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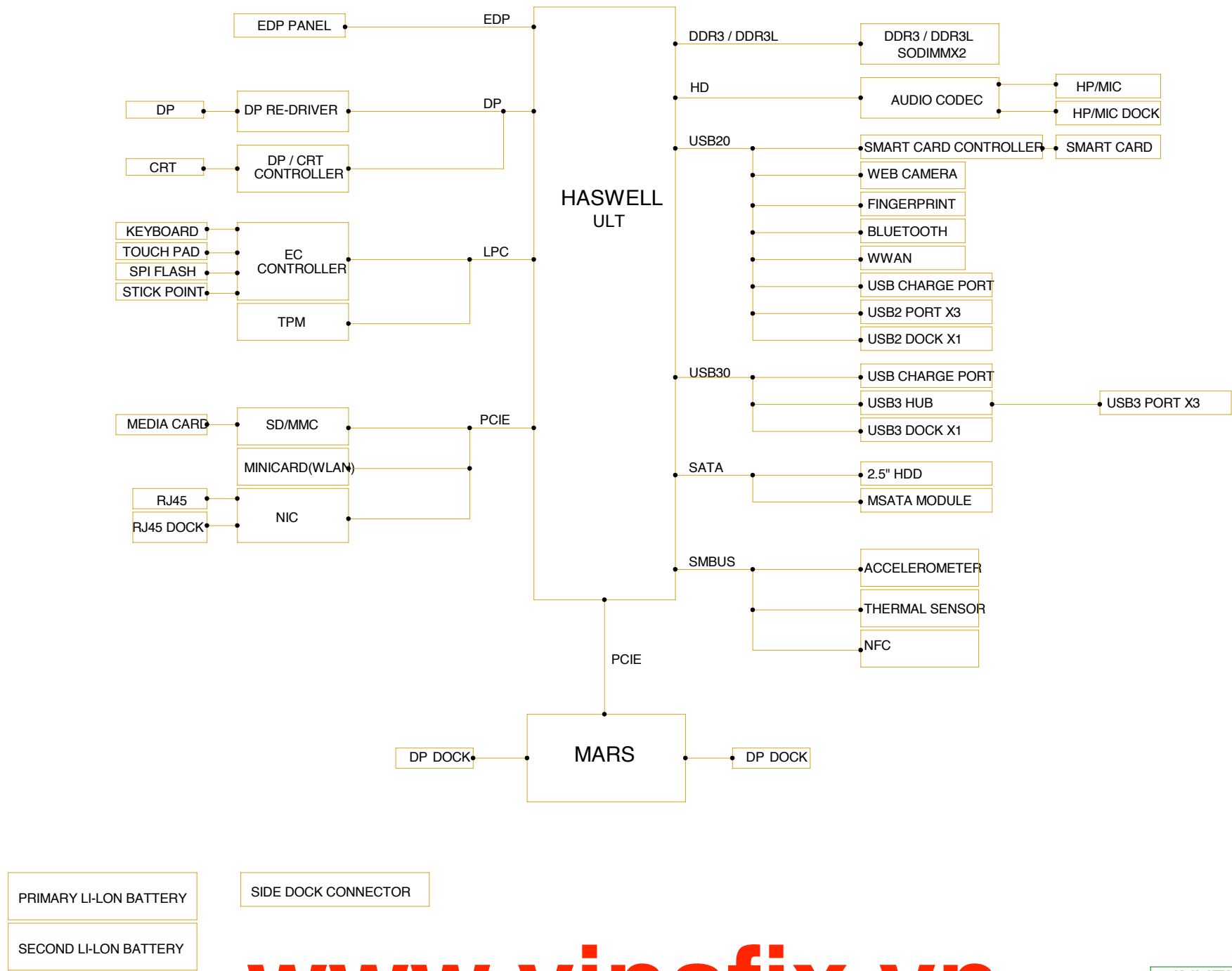
COMET DIS

SI1 BUILD

2012.11.30

DATE	CHANGE NO.	REV
21-OCT-2002		

EE	DATE	POWER	DATE	INVENTEC	
DRAWER	EEV CHEN	2012/10/24	EEV CHEN	2012/10/24	MODEL, PROJECT, FUNCTION COMET
DESIGN	EEV CHEN	2012/10/24	EEV CHEN	2012/10/24	
CHECK	EEV CHEN	2012/10/24	EEV CHEN	2012/10/24	
RESPONSIBLE	EEV CHEN	2012/10/24	EEV CHEN	2012/10/24	
SIZE	A4		VER	x01	
FILE NAME	COMET DIS		SIZE	C	CS
PN	apw1336101_XXXX		DOC NUMBER	E310XXXX-01-0	
			SHEET	of 07	
					REV Y01



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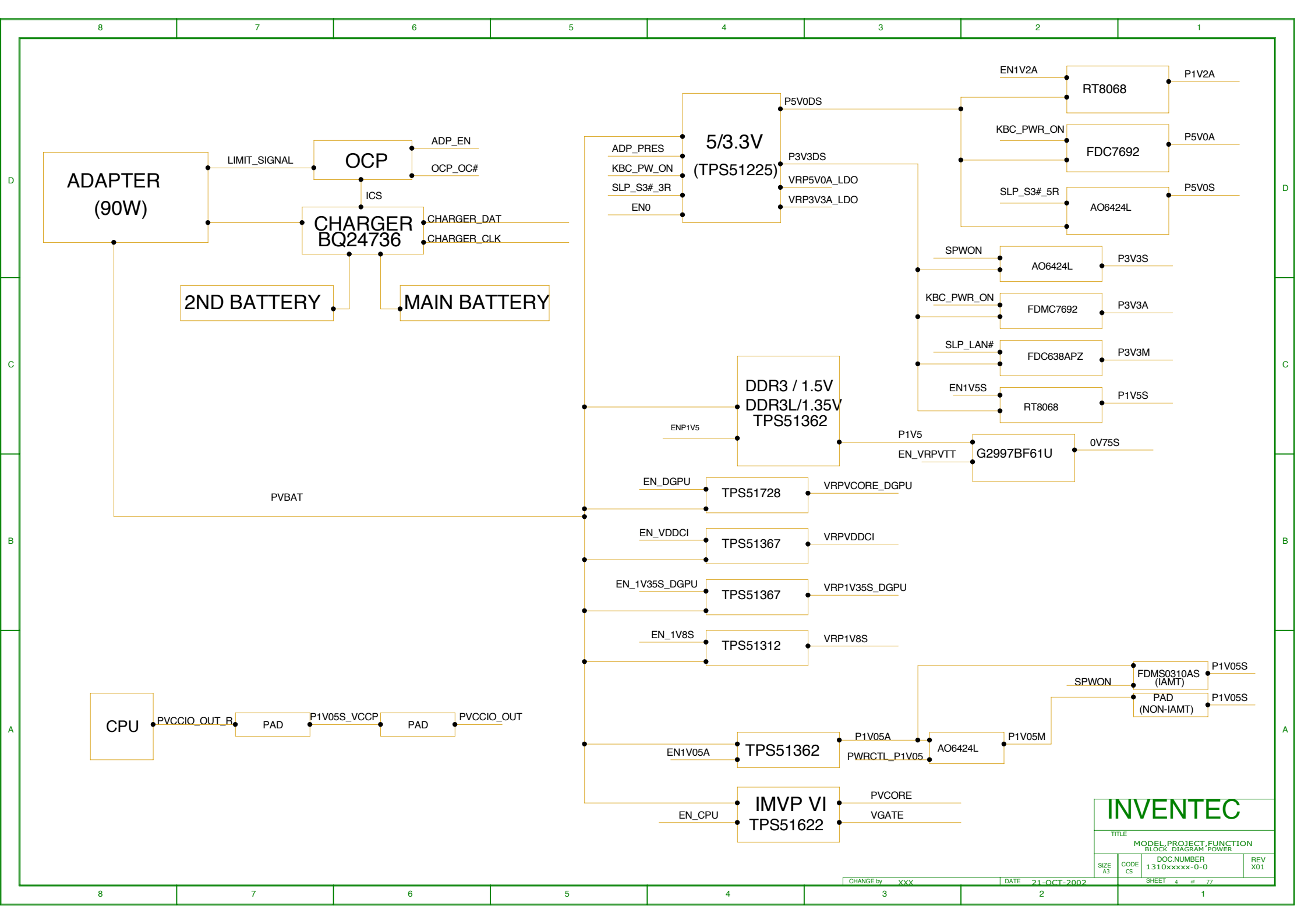
INVENTEC			
<small>MODEL, PROJECT, FUNCTION</small>			
<small>Block Diagram</small>			
<small>SIZE</small>	<small>CODE</small>	<small>DOC NUMBER</small>	<small>REV</small>
C	CS	131000000-01-D	201
<small>SHEET</small>		<small>of</small>	
1		17	

CHANGE BY: xxx DATE: 21-OCT-2012

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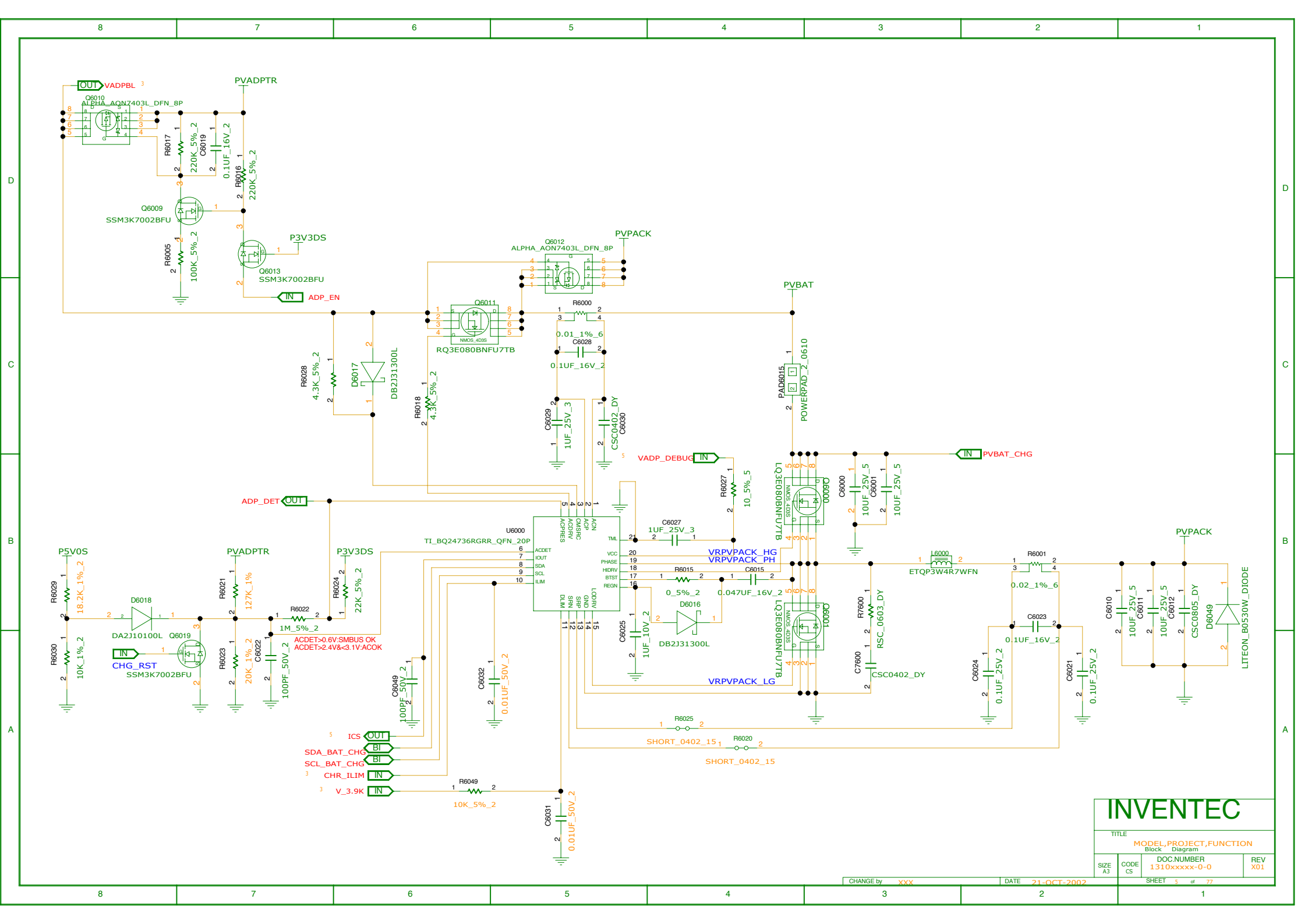
01.PROJECT NAME	26.XDP & ME CONN.	51.KBC, SPI
02.BLOCK DIAGRAM	27.HASWELL_1 (MISC,JTAG)	52.KEYBOARD
03.TABLE OF CONTENTS	28.HASWELL_2 (LPC,SPI,SMBUS,CLINK,PM)	53.TPM
04.POWER BLOCK DIAGRAM	29.HASWELL_3 (GPIO)	54.LAN
05.SYSTEM POWER(CHARGER)	30.HASWELL_4 (DP,EDP)	55.WLAN/BT SLOT
06.SYSTEM POWER(BATT SELECTOR)	31.HASWELL_5 (DDR)	56.WWAN SLOT, SIM SLOT
07.SYSTEM POWER(OCP)	32.HASWELL_6 (PCIE,USB)	57.DOCKING
08.SYSTEM POWER(P3V3A&P5V0A)	33.HASWELL_7 (RTC,AUDIO,SATA,JTAG)	58.B TO B CONN, POINT STICK CONN
09.P3V3A&P5V0A_CHG PORT	34.HASWELL_8 (CLK)	59.AUDIO CODEC
10.SYSTEM POWER(P1V5)	35.HASWELL_9 (POWER)	60.AUDIO JACK, MIC AMP.
11.SYSTEM POWER(P1V05_M)	36.HASWELL_10 (POWER)	61.CARD READER
12.SYSTEM POWER(P1V05S)	37.HASWELL_11 (GND)	62.BUTTON, LED
13.USB HUB POWER (P1V2A)	38.SYSTEM MEMORY (DIMM0)	63.SMART CARD DAUGHTER BOARD
14.SYSTEM POWER(PVCORE&PVAXG-1)	39.SYSTEM MEMORY (DIMM1)	64.CRT DB WTB CONN
15.SYSTEM POWER(PVCORE&PVAXG-2)	40.EMPTY	65.MIC DB
16.POWER SEQUENCE (SLEEP)	41.EMPTY	66.SCREW
17.DC JACK & BATTERT CONN.	42.DP TO VGA CONVERTER	67.EMPTY
18.HP_OCP	43.DISPLAY PORT	68.MARS-1
19.PVCORE_DGPU	44.LCM & WEBCAM CONN	69.MARS-2
20.PVDDCI	45.SATA HDD, MSATA	70.MARS-3
21.P1V35S_DGPU	46.USB HUB	71.MARS-4
22.P1V8S	47.USB3 PORTS	72.MARS-5
23.PVPCIE	48.USB & CRT DB	73.MARS-6
24.POWER (SEQUENCE)	49.FINGERPRINT READER, NFC	74.MARS-7
25.FAN & THERMAL	50.ACCELEMETER	75.MARS-8
		76.VRAM-1
		77.VRAM-2

INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
TABLE OF CONTENTS			
SIZE	CODE	DOC.NUMBER	REV
A3	CS	1310xxxxx-0-0	X01

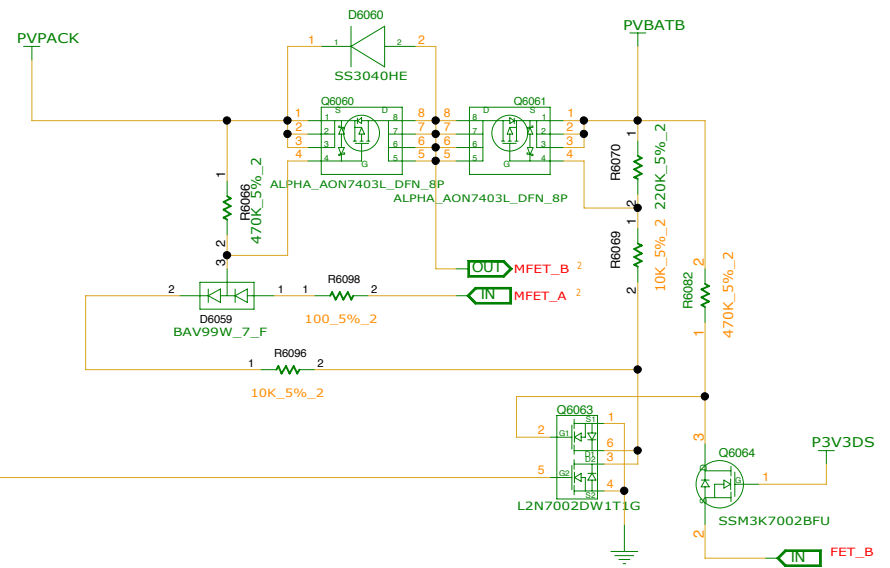
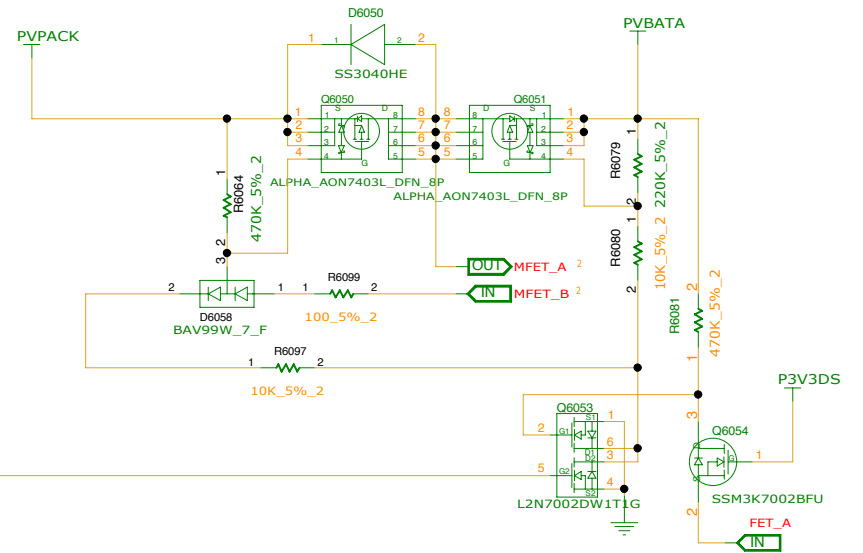
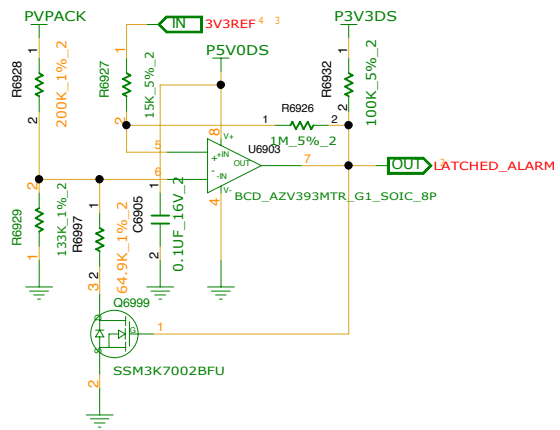


INVENTEC

TITLE			
MODEL PROJECT FUNCTION			
BLOCK DIAGRAM POWER			
DOC NUMBER		REV	
1310xxxxx-0-0		X01	
SIZE	CODE	SHEET	
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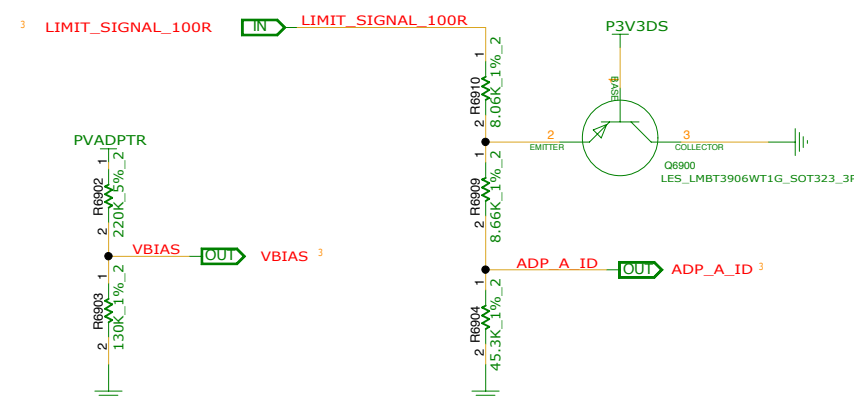
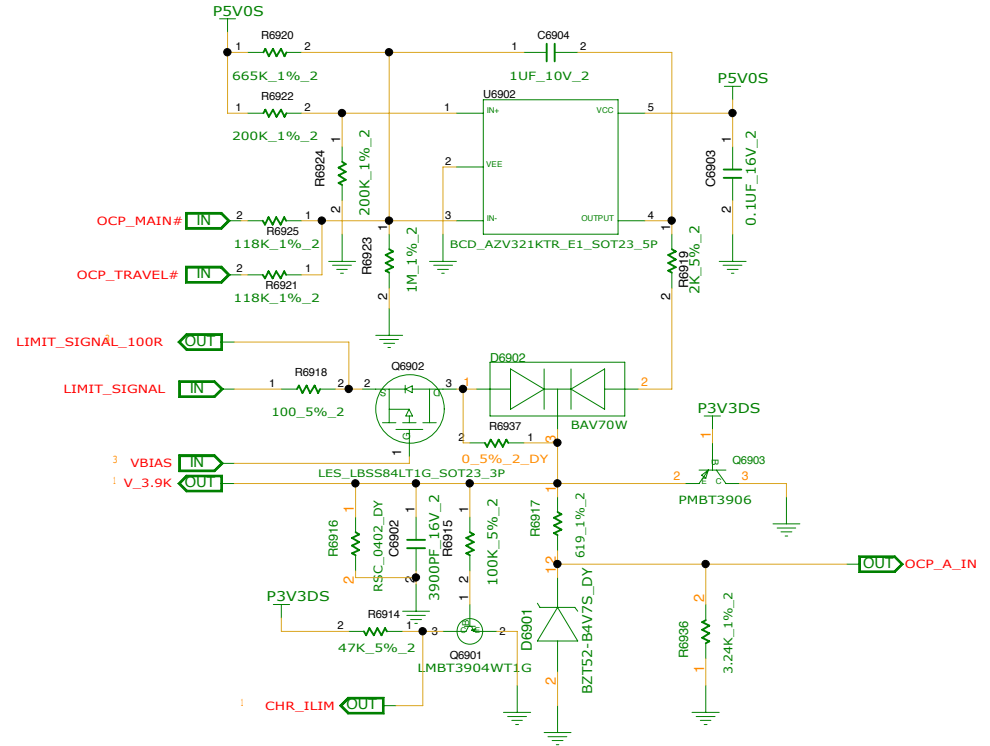
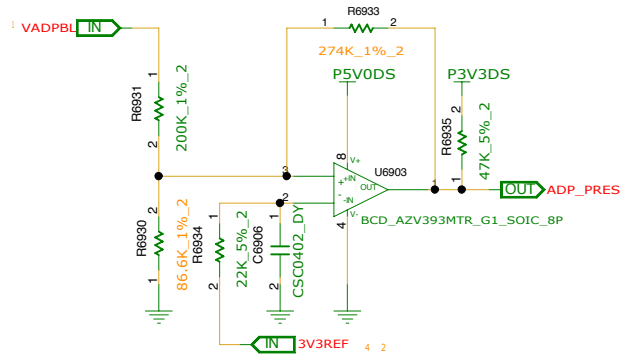


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TITLE MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3		CODE CS	
DOC NUMBER 1310xxxxx-0-0		REV X01	
DATE 21-OCT-2002			
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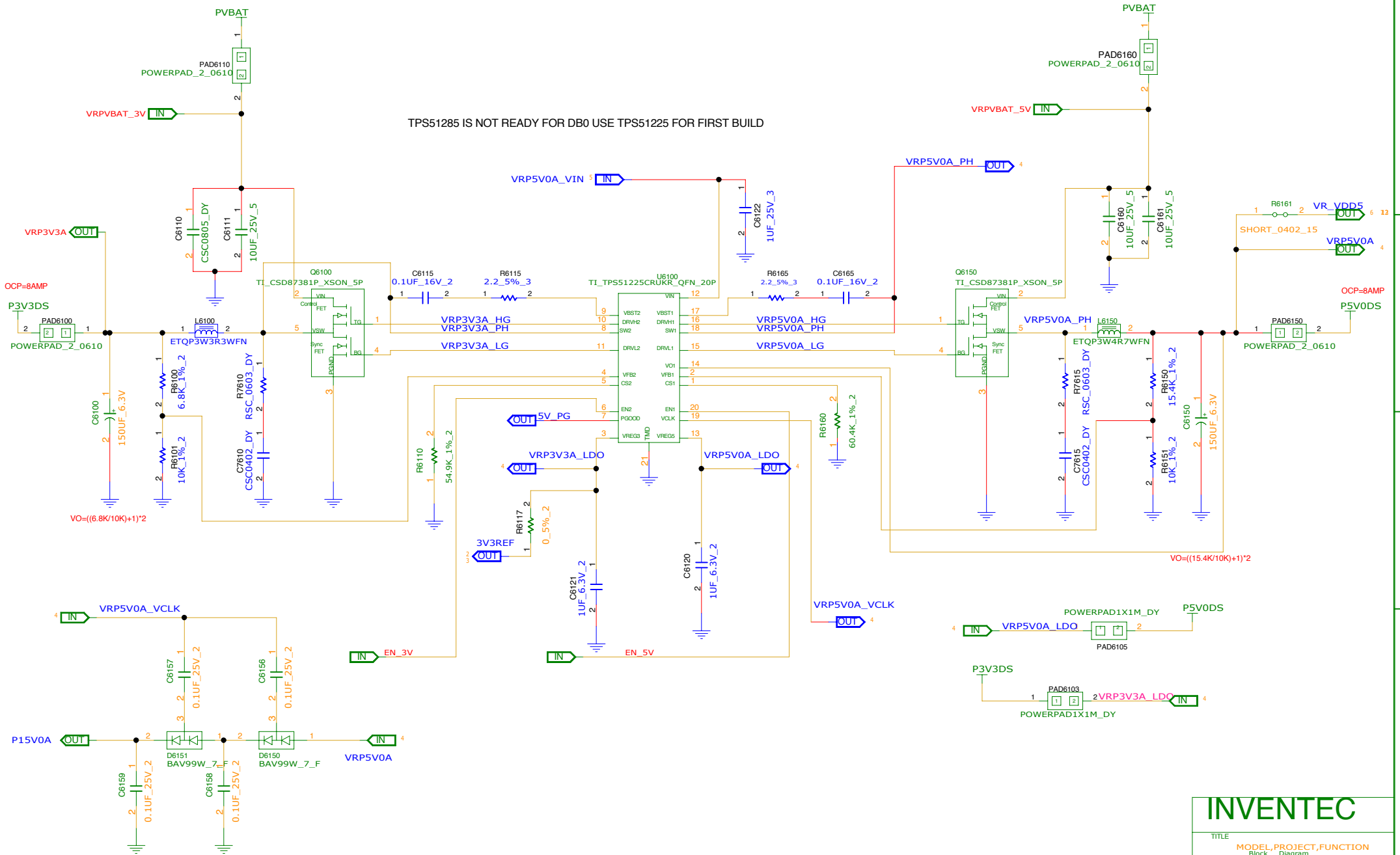
LATCHED_ALARM OUT

INVENTEC			
TITLE Block Diagram			
MODEL,PROJECT,FUNCTION			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 6 of 77



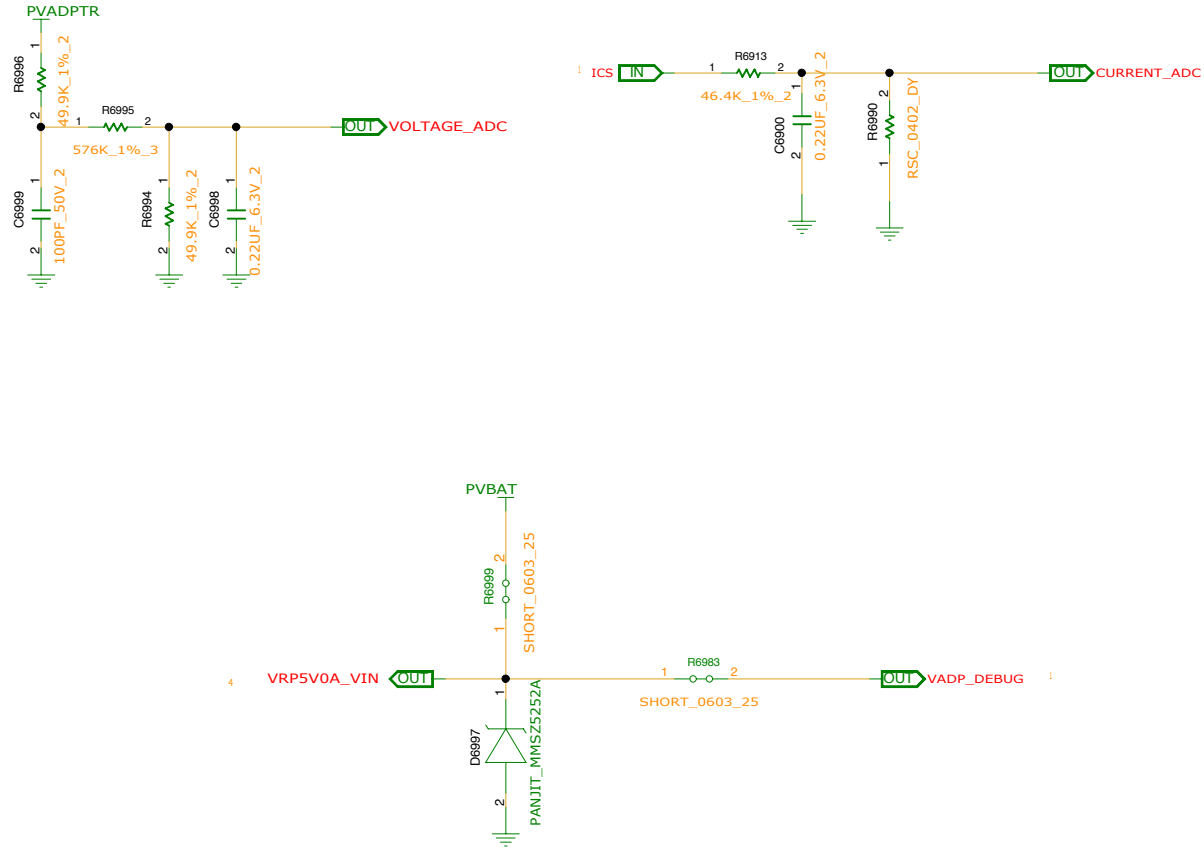
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MODEL,PROJECT,FUNCTION		DOC NUMBER	
1310xxxxx-0-0		REV	
SIZE A3	CODE CS	1310xxxxx-0-0	X01
CHANGE by XXX		DATE 21-OCT-2002	
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TPS51285 IS NOT READY FOR DB0 USE TPS51225 FOR FIRST BUILD



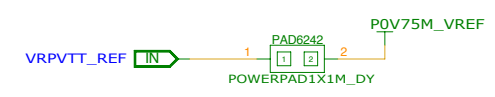
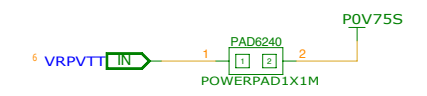
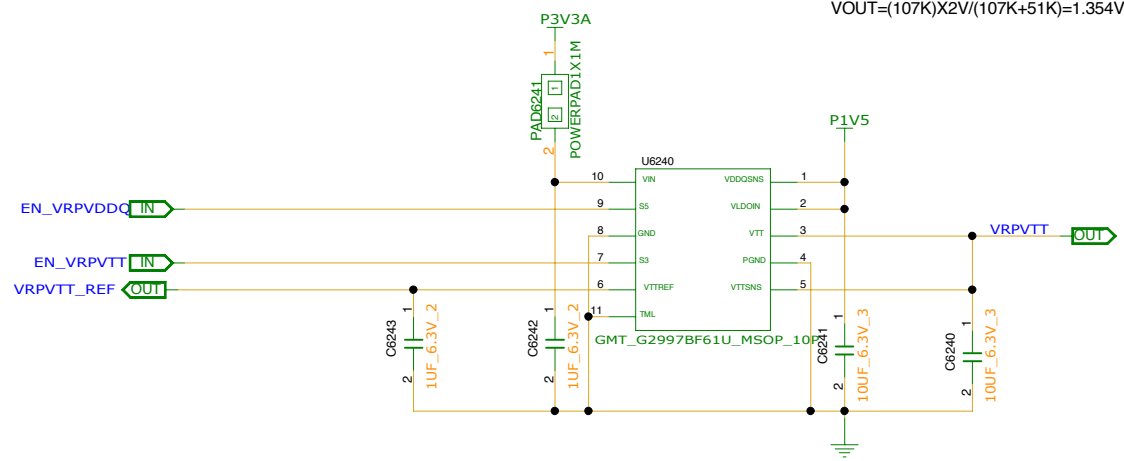
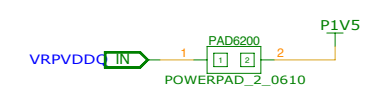
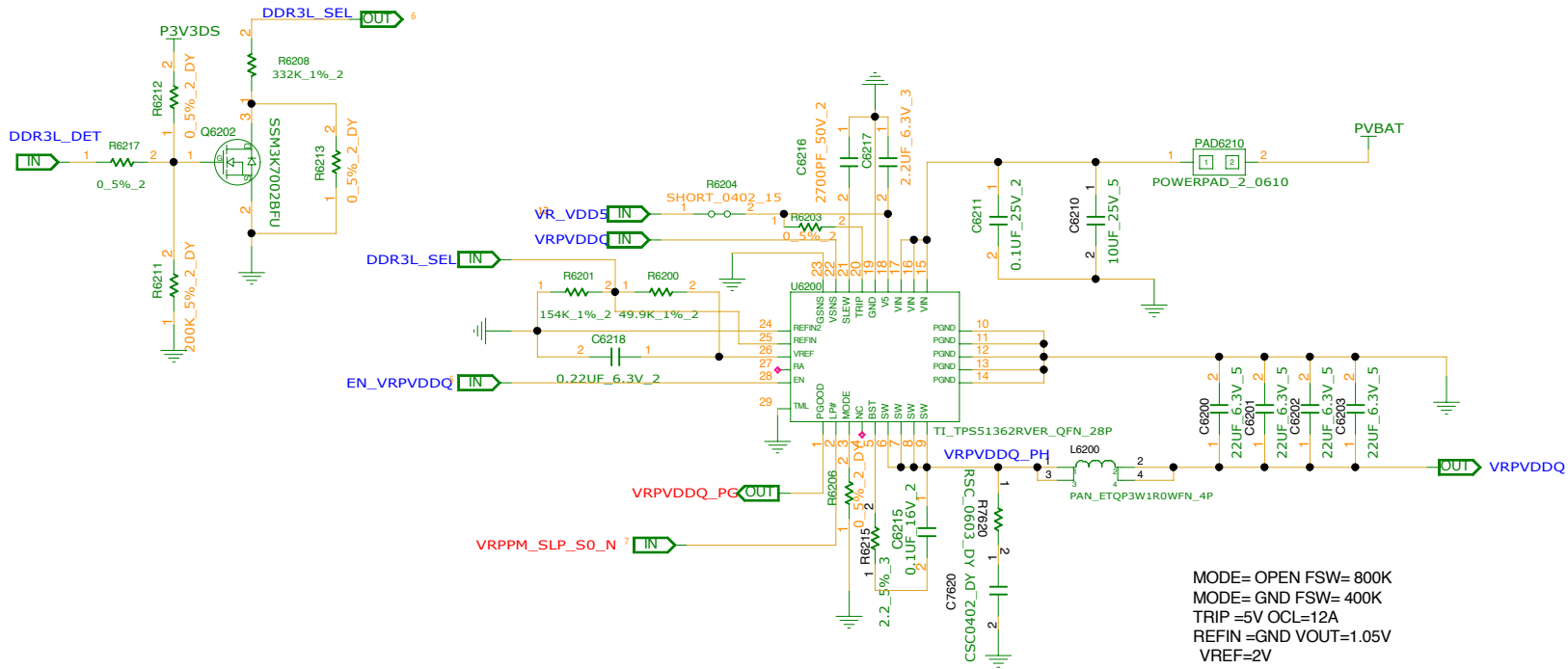
INVENTEC

TITLE			
MODEL, PROJECT, FUNCTION			
Block Diagram			
SIZE	CODE	DWG NUMBER	REV
A3	CS	1310xxxxx-0-0	X01
CHANGE by XXX			DATE 21-OCT-2002
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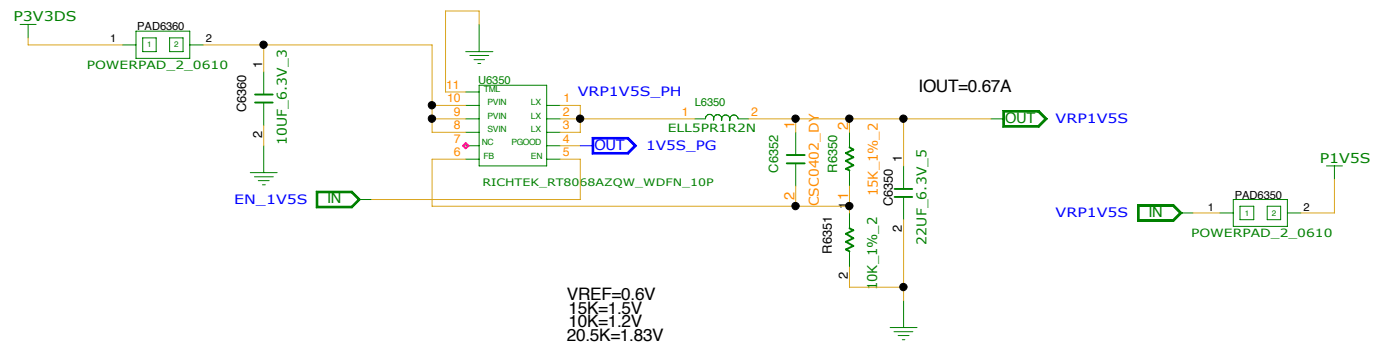


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SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01

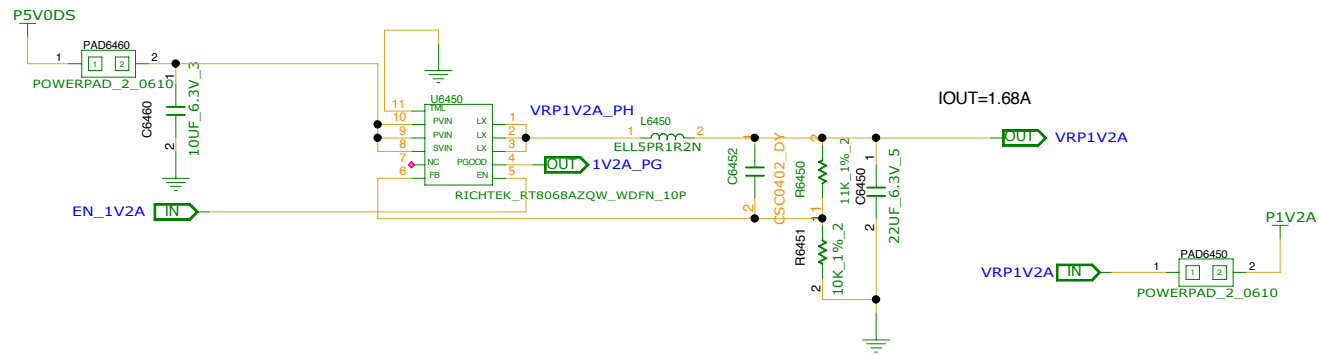


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TITLE MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
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INVENTEC

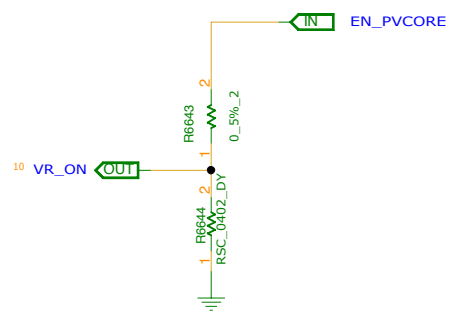
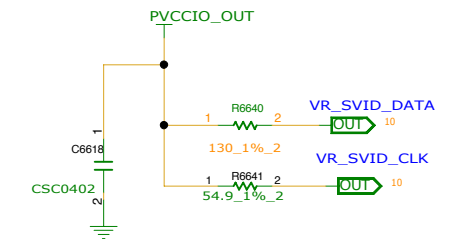
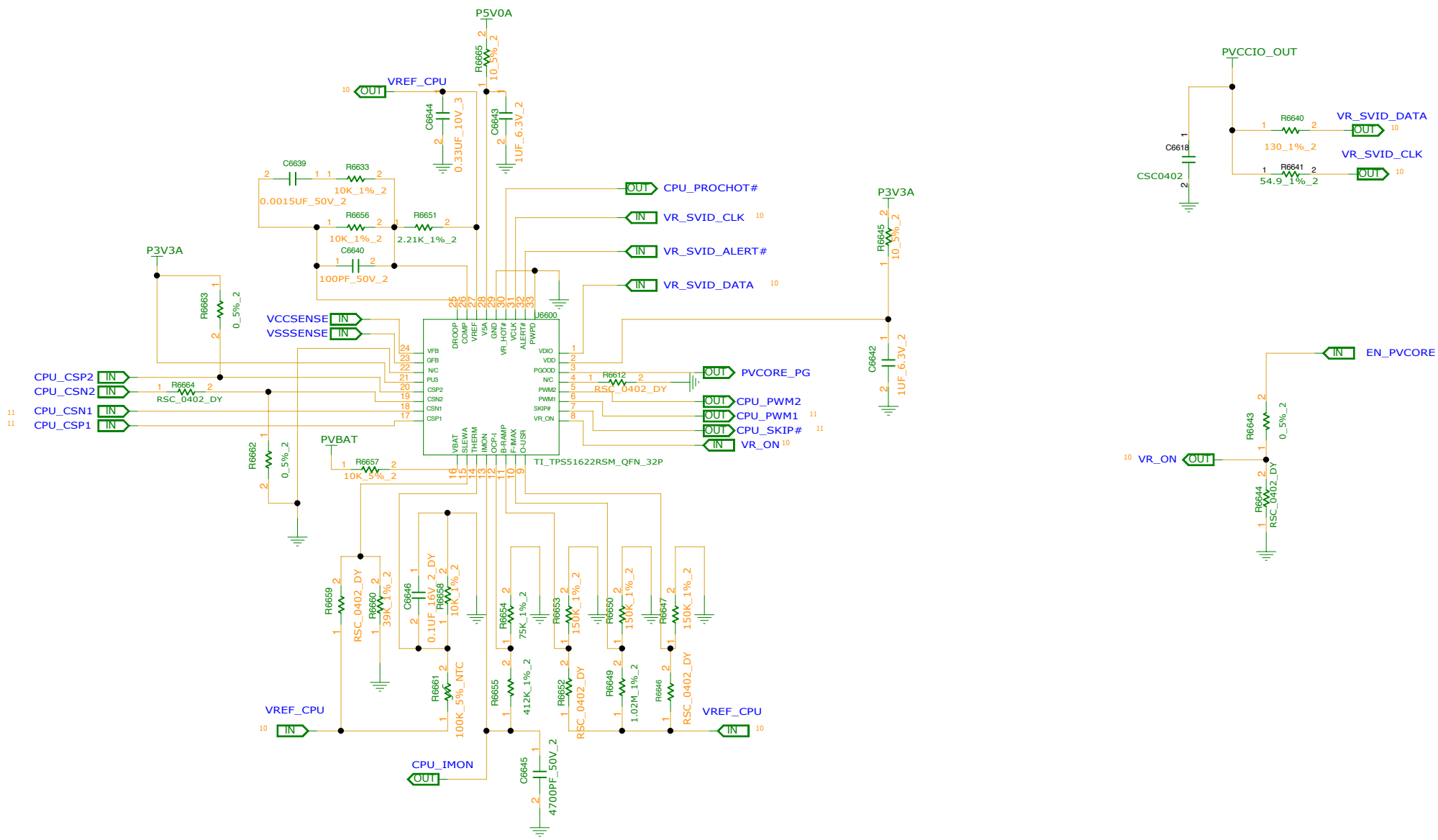
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MODEL,PROJECT,FUNCTION Block Diagram		
SIZE A3	CODE CS	DCC NUMBER 1310xxxxx-0-0
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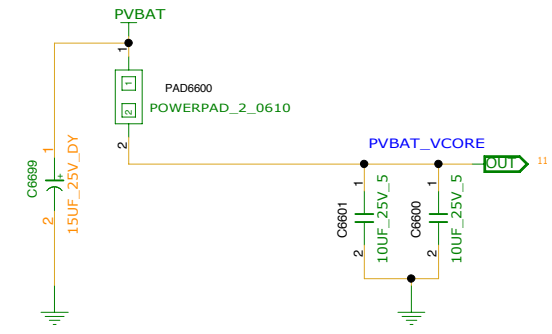
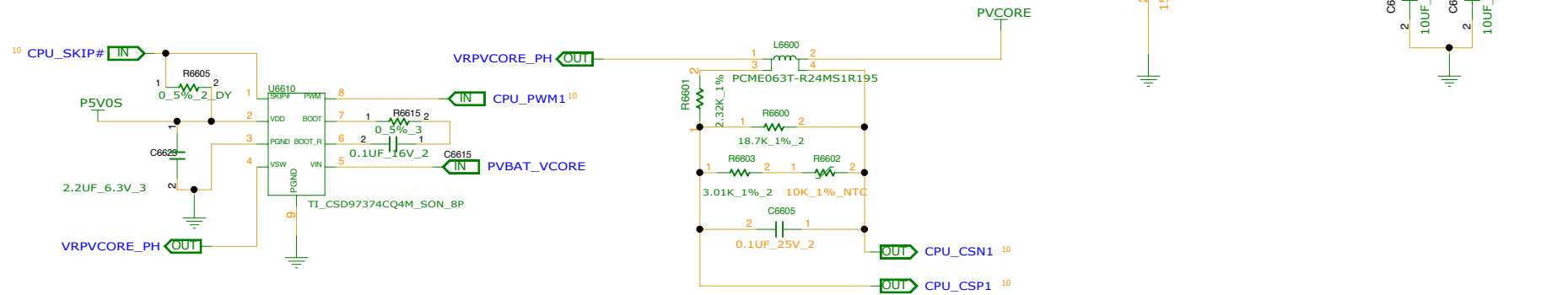
VREF=0.6V
 15K=1.5V
 10K=1.2V
 11K=1.25V
 20.5K=1.83V
 MODE=FLOAT=SKIP MODE
 MODE=VIN=FCCM MODE

IOUT=1.68A

INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 13 of 77



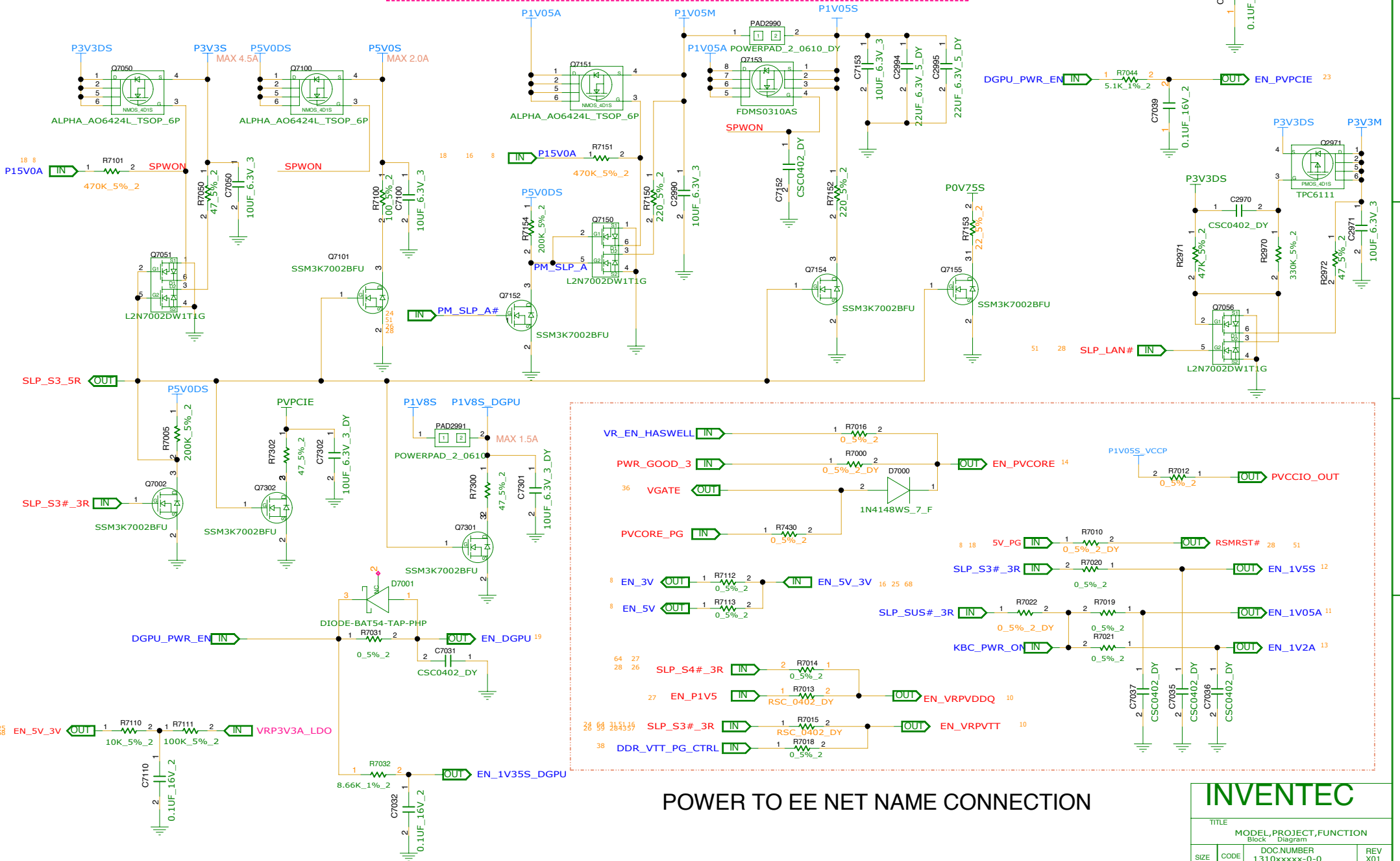
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SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
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INVENTEC			
TITLE MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
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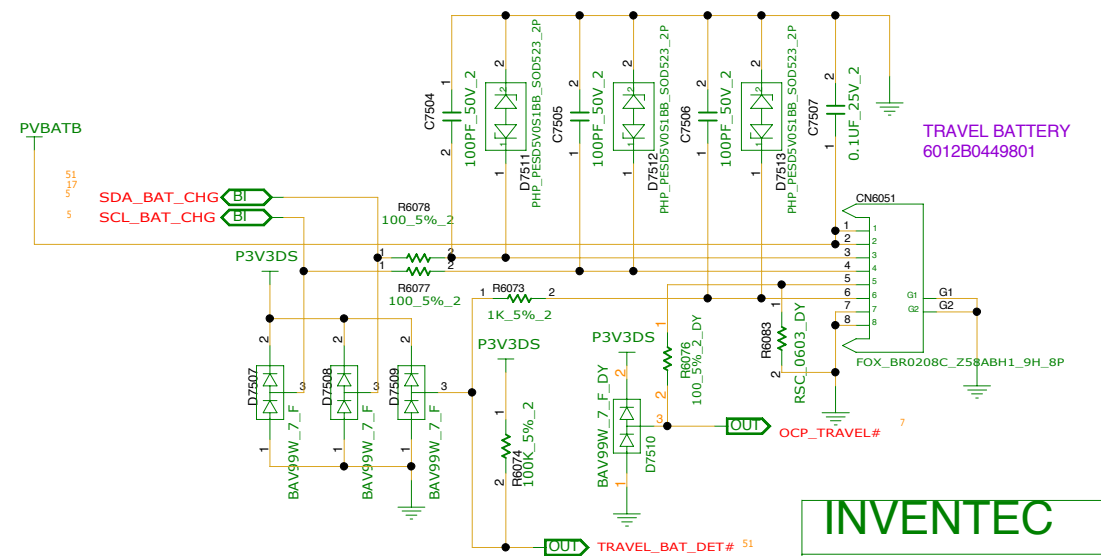
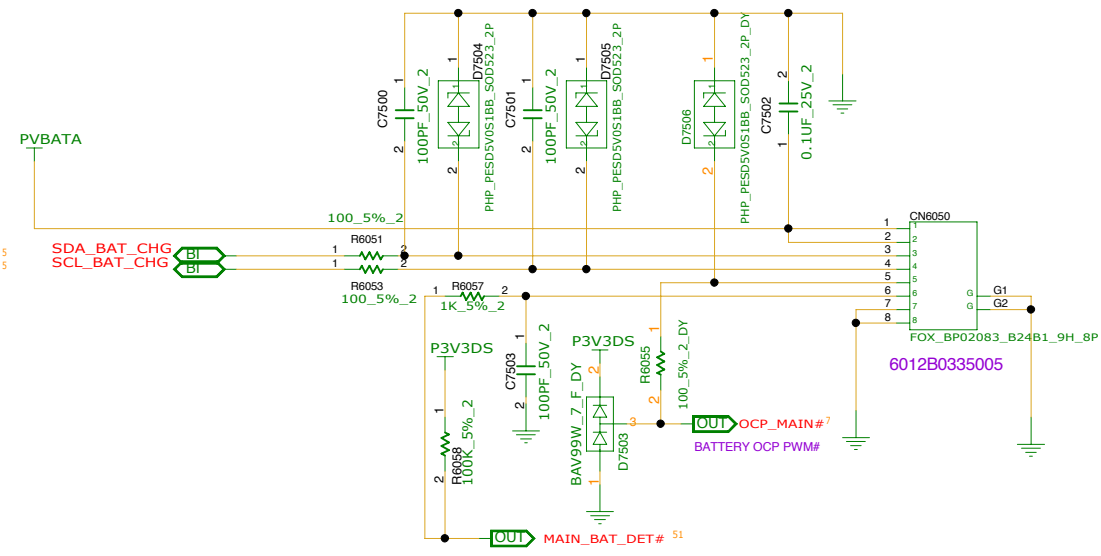
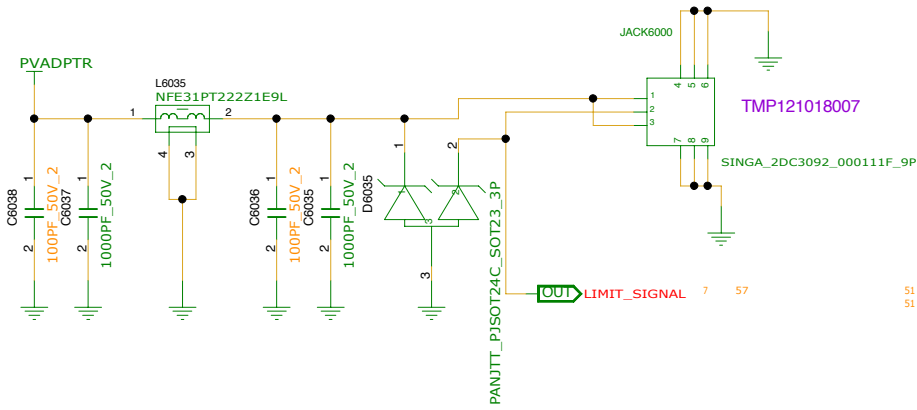
REFERENCE NUMBER : 7000~7350

PAD2990	Q7151	Q7150	Q7152	R7150	R7151	R7154
NON-IAMT IAMT	UN-INSTALL UN-INSTALL	UN-INSTALL UN-INSTALL	UN-INSTALL UN-INSTALL	UN-INSTALL INSTALL	UN-INSTALL UN-INSTALL	UN-INSTALL UN-INSTALL

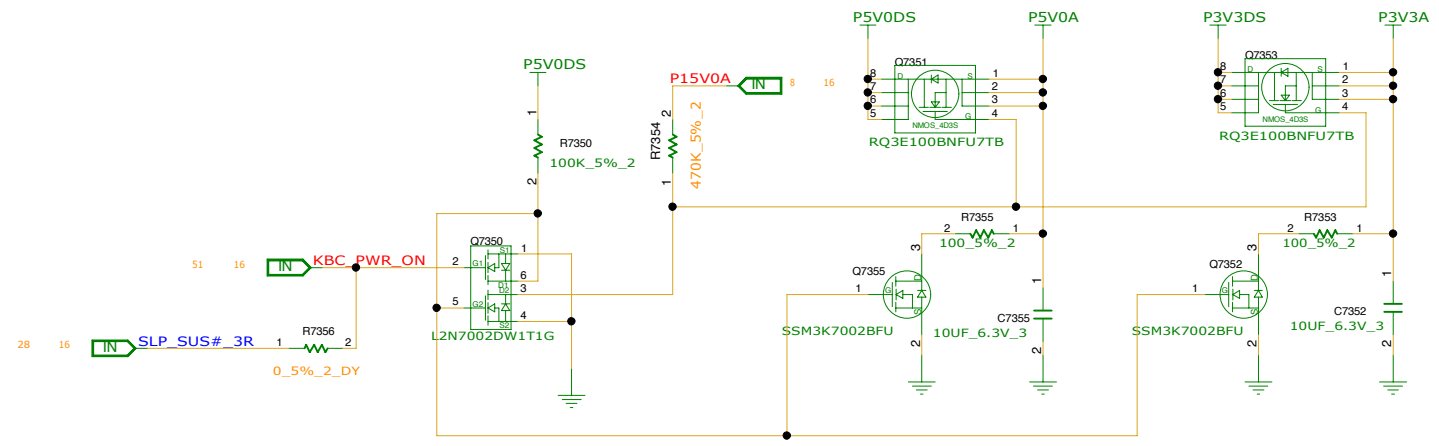
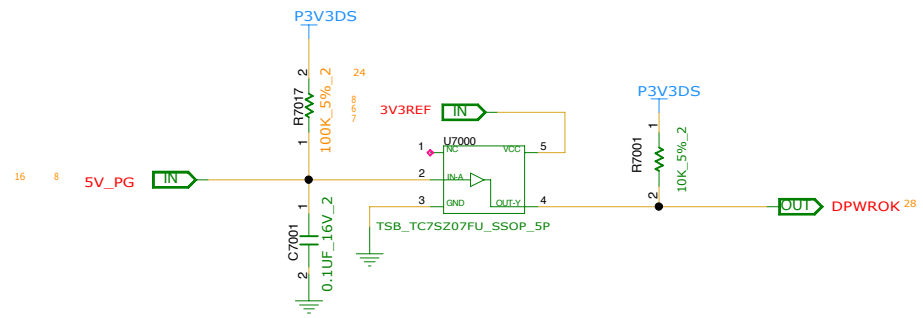


POWER TO EE NET NAME CONNECTION

INVENTEC			
TITLE MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3		CODE CS	
DOC NUMBER 1310xxxxx-0-0		REV X01	
CHANGE by XXX		DATE 21-OCT-2002	
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INVENTEC			
TITLE MODEL, PROJECT, FUNCTION Block Diagram			
SIZE A3		CODE CS	
DOC NUMBER 1310xxxxx-0-0		REV X01	
CHANGE by XXX		DATE 21-OCT-2002	
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INVENTEC

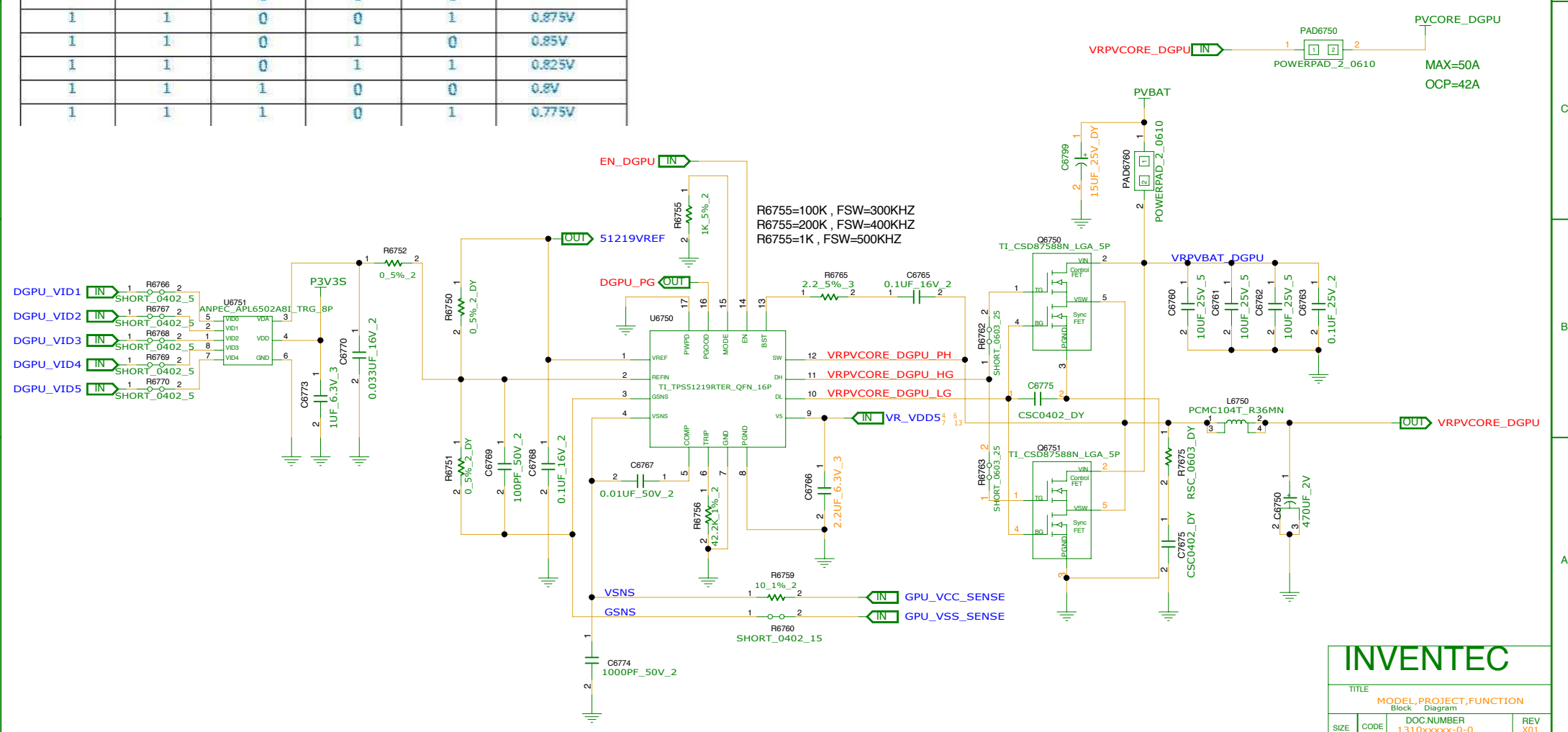
TITLE: MODEL,PROJECT,FUNCTION
Block Diagram

SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
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CHANGE by: XXX DATE: 21-OCT-2002 SHEET 18 of 77

GPU_VIDS GPIO_10	GPU_VID4 GPIO_14	GPU_VID3 GPIO_15	GPU_VID2 GPIO_16	GPU_VID1 GPIO_20	Core Voltage Level
0	1	1	1	1	1.125V
1	0	0	0	0	1.1V
1	0	0	0	1	1.075V
1	0	0	1	0	1.05V
1	0	0	1	1	1.025V
1	0	1	0	0	1.0V
1	0	1	0	1	0.975V
1	0	1	1	0	0.95V
1	0	1	1	1	0.925V
1	1	0	0	0	0.9V
1	1	0	0	1	0.875V
1	1	0	1	0	0.85V
1	1	0	1	1	0.825V
1	1	1	0	0	0.8V
1	1	1	0	1	0.775V

	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



INVENTEC

TITLE MODEL,PROJECT,FUNCTION
Block Diagram

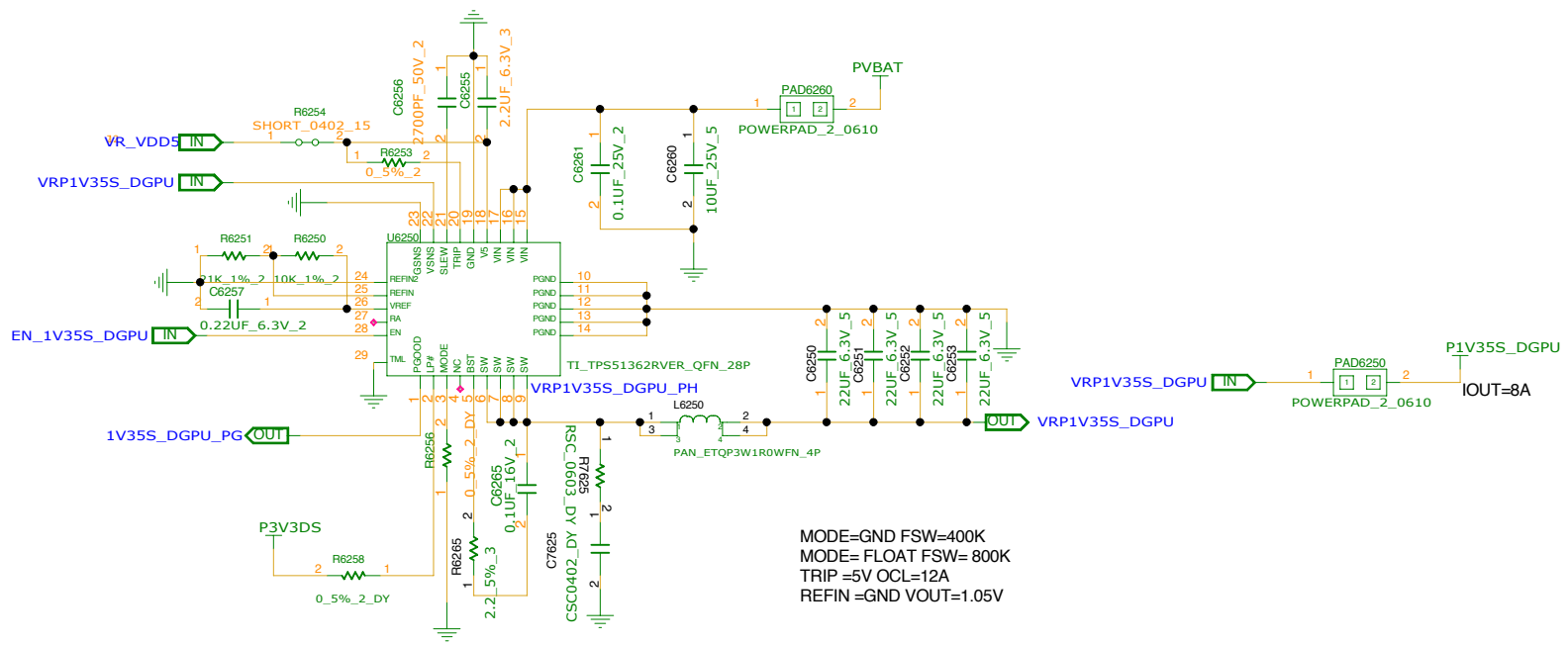
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A3 CS 1310xxxxx-0-0 X01

CHANGE by XXX DATE 21-OCT-2002 SHEET 19 of 77

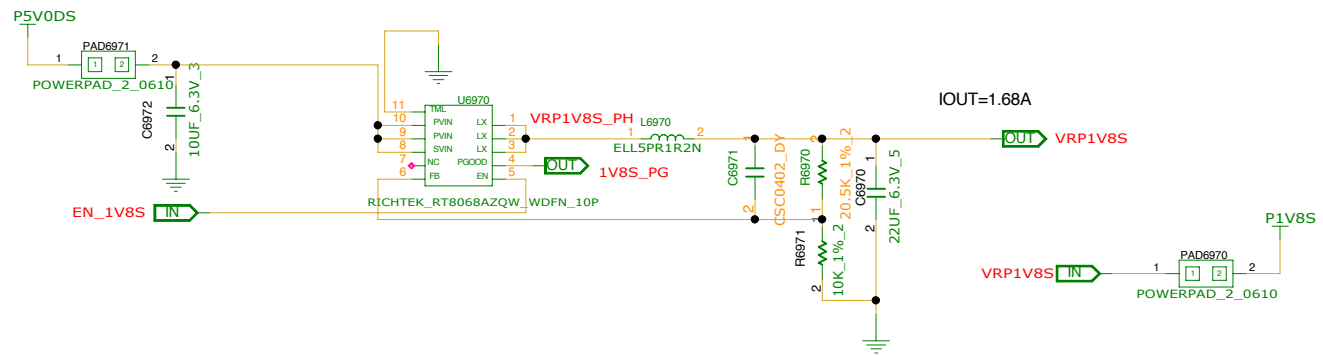
EMPTY

INVENTEC

TITLE			
MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
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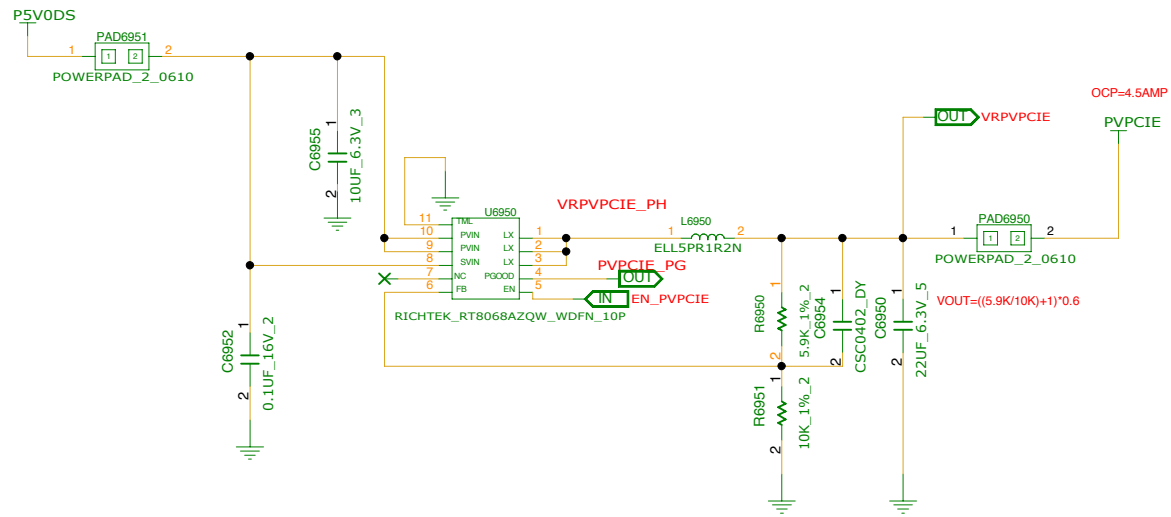
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TITLE MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 21 of 77



VREF=0.6V
 15K=1.5V
 10K=1.2V
 20.5K=1.83V
 MODE= FLOAT=SKIP MODE
 MODE=VIN=FCCM MODE

INVENTEC

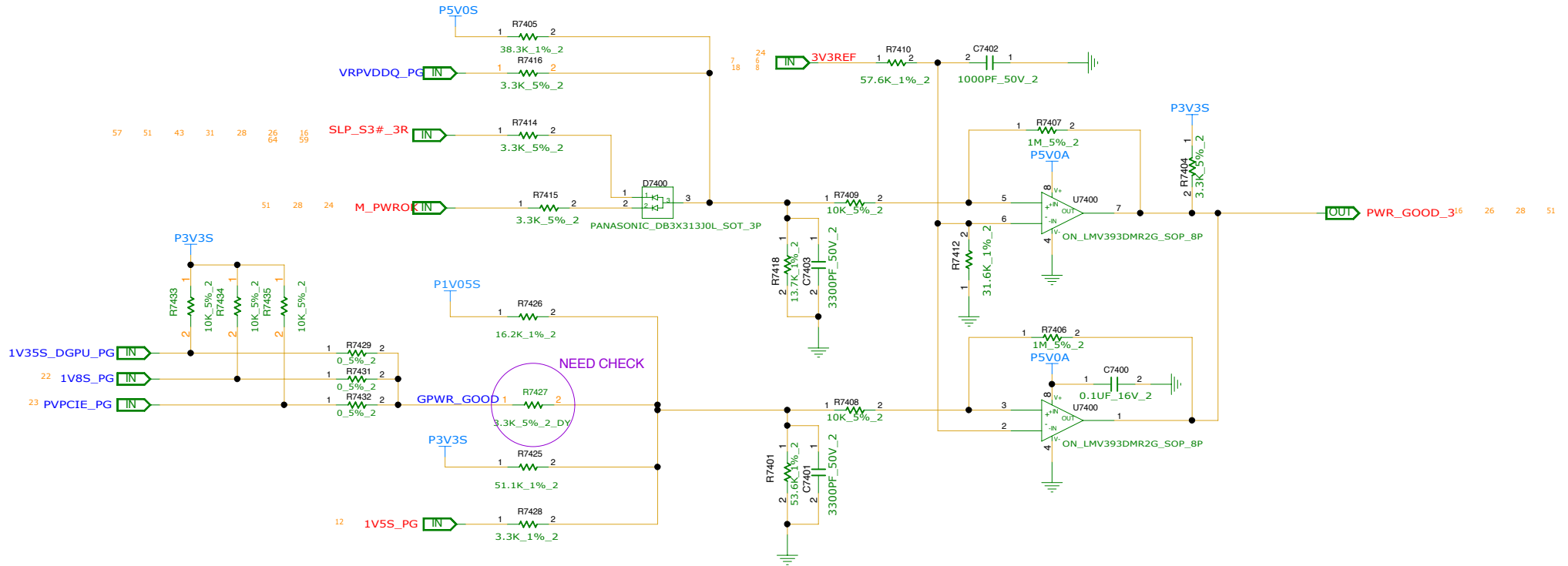
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MODEL,PROJECT,FUNCTION Block Diagram		
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0
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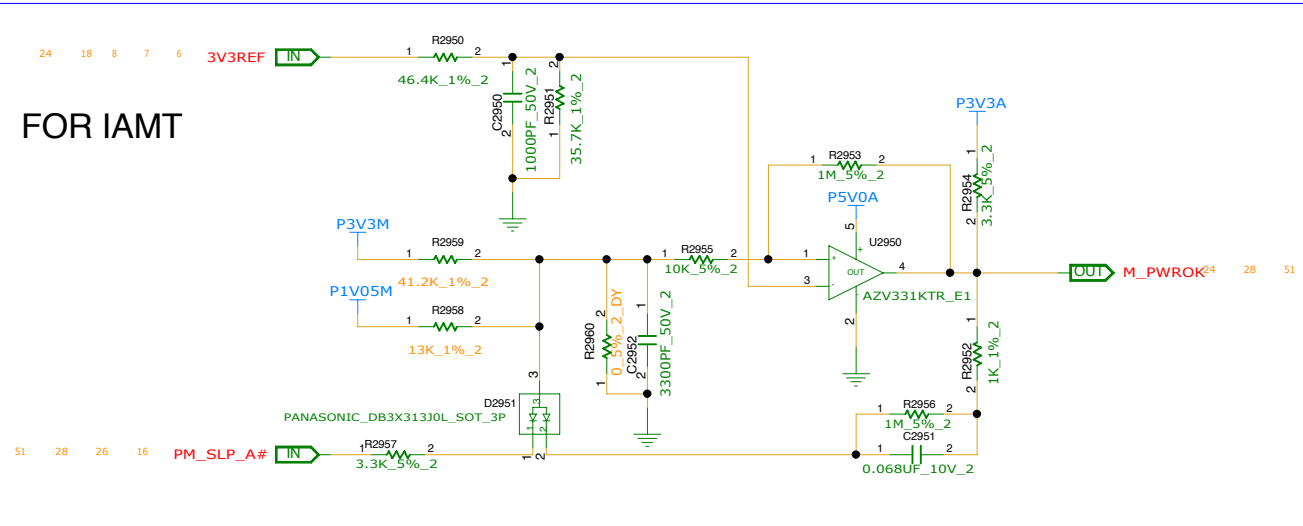
INVENTEC

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

REFERENCE NUMER : 7400~7450



FOR IAMT

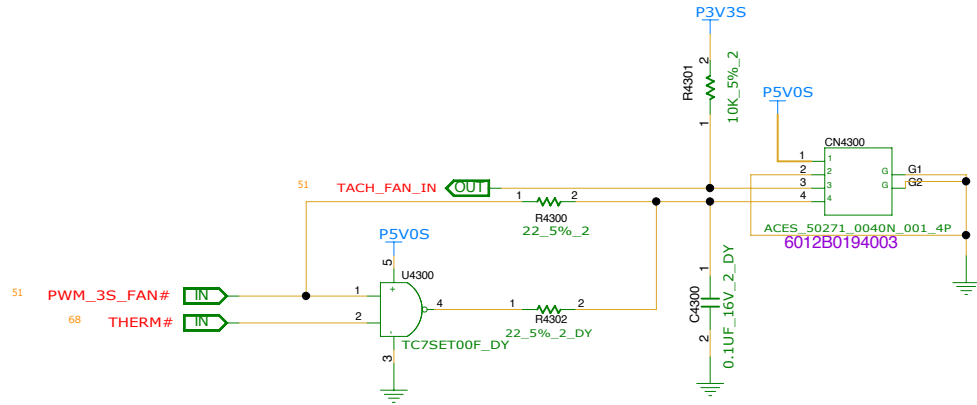


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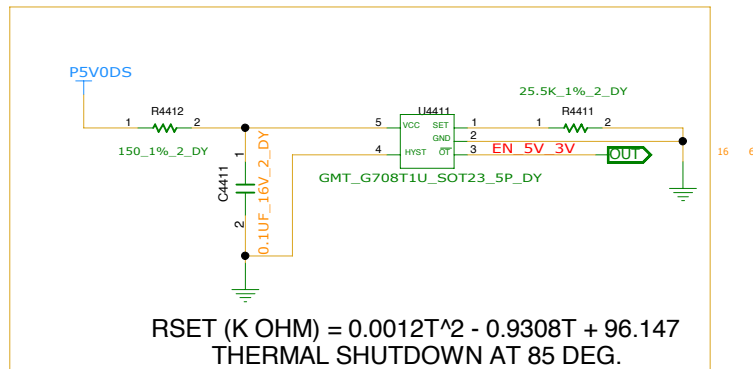
INVENTEC

TITLE			
MODEL PROJECT,FUNCTION POWER (SEQUENCE)			
SIZE A3		CODE CS	REV X01
DOC NUMBER 1310xxxxx-0-0		REV X01	
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REFERENCE NUMBER:4400~4349



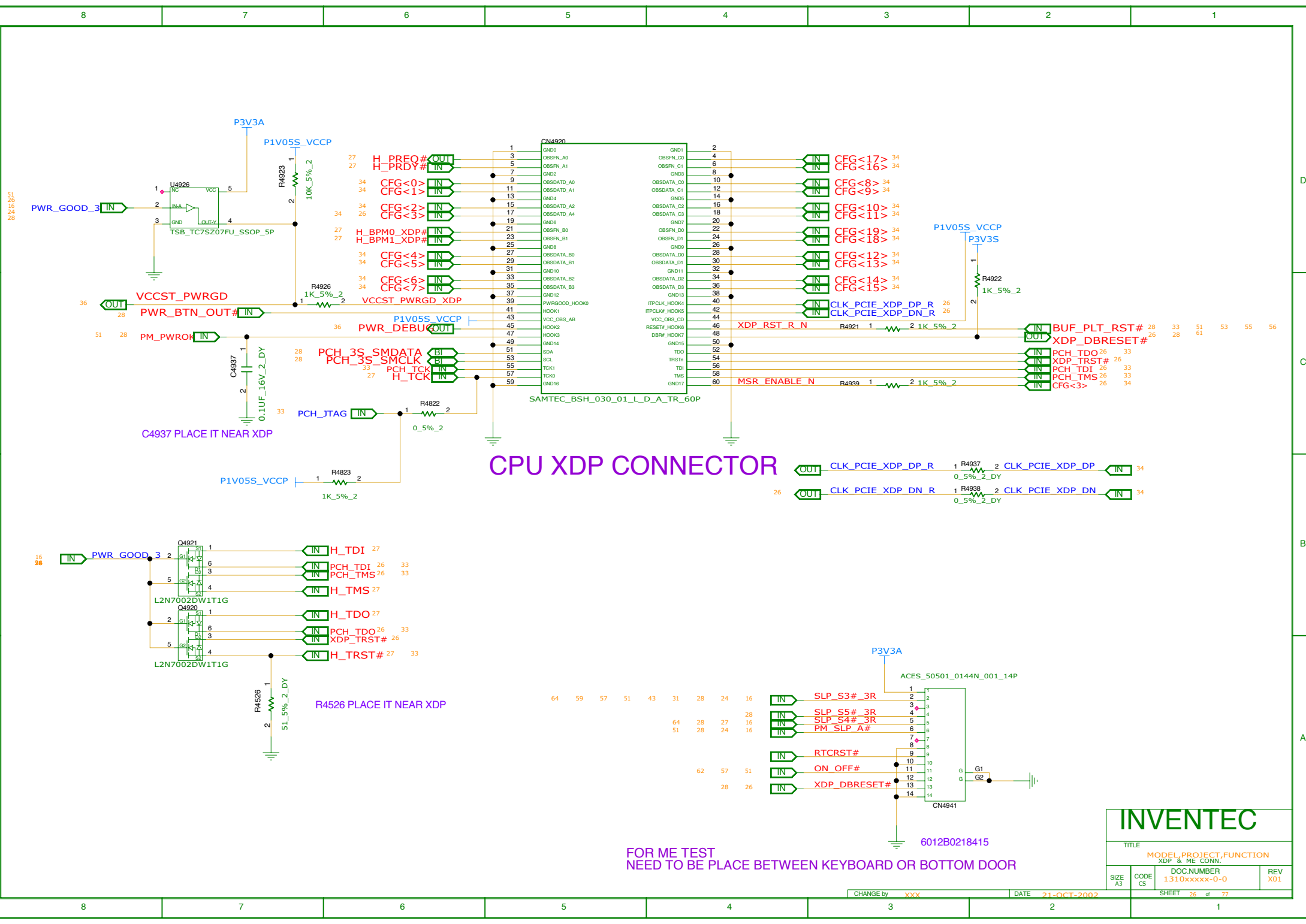
AMBIENT TEMP SENSE
WILL BE NOT USED IN 2013?



REFERENCE NUMBER:4411~4449

INVENTEC

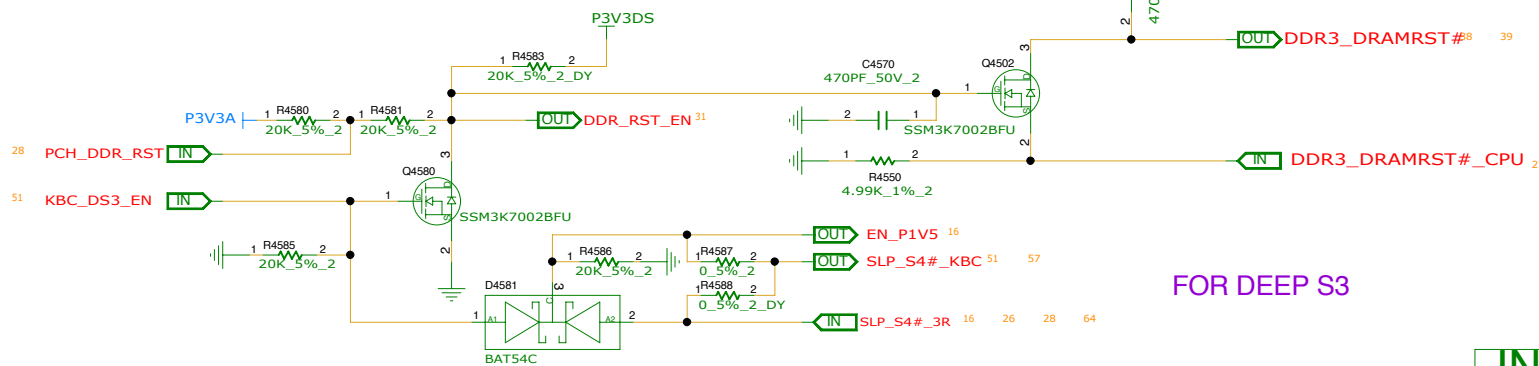
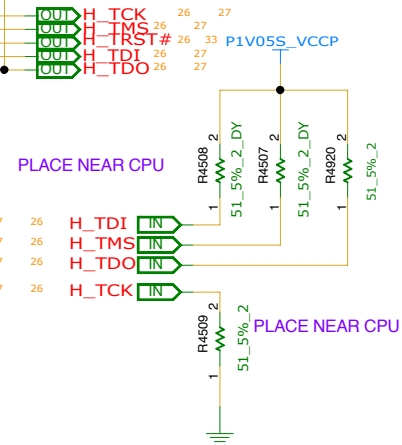
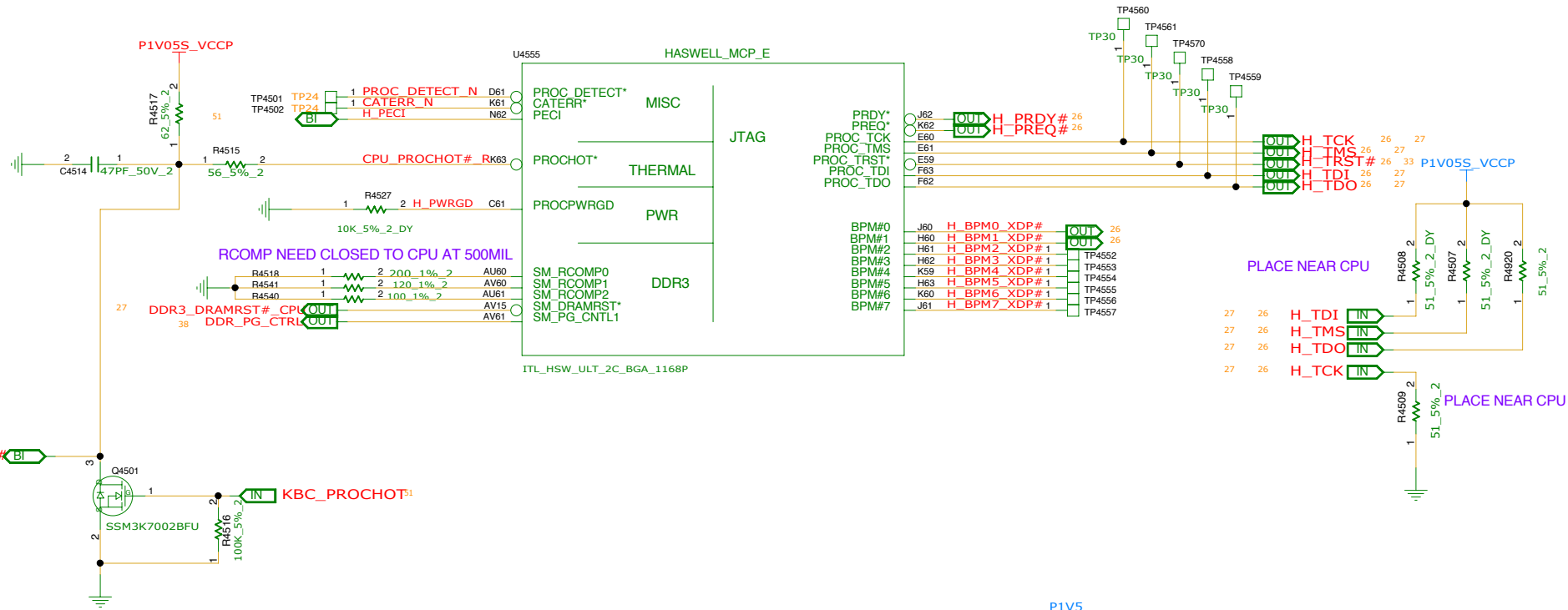
TITLE		
MODEL PROJECT,FUNCTION FAN & THERMAL		
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0
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CPU XDP CONNECTOR

FOR ME TEST
NEED TO BE PLACE BETWEEN KEYBOARD OR BOTTOM DOOR

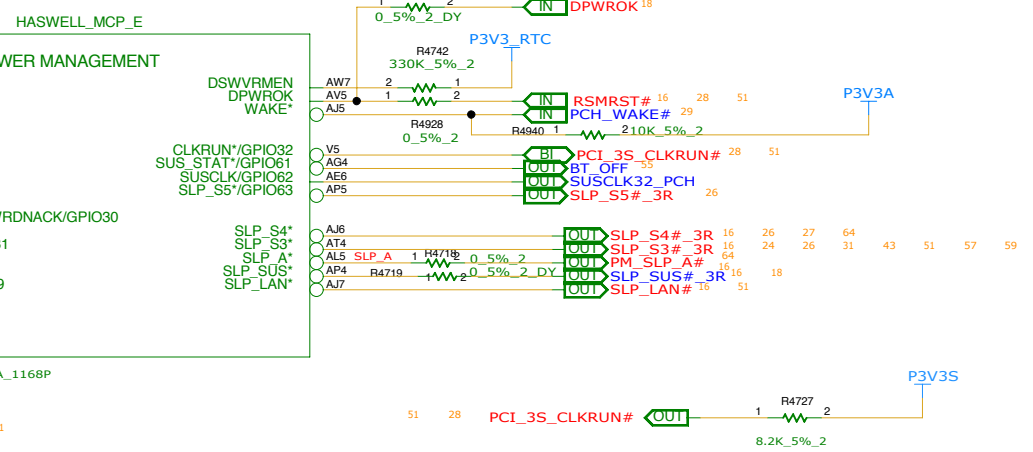
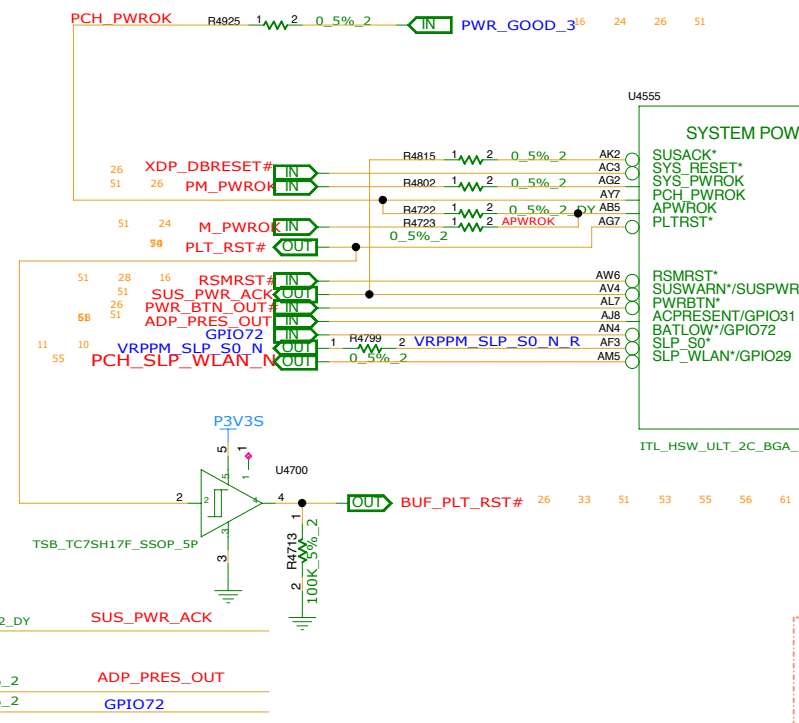
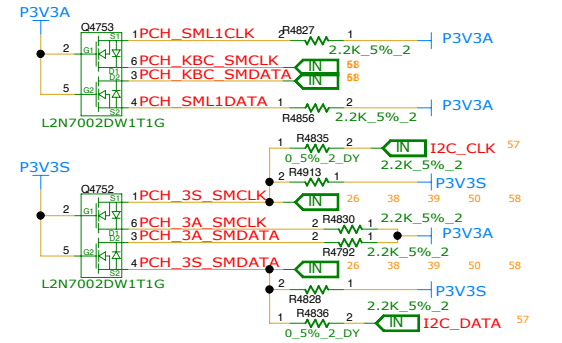
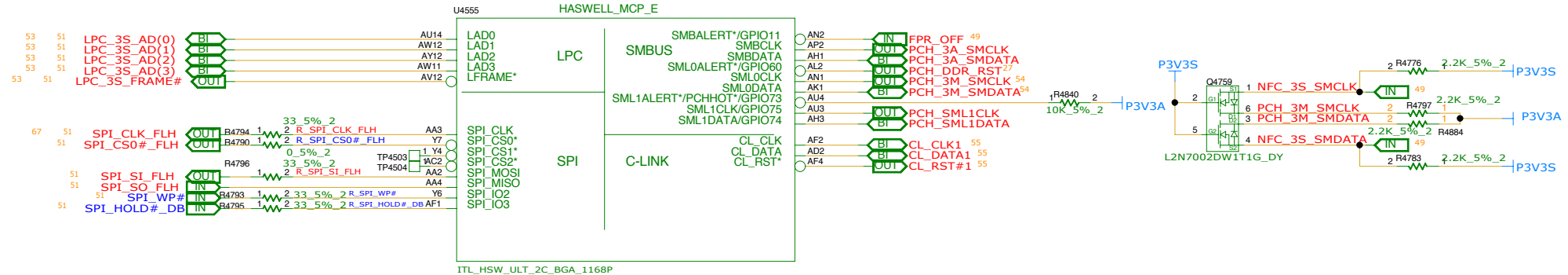
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TITLE MODEL PROJECT,FUNCTION XDP & ME CORNW			
SIZE A3	CODE CS	DOC NUMBER 1310xxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 26 of 77



FOR DEEP S3

REFERENCE:4500~4949

INVENTEC			
TITLE MODEL,PROJECT,FUNCTION MCP1-MISC			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
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	IAMT	NON-IAMT
R4718	INSTALL	UNINSTALL
R4723	INSTALL	UNINSTALL
R4722	UNINSTALL	INSTALL

INVENTEC

TITLE: MODEL PROJECT/FUNCTION

MCP2-SPI,SMBUS,SYSTEM_SEQUENCE

DOC NUMBER: 1310xxxxx-0-0

REV: X01

SIZE: A3

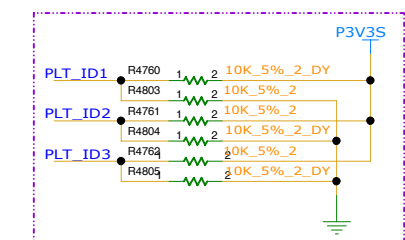
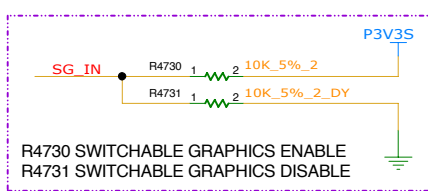
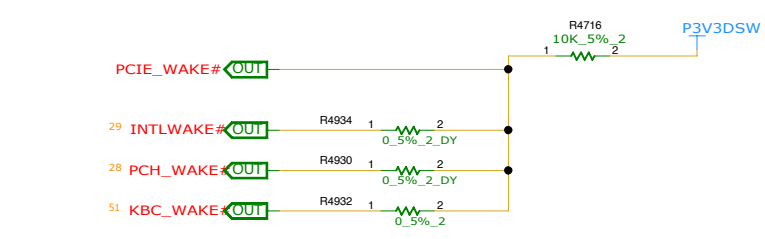
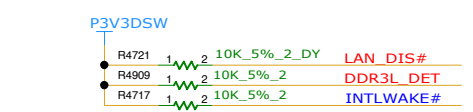
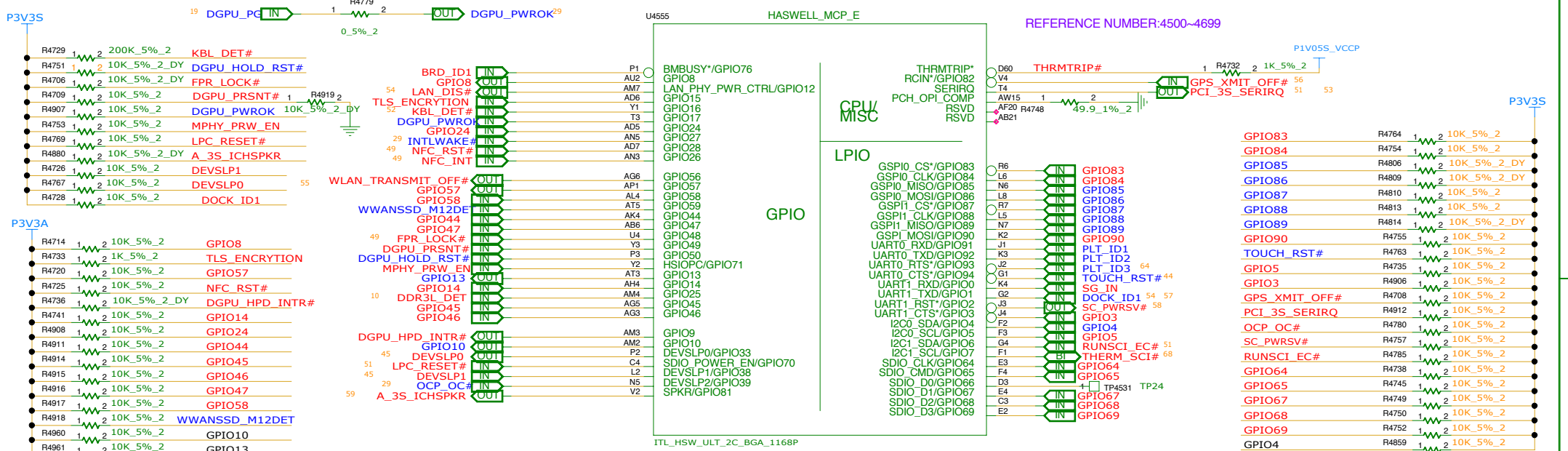
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CHANGE by: XXX

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REFERENCE:4500~4949



PLT_ID1	PLT_ID2	PLT_ID3	
R4760	R4761	R4762	H
R4803	R4804	R4805	L
0	1	0	14"
0	1	1	15"

BOARD ID GPIO

REFERENCE:4500~4949

INVENTEC

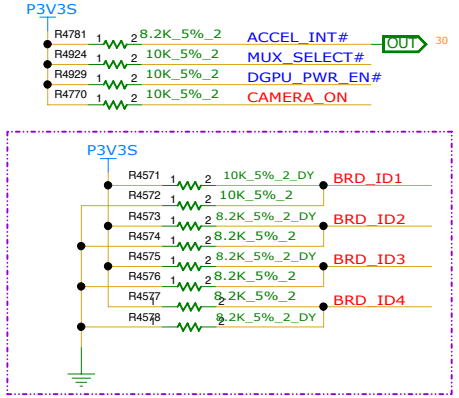
TITLE: MODEL,PROJECT,FUNCTION
MCP3-GPIO

DOC NUMBER: 1310xxxxx-0-0

REV: X01

SIZE: A3, CODE: CS

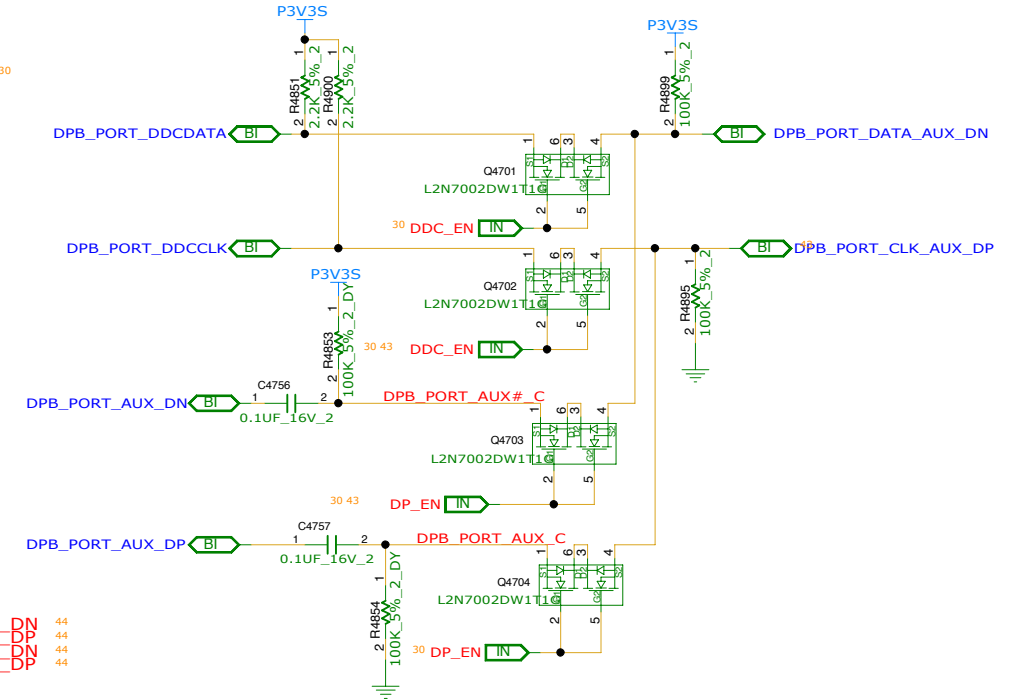
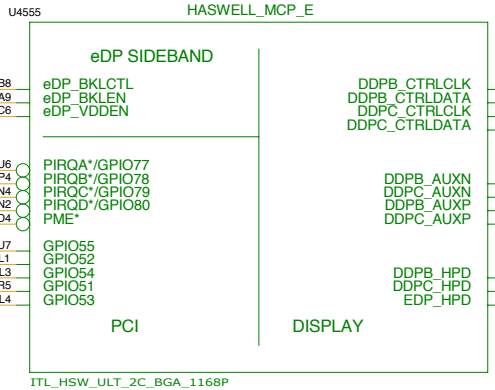
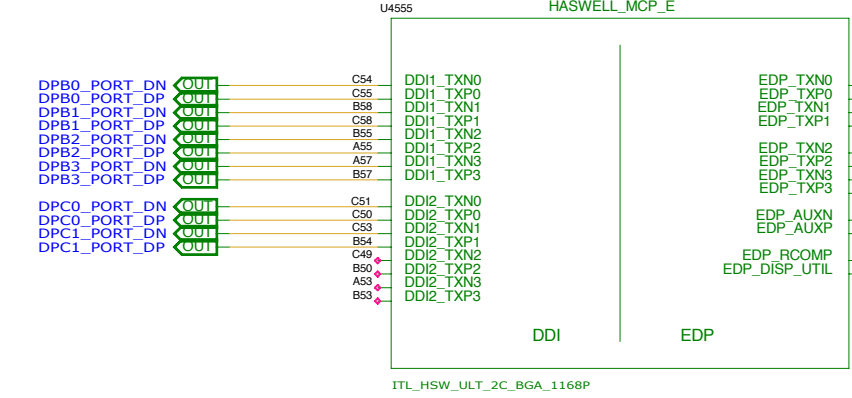
SHEET: 29 of 77



BOARD REVISION	BRD_ID1	BRD_ID2	BRD_ID3	BRD_ID4	
	GPIO201	GPIO202	GPIO203	GPIO204	AMD FCH
	GPIO14	GPIO34	GPIO35	GPIO40	FPNT
DB 0	0	0	0	0	
DB 1	0	0	0	1	
DB 2	0	0	1	0	
SI 1	0	1	0	0	
SI 1B	0	1	0	1	
SI 2	0	1	1	0	
PV 1	1	0	0	0	
	1	0	0	1	
	1	0	1	0	
	1	0	1	1	
MV	1	1	0	0	
	1	1	0	1	
	1	1	1	0	
	1	1	1	1	

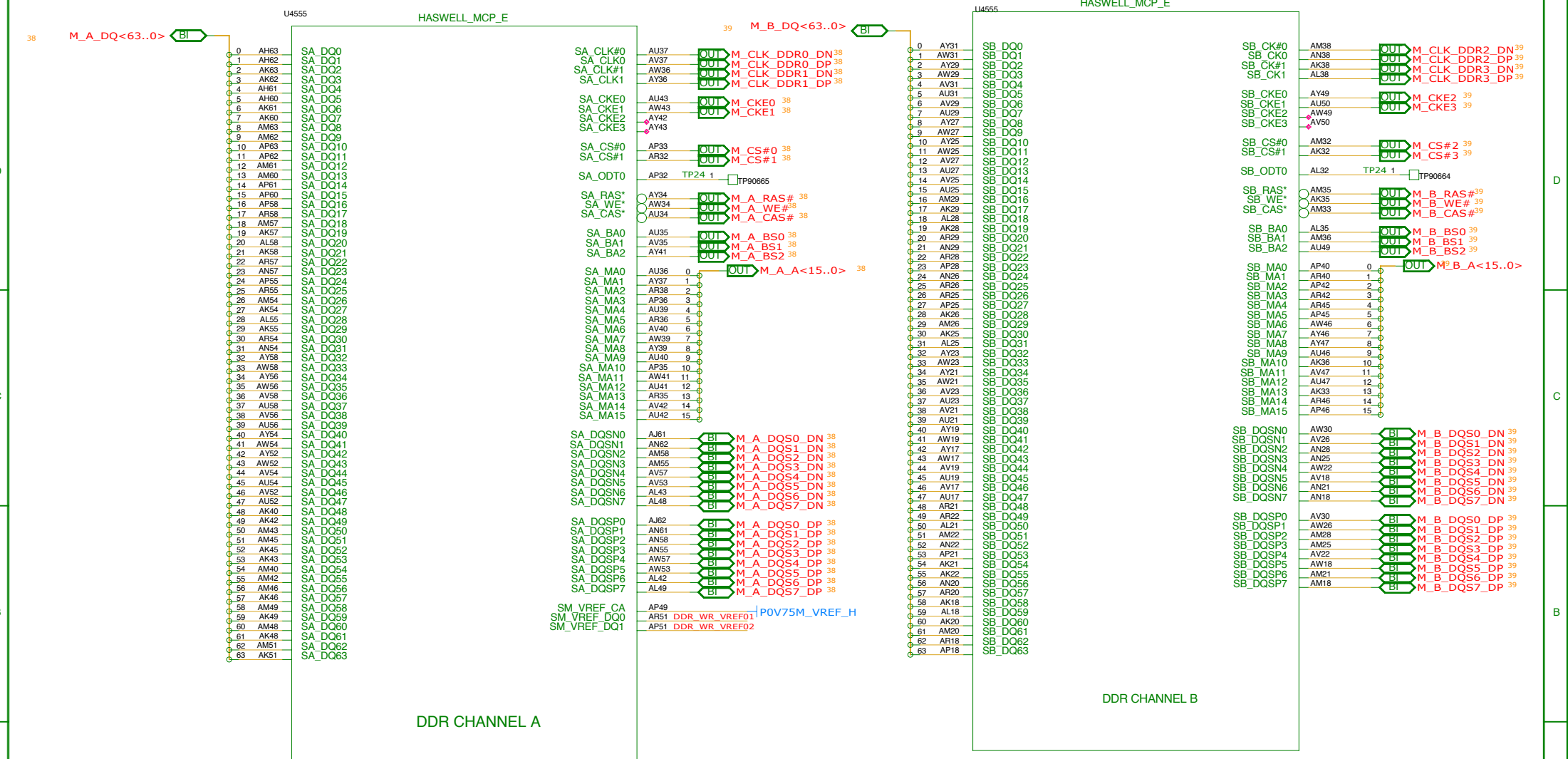
BRD_ID1	BRD_ID2	BRD_ID3	BRD_ID4	
R4571	R4573	R4575	R4577	H
R4572	R4574	R4576	R4578	L
0	0	0	0	DB0
0	0	0	1	DB1

COMMON PLATFORMS SYSTEM BOARD ID GPIO



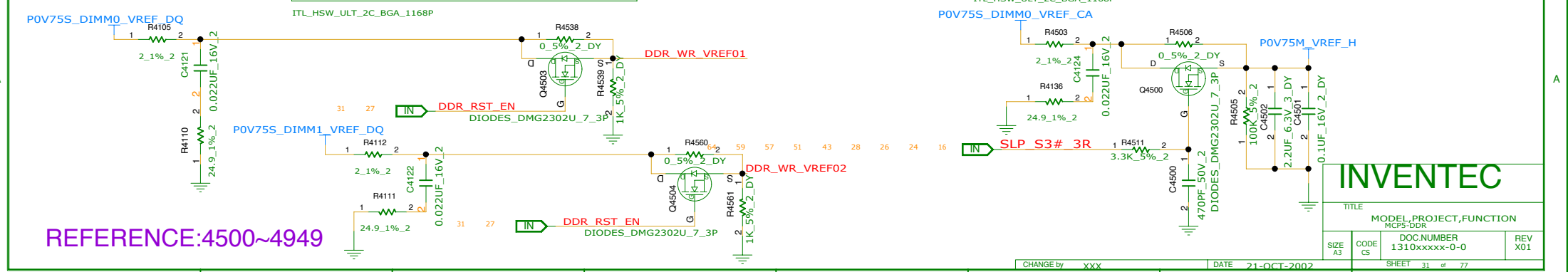
REFERENCE:4500~4949

INVENTEC			
TITLE			
MODEL PROJECT FUNCTION			
MCP4-GPIO,DP			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 30 of 77



DDR CHANNEL A

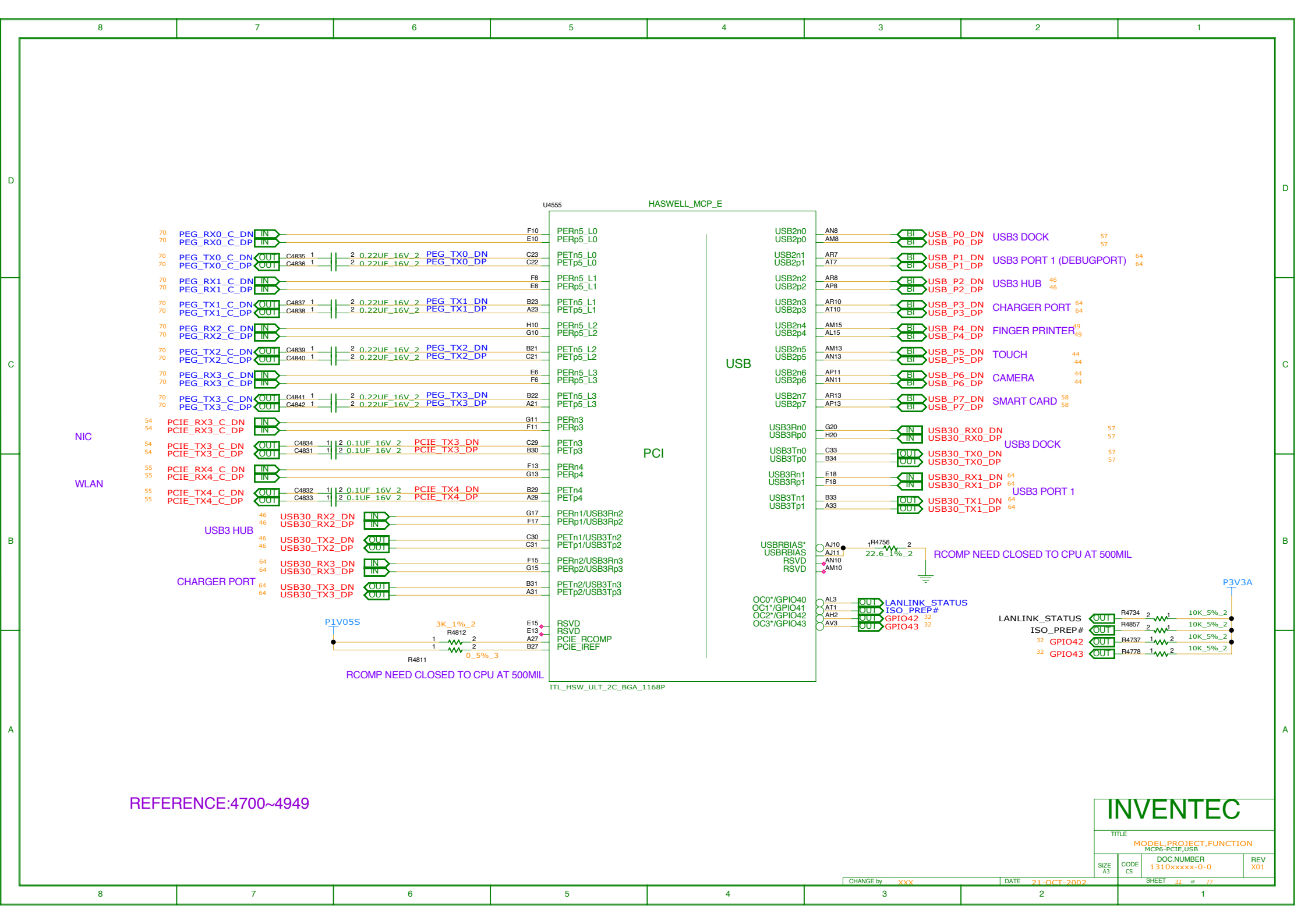
DDR CHANNEL B



REFERENCE:4500~4949

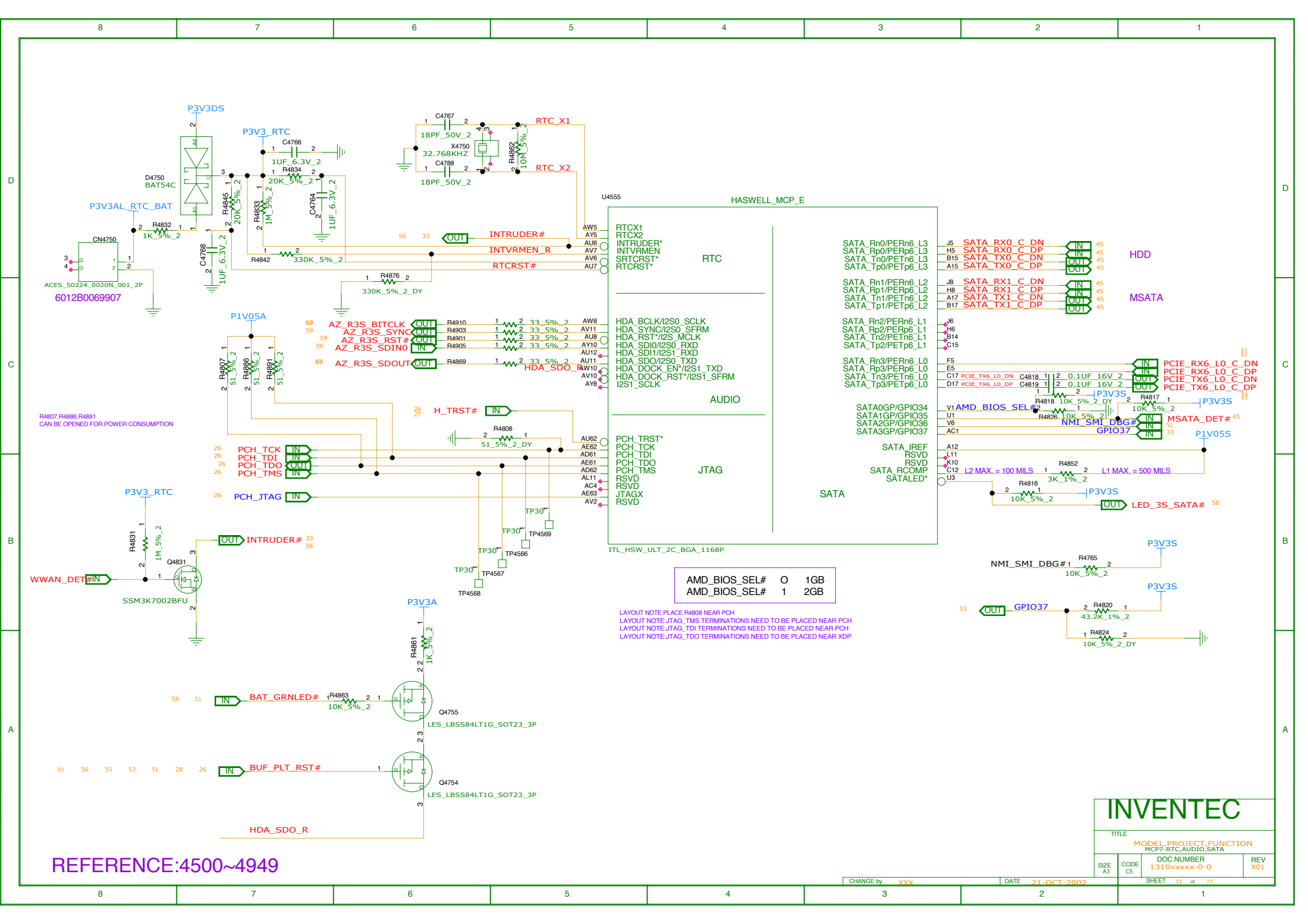
INVENTEC

TITLE			
MODEL_PROJECT_FUNCTION			
MCP5-DDR			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01
CHANGE by		DATE	SHEET
XXX		21-OCT-2002	31 of 77



REFERENCE:4700~4949

INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
MCP6-PCIe,USB			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
CHANGE by		DATE	SHEET
XXX		21-OCT-2002	32 of 77



ACES_50224_0020N_001_2P
6012B0069907

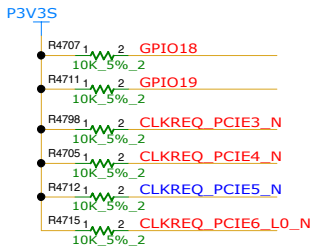
R4807, R4886, R4891
CAN BE OPENED FOR POWER CONSUMPTION

AMD_BIOS_SEL# 0 1GB
AMD_BIOS_SEL# 1 2GB

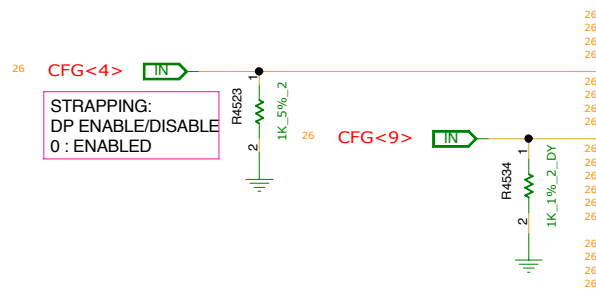
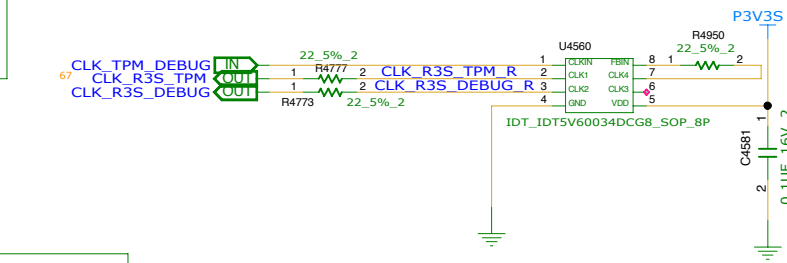
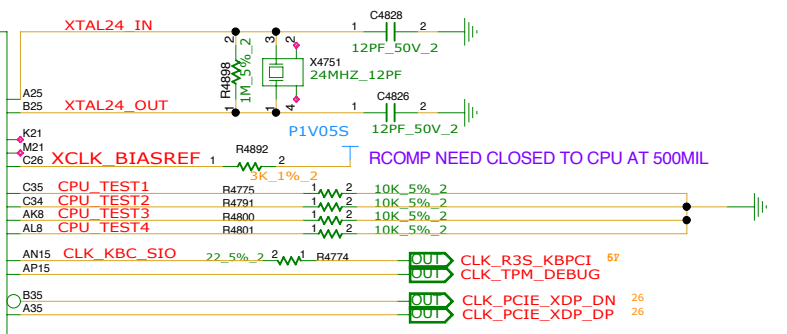
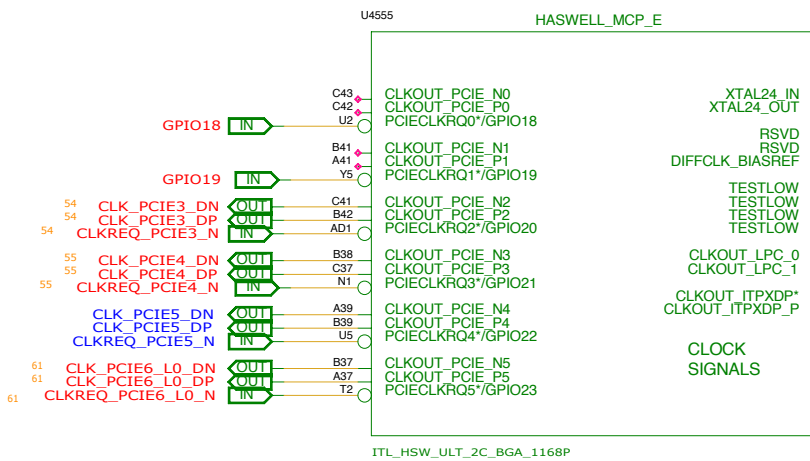
LAYOUT NOTE: PLACE R4808 NEAR PCH
LAYOUT NOTE: JTAG_TMS TERMINATIONS NEED TO BE PLACED NEAR PCH
LAYOUT NOTE: JTAG_TDI TERMINATIONS NEED TO BE PLACED NEAR PCH
LAYOUT NOTE: JTAG_TDO TERMINATIONS NEED TO BE PLACED NEAR PCH

REFERENCE: 4500~4949

INVENTEC			
TITLE			
MODEL PROJECT FUNCTION			
MCP7_RTC_AUDIO_SATA			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01
CHANGE by		DATE	SHEET
XXX		21-OCT-2002	33 of 77

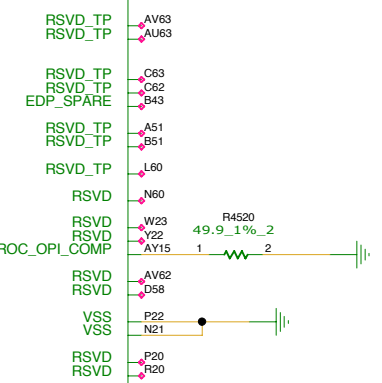
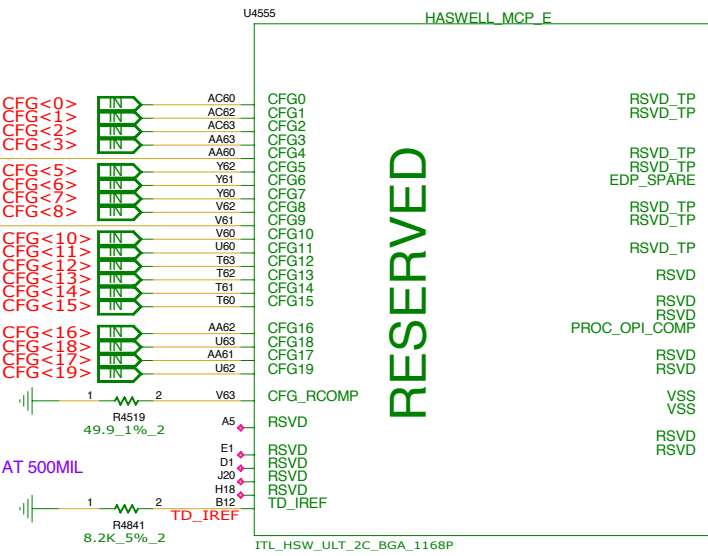


NIC
WLAN
MARS
SD/MMC



STRAPPING:
DP ENABLE/DISABLE
0: ENABLED

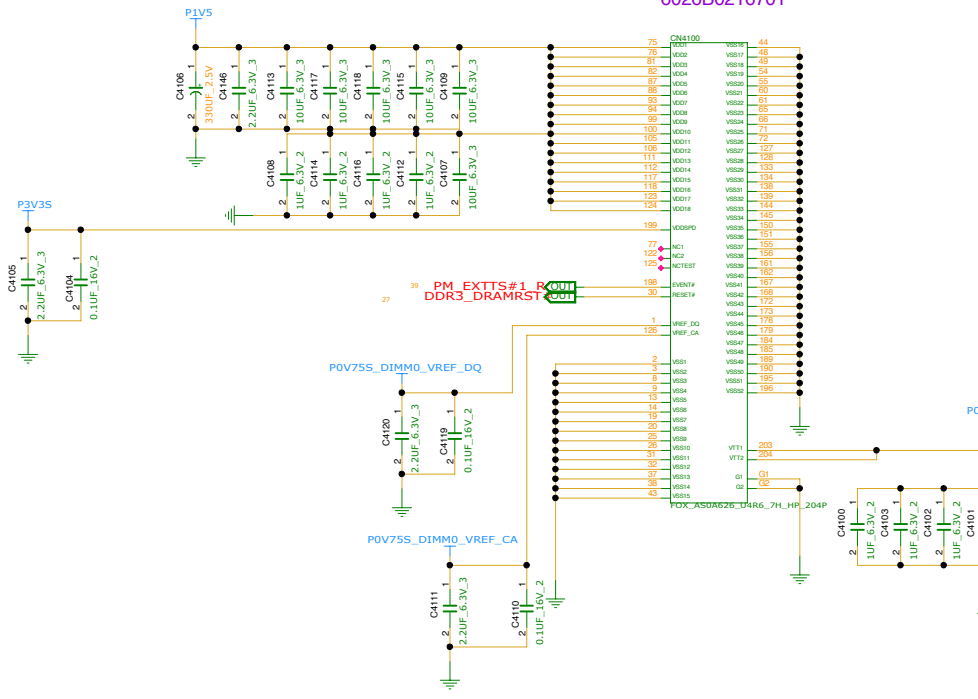
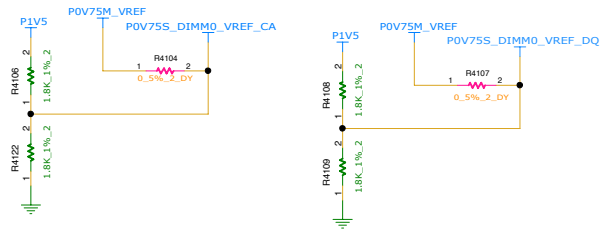
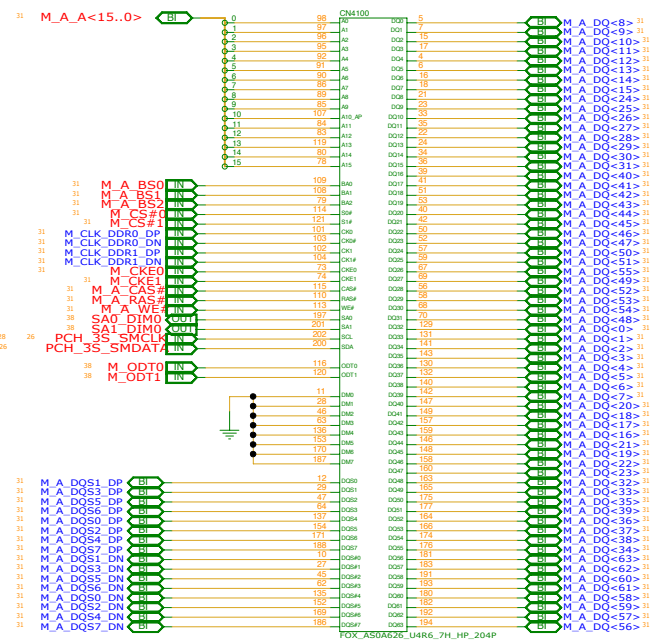
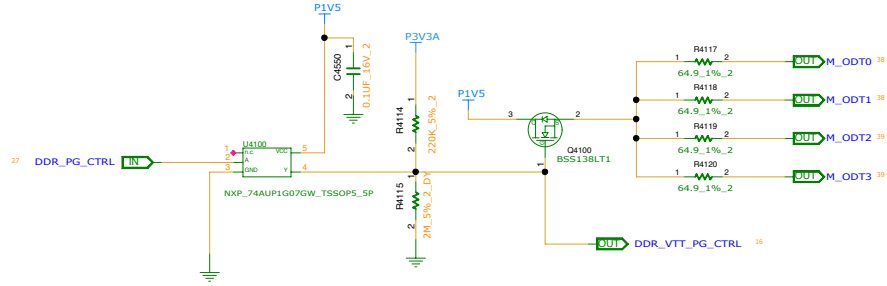
RCOMP NEED CLOSED TO CPU AT 500MIL



RESERVED

REFERENCE:4500~4949

INVENTEC			
TITLE			
MODEL PROJECT FUNCTION			
MCP8-CLOCK,RESERVED			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01
CHANGE by		DATE	SHEET
XXX		21-OCT-2002	34 of 77



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

REFERENCE NUMBER:4100~4299

INVENTEC			
TITLE MODEL,PROJECT,FUNCTION			
DDR3_SO-DIMM0			
SIZE	CODE	DOC NUMBER	REV
C	CS	13100Axxx-01-D	201
SHEET		38	of 47

RESERVED

INVENTEC

TITLE

MODEL PROJECT FUNCTION
DPB DEMUX1 TO DP

SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
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CHANGE by **XXX** DATE **21-OCT-2002**

SHEET 40 of 77

RESERVED

INVENTEC

TITLE
MODEL, PROJECT, FUNCTION
DPC DEMUX2 TO VGA

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

CHANGE by XXX DATE 21-OCT-2002 SHEET 41 of 77

PIN 2	R3062 C3069 C3070	R3061
PIN 5	R3065	R3063 C3077
PIN 8		C3061 C3062
PIN 11	C3073	
PIN 14	R3064 C3074	R3080
PIN 15		R3078
PIN 16		R3067
PIN 17		R3079
PIN 27	L3066 C3087	
PIN 35	C3068	R3081
PIN 36	R3077	
PIN 37	R3074	R3076
PIN 38	10K_DY	R3075 C3090 C3091
PIN 39		L3068 C3092
PIN 40		R3092

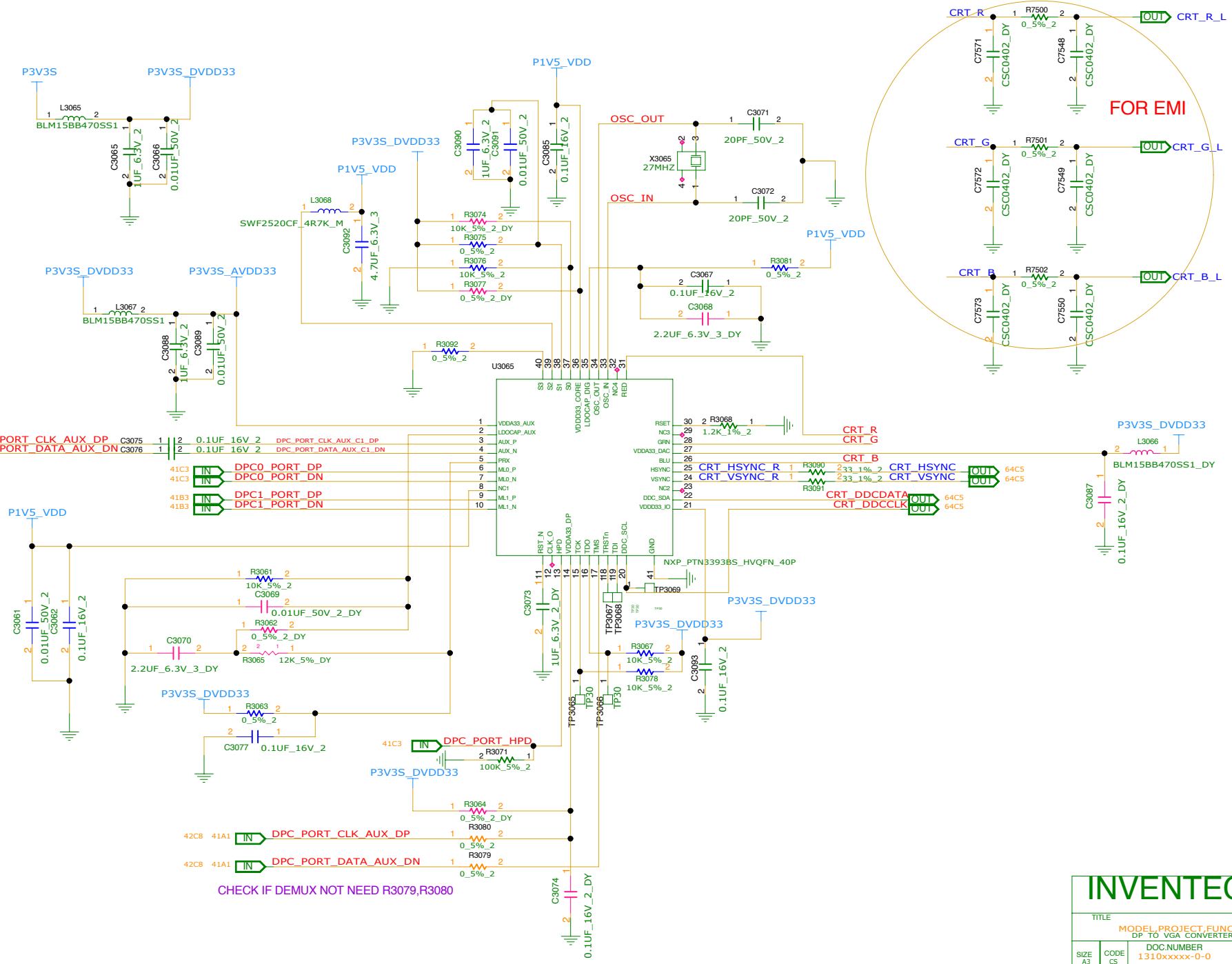
42A6 41A1 IN DPC_PORT_CLK_AUX_DP C3075 1 2 0.1UF_16V_2 DPC_PORT_CLK_AUX_C1_DP
42A6 41A1 IN DPC_PORT_DATA_AUX_DN C3076 1 2 0.1UF_16V_2 DPC_PORT_DATA_AUX_C1_DN

41C3 IN DPC0_PORT_DP C3075 1 2 0.1UF_16V_2 DPC0_PORT_DP
41C3 IN DPC0_PORT_DN C3076 1 2 0.1UF_16V_2 DPC0_PORT_DN

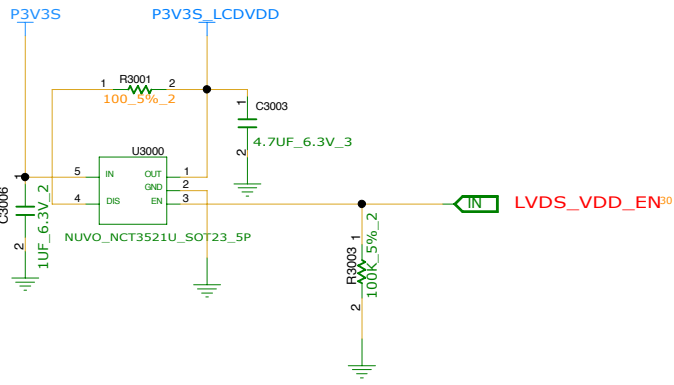
41B3 IN DPC1_PORT_DP C3075 1 2 0.1UF_16V_2 DPC1_PORT_DP
41B3 IN DPC1_PORT_DN C3076 1 2 0.1UF_16V_2 DPC1_PORT_DN

42C8 41A1 IN DPC_PORT_CLK_AUX_DP C3075 1 2 0.1UF_16V_2 DPC_PORT_CLK_AUX_DP
42C8 41A1 IN DPC_PORT_DATA_AUX_DN C3076 1 2 0.1UF_16V_2 DPC_PORT_DATA_AUX_DN

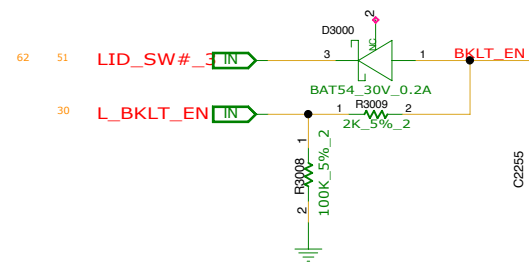
CHECK IF DEMUX NOT NEED R3079,R3080



INVENTEC			
TITLE			
MODEL PROJECT FUNCTION DP TO VGA CONVERTER			
SIZE A3		CODE CS	
DOC NUMBER 1310xxxxx-0-0		REV X01	
CHANGE by XXX		DATE 21-OCT-2002	
SHEET 42 of 77			

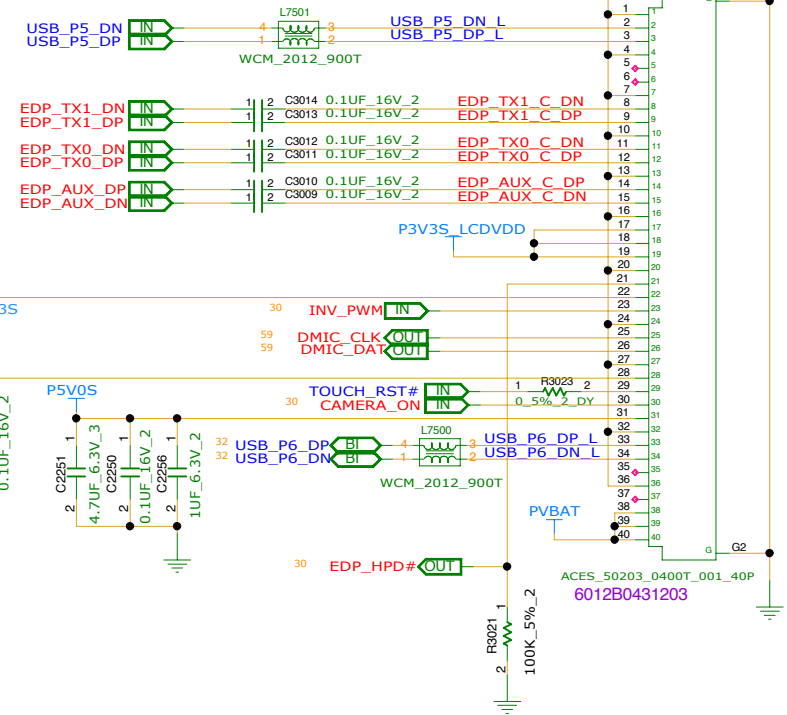


CHECK IF TOUCH PANEL NEED OTHER POWER RAIL



25~34 WEBCAM
35~36 LOGO LIGHT

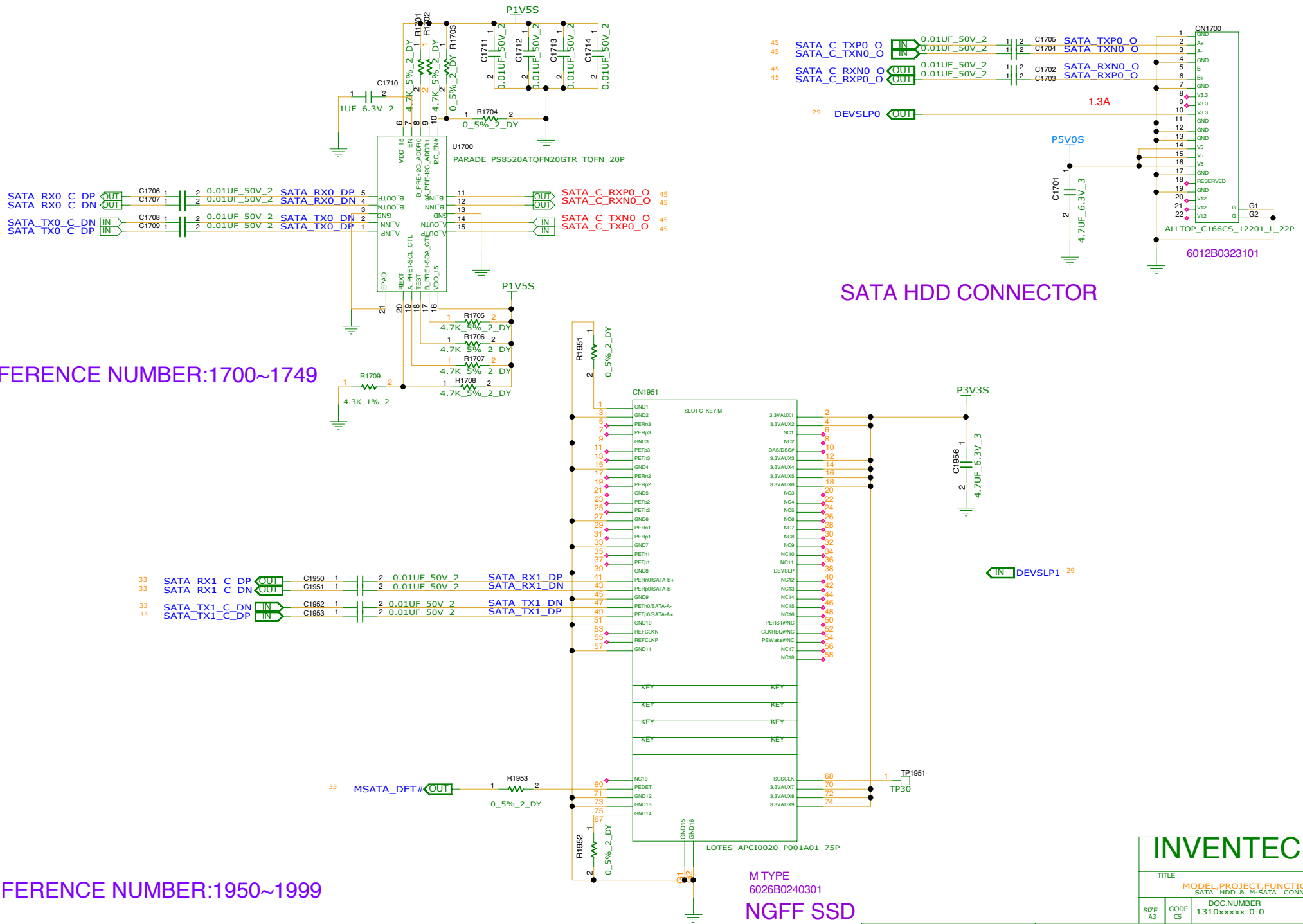
REFERENCE NUMBER:3000~3049



INVENTEC			
TITLE MODEL PROJECT,FUNCTION LCM & WEBCAM			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
SHEET 44 of 77			

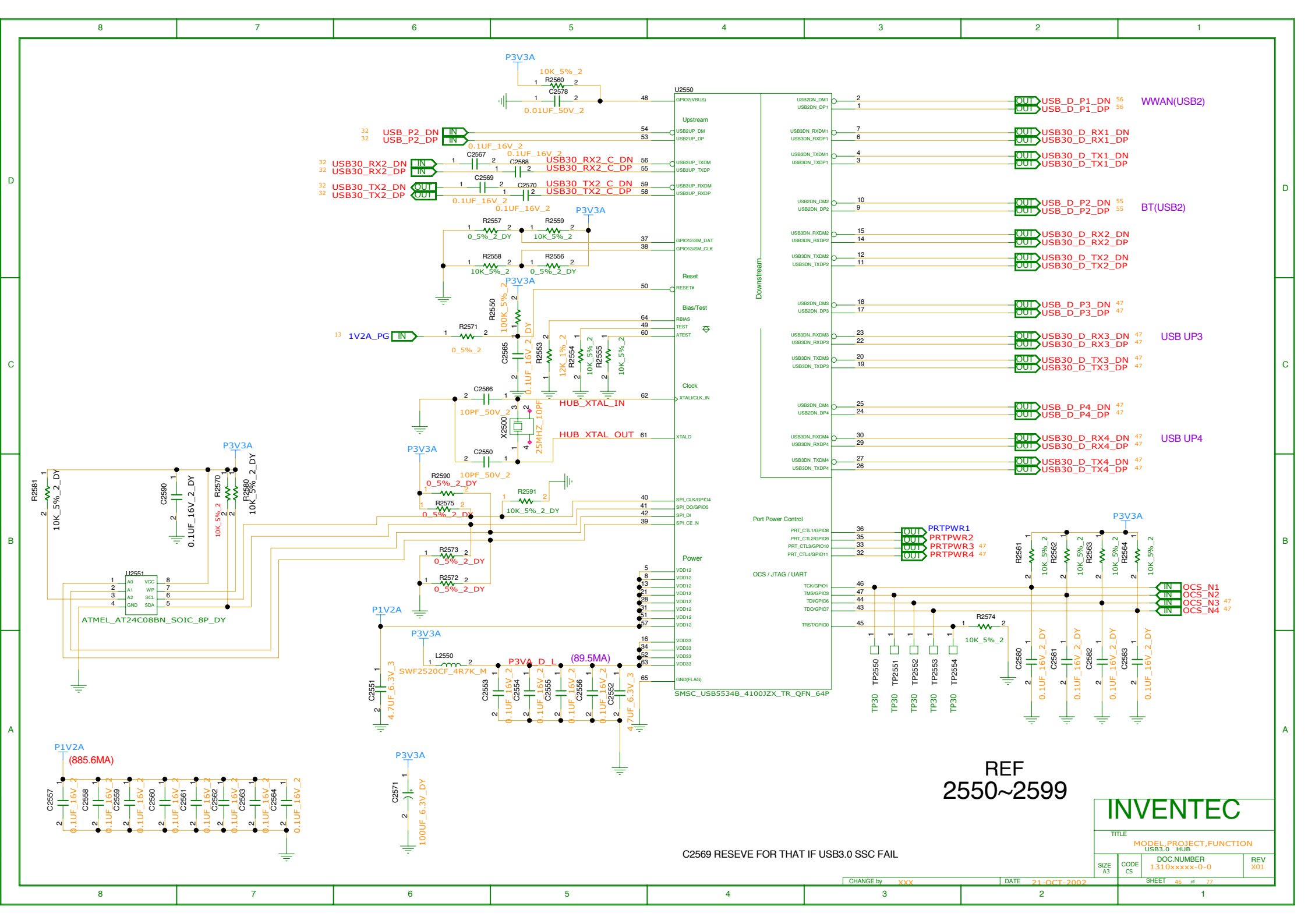
REFERENCE NUMBER:1700~1749

REFERENCE NUMBER:1950~1999



SATA HDD CONNECTOR

INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION SATA_HDD & M-SATA_CONN.			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 45 of 77

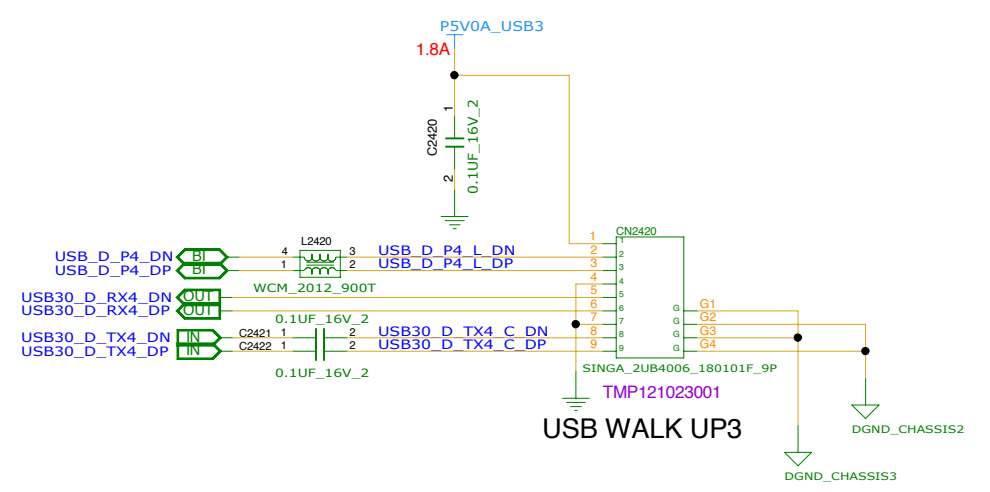
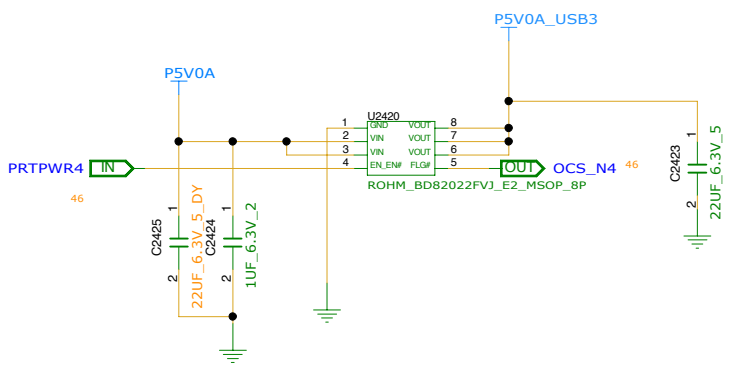
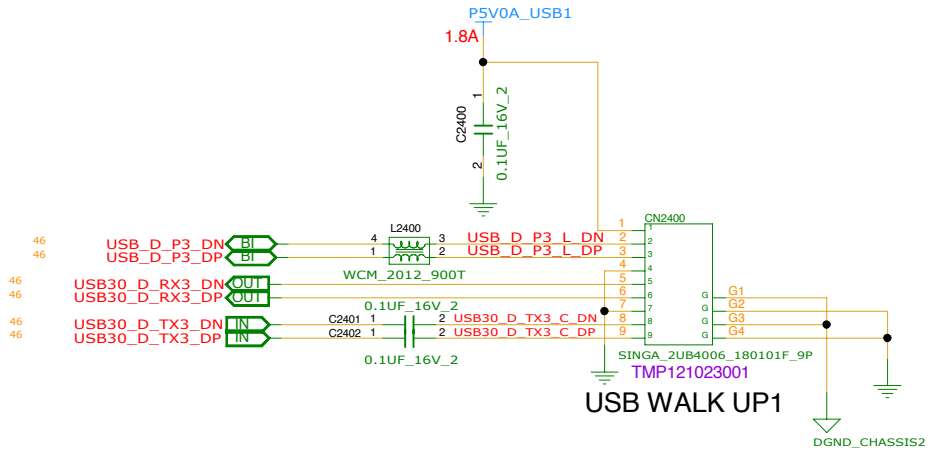
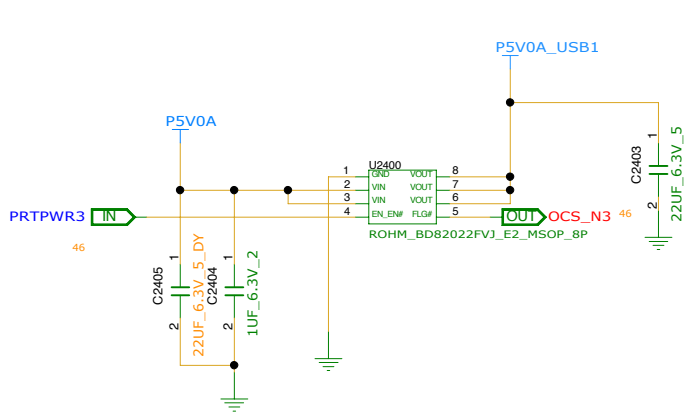


REF
2550~2599

INVENTEC

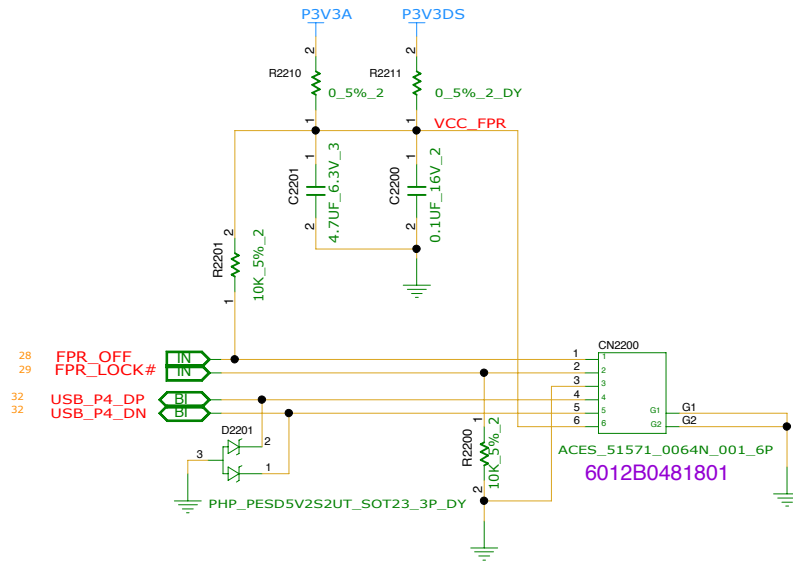
TITLE			
MODEL PROJECT,FUNCTION			
USB3.0 HUB6			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01

C2569 RESEVE FOR THAT IF USB3.0 SSC FAIL

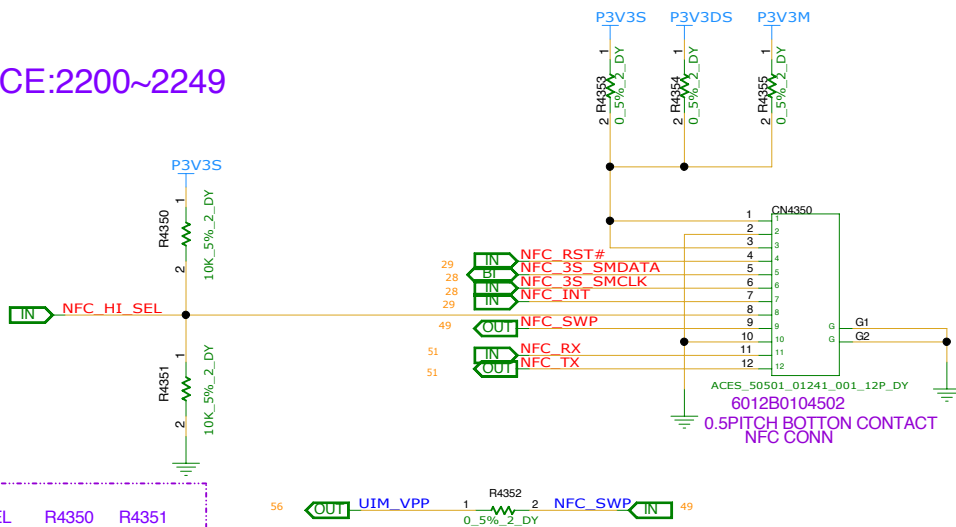


REFERENCE NUMBER:2400~2499

INVENTEC			
TITLE MODEL PROJECT FUNCTION USB & USB CHARGER			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 47 of 77



FINGER PRINT CONN



0.5PITCH BOTTOM CONTACT NFC CONN

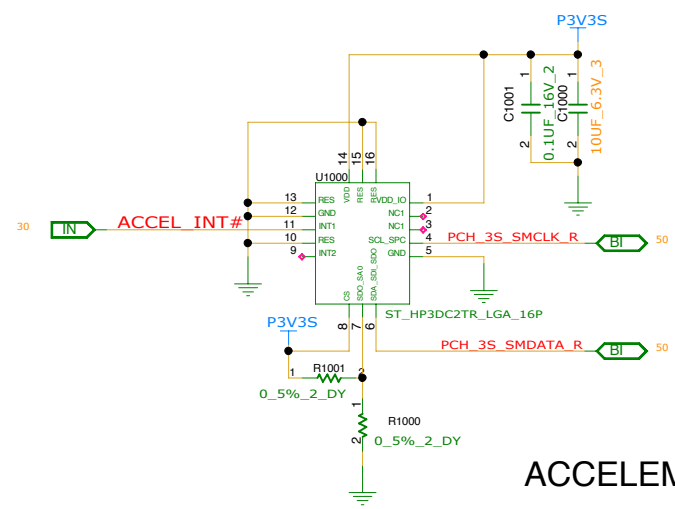
REFERENCE:2200~2249

NFC_HI_SEL R4350 R4351
 HIGH (UART) INSTALL
 LOW (I2C) INSTALL

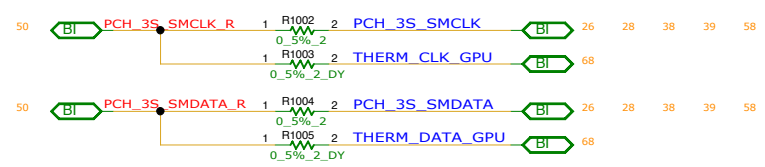
REFERENCE:4350~4399

INVENTEC

TITLE			
MODEL PROJECT FUNCTION			
FINGER PRINTER & NFC			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01
SHEET 49 of 77			

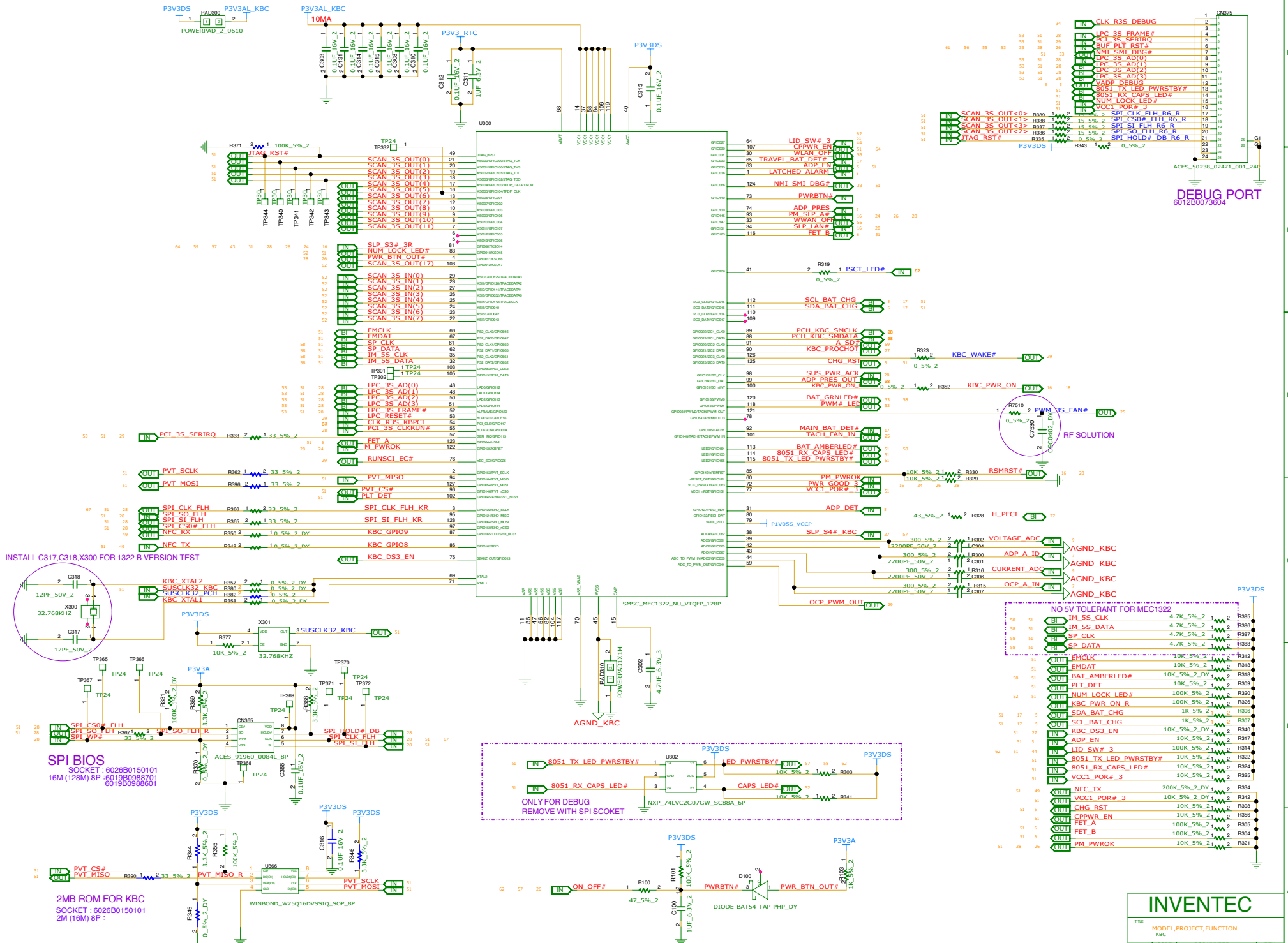


ACCELEMETOR



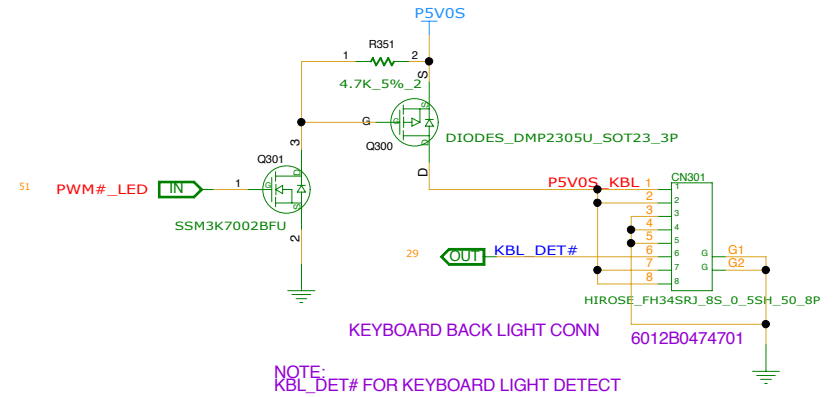
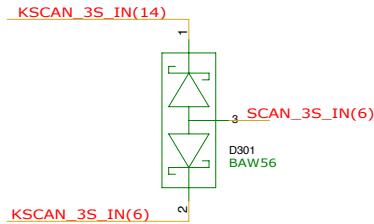
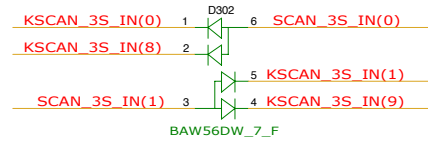
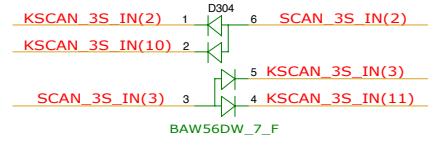
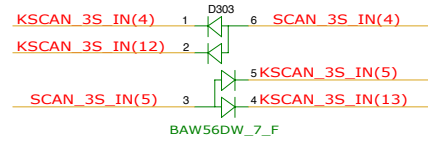
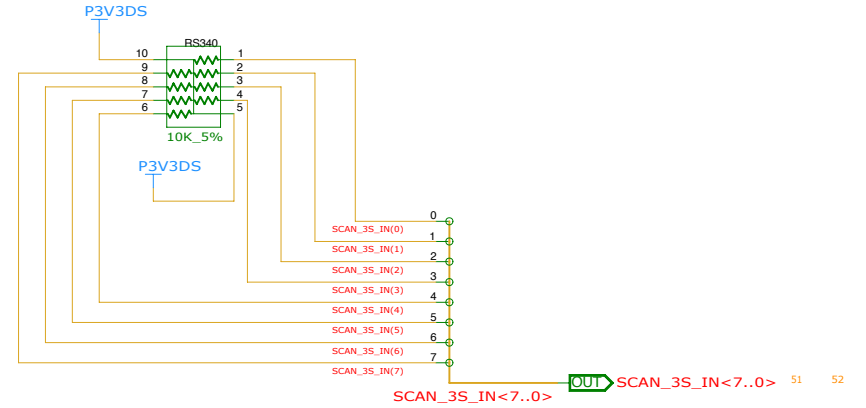
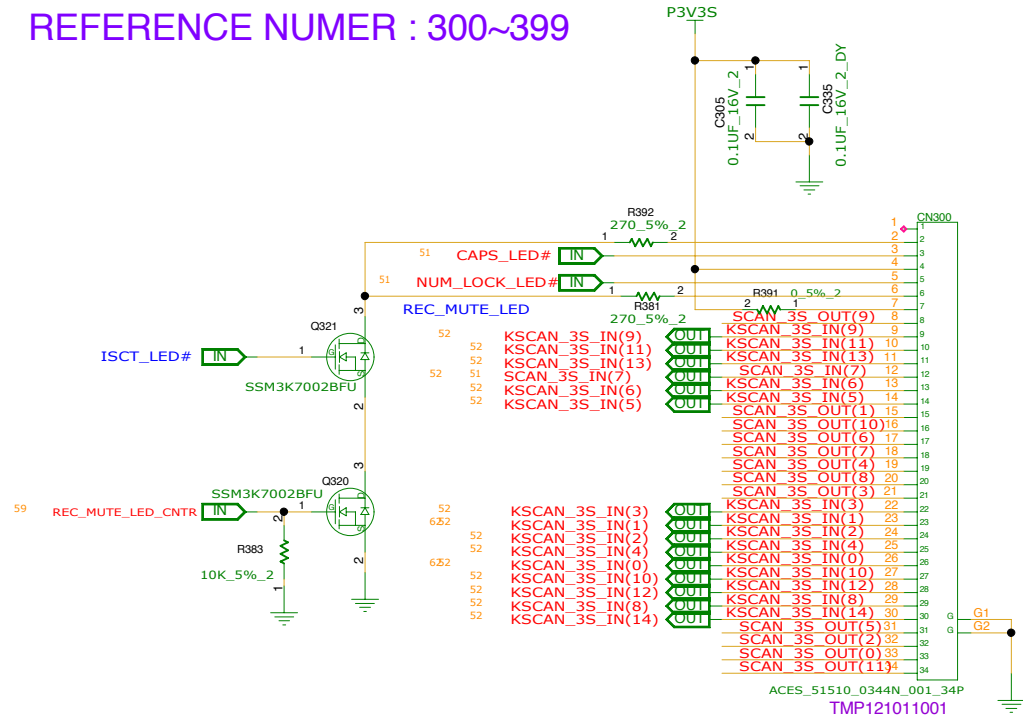
REFERENCE NUMER : 1000~1099

INVENTEC		
TITLE MODEL,PROJECT,FUNCTION ACCELEMETOR		
SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0
		REV X01
CHANGE by XXX		DATE 21-OCT-2002
		SHEET 50 of 77



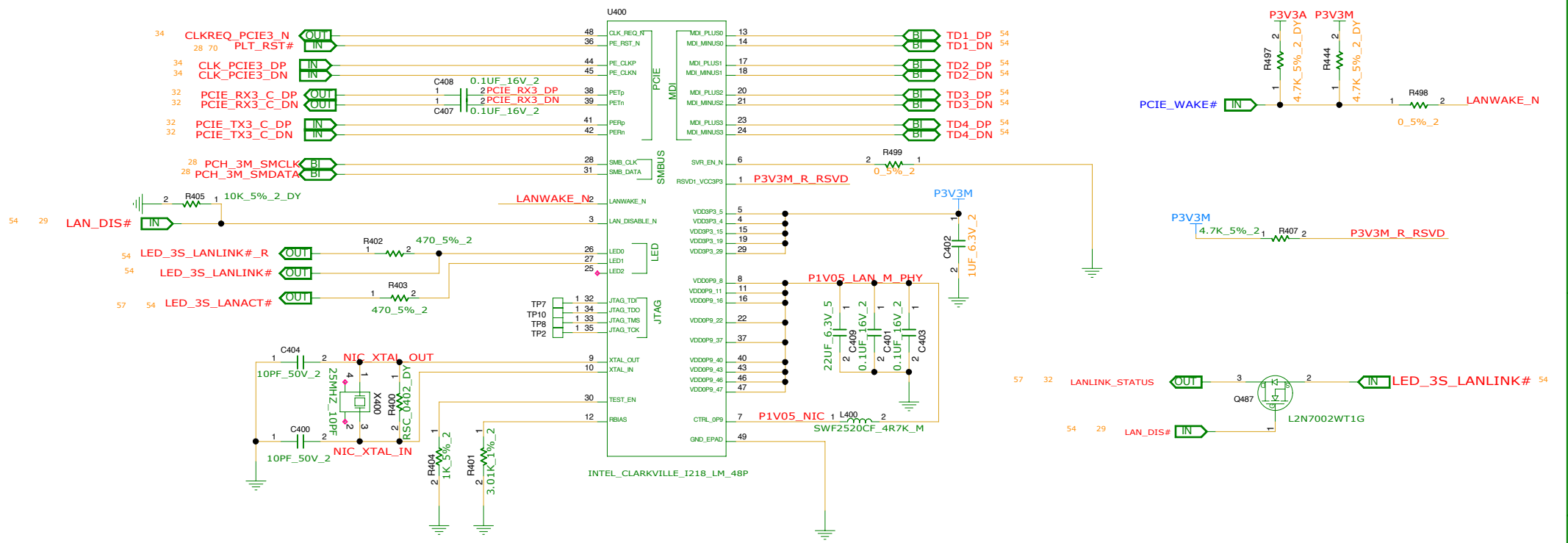
INVENTEC			
MODEL,PROJECT,FUNCTION			
KBC			
SIZE	CODE	DOCNUMBER	REV
C	CS	1310XXXX-010	X01
SHEET		SI	OF 17

REFERENCE NUMBER : 300~399



INVENTEC

TITLE		
MODEL,PROJECT,FUNCTION		
KEYBOARD		
SIZE	CODE	DOC NUMBER
A3	CS	1310xxxx-0-0
SHEET		REV
52 of 77		X01

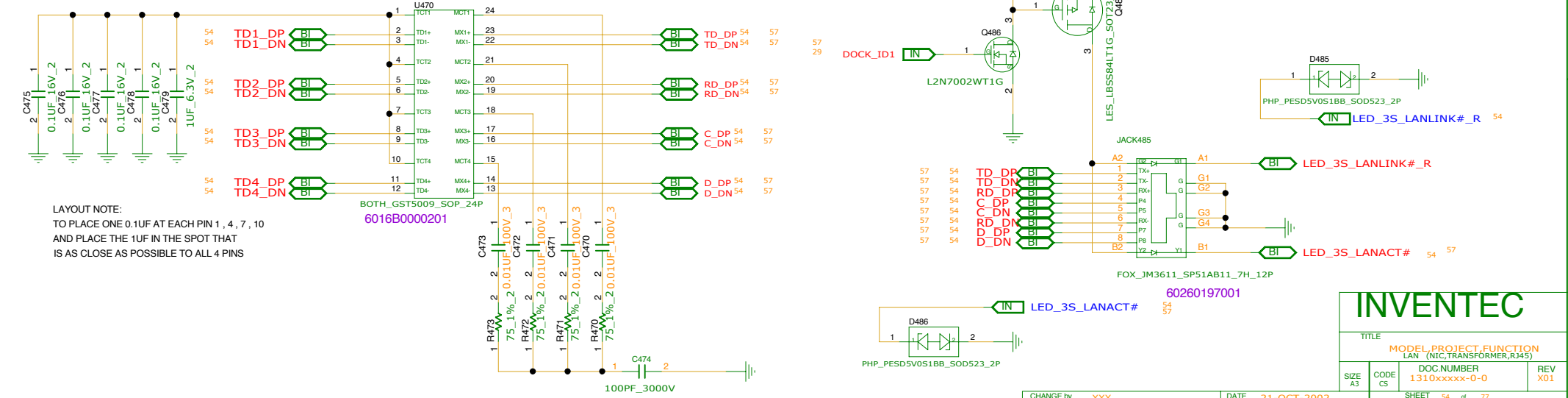


REFERENCE NUMER : 400~469

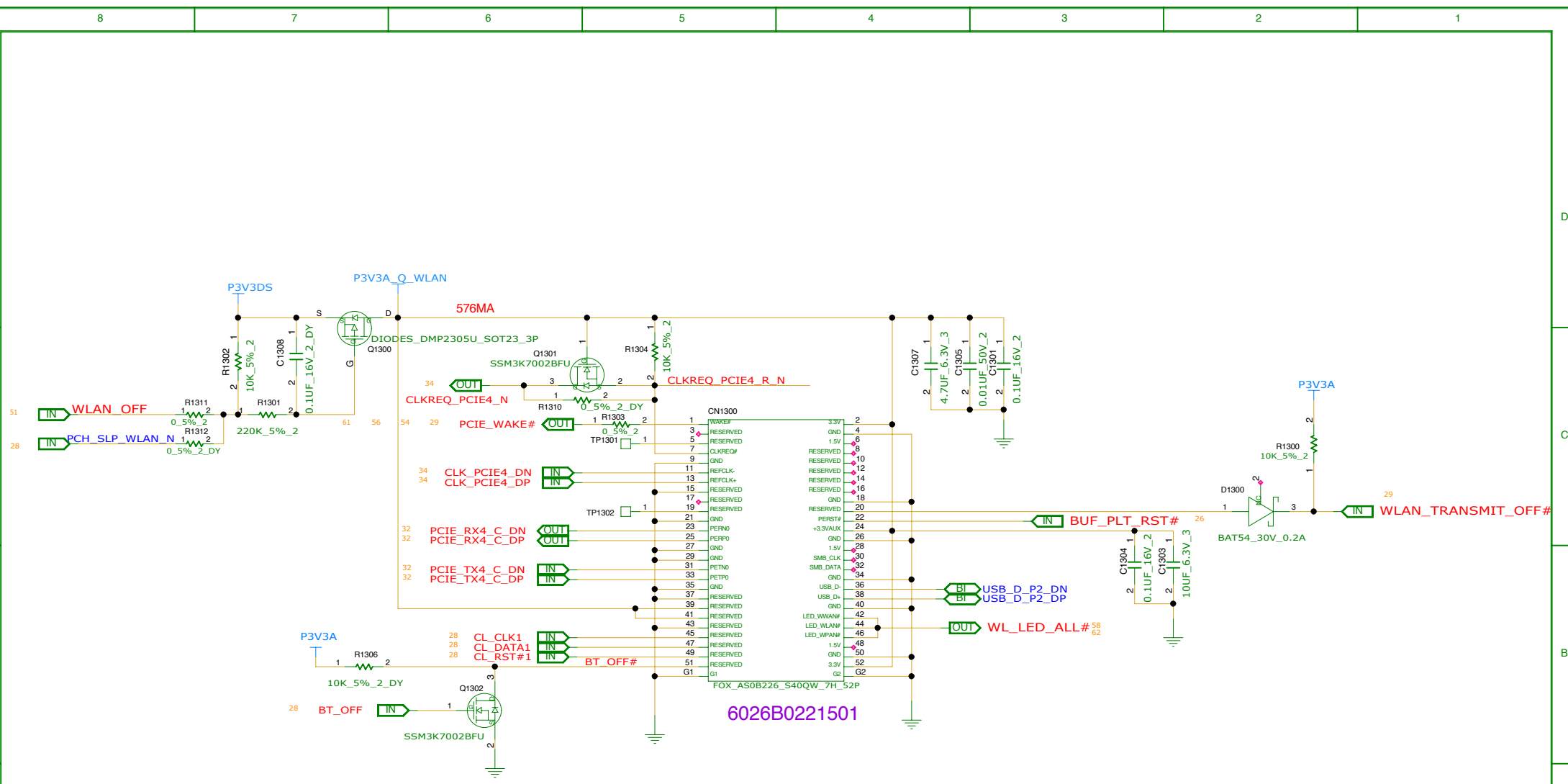
REFERENCE NUMER : 470~499

LAYOUT NOTE:
TO PLACE ONE 0.1UF AT EACH PIN 1 , 4 , 7 , 10
AND PLACE THE 1UF IN THE SPOT THAT
IS AS CLOSE AS POSSIBLE TO ALL 4 PINS

BOTH_GST5009_SOP_24P
6016B0000201



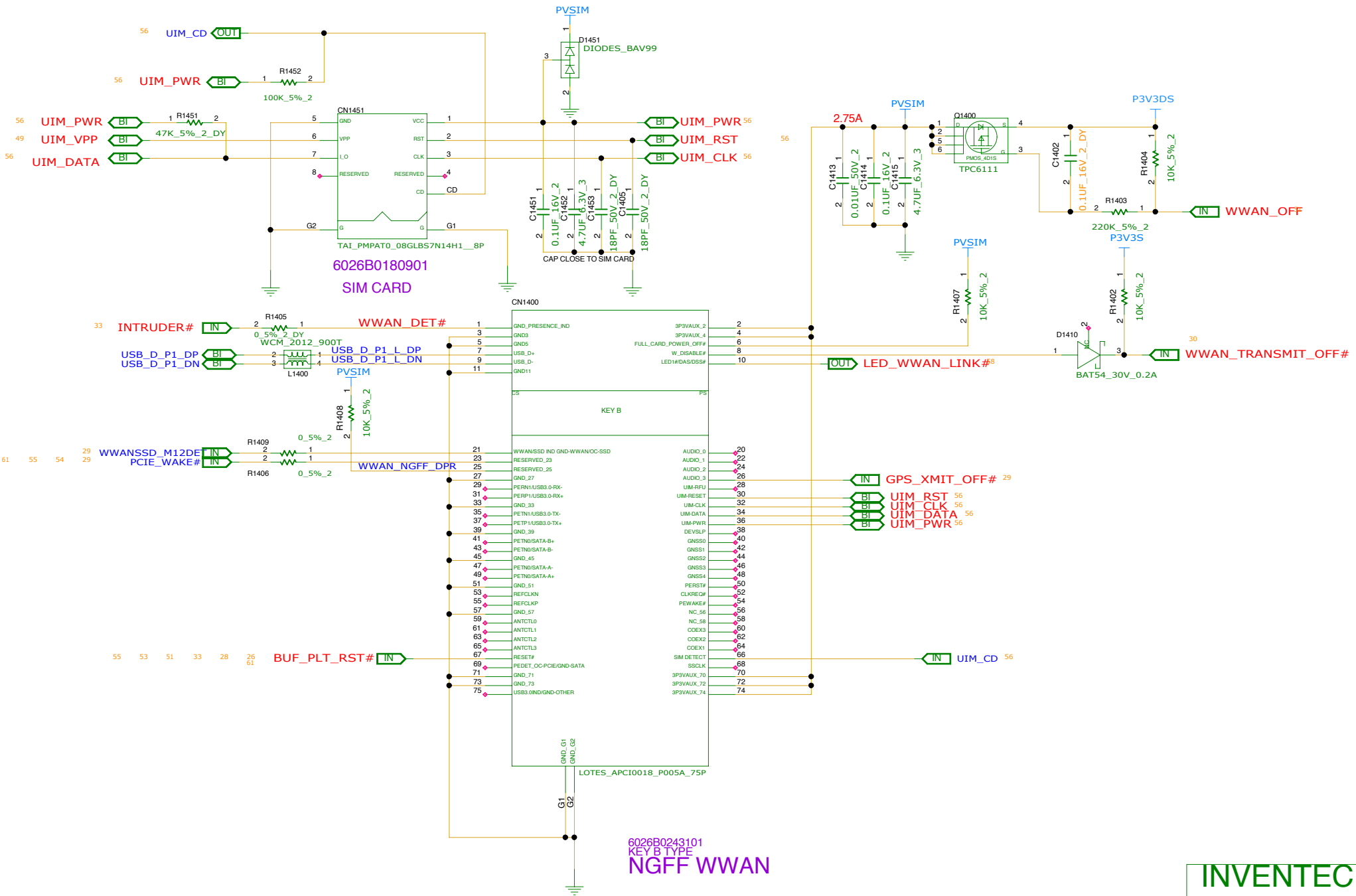
INVENTEC			
TITLE			
MODEL PROJECT FUNCTION LAN (NIC TRANSFORMER, RJ45)			
SIZE A3		CODE CS	
DOC NUMBER 1310xxxxx-0-0		REV X01	
CHANGE by XXX		DATE 21-OCT-2002	
SHEET 54 of 77			



WLAN & BLUE TOOTH

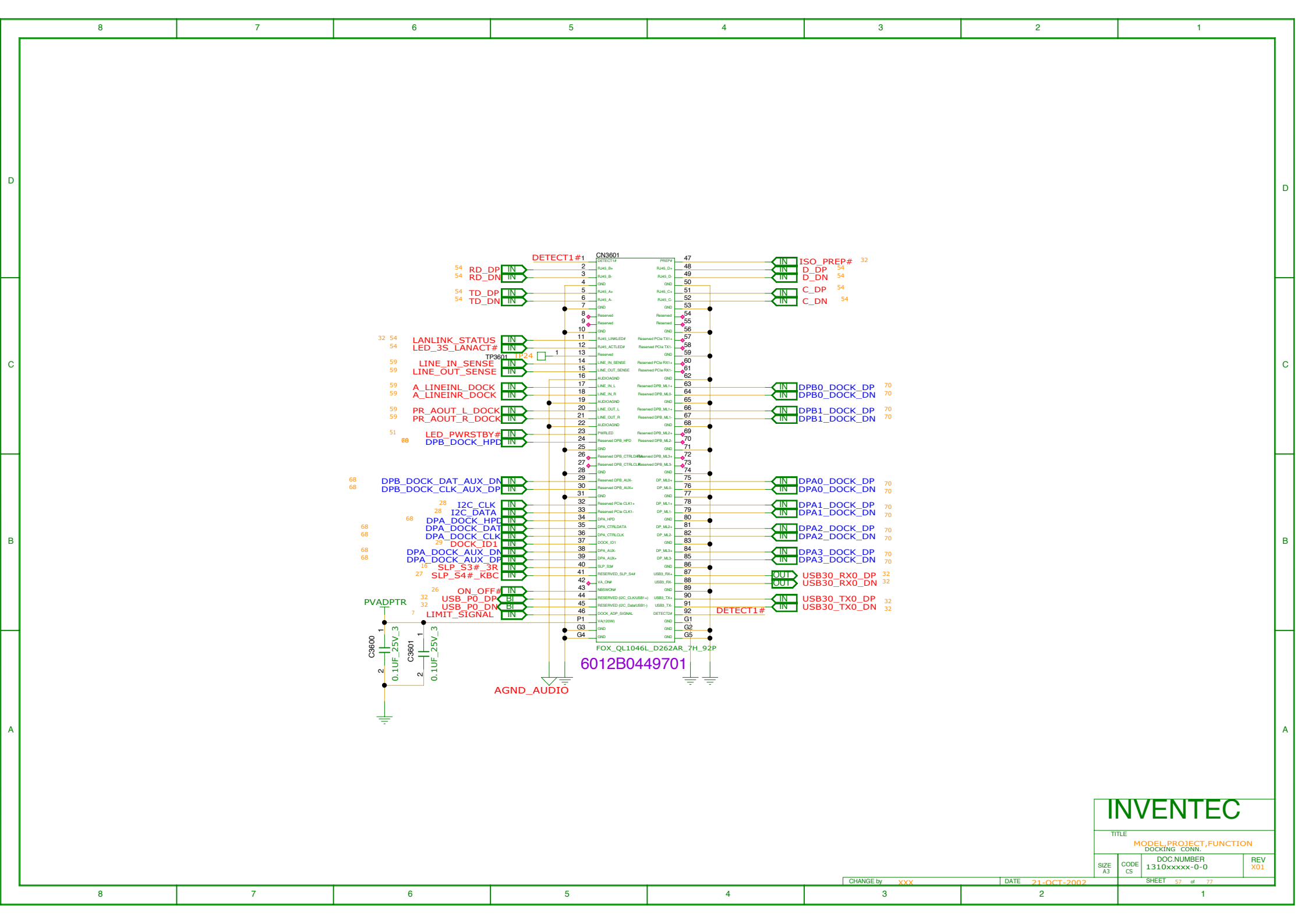
REFERENCE NUMBER:1300~1349

INVENTEC			
TITLE MODEL,PROJECT,FUNCTION WLAN & BLUE TOOTH			
SIZE A3		CODE CS	
DOC NUMBER 1310xxxxx-0-0		REV X01	
CHANGE by XXX		DATE 21-OCT-2002	
SHEET 55		of 77	



REFERENCE NUMBER:1400~1499

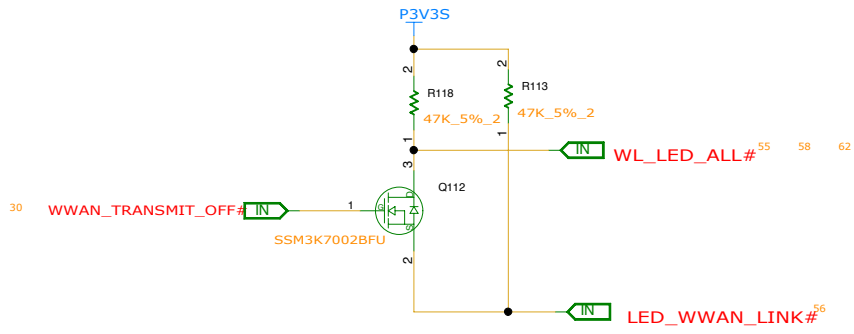
INVENTEC			
TITLE WWAN NGFF			
MODEL PROJECT,FUNCTION			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 56 of 77



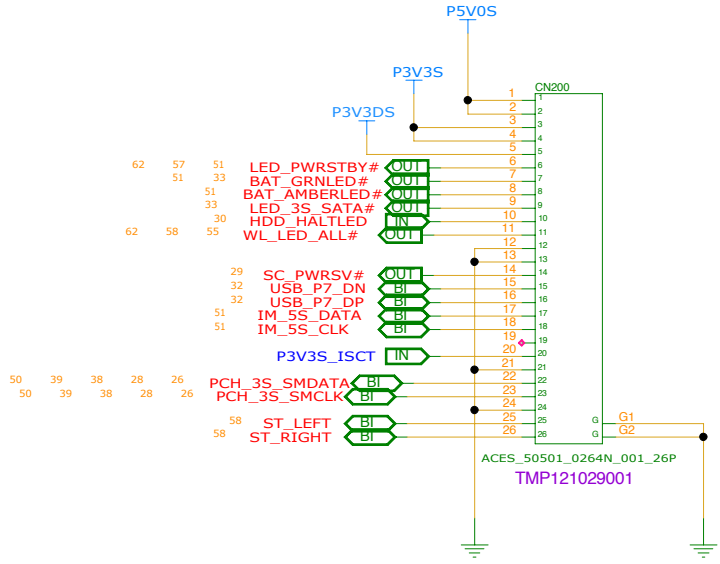
INVENTEC

TITLE
MODEL PROJECT,FUNCTION
DOCKING_CONN

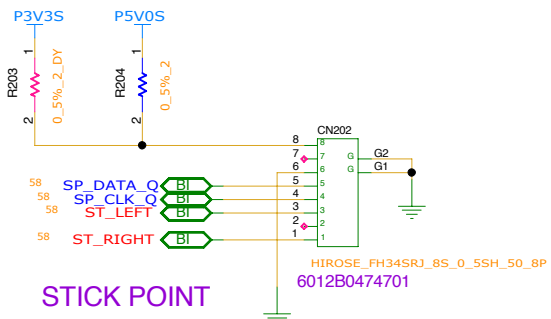
SIZE CODE DDC NUMBER REV
A3 CS 1310xxxx-0-0 X01



WLAN_WWAN_Bluetooth_LED

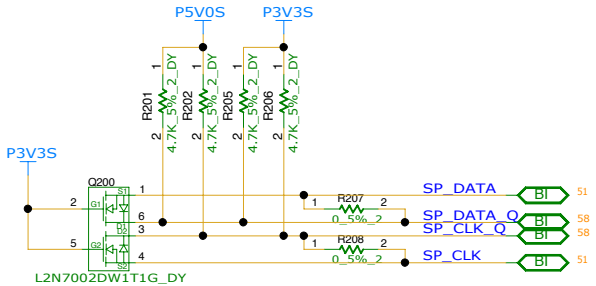


SMART CARD AND TOUCHPAD D/B W TO B CONN



STICK POINT

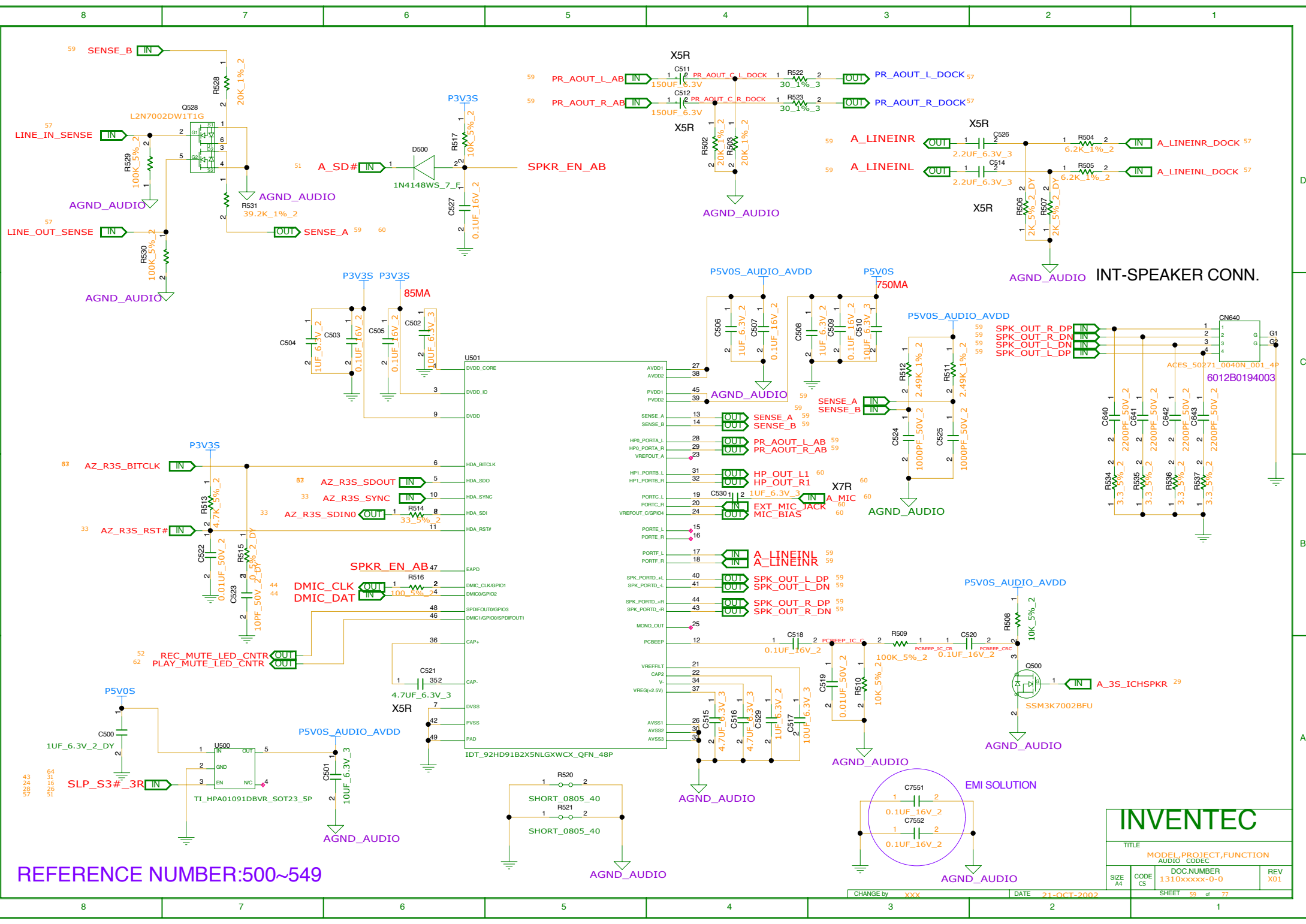
	5V	3.3V
R201	INSTALL	UNINSTALL
R202	INSTALL	UNINSTALL
R203	UNINSTALL	INSTALL
R204	INSTALL	UNINSTALL



STICK POINT OPTION

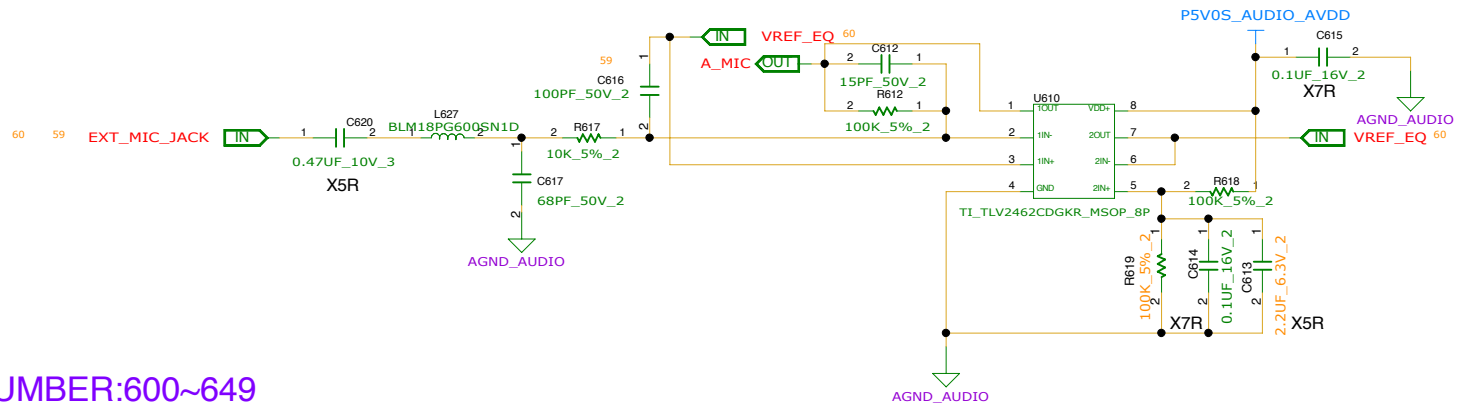
REFERENCE NUMBER:100~199

INVENTEC			
TITLE			
MODEL PROJECT FUNCTION STICK POINT & B2B CNTR			
SIZE A3	CODE CS	DOC NUMBER 1310xxxx-0-0	REV X01
SHEET 58 of 77			

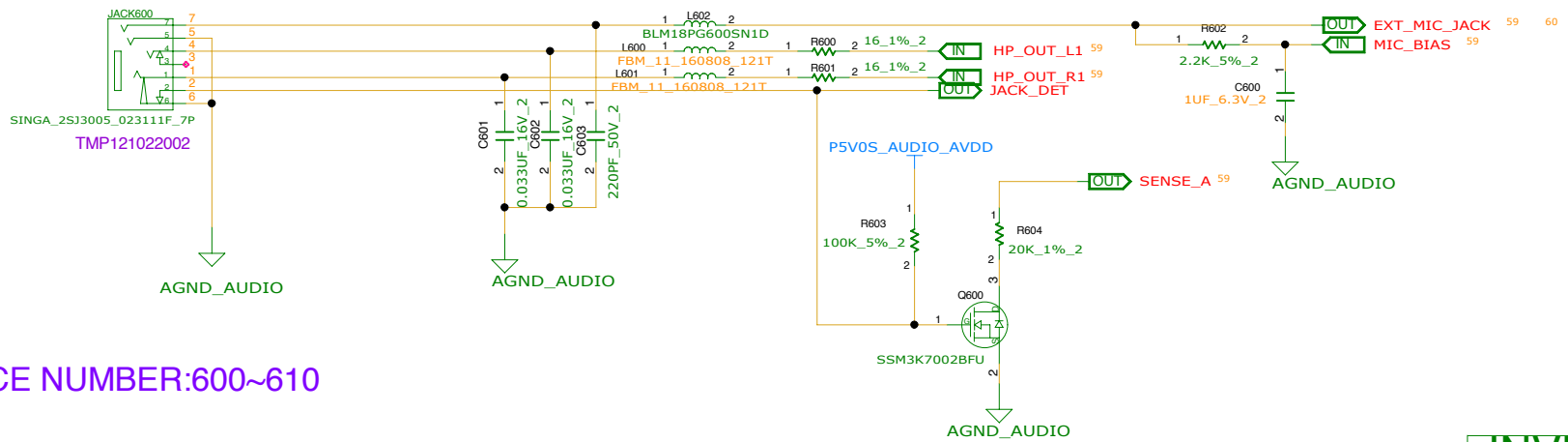


REFERENCE NUMBER:500~549

INVENTEC			
TITLE			
MODEL PROJECT,FUNCTION			
AUDIO CODEC			
SIZE	CODE	DOC NUMBER	REV
A4	CS	1310xxxxx-0-0	X01
CHANGE by XXX			DATE 21-OCT-2002
SHEET 59			of 77



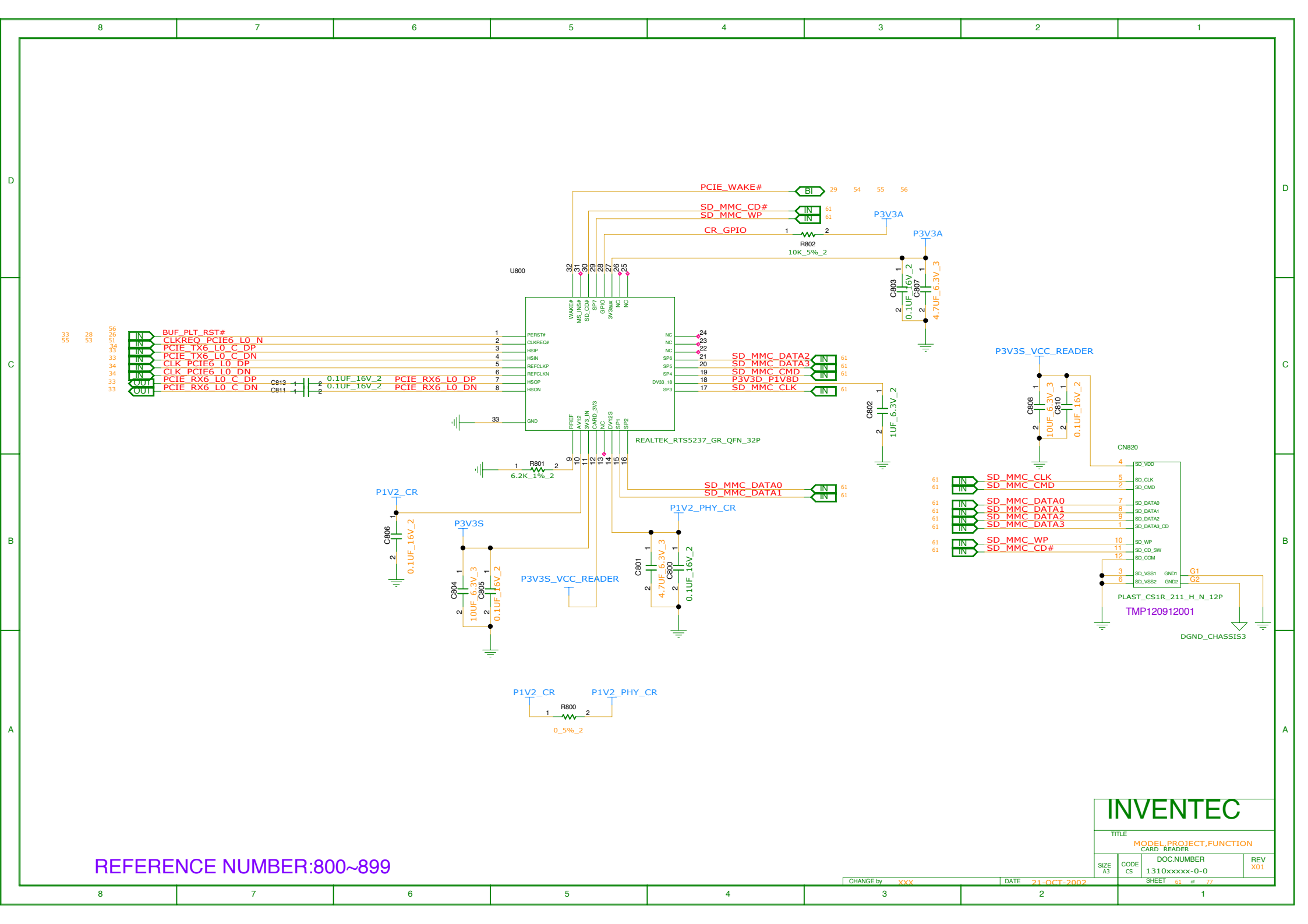
REFERENCE NUMBER:600~649



REFERENCE NUMBER:600~610

INVENTEC

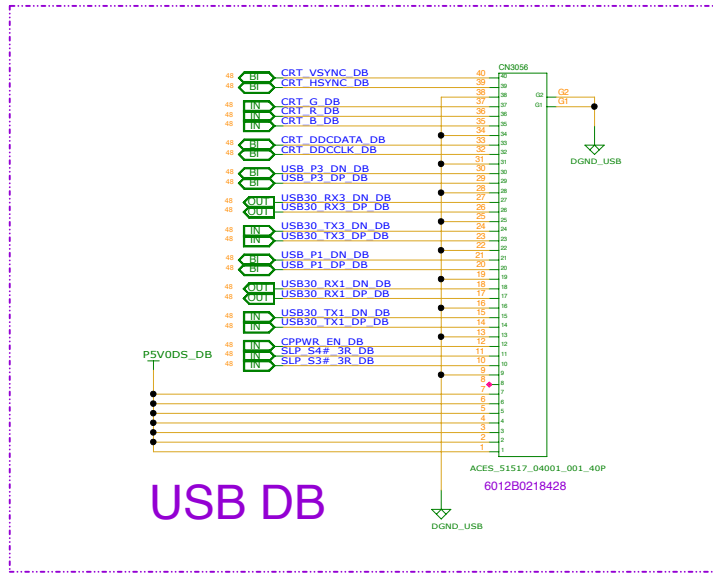
TITLE		
MODEL,PROJECT,FUNCTION EXT. MIC AMP. & AUDIO JACK		
SIZE A3	CODE CS	REV X01
DOC NUMBER 1310xxxxx-0-0		SHEET 60 of 77



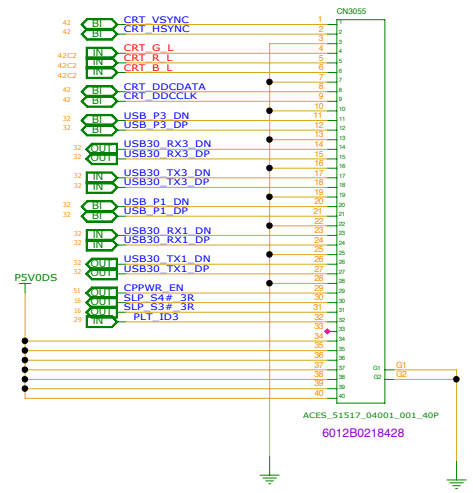
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INVENTEC

TITLE			
MODEL PROJECT,FUNCTION			
CARD READER			
SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 61 of 77

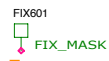
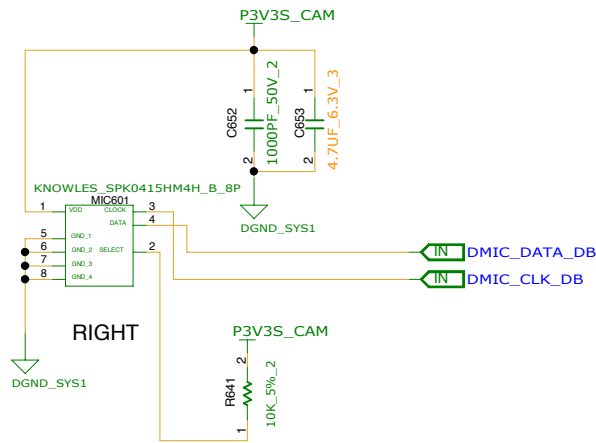
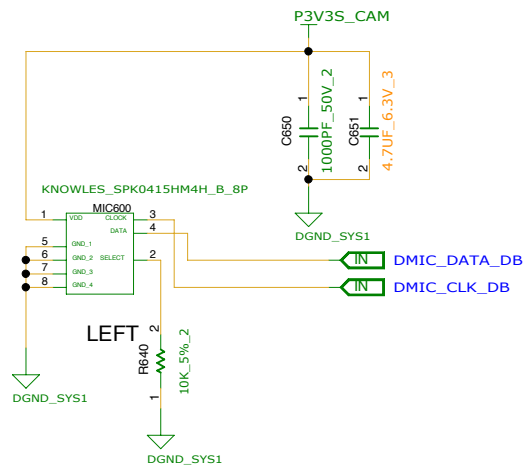
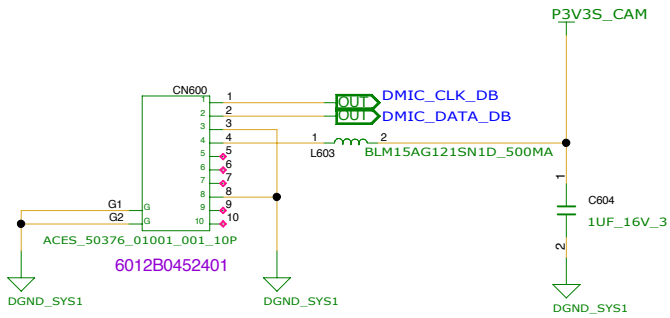


USB DB



6012B0218428

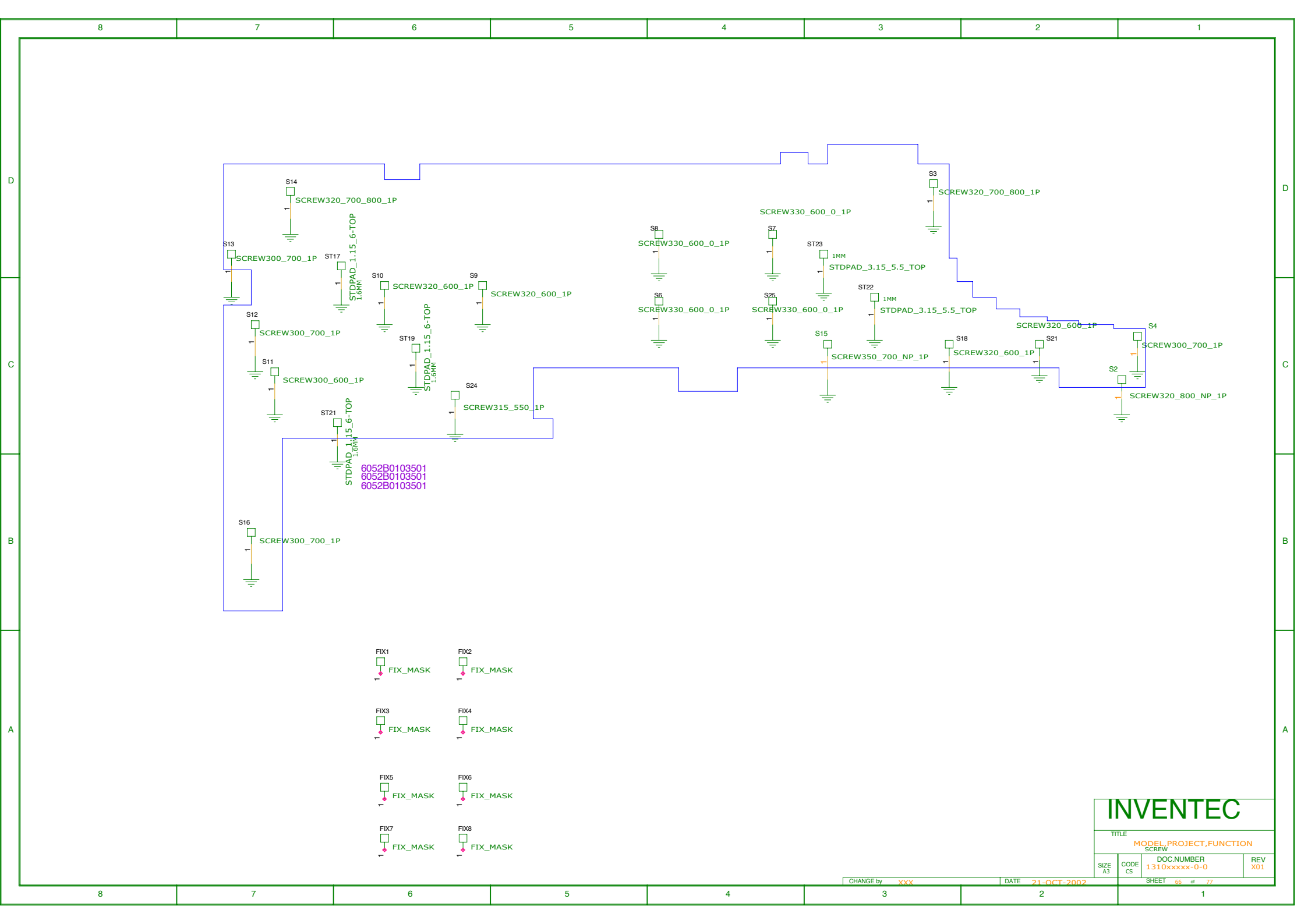
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TITLE MODEL,PROJECT,FUNCTION RESERVE			
SIZE C	CODE CS	DOCNUMBER 1310XXXX-0-D	REV X01
CHANGE BY xxx		DATE 21-OCT-2002	
SHEET 64		OF 77	



REFERENCE NUMBER:600-649
MIC DOUGHTER BOARD

INVENTEC

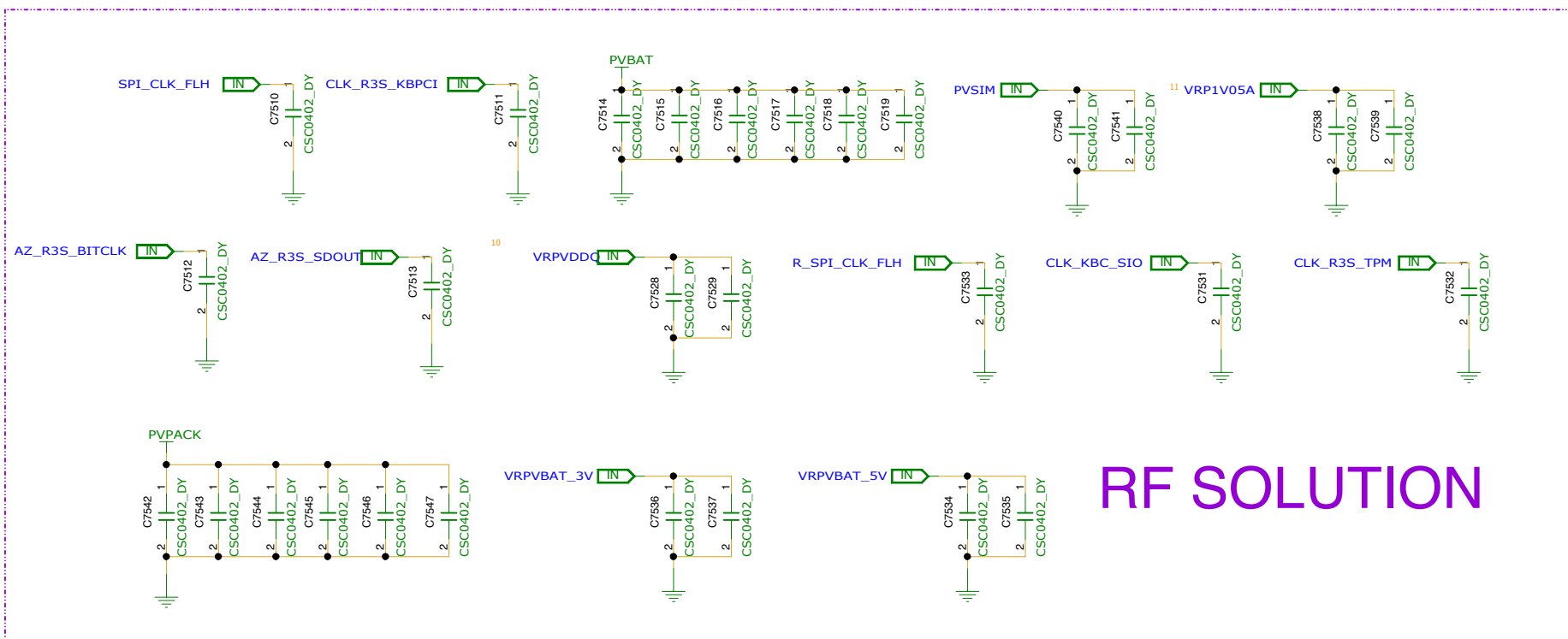
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MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
SHEET 65 of 77			



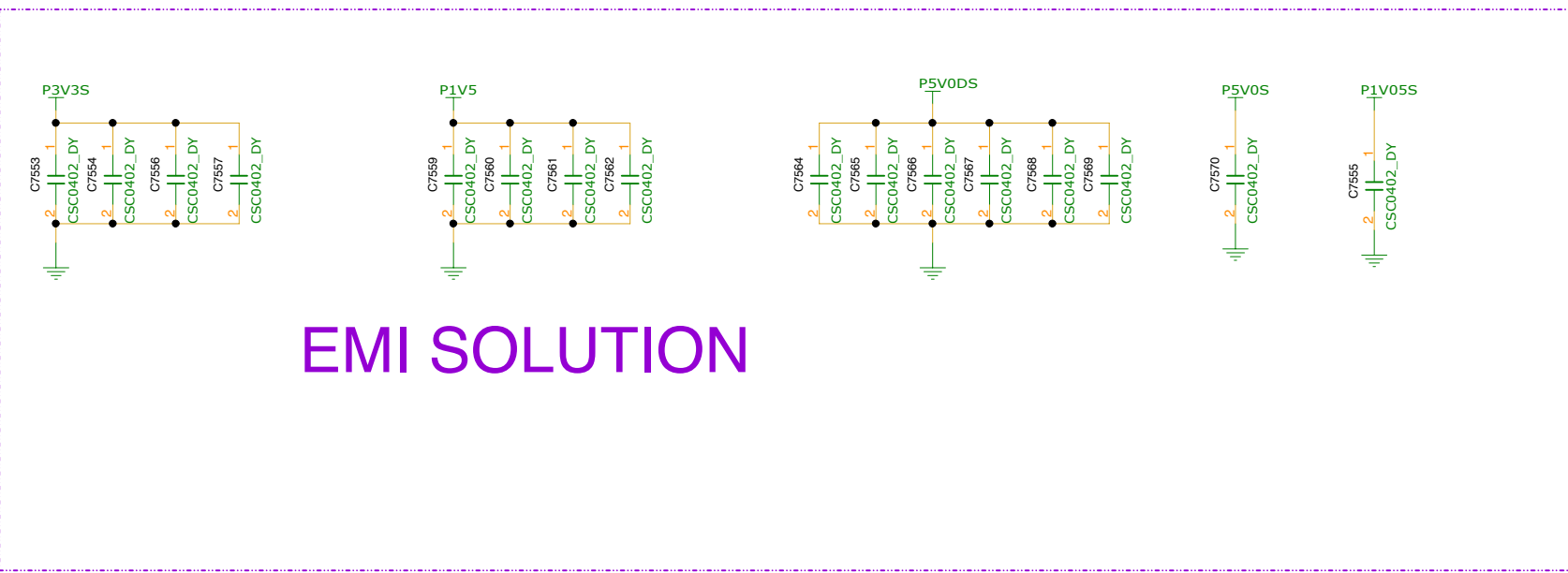
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 6052B0103501
 6052B0103501

- FIX1
FIX_MASK
- FIX2
FIX_MASK
- FIX3
FIX_MASK
- FIX4
FIX_MASK
- FIX5
FIX_MASK
- FIX6
FIX_MASK
- FIX7
FIX_MASK
- FIX8
FIX_MASK

INVENTEC			
TITLE SCREW			
MODEL,PROJECT,FUNCTION			
SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 66 of 77



RF SOLUTION



EMI SOLUTION

INVENTEC			
TITLE			
MODEL PROJECT FUNCTION EMI & RF SOLUTION			
SIZE A3	CODE CS	DOC NUMBER 1310xxxx-0-0	REV X01
SHEET 67 of 77			

LPT-LP GPIO 34	MARS MLPS Bit: PS_3 [3:1]			R_pu (Ω)	R_pd (Ω)	Vendor & PN	Die Ver.	
0	0	0	0	NC	4750	Samsung - K4G20325FD-FC04	D	GDDR5 - 64Mx32/128Mx16, 1.5V/1.35V, 5.0Gbps/4Gbps
	0	0	1	8450	2000	Hynix - H5GQ2H24AFR-T2C	A (Gemma)	GDDR5 - 64Mx32/128Mx16, 1.5V/1.35V, 5.0Gbps/4Gbps
1	1	1	0	3400	10000	*Samsung - K4G41325FC-HC04	C	*GDDR5 - 128Mx32/256Mx16, 1.5V/1.35V, 5.0Gbps/4Gbps
	1	1	1	4759	NC	*Hynix - H5GC4H24MFR-T0C	Huma	*GDDR5 - 128Mx32/256Mx16, 1.5V/1.35V, 5.0Gbps/4Gbps
VBIOS selection :	Vram configuration	Vendor ID	Resistor Divider			Vram information		
0 : VBIOS 1, 64Mx32 for 1GB sku	00: 64Mx32 (2Gb)	0: Samsung	Lookup Table			* 2GB sku, TBD		
1 : VBIOS 2, 128Mx32 for 2GB sku	11: 128Mx32 (4Gb)	1: Hynix						

MLPS Implementation

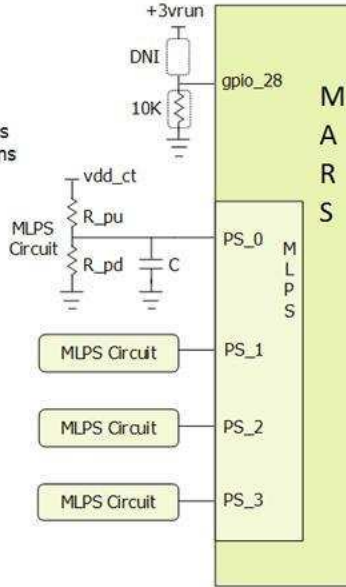
- Connect GPIO_28 to 10K pulldown to enable MLPS
- If any of PS_0/1/2/3 is not used, leave "no connect"
- R_pu, R_pd and C must be properly populated per tables below
- Place MLPS circuit components as close to the ASIC as possible
- Total DC resistance of trace between PS pin and C should be less than 2 ohms
- Total DC resistance of trace between C and ground should be less than 2 ohms
- Trace capacitance should be less than 100pF. Resistors should be of +/-1% tolerance

Capacitor Lookup Table

C (nF)	Bits(5,4)
680	00
82	01
10	10
NC	11

Resistor Divider Lookup Table

R_pu (Ohm)	R_pd (Ohm)	Bits(3,2,1)
NC	4750	000
8450	2000	001
4530	2000	010
6980	4990	011
4530	4990	100
3240	5620	101
3400	10000	110
4750	NC	111



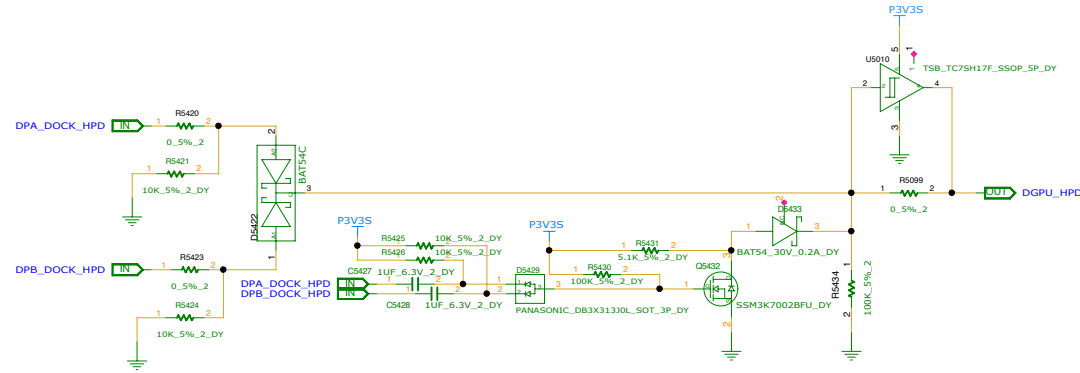
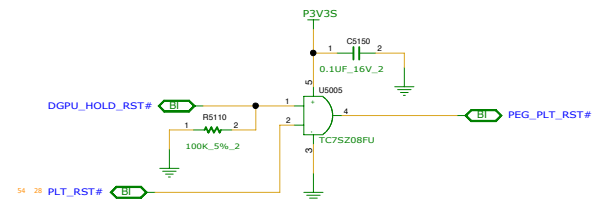
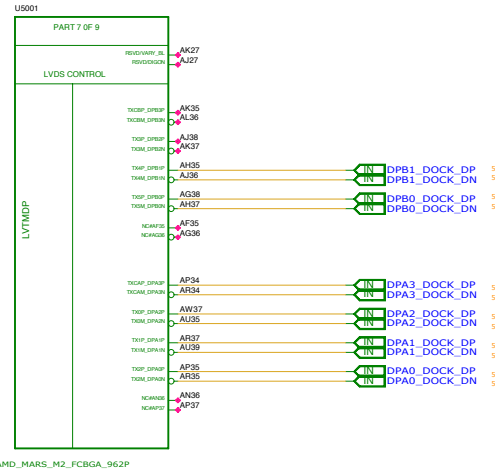
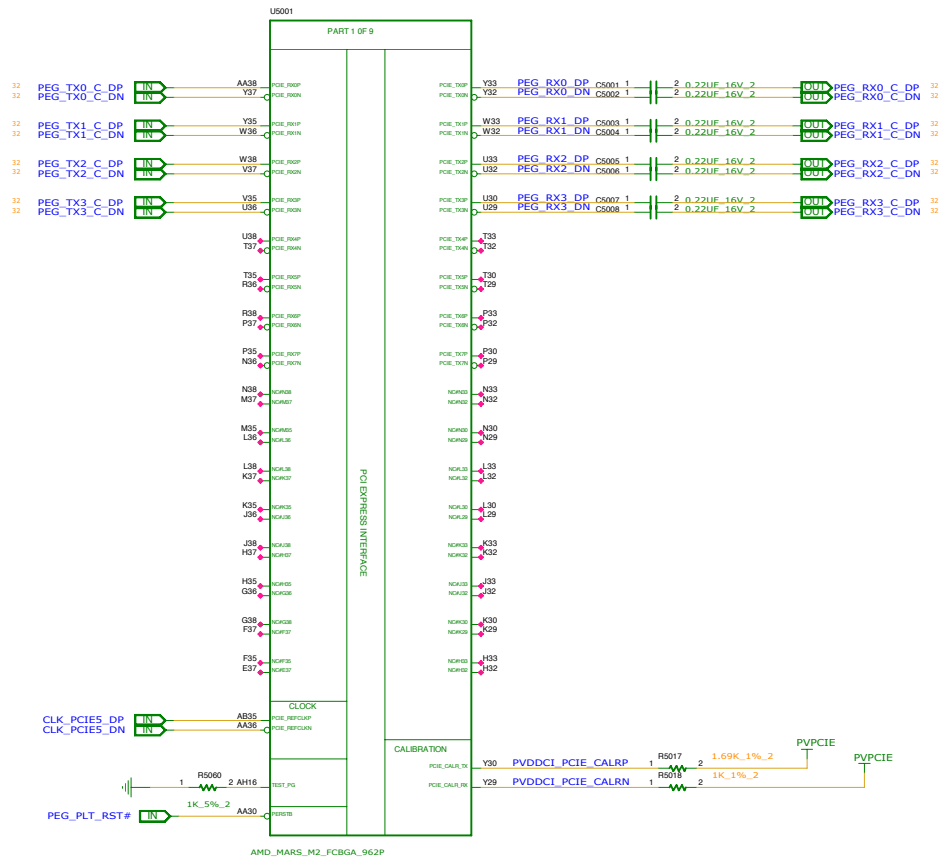
MLPS Bit	Strap Name	Description
PS_0[1]	ROM_CONFIG[0]	See Primary Memory Aperture Sizes.
PS_0[2]	ROM_CONFIG[1]	
PS_0[3]	ROM_CONFIG[2]	
PS_0[4]	N/A	Reserved for internal use only. Must be 1 at reset.
PS_0[5]	AUD_PORT_CONN_PINSTRAP[0]	The LSB (least significant bit) of the strap that indicates the number of audio-capable display outputs.
PS_1[1]	STRAP_BIF_GEN3_EN_A	PCIe GEN3 capability. 1 = PCIe GEN3 is supported.
PS_1[2]	STRAP_BIF_CLK_PM_EN	Determines whether or not the PCIe reference clock power management capability is reported in the PCI configuration space (otherwise known as CLKREQB). 0 = The CLKREQB power management capability is disabled
PS_1[3]	N/A	Reserved for internal use only. Must be 0 at reset.
PS_1[4]	STRAP_TX_CFG_DRV_FULL_SWING	Control the transmitter full-/half-swing mode 1 = The transmitter full-swing is enabled
PS_1[5]	STRAP_TX_DEEMPH_EN	PCI EXPRESS® transmitter, de-emphasis enable. 1 = Tx deemphasis enabled.
PS_2[1]	N/A	Reserved.
PS_2[2]	N/A	Reserved.
PS_2[3]	STRAP_BIOS_ROM_EN	To enable the external BIOS ROM device. 0 = Disable the external BIOS ROM device.
PS_2[4]	STRAP_BIF_VGA_DIS	VGA disable determines whether or not the card will be recognized as the system's VGA controller (through the SUBCLASS field in the PCI configuration space). 0 = VGA controller capacity enabled.
PS_2[5]	N/A	Reserved
PS_2[1]	N/A	Reserved.
PS_2[2]	N/A	Reserved.
PS_2[3]	STRAP_BIOS_ROM_EN	To enable the external BIOS ROM device. 0 = Disable the external BIOS ROM device.
PS_2[4]	STRAP_BIF_VGA_DIS	VGA disable determines whether or not the card will be recognized as the system's VGA controller (through the SUBCLASS field in the PCI configuration space). 0 = VGA controller capacity enabled.
PS_2[5]	N/A	Reserved
PS_3[1]	BOARD_CONFIG[0]	See Board configuration related strapping, such as for memory ID.
PS_3[2]	BOARD_CONFIG[1]	
PS_3[3]	BOARD_CONFIG[2]	
PS_3[4]	AUD_PORT_CONN_PINSTRAP[1]	Determines the maximum number of digital display audio endpoints that will be presented to the OS and user. 111 = No usable endpoints. 110 = One usable endpoint. 101 = Two usable endpoints. 100 = Three usable endpoints. 011 = Four usable endpoints. 010 = Five usable endpoints. 001 = Six usable endpoints. 000 = All endpoints are usable.
PS_3[5]	AUD_PORT_CONN_PINSTRAP[2]	

Note : AUD[1] (on HYSNC) and AUD[0] (on VSYNC) still need to be properly pin strapped even in a MLPS-based design.

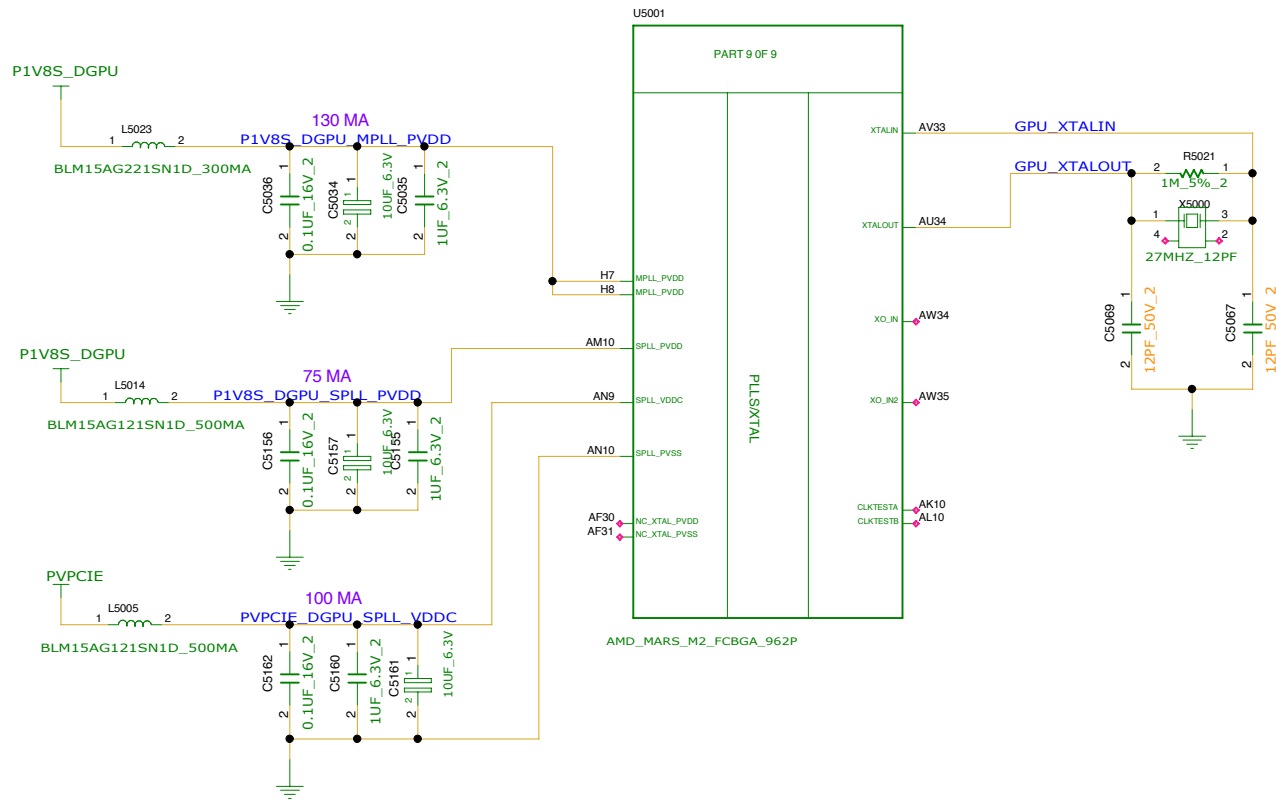
Pin/Bit	Name	Description	Default	Legacy
PS_0[3:1]	romidcfg[2:0]	Memory aperture size or ROM type select: If bios_rom_en = 0, romidcfg[2:0] define memory aperture size If bios_rom_en = 1, romidcfg[2:0] define ROM type	xxx	gpio_13 gpio_12 gpio_11
PS_0[4]	n/a	Reserved	1	genlk_vsync
PS_1[1]	bif_gen3_en_a	PCIe Gen3 capability: 1=Gen3 supported, 0=Gen3 not supported	x	gpio_2
PS_1[2]	bif_clk_pm_en	PCIe Clk PM capability: 1 = CLKREQB supported	x	gpio_8
PS_1[3]	n/a	Reserved		genlk_clk
PS_1[4]	tx_pwrs_enb	PCIe Tx power savings: 0=50% swing, 1=full swing	x	gpio_0
PS_1[5]	tx_deemph_en	PCIe Tx de-emphasis: 1=Tx de-emphasis enabled	x	gpio_1
PS_2[1]	n/a	Reserved		n/a
PS_2[2]	n/a	Reserved		n/a
PS_2[3]	bios_rom_en	Enable external BIOS ROM: 1=External ROM connected	x	gpio_22
PS_2[4]	vga_dis	VGA disable: 1=Disable this GPU as the system's VGA controller	0	gpio_9
PS_2[5]	n/a	Reserved		n/a
PS_3[1]	MEM Vendor ID	MEM Vendor ID	0	n/a
PS_3[2]	MEM Vendor ID	MEM Vendor ID	0	n/a
PS_3[3]	MEM Vendor ID	MEM Vendor ID	0	n/a
PS_3[5]	aud_port_cp[2]	3-bit field indicating number of audio-capable display outputs	xxx	n/a
PS_3[4]	aud_port_cp[1]			
PS_0[5]	aud_port_cp[0]			

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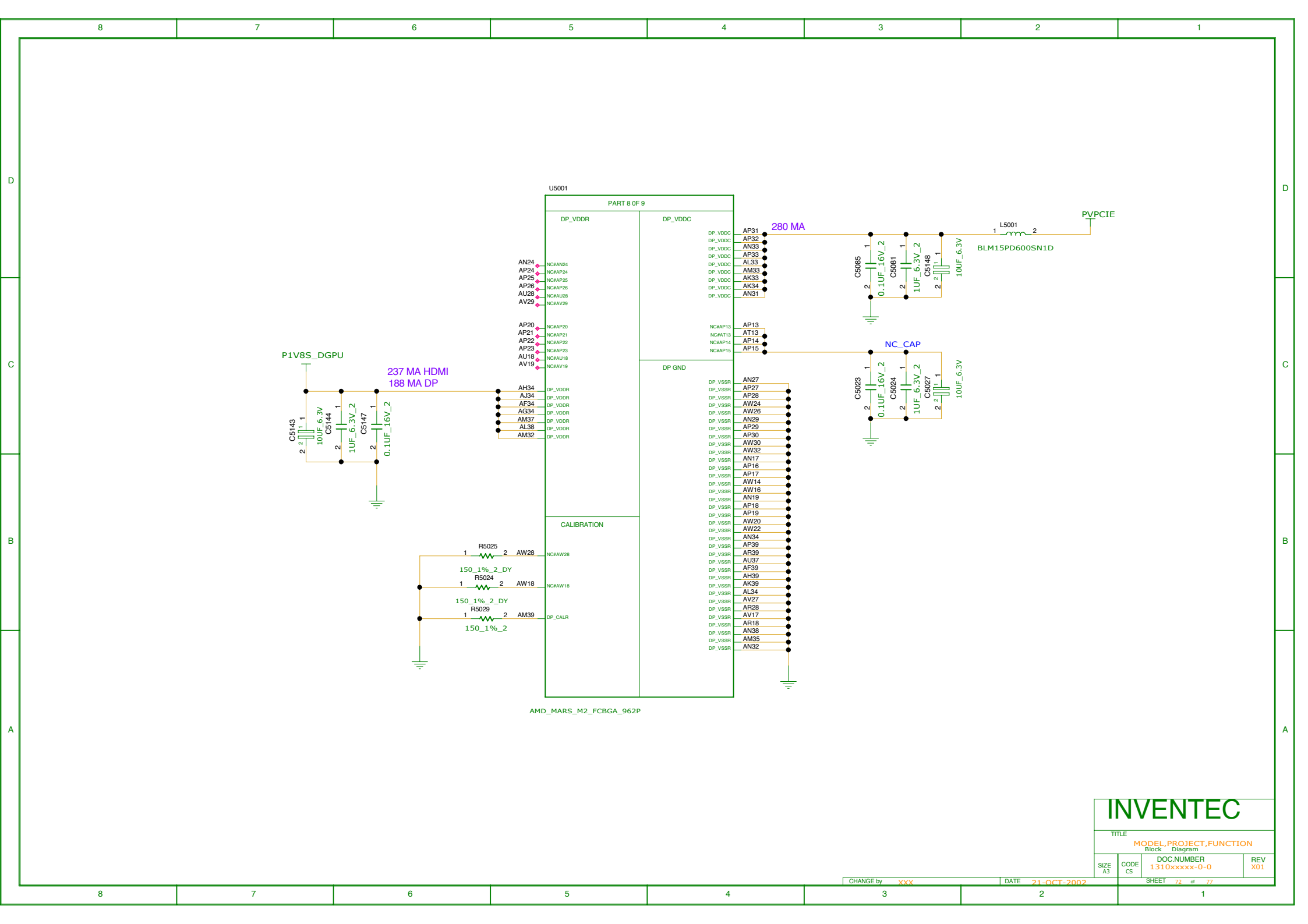
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MODEL, PROJECT, FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310xxxx-0-0	201
SHEET		69	of 77



INVENTEC			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXXXX-0-0	201
SHEET		36	of 37

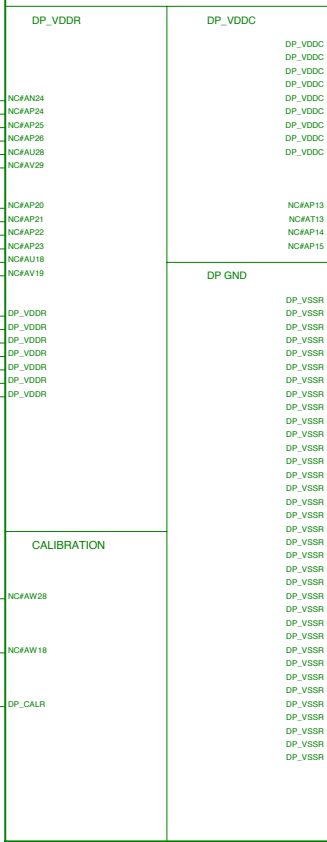


INVENTEC			
TITLE MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 71 of 77

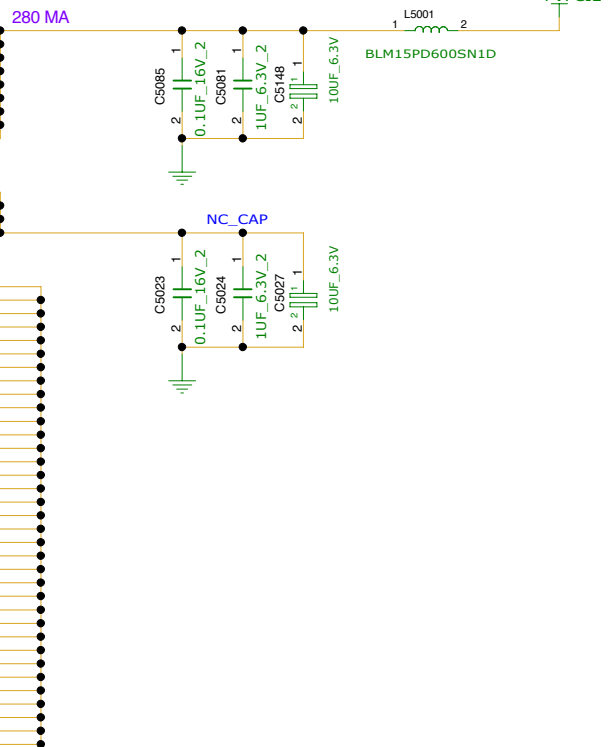
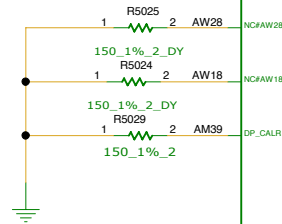
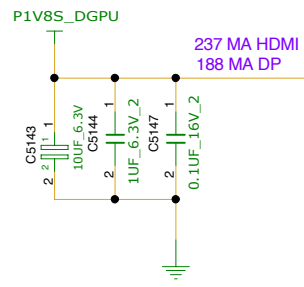


U5001

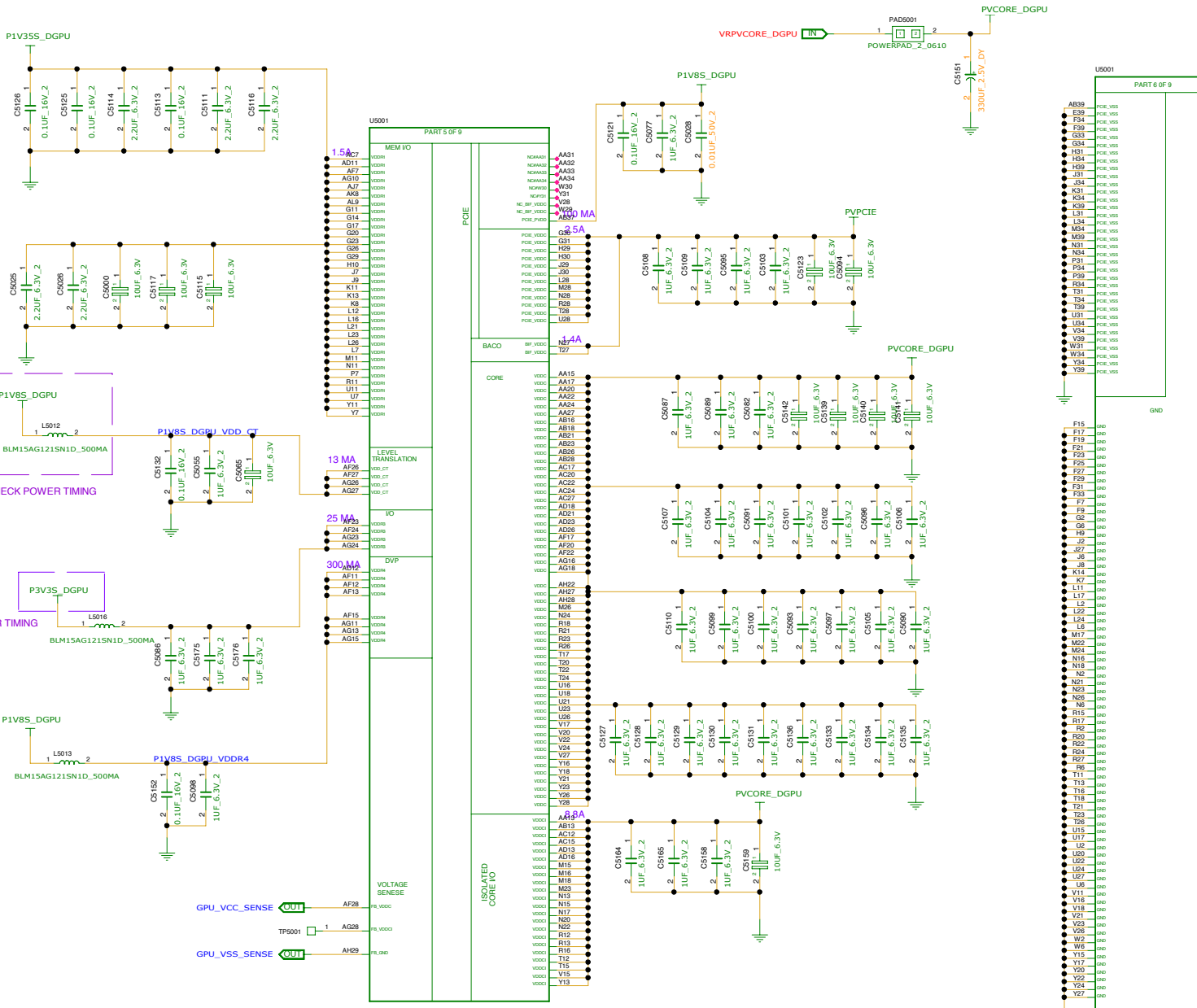
PART 8 OF 9



AMD_MARS_M2_FCBGA_962P

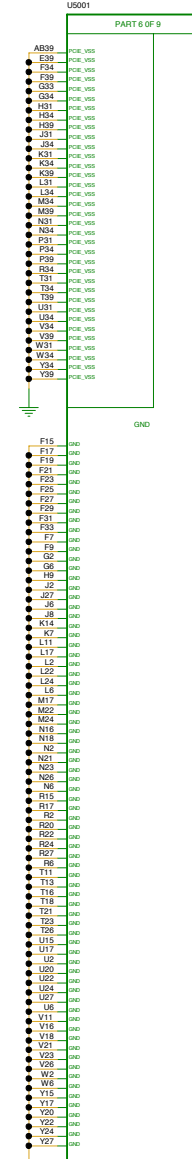


INVENTEC			
TITLE MODEL,PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX		DATE 21-OCT-2002	SHEET 72 of 77



INVENTEC

MODEL,PROJECT,FUNCTION			
AMD-THAMES-1			
SIZE	CODE	DOC NUMBER	REV
C	CS	13110XXXXX-0-D	X01
CHANGE BY		DATE	SHEET
XXX		21-OCT-2012	21 of 27



AMD_MARS_M2_FCBGA_962P

AMD_MARS_M2_FCBGA_962P

AMD_MARS_M2_FCBGA_962P

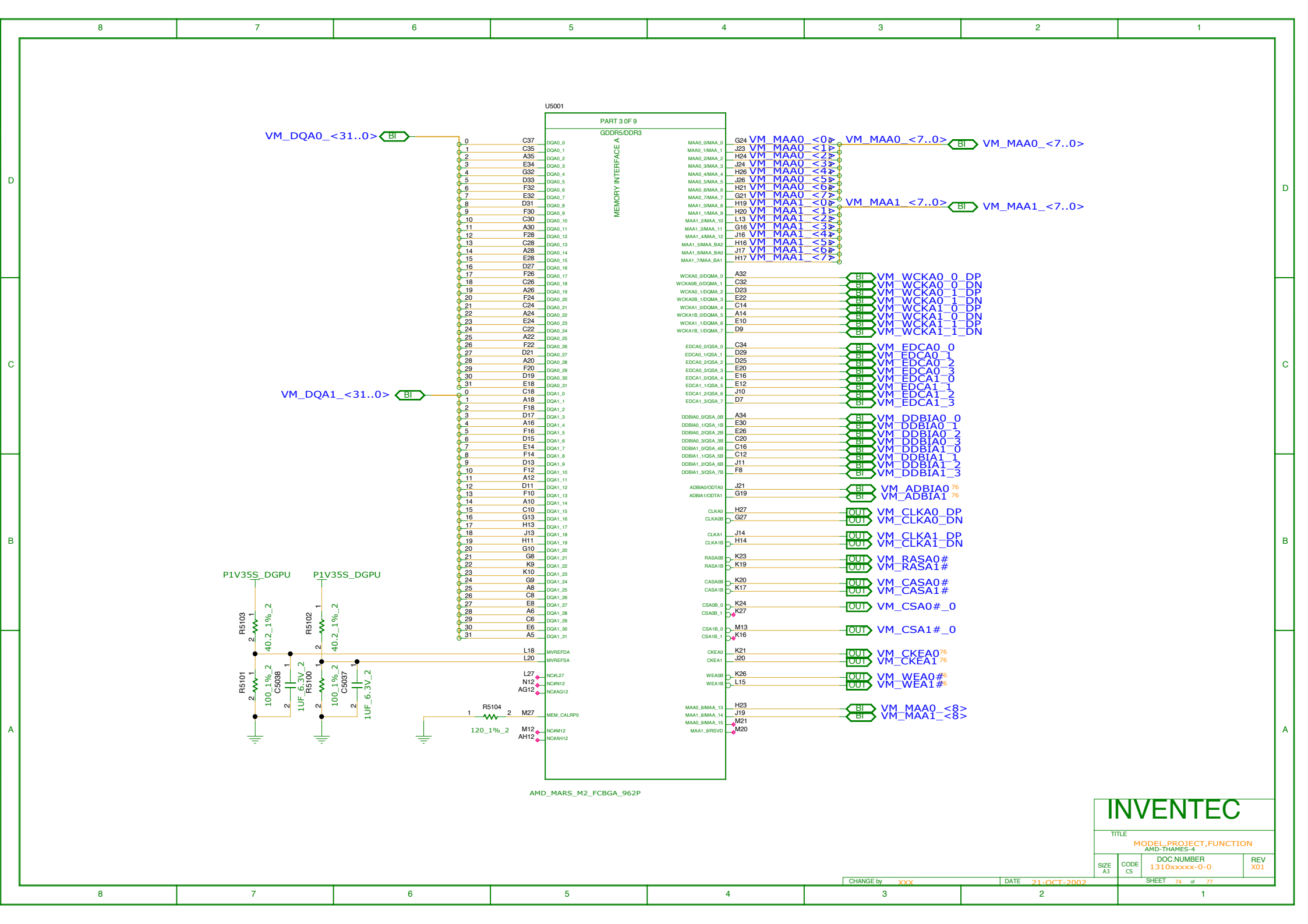
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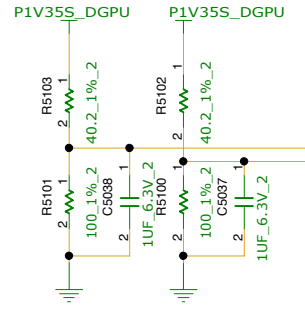


U5001

PART 3 OF 9

MEMORY INTERFACE

0	C37	DDA0.0
1	C35	DDA0.1
2	A35	DDA0.2
3	E34	DDA0.3
4	G32	DDA0.4
5	D33	DDA0.5
6	F32	DDA0.6
7	E32	DDA0.7
8	D31	DDA0.8
9	F30	DDA0.9
10	C30	DDA0.10
11	A30	DDA0.11
12	F28	DDA0.12
13	C28	DDA0.13
14	A28	DDA0.14
15	E28	DDA0.15
16	D27	DDA0.16
17	F26	DDA0.17
18	C26	DDA0.18
19	A26	DDA0.19
20	F24	DDA0.20
21	C24	DDA0.21
22	A24	DDA0.22
23	E24	DDA0.23
24	C22	DDA0.24
25	A22	DDA0.25
26	F22	DDA0.26
27	D21	DDA0.27
28	A20	DDA0.28
29	F20	DDA0.29
30	D19	DDA0.30
31	E18	DDA0.31
0	C18	DDA1.0
1	A18	DDA1.1
2	F18	DDA1.2
3	D17	DDA1.3
4	A16	DDA1.4
5	F16	DDA1.5
6	D15	DDA1.6
7	E14	DDA1.7
8	F14	DDA1.8
9	D13	DDA1.9
10	F12	DDA1.10
11	A12	DDA1.11
12	D11	DDA1.12
13	F10	DDA1.13
14	A10	DDA1.14
15	C10	DDA1.15
16	G13	DDA1.16
17	H13	DDA1.17
18	J13	DDA1.18
19	H11	DDA1.19
20	G10	DDA1.20
21	G8	DDA1.21
22	K9	DDA1.22
23	K10	DDA1.23
24	G9	DDA1.24
25	A8	DDA1.25
26	C8	DDA1.26
27	E8	DDA1.27
28	A6	DDA1.28
29	C6	DDA1.29
30	E6	DDA1.30
31	A5	DDA1.31
L18	MVREFDA	
L20	MVREFSA	
L27	NC#L27	
N12	NC#N12	
AG12	NC#AG12	
R5104	MEM_CALRPO	
M12	NC#M12	
AH12	NC#AH12	

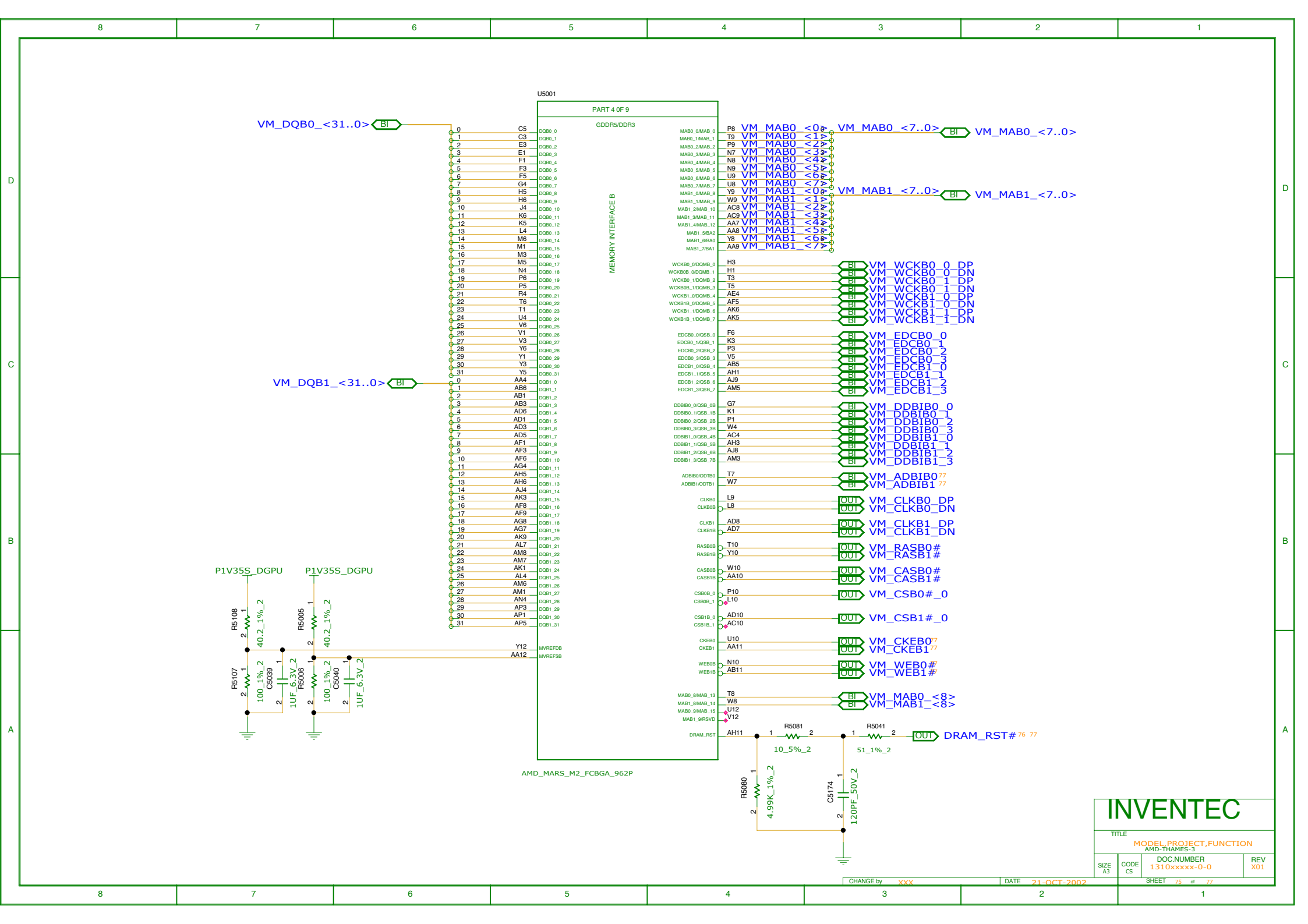


INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
AMD,THAMES-4

SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
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CHANGE by: XXX DATE: 21-OCT-2002 SHEET 74 of 77



VM_DQB0_<31..0> [BI]

VM_DQB1_<31..0> [BI]

VM_MAB0_<7..0> [BI] VM_MAB0_<7..0>

VM_MAB1_<7..0> [BI] VM_MAB1_<7..0>

VM_WCKB0_0 DP
VM_WCKB0_0 DN
VM_WCKB0_1 DP
VM_WCKB0_1 DN
VM_WCKB1_0 DP
VM_WCKB1_0 DN
VM_WCKB1_1 DP
VM_WCKB1_1 DN

VM_EDCB0_0
VM_EDCB0_1
VM_EDCB0_2
VM_EDCB0_3
VM_EDCB1_0
VM_EDCB1_1
VM_EDCB1_2
VM_EDCB1_3

VM_DDBIB0_0
VM_DDBIB0_1
VM_DDBIB0_2
VM_DDBIB0_3
VM_DDBIB1_0
VM_DDBIB1_1
VM_DDBIB1_2
VM_DDBIB1_3

VM_ADBIB0_77
VM_ADBIB1_77

VM_CLKB0_DP
VM_CLKB0_DN
VM_CLKB1_DP
VM_CLKB1_DN

VM_RASB0#
VM_RASB1#

VM_CASB0#
VM_CASB1#

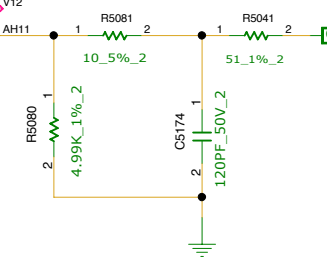
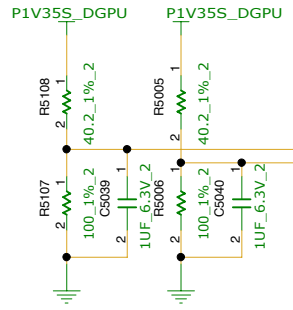
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VM_CSB1#_0

VM_CKEB0_77
VM_CKEB1_77

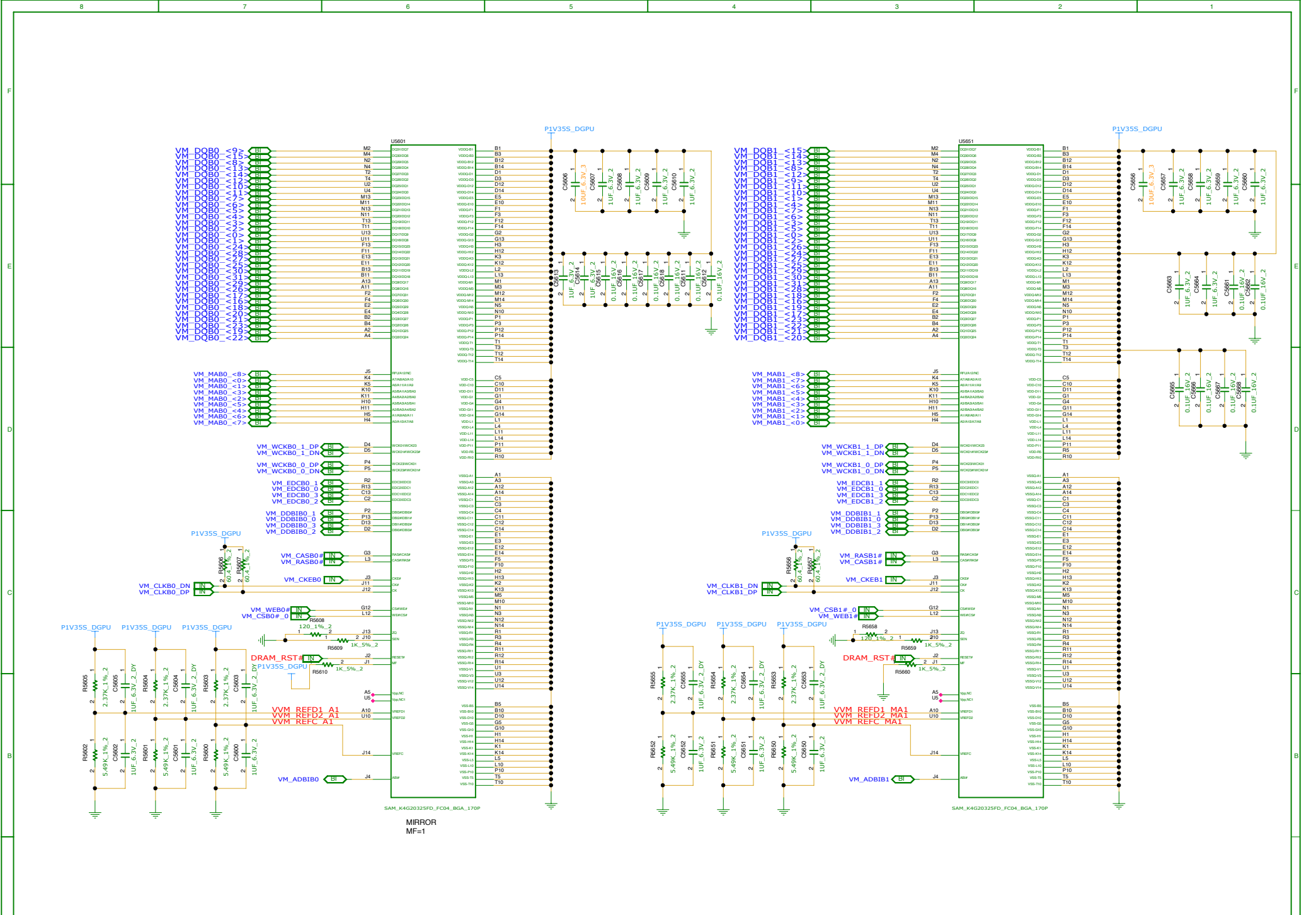
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VM_WEB1_77

VM_MAB0_<8>
VM_MAB1_<8>

DRAM_RST#_76_77



INVENTEC			
TITLE MODEL,PROJECT,FUNCTION AMD,THAMES-3			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
CHANGE by XXX DATE 21-OCT-2002 SHEET 75 of 77			



SAM_K4G20325FD_F0C4_BGA_170P

MIRROR
MF=1

INVENTEC

FILE: MODEL,PROJECT,FUNCTION
VRAM-2

SIZE	CODE	DOCNUMBER	REV
C	CS	13110XXXXX-0-0	X01

CHANGE BY: xxx DATE: 21-OCT-2012 SHEET: 17 OF 17