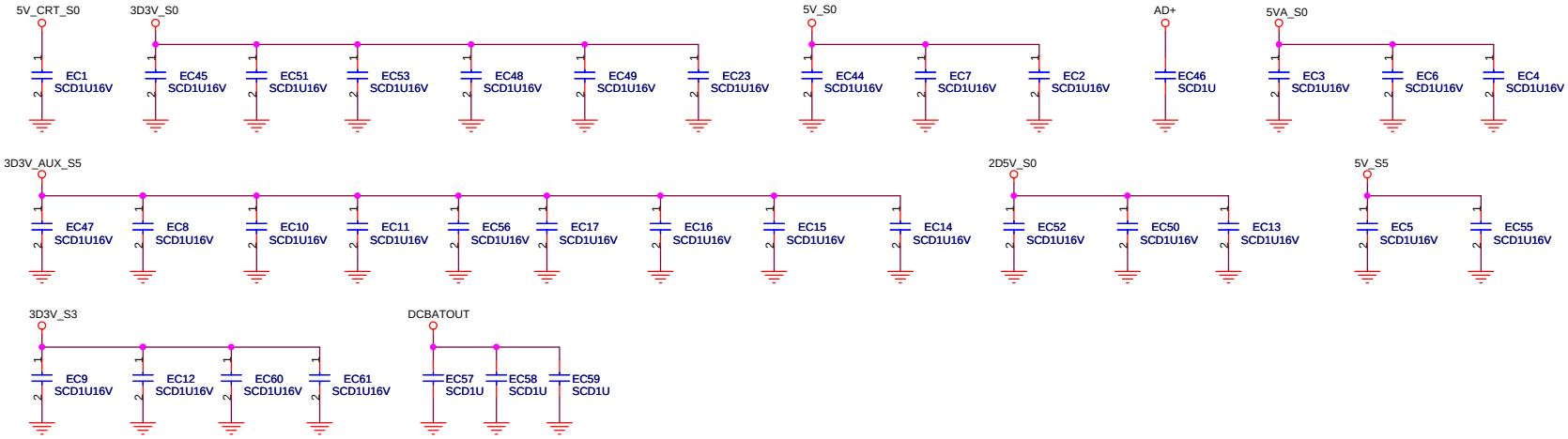
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***SPRING,BOSS & UNUSED TTL***

Size	Document Number	Rev
A3	CANARY2	SA

Date: Thursday, January 13, 2005 Sheet 54 of 55

BYPASS CAP



CROSS PLANE CAP

BOM2(NV44+G)

緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title: ***EMI SOLUTION***		
Size: A3	Document Number: CANARY2	Rev: **SA**
Date: Thursday, January 13, 2005	Sheet 55 of 55	