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DATE	CHANGE NO.	REV
0c1a02352f034	a005270	7e0005460

DATE	CHANGE NO.	REV
0c1a02352f034	a005270	7e0005460

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**INVENTEC**TITLE  
MODEL,PROJECT,FUNCTION  
INDEX

SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV A01
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CHANGE by XXX DATE 21-OCT-2002

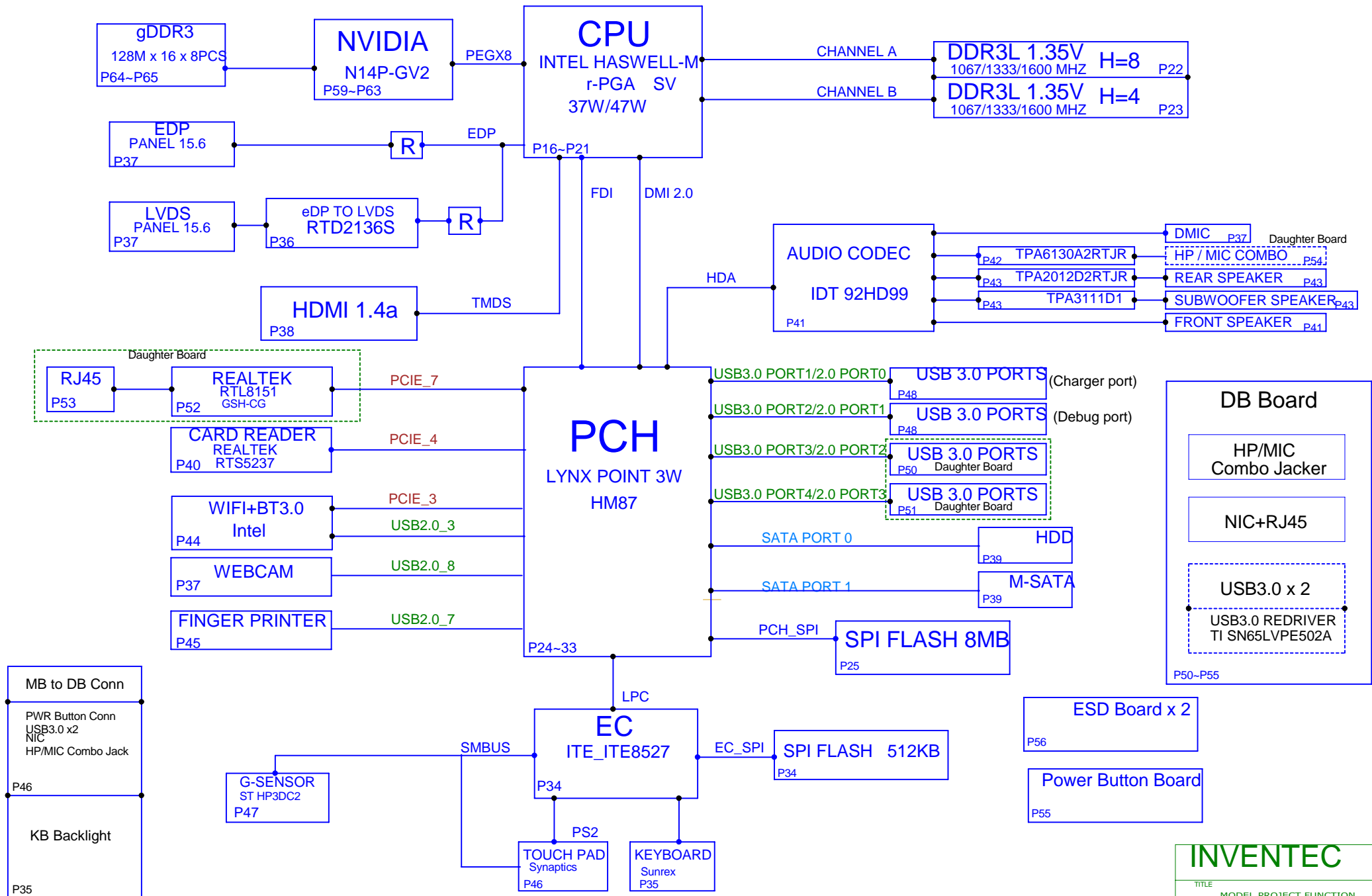
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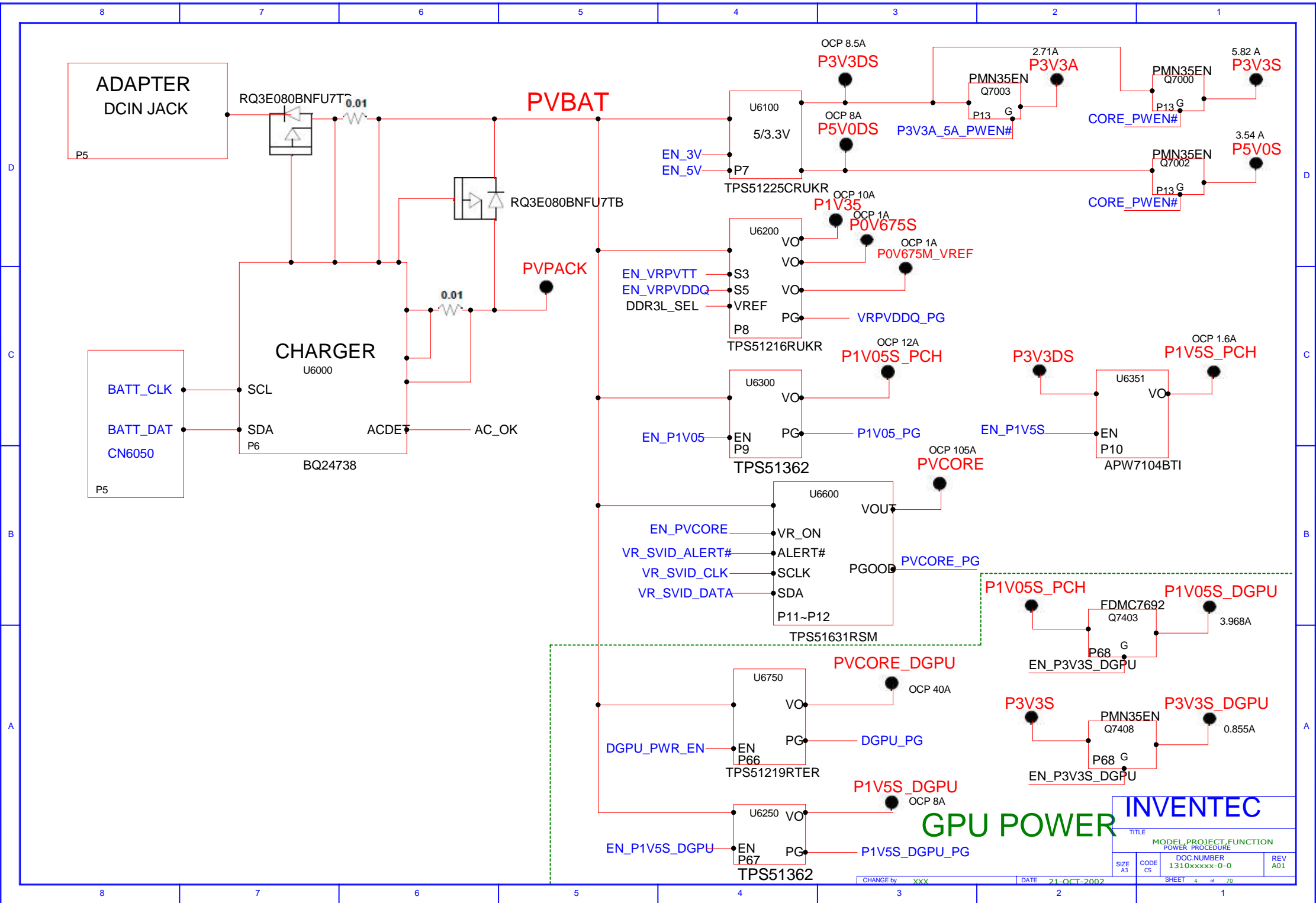
**INVENTEC**TITLE MODEL, PROJECT, FUNCTION  
Block Diagram

DOC NUMBER 1310xxxxx-0-0

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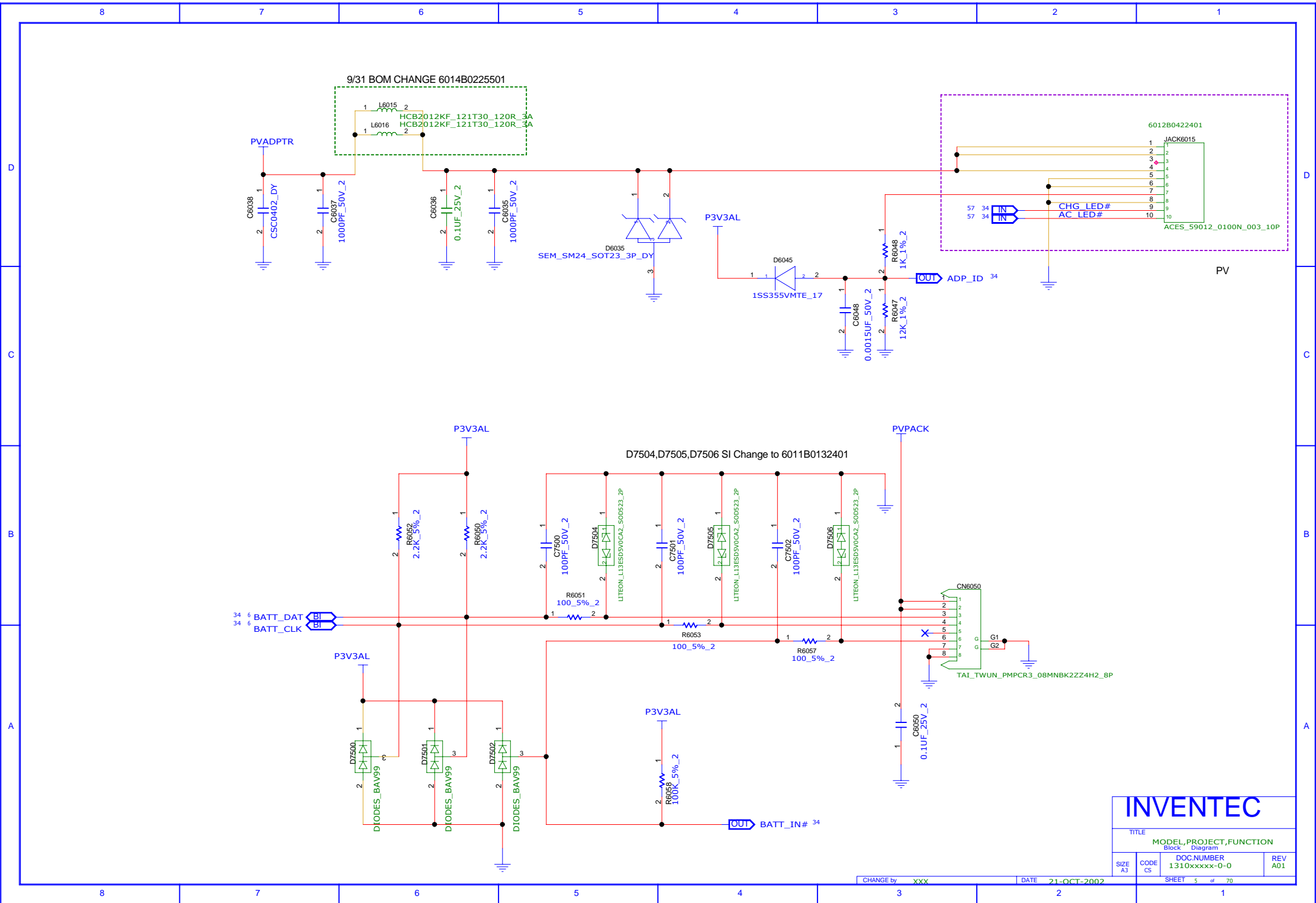
SHEET 3 of 70

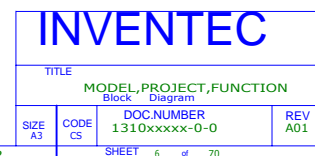


GPU POWER

INVENTEC

TITLE			
MODEL PROJECT FUNCTION			
POWER PROCEDURE			
DOC NUMBER		REV	
1310xxxxx-0-0		A01	
SIZE	CODE	SHEET	
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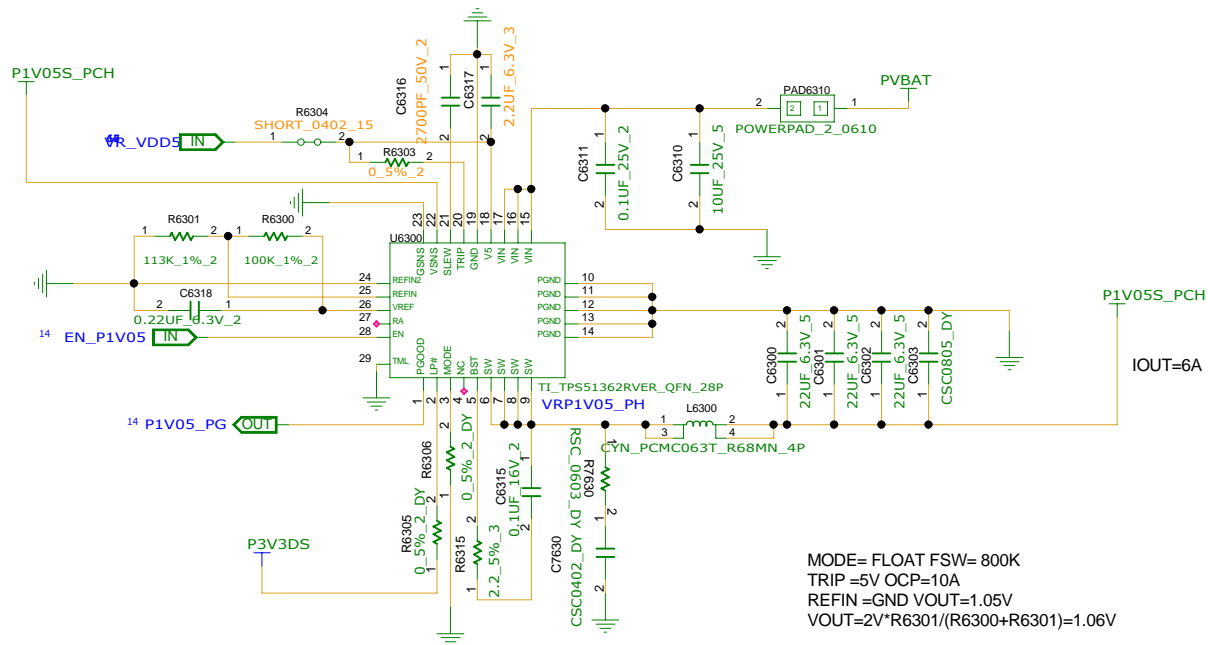












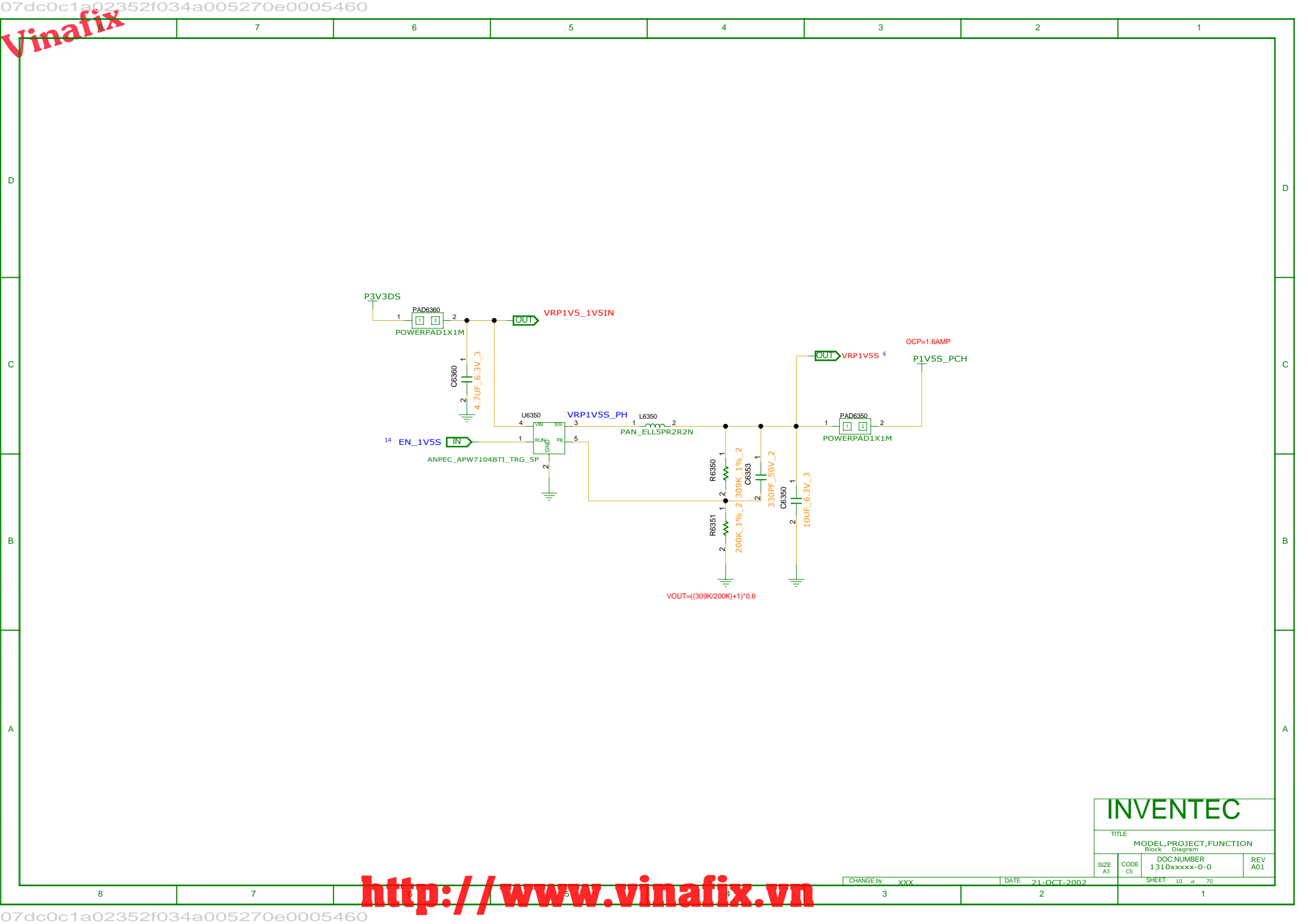
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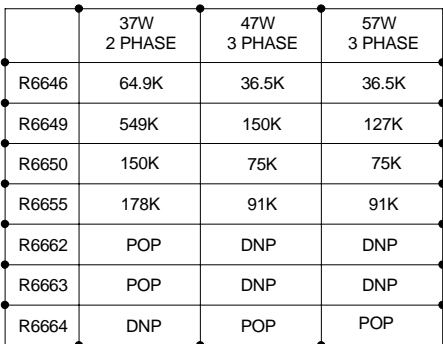
TITLE  
MODEL,PROJECT,FUNCTION

SIZE A3 CODE CS DOC NUMBER 1310xxxxx-0-0 REV A01

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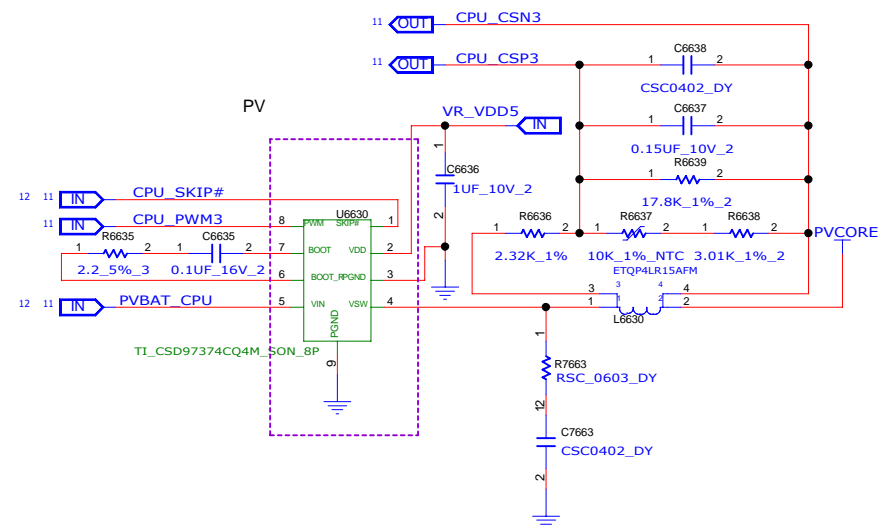
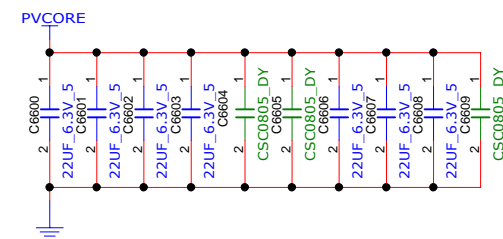
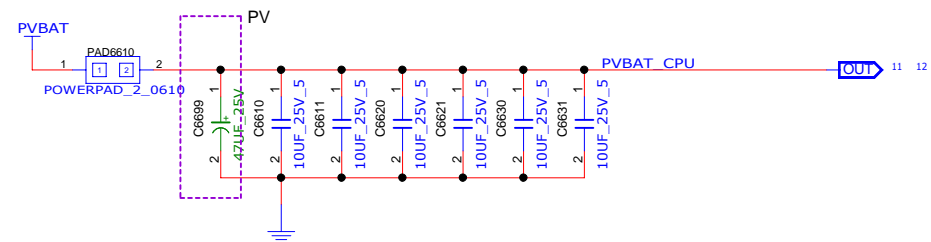


	37W	47W	57W
INPUT VOLTAGE RANGE	9V TO 20V	9V TO 20V	9V TO 20V
MAX CURRENT	55A	85A	95A
THERMAL DESIGN CURRENT	21A	27A	33A
DYNAMIC CURRENT	35A	60A	60A
OVER CURRENT LEVEL	70A	105A	105A
SWITCHING FREQUENCY	1MHZ	800KHZ	800KHZ
BOOT VOLTAGE	1.7V	1.7V	1.7V
DC LOAD-LINE	1.5MOHM	1.5MOHM	1.5MOHM

INVENTEC

TITLE	MODEL, PROJECT, FUNCTION
	Block Diagram

SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	
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TITLE	MODEL PROJECT FUNCTION
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MODEL, PROJECT, FUNCTION			
Block Diagram			
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SIZE A3	CODE CS	DOC. NUMBER 1310xxxxx-0-0	REV. A
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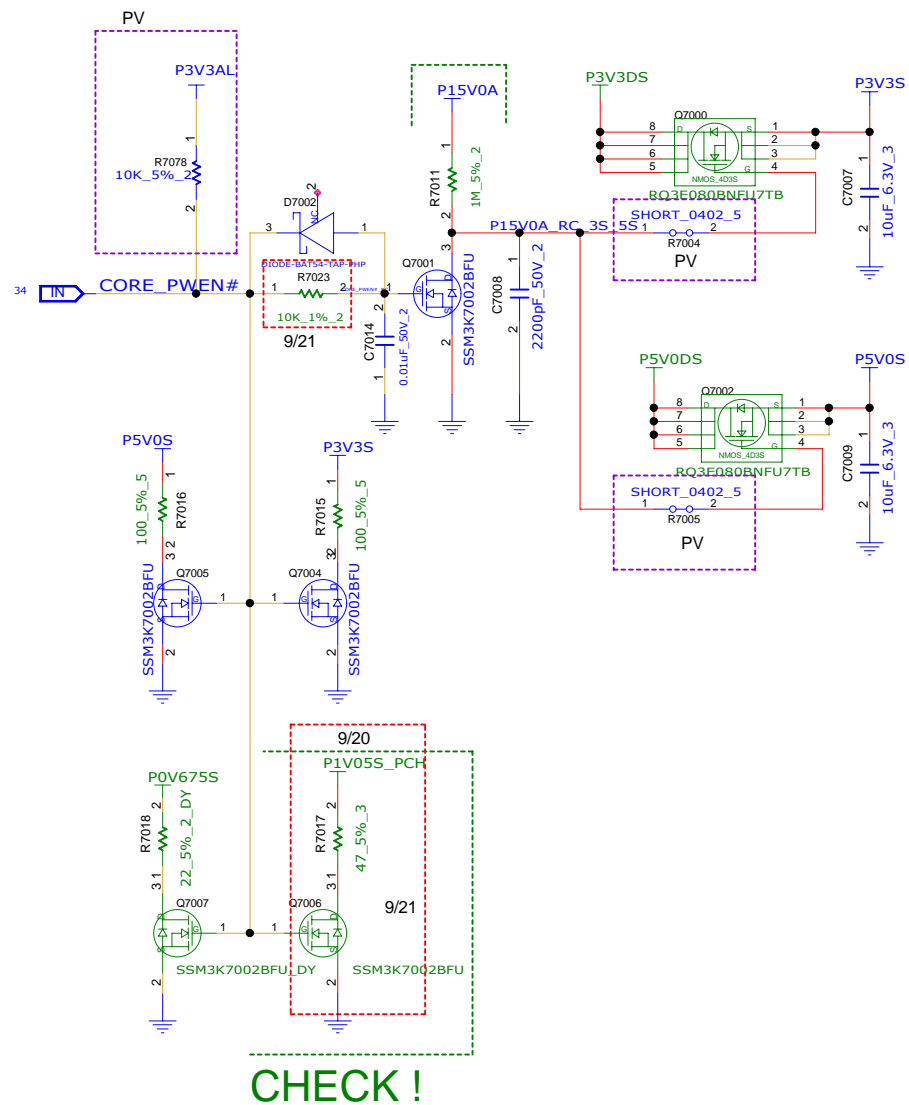
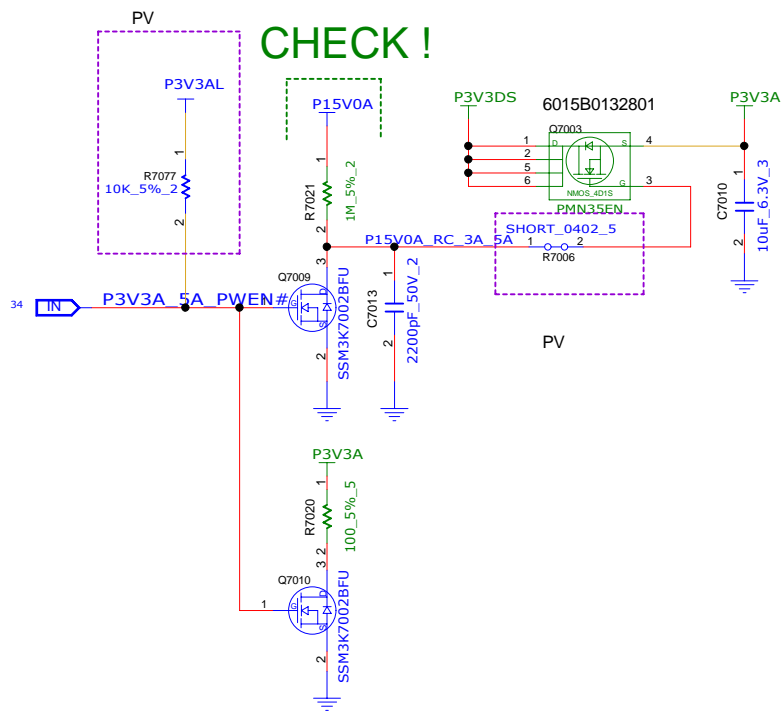
AS	CS	
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**http://www.vinafix.vn**

CHECK !



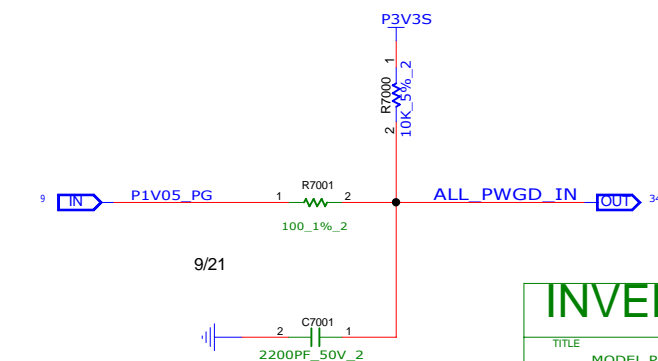
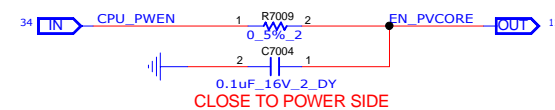
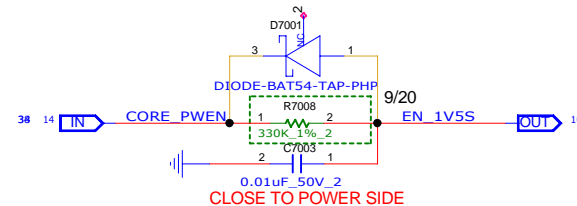
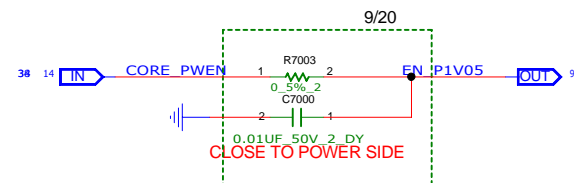
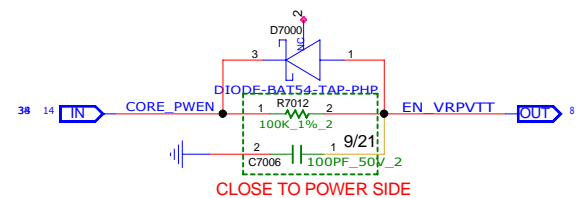
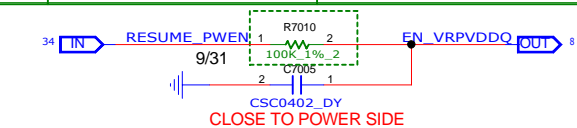
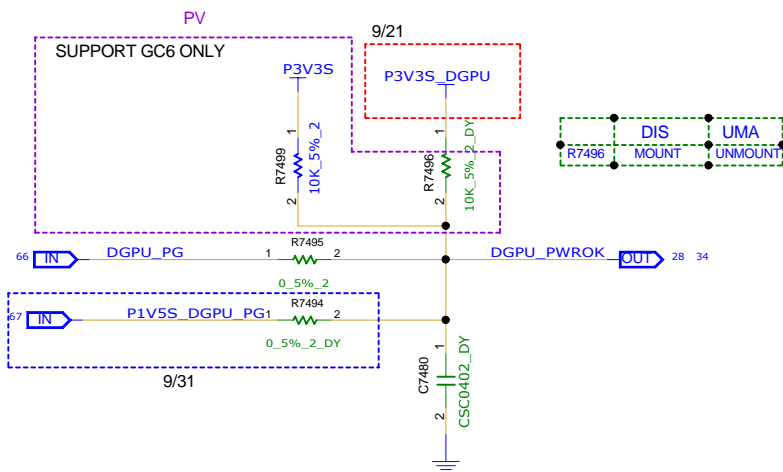
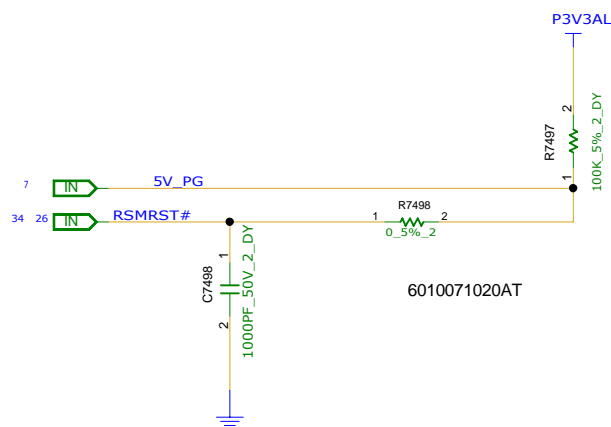
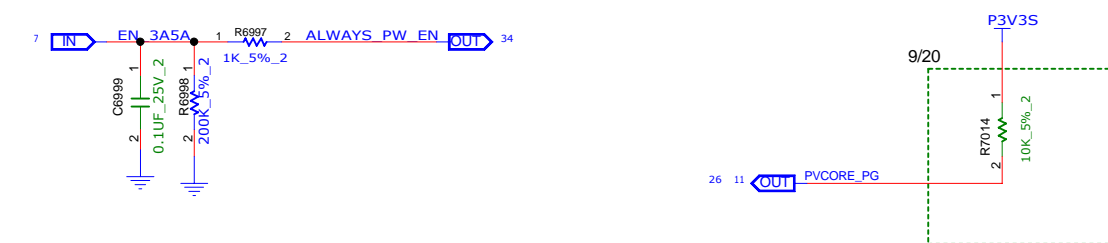
INVENTEC

TITLE  
MODEL, PROJECT, FUNCTION  
Block Diagram

SIZE A3 CODE CS DOC NUMBER 1310xxxxx-0-0 REV A01

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TITLE			
MODEL, PROJECT, FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	A01

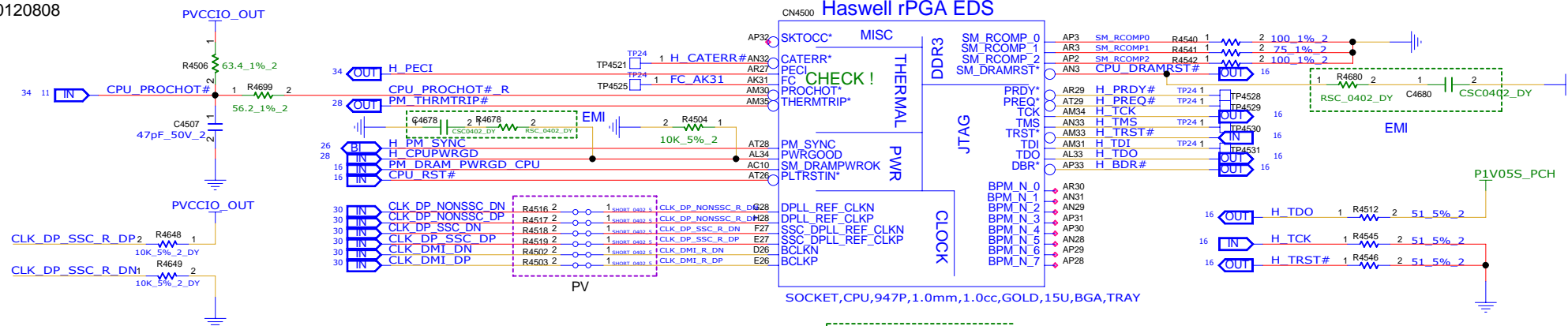
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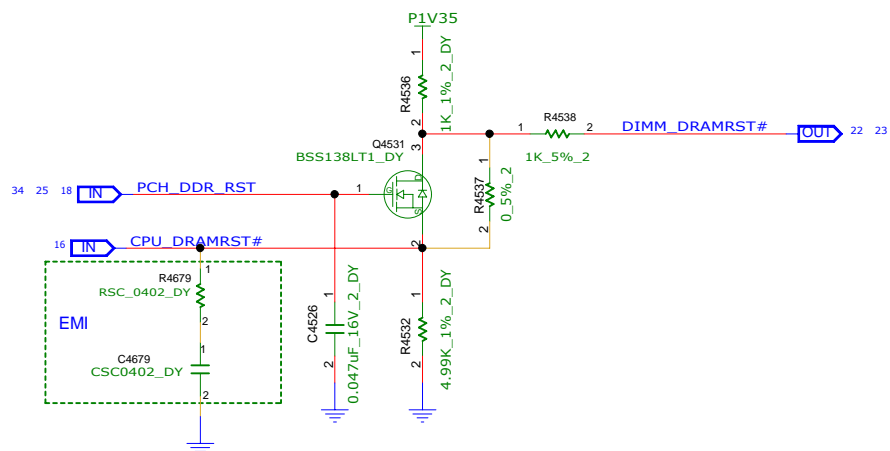
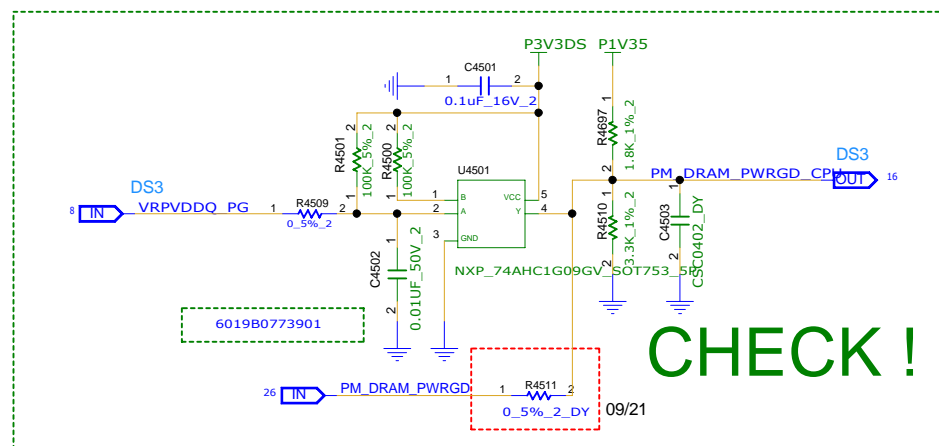
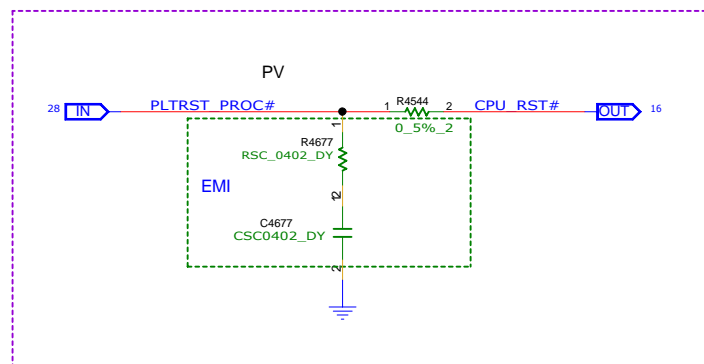


PULL-UP RESISTOR		TEMPERATURE (°C)
ALERT	2KΩ	75
	7.5KΩ	90
	10.5KΩ	100
	14KΩ	105
	18.7KΩ	110

CPU  
LOCATION 4500-4699  
VER.01\_20120808

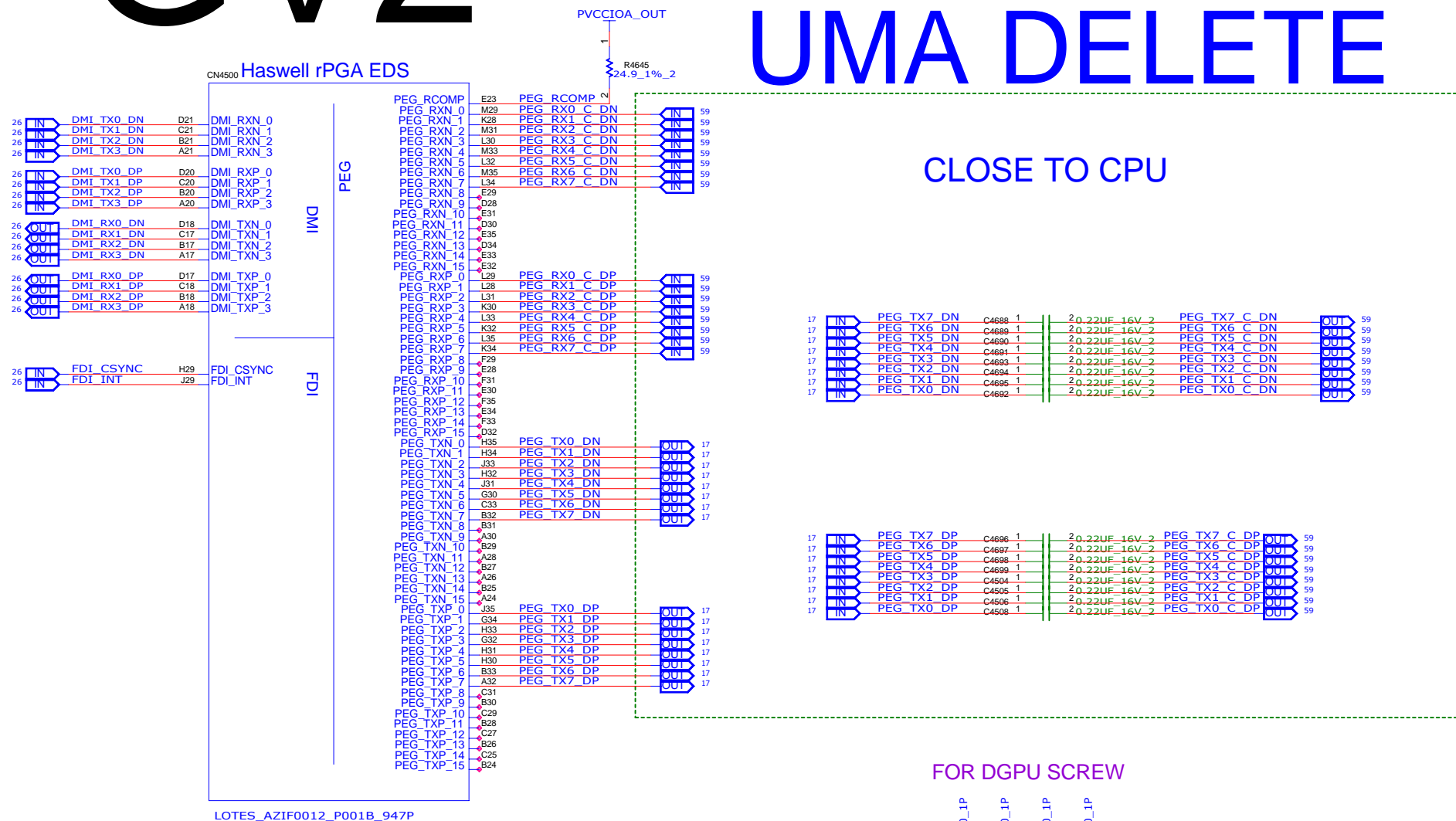


CN4500  
6026B0231701



INVENTEC			
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MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	REV A01

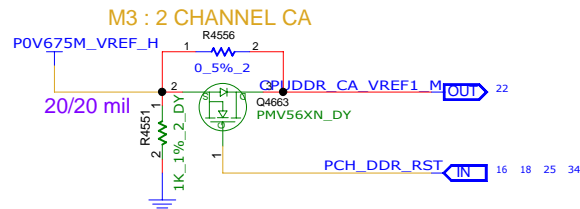




## Haswell rPGA EDS

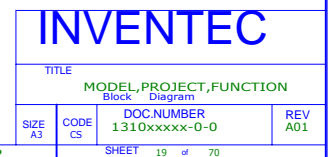


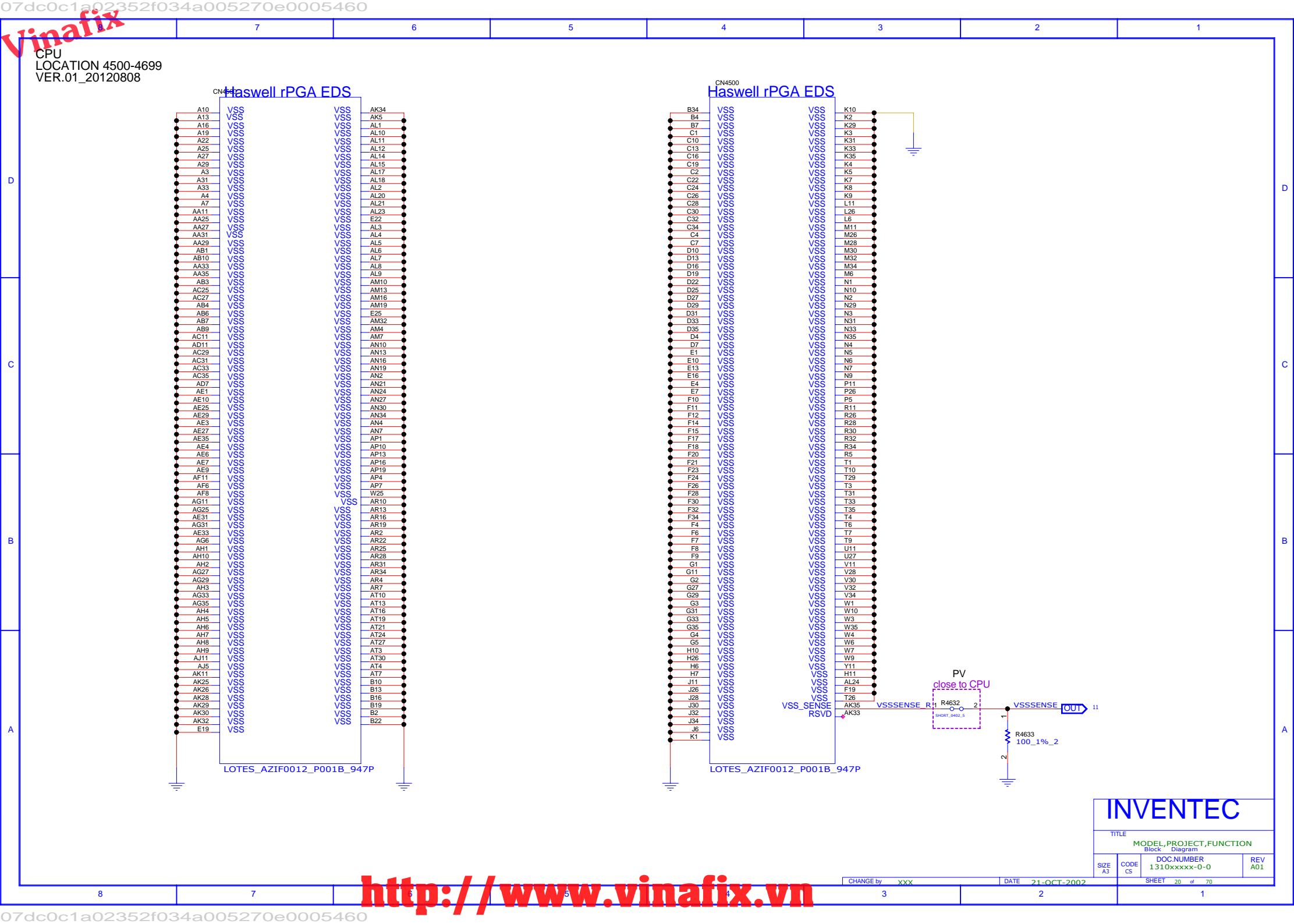
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INVENTEC			
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MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV A01
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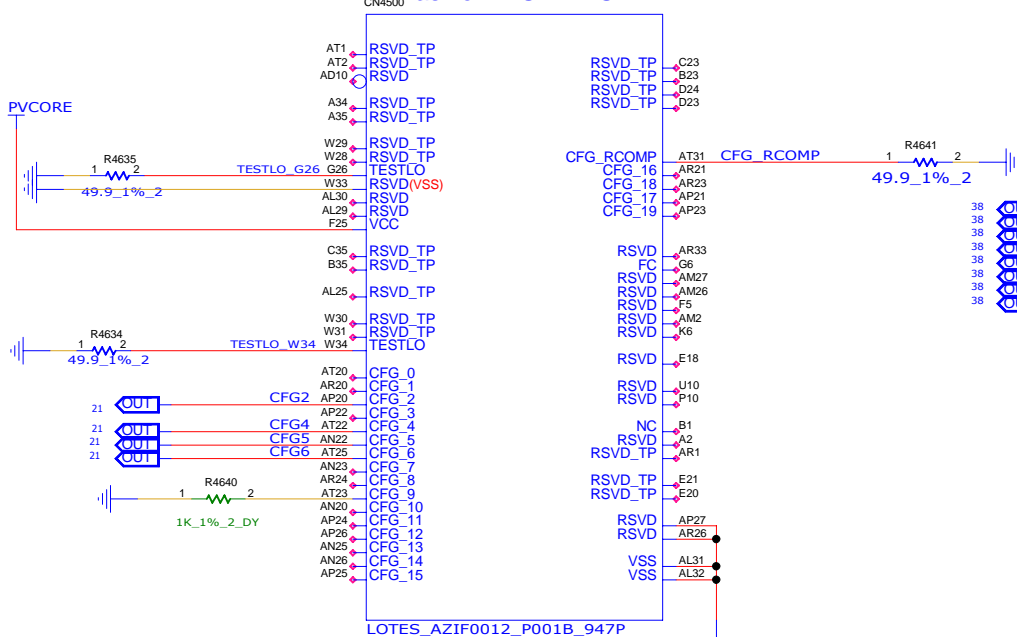
CHECK! intel seems to disable CPU S3 power reduction.



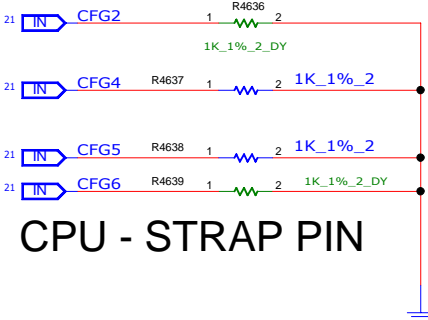
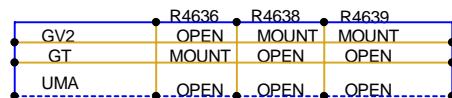


CPU  
LOCATION 4500-4699  
VER.01\_20120808

## Haswell rPGA EDS



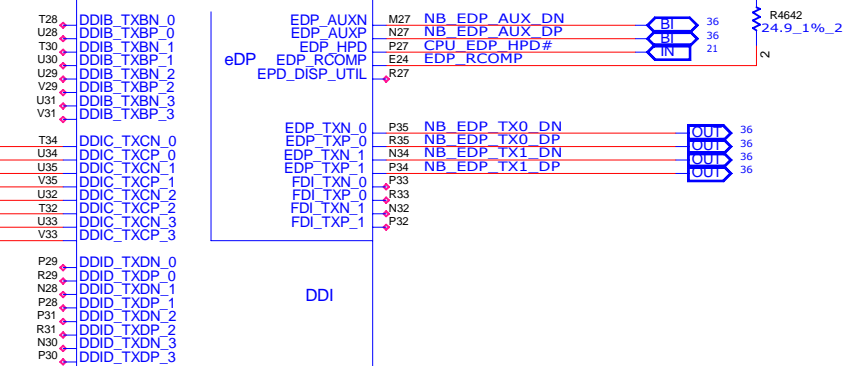
LOTES\_AZIF0012\_P001B\_947P



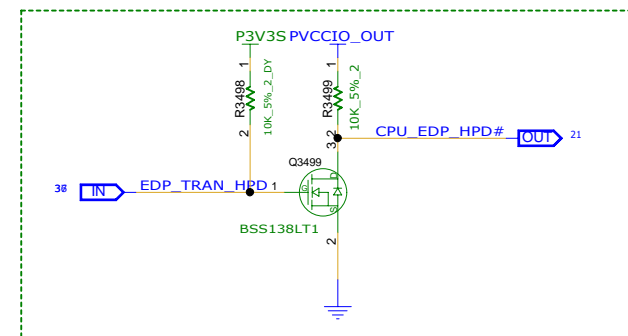
CPU - STRAP PIN

- **CFG[1:0]:** Reserved configuration lane. A test point may be placed on the board for these lanes.
- **CFG[2]:** PCI Express\* Static x16 Lane Numbering Reversal
  - 1 = Normal operation
  - 0 = Lane numbers reversed
- **CFG[3]:** MSR Privacy Bit Feature
  - 1 = Debug capability is determined by IA32\_Debug\_Interface\_MSR (0xC80) bit[0] setting
  - 0 = IA32\_Debug\_Interface\_MSR (0xC80) bit[0] default setting overridden
- **CFG[4]:** eDP enable
  - 1 = Disabled
  - 0 = Enabled
- **CFG[6:5]:** PCI Express\* Bifurcation:
  - 00 = 1 x8, 2 x4 PCI Express\*
  - 01 = reserved
  - 10 = 2 x8 PCI Express\*
  - 11 = 1 x16 PCI Express\*
- **CFG[19:7]:** Reserved configuration lanes. A test point may be placed on the board for these lands.

## Haswell rPGA EDS



LOTES\_AZIF0012\_P001B\_947P



INVENTEC

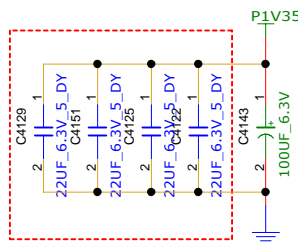
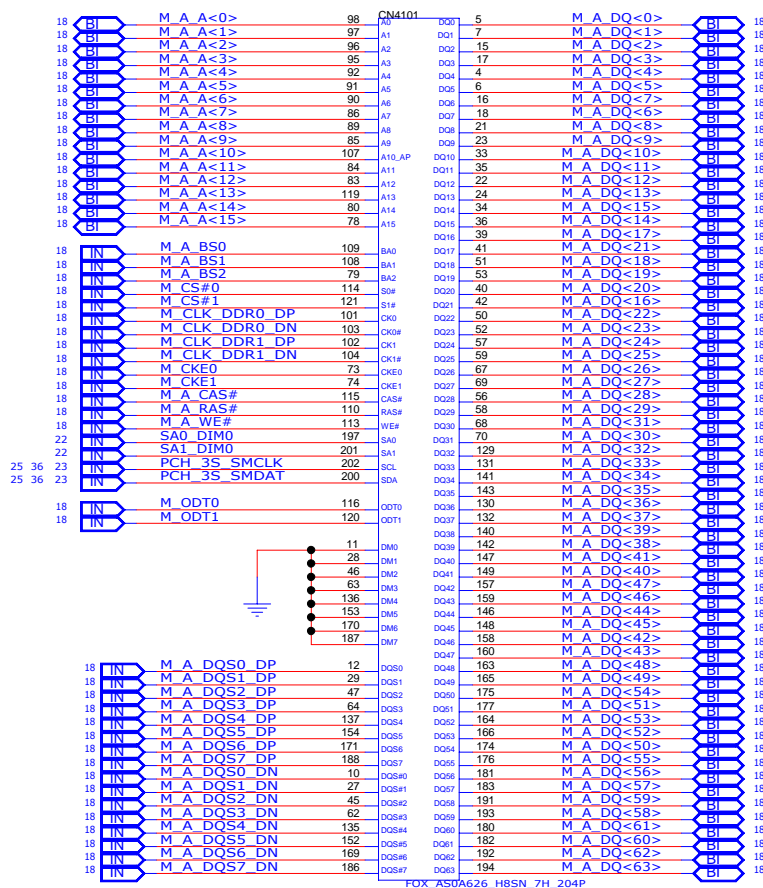
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MODEL,PROJECT,FUNCTION			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	A01

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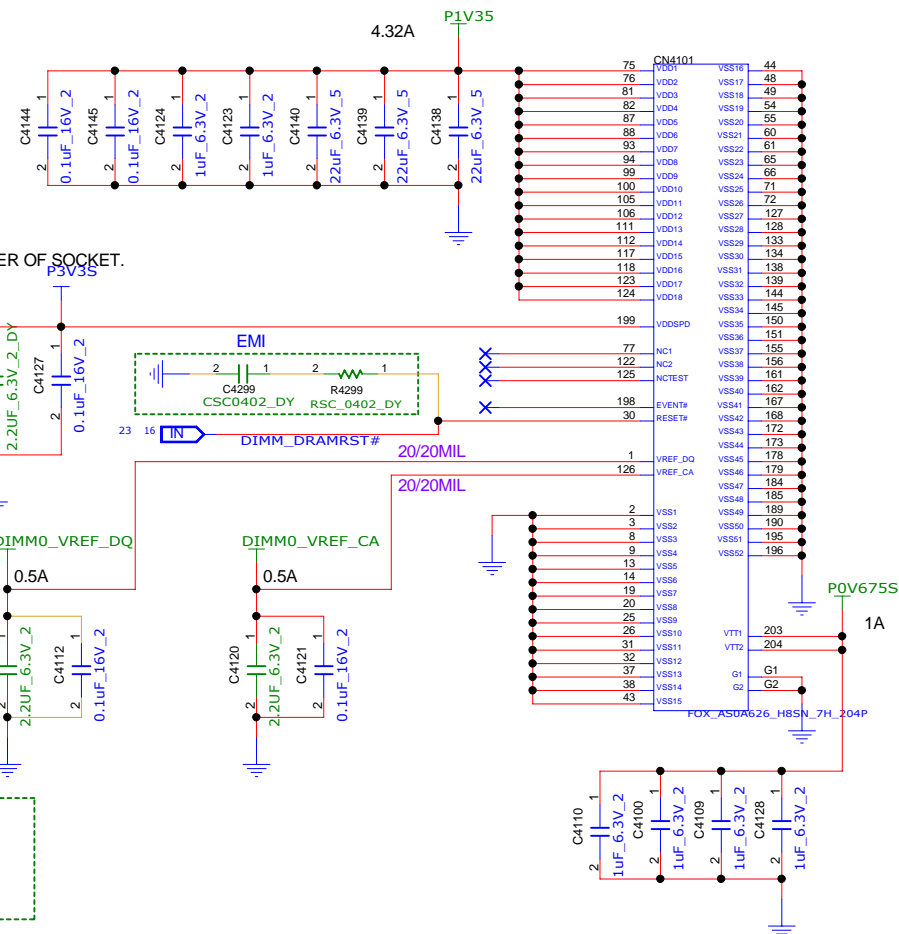
SHEET 21 of 70

## CH A - DIMM0, H = 8MM STD

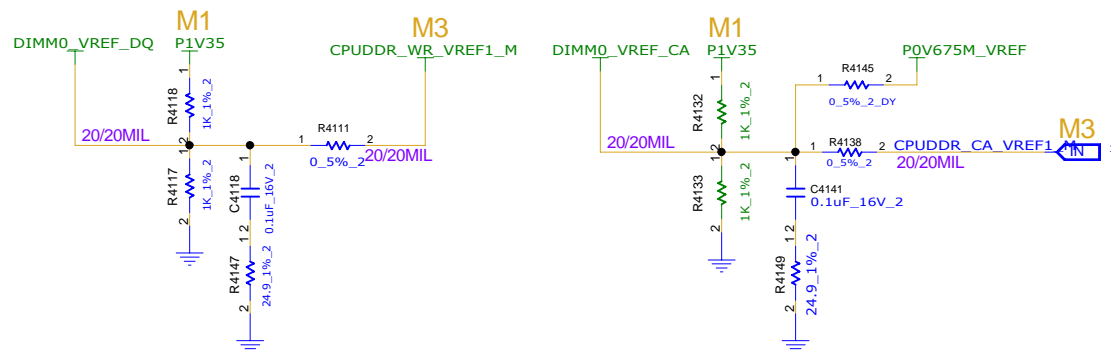
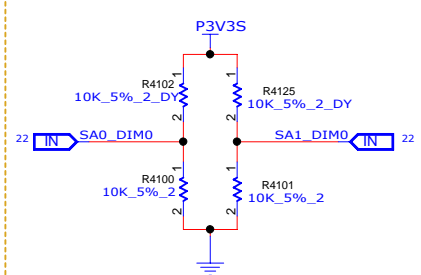
6026B0223801



PLEASE PLACE 4 CAPS IN THE CENTER OF SOCKET.

CN4101  
6026B0223801

NOTE:  
SO-DIMMA SPD ADDRESS IS 0XA0  
SO-DIMMA TS ADDRESS IS 0X30

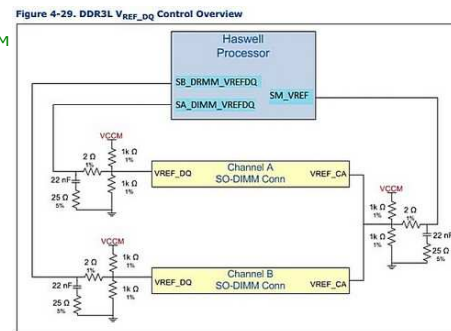


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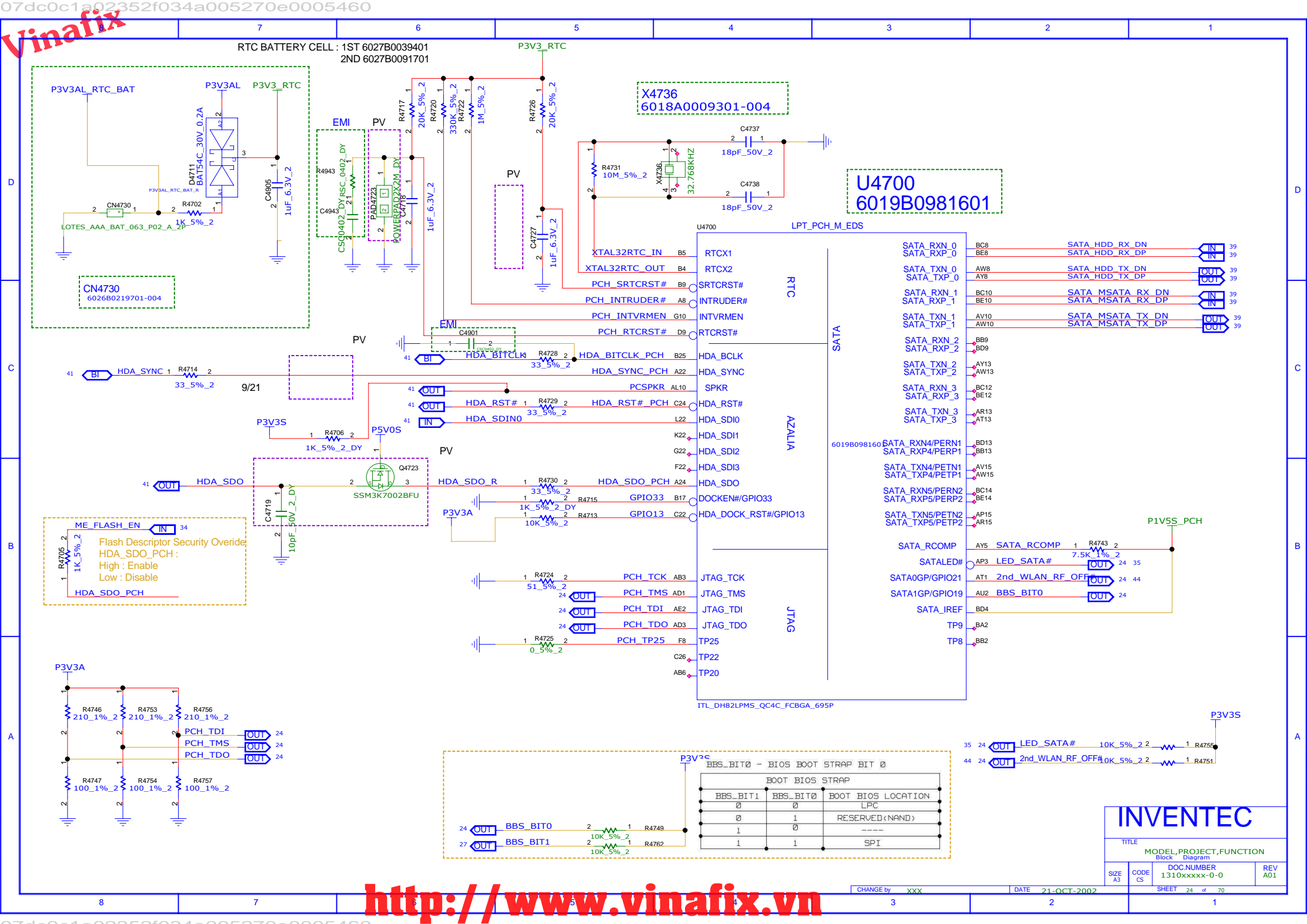
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	A01



## D



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MODEL,PROJECT,FUNCTION Block Diagram			
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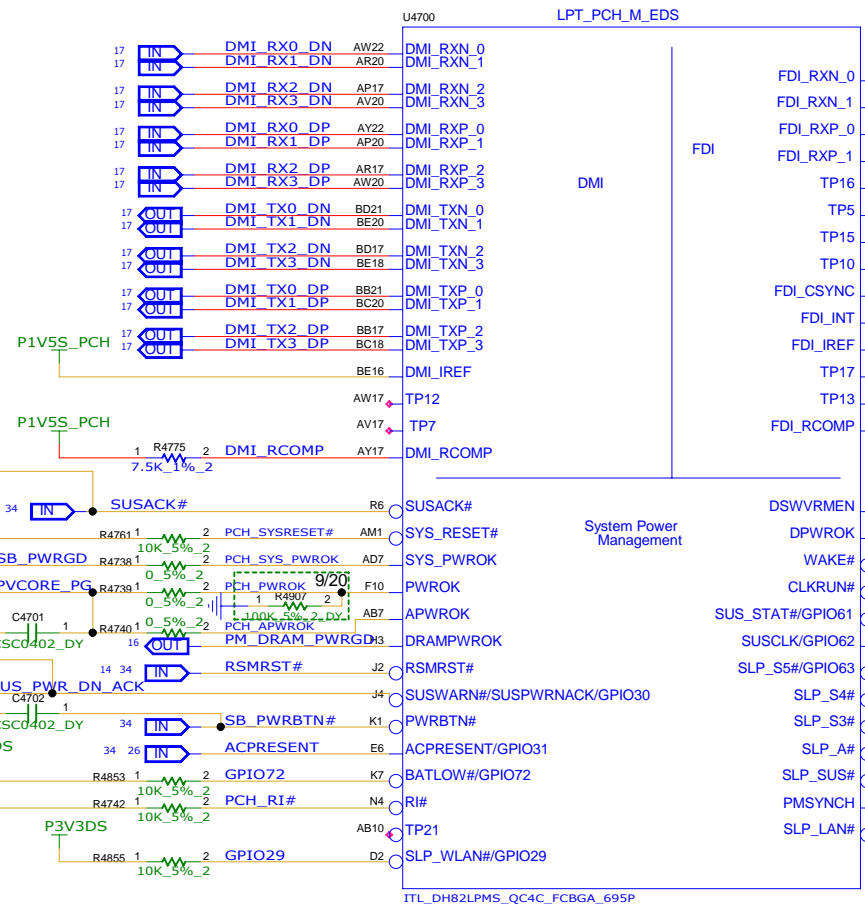






Signal	Description	Disable Guidelines
FDI_RXP[0:1] FDI_RXN[0:1]	Intel FDI Receive Differential Pair on PCH	Float
FDI_TXP[0:1] FDI_TXN[0:1]	Intel FDI Transmit Differential Pair on Processor	Float
FDI_CSXNC	Intel FDI Composite Sync	Connect to Processor and PCH
DISP_INT	Intel FDI Hot Plug Interrupt	Connect to Processor and PCH
FDI_RCOMP	FDI Resistor Compensation	Float
FDI_IREF	FDI Reference Voltage	Float

REF #486713 INTEL SBY DG V1.0

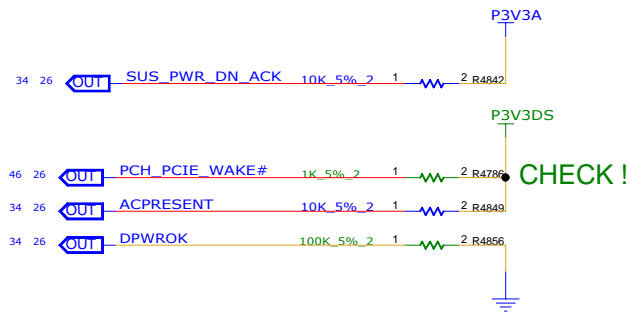
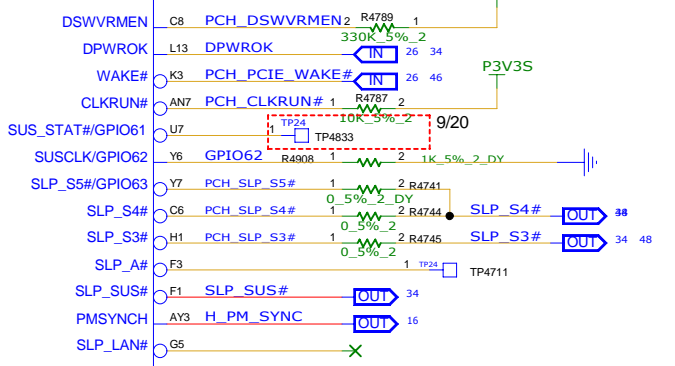


FDI

DMI

System Power Management

power rail ->DSW :  
SLP\_A#  
SLP\_S3#  
SLP\_S4#  
SLP\_SUS#  
SLP\_LAN#  
SLP\_WLAN#/GPIO29  
GPIO27  
PWRBTN#  
WAKE#  
ACPRESENT/GPIO31  
BATTLOW#/GPIO72  
VCCDSW3\_3  
LAN\_PHY\_PWR\_CTRL/GPIO12



CHECK !

INVENTEC

TITLE			
MODEL,PROJECT,FUNCTION			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	A01

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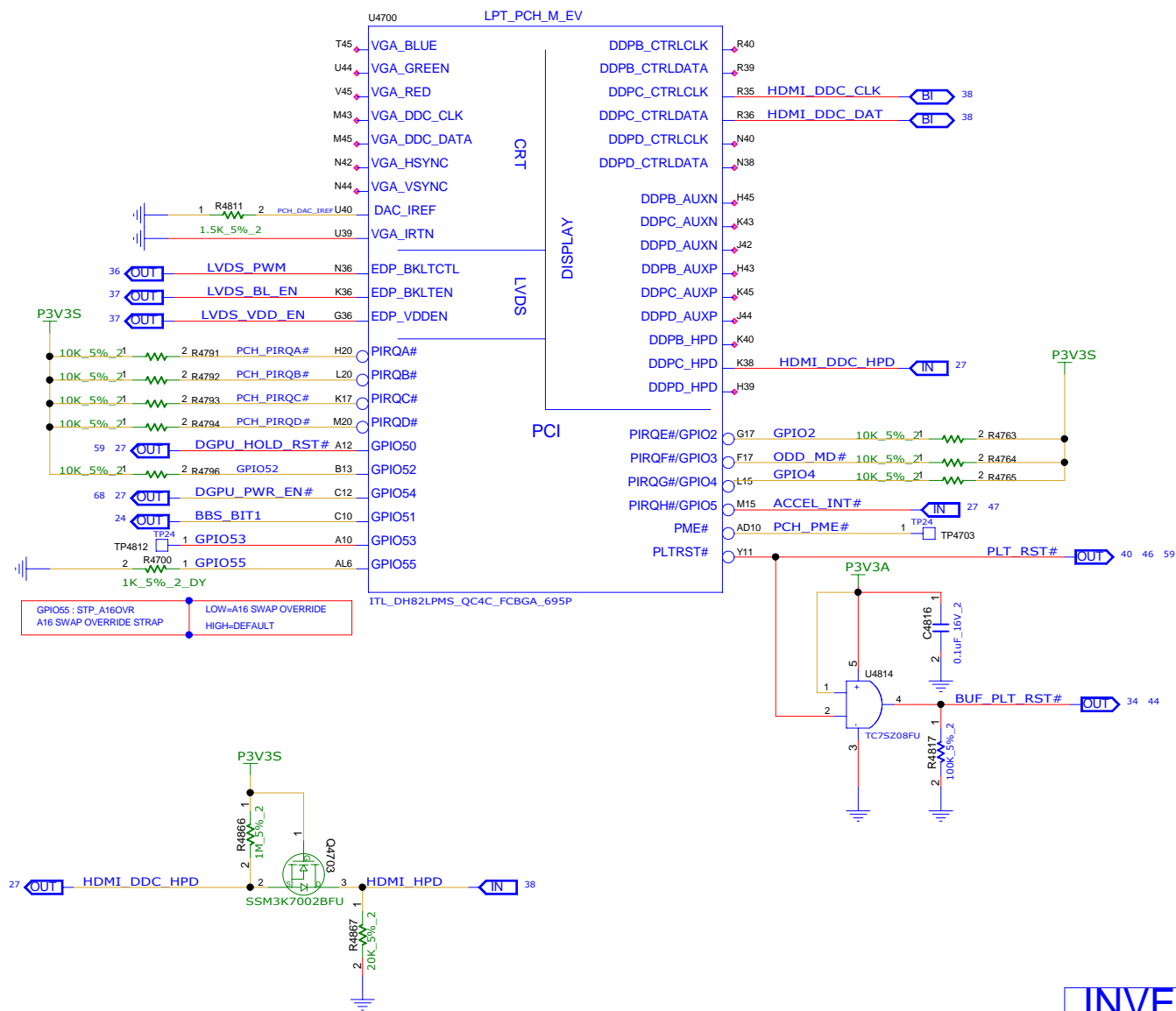
A

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INVENTEC

TITLE

MODEL,PROJECT,FUNCTION

SIZE CODE CS

DOC NUMBER

1310xxxxx-0-0

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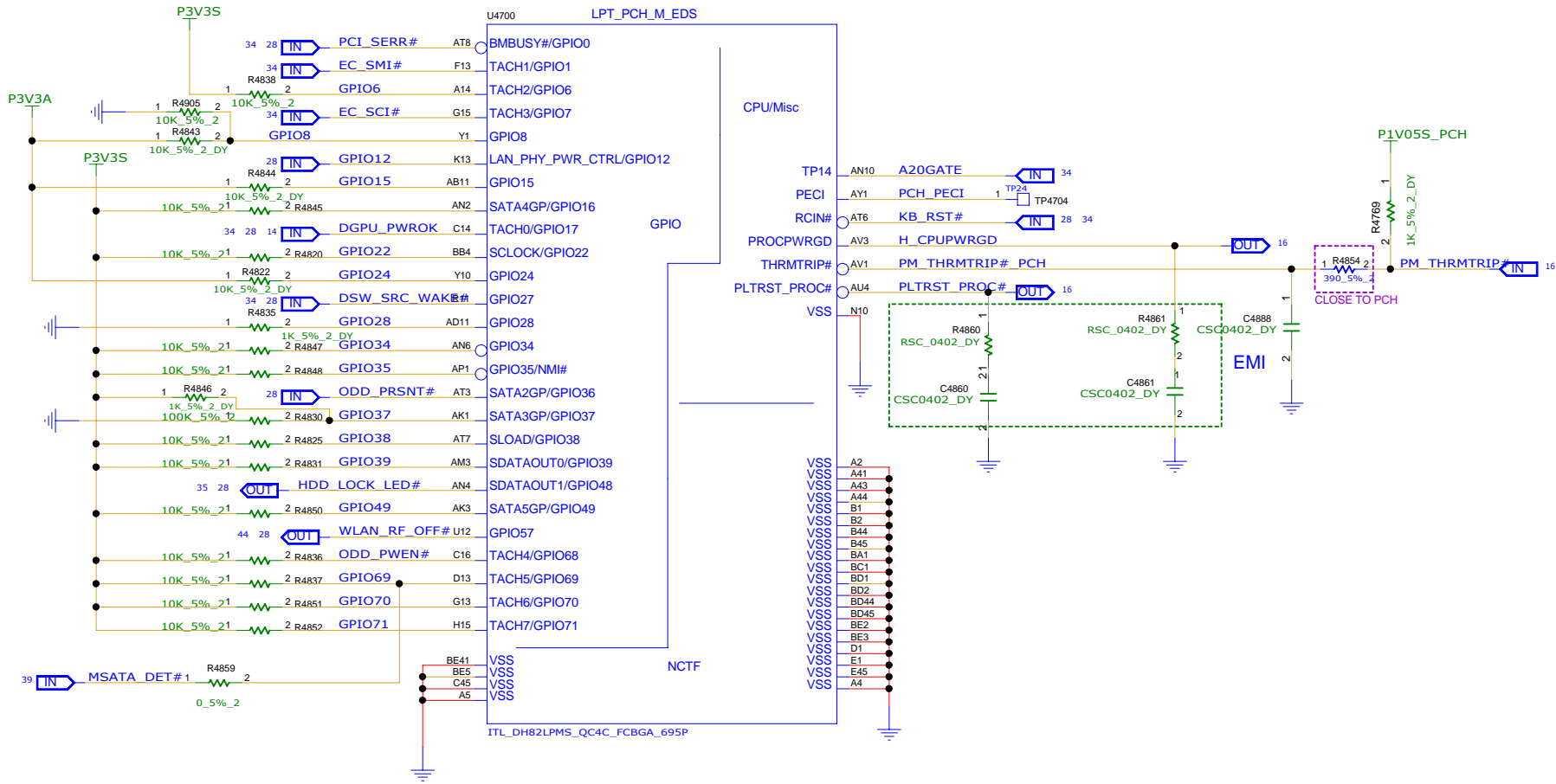
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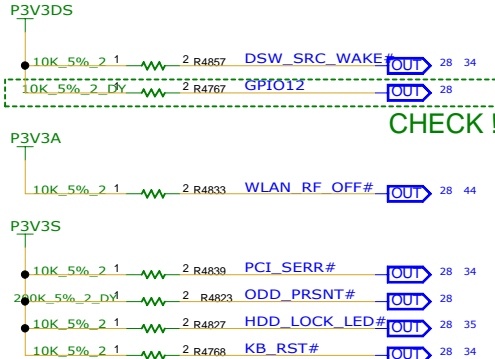
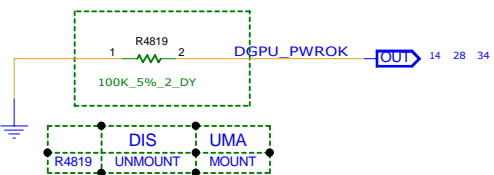
GPIO28

THE PIN REQUIRES GLITCH-FREE OUTPUT POWER SEQUENCE.  
THE PAD SHOULD ONLY BE PULLED LOW  
MOMENTARY  
WHEN THE CORRESPONDING BUFFER POWER SUPPLY IS NOT STABLE.



GPIO36	RSVD	Rising edge of PWROK	This signal has a weak internal pull-down. <b>NOTE:</b> The internal pull-down is disabled after PLTRST# deasserts.
SATA3GP/GPIO37	TLS Confidentiality	Rising edge of PWROK pin	Low = Intel ME Crypto Transport Layer Security (TLS) cipher suite with no confidentiality High = Intel ME Crypto TLS cipher suite with confidentiality This signal has a weak internal pull-down. <b>NOTES:</b> 1. A strong pull-up may be needed for GPIO functionality. 2. This signal must be pulled up to support Intel AMT with TLS. Intel ME configuration parameters also need to be set correctly to enable TLS.

UMA



CHECK !

INVENTEC

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MODEL,PROJECT,FUNCTION Block Diagram			
SIZE	CODE	DOC NUMBER	REV
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A

USB3.0 CONN (RIGHT SIDE DB)

LPT\_PCH\_M\_EDS

U4700

PCIE

USB

DEBUG PORT

DEBUG PORT

USB3.0 CONN (LEFT SIDE MB)

USB3.0 CONN (LEFT SIDE MB)  
USB3.0 CONN (LEFT SIDE MB)  
USB3.0 CONN (RIGHT SIDE DB)  
USB3.0 CONN (RIGHT SIDE DB)

TOUCHSCREEN  
FINGER PRINTER  
WLAN combo

WEBCAM

CLOSE TO PCH WITHIN 450 MILS

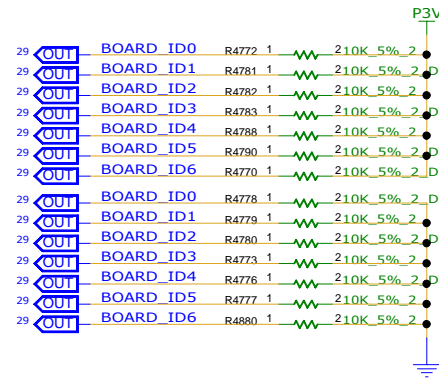
	BOARD_ID6	BOARD_ID5	BOARD_ID4	BOARD_ID3	BOARD_ID2	BOARD_ID1	BOARD_ID0
GV2	0	0	1	0	1	0	1
UMA	0	0	1	0	1	0	0
GT	0	0	1	0	1	1	0

P3V3A

P3V3A

Table 1-5. Mobile Lynx Point SKUs Flexible I/O Map

SKU	High Speed I/O Ports																	
	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Port 7	Port 8	Port 9	Port 10	Port 11	Port 12	Port 13	Port 14	Port 15	Port 16	Port 17	Port 18
QM87	USB 3.0 Port 1	USB 3.0 Port 2	USB 3.0 Port 5	USB 3.0 Port 6	USB 3.0 Port 3	USB 3.0 Port 4	PCIE* Port 3	PCIE* Port 5	PCIE* Port 6	PCIE* Port 7	PCIE* Port 8	PCIE* Port 9	SATA 6Gb/s Port 4	SATA 6Gb/s Port 5	SATA 6Gb/s Port 0	SATA 3Gb/s Port 1	SATA 3Gb/s Port 2	SATA 3Gb/s Port 3
HM87	USB 3.0 Port 1	USB 3.0 Port 2	USB 3.0 Port 5	USB 3.0 Port 6	USB 3.0 Port 3	USB 3.0 Port 4	PCIE* Port 3	PCIE* Port 5	PCIE* Port 6	PCIE* Port 7	PCIE* Port 8	PCIE* Port 9	SATA 6Gb/s Port 4	SATA 6Gb/s Port 5	SATA 6Gb/s Port 0	SATA 6Gb/s Port 1	SATA 3Gb/s Port 2	SATA 3Gb/s Port 3
HM86	USB 3.0 Port 1	USB 3.0 Port 2	NA	NA	USB 3.0 Port 3	USB 3.0 Port 4	PCIE* Port 3	PCIE* Port 5	PCIE* Port 6	PCIE* Port 7	PCIE* Port 8	PCIE* Port 9	SATA 6Gb/s Port 4	SATA 6Gb/s Port 5	SATA 3Gb/s Port 0	NA	SATA 3Gb/s Port 2	NA



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MODEL,PROJECT,FUNCTION			
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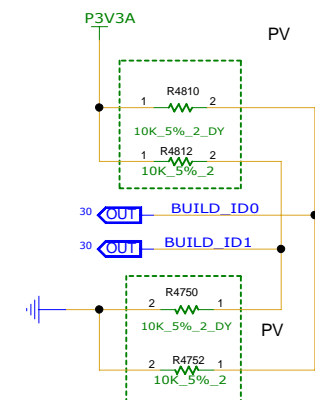
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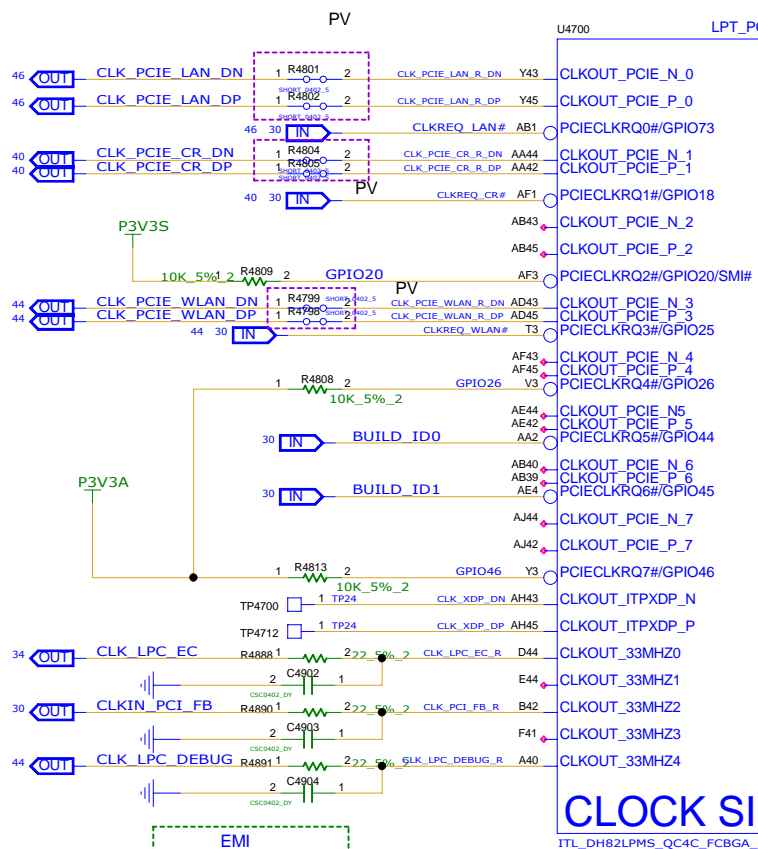
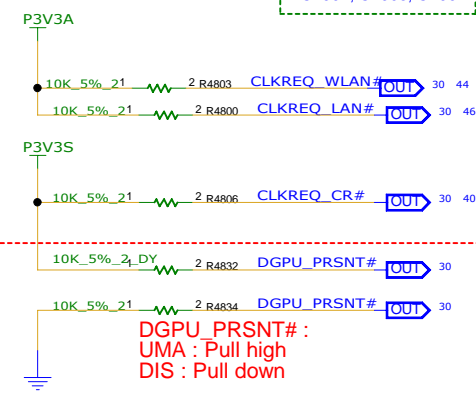
B

A



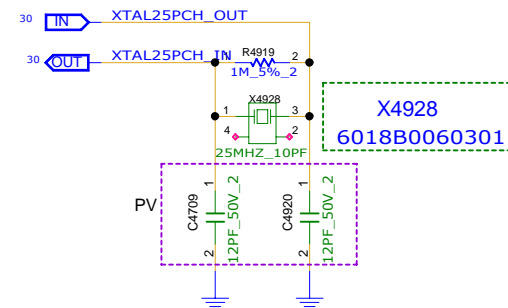
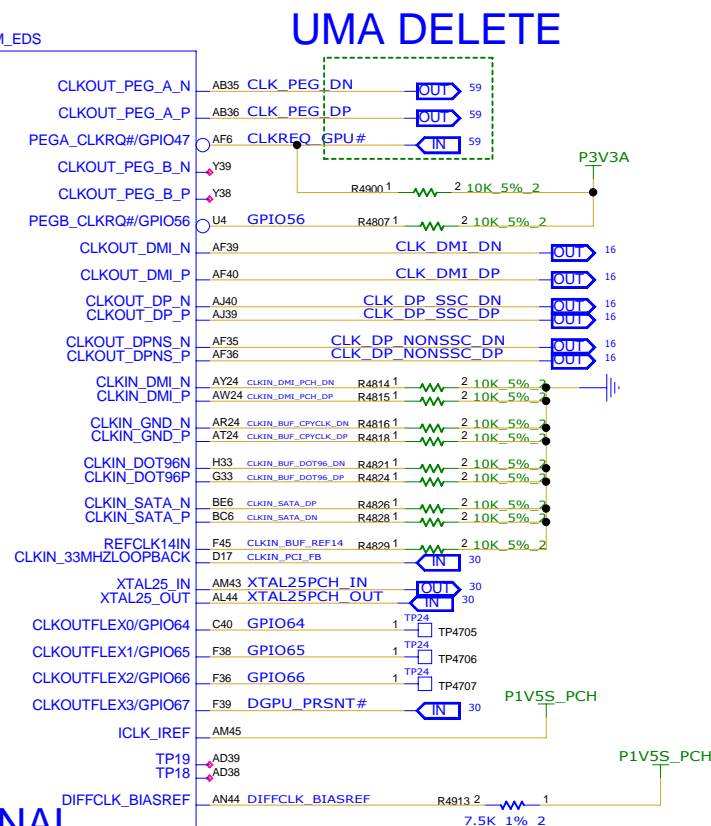
## BUILD ID

	BUILD_ID1	BUILD_ID0
DB	0	0
SI	0	1
PV	1	0
MV	1	1



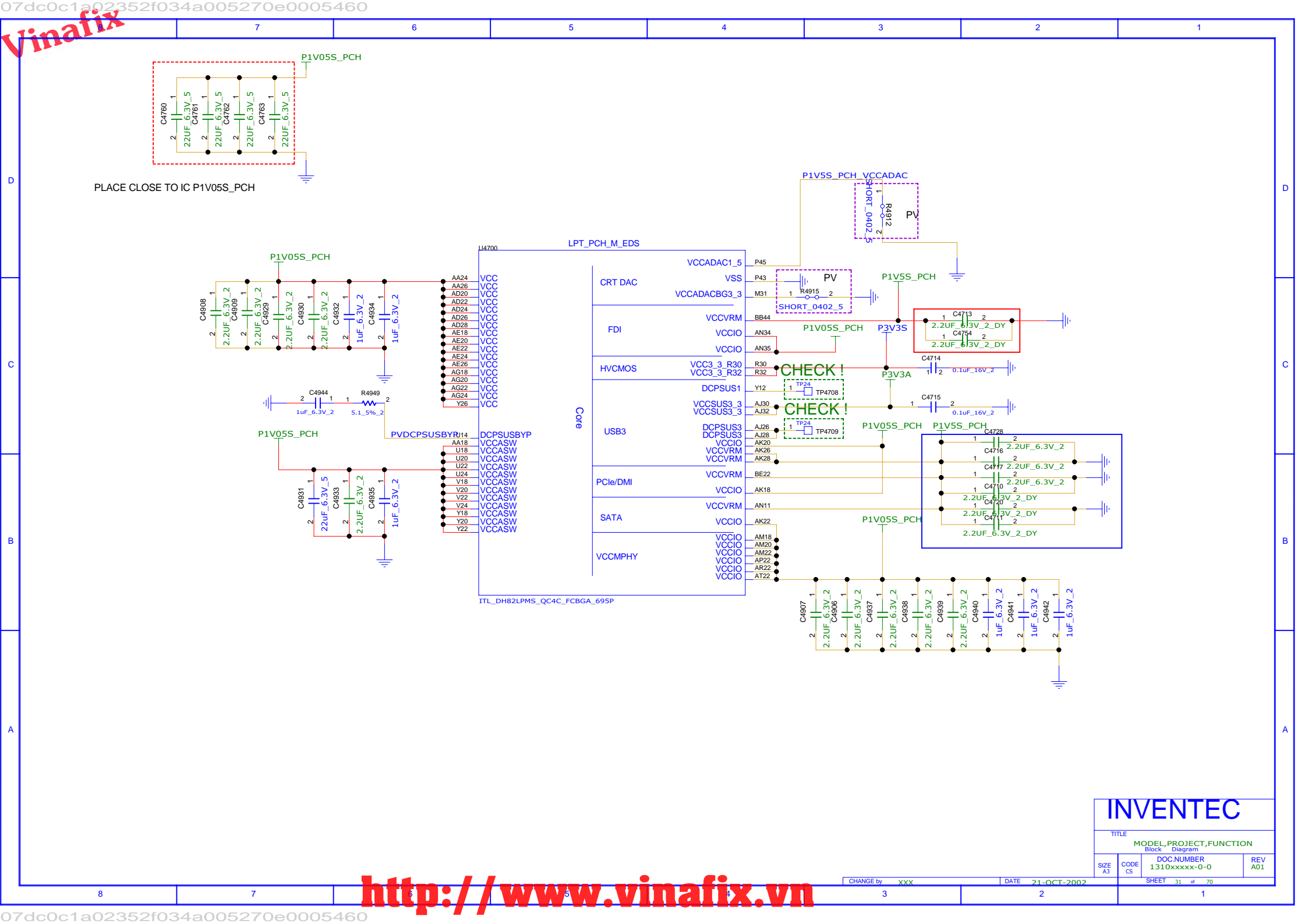
## CLOCK SIGNAL

ITL\_DH82LPMS\_QC4C\_FCBGA\_695P



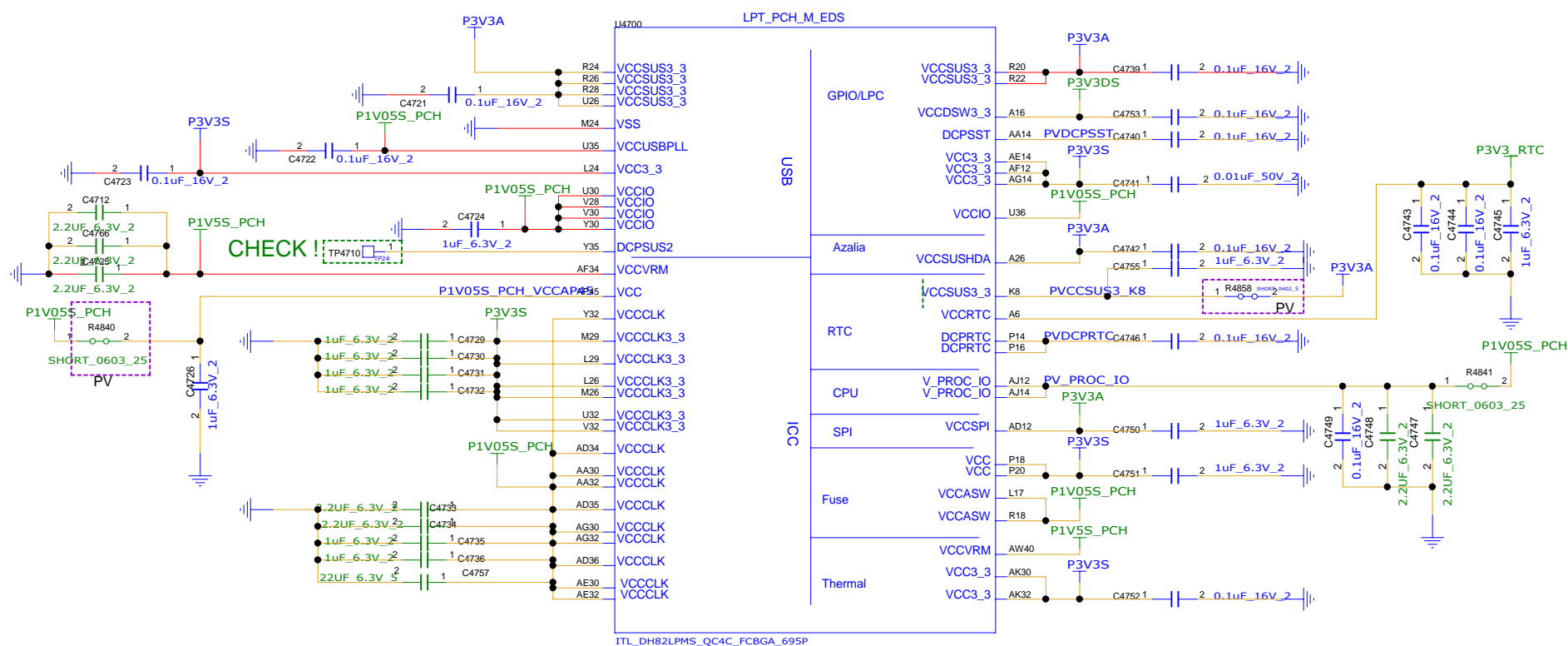
## INVENTEC

TITLE			
MODEL,PROJECT,FUNCTION			
SIZE	CODE	DOC NUMBER	
A3	CS	1310xxxx-0-0	
REV		A01	





REF INTEL SBY DG #486713 V1.0		
V3.3 <sub>SS</sub> (3.3V)		USB3: AJ30, AJ32
		USB2: R24, R26, R28, U26
		Sus: R20, R22
		AZALIA: A26
		RTC: K8



INVENTEC

TITLE	MODEL.PROJECT.FUNCTION
1.1	1.1.1
1.2	1.2.1
1.3	1.3.1
1.4	1.4.1
1.5	1.5.1
1.6	1.6.1
1.7	1.7.1
1.8	1.8.1
1.9	1.9.1
1.10	1.10.1
1.11	1.11.1
1.12	1.12.1
1.13	1.13.1
1.14	1.14.1
1.15	1.15.1
1.16	1.16.1
1.17	1.17.1
1.18	1.18.1
1.19	1.19.1
1.20	1.20.1
1.21	1.21.1
1.22	1.22.1
1.23	1.23.1
1.24	1.24.1
1.25	1.25.1
1.26	1.26.1
1.27	1.27.1
1.28	1.28.1
1.29	1.29.1
1.30	1.30.1
1.31	1.31.1
1.32	1.32.1
1.33	1.33.1
1.34	1.34.1
1.35	1.35.1
1.36	1.36.1
1.37	1.37.1
1.38	1.38.1
1.39	1.39.1
1.40	1.40.1
1.41	1.41.1
1.42	1.42.1
1.43	1.43.1
1.44	1.44.1
1.45	1.45.1
1.46	1.46.1
1.47	1.47.1
1.48	1.48.1
1.49	1.49.1
1.50	1.50.1
1.51	1.51.1
1.52	1.52.1
1.53	1.53.1
1.54	1.54.1
1.55	1.55.1
1.56	1.56.1
1.57	1.57.1
1.58	1.58.1
1.59	1.59.1
1.60	1.60.1
1.61	1.61.1
1.62	1.62.1
1.63	1.63.1
1.64	1.64.1
1.65	1.65.1
1.66	1.66.1
1.67	1.67.1
1.68	1.68.1
1.69	1.69.1
1.70	1.70.1
1.71	1.71.1
1.72	1.72.1
1.73	1.73.1
1.74	1.74.1
1.75	1.75.1
1.76	1.76.1
1.77	1.77.1
1.78	1.78.1
1.79	1.79.1
1.80	1.80.1
1.81	1.81.1
1.82	1.82.1
1.83	1.83.1
1.84	1.84.1
1.85	1.85.1
1.86	1.86.1
1.87	1.87.1
1.88	1.88.1
1.89	1.89.1
1.90	1.90.1
1.91	1.91.1
1.92	1.92.1
1.93	1.93.1
1.94	1.94.1
1.95	1.95.1
1.96	1.96.1
1.97	1.97.1
1.98	1.98.1
1.99	1.99.1
1.100	1.100.1

SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	FRONT A
------------	------------	-----------------------------	------------

SHEET 32 of 70



D

C

B

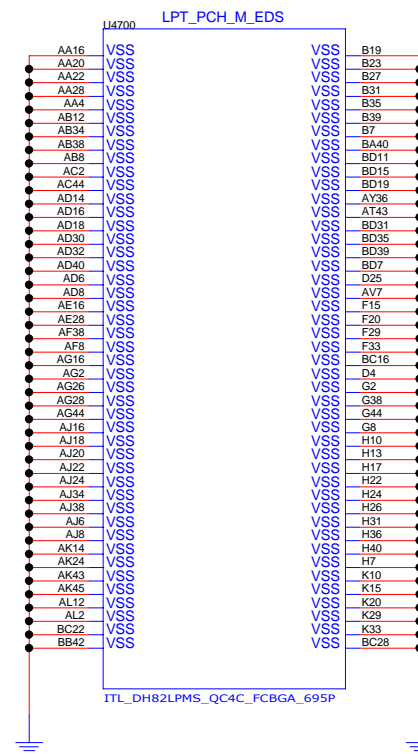
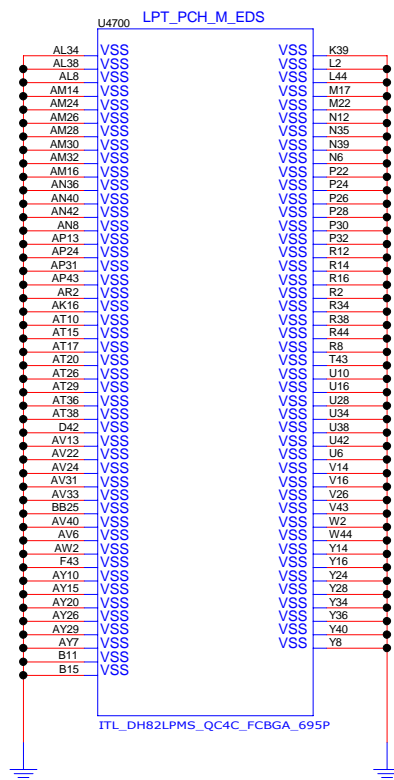
A

D

C

B

A



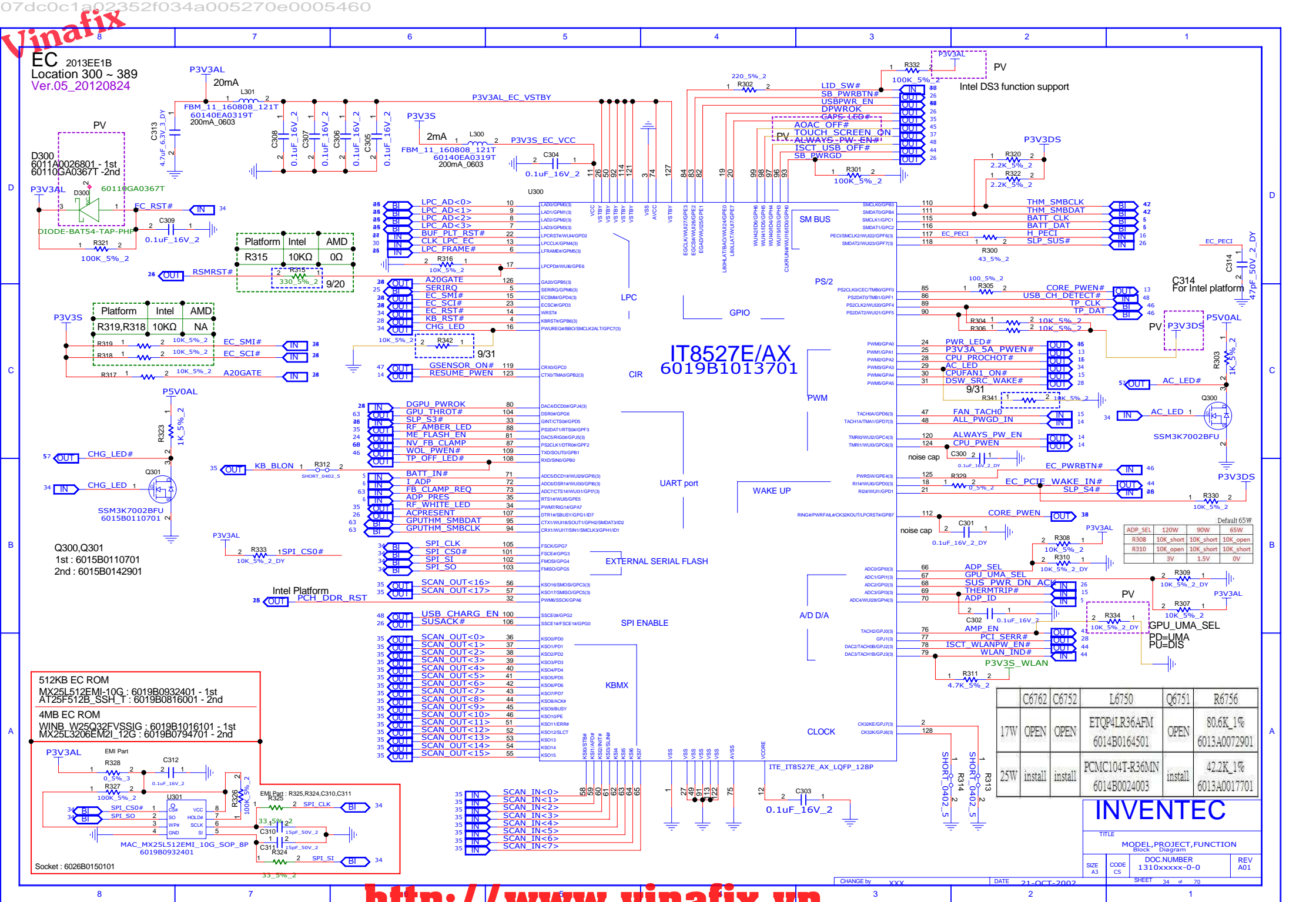
INVENTEC

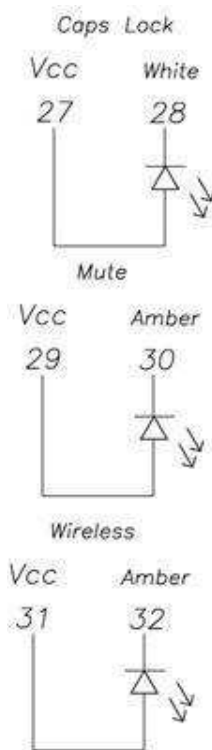
TITLE  
MODEL,PROJECT,FUNCTION  
Block Diagram

SIZE A3 CODE CS DOC NUMBER 1310xxxxx-0-0 REV A01

CHANGE by XXX DATE 21-OCT-2002

SHEET 33 of 70





0.25 AMP

P5V0S

R207 100K\_5%

Q202 QMP2305U\_SOT23\_3P

PN: 6015B0122001  
1ST: 6015B0122001  
2ND: 6015B0122901

Q203 SSM3K7002BFU

1ST: 6015B0110701  
2ND: 6015B0142901

P5V0S\_KBL

C205 0.1uF\_16V\_2

KB BLON

ENTRY\_6916K\_Q06M\_00L\_6P

PN: 6012B0245911-003

CN203

G1 G2

**LED DRIVER**

**AMBER**

**WHITE**

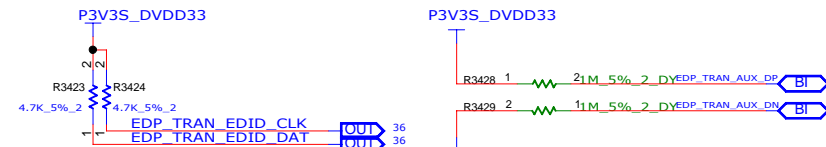
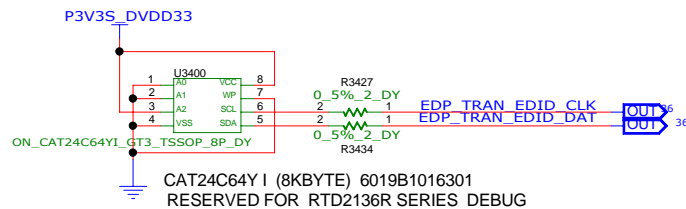
**POWER LED**

**EVL\_12\_21\_T3D\_CP1Q2B12Y\_2C\_2P**

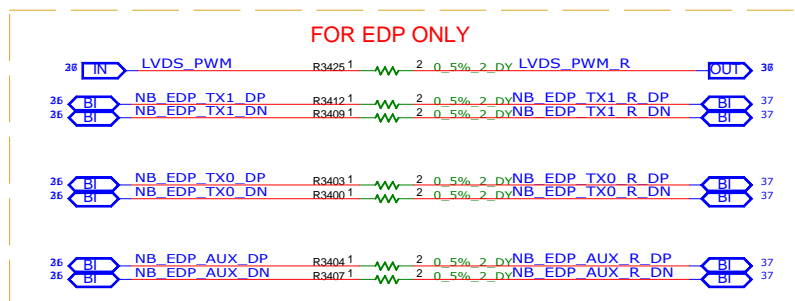
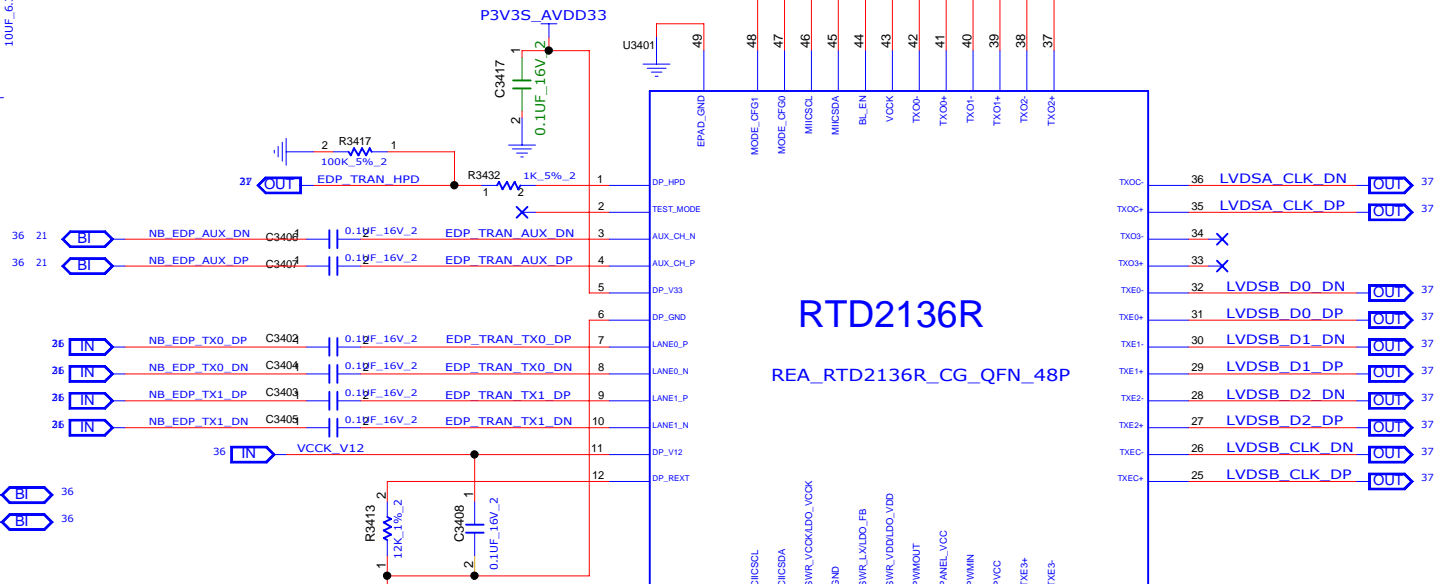
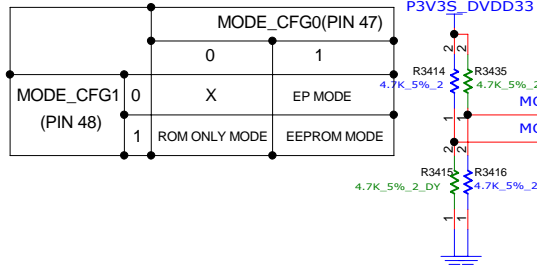
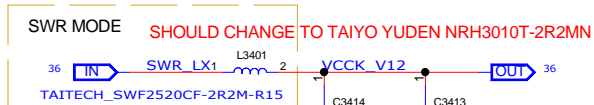
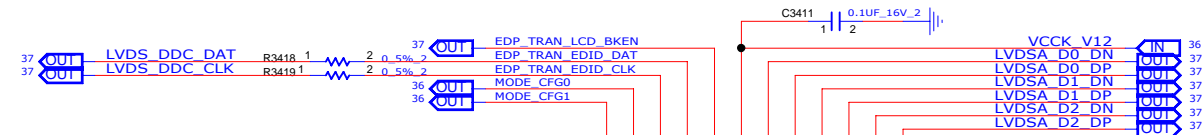
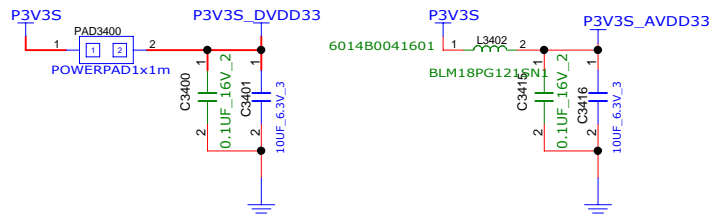
**PN: 6011B0115101-001**

TITLE			
MODEL,PROJECT,FUNCTION KB CONN & LED			
SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	FILE A

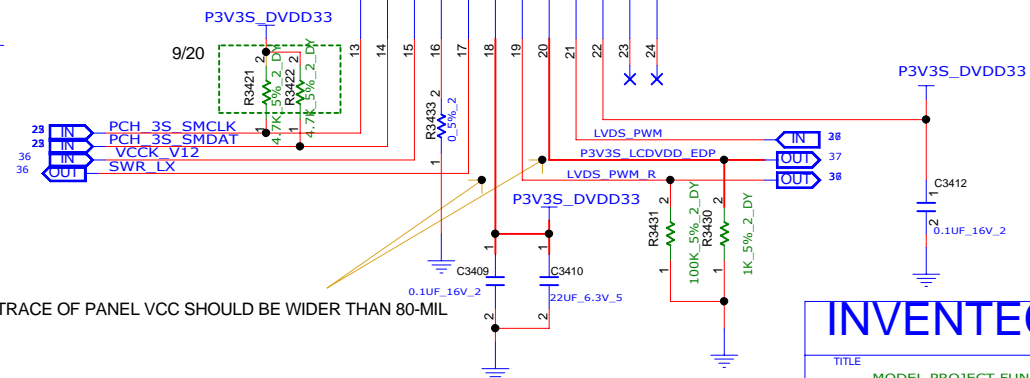
Location 3400~3499  
Ver.02 20120824



ENTIRE TRACE OF PANEL VCC SHOULD BE WIDER THAN 80-MIL

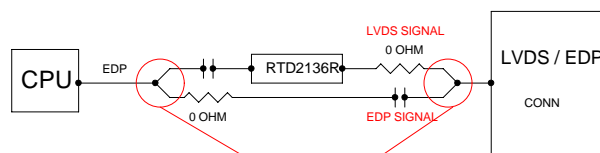
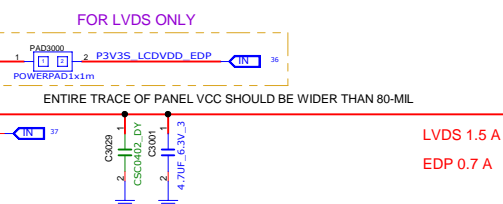


ENTIRE TRACE OF PANEL VCC SHOULD BE WIDER THAN 80-MIL

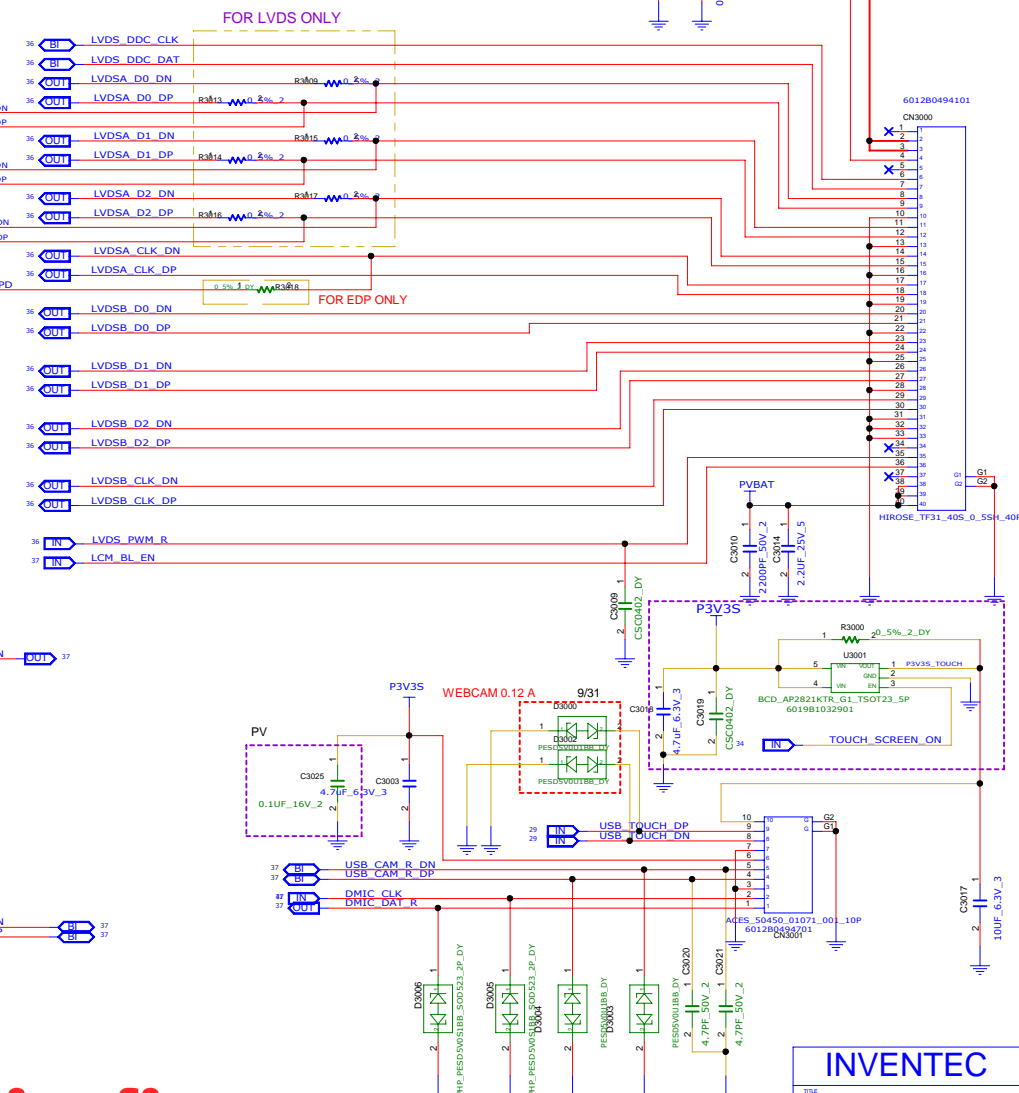
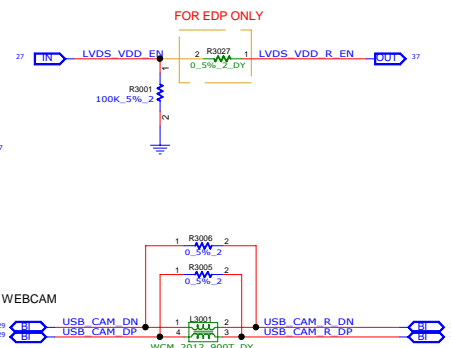
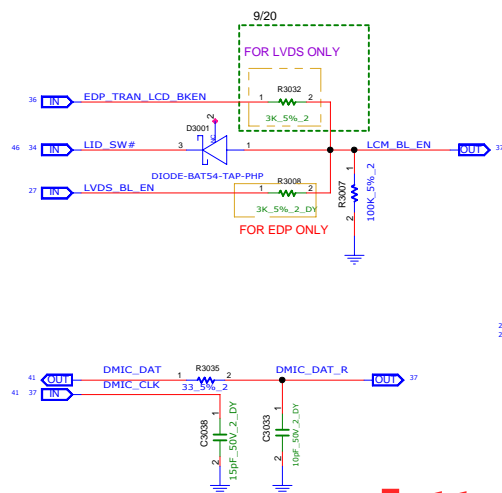


INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	REV A01

Location 3000~3049  
Ver.02 20120824



**NOTE :**  
LAYOUT TRACE AS SHORTER AS POSSIBLE



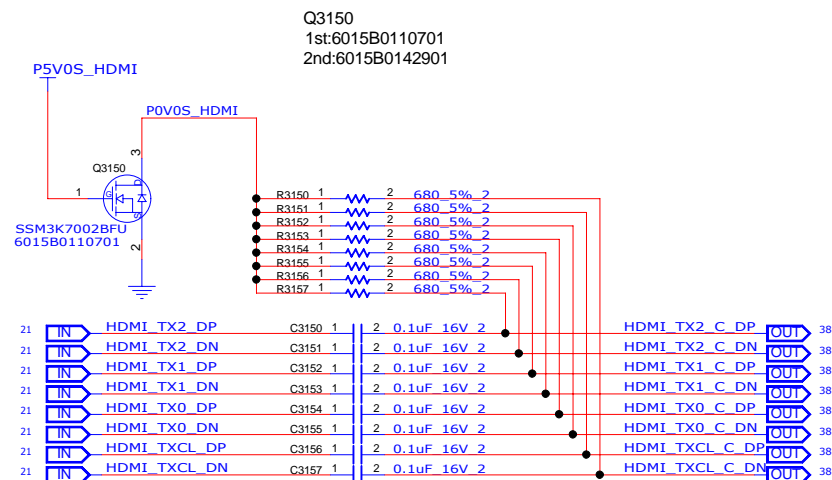
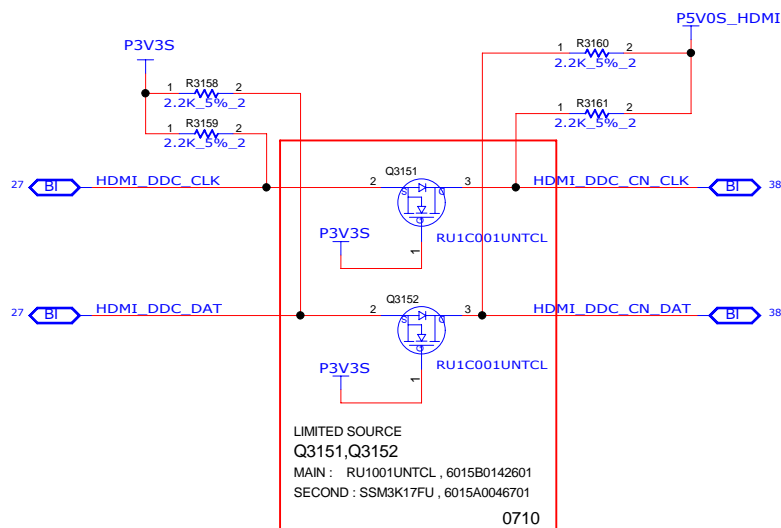
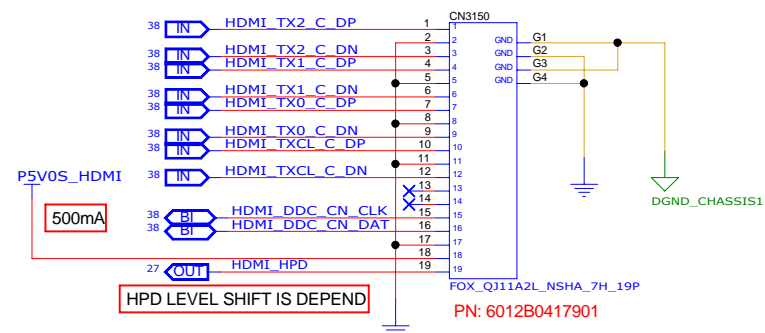
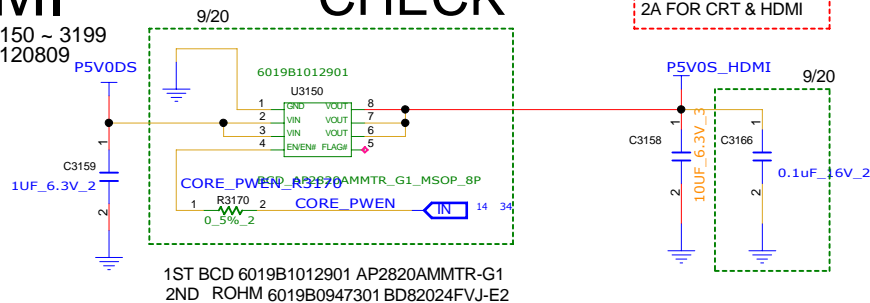
**http://www.vinafix.vn** WHEELAM+TOUCHN SCREEN

INVENTEC			
TITLE MODEL,PROJECT,FUNCTION LVDS			
SIZE C	CODE CS	DOC NUMBER 1310xxxxxx-0-0	
SHEET		37	of 75

## HDMI

Location 3150 ~ 3199  
Ver.02\_20120809

## CHECK



Location	Part number	Factory	Manufacturer Part No	Marking
D300	1ST : 6011A0026801	DIODES	D-BAT54-7	KL1
	2nd : 60110GA0367T	NXP	BAT54	
Q300	1ST : 6015B0124601	NXP	2N7002P	LWx
Q301	2nd : 6015B0140901	DIODES	DMN65D8L-7	MM6
U301	1ST : 6019B0932401	MXIC	MX25L512EMI-10G	
512KB	2nd : 6019B0816001	ATMEL	AT25F512B-SSH-T	
U301	1ST : 6019B1016101	WINBOND	W25Q32FVSSIG	
4MB	2nd : 6019B0794701	MXIC	MX25L3206EM2I-12G	

INVENTEC

TITLE MODEL,PROJECT,FUNCTION

HDMI\_CONN

DOC NUMBER 1310xxxxx-0-0

REV A01

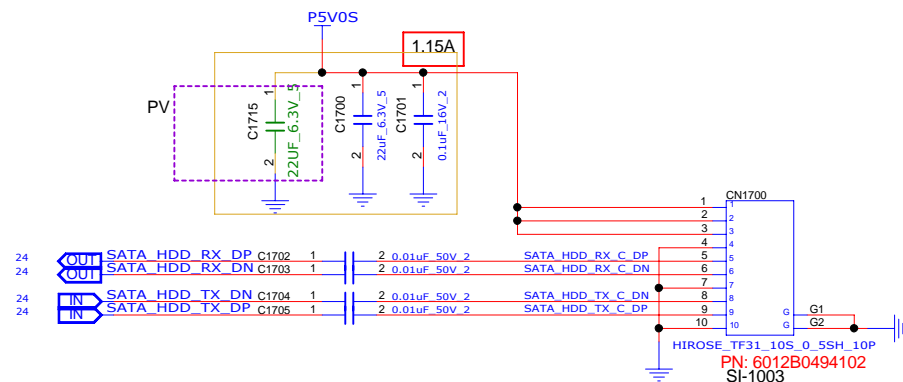
SHEET 38 of 70

## SATA HDD

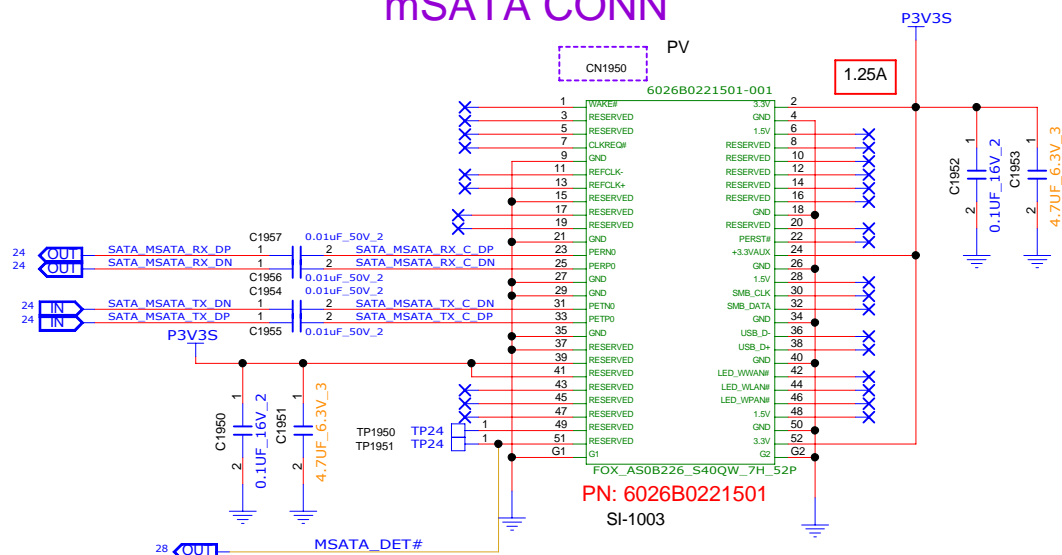
Location 1700 ~ 1749

mSATA  
Location 1950 ~ 1999  
Ver.01\_20120808

## SATA HDD CABLE CONN on MB



## mSATA CONN



# INVENTEC

TITLE			
MODEL,PROJECT,FUNCTION			
SATA HDD & SATA ODD			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	A01

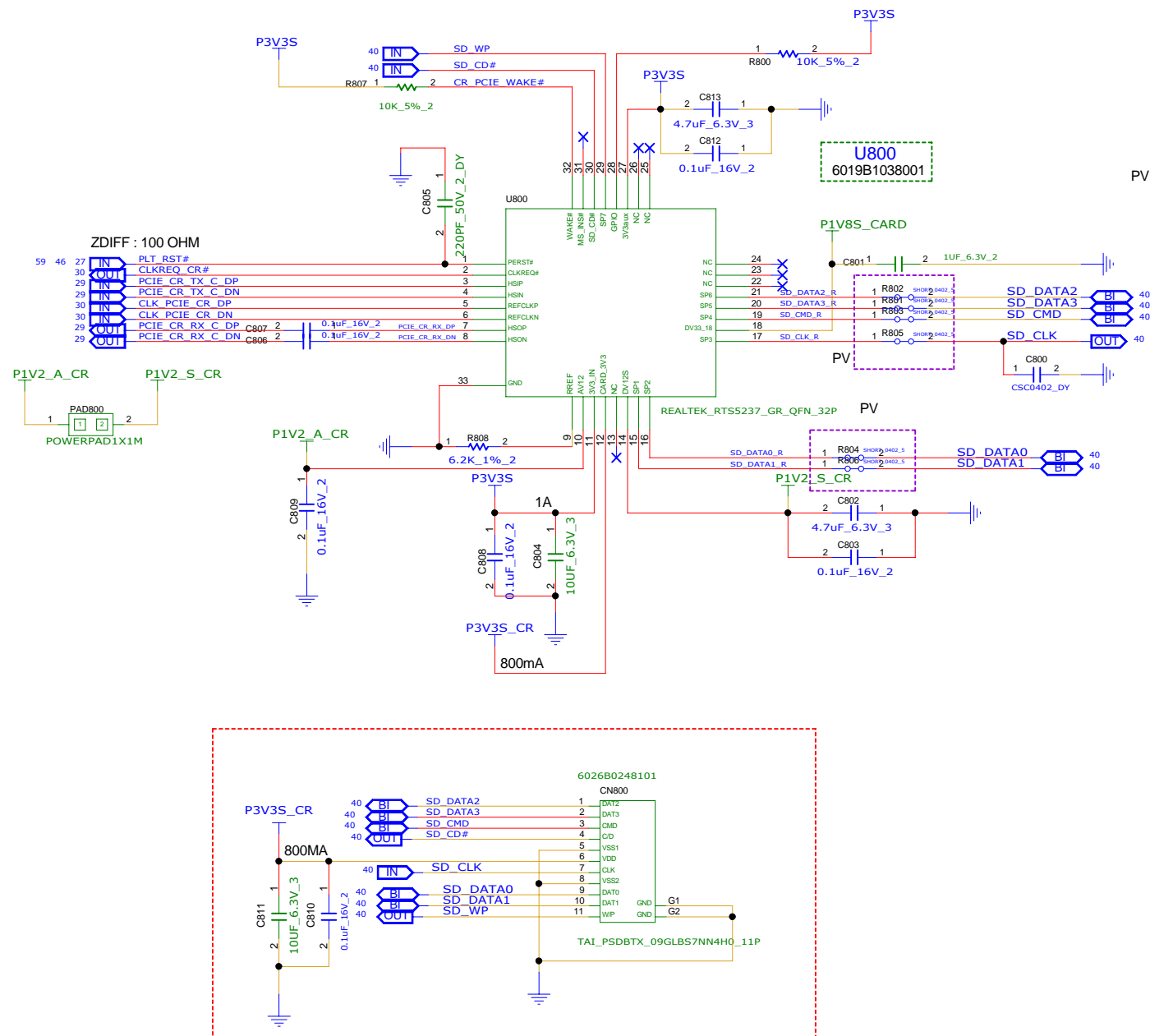
CHANGE by XXX DATE 21-OCT-2002

SHEET 39 of 70



# CARD READER RTS5237

LOCATION: 800~899  
VER\_03 . 20120823



## INVENTEC

TITLE MODEL,PROJECT,FUNCTION

Block Diagram

DOC NUMBER 1310xxxxx-0-0

REV A01

SHEET 40 of 70



## AUDIO-1

## CODEC

LOCATION: 500-549

VER.06\_20120824

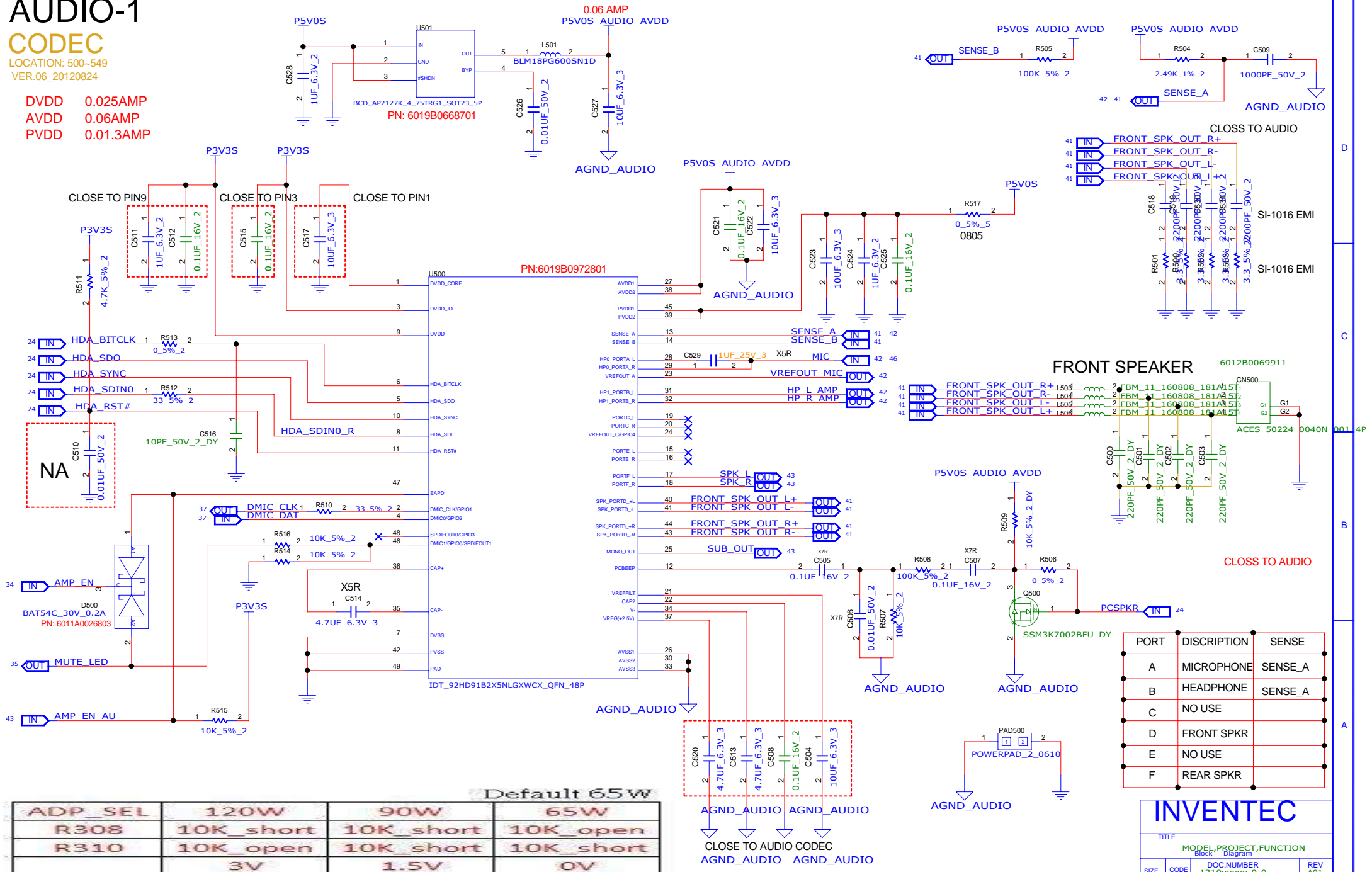
DVDD 0.025AMP  
AVDD 0.06AMP  
PVDD 0.01.3AMP

D

C

B

A

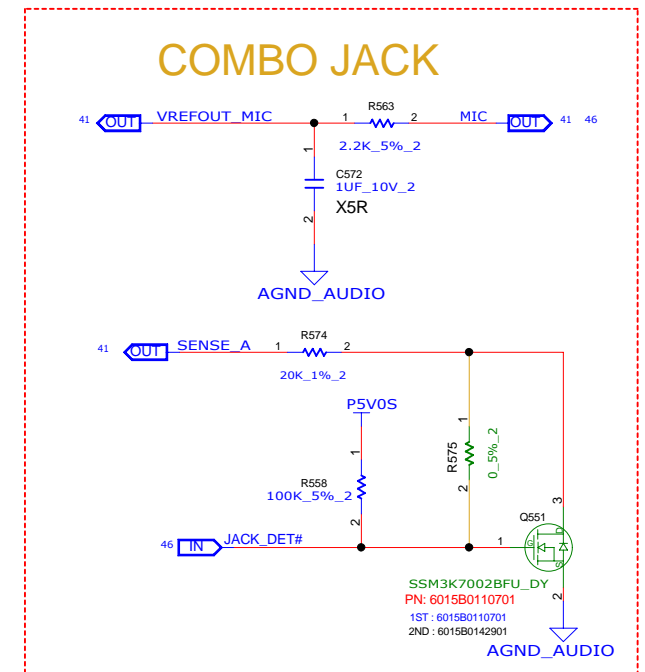
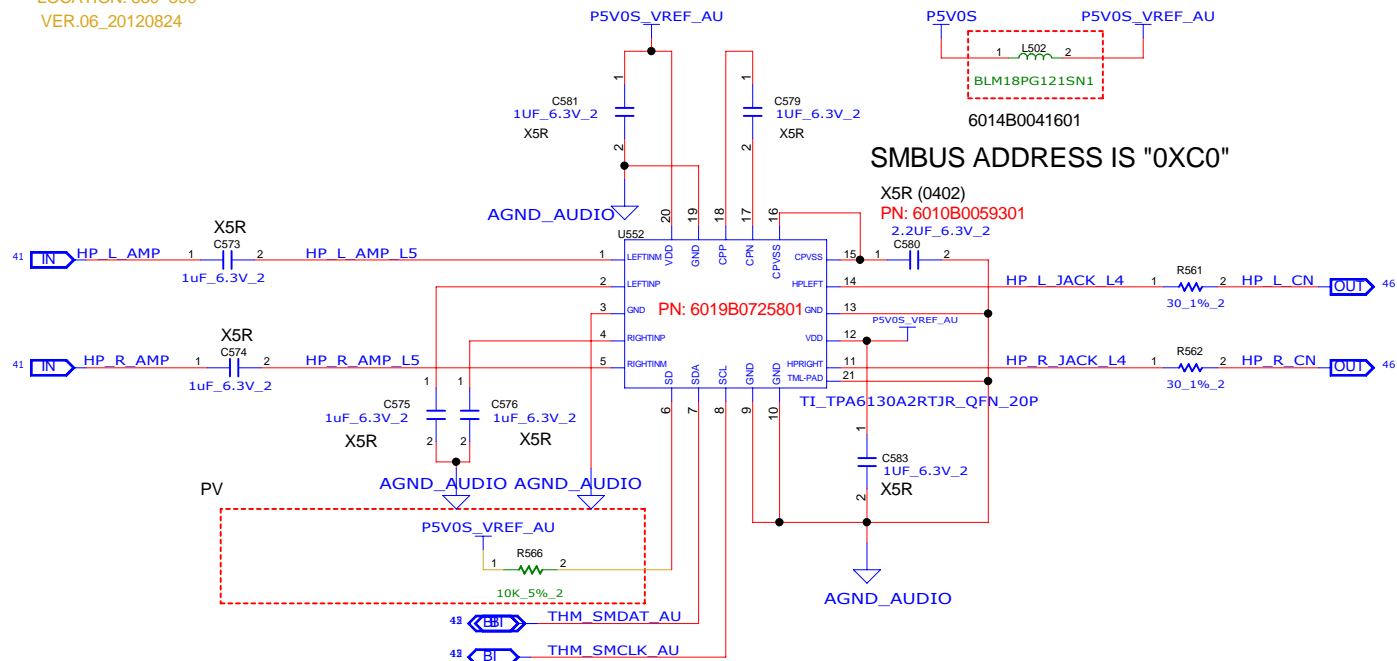


## AUDIO-2

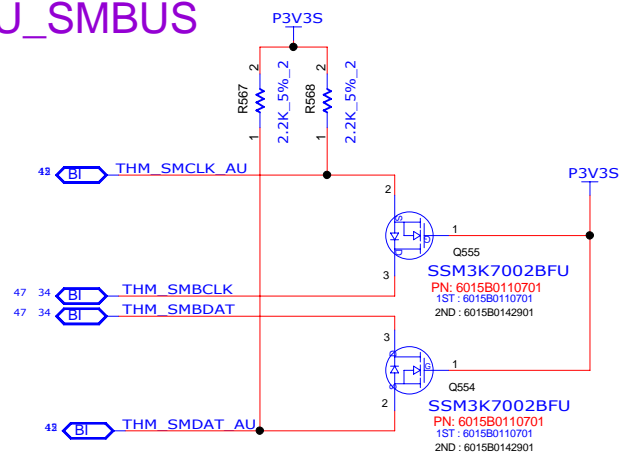
## CODEC

LOCATION: 550-599

VER.06\_20120824



## AU\_SMBUS



Location	Part number	Factory	Manufacturer Part No	Marking
Q9401	1st : 6015B0122001	DIODES	DMP2305U	23P
	2nd : 6015B0122901	TOSHIBA	SSM3J327R	KFG
L9401	1st : 6014B0200401	TAI-TECH	SWF2520CF-2R2M-R15	
	2nd : 6014B0190301	CYNTEC	PHI25201B-2R2MS	
X9401	1st : 6018B0060301	EPSON	FA-238G	2500M
	2nd : 6018B0054701	TXC	7V25000014	T250

## INVENTEC

TITLE			
MODEL,PROJECT,FUNCTION			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	A01

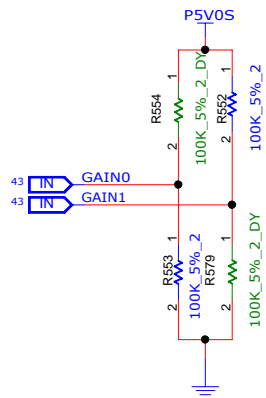
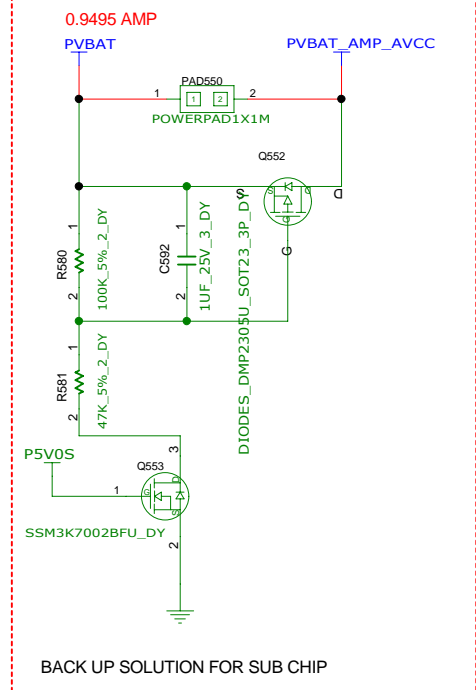
CHANGE by XXX DATE 21-OCT-2002

SHEET 42 of 70

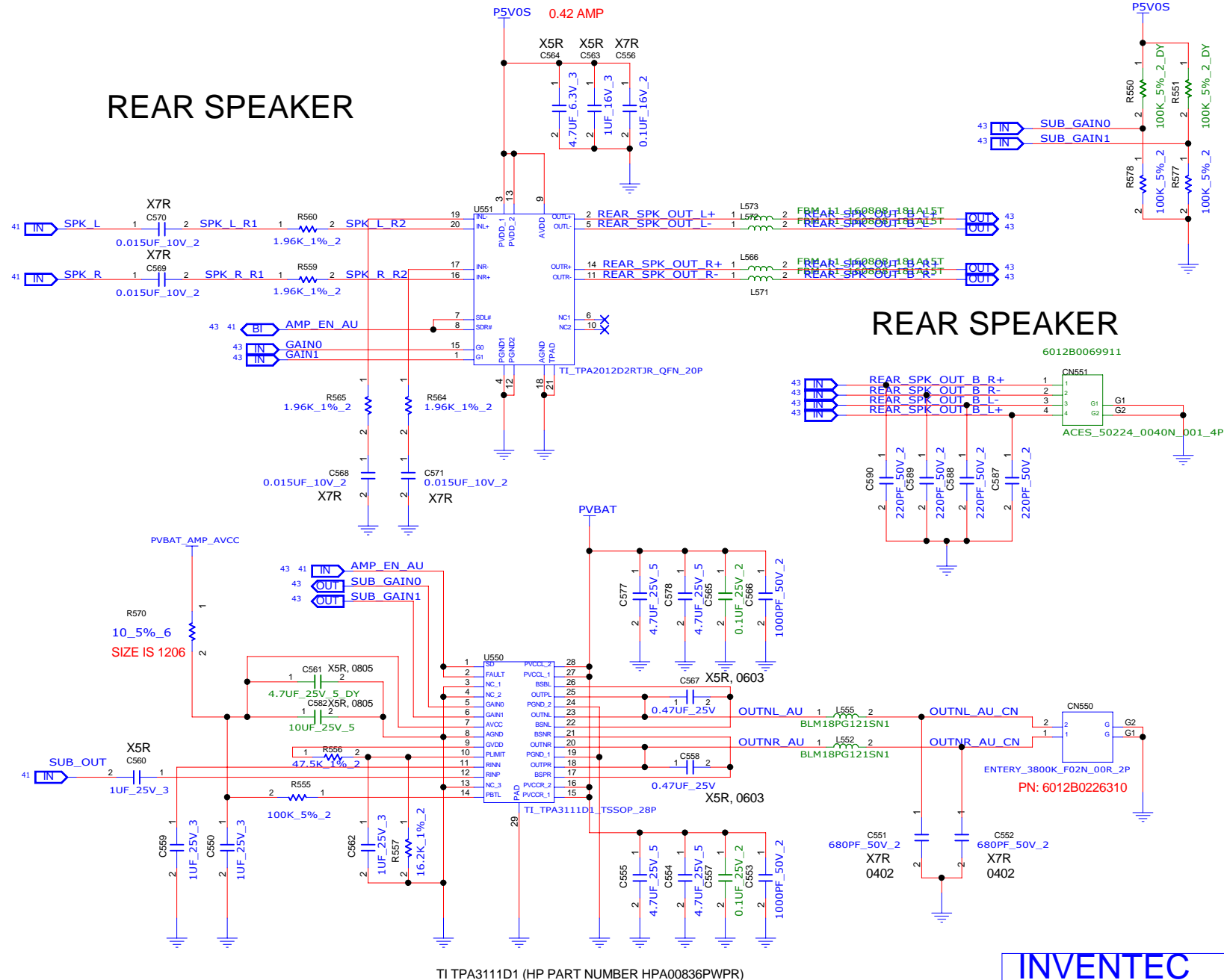
AUDIO (AMP) 550-599

## AUDIO-3

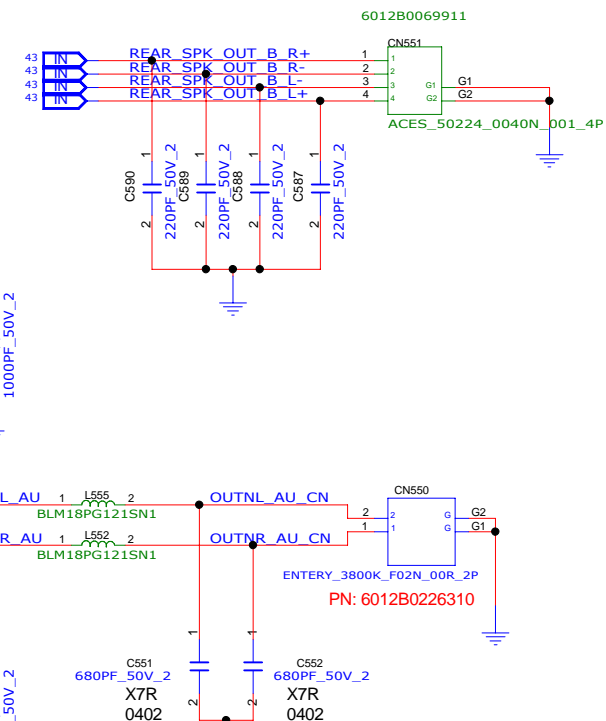
## CODEC

LOCATION: 550-599  
VER.06\_20120824SUBWOOFER  
NA

## REAR SPEAKER



## REAR SPEAKER



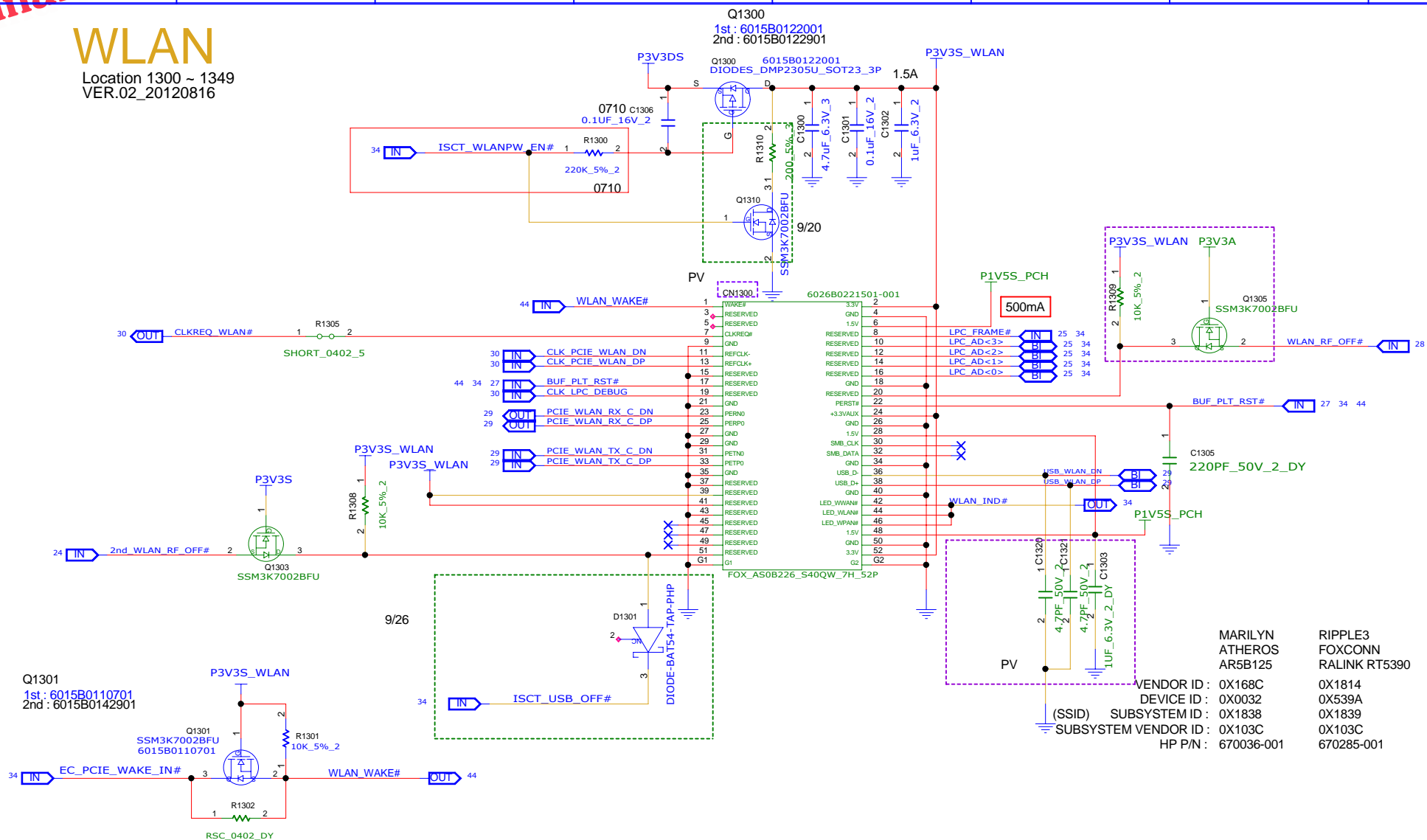
## INVENTEC

TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	A01

CHANGE by XXX DATE 21-OCT-2002

SHEET 43 of 70

Location 1300 ~ 1349  
VER.02 20120816



MARILYN  
ATHEROS  
AR5B125

RIPPLE3  
FOXCONN  
RALINK RT5390

VENDOR ID : 0X168C  
DEVICE ID : 0X0032  
SUBSYSTEM ID : 0X1838  
EM VENDOR ID : 0X103C  
HP P/N : 670036-001

0X1814  
0X539A  
0X1839  
0X103C  
670285-001

INVENTEC

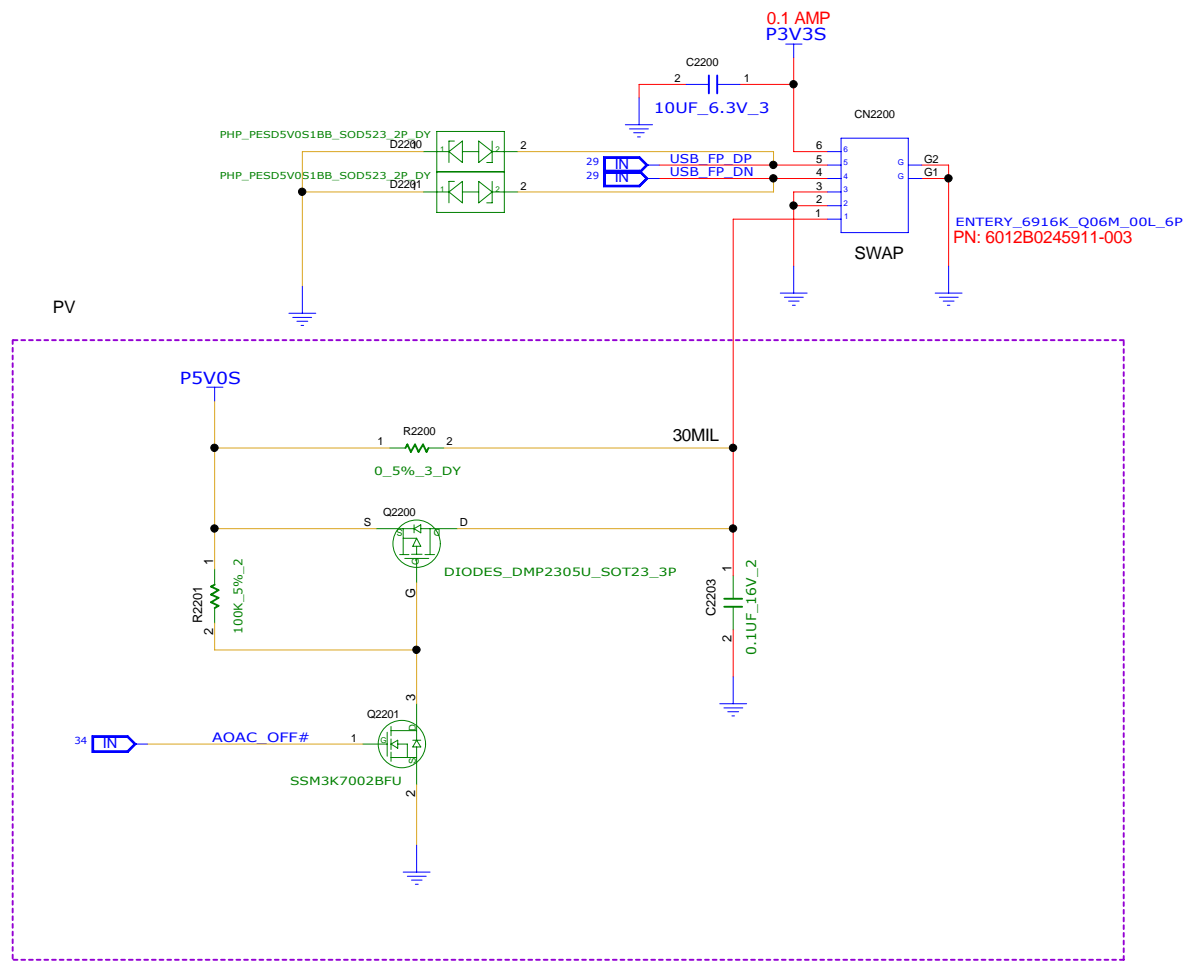
TITLE			
MODEL,PROJECT,FUNCTION WLAN & BT			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV A01

# FINGER PRINT

## VFM5302-3192 PIN ASSIGNMENTS

Pin Number	Signal Name	Test Point
1	3.3V <sub>CC</sub>	TP3
2	DP	TP1
3	DM	TP2
4	GND	TP4
5	GND	TP4
6	5V <sub>CC</sub>	TP6

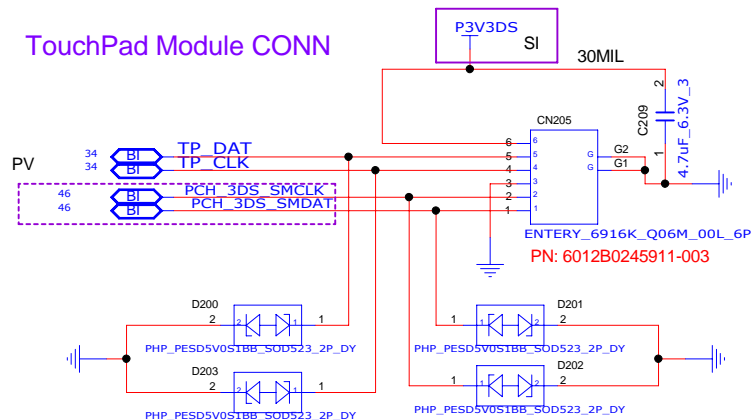
Figure 4 - Connector Pin-out



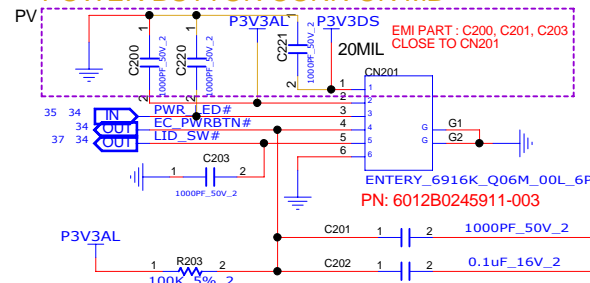
INVENTEC

TITLE			
MODEL,PROJECT,FUNCTION			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	A01
SHEET 45 of 70			

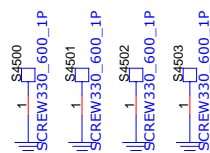
## TouchPad Module CONN



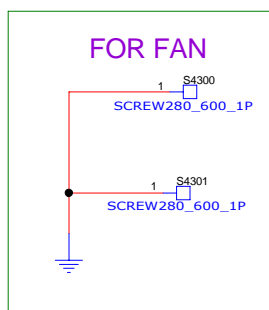
## POWER BUTTON CONN ON MB



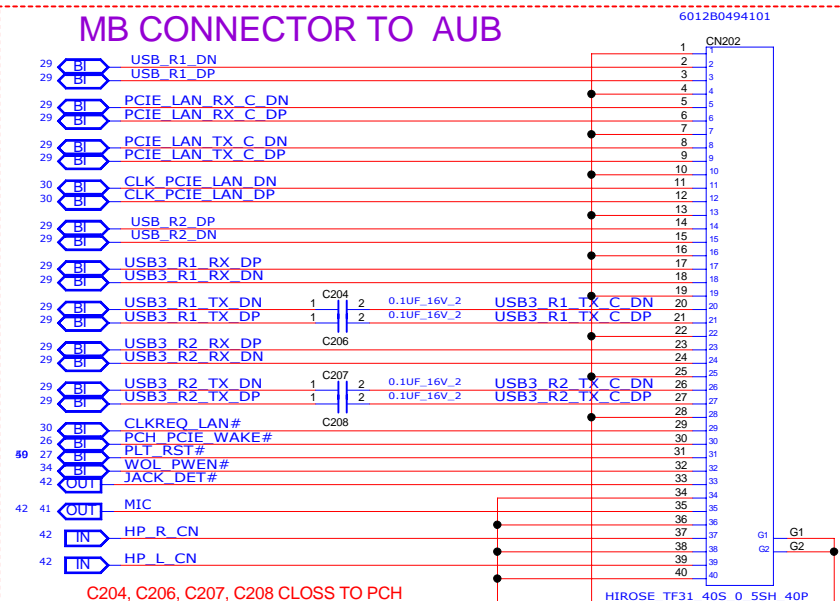
## FOR CPU



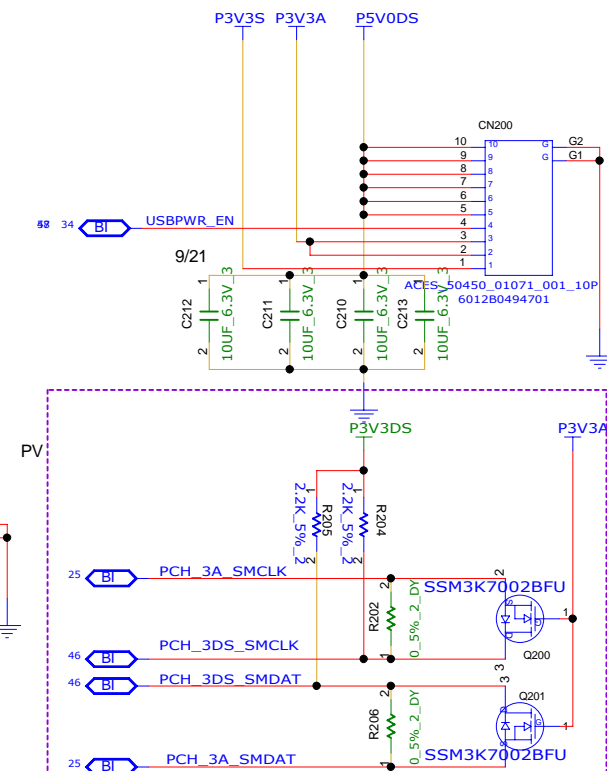
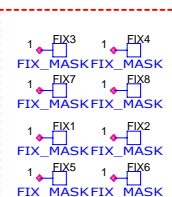
## FOR FAN



## MB CONNECTOR TO AUB



C204, C206, C207, C208 CLOSS TO PCH



INVENTEC

TITLE			
MODEL PROJECT,FUNCTION			
POWER BUTTON			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	A01

CHANGE by XXX DATE 21-OCT-2002

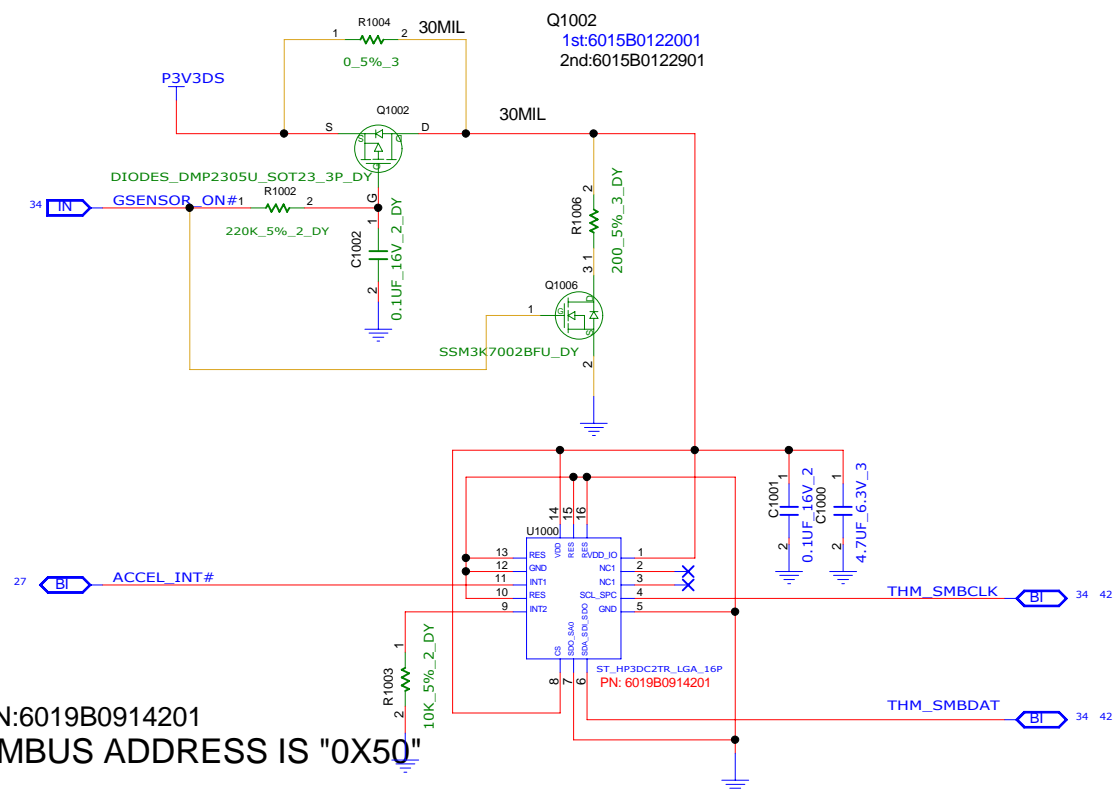
SHEET 46 of 70

# G-Sensor

Locaion 1000 ~ 1099

Ver.01\_20120807

## HARDDRIVE PROTECTION



PN:6019B0914201  
SMBUS ADDRESS IS "0X50"

### INVENTEC

TITLE MODEL,PROJECT,FUNCTION  
Block Diagram

SIZE CODE DOC NUMBER REV  
A3 CS 1310xxxxx-0-0 A01

CHANGE by XXX DATE 21-OCT-2002

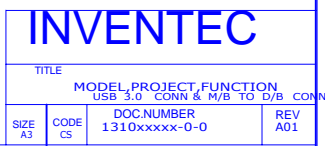
SHEET 47 of 70



P5V0DS



## USB 3.0 CONN





# AUB BOARD

**INVENTEC**TITLE  
MODEL,PROJECT,FUNCTION  
Block DiagramSIZE  
A3CODE  
CSDOC NUMBER  
1310xxxxx-0-0REV  
A01

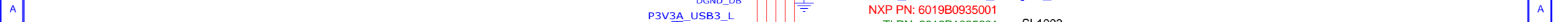
CHANGE by XXX

DATE 21-OCT-2002

SHEET 49 of 70

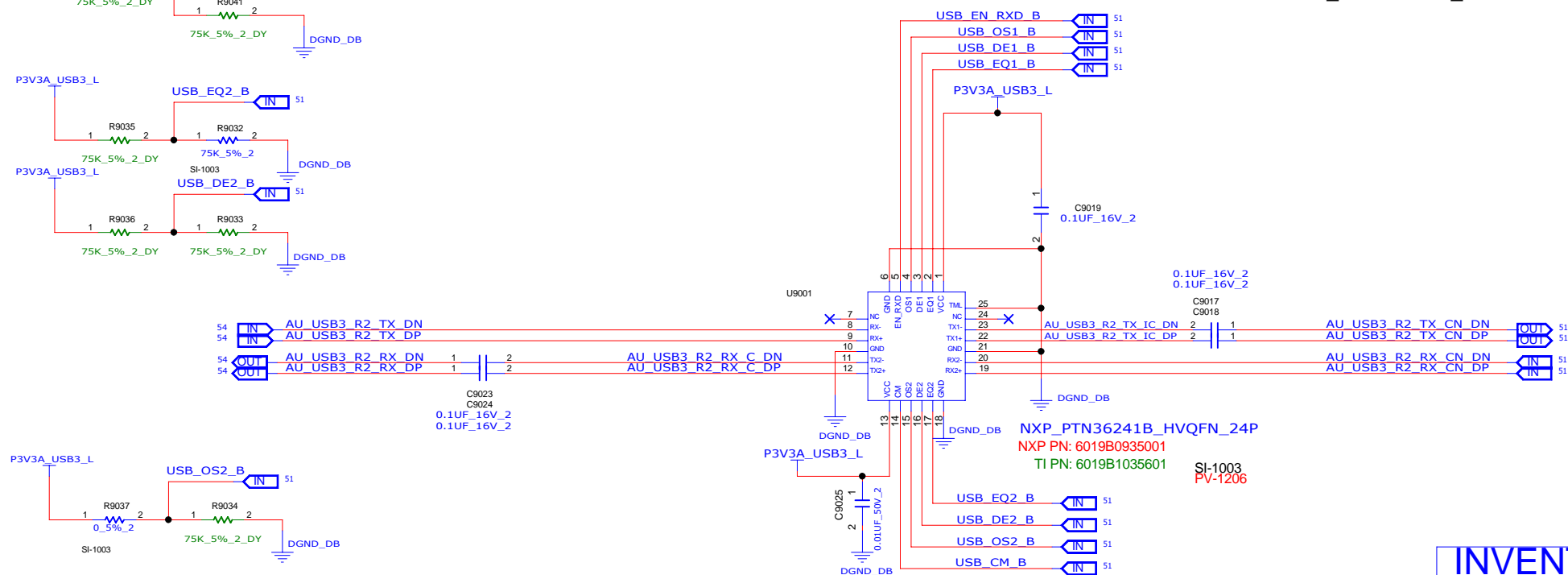
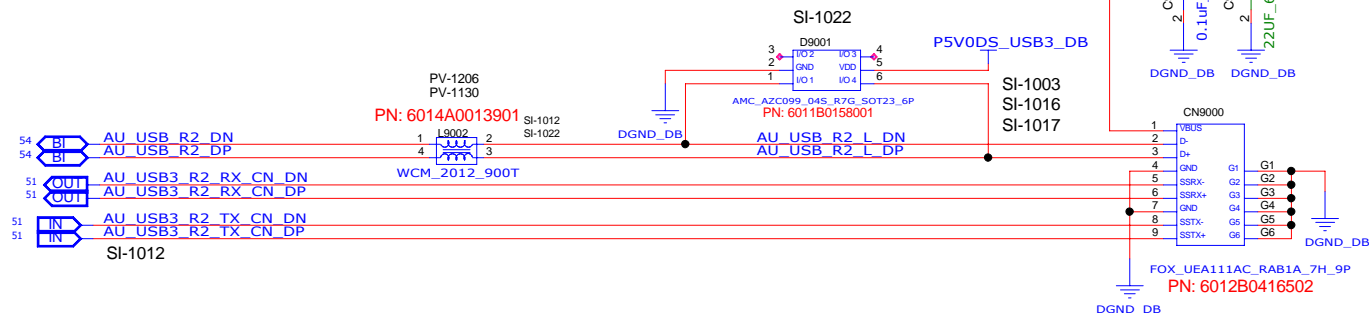
<http://www.vinafix.vn>

D

[illegible]

# INVENTEC

07dc0c1a02352f034a005270e0005460



# INVENTEC

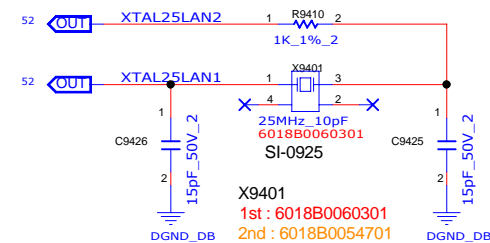
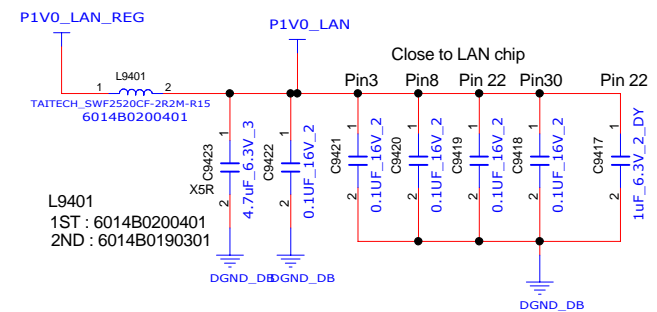
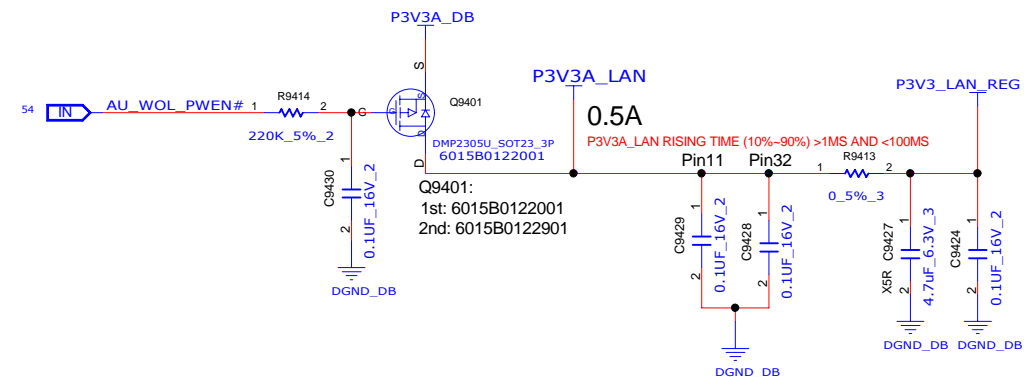
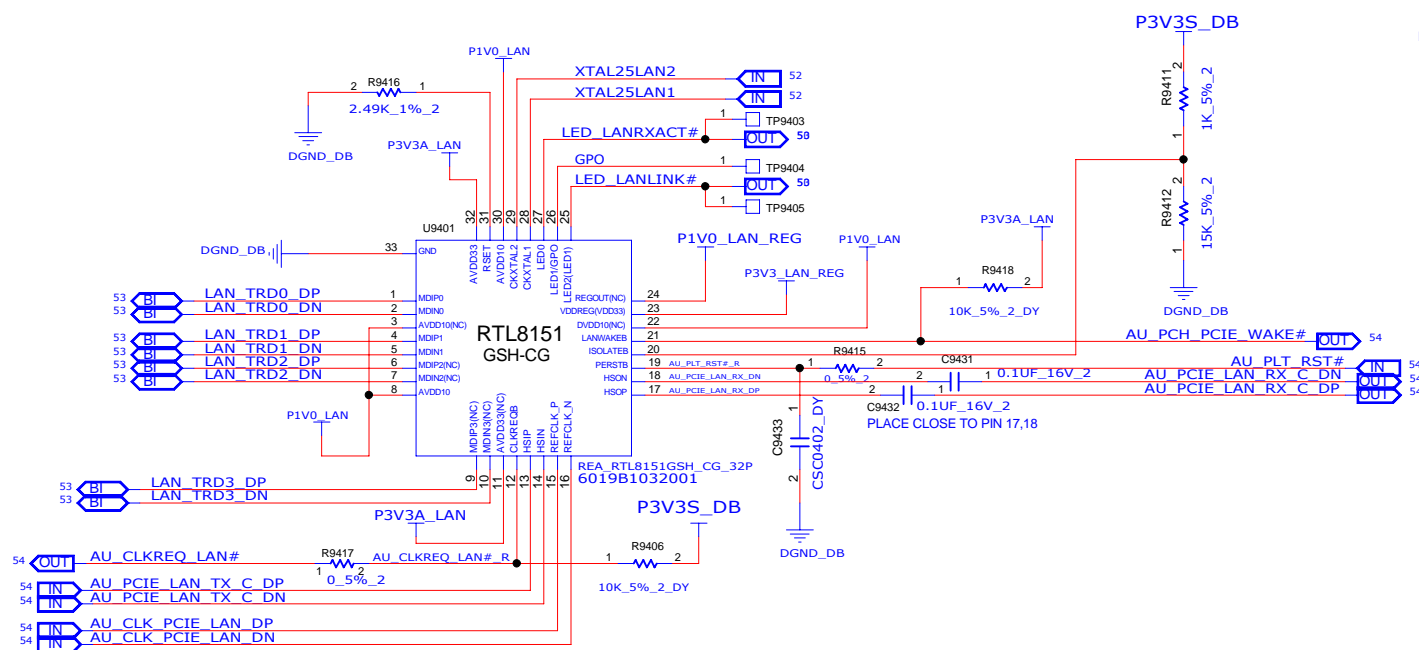
TITLE		MODEL,PROJECT,FUNCTION		R A
SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0		
SHEET		51	of	70

## LAN ( Controller)

Location 9400 ~ 9499  
Ver.03\_20120807

6019B1032101\_RTL8161GSH-CG\_10/100/1000

6019B1032001\_RTL8151GSH-CG\_10/100/1000



INVENTEC

TITLE MODEL,PROJECT,FUNCTION

SIZE CODE DOC NUMBER 1310xxxxx-0-0 REV A01

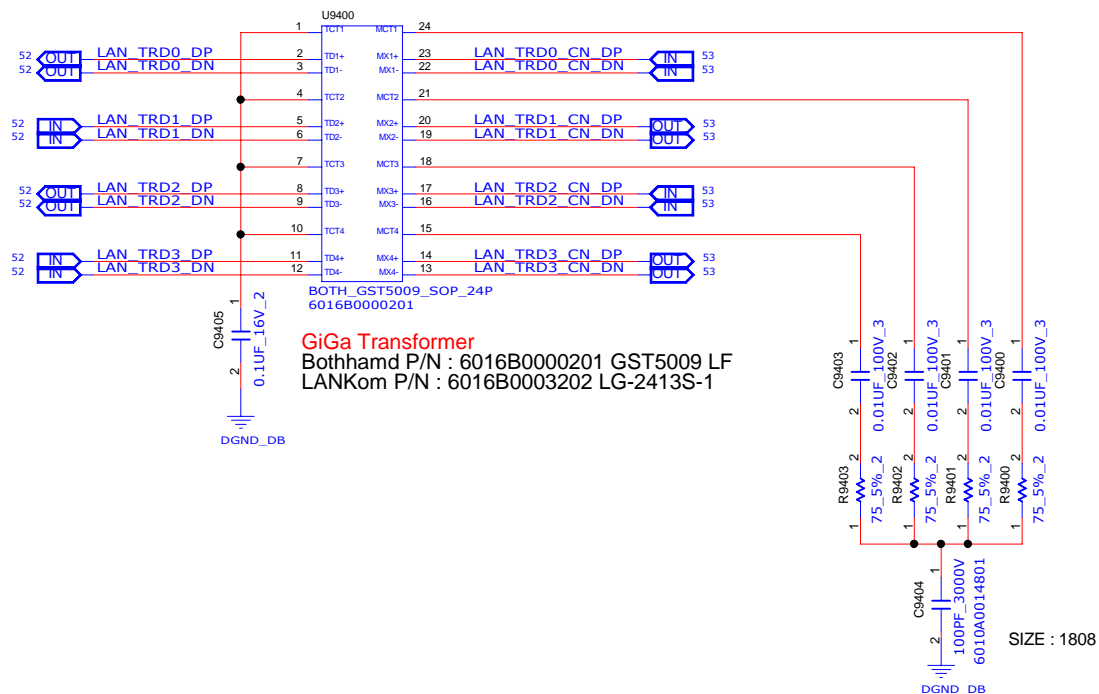
CHANGE by XXX DATE 21-OCT-2002

SHEET 52 of 70

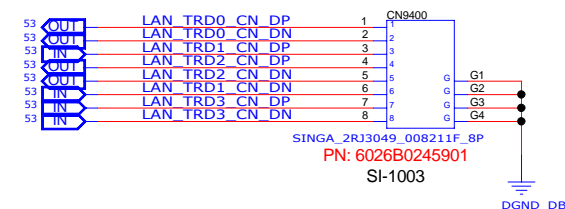
# LAN ( Transformer & RJ45 )

Location 9400 ~ 9499

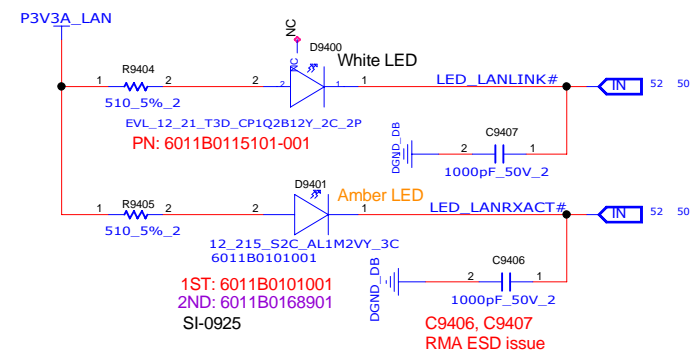
Ver.06\_20120813



## RJ-45



★Layout  
 D9400 White LED place on TOP side.  
 D9401 Amber LED place on Bottom side.



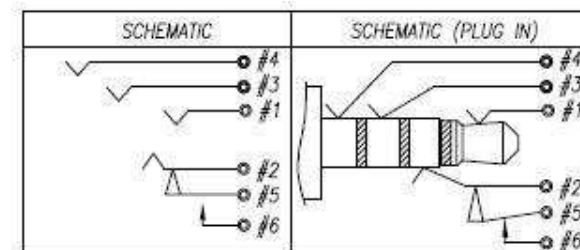
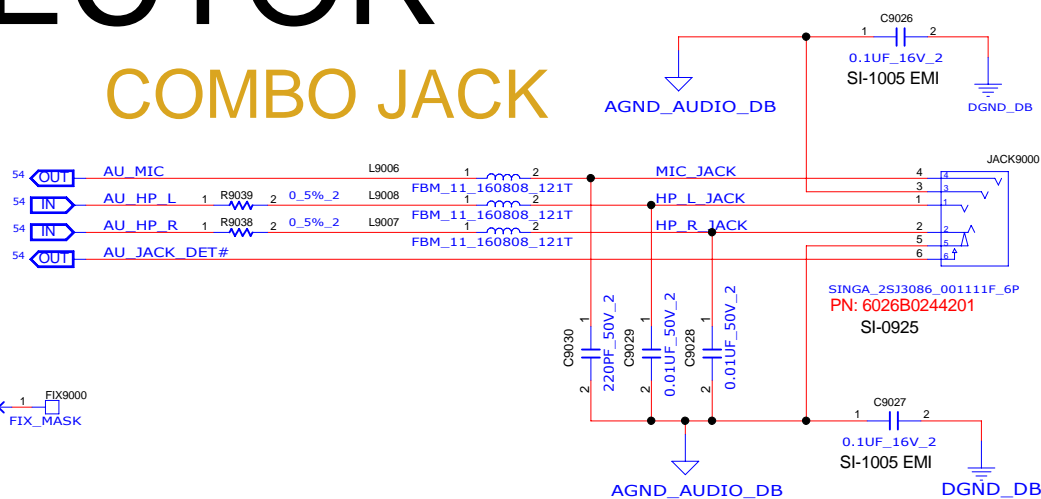
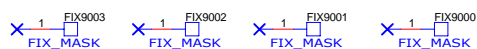
### INVENTEC

TITLE  
 MODEL,PROJECT,FUNCTION

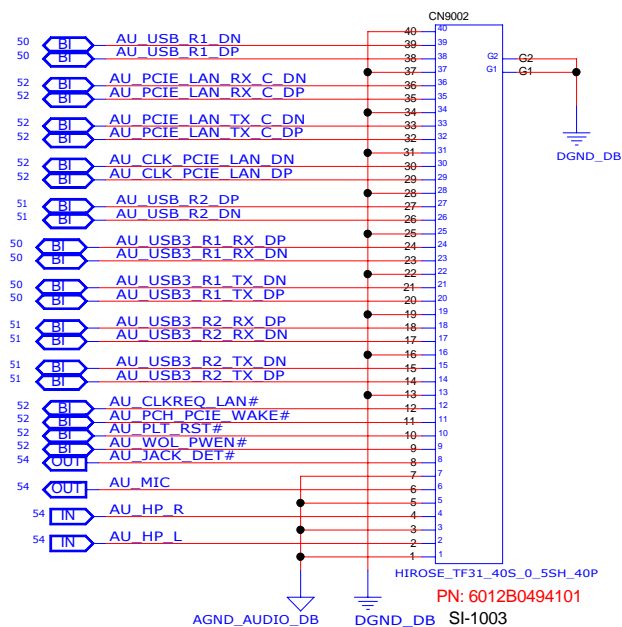
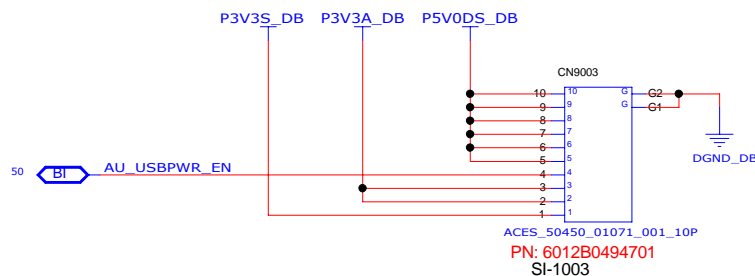
SIZE A3 CODE CS DOC NUMBER 1310xxxxx-0-0 REV A01

CHANGE by XXX DATE 21-OCT-2002 SHEET 53 of 70

# COMBO JACK



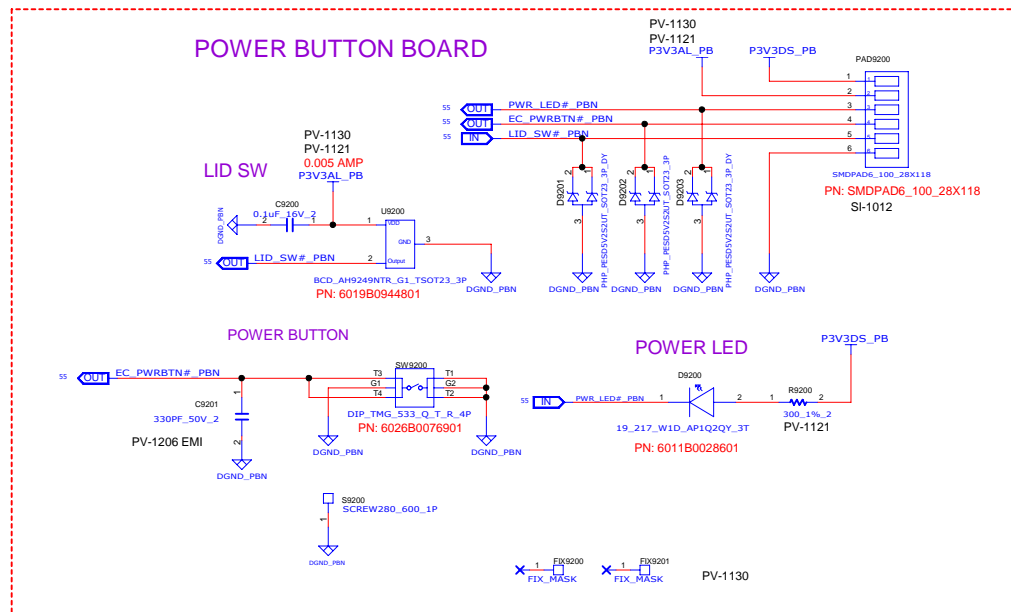
## MB TO AUB CONNECTOR



INVENTEC

TITLE		MODEL,PROJECT,FUNCTION		R A
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0		
SHEET		54 of 70		

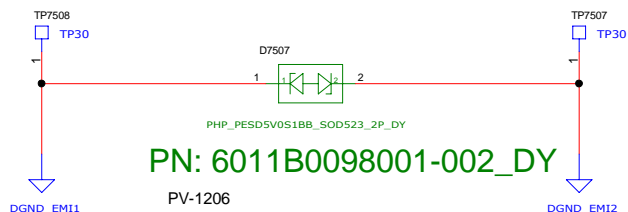
# POWER BUTTON BOARD



8 7 6 5 4 3 2 1

1310A2552101 (6L)  
1310A2552201 (8L)

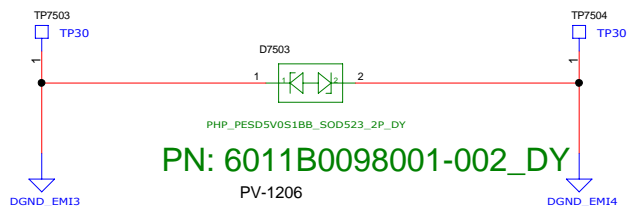
## ESD BOARD 1



USB BOARD (6L)	1310A2548501	6050A2548501
USB BOARD (8L)	1310A2548601	6050A2548601
POWER BOARD (6L)	1310A2548701	6050A2548701
POWER BOARD (8L)	1310A2548801	6050A2548801
EMI BOARD (6L)	1310A2552101 1310A2552102	6050A2552101
EMI BOARD (8L)	1310A2552201 1310A2552202	6050A2552201

1310A2552102 (6L)  
1310A2552202 (8L)

## ESD BOARD 2



CHIEF RIVER	DIS	NVIDIA N14P-GV2 (GEFORCE 630M)	4G	SAMSUNG K4W4G1646B-HC11	1310A2548301
CHIEF RIVER	DIS	NVIDIA N14P-GV2 (GEFORCE 630M)	2G	MICRON MT41K256M16HA-107G:E	1310A2548302
CHIEF RIVER	UMA	N/A	N/A	N/A	1310A2548201

## INVENTEC

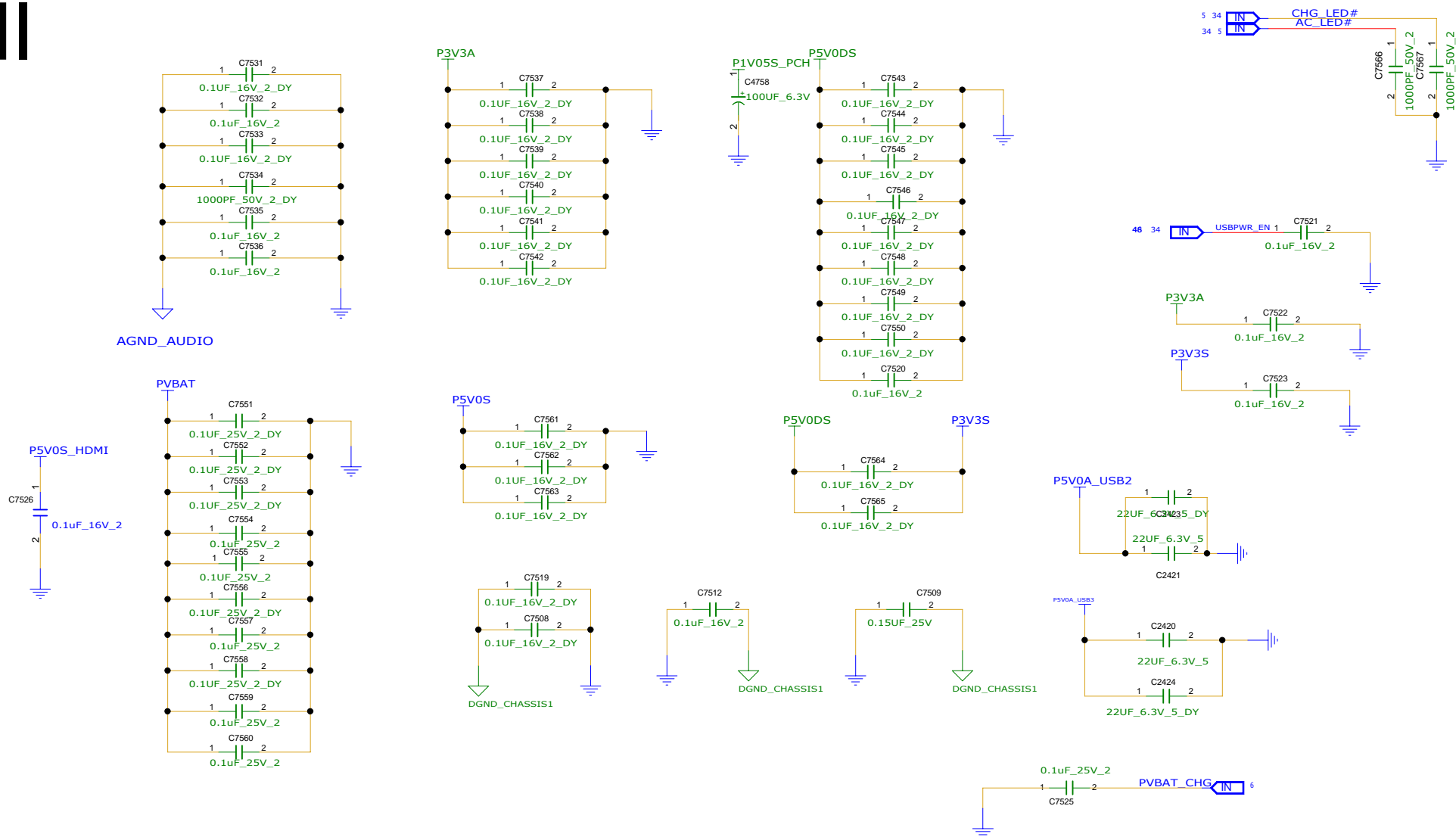
TITLE			
MODEL, PROJECT, FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV A01
SHEET 56 of 70			

CHANGE by XXX DATE 21-OCT-2002

8 7 6 5 4 3 2 1



## EMI



INVENTEC

TITLE  
MODEL, PROJECT, FUNCTION  
Block Diagram

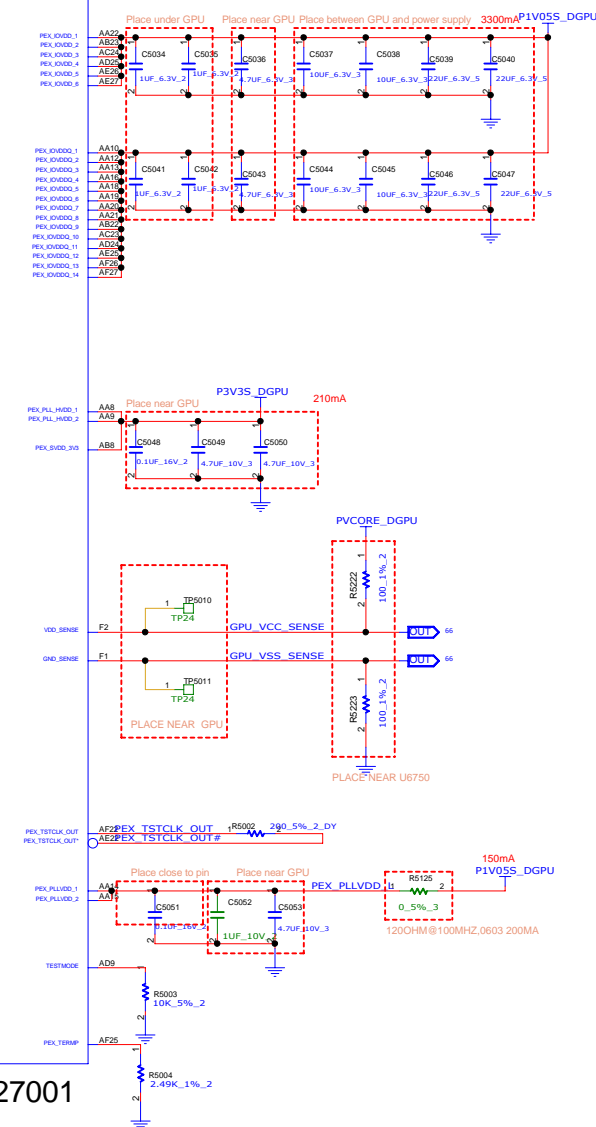
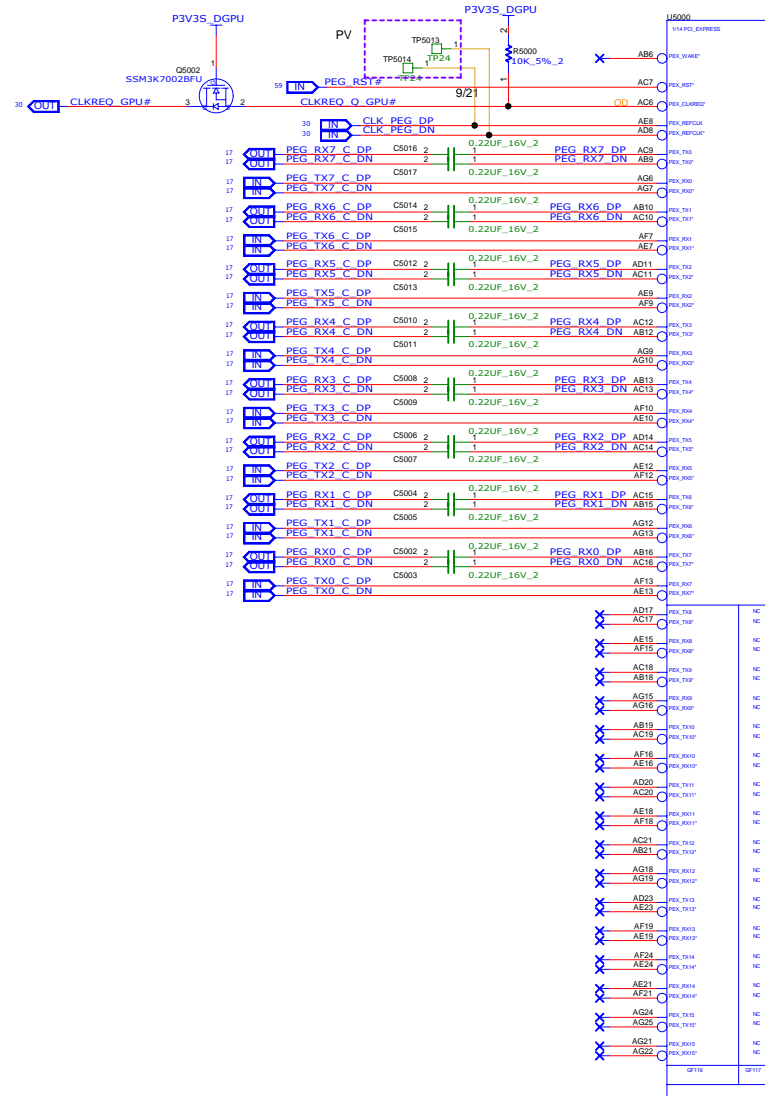
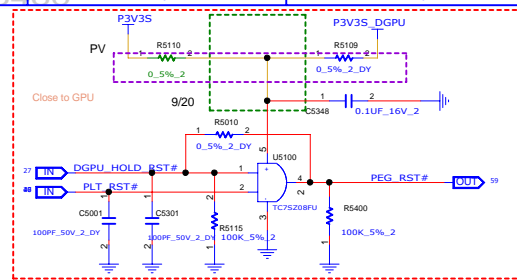
SIZE A3 CODE CS DOC NUMBER 1310xxxxx-0-0 REV A01

CHANGE by XXX DATE 21-OCT-2002

SHEET 57 of 70

8	7	6	5	4	3	2	1
<div>GPU</div> <div>Location:GPU 5000~5499 VRAM 5500~5799 GPU SWITCH 7400~7499</div> <div>VER.11_20120824</div> <div>N14P-GV2 GB2-64 25W DUAL RANK DDR3</div> <div><div>INVENTEC</div><div>TITLE</div><div>MODEL,PROJECT,FUNCTION</div><div>Block Diagram</div><div><div>SIZE</div><div>A3</div><div>CODE</div><div>CS</div><div>DOC.NUMBER</div><div>1310xxxxx-0-0</div><div>REV</div><div>A01</div></div><div>CHANGE by XXX</div><div>DATE 21-OCT-2002</div><div>SHEET 58 of 70</div></div>							
8	7	6	5	4	3	2	1

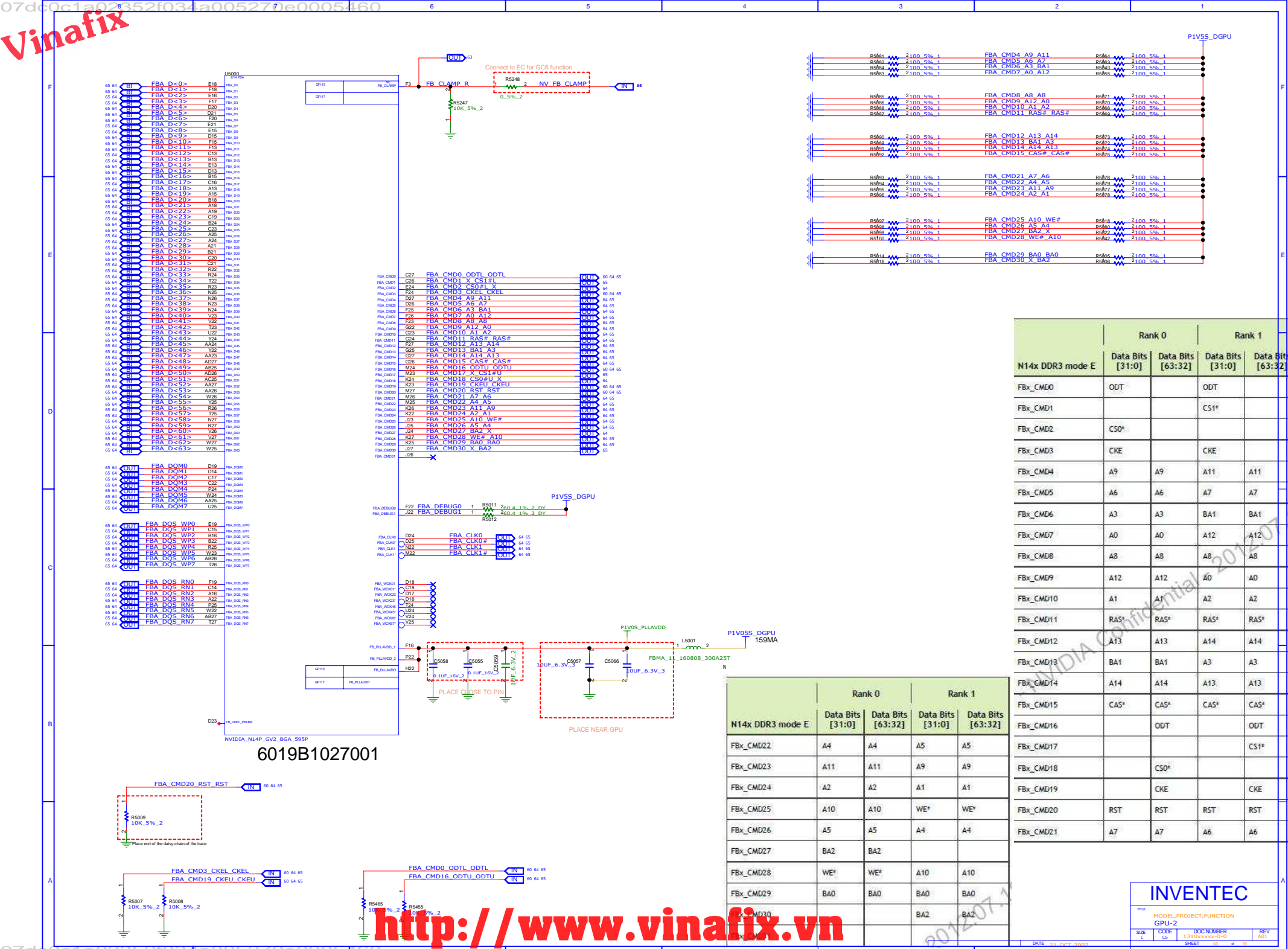
Vinafix



6019B1027001

<http://www.vinafix.vn>

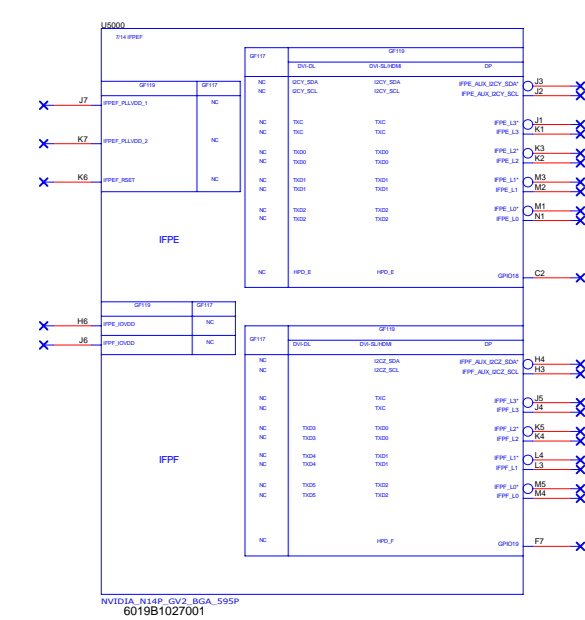
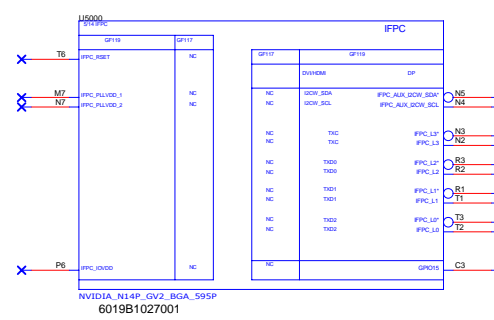
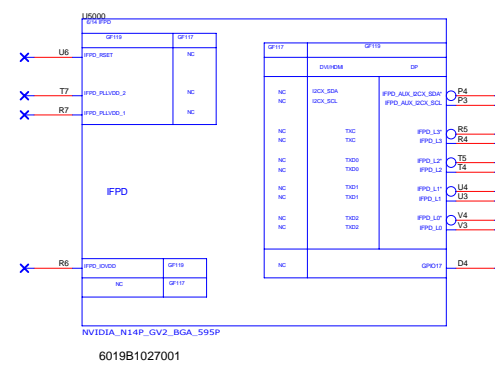
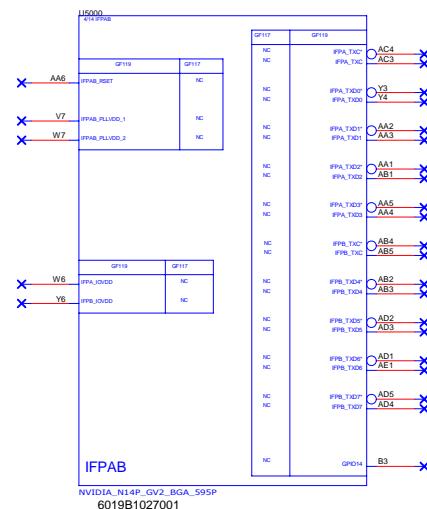
INVENTEC			
MODEL/PROJECT/FUNCTION			
GPU-1			
SIZE	CODE	DOC NUMBER	REV
C	IS	1310VXXXX-0-0	A01
SHEET 31 OF 31			

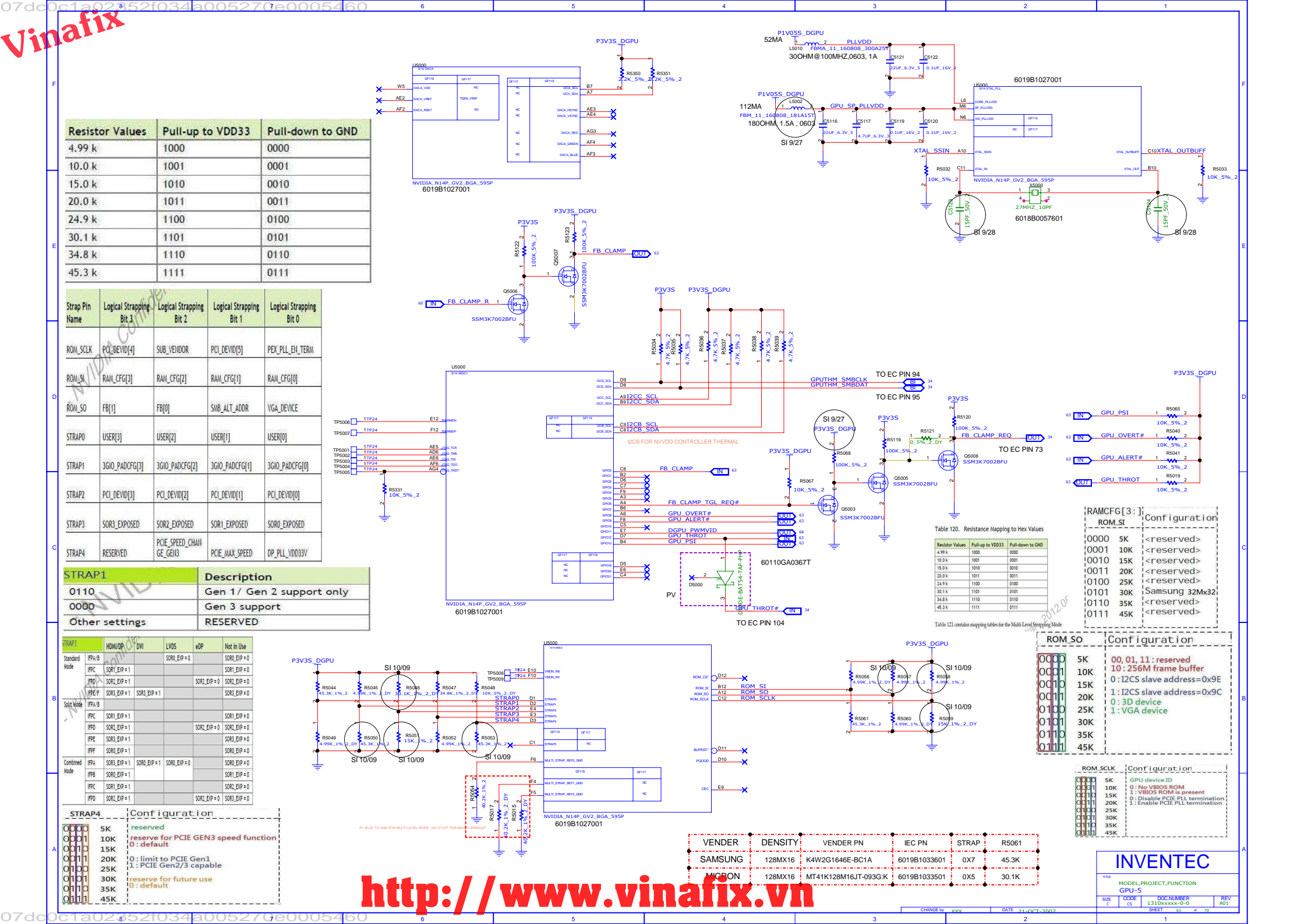


N14x DDR3 mode E	Rank 0		Rank 1	
	Data Bits [31:0]	Data Bits [63:32]	Data Bits [31:0]	Data Bits [63:32]
FBx_CMD0	ODT		ODT	
FBx_CMD1			CS1*	
FBx_CMD2	CS0*			
FBx_CMD3	CKE		CKE	
FBx_CMD4	A9	A9	A11	A11
FBx_CMD5	A6	A6	A7	A7
FBx_CMD6	A3	A3	BA1	BA1
FBx_CMD7	A0	A0	A12	A12
FBx_CMD8	A8	A8	A8	A8
FBx_CMD9	A12	A12	A0	A0
FBx_CMD10	A1	A1	A2	A2
FBx_CMD11	RAS*	RAS*	RAS*	RAS*
FBx_CMD12	A13	A13	A14	A14
FBx_CMD13	BA1	BA1	A3	A3
FBx_CMD14	A14	A14	A13	A13
FBx_CMD15	CAS*	CAS*	CAS*	CAS*
FBx_CMD16	ODT		ODT	
FBx_CMD17			CS1*	
FBx_CMD18	CS0*			
FBx_CMD19	CKE		CKE	
FBx_CMD20	RST	RST	RST	RST
FBx_CMD21	A7	A7	A6	A6

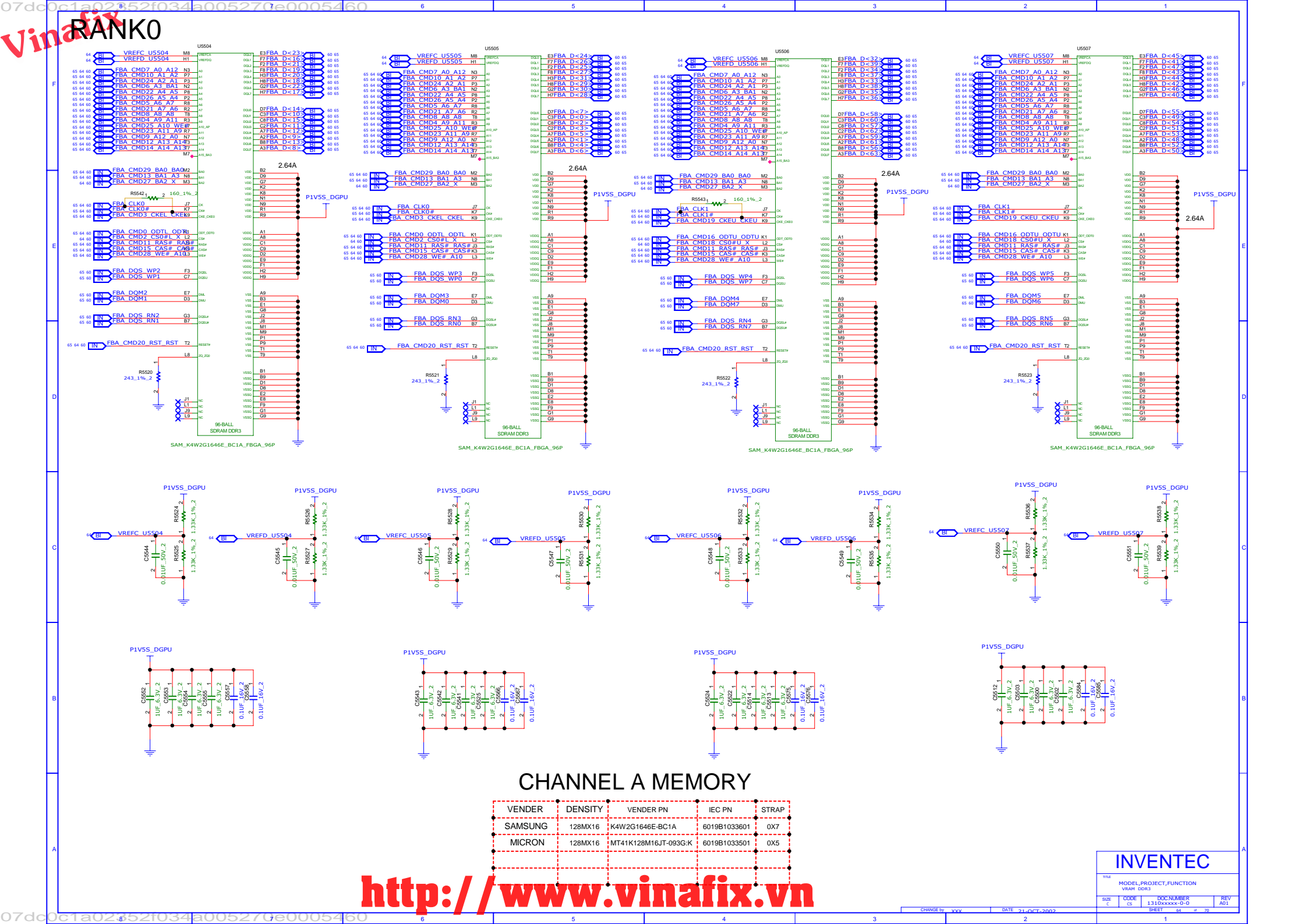
N14x DDR3 mode E	Rank 0		Rank 1	
	Data Bits [31:0]	Data Bits [63:32]	Data Bits [31:0]	Data Bits [63:32]
FBx_CMD22	A4	A4	A5	A5
FBx_CMD23	A11	A11	A9	A9
FBx_CMD24	A2	A2	A1	A1
FBx_CMD25	A10	A10	WE*	WE*
FBx_CMD26	A5	A5	A4	A4
FBx_CMD27	BA2	BA2		
FBx_CMD28	WE*	WE*	A10	A10
FBx_CMD29	BA0	BA0	BA0	BA0
FBx_CMD30			BA2	BA2











# CHANNEL A MEMORY

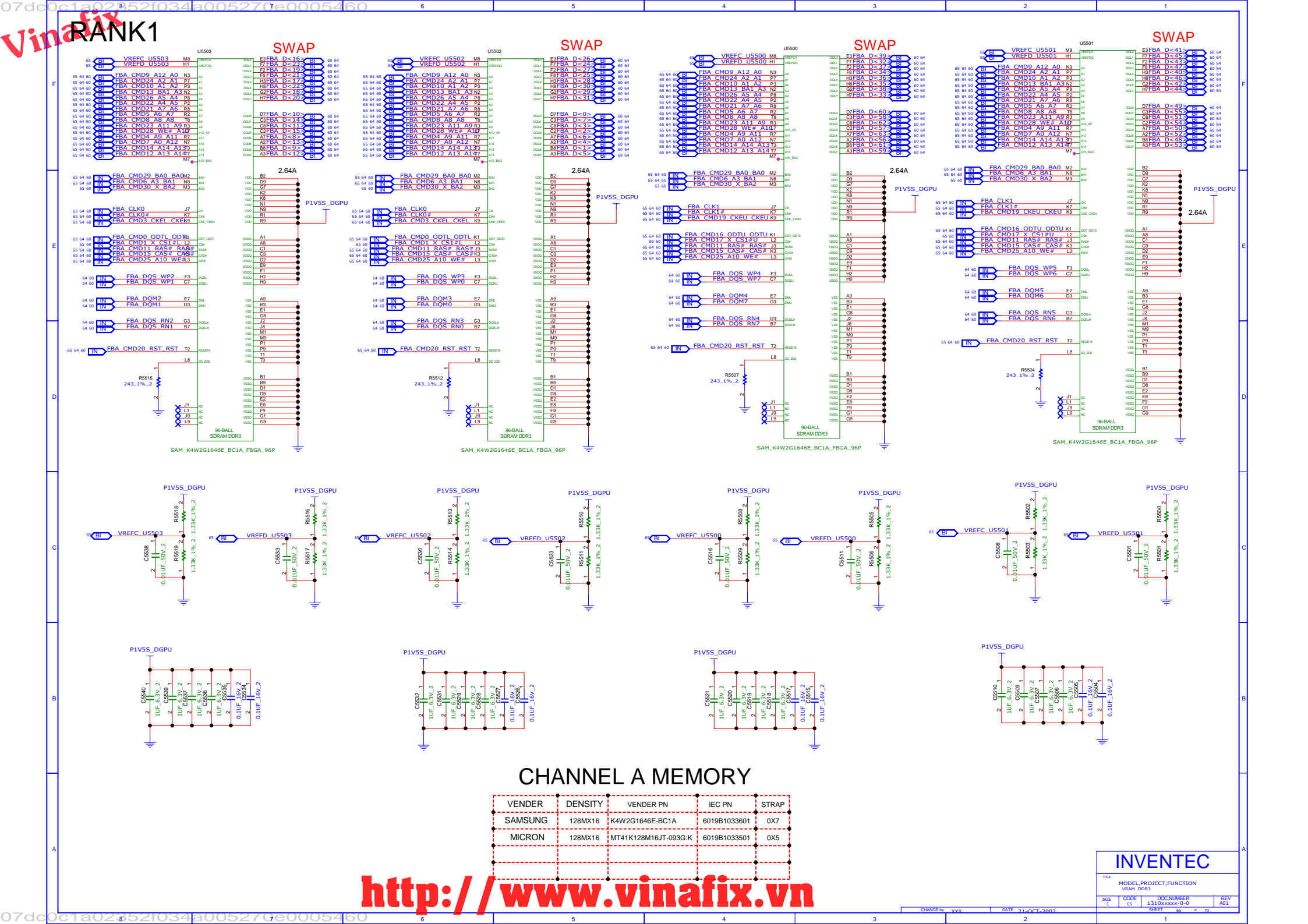
VENDER	DENSITY	VENDER PN	IEC PN	STRAP
SAMSUNG	128MX16	K4W2G1646E-BC1A	6019B1033601	0X7
MICRON	128MX16	MT41K128M16JT-093G-K	6019B1033501	0X5

<http://www.vinafix.vn>

INVENTEC

FILE	MODEL,PROJECT,FUNCTION	REV
SIZE	CODE	DOC NUMBER
1310XXXXX-0-0	1310XXXXX-0-0	1310XXXXX-0-0
SHEET	64	1





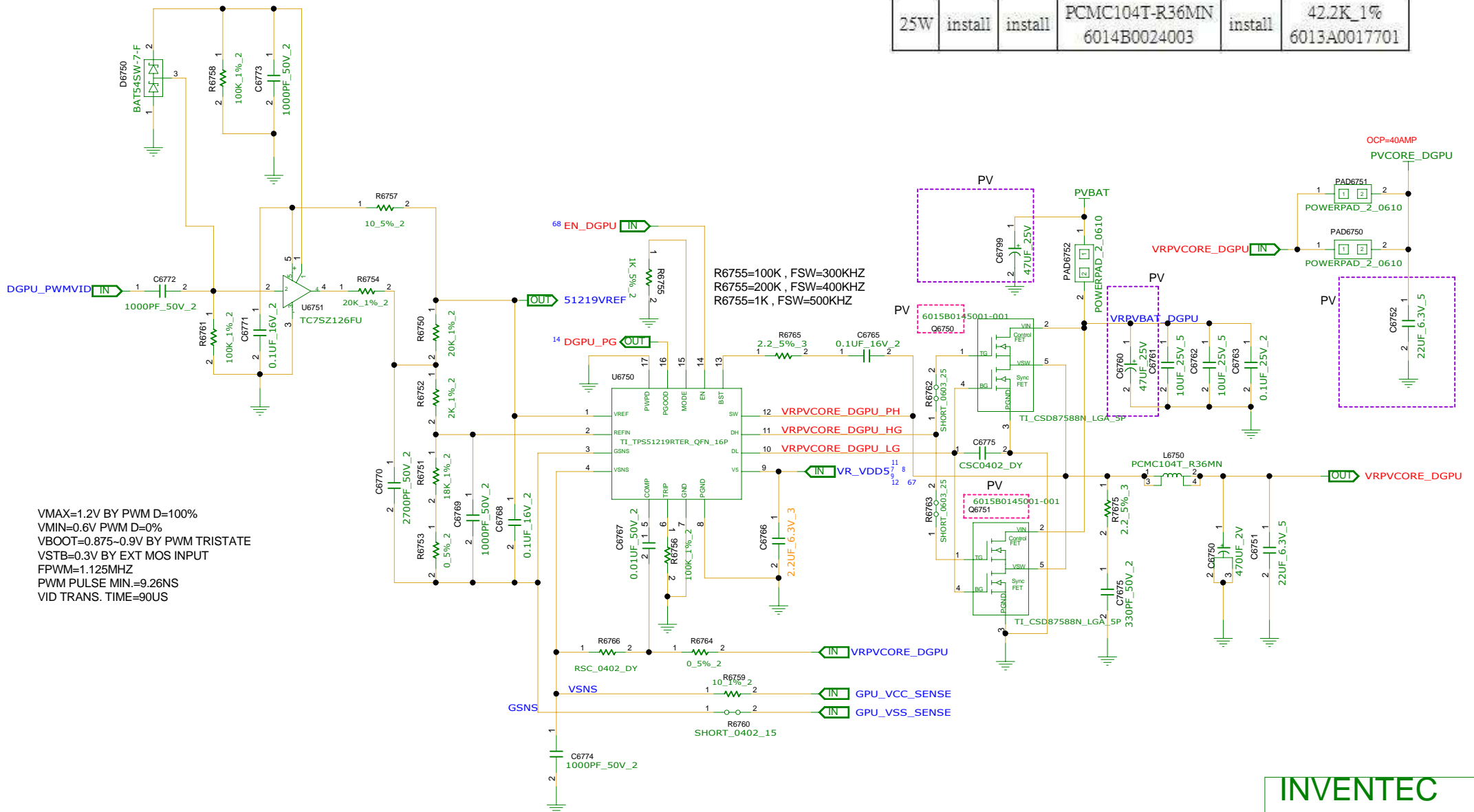
# CHANNEL A MEMORY

VENDER	DENSITY	VENDER PN	IEC PN	STRAP
SAMSUNG	128MX16	K4W2G1646E-BC1A	6019B1033601	0X7
MICRON	128MX16	MT41K128M16JT-093G-K	6019B1033501	0X5

INVENTEC			
TITLE MODEL,PROJECT,FUNCTION VRAM DOR3			
SIZE	CODE	DOC NUMBER	REV
E	1310XXXXX-0-0		A01
SHEET		65	6

http://www.vinafix.vn

	C6762	C6752	L6750	Q6751	R6756
17W	OPEN	OPEN	ETQP4LR36AFM 6014B0164501	OPEN	80.6K_1% 6013A0072901
25W	install	install	PCMC104T-R36MN 6014B0024003	install	42.2K_1% 6013A0017701



VMAX=1.2V BY PWM D=100%  
 VMIN=0.6V PWM D=0%  
 VBOOT=0.875~0.9V BY PWM TRISTATE  
 VSTB=0.3V BY EXT MOS INPUT  
 FPWM=1.125MHZ  
 PWM PULSE MIN.=9.26NS  
 VID TRANS. TIME=90US

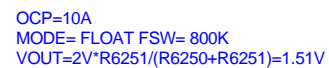
# INVENTEC

TITLE	MODEL PROJECT FUNCTION
1. <b>Project Overview</b>	1. <b>Project Overview</b>
2. <b>Project Objectives</b>	2. <b>Project Objectives</b>
3. <b>Project Scope</b>	3. <b>Project Scope</b>
4. <b>Project Organization</b>	4. <b>Project Organization</b>
5. <b>Project Schedule</b>	5. <b>Project Schedule</b>
6. <b>Project Budget</b>	6. <b>Project Budget</b>
7. <b>Project Risks</b>	7. <b>Project Risks</b>
8. <b>Project Communication</b>	8. <b>Project Communication</b>
9. <b>Project Monitoring and Control</b>	9. <b>Project Monitoring and Control</b>
10. <b>Project Closure</b>	10. <b>Project Closure</b>

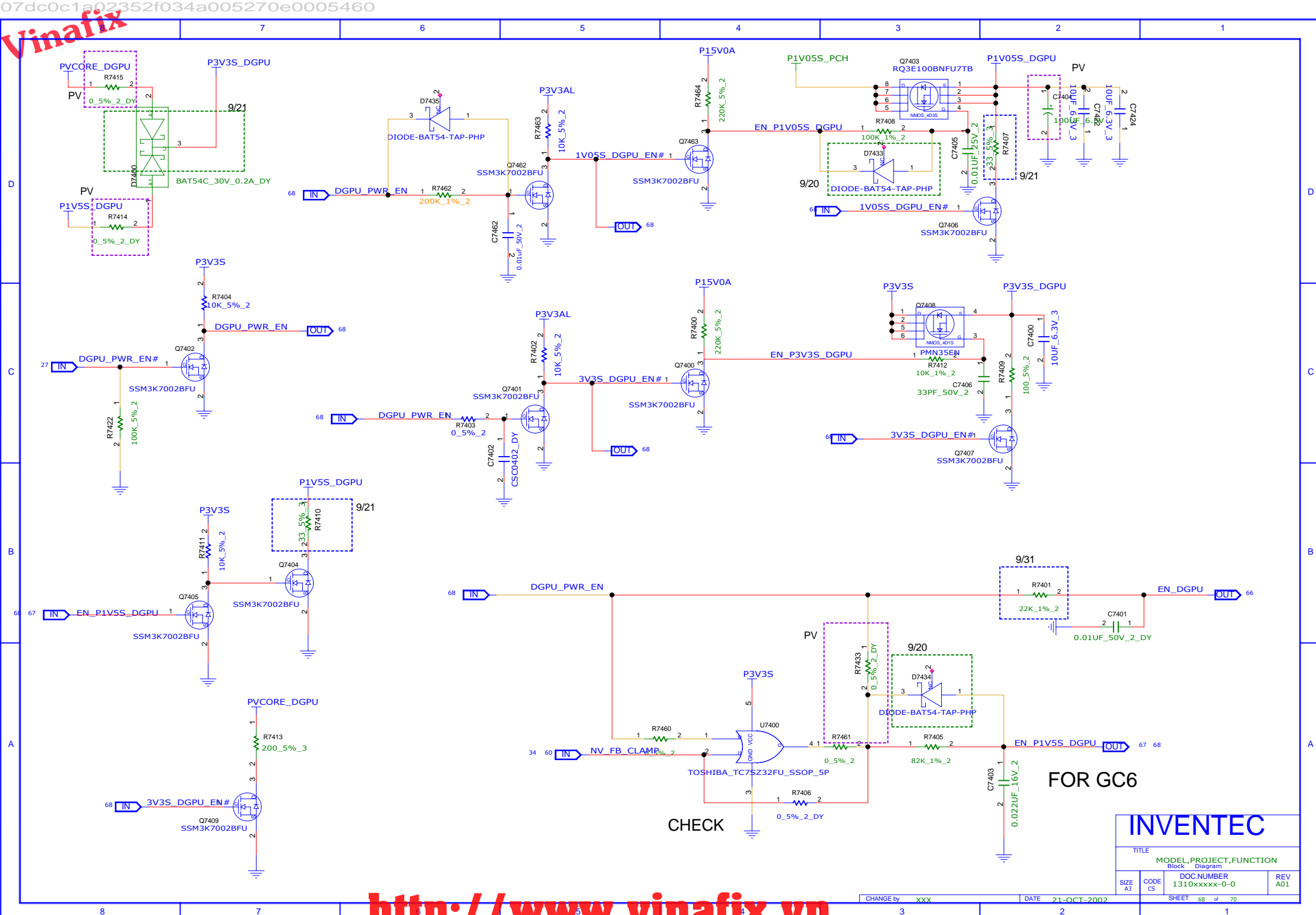
SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	REV A01
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SHEET 66 of 70

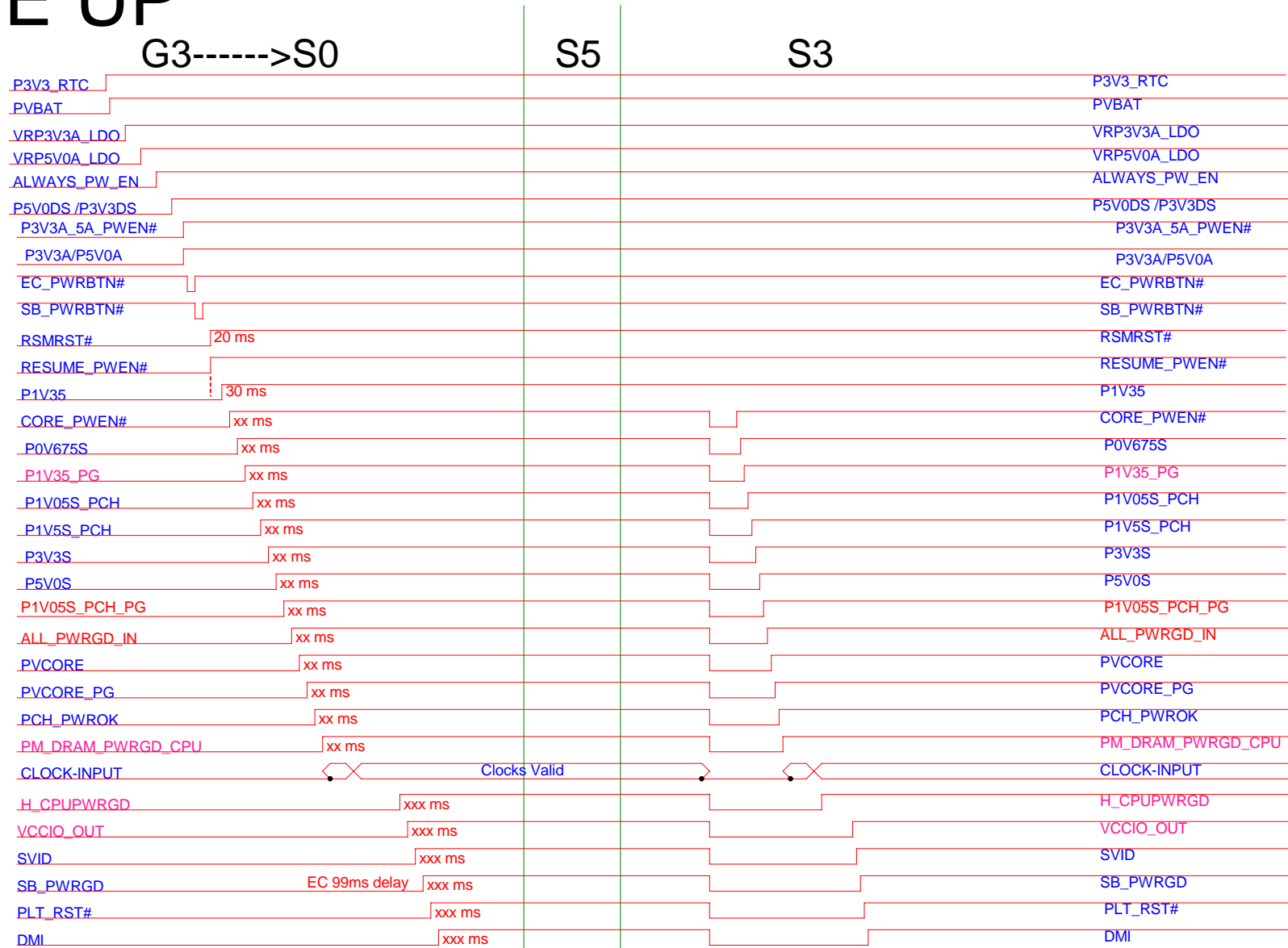
**http://www.vinafix.vn**



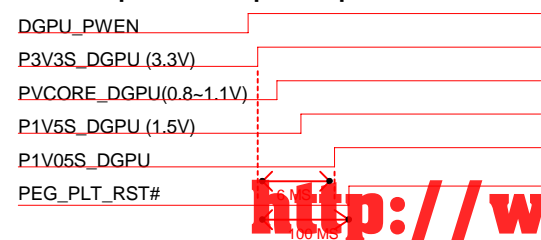
A3	CS	
SHEET 67 of 70		



# POWER UP



## NV N14P GB2-64 power up sequence

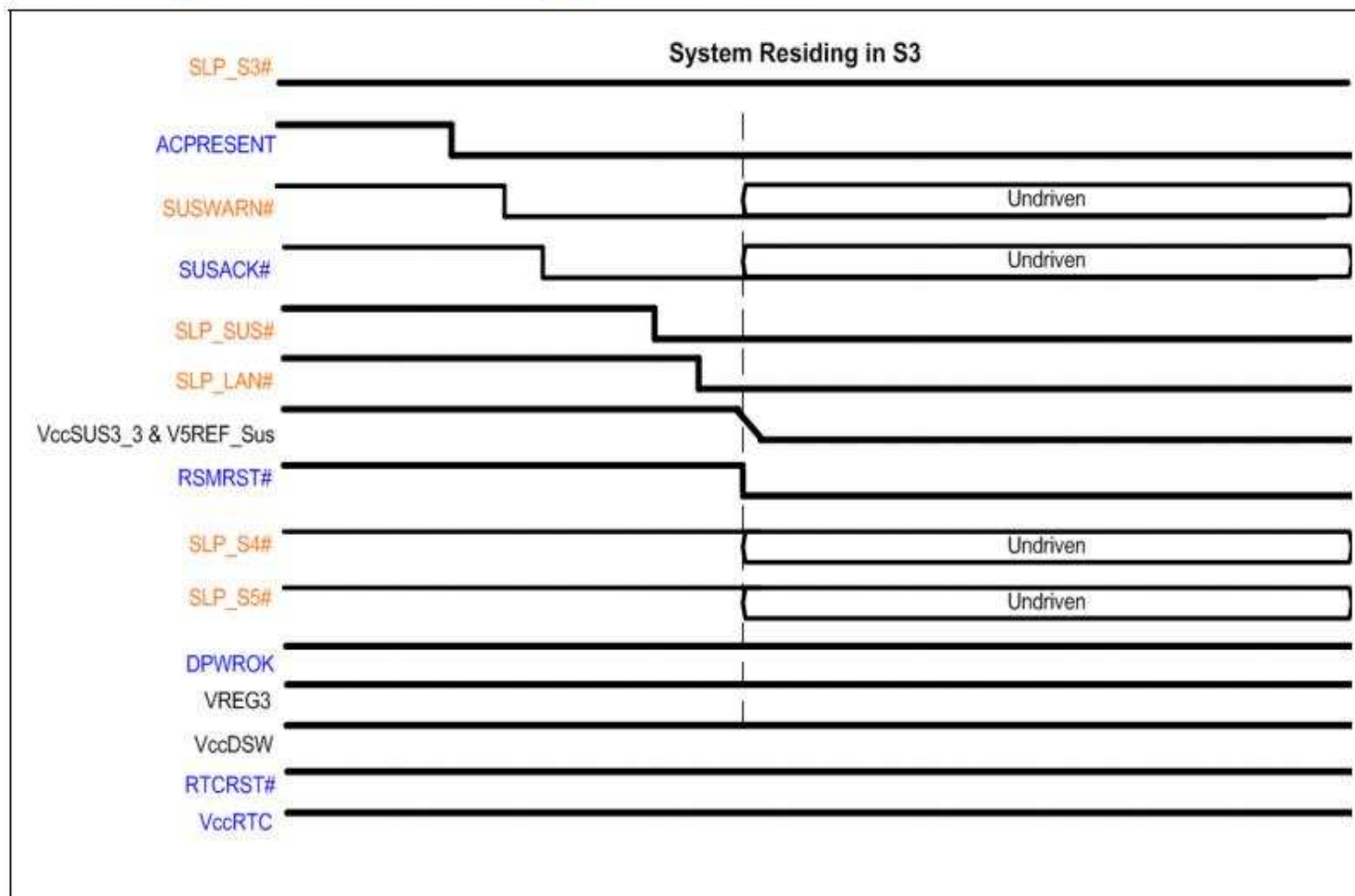


<http://www.vinafix.vn>

INVENTEC

Title			
MODEL, PROJECT, FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310xxxxx-0-0	A01
SHEET		69	of 70

## S3 to Deep S3 Transition on AC\_PRESENT Low



INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	A01
SHEET 70 of 70			