

FDI	ENGINEERING CHANGE ORDER		ECO NO: 10-066
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TITLE	DWG NO.	CURRENT REV	NEW REV
uEZ GUI 4p3	uEZ GUI 4.3 Sharp	2	3

BACKGROUND:

Update the uEZGUI 4.3 to the same enhanced feature set of the uEZGUI 7.0;

- LPC1788 support (add/move signals)
- 2nd Expansion Connector
- TDA8551 Speaker Driver
- Add optional SMT 2pin header to support off-board speaker (normally not loaded)
- Add optional SMT 3pin header to support off-board battery (normally not loaded)

Change LCD reset load option to support software control over reset signal (U1/R1)

Change ISP Header to be loaded

DESCRIPTION OF CHANGE:

1. Add PN details for LPC1788 as alternative for U11 (LPC1788FBD208)
2. Add/change the following connections to U11;
(net name changes should be applied to the complete schematic)
 - a. Add P0.0_RD1_TXD3_TXD0 to pin 94
 - b. Add P0.1_TD1_RXD3_RXD0 to pin 96
 - c. Add P0.12_AD0.6 to pin 41
 - d. Change net name on pin 45 to P0.13_USB2_UPLD_AD0.7
 - e. Change net name on pin 116 to P0.22_MCIDAT0_RTS1
 - f. Change net name on pin 18 to TP_LT_X1_P0.23_AD0.0
 - g. Change net name on pin 16 to TP_RL_Y2_P0.24_AD0.1
 - h. Change net name on pin 14 to P0.25_AD0.2_TXD3
 - i. Move TP_LL_X2 from pin 91 to pin 67
 - j. Move TP_RT_Y1 from pin 99 to pin 66
 - k. Move LOCAL_SDA from pin 50 to pin 91
 - l. Move LOCAL_SCL from pin 48 to pin 99
 - m. Change net name on pin 61 to P0.29_USB1_DP_EINT0
 - n. Change net name on pin 62 to P0.30_USB1_DM_EINT1
 - o. Add P1.3_MCICMD_PWM0.2 to pin 177
 - p. Move HEARTBEAT from pin 156 to pin 147
 - q. Add P1.5_MCIPWR_PWM0.3 to pin 156
 - r. Add P1.6_MCIDAT0_PWM0.4 to pin 171

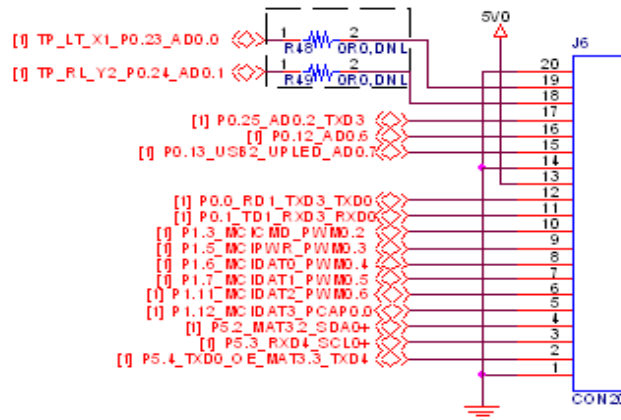
Reason for change: <ol style="list-style-type: none"> 1. Add support for LPC1788 and 2nd expansion connector 2. Add speaker driver for better speaker performance 3. Add optional off-board speaker connector 4. Load LCD reset control via CPU 		Disposition/Affectivity	
		Use as is	x
		Rework to ECO	
		Scrap & Rebuild	
		Record Change Only	x
Prepared by:	MH	Date:	4/01/2011
Approved by:		Date:	
Approved by:		Date:	
Approved by:		Date:	

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- s. Add P1.7_MCIDAT1_PWM0.5 to pin 153
 - t. Move BL_PWM from pin 163 to pin 185
 - u. Add P1.11_MCIDAT2_PWM0.6 to pin 163
 - v. Add P1.12_MCIDAT3_PCAP0.0 to pin 157
 - w. Add VOL_UD to pin 124
 - x. Add AMP_MODE to pin 118
 - y. Change net name on pin 110 to P2.10_EINT0_NMI (off-page name)
 - z. Add P5.2_MAT3.2_SDA0+ to pin 117
 - aa. Add P5.3_RXD4_SCL0+ to pin 141
 - bb. Add 0 ohm resistor, R54, (dnl for LPC2478, load for LPC1788) connected to pin 9 and connected to P5.0_MAT2.2 (off-page name)
 - cc. Add 0 ohm resistor, R53, between pin 206 and net RTCK (loaded)
 - dd. Add P5.4_TXD0_OE_MAT3.3_TXD4 to pin 206
 - ee. Disconnect net on pin 38 from 3V3 (retain capacitors connected to pin 38)
 - ff. Add 0 ohm resistor, R51, from pin 38 net to 3V3 (loaded for LPC2478, dnl for LPC1788)
 - gg. Add 0 ohm resistor, R52, from pin 38 net to VRTC (dnl for LPC2478, load for LPC1788)
3. Change U4 to LM75BD (see uEZGUI 7.0 U6)
 4. Load U1(74LVC1G08GW) (change from DNL)
 5. Change R1 to DNL
 6. Add 2nd expansions connector from uEZGUI 7.0 Seiko design as shown below;

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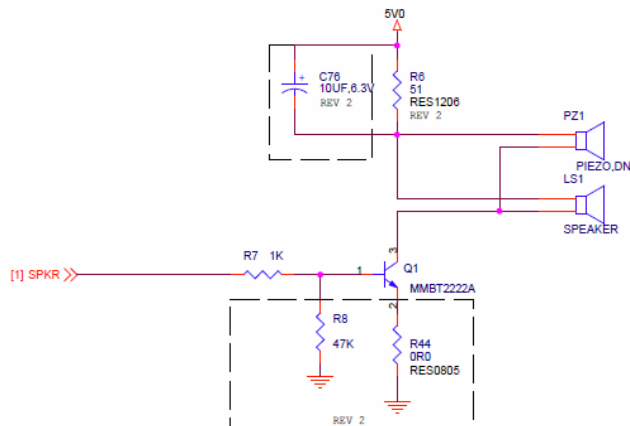


SECONDARY EXPANSION CONNECTOR

R.REV 3

Speaker Changes

- 7. Remove transistor speaker driver circuit shown below;
(delete R6, PZ1, Q1, R7, R8, R44 / retain C76 & LS1)

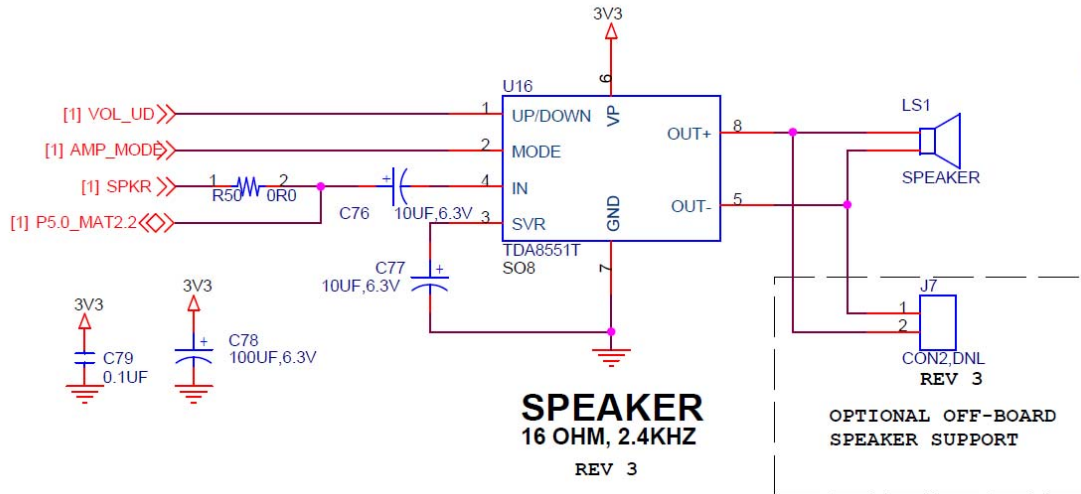


SPEAKER/PIEZO
16 OHM, 2.4KHZ

- 8. Add TDA8551T Speaker Driver circuit as shown below;
(add U16, R50, C77, C78, C79 – retained C76 & LS1)

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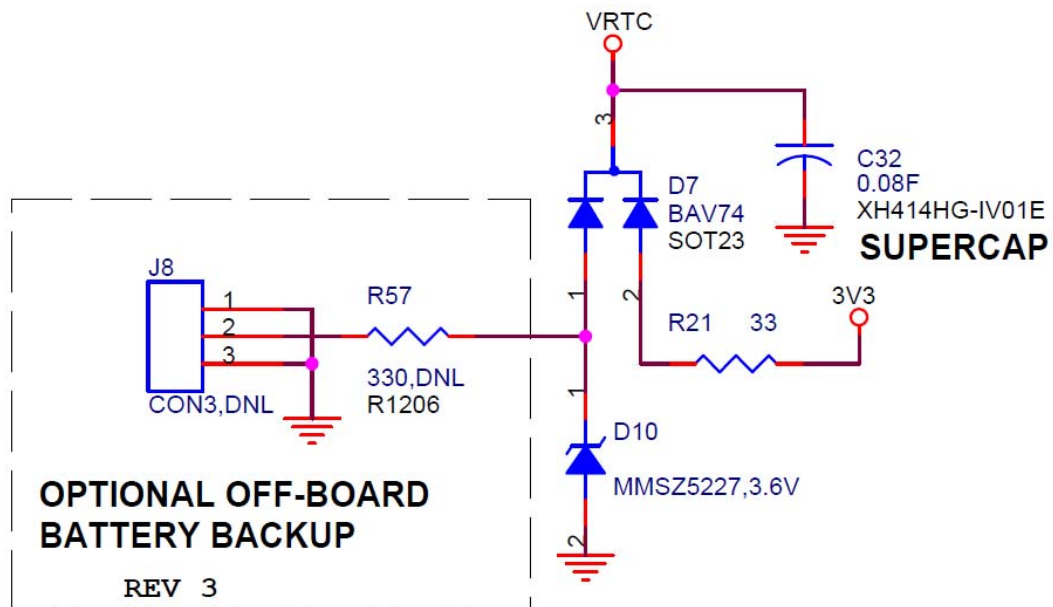
9. Add optional 2pin SMT header, J7, Digikey PN: H2219-ND to the speaker signals U16 pin 8 & 5 (dnl)

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Battery Backup Changes

10. Add 330ohm 1/4W series resistor, R57, Digikey PN: P330FTR-ND
11. Add 3.6V Zener Diode, D10, Digikey PN: MMSZ5227BS-FDICT-ND
12. Change diode D7 from BAS416 to BAV74, Digikey PN: 568-1623-2-ND
13. Add optional 3-pin SMT header J8, Digikey PN: H2220-ND to the VBat signals as shown below (dnl):



14. Add RTC_IRQn connection to U15 pin 17 (PCF2129A)
15. Change J3 (ISP Connector) to be loaded
16. Add notes reflecting load options for LPC2478 vs LPC1788

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