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<div>THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF INVENTEC CORPORATION AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. INVENTEC CORPORATION 2010 ALL RIGHT RESERVED</div>																																																																												
HSP Property: Halogen-Free																																																																												
<div>ET10 A01 PHASE</div>																																																																												
2010/4/13																																																																												
<table><tr><td>DATE</td><td>CHANGE NO.</td><td>REV</td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>		DATE	CHANGE NO.	REV																						<table><tr><td>DESIGNER</td><td>EE</td><td>DATE</td><td>POWER</td><td>DATE</td><td rowspan="4">INVENTEC</td></tr><tr><td>DRAWN</td><td></td><td></td><td></td><td></td></tr><tr><td>CHECK</td><td></td><td></td><td></td><td></td></tr><tr><td>RESPONSIBLE</td><td></td><td></td><td></td><td></td></tr><tr><td colspan="5">SIZE: 1</td><td colspan="3">TITLE: ET10-6050A2349701-MB-X02</td></tr><tr><td colspan="5">FILE NAME: XXXX-XXXXXX-XX</td><td colspan="3">DOC. NUMBER: A3 CS</td></tr><tr><td colspan="5">PIN: XXXXXXXXXXXX</td><td colspan="3">SUBSET: 1 OF 38</td></tr></table>						DESIGNER	EE	DATE	POWER	DATE	INVENTEC	DRAWN					CHECK					RESPONSIBLE					SIZE: 1					TITLE: ET10-6050A2349701-MB-X02			FILE NAME: XXXX-XXXXXX-XX					DOC. NUMBER: A3 CS			PIN: XXXXXXXXXXXX					SUBSET: 1 OF 38		
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PIN: XXXXXXXXXXXX					SUBSET: 1 OF 38																																																																							
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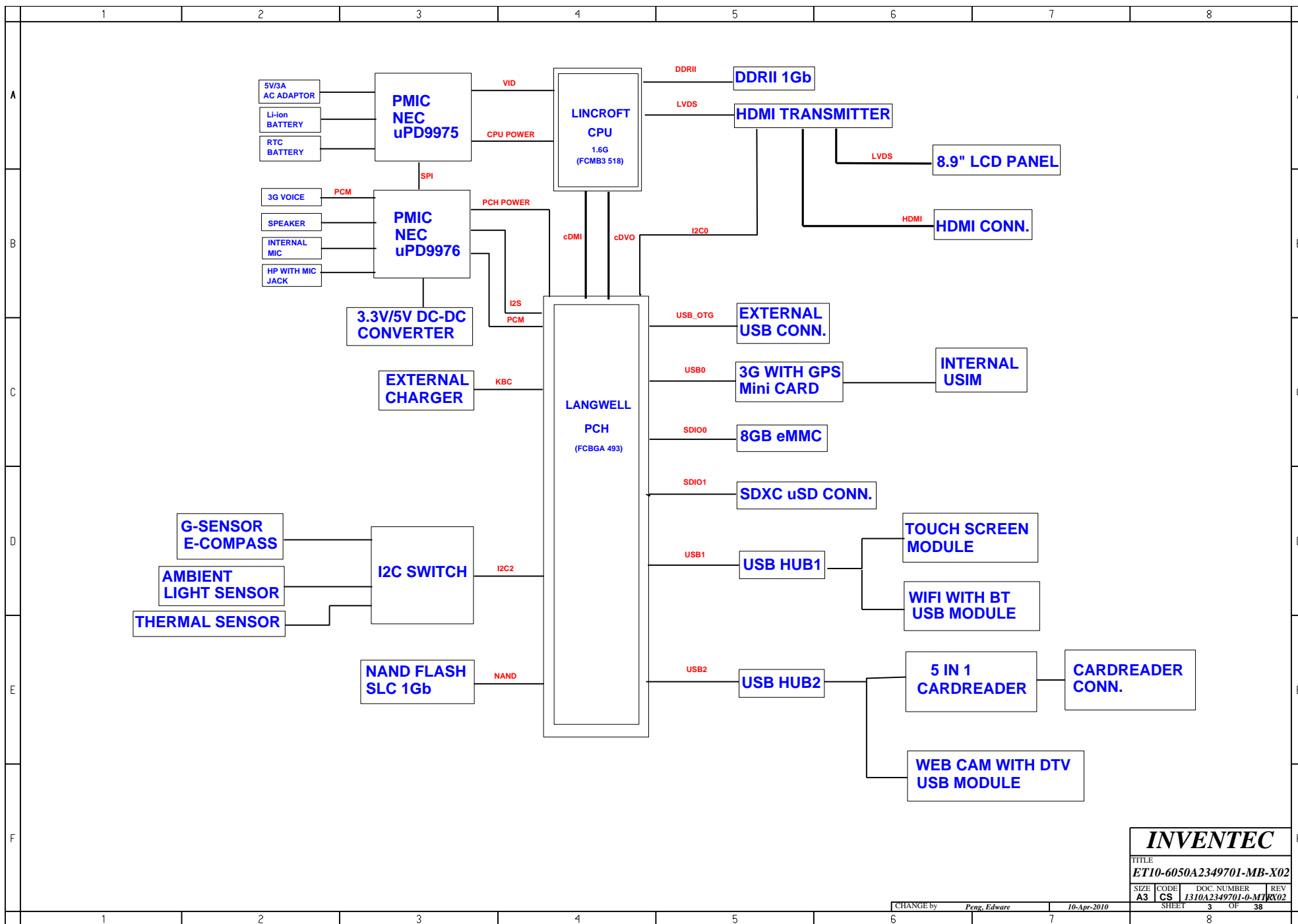
P36-OPEN DDR

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CHANGE byPeng, Edward10-Apr-2010

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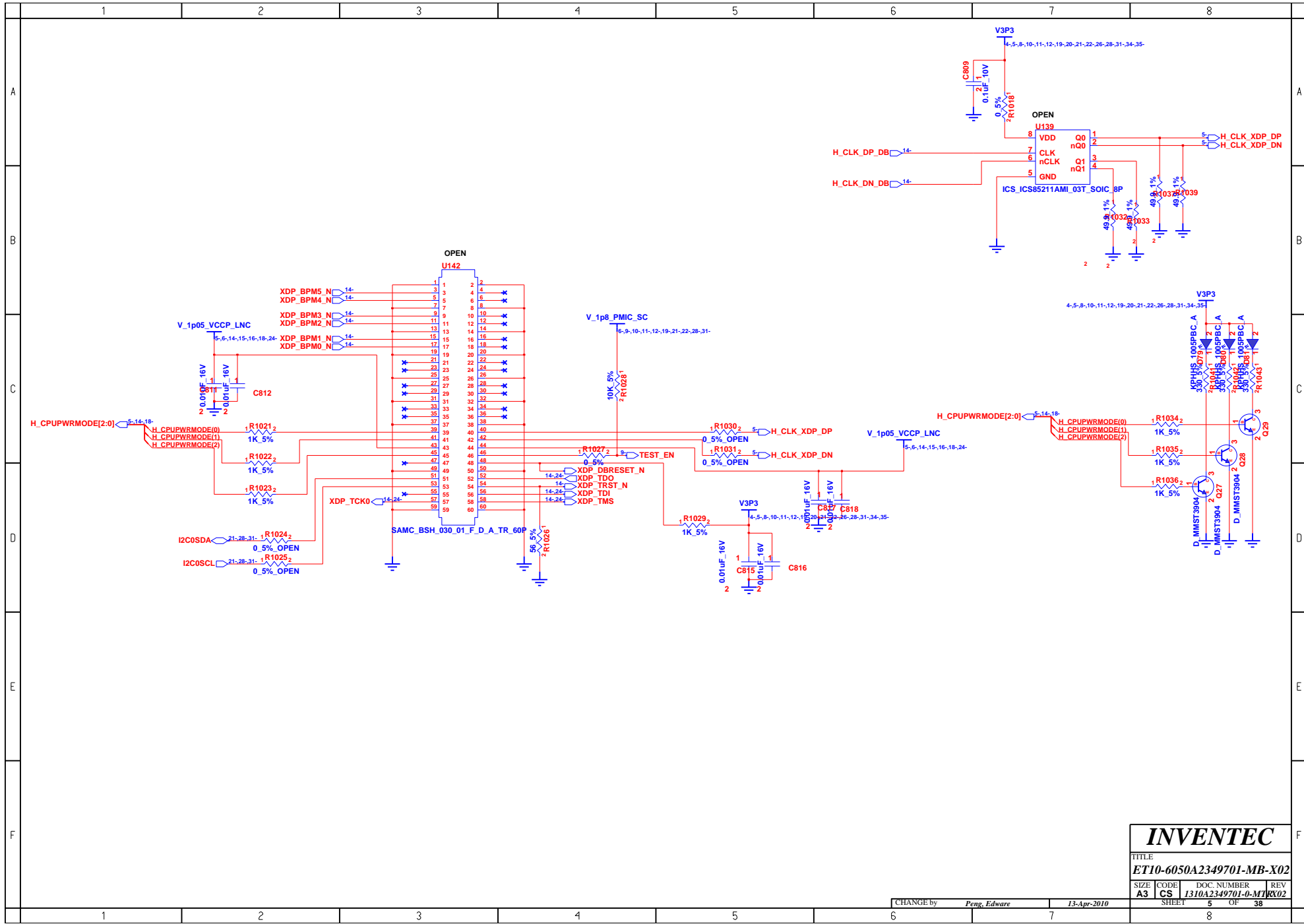
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INVENTEC			
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ET10-6050A2349701-MB-X02			
SIZE	CODE	DOC. NUMBER	REV
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TITLE			
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INVENTEC

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CHANGE by Peng, Edward 13-Apr-2010

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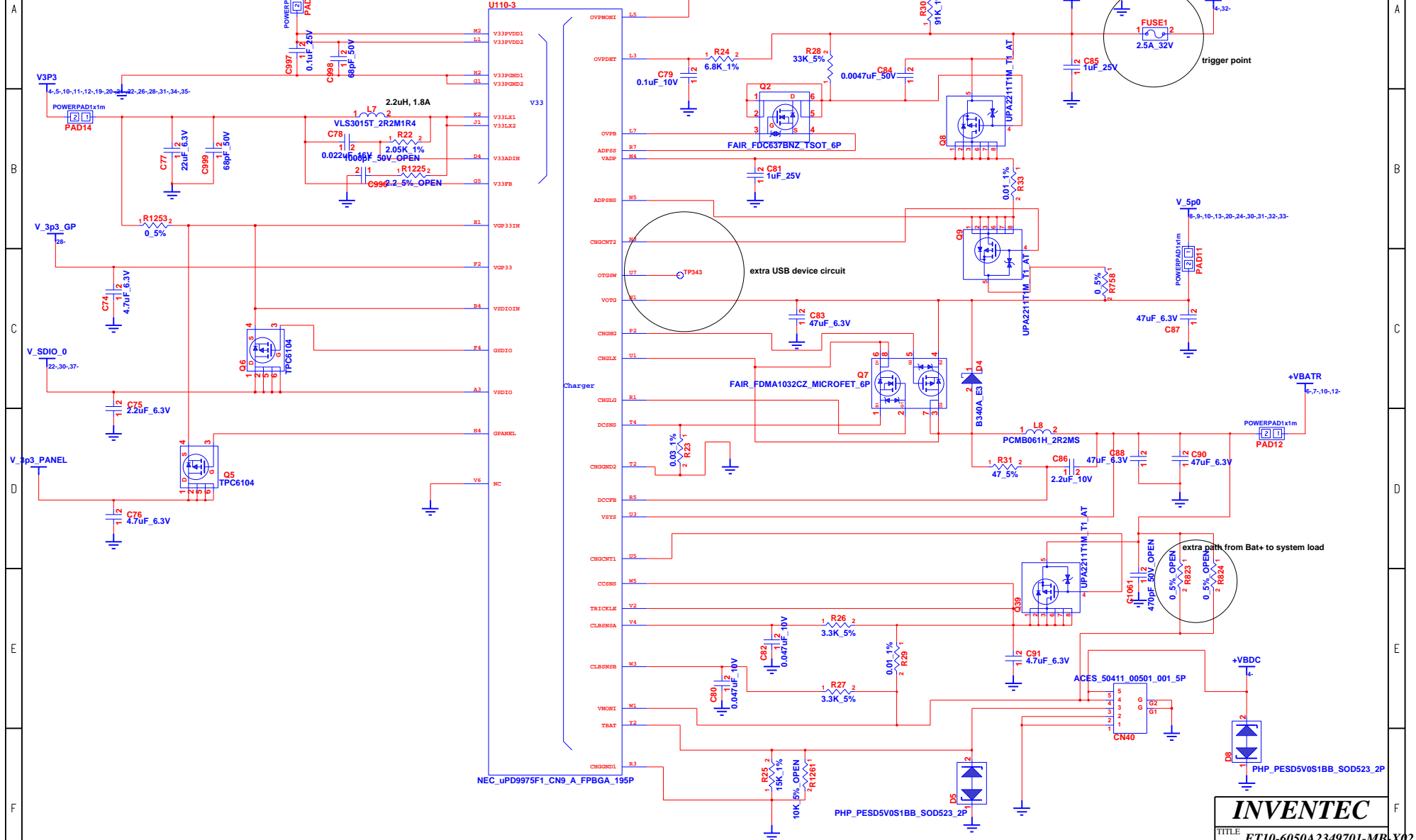
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NEC PMIC-2

INVENTEC			
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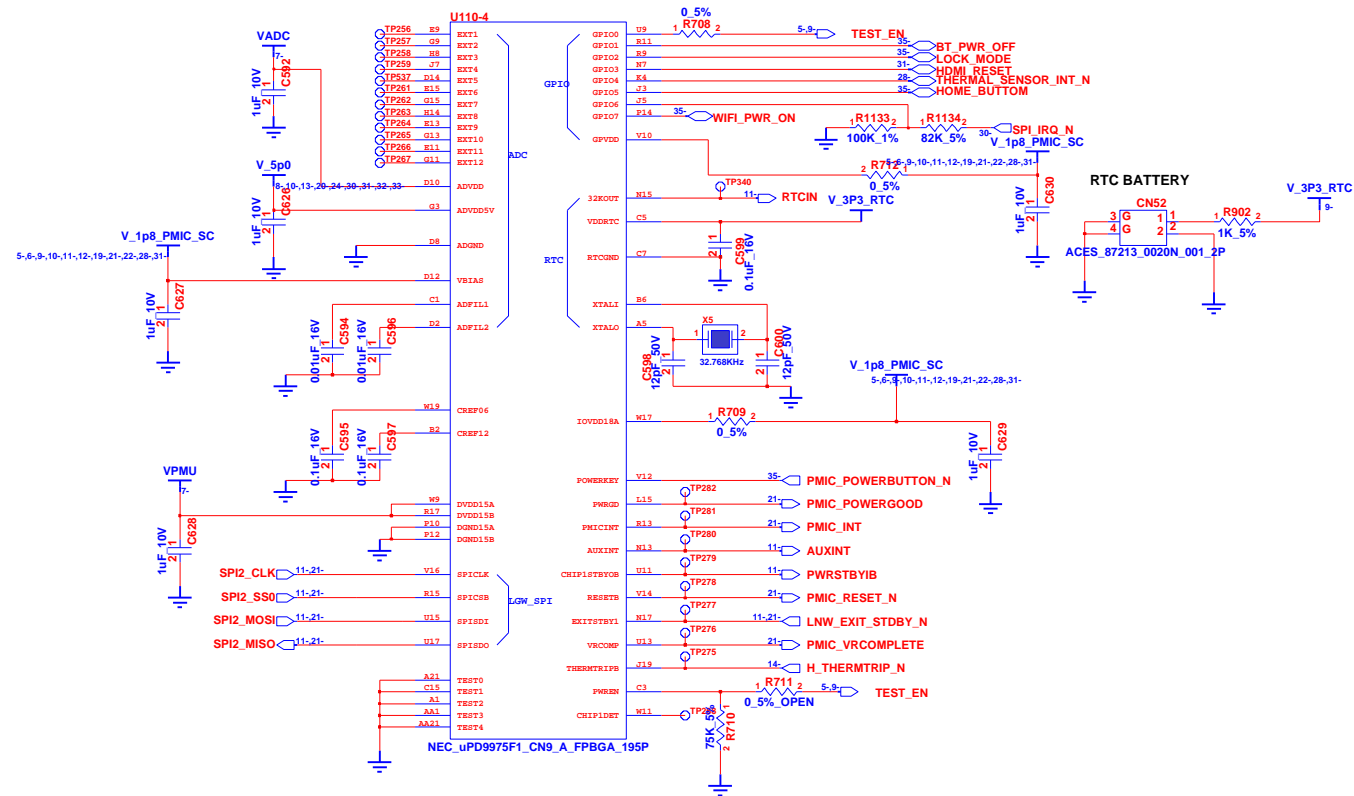
CHANGE by Peng, Edward 1-Apr-2010

NEC PMIC-3



INVENTEC			
TITLE ET10-6050A2349701-MB-X02			
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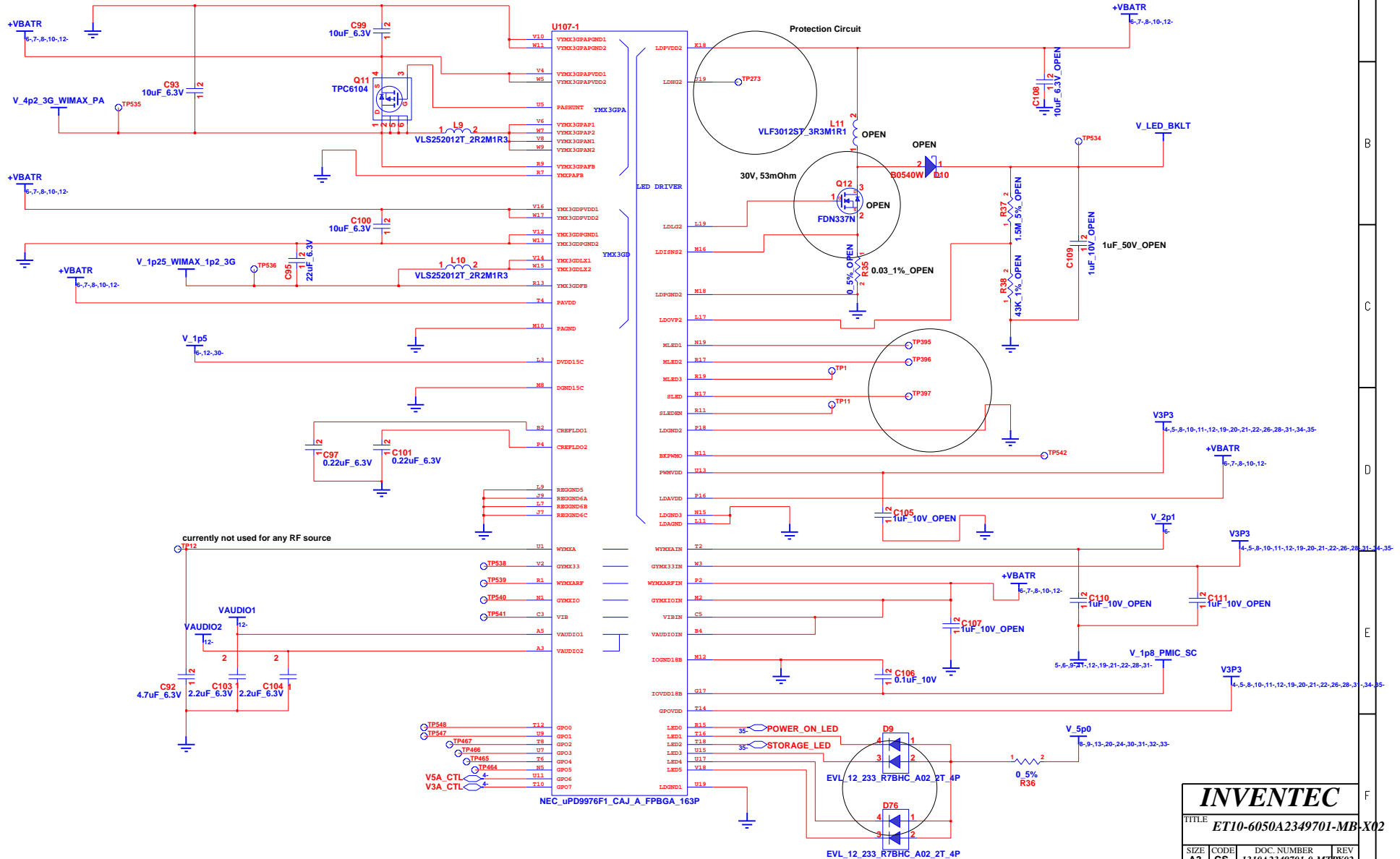
PMIC_I/O



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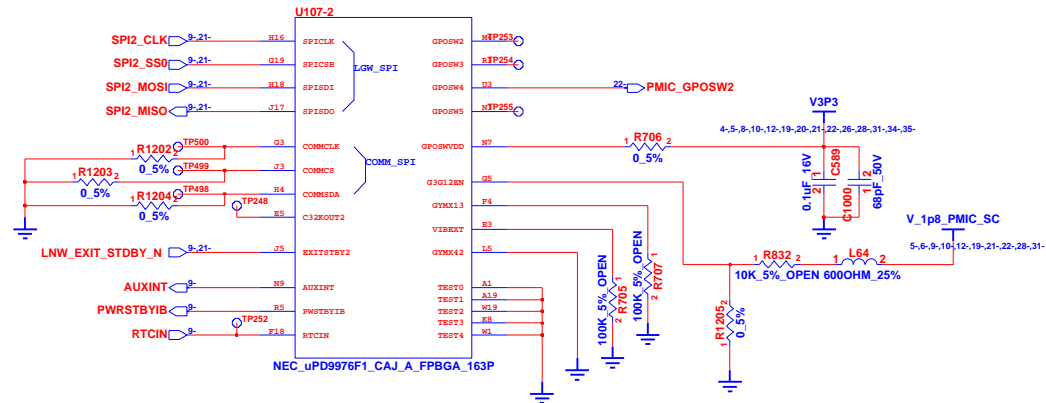
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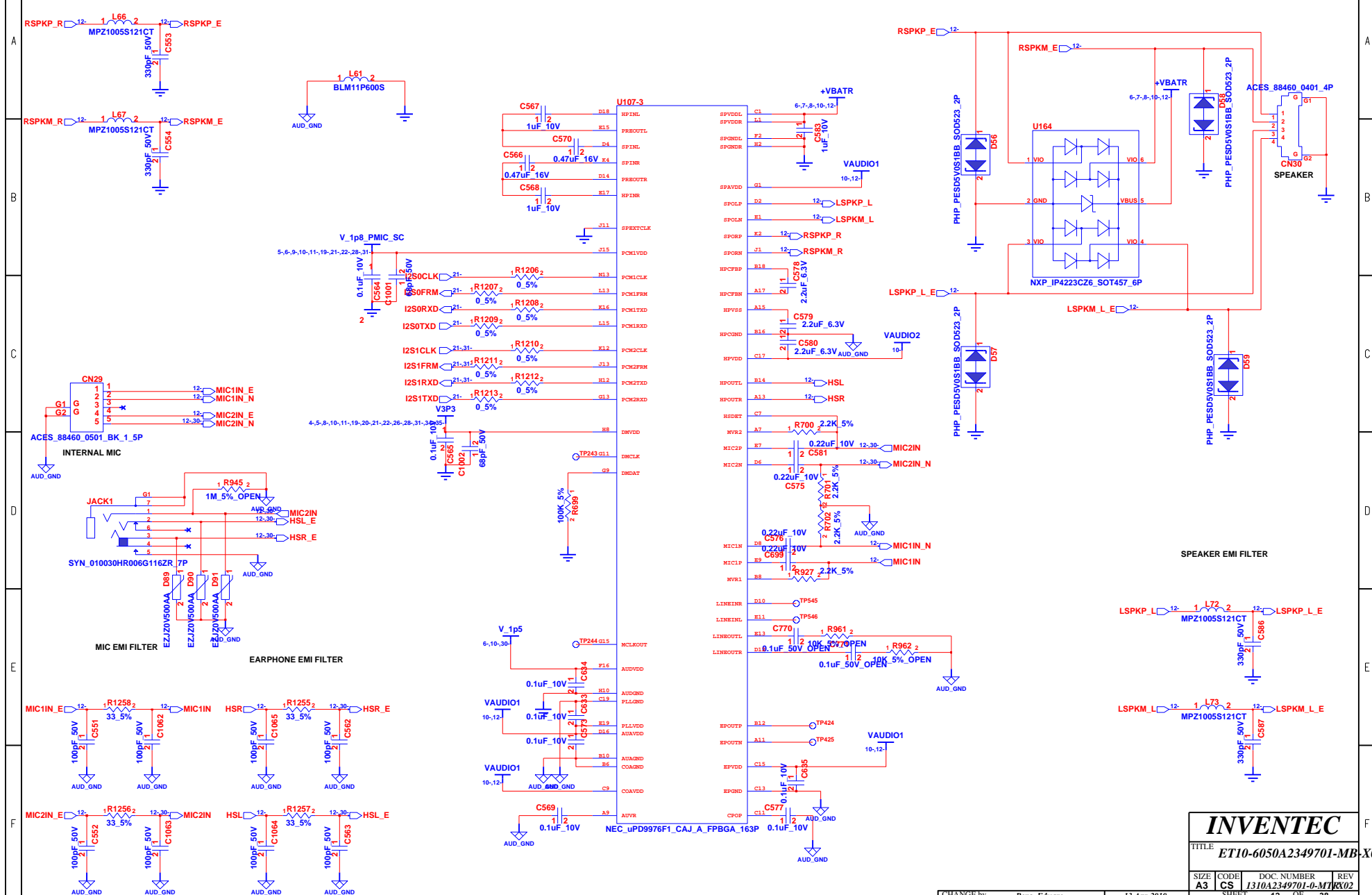
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SIZE A3	CODE CS	DOC. NUMBER 1310A2349701-0-MTRX02	REV
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CHANGE by Peng, Edward	1-Apr-2010
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PMIC SPI

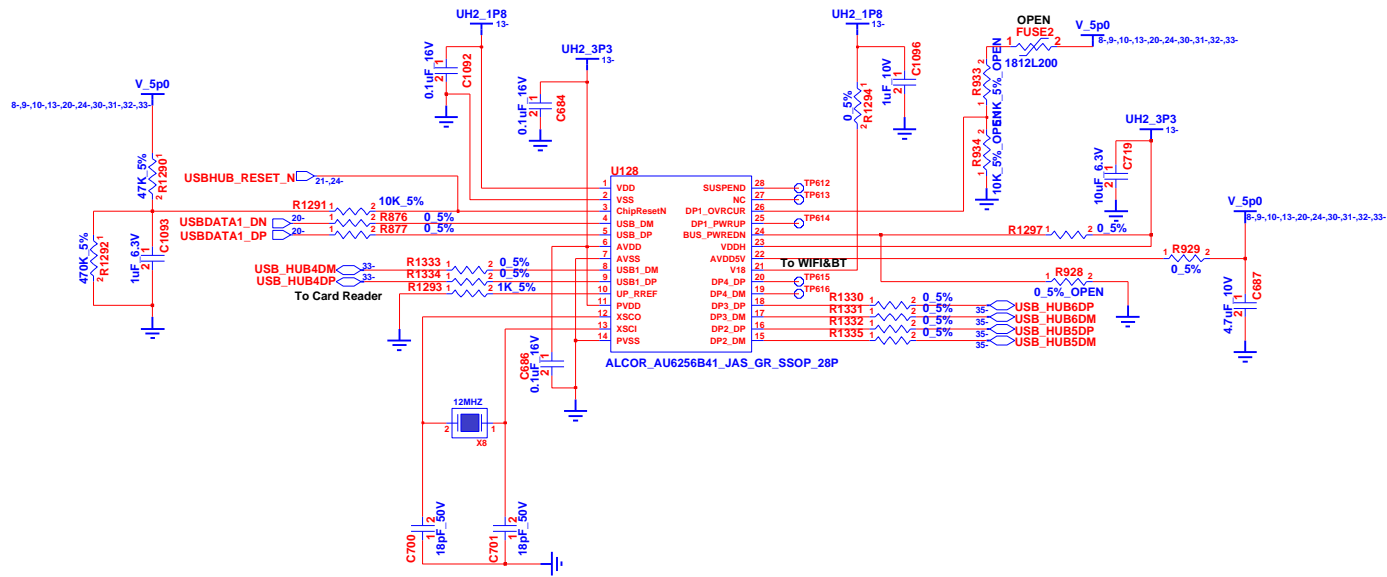


PMIC AUDIO



INVENTEC			
TITLE ET10-6050A2349701-MB-X02			
SIZE A3	CODE CS	DOC. NUMBER 1310A2349701-0-MT	REV R02
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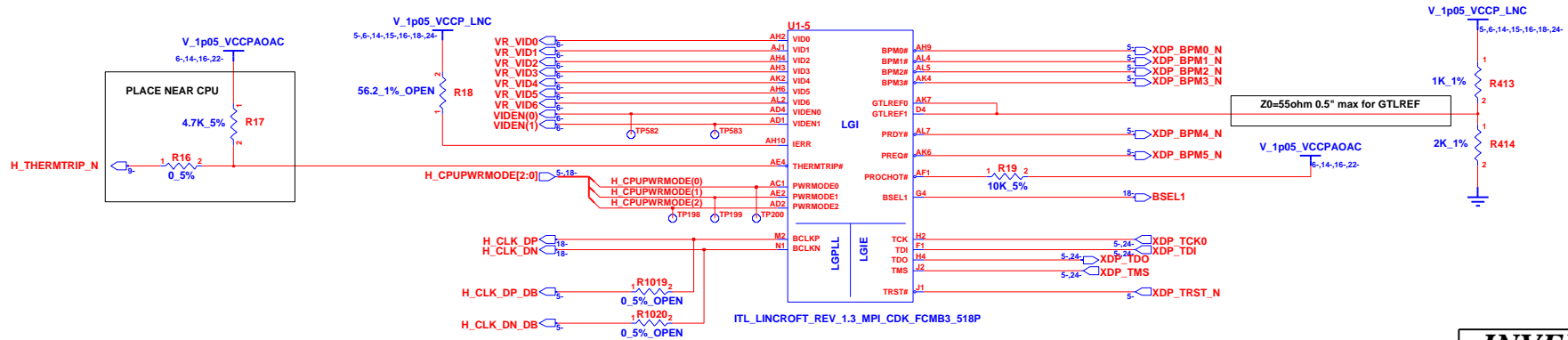
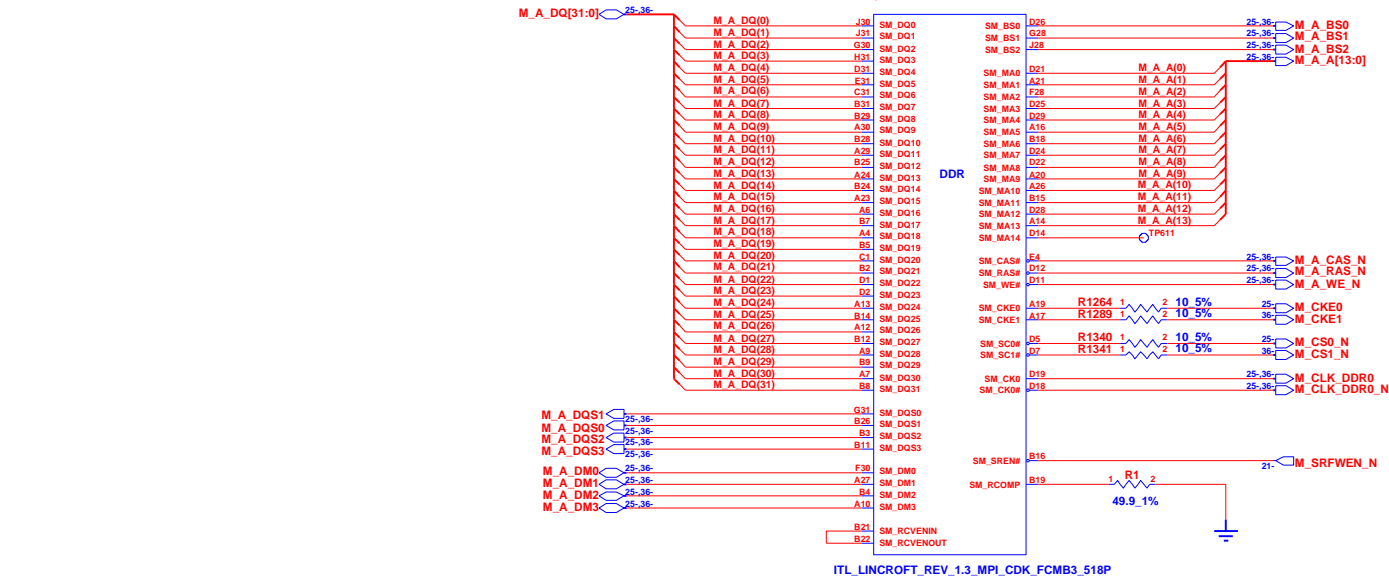
USB_HUB2



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SIZE A3	CODE CS	DOC. NUMBER 1310A2349701-0-MT	REV R002
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LINCROFT DDR/LGI



INVENTEC			
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CHANGE by Peng,Edward 8-Apr-2010

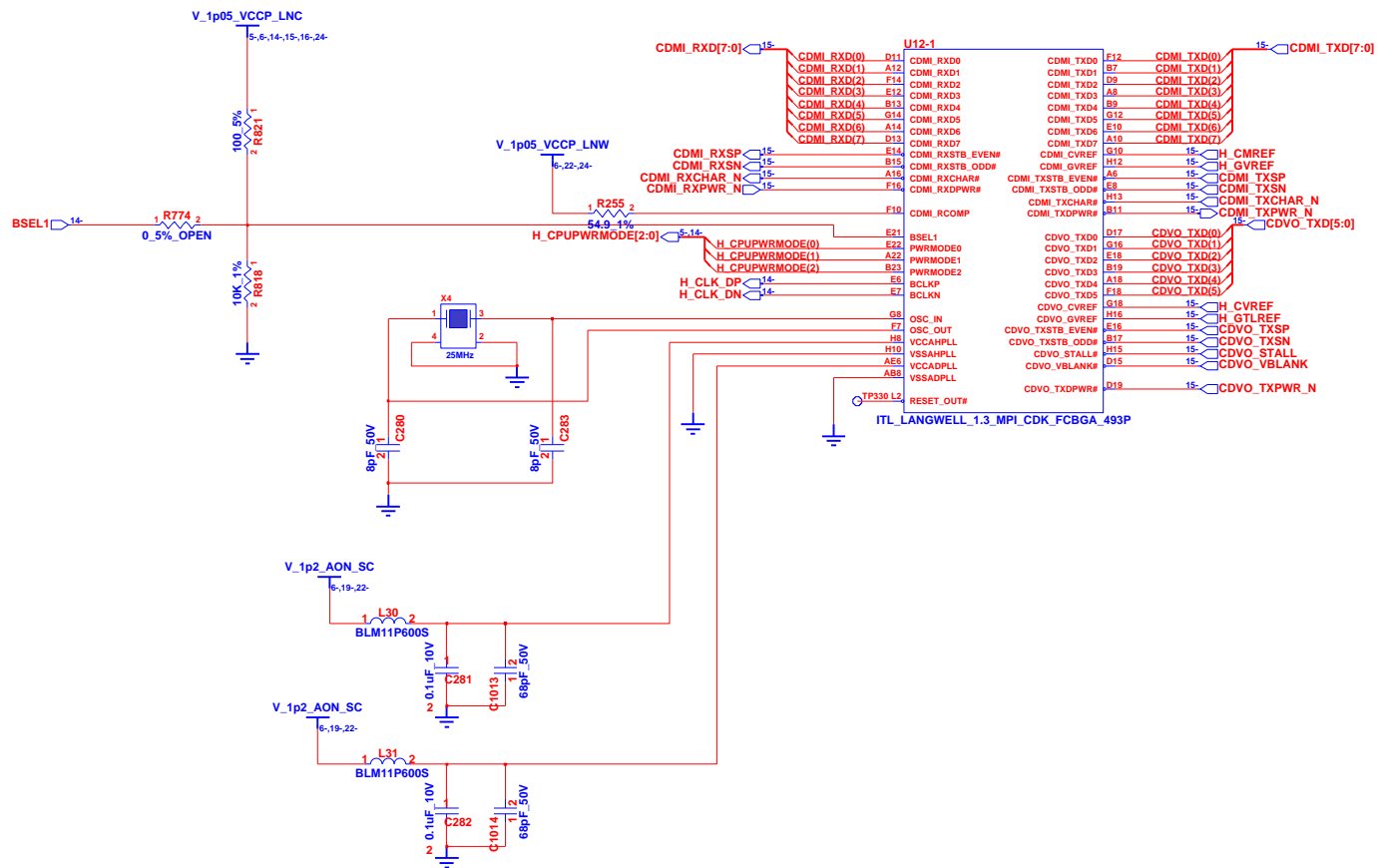
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CHANGE by	<i>Peng, Edware</i>	<i>2-Apr-2010</i>
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TITLE			
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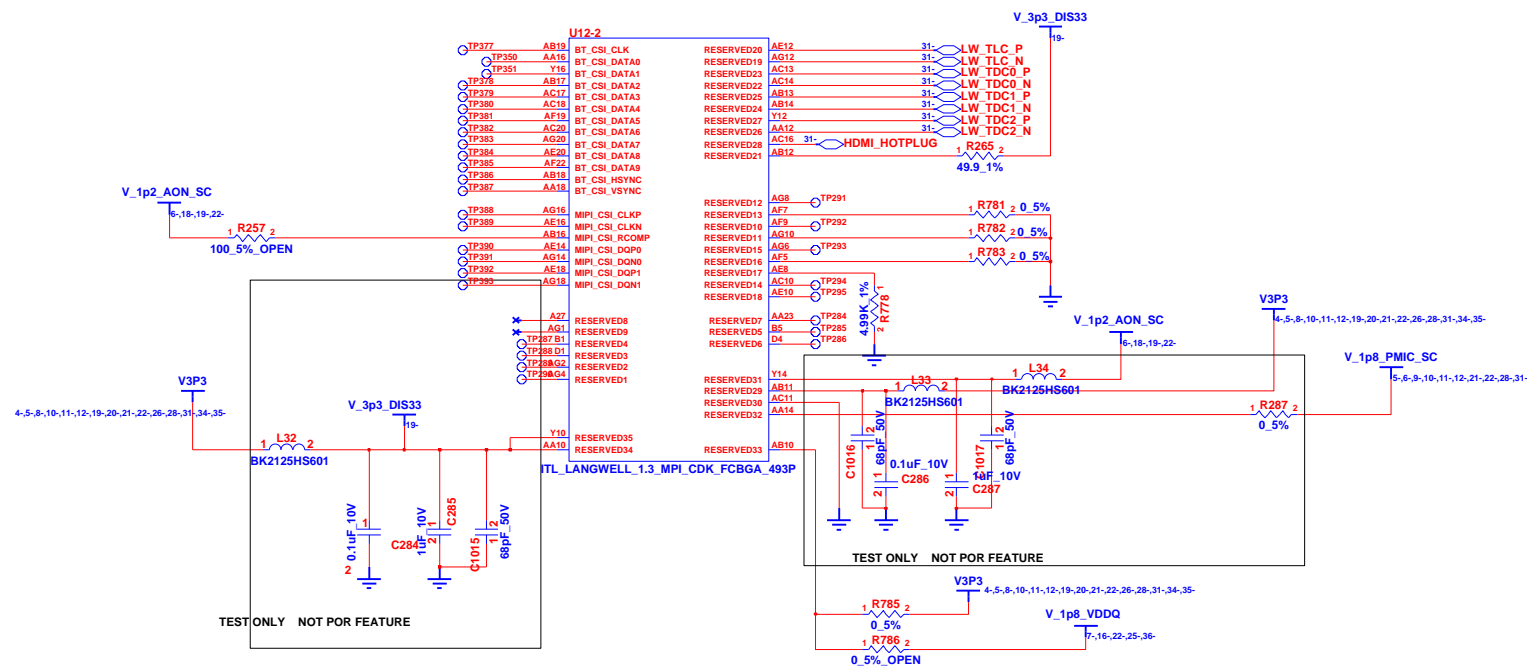
LANGWELL1



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SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2349701-0-MT	X02
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CHANGE by Peng, Edward 6-Apr-2010

LANGWELL2



[illegible]

TITLE			
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SIZE	CODE	DOC. NUMBER	REV
A3	CS	<i>1310A2349701-0-MB</i>	<i>EX02</i>
SHEET		20	OF 38

CHANGE by	<i>Peng, Edware</i>	<i>10-Apr-2010</i>
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[illegible]

SIZE A3	CODE CS	DOC. NUMBER 1310A2349701-0-MT	REV RX02
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CHANGE by	<i>Peng, Edward</i>	2-Apr-2010
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The diagram shows a detailed PCB layout for the LANGWELL 5. It features a central power plane with various decoupling capacitors (C288, C289, C103, C290, C291, C292, C1029, C295, C296, C1028, C1027, C298, C299, C300, C301, C302, C303, C305, C306, C1025) and resistors (R810, R811, R812, R813, R814, R815, R816, R266) connected to various power pins. The layout includes a USB port (V_3p3_USB) and a ZXM61P02FTC component. The title is LANGWELL 5, and the sheet number is 22 of 38.

LANGWELL 5

Power Pins and Connections:

- V3P3:** 4-5-8-10-11-12-19-20-21-22-26-28-31-34-35
- V_2p5_VIMG:** 7-22
- V_3p3_USB:** 22
- V_1p8_PMIC_SC:** 5-6-8-10-11-12-19-21-22-28-31
- V_1p05_VCCPAOAC:** 6-14-16-22
- V_1p8_PMIC_SC:** 5-6-8-10-11-12-19-21-22-28-31
- V_2p5_VIMG:** 7-22
- V_1p8_VDDQ:** 7-16-19-22-25-36
- V_1p05_VCCP_LNW:** 6-18-22-24
- V_1p05_VCCPAOAC:** 6-14-16-22
- V_SDIO_0:** 6-22-30-37
- V_1p2_AON_SC:** 6-18-19-22
- V_1p8_VDDQ:** 4-5-8-10-11-12-19-20-21-22-26-28-31-34-35

Components and Values:

- Capacitors:** C288, C289, C103, C290, C291, C292, C1029, C295, C296, C1028, C1027, C298, C299, C300, C301, C302, C303, C305, C306, C1025
- Resistors:** R810, R811, R812, R813, R814, R815, R816, R266
- Inductors:** L17, L18, L19, L20, L21, L22, L23, L24, L25, L26, L27, L28, L29, L30, L31, L32, L33, L34, L35, L36, L37, L38, L39, L40, L41, L42, L43, L44, L45, L46, L47, L48, L49, L50, L51, L52, L53, L54, L55, L56, L57, L58, L59, L60, L61, L62, L63, L64, L65, L66, L67, L68, L69, L70, L71, L72, L73, L74, L75, L76, L77, L78, L79, L80, L81, L82, L83, L84, L85, L86, L87, L88, L89, L90, L91, L92, L93, L94, L95, L96, L97, L98, L99, L100
- Diodes:** D3, D5
- Transistors:** Q18
- ICs:** U12-5, U18, U20, U22, U24, U26, U28, U30, U32, U34, U36, U38, U40, U42, U44, U46, U48, U50, U52, U54, U56, U58, U60, U62, U64, U66, U68, U70, U72, U74, U76, U78, U80, U82, U84, U86, U88, U90, U92, U94, U96, U98, U100

Legend:

Symbol	Value
C288	1uF 10V
C289	1uF 10V
C103	1uF 10V
C290	1uF 10V
C291	1uF 10V
C292	1uF 10V
C1029	1uF 10V
C295	1uF 10V
C296	1uF 10V
C1028	1uF 10V
C1027	1uF 10V
C298	1uF 10V
C299	1uF 10V
C300	1uF 10V
C301	1uF 10V
C302	1uF 10V
C303	1uF 10V
C305	1uF 10V
C306	1uF 10V
C1025	1uF 10V
R810	0.5%
R811	0.5%
R812	0.5%
R813	0.5%
R814	0.5%
R815	0.5%
R816	0.5%
R266	100K 5%

Legend:

Symbol	Value
C288	1uF 10V
C289	1uF 10V
C103	1uF 10V
C290	1uF 10V
C291	1uF 10V
C292	1uF 10V
C1029	1uF 10V
C295	1uF 10V
C296	1uF 10V
C1028	1uF 10V
C1027	1uF 10V
C298	1uF 10V
C299	1uF 10V
C300	1uF 10V
C301	1uF 10V
C302	1uF 10V
C303	1uF 10V
C305	1uF 10V
C306	1uF 10V
C1025	1uF 10V
R810	0.5%
R811	0.5%
R812	0.5%
R813	0.5%
R814	0.5%
R815	0.5%
R816	0.5%
R266	100K 5%

Legend:

Symbol	Value
C288	1uF 10V
C289	1uF 10V
C103	1uF 10V
C290	1uF 10V
C291	1uF 10V
C292	1uF 10V
C1029	1uF 10V
C295	1uF 10V
C296	1uF 10V
C1028	1uF 10V
C1027	1uF 10V
C298	1uF 10V
C299	1uF 10V
C300	1uF 10V
C301	1uF 10V
C302	1uF 10V
C303	1uF 10V
C305	1uF 10V
C306	1uF 10V
C1025	1uF 10V
R810	0.5%
R811	0.5%
R812	0.5%
R813	0.5%
R814	0.5%
R815	0.5%
R816	0.5%
R266	100K 5%

Legend:

Symbol	Value
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SIZE A3	CODE CS	DOC. NUMBER 1310A2349701-0-MT	REV RX02
SHEET		22	OF 38

CHANGE by	<i>Peng, Edward</i>	<i>3-Feb-2010</i>
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1 2 3 4 5 6 7 8

A

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C

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E

F

LANGWELL 6

U12-6
RTL_LANGWELL_1.3_MPI_CDK_FCBGA_493P

INVENTEC

TITLE ET10-6050A2349701-MB-X

SIZE	CODE	DOC. NUMBER	REV
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CHANGE by		3-Feb-2010
Peng, Edware		

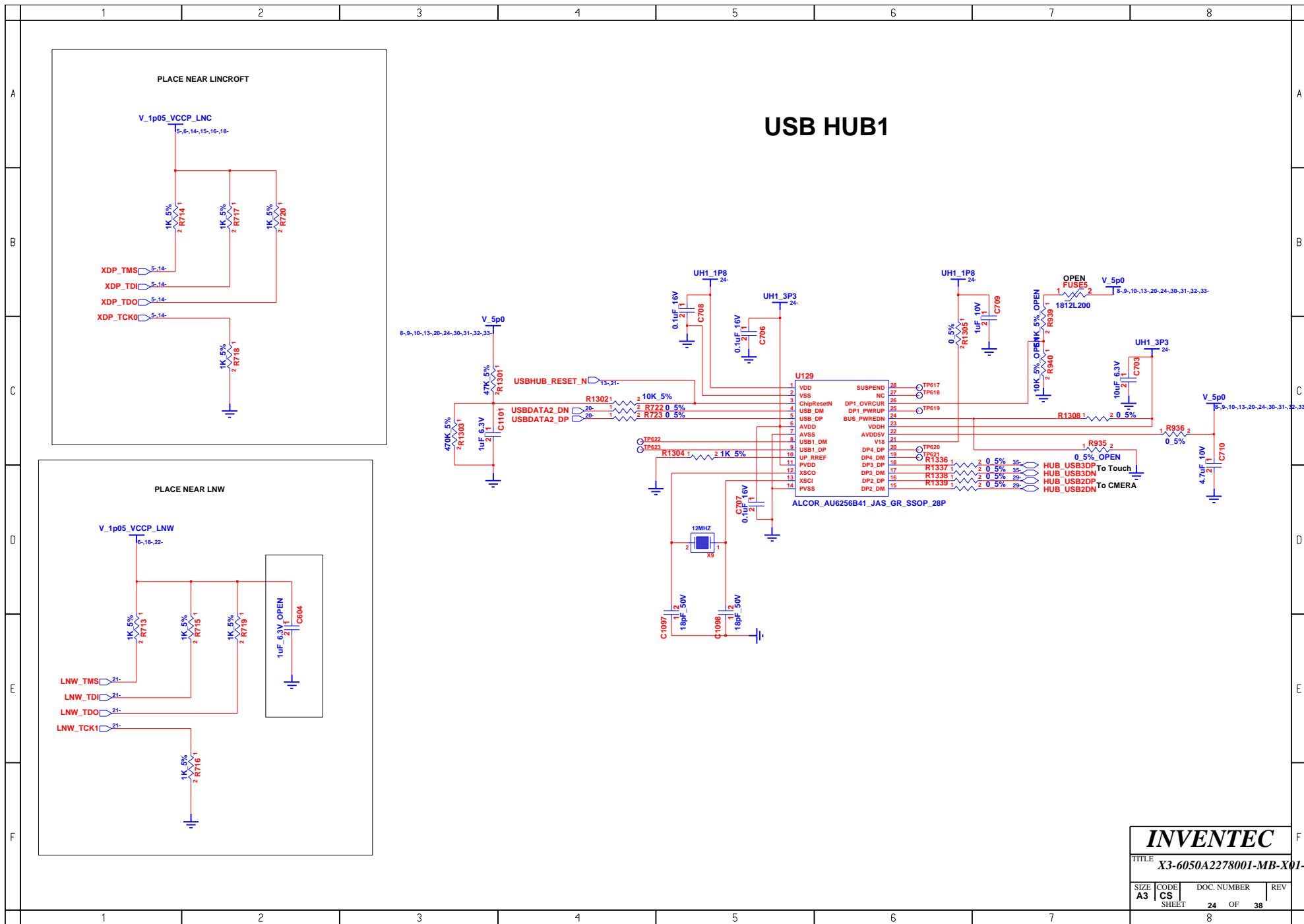
SHEET	OF
23	38

TITLE	ET10-6050A2349701-MB-X02
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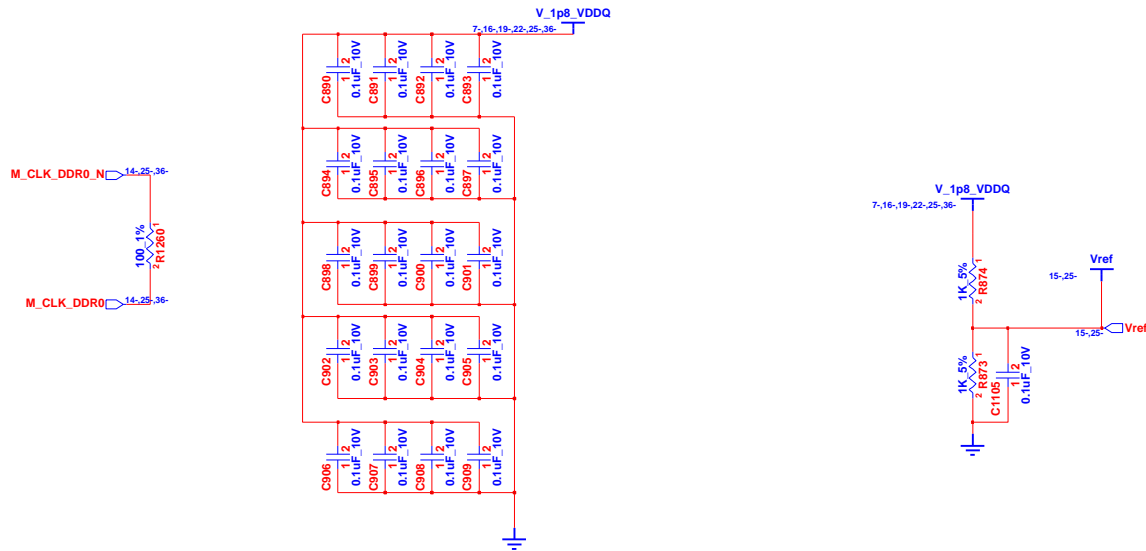
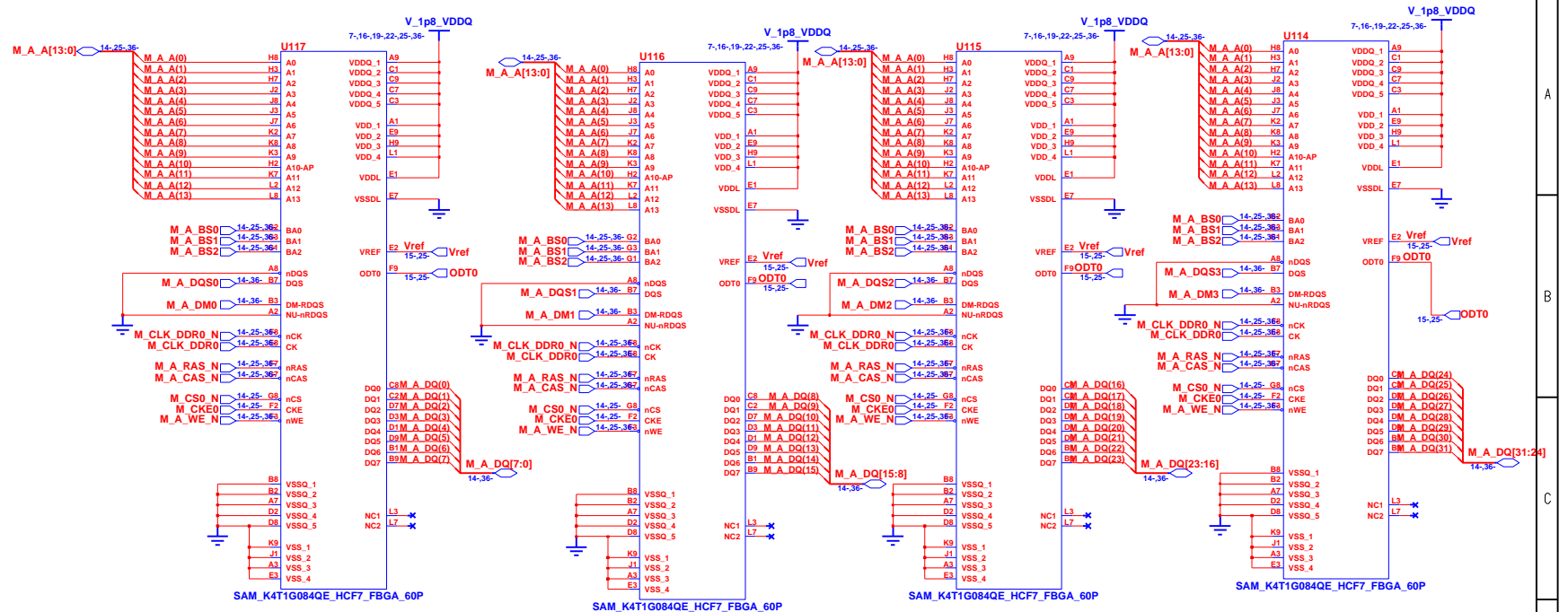
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CHANGE by	<i>Peng, Edware</i>	<i>3-Feb-2010</i>
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DDRII



INVENTEC			
TITLE ET10-6050A2349701-MB-X02			
SIZE A3	CODE CS	DOC. NUMBER 1310A2349701-0-MT	REV R02
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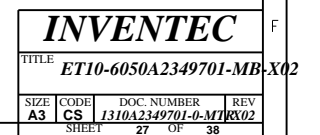
CHANGE by Peng, Edward 8-Apr-2010

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TITLE	ET10-6050A2349701-MB-XC
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SIZE A3	CODE CS	DOC. NUMBER 1310A2349701-0-MTRX02	REV
SHEET		26	OF 38

CHANGE by	<i>Peng, Edward</i>	<i>4-Apr-2010</i>
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1 2 3 4 5 6 7 8

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G-SENSOR/E-COMPASS

THERMAL SENSOR

G-SENSOR/E-COMPASS Schematic:

- U134: ST LSM303DLHTR_LGA_28P
- Power: V_1p8_PMIC_SC (pins 28, 27, 26, 25, 24, 23, 22, 21), V_3p3_GP (pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35).
- Signal: GSENSOR_SA0 (pin 21), I2C0SCL_1P8 (pins 21, 28), I2C0SDA_1P8 (pins 21, 28).
- Other: VDD_IO_A (pins 21, 28), VDD (pins 21, 28), VREN (pin 17), SETC (pin 16), C1 (pin 15), C767 (10uF_10V), C768 (0.1uF_10V), C769 (0.1uF_10V), C766 (0.22uF_10V), TP470, TP471, TP472, TP473, TP474.

THERMAL SENSOR Schematic:

- U133: SMSC EMC1403_1_AIZL_TR_MSOP_10P
- Power: V_3p3_GP (pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35).
- Signal: H_THERMDA (pin 15), H_THERMDC (pin 15), THERMAL_SENSOR_INT_N (pin 8), I2C0SCL_ISO (pins 28, 35), I2C0SDA_ISO (pins 28, 35).
- Other: VDD (pin 1), SMCLK (pin 10), DP1 (pin 9), SMDATA (pin 9), DN1 (pin 4), DP2_DN3 (pin 4), DN2_DP3 (pin 5), GND (pin 6), R957 (0.5%), R956 (0.5%), R958 (0.5%), R959 (0.5%), R960 (10K_5%), C769 (0.1uF_10V), C767 (10uF_10V), C768 (0.1uF_10V).

SERTEK ISL54050_UTQFN_10P Schematic:

- U132: SERTEK ISL54050_UTQFN_10P
- Power: V3P3 (pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35).
- Signal: I2C0SCL (pins 5, 21, 31), I2C0SDA (pins 5, 21, 31), THERMAL_SENSOR_INT_N (pin 8).
- Other: V_3p3_GP (pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35), R954 (0.5%), R955 (0.5%), C764 (0.1uF_10V), GND (pin 10), IN2 (pin 10), IN1 (pin 10).

INVENTEC

TITLE ET10-6050A2349701-MB-X0

SIZE A3 CODE CS DOC. NUMBER 1310A2349701-0-MT REV 02

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CHANGE by Peng, Edward 8-Apr-2010

1 2 3 4 5 6 7 8

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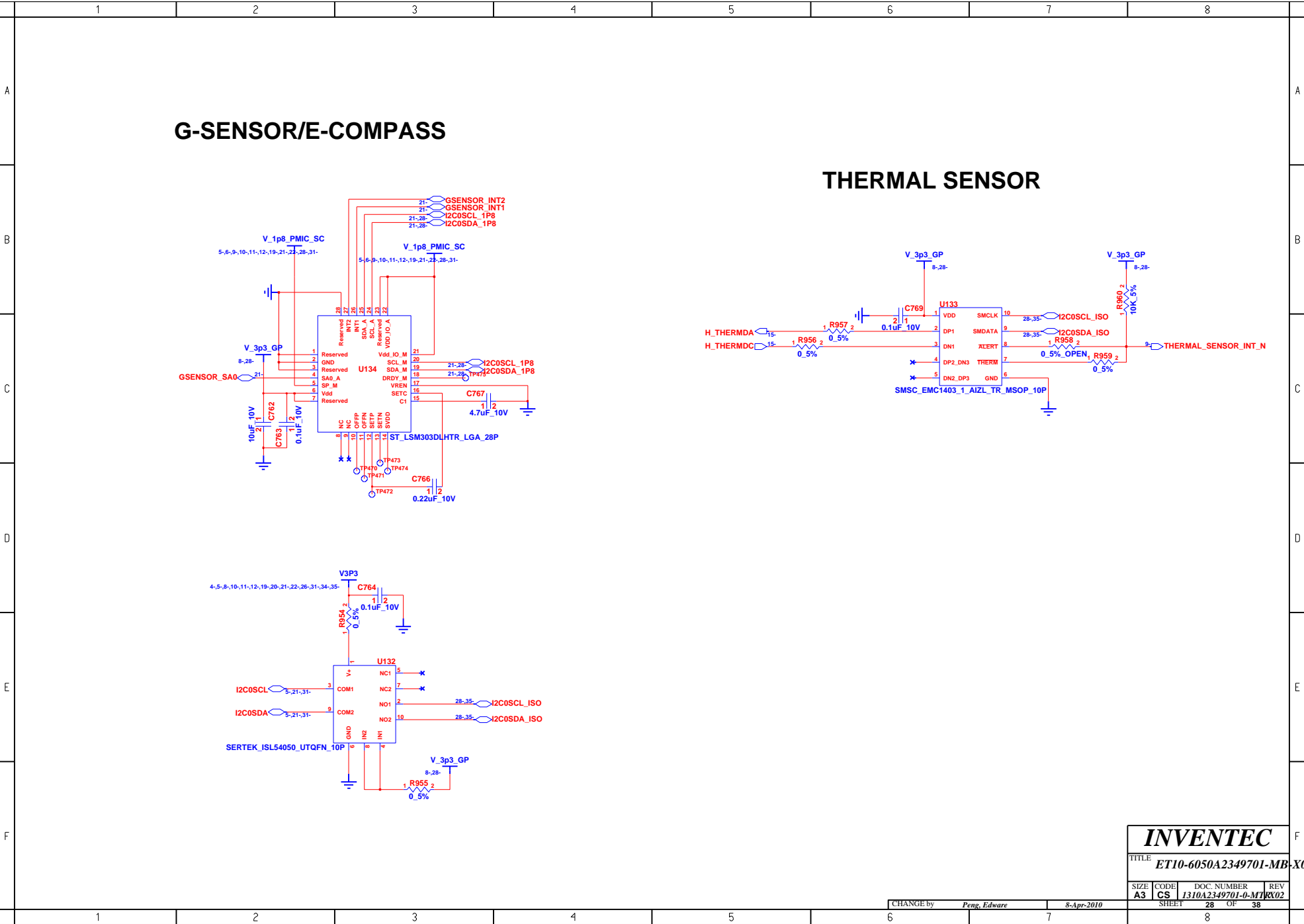
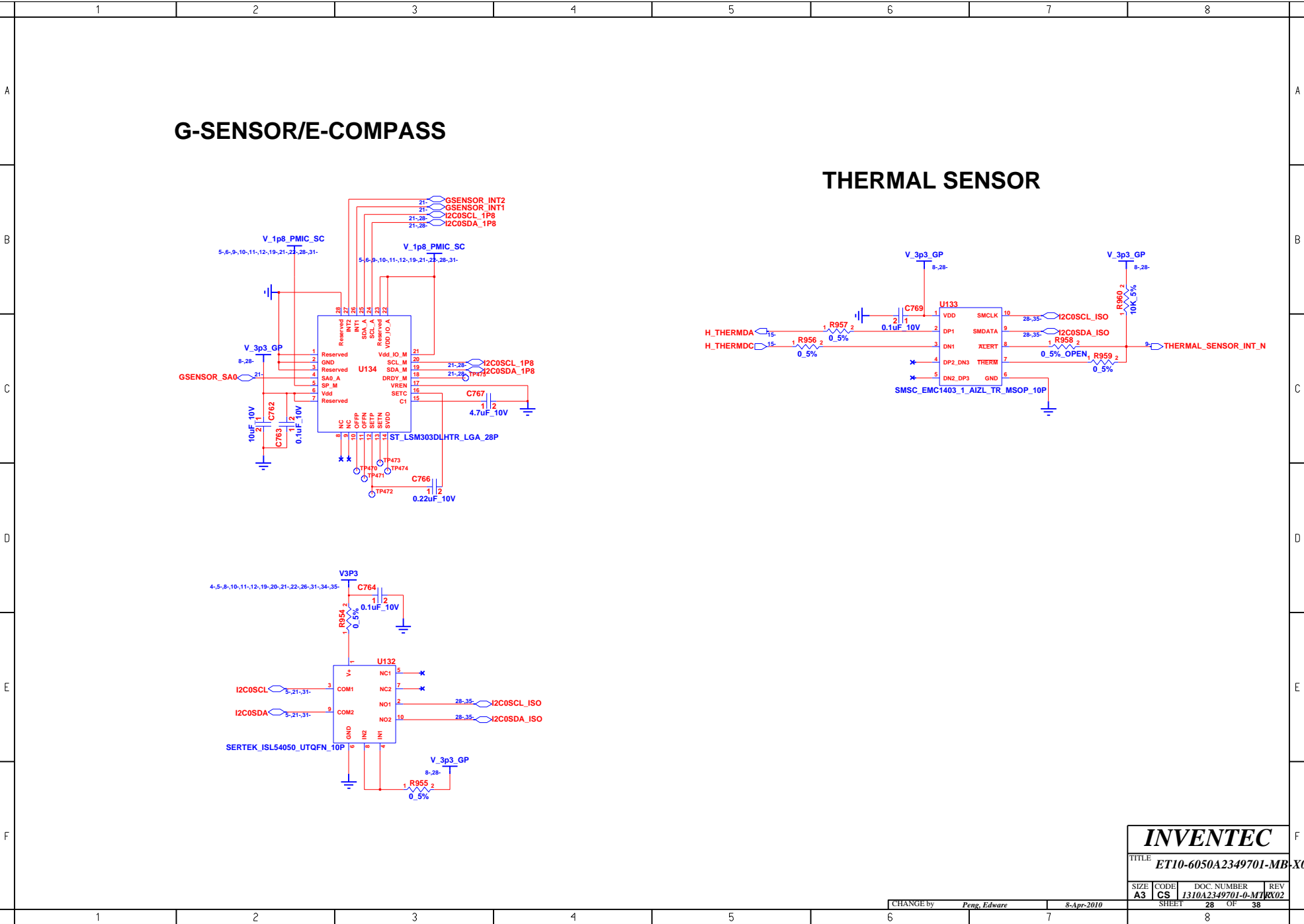
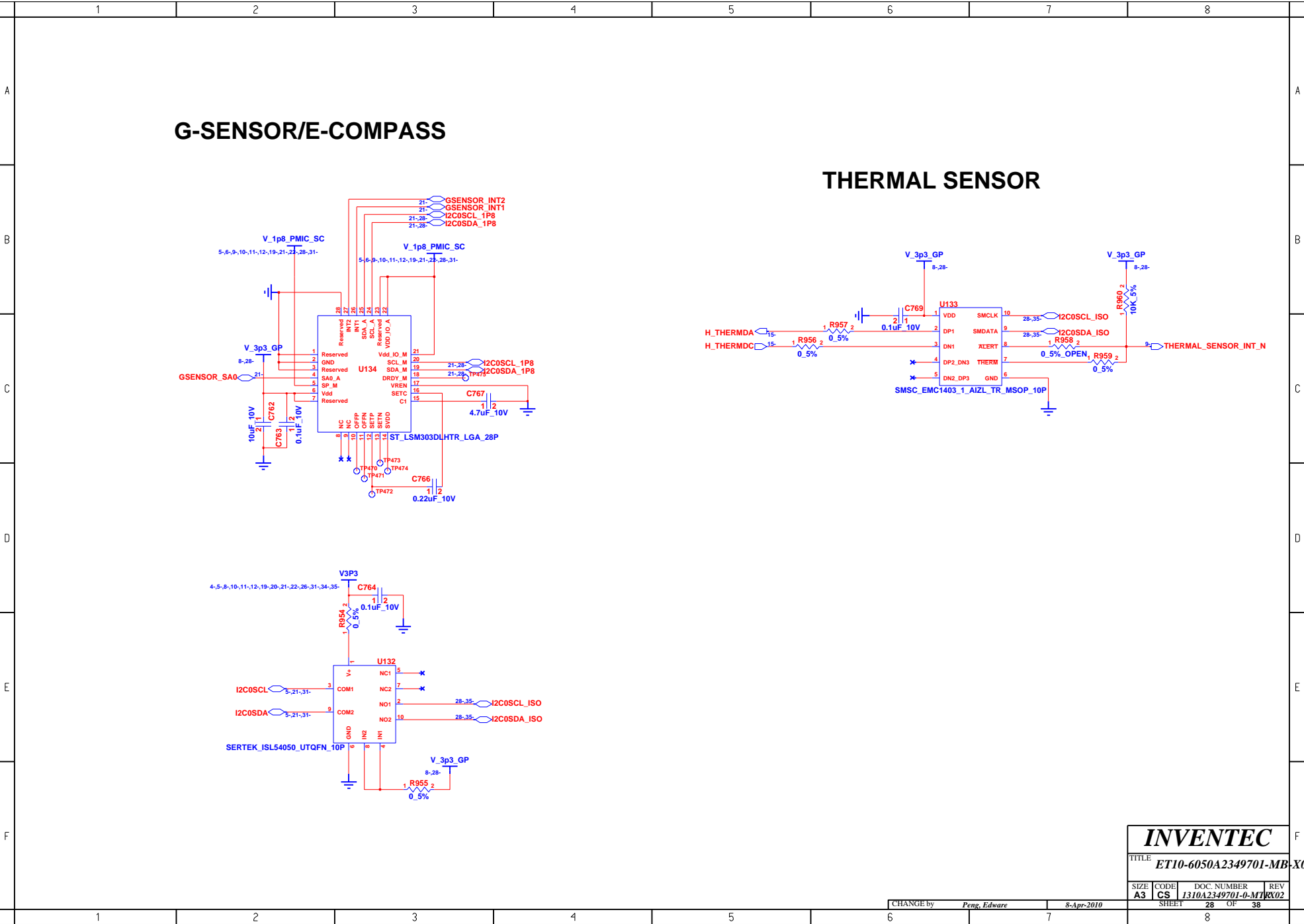
G-SENSOR/E-COMPASS

THERMAL SENSOR

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INVENTEC			
TITLE ET10-6050A2349701-MB-X0			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2349701-0-MT	02
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CHANGE by Peng, Edward 8-Apr-2010



G-SENSOR/E-COMPASS

This schematic diagram illustrates the electrical connections for the G-SENSOR/E-COMPASS. The primary component is the ST LSM303DLHTR_LGA_28P (U134), which is connected to various power and signal pins. Key connections include:

- Power Supply:** V_{1p8_PMIC_SC} (5-6-9-10-11-12-19-21-23-28-31) and V_{3p3_GP} (8-28) provide power to the sensor.
- Signal Pins:** OSENSOR_INT2, OSENSOR_INT1, I2C0SCL_1P8, and I2C0SDA_1P8 are connected to the sensor's interface pins.
- Capacitors:** 10uF_10V (C762), 0.1uF_10V (C763), 4.7uF_10V (C767), and 0.22uF_10V (C766) are used for decoupling and filtering.
- Other Components:** TP470, TP471, TP472, TP473, and TP474 are test points connected to various pins.

THERMAL SENSOR

This schematic diagram illustrates the electrical connections for the THERMAL SENSOR. The primary component is the SMSC EMC1403_1_AIZL_TR_MSOP_10P (U133), which is connected to various power and signal pins. Key connections include:

- Power Supply:** V_{3p3_GP} (8-28) provides power to the sensor.
- Signal Pins:** H_THERMDA, H_THERMDC, and THERMAL_SENSOR_INT_N are connected to the sensor's interface pins.
- Capacitors:** 0.1uF_10V (C769), 0.5% (R957), 0.5% (R956), 0.5% (R958), and 0.5% (R959) are used for decoupling and filtering.
- Other Components:** TP470, TP471, TP472, TP473, and TP474 are test points connected to various pins.

This schematic diagram illustrates the electrical connections for the THERMAL SENSOR. The primary component is the SERTEK ISL54050_UTQFN_10P (U132), which is connected to various power and signal pins. Key connections include:

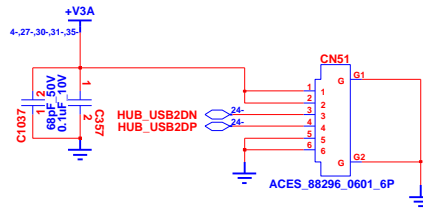
- Power Supply:** V_{3P3} (4-5-8-10-11-12-19-20-21-22-26-31-34-35) provides power to the sensor.
- Signal Pins:** I2C0SCL, I2C0SDA, and THERMAL_SENSOR_INT_N are connected to the sensor's interface pins.
- Capacitors:** 0.1uF_10V (C764), 0.5% (R954), and 0.5% (R955) are used for decoupling and filtering.
- Other Components:** TP470, TP471, TP472, TP473, and TP474 are test points connected to various pins.

INVENTEC

TITLE ET10-6050A2349701-MB-X

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2349701-0-MT	02
SHEET 28		OF 38	

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[illegible]

TITLE	<i>ET10-6050A2349701-MB-X02</i>
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SIZE A3	CODE CS	DOC. NUMBER 1310A2349701-0-MT/RX02	REV
SHEET		29	OF 38

A



3

CHANGE by	<i>Peng, Edward</i>	<i>22-Mar-2010</i>
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6	7
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[illegible]

	SHEET	31	OF	38
		8		

CHANGE by	X3	10-Apr-2010
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[illegible]

TITLE	X3-6050A2278001-MB-X01-20090225
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SIZE A3	CODE CS	DOC. NUMBER	REV
SHEET		32	OF 38

CARDREADER

0: 12MHZ XTAL INPUT

NBMD :Power saving mode
1:Enable (Default)
0:Disable

XD CIS Check
1:Check
0: Not check

1:Decided by SDWP (Default)
0:Letting SD always write-able

When external 3.3, R1310 shoule mount

Use internal Regulator:R941 OPEN

TAI_R015_B13_HM_40P

SIZE	A3	CODE	CS	DOC. NUMBER	REV
CHANGE by	X3	8-Apr-2010	SHEET	3	OF 38

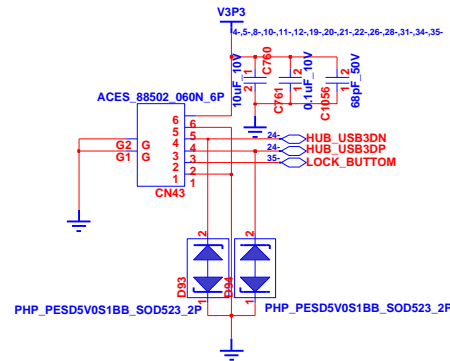
SHEET 33 OF 38

[illegible]

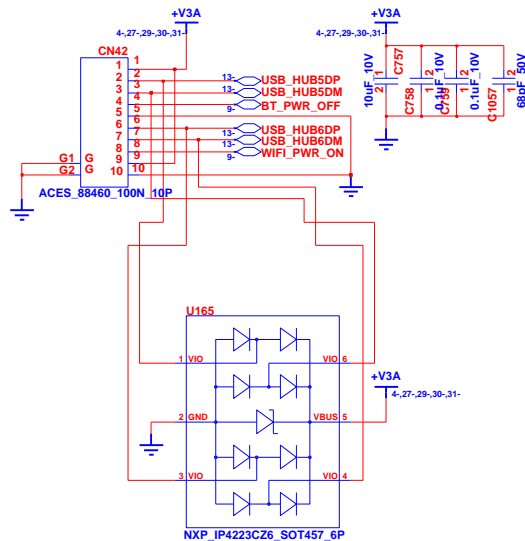
SIZE A3	CODE CS	DOC. NUMBER	REV
SHEET		34	OF 38

CHANGE by	X3	3-Feb-2010
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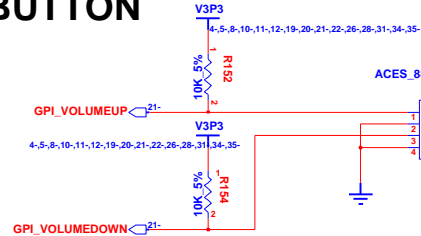
TOUCH_SCREEN



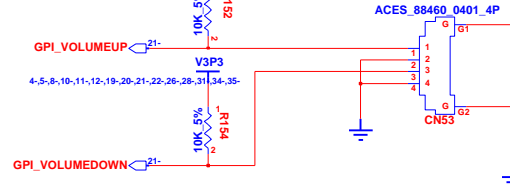
BT_WLAN



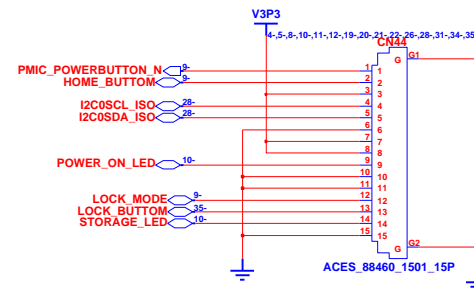
BUTTON

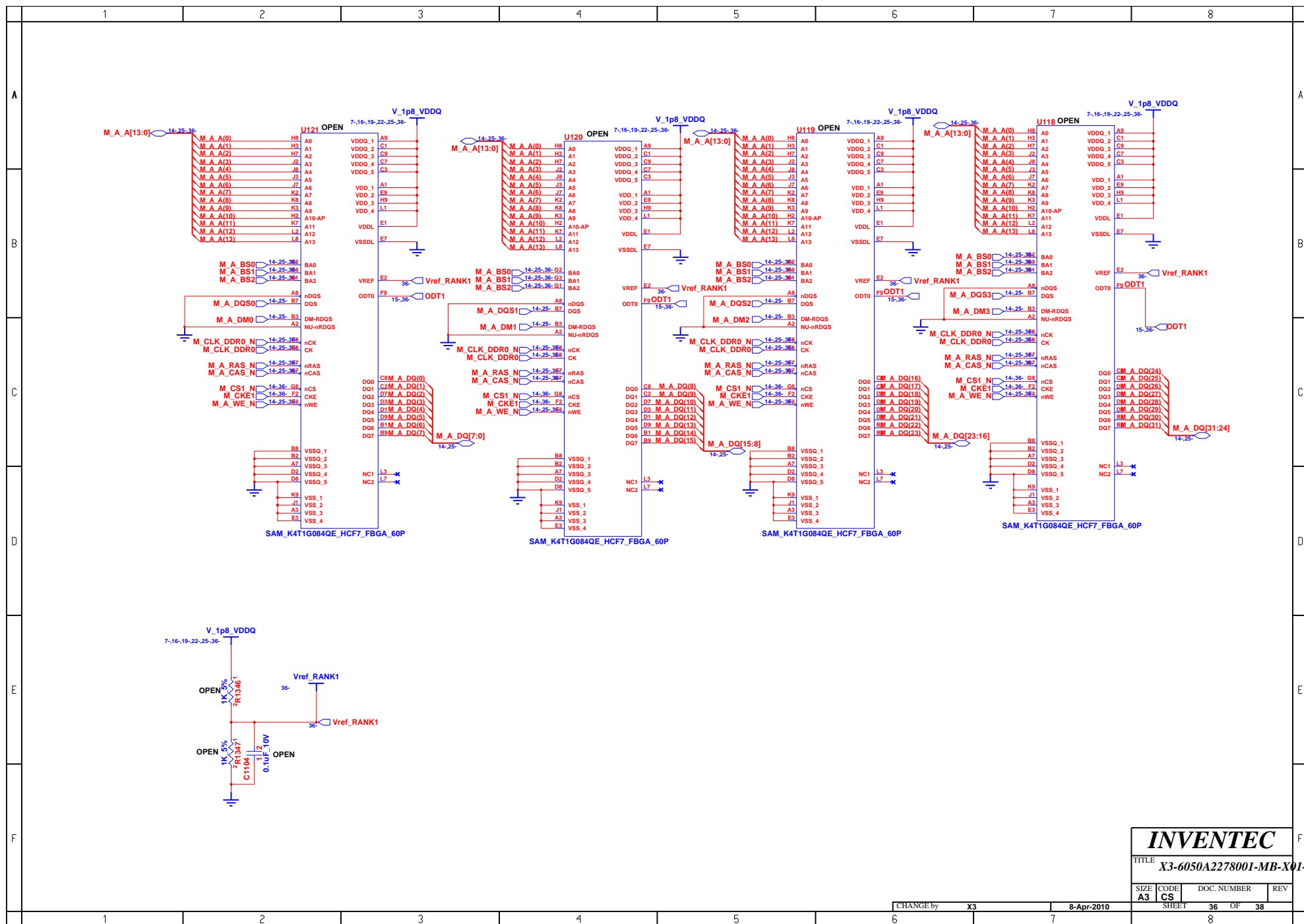


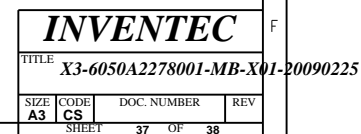
VOL BUTTON



POWER BUTTON







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

INVENTEC			
TITLE ET10-6050A2349701-MB-X02			
SIZE A3	CODE CS	DOC. NUMBER 1310A2349701-0-MT	REV 002
SHEET 38		OF 38	

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