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NOTES:
1. HSF Property: Comply iSupplier system HSF property attribute up-to-date value.

R10 REFRESH
SVT
X64 2PCS
2019.01.30

21-OCT-2002		
DATE	CHANGE NO.	REV

DESIGN / DRAWER	XXX	DATE	21-OCT-2002	INVENTEC			
CHECK	<CHECK>			MODEL, PROJECT, FUNCTION			
APPROVAL	<APPROVALS>			SIZE	COLOR	LOC NUMBER	REV
FILENAME	<FILENAME>			A3	CS	1310xxxx-0-0	X01
PCE PIN	600000000000	PCE VER	XXX	SHEET 1 of 60			

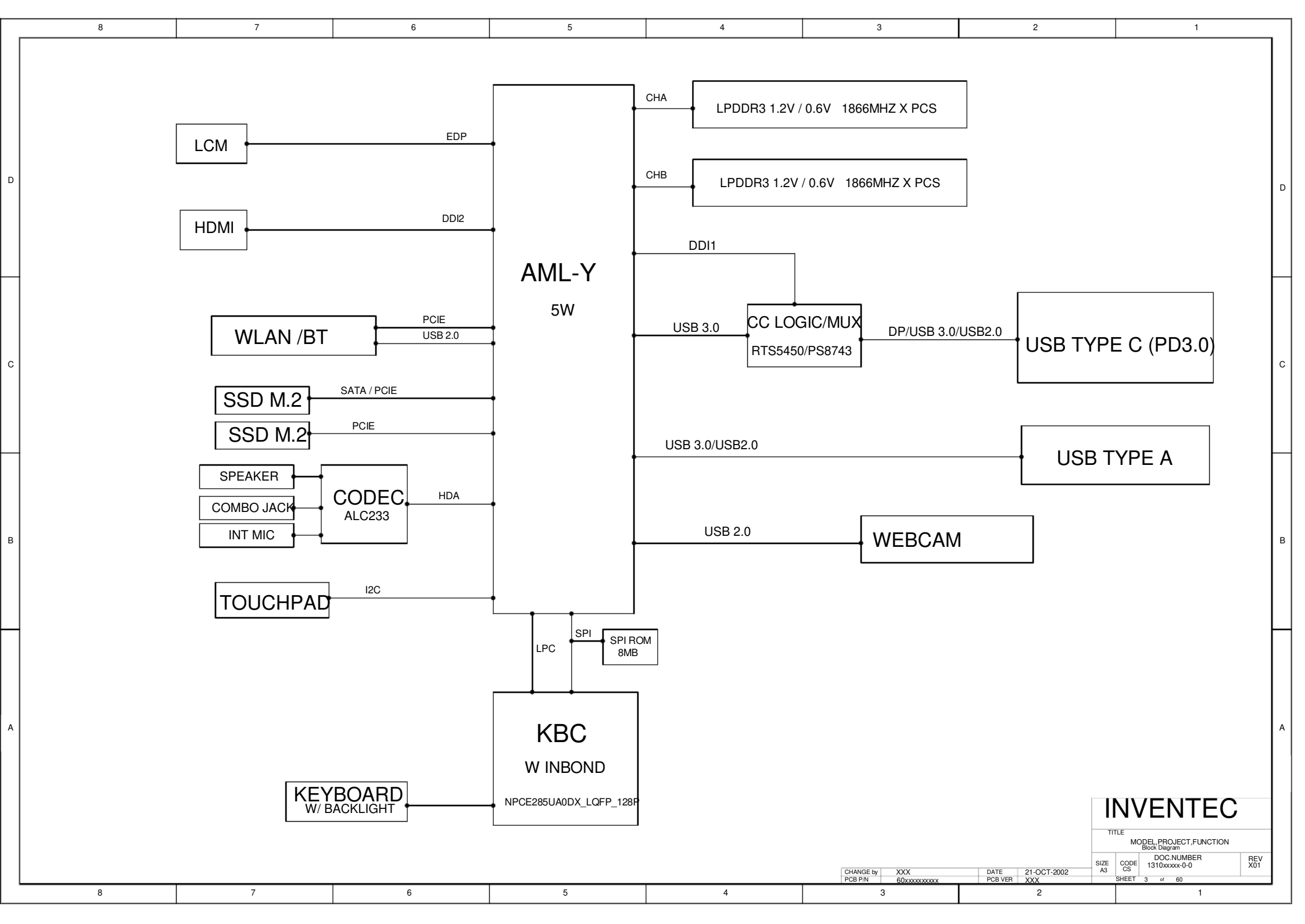
TABLE OF CONTENTS

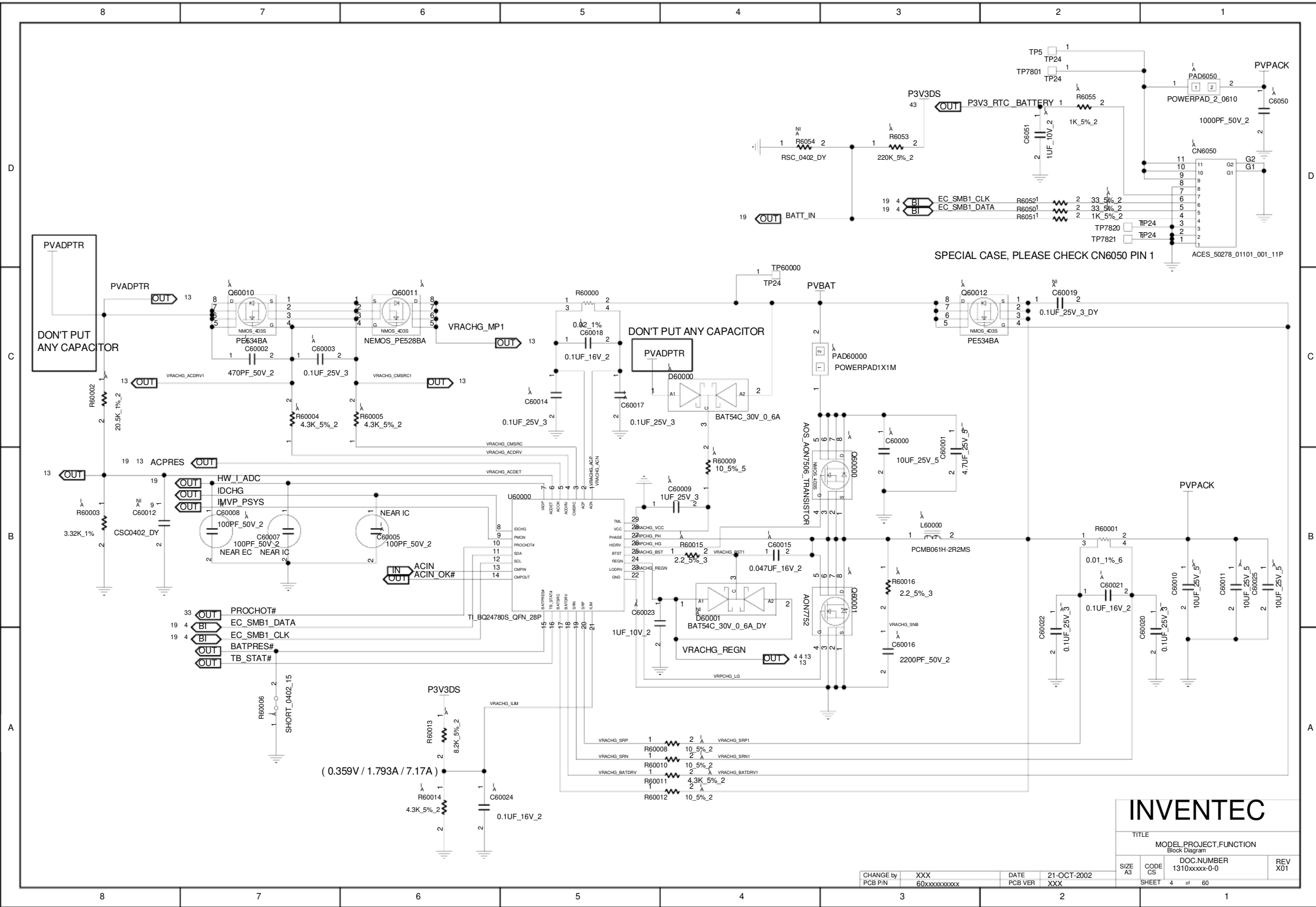
PAGE	PAGE	PAGE
1. COVER PAGE	21. AUDIO JACK&CONN	44. AM LAKE Y_12 (CFG/RESERVED)
2. INDEX	22. WLAN/BT	45. AM LAKE Y_13 (CPU POWER-1)
3. BLOCK DIAGRAM	23. NGFF-M2 SSD	46. AM LAKE Y_14 (CPU POWER-2)
4. POWER CHARGER	24. NGFF-M2 SSD2	47. AM LAKE Y_15 (CPU POWER-3)
5. POWER 3V/5V	25. USB3.0/SLEEP CHARGE	48. AM LAKE Y_16 (CPU POWER-4)
6. POWER VDDQ	26. USB TYPE-C CC	49. AM LAKE Y_17 (PCH POWER IO-1)
7. POWER P1V8A	27. USB TYPE-C CONN	50. AM LAKE Y_18 (PCH POWER IO-2)
8. POWER P1V0A	28. EDP CONN	51. AM LAKE Y_19 (POWER GND)
9. POWER GT-SA CONTROLLER	29. HDMI CONN	52. LPDDR3_-1 (B)
10. POWER PVCORE	32. THERMAL SENSOR	53. LPDDR3_-2 (B)
11. POWER PVCCGT	33. AM LAKE Y_1 (MISC/JIAG)	54. LPDDR3_-3 (A)
12. POWER PVCCSA	34. AM LAKE Y_2 (LPC / SPI / SMB / CLINK)	55. LPDDR3_-4 (A)
13. ENABLE PIN	35. AM LAKE Y_3 (LPSS/ISH)	56. LPDDR3_-5 (VREF)
14. SYSTEM POWER	36. AM LAKE Y_4 (POWER MANAGEMENT)	57. LPDDR3_-6 (CAP)
15. SYSTEM POWER	37. AM LAKE Y_5 (AUDIO/SDIO)	58. LPDDR3_-7 (VREF)
16. PCB SCREW	38. AM LAKE Y_6 (CSI-2/EMMC)	60. AUDIO DB
17. TOUCHPAD CNTR / PWR BTN / LID	39. AM LAKE Y_7 (DISPLAY)	59. EMI
18. KB CONN	40. AM LAKE Y_8 (DDR CHANNEL-A)	60. SMALL BOARD IO(AUDIO JACK)
19. EC	41. AM LAKE Y_9 (DDR CHANNEL-B)	
20. AUDIO CODEC_ALC233	42. AM LAKE Y_10 (PCIe/USB/SATA)	
	43. AM LAKE Y_11 (CLOCK)	

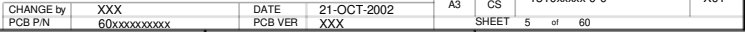
INVENTEC

TITLE			
MODEL PROJECT.FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC.NUMBER 1310xxxx-0-0	REV X01
SHEET	2	of	60

CHANGE by	XXX	DATE	21-OCT-2002
PCB PIN	60xxxxxxx	PCB VER	XXX

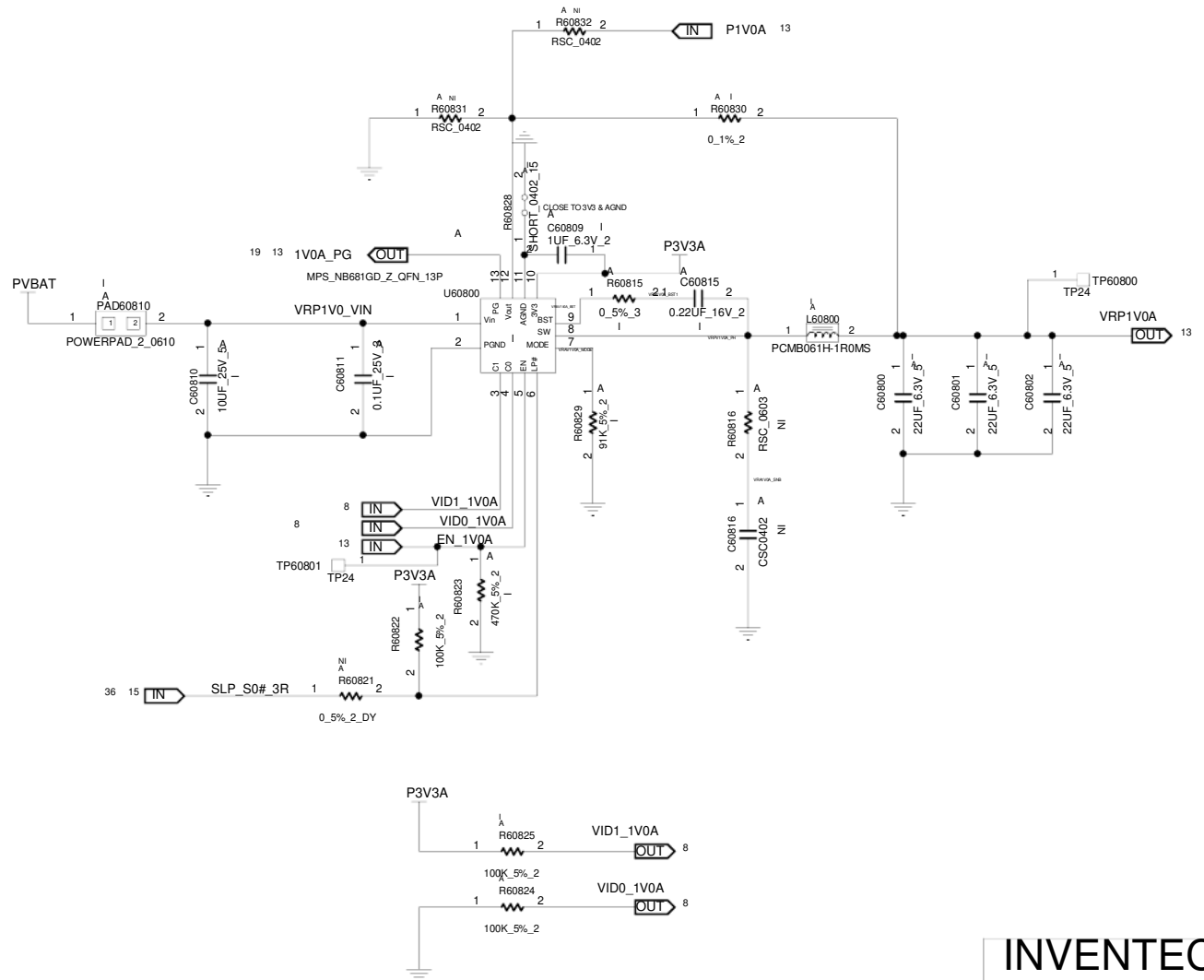






MODE	VR Rail	Resistor to GND
M1	VCCIO	0
M2	PCH	Float,(or >200k)
M3	EDRAM/EOPIO	100K
M4	Other	150K

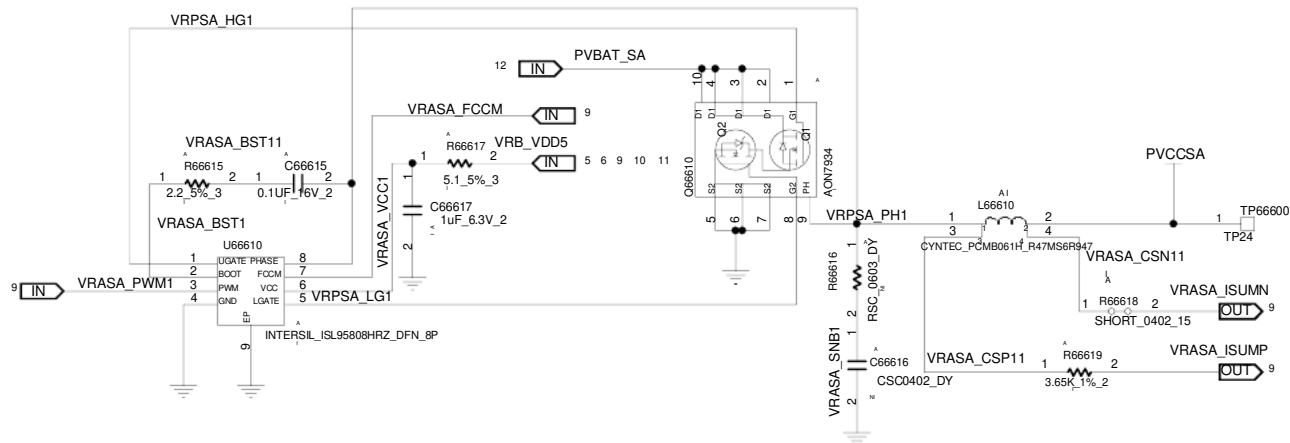
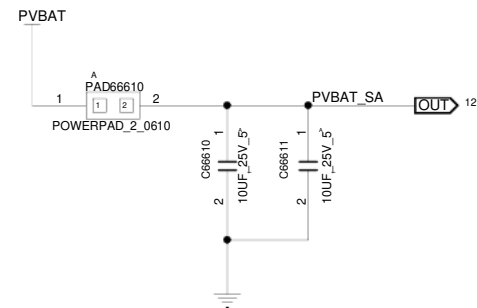
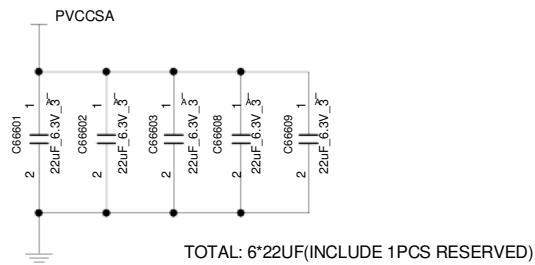
	LP#	C1	C0	VOUT(V)
VCCIO	0	X	X	0
	1	0	0	0.85
	1	0	1	0.875
	1	1	0	0.95
	1	1	1	0.975
VCCPRIM CORE	0	X	X	0.7
	1	0	0	0.85
	1	0	1	0.9
	1	1	0	0.95
	1	1	1	1.00
EDRAM/EOPIO	0	X	X	0
	1	0	0	0.8(MSM)
	1	0	1	0.95
	1	1	0	1
	1	1	1	1.05
Others	0	X	X	0
	1	0	0	1.0
	1	0	1	1.075
	1	1	0	1.15
	1	1	1	1.2



INVENTEC

TITLE			
MODEL PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
SHEET	8	of 60	

CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxx	PCB VER	XXX

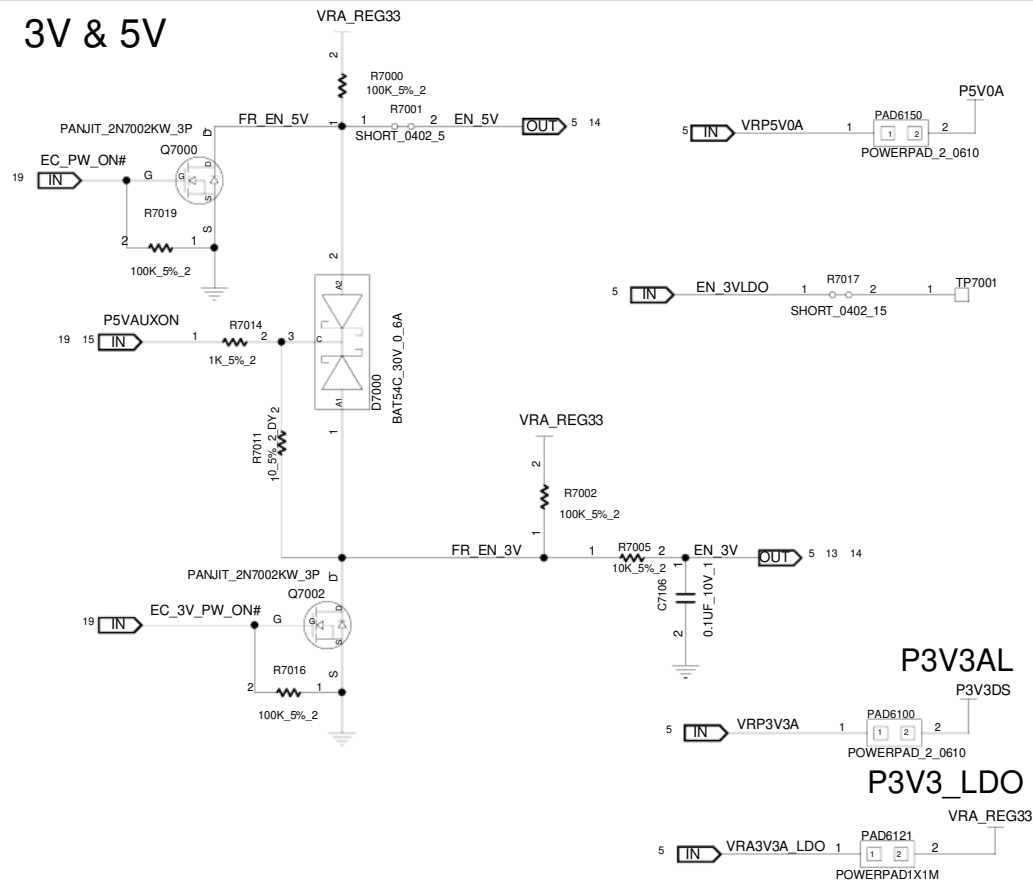


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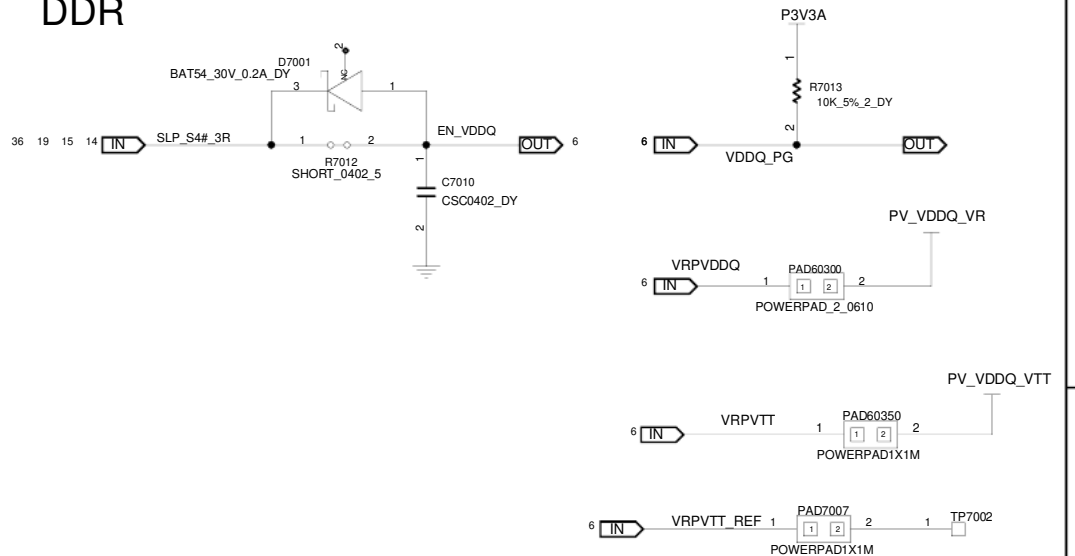
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SIZE A3	CODE CS	DOC NUMBER 1310xxxx-0-0	REV X01
SHEET 12 of 60			

CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxxxxxx	PCB VER	XXX

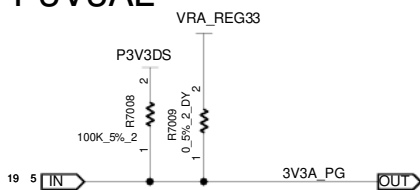
3V & 5V



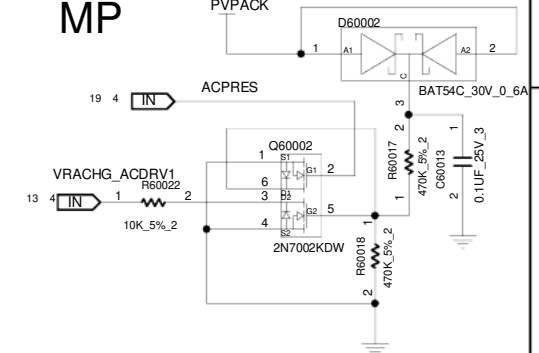
DDR



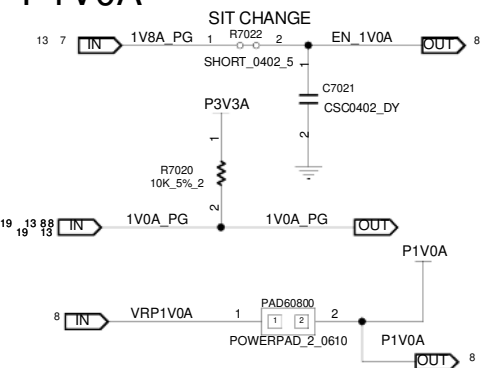
P3V3AL



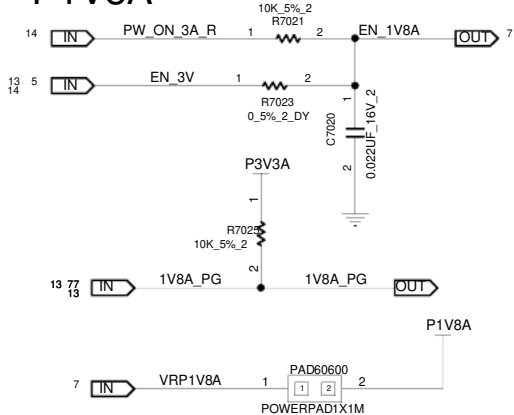
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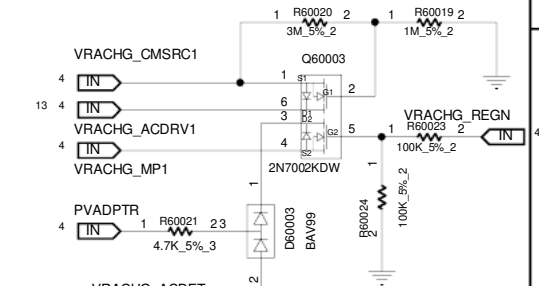
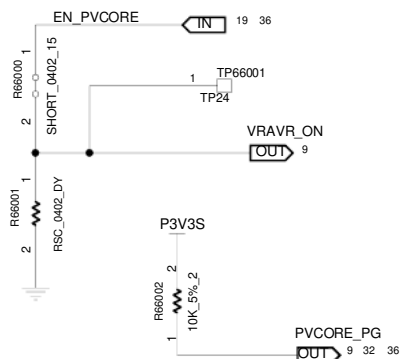
P1V0A



P1V8A



PVCORE



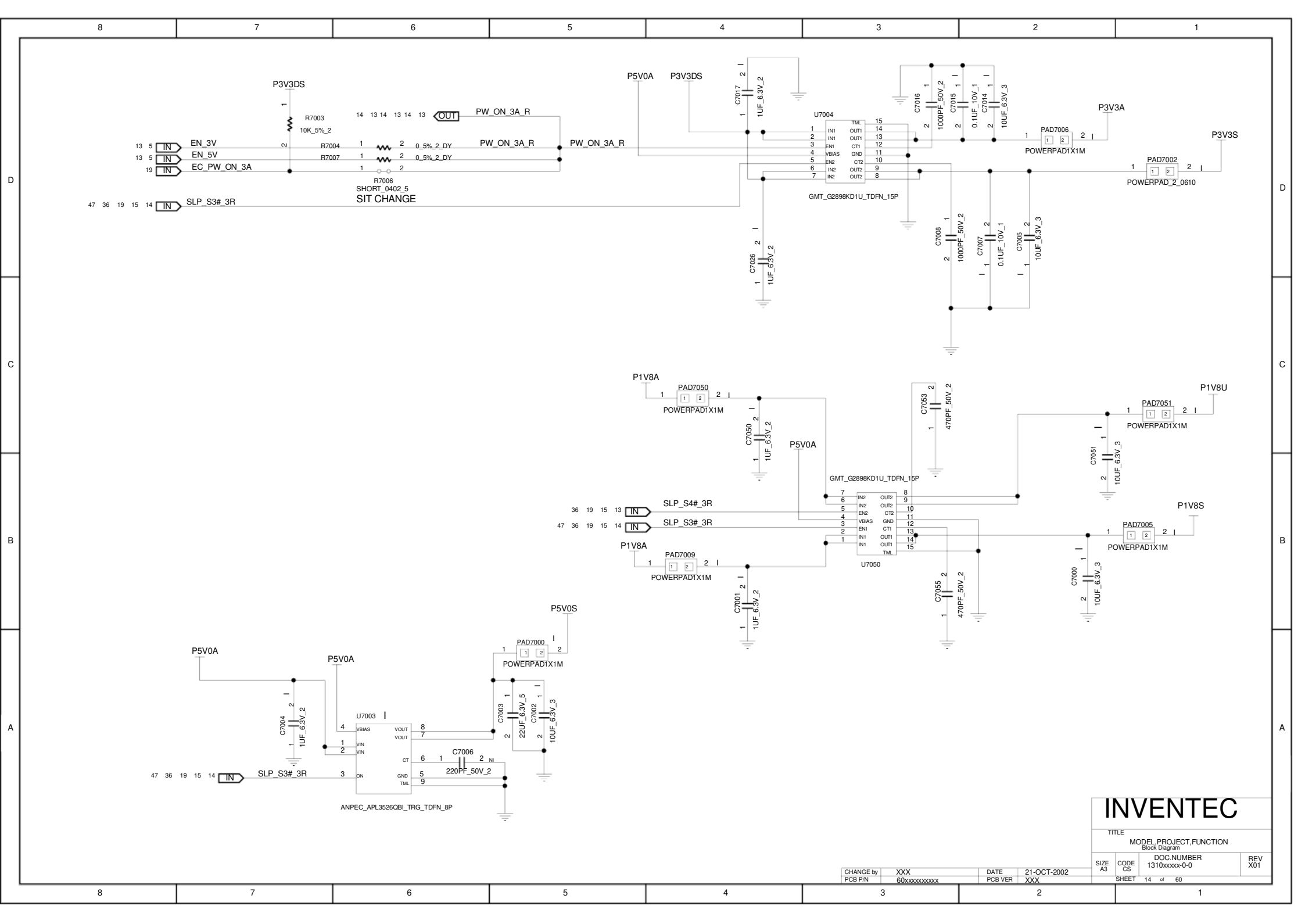
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TITLE
MODEL PROJECT,FUNCTION
Block Diagram

SIZE A3 CODE CS DOC NUMBER 1310xxxx-0-0 REV X01
SHEET 13 of 60

CHANGE by XXXX
PCB P/N 60xxxxxxxxxxx

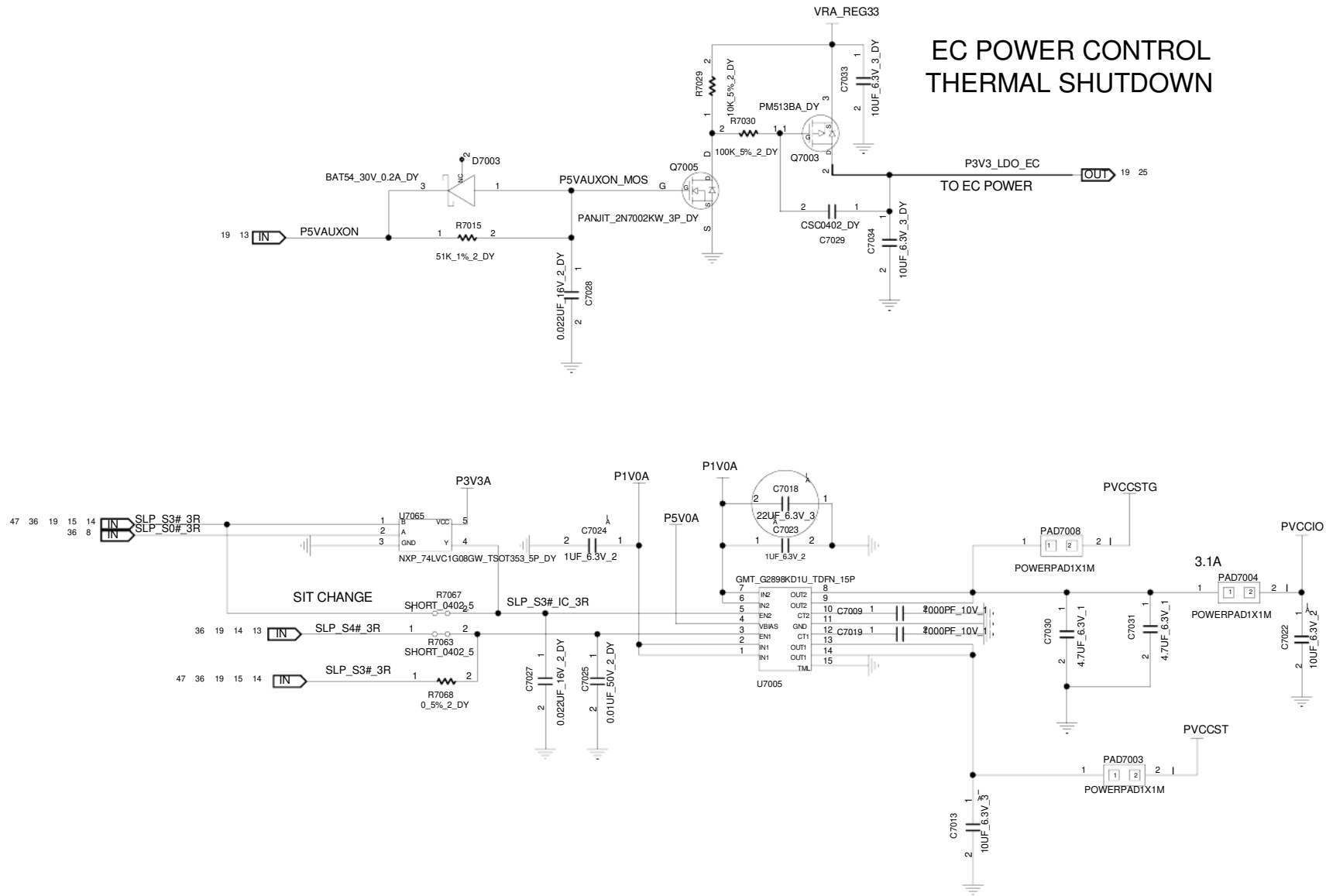
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PCB VER XXX



INVENTEC				
TITLE				
MODEL PROJECT,FUNCTION Block Diagram				
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A3	CS	1310:xxxx-0-0		
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CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxxxxx	PCB VER	XXX

EC POWER CONTROL THERMAL SHUTDOWN



INVENTEC

TITLE
MODEL PROJECT,FUNCTION
Block Diagram

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

CHANGE by XXXX DATE 21-OCT-2002
PCB P/N 60xxxxxxxxxxx PCB VER XXXX

SHEET 15 of 60

D

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B

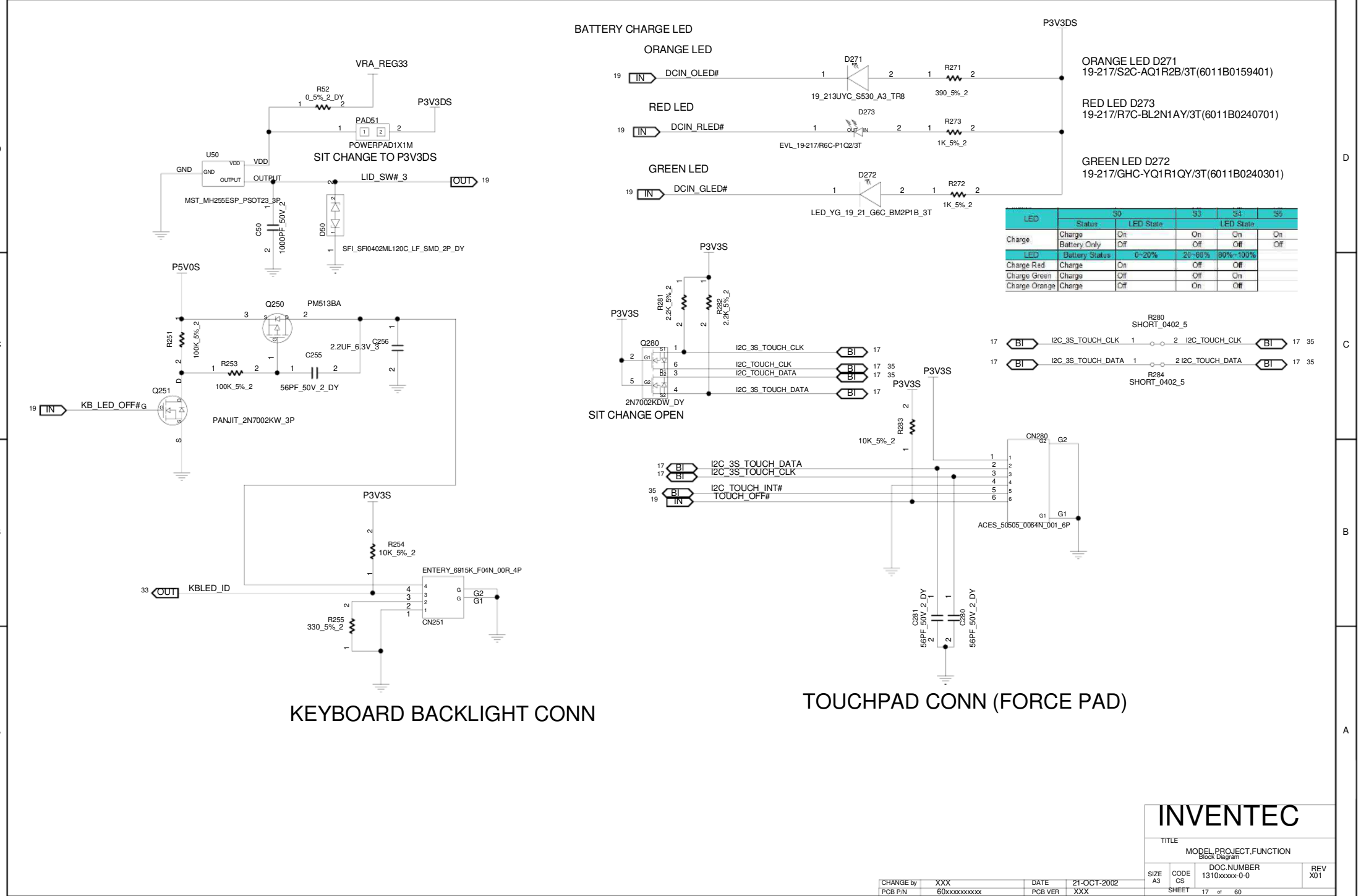
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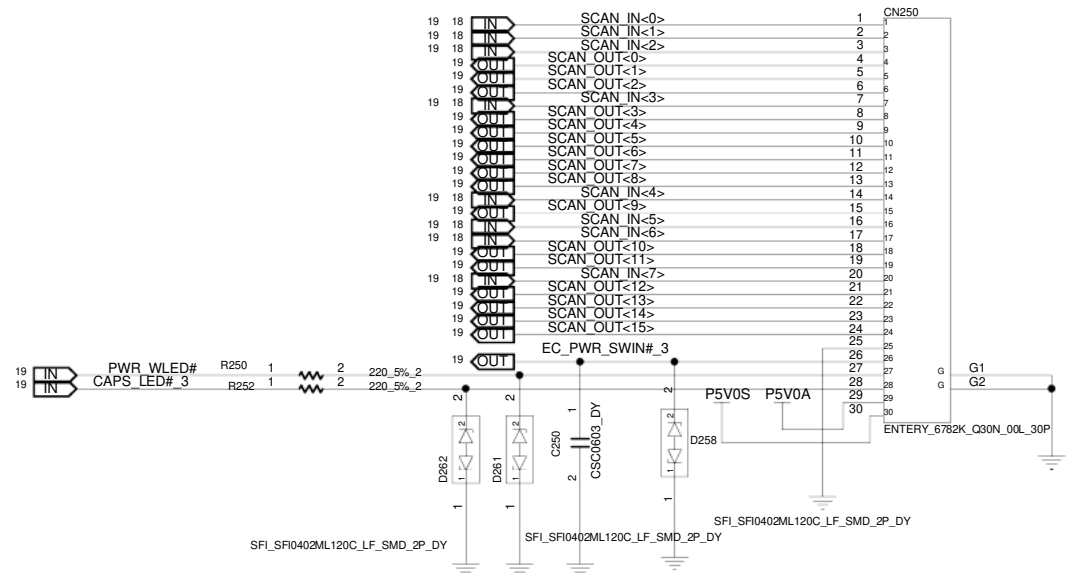
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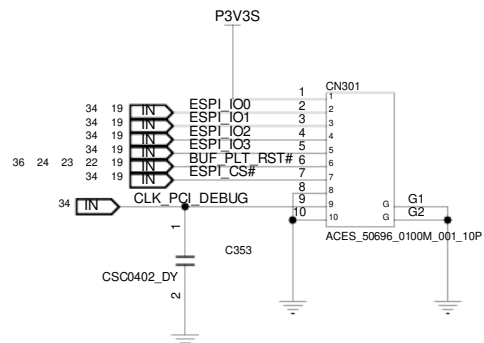
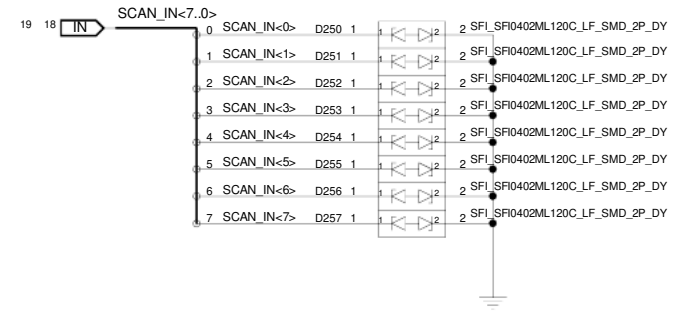
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REFERENCE 200~249(POWER CONN)
REFERENCE 250~299(KB/TP CONN)



KEYBOARD CONN

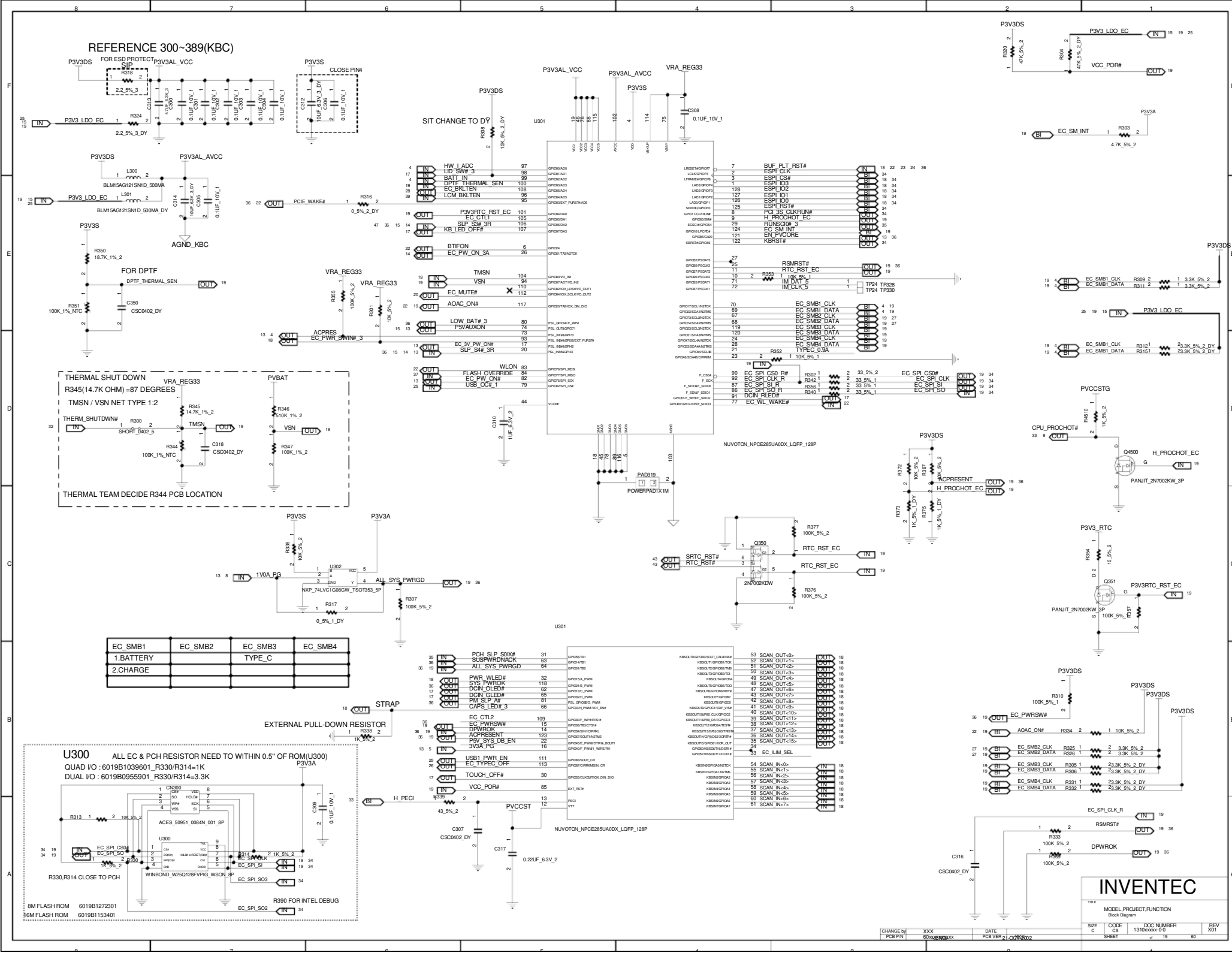


DEBUG CONN

INVENTEC

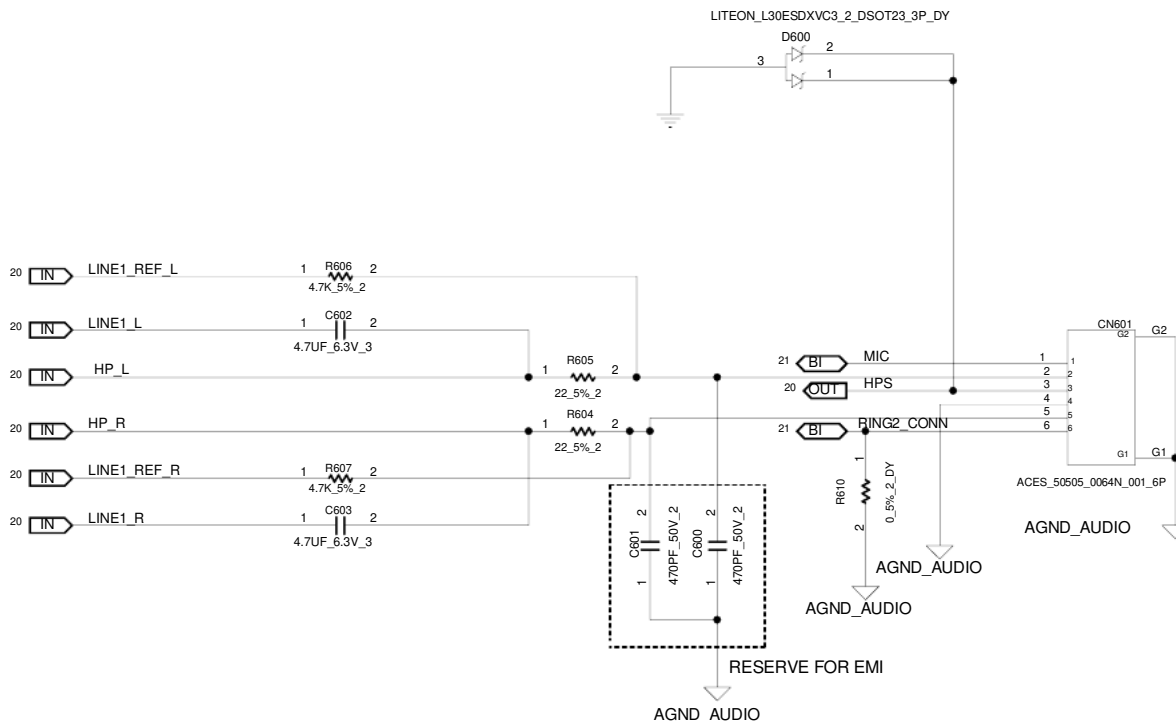
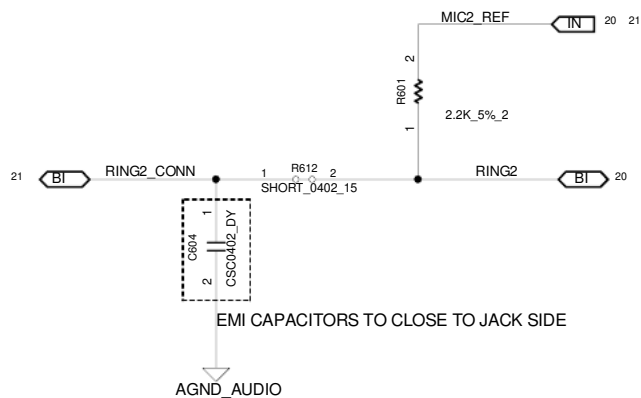
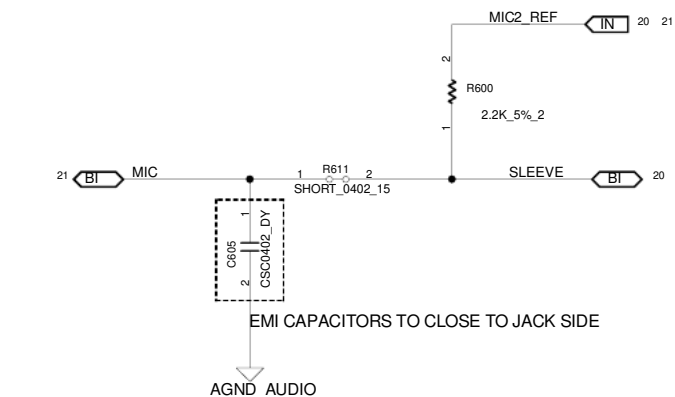
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Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
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CHANGE by	XXX	DATE	XXX OCT-2002
PCB P/N	6EN6xxxxxx	PCB VER	



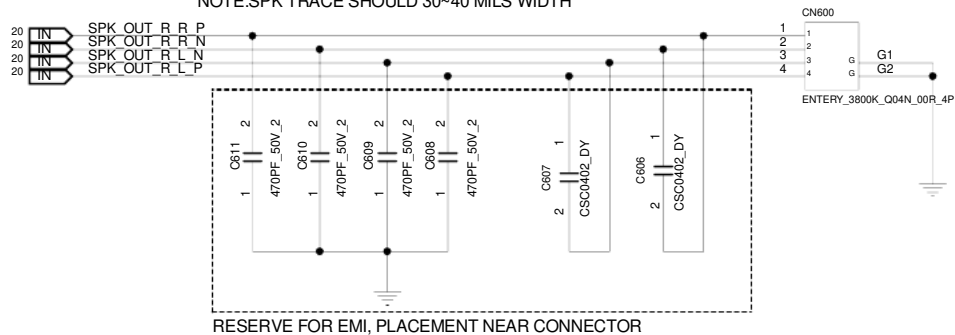
REFERCE 600~649(JACK/MIC/SPEAKER)

AUDIO JACKS



INTERNAL SPEAKERS

NOTE:SPK TRACE SHOULD 30~40 MILS WIDTH



INVENTEC

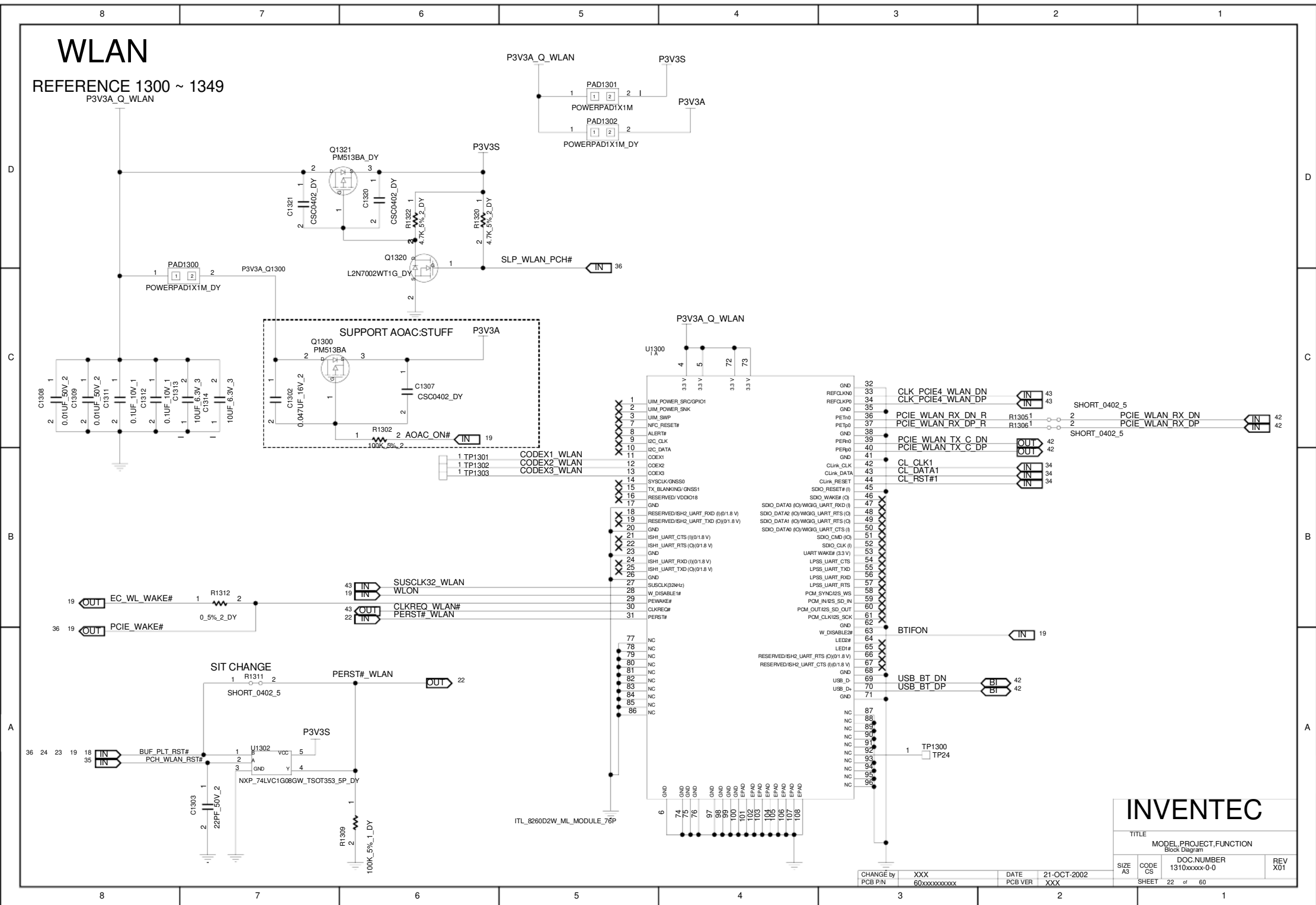
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MODEL PROJECT,FUNCTION
Block Diagram

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

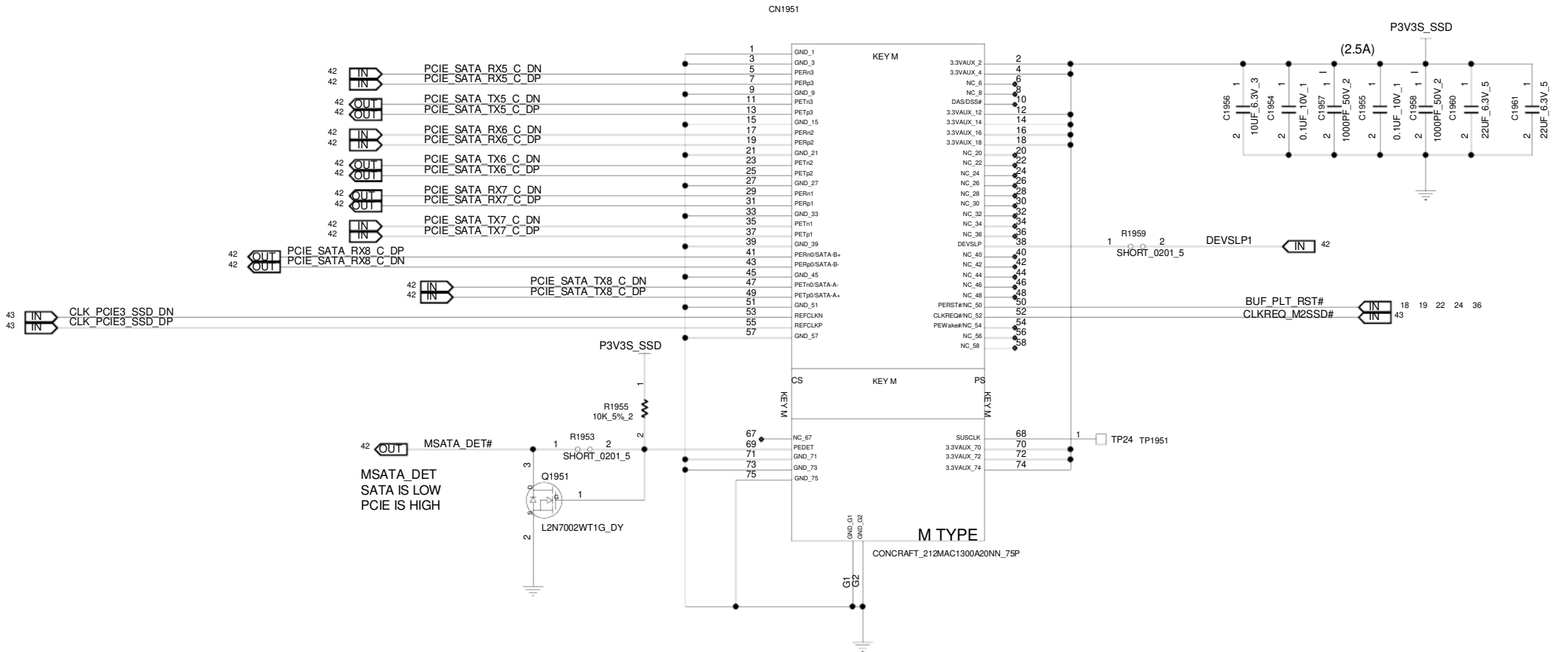
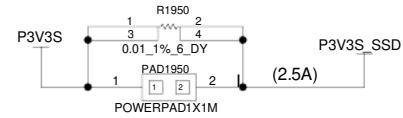
CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxxxxx	PCB VER	XXX
SHEET 21 of 60			

REFERENCE 1300 ~ 1349

P3V3A Q WLAN



SOCKET 3 PCIE-BASED MODULE PINOUT NGFF M.2 SSD1 COMBO PCIE\SATA



M.2 FOR SSD

REFERENCE NUMBER:1950~1999

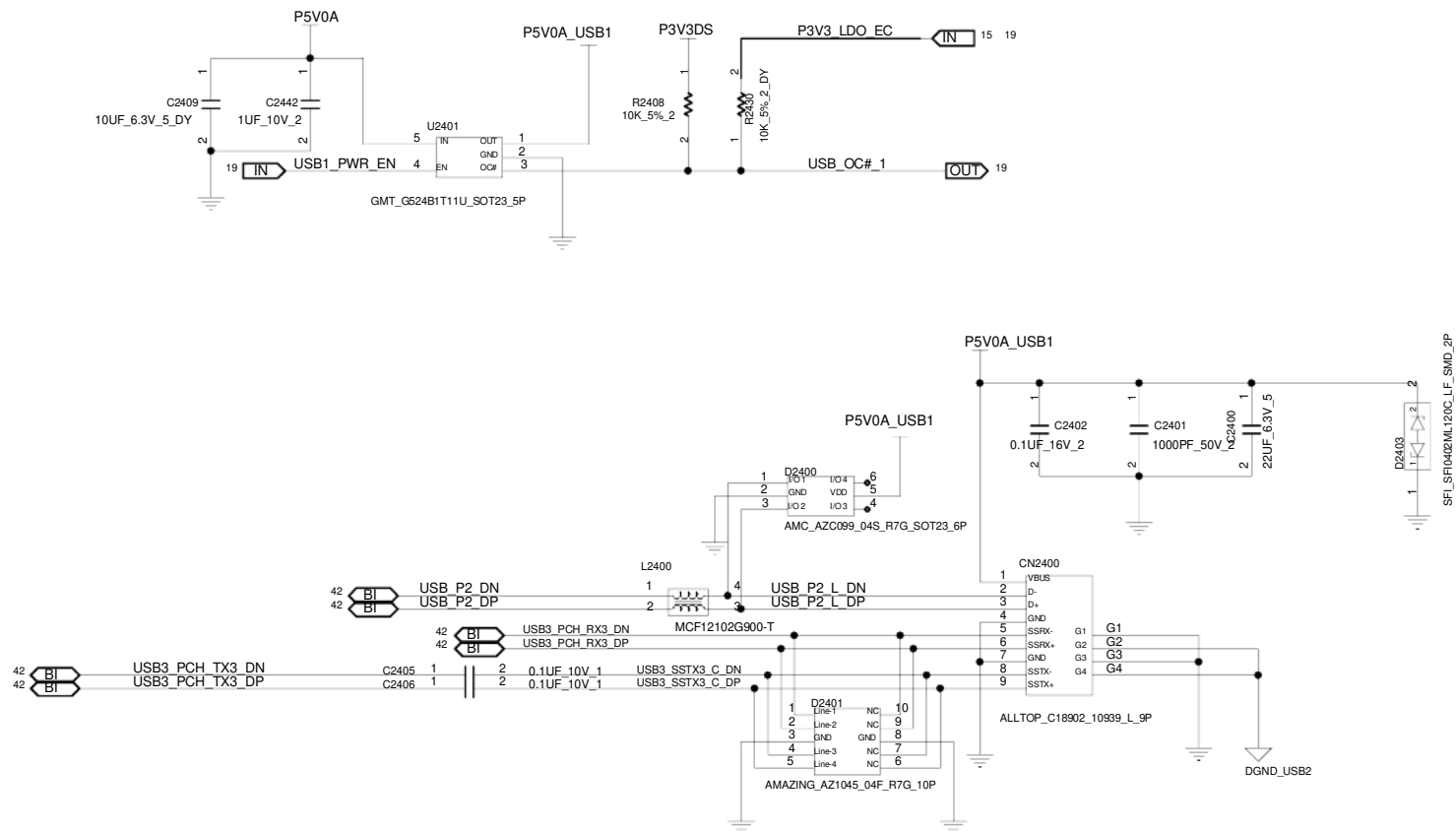
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TITLE
MODEL PROJECT,FUNCTION
Block Diagram

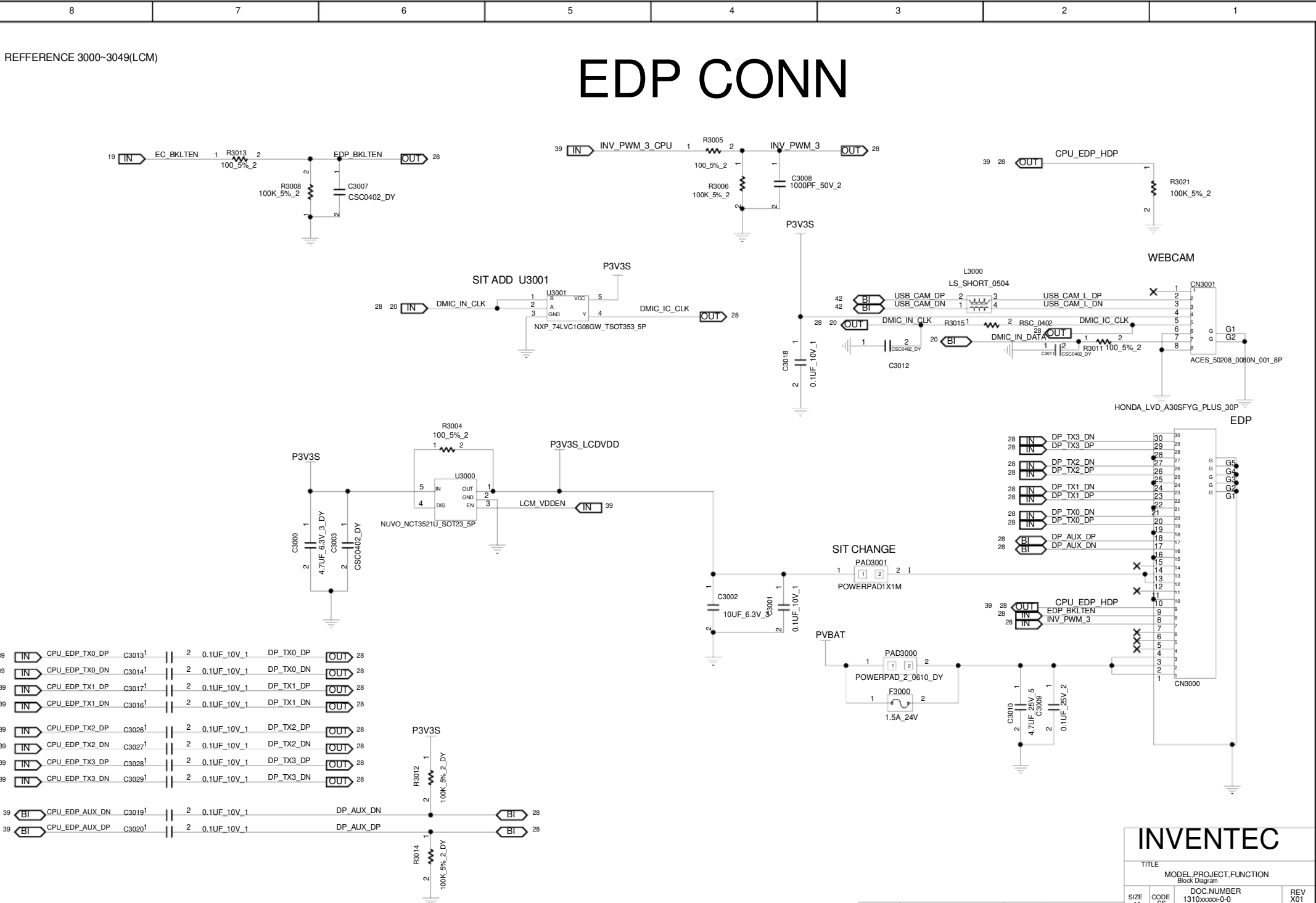
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SHEET 23 of 60			

CHANGE by PCB P/N	XXX 60xxxxxxxxxxx	DATE PCB VER	21-OCT-2002 XXX
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REFERENCE 2400~2450(USB3.0)



8	7	6	5	4	3	2	1
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CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxxxxx	PCB VER	XXX

C

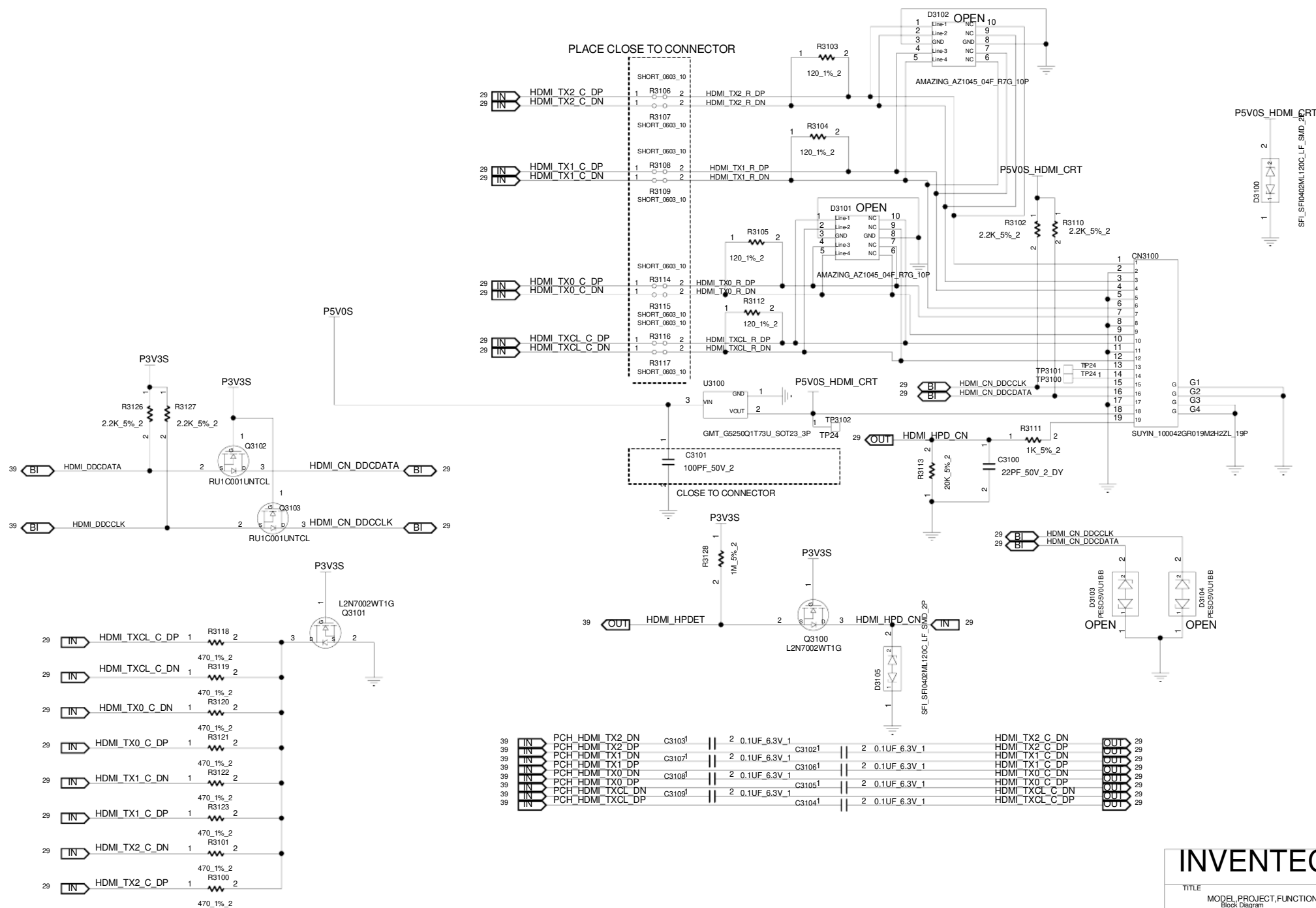
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D

C

B

A

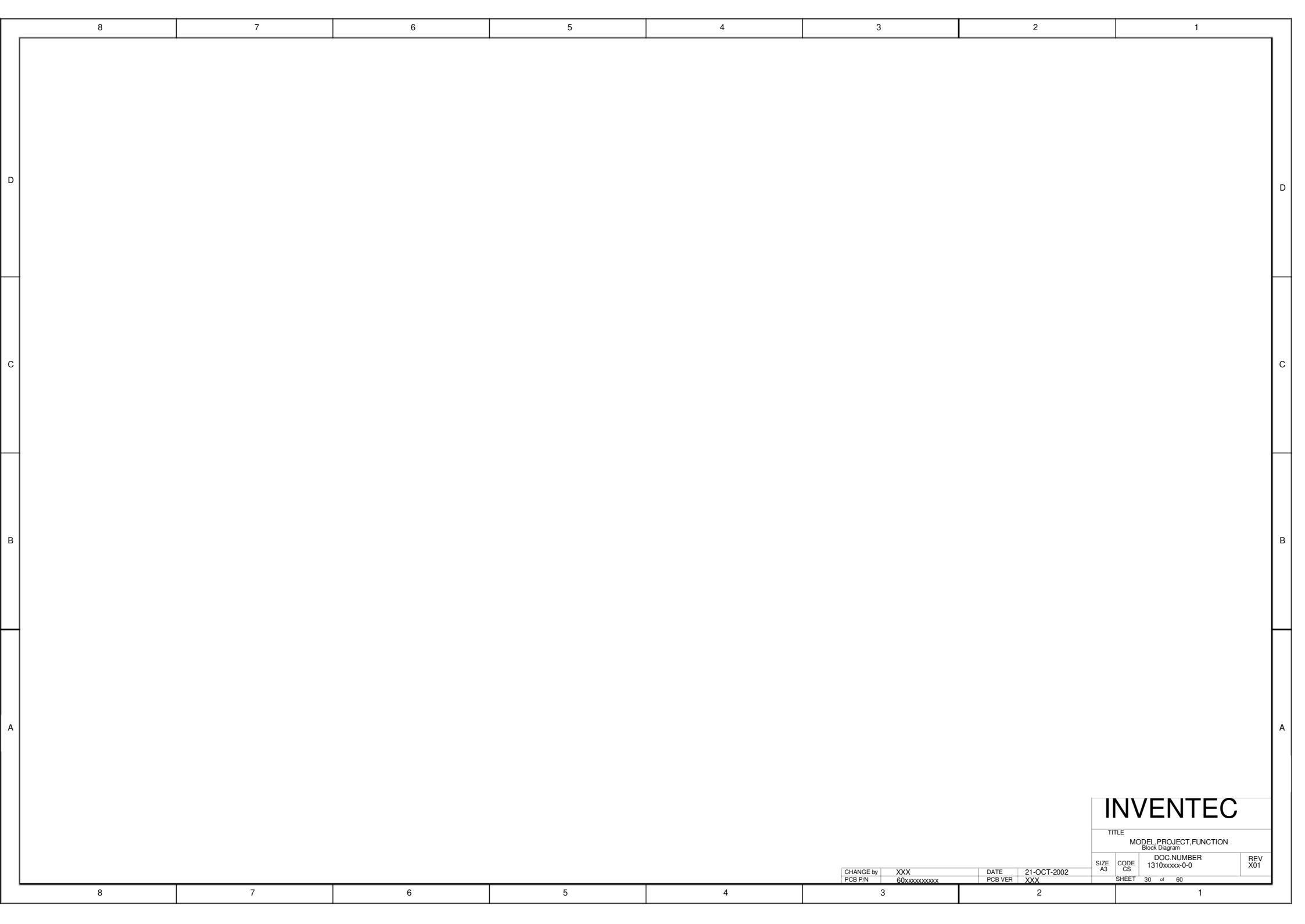


INVENTEC

TITLE	MODEL, PROJECT, FUNCTION
	Block Diagram

SIZE A3	CODE CS	DOC.NUMBER 1310xxxx-0-0	REV X01
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CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxx	PCB VER	XXX



INVENTEC

TITLE
MODEL PROJECT,FUNCTION
Block Diagram

CHANGE by	XXX	DATE	21-OCT-2002	SIZE	CODE	DOC NUMBER	REV
PCB P/N	60xxxxxxxxxxx	PCB VER	XXX	A3	CS	1310xxxxx-0-0	X01
				SHEET	30	of	60

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F									F
E									E
D									D
C									C
B									B
A									A

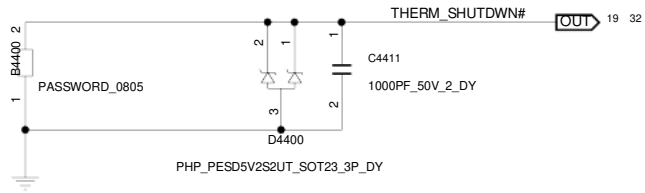
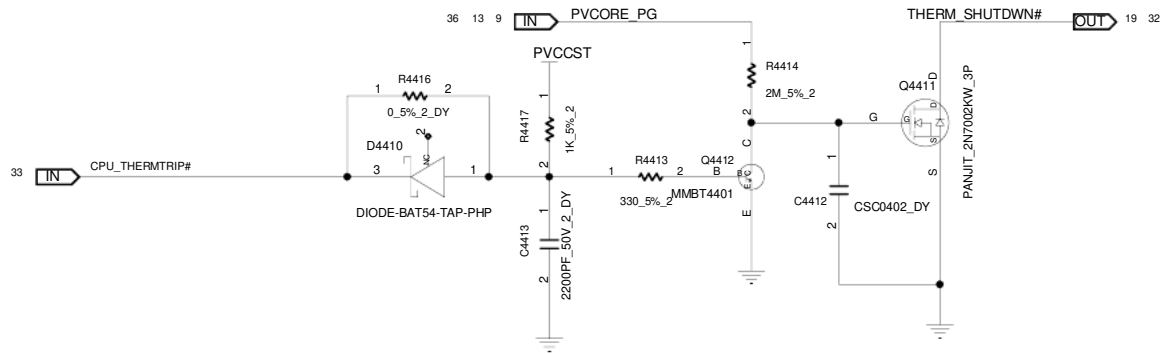
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MODEL PROJECT FUNCTION

SIZE	CODE	DOC NUMBER	REV
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SHEET	of	31	80

CHANGE BY	XXX	DATE	21-OCT-2002
PCB PIN	600000000000	PCB VER	XWB15

REFERENCE 4300~4349(FAN)
REFERENCE 4411~4449(THERMAL)



POWER OFF SWITCH

REFERENCE NUMBER:4411~4449

INVENTEC

CHANGE by		DATE	SHEET		of	60
PCB P/N		PCB VER	XX		OCT-2002	
XXX		6806	6806		6806	
TITLE		MODEL PROJECT,FUNCTION		Block Diagram		
SIZE	CODE	DOC NUMBER		REV		
A3	CS	1310xxxxx-0-0		X01		

D

C

B

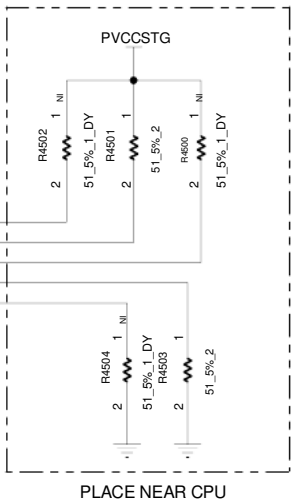
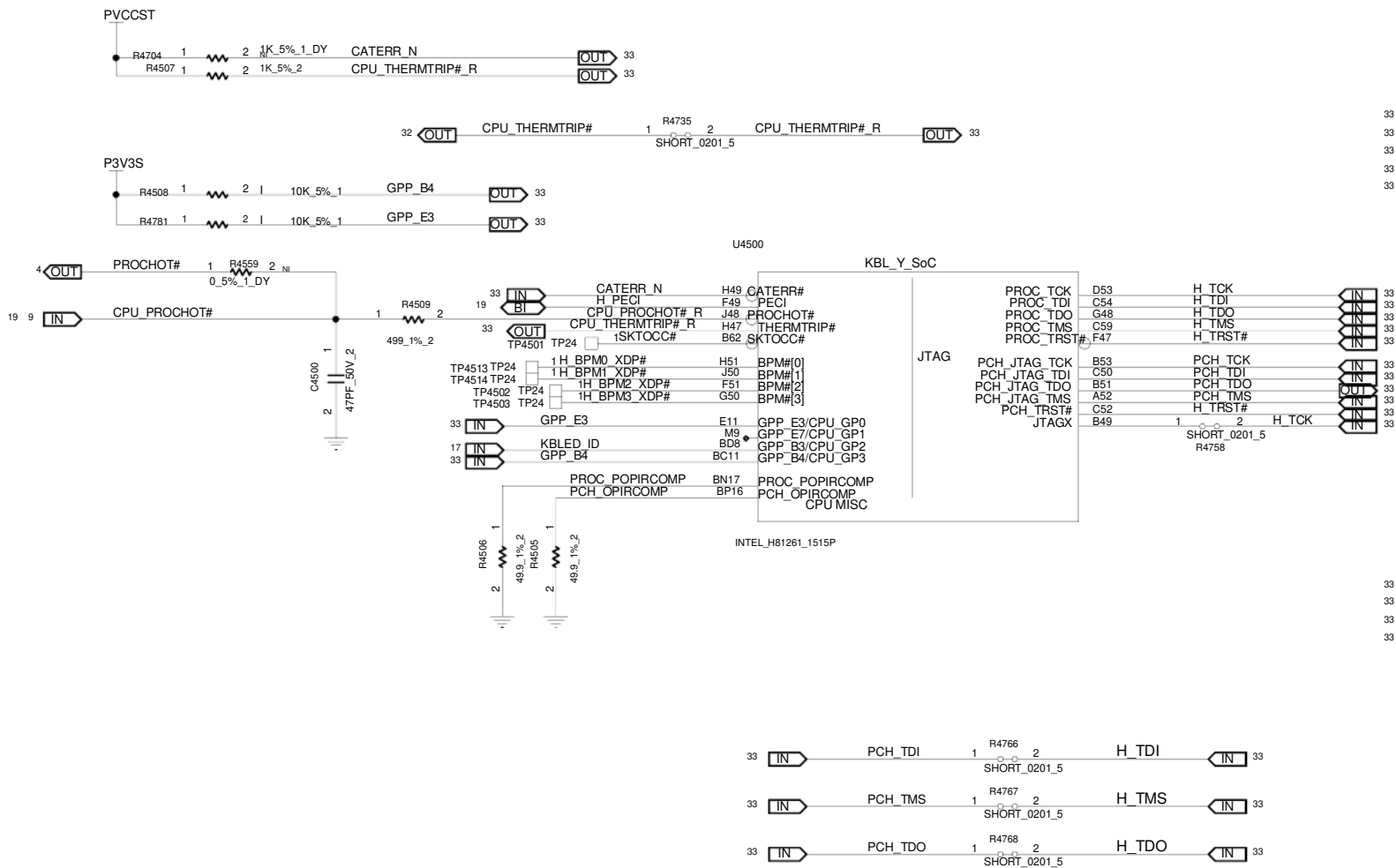
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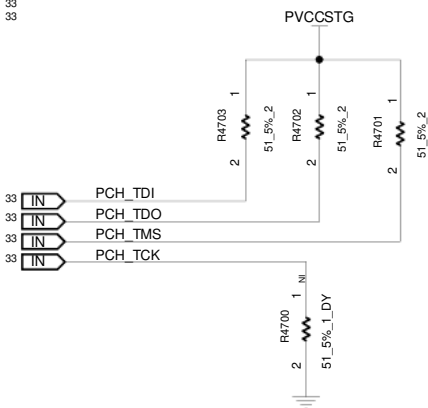
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PLACE NEAR CPU



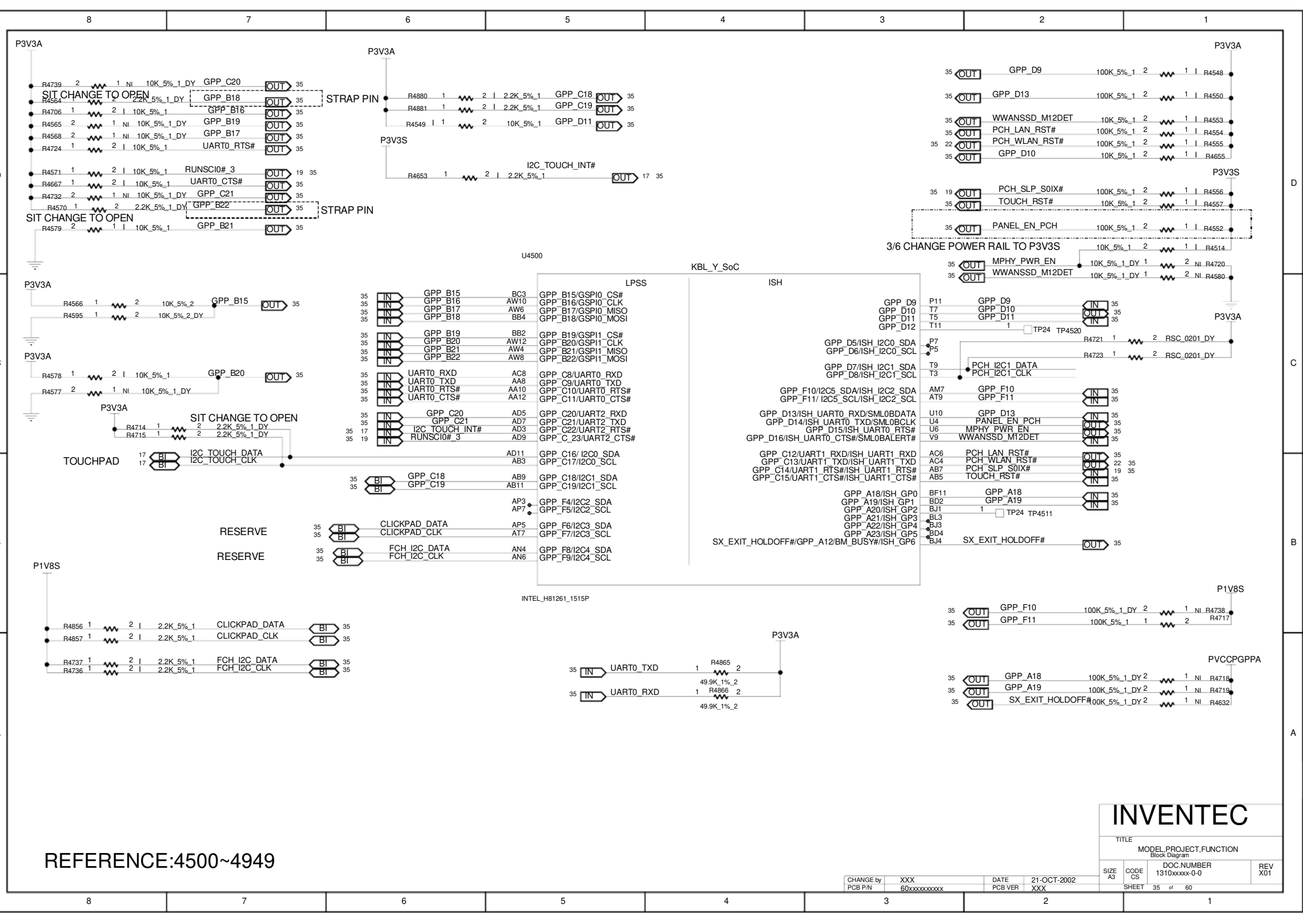
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TITLE
MODEL PROJECT,FUNCTION
Block Diagram

SIZE A3	CODE CS	DOC NUMBER 1310xxxx-0-0	REV X01
SHEET 33 of 60			

CHANGE by PCB P/N	XXX 60xxxxxxxxxx	DATE PCB VER	21-OCT-2002 XXX
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SHEET 34 of 60



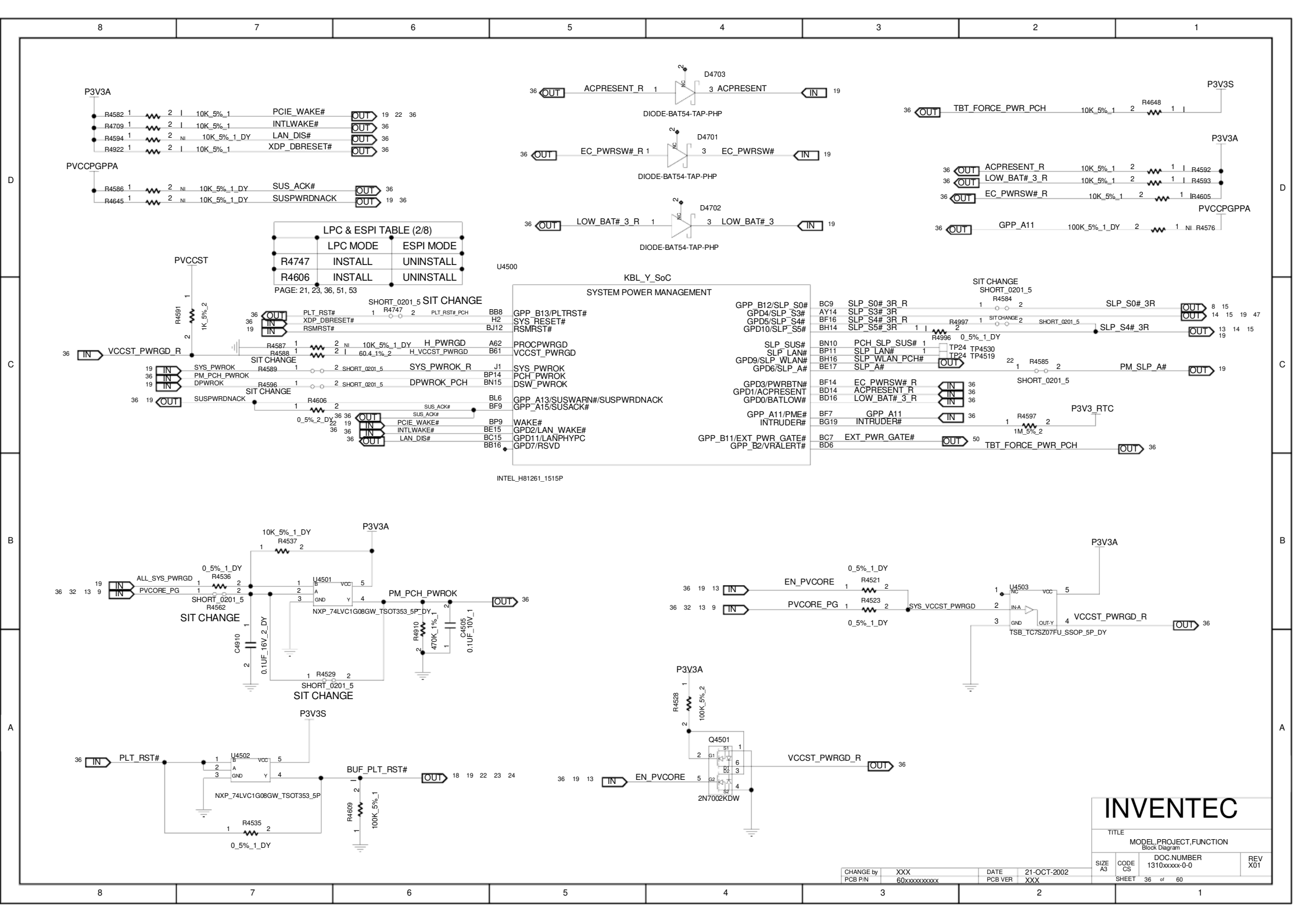
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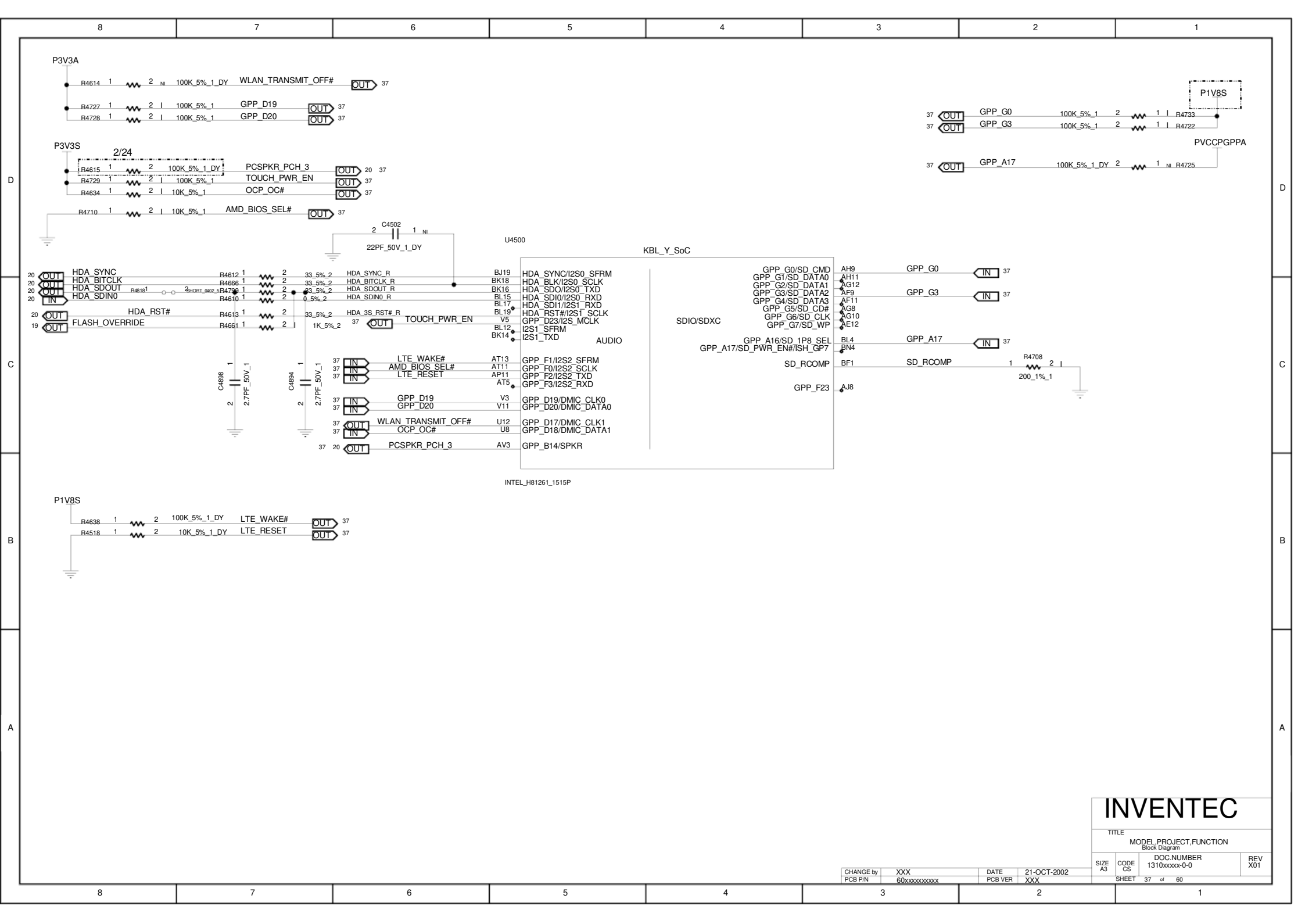
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TITLE
MODEL PROJECT,FUNCTION
Block Diagram

SIZE A3	CODE CS	DOC NUMBER 1310xxxx-0-0	REV X01
SHEET 35	of 60		

CHANGE by PCB P/N	XXX 60xxxxxxxxxx	DATE PCB VER	21-OCT-2002 XXX
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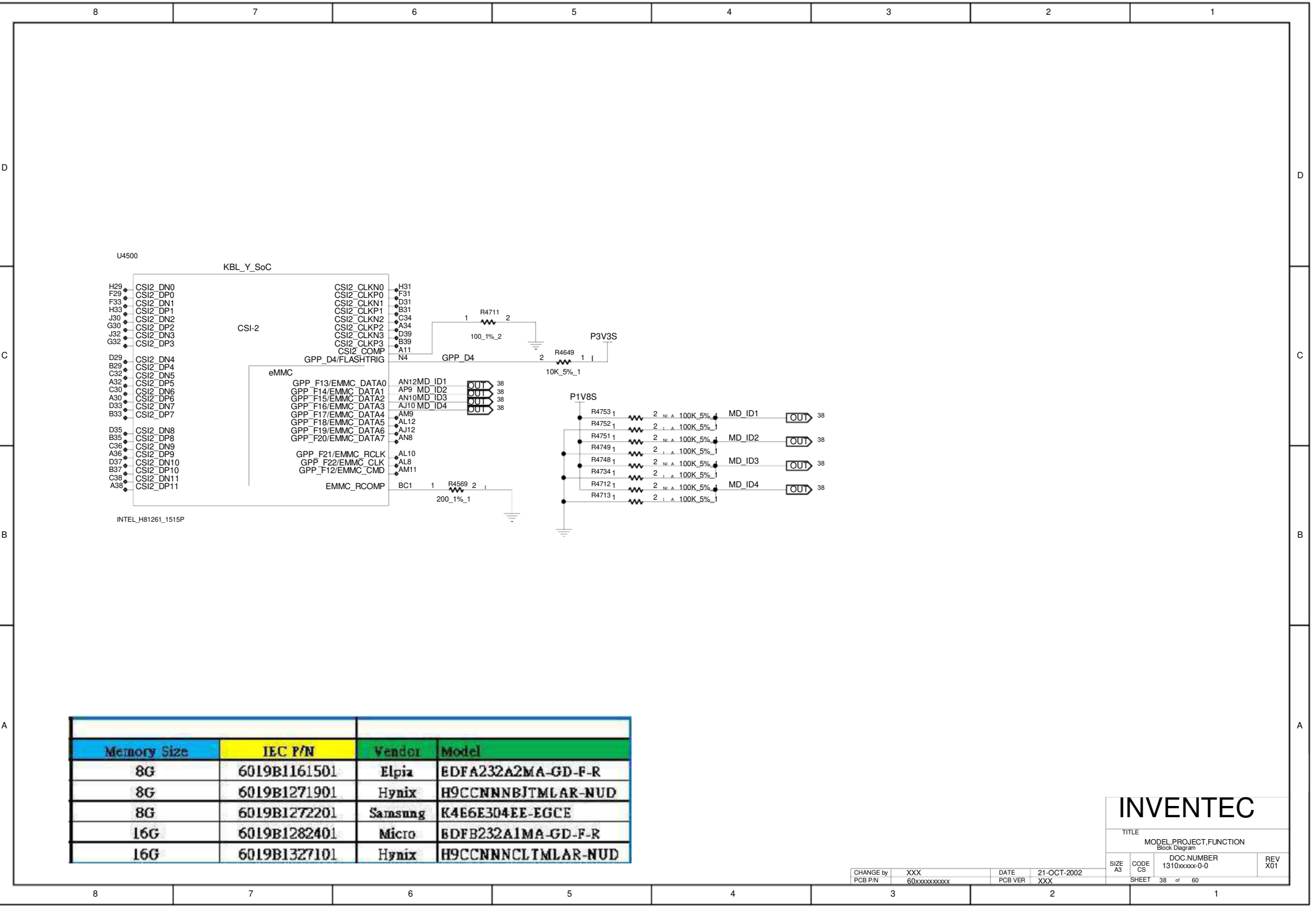


INVENTEC

TITLE
MODEL PROJECT,FUNCTION
Block Diagram

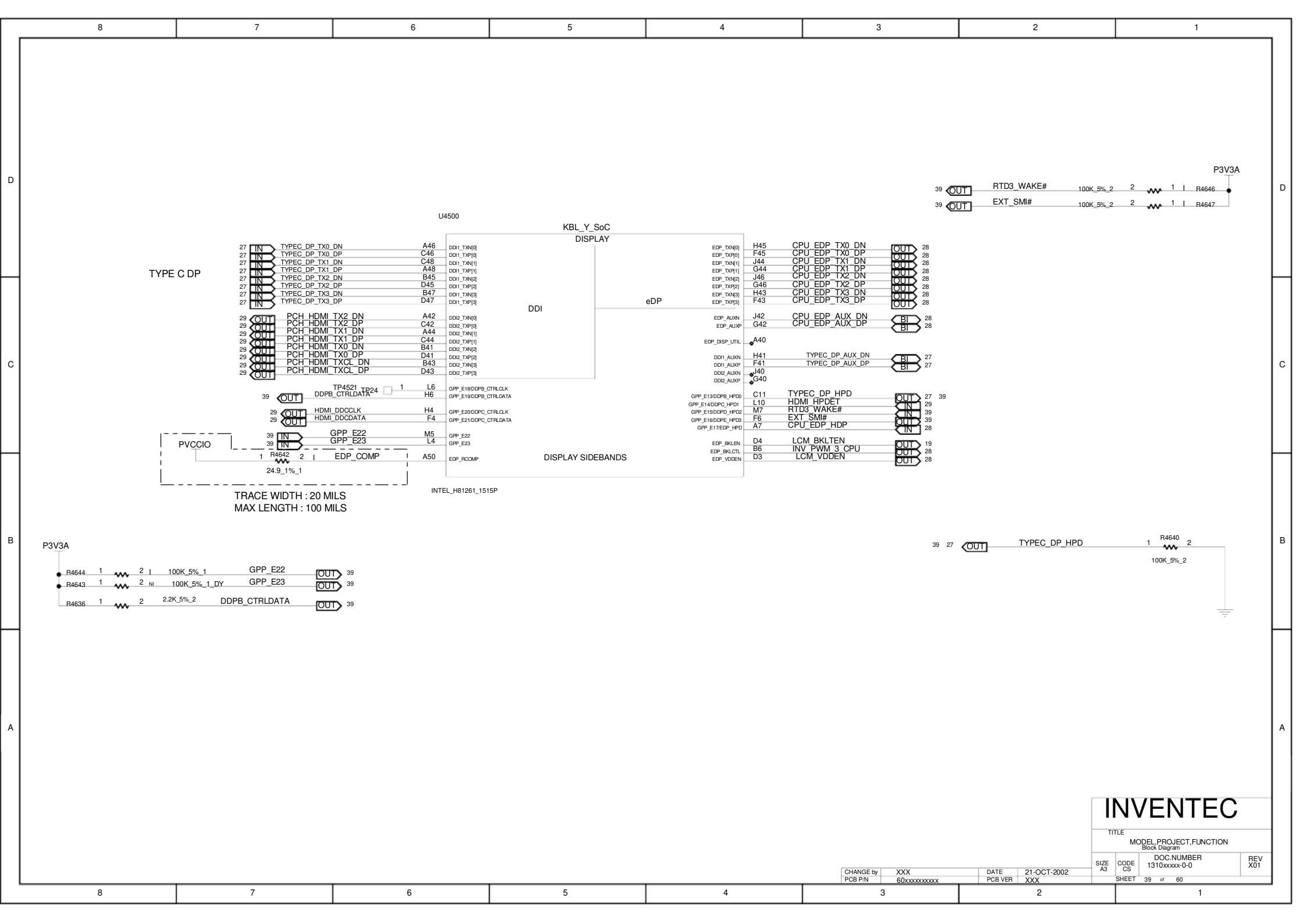
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SHEET 37 of 60			

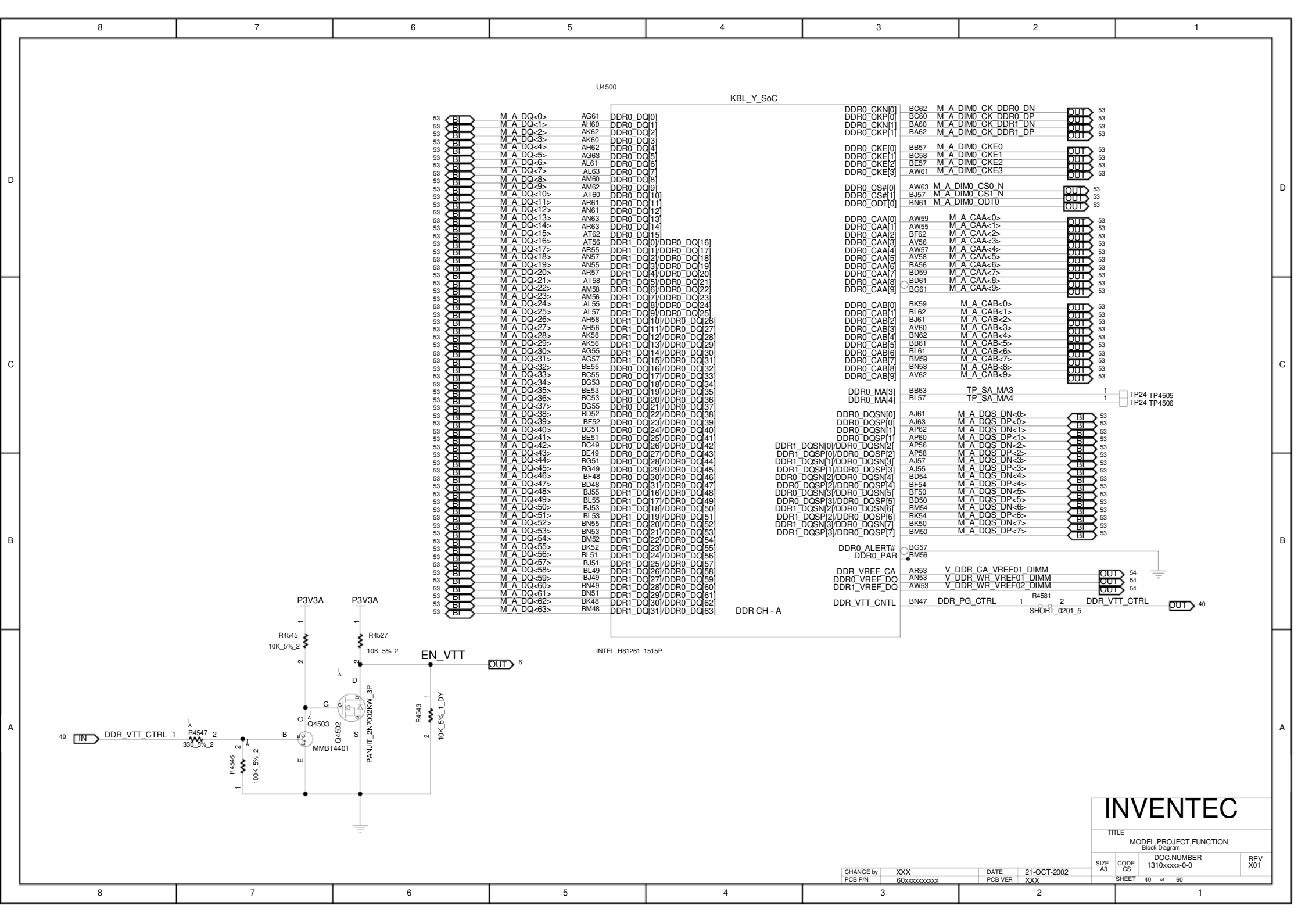
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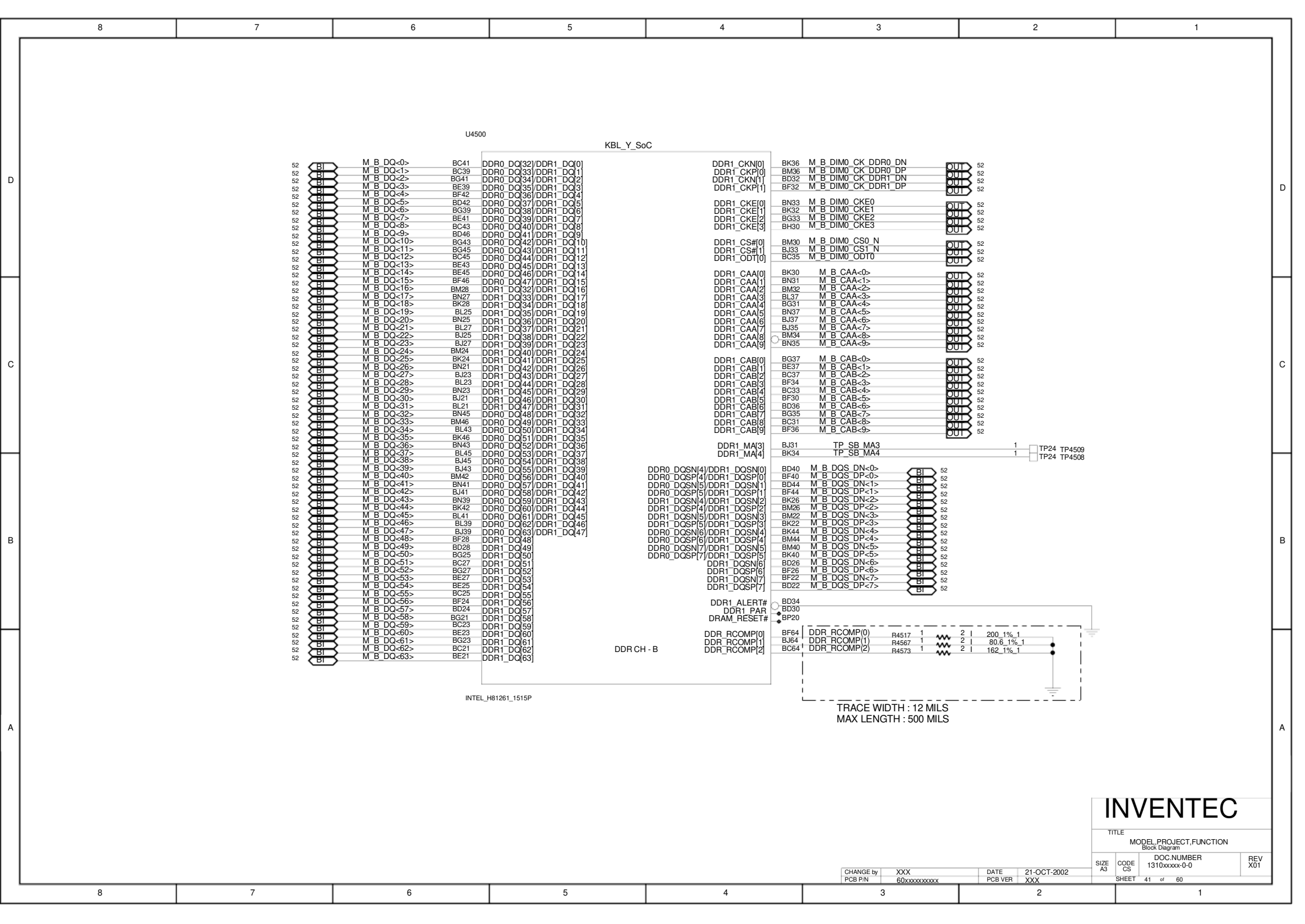


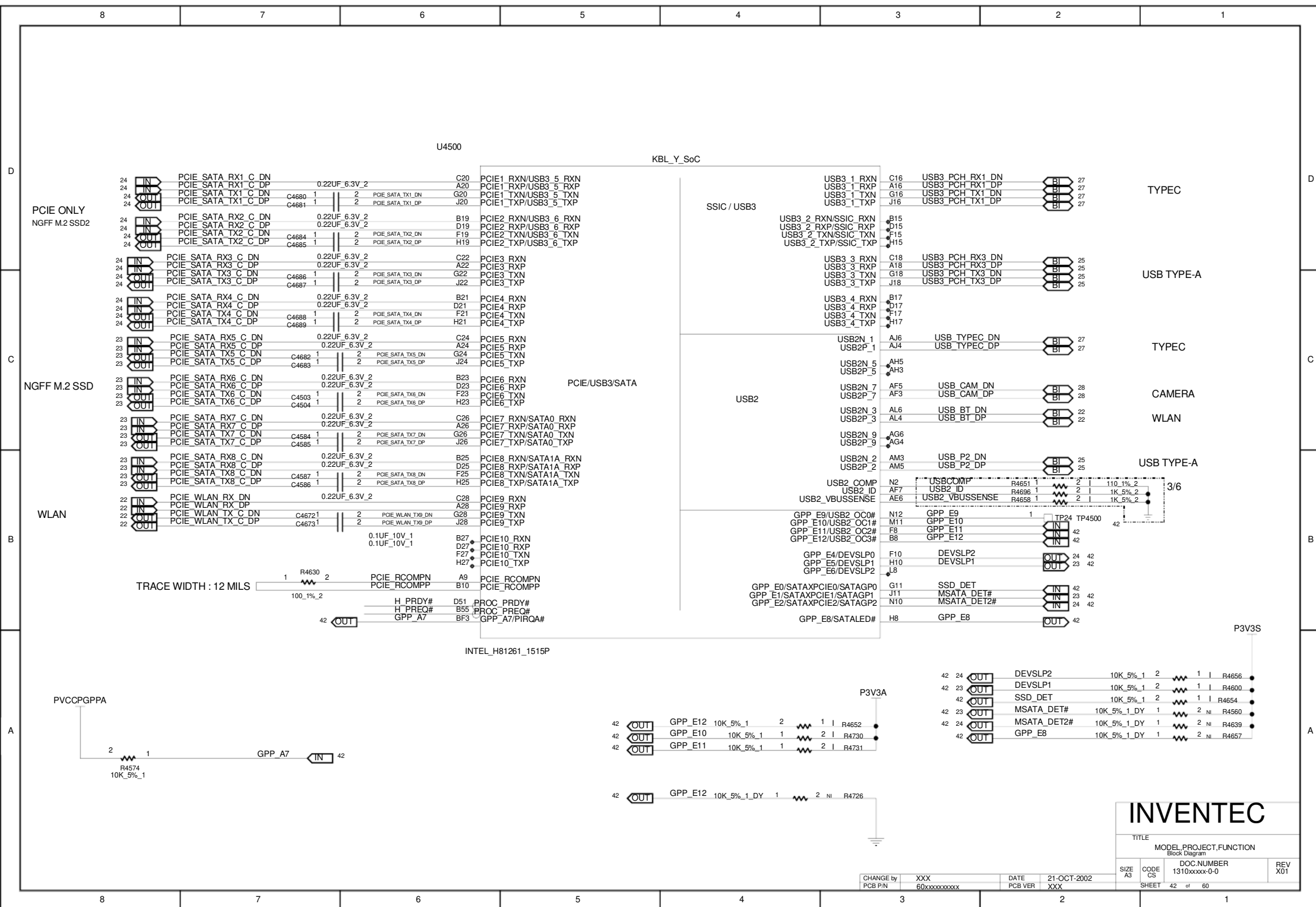
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8G	6019B1271901	Hynix	H9CCNNNB1TMLAR-NUD
8G	6019B1272201	Samsung	K4E6E304EE-EGCE
16G	6019B1282401	MicTo	EDFB232A1MA-GD-F-R
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INVENTEC









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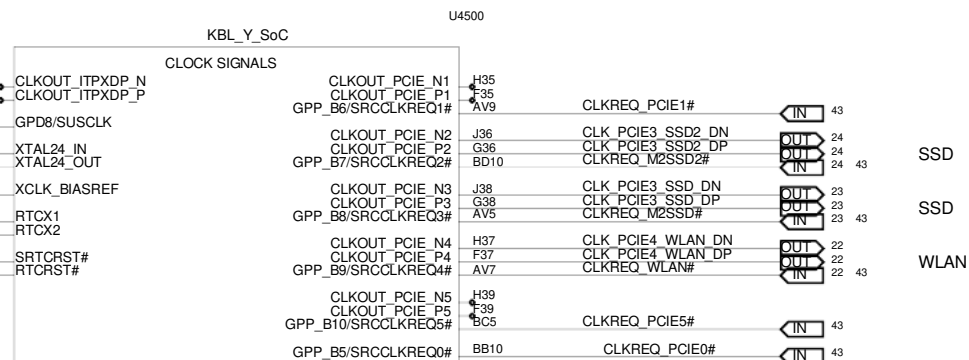
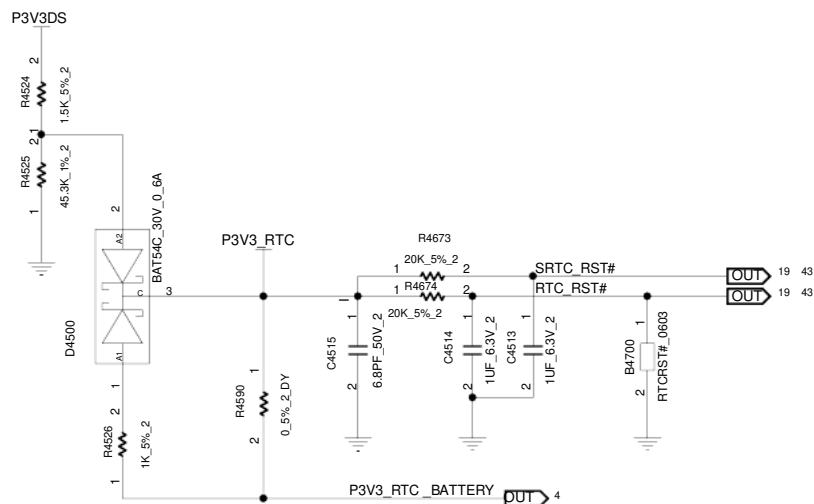
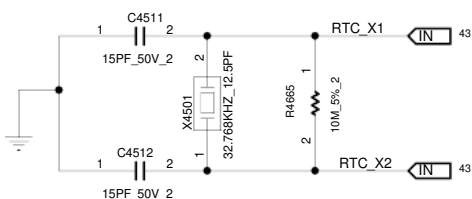
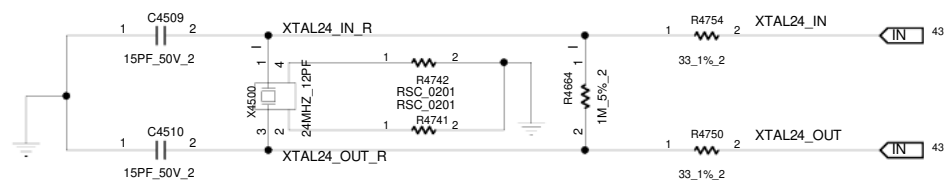
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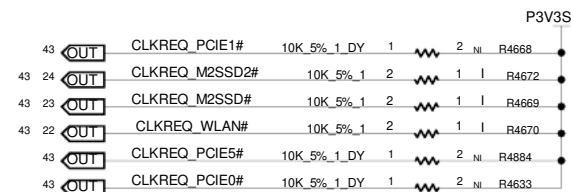
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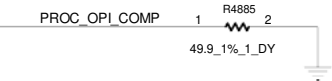
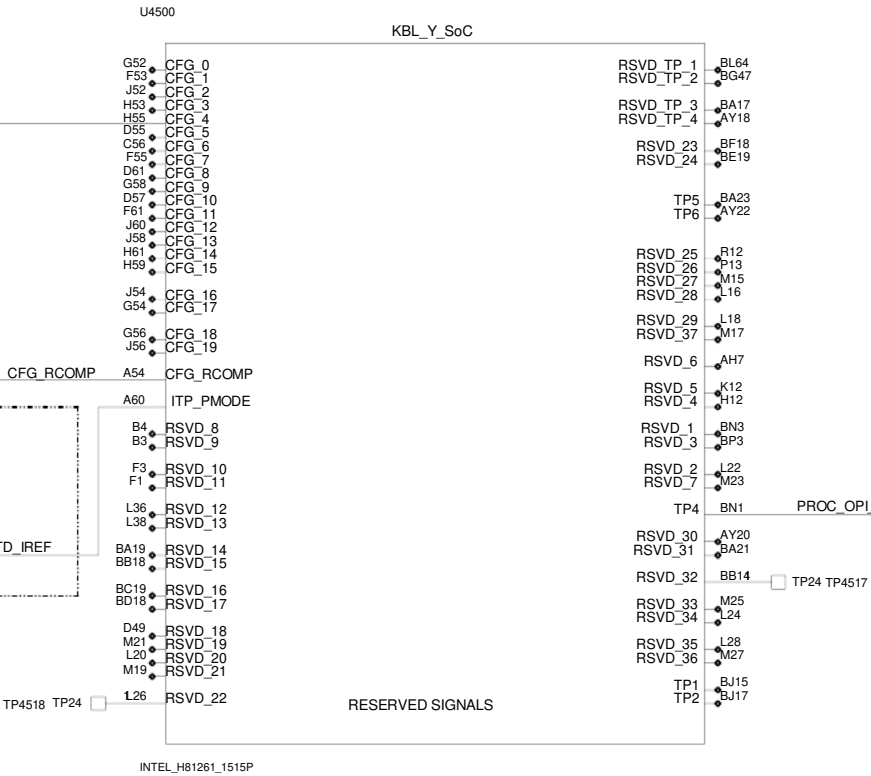
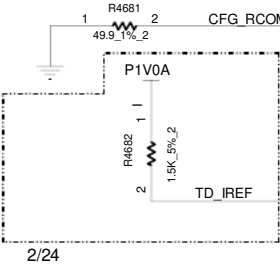
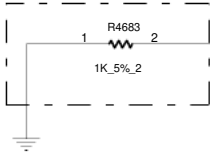


INTEL_H81261_1515P

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

CHANGE by	XXX	DATE	21-OCT-2002	SIZE	A3	CODE	CS	DOC NUMBER	1310xxxx-0-0	REV	X01
PCB P/N	60xxxxxxxxxx	PCB VER	XXX	SHEET	43	of	60				

CFG<4> : EDP ENABLE
1 - DISABLE
0 - ENABLE



INVENTEC

TITLE
MODEL PROJECT,FUNCTION
Block Diagram

SIZE
A3

CODE
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DOC NUMBER
1310xxxxx-0-0

REV
X01

CHANGE by
PCB P/N

DATE
PCB VER

21-OCT-2002
XXX

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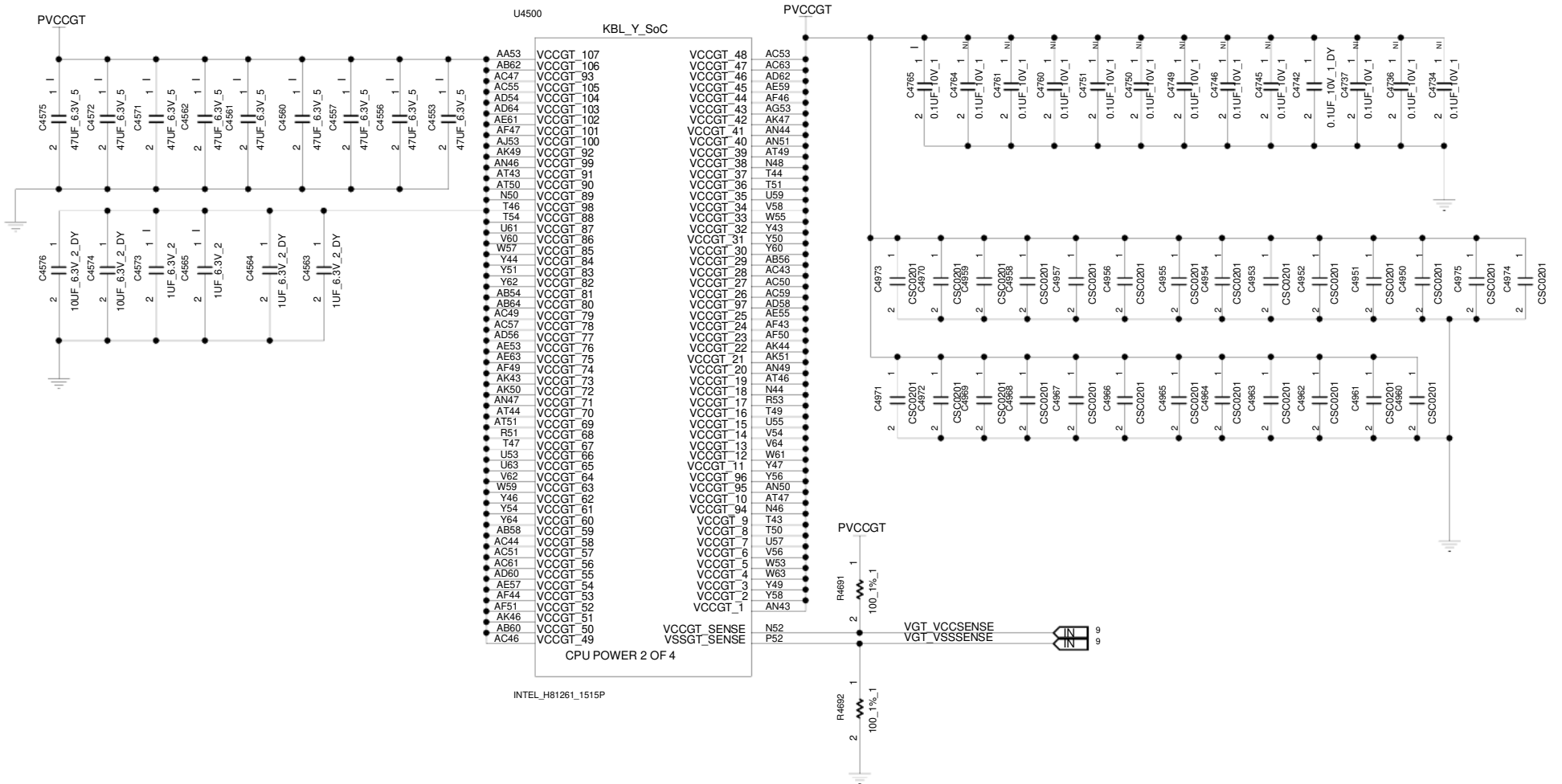
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INVENTEC

TITLE
MODEL PROJECT,FUNCTION
Block Diagram

SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
SHEET 46 of 60			

CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxxxxx	PCB VER	XXX



D

C

B

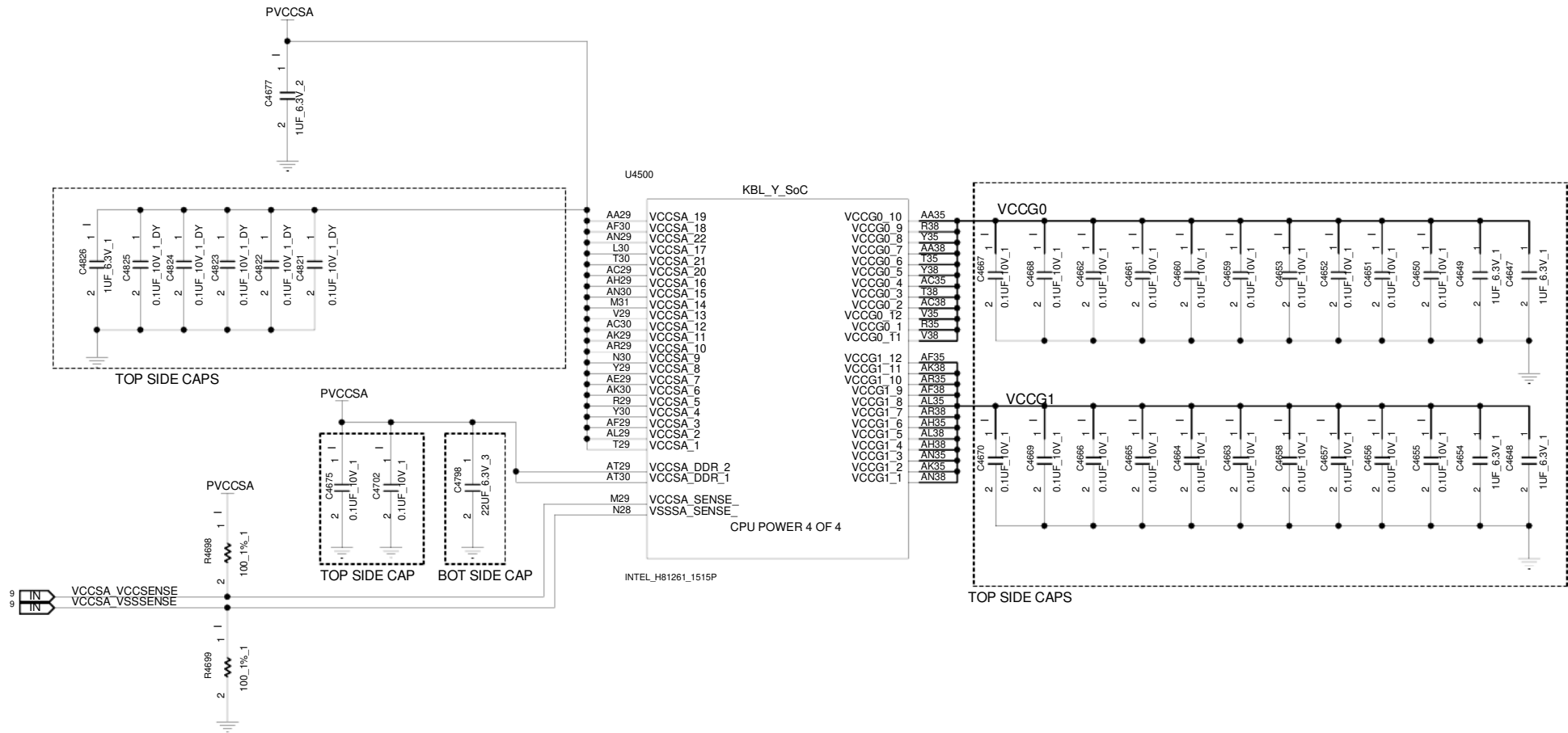
A

D

C

B

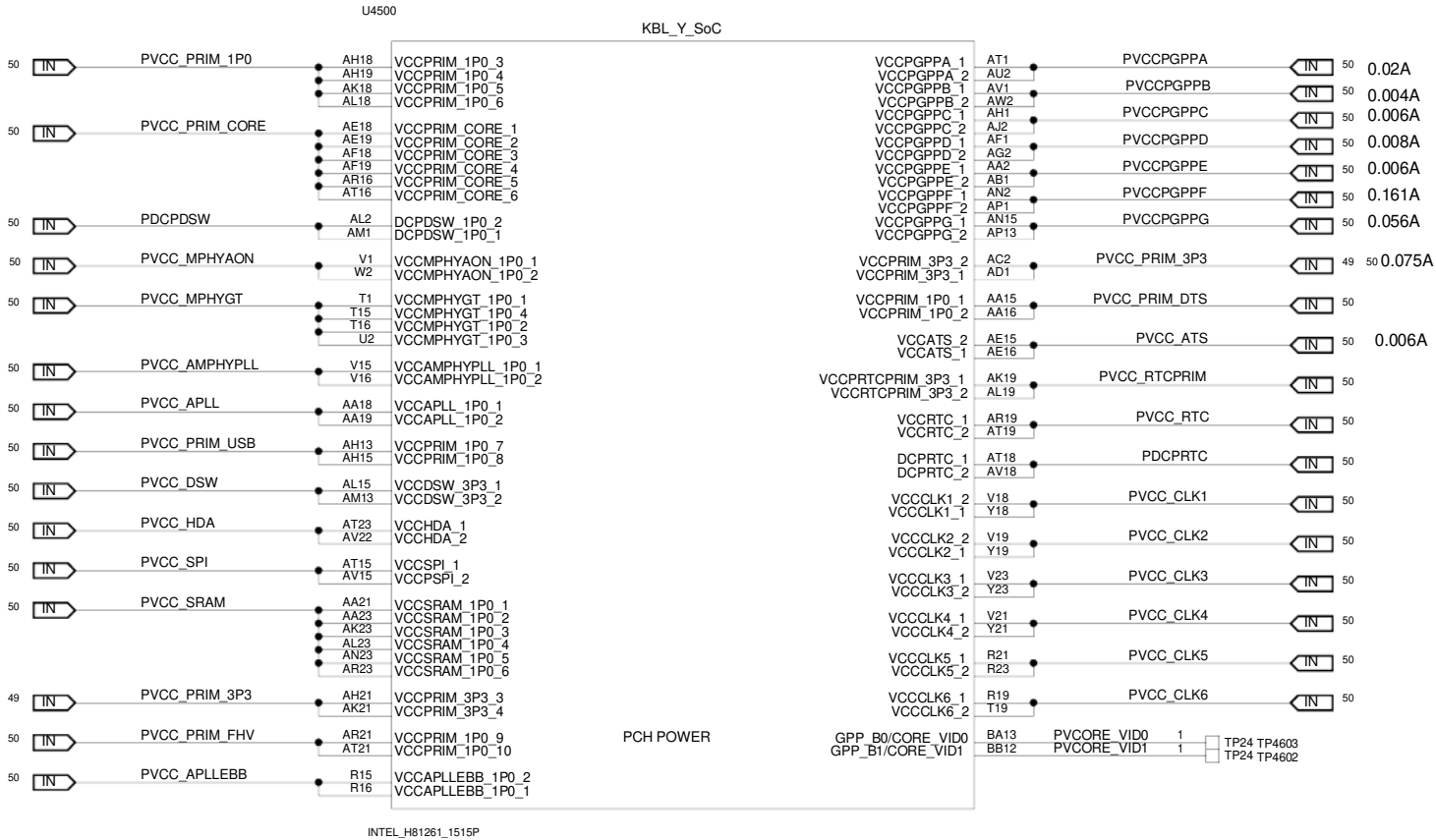
A



INVENTEC

TITLE			
MODEL PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
SHEET	48	of 60	

CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxxxxxx	PCB VER	XXX



REFERENCE:4500~4949

INVENTEC

TITLE			
MODEL PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
SHEET	49	of	60

CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxxxxx	PCB VER	XXX

D

C

B

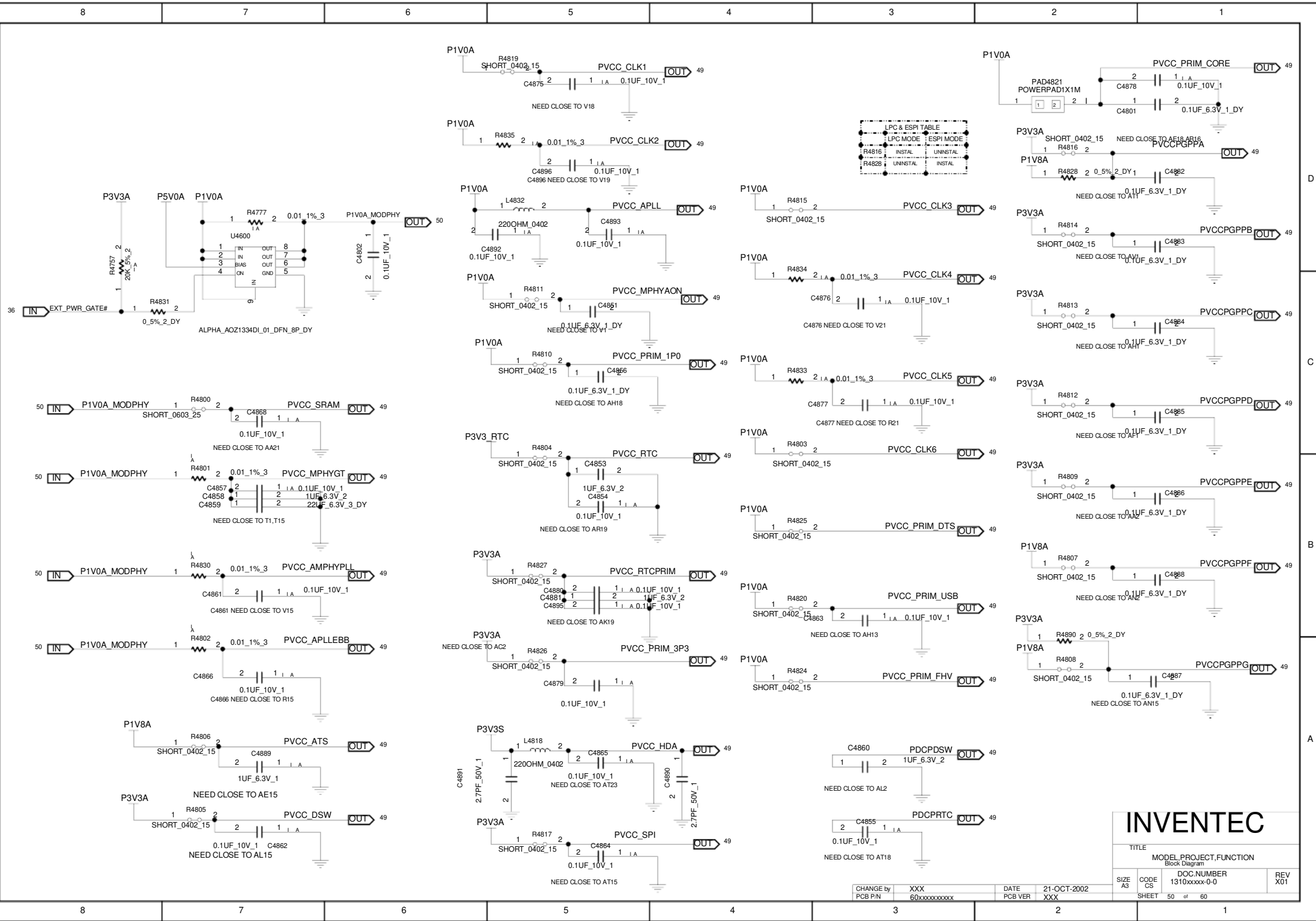
A

D

C

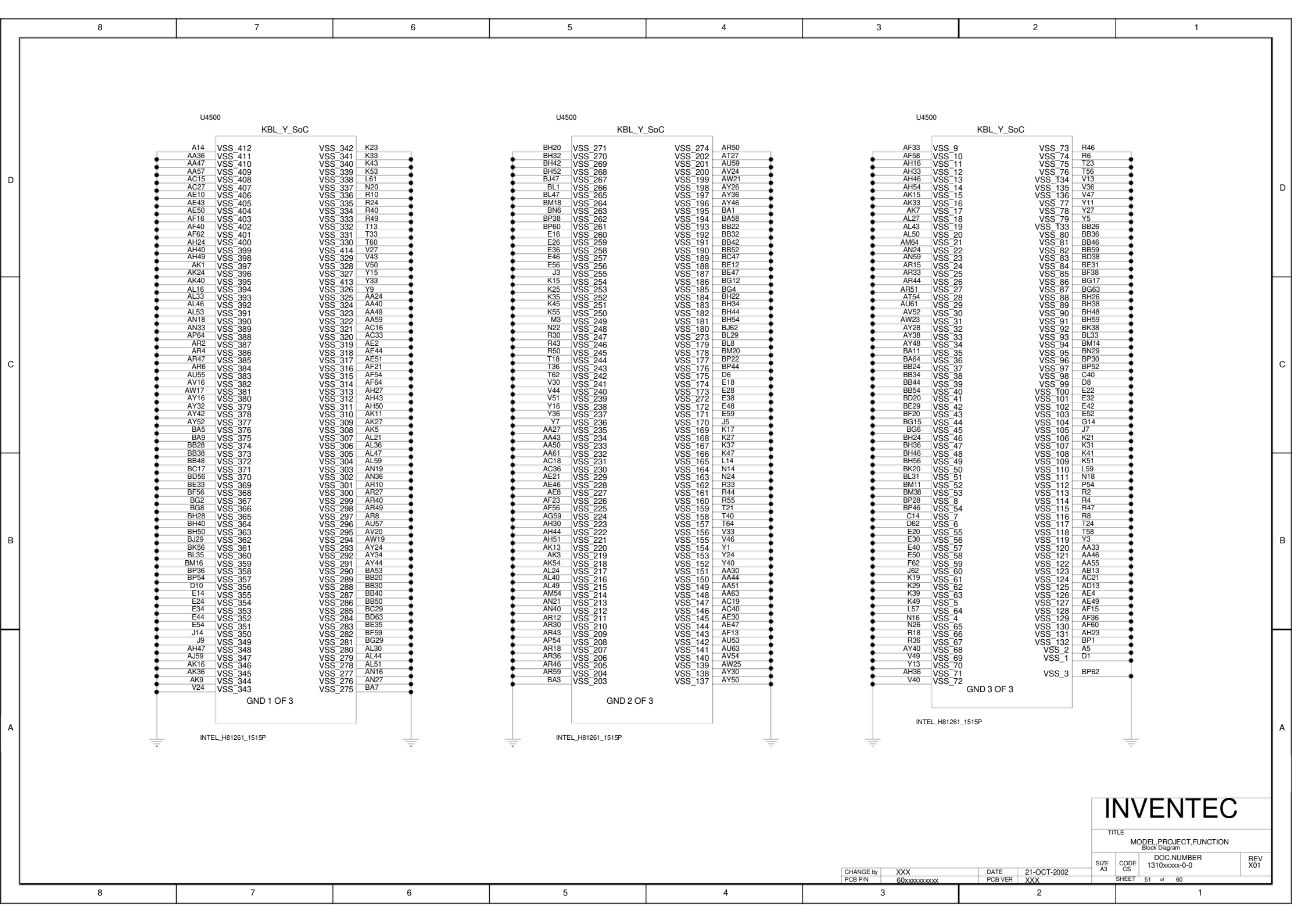
B

A



INVENTEC

MODEL PROJECT,FUNCTION
Block DiagramDOC. NUMBER
1310xxxx-0-0REV
X01



INVENTEC

TITLE
MODEL,PROJECT,FUNCTION
Block Diagram

SIZE A3	CODE CS	DOC NUMBER 1310xxxx-0-0	REV X01
SHEET 51 of 60			

CHANGE by PCB P/N	XXXX 60xxxxxxxxxxx	DATE PCB VER	21-OCT-2002 XXX
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D

D

C

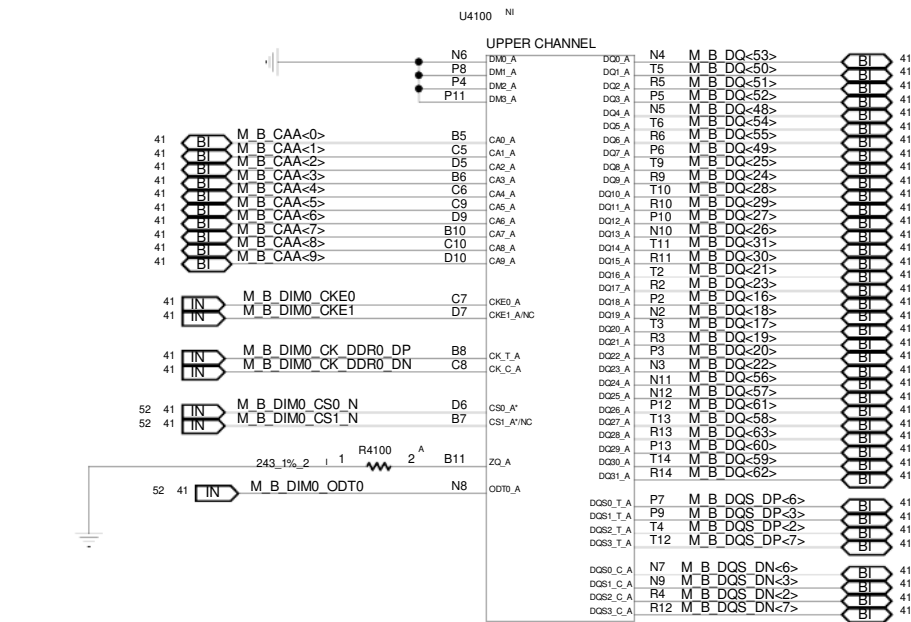
C

B

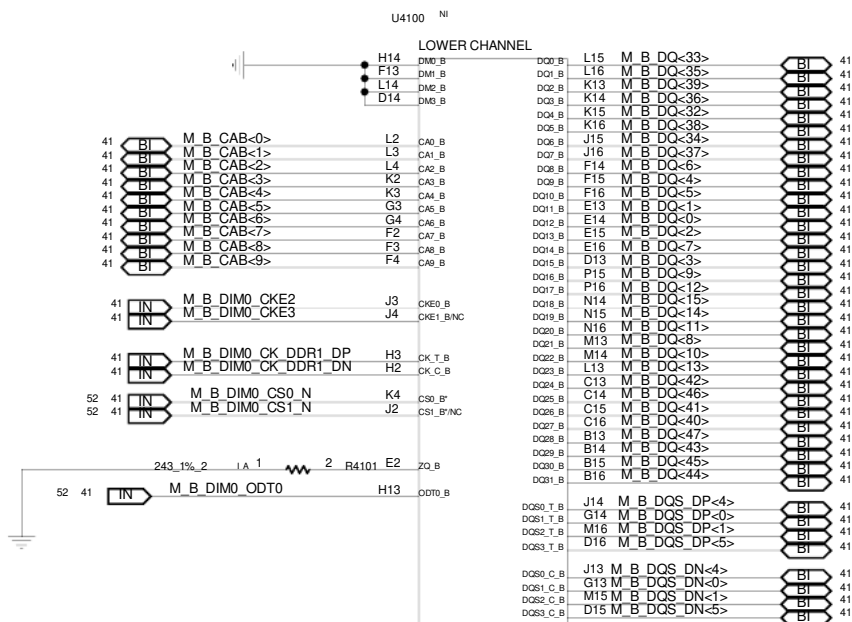
B

A

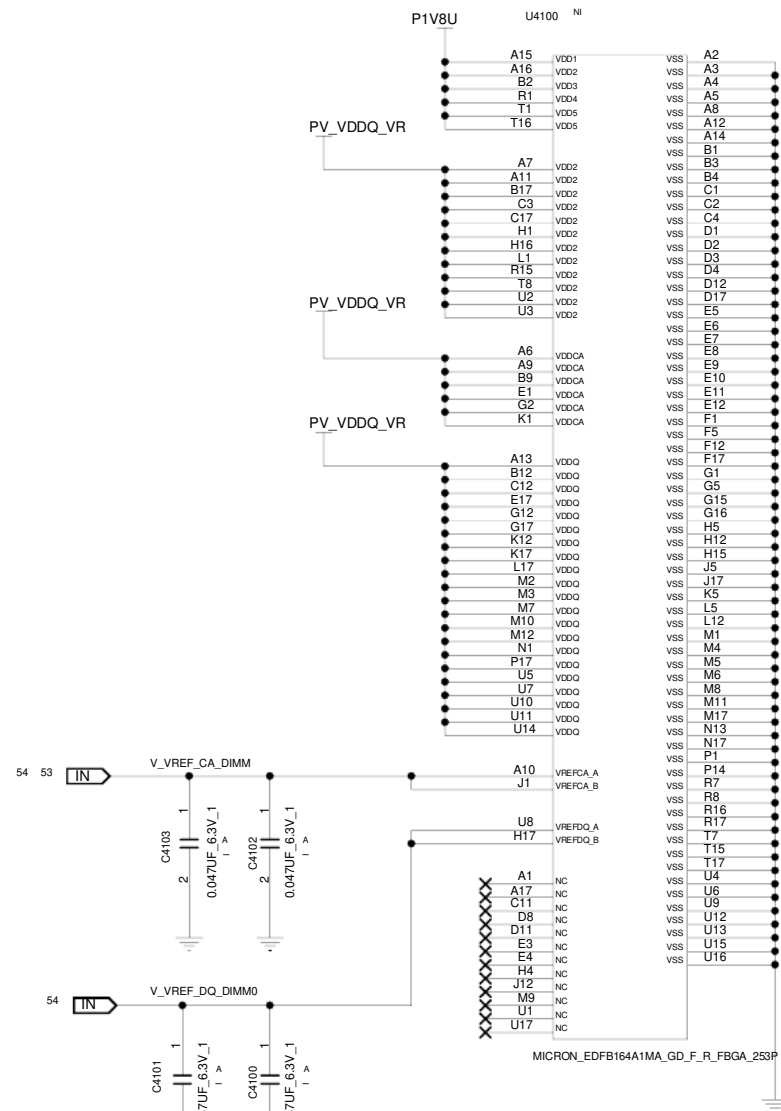
A



MICRON_EDFB164A1MA_GD_F_R_FBGA_253P



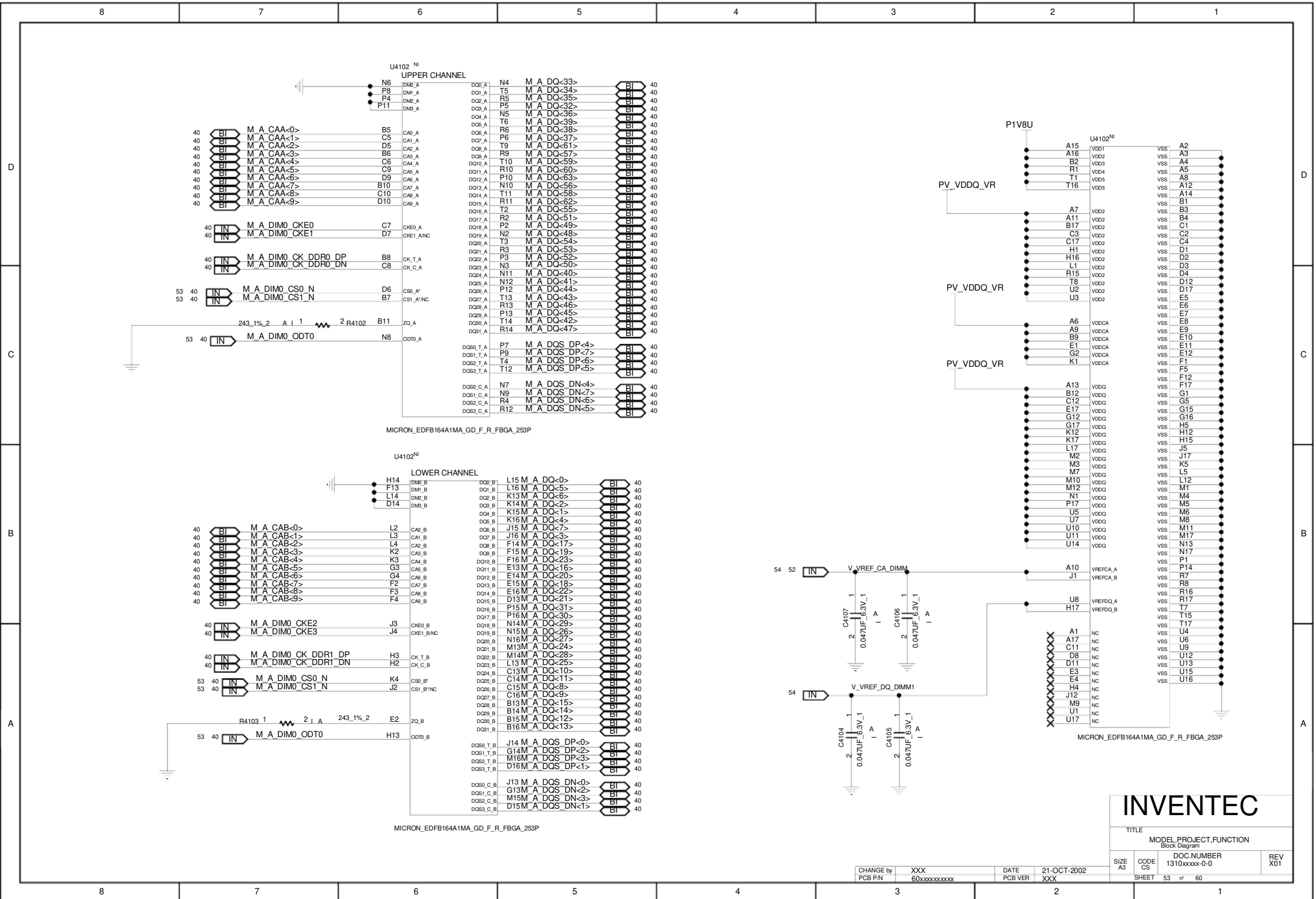
MICRON_EDFB164A1MA_GD_F_R_FBGA_253P



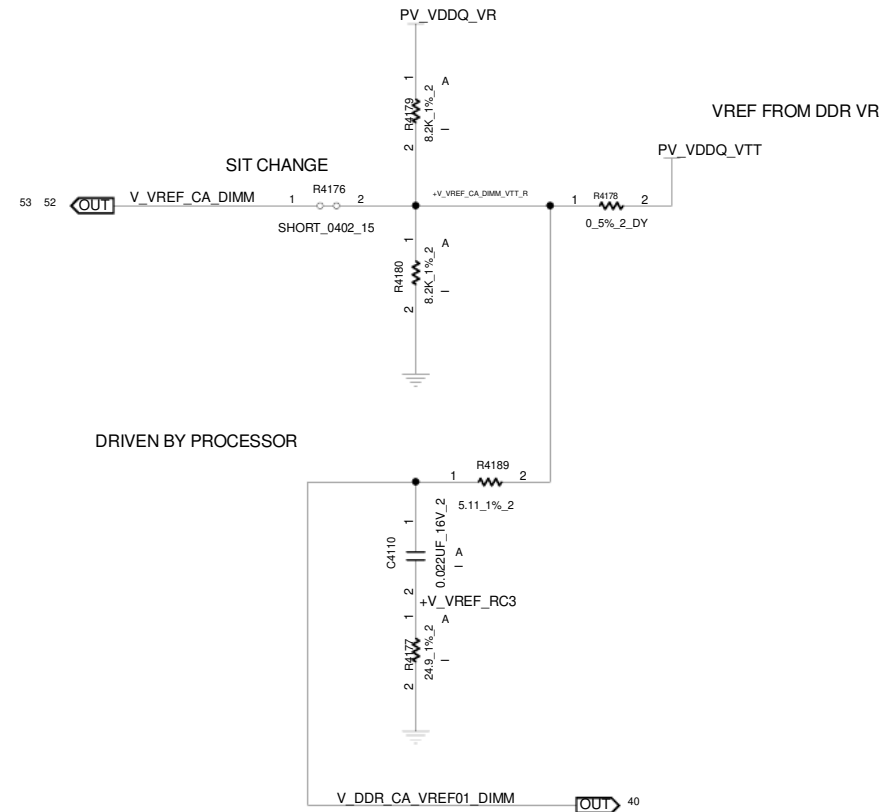
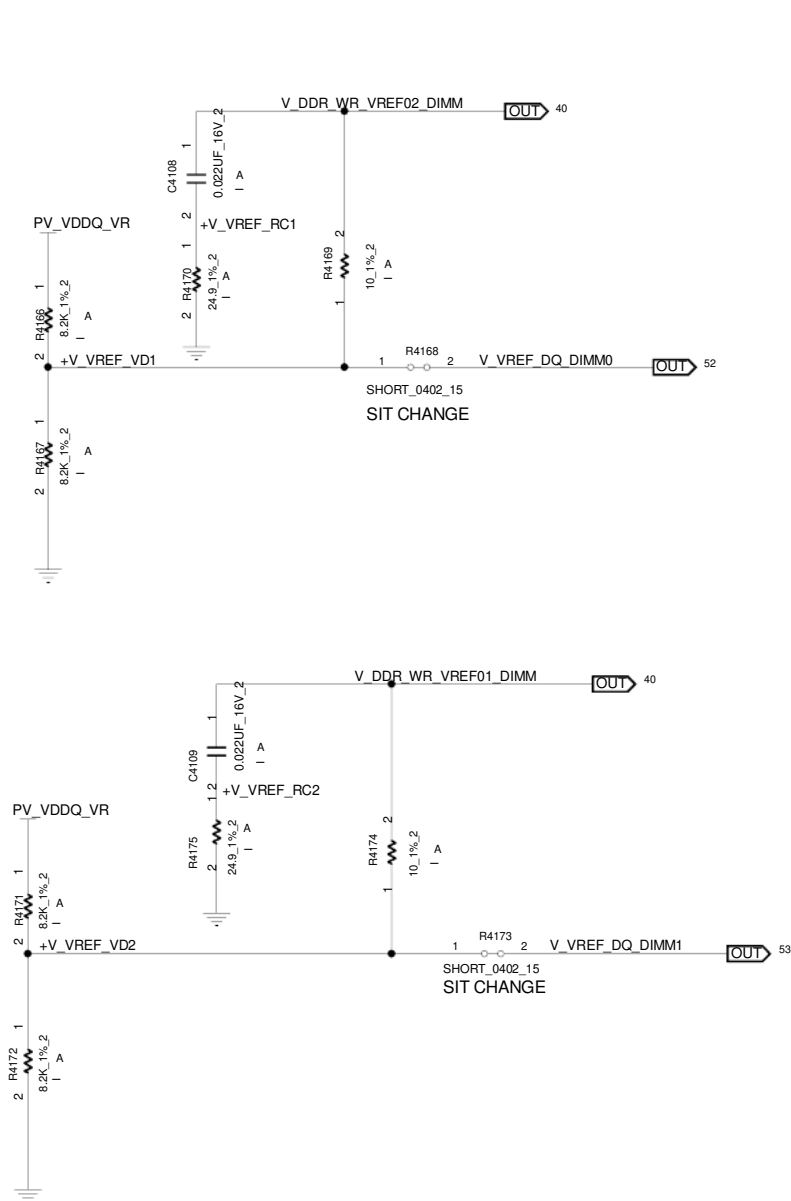
MICRON_EDFB164A1MA_GD_F_R_FBGA_253P

INVENTEC

TITLE
MODEL,PROJECT,FUNCTION
Block DiagramSIZE A3
CODE CS
DOC NUMBER 1310xxxx-0-0
REV X01
SHEET 52 of 60CHANGE by XXXX
PCB P/N 60xxxxxxxxxxx
DATE 21-OCT-2002
PCB VER XXXX



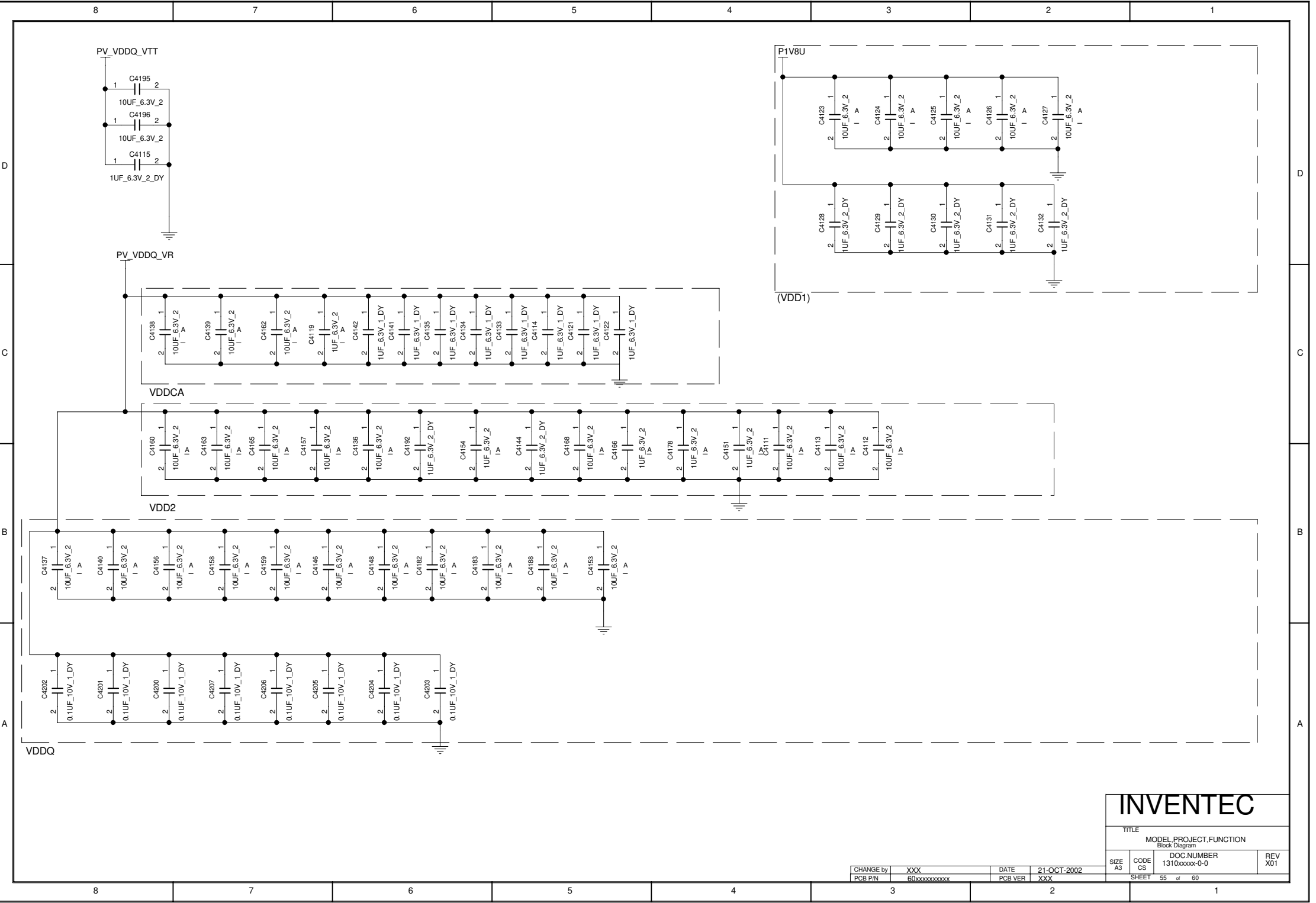
VREF CIRCUITRY - M1 (VOLTAGE DIVIDER NETWORK) & M3 (DRIVEN BY PROCESSOR) IMPLEMENTATION



INVENTEC

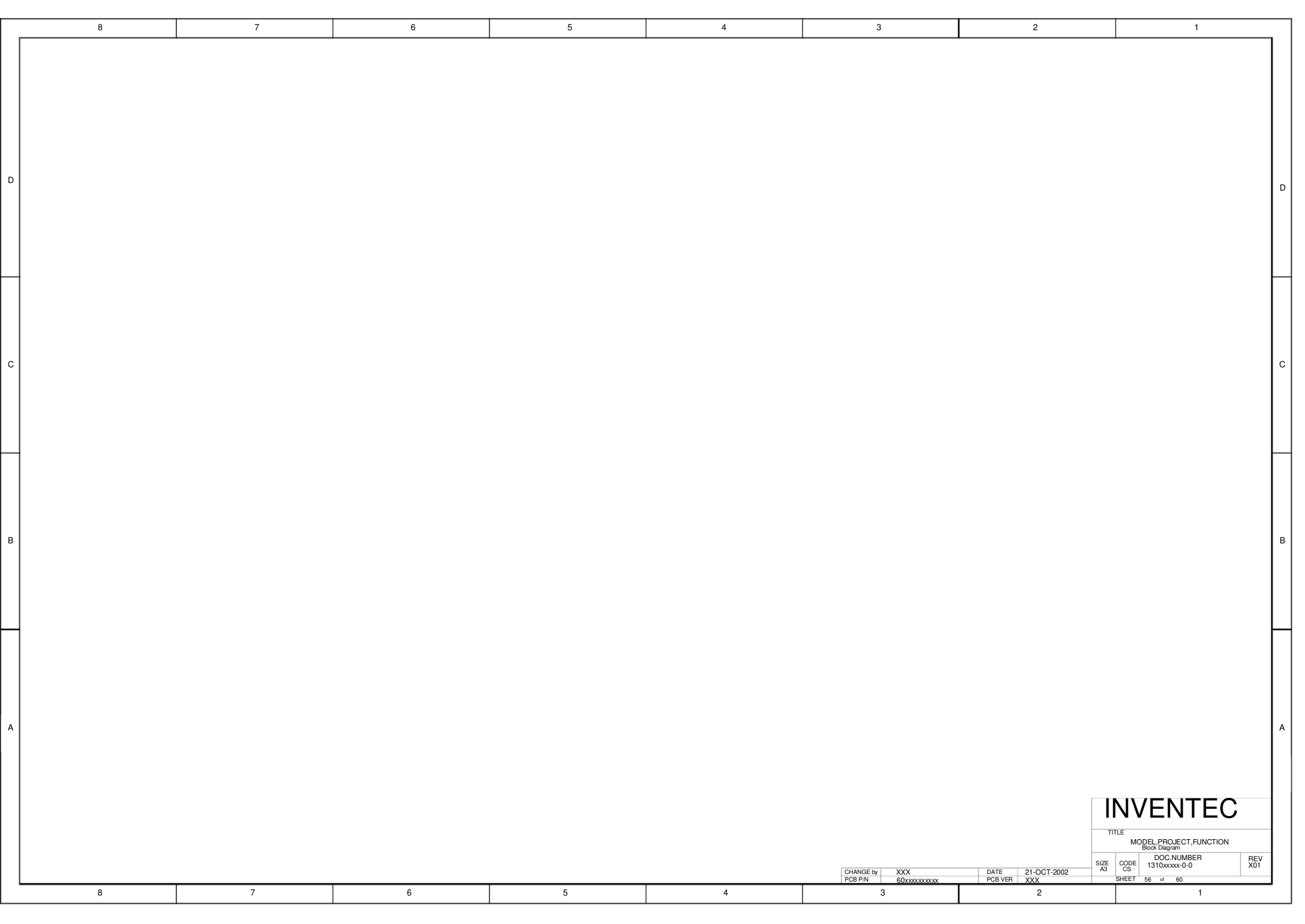
TITLE			
MODEL,PROJECT,FUNCTION			
LPDDR3-6_VREF			
SIZE A3	CODE CS	DOC.NUMBER 1310xxxx-0-0	REV X01
SHEET		54 of 60	

CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxx	PCB VER	XXX



INVENTEC			
TITLE			
MODEL PROJECT,FUNCTION Block Diagram			
SIZE A3	CODE CS	DOC NUMBER 1310xxxx-0-0	REV X01
SHEET 55 of 60			

CHANGE by PCB P/N	XXX 60xxxxxxxxxx	DATE PCB VER	21-OCT-2002 XXX
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INVENTEC

TITLE
MODEL,PROJECT,FUNCTION
Block Diagram

CHANGE by	XXX	DATE	21-OCT-2002	SIZE	CODE	DOC NUMBER	REV
PCB P/N	60xxxxxxxxxx	PCB VER	XXX	A3	CS	1310xxxxx-0-0	X01
				SHEET	56	of	60

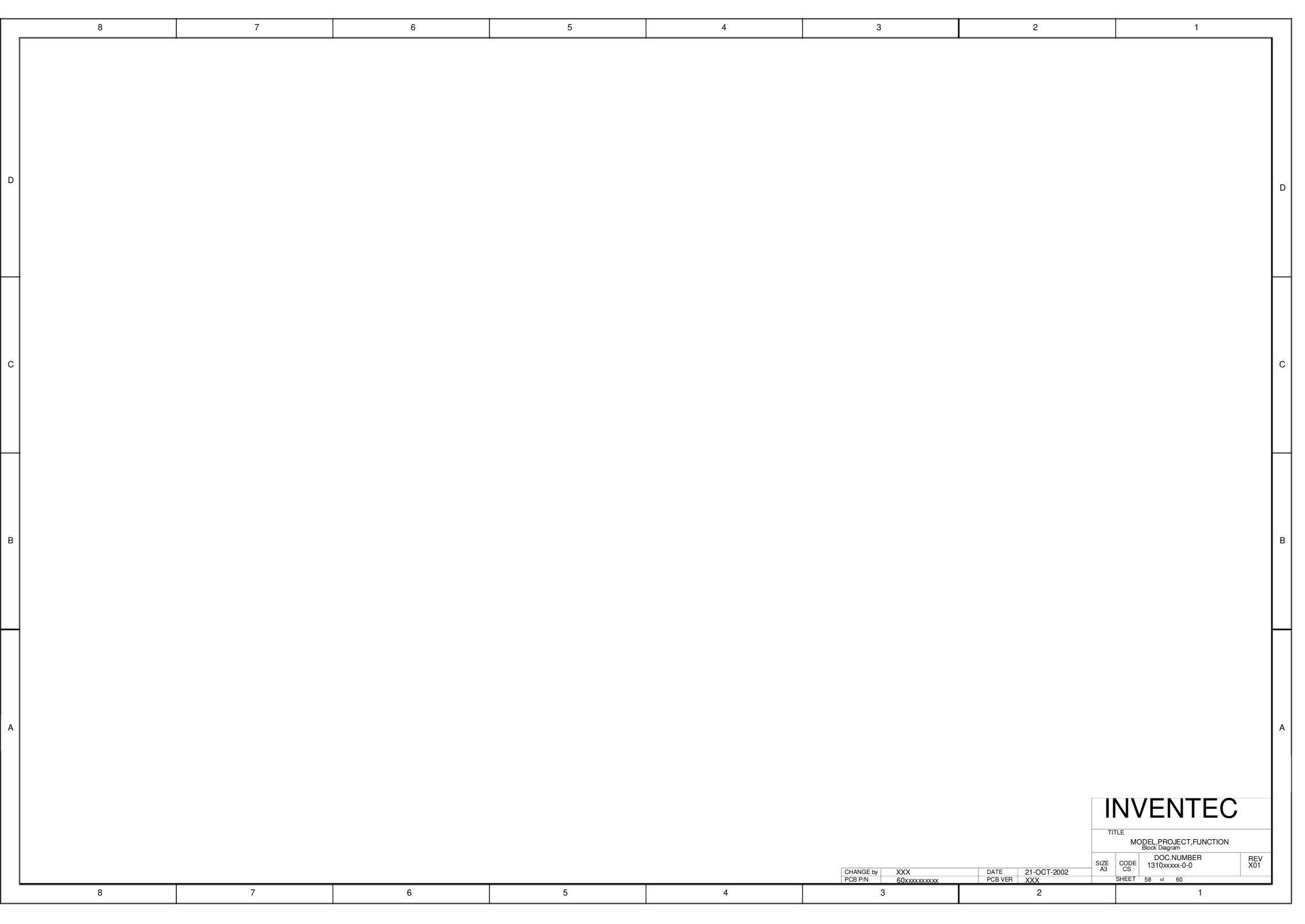
8		7		6		5		4		3		2		1	
D															
C															
B															
A															
8		7		6		5		4		3		2		1	

INVENTEC

TITLE
MODEL,PROJECT,FUNCTION
Block Diagram

CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxxxxx	PCB VER	XXX

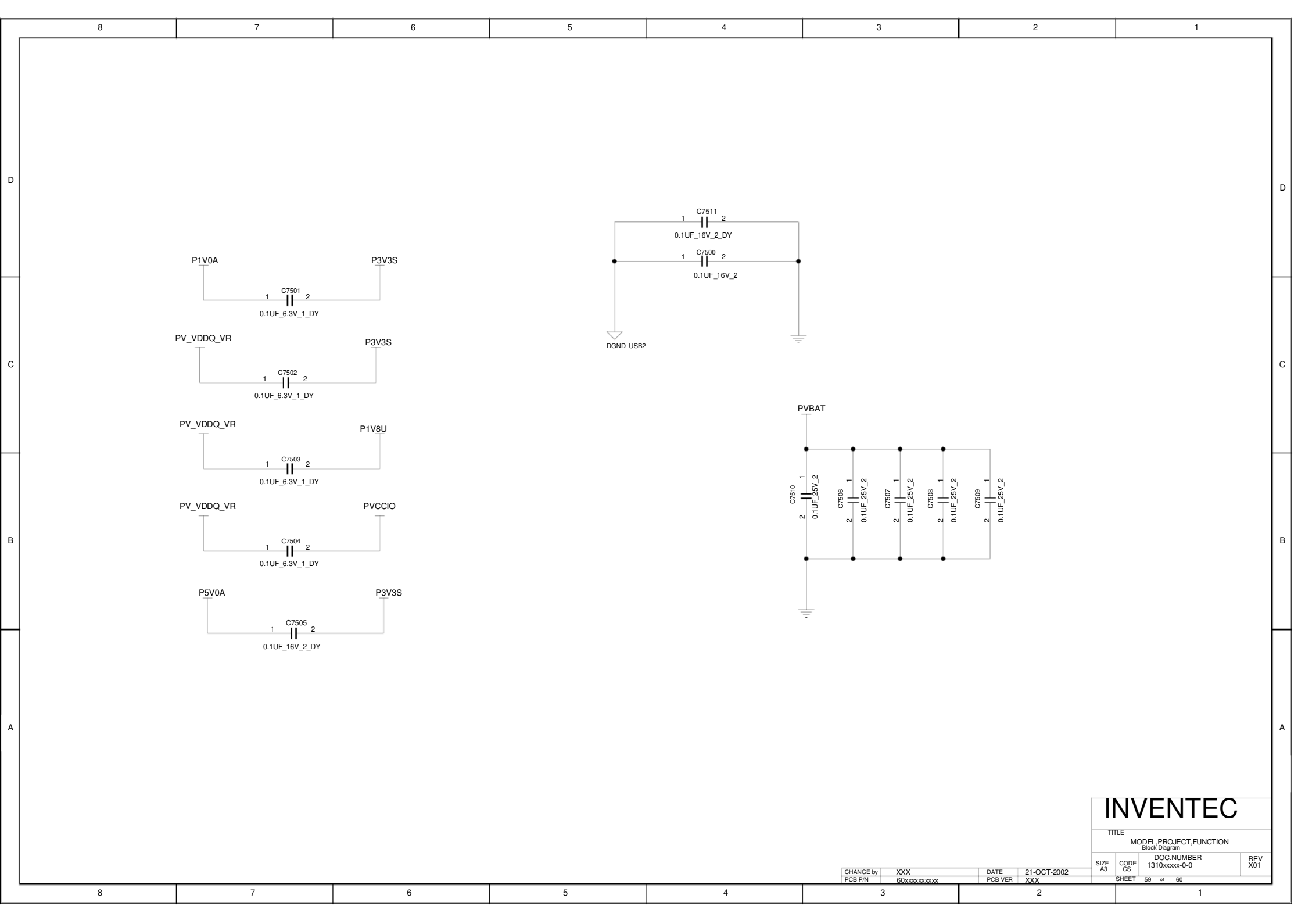
SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
SHEET	57	of	60



INVENTEC

TITLE
MODEL,PROJECT,FUNCTION
Block Diagram

CHANGE by	XXX	DATE	21-OCT-2002	SIZE	CODE	DOC NUMBER	REV
PCB P/N	60xxxxxxxxxx	PCB VER	XXX	A3	CS	1310xxxxx-0-0	X01
				SHEET	58	of	60



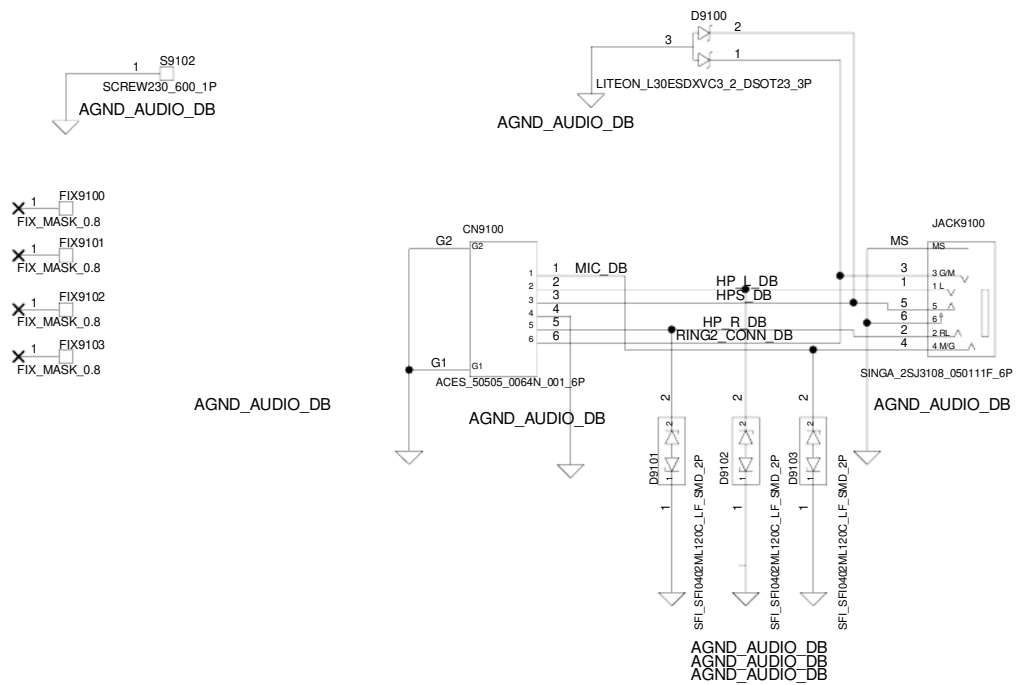
INVENTEC

TITLE
MODEL PROJECT FUNCTION
Block Diagram

SIZE A3	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
SHEET		59 of 60	

CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxxxxxx	PCB VER	XXX

AUDIO JACK SMALL BOARD



INVENTEC

TITLE			
MODEL PROJECT FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310xxxx-0-0	X01
SHEET	60	of 60	

CHANGE by	XXX	DATE	21-OCT-2002
PCB P/N	60xxxxxxxxxx	PCB VER	XXX