UNIVERSAL S08/RS08 TWR MAIN/DAUGHTER CARD PINOUTS

Updated: March 31, 2011

Main Board			Daughter Card	Daughter Card	Daughter Card	Daughter Card	Daughter Card	Daughter Card	Daughter Card	Daughter Card	Daughter Card
J3	J12	Feature/Function	9S08QE128**	9S08QE64	9S08QE32**	9S08QE8**	9S08AC60	9S08QG8	9S08SH8	9RS08KA8	9S08QD4
J3-1	J12-21	MOSI	PTD1/KBI2P1/MOSI2	PTD1/KBI2P1/MOSI2	PTD1/KBI2P1	PTD1/KBI2P1/MOSI2	PTE6/MOSI1	XXX	PTB3/PIB3/MOSI/ADP7	XXX	XXX
J3-2	J12-20	SCLK	PTD0/KBI2P0/SPSCK2	PTD0/KBI2P0/SPSCK2	PTD0/KBI2P0	PTD0/KBI2P0/SPSCK2	PTE7/SPSCK1	XXX	PTB2/PIB2/SPSCK/ADP6	XXX	XXX
J3-3	J12-24	SDA	PTH7/SDA2	PTH7/SDA2	XXX	XXX	PTC1/SDA1	PTA2/KBIP2/SDA/ADP2	PTA2/PIA2/SDA/ADP2/ACMPO	PTA2/KBIP2/SDA/ADP2	XXX
J3-4	J12-23	SCL	PTH6/SCL2	PTH6/SCL2	XXX	XXX	PTC0/SCL1	PTA3/KBIP3/SCL/ADP3	PTA3/PIA3/SCL/ADP3	PTA3/KBIP3/SCL/ADP3	XXX
J3-5	J12-49	*GPIO1*	PTE7/TPM3CLK	PTE7/TPM3CLK	PTE7/TPM3CLK	XXX	PTA3	XXX	XXX	XXX	XXX
J3-6	J12-56	**VDD**	VDD	VDD	VDD	VDD	VDD	VDD	VDD	VDD	VDD
J3-7	XXX	**VDDAD**	VDDAD	VDD	VDDAD	VREFH/VDDAD	VDD	XXX	XXX	XXX	XXX
J3-8	J12-55	**VREFH**	VREFH	VREFH	VREFH	VREFH/VDDAD	VREFH	XXX	XXX	XXX	XXX
J3-9	XXX	**VREFL**	VREFL	GND	VREFL	VREFL/VSSAD	GND	XXX	XXX	XXX	XXX
J3-10	XXX	**VSSAD**	VSSAD	GND	VSSAD	VREFL/VSSAD	GND	XXX	XXX	XXX	XXX
J3-11	J12-60	**VSS**	VSS	GND	VSS	VSS	GND	GND	GND	GND	GND
J3-12	XXX	**EXTAL**	PTB7/SCL1/EXTAL	PTB7/SCL1/EXTAL	PTB7/SCL1/EXTAL	PTB7/SCL1/EXTAL	PTG6/EXTAL	PTB7/SCL/EXTAL	PTB7/SCL/EXTAL	PTB7/SCL/EXTAL	XXX
J3-13	XXX	**XTAL**	PTB6/SDA1/XTAL	PTB6/SDA1/XTAL	PTB6/SDA1/XTAL	PTB6/SDA1/XTAL	PTG5/XTAL	PTB6/SDA/XTAL	PTB6/SDA/XTAL	PTB6/SDA/XTAL	XXX
J3-14	J12-42	**ELECTRODE_0**	PTH1	PTH1	XXX	XXX	PTA4	XXX	XXX	XXX	XXX
J3-15	J12-35	**ELECTRODE_1**	PTH0	PTH0	XXX	XXX	PTA5	XXX	XXX	XXX	XXX
J3-16	J12-38	**ELECTRODE_2**	PTE6	PTE6	PTE6	XXX	PTA6	XXX	XXX	XXX	XXX
J3-17	J12-29	**ELECTRODE_3**	PTE5	PTE5	PTE5	XXX	PTA7	XXX	XXX	PTC1/ADP9	XXX
J3-18	J12-13	**RED LED**	PTB5/TPM1CH1/SS1/	PTB5/TPM1CH1/nSS1	PTB5/TPM1CH1/SS/	PTB5/TPM1CH1/SS1/	PTF2/TPM1CH4	PTA0/KBIP0/TPMCH0/ADP0/ACMP+	PTA0/PIA0/TPM1CH0/TCLK/ADP0/ACMP+	PTB4/TPMCH0	PTA2/KBI1P2/TCLK1/ADC1P2
J3-19	J12-15	**GREEN LED**	PTB4/TPM2CH1/MISO1	PTB4/TPM2CH1/MISO1	PTB4/TPM2CH1/MISO	PTB4/TPM2CH1/MISO1	PTF1/TPM1CH3	PTB3/KBIP7/MOSI/ADP7	PTC0/TPM1CH0/ADP8	PTA0/KBIP0/TPMCH0/ADP0/ACMP+	XXX
J3-20	J12-17	**BLUE LED**	PTC3/TPM3CH3	PTC3/TPM3CH3	PTC3/TPM3CH3	PTC3/TPM3CH3	PTF0/TPM1CH2	PTB4/MISO	PTC2/ADP10	PTC3/ADP11	XXX
J3-21	J12-3	**PUESDO DAC**	PTC2/TPM3CH2	PTC2/TPM3CH2	PTC2/TPM3CH2	PTC2/TPM3CH2	PTB0/TPM3CH0/AD1P0	XXX	XXX	PTC0/ADP8	XXX
J3-22	J12-9	**SWITCH 4**	PTD7/KBI2P7	PTD7/KBI2P7	PTD7/KBI2P7	XXX	PTD2/KBI1P5/AD1P10	PTB2/KBIP6/SPSCK/ADP6	PTC1/TPM1CH1/ADP9	PTB3/KBIP7/ADP7	PTA3/KBI1P3/TCLK2/ADC1P3
J3-23	J12-11	**SWITCH 3**	PTD6/KBI2P6	PTD6/KBI2P6	PTD6/KBI2P6	XXX	PTD3/KBI1P6/AD1P11	XXX	XXX	PTB2/KBIP6/ADP6	XXX
J3-24	J12-40	*GPIO/KBI3*	PTD5/KBI2P5	PTD5/KBI2P5	PTD5/KBI2P5	XXX	PTB1/TPM3CH1/AD1P1	XXX	XXX	PTB1/KBIP5/ADP5	XXX
J3-25	J12-4	*GPIO/TPM5*	PTC1/TPM3CH1	PTC1/TPM3CH1	PTC1/TPM3CH1	PTC1/TPM3CH1	PTB3/AD1P3	XXX	XXX	PTB0/KBIP4/ADP4	XXX
J3-26	J12-19	*GPIO/TPM6*	PTC0/TPM3CH0	PTC0/TPM3CH0	PTC0/TPM3CH0	PTC0/TPM3CH0	PTB4/AD1P4	XXX	XXX	XXX	XXX
J3-27	J12-16	*GPIO/AD1*	PTF7/ADP17	PTF7/ADP17	XXX	XXX	PTB5/AD1P5	XXX	XXX	XXX	XXX
J3-28	J12-14	*GPIO/AD2*	PTF6/ADP16	PTF6/ADP16	XXX	XXX	PTB6/AD1P6	XXX	XXX	XXX	XXX
J3-29	J12-12	*GPIO/AD3*	PTF5/ADP15	PTF5/ADP15	XXX	XXX	PTB7/AD1P7	XXX	XXX	XXX	XXX
J3-30	J12-37	*GPIO/AD4*	PTF4/ADP14	PTF4/ADP14	XXX	XXX	PTD0/AD1P8	XXX	XXX	XXX	XXX
J3-31	J12-2	*GPIO/KBI/AD1*	PTB3/KBI1P7/MOSI1/ADP7	PTB3/KBI1P7/MOSI1/ADP7	PTB3/KBI1P7/MOSI/ADP7	PTB3/KBI1P7/MOSI1/ADP7	PTD1/AD1P9	XXX	XXX	XXX	XXX
J3-32	J12-1	*GPIO/KBI/AD2*	PTB2/KBI1P6/SPSCK1/ADP6	PTB2/KBI1P6/SPSCK1/ADP6	PTB2/KBI1P6/SPSCK/ADP6	PTB2/KBI1P6/SPSCK1/ADP6	PTG3/KBI1P3	XXX	XXX	XXX	XXX
J3-33	J12-56	**VDD (MASTER OUT)**									
J3-34	J12-56	**VDD (MASTER OUT)**									
J3-35	J12-58	**3.3V (MASTER IN)**									
J3-36	J12-57	**5.0V (MASTER IN)**		NOT CONNECTED				NOT CONNECTED			
J3-37	J12-52	**TXD OUT**	PTB1/KBI1P5/TXD1/ADP5	PTB1/KBI1P5/TXD1/ADP5	PTB1/KBI1P5/TXD1/ADP5	PTB1/KBI1P5/TXD1/ADP5	PTC3/TXD2	PTB1/KBIP5/TXD/ADP5	PTB1/PIB1/TXD/ADP5	XXX	XXX
J3-38	J12-44	**RXD IN**	PTB0/KBI1P4/RXD1/ADP4	PTB0/KBI1P4/RXD1/ADP4	PTB0/KBI1P4/RXD1/ADP4	PTB0/KBI1P4/RXD1/ADP4	PTC5/RXD2	PTB0/KBIP4/RXD/ADP4	PTB0/PIB0/RXD/ADP4	XXX	XXX
J3-39	J12-41	*GPIO/AD5*	PTF3/ADP13	PTF3/ADP13	XXX	XXX	PTD4/TPM2CLK/AD1P12	XXX	XXX	XXX	XXX
J3-40	J12-39	*GPIO/AD6*	PTF2/ADP12	PTF2/ADP12	XXX	XXX	PTG4/KBI1P4	XXX	XXX	XXX	XXX
J3-41	J12-5	**BEEPER**	PTA7/TPM2CH2/ADP9	PTA7/TPM2CH2/ADP9	PTA7/TPM2CH2/ADP9	PTA7/TPM2CH2/ADP9	PTF4/TPM2CH0	PTB5/TPMCH1/nSS	PTC3/ADP11	PTB5/TPMCH1	PTA0/KBI1P0/TPM1CH0/ADC1P0
J3-42	J12-8	*GPIO/TPM/AD2*	PTA6/TPM1CH2/ADP8	PTA6/TPM1CH2/ADP8	PTA6/TPM1CH2/ADP8	PTA6/TPM1CH2/ADP8	PTD5/AD1P13	XXX	XXX	XXX	XXX
J3-43	J12-43	*GPIO6*	PTE4	PTE4	PTE4	XXX	PTD6/TPM1CLK/AD1P14	XXX	XXX	XXX	XXX
J3-44	J12-56	**VDD**	VDD	VDD	VDD	XXX	VDD	VDD	VDD	VDD	VDD
J3-45	J12-59	**VSS**	VSS	GND	VSS	XXX	GND	GND	GND	GND	GND
J3-46	J12-46	*GPIO/AD7*	PTF1/ADP11	PTF1/ADP11	XXX	XXX	PTD7/KBI1P7/AD1P15	XXX	XXX	XXX	XXX
J3-47	J12-50	*GPIO/AD8*	PTF0/ADP10	PTF0/ADP10	XXX	XXX	PTG0/KBI1P0	XXX	XXX	XXX	XXX
J3-48	J12-10	*GPIO/KBI4*	PTD4/KBI2P4	PTD4/KBI2P4	PTD4/KBI2P4	XXX	PTG1/KBI1P1	XXX	XXX	XXX	XXX
J3-49	J12-18	SS	PTD3/KBI2P3/SS2/	PTD3/KBI2P3/nSS2	PTD3/KBI2P3	PTD3/KBI2P3/SS2/	PTE4/nSS1	XXX	PTB5/TPM1CH1/nSS	XXX	XXX
J3-50	J12-22	MISO	PTD2/KBI2P2/MISO2	PTD2/KBI2P2/MISO2	PTD2/KBI2P2	PTD2/KBI2P2/MISO2	PTE5/MISO1	XXX	PTB4/TPM2CH1/MISO	XXX	XXX
J3-51	J12-26	*GPIO/KBI/AD3*	PTA3/KBI1P3/SCL1/ADP3	PTA3/KBI1P3/SCL1/ADP3	PTA3/KBI1P3/SCL/ADP3	PTA3/KBI1P3/SCL1/ADP3	PTG2/KBI1P2	XXX	XXX	XXX	XXX
J3-52	J12-25	*GPIO/KBI/AD4*	PTA2/KBI1P2/SDA1/ADP2	PTA2/KBI1P2/SDA1/ADP2	PTA2/KBI1P2/SDA/ADP2	PTA2/KBI1P2/SDA1/ADP2	PTA0	XXX	XXX	XXX	XXX
J3-53	XXX	**MCU ID1**	Not Populated	0	Not Populated	Not Populated	0	0	0	0	0
J3-54	XXX	**MCU ID2**	Not Populated	5.6K	Not Populated	Not Populated	18K	1.3K	3.3K	10K	0
J3-55	J12-7	**POTENTIOMETER**	PTA1/KBI1P1/TPM2CH0/ADP1/ACMP1-	PTA1/KBI1P1/TPM2CH0/ADP1/ACMP1-	PTA1/KBI1P1/TPM2CH0/ADP1/ACMP1-	PTA1/KBI1P1/TPM2CH0/ADP1/ACMP1-	PTB2/AD1P2	PTA1/KBIP1/ADP1/ACMP-	PTA1/PIA1/TPM2CH0/ADP1/ACMP-	PTA1/KBIP1/TPMCH1/ADP1/ACMP-	PTA1/KBI1P1/TPM1CH1/ADCIP1
J3-56	J12-53	*GPIO/KBI/TPM/AD/ACMP+*	PTA0/KBI1P0/TPM1CH0/ADP0/ACMP1+	PTA0/KBI1P0/TPM1CH0/ADP0/ACMP1+	PTA0/KBI1P0/TPM1CH0/ADP0/ACMP1+	PTA0/KBI1P0/TPM1CH0/ADP0/ACMP1+	PTA1	XXX	XXX	XXX	XXX
J3-57	J12-27	**ELECTRODE_4**	PTC7/TXD2/ACMP2-	PTC7/TXD2/ACMP2-	PTC7/TXD2/ACMP2-	PTC7/TXD2/ACMP2-	PTC4	XXX	XXX	XXX	XXX
J3-58	J12-28	**ELECTRODE_5**	PTC6/RXD2/ACMP2+	PTC6/RXD2/ACMP2+	PTC6/RXD2/ACMP2+	PTC6/RXD2/ACMP2+	IRQ/TPMCLK	XXX	XXX	XXX	XXX
J3-59	J12-32	**ELECTRODE_6**	PTE3/SS1	PTE3/nSS1	PTE3/SS	XXX	PTF3/TPM1CH5	XXX	XXX	XXX	XXX
J3-60	J12-30	**ELECTRODE_7**	PTE2/MISO1	PTE2/MISO1	PTE2/MISO	XXX	PTA2	XXX	XXX	XXX	XXX
J3-61	J12-54	*GPIO/AD9*	PTG3/ADP19	PTG3/ADP19	XXX	XXX	PTC6	XXX	XXX	XXX	XXX
J3-62	J12-51	*GPIO/AD10*	PTG2/ADP18	PTG2/ADP18	XXX	XXX	PTF7	XXX	XXX	XXX	XXX
J3-63	J12-34	**ELECTRODE_8**	PTG1	PTG1	XXX	XXX	PTF5/TPM2CH1	XXX	XXX	XXX	XXX
J3-64	J12-31	**ELECTRODE_9**	PTG0	PTG0	XXX	XXX	PTF6	XXX	XXX	XXX	XXX
J3-65	J12-33	**ELECTRODE_10**	PTE1/MOSI1	PTE1/MOSI1	PTE1/MOSI	XXX	PTE0/TXD1	XXX	XXX	XXX	XXX
J3-66	J12-36	**ELECTRODE_11**	PTE0/TPM2CLK/SPSCK1	PTE0/TPM2CLK/SPSCK1	PTE0/TPM2CLK/SPSCK	XXX	PTE1/RXD1	XXX	XXX	XXX	XXX
J3-67	J12-47	*GPIO/TPM7*	PTC5/TPM3CH5/ACMP2O	PTC5/TPM3CH5/ACMP2O	PTC5/TPM3CH5/ACMP2O	PTC5/TPM3CH5/ACMP2O	PTE2/TPM1CH0	XXX	XXX	XXX	XXX
J3-68	J12-45	*GPIO/TPM/RSTO*	PTC4/TPM3CH4/RSTO/	PTC4/TPM3CH4/nRSTO	PTC4/TPM3CH4	PTC4/TPM3CH4/RSTO/	PTE3/TPM1CH1	XXX	XXX	PTC2/ADP10	XXX
J3-69	J12-48	**RESET**	PTA5/IRQ/TPM1CLK/RESET/	PTA5/IRQ/TPM1CLK/nRESET	PTA5/IRQ/TPM1CLK/RESET/	PTA5/IRQ/TCLK/RESET/	nRESET	PTA5/IRQ/TCLK/nRESET	PTA5/IRQ/TCLK/nRESET	PTA5/TCLK/nRESET/VPP	PTA5/TPM2CH0I/IRQ/nRESET
J3-70	XXX	**BKGD**	PTA4/ACMP1O/BKGD/MS	PTA4/ACMP1O/BKGD/MS	PTA4/ACMP1O/BKGD/MS	PTA4/ACMP1O/BKGD/MS	BKGD/MS	PTA4/ACMPO/BKGD/MS	PTA4/ACMPO/BKGD/MS	PTA4/ACMPO/BKGD/MS	PTA4/TPM2CH0O/BKGD/MS

** Requires a jumper on J3 between pin 33-35