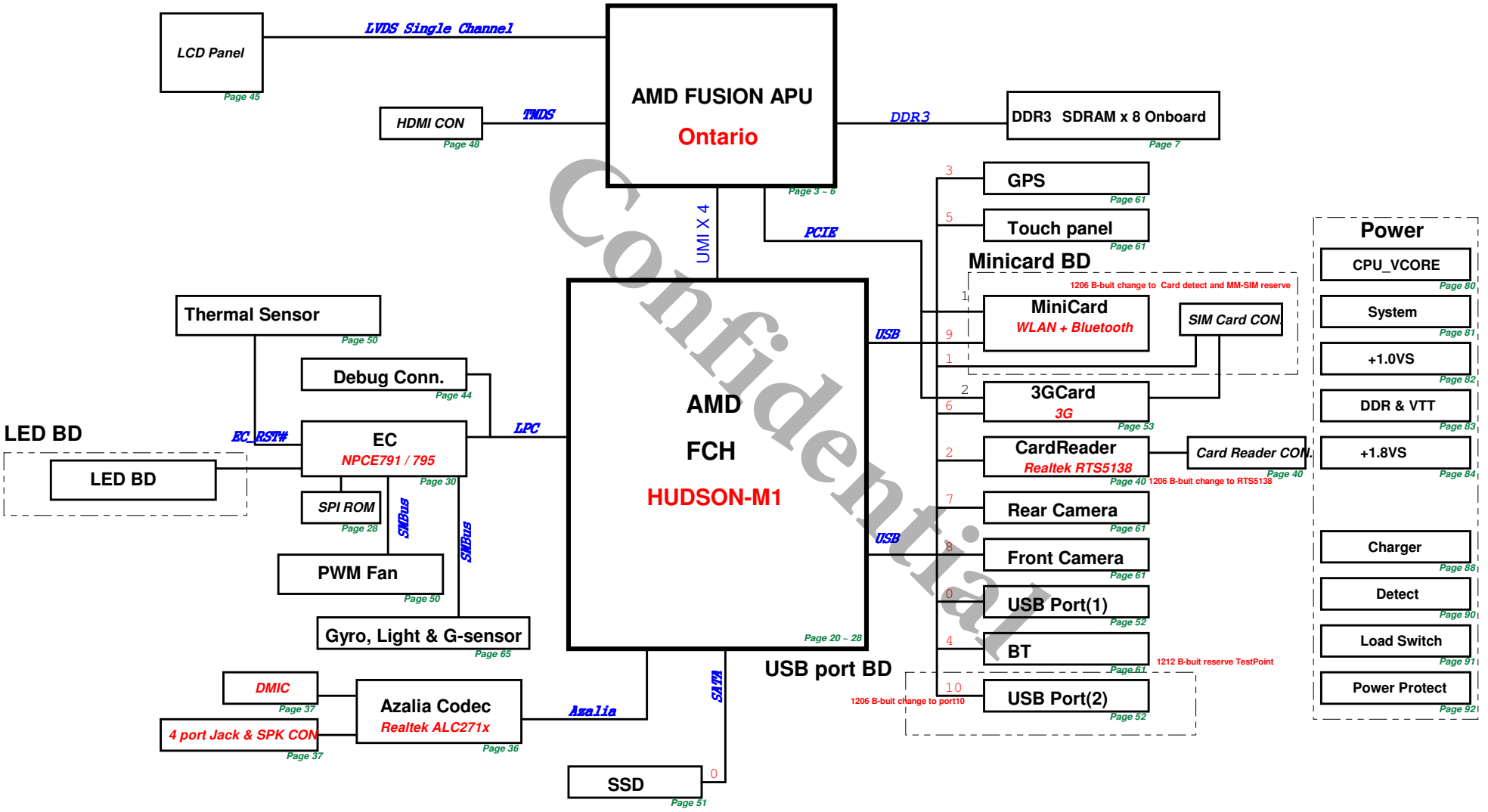
Armani EAB00 AMD Brazos Platform Rev. 2.0

BLOCK DIAGRAM



PEGATRON	Title : BLOCK DIAGRAM		
	Engineer: Alfie_Wang		
Size: Custom	Project Name: EAB00		Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 1 of 99		

FCH Hudson M1	Use As	Signal Name	INT/EXT Pull-up/down	Power
General Events				
GA20IN/GEVENT0#	GPI	A20GATE	INT PU 8.2K	+3VS
KBRST#/GEVENT1#	GPI	EC_KB_RST#	INT PU 8.2K	+3VS
THRMTRIP#/GEVENT2#	GPI	CPU_THERMTRIP#	INT PU 10K	+3VSUS
LPC_PME#/GEVENT3#	GPI	EXT_SCI# @		+3VSUS
PCI_PME#/GEVENT4#	GPI	EXT_SMI# @		+3VSUS
SPI_CS3#/GBE_STAT1/GEVENT21#	GPI	EXT_SCI#	INT PU 10K	+3VSUS
RI#/GEVENT22#	GPI	EXT_SMI#	INT PU 10K	+3VSUS
GEVENT5#	GPI	USB30_EXT_SMI#	INT PU 10K	+3VSUS
WAKE#/GEVENT8#	GPI	PCIE_WAKE#	INT PU 10K	+3VSUS
USB_OC3#/AC_PRES/TDO/GEVENT15#		SATA_ODD_PRSNT#	INT PU 10K	+3VSUS
USB_OC4#/IR_RX0/GEVENT16#		SATA_ODD_DA#	INT PU 10K	+3VSUS
SLP_S3#	GPO	PM_SUSB#	EXT PD 100K	+3VSUS
SLP_S5#	GPO	PM_SUSC#	EXT PD 100K	+3VSUS
PWR_BTN#	GPI	PM_PWRBTN#		+3VSUS
PWR_GOOD	GPI	PM_PWROK		+3VSUS
RSMRST#	GPI	PM_RSMRST#	EXT PD 10K	+3VSUS
NB_PWRGD		NB_PWRGD	EXT PU 4.7K	+3VSUS
GPIO				
INTH#/GPIO35		VGA_PWRON	EXT PU 8.2K	+3VS
SCL0/GPIO43		SMB_CLK_S	EXT PU 2.2K	+3VS
SDA0/GPIO47		SMB_DAT_S	EXT PU 2.2K	+3VS
SERIRQ/GPIO48		INT_SERIRQ	INT PU 8.2K	+3VS
FANOUT0/GPIO53	GPO	WLAN_ON	INT PU 8.2K	+3VS
SATA_IS4#/FANOUT3/GPIO55	Native	SATA_ODD_PWRGT	INT PU 8.2K	+3VS
CLK_REQ1#/FANOUT4/GPIO61	Native	CLKREQ_MINICARD_WLAN#	EXT PD 10K @	+3VS
CLK_REQ2#/FANIN4/GPIO62	Native	CLKREQ2_LAN#	EXT PD 10K @	+3VS
CLKREQ3#/SATA_IS1#/GPIO63	Native	CLKREQ_PCIE_USB30#	EXT PU 10K EXT PD 10K @	+3VS
CLK_REQ4#/SATA_ISO#/GPIO64	Native	CLK_REQ4#_DP	EXT PD 10K	+3VS
CLK_REQG#/GPIO65/OSCIN/IDLEEXT#	Native	ATI_CLKREQ#	INT PU 8.2K	+3VS
SPKR/GPIO66		SB_SPKR	-	+3VS
SATA_ACT#/GPIO67		SATA_LED#	EXT PU 10K	+3VS
SPI_CLK/GPIO162		SPI_CLK	INT PD 10K	+3VSUS
SPI_DO/GPIO163		SPI_DO	INT PD 10K	+3VSUS
SPI_DI/GPIO164		SPI_DI	INT PD 10K	+3VSUS
SPI_CS1#/GPIO165		SPI_CS1#	INT PD 10K	+3VSUS
AZ_SDIN0/GPIO167		ACZ_SDIN0	EXT PD 10K @	+3VSUS
AZ_SDIN0/GPIO168		ACZ_SDIN1	EXT PD 10K @	
AZ_SDIN0/GPIO169		ACZ_SDIN2	EXT PD 10K @	
TEMPIN0/GPIO171			EXT PD 10K	+3VSUS
TEMPIN1/GPIO172			EXT PD 10K	+3VSUS
TEMPIN2/GPIO173			EXT PD 10K	+3VSUS
TEMPIN3/TELERT#/GPIO174		APU_ALERT#		+3VSUS
VIN0/GPIO175			EXT PD 10K	+3VSUS
VIN1/GPIO176			EXT PD 10K	+3VSUS
VIN2/GPIO177			EXT PD 10K	+3VSUS
VIN3/GPIO178			EXT PD 10K	+3VSUS
VIN4/GPIO179			EXT PD 10K	+3VSUS
VIN5/GPIO180			EXT PD 10K	+3VSUS
VIN6/GBE_STAT3/GPIO181			EXT PD 10K	+3VSUS
VIN7/GBE_LED3/GPIO182			EXT PD 10K	+3VSUS
USB_FSD0P/GPIO185		USB_CB0	INT PD 15K	+3VSUS
USB_FSD0P/GPIO186		USB_CB1	INT PD 15K	+3VSUS
PS2_DAT/SDA4/GPIO187		WLAN_LED	INT PU 10K	+3VSUS
SCL2/GPIO193			EXT PD 10K	
SDA2/GPIO194			EXT PD 10K	
SCL3_LV/GPIO195			EXT PD 10K	
SDA3_LV/GPIO196			EXT PD 10K	
EC_PWM2/EC_TIMER2/GPIO199		EC_PWM2	EXT PU 10K	
EC_PWM3/EC_TIMER3/GPIO200		EC_PWM3	EXT PD 2.2K @	
KSI_0/GPIO209		USB_SEL (DOS:1/WIN:0)	INT PU 10K	+3VSUS
KSO_1/GPIO210		BT_ON	INT PU 10K	+3VSUS
SCL1/GPIO227			EXT PD 10K	+3VSUS
SDA1/GPIO228			EXT PD 10K	+3VSUS

EC GPIO	Use As	Signal Name
GPIO0		RTCCLK
GPIO1		FAN0_TACH
GPIO2		-
GPIO3		PWR_SW#
GPIO4		BAT1_IN_OC#
GPIO5		AC_IN_OC
GPIO6		DC_IN_LED#
GPIO7		-
GPIO8		-
GPIO9		-
GPIO10		SUSB_EC#
GPIO11		PM_CLKRUN#
GPIO12		-
GPIO13		PM_PWROK
GPIO14		USB_OC2#_EC
GPIO15		PWR_GREEN_LED#
GPIO16		-
GPIO17		SMB0_CLK
GPIO18		-
GPIO19		-
GPIO20		USB_OC1#_EC
GPIO21		PWR_AMBER_LED#
GPIO22		SMB0_DAT
GPIO23		PLT_ID0
GPIO24		-
GPIO25		-
GPIO26		TP_CLK
GPIO27		TP_DAT
GPIO28		-
GPIO29		-
GPIO30		VSUS_ON
GPIO31		EC_LPCRST_GATE
GPIO32		LCD_BL_PWM
GPIO33		-
GPIO34		-
GPIO35		
GPIO36		NUM_LED#
GPIO37		-
GPIO38		-
GPIO39		-
GPIO40		BAT_WHITE_LED#
GPIO41		TP_ON_OFF#
GPIO42		PM_PWRBTN#
GPIO43		PM_RSMRST#
GPIO44		ALL_SYSTEM_PWRGD
GPIO45		BAT_ORG_LED#
GPIO46		-
GPIO47		PM_SUSC#
GPIO48		-
GPIO49		-
GPIO50		LCD_BACKOFF#
GPIO51		CAP_LED#
GPIO52		THRO_CPU
GPIO53		SUS_PWRGD
GPIO54		EXT_SCI#
GPIO55		-
GPIO56		PLT_ID1
GPIO57		KSO17
GPIO58		-
GPIO59		-
GPIO60		KSO16
GPIO61		KSO15
GPIO62		KSO14
GPIO63		KSO13
GPIO64		KSO12
GPIO65		EXT_SMI#
GPIO66		FAN_PWM

EC GPIO	Use As	Signal Name
GPIO67		SUSC_EC#
GPIO68		-
GPIO69		-
GPIO70		OP_SD#
GPIO71		PM_SUSB#
GPIO72		LID_SW#
GPIO73		SMB1_CLK
GPIO74		SMB1_DAT
GPIO75		-
GPIO76		SHBM
GPIO77		-
GPIO78		-
GPIO79		-
GPIO80		-
GPIO81		CPU_VRON
GPIO82		USBSLP_EN#
GPIO83		-
GPIO84		USBP01_EN#
GPIO85		A20GATE
GPIO86		RCIN#
GPIO87		-
GPIO88		-
GPIO89		-
GPIO90		AD_IINP
GPIO91		-
GPIO92		-
GPIO93		-
GPIO94		-
GPIO95		-
GPIO96		CTL_FAN
GPIO97		VRM_PWRGD

SM_BUS ADDRESS :

SM-Bus Device	SM-Bus Address
SO-DIMM 0	1010000x (A0h)
SO-DIMM 1	1010001x (A4h)
CPU Thermal IC(G780)	1001100x (98h)
VGA Thermal IC(G781-1)	1001100x (9Ah)

APU	DP0	LVDS
	DP1	HDMI
FCH	GPP0	N/A
	GPP1	WLAN
	GPP2	LAN
	GPP3	USB3.0_NEC
	GPP4	N/A
	GPP5	N/A

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

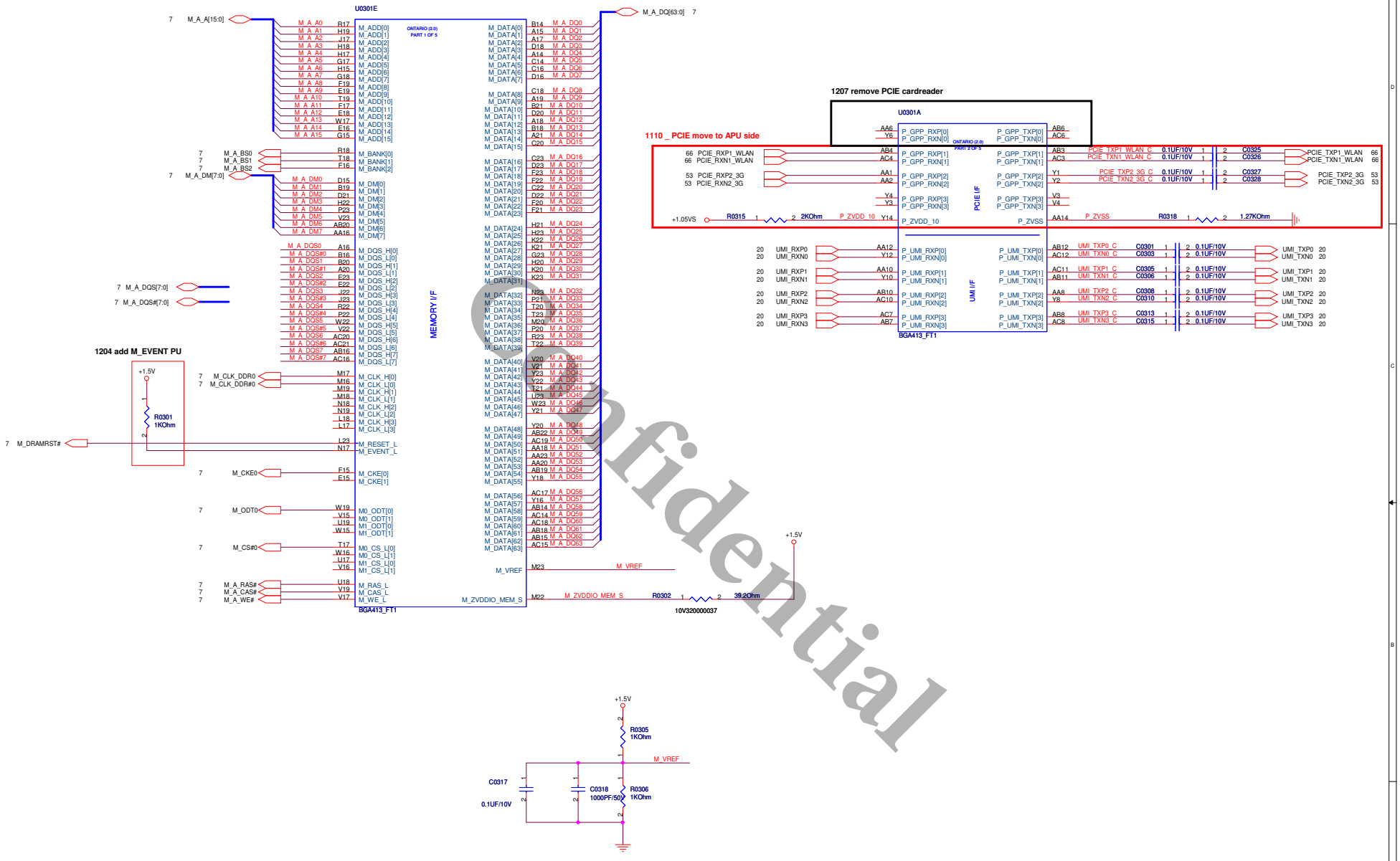
USB 0	USB Port (1)
USB 1	USB Port (2)
USB 2	USB Port (3)
USB 3	USB Port (4)
USB 4	N/A
USB 5	N/A
USB 6	N/A
USB 7	Card Reader
USB 8	CMOS Camera
USB 9	Bluetooth
USB 10	N/A
USB 11	N/A
USB 12	N/A
USB 13	N/A

PEGATRON Title : System Setting

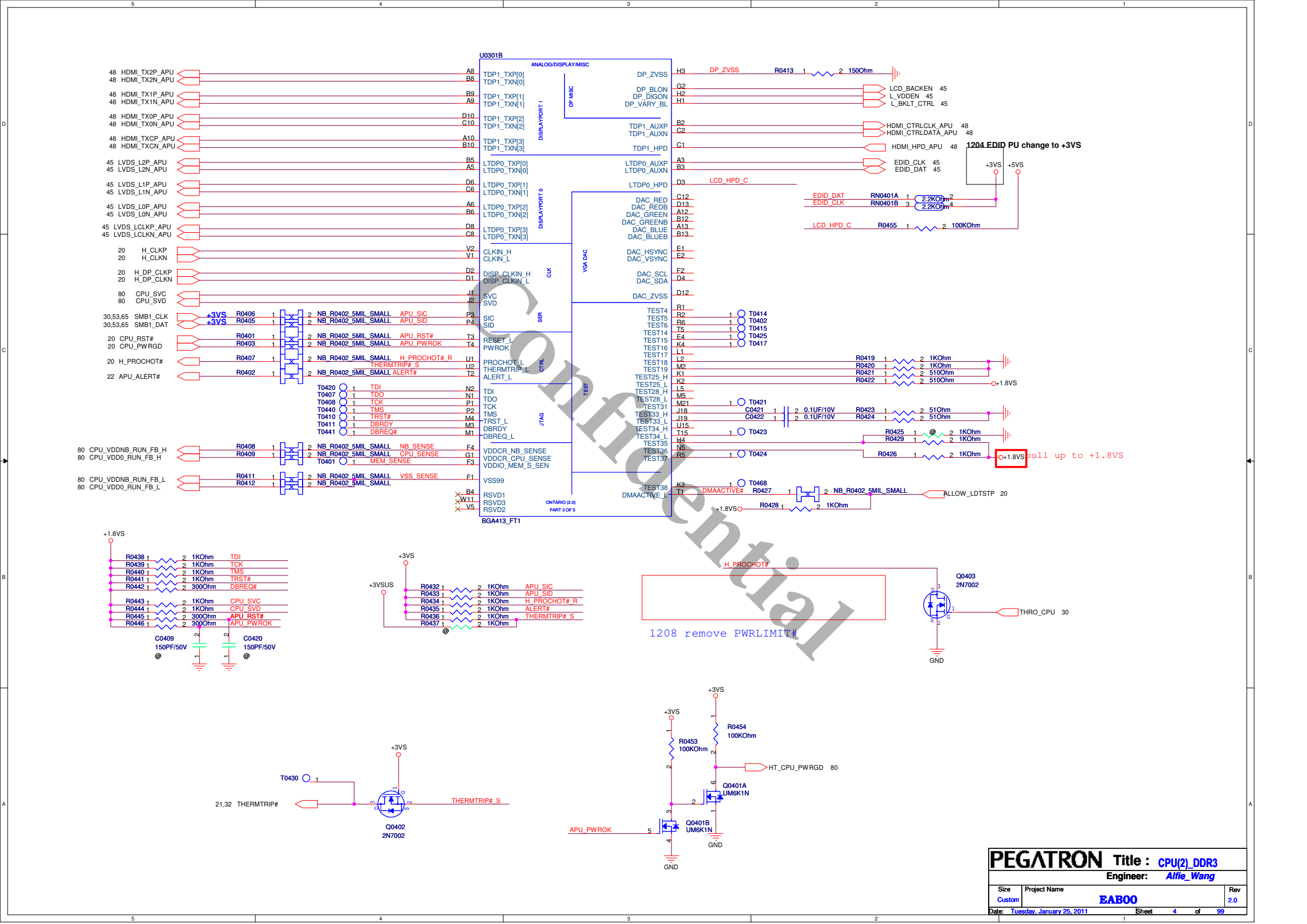
Engineer: Alfie_Wang

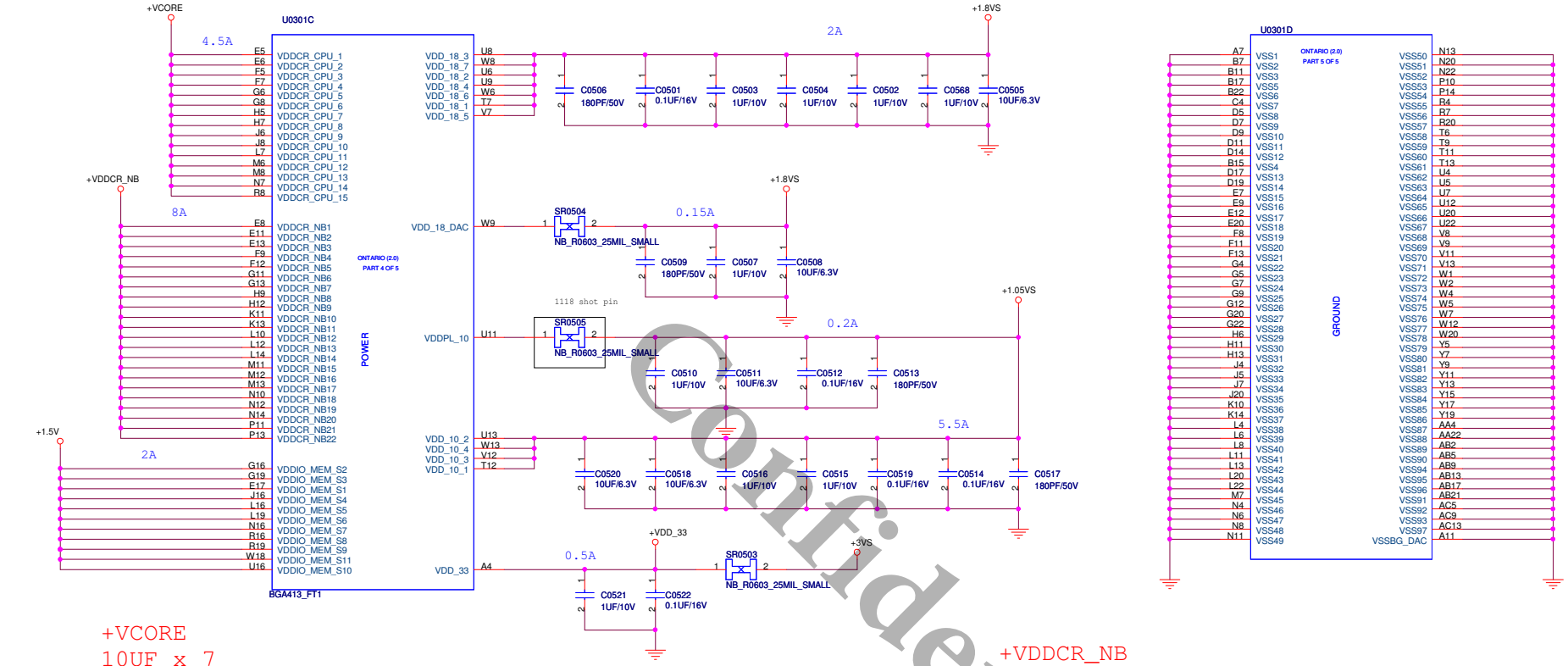
Size	Project Name	Rev
C	EAB00	2.0

Date: Tuesday, January 25, 2011 Sheet 2 of 99



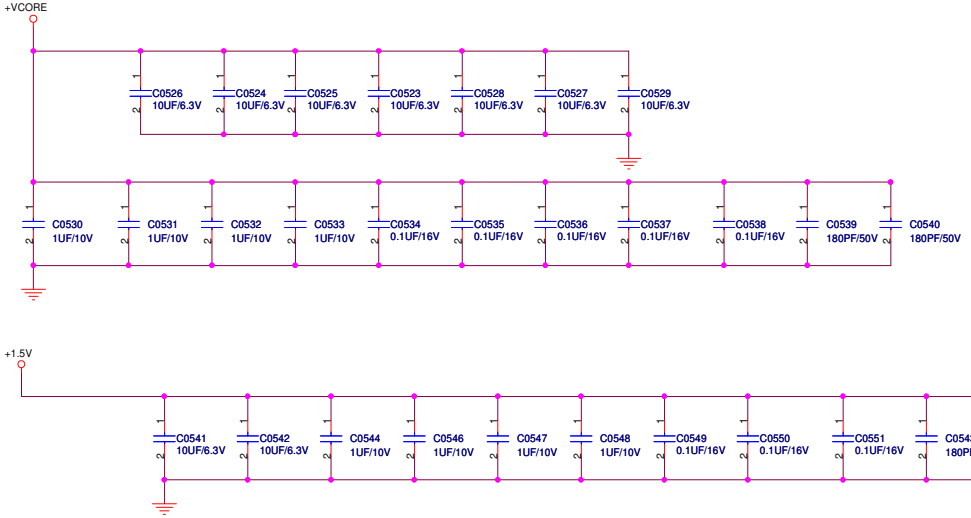
PEGATRON	Title : CPU(1)_DMI,PEG		
BG1	Engineer: Alfie_Wang		
Size: C	Project Name: EA800		Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 3 of 99		

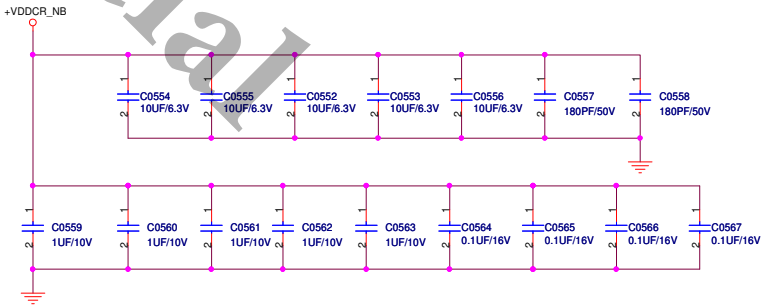




+VCORE
10UF x 7
1UF x 4
0.1UF x 5
180PF x 2

+VDDCR_NB
10UF x 7
1UF x 4
0.1UF x 5
180PF x 2





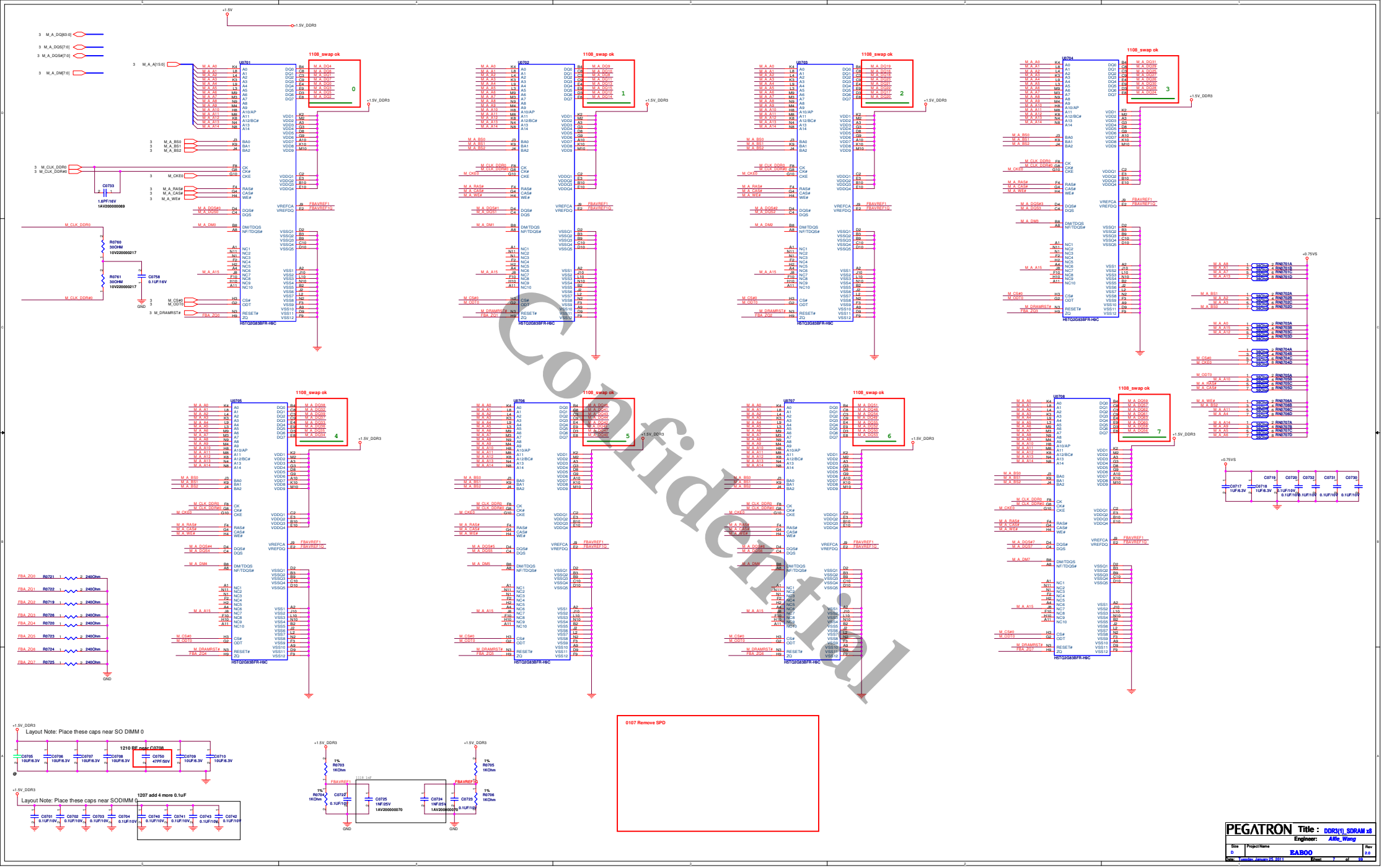
PEGATRON Title : CPU(3)_CFG,GND

Engineer: Alfie_Wang

Size	Project Name	Rev
Custom	EA800	2.0

Date: Tuesday, January 25, 2011 Sheet 5 of 99

PEGATRON	Title : CPU(4)_PWR		
	Engineer: Alfie_Wang		
Size: Custom	Project Name: EABOO		Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 6 of 99		



PEGATRON Title : DDR3(1)_SDRAM x8
Engineer: Allie_Wang
Size: D | Project Name: EABOO | Rev: 2.0
Date: Tuesday, January 25, 2011 | Sheet 7 of 59

PEGATRON Title : DDR3(2)_SO-DIMM1

Engineer: Alfie_Wang

Size	Project Name	Rev
Custom	EAB00	2.0

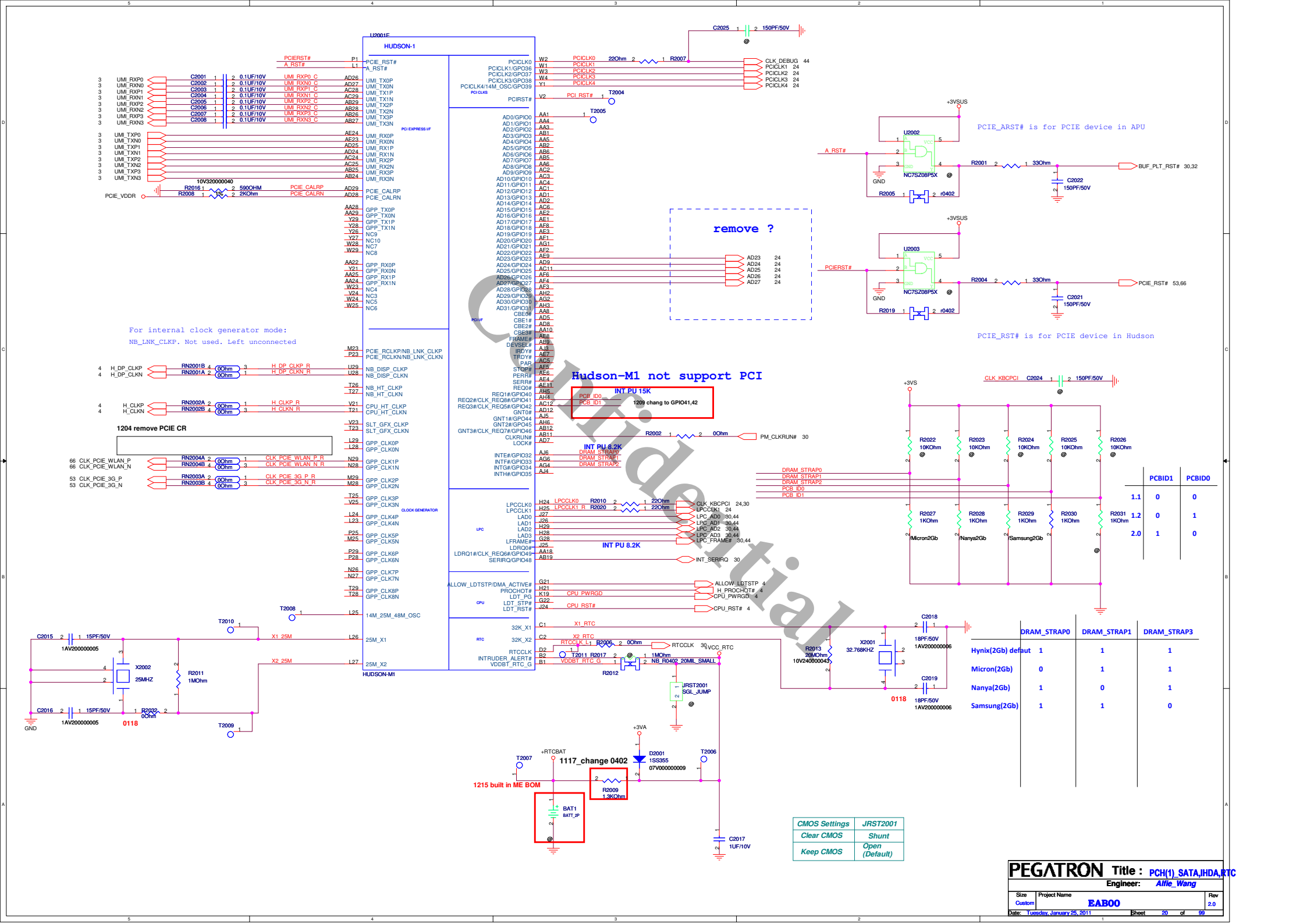
Date: Tuesday, January 25, 2011 Sheet 8 of 99

PEGATRON Title : DDR3(3)_CA/DQ Voltage

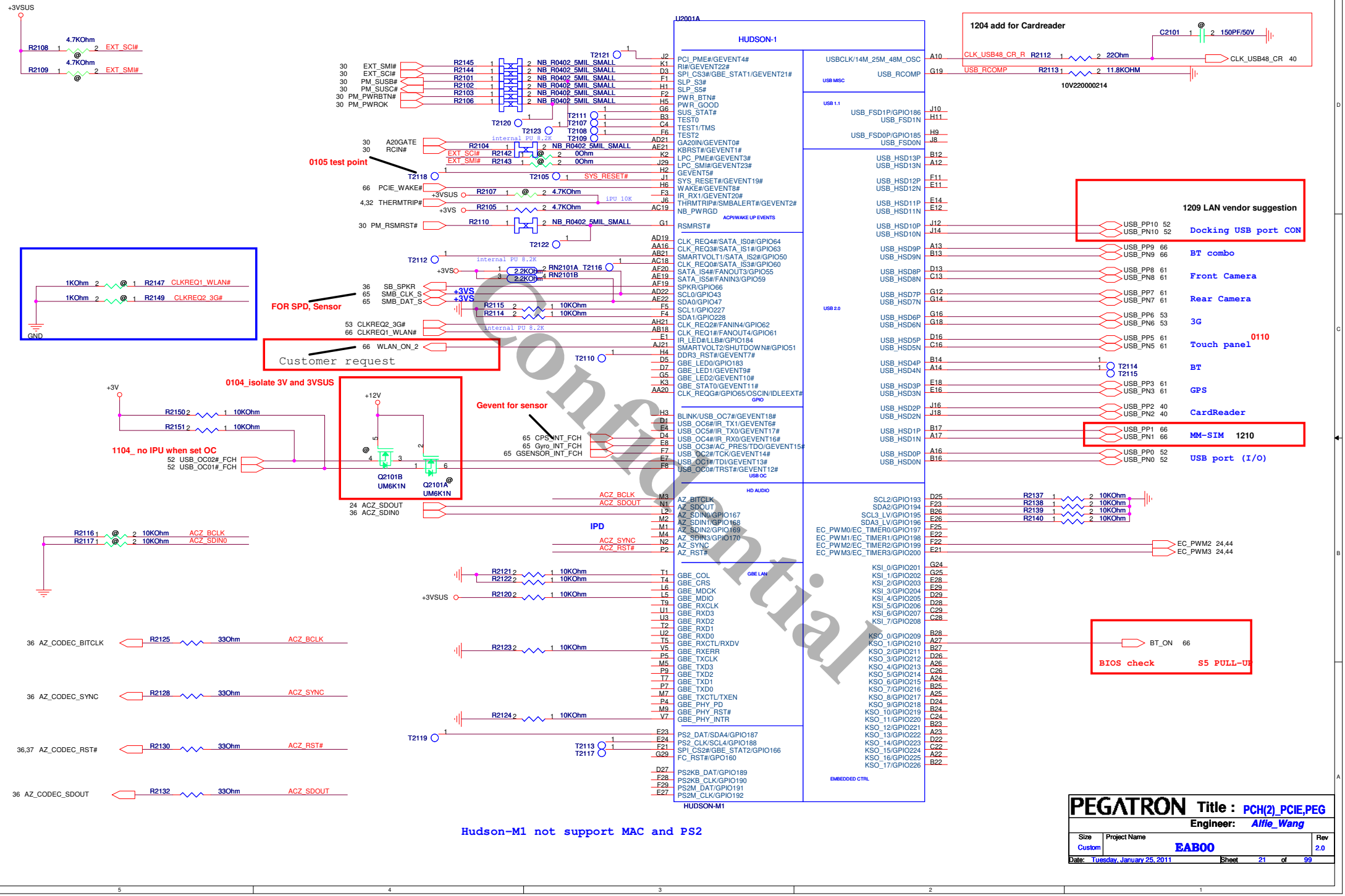
Engineer: Alfie_Wang

Size	Project Name	Rev
Custom	EAB00	2.0

Date: Tuesday, January 25, 2011 Sheet 9 of 99



Title : PCH(1)_SATA,IHDA,RTC		
Engineer: Alfie_Wang		
Size: Custom	Project Name: EABOO	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 20 of 99	


HUDSON-1
U2001A
HUDSON-M1
1204 add for Cardreader
C2101 @ 1 2 150PF/50V
CLK_USB48_CR_R R2112 1 2 22Ohm
CLK_USB48_CR 40
USB_RCOMP R2113 1 2 11.8KOHM
10V220000214
1209 LAN vendor suggestion
USB_PP10 52
USB_PN10 52
Docking USB port CON
USB_PP9 66
USB_PN9 66
BT combo
USB_PP8 61
USB_PN8 61
Front Camera
USB_PP7 61
USB_PN7 61
Rear Camera
USB_PP6 53
USB_PN6 53
3G
USB_PP5 61
USB_PN5 61
0110
Touch panel
T2114
T2115
BT
USB_PP3 61
USB_PN3 61
GPS
USB_PP2 40
USB_PN2 40
CardReader
USB_PP1 66
USB_PN1 66
MM-SIM 1210
USB_PP0 52
USB_PN0 52
USB port (I/O)
BT_ON 66
BIOS check S5 PULL-UP
0105 test point
FOR SPD, Sensor
Customer request
0104_isolate 3V and 3VSUS
1104_ no IPU when set OC
Gevent for sensor
IPD
Hudson-M1 not support MAC and PS2
Confidential
PEGATRON
Title : PCH(2)_PCIE,PEG
Engineer: Alfie_Wang
Size Custom
Project Name EAB00
Rev 2.0
Date: Tuesday, January 25, 2011
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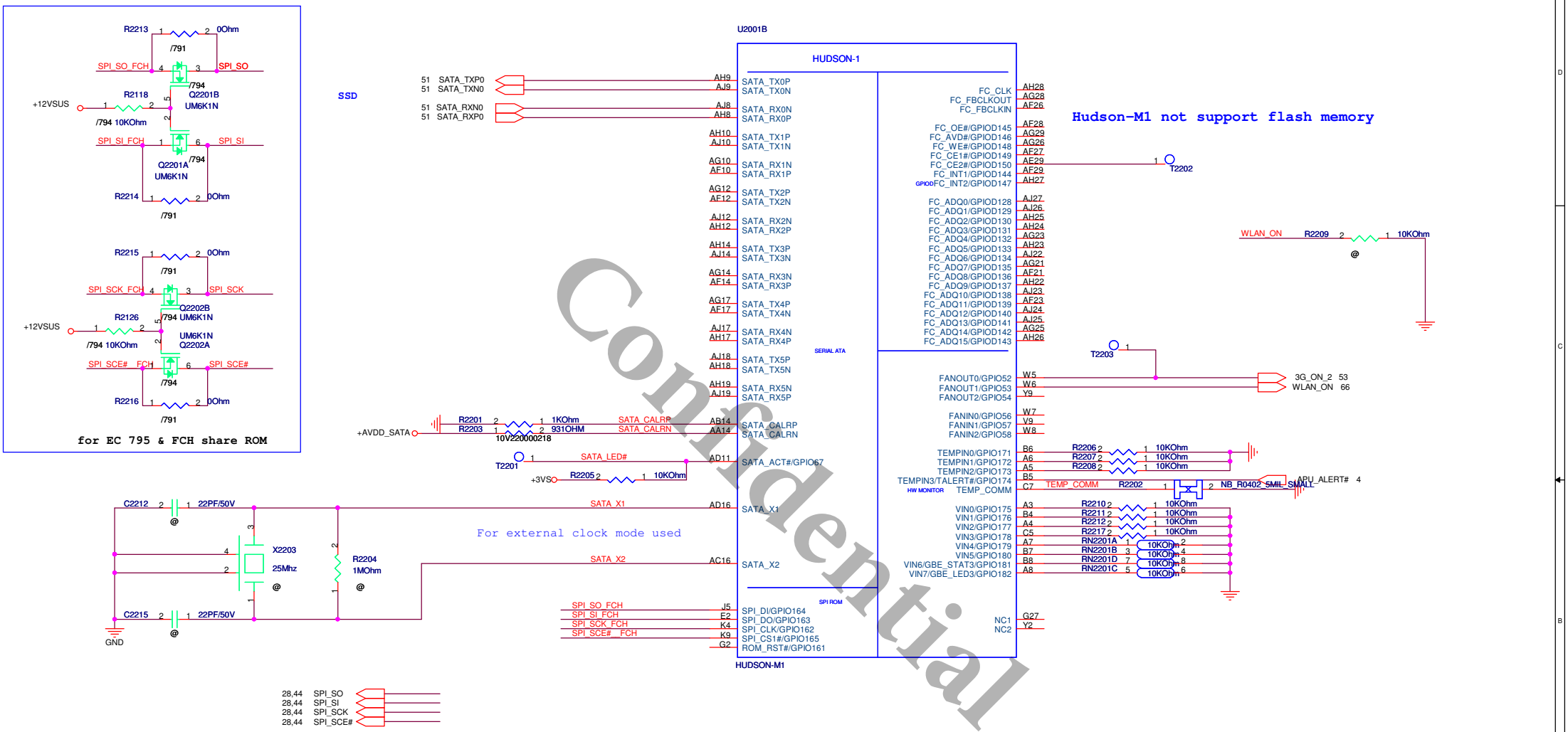
R2213 0Ohm /791
SPI_SO_FCH
SPI_SO
/794 Q2201B UM6K1N
+12VSUS
R2118
/794 10KOhm
SPI_SI_FCH
SPI_SI
Q2201A /794 UM6K1N
R2214 0Ohm /791
R2215 0Ohm /791
SPI_SCK_FCH
SPI_SCK
Q2202B /794 UM6K1N
R2126
/794 10KOhm
UM6K1N Q2202A
SPI_SCE#_FCH
SPI_SCE#
/794
R2216 0Ohm /791
for EC 795 & FCH share ROM
SSD
51 SATA_TXP0
51 SATA_TXN0
51 SATA_RXN0
51 SATA_RXP0
U2001B
HUDSON-1
SATA_TX0P AH9
SATA_TX0N AJ9
SATA_RX0N AJ8
SATA_RX0P AH8
SATA_TX1P AH10
SATA_TX1N AJ10
SATA_RX1N AG10
SATA_RX1P AF10
SATA_TX2P AG12
SATA_TX2N AF12
SATA_RX2N AJ12
SATA_RX2P AH12
SATA_TX3P AH14
SATA_TX3N AJ14
SATA_RX3N AG14
SATA_RX3P AF14
SATA_TX4P AG17
SATA_TX4N AF17
SATA_RX4N AJ17
SATA_RX4P AH17
SATA_TX5P AJ18
SATA_TX5N AH18
SATA_RX5N AH19
SATA_RX5P AJ19
SERIAL ATA
+AVDD_SATA
R2201 1KOhm
R2203 931OHM
10V220000218
SATA_CALRP AB14
SATA_CALRN AA14
SATA_CALRP
SATA_CALRN
T2201
SATA_LED#
+3VS
R2205 10KOhm
SATA_ACT#/GPIO67 AD11
C2212 22PF/50V @
C2215 22PF/50V @
X2203 25Mhz @
R2204 1MOhm @
GND
SATA_X1 AD16
SATA_X2 AC16
For external clock mode used
SPI_SO_FCH
SPI_SI_FCH
SPI_SCK_FCH
SPI_SCE#_FCH
SPI_DI/GPIO164 J5
SPI_DO/GPIO163 E2
SPI_CLK/GPIO162 K4
SPI_CS1#/GPIO165 K9
ROM_RST#/GPIO161 G2
SPI ROM
28,44 SPI_SO
28,44 SPI_SI
28,44 SPI_SCK
28,44 SPI_SCE#
HUDSON-M1
FC_CLK AH28
FC_FBCLKOUT AG28
FC_FBCLKIN AF26
Hudson-M1 not support flash memory
FC_OE#/GPIOD145 AF28
FC_AVD#/GPIOD146 AG29
FC_WE#/GPIOD148 AG26
FC_CE1#/GPIOD149 AF27
FC_CE2#/GPIOD150 AE29
FC_INT1/GPIOD144 AF29
GPIOD FC_INT2/GPIOD147 AH27
T2202
FC_ADQ0/GPIOD128 AJ27
FC_ADQ1/GPIOD129 AJ26
FC_ADQ2/GPIOD130 AH25
FC_ADQ3/GPIOD131 AH24
FC_ADQ4/GPIOD132 AG23
FC_ADQ5/GPIOD133 AH23
FC_ADQ6/GPIOD134 AJ22
FC_ADQ7/GPIOD135 AG21
FC_ADQ8/GPIOD136 AF21
FC_ADQ9/GPIOD137 AH22
FC_ADQ10/GPIOD138 AJ23
FC_ADQ11/GPIOD139 AF23
FC_ADQ12/GPIOD140 AJ24
FC_ADQ13/GPIOD141 AJ25
FC_ADQ14/GPIOD142 AG25
FC_ADQ15/GPIOD143 AH26
WLAN_ON R2209 10KOhm @
T2203
FANOUT0/GPIO52 W5
FANOUT1/GPIO53 W6
FANOUT2/GPIO54 Y9
3G_ON_2 53
WLAN_ON 66
FANIN0/GPIO56 W7
FANIN1/GPIO57 V9
FANIN2/GPIO58 W8
TEMPIN0/GPIO171 B6
TEMPIN1/GPIO172 A6
TEMPIN2/GPIO173 A5
TEMPIN3/TALERT#/GPIO174 B5
HW MONITOR TEMP_COMM C7
R2206 10KOhm
R2207 10KOhm
R2208 10KOhm
TEMP_COMM R2202 NB_R0402_5MIL_SMALL
APU_ALERT# 4
VIN0/GPIO175 A3
VIN1/GPIO176 B4
VIN2/GPIO177 A4
VIN3/GPIO178 C5
VIN4/GPIO179 A7
VIN5/GPIO180 B7
VIN6/GBE_STAT3/GPIO181 B8
VIN7/GBE_LED3/GPIO182 A8
R2210 10KOhm
R2211 10KOhm
R2212 10KOhm
R2217 10KOhm
RN2201A 10KOhm
RN2201B 10KOhm
RN2201D 10KOhm
RN2201C 10KOhm
NC1 G27
NC2 Y2
Confidential
PEGATRON
Title : PCH(3)_FDI,DMI
Engineer: Alfie_Wang
Size Custom
Project Name EAB00
Rev 2.0
Date: Tuesday, January 25, 2011
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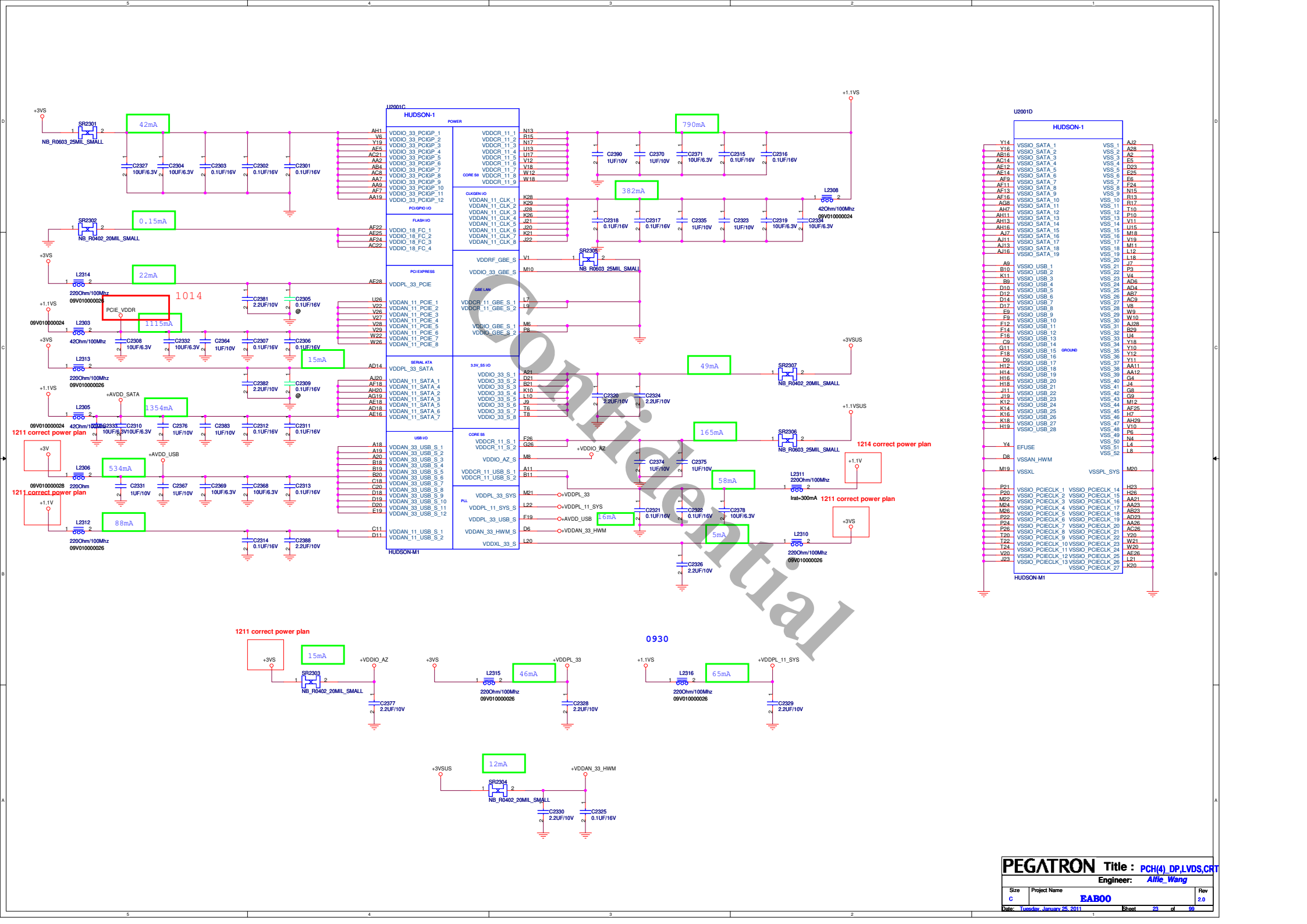
U2001C
HUDSON-1
HUDSON-M1
U2001D
HUDSON-1
HUDSON-M1
+3VS
+1.1VS
+3VSUS
+1.1VSUS
+1.1V
+AVDD_SATA
+AVDD_USB
+VDDIO_AZ
+VDDPL_33
+VDDPL_11_SYS
+VDDAN_33_HWM
PCIE_VDDR
SR2301
SR2302
SR2303
SR2304
SR2305
SR2306
SR2307
NB_R0603_25MIL_SMALL
NB_R0402_20MIL_SMALL
L2303
L2305
L2306
L2308
L2310
L2311
L2312
L2313
L2314
220Ohm/100Mhz
09V010000026
42Ohm/100Mhz
09V010000024
220Ohm
09V010000028
42Ohm/100Mhz
09V010000024
42mA
0.15mA
22mA
1014
1115mA
15mA
1354mA
534mA
88mA
790mA
382mA
49mA
165mA
58mA
16mA
5mA
15mA
46mA
65mA
12mA
1211 correct power plan
1214 correct power plan
0930
Irat=300mA
Confidential
PEGATRON
Title : PCH(4)_DP,LVDS,CRT
Engineer: Alfie_Wang
Size C
Project Name EAB00
Rev 2.0
Date: Tuesday, January 25, 2011
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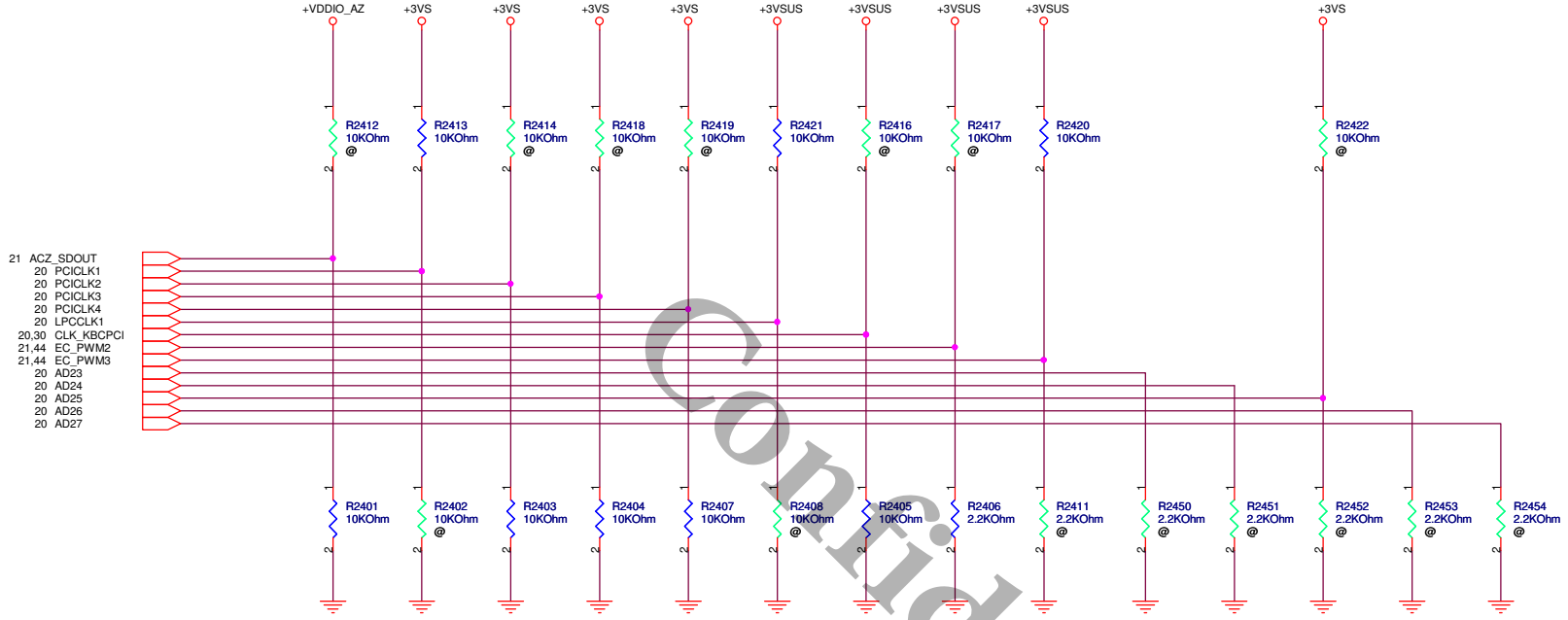
Strap Pins



	ACZ_SDOUT_AUD	PCICLK1	PCICLK2	PCICLK3	PCICLK4	LPCCLK0 CLK_KBCPCI	LPCCLK1	EC_PWM2	EC_PWM3	
High	low power mode	***PCIE Gen2***	watchdog timer enable	debug	no-Fusion clock mode	EC enable	***clock gen. enable***	H	L	LPC ROM
Low	***peformance mode***	PCIE Gen1	***watchdog timer disable***	***ignore debug***	***Fusion clock mode***	***EC disable***	clock gen. disable	L	H	SPI ROM

Debug Straps

	AD23	AD24	AD25	AD26	AD27
High	***disable PCI mem boot***	***default PCIE straps***	***use FC PLL***	***disable ILA autorun***	***use PCI PLL***
Low	enable PCI mem boot	EEPROM PCIE straps	bypass FC PLL	enable ILA autorun	by pass PCI PLL

PEGATRON Title : PCH(5)_PCI,USB

Engineer: *Alfie_Wang*

Size	Project Name	Rev
Custom	EAB00	2.0

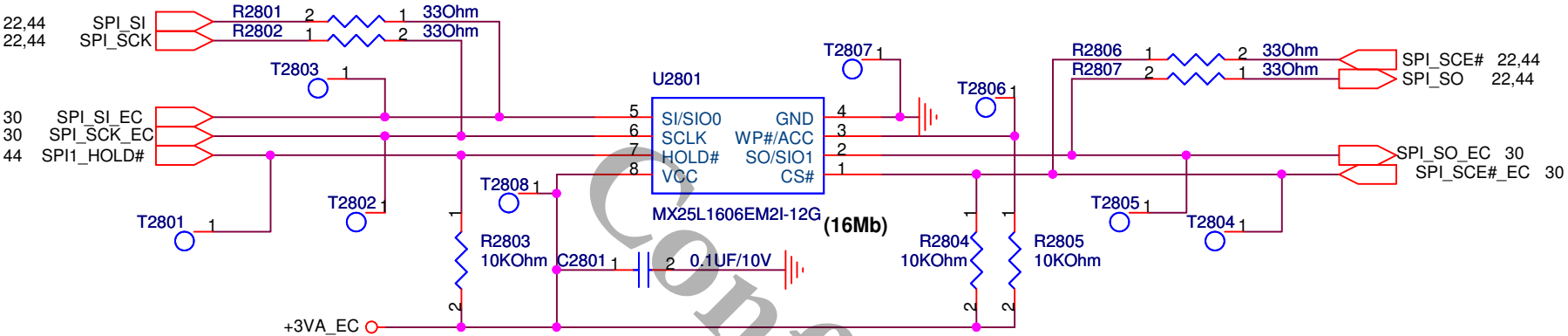
Date: Tuesday, January 25, 2011 Sheet 24 of 99

PEGATRON Title : PCH(6)_CPU,GPIO,MISC

Engineer: Alfie_Wang

Size	Project Name	Rev
Custom	EAB00	2.0

Date: Tuesday, January 25, 2011 Sheet 25 of 99



WINBOND:0500-00P4000
MXIC: 0500-00TY000

reserved for BIOS testing

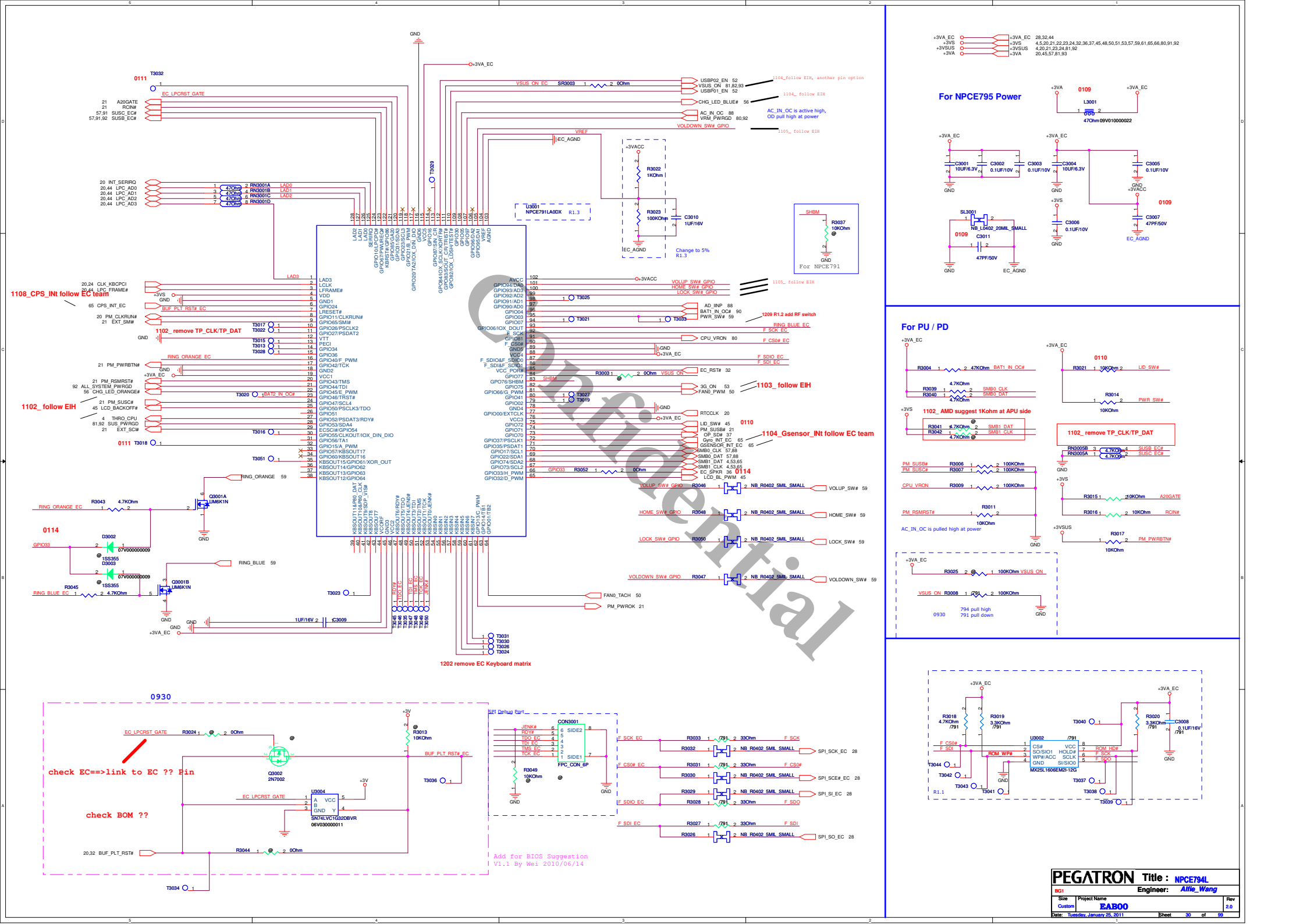
Title: SPI_ROM		
Size: A	Document Number: EAB00	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 28 of 1	

PEGATRON Title : CLK_SLG8SP585VTR

Engineer: Alfie_Wang

Size	Project Name	Rev
Custom	EAB00	2.0

Date: Tuesday, January 25, 2011 Sheet 29 of 99



PEGATRON Title : NPCE794L

BG1 Engineer: Alfie_Wang

Size: Custom | Project Name: EA800 | Rev: 2.0

Date: Tuesday, January 25, 2011 | Sheet 30 of 99

PEGATRON Title : EC_IT8512(2)KB, TP,FP

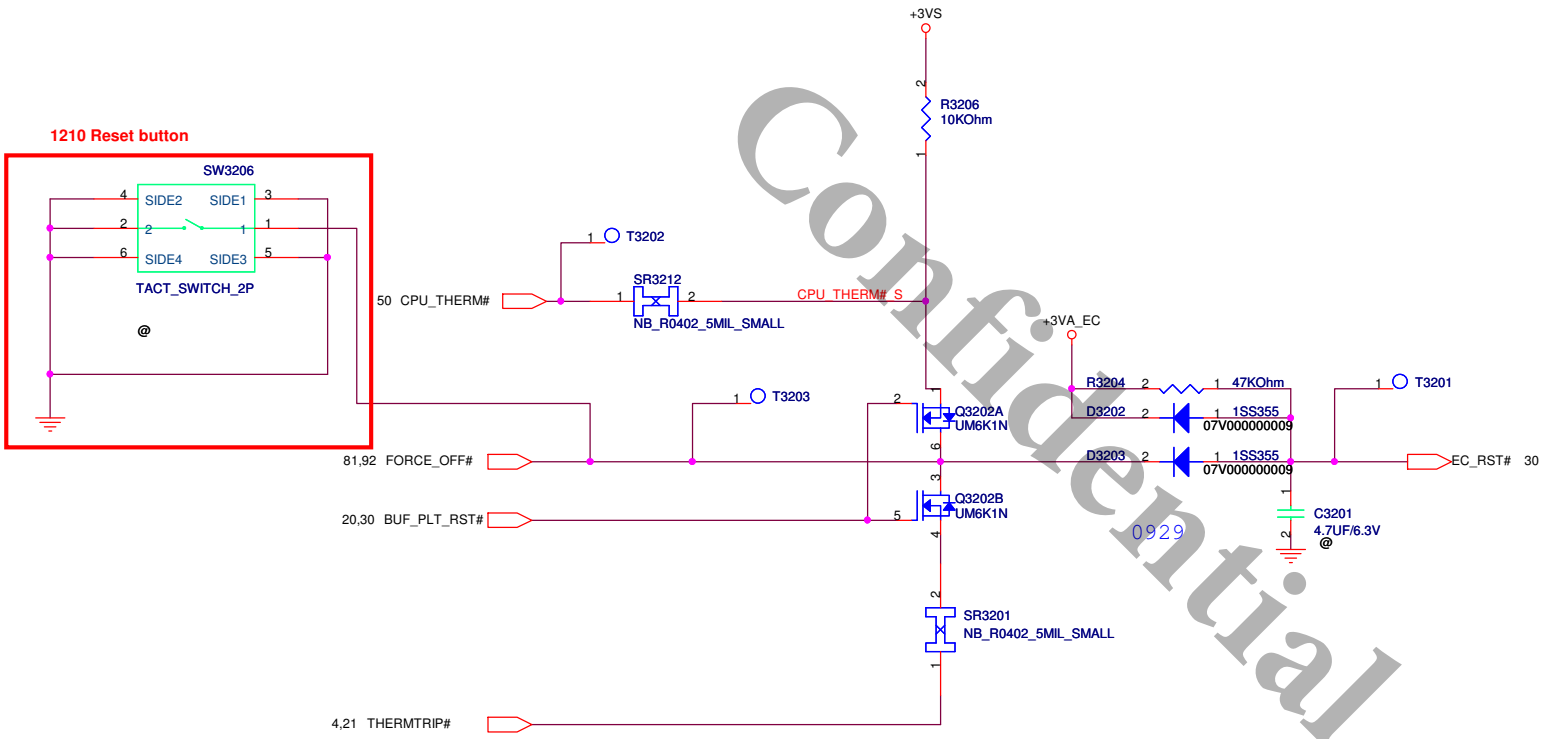
BG1 Engineer: Alfie_Wang

Size	Project Name	Rev
B	EAB00	2.0

Date: Tuesday, January 25, 2011 Sheet 31 of 99

Thermal Policy

NPCE795 has internal power-on reset circuit
Use 47k ohm to make sure that raising time of POR is less than 10us



PEGATRON Title : RST_Reset Circuit

Engineer: Alfie_Wang

Size	Project Name	Rev
B	EAB00	2.0

Date: Tuesday, January 25, 2011 Sheet 32 of 99

PEGATRON Title : AR8151

BG1 Engineer: *Alfie_Wang*

Size	Project Name	Rev
Custom	EAB00	2.0

Date: Tuesday, January 25, 2011 Sheet 33 of 99

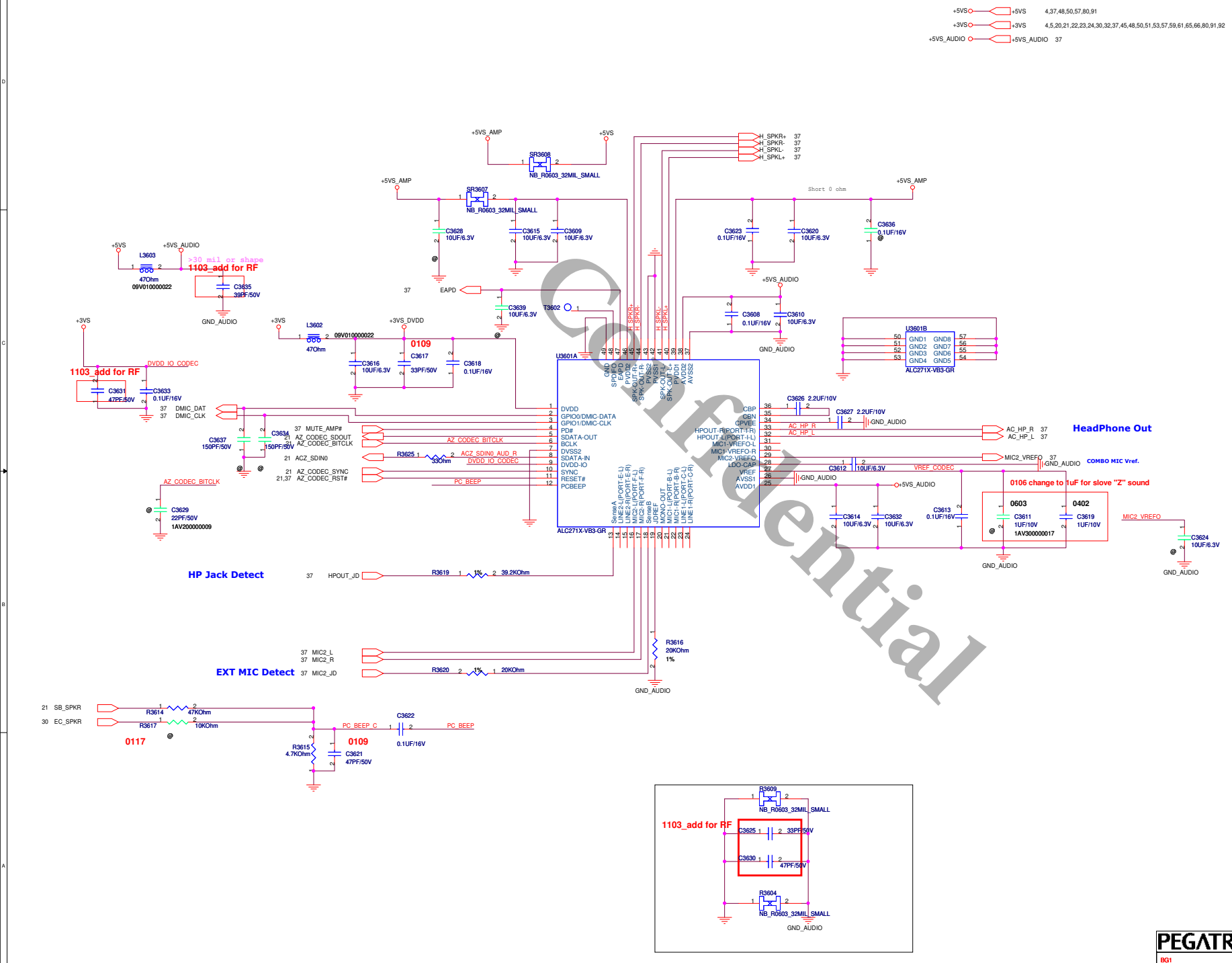
PEGATRON	Title : RJ45	
BG1	Engineer: *Alfie_Wang*	
Size: Custom	Project Name: EAB00	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 34 of 99	

PEGATRON	Title : MDC CONN	
BG1	Engineer: Alfie_Wang	
Size: C	Project Name: EAB00	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 35 of 99	

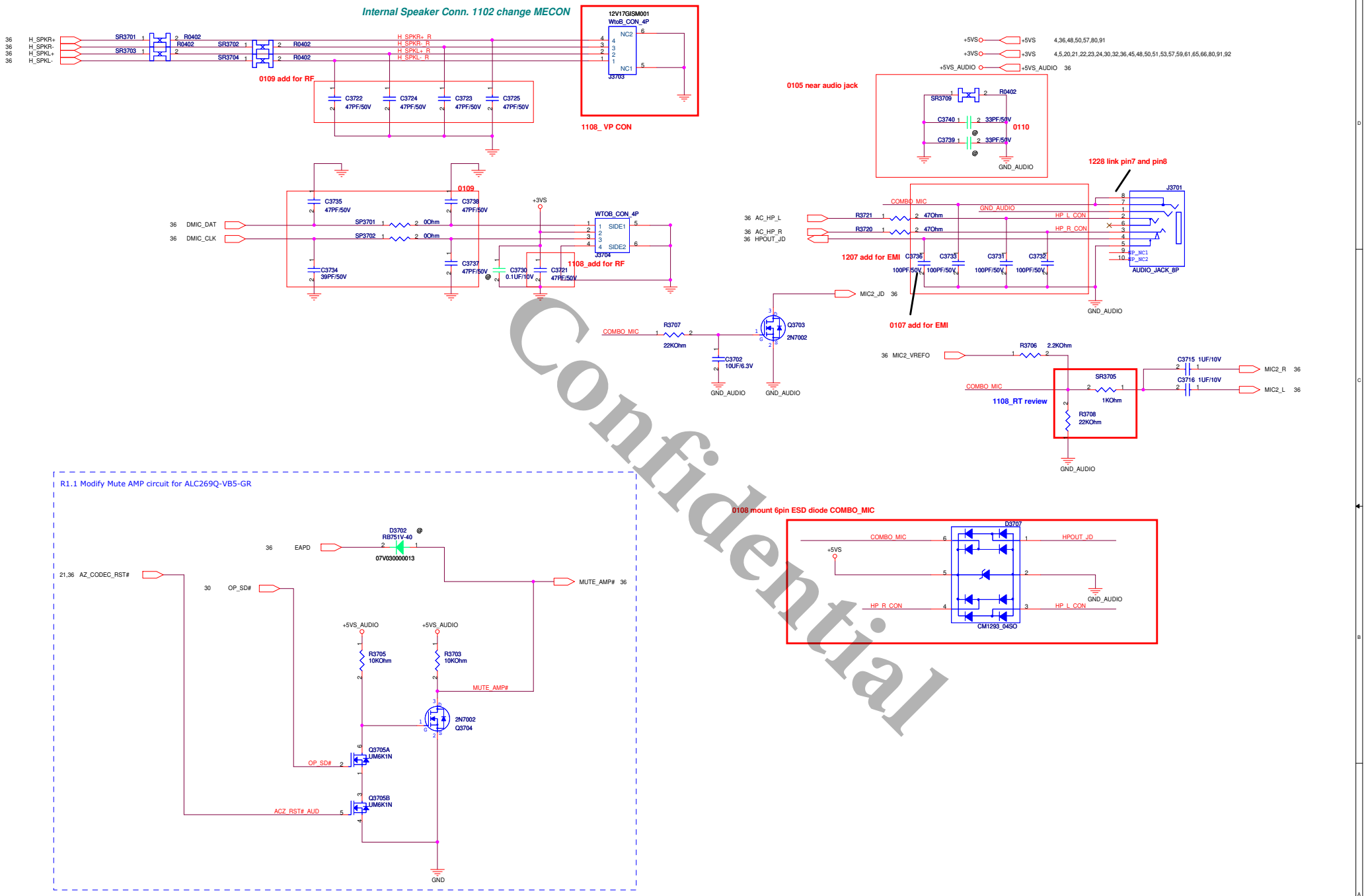
Audio Codec

DIGITAL

ANALOG



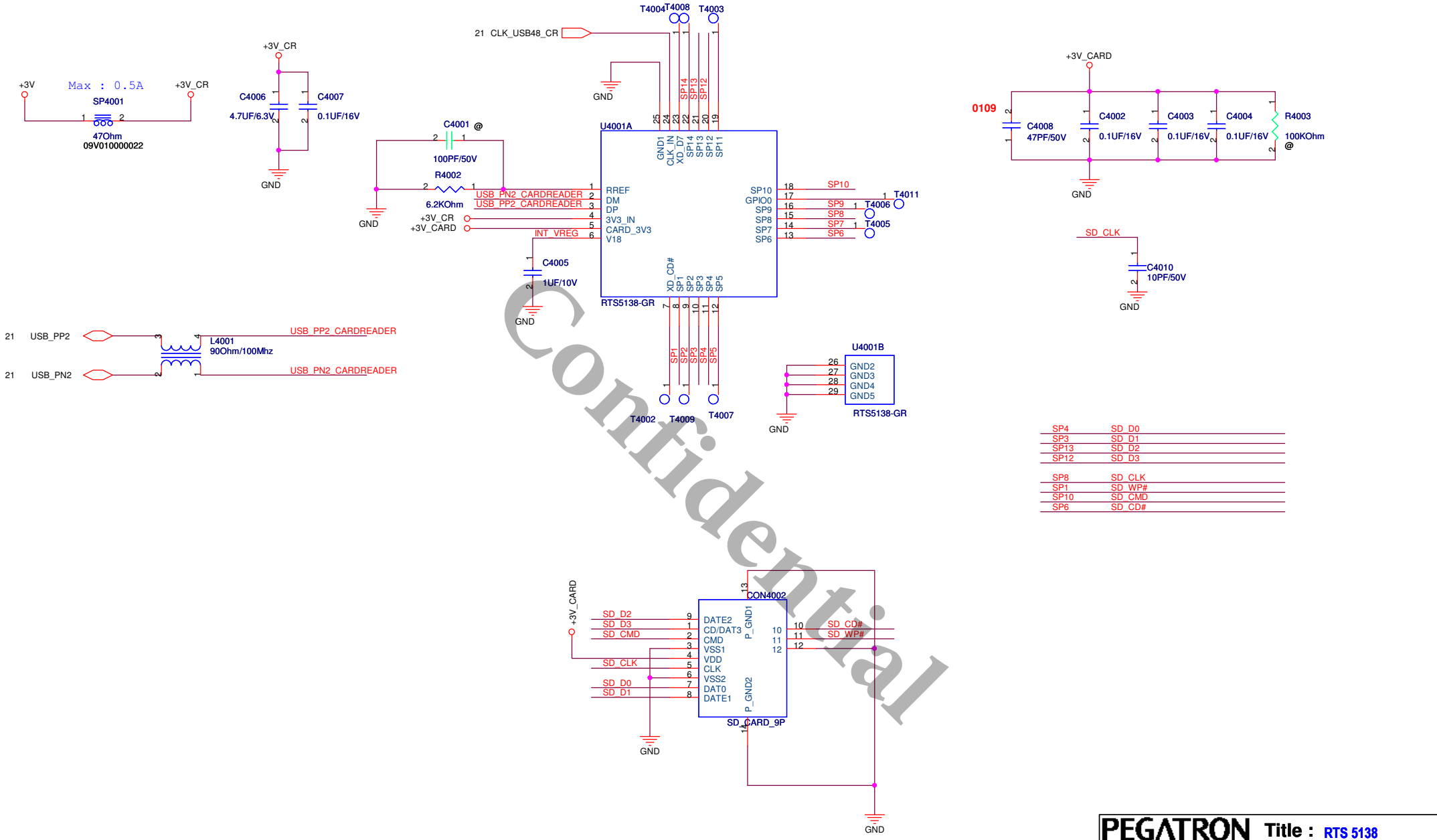
PEGATRON	Title : AUD(1)_ALC271		
BG1	Engineer: Alfie_Wang		
Size: C	Project Name: EAB00	Rev: 2.0	
Date: Tuesday, January 25, 2011	Sheet 36 of 99		



PEGATRON	Title : AUD(2)_AMP,JACK
BG1	Engineer: Alfie_Wang
Size: C	Project Name: EA800
Rev: 2.0	
Date: Tuesday, January 25, 2011	Sheet 37 of 99

PEGATRON	Title : AUDIO CODEC-CX20671	
BG1	Engineer: *Alfie_Wang*	
Size: Custom	Project Name: EAB00	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 38 of 99	

PEGATRON	Title : AUDIO CODEC-CX20671		
BG1	Engineer: *Alfie_Wang*		
Size: Custom	Project Name: EAB00		Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 39 of 99		

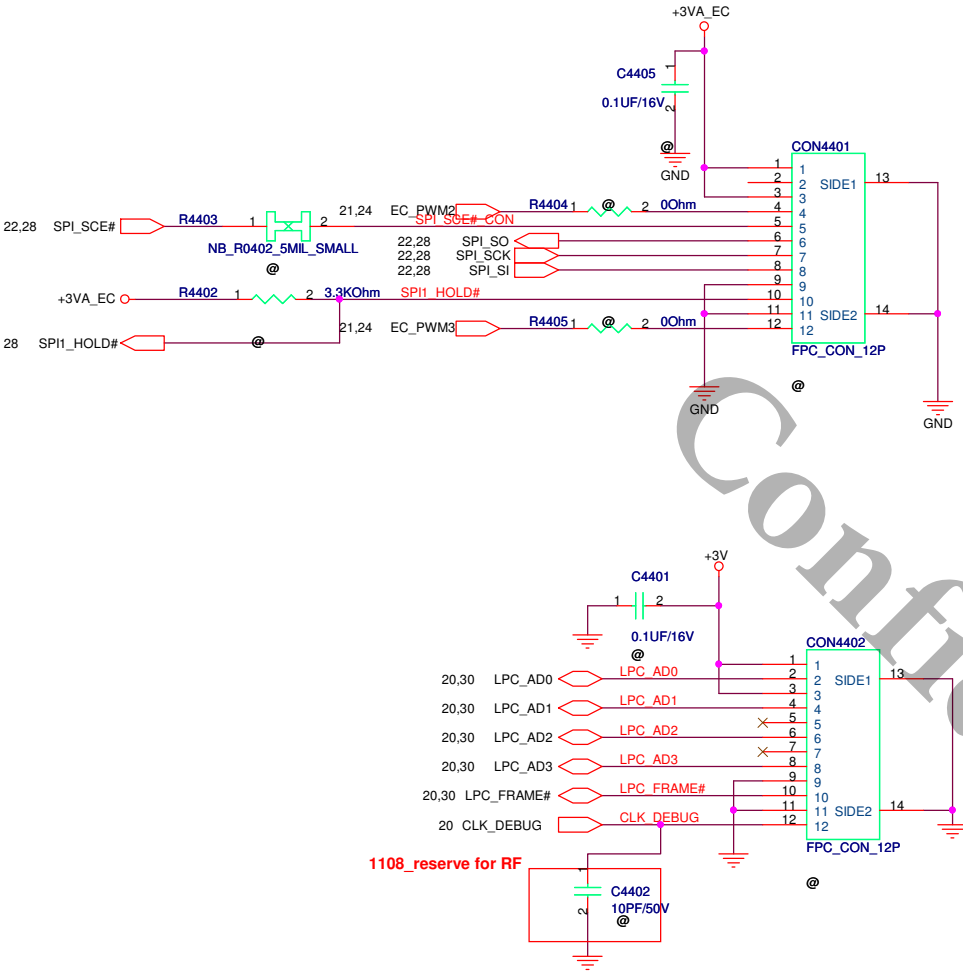


PEGATRON Title : RTS 5138

PEGATRON CORPORATION Engineer:

Size	Project Name	Rev
B	DESIGN IP	2.0

Date: Tuesday, January 25, 2011 Sheet 40 of 1

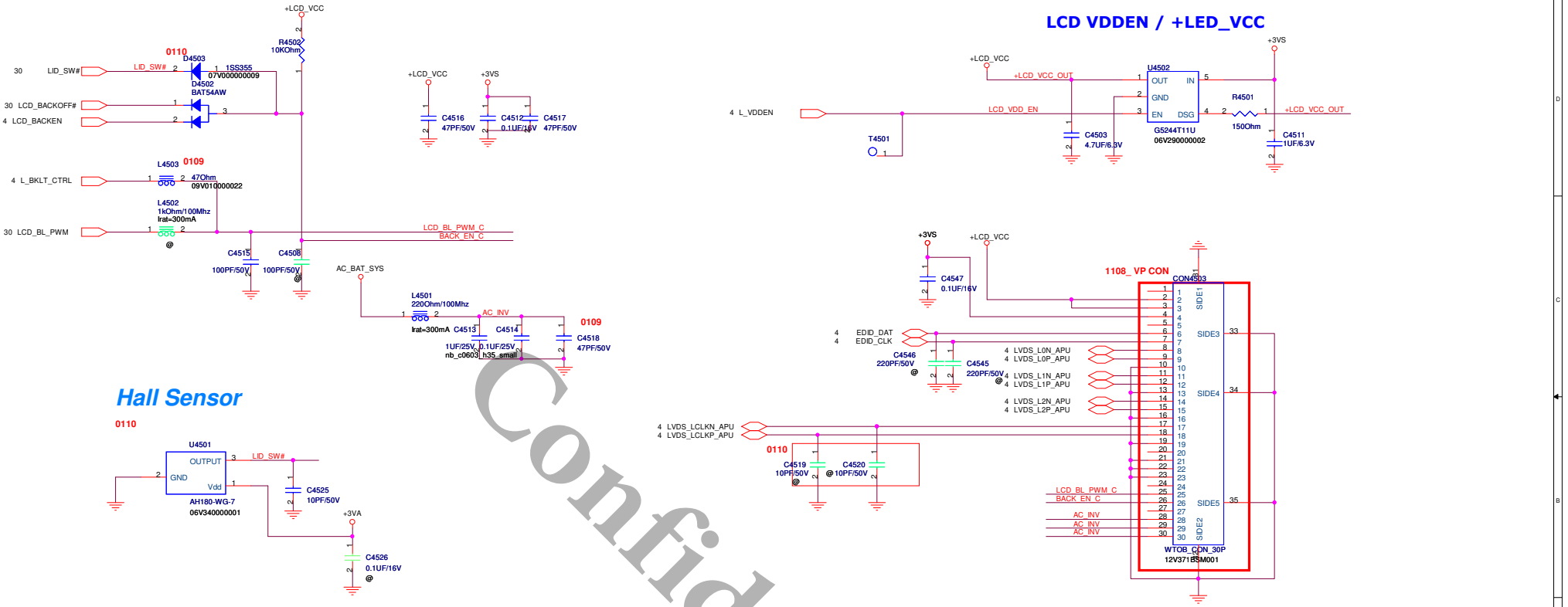


PEGATRON Title : DEBUG

BG1 Engineer: Alfie_Wang

Size	Project Name	Rev
B	EAB00	2.0

Date: Tuesday, January 25, 2011 Sheet 44 of 99



PEGATRON Title : LVDS OUT

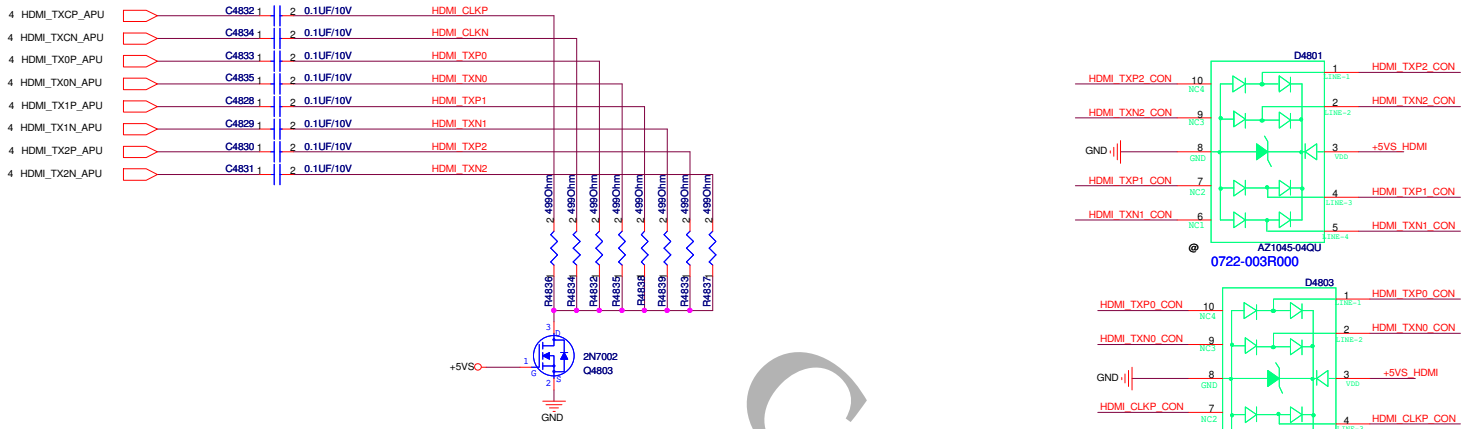
BG1 Engineer: Alfie_Wang

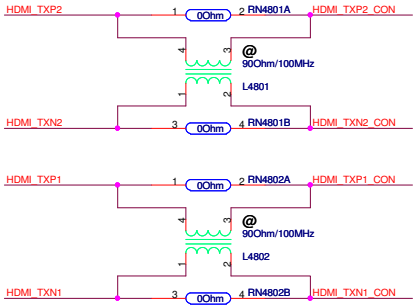
Size	Project Name	Rev
Custom	EAB00	2.0

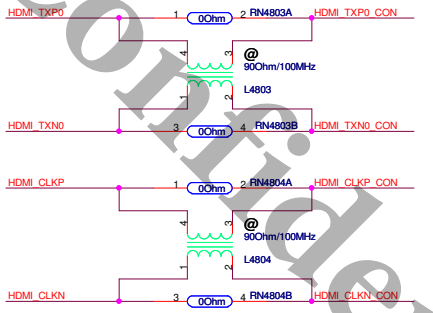
Date: Tuesday, January 25, 2011 Sheet 45 of 99

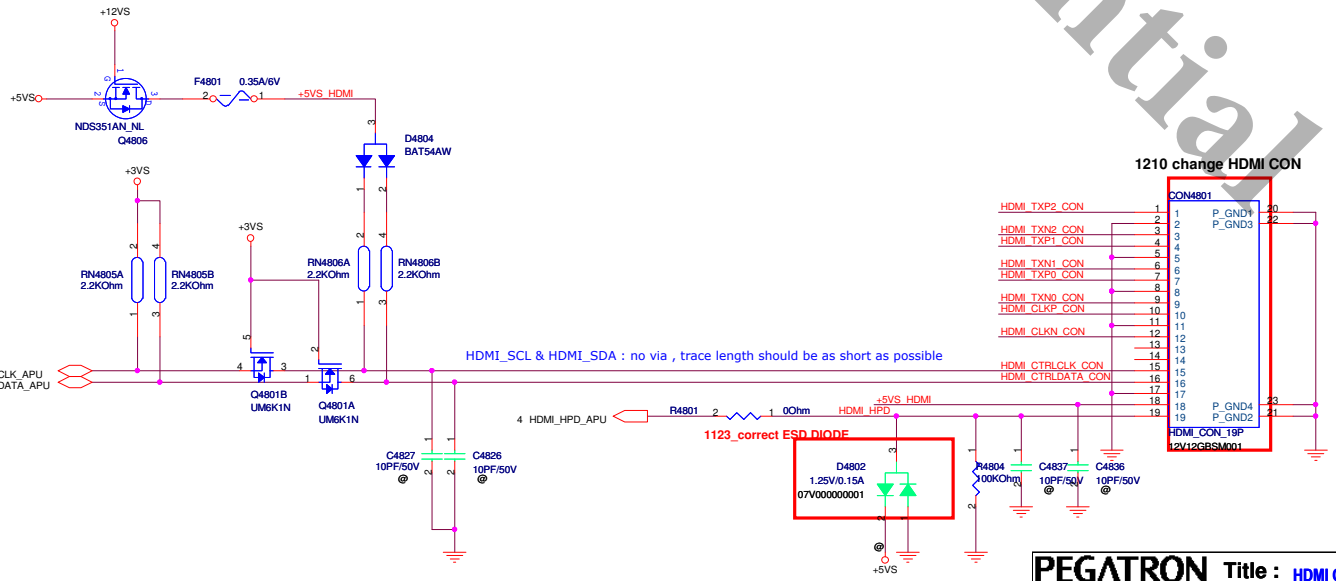
PEGATRON	Title : CRT	
BG1	Engineer: Alfie Wang	
Size: Custom	Project Name: EAB00	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 46 of 99	

1004









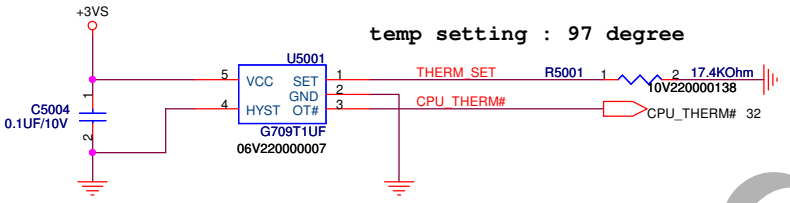
PEGATRON Title : HDMI Connector

BG1 Engineer: Alfie_Wang

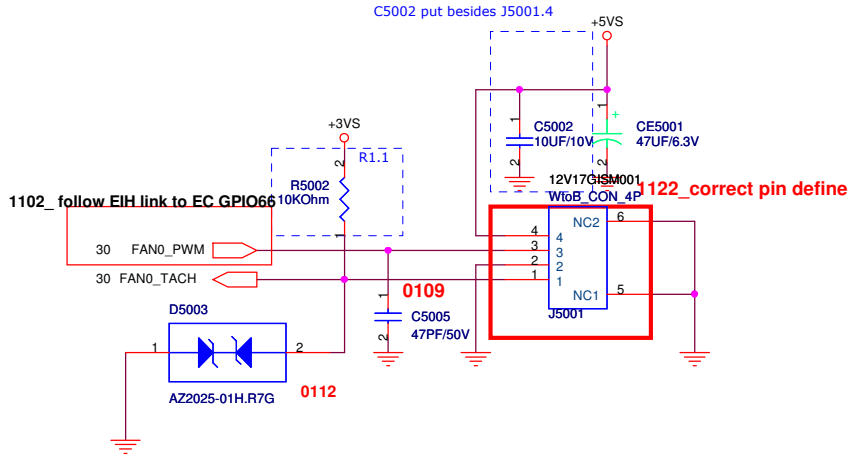
Size	Project Name	Rev
Custom	EABOO	2.0

Date: Tuesday, January 25, 2011 Sheet 48 of 99

U5001 Close to CPU



PWM Fan follow JE30



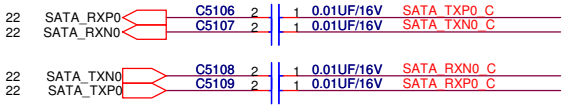
PEGATRON Title : FAN_Fan,Sensor

Engineer: Alfie_Wang

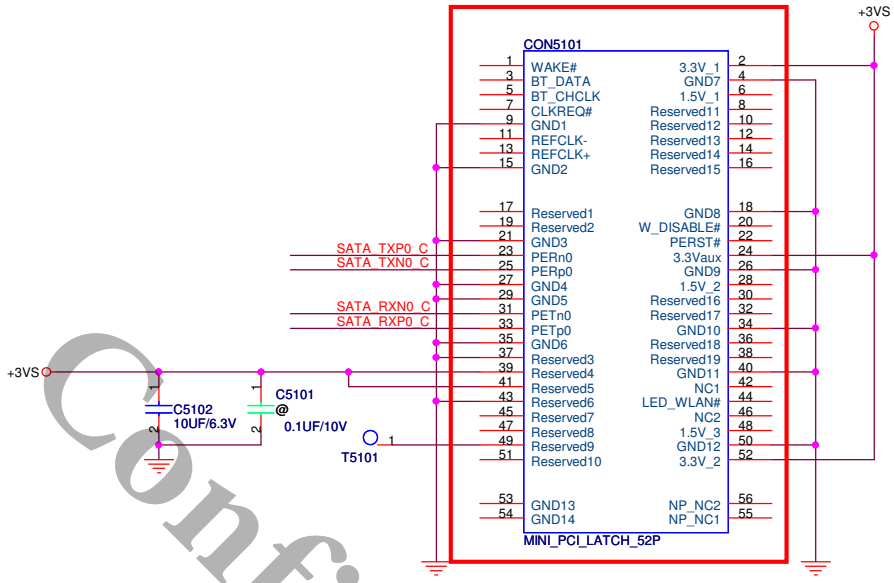
Size	Project Name	Rev
B	EAB00	2.0

Date: Tuesday, January 25, 2011 Sheet 50 of 99

SSD

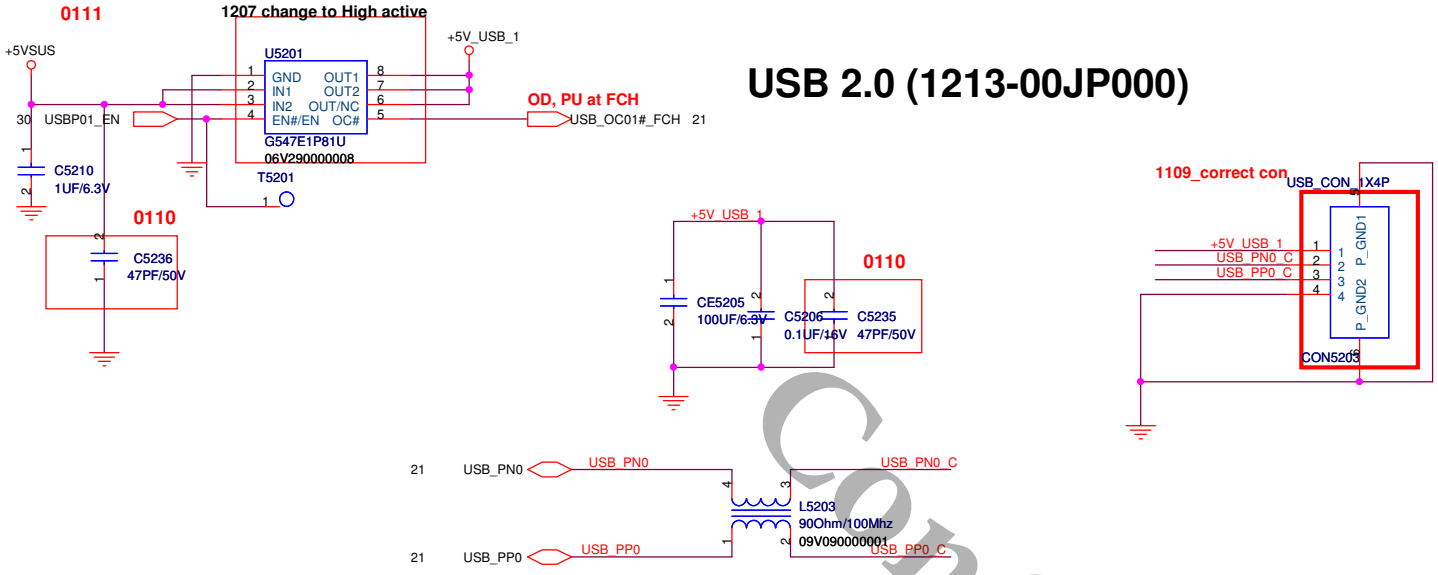


1106 pin define for SSD check OK, change ME correct CON.

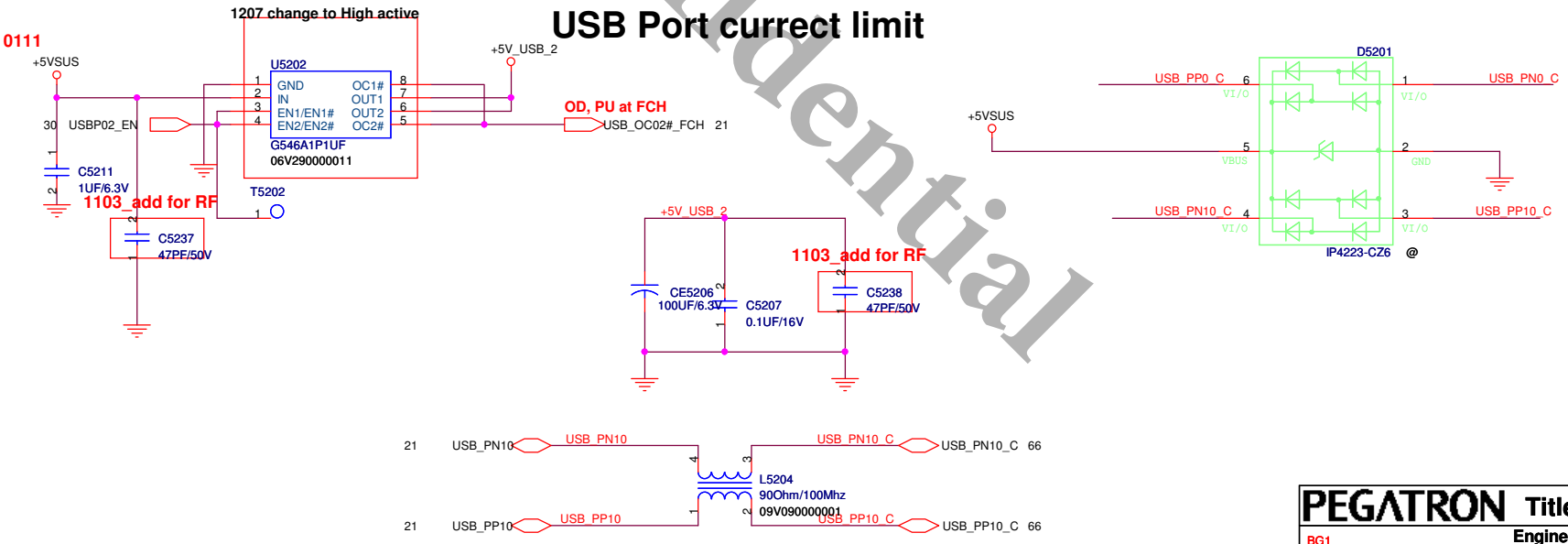


PEGATRON	Title : SSD(mSATA)		
BG1	Engineer: Alfie_Wang		
Size: B	Project Name: EAB00		Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 51 of 99		

USB 2.0 (1213-00JP000)



USB Port current limit



PEGATRON Title :USB JACK

BG1 Engineer: Alfie_Wang

Size	Project Name	Rev
B	EAB00	2.0

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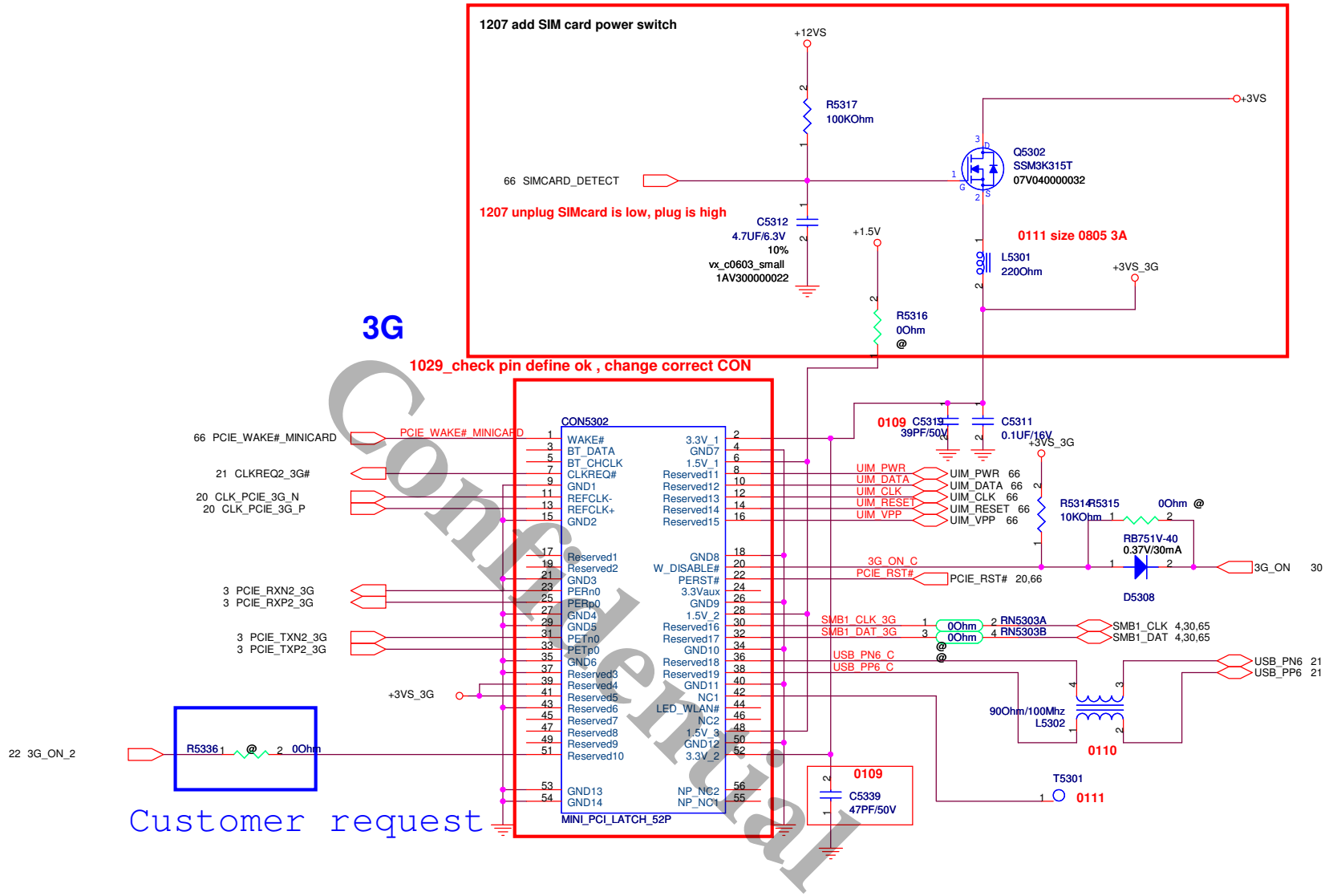
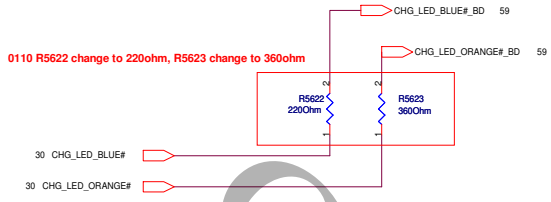


PEGATRON	Title : 3G Full Minicard	
BG1	Engineer: Alfie_Wang	
Size: B	Project Name: EAB00	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 53 of 99	

PEGATRON	Title : SSD to SATA	
BG1	Engineer: Alfie_Wang	
Size: Custom	Project Name: EAB00	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 54 of 99	

Charger LED



Dual Color

PEGATRON Title : LED

Engineer: Alfie_Wang

Size	Project Name	Rev
C	EAB00	2.0

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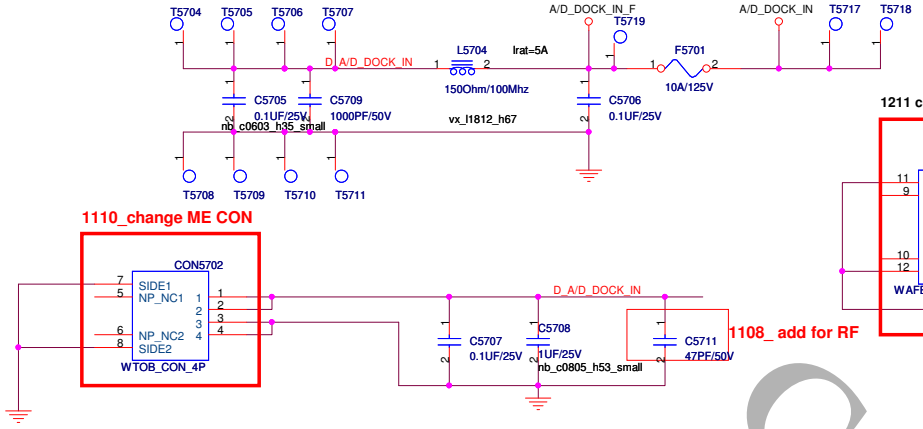
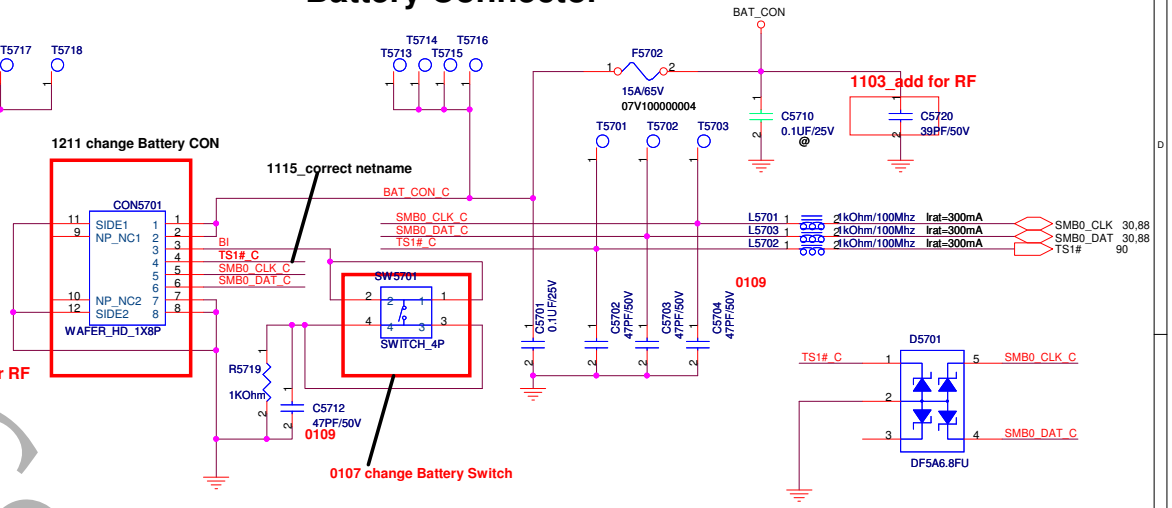
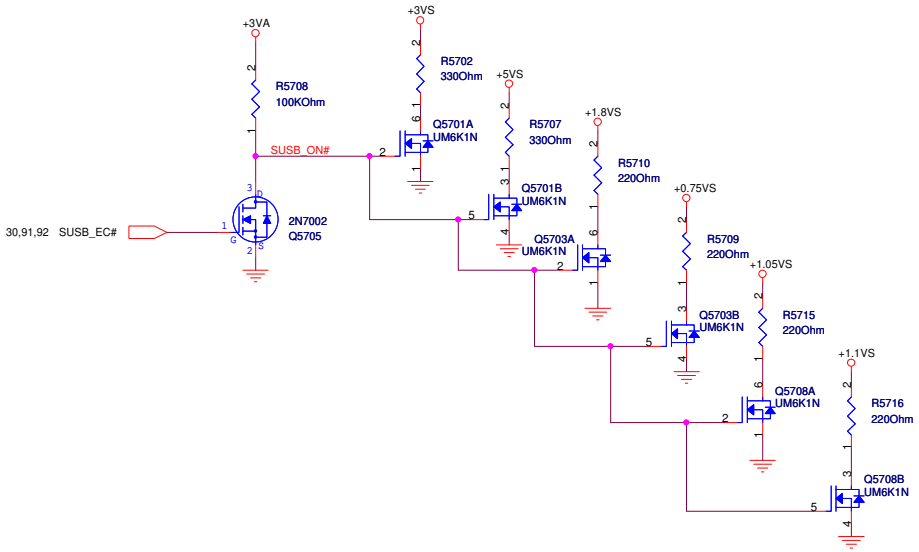
DC IN

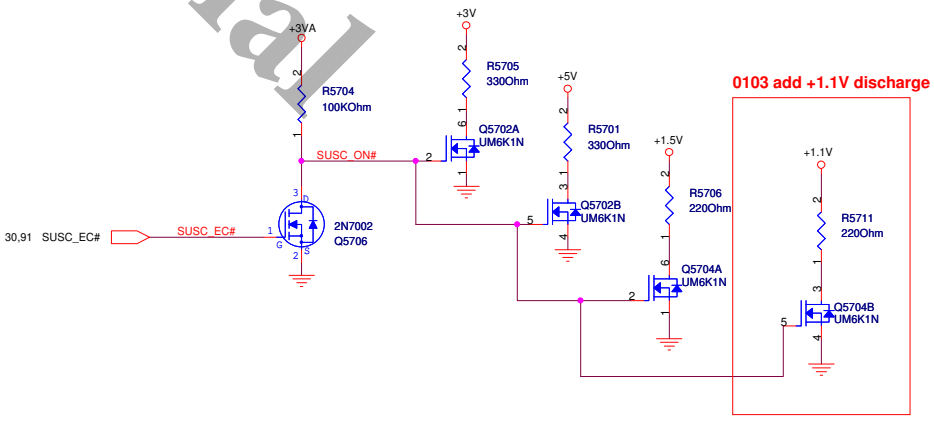


Battery Connector



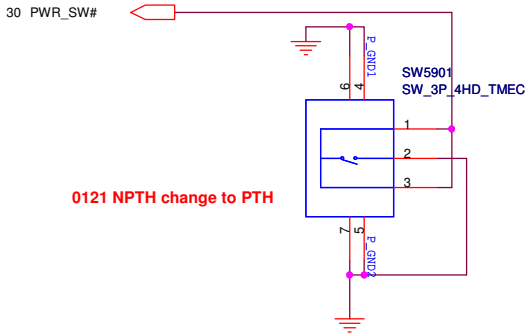
Discharge Circuit



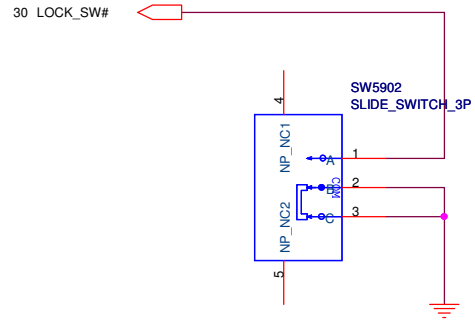


PEGATRON	Title : DISCHARGE CKT	
BG1	Engineer: Alfie_Wang	
Size: Custom	Project Name: EAB00	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 57 of 99	

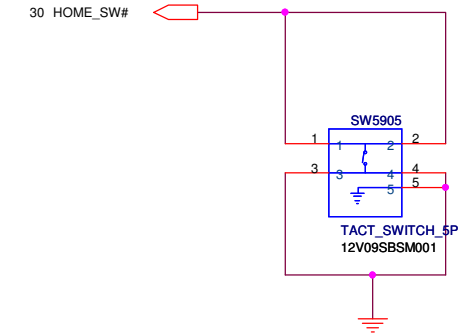
POWER SW



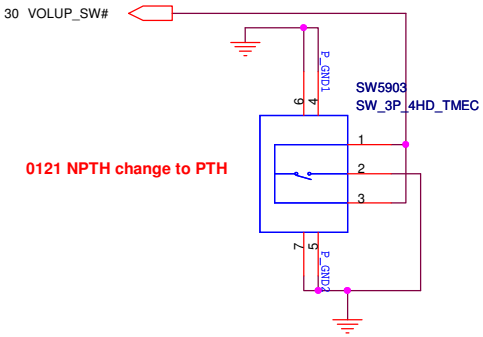
LOCK SLIDE SWITCH



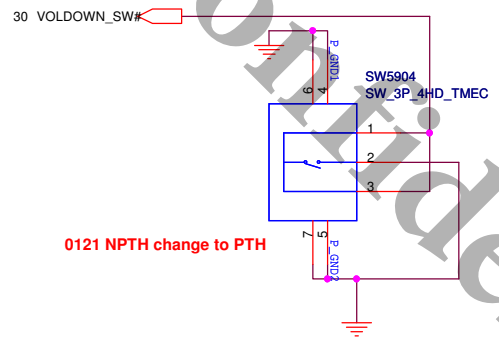
HOME BTN

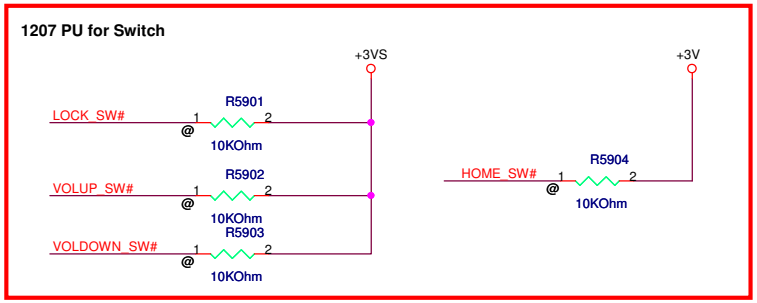


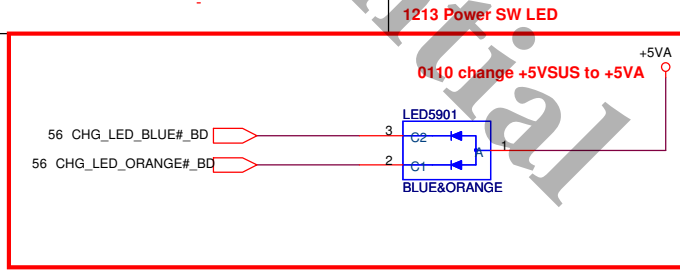
Volume UP

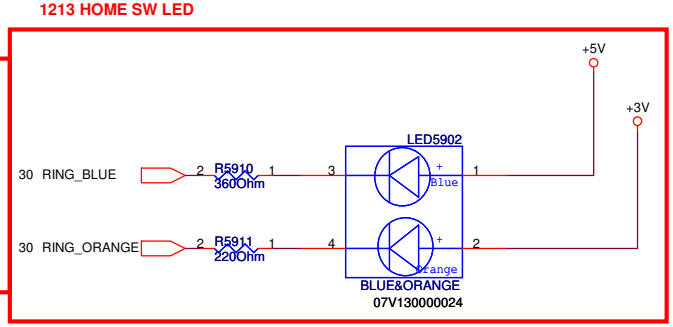


Volume DOWN









PEGATRON	Title : SW & BTN	
BG1	Engineer: Alfie_Wang	
Size: B	Project Name: EAB00	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 59 of 99	

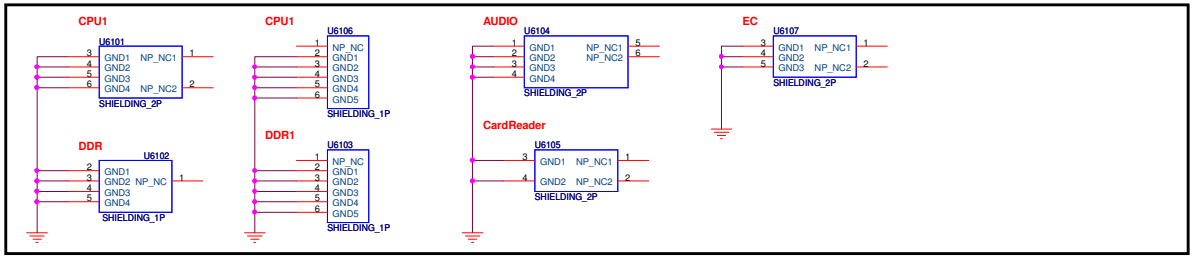
PEGATRON Title :SAR

BG1 Engineer: *Alfie_Wang*

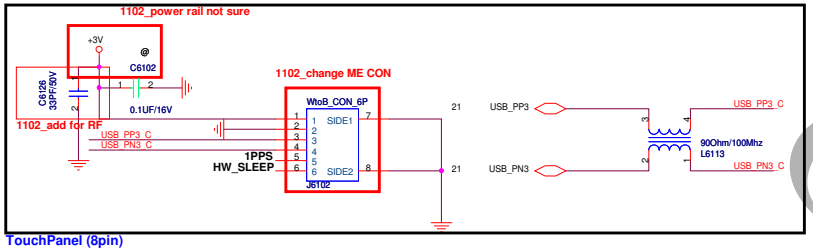
Size	Project Name	Rev
B	EAB00	2.0

Date: Tuesday, January 25, 2011 Sheet 60 of 99

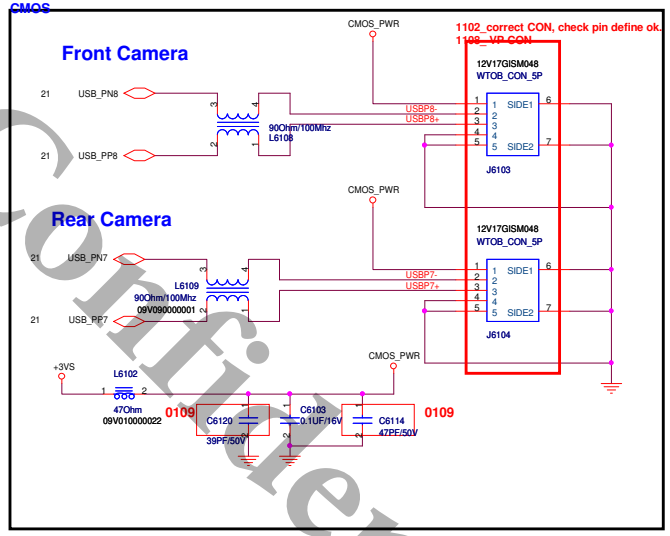
Shielding Case



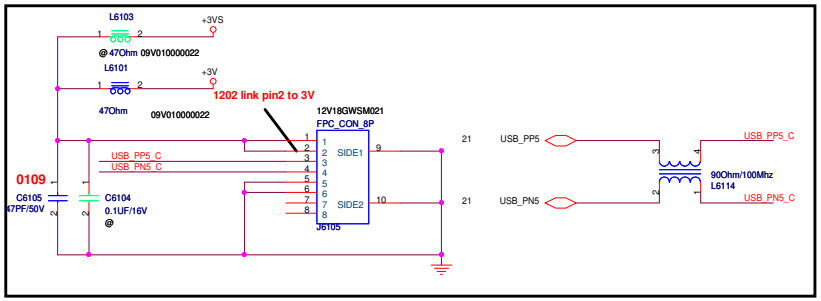
GPS



CMOS



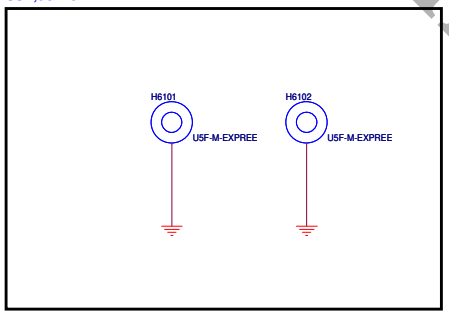
TouchPanel (8pin)



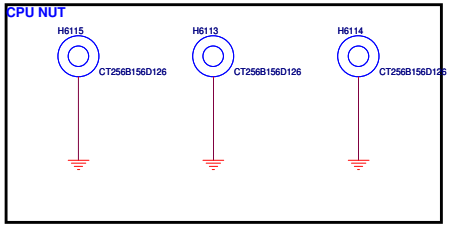
LED Board (12pin)
1230 remove CON6105

BT CON
1210 remove BT

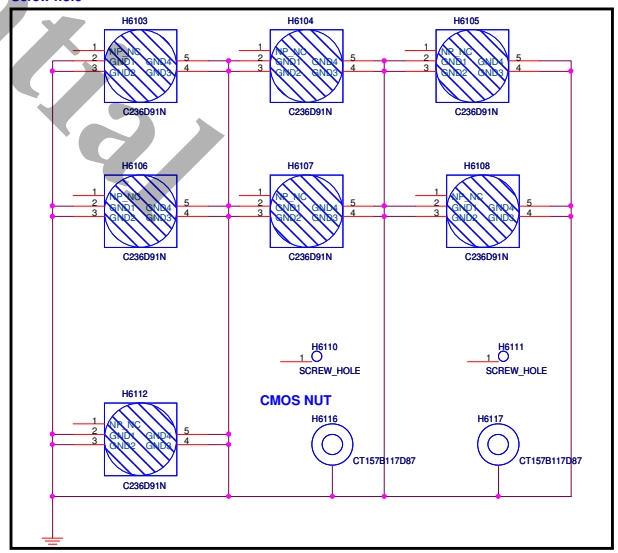
SSD,3G NUT



CPU NUT



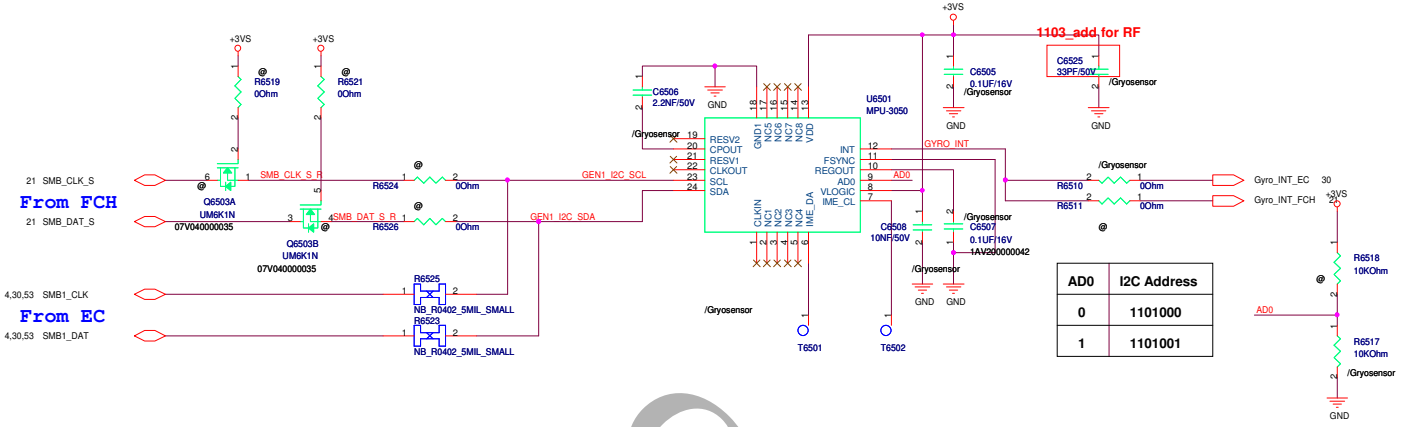
Screw hole



PEGATRON Title : ME CON_screw hole
BG1 Engineer: Alfie_Wang
Size C | Project Name EAB00 | Rev 2.0
Date: Tuesday, January 25, 2011 Sheet 61 of 99

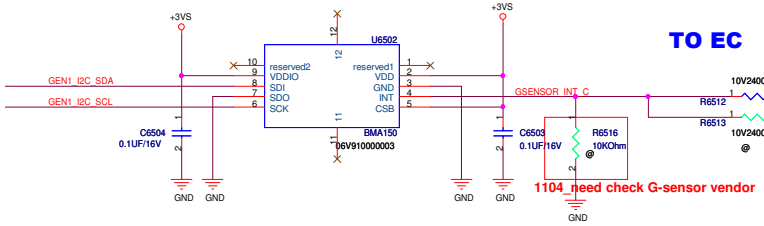
(ER remove)

Gyro-sensor

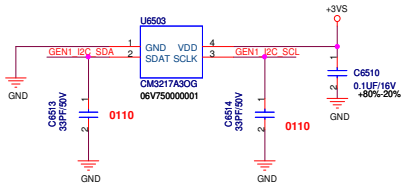


AD0	I2C Address
0	1101000
1	1101001

G-sensor

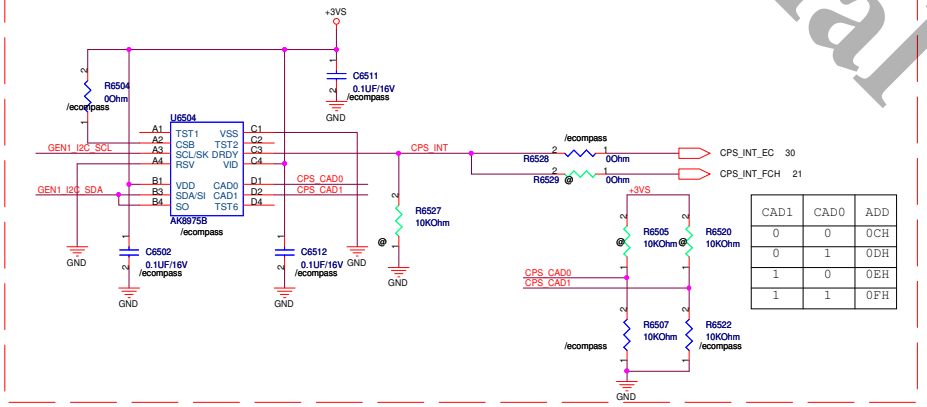


Light-sensor



(ER remove)

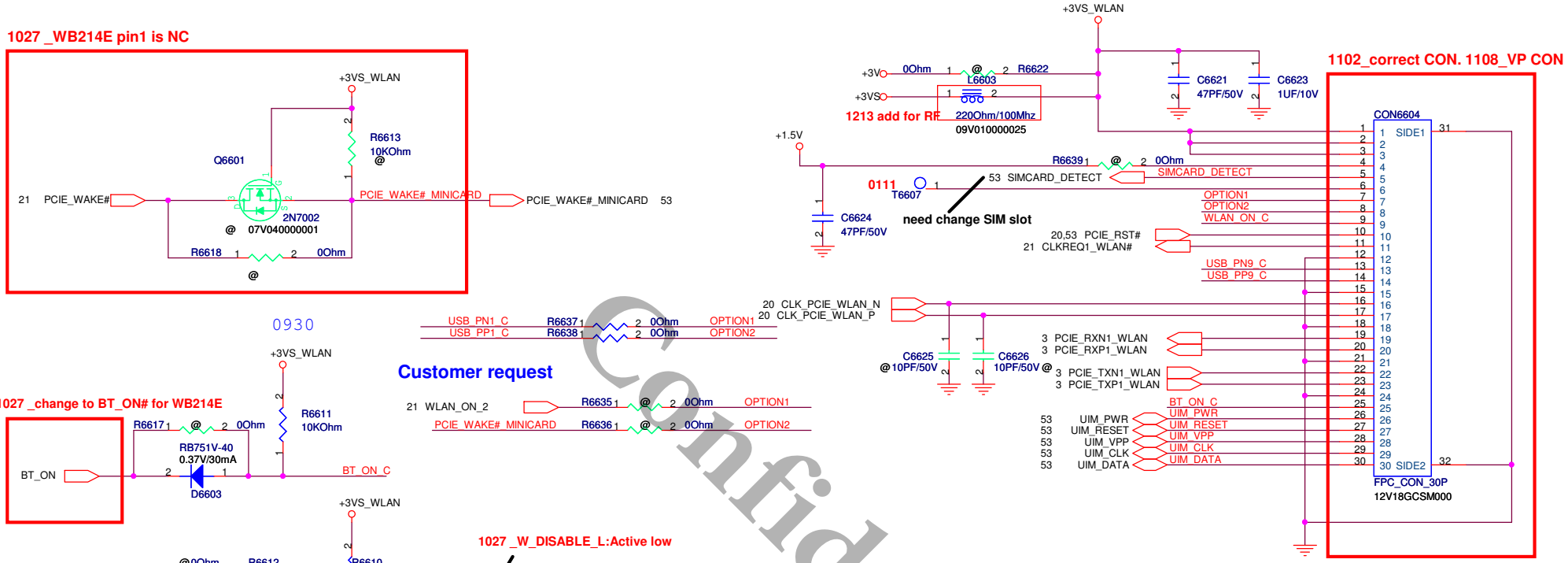
e-Compass



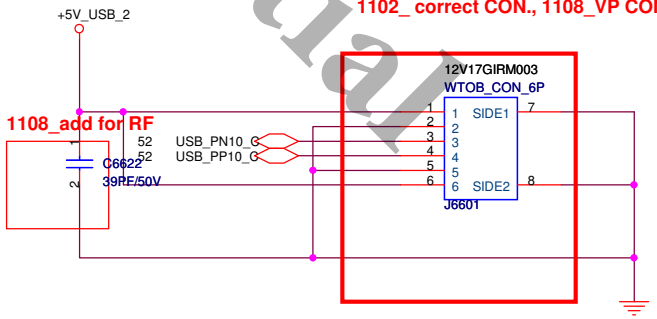
CAD1	CAD0	ADD
0	0	0CH
0	1	0DH
1	0	0EH
1	1	0FH

PEGATRON	Title : Gyro, Light & G-sensor	
	Engineer: Alfie_Wang	
Size: C	Project Name: EAB00	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 65 of 99	

Minicard CON 30pins



USB Port CON 6pins



PEGATRON Title :WTB CON

BG1 Engineer: Alfie_Wang

Size	Project Name	Rev
B	EAB00	2.0

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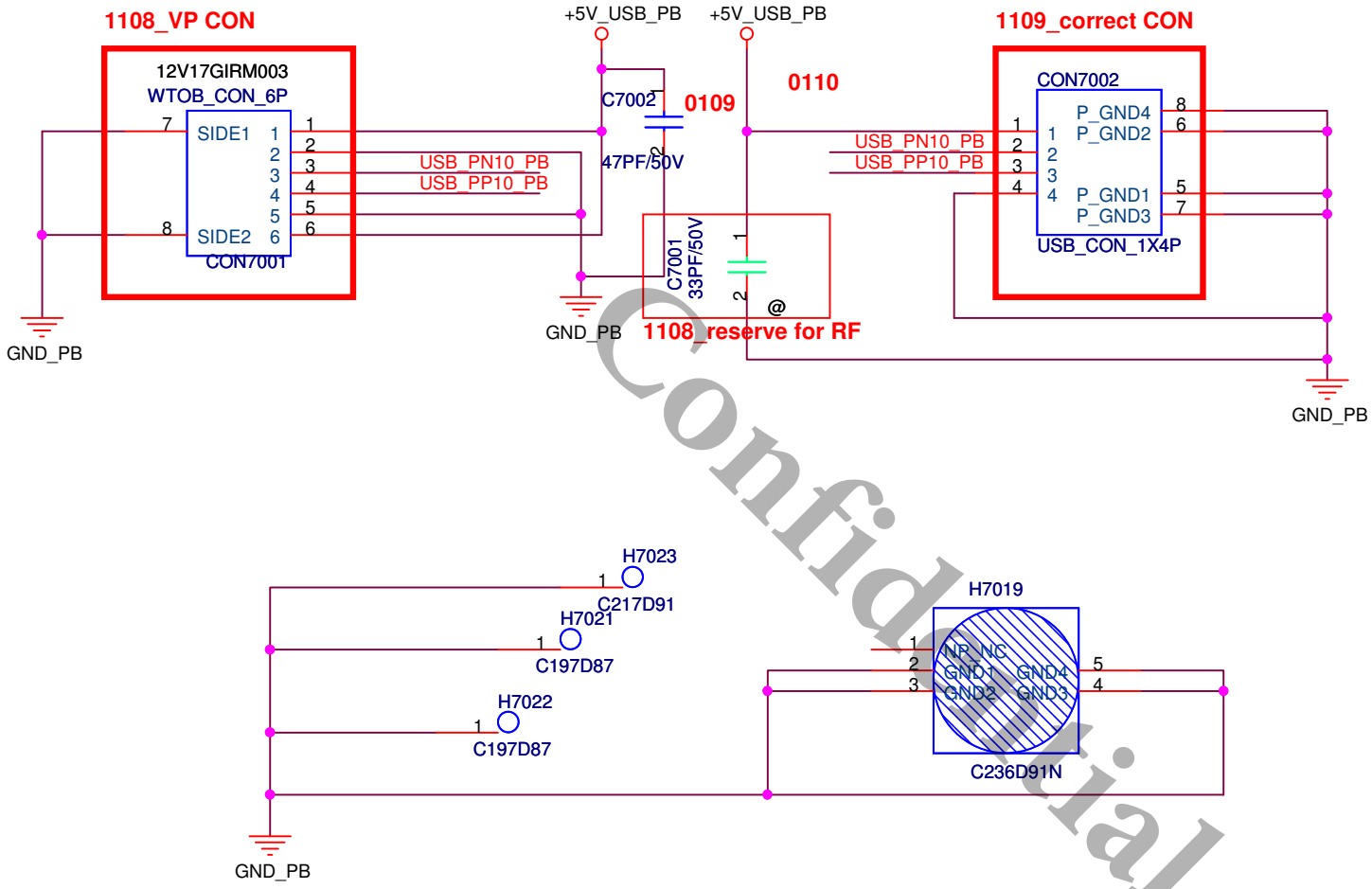
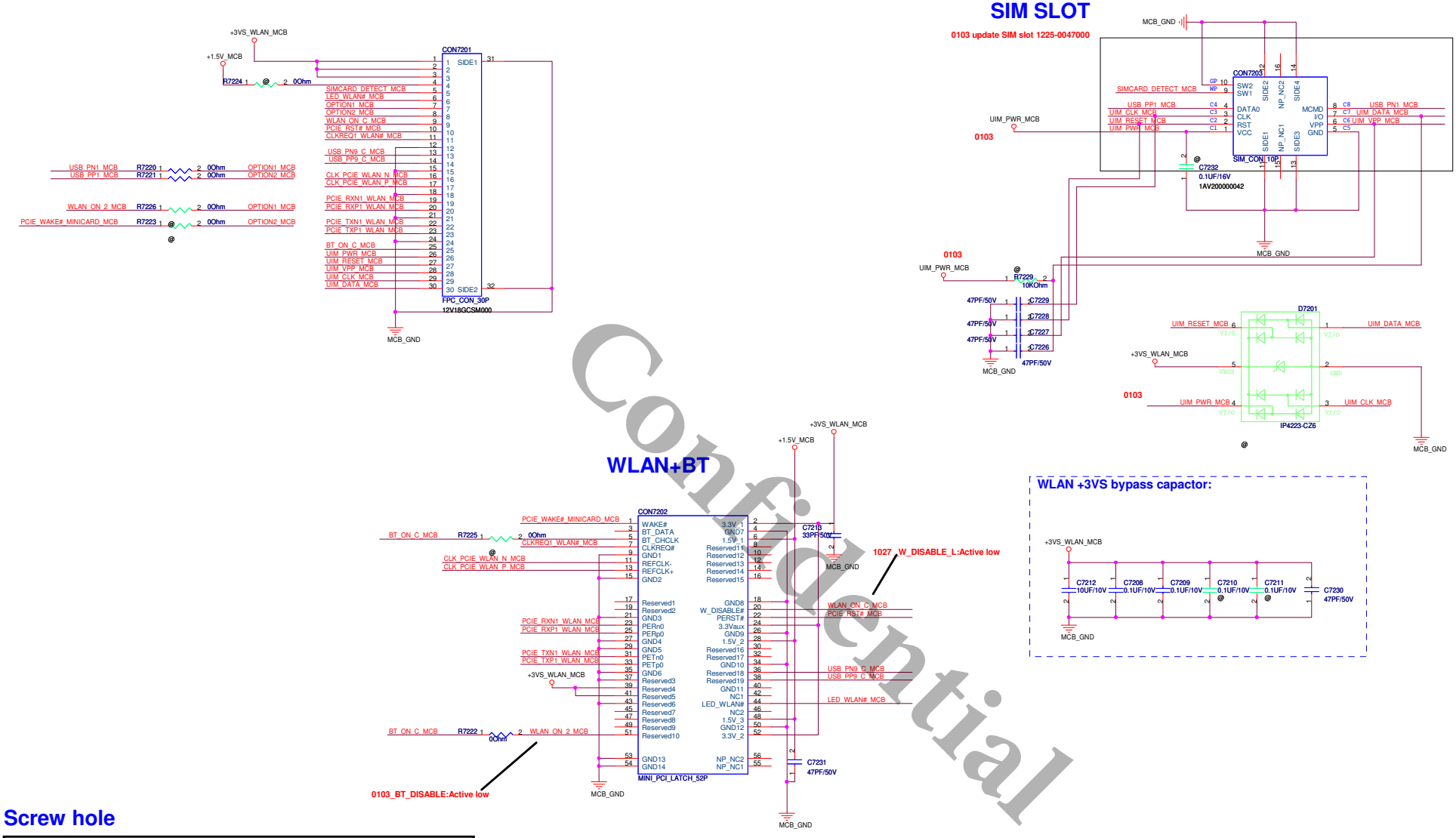
USB 2.0 for Docking Port

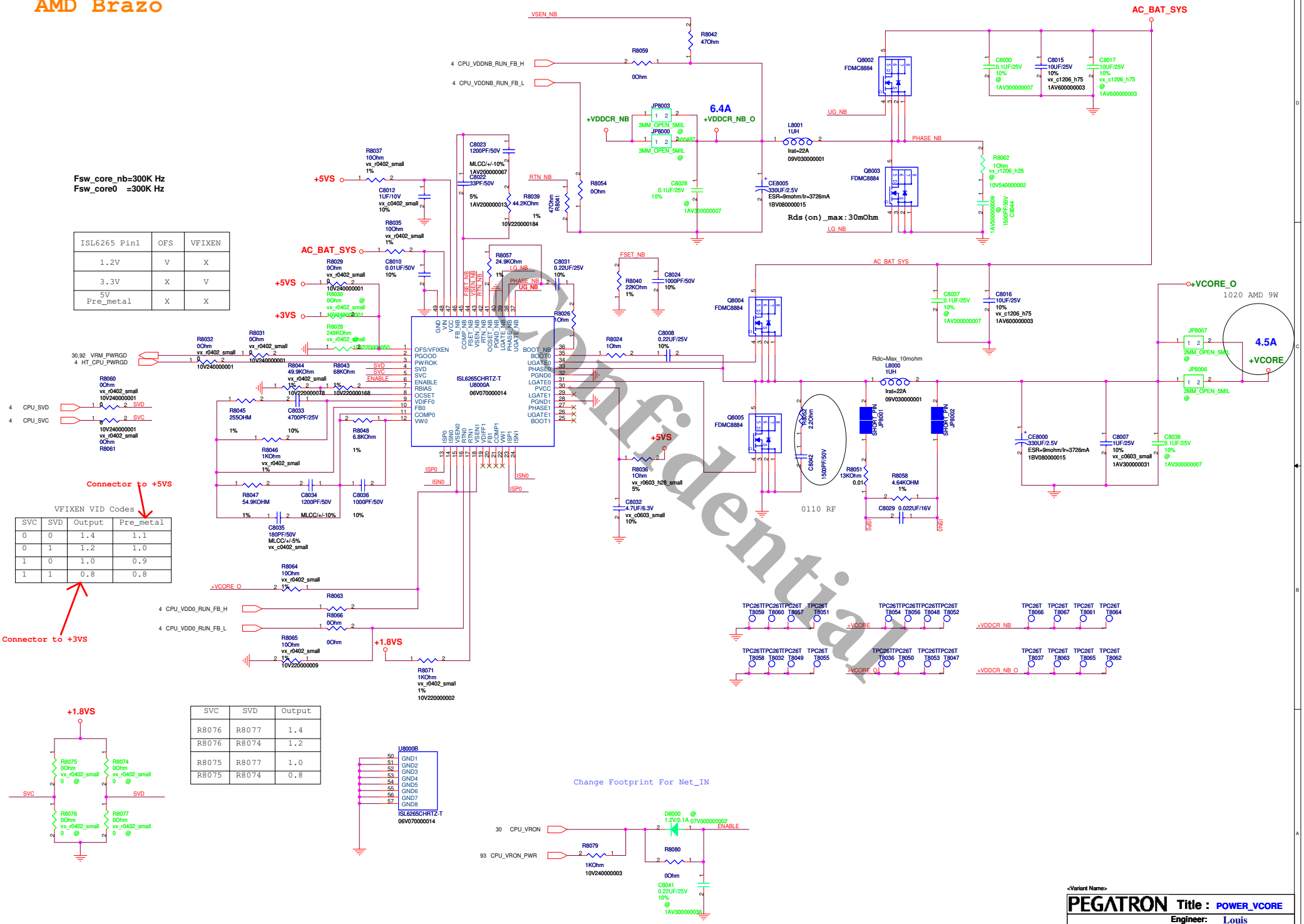


PEGATRON	Title : USB Docking Port	
BG1	Engineer: Alfie_Wang	
Size: A	Project Name: EAB00	Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 70 of 99	



PEGATRON	Title : MINICARDBD		
BG1	Engineer: Alfie_Wang		
Size: C	Project Name: EA800		Rev: 2.0
Date: Tuesday, January 25, 2011	Sheet 72 of 99		

AMD Brazo



<Variant Name>

PEGATRON Title : POWER_VCORE

Engineer: Louis

Size	Project Name	Rev
C	EAB00	1.0

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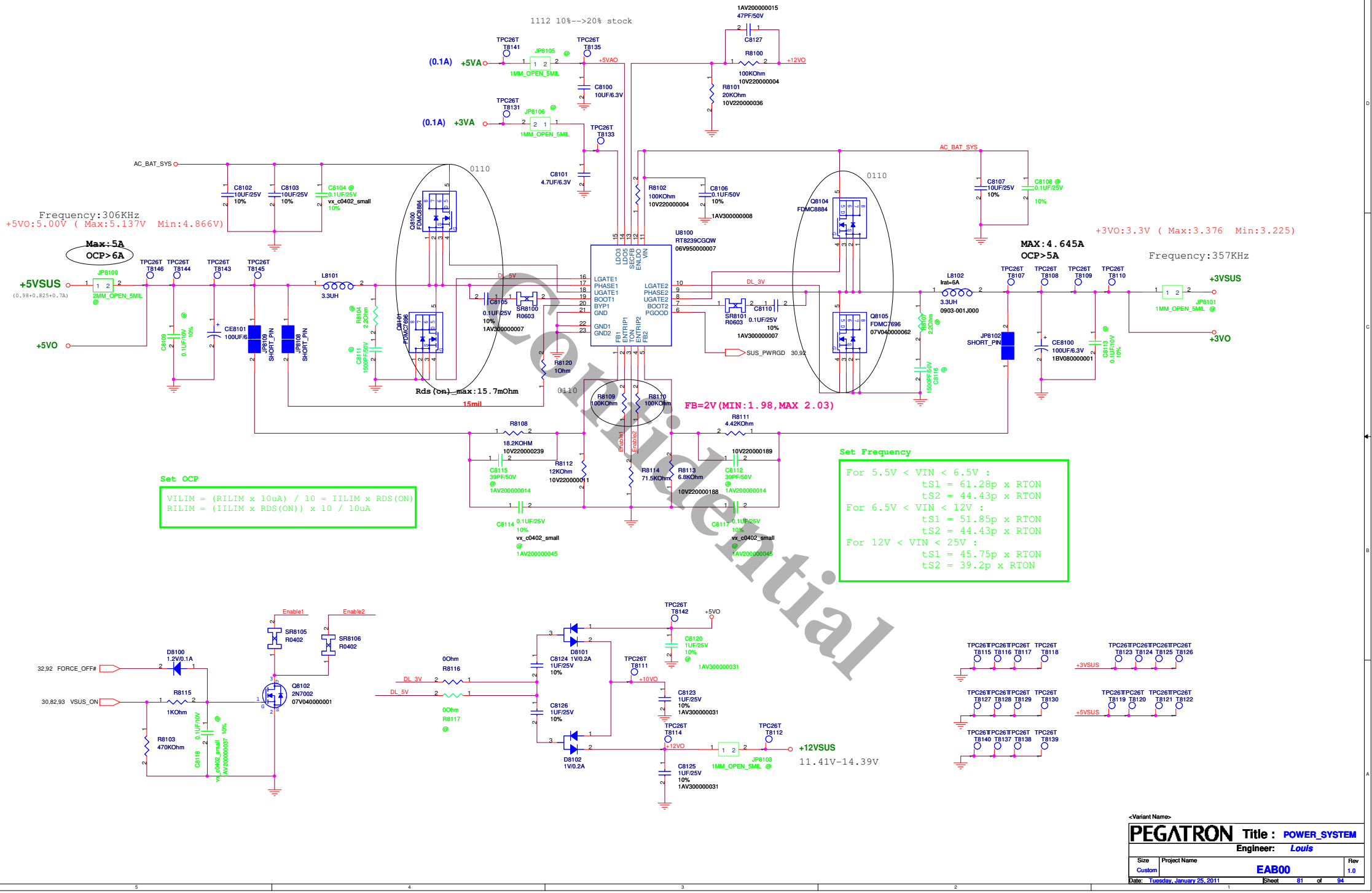

<Variant Name>

PEGATRON Title : POWER_SYSTEM

Engineer: Louis

Size	Project Name	Rev
Custom	EAB00	1.0

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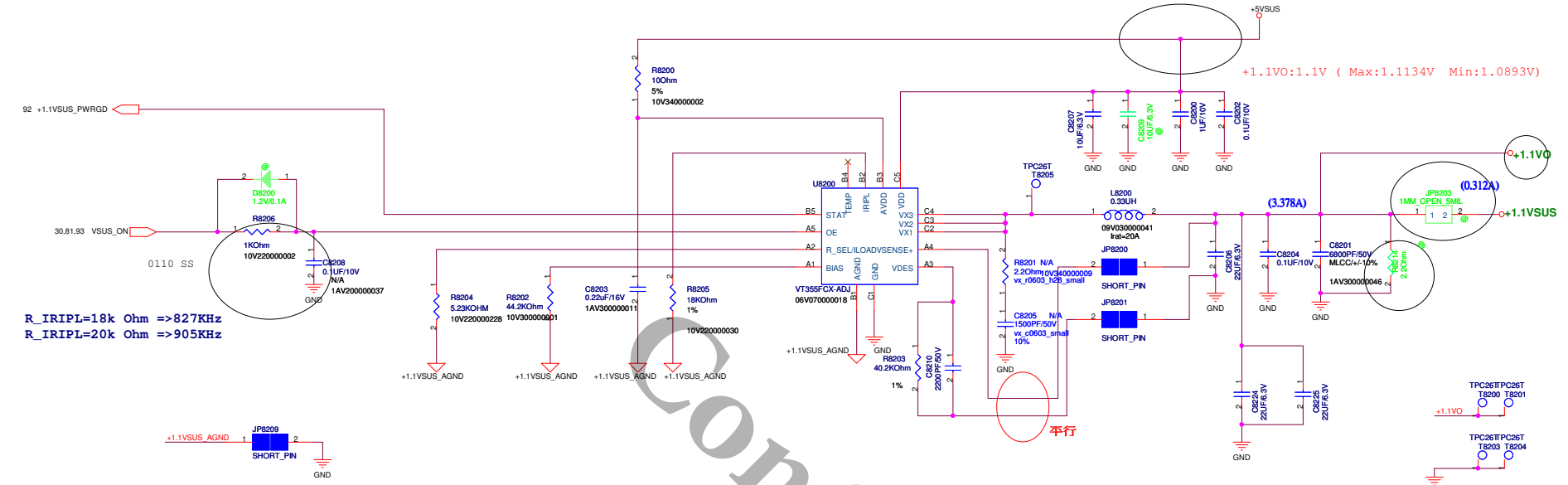
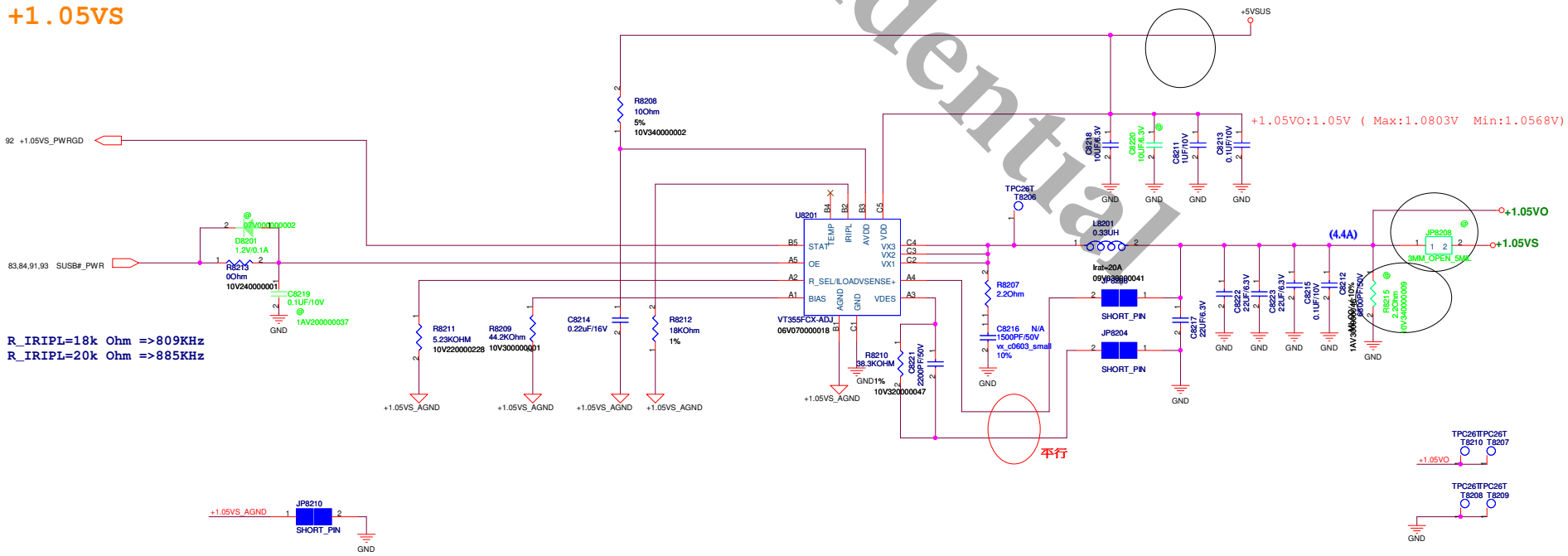
+1.1VSUS

+1.1V & +1.05VS POWER SUPPLY





PEGATRON Title : POWER_+1.1V & +1.0V

<OrgName> Engineer: Louis

Size	Project Name	Rev
Custom	Eab00	1.0

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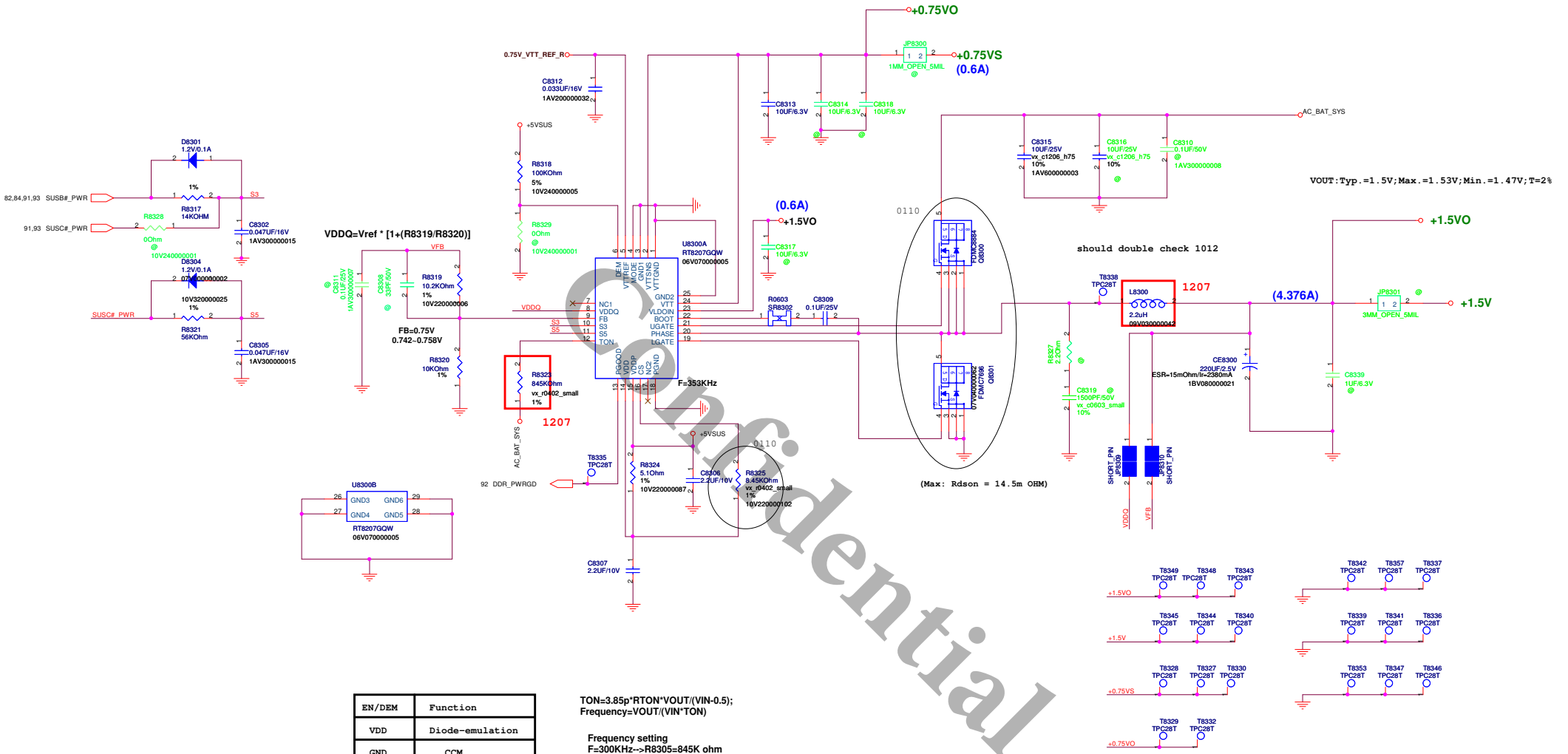
+1.5VO & +0.75VS POWER SUPPLY



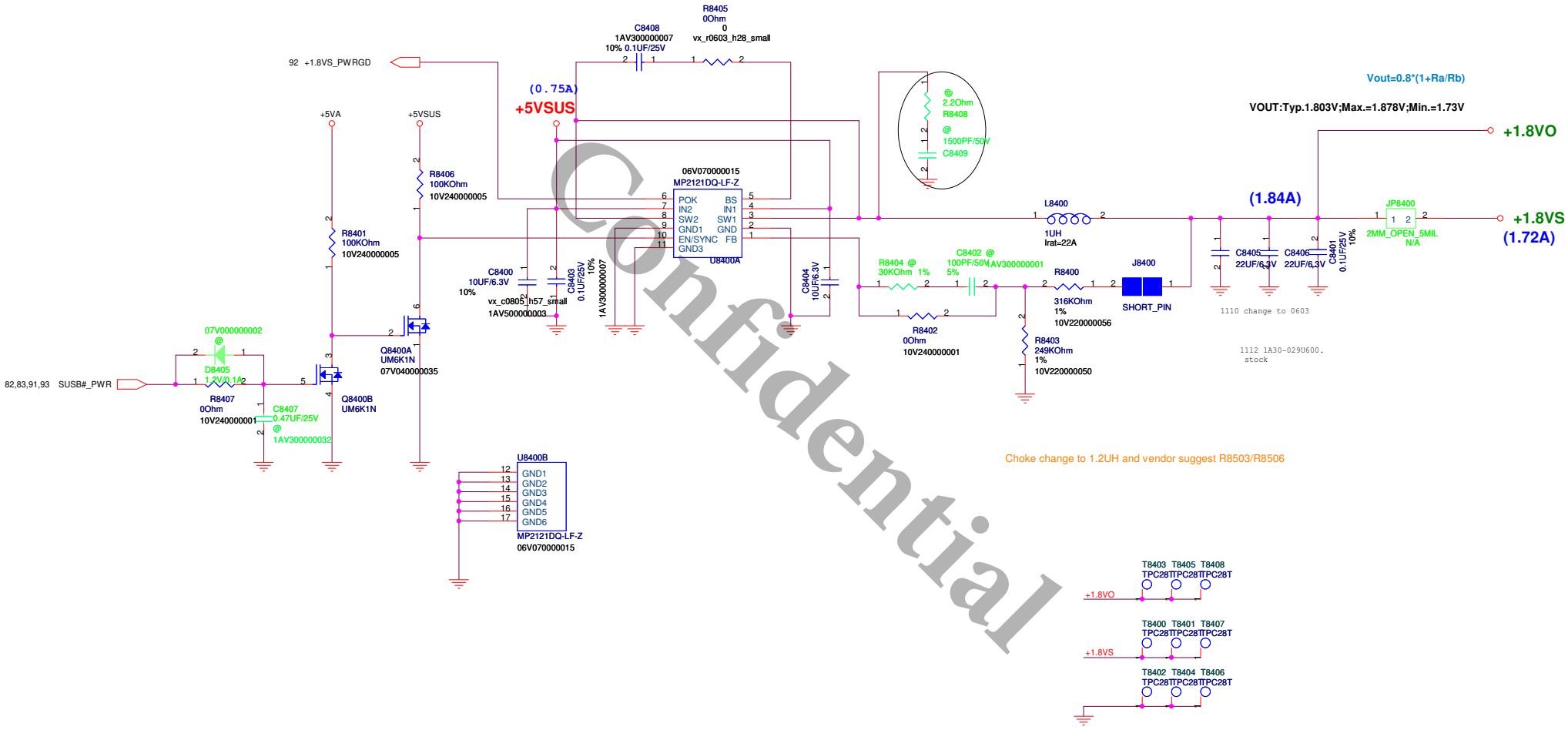
EN/DEM	Function
VDD	Diode-emulation
GND	CCM

TON=3.85p*RTON*VOUT/(VIN-0.5);
Frequency=VOUT/(VIN*TON)

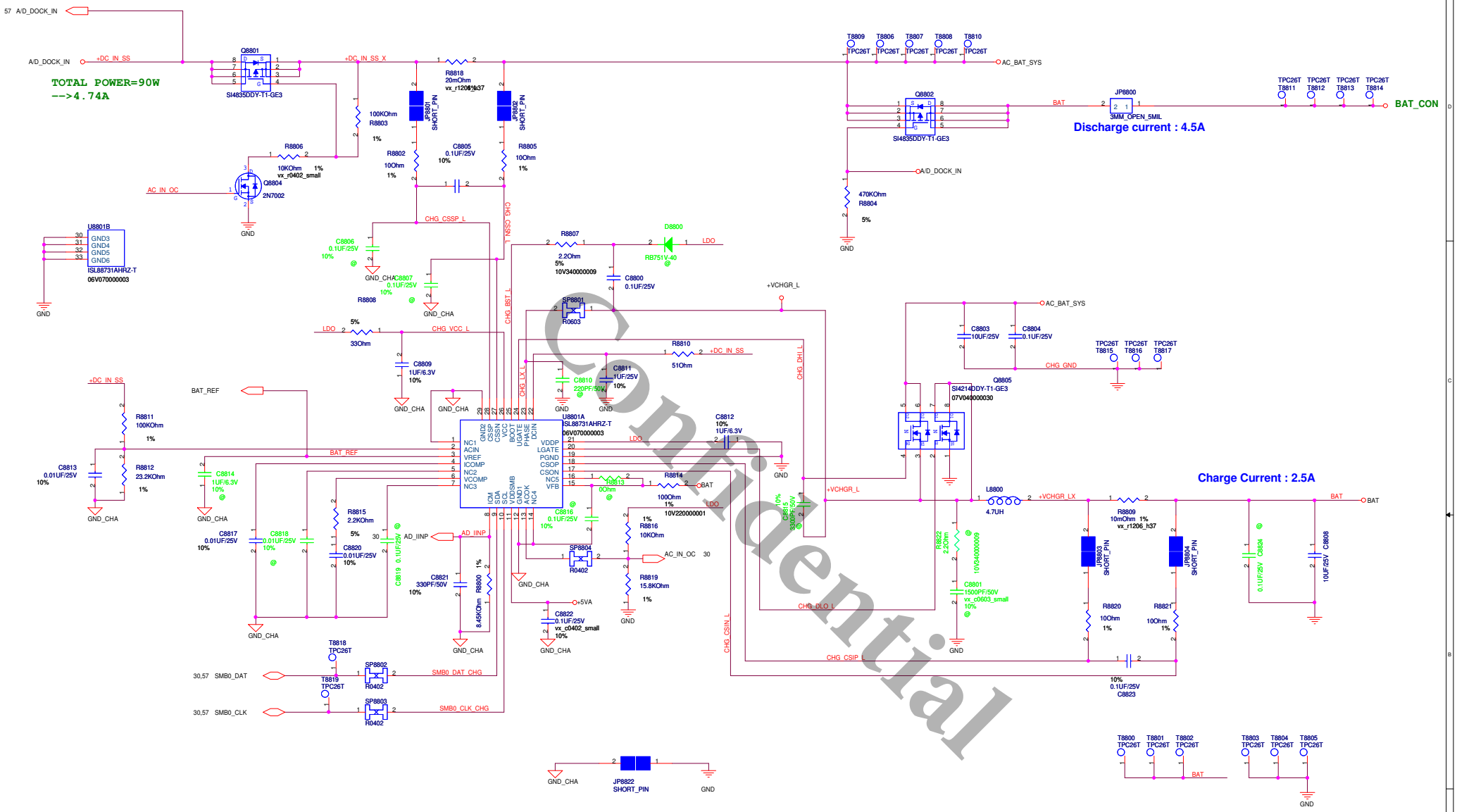
Frequency setting
F=300KHz-->R8305=845K ohm
F=250KHz-->R8305=1M ohm

PEGATRON Title : POWER_DDR & VTT
<OrgName> Engineer: Louis
Size: Custom | Project Name: EAB00 | Rev: 1.0
Date: Tuesday, January 25, 2011 | Sheet 83 of 99

+1.8VS POWER SUPPLY



PEGATRON	Title : POWER_+1.8VS	
<OrgName>	Engineer: Louis	
Size: Custom	Project Name: EAB00	Rev: 1.0
Date: Tuesday, January 25, 2011	Sheet 84 of 99	



<Variant Name>

PEGATRON Title : POWER CHARGER

Engineer: Louis

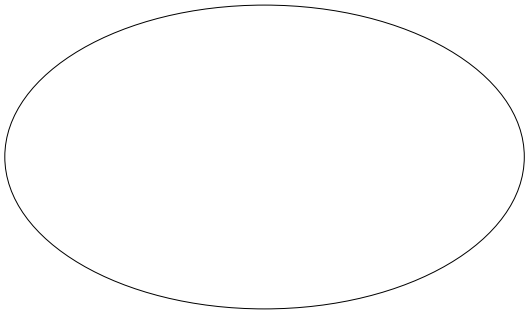
Size	Project Name	Rev
C	EAB00	1.0

Date: Tuesday, January 25, 2011 Sheet 88 of 99

BATTERY IN DETECT

POWER LIMIT CIRCUIT

+2.5Vref delete



<Variant Name>

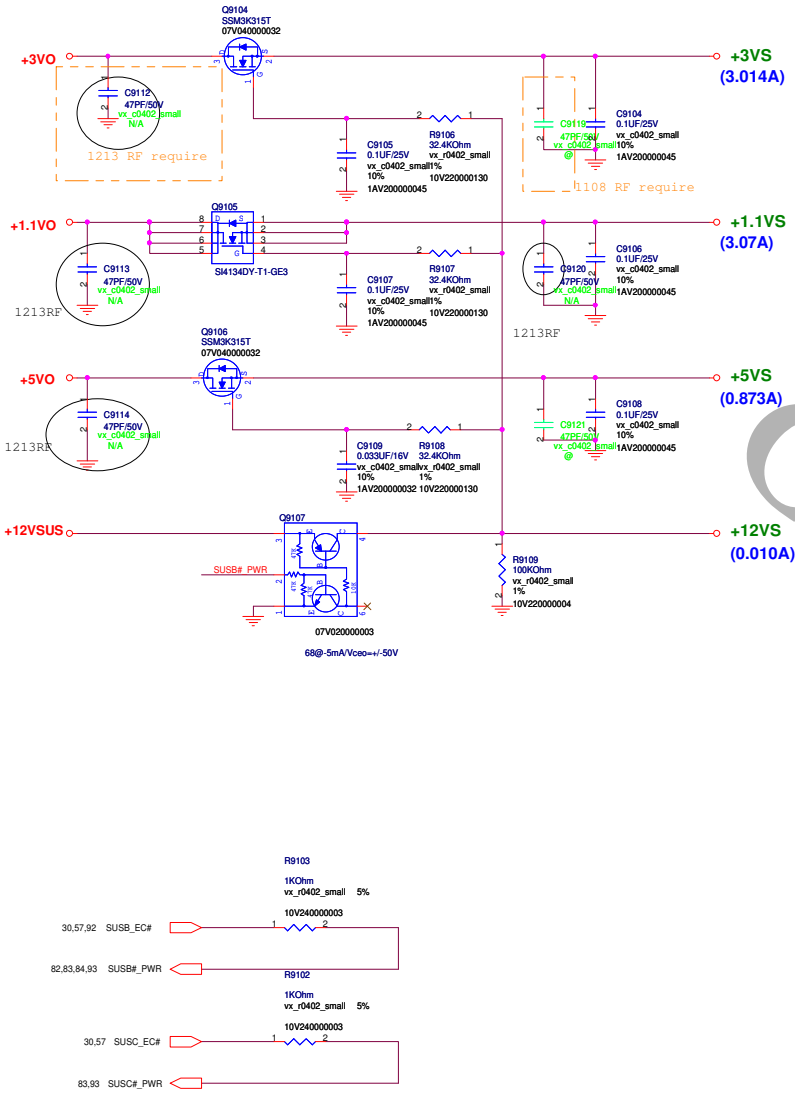
PEGATRON Title : POWER_DETECT

Engineer: Louis

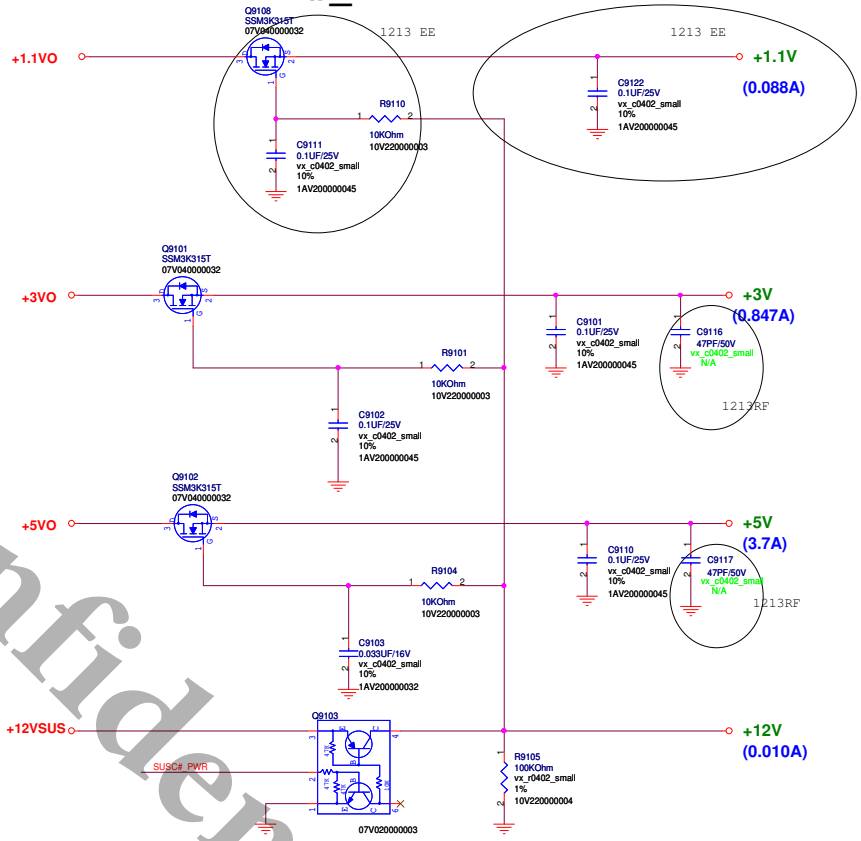
Size	Project Name	Rev
Custom	EAB00	1.0

Date: Tuesday, January 25, 2011 Sheet 90 of 99

SUSB#_PWR POWER



SUSC#_PWR POWER



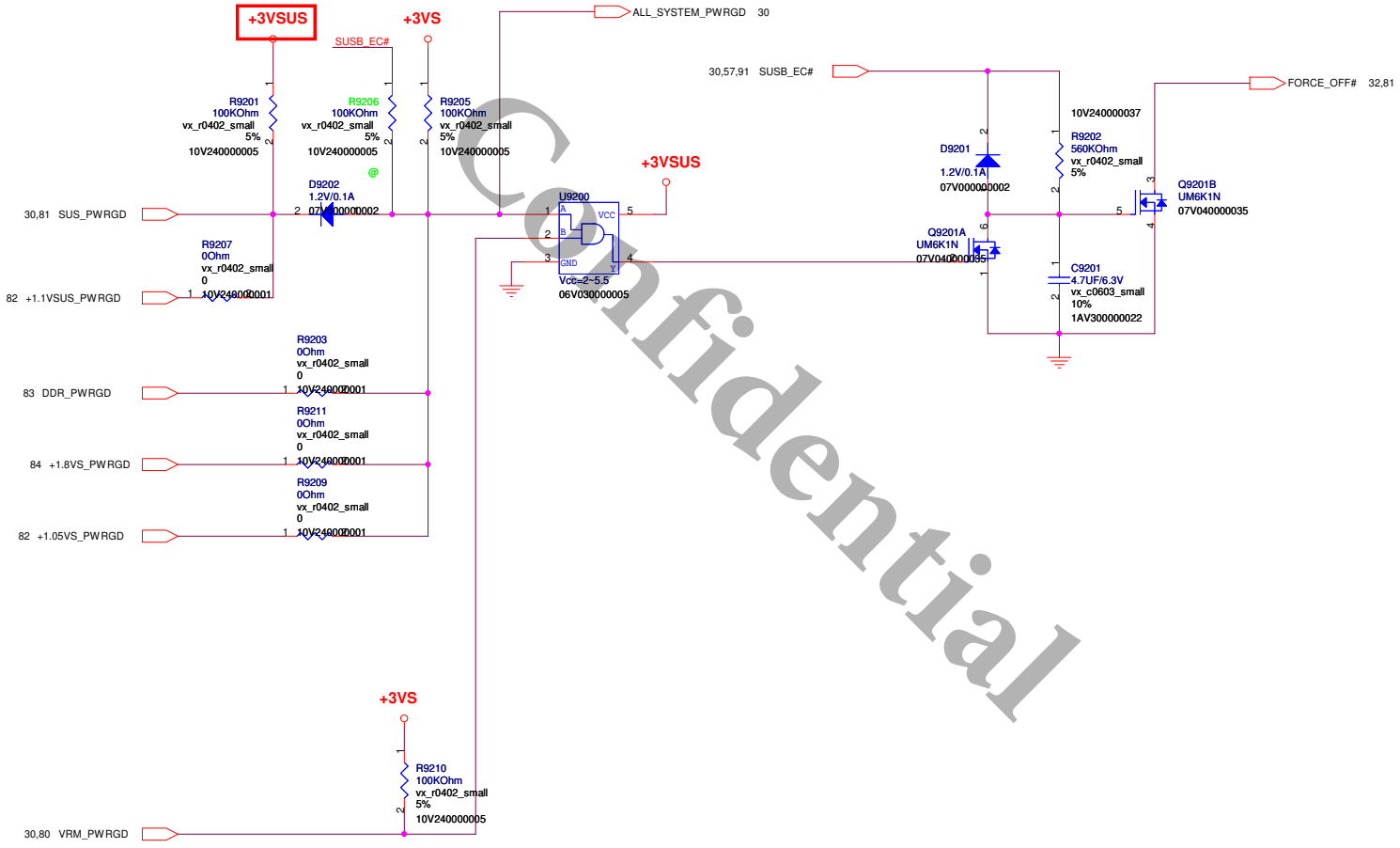
PEGATRON Title : POWER_LOAD SWITCH

<OrgName> Engineer: Louis

Size	Project Name	Rev
C	EBAB00	1.0

Date: Tuesday, January 25, 2011 Sheet 91 of 99

POWER GOOD DETECTER



PEGATRON Title : POWER_PROTECT

<OrgName> Engineer: Louis

Size	Project Name	Rev
Custom	EAB00	1.0

Date: Tuesday, January 25, 2011 Sheet 92 of 99

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

+3VA — +3VA 20,30,45,57,81

+5VA — +5VA 59,81,84,88

+5VAO — +5VAO

+5VO — +5VO 81,91

+3VO — +3VO 81,91

+3VSUS — +3VSUS 4,20,21,23,24,30,81,92

+5VSUS — +5VSUS 52,81,82,83,84

+12VSUS — +12VSUS 22,81,91

+12V — +12V 21,91

+12VS — +12VS 48,53,91

+3V — +3V 21,23,30,40,44,57,59,61,66,91

+3VS — +3VS 4,5,20,21,22,23,24,30,32,36,37,45,48,50,51,53,57,59,61,65,66,80,91,92

+5V — +5V 57,59,91

+5VS — +5VS 4,36,37,48,50,57,80,91

+1.1VO — +1.1VO 82,91

+1.1VSUS — +1.1VSUS 23,82

+1.1VS — +1.1VS 23,57,91

+1.8VO — +1.8VO 84

+1.8VS — +1.8VS 4,5,57,80,84

+0.75VS — +0.75VS 7,57,83

+0.75VO — +0.75VO 83

+1.5VO — +1.5VO 83

+1.5V — +1.5V 3,5,7,53,57,66,83

+1.05VO — +1.05VO 82

+1.05VS — +1.05VS 3,5,57,82

+VCORE — +VCORE 5,80

+VCORE_O — +VCORE_O 80

+VDDCR_NB — +VDDCR_NB 5,80

+VDDCR_NB_O — +VDDCR_NB_O 80

BAT — BAT 88

BAT_CON — BAT_CON 57,88

FOR POWER TEST

+3VA

JP9300 (SGL_JUMP @) — 1 2 — CPU_VRON_PWR 80

JP9301 (SGL_JUMP @) — 1 2 — SUSB#_PWR 82,83,84,91

JP9302 (SGL_JUMP @) — 1 2 — SUSC#_PWR 83,91

JP9303 (SGL_JUMP @) — 1 2 — VSUS_ON 30,81,82

<Variant Name>

PEGATRON Title :POWER_SIGNAL

Engineer: Louis

Size	Project Name	Rev
B	EAB00	1.0

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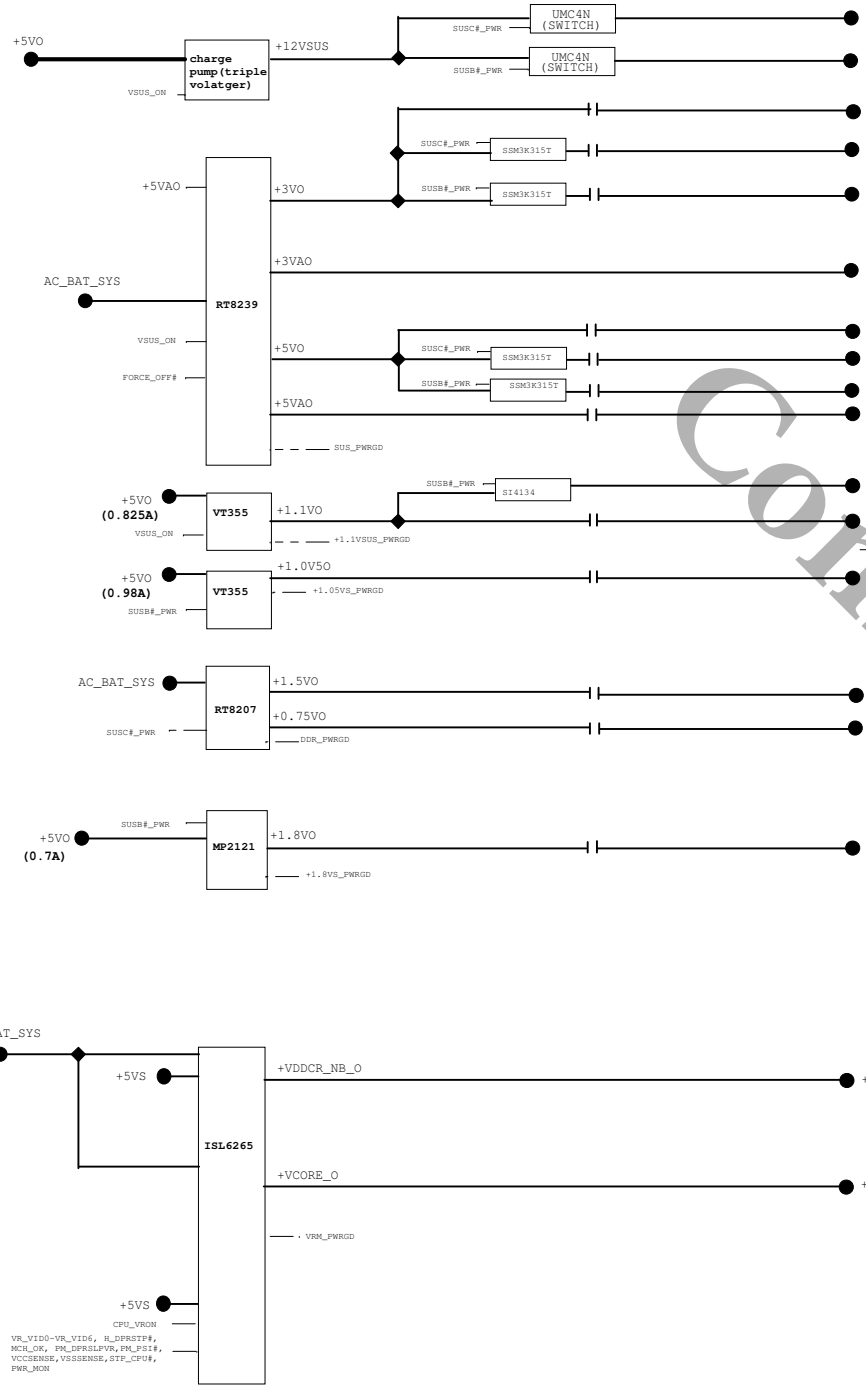

	SPEC rating(80%)	DesignCurrent
+12V		
+12VS	(0.051A)	
+3VSUS	(0.496A)	
+3V	(0.968A)	DESIGN:4.8A
+3VS	(3.338A)	OCP>5.7A
+3VA	check with EE (0.1A)	
+5VSUS	(0.1A)+(0.825+0.98+0.7A)	
+5V	(3.2A)	DESIGN:5A
+5VS	(1.332A)	OCP>6A
+5VA	(0.1A)	
+1.1VS	(3.066A)	DESIGN:3.378A
+1.1VSUS	(0.312A)	
+1.05VS	(4.4A)	DESIGN:4.4A
+1.5V	(2.976+0.6A)	DESIGN:3.576A
+0.75V	(0.6A)	
+1.8VS	(1.72A)	DESIGN:1.72A
+VDDCR_NB	(6A)	(6A)
+VCORE	(4.5A)	(4.5A)

<Variant Name>
PEGATRON Title : POWER_FLOWCHART
Engineer: Louis
Size: Custom | Project Name: EAB00 | Rev: 1.0
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follow U21N
System: UL21F
Charger: Ray M17
Red circle is modify by Scott

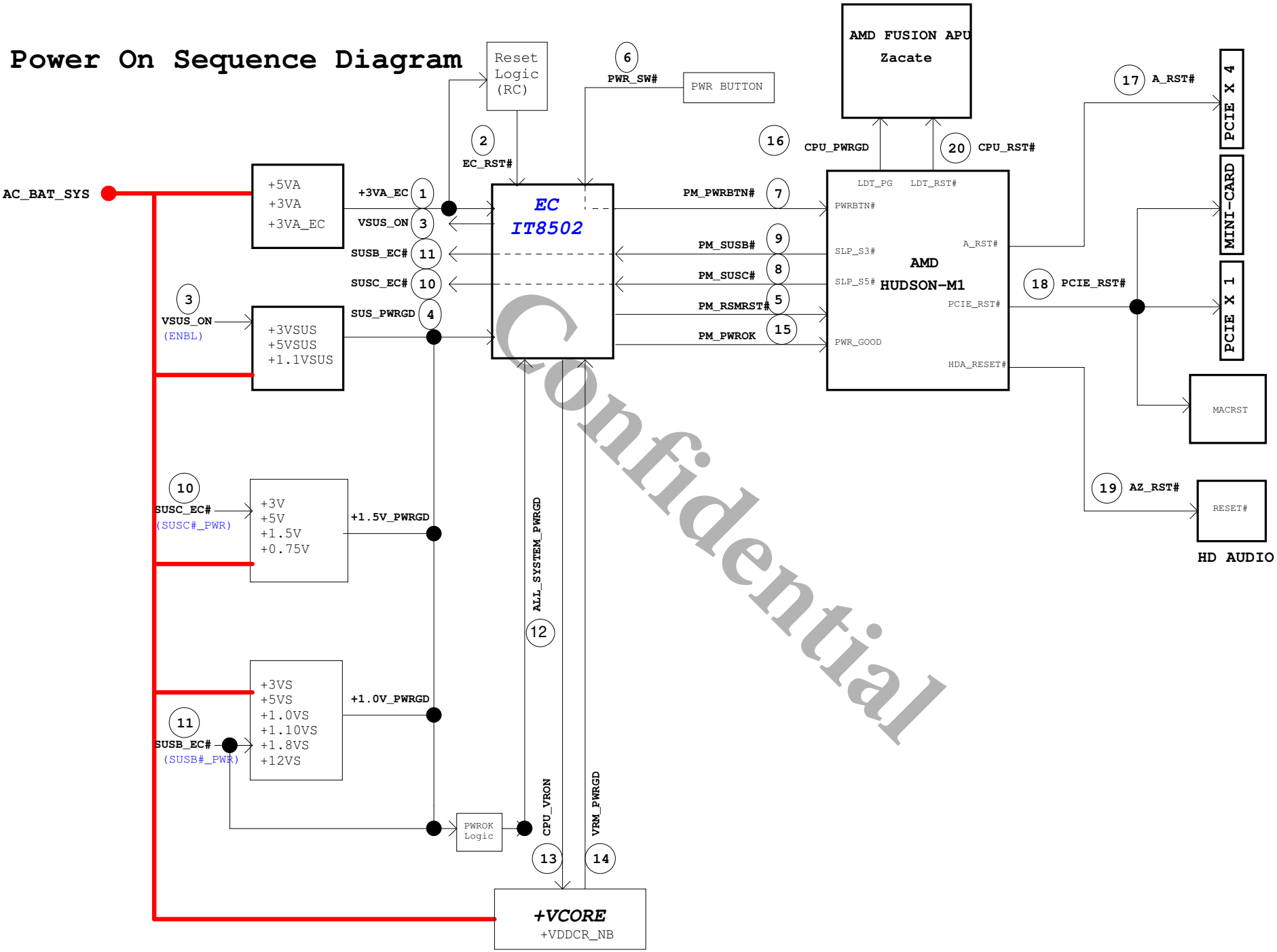
by Mohoo @9/29

by Scott @9/29

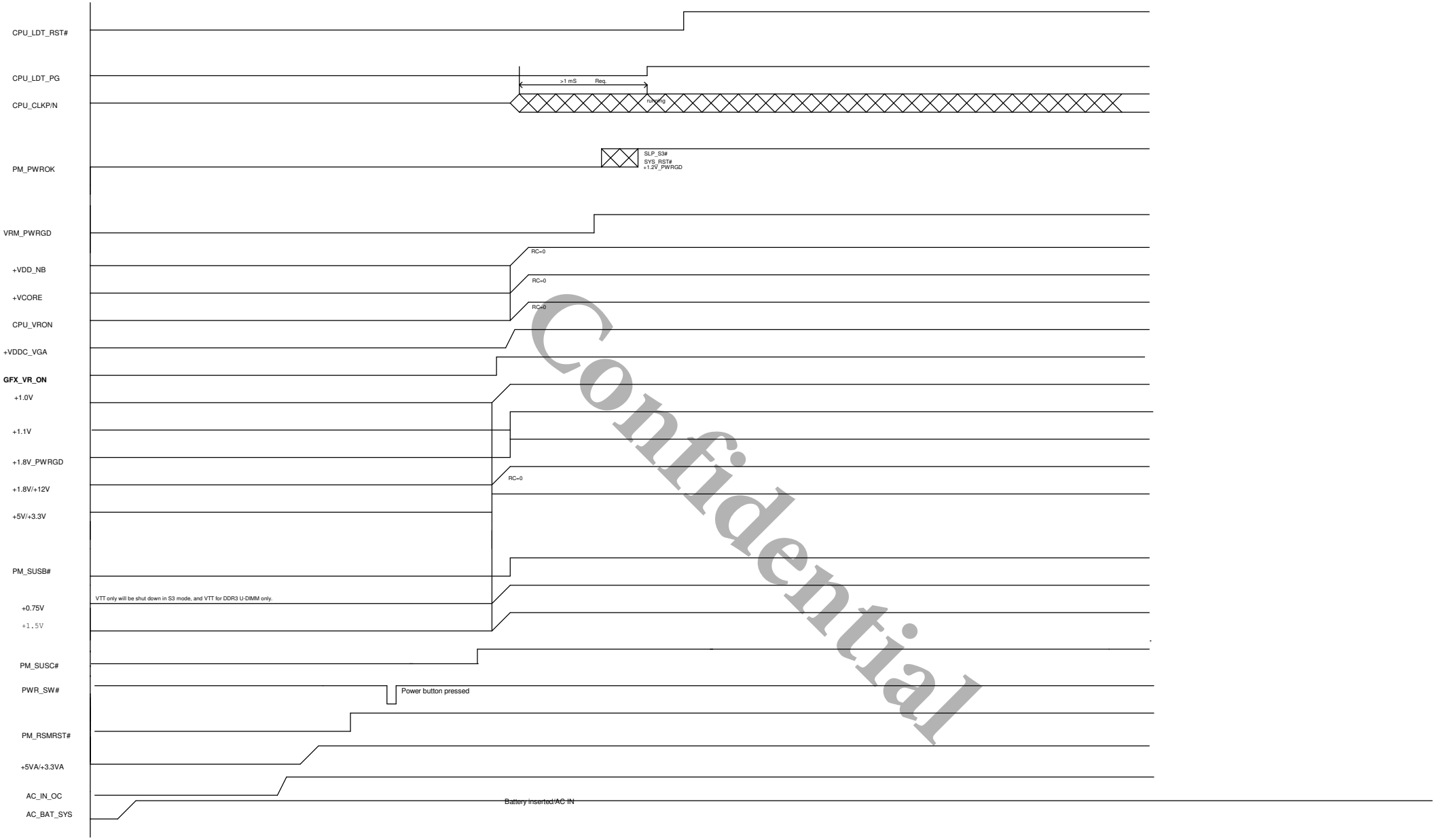
Change Snubber Resistor to 1206 size by Scott @10/01
modify page93 signal info. by Scott @10/01
Add +5VAO signal in Page81 by Scott @10/01

PEGATRON	Title : Power History	
BG1	Engineer: Alfie_Wang	
Size: Custom	Project Name: EAB00	Rev: 1.2
Date: Tuesday, January 25, 2011	Sheet 95 of 99	

Power On Sequence Diagram



PEGATRON	Title : SEQUENCE	
BG1	Engineer:	
Size: Custom	Project Name	Rev: 1.2
Date: Tuesday, January 25, 2011	Sheet 98 of 99	



PEGATRON	Title : POWER SEQUENCE	
BG1	Engineer: Alfie_Wang	
Size: A3	Project Name: EAB00	Rev: 1.2
Date: Tuesday, January 25, 2011	Sheet 99 of 99	