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

# CORVETTE
## PV

2020.08.13

| Marking | Description |
|---|---|
| I | Install |
| NI | Non-install |
| PROTO | Proto type |
| MP | Mass Production |
| TAA | Install for TAA |
| CRITICAL | Critical Parts |

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| DATE | CHANGE NO. | REV |
|---|---|---|
| 21-OCT-2002 | | |

| | | | |
|---|---|---|---|
| DESIGN / DRAWER | XXX | DATE | 21-OCT-2002 |
| CHECK | TE-YU CHEN | | |
| APPROVAL | MORRIS CHANG | | |
| FILE NAME | CORVETTE 605A2572U-MB.A02 | | |
| PCB P/N | 60.XXXX.XXXX | PCB VER | XXX |

INVENTEC

| TITLE | MODEL, PROJECT, FUNCTION |
|---|---|
| | MAIN BOARD |

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

SHEET 1 of 85

# TABLE OF CONTENTS


01. PROJECT NAME
02. TABLE OF CONTENTS
03. BLOCK DIAGRAM
04. I2C/SMBUS MAP
05. DESIGN INFORMATION
06. POWER BLOCK DIAGRAM
07. SYSTEM POWER(CHARGER)
08. SYSTEM POWER(BARREL/PD SELECTOR)
09. SYSTEM POWER(ADP_ID/OCP)
10. SYSTEM POWER(P5V0A_USB)
11. SYSTEM POWER(P5V0DS)
12. SYSTEM POWER(P3V3DS)
13. SYSTEM POWER(P1V2)
14. SYSTEM POWER(P2V5)
15. SYSTEM POWER(P1V8A)
16. SYSTEM POWER(P1V2S)
17. SYSTEM POWER(VNN/P1V05A)
18. SYSTEM POWER(VCCIN_VR CONTROLLER)
19. SYSTEM POWER(VCCIN_MOS)
20. SYSTEM POWER(VCCIN_AUX)
21. POWER ENABLE SIGNALS
22. DC JACK & BATTERY CONN.
23. POWER SEQUENCE(P3V3,P5V0,P1V2)
24. POWER SEQUENCE(P1V8S,PVCCST PVCCSTG_CPU)
25. POWER SEQUENCE(PG & RSMRST)
26. THERMAL
27. FAN CONN
28. XDP & ME CONN.
29. DEBUG CONN
30. MCP1-MISC
31. MCP2-SPI,SMBUS,SYSTEM SEQUENCE
32. MCP3-GPIO
33. MCP4-GPIO,CNVI
34. MCP4-DP,TCP
35. MCP5-DDR
36. MCP6-PCIE,USB
37. MCP7-RTC, AUDIO, SATA
38. MCP8-CLOCK, RESERVED
39. MCP9-POWER IO
40. MCP10-POWER1
41. MCP11-POWER2
42. MCP12-GND
43. SYSTEM MEMORY (DIMM0)
44. SYSTEM MEMORY (DIMM1)
45. BB RETIMER_A-1
46. BB RETIMER_A-2
47. BB RETIMER_B-1
48. BB RETIMER_B-2
49. PD CONTROLLER CCG6
50. USB_TYPE C_A-1 (RIGHT)
51. USB_TYPE C_A-2 (RIGHT)
52. USB_TYPE C_B-1 (RIGHT)
53. USB_TYPE C_B-2 (RIGHT)
54. USB MB TO DB CNTR
55. HDMI RETIMER (PS8209)
56. LCM CNTR
57. CAMERA CNTR
58. NGFF SSD CONN
59. FINGERPRINT
60. KBC_1
61. KBC_2
62. KEYBOARD & CLICKPAD & BL
63. TPM
64. WLAN & BLUE TOOTH
65. WWAN NGFF
66. SMART CARD CONN & NFC_RFID
67. POWER JACK LED
68. AUDIO CODEC
69. SPEAKER
70. 12S SHUT DOWN RESET
71. EMMC CONTROLLER
72. EMMC
73. SCREW
74. CLIP
75. EMI SOLUTION
76. RF SOLUTION_1
77. RF SOLUTION_2
78. TEST POINT
79. USB D/B CNTR
80. USB PORT A CHARGER LEFT_DB
81. USB PORT B LEFT_DB
82. AUDIO & LID_USB D/B
83. FRONT MIC D/B
84. ALS D/B
85. DUAL ALS D/B


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TITLE: MODEL PROJECT FUNCTION
TABLE OF THE CONTENTS

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

SHEET 2 of 85

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

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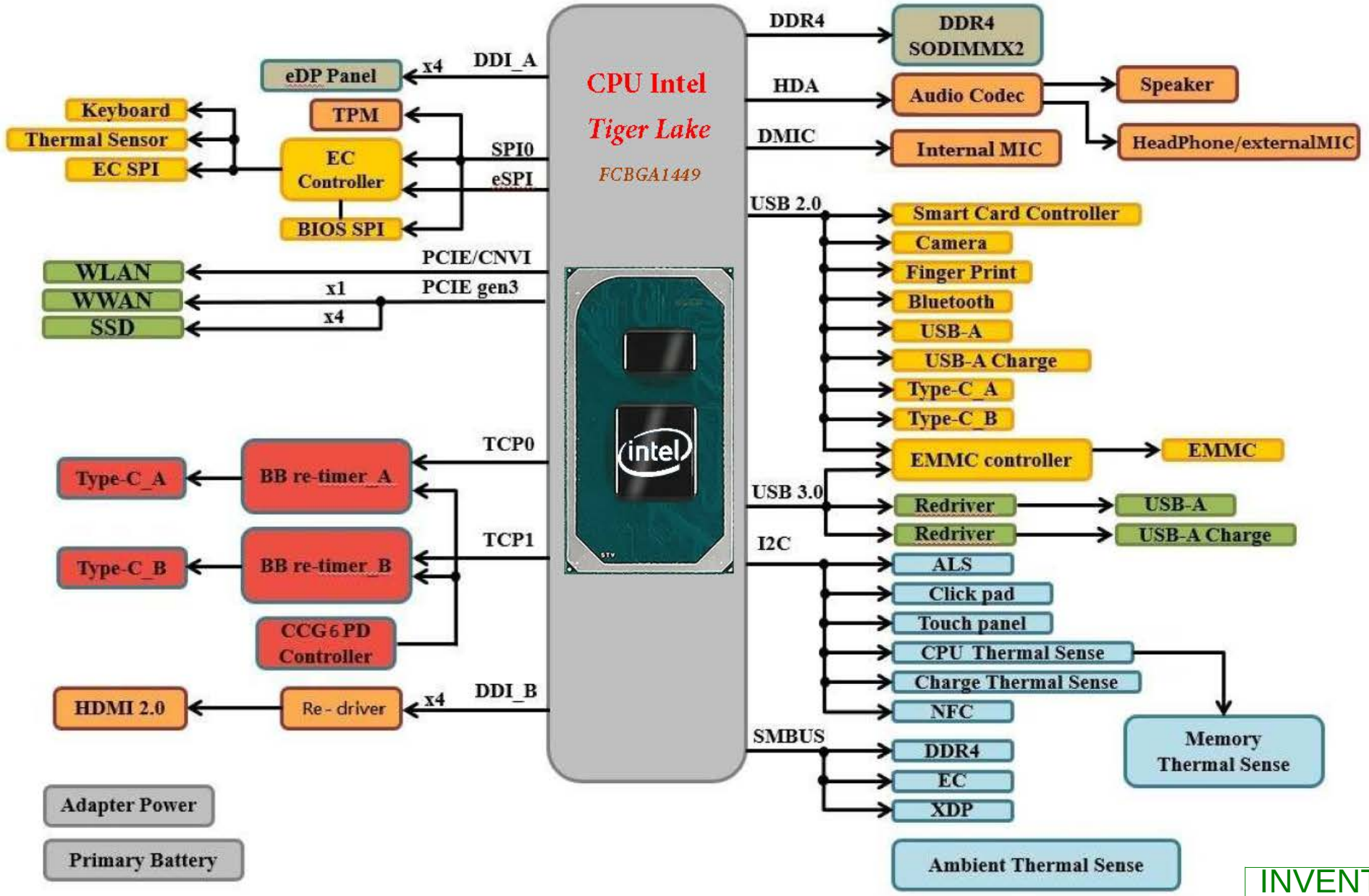


100% TO 45%

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

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TITLE: MODEL,PROJECT,FUNCTION Block Diagram

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

SHEET 3 of 85

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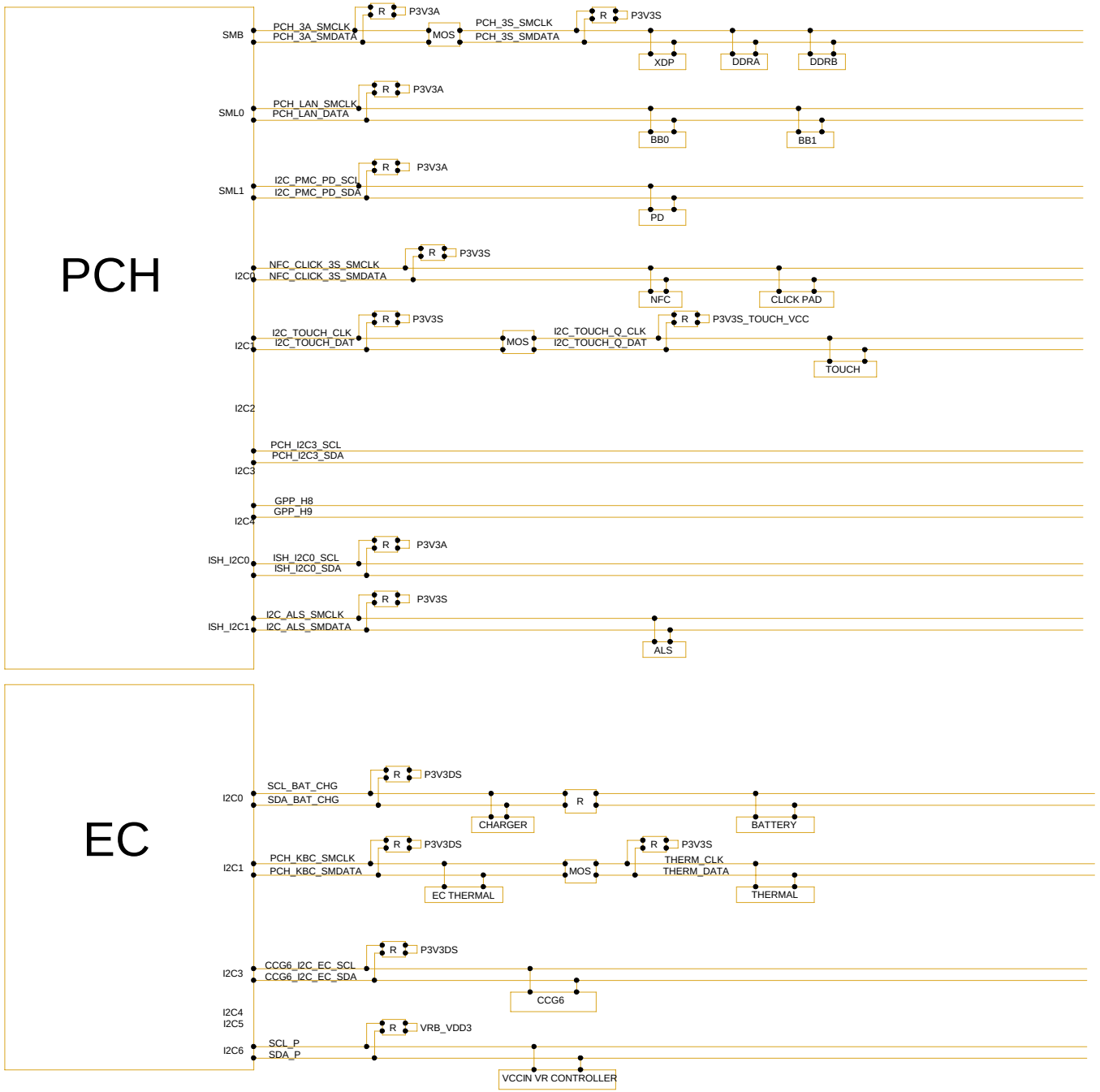


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TITLE: MODEL,PROJECT,FUNCTION
I2C/SMBUS MAP

| SIZE | CODE | DOC.NUMBER | REV |
|---|---|---|---|
| A3 | CS | 1310xxxxx-D-D | X01 |

SHEET 6 of 85

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

| 800 G8 Series | |
|---|---|
| **Premium-UP3 Port** | **Corvette -TGL-UP3** |
| **USB30_P1/PCIe1** | USB Type A(Left) |
| **USB30_P2/PCIe2** | USB Type A(Left) |
| **USB30_P3/PCIe3** | USB3 to eMMC |
| **USB30_P4/PCIe4** | Free |
| **PCIe5** | Free |
| **PCIe6** | Free |
| **PCIe7(GbE)** | WLAN |
| **PCIe8(GbE)** | WWAN(PCIE) |
| **PCIe9 (GbE)** | PCIE3_SSD(NVMe) |
| **PCIe10** | PCIE3_SSD(NVMe) |
| **PCIe11 /SATA 0** | PCIE3_SSD(NVMe) |
| **PCIe12 /SATA 1** | PCIE3_SSD(NVMe)/SATA SSD |
| | |
| PCIe Gen4 X4 | Free |

| **DDI** | | | |
|---|---|---|---|
| 1 | | DDI A | eDP |
| 2 | | DDI B | HDMI |
| **USB2** | | | |
| 1 | | USB 2.0 #1 | USB Type A(Left) |
| 2 | | USB 2.0 #2 | Camera |
| 3 | | USB 2.0 #3 | Smart Card |
| 4 | | USB 2.0 #4 | USB Type A(Left) |
| 5 | | USB 2.0 #5 | Type C2 |
| 6 | | USB 2.0 #6 | Type C1 |
| 7 | | USB 2.0 #7 | Finger Print Reader |
| 8 | | USB 2.0 #8 | USB to eMMC |
| 9 | | USB 2.0 #9 | |
| 10 | | USB 2.0 #10 (CNVI enable platform, this port need to for BT port )==need check | Bluetooth |

## STACK_UP FOR 8 LAYER -0.9MM-5SIGNAL

| | BRD_ID1 | BRD_ID2 | BRD_ID3 | BRD_ID4 |
|---|---|---|---|---|
| CPU SOCKET BOARD | 0 | 0 | 0 | 0 |
| FIT | 0 | 0 | 0 | 1 |
| DB1 | 0 | 0 | 1 | 0 |
| SI1 | 0 | 0 | 1 | 1 |
| SI1R | 0 | 1 | 0 | 0 |
| | 0 | 1 | 0 | 1 |
| SI2 | 0 | 1 | 1 | 0 |
| SI2R | 0 | 1 | 1 | 1 |
| | 1 | 0 | 0 | 0 |
| SI3 | 1 | 0 | 0 | 1 |
| | 1 | 0 | 1 | 0 |
| PV | 1 | 0 | 1 | 1 |
| PVR | 1 | 1 | 0 | 0 |
| | 1 | 1 | 0 | 1 |
| MV | 1 | 1 | 1 | 0 |

| POWER NAME | VOLTAGE | G3 | S5 | S3 | S0 |
|---|---|---|---|---|---|
| P3V3_RTC | 3.3V | ON | ON | ON | ON |
| PVBAT | 12V | OFF | ON | ON | ON |
| P5V0DS | 5V | OFF | ON | ON | ON |
| P5V0A_USB | 5V | OFF | ON | ON | ON |
| P5V0S | 5V | OFF | OFF | OFF | ON |
| P3V3DS | 3.3V | OFF | ON | ON | ON |
| P3V3A | 3.3V | OFF | ON | ON | ON |
| P3V3S | 3.3V | OFF | OFF | OFF | ON |
| P2V5 | 2.5V | OFF | OFF | ON | ON |
| P1V8A | 1.8V | OFF | ON | ON | ON |
| P1V8S | 1.8V | OFF | OFF | OFF | ON |
| P1V2 | 1.2V | OFF | OFF | ON | ON |
| P1V2S | 1.2V | OFF | OFF | OFF | ON |
| P1V05A | 1.05V | OFF | ON | ON | ON |
| PVNN | VID | OFF | ON | ON | ON |
| P0V6S | 0.6V | OFF | OFF | OFF | ON |
| VCCIN | SVID | OFF | OFF | OFF | ON |
| VCCIN_AUX | SVID | OFF | OFF | OFF | ON |
| PVCCST | 1.05V | OFF | OFF | OFF | ON |
| PVCCSTG_CPU | 1.05V | OFF | OFF | OFF | ON |

| 0:VPRO 1:NON-VPRO | 0:X360 1:CS | 0:13" 1:14" | 0:BIOS GROUP 1 1:BIOS GROUP 2 | | | |
|---|---|---|---|---|---|---|
| PLT_ID1 | PLT_ID2 | PLT_ID3 | PLT_ID4 | ALS_DETECT# | EMMC_PRSNT# | |
| 0 | 0 | 0 | 0 | X | X | OPEL X360 13" UMA VPRO |
| 0 | 0 | 1 | 0 | X | X | X |
| 0 | 1 | 0 | 0 | X | X | CORVETTE UMA 13" VPRO |
| 0 | 1 | 1 | 0 | X | X | CORVETTE UMA 14" VPRO |
| 1 | 0 | 0 | 0 | X | X | OPEL X360 13" UMA NON-VPRO |
| 1 | 0 | 1 | 0 | X | X | X |
| 1 | 1 | 0 | 0 | X | X | CORVETTE UMA 13" NON-VPRO |
| 1 | 1 | 1 | 0 | X | X | CORVETTE UMA 14" NON-VPRO |
| | | | | 1 | X | NON-ALS |
| | | | | 0 | X | ALS |
| | | | | | 1 | NON-EMMC |
| | | | | | 0 | EMMC |

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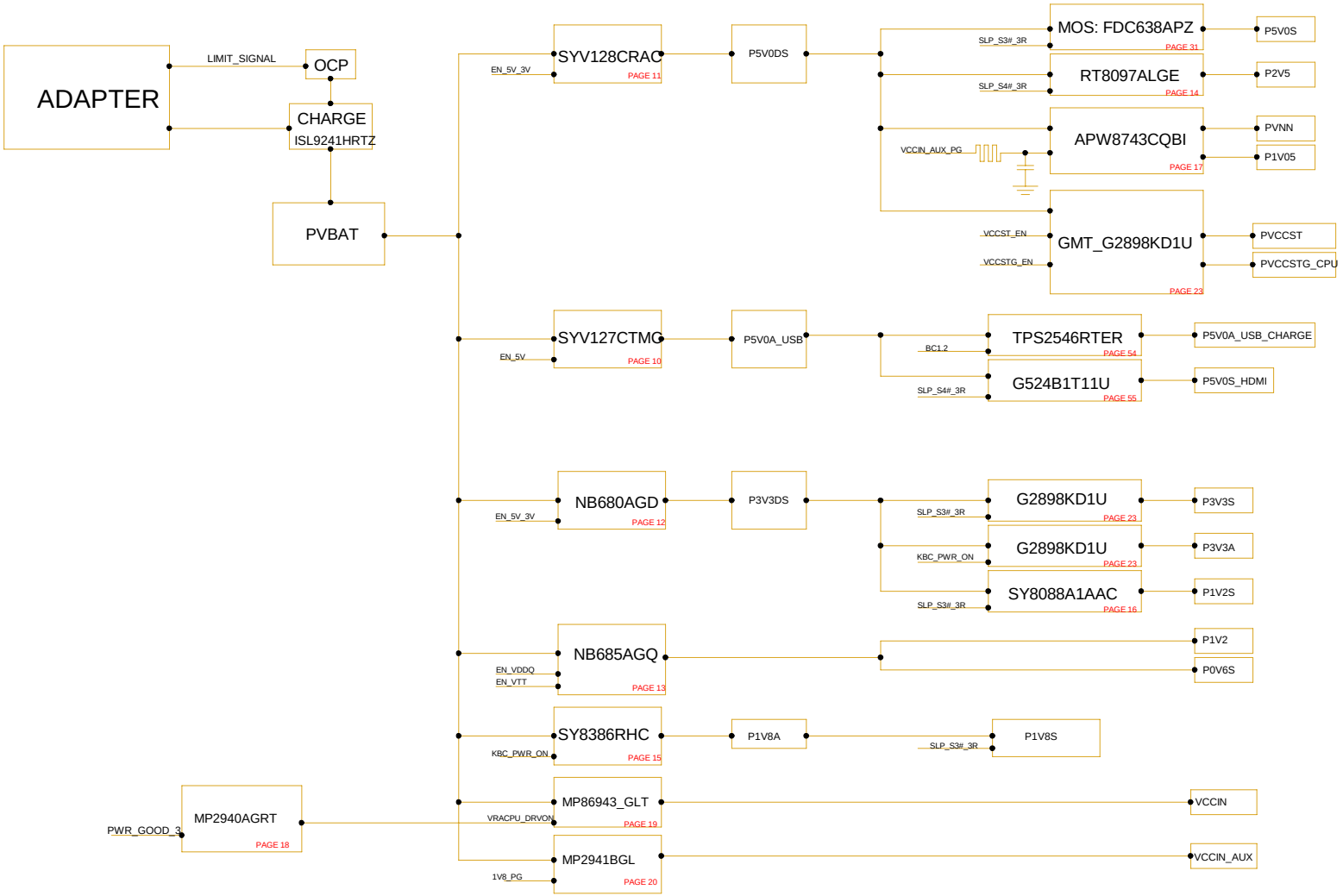
INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
DESIGN INFORMATION

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

SHEET 1 of 80

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

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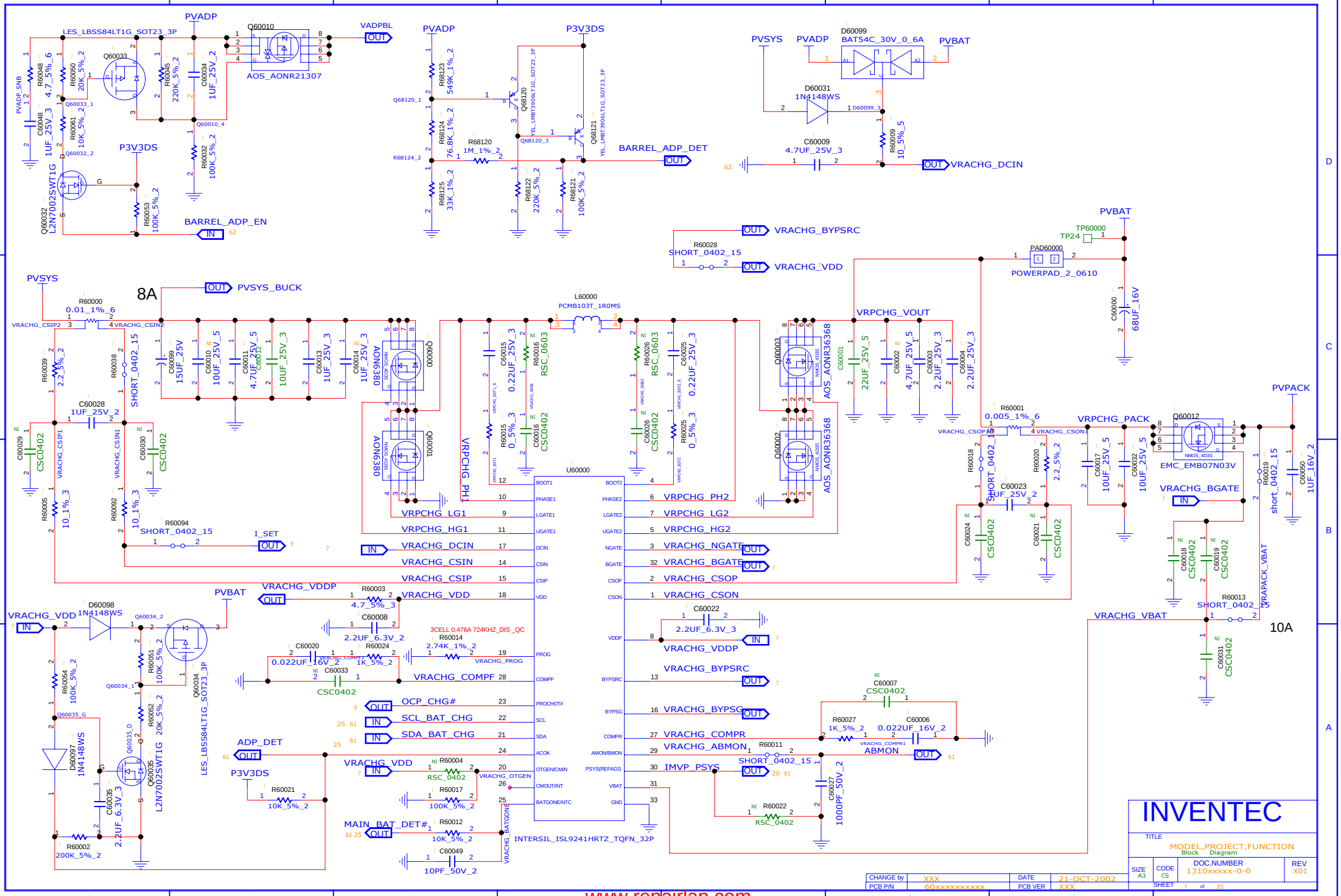
TITLE
MODEL,PROJECT,FUNCTION
POWER BLOCK DIAGRM

| SIZE | CODE | DOC.NUMBER | REV |
|---|---|---|---|
| A3 | CS | 1310xxxxx-D-D | X01 |

SHEET 6 of 85

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


PVADP
VADPBL
P3V3DS
PVSYS
PVBAT
BARREL_ADP_DET
BARREL_ADP_EN
VRACHG_DCIN
VRACHG_BYPSRC
VRACHG_VDD
PVSYS_BUCK
8A
VRPCHG_VOUT
VRPCHG_PACK
PVPACK
VRACHG_BGATE
VRACHG_VBAT
10A
VRACHG_VDDP
VRACHG_VDD
VRACHG_BYPSRC
VRACHG_BYPSG
VRACHG_COMPR
VRACHG_ABMON
IMVP_PSYS
ADP_DET
OCP_CHG#
SCL_BAT_CHG
SDA_BAT_CHG
MAIN_BAT_DET#
VRPCHG_LG1
VRPCHG_HG1
VRPCHG_LG2
VRPCHG_HG2
VRACHG_NGATE
VRACHG_BGATE
VRACHG_CSOP
VRACHG_CSON
VRACHG_CSIP
VRACHG_CSIN
VRACHG_DCIN
VRPCHG_PH1
VRPCHG_PH2
I_SET
VRACHG_COMPF
VRACHG_PROG
VRACHG_OTGEN
VRACHG_BATGONE
INTERSIL_ISL9241HRTZ_TQFN_32P
LES_LBSS84LT1G_SOT23_3P
L2N7002SWT1G
AOS_AONR21307
AOS_AONR36368
AON6380
1N4148WS
BAT54C_30V_0_6A
POWERPAD_2_0610
EMC_EMB07N03V
PCMB103T_1R0MS
3CELL 0.476A 724KHZ_DIS_QC
INVENTEC
MODEL,PROJECT,FUNCTION
Block Diagram
DOC.NUMBER
1310xxxxx-0-0
REV
X01
CHANGE by
XXX
DATE
21-OCT-2002
PCB P/N
60xxxxxxxxxx
PCB VER
XXX
SHEET
7 of 85
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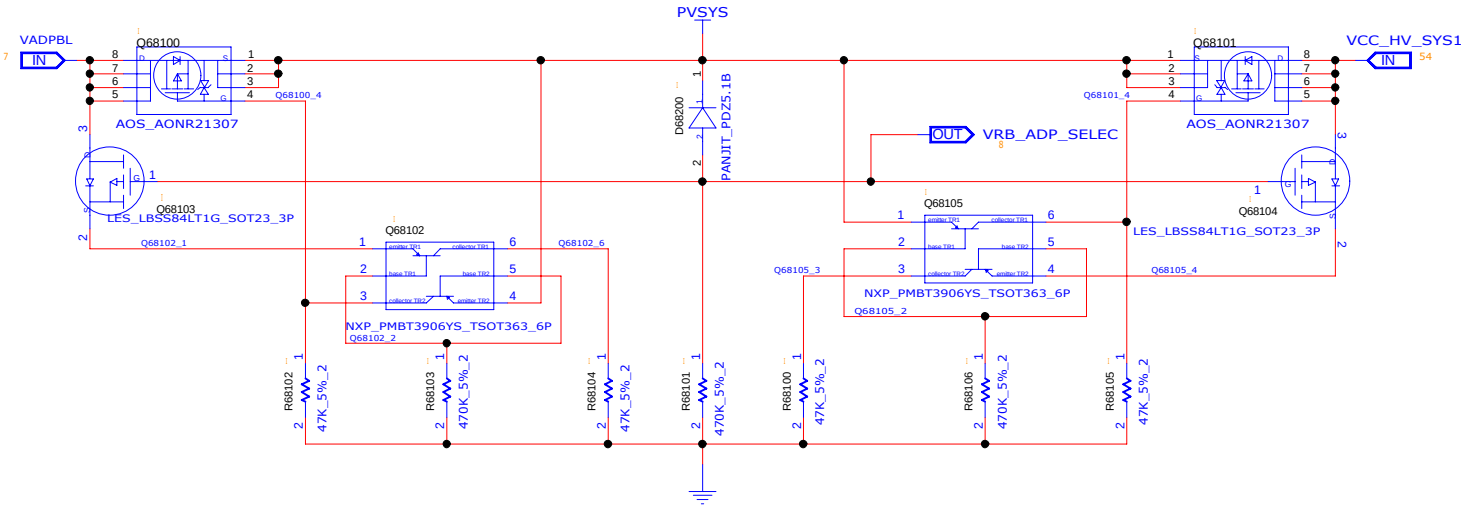


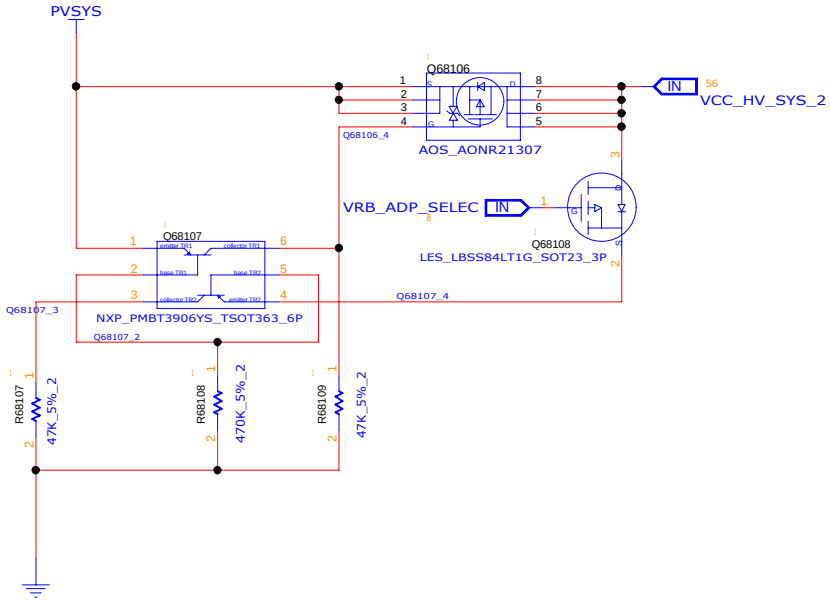


INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
Block Diagram

| | | | | | |
|---|---|---|---|---|---|
| CHANGE by | XXX | DATE | 21-OCT-2002 | SIZE A3 | DOC.NUMBER 1310xxxxx-0-0 |
| PCB P/N | 60xxxxxxxxx | PCB VER | XXX | CODE CS | REV X01 |
| | | | | SHEET 8 of 85 | |

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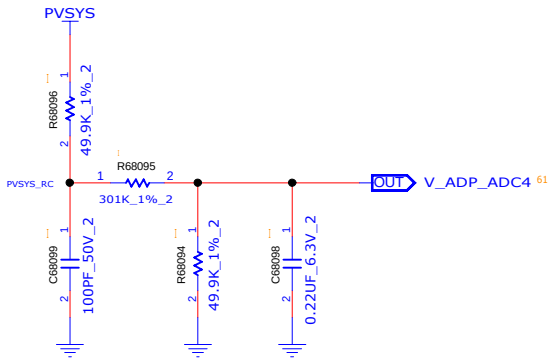


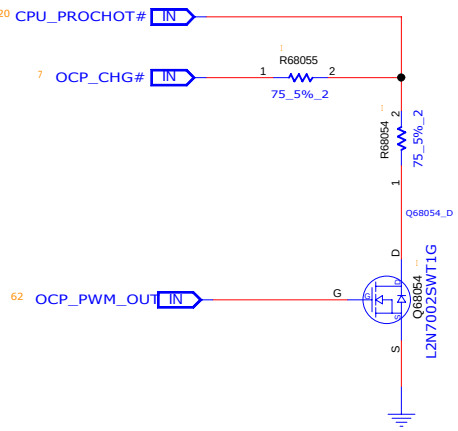


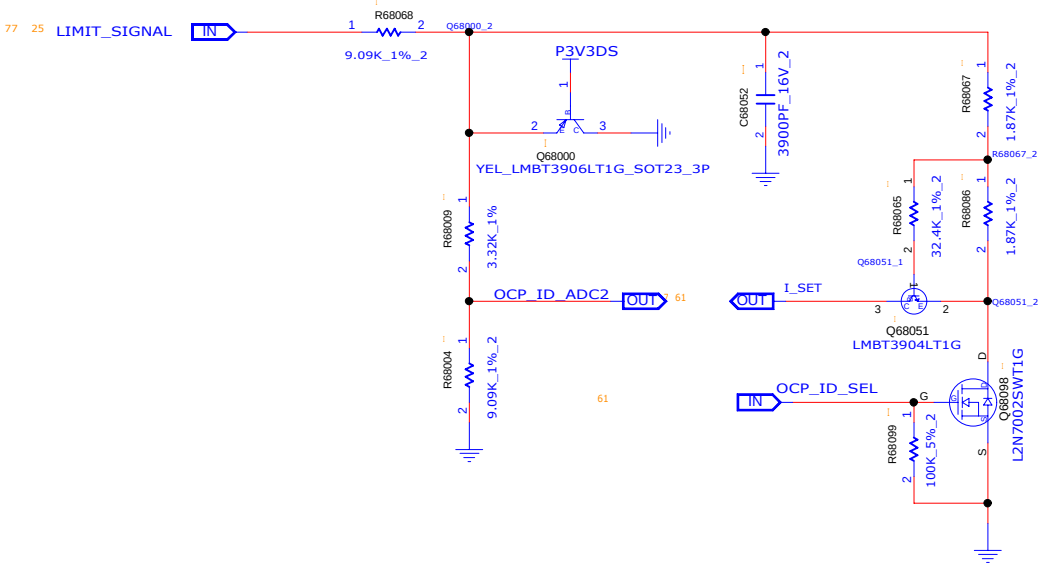


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TITLE
MODEL,PROJECT,FUNCTION
Block Diagram

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

SHEET 9 of 85

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

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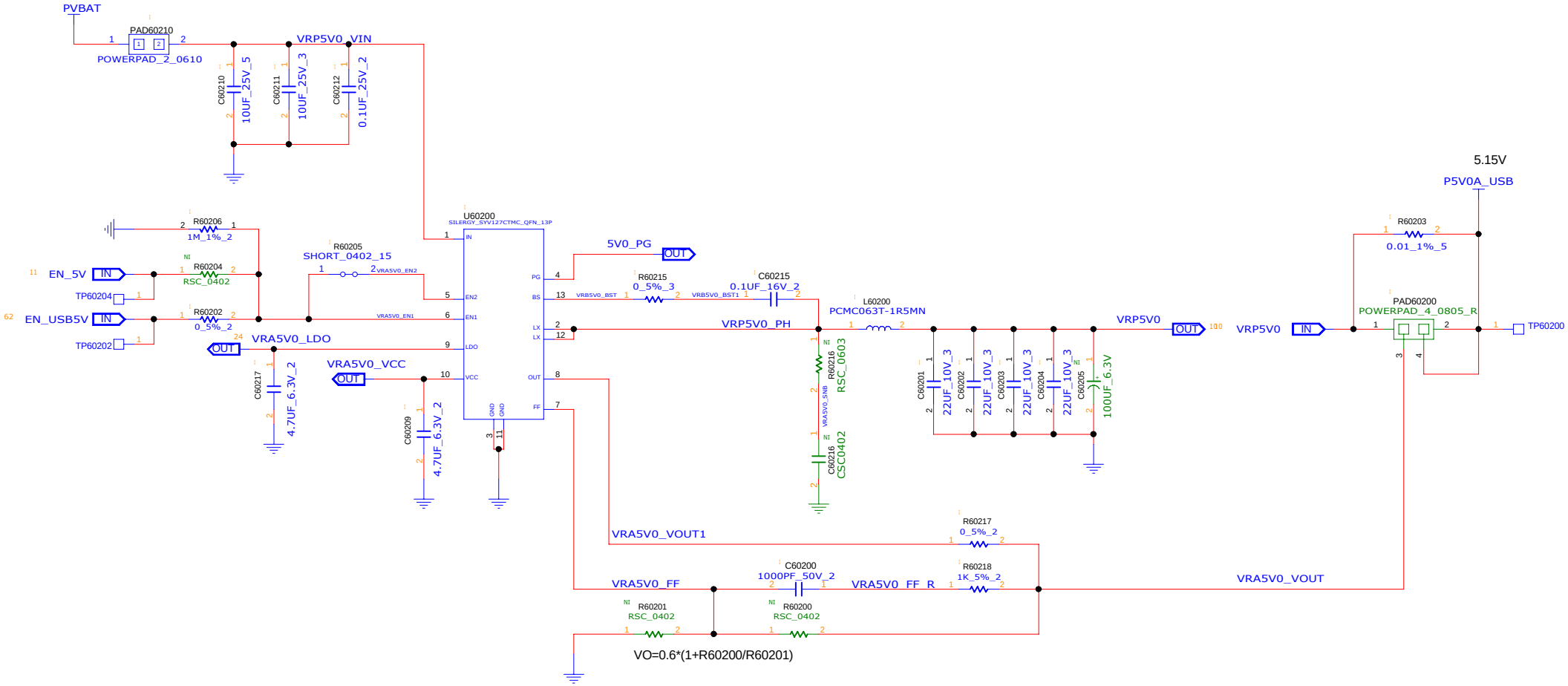


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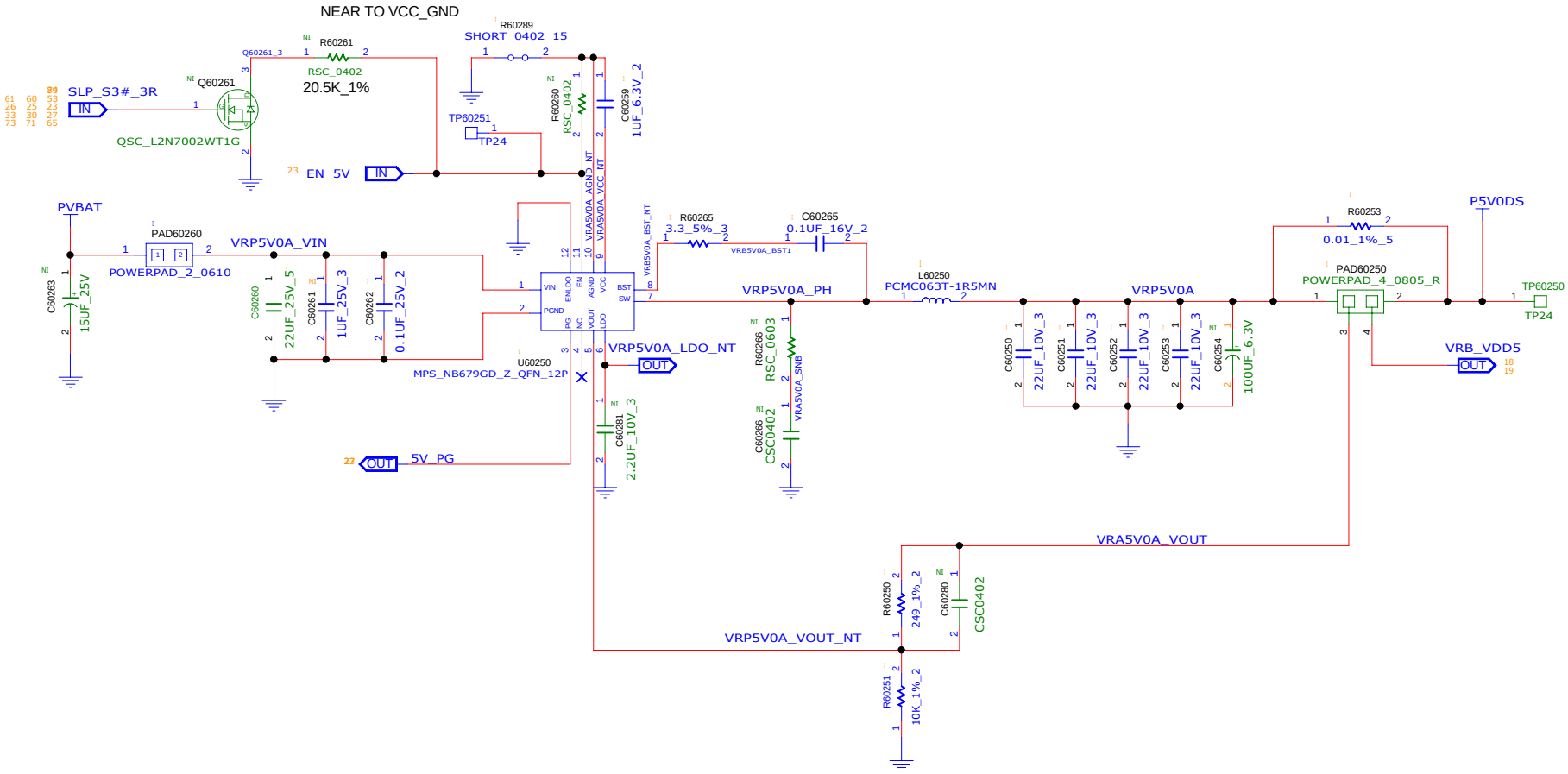
TITLE: MODEL PROJECT FUNCTION
P5V0_NB679 (RIGHT SIDE FOR USB PORT)

| CHANGE by | XXX | DATE | 21-OCT-2002 | SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
|---|---|---|---|---|---|---|---|
| PCB P/N | 60xxxxxxxxx | PCB VER | XXX | | | SHEET 10 of 85 | |

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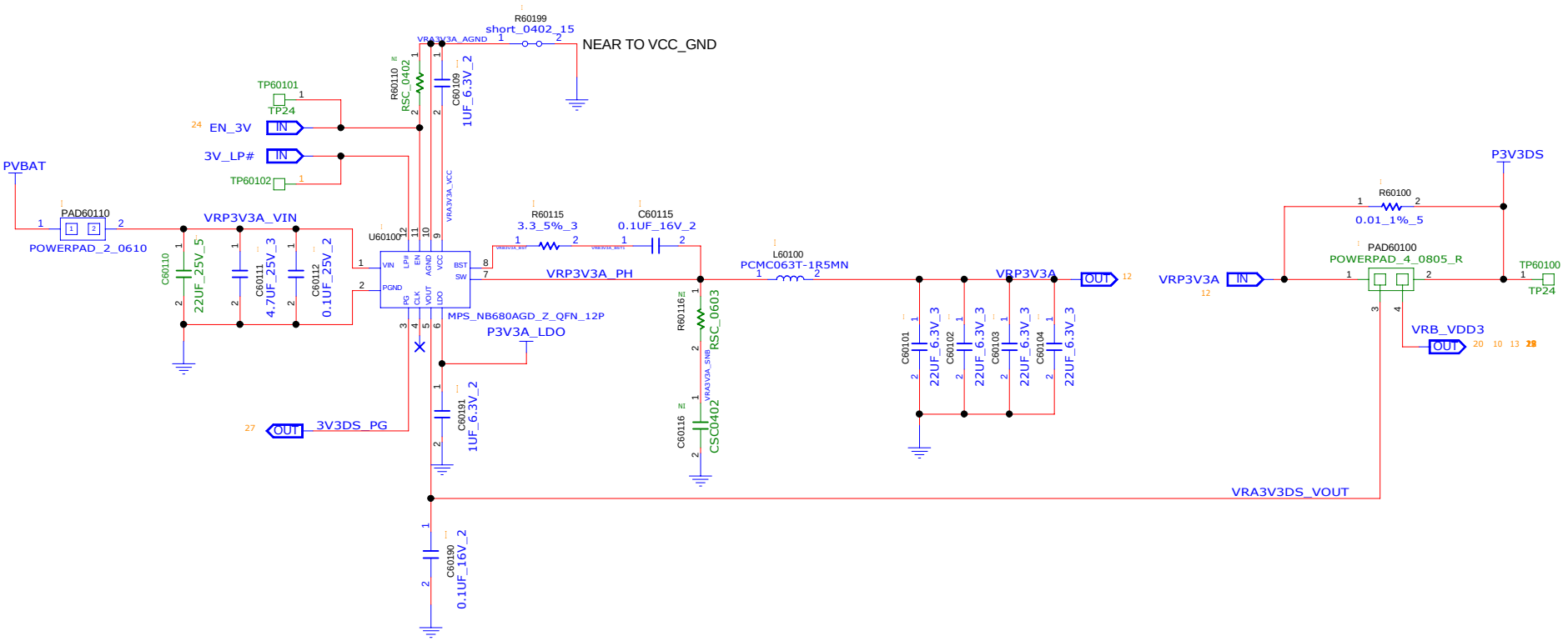
TITLE: MODEL,PROJECT,FUNCTION
Block Diagram

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

SHEET 11 of 85

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




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

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TITLE: MODEL,PROJECT,FUNCTION
Block Diagram

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

SHEET 12 of 85

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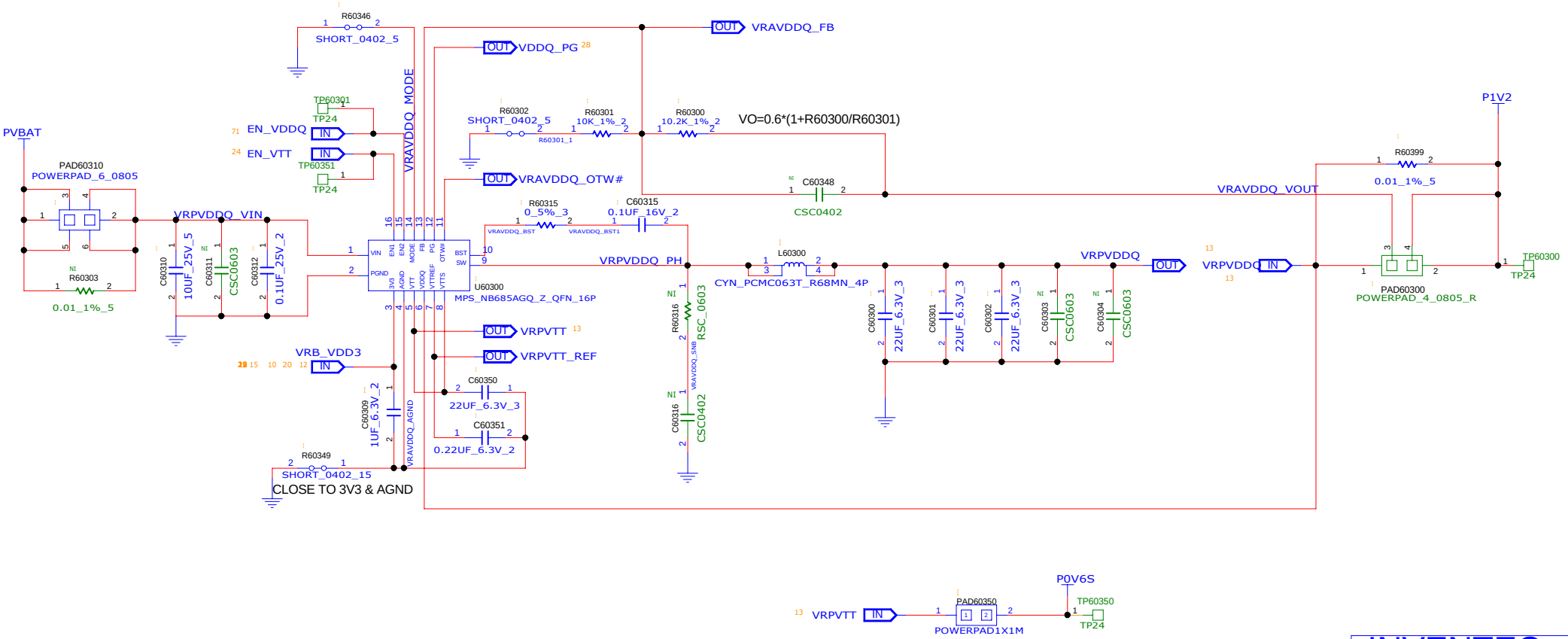
## Table 1—EN1/EN2 Control

| State | EN1 | EN2 | VDDQ | VTTREF | VTT |
|---|---|---|---|---|---|
| S0 | High | High | ON | ON | ON |
| S3 | Low | High | ON | ON | OFF(High-Z) |
| S4/S5 | Low | Low | OFF | OFF | OFF |
| Others | High | Low | OFF | OFF | OFF |




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

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TITLE: MODEL,PROJECT,FUNCTION
Block Diagram

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

SHEET 13 of 85

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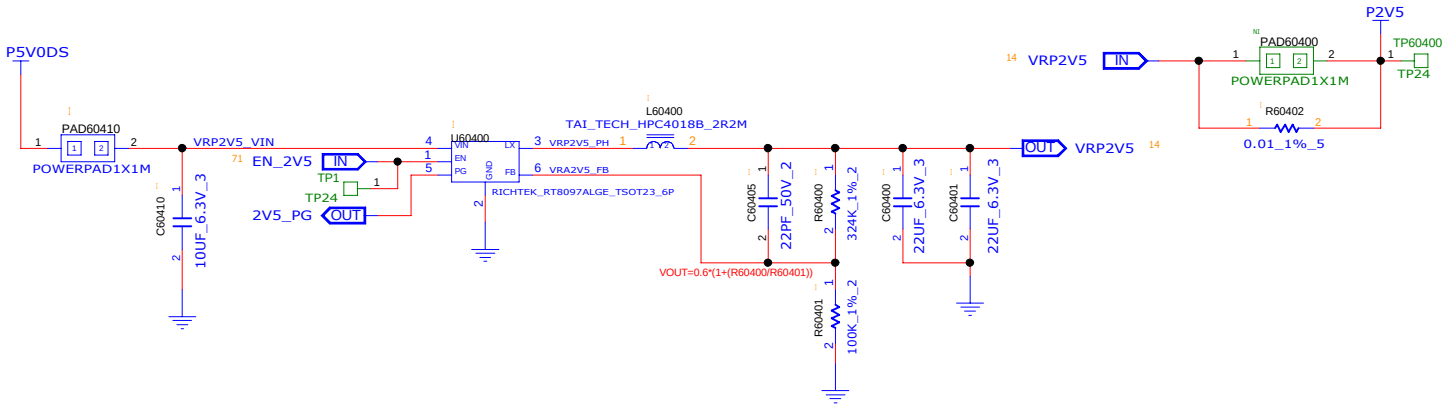


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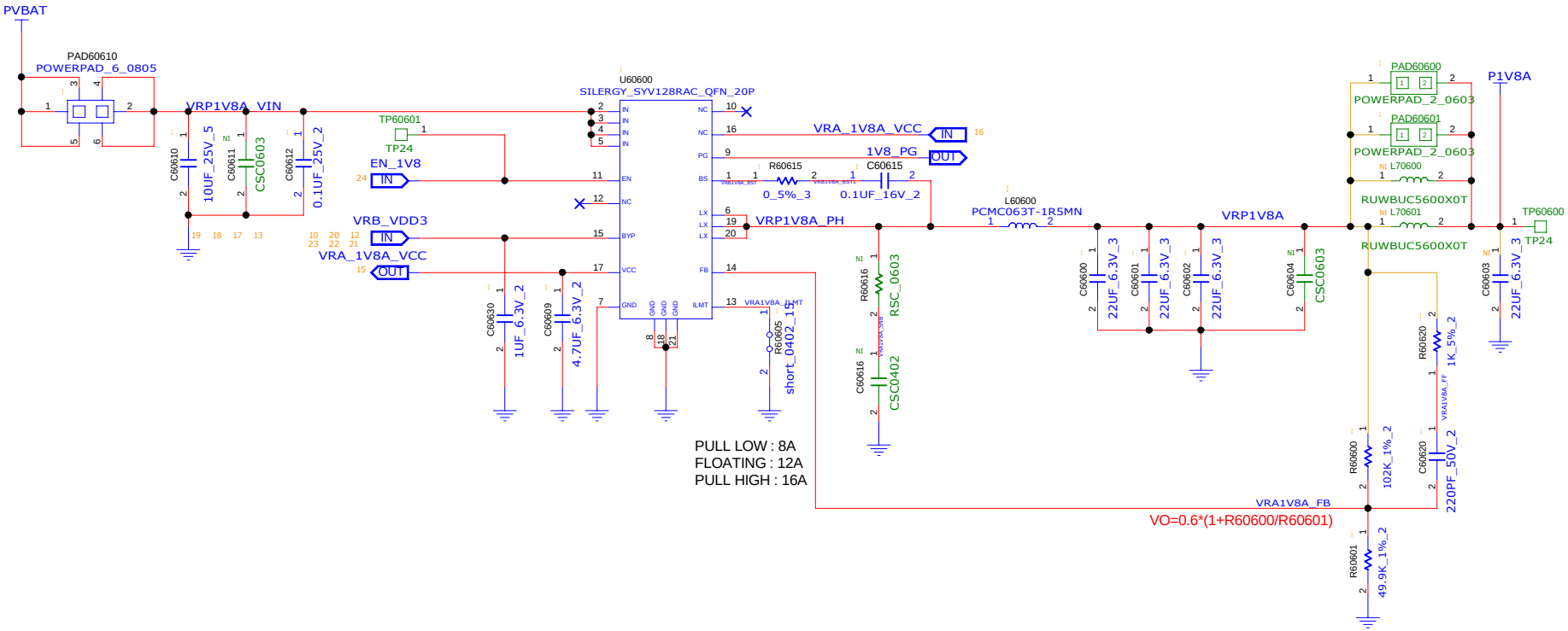
TITLE
MODEL,PROJECT,FUNCTION
Block Diagram

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

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

SHEET 14 of 85




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

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TITLE: MODEL,PROJECT,FUNCTION
Block Diagram

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

SHEET 15 of 85

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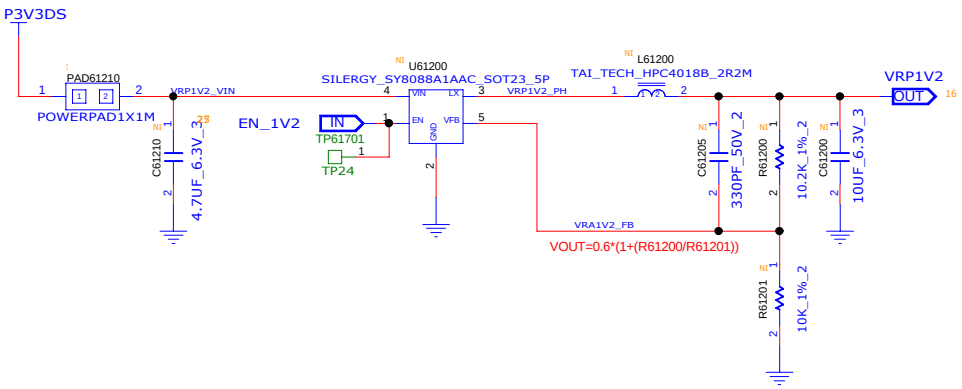


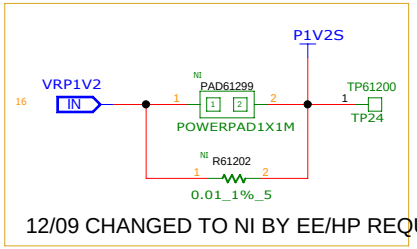


12/09 CHANGED TO NI BY EE/HP REQUEST

INVENTEC

TITLE
MODEL,PROJECT,FUNCTION
Block Diagram

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

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

SHEET 16 of 85

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## VCC_VNNEXT_1P05 VR Voltage Configurations

| SLP_S3# State | VNN_CTRL State (Optional) | Output Voltage (V) |
|---|---|---|
| 0 | N/A | 1.05 |
| 1 | 0 | 0.78 |
| 1 | 1 | 0.70 |

## VCC_V1P056EXT_1P05 VR Voltage Configurations

| V1P05_CTRL State | Output Voltage (V) |
|---|---|
| 0 | 1.05 |
| 1 | 0.96 |

## VNN_CTRL Pin States

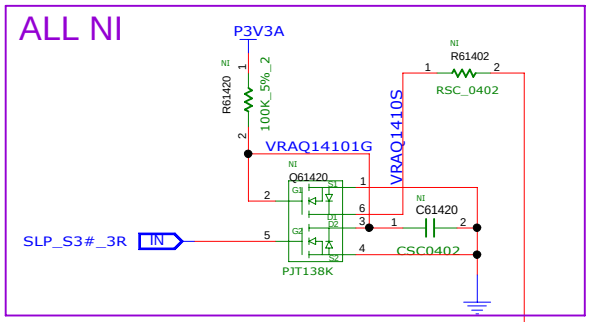
| Platform State | VNN_CTRL | VCC_VNNEXT_1P05 |
|---|---|---|
| S0 | 0 | 0.78 V |
| S0i2.x | 0 | 0.78 V |
| S0i3.x | 1 | 0.7 V |
| Sx | 0 | 1.05 V |

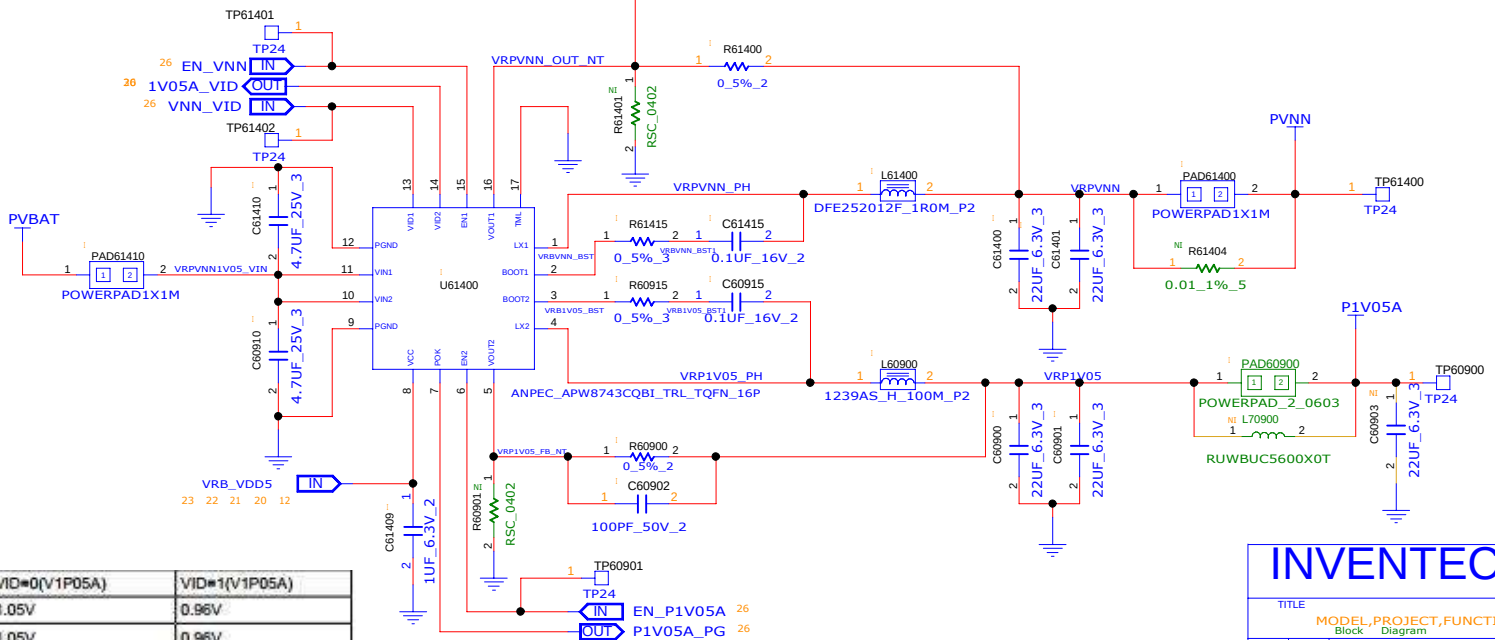
## V1P05_CTRL Pin States

| Platform State | V1P05_CTRL | VCC_V1P05EXT_1P05 |
|---|---|---|
| S0 | 0 | 1.05 V |
| S0i2.x and S0i3.0-1 | 0 | 1.05 V |
| S0i3.2-4 | 1 | 0.96 V |
| Sx | 0 | 1.05 V |

# PREMIUM

| S0I3.X SUPPORT | U61400 | C61420 | Q61420 | R61420 | R61400 | R61402 |
|---|---|---|---|---|---|---|
| NO | APW8743C | NI | NI | NI | 0OHM | NI |
| YES | APW8743D | 10nF | I | I | 2.7KOHM | 7.8KOHM |




| Part Number | VID=0(VNN) | VID=1(VNN) | VID=0(V1P05A) | VID=1(V1P05A) |
|---|---|---|---|---|
| APW8743CQBI(QBGI) | 1.05V | 0.78V | 1.05V | 0.96V |
| APW8743DQBI(QBGI) | 0.78V | 0.7V | 1.05V | 0.96V |
| APW8743EQBI(QBGI) | 1.05V | 0.7V | 1.05V | 0.96V |

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 | |
| PCB P/N 60xxxxxxxxx | | PCB VER XXX | |
| SHEET 17 of 85 | | | |

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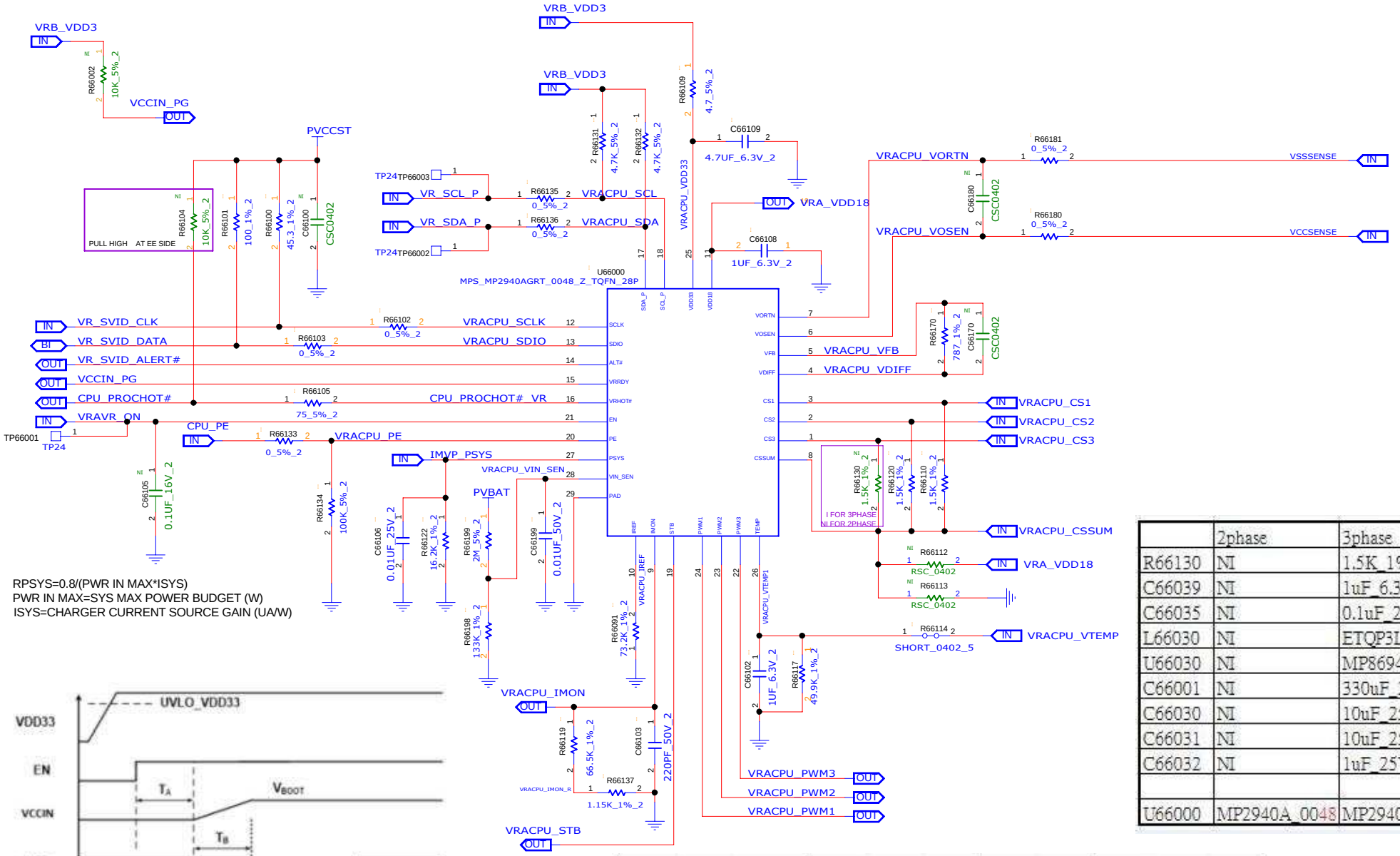


RPSYS=0.8/(PWR IN MAX*ISYS)
PWR IN MAX=SYS MAX POWER BUDGET (W)
ISYS=CHARGER CURRENT SOURCE GAIN (UA/W)

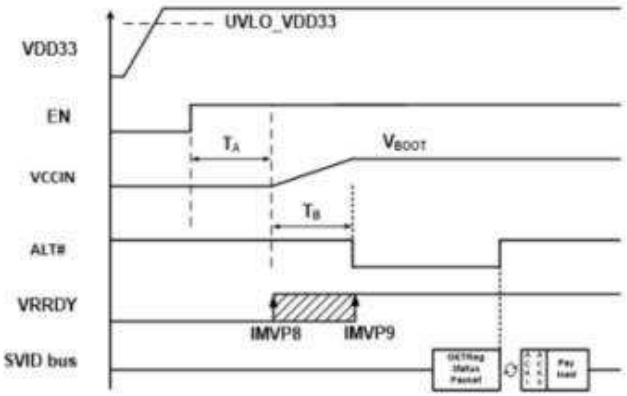


**Figure 4: Start-Up Sequence**

| | 2phase | 3phase |
|---|---|---|
| R66130 | NI | 1.5K_1% |
| C66039 | NI | 1uF_6.3V |
| C66035 | NI | 0.1uF_25V |
| L66030 | NI | ETQP3LR24CFM |
| U66030 | NI | MP86948 |
| C66001 | NI | 330uF_2.5V (B2) |
| C66030 | NI | 10uF_25V_3 |
| C66031 | NI | 10uF_25V_3 |
| C66032 | NI | 1uF_25V_3 |
| | | |
| U66000 | MP2940A_0048 | MP2940A_0046 |

| | | | IA | | | AUX | | Power limit (W) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Thermal sku | ccMax (A) | I_PL2 (A) | LL (mΩ) | ccMax (A) | I_PL2 (A) | PL1 | PL2 | PL4 |
| TGL 28 | U42 | Baseline | 55 | 36 | 2 | 27 | 14 | 28 | 60 | 105 |
| TGL 28 | U42 | Performance | 65 | 43 | 2 | 27 | 14 | 28 | 64 | 121 |
| TGL 15 | U42 | Baseline | 47 | 30 | 2 | 27 | 14 | 15 | 51 | 93 |
| TGL 15 | U42 | Performance | 55 | 36 | 2 | 27 | 14 | 15 | 60 | 105 |

INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
Block Diagram

| CHANGE by | XXX | DATE | 21-OCT-2002 | SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
|---|---|---|---|---|---|---|---|
| PCB P/N | 60xxxxxxxxxx | PCB VER | XXX | | | SHEET 18 of 85 | |

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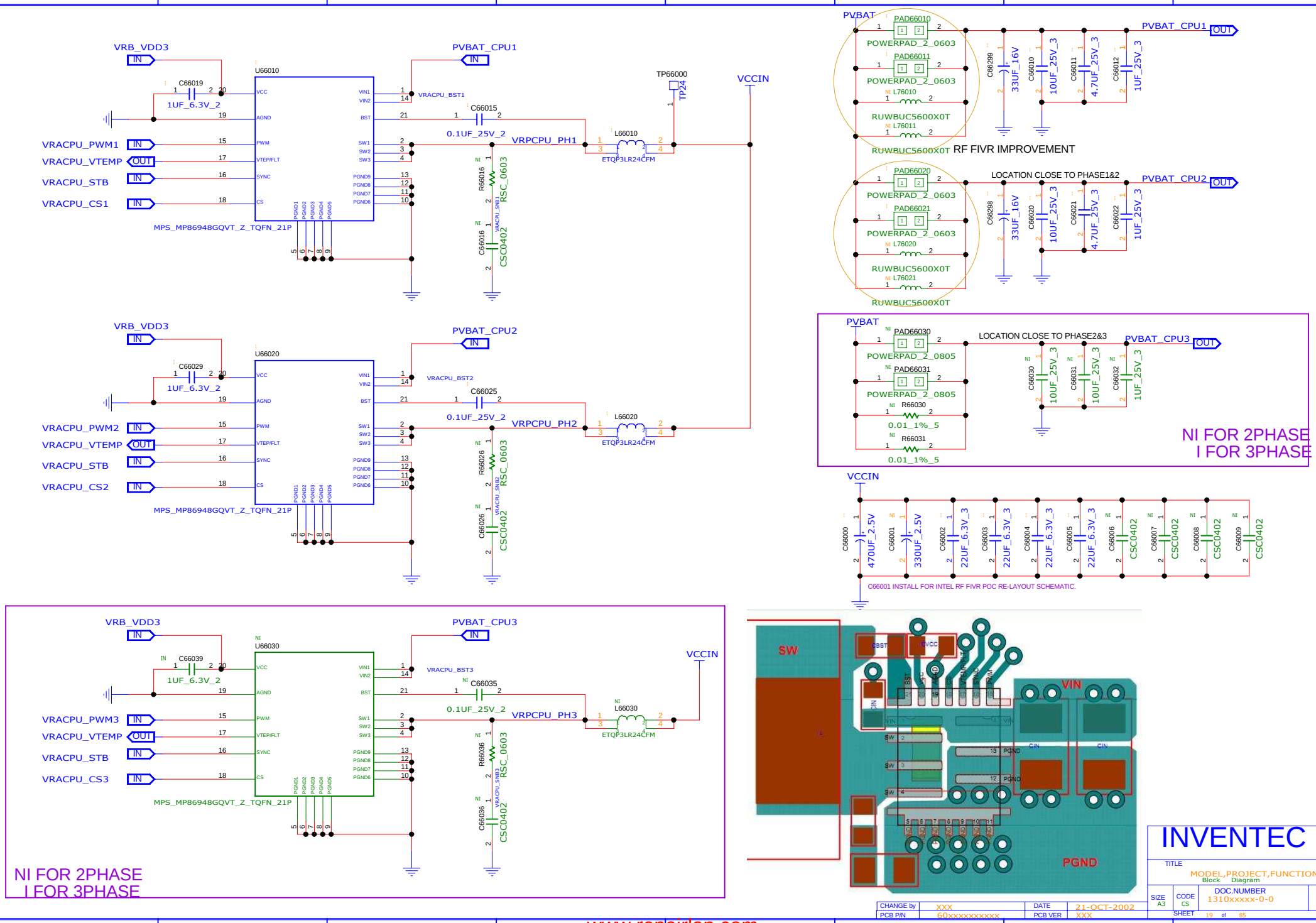


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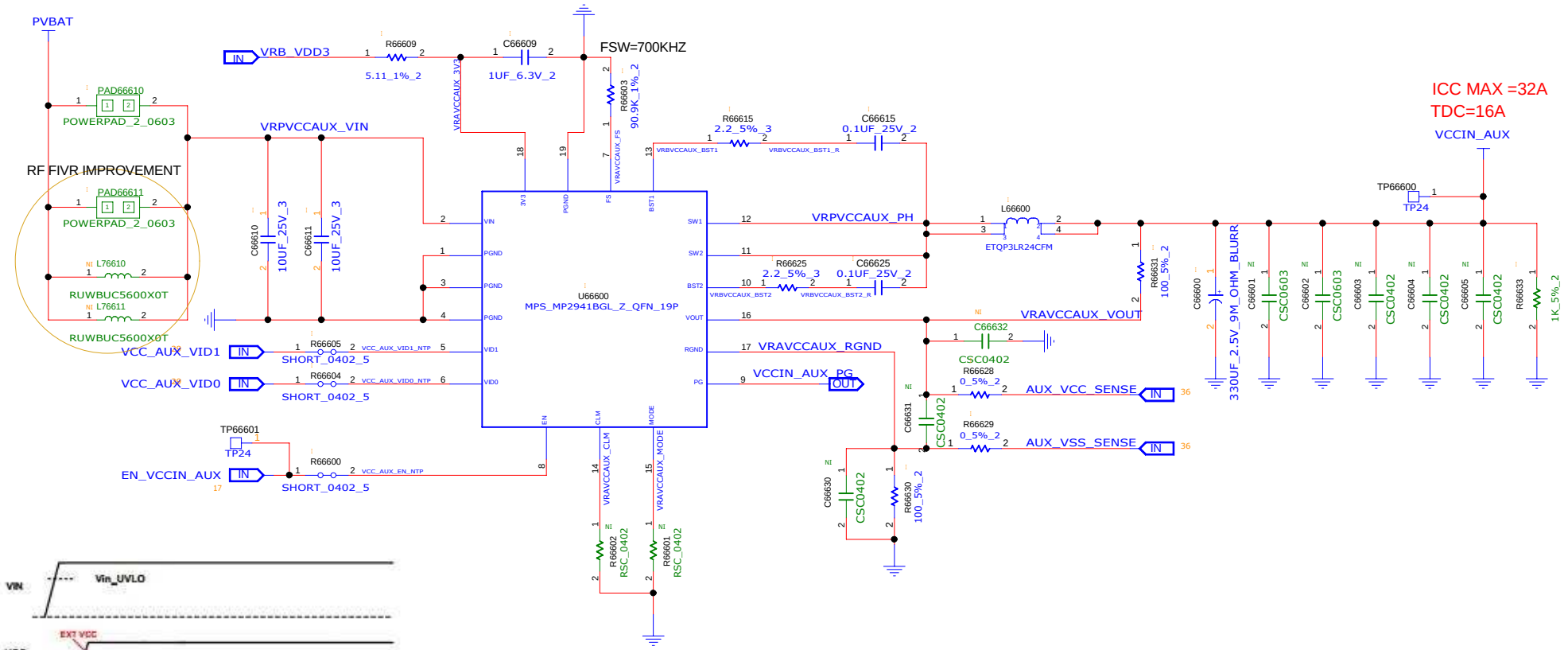


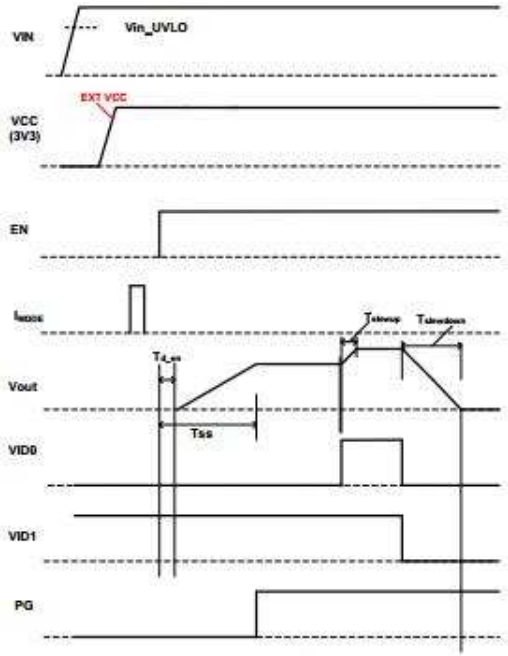


Figure 4—Start-up power sequence

**Table 1—MODE Select**

| State | Interleaving | VID Down | Resistor to GND |
|---|---|---|---|
| M1 | N | Slew down | 0 |
| M2 | Y | Slew down | 90 K |
| M3 | Y | Decay | 150 K |
| M4 | N | Decay | >230 K or float |

**Table 2—FS Selection**

| State | Fs | Resistor to GND |
|---|---|---|
| M1 | 500kHz | 0 |
| M2 | 700kHz | 90 K |
| M3 | 1000kHz | 150 K |
| M4 | 1200kHz | >230 K or float |

**Table 3—VID control Bit logics**

| VID1 | VID0 | VOUT(V) |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 1.1 |
| 1 | 0 | 1.65 |
| 1 | 1 | 1.8 |

**Table 4—CLM/Phase Selection**

| State | CLM | Resistor to GND |
|---|---|---|
| M1 | 7A | 0 |
| M2 | 10A | 90 K |
| M3 | 13A | 150 K |
| M4 | 16A | >230 K or float |

INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
PVCCGT

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

SHEET 20 of 85

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

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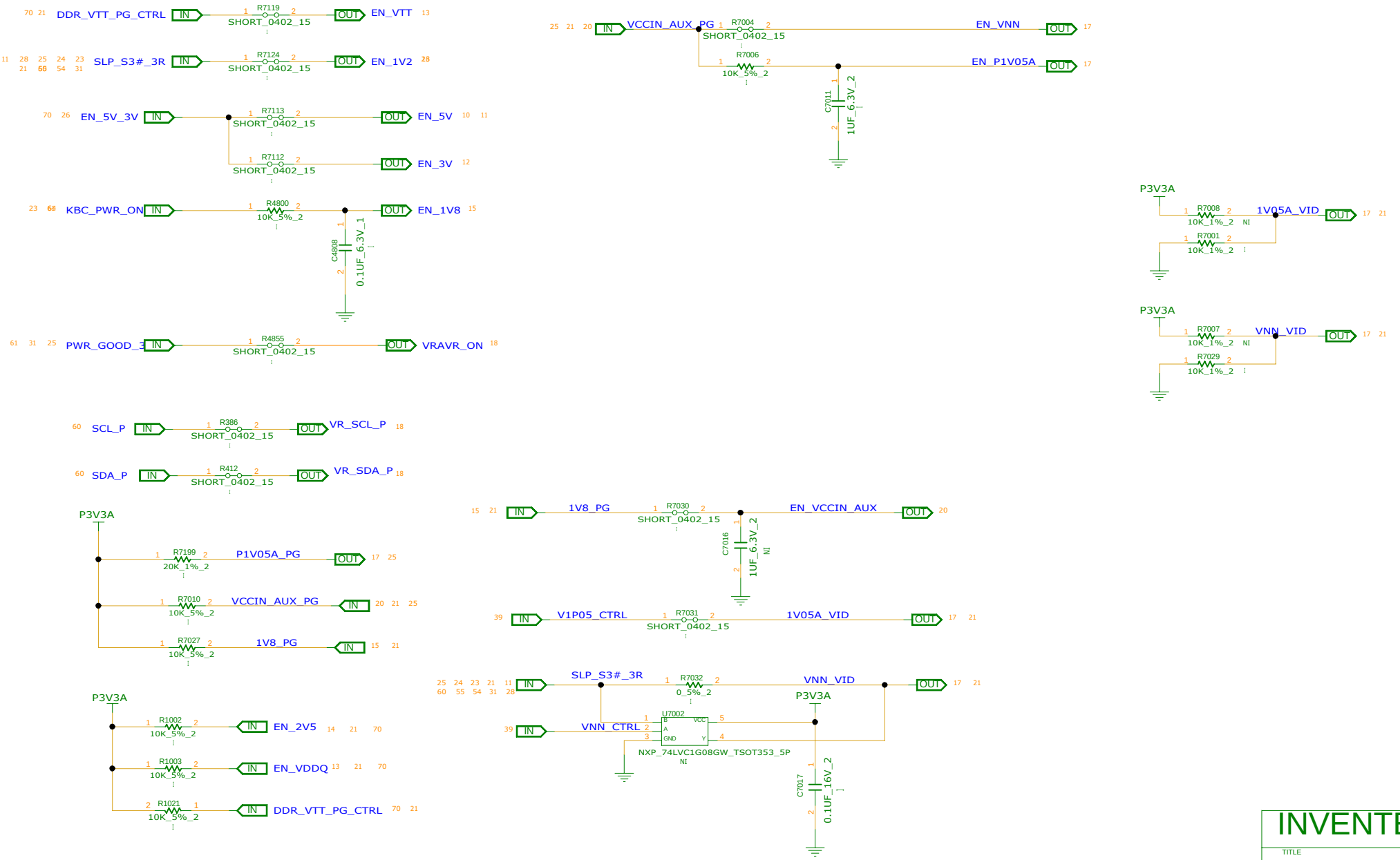
# POWER ENABLE SIGNAL

## POWER TO EE NET NAME CONNECTION




LOCATION NUMER : 7000~7499

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

INVENTEC

TITLE: MODEL PROJECT FUNCTION
POWER ENABLE SIGNALS

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

SHEET 21 of 85

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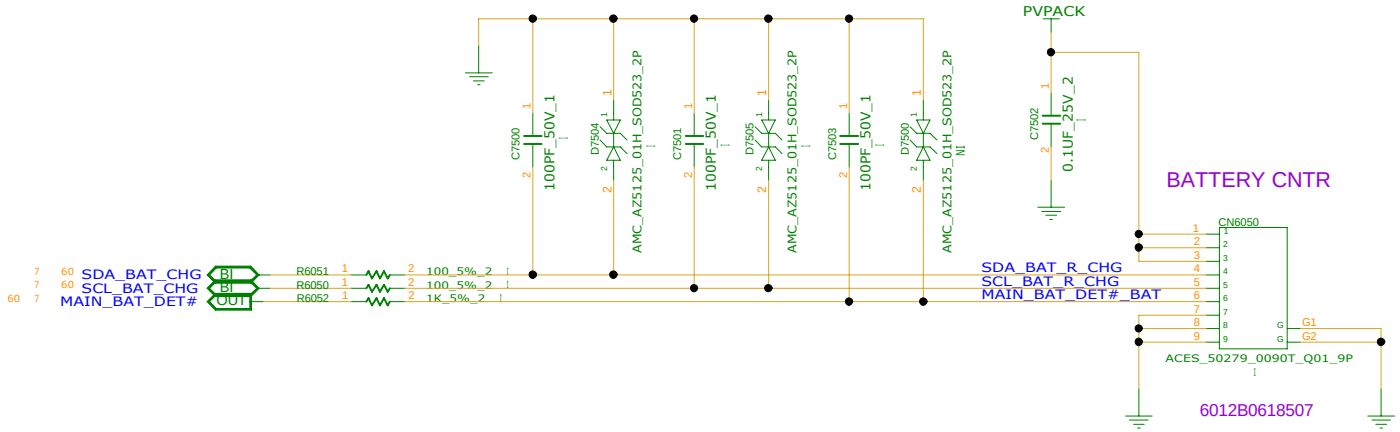
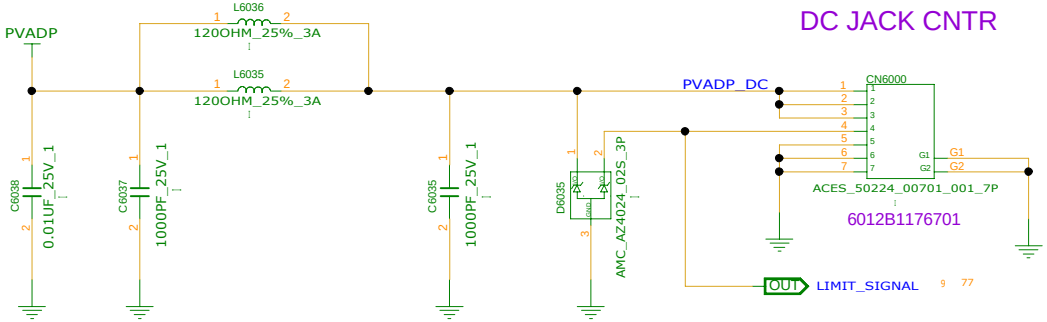



LOCATION NUMER : 6050~6099




LOCATION NUMER : 6000~6049

INVENTEC

TITLE
MODEL PROJECT FUNCTION
DC JACK & BATTERY CONN

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

SHEET 22 of 85

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

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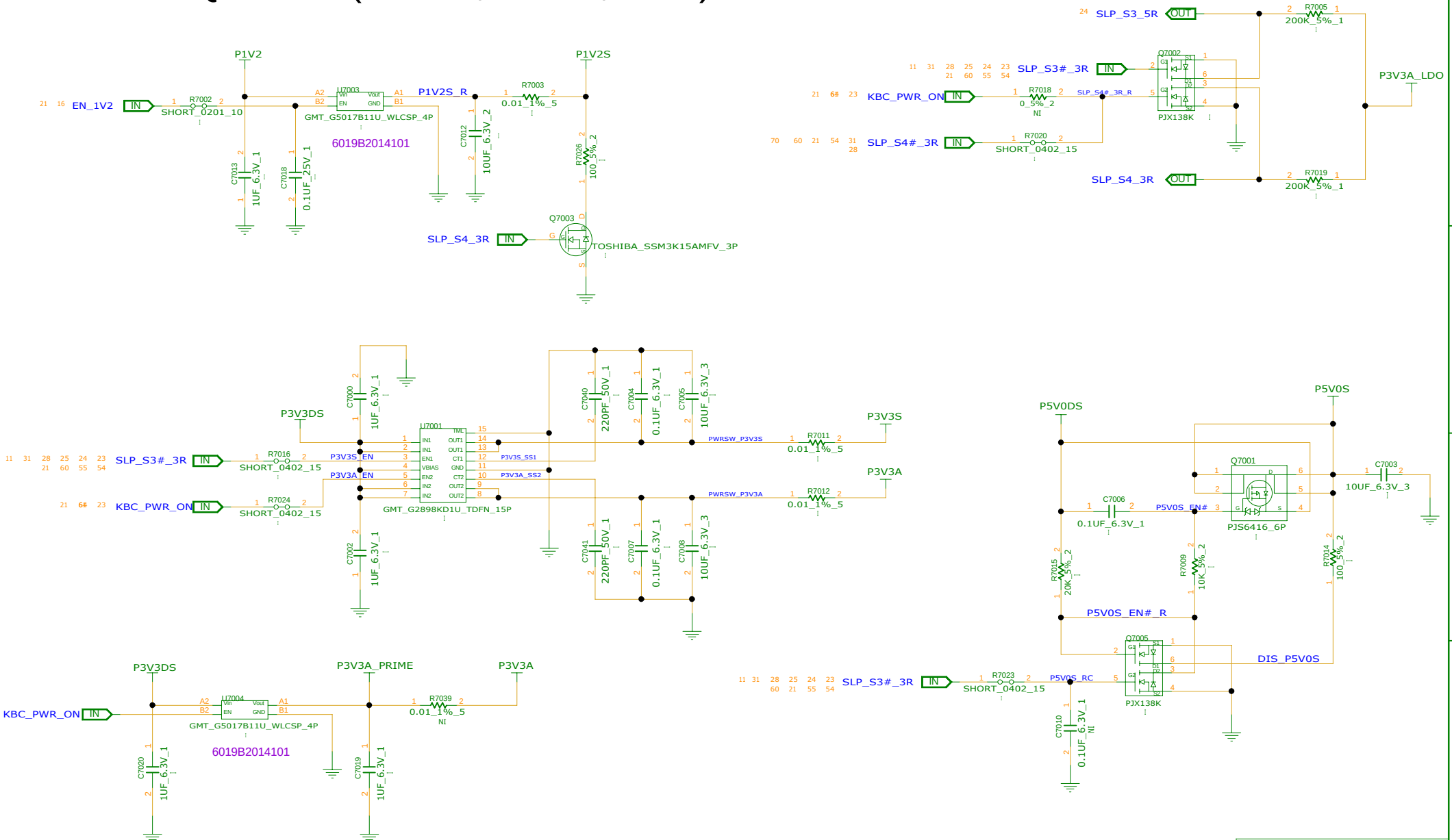
# POWER SEQUENCE(P3V3S,P5V0S,P1V2)




LOCATION NUMER : 7000~7499

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

INVENTEC

TITLE: MODEL PROJECT FUNCTION
POWER SEQUENCE (P3V3,P5V0,P1V2)

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

SHEET 23 of 85

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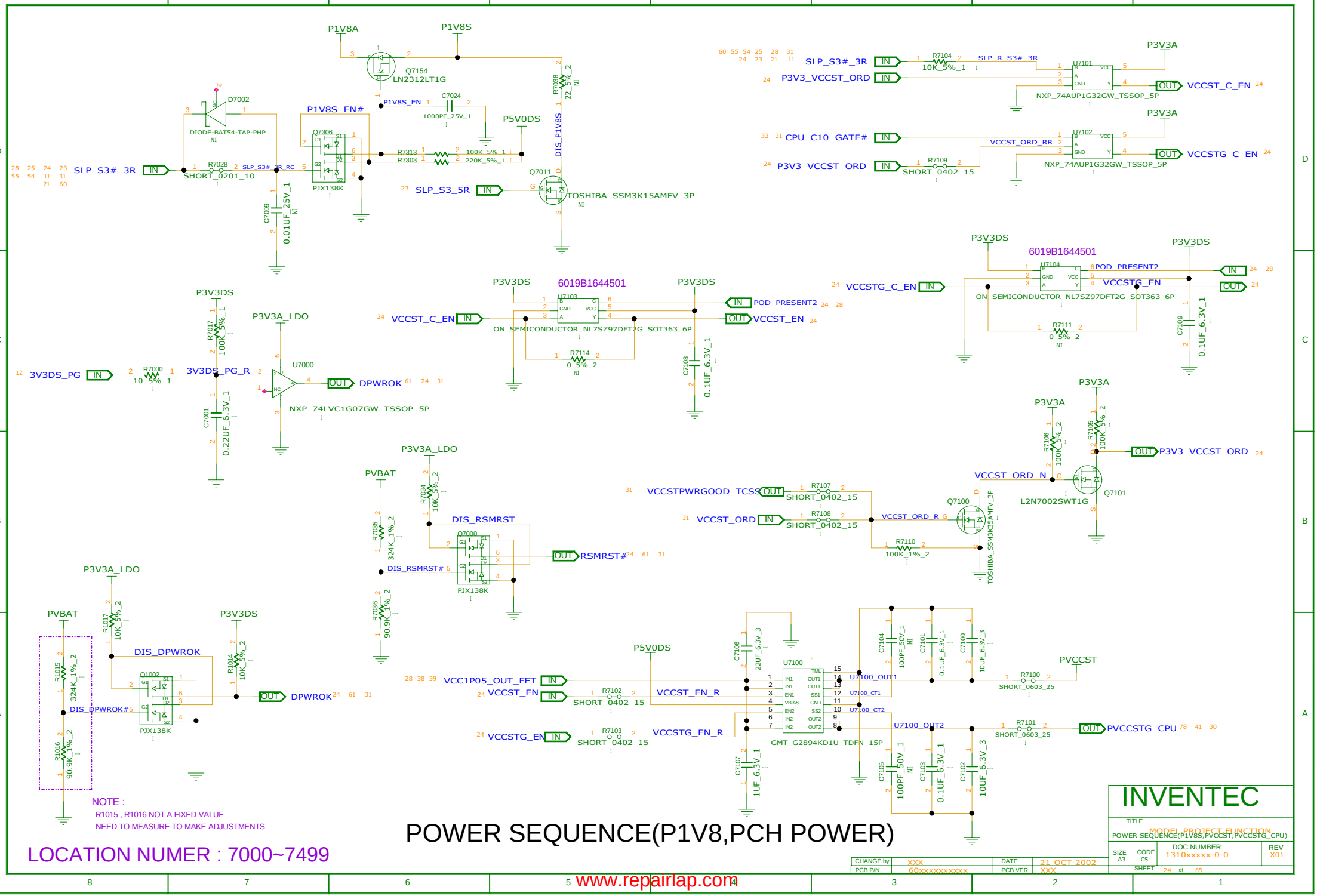
P1V8A
P1V8S
Q7154
LN2312LT1G
D7002
DIODE-BAT54-TAP-PHP
NI
P1V8S_EN#
P1V8S_EN
C7024
1000PF_25V_1
P5V0DS
R7038
22_5%_2
DIS_P1V8S
SLP_S3#_3R
IN
R7028
SHORT_0201_10
SLP_S3#_3R_RC
Q7306
PJX138K
R7313
R7303
100K_5%_1
220K_5%_1
C7009
0.01UF_25V_1
NI
SLP_S3_5R
Q7011
TOSHIBA_SSM3K15AMFV_3P
P3V3A
SLP_S3#_3R
R7104
10K_5%_1
SLP_R_S3#_3R
U7101
NXP_74AUP1G32GW_TSSOP_5P
P3V3_VCCST_ORD
VCCST_C_EN
CPU_C10_GATE#
VCCST_ORD_RR
U7102
R7109
SHORT_0402_15
VCCSTG_C_EN
P3V3DS
6019B1644501
U7104
POD_PRESENT2
VCCSTG_EN
ON_SEMICONDUCTOR_NL7SZ97DFT2G_SOT363_6P
R7111
0_5%_2
C7109
0.1UF_6.3V_1
P3V3DS
P3V3A_LDO
R7017
100K_5%_1
3V3DS_PG
R7000
10_5%_1
3V3DS_PG_R
U7000
DPWROK
NXP_74LVC1G07GW_TSSOP_5P
C7001
0.22UF_6.3V_1
VCCST_C_EN
U7103
POD_PRESENT2
VCCST_EN
ON_SEMICONDUCTOR_NL7SZ97DFT2G_SOT363_6P
R7114
0_5%_2
C7108
0.1UF_6.3V_1
P3V3A
R7106
100K_5%_2
R7105
100K_5%_2
P3V3_VCCST_ORD
VCCST_ORD_N
Q7101
L2N7002SWT1G
VCCSTPWRGOOD_TCSS
R7107
SHORT_0402_15
VCCST_ORD
R7108
VCCST_ORD_R
Q7100
TOSHIBA_SSM3K35AMFV_3P
R7110
100K_1%_2
P3V3A_LDO
PVBAT
R7034
10K_5%_2
R7035
324K_1%_2
DIS_RSMRST
Q7000
PJX138K
RSMRST#
DIS_RSMRST#
R7036
90.9K_1%_2
P3V3A_LDO
PVBAT
R1017
10K_5%_2
P3V3DS
DIS_DPWROK
R1015
324K_1%_2
DIS_DPWROK#
Q1002
PJX138K
R1034
10K_5%_2
DPWROK
R1016
90.9K_1%_2
P5V0DS
VCC1P05_OUT_FET
VCCST_EN
R7102
SHORT_0402_15
VCCST_EN_R
VCCSTG_EN
R7103
VCCSTG_EN_R
U7100
GMT_G2894KD1U_TDFN_15P
U7100_OUT1
U7100_CT1
U7100_CT2
U7100_OUT2
C7106
22UF_6.3V_3
C7104
100PF_50V_1
NI
C7101
0.1UF_6.3V_1
C7100
10UF_6.3V_3
C7107
1UF_6.3V_1
C7105
100PF_50V_1
NI
C7103
0.1UF_6.3V_1
C7102
10UF_6.3V_3
PVCCST
R7100
SHORT_0603_25
R7101
SHORT_0603_25
PVCCSTG_CPU
NOTE :
R1015 , R1016 NOT A FIXED VALUE
NEED TO MEASURE TO MAKE ADJUSTMENTS
LOCATION NUMER : 7000~7499
POWER SEQUENCE(P1V8,PCH POWER)
INVENTEC
TITLE
MODEL PROJECT FUNCTION
POWER SEQUENCE(P1V8S,PVCCST,PVCCSTG_CPU)
SIZE A3
CODE CS
DOC.NUMBER 1310xxxxx-0-0
REV X01
SHEET 24 of 85
CHANGE by XXX
PCB P/N 60xxxxxxxxx
DATE 21-OCT-2002
PCB VER XXX
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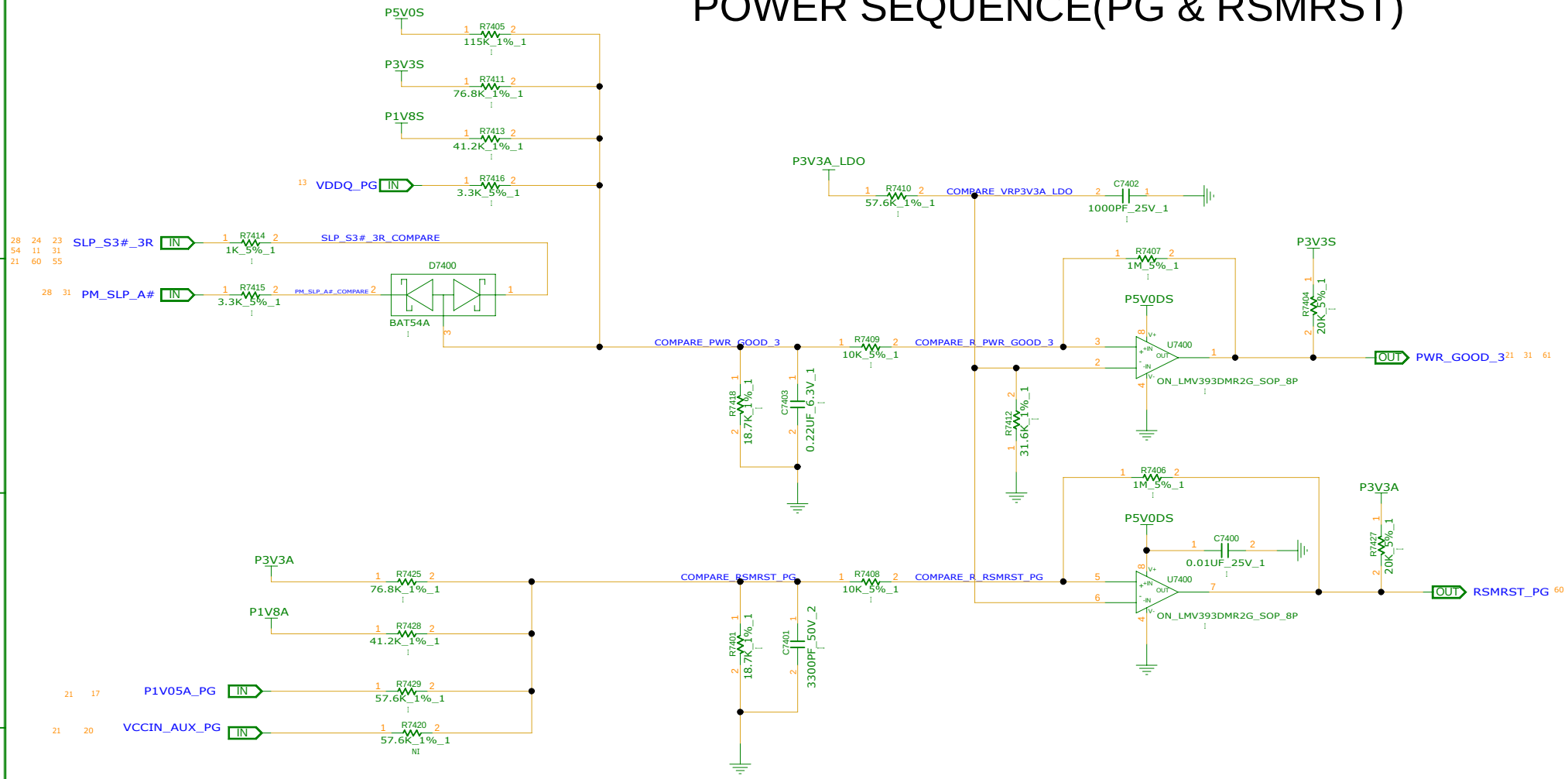
# POWER SEQUENCE(PG & RSMRST)




LOCATION NUMER : 7000~7499

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

INVENTEC

TITLE: MODEL_PROJECT_FUNCTION
POWER SEQUENCE(PG & RSMRST)

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

SHEET 25 of 85

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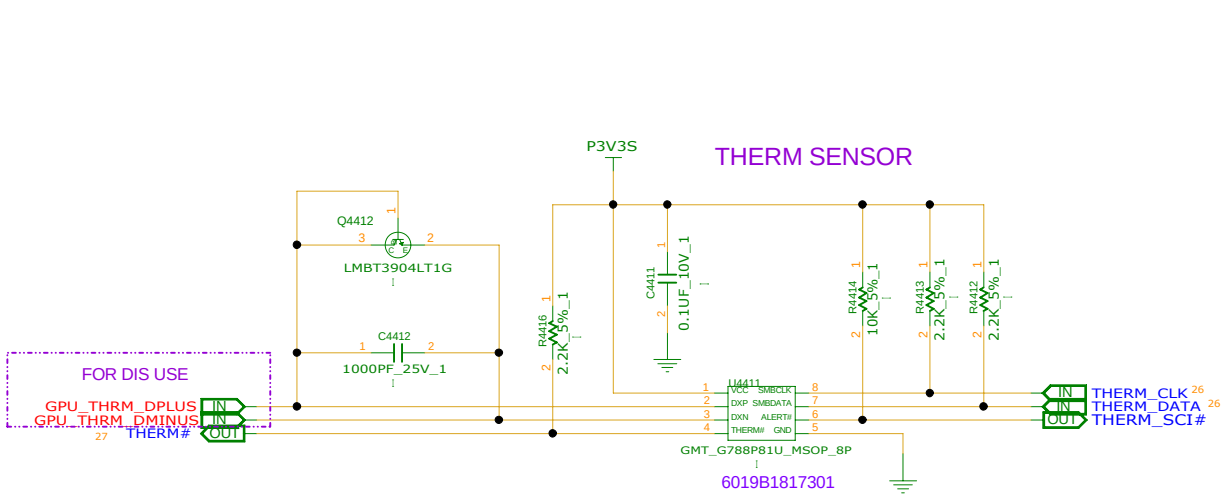
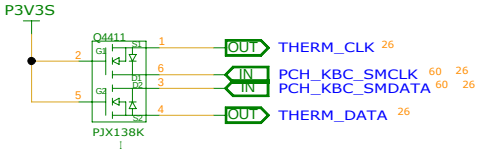
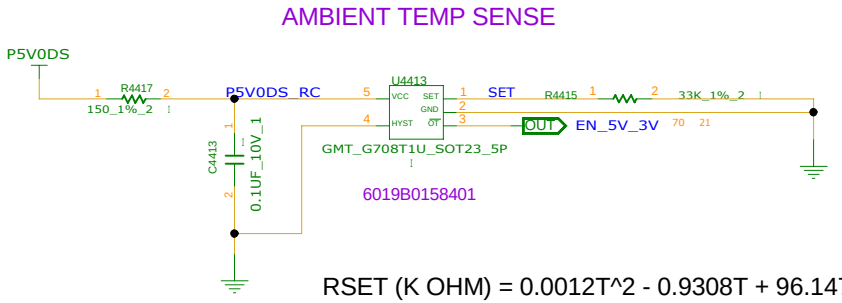
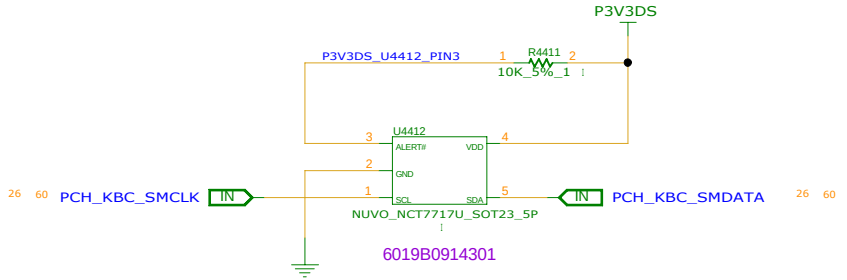
# THERMAL




RSET (K OHM) = 0.0012T^2 - 0.9308T + 96.147

THERMAL SHUTDOWN AT 75 DEG.

LOCATION NUMBER:4411~4449

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

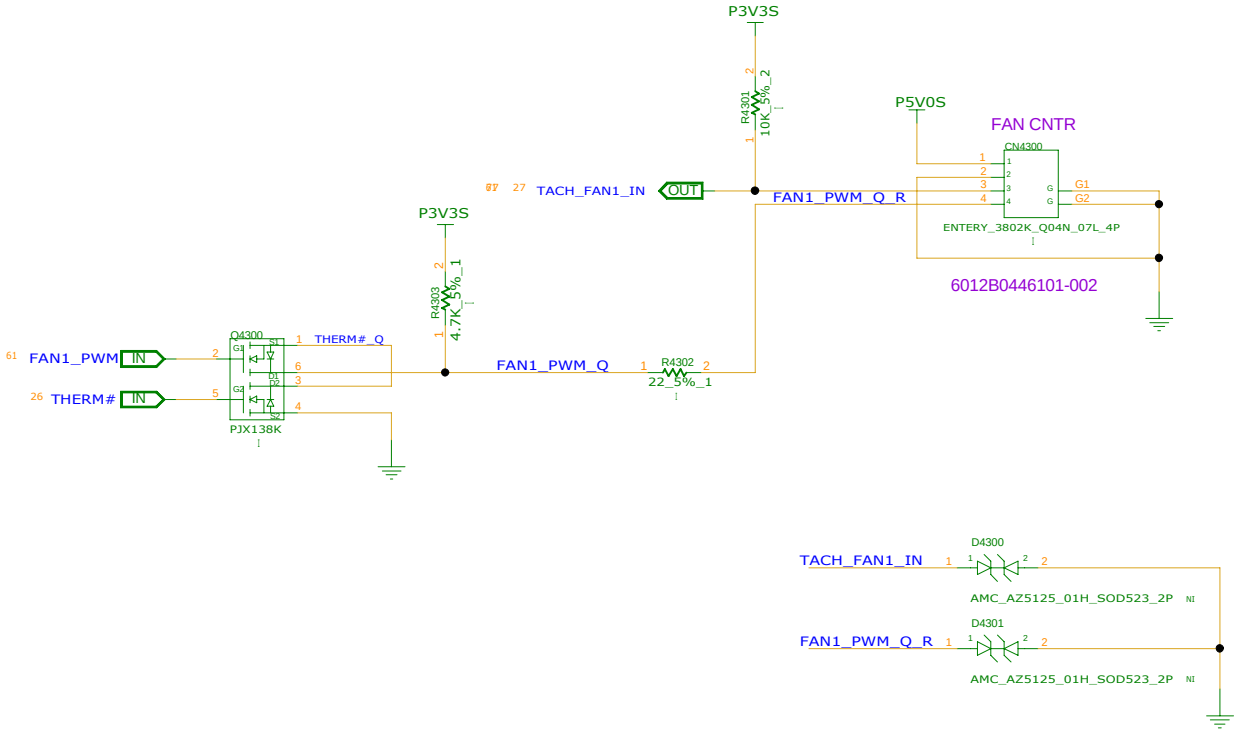
INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
THERMAL

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

SHEET 26 of 85

# FAN CONN




LOCATION NUMBER:4300~4349

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

INVENTEC

TITLE: MODEL_PROJECT,FUNCTION
FAN_CONN

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

SHEET 27 of 85

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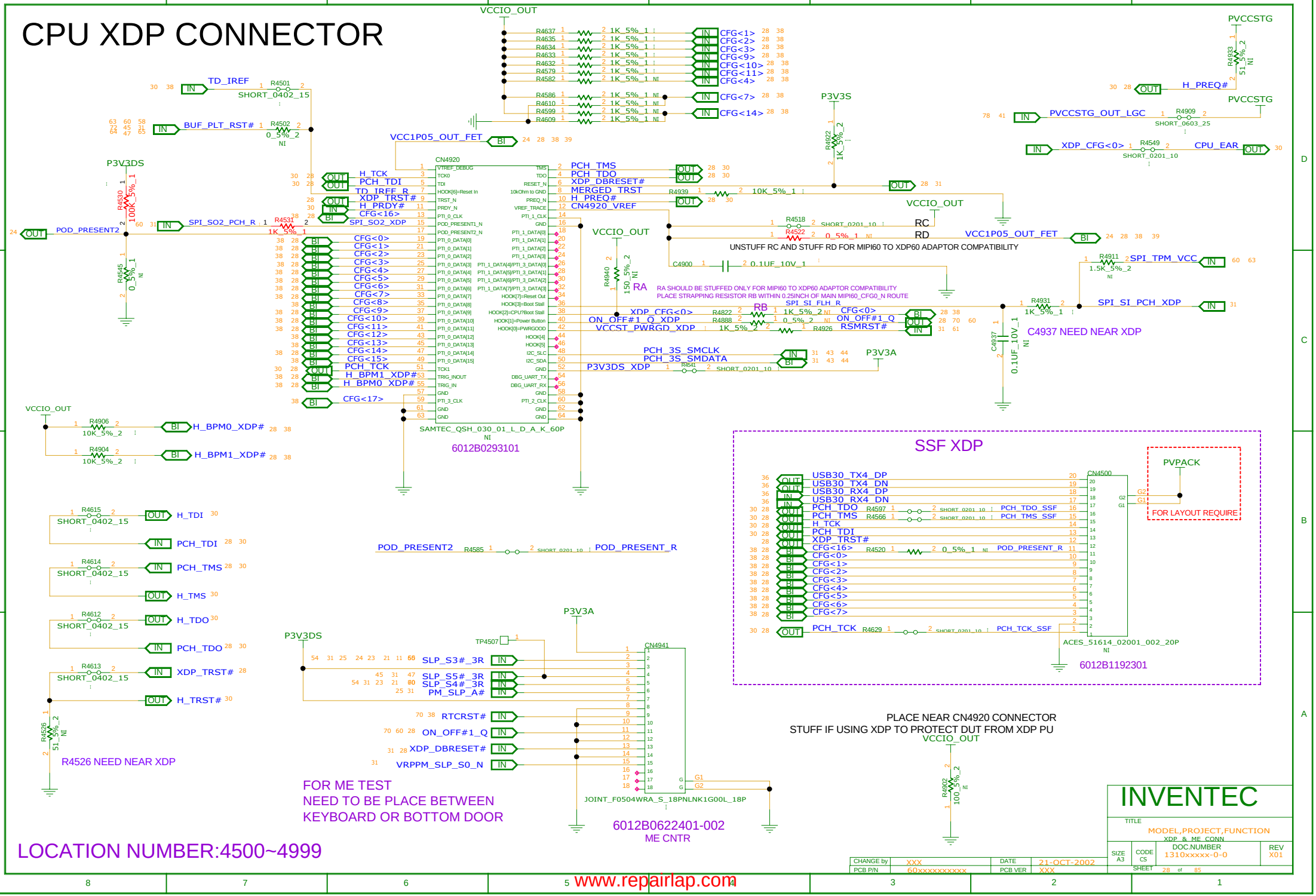
# CPU XDP CONNECTOR




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

INVENTEC

| | | | |
|---|---|---|---|
| TITLE | MODEL,PROJECT,FUNCTION | | |
| | XDP & ME CONN | | |
| SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
| SHEET 28 of 85 | | | |

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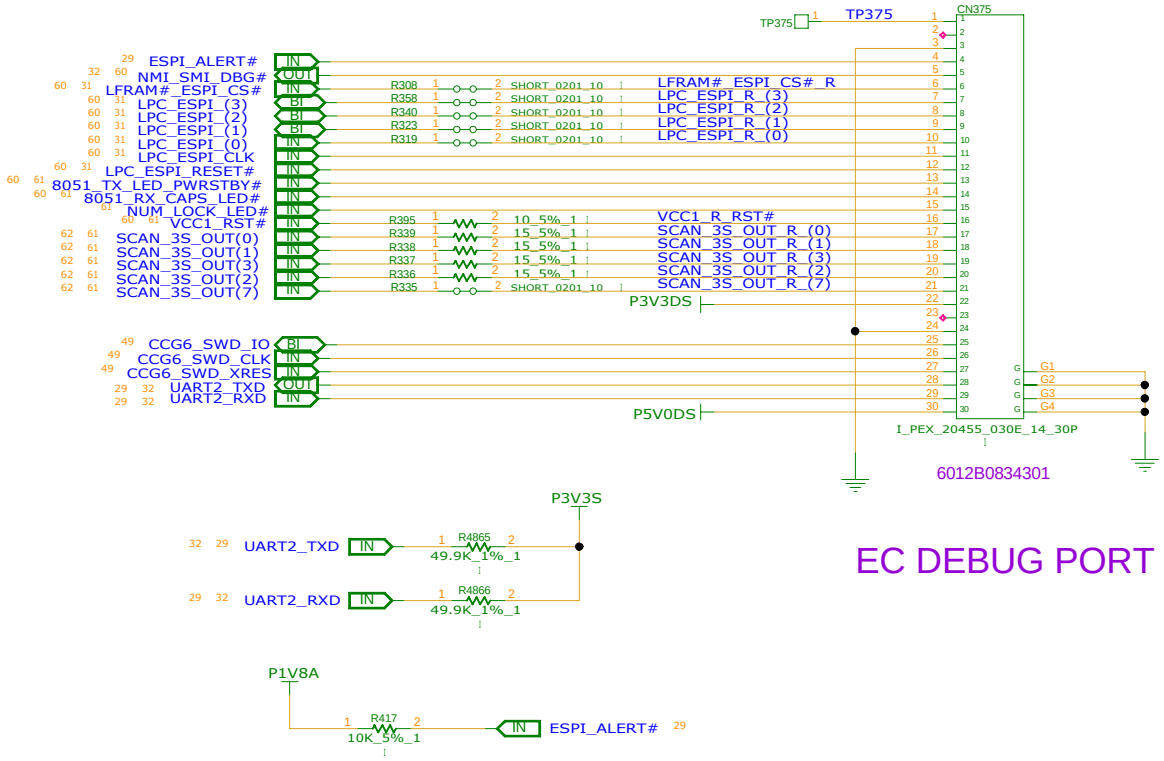


# EC DEBUG PORT

LOCATION NUMBER:400~449

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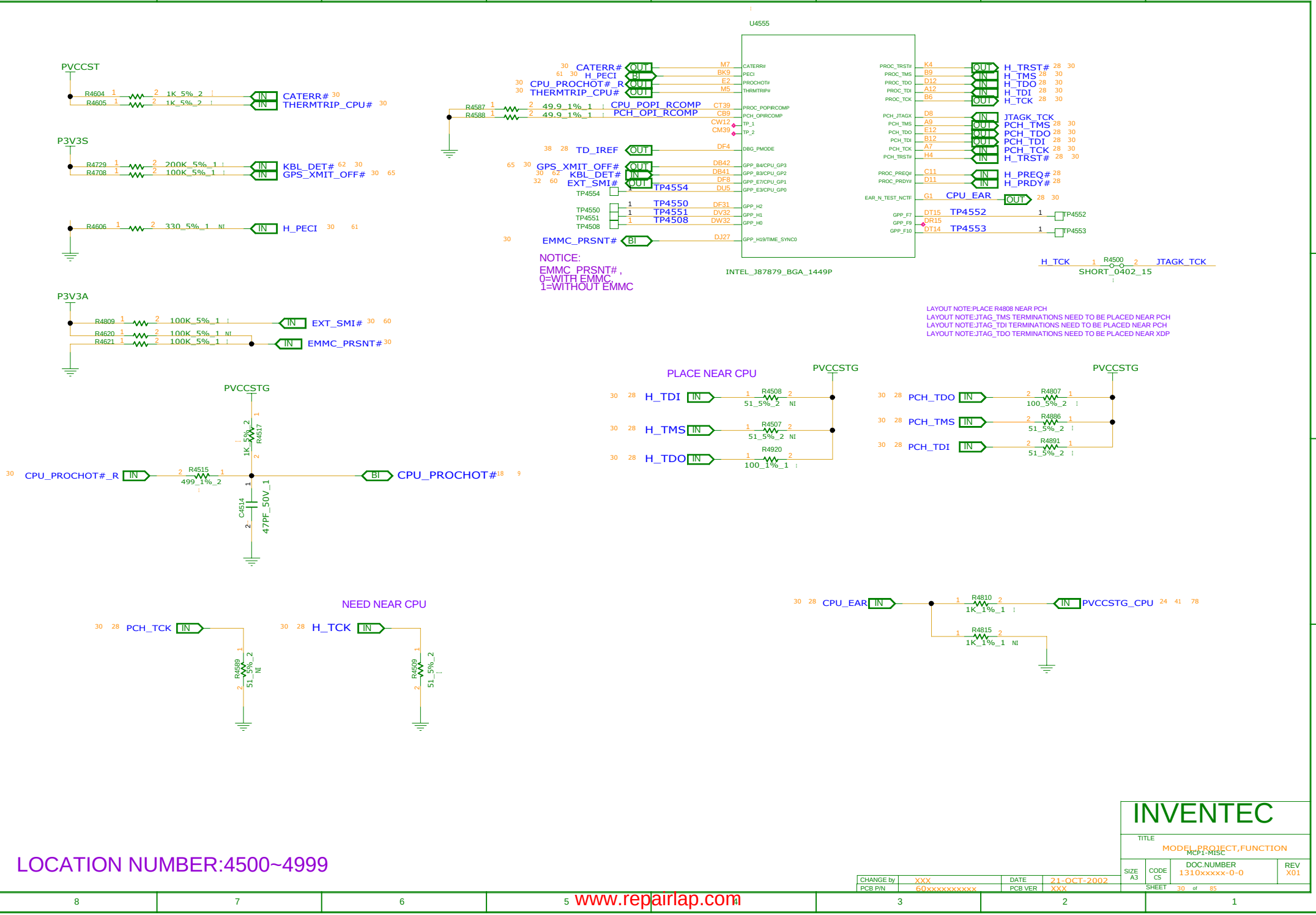
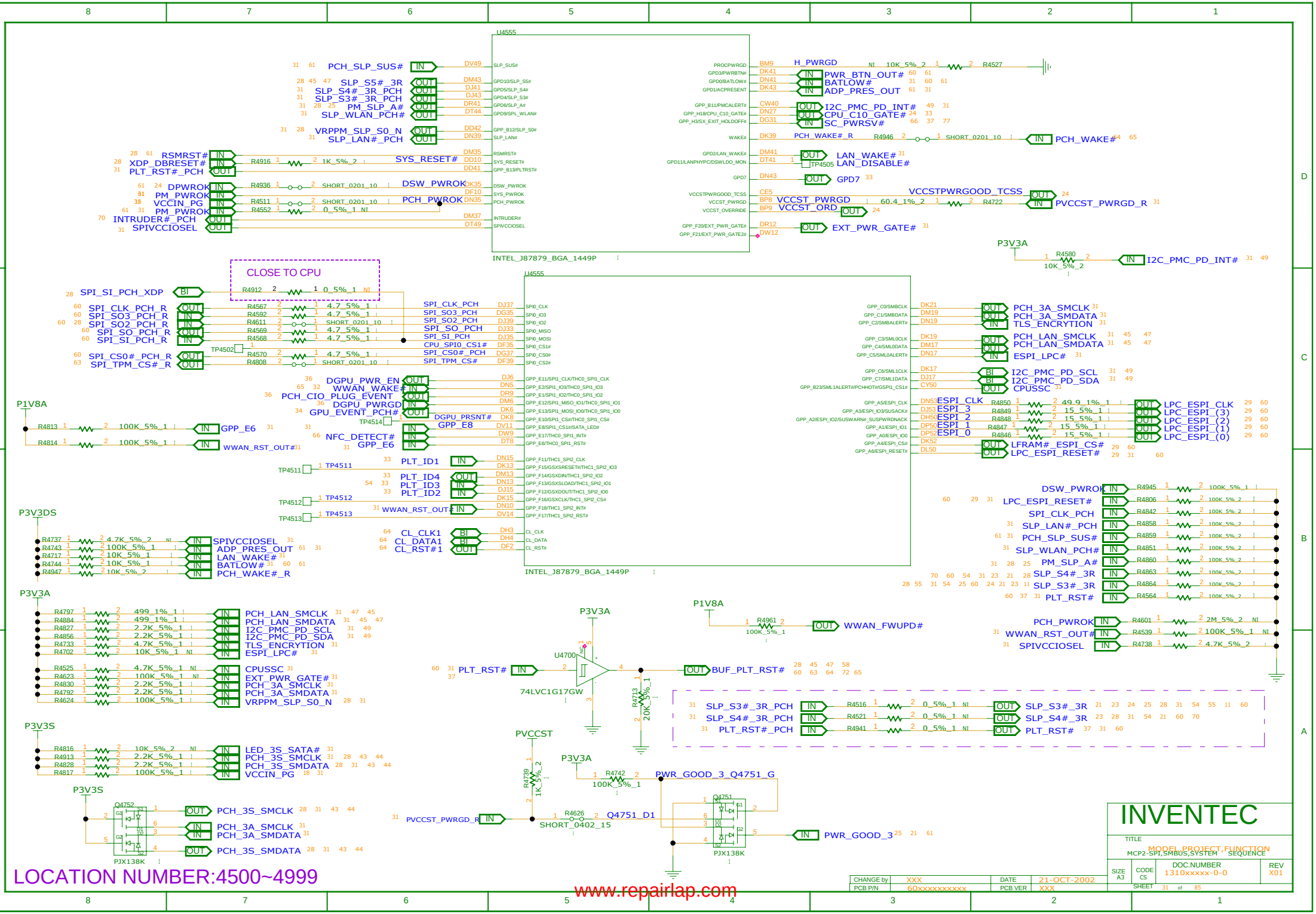
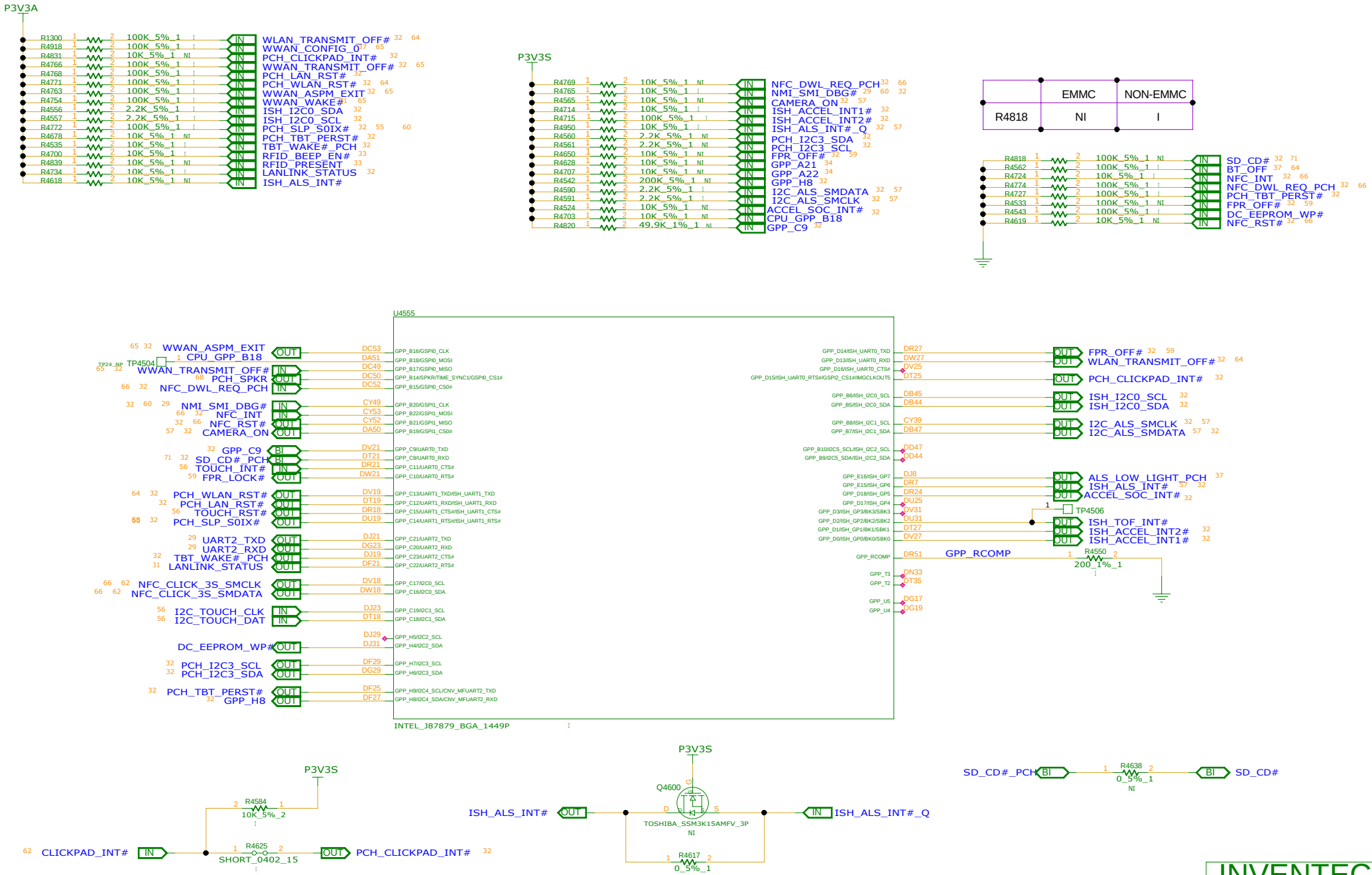
INVENTEC

| | | | |
|---|---|---|---|
| TITLE | MODEL_PROJECT,FUNCTION DEBUG_CONN | | |
| SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
| SHEET 29 of 85 | | | |

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


PVCCST
R4604 1K_5%_2
R4605 1K_5%_2
CATERR# 30
THERMTRIP_CPU# 30
P3V3S
R4729 200K_5%_1
R4708 100K_5%_1
KBL_DET# 62 30
GPS_XMIT_OFF# 30 65
R4606 330_5%_1 NI
H_PECI 30 61
P3V3A
R4809 100K_5%_1
R4620 100K_5%_1 NI
R4621 100K_5%_1
EXT_SMI# 30 60
EMMC_PRSNT# 30
PVCCSTG
R4517 1K_5%_2
R4515 499_1%_2
C4514 47PF_50V_1
30 CPU_PROCHOT#_R
CPU_PROCHOT# 18 9
NEED NEAR CPU
30 28 PCH_TCK
R4599 51_5%_2 NI
30 28 H_TCK
R4509 51_5%_2
U4555
30 CATERR#
61 30 H_PECI
30 CPU_PROCHOT#_R
30 THERMTRIP_CPU#
R4587 49.9_1%_1 CPU_POPI_RCOMP
R4588 49.9_1%_1 PCH_OPI_RCOMP
38 28 TD_IREF
65 30 GPS_XMIT_OFF#
30 62 KBL_DET#
32 60 EXT_SMI#
TP4554
TP4550
TP4551
TP4508
30 EMMC_PRSNT#
NOTICE:
EMMC_PRSNT# ,
0=WITH EMMC,
1=WITHOUT EMMC
INTEL_J87879_BGA_1449P
PROC_TRST# H_TRST# 28 30
PROC_TMS H_TMS 28 30
PROC_TDO H_TDO 28 30
PROC_TDI H_TDI 28 30
PROC_TCK H_TCK 28 30
PCH_JTAGX JTAGK_TCK
PCH_TMS PCH_TMS 28 30
PCH_TDO PCH_TDO 28 30
PCH_TDI PCH_TDI 28 30
PCH_TCK PCH_TCK 28 30
PCH_TRST# H_TRST# 28 30
PROC_PREQ# H_PREQ# 28
PROC_PRDY# H_PRDY# 28
EAR_N_TEST_NCTF CPU_EAR 28 30
GPP_F7 TP4552
GPP_F9 DR15
GPP_F10 TP4553
H_TCK R4500 JTAGK_TCK
SHORT_0402_15
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 XDP
PLACE NEAR CPU
PVCCSTG
30 28 H_TDI R4508 51_5%_2 NI
30 28 H_TMS R4507 51_5%_2 NI
30 28 H_TDO R4920 100_1%_1
PVCCSTG
30 28 PCH_TDO R4807 100_5%_2
30 28 PCH_TMS R4886 51_5%_2
30 28 PCH_TDI R4891 51_5%_2
30 28 CPU_EAR R4810 1K_1%_1
PVCCSTG_CPU 24 41 78
R4815 1K_1%_1 NI
LOCATION NUMBER:4500~4999
INVENTEC
TITLE
MODEL,PROJECT,FUNCTION
MCP1-MISC
SIZE A3
CODE CS
DOC.NUMBER 1310xxxxx-0-0
REV X01
SHEET 30 of 85
CHANGE by XXX
PCB P/N 60xxxxxxxxx
DATE 21-OCT-2002
PCB VER XXX
www.repairlap.com


U4555
INTEL_J87879_BGA_1449P
PCH_SLP_SUS#
SLP_S5#_3R
SLP_S4#_3R_PCH
SLP_S3#_3R_PCH
PM_SLP_A#
SLP_WLAN_PCH#
VRPPM_SLP_S0_N
SLP_LAN#_PCH
RSMRST#
XDP_DBRESET#
PLT_RST#_PCH
SYS_RESET#
DPWROK
PM_PWROK
VCCIN_PG
PCH_PWROK
INTRUDER#_PCH
SPIVCCIOSEL
H_PWRGD
PWR_BTN_OUT#
BATLOW#
ADP_PRES_OUT
I2C_PMC_PD_INT#
CPU_C10_GATE#
SC_PWRSV#
PCH_WAKE#
LAN_WAKE#
LAN_DISABLE#
GPD7
VCCSTPWRGOOD_TCSS
VCCST_PWRGD
VCCST_ORD
PVCCST_PWRGD_R
EXT_PWR_GATE#
DSW_PWROK
CLOSE TO CPU
SPI_SI_PCH_XDP
SPI_CLK_PCH_R
SPI_SO3_PCH_R
SPI_SO2_PCH_R
SPI_SO_PCH_R
SPI_SI_PCH_R
SPI_CS0#_PCH_R
SPI_TPM_CS#_R
SPI_CLK_PCH
SPI_SO3_PCH
SPI_SO2_PCH
SPI_SO_PCH
SPI_SI_PCH
CPU_SPI0_CS1#
SPI_CS0#_PCH
SPI_TPM_CS#
P3V3A
I2C_PMC_PD_INT#
P1V8A
GPP_E6
WWAN_RST_OUT#
DGPU_PWR_EN
WWAN_WAKE#
PCH_CIO_PLUG_EVENT
DGPU_PWRGD
GPU_EVENT_PCH#
DGPU_PRSNT#
GPP_E8
NFC_DETECT#
PLT_ID1
PLT_ID4
PLT_ID3
PLT_ID2
WWAN_RST_OUT#
CL_CLK1
CL_DATA1
CL_RST#1
PCH_3A_SMCLK
PCH_3A_SMDATA
TLS_ENCRYTION
ESPI_LPC#
PCH_LAN_SMCLK
PCH_LAN_SMDATA
CPUSSC
LPC_ESPI_CLK
LPC_ESPI_(3)
LPC_ESPI_(2)
LPC_ESPI_(1)
LPC_ESPI_(0)
LFRAM#_ESPI_CS#
LPC_ESPI_RESET#
P3V3DS
SPIVCCIOSEL
ADP_PRES_OUT
LAN_WAKE#
BATLOW#
PCH_WAKE#_R
P3V3A
PCH_LAN_SMCLK
PCH_LAN_SMDATA
I2C_PMC_PD_SCL
I2C_PMC_PD_SDA
TLS_ENCRYTION
ESPI_LPC#
CPUSSC
EXT_PWR_GATE#
PCH_3A_SMCLK
PCH_3A_SMDATA
VRPPM_SLP_S0_N
P3V3S
LED_3S_SATA#
PCH_3S_SMCLK
PCH_3S_SMDATA
VCCIN_PG
P3V3S
PCH_3S_SMCLK
PCH_3A_SMCLK
PCH_3A_SMDATA
PCH_3S_SMDATA
PJX138K
P1V8A
WWAN_FWUPD#
P3V3A
74LVC1G17GW
PLT_RST#
BUF_PLT_RST#
SLP_S3#_3R_PCH
SLP_S4#_3R_PCH
PLT_RST#_PCH
SLP_S3#_3R
SLP_S4#_3R
PLT_RST#
PCH_PWROK
WWAN_RST_OUT#
SPIVCCIOSEL
PVCCST
P3V3A
PWR_GOOD_3_Q4751_G
PVCCST_PWRGD_R
Q4751_D1
PWR_GOOD_3
PJX138K
LOCATION NUMBER:4500~4999
INVENTEC
MODEL_PROJECT_FUNCTION
MCP2-SPI,SMBUS,SYSTEM SEQUENCE
DOC.NUMBER
1310xxxxx-0-0
REV
X01
SIZE A3
SHEET 31 of 85
CHANGE by XXX
DATE 21-OCT-2002
PCB P/N 60xxxxxxxxx
PCB VER XXX
www.repairlap.com




LOCATION NUMBER:4500~4999

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

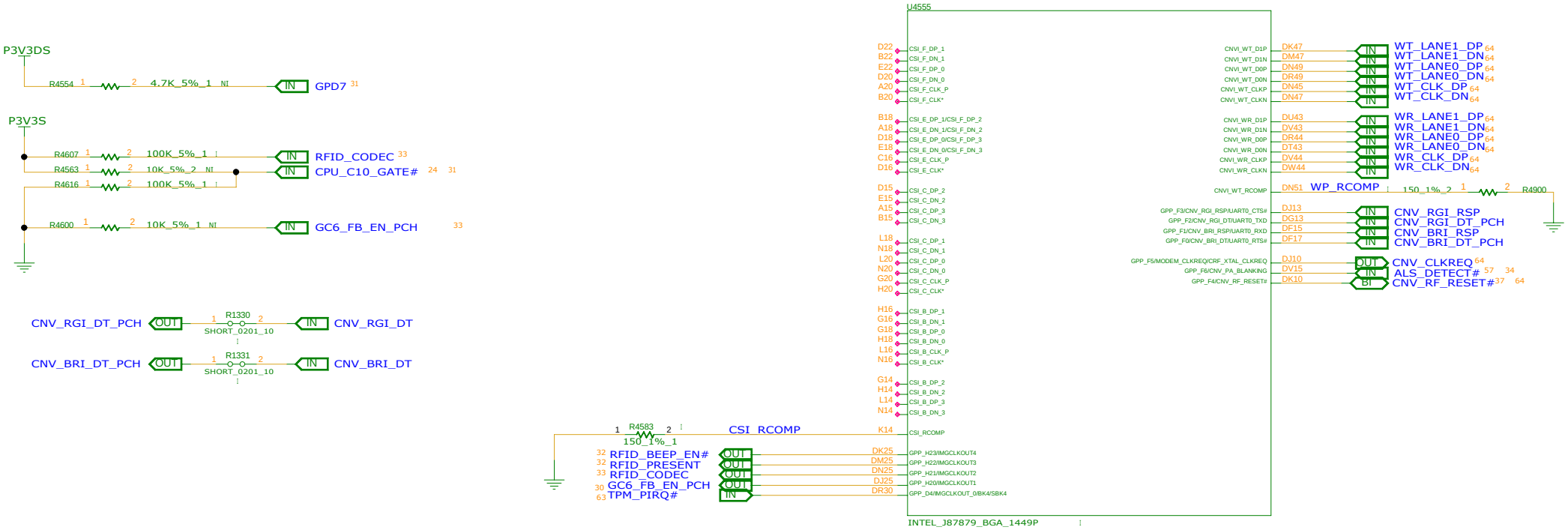
INVENTEC

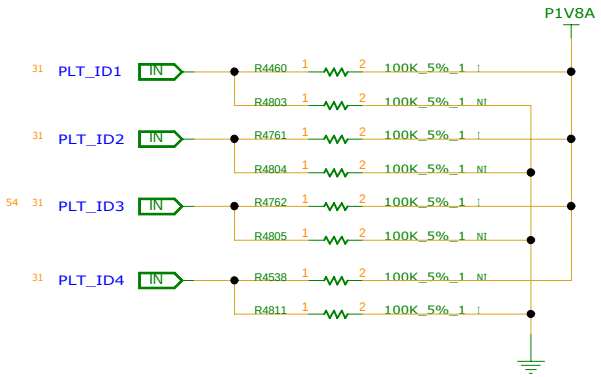
TITLE: MODEL_PROJECT,FUNCTION
MCP3-GPIO

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

SHEET 32 of 85

www.repairlap.com




0:VPRO
1:NON-VPRO

0: 14L
1: 13"&14"P/W

0:13"
1:14"

0:BIOS GROUP 1
1:BIOS GROUP 2

| PLT_ID1 | PLT_ID2 | PLT_ID3 | PLT_ID4 | ALS_DETECT# | EMMC_PRSNT# | |
|---|---|---|---|---|---|---|
| 0 | 0 | 1 | 0 | X | X | CORVETTE UMA 14L VPRO |
| 0 | 1 | 0 | 0 | X | X | CORVETTE UMA 13" VPRO |
| 0 | 1 | 1 | 0 | X | X | CORVETTE UMA 14" VPRO |
| 1 | 0 | 1 | 0 | X | X | CORVETTE UMA 14L NON-VPRO |
| 1 | 1 | 0 | 0 | X | X | CORVETTE UMA 13" NON-VPRO |
| 1 | 1 | 1 | 0 | X | X | CORVETTE UMA 14" NON-VPRO |
| | | | | 1 | X | NON-ALS |
| | | | | 0 | X | ALS |
| | | | | | 1 | NON-EMMC |
| | | | | | 0 | EMMC |

LOCATION NUMBER:4500~4999

INVENTEC

TITLE: MODEL PROJECT FUNCTION
MCP4-GPIO , CNVI

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

SHEET 33 of 85

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

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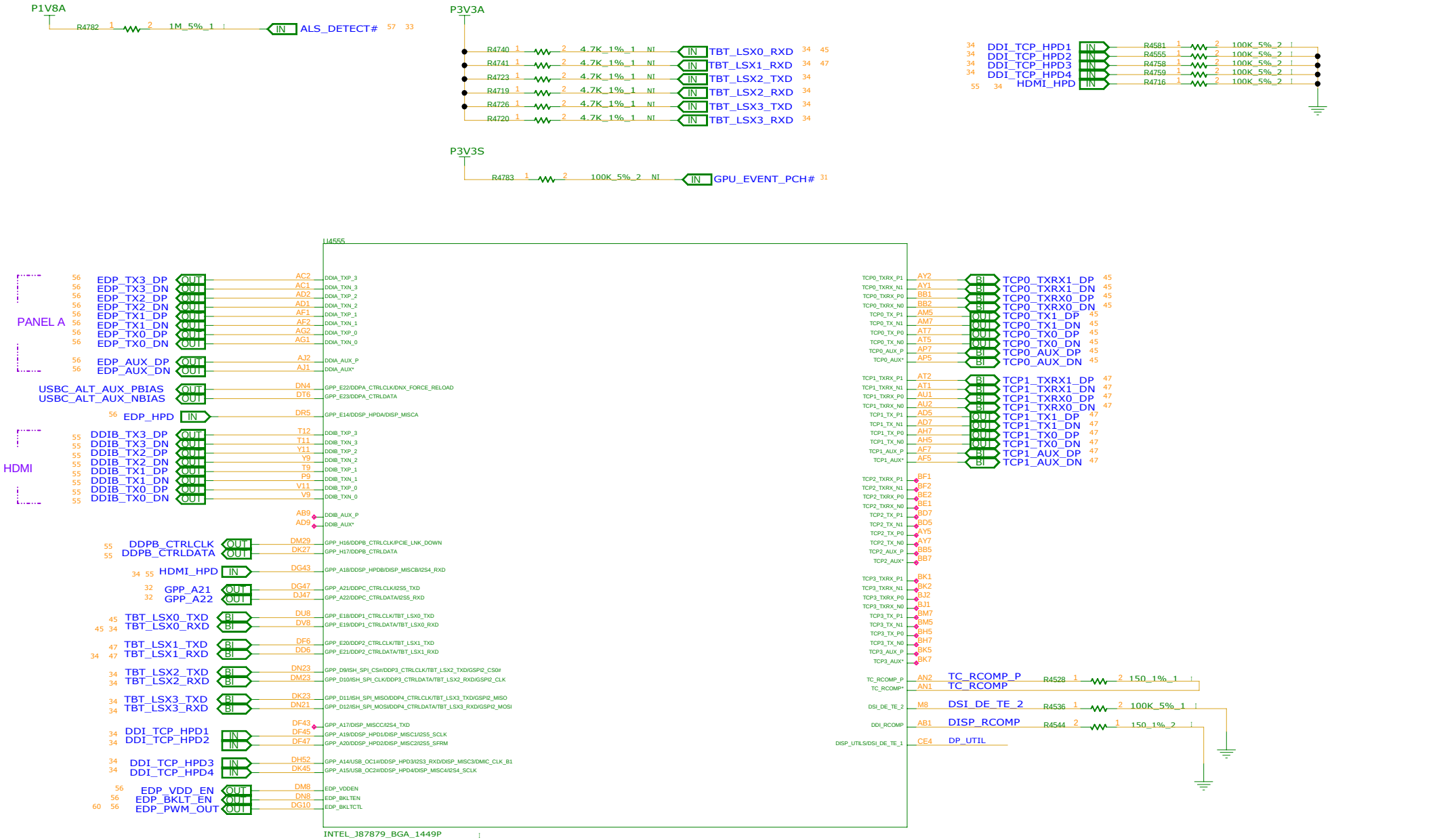



LOCATION NUMBER:4500~4999

www.repairlap.com

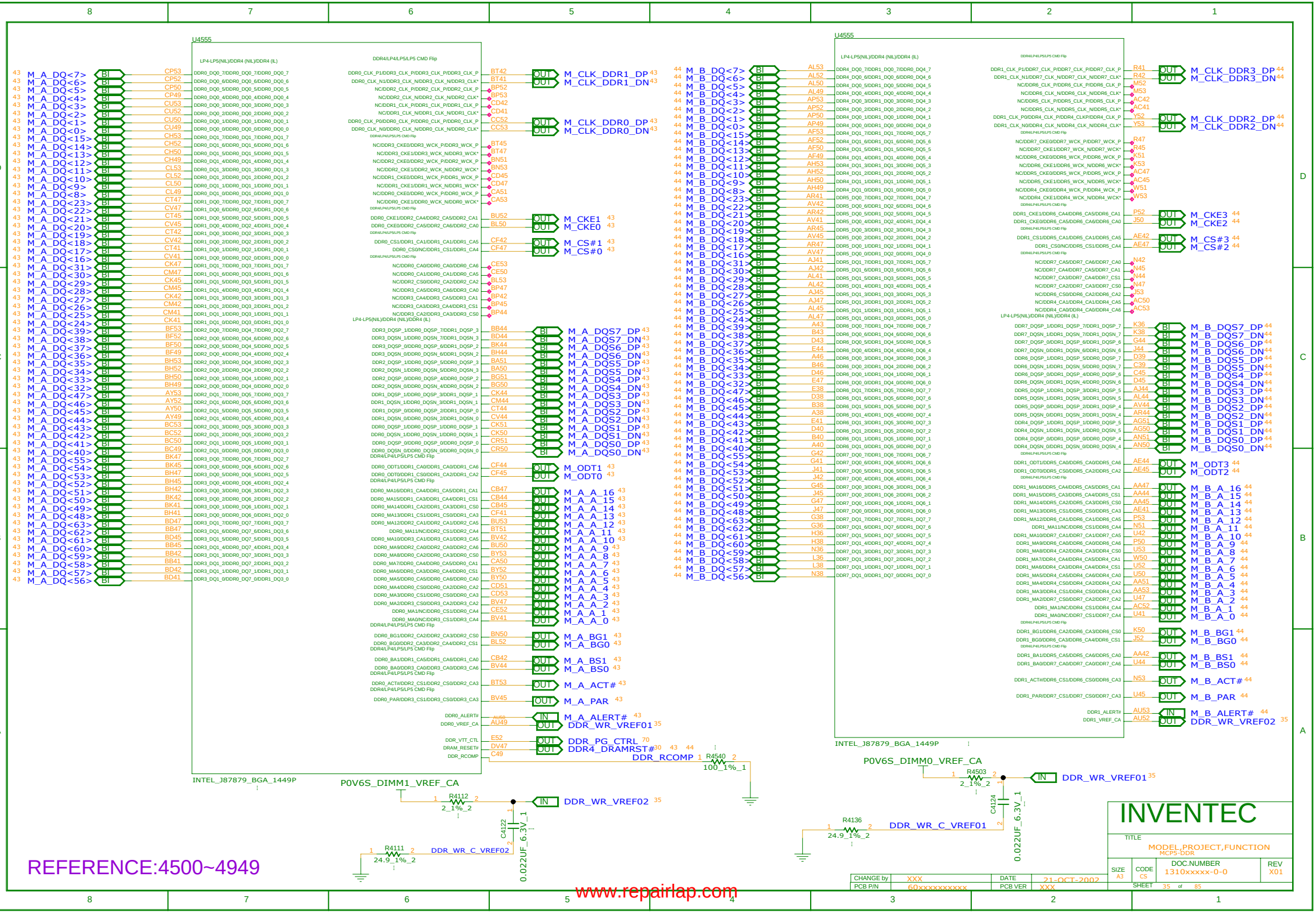
INVENTEC

TITLE: MODEL_PROJECT,FUNCTION
MCP4-DP , TCP

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

SHEET 34 of 85

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


U4555
LP4-LP5(NIL)/DDR4 (NIL)/DDR4 (IL)
DDR4/LP4/LP5/LP5 CMD Flip
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M_A_DQ<6>
M_A_DQ<5>
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M_A_DQS6_DP
M_A_DQS6_DN
M_A_DQS5_DP
M_A_DQS5_DN
M_A_DQS4_DP
M_A_DQS4_DN
M_A_DQS3_DP
M_A_DQS3_DN
M_A_DQS2_DP
M_A_DQS2_DN
M_A_DQS1_DP
M_A_DQS1_DN
M_A_DQS0_DP
M_A_DQS0_DN
M_CLK_DDR1_DP
M_CLK_DDR1_DN
M_CLK_DDR0_DP
M_CLK_DDR0_DN
M_CKE1
M_CKE0
M_CS#1
M_CS#0
M_ODT1
M_ODT0
M_A_A_16
M_A_A_15
M_A_A_14
M_A_A_13
M_A_A_12
M_A_A_11
M_A_A_10
M_A_A_9
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M_A_BG1
M_A_BG0
M_A_BS1
M_A_BS0
M_A_ACT#
M_A_PAR
M_A_ALERT#
DDR_WR_VREF01
DDR_PG_CTRL
DDR4_DRAMRST#
DDR_RCOMP
INTEL_J87879_BGA_1449P
P0V6S_DIMM1_VREF_CA
R4112 2_1%_2
R4111 24.9_1%_2
C4122 0.022UF_6.3V_1
DDR_WR_VREF02
DDR_WR_C_VREF02
R4540 100_1%_1
U4555
LP4-LP5(NIL)/DDR4 (NIL)/DDR4 (IL)
DDR4/LP4/LP5/LP5 CMD Flip
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M_B_DQS7_DN
M_B_DQS6_DP
M_B_DQS6_DN
M_B_DQS5_DP
M_B_DQS5_DN
M_B_DQS4_DP
M_B_DQS4_DN
M_B_DQS3_DP
M_B_DQS3_DN
M_B_DQS2_DP
M_B_DQS2_DN
M_B_DQS1_DP
M_B_DQS1_DN
M_B_DQS0_DP
M_B_DQS0_DN
M_CLK_DDR3_DP
M_CLK_DDR3_DN
M_CLK_DDR2_DP
M_CLK_DDR2_DN
M_CKE3
M_CKE2
M_CS#3
M_CS#2
M_ODT3
M_ODT2
M_B_A_16
M_B_A_15
M_B_A_14
M_B_A_13
M_B_A_12
M_B_A_11
M_B_A_10
M_B_A_9
M_B_A_8
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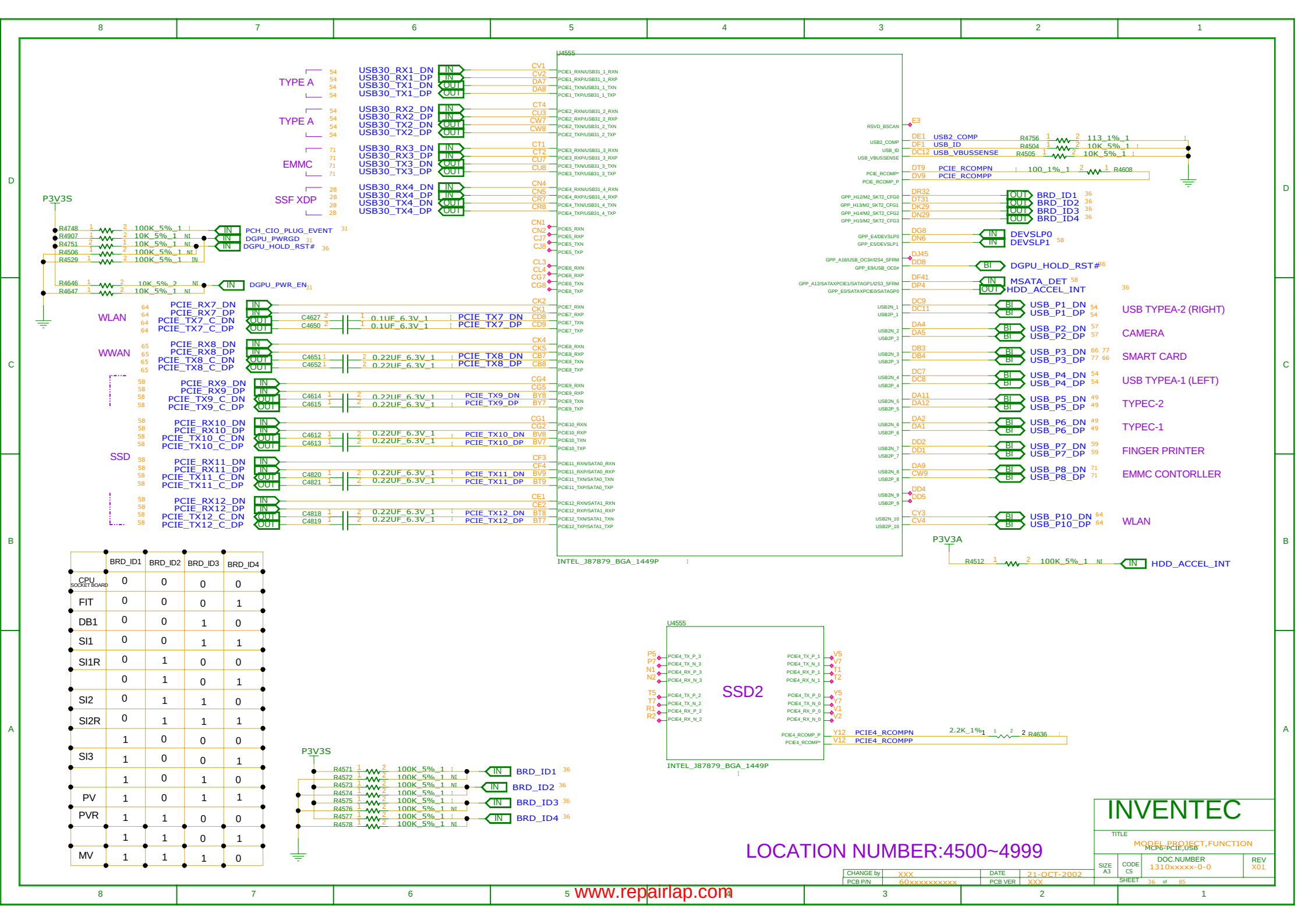
M_B_A_6
M_B_A_5
M_B_A_4
M_B_A_3
M_B_A_2
M_B_A_1
M_B_A_0
M_B_BG1
M_B_BG0
M_B_BS1
M_B_BS0
M_B_ACT#
M_B_PAR
M_B_ALERT#
DDR_WR_VREF02
INTEL_J87879_BGA_1449P
P0V6S_DIMM0_VREF_CA
R4503 2_1%_2
R4136 24.9_1%_2
C4124 0.022UF_6.3V_1
DDR_WR_VREF01
DDR_WR_C_VREF01
REFERENCE:4500~4949
www.repairlap.com
INVENTEC
TITLE
MODEL,PROJECT,FUNCTION
MCP5-DDR
SIZE A3
CODE CS
DOC.NUMBER 1310xxxxx-0-0
REV X01
SHEET 35 of 85
CHANGE by XXX
DATE 21-OCT-2002
PCB P/N 60xxxxxxxxx
PCB VER XXX




| | BRD_ID1 | BRD_ID2 | BRD_ID3 | BRD_ID4 |
|---|---|---|---|---|
| CPU SOCKET BOARD | 0 | 0 | 0 | 0 |
| FIT | 0 | 0 | 0 | 1 |
| DB1 | 0 | 0 | 1 | 0 |
| SI1 | 0 | 0 | 1 | 1 |
| SI1R | 0 | 1 | 0 | 0 |
| | 0 | 1 | 0 | 1 |
| SI2 | 0 | 1 | 1 | 0 |
| SI2R | 0 | 1 | 1 | 1 |
| | 1 | 0 | 0 | 0 |
| SI3 | 1 | 0 | 0 | 1 |
| | 1 | 0 | 1 | 0 |
| PV | 1 | 0 | 1 | 1 |
| PVR | 1 | 1 | 0 | 0 |
| | 1 | 1 | 0 | 1 |
| MV | 1 | 1 | 1 | 0 |

LOCATION NUMBER:4500~4999

INVENTEC

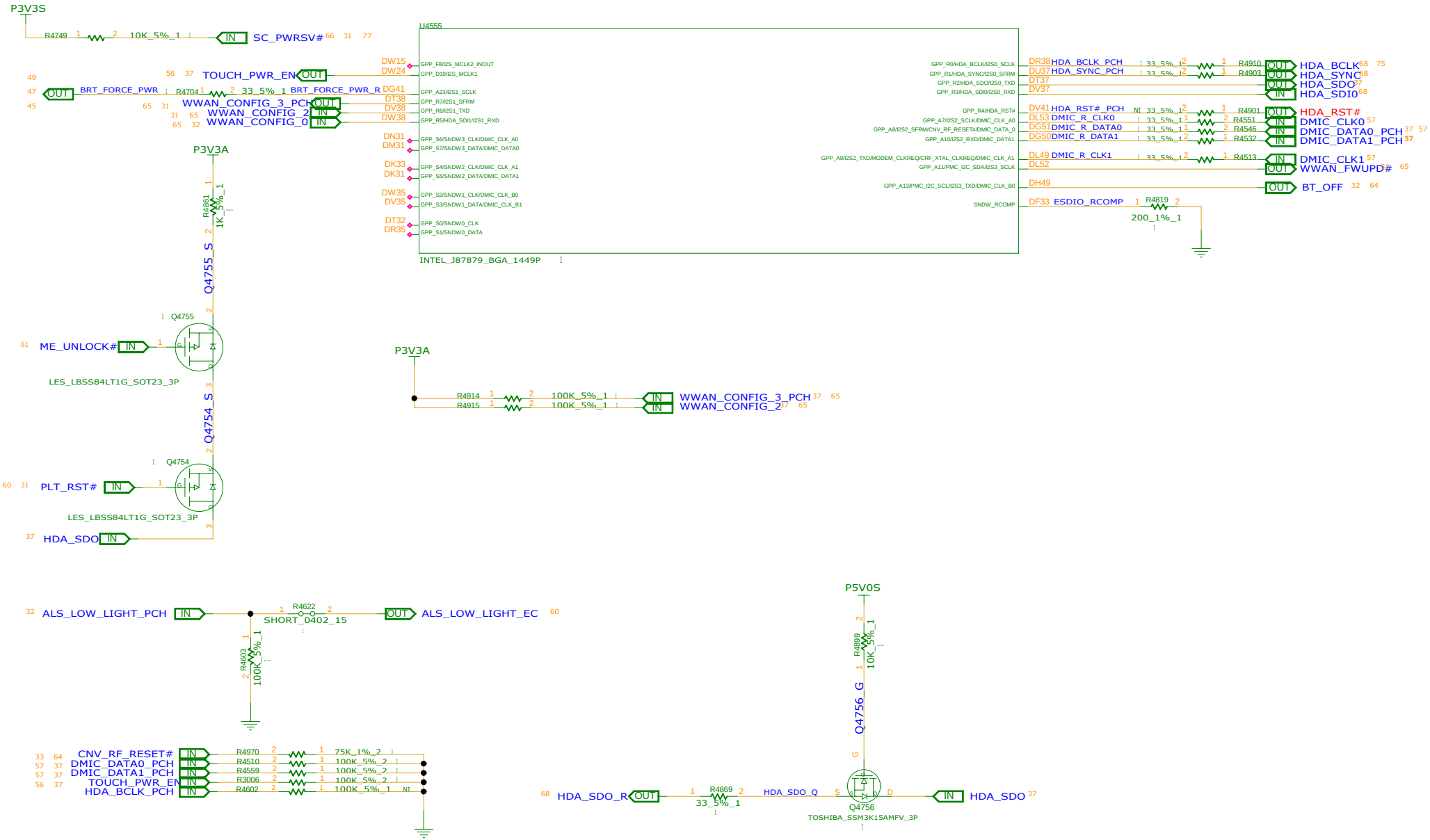
TITLE: MODEL,PROJECT,FUNCTION
MCP6-PCIE,USB

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

SHEET 36 of 85

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

www.repairlap.com




LOCATION NUMBER:4500~4999

INVENTEC

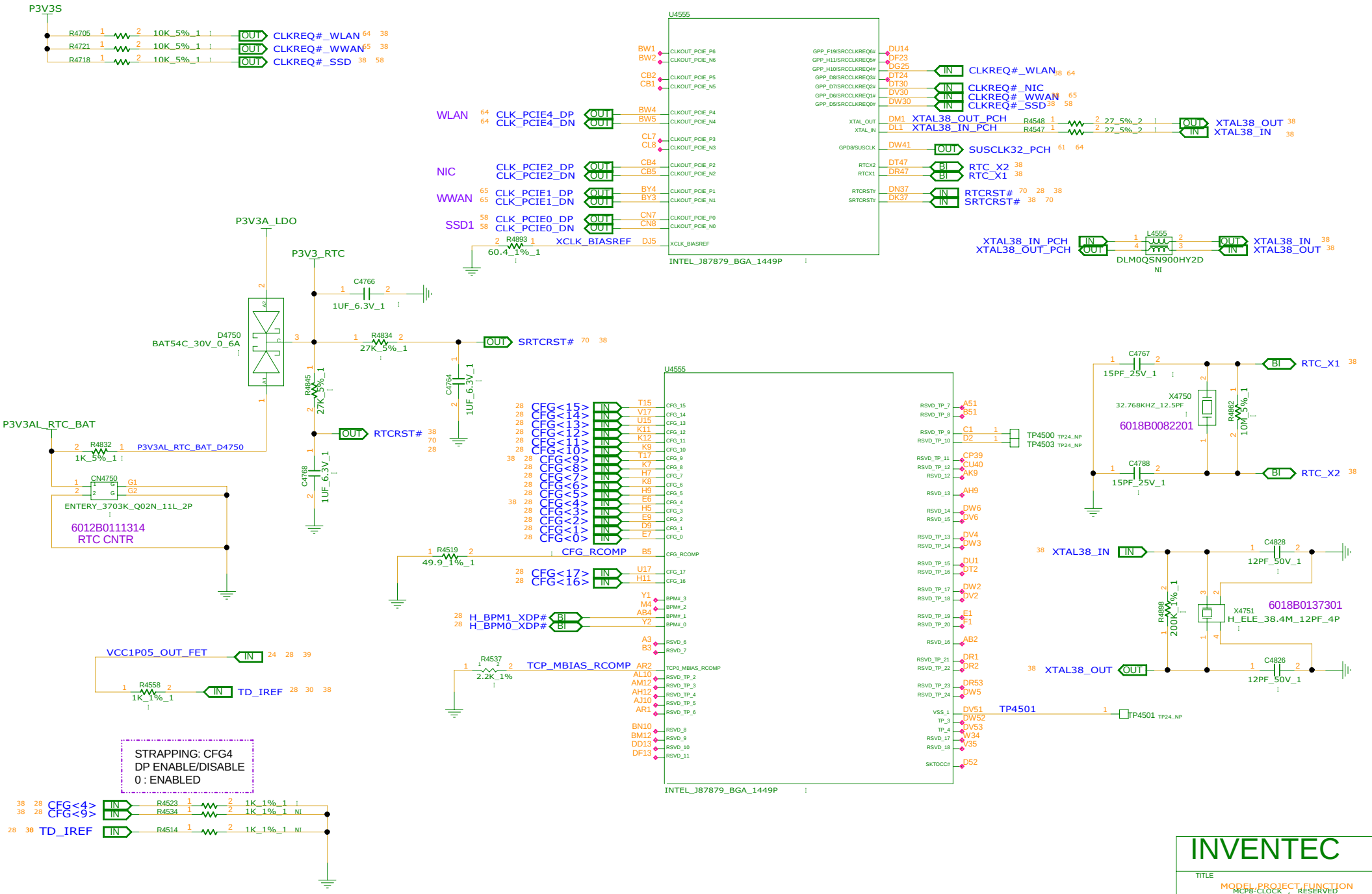
TITLE: MODEL_PROJECT_FUNCTION
MCP7-RTC,AUDIO,SATA

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

SHEET 37 of 85

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

www.repairlap.com


P3V3S
R4705 10K_5%_1
R4721 10K_5%_1
R4718 10K_5%_1
CLKREQ#_WLAN
CLKREQ#_WWAN
CLKREQ#_SSD
U4555
INTEL_J87879_BGA_1449P
WLAN CLK_PCIE4_DP CLK_PCIE4_DN
NIC CLK_PCIE2_DP CLK_PCIE2_DN
WWAN CLK_PCIE1_DP CLK_PCIE1_DN
SSD1 CLK_PCIE0_DP CLK_PCIE0_DN
R4893 60.4_1%_1
XCLK_BIASREF
CLKREQ#_WLAN
CLKREQ#_NIC
CLKREQ#_WWAN
CLKREQ#_SSD
XTAL38_OUT_PCH
XTAL38_IN_PCH
R4548 27_5%_2
R4547 27_5%_2
XTAL38_OUT
XTAL38_IN
SUSCLK32_PCH
RTC_X2
RTC_X1
RTCRST#
SRTCRST#
XTAL38_IN_PCH
XTAL38_OUT_PCH
L4555
DLM0QSN900HY2D
NI
P3V3A_LDO
P3V3_RTC
C4766 1UF_6.3V_1
D4750 BAT54C_30V_0_6A
R4834 27K_5%_1
SRTCRST#
R4845 27K_5%_1
C4764 1UF_6.3V_1
RTCRST#
C4768 1UF_6.3V_1
P3V3AL_RTC_BAT
R4832 1K_5%_1
P3V3AL_RTC_BAT_D4750
CN4750
ENTERY_3703K_Q02N_11L_2P
6012B0111314
RTC CNTR
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CFG<13>
CFG<12>
CFG<11>
CFG<10>
CFG<9>
CFG<8>
CFG<7>
CFG<6>
CFG<5>
CFG<4>
CFG<3>
CFG<2>
CFG<1>
CFG<0>
CFG_RCOMP
R4519 49.9_1%_1
CFG<17>
CFG<16>
H_BPM1_XDP#
H_BPM0_XDP#
R4537 2.2K_1%
TCP_MBIAS_RCOMP
C4767 15PF_25V_1
C4788 15PF_25V_1
X4750 32.768KHZ_12.5PF
6018B0082201
R4862 10M_5%_1
RTC_X1
RTC_X2
TP4500 TP24_NP
TP4503 TP24_NP
TP4501 TP24_NP
C4828 12PF_50V_1
C4826 12PF_50V_1
X4751 H_ELE_38.4M_12PF_4P
6018B0137301
R4898 200K_1%_1
XTAL38_IN
XTAL38_OUT
VCC1P05_OUT_FET
R4558 1K_1%_1
TD_IREF
STRAPPING: CFG4
DP ENABLE/DISABLE
0 : ENABLED
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CFG<9>
TD_IREF
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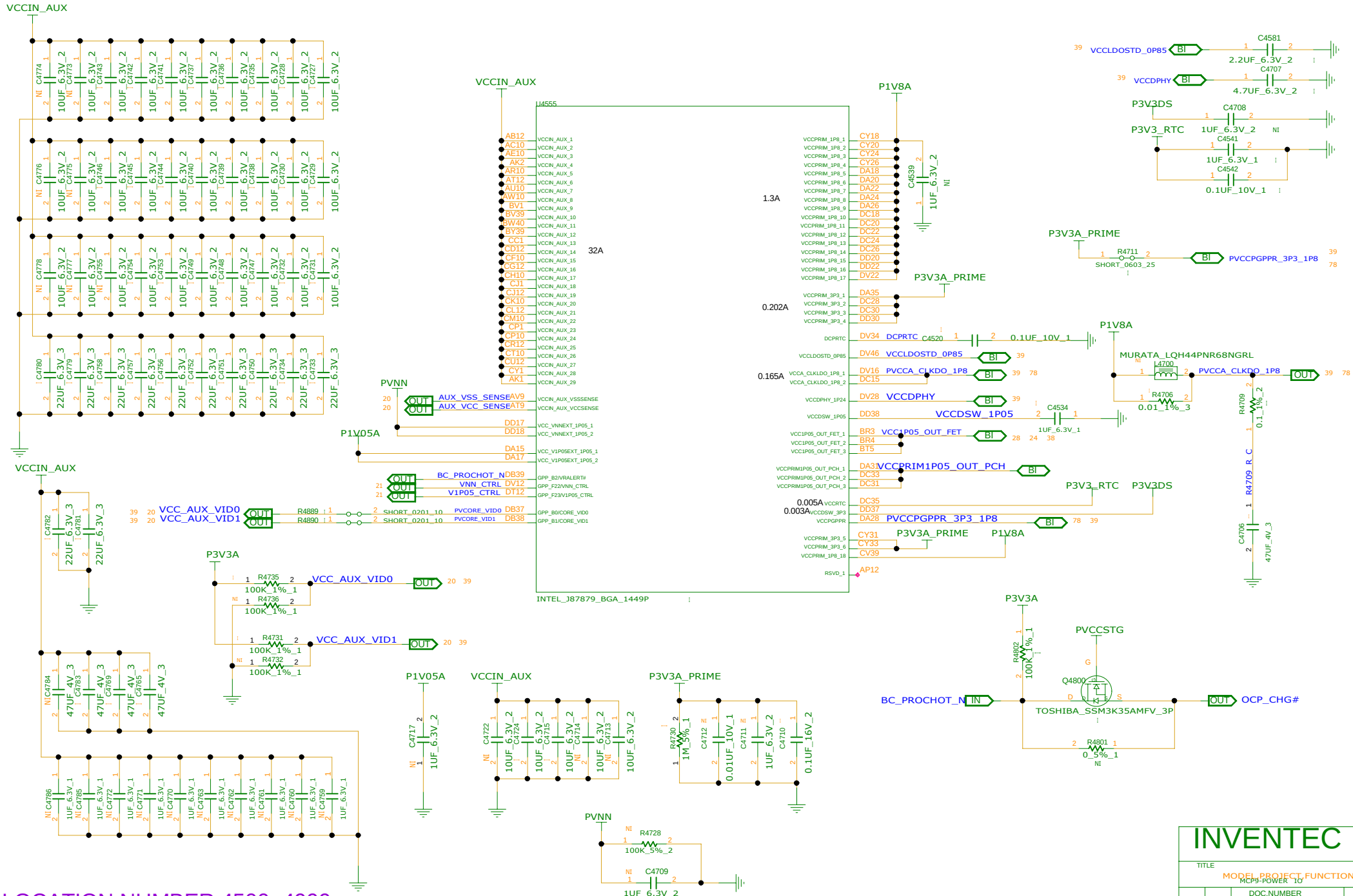
R4534 1K_1%_1
R4514 1K_1%_1
LOCATION NUMBER:4500~4999
INVENTEC
TITLE
MODEL PROJECT FUNCTION
MCP8-CLOCK , RESERVED
SIZE A3
CODE CS
DOC.NUMBER 1310xxxxx-0-0
REV X01
SHEET 38 of 85
CHANGE by XXX
DATE 21-OCT-2002
PCB P/N 60xxxxxxxxx
PCB VER XXX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U4555
INTEL_J87879_BGA_1449P
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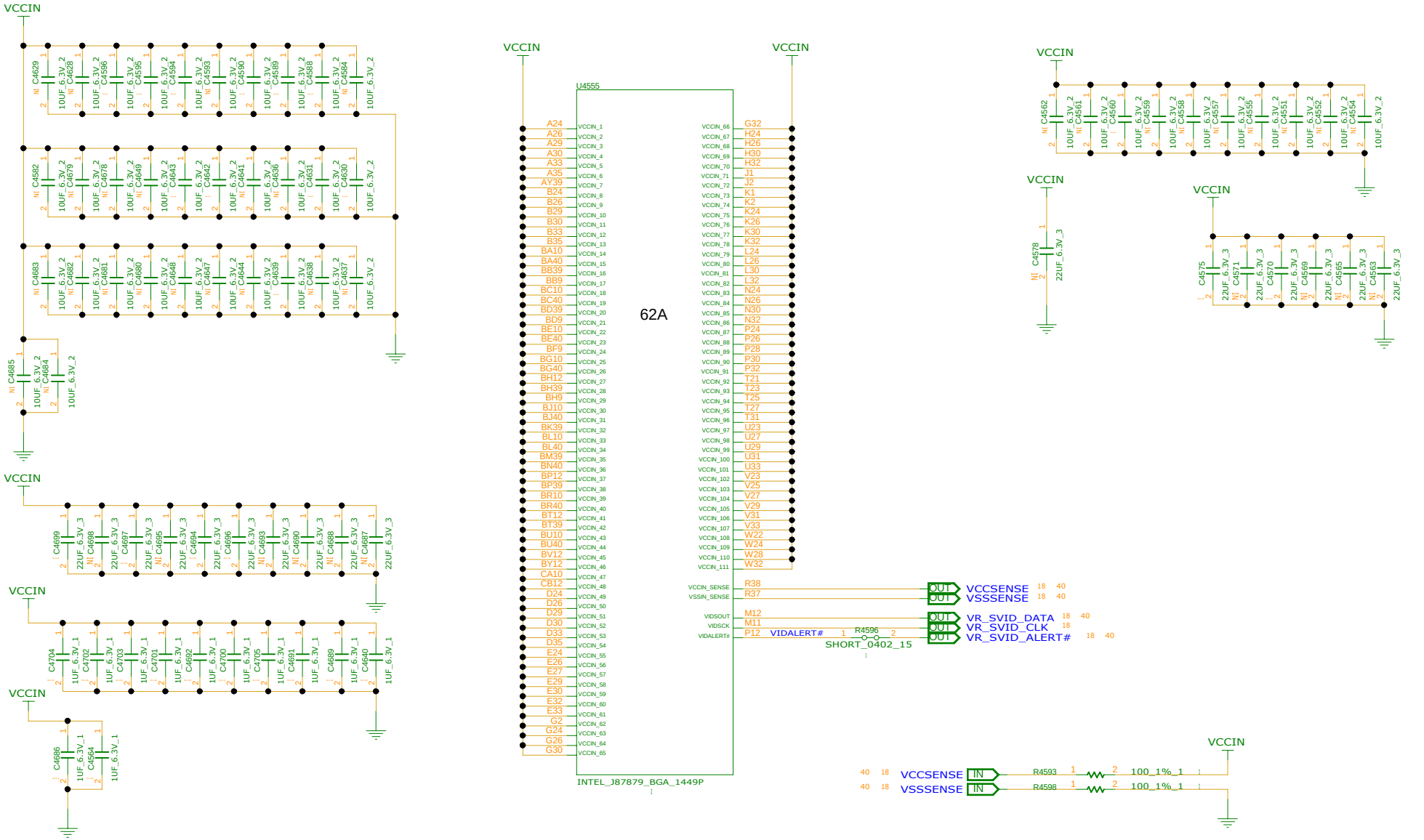
0.202A
0.165A
P1V8A
P3V3A_PRIME
PVNN
P1V05A
P3V3A
P3V3_RTC
P3V3DS
VCCDSW_1P05
VCCDPHY
VCC_AUX_VID0
VCC_AUX_VID1
AUX_VSS_SENSE
AUX_VCC_SENSE
BC_PROCHOT_N
VNN_CTRL
V1P05_CTRL
PVCCPGPPR_3P3_1P8
PVCCA_CLKDO_1P8
VCCDLOSTD_0P85
VCC1P05_OUT_FET
VCCPRIM1P05_OUT_PCH
PVCCSTG
TOSHIBA_SSM3K35AMFV_3P
OCP_CHG#
MURATA_LQH44PNR68NGRL
LOCATION NUMBER:4500~4999
INVENTEC
MODEL_PROJECT_FUNCTION
MCP9-POWER_IO
DOC.NUMBER
1310xxxxx-0-0
REV
X01
SIZE
A3
CODE
CS
SHEET
39 of 85
CHANGE by
XXX
PCB P/N
60xxxxxxxxxx
DATE
21-OCT-2002
PCB VER
XXX




LOCATION NUMBER:4500~4999

INVENTEC

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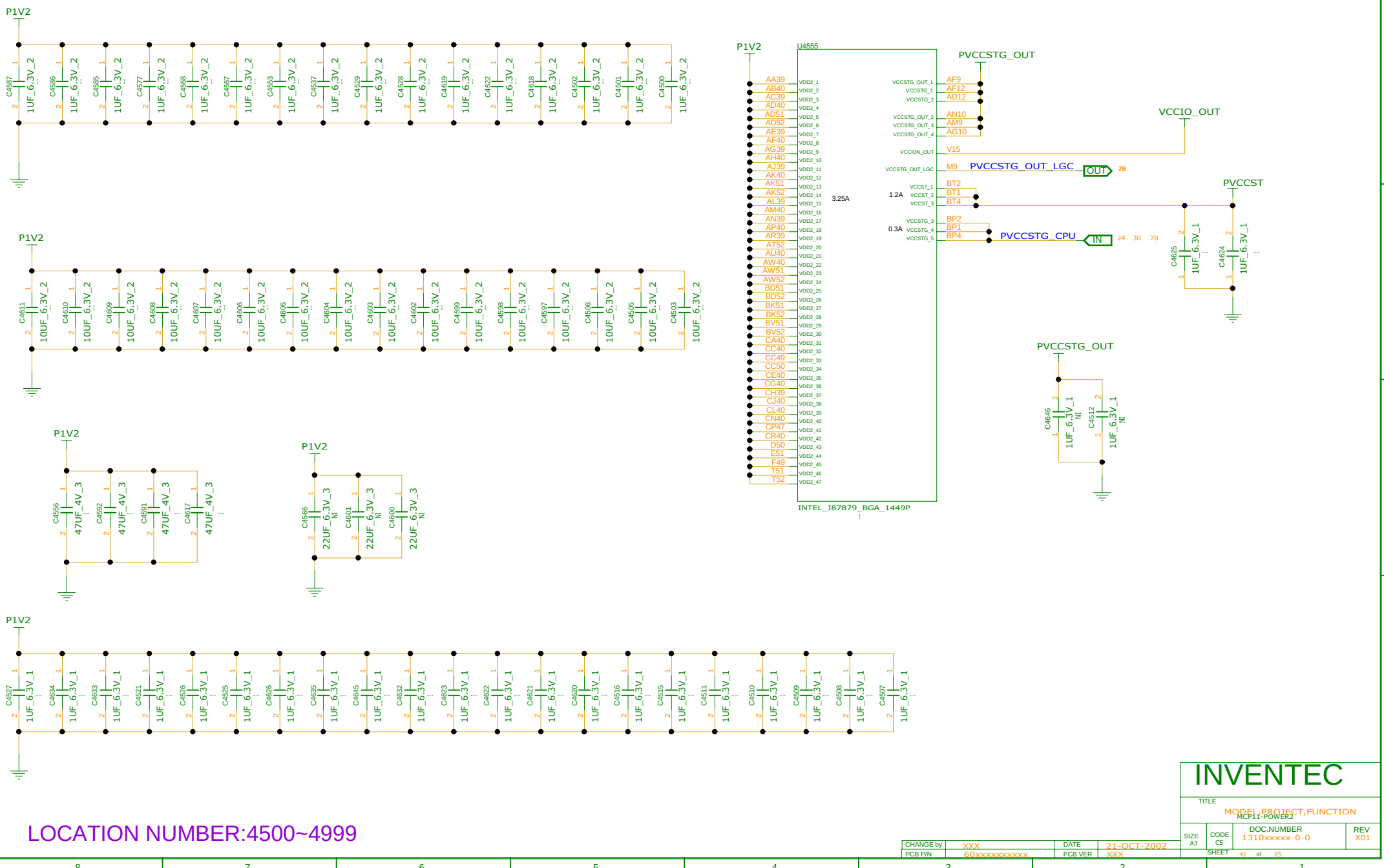
|---|---|---|---|
| TITLE | MODEL_PROJECT,FUNCTION | | |
| | MCP10-POWER1 | | |
| SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
| CHANGE by XXX | | DATE 21-OCT-2002 | |
| PCB P/N 60xxxxxxxxxx | | PCB VER XXX | |
| SHEET 40 of 85 | | | |




LOCATION NUMBER:4500~4999

INVENTEC

TITLE
MODEL PROJECT,FUNCTION
MCP11-POWER2

| SIZE | CODE | DOC.NUMBER | REV |
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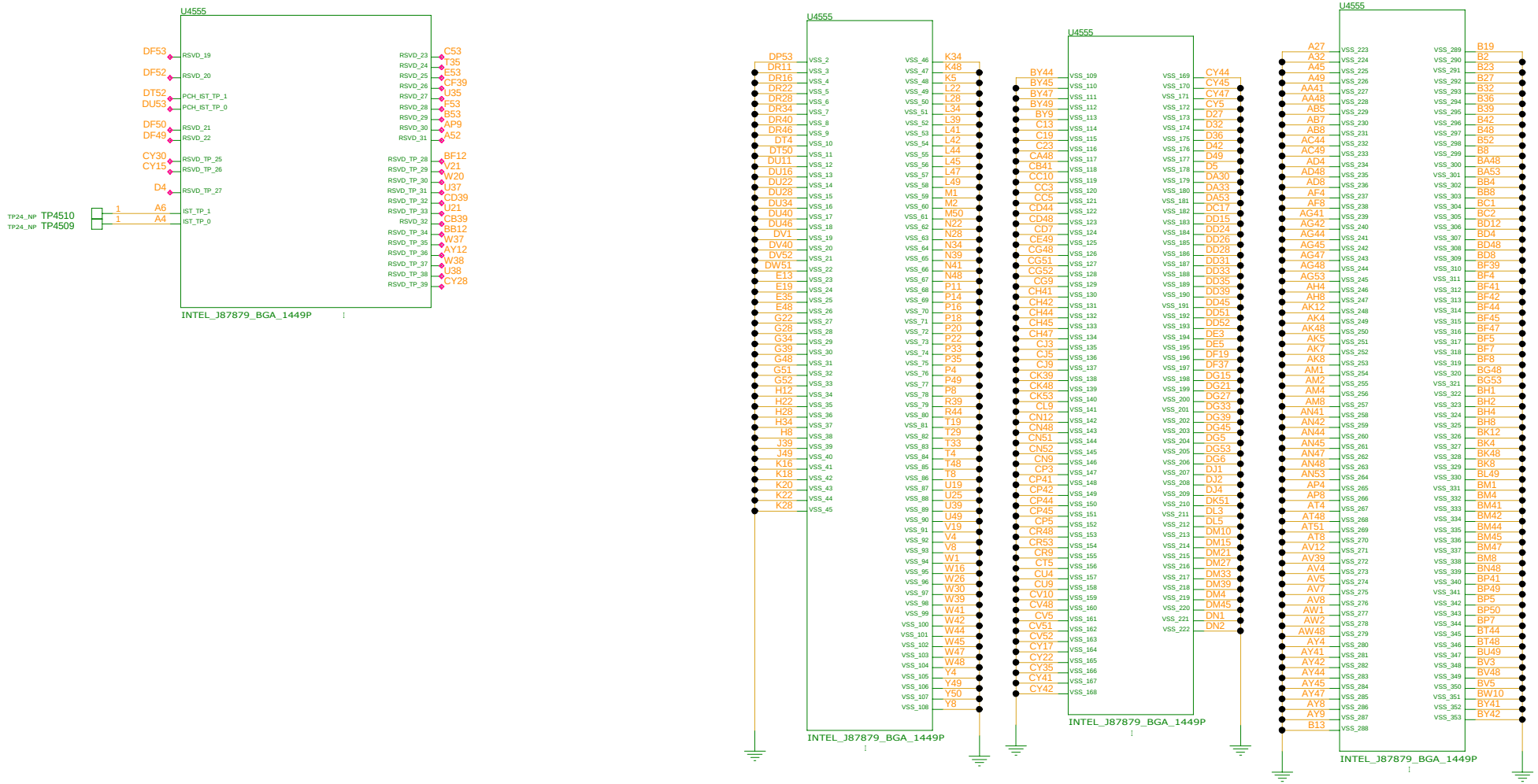
SHEET 41 of 85

| CHANGE by | XXX | DATE | 21-OCT-2002 |
|---|---|---|---|
| PCB P/N | 60xxxxxxxxxx | PCB VER | XXX |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DU53
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DF49
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CY15
D4
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RSVD_20
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PCH_IST_TP_0
RSVD_21
RSVD_22
RSVD_TP_25
RSVD_TP_26
RSVD_TP_27
A6
A4
IST_TP_1
IST_TP_0
TP24_NP TP4510
TP24_NP TP4509
INTEL_J87879_BGA_1449P
DP53
DR11
DR16
DR22
DR28
DR34
DR40
DR46
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G48
G51
G52
H12
H22
H28
H34
H8
J39
J49
K16
K18
K20
K22
K28
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VSS_4
VSS_5
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R44
T19
T29
T33
T4
T48
T8
U19
U25
U39
U49
V19
V4
V8
W1
W16
W26
W30
W39
W41
W42
W44
W45
W47
W48
Y4
Y49
Y50
Y8
BY44
BY45
BY47
BY49
BY9
C13
C19
C23
CA48
CB41
CC10
CC3
CC5
CD44
CD48
CD7
CE49
CG48
CG51
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CH44
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CH47
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CJ5
CJ9
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CP5
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CR9
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VSS_353
PINS L5 & N5 ARE USED IN U43E PACKAGE, ADD RCOMP RESISTORS FOR U43E COMPATIBLE DESIGNS
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DW47
DW49
A48
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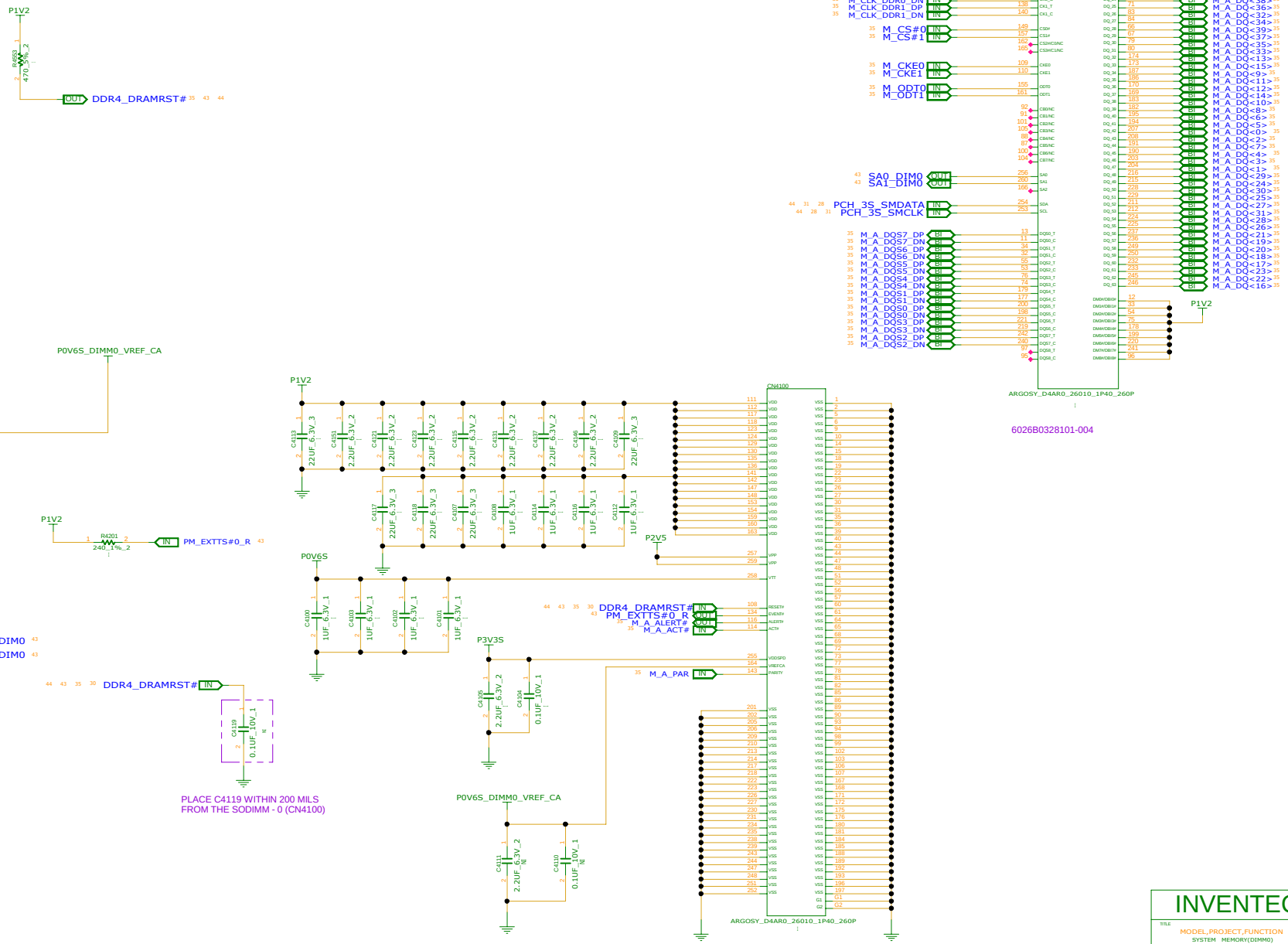
RSVD_3
RSVD_4
RSVD_5
LOCATION NUMBER:4500~4999
INVENTEC
TITLE
MODEL,PROJECT,FUNCTION
MCP12-GND
SIZE A3
CODE CS
DOC.NUMBER 1310xxxxx-0-0
REV X01
SHEET 42 of 85
CHANGE by XXX
DATE 21-OCT-2002
PCB P/N 60xxxxxxxxxx
PCB VER XXX

# DDR4 DIMM0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M_A_BS1
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M_A_BG1
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M_CLK_DDR0_DN
M_CLK_DDR1_DP
M_CLK_DDR1_DN
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M_CS#1
M_CKE0
M_CKE1
M_ODT0
M_ODT1
SA0_DIM0
SA1_DIM0
PCH_3S_SMDATA
PCH_3S_SMCLK
M_A_DQS7_DP
M_A_DQS7_DN
M_A_DQS6_DP
M_A_DQS6_DN
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M_A_DQS4_DP
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6026B0328101-004
P0V6S_DIMM0_VREF_CA
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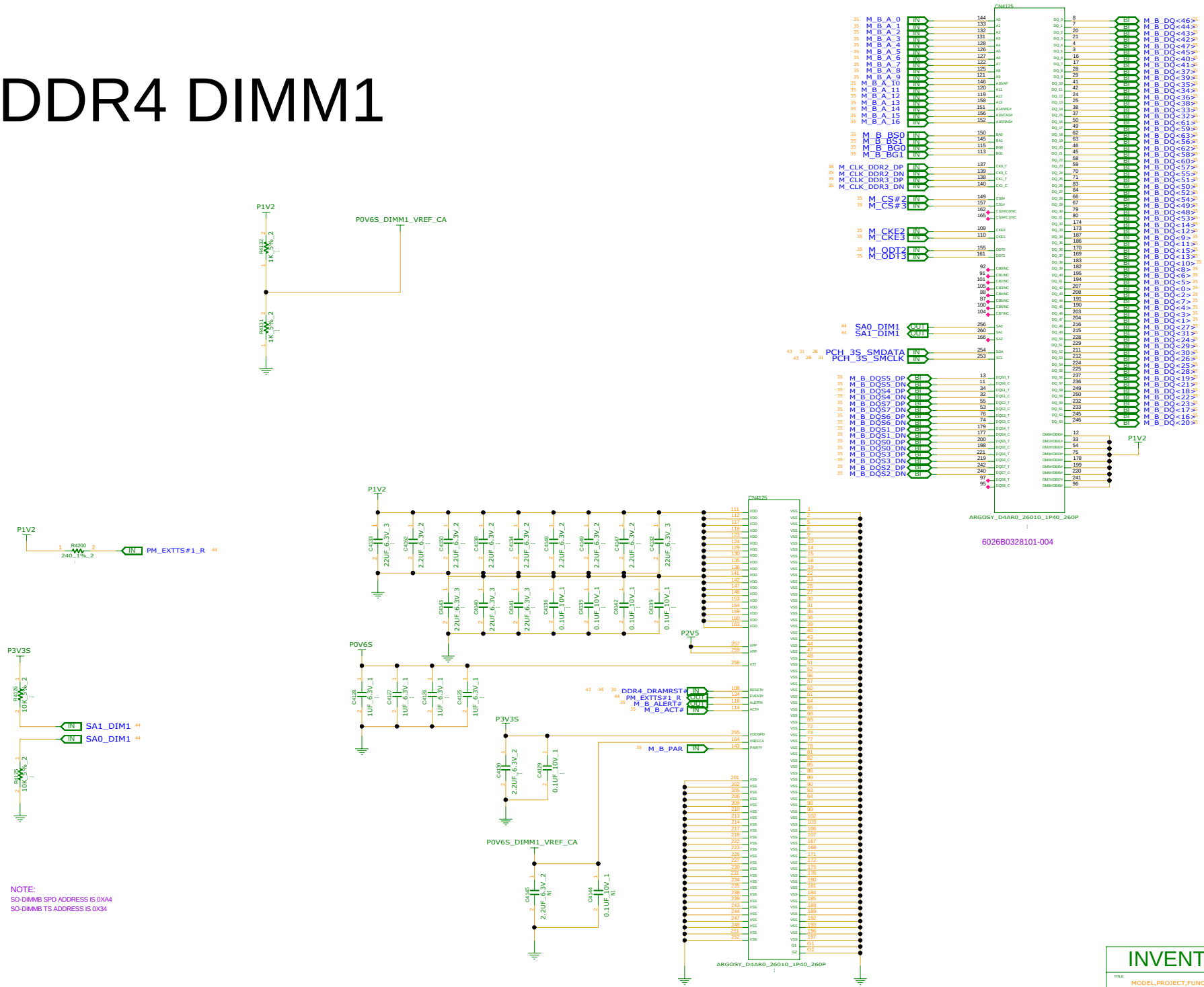
1K_5%_2
R4402
1K_5%_2
R4201
240_1%_2
PM_EXTTS#0_R
P3V3S
R4103
10K_5%_2
R4401
10K_5%_2
R4301
10K_5%_2
SA0_DIM0
SA1_DIM0
P0V6S
P2V5
DDR4_DRAMRST#
PM_EXTTS#0_R
M_A_ALERT#
M_A_ACT#
M_A_PAR
C4119
0.1UF_10V_1
PLACE C4119 WITHIN 200 MILS
FROM THE SODIMM - 0 (CN4100)
NOTE:
IF SA0_DIM0=0 , SA1_DIM0=0
SO-DIMMA 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
LOCATION NUMBER:4100~4299
INVENTEC
MODEL,PROJECT,FUNCTION
SYSTEM MEMORY(DIMM0)
SIZE A3
CODE CS
DOC.NUMBER 1310AXXXA-0-0
REV X01
SHEET 43 of 85
CHANGE B
PCB P/N XXX
DATE 21-OCT-2002
PCB VER XXX

# DDR4 DIMM1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M_B_BG1
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M_CLK_DDR2_DN
M_CLK_DDR3_DP
M_CLK_DDR3_DN
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M_CS#3
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M_CKE3
M_ODT2
M_ODT3
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SA1_DIM1
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PCH_3S_SMCLK
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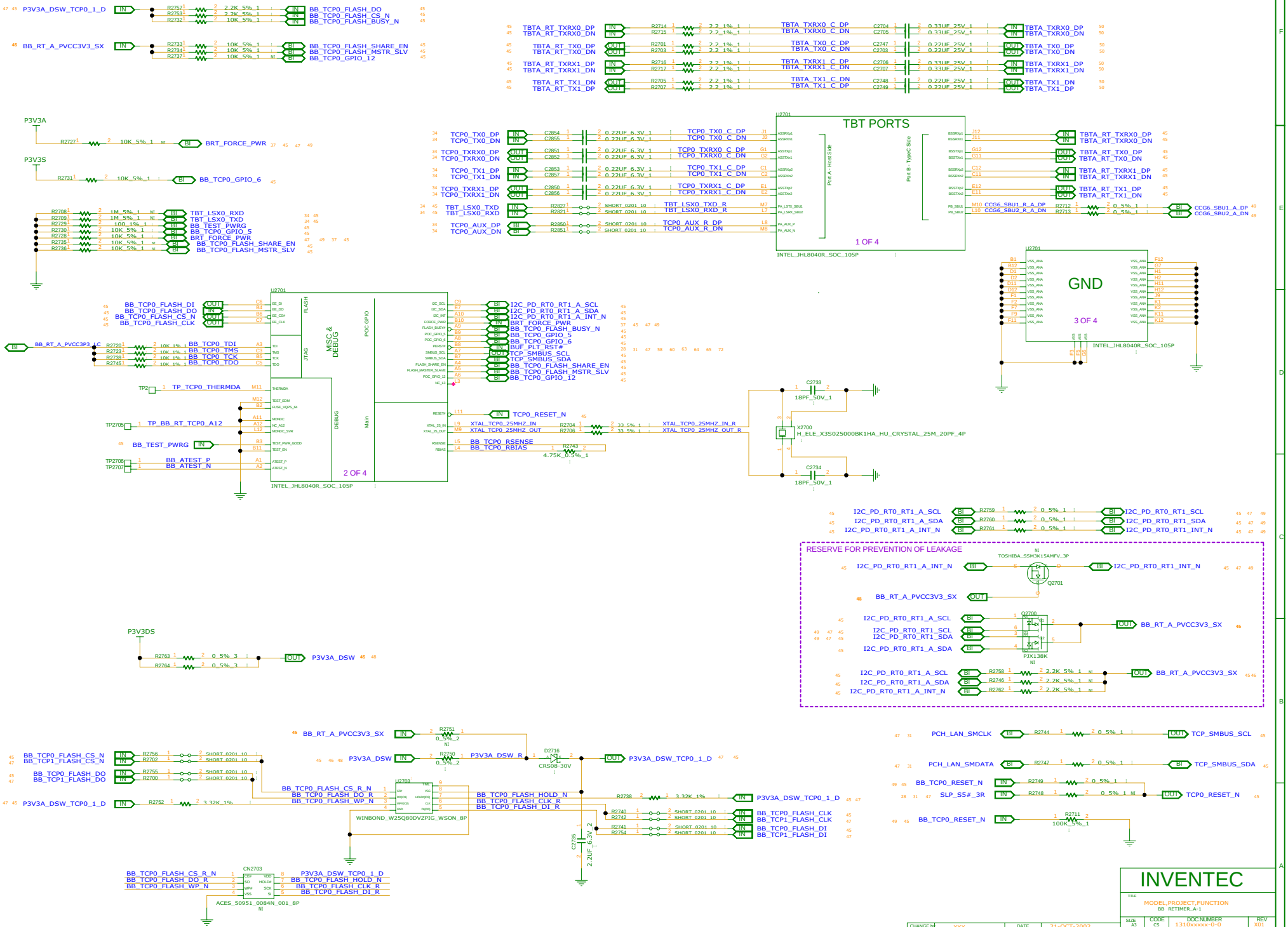
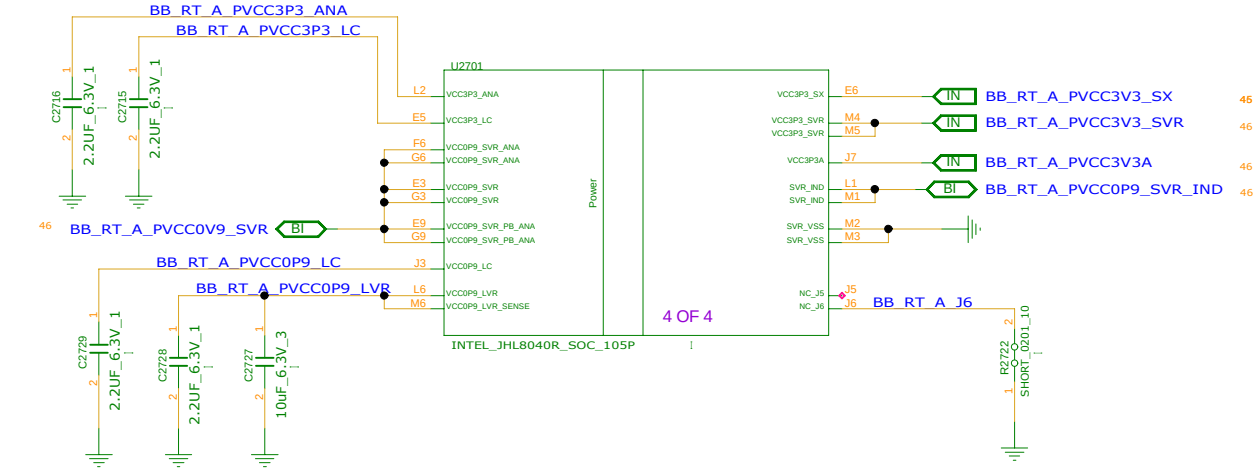
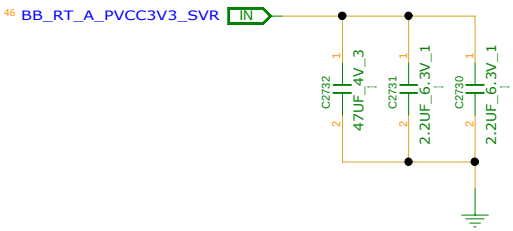
6026B0328101-004
P1V2
P0V6S_DIMM1_VREF_CA
R4202 1K_5%_2
R4201 1K_5%_2
P3V3S
R4200 240_1%_2
PM_EXTTS#1_R
R4195 10K_5%_2
R4196 10K_5%_2
SA1_DIM1
SA0_DIM1
P2V5
P0V6S
DDR4_DRAMRST#
PM_EXTTS#1_R
M_B_ALERT#
M_B_ACT#
M_B_PAR
NOTE:
SO-DIMMB SPD ADDRESS IS 0XA4
SO-DIMMB TS ADDRESS IS 0X34
LOCATION NUMBER:4100~4299
INVENTEC
MODEL,PROJECT,FUNCTION
SYSTEM MEMORY(DIMM1)
CHANGE NO
PCB P/N
XXX
60xxxxxxxxx
DATE
21-OCT-2002
PCB VER
XXX
SIZE
A3
CODE
CS
DOC NUMBER
1310xxxx-0-0
REV
X01
SHEET
44
of
85

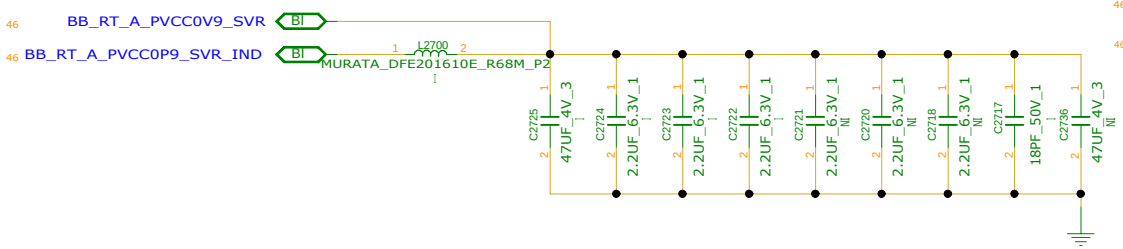
# BB RETIMER_A-1

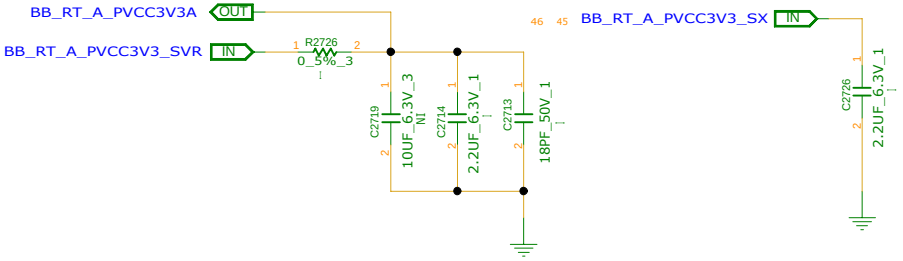


# BB RETIMER_A-2

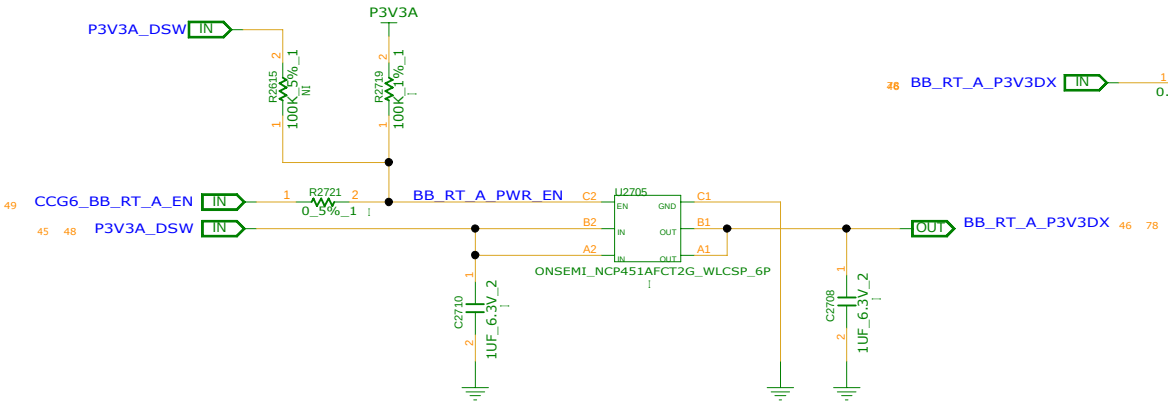


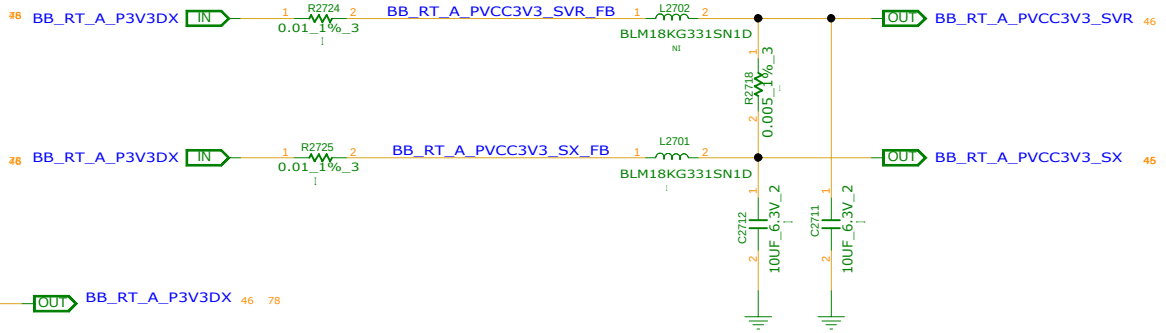




## RETIMER POWER GATE

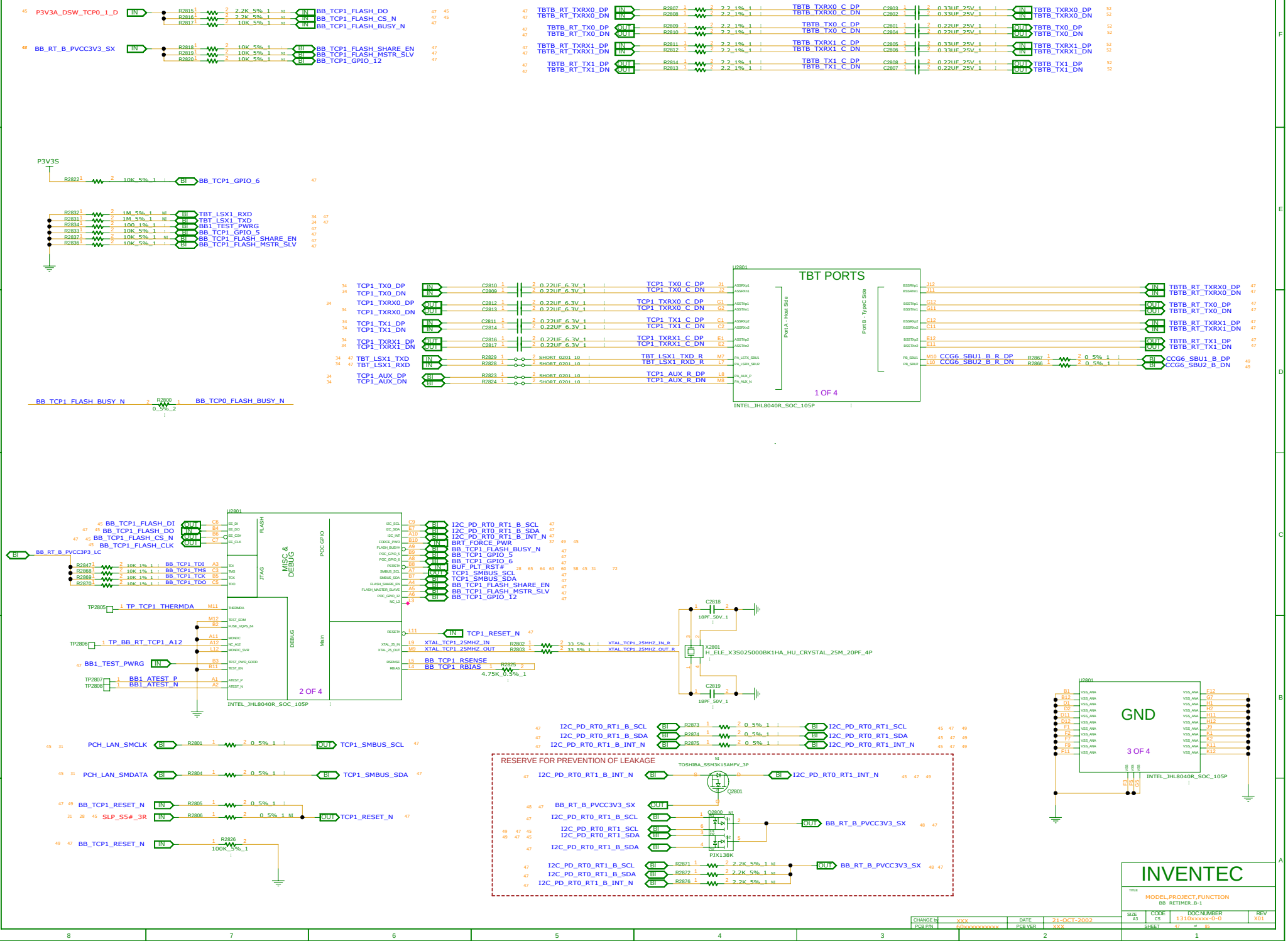



INVENTEC

| | | | |
|---|---|---|---|
| TITLE | MODEL,PROJECT,FUNCTION<br>BB_RETIMER_A-2 | | |
| SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
| CHANGE by XXX | | DATE 21-OCT-2002 | |
| PCB P/N 60xxxxxxxxx | | PCB VER XXX | |
| SHEET 46 of 85 | | | |

# BB RETIMER_B-1




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

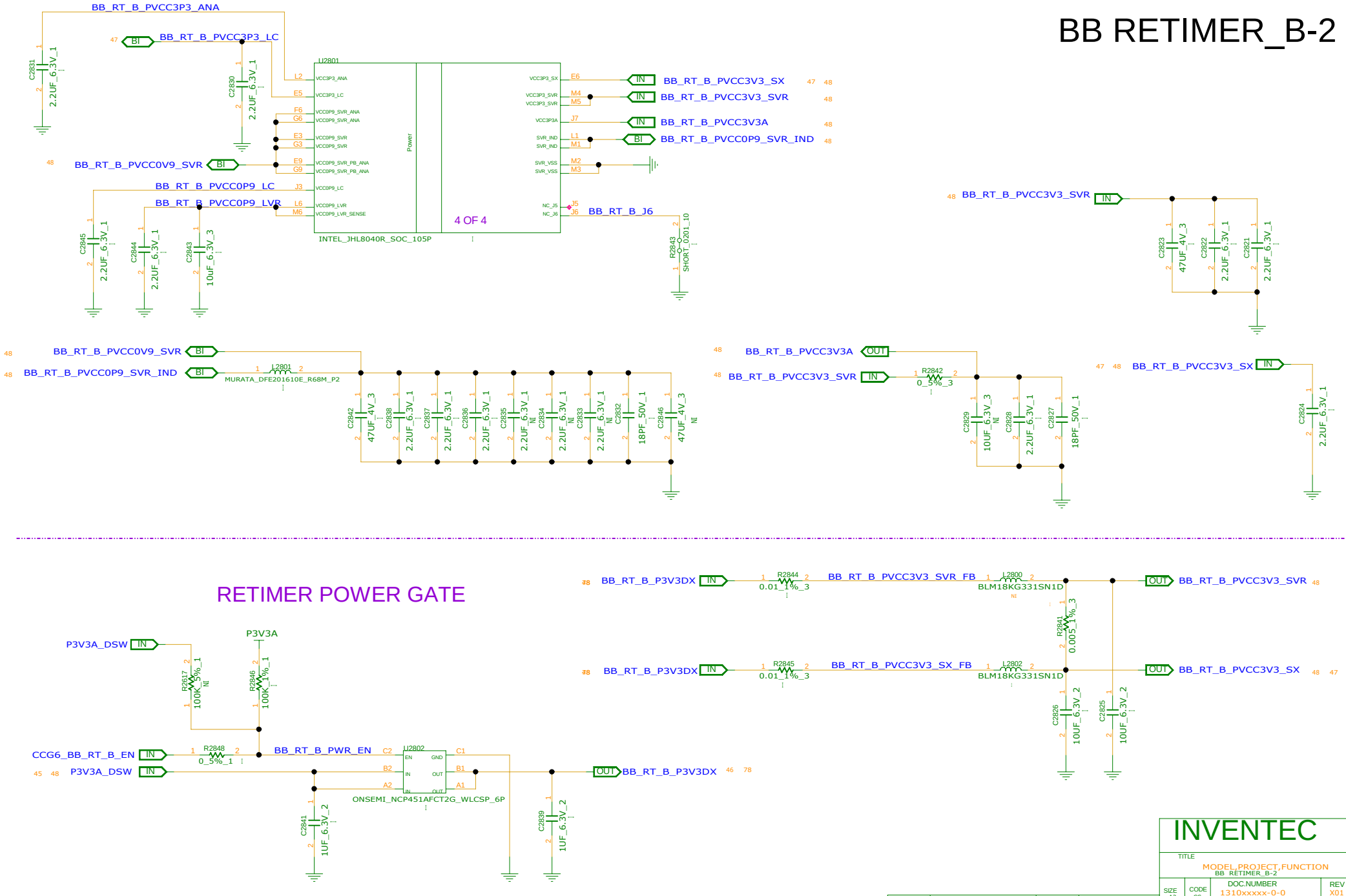
INVENTEC

MODEL,PROJECT,FUNCTION
BB RETIMER_B-1

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

SHEET 47 of 85

# BB RETIMER_B-2




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

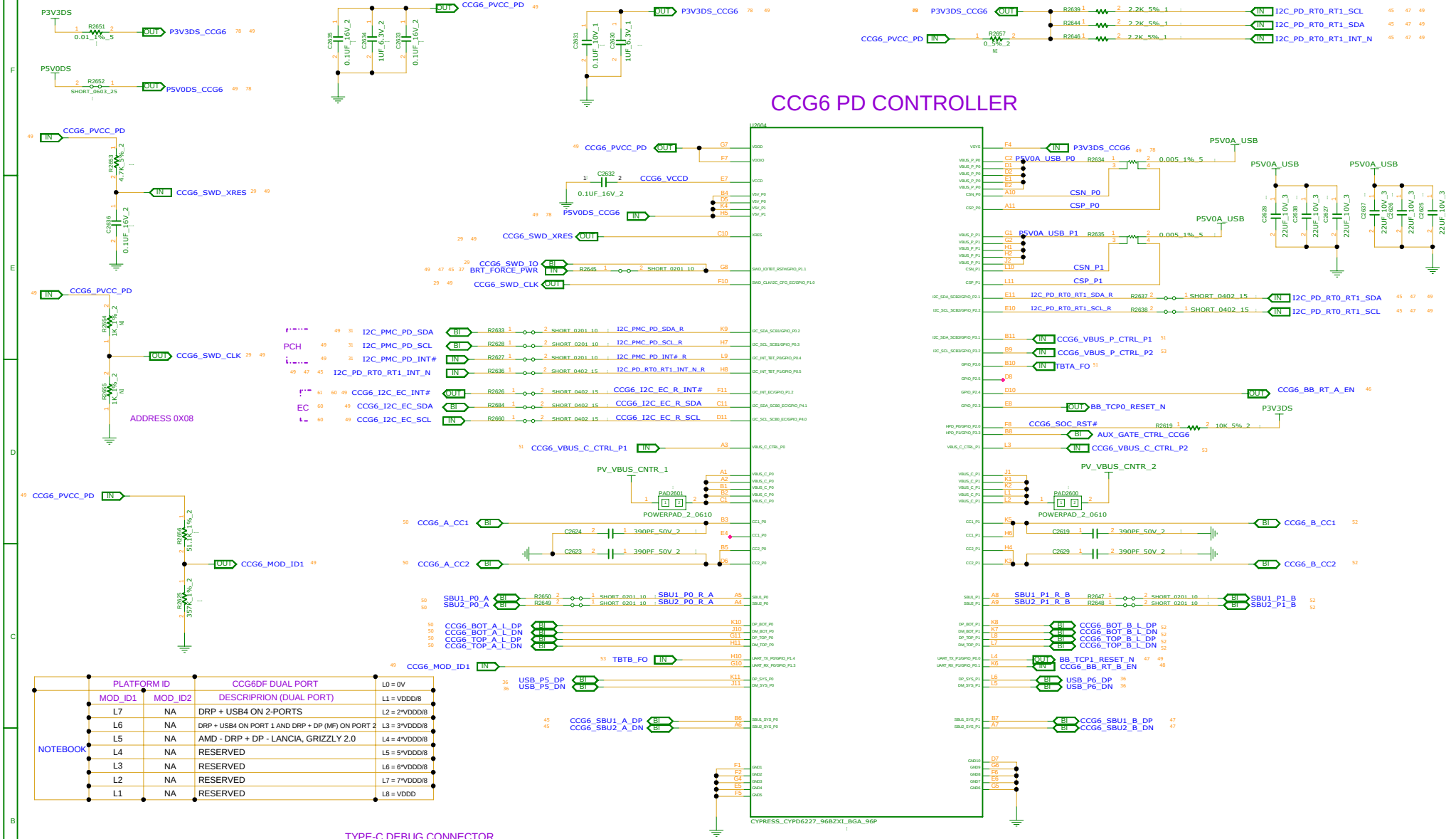
INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
BB_RETIMER_B-2

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

SHEET 48 of 85

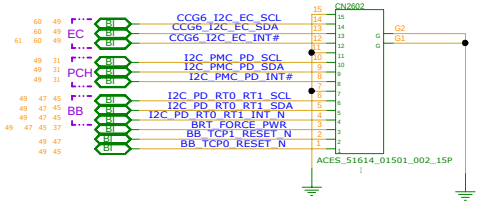
# CCG6 PD CONTROLLER




| PLATFORM ID | | CCG6DF DUAL PORT | L0 = 0V |
|---|---|---|---|
| MOD_ID1 | MOD_ID2 | DESCRIPRION (DUAL PORT) | L1 = VDDD/8 |
| L7 | NA | DRP + USB4 ON 2-PORTS | L2 = 2*VDDD/8 |
| L6 | NA | DRP + USB4 ON PORT 1 AND DRP + DP (MF) ON PORT 2 | L3 = 3*VDDD/8 |
| L5 | NA | AMD - DRP + DP - LANCIA, GRIZZLY 2.0 | L4 = 4*VDDD/8 |
| L4 | NA | RESERVED | L5 = 5*VDDD/8 |
| L3 | NA | RESERVED | L6 = 6*VDDD/8 |
| L2 | NA | RESERVED | L7 = 7*VDDD/8 |
| L1 | NA | RESERVED | L8 = VDDD |

NOTEBOOK

## TYPE-C DEBUG CONNECTOR




LOCATION NUMBER:2600~2699

INVENTEC

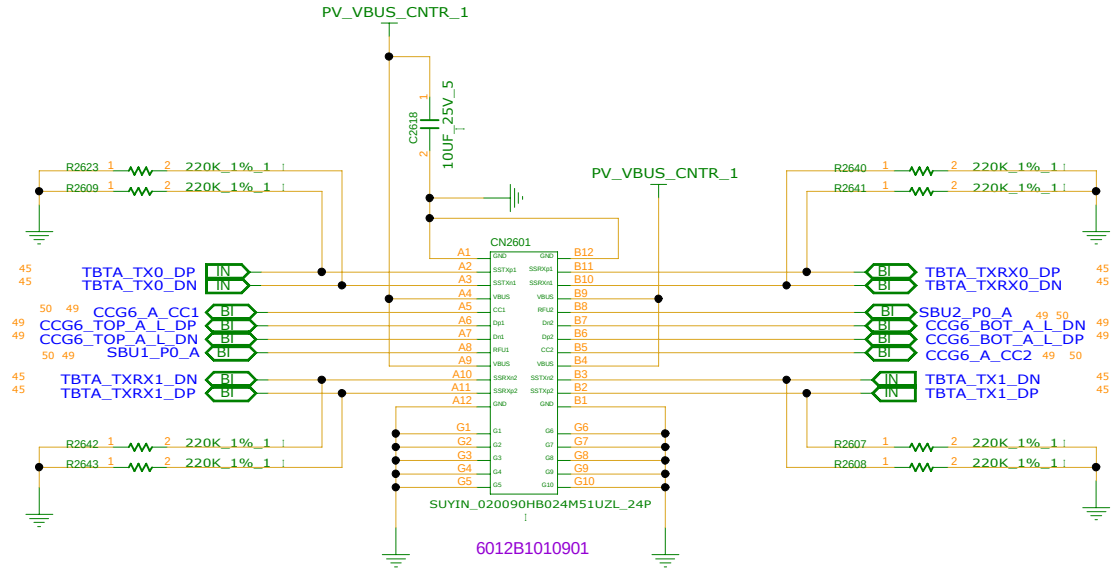
MODEL,PROJECT,FUNCTION

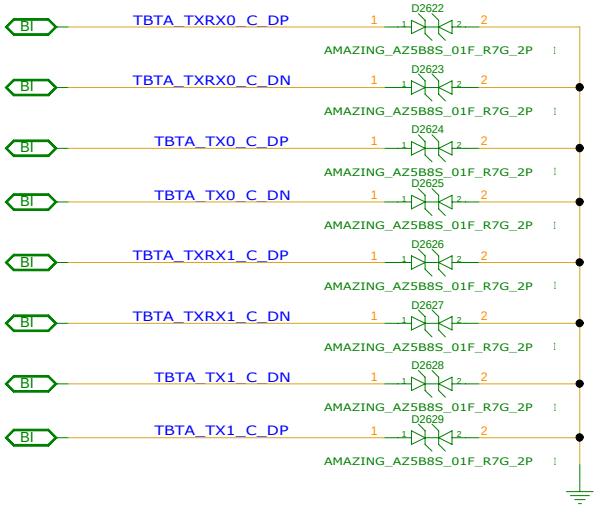
PD CONTROLLER CCG6

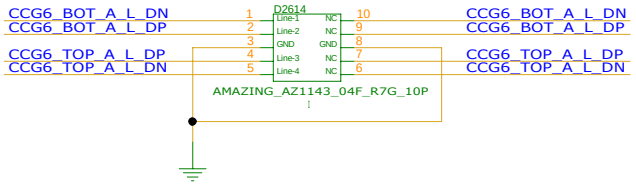
| CHANGE N | XXX | DATE | 21-OCT-2002 |
|---|---|---|---|
| PCB P/N | 60xxxxxxxxx | PCB VER | XXX |

| SIZE | CODE | DOC.NUMBER | REV |
|---|---|---|---|
| A3 | CS | 1310xxxxx-D-0 | X01 |
| SHEET | 49 | of | 85 |

# USB TYPE-C PORT A
# USB TYPE - C CONN





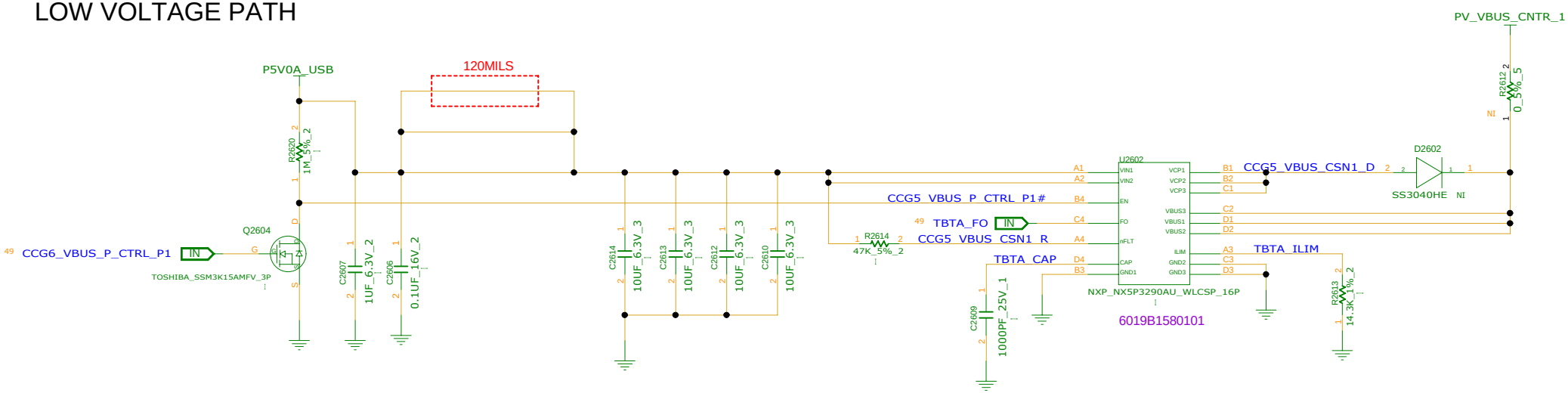

LOCATION NUMBER:2600~2699

INVENTEC

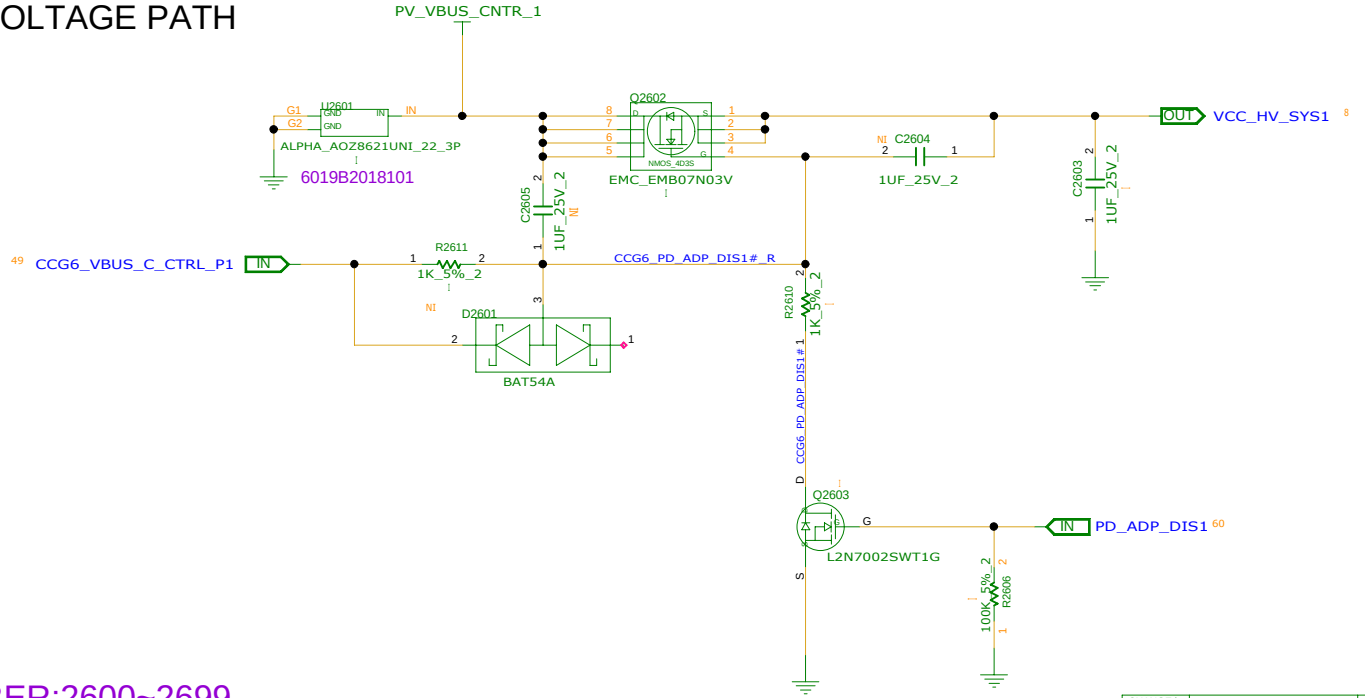
| | | | |
|---|---|---|---|
| TITLE | MODEL_PROJECT_FUNCTION USB_TYPE-C_A-1 (RIGHT) | | |
| SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
| CHANGE by XXX | | DATE | |
| PCB P/N 6[illegible] | | PCB VER XXX | XX-OCT-2002 |
| SHEET of 50 85 | | | |

# USB TYPE-C PORT A
# CCG6(RIGHT) PD CONTROLLER

## LOW VOLTAGE PATH




## HIGH VOLTAGE PATH

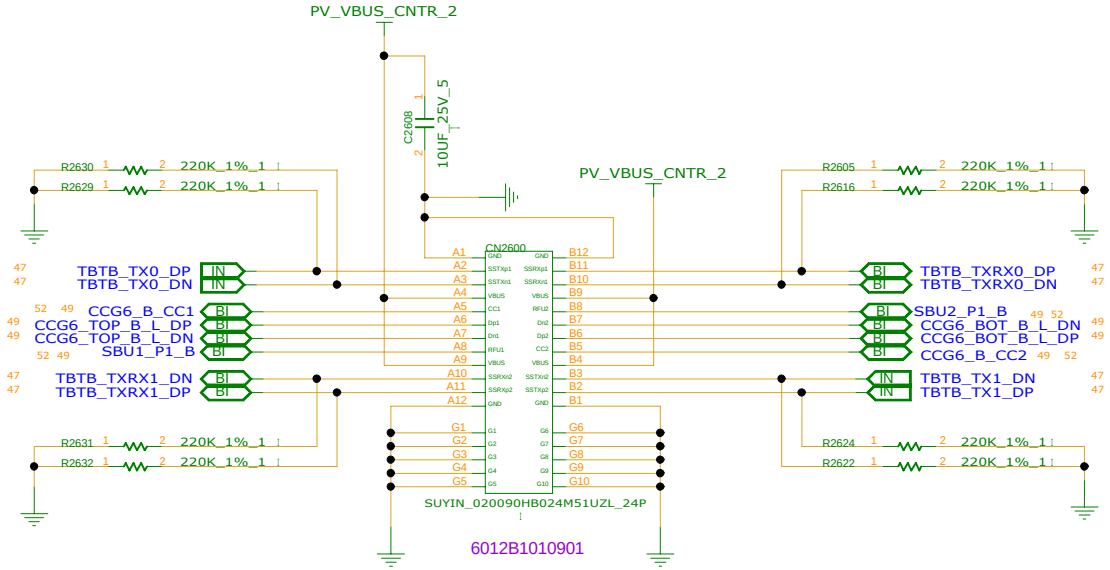


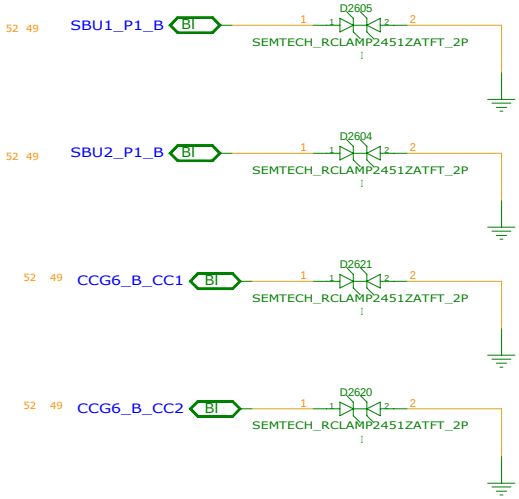

LOCATION NUMBER:2600~2699

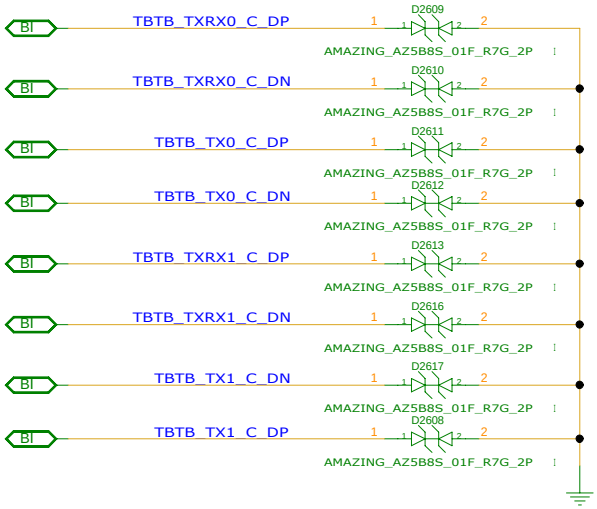
INVENTEC

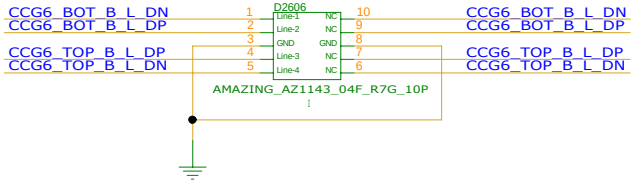
| | | | |
|---|---|---|---|
| TITLE | MODEL_PROJECT_FUNCTION<br>USB_TYPE-C_A-2 (RIGHT) | | |
| SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
| CHANGE by XXX | | DATE 21-OCT-2002 | |
| PCB P/N 60xxxxxxxxx | | PCB VER XXX | |
| SHEET 51 of 85 | | | |

# USB TYPE-C PORT B
# USB TYPE - C CONN




LOCATION NUMBER:2600~2699

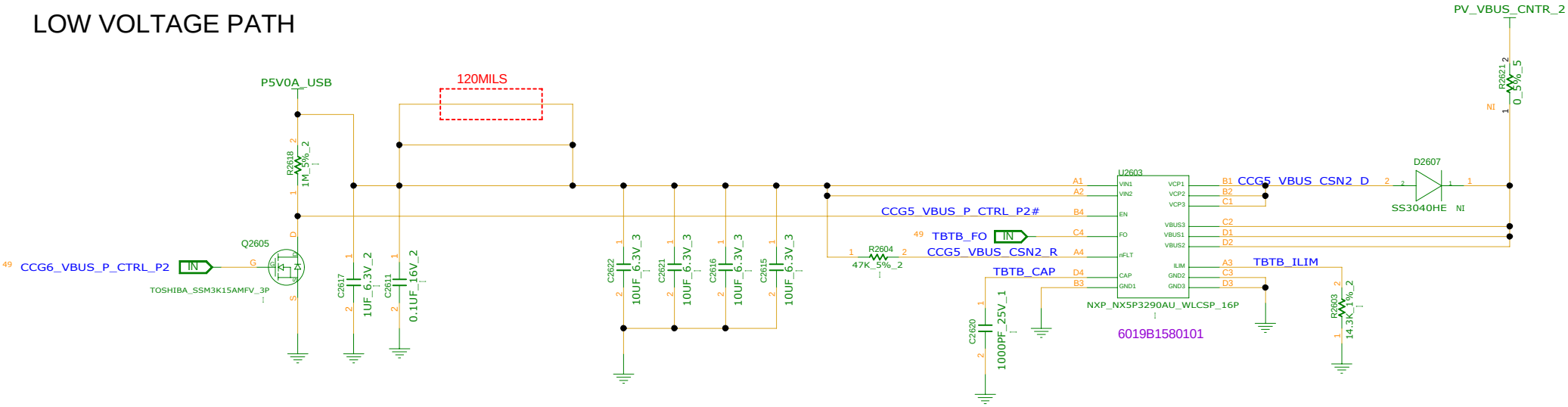
INVENTEC

| | | | |
|---|---|---|---|
| TITLE | MODEL_PROJECT,FUNCTION<br>USB_TYPE-C_B-1 (RIGHT) | | |
| SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
| SHEET 52 of 85 | | | |

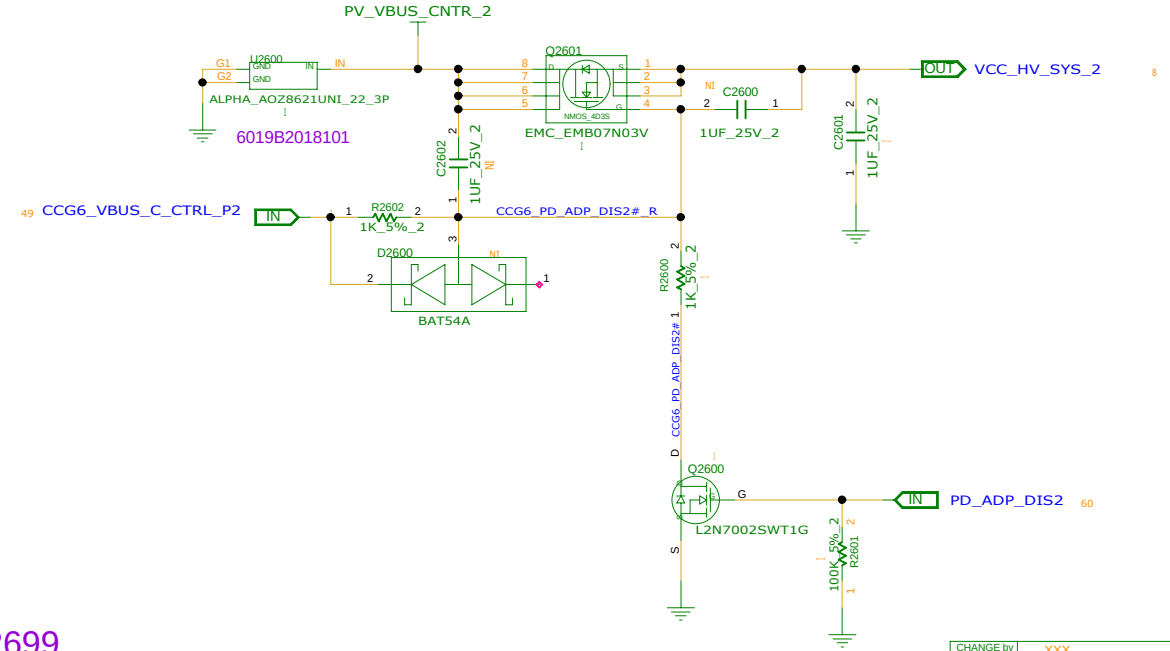
| | | | |
|---|---|---|---|
| CHANGE by | XXX | DATE | 21-OCT-2002 |
| PCB P/N | 60xxxxxxxxxx | PCB VER | XXX |

# USB TYPE-C PORT B
# CCG6(LEFT) PD CONTROLLER

## LOW VOLTAGE PATH




## HIGH VOLTAGE PATH




LOCATION NUMBER:2600~2699

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

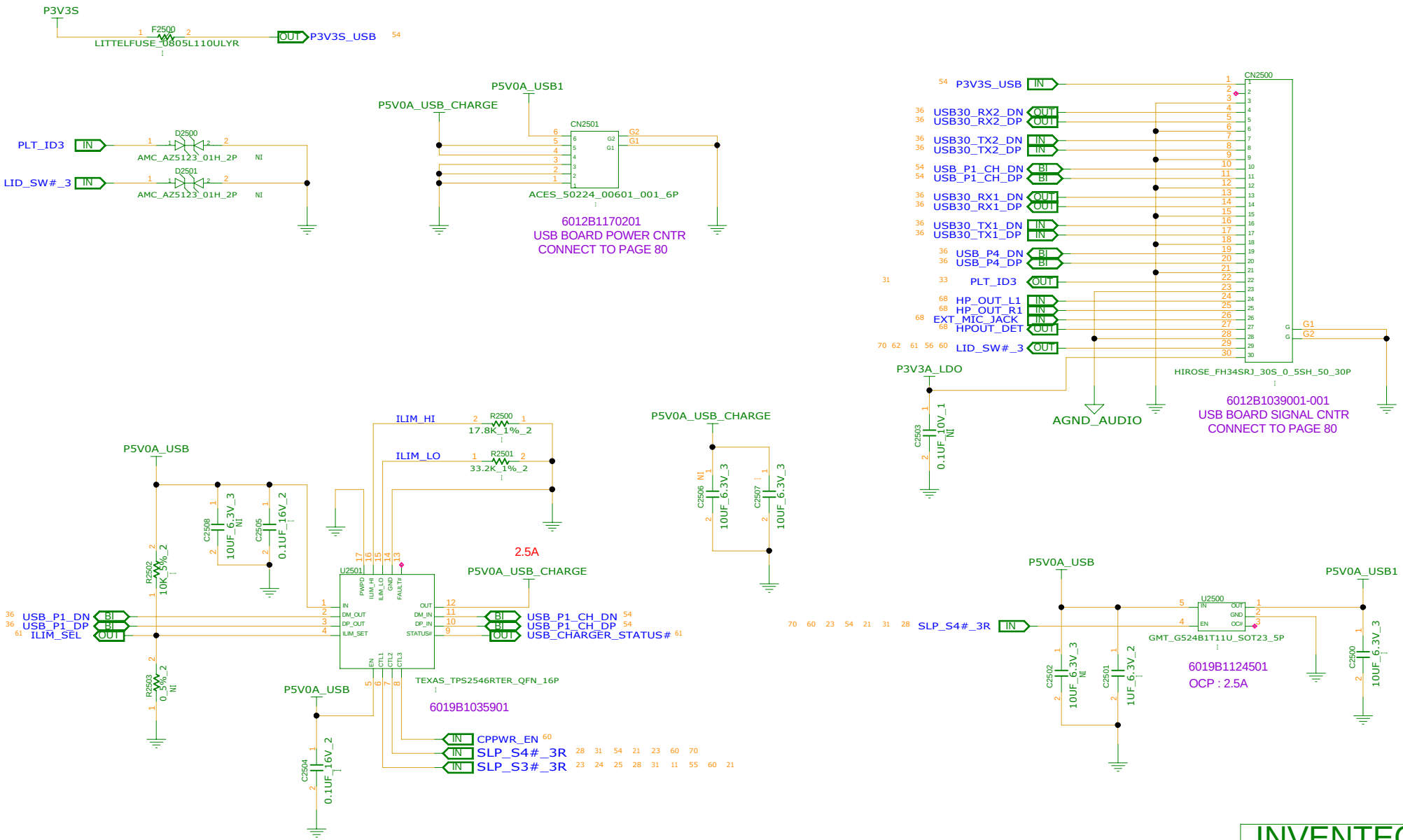
INVENTEC

TITLE: MODEL_PROJECT,FUNCTION
USB_TYPE-C_B-2 (RIGHT)

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

SHEET 53 of 85

# M/B TO USB/B CNTR



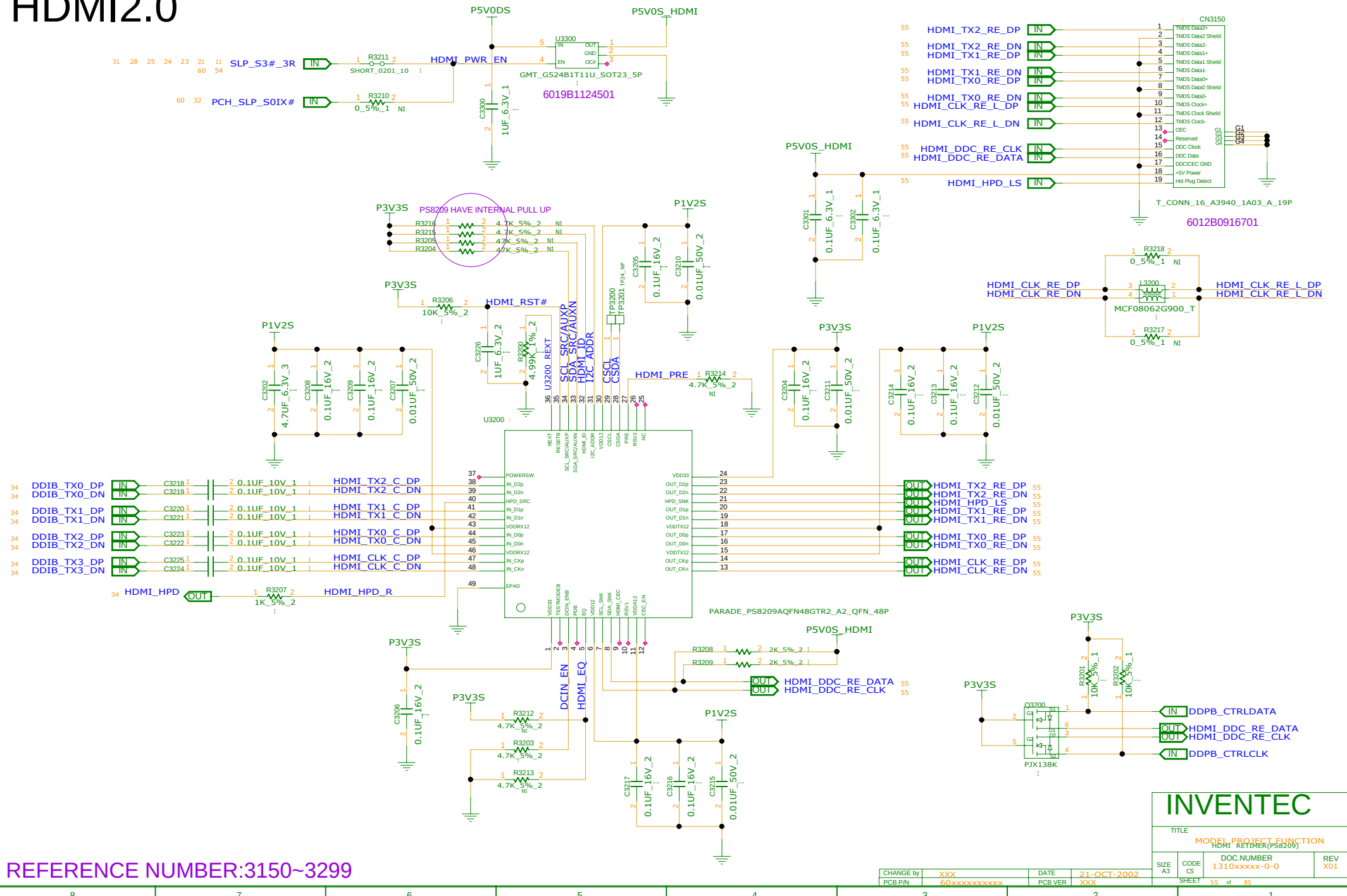

LOCATION NUMBER:2500~2599

INVENTEC

| | |
|---|---|
| TITLE | MODEL_PROJECT_FUNCTION<br>USB_MB_TO_DB_CNTR |
| SIZE A3 | CODE CS |
| DOC.NUMBER | 1310xxxxx-0-0 |
| REV | X01 |
| SHEET | 54 of 85 |

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

# HDMI2.0




REFERENCE NUMBER:3150~3299

INVENTEC

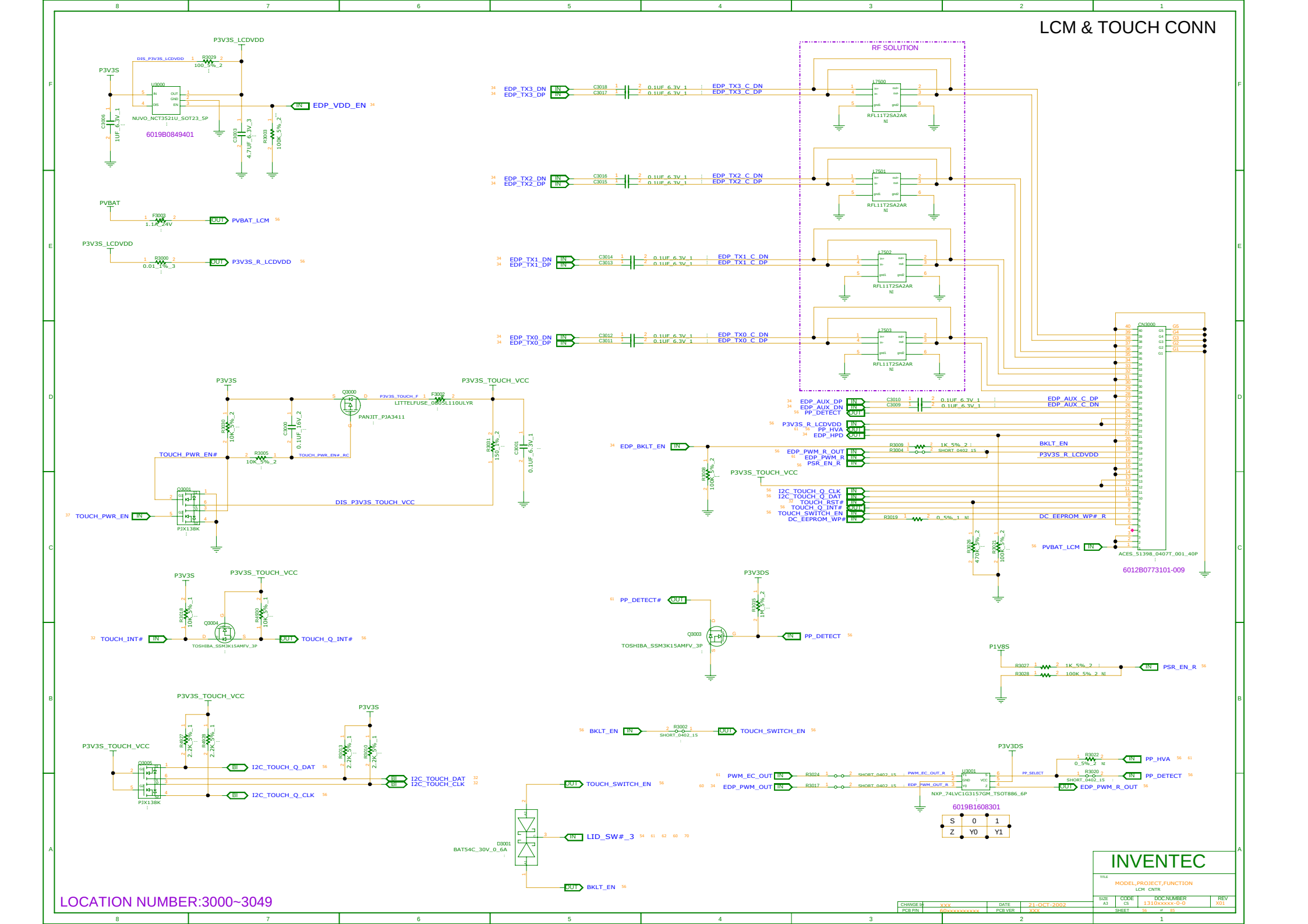
TITLE: MODEL PROJECT FUNCTION
HDMI RETIMER(PS8209)

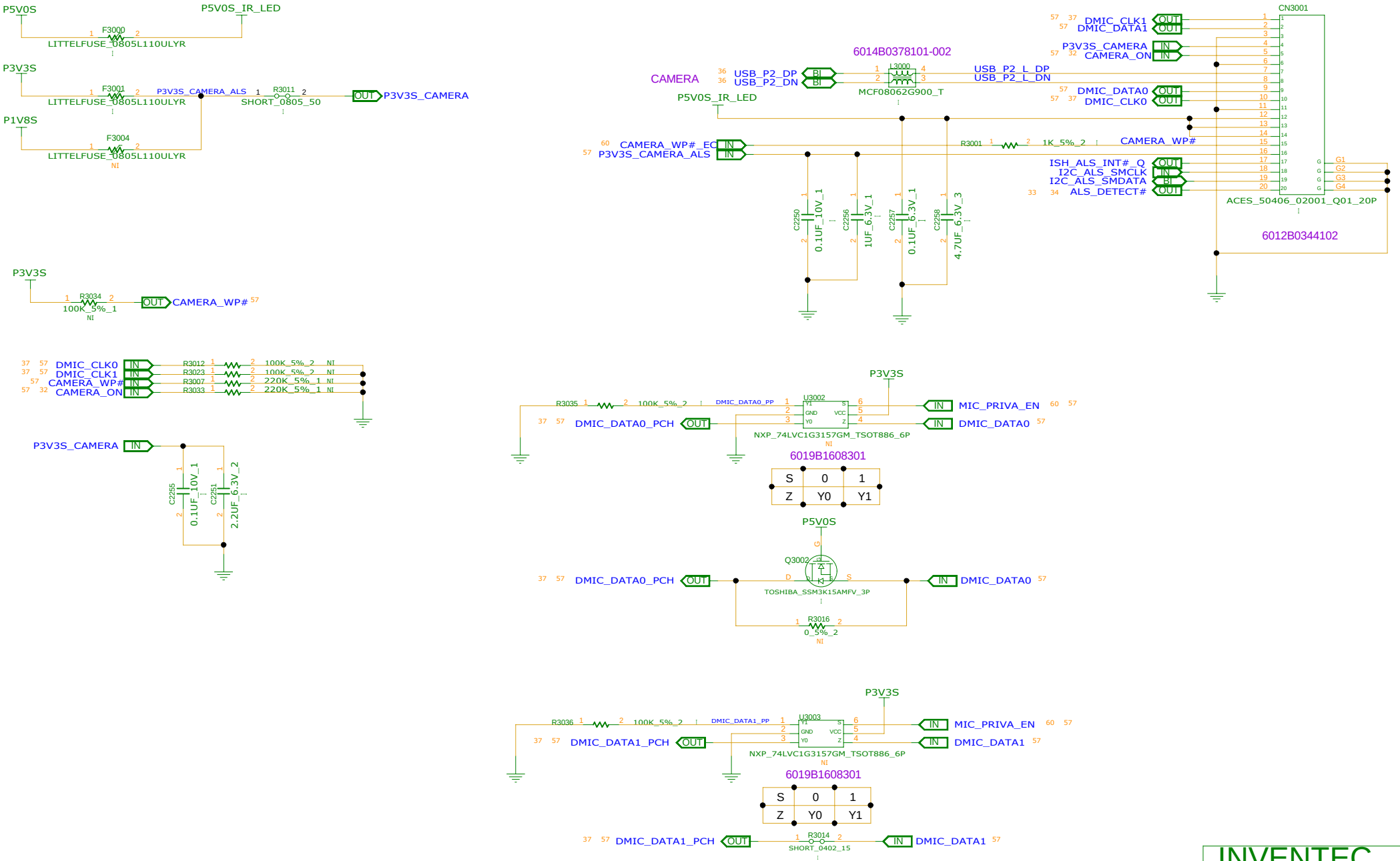
| CHANGE by | XXX | DATE | 21-OCT-2002 |
|---|---|---|---|
| PCB P/N | 60xxxxxxxxx | PCB VER | XXX |

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

SHEET 55 of 85

# LCM & TOUCH CONN






LOCATION NUMBER:3000~3049

www.repairlap.com

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

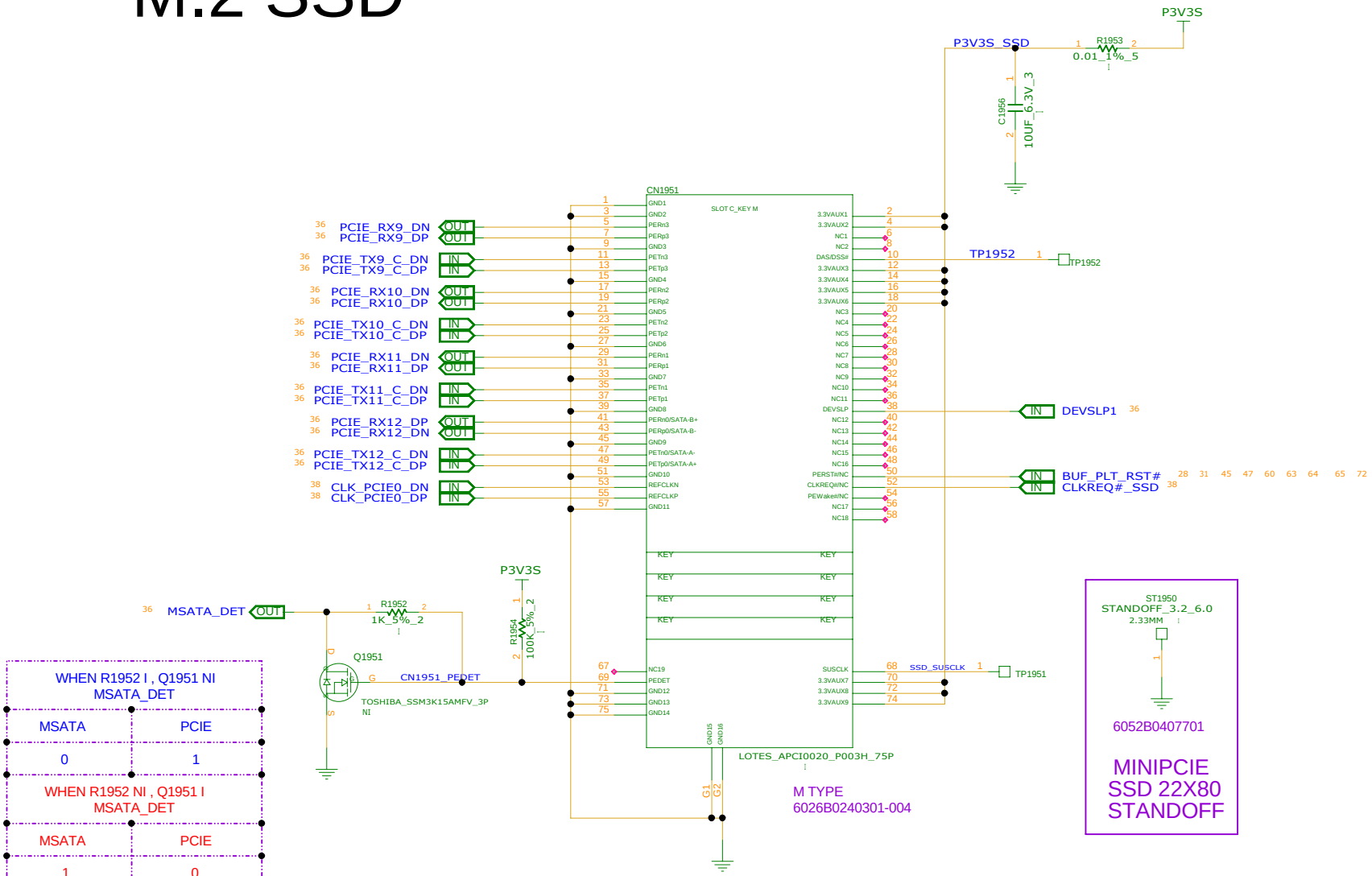
INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
CAMERA_CNTR

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

SHEET 57 of 85

# M.2 SSD




| WHEN R1952 I , Q1951 NI<br>MSATA_DET | |
|---|---|
| MSATA | PCIE |
| 0 | 1 |
| **WHEN R1952 NI , Q1951 I<br>MSATA_DET** | |
| MSATA | PCIE |
| 1 | 0 |

LOCATION NUMBER:1950~1999

www.repairlap.com

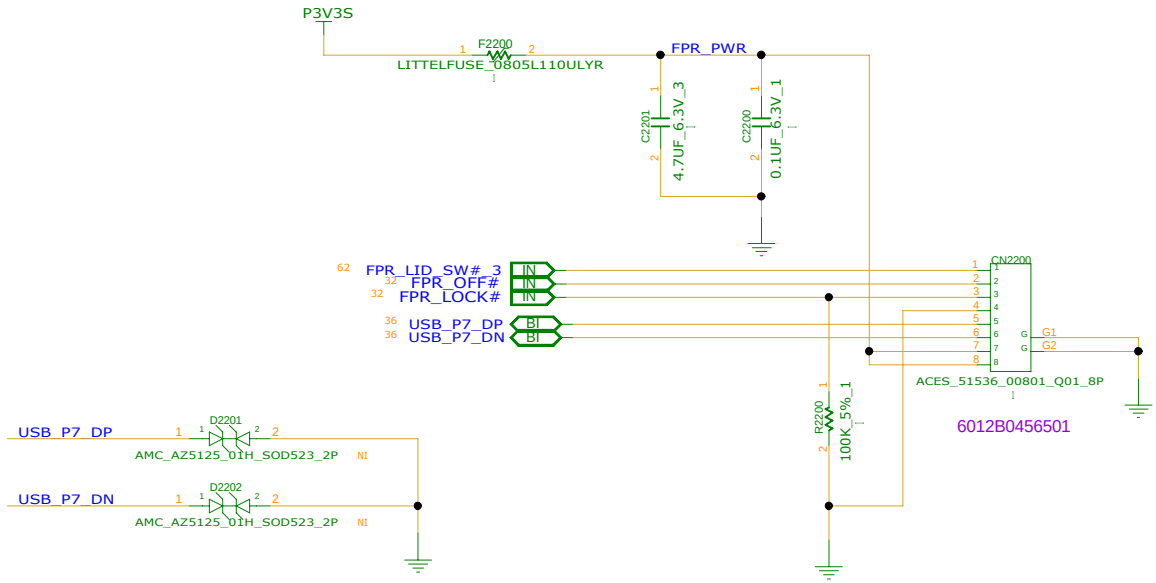
INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
NGFF_SSD_CONN

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

SHEET 58 of 85

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




# FINGER PRINT CONN

LOCATION NUMBER:2200~2249

www.repairlap.com

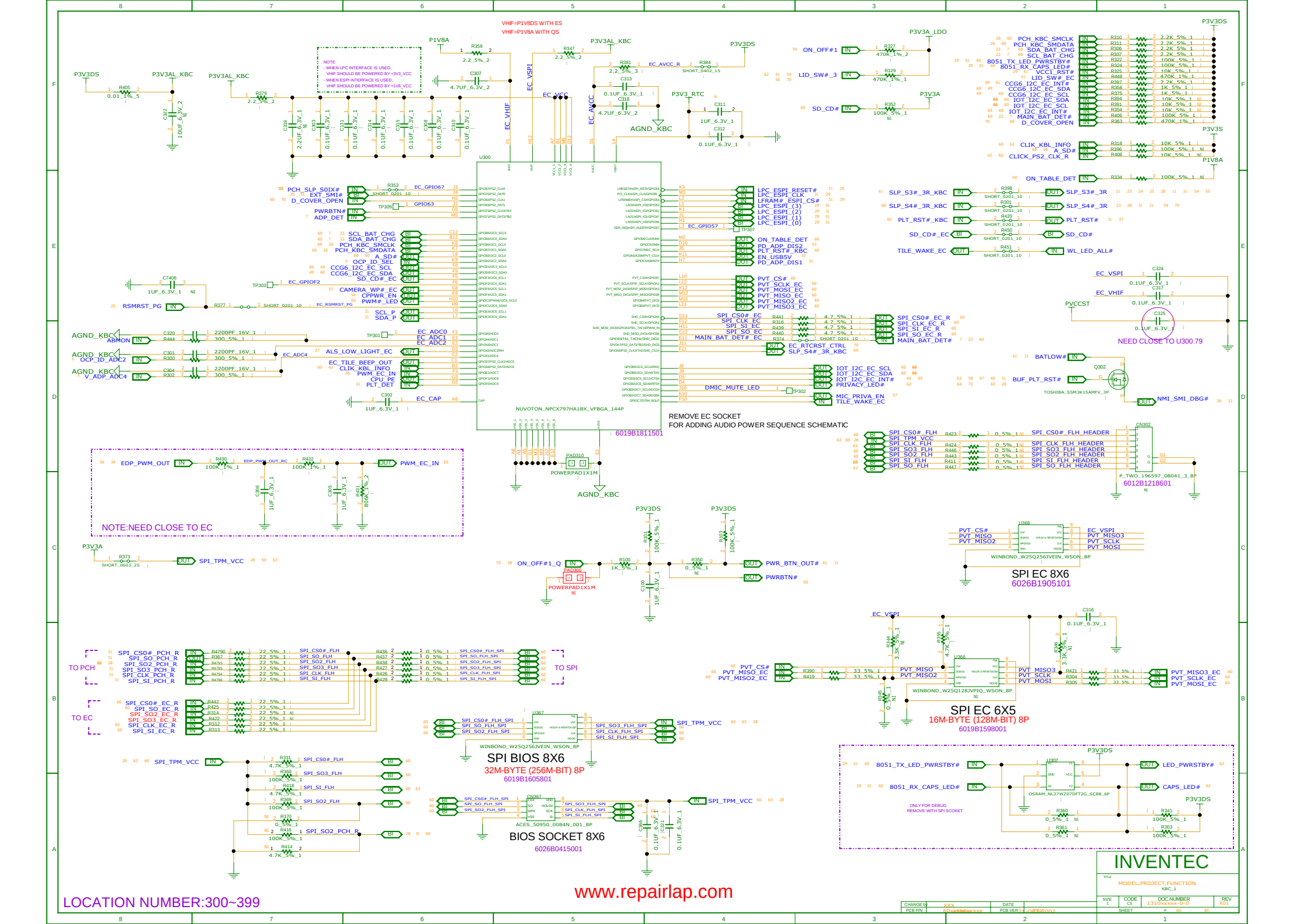
| | | | |
|---|---|---|---|
| CHANGE by | XXX | DATE | 21-OCT-2002 |
| PCB P/N | 60xxxxxxxxxx | PCB VER | XXX |

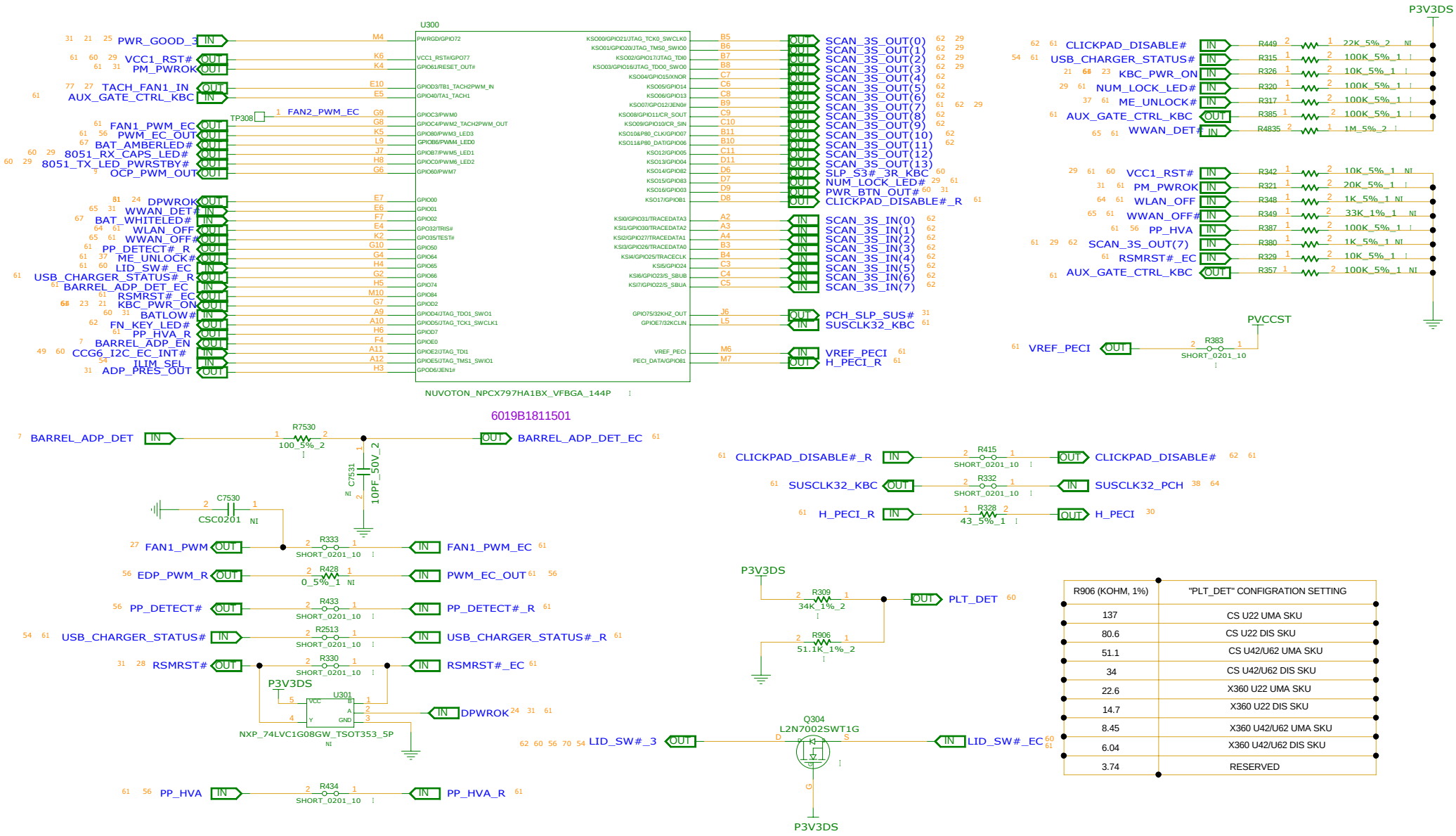
INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
FINGER PRINTER

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

SHEET 59 of 85


VHIF=P1V8DS WITH ES
VHIF=P1V8A WITH QS
NOTE:
- WHEN LPC INTERFACE IS USED,
VHIF SHOULD BE POWERED BY +3V3_VCC
- WHEN ESPI INTERFACE IS USED,
VHIF SHOULD BE POWERED BY +1V8_VCC
U300
NUVOTON_NPCX797HA1BX_VFBGA_144P
6019B1811501
REMOVE EC SOCKET
FOR ADDING AUDIO POWER SEQUENCE SCHEMATIC
NOTE:NEED CLOSE TO EC
NEED CLOSE TO U300.79
SPI EC 8X6
6026B1905101
SPI EC 6X5
16M-BYTE (128M-BIT) 8P
6019B1598001
SPI BIOS 8X6
32M-BYTE (256M-BIT) 8P
6019B1605801
BIOS SOCKET 8X6
6026B0415001
TO PCH
TO EC
TO SPI
ONLY FOR DEBUG
REMOVE WITH SPI SCOKET
LOCATION NUMBER:300~399
www.repairlap.com
INVENTEC
MODEL,PROJECT,FUNCTION
KBC_1




| R906 (KOHM, 1%) | "PLT_DET" CONFIGRATION SETTING |
|---|---|
| 137 | CS U22 UMA SKU |
| 80.6 | CS U22 DIS SKU |
| 51.1 | CS U42/U62 UMA SKU |
| 34 | CS U42/U62 DIS SKU |
| 22.6 | X360 U22 UMA SKU |
| 14.7 | X360 U22 DIS SKU |
| 8.45 | X360 U42/U62 UMA SKU |
| 6.04 | X360 U42/U62 DIS SKU |
| 3.74 | RESERVED |

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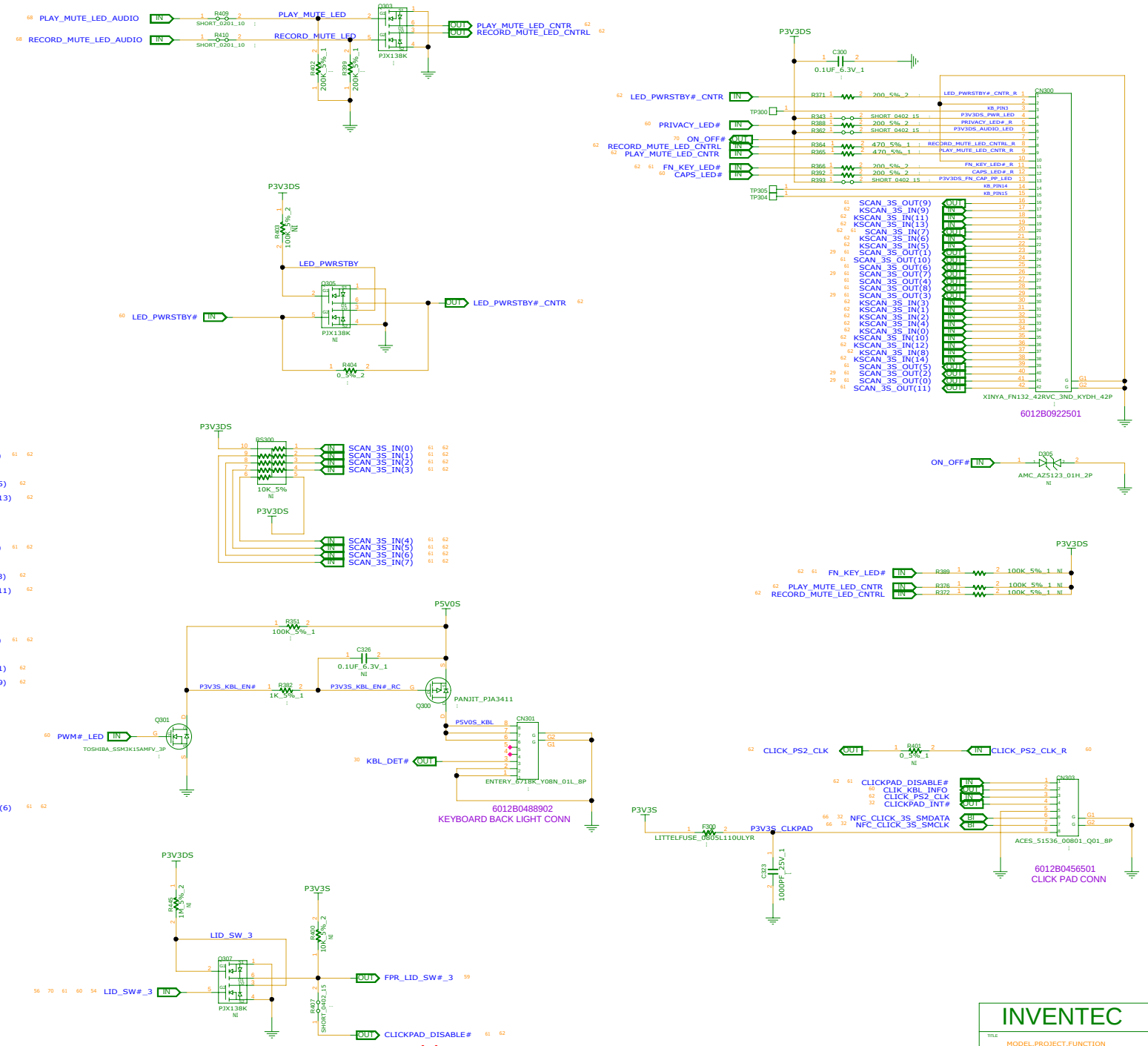



LOCATION NUMBER:400~499

www.repairlap.com

INVENTEC

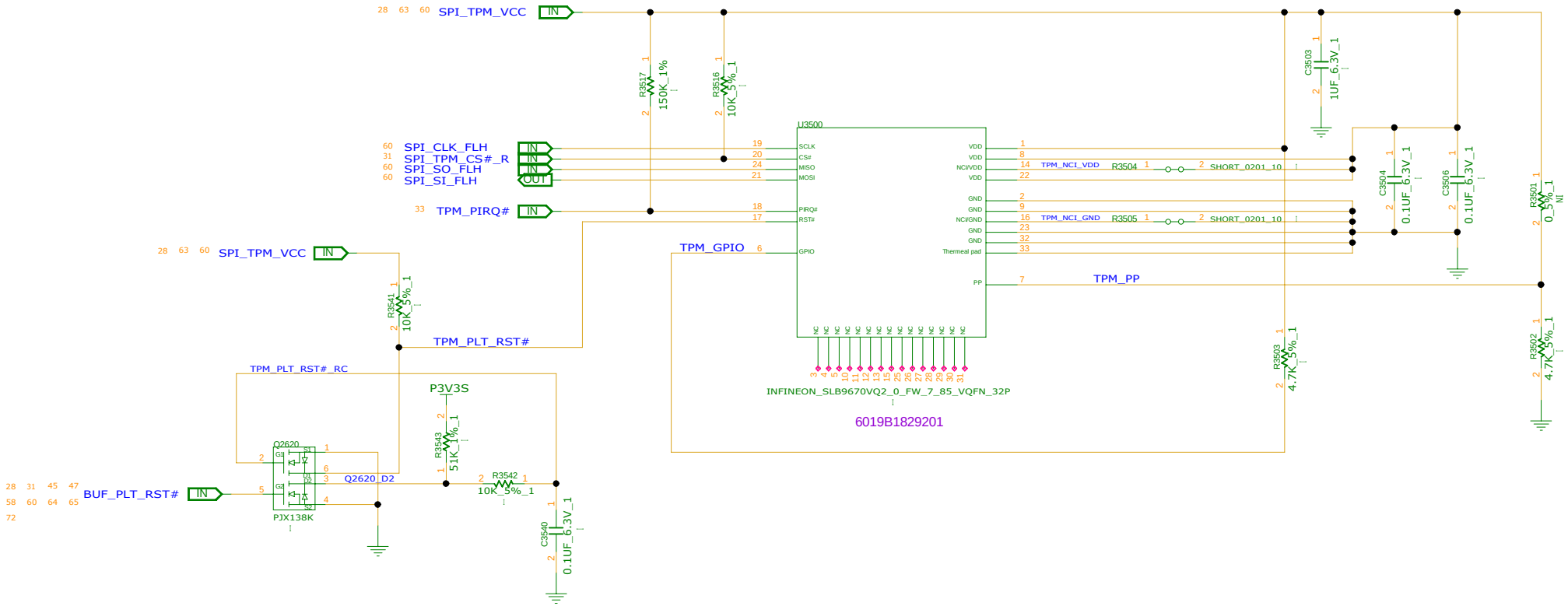
MODEL,PROJECT,FUNCTION
KAYBOARD & CLICKPAD & BL

| SIZE | CODE | DOC NUMBER | REV |
|---|---|---|---|
| A3 | CS | 1310xxxxx-D-D | X01 |

| CHANGE By | XXX | DATE | 21-OCT-2002 |
|---|---|---|---|
| PCB P/N | 60xxxxxxxxx | PCB VER | XXX |

SHEET 62 of 85

# TPM2.0




LOCATION NUMBER:3500~3599

www.repairlap.com

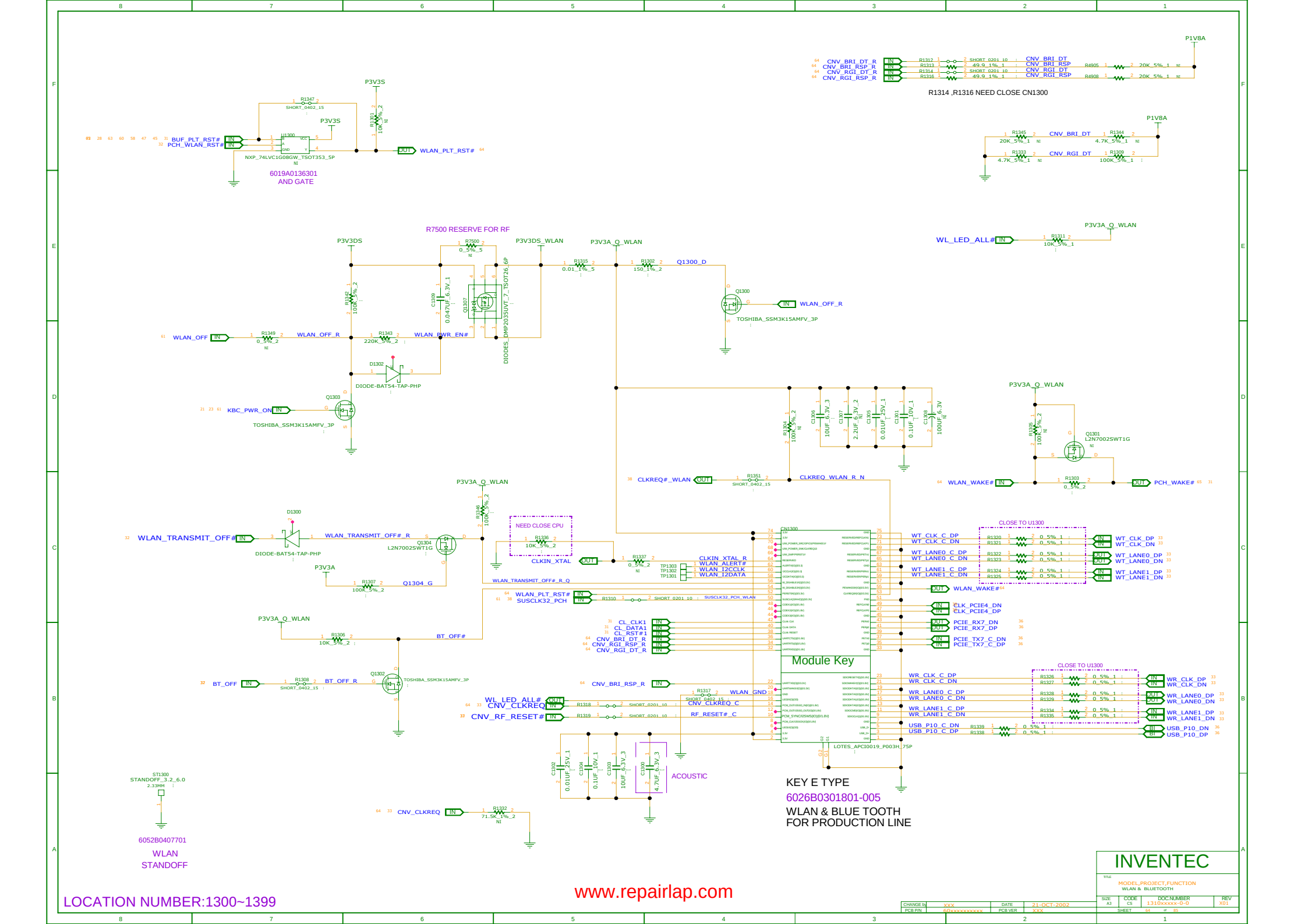
| | | | |
|---|---|---|---|
| CHANGE by | XXX | DATE | 21-OCT-2002 |
| PCB P/N | 60xxxxxxxxxx | PCB VER | XXX |

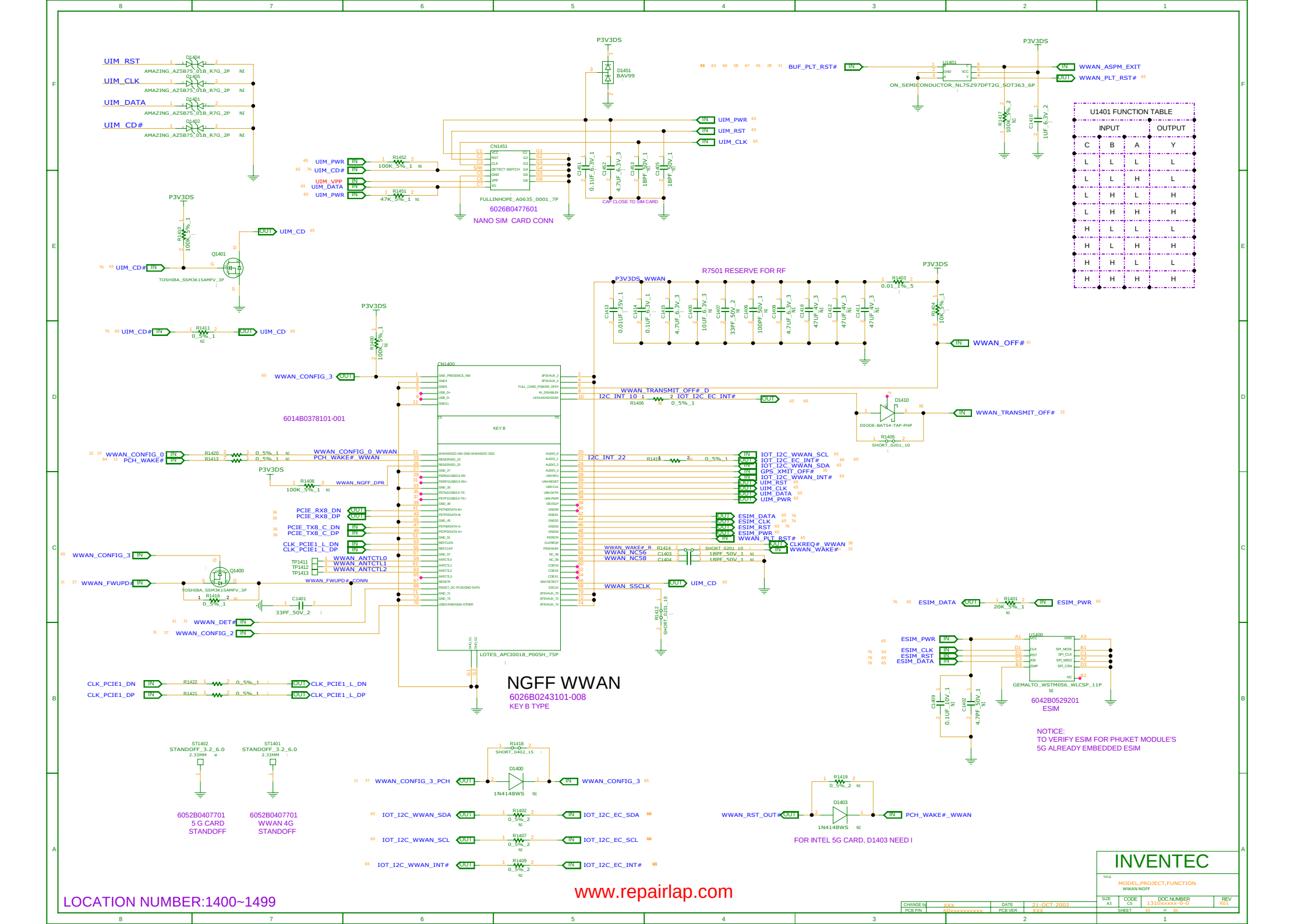
INVENTEC

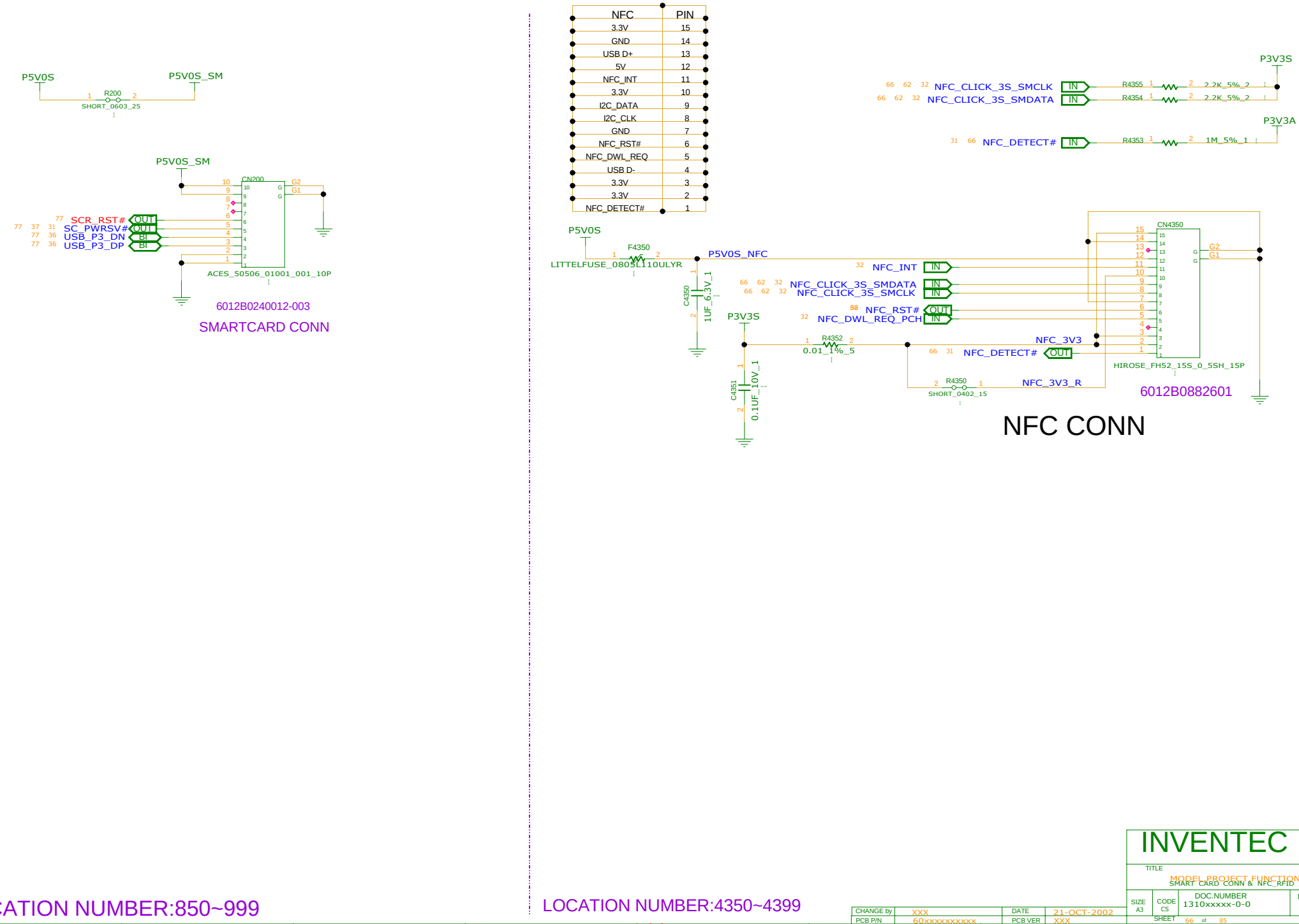
TITLE: MODEL,PROJECT,FUNCTION
TPM

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

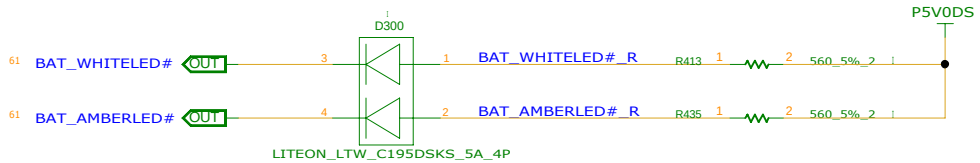
SHEET 63 of 85


P1V8A
CNV_BRI_DT_R
CNV_BRI_RSP_R
CNV_RGI_DT_R
CNV_RGI_RSP_R
R1314 ,R1316 NEED CLOSE CN1300
P3V3S
BUF_PLT_RST#
PCH_WLAN_RST#
NXP_74LVC1G08GW_TSOT353_5P
6019A0136301
AND GATE
WLAN_PLT_RST#
R7500 RESERVE FOR RF
P3V3DS
P3V3DS_WLAN
P3V3A_Q_WLAN
Q1300_D
WL_LED_ALL#
WLAN_OFF
WLAN_OFF_R
WLAN_PWR_EN#
KBC_PWR_ON
DIODE-BAT54-TAP-PHP
TOSHIBA_SSM3K15AMFV_3P
DIODES_DMP2035UVT_7_TSOT26_6P
CLKREQ#_WLAN
CLKREQ_WLAN_R_N
WLAN_WAKE#
PCH_WAKE#
NEED CLOSE CPU
CLKIN_XTAL
WLAN_TRANSMIT_OFF#
WLAN_TRANSMIT_OFF#_R
WLAN_PLT_RST#
SUSCLK32_PCH
BT_OFF#
BT_OFF
CL_CLK1
CL_DATA1
CL_RST#1
CNV_BRI_DT_R
CNV_RGI_RSP_R
CNV_RGI_DT_R
CNV_BRI_RSP_R
WL_LED_ALL#
CNV_CLKREQ
CNV_RF_RESET#
WLAN_GND
CNV_CLKREQ_C
RF_RESET#_C
CN1300
Module Key
LOTES_APCI0019_P003H_75P
CLOSE TO U1300
WT_CLK_C_DP
WT_CLK_C_DN
WT_LANE0_C_DP
WT_LANE0_C_DN
WT_LANE1_C_DP
WT_LANE1_C_DN
WT_CLK_DP
WT_CLK_DN
WT_LANE0_DP
WT_LANE0_DN
WT_LANE1_DP
WT_LANE1_DN
CLK_PCIE4_DN
CLK_PCIE4_DP
PCIE_RX7_DN
PCIE_RX7_DP
PCIE_TX7_C_DN
PCIE_TX7_C_DP
WR_CLK_C_DP
WR_CLK_C_DN
WR_LANE0_C_DP
WR_LANE0_C_DN
WR_LANE1_C_DP
WR_LANE1_C_DN
WR_CLK_DP
WR_CLK_DN
WR_LANE0_DP
WR_LANE0_DN
WR_LANE1_DP
WR_LANE1_DN
USB_P10_C_DN
USB_P10_C_DP
USB_P10_DN
USB_P10_DP
ACOUSTIC
KEY E TYPE
6026B0301801-005
WLAN & BLUE TOOTH
FOR PRODUCTION LINE
ST1300
STANDOFF_3.2_6.0
2.33MM
6052B0407701
WLAN
STANDOFF
LOCATION NUMBER:1300~1399
www.repairlap.com
INVENTEC
MODEL,PROJECT,FUNCTION
WLAN & BLUETOOTH
DOC.NUMBER
1310xxxx-D-0
REV
X01


UIM_RST
UIM_CLK
UIM_DATA
UIM_CD#
D1404
D1405
D1401
D1402
AMAZING_AZ5B75_01B_R7G_2P
P3V3DS
D1451
BAV99
CN1451
FULLINHOPE_A0635_0001_7P
6026B0477601
NANO SIM CARD CONN
CAP CLOSE TO SIM CARD
UIM_PWR
UIM_RST
UIM_CLK
UIM_VPP
R1452
100K_5%_1
R1451
47K_5%_1
R1410
Q1401
TOSHIBA_SSM3K1SAMFV_3P
R1411
0_5%_1
R7501 RESERVE FOR RF
P3V3DS_WWAN
R1403
0.01_1%_5
R1404
10K_5%_1
WWAN_OFF#
R1400
CN1400
6014B0378101-001
KEY B
WWAN_CONFIG_3
WWAN_TRANSMIT_OFF#_D
I2C_INT_10_1
IOT_I2C_EC_INT#
R1406
D1410
DIODE-BAT54-TAP-PHP
WWAN_TRANSMIT_OFF#
R1405
SHORT_0201_10
WWAN_CONFIG_0
PCH_WAKE#
R1420
R1413
WWAN_CONFIG_0_WWAN
PCH_WAKE#_WWAN
R1408
100K_5%_1
WWAN_NGFF_DPR
I2C_INT_22
R1414
IOT_I2C_WWAN_SCL
IOT_I2C_EC_INT#
IOT_I2C_WWAN_SDA
GPS_XMIT_OFF#
IOT_I2C_WWAN_INT#
UIM_RST
UIM_CLK
UIM_DATA
UIM_PWR
PCIE_RX8_DN
PCIE_RX8_DP
PCIE_TX8_C_DN
PCIE_TX8_C_DP
CLK_PCIE1_L_DN
CLK_PCIE1_L_DP
ESIM_DATA
ESIM_CLK
ESIM_RST
ESIM_PWR
WWAN_PLT_RST#
WWAN_WAKE#_R
WWAN_NC56
WWAN_NC58
C1403
C1404
18PF_50V_1
CLKREQ#_WWAN
WWAN_WAKE#
WWAN_SSCLK
WWAN_ANTCTL0
WWAN_ANTCTL1
WWAN_ANTCTL2
TP1411
TP1412
TP1413
WWAN_FWUPD#_CONN
Q1400
R1416
C1401
33PF_50V_2
WWAN_DET#
WWAN_CONFIG_2
LOTES_APCI0018_P005H_75P
NGFF WWAN
6026B0243101-008
KEY B TYPE
CLK_PCIE1_DN
CLK_PCIE1_DP
R1422
R1421
ESIM_DATA
R1401
20K_5%_1
ESIM_PWR
ESIM_CLK
ESIM_RST
U1400
GEMALTO_WSTM056_WLCSP_11P
6042B0529201
ESIM
C1409
0.1UF_10V_1
C1402
4.7PF_50V_1
NOTICE:
TO VERIFY ESIM FOR PHUKET MODULE'S
5G ALREADY EMBEDDED ESIM
ST1402
STANDOFF_3.2_6.0
2.33MM
ST1401
STANDOFF_3.2_6.0
2.33MM
6052B0407701
5 G CARD
STANDOFF
6052B0407701
WWAN 4G
STANDOFF
R1418
SHORT_0402_15
D1400
1N4148WS
WWAN_CONFIG_3_PCH
IOT_I2C_WWAN_SDA
IOT_I2C_EC_SDA
R1402
IOT_I2C_WWAN_SCL
IOT_I2C_EC_SCL
R1407
IOT_I2C_WWAN_INT#
IOT_I2C_EC_INT#
R1409
R1419
D1403
WWAN_RST_OUT#
PCH_WAKE#_WWAN
FOR INTEL 5G CARD, D1403 NEED I
BUF_PLT_RST#
U1401
ON_SEMICONDUCTOR_NL7SZ97DFT2G_SOT363_6P
WWAN_ASPM_EXIT
WWAN_PLT_RST#
R1417
C1410
U1401 FUNCTION TABLE
INPUT
OUTPUT
C B A Y
L L L L
L L H L
L H L H
L H H H
H L L L
H L H H
H H L L
H H H H
INVENTEC
MODEL,PROJECT,FUNCTION
WWAN NGFF
LOCATION NUMBER:1400~1499
www.repairlap.com
CHANGE by
XXX
DATE
21-OCT-2002
PCB P/N
60.xxxxxxxxx
PCB VER
XXX
SIZE
A3
CODE
CS
DOC.NUMBER
1310xxxx-B-0
REV
X01
SHEET
65
of
85


P5V0S
P5V0S_SM
R200
SHORT_0603_25
P5V0S_SM
CN200
SCR_RST#
SC_PWRSV#
USB_P3_DN
USB_P3_DP
ACES_50506_01001_001_10P
6012B0240012-003
SMARTCARD CONN
NFC
PIN
3.3V 15
GND 14
USB D+ 13
5V 12
NFC_INT 11
3.3V 10
I2C_DATA 9
I2C_CLK 8
GND 7
NFC_RST# 6
NFC_DWL_REQ 5
USB D- 4
3.3V 3
3.3V 2
NFC_DETECT# 1
P3V3S
NFC_CLICK_3S_SMCLK
NFC_CLICK_3S_SMDATA
R4355 2.2K_5%_2
R4354 2.2K_5%_2
P3V3A
NFC_DETECT#
R4353 1M_5%_1
P5V0S
F4350
LITTELFUSE_0805L110ULYR
P5V0S_NFC
C4350 1UF_6.3V_1
P3V3S
R4352 0.01_1%_5
C4351 0.1UF_10V_1
NFC_INT
NFC_CLICK_3S_SMDATA
NFC_CLICK_3S_SMCLK
NFC_RST#
NFC_DWL_REQ_PCH
NFC_3V3
NFC_DETECT#
R4350 SHORT_0402_15
NFC_3V3_R
CN4350
HIROSE_FH52_15S_0_5SH_15P
6012B0882601
NFC CONN
LOCATION NUMBER:850~999
LOCATION NUMBER:4350~4399
INVENTEC
TITLE
MODEL PROJECT FUNCTION
SMART CARD CONN & NFC_RFID
SIZE A3
CODE CS
DOC.NUMBER 1310xxxxx-0-0
REV X01
SHEET 66 of 85
CHANGE by XXX
PCB P/N 60xxxxxxxxxx
DATE 21-OCT-2002
PCB VER XXX
www.repairlap.com

# POWER JACK LED




LOCATION NUMBER:100~199

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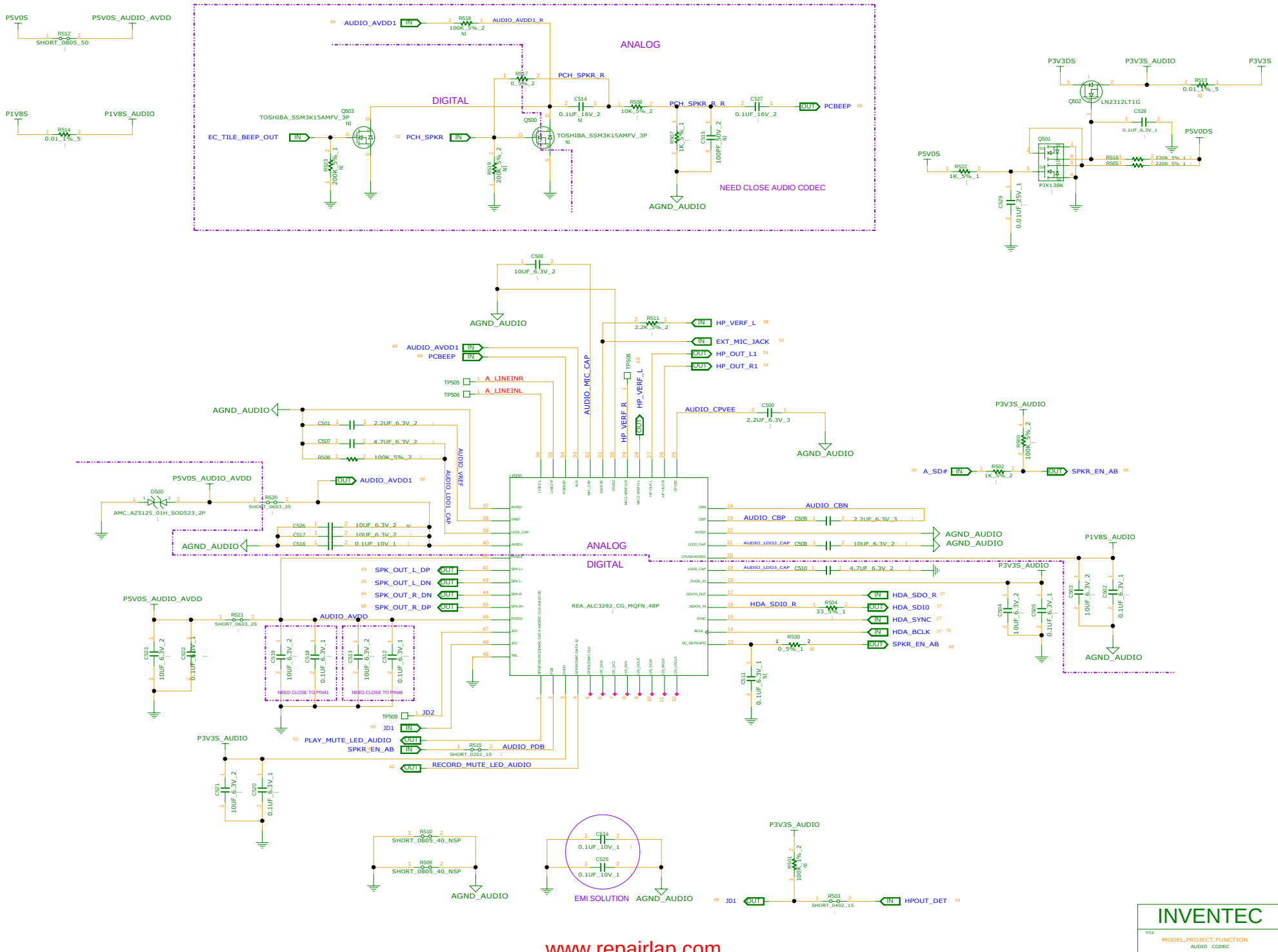
| | | | |
|---|---|---|---|
| CHANGE by | XXX | DATE | 21-OCT-2002 |
| PCB P/N | 60xxxxxxxxxx | PCB VER | XXX |

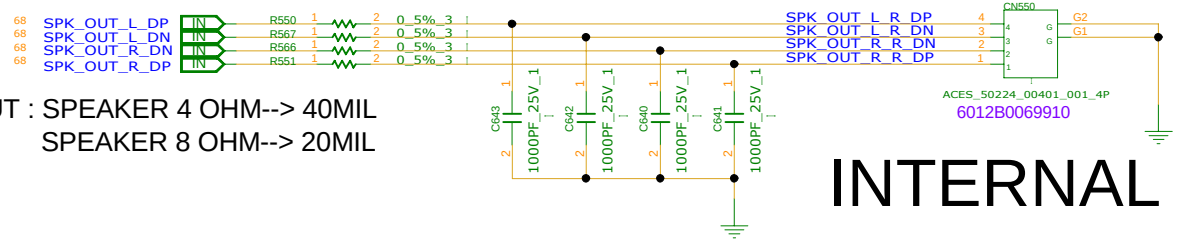
INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
POWER JACK LED

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

SHEET 67 of 85


P5V0S
P5V0S_AUDIO_AVDD
R512
SHORT_0805_50
P1V8S
P1V8S_AUDIO
R514
0.01_1%_5
AUDIO_AVDD1
R516
100K_5%_2
AUDIO_AVDD1_R
ANALOG
DIGITAL
R517
0_5%_2
PCH_SPKR_R
C514
0.1UF_16V_2
R508
10K_5%_2
PCH_SPKR_R_R
C527
0.1UF_16V_2
PCBEEP
Q503
TOSHIBA_SSM3K15AMFV_3P
EC_TILE_BEEP_OUT
R503
200K_5%_1
Q500
TOSHIBA_SSM3K15AMFV_3P
PCH_SPKR
R499
200K_5%_2
R507
1K_5%_1
C515
100PF_50V_2
NEED CLOSE AUDIO CODEC
AGND_AUDIO
P3V3DS
P3V3S_AUDIO
P3V3S
R513
0.01_1%_5
Q502
LN2312LT1G
C528
0.1UF_6.3V_1
P5V0DS
Q501
PJX138K
R516
R505
220K_5%_1
P5V0S
R522
1K_5%_1
C529
0.01UF_25V_1
C506
10UF_6.3V_2
AGND_AUDIO
R511
2.2K_5%_2
HP_VERF_L
EXT_MIC_JACK
HP_OUT_L1
HP_OUT_R1
AUDIO_MIC_CAP
TP505
A_LINEINR
TP506
A_LINEINL
HP_VERF_R
HP_VERF_L
AUDIO_CPVEE
C500
2.2UF_6.3V_3
C501
2.2UF_6.3V_2
C507
4.7UF_6.3V_2
R506
100K_5%_2
AUDIO_VREF
AUDIO_LDO1_CAP
P5V0S_AUDIO_AVDD
D500
AMC_AZ5125_01H_SOD523_2P
R520
SHORT_0603_25
AUDIO_AVDD1
C526
C517
C516
10UF_6.3V_2
10UF_6.3V_2
0.1UF_10V_1
U500
ANALOG
DIGITAL
REA_ALC3292_CG_MQFN_48P
AUDIO_CBN
AUDIO_CBP
C509
2.2UF_6.3V_3
AUDIO_LDO2_CAP
C508
10UF_6.3V_2
AUDIO_LDO3_CAP
C510
4.7UF_6.3V_2
AGND_AUDIO
AGND_AUDIO
P3V3S_AUDIO
R500
100K_5%_2
A_SD#
R502
1K_5%_2
SPKR_EN_AB
P1V8S_AUDIO
C503
10UF_6.3V_2
C502
0.1UF_6.3V_1
AGND_AUDIO
SPK_OUT_L_DP
SPK_OUT_L_DN
SPK_OUT_R_DN
SPK_OUT_R_DP
HDA_SDO_R
HDA_SDI0_R
R504
33_5%_1
HDA_SDI0
HDA_SYNC
HDA_BCLK
SPKR_EN_AB
R530
0_5%_1
C504
C505
10UF_6.3V_2
0.1UF_6.3V_1
P5V0S_AUDIO_AVDD
R521
SHORT_0603_25
AUDIO_AVDD
C523
C522
10UF_6.3V_2
0.1UF_6.3V_1
C519
C518
C513
C512
10UF_6.3V_2
0.1UF_6.3V_1
NEED CLOSE TO PIN41
NEED CLOSE TO PIN46
C511
0.1UF_6.3V_1
TP509
JD2
JD1
PLAY_MUTE_LED_AUDIO
SPKR_EN_AB
R515
SHORT_0201_10
AUDIO_PDB
RECORD_MUTE_LED_AUDIO
P3V3S_AUDIO
C531
C530
10UF_6.3V_2
0.1UF_6.3V_1
R510
SHORT_0805_40_NSP
R509
SHORT_0805_40_NSP
AGND_AUDIO
C524
C525
0.1UF_10V_1
0.1UF_10V_1
EMI SOLUTION
AGND_AUDIO
P3V3S_AUDIO
R501
100K_5%_2
JD1
R503
SHORT_0402_15
HPOUT_DET
INVENTEC
MODEL,PROJECT,FUNCTION
AUDIO CODEC
SIZE
C
CODE
CS
DOC.NUMBER
131Oxxxxx-0-0
REV
X01
SHEET
of
68
CHANGE BY
PCB P/N
DATE
21-OCT-2002
PCB VER
X.X
www.repairlap.com
LOCATION NUMBER:500~549




LAYOUT : SPEAKER 4 OHM--> 40MIL
SPEAKER 8 OHM--> 20MIL

# INTERNAL SPEAKER

LOCATION NUMBER:600~649

www.repairlap.com

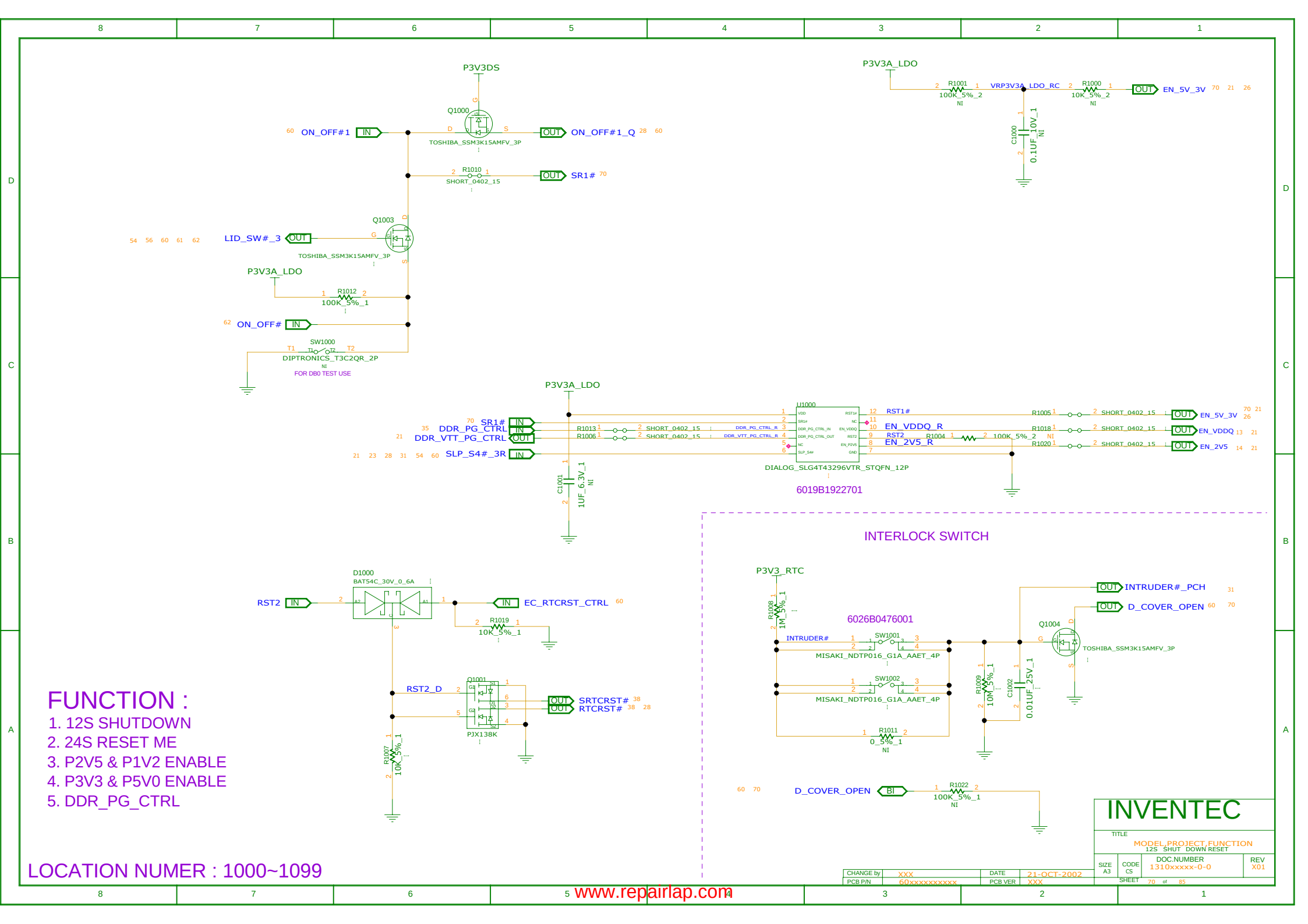
| | | | |
|---|---|---|---|
| CHANGE by | XXX | DATE | 21-OCT-2002 |
| PCB P/N | 60xxxxxxxxxx | PCB VER | XXX |

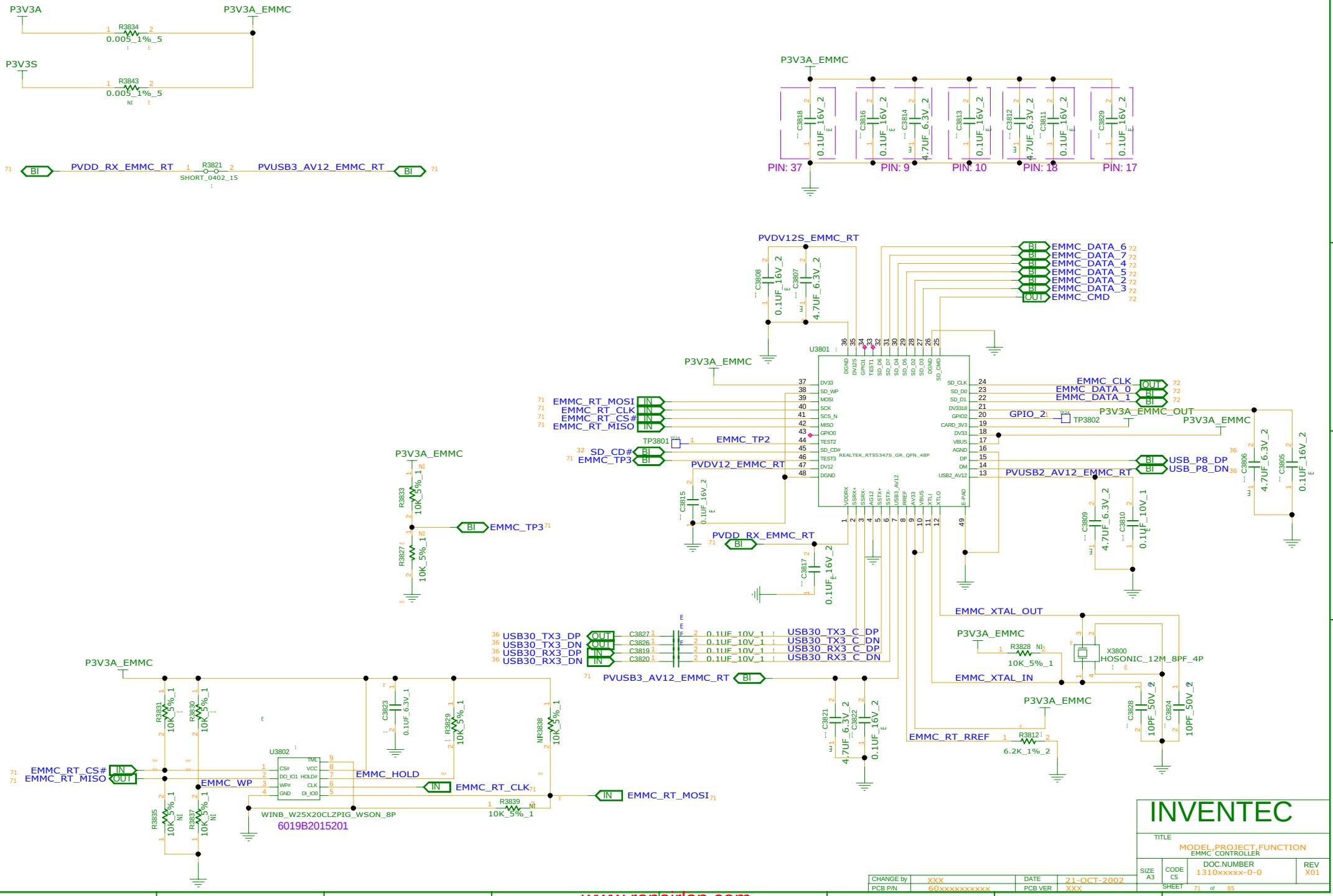
INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
SPEAKER

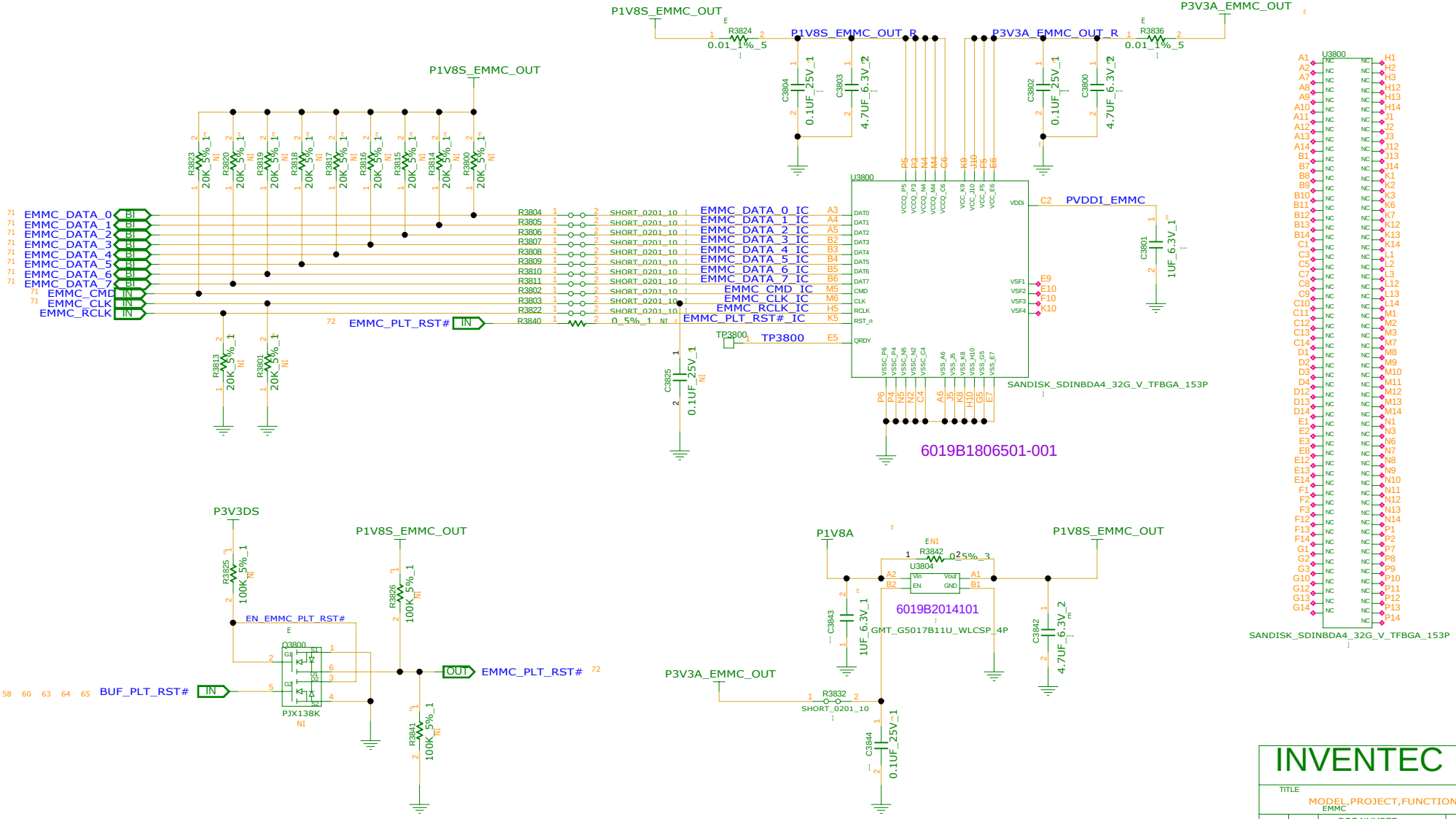
| SIZE | CODE | DOC.NUMBER | REV |
|---|---|---|---|
| A3 | CS | 1310xxxxx-0-0 | X01 |

SHEET 69 of 85


P3V3DS
Q1000
ON_OFF#1
IN
ON_OFF#1_Q
OUT
TOSHIBA_SSM3K15AMFV_3P
R1010
SHORT_0402_15
SR1#
Q1003
LID_SW#_3
TOSHIBA_SSM3K15AMFV_3P
P3V3A_LDO
R1012
100K_5%_1
ON_OFF#
SW1000
DIPTRONICS_T3C2QR_2P
NI
FOR DB0 TEST USE
P3V3A_LDO
R1001
100K_5%_2
VRP3V3A_LDO_RC
R1000
10K_5%_2
EN_5V_3V
C1000
0.1UF_10V_1
P3V3A_LDO
SR1#
DDR_PG_CTRL
DDR_VTT_PG_CTRL
SLP_S4#_3R
R1013
R1006
SHORT_0402_15
C1001
1UF_6.3V_1
U1000
DIALOG_SLG4T43296VTR_STQFN_12P
RST1#
EN_VDDQ_R
RST2
EN_2V5_R
R1004
100K_5%_2
R1005
R1018
R1020
EN_5V_3V
EN_VDDQ
EN_2V5
6019B1922701
INTERLOCK SWITCH
P3V3_RTC
R1008
1M_5%_1
6026B0476001
INTRUDER#
SW1001
SW1002
MISAKI_NDTP016_G1A_AAET_4P
R1011
0_5%_1
NI
R1009
10M_5%_1
C1002
0.01UF_25V_1
Q1004
TOSHIBA_SSM3K15AMFV_3P
INTRUDER#_PCH
D_COVER_OPEN
D_COVER_OPEN
BI
R1022
100K_5%_1
NI
D1000
BAT54C_30V_0_6A
RST2
EC_RTCRST_CTRL
R1019
10K_5%_1
Q1001
PJX138K
RST2_D
SRTCRST#
RTCRST#
R1007
10K_5%_1
FUNCTION :
1. 12S SHUTDOWN
2. 24S RESET ME
3. P2V5 & P1V2 ENABLE
4. P3V3 & P5V0 ENABLE
5. DDR_PG_CTRL
LOCATION NUMER : 1000~1099
INVENTEC
TITLE
MODEL_PROJECT_FUNCTION
12S_SHUT_DOWN RESET
SIZE A3
CODE CS
DOC.NUMBER 1310xxxxx-0-0
REV X01
SHEET 70 of 85
CHANGE by XXX
PCB P/N 60xxxxxxxxxx
DATE 21-OCT-2002
PCB VER XXX
www.repairlap.com


P3V3A
P3V3A_EMMC
R3834
0.005_1%_5
P3V3S
R3843
0.005_1%_5
PVDD_RX_EMMC_RT
R3821
SHORT_0402_15
PVUSB3_AV12_EMMC_RT
P3V3A_EMMC
C3818 0.1UF_16V_2
C3816 0.1UF_16V_2
C3814 4.7UF_6.3V_2
C3813 0.1UF_16V_2
C3812 4.7UF_6.3V_2
C3811 0.1UF_16V_2
C3829 0.1UF_16V_2
PIN: 37
PIN: 9
PIN: 10
PIN: 18
PIN: 17
PVDV12S_EMMC_RT
C3808 0.1UF_16V_2
C3807 4.7UF_6.3V_2
U3801
REALTEK_RTS5347S_GR_QFN_48P
EMMC_DATA_6
EMMC_DATA_7
EMMC_DATA_4
EMMC_DATA_5
EMMC_DATA_2
EMMC_DATA_3
EMMC_CMD
EMMC_CLK
EMMC_DATA_0
EMMC_DATA_1
GPIO_2
TP3802
P3V3A_EMMC_OUT
P3V3A_EMMC
C3806 4.7UF_6.3V_2
C3805 0.1UF_16V_2
EMMC_RT_MOSI
EMMC_RT_CLK
EMMC_RT_CS#
EMMC_RT_MISO
TP3801
EMMC_TP2
SD_CD#
EMMC_TP3
PVDV12_EMMC_RT
C3815 0.1UF_16V_2
USB_P8_DP
USB_P8_DN
PVUSB2_AV12_EMMC_RT
C3809 4.7UF_6.3V_2
C3810 0.1UF_10V_1
P3V3A_EMMC
R3833 10K_5%_1
R3827 10K_5%_1
EMMC_TP3
PVDD_RX_EMMC_RT
C3817 0.1UF_16V_2
EMMC_XTAL_OUT
P3V3A_EMMC
R3828 10K_5%_1
X3800 HOSONIC_12M_8PF_4P
EMMC_XTAL_IN
USB30_TX3_DP
USB30_TX3_DN
USB30_RX3_DP
USB30_RX3_DN
C3827 0.1UF_10V_1
C3826 0.1UF_10V_1
C3819 0.1UF_10V_1
C3820 0.1UF_10V_1
USB30_TX3_C_DP
USB30_TX3_C_DN
USB30_RX3_C_DP
USB30_RX3_C_DN
PVUSB3_AV12_EMMC_RT
C3821 4.7UF_6.3V_2
C3822 0.1UF_16V_2
P3V3A_EMMC
C3828 10PF_50V_2
C3824 10PF_50V_2
EMMC_RT_RREF
R3812 6.2K_1%_2
P3V3A_EMMC
R3831 10K_5%_1
R3830 10K_5%_1
C3823 0.1UF_6.3V_1
R3829 10K_5%_1
R3838 10K_5%_1
U3802
WINB_W25X20CLZPIG_WSON_8P
6019B2015201
EMMC_RT_CS#
EMMC_RT_MISO
EMMC_WP
EMMC_HOLD
EMMC_RT_CLK
EMMC_RT_MOSI
R3835 10K_5%_1
R3837 10K_5%_1
R3839 10K_5%_1
INVENTEC
TITLE
MODEL,PROJECT,FUNCTION
EMMC CONTROLLER
SIZE A3
CODE CS
DOC.NUMBER 1310xxxxx-0-0
REV X01
SHEET 71 of 85
CHANGE by XXX
DATE 21-OCT-2002
PCB P/N 60xxxxxxxxx
PCB VER XXX
www.repairlap.com

# EMMC




LOCATION NUMER : 3800~3849

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

INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
EMMC

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

SHEET 72 of 85

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S30 SCREW330_600_500_1P
S31 SCREW330_600_500_1P
S32 SCREW330_600_500_1P
S33 SCREW330_600_500_1P

CPU SCREW

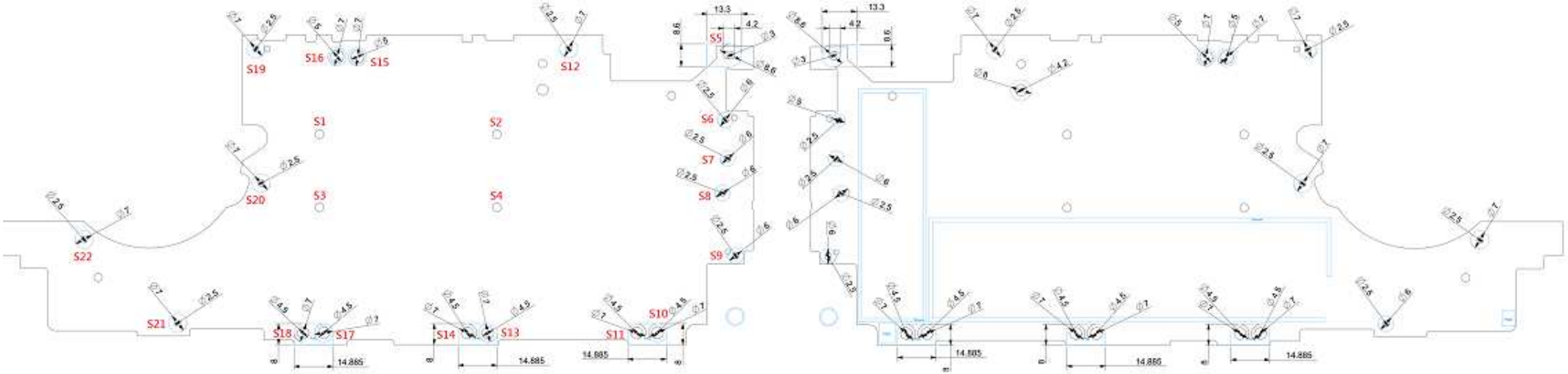
S5 SCREW300X420_860_1P
S6 SCREW250_600_500_1P
S7 SCREW250_600_1P
S8 SCREW250_600_1P
S9 SCREW250_600_1P

S12 SCREW250_700_1P
S13 SCREW450_700_1P
S14 SCREW450_700_1P
S15 SCREW500_700_NP_1P
S16 SCREW450_700_1P
S17 SCREW450_700_1P
S18 SCREW450_700_1P

ST4555 STANDOFF_1.45MM_1.0MM_NP 0.0003MM NI
ST4556 STANDOFF_1.45MM_1.0MM_NP 0.0003MM NI

TMP200220002
FOR CPU SOCKET

S34 SCREW400_1000_1P
S19 SCREW250_700_1P
S20 SCREW400_700_1P
S21 SCREW400_700_1P
S22 SCREW370_700_1P




100% TO 20%

FIX1 FIX_MASK_0.8
FIX2 FIX_MASK_0.8
FIX3 FIX_MASK_0.8
FIX4 FIX_MASK_0.8
FIX5 FIX_MASK_0.8
FIX6 FIX_MASK_0.8
FIX7 FIX_MASK_0.8
FIX8 FIX_MASK_0.8

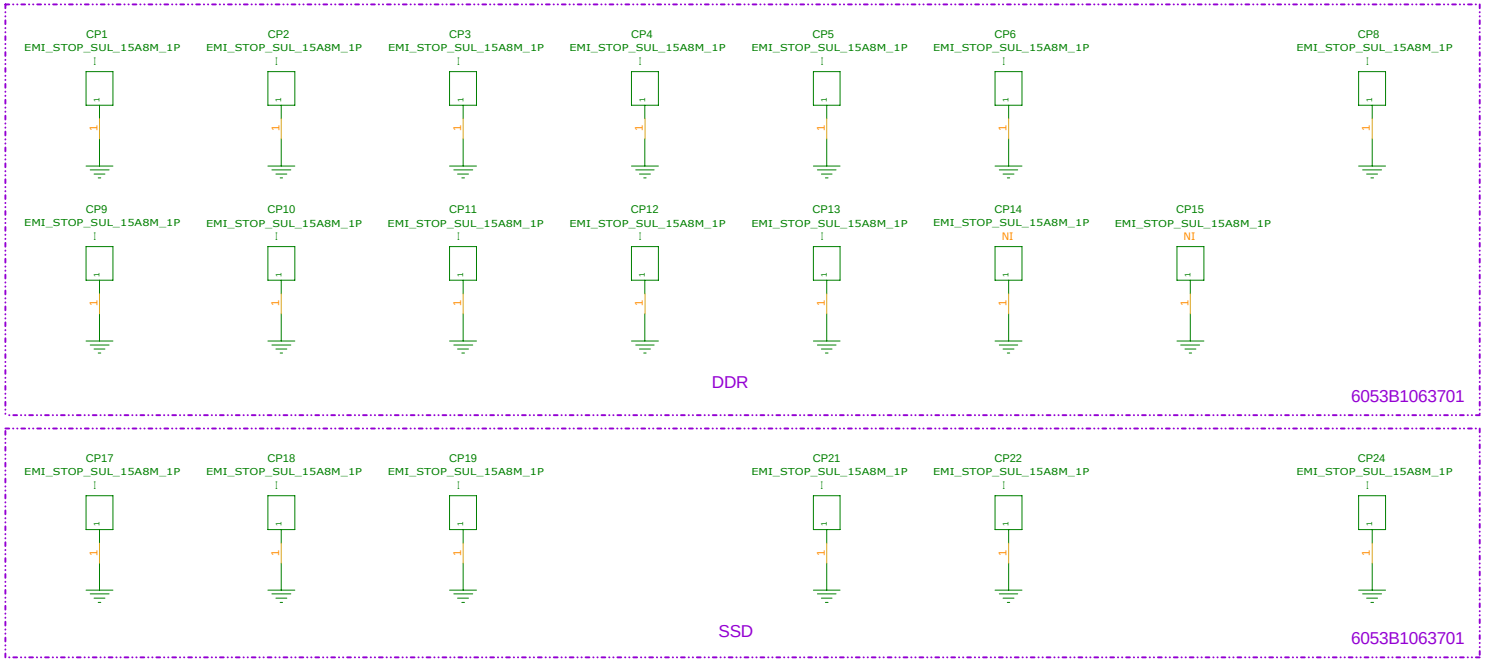
LOCATION NUMER : S0~S49
ST0~ST49

INVENTEC

| | | | |
|---|---|---|---|
| TITLE: MODEL_PROJECT,FUNCTION SCREW | | | |
| SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
| SHEET 73 of 85 | | | |

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

www.repairlap.com







LOCATION NUMBER:0~99

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

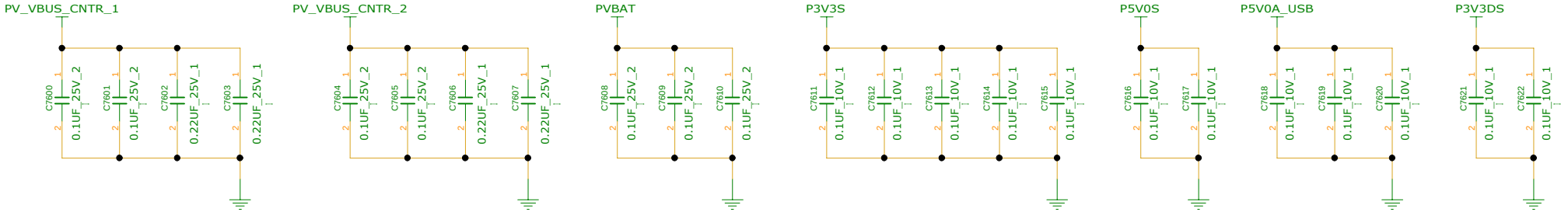
INVENTEC

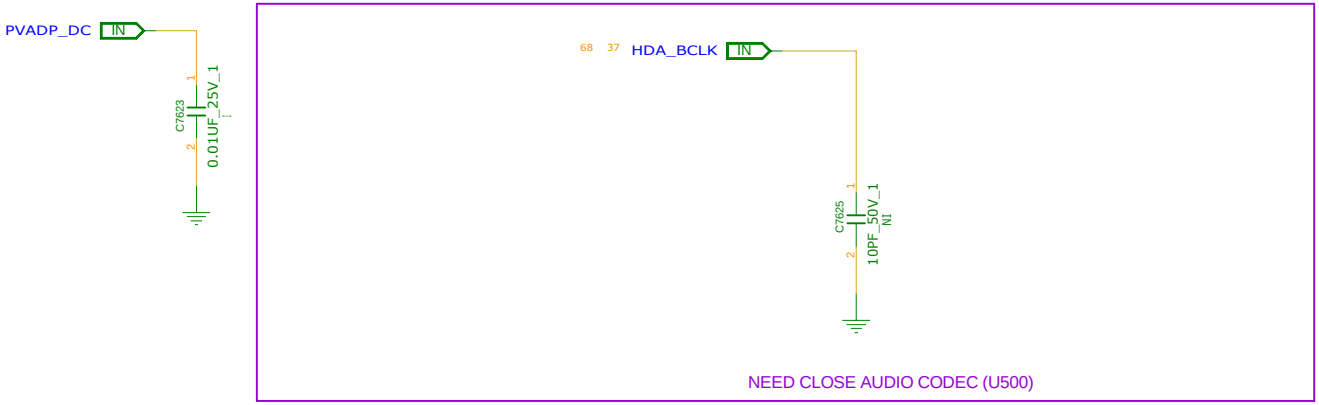
TITLE
MODEL,PROJECT,FUNCTION
CLIP

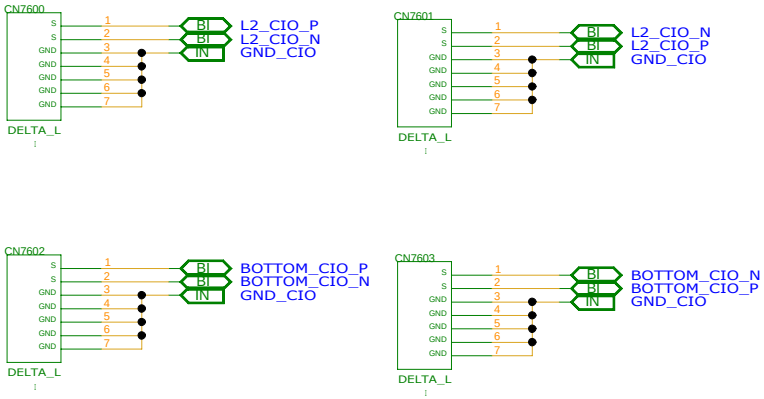
| SIZE | CODE | DOC.NUMBER | REV |
|---|---|---|---|
| A3 | CS | 1310xxxxx-0-0 | X01 |

SHEET 74 of 85

# EMI SOLUTION




LOCATION NUMER : 7600~7699

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

INVENTEC

TITLE: MODEL_PROJECT,FUNCTION
EMI SOLUTION

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

SHEET 75 of 85

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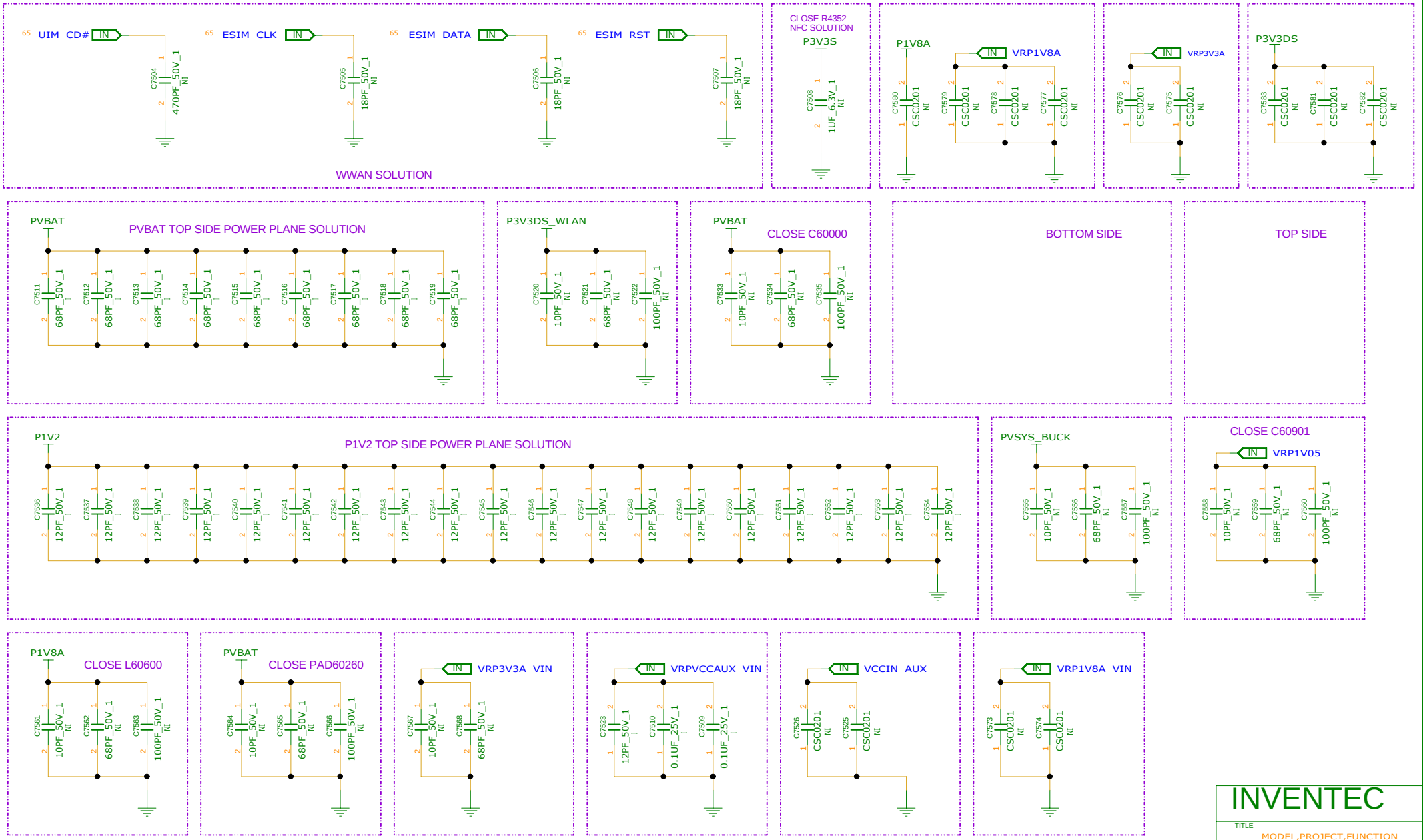
# RF SOLUTION




LOCATION NUMER : 7500~7599

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

INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
RF_SOLUTION_1

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

SHEET 76 of 85

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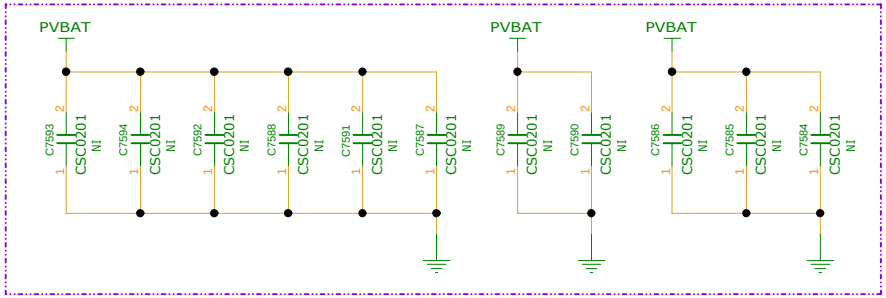
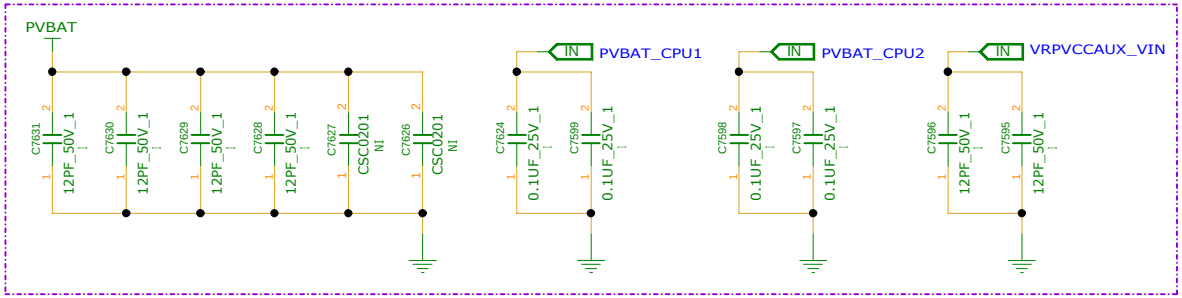
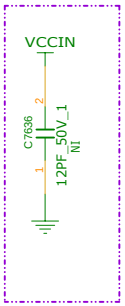
# RF SOLUTION

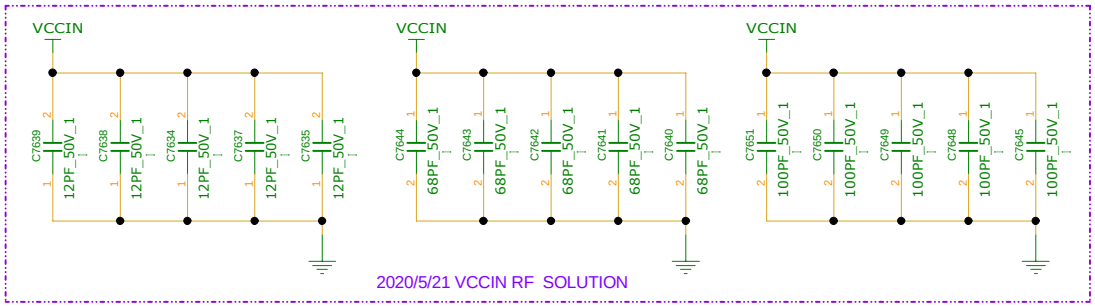



2020/02/26 RF TOP SIDE PVBAT SOLUTION

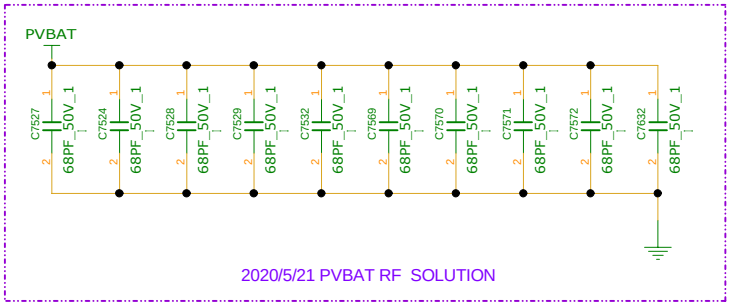



PAI-FILTER

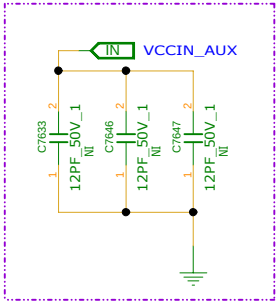


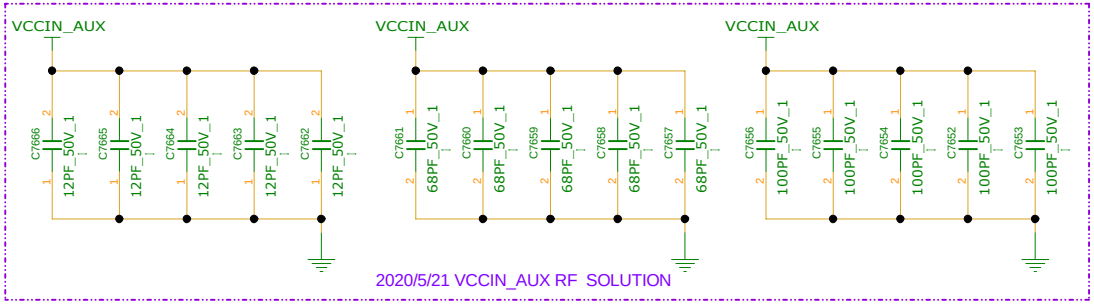




2020/5/21 VCCIN RF SOLUTION




2020/5/21 PVBAT RF SOLUTION




2020/5/21 VCCIN_AUX RF SOLUTION

LOCATION NUMER : 7500~7599

INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
RF_SOLUTION_2

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

SHEET 77 of 85

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

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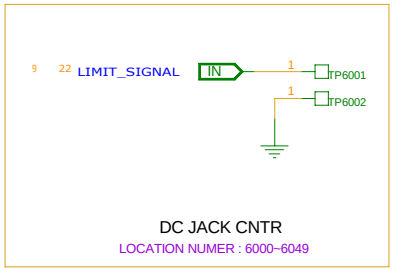
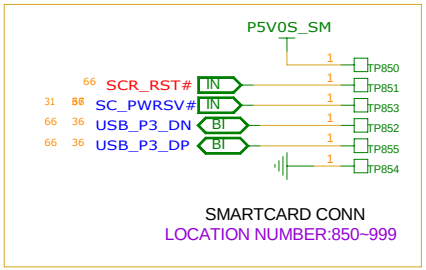


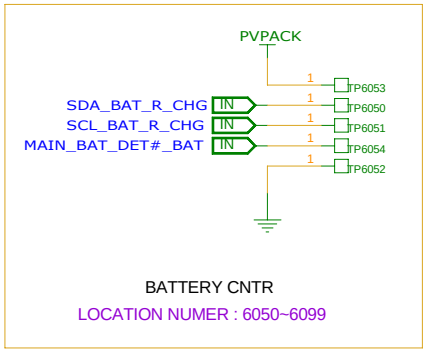

DC JACK CNTR

LOCATION NUMER : 6000~6049



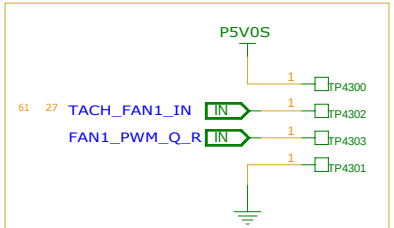

SMARTCARD CONN

LOCATION NUMBER:850~999



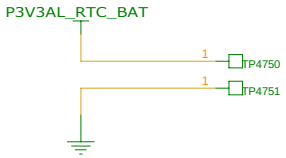

BATTERY CNTR

LOCATION NUMER : 6050~6099




FAN CNTR

LOCATION NUMBER:4300~4349




RTC

LOCATION NUMBER:4500~4999

INVENTEC

TITLE

MODEL,PROJECT,FUNCTION

TEST POINT

| CHANGE by | XXX | DATE | 21-OCT-2002 | SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
|---|---|---|---|---|---|---|---|
| PCB P/N | 60xxxxxxxxxx | PCB VER | XXX | | | SHEET 78 of 85 | |

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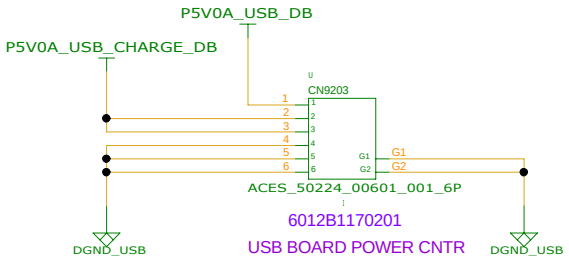
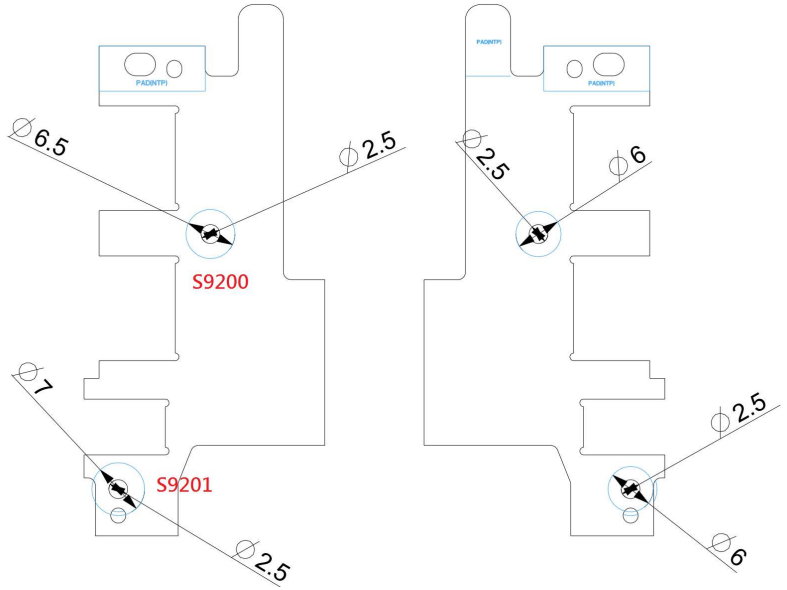
# USB & AUDIO JACK & LID SWITCH DB CNTR

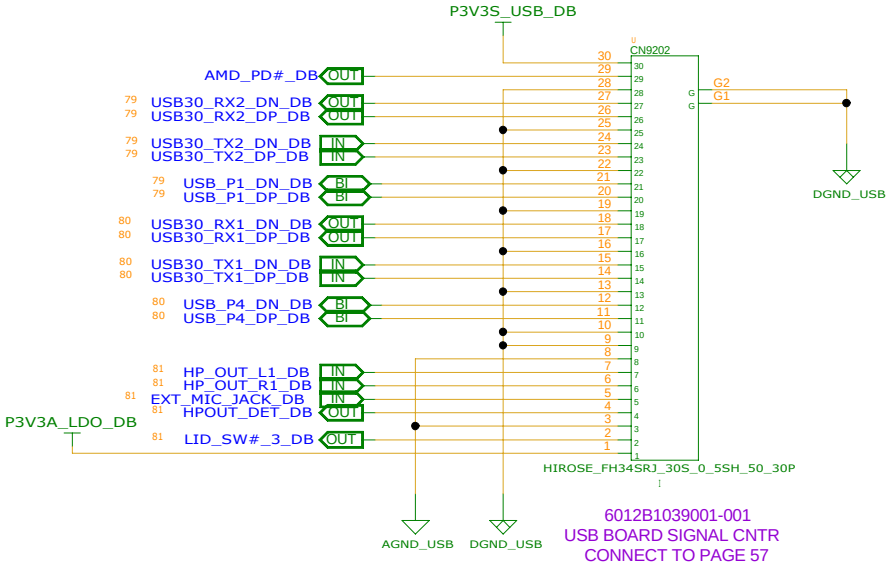



6012B1170201

USB BOARD POWER CNTR
CONNECT TO PAGE 57




100% TO 25%

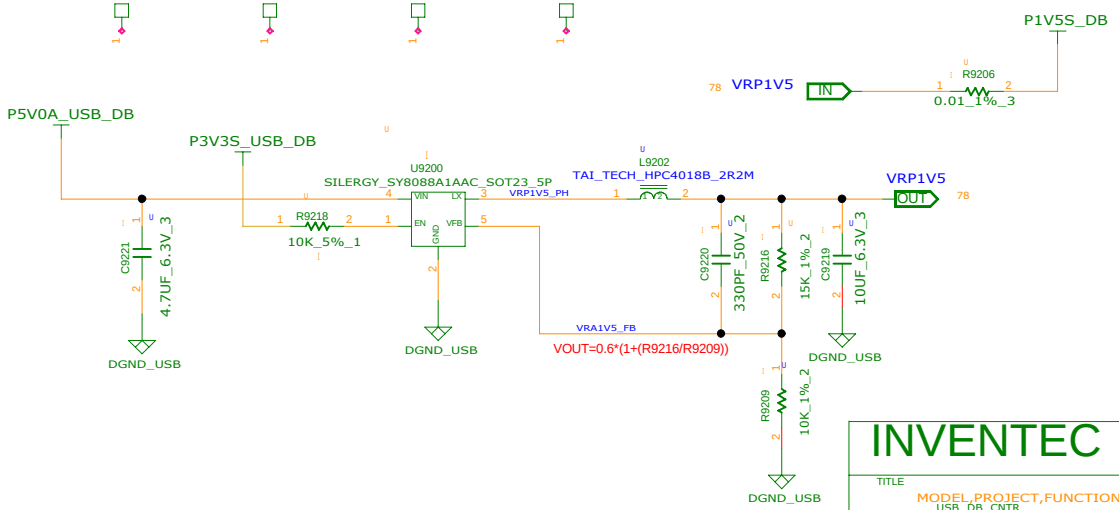



6012B1039001-001

USB BOARD SIGNAL CNTR
CONNECT TO PAGE 57

NOTE: CN9202.2 IS FOR PLT_ID2 SETTING

FIX9200 FIX_MASK_0.8
FIX9201 FIX_MASK_0.8
FIX9202 FIX_MASK_0.8
FIX9203 FIX_MASK_0.8
FIX9204 FIX_MASK_0.8
FIX9205 FIX_MASK_0.8
FIX9206 FIX_MASK_0.8
FIX9207 FIX_MASK_0.8




S9201 SCREW250_700_600_1P
S9202 SCREW250_500_1P
DGND_USB
DGND_USB

LOCATION NUMBER:9200~9299

INVENTEC

| | | | |
|---|---|---|---|
| TITLE | MODEL_PROJECT,FUNCTION<br>USB_DB_CNTR | | |
| SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
| SHEET 79 of 85 | | | |
| CHANGE by XXX | | DATE 21-OCT-2002 | |
| PCB P/N 60xxxxxxxxxx | | PCB VER XXX | |

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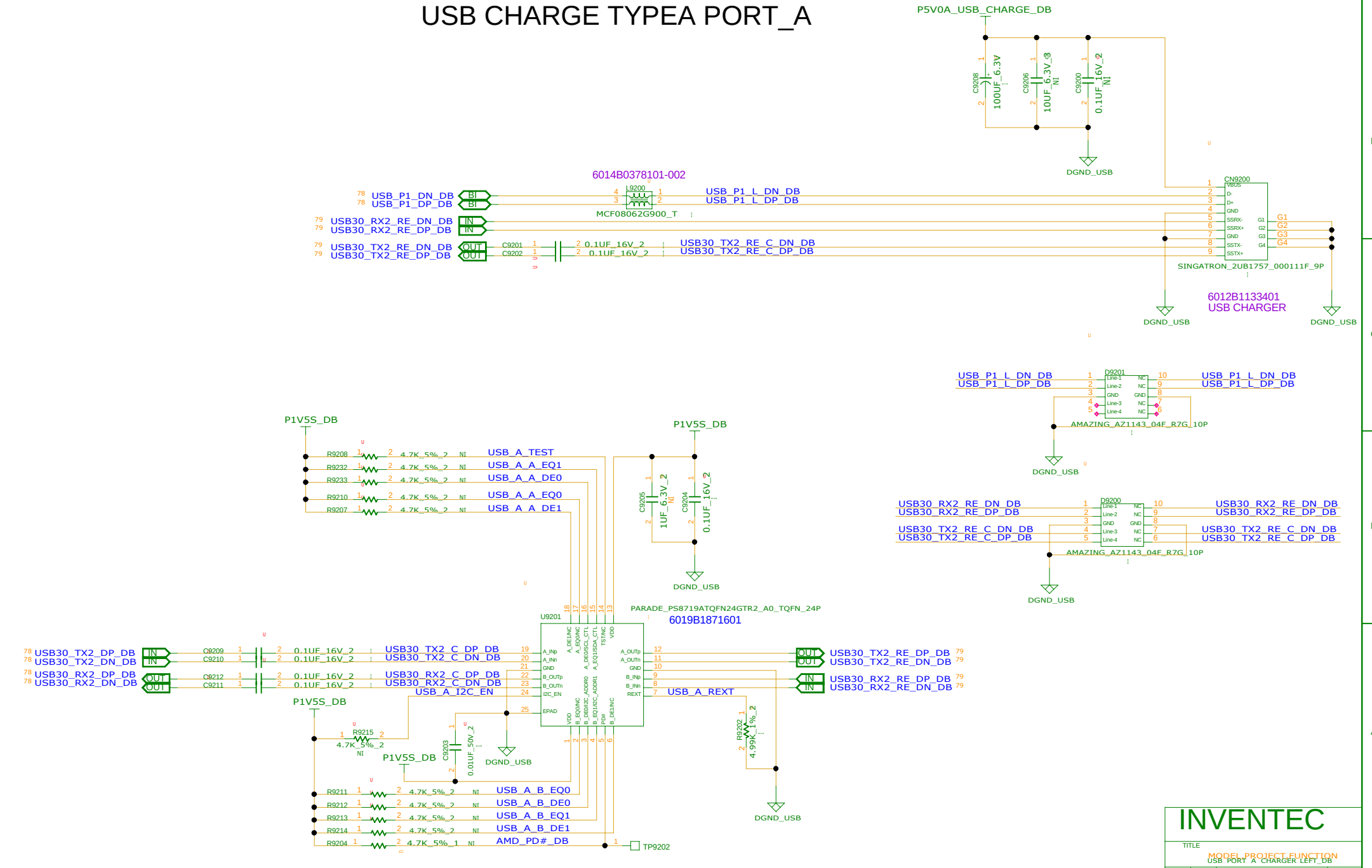
# USB CHARGE TYPEA PORT_A




LOCATION NUMBER:9200~9299

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

INVENTEC

TITLE: MODEL_PROJECT_FUNCTION
USB_PORT_A_CHARGER_LEFT_DB

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

SHEET 80 of 85

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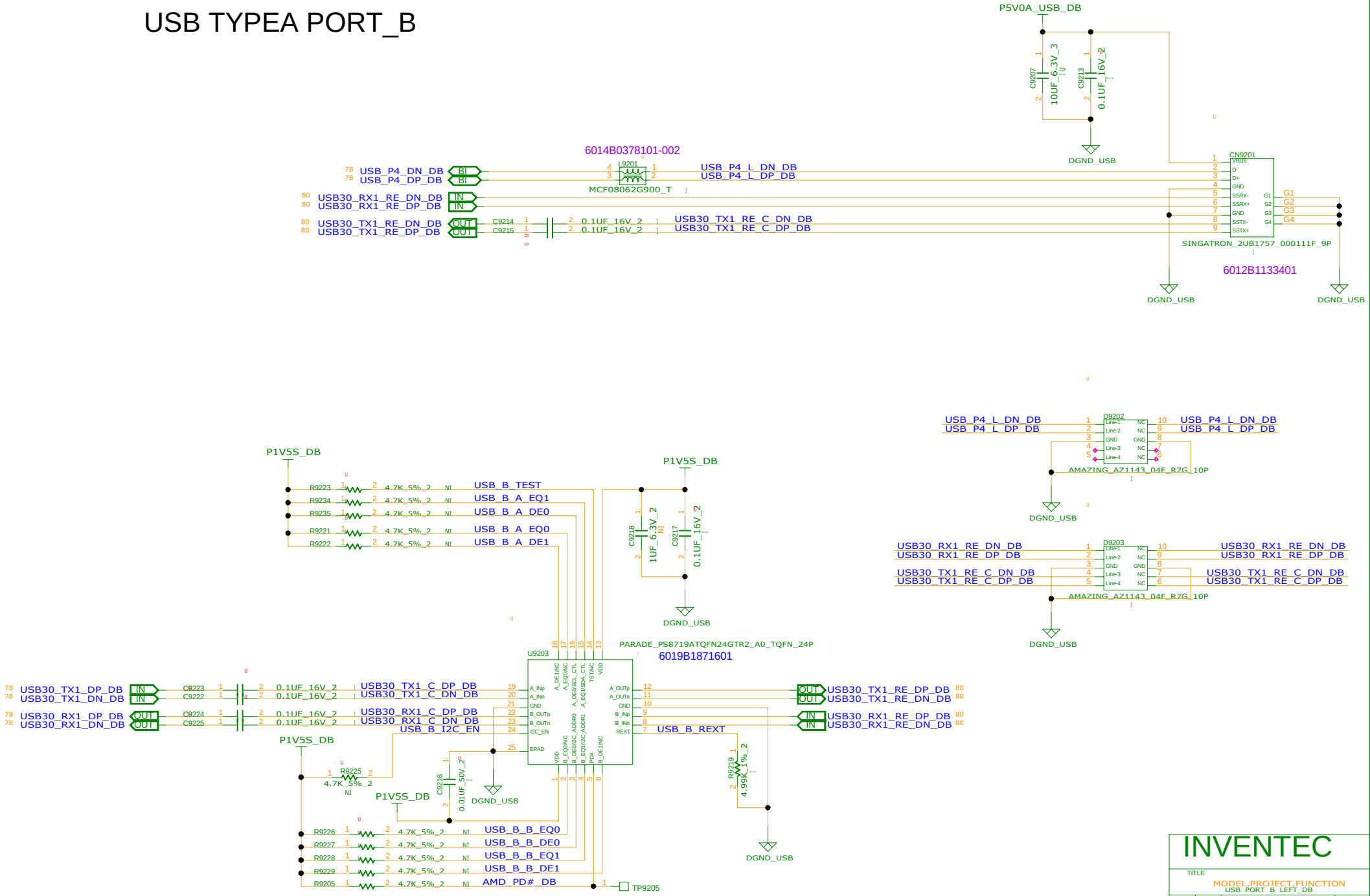
# USB TYPEA PORT_B




LOCATION NUMBER:9200~9299

INVENTEC

| | | | |
|---|---|---|---|
| TITLE | MODEL_PROJECT_FUNCTION<br>USB_PORT_B_LEFT_DB | | |
| SIZE A3 | CODE CS | DOC.NUMBER 1310xxxxx-0-0 | REV X01 |
| CHANGE by XXX | | DATE 21-OCT-2002 | |
| PCB P/N 60xxxxxxxxxx | | PCB VER XXX | |
| SHEET 81 of 85 | | | |

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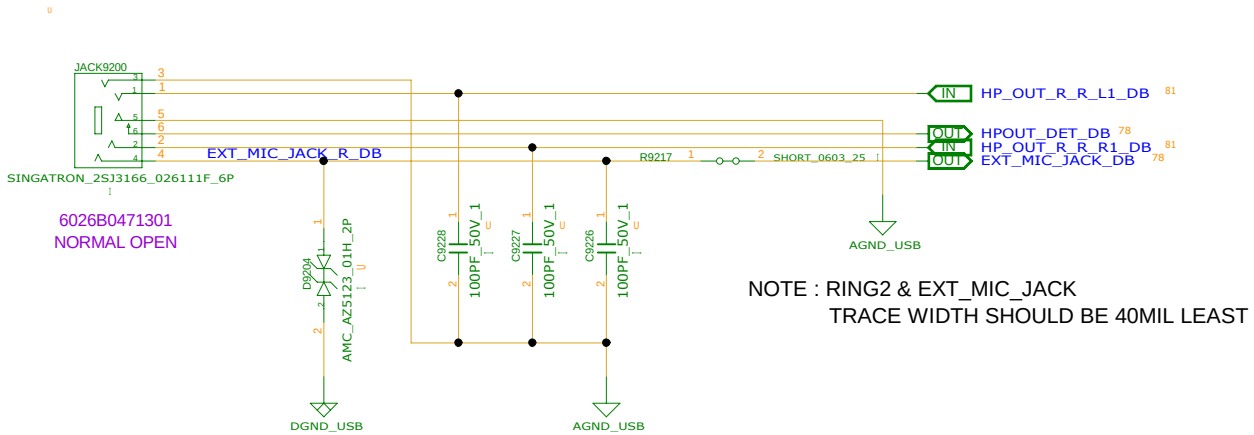
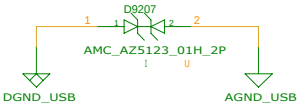
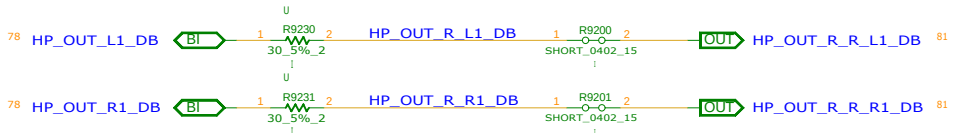
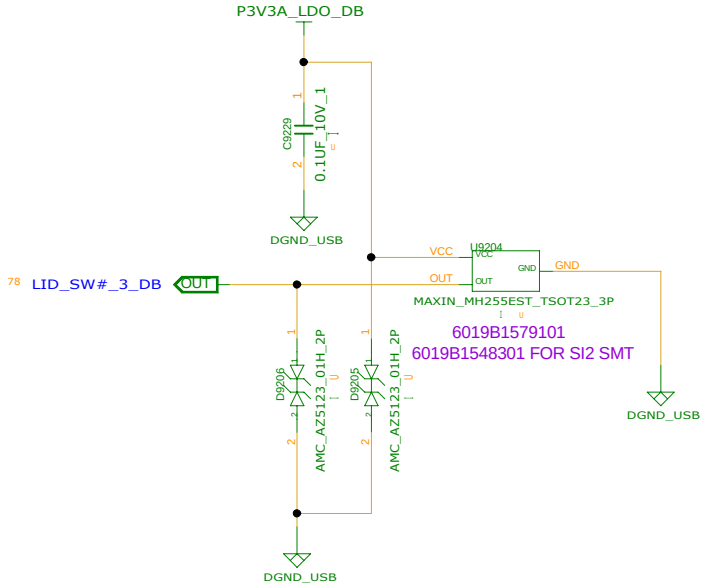



LOCATION NUMBER:9200~9299

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

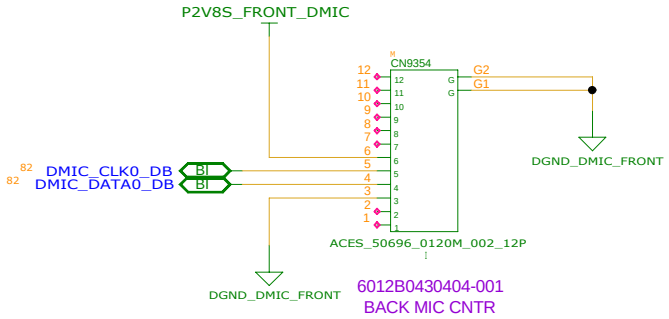
INVENTEC

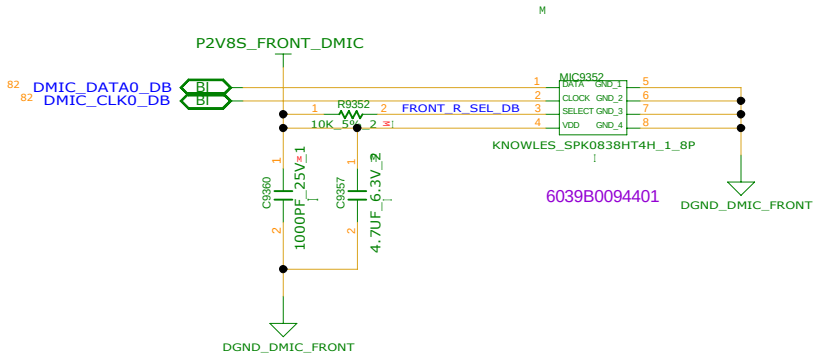
TITLE: MODEL,PROJECT,FUNCTION
AUDIO & LID_USB DB

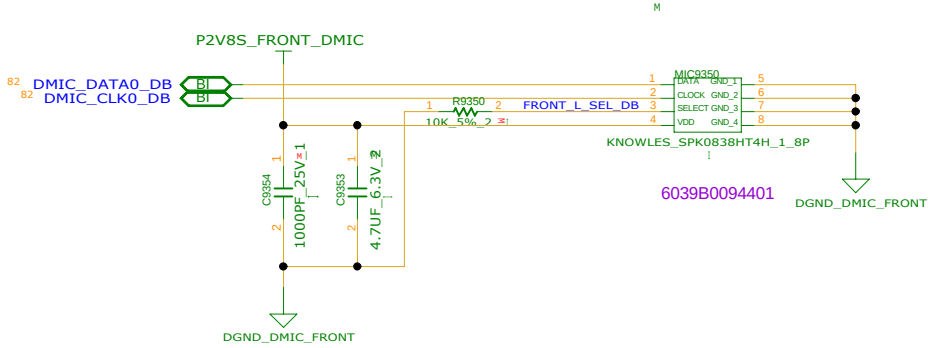
| SIZE | CODE | DOC.NUMBER | REV |
|---|---|---|---|
| A3 | CS | 1310xxxxx-0-0 | X01 |

SHEET 82 of 85

www.repairlap.com




FIX9350
FIX_MASK_0.8

FIX9351
FIX_MASK_0.8

# MIC DOUGHTER BOARD

LOCATION NUMBER:9350~9399

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

INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
FRONT_MIC_DB

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

SHEET 83 of 85

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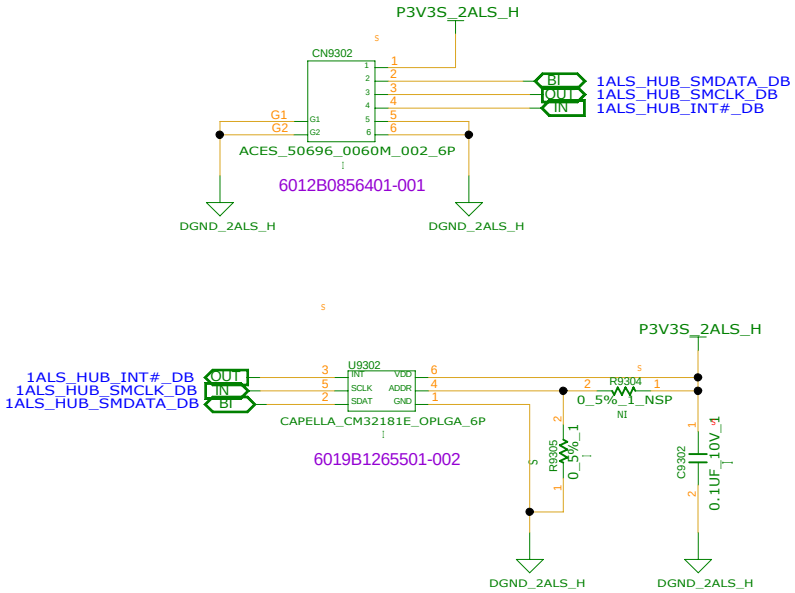


# HUB - AMBIENT LIGHT SENSOR

ADDR IS HIGH, SELECT ADDRESS 0X48
ADDR IS LOW, SELECT ADDRESS 0X10

LOCATION NUMBER:9300~9349

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

INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
ALS D/B

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

SHEET 84 of 85

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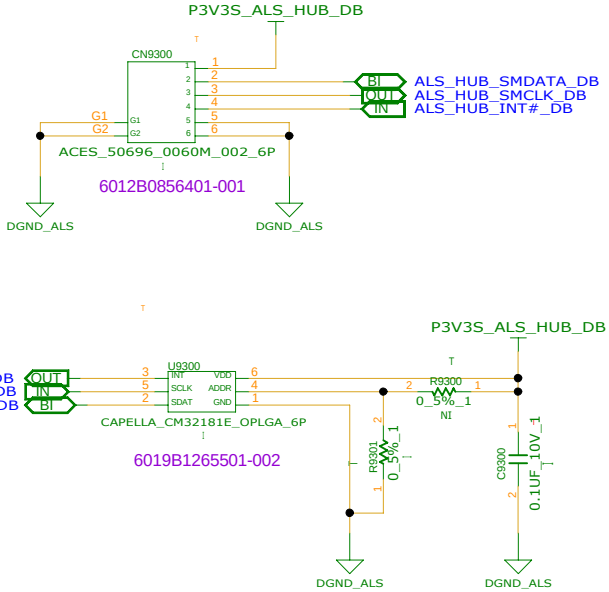
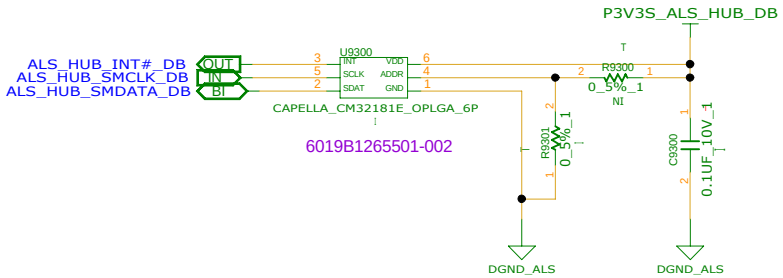
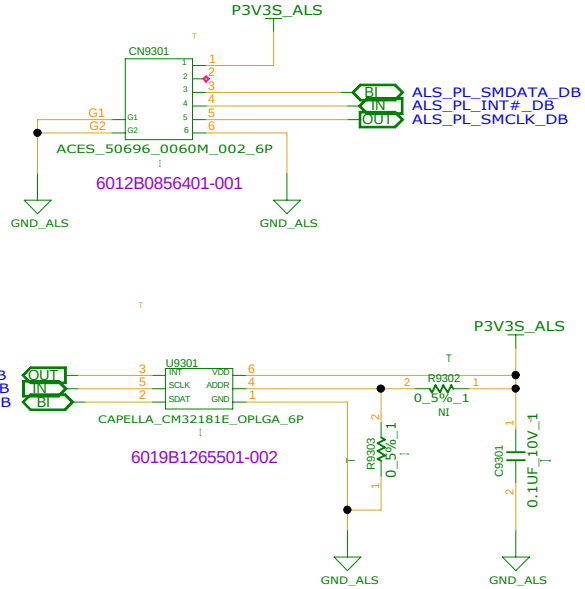
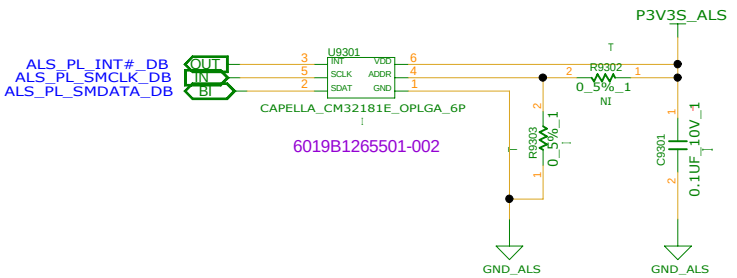



# HUB - AMBIENT LIGHT SENSOR

ADDR IS HIGH, SELECT ADDRESS 0X48
ADDR IS LOW, SELECT ADDRESS 0X10




# PANEL - AMBIENT LIGHT SENSOR

ADDR IS HIGH, SELECT ADDRESS 0X48
ADDR IS LOW, SELECT ADDRESS 0X10

LOCATION NUMBER:9300~9349

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

INVENTEC

TITLE: MODEL,PROJECT,FUNCTION
DUAL_ALS_D/B

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

SHEET 85 of 85

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