

S-CLASS

Prince/Pearl

SI2 Build

2008/02/14

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

DATE	CHANGE NO.	REV

DRAWN	EE	DATE	POWER	DATE	INVENTEC
DESIGN					
CHECK					
RESPONSIBLE					
TITLE					<i>Prince/Pearl</i>
SIZE =	3	VER :			SIZE
FILE NAME :	XXXX-XXXXXX-XX				CODE
P/N	XXXXXXXXXXXX				A3 CS
					DOC. NUMBER
					SI1
					REV
					X02
					SHEET
					1 OF 53
					8

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- 10- +VCC_CORE
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- 12- DDR2 POWER
- 13- POWER(SLEEP)
- 14- POWER(SEQUENCE)

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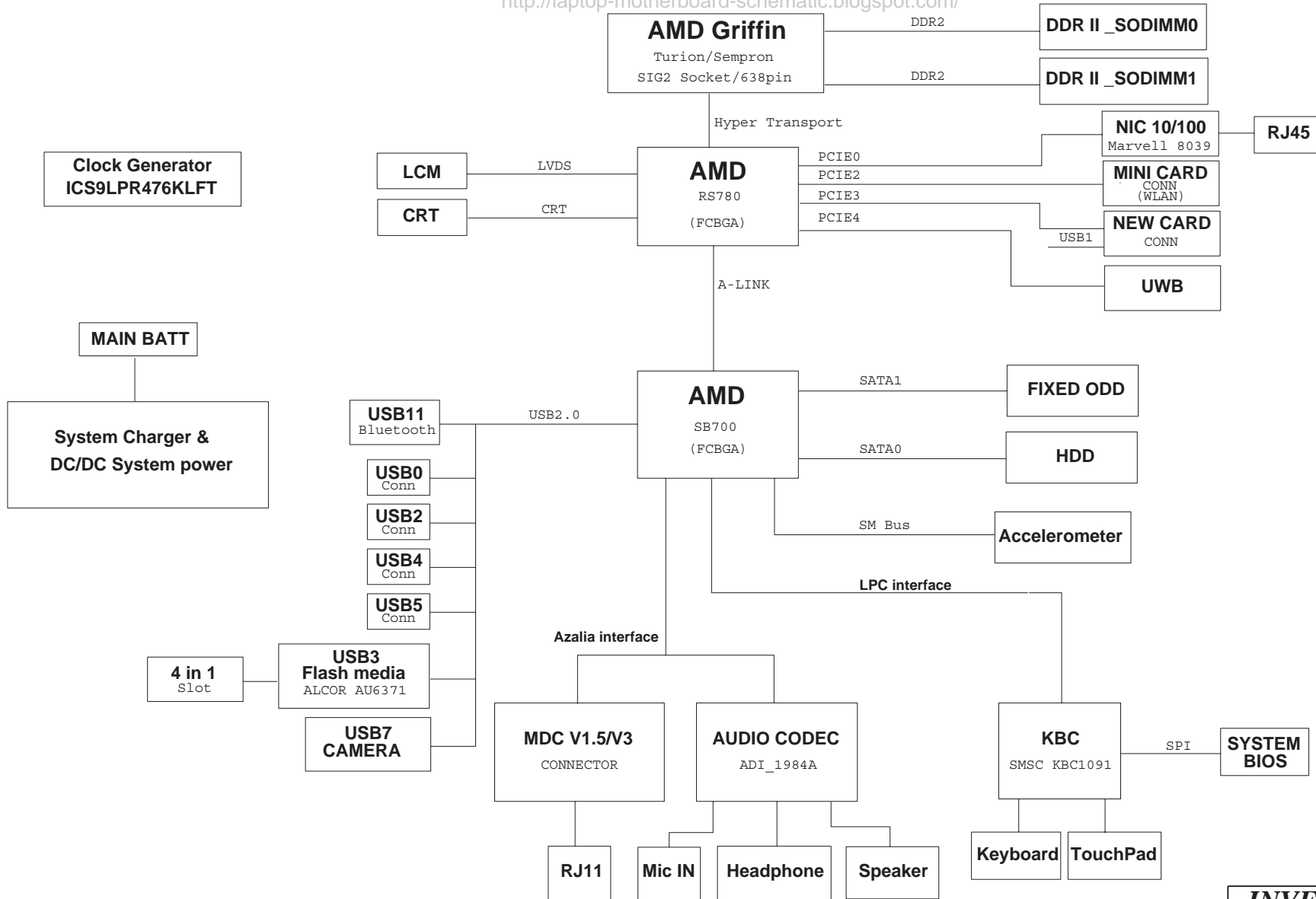
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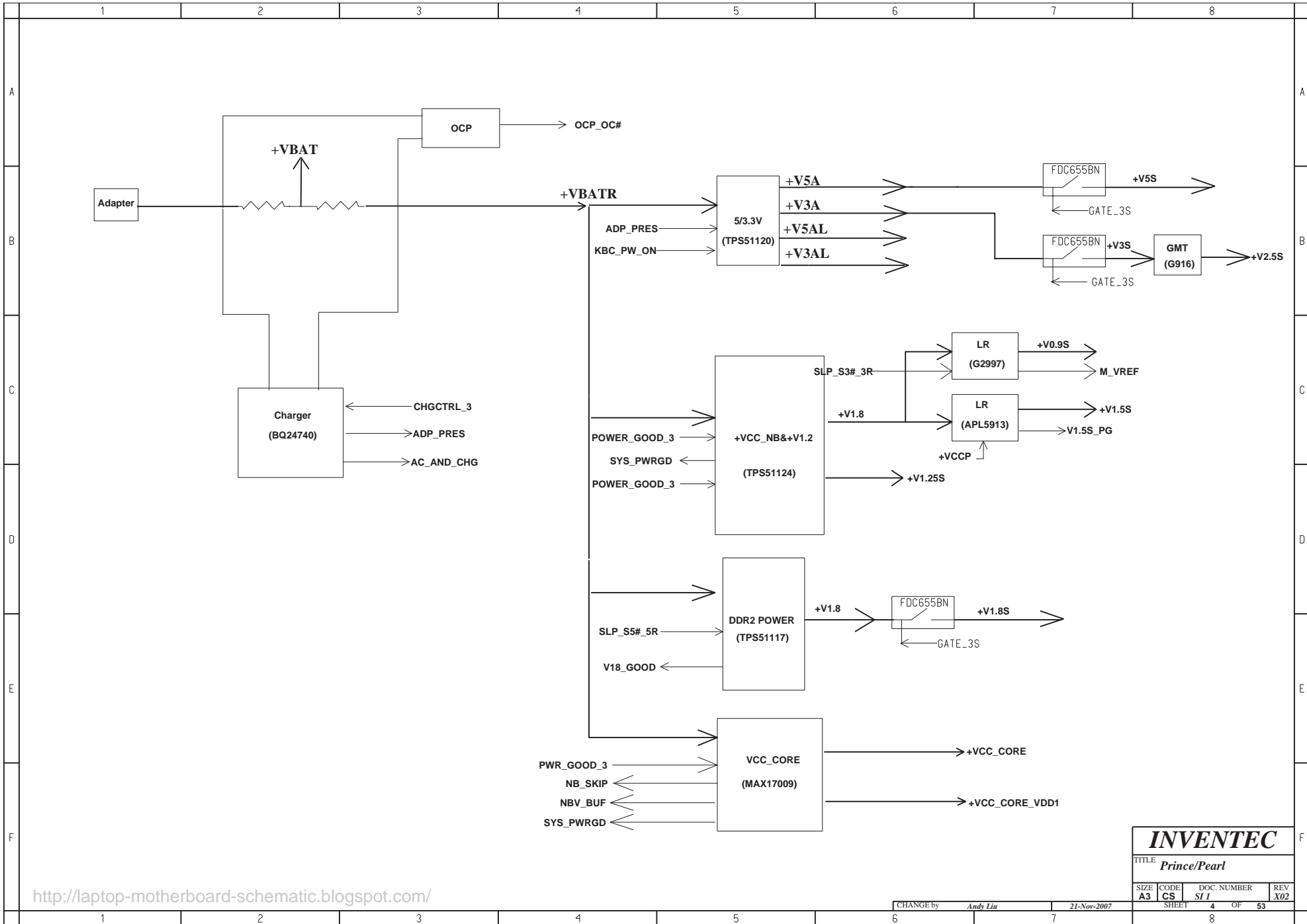
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<small>TITLE</small> <i>Prince/Pearl</i> <i>Table Of Content</i>			
<small>SIZE</small> A3	<small>CODE</small> CS	<small>DOC. NUMBER</small> SI1	<small>REV</small> X02
<small>CHANGE by</small> <i>Andy Liu</i>		<small>21-Nov-2007</small>	
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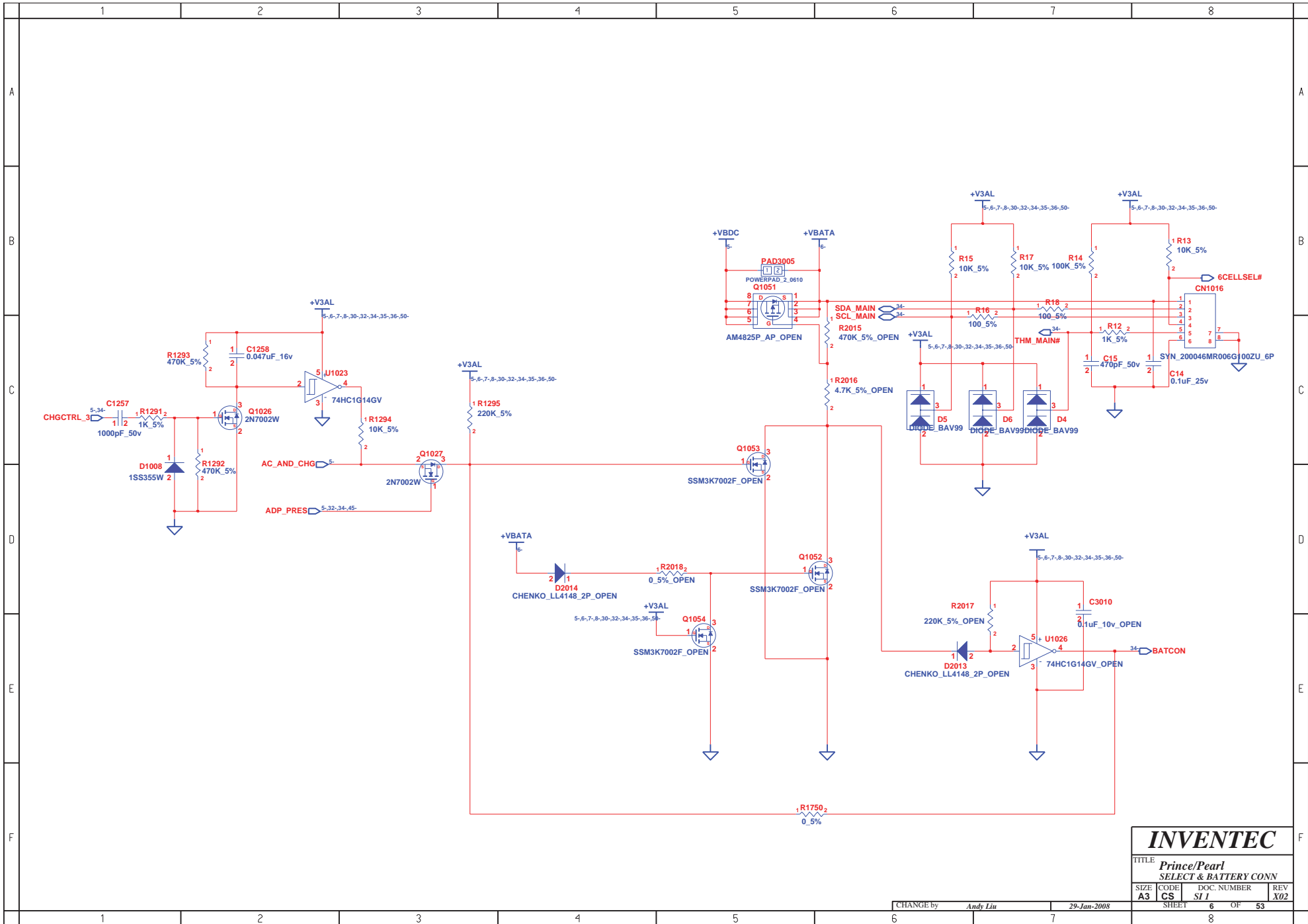
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TITLE			
Prince/Pearl			
Block Diagram			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	SI1	X02
CHANGE by			SHEET
Andy Liu			3 OF 53
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INVENTEC			
TITLE <i>Prince/Pearl</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>S11</i>	REV X02
CHANGE by <i>Andy Liu</i>		21-Nov-2007	SHEET 4 OF 53

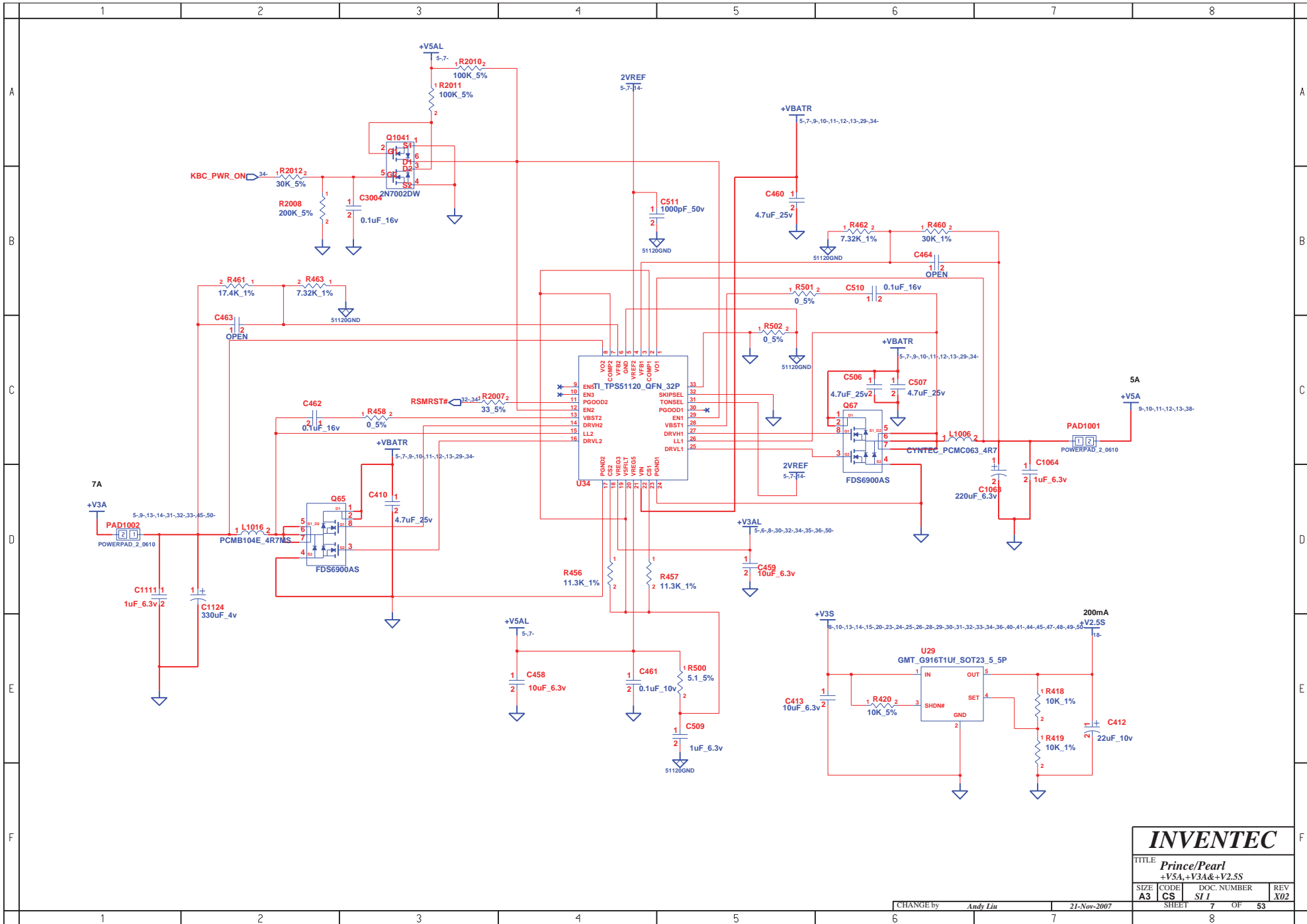


INVENTEC

TITLE
**Prince/Pearl
 SELECT & BATTERY CONN**

SIZE A3	CODE CS	DOC. NUMBER SI 1	REV X02
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CHANGE by *Andy Liu* 29-Jan-2008 SHEET 6 OF 53

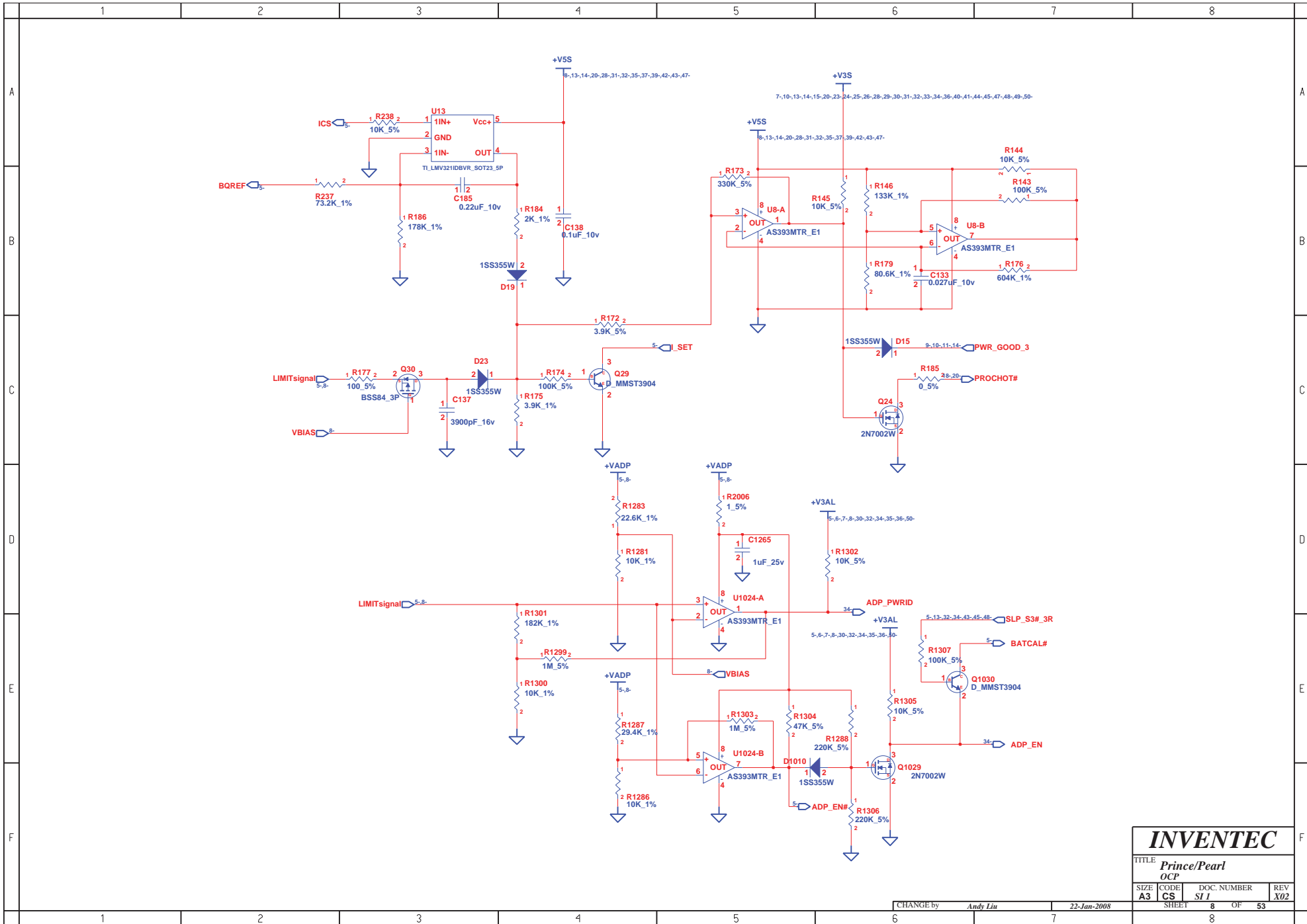


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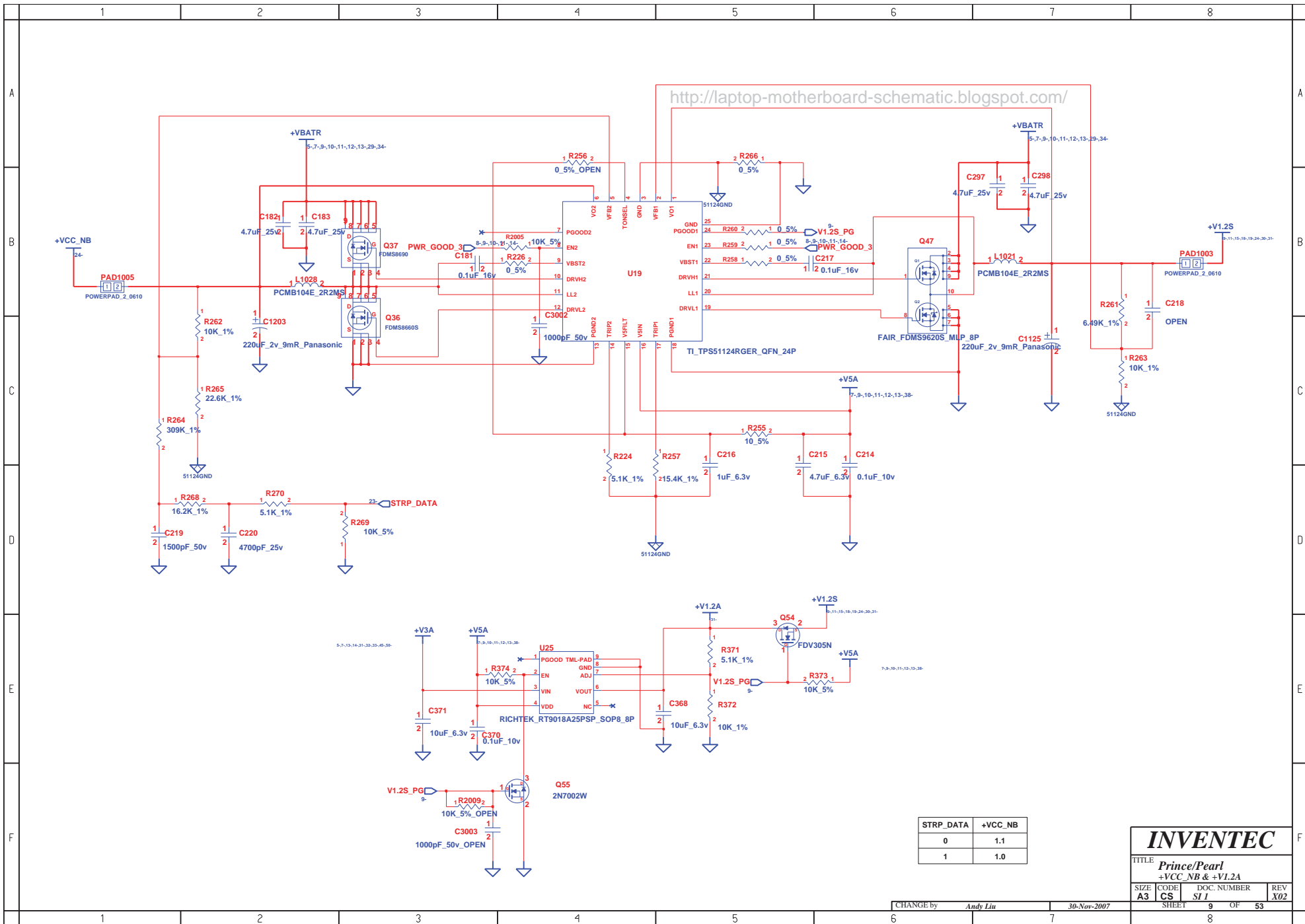
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Prince/Pearl
 +V5A,+V3A&+V2.5S

SIZE A3	CODE CS	DOC. NUMBER SI1	REV X02
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CHANGE by *Andy Liu* 21-Nov-2007 SHEET 7 OF 53



INVENTEC			
TITLE Prince/Pearl OCP			
SIZE A3	CODE CS	DOC. NUMBER SI 1	REV X02
CHANGE by <i>Andy Liu</i>		22-Jun-2008	
SHEET		8 OF 53	



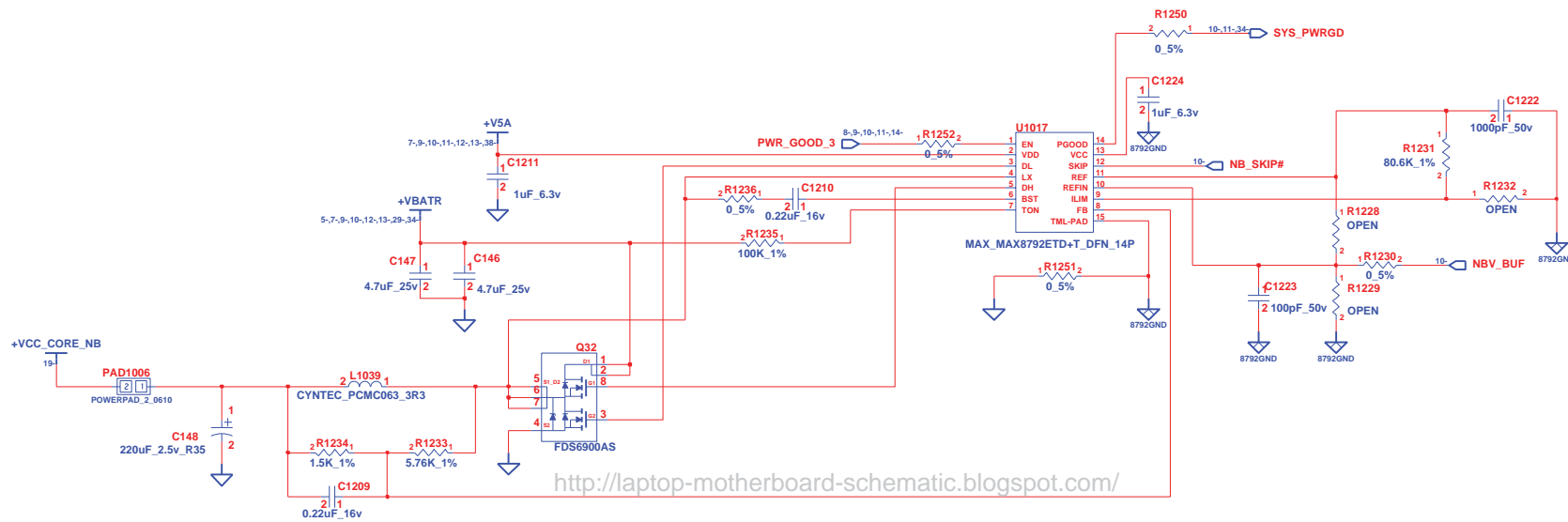
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1	1.0

INVENTEC

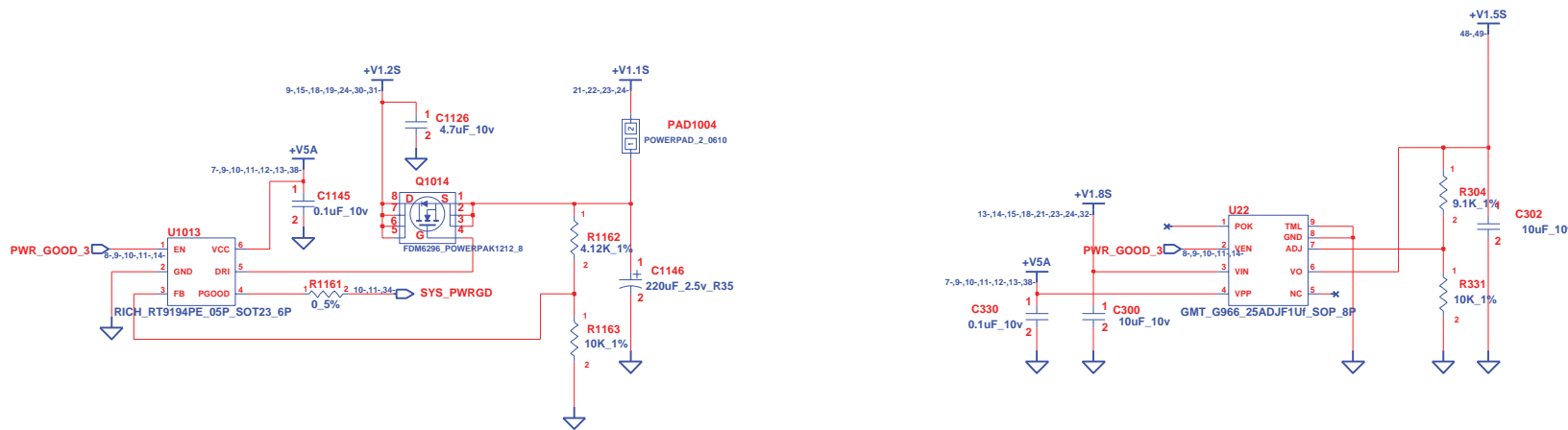
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REV X02	REV X02	REV X02

CHANGE by Andy Liu 30-Nov-2007

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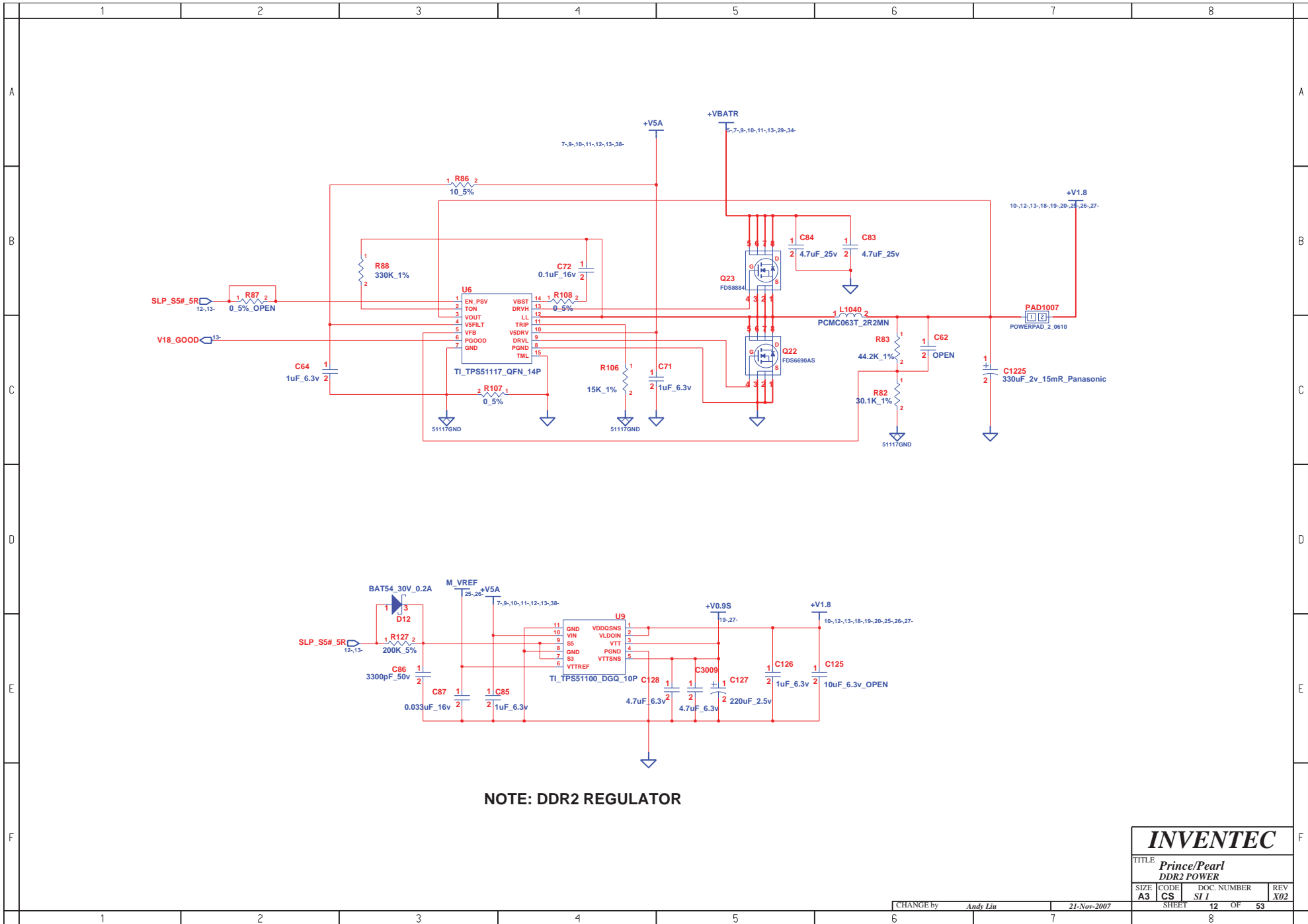
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Prince/Pearl
POWER

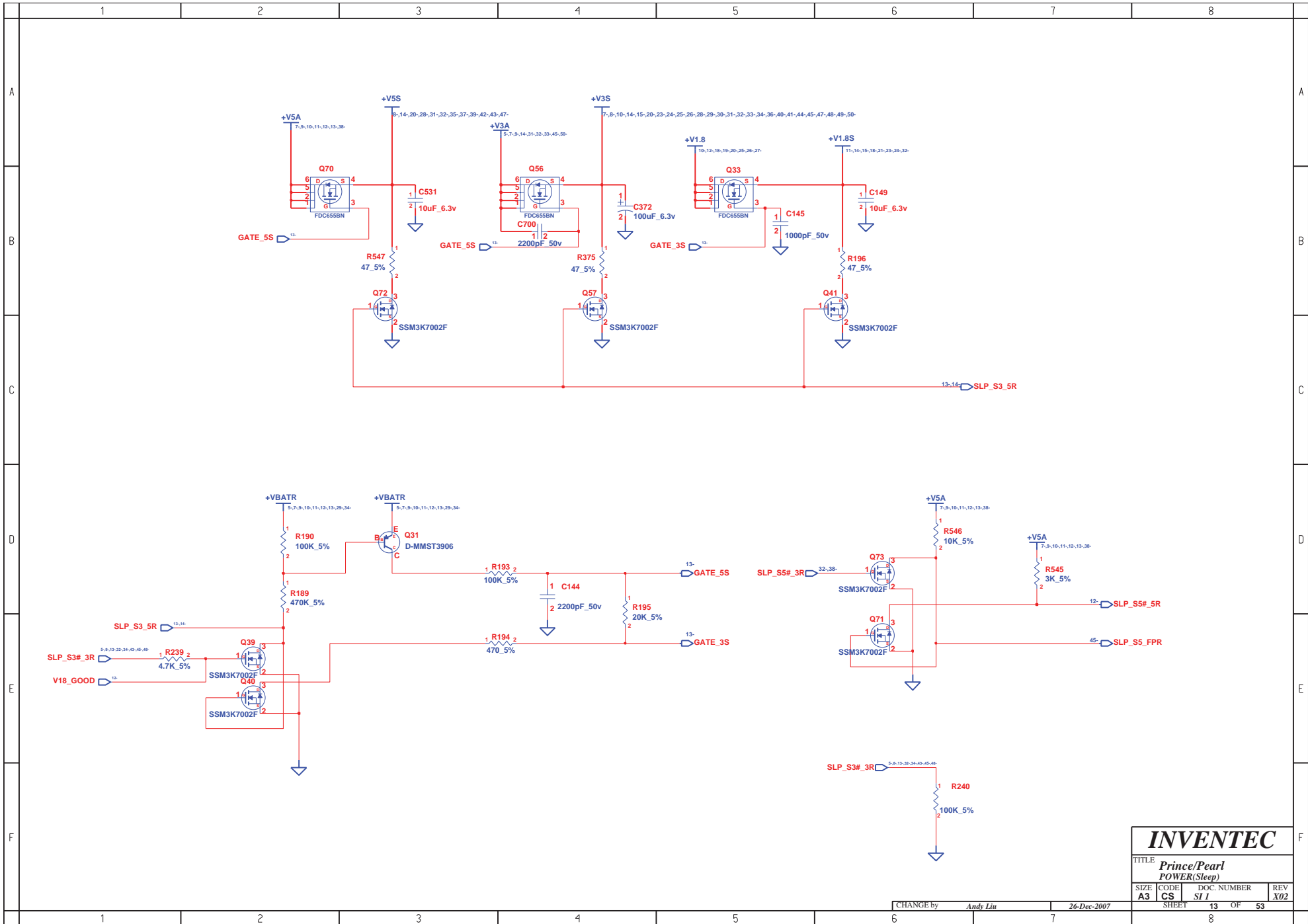
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A3	CS	SI 1	X02

CHANGE by Andy Liu 22-Nov-2007

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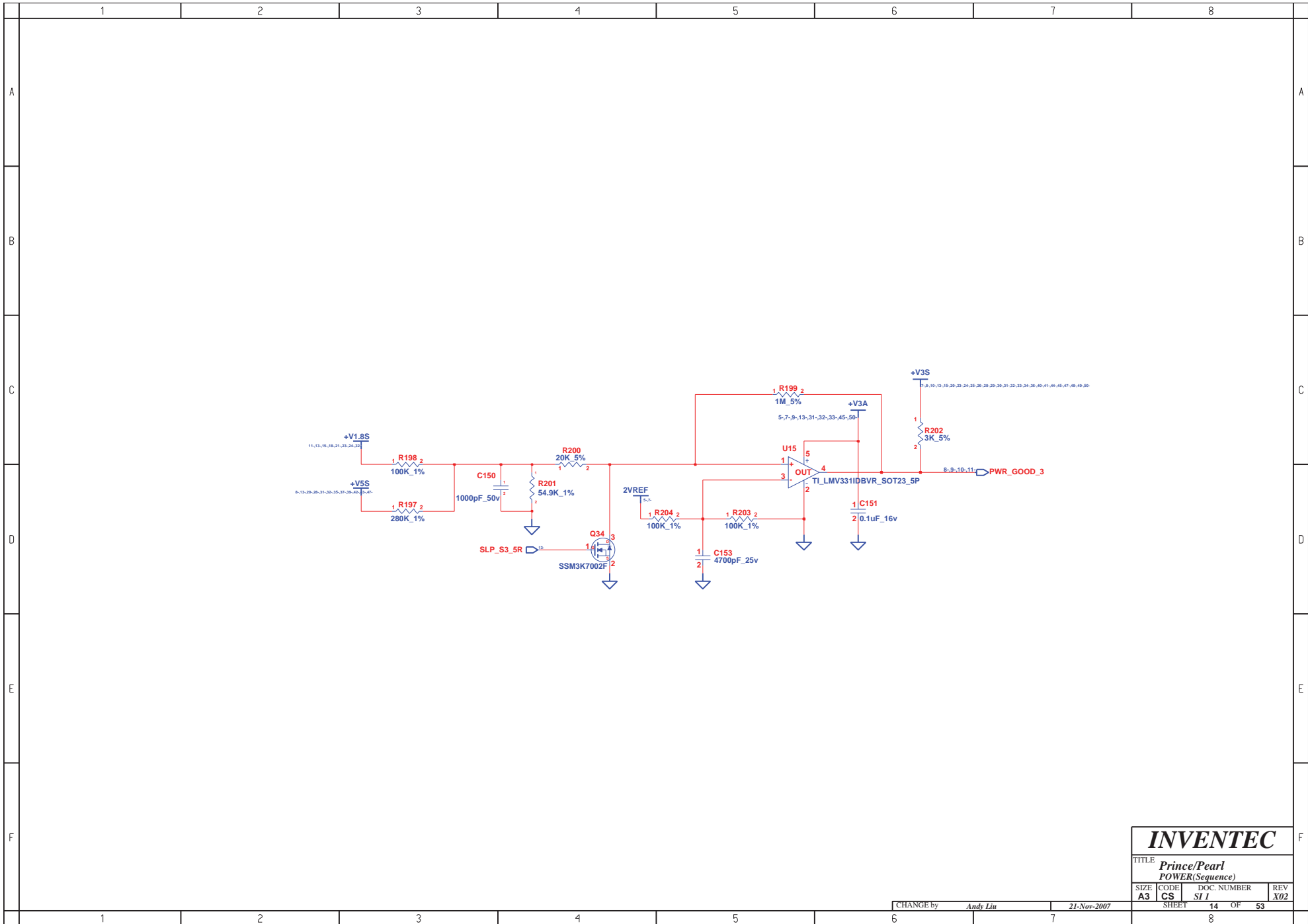
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SIZE A3	CODE CS	DOC. NUMBER SI1	REV X02
CHANGE by <i>Andy Liu</i>		21-Nov-2007	
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INVENTEC

TITLE			
Prince/Pearl POWER(Sleep)			
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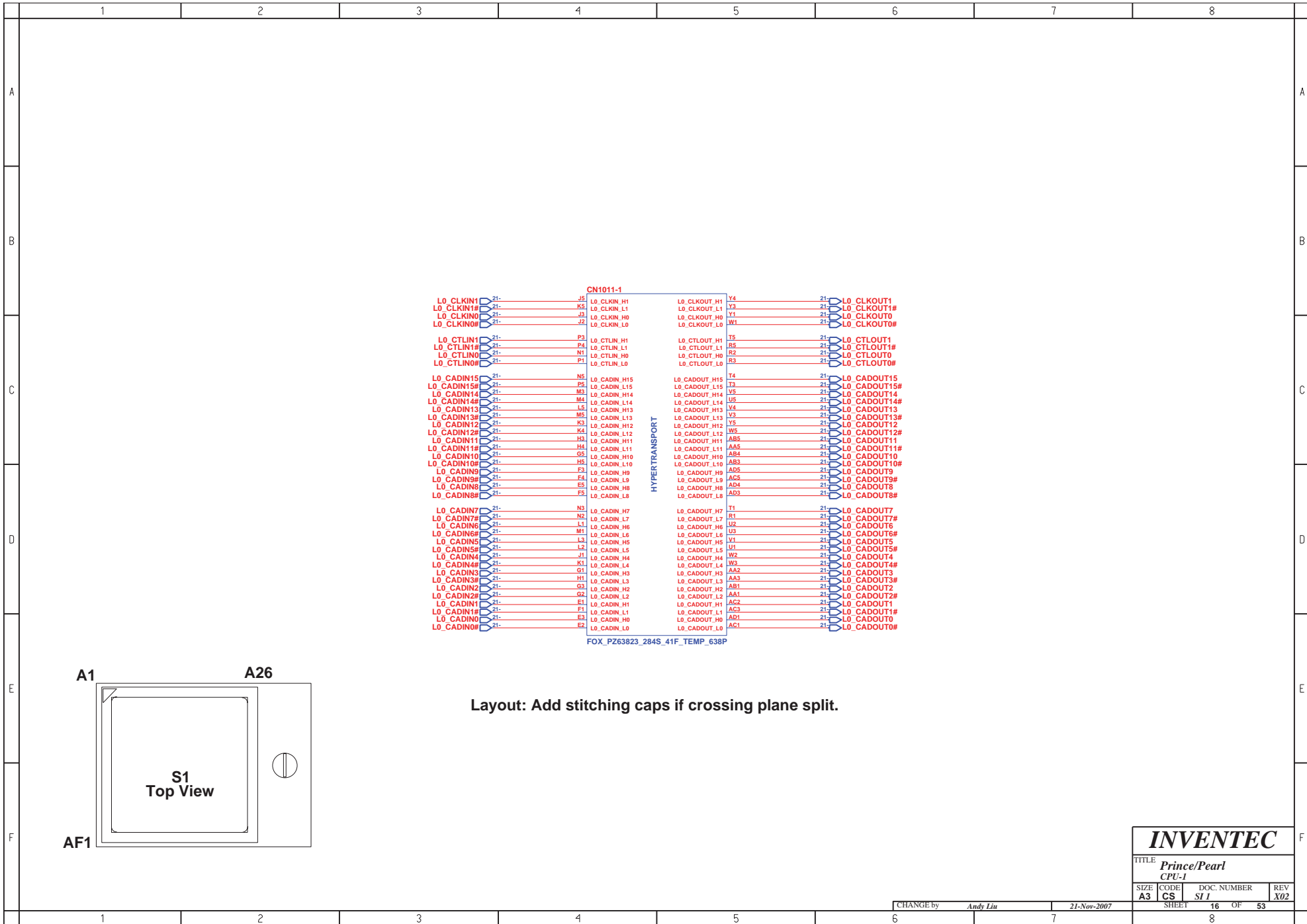
CHANGE by	Andy Liu	26-Dec-2007	SHEET	13	OF	53
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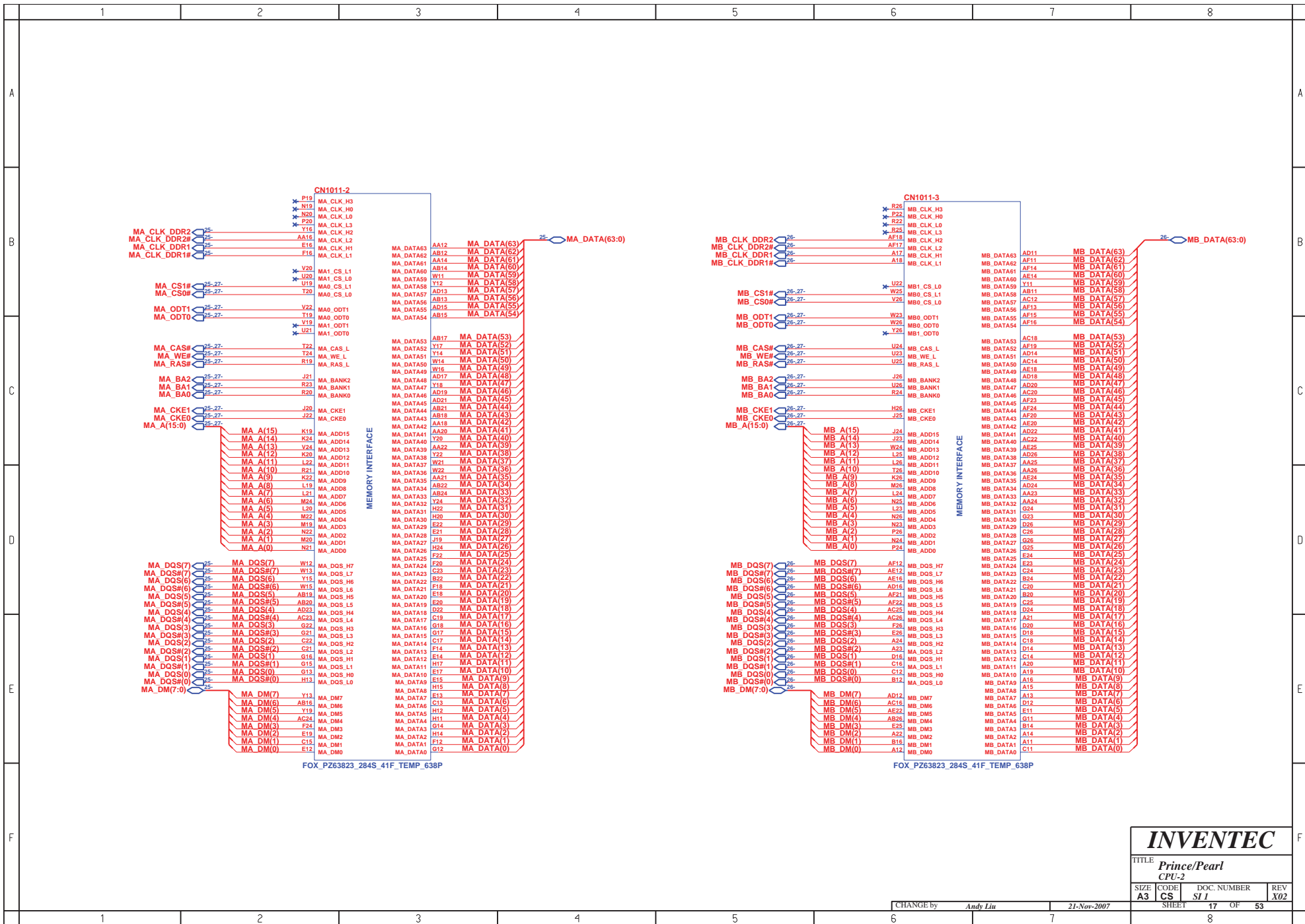


INVENTEC

TITLE			
Prince/Pearl POWER(Sequence)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	S11	X02
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FOX_PZ63823_284S_41F_TEMP_638P

FOX_PZ63823_284S_41F_TEMP_638P

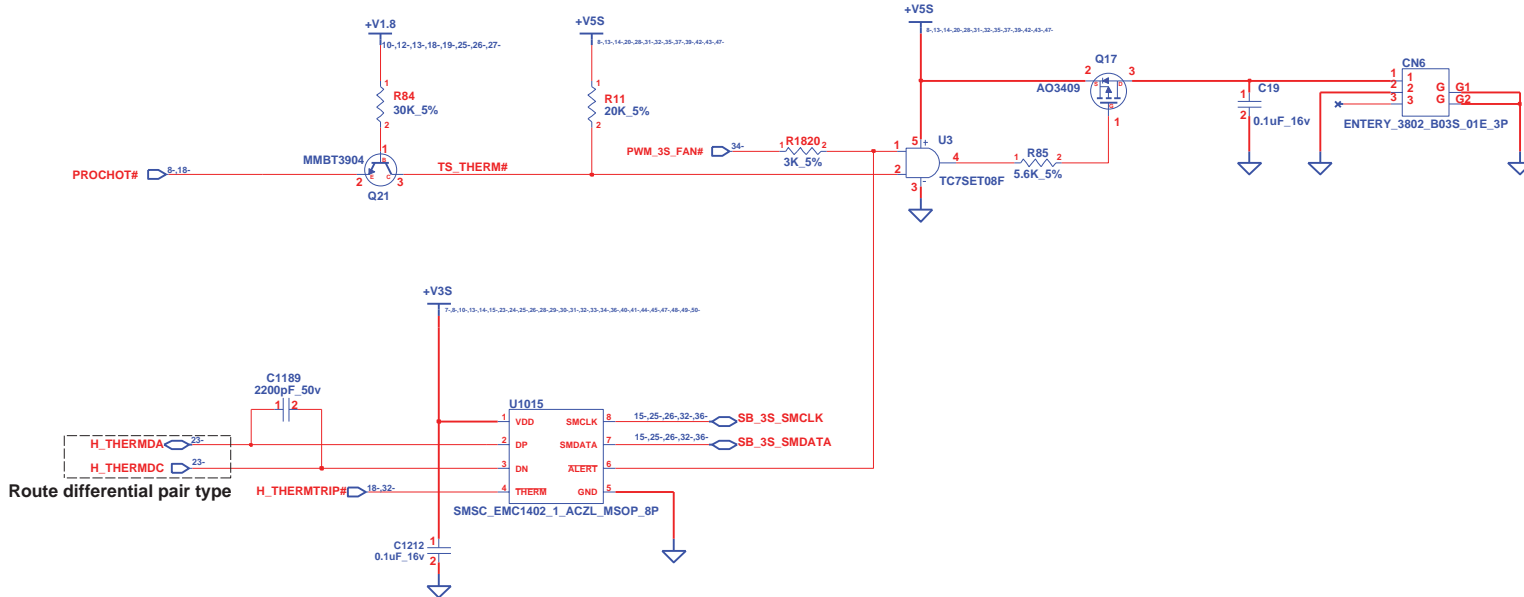
INVENTEC

TITLE: **Prince/Pearl CPU-2**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	SI 1	X02

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LAYOUT Note: Put the thermal sensor close to CPU.

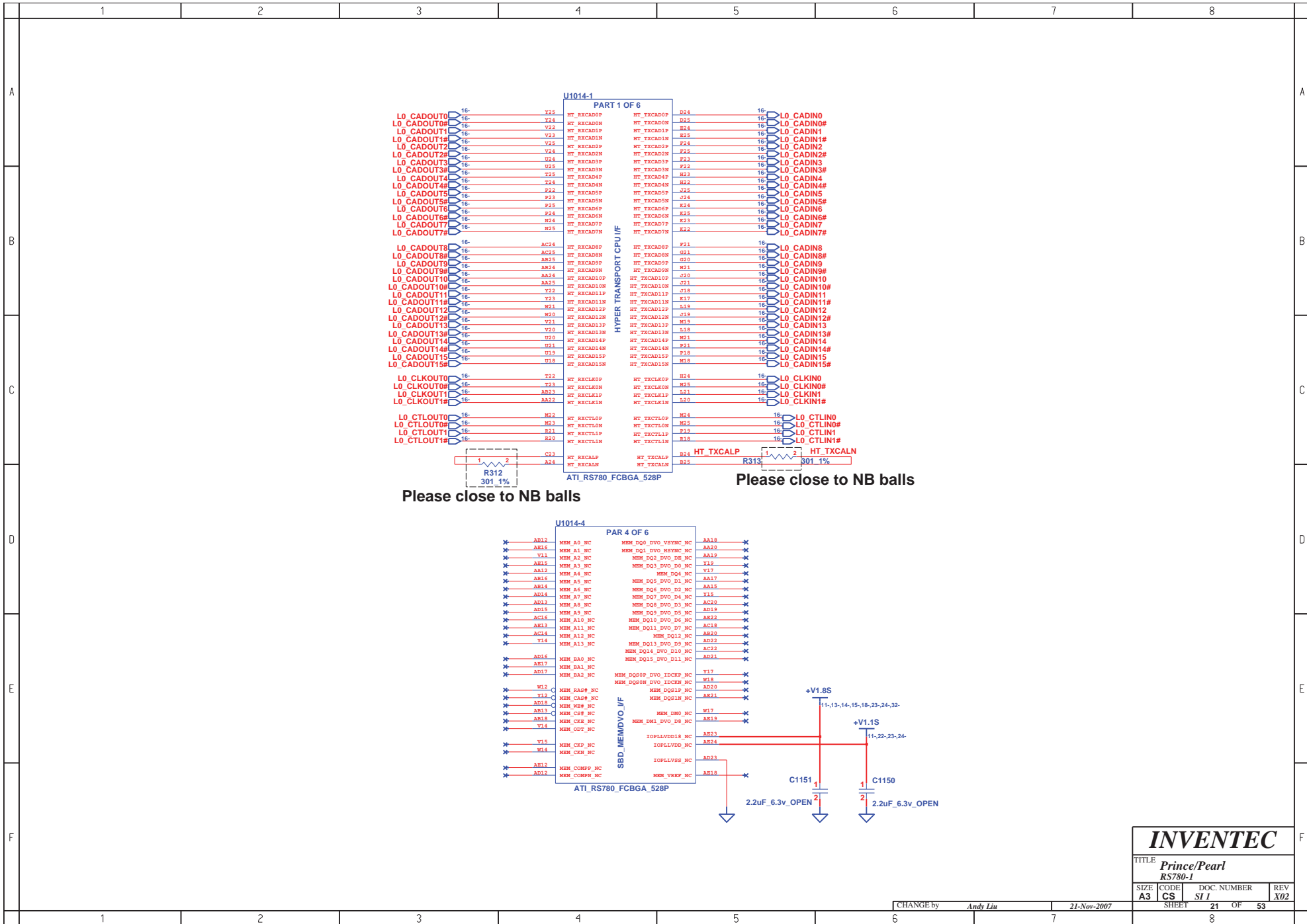
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TITLE
Prince/Pearl
 THERMAL & FAN CONTROLLER

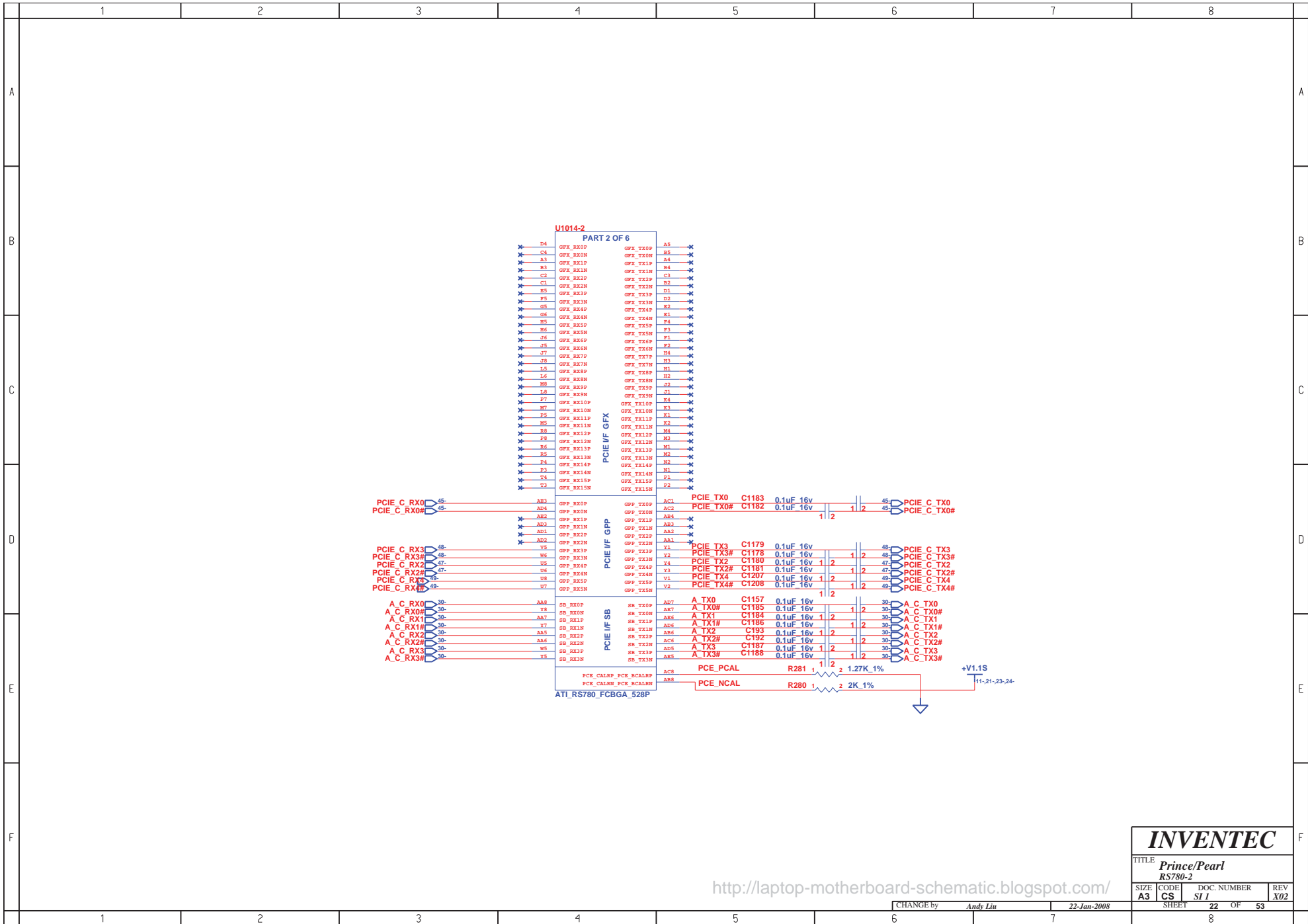
SIZE A3	CODE CS	DOC. NUMBER SI 1	REV X02
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CHANGE by *Andy Liu* 26-Nov-2007

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INVENTEC			
TITLE Prince/Pearl			
RS780-1			
SIZE A3	CODE CS	DOC. NUMBER SI 1	REV X02
CHANGE by <i>Andy Liu</i>		21-Nov-2007	
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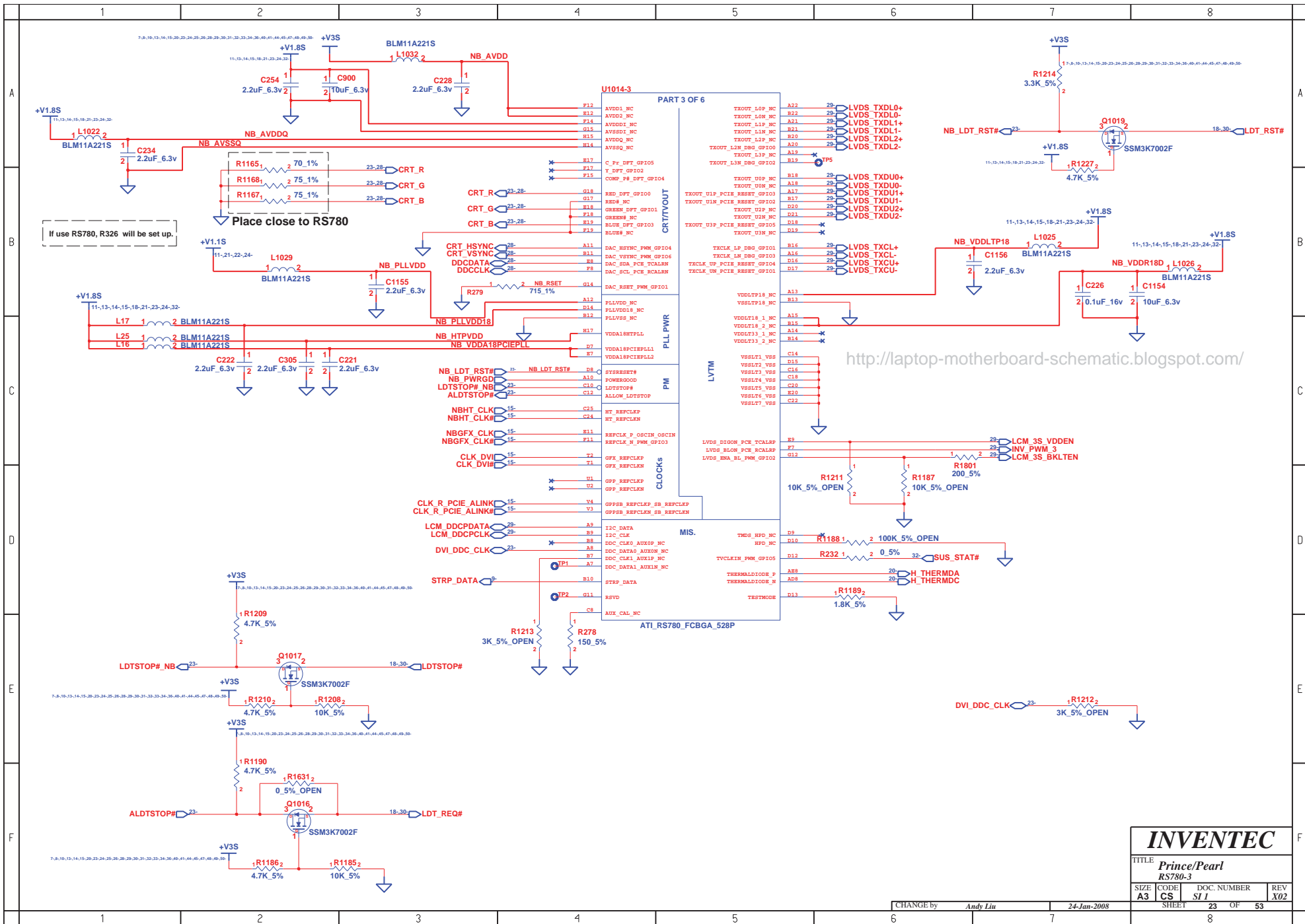
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TITLE
Prince/Pearl
RS780-2

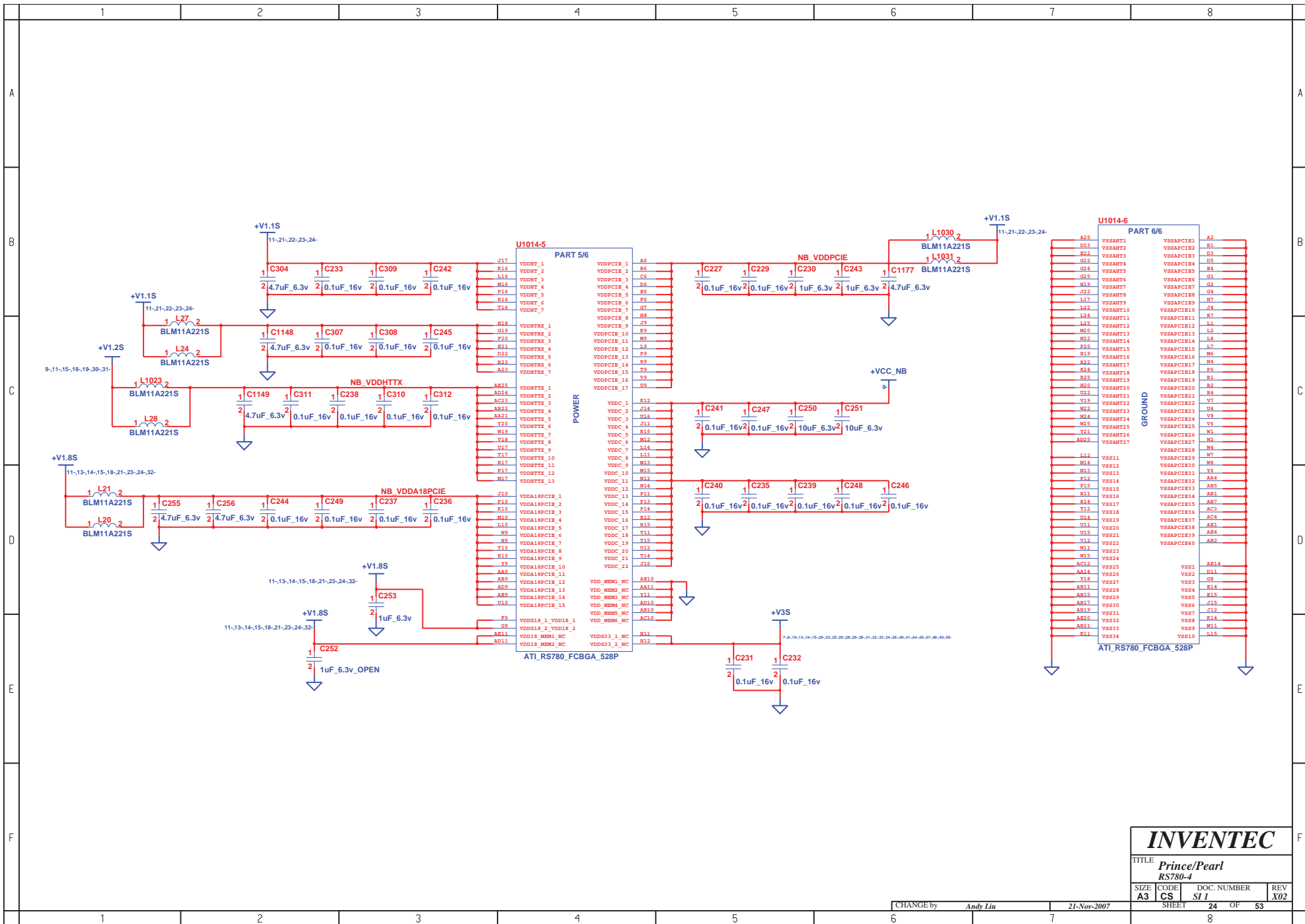
SIZE	CODE	DOC. NUMBER	REV
A3	CS	SI 1	X02

CHANGE by *Andy Liu* 22-Jan-2008

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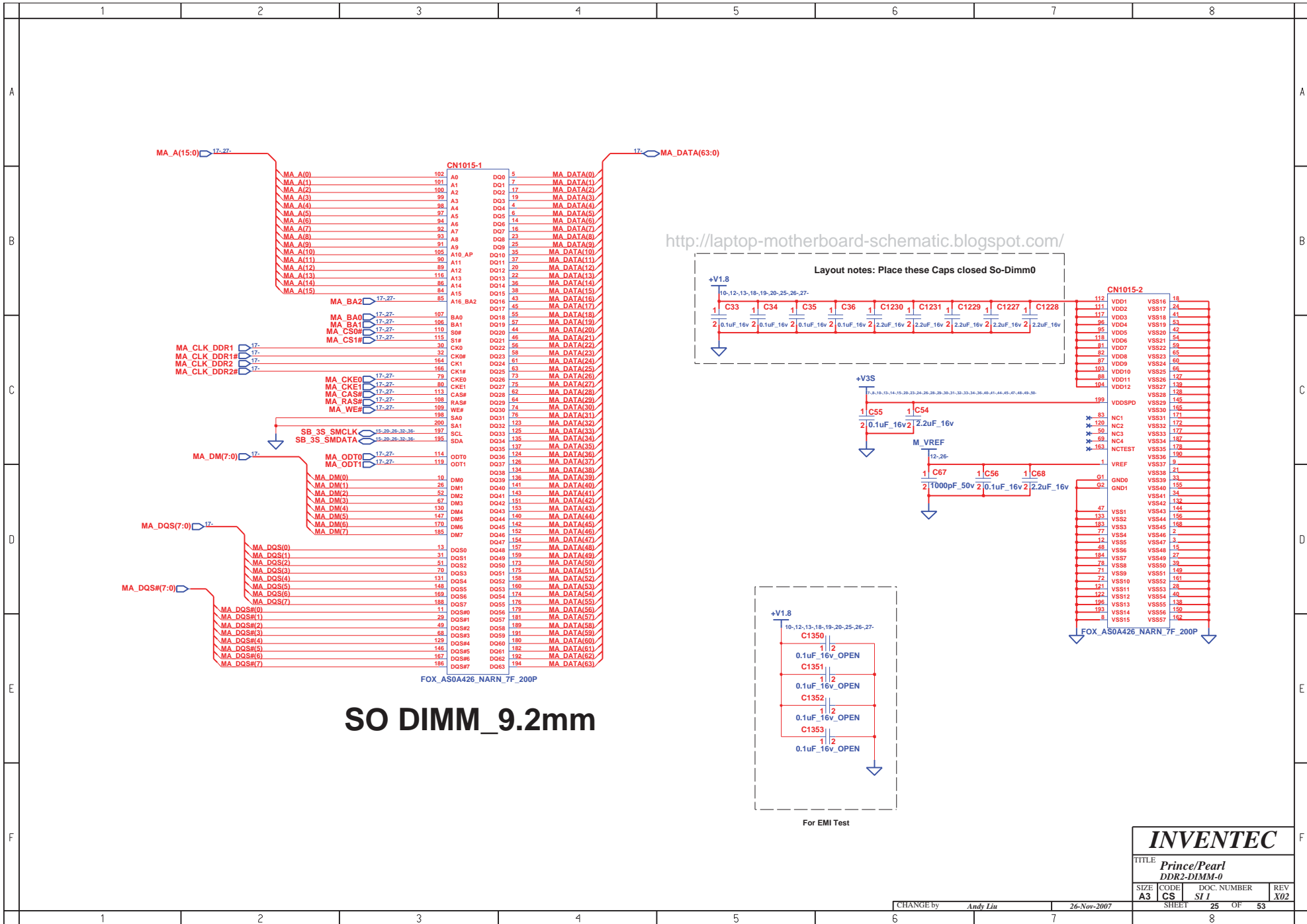
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SIZE A3	CODE CS	DOC. NUMBER SI 1	REV X02
CHANGE by Andy Liu		24-Jun-2008	
SHEET 23		OF 53	



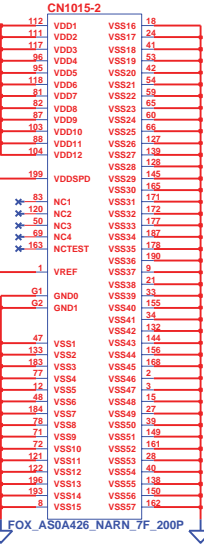
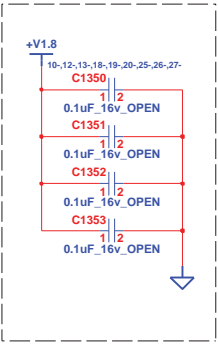
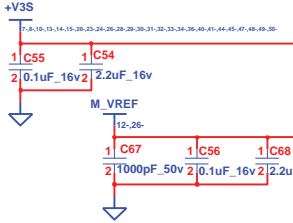
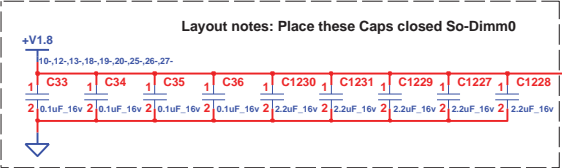
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TITLE
Prince/Pearl
RS780-4

SIZE	CODE	DOC. NUMBER	REV
A3	CS	SI 1	X02



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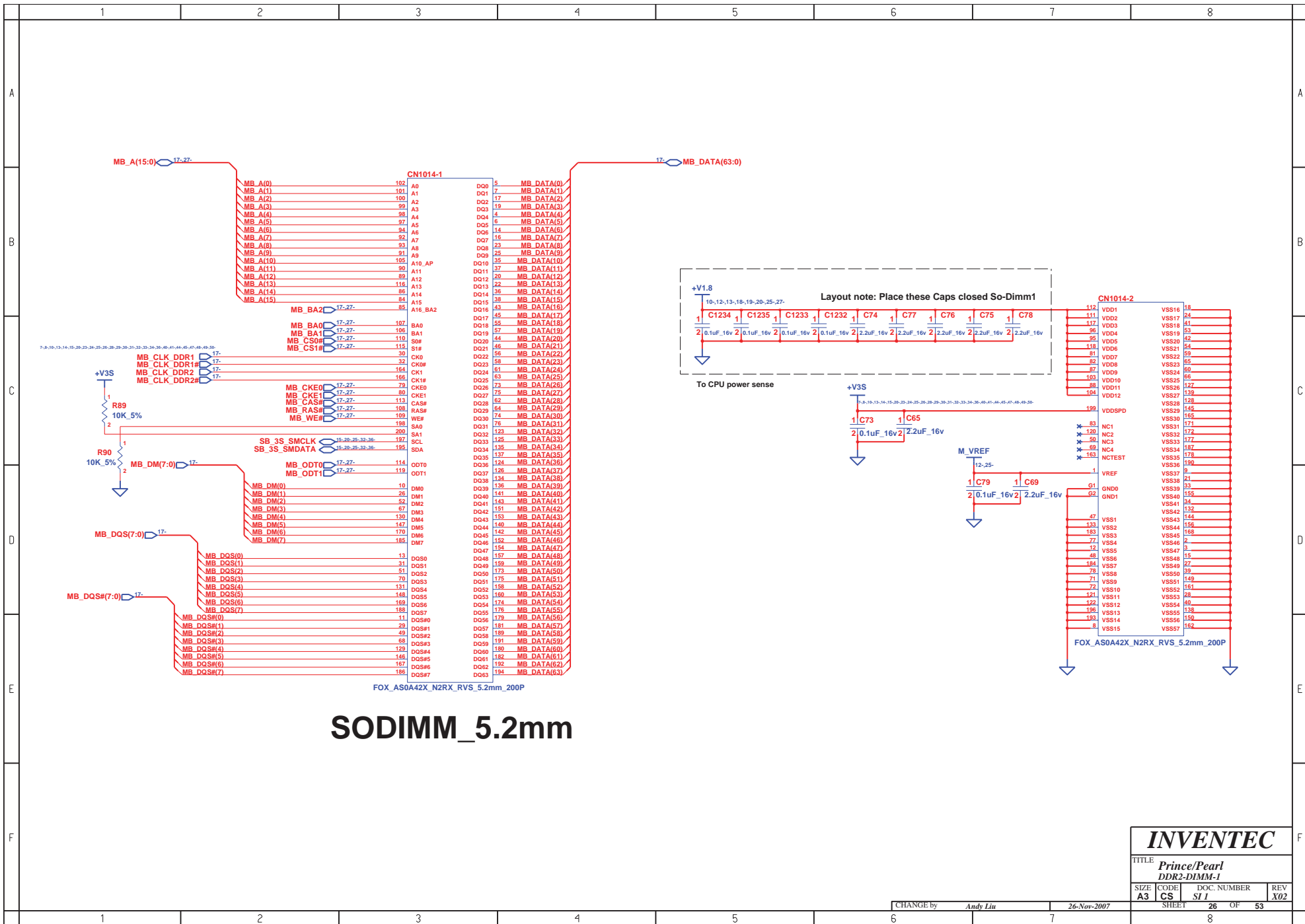
SO DIMM_9.2mm

INVENTEC

TITLE: Prince/Pearl DDR2-DIMM-0

SIZE	CODE	DOC. NUMBER	REV
A3	CS	SI 1	X02

CHANGE by: Andy Liu 26-Nov-2007 SHEET 25 OF 53

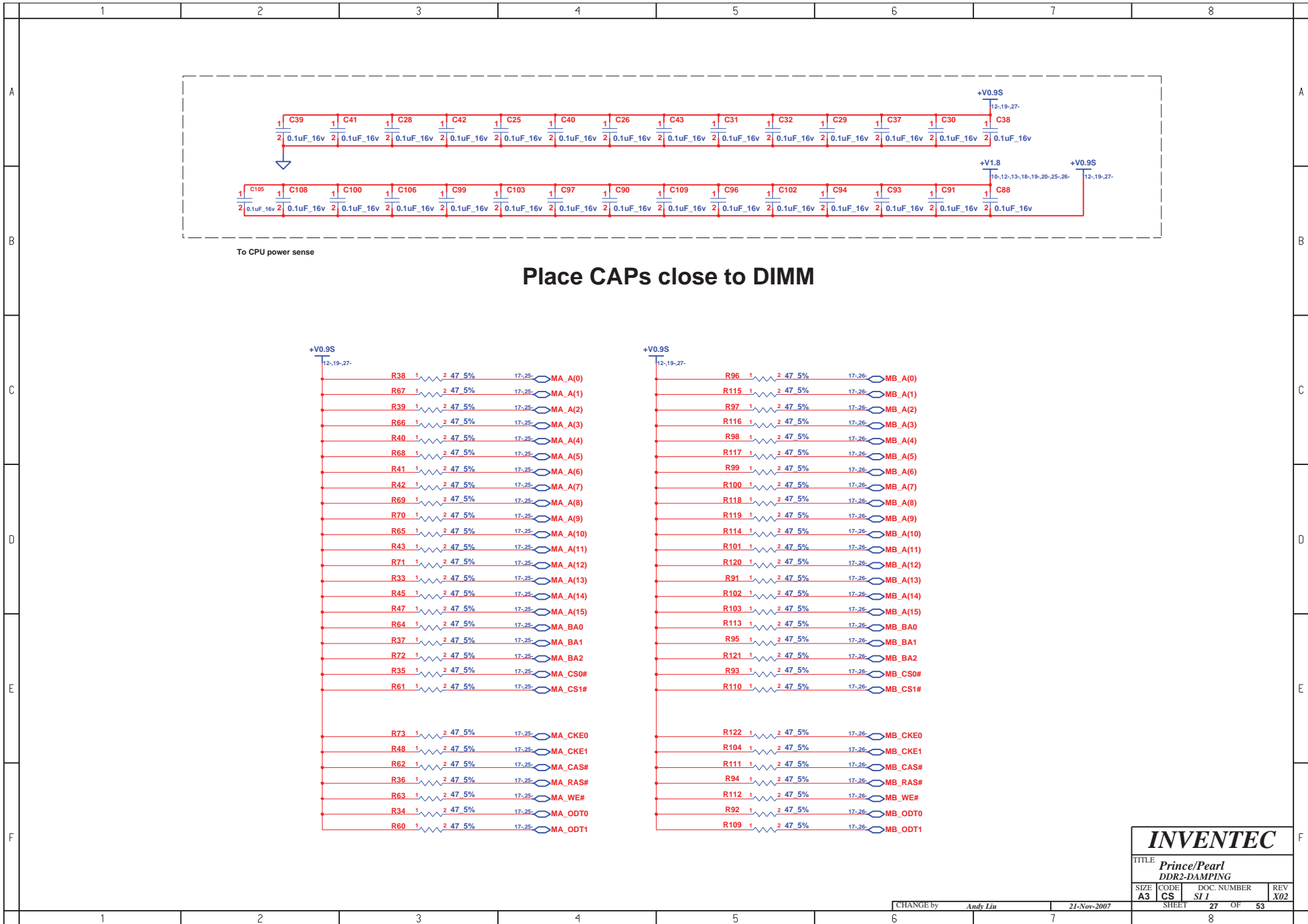


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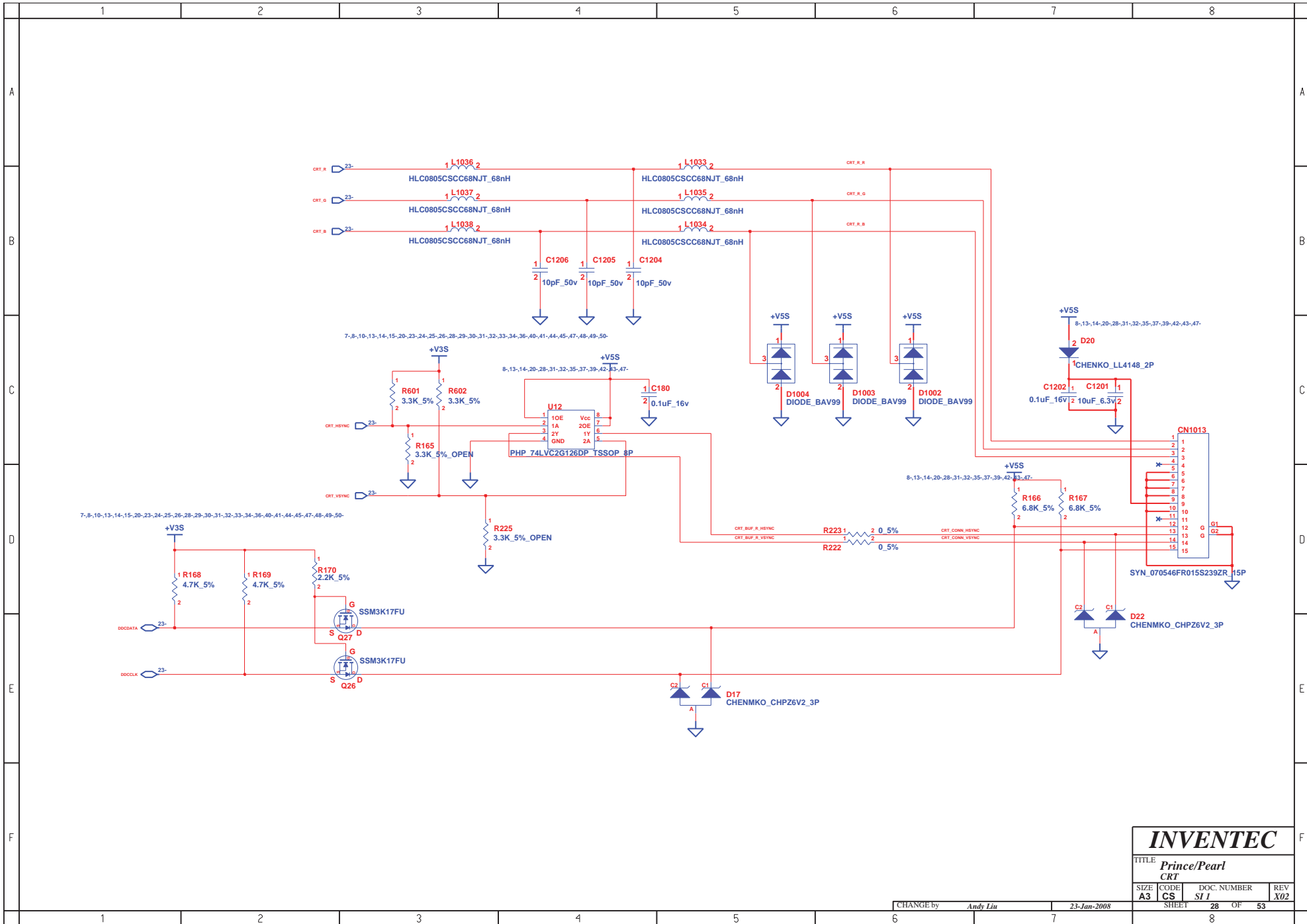
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DDR2-DIMM-1

SIZE	CODE	DOC. NUMBER	REV
A3	CS	SI 1	X02

CHANGE by Andy Liu 26-Nov-2007 SHEET 26 OF 53

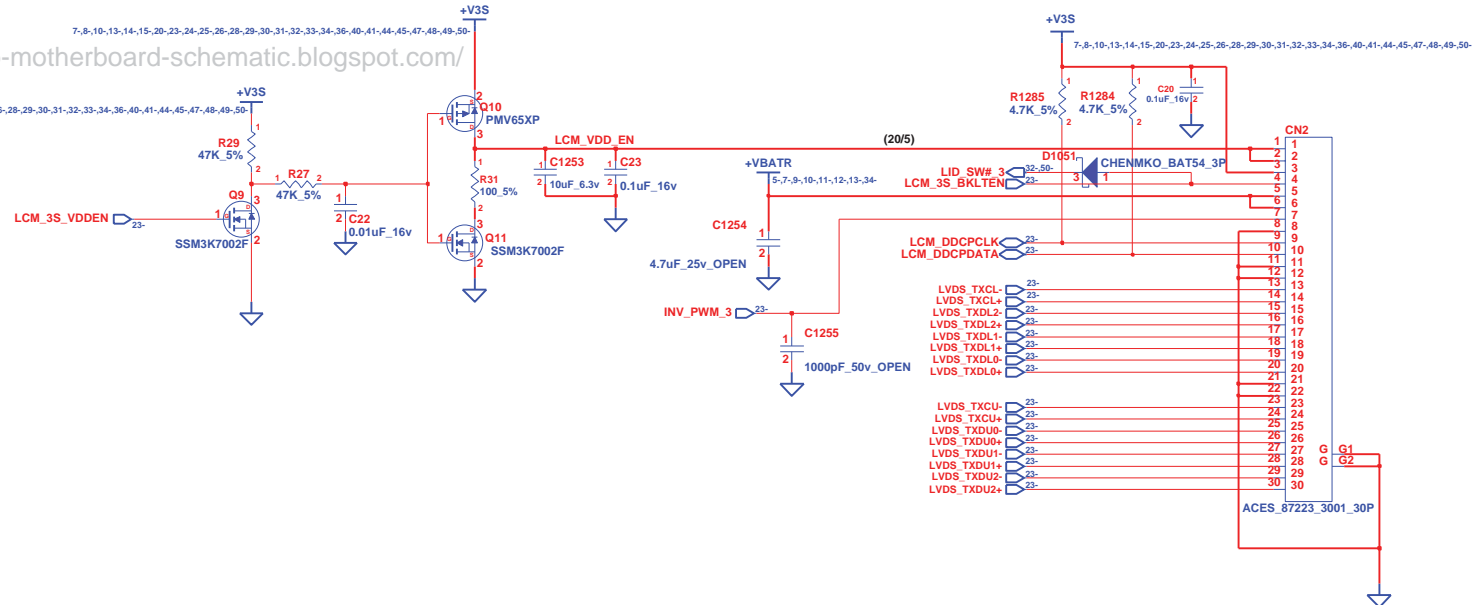


INVENTEC			
TITLE <i>Prince/Pearl DDR2-DAMPING</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>SI 1</i>	REV X02
CHANGE by <i>Andy Liu</i>		21-Nov-2007	
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INVENTEC			
TITLE Prince/Pearl CRT			
SIZE A3	CODE CS	DOC. NUMBER SI1	REV X02
CHANGE by <i>Andy Liu</i>		23-Jan-2008	
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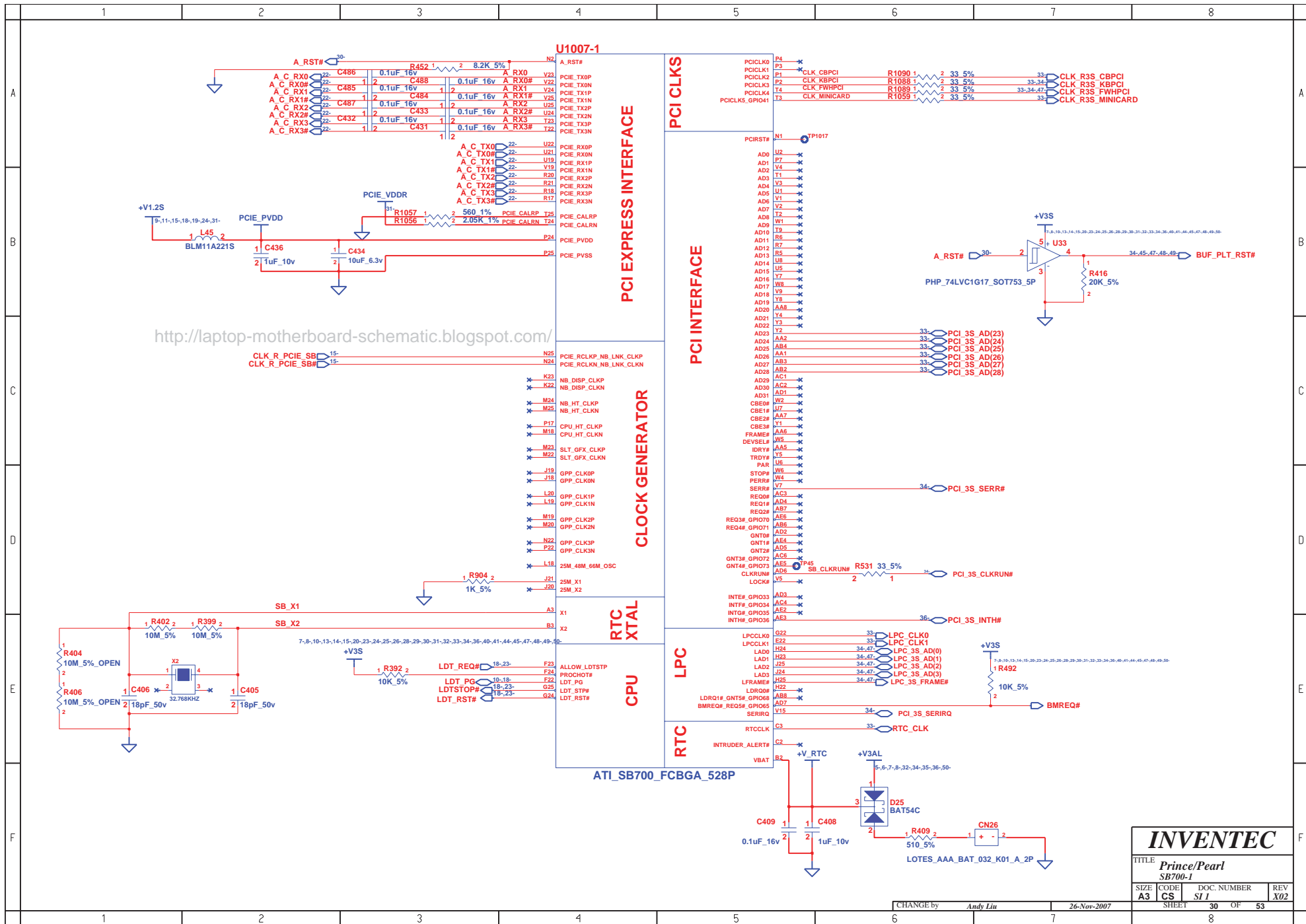
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TITLE
Prince/Pearl
 LCD CONN

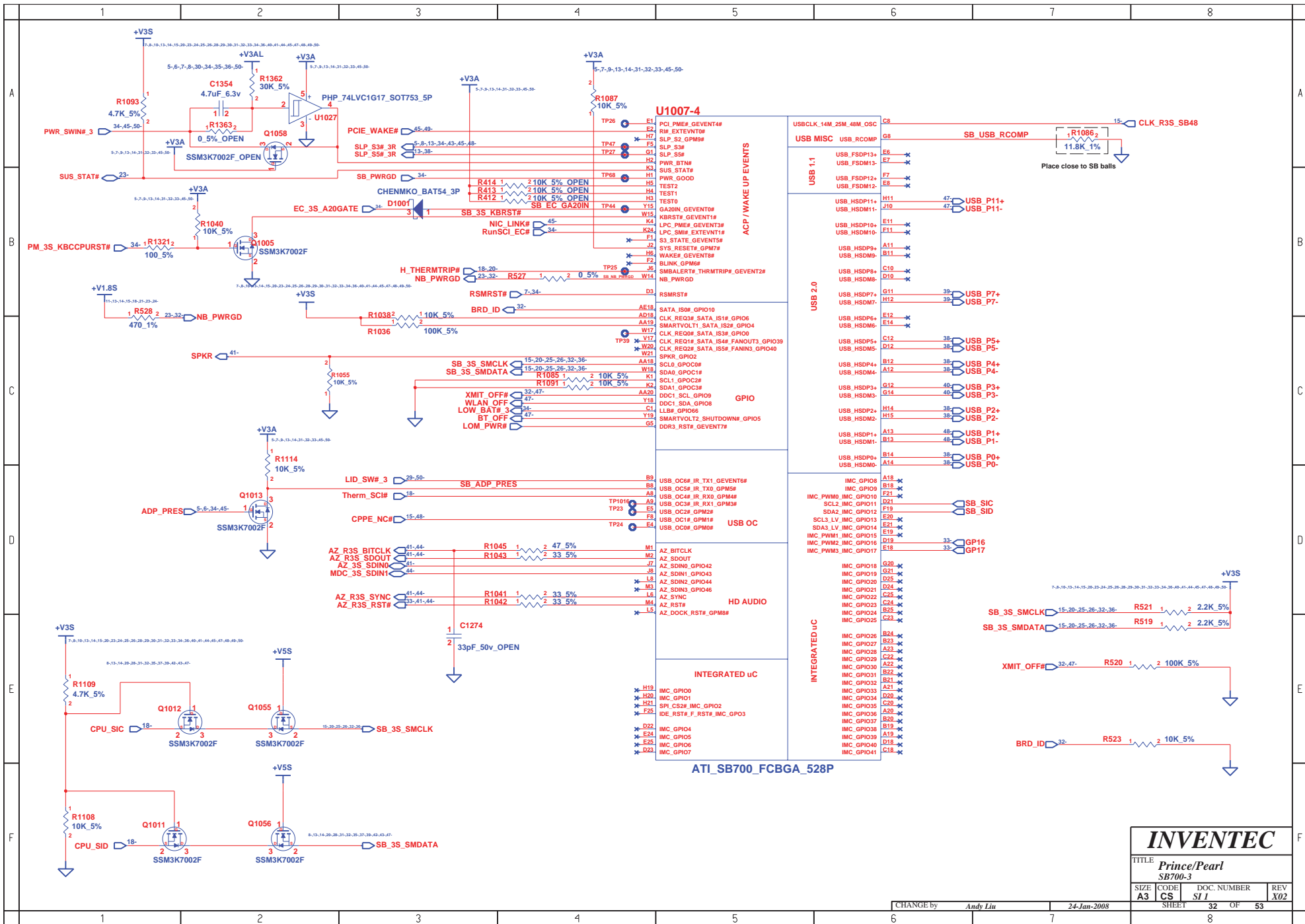
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CHANGE by *Andy Liu* 19-Dec-2007

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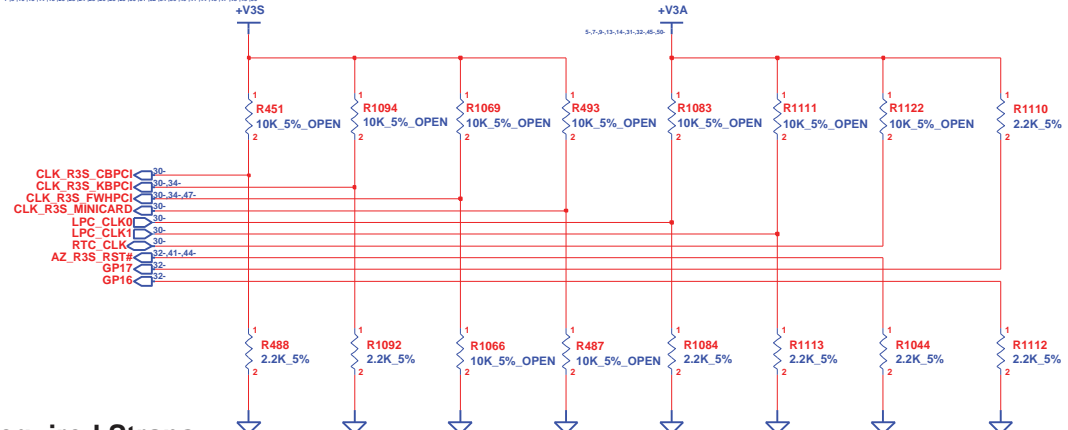


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TITLE Prince/Pearl SB700-1			
SIZE A3	CODE CS	DOC. NUMBER SI 1	REV X02
CHANGE by <i>Andy Liu</i>		26-Nov-2007	
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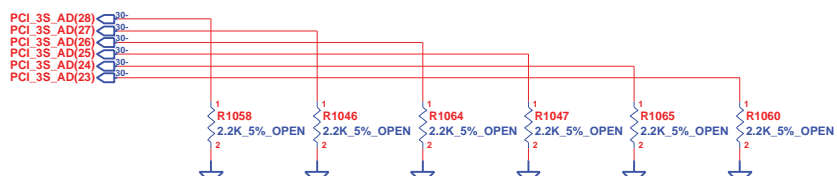
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SB700-3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	SI1	X02

7,8,10,13,14,15,20,23,24,25,26,28,29,30,31,32,34,36,40,41,44,45,47,48,49,50



Required Straps:

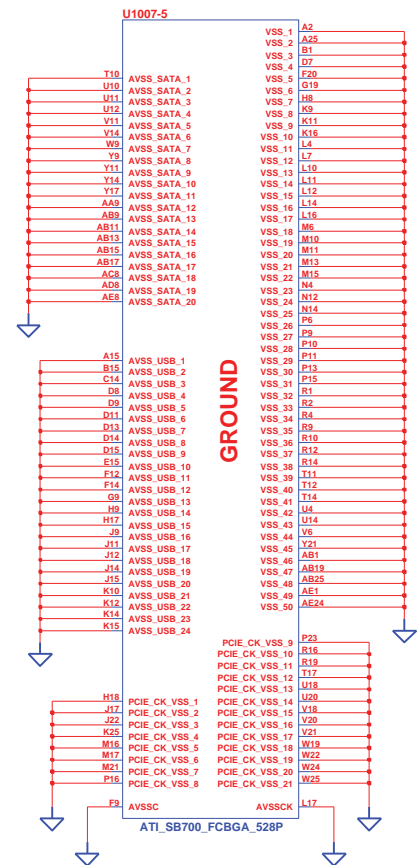
	CLK_R3S_CBPCI	CLK_R3S_KBPCI	CLK_R3S_FWHPCI	CLK_R3S_MINICARD	LPC_CLK0	LPC_CLK1	RTC_CLK	AZ_RST#	GP17	GP16
PULL HIGH	BOOTFAIL TIMER ENABLED	USE DEBUG STRAPS	RESERVED	RESERVED	ENABLE PCI MEM BOOT	CLKGEN ENABLED	INTERNAL RTC DEFAULT	EC ENABLED	ROM TYPE H, H = Reserved H, L = SPI ROM	
PULL LOW	BOOTFAIL TIMER DISABLED DEFAULT	IGNORE DEBUG STRAPS DEFAULT			DISABLE PCI MEM BOOT DEFAULT	CLKGEN DISABLED DEFAULT	EXT. RTC (PD on X1, apply 32KHz to RTC_CLK)	EC DISABLED DEFAULT	L, H = LPC ROM L, L = FWH ROM	



Debug Straps

SB700 HAS 15K INTERNAL PU FOR PCI_AD

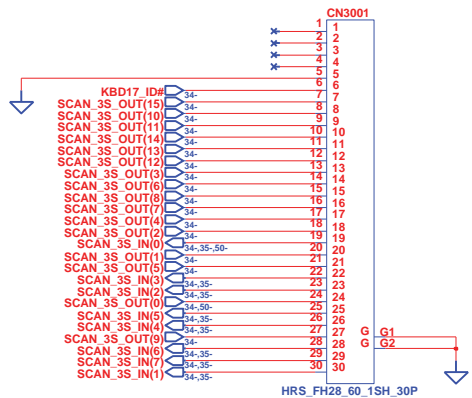
	PCI_3S_AD(28)	PCI_3S_AD(27)	PCI_3S_AD(26)	PCI_3S_AD(25)	PCI_3S_AD(24)	PCI_3S_AD(23)
PULL HIGH	USE LONG RESET DEFAULT	USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	RESERVED
PULL LOW	USE SHORT RESET	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	



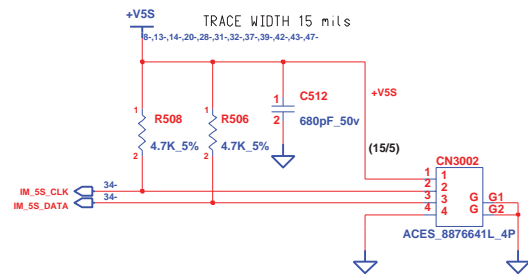
GROUND

INVENTEC

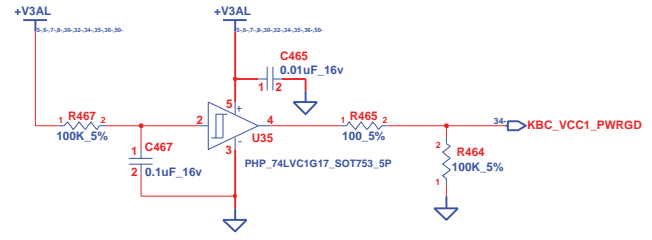
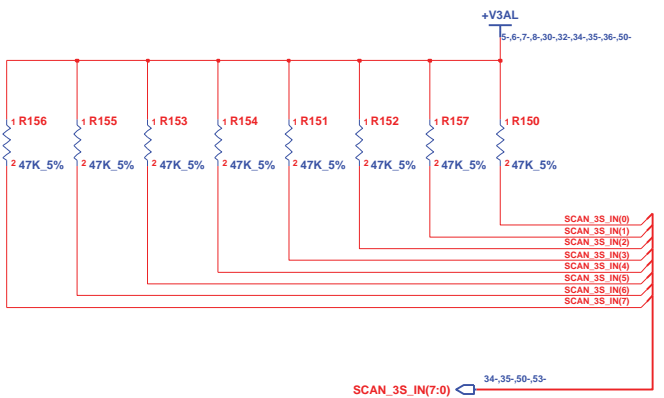
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SIZE A3	CODE CS	DOC. NUMBER SI1	REV X02



KEYBOARD CONN



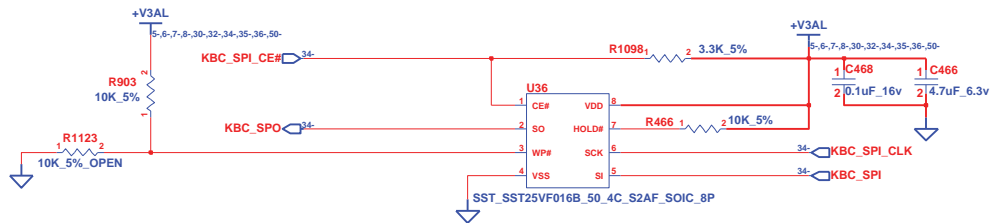
TOUCH PAD CNTR



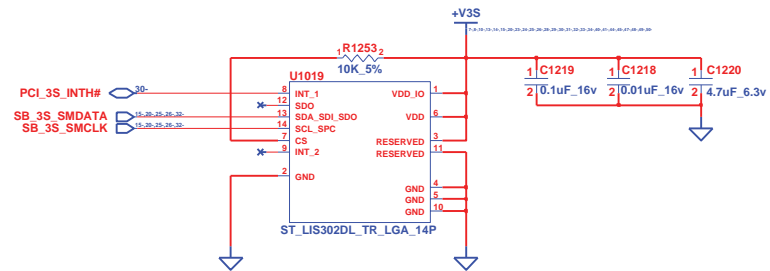
U35 should be placed close to U39.

INVENTEC			
TITLE Prince/Pearl KB&TP CONN			
SIZE A3	CODE CS	DOC. NUMBER SI 1	REV X02

CHANGE by	Andy Liu	23-Jan-2008	SHEET	35	OF	53
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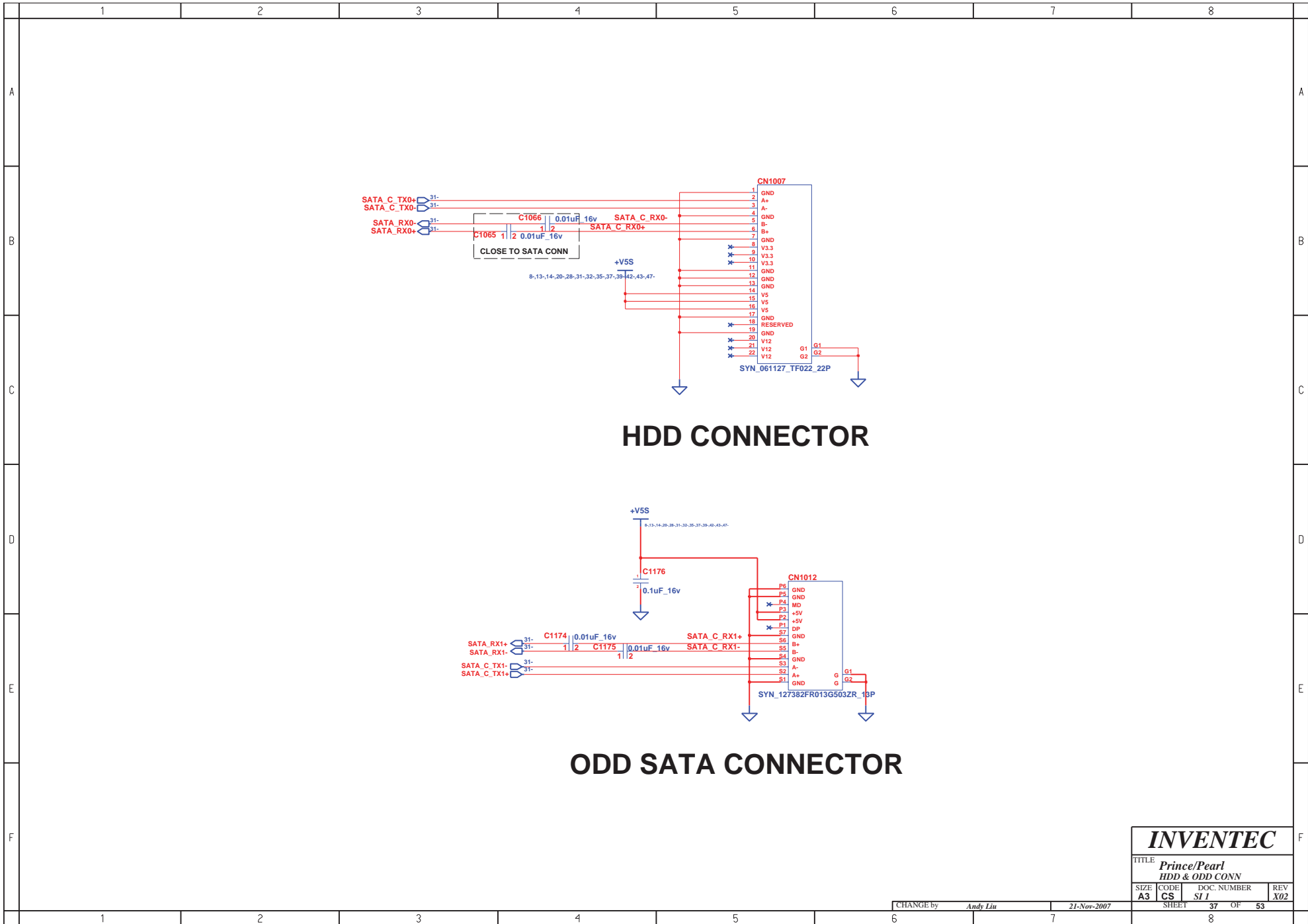


SPI Flash



Accelerometer

INVENTEC			
TITLE Prince/Pearl			
SPI & ACCELEROMETER			
SIZE A3	CODE CS	DOC. NUMBER SI 1	REV X02
CHANGE by <i>Andy Liu</i>		28-Jan-2008	
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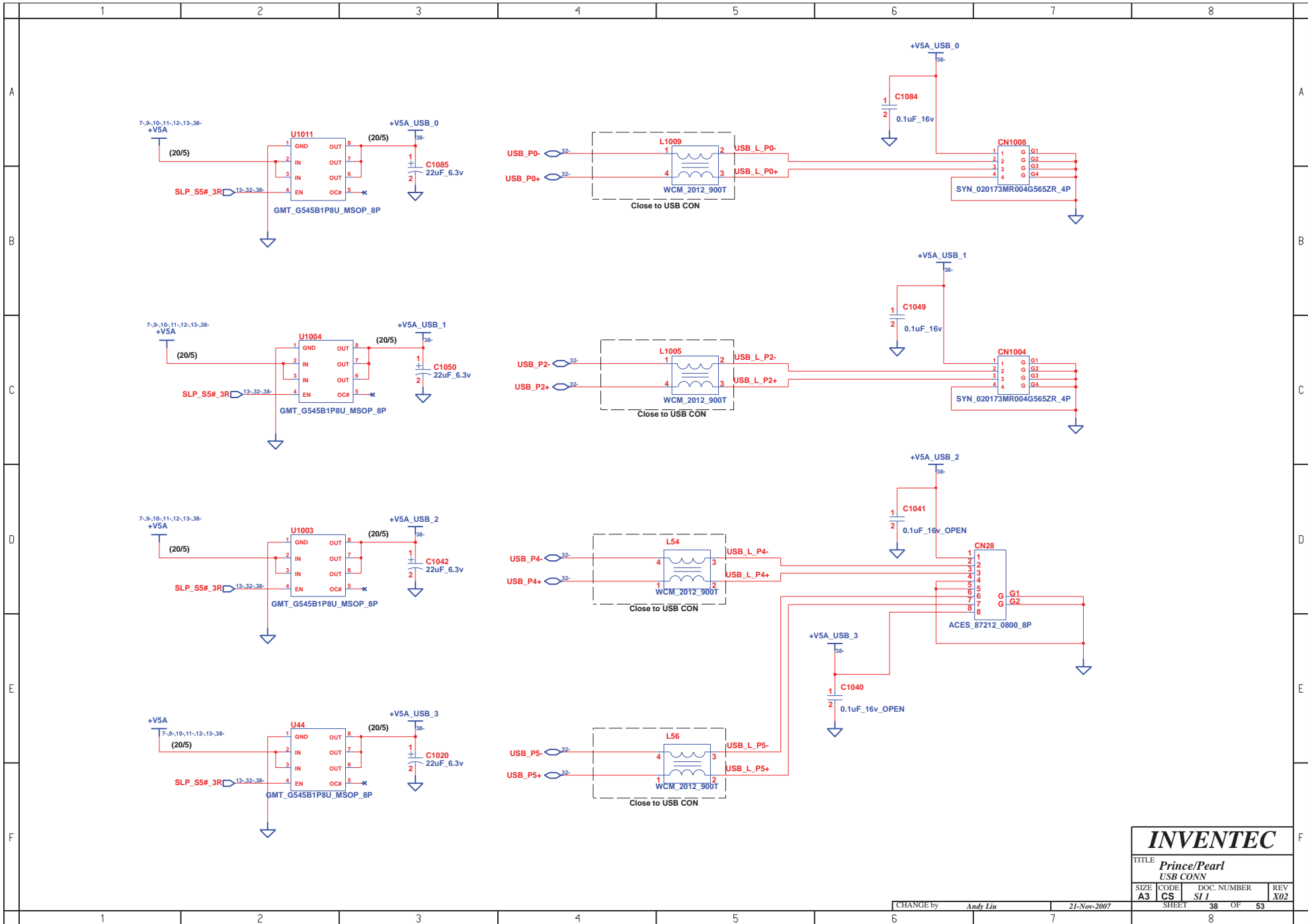
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TITLE
Prince/Pearl
HDD & ODD CONN

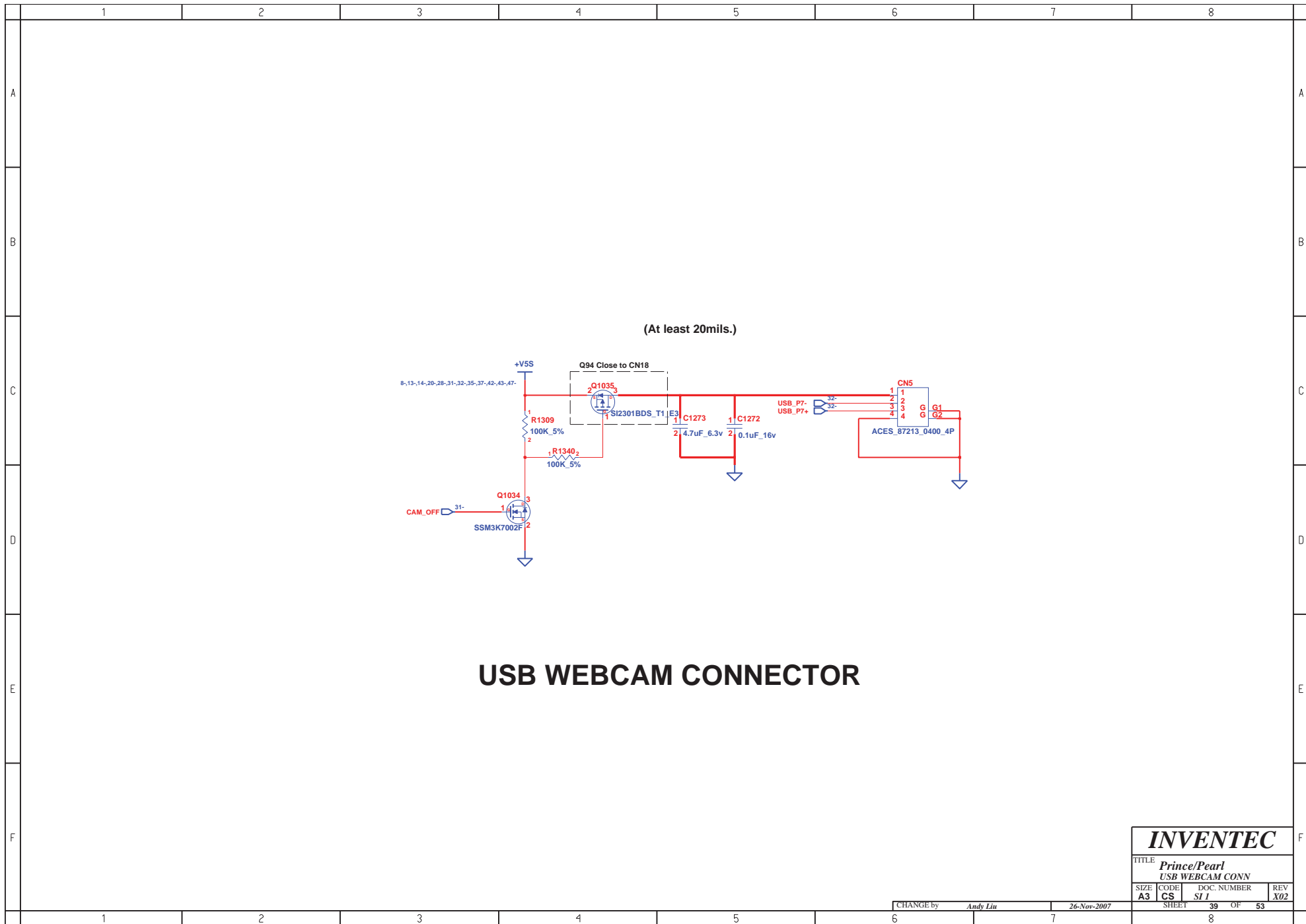
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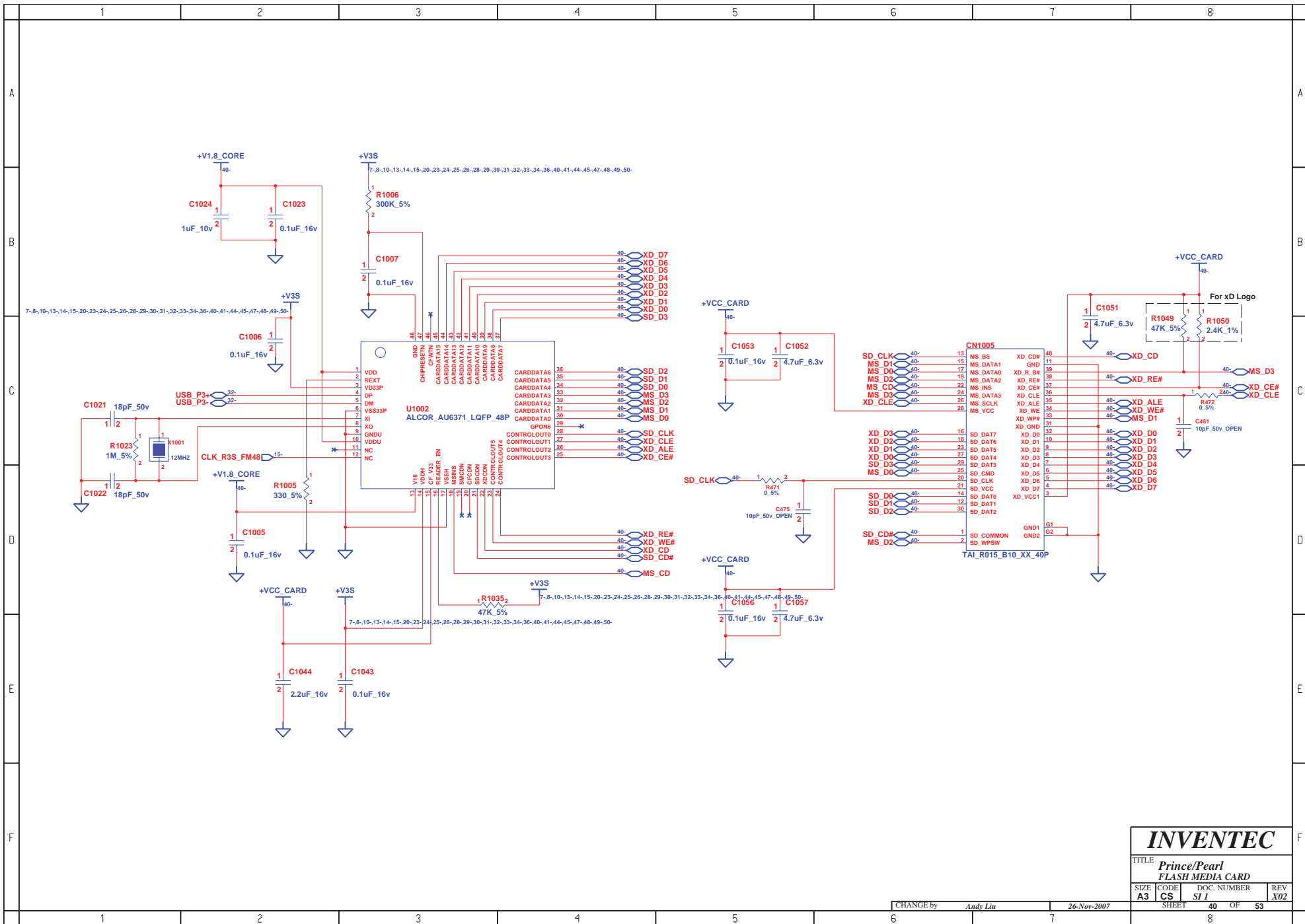


INVENTEC			
TITLE Prince/Pearl USB CONN			
SIZE A3	CODE CS	DOC. NUMBER SI 1	REV X02
CHANGE by <i>Andy Liu</i>		21-Nov-2007	
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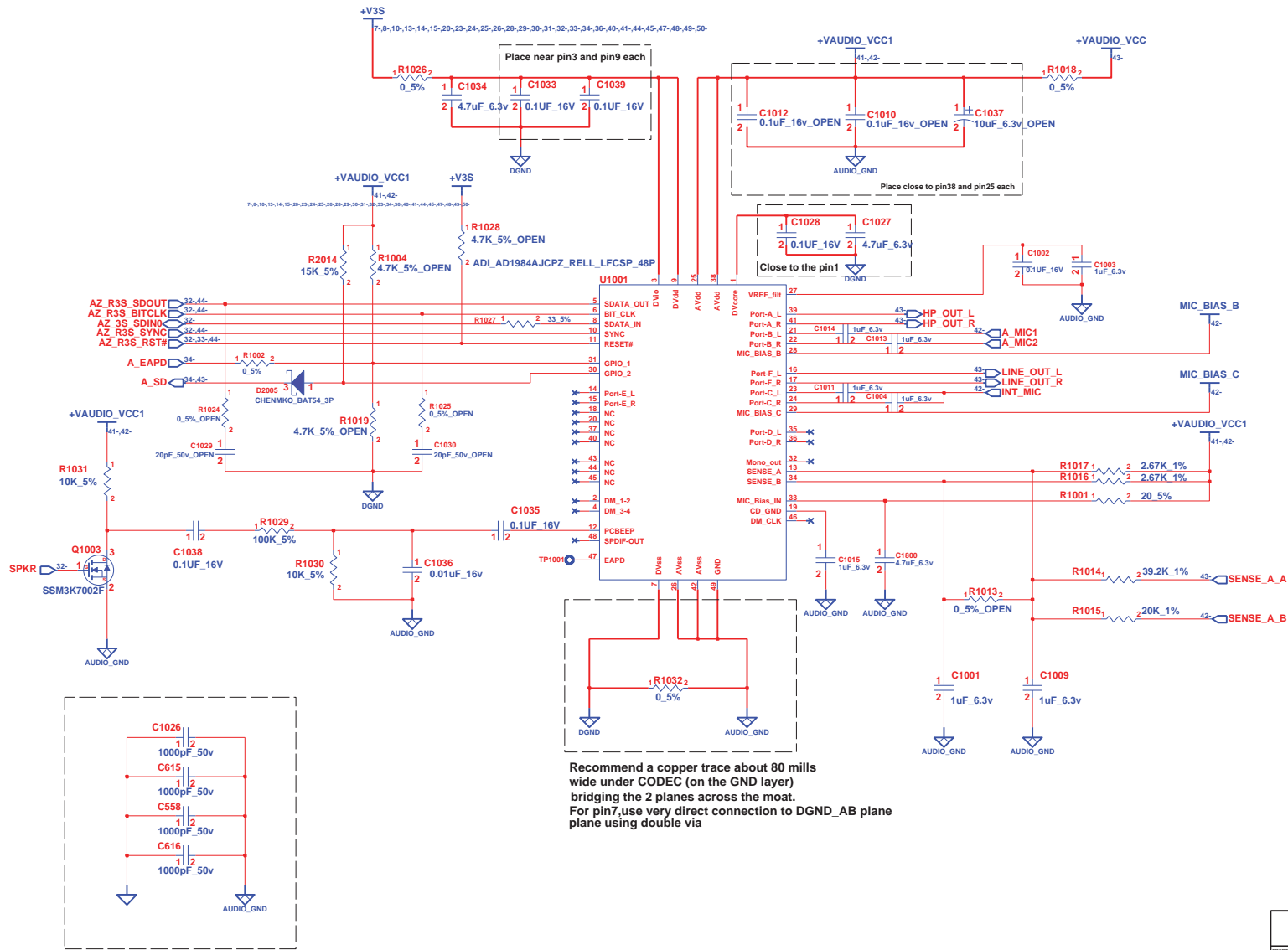


INVENTEC			
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SIZE A3	CODE CS	DOC. NUMBER <i>SI1</i>	REV X02

CHANGE by	<i>Andy Liu</i>	26-Nov-2007	SHEET	39	OF	53
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INVENTEC			
TITLE Prince/Pearl FLASH MEDIA CARD			
SIZE A3	CODE CS	DOC. NUMBER SI 1	REV X02
CHANGE by <i>Andy Liu</i>		26-Nov-2007	
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Recommend a copper trace about 80 mills wide under CODEC (on the GND layer) bridging the 2 planes across the moat.
 For pin7, use very direct connection to DGND_AB plane using double via

For EMI Test

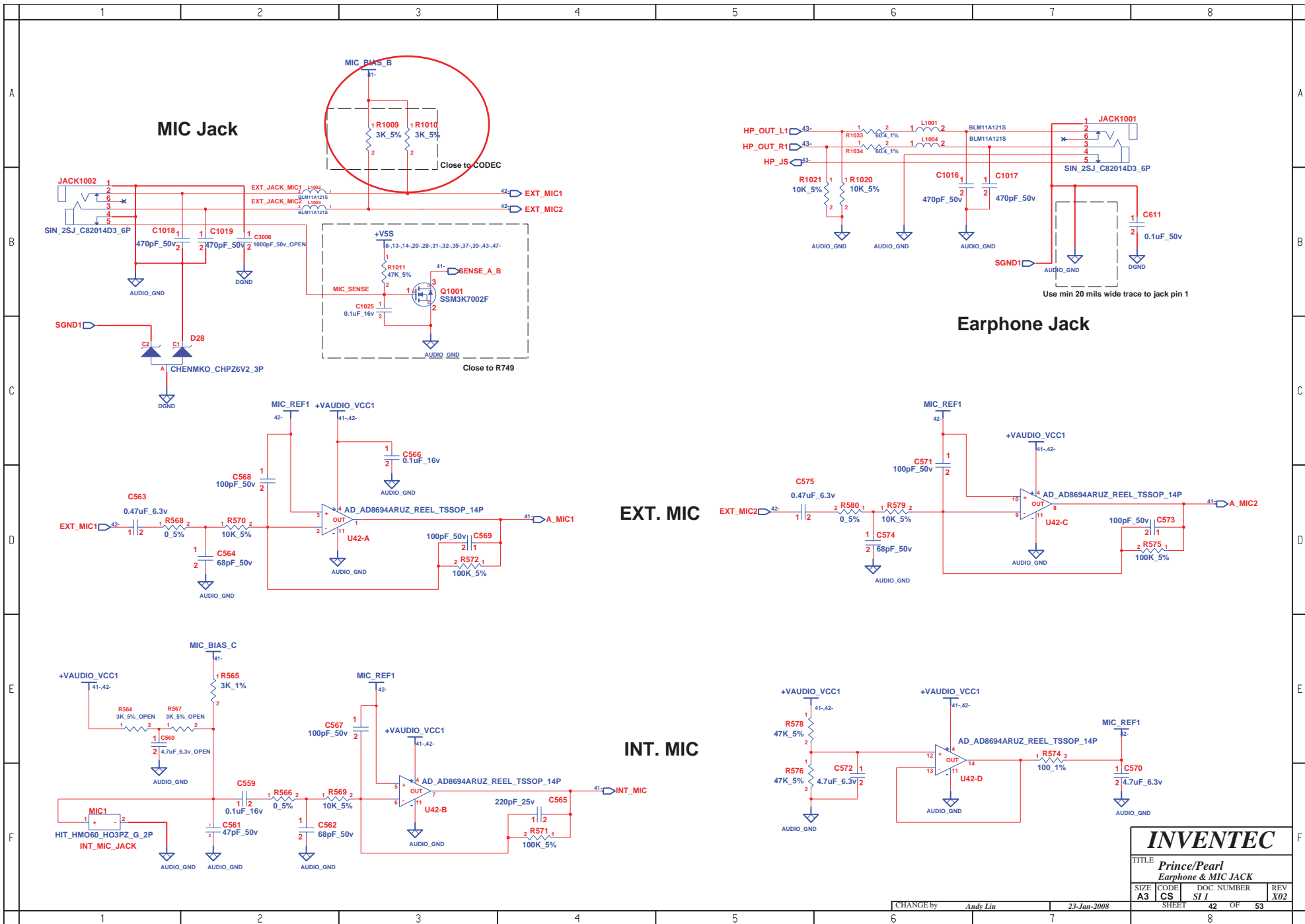
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TITLE: **Prince/Pearl**
AZALIA CODEC

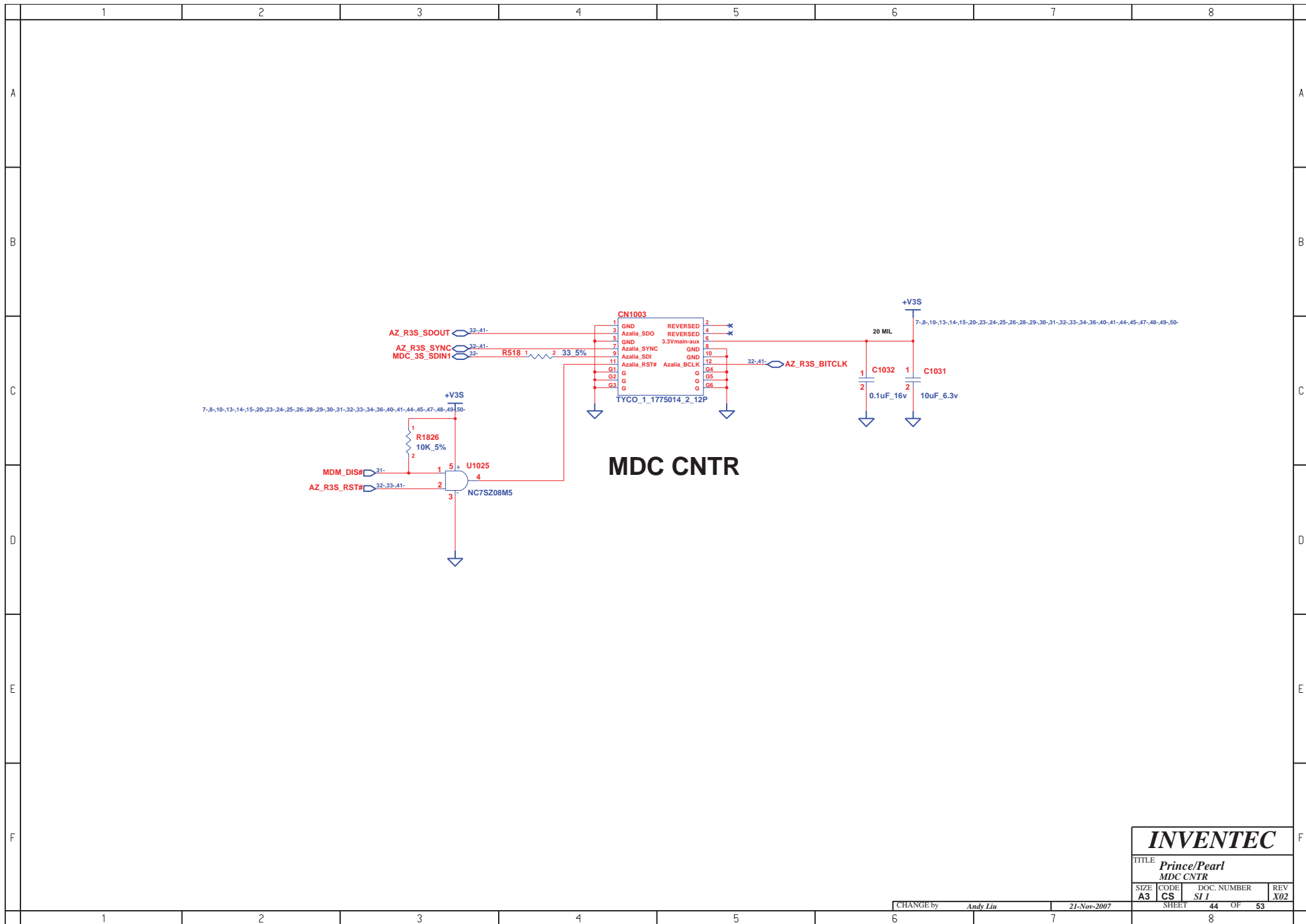
SIZE	CODE	DOC. NUMBER	REV
A3	CS	SI 1	X02

CHANGE by *Andy Liu* 21-Nov-2007

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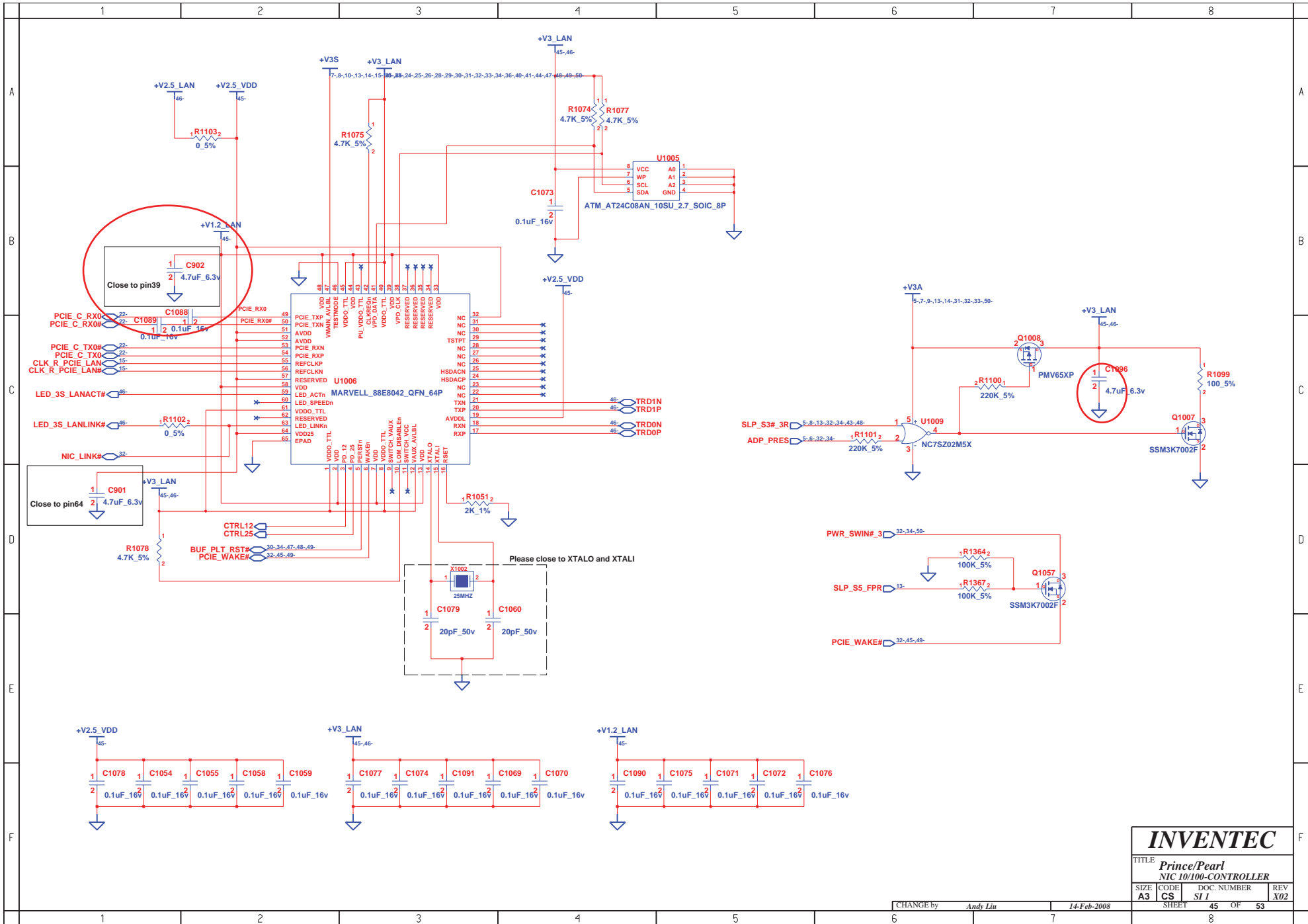


INVENTEC			
TITLE: Prince/Pearl Earphone & MIC JACK			
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CHANGE by: Andy Liu		23-Jan-2008	
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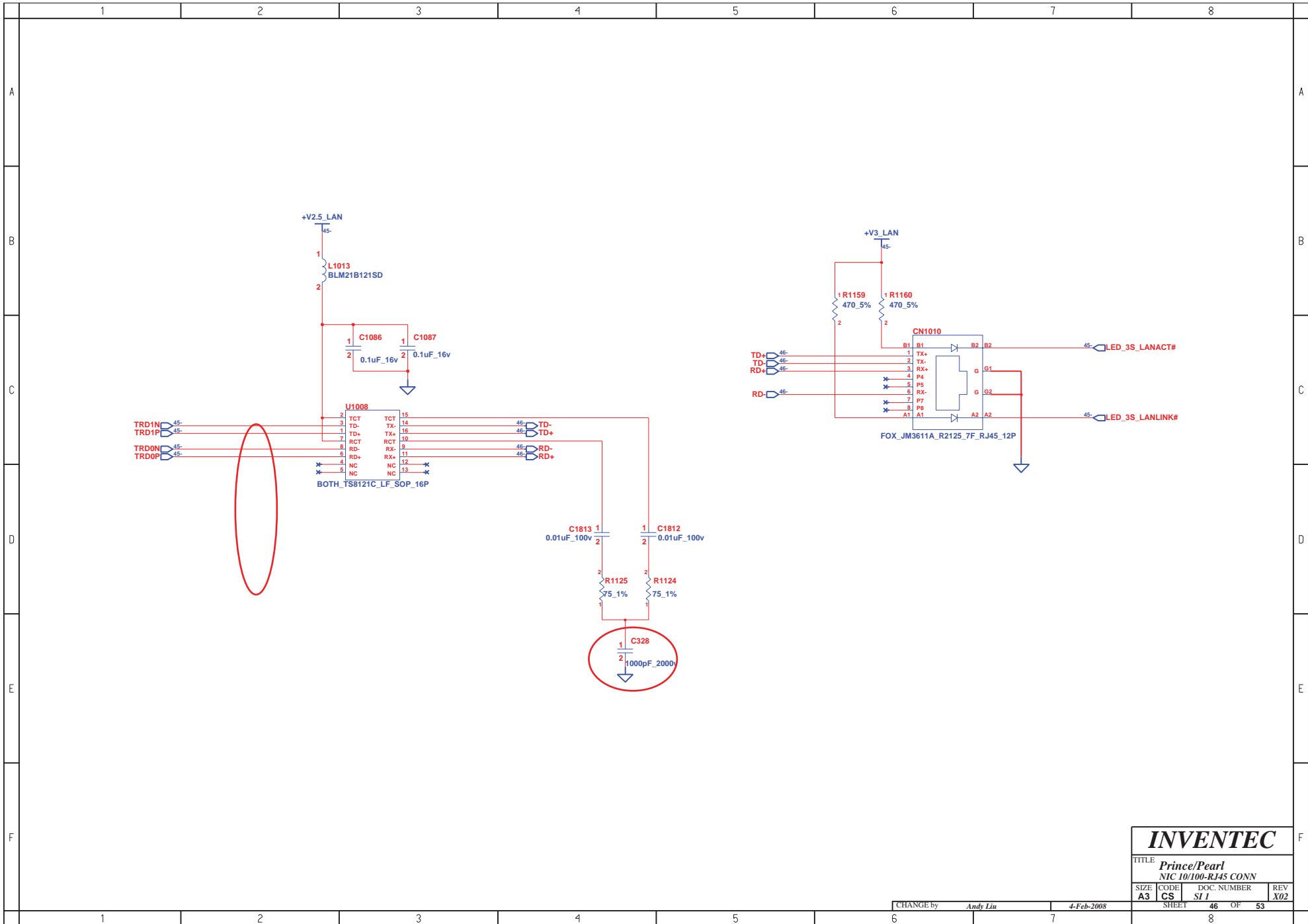


MDC CNTR

INVENTEC			
TITLE <i>Prince/Pearl</i> MDC CNTR			
SIZE A3	CODE CS	DOC. NUMBER <i>SI1</i>	REV X02
CHANGE by <i>Andy Liu</i>		21-Nov-2007	
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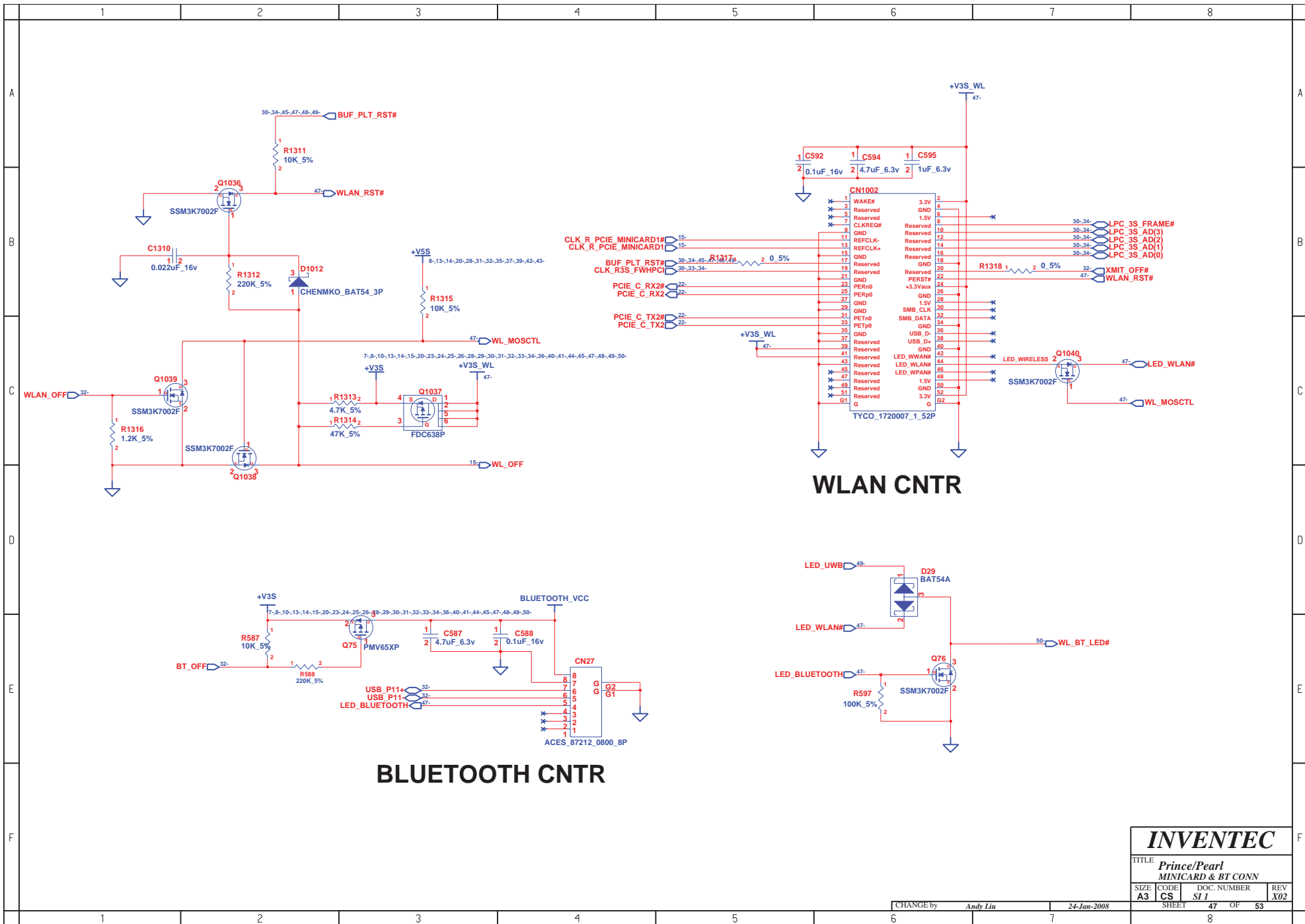
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SIZE A3	CODE CS	DOC. NUMBER SI 1	REV X02
CHANGE by <i>Andy Liu</i>		14-Feb-2008	
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INVENTEC

TITLE			
Prince/Pearl			
NIC 10/100-RJ45 CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	S11	X02

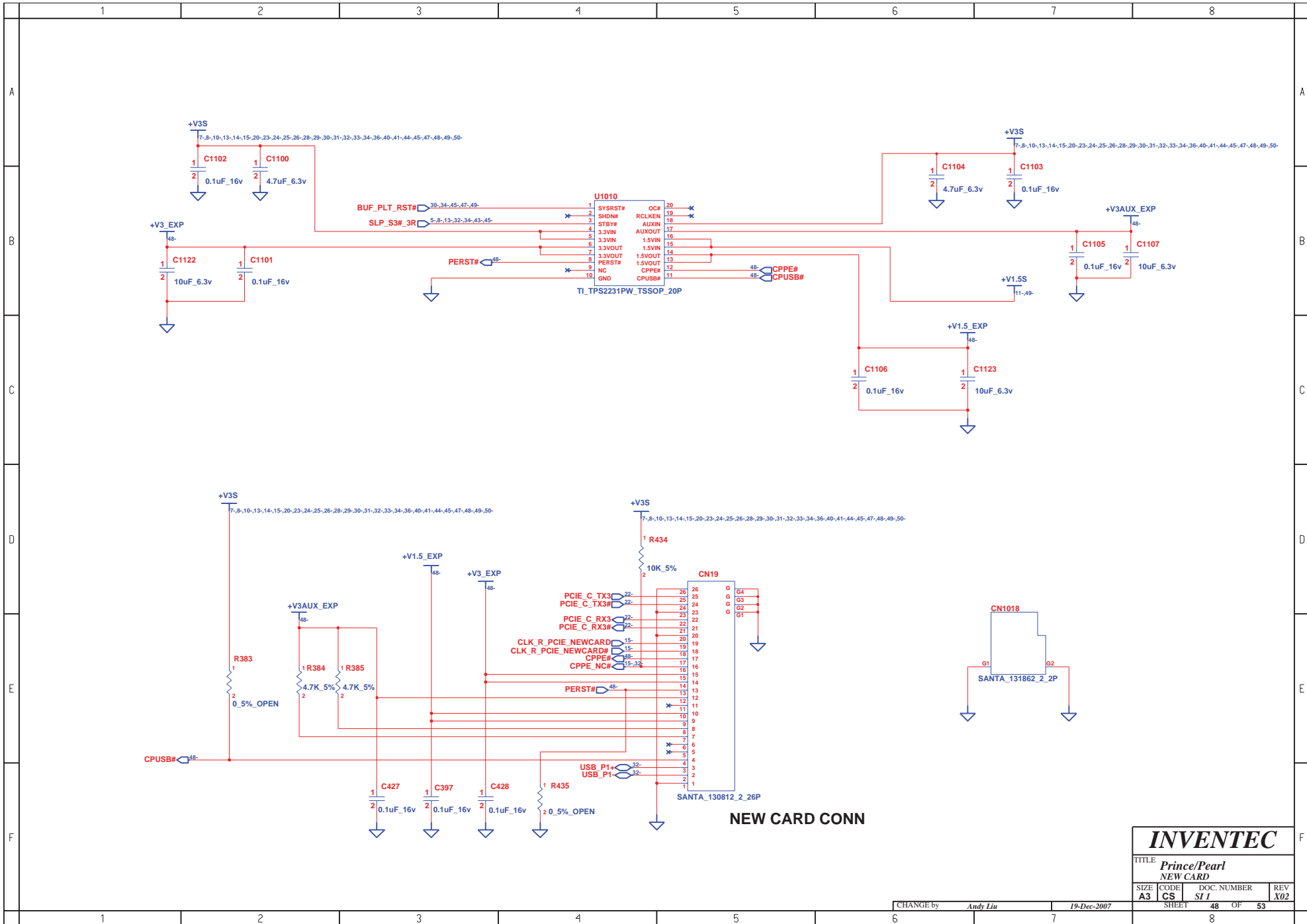
CHANGE by	Andy Liu	4-Feb-2008	SHEET	46	OF	53
				8		



WLAN CNTR

BLUETOOTH CNTR

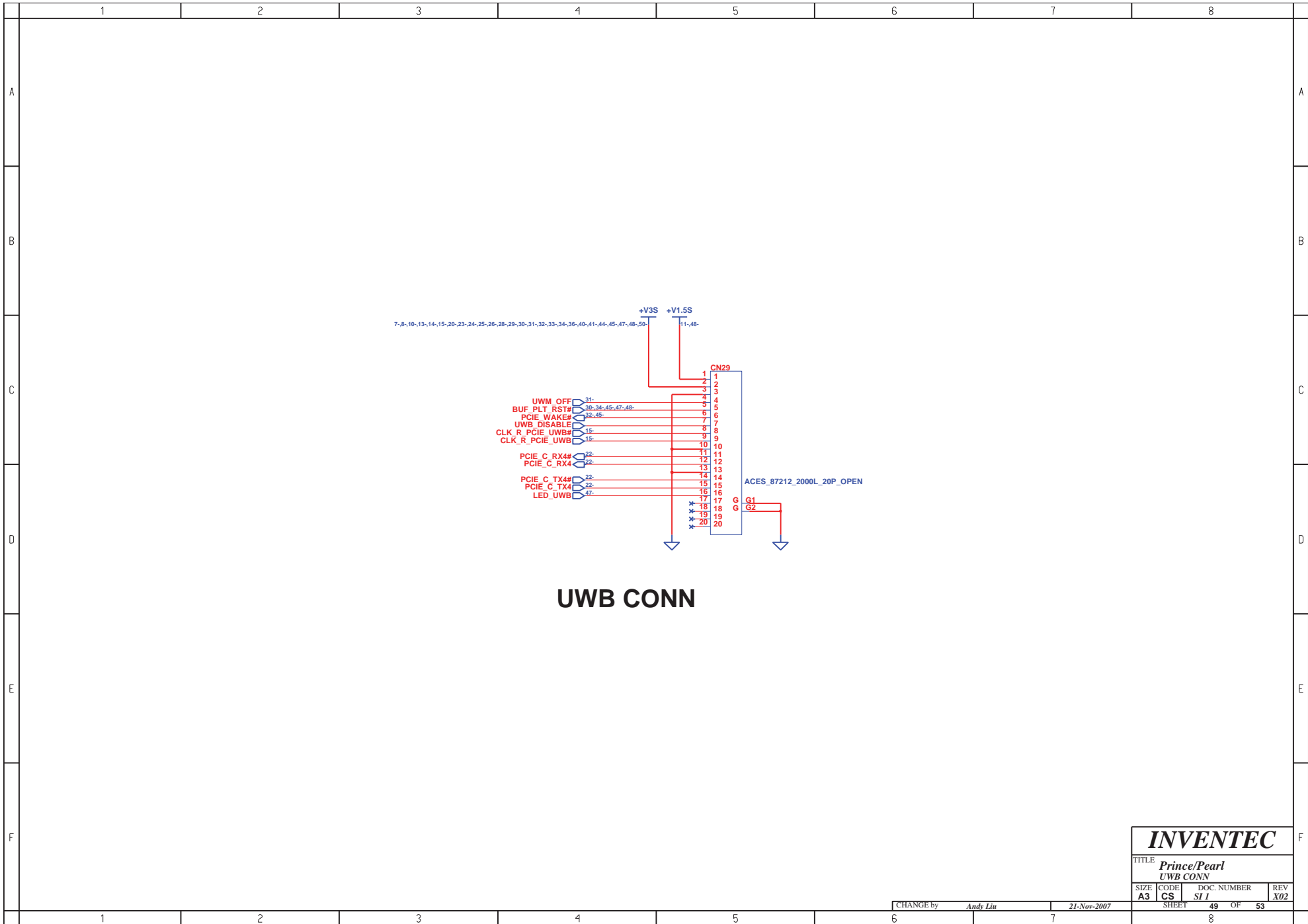
INVENTEC			
TITLE <i>Prince/Pearl</i> MINICARD & BT CONN			
SIZE A3	CODE CS	DOC. NUMBER <i>SI 1</i>	REV X02
CHANGE by <i>Andy Liu</i>		24-Jan-2008	
		SHEET 47 OF 53	



INVENTEC

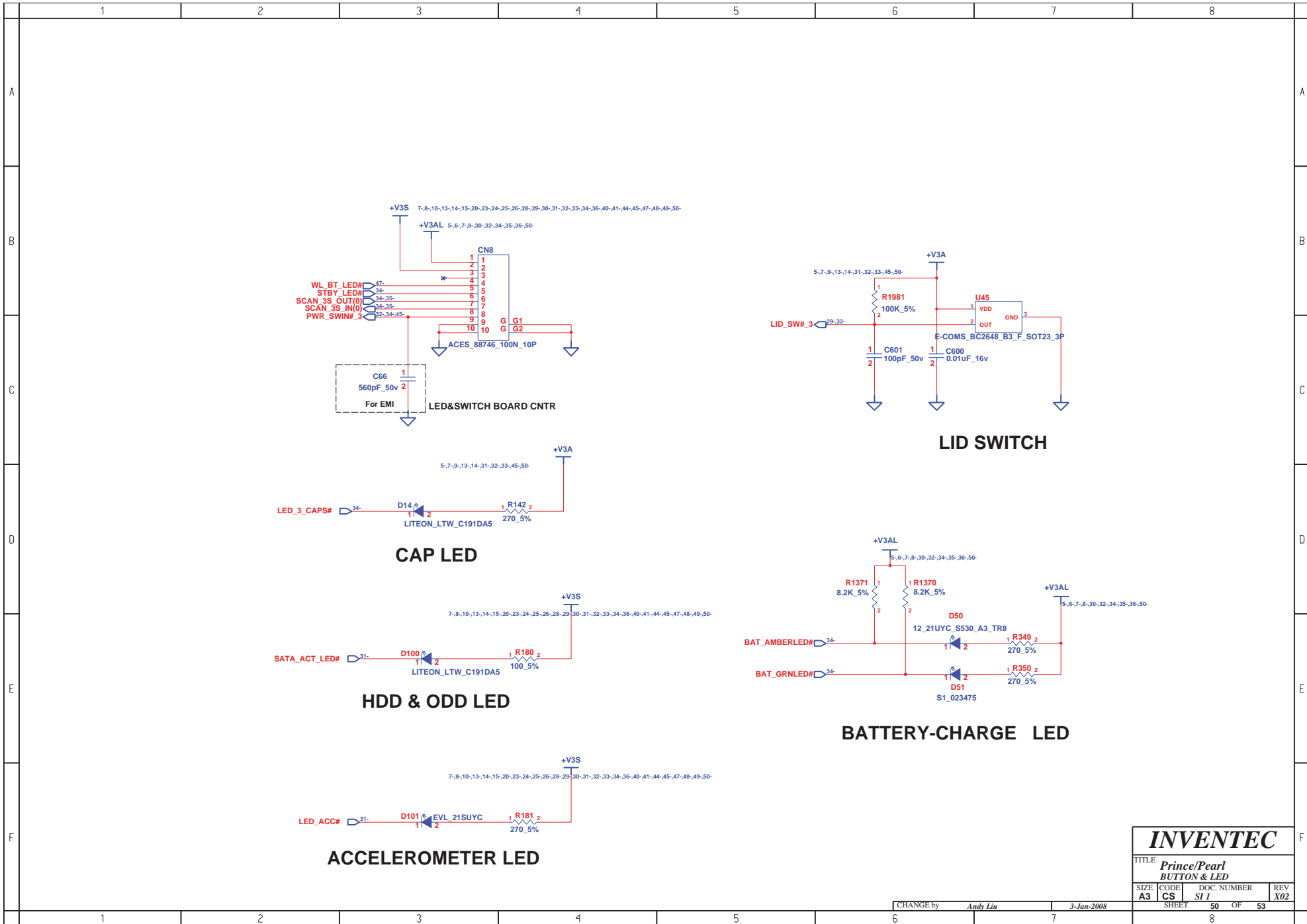
TITLE			
Prince/Pearl NEW CARD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	SI 1	X02

CHANGE by	Andy Liu	19-Dec-2007	SHEET	48	OF	53
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UWB CONN

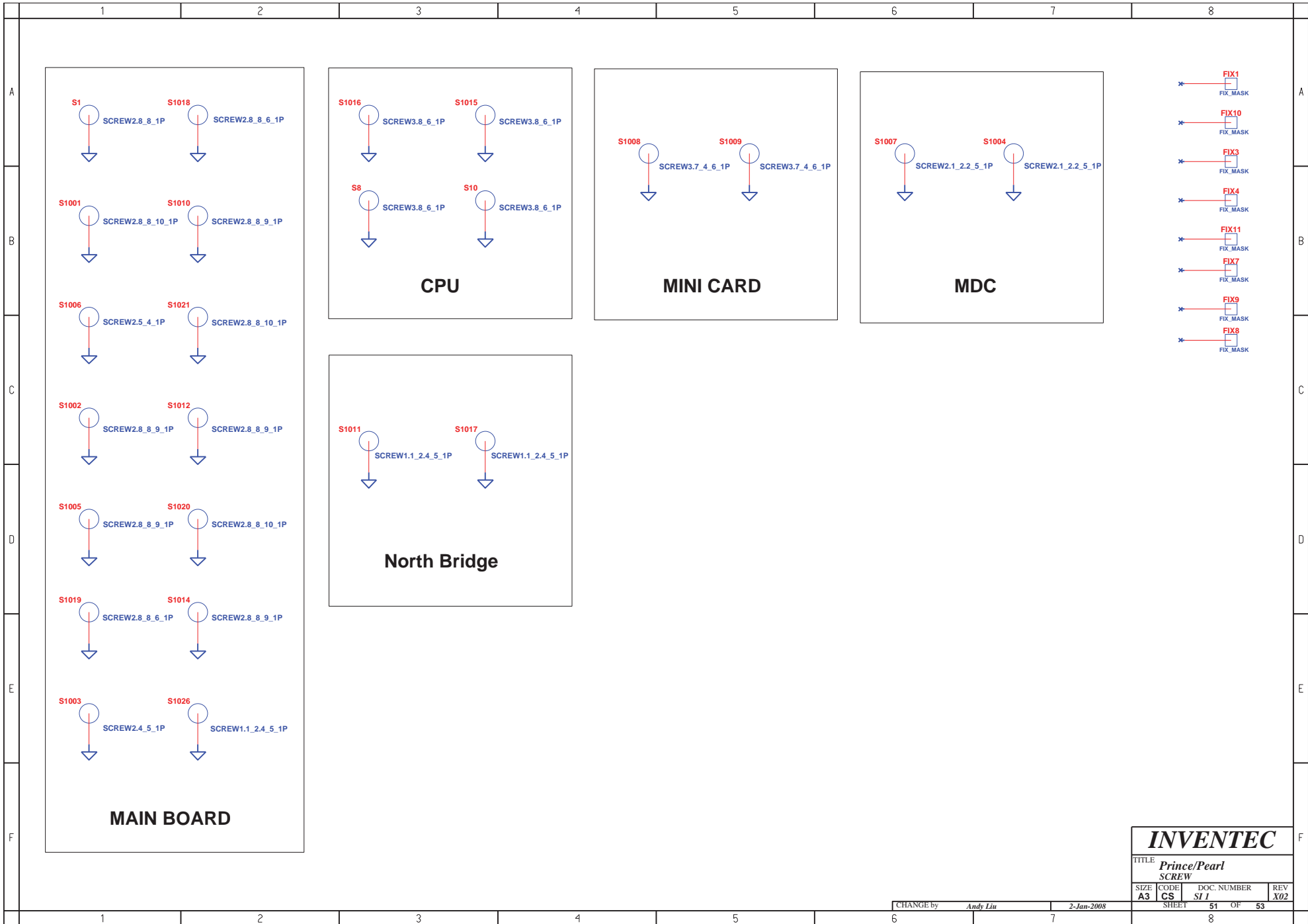
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UWB CONN			
SIZE A3	CODE CS	DOC. NUMBER <i>S11</i>	REV X02
CHANGE by <i>Andy Liu</i>		21-Nov-2007	
SHEET		49	OF 53
		8	

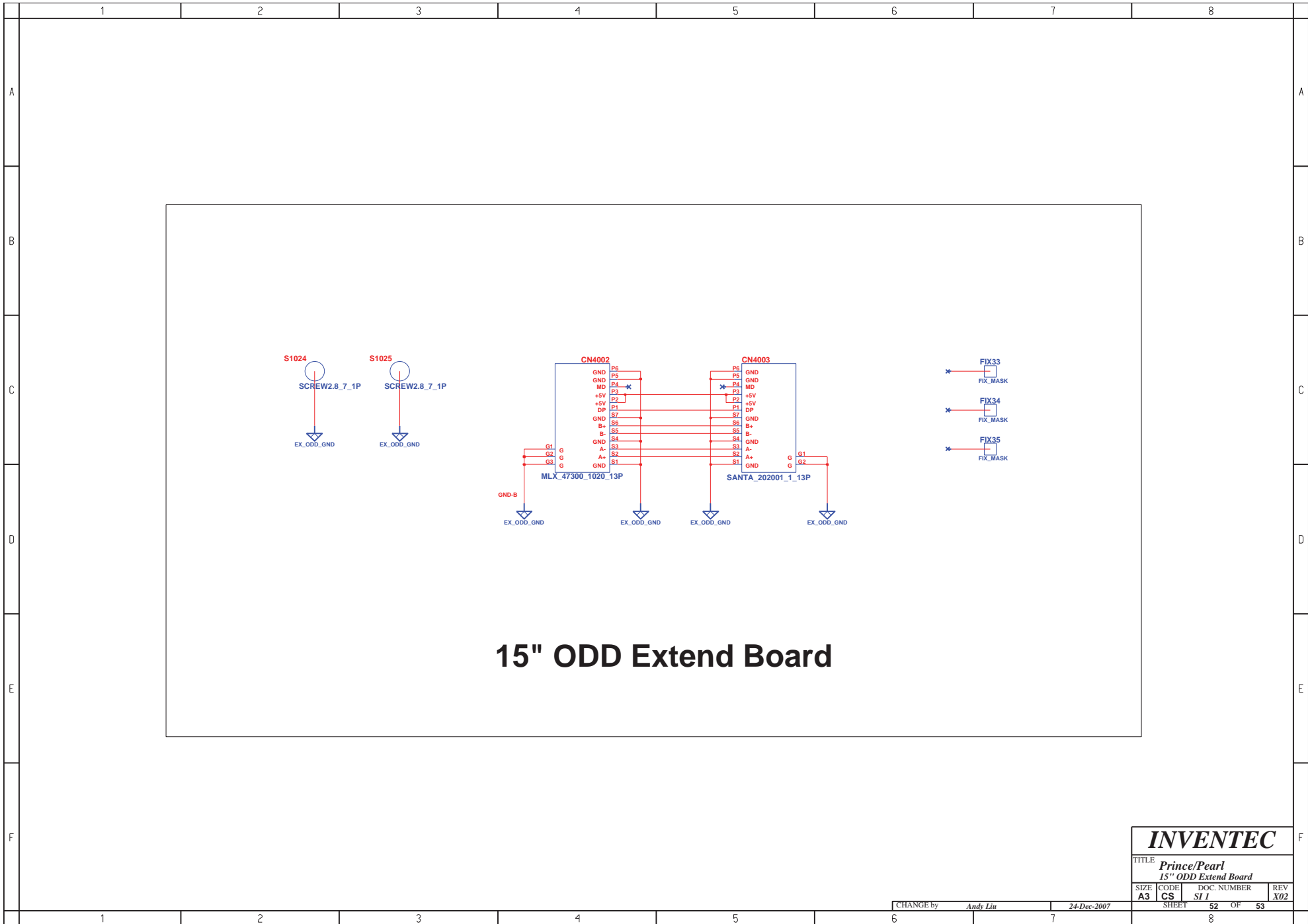


INVENTEC

TITLE			
Prince/Pearl BUTTON & LED			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	S11	X02

CHANGE by	Andy Liu	3-Jan-2008	SHEET	50	OF	53
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15" ODD Extend Board

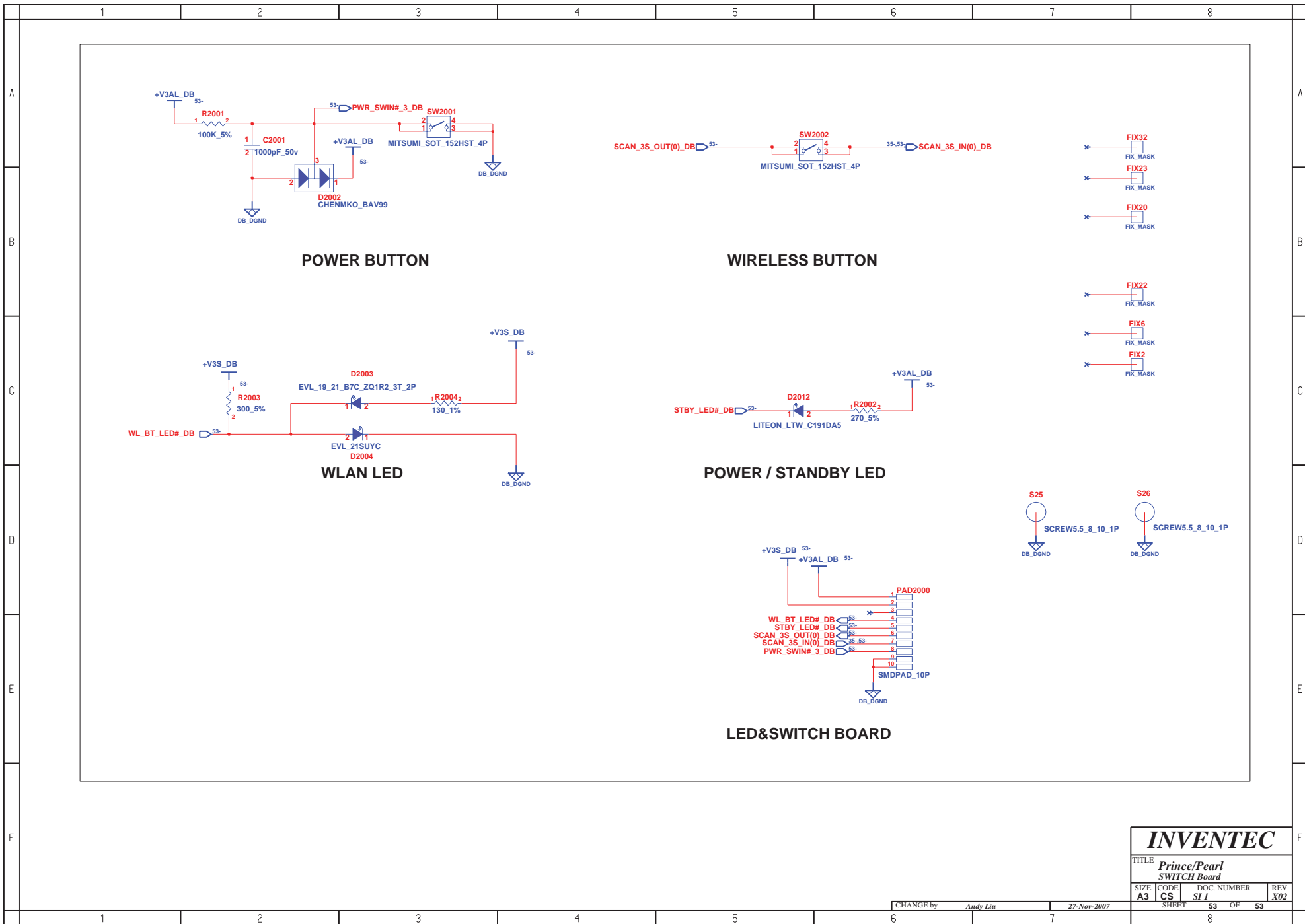
INVENTEC

TITLE
Prince/Pearl
 15" ODD Extend Board

SIZE A3	CODE CS	DOC. NUMBER S11	REV X02
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CHANGE by *Andy Liu* 24-Dec-2007

SHEET 52 OF 53



INVENTEC

TITLE			
Prince/Pearl SWITCH Board			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	SI 1	X02

CHANGE by	Andy Liu	27-Nov-2007	SHEET	53	OF	53
				8		