

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

ROCKY AMD 15"

DB

2010/07/29

DATE	CHANGE NO.	REV
1	2	

	EE	DATE	POWER	DATE
DRAWER	ALAN W		ALBERT	
DESIGN	VENS HUANG		ALBERT	
CHECK				
RESPONSIBLE				
SIZE = 3				
FILE NAME : XXXX-XXXXXX-XX				
P/N	XXXXXXXXXXXX			
VER :				
SIZE CODE				
A3 CS 1234				
DOC. NUMBER				
REV				
X01				
SHEET 1 OF 58				

INVENTEC	
Project Name	
ROCKY-AMD	
SHEET 1 OF 58	

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 03- Block Diagram
 04- Power Procedure
 05- NOTE
 06- DC & BATTERY CHARGER
 07- BATTERY CONN
 08- +V5A & +V3A & +V2.5S
 09- +V1.2A & +VCC_NB
 10- +VCC_CORE & +VCC_CORE_NB
 11- +V1.1S & +V1.1A & +V1.05S
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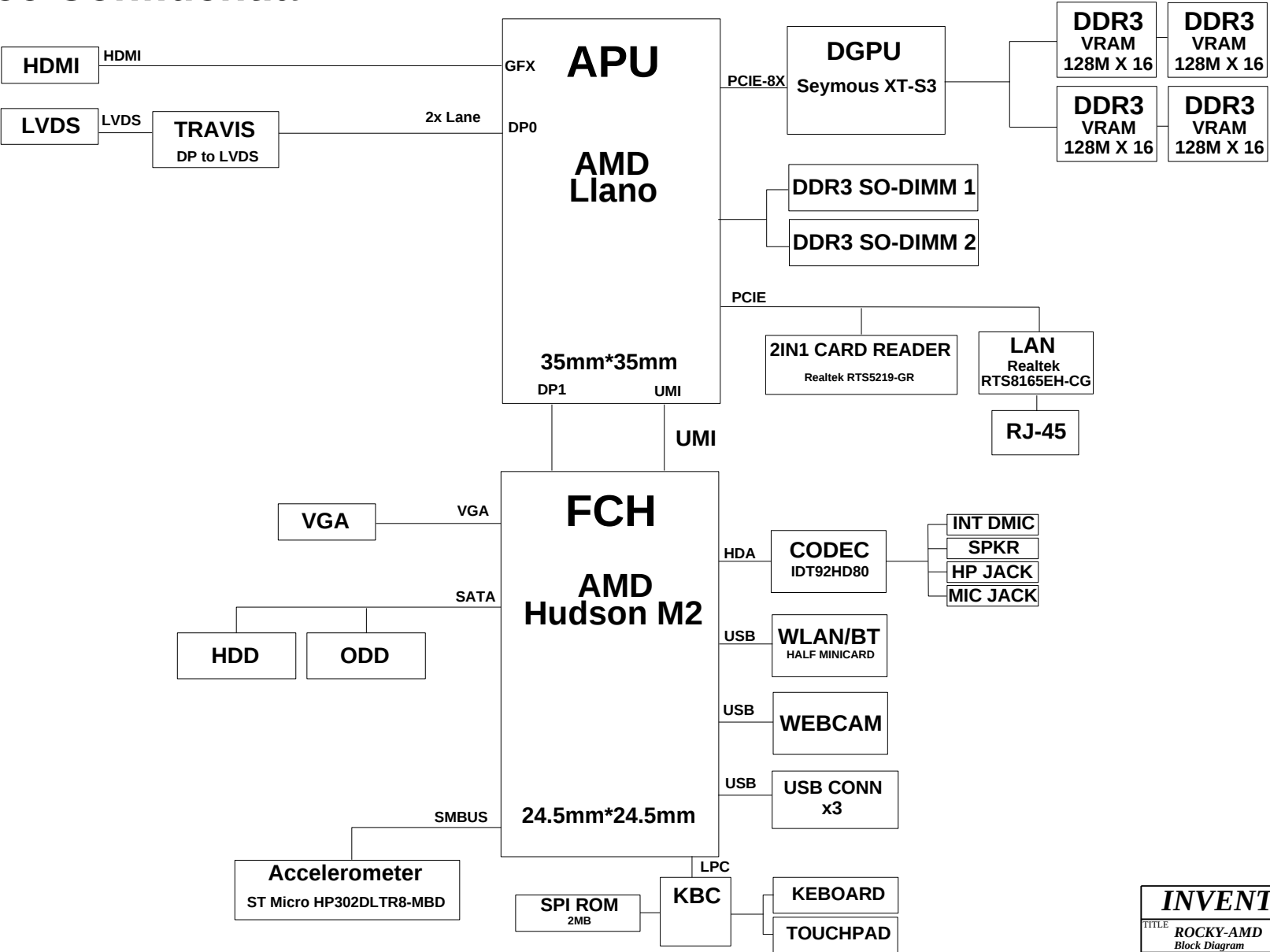
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ROCKY-AMD Index			
SIZE	CODE	DOC. NUMBER	REV
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CHANGE by *Ken, Chiang* 29-Jul-2010

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Sabine - DIS



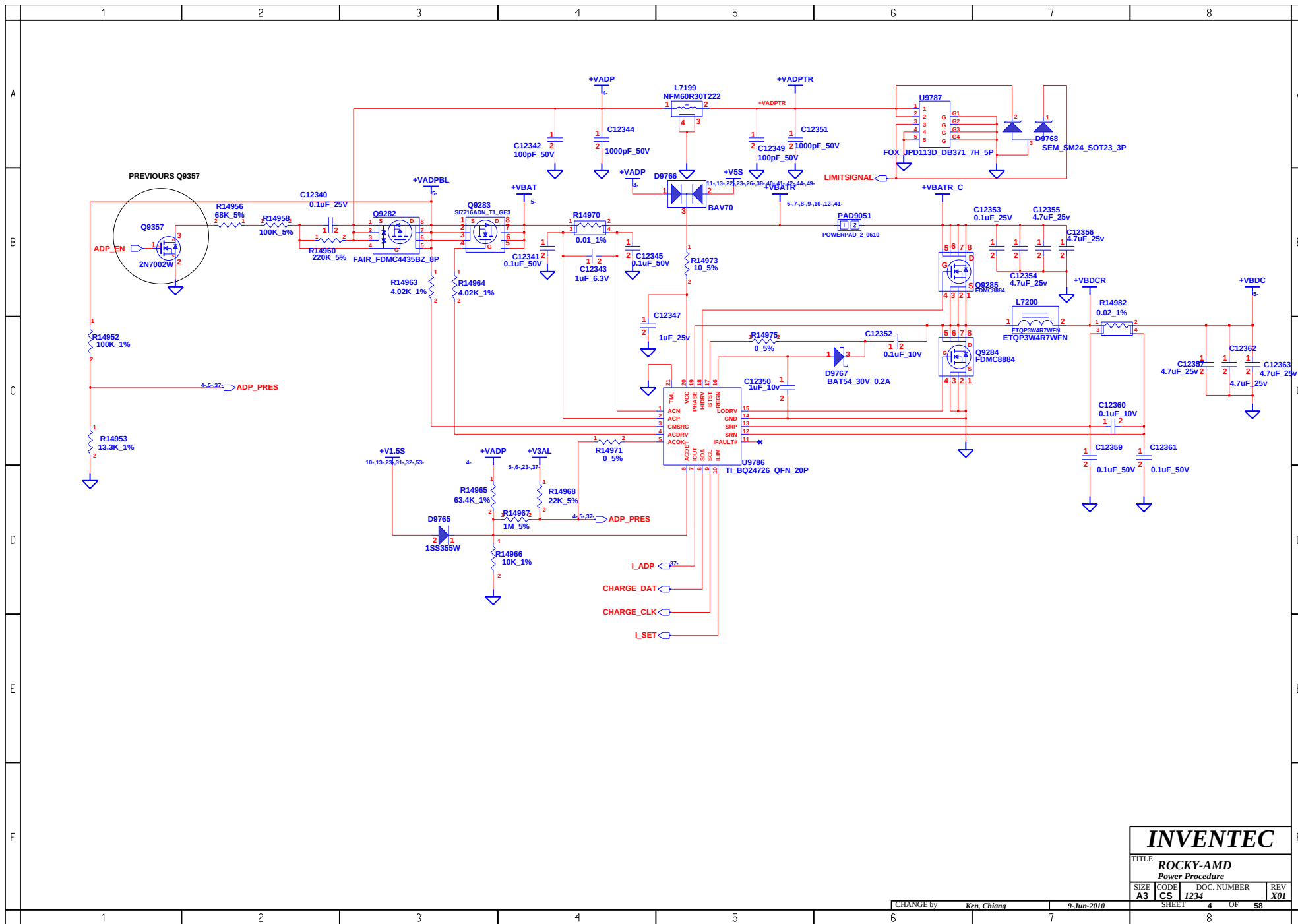
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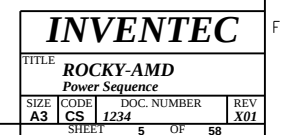
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ROCKY-AMD
Block Diagram

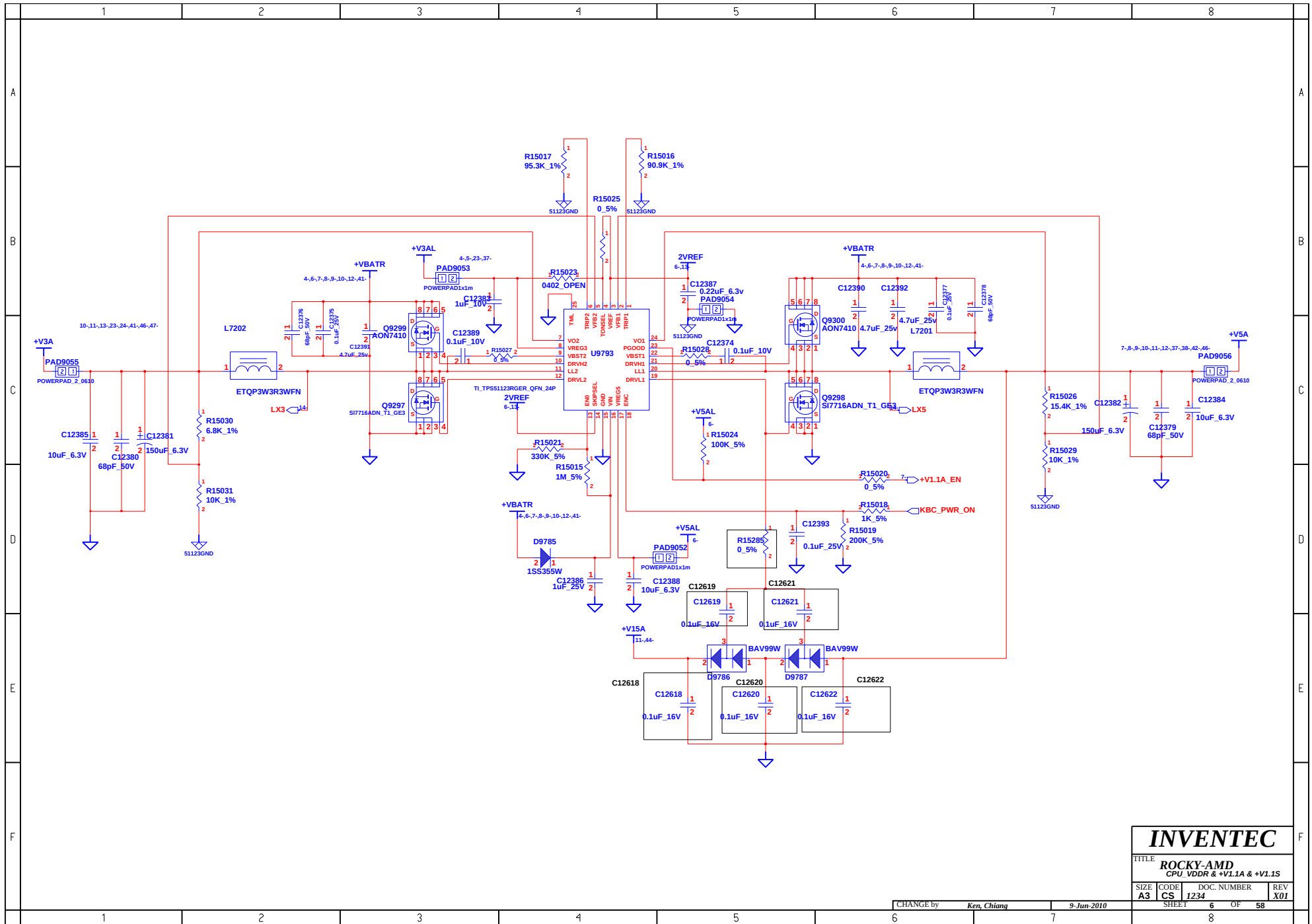
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CHANGE by Ken, Chiang 29-Jul-2010

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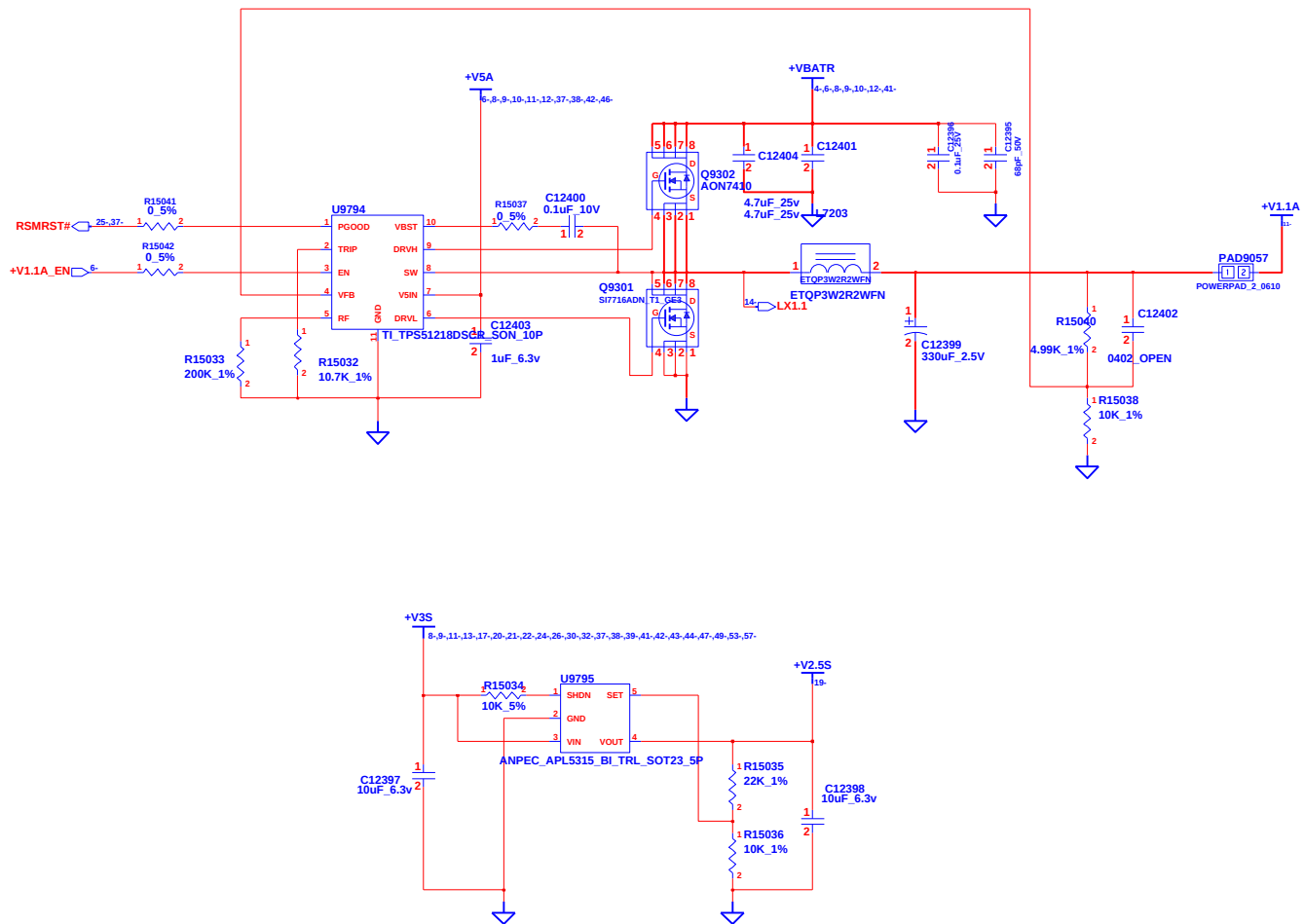


INVENTEC

TITLE			
ROCKY-AMD			
CPU_VDDR & +V1.1A & +V1.1S			
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A3	CS	1234	X01

CHANGE by Ken Chiang 9-Jun-2010

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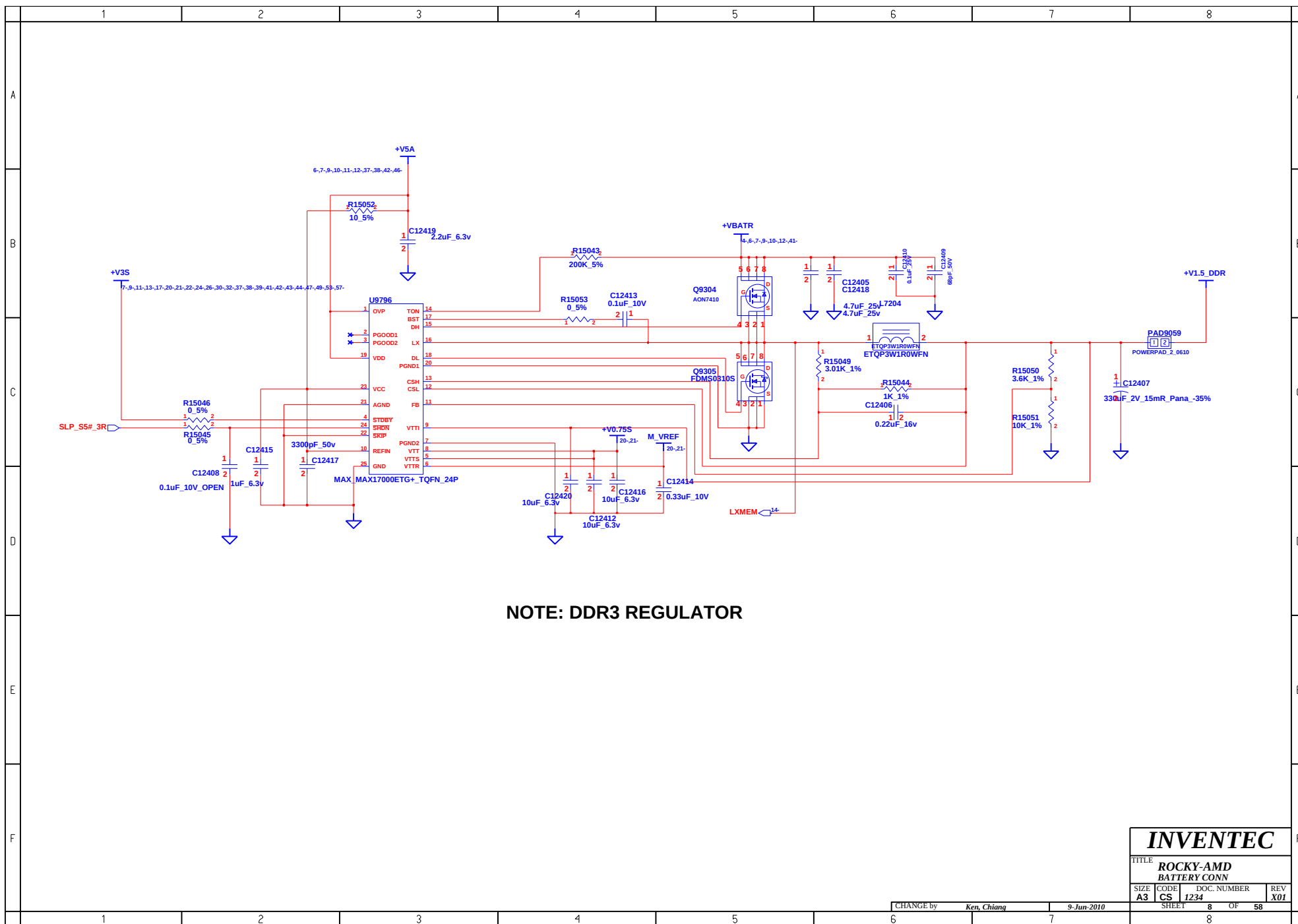


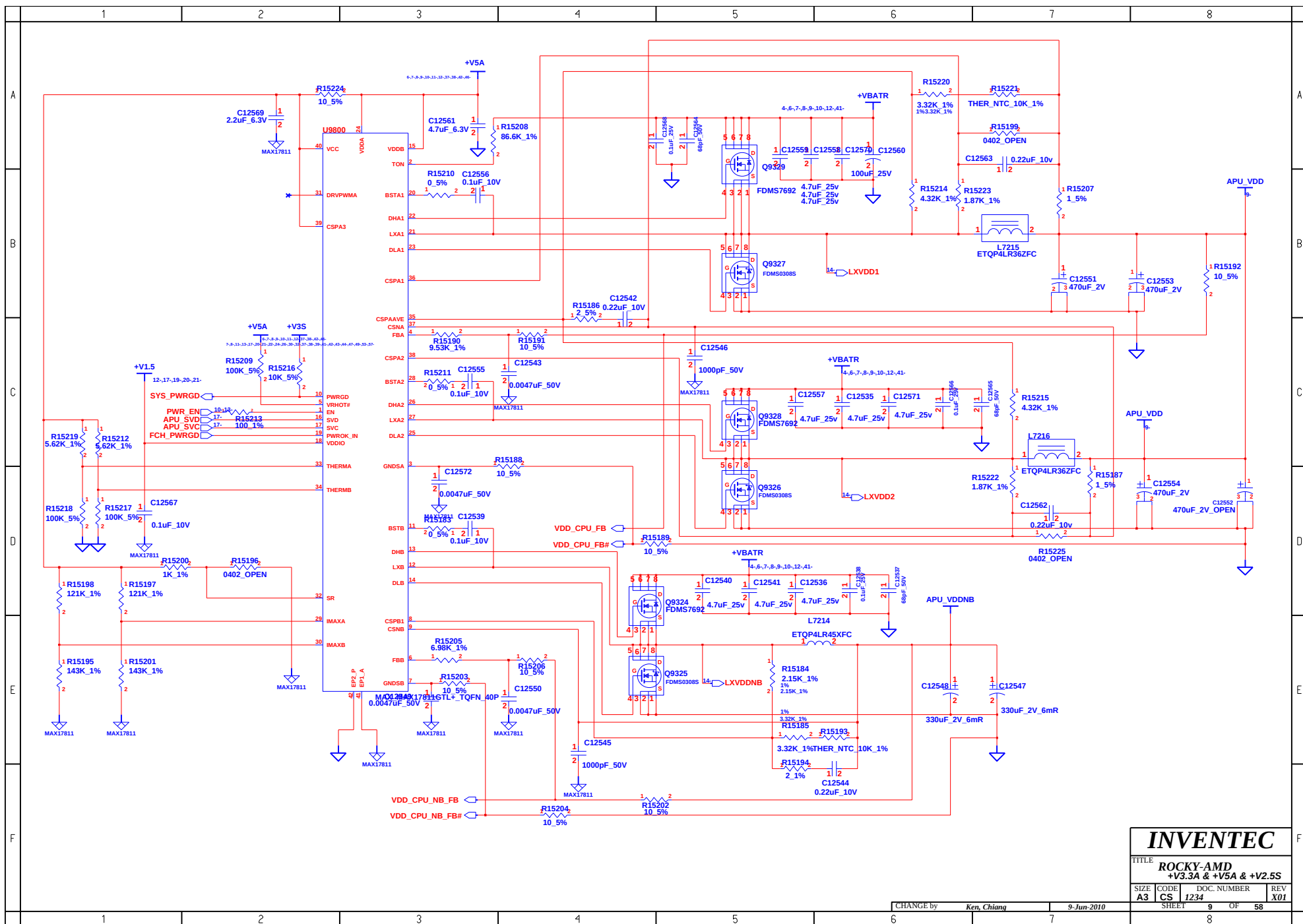
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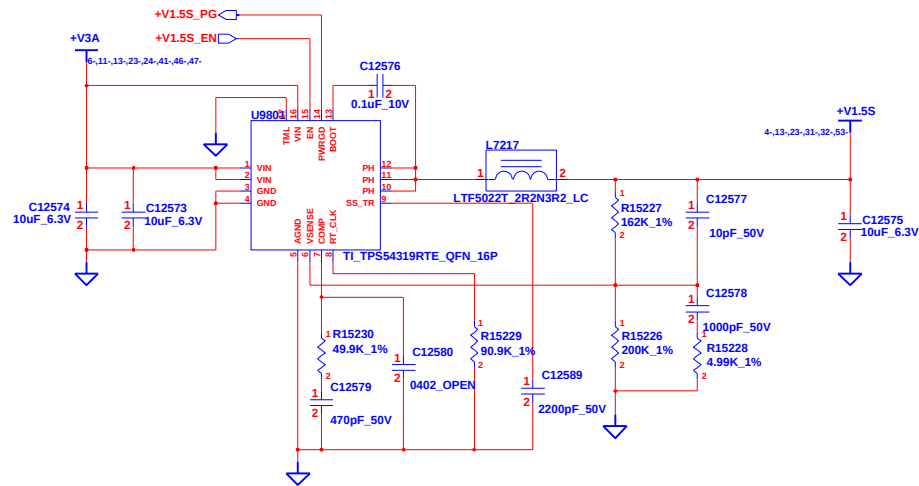
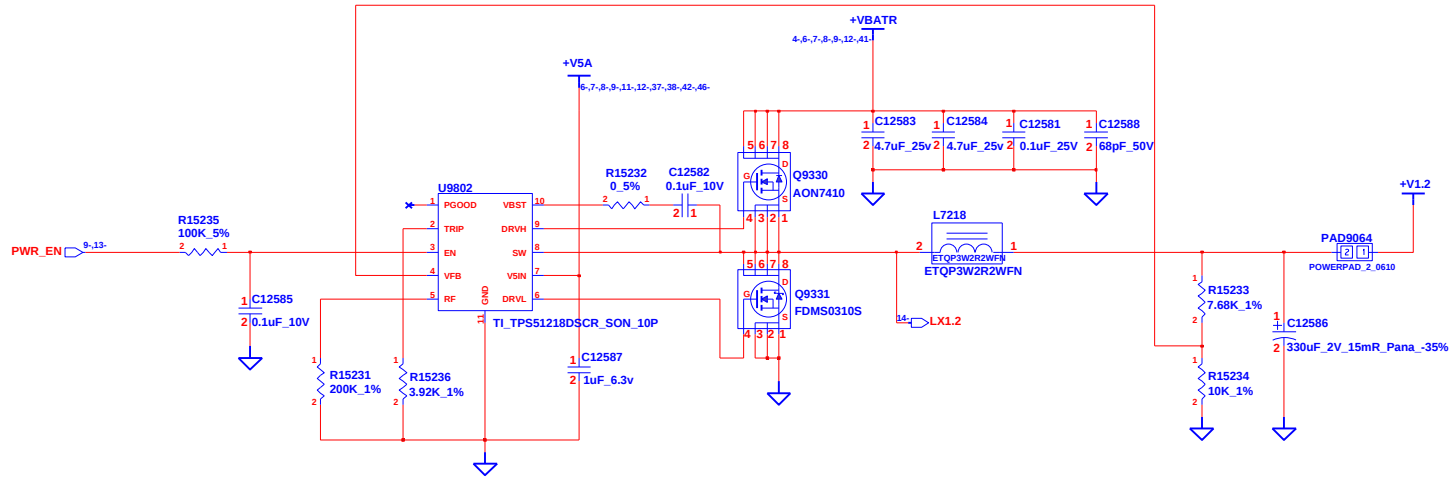
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ROCKY-AMD DC & BATTERY CHARGER			
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A3	CS	1234	X01

CHANGE by Ken, Chiang 9-Jun-2010

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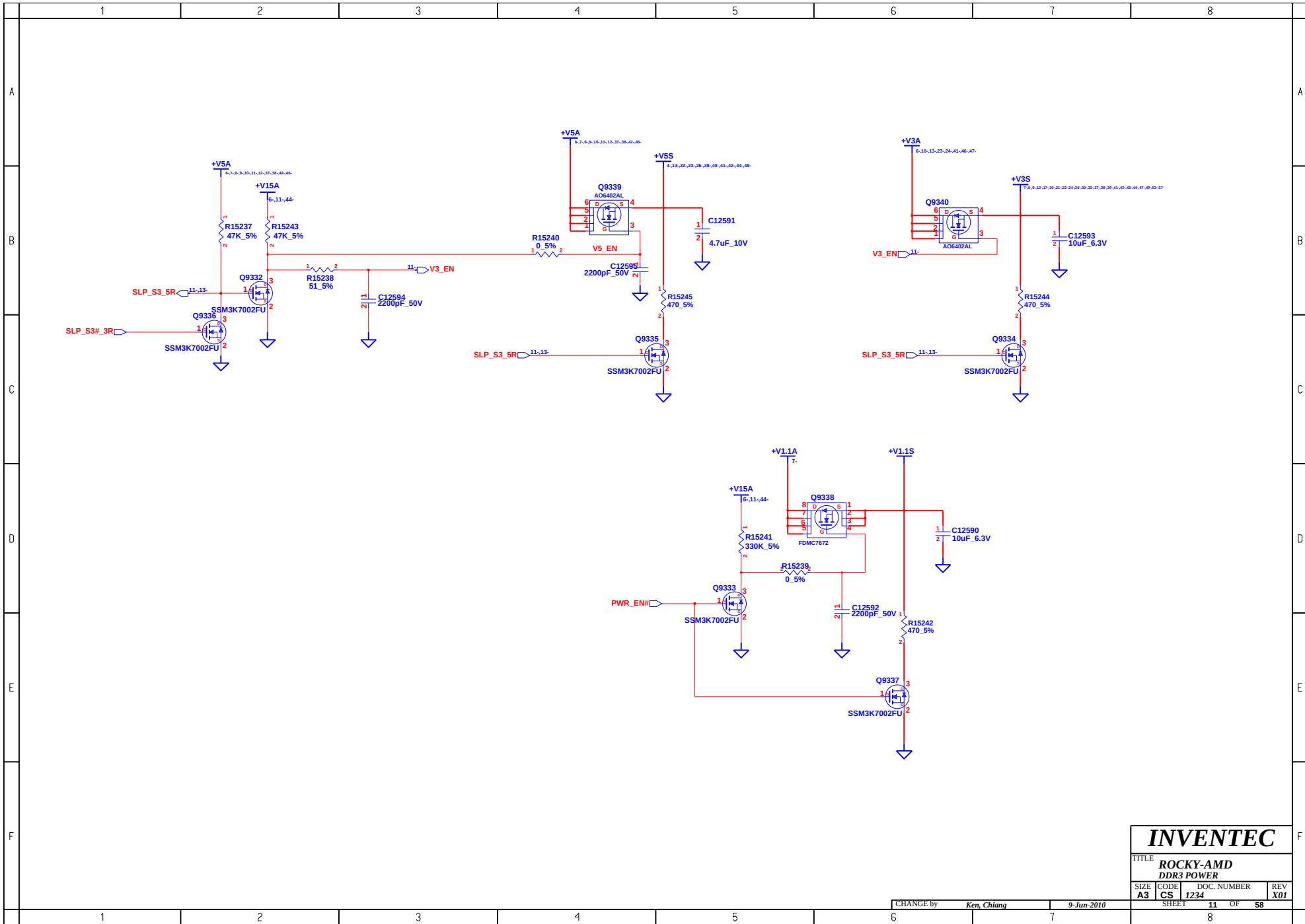
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TITLE
ROCKY-AMD
+V1.2A & VCC_NB

SIZE	CODE	DOC. NUMBER	REV
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CHANGE by *Ken Chiang* 9-Jun-2010

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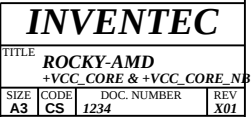


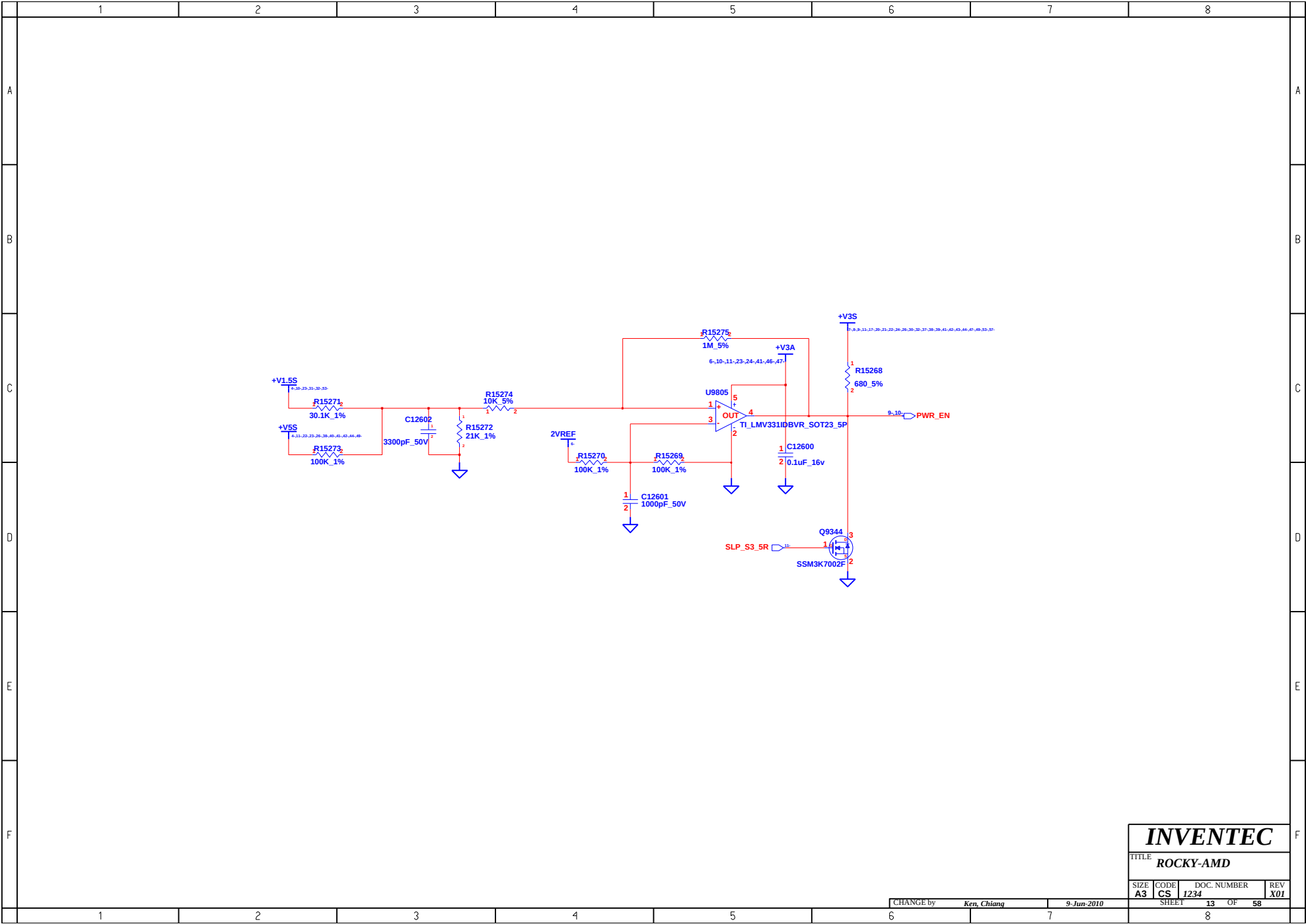
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TITLE			
ROCKY-AMD			
DDR3 POWER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1234	X01

CHANGE by Ken, Chiang 9-Jun-2010

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$$V_{out} = (R_{top}/R_{bot} + 1) \cdot 0.75$$


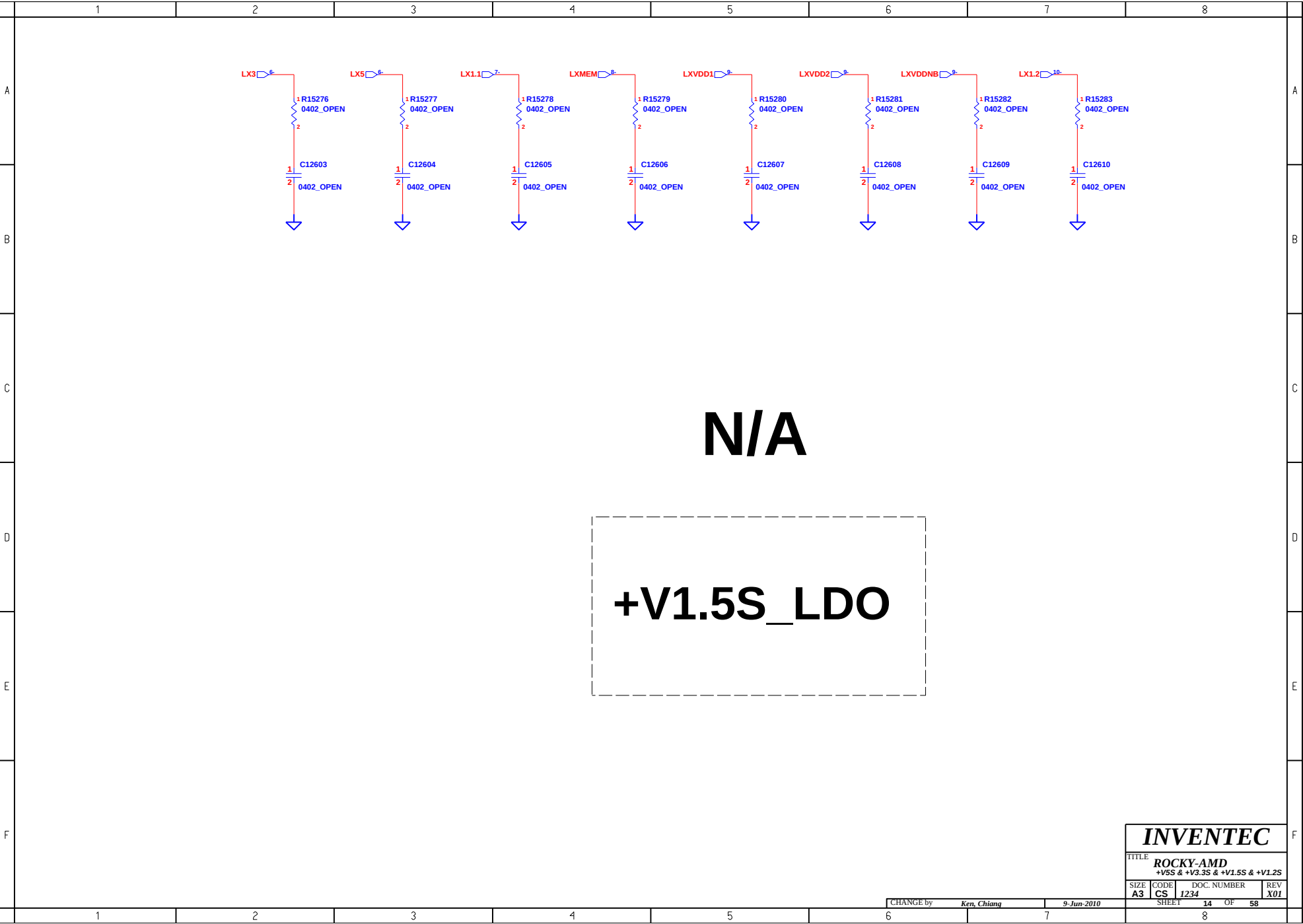


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TITLE
ROCKY-AMD

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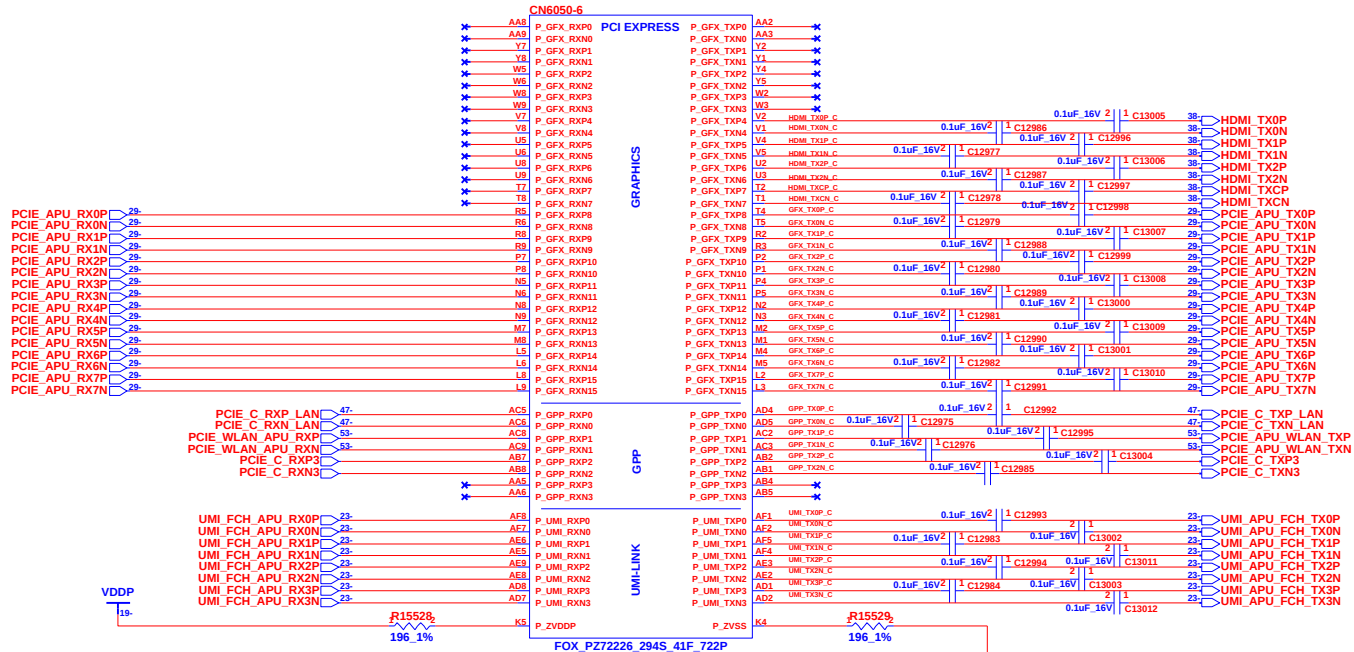
CHANGE by	Ken, Chiang	9-Jun-2010
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B									B
C									C
D									D
E									E
F									F
						CHANGE by <i>Ken, Chiang</i>		9-Jun-2010	
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INVENTEC			
TITLE ROCKY-AMD CLK GEN			
SIZE A3	CODE CS	DOC. NUMBER 1234	REV X01
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CPU



HDMI

PEG

LAN
WLAN
CardReader

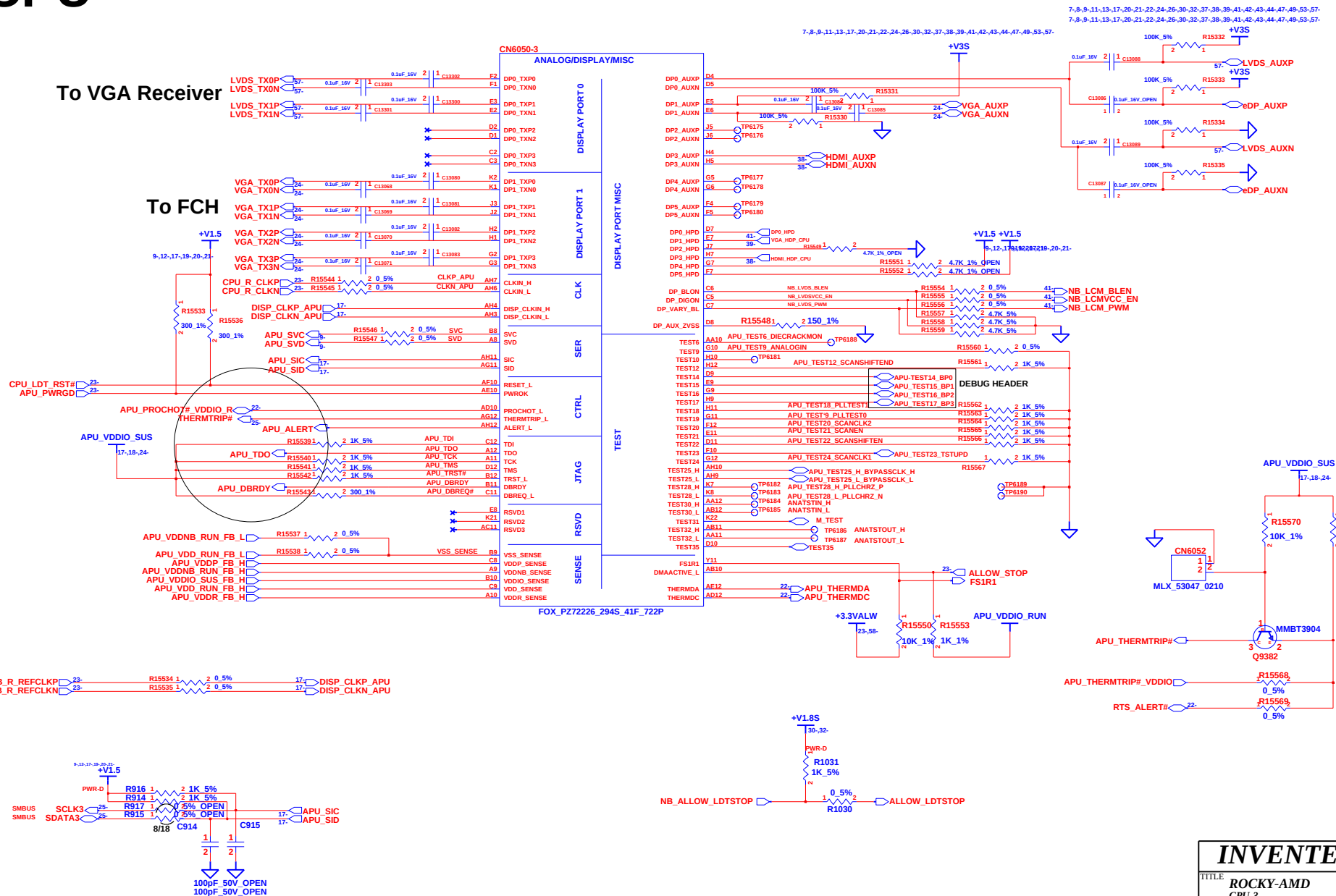
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ROCKY-AMD			
RS880M - 1			
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CHANGE by Ken, Chiang

9-Jun-2010

CPU



INVENTEC

TITLE	ROCKY-AMD CPU-3
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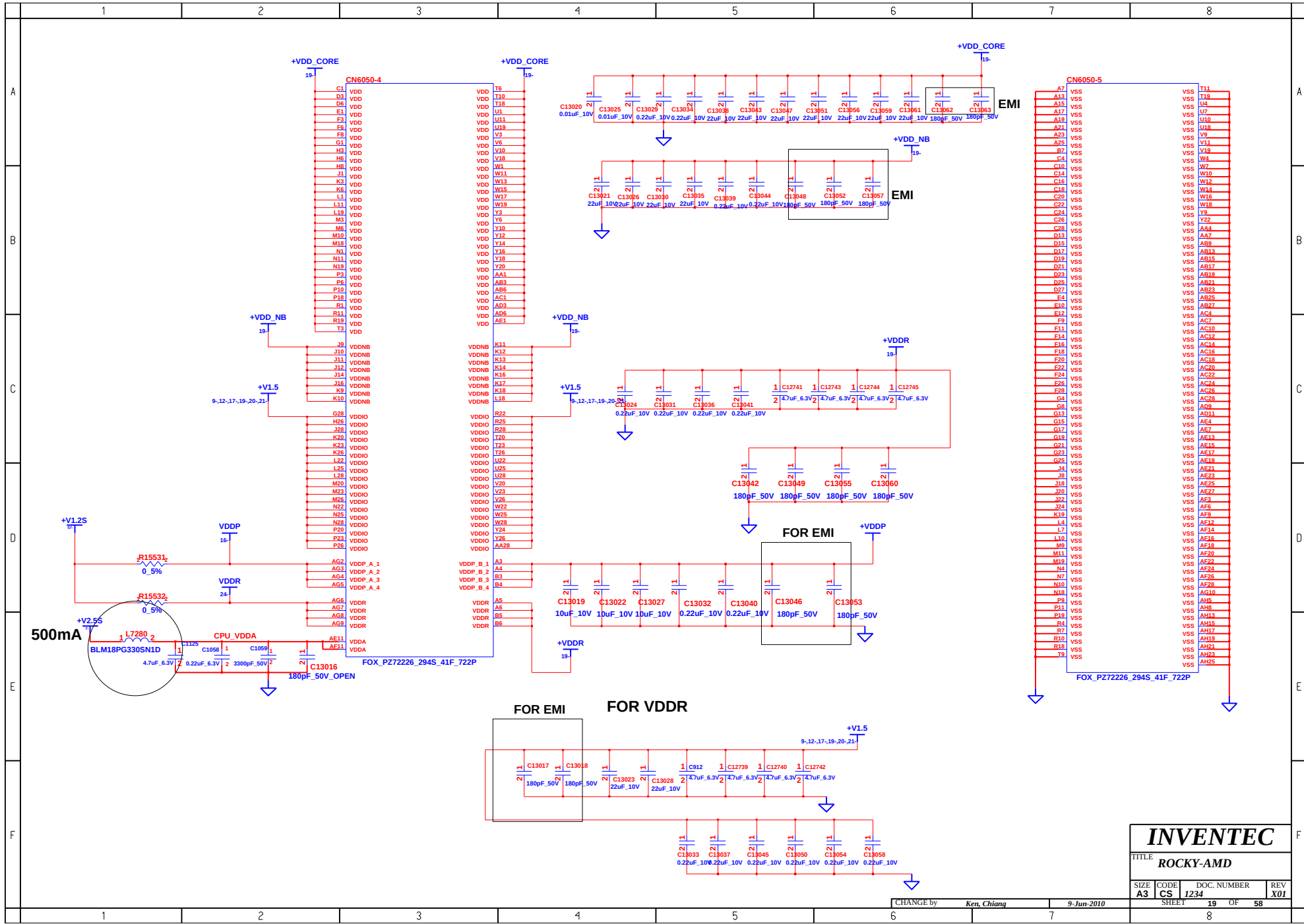
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A3	CS	1234	X
SHEET		17	OF 58

CHANGE by	<i>Ken, Chiang</i>
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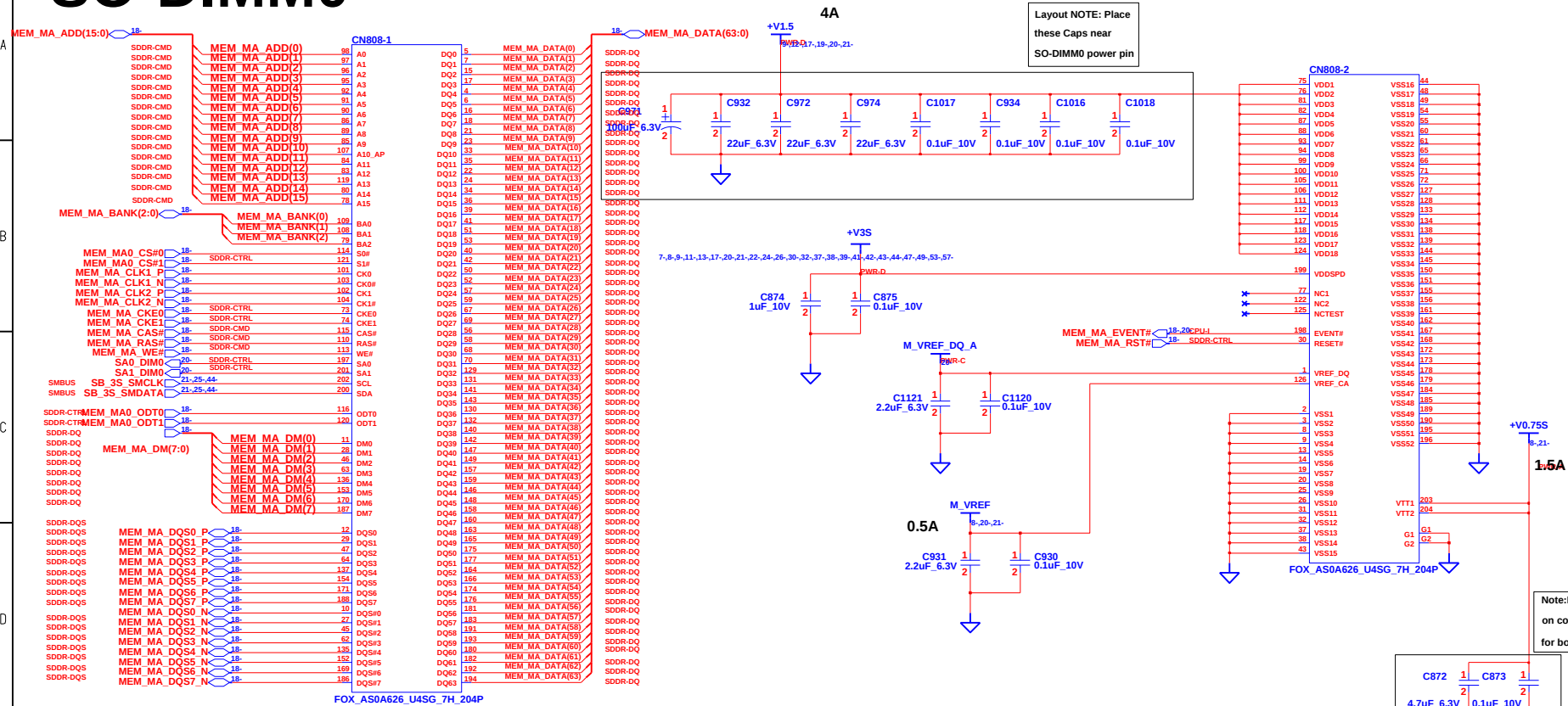
34

58



INVENTEC				
TITLE ROCKY-AMD				
SIZE A3	CODE CS	DOC. NUMBER 1234	REV X01	
CHANGE by Ken, Chiang				
9-Jun-2010				
SHEET 19 OF 58				
8				

SO-DIMM0



NOTE:

IF SA0_DIM0=0, SA1_DIM0=0
SO-DIMMA SPD ADDRESS IS 0xA0
SO-DIMMA TS ADDRESS IS 0x30

IF SA0_DIM0=1, SA1_DIM0=0
SO-DIMMA SPD ADDRESS IS 0xA2
SO-DIMMA TS ADDRESS IS 0x32

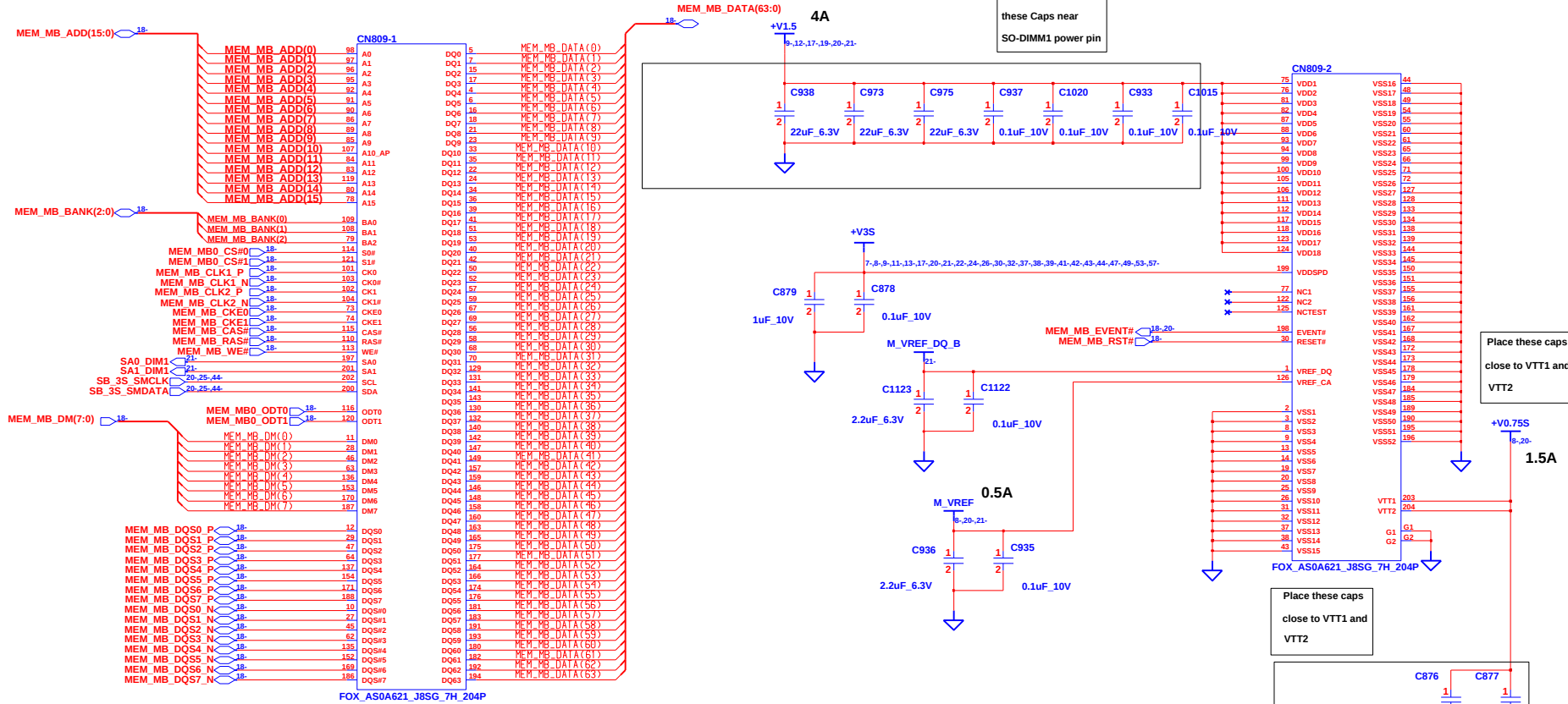
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TITLE			
ROCKY-AMD			
DDR3 DIMM0			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1234	X01
SHEET		20	OF 58

CHANGE by Ken, Chiang 9-Jun-2010

8

SO-DIMM1

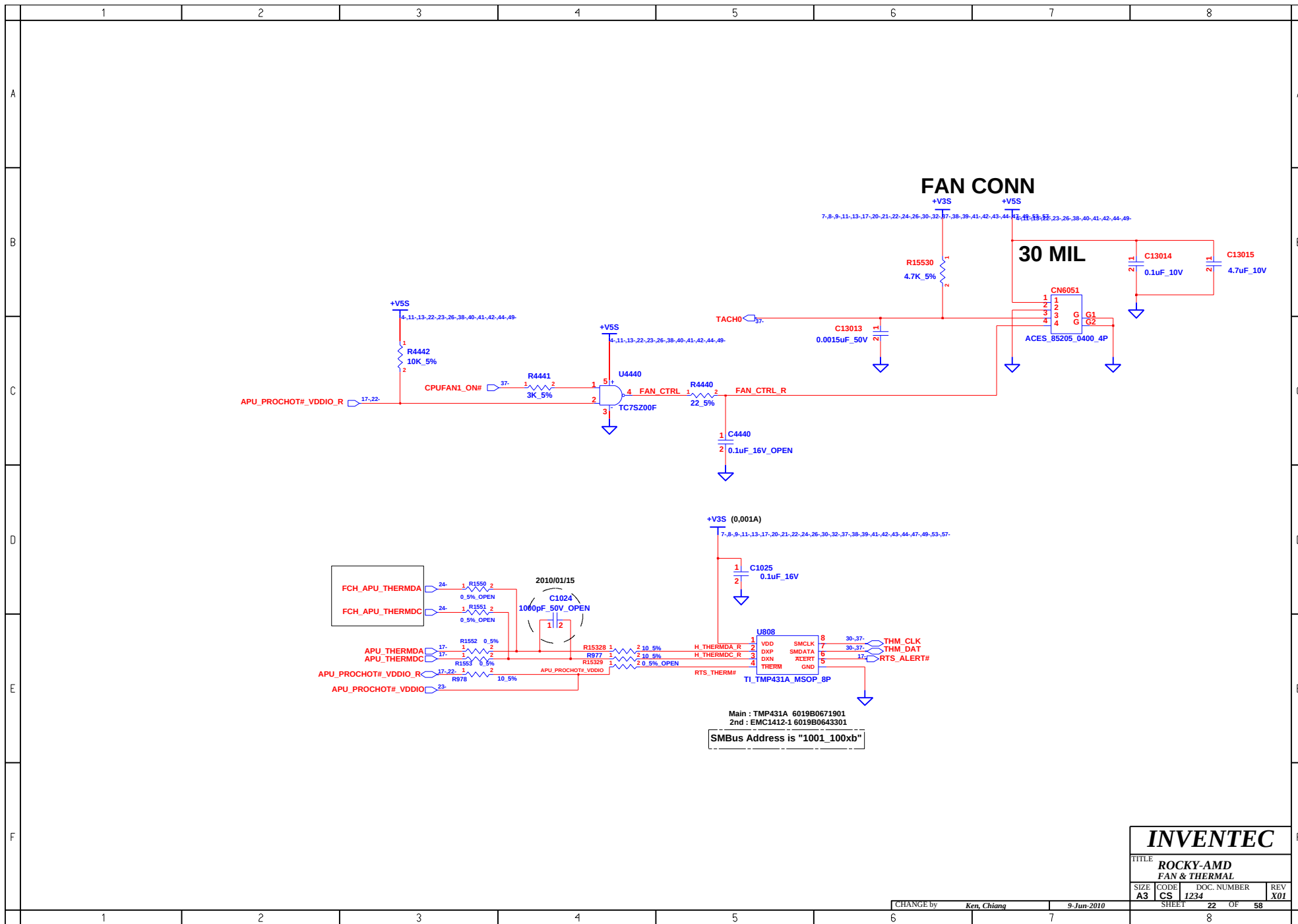


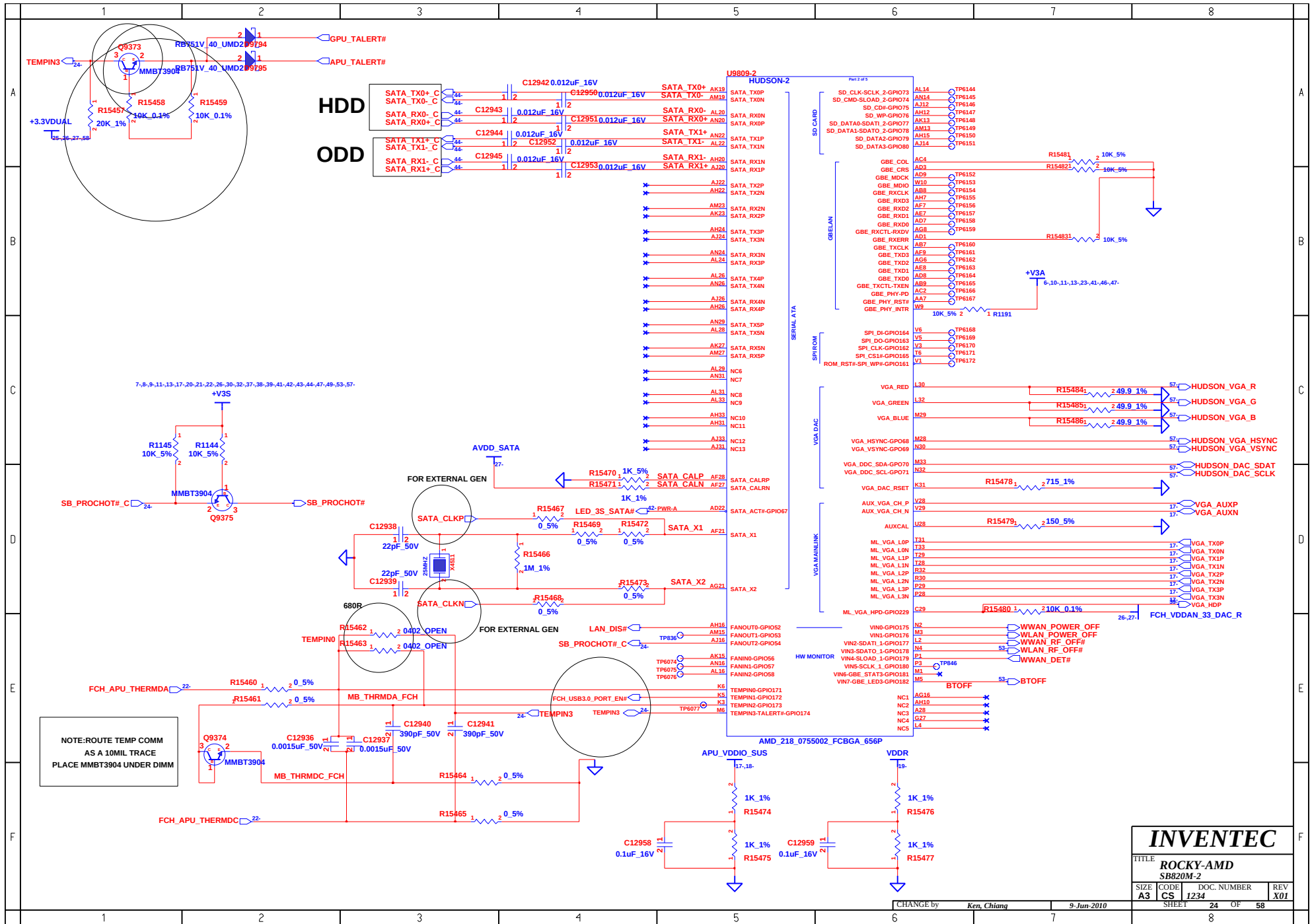
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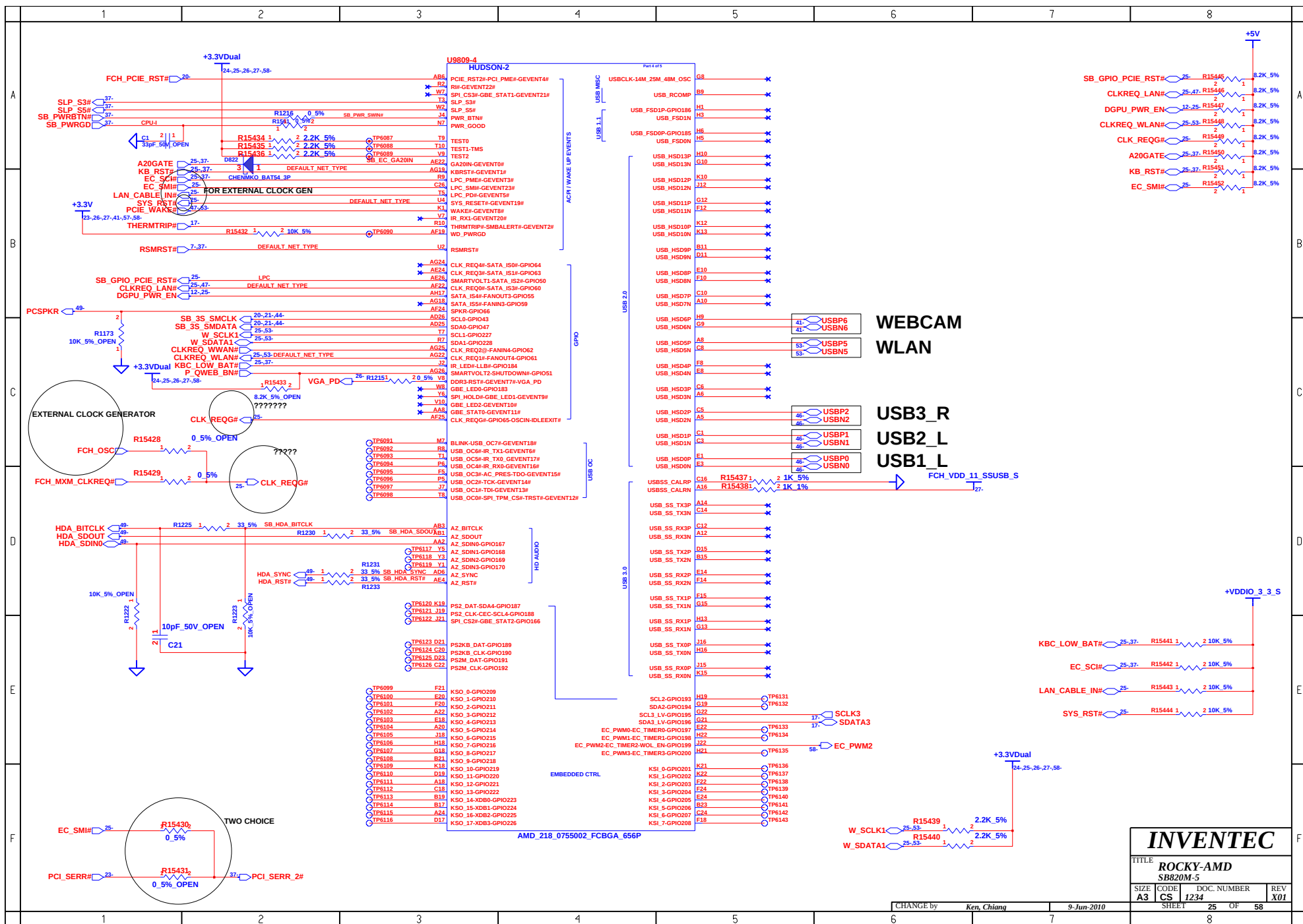
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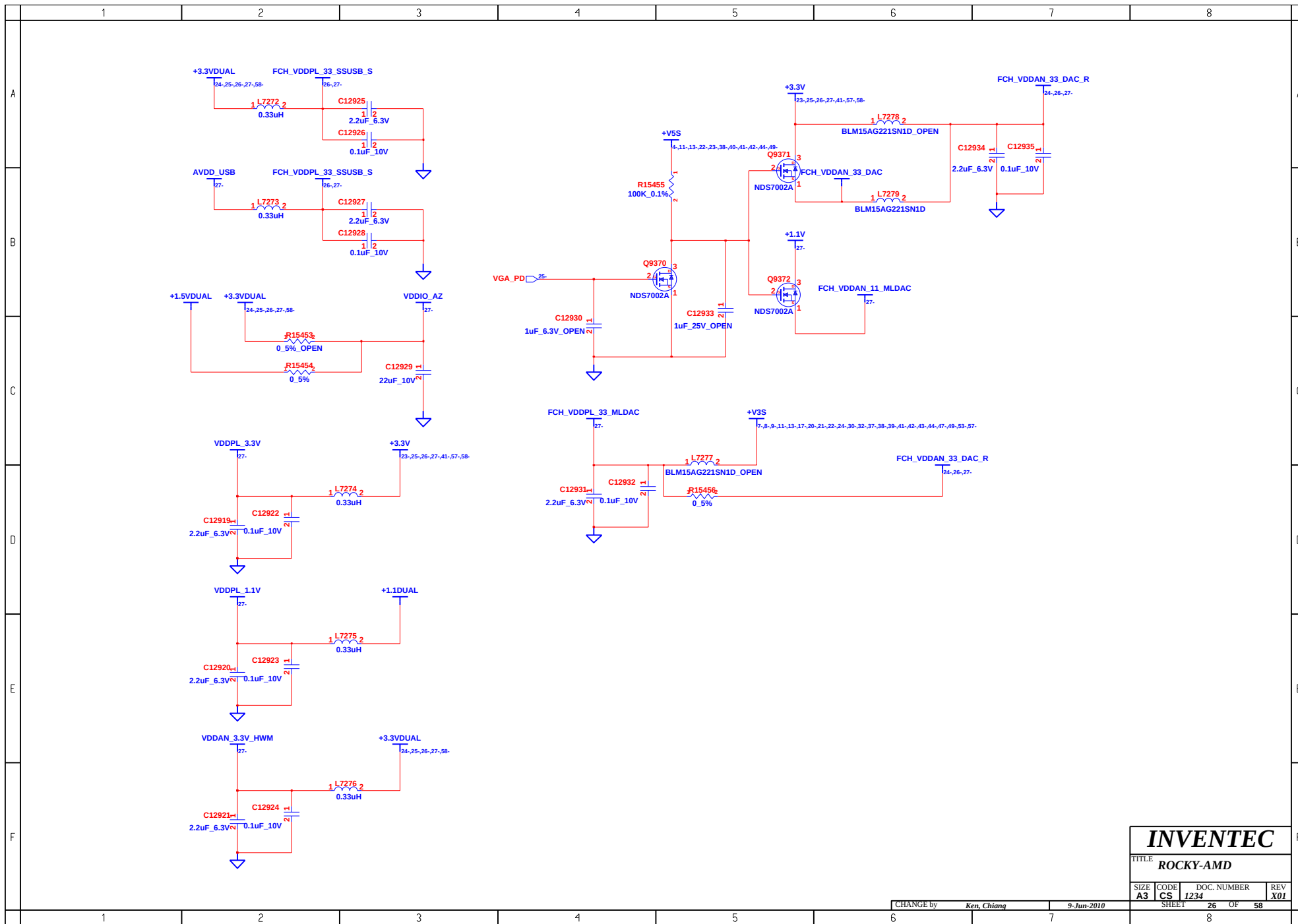
CHANGE by Ken, Chiang 9-Jun-2010

8

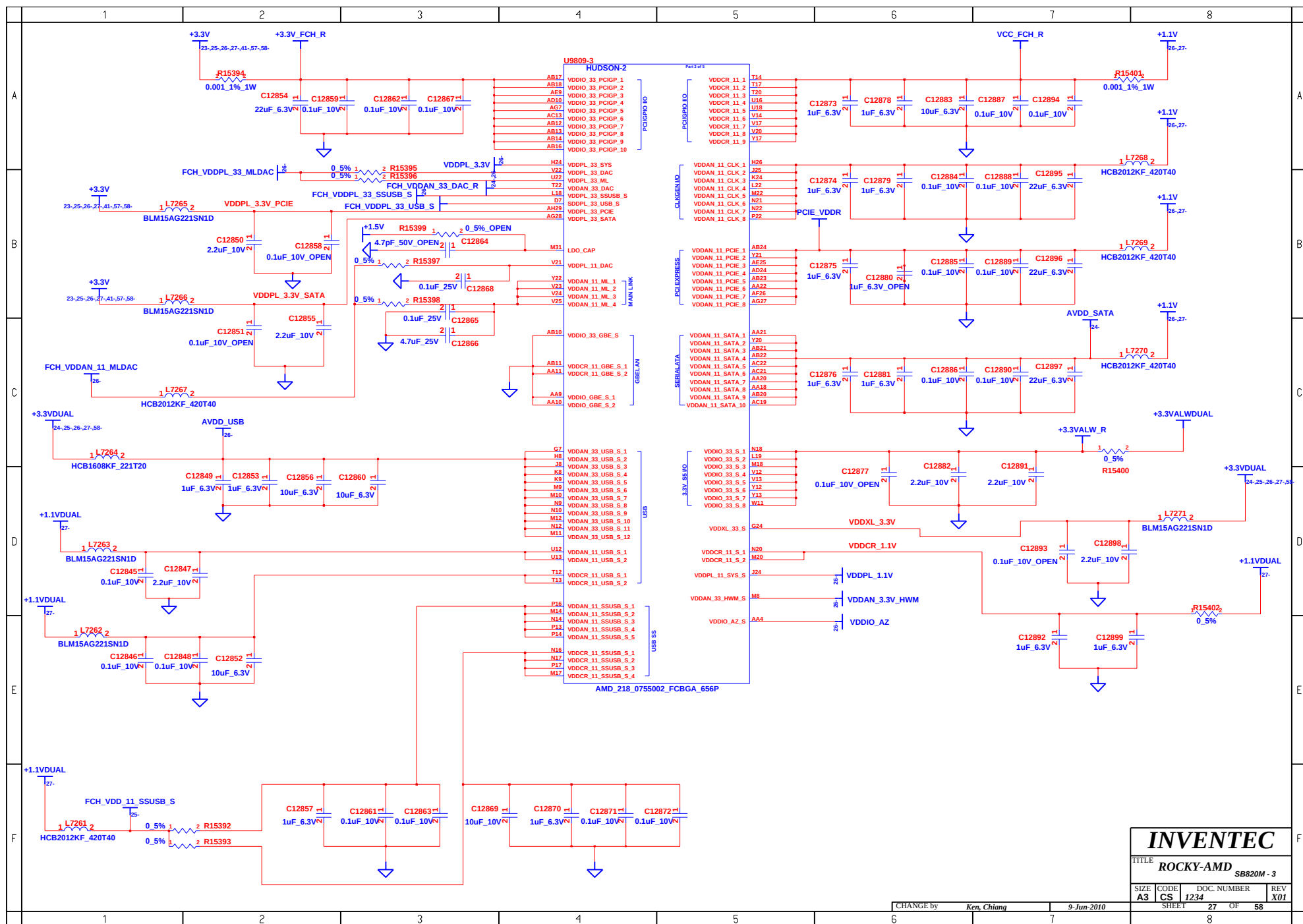


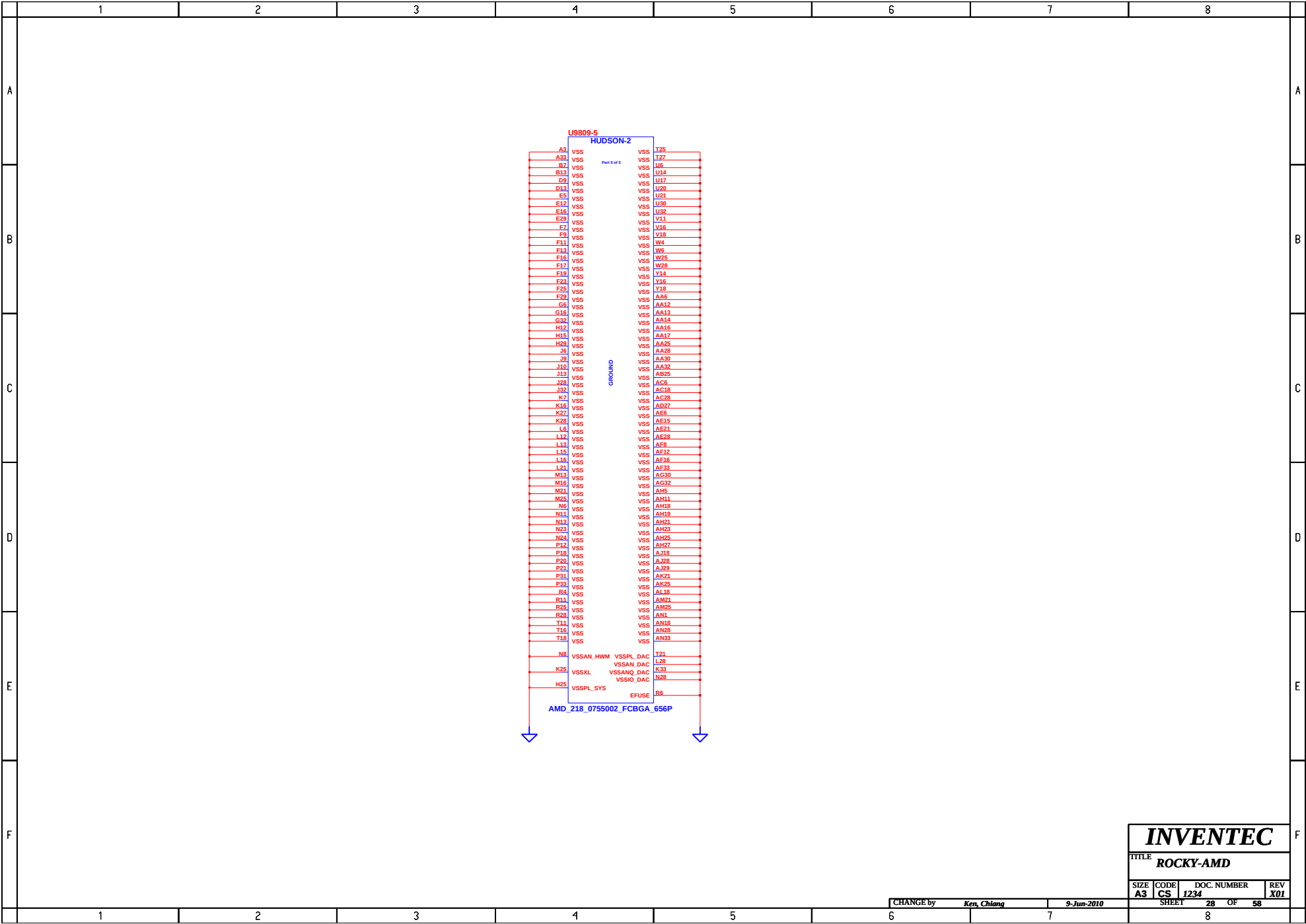






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ROCKY-AMD			
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CHANGE by		9-Jun-2010	
Ken, Chiang			
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		8	





INVENTEC

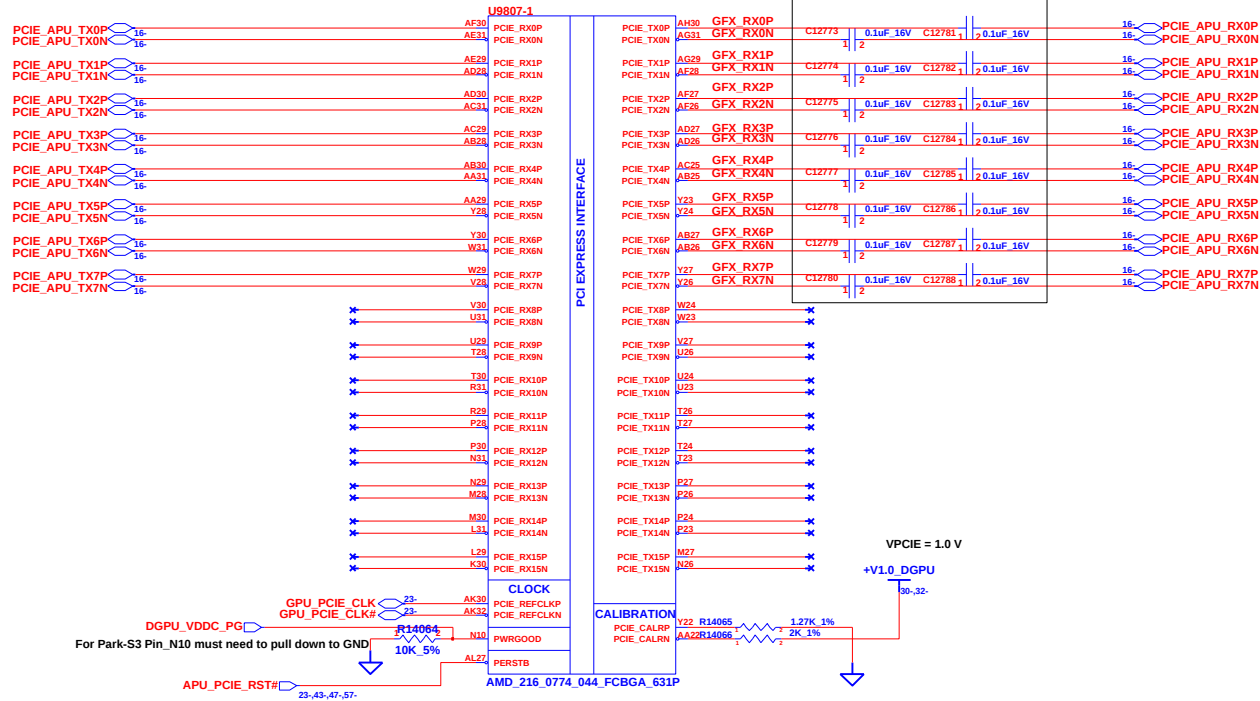
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SIZE CODE DOC. NUMBER REV

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DGPU

CLOSE TO DGPU



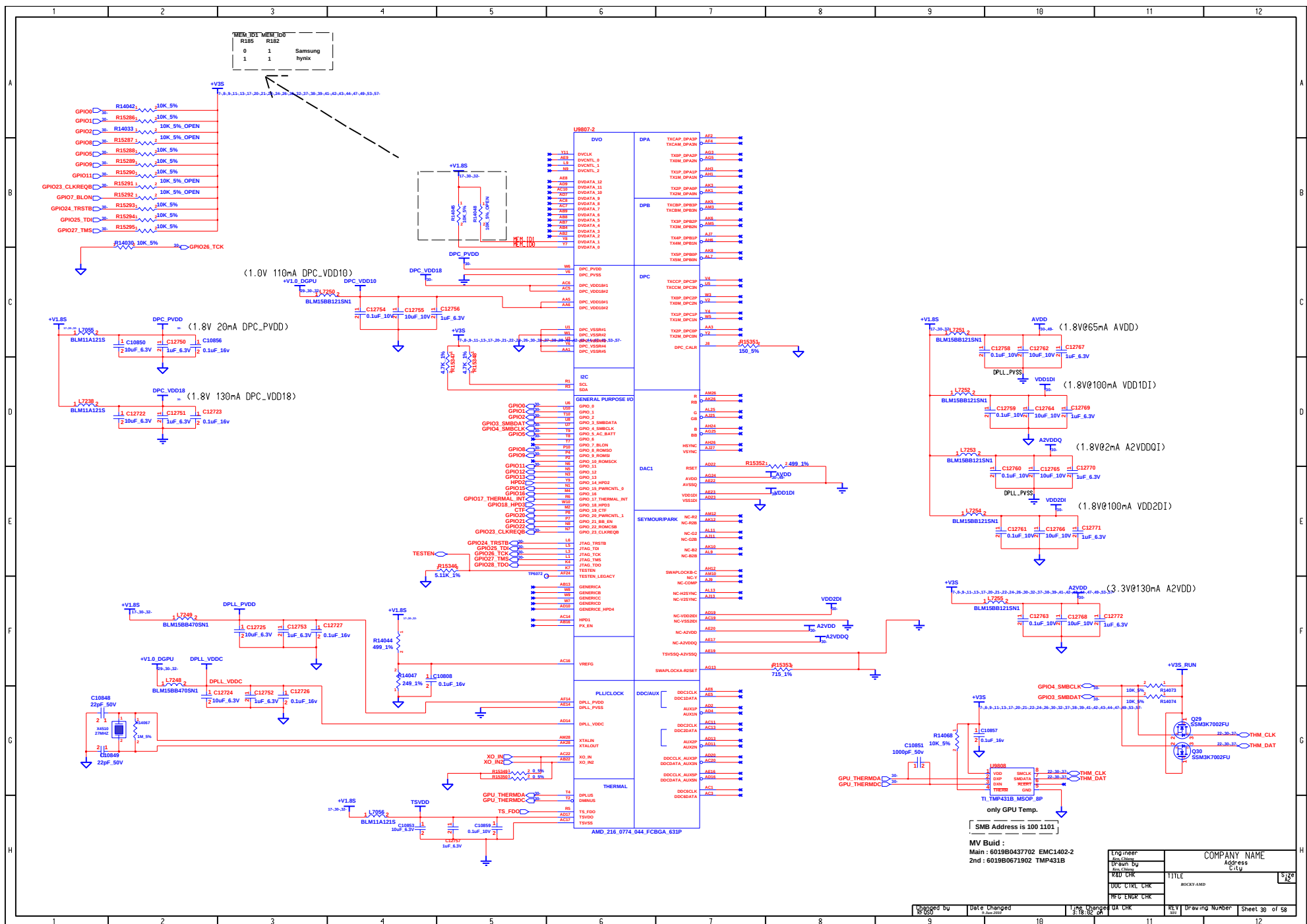
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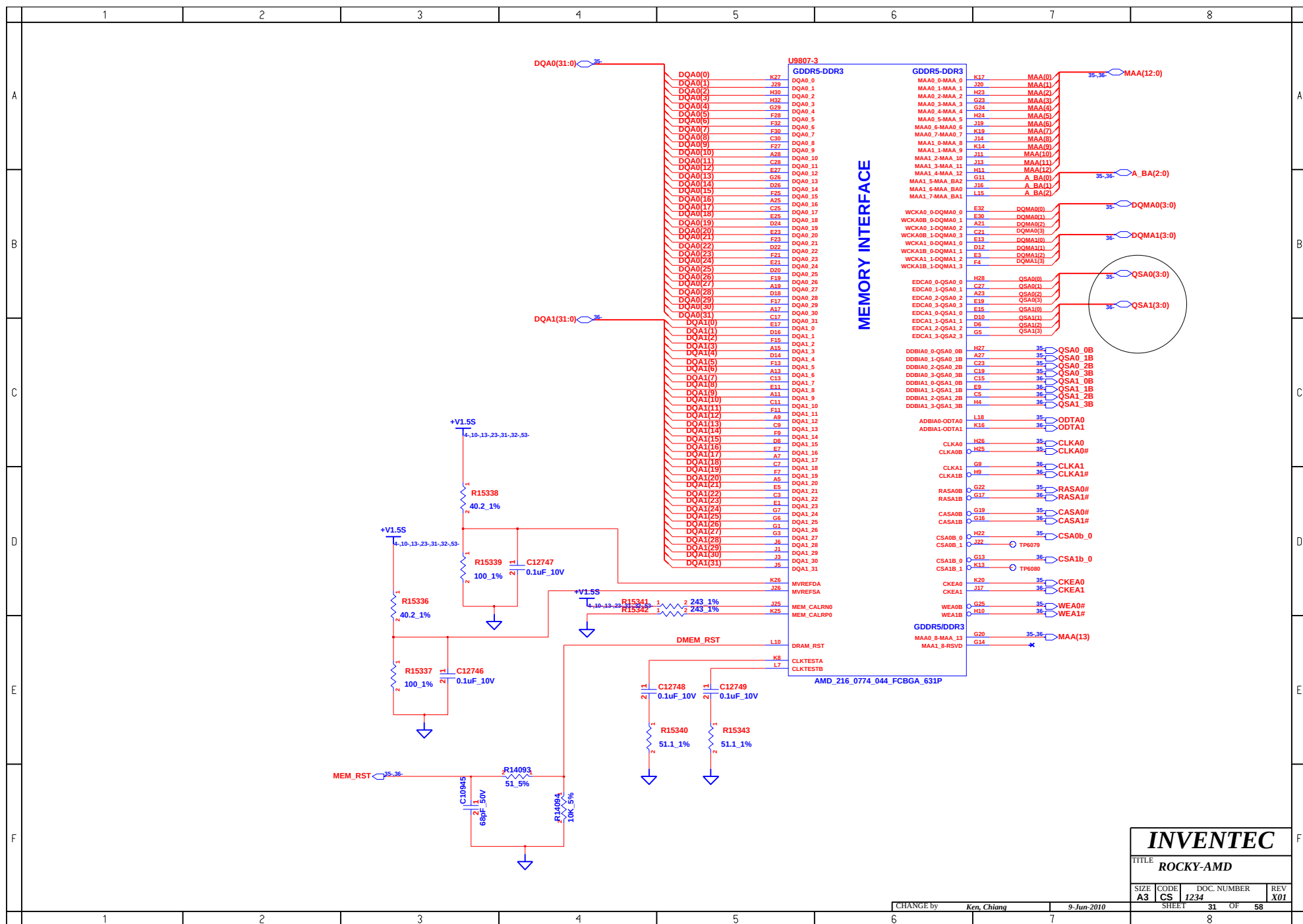
TITLE
ROCKY-AMD

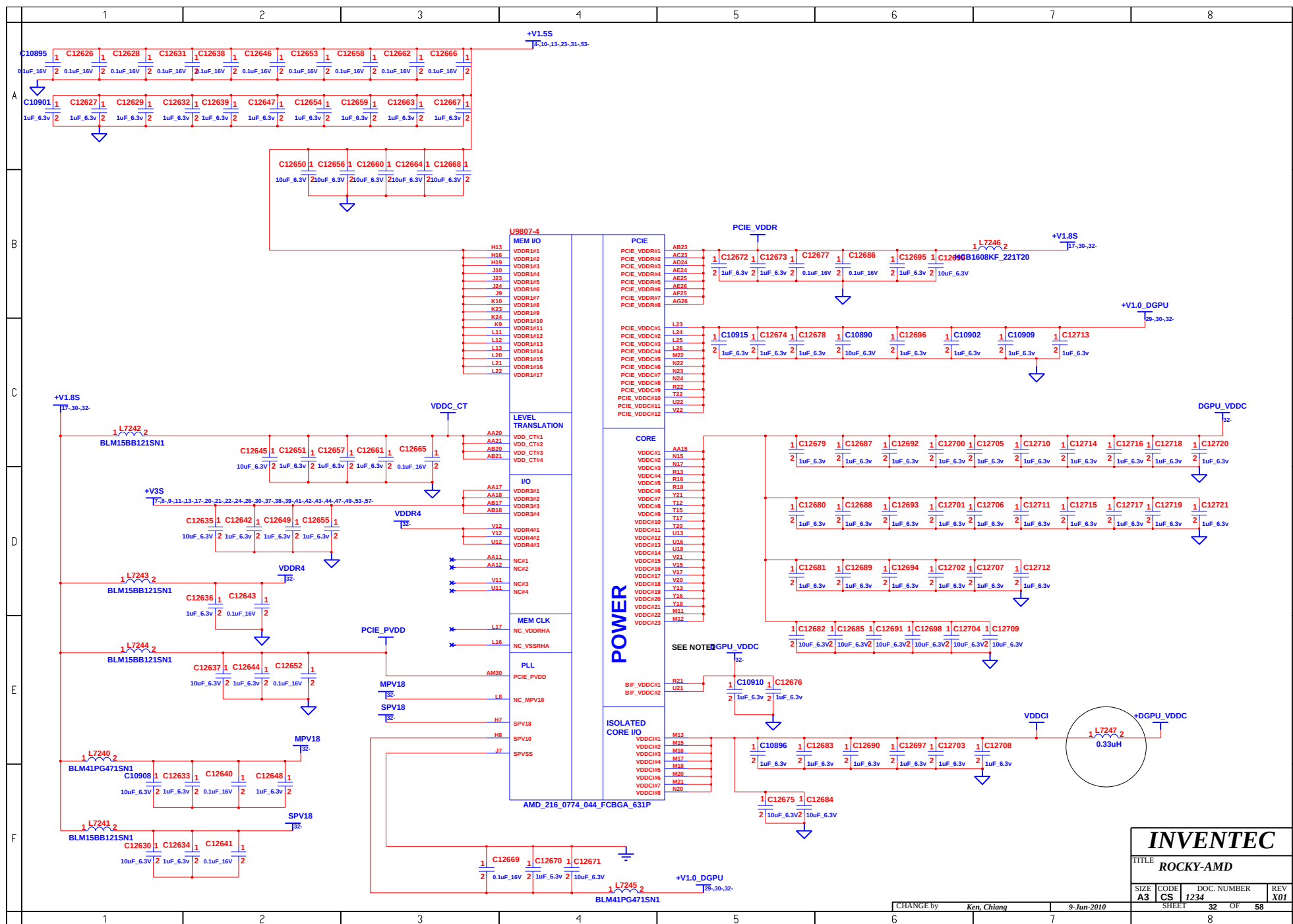
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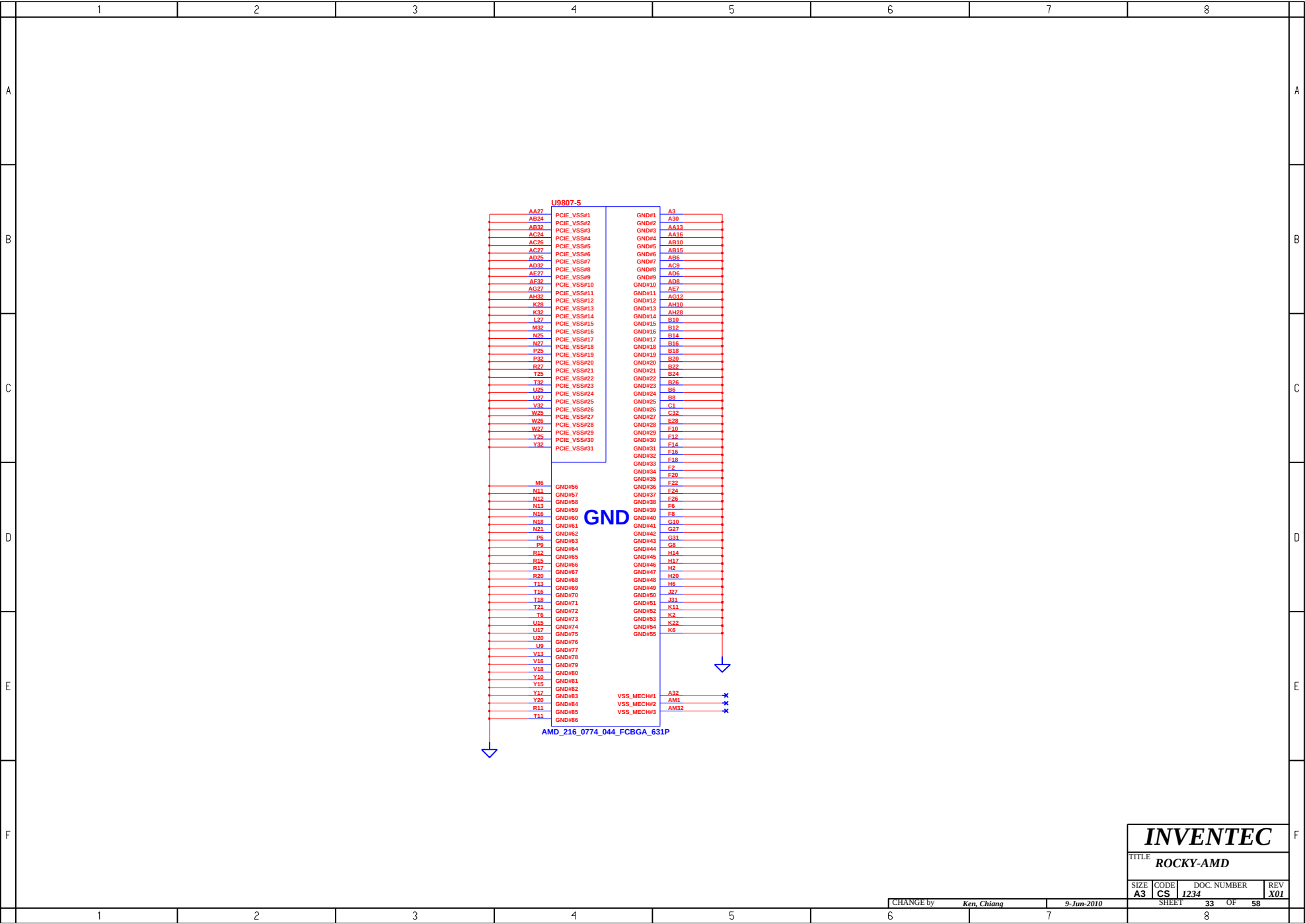
CHANGE by *Ken Chiang* 9-Jun-2010

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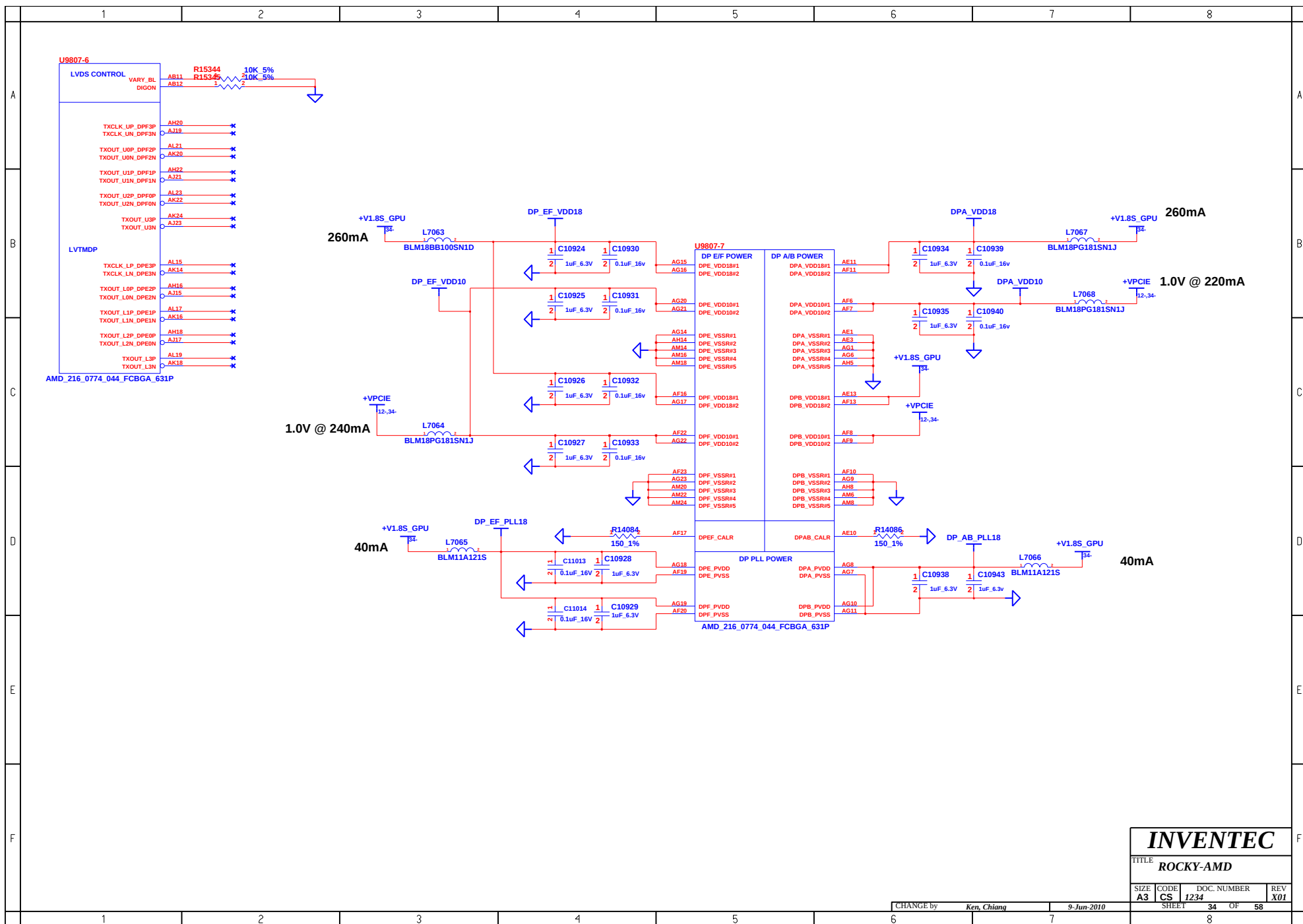
INVENTEC

TITLE
ROCKY-AMD

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1234	X01

CHANGE by Ken, Chiang 9-Jun-2010

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DGPU

Channel A Memory

M92 - U906 / U18 - NA

M96 - U906 / U18 - Mount
HYNIX P/N = 6019B0581601
SAMSUNG P/N = 6019B0581801
QIMONDA P/N = 6019B0593501

INVENTEC

TITLE
ROCKY-AMD

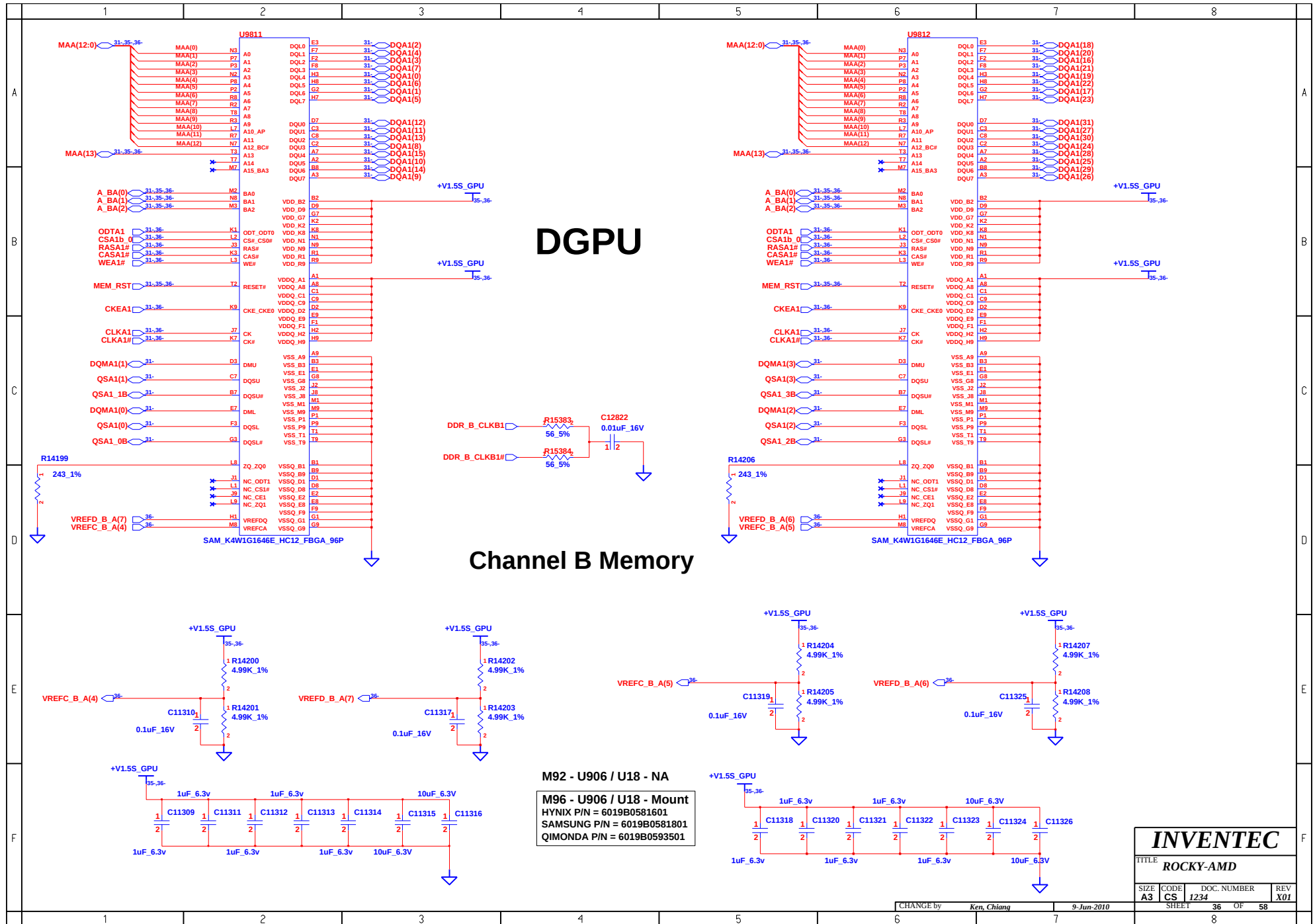
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A3	CS	1234	X01

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CHANGE by Ken, Chiang

9-Jun-2010

8



KBC

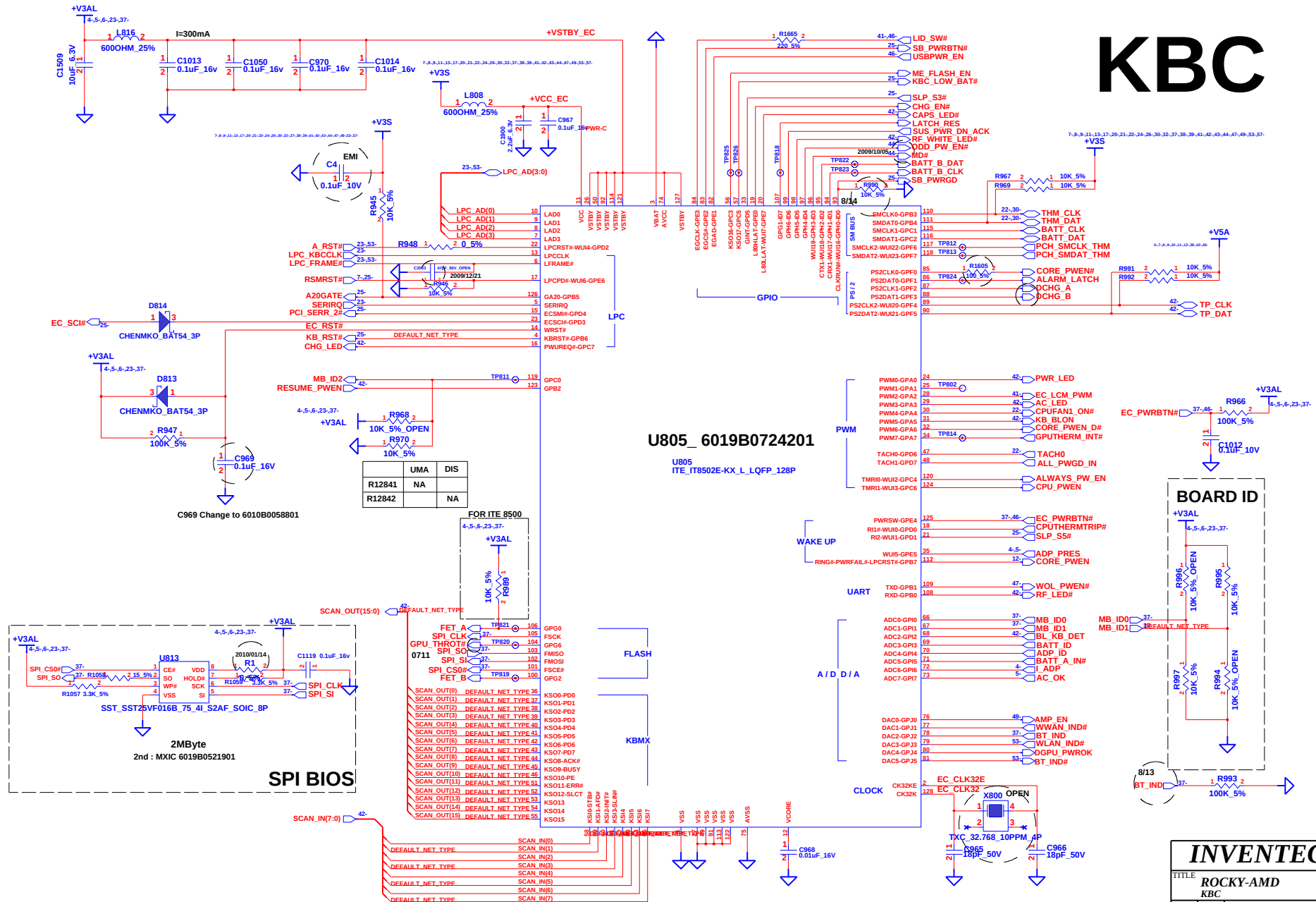
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U805
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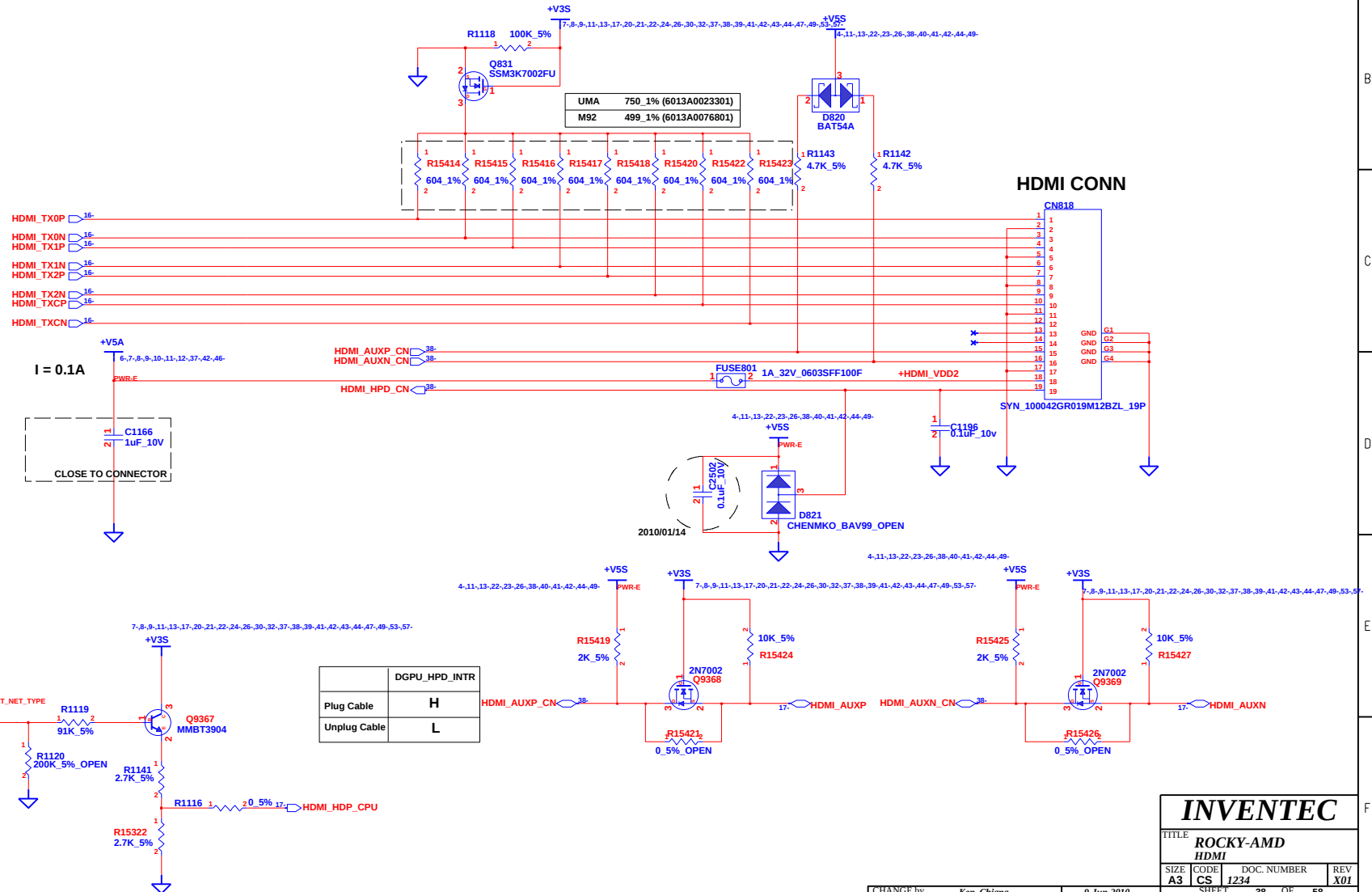
BOARD ID

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TITLE ROCKY-AMD KBC			
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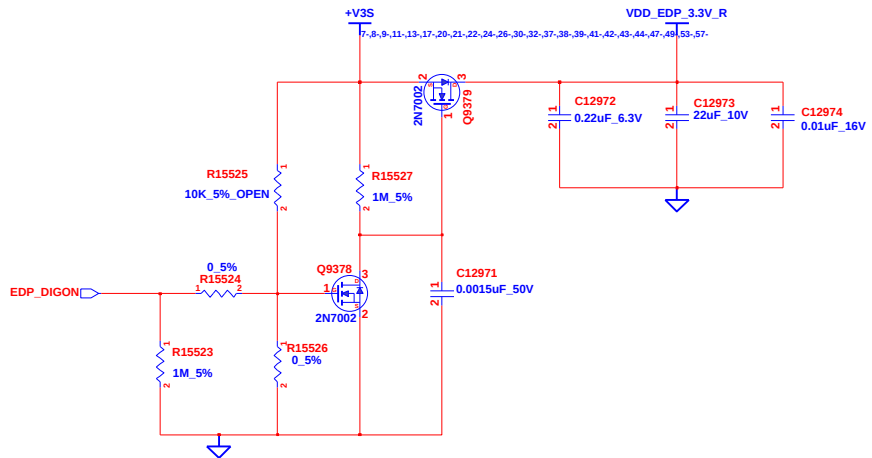
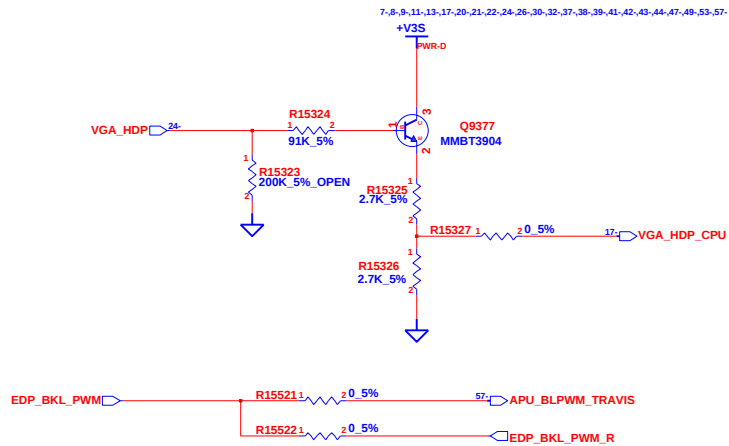
HDMI



CHANGE by Ken, Chiang

9-Jun-2010

8



INVENTEC

TITLE			
ROCKY-AMD			
DDR3 DAMPING			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1234	X01

CHANGE by Ken, Chiang 9-Jun-2010

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PE_GPIO2	S1	S2
L	ON	OFF
H	OFF	ON

Circuit : Fixed
2009/06/30

Close to CONN

CRT CONN

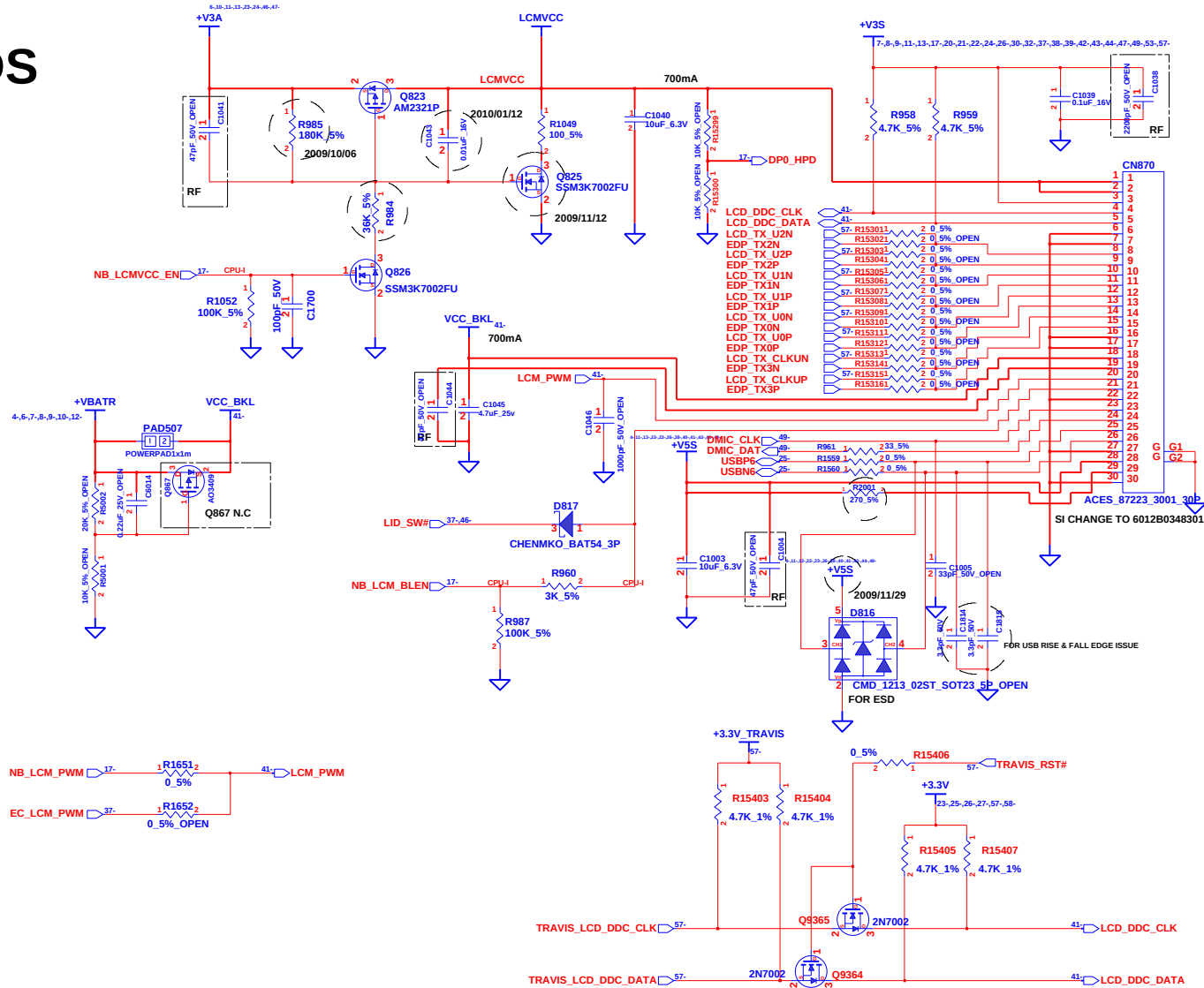
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TITLE	ROCKY-AMD CRT		
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A3	CS	1234	X01

CHANGE by Ken Chiang 9-Jun-2010

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LVDS



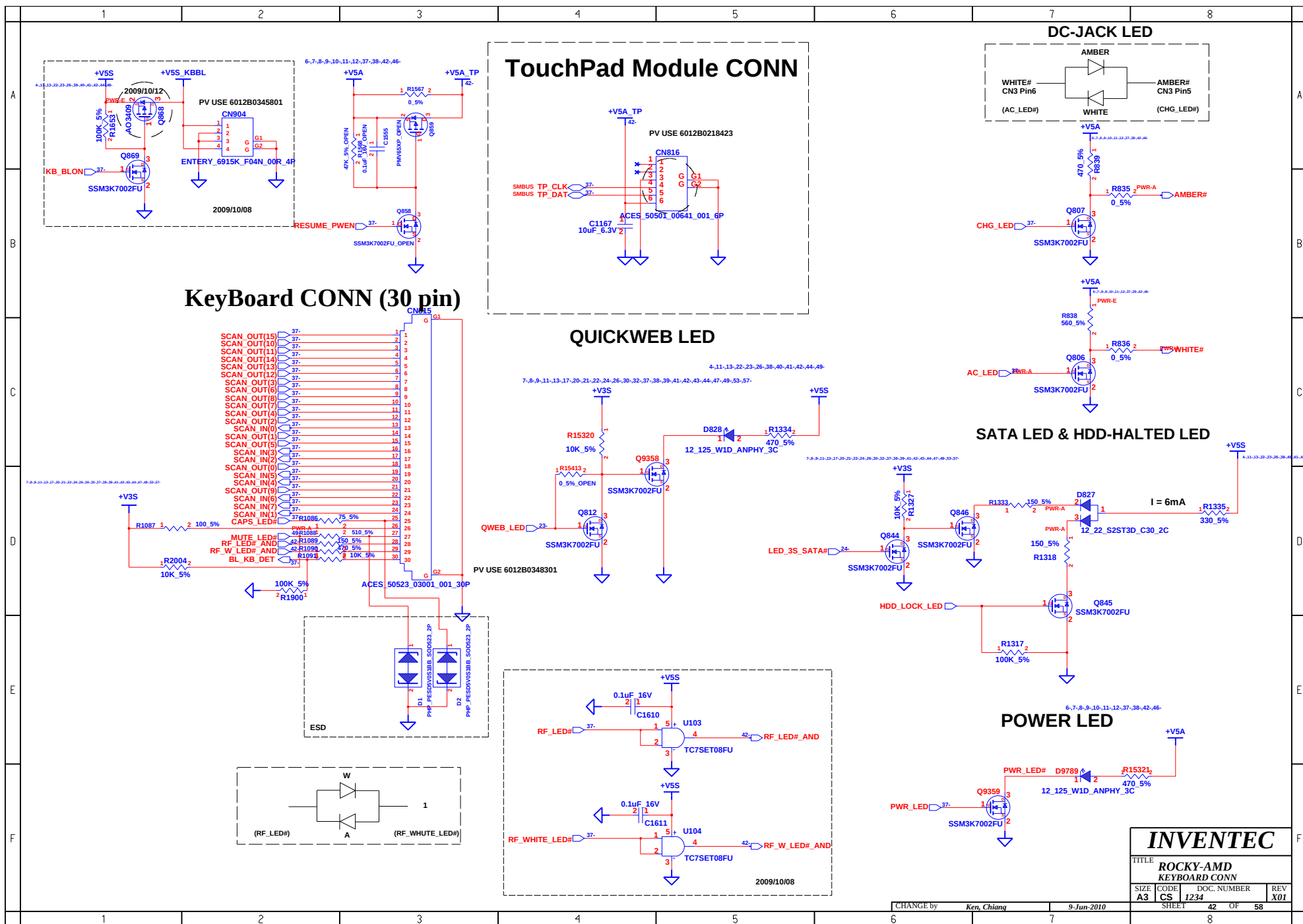
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TITLE
ROCKY-AMD
LCM CONN

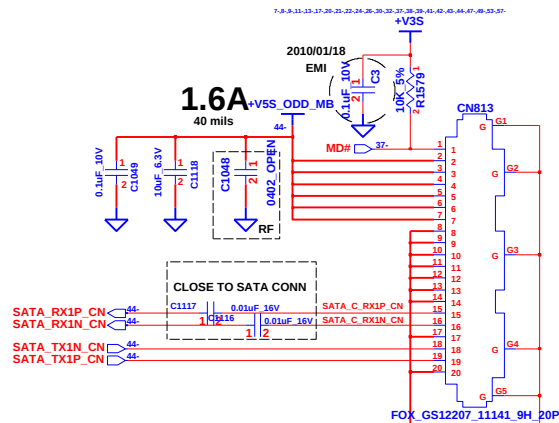
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CHANGE by Ken, Chiang 9-Jun-2010

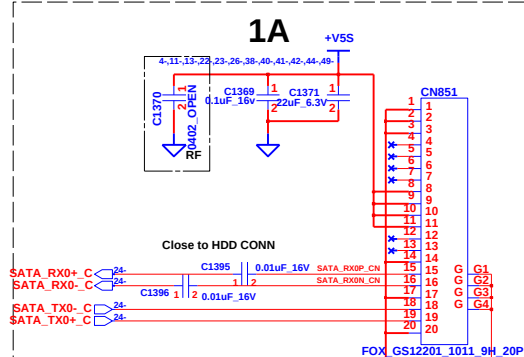
SHEET 41 OF 58



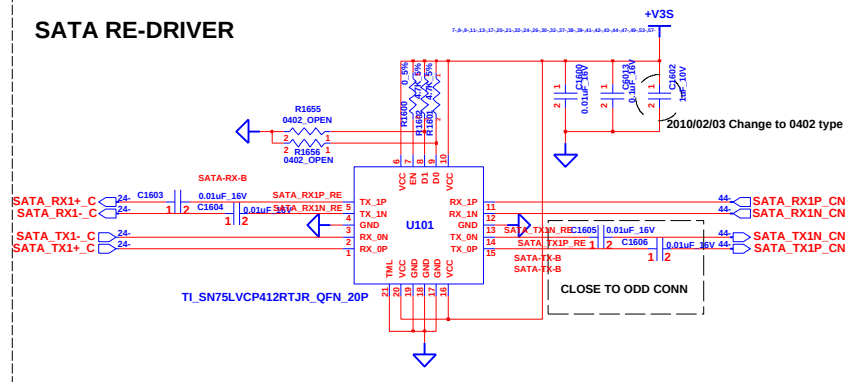
SATA ODD FFC CONN on MB



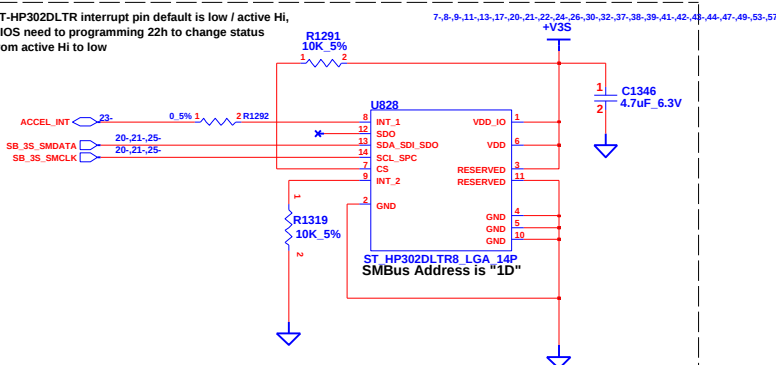
SATA HDD FFC CONN on MB



SATA RE-DRIVER



ST-HP302DLTR interrupt pin default is low / active Hi,
BIOS need to programming 22h to change status
from active Hi to low



HARDDRIVE PROTECTION
P/N = 6019B0505201

INVENTEC

TITLE			
ROCKY-AMD SATA HDD & SATA ODD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1234	X01

CHANGE by Ken, Chiang 9-Jun-2010

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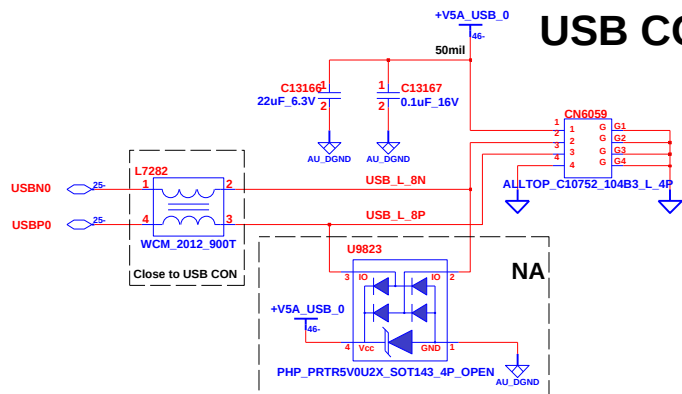
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A	OPTION PART								A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE ROCKY-AMD			
TOUXH SCREEN & FINGERPRINT			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1234	X01
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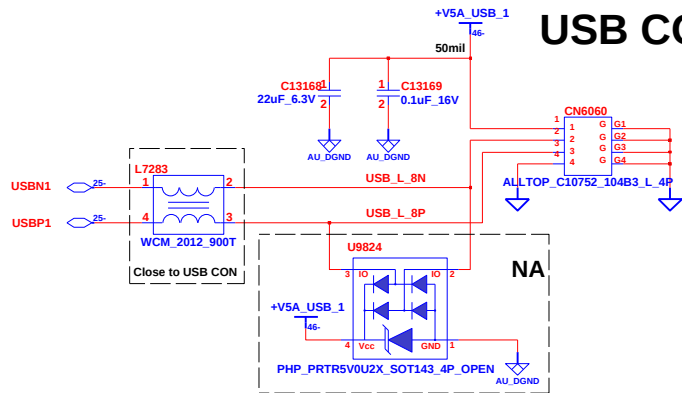
CHANGE by *Ken, Chiang* 9-Jun-2010

USB

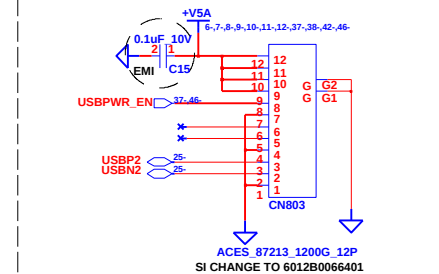
USB CONN01



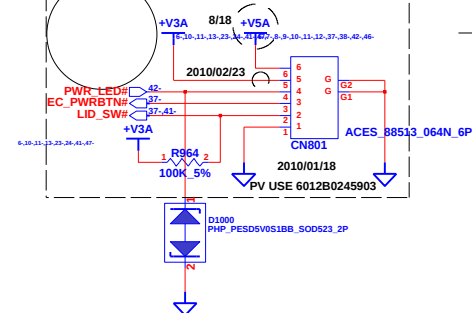
USB CONN02



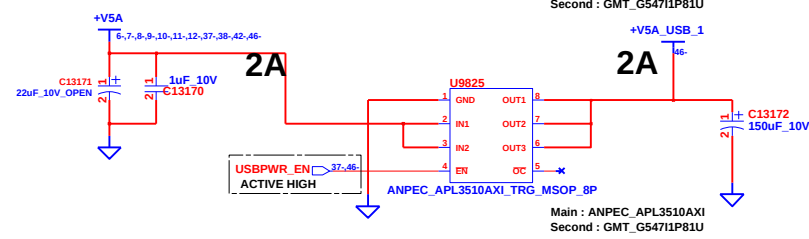
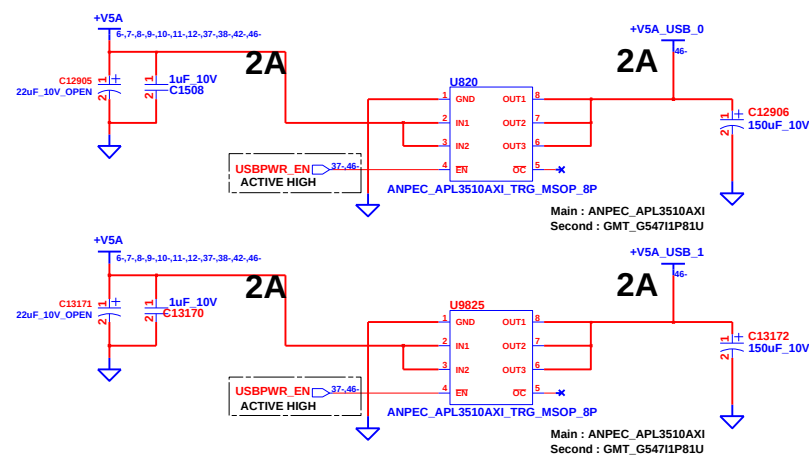
USB BOARD Cable on MB



PBN Cable CN on MB



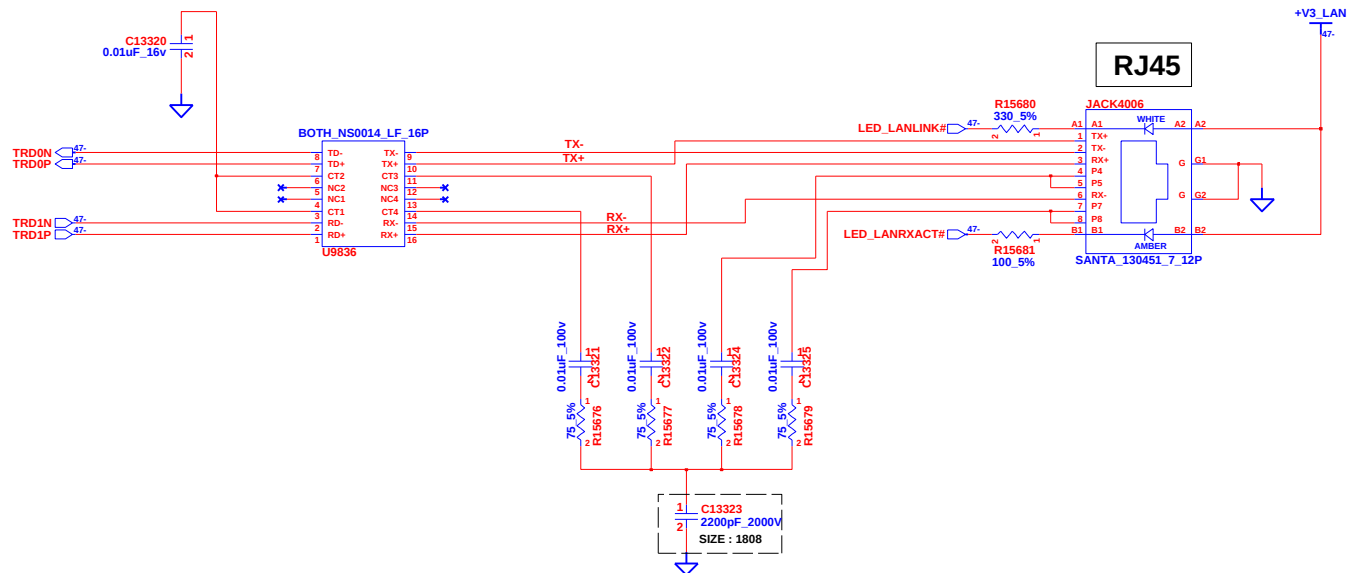
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INVENTEC

TITLE ROCKY-AMD ESATA & USB BOARD CABLE			
SIZE A3	CODE CS	DOC. NUMBER 1234	REV X01
SHEET		46	OF 58

CHANGE by Ken Chiang 9-Jun-2010



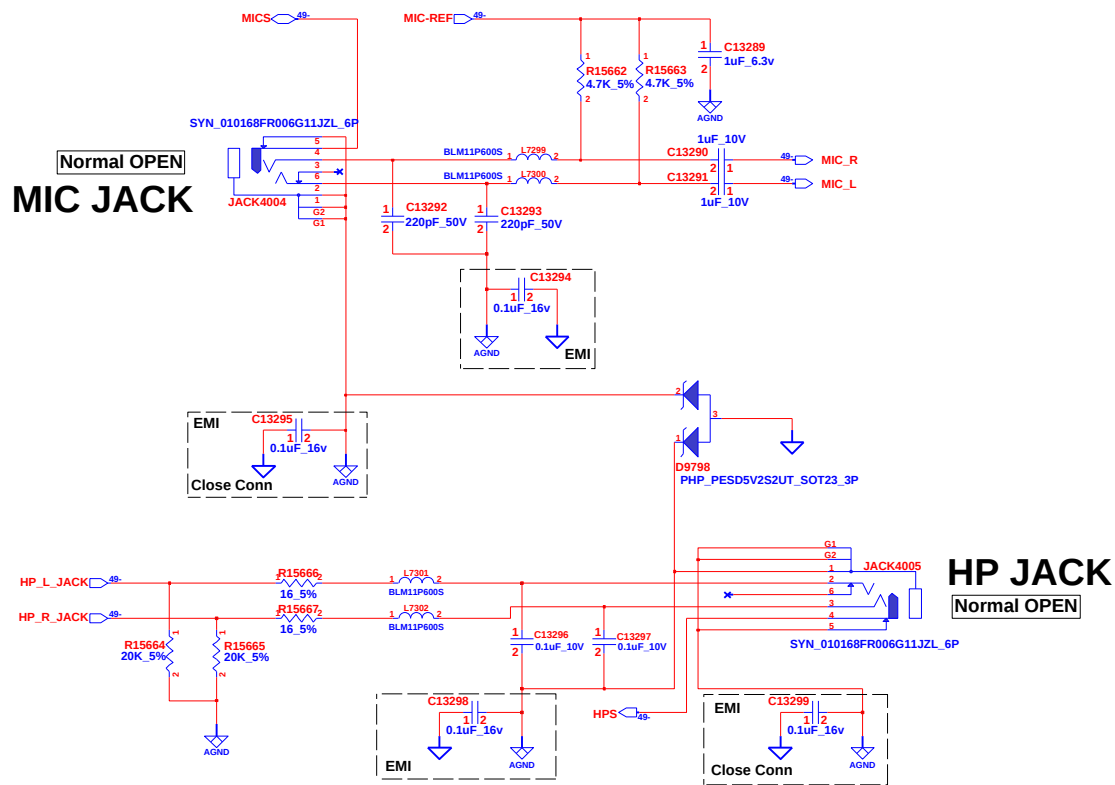
LAYOUT NOTE : Place termination resistors and caps as close to LAN controller as possible

INVENTEC

TITLE			
ROCKY-AMD LAN & RJ45 CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1234	X01

CHANGE by Ken, Chiang 9-Jun-2010

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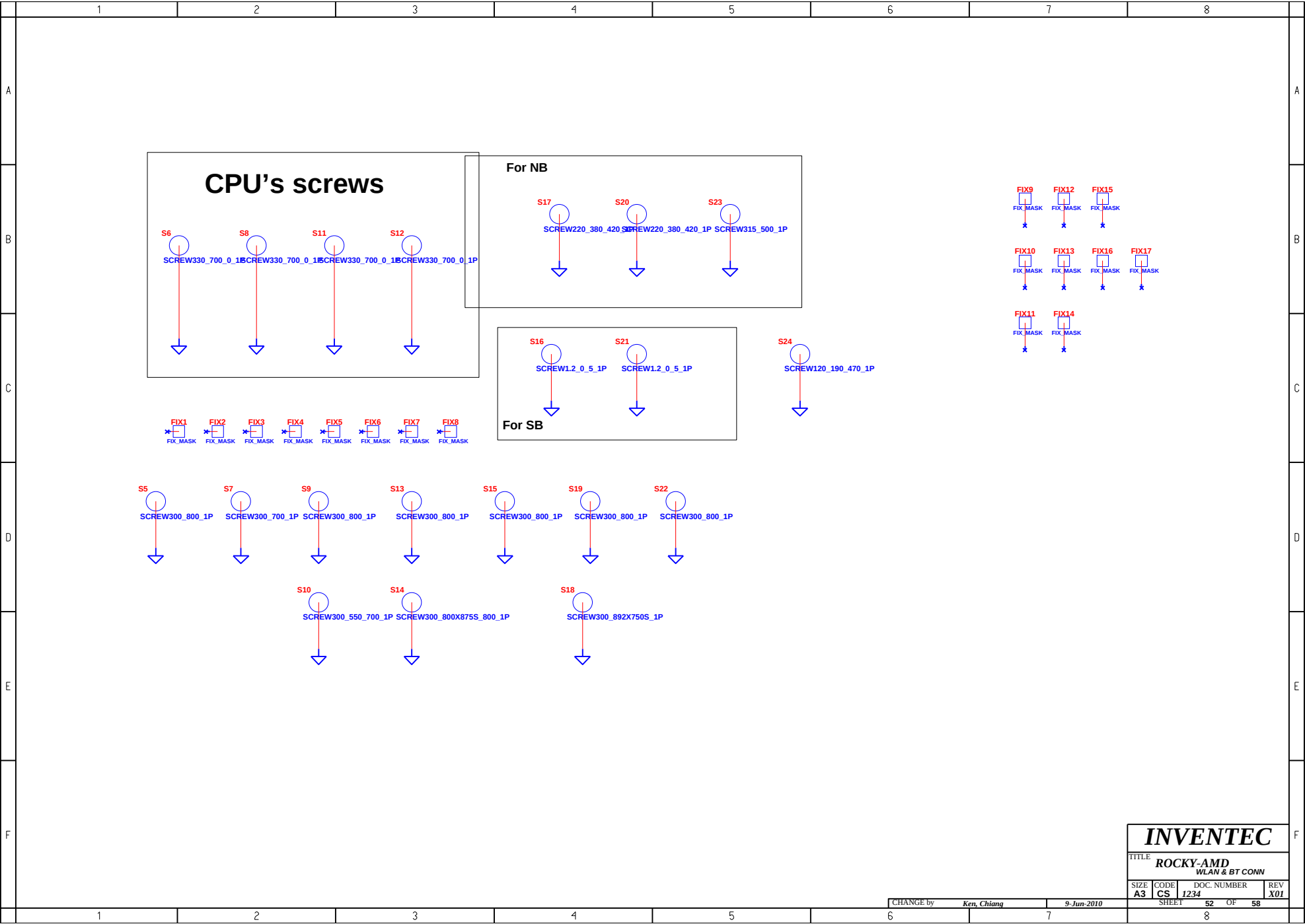


INVENTEC			
TITLE			
ROCKY-AMD			
AUDIO JACK			
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A3	CS	1234	X01
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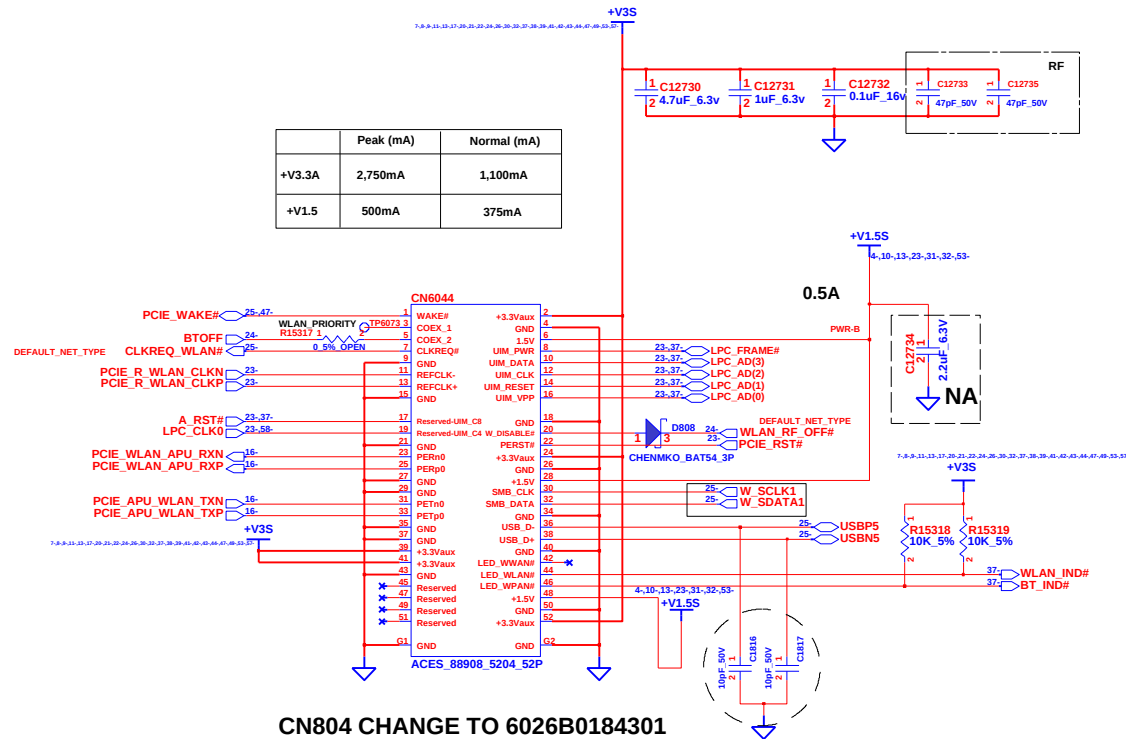
CHANGE by Ken, Chiang 9-Jun-2010

	1	2	3	4	5	6	7	8	
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B									B
C									C
D									D
E									E
F									F
						CHANGE by <i>Ken, Chiang</i>		9-Jun-2010	
1	2	3	4	5	6	7	8		

INVENTEC			
TITLE ROCKY-AMD SCREW			
SIZE A3	CODE CS	DOC. NUMBER <i>1234</i>	REV X01
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WLAN CONN (MINICARD)



INVENTEC

TITLE
ROCKY-AMD
WWAN & SIM CARD CONN

SIZE A3	CODE CS	DOC. NUMBER 1234	REV X01
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CHANGE by **Ken Chiang** 9-Jun-2010

SHEET **53** OF **58**

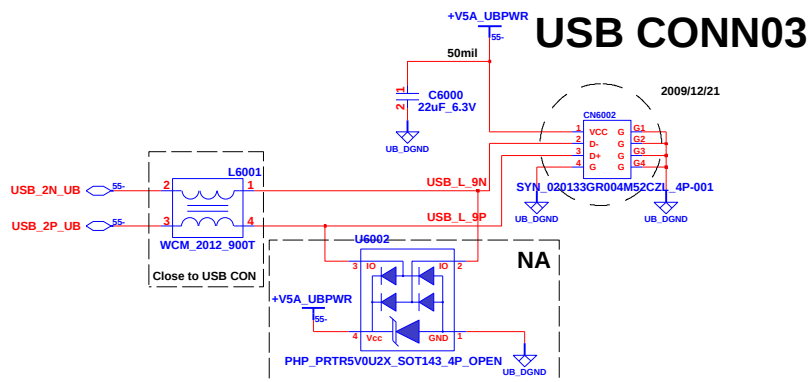
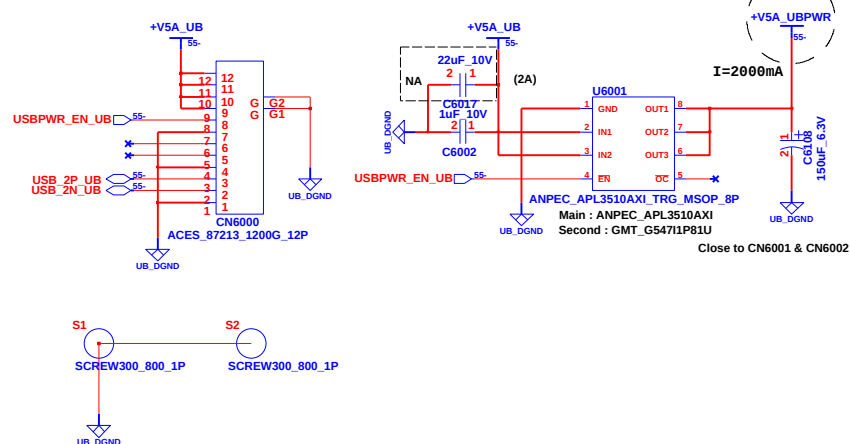
	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D
E									E
F									F
						CHANGE by <i>Ken, Chiang</i>		9-Jun-2010	
1	2	3	4	5	6	7	8		

INVENTEC			
TITLE ROCKY-AMD			
SIZE A3	CODE CS	DOC. NUMBER <i>1234</i>	REV X01
SHEET		54 OF	58

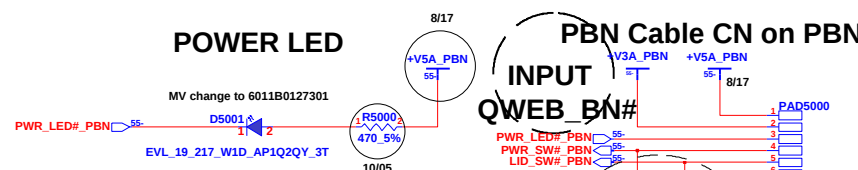
USB BOARD

USB BOARD Cable ON UB

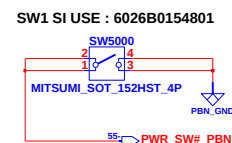
Circuit : Fixed
2009/06/29



POWER LED



POWER BUTTON



PBN Cable CN on PBN

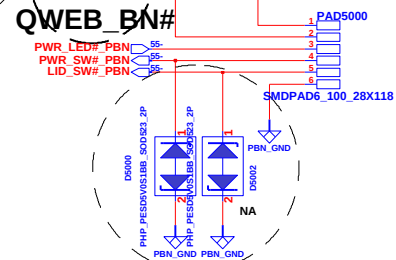
INPUT

+V3A_PBN

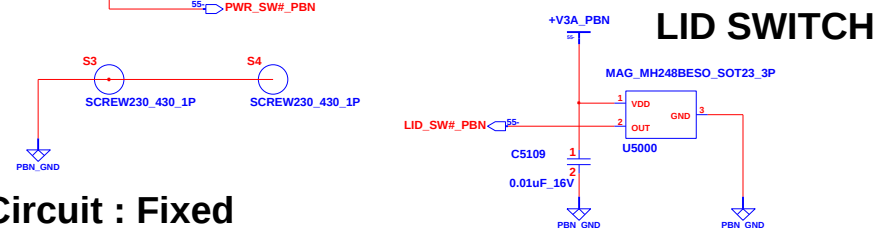
+V5A_PBN

55-

8/17



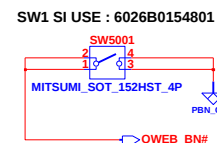
LID SWITCH



Circuit : Fixed
2009/06/29

POWER BOTTON BOARD

QUICKWER BUTTON



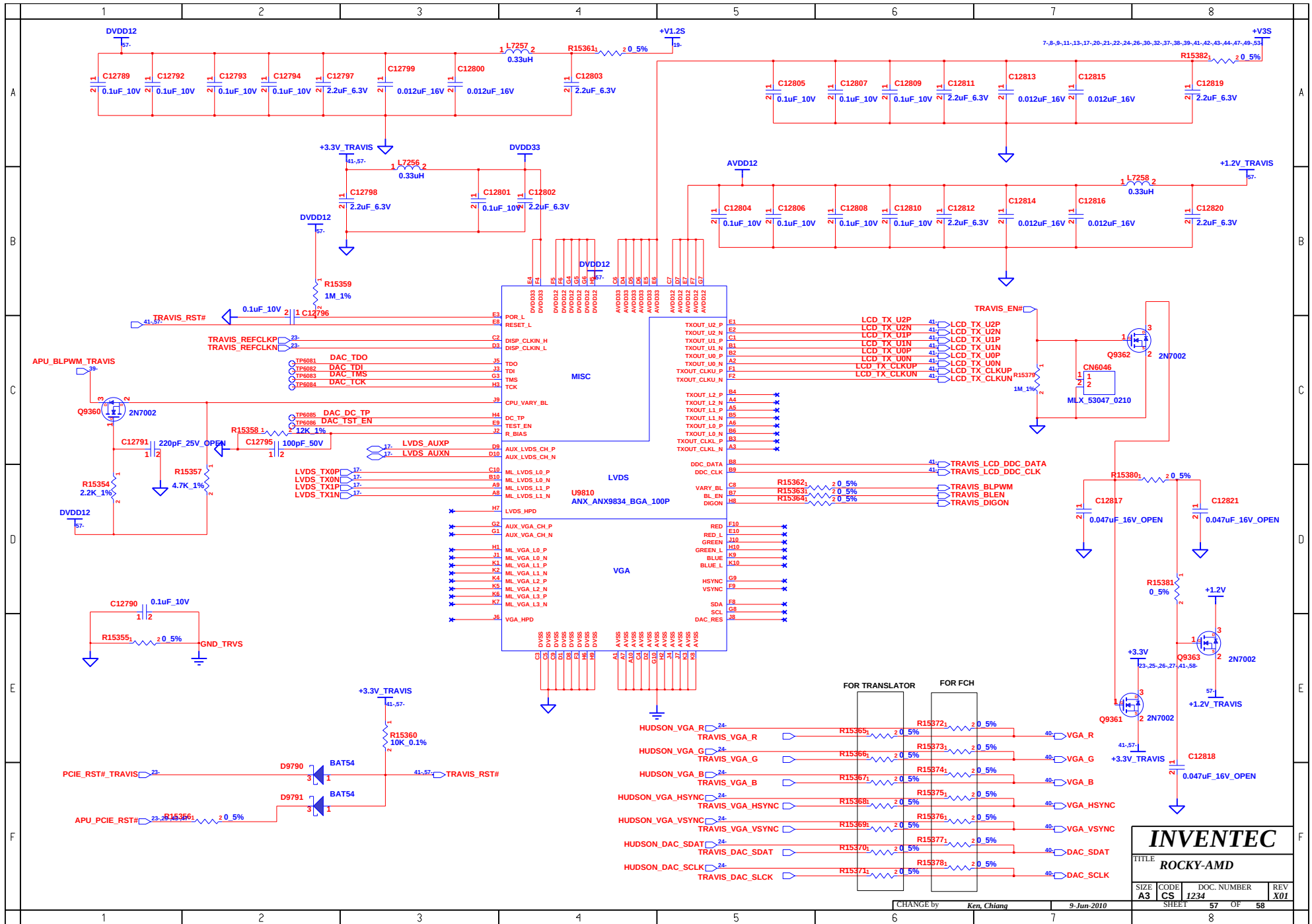
INVENTEC

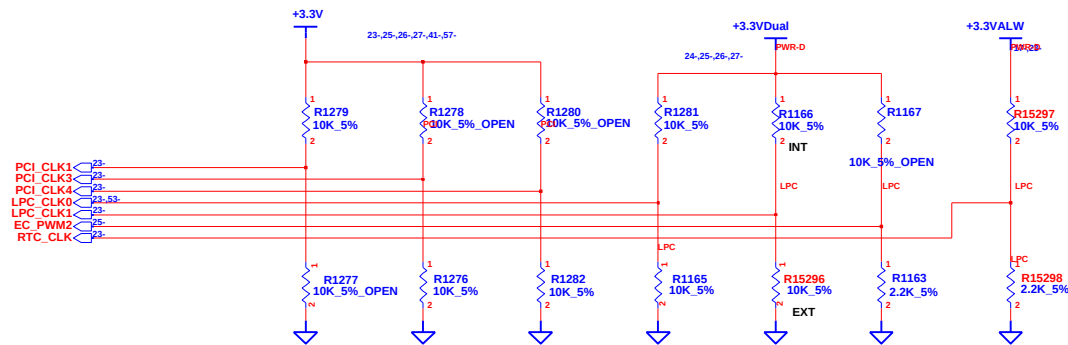
TITLE			
ROCKY-AMD EXT USB CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1234	X01

CHANGE by	Ken, Chiang	9-Jun-2010
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	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D
E									E
F									F
						CHANGE by <i>Ken, Chiang</i>		9-Jun-2010	
1	2	3	4	5	6	7	8		

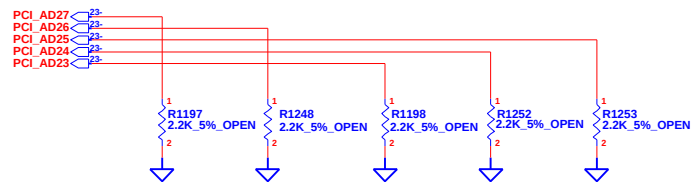
INVENTEC			
TITLE ROCKY-AMD			
SIZE A3	CODE CS	DOC. NUMBER <i>1234</i>	REV X01
SHEET		56	OF 58





Required Straps:

RTCLK		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 STRAPE 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			
SIZE A3	CODE CS	DOC. NUMBER 1234	REV X01
SHEET		58	OF 58

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