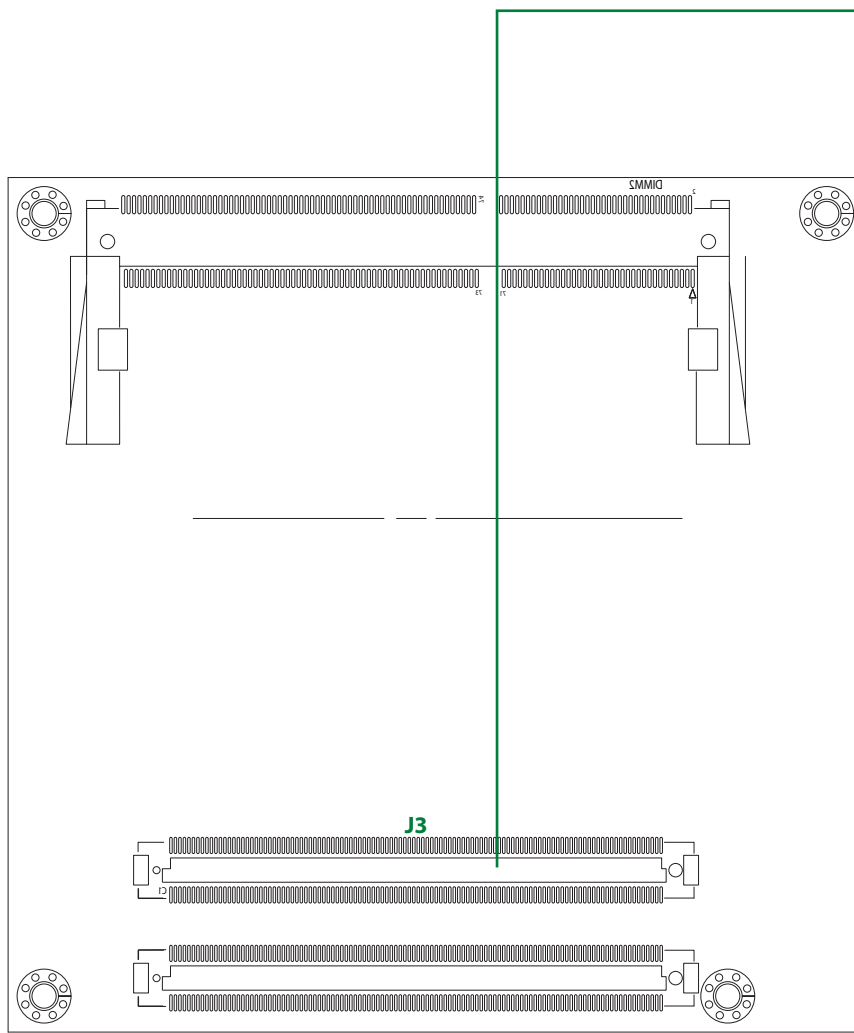


ICES 621 Quick Reference Guide

Ver A. (P/N: 60177A0439X00)



J3: High Speed Board to Board Connector

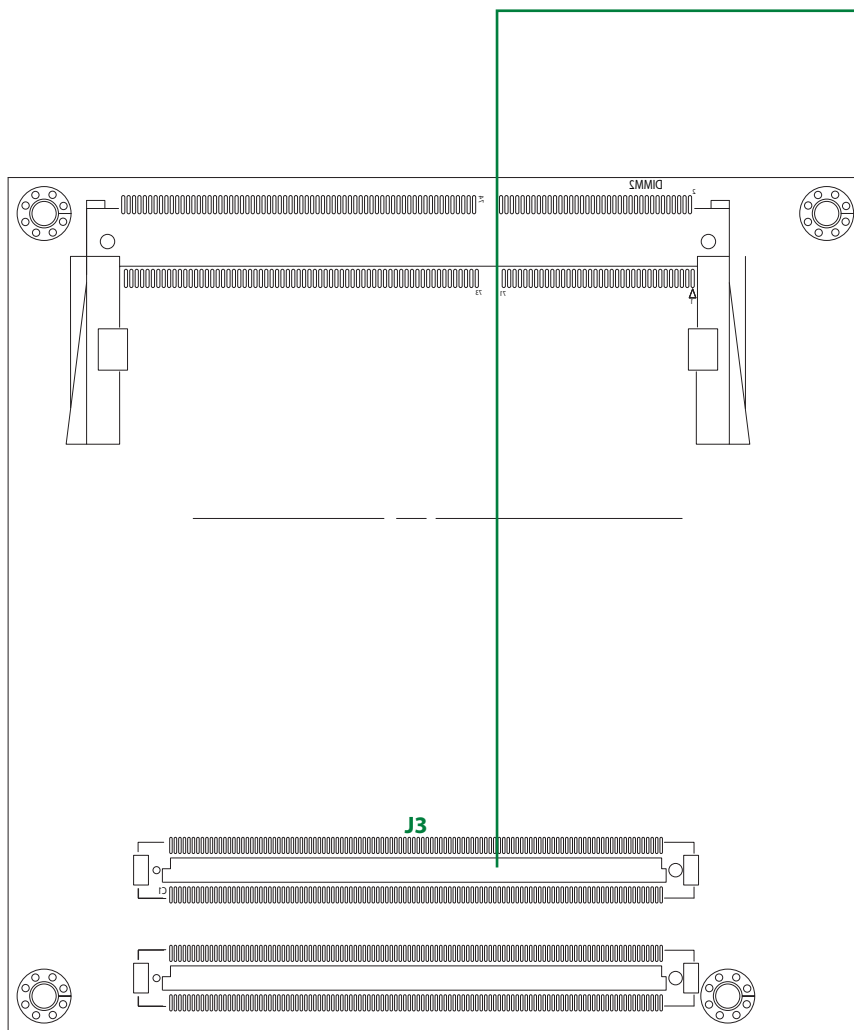
		Row B	
B1	GND(FIXED)	B56	PCIE_RX4-
B2	GBE0_ACT#	B57	GPO2
B3	LPC_FRAME#	B58	PCIE_RX3+
B4	LPC_AD0	B59	PCIE_RX3-
B5	LPC_AD1	B60	GND(FIXED)
B6	LPC_AD2	B61	PCIE_RX2+
B7	LPC_AD3	B62	PCIE_RX2-
B8	LPC_DRQ0#	B63	GPO3
B9	LPC_DRQ1#	B64	PCIE_RX1+
B10	LPC_CLK	B65	PCIE_RX1-
B11	GND(FIXED)	B66	WAKE#
B12	PWRBTN#	B67	WAKE#
B13	SMB_CLK	B68	PCIE_RX0+
B14	SMB_DAT	B69	PCIE_RX0-
B15	SMB_ALERT#	B70	GND(FIXED)
B16	SATA1_TX+ (Option)	B71	NC
B17	SATA1_TX- (Option)	B72	NC
B18	SUS_STAT#	B73	NC
B19	SATA1_RX+ (Option)	B74	NC
B20	SATA1_RX- (Option)	B75	NC
B21	GND(FIXED)	B76	NC
B22	NC	B77	NC
B23	NC	B78	NC
B24	PWR_OK	B79	NC
B25	NC	B80	GND(FIXED)
B26	NC	B81	NC
B27	WDT	B82	NC
B28	NC	B83	NC
B29	AC/HDA_SDIN1	B84	VCC_5V_SBY
B30	AC/HDA_SDIN0	B85	VCC_5V_SBY
B31	GND(FIXED)	B86	VCC_5V_SBY
B32	SPKR	B87	VCC_5V_SBY
B33	I2C_CLK	B88	BIOS_DIS1#
B34	I2C_DAT	B89	VGA_RED
B35	THR#	B90	GND(FIXED)
B36	USB7-	B91	VGA_GRN
B37	USB7+	B92	VGA_BLUE
B38	USB_4_5_OC#	B93	VGA_HSYNC
B39	USB5-	B94	VGA_VSYNC
B40	USB5+	B95	VGA_I2C_CLK
B41	GND(FIXED)	B96	VGA_I2C_DAT
B42	USB3-	B97	SPI_CS#
B43	USB3+	B98	RSVD
B44	USB_0_1_OC#	B99	RSVD
B45	USB1-	B100	GND(FIXED)
B46	USB1+	B101	FAN_PWMOUT
B47	EXCD1_PERST#	B102	FAN_TACHIN
B48	NC	B103	NC
B49	SYS_RESET#	B104	VCC_12V
B50	CB_RESET#	B105	VCC_12V
B51	GND(FIXED)	B106	VCC_12V
B52	NC	B107	VCC_12V
B53	NC	B108	VCC_12V
B54	GPO1	B109	VCC_12V
B55	PCIE_RX4+	B110	GND(FIXED)

COM Express A&B Connector - Type 6

A1	A1	B1	B1
A2	A2	B2	B2
A3	A3	B3	B3
A4	A4	B4	B4
A5	A5	B5	B5
A6	A6	B6	B6
A7	A7	B7	B7
A8	A8	B8	B8
A9	A9	B9	B9
A10	A10	B10	B10
A11	A11	B11	B11
A12	A12	B12	B12
A13	A13	B13	B13
A14	A14	B14	B14
A15	A15	B15	B15
A16	A16	B16	B16
A17	A17	B17	B17
A18	A18	B18	B18
A19	A19	B19	B19
A20	A20	B20	B20
A21	A21	B21	B21
A22	A22	B22	B22
A23	A23	B23	B23
A24	A24	B24	B24
A25	A25	B25	B25
A26	A26	B26	B26
A27	A27	B27	B27
A28	A28	B28	B28
A29	A29	B29	B29
A30	A30	B30	B30
A31	A31	B31	B31
A32	A32	B32	B32
A33	A33	B33	B33
A34	A34	B34	B34
A35	A35	B35	B35
A36	A36	B36	B36
A37	A37	B37	B37
A38	A38	B38	B38
A39	A39	B39	B39
A40	A40	B40	B40
A41	A41	B41	B41
A42	A42	B42	B42
A43	A43	B43	B43
A44	A44	B44	B44
A45	A45	B45	B45
A46	A46	B46	B46
A47	A47	B47	B47
A48	A48	B48	B48
A49	A49	B49	B49
A50	A50	B50	B50
A51	A51	B51	B51
A52	A52	B52	B52
A53	A53	B53	B53
A54	A54	B54	B54
A55	A55	B55	B55
A56	A56	B56	B56
A57	A57	B57	B57
A58	A58	B58	B58
A59	A59	B59	B59
A60	A60	B60	B60
A61	A61	B61	B61
A62	A62	B62	B62
A63	A63	B63	B63
A64	A64	B64	B64
A65	A65	B65	B65
A66	A66	B66	B66
A67	A67	B67	B67
A68	A68	B68	B68
A69	A69	B69	B69
A70	A70	B70	B70
A71	A71	B71	B71
A72	A72	B72	B72
A73	A73	B73	B73
A74	A74	B74	B74
A75	A75	B75	B75
A76	A76	B76	B76
A77	A77	B77	B77
A78	A78	B78	B78
A79	A79	B79	B79
A80	A80	B80	B80
A81	A81	B81	B81
A82	A82	B82	B82
A83	A83	B83	B83
A84	A84	B84	B84
A85	A85	B85	B85
A86	A86	B86	B86
A87	A87	B87	B87
A88	A88	B88	B88
A89	A89	B89	B89
A90	A90	B90	B90
A91	A91	B91	B91
A92	A92	B92	B92
A93	A93	B93	B93
A94	A94	B94	B94
A95	A95	B95	B95
A96	A96	B96	B96
A97	A97	B97	B97
A98	A98	B98	B98
A99	A99	B99	B99
A100	A100	B100	B100
A101	A101	B101	B101
A102	A102	B102	B102
A103	A103	B103	B103
A104	A104	B104	B104
A105	A105	B105	B105
A106	A106	B106	B106
A107	A107	B107	B107
A108	A108	B108	B108
A109	A109	B109	B109
A110	A110	B110	B110

ICES 621 Quick Reference Guide

Ver A. (P/N: 60177A0439X00)



J3: High Speed Board to Board Connector

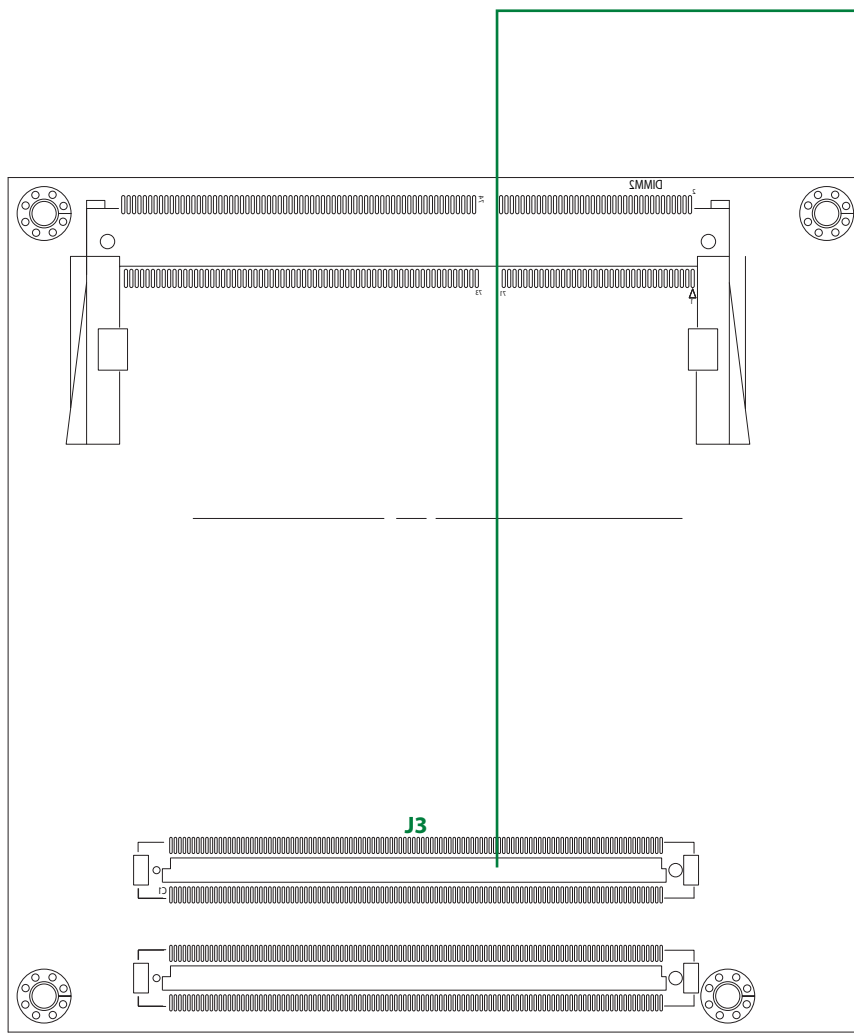
		Row C	
C1	GND(FIXED)	C56	NC
C2	GND	C57	TYPE1#
C3	USB_SSRX0-	C58	NC
C4	USB_SSRX0+	C59	NC
C5	GND	C60	GND(FIXED)
C6	USB_SSRX1-	C61	NC
C7	USB_SSRX1+	C62	NC
C8	GND	C63	RSVD
C9	USB_SSRX2-	C64	RSVD
C10	USB_SSRX2+	C65	NC
C11	GND(FIXED)	C66	NC
C12	USB_SSRX3-	C67	RSVD
C13	USB_SSRX3+	C68	NC
C14	GND	C69	NC
C15	NC	C70	GND(FIXED)
C16	NC	C71	NC
C17	RSVD	C72	NC
C18	RSVD	C73	GND
C19	NC	C74	NC
C20	NC	C75	NC
C21	GND(FIXED)	C76	GND
C22	NC	C77	RSVD
C23	NC	C78	NC
C24	DDI1_HPD	C79	NC
C25	NC	C80	GND(FIXED)
C26	NC	C81	NC
C27	RSVD	C82	NC
C28	RSVD	C83	RSVD
C29	NC	C84	GND
C30	NC	C85	NC
C31	GND(FIXED)	C86	NC
C32	DDI2_CTRL_CLK_AUX+	C87	GND
C33	DDI2_CTRL_DATA_AUX-	C88	NC
C34	DDI2_DDC_AUX_SEL	C89	NC
C35	RSVD	C90	GND(FIXED)
C36	NC	C91	NC
C37	NC	C92	NC
C38	NC	C93	GND
C39	NC	C94	NC
C40	NC	C95	NC
C41	GND(FIXED)	C96	GND
C42	NC	C97	RSVD
C43	NC	C98	NC
C44	NC	C99	NC
C45	RSVD	C100	GND(FIXED)
C46	NC	C101	NC
C47	NC	C102	NC
C48	RSVD	C103	GND
C49	NC	C104	VCC_12V
C50	NC	C105	VCC_12V
C51	GND(FIXED)	C106	VCC_12V
C52	NC	C107	VCC_12V
C53	NC	C108	VCC_12V
C54	TYPE0#	C109	VCC_12V
C55	NC	C110	GND(FIXED)

COM Express C&D Connector

GND(FIXED)	C1	D1	D1 - GND(FIXED)
GND	C2	D2	D2 - GND
USB_SSRX0-	C3	D3	D3 - USB_SSTX0-
USB_SSRX0+	C4	D4	D4 - USB_SSTX0+
GND	C5	D5	D5 - GND
USB_SSRX1-	C6	D6	D6 - USB_SSTX1-
USB_SSRX1+	C7	D7	D7 - USB_SSTX1+
GND	C8	D8	D8 - GND
USB_SSRX2-	C9	D9	D9 - USB_SSTX2-
USB_SSRX2+	C10	D10	D10 - USB_SSTX2+
GND(FIXED)	C11	D11	D11 - GND(FIXED)
USB_SSRX3-	C12	D12	D12 - USB_SSTX3-
USB_SSRX3+	C13	D13	D13 - USB_SSTX3+
GND	C14	D14	D14 - GND
NC	C15	D15	D15 - DDI1_CTRL_CLK_AUX+
NC	C16	D16	D16 - DDI1_CTRL_DATA_AUX-
RSVD	C17	D17	D17 - RSVD
RSVD	C18	D18	D18 - RSVD
NC	C19	D19	D19 - NC
NC	C20	D20	D20 - NC
GND(FIXED)	C21	D21	D21 - GND(FIXED)
NC	C22	D22	D22 - NC
NC	C23	D23	D23 - NC
DDI1_HPD	C24	D24	D24 - RSVD
NC	C25	D25	D25 - RSVD
NC	C26	D26	D26 - DDI1_PAIR0+
RSVD	C27	D27	D27 - DDI1_PAIR0-
RSVD	C28	D28	D28 - RSVD
NC	C29	D29	D29 - DDI1_PAIR1+
NC	C30	D30	D30 - DDI1_PAIR1-
GND(FIXED)	C31	D31	D31 - GND(FIXED)
DDI2_CTRL_CLK_AUX+	C32	D32	D32 - DDI1_PAIR2+
DDI2_CTRL_DATA_AUX-	C33	D33	D33 - DDI1_PAIR2-
DDI2_DDC_AUX_SEL	C34	D34	D34 - DDI1_DDC_AUX_SEL
RSVD	C35	D35	D35 - RSVD
NC	C36	D36	D36 - DDI1_PAIR3+
NC	C37	D37	D37 - DDI1_PAIR3-
NC	C38	D38	D38 - RSVD
NC	C39	D39	D39 - DDI2_PAIR0+
NC	C40	D40	D40 - DDI2_PAIR0-
GND(FIXED)	C41	D41	D41 - GND(FIXED)
NC	C42	D42	D42 - DDI2_PAIR1+
NC	C43	D43	D43 - DDI2_PAIR1-
NC	C44	D44	D44 - DDI2_HPD
RSVD	C45	D45	D45 - RSVD
NC	C46	D46	D46 - DDI2_PAIR2+
NC	C47	D47	D47 - DDI2_PAIR2-
RSVD	C48	D48	D48 - RSVD
NC	C49	D49	D49 - DDI2_PAIR3+
NC	C50	D50	D50 - DDI2_PAIR3-
GND(FIXED)	C51	D51	D51 - GND(FIXED)
NC	C52	D52	D52 - NC
NC	C53	D53	D53 - NC
TYPE#	C54	D54	D54 - NC
NC	C55	D55	D55 - NC
NC	C56	D56	D56 - NC
TYPE#	C57	D57	D57 - TYPE#
NC	C58	D58	D58 - NC
NC	C59	D59	D59 - NC
GND(FIXED)	C60	D60	D60 - GND(FIXED)
NC	C61	D61	D61 - NC
NC	C62	D62	D62 - NC
RSVD	C63	D63	D63 - RSVD
RSVD	C64	D64	D64 - RSVD
NC	C65	D65	D65 - NC
NC	C66	D66	D66 - NC
RSVD	C67	D67	D67 - RSVD
NC	C68	D68	D68 - NC
NC	C69	D69	D69 - NC
GND(FIXED)	C70	D70	D70 - GND(FIXED)
NC	C71	D71	D71 - NC
NC	C72	D72	D72 - NC
GND	C73	D73	D73 - GND
NC	C74	D74	D74 - NC
NC	C75	D75	D75 - NC
GND	C76	D76	D76 - GND
RSVD	C77	D77	D77 - RSVD
NC	C78	D78	D78 - NC
NC	C79	D79	D79 - NC
GND(FIXED)	C80	D80	D80 - GND(FIXED)
NC	C81	D81	D81 - NC
NC	C82	D82	D82 - NC
RSVD	C83	D83	D83 - RSVD
GND	C84	D84	D84 - GND
NC	C85	D85	D85 - NC
NC	C86	D86	D86 - NC
GND	C87	D87	D87 - GND
NC	C88	D88	D88 - NC
NC	C89	D89	D89 - NC
GND(FIXED)	C90	D90	D90 - GND(FIXED)
NC	C91	D91	D91 - NC
NC	C92	D92	D92 - NC
GND	C93	D93	D93 - GND
NC	C94	D94	D94 - NC
NC	C95	D95	D95 - NC
GND	C96	D96	D96 - GND
RSVD	C97	D97	D97 - RSVD
NC	C98	D98	D98 - NC
NC	C99	D99	D99 - NC
GND(FIXED)	C100	D100	D100 - GND(FIXED)
NC	C101	D101	D101 - NC
GND	C102	D102	D102 - GND
VCC_12V	C103	D103	D103 - VCC_12V
VCC_12V	C104	D104	D104 - VCC_12V
VCC_12V	C105	D105	D105 - VCC_12V
VCC_12V	C106	D106	D106 - VCC_12V
VCC_12V	C107	D107	D107 - VCC_12V
VCC_12V	C108	D108	D108 - VCC_12V
VCC_12V	C109	D109	D109 - VCC_12V
GND(FIXED)	C110	D110	D110 - GND(FIXED)

ICES 621 Quick Reference Guide

Ver A. (P/N: 60177A0439X00)



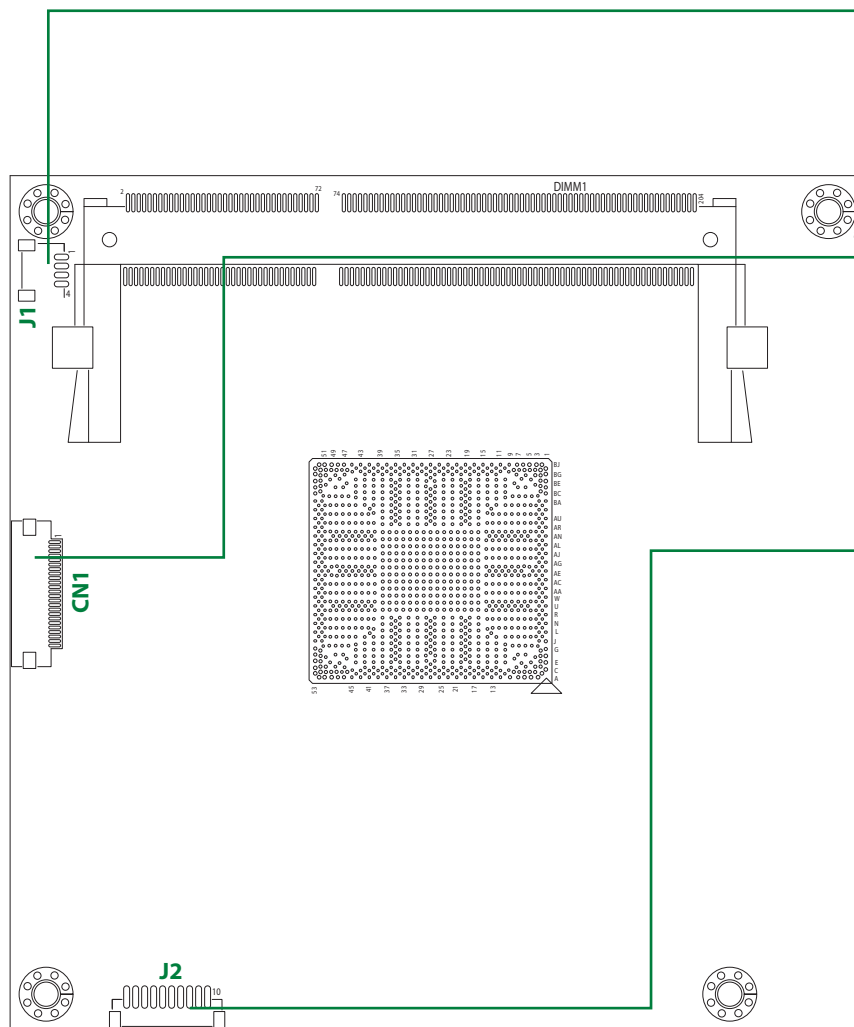
J3: High Speed Board to Board Connector

GND(FIXED)	C1	D1	D1 - GND(FIXED)
GND	C2	D2	D2 - GND
USB_SSR0-	C3	D3	D3 - USB_SSTX0-
USB_SSR0+	C4	D4	D4 - USB_SSTX0+
GND	C5	D5	D5 - GND
USB_SSR1-	C6	D6	D6 - USB_SSTX1-
USB_SSR1+	C7	D7	D7 - USB_SSTX1+
GND	C8	D8	D8 - GND
USB_SSR2-	C9	D9	D9 - USB_SSTX2-
USB_SSR2+	C10	D10	D10 - USB_SSTX2+
GND(FIXED)	C11	D11	D11 - GND(FIXED)
USB_SSR3-	C12	D12	D12 - USB_SSTX3-
USB_SSR3+	C13	D13	D13 - USB_SSTX3+
GND	C14	D14	D14 - GND
NC	C15	D15	D15 - DDH1_CTRL_CLK_AUX+
NC	C16	D16	D16 - DDH1_CTRL_DATA_AUX-
RSVD	C17	D17	D17 - RSVD
RSVD	C18	D18	D18 - RSVD
NC	C19	D19	D19 - NC
NC	C20	D20	D20 - NC
GND(FIXED)	C21	D21	D21 - GND(FIXED)
NC	C22	D22	D22 - NC
NC	C23	D23	D23 - NC
DDH1_HPD	C24	D24	D24 - DDH1_HPD
NC	C25	D25	D25 - DDH1_PAIR0-
NC	C26	D26	D26 - DDH1_PAIR0+
RSVD	C27	D27	D27 - DDH1_PAIR0-
RSVD	C28	D28	D28 - DDH1_PAIR0+
NC	C29	D29	D29 - DDH1_PAIR1-
NC	C30	D30	D30 - DDH1_PAIR1+
GND(FIXED)	C31	D31	D31 - GND(FIXED)
DDH2_CTRL_CLK_AUX+	C32	D32	D32 - DDH2_CTRL_CLK_AUX+
DDH2_CTRL_DATA_AUX-	C33	D33	D33 - DDH2_CTRL_DATA_AUX-
DDH2_DDC_AUX_SEL	C34	D34	D34 - DDH2_DDC_AUX_SEL
RSVD	C35	D35	D35 - RSVD
NC	C36	D36	D36 - DDH1_PAIR3-
NC	C37	D37	D37 - DDH1_PAIR3+
NC	C38	D38	D38 - DDH2_PAIR0+
NC	C39	D39	D39 - DDH2_PAIR0-
NC	C40	D40	D40 - DDH2_PAIR1+
GND(FIXED)	C41	D41	D41 - GND(FIXED)
NC	C42	D42	D42 - DDH2_PAIR1-
NC	C43	D43	D43 - DDH2_PAIR2+
NC	C44	D44	D44 - DDH2_PAIR2-
RSVD	C45	D45	D45 - RSVD
NC	C46	D46	D46 - DDH2_PAIR2+
NC	C47	D47	D47 - DDH2_PAIR2-
RSVD	C48	D48	D48 - RSVD
NC	C49	D49	D49 - DDH2_PAIR3+
NC	C50	D50	D50 - DDH2_PAIR3-
GND(FIXED)	C51	D51	D51 - GND(FIXED)
NC	C52	D52	D52 - NC
NC	C53	D53	D53 - NC
TYPE#	C54	D54	D54 - TYPE#
NC	C55	D55	D55 - NC
NC	C56	D56	D56 - NC
TYPE#	C57	D57	D57 - TYPE#
NC	C58	D58	D58 - NC
NC	C59	D59	D59 - NC
GND(FIXED)	C60	D60	D60 - GND(FIXED)
NC	C61	D61	D61 - NC
NC	C62	D62	D62 - NC
RSVD	C63	D63	D63 - RSVD
RSVD	C64	D64	D64 - RSVD
NC	C65	D65	D65 - DDH1_PAIR2+
NC	C66	D66	D66 - DDH1_PAIR2-
RSVD	C67	D67	D67 - RSVD
NC	C68	D68	D68 - DDH1_PAIR1+
NC	C69	D69	D69 - DDH1_PAIR1-
GND(FIXED)	C70	D70	D70 - GND(FIXED)
NC	C71	D71	D71 - NC
NC	C72	D72	D72 - NC
NC	C73	D73	D73 - GND
NC	C74	D74	D74 - NC
NC	C75	D75	D75 - NC
GND	C76	D76	D76 - GND
RSVD	C77	D77	D77 - DDH1_PAIR3-
NC	C78	D78	D78 - DDH1_PAIR3+
NC	C79	D79	D79 - DDH1_PAIR3-
GND(FIXED)	C80	D80	D80 - GND(FIXED)
NC	C81	D81	D81 - NC
NC	C82	D82	D82 - NC
RSVD	C83	D83	D83 - RSVD
GND	C84	D84	D84 - GND
NC	C85	D85	D85 - DDH1_PAIR2+
NC	C86	D86	D86 - DDH1_PAIR2-
GND	C87	D87	D87 - GND
NC	C88	D88	D88 - DDH1_PAIR1+
NC	C89	D89	D89 - DDH1_PAIR1-
GND(FIXED)	C90	D90	D90 - GND(FIXED)
NC	C91	D91	D91 - NC
NC	C92	D92	D92 - NC
GND	C93	D93	D93 - GND
NC	C94	D94	D94 - DDH2_PAIR1+
NC	C95	D95	D95 - DDH2_PAIR1-
GND	C96	D96	D96 - GND
RSVD	C97	D97	D97 - RSVD
NC	C98	D98	D98 - DDH2_PAIR2+
NC	C99	D99	D99 - DDH2_PAIR2-
GND(FIXED)	C100	D100	D100 - GND(FIXED)
NC	C101	D101	D101 - NC
GND	C102	D102	D102 - GND
NC	C103	D103	D103 - GND
VCC_1.2V	C104	D104	D104 - VCC_1.2V
VCC_1.2V	C105	D105	D105 - VCC_1.2V
VCC_1.2V	C106	D106	D106 - VCC_1.2V
VCC_1.2V	C107	D107	D107 - VCC_1.2V
VCC_1.2V	C108	D108	D108 - VCC_1.2V
VCC_1.2V	C109	D109	D109 - VCC_1.2V
GND(FIXED)	C110	D110	D110 - GND(FIXED)

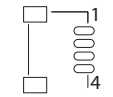
Row D			
D1	GND(FIXED)	D56	NC
D2	GND	D57	TYPE2#
D3	USB_SSTX0-	D58	NC
D4	USB_SSTX0+	D59	NC
D5	GND	D60	GND(FIXED)
D6	USB_SSTX1-	D61	NC
D7	USB_SSTX1+	D62	NC
D8	GND	D63	RSVD
D9	USB_SSTX2-	D64	RSVD
D10	USB_SSTX2+	D65	NC
D11	GND(FIXED)	D66	NC
D12	USB_SSTX3-	D67	GND
D13	USB_SSTX3+	D68	NC
D14	GND	D69	NC
D15	DDI1_CTRL_CLK_AUX+	D70	GND(FIXED)
D16	DDI1_CTRL_DATA_AUX-	D71	NC
D17	RSVD	D72	NC
D18	RSVD	D73	GND
D19	NC	D74	NC
D20	NC	D75	NC
D21	GND(FIXED)	D76	GND
D22	NC	D77	RSVD
D23	NC	D78	NC
D24	RSVD	D79	NC
D25	RSVD	D80	GND(FIXED)
D26	DDI1_PAIR0+	D81	NC
D27	DDI1_PAIR0-	D82	NC
D28	RSVD	D83	RSVD
D29	DDI1_PAIR1+	D84	GND
D30	DDI1_PAIR1-	D85	NC
D31	GND(FIXED)	D86	NC
D32	DDI1_PAIR2+	D87	GND
D33	DDI1_PAIR2-	D88	NC
D34	DDI1_DDC_AUX_SEL	D89	NC
D35	RSVD	D90	GND(FIXED)
D36	DDI1_PAIR3+	D91	NC
D37	DDI1_PAIR3-	D92	NC
D38	RSVD	D93	GND
D39	DDI2_PAIR0+	D94	NC
D40	DDI2_PAIR0-	D95	NC
D41	GND(FIXED)	D96	GND
D42	DDI2_PAIR1+	D97	RSVD
D43	DDI2_PAIR1-	D98	NC
D44	DDI2_HPD	D99	NC
D45	RSVD	D100	GND(FIXED)
D46	DDI2_PAIR2+	D101	NC
D47	DDI2_PAIR2-	D102	NC
D48	RSVD	D103	GND
D49	DDI2_PAIR3+	D104	VCC_1.2V
D50	DDI2_PAIR3-	D105	VCC_1.2V
D51	GND(FIXED)	D106	VCC_1.2V
D52	NC	D107	VCC_1.2V
D53	NC	D108	VCC_1.2V
D54	NC	D109	VCC_1.2V
D55	NC	D110	GND(FIXED)

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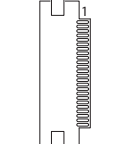
Ver A. (P/N: 60177A0439X00)



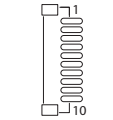
J1: CPU FAN

	Pin	Signal
	1	PWM
	2	TACH
	3	+12V
	4	GND

CN1: 4 EC JTAG

	Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
	1	EC_KSO0	2	EC_KSO1	3	EC_KSO2	4	EC_KSO3
	5	EC_KSO4	6	EC_KSO5	7	EC_KSO6	8	EC_KSO7
	9	EC_KSO8	10	EC_KSO9	11	EC_KSO10	12	GND
	13	GND	14	GND	15	GND	16	GND
	17	EC_KSI0	18	EC_KSI1	19	EC_KSI2	20	EC_KSI3
	21	EC_KSI4	22	EC_KSI5	23	GND	24	GND

J2: DBG CONNECTOR

	Pin	Signal	Pin	Signal
	1	GND	2	PLTRST#
	3	LPC_33MCLK	4	LPC_FRAM#
	5	LPC_AD3	6	LPC_AD2
	7	LPC_AD1	8	LPC_AD0
	9	VCC3	10	VCC3

Quick reference guide is subject to change without prior notice.
For any update, please visit our website: www.nexcom.com

 = Pin1 [*] = Default setting

