

Title		
Size	Number	Revision
A4		
Date:	12/31/2015	Sheet of
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U12A

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P1[31]USB_OVRCR2_SSP1_SCK/ADC0_IN[5]/I2C0_SCL 40 A11
P1[30]USB_PWRD2_USB_VBUS/ADC0_IN[4]/I2C0_SDA/U3_OE 42 A12
P1[29]USB_SDA1/PWM1_CAP1/T0_MAT1/MC_2BU4_TXD/LCD_VD[11]/LCD_VD[23] 42 B7
P1[28]USB_SCL1/PWM1_CAP0/T0_MAT0/MC_2A/SSP0_SSEL/LCD_VD[14]/LCD_VD[22] 48 B6
P1[27]USB_INT1/USB_OVRCR1/T0_CAP1/CLKOUT/LCD_VD[13]/LCD_VD[21] 42 B4
P1[26]USB_SSPND1/PWM1[6]/T0_CAP0/MC_1B/SSP1_SSEL/LCD_VD[12]/LCD_VD[20] 40 G7
P1[25]USB_LSI/USB_HSTEN/T1_MAT1/MC_1A/CLKOUT/LCD_VD[11]/LCD_VD[15] 40 G6
P1[24]USB_RX_DM1/PWM1[5]/OE1/DMX/MC_FB2/SSP0_MOSI/LCD_VD[10]/LCD_VD[14] 48 G6
P1[23]USB_RX_DP1/PWM1[4]/OE1/PHB/MC_FB1/SSP0_MISO/LCD_VD[9]/LCD_VD[13] 46 G5
P1[22]USB_RCV1/USB_PWRD1/T1_MAT0/MC_0B/SSP1_MOSI/LCD_VD[8]/LCD_VD[12] 44 G4
P1[21]USB_TX_DM1/PWM1[3]/SSP0_SSEL/MC_ABORT/LCD_VD[7]/LCD_VD[11] 40 G2
P1[20]USB_TX_DP1/PWM1[2]/OE1/PHA/MC_FB0/SSP0_SCK/LCD_VD[6]/LCD_VD[10] 40 G2
P1[19]USB_TX_ET/USB_PPWR/T1_CAP1/MC_0A/SSP1_SCK/U2_OE 48 In3-M
P1[18]USB_UP_LED1/PWM1[1]/T1_CAP0/SSP1_MISO 66 USB_UP_LED1
P1[17]ENET_MDIO/I2S_RX_MCLK 78
P1[16]ENET_MDC/I2S_TX_MCLK 80
P1[15]ENET_RX_CLK(ENET_REF_CLK)/I2C2_SDA 82
P1[14]ENET_RX_ER/T2_CAP0 84
P1[13]ENET_RX_DV 84
P1[12]ENET_RXD3/SD_DAT[3]/PWM0_CAP0 57 SD_D3
P1[11]ENET_RXD2/SD_DAT[2]/PWM0[6] 63 SD_D2
P1[10]ENET_RXD1/T3_CAP0 86
P1[9]ENET_RXD0/T3_MAT0 90 Latch
P1[8]ENET_CRS(ENET_CRS_DV/T3_MAT1/SSP2_SSEL 53 SD_D1
P1[7]ENET_COL/SD_DAT[1]/PWM0[5] 53 SD_D1
P1[6]ENET_TX_CLK/SD_DAT[0]/PWM0[4] 71 SD_D0
P1[5]ENET_TX_ER/SD_PWR/PWM0[3] 56
P1[4]ENET_TX_EN/T3_MAT2/SSP2_MISO 92 LED1
P1[3]ENET_TXD3/SD_CMD/PWM0[2] 88
P1[2]ENET_TXD2/SD_CLK/PWM0[1] 94 MOSI
P1[1]ENET_TXD1/T3_MAT3/SSP2_MOSI 96 SCK
P1[0]ENET_TXD0/T3_CAP1/SSP2_SCK 96

P0[31]USB_D+2 21 In2-M
P0[30]USB_D-1/EINT1 42 USB_D-1
P0[29]USB_D+1/EINT0 61 USB_D+1
P0[28]I2C0_SCL/USB_SCL1 48 SCL0
P0[27]I2C0_SDA/USB_SCL1 40 SDA0
P0[26]ADC0_IN[3]/DAC_OUT/U3_RXD 42 Anut1
P0[25]ADC0_IN[2]/I2S_RX_SDA/U3_TXD 44 A13
P0[24]ADC0_IN[1]/I2S_RX_WS/T3_CAP1 46
P0[23]ADC0_IN[0]/I2S_RX_SCK/T3_CAP0 46
P0[22]U1_RTS/SD_DAT[0]/U4_TXD/CAN_TDI 18 L_R
P0[21]U1_RISD_PWR/U4_OE/CAN_RD1/U4_SCLK 20 SD_CMD
P0[20]U1_DTR/UART1/SD_CMD/I2C1_SCL 22 SD_CLK
P0[19]U1_DSR/SD_CLK/I2C1_SDA 22
P0[18]U1_DCD/SSP0_MOSI 24
P0[17]U1_CTS/SSP0_MISO 26
P0[16]U1_RXD/SSP0_SSEL 30 USB_VBUS
P0[15]U1_TXD/SSP0_SCK 28 USB_CON1
P0[14]USB_HSTEN2/SSP1_SSEL/USB_CONNECT2 59 Mode
P0[13]USB_UP_LED2/SSP1_MOSI/ADC0_IN[7] 45 A14
P0[12]USB_PPWR2/SSP1_MISO/ADC0_IN[6] 41 In1-M
P0[11]U2_RXD/I2C2_SCL/T3_MAT1 40 UO
P0[10]U2_TXD/I2C2_SDA/T3_MAT0 48 DIT
P0[9]I2S_TX_SDA/SSP1_MOSI/T2_MAT3/RTC_EV2/LCD_VD[17] 58 B1
P0[8]I2S_TX_WS/SSP1_MISO/T2_MAT2/RTC_EV1/LCD_VD[16] 60 B0
P0[7]I2S_TX_SCK/SSP1_SCK/T2_MAT1/RTC_EV0/LCD_VD[9] 62 G0
P0[6]I2S_RX_SDA/SSP1_SSEL/T2_MAT0/U1_RTS/LCD_VD[8] 64 G1
P0[5]I2S_RX_WS/CAN_TD2/T2_CAP1/LCD_VD[1] 68 R0
P0[4]I2S_RX_SCK/CAN_RD2/T2_CAP0/LCD_VD[0] 64
P0[3]U0_RXD/U3_RXD 40
P0[2]U0_TXD/U3_TXD 40
P0[1]CAN_TD1/U3_RXD/I2C1_SCL/U0_RXD 44
P0[0]CAN_RD1/U3_TXD/I2C1_SDA/U0_RXD 44

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P3[31]EMC_D[31]/T1_MAT2 25 D31
P3[30]EMC_D[30]/U1_RTS/T1_MAT1 49 D30
P3[29]EMC_D[29]/PWM1[6]/T1_MAT0 41 D29
P3[28]EMC_D[28]/PWM1[5]/T1_CAP1 48 D28
P3[27]EMC_D[27]/PWM1[4]/T1_CAP0 48 D27
P3[26]EMC_D[26]/PWM1[3]/T0_MAT1/STCLK 48 D26
P3[25]EMC_D[25]/PWM1[2]/T0_MAT0 48 D25
P3[24]EMC_D[24]/PWM1[1]/T0_CAP1 65 D24
P3[23]EMC_D[23]/PWM1_CAP0/T0_CAP0 65 D23
P3[22]EMC_D[22]/PWM0_CAP0/U1_RI 48 D22
P3[21]EMC_D[21]/PWM0[6]/U1_DTR 67 D21
P3[20]EMC_D[20]/PWM0[5]/U1_DSR 61 D20
P3[19]EMC_D[19]/PWM0[4]/U1_DCD 48 D19
P3[18]EMC_D[18]/PWM0[3]/U1_CTS 45 D18
P3[17]EMC_D[17]/PWM0[2]/U1_RXD 43 D17
P3[16]EMC_D[16]/PWM0[1]/U1_TXD 47 D16
P3[15]EMC_D[15] 47 D15
P3[14]EMC_D[14] 47 D14
P3[13]EMC_D[13] 47 D13
P3[12]EMC_D[12] 47 D12
P3[11]EMC_D[11] 48 D11
P3[10]EMC_D[10] 49 D10
P3[9]EMC_D[9] 49 D9
P3[8]EMC_D[8] 47 D8
P3[7]EMC_D[7] 47 D7
P3[6]EMC_D[6] 47 D6
P3[5]EMC_D[5] 47 D5
P3[4]EMC_D[4] 47 D4
P3[3]EMC_D[3] 47 D3
P3[2]EMC_D[2] 47 D2
P3[1]EMC_D[1] 47 D1
P3[0]EMC_D[0] 47 D0

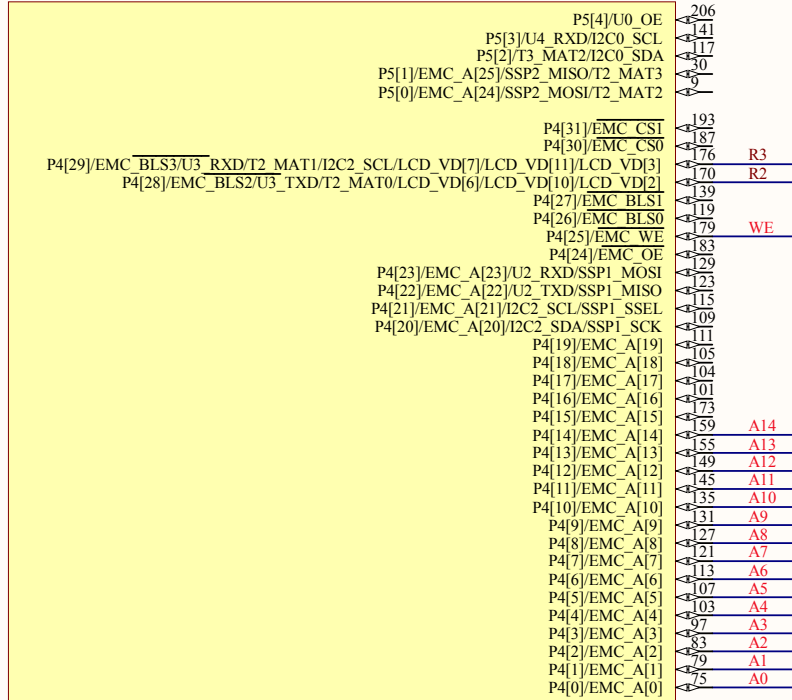
P2[31]EMC_DQM3/I2C2_SCL/T3_MAT3 39 DQM3
P2[30]EMC_DQM2/I2C2_SDA/T3_MAT2 41 DQM2
P2[29]EMC_DQM1 41 DQM1
P2[28]EMC_DQM0 49 DQM0
P2[27]EMC_CKE3/SSP0_MOSI/T3_MAT1 47 Dout
P2[26]EMC_CKE2/SSP0_MISO/T3_MAT0 47 DIN
P2[25]EMC_CKE1 47 In3-M
P2[24]EMC_CKE0 47 ECKE0
P2[23]EMC_DYCS3/SSP0_SSEL/T3_CAP1 47 CS
P2[22]EMC_DYCS2/SSP0_SCK/T3_CAP0 47 CS
P2[21]EMC_DYCS1 47 DYCS0
P2[20]EMC_DYCS0 47 DYCS0
P2[19]EMC_CLK[1] 47 In4-M
P2[18]EMC_CLK[0] 47 ECLK0
P2[17]EMC_RAS 47 RAS
P2[16]EMC_CAS 47 CAS
P2[15]EMC_CS2/I2C1_SCL/T2_CAP1 47 Busy
P2[14]EMC_CS1/I2C1_SDA/T2_CAP0 47 LCDReset
P2[13]EMC_CS0/I2C1_SCL/T2_CAP1 47 B3
P2[12]EINT2/SD_DAT[2]/I2S_TX_WS/LCD_VD[4]/LCD_VD[8]/LCD_VD[18] 46 B2
P2[11]EINT1/SD_DAT[1]/I2S_TX_SCK/LCD_CLKIN 48
P2[10]EINT0/NMI 48 R7
P2[9]USB_CONNECT1/U2_RXD/U4_RXD/ENET_MDIO/LCD_VD[3]/LCD_VD[7] 43 R7
P2[8]CAN_TD2/U2_TXD/U1_CTS/ENET_MDC/LCD_VD[2]/LCD_VD[6] 34 R6
P2[7]CAN_RD2/U1_RFS/LCD_VD[1]/LCD_VD[5] 36 R5
P2[6]PWM1_CAP0/U1_RI/T2_CAP0/U2_OE/TRACELCK/LCD_VD[0]/LCD_VD[4] 38 R4
P2[5]PWM1[6]/U1_DTR/T2_MAT0/TRACEDATA[0]/LCD_LP 42 DE
P2[4]PWM1[5]/U1_DSR/T2_MAT1/TRACEDATA[1]/LCD_ENAB_M 44 VS
P2[3]PWM1[4]/U1_DCD/T2_MAT2/TRACEDATA[2]/LCD_FP 40 HS
P2[2]PWM1[3]/U1_CTS/T2_MAT3/TRACEDATA[3]/LCD_DCLK 40 DCLK
P2[1]PWM1[2]/U1_RXD/LCD_LE 42 BL
P2[0]PWM1[1]/U1_TXD/LCD_PWR 44

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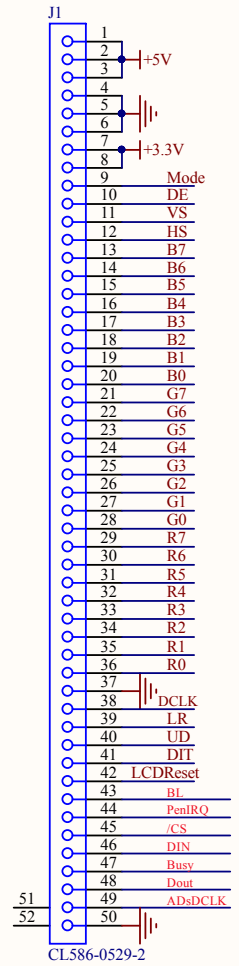
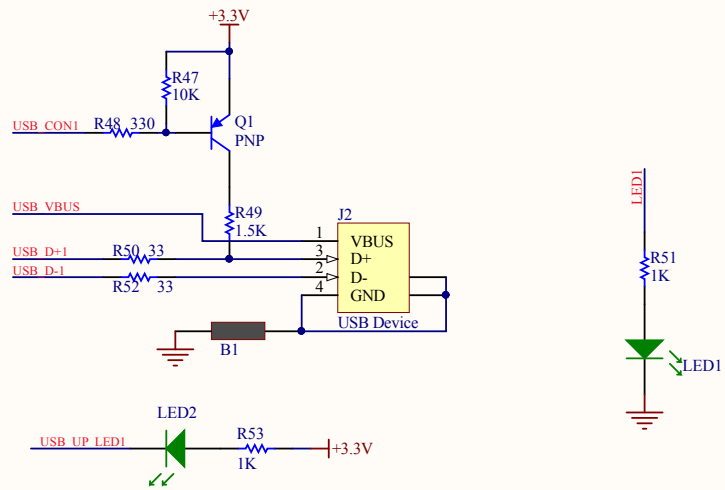
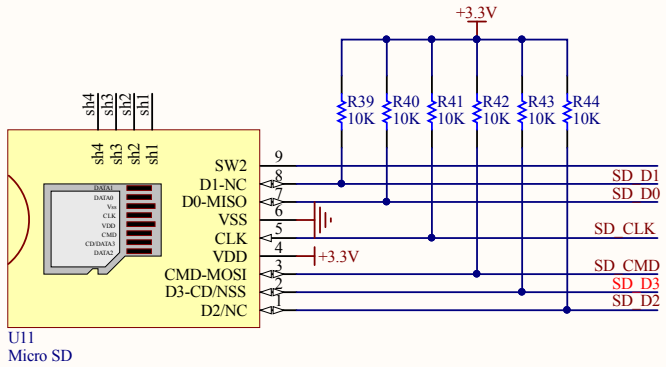
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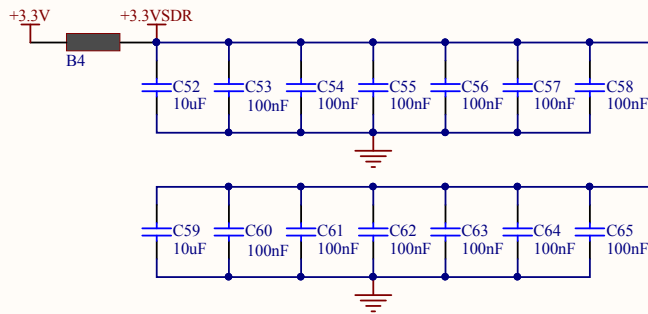
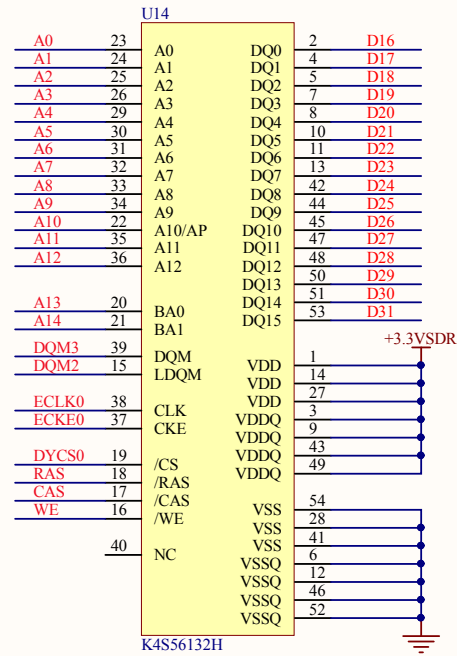
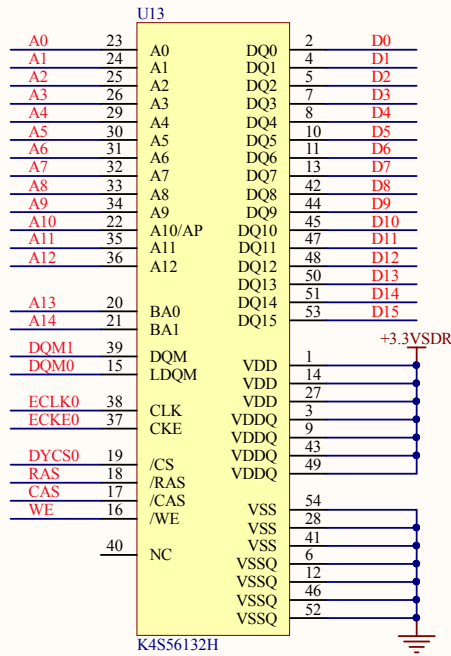


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A4		
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Comment	Description	Designator	Footprint	LibRef	Quantity
Bead filter - SMD		B1, B2, B3, B4	R1206-2	BEAD	4
Battery Holder	Multicell Battery	BT1	Battery-Holder - SMD	Battery	1
100nF	Capacitor	C1, C3, C6, C7, C9, C11, C23, C24, C25, C34, C35, C36, C37, C38, C39, C40, C41, C44, C45, C46, C47, C48, C49, C50, C51, C53, C54, C55, C56, C57, C58, C60, C61, C62, C63, C64, C65	R1206-2	Cap	37
10nF	Capacitor	C2, C5, C8, C10, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C66, C67, C68, C69, C70	R1206-2	Cap	19
100N	Capacitor	C4	R1206-2	Cap	1
10uF	Capacitor	C26, C27, C52, C59	R1206-2	Cap	4
12pF	Capacitor	C28, C29, C30, C31	R1206-2	Cap	4
100uF/Tantan	Capacitor	C32, C42	Tantan-C	Cap	2
10uF	Capacitor	C33, C43	CSMD1	Cap	2
SS14	Schottky Diode	D1, D2, D3, D4, D5, D6, D7, D8, D11, D12	LL-34	D Schottky	10
1N4007	Schottky Diode	D9, D10	DSMD	D Schottky	2
CL586-0529-2	FH12 Series, "Flip-Lock" SMT/ZIF FFC/FPC Connector - 0.5mm Spaced Bottom Contact	J1	FH12-50S-0.5SH	CL586-0529-2	1
USB Device	USB 1.1, Right Angle, Thru-Hole, A Type, Receptacle, 4 Position, Black	J2	440119	1364372-1	1
LED_Green-SMD		LED1, LED2	LED_3.5x2.5	LED_Green	2
Header 5X2	Header, 5-Pin, Dual row	P1	HDR2X5	Header 5X2	1
Header 7X2	Header, 7-Pin, Dual row	P2, P3	HDR2X7	Header 7X2	2
PNP	PNP Bipolar Transistor	Q1	SOT23	PNP	1
560	Resistor	R1, R10	R1206-2	Res2	2
Res2	Resistor	R2, R3, R6, R11, R12, R17	R1206-2	Res2	6
2.7K	Resistor	R4, R5, R7, R14, R15, R16, R21, R22, R25, R26, R29, R30, R33, R34, R37, R38	R1206-2	Res2	16
1%	Resistor	R8, R9, R13	R1206-2	Res2	3
250	Resistor	R18	R1206-2	Res2	1
3.9K	Resistor	R19, R23, R27, R31, R35	R1206-2	Res2	5
470	Resistor	R20, R24, R28, R32, R36	R1206-2	Res2	5
10K	Resistor	R39, R40, R41, R42, R43, R44, R47, R54, R56	R1206-2	Res1, Res1, Res1, Res1, Res1, Res1, Res1, Res2	9
5.6K	Resistor	R45	R1206-2	Res2	1
10	Resistor	R46	R1206-2	Res2	1
330	Resistor	R48	R1206-2	Res1	1
1.5K	Resistor	R49	R1206-2	Res1	1
33	Resistor	R50, R52	R1206-2	Res1	2
1K	Resistor	R51, R53	R1206-2	Res1	2
33K	Resistor	R55	R1206-2	Res1	1
LM324N	Quad Low-Power Operational Amplifier	U1	SOP14	LM324N	1
AD620AR	Low-Cost, Low-Power Instrumentation Amplifier	U2, U3	SOP8	AD620BN	2
CD40106BM	Hex Schmitt-Trigger	U4	SOP14-b	MC14106BCL	1
TLP181		U5, U6, U7, U8, U9	SingleOpto	Opto	5
Micro SD		U11	Micro SD	Micro SD	1
LPC1788FBD208	32-bit ARM Cortex-M3 MCU, 512 kB Flash, 96 kB SRAM, 4 kB EEPROM, Ethernet, USB 2.0 Host/OTG/Device, CAN, 12-Bit ADC, LCD, SD/MMC, 208-Pin LQFP	U12	SOT459-1_V	LPC1788FBD208	1
K4S56132H		U13, U14	TSOP(IJ) 54	K4S56132	2
AD584JN	Pin Programmable Precision Voltage Reference	U15	N-8	AD584JN	1
AD420		U7	SOL24	AD420	1
12MHz	Crystal Oscillator	Y1	CrystalSaat-SMD	XTAL	1
Crystal Saat	Crystal Oscillator	Y2	XTAL	XTAL	1