

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF INVENTEC CORPORATION AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION, INVENTEC CORPORATION, 2009 ALL RIGHT RESERVED.

HSF Property: ROHS or Halogen-Free(5L3?)

ALADDIN_MB
SI2 BUILD

2011.12.14

21-OCT-2002		
DATE	CHANGE NO.	REV

DRAWER				INVENTEC			
DESIGN				TITLE			
CHECK				MODEL PROJECT FUNCTION			
RESPONSIBLE				PROJECT NAME			
SIZE				DOC NUMBER			
FILE NAME				REV			
PIN				SHEET			

TABLE OF CONTENTS

1. PROJECT NAME	28. DDR3_DIMM0(A)	55. EXPRESS CARD
2. TABLE OF CONTENTS	29. DDR3_DIMM1(A)	56. RF SOLUTION
3. BLOCK DIAGRAM	30. DDR3_DIMM1(B)	57. LCM CNTR
4. SYSTEM POWER(CHARGER)	31. DDR3_DIMM0(B)	58. CRT
5. SYSTEM POWER(BATT SELECTOR)	32. ESATA ON DOCK	59. DOCKING CNTR
6. SYSTEM POWER(P3V3A&P5V0A)	33. PANTER POINT_1 (HDA,JTAG,SPI,SATA)	60. MXM CNTR
7. SYSTEM POWER(DDR P1V5)	34. PANTER POINT_2 (PCI-E,SMBUS,CLK)	61. PEG CAPS
8.SYSTEM POWER(P1V05_LAN_M)	35. PANTER POINT_3 (DMI,FDI,GPIO)	62. POWER SW & HALL SENSOR DB
9. SYSTEM POWER(P1V0S_VCCP)	36. PANTER POINT_4 (LVDS,DDI)	63. APPLICATION DB
10. SYSTEM POWER(P1V8S)	37. PANTER POINT_5 (PCI,USB,NVRAM)	64. AUDIO & USB DB CNTR
11. SYSTEM POWER(PVSA)	38. PANTER POINT_6 (GPIO,VSS_NCFT,RSVD)	65. SCREW
12. SYSTEM POWER(PVCORE1)	39. PANTER POINT_7 (POWER)	
13. SYSTEM POWER(PVCORE2)	40. PANTER POINT_8 (POWER)	
14. HP_OCP / RF & EMI SOLUTION	41. PANTER POINT_9 (GND)	
15. SYSTEM POWER(PORT FOR P3V3A&P5V0A)	42. KBC & SPI	
16. ENABLE TIMING DELAY	43. KEYBOARD	
17. ADP SIGNALES	44. SUPER I/O	
18. POWER(SLEEP)	45. KB BL & STICK POINT & TOUCH PAD	
19. POWER(SEQUENCE)	46. HDD & ODD CNTR	
20.FAN & THERMAL	47. BT & FP & CAMERA	
21.XDP CONN	48. ACCELEROMETER	
22. IVY BRIDGE_1 (CLK,MISC,JTAG)	49. TPM & MDC	
23. IVY BRIDGE_2 (POWER)	50. LAN PHY	
24. IVY BRIDGE_3 (DMI,DP,PEG,FDI)	51. LAN SWITCH RJ45	
25. IVY BRIDGE_4 (DDR3)	52. WLAN & WWAN & SIM CARD	
26. IVY BRIDGE_5 (GRAPHICS POWER)	53. MSATA MINI CARD	
27. IVY BRIDGE_6 (GND,RESERVED)	54. SMART CARD	

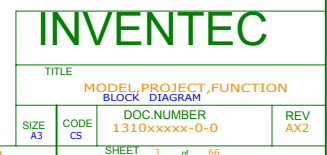
INVENTECTITLE
MODEL PROJECT FUNCTION
TABLE OF CONTENTS

SIZE A3	CODE CS	DOC NUMBER 1310xxxx-0-0	REV A02
------------	------------	----------------------------	------------

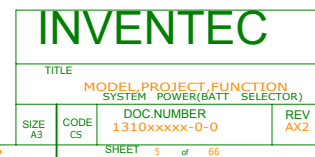
SHEET 2 of 95

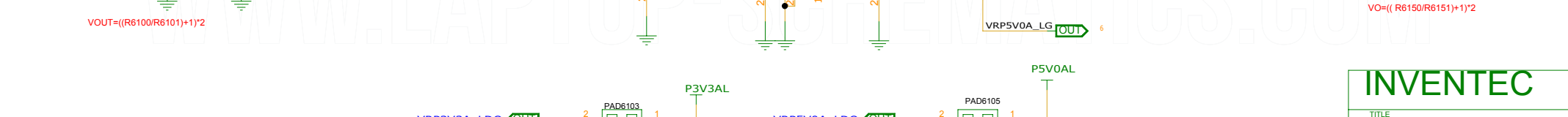
CHANGE by XXX DATE 16-MAR-2011

•



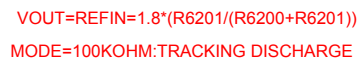





$$VO = ((R6150/R6151)+1)*2$$

SIZE A3	CODE CS	1310xxxxx-0-0	X
SHEET 6 of 66			

1



INVENTEC			
TITLE			
MODEL, PROJECT, FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC. NUMBER 1310xxxxx-0-0	REV X01
SHEET 7 of 66			

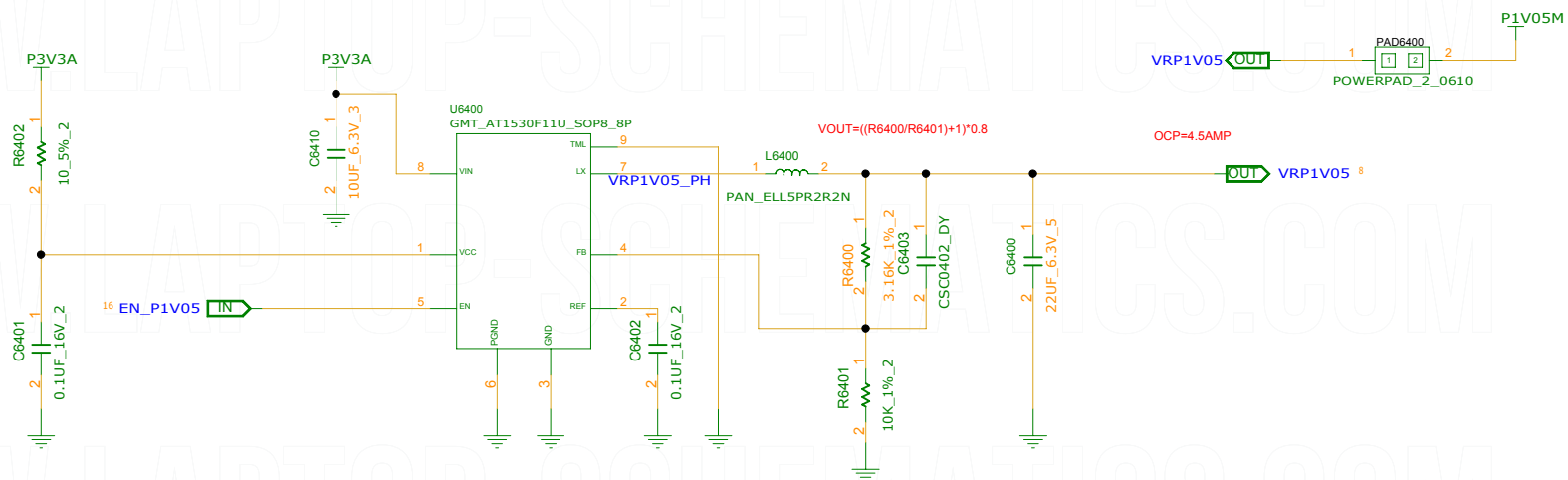
WWW.LAPTOP-SCHEMATICS.COM

WWW.LAPTOP-SCHEMATICS.COM

WWW.LAPTOP-SCHEMATICS.COM

WWW.LAPTOP-SCHEMATICS.COM

WWW.LAPTOP-SCHEMATICS.COM



INVENTEC

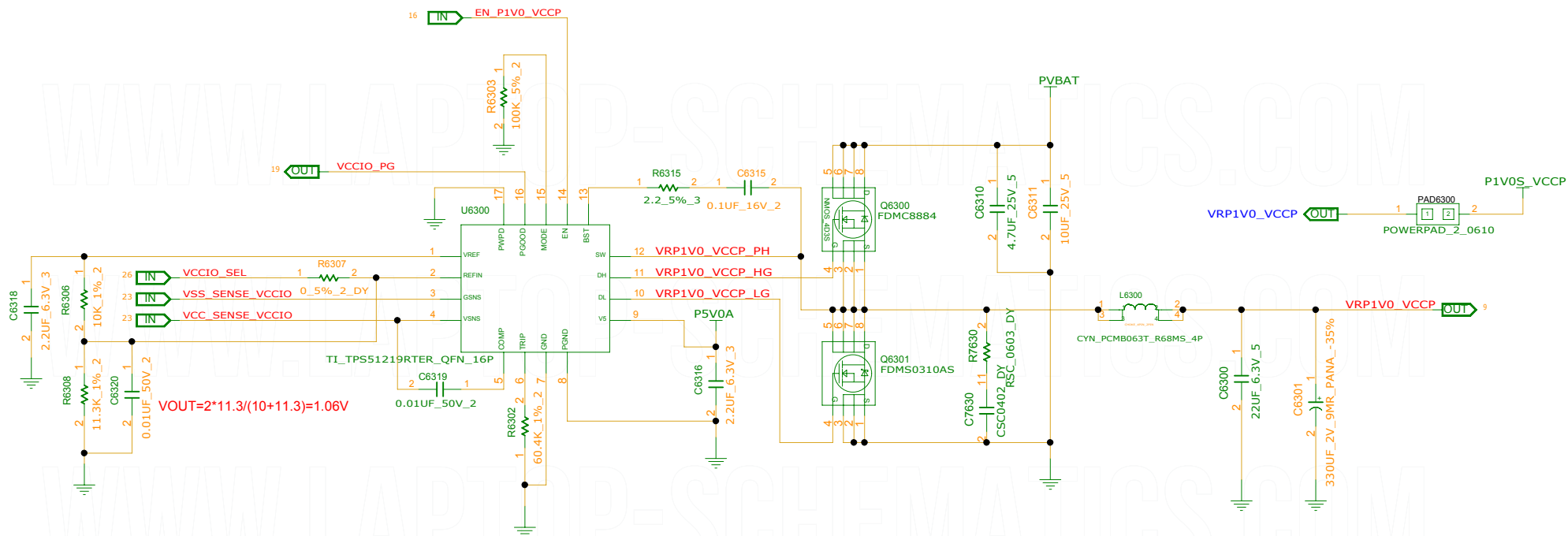
TITLE MODEL,PROJECT,FUNCTION Block Diagram

DOC NUMBER 1310xxxxx-0-0

REV X01

CHANGE by XXX DATE 21-OCT-2002

SHEET 8 of 66



INVENTEC

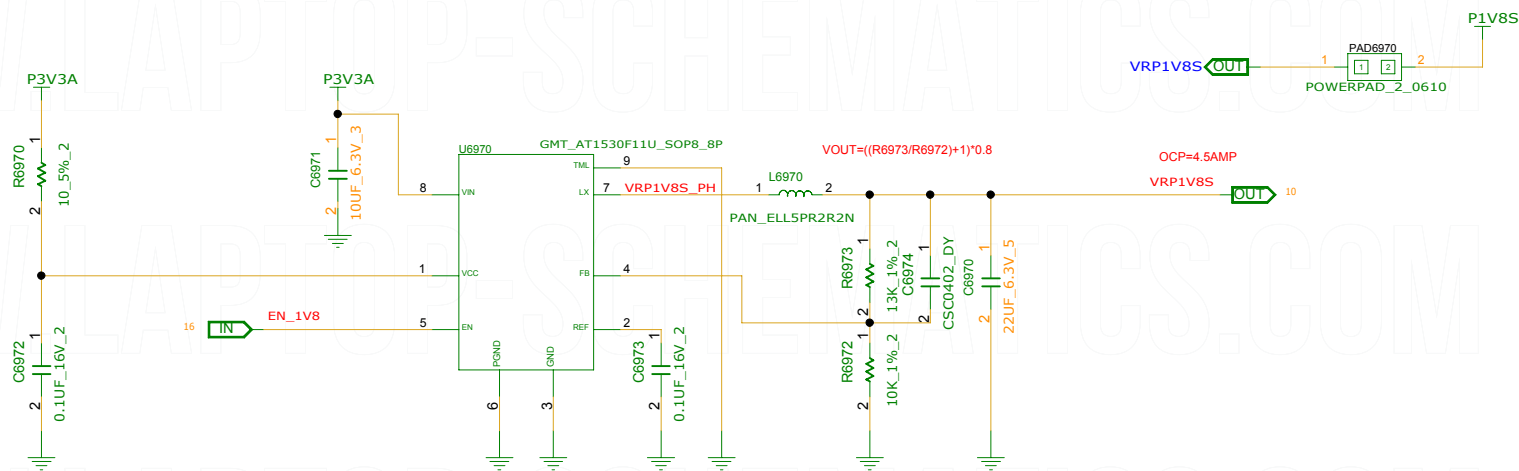
TITLE
MODEL,PROJECT,FUNCTION
Block Diagram

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

REV
X01

CHANGE by XXX DATE 21-OCT-2002

SHEET 9 of 66



INVENTEC

TITLE

MODEL,PROJECT,FUNCTION

SIZE A3

CODE CS

DOC NUMBER 1310xxxxx-0-0

REV X01

CHANGE by XXX

DATE 21-OCT-2002

SHEET 10 of 66

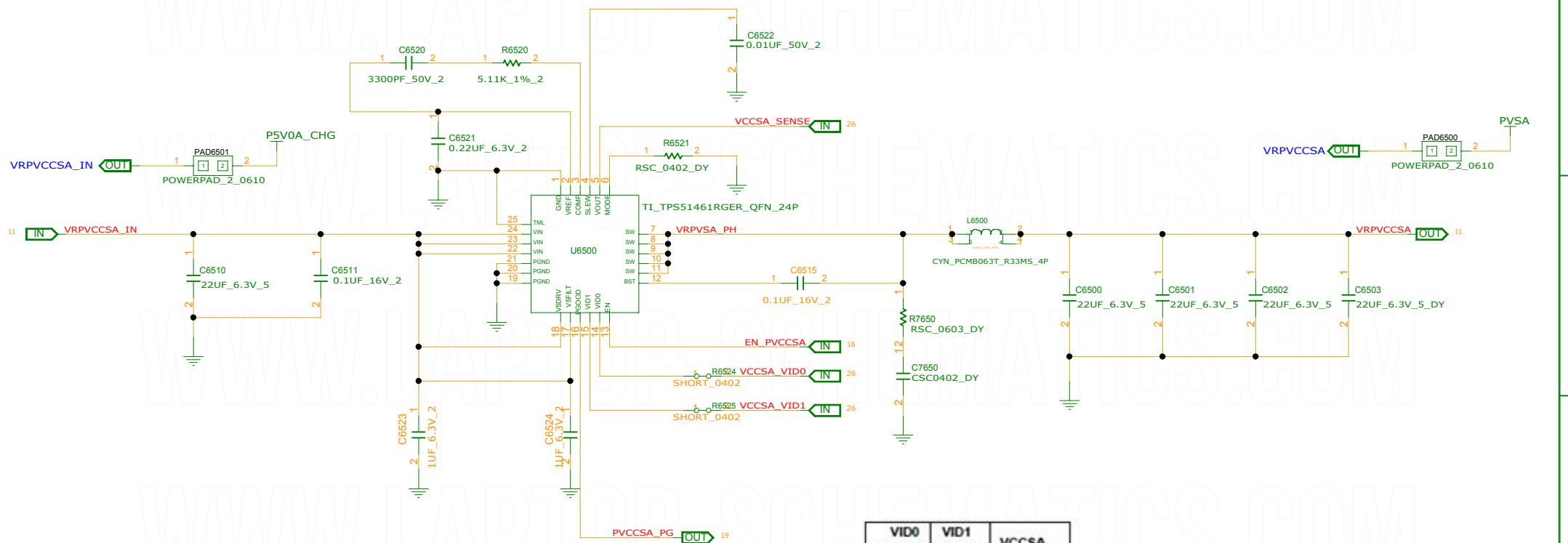
WWW.LAPTOP-SCHEMATICS.COM

WWW.LAPTOP-SCHEMATICS.COM

WWW.LAPTOP-SCHEMATICS.COM

WWW.LAPTOP-SCHEMATICS.COM

WWW.LAPTOP-SCHEMATICS.COM



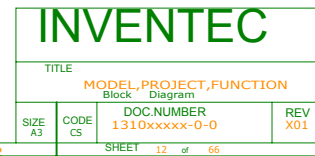
VID0 PIN C22	VID1 PIN C24	VCCSA
0	0	0.90V
0	1	0.80V
1	0	0.725V
1	1	0.675V

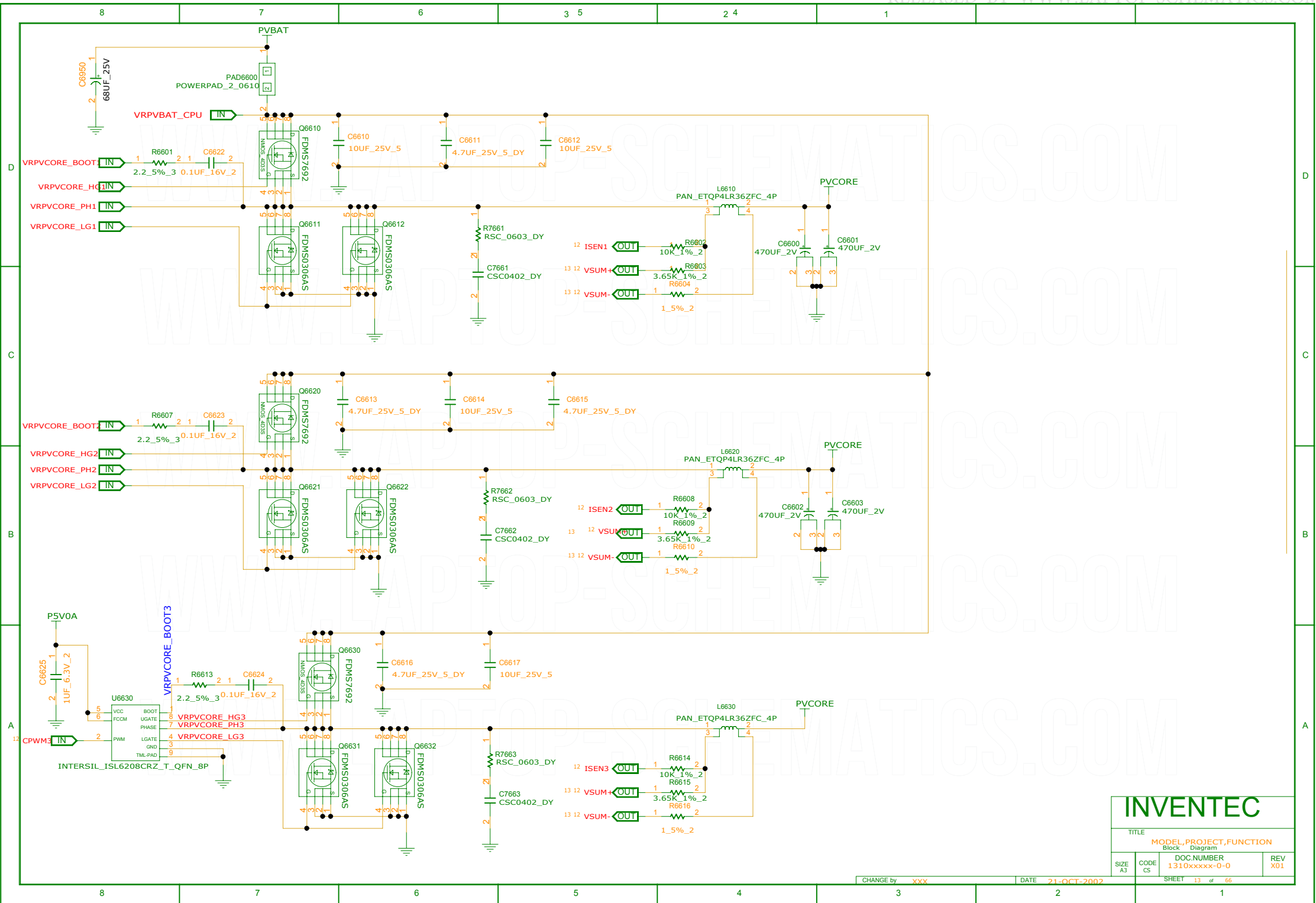
INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
Block Diagram

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

SHEET 11 of 66





INVENTEC

TITLE MODEL, PROJECT, FUNCTION

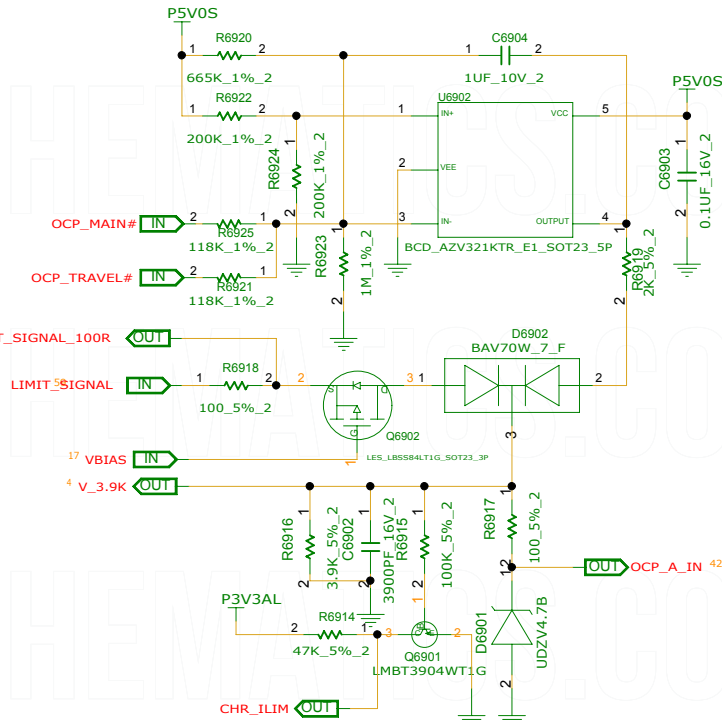
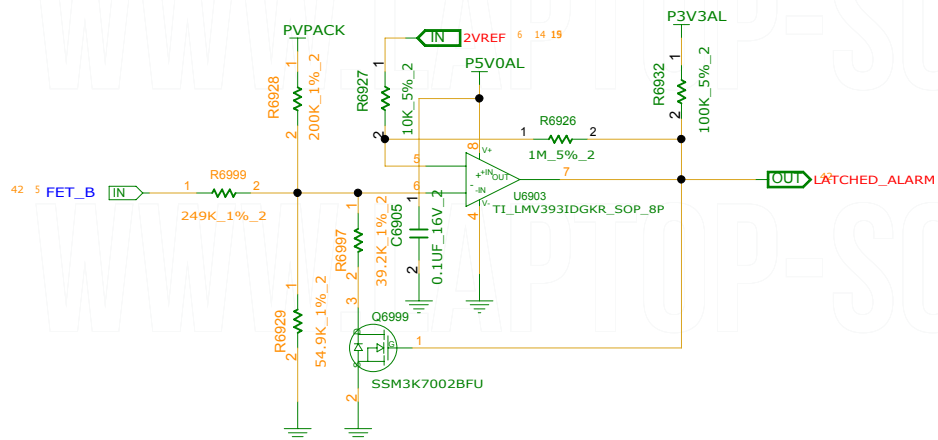
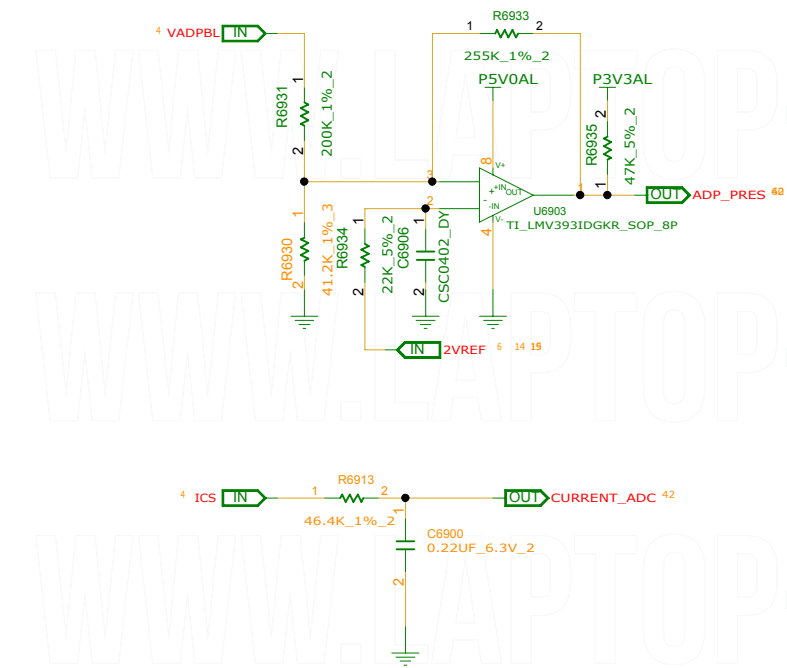
Block Diagram

DOC. NUMBER 1310xxxxx-0-0

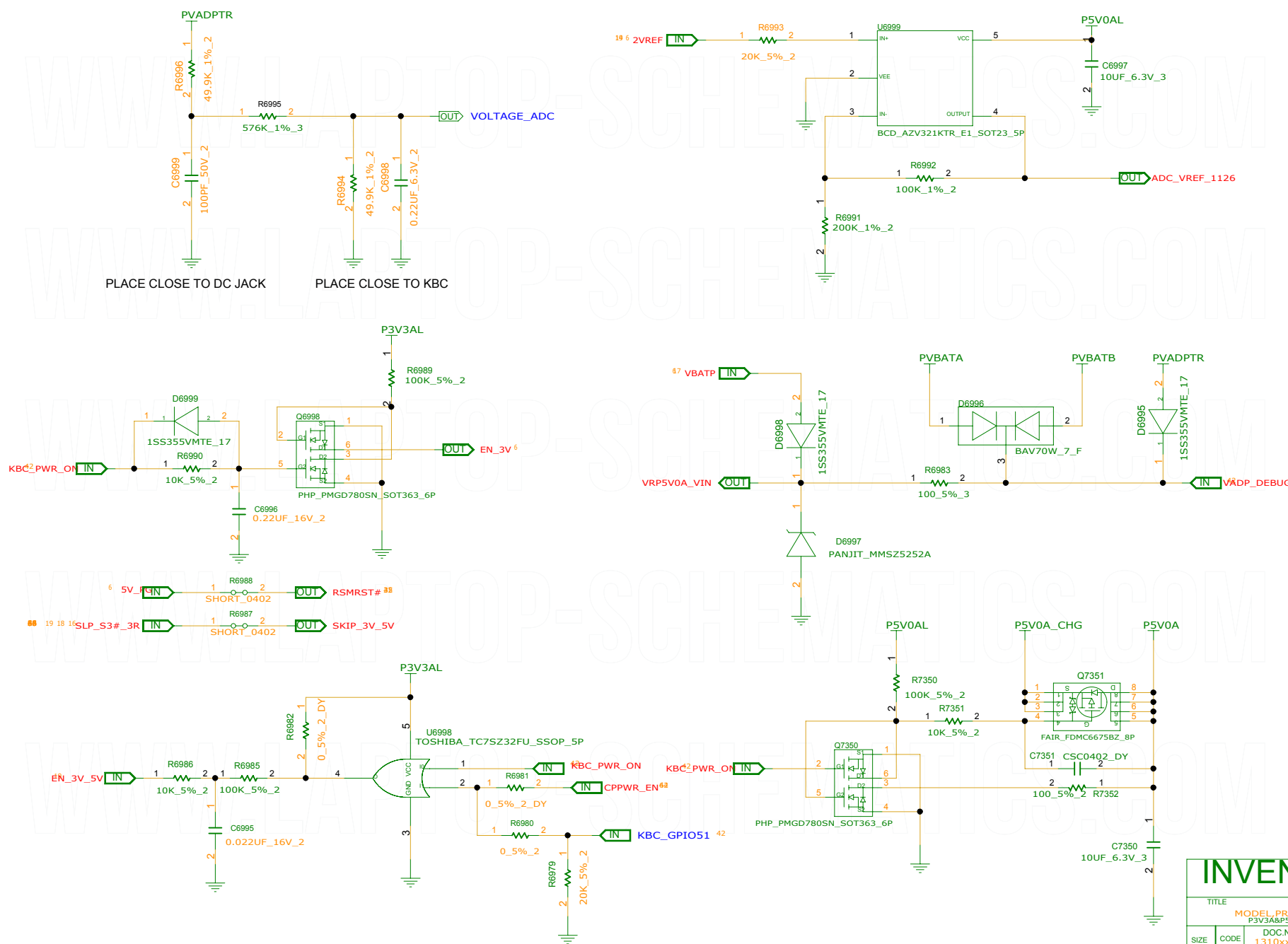
REV X01

SHEET 13 of 66

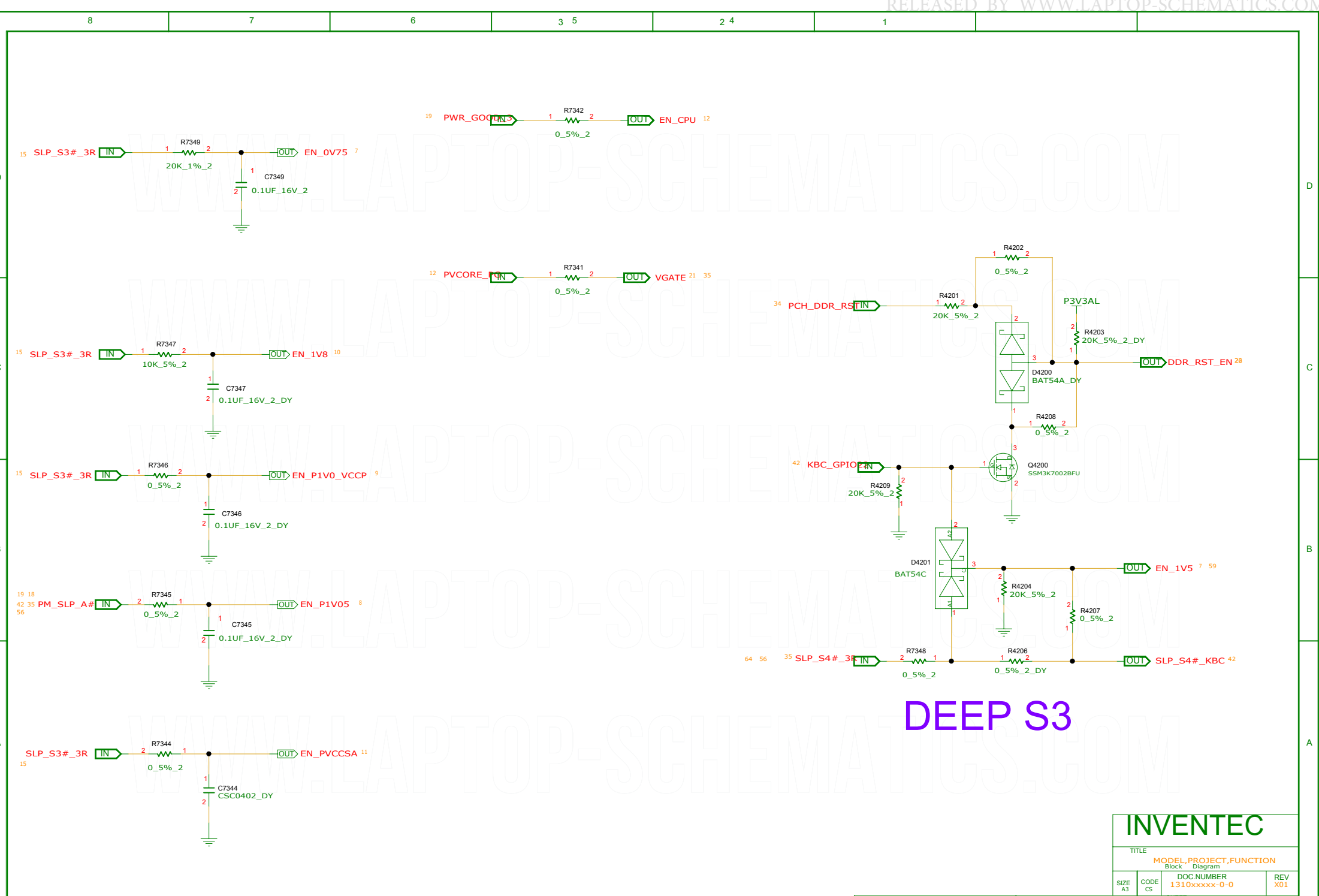
CHANGE by XXX DATE 21-OCT-2002



INVENTEC			
TITLE			
MODEL PROJECT FUNCTION			
SYSTEM POWER(OCP)			
DOC NUMBER			
1310xxxxx-0-0			
REV			
X01			
SIZE	CODE	SHEET	
A3	CS	14 of 66	



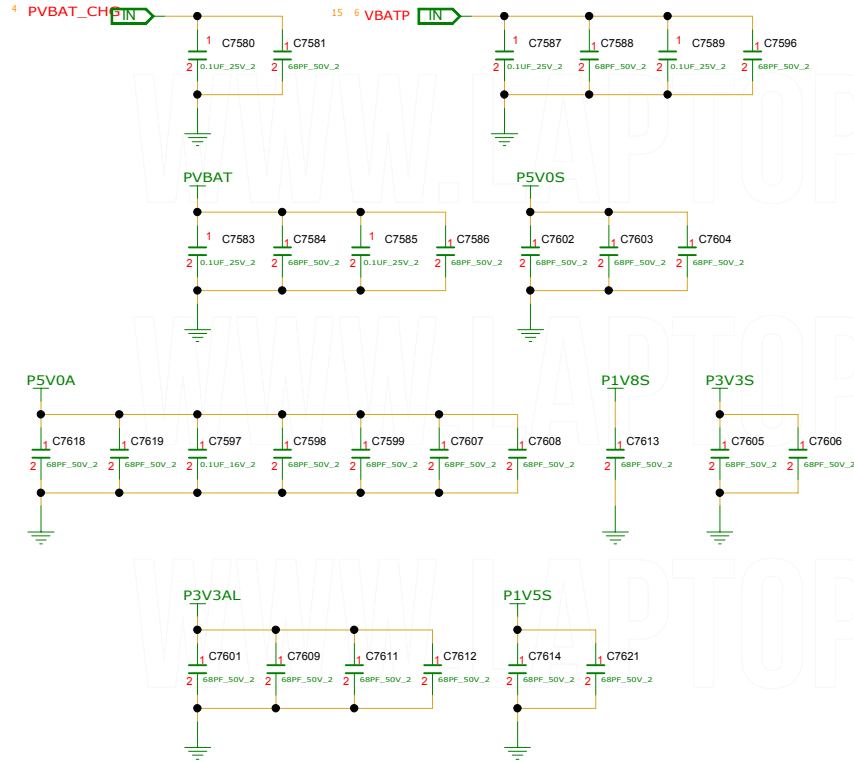
INVENTEC			
TITLE			
MODEL PROJECT FUNCTION			
P3V3A&P5V0A_CHG PORT			
DOC NUMBER			
1310xxxxx-0-0			
REV			
X01			
SIZE	CODE	SHEET	
A3	CS	15 of 66	



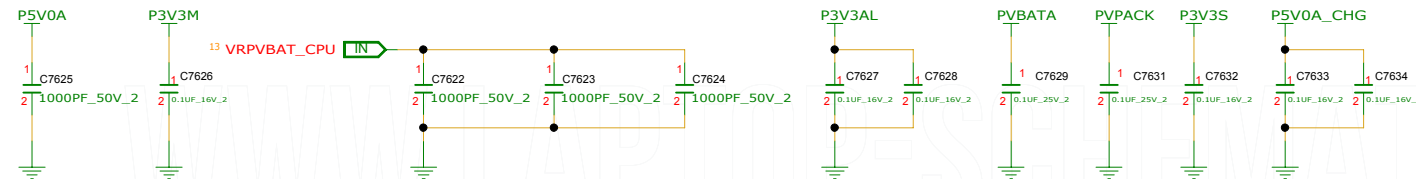
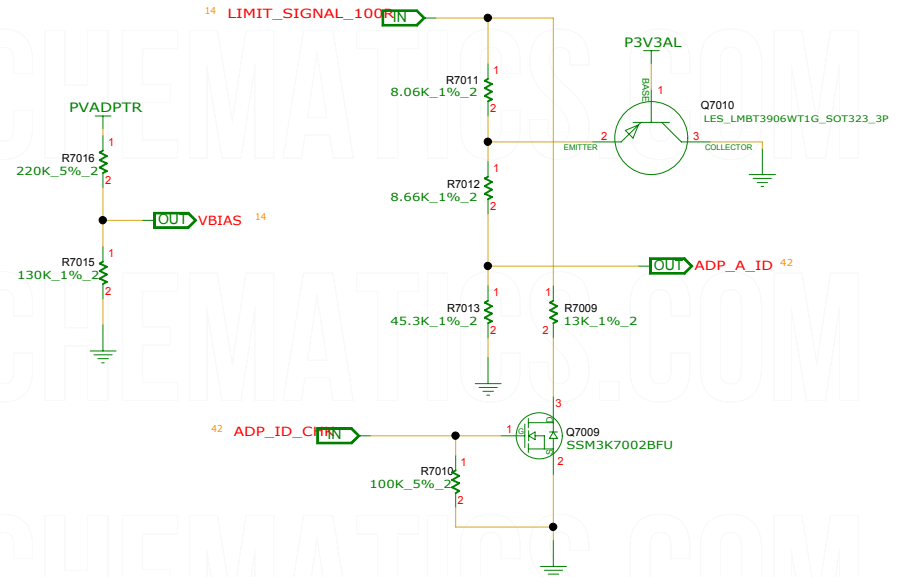
DEEP S3

INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
DOC NUMBER		REV	
1310xxxxx-0-0		X01	
SIZE	CODE	SHEET	
A3	CS	16 of 66	

REFERENCE NUMBER : 6900~6999



FOR RF



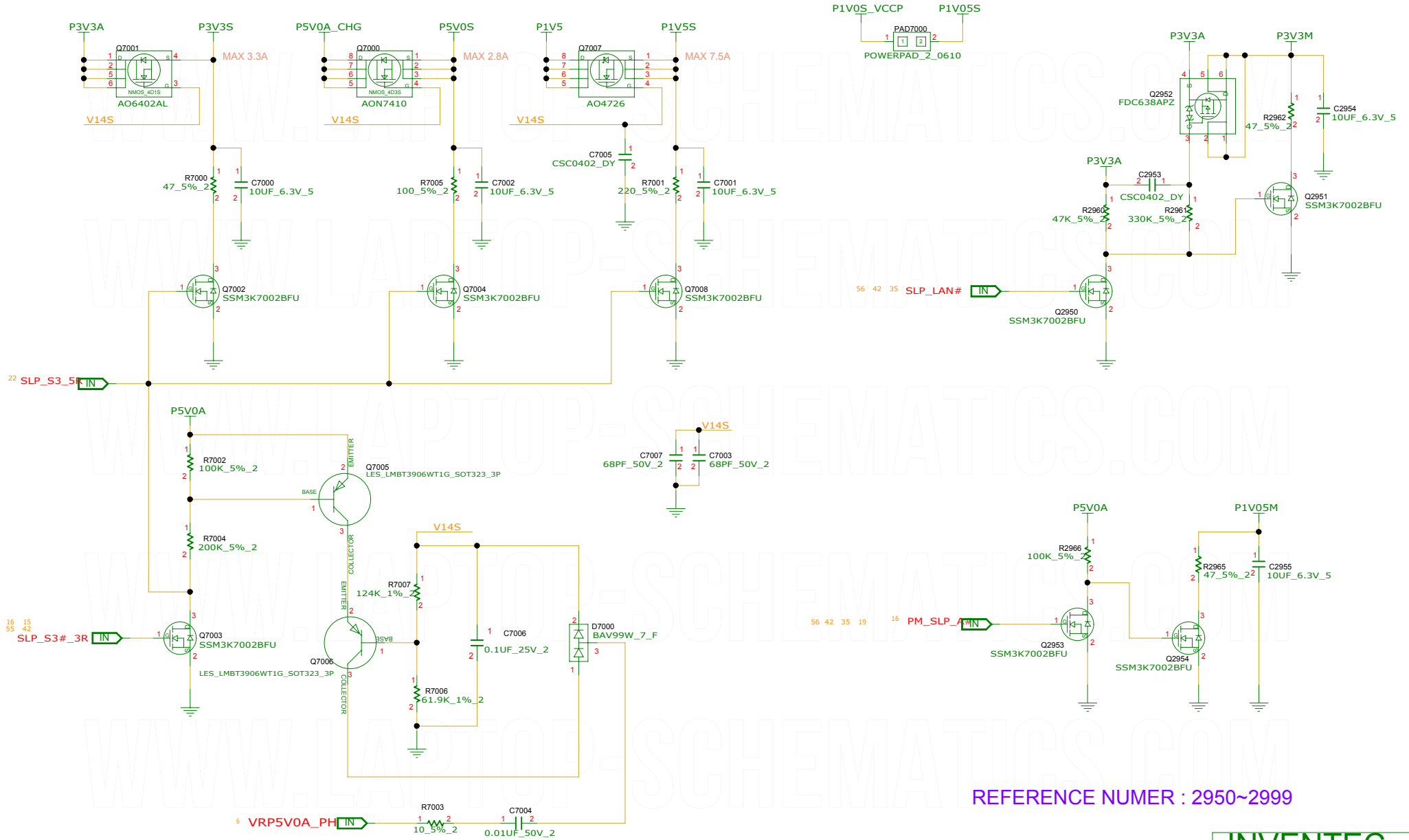
FOR EMI

INVENTEC

TITLE			
MODEL PROJECT,FUNCTION HP_OCP			
SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	REV X01
SHEET 17 of 66			

CHANGE by: **xxx** DATE: **21-OCT-2002**

REFERENCE NUMER : 7000~7350



REFERENCE NUMER : 2950~2999

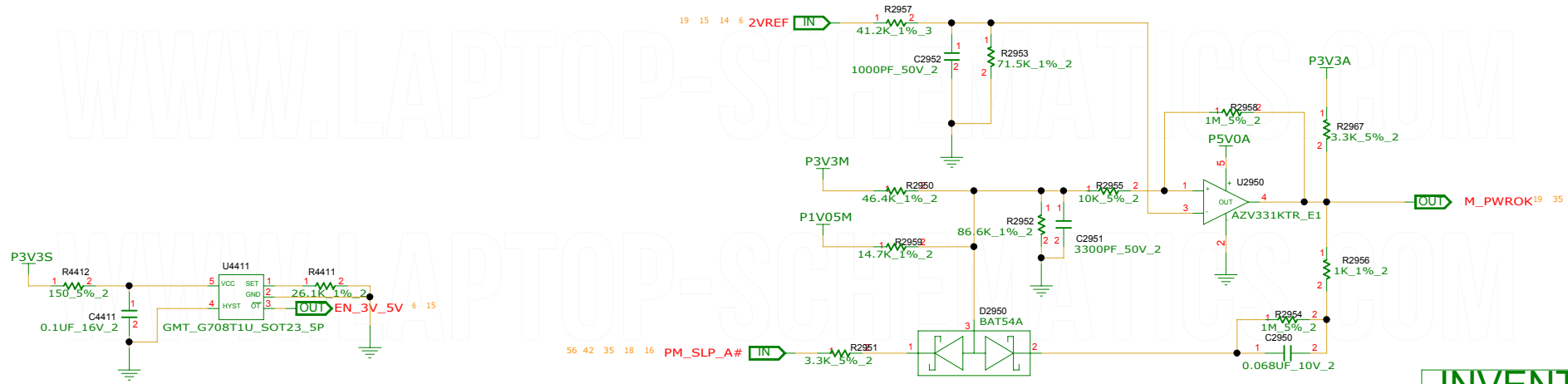
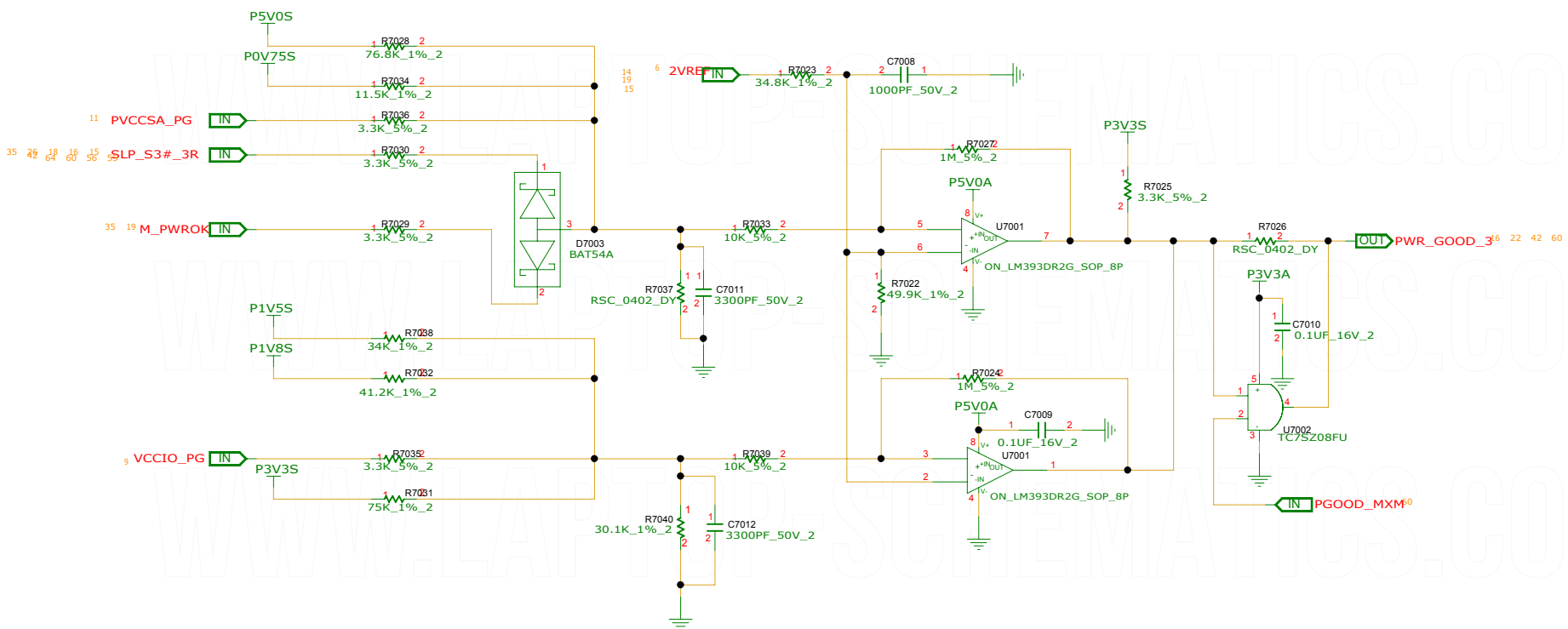
INVENTEC

TITLE
MODEL PROJECT,FUNCTION
POWER(SLEEP)

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

CHANGE by XXX DATE 21-OCT-2002 SHEET 18 of 66

REFERENCE NUMBER : 7400~7450



FOR IAMT

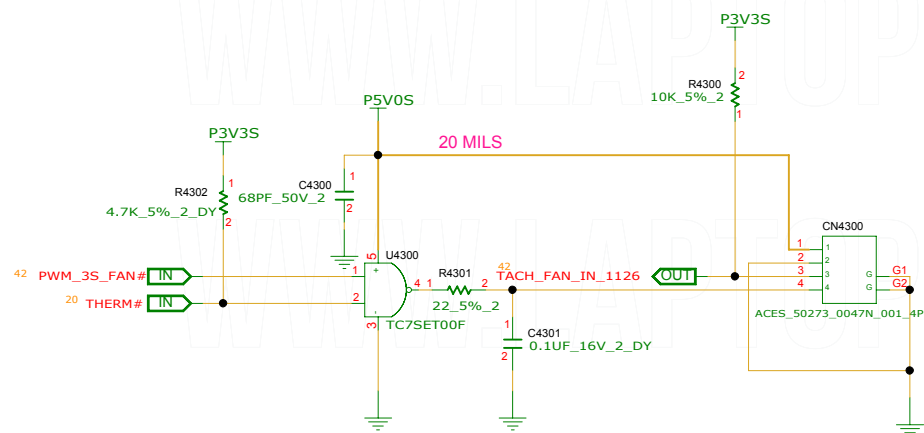
REFERENCE NUMBER : 2950~2999

INVENTEC

TITLE			
MODEL PROJECT FUNCTION POWER (SEQUENCE)			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
SHEET 19 of 66			

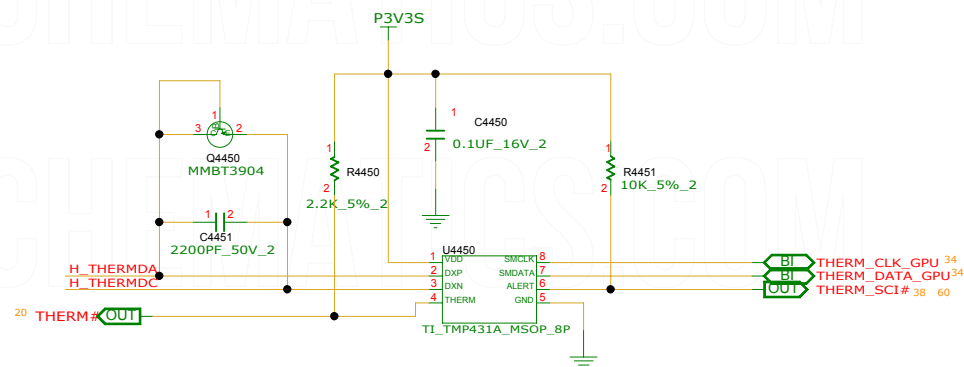
CHANGE by XXX DATE 21-OCT-2002

REFERENCE NUMBER:4400~4349



REFERENCE NUMBER:4450~4499

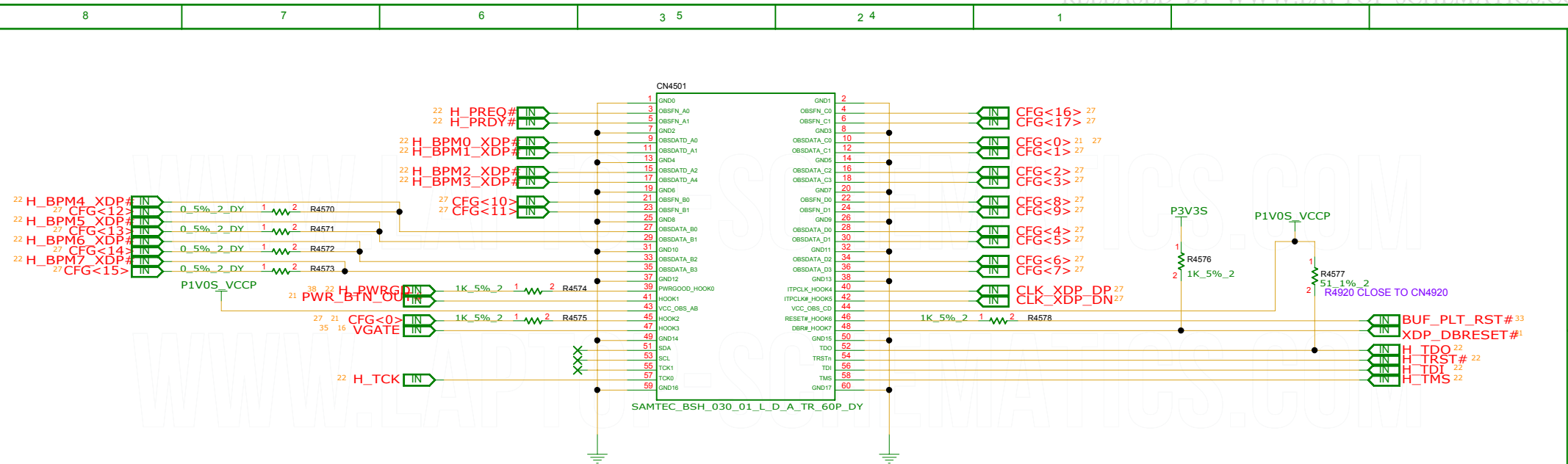
THERM SENSOR



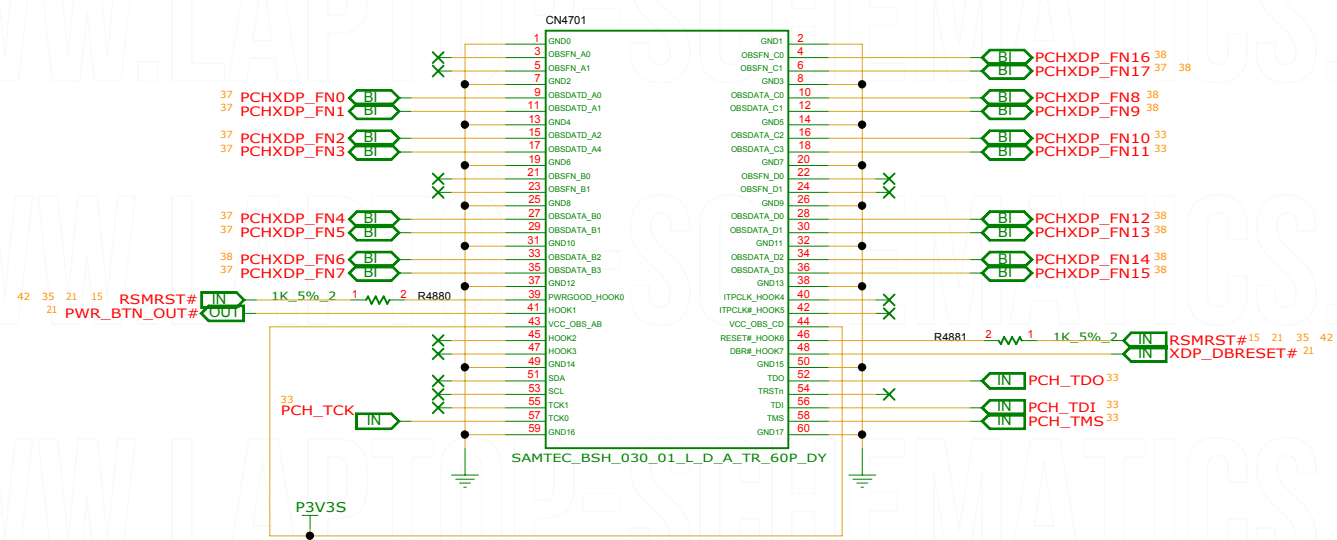
INVENTEC

TITLE			
MODEL PROJECT,FUNCTION			
FAN & THERMAL			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
SHEET 20 of 66			

CHANGE by XXX DATE 21-OCT-2002



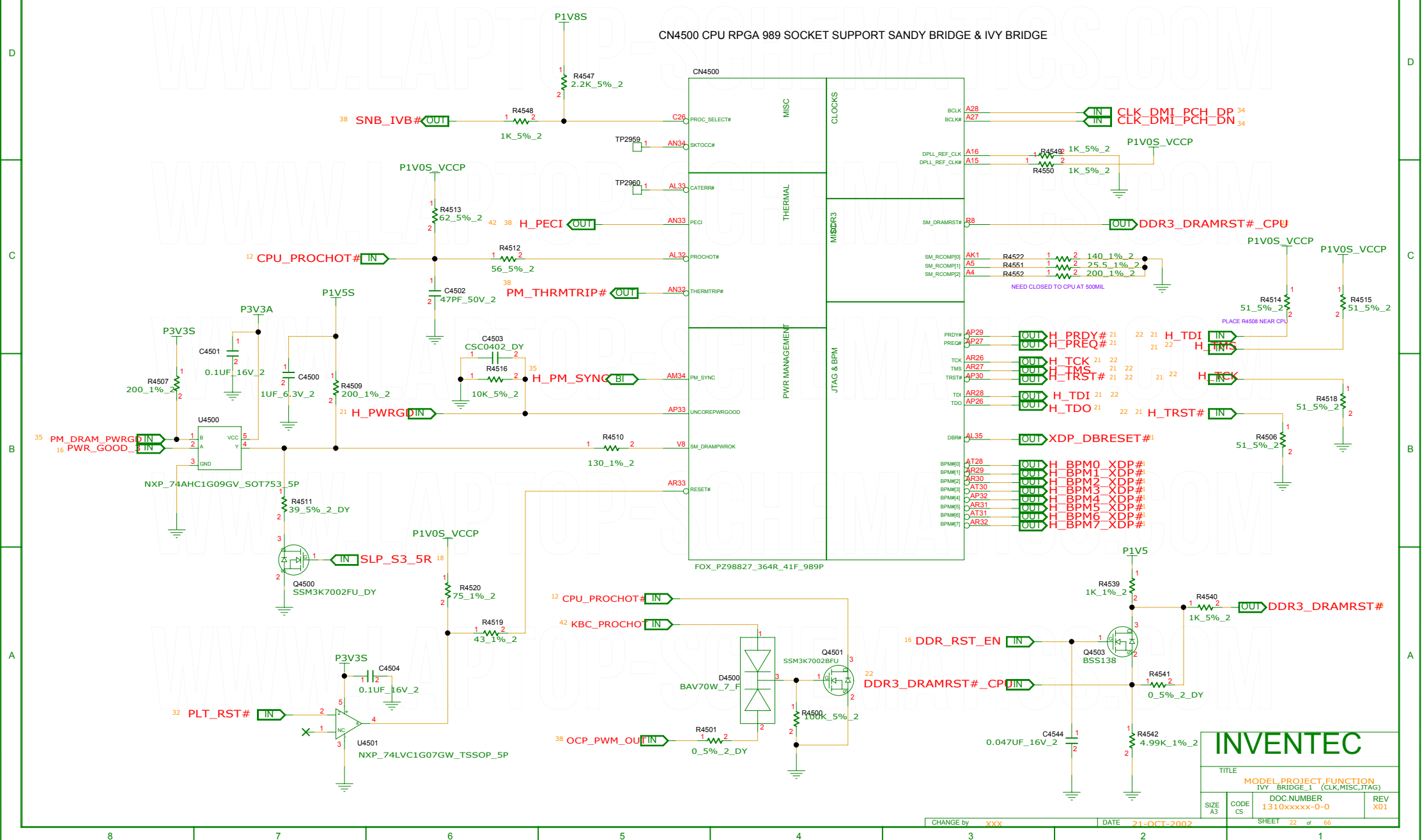
CPU XDP CONNECTOR

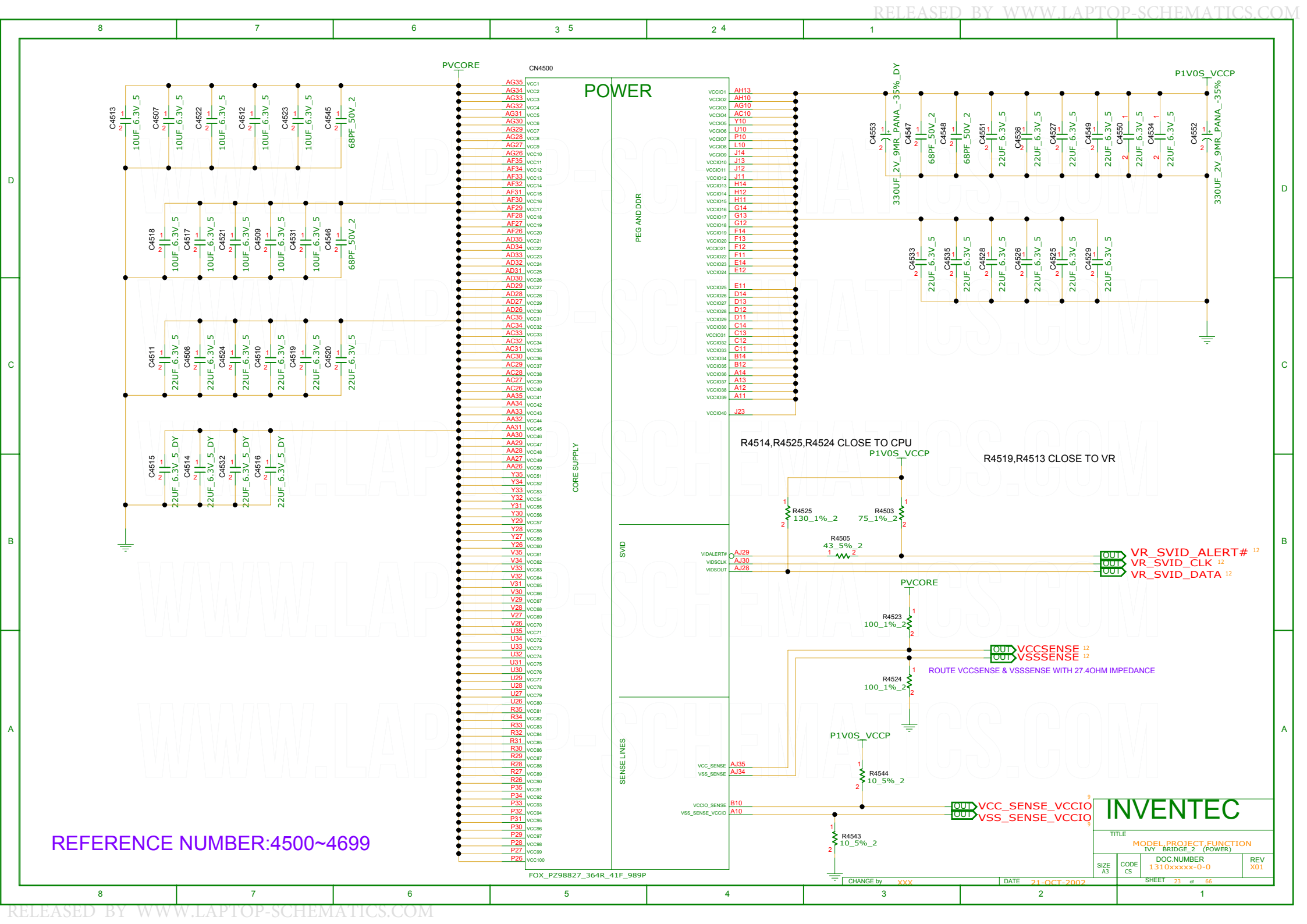


PCH XDP CONNECTOR

INVENTEC			
TITLE			
MODEL PROJECT,FUNCTION			
XDP_CONN			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01
SHEET 21 of 66			

REFERENCE NUMBER:4500~4699



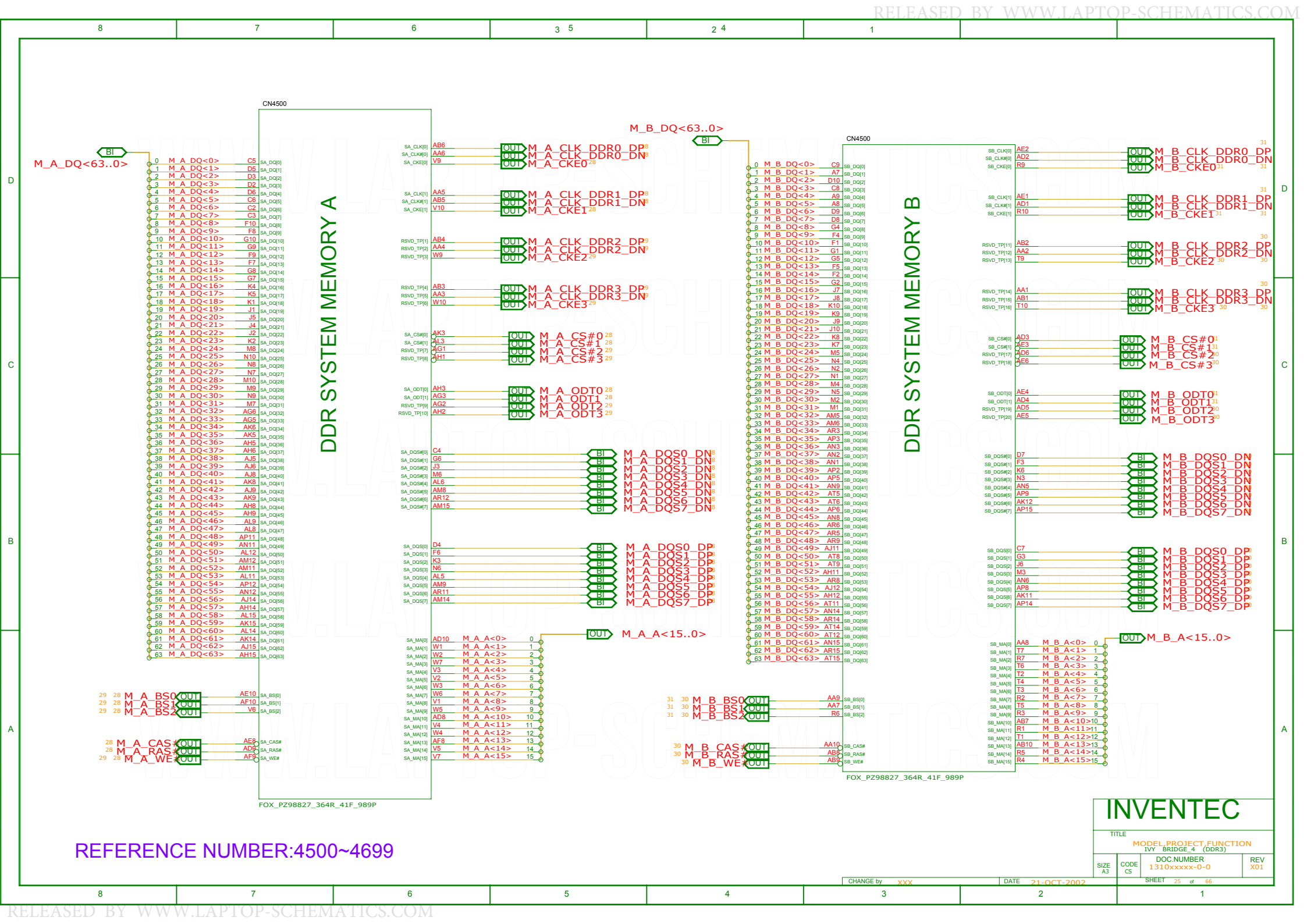


REFERENCE NUMBER:4500~4699

FOX_PZ98827_364R_41F_989P

CHANGE by XXX DATE 21-OCT-2002





REFERENCE NUMBER:4500~4699

INVENTEC

TITLE

MODEL PROJECT FUNCTION
I/VY BRIDGE 4 (DDR3)

DOC NUMBER
1310xxxxx-0-0

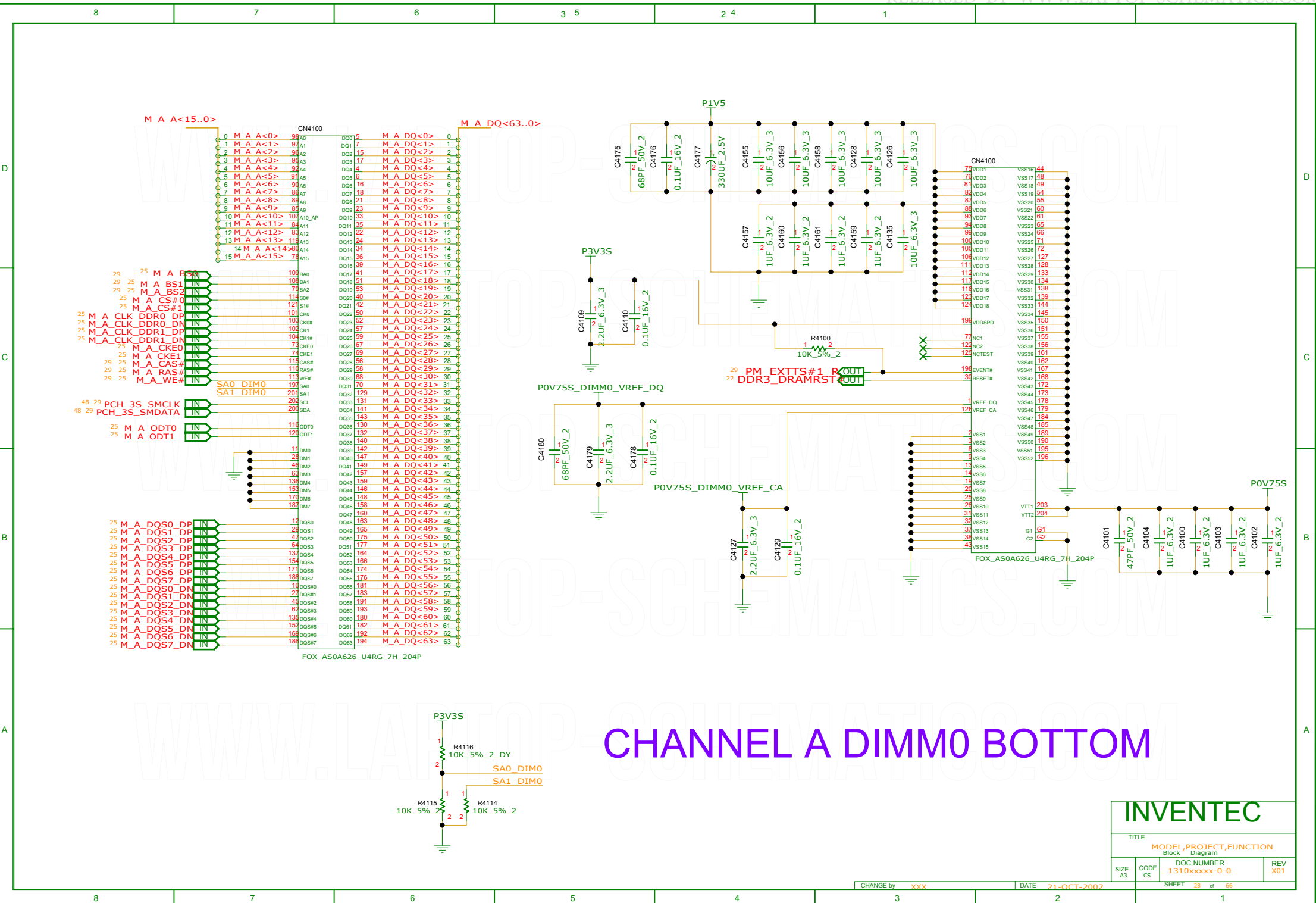
REV
X01

SIZE
A3

CODE
CS

SHEET 25 of 66





CHANNEL A DIMM0 BOTTOM

INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
SHEET 28 of 66			



SHEET 29 of 60

D

C

B

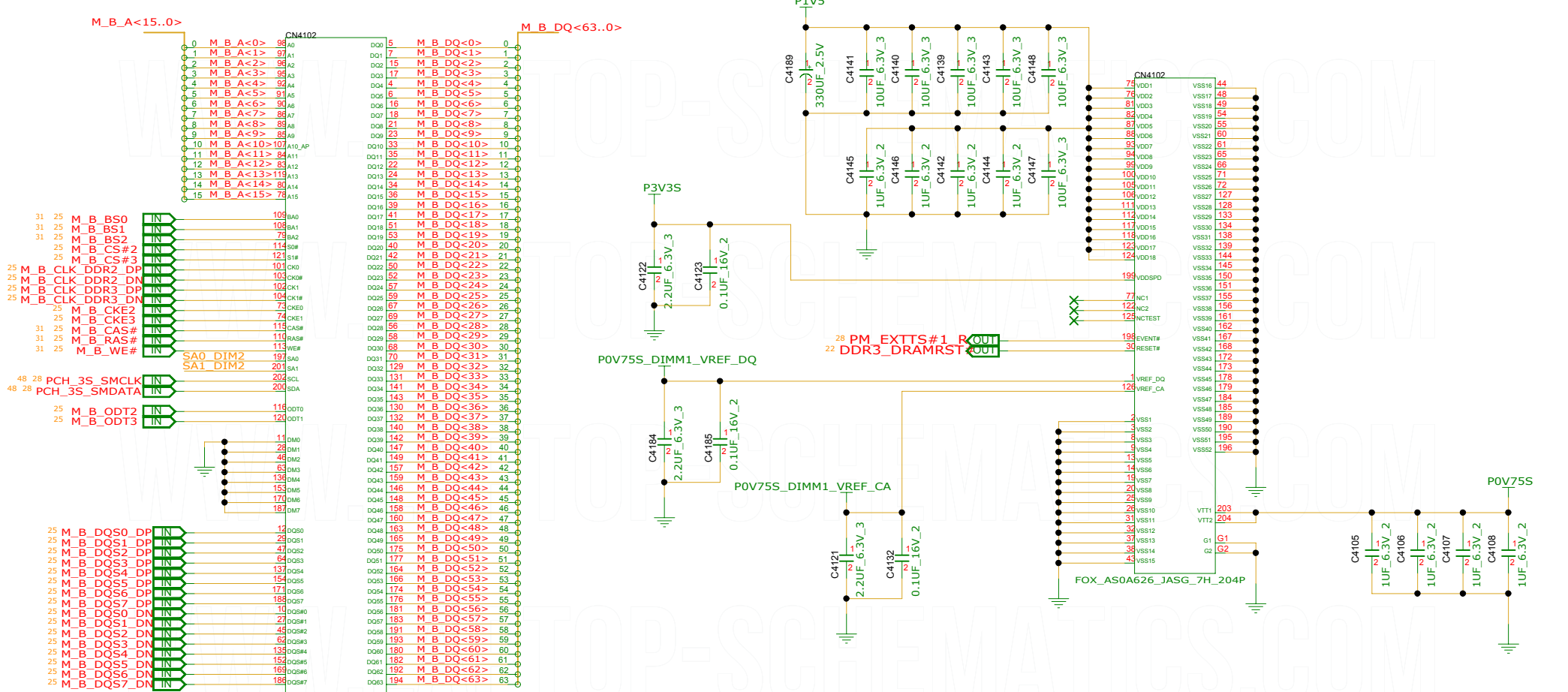
A

D

C

B

A



CHANNEL B DIMM1 TOP

INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
SHEET 30 of 66			

D

C

B

A

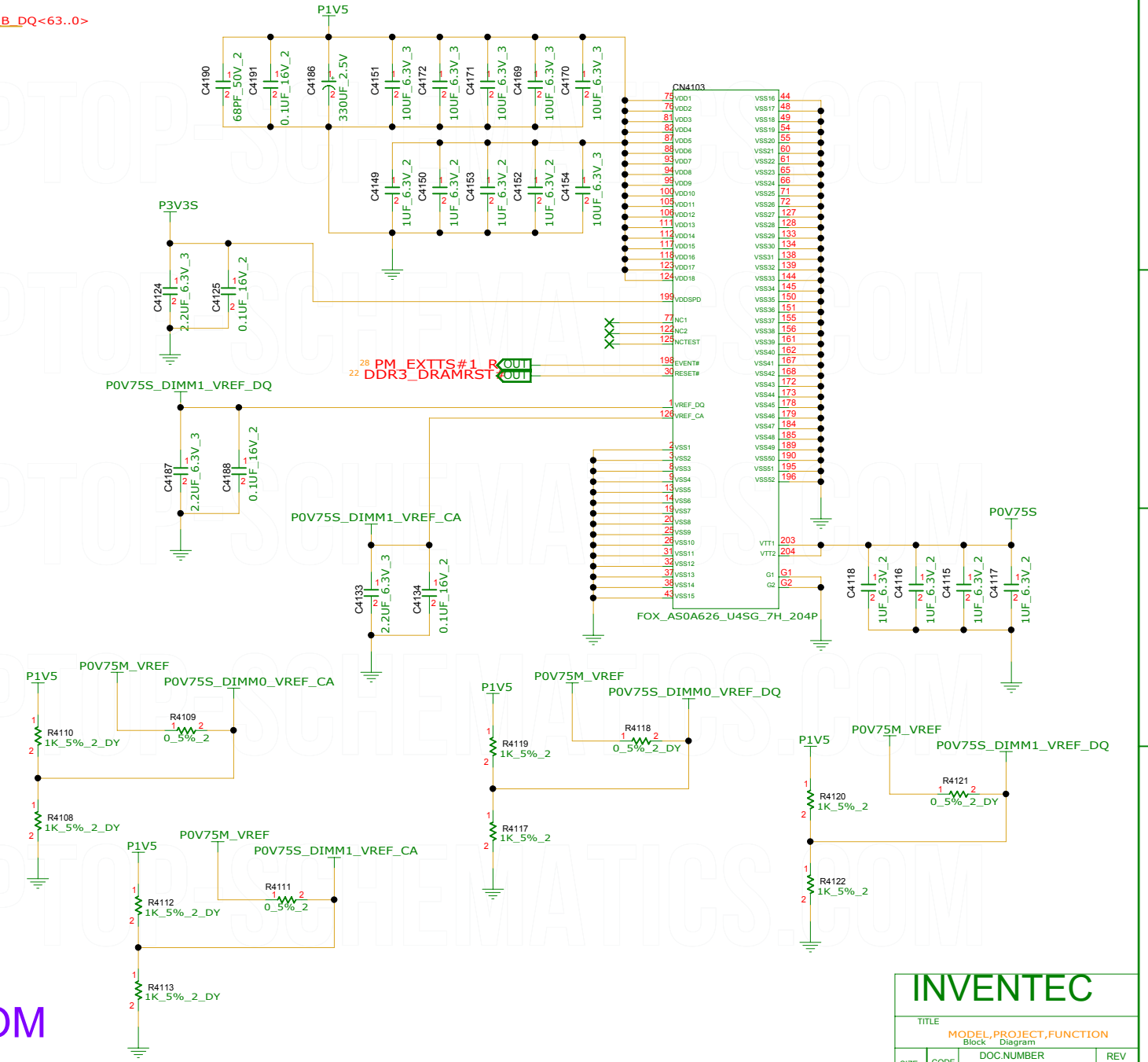
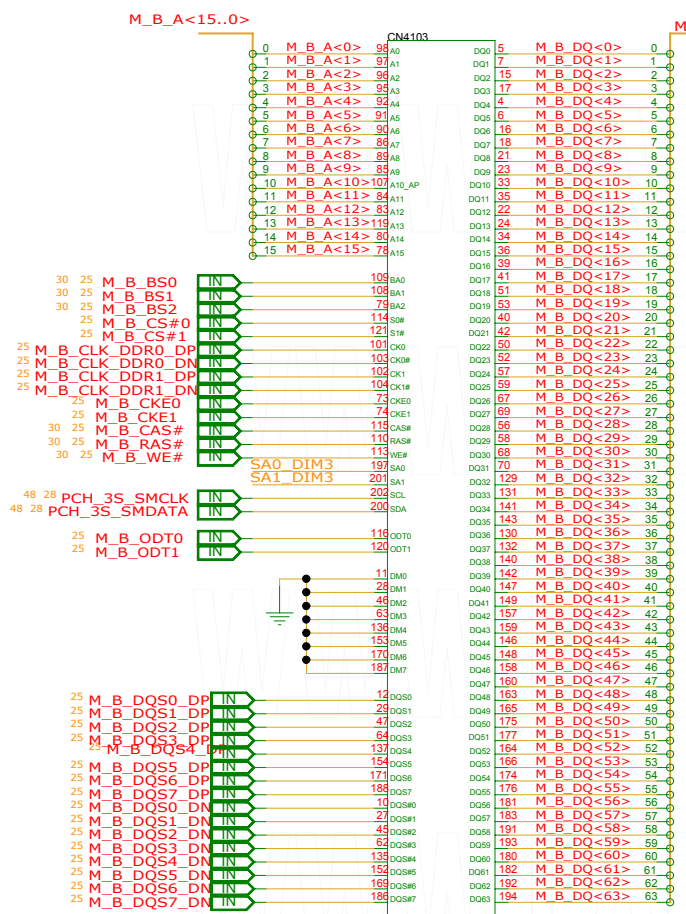
D

C

B

A

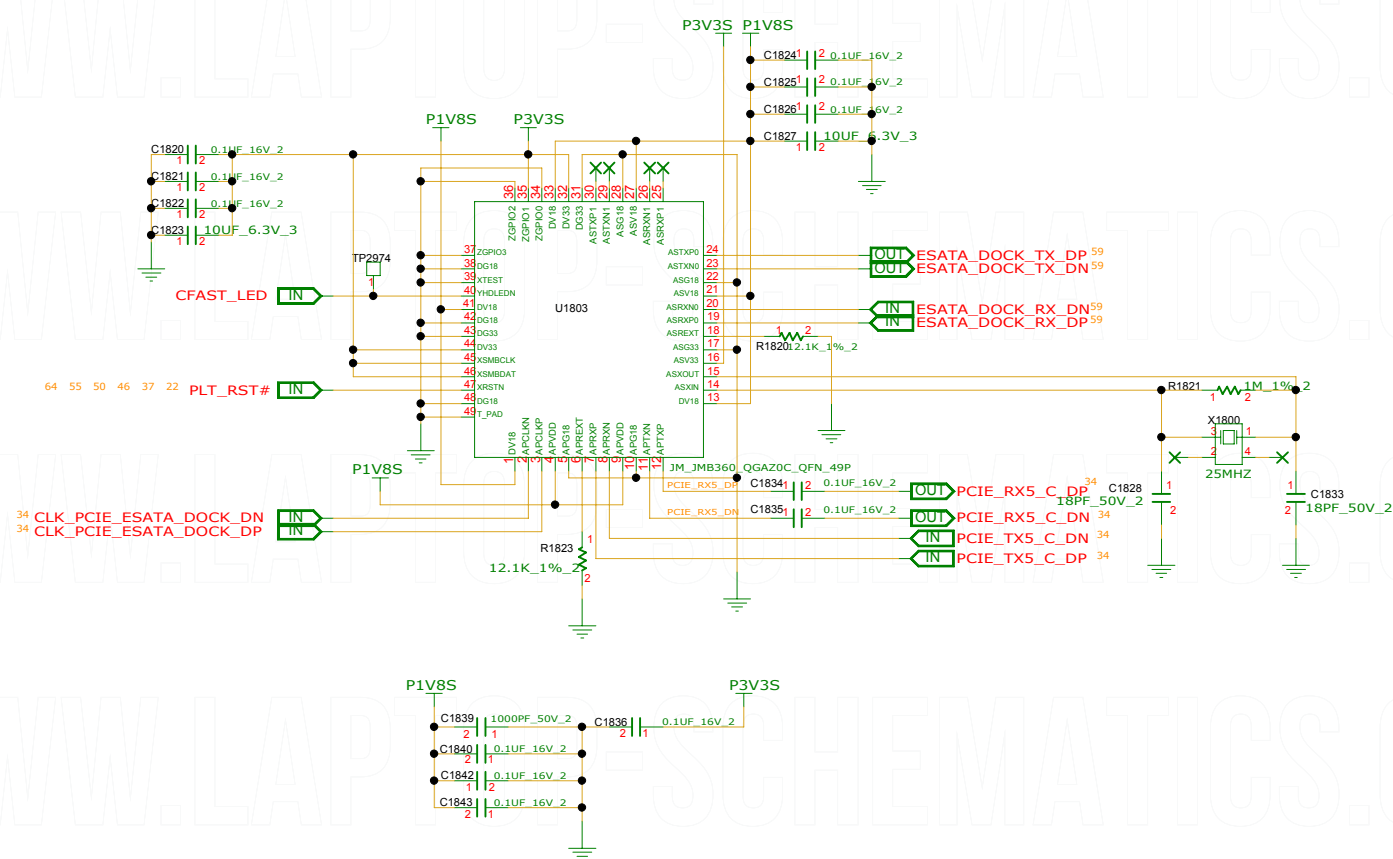
CHANNEL B DIMM0 BOTTOM



INVENTEC

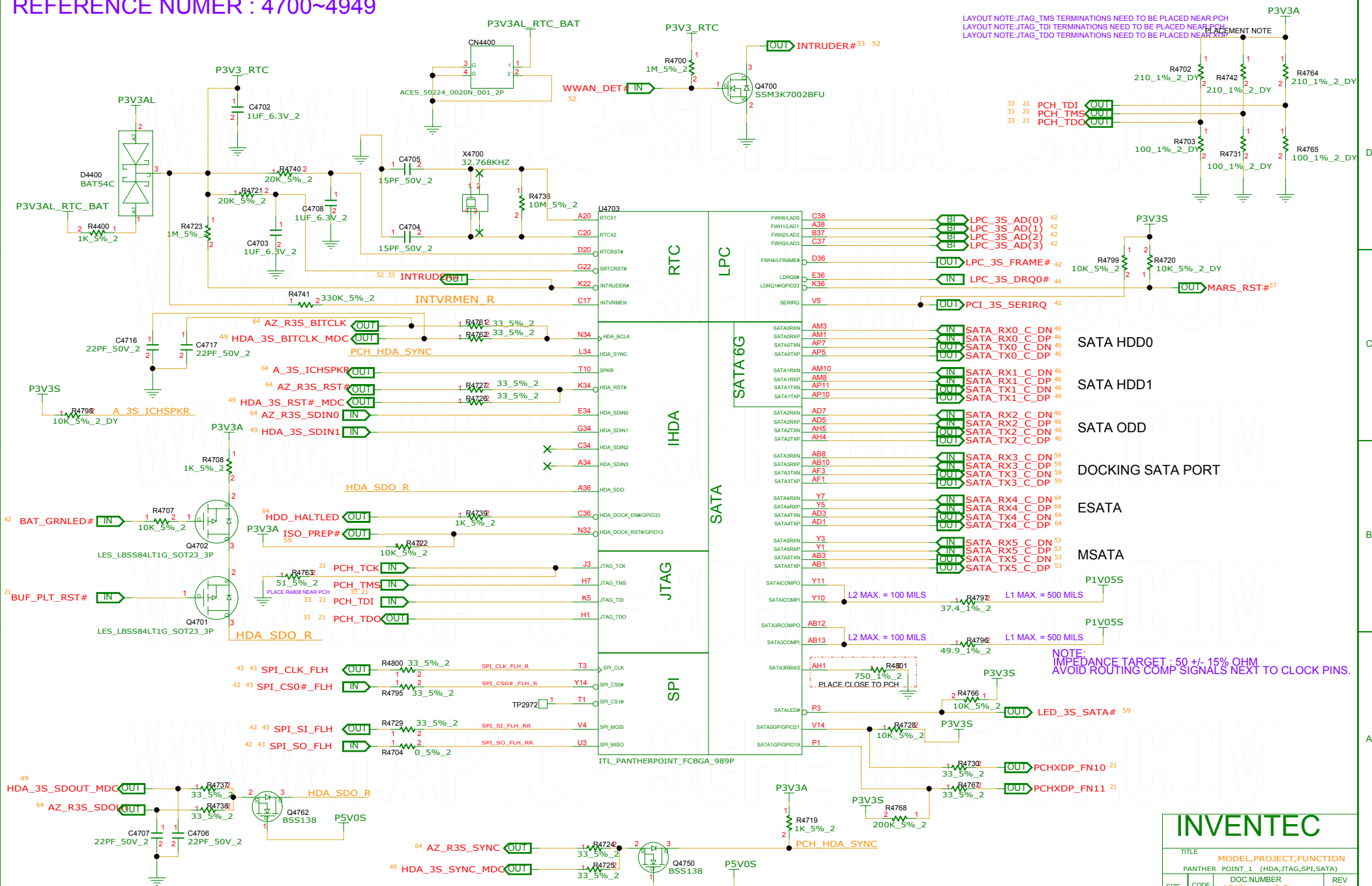
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01

CHANGE by XXX DATE 21-OCT-2002 SHEET 31 of 66



INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
SHEET 32 of 66			

REFERENCE NUMER : 4700~4949

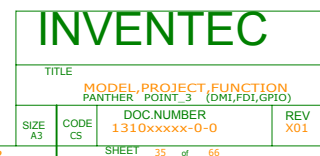


RELEASED BY WWW.LAPTOP-SCHEMATICS.COM

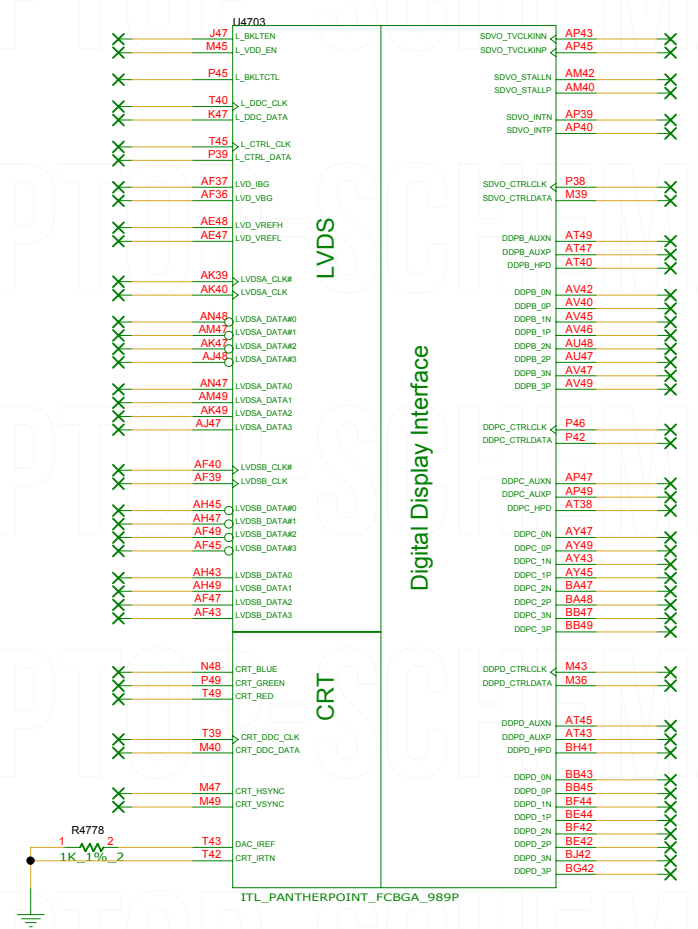


NOTE:

- 1.SLP_SUS AND SUSACK# ARE NC IF DSW IS NOT SUPPORTED
- 2.DPWROK SHOULD CONNECT TO RSMRST# IF DSW NOT SUPPORTED
- 3.PCH DPWROK PULL UP TO P3V3S ENABLES DSW WUPORT. NO INSTALL R4752 TO DISABLE DSW

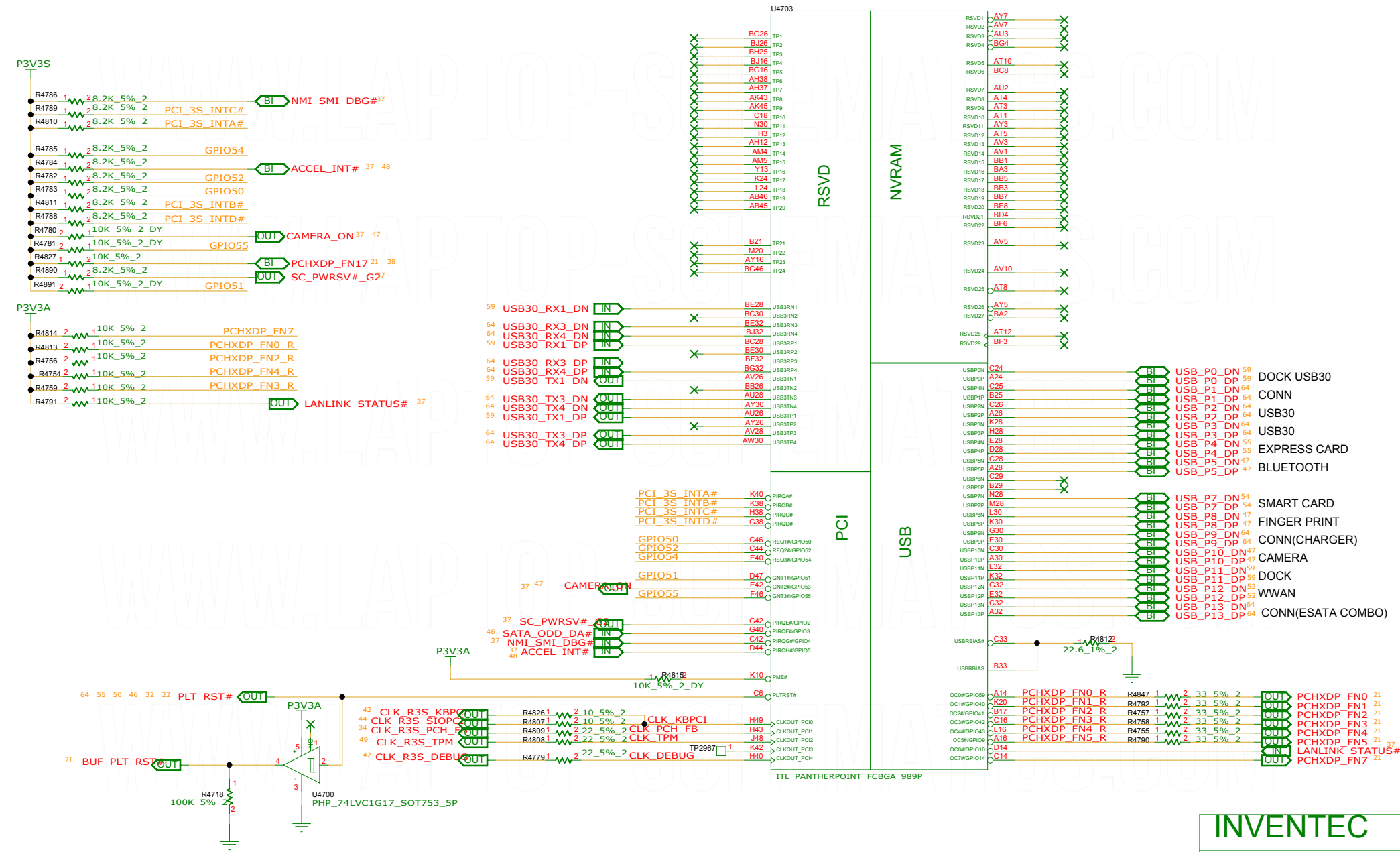


REFERENCE NUMER : 4700~4949



INVENTEC				
TITLE				
MODEL PROJECT FUNCTION PANTHER POINT_4 (LVDS,DDI)				
SIZE A3	CODE CS	DOC NUMBER 1310xxxx-0-0		REV X01
SHEET 36 of 66				

REFERENCE NUMER : 4700~4949



INVENTEC

TITLE

MODEL PROJECT FUNCTION
PANTHER POINT 5 (PCI,USB,NVRAM)

SIZE CODE
A3 CS

DOC NUMBER
1310xxxxx-0-0

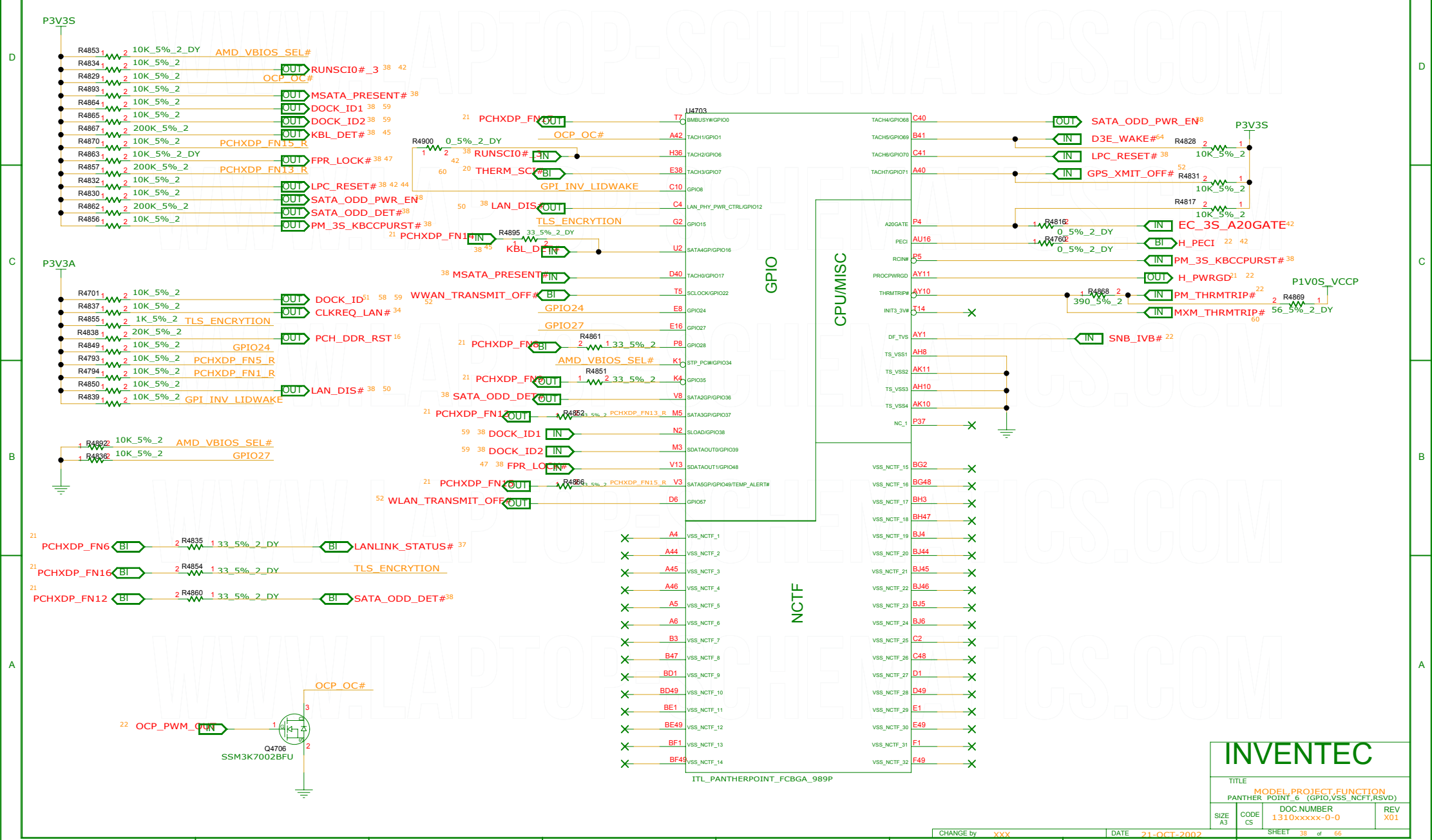
REV
X01

CHANGE by XXX

DATE 21-OCT-2002

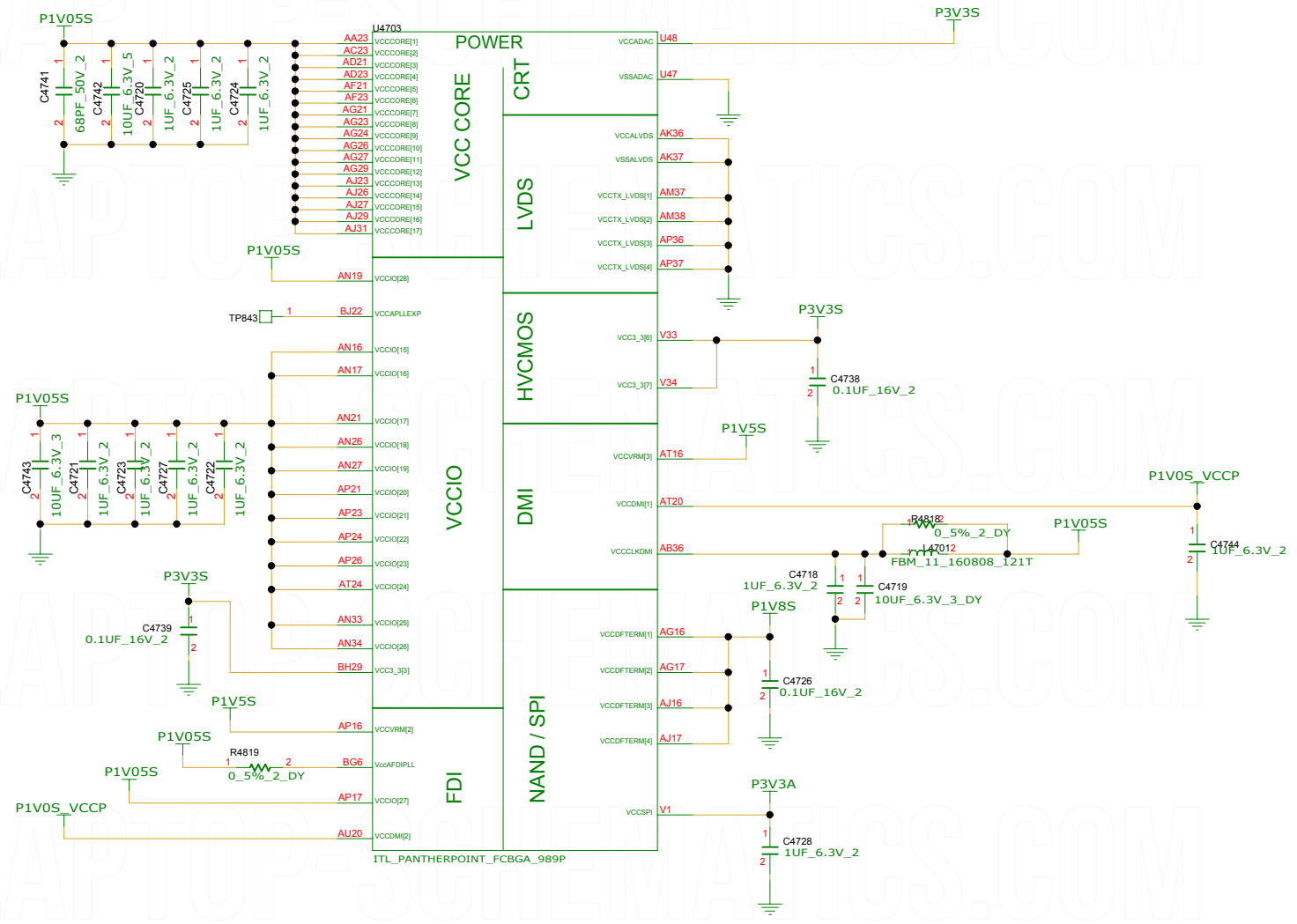
SHEET 37 of 66

REFERENCE NUMER : 4700~4949



INVENTEC			
TITLE			
MODEL PROJECT,FUNCTION			
PANTHER POINT 6 (GPIO,VSS_NCTF,RSVD)			
SIZE		DOC NUMBER	
A3		1310xxxxx-0-0	
CODE		REV	
CS		X01	
CHANGE by		DATE	
XXX		21-OCT-2002	
SHEET		38 of 66	

REFERENCE NUMER : 4700~4949

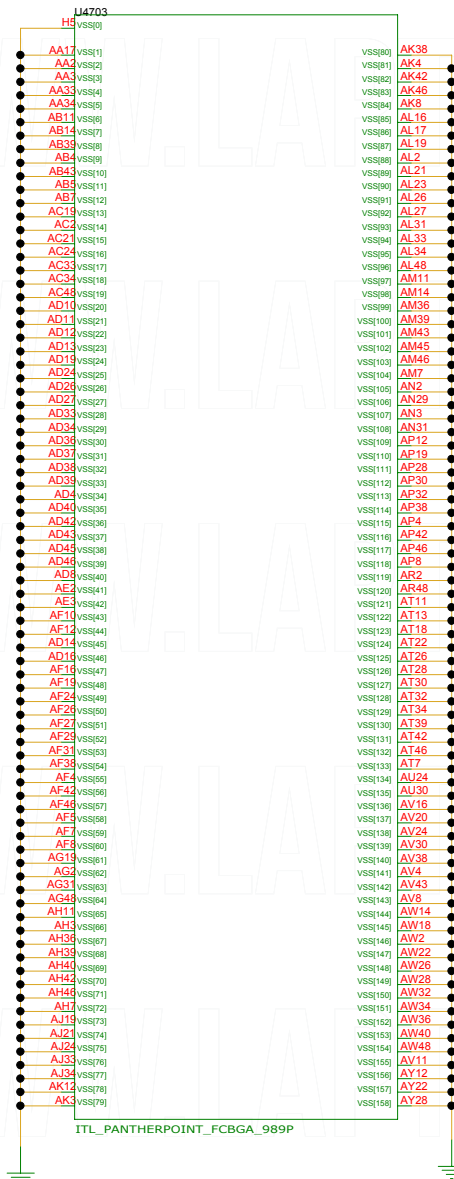


INVENTEC			
TITLE			
MODEL PROJECT FUNCTION			
PANTHER POINT 7 (POWER)			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
SHEET 39 of 66			

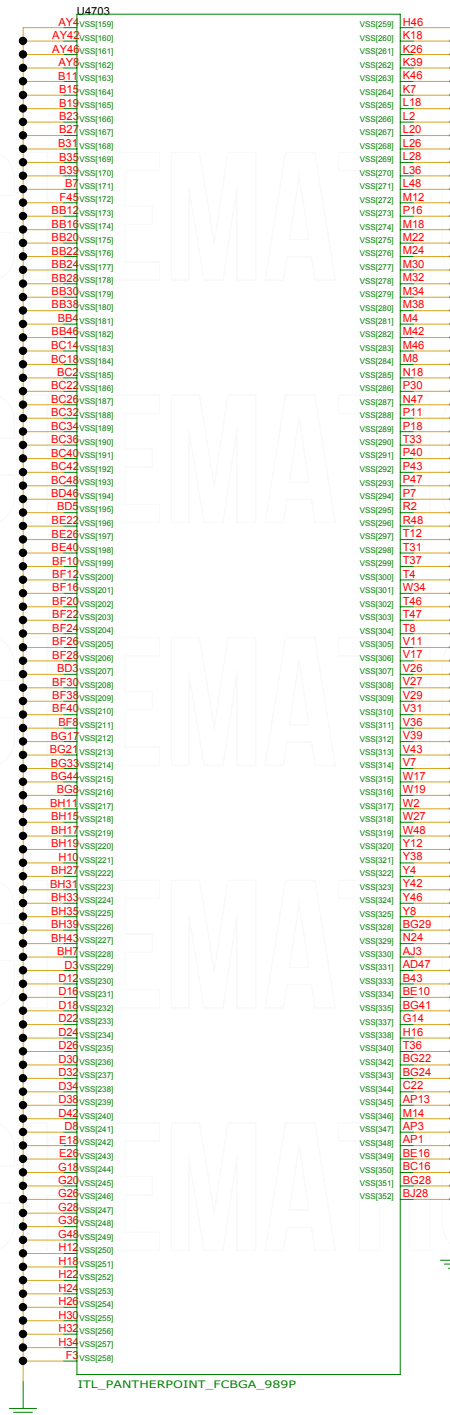
A



REFERENCE NUMBER : 4700~4949



ITL_PANTHERPOINT_FCBGA_989P



ITL_PANTHERPOINT_FCBGA_989P

CHANGE BY XXXX DATE 21-OCT-2002

INVENTEC			
TITLE			
MODEL PROJECT FUNCTION			
PANTHER POINT 3 (GND)			
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
SHEET 41 of 66			



D

C

B

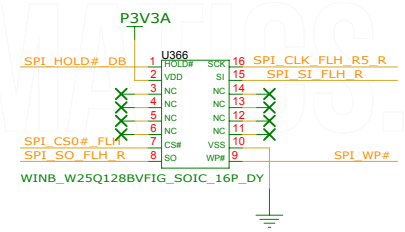
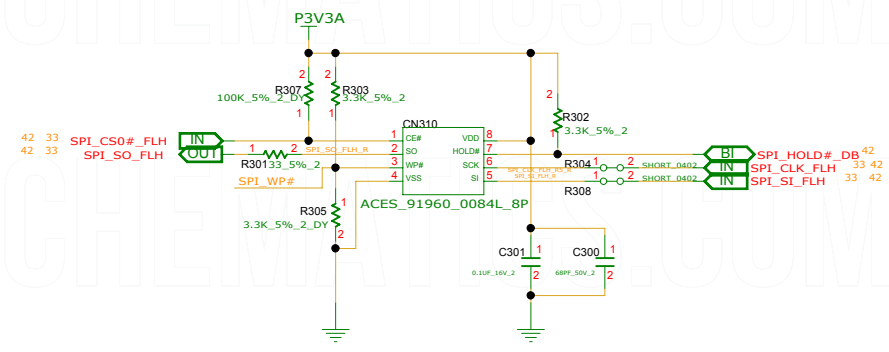
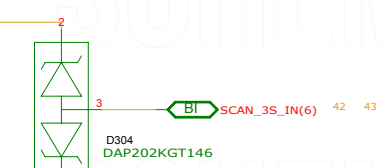
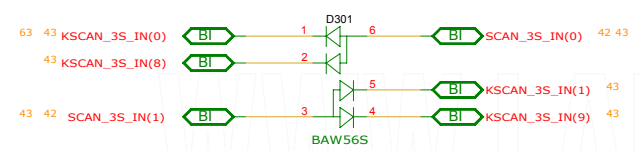
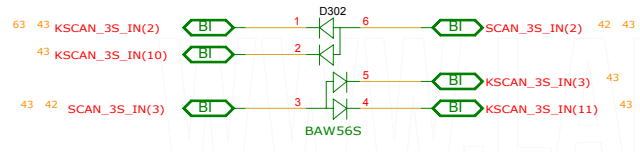
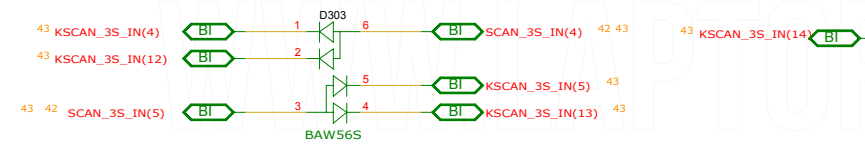
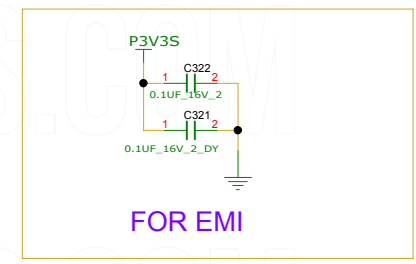
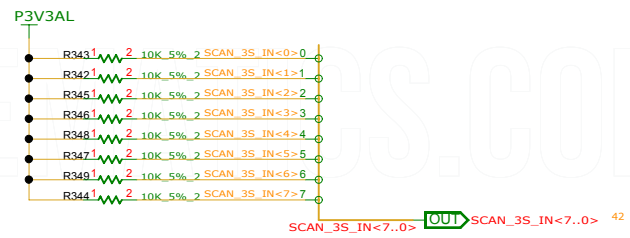
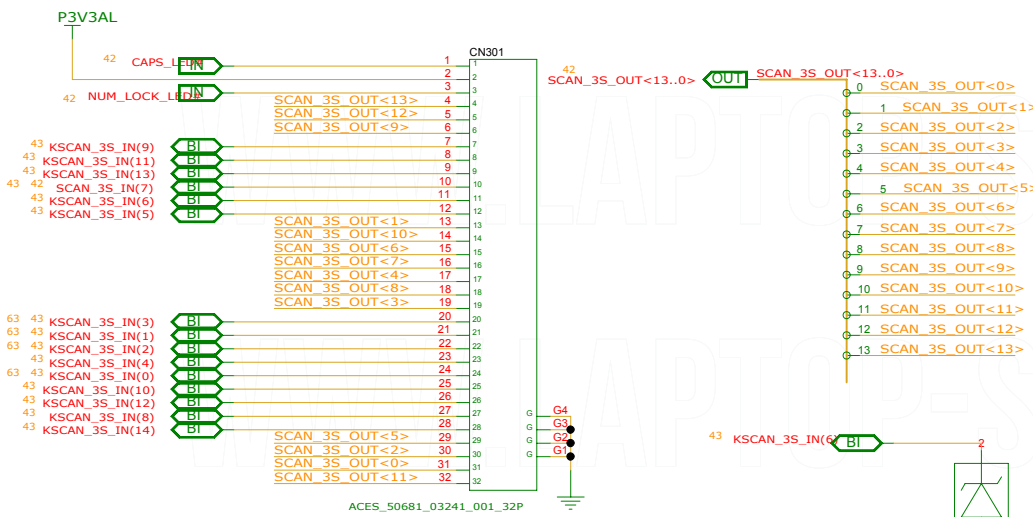
A

D

C

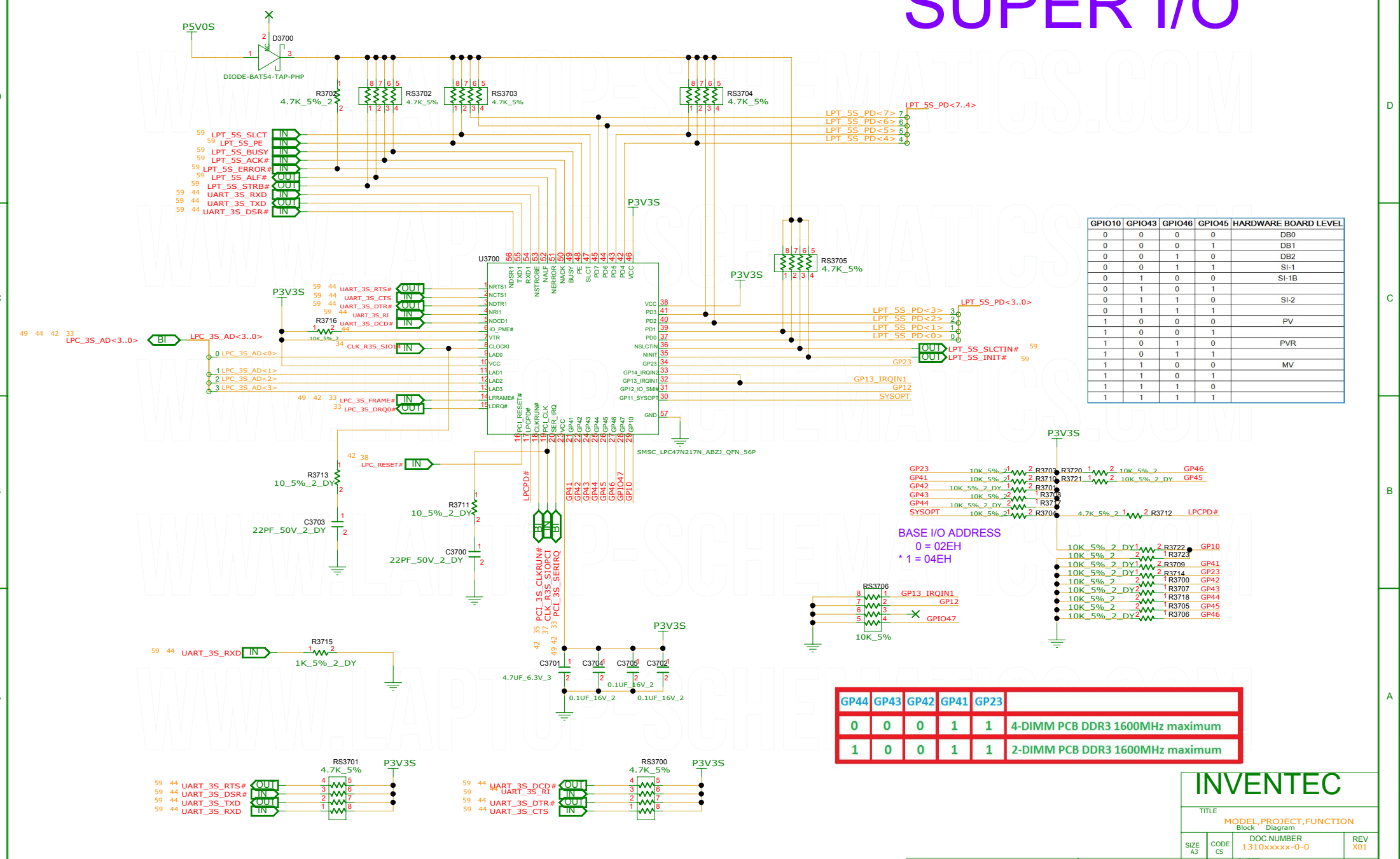
B

A



INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE A3	CODE CS	DOC.NUMBER	REV
		1310xxxxx-0-0	X01
SHEET 43 of 66			

SUPER I/O



GPIO10	GPIO43	GPIO46	GPIO45	HARDWARE BOARD LEVEL
0	0	0	0	DB0
0	0	0	1	DB1
0	0	1	0	DB2
0	0	1	1	SI-1
0	1	0	0	SI-1B
0	1	0	1	
0	1	1	0	SI-2
0	1	1	1	
1	0	0	0	PV
1	0	0	1	PVR
1	0	1	0	
1	1	0	0	MV
1	1	0	1	
1	1	1	0	
1	1	1	1	

BASE I/O ADDRESS
0 = 02EH
* 1 = 04EH

GP44	GP43	GP42	GP41	GP23	
0	0	0	1	1	4-DIMM PCB DDR3 1600MHz maximum
1	0	0	1	1	2-DIMM PCB DDR3 1600MHz maximum

INVENTEC

TITLE

MODEL,PROJECT,FUNCTION

Block Diagram

SIZE A3

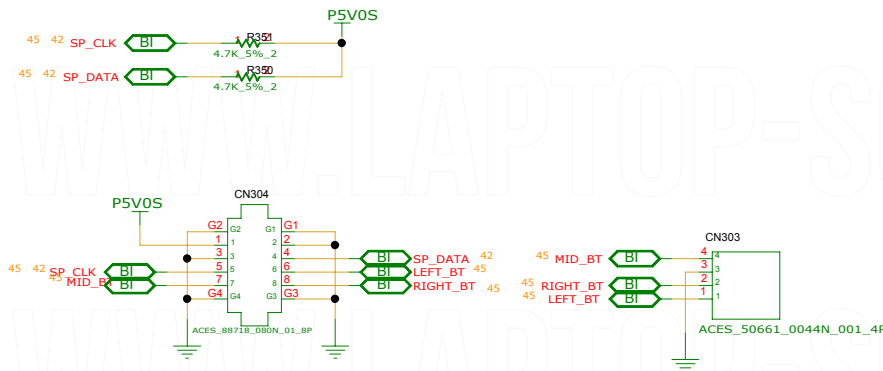
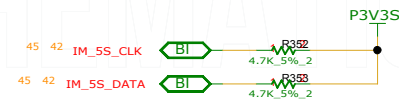
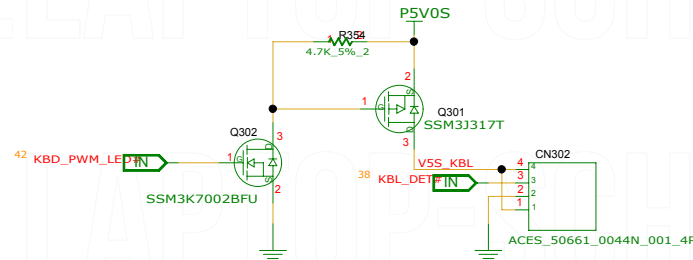
CODE CS

DOC NUMBER 1310xxxxx-0-0

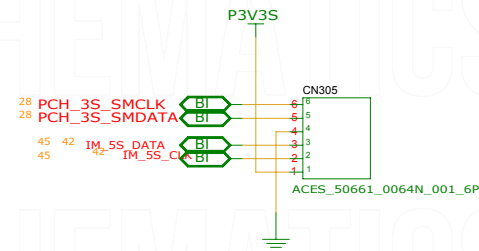
REV X01

SHEET 44 of 66

KEYBOARD_LIGHT_CNTR



STICK POINT



TOUCH PAD

INVENTEC

TITLE MODEL,PROJECT,FUNCTION

Block Diagram

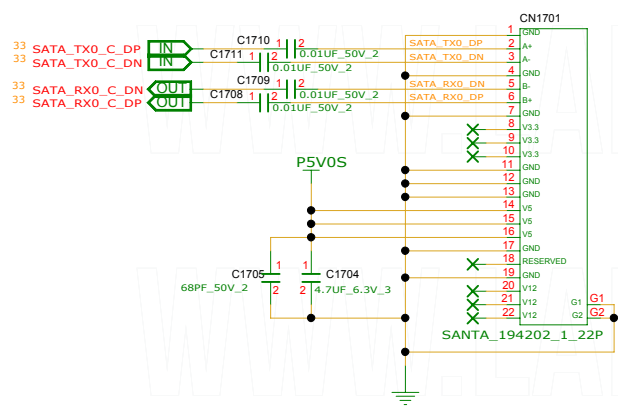
DOC NUMBER 1310xxxxx-0-0

REV X01

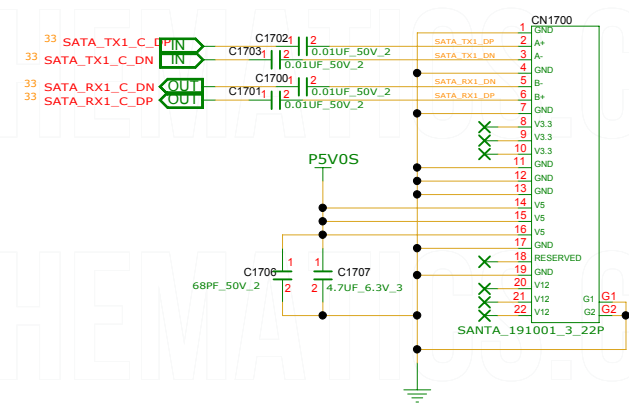
SHEET 45 of 66

CHANGE by XXX DATE 21-OCT-2002

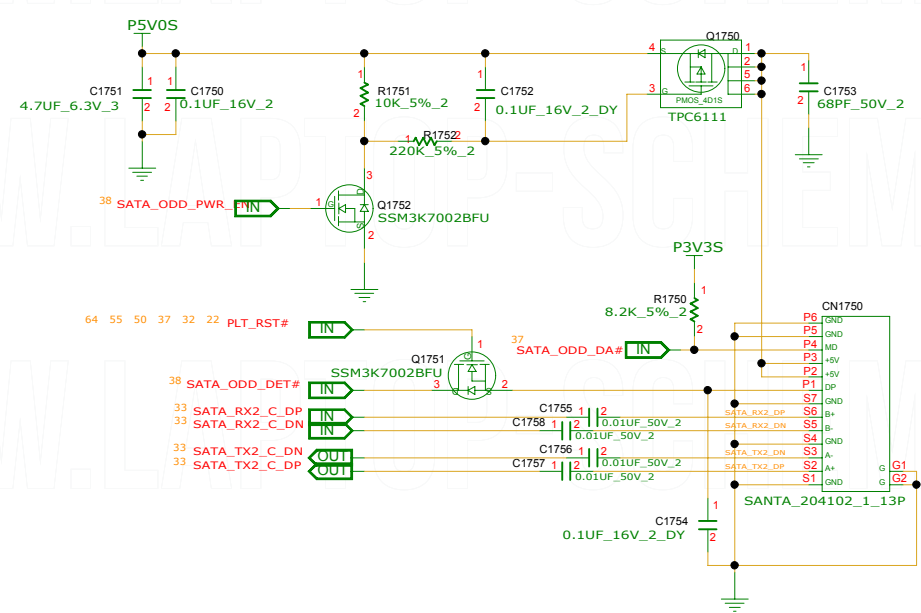
SATA HDD 0



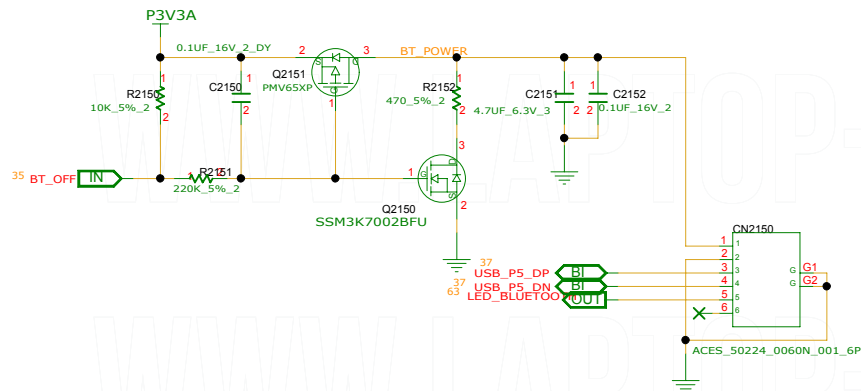
SATA HDD 1



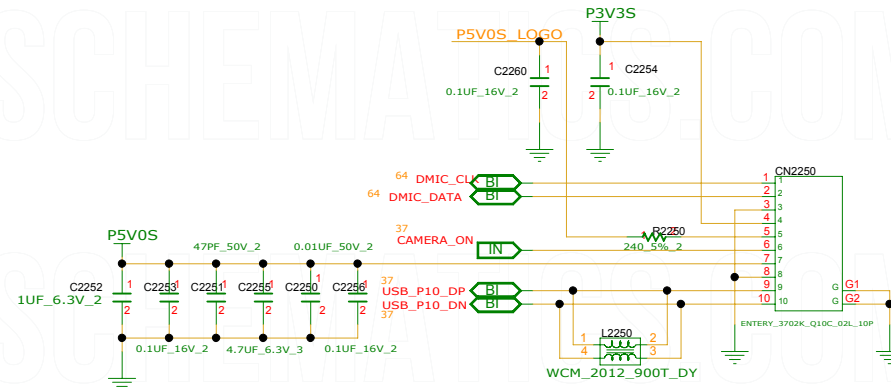
SATA ODD



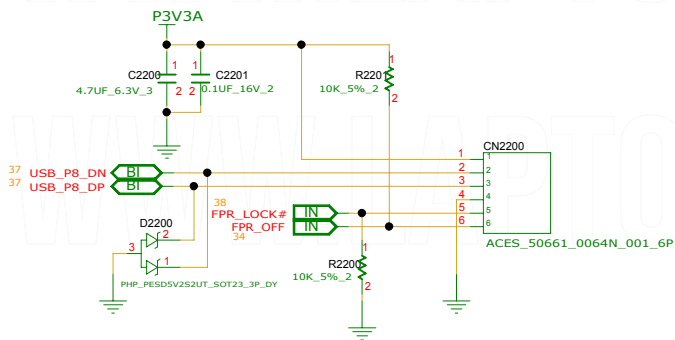
INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
SHEET 46 of 66			



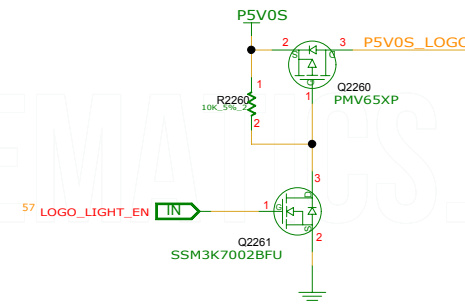
BLUETOOTH



CAMERA



FINGER PRINTER



INVENTEC

TITLE MODEL,PROJECT,FUNCTION

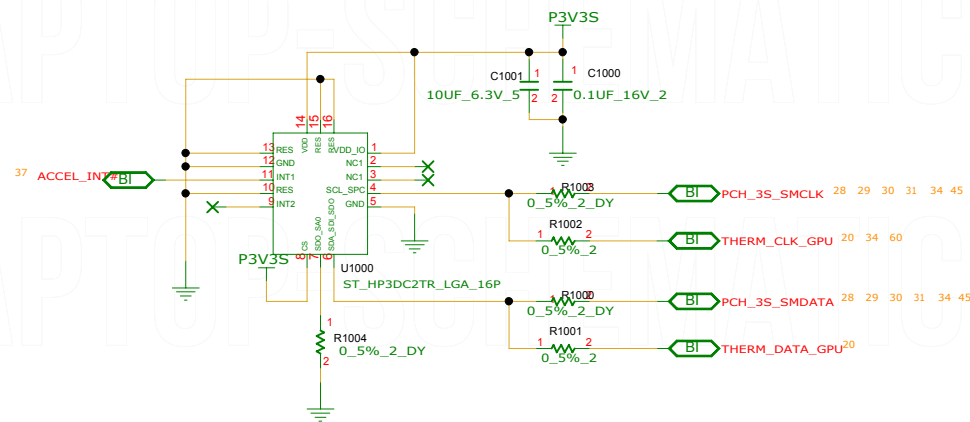
Block Diagram

DOC NUMBER 1310xxxxx-0-0

REV X01

SHEET 47 of 66

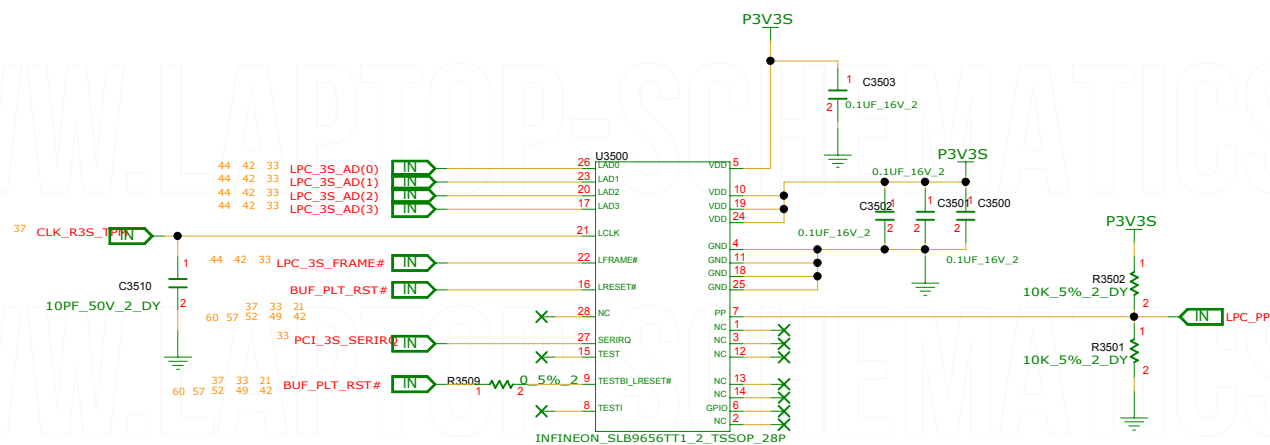
CHANGE by XXX DATE 21-OCT-2002



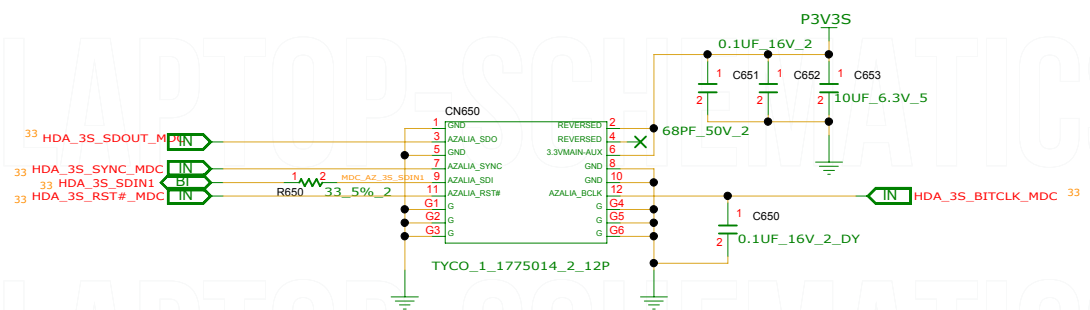
ACCELEROMETOR

INVENTEC

TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
SHEET 48 of 66			

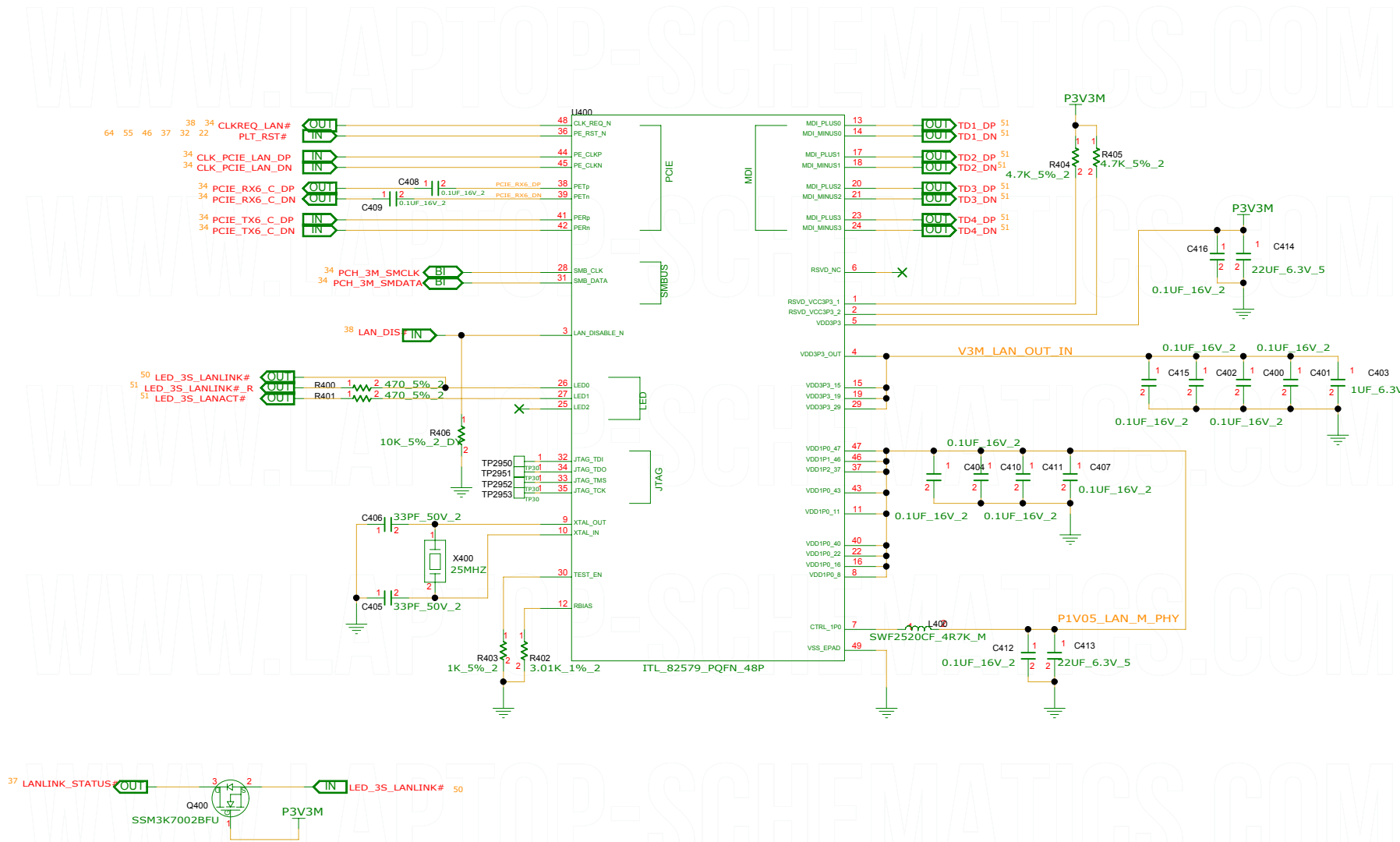


TPM1.2



MDC CONN

INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01
CHANGE by		DATE	SHEET
XXX		21-OCT-2002	49 of 66



INVENTEC

TITLE
MODEL, PROJECT, FUNCTION

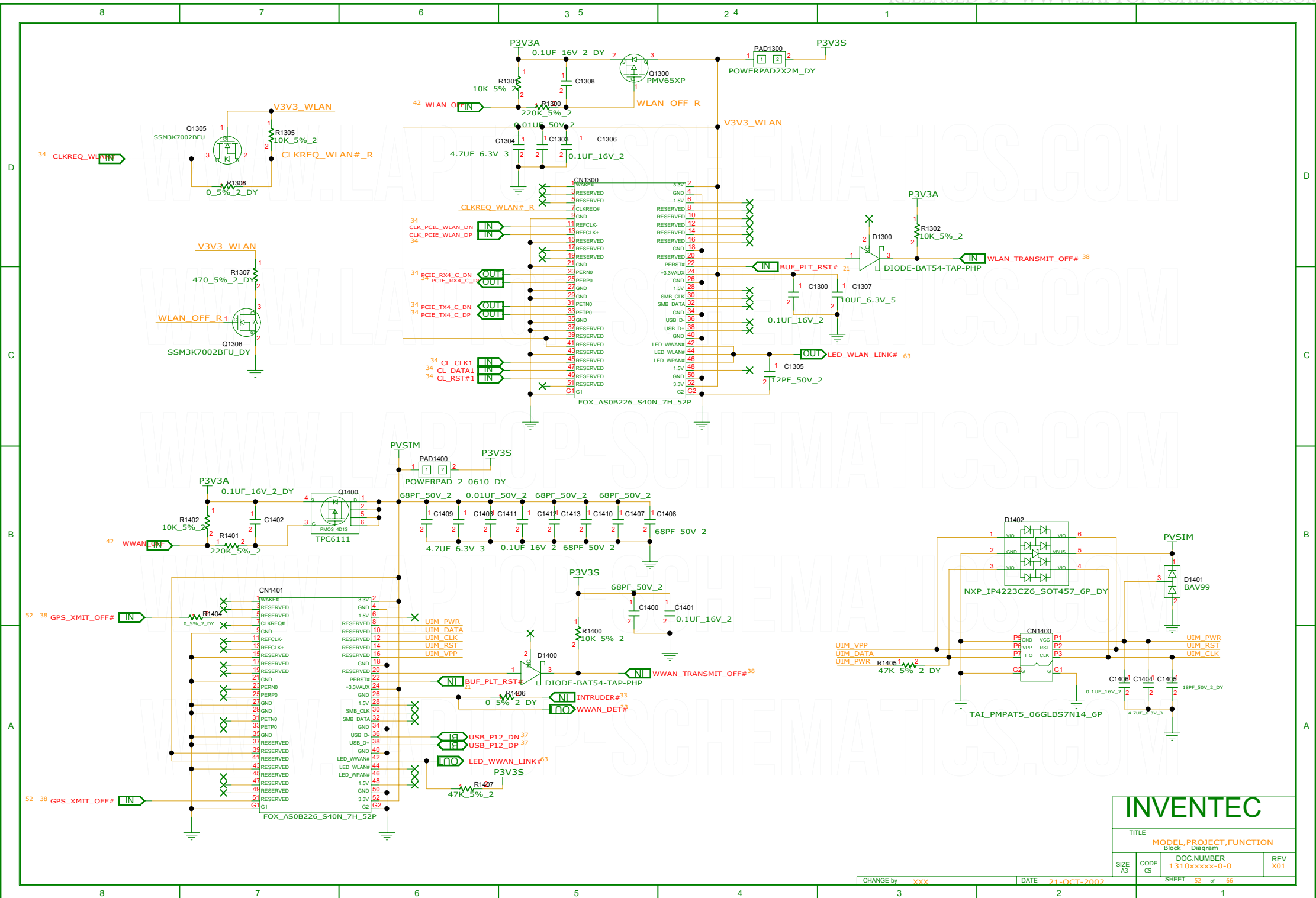
Block Diagram
DOC NUMBER
1310xxxxx-0-0

SIZE A3 CODE CS REV X01

SHEET 50 of 66

CHANGE by XXX DATE 21-OCT-2002

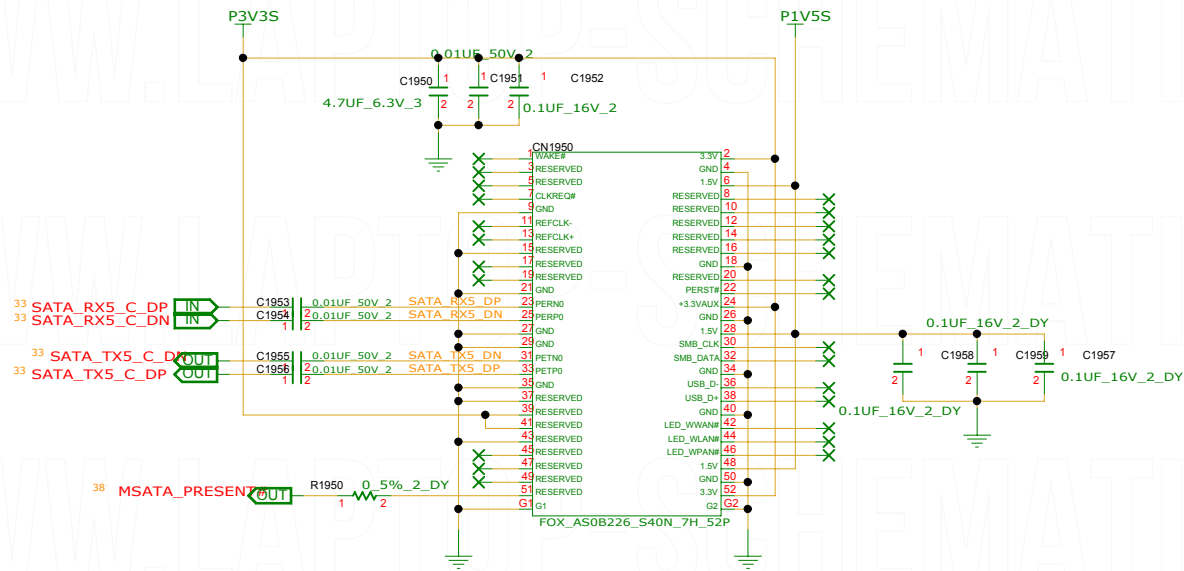




INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
SHEET 52 of 66			

CHANGE by XXX DATE 21-OCT-2002

MSATA--MINI CARD



INVENTEC

TITLE
MODEL, PROJECT, FUNCTION

Block Diagram

DOC NUMBER
1310xxxxx-0-0

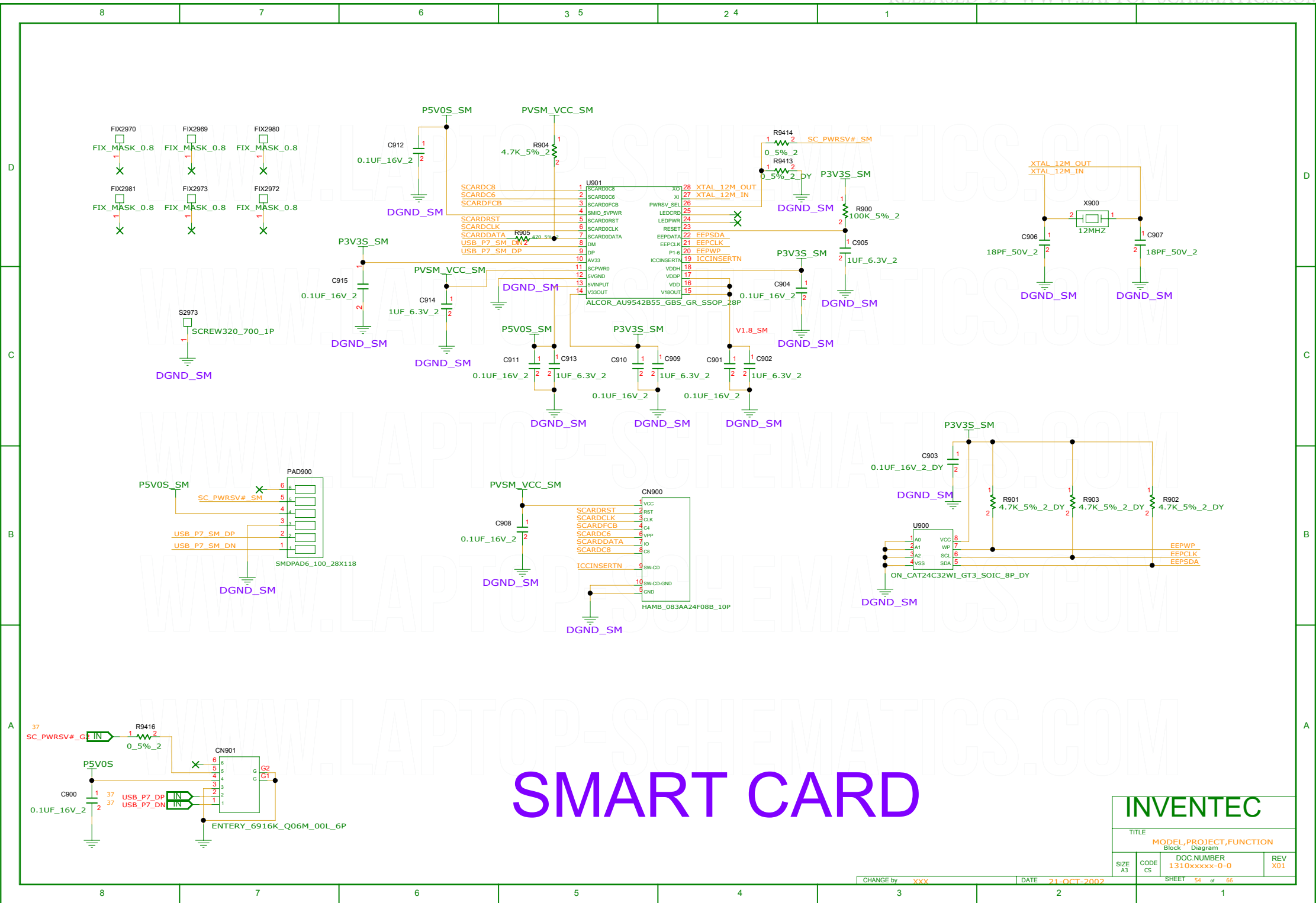
REV
X01

SHEET 53 of 66

CHANGE by XXX DATE 21-OCT-2002

SIZE A3 CODE CS

8 7 6 5 4 3 2 1



WWW.LAPTOP-SCHEMATICS.COM

WWW.LAPTOP-SCHEMATICS.COM

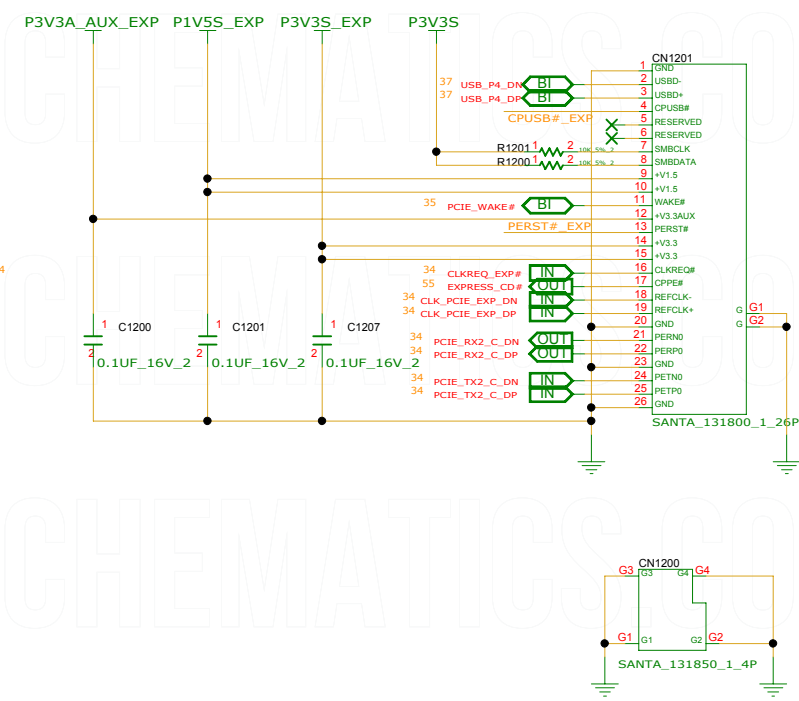
WWW.LAPTOP-SCHEMATICS.COM

WWW.LAPTOP-SCHEMATICS.COM

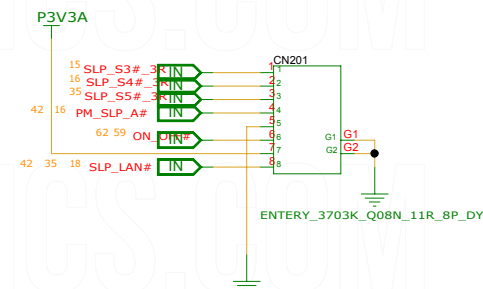
WWW.LAPTOP-SCHEMATICS.COM

EXPRESS CARD

WWW.LAPTOP-SCHEMATICS.COM

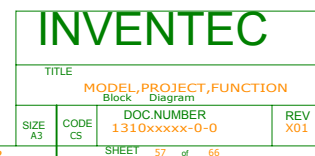


INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01
SHEET 55 of 66			

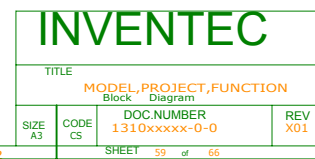


INVENTEC

TITLE		MODEL,PROJECT,FUNCTION	
		Block	Diagram
SIZE A3	CODE CS	DOC.NUMBER 1310xxxxx-0-0	REV X01
		SHEET 56 of 66	







D

C

B

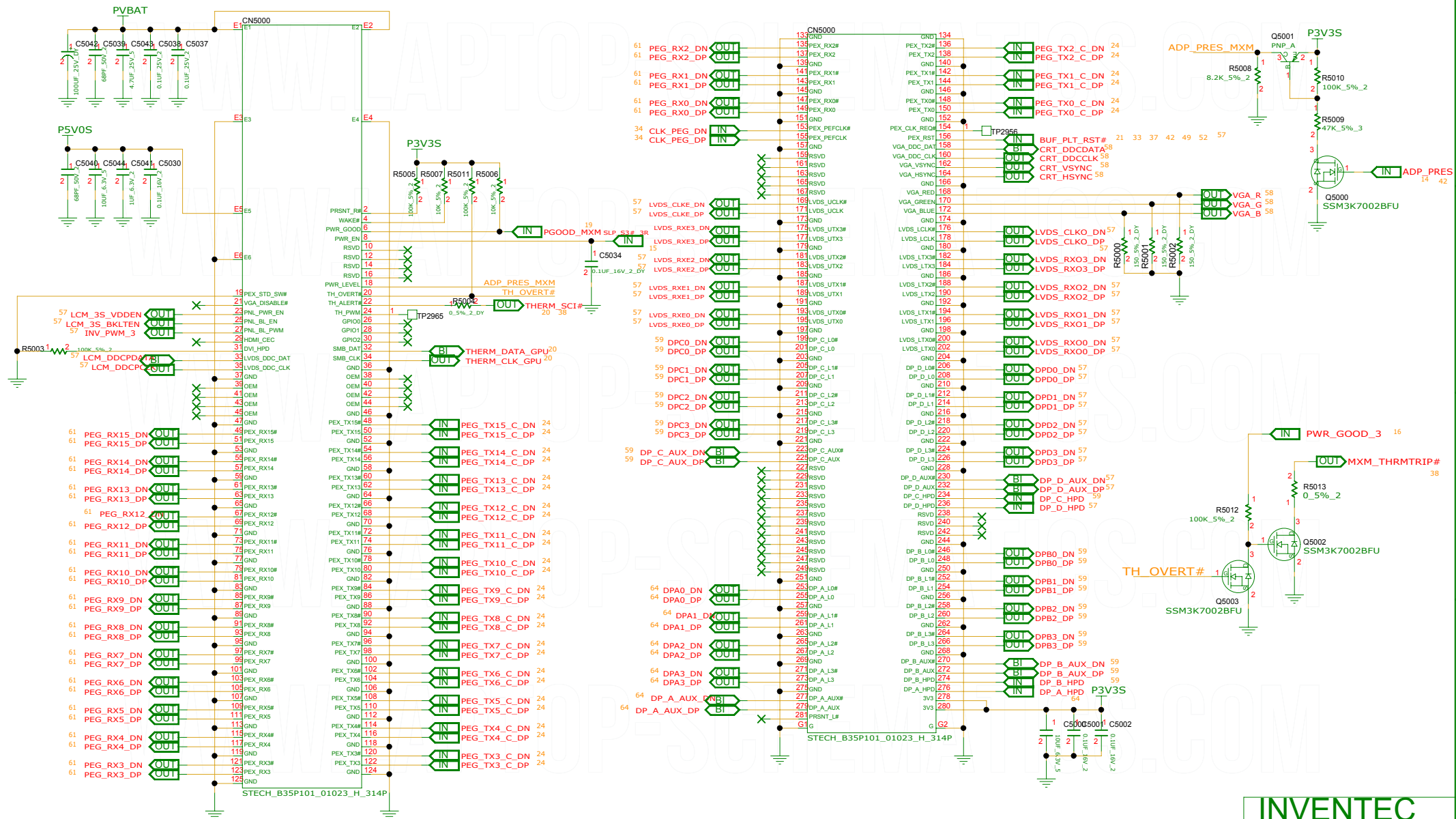
A

D

C

B

A



INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01
CHANGE by XXX			
DATE 21-OCT-2002			
SHEET 60 of 66			

D

D

C

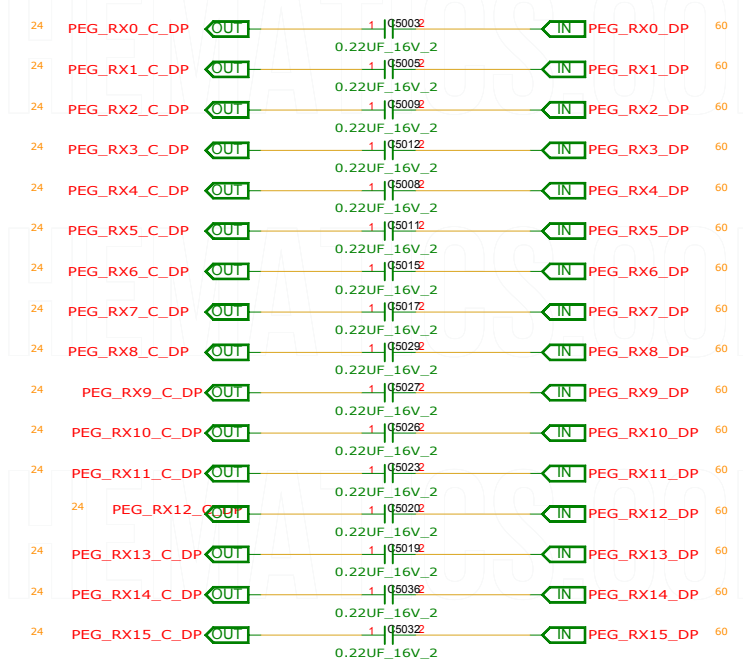
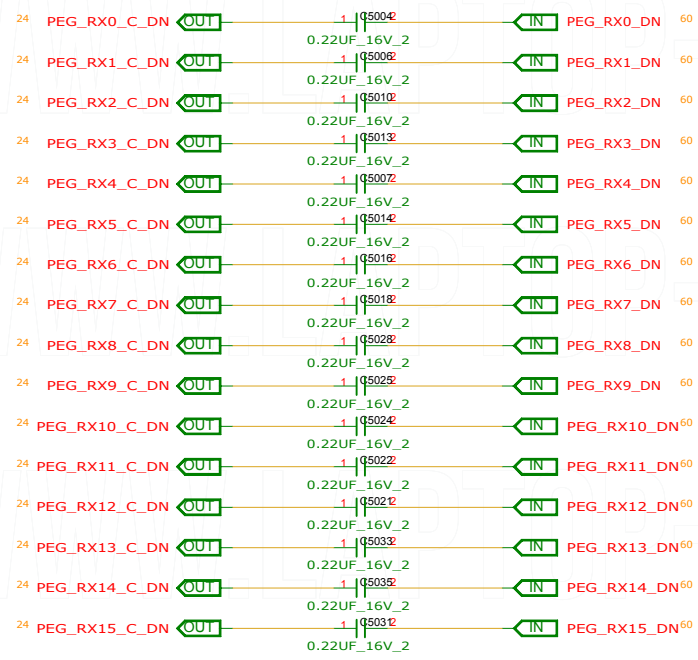
C

B

B

A

A



INVENTEC

TITLE

MODEL,PROJECT,FUNCTION

Block Diagram

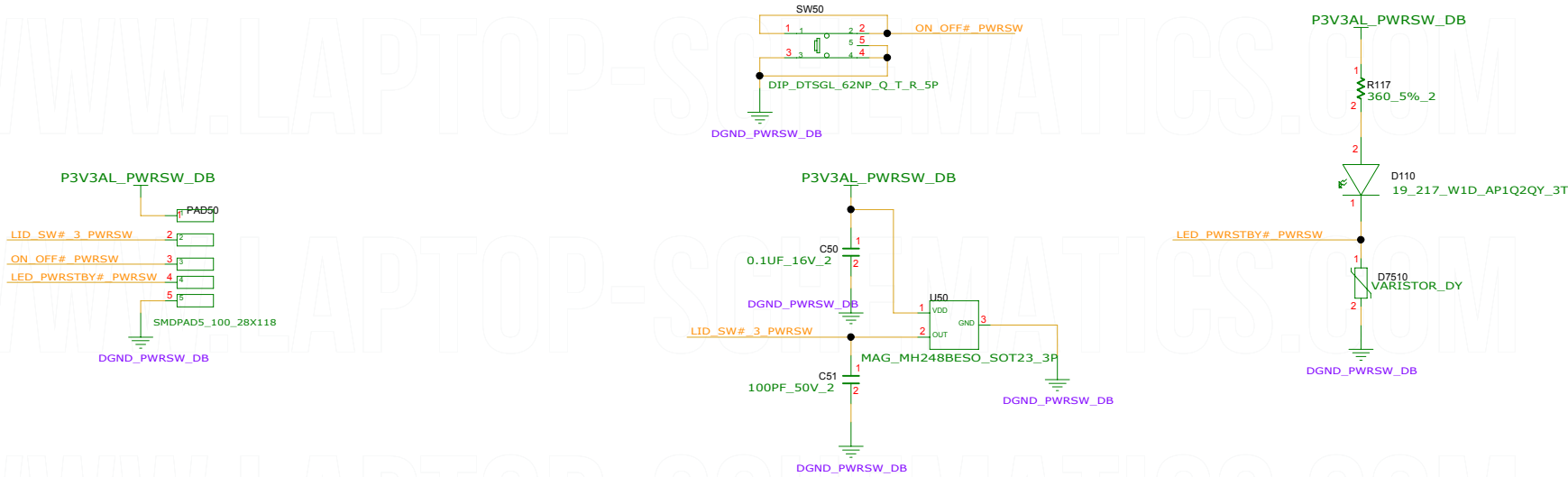
SIZE A3

CODE CS

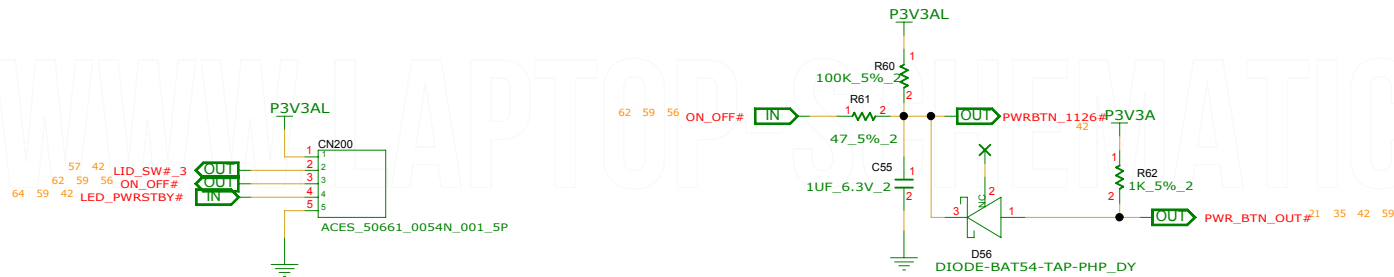
DOC NUMBER 1310xxxxx-0-0

REV X01

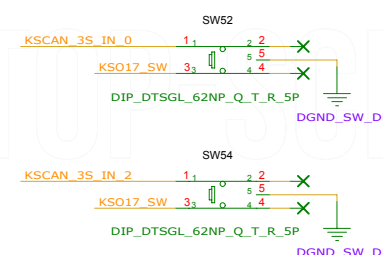
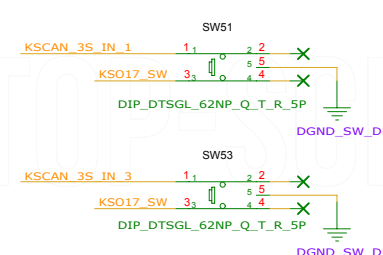
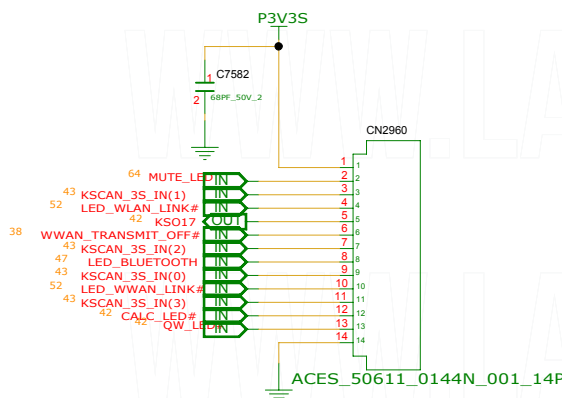
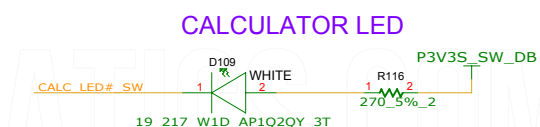
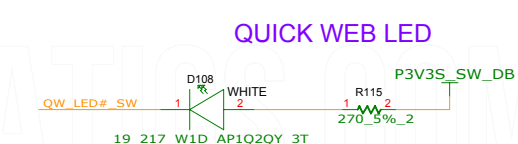
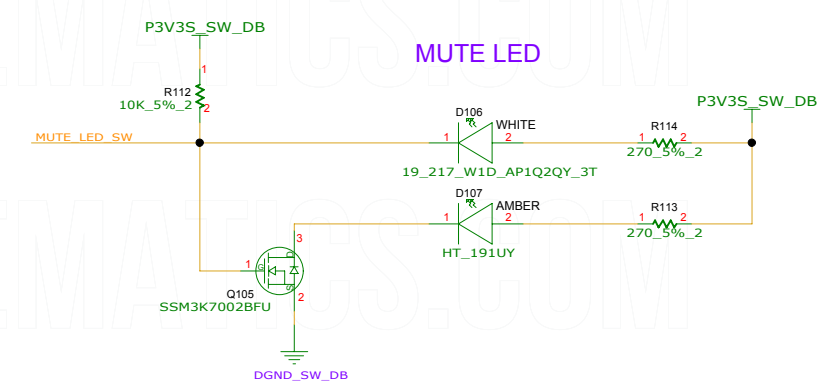
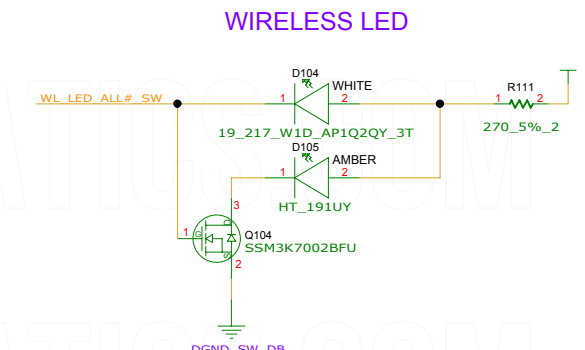
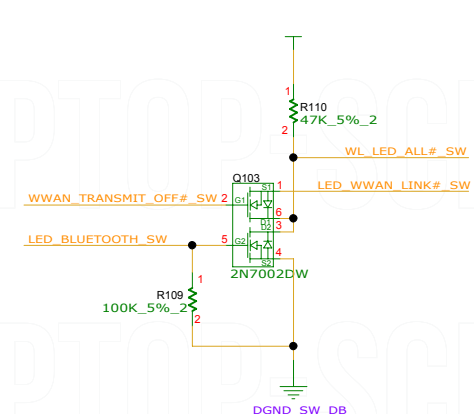
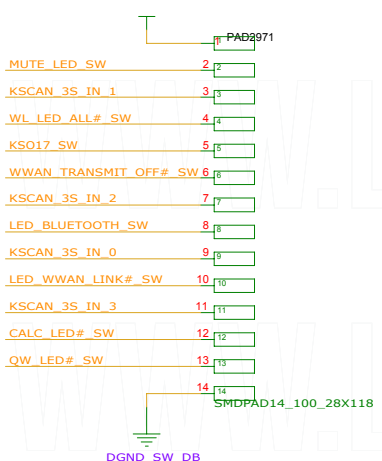
SHEET 61 of 66



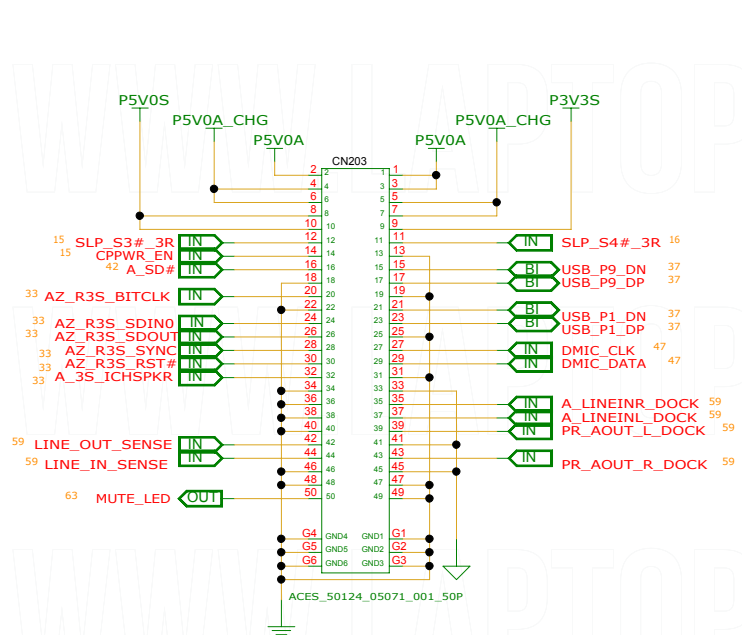
POWER BUTTON & LID SWITCH BOARD



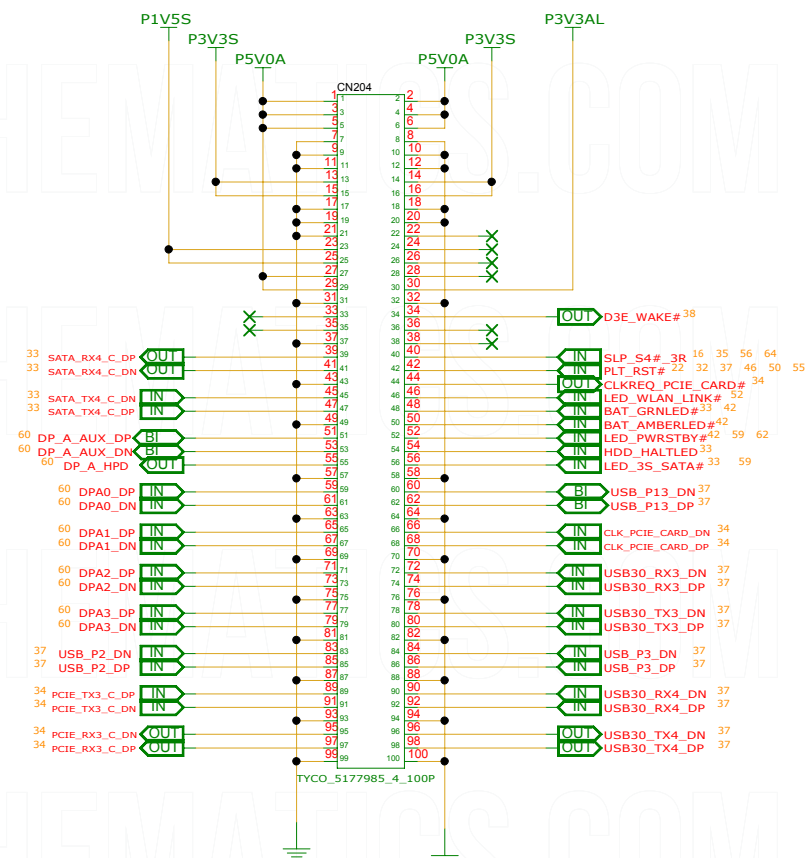
INVENTEC			
TITLE			
MODEL, PROJECT, FUNCTION			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01
SHEET 62 of 66			



INVENTEC			
TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxxx-0-0	X01
SHEET 63 of 66			



AUDIO DB CNTR



USB3 DB CNTR

INVENTEC

TITLE
MODEL, PROJECT, FUNCTION

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

SHEET 64 of 66

CHANGE by XXX DATE 21-OCT-2002

D

D

C

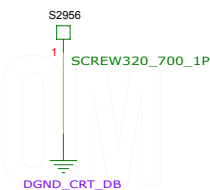
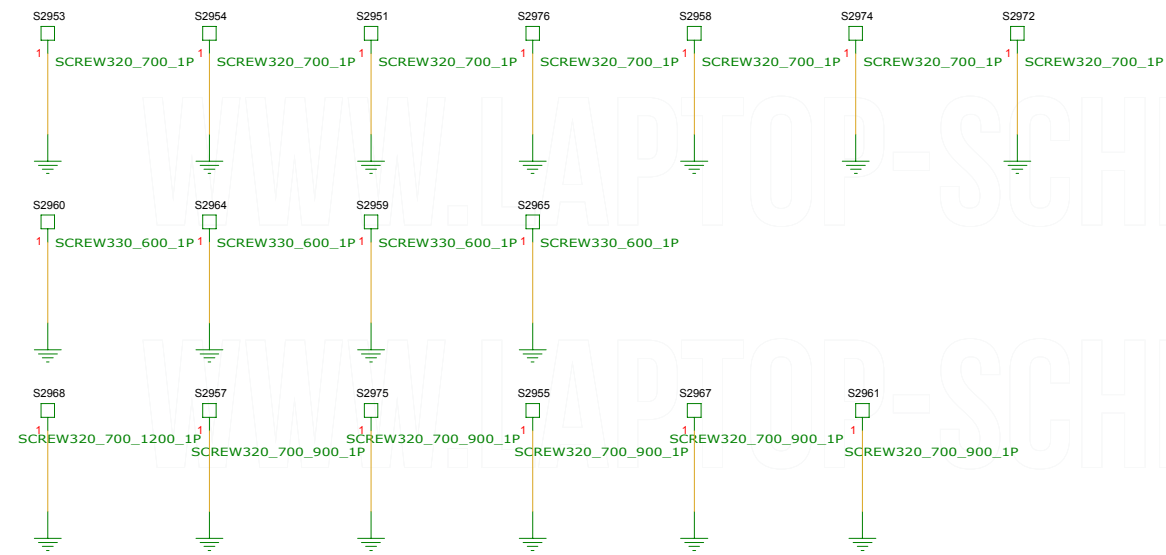
C

B

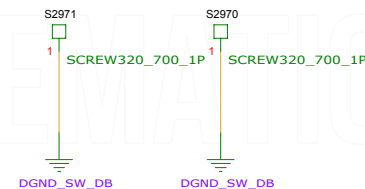
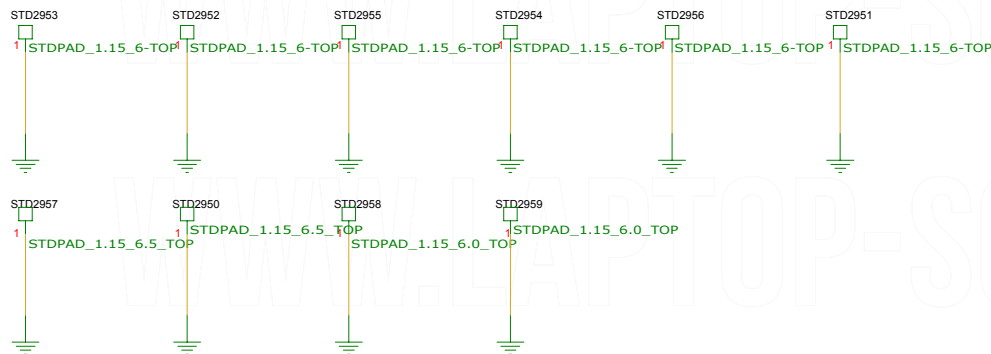
B

A

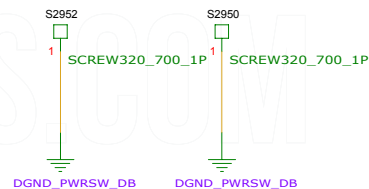
A



CRT BOARD



SWITCH BOARD



POWER BUTTON BOARD

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 65 of 66