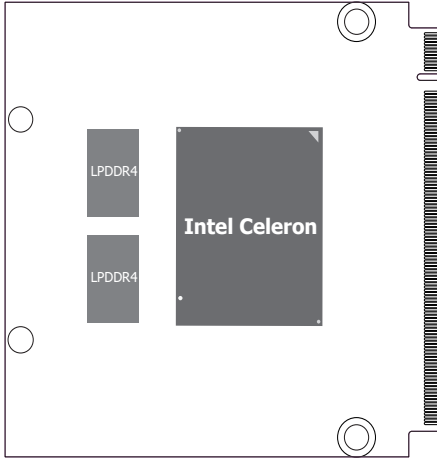
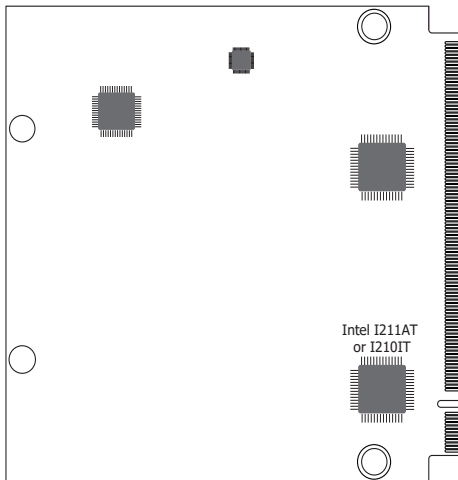


## Board Layout and COM Express Pin Assignments

TOP VIEW



BOTTOM VIEW



## ► COM Express Pin Assignments

### MXM Connector

The table below is a comprehensive list of all signal pins supported on the 230-pin MXM connectors.

Pin	Q7 R2.1 Signal	EHL701 Signal	Pin	Q7 R2.1 Signal	EHL701 Signal
1	GND	GND	2	GND	GND
3	GBE_MDI3-	GBE_MDI3-	4	GBE_MDI2-	GBE_MDI2-
5	GBE_MDI3+	GBE_MDI3+	6	GBE_MDI2+	GBE_MDI2+
7	GBE_LINK100#	GBE_LED_100-	8	GBE_LED_1000-	GBE_LED_1000-
9	GBE_MDI1-	GBE_MDI1-	10	GBE_MDI0-	GBE_MDI0-
11	GBE_MDI1+	GBE_MDI1+	12	GBE_MDI0+	GBE_MDI0+
13	GBE_LINK#	GBE_LED_LINK-	14	GBE_ACT#	GBE_LED_ACT-
15	GBE_CTREF	NC	16	SUS_S5#	EC_PM_SLP_S4-
17	WAKE#	WAKE-	18	SUS_S3#	EC_PM_SLP_S3-
19	GPO0	GPIO0_C	20	PWRBTN#	CB_PWRBTN-
21	SLP_BTN# /GPII1	SLP_BTN-	22	LID_BTN# /GPII0	LID_BTN-
23	GND	GND	24	GND	GND
	KEY	KEY		KEY	KEY
25	GND	GND	26	PWGIN	CB_PWROK_C
27	BATLOW# /GPII2	GPIO2_C	28	RSTBTN#	SYS_RST-
29	SATA0_TX+	SATA_TX0P	30	SATA1_TX+	SATA_TX1P
31	SATA0_TX-	SATA_TX0N	32	SATA1_TX-	SATA_TX1N
33	SATA_ACT#	SATA_ACT-	34	GND	GND
35	SATA0_RX+	SATA_RX0P	36	SATA1_RX+	SATA_RX1P
37	SATA0_RX-	SATA_RX0N	38	SATA1_RX-	SATA_RX1N
39	GND	GND	40	GND	GND
41	BIOS_DISABLE# / BOOT_ALT#	BIOS_DIS0-	42	SDIO_CLK#	SDIO_CLK
43	SDIO_CD#	SDIO_CD-	44	RSVD	SDIO_LED

Pin	Q7 R2.1 Signal	EHL701 Signal	Pin	Q7 R2.1 Signal	EHL701 Signal
45	SDIO_CMD	SDIO_CMD	46	SDIO_WP	SDIO_WP
47	SDIO_PWR#	SDIO_PWR	48	SDIO_DAT1	SDIO_D1
49	SDIO_DAT0	SDIO_D0	50	SDIO_DAT3	SDIO_D3
51	SDIO_DAT2	SDIO_D2	52	RSVD	NC
53	RSVD	NC	54	RSVD	NC
55	RSVD	NC	56	USB_OTG_PEN	USB_OTG_PEN
57	GND	GND	58	GND	GND
59	HDA_SYNC / I2S_WS	HDA_SYNC_3V3	60	SMB_CLK / GP1_I2C_CLK	SMBCK_BT B
61	HDA_RST# / I2S_RST#	3V3_HDA_RST-	62	SMB_DAT / GP1_I2C_DAT	SMBDAT_BT B
63	HDA_BITCLK / I2S_CLK	HDA_BITCLK_3V3	64	SMB_ALERT#	SMB_ALERT-EC_BT B
65	HDA_SDI / I2S_SDI	HDA_SDI0_3V3	66	GP0_I2C_CLK	I2C_SCL1
67	HDA_SDO / I2S_SDO	HDA_SDO_3V3	68	GP0_I2C_DAT	I2C_SDA1
69	THRM#	THRM-	70	WDTRIG#	WDTRIG#_C
71	THRMTRIP#	THERMTRIP-	72	WDOUT	WDOUT_C
73	GND	GND	74	GND	GND
75	USB_P7- / USB_SSTX0-	USB3_TXP0N (option USB_P7-)	76	USB_P6- / USB_SSRX0-	USB3_RXP0N (option USB_P6-)
77	USB_P7+ / USB_SSTX0+	USB3_TXP0P (option USB_P7+)	78	USB_P6+ / USB_SSRX0+	USB3_RXP0P (option USB_P6+)
79	USB_6_7_OC#	USB67_OC-	80	USB_4_5_OC#	USB45_OC-
81	USB_P5- / USB_SSTX2-	USB3_TXP2N (option USB_P5-)	82	USB_P4- / USB_SSRX2-	USB3_RXP2N (option USB_P4-)
83	USB_P5+ / USB_SSTX2+	USB3_TXP2P (option USB_P5+)	84	USB_P4+ / USB_SSRX2+	USB3_RXP2P (option USB_P4+)
85	USB_2_3_OC#	USB23_OC-	86	USB_0_1_OC#	USB01_OC-

Pin	Q7 R2.1 Signal	EHL701 Signal	Pin	Q7 R2.1 Signal	EHL701 Signal
87	USB_P3-	USB2_DN3	88	USB_P2-	USB2_DN2
89	USB_P3+	USB2_DP3	90	USB_P2+	USB2_DP2
91	USB_VBUS	USB_VBUS_SUS_C	92	USB_ID	USB_OTG_ID_3V3
93	USB_P1-	USB2_DN0	94	USB_P0-	USB2_DN1
95	USB_P1+	USB2_DP0	96	USB_P0+	USB2_DP1
97	GND	GND	98	GND	GND
99	eDP0_TX0+ / LVDS_A0+	LVDSA_0+_R (option eDP0_TX0+)	100	eDP1_TX0+ / LVDS_B0+	LVDS_B0+_R (option eDP1_TX0+)
101	eDP0_TX0- / LVDS_A0-	LVDSA_0-_R (option eDP0_TX0-)	102	eDP1_TX0- / LVDS_B0-	LVDS_B0-_R (option eDP1_TX0-)
103	eDP0_TX1+ / LVDS_A1+	LVDSA_1+_R (option eDP0_TX1+)	104	eDP1_TX1+ / LVDS_B1+	LVDS_B1+_R (option eDP1_TX1+)
105	eDP0_TX1- / LVDS_A1-	LVDSA_1-_R (option eDP0_TX1-)	106	eDP1_TX1- / LVDS_B1-	LVDS_B1-_R (option eDP1_TX1-)
107	eDP0_TX2+ / LVDS_A2+	LVDSA_2+_R (option eDP0_TX2+)	108	eDP1_TX2+ / LVDS_B2+	LVDS_B2+_R (option eDP1_TX2+)
109	eDP0_TX2- / LVDS_A2-	LVDSA_2-_R (option eDP0_TX2-)	110	eDP1_TX2- / LVDS_B2-	LVDS_B2-_R (option eDP1_TX2-)
111	LVDS_PPEN	LVDS_VDD_EN_R	112	LVDS_BLEN	LVDS_BKLT_EN_R
113	eDP0_TX3+ / LVDS_A3+	LVDSA_3+_R (option eDP0_TX3+)	114	eDP1_TX3+ / LVDS_B3+	LVDS_B3+_R (option eDP1_TX3+)
115	eDP0_TX3- / LVDS_A3-	LVDSA_3-_R (option eDP0_TX3-)	116	eDP1_TX3- / LVDS_B3-	LVDS_B3-_R (option eDP1_TX3-)
117	GND	GND	118	GND	GND
119	eDP0_AUX+ / LVDS_A_CLK+	LVDS_A_CLK+ (option eDP0_AUX+)	120	eDP1_AUX+ / LVDS_B_CLK+	LVDS_B_CLK+_R (option eDP1_AUX+)
121	eDP0_AUX- / LVDS_A_CLK-	LVDS_A_CLK- (option eDP0_AUX-)	122	eDP1_AUX- / LVDS_B_CLK-	LVDS_B_CLK-_R (option eDP1_AUX-)
123	LVDS_BLT_CTRL / GP_PWM_OUT0	LVDS_BKLT_CTRL_R	124	GP_1-Wire_Bus / HDMI_CEC	GP_1-Wire_Bus
125	GP2_I2C_DAT / LVDS_DID_DAT	LVDS_DDC_DATA_R (option eDP1_DDC_DAT)	126	eDP0_HPD# / LVDS_BLC_DAT	eDP_HPD#_C
127	GP2_I2C_CLK / LVDS_DID_CLK	LVDS_DDC_CLK_R (option eDP1_DDC_CLK)	128	eDP1_HPD# / LVDS_BLC_CLK	DDI1_HPD#_C
129	CAN0_TX	NC	130	CAN0_RX	NC

Pin	Q7 R2.1 Signal	EHL701 Signal	Pin	Q7 R2.1 Signal	EHL701 Signal
131	DP_LANE3+ / TMDS_CLK+	DDIO_3P	132	USB_SSTX1-	USB3_P1_TXN_C
133	DP_LANE3- / TMDS_CLK-	DDIO_3N	134	USB_SSTX1+	USB3_P1_TXP_C
135	GND	GND	136	GND	GND
137	DP_LANE1+ / TMDS_LANE1+	DDIO_1P	138	DP_AUX+	DPIO_AUX_C_P
139	DP_LANE1- / TMDS_LANE1-	DDIO_1N	140	DP_AUX-	DPIO_AUX_C_N
141	GND	GND	142	GND	GND
143	DP_LANE2+ / TMDS_LANE0+	DDIO_2P	144	USB_SSRX1-	USB3_P1_RXN
145	DP_LANE2- / TMDS_LANE0-	DDIO_2N	146	USB_SSRX1+	USB3_P1_RXP
147	GND	GND	148	GND	GND
149	DP_LANE0+ / TMDS_LANE2+	DDIO_0P	150	HDMI_CTRL_DAT	DDIO_DDC_SDA_C
151	DP_LANE0- / TMDS_LANE2-	DDIO_0N	152	HDMI_CTRL_CLK	DDIO_DDC_SCL_C
153	HDMI_HPD#	DDIO_HDMI_HPD	154	DP_HPD#	DDIO_DP_HPD
155	PCIE_CLK_REF+	PCIE_CLK_REF+	156	PCIE_WAKE#	PCIE_WAKE2-
157	PCIE_CLK_REF-	PCIE_CLK_REF-	158	PCIE_RST#	CB_PLTRST_BUFF
159	GND	GND	160	GND	GND
161	PCIE3_TX+	PCIE_P3_TXP_C	162	PCIE3_RX+	PCIE_P3_RXP
163	PCIE3_TX-	PCIE_P3_TXN_C	164	PCIE3_RX-	PCIE_P3_RXN
165	GND	GND	166	GND	GND
167	PCIE2_TX+	PCIE_P2_TXP_C	168	PCIE2_RX+	PCIE_P2_RXP
169	PCIE2_TX-	PCIE_P2_TXN_C	170	PCIE2_RX-	PCIE_P2_RXN

Pin	Q7 R2.1 Signal	EHL701 Signal	Pin	Q7 R2.1 Signal	EHL701 Signal
171	UART0_TX	EC_SOUT1	172	UART0_RTS#	EC_RTS1#
173	PCIE1_TX+	PCIE_P1_TXP_C	174	PCIE1_RX+	PCIE_P1_RXP
175	PCIE1_TX-	PCIE_P1_TXN_C	176	PCIE1_RX-	PCIE_P1_RXN
177	UART0_RX	EC_SIN1	178	UART0_CTS#	EC_CTS1#
179	PCIE0_TX+	PCIE_P0_TXP_C	180	PCIE0_RX+	PCIE_P0_RXP
181	PCIE0_TX-	PCIE_P0_TXN_C	182	PCIE0_RX-	PCIE_P0_RXN
183	GND	GND	184	GND	GND
185	LPC_AD0 / GPIO0	LPC_AD0	186	LPC_AD1 / GPIO1	LPC_AD1
187	LPC_AD2 / GPIO2	LPC_AD2	188	LPC_AD3 / GPIO3	LPC_AD3
189	LPC_CLK / GPIO4	CLK1_25M_CB	190	LPC_FRAME# / GPIO5	LPC_FRAME-
191	SERIRQ / GPIO6	LPC_SERIRQ	192	LPC_LDRQ# / GPIO7	NC
193	VCC_RTC	V_3P0_BAT	194	SPKR / GP_PWM_OUT2	HDA_SPKR_3V3
195	FAN_TACHOIN / GP_TIMER_IN	SYSFAN	196	FAN_PWMOUT / GP_PWM_OUT1	PWMOUT
197	GND	GND	198	GND	GND
199	SPI_MOSI	SPI_MOSI_D0_3VSB	200	SPI_CS0#	SPI_CS0_CB

Pin	Q7 R2.1 Signal	EHL701 Signal	Pin	Q7 R2.1 Signal	EHL701 Signal
201	SPI_MISO	SPI_MISO_D1_3VSB	202	SPI_CS1#	NC
203	SPI_SCK	SPI_CLK_3VSB	204	MFG_NC4	NC
205	VCC_5V_SB	5VSB_P	206	VCC_5V_SB	VCC_5V_SB
207	MFG_NC0	NC	208	MFG_NC2	NC
209	MFG_NC1	NC	210	MFG_NC3	NC
211	NC	NC	212	NC	NC
213	NC	NC	214	NC	NC
215	NC	NC	216	NC	NC
217	NC	NC	218	NC	NC
219	VCC	CB_VIN	220	VCC	CB_VIN
221	VCC	CB_VIN	222	VCC	CB_VIN
223	VCC	CB_VIN	224	VCC	CB_VIN
225	VCC	CB_VIN	226	VCC	CB_VIN
227	VCC	CB_VIN	228	VCC	CB_VIN
229	VCC	CB_VIN	230	VCC	CB_VIN



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