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HSF Property: ROHS or Halogen-Free

DAKAR10F/FG  
(45W CPU)  
MP(A02) BUILD

2012.03.23

21-04-01-2002		
DATE	CHANGE NO.	REV

DRAWER				INVENTEC			
DESIGN		POWER		TITLE			
CHECK		RESPONSIBLE		MODEL PROJECT FUNCTION			
FILE TIME		VER		DAKAR10F/FG MAIN BOARD			
SIZE		CODE		DOC NUMBER		REV	
PIN		SHEET		13100000000000000000		X01	

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MODEL PROJECT FUNCTION Block Diagram			
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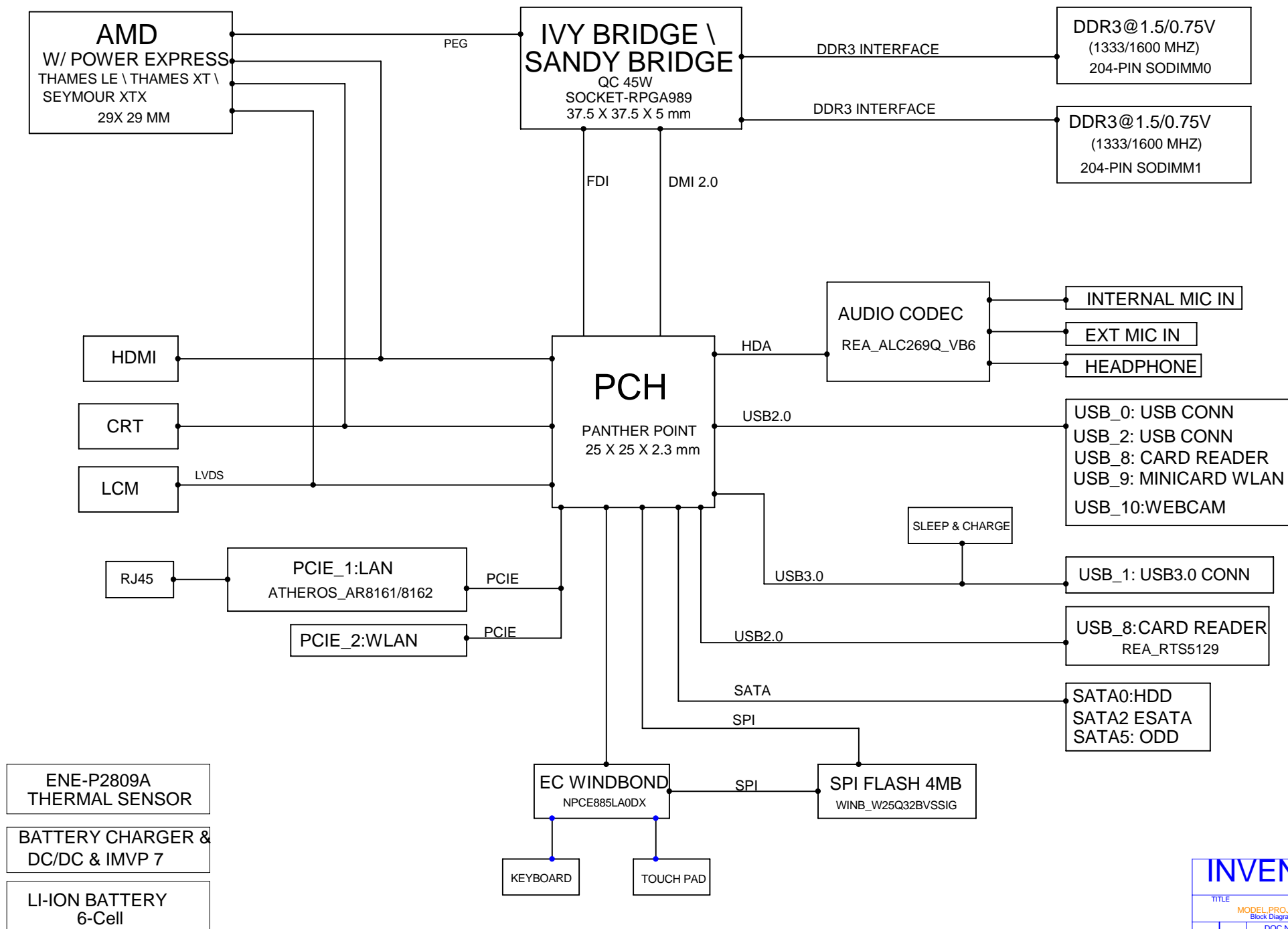
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**INVENTEC**

TITLE

MODEL,PROJECT,FUNCTION

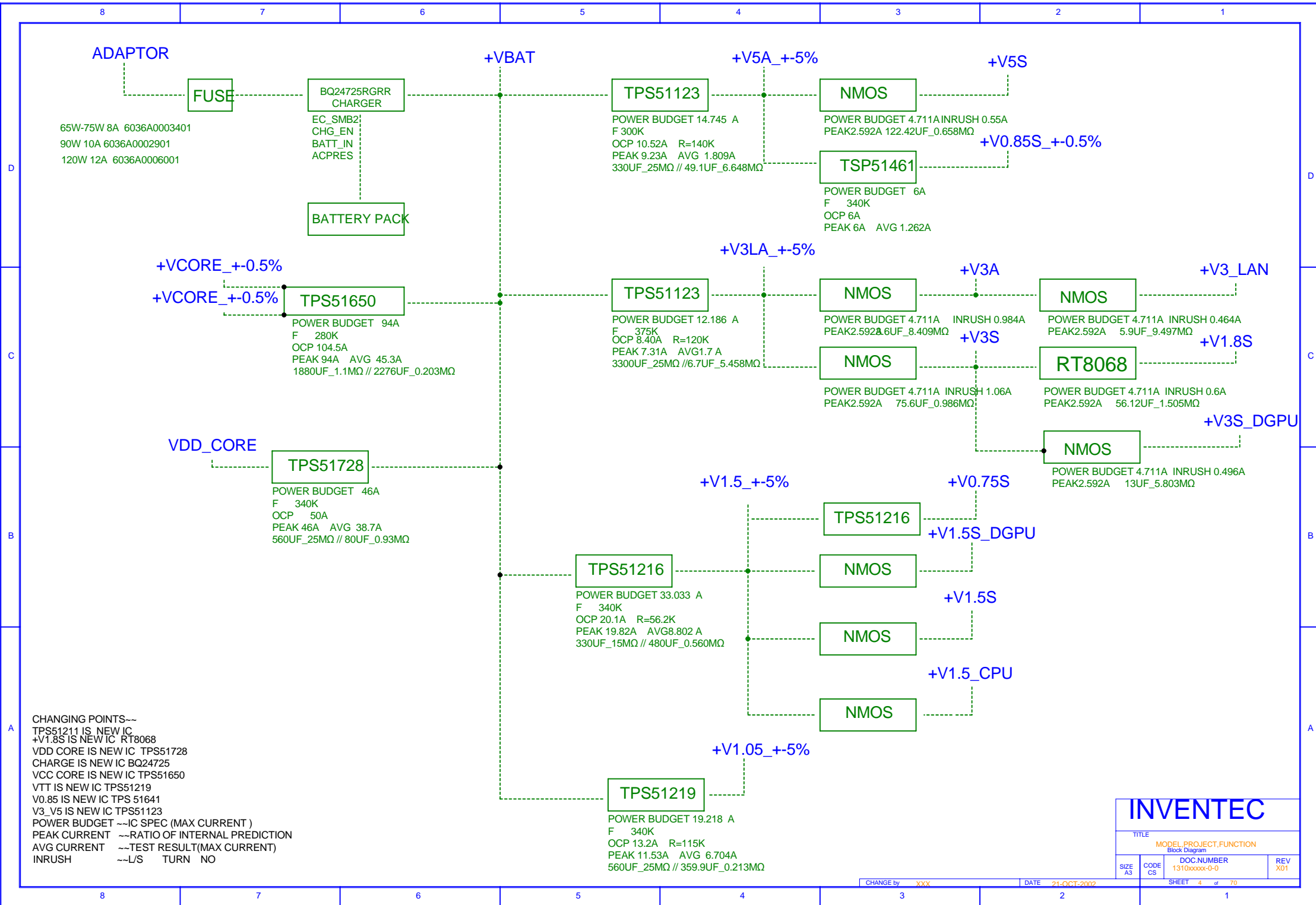
Block Diagram

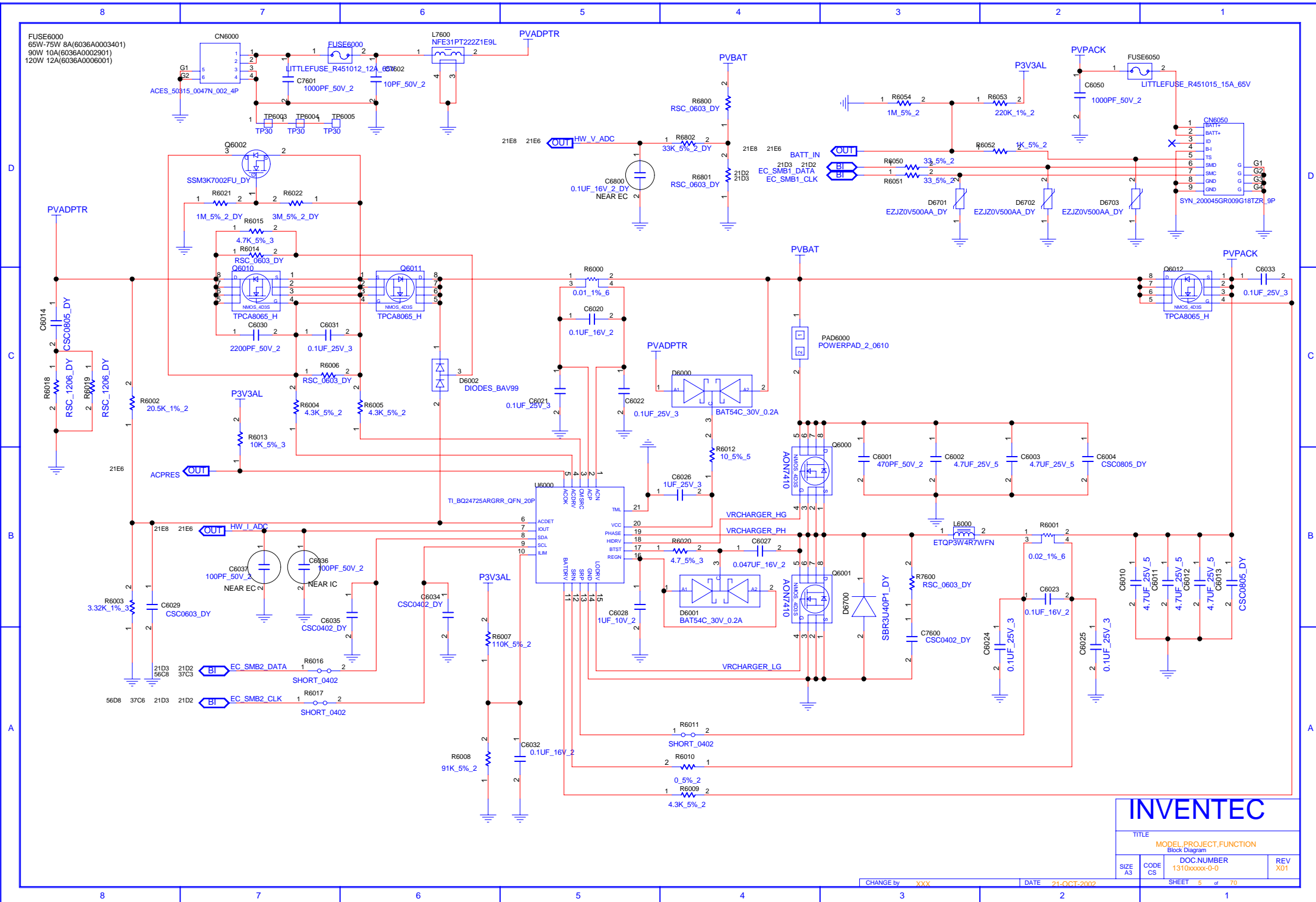
SIZE A3 CODE CS DOC NUMBER 1310xxxx-0-0 REV X01

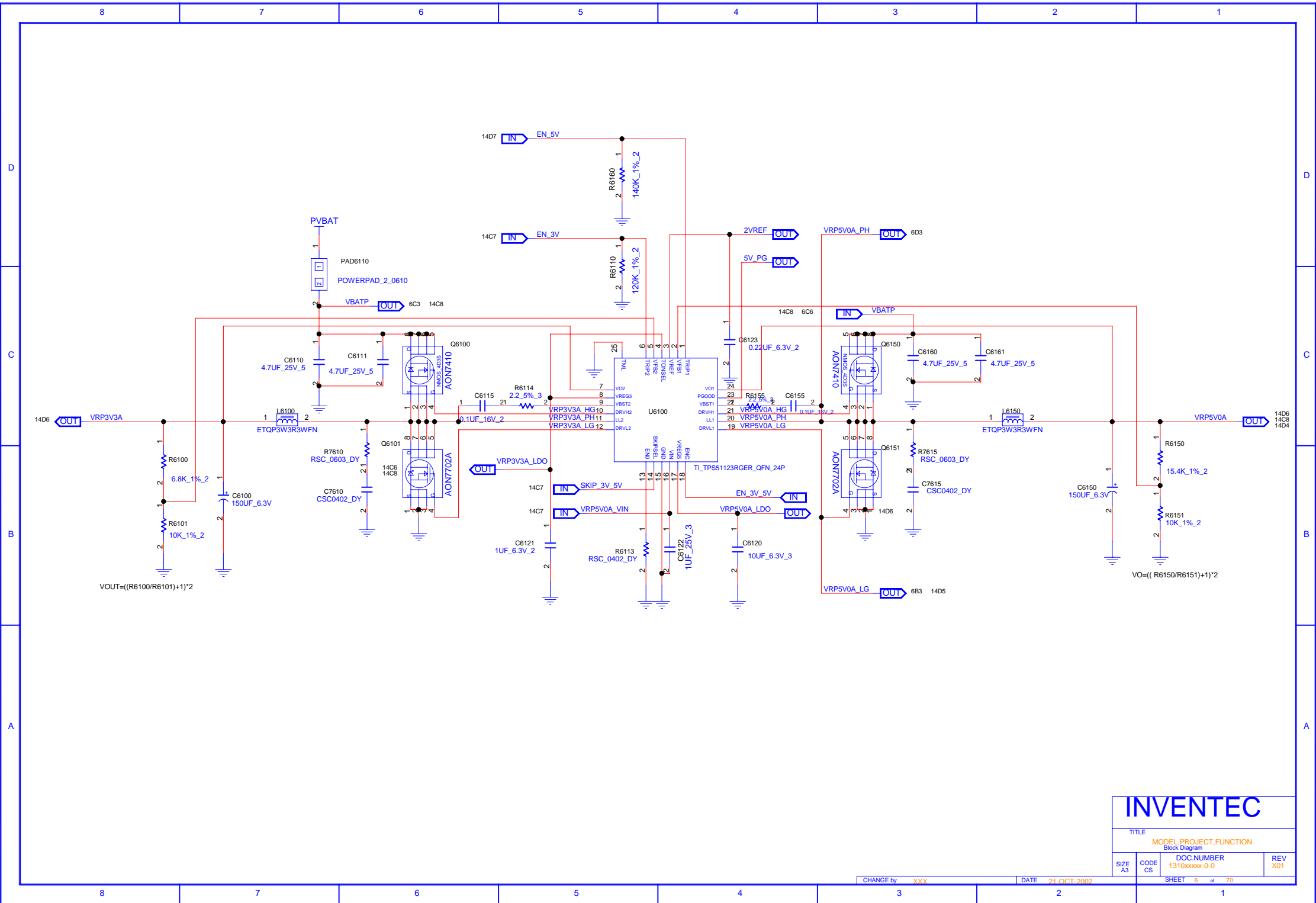
CHANGE by XXX

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Block Diagram			
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A3	CS	1310xxxx-0-0	X01

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VOUT=REFIN=1.8\*(R6201/(R6200+R6201))  
MODE=100KOHM:TRACKING DISCHARGE

STATE	S3	S5	VREF	VDDQ	VTTREF	VTT
S0	HI	HI	ON	ON	ON	ON
S3	LO	HI	ON	ON	ON	OFF(High-Z)
S4/S5	LO	LO	OFF	OFF(Discharge)	OFF(Discharge)	OFF(Discharge)

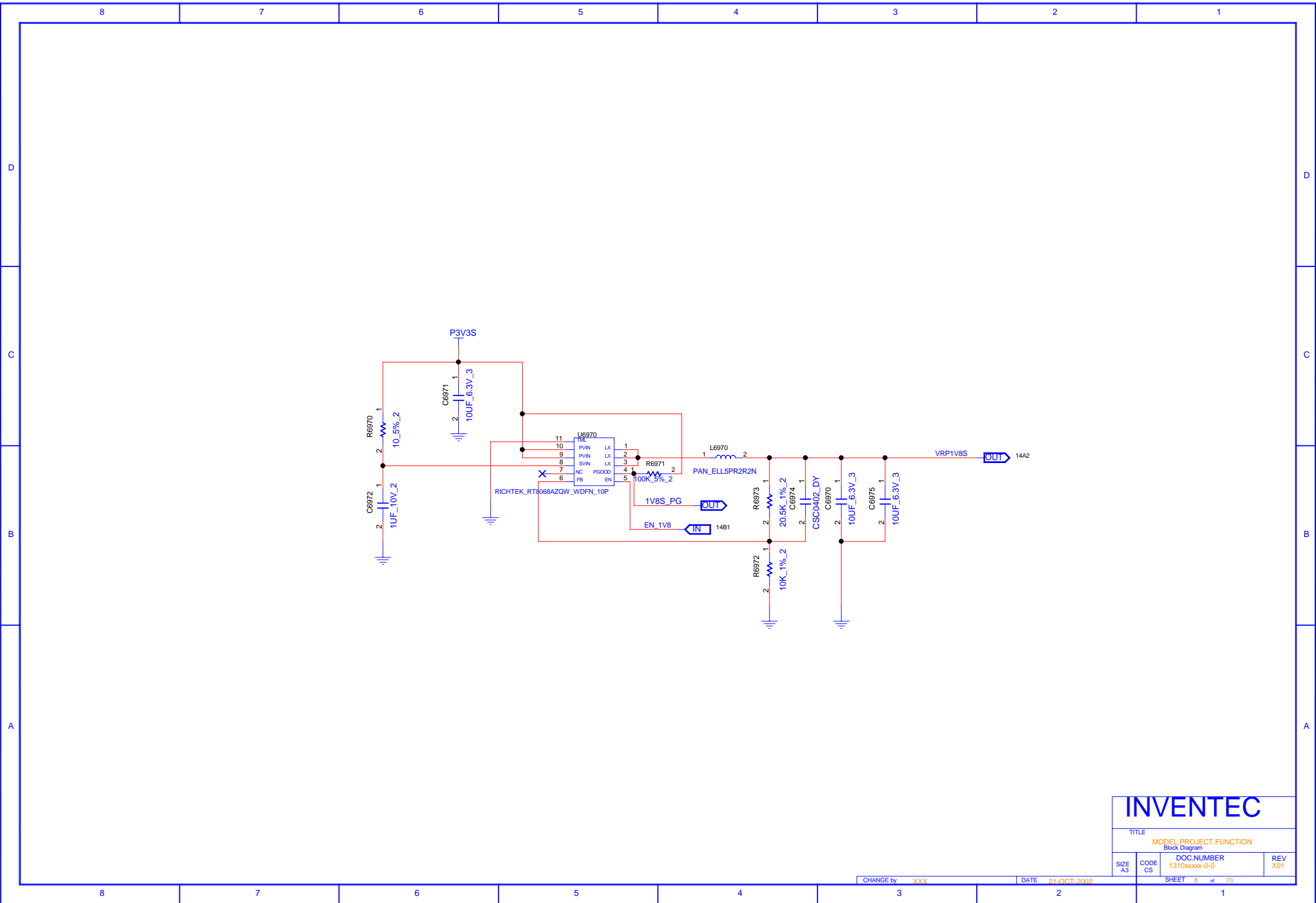
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TITLE	MODEL,PROJECT,FUNCTION
	Block Diagram

SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	
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TITLE			
MODEL PROJECT FUNCTION			
Block Diagram			
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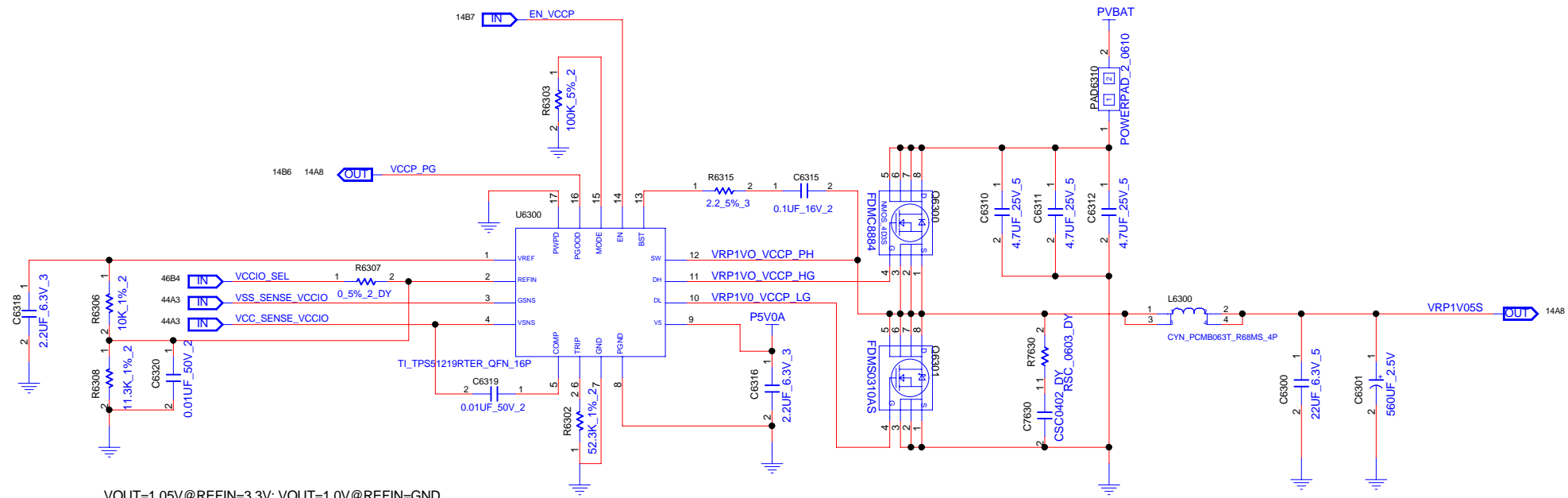
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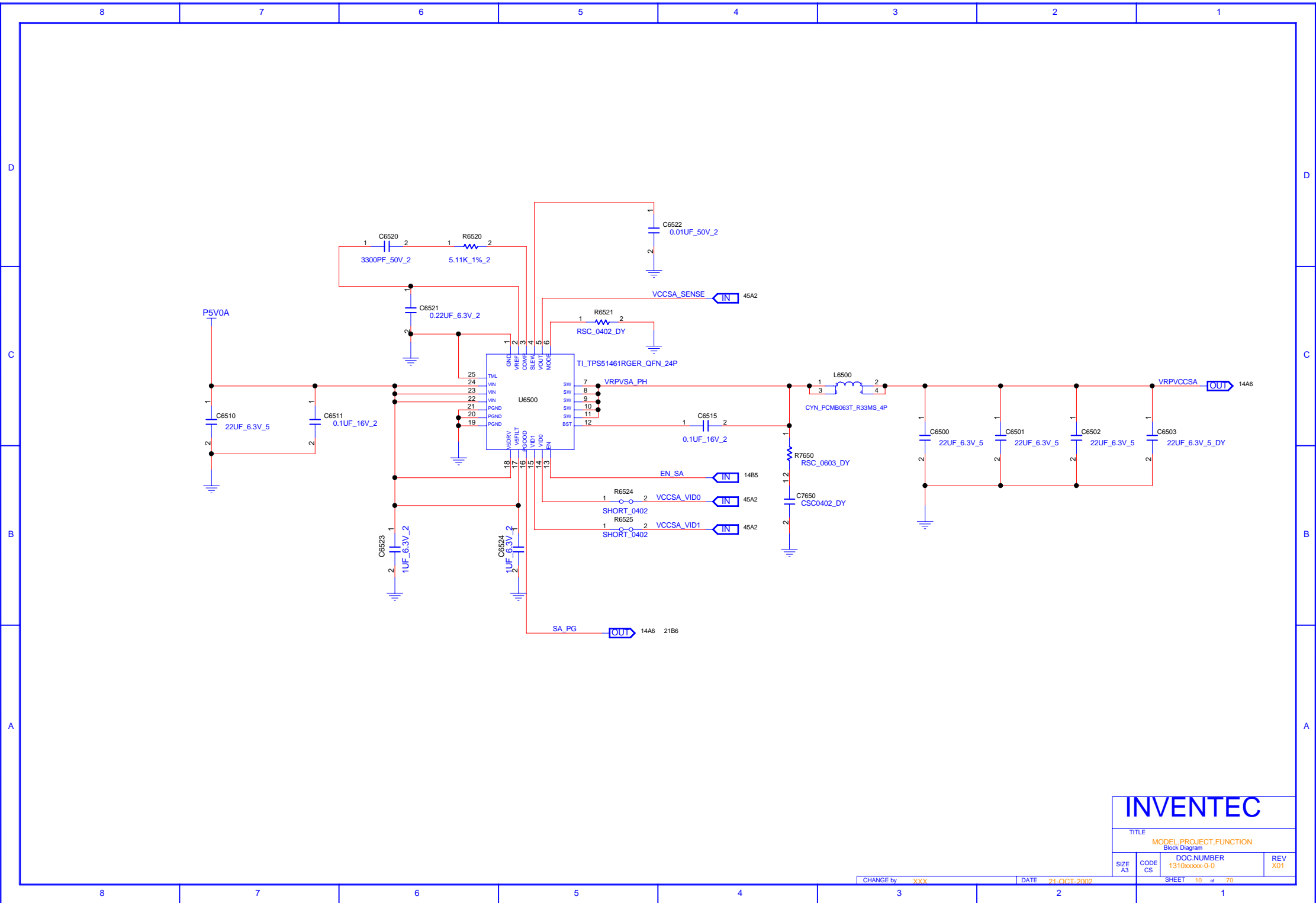
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**INVENTEC**TITLE  
MODEL,PROJECT,FUNCTION  
Block Diagram

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MODEL,PROJECT,FUNCTION			
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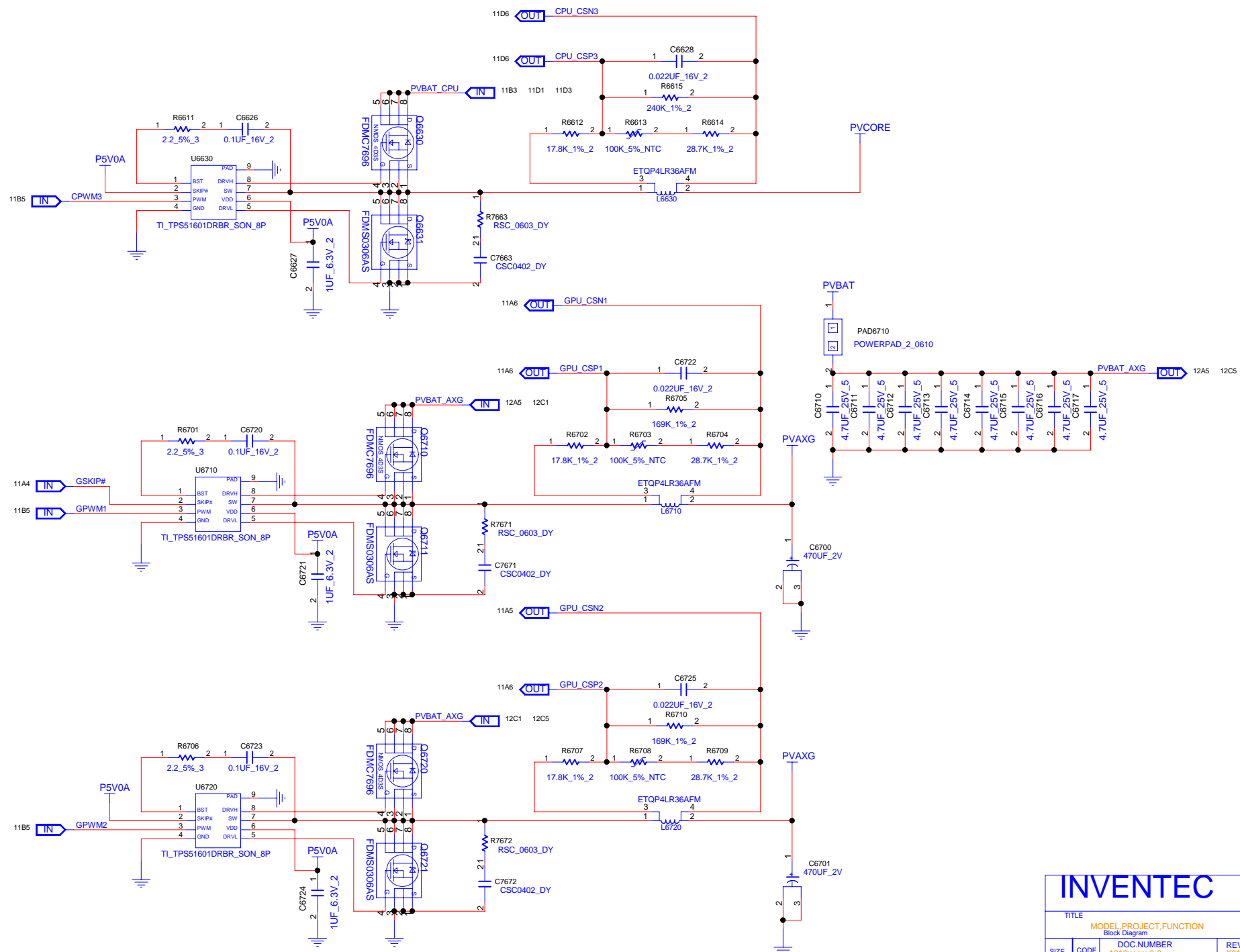


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**INVENTEC**

TITLE			
MODEL PROJECT FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01

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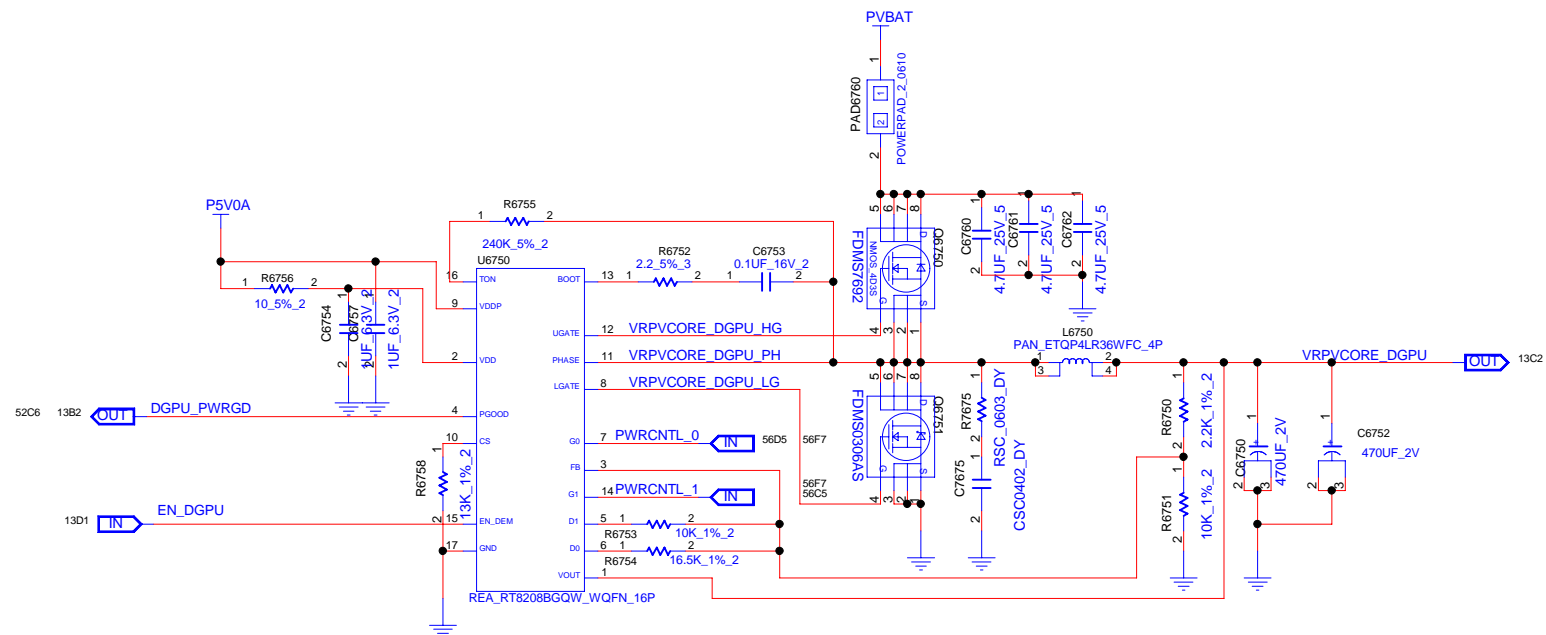
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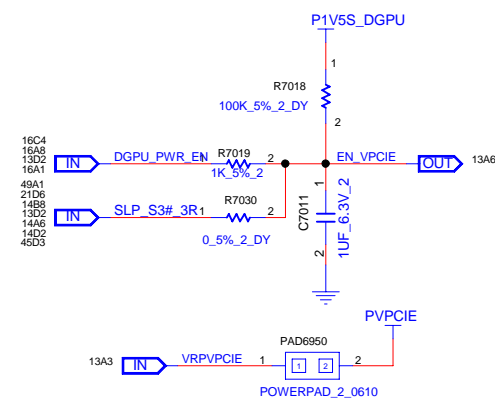
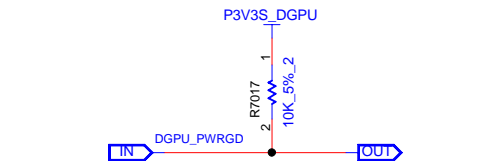
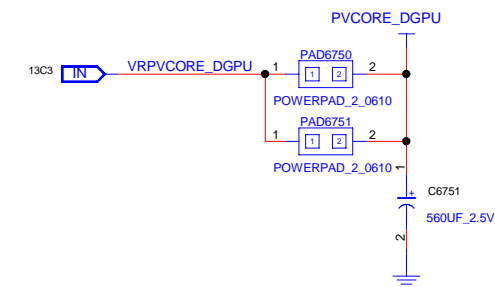
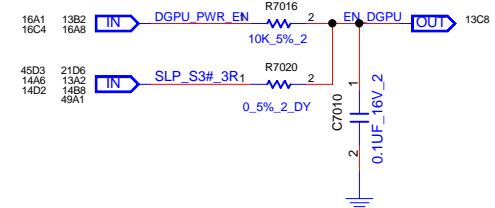
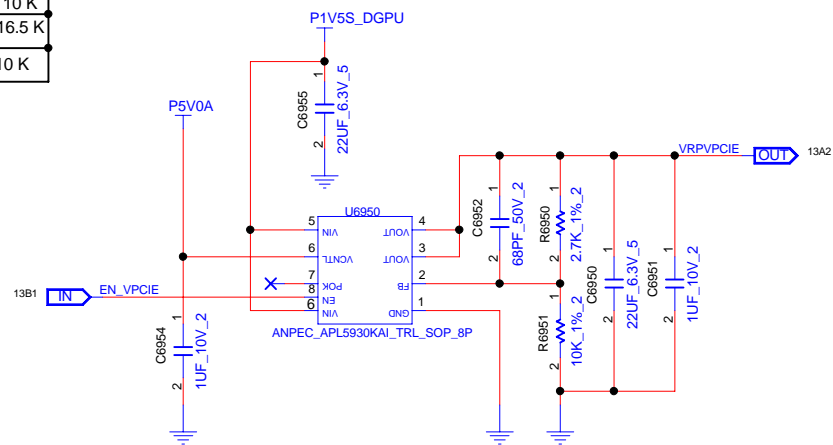
A



VGA TYPE :	SEYMOUR XTX	THAMES XT	THAMES LE	
G0	G1	VOUT	VOUT	VOUT
0	0	1.15	N/A	N/A
0	1	1.05	N/A	N/A
1	0	1	1	1
1	1	0.9	0.9	0.9

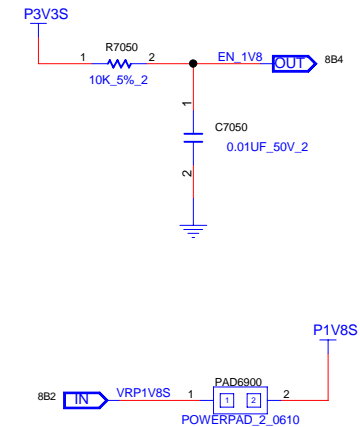
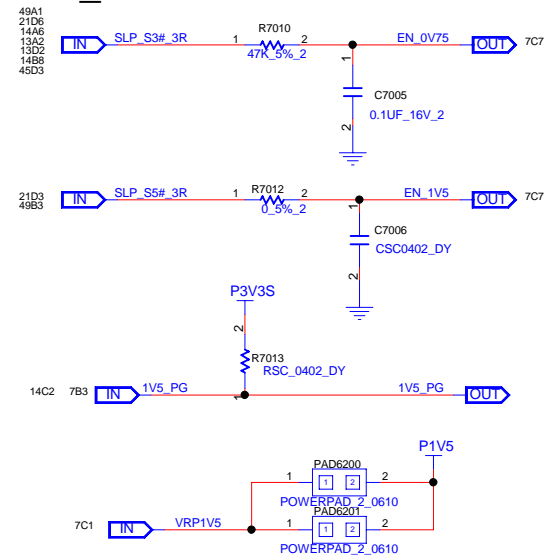
P.S. R6750(R1)R6751(R2)R6753(R3)R6754(R4)

RT8208A	RT8208B	Output Voltage Equation	
G0	G1	G0	G1
0	0	1	1
1	0	0	1
0	1	1	0
1	1	0	0



INVENTEC

TITLE	MODEL PROJECT FUNCTION
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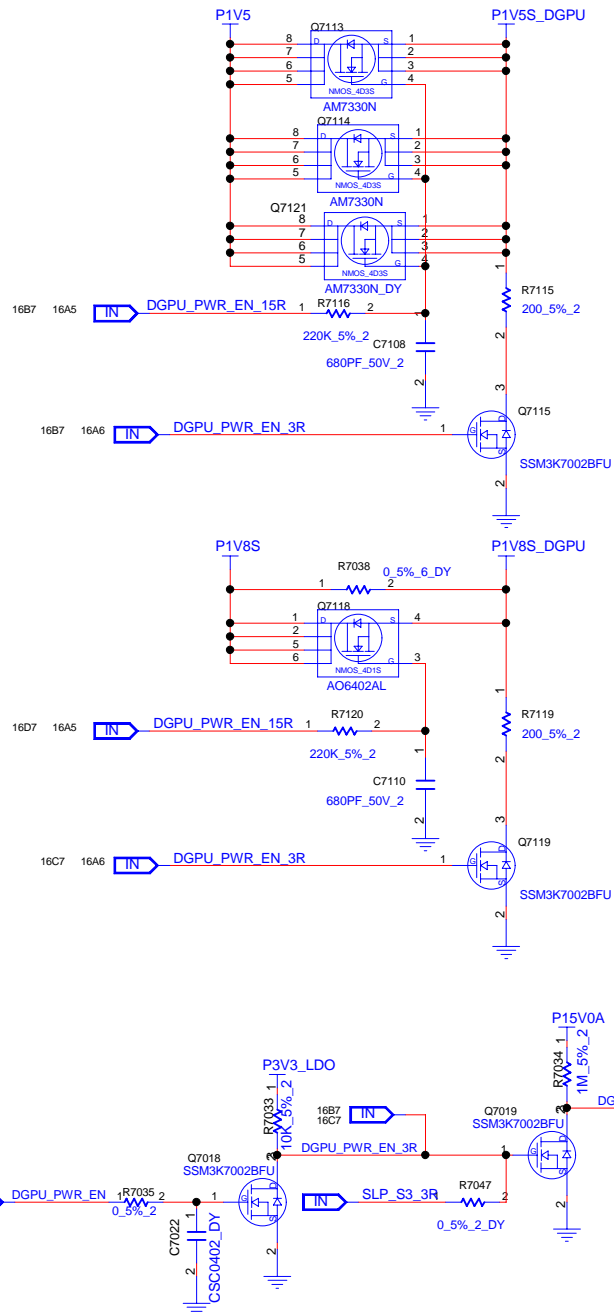
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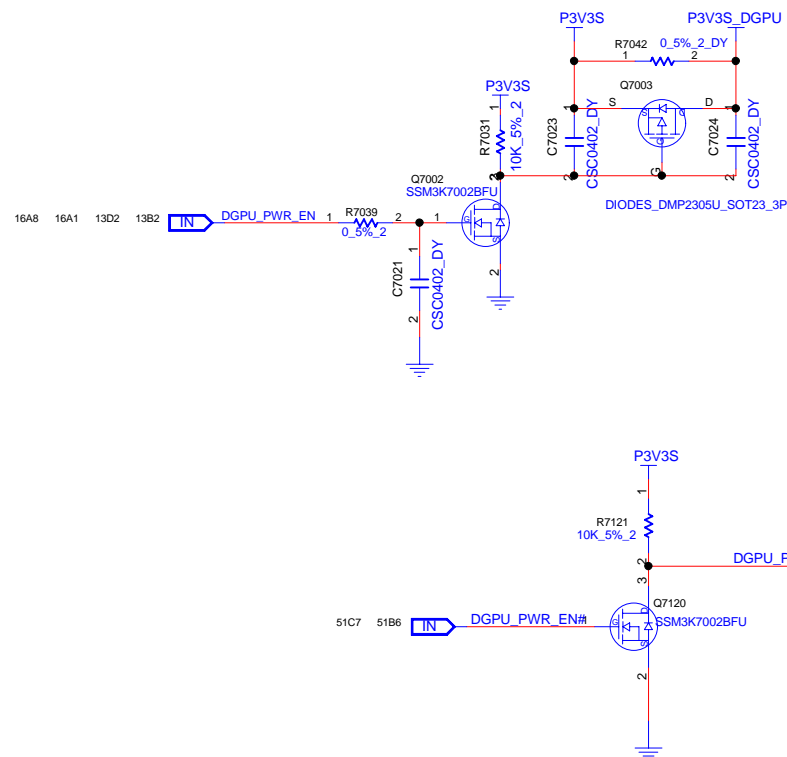
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## POWER EXPRESS

	DURING RESET	AFTER RESET	
DGPU_PWR_EN#	HIGH	HIGH	0 : DGPU POWER SWITCH TURNED ON 1 : POWER SWITCH TURNED OFF
DGPU_PWRGD			0 : DGPU POWER IS NOT STABLE 1 : DGPU POWER IS STABLE
DGPU_HOLD_RST#	LOW	LOW	0 : KEEP DGPU IN RESET 1 : RESET IS RELEASED



INVENTEC

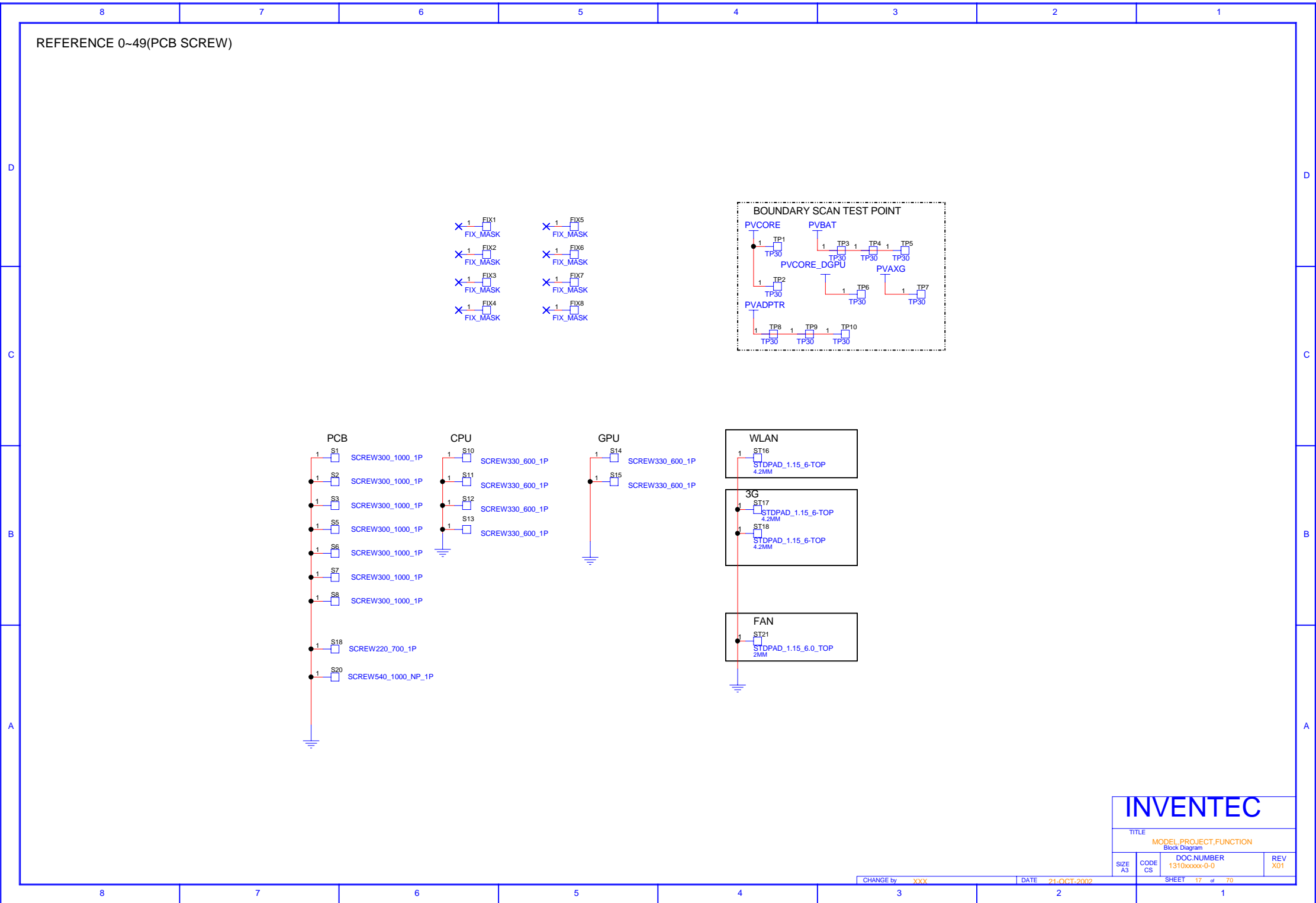
TITLE  
MODEL PROJECT FUNCTION  
Block Diagram

SIZE A3 CODE CS DOC NUMBER 1310xxxx-0-0 REV X01

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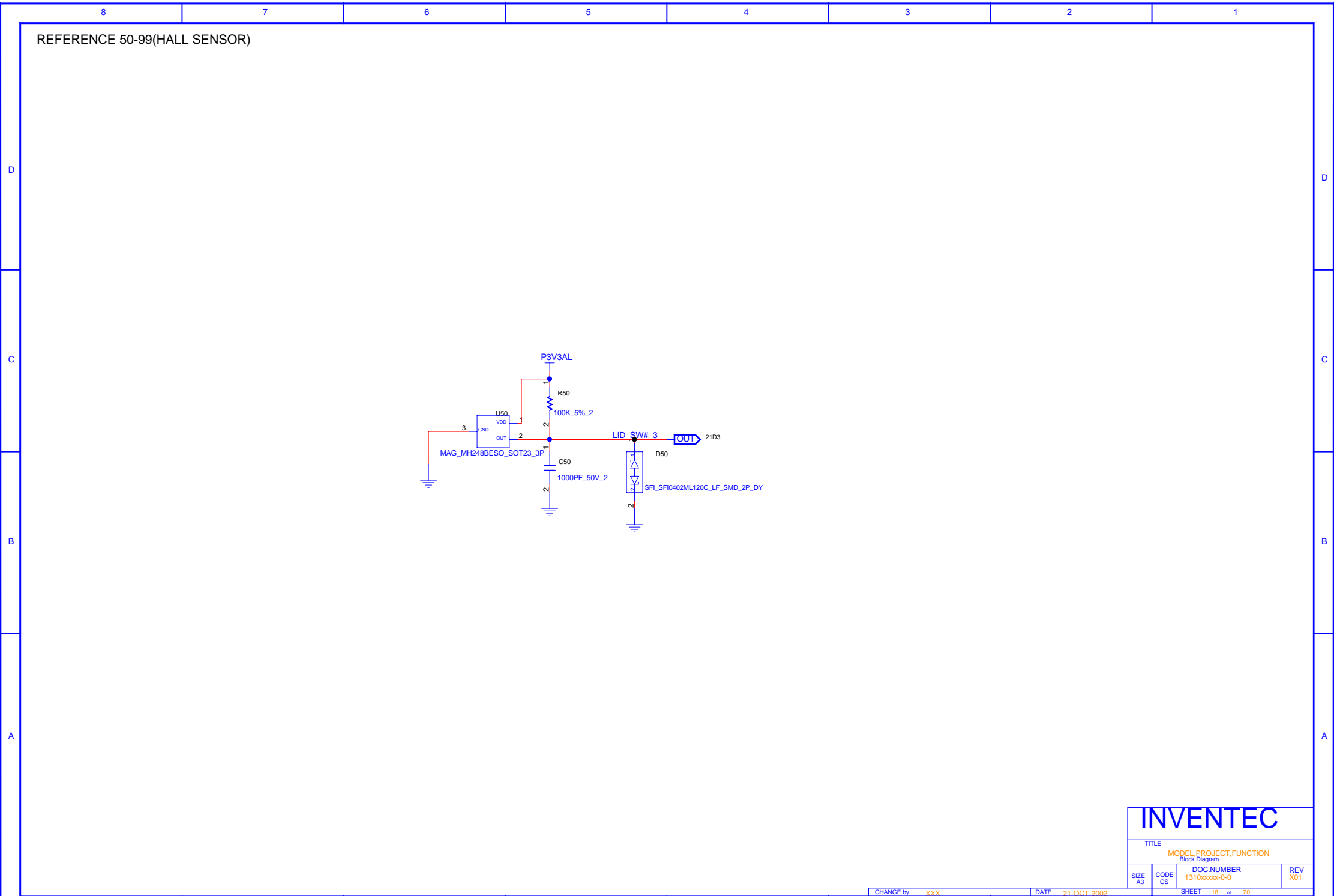
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INVENTEC

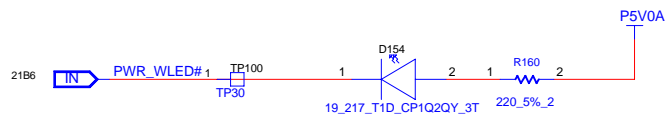
TITLE			
MODEL PROJECT FUNCTION Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01



REFERENCE 100~199(LED)

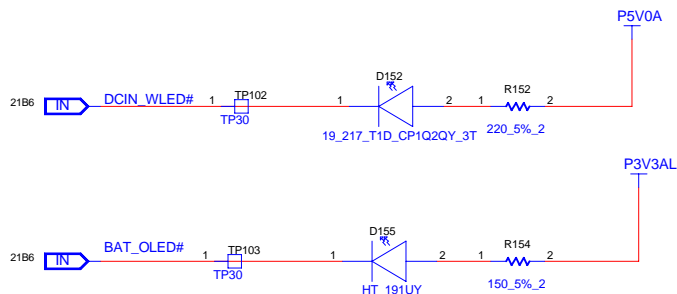
## POWER ON LED

D154 BRIGHT WHEN SYSTEM IS POWER ON  
D154 BLINK WHEN SYSTEM GO TO SLEEP

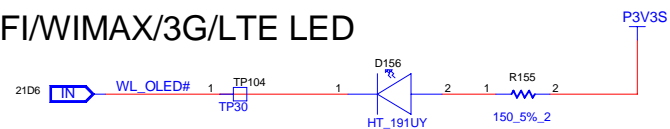


## DC IN / BATTERY CHARGE LED

D152 BRIGHT: BOTH AC-ADAPTER IS PLUGGED IN AND BATTERY IS FULL CHARGED  
D155 BRIGHT: WHILE CHARGING BATTERY FROM AC-ADAPTER  
BLINK: LOW BATTERY



## WIFI/WIMAX/3G/LTE LED



INVENTEC

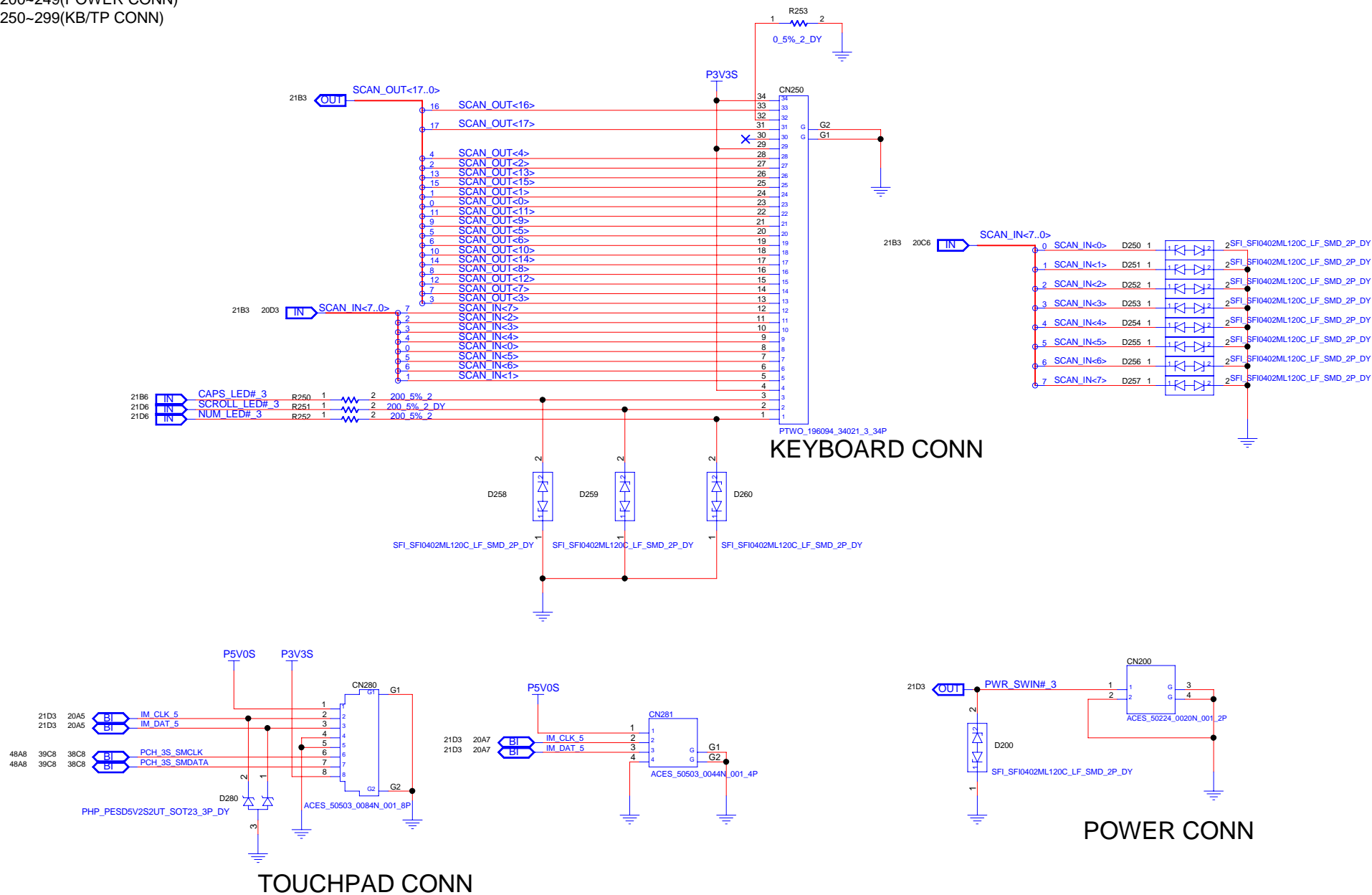
TITLE  
MODEL PROJECT FUNCTION  
Block Diagram

SIZE A3	CODE CS	DOC NUMBER 1310xxxx-0-0	REV X01
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REFERENCE 200~249(POWER CONN)  
REFERENCE 250~299(KB/TP CONN)



INVENTEC

TITLE  
MODEL PROJECT FUNCTION  
Block Diagram  
DOC NUMBER  
1310xxxx-0-0  
REV  
X01

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[illegible]

TITLE			
MODEL,PROJECT,FUNCTION Block Diagram			
SIZE C	CODE CS	DOC NUMBER 1310xxxxxx-0-0	REV X01
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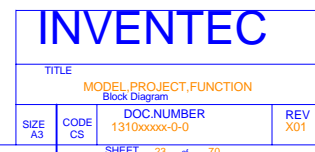


Diagram illustrating the Ethernet PHY connection for the Panta module. The module is labeled **PANTA\_130456\_051\_8P-**.

The connections are as follows:

- Pin 1: LAN\_TD\_DP
- Pin 2: LAN\_TD\_DN
- Pin 3: LAN\_RD\_DP
- Pin 4: LAN\_RD\_DN
- Pin 5: LAN\_CD\_DP
- Pin 6: LAN\_CD\_DN
- Pin 7: LAN\_D\_DP
- Pin 8: LAN\_D\_DN

The module is connected to a **JACK470** connector. The connections are labeled with **TX+**, **TX-**, **Rx+**, **Rx-**, **P4**, **P5**, **P6**, **P7**, and **P8**. The module is also connected to a **G1** and **G2** ground connection.



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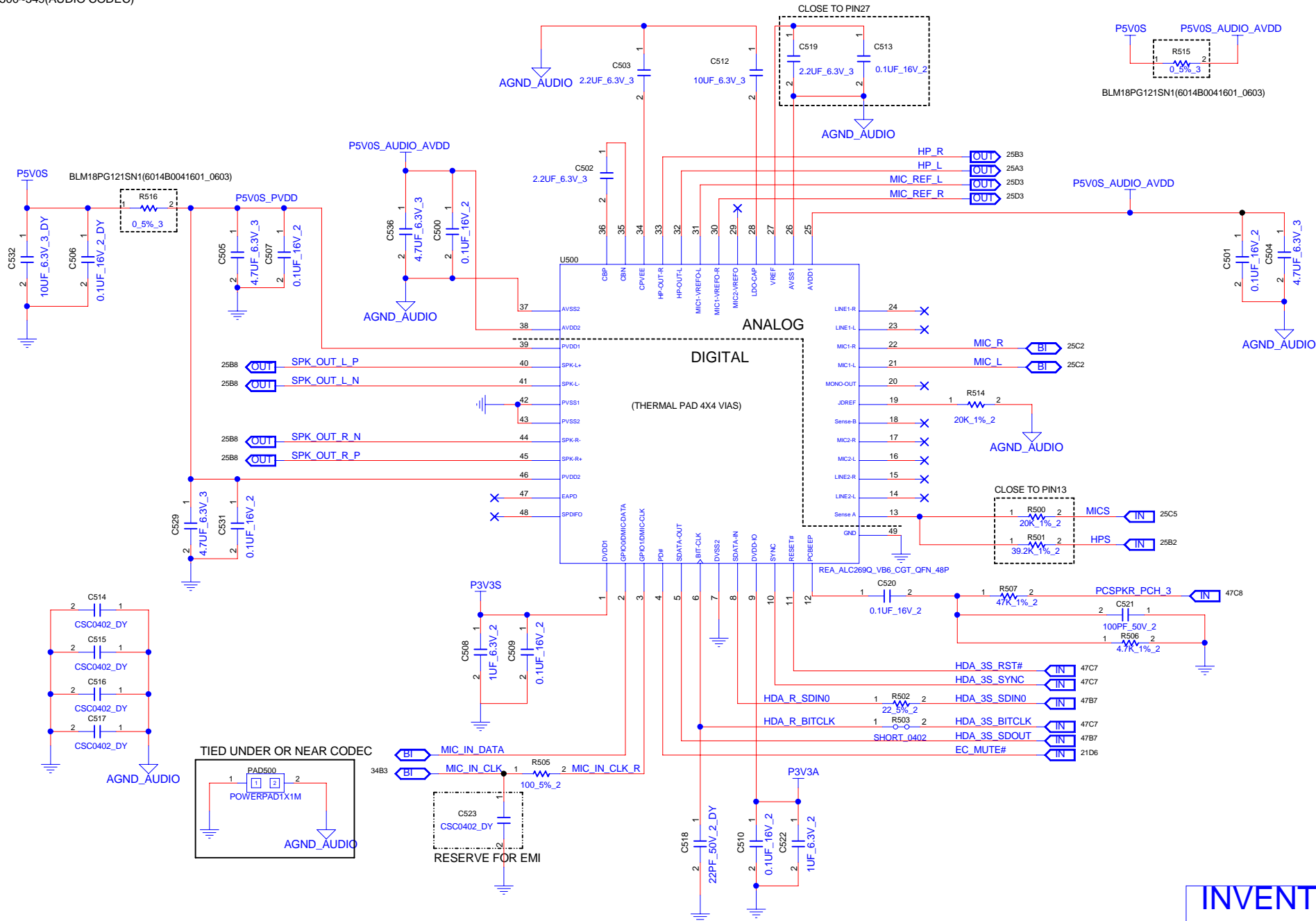
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REFERENCE 500~549(AUDIO CODEC)



INVENTEC

TITLE			
MODEL PROJECT FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01

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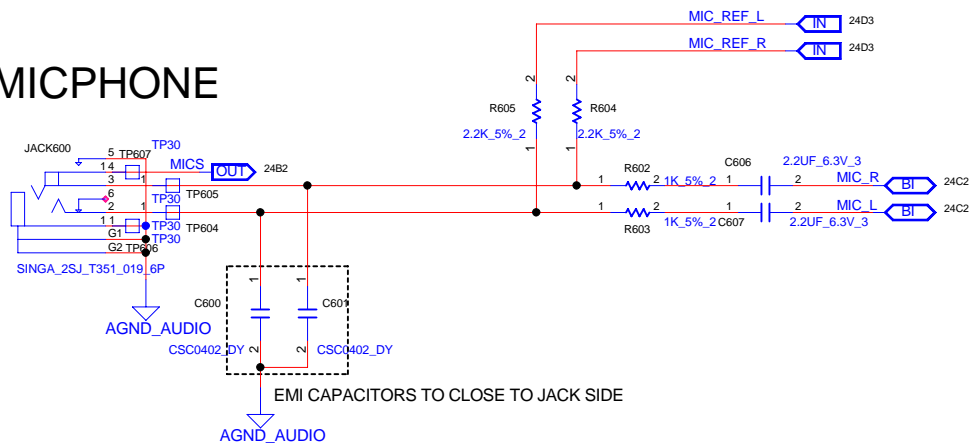
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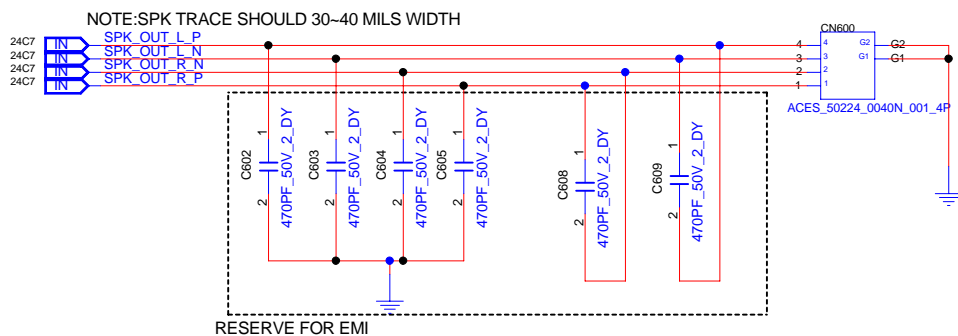
REFERCE 600-649(JACK/MIC/SPEAKER)

# AUDIO JACKS

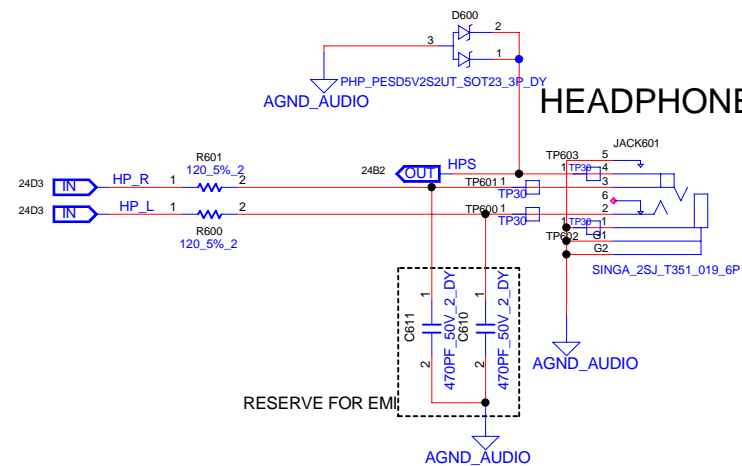
## MICPHONE



## INTERNAL SPEAKERS



## HEADPHONE

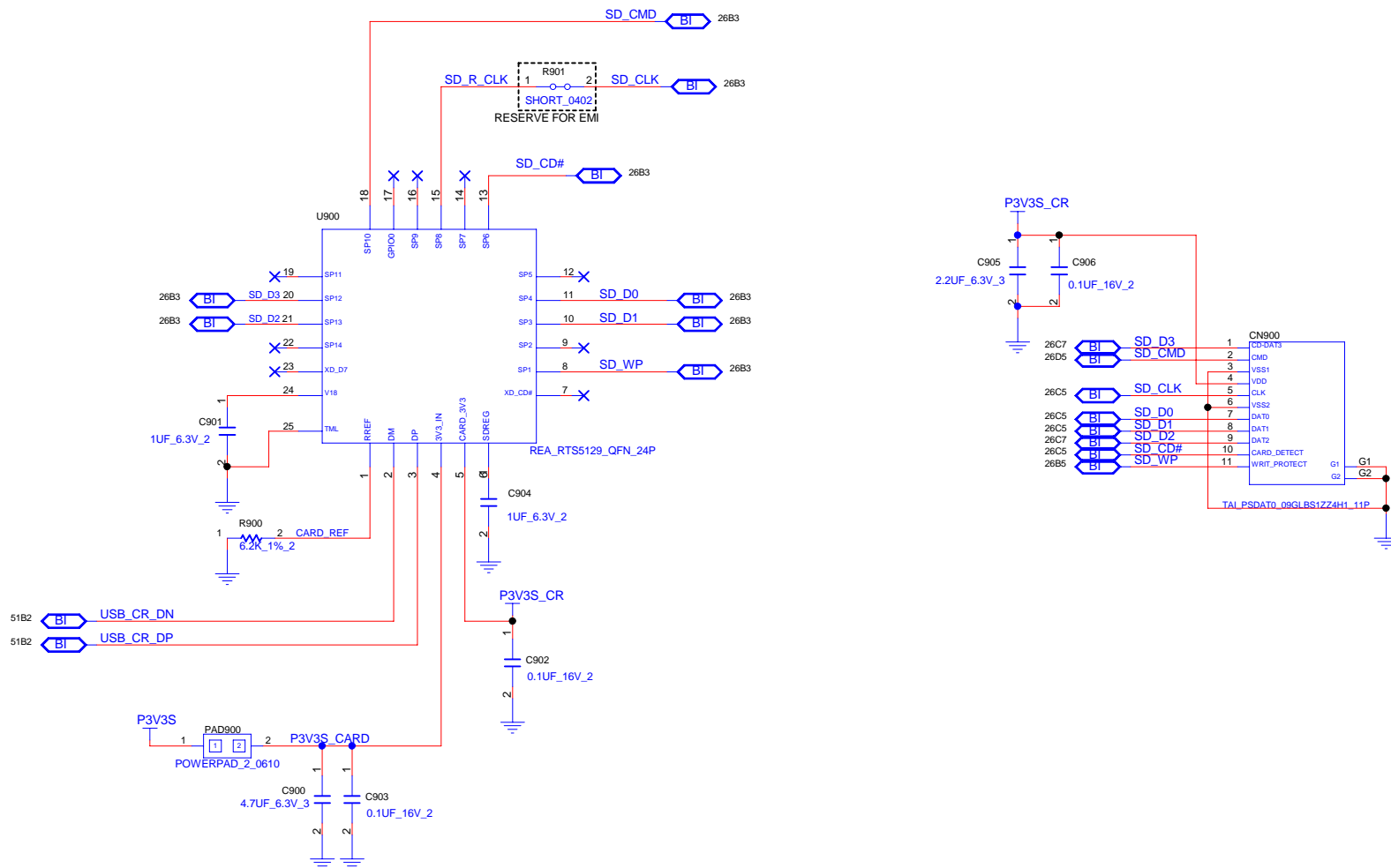
**INVENTEC**

TITLE			
MODEL PROJECT FUNCTION			
Block Diagram			
SIZE A3		DOC NUMBER 1310xxxx-0-0	REV X01

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REFERNCE 900~999(CARDREADER)



INVENTEC

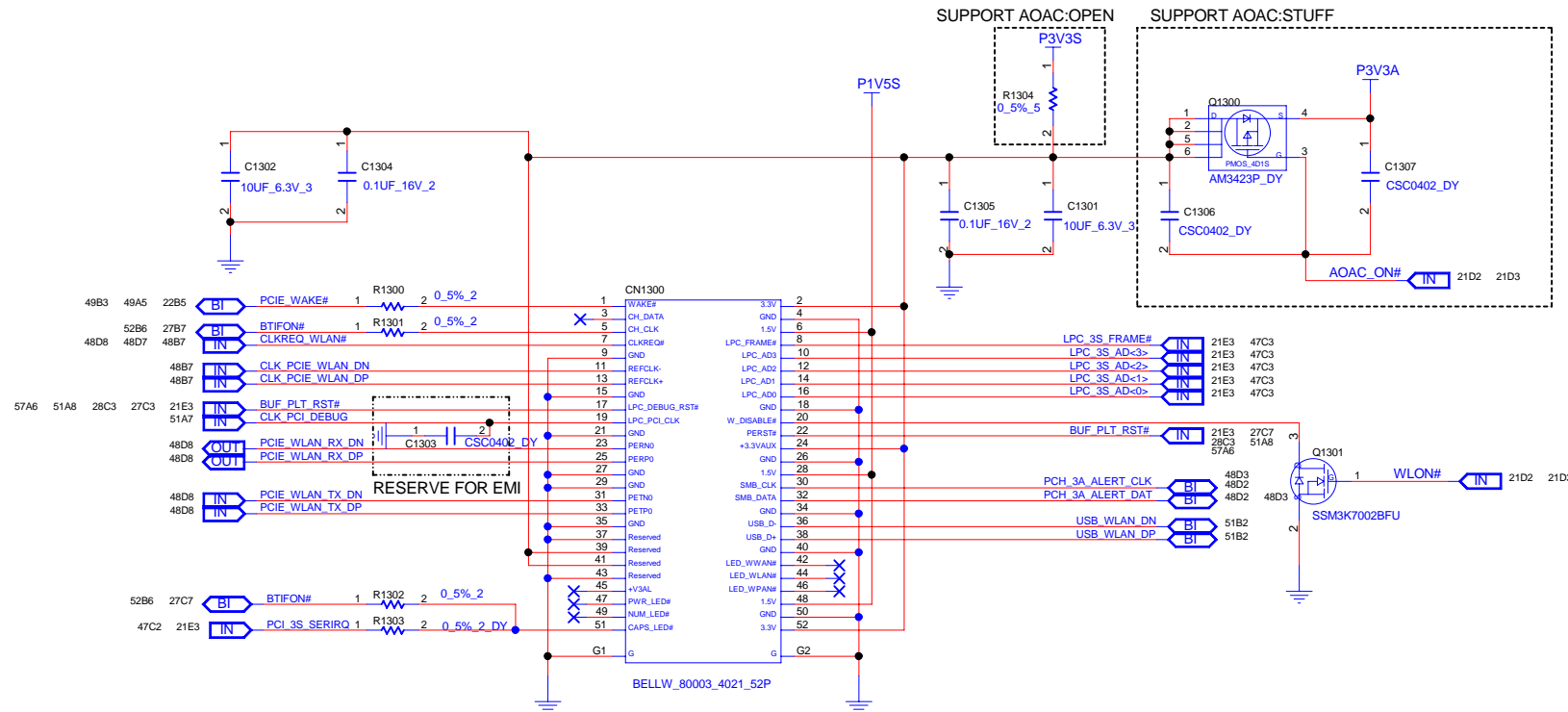
TITLE  
MODEL PROJECT FUNCTION  
Block Diagram

SIZE CODE DOC NUMBER REV  
A3 CS 1310xxxx-0-0 X01

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REFERENCE 1300~1349(WLAN)



MINI CARD 1(WLAN)

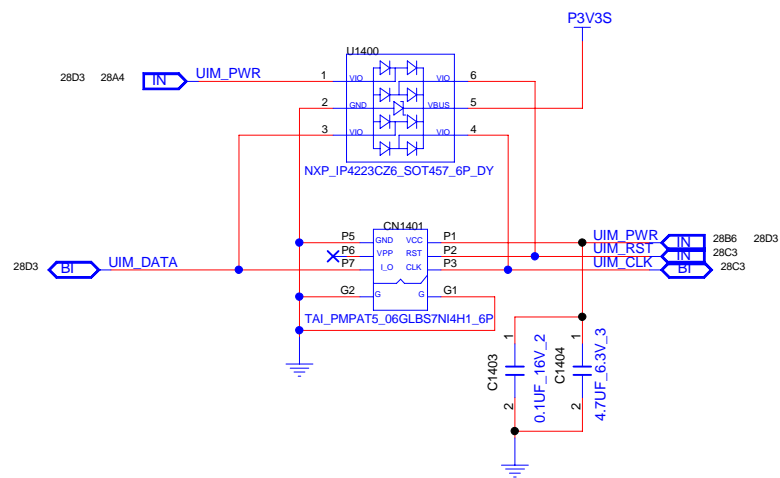
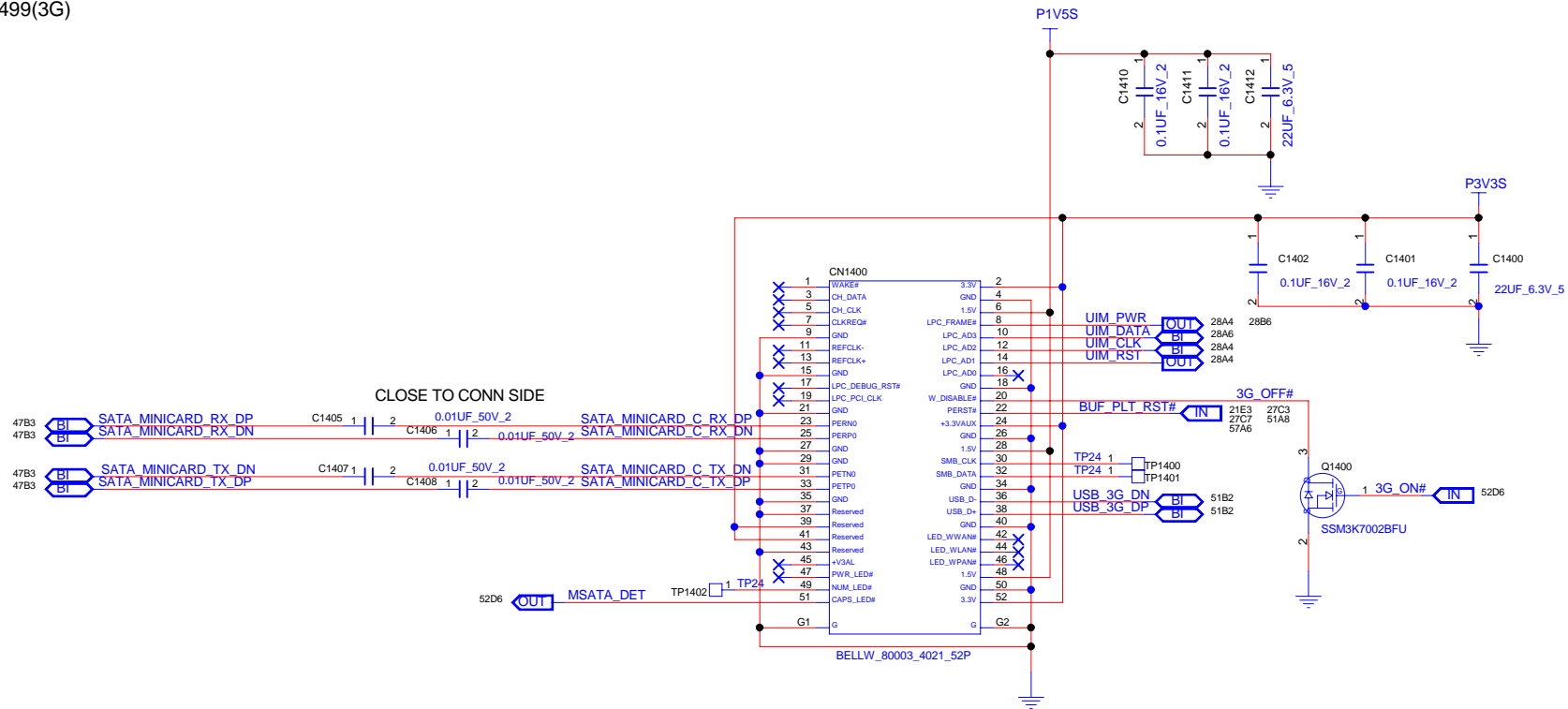
INVENTEC

TITLE			
MODEL PROJECT FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01

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REFERENCE 1400~1499(3G)



INVENTEC

TITLE

MODEL PROJECT FUNCTION

Block Diagram

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REV

X01

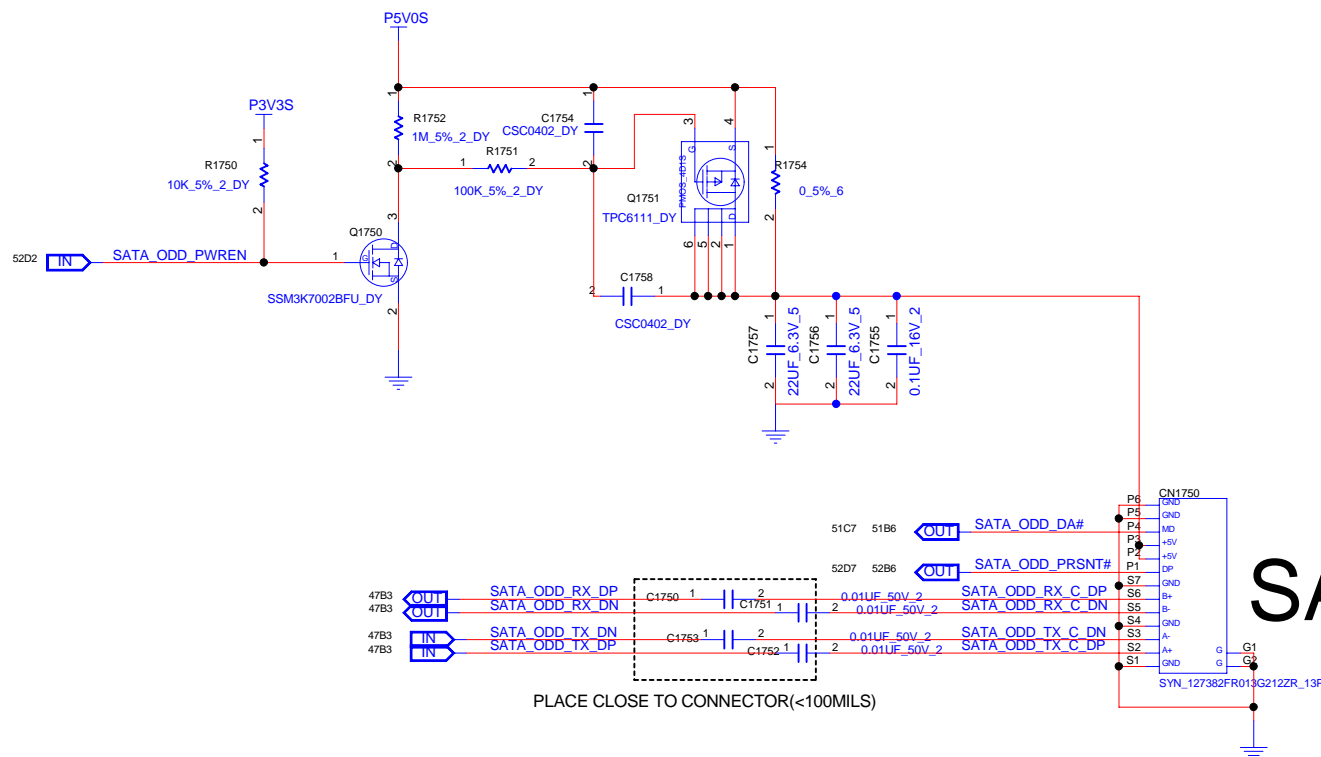
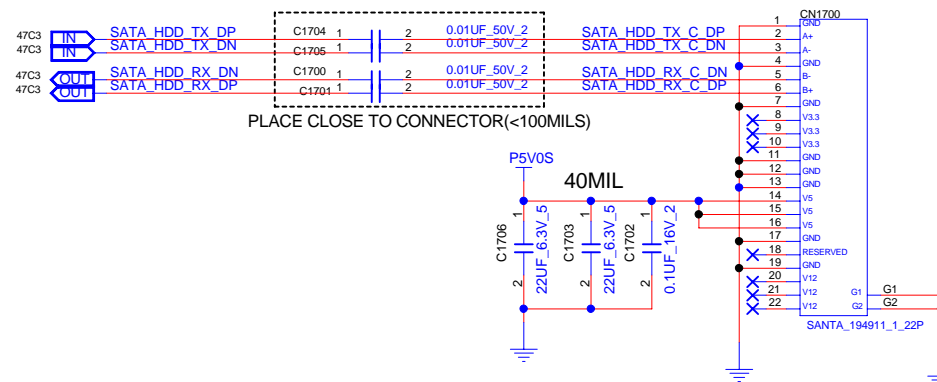
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REFERENCE 1700~1749(HDD)  
REFERENCE 1750~1799(ODD)

# SATA HDD



# SATA ODD

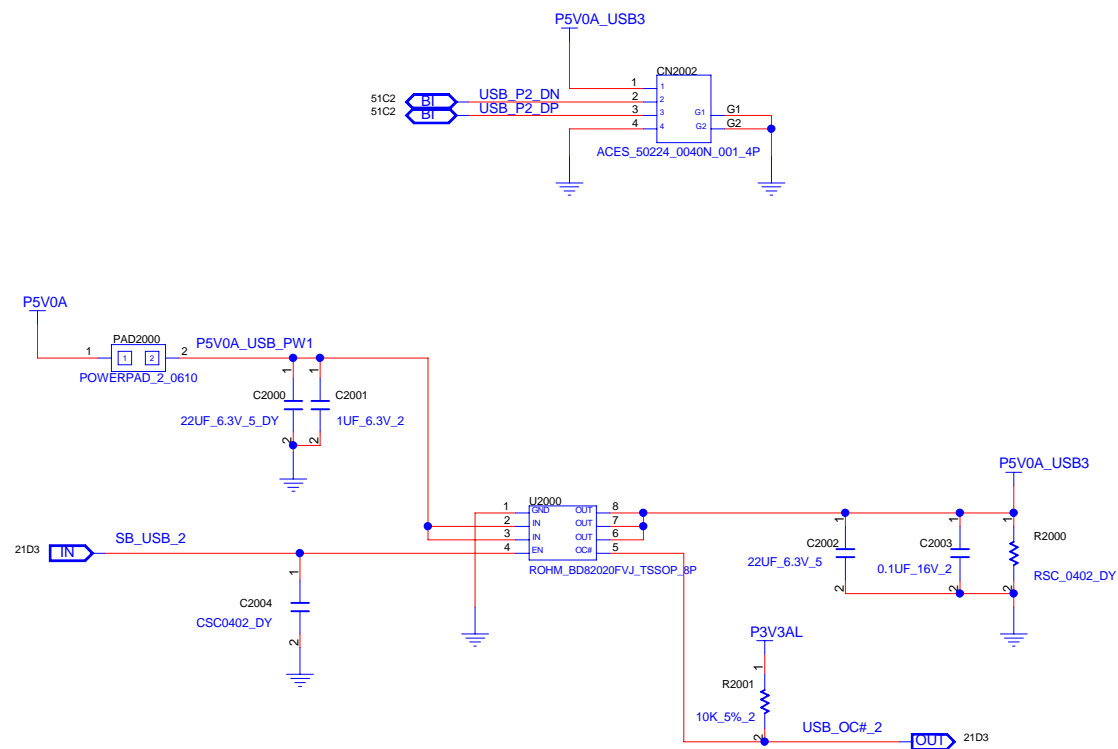
INVENTEC

TITLE MODEL PROJECT FUNCTION  
Block Diagram

SIZE CODE DOC NUMBER REV  
A3 CS 1310xxxx-0-0 X01

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INVENTEC

TITLE			
MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	REV X01

REFERENCE 2400~2499

REMOVE USB3.0 CONTROLLER IC

INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
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REFERENCE 2400~2499(USB3.0)

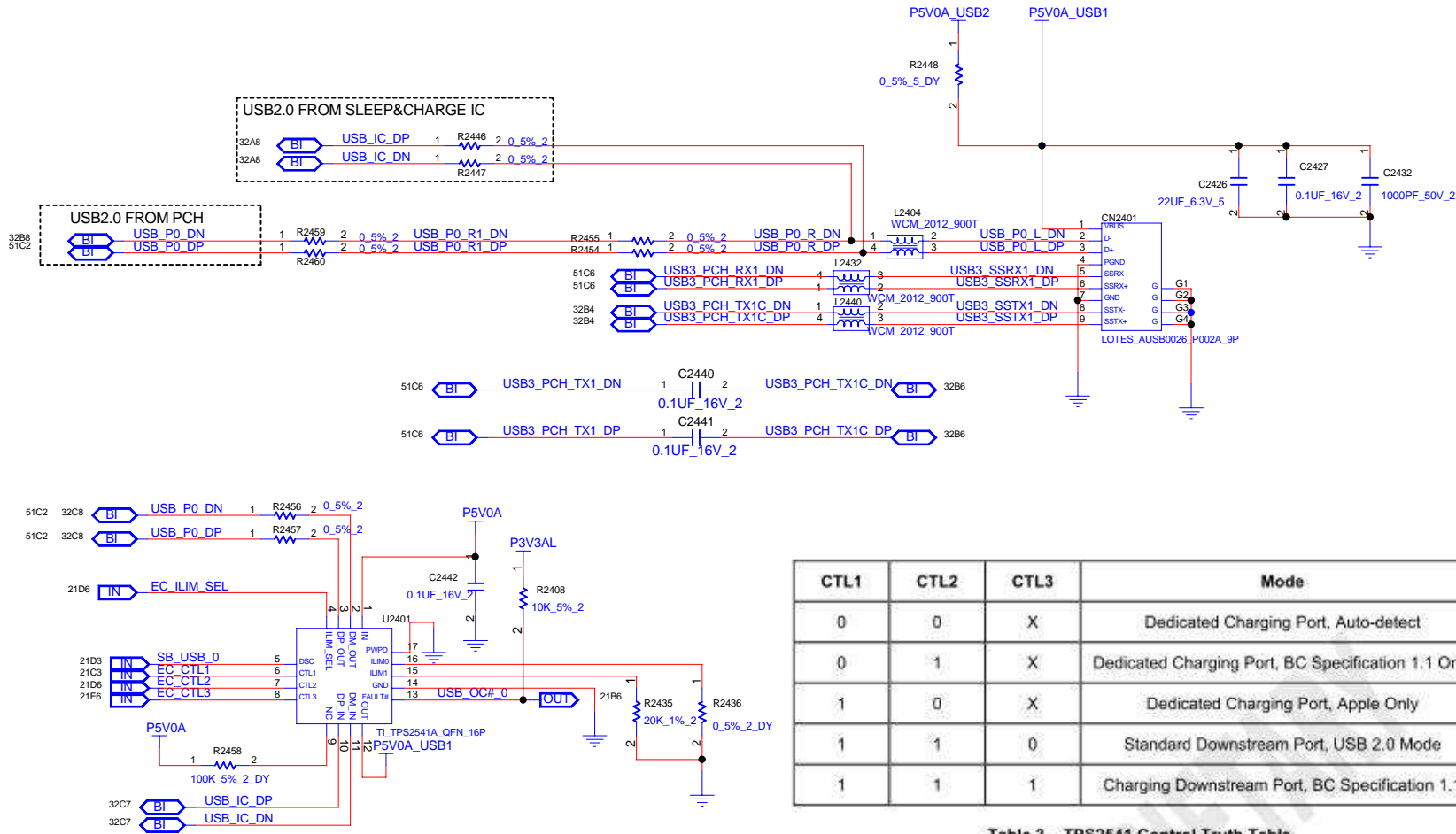


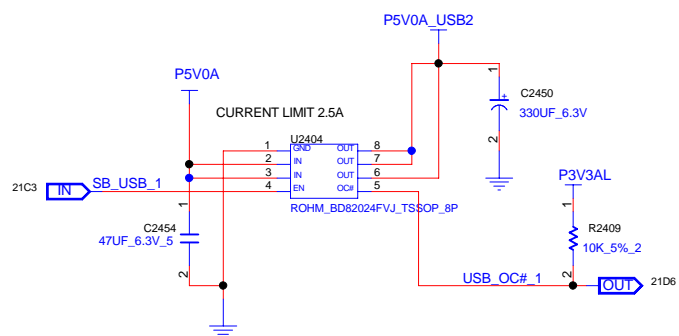
Table 3 – TPS2541 Control Truth Table

INVENTEC

TITLE			
MODEL PROJECT FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01

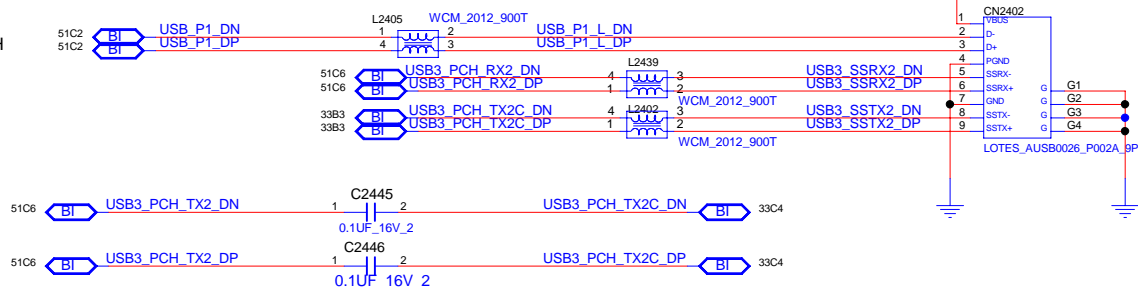


REFERENCE 2400~2499(USB3.0)



# USB 3.0 CONNECTOR

USB2.0 FROM PCH

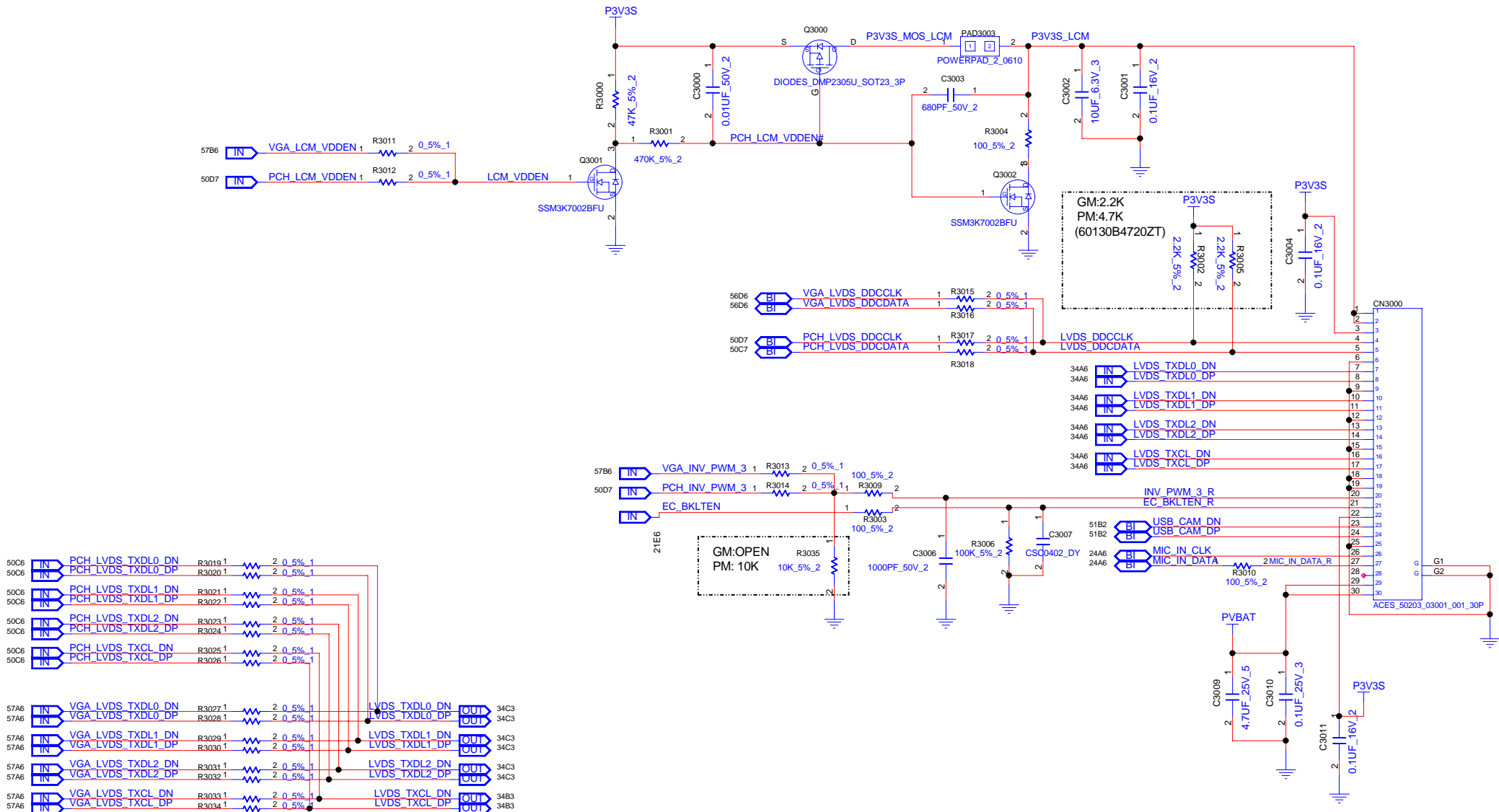
**INVENTEC**TITLE  
MODEL,PROJECT,FUNCTION  
Block Diagram

SIZE A3 CODE CS DOC NUMBER 1310xxxx-0-0 REV X01

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## REFERENCE 3000~3049(LCM)



INVENTEC

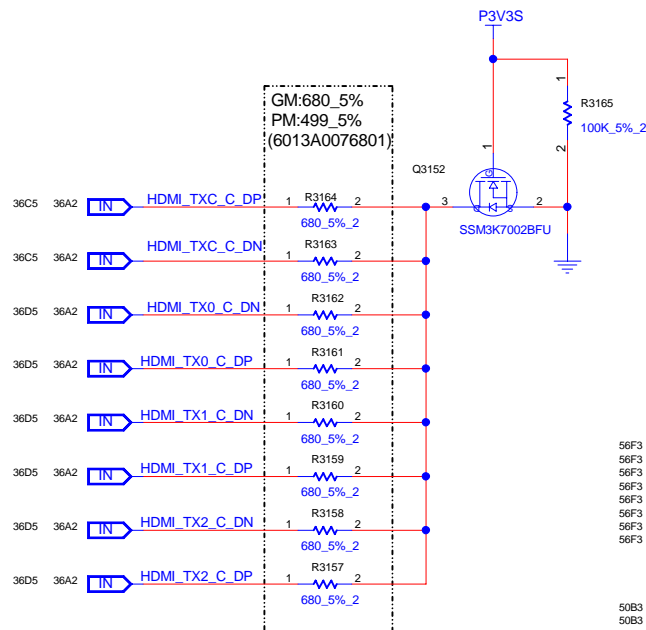
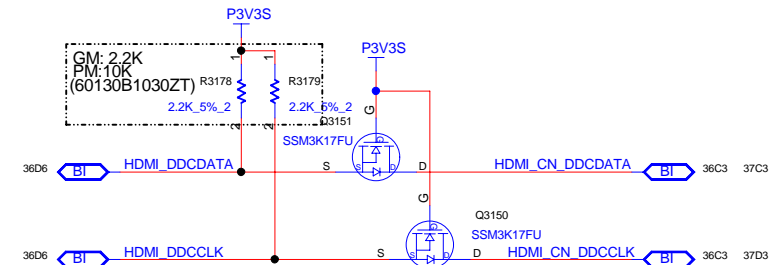
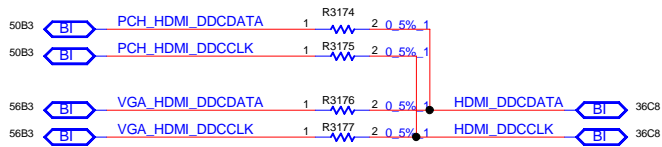
TITLE			
MODEL PROJECT FUNCTION			
SIZE	CODE	DOC NUMBER	
A3	CS	1310xxxx-0-0	
REV		X01	

CHANGE by XXX DATE 21-OCT-2002

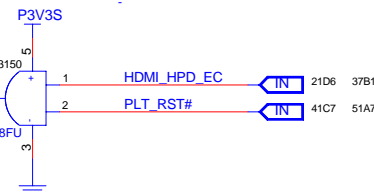
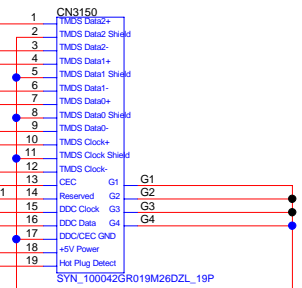
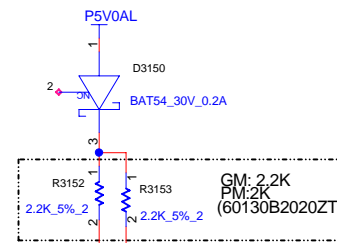
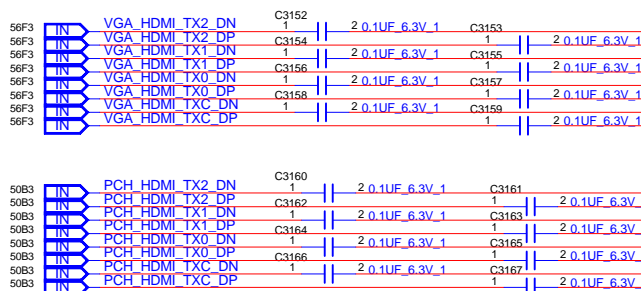
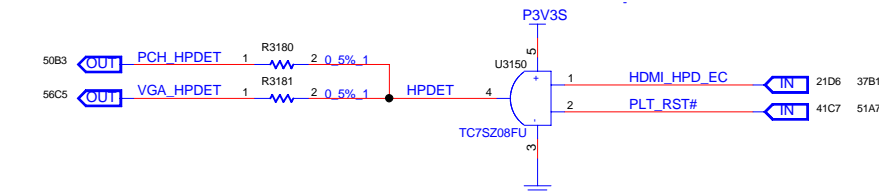
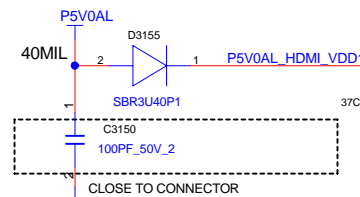
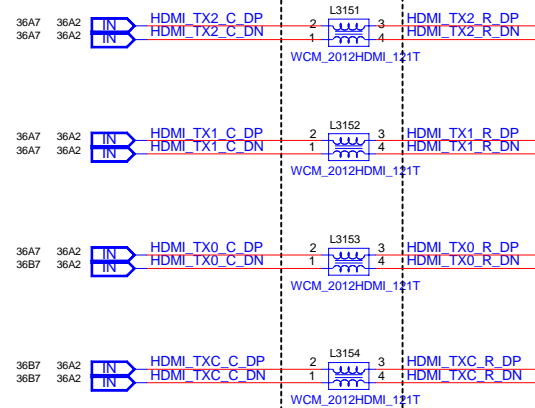
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## REFERENCE 3150~3199(HDMI)



PLACE CLOSE TO CONNECTOR



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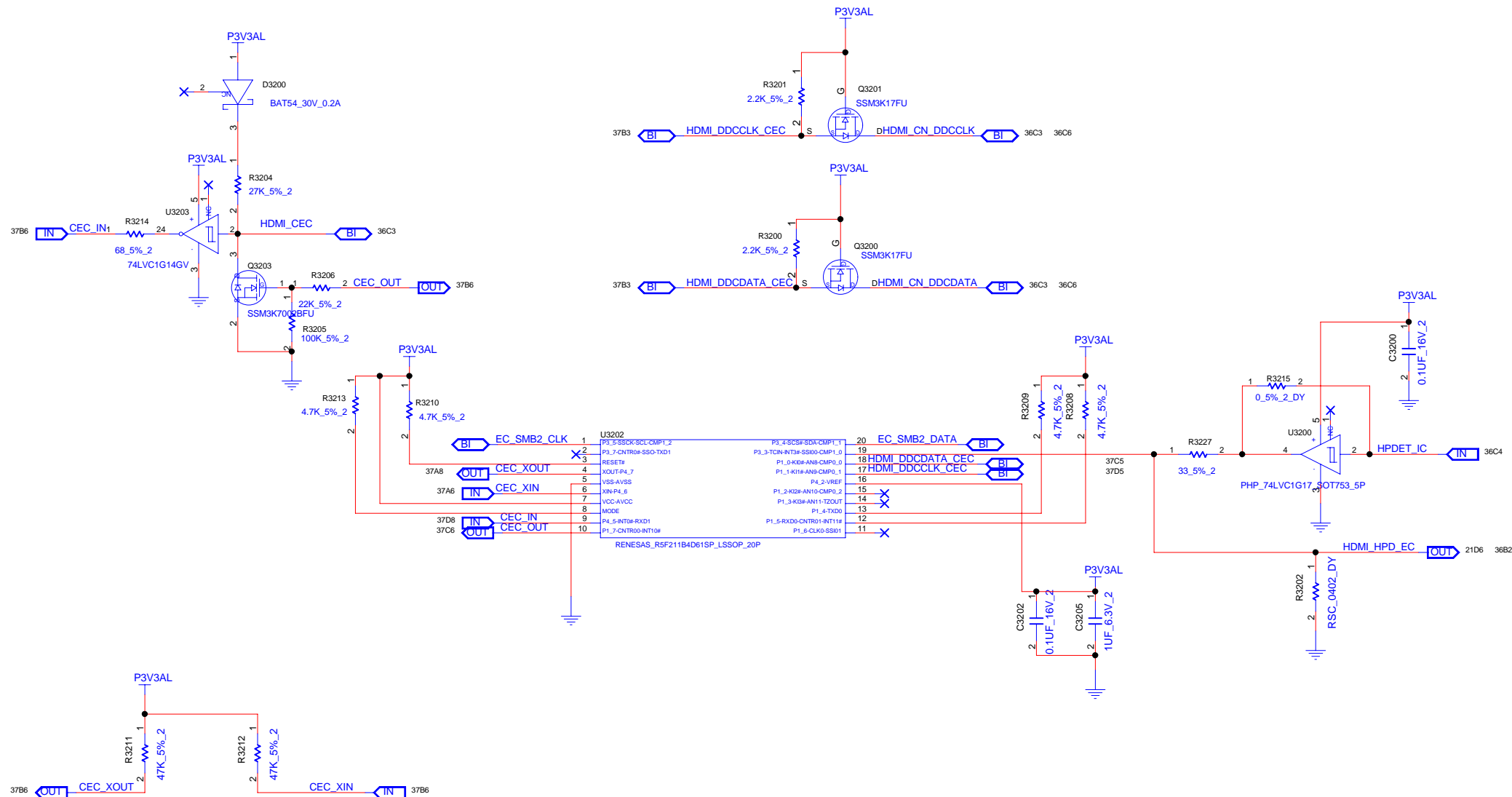
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INVENTEC

TITLE

MODEL,PROJECT,FUNCTION

Block Diagram

SIZE  
A3CODE  
CSDOC NUMBER  
1310xxxx-0-0REV  
X01

CHANGE by XXX

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REFERENCE 4100~4299(DDR)

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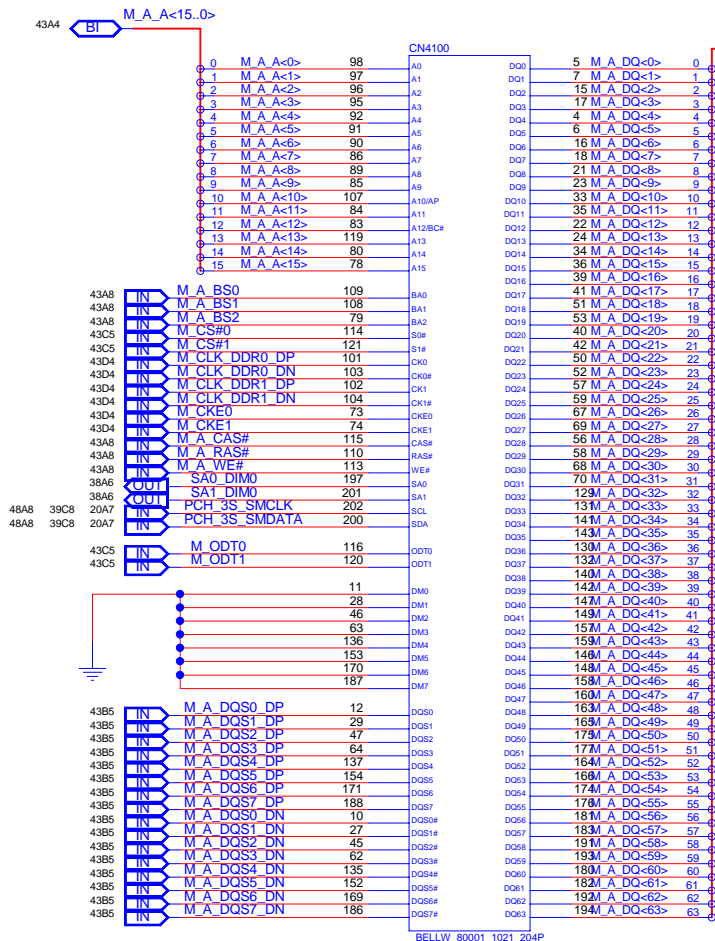
A

D

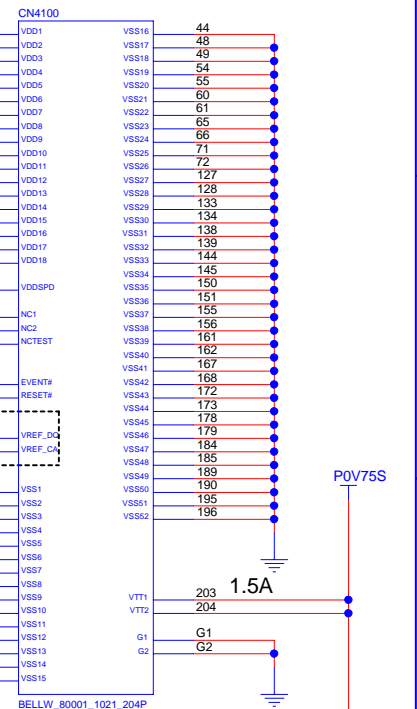
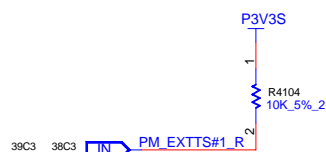
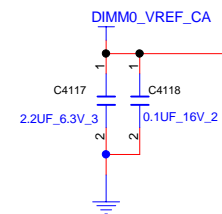
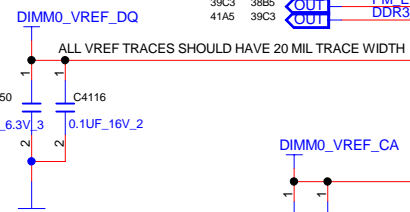
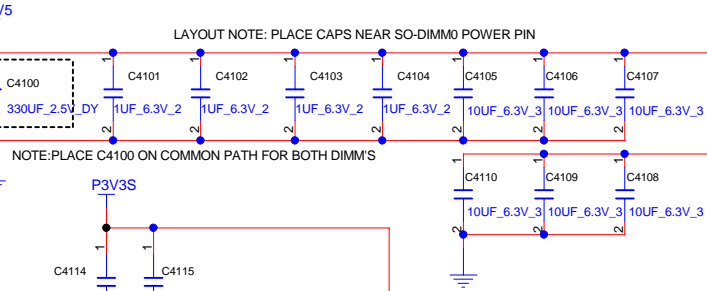
C

B

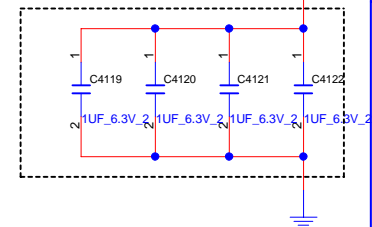
A



M\_A\_DQ&lt;63..0&gt;



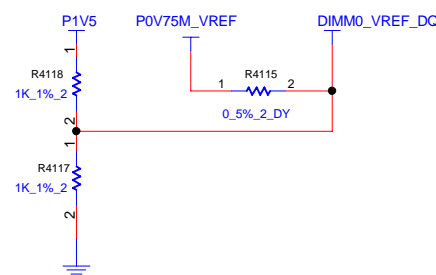
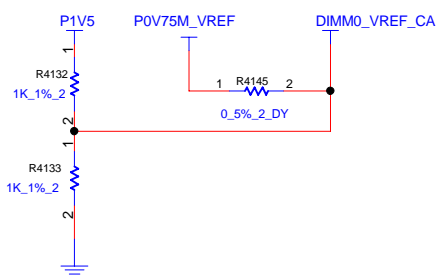
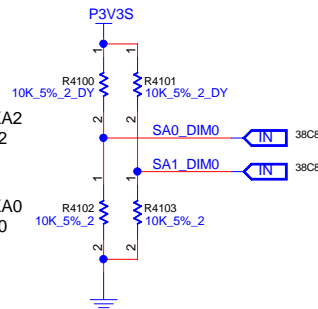
PLACE THESE CAPS CLOSE TO VTT1 AND VTT2



NOTE:

IF SA0\_DIM0=1, SA1\_DIM0=0  
SO-DIMMA SPD ADDRESS IS 0XA2  
SO-DIMMA TS ADDRESS IS 0X32

IF SA0\_DIM0=0, SA1\_DIM0=0  
SO-DIMMA SPD ADDRESS IS 0XA0  
SO-DIMMA TS ADDRESS IS 0X30



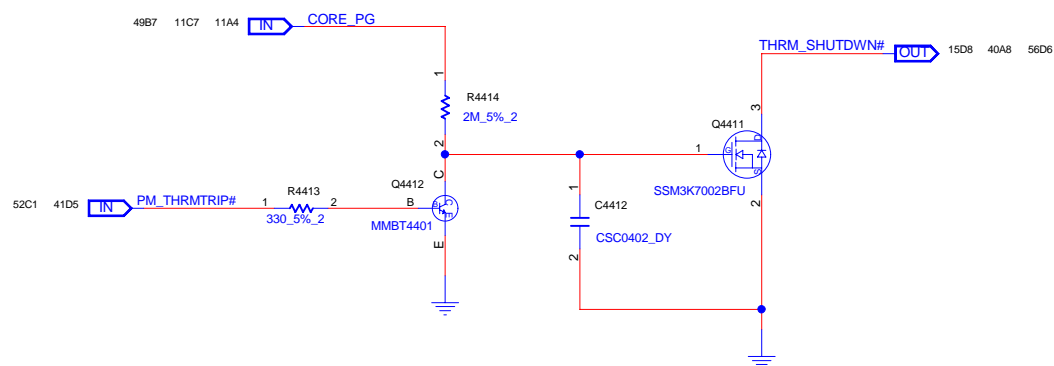
INVENTEC

TITLE			
MODEL PROJECT FUNCTION			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01

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	10F	10FG
R4442	48.7K	43.2K
R4443	39K	30.1K
R4446	59K	32.4K
R4441	75K	18.2K

INVENTEC

TITL

MODEL,PROJECT,FUNCTION  
Block Diagram

SIZE  
A2

	CODE
	CS

DOC.NUMBER
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1310xxxxx-0-0

REV  
X01CHANGE by XXX

DATE	21-OCT-2002
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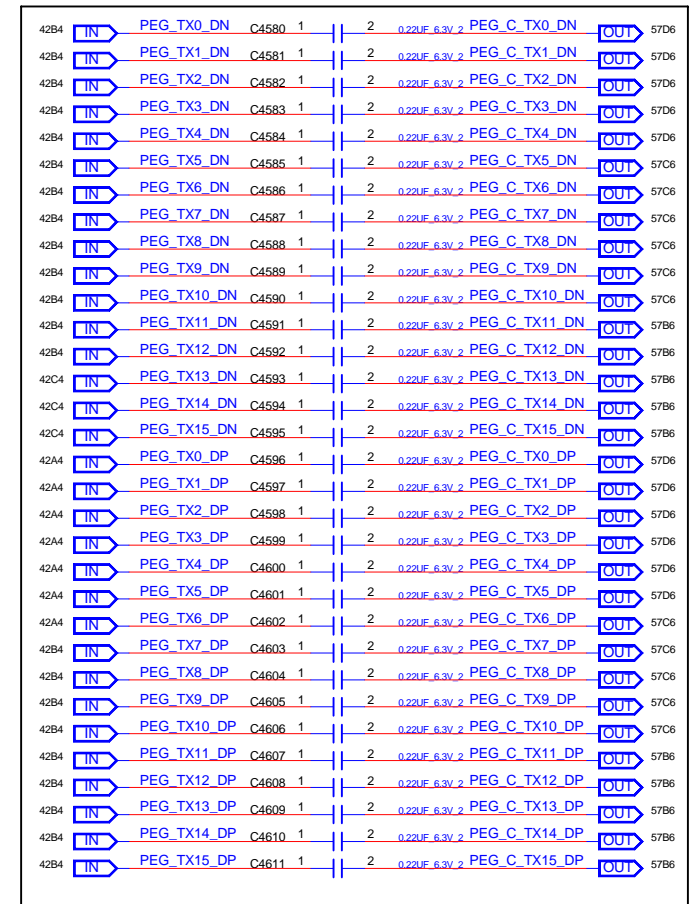
# REFERENCE 4500~4699(CPU)

CAD NOTE: DP\_COMPIO AND ICOMPO SIGNALS SHOULD BE SHORTED NEAR BALLS AND ROUTED WITH  
- TYPICAL IMPEDANCE < 25 MOHMS

CAD NOTE: PEG\_ICOMPI AND RCOMPO SIGNALS SHOULD BE SHORTED AND ROUTED WITH  
- MAX LENGTH = 500 MILS  
- TYPICAL IMPEDANCE = 43 MOHMS

PEG\_ICOMPO SIGNALS SHOULD BE ROUTED WITH  
- MAX LENGTH = 500 MILS  
- TYPICAL IMPEDANCE = 14.5 MOHMS

CLOSE TO CPU



## INVENTEC

TITLE  
MODEL PROJECT FUNCTION  
Block Diagram

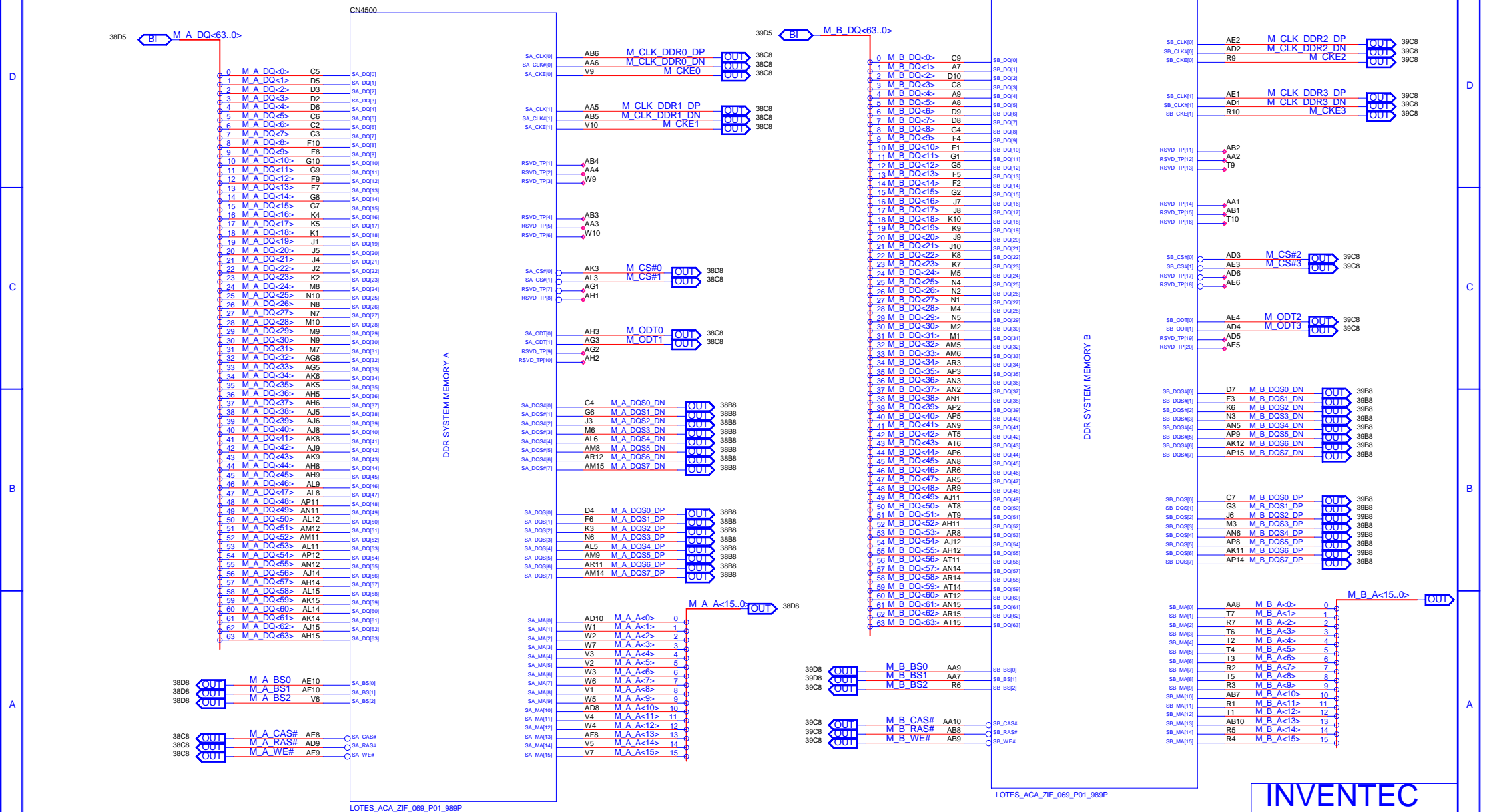
SIZE CODE DOC NUMBER REV  
A3 CS 1310xxxxx-0-0 X01

CHANGE by XXX DATE 21-OCT-2002

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## REFERENCE 4500~4699(CPU)

SOCKET,CPU,989P,TIN,3.0MM,STR,SMD,TR



INVENTEC

TITLE

MODEL PROJECT FUNCTION

Block Diagram

DOC NUMBER

1310xxxx-0-0

REV

X01

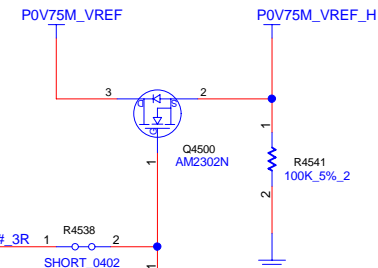
SHEET 43 of 70

CHANGE by XXX

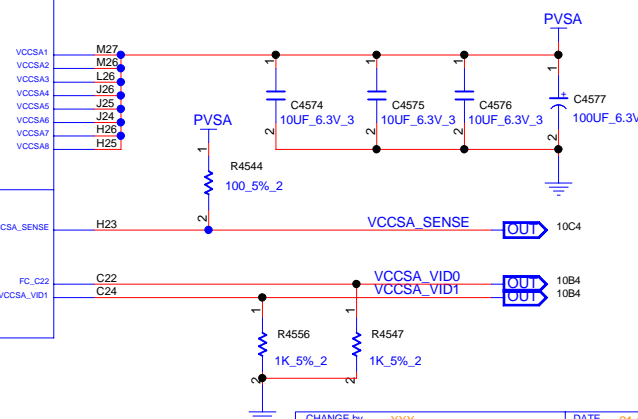
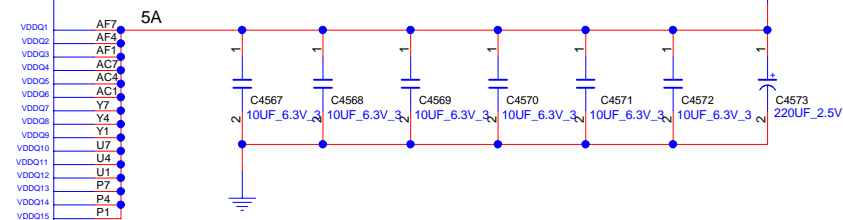
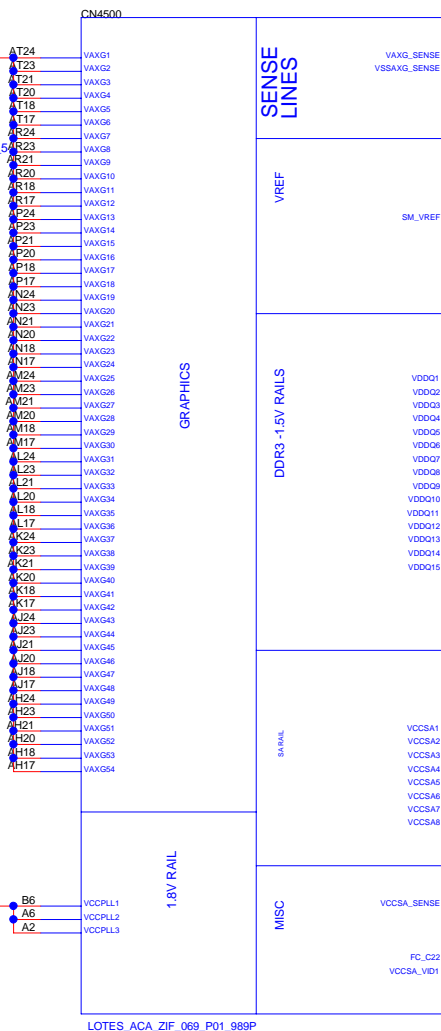
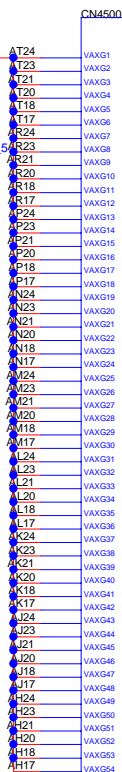
DATE 21-OCT-2002



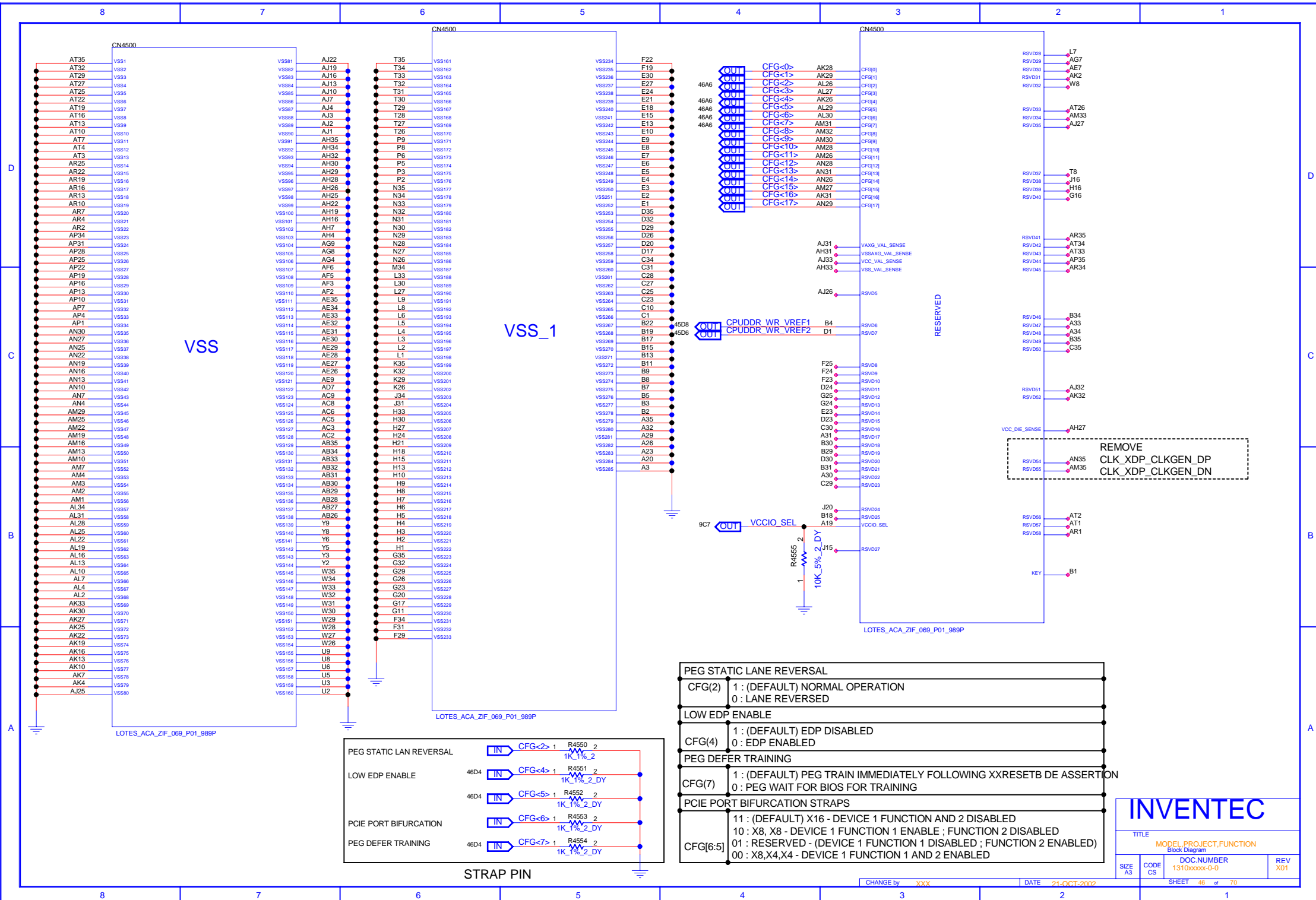
DIMM1 VREF DQ



## GRAPHICS



SIZE A3	CODE CS	1310xxxxx-0-0
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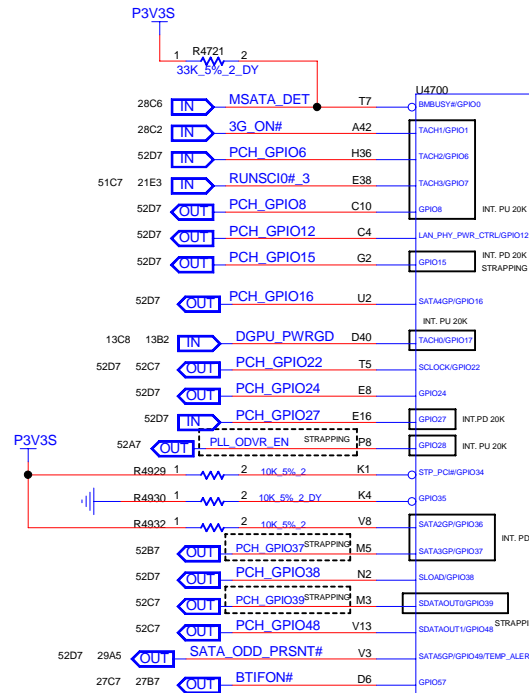
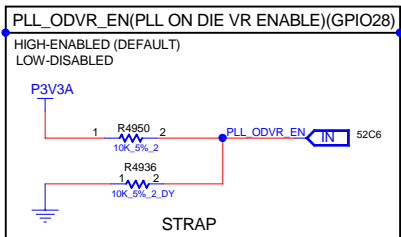
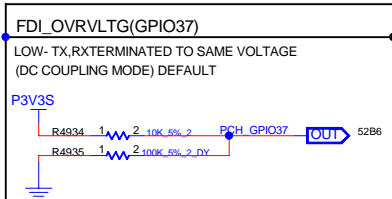
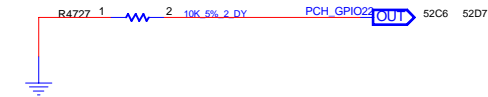
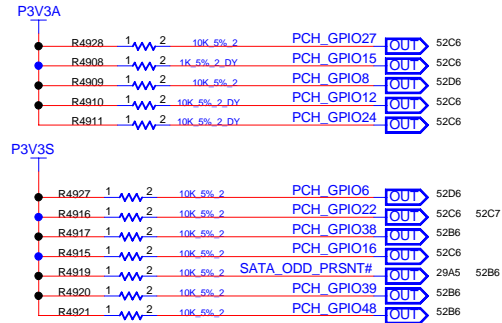
## Digital Display Interface



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## REFERENCE 4700~4949(PCH)



GPIO

CPU/MISC

NCTF

A4 VSS\_NCTF\_1

A44 VSS\_NCTF\_2

A45 VSS\_NCTF\_3

A46 VSS\_NCTF\_4

A5 VSS\_NCTF\_5

A6 VSS\_NCTF\_6

B3 VSS\_NCTF\_7

B47 VSS\_NCTF\_8

BD1 VSS\_NCTF\_9

BD49 VSS\_NCTF\_10

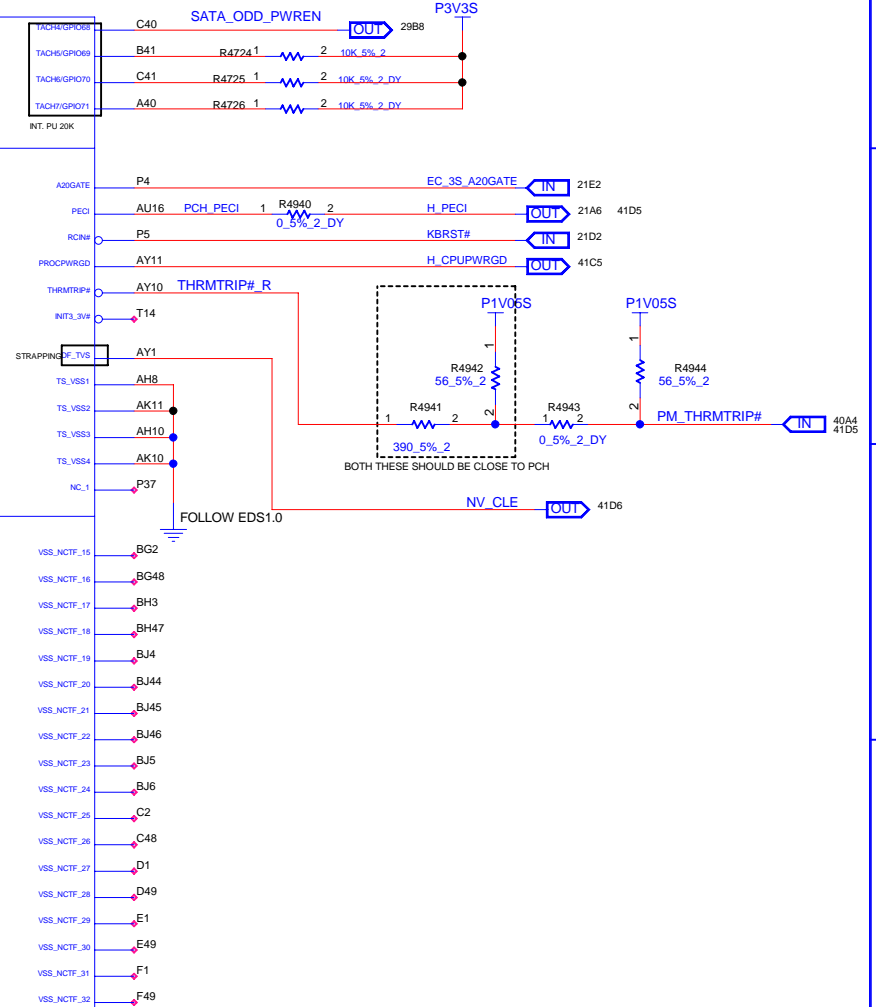
BE1 VSS\_NCTF\_11

BE49 VSS\_NCTF\_12

BF1 VSS\_NCTF\_13

BF49 VSS\_NCTF\_14

ITL\_BD82PPSM\_QPJ4\_FCBGA\_989P



INVENTEC

TITLE MODEL PROJECT FUNCTION  
Block Diagram

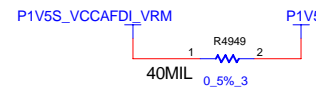
SIZE A3 CODE CS DOC NUMBER 1310xxxx-0-0 REV X01

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DATE 21-OCT-2002

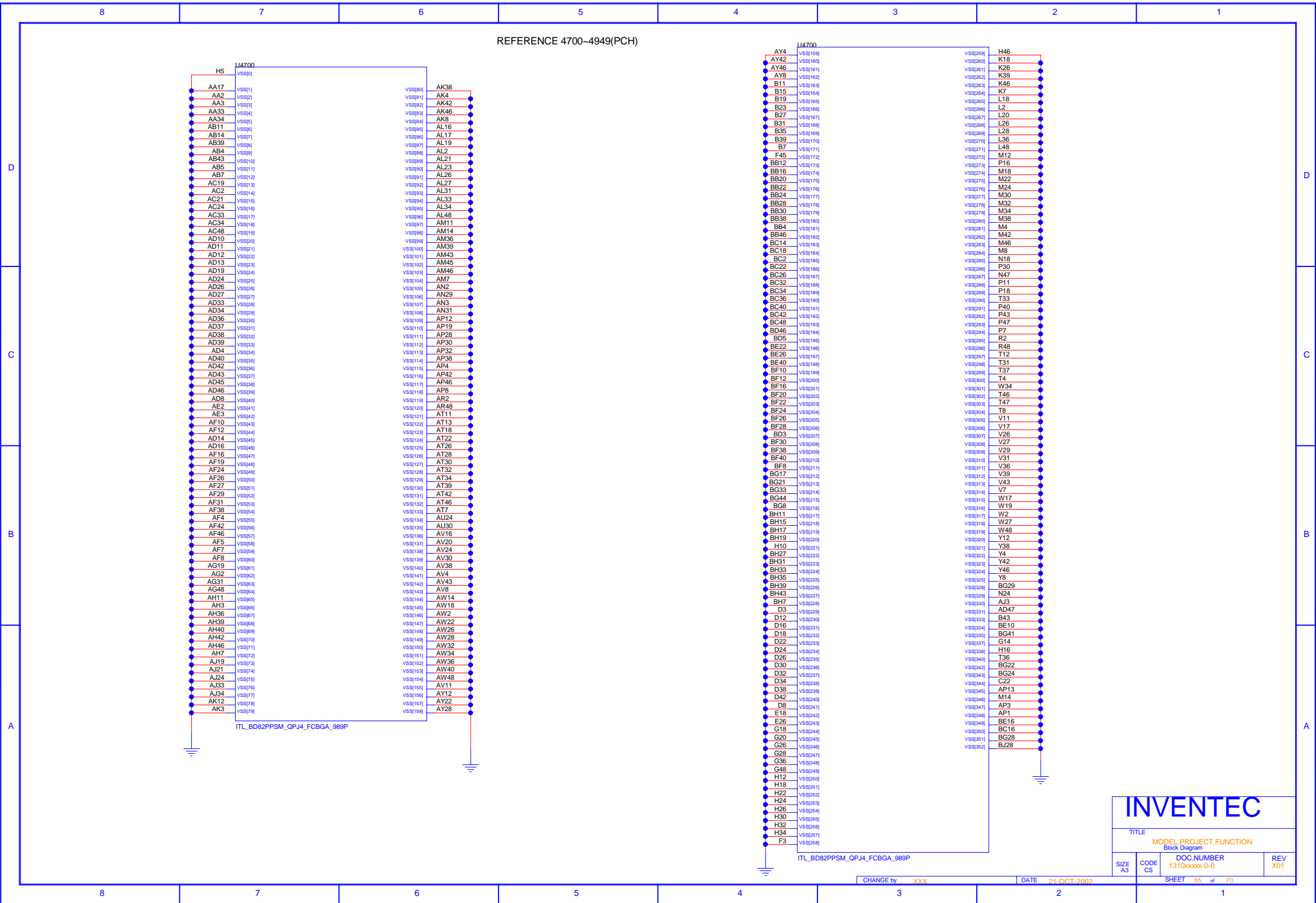
SHEET 52 of 70

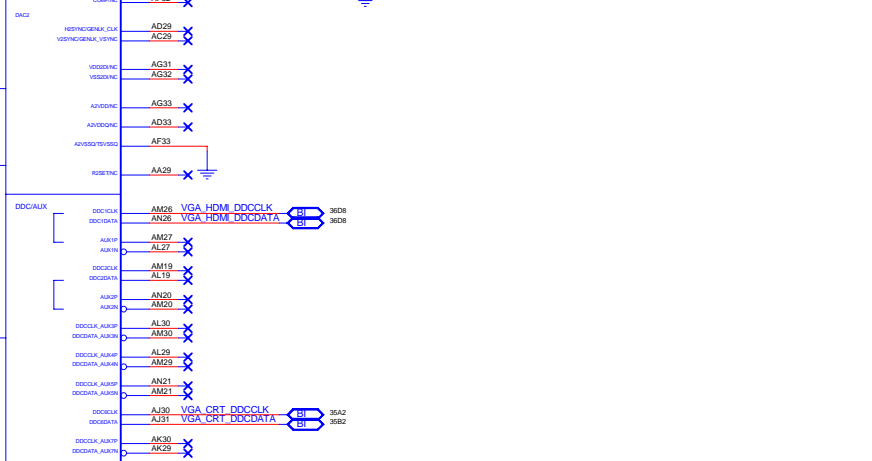
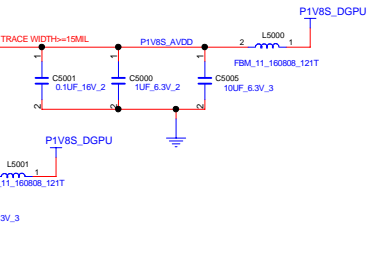
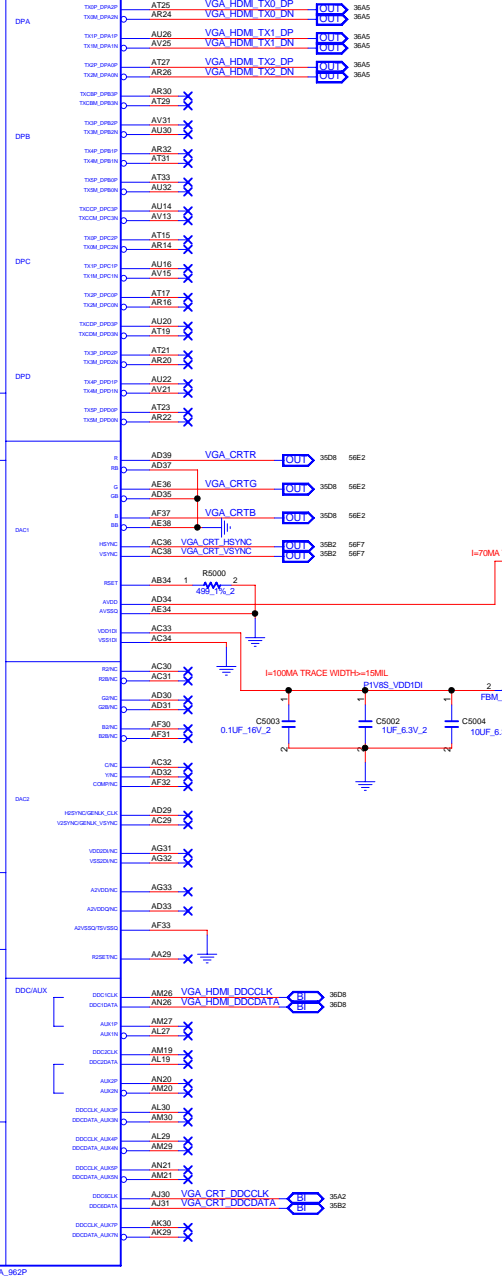
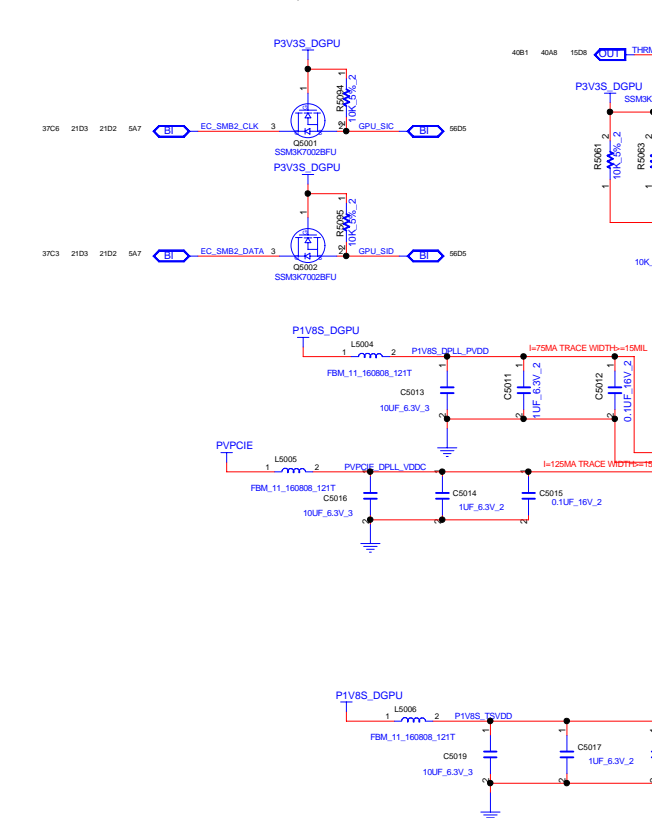
A



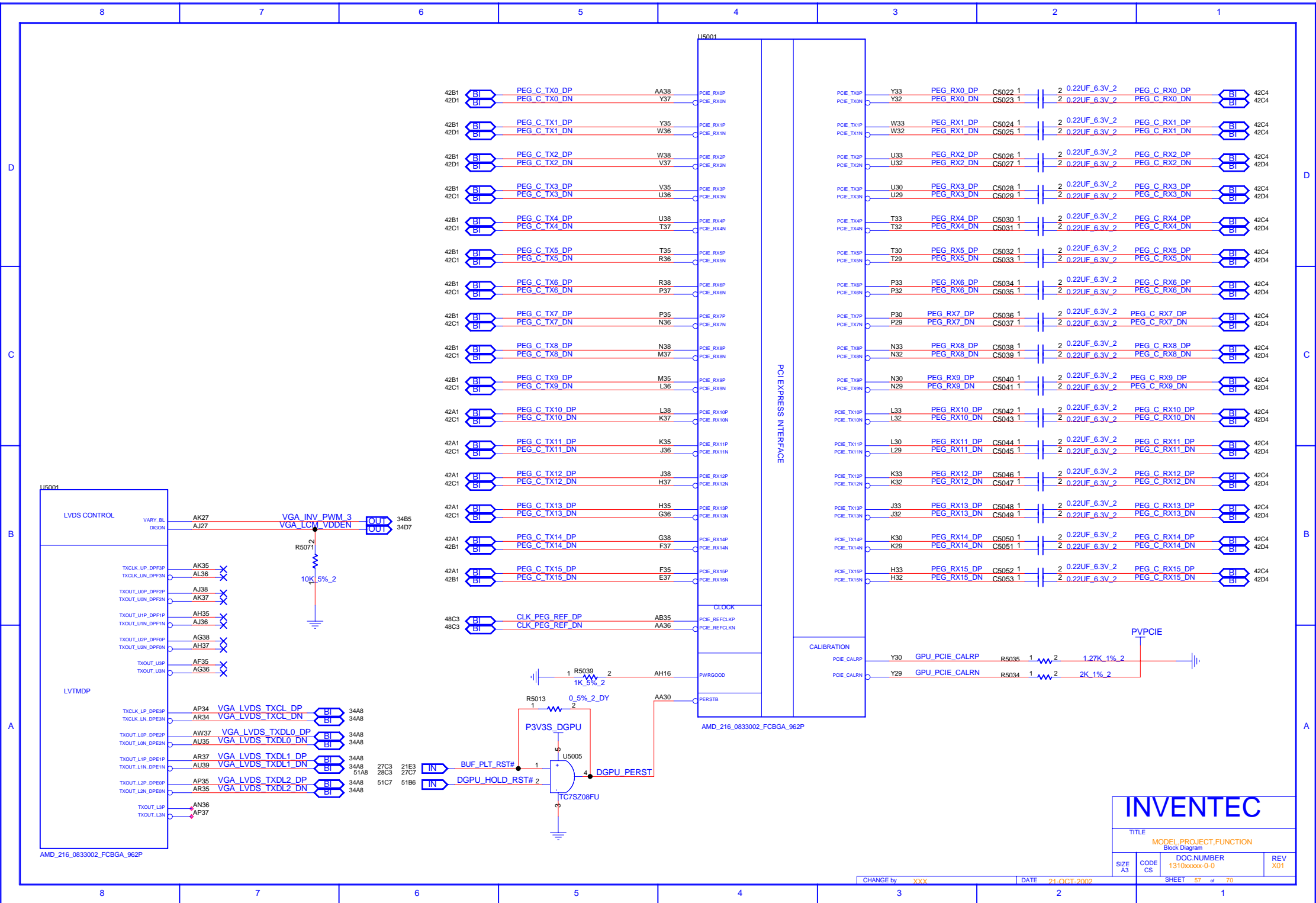
SHEET 53 of 70





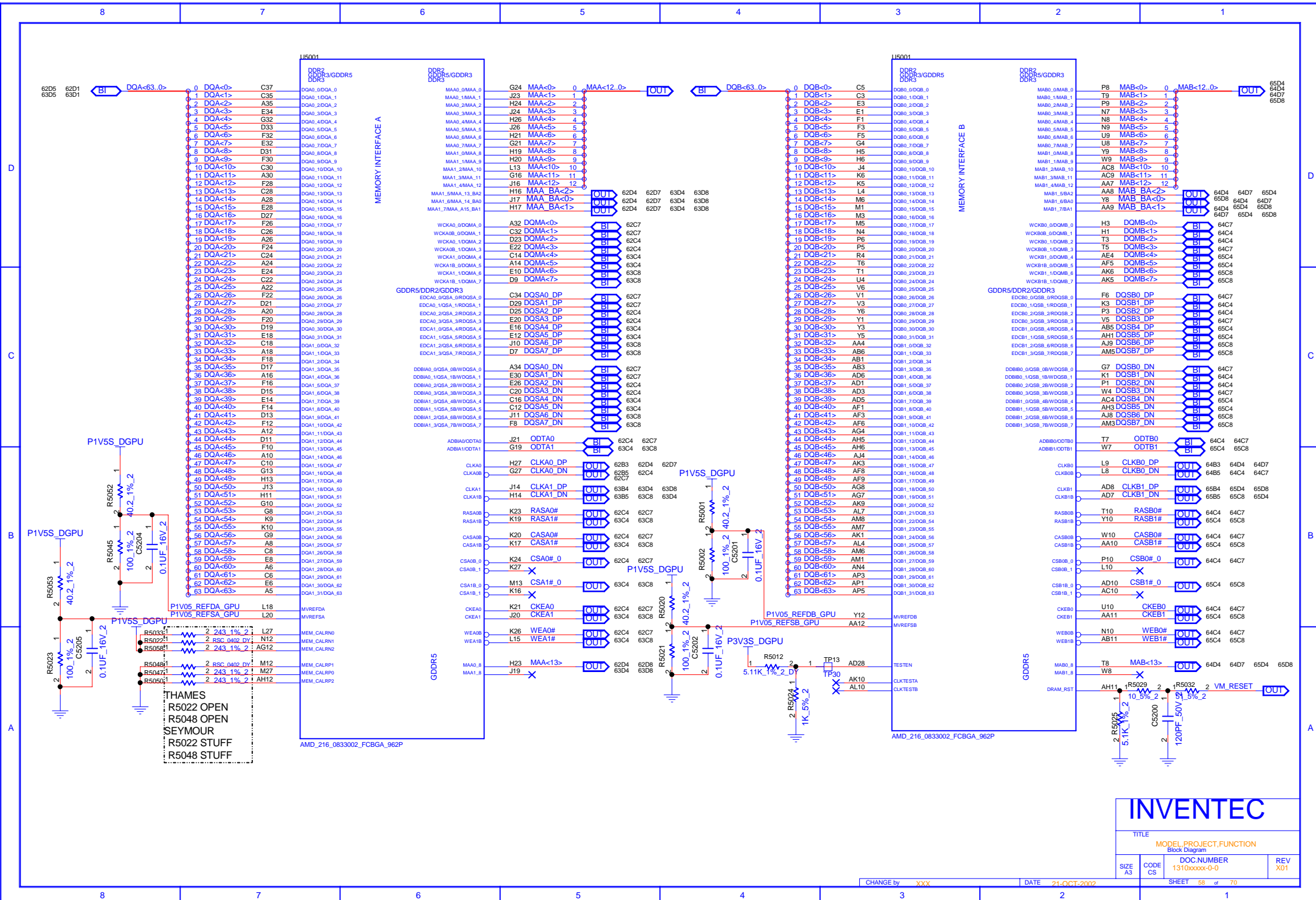






INVENTEC

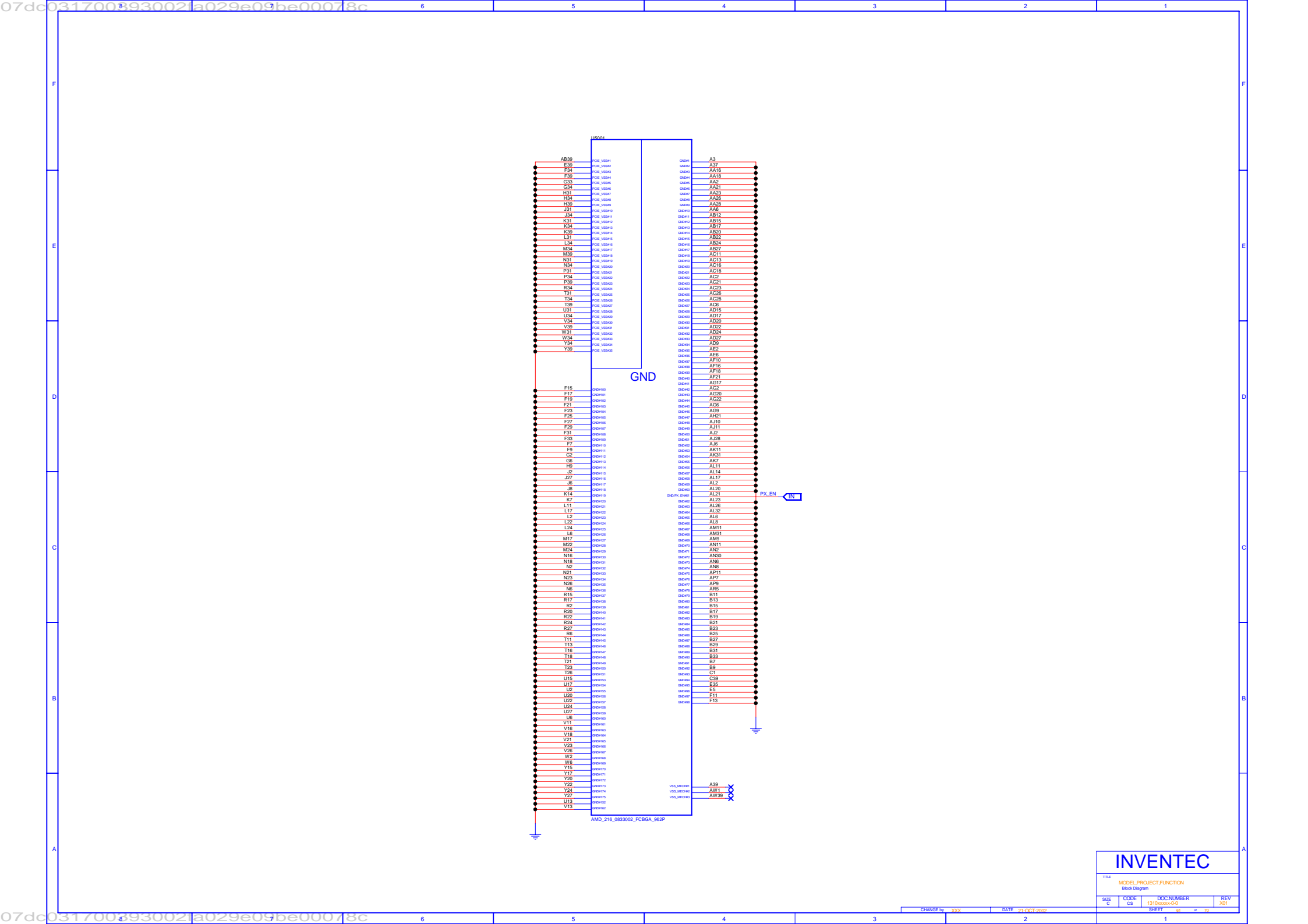
TITLE			
MODEL PROJECT FUNCTION			
Block Diagram			
DOC NUMBER			
1310xxxxx-0-0			
SIZE	CODE	REV	
A3	CS	X01	







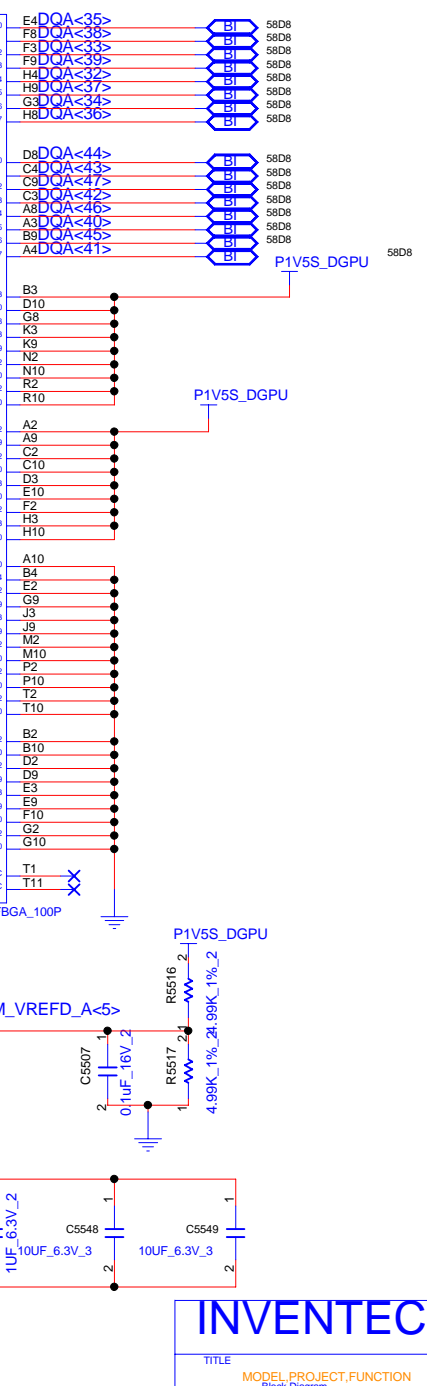
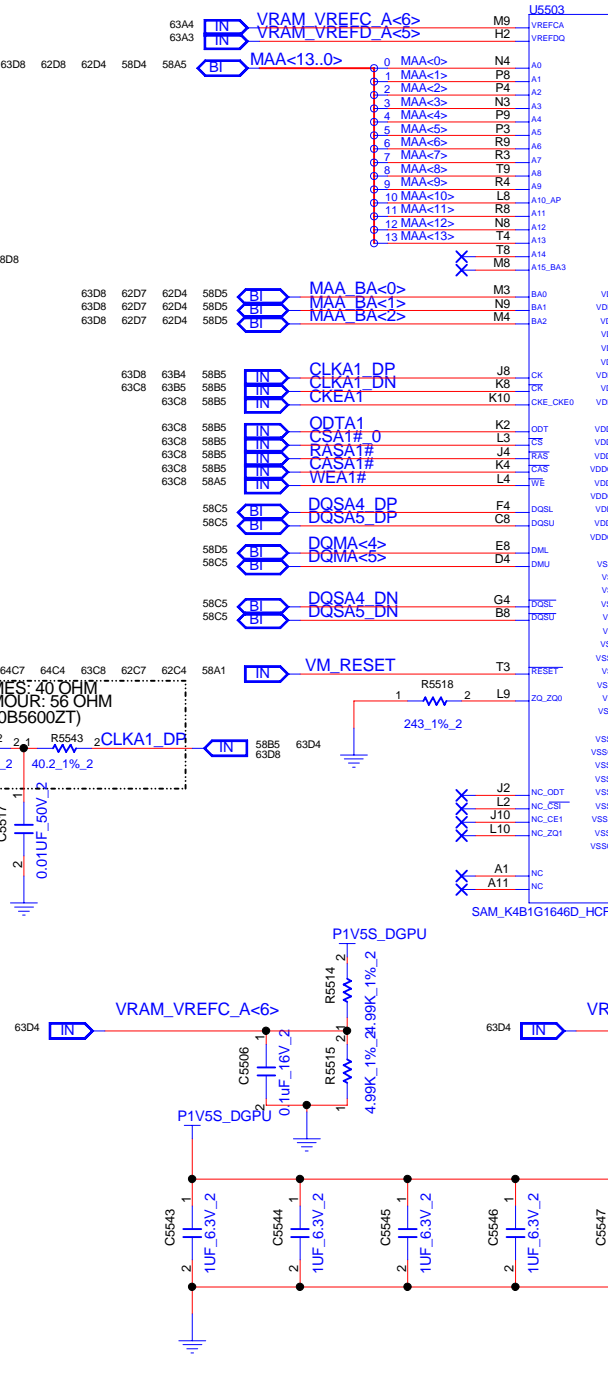
CHANGE by	XXX	DATE	21-OCT-2002
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# INVENTEC

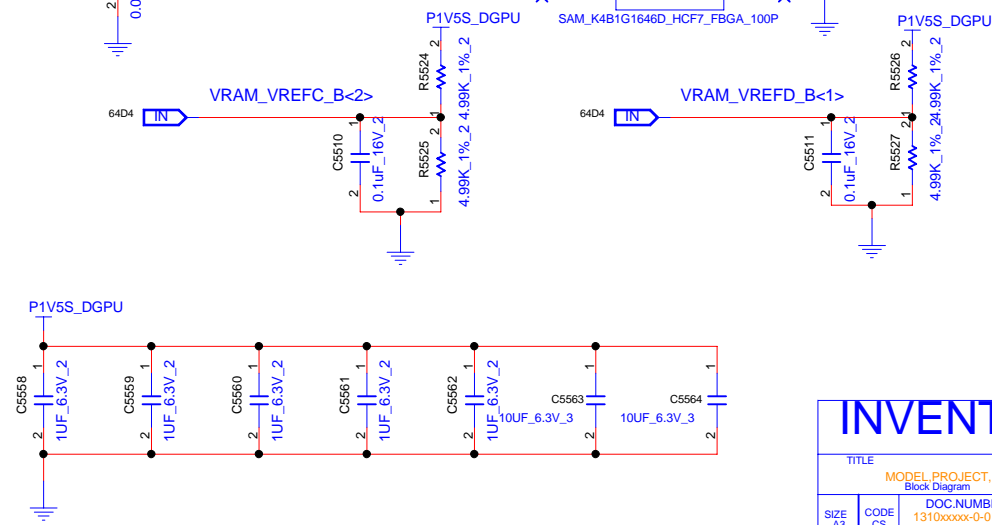
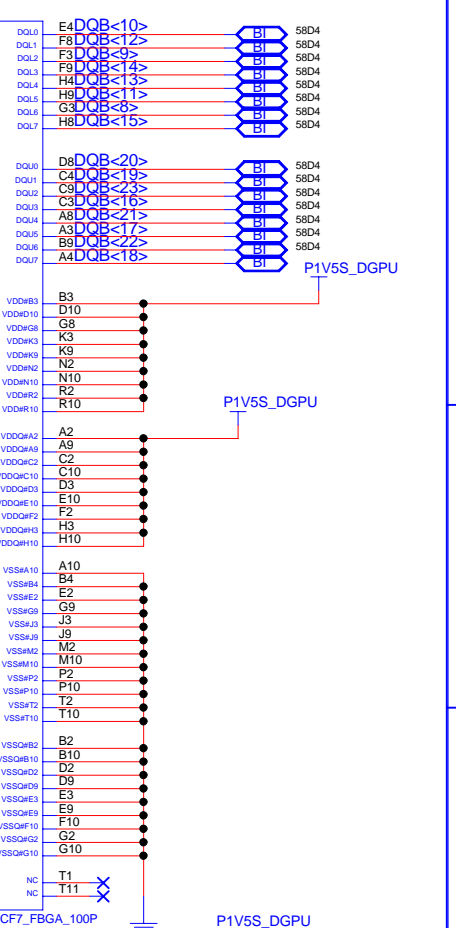
TITLE			
MODEL/PROJECT/FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310000000-000	001
SHEET		of	01





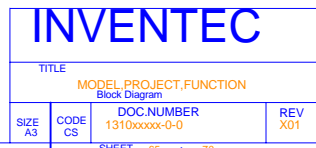
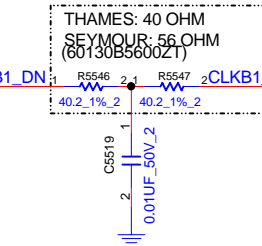
<h1>INVENTEC</h1>			
<p>TITLE</p> <p>MODEL PROJECT FUNCTION</p> <p>Block Diagram</p>			
<p>SIZE</p> <p>A3</p>	<p>CODE</p> <p>CS</p>	<p>DOC NUMBER</p> <p>1310xxxxx-0-0</p>	<p>F</p> <p>X</p>
<p>SHEET 63 of 70</p>			



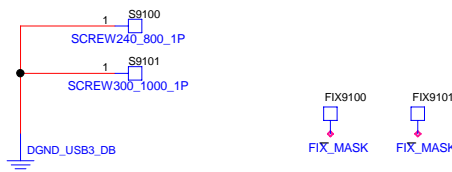
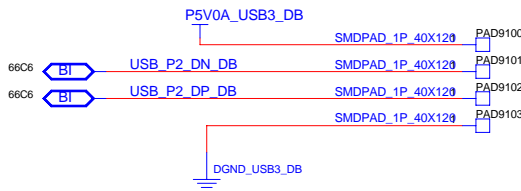
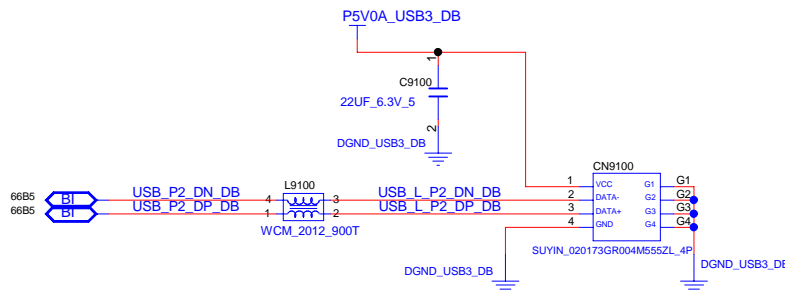


CHANGE by	XXX	DATE	21-OCT-2002
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# USB BOARD



INVENTEC

TITLE MODEL PROJECT FUNCTION  
Block Diagram

SIZE A3 CODE CS DOC NUMBER 1310xxxx-0-0 REV X01

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8

7

6

5

4

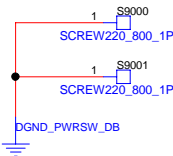
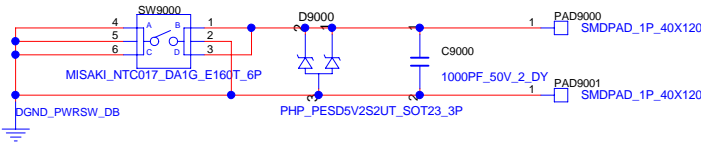
3

2

1

REFERENCE 9000~9999(SMALL BOARD)

POWER BUTTON



INVENTEC

TITLE MODEL PROJECT FUNCTION

Block Diagram

DOC NUMBER

1310xxxxx-0-0

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X01

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XXX

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8

7

6

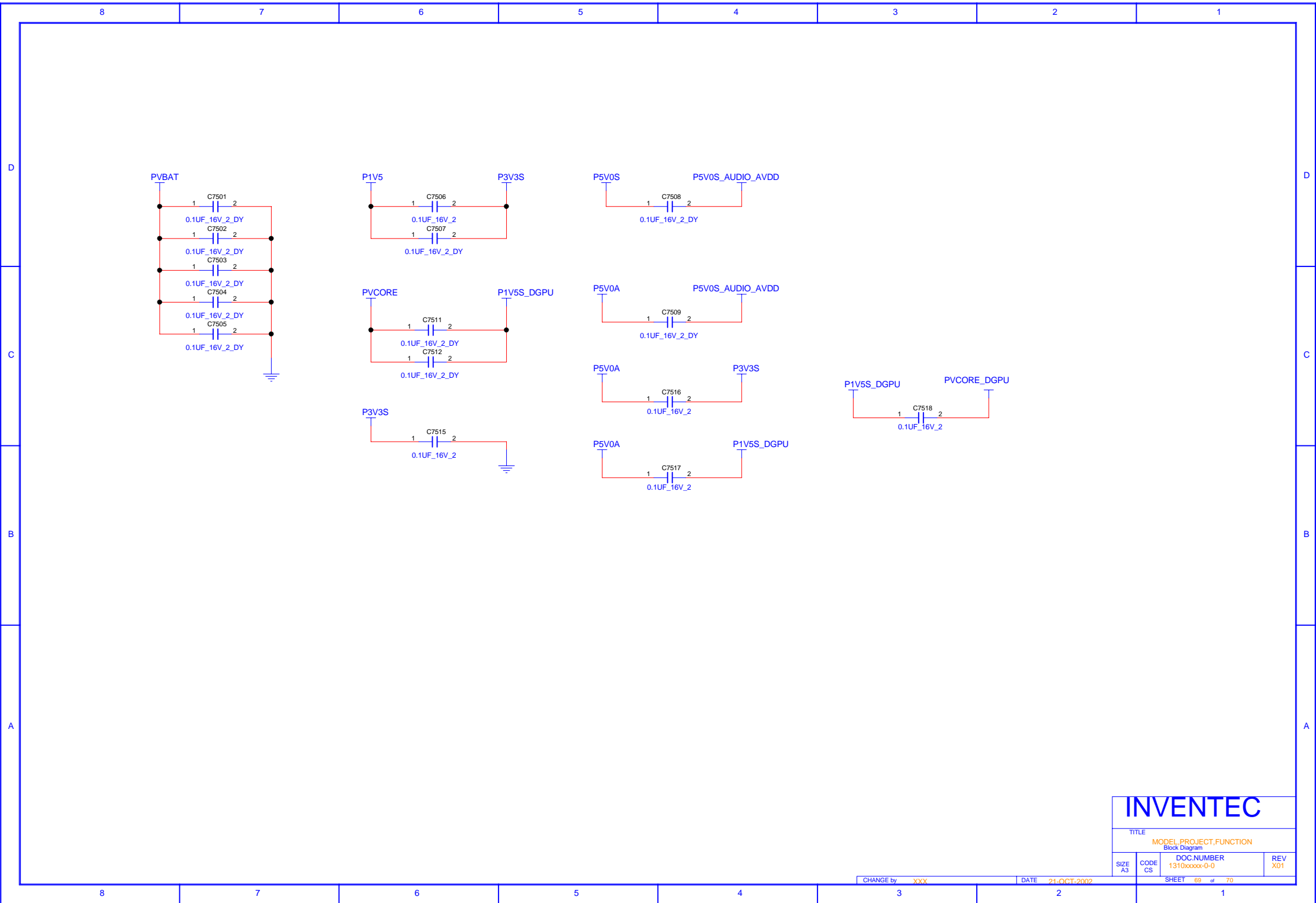
5

4

3

2

1

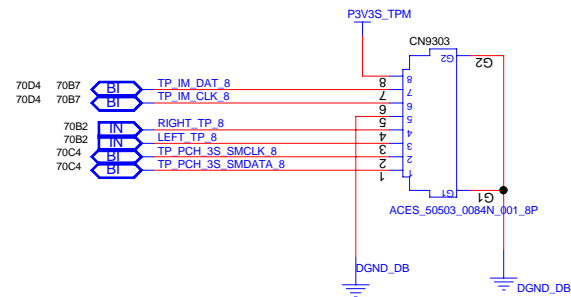


INVENTEC

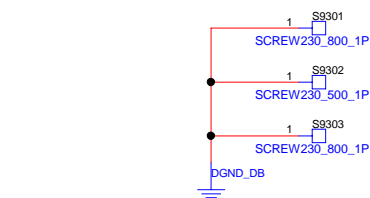
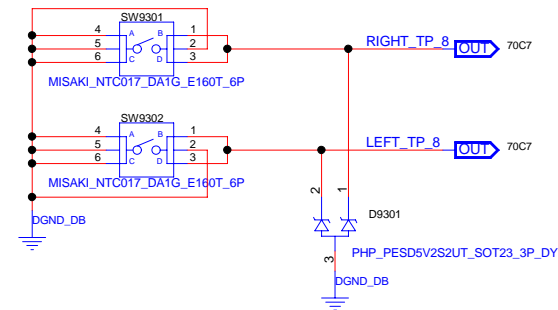
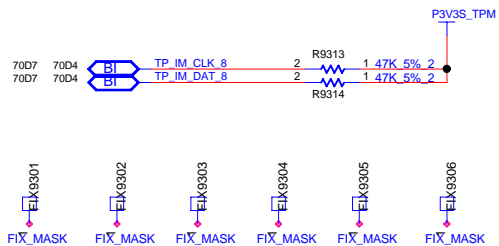
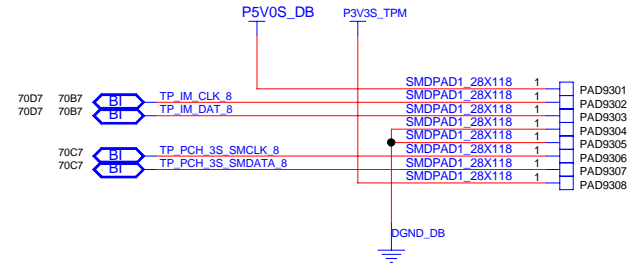
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01

# TOUCH PAD BOARD 8 PIN

## TOUCHPAD TO MODULE CONN



## TOUCHPAD TO MB CONN



INVENTEC

TITLE MODEL PROJECT FUNCTION

Block Diagram

SIZE A3 CODE CS DOC NUMBER 1310xxxx-0-0 REV X01

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