

Index Of Content

PAGE

- 01- Project Name
- 02- Index
- 03- Power Sequence
- 04- Power Procedure
- 05- Block Diagram
- 06- DC & BATTERY CHARGER
- 07- BATTERY CONN
- 08- +V5A & +V3A & +V2.5S
- 09- +V1.1A & +VDDA
- 10- +VCC_CORE & +VDDIO_SUS&+V0.75S
- 11- +APU_VDD&+VDDNB
- 12- +VDDP&+V1.8S
- 13- +V5S&+V3S&+V1.5S
- 14- +GPU_VDDC&+VPCIE
- 15- BLANK
- 16- Reserve
- 17- BLANK
- 18- CPU-1
- 19- CPU-2
- 20- CPU-3
- 21- CPU-4
- 22- DDR3 DIMM0
- 23- DDR3 DIMM1
- 24- FAN & THERMAL IC
- 25- FCH-1
- 26- FCH-2
- 27- FCH-3
- 28- FCH-4
- 29- FCH-5
- 30- FCH-6

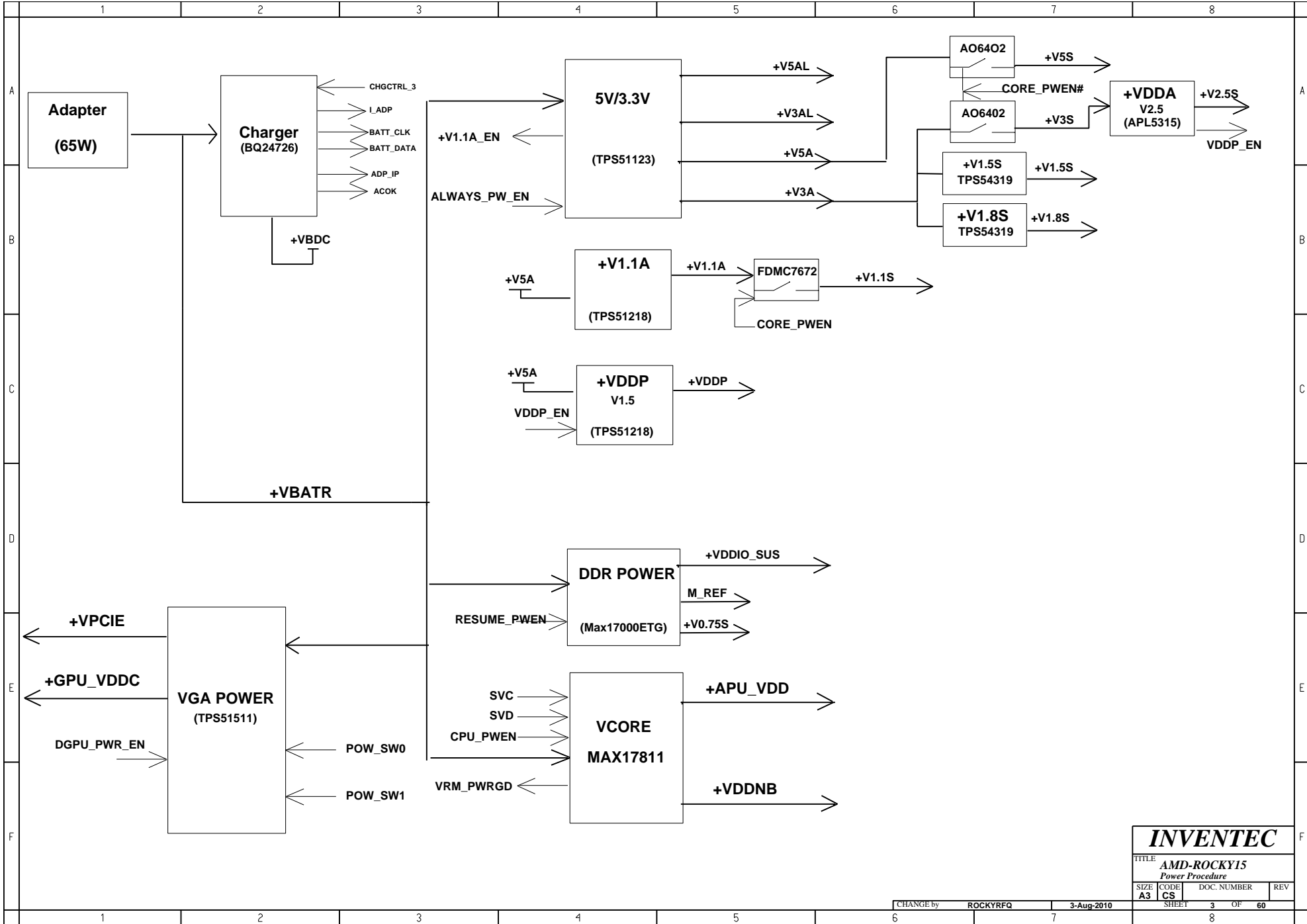
PAGE

- 31- GPU-1
- 32- GPU-2
- 33- GPU-3
- 34- GPU-4
- 35- GPU-5
- 36- GPU-6
- 37- VRAM-1
- 38- VRAM-2
- 39- KBC
- 40- HDMI
- 41- BLANK
- 42- CRT
- 43- LCM
- 44- Keyboard CONN & Indicate LED
- 45- Card reader-RTS5219
- 46- SATA HDD & SATA ODD CONN
- 47- NA
- 48- USB CONN
- 49- LAN
- 50- RJ45 CONN
- 51- AUDIO CODEC & SPEAKER CONN
- 52- HP JACK & MIC JACK
- 53- LED BOARD ON MB
- 54- SCREW
- 55- WLAN&BT

PAGE

- 56- PICK BUTTON BOARD & LED BOARD
- 57- USB BOARD & BUTTON BOARD
- 58- SATA HDD BOARD
- 59- TRAVIS
- 60- STRAP

INVENTEC			
TITLE ROCKY-AMD			
Index			
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CHANGE by <i>Ken Chiang</i>		6-Aug-2010	
SHEET		2	OF 60
		8	

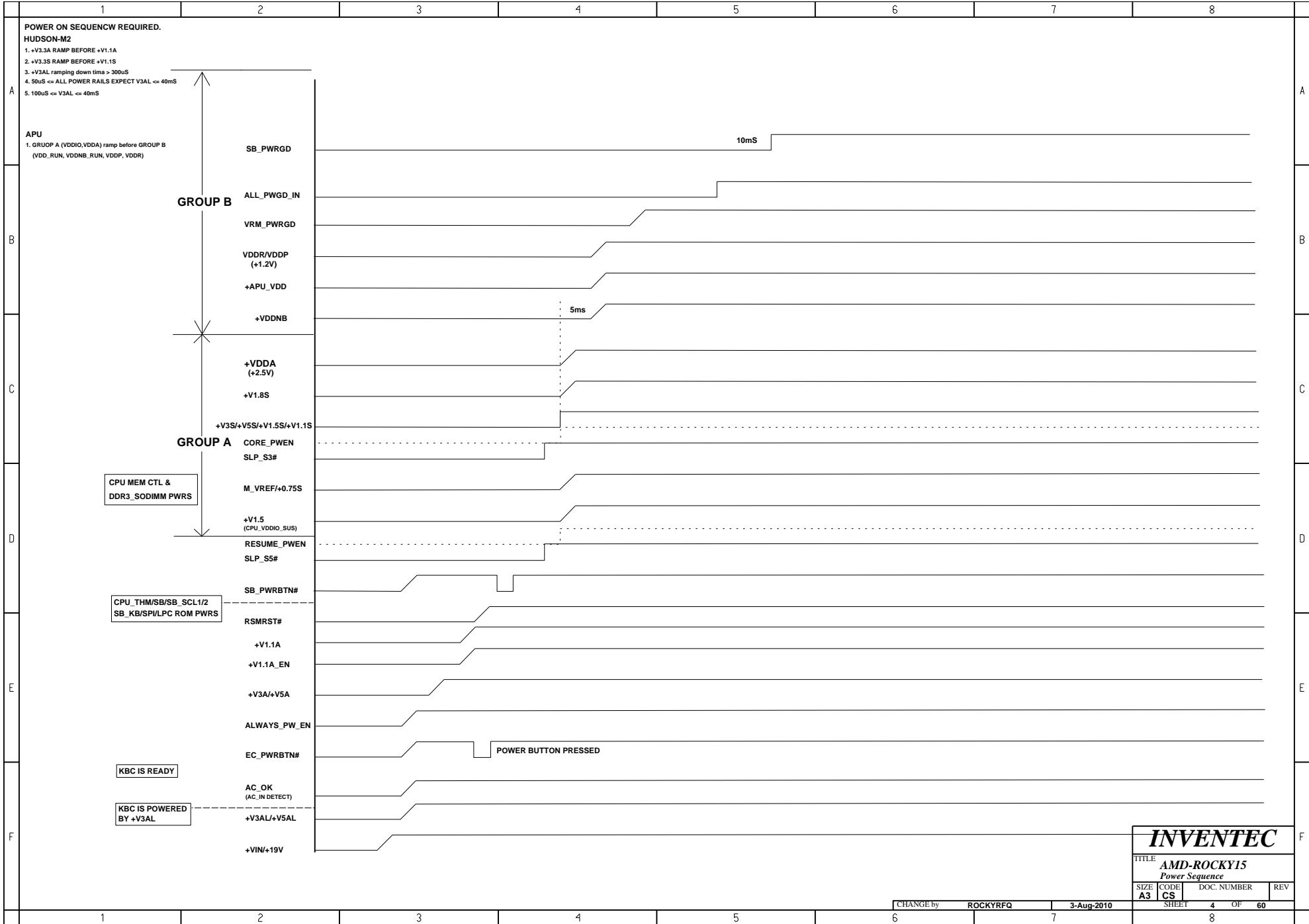


INVENTEC

TITLE: **AMD-ROCKY15**
Power Procedure

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A3	CS		

CHANGE by: ROCKYRFQ 3-Aug-2010 SHEET 3 OF 60



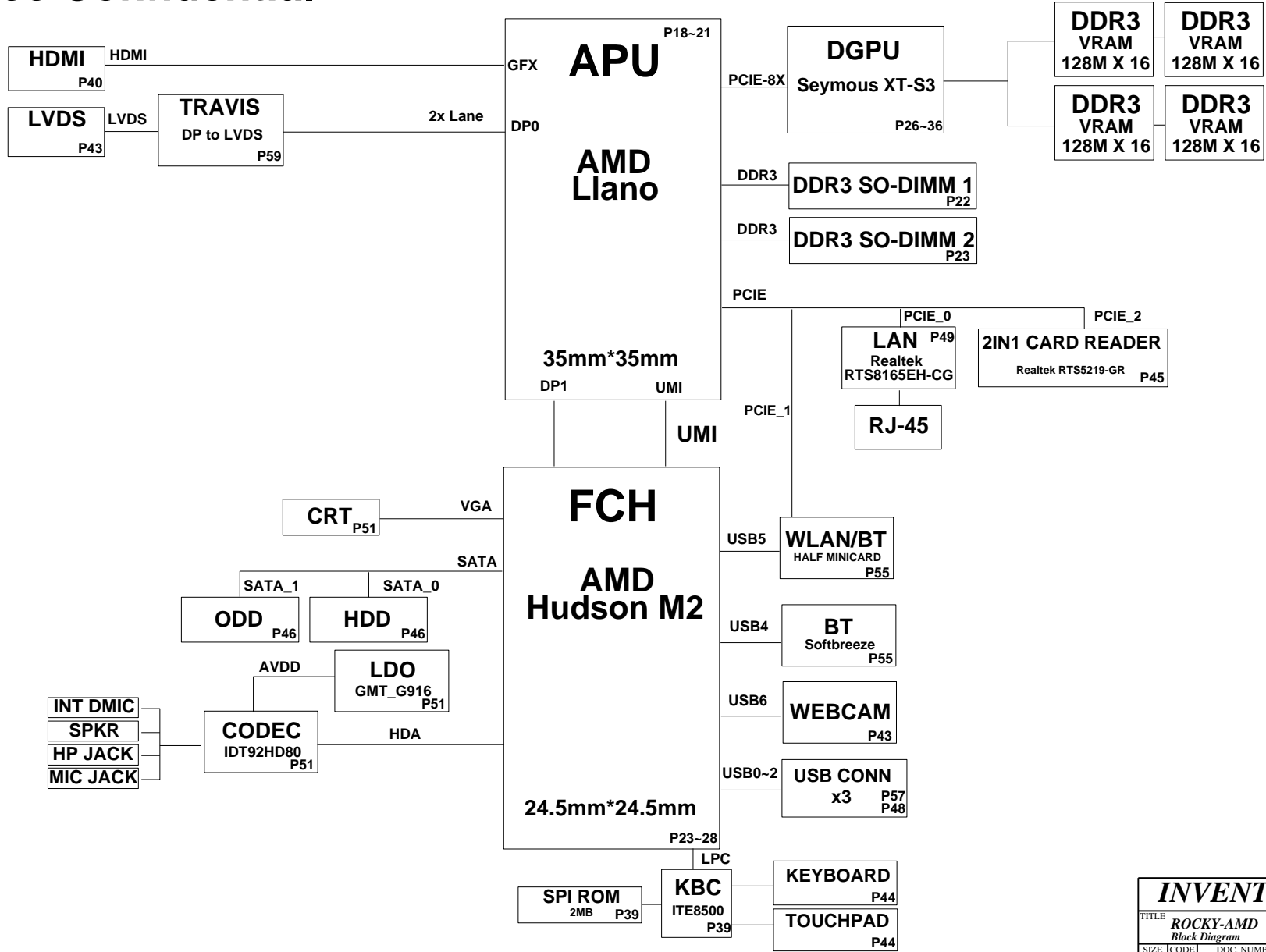
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TITLE
AMD-ROCKY15
Power Sequence

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SHEET		4 OF	60
		8	

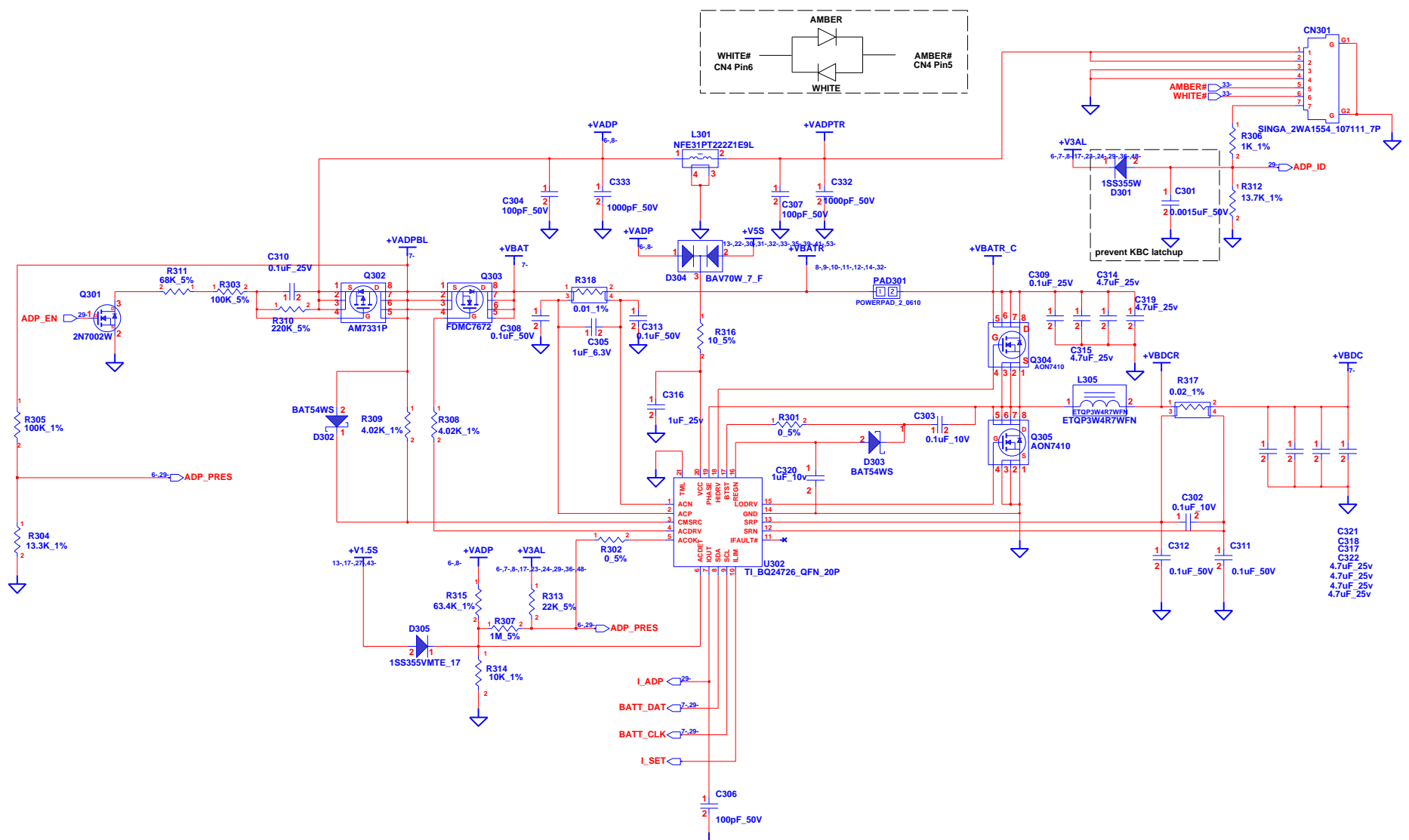
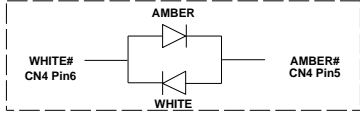
Inventec Confidential

Sabine - DIS



INVENTEC			
TITLE: ROCKY-AMD			
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SIZE	CODE	DOC. NUMBER	REV
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CHANGE by		SHEET	
Ken, Chiang		5 OF 60	

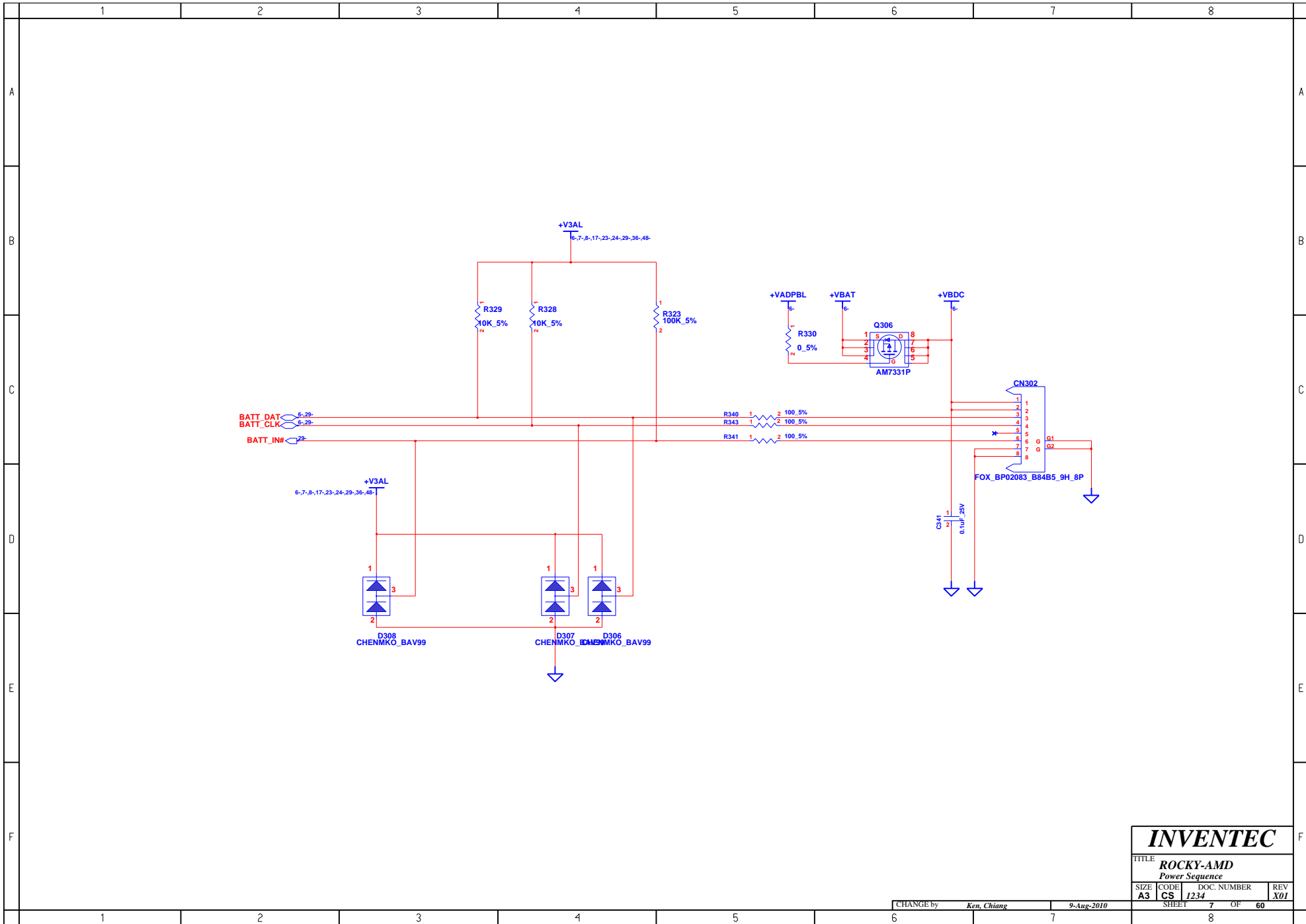
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INVENTEC

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ROCKY-AMD			
Power Procedure			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01

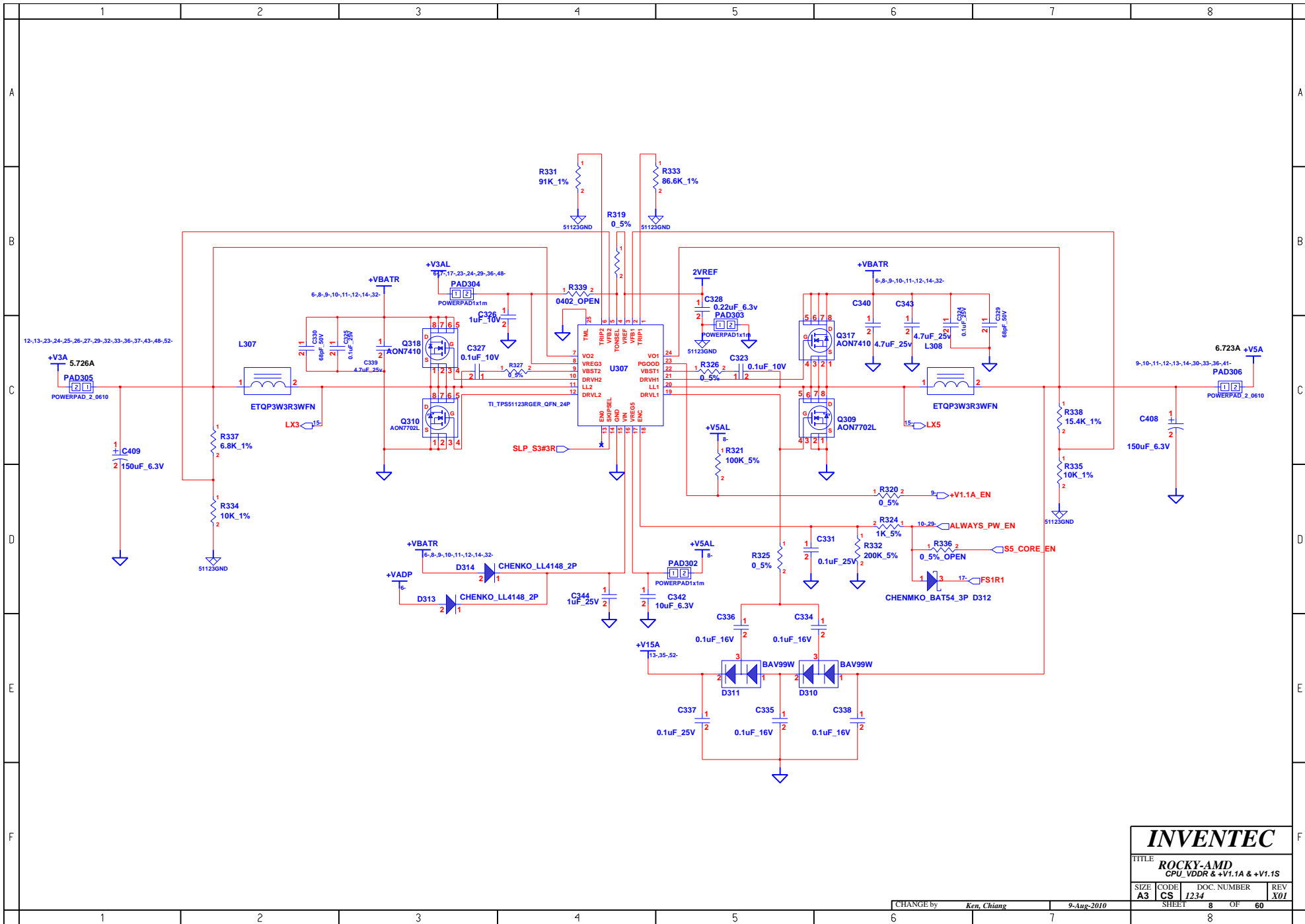
CHANGE by	Ken Chiang	9-Aug-2010	SHEET	6	OF	60
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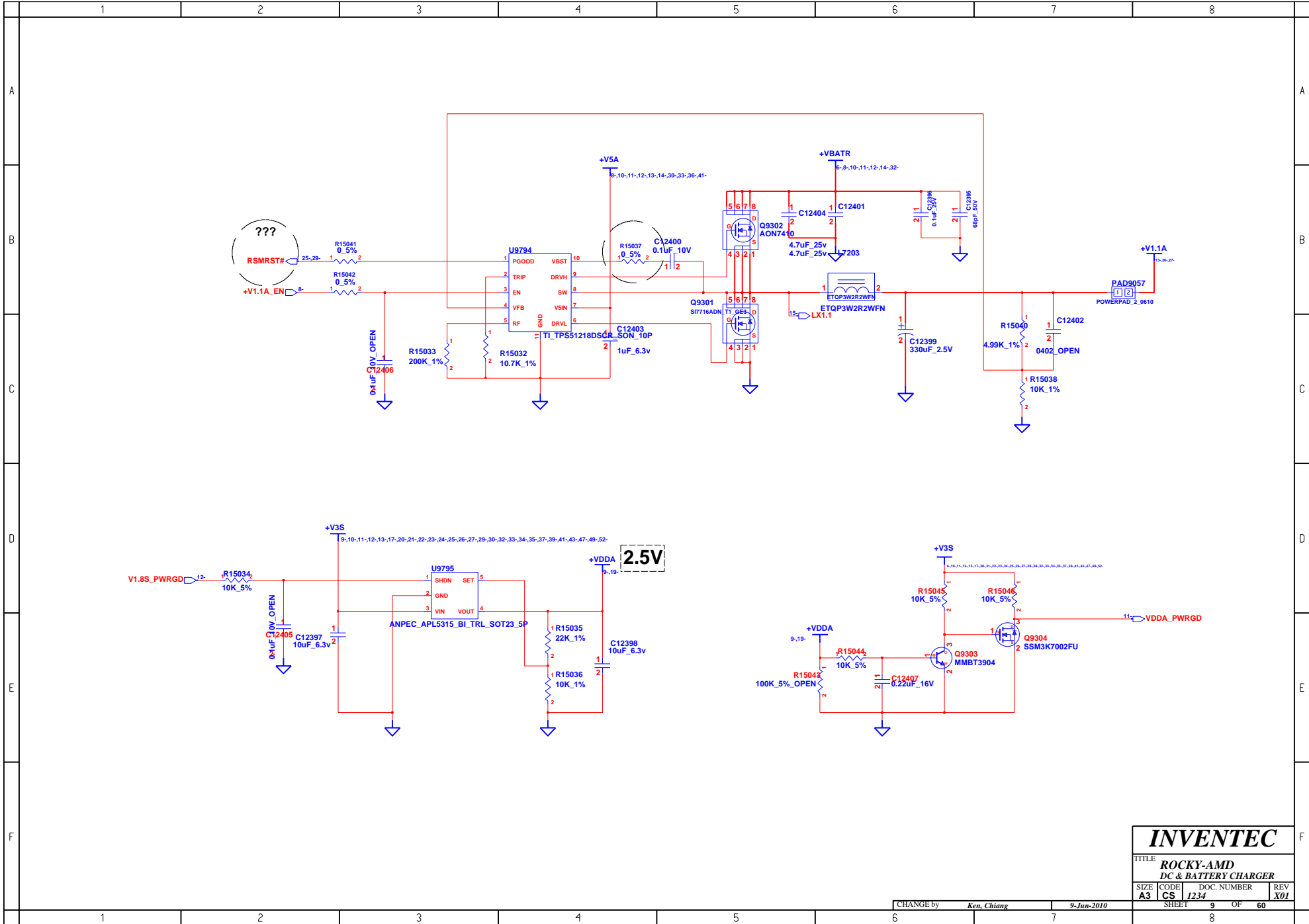
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TITLE			
ROCKY-AMD			
Power Sequence			
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A3	CS	123J	X01
CHANGE by		SHEET	OF
Ken, Chiang		7	60

9-Aug-2010



INVENTEC			
TITLE: ROCKY-AMD			
CPU_VDDR & +V1.1A & +V1.1S			
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A3	CS	123J	X01
CHANGE by		SHEET	
Ken Chiang		8 OF 60	
9-Aug-2010		8	



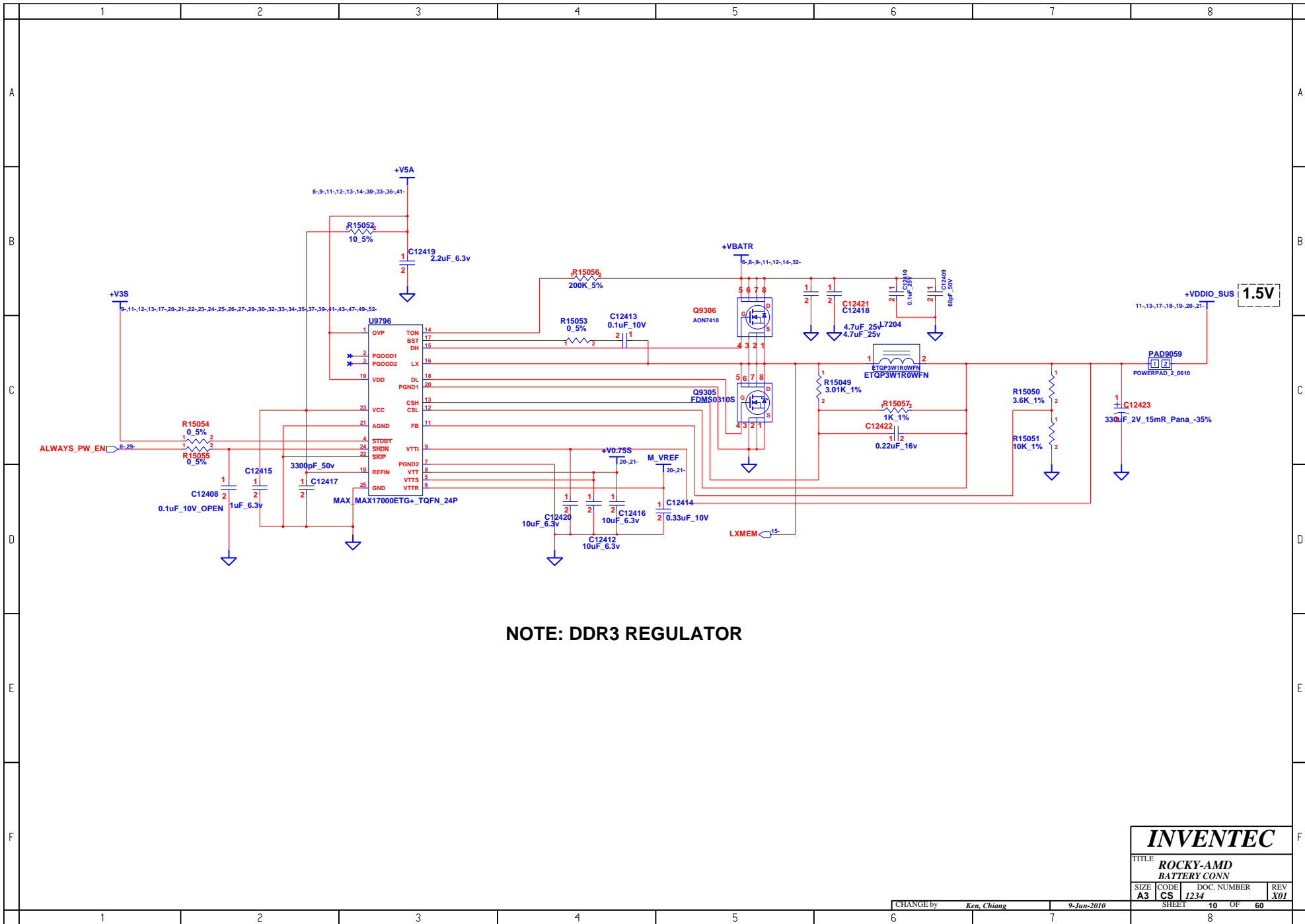
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TITLE
**ROCKY-AMD
 DC & BATTERY CHARGER**

SIZE CODE DOC. NUMBER REV
A3 CS 123J X01

CHANGE by *Ken Chiang* 9-Jun-2010

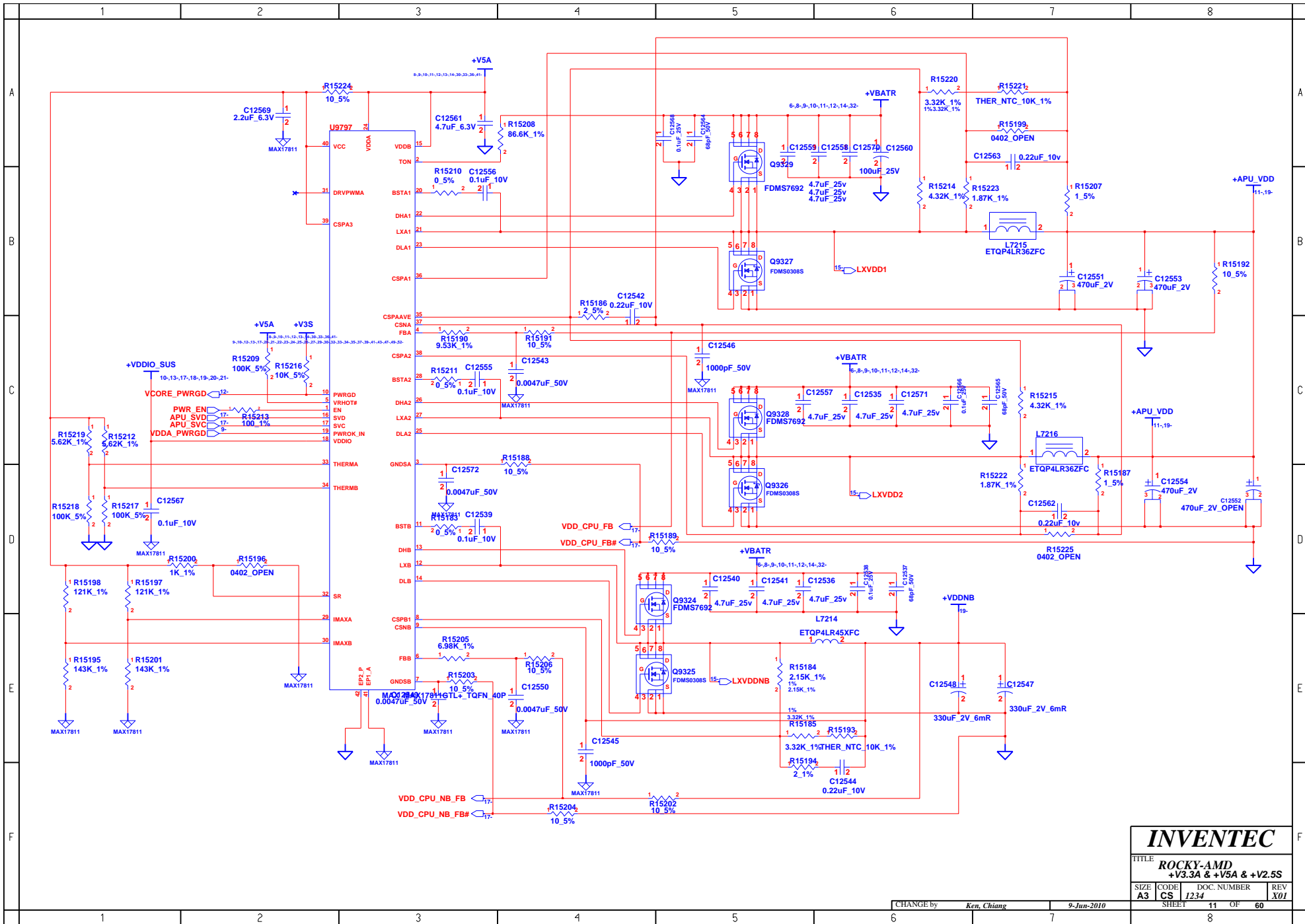
SHEET 9 OF 60



NOTE: DDR3 REGULATOR

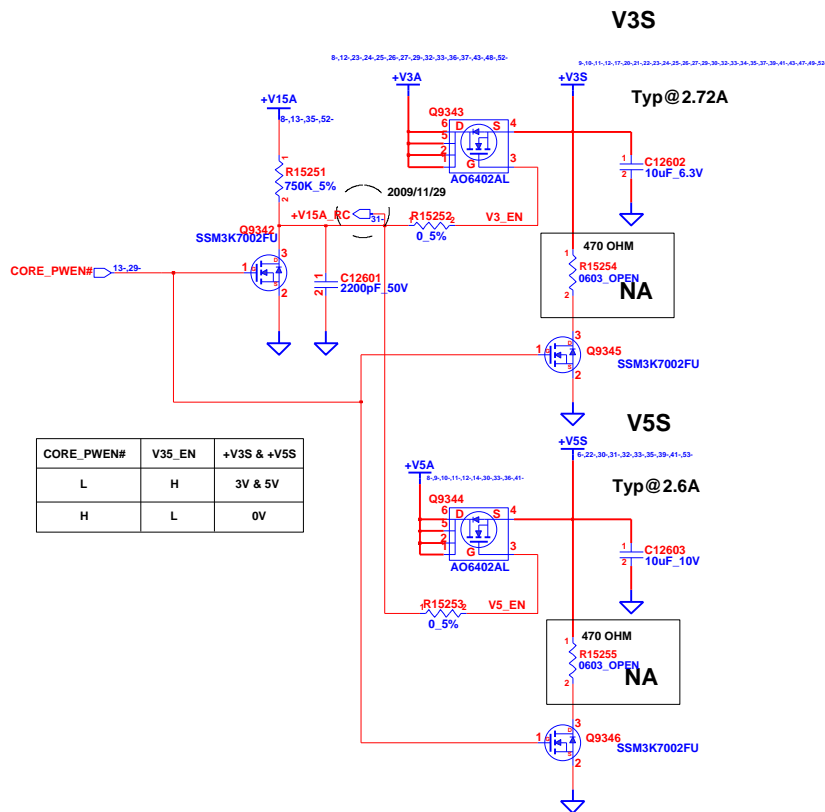
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BATTERY CONN			
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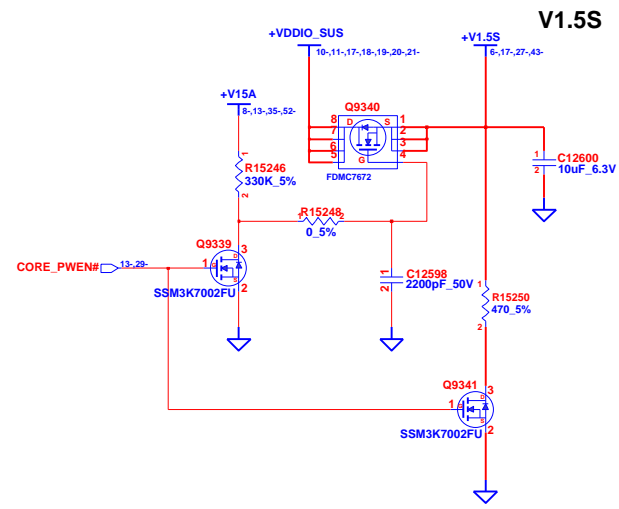
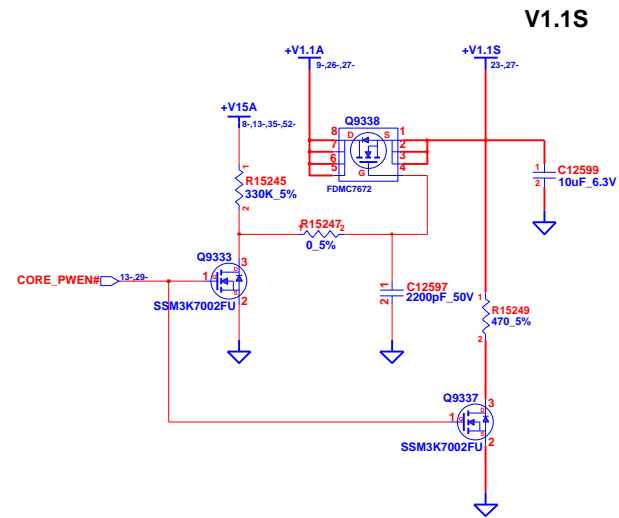


INVENTEC			
TITLE ROCKY-AMD +V3.3A & +V5A & +V2.5S			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01
SHEET		11	OF 60

CHANGE by *Ken Chiang* 9-Jun-2010

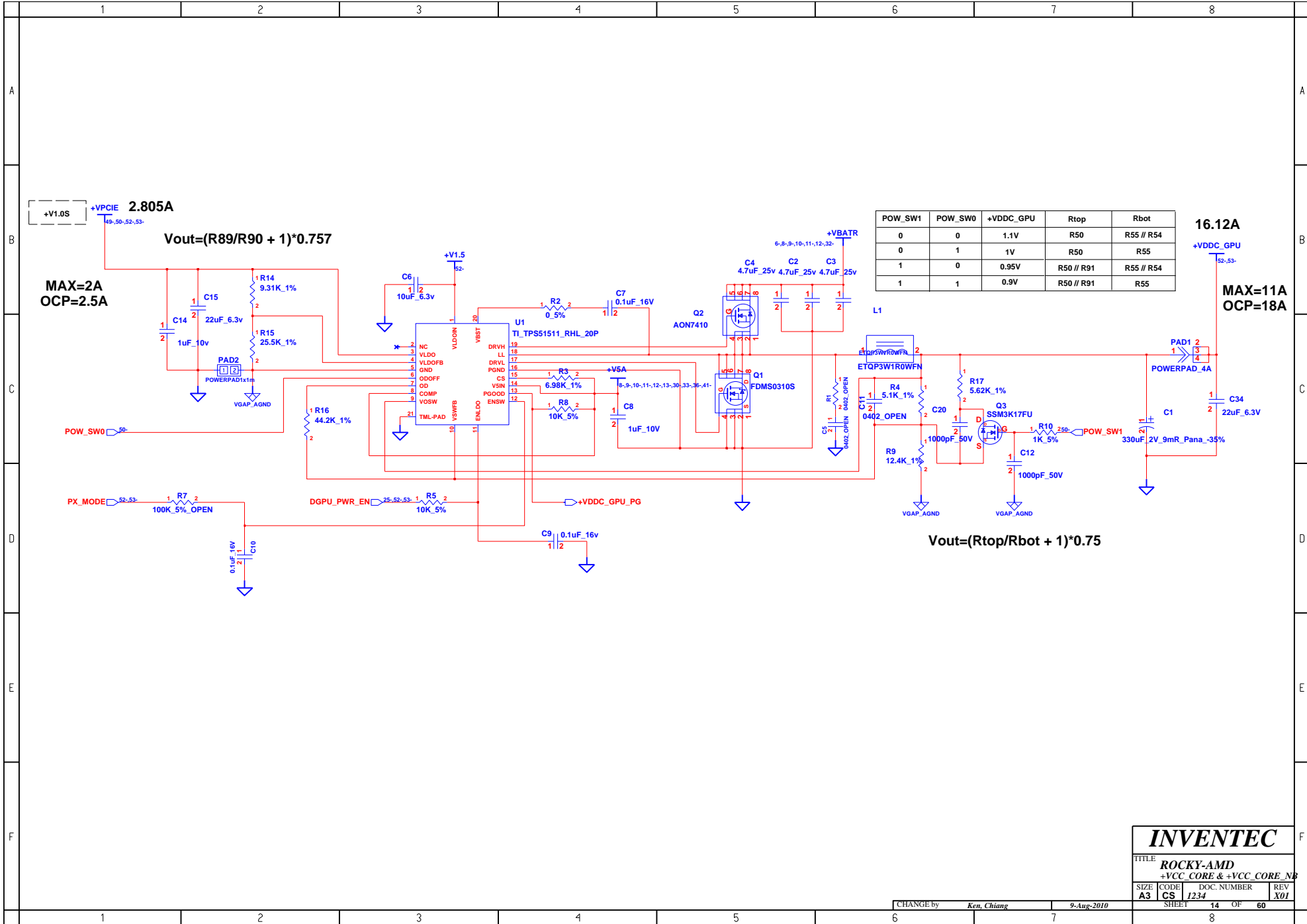


CORE_PWEN#	V35_EN	+V3S & +V5S
L	H	3V & 5V
H	L	0V



INVENTEC

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ROCKY-AMD			
DDR3 POWER			
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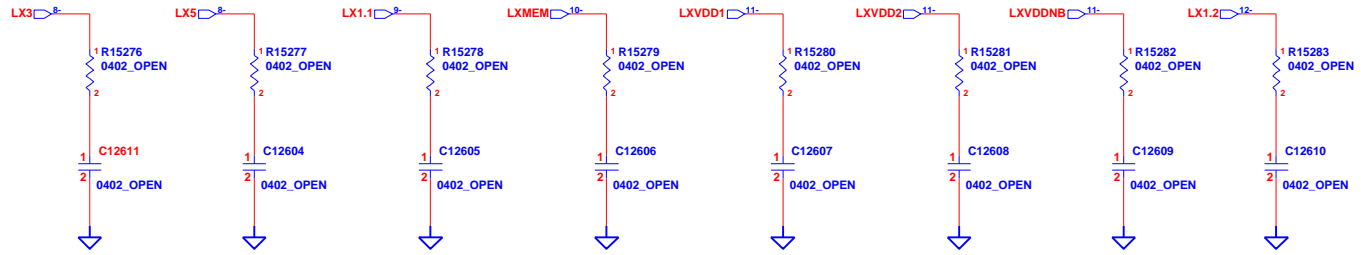


INVENTEC

TITLE: **ROCKY-AMD
+VCC_CORE & +VCC_CORE_NB**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01

CHANGE by: *Ken Chiang* 9-Aug-2010 SHEET 14 OF 60

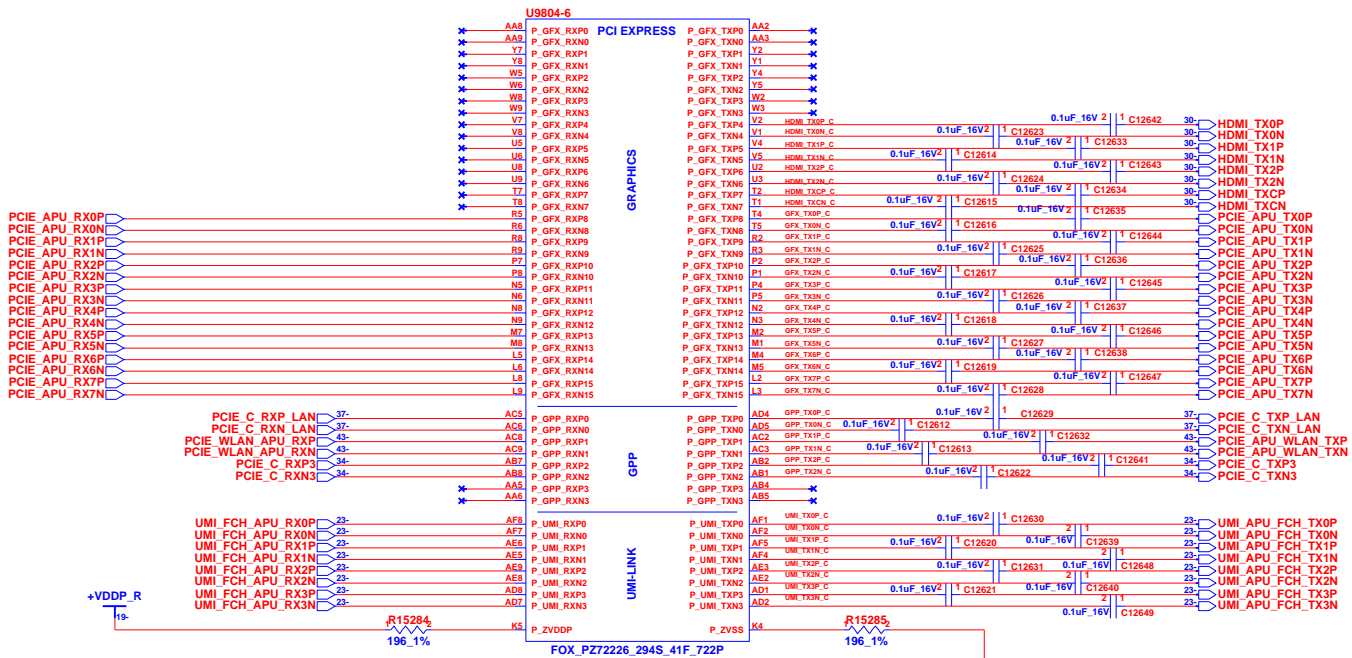


N/A

+V1.5S_LDO

INVENTEC			
TITLE ROCKY-AMD			
SIZE A3	CODE CS	DOC. NUMBER 1234	REV X01
CHANGE by <i>Ken Chiang</i>		3-Aug-2010	
SHEET		15	OF 60

CPU

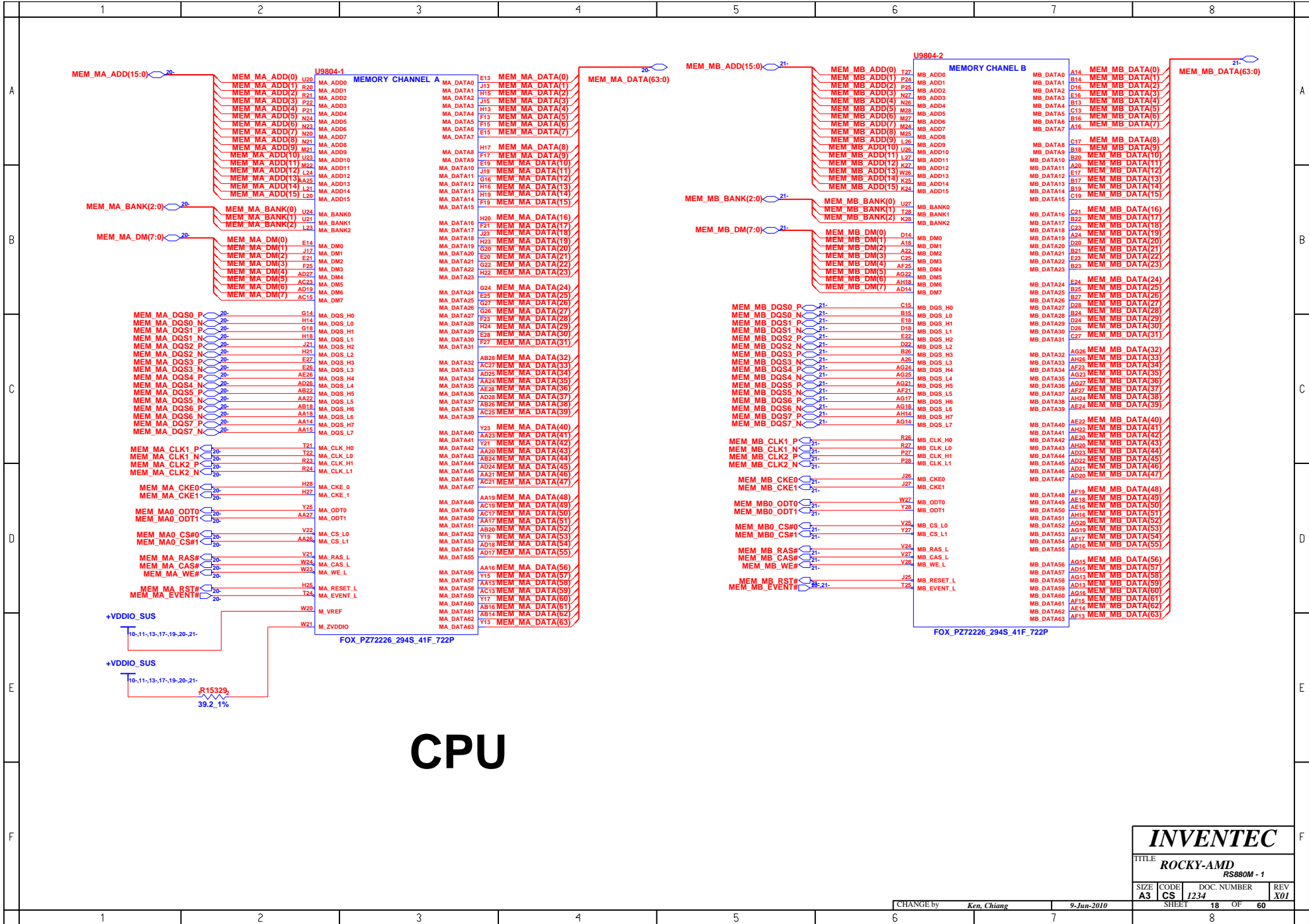


HDMI

PEG

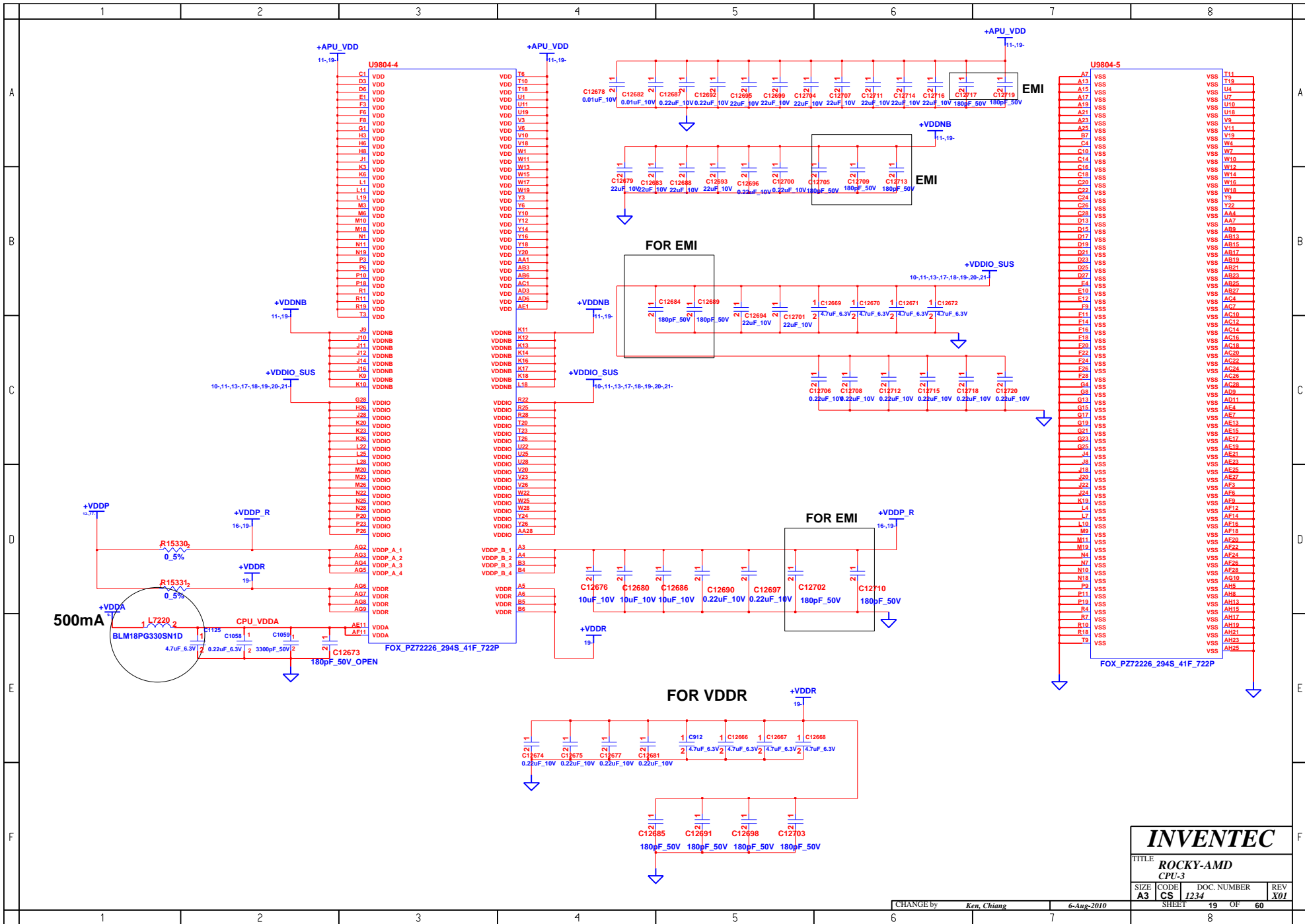
LAN
WLAN
CardReader

INVENTEC			
TITLE ROCKY-AMD			
+VSS & +V3.3S & +V1.5S & +V1.2S			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1234	X01
CHANGE by		SHEET	OF
Ken Chiang		16	60
9-Jun-2010		8	



CPU

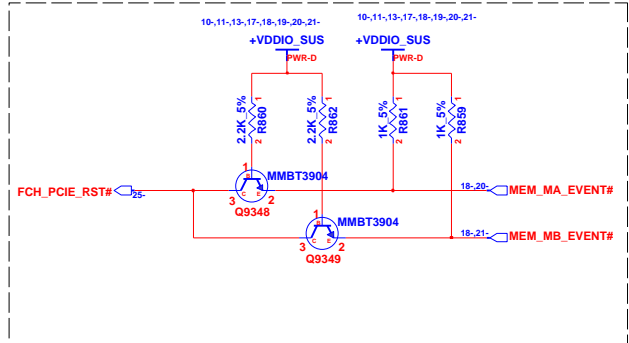
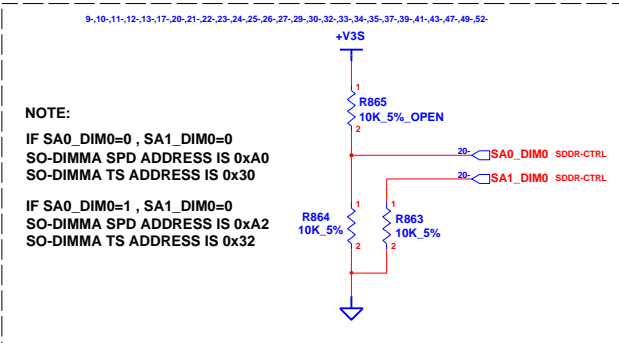
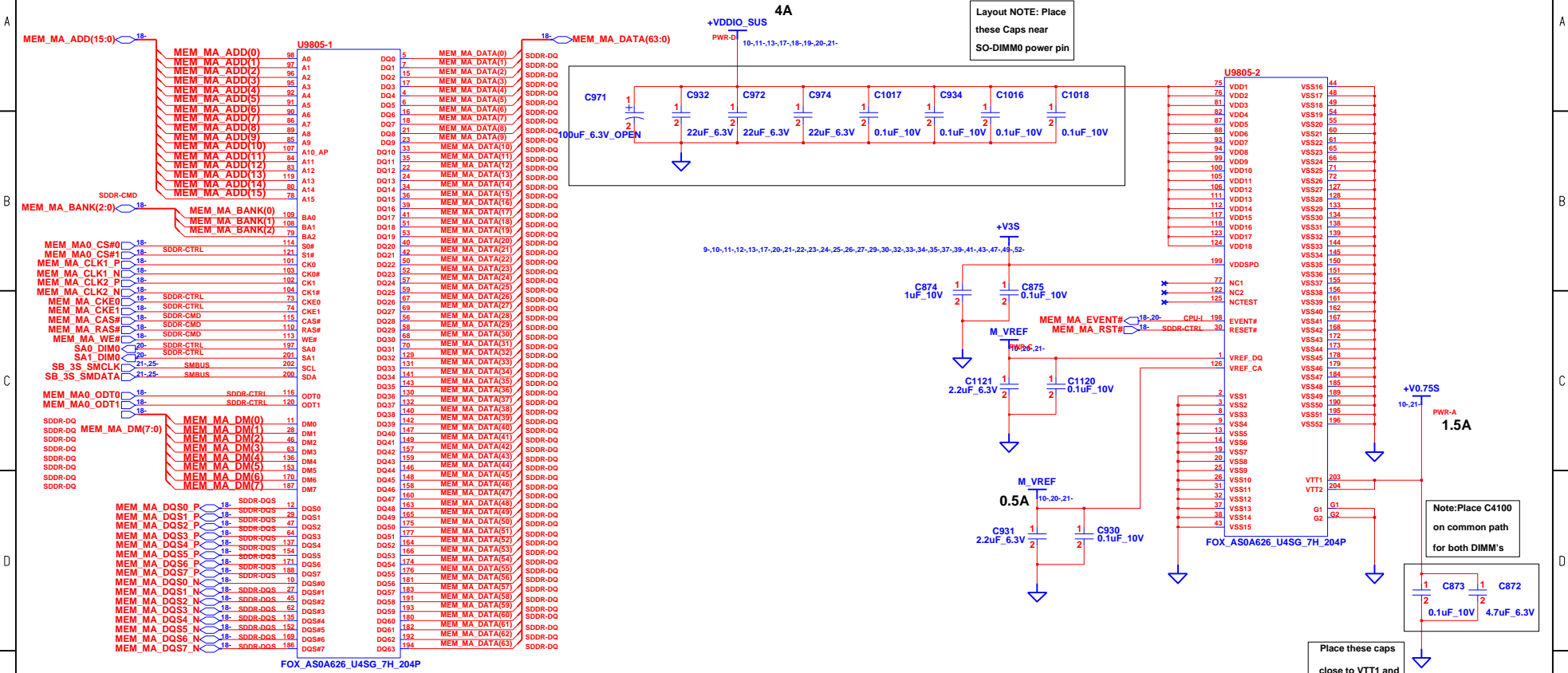
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RS880M - 1			
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Ken Chiang		18 OF 60	
9-Jun-2010		8	



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CPU-3			
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SHEET		19	OF 60

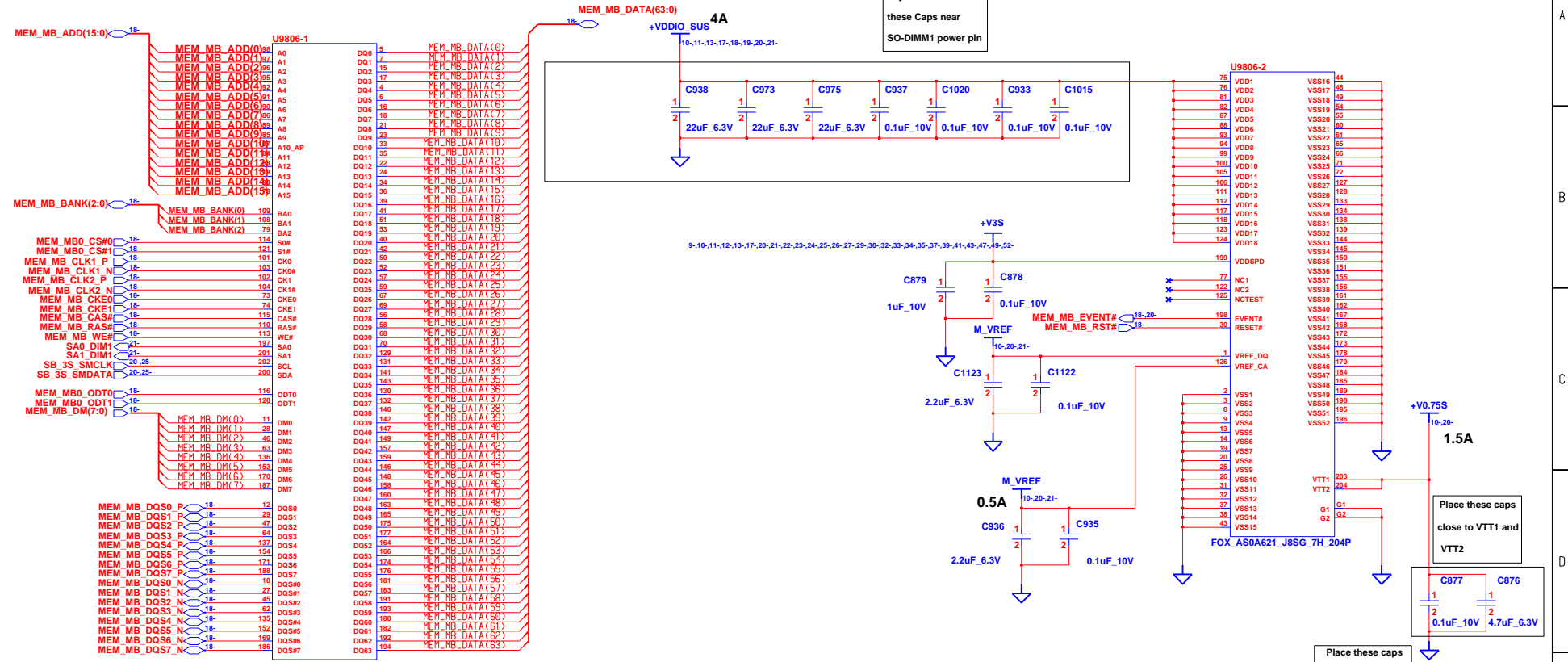
CHANGE by *Ken Chiang* 6-Aug-2010

SO-DIMM0



INVENTEC			
TITLE: ROCKY-AMD CPU-1			
SIZE: A3	CODE: CS	DOC. NUMBER: 123J	REV: X01
SHEET: 20		OF: 60	

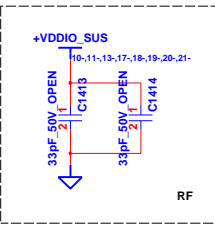
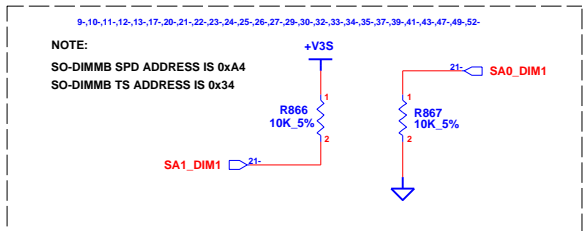
SO-DIMM1



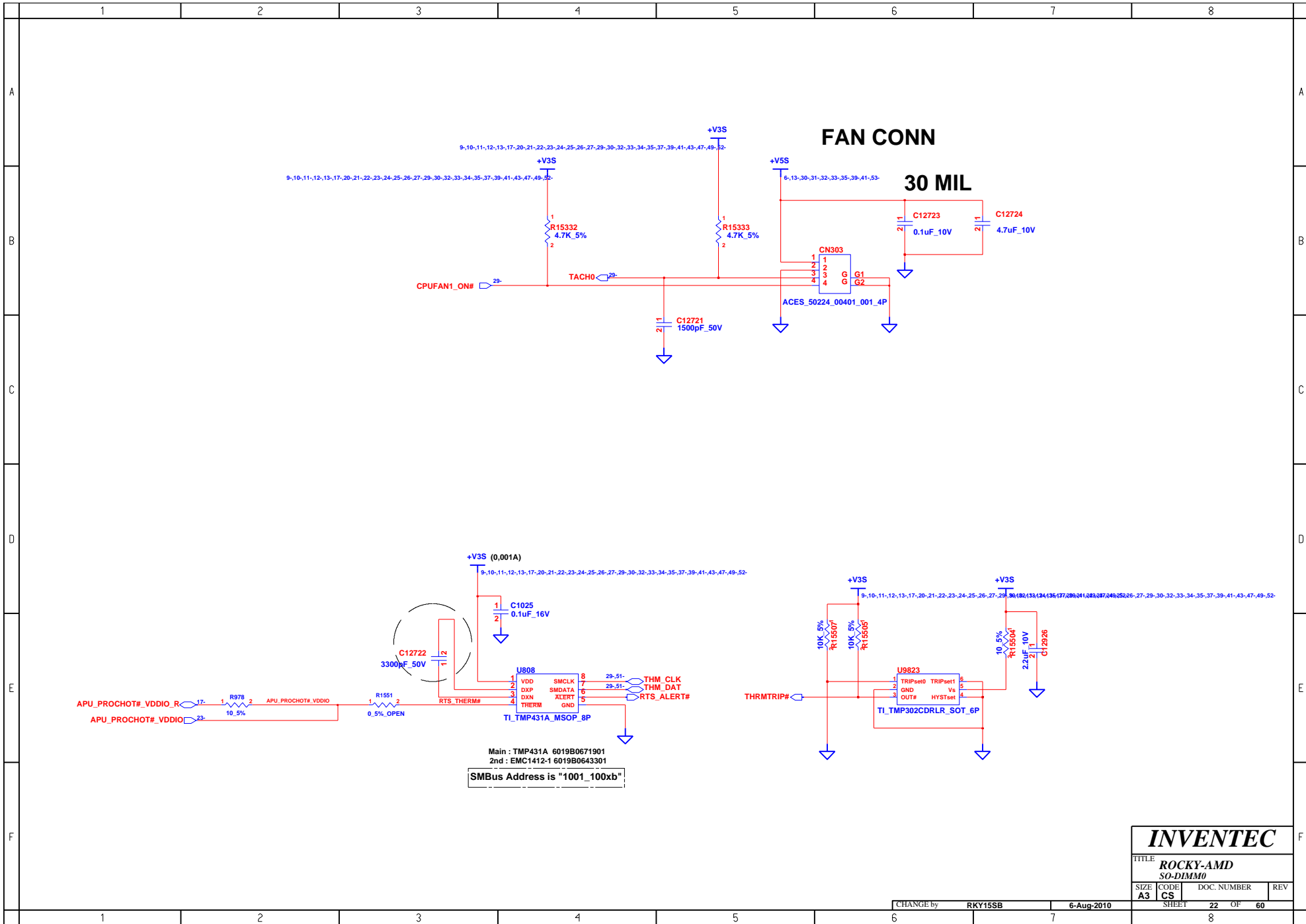
Layout Note: Place these Caps near SO-DIMM1 power pin

Place these caps close to VTT1 and VTT2

Place these caps close to VTT1 and VTT2

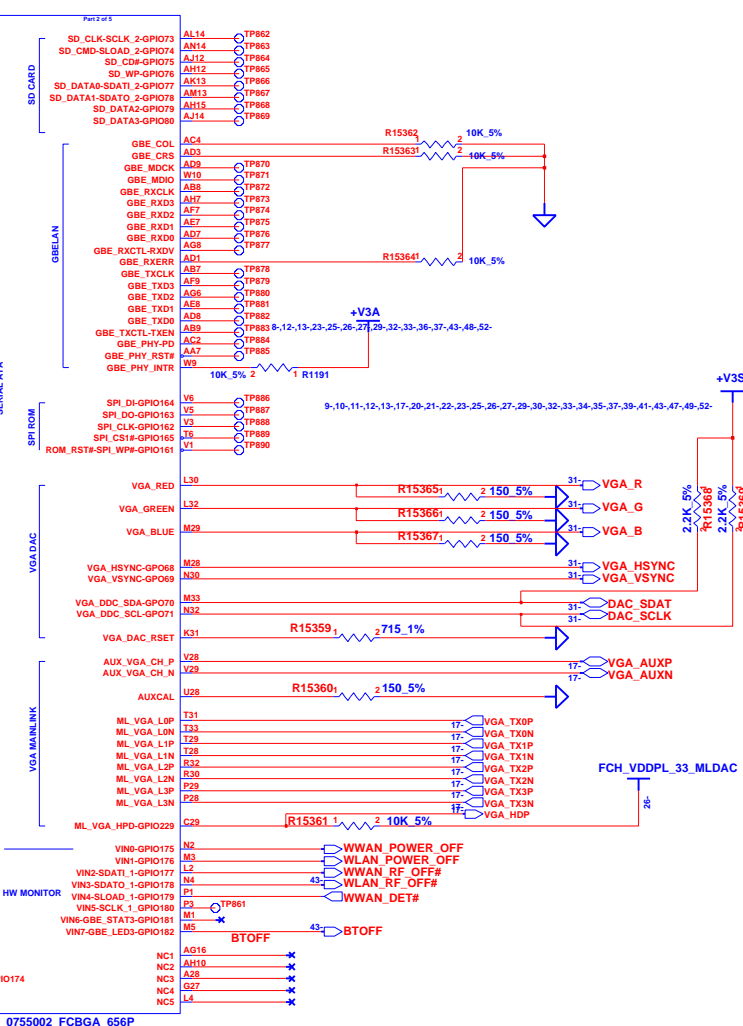
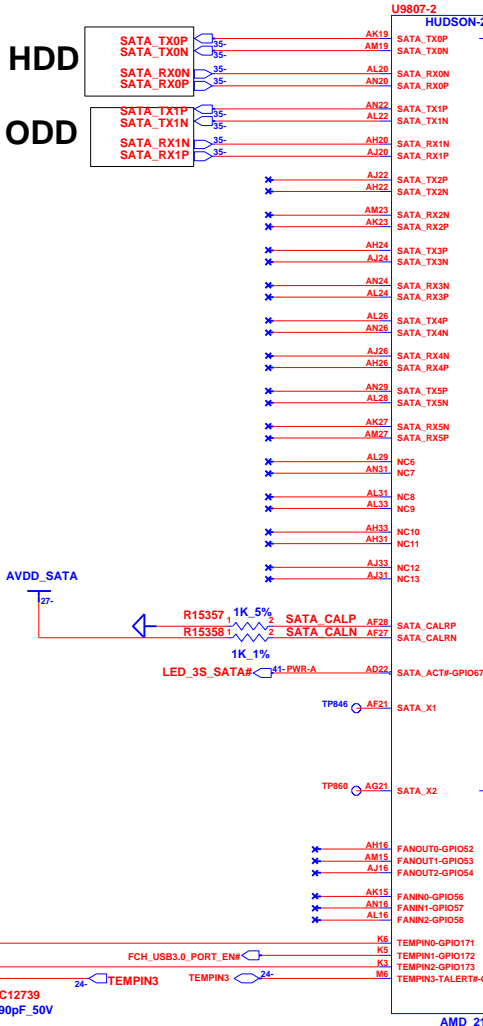
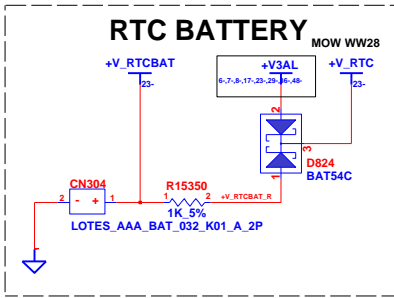


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TITLE ROCKY-AMD			
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
CHANGE by <i>Ken Chiang</i>		9-Jun-2010	
SHEET 21		OF 60	



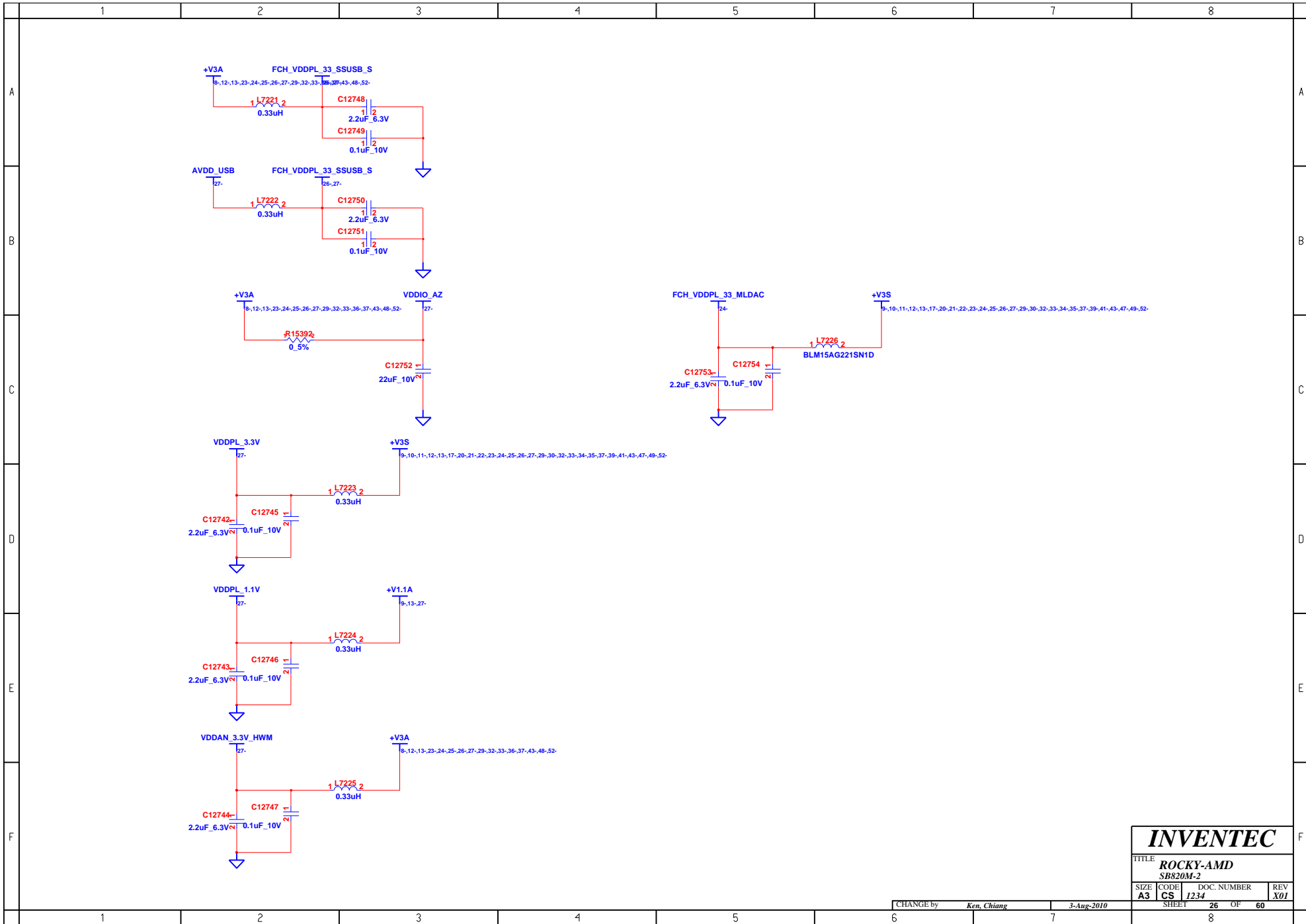
INVENTEC

TITLE			
ROCKY-AMD			
SO-DIMM0			
SIZE	CODE	DOC. NUMBER	REV
A3	CS		

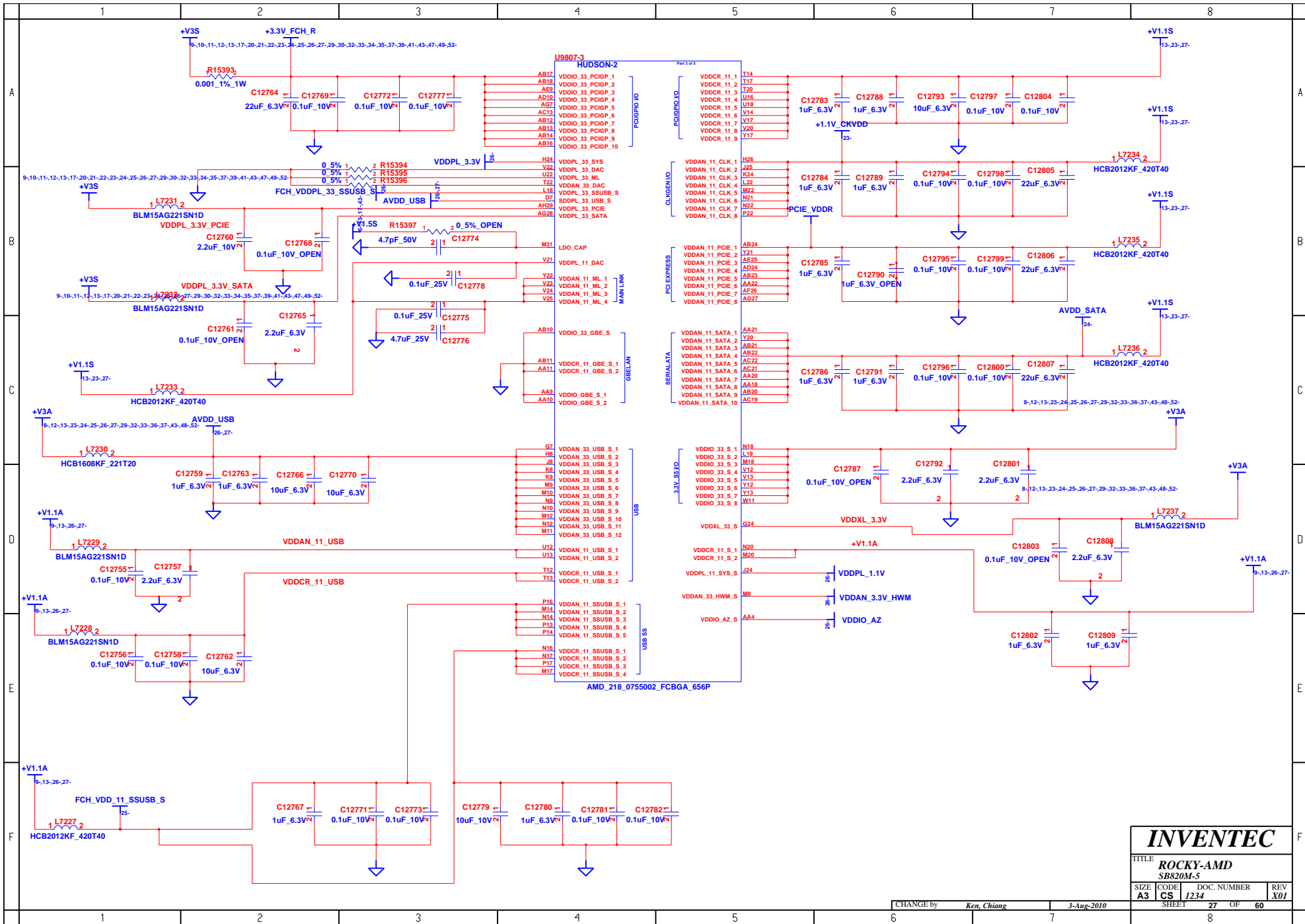


NOTE:ROUTE TEMP COMM AS A 10MIL TRACE PLACE MMBT3904 UNDER DIMM

INVENTEC			
TITLE ROCKY-AMD FAN & THERMAL			
SIZE A3	CODE CS	DOC NUMBER 123J	REV X01
CHANGE by Ken Chiang		9-Jun-2010	
SHEET 24		OF 60	



INVENTEC			
TITLE ROCKY-AMD SB820M-2			
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
CHANGE by <i>Ken Chiang</i>		3-Aug-2010	
SHEET 26		OF 60	

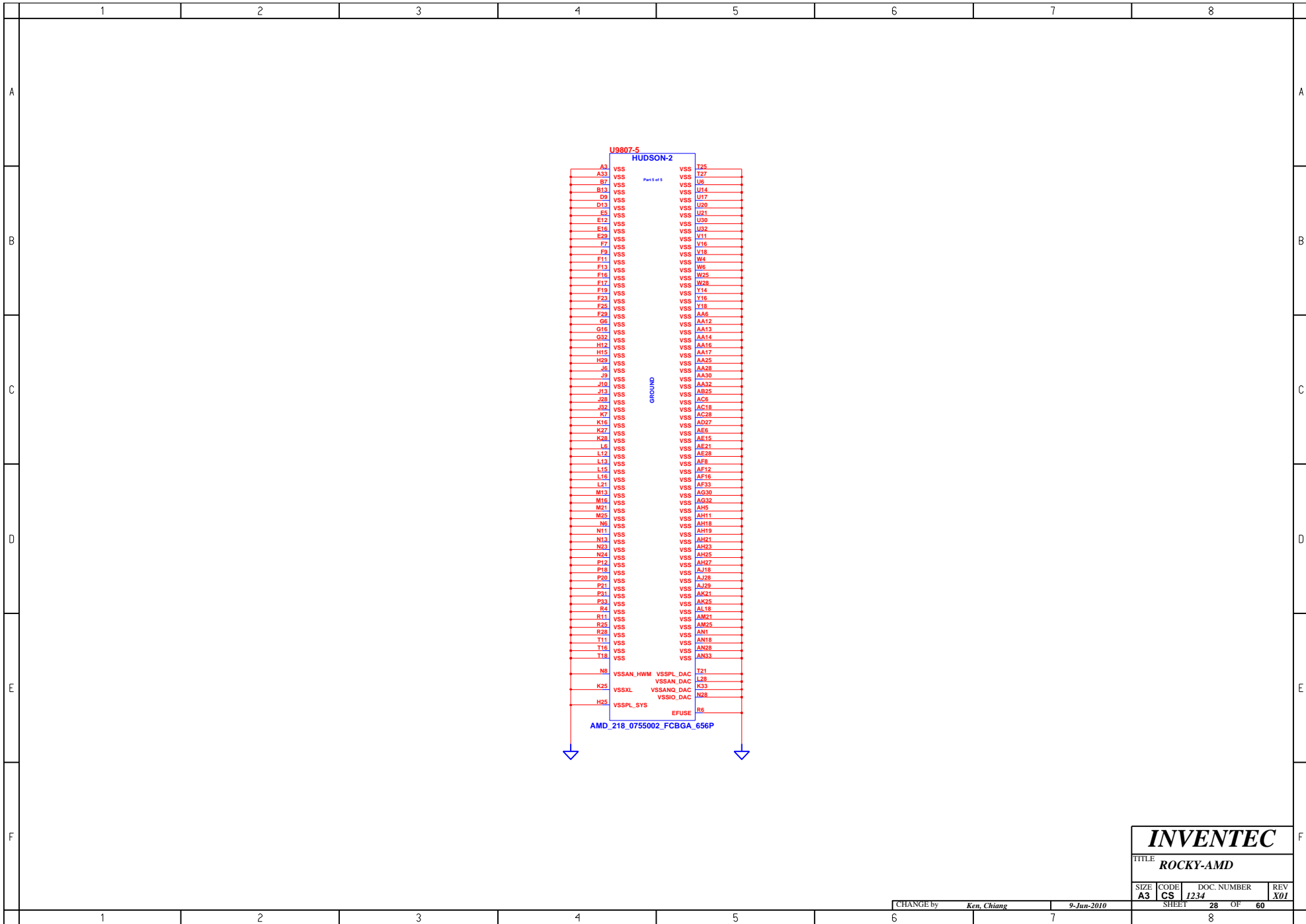


INVENTEC

TITLE
ROCKY-AMD
SB820M-5

SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
SHEET		27	OF 60

CHANGE by *Ken Chiang* 3-Aug-2010



INVENTEC

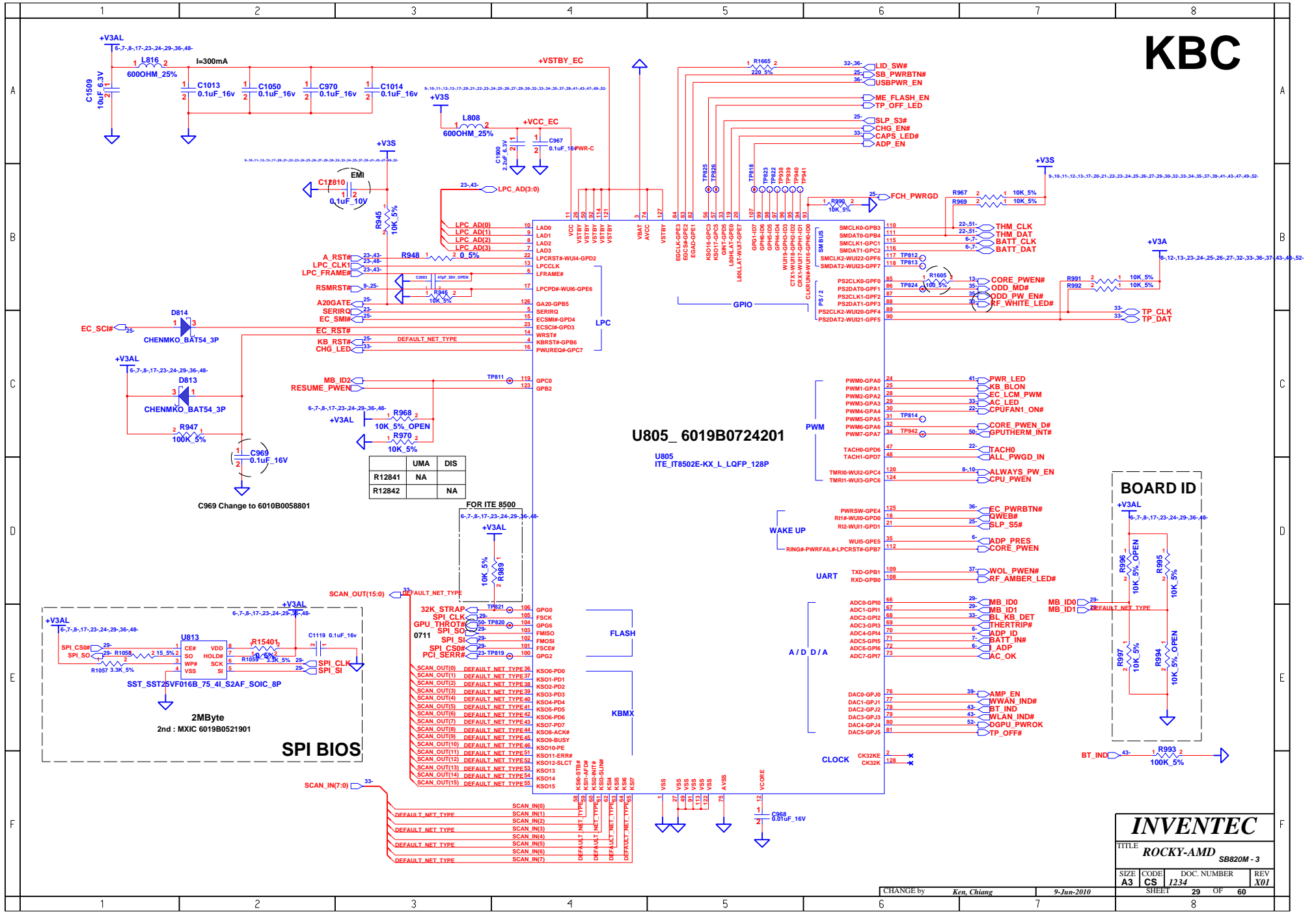
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ROCKY-AMD

SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
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CHANGE by *Ken Chiang* 9-Jun-2010

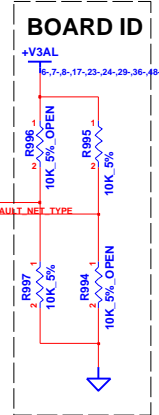
SHEET	28	OF	60
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KBC



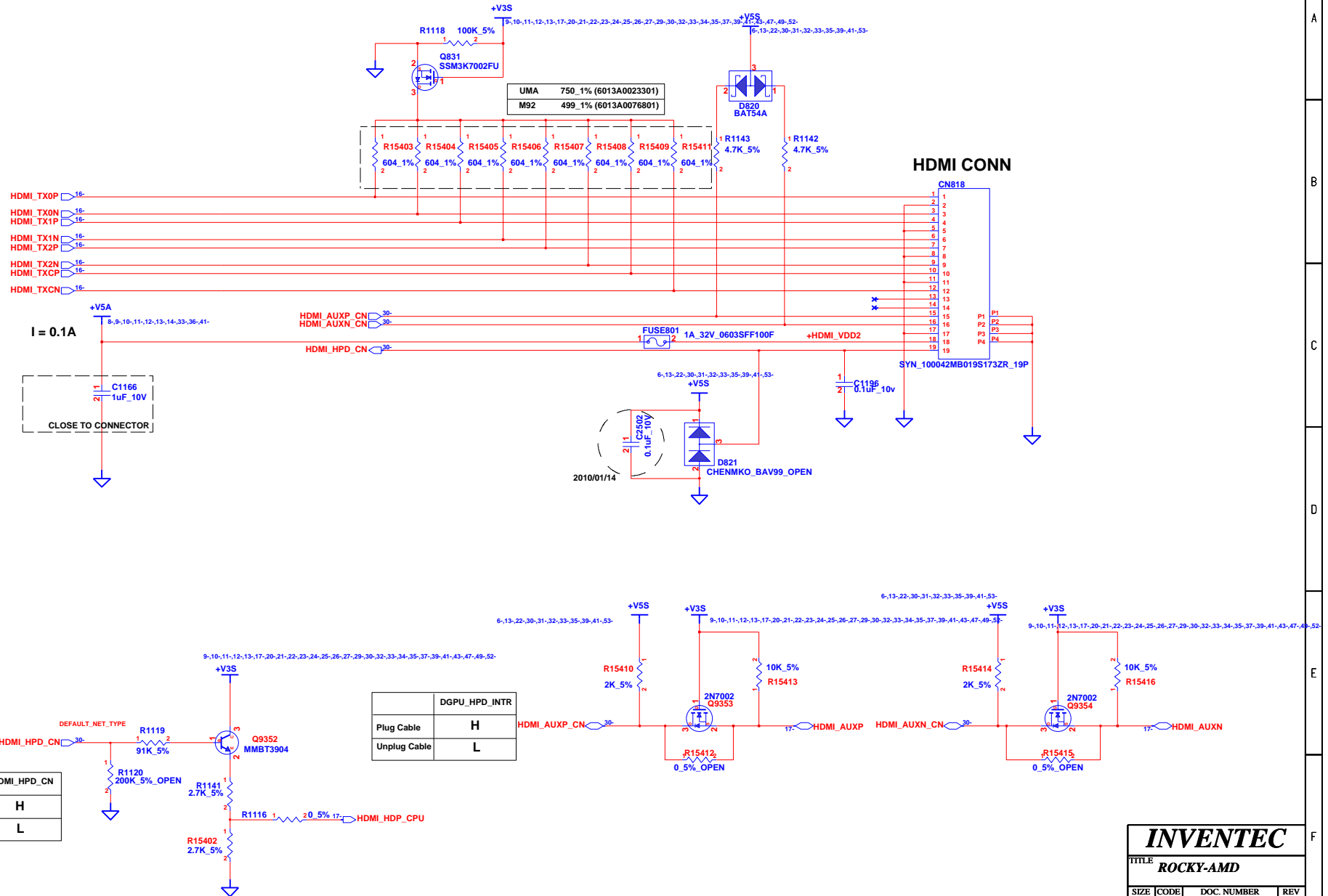
	UMA	DIS
R12841	NA	NA
R12842	NA	NA

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SCAN_OUT(1)	DEFAULT_NET_TYPE	KS01-PD1
SCAN_OUT(2)	DEFAULT_NET_TYPE	KS02-PD2
SCAN_OUT(3)	DEFAULT_NET_TYPE	KS03-PD3
SCAN_OUT(4)	DEFAULT_NET_TYPE	KS04-PD4
SCAN_OUT(5)	DEFAULT_NET_TYPE	KS05-PD5
SCAN_OUT(6)	DEFAULT_NET_TYPE	KS06-PD6
SCAN_OUT(7)	DEFAULT_NET_TYPE	KS07-PD7
SCAN_OUT(8)	DEFAULT_NET_TYPE	KS08-ACK#
SCAN_OUT(9)	DEFAULT_NET_TYPE	KS09-BUSY
SCAN_OUT(10)	DEFAULT_NET_TYPE	KS10-PE
SCAN_OUT(11)	DEFAULT_NET_TYPE	KS11-ERR#
SCAN_OUT(12)	DEFAULT_NET_TYPE	KS012-SLCT#
SCAN_OUT(13)	DEFAULT_NET_TYPE	KS013
SCAN_OUT(14)	DEFAULT_NET_TYPE	KS014
SCAN_OUT(15)	DEFAULT_NET_TYPE	KS015



INVENTEC			
TITLE ROCKY-AMD SB820M - 3			
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
SHEET 29		OF 60	

HDMI



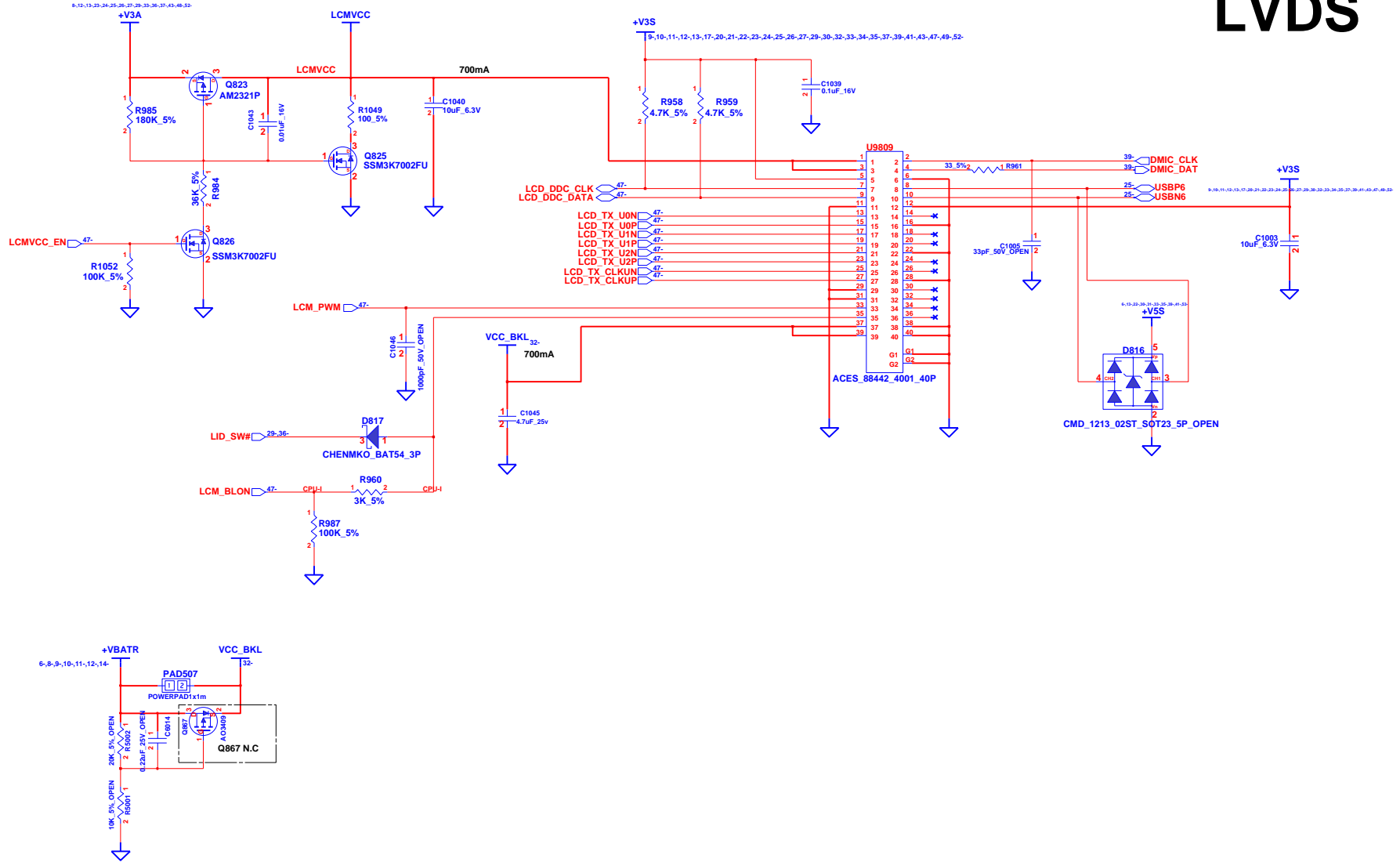
	DGPU_HPD_INTR
Plug Cable	H
Unplug Cable	L

	HDMI_HPD_CN
Plug Cable	H
Unplug Cable	L

INVENTEC			
TITLE ROCKY-AMD			
SIZE A3	CODE CS	DOC. NUMBER 123d	REV X01
SHEET		30 OF	60

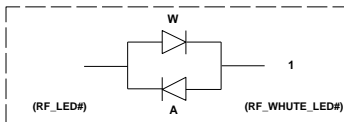
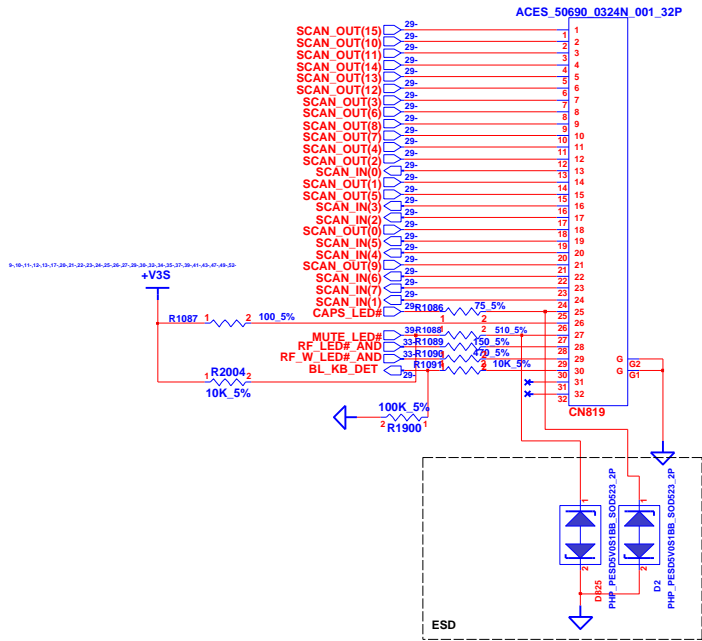
CHANGE by *Ken Chiang* 9-Jun-2010

LVDS

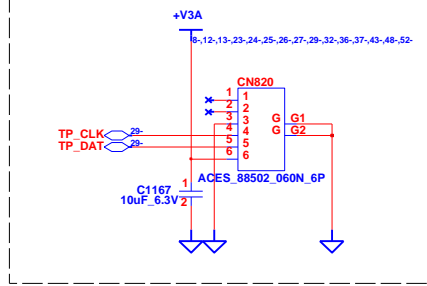


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1		2	8

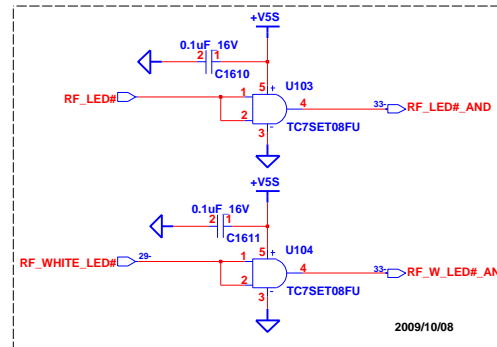
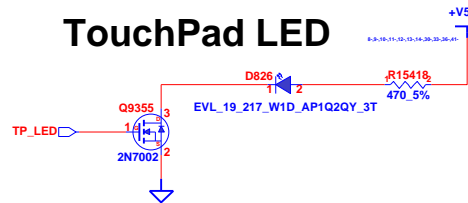
KeyBoard CONN (30 pin)



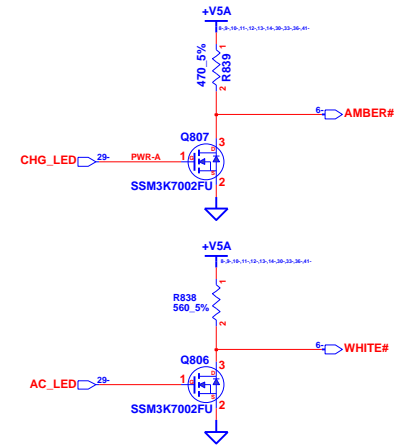
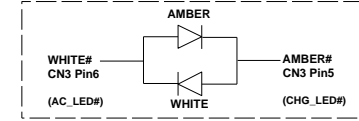
TouchPad on MB



TouchPad LED



DC-JACK LED

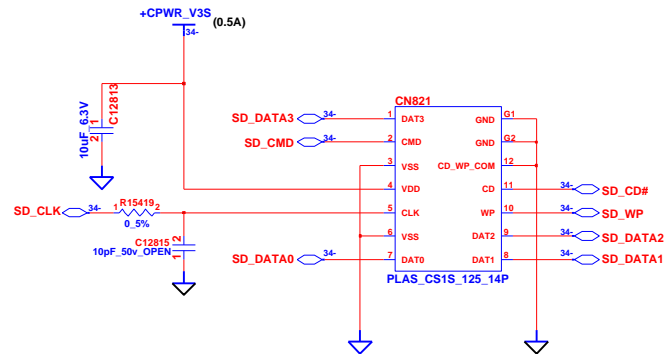
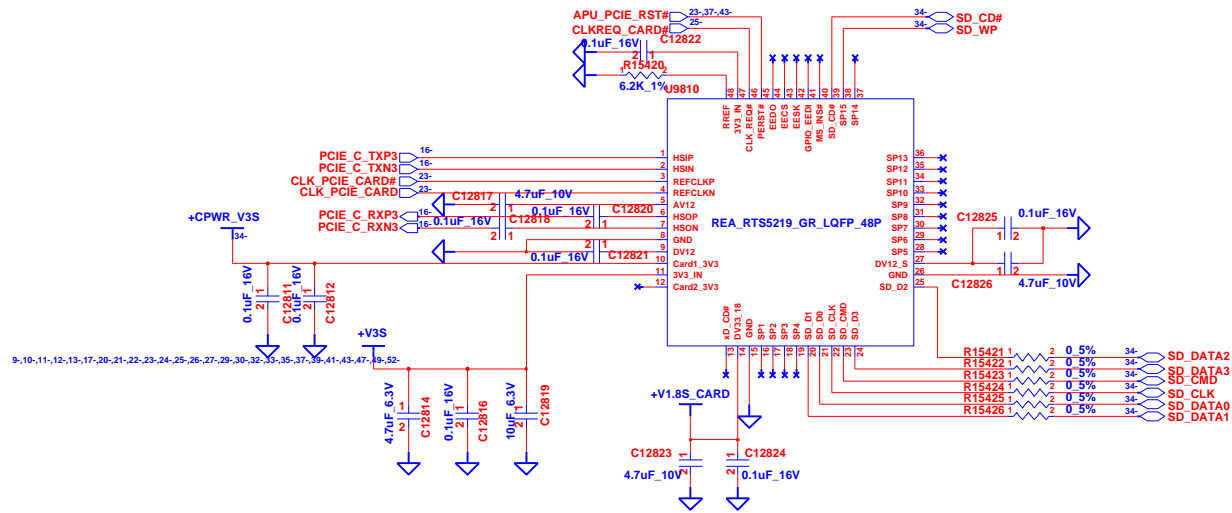


INVENTEC

TITLE
ROCKY-AMD

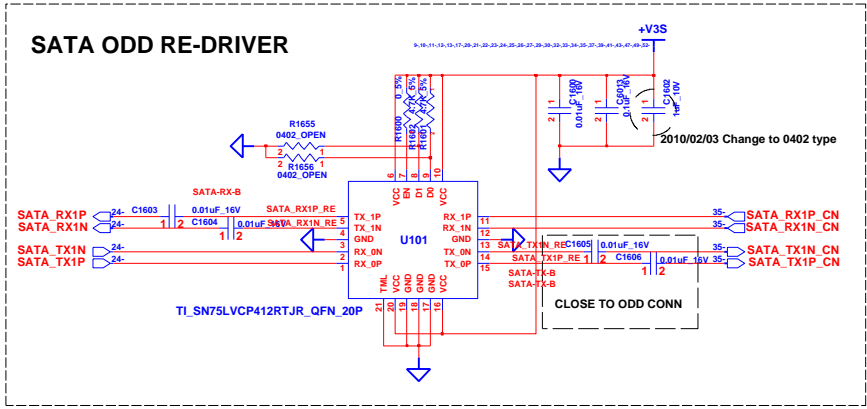
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
SHEET		33 OF	60

CHANGE by *Ken Chiang* 5-Aug-2010

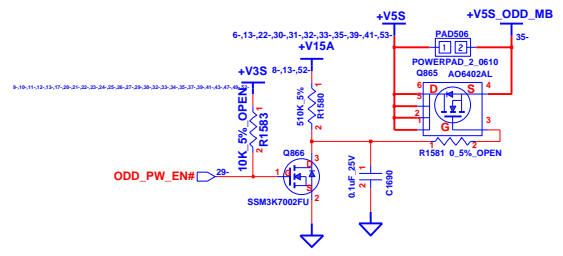
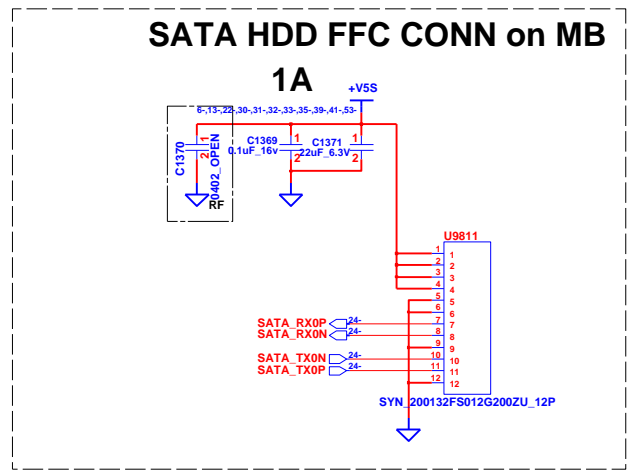
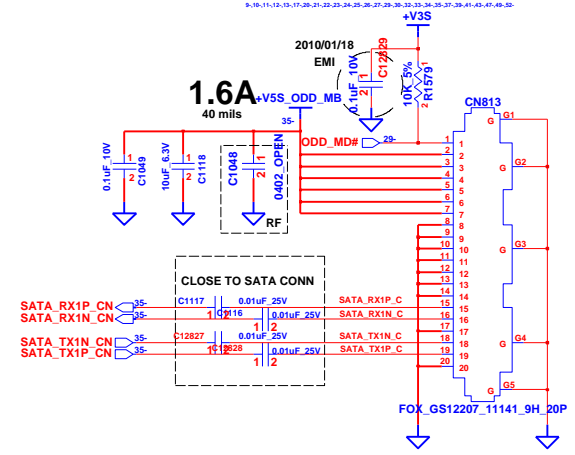


Card Reader CONN

INVENTEC			
TITLE ROCKY-AMD			
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
CHANGE by <i>Ken Chiang</i>		5-Aug-2010	
SHEET		34	OF 60



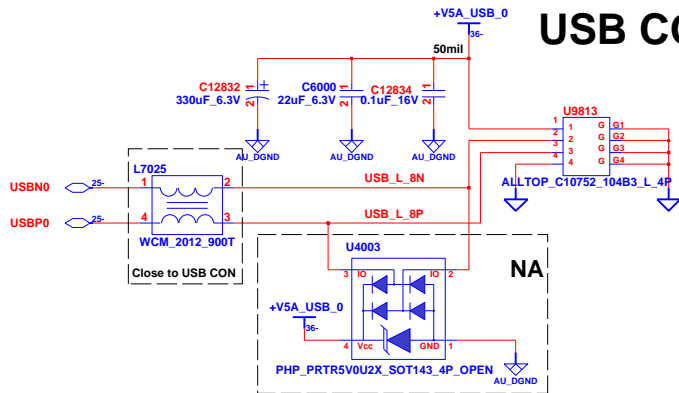
SATA ODD FFC CONN on MB



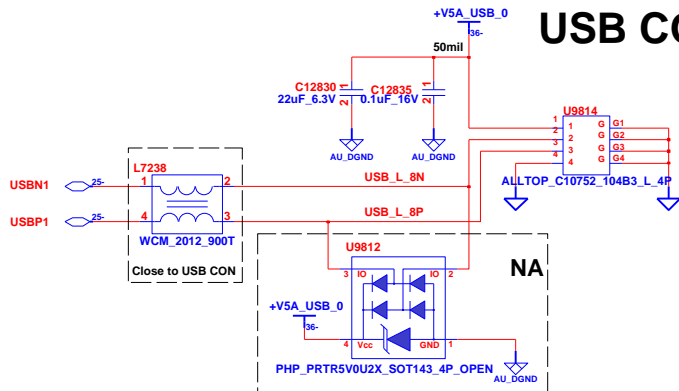
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TITLE ROCKY-AMD			
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
CHANGE by <i>Ken Chiang</i>		5-Aug-2010	
SHEET		35 OF	60

USB

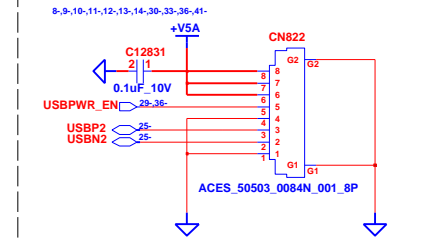
USB CONN01



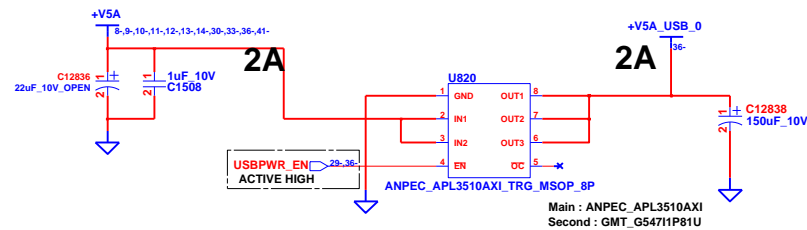
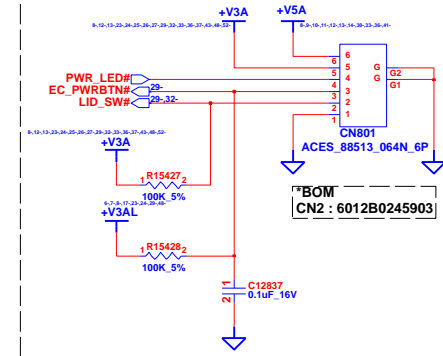
USB CONN02



USB BOARD Cable on MB



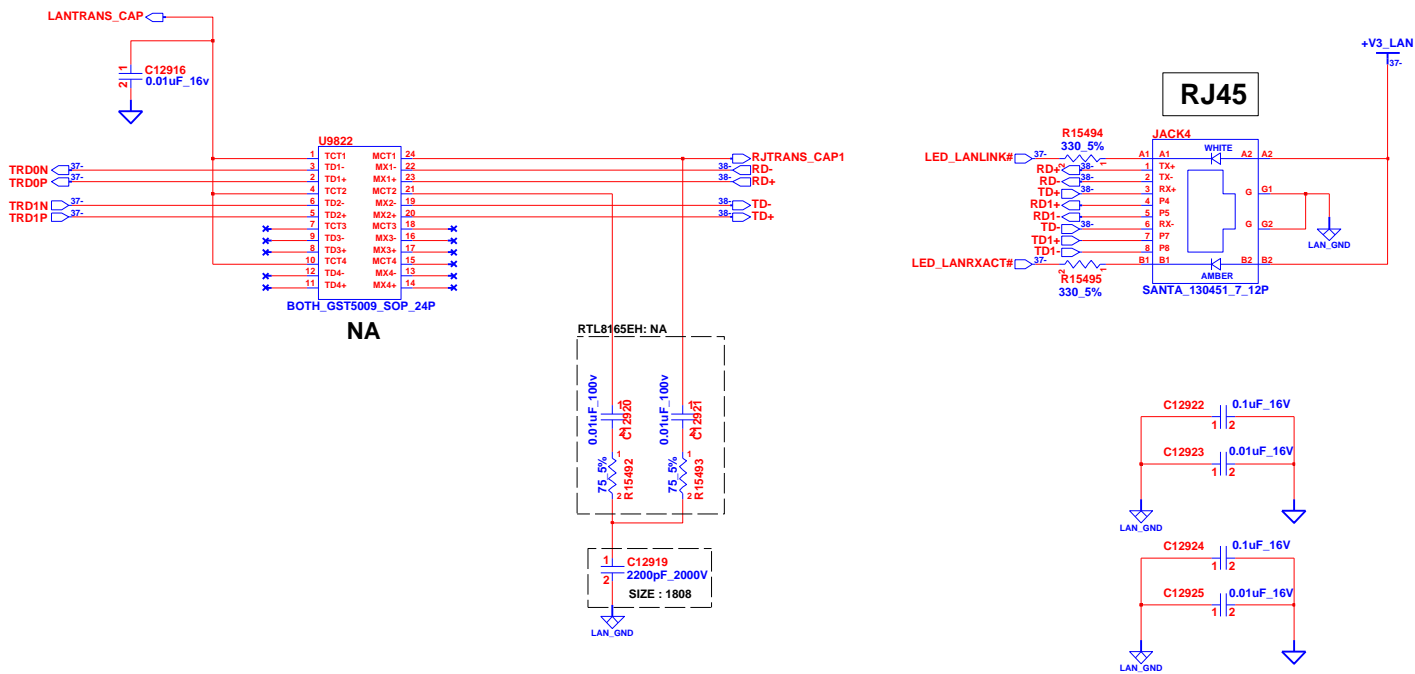
PBN Cable CN on MB



INVENTEC

TITLE			
ROCKY-AMD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01
SHEET		36 OF	60

CHANGE by Ken Chiang 5-Aug-2010



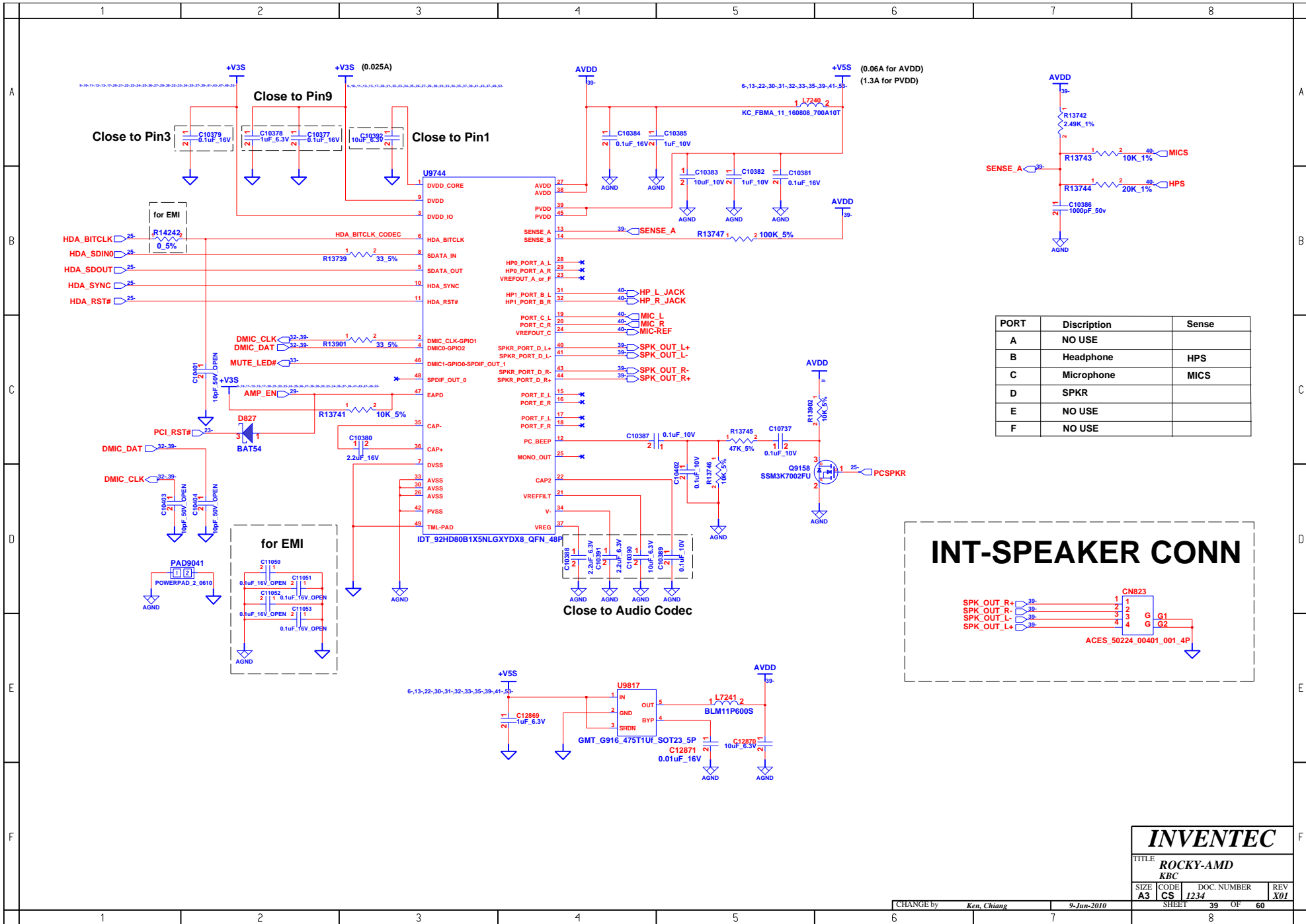
LAYOUT NOTE : Place termination resistors and caps as close to LAN controller as possible

INVENTEC

TITLE
ROCKY-AMD

SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
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CHANGE by *Ken, Chiang* 5-Aug-2010 SHEET 38 OF 60



INVENTEC

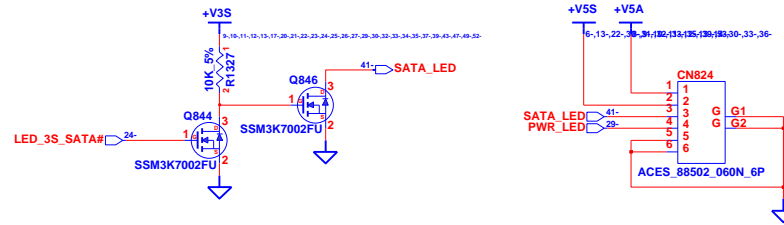
TITLE			
ROCKY-AMD			
KBC			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01
SHEET		39 OF	60

CHANGE by Ken Chiang

9-Jun-2010

8

LED BOARD on MB

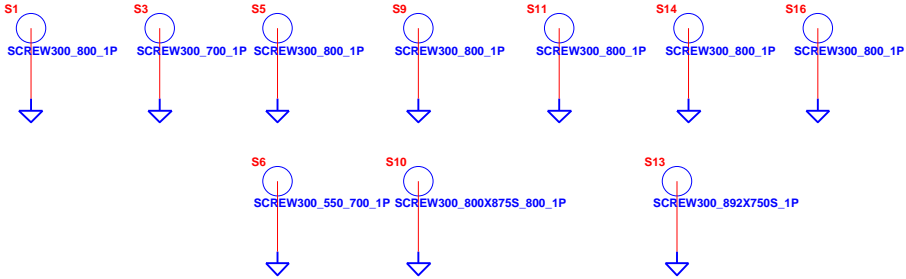
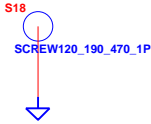
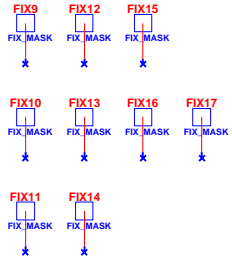
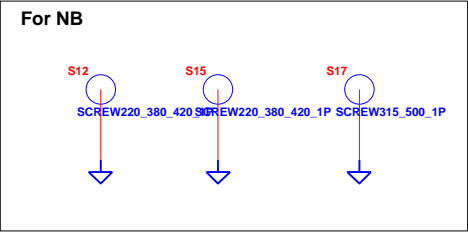
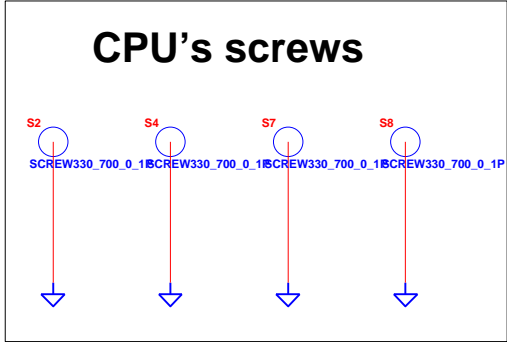


INVENTEC

TITLE			
ROCKY-AMD DDR3 DAMPING			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01

CHANGE by Ken, Chiang 4-Aug-2010

SHEET 41 OF 60

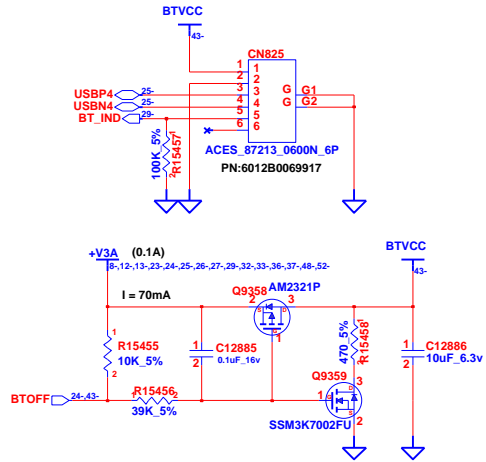


INVENTEC

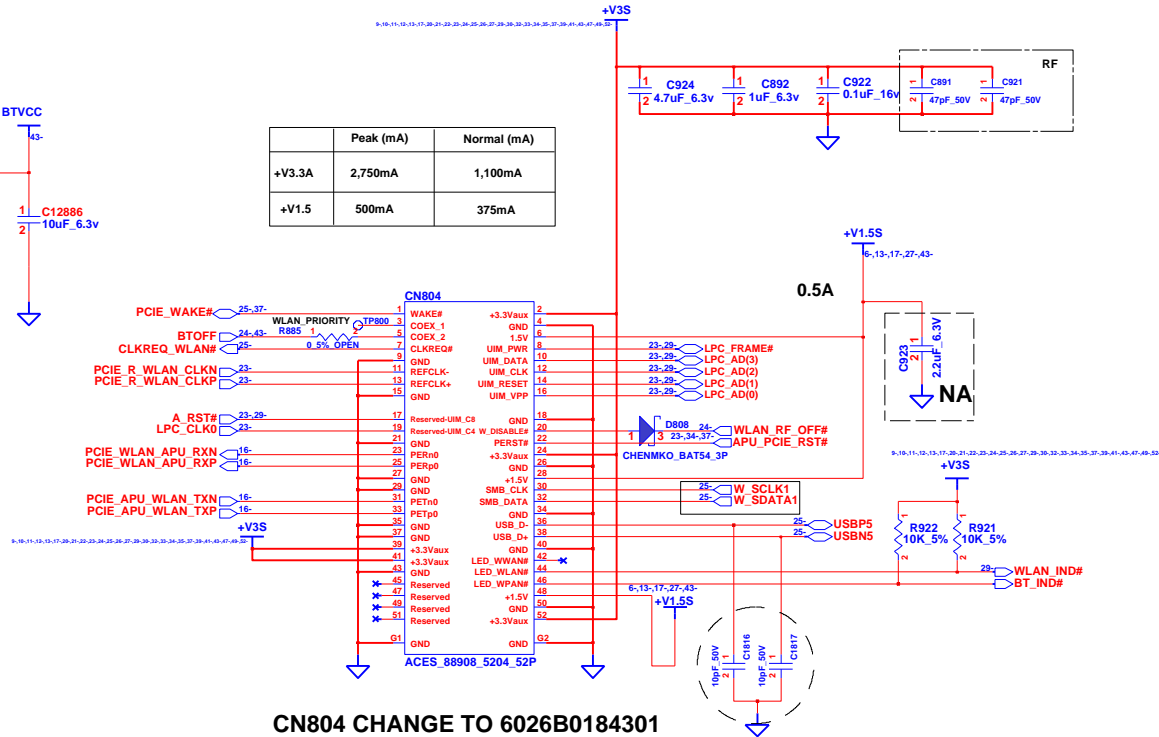
TITLE			
ROCKY-AMD			
CRT			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01
SHEET			OF
42			60

CHANGE by *Ken Chiang* 9-Jun-2010

BLUETOOTH CONN



WLAN CONN (MINICARD)



	Peak (mA)	Normal (mA)
+V3.3A	2,750mA	1,100mA
+V1.5	500mA	375mA

CN804 CHANGE TO 6026B0184301

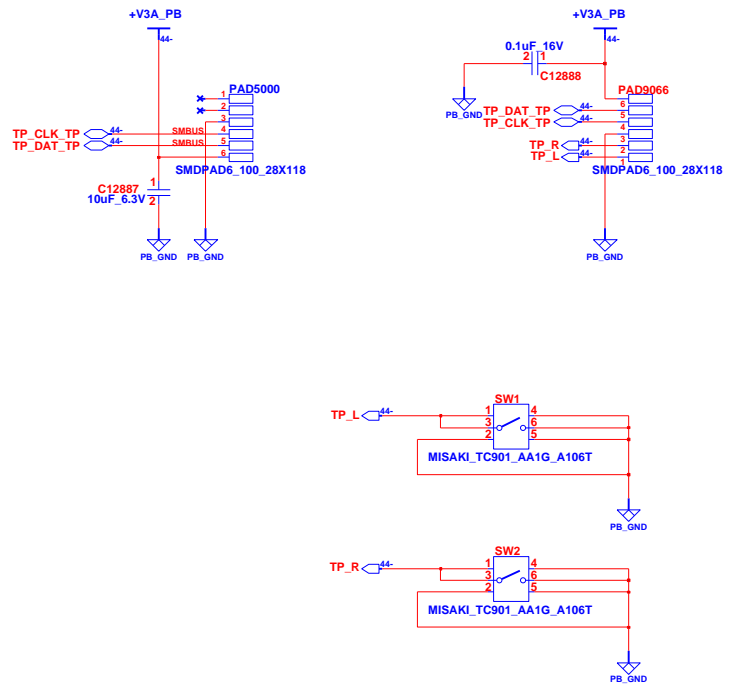
	PCH	SB800820
WLAN_RF_OFF#	GPIO57	GPIO12
WLAN_POWER_OFF	GPIO35	GPIO176

INVENTEC

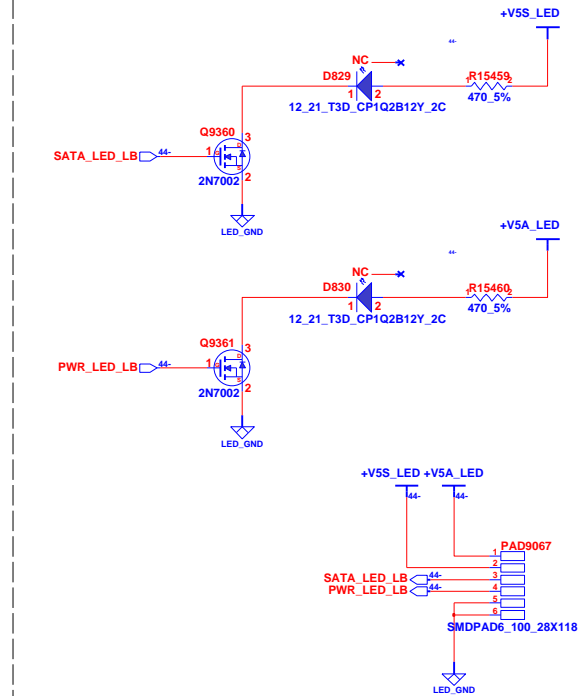
TITLE			
ROCKY-AMD			
LCM CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01
SHEET		43 OF	60

CHANGE by Ken Chiang 9-Jun-2010

PICK BUTTON BOARD



LED BOARD



INVENTEC

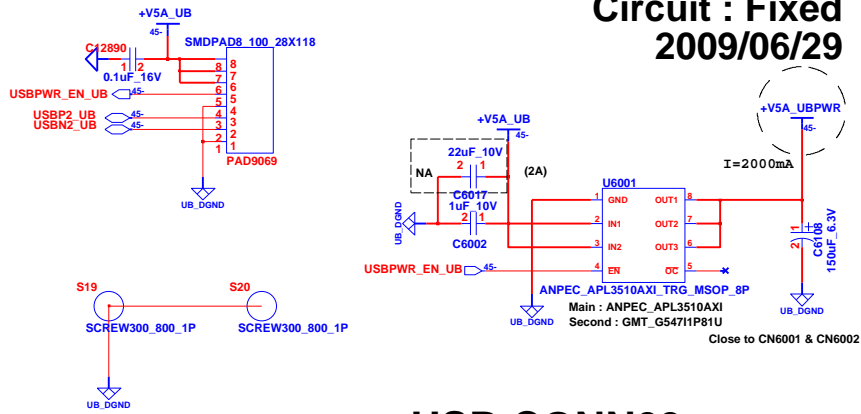
TITLE			
ROCKY-AMD KEYBOARD CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01

CHANGE by *Ken Chiang* 9-Jun-2010

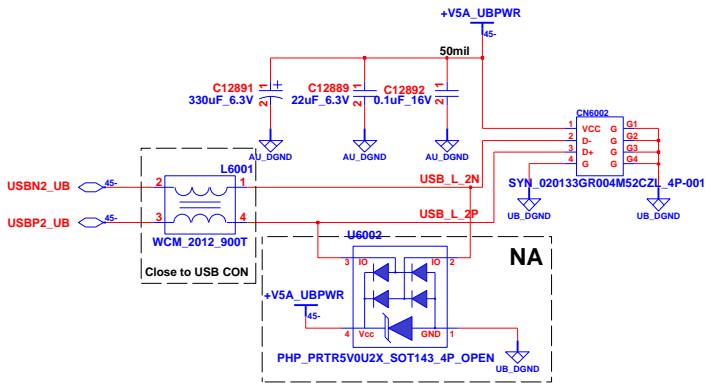
SHEET 44 OF 60

USB BOARD

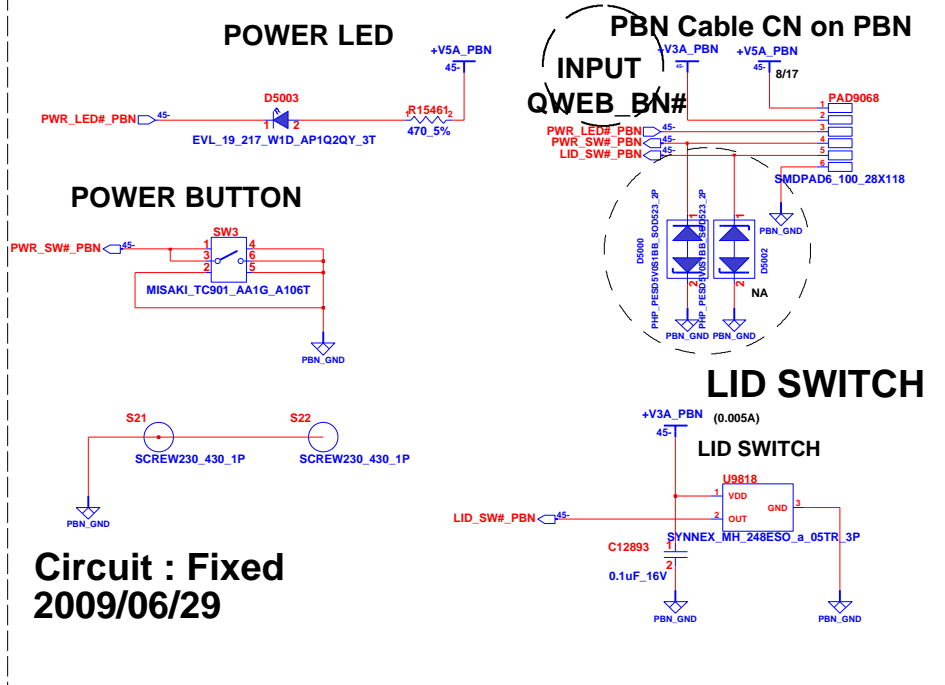
USB BOARD Cable ON UB



USB CONN03



POWER BOTTON BOARD

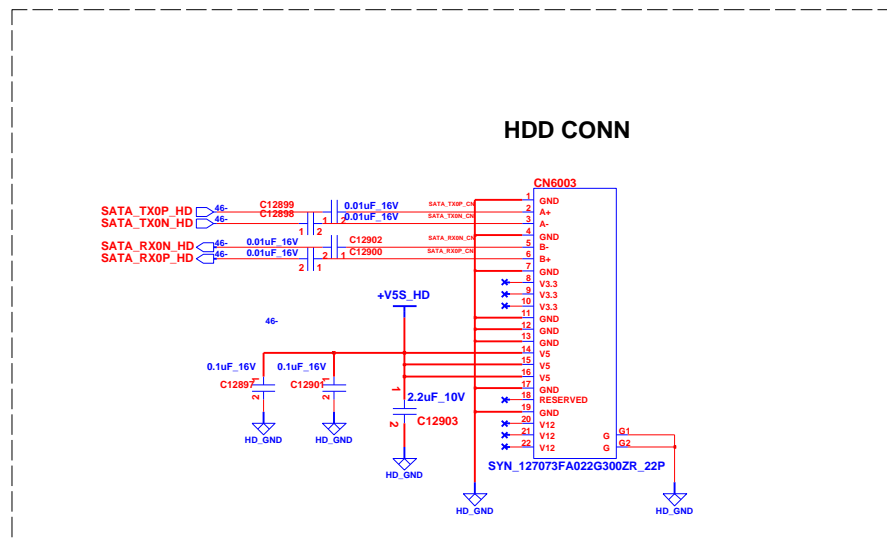
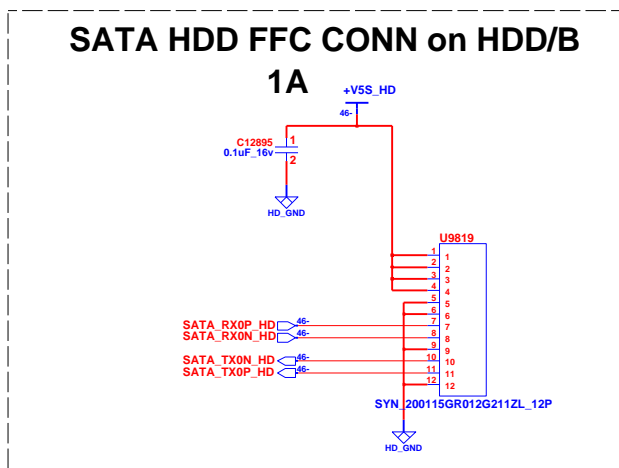


INVENTEC

TITLE			
ROCKY-AMD			
AU6433 & CARDREADER CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1234	X01
SHEET		45 OF	60

CHANGE by Ken Chiang 9-Jun-2010

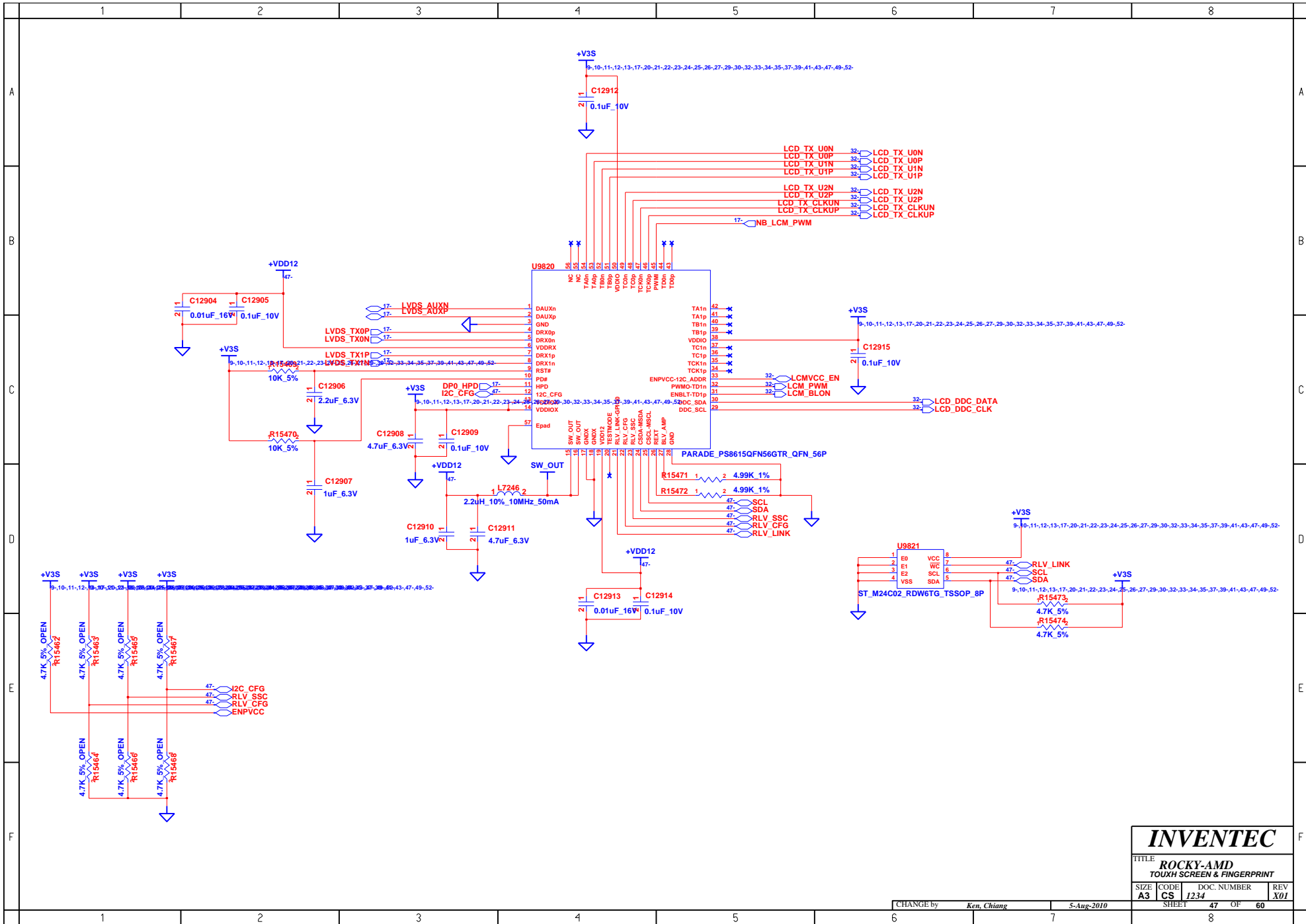
SATA HDD BOARD



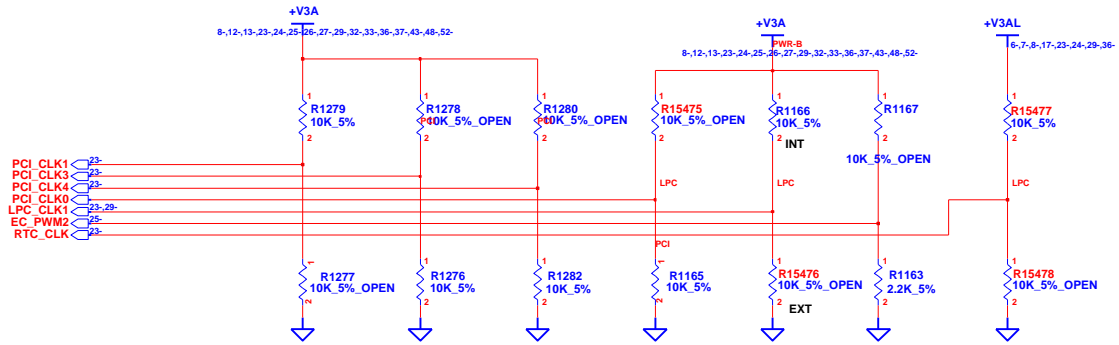
INVENTEC

TITLE			
ROCKY-AMD			
SATA HDD & SATA ODD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01

CHANGE by	Ken Chiang	9-Jun-2010	SHEET	46	OF	60
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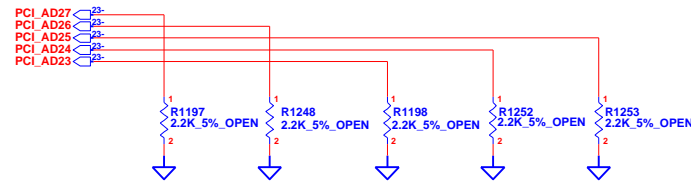


INVENTEC			
TITLE ROCKY-AMD TOUCH SCREEN & FINGERPRINT			
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
CHANGE by <i>Ken Chiang</i>		5-Aug-2010	
SHEET		OF 60	



Required Straps:

RTCCCLK		PCI_CLK1	PCI_CLK3	PCI_CLK4	PCI_CLK0	PCI_CLK1	EC_PWM2
S5 PLUS MODE DISABLE (DEFAULT)	PULL HIGH	ALLOW PCIe Gen2 DEFAULT	USE DEBUG STRAP	non Fusion CLOCK MODE APU_CLK AND DISP_CLK NO CLOCK OUTPUT	EC ENABLED	INTEGRATED CLKGEN ENABLED DEFAULT	LPC ROM DEFAULT
S5 PLUS MODE ENABLE	PULL LOW	FORCE PCIe Gen1	IGNORE DEBUG STRAP DEFAULT	Fusion CLOCK MODE DEFAULT APU_CLK AND DISP_CLK CLOCK OUTPUT FROM INT CLOCK GEN	EC DISABLED DEFAULT	INTEGRATED CLKGEN DISABLED	SPI ROM



Debug Straps

SB800 HAS 15K INTERNAL PU FOR PCI_AD[27:23]

	PCI_3S_AD27	PCI_3S_AD24	PCI_3S_AD23
PULL HIGH	USE PCI PLL (default)	GETTING I2C ROM ENABLE	DISABLE PCI MEM BOOT (default)
PULL LOW	BYPASS PCI PLL	USE EEPROM PCIe STRAPS I2C ROM DISABLE	ENABLE PCI MEM BOOT

INVENTEC

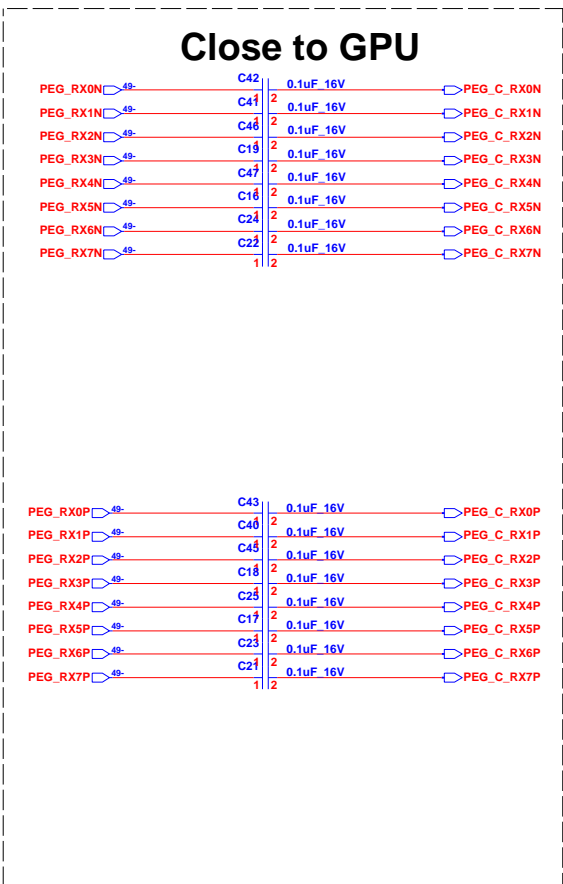
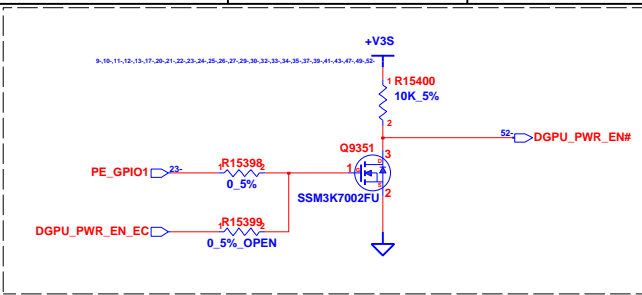
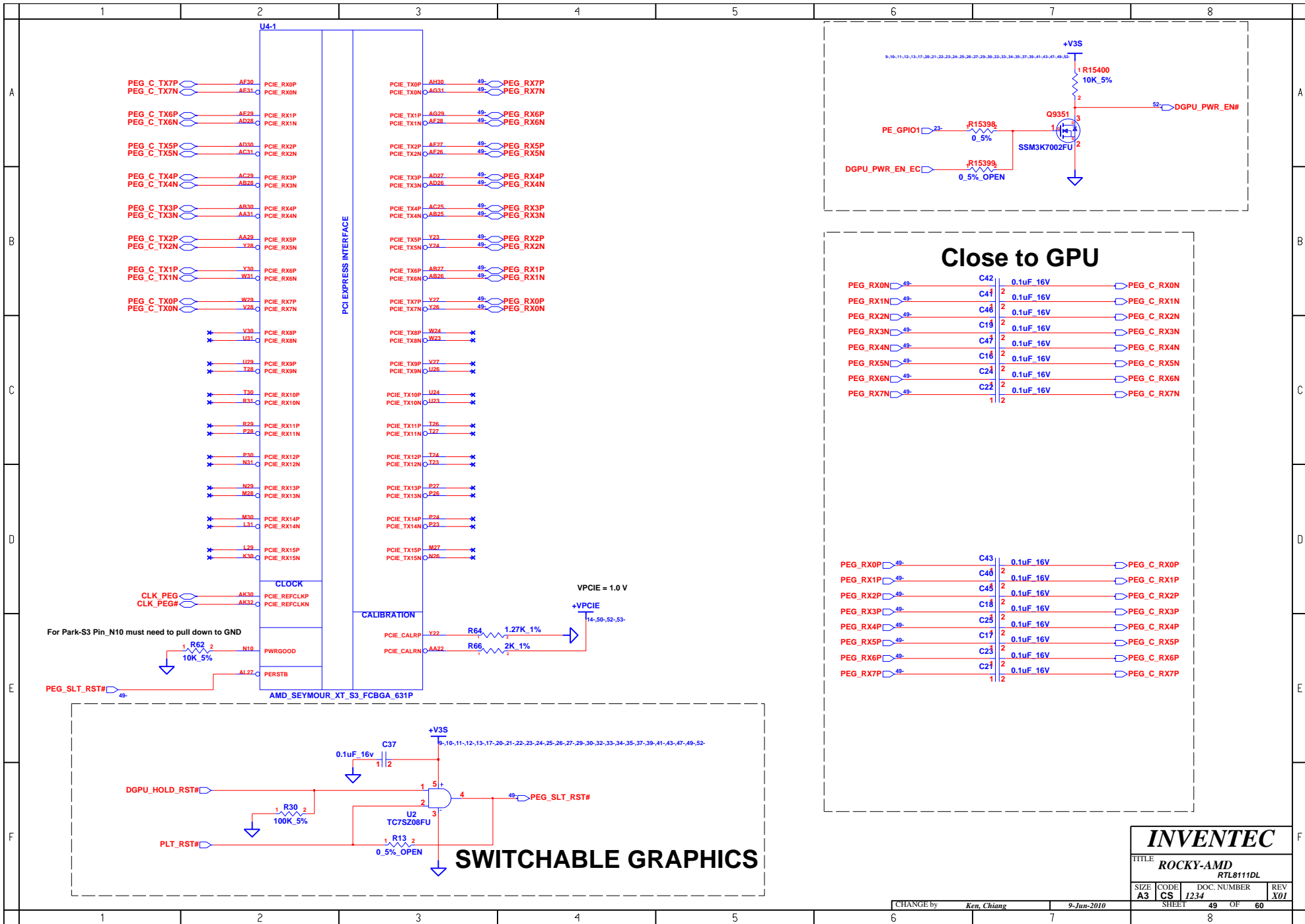
TITLE
ROCKY-AMD
ESATA & USB BOARD CABLE

SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
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CHANGE by *Ken Chiang* 9-Jun-2010

SHEET 48 OF 60

8



INVENTEC			
TITLE ROCKY-AMD RTL8111DL			
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
CHANGE by Ken Chiang		9-Jun-2010	
SHEET		49	OF 60

SWITCHABLE GRAPHICS

MEM_ID3	MEM_ID2	MEM_ID1	MEM_ID0	vendor
R15454	R15453	R15452	R15451	
0	0	0	1	Samsung(512MB)
0	0	1	1	hynix (512MB)
0	0	0	0	Samsung(1G)
0	0	1	0	hynix (1G)
0	1	1	0	Samsung(1G) C-die

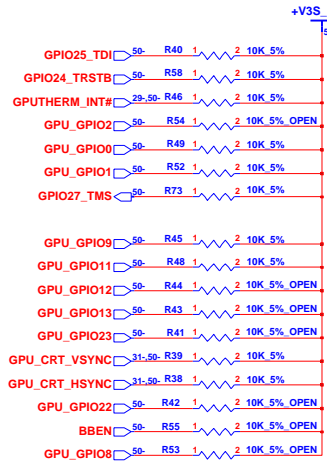
(Default)

STRAPS	PIN	Description of default settings
TX_PWRS_ENB	GPIO0	PCIe full TX output swing.
TX_DEEMPH_EN	GPIO1	PCIe transmitter de-emphasis enabled.
BIF_GEN2_EN_A	GPIO2	PCIe GEN2 enabled
BIF_DEBUG_ACCESS	GPIO4	Debug signals muxed out.
BIF_VGA_DIS	GPIO7_BLON	Control Backlight On / Off
ROMIDCFG(2:0)	GPIO[13:11]	Memory aperture size select.

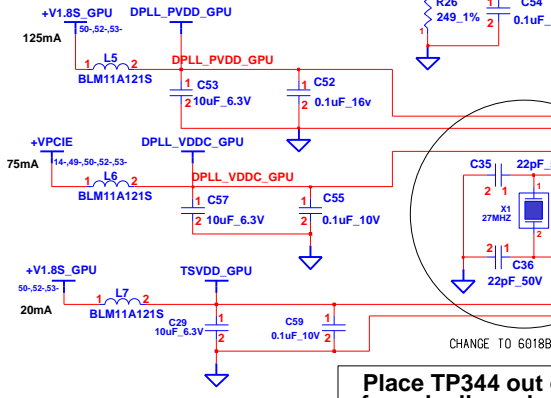
If GPIO_22_EN = 0, then GPIO[13:11] defines the primary memory aperture size.

GPIO_13	GPIO_12	GPIO_11	Memory aperture size
0	0	1	512MB / 256MB (Default)
1	1	0	reserved

110mA



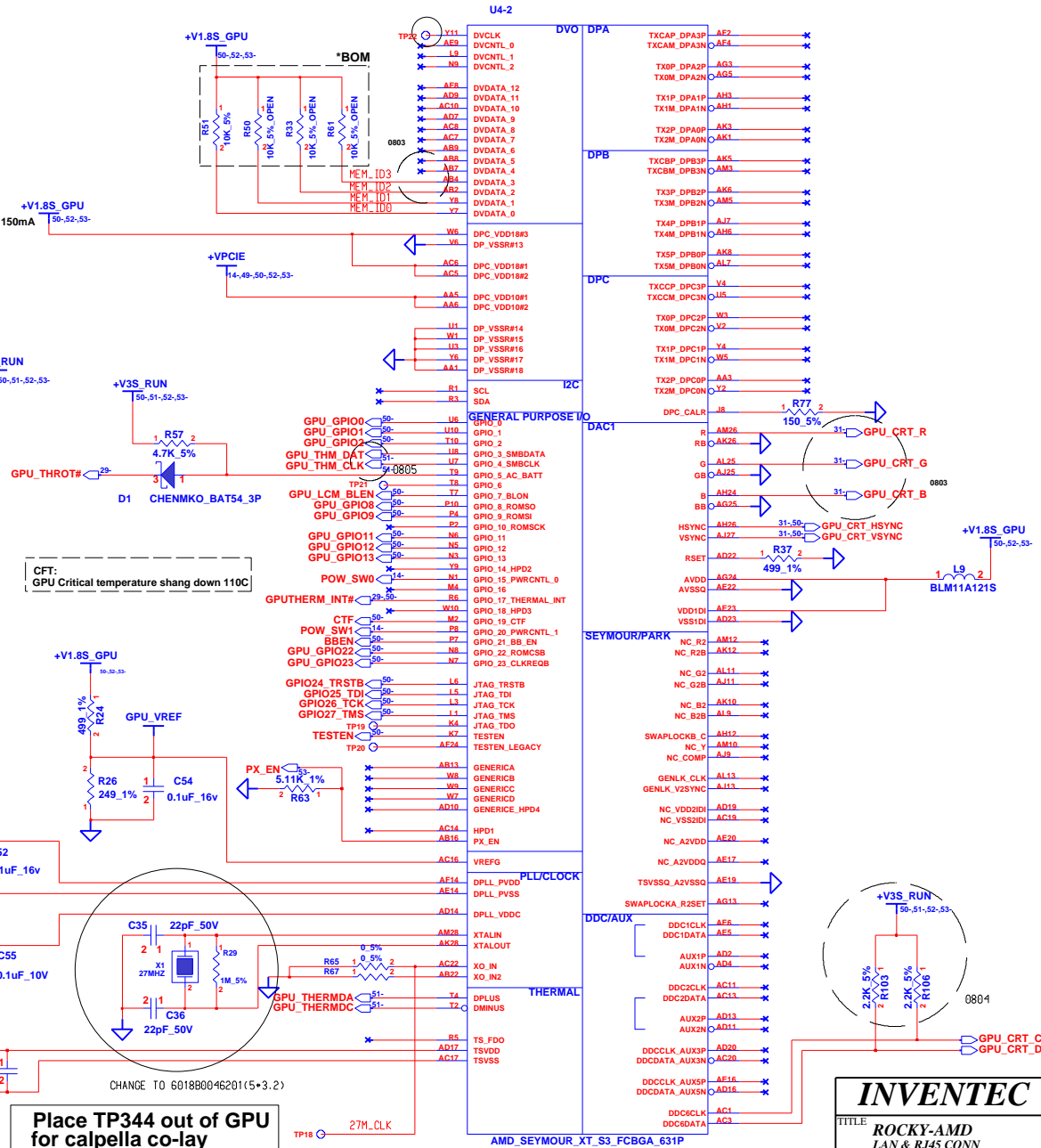
CFT: GPU Critical temperature shang down 110C



POW_SW1	POW_SW0	+VDDC_GPU
0	0	1.1V
0	1	1V
1	0	0.95V
1	1	0.9V

Place TP344 out of GPU for calpella co-lay

CHANGE TO 6018B0046201(5+3.2)

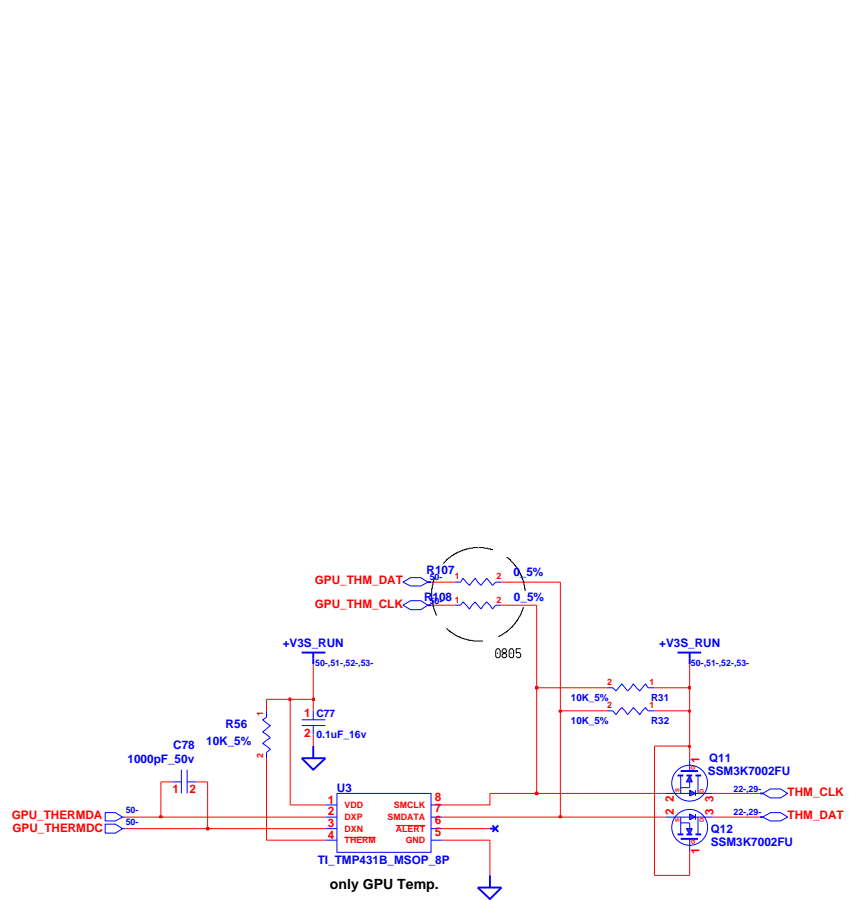


INVENTEC

TITLE: **ROCKY-AMD LAN & RJ45 CONN**

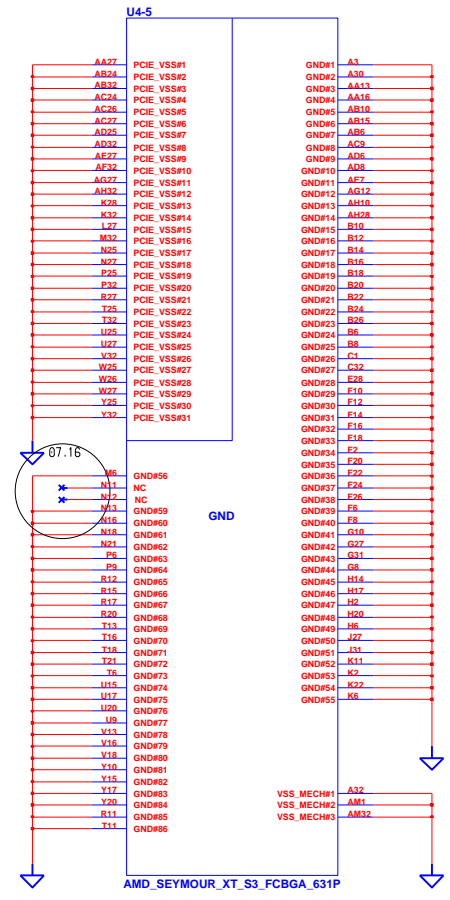
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01

SHEET 50 OF 60



SMB Address is 100 1101

MV Buid :
Main : 6019B0437702 EMC1402-2
2nd : 6019B0671902 TMP431B



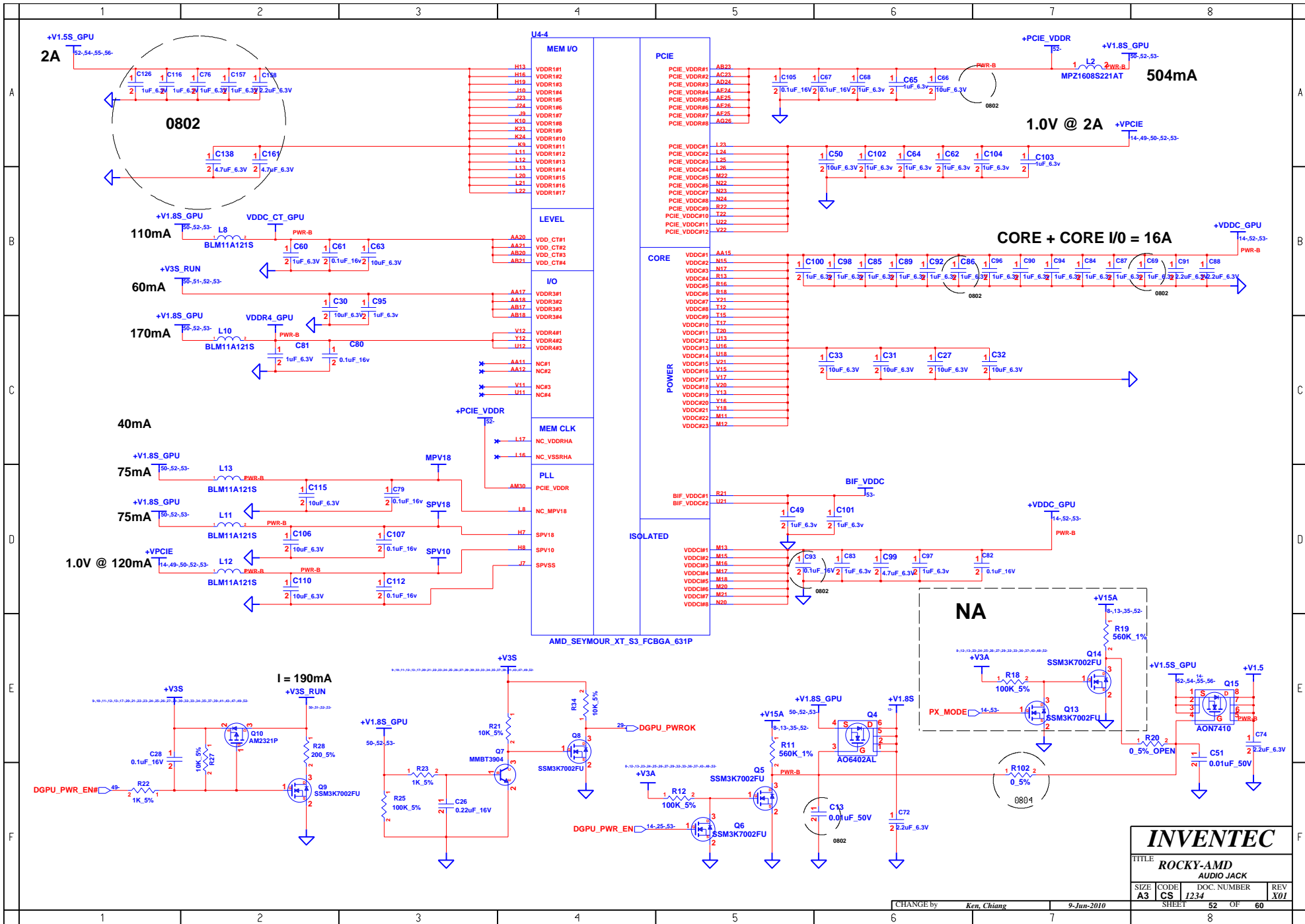
INVENTEC

TITLE
ROCKY-AMD
AUDIO CODEC IDT_92HD80

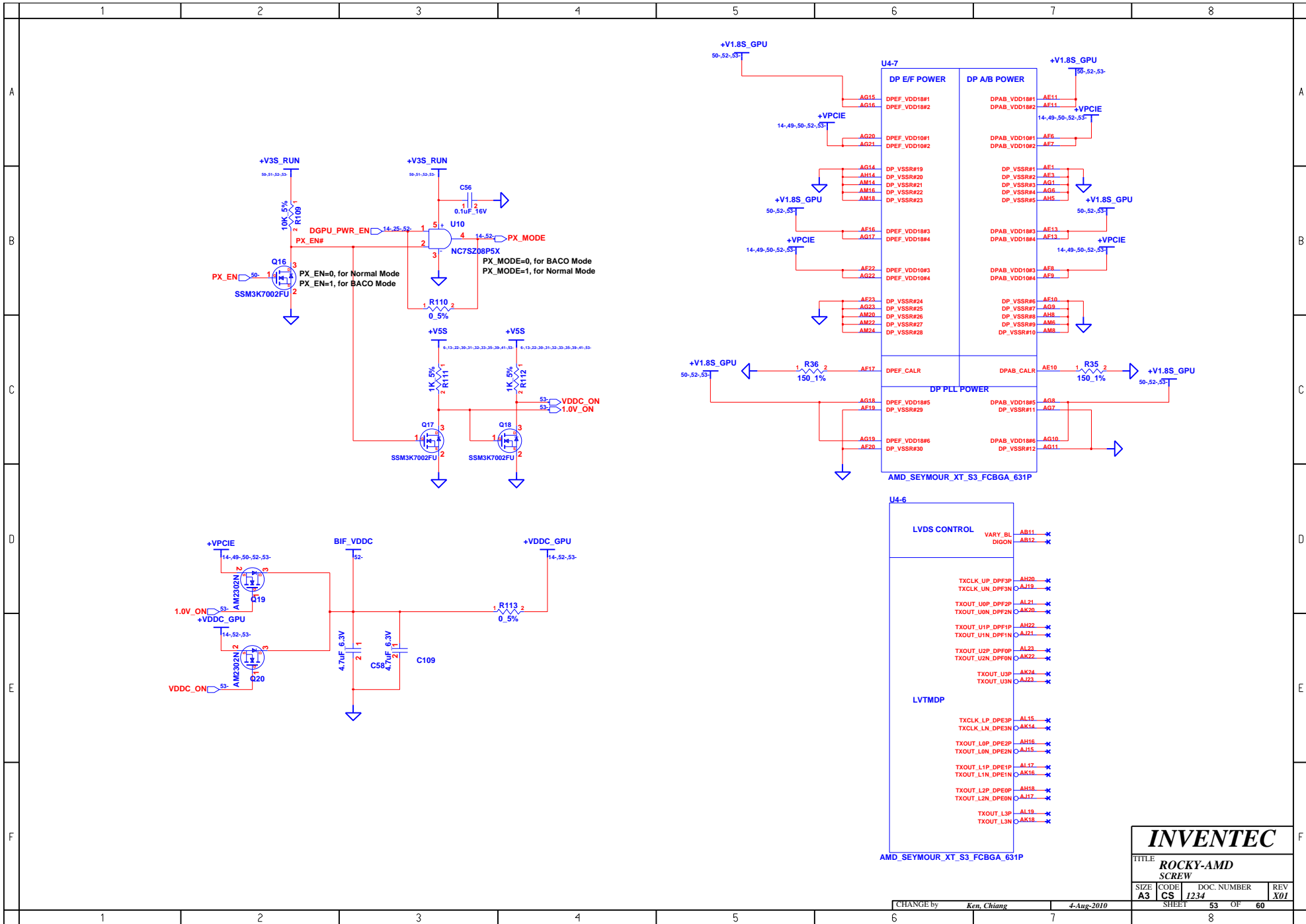
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01

CHANGE by Ken Chiang 9-Jun-2010

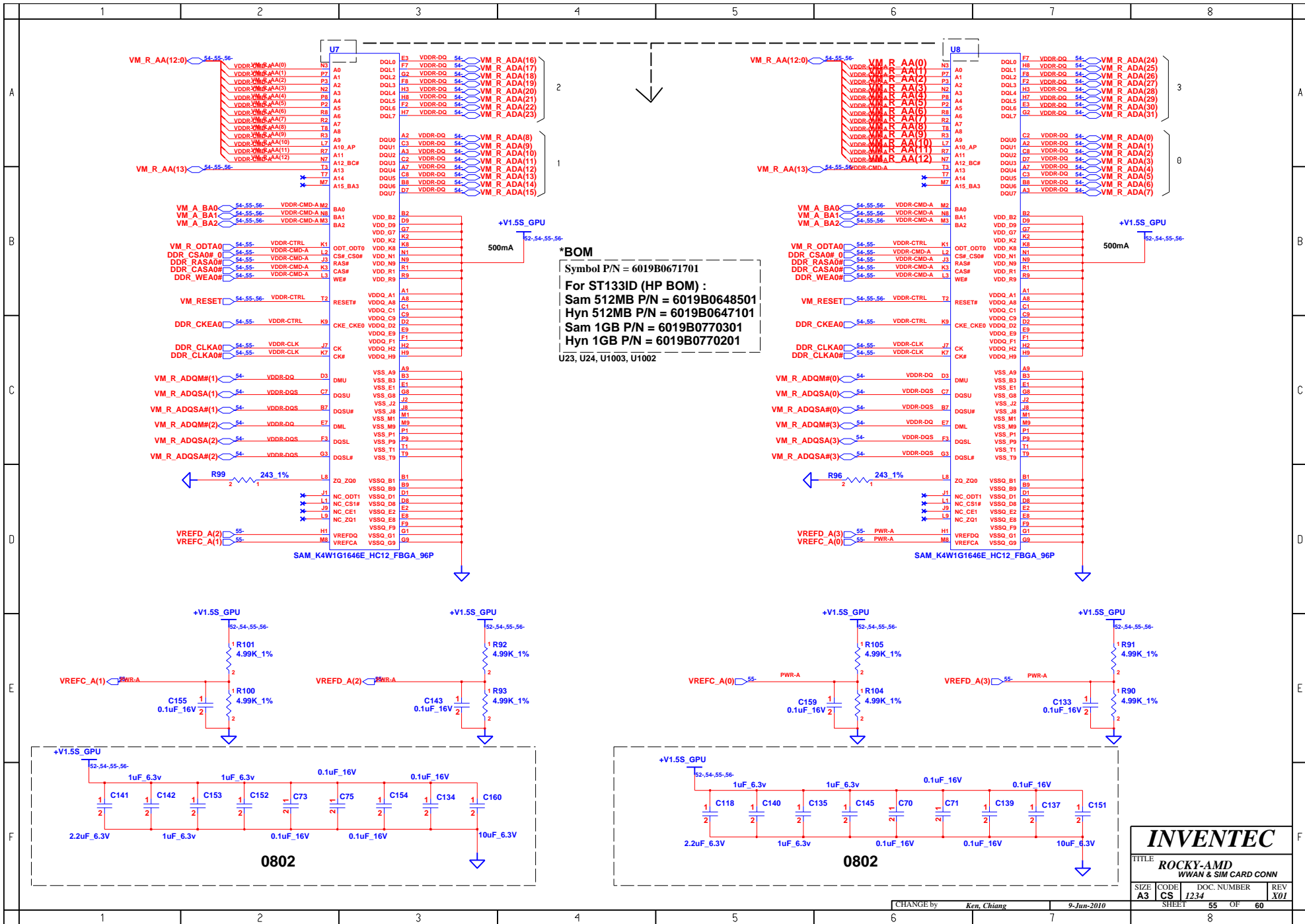
SHEET 51 OF 60



INVENTEC			
TITLE ROCKY-AMD AUDIO JACK			
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
CHANGE by <i>Ken Chiang</i>		9-Jun-2010	
SHEET 52		OF 60	

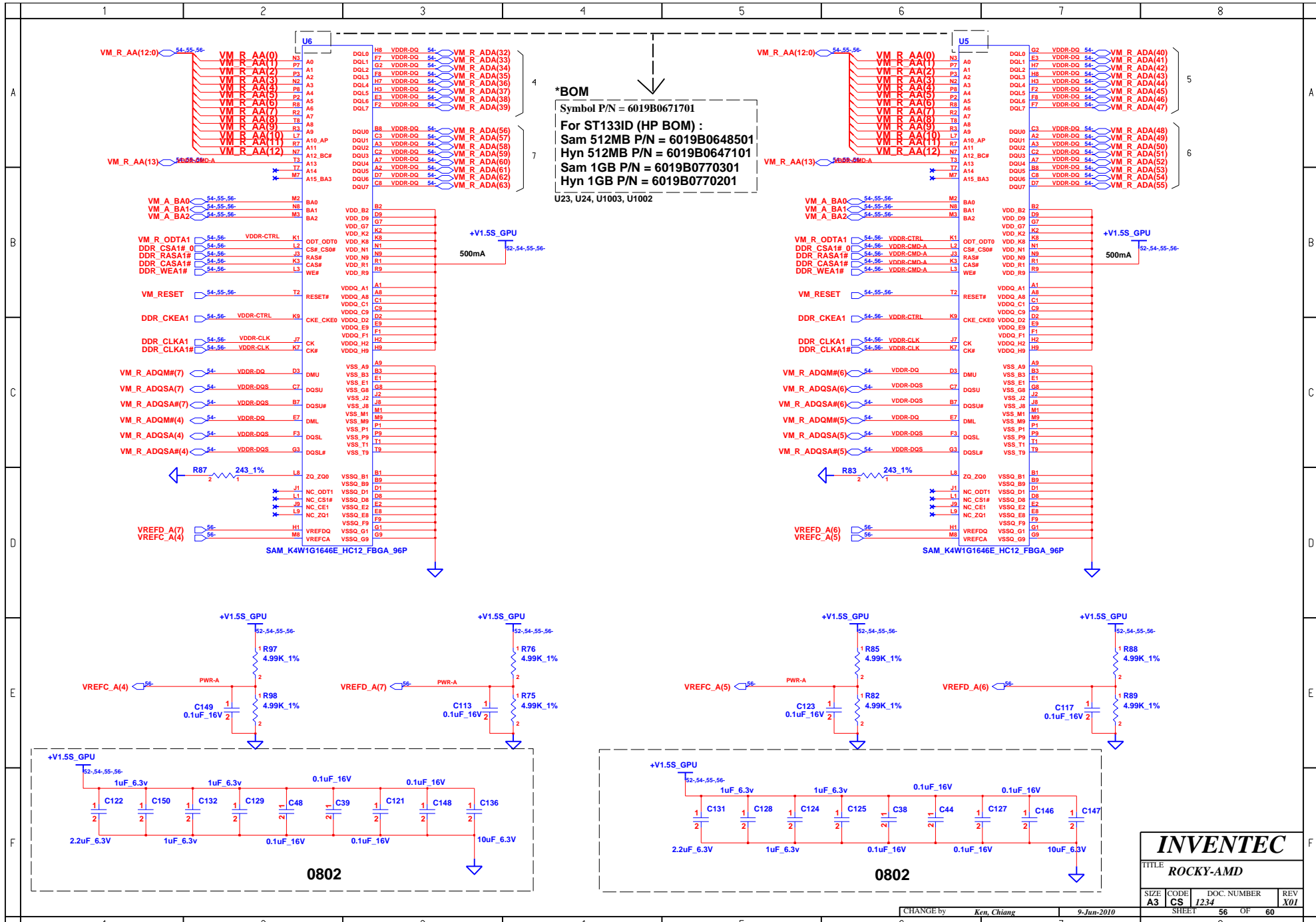


INVENTEC			
TITLE ROCKY-AMD SCREW			
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
CHANGE by <i>Ken Chiang</i>		4-Aug-2010	
SHEET 53 OF 60		8	



INVENTEC			
TITLE ROCKY-AMD WWAN & SIM CARD CONN			
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
SHEET		55 OF	60

CHANGE by Ken, Chiang 9-Jun-2010



***BOM**

Symbol P/N = 6019B0671701

For ST133ID (HP BOM) :

Sam 512MB P/N = 6019B0648501

Hyn 512MB P/N = 6019B0647101

Sam 1GB P/N = 6019B0770301

Hyn 1GB P/N = 6019B0770201

U23, U24, U1003, U1002

INVENTEC			
TITLE ROCKY-AMD			
SIZE A3	CODE CS	DOC. NUMBER 123J	REV X01
CHANGE by Ken, Chiang		9-Jun-2010	
SHEET		56	OF 60

	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE ROCKY-AMD EXT USB CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01
CHANGE by <i>Ken, Chiang</i>		9-Aug-2010	
SHEET		57	OF 60
		8	

	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC

TITLE **ROCKY-AMD**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01

CHANGE by *Ken, Chiang* 9-Aug-2010

SHEET 58 OF 60

	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC

TITLE
ROCKY-AMD

SIZE A3	CODE CS	DOC. NUMBER <i>123J</i>	REV <i>X01</i>
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CHANGE by *Ken, Chiang* 9-Aug-2010

SHEET 59 OF 60

	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE ROCKY-AMD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	123J	X01
CHANGE by <i>Ken, Chiang</i>		9-Aug-2010	
SHEET		60	OF 60
		8	