EM4C Pin Specification			SoM-iMX6M			
EM4C Interface	**EM4C Pin Number**	**EM4C Pin Name**	**iMX6**	**Port Line**	**BGA Pin#**	**Comment**
Gig Ethernet A	E4_2	GBE_A_MDI0+	TXRXA_P		2	KSZ9031 Pin
	E4_3	GBE_A_MDI0-	TXRXA_N		3	KSZ9031 Pin
	E4_5	GBE_A_MDI1+	TXRXB_P		5	KSZ9031 Pin
	E4_6	GBE_A_MDI1-	TXRXB_N		6	KSZ9031 Pin
	E3_2	GBE_A_MDI2+	TXRXC_P		7	KSZ9031 Pin
	E3_3	GBE_A_MDI2-	TXRXC_N		8	KSZ9031 Pin
	E3_5	GBE_A_MDI3+	TXRXD_P		10	KSZ9031 Pin
	E3_6	GBE_A_MDI3-	TXRXD_N		11	KSZ9031 Pin
	E3_7	LED0_A_ACT#	LED1/PHYAD0		17	KSZ9031 Pin
	E4_9	LED1_A_LINK1000#	N/C			
	E4_8	LED2_A_LINK100#	LED2/PHYAD1		15	KSZ9031 Pin
Gig Ethernet B	106	GBE_B_MDI0+	N/C			
	108	GBE_B_MDI0-	N/C			
	110	GBE_B_MDI1+	N/C			
	112	GBE_B_MDI1-	N/C			
	116	GBE_B_MDI2+	N/C			
	118	GBE_B_MDI2-	N/C			
	120	GBE_B_MDI3+	N/C			
	122	GBE_B_MDI3-	N/C			
	134	LED0_B_ACT#	N/C			
	138	LED1_B_LINK1000#	N/C			
	136	LED2_B_LINK100#	N/C			
USB 2.0	70	USB_C_D+	N/C			
	72	USB_C_D-	N/C			
	64	USB_D_OTG_D+	USB_OTG_DP		A6	
	68	USB_D_OTG_D-	USB_OTG_DN		B6	
	84	OTG_PWR_EN	GPIO1	GPIO1_IO01	T4	
	161	USB_OTG_VBUS	USB_OTG_VBUS		E9	
	155	USB_OTG_ID	ENET_RX_ER	GPIO1_IO24	W23	
USB 3.0	167	USB_A_SS_RX+	N/C			
	169	USB_A_SS_RX-	N/C			
	173	USB_A_SS_TX+	N/C			
	175	USB_A_SS_TX-	N/C			
	181	USB_A_D+	USBDP_DN1		2	USB2512 Pin
	179	USB_A_D-	USBDM_DN1		1	USB2512 Pin
	163	USB_PWR_EN	PRTPWR1 | PRTPWR2		12 | 16	USB2512 Pin OR'd
	183	USB_VBUS	SD4_DATA7	GPIO2_IO15	D19	iMX6 GPIO Clamped to 3.3v

	139	USB_HUB_RESET	RESET_N		26	USB2512 Pin
	165	USB_OC_A	OCS_N1		13	USB2512 Pin
	141	USB_OC_B	OCS_N2		17	USB2512 Pin
	143	USB_B_SS_RX+	N/C			
	145	USB_B_SS_RX-	N/C			
	149	USB_B_SS_TX+	N/C			
	151	USB_B_SS_TX-	N/C			
	157	USB_B_D+	USBDP_DN2		4	USB2512 Pin
	159	USB_B_D-	USBDM_DN2		3	USB2512 Pin
Serial Ports	243	UART_A_TXD	EIM_DATA26 / UART2_TX_DATA	GPIO3_IO26	E24	
	245	UART_A_RXD	EIM_DATA27 / UART2_RX_DATA	GPIO3_IO27	E25	
	247	UART_A_RTS	EIM_DATA28 / UART2_CTS_B	GPIO3_IO28	G23	
	241	UART_A_CTS	EIM_DATA29 / UART2_RTS_B	GPIO3_IO29	J19	
	236	UART_B_TXD	CSI0_DATA10 / UART1_TX_DATA	GPIO5_IO28	M1	
	238	UART_B_RXD	CSI0_DATA11 / UART1_RX_DATA	GPIO5_IO29	M3	
	240	UART_B_RTS	EIM_DATA19 / UART1_CTS_B	GPIO3_IO19	G21	
	234	UART_B_CTS	EIM_DATA2- / UART1_RTS_B	GPIO3_IO20	G20	
	242	UART_B_DCD	EIM_DATA23 / UART1_DCD_B	GPIO3_IO23	D25	
	244	UART_B_DSR	EIM_DATA25 / UART1_DSR_B	GPIO3_IO25	G22	
	246	UART_B_DTR	EIM_DATA24 / UART1_DTR_B	GPIO2_IO24	F22	
	248	UART_B_RI	EIM_EB3 / UART1_RI_B	GPIO2_IO31	F23	
	140	UART_C_TXD	CSI0_DATA12 / UART4_TX_DATA	GPIO5_IO30	M2	
	142	UART_C_RXD	CSI0_DATA13 / UART4_RX_DATA	GPIO5_IO31	L1	
	144	UART_C_RTS	CSI0_DATA17 / UART4_CTS_B	GPIO6_IO03	L3	
	146	UART_C_CTS	CSI0_DATA16 / UART4_RTS_B	GPIO6_IO02	L4	
	150	UART_D_TXD	CSI0_DATA14 / UART5_TX_DATA	GPIO6_IO00	M4	
	152	UART_D_RXD	CSI0_DATA15 / UART5_RX_DATA	GPIO6_IO01	M5	
	156	UART_D_RTS	CSI0_DATA19 / UART5_CTS_B	GPIO6_IO05	L6	
	158	UART_D_CTS	CSI0_DATA18 / UART5_RTS_B	GPIO6_IO04	M6	
Camera Serial Interface	162	CSI_CLK+	CSI_CLK0_P		F3	
	160	CSI_CLK-	CSI_CLK0_N		F4	
	168	CSI_DATA0+	CSI_DATA0_P		E3	
	164	CSI_DATA0-	CSI_DATA0_N		E4	
	172	CSI_DATA1+	CSI_DATA1_P		D2	
	170	CSI_DATA1-	CSI_DATA1_N		D1	
	176	CSI_DATA2+	CSI_DATA2_P		E2	
	174	CSI_DATA2-	CSI_DATA2_N		E1	
	180	CSI_DATA3+	CSI_DATA3_P		F1	
	178	CSI_DATA3-	CSI_DATA3_N		F2	
Touch Screen	36	TOUCH_X+	X+		13	TSC2004 Pin
	38	TOUCH_X-	X-		16	TSC2004 Pin
	40	TOUCH_Y+	Y+		14	TSC2004 Pin

	44	TOUCH_Y-	Y-		17	TSC2004 Pin
	252	ON_OFF	ONOFF		D12	
System	251	S3	N/A		Logic Output	~PMIC_ON & PMIC_STBY
	253	S5	N/A		Logic Output	~3.3Vin & 3.3Vstby
	74	BOOT_0	BOOT_CFG_1[6] / EIM_AD06	GPIO3_IO06	K25	And to Internal Logic
	76	BOOT_1	BOOT_MODE1		F12	
	276	BOOT_2	BOOT_CFG_1[5] / EIM_AD05	GPIO3_IO05	L23	And Connected To Logic
	278	BOOT_3	N/A		Logic Input	Connected To Logic
	254	RESET_IN#	POR_B		C11	
	182	RESET_OUT#	POR_B		C11	Buffered Reset Output
	279	WP#	N/A		Serial Flash	Serial Flash WP# Pin
	203	SDIO_A_CD	GPIO04 / SD2_CD_B	GPIO1_IO4	R6	
SDIO / MMC	205	SDIO_A_CMD	SD2_CMD	GPIO1_IO11	F19	
	206	SDIO_A_CLK	SD2_CLK	GPIO1_IO10	C21	
	212	SDIO_A_DAT0	SD2_DATA0	GPIO1_IO15	A22	
	209	SDIO_A_DAT1	SD2_DATA1	GPIO1_IO14	E20	
	214	SDIO_A_DAT2	SD2_DATA2	GPIO1_IO13	A23	
	211	SDIO_A_DAT3	SD2_DATA3	GPIO1_IO12	B22	
	216	SDIO_B_DAT0	SD4_DATA0	GPIO2_IO08	D18	
	213	SDIO_B_DAT1	SD4_DATA1	GPIO2_IO09	B19	
	218	SDIO_B_DAT2	SD4_DATA2	GPIO2_IO10	F17	
	215	SDIO_B_DAT3	SD4_DATA3	GPIO2_IO11	A20	
	210	SDIO_B_CMD	SD4_CMD	GPIO7_IO09	B17	
	208	SDIO_B_CLK	SD4_CLK	GPIO7_IO10	E16	
	207	SDIO_B_CD	NAND_CS1_B / SD4_VSELECT	GPIO6_IO14	C16	
	222	SPI_A_MOSI	CSI0_DATA05 / ECSPI1_MOSI	GPIO5_IO23	P2	27 Ohm series termination / MCP3204 Pin 9
SPI	224	SPI_A_MISO	CSI0_DATA06 / ECSPI1_MISO	GPIO5_IO24	N4	MCP3204 Pin 10
	226	SPI_A_CLK	CSI0_DATA04 / ECSPI1_SCLK	GPIO5_IO22	N1	27 Ohm Series Termination / MCP3204 Pin 11
	228	SPI_A_CS0#	DISP0_DATA15 / ECSPI1_SS1	GPIO5_IO09	T22	
	230	SPI_A_CS1#	KEY_ROW2 / ECSPI1_SS2	GPIO4_IO11	W4	
	114	SPI_A_CS2#	GPIO16	GPIO7_IO11	R2	
	219	SPI_B_MOSI	DISP0_DATA01 / ECSPI3_MOSI	GPIO4_IO22	P22	27 Ohm Series Termination / N25Q128A Pin 5
	221	SPI_B_MISO	DISP0_DATA02 / ECSPI3_MISO	GPIO4_IO23	P23	N25Q128A Pin 2
	223	SPI_B_CLK	DISP0_DATA00 / ECSPI3_SCLK	GPIO4_IO21	P24	27 Ohm Series Termination / N25Q128A pin 6
	225	SPI_B_CS0#	DISP0_DATA04 / ECSPI3_SS1	GPIO4_IO25	P20	
	227	SPI_B_CS1#	DISP0_DATA05 / ECSPI3_SS2	GPIO4_IO26	R25	
	280	SPI_B_CS2#	DISP0_DATA06 / ECSPI3_SS3	GPIO4_IO27	R23	
	187	I2S_A_RXD	DISP0_DATA23 / AUD4_RXD	GPIO5_IO17	W24	
I2S / SPDIF	189	I2S_A_TXFS	DISP0_DATA22 / AUD4_TXFS	GPIO5_IO16	V24	
	191	I2S_A_TXD	DISP0_DATA21 / AUD4_TXD	GPIO5_IO15	T20	
	193	I2S_A_TXC	DISP0_DATA20 / AUD4_TXC	GPIO5_IO14	U22	
	195	I2S_A_CLK	N/A			12MHz Clock Out
	186	I2S_B_RXD	DIO_PIN04 / AUD6_RXD	GPIO4_IO20	P25	

	188	I2S_B_TXFS	DIO_PIN03 / AUD6_TXFS	GPIO4_IO19	N20	
	190	I2S_B_TXD	DIO_PIN02 / AUD6_TXD	GPIO4_IO18	N25	
	192	I2S_B_TXC	DIO_PIN15 / AUD6_TXC	GPIO4_IO17	N21	
	194	I2S_B_CLK	N/A			12MHz Clock Out
	196	SPDIF_OUT	EIM_DATA22 / SPDIF_OUT	GPIO3_IO22	E23	
	200	CAN_A_TX	GPIO7 / FLEXCAN1_TX	GPIO1_IO07	R3	
CAN	202	CAN_A_RX	GPIO8 / FLEXCAN1_RX	GPIO1_IO08	R5	
	197	CAN_B_TX	KEY_COL4 / FLEXCAN2_TX	GPIO4_IO14	T6	
	199	CAN_B_RX	KEY_ROW4 / FLEXCAN2_RX	GPIO4_IO15	V5	
	46	JTAG_MOD	JTAG_MOD	N/A	H6	1.6K Ohm Pull Down
JTAG	50	JTAG_TCK	JTAG_TCK	N/A	H5	
	52	JTAG_TDI	JTAG_TDI	N/A	G5	
	56	JTAG_TDO	JTAG_TDO	N/A	G6	
	58	JTAG_TMS	JTAG_TMS	N/A	C3	
	62	JTAG_TRSTB	JTAG_TRST	N/A	C2	
	85	PCIE_A_CLK+	CLK1_P	N/A	D7	Series 0.1uF Cap with 50 Ohm Termination
PCIe	87	PCIE_A_CLK-	CLK1_N	N/A	C7	Series 0.1uF Cap with 50 Ohm Termination
	91	PCIE_A_TX+	PCIE_TX_P	N/A	B3	Series 0.1uF Cap
	93	PCIE_A_TX-	PCIE_TX_N	N/A	A3	Series 0.1uF Cap
	97	PCIE_A_RX+	PCIE_RX_P	N/A	B2	
	99	PCIE_A_RX-	PCIE_RX_N	N/A	B1	
	113	PCIE_A_CLK_OE	NAND_DATA00	GPIO2_IO00	A18	
	79	PCIE_B_CLK+	N/C			
	81	PCIE_B_CLK-	N/C			
	103	PCIE_B_TX+	N/C			
	105	PCIE_B_TX-	N/C			
	109	PCIE_B_RX+	N/C			
	111	PCIE_B_RX-	N/C			
	115	PCIE_B_CLK_OE	N/C			
	119	PCIE_RST#	NAND_DATA07	GPIO2_IO07	C18	10K Ohm Pull Down
	107	PCIE_PRES#	NAND_DATA01	GPIO2_IO01	C17	
	117	PCIE_WAKE#	NAND_DATA02	GPIO2_IO02	F16	
	123	SATA_RX+	SATA_PHY_RX_P	N/A	B14	Series 0.01uF Cap
SATA	125	SATA_RX-	SATA_PHY_RX_N	N/A	A14	Series 0.01uF Cap
	135	SATA_TX+	SATA_PHY_TX_P	N/A	A12	Series 0.01uF Cap
	137	SATA_TX-	SATA_PHY_TX_N	N/A	B12	Series 0.01uF Cap
	133	SATA_ACT#	NAND_READY	GPIO6_IO10	B16	
	E3_10	LVDS_D0+	LVDS0_DATA0_P	N/A	U1	
LVDS	E3_9	LVDS_D0-	LVDS0_DATA0_N	N/A	U2	
	5	LVDS_D1+	LVDS0_DATA1_P	N/A	U3	
	3	LVDS_D1-	LVDS0_DATA1_N	N/A	U4	
	11	LVDS_D2+	LVDS0_DATA2_P	N/A	V1	
	9	LVDS_D2-	LVDS0_DATA2_N	N/A	V2	

	17	LVDS_D3+	LVDS0_DATA3_P	N/A	W1	
	15	LVDS_D3-	LVDS0_DATA3_N	N/A	W2	
	23	LVDS_CLK+	LVDS0_CLK_P	N/A	V3	
	21	LVDS_CLK-	LVDS0_CLK_N	N/A	V4	
	27	LVDS_BL_CTRL	ENET_TX_DATA0	GPIO1_IO30	U20	
	29	LVDS_EN	ENET_MDC	GPIO1_IO31	V20	
	31	LVDS_VDD_EN	ENET_TX_DATA1	GPIO1_IO29	W20	
	39	LVDS_I2C_SCL	TBD			Optional I2C Bus 2 or 3
	37	LVDS_I2C_SDA	TBD			Optional I2C Bus 2 or 3
HDMI	43	HDMI_CLK+	HDMI_TX_CLK_P	N/A	J6	
	45	HDMI_CLK-	HDMI_TX_CLK_N	N/A	J5	
	49	HDMI_D0+	HDMI_TX_DATA0_P	N/A	K6	
	51	HDMI_D0-	HDMI_TX_DATA0_N	N/A	K5	
	55	HDMI_D1+	HDMI_TX_DATA1_P	N/A	J4	
	57	HDMI_D1-	HDMI_TX_DATA1_N	N/A	J3	
	61	HDMI_D2+	HDMI_TX_DATA2_P	N/A	K4	
	63	HDMI_D2-	HDMI_TX_DATA2_N	N/A	K3	
	67	HDMI_HPD	HDMI_TX_HPD	N/A	K1	
	69	HDMI_CAD	NAND_WP_B	GPIO6_IO09	E15	
	71	HDMI_CEC	EIM_ADDR25 / HDMI_TX_CEC_LINE	GPIO5_IO02	H19	
	73	HDMI_I2C_SCL	KEY_COL3 / HDMI_TX_DDC_SCL	GPIO4_IO12	U5	
	75	HDMI_I2C_SDA	KEY_ROW3 / HDMI_TX_DDC_SDA	GPIO4_IO13	T7	
Battery Control	92	PMIC_I2C_SCL	EIM_DATA17 / I2C3_SCL	GPIO3_IO17	F21	PMIC I2C Clock Pin 54
	90	PMIC_I2C_SDA	EIM_DATA18 / I2C3_SDA	GPIO3_IO18	D24	PMIC I2C Data Pin 53
	86	PMIC_BATLOW#	NAND_DATA03	GPIO2_IO03	D17	10K Ohm Pull Up
	96	PMIC_CHARGE#	NAND_DATA04	GPIO2_IO04	A19	
	98	PMIC_CHARGE_DET#	NAND_DATA05	GPIO2_IO05	B18	
	102	PMIC_TEST#	NAND_DATA06	GPIO2_IO06	E17	
	104	PMIC_SLEEP#	EIM_CS0	GPIO2_IO23	H24	
GPIO	2	GPIO0/PWM0	DISP0_DATA08 / PWM1_OUT	GPIO4_IO29	R22	
	4	GPIO1/PWM1	DISP0_DATA09 / PWM2_OUT	GPIO4_IO30	T25	
	8	GPIO2/PWM2	SD1_DATA1 / PWM3_OUT	GPIO1_IO17	C20	
	10	GPIO3/PWM3	SD1_CMD / PWM4_OUT	GPIO1_IO18	B21	
	14	GPIO4/TC1	SD1_DATA0 / GPT_CAPTURE1	GPIO1_IO16	A21	
	16	GPIO5/TC2	SD1_CLK / GPT_CLKIN	GPIO1_IO20	D20	
	20	GPIO6	DISP0_DATA11	GPIO5_IO05	T23	
	22	GPIO7	DISP0_DATA12	GPIO5_IO06	T24	
	26	GPIO8	DISP0_DATA13	GPIO5_IO07	R20	
	28	GPIO9	DISP0_DATA14	GPIO5_IO08	U25	
	32	GPIO10	DISP0_DATA16	GPIO5_IO10	T21	
	34	GPIO11	CSI0_PIXCLK	GPIO5_IO18	P1	
	255	GPIO12	CSI0_HSYNC	GPIO5_IO19	P4	
	256	GPIO13	CSI0_DATA_EN	GPIO5_IO20	P3	

	257	GPIO14	CSI0_VSYNC	GPIO5_IO21	N2	
	258	GPIO15	EIM_DATA21 / SPDIF_IN	GPIO3_IO21	H20	
	259	GPIO16	KEY_ROW1	GPIO4_IO09	U6	
	260	GPIO17	DISP0_DATA07 / ECSPI3_RDY	GPIO4_IO28	R24	
	261	GPIO18	SD3_DATA4	GPIO7_IO01	D13	
	262	GPIO19	SD3_DATA5	GPIO7_IO00	C13	
	263	GPIO20	SD3_DATA6	GPIO6_IO18	E13	
	264	GPIO21	NAND_CS3_B	GPIO6_IO16	D16	
I2C	231	I2C_A_SCL	CSI0_DATA09 / I2C1_SCL	GPIO5_IO27	N5	4.7K Ohm Pull Up
	233	I2C_A_SDA	CSI0_DATA08 / I2C1_SDA	GPIO5_IO26	N6	4.7K Ohm Pull Up
	235	I2C_B_SCL	EIB_EB2 / I2C2_SCL	GPIO2_IO30	E22	4.7K Ohm Pull Up
	237	I2C_B_SDA	EIM_DATA16 / I2C2_SDA	GPIO3_IO16	C25	4.7K Ohm Pull Up
HSIC	272	HSIC_A_STRB	N/C			
	274	HSIC_A_DATA	N/C			
	275	HSIC_B_STRB	N/C			
	277	HSIC_B_DATA	N/C			
DSI	267	DSI_CLK+	DSI_CLK0_P	N/A	H4	
	269	DSI_CLK-	DSI_CLK0_N	N/A	H3	
	268	DSI_D0+	DSI_DATA0_P	N/A	G1	
	270	DSI_D0-	DSI_DATA0_N	N/A	G2	
	271	DSI_D1+	DSI_DATA1_P	N/A	H1	
	273	DSI_D1-	DSI_DATA1_N	N/A	H2	
ADC	78	ADC_1	CH0		1	MCP3204 Pin
	80	ADC_2	CH1		2	MCP3204 Pin
	82	ADC_3	CH2		3	MCP3204 Pin
	33	ADC_4	CH3		4	MCP3204 Pin
	35	ADC_VREF	VREF		13	MCP3204 Pin
Power	E1_1	5V_VSB	5V_VSB			Connectes To Onboard Regulator
	E2_1	5V_VSB	5V_VSB			and RTC
	281	VCC_RTC	VCC_RTC			Connects To RTC Only
	E1_1	5V_VCC	5V_VCC			
	E2_2	5V_VCC	5V_VCC			
	E1_3	5V_VCC	5V_VCC			
	E2_3	5V_VCC	5V_VCC			
	E1_4	5V_VCC	5V_VCC			
	E2_4	5V_VCC	5V_VCC			
	E1_5	5V_VCC	5V_VCC			
	E2_5	5V_VCC	5V_VCC			
	E1_6	5V_VCC	5V_VCC			
	E2_6	5V_VCC	5V_VCC			
	E1_7	5V_VCC	5V_VCC			
	E2_7	5V_VCC	5V_VCC			
	E1_8	5V_VCC	5V_VCC			

	E2_8	5V_VCC	5V_VCC			
	E1_9	5V_VCC	5V_VCC			
	E2_9	5V_VCC	5V_VCC			
	E1_10	5V_VCC	5V_VCC			
	E2_10	5V_VCC	5V_VCC			
	266	GND	GND			
	265	GND	GND			
	250	GND	GND			
	249	GND	GND			
	239	GND	GND			
	232	GND	GND			
	229	GND	GND			
	220	GND	GND			
	217	GND	GND			
	204	GND	GND			
	201	GND	GND			
	198	GND	GND			
	185	GND	GND			
	184	GND	GND			
	177	GND	GND			
	166	GND	GND			
	154	GND	GND			
	153	GND	GND			
	148	GND	GND			
	171	GND	GND			
	147	GND	GND			
	124	GND	GND			
	121	GND	GND			
	101	GND	GND			
	100	GND	GND			
	95	GND	GND			
	94	GND	GND			
	89	GND	GND			
	88	GND	GND			
	83	GND	GND			
	77	GND	GND			
	66	GND	GND			
	65	GND	GND			
	60	GND	GND			
	59	GND	GND			
	54	GND	GND			
	53	GND	GND			
	48	GND	GND			

	47	GND	GND			
	42	GND	GND			
	41	GND	GND			
	30	GND	GND			
	25	GND	GND			
	24	GND	GND			
	19	GND	GND			
	18	GND	GND			
	13	GND	GND			
	12	GND	GND			
	7	GND	GND			
	6	GND	GND			
	1	GND	GND			
	E4_10	GND	GND			
	E3_8	GND	GND			
	E4_7	GND	GND			
	E4_4	GND	GND			
	E3_4	GND	GND			
	E4_1	GND	GND			
	E3_1	GND	GND			
No Connect	132	N/C	N/C	N/C	N/C	
	131	N/C	N/C	N/C	N/C	
	130	N/C	N/C	N/C	N/C	
	129	N/C	N/C	N/C	N/C	
	128	N/C	N/C	N/C	N/C	
	127	N/C	N/C	N/C	N/C	
	126	N/C	N/C	N/C	N/C	

SoM-xxxxM			
xxxx	**Port Line**	**BGA Pin#**	**Comment**