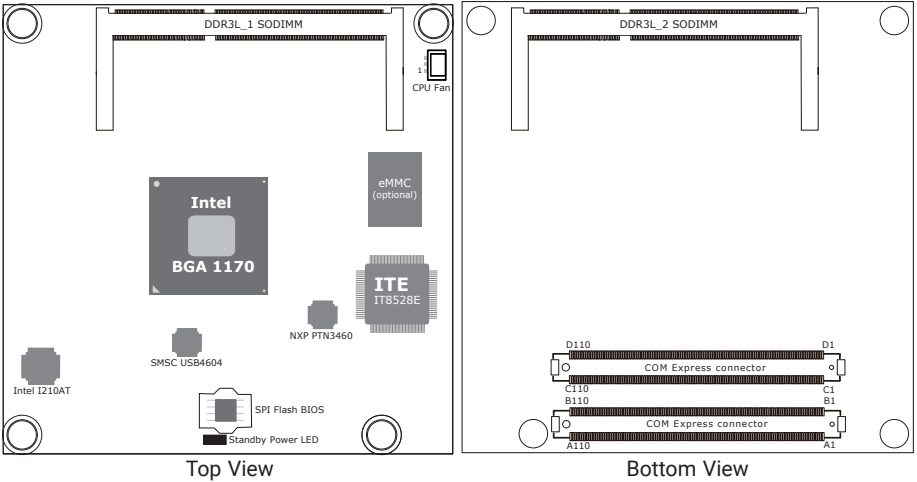


Board Layout and COM Express Pin Assignments



Note:

When only one DDR3L is required, please make sure to install it on the socket (SO-DIMM 1) located on the top side of the module.

Row A	Row B
A1 GND (FIXED)	B1 GND (FIXED)
A2 GBE0_MDI3-	B2 GBE0_ACT#
A3 GBE0_MDI3+	B3 LPC_FRAME#
A4 GBE0_LINK100#	B4 LPC_AD0
A5 GBE0_LINK1000#	B5 LPC_AD1
A6 GBE0_MDI2-	B6 LPC_AD2
A7 GBE0_MDI2+	B7 LPC_AD3
A8 GBE0_LINK#	B8 LPC_DRQ0# (NA)
A9 GBE0_MDI1-	B9 LPC_DRQ1# (NA)
A10 GBE0_MDI1+	B10 LPC_CLK
A11 GND (FIXED)	B11 GND (FIXED)
A12 GBE0_MDI0-	B12 PWRBTN#
A13 GBE0_MDI0+	B13 SMB_CK
A14 GBE0_CTREF	B14 SMB_DAT
A15 SUS_S3#	B15 SMB_ALERT#
A16 SATA0_Tx+	B16 SATA1_Tx+
A17 SATA0_Tx-	B17 SATA1_Tx-
A18 SUS_S4#	B18 SUS_STA#
A19 SATA0_Rx+	B19 SATA1_Rx+
A20 SATA0_Rx-	B20 SATA1_Rx-
A21 GND (FIXED)	B21 GND (FIXED)
A22 SATA2_Tx+ (NA)	B22 SATA3_Tx+ (NA)
A23 SATA2_Tx- (NA)	B23 SATA3_Tx- (NA)
A24 SUS_S5#	B24 PWR_OK
A25 SATA2_Rx+ (NA)	B25 SATA3_Rx+ (NA)
A26 SATA2_Rx- (NA)	B26 SATA3_Rx- (NA)
A27 BATLOW#	B27 WDT
A28 (S)ATA_ACT#	B28 NA
A29 AC/HDA_SYNC	B29 AC/HDA_SDIN1
A30 AC/HDA_RST#	B30 AC/HDA_SDIN0

Row A	Row B
A31 GND (FIXED)	B31 GND (FIXED)
A32 AC/HDA_BITCLK	B32 SPKR
A33 AC/HDA_SDOUT	B33 I2C_CK
A34 BIOS_DIS0#	B34 I2C_DAT
A35 THRMTRIP#	B35 THRM#
A36 USB6-	B36 USB7-
A37 USB6+	B37 USB7+
A38 USB_6_7_OC#	B38 USB_4_5_OC#
A39 USB4-	B39 USB5-
A40 USB4+	B40 USB5+
A41 GND (FIXED)	B41 GND (FIXED)
A42 USB2-	B42 USB3-
A43 USB2+	B43 USB3+
A44 USB_2_3_OC#	B44 USB_0_1_OC#
A45 USB0-	B45 USB1-
A46 USB0+	B46 USB1+
A47 VCC_RTC	B47 EXCD1_PERST#
A48 EXCD0_PERST#	B48 EXCD1_CPPE#
A49 EXCD0_CPPE#	B49 SYS_RESET#
A50 LPC_SERIRQ	B50 CB_RESET#
A51 GND (FIXED)	B51 GND (FIXED)
A52 PCIE_TX5+(NA)	B52 PCIE_RX5+(NA)
A53 PCIE_TX5-(NA)	B53 PCIE_RX5-(NA)
A54 GPIO	B54 GPO1
A55 PCIE_TX4+(NA)	B55 PCIE_RX4+(NA)

Row A	Row B
A56 PCIE_TX4-(NA)	B56 PCIE_RX4-(NA)
A57 GND	B57 GPO2
A58 PCIE_TX3+	B58 PCIE_RX3+
A59 PCIE_TX3-	B59 PCIE_RX3-
A60 GND (FIXED)	B60 GND (FIXED)
A61 PCIE_TX2+	B61 PCIE_RX2+
A62 PCIE_TX2-	B62 PCIE_RX2-
A63 GPI1	B63 GPO3
A64 PCIE_TX1+	B64 PCIE_RX1+
A65 PCIE_TX1-	B65 PCIE_RX1-
A66 GND	B66 WAKE0#
A67 GPI2	B67 WAKE1#
A68 PCIE_TX0+	B68 PCIE_RX0+
A69 PCIE_TX0-	B69 PCIE_RX0-
A70 GND(FIXED)	B70 GND (FIXED)
A71 LVDS_A0+	B71 LVDS_B0+
A72 LVDS_A0-	B72 LVDS_B0-
A73 LVDS_A1+	B73 LVDS_B1+
A74 LVDS_A1-	B74 LVDS_B1-
A75 LVDS_A2+	B75 LVDS_B2+
A76 LVDS_A2-	B76 LVDS_B2-
A77 LVDS_VDD_EN	B77 LVDS_B3+
A78 LVDS_A3+	B78 LVDS_B3-
A79 LVDS_A3-	B79 LVDS_BKLT_EN
A80 GND (FIXED)	B80 GND (FIXED)
A81 LVDS_A_CK+	B81 LVDS_B_CK+
A82 LVDS_A_CK-	B82 LVDS_B_CK-
A83 LVDS_I2C_CK	B83 LVDS_BKLT_CTRL
A84 LVDS_I2C_DAT	B84 VCC_SV_SBY
A85 GPI3	B85 VCC_SV_SBY

Row A	Row B
A86	RSVD
A87	RSVD
A88	PCIE0_CK_REF+
A89	PCIE0_CK_REF-
A90	GND (FIXED)
A91	SPI_POWER
A92	SPI_MISO
A93	GP00
A94	SPI_CLK
A95	SPI_MOSI
A96	TPM_PP
A97	NC
A98	SER0_TX
A99	SER0_RX
A100	GND (FIXED)
A101	SER1_TX
A102	SER1_RX
A103	LID#
A104	VCC_12V
A105	VCC_12V
A106	VCC_12V
A107	VCC_12V
A108	VCC_12V
A109	VCC_12V
A110	GND (FIXED)
B86	VCC_5V_SBY
B87	VCC_5V_SBY
B88	BIOS_DIS1#
B89	VGA_RED
B90	GND (FIXED)
B91	VGA_GRN
B92	VGA_BLU
B93	VGA_HSYNC
B94	VGA_VSYNC
B95	VGA_12C_CK
B96	VGA_12C_DAT
B97	SPI_CS#
B98	RSVD
B99	RSVD
B100	GND (FIXED)
B101	FAN_PWMOUT
B102	FAN_TACHIN
B103	SLEEP#
B104	VCC_12V
B105	VCC_12V
B106	VCC_12V
B107	VCC_12V
B108	VCC_12V
B109	VCC_12V
B110	GND (FIXED)

Row C	Row D
C1	GND (FIXED)
C2	GND
C3	USB_SSRX0+
C4	USB_SSRX0-
C5	GND
C6	NA
C7	NA
C8	GND
C9	NA
C10	NA
C11	GND (FIXED)
C12	NA
C13	NA
C14	GND
C15	DDI1_PAIR6+ (NA)
C16	DDI1_PAIR6- (NA)
C17	RSVD
C18	RSVD
C19	PCIE_RX6+ (NA)
C20	PCIE_RX6- (NA)
C21	GND (FIXED)
C22	PCIE_RX7+ (NA)
C23	PCIE_RX7- (NA)
C24	DDI1_HPD
C25	DDI1_PAIR4+ (NA)
C26	DDI1_PAIR4- (NA)
C27	RSVD
C28	RSVD
C29	DDI1_PAIR5+ (NA)
C30	DDI1_PAIR5- (NA)
D1	GND (FIXED)
D2	GND
D3	USB_SSTX1-
D4	USB_SSTX1+
D5	GND
D6	NA
D7	NA
D8	GND
D9	NA
D10	NA
D11	GND (FIXED)
D12	NA
D13	NA
D14	GND
D15	DDI1_CTRLCLK_AUX+
D16	DDI1_CTRLCLK_AUX-
D17	RSVD
D18	RSVD
D19	PCIE_TX6+ (NA)
D20	PCIE_TX6- (NA)
D21	GND (FIXED)
D22	PCIE_TX7+ (NA)
D23	PCIE_TX7- (NA)
D24	RSVD
D25	RSVD
D26	DDI1_PAIR0+
D27	DDI1_PAIR0-
D28	RSVD
D29	DDI1_PAIR1+
D30	DDI1_PAIR1-

Row C	Row D
C31	GND (FIXED)
C32	DDI2_CTRLCLK_AUX+
C33	DDI2_CTRLCLK_AUX-
C34	DDI2_DDC_AUX_SEL
C35	RSVD
C36	DDI3_CTRLCLK_AUX+ (NA)
C37	DDI3_CTRLCLK_AUX- (NA)
C38	DDI2_DDC_AUX_SEL (NA)
C39	DDI3_PAIR0+ (NA)
C40	DDI3_PAIR0- (NA)
C41	GND (FIXED)
C42	DDI3_PAIR1+ (NA)
C43	DDI3_PAIR1- (NA)
C44	DDI3_HPD (NA)
C45	RSVD
C46	DDI3_PAIR2+ (NA)
C47	DDI3_PAIR2- (NA)
C48	RSVD
C49	DDI3_PAIR3+ (NA)
C50	DDI3_PAIR3- (NA)
C51	GND (FIXED)
C52	PEG_RX0+ (NA)
C53	PEG_RX0- (NA)
C54	TYPE0# (NC)
C55	PEG_RX1+ (NA)
D31	GND (FIXED)
D32	DDI1_PAIR2+
D33	DDI1_PAIR2-
D34	DDI1_DDC_AUX_SEL
D35	RSVD
D36	DDI1_PAIR3+
D37	DDI1_PAIR3-
D38	RSVD
D39	DDI2_PAIR0+
D40	DDI2_PAIR0-
D41	GND (FIXED)
D42	DDI2_PAIR1+
D43	DDI2_PAIR1-
D44	DDI2_HPD
D45	RSVD
D46	DDI2_PAIR2+
D47	DDI2_PAIR2-
D48	RSVD
D49	DDI2_PAIR3+
D50	DDI2_PAIR3-
D51	GND (FIXED)
D52	PEG_TX0+ (NA)
D53	PEG_TX0- (NA)
D54	PEG_LANE_R0# (NA)
D55	PEG_TX1+ (NA)

Row C	Row D
C56	PEG_RX1- (NA)
C57	TYPE1# (NC)
C58	PEG_RX2+ (NA)
C59	PEG_RX2- (NA)
C60	GND (FIXED)
C61	PEG_RX3+ (NA)
C62	PEG_RX3- (NA)
C63	RSVD
C64	RSVD
C65	PEG_RX4+ (NA)
C66	PEG_RX4- (NA)
C67	NC
C68	PEG_RX5+ (NA)
C69	PEG_RX5- (NA)
C70	GND (FIXED)
C71	PEG_RX6+ (NA)
C72	PEG_RX6- (NA)
C73	GND
C74	PEG_RX7+ (NA)
C75	PEG_RX7- (NA)
C76	GND
C77	RSVD
C78	PEG_RX8+ (NA)
C79	PEG_RX8- (NA)
C80	GND (FIXED)
C81	PEG_RX9+ (NA)
C82	PEG_RX9- (NA)
C83	RSVD
C84	GND
C85	PEG_RX10+ (NA)
D56	PEG_TX1- (NA)
D57	TYPE2# (GND)
D58	PEG_TX2+ (NA)
D59	PEG_TX2- (NA)
D60	GND (FIXED)
D61	PEG_TX3+ (NA)
D62	PEG_TX3- (NA)
D63	RSVD
D64	RSVD
D65	PEG_TX4+ (NA)
D66	PEG_TX4- (NA)
D67	GND
D68	PEG_TX5+ (NA)
D69	PEG_TX5- (NA)
D70	GND (FIXED)
D71	PEG_TX6+ (NA)
D72	PEG_TX6- (NA)
D73	GND
D74	PEG_TX7+ (NA)
D75	PEG_TX7- (NA)
D76	GND
D77	RSVD
D78	PEG_TX8+ (NA)
D79	PEG_TX8- (NA)
D80	GND (FIXED)
D81	PEG_TX9+ (NA)
D82	PEG_TX9- (NA)
D83	RSVD
D84	GND
D85	PEG_TX10+ (NA)

Row C	Row D
C86	PEG_RX10- (NA)
C87	GND
C88	PEG_RX11+ (NA)
C89	PEG_RX11- (NA)
C90	GND (FIXED)
C91	PEG_RX12+ (NA)
C92	PEG_RX12- (NA)
C93	GND
C94	PEG_RX13+ (NA)
C95	PEG_RX13- (NA)
C96	GND
C97	RSVD
C98	PEG_RX14+ (NA)
C99	PEG_RX14- (NA)
C100	GND (FIXED)
C101	PEG_RX15+ (NA)
C102	PEG_RX15- (NA)
C103	GND
C104	VCC_12V
C105	VCC_12V
C106	VCC_12V
C107	VCC_12V
C108	VCC_12V
C109	VCC_12V
C110	GND (FIXED)
D86	PEG_TX10- (NA)
D87	GND
D88	PEG_TX11+ (NA)
D89	PEG_TX11- (NA)
D90	GND (FIXED)
D91	PEG_TX12+ (NA)
D92	PEG_TX12- (NA)
D93	GND
D94	PEG_TX13+ (NA)
D95	PEG_TX13- (NA)
D96	GND
D97	RSVD
D98	PEG_TX14+ (NA)
D99	PEG_TX14- (NA)
D100	GND (FIXED)
D101	PEG_TX15+ (NA)
D102	PEG_TX15- (NA)
D103	GND
D104	VCC_12V
D105	VCC_12V
D106	VCC_12V
D107	VCC_12V
D108	VCC_12V
D109	VCC_12V
D110	GND (FIXED)



DFI reserves the right to change the specifications at any time prior to the product's release. This QR may be based on editions that do not resemble your actual products. For more documentation and drivers, please visit the download page at go.dfi.com/BT968, or via the QR code to the right.

