ABIT - IP35 Pro SCHEMATICS Version: 0.2

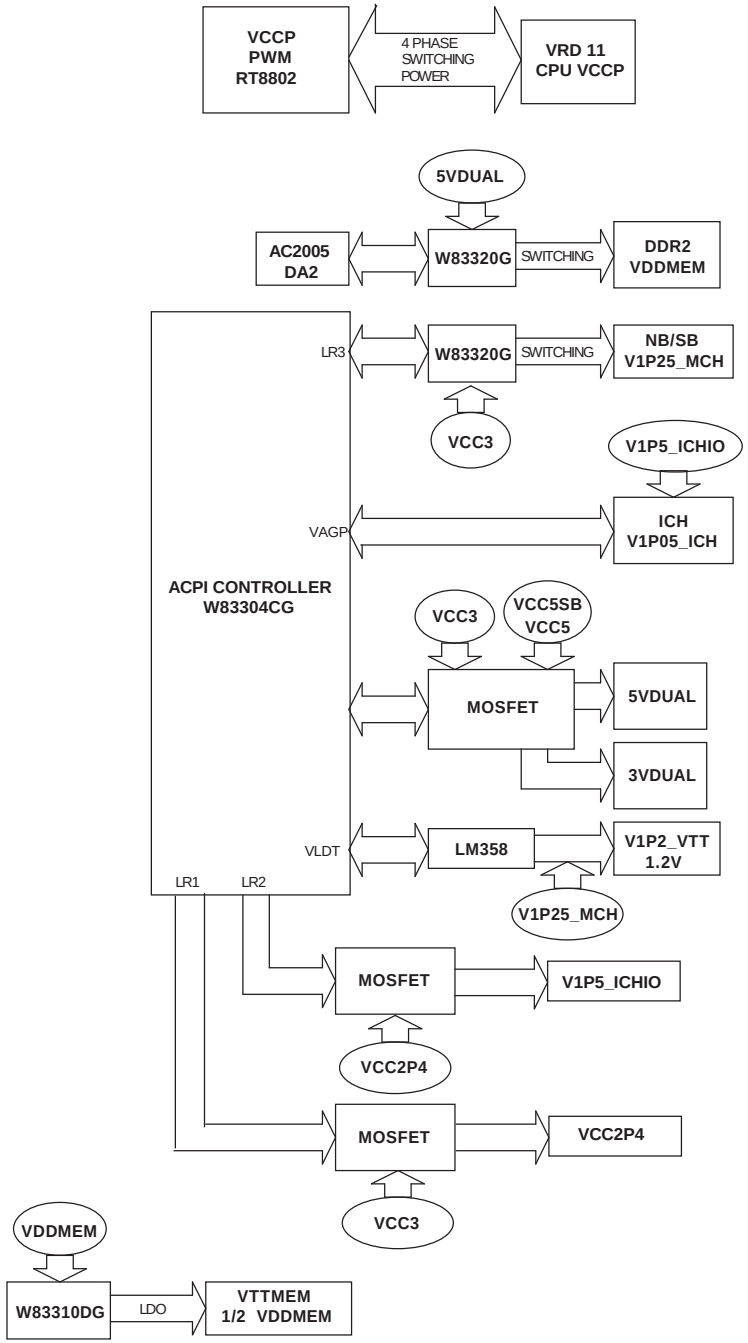
TITLE	MODIFY	SHEET
COVER SHEET		1
SYSTEM & POWER BLOCK DIAGRAM		2
AC2005 BLOCK DIAGRAM		3
GPIO SETTING		4
CLOCK SYNTHESIZER - ICS 9LPR501		5
P4 LGA775 PART A & B		6, 7
P35 PART A, B & C		8, 9, 10
DDR2 CHANNEL A, B & TERMINATION		11, 12, 13
PCIE X16 SLOT		14
ICH9R PART A, B & C		15, 16, 17
PCIE X4/X1 SLOT & SATA		18
PCI EXPRESS PATA CONTROLLER - JMICRON JMB363		19
HD AUDIO CODEC - REALTEK ALC888		20
PCI GbE LAN1 & LAN2 - REALTEK RTL8110SC		21, 22
PCI SLOT		23
IEEE1394 - TI TSB43AB22		24
LPC I/O & FDC		25
FPIO, FWH, SMB & ATX		26
KB, MS & FP-USB		27
VCCP & OTHER DC-DC CONVERTER		28, 29, 30
AC2005 PART A, B & C		31, 32, 33
MECHANICAL		34

Model	Features
IP35 Pro	uGuru Tech., Silent OTES 2, Dual DDR2 800, Dual SATA 3Gb/s RAID, eSATA, PATA, GbE, IEEE -1394, 7.1 Channel HD Audio

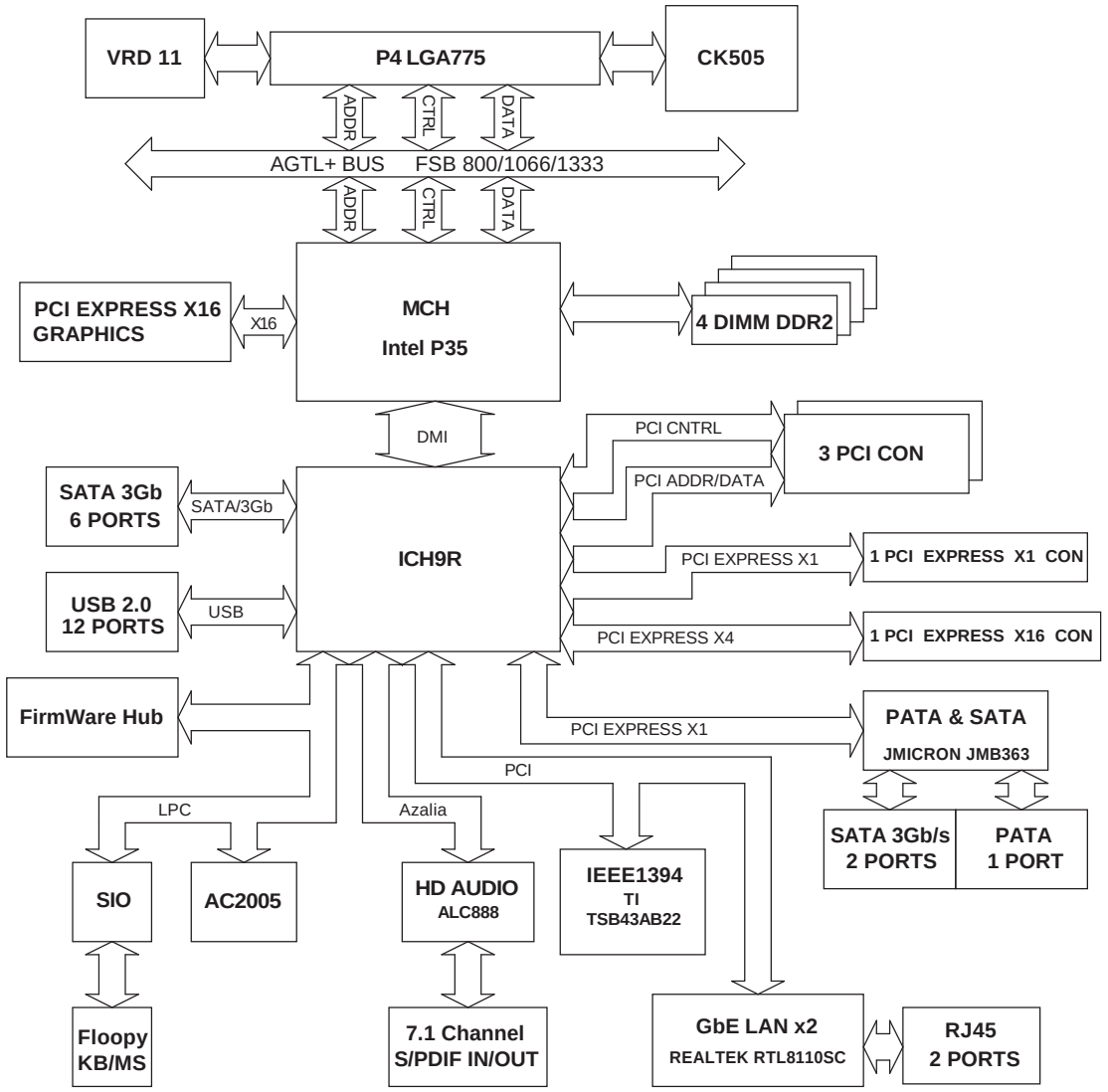
abit 環旭科技 UNIVERSAL ABIT

Title : COVER SHEET	Page : 1 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

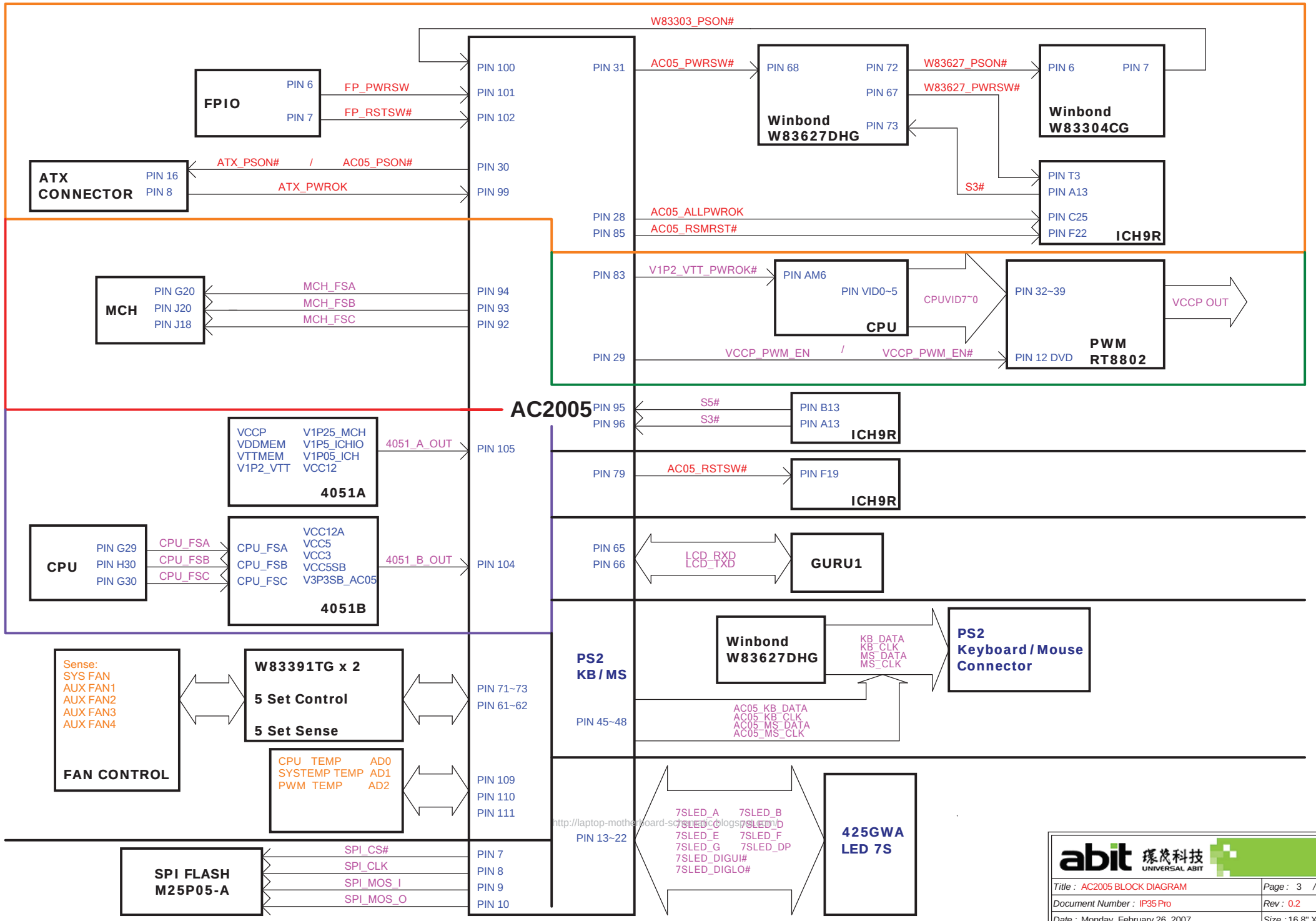
POWER DESIGN DIAGRAM



BLOCK DIAGRAM



Title : SYSTEM & POWER BLOCK DIAGRAM	Page : 2 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"



abit 環旭科技 UNIVERSAL ABIT

Title : AC2005 BLOCK DIAGRAM	Page : 3 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

ICH9 GPIO SETTING

Pin Name	Power Well	Usage	Default
GPIO0	3.3V Core	ACZ_DET	GPI
GPIO1	3.3V Core	TACH1	GPI
GPIO2	5V Core	PIRQ#E	GPI
GPIO3	5V Core	PIRQ#F	GPI
GPIO4	5V Core	PIRQ#G	GPI
GPIO5	5V Core	PIRQ#H	GPI
GPIO6	3.3V Core	TACH2	GPI
GPIO7	3.3V Core	TACH3	GPI
GPIO8	3.3V Sus	LPC_PME#	GPI
GPIO9	3.3V Sus	WOL_EN	Native
GPIO10	3.3V Sus	LAN_PME2#	GPI
GPIO11	3.3V Sus	SMBALERT#	Native
GPIO12	3.3V Sus	LAN_PME#	GPI
GPIO13	3.3V Sus	1394_PME#	GPI
GPIO14	3.3V Sus	GPIO14	GPI
GPIO15	3.3V Sus	GPIO15	Native
GPIO16	3.3V Core	FWH_WP#	GPO
GPIO17	3.3V Core	TACH0	GPI
GPIO18	3.3V Core	GPIO18	GPO
GPIO19	3.3V Core	SATA1GP	GPI
GPIO20	3.3V Core	GPIO20	GPO
GPIO21	3.3V Core	SATA0GP	GPI
GPIO22	3.3V Core	SCLOCK	Native
GPIO23	3.3V Core	LDRQ1#	Native
GPIO24	3.3V Sus	CLGPIO0	GPO
GPIO25	3.3V Sus	STP_CPU#	Native
GPIO26	3.3V Sus	S4_SATE#	GPO
GPIO27	3.3V Sus	EL_STATE0	GPO
GPIO28	3.3V Sus	EL_STATE1	GPO
GPIO29	3.3V Sus	OC5#	Native
GPIO30	3.3V Sus	OC6#	Native
GPIO31	3.3V Sus	OC7#	Native
GPIO32	3.3V Core	GIPO32	GPO
GPIO33	3.3V Core	GIOP33	GPO
GPIO34	3.3V Core	BOARD ID	GPO
GPIO35	3.3V Core	BOARD ID	GPO
GPIO36	3.3V Core	SATA2GP	GPI
GPIO37	3.3V Core	SATA3GP	GPI
GPIO38	3.3V Core	SLOAD	GPI
GPIO39	3.3V Core	SDATAOUT0	GPI
GPIO40	3.3V Sus	OC1#	Native
GPIO41	3.3V Sus	OC2#	Native
GPIO42	3.3V Sus	OC3#	Native
GPIO43	3.3V Sus	OC4#	Native
GPIO44	3.3V Sus	OC8#	Native
GPIO45	3.3V Sus	OC9#	Native
GPIO46	3.3V Sus	OC10#	Native
GPIO47	3.3V Sus	OC11#	Native
GPIO48	3.3V Core	SDATAOUT0	GPI
GPIO49	V_CPU_IO	GPIO49	Native
GPIO50	5.5V Core	REQ1#	Native
GPIO51	3.3V Core	GNT1#	Native
GPIO52	5.5V Core	REQ2#	Native
GPIO53	3.3V Core	GNT2#	Native
GPIO54	5.5V Core	REQ3#	Native
GPIO55	3.3V Core	GNT3#	Native

W83304CG Voltage Adjust Table

a.CR07[3:0]

V1P25_OV	Bit3	Bit2	Bit1	Bit0	V1P25_MCH	
0/1	0	0	0	0	1.25/1.807V	0.8
0/1	0	0	0	1	1.289/1.864V	0.825
0/1	0	0	1	0	1.328/1.920V	0.850
0/1	0	0	1	1	1.367/1.977V	0.875
0/1	0	1	0	0	1.406/2.034V	0.900
0/1	0	1	0	1	1.445/2.090V	0.925
0/1	0	1	1	0	1.484/2.146V	0.950
0/1	0	1	1	1	1.523/2.203V	0.975
0/1	1	0	0	0	1.562/2.259V	1.00
0/1	1	0	0	1	1.640/2.373V	1.050
0/1	1	0	1	0	1.718/2.486V	1.100

b.CR04(Over Voltage Configuration Register for VLDT,Default 0x00h, Read/write)

VTT_SEL	Bit2	Bit1	Bit0	V1P2_VTT
0/1	0	0	0	1.10V/1.20V
0/1	0	0	1	1.15V/1.25V
0/1	0	1	0	1.20V/1.30V
0/1	0	1	1	1.25V/1.35V
0/1	1	0	0	1.30V/1.40V
0/1	1	0	1	1.35V/1.45V
0/1	1	1	0	1.40V/1.50V

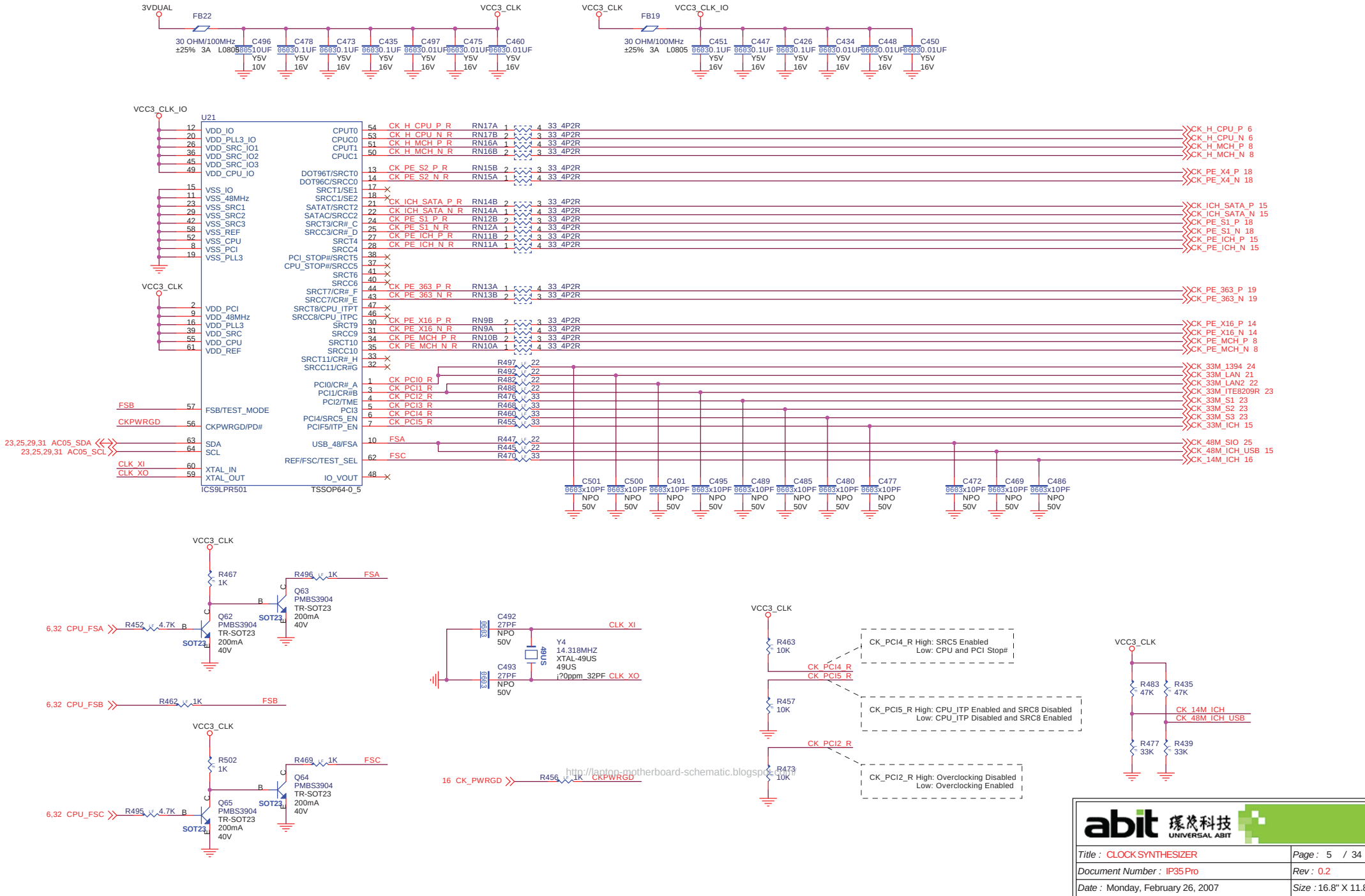
V1P2_VTT should be synchronized w/ V1P25_MCH

PCI DEVICE SETTING

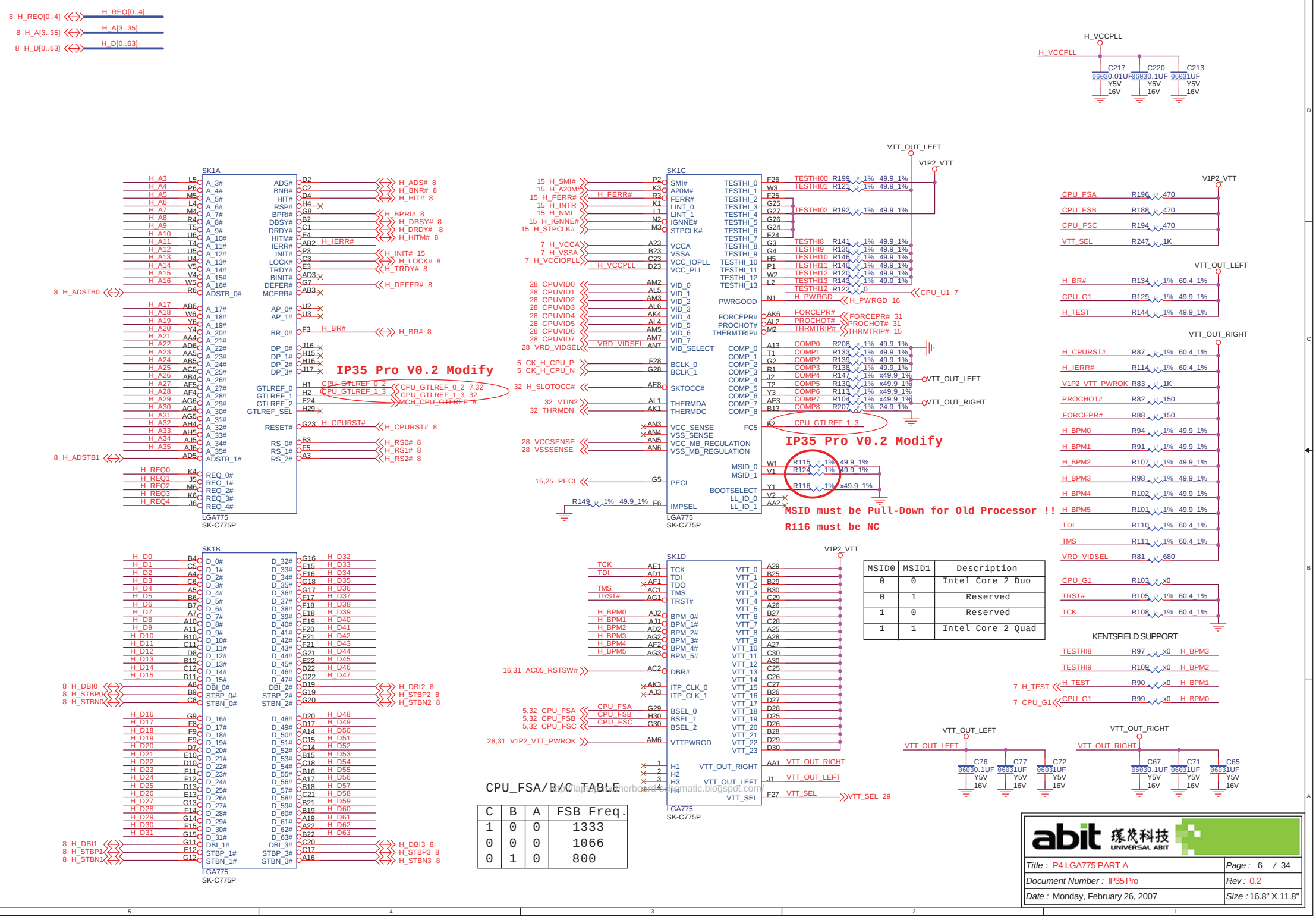
DEVICE	PCI1	PCI2	PCI3	1394	GbE1	GbE2
INTA	G	H	E	F	G	H
INTB	H	E	F	G	H	E
INTC	E	F	G			
INTD	F	G	H			
IDSEL	19	20	21	18	17	16
REQ/GNT	3A	3B	3C	2	1	0

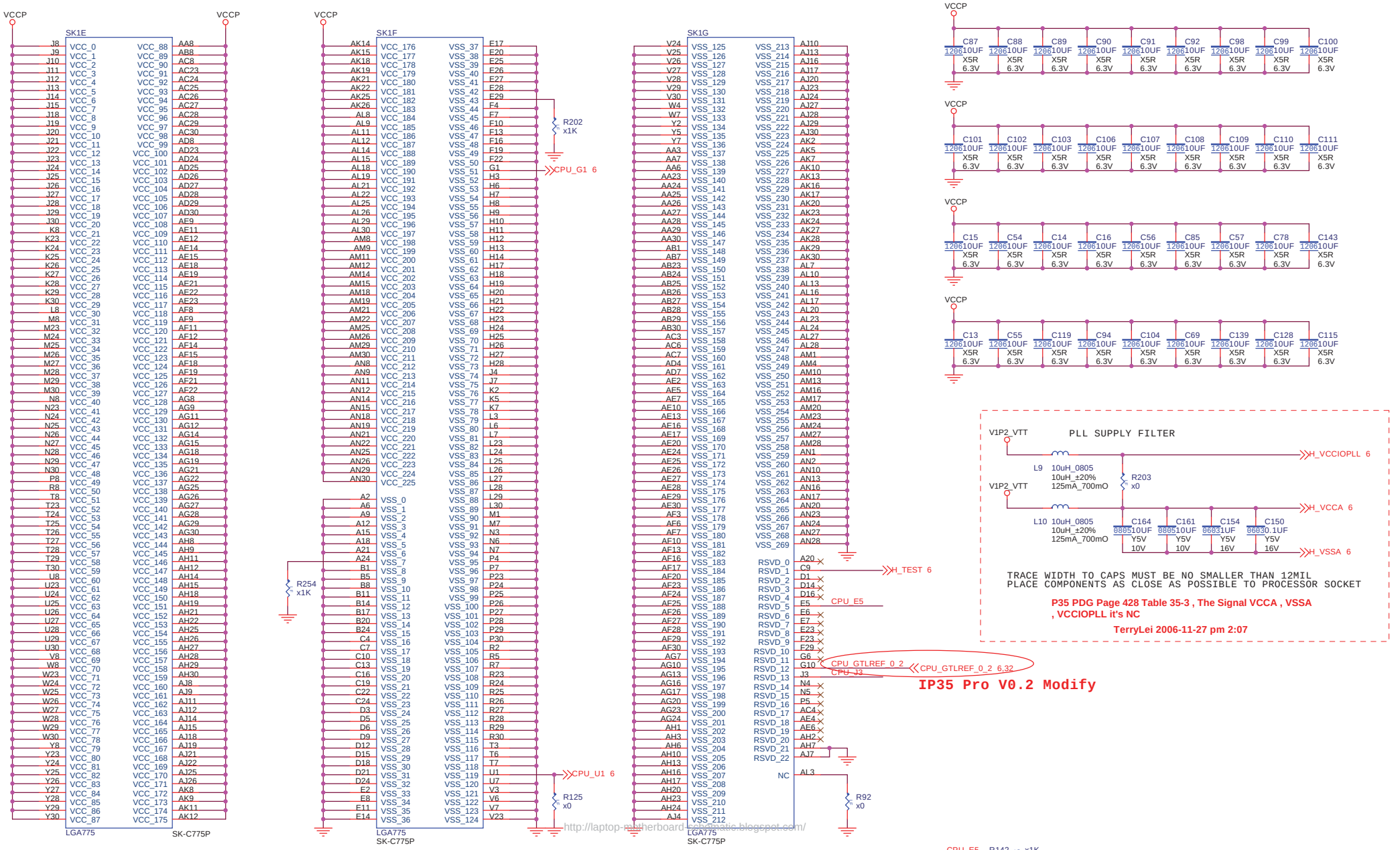
abit 環旭科技 UNIVERSAL ABIT

Title : GPIO SETTING	Page : 4 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

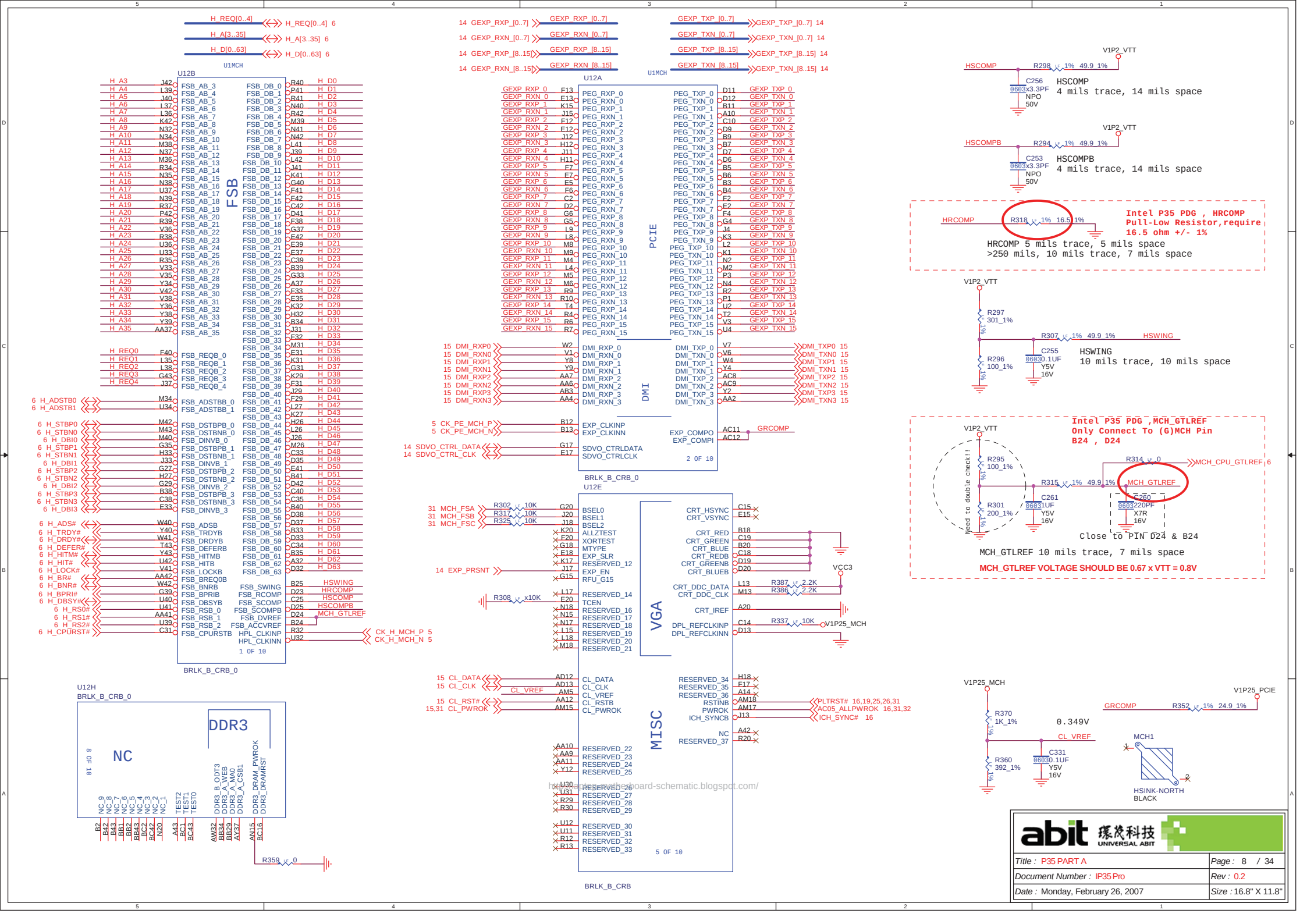


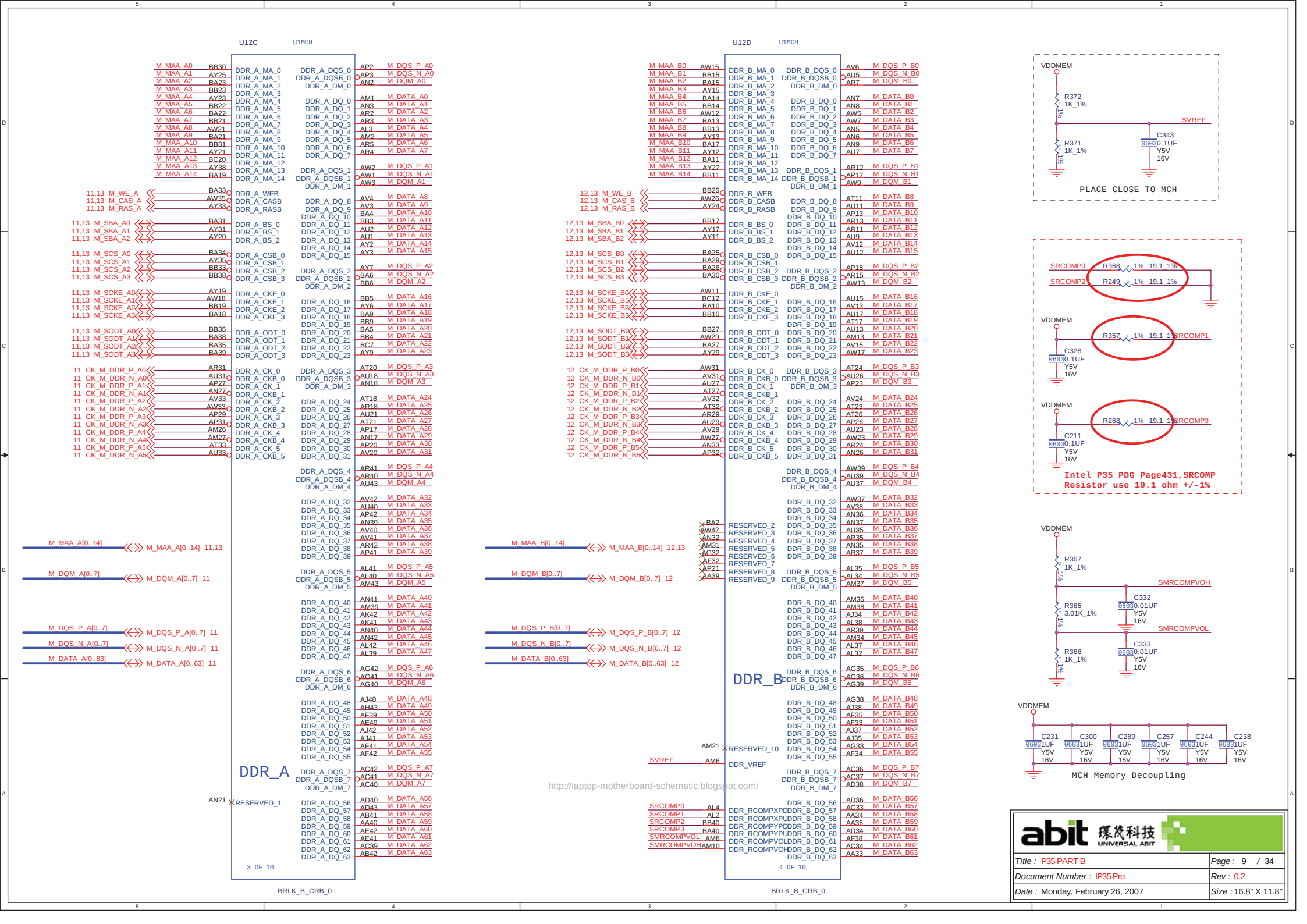
Title : CLOCK SYNTHESIZER	Page : 5 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

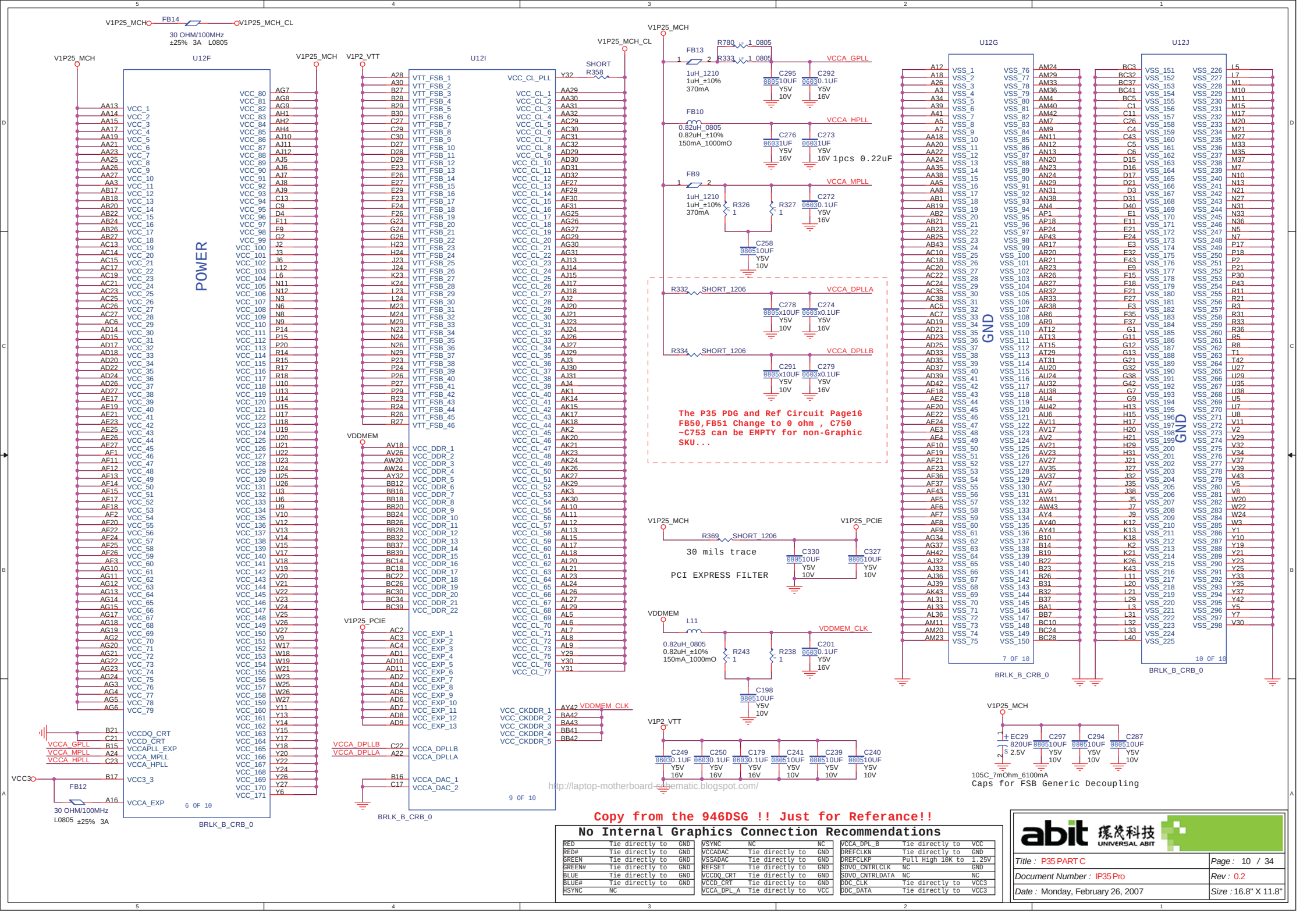




Title : P4 LGA775 PART B	Page : 7 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"


H_REQ[0..4]
H_A[3..35]
H_D[0..63]
U1MCH
U12B
FSB
FSB_AB_3
FSB_AB_4
FSB_AB_5
FSB_AB_6
FSB_AB_7
FSB_AB_8
FSB_AB_9
FSB_AB_10
FSB_AB_11
FSB_AB_12
FSB_AB_13
FSB_AB_14
FSB_AB_15
FSB_AB_16
FSB_AB_17
FSB_AB_18
FSB_AB_19
FSB_AB_20
FSB_AB_21
FSB_AB_22
FSB_AB_23
FSB_AB_24
FSB_AB_25
FSB_AB_26
FSB_AB_27
FSB_AB_28
FSB_AB_29
FSB_AB_30
FSB_AB_31
FSB_AB_32
FSB_AB_33
FSB_AB_34
FSB_AB_35
FSB_REQB_0
FSB_REQB_1
FSB_REQB_2
FSB_REQB_3
FSB_REQB_4
FSB_ADSTBB_0
FSB_ADSTBB_1
FSB_DSTBPB_0
FSB_DSTBNB_0
FSB_DINVB_0
FSB_DSTBPB_1
FSB_DSTBNB_1
FSB_DINVB_1
FSB_DSTBPB_2
FSB_DSTBNB_2
FSB_DINVB_2
FSB_DSTBPB_3
FSB_DSTBNB_3
FSB_DINVB_3
FSB_ADSB
FSB_TRDYB
FSB_DRDYB
FSB_DEFERB
FSB_HITMB
FSB_HITB
FSB_LOCKB
FSB_BREQ0B
FSB_BNRB
FSB_BPRIB
FSB_DBSYB
FSB_RSB_0
FSB_RSB_1
FSB_RSB_2
FSB_CPURSTB
FSB_DB_0
FSB_DB_1
FSB_DB_2
FSB_DB_3
FSB_DB_4
FSB_DB_5
FSB_DB_6
FSB_DB_7
FSB_DB_8
FSB_DB_9
FSB_DB_10
FSB_DB_11
FSB_DB_12
FSB_DB_13
FSB_DB_14
FSB_DB_15
FSB_DB_16
FSB_DB_17
FSB_DB_18
FSB_DB_19
FSB_DB_20
FSB_DB_21
FSB_DB_22
FSB_DB_23
FSB_DB_24
FSB_DB_25
FSB_DB_26
FSB_DB_27
FSB_DB_28
FSB_DB_29
FSB_DB_30
FSB_DB_31
FSB_DB_32
FSB_DB_33
FSB_DB_34
FSB_DB_35
FSB_DB_36
FSB_DB_37
FSB_DB_38
FSB_DB_39
FSB_DB_40
FSB_DB_41
FSB_DB_42
FSB_DB_43
FSB_DB_44
FSB_DB_45
FSB_DB_46
FSB_DB_47
FSB_DB_48
FSB_DB_49
FSB_DB_50
FSB_DB_51
FSB_DB_52
FSB_DB_53
FSB_DB_54
FSB_DB_55
FSB_DB_56
FSB_DB_57
FSB_DB_58
FSB_DB_59
FSB_DB_60
FSB_DB_61
FSB_DB_62
FSB_DB_63
FSB_SWING
FSB_RCOMP
FSB_SCOMP
FSB_SCOMPB
FSB_DVREF
FSB_ACCVREF
HPL_CLKINP
HPL_CLKINN
1 OF 10
BRLK_B_CRB_0
HSWING
HRCOMP
HSCOMP
HSCOMPB
MCH_GTLREF
CK_H_MCH_P 5
CK_H_MCH_N 5
U12H
BRLK_B_CRB_0
DDR3
NC
8 OF 10
R359 0
U1MCH
U12A
PCIE
PEG_RXP_0
PEG_RXN_0
PEG_RXP_1
PEG_RXN_1
PEG_RXP_2
PEG_RXN_2
PEG_RXP_3
PEG_RXN_3
PEG_RXP_4
PEG_RXN_4
PEG_RXP_5
PEG_RXN_5
PEG_RXP_6
PEG_RXN_6
PEG_RXP_7
PEG_RXN_7
PEG_RXP_8
PEG_RXN_8
PEG_RXP_9
PEG_RXN_9
PEG_RXP_10
PEG_RXN_10
PEG_RXP_11
PEG_RXN_11
PEG_RXP_12
PEG_RXN_12
PEG_RXP_13
PEG_RXN_13
PEG_RXP_14
PEG_RXN_14
PEG_RXP_15
PEG_RXN_15
PEG_TXP_0
PEG_TXN_0
PEG_TXP_1
PEG_TXN_1
PEG_TXP_2
PEG_TXN_2
PEG_TXP_3
PEG_TXN_3
PEG_TXP_4
PEG_TXN_4
PEG_TXP_5
PEG_TXN_5
PEG_TXP_6
PEG_TXN_6
PEG_TXP_7
PEG_TXN_7
PEG_TXP_8
PEG_TXN_8
PEG_TXP_9
PEG_TXN_9
PEG_TXP_10
PEG_TXN_10
PEG_TXP_11
PEG_TXN_11
PEG_TXP_12
PEG_TXN_12
PEG_TXP_13
PEG_TXN_13
PEG_TXP_14
PEG_TXN_14
PEG_TXP_15
PEG_TXN_15
DMI
DMI_RXP_0
DMI_RXN_0
DMI_RXP_1
DMI_RXN_1
DMI_RXP_2
DMI_RXN_2
DMI_RXP_3
DMI_RXN_3
DMI_TXP_0
DMI_TXN_0
DMI_TXP_1
DMI_TXN_1
DMI_TXP_2
DMI_TXN_2
DMI_TXP_3
DMI_TXN_3
EXP_CLKINP
EXP_CLKINN
EXP_COMPO
EXP_COMPI
GRCOMP
SDVO_CTRLDATA
SDVO_CTRLCLK
2 OF 10
BRLK_B_CRB_0
U12E
VGA
BSEL0
BSEL1
BSEL2
ALLZTEST
XORTEST
MTYPE
EXP_SLR
RESERVED_12
EXP_EN
RFU_G15
RESERVED_14
TCEN
RESERVED_16
RESERVED_17
RESERVED_18
RESERVED_19
RESERVED_20
RESERVED_21
CRT_HSYNC
CRT_VSYNC
CRT_RED
CRT_GREEN
CRT_BLUE
CRT_REDB
CRT_GREENB
CRT_BLUEB
CRT_DDC_DATA
CRT_DDC_CLK
CRT_IREF
DPL_REFCLKINP
DPL_REFCLKINN
MISC
CL_DATA
CL_CLK
CL_VREF
CL_RSTB
CL_PWROK
RESERVED_22
RESERVED_23
RESERVED_24
RESERVED_25
RESERVED_26
RESERVED_27
RESERVED_28
RESERVED_29
RESERVED_30
RESERVED_31
RESERVED_32
RESERVED_33
RESERVED_34
RESERVED_35
RESERVED_36
RSTINB
PWROK
ICH_SYNCB
NC
RESERVED_37
5 OF 10
BRLK_B_CRB
MCH_FSA
MCH_FSB
MCH_FSC
EXP_PRSNT
CL_DATA
CL_CLK
CL_VREF
CL_RST#
CL_PWROK
PLTRST# 16,19,25,26,31
AC05_ALLPWROK 16,31,32
ICH_SYNC# 16
VCC3
V1P25_MCH
HSCOMP
R298 49.9 1%
C256 0603x3.3PF NPO 50V
HSCOMP
4 mils trace, 14 mils space
HSCOMPB
R294 49.9 1%
C253 0603x3.3PF NPO 50V
HSCOMPB
4 mils trace, 14 mils space
HRCOMP
R318 16.5 1%
Intel P35 PDG , HRCOMP Pull-Low Resistor,require 16.5 ohm +/- 1%
HRCOMP 5 mils trace, 5 mils space
>250 mils, 10 mils trace, 7 mils space
R297 301_1%
R307 49.9 1%
HSWING
R296 100_1%
C255 0603 0.1UF Y5V 16V
HSWING
10 mils trace, 10 mils space
Intel P35 PDG ,MCH_GTLREF Only Connect To (G)MCH Pin B24 , D24
R295 100_1%
R314 0
MCH_CPU_GTLREF
R315 49.9 1%
MCH_GTLREF
C260 0603 220PF X7R 16V
C261 0603 1UF Y5V 16V
R301 200_1%
Need to double check!!
Close to PIN D24 & B24
MCH_GTLREF 10 mils trace, 7 mils space
MCH_GTLREF VOLTAGE SHOULD BE 0.67 x VTT = 0.8V
R370 1K_1%
0.349V
CL_VREF
R360 392_1%
C331 0603 0.1UF Y5V 16V
GRCOMP
R352 24.9 1%
V1P25_PCIE
MCH1
HSINK-NORTH
BLACK
http://pcbreversingboard-schematic.blogspot.com/
abit 環旭科技 UNIVERSAL ABIT
Title : P35 PART A
Page : 8 / 34
Document Number : IP35 Pro
Rev : 0.2
Date : Monday, February 26, 2007
Size : 16.8" X 11.8"


U12C
U1MCH
DDR_A
3 OF 10
BRLK_B_CRB_0
U12D
U1MCH
DDR_B
4 OF 10
BRLK_B_CRB_0
http://laptop-motherboard-schematic.blogspot.com/
VDDMEM
R372 1K_1%
SVREF
R371 1K_1%
C343 0603 0.1UF Y5V 16V
PLACE CLOSE TO MCH
SRCOMP0
R368 1% 19.1 1%
SRCOMP2
R249 1% 19.1 1%
R357 1% 19.1 1% SRCOMP1
C328 0603 0.1UF Y5V 16V
R268 1% 19.1 1% SRCOMP3
C211 0603 0.1UF Y5V 16V
Intel P35 PDG Page431,SRCOMP
Resistor use 19.1 ohm +/-1%
R367 1K_1%
SMRCOMPVOH
R365 3.01K_1%
C332 0603 0.01UF Y5V 16V
SMRCOMPVOL
R366 1K_1%
C333 0603 0.01UF Y5V 16V
C231 0603 1UF Y5V 16V
C300 0603 1UF Y5V 16V
C289 0603 1UF Y5V 16V
C257 0603 1UF Y5V 16V
C244 0603 1UF Y5V 16V
C238 0603 1UF Y5V 16V
MCH Memory Decoupling
abit
UNIVERSAL ABIT
Title : P35 PART B
Page : 9 / 34
Document Number : IP35 Pro
Rev : 0.2
Date : Monday, February 26, 2007
Size : 16.8" X 11.8"



Copy from the 946DSG !! Just for Referance!!

No Internal Graphics Connection Recommendations

RED	Tie directly to	GND	VSYNC	NC	NC	VCCA_DPL_B	Tie directly to	VCC
RED#	Tie directly to	GND	VCCADAC	Tie directly to	GND	DREFCLKN	Tie directly to	GND
GREEN	Tie directly to	GND	VSSADAC	Tie directly to	GND	DREFCLKP	Pull High 10K to	1.25V
GREEN#	Tie directly to	GND	REFSET	Tie directly to	GND	SDVO_CNTRLCLK	NC	GND
BLUE	Tie directly to	GND	VCCDQ_CRT	Tie directly to	GND	SDVO_CNTRLDATA	NC	NC
BLUE#	Tie directly to	GND	VCCD_CRT	Tie directly to	GND	DDC_CLK	Tie directly to	VCC3
HSYNC	NC		VCCA_DPL_A	Tie directly to	VCC	DDC_DATA	Tie directly to	VCC3

Title : P35 PART C	Page : 10 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

M_DQM_A[0..7] <<>> M_DQM_A[0..7] 9
M_DATA_A[0..63] <<>> M_DATA_A[0..63] 9
M_MAA_A[0..14] <<>> M_MAA_A[0..14] 9,13
M_DQS_P_A[0..7] <<>> M_DQS_P_A[0..7] 9
M_DQS_N_A[0..7] <<>> M_DQS_N_A[0..7] 9
M_SBA_A2 <<>> M_SBA_A2 9,13
SMBDATA <<>> SMBDATA 12,14,16,18,23,26
SMBCLK <<>> SMBCLK 12,14,16,18,23,26

Channel A DIMM1

DIMM1A — DDR2 DIMM BLUE 240PIN SK-D240P

DQS17-(B) 165 / DQS17(B) 164 / DQS16-(B) 233 / DQS16(B) 232 / DQS15-(B) 224 / DQS15(B) 223 / DQS14-(B) 212 / DQS14(B) 211 / DQS13-(B) 203 / DQS13(B) 202 / DQS12-(B) 156 / DQS12(B) 155 / DQS11-(B) 147 / DQS11(B) 146 / DQS10-(B) 135 / DQS10(B) 134 / DQS9-(B) 126 / DQS9(B) 125 / DQS8-(B) 45 / DQS8(B) 46 / DQS7-(B) 113 / DQS7(B) 114 / DQS6-(B) 104 / DQS6(B) 105 / DQS5-(B) 92 / DQS5(B) 93 / DQS4-(B) 83 / DQS4(B) 84 / DQS3-(B) 36 / DQS3(B) 37 / DQS2-(B) 27 / DQS2(B) 28 / DQS1-(B) 15 / DQS1(B) 16 / DQS0-(B) 6 / DQS0(B) 7

M_DQM_A7 M_DQM_A6 M_DQM_A5 M_DQM_A4 M_DQM_A3 M_DQM_A2 M_DQM_A1 M_DQM_A0

M_DQS_N_A7 M_DQS_P_A7 M_DQS_N_A6 M_DQS_P_A6 M_DQS_N_A5 M_DQS_P_A5 M_DQS_N_A4 M_DQS_P_A4 M_DQS_N_A3 M_DQS_P_A3 M_DQS_N_A2 M_DQS_P_A2 M_DQS_N_A1 M_DQS_P_A1 M_DQS_N_A0 M_DQS_P_A0

CB7(B) 168 / CB6(B) 167 / CB5(B) 162 / CB4(B) 161 / CB3(B) 49 / CB2(B) 48 / CB1(B) 43 / CB0(B) 42

DQ63(B) 236 M_DATA_A63 / DQ62(B) 235 M_DATA_A62 / DQ61(B) 230 M_DATA_A61 / DQ60(B) 229 M_DATA_A60 / DQ59(B) 117 M_DATA_A59 / DQ58(B) 116 M_DATA_A58 / DQ57(B) 111 M_DATA_A57 / DQ56(B) 110 M_DATA_A56 / DQ55(B) 227 M_DATA_A55 / DQ54(B) 226 M_DATA_A54 / DQ53(B) 218 M_DATA_A53 / DQ52(B) 217 M_DATA_A52 / DQ51(B) 108 M_DATA_A51 / DQ50(B) 107 M_DATA_A50 / DQ49(B) 99 M_DATA_A49 / DQ48(B) 98 M_DATA_A48 / DQ47(B) 215 M_DATA_A47 / DQ46(B) 214 M_DATA_A46 / DQ45(B) 209 M_DATA_A45 / DQ44(B) 208 M_DATA_A44 / DQ43(B) 96 M_DATA_A43 / DQ42(B) 95 M_DATA_A42 / DQ41(B) 90 M_DATA_A41 / DQ40(B) 89 M_DATA_A40 / DQ39(B) 206 M_DATA_A39 / DQ38(B) 205 M_DATA_A38 / DQ37(B) 200 M_DATA_A37 / DQ36(B) 199 M_DATA_A36 / DQ35(B) 87 M_DATA_A35 / DQ34(B) 86 M_DATA_A34 / DQ33(B) 81 M_DATA_A33 / DQ32(B) 80 M_DATA_A32 / DQ31(B) 159 M_DATA_A31 / DQ30(B) 158 M_DATA_A30 / DQ29(B) 153 M_DATA_A29 / DQ28(B) 152 M_DATA_A28 / DQ27(B) 40 M_DATA_A27 / DQ26(B) 39 M_DATA_A26 / DQ25(B) 34 M_DATA_A25 / DQ24(B) 33 M_DATA_A24 / DQ23(B) 150 M_DATA_A23 / DQ22(B) 149 M_DATA_A22 / DQ21(B) 144 M_DATA_A21 / DQ20(B) 143 M_DATA_A20 / DQ19(B) 31 M_DATA_A19 / DQ18(B) 30 M_DATA_A18 / DQ17(B) 25 M_DATA_A17 / DQ16(B) 24 M_DATA_A16 / DQ15(B) 141 M_DATA_A15 / DQ14(B) 140 M_DATA_A14 / DQ13(B) 132 M_DATA_A13 / DQ12(B) 131 M_DATA_A12 / DQ11(B) 22 M_DATA_A11 / DQ10(B) 21 M_DATA_A10 / DQ9(B) 13 M_DATA_A9 / DQ8(B) 12 M_DATA_A8 / DQ7(B) 129 M_DATA_A7 / DQ6(B) 128 M_DATA_A6 / DQ5(B) 123 M_DATA_A5 / DQ4(B) 122 M_DATA_A4 / DQ3(B) 10 M_DATA_A3 / DQ2(B) 9 M_DATA_A2 / DQ1(B) 4 M_DATA_A1 / DQ0(B) 3 M_DATA_A0

M_SBA_A2 54 — A16(I)/BA2
M_MAA_A14 173 — A15(I)
M_MAA_A13 174 — A14(I)
M_MAA_A12 196 — A13(I)
M_MAA_A11 176 — A12(I)
M_MAA_A10 57 — A11(I)
M_MAA_A9 70 — A10(I)
M_MAA_A8 177 — A9(I)
M_MAA_A7 179 — A8(I)
M_MAA_A6 58 — A7(I)
M_MAA_A5 180 — A6(I)
M_MAA_A4 60 — A5(I)
M_MAA_A3 61 — A4(I)
M_MAA_A2 182 — A3(I)
M_MAA_A1 63 — A2(I)
M_MAA_A0 183 — A1(I) / 188 A0(I)

9,13 M_SCKE_A1 / 9,13 M_SCKE_A0 — 171 CKE1(I) / 52 CKE0(I)
9,13 M_SBA_A1 / 9,13 M_SBA_A0 — 190 BA1 (I) / 71 BA0 (I)
9,13 M_WE_A / 9,13 M_RAS_A / 9,13 M_CAS_A — 73 WE#(I) / 192 RAS#(I) / 74 CAS#(I)
18 RESET#(I)
9,13 M_SCS_A1 / 9,13 M_SCS_A0 — 76 CS-1(I) / 193 CS-0(I)
9,13 M_SODT_A1 / 9,13 M_SODT_A0 — 77 ODT1(I) / 195 ODT0(I)

DIMM_VREF_A — 1 VREF(B) — C342 0603 0.1UF Y5V 16V

101 SA2 (I) / 240 SA1 (I) / 239 SA0 (I)

CK2(I) 220 CK_M_DDR_P_A2 9 / CK-2(I) 221 CK_M_DDR_N_A2 9 / CK1(I) 137 CK_M_DDR_P_A1 9 / CK-1(I) 138 CK_M_DDR_N_A1 9 / CK0(I) 185 CK_M_DDR_P_A0 9 / CK-0(I) 186 CK_M_DDR_N_A0 9

SCL(B) 120 SMBCLK / SDA(B) 119 SMBDATA

RC0(B) 55

NC1(B) 19 / NC2(B) 102 / NC3(B) 68

ADDRESS=000

VDDMEM

DIMM1B — DDR2 DIMM BLUE 240PIN SK-D240P

VDDQ11 (P) 194 / VDDQ10 (P) 191 / VDDQ9 (P) 181 / VDDQ4 (P) 175 / VDDQ3 (P) 170 / VDDQ8 (P) 78 / VDDQ7 (P) 75 / VDDQ6 (P) 72 / VDDQ5 (P) 62 / VDDQ2 (P) 56 / VDDQ1 (P) 51

VDD10(P) 197 / VDD9(P) 189 / VDD11(P) 187 / VDD8(P) 184 / VDD7(P) 178 / VDD6 (P) 172 / VDD5 (P) 69 / VDD4 (P) 67 / VDD3 (P) 64 / VDD2 (P) 59 / VDD1 (P) 53

VCC3 — 238 VDDSPD(P)

VSS49(P) 201 / VSS50(P) 204 / VSS51(P) 207 / VSS52(P) 210 / VSS53(P) 213 / VSS54(P) 216 / VSS55(P) 219 / VSS56(P) 222 / VSS57(P) 225 / VSS58(P) 228 / VSS59(P) 231 / VSS60(P) 234 / VSS61(P) 237 / VSS63(P) 26 / VSS64(P) 151

VSS1(P) 2 / VSS2(P) 5 / VSS3(P) 8 / VSS4(P) 11 / VSS5(P) 14 / VSS6(P) 17 / VSS7(P) 20 / VSS8(P) 23 / VSS9(P) 29 / VSS10(P) 32 / VSS11(P) 35 / VSS12(P) 38 / VSS13(P) 41 / VSS62(P) 44 / VSS14(P) 47 / VSS15(P) 50 / VSS16(P) 65 / VSS17(P) 66 / VSS18(P) 79 / VSS19(P) 82 / VSS20(P) 85 / VSS21(P) 88 / VSS22(P) 91 / VSS23(P) 94 / VSS24(P) 97 / VSS25(P) 100 / VSS26(P) 103 / VSS27(P) 106 / VSS28(P) 109 / VSS29(P) 112 / VSS30(P) 115 / VSS31(P) 118 / VSS32(P) 121 / VSS33(P) 124 / VSS34(P) 127 / VSS35(P) 130 / VSS36(P) 133 / VSS37(P) 136 / VSS38(P) 139 / VSS39(P) 142 / VSS40(P) 145 / VSS41(P) 148 / VSS42(P) 154 / VSS43(P) 157 / VSS44(P) 160 / VSS45(P) 163 / VSS46(P) 166 / VSS47(P) 169 / VSS48(P) 198

VDDMEM — R375 200_1% — DIMM_VREF_A — R374 210_1% — C339 0603 0.1UF Y5V 16V

Channel A DIMM2

DIMM2A — DDR2 DIMM BLACK 240PIN SK-D240P

DQS17-(B) 165 / DQS17(B) 164 / DQS16-(B) 233 / DQS16(B) 232 / DQS15-(B) 224 / DQS15(B) 223 / DQS14-(B) 212 / DQS14(B) 211 / DQS13-(B) 203 / DQS13(B) 202 / DQS12-(B) 156 / DQS12(B) 155 / DQS11-(B) 147 / DQS11(B) 146 / DQS10-(B) 135 / DQS10(B) 134 / DQS9-(B) 126 / DQS9(B) 125 / DQS8-(B) 45 / DQS8(B) 46 / DQS7-(B) 113 / DQS7(B) 114 / DQS6-(B) 104 / DQS6(B) 105 / DQS5-(B) 92 / DQS5(B) 93 / DQS4-(B) 83 / DQS4(B) 84 / DQS3-(B) 36 / DQS3(B) 37 / DQS2-(B) 27 / DQS2(B) 28 / DQS1-(B) 15 / DQS1(B) 16 / DQS0-(B) 6 / DQS0(B) 7

M_DQM_A7 M_DQM_A6 M_DQM_A5 M_DQM_A4 M_DQM_A3 M_DQM_A2 M_DQM_A1 M_DQM_A0

M_DQS_N_A7 M_DQS_P_A7 M_DQS_N_A6 M_DQS_P_A6 M_DQS_N_A5 M_DQS_P_A5 M_DQS_N_A4 M_DQS_P_A4 M_DQS_N_A3 M_DQS_P_A3 M_DQS_N_A2 M_DQS_P_A2 M_DQS_N_A1 M_DQS_P_A1 M_DQS_N_A0 M_DQS_P_A0

CB7(B) 168 / CB6(B) 167 / CB5(B) 162 / CB4(B) 161 / CB3(B) 49 / CB2(B) 48 / CB1(B) 43 / CB0(B) 42

DQ63(B) 236 M_DATA_A63 / DQ62(B) 235 M_DATA_A62 / DQ61(B) 230 M_DATA_A61 / DQ60(B) 229 M_DATA_A60 / DQ59(B) 117 M_DATA_A59 / DQ58(B) 116 M_DATA_A58 / DQ57(B) 111 M_DATA_A57 / DQ56(B) 110 M_DATA_A56 / DQ55(B) 227 M_DATA_A55 / DQ54(B) 226 M_DATA_A54 / DQ53(B) 218 M_DATA_A53 / DQ52(B) 217 M_DATA_A52 / DQ51(B) 108 M_DATA_A51 / DQ50(B) 107 M_DATA_A50 / DQ49(B) 99 M_DATA_A49 / DQ48(B) 98 M_DATA_A48 / DQ47(B) 215 M_DATA_A47 / DQ46(B) 214 M_DATA_A46 / DQ45(B) 209 M_DATA_A45 / DQ44(B) 208 M_DATA_A44 / DQ43(B) 96 M_DATA_A43 / DQ42(B) 95 M_DATA_A42 / DQ41(B) 90 M_DATA_A41 / DQ40(B) 89 M_DATA_A40 / DQ39(B) 206 M_DATA_A39 / DQ38(B) 205 M_DATA_A38 / DQ37(B) 200 M_DATA_A37 / DQ36(B) 199 M_DATA_A36 / DQ35(B) 87 M_DATA_A35 / DQ34(B) 86 M_DATA_A34 / DQ33(B) 81 M_DATA_A33 / DQ32(B) 80 M_DATA_A32 / DQ31(B) 159 M_DATA_A31 / DQ30(B) 158 M_DATA_A30 / DQ29(B) 153 M_DATA_A29 / DQ28(B) 152 M_DATA_A28 / DQ27(B) 40 M_DATA_A27 / DQ26(B) 39 M_DATA_A26 / DQ25(B) 34 M_DATA_A25 / DQ24(B) 33 M_DATA_A24 / DQ23(B) 150 M_DATA_A23 / DQ22(B) 149 M_DATA_A22 / DQ21(B) 144 M_DATA_A21 / DQ20(B) 143 M_DATA_A20 / DQ19(B) 31 M_DATA_A19 / DQ18(B) 30 M_DATA_A18 / DQ17(B) 25 M_DATA_A17 / DQ16(B) 24 M_DATA_A16 / DQ15(B) 141 M_DATA_A15 / DQ14(B) 140 M_DATA_A14 / DQ13(B) 132 M_DATA_A13 / DQ12(B) 131 M_DATA_A12 / DQ11(B) 22 M_DATA_A11 / DQ10(B) 21 M_DATA_A10 / DQ9(B) 13 M_DATA_A9 / DQ8(B) 12 M_DATA_A8 / DQ7(B) 129 M_DATA_A7 / DQ6(B) 128 M_DATA_A6 / DQ5(B) 123 M_DATA_A5 / DQ4(B) 122 M_DATA_A4 / DQ3(B) 10 M_DATA_A3 / DQ2(B) 9 M_DATA_A2 / DQ1(B) 4 M_DATA_A1 / DQ0(B) 3 M_DATA_A0

M_SBA_A2 54 — A16(I)/BA2
M_MAA_A14 173 — A15(I)
M_MAA_A13 196 — A14(I)
M_MAA_A12 176 — A13(I)
M_MAA_A11 57 — A12(I)
M_MAA_A10 70 — A11(I)
M_MAA_A9 177 — A10(I)
M_MAA_A8 179 — A9(I)
M_MAA_A7 58 — A8(I)
M_MAA_A6 180 — A7(I)
M_MAA_A5 60 — A6(I)
M_MAA_A4 61 — A5(I)
M_MAA_A3 182 — A4(I)
M_MAA_A2 63 — A3(I)
M_MAA_A1 183 — A2(I)
M_MAA_A0 188 — A1(I) / 188 A0(I)

9,13 M_SCKE_A3 / 9,13 M_SCKE_A2 — 171 CKE1(I) / 52 CKE0(I)
9,13 M_SBA_A1 / 9,13 M_SBA_A0 — 190 BA1 (I) / 71 BA0 (I)
9,13 M_WE_A / 9,13 M_RAS_A / 9,13 M_CAS_A — 73 WE#(I) / 192 RAS#(I) / 74 CAS#(I)
18 RESET#(I)
9,13 M_SCS_A3 / 9,13 M_SCS_A2 — 76 CS-1(I) / 193 CS-0(I)
9,13 M_SODT_A3 / 9,13 M_SODT_A2 — 77 ODT1(I) / 195 ODT0(I)

DIMM_VREF_A — 1 VREF(B) — C338 0603 0.1UF Y5V 16V

VCC3

101 SA2 (I) / 240 SA1 (I) / 239 SA0 (I)

CK2(I) 220 CK_M_DDR_P_A5 9 / CK-2(I) 221 CK_M_DDR_N_A5 9 / CK1(I) 137 CK_M_DDR_P_A4 9 / CK-1(I) 138 CK_M_DDR_N_A4 9 / CK0(I) 185 CK_M_DDR_P_A3 9 / CK-0(I) 186 CK_M_DDR_N_A3 9

SCL(B) 120 SMBCLK / SDA(B) 119 SMBDATA

RC0(B) 55

NC1(B) 19 / NC2(B) 102 / NC3(B) 68

ADDRESS=001

VDDMEM

DIMM2B — DDR2 DIMM BLACK 240PIN SK-D240P

VDDQ11 (P) 194 / VDDQ10 (P) 191 / VDDQ9 (P) 181 / VDDQ4 (P) 175 / VDDQ3 (P) 170 / VDDQ8 (P) 78 / VDDQ7 (P) 75 / VDDQ6 (P) 72 / VDDQ5 (P) 62 / VDDQ2 (P) 56 / VDDQ1 (P) 51

VDD10(P) 197 / VDD9(P) 189 / VDD11(P) 187 / VDD8(P) 184 / VDD7(P) 178 / VDD6 (P) 172 / VDD5 (P) 69 / VDD4 (P) 67 / VDD3 (P) 64 / VDD2 (P) 59 / VDD1 (P) 53

VCC3 — 238 VDDSPD(P)

VSS49(P) 201 / VSS50(P) 204 / VSS51(P) 207 / VSS52(P) 210 / VSS53(P) 213 / VSS54(P) 216 / VSS55(P) 219 / VSS56(P) 222 / VSS57(P) 225 / VSS58(P) 228 / VSS59(P) 231 / VSS60(P) 234 / VSS61(P) 237 / VSS63(P) 26 / VSS64(P) 151

VSS1(P) 2 / VSS2(P) 5 / VSS3(P) 8 / VSS4(P) 11 / VSS5(P) 14 / VSS6(P) 17 / VSS7(P) 20 / VSS8(P) 23 / VSS9(P) 29 / VSS10(P) 32 / VSS11(P) 35 / VSS12(P) 38 / VSS13(P) 41 / VSS62(P) 44 / VSS14(P) 47 / VSS15(P) 50 / VSS16(P) 65 / VSS17(P) 66 / VSS18(P) 79 / VSS19(P) 82 / VSS20(P) 85 / VSS21(P) 88 / VSS22(P) 91 / VSS23(P) 94 / VSS24(P) 97 / VSS25(P) 100 / VSS26(P) 103 / VSS27(P) 106 / VSS28(P) 109 / VSS29(P) 112 / VSS30(P) 115 / VSS31(P) 118 / VSS32(P) 121 / VSS33(P) 124 / VSS34(P) 127 / VSS35(P) 130 / VSS36(P) 133 / VSS37(P) 136 / VSS38(P) 139 / VSS39(P) 142 / VSS40(P) 145 / VSS41(P) 148 / VSS42(P) 154 / VSS43(P) 157 / VSS44(P) 160 / VSS45(P) 163 / VSS46(P) 166 / VSS47(P) 169 / VSS48(P) 198

DIMM_VREF_A — R362 1% 4.02K_1%
12 VDDR_VERF_OV1_R — R348 4.7K — Q40 2N7002N FET-SOT23 115mA_7.5Ohm 60V — C306 0603 1UF Y5V 16V — SOT23
31 VDDR_VERF_OV1

DIMM_VREF_A — R361 1% 2.26K_1%
12 VDDR_VERF_OV2_R — R363 4.7K — Q42 2N7002N FET-SOT23 115mA_7.5Ohm 60V — C325 0603 1UF Y5V 16V — SOT23
31 VDDR_VERF_OV2

OV1 OV2	R-parallel (ohm)	MEM_VREF (%)	DIMM_VREF (V)
0 0	210	51.22%	0.9220V (+2%)
0 1	192.145	49.00%	0.8820V (-2%)
1 0	199.574	49.95%	0.8991V (default)
1 1	183.381	47.83%	0.8609V (-4%)

abit 環旭科技 UNIVERSAL ABIT

Title : DDR2 CHANNEL A	Page : 11 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

M_DQM_B[0..7] <> M_DQM_B[0..7] 9
M_DATA_B[0..63] <> M_DATA_B[0..63] 9
M_MAA_B[0..14] <> M_MAA_B[0..14] 9,13
M_DQS_P_B[0..7] <> M_DQS_P_B[0..7] 9
M_DQS_N_B[0..7] <> M_DQS_N_B[0..7] 9
M_SBA_B2 <> M_SBA_B2 9,13
SMBDATA <> SMBDATA 11,14,16,18,23,26
SMBCLK <> SMBCLK 11,14,16,18,23,26

Channel B DIMM1

DIMM3A
DQS17-(B) DQS17(B) DQS16-(B) DQS16(B) DQS15-(B) DQS15(B) DQS14-(B) DQS14(B) DQS13-(B) DQS13(B) DQS12-(B) DQS12(B) DQS11-(B) DQS11(B) DQS10-(B) DQS10(B) DQS9-(B) DQS9(B) DQS8-(B) DQS8(B) DQS7-(B) DQS7(B) DQS6-(B) DQS6(B) DQS5-(B) DQS5(B) DQS4-(B) DQS4(B) DQS3-(B) DQS3(B) DQS2-(B) DQS2(B) DQS1-(B) DQS1(B) DQS0-(B) DQS0(B)
CB7(B) CB6(B) CB5(B) CB4(B) CB3(B) CB2(B) CB1(B) CB0(B)
DQ63(B) DQ62(B) DQ61(B) DQ60(B) DQ59(B) DQ58(B) DQ57(B) DQ56(B) DQ55(B) DQ54(B) DQ53(B) DQ52(B) DQ51(B) DQ50(B) DQ49(B) DQ48(B) DQ47(B) DQ46(B) DQ45(B) DQ44(B) DQ43(B) DQ42(B) DQ41(B) DQ40(B) DQ39(B) DQ38(B) DQ37(B) DQ36(B) DQ35(B) DQ34(B) DQ33(B) DQ32(B) DQ31(B) DQ30(B) DQ29(B) DQ28(B) DQ27(B) DQ26(B) DQ25(B) DQ24(B) DQ23(B) DQ22(B) DQ21(B) DQ20(B) DQ19(B) DQ18(B) DQ17(B) DQ16(B) DQ15(B) DQ14(B) DQ13(B) DQ12(B) DQ11(B) DQ10(B) DQ9(B) DQ8(B) DQ7(B) DQ6(B) DQ5(B) DQ4(B) DQ3(B) DQ2(B) DQ1(B) DQ0(B)
M_DATA_B63 M_DATA_B62 M_DATA_B61 M_DATA_B60 M_DATA_B59 M_DATA_B58 M_DATA_B57 M_DATA_B56 M_DATA_B55 M_DATA_B54 M_DATA_B53 M_DATA_B52 M_DATA_B51 M_DATA_B50 M_DATA_B49 M_DATA_B48 M_DATA_B47 M_DATA_B46 M_DATA_B45 M_DATA_B44 M_DATA_B43 M_DATA_B42 M_DATA_B41 M_DATA_B40 M_DATA_B39 M_DATA_B38 M_DATA_B37 M_DATA_B36 M_DATA_B35 M_DATA_B34 M_DATA_B33 M_DATA_B32 M_DATA_B31 M_DATA_B30 M_DATA_B29 M_DATA_B28 M_DATA_B27 M_DATA_B26 M_DATA_B25 M_DATA_B24 M_DATA_B23 M_DATA_B22 M_DATA_B21 M_DATA_B20 M_DATA_B19 M_DATA_B18 M_DATA_B17 M_DATA_B16 M_DATA_B15 M_DATA_B14 M_DATA_B13 M_DATA_B12 M_DATA_B11 M_DATA_B10 M_DATA_B9 M_DATA_B8 M_DATA_B7 M_DATA_B6 M_DATA_B5 M_DATA_B4 M_DATA_B3 M_DATA_B2 M_DATA_B1 M_DATA_B0
M_DQM_B7 M_DQM_B6 M_DQM_B5 M_DQM_B4 M_DQM_B3 M_DQM_B2 M_DQM_B1 M_DQM_B0
M_DQS_N_B7 M_DQS_P_B7 M_DQS_N_B6 M_DQS_P_B6 M_DQS_N_B5 M_DQS_P_B5 M_DQS_N_B4 M_DQS_P_B4 M_DQS_N_B3 M_DQS_P_B3 M_DQS_N_B2 M_DQS_P_B2 M_DQS_N_B1 M_DQS_P_B1 M_DQS_N_B0 M_DQS_P_B0
M_SBA_B2
A16(I)/BA2 A15(I) A14(I) A13(I) A12(I) A11(I) A10(I) A9(I) A8(I) A7(I) A6(I) A5(I) A4(I) A3(I) A2(I) A1(I) A0(I)
M_MAA_B14 M_MAA_B13 M_MAA_B12 M_MAA_B11 M_MAA_B10 M_MAA_B9 M_MAA_B8 M_MAA_B7 M_MAA_B6 M_MAA_B5 M_MAA_B4 M_MAA_B3 M_MAA_B2 M_MAA_B1 M_MAA_B0
9,13 M_SCKE_B1 9,13 M_SCKE_B0
CKE1(I) CKE0(I)
9,13 M_SBA_B1 9,13 M_SBA_B0
BA1 (I) BA0 (I)
9,13 M_WE_B 9,13 M_RAS_B 9,13 M_CAS_B
WE#(I) RAS#(I) CAS#(I)
RESET#(I)
9,13 M_SCS_B1 9,13 M_SCS_B0
CS-1(I) CS-0(I)
9,13 M_SODT_B1 9,13 M_SODT_B0
ODT1(I) ODT0(I)
DIMM_VREF_B
C356 0603 0.1UF Y5V 16V
VCC3
VREF(B)
SA2 (I) SA1 (I) SA0 (I)
CK2(I) CK-2(I) CK1(I) CK-1(I) CK0(I) CK-0(I)
CK_M_DDR_P_B2 9 CK_M_DDR_N_B2 9 CK_M_DDR_P_B1 9 CK_M_DDR_N_B1 9 CK_M_DDR_P_B0 9 CK_M_DDR_N_B0 9
SCL(B) SDA(B)
SMBCLK SMBDATA
RC0(B)
NC1(B) NC2(B) NC3(B)
DDR2 DIMM BLUE 240PIN SK-D240P

ADDRESS=010

DIMM3B
VDDMEM
VDDQ11 (P) VDDQ10 (P) VDDQ9 (P) VDDQ4 (P) VDDQ3 (P) VDDQ8 (P) VDDQ7 (P) VDDQ6 (P) VDDQ5 (P) VDDQ2 (P) VDDQ1 (P)
VDD10(P) VDD9(P) VDD11(P) VDD8(P) VDD7(P) VDD6 (P) VDD5 (P) VDD4 (P) VDD3 (P) VDD2 (P) VDD1 (P)
VCC3
VDDSPD(P)
VSS49(P) VSS50(P) VSS51(P) VSS52(P) VSS53(P) VSS54(P) VSS55(P) VSS56(P) VSS57(P) VSS58(P) VSS59(P) VSS60(P) VSS61(P) VSS63(P) VSS64(P)
VSS1(P) VSS2(P) VSS3(P) VSS4(P) VSS5(P) VSS6(P) VSS7(P) VSS8(P) VSS9(P) VSS10(P) VSS11(P) VSS12(P) VSS13(P) VSS62(P) VSS14(P) VSS15(P) VSS16(P) VSS17(P) VSS18(P) VSS19(P) VSS20(P) VSS21(P) VSS22(P) VSS23(P) VSS24(P) VSS25(P) VSS26(P) VSS27(P) VSS28(P) VSS29(P) VSS30(P) VSS31(P) VSS32(P) VSS33(P) VSS34(P) VSS35(P) VSS36(P) VSS37(P) VSS38(P) VSS39(P) VSS40(P) VSS41(P) VSS42(P) VSS43(P) VSS44(P) VSS45(P) VSS46(P) VSS47(P) VSS48(P)
DDR2 DIMM BLUE 240PIN SK-D240P

VDDMEM
R384 200_1% %1
DIMM_VREF_B
R385 210_1% %1
C357 0603 0.1UF Y5V 16V

Channel B DIMM2

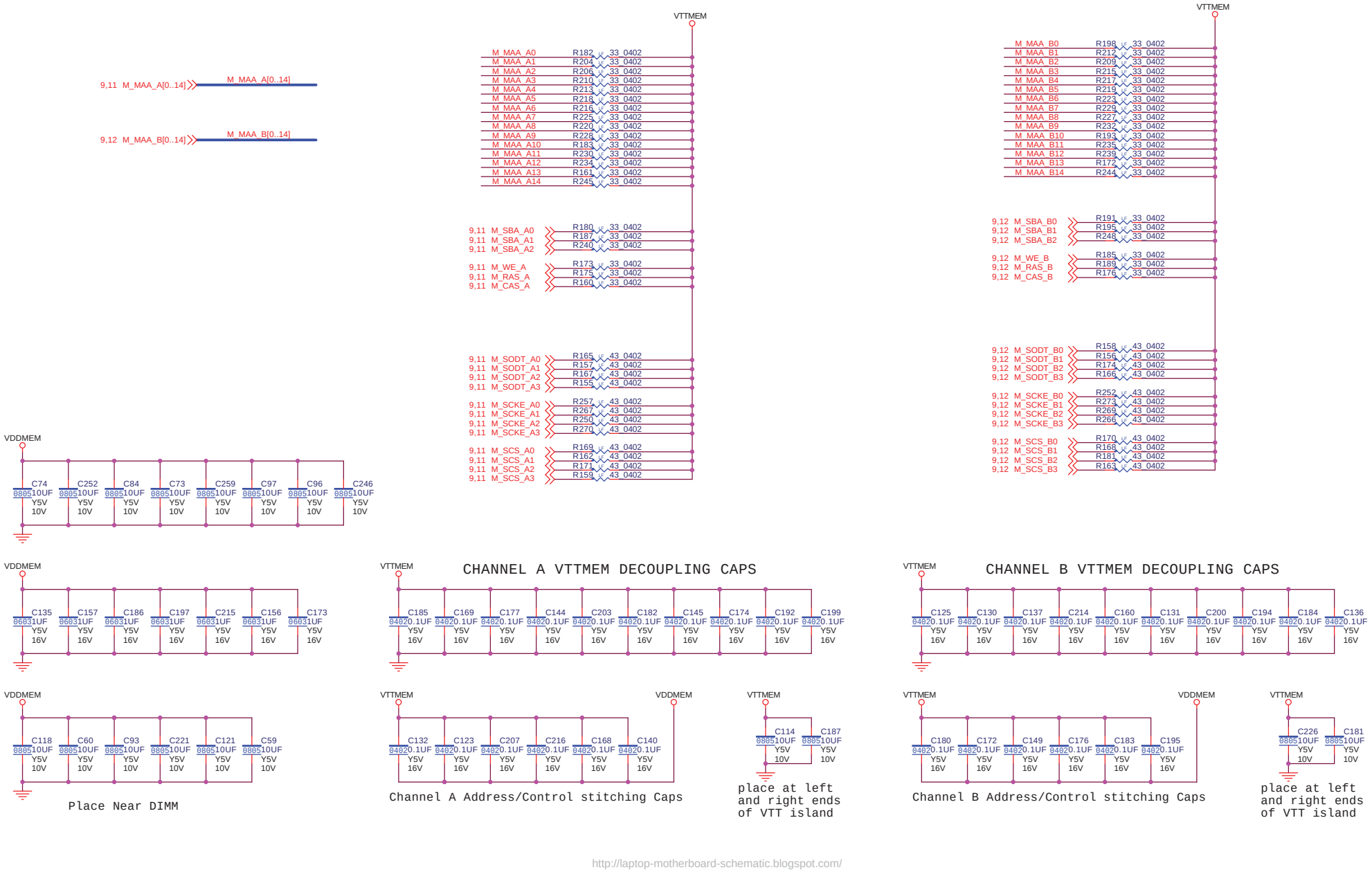
DIMM4A
DQS17-(B) DQS17(B) DQS16-(B) DQS16(B) DQS15-(B) DQS15(B) DQS14-(B) DQS14(B) DQS13-(B) DQS13(B) DQS12-(B) DQS12(B) DQS11-(B) DQS11(B) DQS10-(B) DQS10(B) DQS9-(B) DQS9(B) DQS8-(B) DQS8(B) DQS7-(B) DQS7(B) DQS6-(B) DQS6(B) DQS5-(B) DQS5(B) DQS4-(B) DQS4(B) DQS3-(B) DQS3(B) DQS2-(B) DQS2(B) DQS1-(B) DQS1(B) DQS0-(B) DQS0(B)
CB7(B) CB6(B) CB5(B) CB4(B) CB3(B) CB2(B) CB1(B) CB0(B)
DQ63(B) DQ62(B) DQ61(B) DQ60(B) DQ59(B) DQ58(B) DQ57(B) DQ56(B) DQ55(B) DQ54(B) DQ53(B) DQ52(B) DQ51(B) DQ50(B) DQ49(B) DQ48(B) DQ47(B) DQ46(B) DQ45(B) DQ44(B) DQ43(B) DQ42(B) DQ41(B) DQ40(B) DQ39(B) DQ38(B) DQ37(B) DQ36(B) DQ35(B) DQ34(B) DQ33(B) DQ32(B) DQ31(B) DQ30(B) DQ29(B) DQ28(B) DQ27(B) DQ26(B) DQ25(B) DQ24(B) DQ23(B) DQ22(B) DQ21(B) DQ20(B) DQ19(B) DQ18(B) DQ17(B) DQ16(B) DQ15(B) DQ14(B) DQ13(B) DQ12(B) DQ11(B) DQ10(B) DQ9(B) DQ8(B) DQ7(B) DQ6(B) DQ5(B) DQ4(B) DQ3(B) DQ2(B) DQ1(B) DQ0(B)
M_DATA_B63 M_DATA_B62 M_DATA_B61 M_DATA_B60 M_DATA_B59 M_DATA_B58 M_DATA_B57 M_DATA_B56 M_DATA_B55 M_DATA_B54 M_DATA_B53 M_DATA_B52 M_DATA_B51 M_DATA_B50 M_DATA_B49 M_DATA_B48 M_DATA_B47 M_DATA_B46 M_DATA_B45 M_DATA_B44 M_DATA_B43 M_DATA_B42 M_DATA_B41 M_DATA_B40 M_DATA_B39 M_DATA_B38 M_DATA_B37 M_DATA_B36 M_DATA_B35 M_DATA_B34 M_DATA_B33 M_DATA_B32 M_DATA_B31 M_DATA_B30 M_DATA_B29 M_DATA_B28 M_DATA_B27 M_DATA_B26 M_DATA_B25 M_DATA_B24 M_DATA_B23 M_DATA_B22 M_DATA_B21 M_DATA_B20 M_DATA_B19 M_DATA_B18 M_DATA_B17 M_DATA_B16 M_DATA_B15 M_DATA_B14 M_DATA_B13 M_DATA_B12 M_DATA_B11 M_DATA_B10 M_DATA_B9 M_DATA_B8 M_DATA_B7 M_DATA_B6 M_DATA_B5 M_DATA_B4 M_DATA_B3 M_DATA_B2 M_DATA_B1 M_DATA_B0
M_DQM_B7 M_DQM_B6 M_DQM_B5 M_DQM_B4 M_DQM_B3 M_DQM_B2 M_DQM_B1 M_DQM_B0
M_DQS_N_B7 M_DQS_P_B7 M_DQS_N_B6 M_DQS_P_B6 M_DQS_N_B5 M_DQS_P_B5 M_DQS_N_B4 M_DQS_P_B4 M_DQS_N_B3 M_DQS_P_B3 M_DQS_N_B2 M_DQS_P_B2 M_DQS_N_B1 M_DQS_P_B1 M_DQS_N_B0 M_DQS_P_B0
M_SBA_B2
A16(I)/BA2 A15(I) A14(I) A13(I) A12(I) A11(I) A10(I) A9(I) A8(I) A7(I) A6(I) A5(I) A4(I) A3(I) A2(I) A1(I) A0(I)
M_MAA_B14 M_MAA_B13 M_MAA_B12 M_MAA_B11 M_MAA_B10 M_MAA_B9 M_MAA_B8 M_MAA_B7 M_MAA_B6 M_MAA_B5 M_MAA_B4 M_MAA_B3 M_MAA_B2 M_MAA_B1 M_MAA_B0
9,13 M_SCKE_B3 9,13 M_SCKE_B2
CKE1(I) CKE0(I)
9,13 M_SBA_B1 9,13 M_SBA_B0
BA1 (I) BA0 (I)
9,13 M_WE_B 9,13 M_RAS_B 9,13 M_CAS_B
WE#(I) RAS#(I) CAS#(I)
RESET#(I)
9,13 M_SCS_B3 9,13 M_SCS_B2
CS-1(I) CS-0(I)
9,13 M_SODT_B3 9,13 M_SODT_B2
ODT1(I) ODT0(I)
DIMM_VREF_B
C341 0603 0.1UF Y5V 16V
VCC3
VREF(B)
SA2 (I) SA1 (I) SA0 (I)
CK2(I) CK-2(I) CK1(I) CK-1(I) CK0(I) CK-0(I)
CK_M_DDR_P_B5 9 CK_M_DDR_N_B5 9 CK_M_DDR_P_B4 9 CK_M_DDR_N_B4 9 CK_M_DDR_P_B3 9 CK_M_DDR_N_B3 9
SCL(B) SDA(B)
SMBCLK SMBDATA
RC0(B)
NC1(B) NC2(B) NC3(B)
DDR2 DIMM BLACK 240PIN SK-D240P

ADDRESS=011

DIMM4B
VDDMEM
VDDQ11 (P) VDDQ10 (P) VDDQ9 (P) VDDQ4 (P) VDDQ3 (P) VDDQ8 (P) VDDQ7 (P) VDDQ6 (P) VDDQ5 (P) VDDQ2 (P) VDDQ1 (P)
VDD10(P) VDD9(P) VDD11(P) VDD8(P) VDD7(P) VDD6 (P) VDD5 (P) VDD4 (P) VDD3 (P) VDD2 (P) VDD1 (P)
VCC3
VDDSPD(P)
VSS49(P) VSS50(P) VSS51(P) VSS52(P) VSS53(P) VSS54(P) VSS55(P) VSS56(P) VSS57(P) VSS58(P) VSS59(P) VSS60(P) VSS61(P) VSS63(P) VSS64(P)
VSS1(P) VSS2(P) VSS3(P) VSS4(P) VSS5(P) VSS6(P) VSS7(P) VSS8(P) VSS9(P) VSS10(P) VSS11(P) VSS12(P) VSS13(P) VSS62(P) VSS14(P) VSS15(P) VSS16(P) VSS17(P) VSS18(P) VSS19(P) VSS20(P) VSS21(P) VSS22(P) VSS23(P) VSS24(P) VSS25(P) VSS26(P) VSS27(P) VSS28(P) VSS29(P) VSS30(P) VSS31(P) VSS32(P) VSS33(P) VSS34(P) VSS35(P) VSS36(P) VSS37(P) VSS38(P) VSS39(P) VSS40(P) VSS41(P) VSS42(P) VSS43(P) VSS44(P) VSS45(P) VSS46(P) VSS47(P) VSS48(P)
DDR2 DIMM BLACK 240PIN SK-D240P

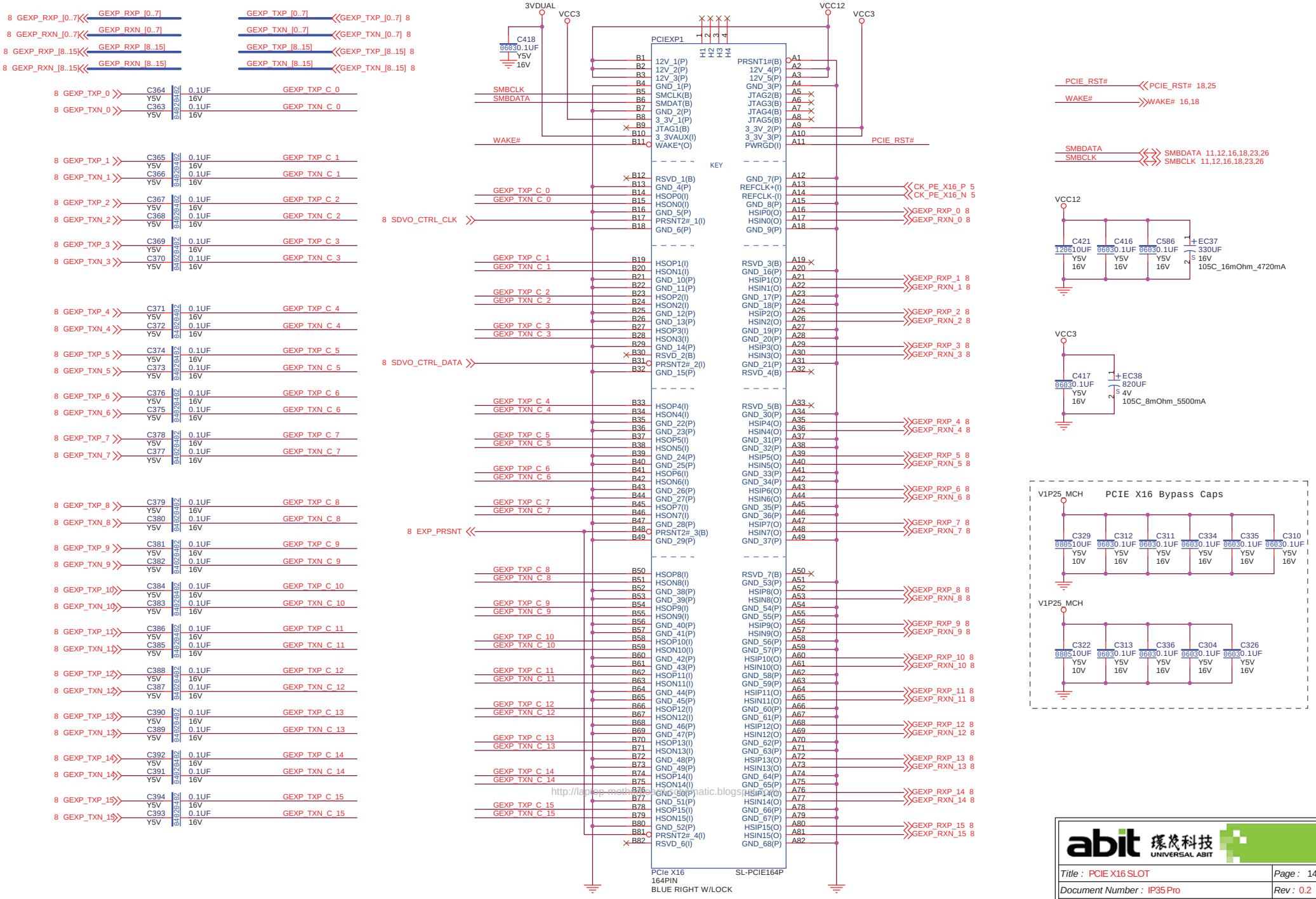
DIMM_VREF_B R379 1% 4.02K_1%
11 VDDR_VERF_OV1_R
Q43 2N7002N FET-SOT23 115mA_7.5Ohm 60V SOT23
DIMM_VREF_B R380 1% 2.26K_1%
11 VDDR_VERF_OV2_R
Q44 2N7002N FET-SOT23 115mA_7.5Ohm 60V SOT23

Title : DDR2 CHANNEL B	Page : 12 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"



abit 環旭科技 UNIVERSAL ABIT

Title : DDR2 TERMINATION	Page : 13 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"


8 GEXP_RXP_[0..7]
GEXP_RXP_[0..7]
8 GEXP_RXN_[0..7]
GEXP_RXN_[0..7]
8 GEXP_RXP_[8..15]
GEXP_RXP_[8..15]
8 GEXP_RXN_[8..15]
GEXP_RXN_[8..15]
GEXP_TXP_[0..7]
GEXP_TXP_[0..7] 8
GEXP_TXN_[0..7]
GEXP_TXN_[0..7] 8
GEXP_TXP_[8..15]
GEXP_TXP_[8..15] 8
GEXP_TXN_[8..15]
GEXP_TXN_[8..15] 8
8 GEXP_TXP_0
C364 0.1UF Y5V 16V
GEXP_TXP_C_0
8 GEXP_TXN_0
C363 0.1UF Y5V 16V
GEXP_TXN_C_0
8 GEXP_TXP_1
C365 0.1UF Y5V 16V
GEXP_TXP_C_1
8 GEXP_TXN_1
C366 0.1UF Y5V 16V
GEXP_TXN_C_1
8 GEXP_TXP_2
C367 0.1UF Y5V 16V
GEXP_TXP_C_2
8 GEXP_TXN_2
C368 0.1UF Y5V 16V
GEXP_TXN_C_2
8 GEXP_TXP_3
C369 0.1UF Y5V 16V
GEXP_TXP_C_3
8 GEXP_TXN_3
C370 0.1UF Y5V 16V
GEXP_TXN_C_3
8 GEXP_TXP_4
C371 0.1UF Y5V 16V
GEXP_TXP_C_4
8 GEXP_TXN_4
C372 0.1UF Y5V 16V
GEXP_TXN_C_4
8 GEXP_TXP_5
C374 0.1UF Y5V 16V
GEXP_TXP_C_5
8 GEXP_TXN_5
C373 0.1UF Y5V 16V
GEXP_TXN_C_5
8 GEXP_TXP_6
C376 0.1UF Y5V 16V
GEXP_TXP_C_6
8 GEXP_TXN_6
C375 0.1UF Y5V 16V
GEXP_TXN_C_6
8 GEXP_TXP_7
C378 0.1UF Y5V 16V
GEXP_TXP_C_7
8 GEXP_TXN_7
C377 0.1UF Y5V 16V
GEXP_TXN_C_7
8 GEXP_TXP_8
C379 0.1UF Y5V 16V
GEXP_TXP_C_8
8 GEXP_TXN_8
C380 0.1UF Y5V 16V
GEXP_TXN_C_8
8 GEXP_TXP_9
C381 0.1UF Y5V 16V
GEXP_TXP_C_9
8 GEXP_TXN_9
C382 0.1UF Y5V 16V
GEXP_TXN_C_9
8 GEXP_TXP_10
C384 0.1UF Y5V 16V
GEXP_TXP_C_10
8 GEXP_TXN_10
C383 0.1UF Y5V 16V
GEXP_TXN_C_10
8 GEXP_TXP_11
C386 0.1UF Y5V 16V
GEXP_TXP_C_11
8 GEXP_TXN_11
C385 0.1UF Y5V 16V
GEXP_TXN_C_11
8 GEXP_TXP_12
C388 0.1UF Y5V 16V
GEXP_TXP_C_12
8 GEXP_TXN_12
C387 0.1UF Y5V 16V
GEXP_TXN_C_12
8 GEXP_TXP_13
C390 0.1UF Y5V 16V
GEXP_TXP_C_13
8 GEXP_TXN_13
C389 0.1UF Y5V 16V
GEXP_TXN_C_13
8 GEXP_TXP_14
C392 0.1UF Y5V 16V
GEXP_TXP_C_14
8 GEXP_TXN_14
C391 0.1UF Y5V 16V
GEXP_TXN_C_14
8 GEXP_TXP_15
C394 0.1UF Y5V 16V
GEXP_TXP_C_15
8 GEXP_TXN_15
C393 0.1UF Y5V 16V
GEXP_TXN_C_15
3VDUAL
VCC3
C418 0.1UF Y5V 16V
SMBCLK
SMBDATA
WAKE#
8 SDVO_CTRL_CLK
8 SDVO_CTRL_DATA
8 EXP_PRSNT
PCIEXP1
KEY
12V_1(P)
12V_2(P)
12V_3(P)
GND_1(P)
SMCLK(B)
SMDAT(B)
GND_2(P)
3_3V_1(P)
JTAG1(B)
3_3VAUX(I)
WAKE*(O)
RSVD_1(B)
GND_4(P)
HSOP0(I)
HSON0(I)
GND_5(P)
PRSNT2#_1(I)
GND_6(P)
HSOP1(I)
HSON1(I)
GND_10(P)
GND_11(P)
HSOP2(I)
HSON2(I)
GND_12(P)
GND_13(P)
HSOP3(I)
HSON3(I)
GND_14(P)
RSVD_2(B)
PRSNT2#_2(I)
GND_15(P)
HSOP4(I)
HSON4(I)
GND_22(P)
GND_23(P)
HSOP5(I)
HSON5(I)
GND_24(P)
GND_25(P)
HSOP6(I)
HSON6(I)
GND_26(P)
GND_27(P)
HSOP7(I)
HSON7(I)
GND_28(P)
PRSNT2#_3(B)
GND_29(P)
HSOP8(I)
HSON8(I)
GND_38(P)
GND_39(P)
HSOP9(I)
HSON9(I)
GND_40(P)
GND_41(P)
HSOP10(I)
HSON10(I)
GND_42(P)
GND_43(P)
HSOP11(I)
HSON11(I)
GND_44(P)
GND_45(P)
HSOP12(I)
HSON12(I)
GND_46(P)
GND_47(P)
HSOP13(I)
HSON13(I)
GND_48(P)
GND_49(P)
HSOP14(I)
HSON14(I)
GND_50(P)
GND_51(P)
HSOP15(I)
HSON15(I)
GND_52(P)
PRSNT2#_4(I)
RSVD_6(I)
PRSNT1#(B)
12V_4(P)
12V_5(P)
GND_3(P)
JTAG2(B)
JTAG3(B)
JTAG4(B)
JTAG5(B)
3_3V_2(P)
3_3V_3(P)
PWRGD(I)
PCIE_RST#
GND_7(P)
REFCLK+(I)
REFCLK-(I)
GND_8(P)
HSIP0(O)
HSIN0(O)
GND_9(P)
RSVD_3(B)
GND_16(P)
HSIP1(O)
HSIN1(O)
GND_17(P)
GND_18(P)
HSIP2(O)
HSIN2(O)
GND_19(P)
GND_20(P)
HSIP3(O)
HSIN3(O)
GND_21(P)
RSVD_4(B)
RSVD_5(B)
GND_30(P)
HSIP4(O)
HSIN4(O)
GND_31(P)
GND_32(P)
HSIP5(O)
HSIN5(O)
GND_33(P)
GND_34(P)
HSIP6(O)
HSIN6(O)
GND_35(P)
GND_36(P)
HSIP7(O)
HSIN7(O)
GND_37(P)
RSVD_7(B)
GND_53(P)
HSIP8(O)
HSIN8(O)
GND_54(P)
GND_55(P)
HSIP9(O)
HSIN9(O)
GND_56(P)
GND_57(P)
HSIP10(O)
HSIN10(O)
GND_58(P)
GND_59(P)
HSIP11(O)
HSIN11(O)
GND_60(P)
GND_61(P)
HSIP12(O)
HSIN12(O)
GND_62(P)
GND_63(P)
HSIP13(O)
HSIN13(O)
GND_64(P)
GND_65(P)
HSIP14(O)
HSIN14(O)
GND_66(P)
GND_67(P)
HSIP15(O)
HSIN15(O)
GND_68(P)
CK_PE_X16_P 5
CK_PE_X16_N 5
GEXP_RXP_0 8
GEXP_RXN_0 8
GEXP_RXP_1 8
GEXP_RXN_1 8
GEXP_RXP_2 8
GEXP_RXN_2 8
GEXP_RXP_3 8
GEXP_RXN_3 8
GEXP_RXP_4 8
GEXP_RXN_4 8
GEXP_RXP_5 8
GEXP_RXN_5 8
GEXP_RXP_6 8
GEXP_RXN_6 8
GEXP_RXP_7 8
GEXP_RXN_7 8
GEXP_RXP_8 8
GEXP_RXN_8 8
GEXP_RXP_9 8
GEXP_RXN_9 8
GEXP_RXP_10 8
GEXP_RXN_10 8
GEXP_RXP_11 8
GEXP_RXN_11 8
GEXP_RXP_12 8
GEXP_RXN_12 8
GEXP_RXP_13 8
GEXP_RXN_13 8
GEXP_RXP_14 8
GEXP_RXN_14 8
GEXP_RXP_15 8
GEXP_RXN_15 8
PCIe X16
164PIN
BLUE RIGHT W/LOCK
SL-PCIE164P
PCIE_RST#
PCIE_RST# 18,25
WAKE#
WAKE# 16,18
SMBDATA
SMBCLK
SMBDATA 11,12,16,18,23,26
SMBCLK 11,12,16,18,23,26
VCC12
C421 120610UF Y5V 16V
C416 0603 0.1UF Y5V 16V
C586 0603 0.1UF Y5V 16V
EC37 330UF 16V 105C_16mOhm_4720mA
VCC3
C417 0603 0.1UF Y5V 16V
EC38 820UF 4V 105C_8mOhm_5500mA
V1P25_MCH
PCIE X16 Bypass Caps
C329 0805 10UF Y5V 10V
C312 0603 0.1UF Y5V 16V
C311 0603 0.1UF Y5V 16V
C334 0603 0.1UF Y5V 16V
C335 0603 0.1UF Y5V 16V
C310 0603 0.1UF Y5V 16V
C322 0805 10UF Y5V 10V
C313 0603 0.1UF Y5V 16V
C336 0603 0.1UF Y5V 16V
C304 0603 0.1UF Y5V 16V
C326 0603 0.1UF Y5V 16V
http://laptop-motherboard-schematic.blogspot.com/
abit 環旭科技 UNIVERSAL ABIT
Title : PCIE X16 SLOT
Page : 14 / 34
Document Number : IP35 Pro
Rev : 0.2
Date : Monday, February 26, 2007
Size : 16.8" X 11.8"

Direction and NetName is base on MCH

ICH9 U22A — PCI

AD[0..31] <<>> AD[0..31] 21,22,23,24

PAR E3 — 21,22,23,24 PAR
DEVSELB C6 — 21,22,23,24 DEVSEL#
PCICLK B3 — 5 CK_33M_ICH
PCIRSTB R2 — 23 PCI_RST#
IRDYB J8 — 21,22,23,24 IRDY#
PMEB R3 — 23 PCI_PME#
SERRB K5 — 21,22,23,24 SERR#
STOPB F10 — 21,22,23,24 STOP#
PLOCKB H8 — 23 PLOCK#
TRDYB E6 — 21,22,23,24 TRDY#
PERRB F5 — 21,22,23,24 PERR#
FRAMEB G12 — 21,22,23,24 FRAME#

GNTB0 H5 — PGNT#0 — 22 PGNT#0
GNTB1_GP51 A7 — PGNT#1 — 21 PGNT#1
GNTB2_GP53 C7 — PGNT#2 — 24 PGNT#2
GNTB3_GP55 F7 — PGNT#3 — 23 PGNT#3

REQB_0 K7 — PREQ#0 — 22,23 PREQ#0
REQB1_GP50 G13 — PREQ#1 — 21,23 PREQ#1
REQB2_GP52 F13 — PREQ#2 — 23,24 PREQ#2
REQB3_GP54 G8 — PREQ#3 — 23 PREQ#3

PIRQAB J5 — PIRQ#A — 23 PIRQ#A
PIRQBB E1 — PIRQ#B — 23 PIRQ#B
PIRQCB F1 — PIRQ#C — 23 PIRQ#C
PIRQDB A3 — PIRQ#D — 23 PIRQ#D
GP2_PIRQEB K6 — 22,23 PIRQ#E
GP3_PIRQFB L7 — 23,24 PIRQ#F
GP4_PIRQGB F2 — 21,23,24 PIRQ#G
GP5_PIRQHB G2 — 21,22,23 PIRQ#H

AD_0 C10 — AD0
AD_1 C8 — AD1
AD_2 E9 — AD2
AD_3 C9 — AD3
AD_4 A5 — AD4
AD_5 E12 — AD5
AD_6 E10 — AD6
AD_7 B7 — AD7
AD_8 B6 — AD8
AD_9 B4 — AD9
AD_10 E7 — AD10
AD_11 A4 — AD11
AD_12 H12 — AD12
AD_13 F8 — AD13
AD_14 C5 — AD14
AD_15 D2 — AD15
AD_16 E5 — AD16
AD_17 G7 — AD17
AD_18 E11 — AD18
AD_19 G10 — AD19
AD_20 G6 — AD20
AD_21 D3 — AD21
AD_22 H6 — AD22
AD_23 G5 — AD23
AD_24 C1 — AD24
AD_25 C2 — AD25
AD_26 C3 — AD26
AD_27 D1 — AD27
AD_28 J7 — AD28
AD_29 F3 — AD29
AD_30 G1 — AD30
AD_31 H3 — AD31

CXBEB_0 F11 — C_BE#0 21,22,23,24
CXBEB_1 G9 — C_BE#1 21,22,23,24
CXBEB_2 C4 — C_BE#2 21,22,23,24
CXBEB_3 E8 — C_BE#3 21,22,23,24

1 OF 6

ICH9 U22B — DMI / PCI-E / USB

8 DMI_TXN0 W28 — DMIORXN
8 DMI_TXP0 W26 — DMIORXP
8 DMI_RXN0 V30 — DMIOTXN
8 DMI_RXP0 V29 — DMIOTXP
8 DMI_TXN1 AA26 — DMI1RXN
8 DMI_TXP1 AA28 — DMI1RXP
8 DMI_RXN1 Y30 — DMI1TXN
8 DMI_RXP1 Y29 — DMI1TXP
8 DMI_TXN2 AC26 — DMI2RXN
8 DMI_TXP2 AC28 — DMI2RXP
8 DMI_RXN2 AB30 — DMI2TXN
8 DMI_RXP2 AB29 — DMI2TXP
8 DMI_TXN3 AF26 — DMI3RXN
8 DMI_TXP3 AE26 — DMI3RXP
8 DMI_RXN3 AD29 — DMI3TXN
8 DMI_RXP3 AD30 — DMI3TXP

18 HSI_N0 D29 — PER6N_GLAN_RXN
18 HSI_P0 D30 — PER6N_GLAN_RXP
18 HSO_N0 — C467 0.1UF Y5V 16V — HSO_N0_R E26 — PER6N_GLAN_TXN
18 HSO_P0 — C468 0.1UF Y5V 16V — HSO_P0_R E28 — PER6N_GLAN_TXP
18 HSI_N1 P30 — PER1N
18 HSI_P1 P29 — PER1P
18 HSO_N1 — C465 0.1UF Y5V 16V — HSO_N1_R R26 — PET1N
18 HSO_P1 — C466 0.1UF Y5V 16V — HSO_P1_R R28 — PET1P
18 HSI_N2 M30 — PER2N
18 HSI_P2 M29 — PER2P
18 HSO_N2 — C445 0.1UF Y5V 16V — HSO_N2_R N26 — PET2N
18 HSO_P2 — C446 0.1UF Y5V 16V — HSO_P2_R N28 — PET2P
18 HSI_N3 K30 — PER3N
18 HSI_P3 K29 — PER3P
18 HSO_N3 — C463 0.1UF Y5V 16V — HSO_N3_R L26 — PET3N
18 HSO_P3 — C464 0.1UF Y5V 16V — HSO_P3_R L28 — PET3P
18 HSI_N4 H30 — PER4N
18 HSI_P4 H29 — PER4P
18 HSO_N4 — C461 0.1UF Y5V 16V — HSO_N4_R J26 — PET4N
18 HSO_P4 — C462 0.1UF Y5V 16V — HSO_P4_R J28 — PET4P
19 HSI_N5 F30 — PER5N
19 HSI_P5 F29 — PER5P
19 HSO_N5 — C440 0.1UF Y5V 16V — HSO_N5_R G26 — PET5N
19 HSO_P5 — C441 0.1UF Y5V 16V — HSO_P5_R G28 — PET5P

V1P5_FILTER — R434 24.9_1% — DMI_ZCOMP AE28 — DMIRCOMPO
AF30 — DMICOMPI

5 CK_PE_ICH_N U26 — DMICLK100N
5 CK_PE_ICH_P U25 — DMICLK100P

2 OF 6

USBP0N AD6 — USB_0N 27
USBP0P AD5 — USB_0P 27
USBP1N AE3 — USB_1N 27
USBP1P AE2 — USB_1P 27
USBP2N AD1 — USB_2N 27
USBP2P AD2 — USB_2P 27
USBP3N AB6 — USB_3N 27
USBP3P AB5 — USB_3P 27
USBP4N AC3 — USB_4N 27
USBP4P AC2 — USB_4P 27
USBP5N AB1 — USB_5N 27
USBP5P AB2 — USB_5P 27
USBP6N Y6 — USB_6N 21
USBP6P Y5 — USB_6P 21
USBP7N AA3 — USB_7N 21
USBP7P AA2 — USB_7P 21
USBP8N Y1 — USB_8N 22
USBP8P Y2 — USB_8P 22
USBP9N V6 — USB_9N 22
USBP9P V5 — USB_9P 22
USBP10N W2 — USB_10N 27
USBP10P W3 — USB_10P 27
USBP11N V1 — USB_11N 27
USBP11P V2 — USB_11P 27

ADD USB Port 10 , 11 (New Function)

OC0B_GB59 P5 — USB_OC0# 27
OC1B_GP40 N3 — USB_OC1# 27
OC2B_GP41 P7 — USB_OC2# 27
OC3B_GP42 R7 — USB_OC3# 21
OC4B_GP43 N2 — USB_OC4# 22
OC5B_GP29 N1 — USB_OC5# 27
OC6B_GP30 N5
OC7B_GP31 M1
OC8B_GP44 P3
OC9B_GB45 R6
OC10B_GB46 T7
OC11B_GB47 P1

USBRBIASN AG1 — USBRBIAS R596 22.6_1% — TRACS TIED TOGETHER CLOSE TO PINS. LENGTH NO LONGER THAN 200MIL TO RESISTOR.
USBRBIASP AG2

CLK48 AG3 — CK_48M_ICH_USB 5

ICH9 U22C — SATA / HOST

Intel P35 PDG Page443 ,Pull-High Resistor Change to 24.9 ohm -1%

V1P5_FILTER — R438 24.9_1%
A29 GLAN_COMPO
B29 GLAN_COMPI
8 CL_CLK — G22 CL_CLK0
C18 TP5
8 CL_DATA — H21 CL_DATA0
CL_VREF_ICH — E19 TP4
C27 CL_VREF0
8,31 CL_PWROK — CL_PWROK — A16 TP6
T6 CLPWROK
8 CL_RST# — B16 TP7
G20 CL_RST0b

AJ21 PWM0
AJ22 PWM1
AK22 PWM2

TACH0 AH21 GP17_TACH0
TACH1 AK21 GP1_TACH1
TACH2 AH22 GP6_TACH2
TACH3 AK23 GP7_TACH3

SST — C19 — SST

GPIO22 AJ24 GP22_SCLOCK
GPIO38 AK24 GP38_SLOAD
GPIO39 AH23 GP39_SDATAOUT0
GPIO48 AD20 GP48_SDATAOUT1
GPIO49 AJ25 GPIO49

3 OF 6

SATA0RXN AK17 — SATA_RXN0 18
SATA0RXP AJ17 — SATA_RXP0 18
SATA0TXN AK19 — SATA_TXN0 18
SATA0TXP AJ19 — SATA_TXP0 18
SATA1RXN AJ15 — SATA_RXN1 18
SATA1RXP AK15 — SATA_RXP1 18
SATA1TXN AH16 — SATA_TXN1 18
SATA1TXP AF16 — SATA_TXP1 18
SATA2RXN AJ13 — SATA_RXN2 18
SATA2RXP AK13 — SATA_RXP2 18
SATA2TXN AH14 — SATA_TXN2 18
SATA2TXP AF14 — SATA_TXP2 18
SATA3RXN AJ11 — SATA_RXN3 18
SATA3RXP AK11 — SATA_RXP3 18
SATA3TXN AF12 — SATA_TXN3 18
SATA3TXP AH12 — SATA_TXP3 18
SATA4RXN AJ9 — SATA_RXN4 18
SATA4RXP AK9 — SATA_RXP4 18
SATA4TXN AF10 — SATA_TXN4 18
SATA4TXP AH9 — SATA_TXP4 18
SATA5RXN AJ7 — SATA_RXN5 18
SATA5RXP AK7 — SATA_RXP5 18
SATA5TXN AF8 — SATA_TXN5 18
SATA5TXP AH7 — SATA_TXP5 18
SATACLKN AF18 — CK_ICH_SATA_N 5
SATACLKP AF19 — CK_ICH_SATA_P 5

SATALEDB AE7 — SATA_LED# — SATA_LED# 26
SATARBIASN AK6 — SATARBIASN — R544 24.9_1% — TRACS TIED TOGETHER CLOSE TO PINS. LENGTH NO LONGER THAN 200MIL TO RESISTOR.
SATABIASP AJ6

GP21_SATA0GP AK25 — SATA0GP
GP19_SATA1GP AE20 — SATA1GP
GP36_SATA2GP AE21 — SATA2GP
GP37_SATA3GP AE22 — SATA3GP
SATA4GP AF22 — SATA4GP
SATA5GP AD21 — SATA5GP

A20GATE P8 — A20GATE — A20GATE 25
A20Mb AJ28 — H_A20M# 6

IGNNEb AC22 — H_IGNNE# 6
INT3_3VB M3 — ICH_INIT3_3V# 26
INTb AE23 — H_INIT# 6
INTR AH27 — H_INTR 6
FERRb AJ27 — H_FERR# — H_FERR# 6
NMI AE24 — H_NMI 6
RCINb L3 — KBRST# 25
SERIRQ N6 — SERIRQ — SERIRQ 25,31
SMIb AH26 — H_SMI# 6
STPCLKb AJ29 — H_STPCLK# 6
THRMTRIPB AD24 — THRMTRIP# — THRMTRIP# 6
PECI AC23 — R464 x0 — PECI 6,25

VCC3 — R465 3.24K_1% — CL_VREF_ICH — C490 0.1UF Y5V 16V — R475 453_1%

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

16 SPI_CS1# — SPI_CS1# — R493 x1K
PGNT#0 — R311 x1K
GPIO49 — R466 2.2K

Note : ICH9_SU_1P02.PDF Page12 , The GPIO49 Required to be Low for Desktop applications .

GNT0#	SPI_CS1#	Boot BIOS Destination Selection
0	0	Reserved
0	1	SPI
1	0	PCI
1	1	LPC

V1P2_VTT — H_FERR# — R437 1% 60.4_1%
GPIO39 — R489 10K
PGNT#2 — R567 x10K

Has internal pull-up.
1 = Reserved
0 = 2 x1s, Port5 & Port6

V1P2_VTT — THRMTRIP# — R442 1% 60.4_1%

Has internal pull-up.
1 = Lane 0-3 are reversed.
0 = No lane reversal (default).

VCC3
SATA_LED# — R550 10K
A20GATE — R583 10K
SERIRQ — R582 10K
SATA0GP — R480 10K
SATA1GP — R513 10K
SATA2GP — R454 10K
SATA3GP — R453 10K
SATA4GP — R494 10K
SATA5GP — R446 10K
SST — R518 x10K
GPIO48 — R459 10K
GPIO38 — R485 10K
GPIO22 — R479 10K
TACH0 — R506 10K
TACH1 — R509 10K
TACH2 — R501 10K
TACH3 — R484 10K

abit 環旭科技 UNIVERSAL ABIT

Title : ICH9R PART A	Page : 15 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

Model	GPIO34	GPIO35
XXX	0	0

ICH9
U22D
4 of 6

Place close to Codec

Intel P35 PDG Page442 , Signal GLAN_CLK & LAN_RSTSYNC can be left as no connect if Both LCI and GLCI is not used.

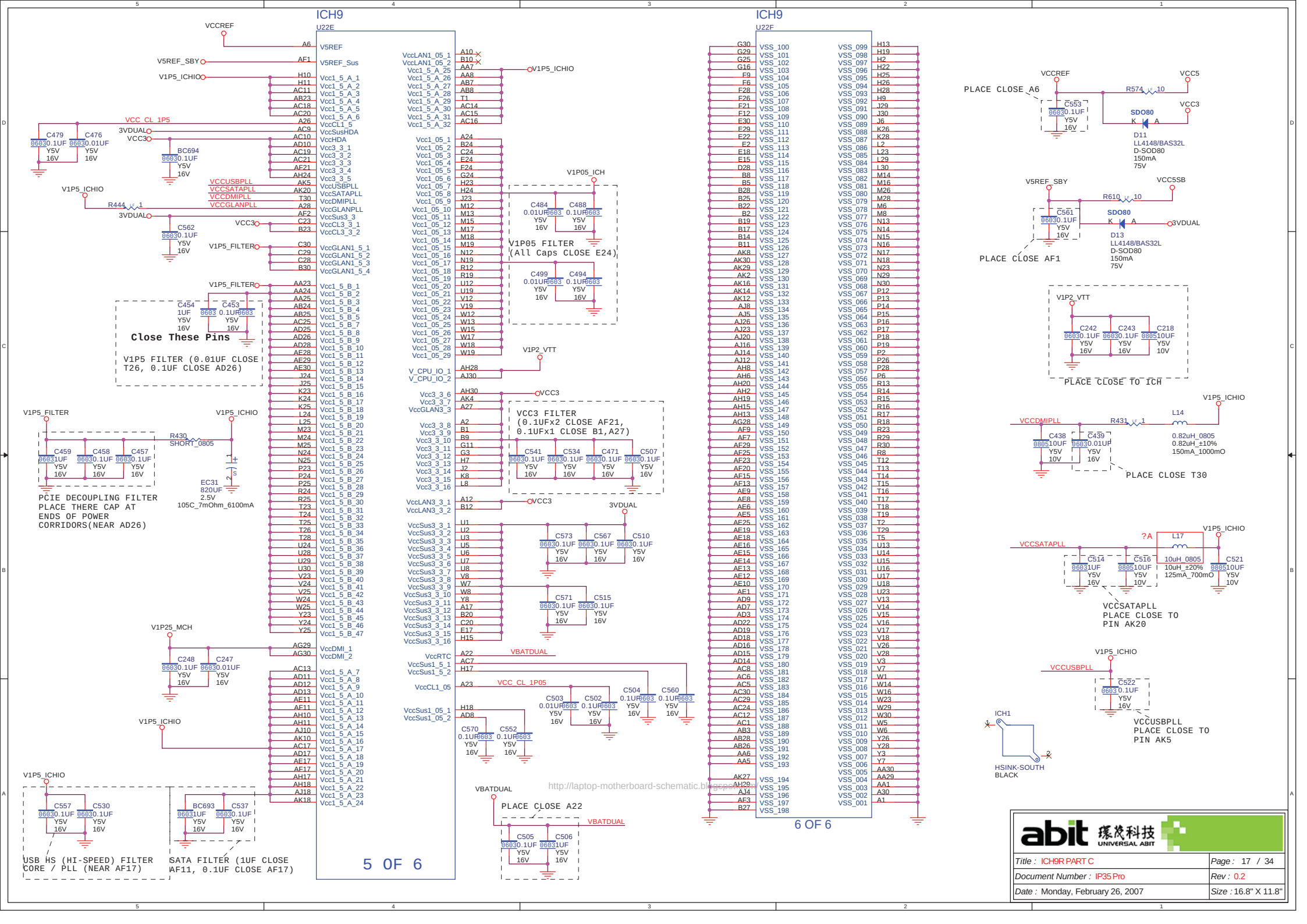
Both have internal pull-down.
11 = 1 x4, Port1
00 = 4 x1s, Port1,2,3 & 4
10,01 = Reserved

Intel P35 PDG Page239 ,The Signal Pull-High To VCC3

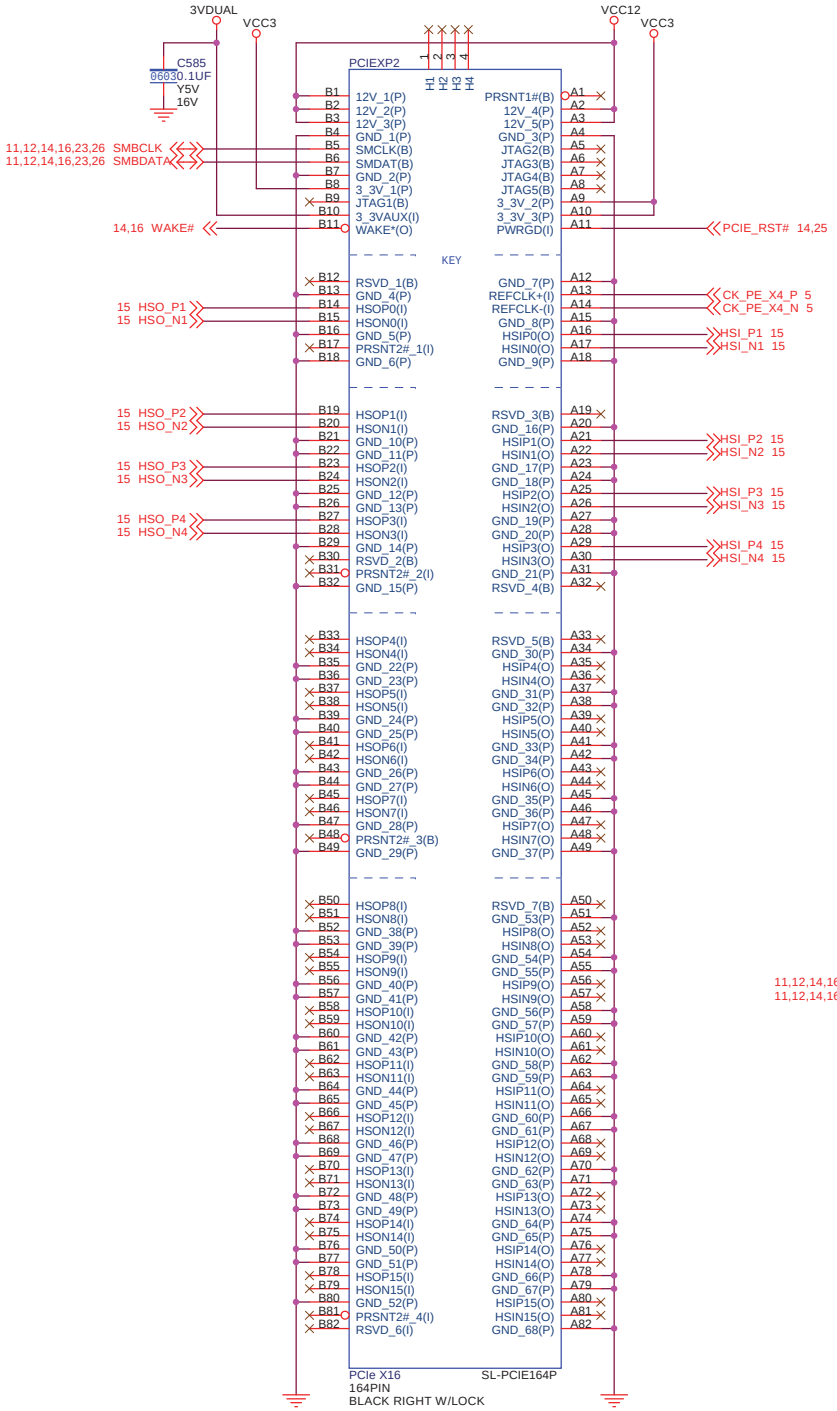
ICH9's New Function for Clear RTC

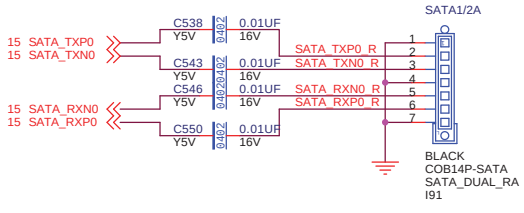
V0.2

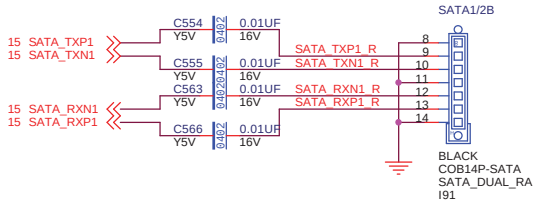
Title : ICH9R PART B	Page : 16 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

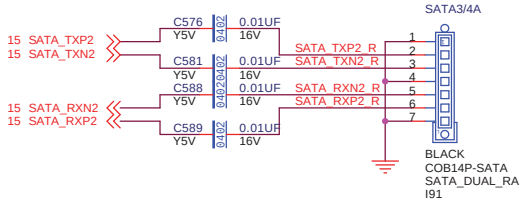


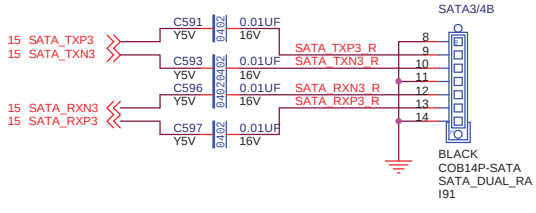
Title : ICH9R PART C	Page : 17 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

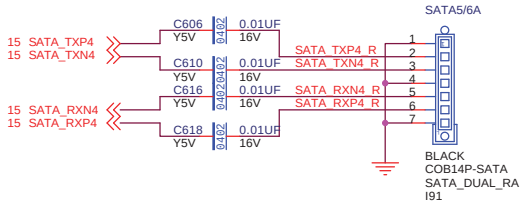


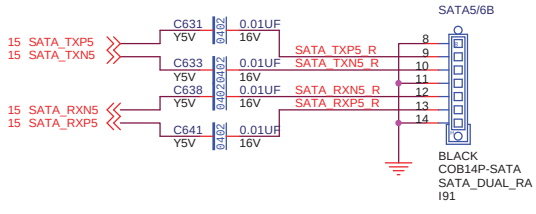


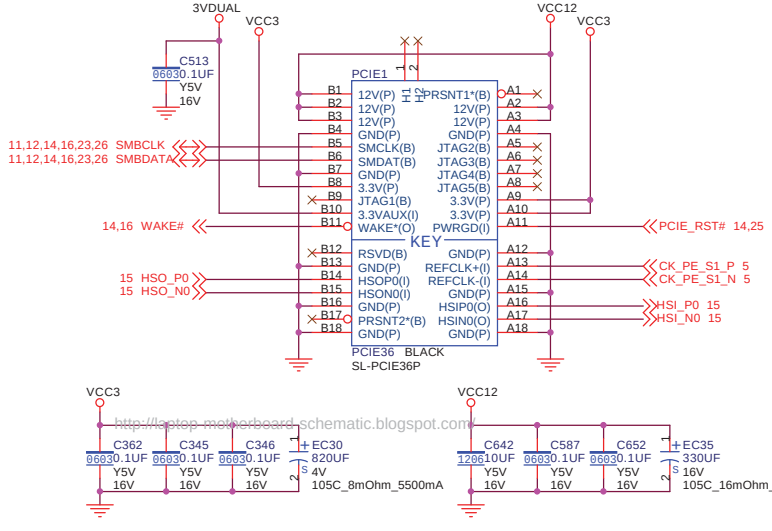






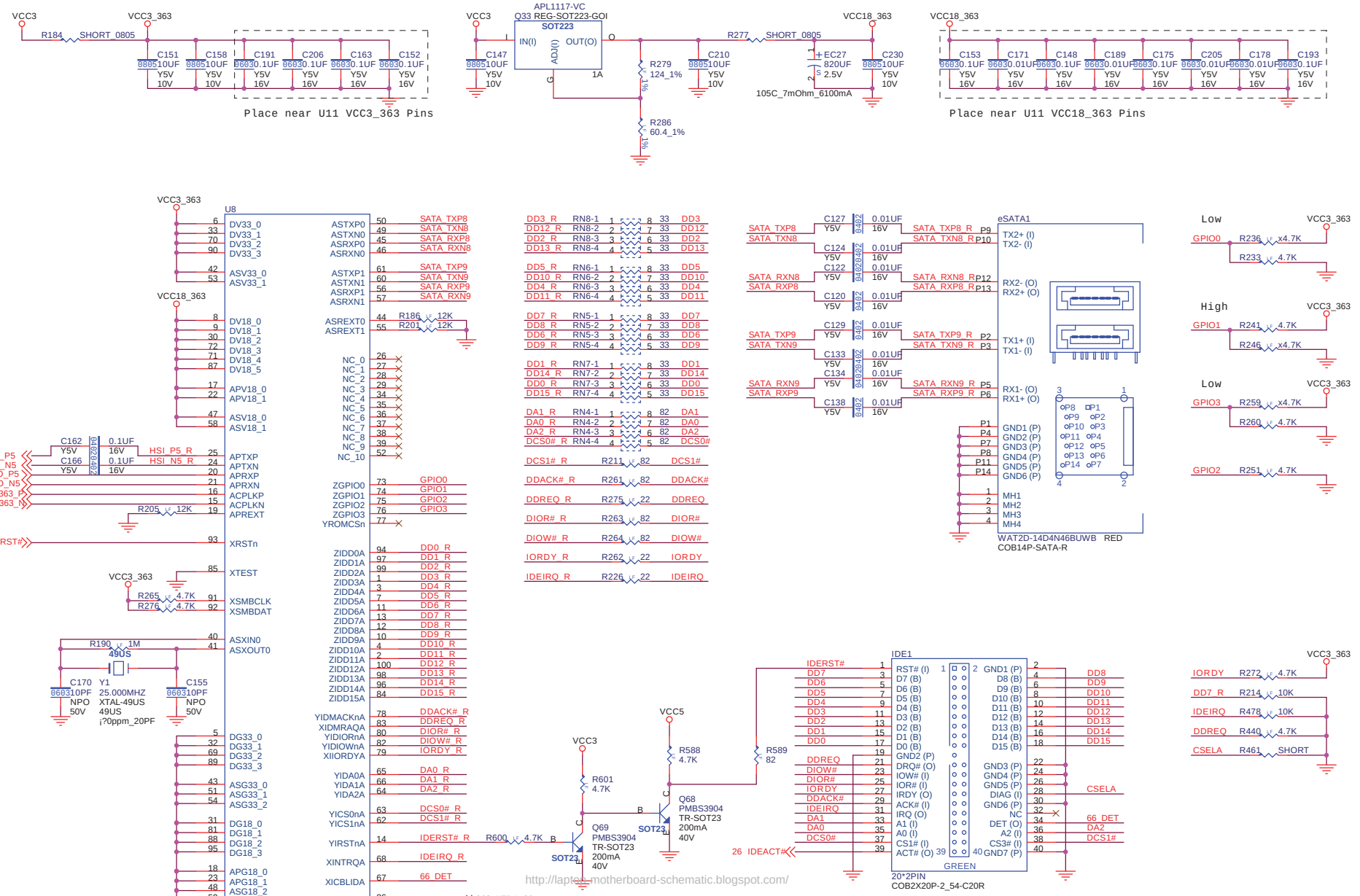




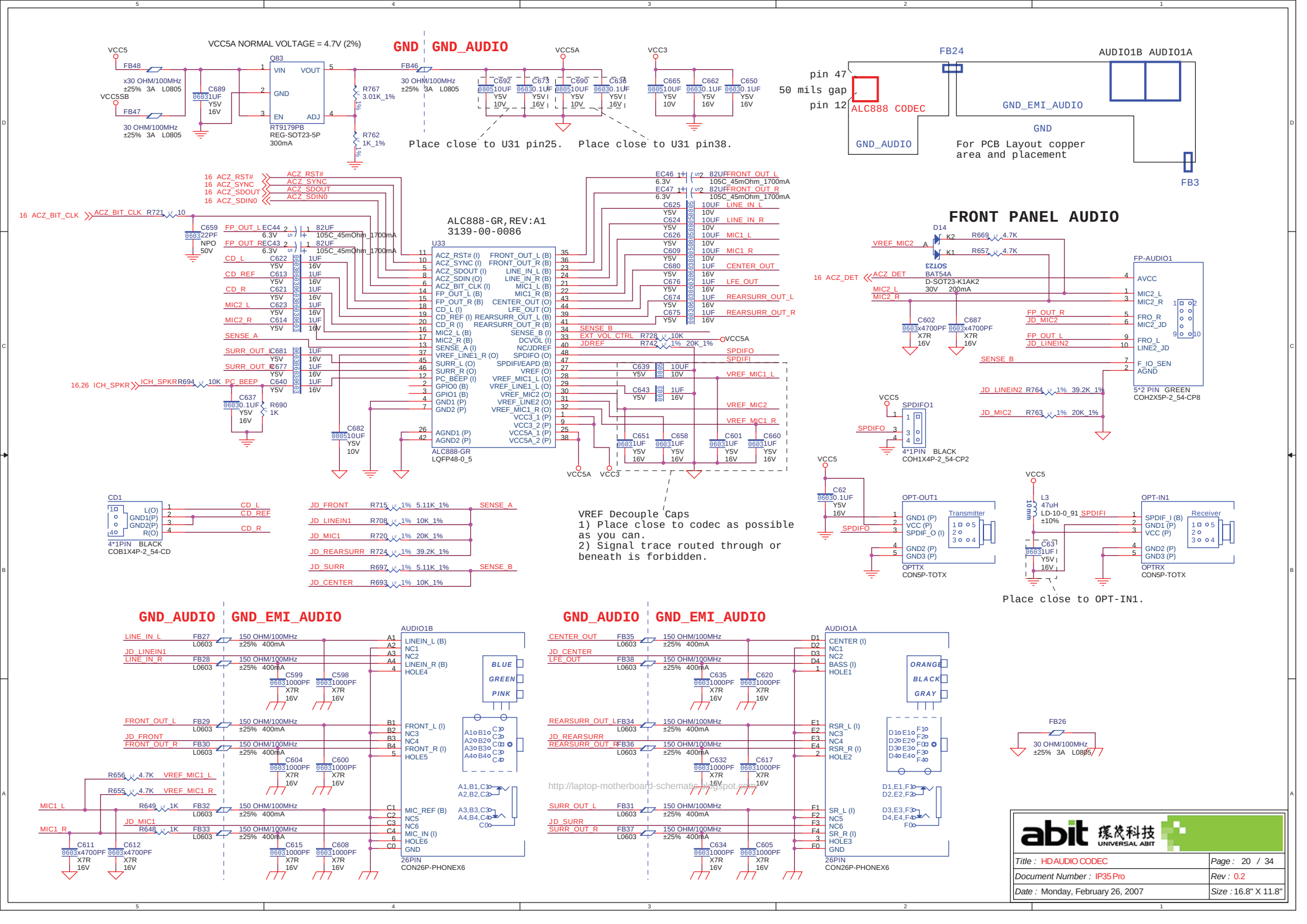


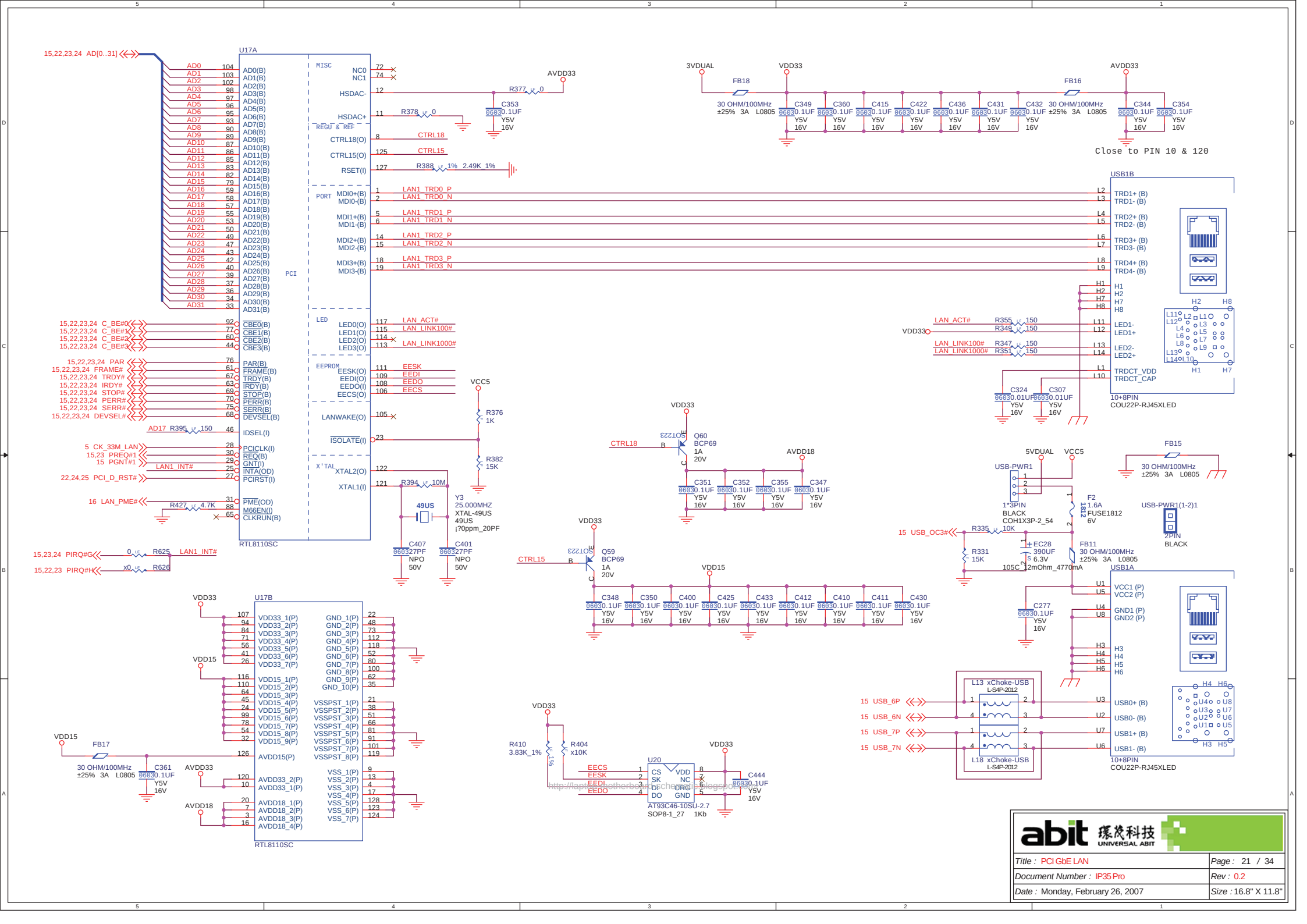
FOR PCI EXPRESS X1 SLOT 1

Title : PCIE X4/X1 SLOT & SATA	Page : 18 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

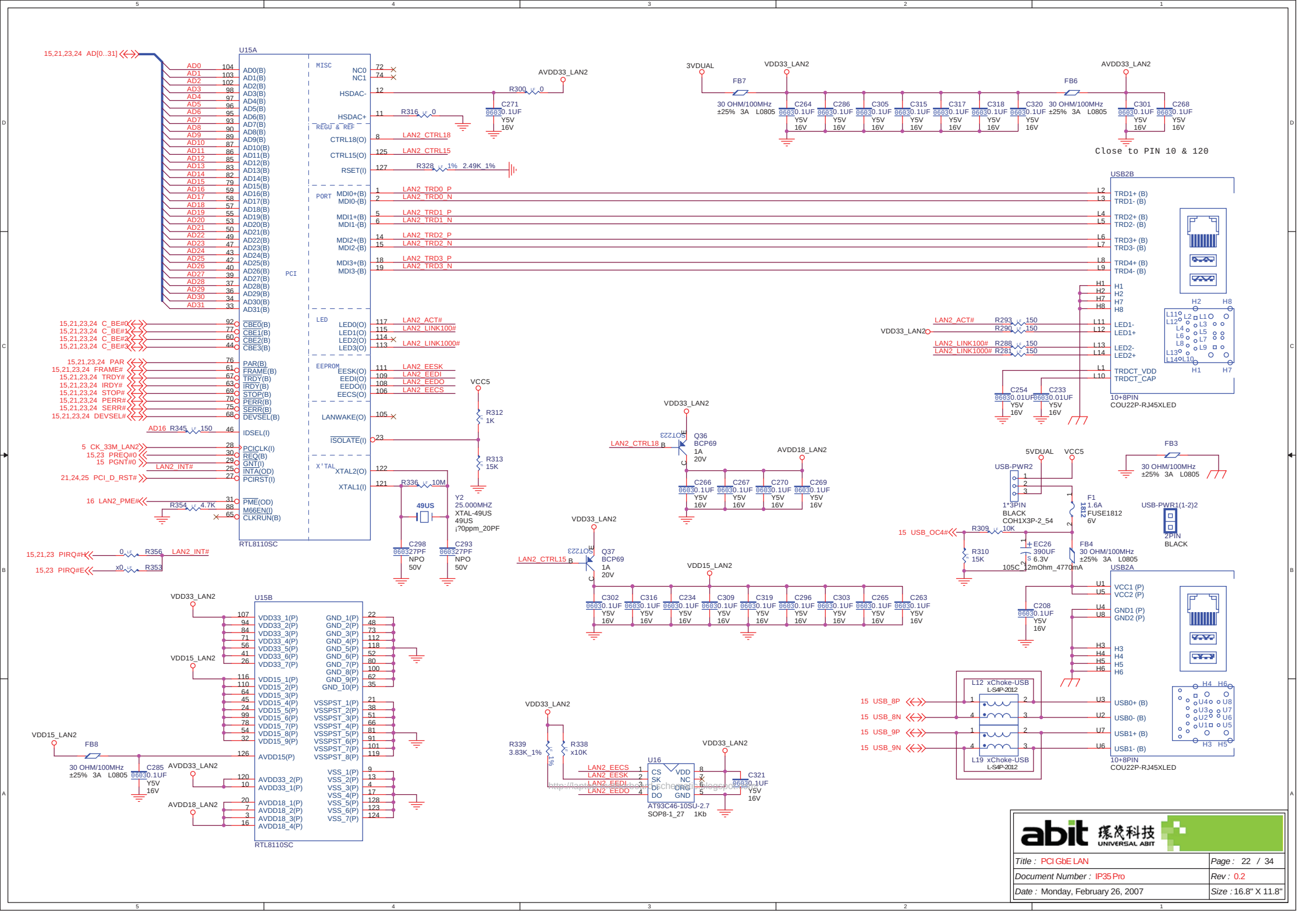


Title : PCI EXPRESS PATA CONTROLLER	Page : 19 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

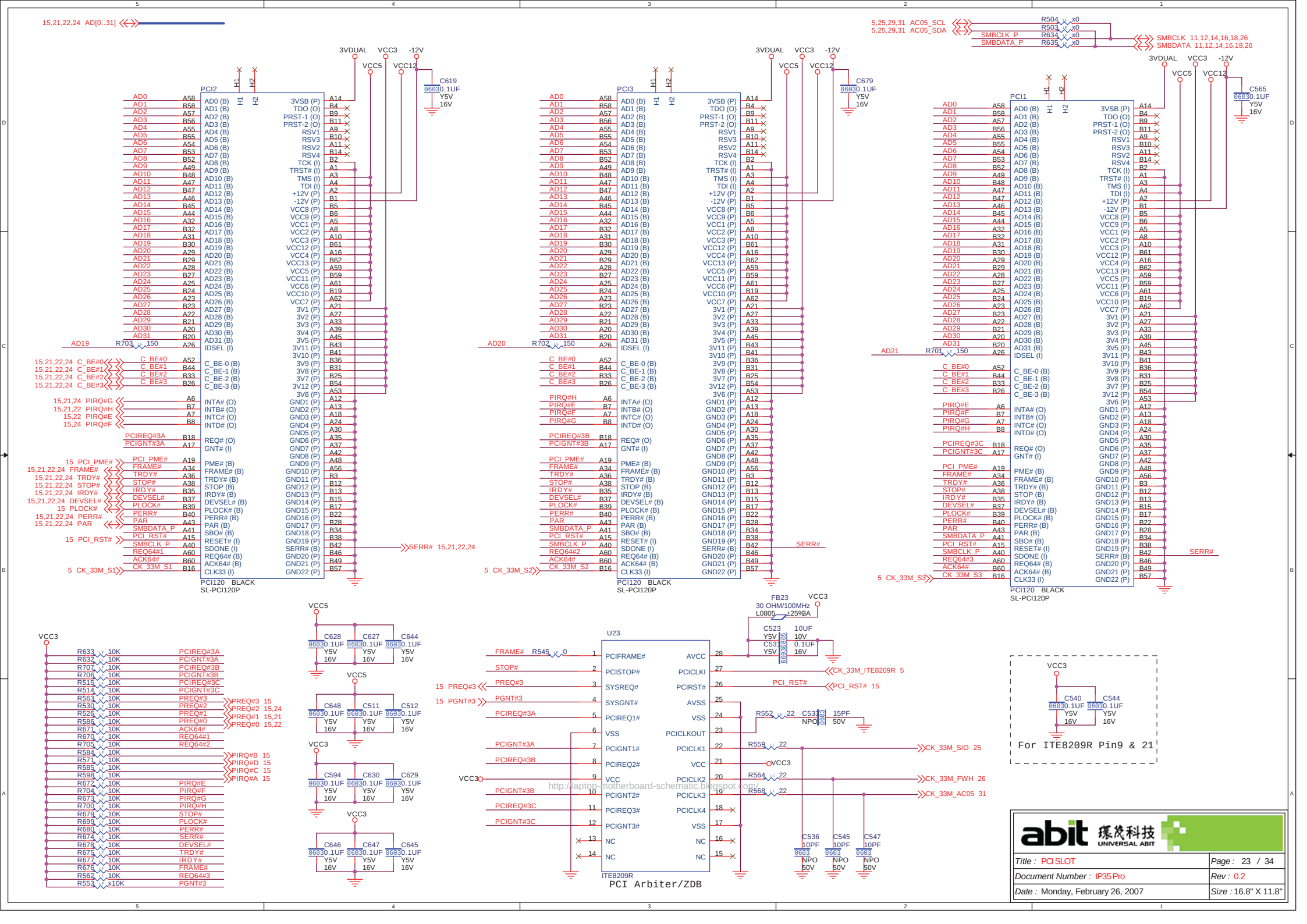

VCC5A NORMAL VOLTAGE = 4.7V (2%)
GND
GND_AUDIO
VCC5
VCC5SB
FB48
FB47
x30 OHM/100MHz ±25% 3A L0805
30 OHM/100MHz ±25% 3A L0805
C689 0603 1UF Y5V 16V
Q83
VIN
VOUT
GND
EN
ADJ
RT9179PB
REG-SOT23-5P
300mA
R767 3.01K_1%
R762 1K_1%
FB46
30 OHM/100MHz ±25% 3A L0805
VCC5A
VCC3
C692 0805 10UF Y5V 10V
C673 0603 0.1UF Y5V 16V
C690 0805 10UF Y5V 10V
C636 0603 0.1UF Y5V 16V
C665 0805 10UF Y5V 10V
C662 0603 0.1UF Y5V 16V
C650 0603 0.1UF Y5V 16V
Place close to U31 pin25.
Place close to U31 pin38.
FB24
AUDIO1B AUDIO1A
pin 47
50 mils gap
pin 12
ALC888 CODEC
GND_EMI_AUDIO
GND
GND_AUDIO
For PCB Layout copper area and placement
FB3
16 ACZ_RST#
16 ACZ_SYNC
16 ACZ_SDOUT
16 ACZ_SDIN0
ACZ_RST#
ACZ_SYNC
ACZ_SDOUT
ACZ_SDIN0
16 ACZ_BIT_CLK
ACZ_BIT_CLK R721 10
C659 0603 22PF NPO 50V
FP_OUT_L EC44 82UF 6.3V 105C_45mOhm_1700mA
FP_OUT_R EC43 82UF 6.3V 105C_45mOhm_1700mA
CD_L C622 1UF Y5V 16V
CD_REF C613 1UF Y5V 16V
CD_R C621 1UF Y5V 16V
MIC2_L C623 1UF Y5V 16V
MIC2_R C614 1UF Y5V 16V
SENSE_A
SURR_OUT_L C681 1UF Y5V 16V
SURR_OUT_R C677 1UF Y5V 16V
16,26 ICH_SPKR
ICH_SPKR R694 10K
PC_BEEP C640 1UF Y5V 16V
C637 0603 0.1UF Y5V 16V
R690 1K
C682 0805 10UF Y5V 10V
ALC888-GR,REV:A1
3139-00-0086
U33
ACZ_RST# (I)
ACZ_SYNC (I)
ACZ_SDOUT (I)
ACZ_SDIN (O)
ACZ_BIT_CLK (I)
FP_OUT_L (B)
FP_OUT_R (B)
CD_L (I)
CD_REF (I)
CD_R (I)
MIC2_L (B)
MIC2_R (B)
SENSE_A (I)
VREF_LINE1_R (O)
SURR_L (O)
SURR_R (O)
PC_BEEP (I)
GPIO0 (B)
GPIO1 (B)
GND1 (P)
GND2 (P)
AGND1 (P)
AGND2 (P)
FRONT_OUT_L (B)
FRONT_OUT_R (B)
LINE_IN_L (B)
LINE_IN_R (B)
MIC1_L (B)
MIC1_R (B)
CENTER_OUT (O)
LFE_OUT (O)
REARSURR_OUT_L (B)
REARSURR_OUT_R (B)
SENSE_B (I)
DCVOL (I)
NC/JDREF
SPDIFO (O)
SPDIFI/EAPD (B)
VREF (O)
VREF_MIC1_L (O)
VREF_LINE1_L (O)
VREF_MIC2 (O)
VREF_LINE2 (O)
VREF_MIC1_R (O)
VCC3_1 (P)
VCC3_2 (P)
VCC5A_1 (P)
VCC5A_2 (P)
ALC888-GR
LQFP48-0_5
EC46 82UF 6.3V 105C_45mOhm_1700mA FRONT_OUT_L
EC47 82UF 6.3V 105C_45mOhm_1700mA FRONT_OUT_R
C625 10UF Y5V 10V LINE_IN_L
C624 10UF Y5V 10V LINE_IN_R
C626 10UF Y5V 10V MIC1_L
C609 10UF Y5V 10V MIC1_R
C680 1UF Y5V 16V CENTER_OUT
C676 1UF Y5V 16V LFE_OUT
C674 1UF Y5V 16V REARSURR_OUT_L
C675 1UF Y5V 16V REARSURR_OUT_R
SENSE_B
EXT_VOL_CTRL R728 10K
JDREF R742 1% 20K_1%
VCC5A
SPDIFO
SPDIFI
C639 0805 10UF Y5V 10V
C643 0603 1UF Y5V 16V
VREF_MIC1_L
VREF_MIC2
VREF_MIC1_R
C651 0603 1UF Y5V 16V
C658 0603 1UF Y5V 16V
C601 0603 1UF Y5V 16V
C660 0603 1UF Y5V 16V
VCC5A
VCC3
FRONT PANEL AUDIO
D14
VREF_MIC2
K2
K1
R669 4.7K
R657 4.7K
SOT23
BAT54A
D-SOT23-K1AK2
30V 200mA
16 ACZ_DET
ACZ_DET
MIC2_L
MIC2_R
C602 0603 x4700PF X7R 16V
C687 0603 x4700PF X7R 16V
FP-AUDIO1
AVCC
MIC2_L
MIC2_R
FRO_R
MIC2_JD
FRO_L
LINE2_JD
F_IO_SEN
AGND
FP_OUT_R
JD_MIC2
FP_OUT_L
JD_LINEIN2
SENSE_B
JD_LINEIN2 R764 1% 39.2K_1%
JD_MIC2 R763 1% 20K_1%
5*2 PIN GREEN
COH2X5P-2_54-CP8
VCC5
SPDIFO1
SPDIFO
4*1PIN BLACK
COH1X4P-2_54-CP2
CD1
L(O)
GND1(P)
GND2(P)
R(O)
CD_L
CD_REF
CD_R
4*1PIN BLACK
COB1X4P-2_54-CD
JD_FRONT R715 1% 5.11K_1% SENSE_A
JD_LINEIN1 R708 1% 10K_1%
JD_MIC1 R720 1% 20K_1%
JD_REARSURR R724 1% 39.2K_1%
JD_SURR R697 1% 5.11K_1% SENSE_B
JD_CENTER R693 1% 10K_1%
VREF Decouple Caps
1) Place close to codec as possible as you can.
2) Signal trace routed through or beneath is forbidden.
VCC5
C62 0603 0.1UF Y5V 16V
SPDIFO
OPT-OUT1
GND1 (P)
VCC (P)
SPDIF_O (I)
GND2 (P)
GND3 (P)
Transmitter
OPTTX
CON5P-TOTX
VCC5
L3
47uH
LD-10-0_91
±10%
SPDIFI
C63 0603 1UF Y5V 16V
OPT-IN1
SPDIF_I (B)
GND1 (P)
VCC (P)
GND2 (P)
GND3 (P)
Receiver
OPTRX
CON5P-TOTX
Place close to OPT-IN1.
GND_AUDIO
GND_EMI_AUDIO
LINE_IN_L
JD_LINEIN1
LINE_IN_R
FB27 L0603 150 OHM/100MHz ±25% 400mA
FB28 L0603 150 OHM/100MHz ±25% 400mA
C599 0603 1000PF X7R 16V
C598 0603 1000PF X7R 16V
AUDIO1B
LINEIN_L (B)
NC1
NC2
LINEIN_R (B)
HOLE4
BLUE
GREEN
PINK
FRONT_OUT_L
JD_FRONT
FRONT_OUT_R
FB29 L0603 150 OHM/100MHz ±25% 400mA
FB30 L0603 150 OHM/100MHz ±25% 400mA
C604 0603 1000PF X7R 16V
C600 0603 1000PF X7R 16V
FRONT_L (I)
NC3
NC4
FRONT_R (I)
HOLE5
R656 4.7K VREF_MIC1_L
R655 4.7K VREF_MIC1_R
MIC1_L
MIC1_R
R649 1K FB32 L0603 150 OHM/100MHz ±25% 400mA
JD_MIC1
R648 1K FB33 L0603 150 OHM/100MHz ±25% 400mA
C611 0603 x4700PF X7R 16V
C612 0603 x4700PF X7R 16V
C615 0603 1000PF X7R 16V
C608 0603 1000PF X7R 16V
MIC_REF (B)
NC5
NC6
MIC_IN (I)
HOLE6
GND
26PIN
CON26P-PHONEX6
GND_AUDIO
GND_EMI_AUDIO
CENTER_OUT
JD_CENTER
LFE_OUT
FB35 L0603 150 OHM/100MHz ±25% 400mA
FB38 L0603 150 OHM/100MHz ±25% 400mA
C635 0603 1000PF X7R 16V
C620 0603 1000PF X7R 16V
AUDIO1A
CENTER (I)
NC1
NC2
BASS (I)
HOLE1
ORANGE
BLACK
GRAY
REARSURR_OUT_L
JD_REARSURR
REARSURR_OUT_R
FB34 L0603 150 OHM/100MHz ±25% 400mA
FB36 L0603 150 OHM/100MHz ±25% 400mA
C632 0603 1000PF X7R 16V
C617 0603 1000PF X7R 16V
RSR_L (I)
NC3
NC4
RSR_R (I)
HOLE2
SURR_OUT_L
JD_SURR
SURR_OUT_R
FB31 L0603 150 OHM/100MHz ±25% 400mA
FB37 L0603 150 OHM/100MHz ±25% 400mA
C634 0603 1000PF X7R 16V
C605 0603 1000PF X7R 16V
SR_L (I)
NC5
NC6
SR_R (I)
HOLE3
GND
26PIN
CON26P-PHONEX6
FB26
30 OHM/100MHz ±25% 3A L0805
http://laptop-motherboard-schematic.blogspot.com/
abit
UNIVERSAL ABIT
Title : HD AUDIO CODEC
Page : 20 / 34
Document Number : IP35 Pro
Rev : 0.2
Date : Monday, February 26, 2007
Size : 16.8" X 11.8"

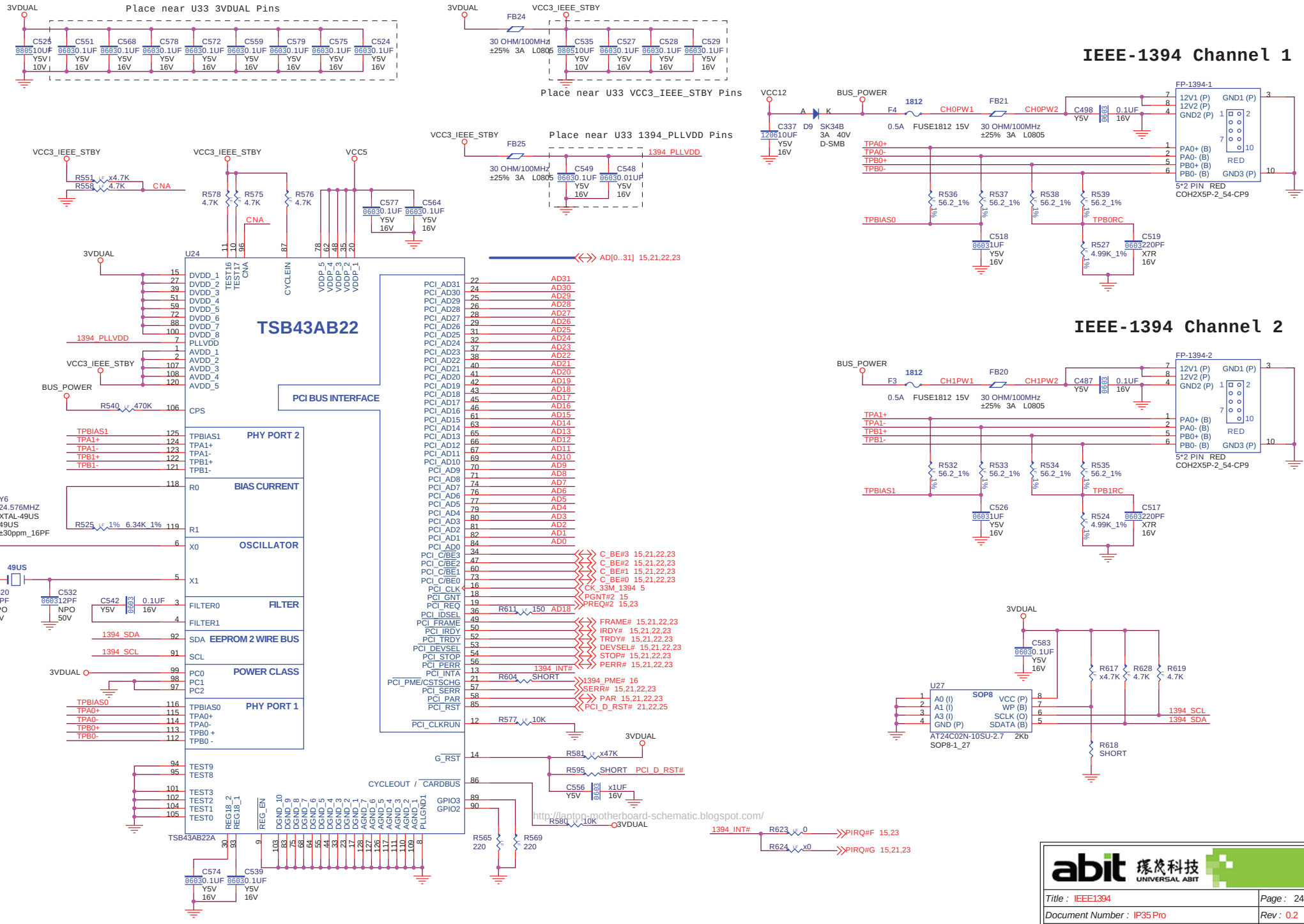


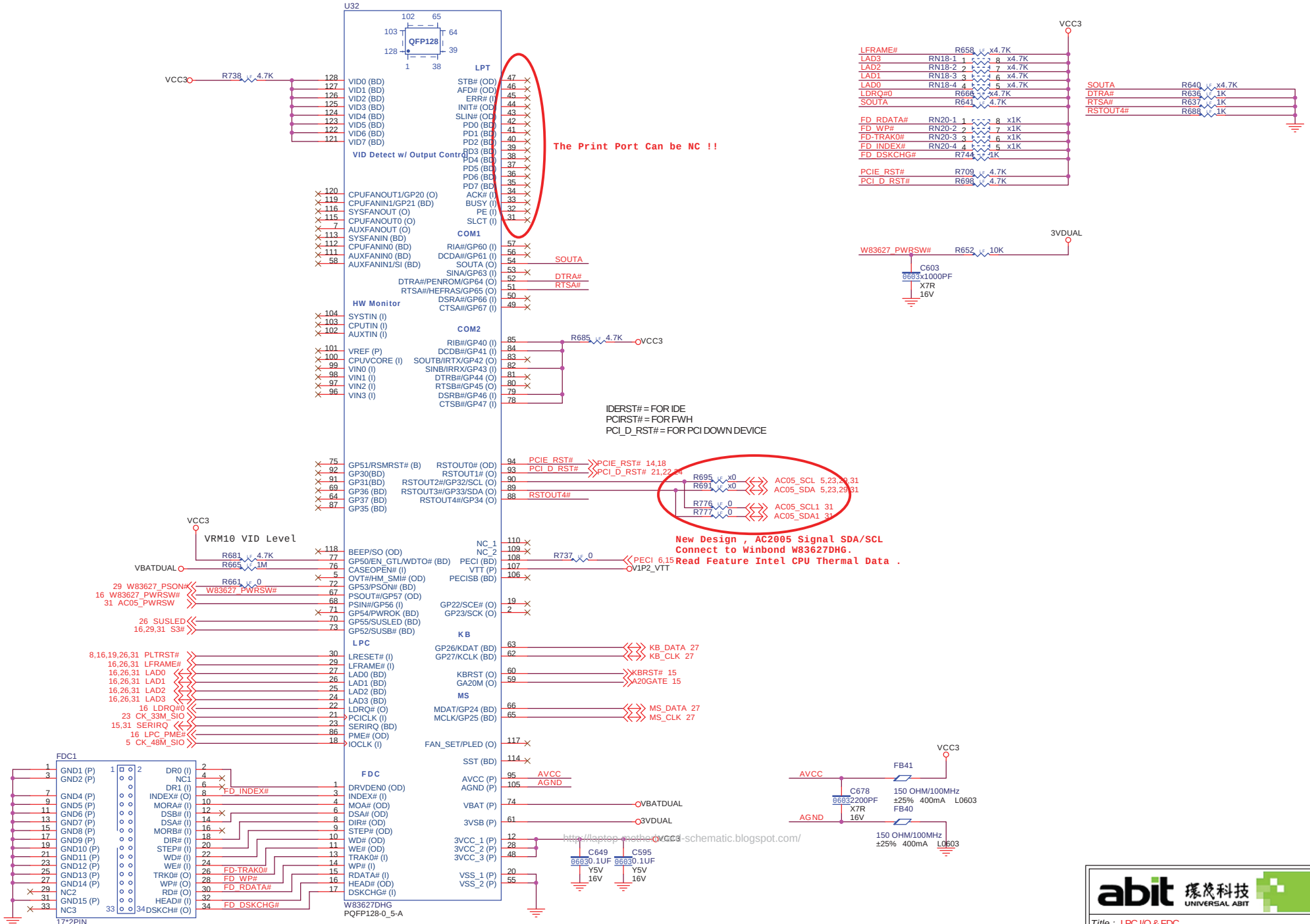
Title : PCI GbE LAN	Page : 21 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"



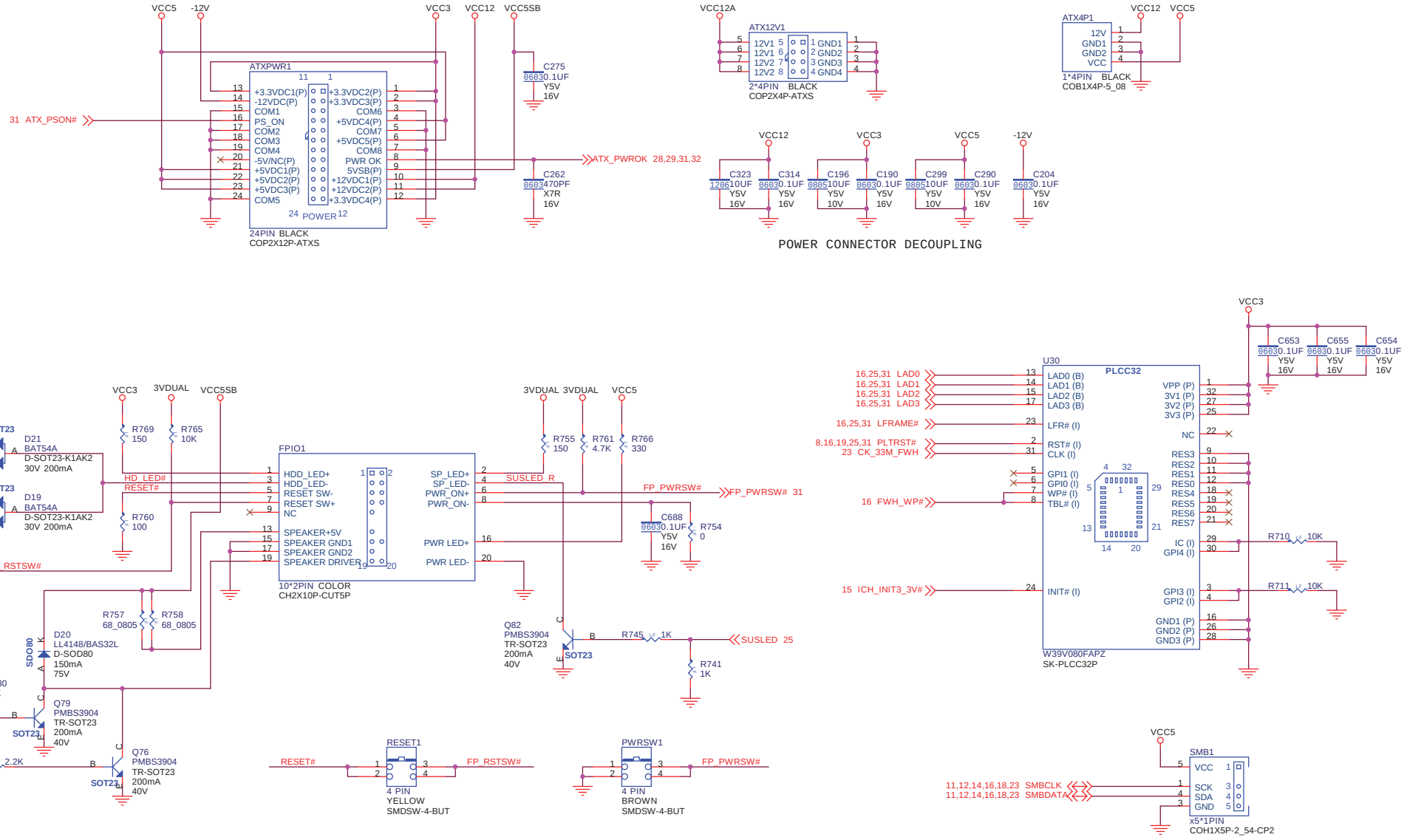
Title : PCI GbE LAN	Page : 22 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"


15,21,22,24 AD[0..31]
PCI2
PCI120 BLACK
SL-PCI120P
PCI3
PCI120 BLACK
SL-PCI120P
PCI1
PCI120 BLACK
SL-PCI120P
5,25,29,31 AC05_SCL
5,25,29,31 AC05_SDA
SMBCLK_P
SMBDATA_P
SMBCLK 11,12,14,16,18,26
SMBDATA 11,12,14,16,18,26
3VDUAL
VCC3
-12V
VCC5
VCC12
C619
C679
C565
0603 0.1UF
Y5V
16V
SERR# 15,21,22,24
SERR#
U23
ITE8209R
PCI Arbiter/ZDB
FB23
30 OHM/100MHz
L0805 ±25%6A
For ITE8209R Pin9 & 21
http://laptop-motherboard-schematic.blogspot.com/
abit
UNIVERSAL ABIT
Title : PCI SLOT
Page : 23 / 34
Document Number : IP35 Pro
Rev : 0.2
Date : Monday, February 26, 2007
Size : 16.8" X 11.8"

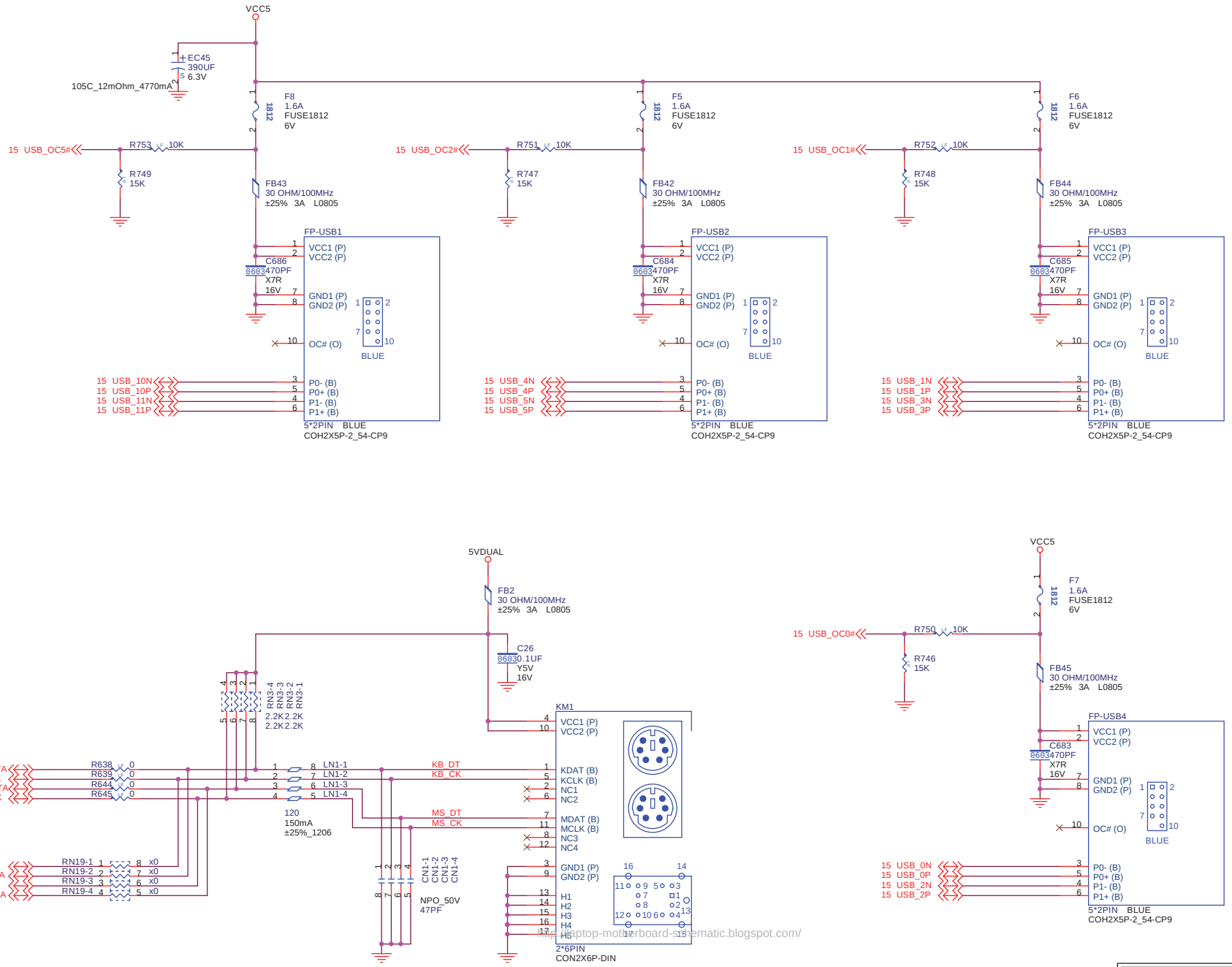

Place near U33 3VDUAL Pins
Place near U33 VCC3_IEEE_STBY Pins
Place near U33 1394_PLLVDD Pins
IEEE-1394 Channel 1
IEEE-1394 Channel 2
TSB43AB22
PCI BUS INTERFACE
PHY PORT 2
BIAS CURRENT
OSCILLATOR
FILTER
EEPROM 2 WIRE BUS
POWER CLASS
PHY PORT 1
http://laptop-motherboard-schematic.blogspot.com/
abit 環旭科技 UNIVERSAL ABIT
Title : IEEE1394
Page : 24 / 34
Document Number : IP35 Pro
Rev : 0.2
Date : Monday, February 26, 2007
Size : 16.8" X 11.8"



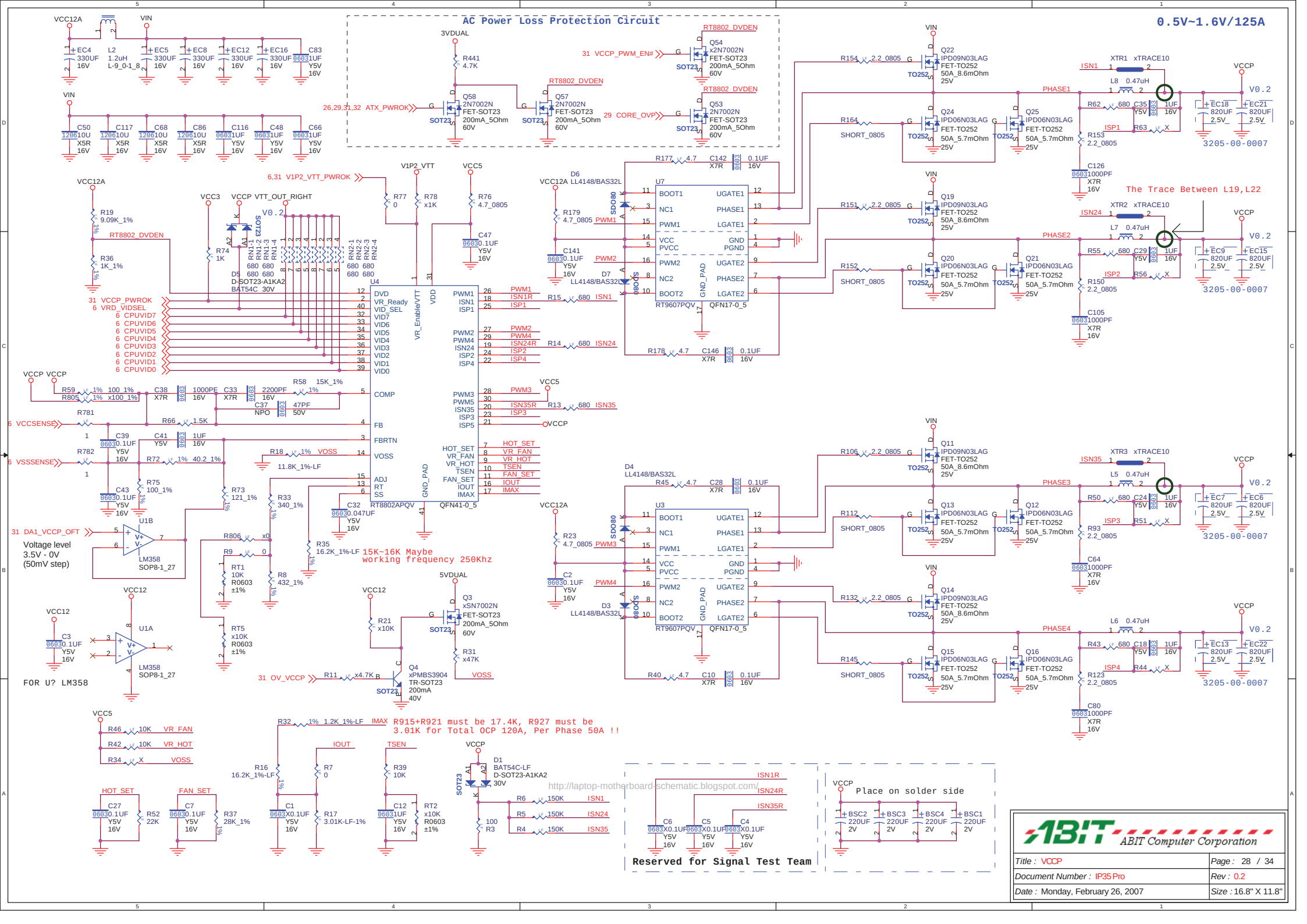
Title : LPC I/O & FDC	Page : 25 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

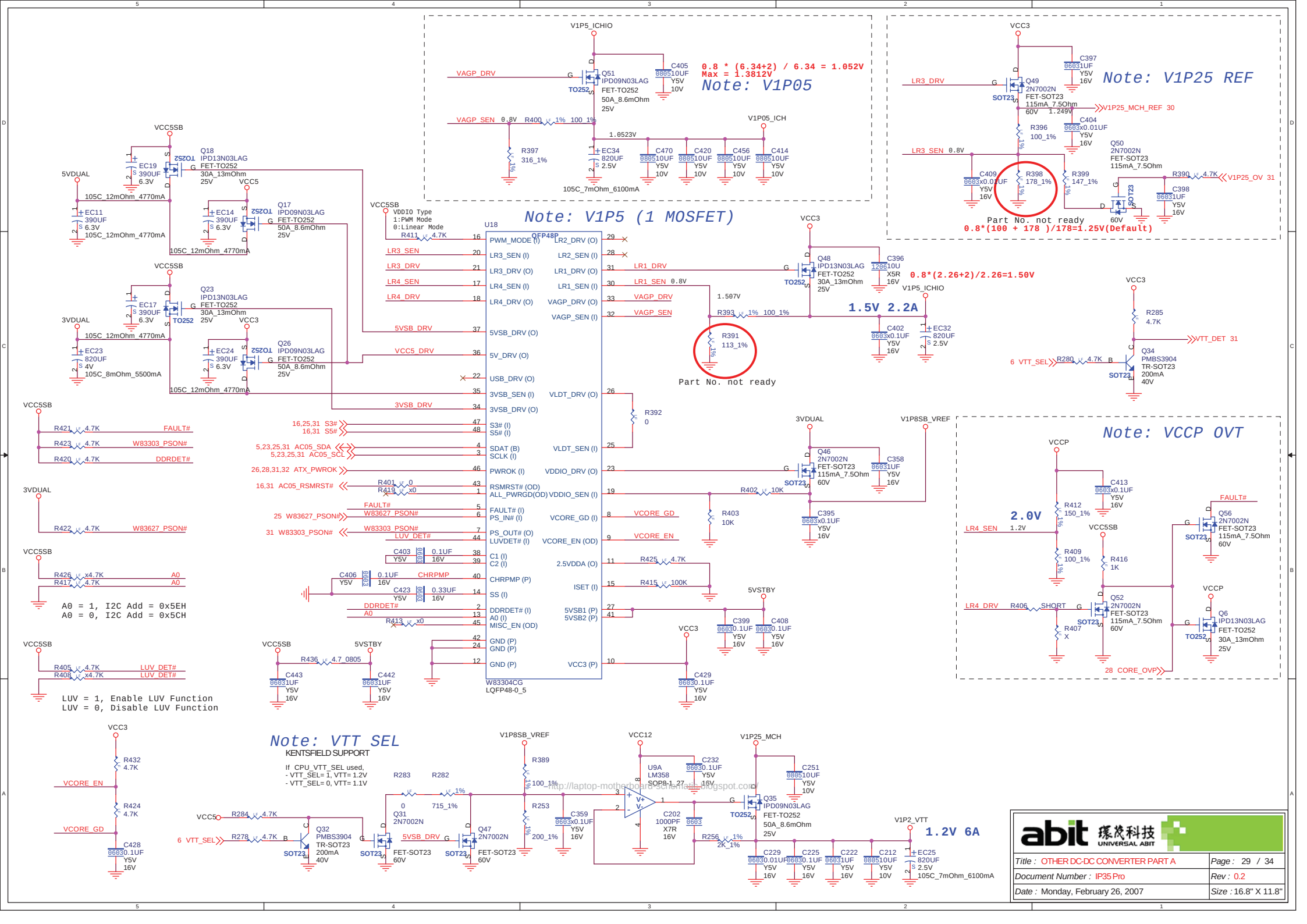


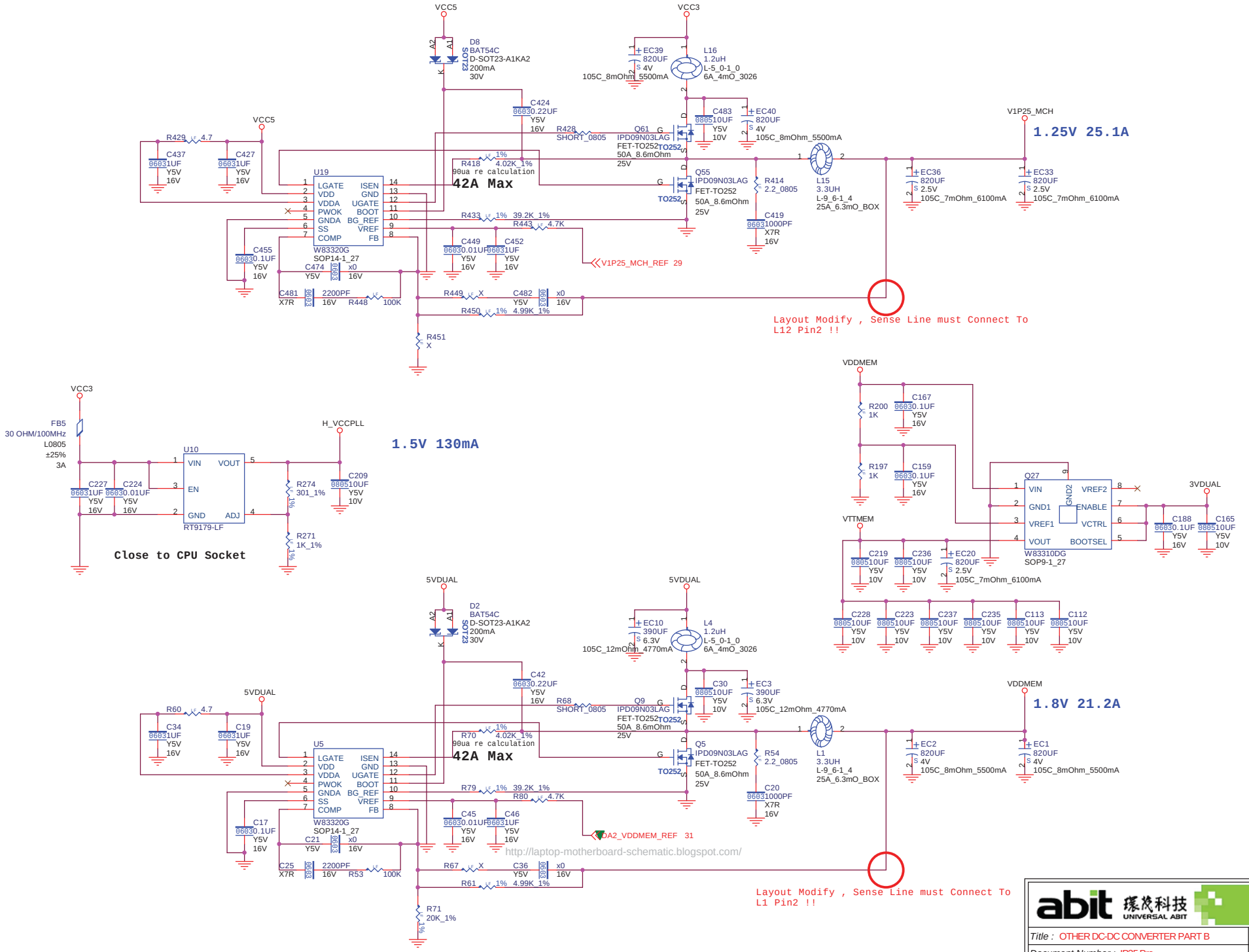
Title : FPIO, FWH, SMB & ATX	Page : 26 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"



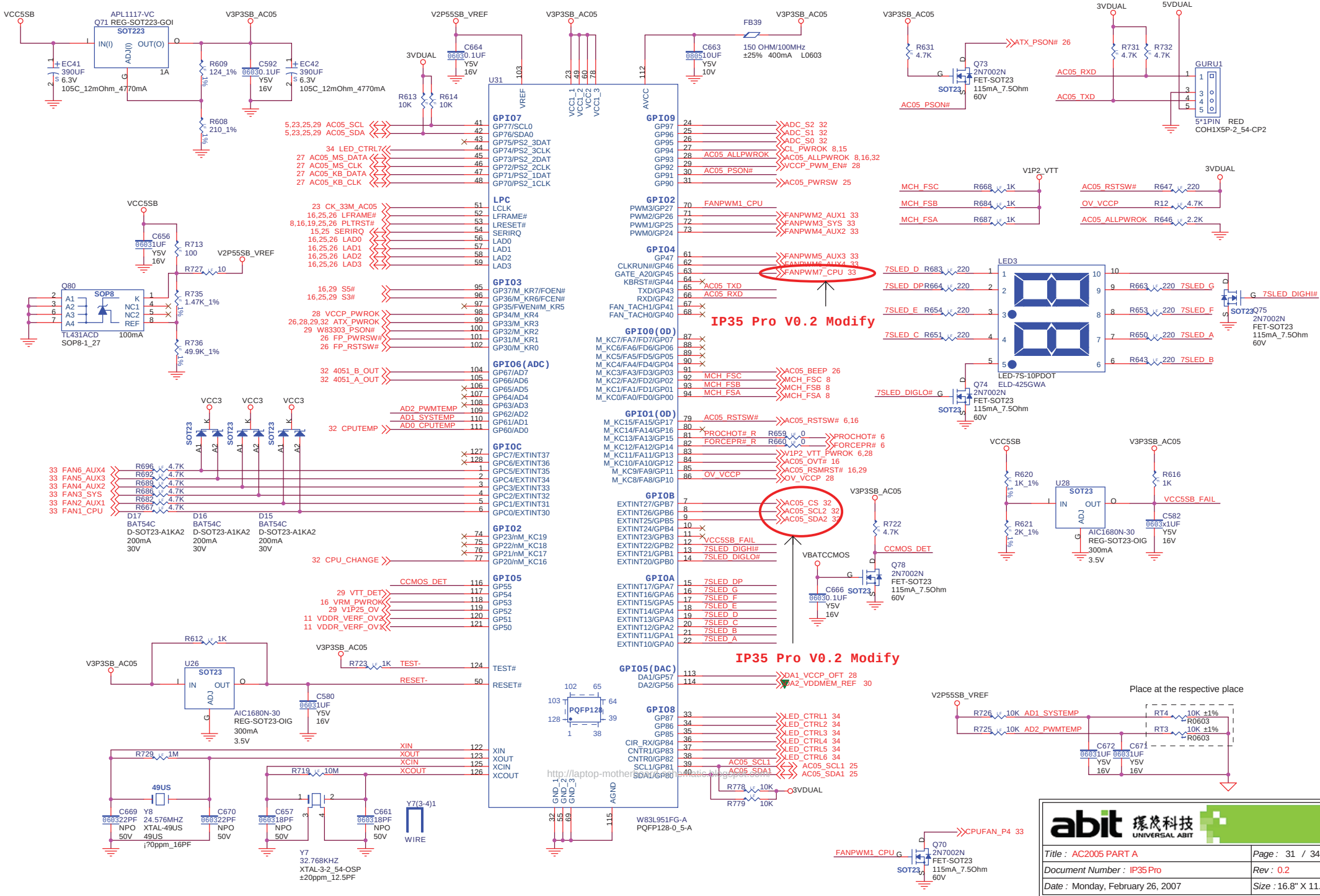
Title : KB, MS, FP-USB	Page : 27 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

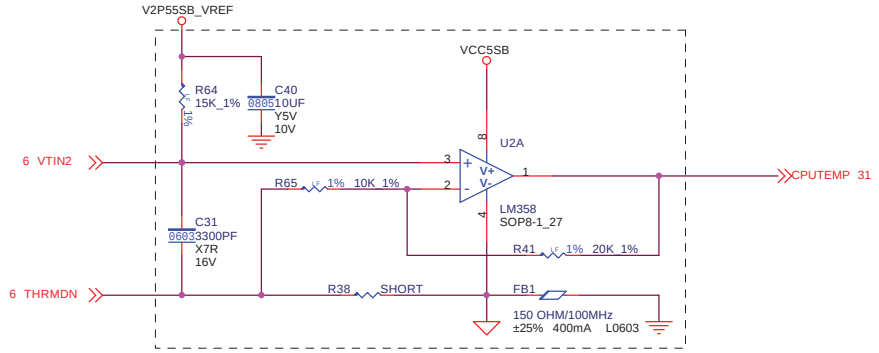

AC Power Loss Protection Circuit
0.5V~1.6V/125A
The Trace Between L19,L22
15K~16K Maybe working frequency 250Khz
R915+R921 must be 17.4K, R927 must be 3.01K for Total OCP 120A, Per Phase 50A !!
FOR U? LM358
Voltage level 3.5V - 0V (50mV step)
Place on solder side
Reserved for Signal Test Team
http://laptop-motherboard-schematic.blogspot.com/
ABIT Computer Corporation
Title : VCCP
Page : 28 / 34
Document Number : IP35 Pro
Rev : 0.2
Date : Monday, February 26, 2007
Size : 16.8" X 11.8"

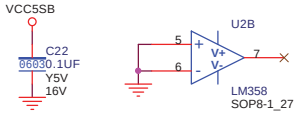

Note: V1P05
V1P5_ICHIO
VAGP_DRV
Q51
IPD09N03LAG
FET-TO252
50A_8.6mOhm
25V
TO252
C405
080510UF
Y5V
10V
0.8 * (6.34+2) / 6.34 = 1.052V
Max = 1.3812V
VAGP_SEN 0.8V
R400 1% 100_1%
1.0523V
V1P05_ICH
R397
316_1%
EC34
820UF
2.5V
C470
C420
C456
C414
105C_7mOhm_6100mA
Note: V1P25 REF
VCC3
LR3_DRV
Q49
2N7002N
FET-SOT23
115mA_7.5Ohm
60V
1.249V
SOT23
C397
06031UF
Y5V
16V
V1P25_MCH_REF 30
R396
100_1%
C404
0603x0.01UF
LR3_SEN 0.8V
Q50
2N7002N
FET-SOT23
115mA_7.5Ohm
C409
0603x0.01UF
R398
178_1%
R399
147_1%
R390
4.7K
V1P25_OV 31
C398
Part No. not ready
0.8*(100 + 178)/178=1.25V(Default)
Note: V1P5 (1 MOSFET)
U18
QFP48P
W83304CG
LQFP48-0_5
VDDIO Type
1:PWM Mode
0:Linear Mode
R411 4.7K
PWM_MODE (I)
LR3_SEN
LR3_SEN (I)
LR3_DRV
LR3_DRV (O)
LR4_SEN
LR4_SEN (I)
LR4_DRV
LR4_DRV (O)
5VSB_DRV
5VSB_DRV (O)
VCC5_DRV
5V_DRV (O)
USB_DRV (O)
3VSB_SEN (I)
3VSB_DRV
3VSB_DRV (O)
S3# (I)
S5# (I)
SDAT (B)
SCLK (I)
PWROK (I)
RSMRST# (OD)
ALL_PWRGD(OD)
FAULT# (I)
PS_IN# (I)
PS_OUT# (O)
LUVDET# (I)
C1 (I)
C2 (I)
CHRPMP (P)
SS (I)
DDRDET# (I)
A0 (I)
MISC_EN (OD)
GND (P)
LR2_DRV (O)
LR2_SEN (I)
LR1_DRV (O)
LR1_SEN (I)
VAGP_DRV (O)
VAGP_SEN (I)
VLDT_DRV (O)
VLDT_SEN (I)
VDDIO_DRV (O)
VDDIO_SEN (I)
VCORE_GD (I)
VCORE_EN (OD)
2.5VDDA (O)
ISET (I)
5VSB1 (P)
5VSB2 (P)
VCC3 (P)
R392
0
R403
10K
R425 4.7K
R415 100K
C403 0.1UF
C406 0.1UF
CHRPMP
C423 0.33UF
DDRDET#
R413 x0
R401 0
R419 x0
R436 4.7_0805
C443
C442
C399
C408
C429
Q48
IPD13N03LAG
FET-TO252
30A_13mOhm
25V
C396
120610U
X5R
16V
0.8*(2.26+2)/2.26=1.50V
1.5V 2.2A
R393 1% 100_1%
1.507V
R391
113_1%
Part No. not ready
C402
EC32
820UF
2.5V
Q46
2N7002N
FET-SOT23
115mA_7.5Ohm
60V
C358
C395
R402 10K
R285
4.7K
Q34
PMBS3904
TR-SOT23
200mA
40V
VTT_DET 31
6 VTT_SEL
R280 4.7K
Note: VCCP OVT
VCCP
2.0V
LR4_SEN 1.2V
R412
150_1%
C413
0603x0.1UF
R409
100_1%
R416
1K
LR4_DRV
R406 SHORT
R407
X
Q52
2N7002N
FET-SOT23
115mA_7.5Ohm
60V
Q56
2N7002N
FET-SOT23
115mA_7.5Ohm
60V
Q6
IPD13N03LAG
FET-TO252
30A_13mOhm
25V
28 CORE_OVP
Q18
IPD13N03LAG
FET-TO252
30A_13mOhm
25V
EC19
390UF
6.3V
105C_12mOhm_4770mA
Q17
IPD09N03LAG
FET-TO252
50A_8.6mOhm
25V
EC11
390UF
6.3V
EC14
390UF
6.3V
Q23
IPD13N03LAG
FET-TO252
30A_13mOhm
25V
EC17
390UF
6.3V
EC23
820UF
4V
105C_8mOhm_5500mA
Q26
IPD09N03LAG
FET-TO252
50A_8.6mOhm
25V
EC24
390UF
6.3V
R421 4.7K FAULT#
R423 4.7K W83303_PSON#
R420 4.7K DDRDET#
R422 4.7K W83627_PSON#
R426 x4.7K A0
R417 4.7K A0
A0 = 1, I2C Add = 0x5EH
A0 = 0, I2C Add = 0x5CH
R405 4.7K LUV_DET#
R408 x4.7K LUV_DET#
LUV = 1, Enable LUV Function
LUV = 0, Disable LUV Function
16,25,31 S3#
16,31 S5#
5,23,25,31 AC05_SDA
5,23,25,31 AC05_SCL
26,28,31,32 ATX_PWROK
16,31 AC05_RSMRST#
25 W83627_PSON#
31 W83303_PSON#
Note: VTT SEL
KENTSFIELD SUPPORT
If CPU_VTT_SEL used,
- VTT_SEL= 1, VTT= 1.2V
- VTT_SEL= 0, VTT= 1.1V
R432 4.7K
VCORE_EN
R424 4.7K
VCORE_GD
C428 0.1UF
R283 0 715_1%
R282
R284 4.7K
R278 4.7K
Q32
PMBS3904
TR-SOT23
200mA
40V
Q31
2N7002N
FET-SOT23
60V
Q47
2N7002N
FET-SOT23
60V
R389
100_1%
R253
200_1%
C359
0603x0.1UF
U9A
LM358
SOP8-1.27
C232
C202
1000PF
X7R
16V
Q35
IPD09N03LAG
FET-TO252
50A_8.6mOhm
25V
R256 2K 1%
C229
C225
C222
C212
EC25
820UF
2.5V
105C_7mOhm_6100mA
1.2V 6A
http://laptop-motherboard-schematic.blogspot.com/
abit
UNIVERSAL ABIT
Title : OTHER DC-DC CONVERTER PART A
Page : 29 / 34
Document Number : IP35 Pro
Rev : 0.2
Date : Monday, February 26, 2007
Size : 16.8" X 11.8"

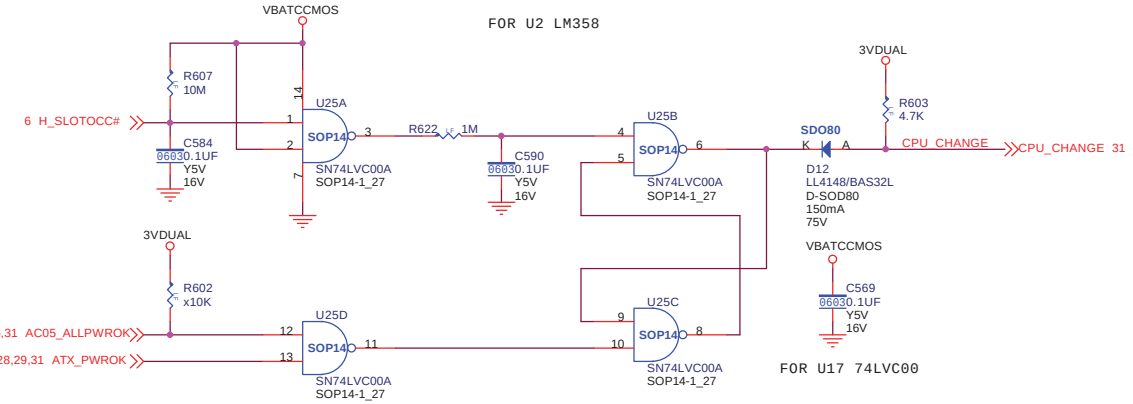


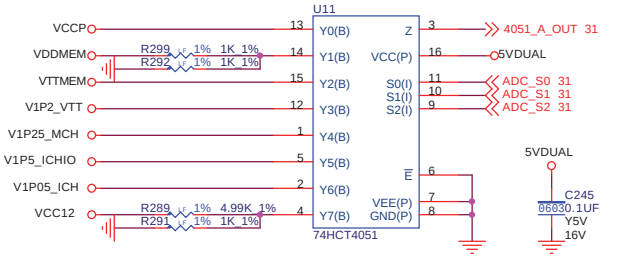
abit 環旭科技 UNIVERSAL ABIT	
Title : OTHER DC-DC CONVERTER PART B	Page : 30 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"

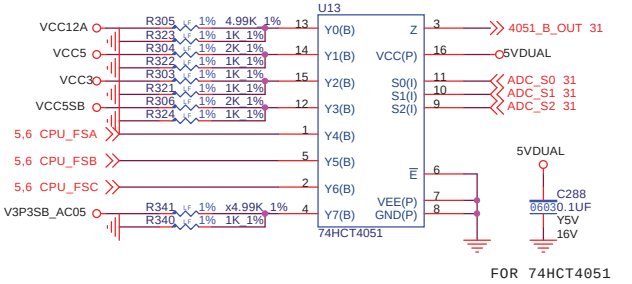

IP35 Pro V0.2 Modify
IP35 Pro V0.2 Modify
U31
W83L951FG-A
PQFP128-0_5-A
APL1117-VC
Q71 REG-SOT223-GOI
AIC1680N-30
REG-SOT223-OIG
300mA
3.5V
TL431ACD
SOP8-1_27
100mA
LED-7S-10PDOT
ELD-425GWA
Q73 2N7002N FET-SOT23 115mA_7.5Ohm 60V
Q74 2N7002N FET-SOT23 115mA_7.5Ohm 60V
Q78 2N7002N FET-SOT23 115mA_7.5Ohm 60V
Q70 2N7002N FET-SOT23 115mA_7.5Ohm 60V
5*1PIN RED
COH1X5P-2_54-CP2
Y8 24.576MHZ XTAL-49US 49US ¡?0ppm_16PF
Y7 32.768KHZ XTAL-3-2_54-OSP ±20ppm_12.5PF
Place at the respective place
http://laptop-motherboard-schematic.blogspot.com/
abit 環旭科技 UNIVERSAL ABIT
Title : AC2005 PART A
Page : 31 / 34
Document Number : IP35 Pro
Rev : 0.2
Date : Monday, February 26, 2007
Size : 16.8" X 11.8"





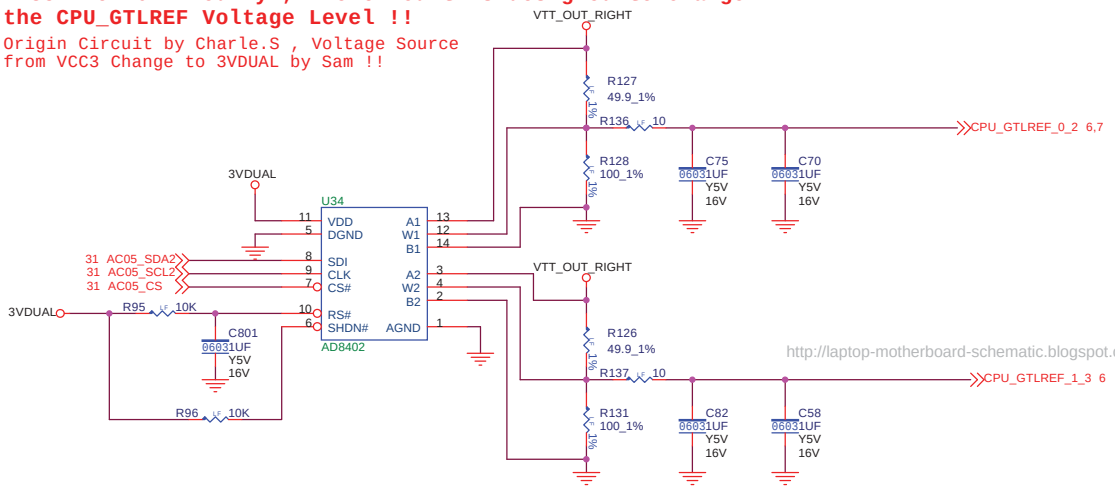




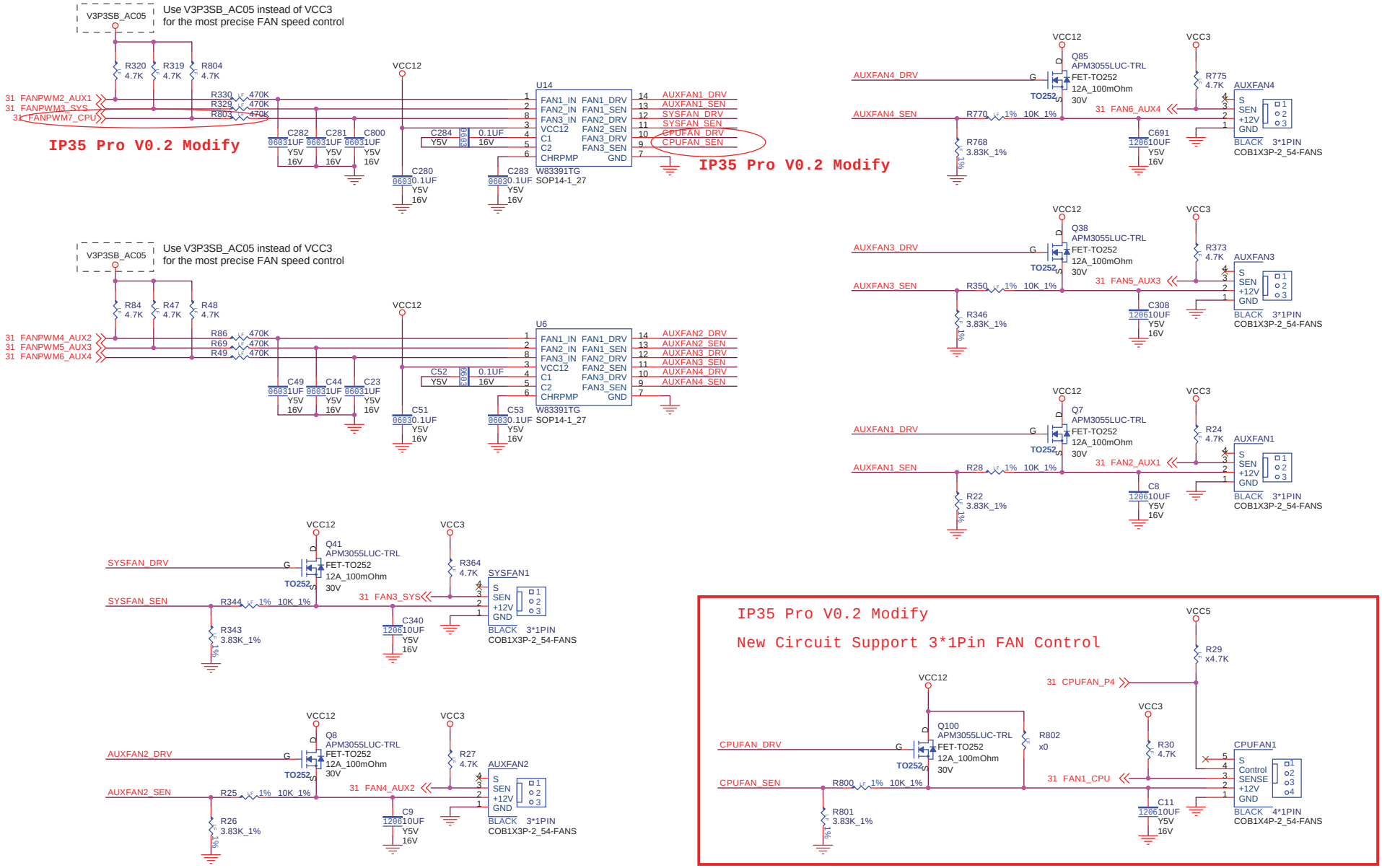


IP35 Pro V0.2 Modify , The Circuit is designed to change the CPU_GTLREF Voltage Level !!

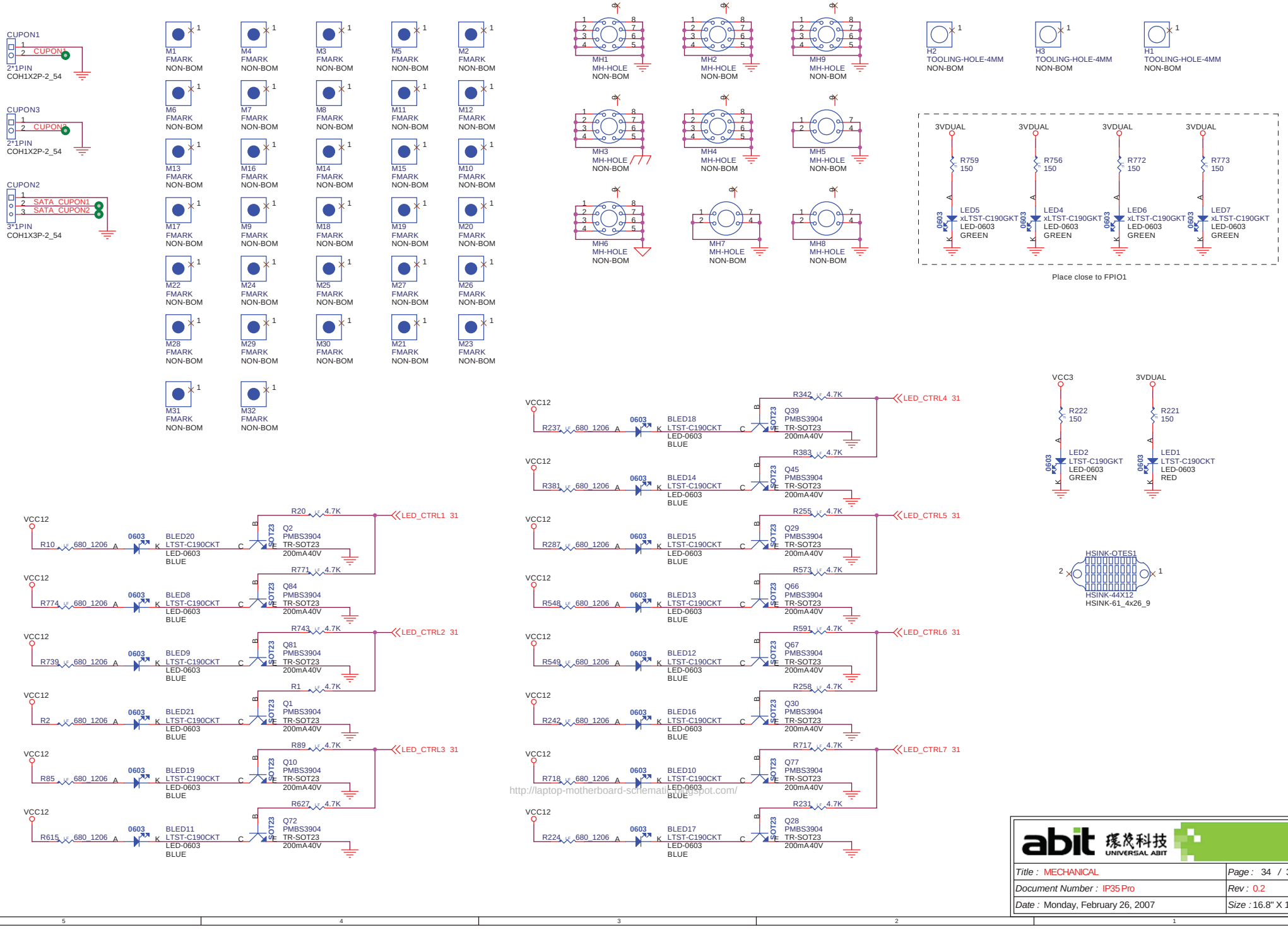
Origin Circuit by Charle.S , Voltage Source from VCC3 Change to 3VDUAL by Sam !!



Title : AC2005 PART B	Page : 32 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"



Title : AC2005 PART C	Page : 33 / 34
Document Number : IP35 Pro	Rev : 0.2
Date : Monday, February 26, 2007	Size : 16.8" X 11.8"


CUPON1
CUPON
2*1PIN
COH1X2P-2_54
CUPON3
CUPON
2*1PIN
COH1X2P-2_54
CUPON2
SATA_CUPON1
SATA_CUPON2
3*1PIN
COH1X3P-2_54
M1 FMARK NON-BOM
M4 FMARK NON-BOM
M3 FMARK NON-BOM
M5 FMARK NON-BOM
M2 FMARK NON-BOM
M6 FMARK NON-BOM
M7 FMARK NON-BOM
M8 FMARK NON-BOM
M11 FMARK NON-BOM
M12 FMARK NON-BOM
M13 FMARK NON-BOM
M16 FMARK NON-BOM
M14 FMARK NON-BOM
M15 FMARK NON-BOM
M10 FMARK NON-BOM
M17 FMARK NON-BOM
M9 FMARK NON-BOM
M18 FMARK NON-BOM
M19 FMARK NON-BOM
M20 FMARK NON-BOM
M22 FMARK NON-BOM
M24 FMARK NON-BOM
M25 FMARK NON-BOM
M27 FMARK NON-BOM
M26 FMARK NON-BOM
M28 FMARK NON-BOM
M29 FMARK NON-BOM
M30 FMARK NON-BOM
M21 FMARK NON-BOM
M23 FMARK NON-BOM
M31 FMARK NON-BOM
M32 FMARK NON-BOM
MH1 MH-HOLE NON-BOM
MH2 MH-HOLE NON-BOM
MH9 MH-HOLE NON-BOM
MH3 MH-HOLE NON-BOM
MH4 MH-HOLE NON-BOM
MH5 MH-HOLE NON-BOM
MH6 MH-HOLE NON-BOM
MH7 MH-HOLE NON-BOM
MH8 MH-HOLE NON-BOM
H2 TOOLING-HOLE-4MM NON-BOM
H3 TOOLING-HOLE-4MM NON-BOM
H1 TOOLING-HOLE-4MM NON-BOM
3VDUAL
R759 150
R756 150
R772 150
R773 150
LED5 xLTST-C190GKT LED-0603 GREEN
LED4 xLTST-C190GKT LED-0603 GREEN
LED6 xLTST-C190GKT LED-0603 GREEN
LED7 xLTST-C190GKT LED-0603 GREEN
Place close to FPIO1
VCC3
3VDUAL
R222 150
R221 150
LED2 LTST-C190GKT LED-0603 GREEN
LED1 LTST-C190CKT LED-0603 RED
HSINK-OTES1
HSINK-44X12
HSINK-61_4x26_9
VCC12
R10 680_1206
BLED20 LTST-C190CKT LED-0603 BLUE
R20 4.7K
Q2 PMBS3904 TR-SOT23 200mA40V
LED_CTRL1 31
R774 680_1206
BLED8 LTST-C190CKT LED-0603 BLUE
R771 4.7K
Q84 PMBS3904 TR-SOT23 200mA40V
R739 680_1206
BLED9 LTST-C190CKT LED-0603 BLUE
R743 4.7K
Q81 PMBS3904 TR-SOT23 200mA40V
LED_CTRL2 31
R2 680_1206
BLED21 LTST-C190CKT LED-0603 BLUE
R1 4.7K
Q1 PMBS3904 TR-SOT23 200mA40V
R85 680_1206
BLED19 LTST-C190CKT LED-0603 BLUE
R89 4.7K
Q10 PMBS3904 TR-SOT23 200mA40V
LED_CTRL3 31
R615 680_1206
BLED11 LTST-C190CKT LED-0603 BLUE
R627 4.7K
Q72 PMBS3904 TR-SOT23 200mA40V
R237 680_1206
BLED18 LTST-C190CKT LED-0603 BLUE
R342 4.7K
Q39 PMBS3904 TR-SOT23 200mA40V
LED_CTRL4 31
R381 680_1206
BLED14 LTST-C190CKT LED-0603 BLUE
R383 4.7K
Q45 PMBS3904 TR-SOT23 200mA40V
R287 680_1206
BLED15 LTST-C190CKT LED-0603 BLUE
R255 4.7K
Q29 PMBS3904 TR-SOT23 200mA40V
LED_CTRL5 31
R548 680_1206
BLED13 LTST-C190CKT LED-0603 BLUE
R573 4.7K
Q66 PMBS3904 TR-SOT23 200mA40V
R549 680_1206
BLED12 LTST-C190CKT LED-0603 BLUE
R591 4.7K
Q67 PMBS3904 TR-SOT23 200mA40V
LED_CTRL6 31
R242 680_1206
BLED16 LTST-C190CKT LED-0603 BLUE
R258 4.7K
Q30 PMBS3904 TR-SOT23 200mA40V
R718 680_1206
BLED10 LTST-C190CKT LED-0603 BLUE
R717 4.7K
Q77 PMBS3904 TR-SOT23 200mA40V
LED_CTRL7 31
R224 680_1206
BLED17 LTST-C190CKT LED-0603 BLUE
R231 4.7K
Q28 PMBS3904 TR-SOT23 200mA40V
http://laptop-motherboard-schematic.blogspot.com/
abit 環旭科技 UNIVERSAL ABIT
Title : MECHANICAL
Page : 34 / 34
Document Number : IP35 Pro
Rev : 0.2
Date : Monday, February 26, 2007
Size : 16.8" X 11.8"