Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9	Column10
NUM	Singal Name	Function Description	Package pin number						
A1	GND								
A2	EC1_TRX3_N	SOM AR8031 TR3_N							
A3	EC1_TRX3_P	SOM AR8031 TR3_P							
A4	EC1_LINK100	SOM AR8031 100M Link							
A5	EC1_LINK1000	SOM AR8031 1000M Link							
A6	EC1_TRX2_N	SOM AR8031 TR2_N							
A7	EC1_TRX2_P	SOM AR8031 TR2_P							
A8	NC								
A9	EC1_TRX1_N	SOM AR8031 TR1_N							
A10	EC1_TRX1_P	SOM AR8031 TR1_P							
A11	GND								
A12	EC1_TRX0_N	SOM AR8031 TR0_N							
A13	EC1_TRX0_P	SOM AR8031 TR0_P							
A14	NC								
A15	NC								
A16	SD2_TX3_P	SD2_TX3_P	AD19	SD2_TX3_P					
A17	SD2_TX3_N	SD2_TX3_N	AE19	SD2_TX3_N					
A18	NC								
A19	SD2_RX3_P	SD2_RX3_P	AG19	SD2_RX3_P					
A20	SD2_RX3_N	SD2_RX3_N	AH19	SD2_RX3_N					
A21	GND								
A22	USB1_RX_DM	USB1_RX_DM	E4	USB1_RX_M					
A23	USB1_RX_DP	USB1_RX_DP	E3	USB1_RX_P					
A24	NC								
A25	USB2_RX_DM	USB2_RX_DM	C4	USB2_RX_M					
A26	USB2_RX_DP	USB2_RX_DP	C3	USB2_RX_P					
A27	BATLOW_B	GPIO1_24	J4	GPIO1_24	IRQ04	FTM3_CH0			
A28	USB1_VBUS	USB1_VBUS	E7	USB1_VBUS					
A29	USB2_VBUS	USB2_VBUS	C7	USB2_VBUS					
A30	USB3_VBUS	USB3_VBUS	A7	USB3_VBUS					
A31	GND								
A32	I2C4_SCL		M3	FTM3_FAULT	IIC4_SCL	GPIO4_12	EVT7_B	USB3_DRVVBUS	
A33	I2C4_SDA		N3	FTM3_EXTCLK	IIC4_SDA	GPIO4_13	EVT8_B	USB3_PWRFAULT	
A34	NC								
A35	NC								
A36	USB3_RX_DM		A4	USB3_RX_M					
A37	USB3_RX_DP		A3	USB3_RX_P					
A38	NC								
A39	NC								
A40	NC								
A41	GND								
A42	USB3_DM		A6	USB3_D_M					

A43	USB3_DP		B6	USB3_D_P			
A44	USB1_DRVVBUS		H6	USB_DRVVBUS	GPIO4_29		
A45	USB1_DM		E6	USB1_D_M			
A46	USB1_DP		F6	USB1_D_P			
A47	NC						
A48	NC						
A49	NC						
A50	NC						
A51	GND						
A52	SD2_TX0_P		AD15	SD2_TX0_P			
A53	SD2_TX0_N		AE15	SD2_TX0_N			
A54	GPIO2_01		R3	GPIO2_01	SPI_PCS1	SDHC_DAT5	SDHC_CMD_DIR
A55	SD2_TX1_P		AD16	SD2_TX1_P			
A56	SD2_TX1_N		AE16	SD2_TX1_N			
A57	GND						
A58	SD1_TX3_P		AD11	SD1_TX3_P			
A59	SD1_TX3_N		AE11	SD1_TX3_N			
A60	GND						
A61	SD1_TX2_P		AD10	SD1_TX2_P			
A62	SD1_TX2_N		AE10	SD1_TX2_N			
A63	GPIO2_2		T3	GPIO2_02	SPI_PCS2	SDHC_DAT6	SDHC_DAT0_DIR
A64	SD1_TX1_P		AD8	SD1_TX1_P			
A65	SD1_TX1_N		AE8	SD1_TX1_N			
A66	GND						
A67	GPIO2_3		V1	GPIO2_03	SPI_PCS3	SDHC_DAT7	SDHC_DAT123_DIR
A68	SD1_TX0_P		AD6	SD1_TX0_P			
A69	SD1_TX0_N		AE6	SD1_TX0_N			
A70	GND						
A71	NC						
A72	NC						
A73	NC						
A74	NC						
A75	NC						
A76	NC						
A77	NC						
A78	NC						
A79	NC						
A80	GND						
A81	NC						
A82	NC						
A83	NC						
A84	NC						
A85	GPIO2_12		C20	GPIO2_12	IFC_CS3_B	QSPI_B_DATA3	FTM7_EXTCLK
A86	SD1_REFCLK_SEL	SERDES1 select clock					

A87	NC						
A88	PCIE_REFCLK_S_P						
A89	PCIE_REFCLK_S_N						
A90	GND						
A91	NC						
A92	TDI	JTAG TDI	G17	TDI			
A93	PHY5_INT_B	GPIO2_13	B18	QSPI_B_DATA0	IFC_PAR0	GPIO2_13	FTM6_CH0
A94	TCK	JTAG TCK	E18	TCK			
A95	TMS	JTAG TMS	G18	TMS			
A96	TDO	JTAG TDO	E20	TDO			
A97	NC						
A98	UART1_SOUT		H1	UART1_SOUT	GPIO1_15		
A99	UART1_SIN		H2	UART1_SIN	GPIO1_17		
A100	GND						
A101	UART2_SOUT		L2	FTM4_CH0	UART2_SOUT	GPIO1_16	LPUART1_SOUT
A102	UART2_SIN		K1	GPIO1_18	UART2_SIN	FTM4_CH1	LPUART1_SIN
A103	TRST_B	JTAG TRST_B	E19	TRST_B			
A104	VCC_12V						
A105	VCC_12V						
A106	VCC_12V						
A107	VCC_12V						
A108	VCC_12V						
A109	VCC_12V						
A110	GND						

Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9	Column10
NUM	Singal Name	Function Description	Package pin number						
B1	GND								
B2	EC1_ACT	SOM AR8031 Active LED							
B3	EC2_TXD1		AE4	GPIO3_17	EC2_TXD1	TSEC_1588_CLK_OUT	FTM2_CH3		
B4	EC2_RXD1		AE1	GPIO3_24	EC2_RXD1	TSEC_1588_PULSE_OUT1	FTM2_CH1		
B5	EC2_TXD0		AF3	GPIO3_18	EC2_TXD0	TSEC_1588_PULSE_OUT2	FTM2_CH2		
B6	EC2_TXD2		AE3	GPIO3_16	EC2_TXD2	TSEC_1588_ALARM_OUT1	FTM2_CH7		
B7	EC2_TXD3		AD3	GPIO3_15	EC2_TXD3	TSEC_1588_ALARM_OUT2	FTM2_CH5		
B8	EC2_RX_CTL		AF1	GPIO3_27	EC2_RX_DV	TSEC_1588_TRIG_IN1	FTM2_QD_PHB		
B9	EC2_RXD0		AE2	GPIO3_25	EC2_RXD0	TSEC_1588_TRIG_IN2	FTM2_CH0		
B10	EC2_RX_CLK		AC1	GPIO3_26	EC2_RX_CLK	TSEC_1588_CLK_IN	FTM2_QD_PHA		
B11	GND								
B12	NC								
B13	EC2_RXD2		AD1	GPIO3_23	EC2_RXD2	FTM2_CH6			
B14	EC2_RXD3		AC2	GPIO3_22	EC2_RXD3	FTM2_CH4			

B15	EC2_TXEN		AG3	GPIO3_19	EC2_TX_EN	FTM2_FAULT		
B16	SD2_TX2_P		AD18	SD2_TX2_P				
B17	SD2_TX2_N		AE18	SD2_TX2_N				
B18	NC							
B19	SD2_RX2_P		AG18	SD2_RX2_P				
B20	SD2_RX2_N		AH18	SD2_RX2_N				
B21	GND							
B22	USB1_TX_D_N		F2	USB1_TX_M				
B23	USB1_TX_D_P		F1	USB1_TX_P				
B24	PWR_OK	底板上电正常信号						
B25	USB2_TX_D_N		D2	USB2_TX_M				
B26	USB2_TX_D_P		D1	USB2_TX_P				
B27	RESET_REQ_B_18		F10	RESET_REQ_B				
B28	EC2_GTX_CLK		AC4	GPIO3_20	EC2_GTX_CLK	FTM2_EXTCLK		
B29	NC							
B30	EC2_GTX_CLK125		AG4	GPIO3_21	EC2_GTX_CLK125			
B31	GND							
B32	NC							
B33	I2C3_SCL		L4	GPIO4_10	IIC3_SCL	EVT5_B	USB2_DRVVBUS	FTM8_CH0
B34	I2C3_SDA		M4	GPIO4_11	IIC3_SDA	EVT6_B	USB2_PWRFAULT	FTM8_CH1
B35	NC							
B36	USB3_TX_DM		B2	USB3_TX_M				
B37	USB3_TX_DP		B1	USB3_TX_P				
B38	NC							
B39	NC							
B40	NC							
B41	GND							
B42	NC							
B43	NC							
B44	USB1_PWRFAULT		G6	GPIO4_30	USB_PWRFAULT			
B45	USB2_D_N		C6	USB2_D_M				
B46	USB2_D_P		D6	USB2_D_P				
B47	NC							
B48	NC							
B49	SYS_RESET_B	System Reset Input						
B50	CB_RESET_B	System Reset Output						
B51	GND							
B52	SD2_RX0_P		AG15	SD2_RX0_P				
B53	SD2_RX0_N		AH15	SD2_RX0_N				
B54	GPIO2_14		D17	GPIO2_14	IFC_PAR1	QSPI_B_DATA1	FTM6_CH1	
B55	SD2_RX1_P		AG16	SD2_RX1_P				
B56	SD2_RX1_N		AH16	SD2_RX1_N				
B57	GPIO2_15		E17	FTM6_EXTCLK	IFC_PERR_B	GPIO2_15	QSPI_B_DATA2	
B58	SD1_RX3_P		AG11	SD1_RX3_P				

B59	SD1_RX3_N	AH11	SD1_RX3_N					
B60	GND							
B61	SD1_RX2_P	AG10	SD1_RX2_P					
B62	SD1_RX2_N	AH10	SD1_RX2_N					
B63	GPIO1_31	W3	GPIO1_31	IRQ11				
B64	SD1_RX1_P	AG8	SD1_RX1_P					
B65	SD1_RX1_N	AH8	SD1_RX1_N					
B66	SD_WP	L3	GPIO4_3	IIC2_SDA	SDHC_WP	FTM3_QD_PHB		
B67	SD_CD_B	K3	GPIO4_2	IIC2_SCL	SDHC_CD_B	FTM3_QD_PHA		
B68	SD1_RX0_P	AG6	SD1_RX0_P					
B69	SD1_RX0_N	AH6	SD1_RX0_N					
B70	GND							
B71	MDC1	AG2	EMI1_MDC	GPIO3_00				
B72	MDIO1	AF2	EMI1_MDIO	GPIO3_01				
B73	MDC2	AH4	EMI2_MDC	GPIO4_00				
B74	MDIO2	AH3	EMI2_MDIO	GPIO4_01				
B75	UART3_SOUT	J2	GPIO1_19	UART1_RTS_B	UART3_SOUT	LPUART2_SOUT	FTM4_CH2	
B76	UART3_SIN	J1	GPIO1_21	UART1_CTS_B	UART3_SIN	LPUART2_SIN	FTM4_CH4	
B77	UART4_SOUT	L1	GPIO1_20	UART2_RTS_B	UART4_SOUT	LPUART4_SOUT	FTM4_CH3	LPUART1_RT
B78	UART4_SIN	M2	GPIO1_22	UART2_CTS_B	UART4_SIN	FTM4_CH5	LPUART1_CTS_B	LPUART4_SIN
B79	NC							
B80	GND							
B81	GPIO1_25	J5	GPIO1_25	IRQ05	FTM3_CH1			
B82	GPIO1_26	K5	GPIO1_26	IRQ06	FTM3_CH2			
B83	GPIO1_27	L5	GPIO1_27	IRQ07	FTM3_CH3			
B84	NC							
B85	NC							
B86	NC							
B87	NC							
B88	GPIO1_28	M5	GPIO1_28	IRQ08	FTM3_CH4			
B89	GPIO1_29	N5	GPIO1_29	IRQ09	FTM3_CH5			
B90	GND							
B91	GPIO1_30	P4	GPIO1_30	IRQ10	FTM3_CH6			
B92	NC							
B93	BOOT_SEL0	A16	IFC_AD14	cfg_rcw_src6				
B94	SD_CLK	P3	GPIO2_09	SDHC_CLK	LPUART3_CTS_B	LPUART6_SIN	FTM4_QD_PHB	
B95	SD_CMD	P2	GPIO2_04	SDHC_CMD	LPUART3_SOUT	FTM4_CH6		
B96	SD_DATA0	P1	GPIO2_05	SDHC_DAT0	FTM4_CH7	LPUART3_SIN		
B97	SD_DATA1	R2	GPIO2_06	SDHC_DAT1	LPUART5_SOUT	FTM4_FAULT	LPUART2_RTS_B	
B98	SD_DATA2	R1	GPIO2_07	SDHC_DAT2	LPUART2_CTS_B	LPUART5_SIN	FTM4_EXTCLK	
B99	SD_DATA3	T1	GPIO2_08	SDHC_DAT3	LPUART6_SOUT	FTM4_QD_PHA	LPUART3_RTS_B	
B100	GND							
B101	GPIO2_10	A19	GPIO2_10	IFC_CS1_B	FTM7_CH0			
B102	GPIO2_11	D20	GPIO2_11	IFC_CS2_B	FTM7_CH1			

B103	NC
B104	VCC_12V
B105	VCC_12V
B106	VCC_12V
B107	VCC_12V
B108	VCC_12V
B109	VCC_12V
B110	GND