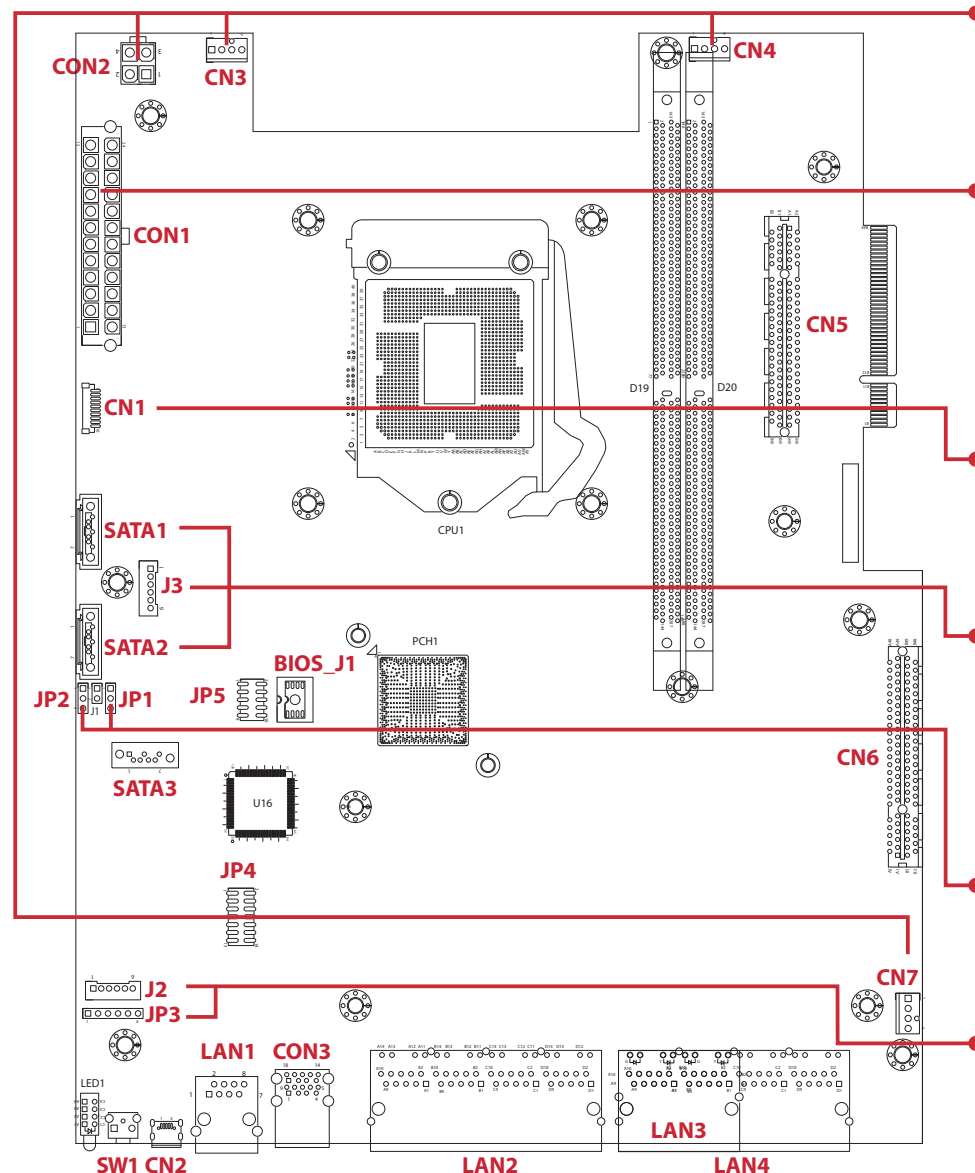


NSA 3170 Quick Reference Guide



CON2: 4 Pin 12V Power Connector

Pin	Description
1	GND
2	GND
3	P12V
4	P12V

CN3/CN4/CN7: System FAN Function

Pin	Description
1	GND
2	P12V
3	SYSFAN_TAC [1:3]
4	SYSFAN_CTL [1:3]

CON1: 24 Pin ATX Power Connector

Pin	Description	Pin	Description	Pin	Description
1	P3V3	2	P3V3	3	GND
4	P5V	5	GND	6	P5V
7	GND	8	PS_PWROK_R	9	P5V_AUX
10	P12V	11	P12V	12	P3V3
13	P3V3	14	NC	15	GND
16	FM_PS_EN_PSU_N	17	GND	18	GND
19	GND	20	NC	21	P5V
22	P5V	23	P5V	24	GND

CN1: VGA Wafer

Pin	Description	Pin	Description	Pin	Description
1	VGA_5V_FB6	2	DDC_CLKO	3	VSYS_VGA
4	HSYNC_VGA	5	DDC_DATAO	6	VGADET
7	VGA_GND	8	BLUE_VGA	9	GREEN_VGA
10	RED_VGA				

SATA1/SATA2: SATA Connector

Pin	Description
1	GND1
2	TXP
3	TXN
4	GND2
5	RXN
6	RXP
7	GND3

J3: Rear USB2.0

Pin	Description
1	P5V_USB_P23
2	USB2N2_C
3	USB2P2_C
4	USB2N3_C
5	USB2P3_C
6	USB23GND

JP2: AT/ATX Mode Function Select

Pin	Description
1	GND
2	GND
3	AT_ATX_SEL

JP1: Clean CMOS Function

Pin	Description
1	NC
2	RST_RTCRST_N
3	GND

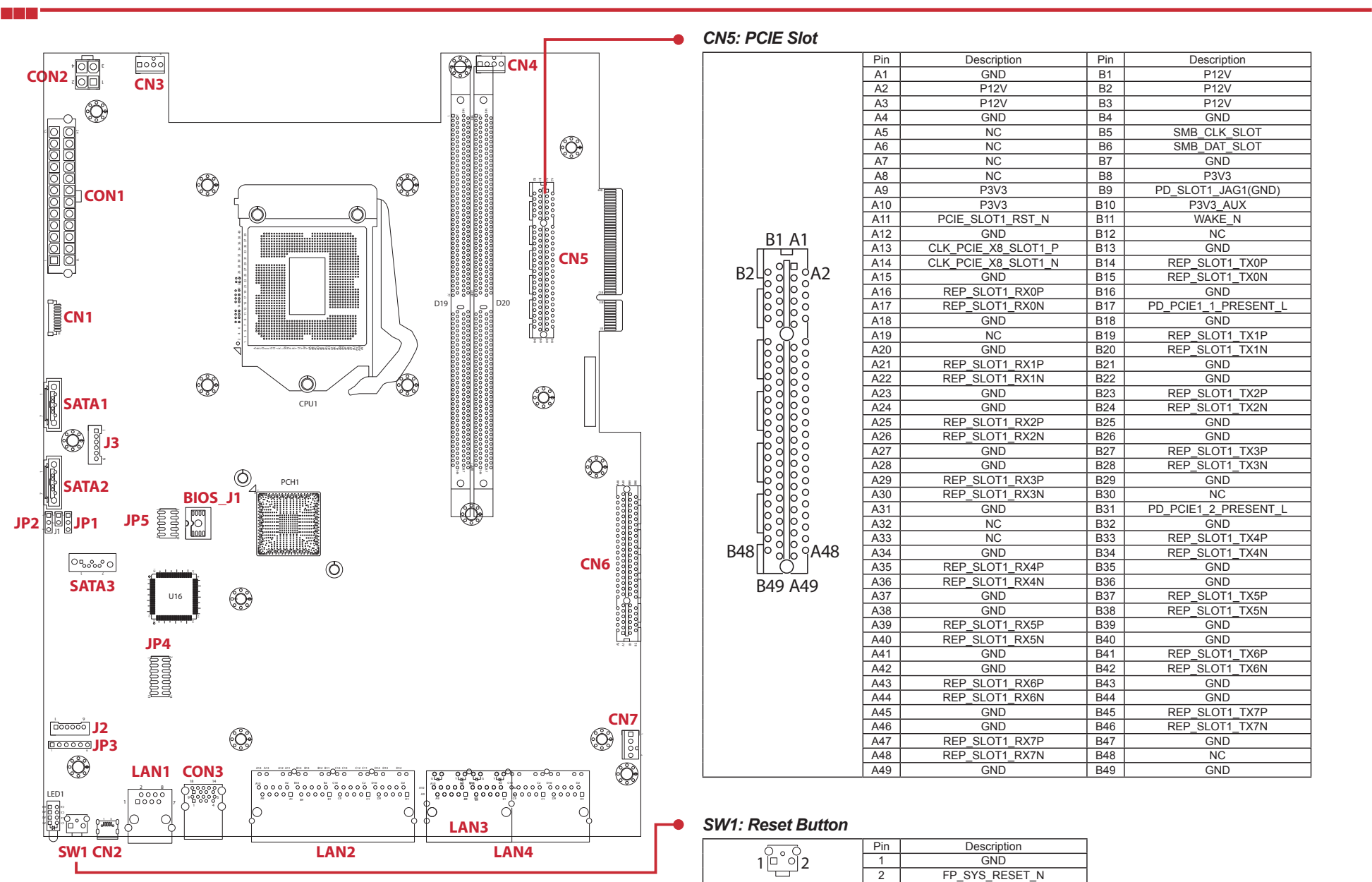
J2: LCM Function

Pin	Description
1	IBMC_LCM_TXD
2	IBMC_LCM_RXD
3	GND
4	P5V
5	LCM_LED_KR_N
6	LCM_LED_KG_N

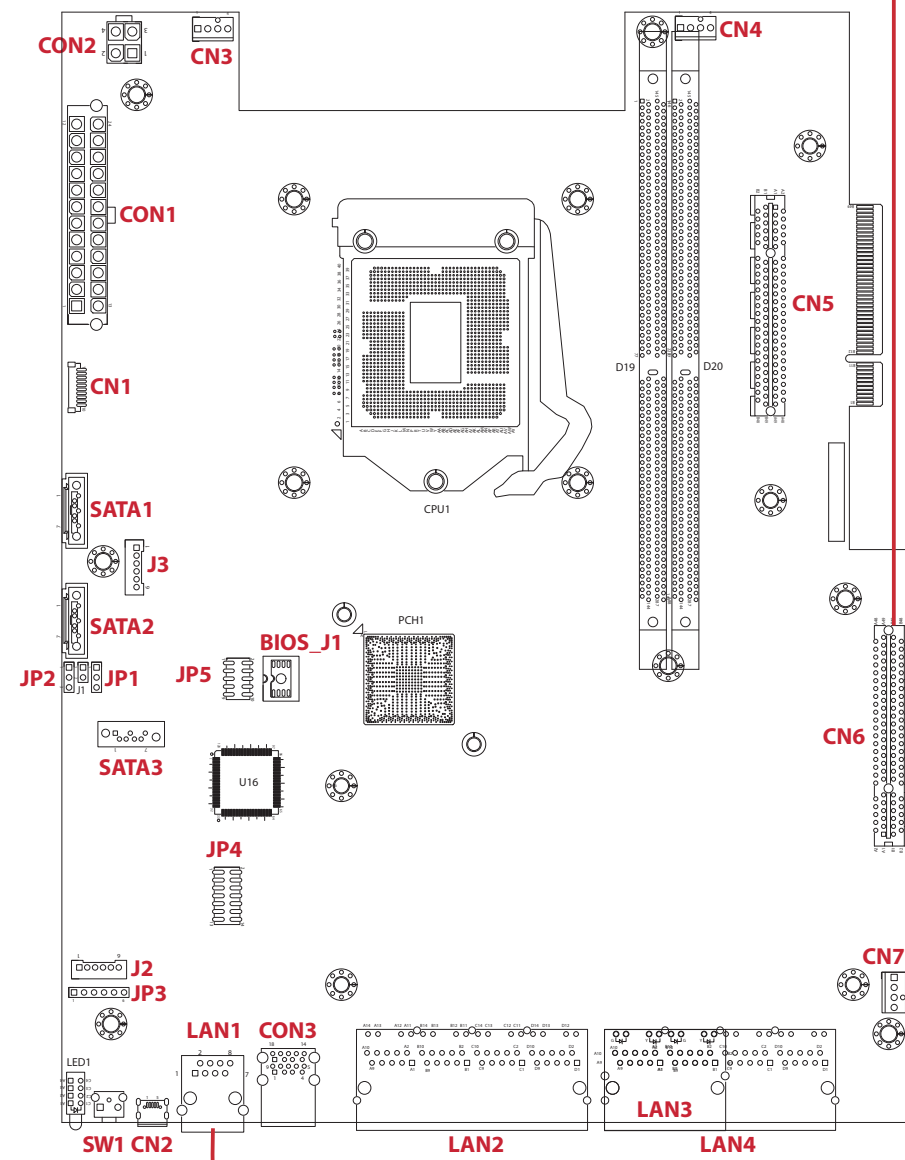
JP3: CPLD Burn In Header

Pin	Description
1	P3V3_CPLD
2	GND
3	JTAG_PLD_TCK
4	JTAG_PLD_TDO
5	JTAG_PLD_TDI
6	JTAG_PLD_TMS

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CN6: PCIe Slot

Pin	Description	Pin	Description
A1	GND	B1	P12V
A2	P12V	B2	P12V
A3	P12V	B3	P12V
A4	GND	B4	GND
A5	SMBDAT_TX_REDRIIVER_SLOT0	B5	SMB_CLK_SLOT
A6	SMBCLK_TX_REDRIIVER_SLOT0	B6	SMB_DAT_SLOT
A7	NC	B7	GND
A8	NC	B8	VCC3
A9	VCC3	B9	PD_SLOT0_JAG1(GND)
A10	VCC3	B10	P3V3_AUX
A11	PCIE_SLOT0_RST_N	B11	WAKE_N
A12	GND	B12	NC
A13	CLK_PCIE_X8_SLOT0_P	B13	GND
A14	CLK_PCIE_X8_SLOT0_N	B14	PE_PCH_X8_TXP0
A15	GND	B15	PE_PCH_X8_TXN0
A16	REP_SLOT0_RX0P	B16	GND
A17	REP_SLOT0_RX0N	B17	PD_PCIE0_1_PRESENT_L
A18	GND	B18	GND
A19	NC	B19	PE_PCH_X8_TXP1
A20	GND	B20	PE_PCH_X8_TXN1
A21	REP_SLOT0_RX1P	B21	GND
A22	REP_SLOT0_RX1N	B22	GND
A23	GND	B23	PE_PCH_X8_TXP2
A24	GND	B24	PE_PCH_X8_TXN2
A25	REP_SLOT0_RX2P	B25	GND
A26	REP_SLOT0_RX2N	B26	GND
A27	GND	B27	PE_PCH_X8_TXP3
A28	GND	B28	PE_PCH_X8_TXN3
A29	REP_SLOT0_RX3P	B29	GND
A30	REP_SLOT0_RX3N	B30	NC
A31	GND	B31	PD_PCIE0_2_PRESENT_L
A32	NC	B32	GND
A33	NC	B33	PE_PCH_X8_TXP4
A34	GND	B34	PE_PCH_X8_TXN4
A35	REP_SLOT0_RX4P	B35	GND
A36	REP_SLOT0_RX4N	B36	GND
A37	GND	B37	PE_PCH_X8_TXP5
A38	GND	B38	PE_PCH_X8_TXN5
A39	REP_SLOT0_RX5P	B39	GND
A40	REP_SLOT0_RX5N	B40	GND
A41	GND	B41	PE_PCH_X8_TXP6
A42	GND	B42	PE_PCH_X8_TXN6
A43	REP_SLOT0_RX6P	B43	GND
A44	REP_SLOT0_RX6N	B44	GND
A45	GND	B45	PE_PCH_X8_TXP7
A46	GND	B46	PE_PCH_X8_TXN7
A47	REP_SLOT0_RX7P	B47	GND
A48	REP_SLOT0_RX7N	B48	NC
A49	GND	B49	GND

LAN1: LAN Console (LAN Connector/Micro USB Co-lay)

Pin	Description	Pin	Description	Pin	Description
1	RJ45_RTS	2	RJ45_DTR	3	RJ45_TXD
4	GND	5	RJ45_DCD	6	RJ45_RXD
7	RJ45_DSR	8	RJ45_CTS	MH1	GND
MH2	GND				

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	Pin	Description
	P1	VCC
	P2	GND1
	1	GND2
	2	TXP
	3	TXN
	4	GND3
	5	RXN
	6	RXP
	7	GND4

Pin	Description
1	CONSOLE_VBUS
2	SP_TXD1_R
3	SP_RXD1_R
4	CGND
5	CGND
MH1	CGND
MH2	CGND
MH3	CGND
MH4	CGND

Pin	Description	Pin	Description
A1	P_LAN0_MDI0P	A12	LAN0_LED_LINK#
A2	P_LAN0_MDI0N	A13	LAN0_LED_LINK1G
A3	P_LAN0_MDI1P	A14	VCC3_LAN0
A4	P_LAN0_MDI1N	A13	LAN0_LED_ACT#
A7	P_LAN0_MDI2P	A6	NC (V1P5_LAN0)
A8	P_LAN0_MDI2N	A5	GND
A9	P_LAN0_MDI3P	MH1	GND
A10	P_LAN0_MDI3N	NH1	

Pin	Description	Pin	Description
B1	P LAN1 MDI0P	B12	LAN1_LED LINK#
B2	P LAN1 MDI0N	B11	LAN1_LED LINK1
B3	P LAN1 MDI1P	B14	V3P3_LAN1
B4	P LAN1 MDI1N	B13	LAN1_LED ACT#
B7	P LAN1 MDI2P	B6	NC(V1P5_LAN1)
B8	P LAN1 MDI2N	B5	GND
B9	P LAN1 MDI3P	MH2	GND
B10	P LAN1 MDI3N	NH2	

Pin	Description	Pin	Description
C1	P_LAN2_MDI0P	C12	LAN2_LED_LINK#
C2	P_LAN2_MDI0N	C11	LAN2_LED_LINK1G
C3	P_LAN2_MDI1P	C14	V3P3_LAN2
C4	P_LAN2_MDI1N	C13	LAN2_LED_ACT#
C7	P_LAN2_MDI2P	C6	NC(V1P5_LAN2)
C8	P_LAN2_MDI2N	C5	GND
C9	P_LAN2_MDI3P	MH3	GND
C10	P_LAN2_MDI3N		

Pin	Description	Pin	Description
D1	P_LAN3_MDI0P	D12	LAN3_LED_LINK#
D2	P_LAN3_MDI0N	D11	LAN3_LED_LINK1G
D3	P_LAN3_MDI1P	D14	V3P3_LAN3
D4	P_LAN3_MDI1N	D13	LAN3_LED_ACT#
D7	P_LAN3_MDI2P	D6	NC(V1P5_LAN3)
D8	P_LAN3_MDI2N	D5	GND
D9	P_LAN3_MDI3P	MH5	GND
D10	P_LAN3_MDI3N	MH4	GND

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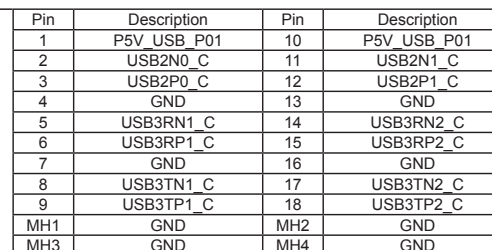


Diagram illustrating a 2D hexagonal lattice structure with 14 sites labeled A1 through D1. The sites are arranged in three rows:

- Top row: A14, A13, A12, A11, B14, B13, B12, B11, C14, C13, C12, C11, D14, D13, D12
- Middle row: A10, A2, B10, B2, C10, C2, D10, D2
- Bottom row: A9, A1, B9, B1, C9, C1, D9, D1

The sites are represented by circles (A14, A13, A12, A11, B14, B13, B12, B11, C14, C13, C12, C11, D14, D13, D12, A10, A2, B10, B2, C10, C2, D10, D2, A9, B9, C9, D9) and squares (A1, B1, C1, D1). The lattice is bounded by a vertical line on the left and a curved line on the right.

Pin	Description	Pin	Description
A1	LAN4_MDI0P	A12	LAN4_LED_LINK#
A2	LAN4_MDI0N	A11	LAN4_LED_LINK1G
A3	LAN4_MDI1P	A14	LAN4_LED_PIN14
A4	LAN4_MDI1N	A13	LAN4_LED_PIN13
A7	LAN4_MDI2P	A6	LAN4_A6
A8	LAN4_MDI2N	A5	LAN4_A5
A9	LAN4_MDI3P	GND	GND
A10	LAN4_MDI3N	NH1	

Pin	Description	Pin	Description
B1	LAN5_MDI0P	B12	LAN5_LED_LINK#
B2	LAN5_MDI0N	B11	LAN5_LED_LINK1
B3	LAN5_MDI1P	B14	LAN5_LED_PIN14
B4	LAN5_MDI1N	B13	LAN5_LED_PIN13
B7	LAN5_MDI2P	B6	LAN5_B6
B8	LAN5_MDI2N	B5	LAN5_B5
B9	LAN5_MDI3P	MH2	CGND
B10	LAN5_MDI3N	NH2	

Pin	Description	Pin	Description
C1	LAN6_MDI0P	C12	LAN6_LED_LINK#
C2	LAN6_MDI0N	C11	LAN6_LED_LINK1G
C3	LAN6_MDI1P	C14	V3P3_LAN6
C4	LAN6_MDI1N	C13	LAN6_LED_ACT#
C7	LAN6_MDI2P	C6	NC(V1P5_LAN6)
C8	LAN6_MDI2N	C5	GND
C9	LAN6_MDI3P	MH3	GND
C10	LAN6_MDI3N		

Pin	Description	Pin	Description
D1	LAN7_MDI0P	D12	LAN7_LED_LINK#
D2	LAN7_MDI0N	D11	LAN7_LED_LINK1C
D3	LAN7_MDI1P	D14	V3P3_LAN7
D4	LAN7_MDI1N	D13	LAN7_LED_ACT#
D7	LAN7_MDI2P	D6	NC(V1P5_LAN7)
D8	LAN7_MDI2N	D5	GND
D9	LAN7_MDI3P	MH5	GND
D10	LAN7_MDI3N	MH4	GND

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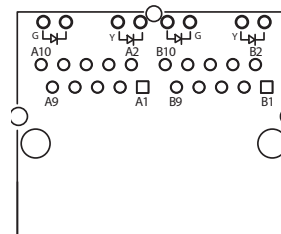


A diagram of a ladder with 10 rungs. The left side is labeled 1 and 6, and the right side is labeled 2 and 10.

BIOS J1: BIOS Socket

JP4: TPM Function

LAN3: LAN Port



Pin	Description	Pin	Description
A1	LAN4_MDI0P	A10	LAN4_MDI3N
A2	LAN4_MDI0N	A11	LAN4_LED_LINK1G
A3	LAN4_MDI1P	A12	LAN4_LED_LINK#
A4	LAN4_MDI1N	A13	LAN4_LED_PIN13
A5	LAN4_A5(V1P5_LAN4)	A14	LAN4_LED_PIN14
A6	LAN4_A6	NH1	
A7	LAN4_MDI2P	NH2	
A8	LAN4_MDI2N	MH1	CGND
A9	LAN4_MDI3P		

Pin	Description	Pin	Description
B1	LAN5_MDI0P	B9	LAN5_MDI3P
B2	LAN5_MDI0N	B10	LAN5_MDI3N
B3	LAN5_MDI1P	B11	LAN5_LED_LINK1G
B4	LAN5_MDI1N	B12	LAN5_LED_LINK#
B5	LAN5_B5 (V1P5_LAN5)	B13	LAN5_LED_PIN13
B6	LAN5_B6	B14	LAN5_LED_PIN14
B7	LAN5_MDI2P	MH2	CGND
B8	LAN5_MDI2N		

☐=Pin1 [*]=Default setting

