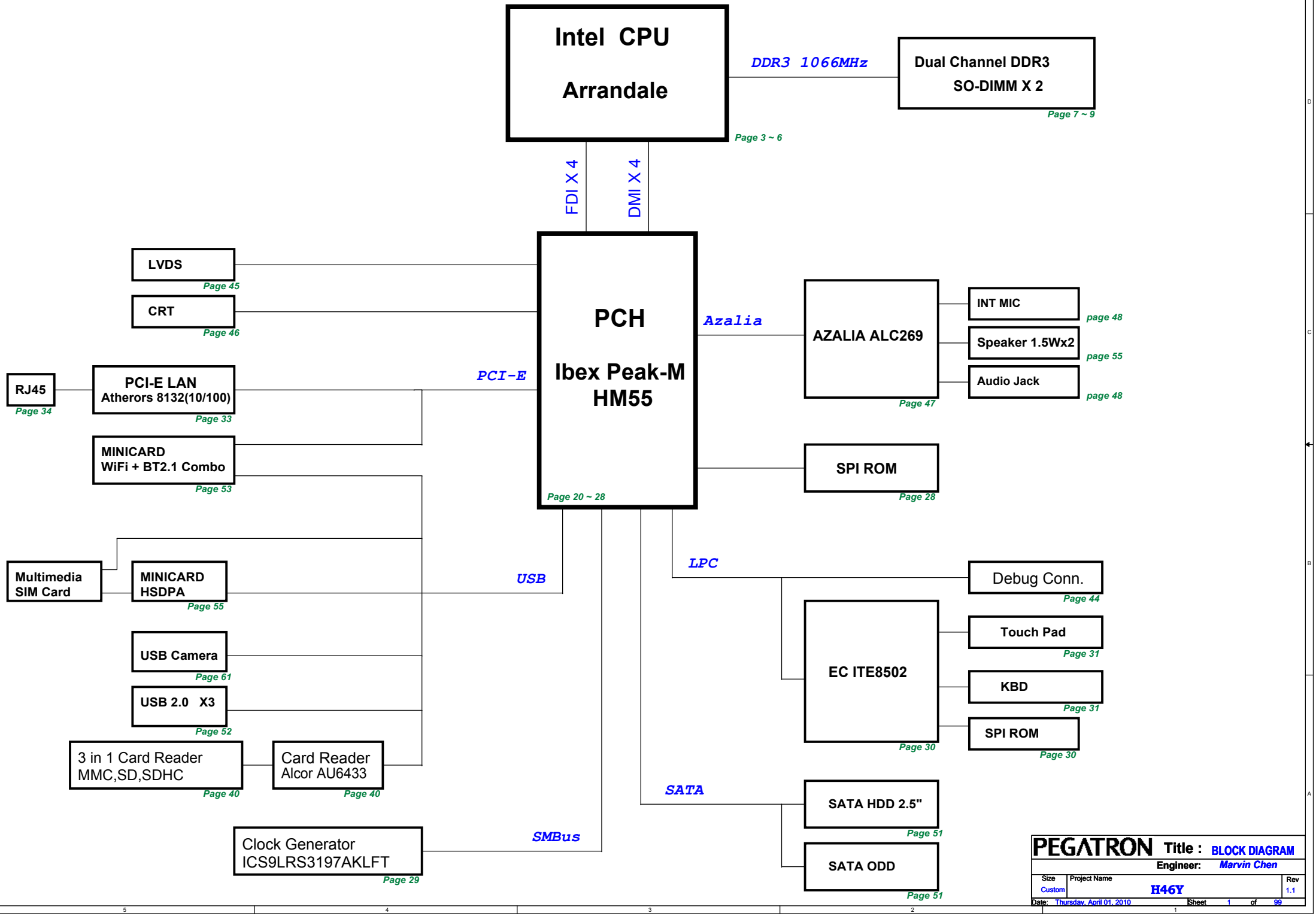

Intel CPU
Arrandale
Page 3 ~ 6
DDR3 1066MHz
Dual Channel DDR3
SO-DIMM X 2
Page 7 ~ 9
FDI X 4
DMI X 4
PCH
Ibex Peak-M
HM55
Page 20 ~ 28
LVDS
Page 45
CRT
Page 46
RJ45
Page 34
PCI-E LAN
Atherors 8132(10/100)
Page 33
PCI-E
MINICARD
WiFi + BT2.1 Combo
Page 53
Azalia
AZALIA ALC269
Page 47
INT MIC
page 48
Speaker 1.5Wx2
page 55
Audio Jack
page 48
SPI ROM
Page 28
Multimedia
SIM Card
MINICARD
HSDPA
Page 55
USB
USB Camera
Page 61
USB 2.0 X3
Page 52
3 in 1 Card Reader
MMC,SD,SDHC
Page 40
Card Reader
Alcor AU6433
Page 40
LPC
Debug Conn.
Page 44
EC ITE8502
Page 30
Touch Pad
Page 31
KBD
Page 31
SPI ROM
Page 30
SATA
SATA HDD 2.5"
Page 51
SATA ODD
Page 51
Clock Generator
ICS9LRS3197AKLFT
Page 29
SMBus
PEGATRON
Title : BLOCK DIAGRAM
Engineer: Marvin Chen
Size Custom
Project Name H46Y
Rev 1.1
Date: Thursday, April 01, 2010
Sheet 1 of 99

PCH_IBEX GPIO

PCH_IBEX GPIO	Use As	Signal Name	Internal & External Pull-up/down	Power
GPIO 00	Native	NA	-	+3VS
GPIO 01	GPO	NA	INT TBD	+3VS
GPIO [2:5]	Native	PCI_INTE#~H#	8.2K EXT PU	+3VS
GPIO 06	GPO	NA	10K @	+3VS
GPIO 07	GPO	NA	INT TBD	+3VS
GPIO 08	GPI	EXT_SMI#	10K EXT PU & INT PU	+3VSUS
GPIO 09	Native	USB_OC5#	10K EXT PU(not used)	+3VSUS
GPIO 10	Native	USB_OC6#	10K EXT PU(not used)	+3VSUS
GPIO 11	GPI	EXT_SCI#	10K EXT PU	+3VSUS
GPIO 12	GPO	TP /PM_LANPHY_EN	-	+3VSUS
GPIO 13	GPO	NA	-	+3VSUS
GPIO 14	Native	USB_OC7#	10K EXT PU(not used)	+3VSUS
GPIO 15	GPO	NA	INT PD	+3VSUS
GPIO 16	GPO	NA	10K @ EXT PU	+3VS
GPIO 17	GPI	NA	10K @ EXT PD & INT TBD	+3VS
GPIO 18	GPO	CLKREQ1_TV#	10K EXT PU(no device)	+3VS
GPIO 19	Native	SATA1GP	10K @ EXT PU	+3VS
GPIO 20	Native	CLK_WLAN_REQ#_R	10K EXT PD	+3VS
GPIO 21	Native	SATA0GP	10K @ EXT PU	+3VS
GPIO 22	GPO	NA	-	+3VS
GPIO 23	GPO	NA	INT PU	+3VS
GPIO 24	GPO	NA	-	+3VSUS
GPIO 25	GPO	TP /CLKREQ3_NEWCARD#	10K EXT PU(no device)	+3VSUS
GPIO 26	GPO	CLK_REQ4#	10K EXT PU(no device)	+3VSUS
GPIO 27	GPO	NA	INT WEAK PU	+3VSUS
GPIO 28	GPO	WLAN_ON		+3VSUS
GPIO 29	GPO	NA	-	+3VSUS
GPIO 30	GPO	ME_SUSPWRDNACK	10K EXT PU	+3VSUS
GPIO 31	Native	NA	-	+3VSUS
GPIO 32	Native	PM_CLKRUN#	8.2K EXT PU	+3VS
GPIO 33	GPO	HDA_DOCK_EN#	1K@ EXT PD	+3VS
GPIO 34	GPO	NA	-	+3VS
GPIO 35	Native	SATA_CLK_REQ#	10K EXT PD	+3VS
GPIO 36	GPO	DGPU_PWR_EN#	10K@ EXT PD	+3VS
GPIO 37	GPI	DGPU_PRSNT#	10K EXT PU	+3VS
GPIO 38	GPO	NA		+3VS
GPIO 39	GPO	NA		+3VS
GPIO 40	Native	USB_OC1#	10K EXT PU(Not used)	+3VSUS
GPIO 41	Native	USB_OC2#	10K EXT PU(Not used)	+3VSUS
GPIO 42	Native	USB_OC3#	10K EXT PU(Not used)	+3VSUS
GPIO 43	Native	USB_OC4#	10K EXT PU(Not used)	+3VSUS
GPIO 44	GPO	CLKREQ5_CR#	10K EXT PU(no device)	+3VSUS
GPIO 45	GPO	CLK_REQ6#	-	+3VSUS
GPIO 46	GPO	RST_GATE	10K EXT PU	+3VSUS
GPIO 47	Native	CLKREQ_PEG#	10K EXT PU	+3VSUS
GPIO 48	GPO	NA	10K @ EXT PU	+3VS
GPIO 49	Native	PCH_ALERT#	-	+3VS
GPIO 50	GPO	PCI_REQ1#	8.2K EXT PU	+3VS
GPIO 51	GPO	PCI_GNT1#	1K @ EXT PD	+3VS
GPIO 52	GPO	PCI_REQ2#	8.2K EXT PU	+5VS
GPIO 53	GPO	PCI_GNT2#	-	+3VS
GPIO 54	Native	PCI_REQ3#	8.2K EXT PU	+3VS
GPIO 55	GPO	PCI_GNT3#	1K @ PD /INT PU	+3VS
GPIO 56	Native	CLKREQ_LAN#	10K EXT PD	+3VSUS
GPIO 57	GPO	BT_ON	-	+3VSUS
GPIO 58	Native	SML1_CLK	4.7K EXT PU	+3VSUS
GPIO 59	Native	USB_OC0#	10K EXT PU(Not used)	+3VSUS
GPIO 60	GPO	NA	-	+3VSUS
GPIO 61	GPO	NA	-	+3VSUS
GPIO 62	GPO	NA	-	+3VSUS
GPIO 63	GPO	NA	-	+3VSUS
GPIO 64	GPO	TP /CLK_OUT0	INT TBD	+3VS
GPIO 65	GPO	TP /CLK_OUT1	INT TBD	+3VS
GPIO 66	GPO	TP /CLK_OUT2	INT TBD	+3VS
GPIO 67	Native	CLK_USB48_CR	INT TBD	+3VS
GPIO 72	GPO	PM_BATLOW#	8.2K EXT PU	+3VSUS
GPIO 73	Native	CLK_REQ0#	10K EXT PU (no device)	+3VSUS
GPIO 74	Native	SML1ALERT#	10K EXT PU	+3VSUS
GPIO 75	Native	SML1_DAT	4.7K EXT PU	+3VSUS

EC IT8502

EC GPIO	Use As	Signal Name		
GPA0		PWR_LED#		
GPA1		NA		
GPA2		PWRSAVE#		
GPA3		BAT_LED_G#		
GPA4		LCD_BL_PWM		
GPA5		FAN0_PWM		
GPA6		NA		
GPA7		NA		
GPB0		NA		
GPB1		NA		
GPB2		KSO16		
GPB3		SMB0_CLK	4.7K EXT PU	+3VA_EC
GPB4		SMB0_DAT	4.7K EXT PU	+3VA_EC
GPB5		A20GATE	10K EXT PU	+3VS
GPB6		RC_IN#	10K EXT PU	+3VS
GPB7		PM_RSMRST#	10K EXT PD	
GPC0		NA		
GPC1		SMB1_CLK	4.7K EXT PU	+3VS
GPC2		SMB1_DAT	4.7K EXT PU	+3VS
GPC3		PM_PWRBTN#		
GPC4		AC_IN_OC#	10K EXT PU	+3VA_EC
GPC5		OP_SD#		
GPC6		BAT1_IN_OC#	47K EXT PU	+3VA_EC
GPC7		NA		
GPD0		PWRLIMIT#	10K EXT PU	+3VA_EC
GPD1		PM_SUSC#	100K EXT PD	
GPD2		BUF_PLT_RST#		
GPD3		EXT_SCI#		
GPD4		EXT_SMI#		
GPD5		LCD_BACKOFF#		
GPD6		FAN0_TACH		
GPD7		SD_CD#_EC	10K EXT PU	+3V
GPE0		VSUS_ON		
GPE1		SUSC_EC#	4.7K EXT PD	
GPE2		SUSB_EC#	4.7K EXT PD	
GPE3		CPU_VRON		
GPE4		PWR_SW#		
GPE5		NA		
GPE6		LID_SW#		
GPE7		NA		
GPF0		NA		
GPF1		NA		
GPF2		NA		
GPF3		NA		
GPF4		TP_CLK	4.7K EXT PU	+3VS
GPF5		TP_DAT	4.7K EXT PU	+3VS
GPF6		THRO_CPU		
GPF7		H_PECI		
GPG0		NA		
GPG1		PM_SUSB#	100K EXT PD	
GPG2		NA		
GPG6		NA		
GPH0		PM_CLKRUN#		
GPH1		3G_ON#		
GPH2		GFX_VR_ON		
GPH3		NA		
GPH4		NA		
GPH5		NA		
GPH6		NA		
GPI0		PCH_ALERT#		
GPI1		SUS_PWRGD		
GPI2		ALL_SYSTEM_PWRGD		
GPI3		VRM_PWRGD		
GPI4		GFX_VR		
GPI5		NA		
GPI6		NA		
GPI7		NA		
GPJ0		NA		
GPJ1		PM_PWROK		
GPJ2		NA		
GPJ3		NA		
GPJ4		NA		
GPJ5		HDA_DOCK_EN_C		

SM_BUS ADDRESS :

SM-Bus Device	SM-Bus Address
Clock Generator	1101001x (D2h)
SO-DIMM 0	1010000x (A0h)
SO-DIMM 1	1010010x (A4h)

PCIE 1	N/A
PCIE 2	Minicard WLAN
PCIE 3	N/A
PCIE 4	N/A
PCIE 5	N/A
PCIE 6	LAN
PCIE 7	N/A
PCIE 8	N/A

SATA0	SATA HDD
SATA1	SATA ODD
SATA2	N/A
SATA3	N/A
SATA4	N/A
SATA5	N/A

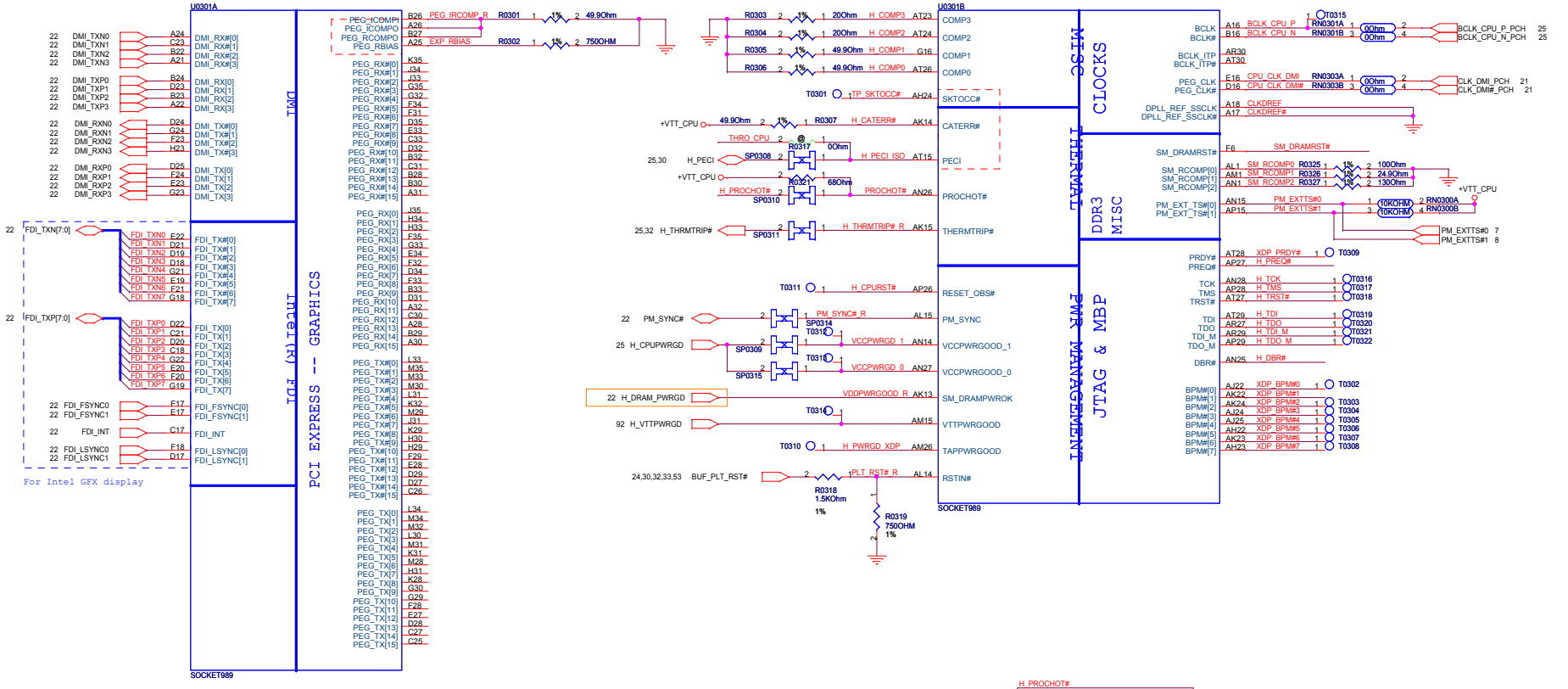
USB 0	USB Port
USB 1	USB Port
USB 2	NA
USB 3	USB Port
USB 4	N/A
USB 5	N/A
USB 6	N/A
USB 7	N/A
USB 8	Card Reader
USB 9	Multimedia SIM
USB 10	WWAN
USB 11	N/A
USB 12	Bluetooth
USB 13	CMOS Camera

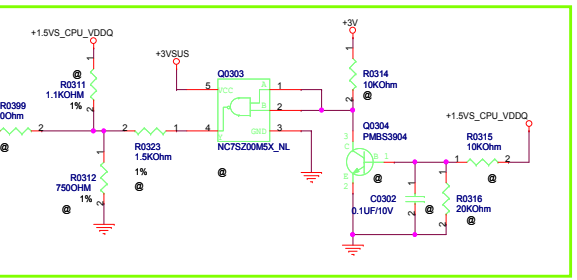
PEGATRON Title : System Setting

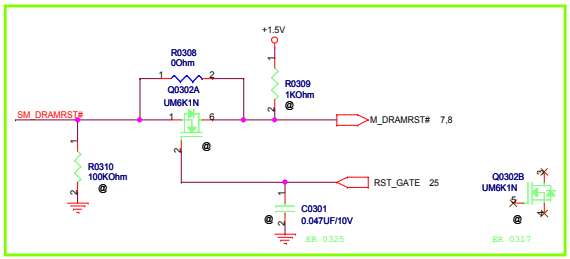
Engineer: Marvin Chen

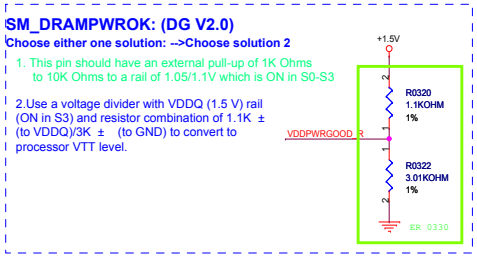
Size	Project Name	Rev
Custom	H46Y	1.1

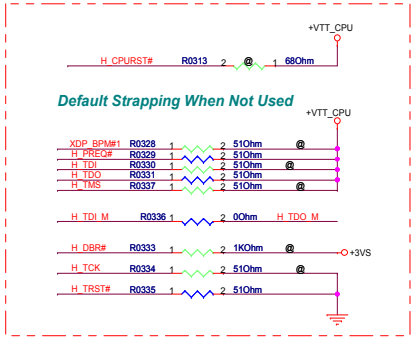
Date: Thursday, April 01, 2010 Sheet 2 of 99

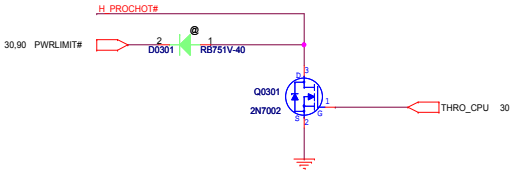










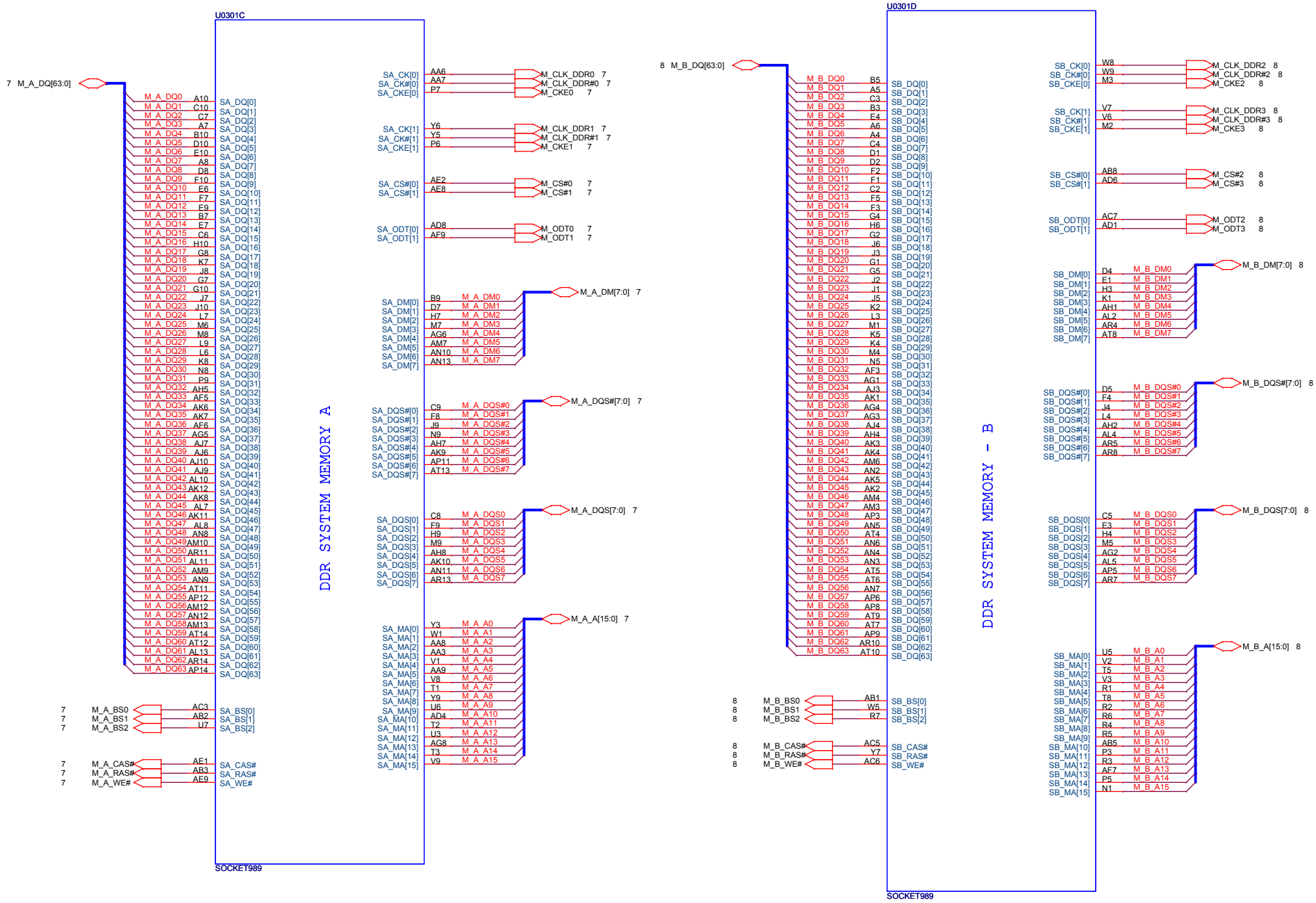


PEGATRON Title : CPU(1)_DMI,PEG

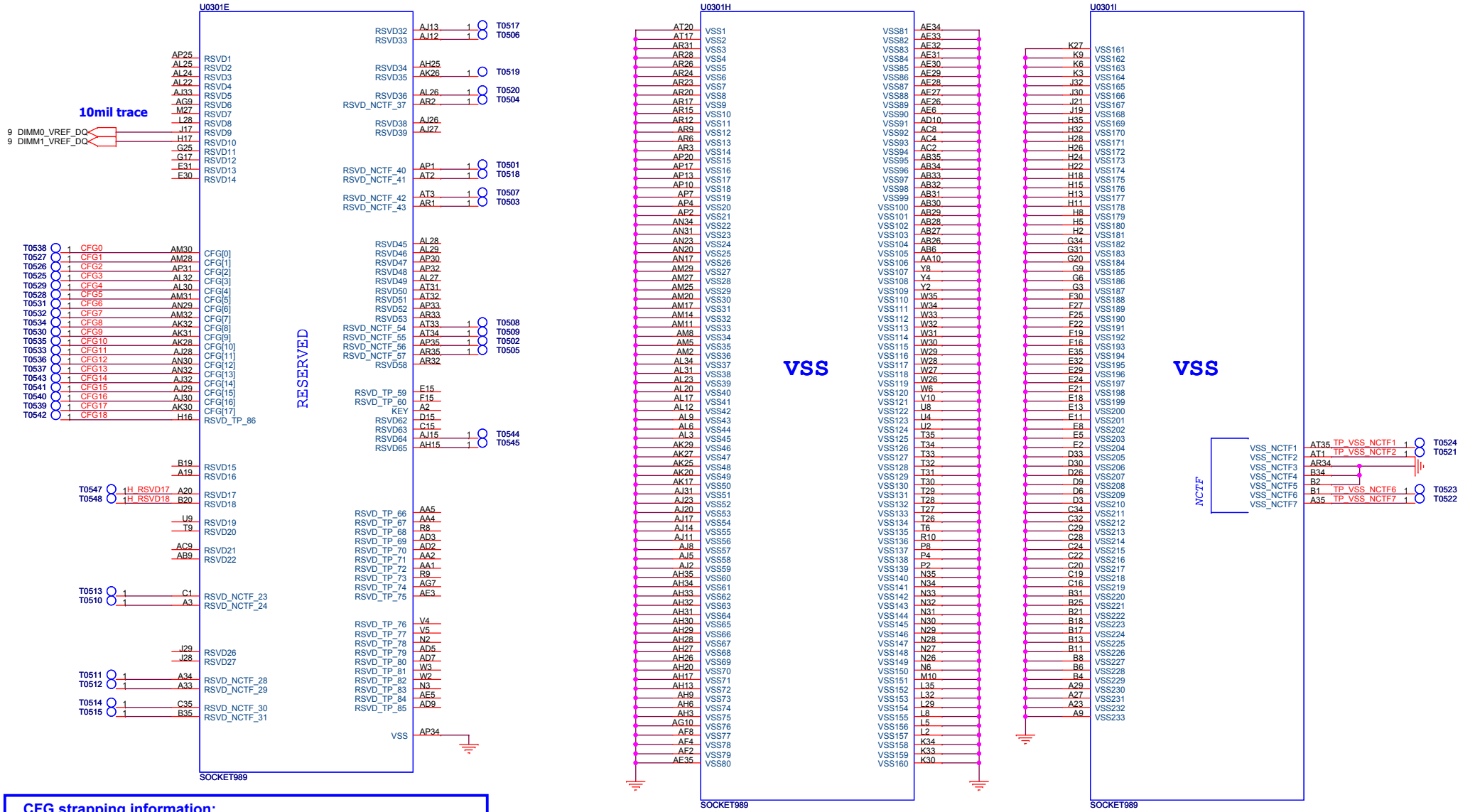
BU2/RD1 Engineer: Marvin Chen

Size	Project Name	Rev
C	H46Y	1.1

Date: Thursday, April 01, 2010 Sheet 3 of 99



PEGATRON	Title : CPU(2)_DDR3	
	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 4 of 99	



CFG strapping information:

CFG[1:0]: PCI Express Port Bifurcation:(Clarksfield Only)

- 11 = 1 x 16 PEG (Default)
- 10 = 2 x 8 PEG

CFG[3]: PCIE Static Numbering Lane Reversal.(Auburndale Only)

- 1:Normal Operation (Default)
- 0:Lane Numbers Reversed 15 -> 0, 14 -> 1, ...

CFG[4]: Embedded DisplayPort Detection.(Auburndale Only)

- 1:Disabled - No Physical Display Port attached to Embedded DisplayPort
- 0:Enabled - An external Display Port device is connected to the Embedded Display Port

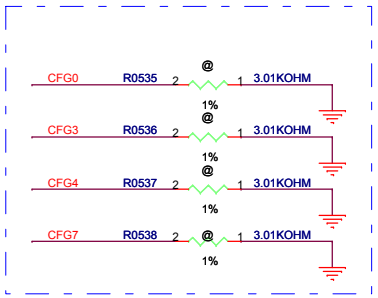
CFG[7]: Fixed for PCI Express 2.0 jitter specifications.(Clarksfield)

Clarksfield (only for early samples pre-ES1) - Connect to GND with 3.01K Ohm/5% resistor. For a common motherboard design (for AUB and CFD),the pull-down resistor should be used. Does not impact AUB functionality.

Unmount if Intel has fixed this issue.

Note: (Auburndale)Hardware Straps are sampled on the asserting edge of VCCPWRGOOD_0 and VCCPWRGOOD_1 and latched inside the processor.

Note: (Clarksfield)Hardware Straps are sampled after RSTIN# de-assertion.

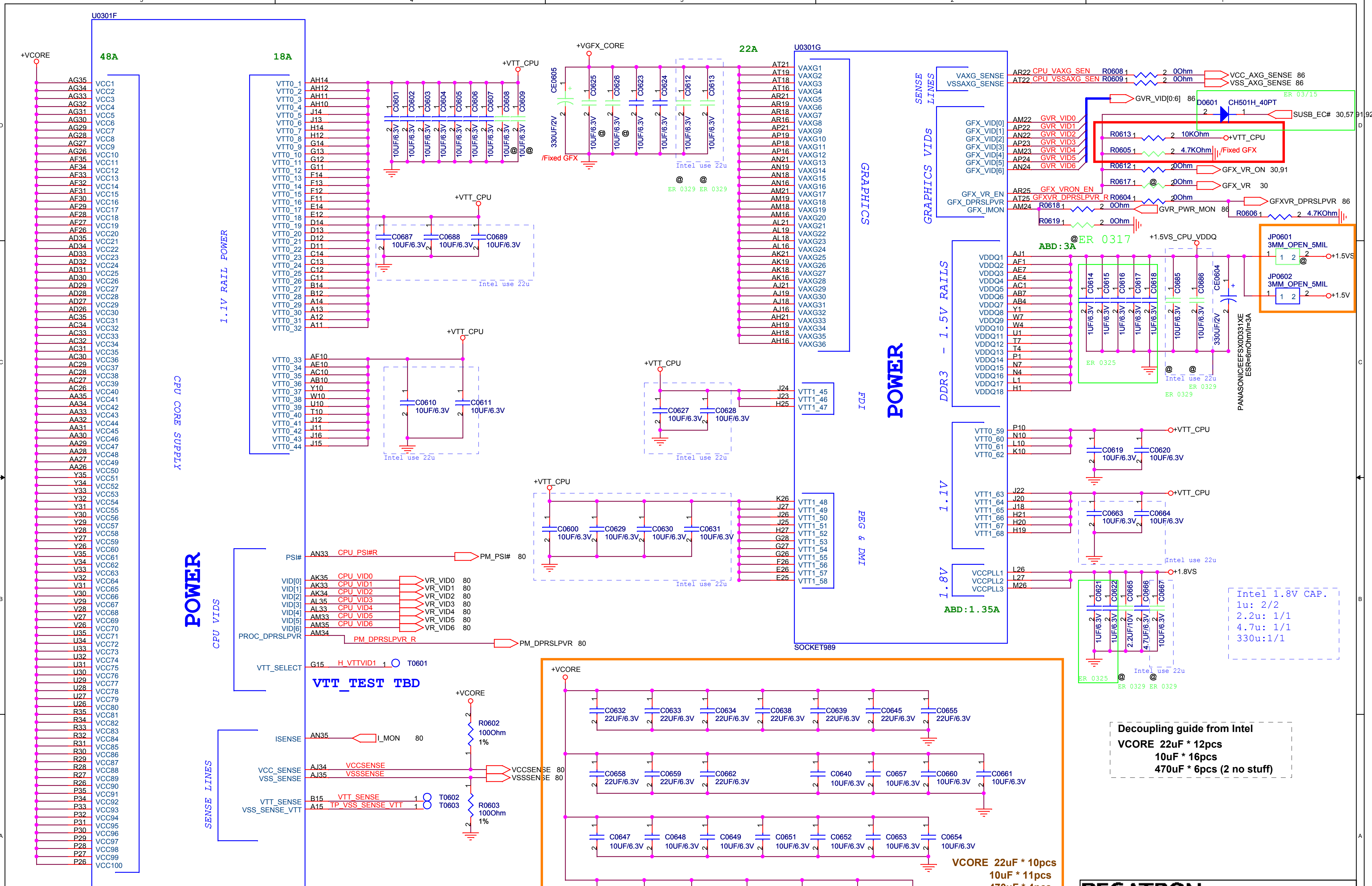


PEGATRON Title : CPU(3)_CFG,GND

Engineer: Marvin Chen

Size	Project Name	Rev
Custom	H46Y	1.1

Date: Thursday, April 01, 2010 Sheet 5 of 99



U0301F
+VCORE
48A
18A
1.1V RAIL POWER
CPU CORE SUPPLY
POWER
CPU VIDS
SENSE LINES
+VTT_CPU
+VGFX_CORE
22A
U0301G
GRAPHICS
SENSE LINES
GRAPHICS VIDS
DDR3 - 1.5V RAILS
POWER
FDI
PEG & DMI
1.1V
1.8V
ABD:3A
ABD:1.35A
+1.5VS_CPU_VDDQ
JP0601
3MM_OPEN_5MIL
JP0602
3MM_OPEN_5MIL
+1.5VS
+1.5V
+1.8VS
PANASONIC/EEFSX0D331XE
ESR=6mOhm/Ir=3A
VCC_AXG_SENSE 86
VSS_AXG_SENSE 86
SUSB_EC# 30,57,91,92
GFX_VR_ON 30,91
GFX_VR 30
GFXVR_DPRSLPVR 86
GVR_PWR_MON 86
/Fixed GFX
Intel use 22u
Intel 1.8V CAP.
1u: 2/2
2.2u: 1/1
4.7u: 1/1
330u:1/1
PM_PSI# 80
VR_VID0 80
VR_VID1 80
VR_VID2 80
VR_VID3 80
VR_VID4 80
VR_VID5 80
VR_VID6 80
PM_DPRSLPVR 80
VTT_TEST TBD
I_MON 80
VCCSENSE 80
VSSSENSE 80
R0602 100Ohm 1%
R0603 100Ohm 1%
SOCKET989
VCORE 22uF * 10pcs
10uF * 11pcs
470uF * 4pcs
Decoupling guide from Intel
VCORE 22uF * 12pcs
10uF * 16pcs
470uF * 6pcs (2 no stuff)

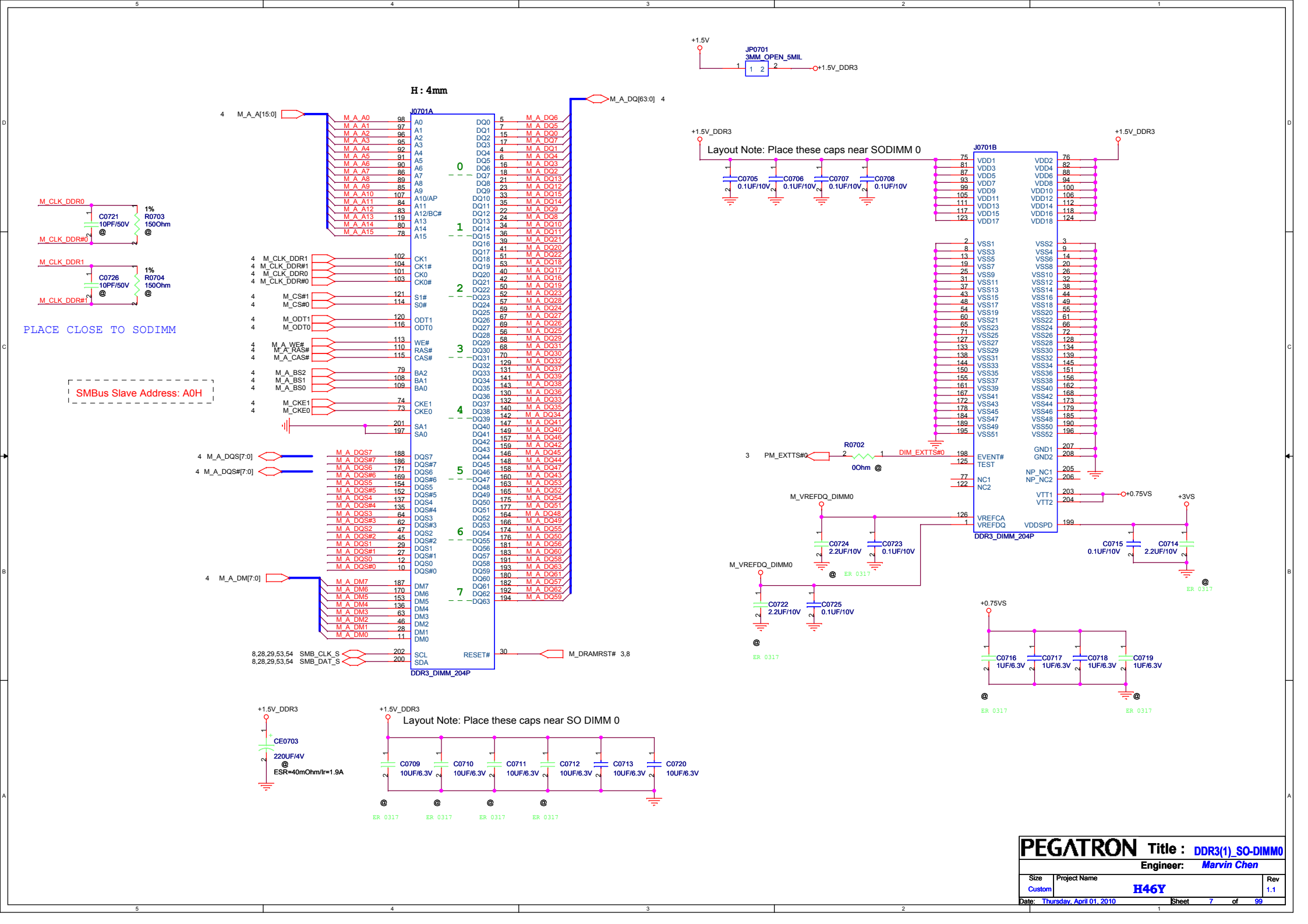
PEGATRON

Title : CPU(4)_PWR

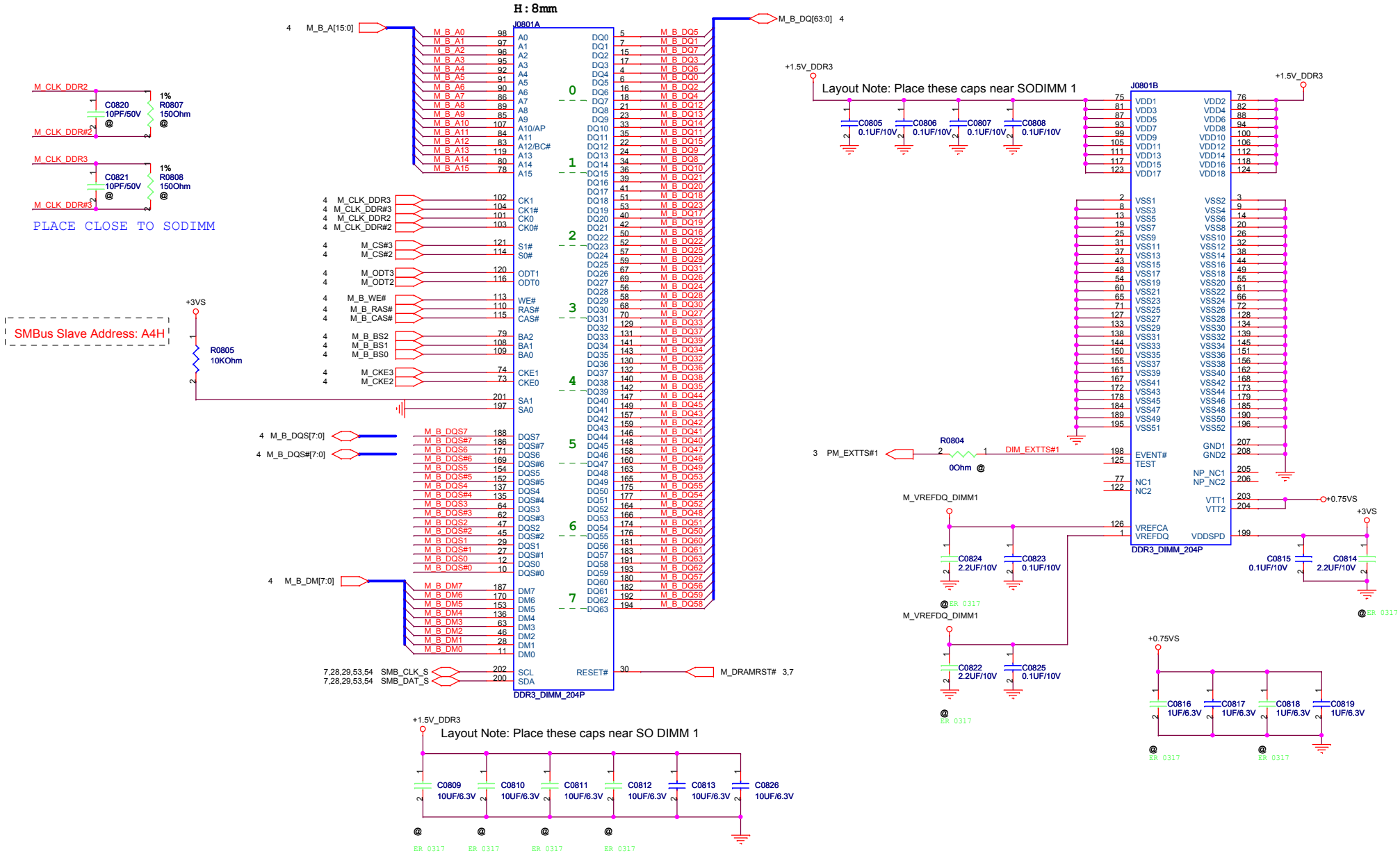
Engineer: Marvin Chen

Size	Project Name	Rev
Custom	H46Y	1.1

Date: Thursday, April 01, 2010 Sheet 6 of 99

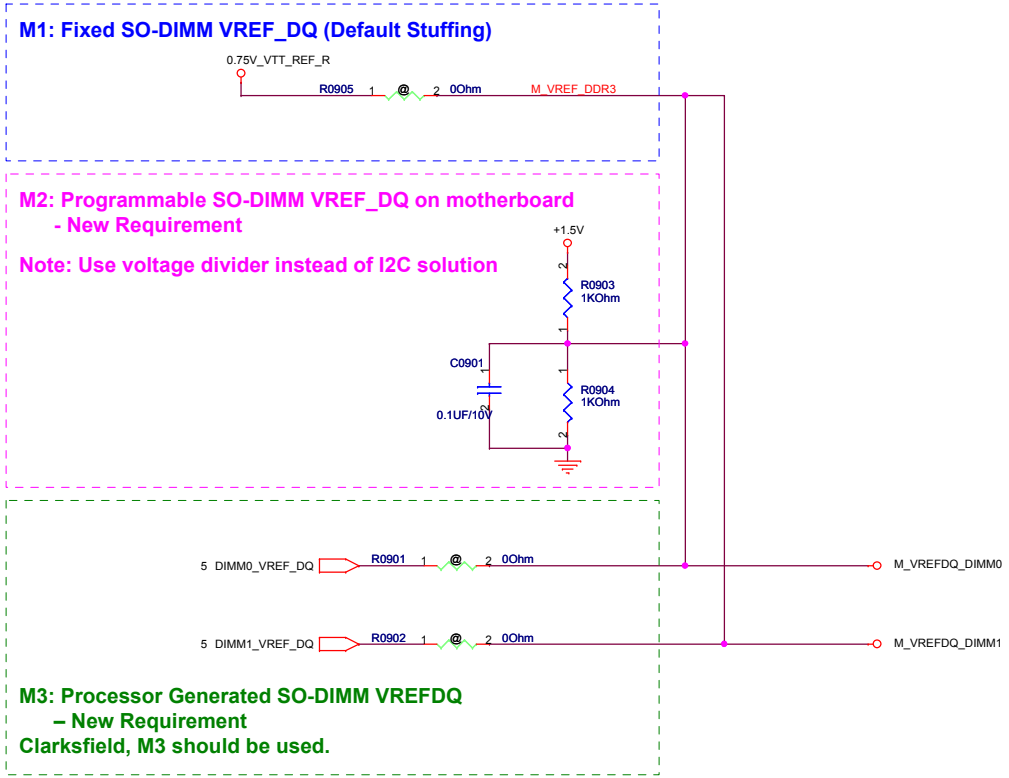


PEGATRON	Title : DDR3(1)_SO-DIMM0		
	Engineer: Marvin Chen		
Size: Custom	Project Name: H46Y		Rev: 1.1
Date: Thursday, April 01, 2010		Sheet 7 of 99	



PEGATRON	Title : DDR3(2)_SO-DIMM1		
	Engineer: Marvin Chen		
Size: Custom	Project Name: H46Y		Rev: 1.1
Date: Thursday, April 01, 2010		Sheet 8 of 99	

DDR3 Vref



For Arrandale only designs ' Only method M1 should be enabled.
For Clarksfield only designs ' Both M1 AND M3 methods should be enabled simultaneously
For Common Motherboard designs ' Both M1 AND M3 methods should be enabled simultaneously.
Note:
Please refer to Calpella Mainstream PDG (Doc# 398905) Section 2.5.4 for more details.
M1 - Voltage divider Option
M3 - VREF driven by processor

PEGATRON	Title : DDR3(3)_CA/DQ Voltage	
	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 9 of 99	

CMOS Settings	JRST2001
Clear CMOS	Shunt
Keep CMOS	Open (Default)

TPM Settings	JRST2002
Clear ME RTC Registers	Shunt
Keep ME RTC Registers	Open (Default)

RTCRST# RC delay should be 18ms~25ms

Request by CSC for CMOS clear function

HDA_SYNC: Select VCCVRM 1.5V or 1.8V

EDS 1.1:
SATA 2,3 not availiable in PCH HM55 SKU.

RTC battery

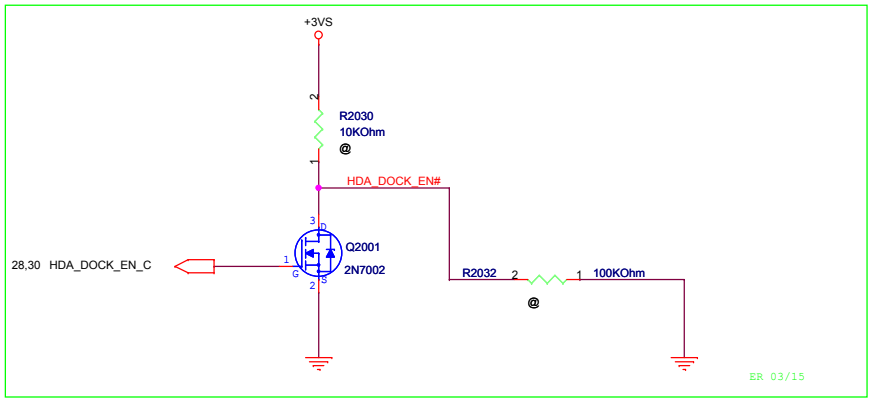
1220-001O000

Strap information:

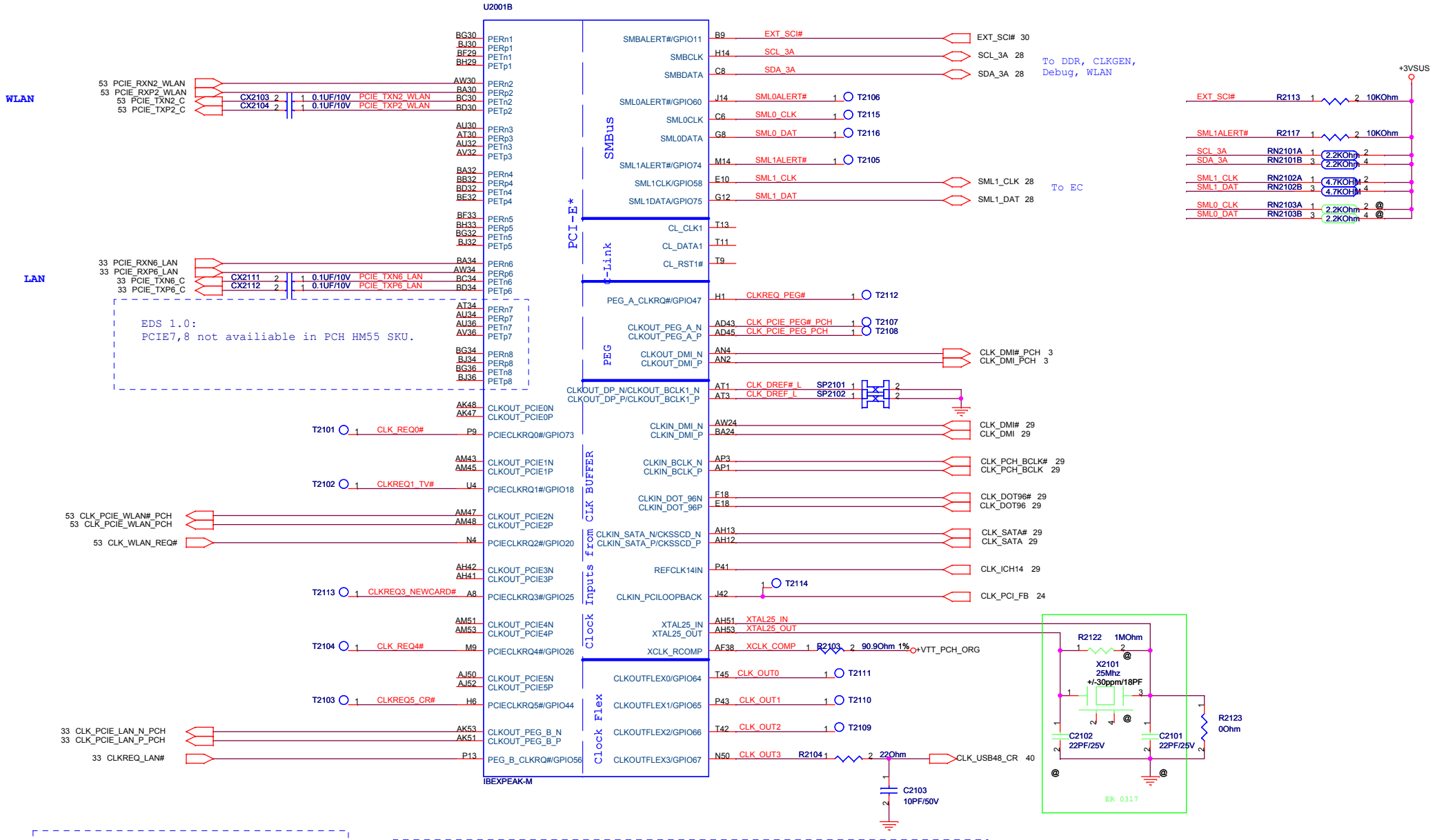
```
HDA_SPKR: No reboot strap
   Low: Disable.
   High:Enable

HDA_DOCK_EN#:
   1.Flash descriptor security:
      Sampled low: override
      Sampled high: in effect.
   2.GPIO33 low on the rising edge of PWROK,
      Will also disable Intel ME.

SPI_MOSI: iTPM strap.
   Mount R2015: Enable
   Unmount R2015: Disable(default)
```

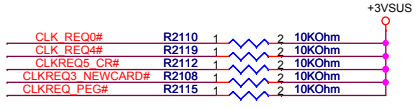


PEGATRON	Title : PCH(1)_SATA,IHDA,RTC	
	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 20 of 99	



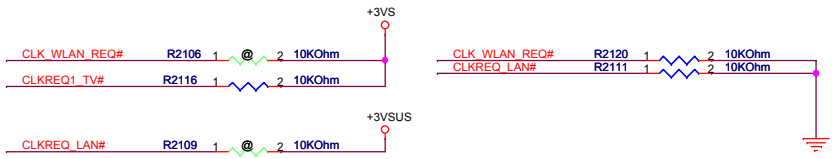
PCH CLKREQ Setting:

Not connected to device.

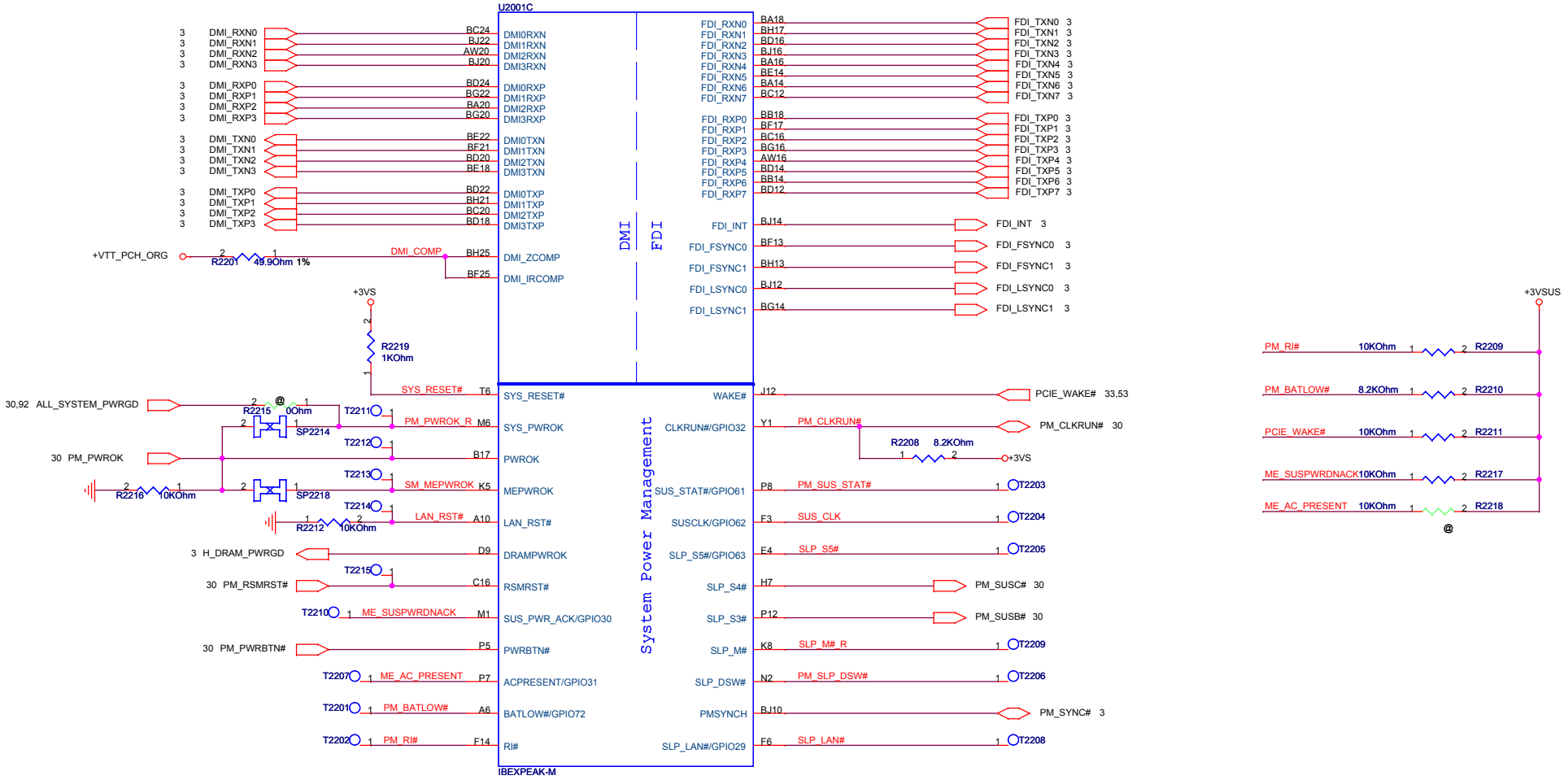


Connected to device.

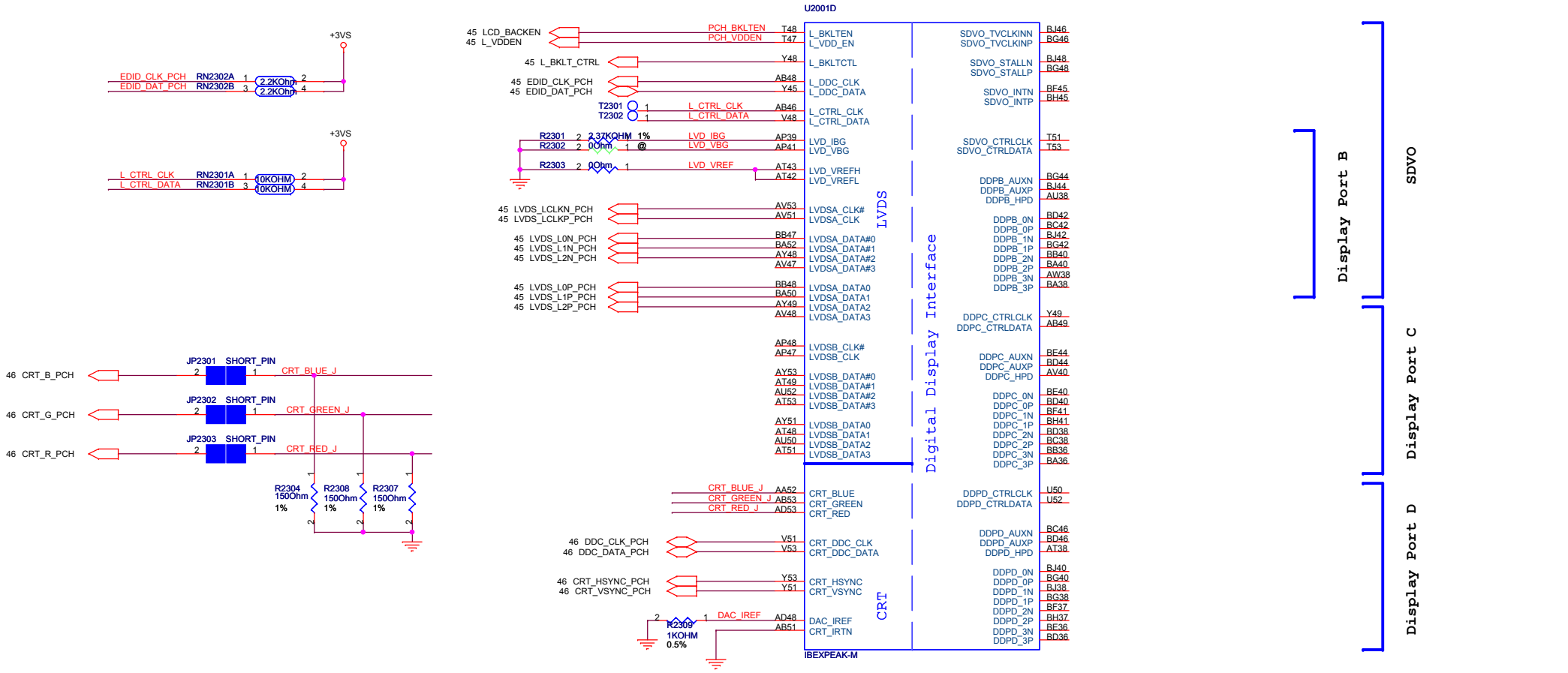
Default : Clock free run. (PD 10K).
Reserver 10K PU for power saving purpose.



PEGATRON	Title : PCH(2)_PCIE,PEG		
	Engineer: Marvin Chen		
Size: Custom	Project Name: H46Y		Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 21 of 99		



PEGATRON	Title : PCH(3)_FDI,DMI	
	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 22 of 99	

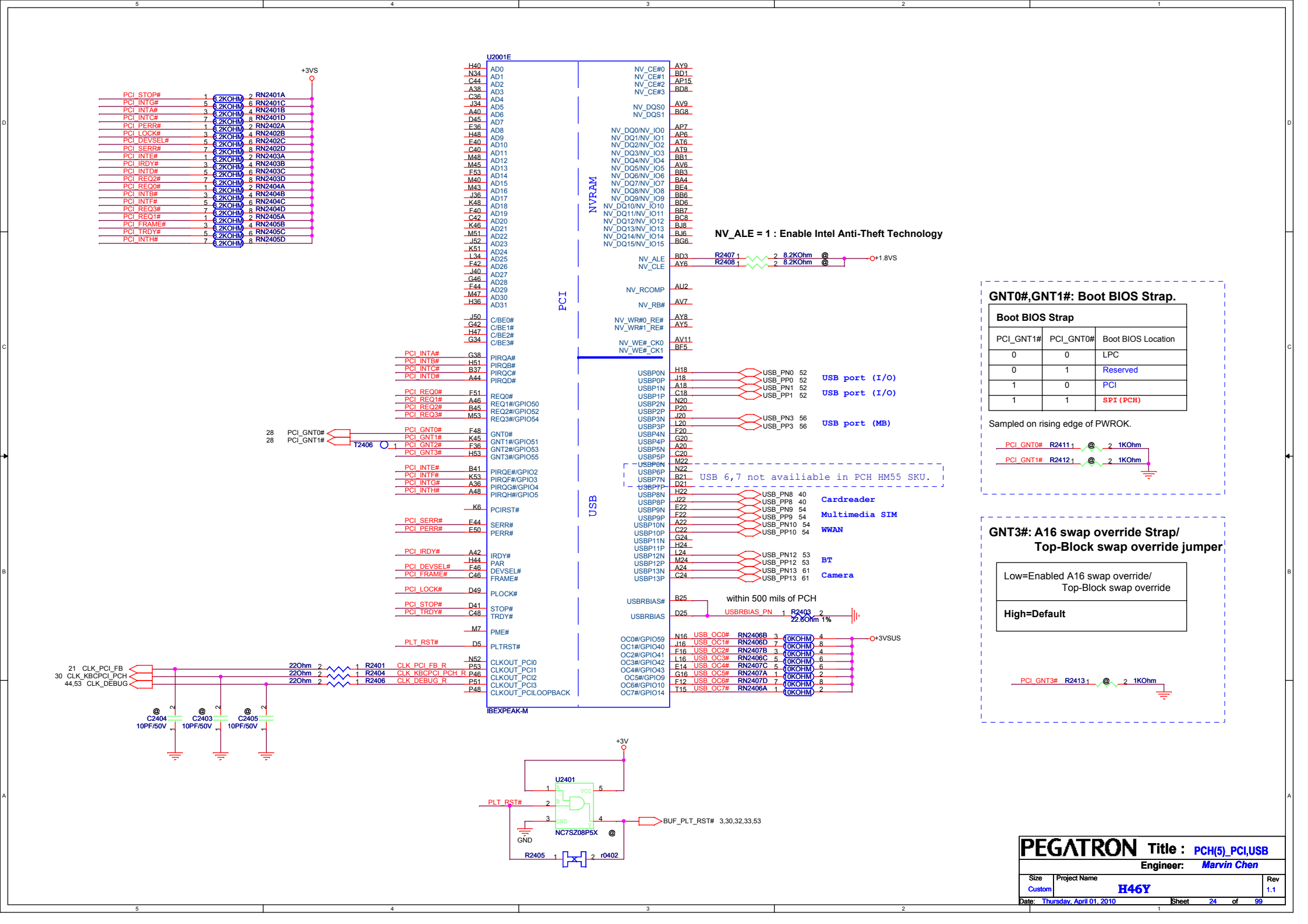


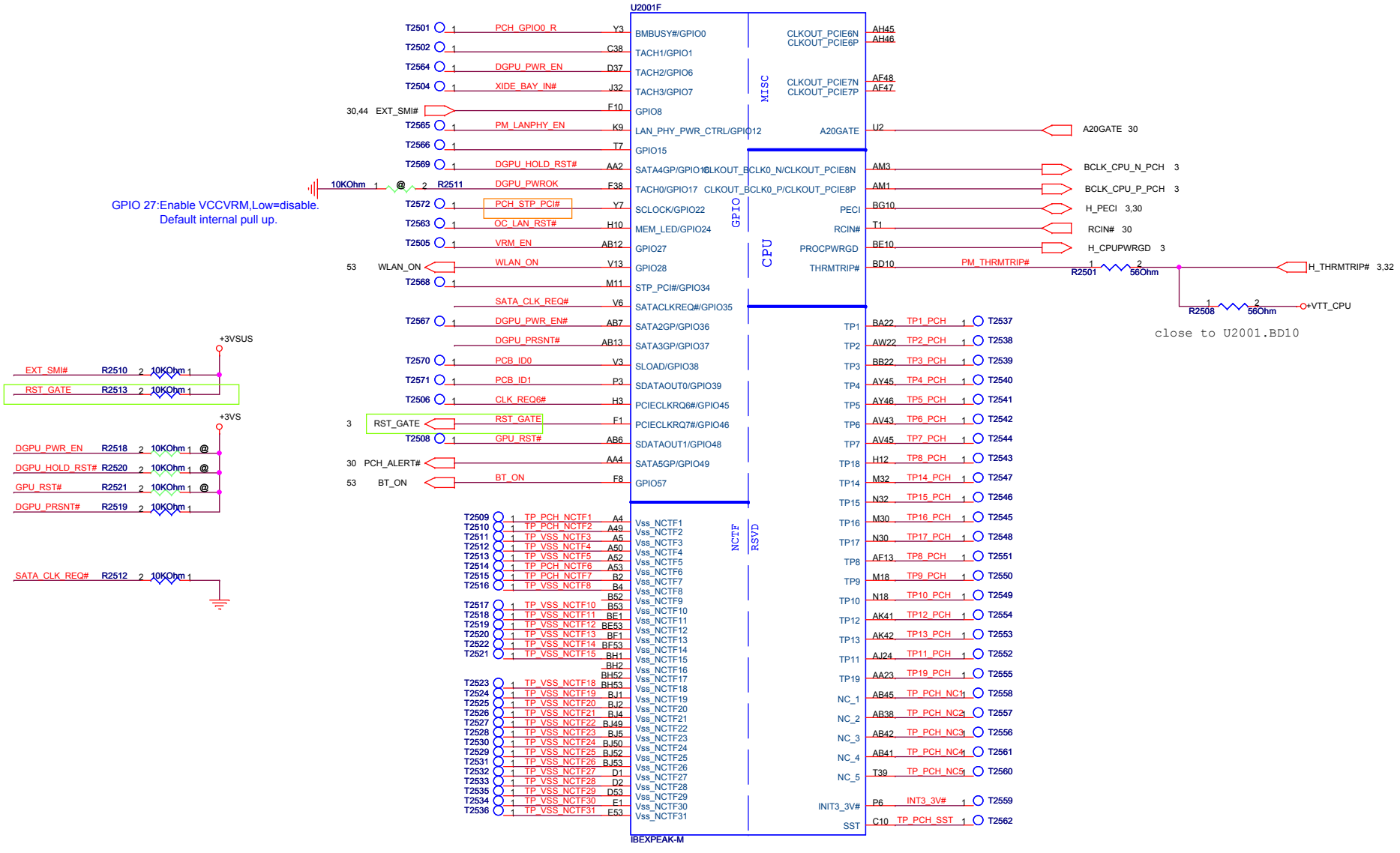
PEGATRON Title : PCH(4)_DP,LVDS,CRT

Engineer: Marvin Chen

Size	Project Name	Rev
Custom	H46Y	1.1

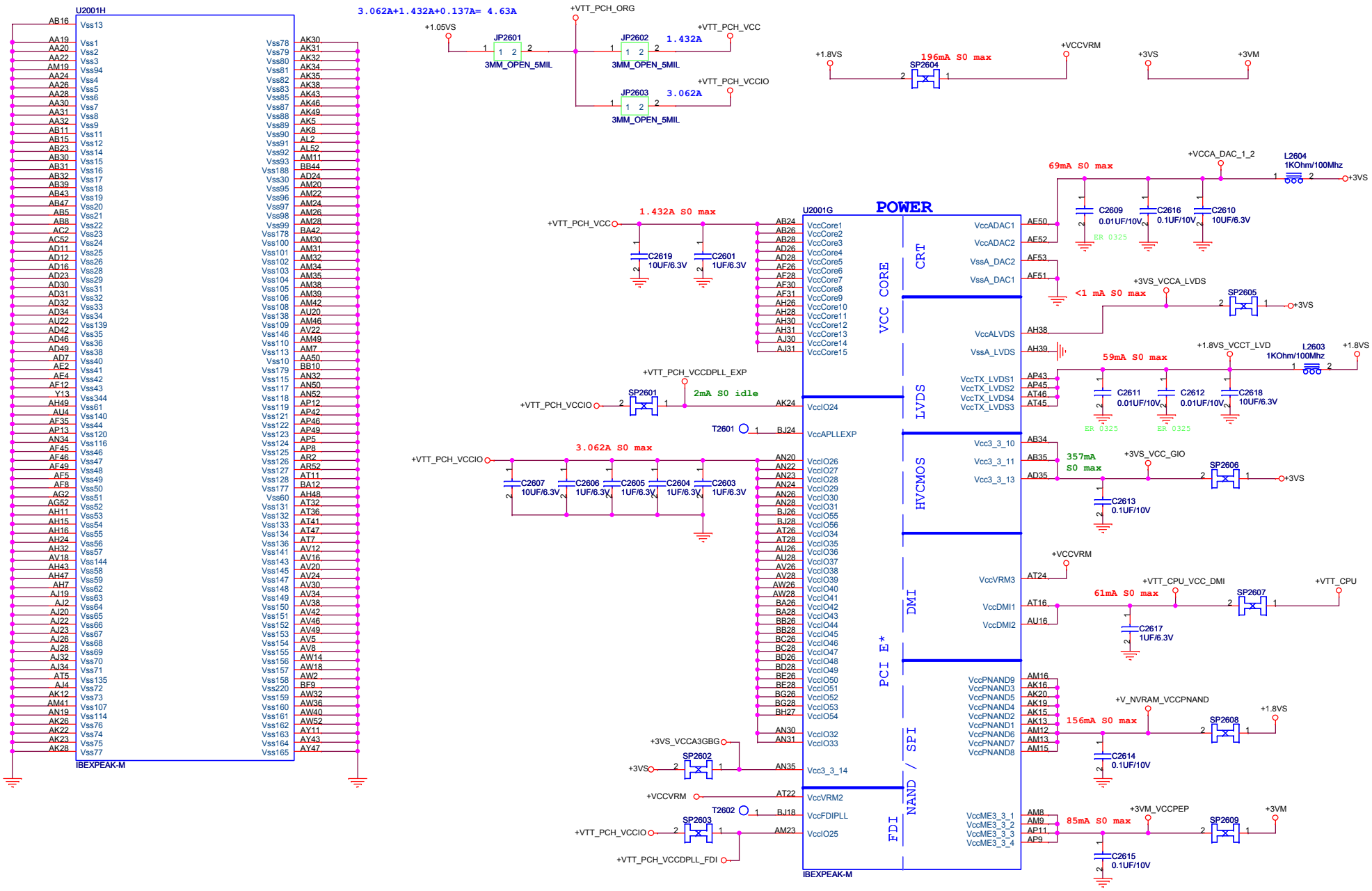
Date: Thursday, April 01, 2010 Sheet 23 of 99


U2001E
PCI
NVRAM
USB
IBEXPEAK-M
NV_ALE = 1 : Enable Intel Anti-Theft Technology
USB 6,7 not availiable in PCH HM55 SKU.
USB port (I/O)
USB port (I/O)
USB port (MB)
Cardreader
Multimedia SIM
WWAN
BT
Camera
within 500 mils of PCH
GNT0#,GNT1#: Boot BIOS Strap.
Boot BIOS Strap
PCI_GNT1# | PCI_GNT0# | Boot BIOS Location
0 | 0 | LPC
0 | 1 | Reserved
1 | 0 | PCI
1 | 1 | SPI(PCH)
Sampled on rising edge of PWROK.
GNT3#: A16 swap override Strap/
Top-Block swap override jumper
Low=Enabled A16 swap override/
Top-Block swap override
High=Default
PEGATRON
Title : PCH(5)_PCI,USB
Engineer: Marvin Chen
Size Custom
Project Name H46Y
Rev 1.1
Date: Thursday, April 01, 2010
Sheet 24 of 99

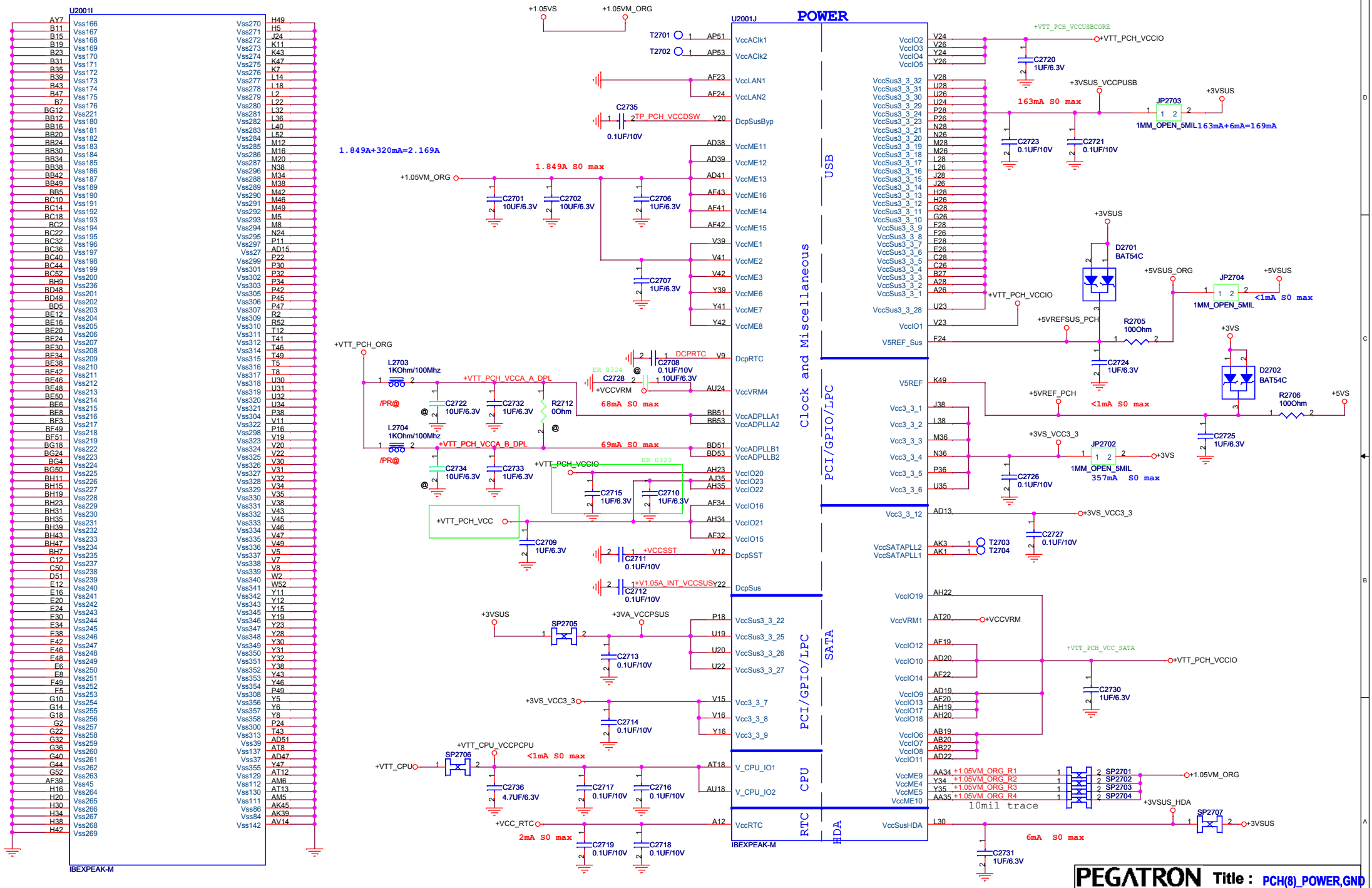


Title :	PCH(6)_CPU,GPIO,MISC
Engineer:	Marvin Chen
Size	Custom
Project Name	H46Y
Rev	1.1
Date:	Thursday, April 01, 2010
Sheet	25 of 99

PEGATRON

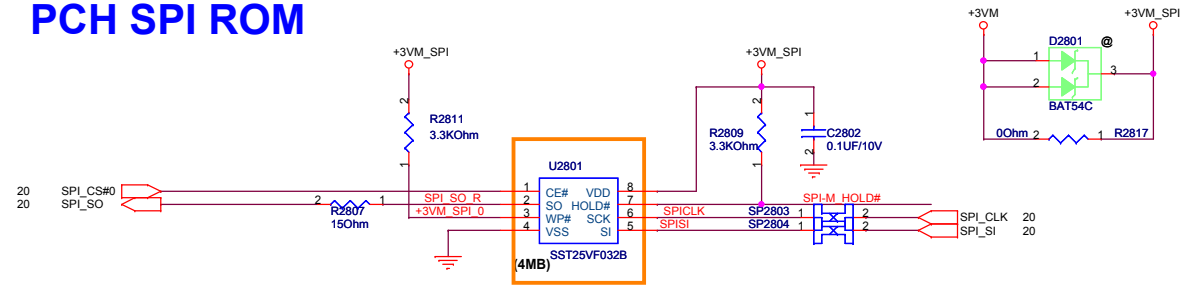


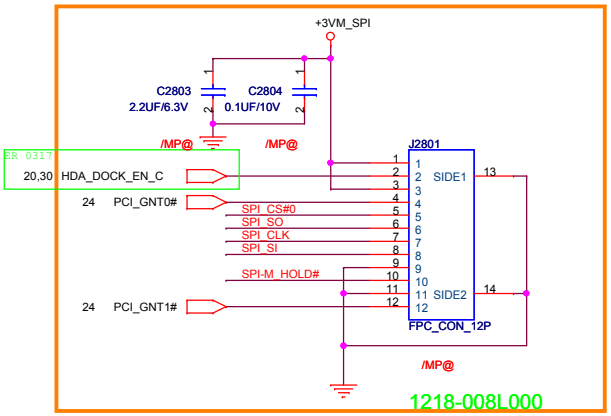
PEGATRON	Title :	PCH(7)_POWER,GND
	Engineer:	Marvin Chen
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 26 of 99	



Title :	PCH(8)_POWER,GND
Engineer:	Marvin Chen
Size	Custom
Project Name	H46Y
Rev	1.1
Date:	Thursday, April 01, 2010
Sheet	27 of 99

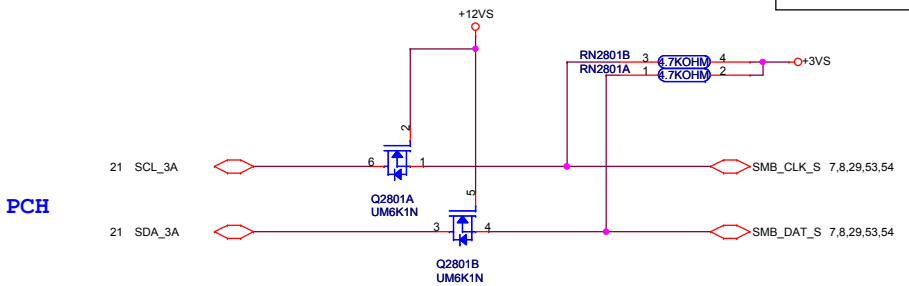
PCH SPI ROM



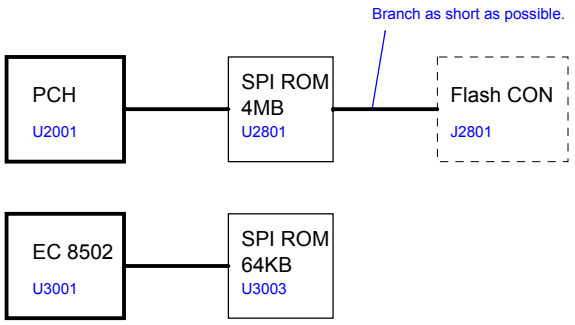


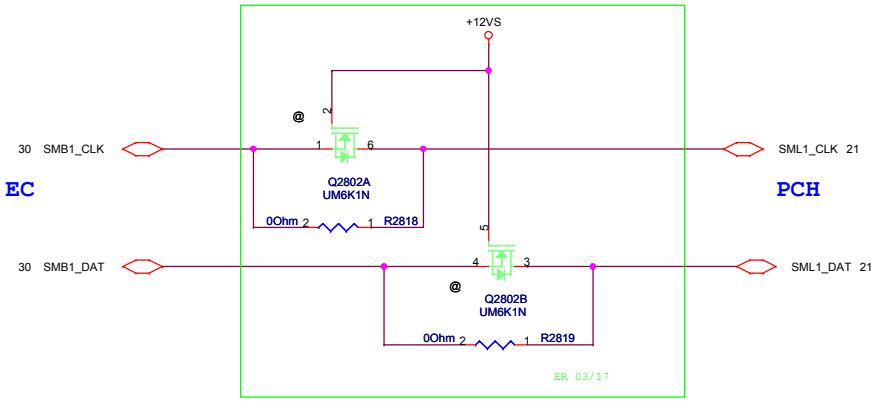
SMBUS Link device

- DDR
- CLKGEN
- DEBUG
- WLAN



SPI Setting for layout:



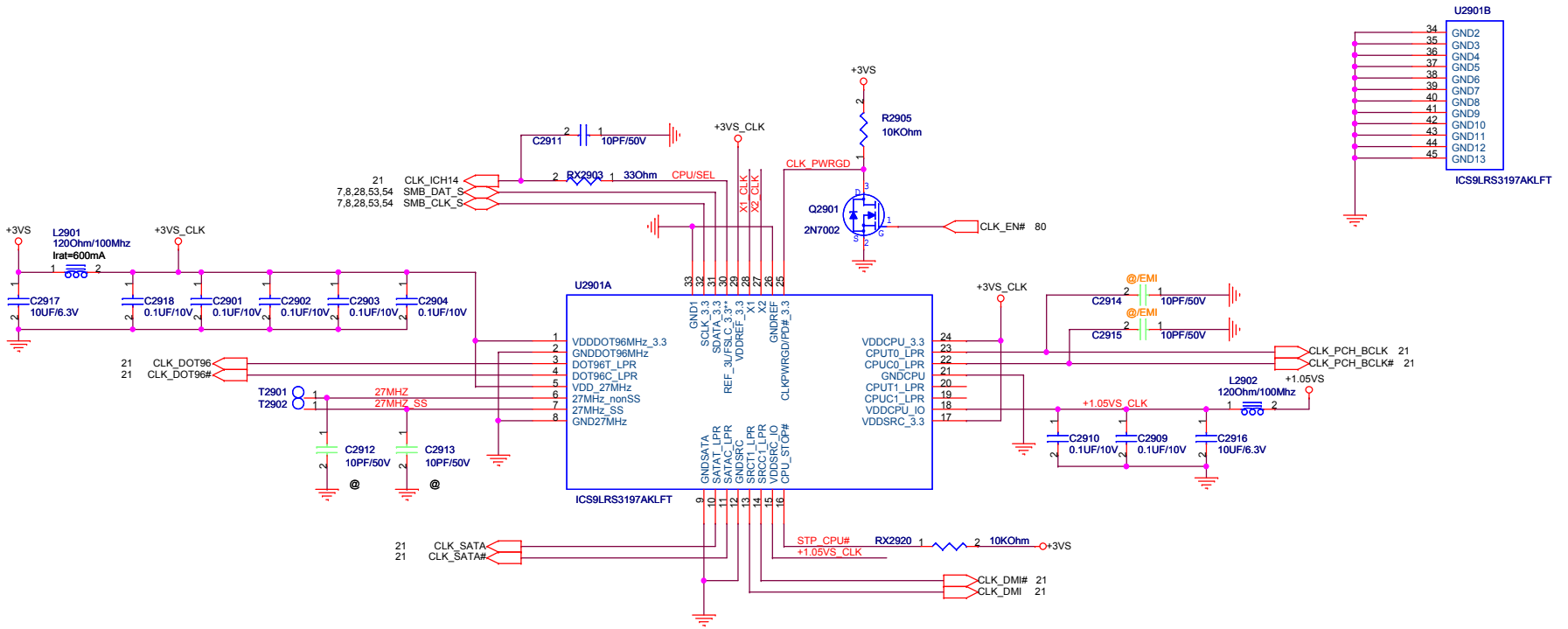


PEGATRON Title : PCH(9)_SPI,SMB

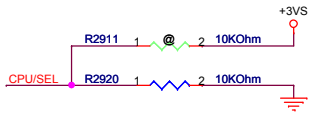
Engineer: Marvin Chen

Size	Project Name	Rev
Custom	H46Y	1.1

Date: Thursday, April 01, 2010 Sheet 28 of 99



Pin30 CPU select :



PIN 30	CPU_0	CPU_1
0(default)	133Mhz	133Mhz
1(0.7V~1.5V)	100Mhz	100Mhz

PEGATRON Title : CLK_SLG8SP585VTR

Engineer: Marvin Chen

Size	Project Name	Rev
Custom	H46Y	1.1

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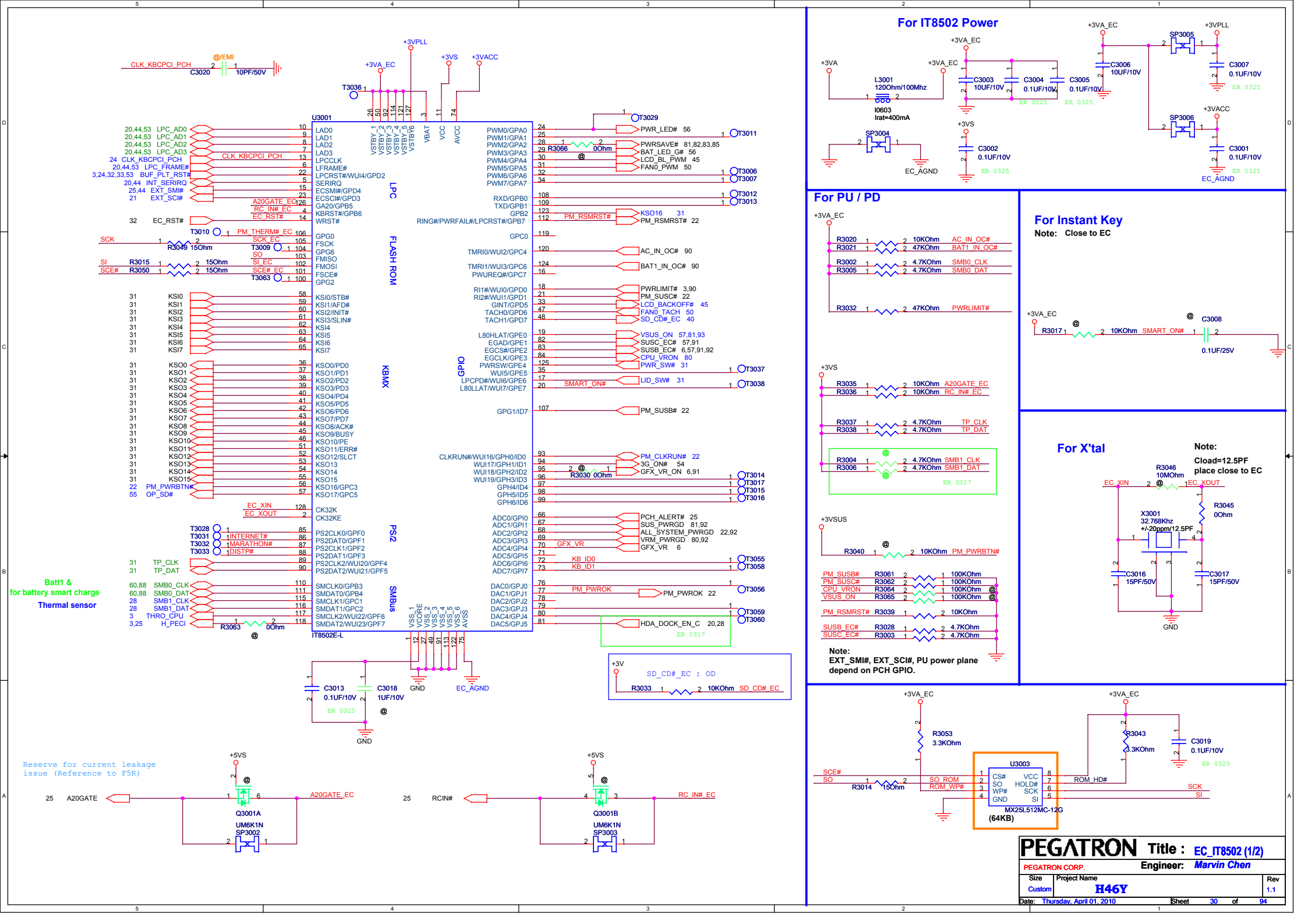
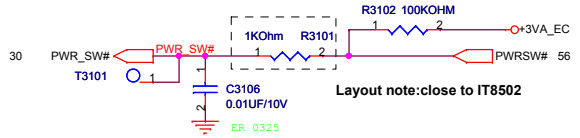
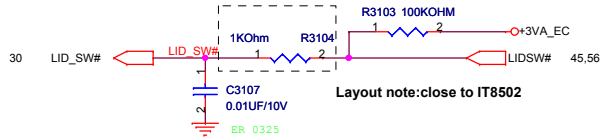

U3001
IT8502E-L
LPC
FLASH ROM
KBMX
PS2
SMBus
GPIO
LAD0
LAD1
LAD2
LAD3
LPCCLK
LFRAME#
LPCRST#/WUI4/GPD2
SERIRQ
ECSMI#/GPD4
ECSCI#/GPD3
GA20/GPB5
KBRST#/GPB6
WRST#
GPG0
FSCK
GPG6
FMISO
FMOSI
FSCE#
GPG2
KSI0/STB#
KSI1/AFD#
KSI2/INIT#
KSI3/SLIN#
KSI4
KSI5
KSI6
KSI7
KSO0/PD0
KSO1/PD1
KSO2/PD2
KSO3/PD3
KSO4/PD4
KSO5/PD5
KSO6/PD6
KSO7/PD7
KSO8/ACK#
KSO9/BUSY
KSO10/PE
KSO11/ERR#
KSO12/SLCT
KSO13
KSO14
KSO15
KSO16/GPC3
KSO17/GPC5
CK32K
CK32KE
PS2CLK0/GPF0
PS2DAT0/GPF1
PS2CLK1/GPF2
PS2DAT1/GPF3
PS2CLK2/WUI20/GPF4
PS2DAT2/WUI21/GPF5
SMCLK0/GPB3
SMDAT0/GPB4
SMCLK1/GPC1
SMDAT1/GPC2
SMCLK2/WUI22/GPF6
SMDAT2/WUI23/GPF7
PWM0/GPA0
PWM1/GPA1
PWM2/GPA2
PWM3/GPA3
PWM4/GPA4
PWM5/GPA5
PWM6/GPA6
PWM7/GPA7
RXD/GPB0
TXD/GPB1
GPB2
RING#/PWRFAIL#/LPCRST#/GPB7
GPC0
TMRI0/WUI2/GPC4
TMRI1/WUI3/GPC6
PWUREQ#/GPC7
RI1#/WUI0/GPD0
RI2#/WUI1/GPD1
GINT/GPD5
TACH0/GPD6
TACH1/GPD7
L80HLAT/GPE0
EGAD/GPE1
EGCS#/GPE2
EGCLK/GPE3
PWRSW/GPE4
WUI5/GPE5
LPCPD#/WUI6/GPE6
L80LLAT/WUI7/GPE7
GPG1/ID7
CLKRUN#/WUI16/GPH0/ID0
WUI17/GPH1/ID1
WUI18/GPH2/ID2
WUI19/GPH3/ID3
GPH4/ID4
GPH5/ID5
GPH6/ID6
ADC0/GPI0
ADC1/GPI1
ADC2/GPI2
ADC3/GPI3
ADC4/GPI4
ADC5/GPI5
ADC6/GPI6
ADC7/GPI7
DAC0/GPJ0
DAC1/GPJ1
DAC2/GPJ2
DAC3/GPJ3
DAC4/GPJ4
DAC5/GPJ5
VSTBY_1
VSTBY_2
VSTBY_3
VSTBY_4
VSTBY_5
VSTBY6
VBAT
VCC
AVCC
VSS_1
VCORE
VSS_2
VSS_3
VSS_4
VSS_5
VSS_6
AVSS
+3VPLL
+3VS
+3VACC
+3VA_EC
@/EMI
CLK_KBCPCI_PCH
C3020
10PF/50V
T3036
C3013
0.1UF/10V
C3018
1UF/10V
ER 0325
GND
EC_AGND
Batt1 &
for battery smart charge
Thermal sensor
R3063
0Ohm
EC_XIN
EC_XOUT
T3028
T3031
T3032
T3033
INTERNET#
MARATHON#
DISTP#
TP_CLK
TP_DAT
SMB0_CLK
SMB0_DAT
SMB1_CLK
SMB1_DAT
THRO_CPU
H_PECI
T3029
PWR_LED# 56
T3011
PWRSAVE# 81,82,83,85
R3066
0Ohm
BAT_LED_G# 56
LCD_BL_PWM 45
FAN0_PWM 50
T3006
T3007
T3012
T3013
KSO16 31
PM_RSMRST# 22
AC_IN_OC# 90
BAT1_IN_OC# 90
PWRLIMIT# 3,90
PM_SUSC# 22
LCD_BACKOFF# 45
FAN0_TACH 50
SD_CD#_EC 40
VSUS_ON 57,81,93
SUSC_EC# 57,91
SUSB_EC# 6,57,91,92
CPU_VRON 80
PWR_SW# 31
T3037
LID_SW# 31
SMART_ON#
T3038
PM_SUSB# 22
PM_CLKRUN# 22
3G_ON# 54
GFX_VR_ON 6,91
R3030
0Ohm
T3014
T3017
T3015
T3016
PCH_ALERT# 25
SUS_PWRGD 81,92
ALL_SYSTEM_PWRGD 22,92
VRM_PWRGD 80,92
GFX_VR 6
KB_ID0
KB_ID1
T3055
T3058
PM_PWROK
PM_PWROK 22
T3056
T3059
T3060
HDA_DOCK_EN_C 20,28
ER 0317
SD_CD#_EC : OD
R3033
10KOhm SD_CD#_EC
Reserve for current leakage
issue (Reference to F5R)
A20GATE
A20GATE_EC
Q3001A
UM6K1N
SP3002
RCIN#
RC_IN#_EC
Q3001B
SP3003
For IT8502 Power
L3001
120Ohm/100Mhz
I0603
Irat=400mA
SP3004
EC_AGND
C3003
10UF/10V
C3004
0.1UF/10V
C3005
0.1UF/10V
C3002
0.1UF/10V
C3006
10UF/10V
SP3005
C3007
0.1UF/10V
SP3006
C3001
0.1UF/10V
For PU / PD
R3020
10KOhm AC_IN_OC#
R3021
47KOhm BAT1_IN_OC#
R3002
4.7KOhm SMB0_CLK
R3005
4.7KOhm SMB0_DAT
R3032
47KOhm PWRLIMIT#
R3035
10KOhm A20GATE_EC
R3036
10KOhm RC_IN#_EC
R3037
4.7KOhm TP_CLK
R3038
4.7KOhm TP_DAT
R3004
4.7KOhm SMB1_CLK
R3006
4.7KOhm SMB1_DAT
R3040
10KOhm PM_PWRBTN#
R3061
100KOhm
R3062
100KOhm
R3064
100KOhm
R3065
100KOhm
R3039
10KOhm
R3028
4.7KOhm
R3003
4.7KOhm
Note:
EXT_SMI#, EXT_SCI#, PU power plane
depend on PCH GPIO.
For Instant Key
Note: Close to EC
R3017
10KOhm SMART_ON#
C3008
0.1UF/25V
For X'tal
Note:
Cload=12.5PF
place close to EC
R3046
10MOhm
R3045
0Ohm
X3001
32.768Khz
+/-20ppm/12.5PF
C3016
15PF/50V
C3017
15PF/50V
R3053
3.3KOhm
R3043
3.3KOhm
C3019
0.1UF/10V
R3014
15Ohm
SO_ROM
ROM_WP#
U3003
MX25L512MC-12G
(64KB)
ROM_HD#
SCK
SI
PEGATRON
Title : EC_IT8502 (1/2)
PEGATRON CORP.
Engineer: Marvin Chen
Size
Custom
Project Name
H46Y
Rev
1.1
Date: Thursday, April 01, 2010
Sheet 30 of 94

For Switch

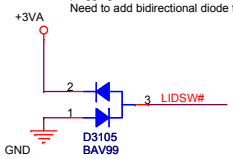
PWR SWITCH

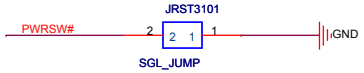


LID SWITCH



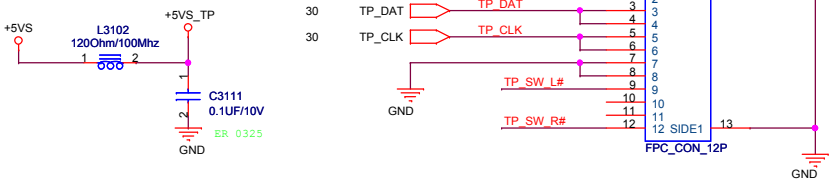
Note:
LID_SW# is easy to cause high voltage damage when plugging inverter board connector to M/B with AC present.
Need to add bidirectional diode to protect this pin.

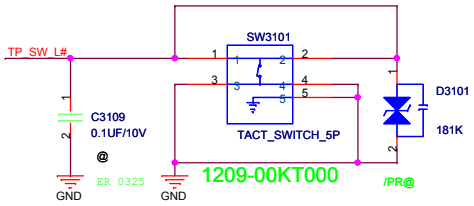


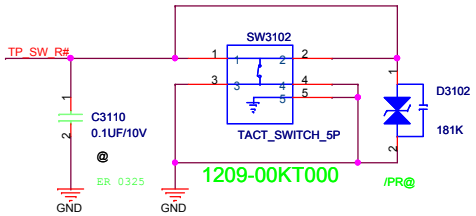


Touch-Pad

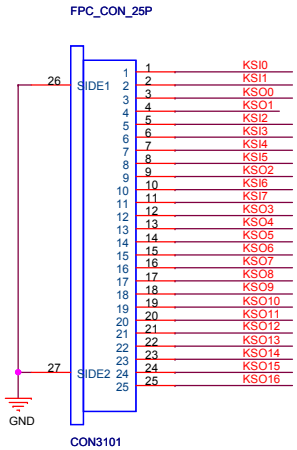
1218-001Z000



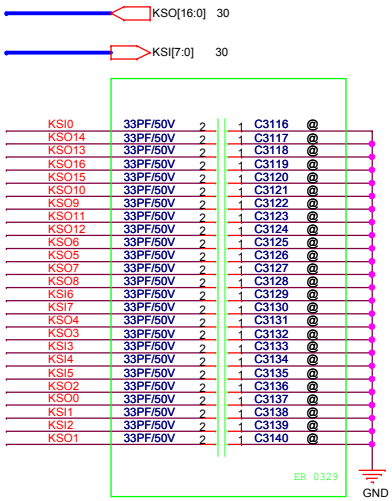




Keyboard Connector



1218-0009000



PEGATRON
PEGATRON CORP.

Title : EC_IT8502 (2/2)
Engineer: Marvin Chen

Size	Project Name	Rev
Custom	H46Y	1.1

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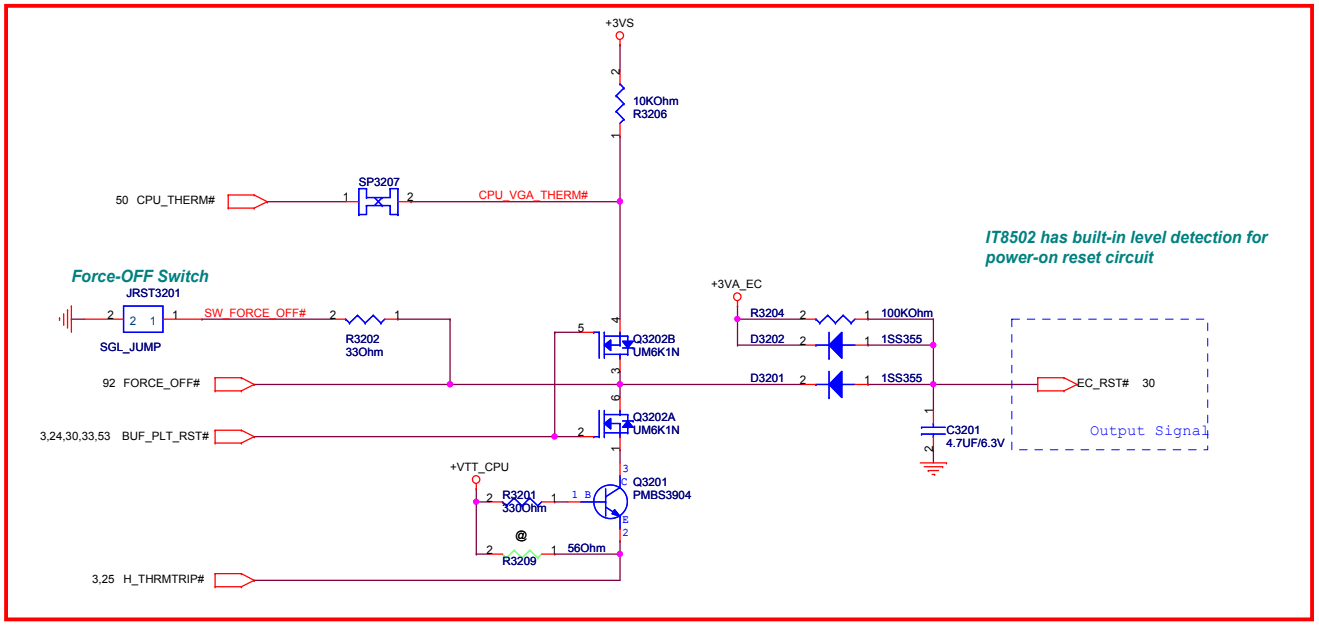
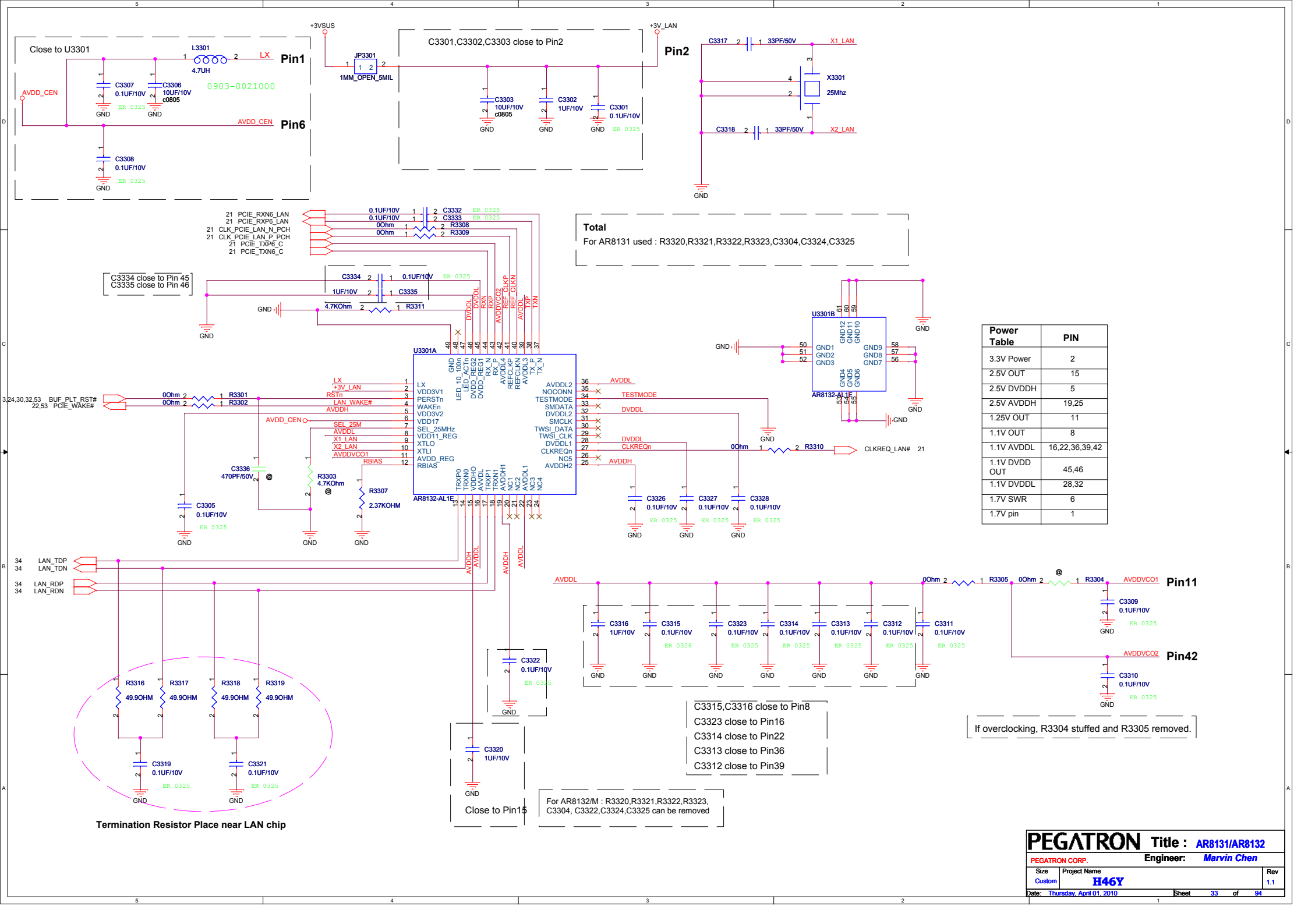
Thermal Policy



PEGATRON	Title : RST_Reset Circuit	
	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 32 of 99	


Close to U3301
L3301
4.7UH
LX
Pin1
AVDD_CEN
Pin6
C3307 0.1UF/10V
C3306 10UF/10V c0805
C3308 0.1UF/10V
0903-0021000
+3VSUS
JP3301
1MM_OPEN_5MIL
C3301,C3302,C3303 close to Pin2
Pin2
+3V_LAN
C3303 10UF/10V c0805
C3302 1UF/10V
C3301 0.1UF/10V
C3317 33PF/50V
X1_LAN
X3301
25Mhz
C3318 33PF/50V
X2_LAN
Total
For AR8131 used : R3320,R3321,R3322,R3323,C3304,C3324,C3325
C3334 close to Pin 45
C3335 close to Pin 46
U3301A
AR8132-AL1E
U3301B
AR8132-AL1E
Power Table
PIN
3.3V Power 2
2.5V OUT 15
2.5V DVDDH 5
2.5V AVDDH 19,25
1.25V OUT 11
1.1V OUT 8
1.1V AVDDL 16,22,36,39,42
1.1V DVDD OUT 45,46
1.1V DVDDL 28,32
1.7V SWR 6
1.7V pin 1
Termination Resistor Place near LAN chip
Close to Pin15
For AR8132/M : R3320,R3321,R3322,R3323, C3304, C3322,C3324,C3325 can be removed
C3315,C3316 close to Pin8
C3323 close to Pin16
C3314 close to Pin22
C3313 close to Pin36
C3312 close to Pin39
Pin11
Pin42
If overclocking, R3304 stuffed and R3305 removed.
PEGATRON
Title : AR8131/AR8132
PEGATRON CORP.
Engineer: Marvin Chen
Size Custom
Project Name H46Y
Rev 1.1
Date: Thursday, April 01, 2010
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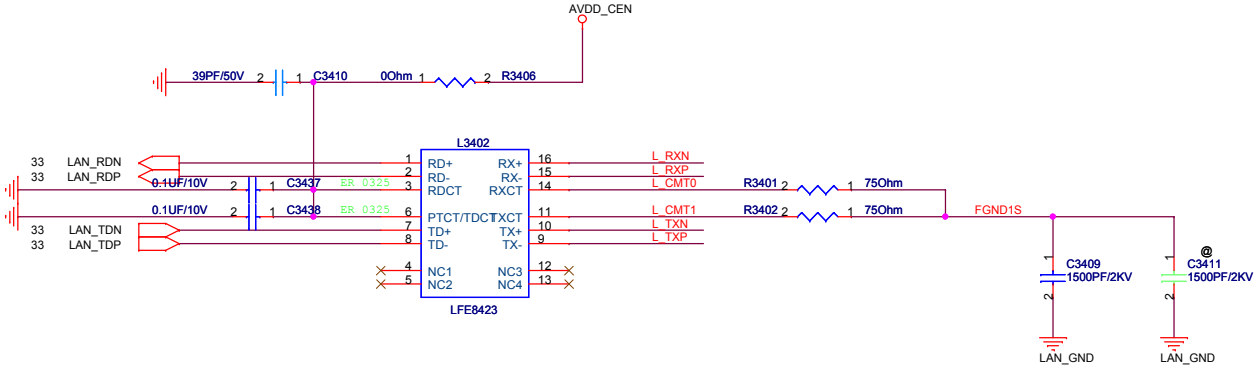
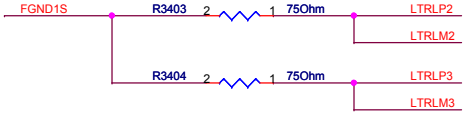
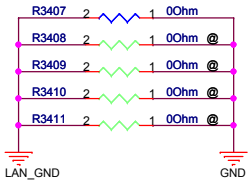
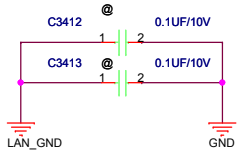


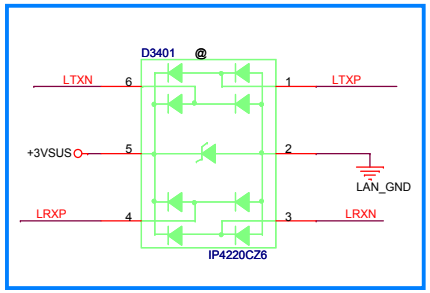


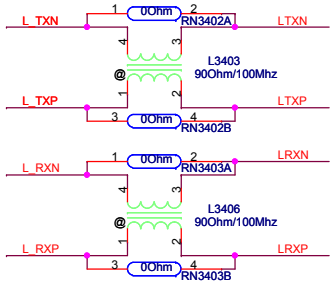




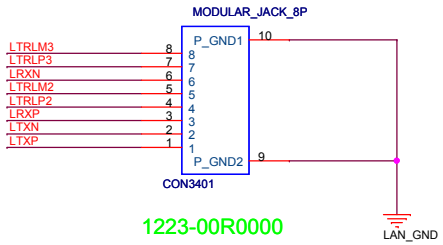
FOR EMI

Co-Layout

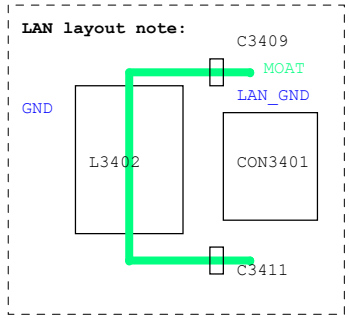




RJ45

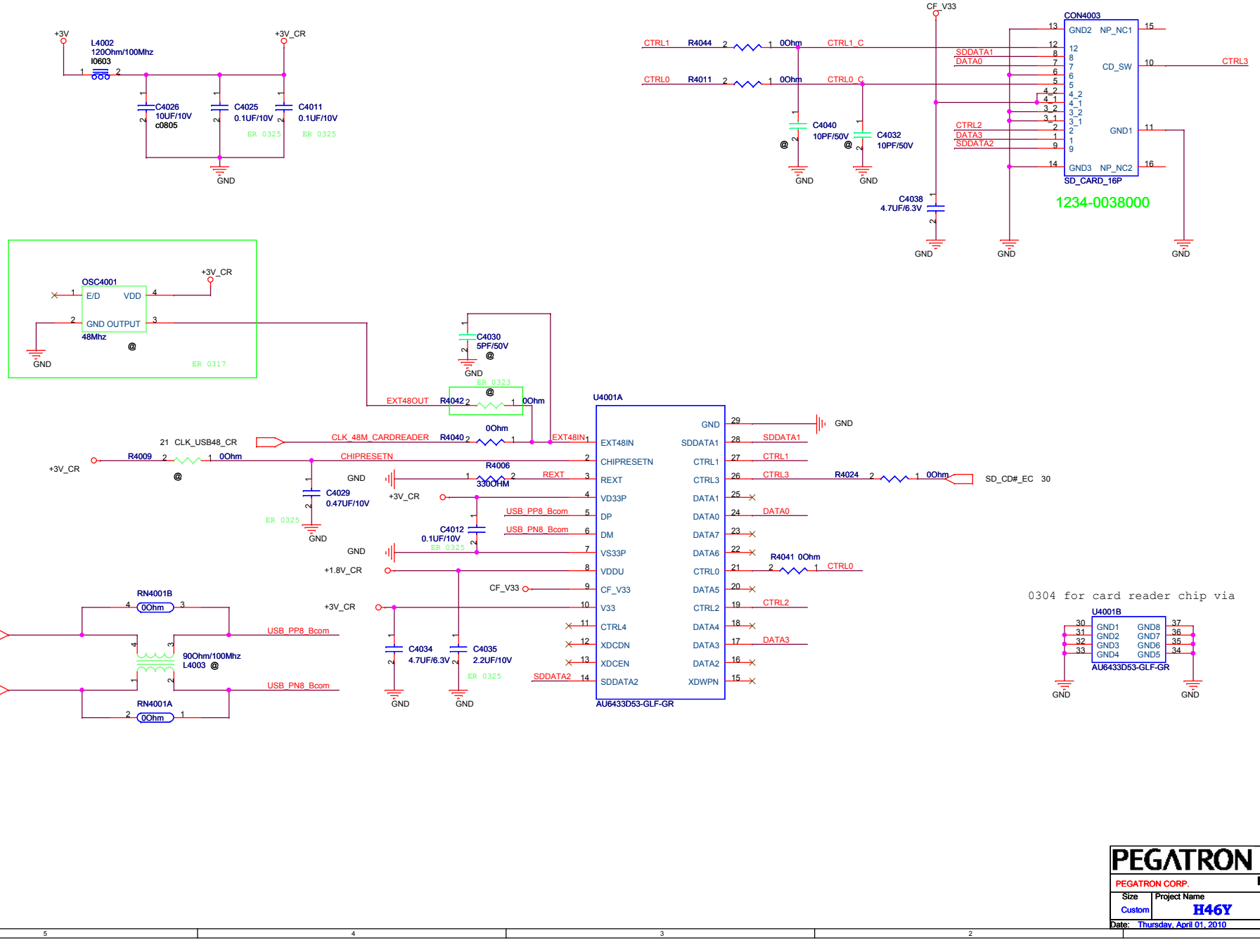


1223-00R0000

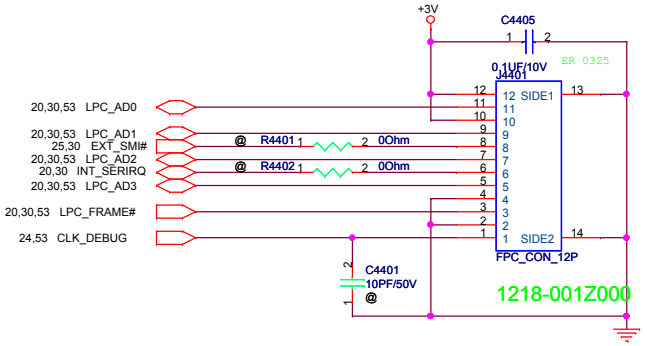


PEGATRON	Title : LAN Connector	
PEGATRON CORP.	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 34 of 94	

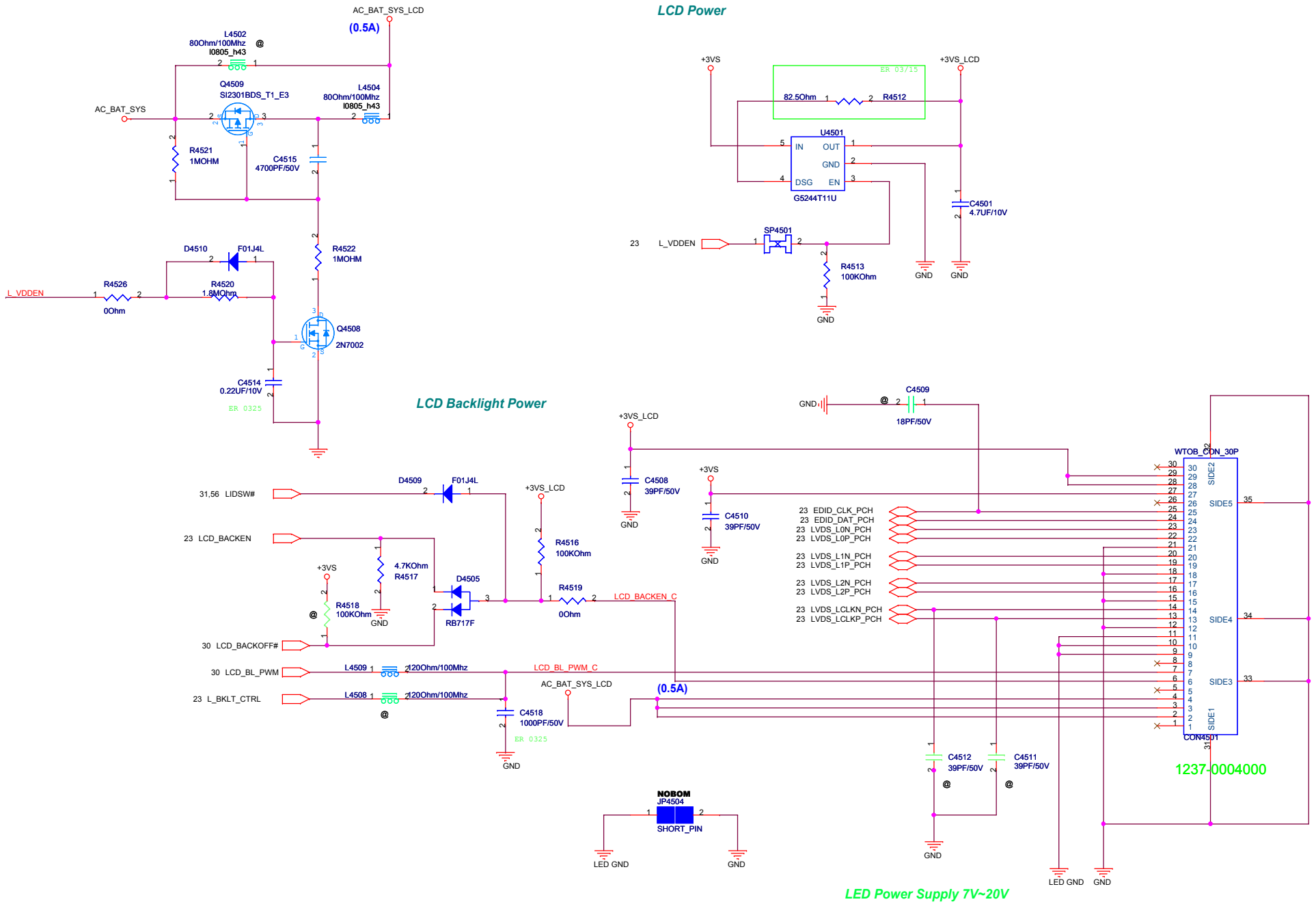
CARD READER CONNECTOR



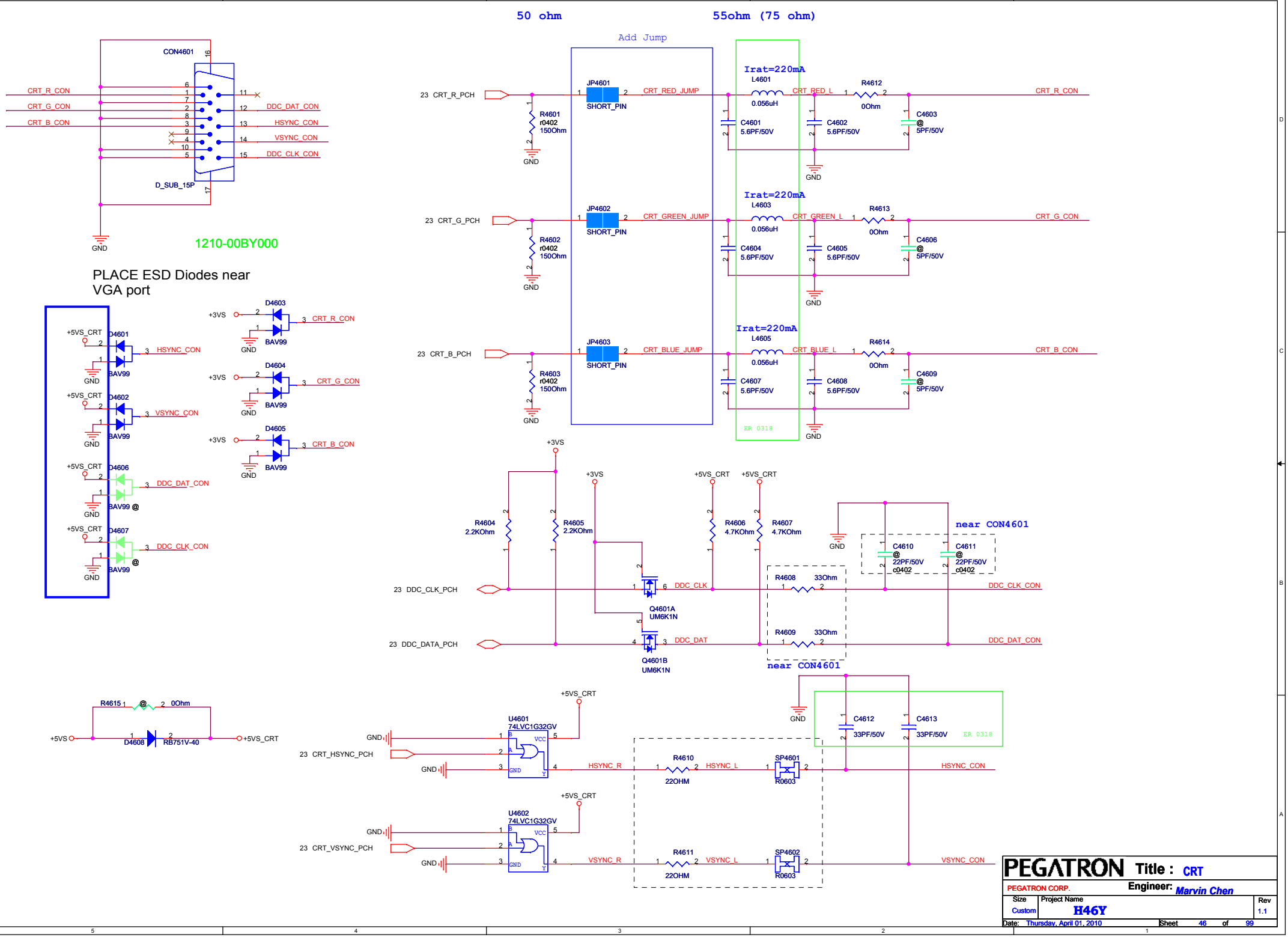
PEGATRON	Title : CardReader	
PEGATRON CORP.	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 40 of 99	



PEGATRON	Title : DEBUG	
PEGATRON CORP.	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 44 of 99	



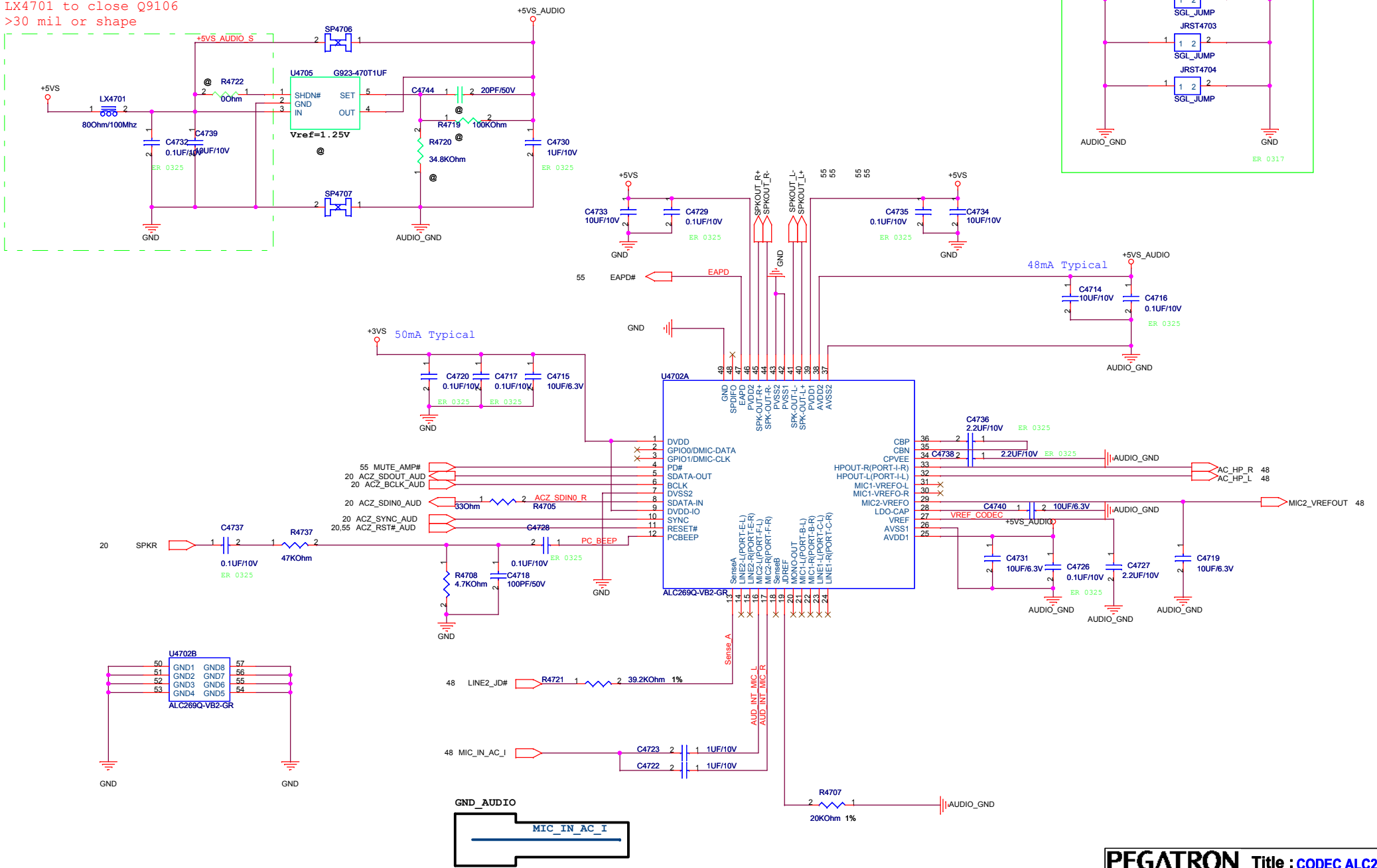
PEGATRON	Title : LVDS OUT	
PEGATRON CORP.	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 45 of 99	


50 ohm
55ohm (75 ohm)
Add Jump
CON4601
CRT_R_CON
CRT_G_CON
CRT_B_CON
DDC_DAT_CON
HSYNC_CON
VSYNC_CON
DDC_CLK_CON
D_SUB_15P
GND
1210-00BY000
PLACE ESD Diodes near VGA port
D4601
D4602
D4603
D4604
D4605
D4606
D4607
BAV99
BAV99 @
+5VS_CRT
+3VS
23 CRT_R_PCH
23 CRT_G_PCH
23 CRT_B_PCH
JP4601
JP4602
JP4603
SHORT_PIN
CRT_RED_JUMP
CRT_GREEN_JUMP
CRT_BLUE_JUMP
R4601 r0402 150Ohm
R4602 r0402 150Ohm
R4603 r0402 150Ohm
Irat=220mA
L4601
L4603
L4605
0.056uH
CRT_RED_L
CRT_GREEN_L
CRT_BLUE_L
R4612
R4613
R4614
0Ohm
C4601 5.6PF/50V
C4602 5.6PF/50V
C4603 @ 5PF/50V
C4604 5.6PF/50V
C4605 5.6PF/50V
C4606 @ 5PF/50V
C4607 5.6PF/50V
C4608 5.6PF/50V
C4609 @ 5PF/50V
ER 0318
R4604 2.2KOhm
R4605 2.2KOhm
R4606 4.7KOhm
R4607 4.7KOhm
near CON4601
C4610 @ 22PF/50V c0402
C4611 @ 22PF/50V c0402
23 DDC_CLK_PCH
23 DDC_DATA_PCH
DDC_CLK
DDC_DAT
R4608 33Ohm
R4609 33Ohm
Q4601A UM6K1N
Q4601B UM6K1N
R4615 @ 0Ohm
D4608 RB751V-40
U4601 74LVC1G32GV
U4602 74LVC1G32GV
23 CRT_HSYNC_PCH
23 CRT_VSYNC_PCH
HSYNC_R
VSYNC_R
HSYNC_L
VSYNC_L
R4610 22OHM
R4611 22OHM
SP4601 R0603
SP4602 R0603
C4612 33PF/50V
C4613 33PF/50V
PEGATRON
Title : CRT
PEGATRON CORP.
Engineer: Marvin Chen
Size Custom
Project Name H46Y
Rev 1.1
Date: Thursday, April 01, 2010
Sheet 46 of 99

AUDIO POWER

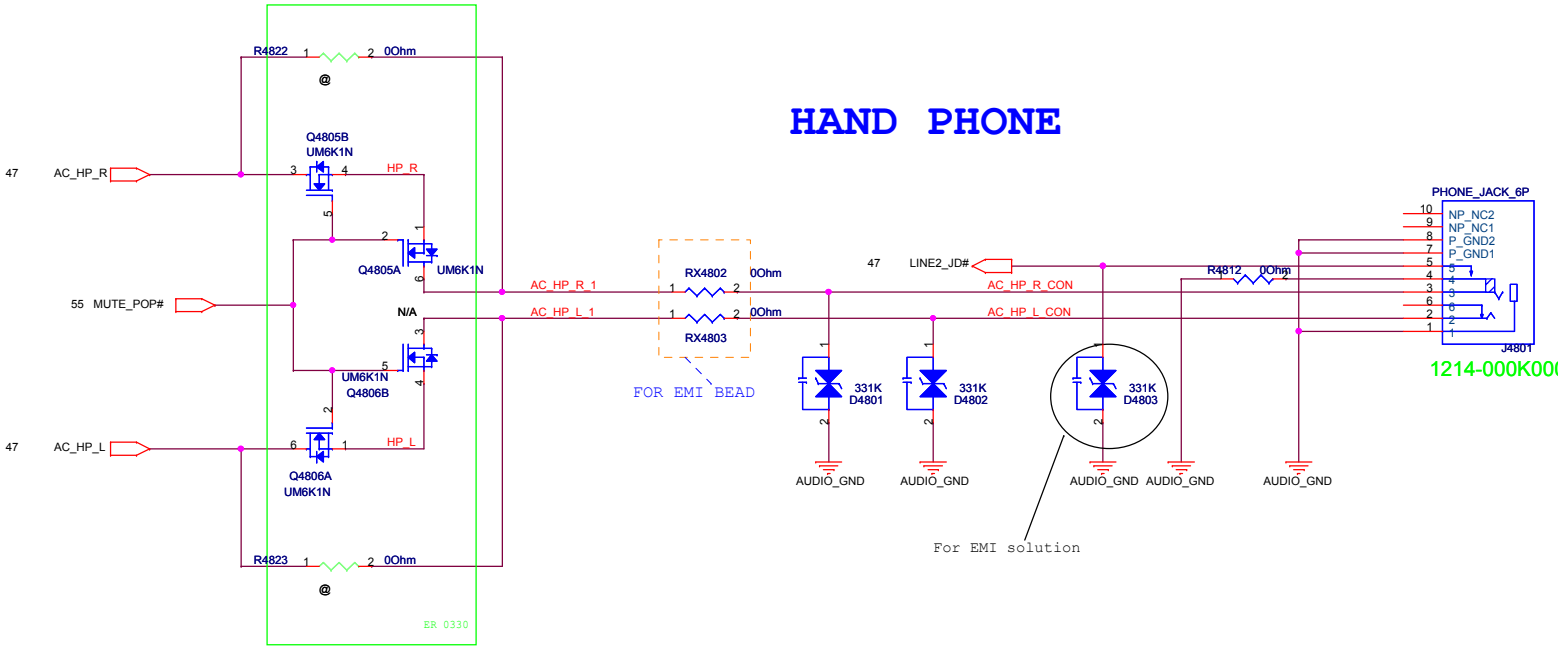
Vout=1.25*(1+(100K/34.8K)= 4.84V

LX4701 to close Q9106
>30 mil or shape



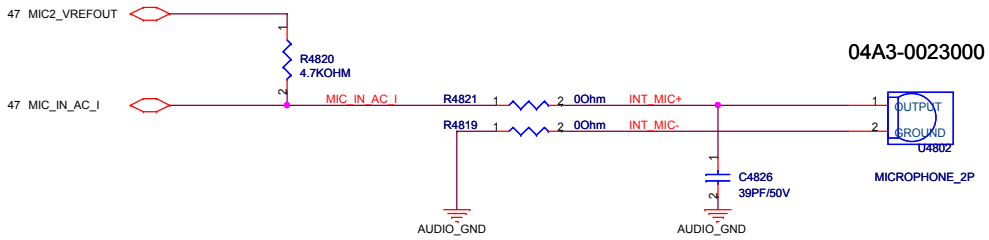
PEGATRON	Title : CODEC ALC269		
ASUSALPHA ODM NB1	Engineer: Marvin Chen		
Size: Custom	Project Name: H46Y		Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 47 of 99		

HAND PHONE



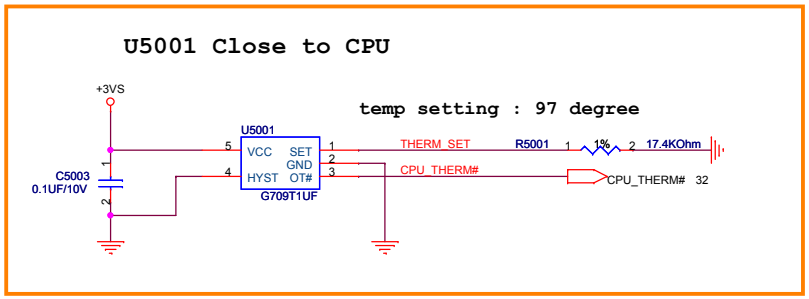
HP JACK

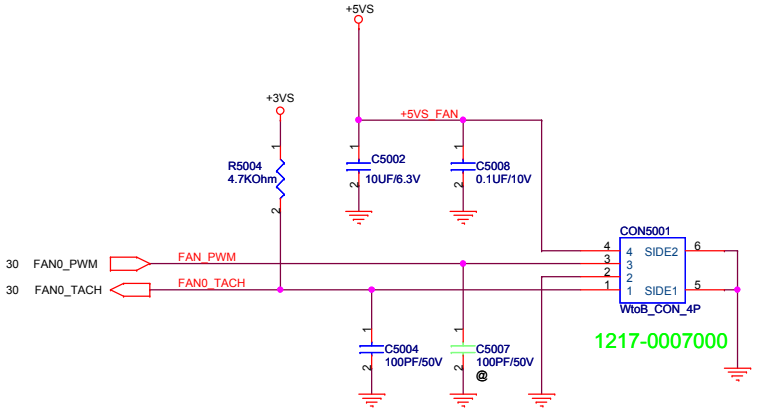
INTERNAL MICROPHONE (Analogy MIC)



04A3-0023000

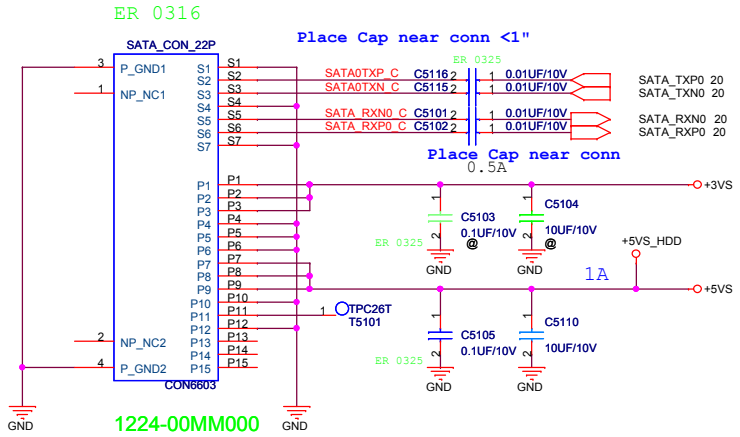
PEGATRON	Title : I/O board	
PEGATRON CORP.	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 48 of 99	



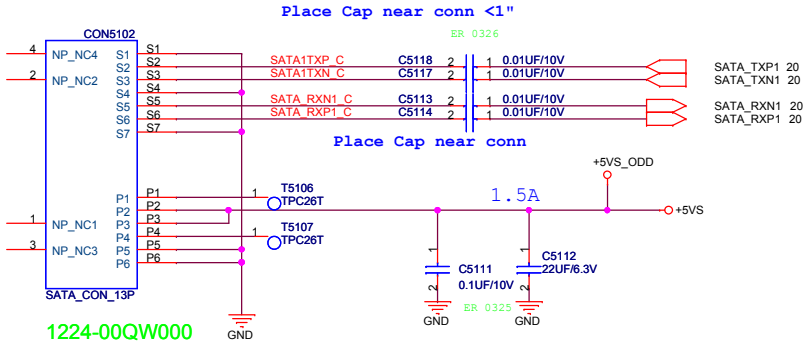


PEGATRON	Title : FAN_Fan,Sensor	
	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 50 of 99	

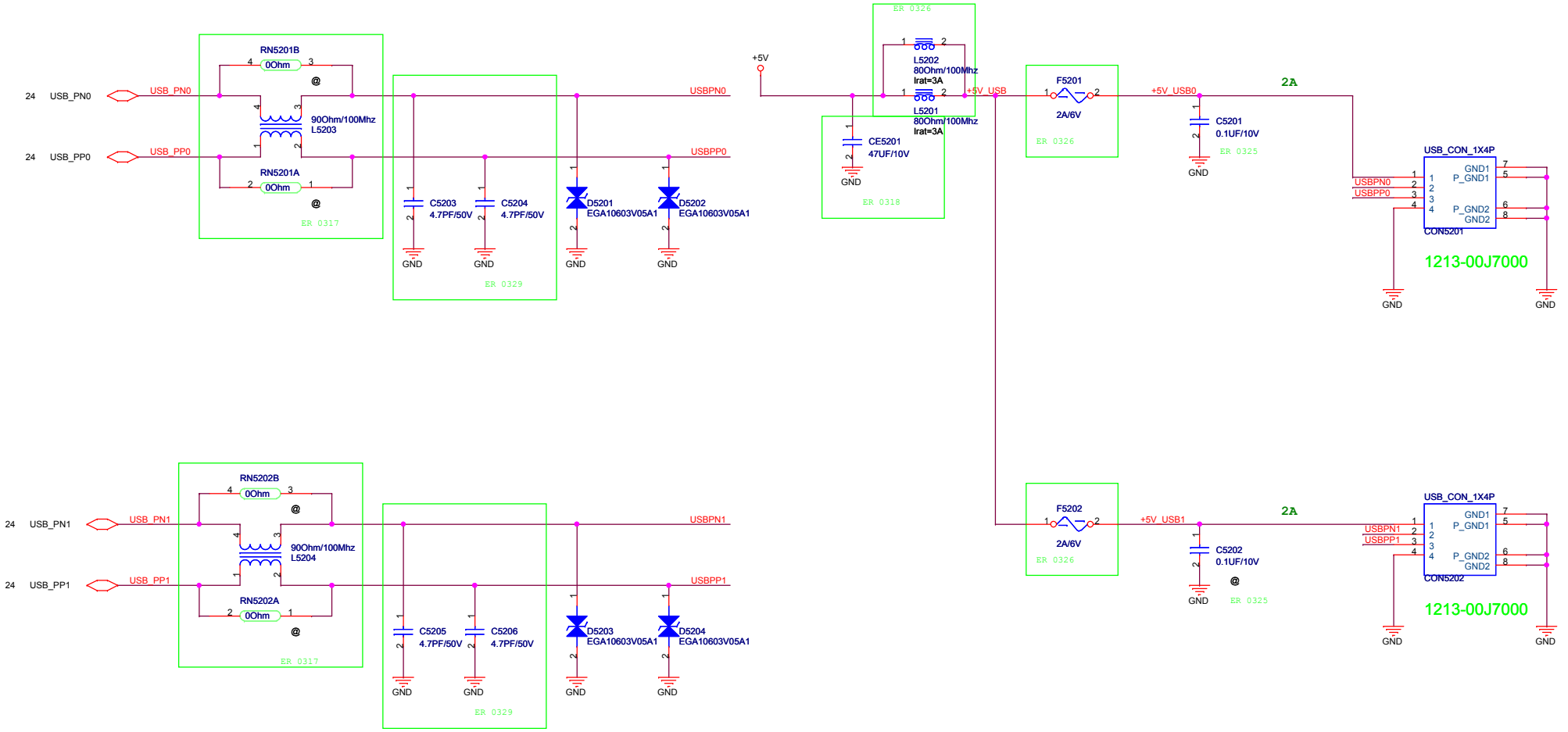
SATA HDD



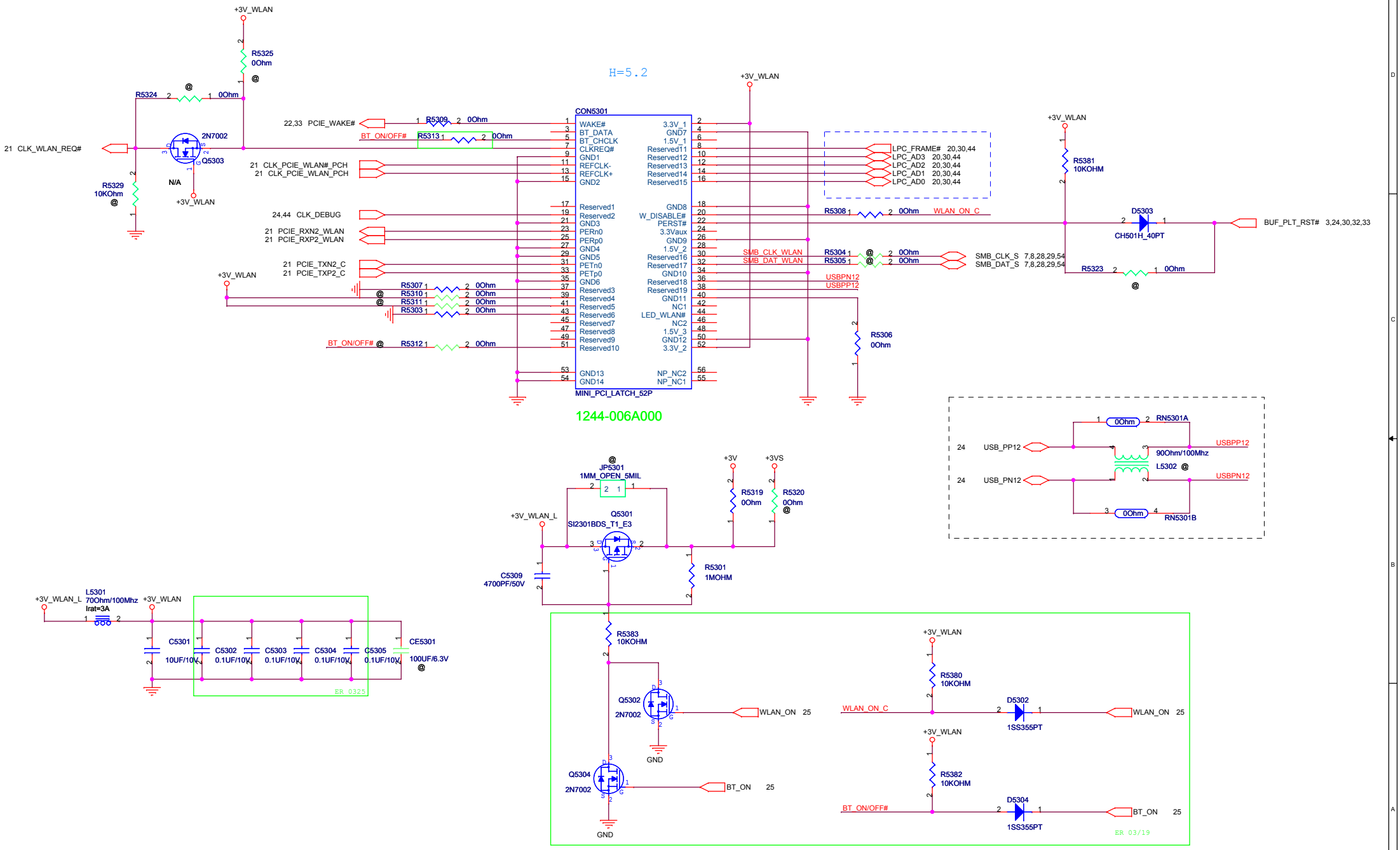
SATA ODD



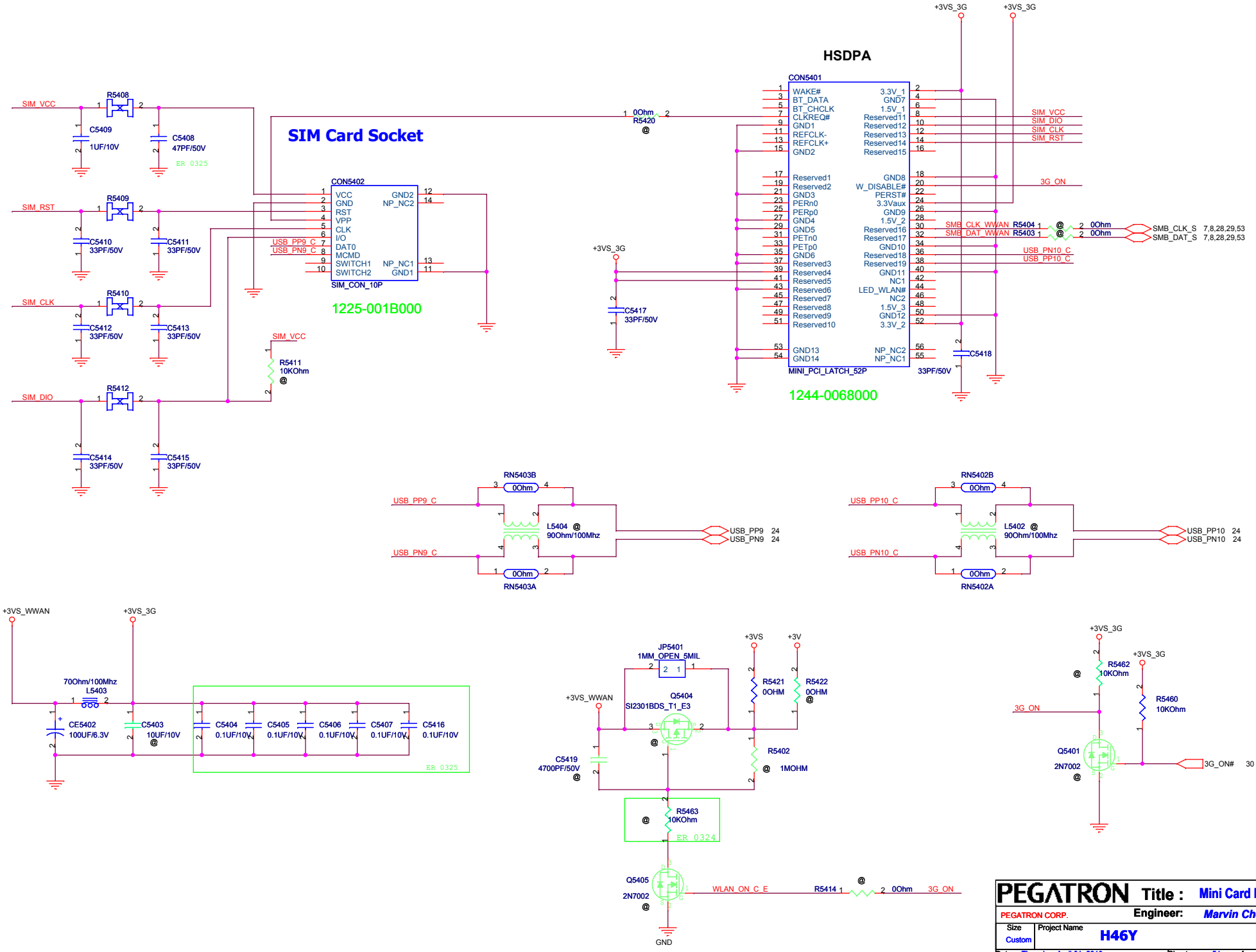
PEGATRON	Title : HDD & CD-ROM	
PEGATRON CORP.	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 51 of 99	



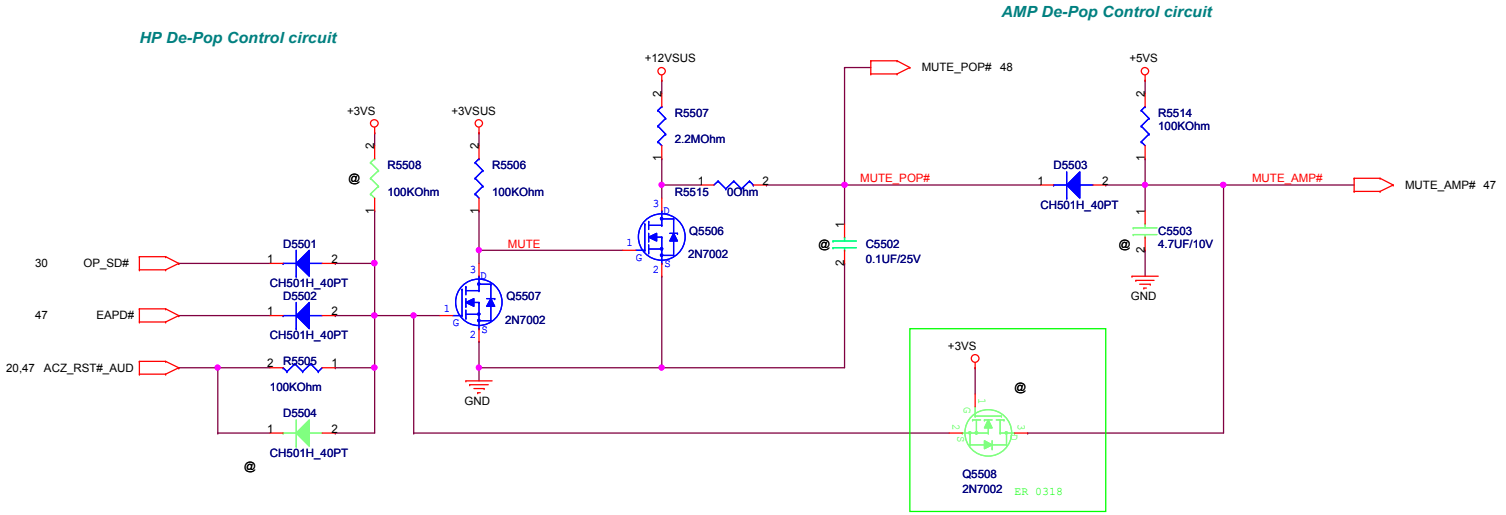
PEGATRON	Title : USB	
PEGATRON CORP.	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 52 of 99	



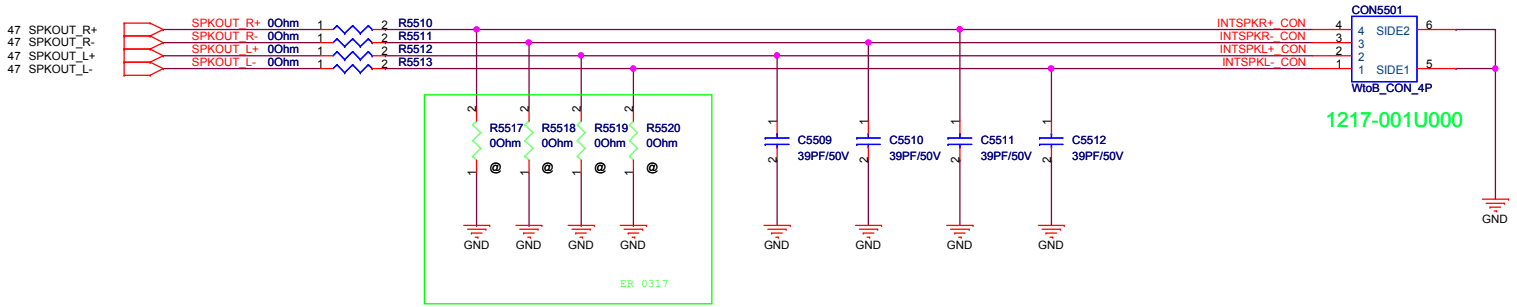
PEGATRON	Title : MINICARD Wireless		
PEGATRON CORP.	Engineer: Marvin Chen		
Size: Custom	Project Name: H46Y		Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 53 of 99		



PEGATRON	Title :	Mini Card HSDPA	
PEGATRON CORP.	Engineer:	Marvin Chen	
Size: Custom	Project Name: H46Y		Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 54 of 99		

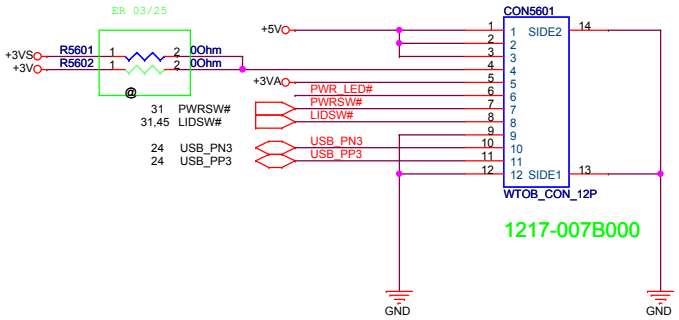


SPEAKER CONNECTOR(1.5W)

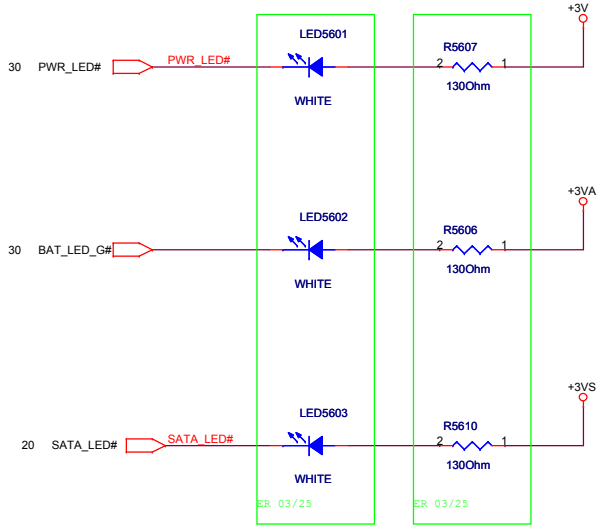


PEGATRON	Title : AUDIO_Speaker		
PEGATRON CORP.	Engineer: Marvin Chen		
Size: Custom	Project Name: H46Y		Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 55 of 99		

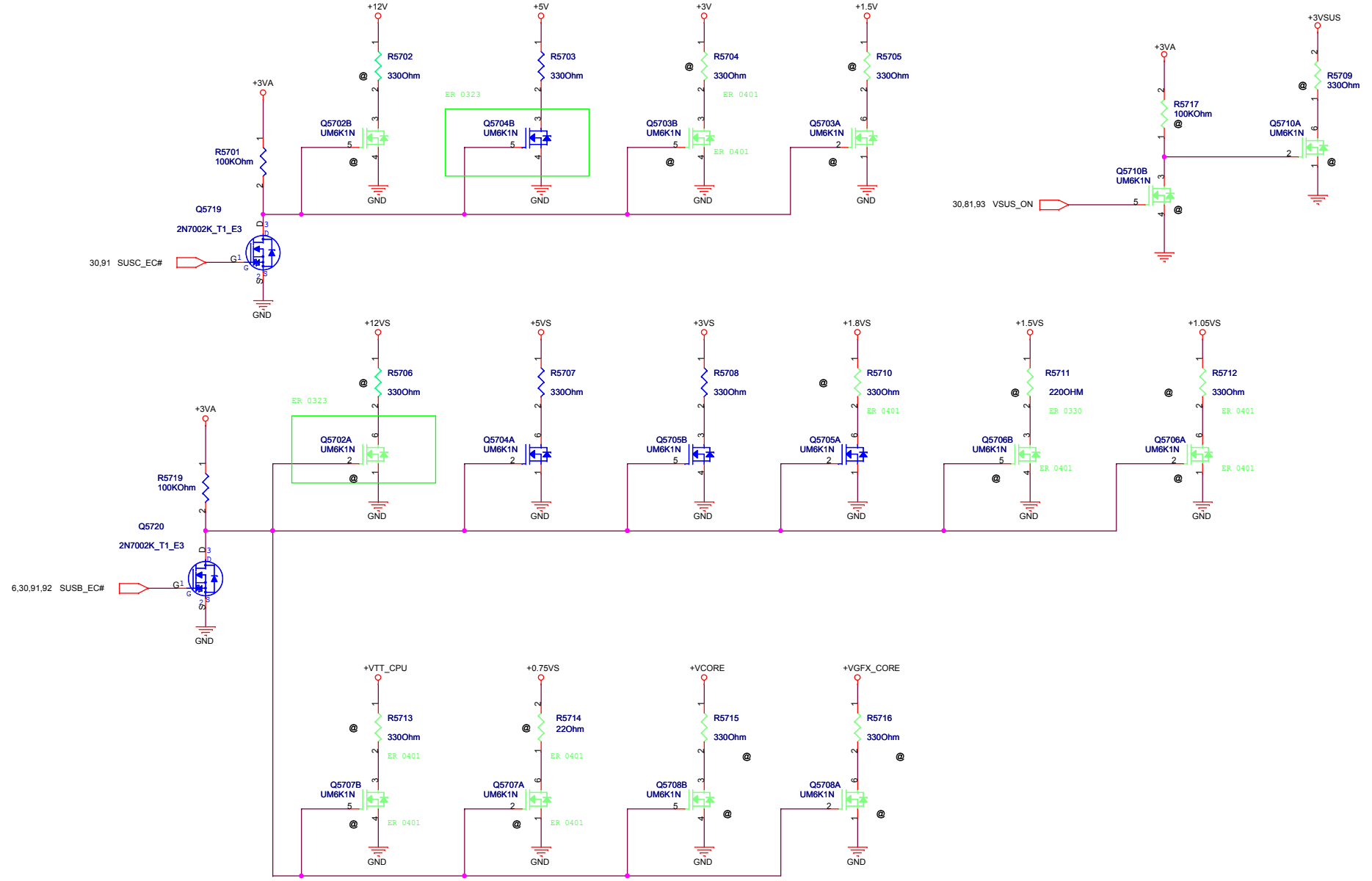
Power SW CONN.



LED



PEGATRON	Title : LED CON	
PEGATRON CORP.	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 56 of 99	



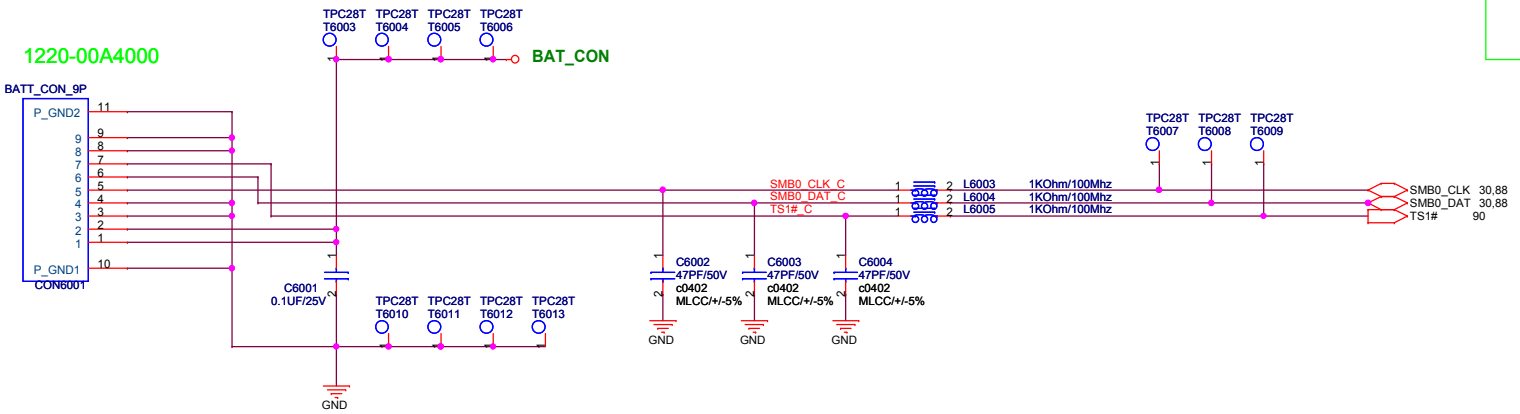
PEGATRON Title : DISCHARGE CKT

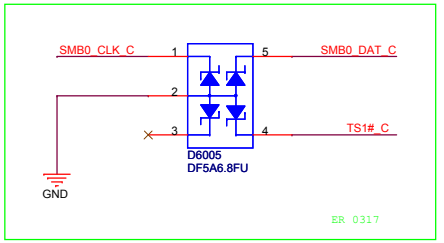
PEGATRON CORP. Engineer: Marvin Chen

Size	Project Name	Rev
Custom	H46Y	1.1

Date: Thursday, April 01, 2010 Sheet 57 of 99

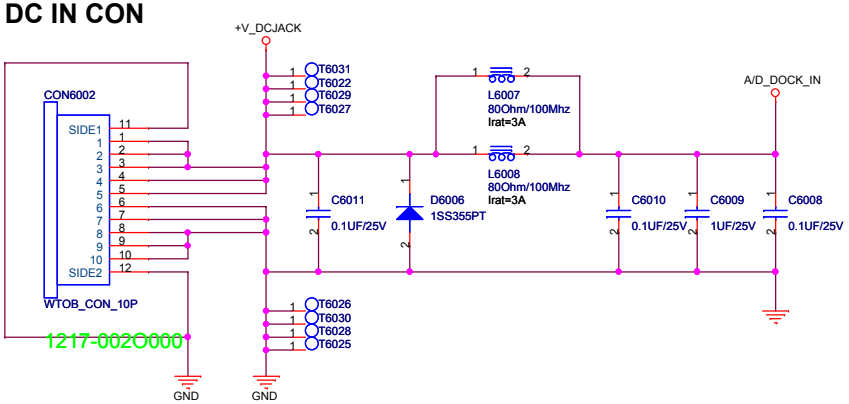
BATTERY



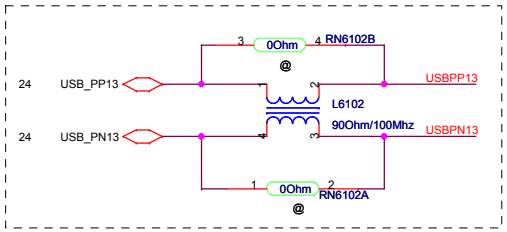


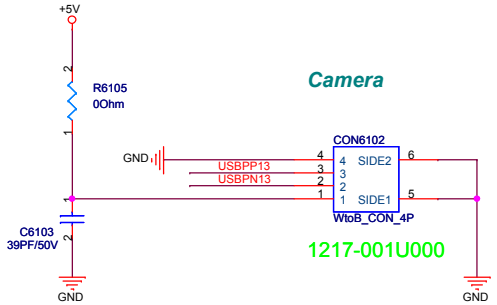
DC JACK-IN

DC IN CON



PEGATRON	Title : DC_Jack & BAT Con	
PEGATRON CORP.	Engineer: Marvin Chen	
Size: Custom	Project Name: H46Y	Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 60 of 99	





PEGATRON Title : Camera

PEGATRON CORP. Engineer: Marvin Chen

Size	Project Name	Rev
Custom	H46Y	1.1

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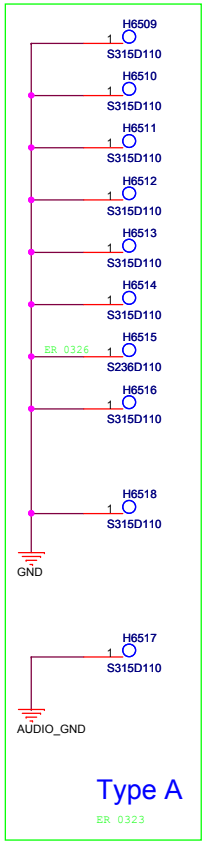
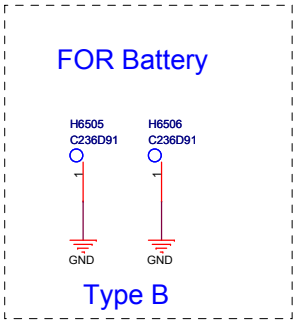
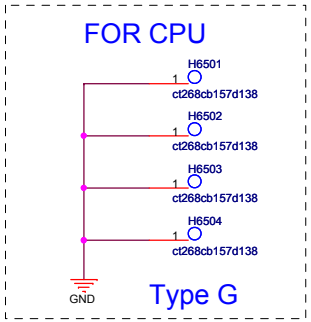
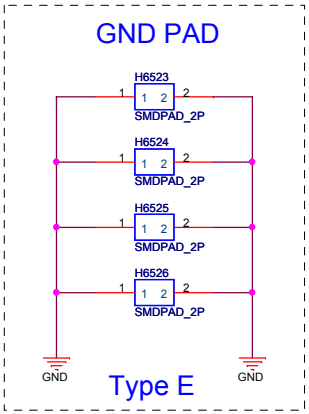
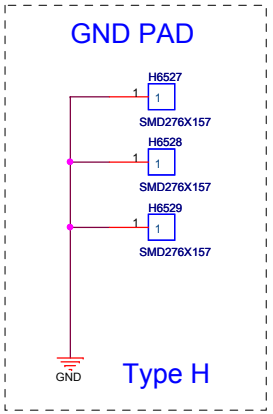
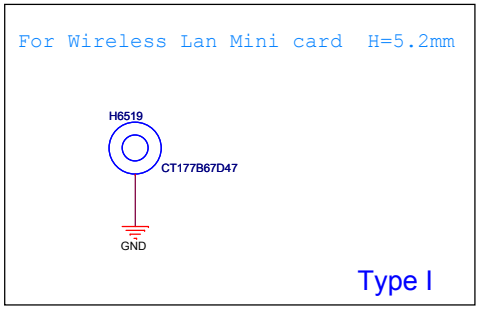


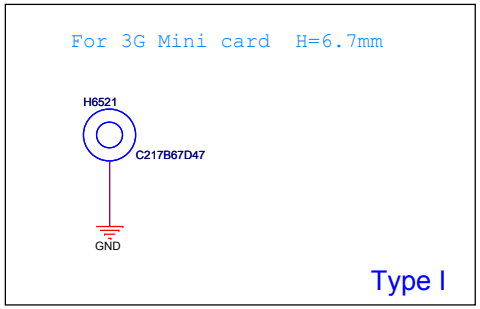


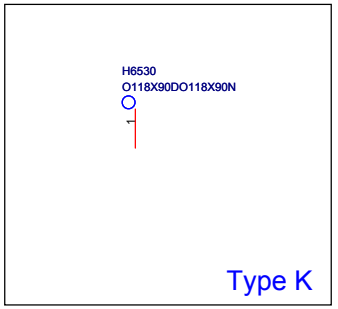


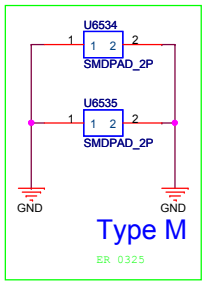


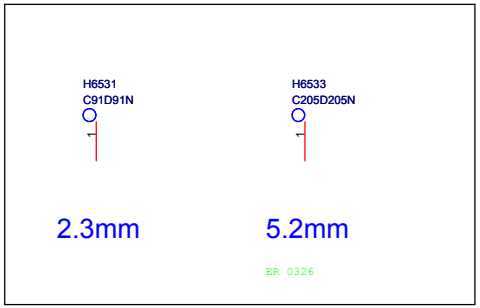


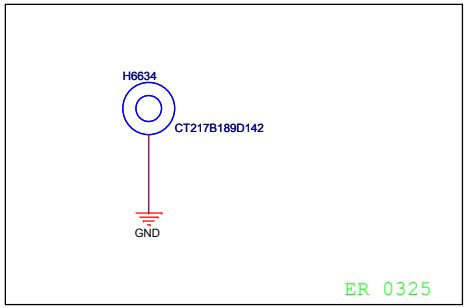










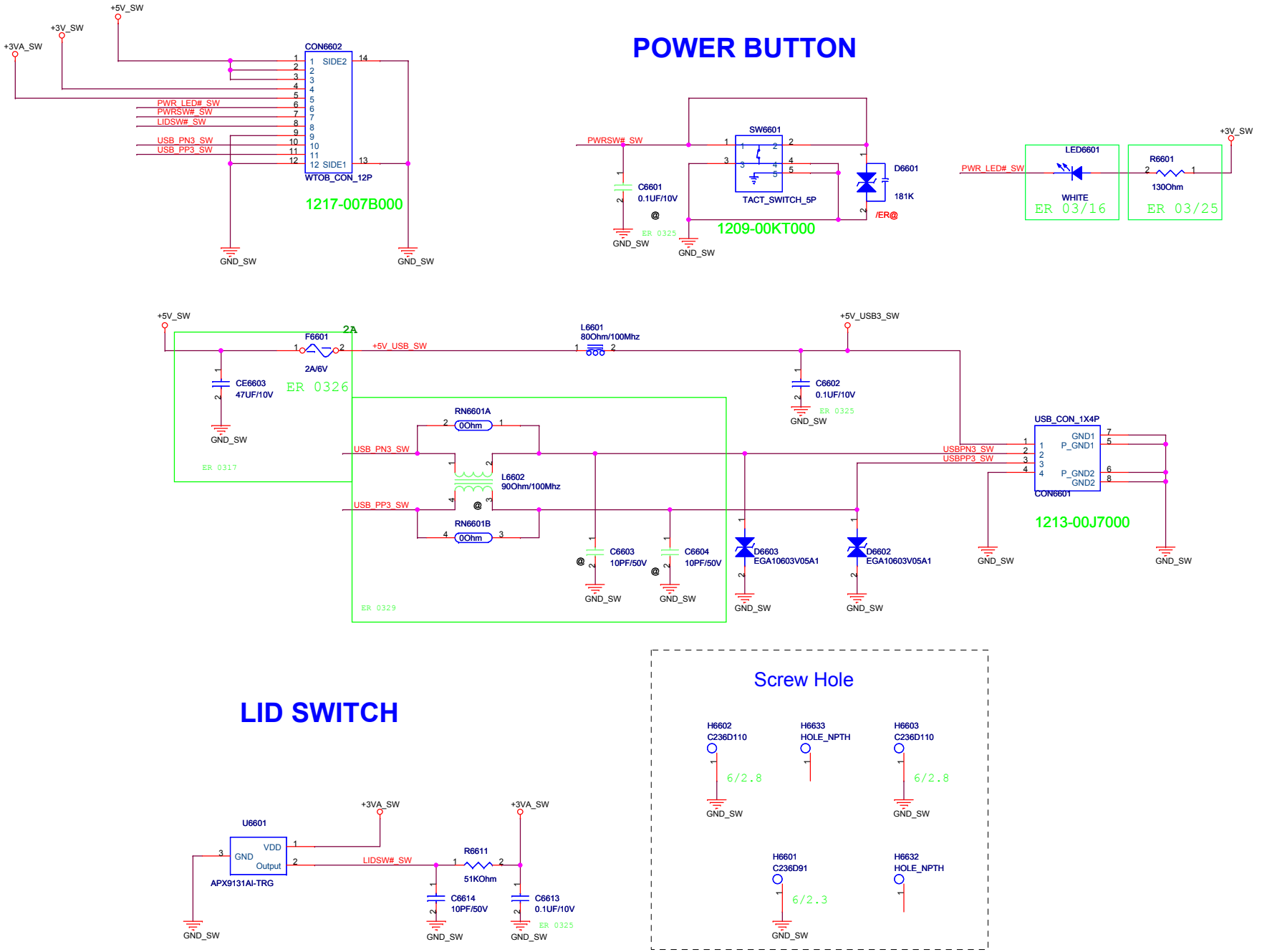


PEGATRON Title : Screw Hole

PEGATRON CORP. Engineer: Marvin Chen

Size	Project Name	Rev
Custom	H46Y	1.1

Date: Thursday, April 01, 2010 Sheet 65 of 99

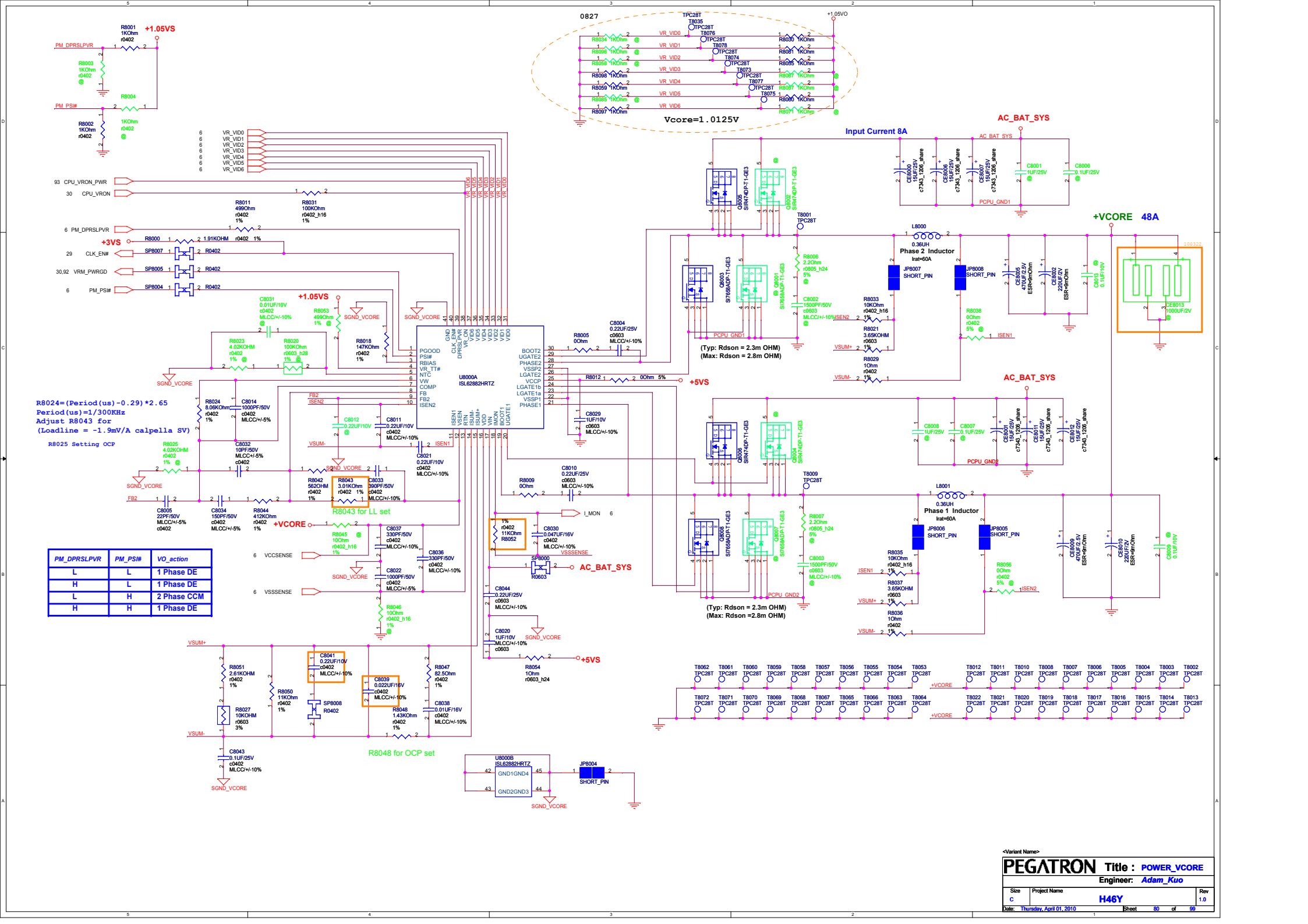


PEGATRON Title : Power SW BD

Engineer: Marvin Chen

Size	Project Name	Rev
Custom	H46Y	1.1

Date: Thursday, April 01, 2010 Sheet 66 of 99



PM_DPRSLPVR	PM_PSI#	VO_action
L	L	1 Phase DE
H	L	1 Phase DE
L	H	2 Phase CCM
H	H	1 Phase DE

<Variant Name>

PEGATRON Title : POWER_VCORE

Engineer: Adam_Kuo

Size	Project Name	Rev
C	H46Y	1.0

Date: Thursday, April 01, 2010 Sheet 80 of 99

SKIP:
GND : DEM operation;
REF : Ultrasonic Mode operation;
VCC : PWM operation.

VENLDO:
Rising Edge:Max:2V;Typ:1.6V;Min:1.2V
Falling Edge:Max:1.06V;Typ:1V;Min:0.94V

TON:(5V/3.3V)
VCC:(200kHz/250kHz)
REF:(300kHz/375kHz)
GND:(400kHz/500kHz)

82,83,85,91,93 SUSB#_PWR

R8106 0Ohm r0402_h16
R8129 REF 0Ohm @
R8105 0Ohm r0402_h16 @ SKIP#

Input Current 3A

C8101 0.1UF/25V @
CE8104 100UF/25V c7343_1206_share

VOUT:Typ.=5.09V;Max.=5.217V;Min.=4.966V;T=2.5%
OCP setting 5.5A (5V:300kHz)

+5VO (Max:5.222A)
+5VSUS 0.401A
JP8102 @ 1MM_OPEN_5MIL

L8101 3.3UH Irat=6A DCR:Typ=28mOhm;Max=30mOhm

C8103 1UF/10V @
CE8101 100UF/6.3V
JP8105 SHORT_PIN
JP8111 SHORT_PIN
JP8109 SHORT_PIN

R8115 2.2Ohm r0805_h24 5%
C8125 1500PF/50V c0603 MLCC/+/-10%

Q8100 SI4134DY-T1-GE3
Q8101 SI4134DY-T1-GE3

+5VAO JP8108 @ 1MM_OPEN_5MIL +5VA

C8134 39PF/50V c0402 MLCC/+/-5% @
C8136 0.1UF/25V c0402 MLCC/+/-10% @
R8108 30.9KOhm r0402 1%
R8109 20KOhm r0402_h16 1%

(Typ: Rdson = 14.5m OHM)
(Max: Rdson = 17.5m OHM)
FB1=2V(T=1.25%)

30,92 SUS_PWRGD

SGND_3V_5V

R8126 100KOhm 1%
R8102 0Ohm @
C8115 1UF/10V @
SP8106 R0603

C8112 0.1UF/25V c0603
R8146 150KOHM 1% @
C8106 4.7UF/6.3V c0603

+5VAO

R8125 220KOhm r0402 1% Separate

U8101A RT8206AGQW
NC2 LX2 LX1 NC1 ENLDO TON REF
GND2 FB2 ILIM2 VOUT2 SKIP# PGOOD2 EN2 UGATE2 PHASE2
BYP VOUT1 FB1 ILIM1 PGOOD1 EN1 UGATE1 PHASE1
BOOT1 LGATE1 PVCC SECFB GND1 LGATE2 BOOT2

+5VO_FB
ENBL
DL1

C8110 0.1UF/25V MLCC/+/-10% c0603
R8103 0Ohm
C8111 0.1UF/25V c0603 MLCC/+/-10%
R8104 0Ohm

C8137 47PF/50V c0402 MLCC/+/-5%
C8114 1UF/10V c0603 MLCC/+/-10%
SECFB
+15VO *SECFB:2V(T=4%)
R8127 200KOhm r0402 1%
R8132 39KOHM r0402 1%
JP8110 SHORT_PIN

R8141 0Ohm @
R8101 0Ohm @
R8107 0Ohm
REF
C8113 1UF/10V c0603 MLCC/+/-10%
R8124 316KOhm 1%
C8109 0.22UF/25V c0603 MLCC/+/-10%

R8128 100Ohm r0603_h24 5%
R8100 0Ohm @

Input Current 3.3A

Q8102 SI4134DY-T1-GE3
Q8103 SI4134DY-T1-GE3

CE8105 10UF/25V c7343_1206_share
CE8106 10UF/25V c7343_1206_share
C8127 0.1UF/25V @

SP8105 R0603
SKIP#

R8116 2.2Ohm r0805_h24 5%
C8126 1500PF/50V c0603 MLCC/+/-10%

(Typ: Rdson = 14.5m OHM)
(Max: Rdson = 17.5m OHM)

L8100 4.7UH Irat=7A DCR:Typ=20.5mOhm;Max=22.5mOhm

SHORT_PIN JP8112
SHORT_PIN JP8104

C8103 100UF/6.3V
C8100 1UF/10V @

VOUT:Typ.=3.32V;Max.=3.388V;Min.=3.253V;T=2.05%
OCP setting 12.4A (3.3V:375kHz)

+3VO (Max:4.363A)
JP8101 @ 1MM_OPEN_5MIL
+3VA (Max:0.13A)

PWRSAVE#	+3V
L	3.315V
H	3.3V
PWRSAVE#	+5V
L	4.82V
H	5V

R8112 13.3KOHM r0402 1%
C8135 39PF/50V c0402 MLCC/+/-5% @
C8138 0.1UF/25V c0402 MLCC/+/-10% @
R8111 20KOhm r0402_h16 1%

FB1=2V(T=1.25%)

U8101B RT8206AGQW
GND3 GND4 GND5 GND6

TPC26TTPC26TTPC26TTPC26T T8110 T8103 T8114 T8120
TPC26TTPC26TTPC26TTPC26T T8134 T8132 T8135 T8121
TPC26TTPC26TTPC26TTPC26T T8117 T8107 T8109 T8122
TPC26TTPC26TTPC26TTPC26T T8123 T8128 T8136 T8124
TPC26TTPC26TTPC26TTPC26T T8104 T8108 T8116 T8126
TPC26TTPC26TTPC26TTPC26T T8112 T8119 T8101 T8130
TPC26TTPC26TTPC26TTPC26T T8105 T8111 T8118 T8137
TPC26TTPC26TTPC26TTPC26T T8113 T8131 T8102 T8133

+3VSUS

AC_BAT_SYS

R8130 84.5KOhm r0402 1%
R8131 560KOhm r0402_h16 5%

JP8107 close to Q8104
JP8107 SHORT_PIN

Q8104 SI3456CDV-T1-E3

+3VSUS 0.763A

R8135 100KOhm r0402 5%
Q8106A UM6K1N
Q8106B UM6K1N
T8127 TPC26T
30,57,93 VSUS_ON
R8136 470KOhm r0402 5%
C8104 1000PF/50V c0402 MLCC/+/-5%
C8119 0.1UF/25V MLCC/+/-10% c0603 @

+12VSUS

C8121 0.1UF/25V
C8120 0.1UF/25V
D8104 BAT54S
D8103 BAT54S
C8122 1UF/25V @
C8123 0.1UF/25V
C8124 1UF/25V
JP8106 @ 1MM_OPEN_5MIL

(Max:0.051A)

VOUT:Typ.=12.256V;Max.=12.962V;Min.=11.571V;T=5.76%

+5VO_FB
+3VO_FB

R8133 200KOhm @
R8139 75KOhm @
R8134 200KOhm @
R8140 75KOhm @
C8128 0.1UF/25V @
C8129 0.1UF/25V @
C8131 0.1UF/25V @
C8130 0.1UF/25V @

30,82,83,85 PWRSAVE#
R8137 0Ohm @
R8138 0Ohm @
Q8105 2N7002 @
Q8107 2N7002 @

TOTAL COUNT : 38 PCS

<Variant Name>

PEGATRON Title : POWER_SYSTEM
Engineer: Adam_Kuo

Size	Project Name	Rev
Custom	H46Y	1.0

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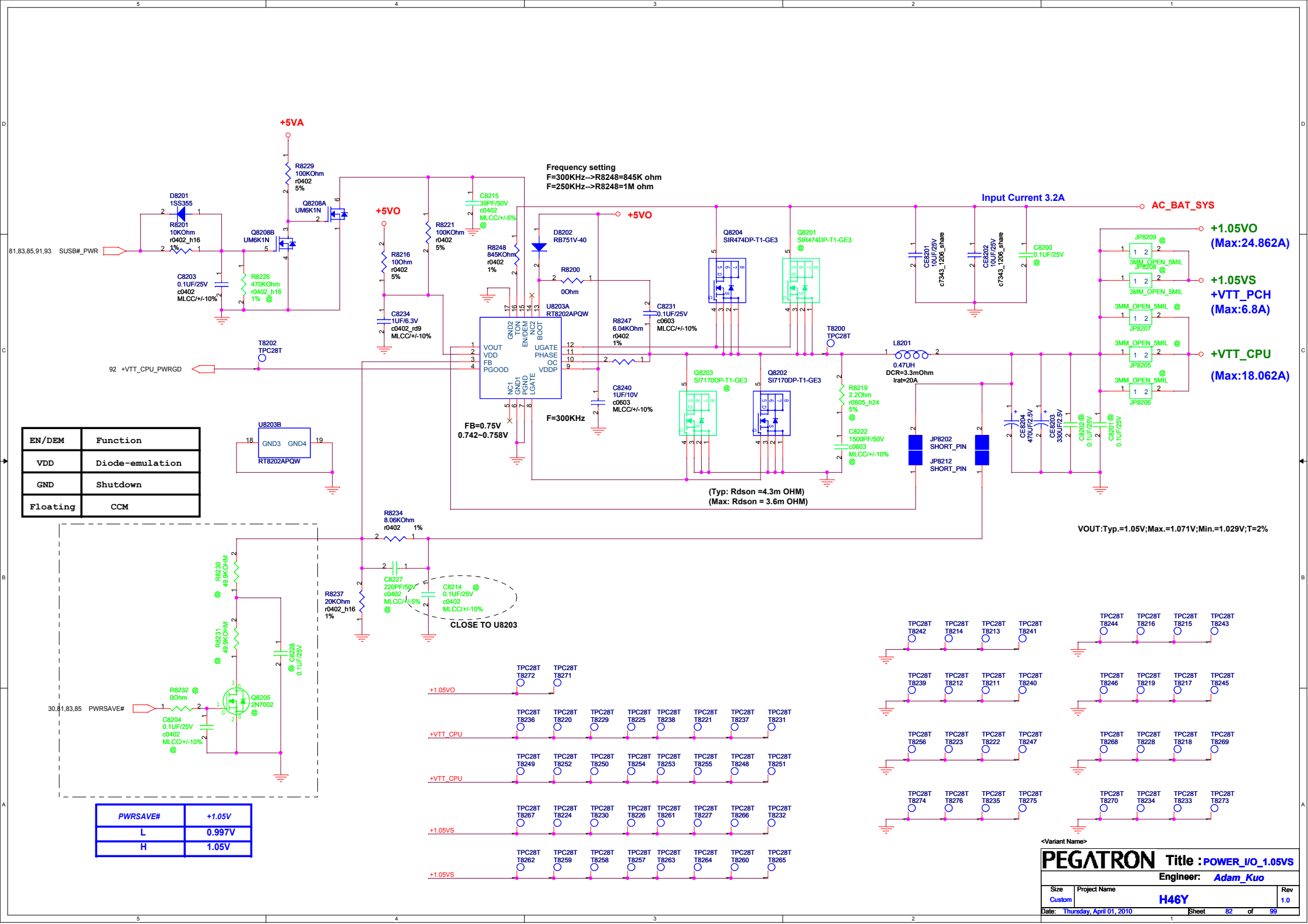
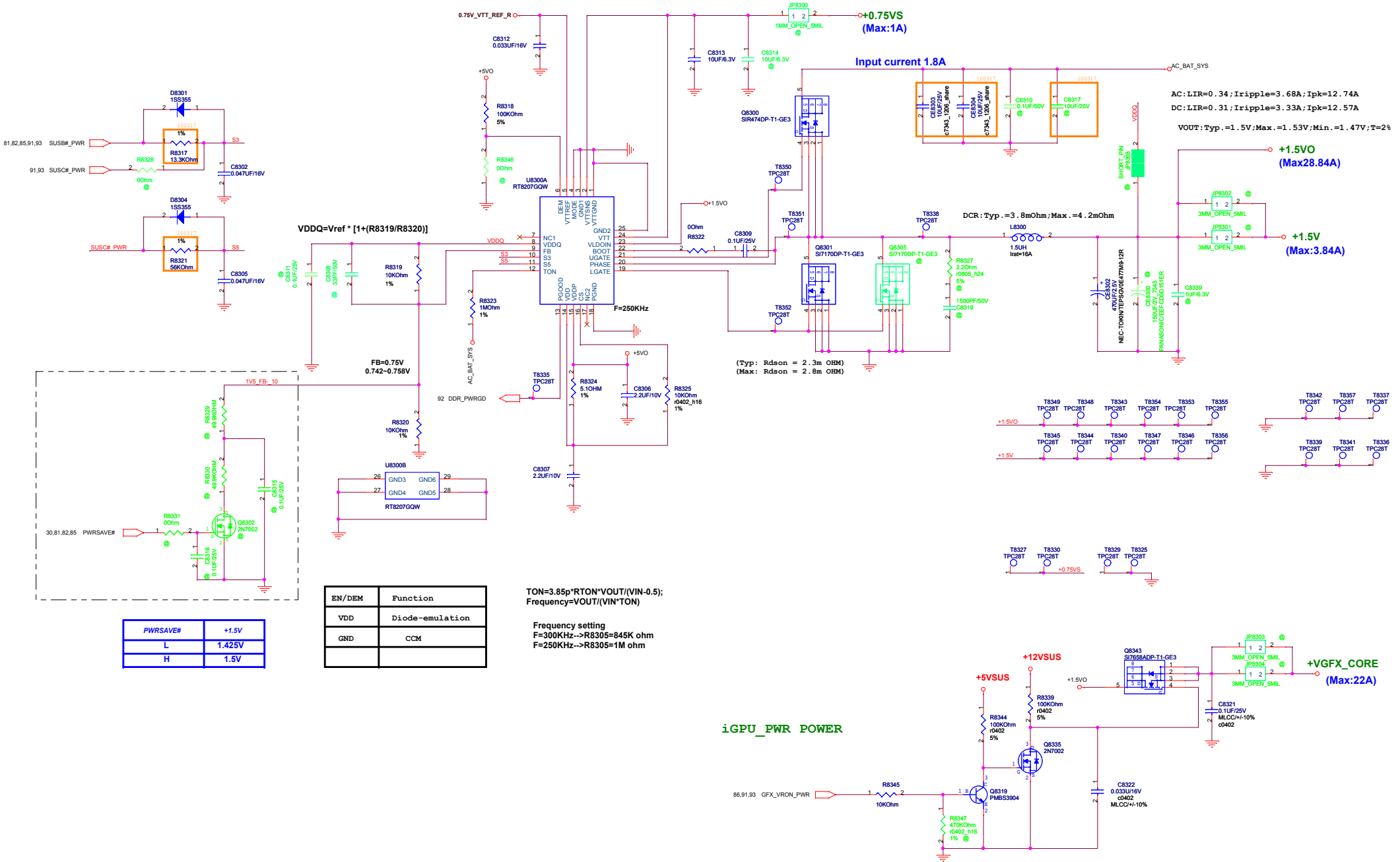

+5VA
+5VO
+5VO
Frequency setting
F=300KHz-->R8248=845K ohm
F=250KHz-->R8248=1M ohm
Input Current 3.2A
AC_BAT_SYS
+1.05VO
(Max:24.862A)
+1.05VS
+VTT_PCH
(Max:6.8A)
+VTT_CPU
(Max:18.062A)
81,83,85,91,93 SUSB#_PWR
92 +VTT_CPU_PWRGD
30,81,83,85 PWRSAVE#
R8229 100KOhm r0402 5%
R8201 10KOhm r0402_h16 1%
R8226 470KOhm r0402_h16 1% @
C8203 0.1UF/25V c0402 MLCC/+/-10%
R8216 10Ohm r0402 5%
R8221 100KOhm r0402 5%
C8215 39PF/50V c0402 MLCC/+/-5% @
C8234 1UF/6.3V c0402_rd9 MLCC/+/-10%
R8248 845KOhm r0402 1%
D8202 RB751V-40
R8200 0Ohm
U8203A RT8202APQW
VOUT VDD FB PGOOD
GND2 TON EN/DEM NC2 BOOT
UGATE PHASE OC VDDP
NC1 GND1 PGND LGATE
R8247 6.04KOhm r0402 1%
C8231 0.1UF/25V c0603 MLCC/+/-10%
C8240 1UF/10V c0603 MLCC/+/-10%
FB=0.75V
0.742~0.758V
F=300KHz
Q8204 SIR474DP-T1-GE3
Q8201 SIR474DP-T1-GE3 @
Q8203 SI7170DP-T1-GE3 @
Q8202 SI7170DP-T1-GE3
T8200 TPC28T
L8201 0.47UH DCR=3.3mOhm Irat=20A
R8219 2.2Ohm r0805_h24 5% @
C8222 1500PF/50V c0603 MLCC/+/-10% @
JP8202 SHORT_PIN
JP8212 SHORT_PIN
CE8201 10UF/25V c7343_1206_share
CE8202 10UF/25V c7343_1206_share
C8200 0.1UF/25V @
CE8204 470UF/2.5V
CE8205 330UF/2.5V
C8202 @ 0.1UF/25V
C8201 @ 0.1UF/25V
JP8209 @
JP8208 @ 3MM_OPEN_5MIL
3MM_OPEN_5MIL
JP8207 @
JP8205 @
JP8206 @
(Typ: Rdson =4.3m OHM)
(Max: Rdson = 3.6m OHM)
VOUT:Typ.=1.05V;Max.=1.071V;Min.=1.029V;T=2%
U8203B GND3 GND4 RT8202APQW
R8234 8.06KOhm r0402 1%
R8237 20KOhm r0402_h16 1%
C8227 220PF/50V c0402 MLCC/+/-5% @
C8214 @ 0.1UF/25V c0402 MLCC/+/-10%
CLOSE TO U8203
R8230 49.9KOHM @
R8231 49.9KOHM @
C8225 @ 0.1UF/25V
R8232 @ 0Ohm
C8204 0.1UF/25V c0402 MLCC/+/-10% @
Q8205 2N7002 @
EN/DEM Function
VDD Diode-emulation
GND Shutdown
Floating CCM
PWRSAVE# +1.05V
L 0.997V
H 1.05V
+1.05VO
+VTT_CPU
+VTT_CPU
+1.05VS
+1.05VS
TPC28T T8272 T8271
TPC28T T8236 T8220 T8229 T8225 T8238 T8221 T8237 T8231
TPC28T T8249 T8252 T8250 T8254 T8253 T8255 T8248 T8251
TPC28T T8267 T8224 T8230 T8226 T8261 T8227 T8266 T8232
TPC28T T8262 T8259 T8258 T8257 T8263 T8264 T8260 T8265
TPC28T T8242 T8214 T8213 T8241
TPC28T T8239 T8212 T8211 T8240
TPC28T T8256 T8223 T8222 T8247
TPC28T T8274 T8276 T8235 T8275
TPC28T T8244 T8216 T8215 T8243
TPC28T T8246 T8219 T8217 T8245
TPC28T T8268 T8228 T8218 T8269
TPC28T T8270 T8234 T8233 T8273
<Variant Name>
PEGATRON
Title : POWER_I/O_1.05VS
Engineer: Adam_Kuo
Size Custom
Project Name H46Y
Rev 1.0
Date: Thursday, April 01, 2010
Sheet 82 of 99



PWRSAVE#	+1.5V
L	1.425V
H	1.5V

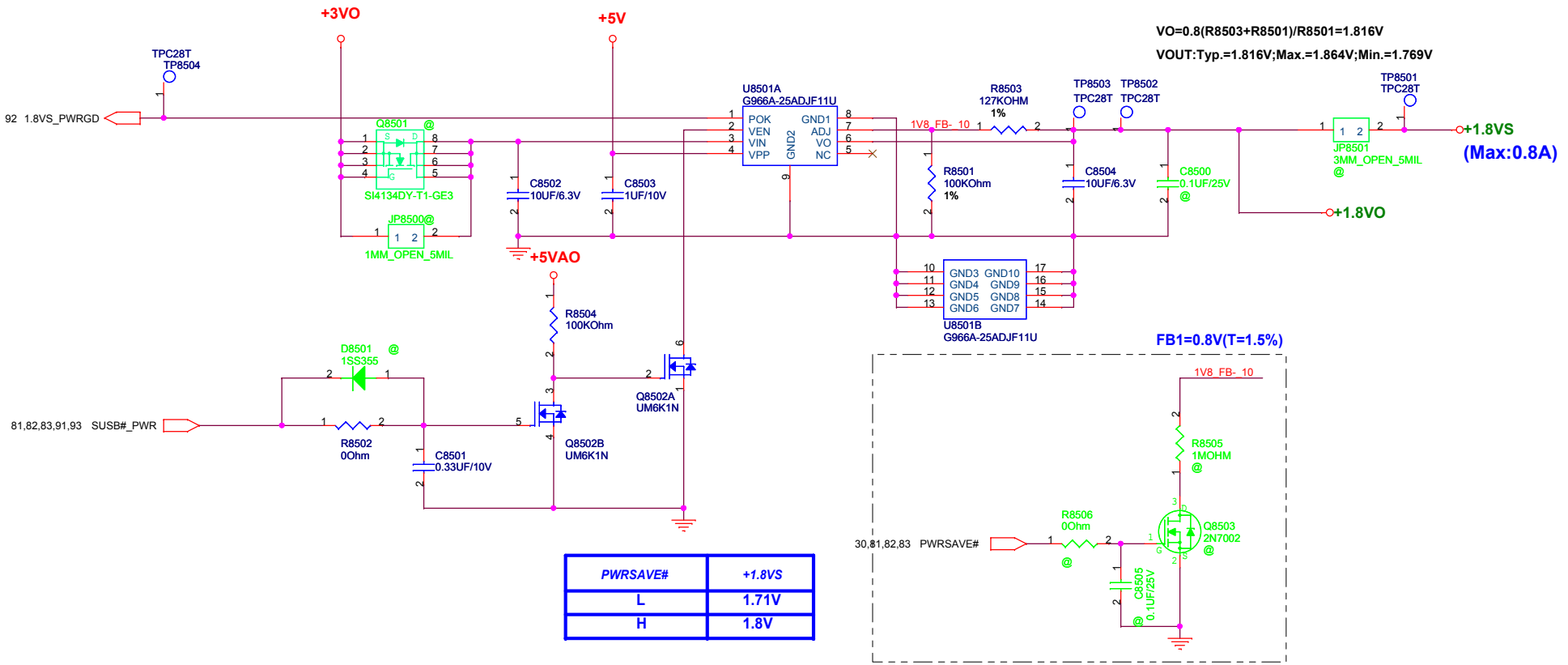
<Variant Name>

PEGATRON Title : POWER_I/O_1.05VS

Engineer: Eve Kuo

Size	Project Name	Rev
Custom	H46Y	1.0

Date: Thursday, April 01, 2010 Sheet 84 of 99



PWRSAVE#	+1.8VS
L	1.71V
H	1.8V

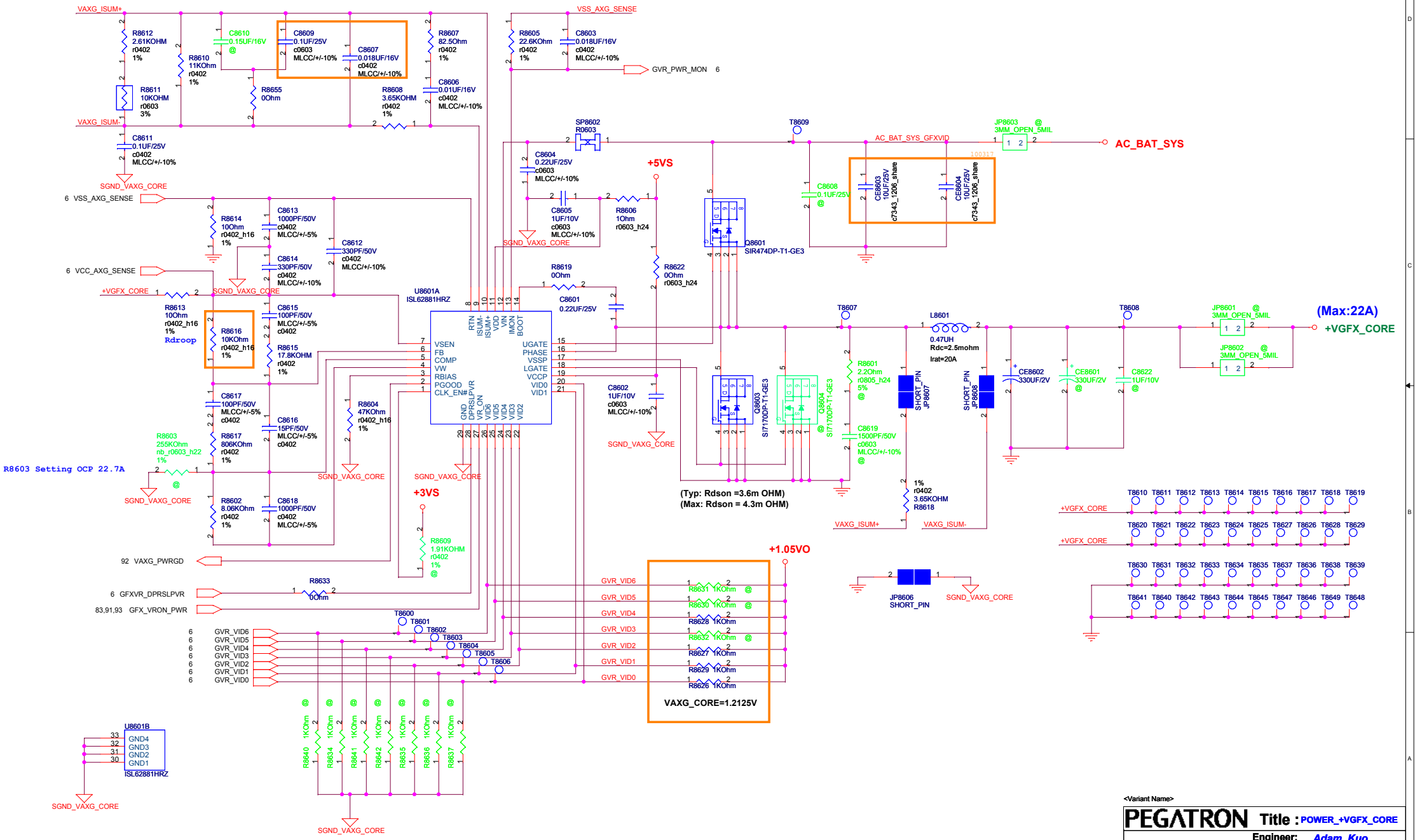
<Variant Name>

PEGATRON Title :POWER_+1.8VS

Engineer: Adam_Kuo

Size	Project Name	Rev
B	H46Y	1.0

Date: Thursday, April 01, 2010 Sheet 85 of 99



<Variant Name>

PEGATRON Title : POWER_+VGFX_CORE

Engineer: Adam_Kuo

Size	Project Name	Rev
Custom	H46Y	1.0

Date: Thursday, April 01, 2010 Sheet 86 of 99

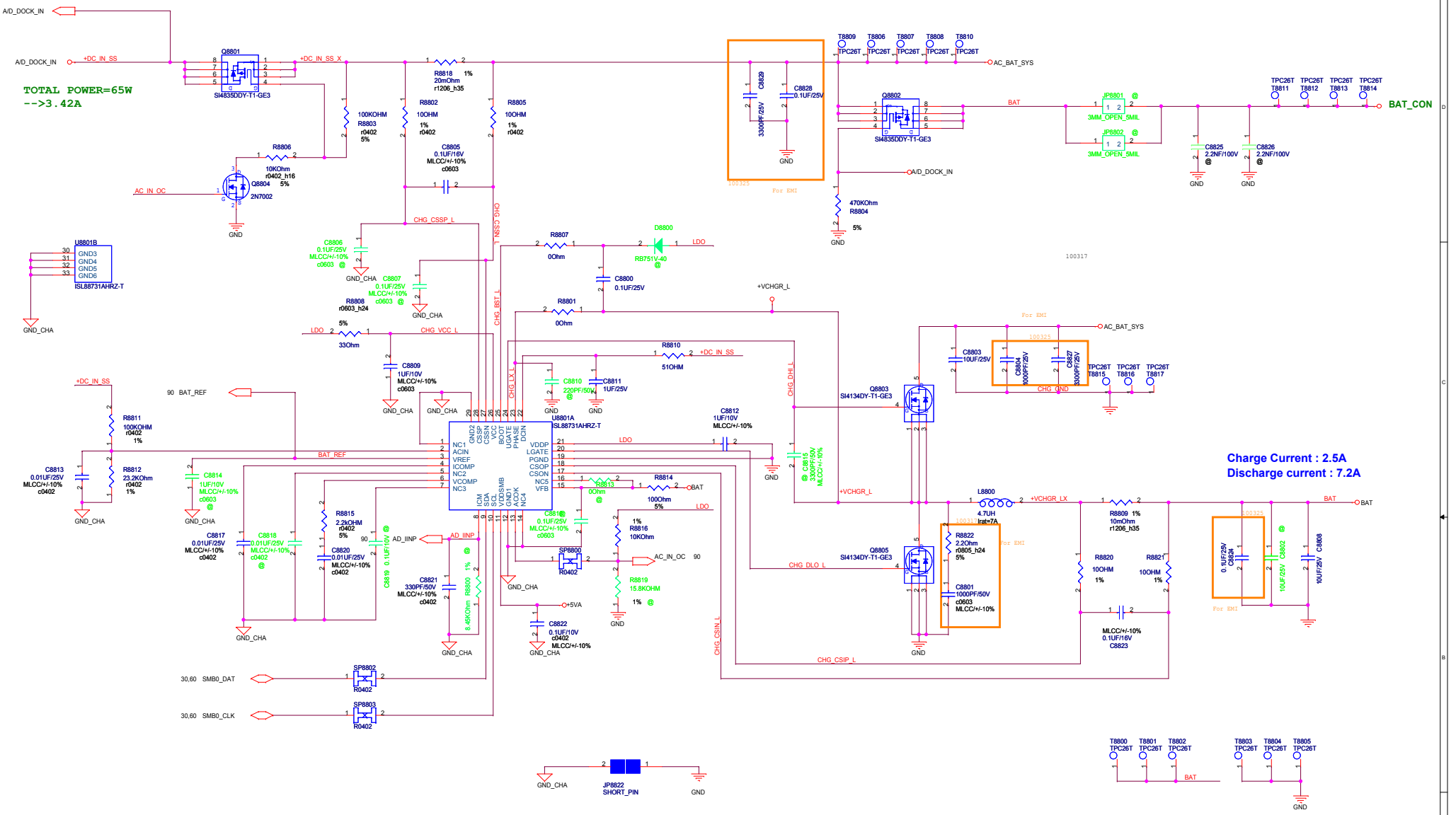
<Variant Name>

PEGATRON Title : POWER_+VGA_VCORE

Engineer: Eve Kuo

Size	Project Name	Rev
Custom	H46Y	1.0

Date: Thursday, April 01, 2010 Sheet 87 of 99



Charger IC and EC Code correlation sheet :
Charger MAX8725 => EC CODE : 200
Charger MAX17015 => EC CODE : 201
Charger MB39A132 => EC CODE : 202
Charger ISL6251 => EC CODE : 203

<Variant Name>

PEGATRON Title : POWER CHARGER

Engineer: Adam_Kuo

Size	Project Name	Rev
C	H46Y	1.0

Date: Thursday, April 01, 2010 Sheet 88 of 99

<Variant Name>

PEGATRON Title : POWER_N/A

Engineer: *Jeff_Du*

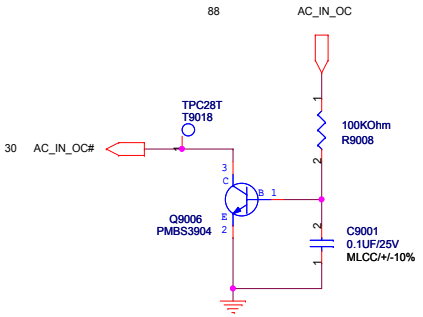
Size	Project Name	Rev
A	**H46Y**	1.0

Date: Thursday, April 01, 2010 Sheet 89 of 99

BATTERY IN DETECT

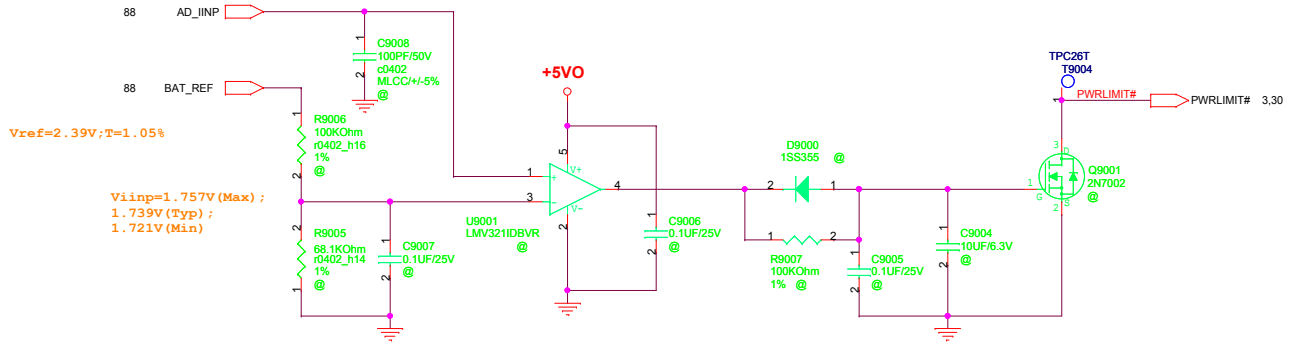
ADAPTER IN DETECT

Use MAX17015 IC function to Cost down component



POWER LIMIT CIRCUIT

+2.5Vref delete



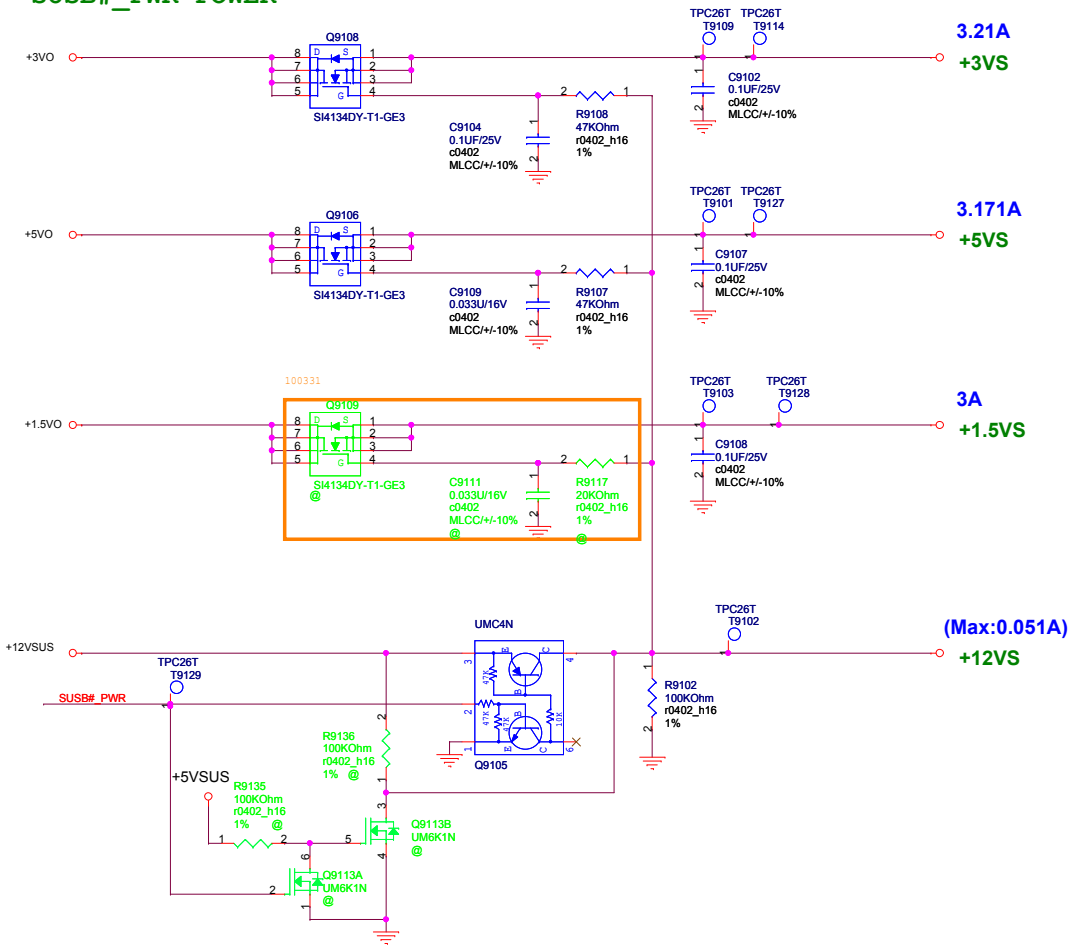
Pinput=65W----->Iinput=3.25A R2=20 mohm

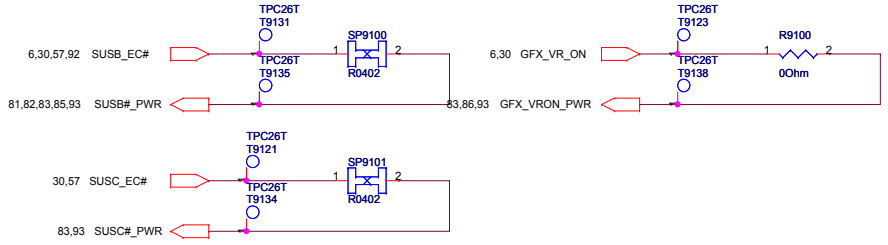
Vicm=20*Iinput*R2 ==> Vicm=1.3655V(max)
1.3V(typ)
1.2355V(min))

<Variant Name>

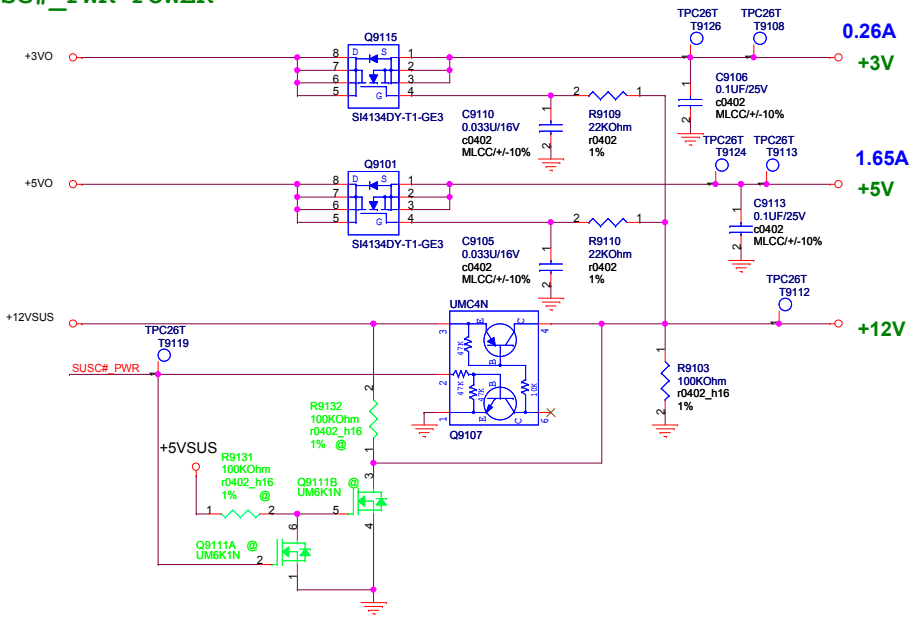
PEGATRON	Title : POWER_DETECT	
	Engineer: Adam_Kuo	
Size: Custom	Project Name: H46Y	Rev: 1.0
Date: Thursday, April 01, 2010	Sheet 90 of 99	

SUSB#_PWR POWER





SUSC#_PWR POWER



<Variant Name>

PEGATRON Title : POWER_LOAD SWITCH

Engineer: Adam_Kuo

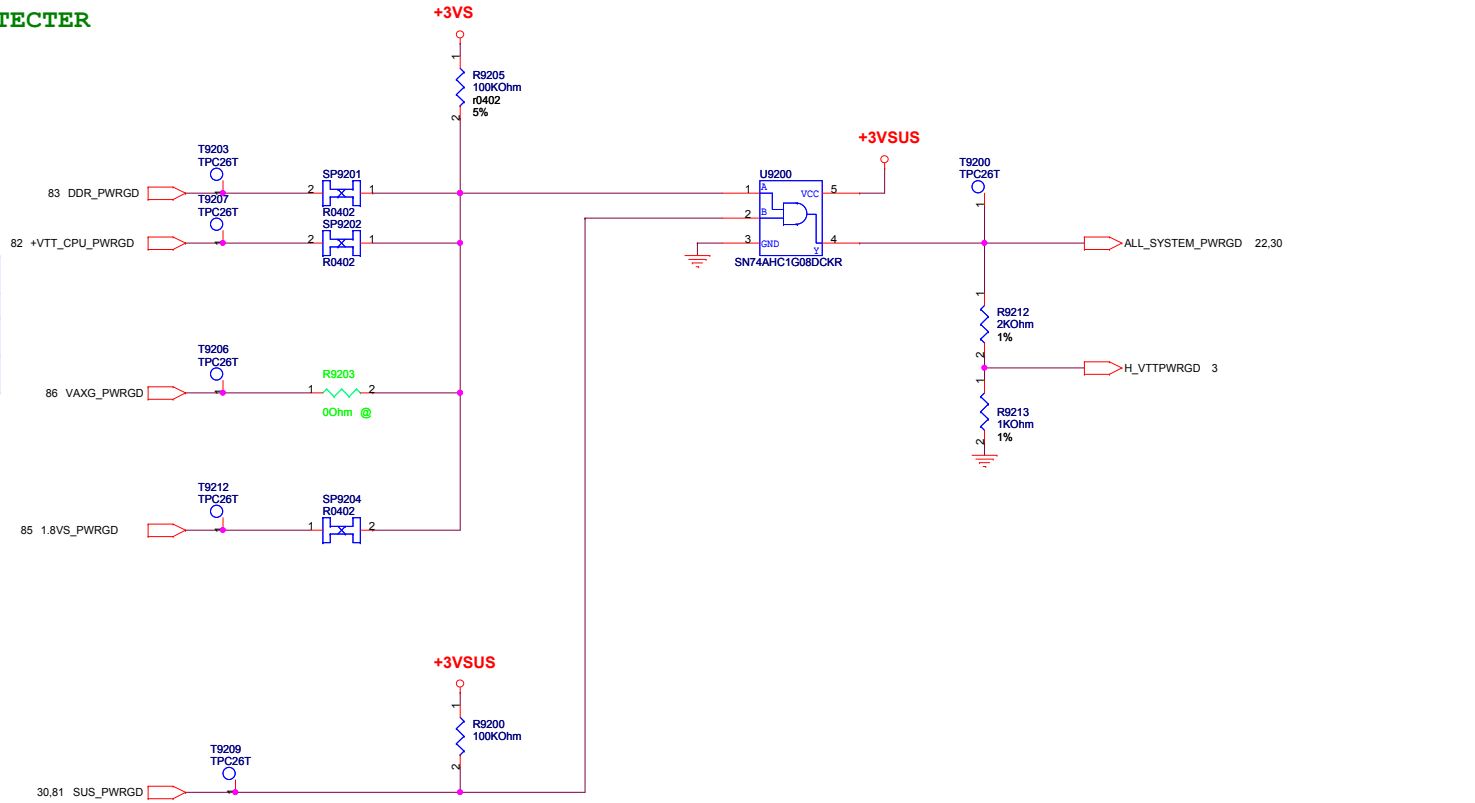
Size	Project Name	Rev
Custom	H46Y	1.0

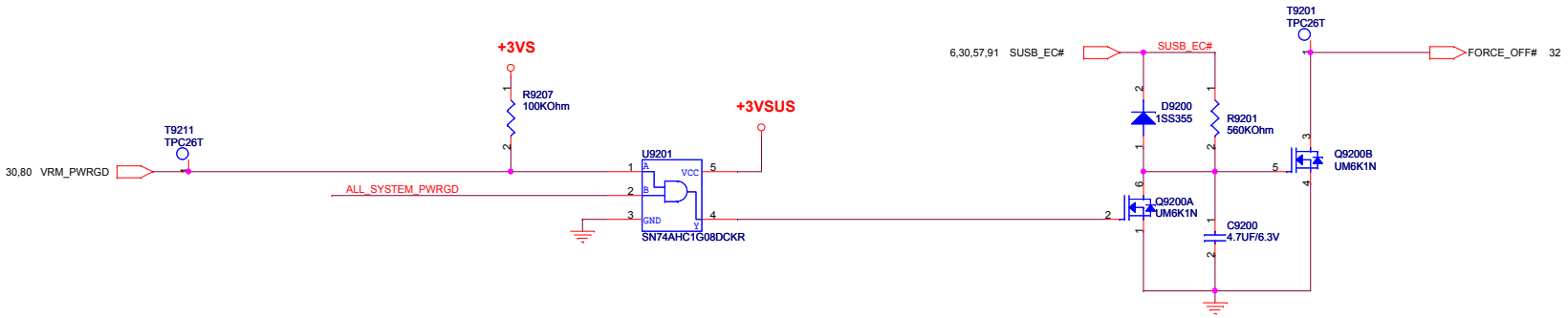
Date: Thursday, April 01, 2010 Sheet 91 of 99

POWER GOOD DETECTER

BOM change

YES/NO	CPU
X	Clarkfield
R9204	Auburndale GPU-fix
R9203	Auburndale GPU-VID





<Variant Name>

PEGATRON Title : POWER_PROTECT

Engineer: Adam_Kuo

Size	Project Name	Rev
Custom	H46Y	1.0

Date: Thursday, April 01, 2010 Sheet 92 of 99

AC_BAT_SYS — AC_BAT_SYS 45,80,81,82,83,86,88

BAT — BAT 88

BAT_CON — BAT_CON 60,88

+3VA — +3VA 20,30,31,56,57,81

+5VAO — +5VAO 81,85

+5VA — +5VA 81,82,88

+5VO — +5VO 81,82,83,90,91

+3VO — +3VO 81,85,91

+1.8VO — +1.8VO 85

+1.05VO — +1.05VO 80,82,86

+0.75VS — +0.75VS 7,8,57,83

+1.5VO — +1.5VO 83,91

+5VSUS — +5VSUS 27,81,83,91

+3VSUS — +3VSUS 3,21,22,24,25,27,30,33,34,55,57,81,92

+12VSUS — +12VSUS 55,81,83,91

+5V — +5V 52,56,57,61,85,91

+3V — +3V 3,24,30,40,44,53,54,56,57,91

+12V — +12V 57,91

+3VS — +3VS 3,7,8,20,21,22,23,24,25,26,27,28,29,30,32,45,46,47,50,51,53,54,55,56,57,80,86,91,92

+1.5V — +1.5V 3,6,7,9,57,83

+5VS — +5VS 27,30,31,46,47,50,51,55,57,80,86,91

+12VS — +12VS 28,57,91

+1.05VS — +1.05VS 26,27,29,57,80,82

+VTT_CPU — +VTT_CPU 3,6,25,26,27,32,57,82

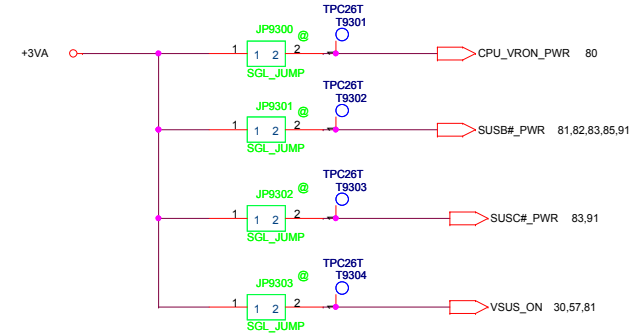
+1.5VS — +1.5VS 6,57,91

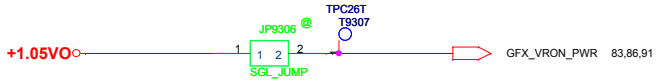
+1.8VS — +1.8VS 6,24,26,57,85

+VCORE — +VCORE 6,57,80

+VGFX_CORE — +VGFX_CORE 6,57,83,86

FOR POWER TEST





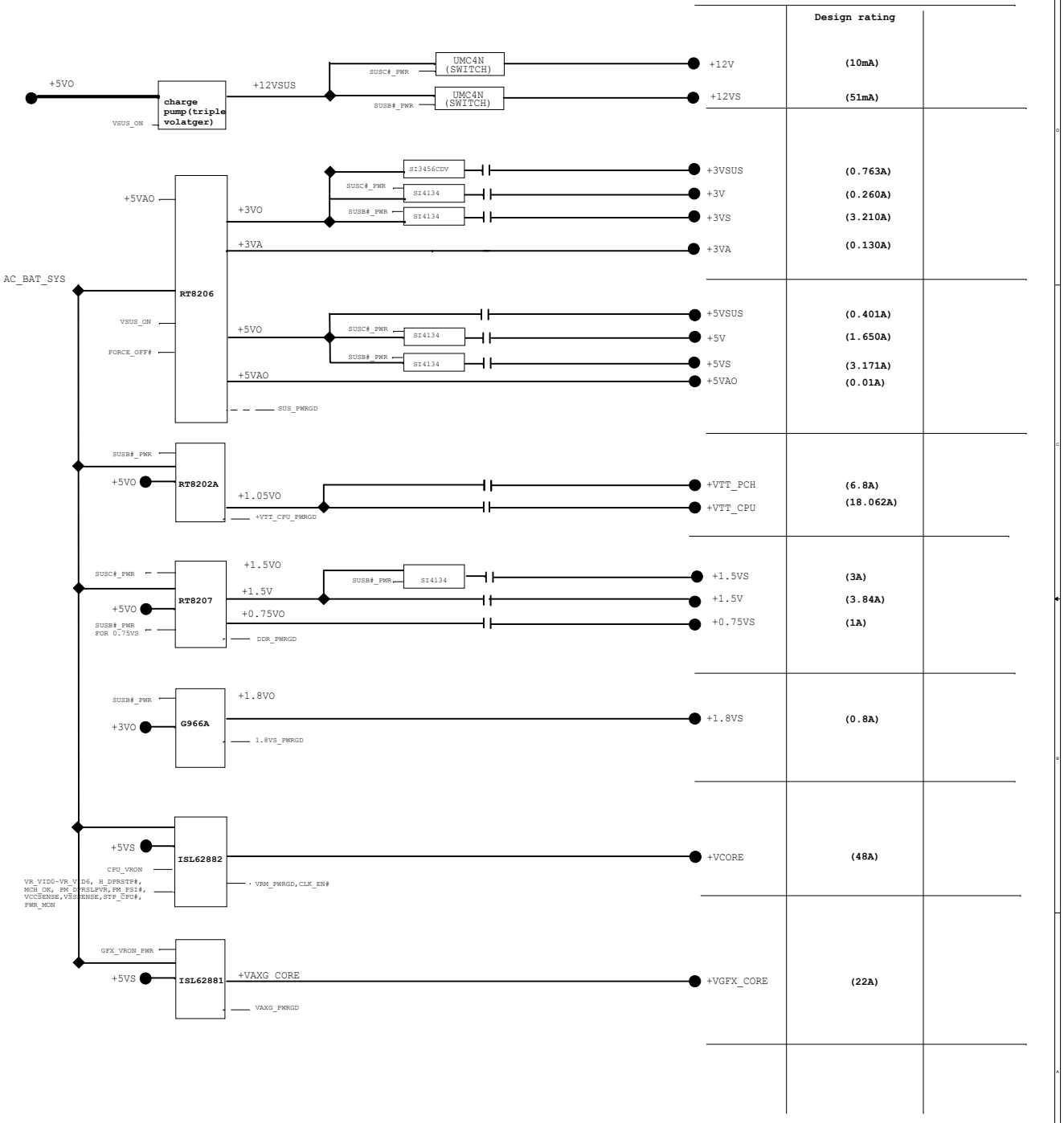
<Variant Name>

PEGATRON Title : POWER_SIGNAL

Engineer: Adam_Kuo

Size	Project Name	Rev
Custom	H46Y	1.0

Date: Thursday, April 01, 2010 Sheet 93 of 99



<Variant Name>

PEGATRON Title : POWER_FLOWCHART

Engineer: Adam_Kuo

Size	Project Name	Rev
Custom	H46Y	1.0

Date: Thursday, April 01, 2010 Sheet 94 of 98

05/26

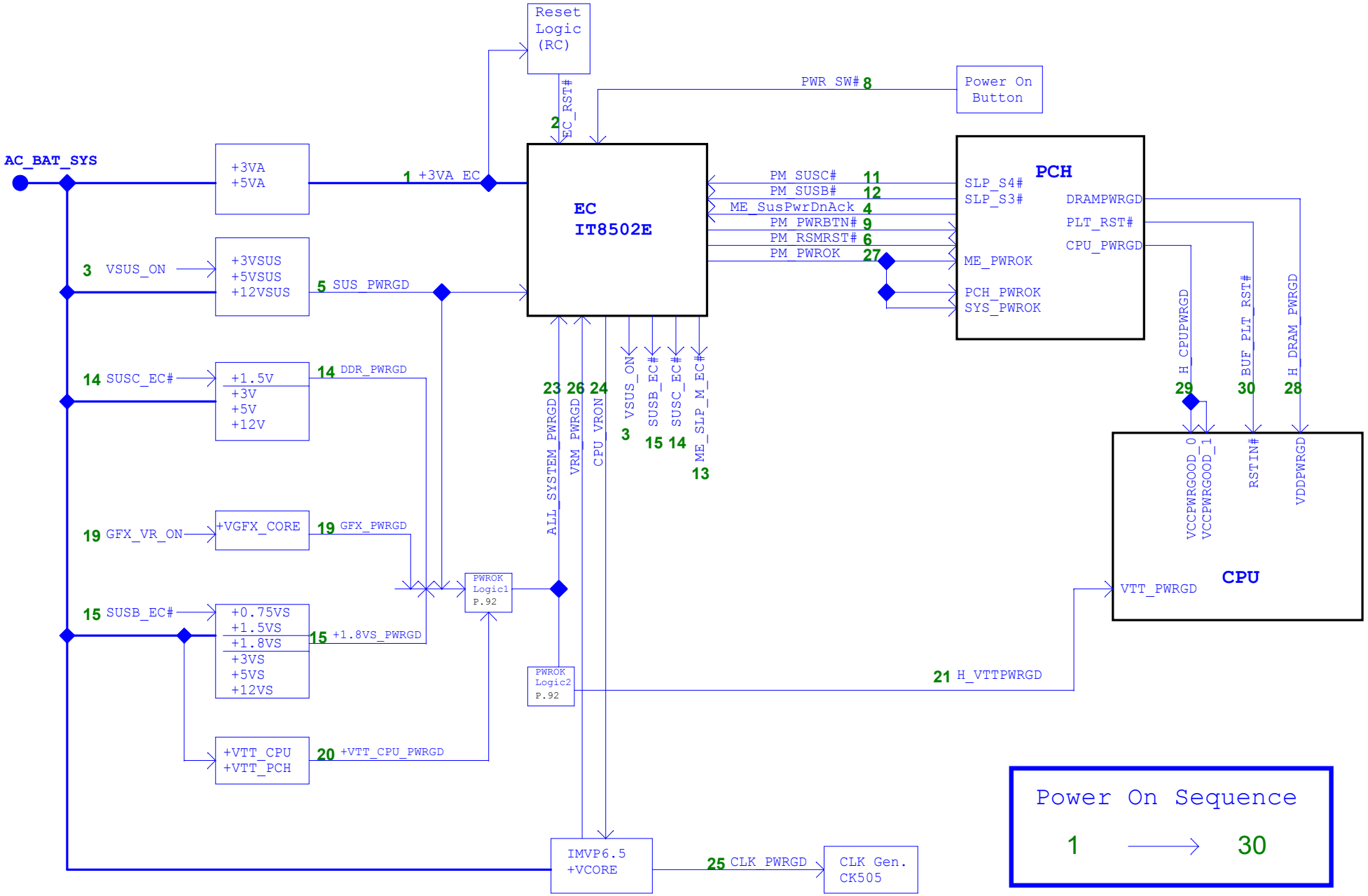
PEGATRON Title : Power History

<OrgName> Engineer: Eve Kuo

Size	Project Name	Rev
Custom	H46Y	1.0

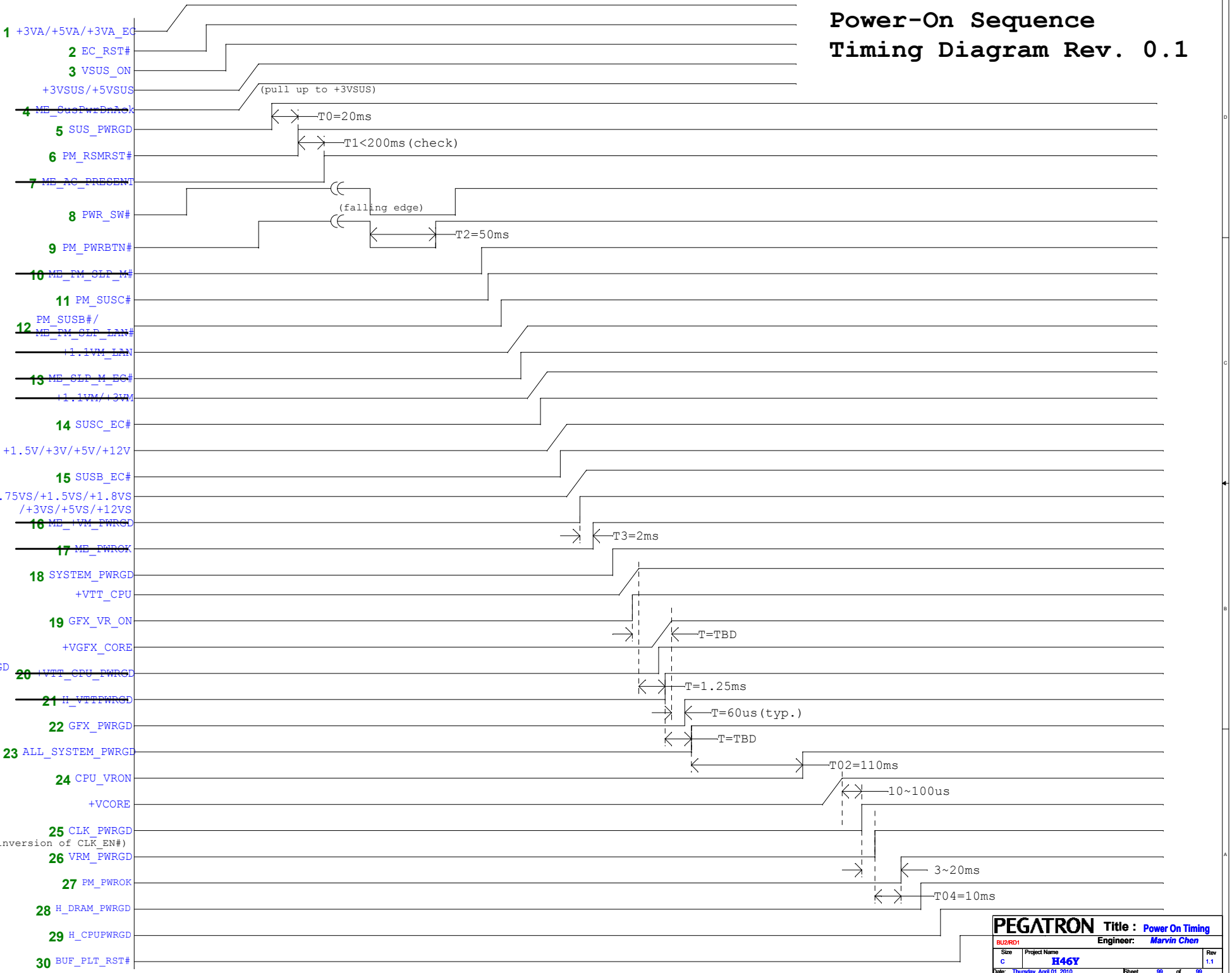
Date: Thursday, April 01, 2010 Sheet 95 of 99

Power On Sequence Diagram Rev. 0.1



PEGATRON	Title : Power On Sequence		
	Engineer: Marvin Chen		
Size: Custom	Project Name: H46Y		Rev: 1.1
Date: Thursday, April 01, 2010	Sheet 98 of 99		

Power-On Sequence Timing Diagram Rev. 0.1



PEGATRON Title : Power On Timing

BU2/RD1 Engineer: Marvin Chen

Size	Project Name	Rev
C	H46Y	1.1

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