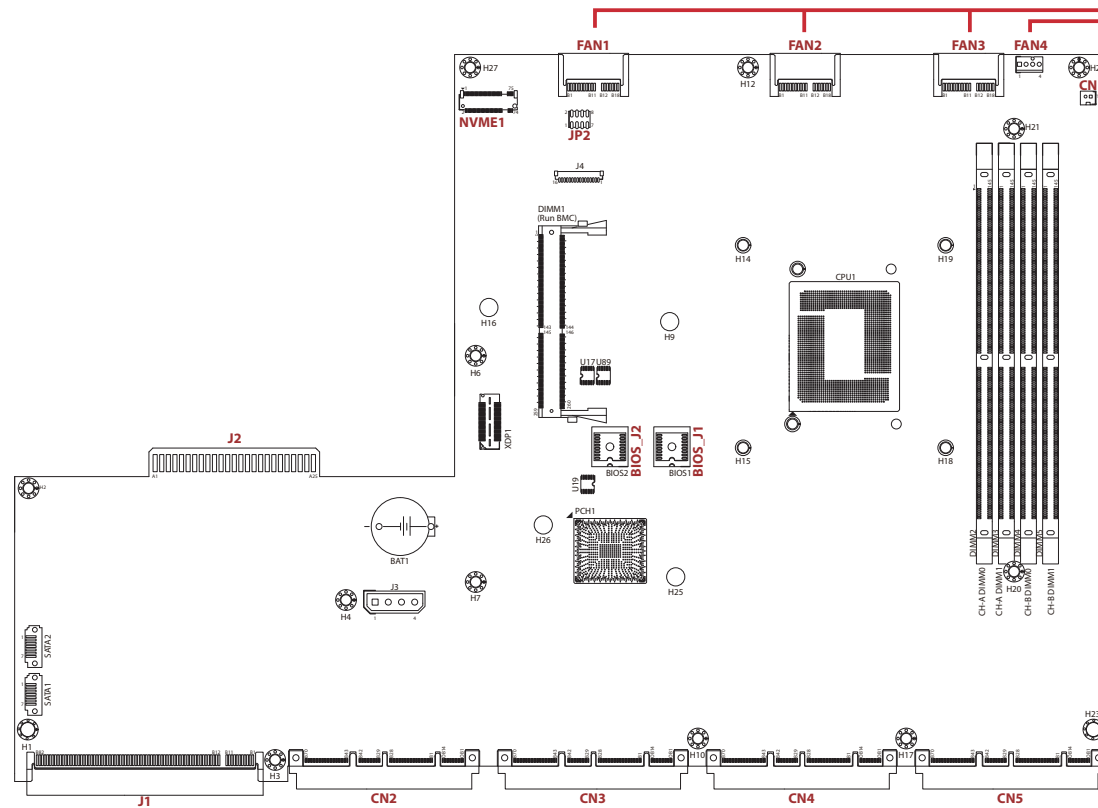


NSA 5200 Quick Reference Guide



FAN1, FAN2, FAN3: Hot Swappable FAN Slot

Pin	Signal	Pin	Signal
A1	FAN present	B1	12V
A2	12V	B2	12V
A3	12V	B3	5V
A4	GND	B4	GND
A5	NC	B5	SMBCLK
A6	NC	B6	SMBDAT
A7	NC	B7	GND
A8	NC	B8	3.3V
A9	3.3V	B9	NC
A10	3.3V	B10	3.3V
A11	NC	B11	NC
A12	GND	B12	5V
A13	NC	B13	GND
A14	NC	B14	FAN PWM
A15	GND	B15	FAN TACH
A16	NC	B16	GND
A17	NC	B17	NC
A18	GND	B18	GND

FAN4: 4P Fan Connector

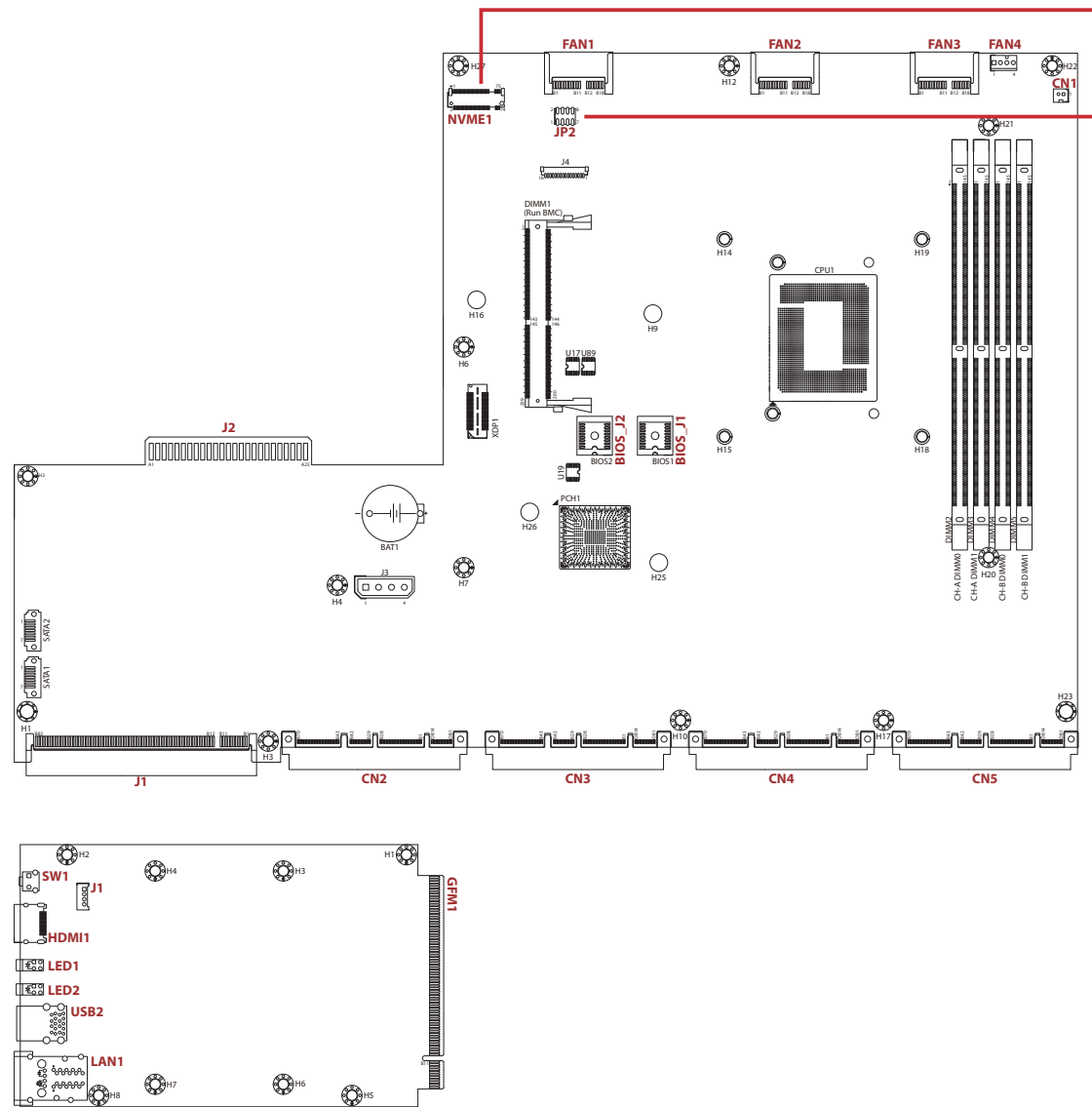
Pin	Signal
1	GND
2	12V
3	FAN4_TACH
4	FAN4_PWM

CN1: Power Button Connector

Pin	Signal
1	3.3V Power button
2	GNS



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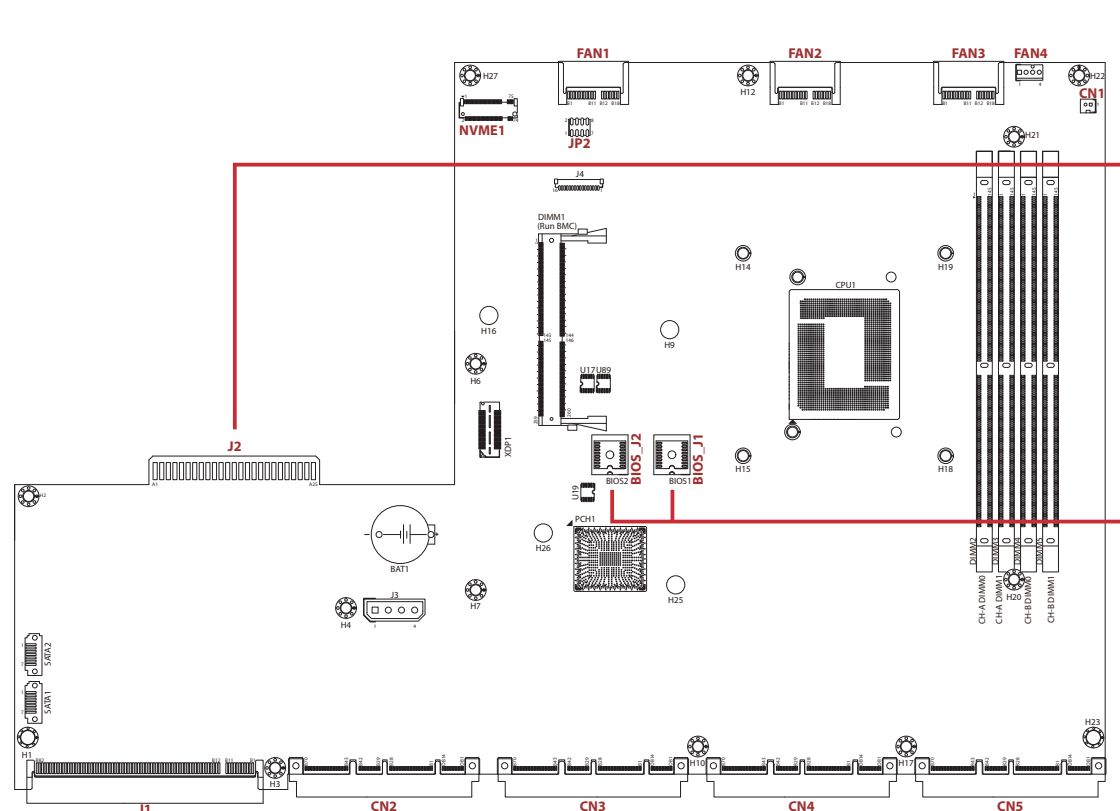
● NVME1: M.2 Key M NVMe Socket (For x4 PCIe)

Pin	Signal	Pin	Signal
1	GND	2	3.3V
3	GND	4	3.3V
5	PCIE_NVME_RXN3	6	NC
7	PCIE_NVME_RXP3	8	NC
9	GND	10	M.2_LED_N
11	PCIE_NVME_TXN3	12	3.3V
13	PCIE_NVME_TXP3	14	3.3V
15	GND	16	3.3V
17	PCIE_NVME_RXN2	18	3.3V
19	PCIE_NVME_RXP2	20	NC
21	GND	22	NC
23	PCIE_NVME_TXN2	24	NC
25	PCIE_NVME_TXP2	26	NC
27	GND	28	NC
29	PCIE_NVME_RXN1	30	NC
31	PCIE_NVME_RXP1	32	NC
33	GND	34	NC
35	PCIE_NVME_TXN1	36	NC
37	PCIE_NVME_TXP1	38	GND
39	GND	40	NC
41	PCIE_NVME_RXN0	42	NC
43	PCIE_NVME_RXP0	44	NC
45	GND	46	NC
47	PCIE_NVME_TXN0	48	NC
49	PCIE_NVME_TXP0	50	RST_M.2_N
51	GND	52	PCIe CLKREQ#
53	PCIe REFCLKn	54	PCIe Wake (NC)
55	PCIe REFCLKp	56	NC
57	GND	58	NC
59	N/A	60	N/A
61	N/A	62	N/A
63	N/A	64	N/A
65	N/A	66	N/A
67	NC	68	GND
69	NC	70	3.3V
71	GND	72	3.3V
73	GND	74	3.3V
75	GND		

● JP2: CMOS Clear & AT/ATX SEL (Pin Header)

Pin	Signal	Pin	Signal
1	NC	2	3.3V
3	CMOS	4	AT_ATX_SEL
5	GND	6	GND
7	NC	8	NC

NSA 5200 Quick Reference Guide

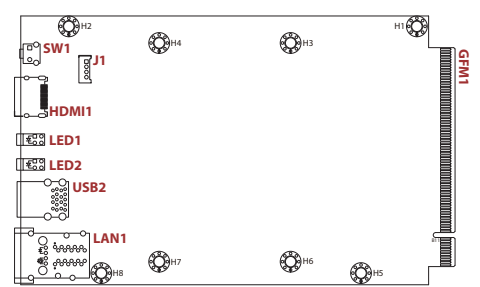


J2: CRPS Power Golden Finger

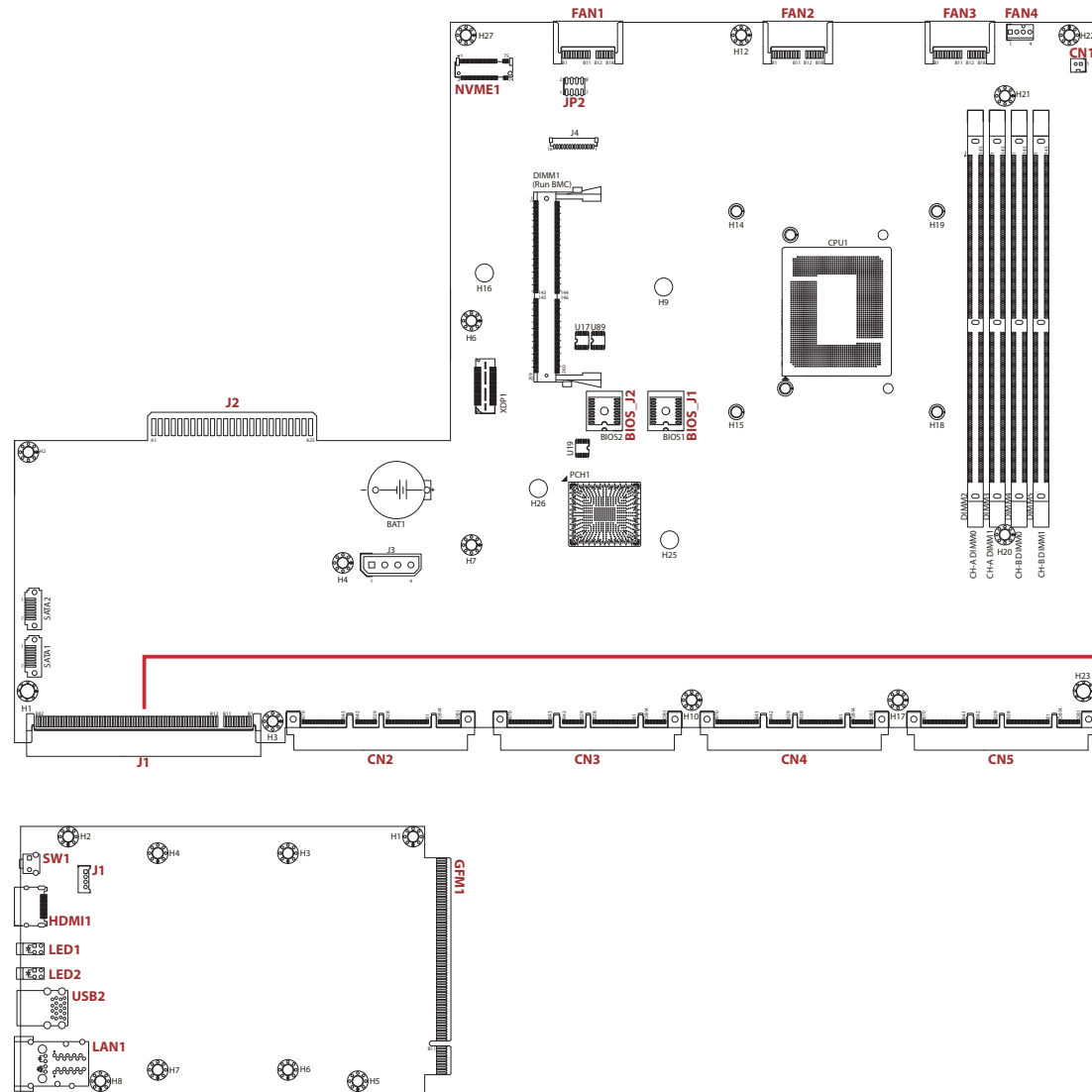
Pin	Signal	Pin	Signal
A1	GND	B1	GND
A2	GND	B2	GND
A3	GND	B3	GND
A4	GND	B4	GND
A5	GND	B5	GND
A6	GND	B6	GND
A7	GND	B7	GND
A8	GND	B8	GND
A9	GND	B9	GND
A10	12V	B10	12V
A11	12V	B11	12V
A12	12V	B12	12V
A13	12V	B13	12V
A14	12V	B14	12V
A15	12V	B15	12V
A16	12V	B16	12V
A17	12V	B17	12V
A18	12V	B18	12V
A19	PMBUS SDA	B19	PSU2 Alert
A20	PMBUS SCL	B20	PSU power on
A21	PSU1 Alert	B21	Standby 12V
A22	PSU1/PSU2 Alert	B22	SENSE
A23	PSU1 power OK	B23	PSU present1
A24	PSU2 power OK	B24	SENSE
A25	3.3V	B25	PSU present2

BIOS_J1, BIOS_J2: BIOS Socket

Pin	Signal	Pin	Signal
1	IO3	9	IO2
2	3.3V	10	GND
3	RST#	11	NC
4	NC	12	NC
5	NC	13	NC
6	NC	14	NC
7	CS#	15	MOSI
8	MISO	16	SCK



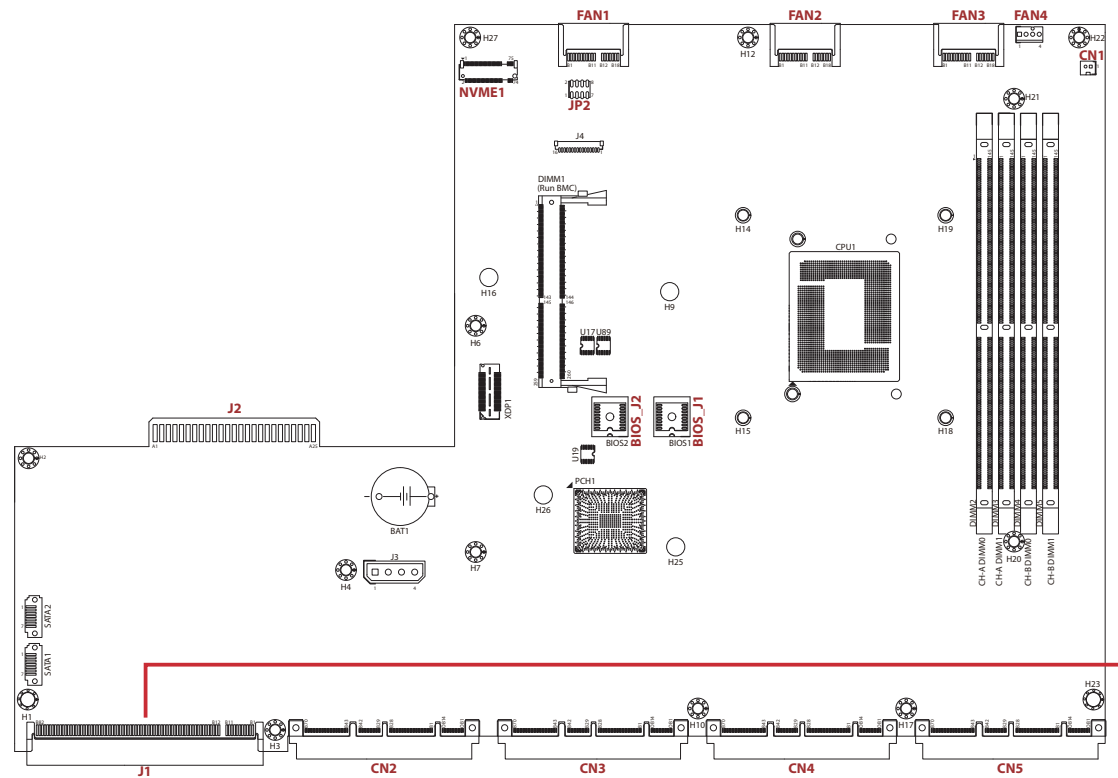
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J1: PCIe Slot (For I/O Board)

Pin	Signal	Pin	Signal
A1	GND	B1	GND
A2	GND	B2	SGMII TXP1
A3	GND	B3	SGMII TXN1
A4	SGMII RXP1	B4	GND
A5	SGMII RXN1	B5	GND
A6	GND	B6	NC
A7	GND	B7	GMII MDIO1
A8	NC	B8	GMII MDC1
A9	GPY211 Phy Reset1	B9	GND
A10	GPY211 Phy MDINT1	B10	NC
A11	NC	B11	NC
A12	USB OC	B12	GND
A13	GND	B13	USB3.2 Gen1 TXP1
A14	GND	B14	USB3.2 Gen1 TXN1
A15	USB3.2 Gen1 RXP1	B15	GND
A16	USB3.2 Gen1 RXN1	B16	GND
A17	GND	B17	USB3.2 Gen1 TXP0
A18	GND	B18	USB3.2 Gen1 TXN0
A19	USB3.2 Gen1 RXP0	B19	GND
A20	USB3.2 Gen1 RXN0	B20	GND
A21	GND	B21	USB2.0 DP2
A22	GND	B22	USB2.0 DN2
A23	EC Uart DTR#	B23	GND
A24	EC Uart CTS#	B24	GND
A25	GND	B25	USB2.0 DP1
A26	GND	B26	USB2.0 DN1
A27	I210 PCIE RXN0	B27	GND
A28	I210 PCIE RXP0	B28	GND
A29	GND	B29	I210 PCIE TXN0
A30	GND	B30	I210 PCIE TXP0
A31	I210 REFCLKN	B31	GND
A32	I210 REFCLKP	B32	GND
A33	GND	B33	I210 Phy Reset
A34	NC (I210 PE Wake)	B34	NC
A35	GND	B35	NCSI TX0
A36	NCSI_RX0	B36	GND
A37	GND	B37	NCSI TX1
A38	NCSI_RX1	B38	GND
A39	GND	B39	NCSI TX EN
A40	NCSI CRS_DV	B40	GND

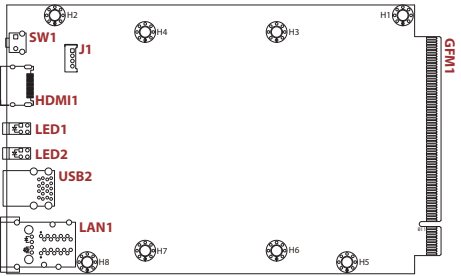
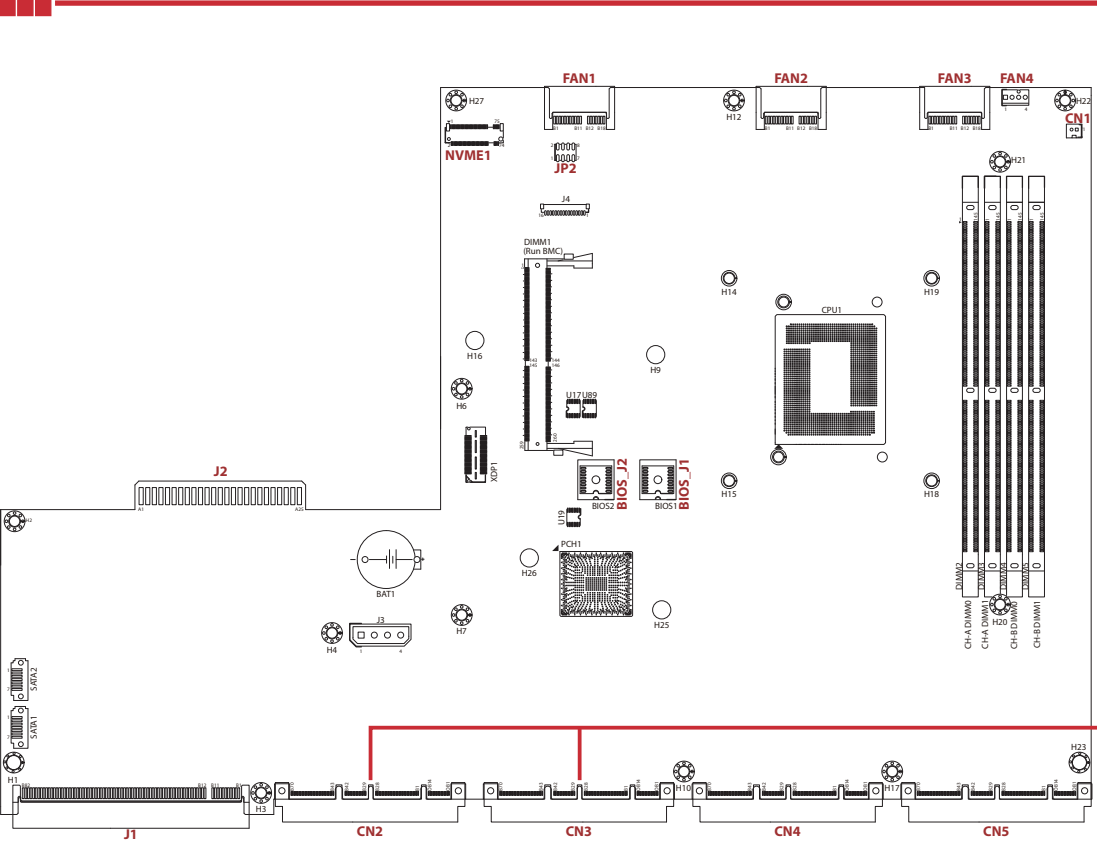
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J1: PCIe Slot (For I/O Board)

Pin	Signal	Pin	Signal
A41	GND	B41	I210 NCSI CLK
A42	HDMI DDC DAT	B42	GND
A43	HDMI DDC CLK	B43	GND
A44	GND	B44	HDMI TX0 DN
A45	GND	B45	HDMI TX0 DP
A46	HDMI HPD	B46	GND
A47	EC Uart RTS#	B47	GND
A48	GND	B48	HDMI TX1 DN
A49	GND	B49	HDMI TX1 DP
A50	SYS Uart TX	B50	GND
A51	SYS Uart RX	B51	GND
A52	GND	B52	HDMI TX2 DN
A53	GND	B53	HDMI TX2 DP
A54	LCM Uart TX	B54	GND
A55	LCM Uart RX	B55	GND
A56	GND	B56	HDMI TX3 DN
A57	GND	B57	HDMI TX3 DP
A58	SYS Reset	B58	GND
A59	EC Uart DCD#	B59	GND
A60	GND	B60	SGMII TXP0
A61	GND	B61	SGMII TXN0
A62	SGMII RXP0	B62	GND
A63	SGMII RXN0	B63	GND
A64	GND	B64	GMII MDIO0
A65	GND	B65	GMII MDC0
A66	GPY211 Phy Reset0	B66	NC
A67	GPY211 Phy MDINT0	B67	GPIO LED
A68	EC Uart DSR#	B68	SATA LED
A69	NC	B69	PWR LED
A70	3.3V (BMC)	B70	SYS LED
A71	NC	B71	12V
A72	5V	B72	5V
A73	5V	B73	5V
A74	NC	B74	NC
A75	3.3V	B75	3.3V
A76	3.3V	B76	3.3V
A77	NC	B77	NC
A78	3.3V AUX	B78	3.3V AUX
A79	3.3V AUX	B79	3.3V AUX
A80	NC	B80	NC
A81	3.3V (EC)	B81	3.3V (EC)
A82	3.3V (EC)	B82	3.3V (EC)

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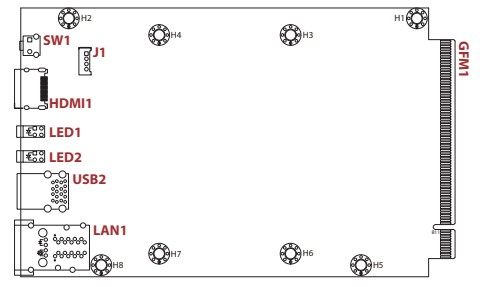
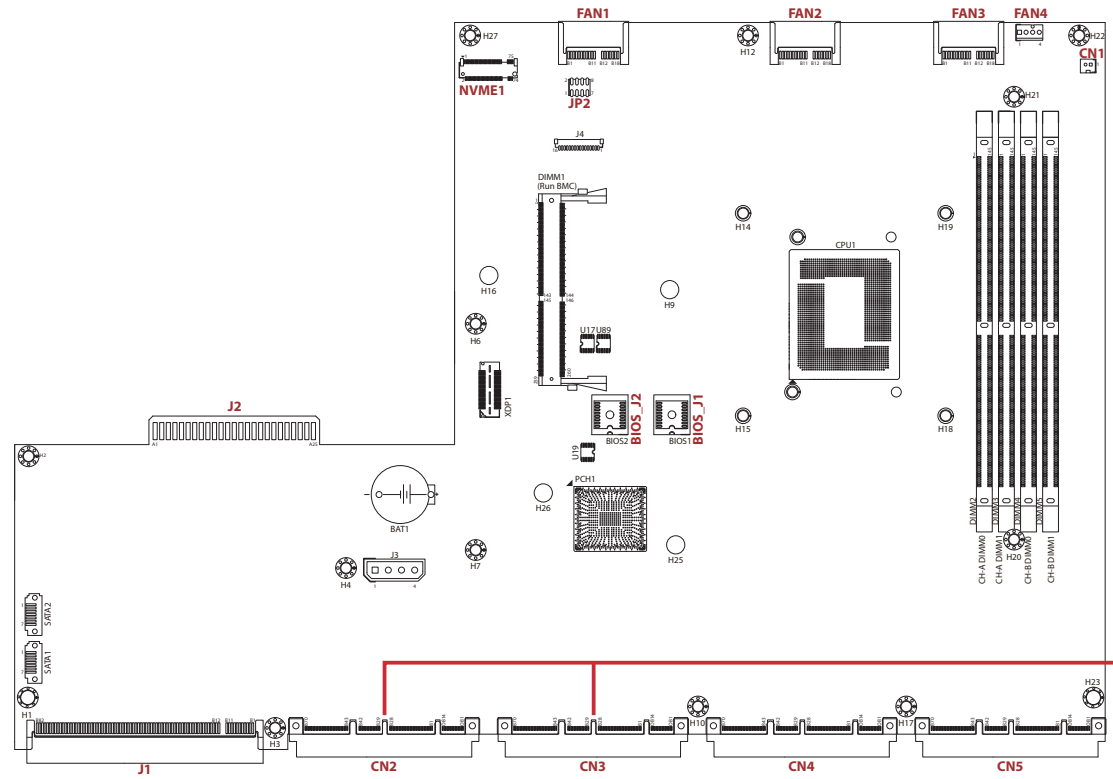


● CN2, CN3: OCP 4C+ GenZ PCIe Gen5:Slot1, Slot 2 (From CPU PEG) - CN2 Raw A & B Pinout

Pin	Description	CN2	Pin	Description	CN2
OCPA1	PERST2#	NC	OCPB1	NIC_PWR_GOOD	NIC_PWRGD_SLOT1
OCPA2	PERST3#	NC	OCPB2	MAIN_PWR_EN	MAN_PWR_EN_SLOT1
OCP A3	WAKE#	NC	OCPB3	LD#	LD_N_SLOT1
OCPA4	RBT_ARB_IN	ARB_IN connect to ARB_OUT	OCPB4	DATA_IN	DIN_SLOT1
OCPA5	RBT_ARB_OUT		OCPB5	DATA_OUT	DOUT_SLOT1
OCPA6	SLOT_ID1	SLOT1_ID1_N	OCPB6	CLK	CLK_SLOT1
OCPA7	RBT_TX_EN	SLOT1_RTB_TX_EN	OCPB7	SLOT_ID0	SLOT1_ID0_N
OCPA8	RBT_TXD1	SLOT1_RTB_TXD1	OCPB8	RBT_RXD1	SLOT1_RTB_RXD1
OCPA9	RBT_TXD0	SLOT1_RTB_TXD0	OCPB9	RBT_RXD0	SLOT1_RTB_RXD0
OCPA10	GND	GND	OCPB10	GND	GND
OCPA11	REFCLKn3	NC	OCPB11	REFCLKn2	NC
OCPA12	REFCLKp3	NC	OCPB12	REFCLKp2	NC
OCPA13	GND	GND	OCPB13	GND	GND
OCPA14	RBT_CLK_IN	SLOT1_RTB_CLK_IN	OCPB14	RBT_CRD_V	SLOT1_RTB_CRSDV

Mechanical Key				
A1	GND	GND	B1	+12V_EDGE 12V
A2	GND	GND	B2	+12V_EDGE 12V
A3	GND	GND	B3	+12V_EDGE 12V
A4	GND	GND	B4	+12V_EDGE 12V
A5	GND	GND	B5	+12V_EDGE 12V
A6	GND	GND	B6	+12V_EDGE 12V
A7	SMCLK	SMB_CLK_SLOT1	B7	BIF0# SLOT1_BIF0
A8	SMDAT	SMB_DAT_SLOT1	B8	BIF1# SLOT1_BIF1
A9	SMRST#	SMB_RST#_SLOT1	B9	BIF2# SLOT1_BIF2
A10	PRSNATA#	GND	B10	PERST0# SLOT1_PERST0_N
A11	PERST1#	SLOT1_PERST1_N	B11	+3.3V_EDGE 3.3V AUX
A12	PRSNB2#	SLOT1_PRSNB2_N	B12	AUX_PWR_EN AUX_PWR_EN_MAIN
A13	GND	GND	B13	GND
A14	REFCLKn1	REFCLK1_SLOT1_DN	B14	REFCLKn0 REFCLK0_SLOT1_DN
A15	REFCLKp1	REFCLK1_SLOT1_DP	B15	REFCLKp0 REFCLK0_SLOT1_DP
A16	GND	GND	B16	GND
A17	PERn0	PEG0_RXN0	B17	PETn0 PEG0_TXN0
A18	PERp0	PEG0_RXP0	B18	PETp0 PEG0_TXP0
A19	GND	GND	B19	GND
A20	PERn1	PEG0_RXN1	B20	PETn1 PEG0_TXN1
A21	PERp1	PEG0_RXP1	B21	PETp1 PEG0_TXP1
A22	GND	GND	B22	GND
A23	PERn2	PEG0_RXN2	B23	PETn2 PEG0_TXN2
A24	PERp2	PEG0_RXP2	B24	PETp2 PEG0_TXP2
A25	GND	GND	B25	GND
A26	PERn3	PEG0_RXN3	B26	PETn3 PEG0_TXN3
A27	PERp3	PEG0_RXP3	B27	PETp3 PEG0_TXP3
A28	GND	GND	B28	GND

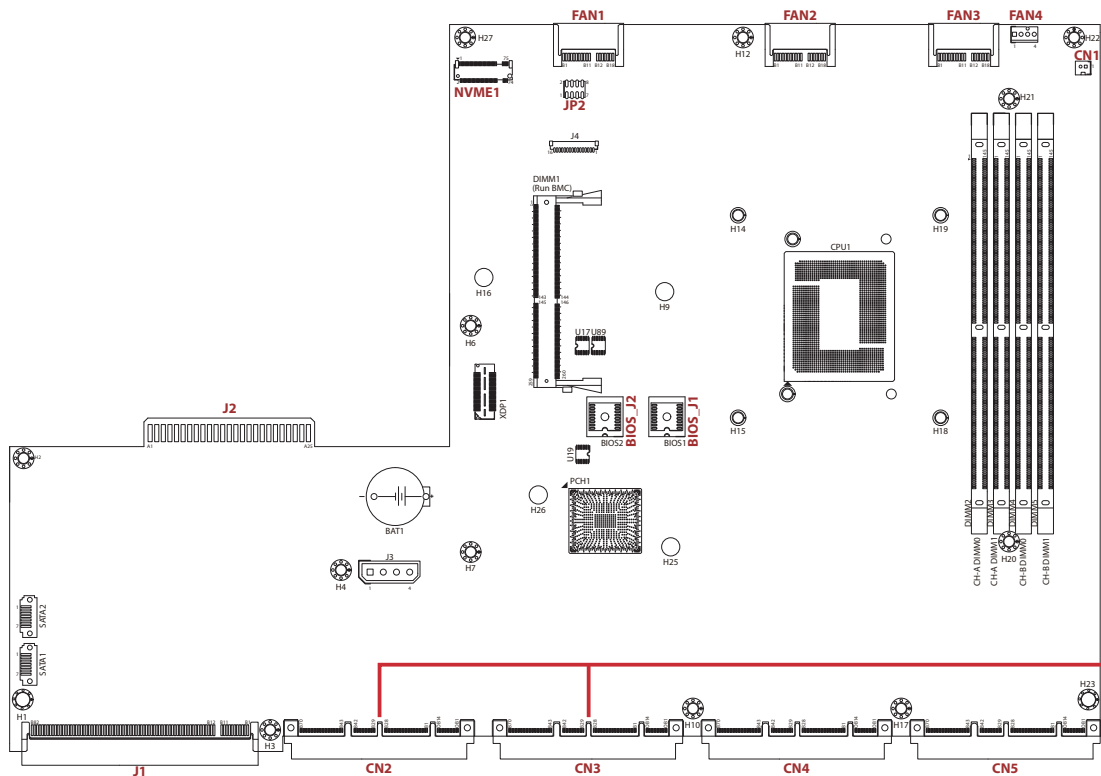
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● CN2, CN3: OCP 4C+ GenZ PCIe Gen5:Slot1 ,Slot 2 (From CPU PEG) - CN2 Raw A & B Pinout

Pin	Description	CN2	Pin	Description	CN2
Mechanical Key					
A29	GND	GND	B29	GND	GND
A30	PERn4	PEGO_RXN4	B30	PETn4	PEGO_TXN4
A31	PERp4	PEGO_RXP4	B31	PETp4	PEGO_TXP4
A32	GND	GND	B32	GND	GND
A33	PERn5	PEGO_RXN5	B33	PETn5	PEGO_TXN5
A34	PERp5	PEGO_RXP5	B34	PETp5	PEGO_TXP5
A35	GND	GND	B35	GND	GND
A36	PERn6	PEGO_RXN6	B36	PETn6	PEGO_TXN6
A37	PERp6	PEGO_RXP6	B37	PETp6	PEGO_TXP6
A38	GND	GND	B38	GND	GND
A39	PERn7	PEGO_RXN7	B39	PETn7	PEGO_TXN7
A40	PERp7	PEGO_RXP7	B40	PETp7	PEGO_TXP7
A41	GND	GND	B41	GND	GND
A42	PRSNB1#	SLOT1_PRSNB1_N	B42	PRSNB0#	SLOT1_PRSNB0_N
Mechanical Key					
A43	GND	GND	B43	GND	GND
A44	PERn8	NC	B44	PETn8	NC
A45	PERp8	NC	B45	PETp8	NC
A46	GND	GND	B46	GND	GND
A47	PERn9	NC	B47	PETn9	NC
A48	PERp9	NC	B48	PETp9	NC
A49	GND	GND	B49	GND	GND
A50	PERn10	NC	B50	PETn10	NC
A51	PERp10	NC	B51	PETp10	NC
A52	GND	GND	B52	GND	GND
A53	PERn11	NC	B53	PETn11	NC
A54	PERp11	NC	B54	PETp11	NC
A55	GND	GND	B55	GND	GND
A56	PERn12	NC	B56	PETn12	NC
A57	PERp12	NC	B57	PETp12	NC
A58	GND	GND	B58	GND	GND
A59	PERn13	NC	B59	PETn13	NC
A60	PERp13	NC	B60	PETp13	NC
A61	GND	GND	B61	GND	GND
A62	PERn14	NC	B62	PETn14	NC
A63	PERp14	NC	B63	PETp14	NC
A64	GND	GND	B64	GND	GND
A65	PERn15	NC	B65	PETn15	NC
A66	PERp15	NC	B66	PETp15	NC
A67	GND	GND	B67	GND	GND
A68	USB_DATn	NC	B68	RFU1, N/C	NC
A69	USB_DATp	NC	B69	RFU2, N/C	NC
A70	PWRBRK0#	NC	B70	PRSNB3#	SLOT1_PRSNB3_N

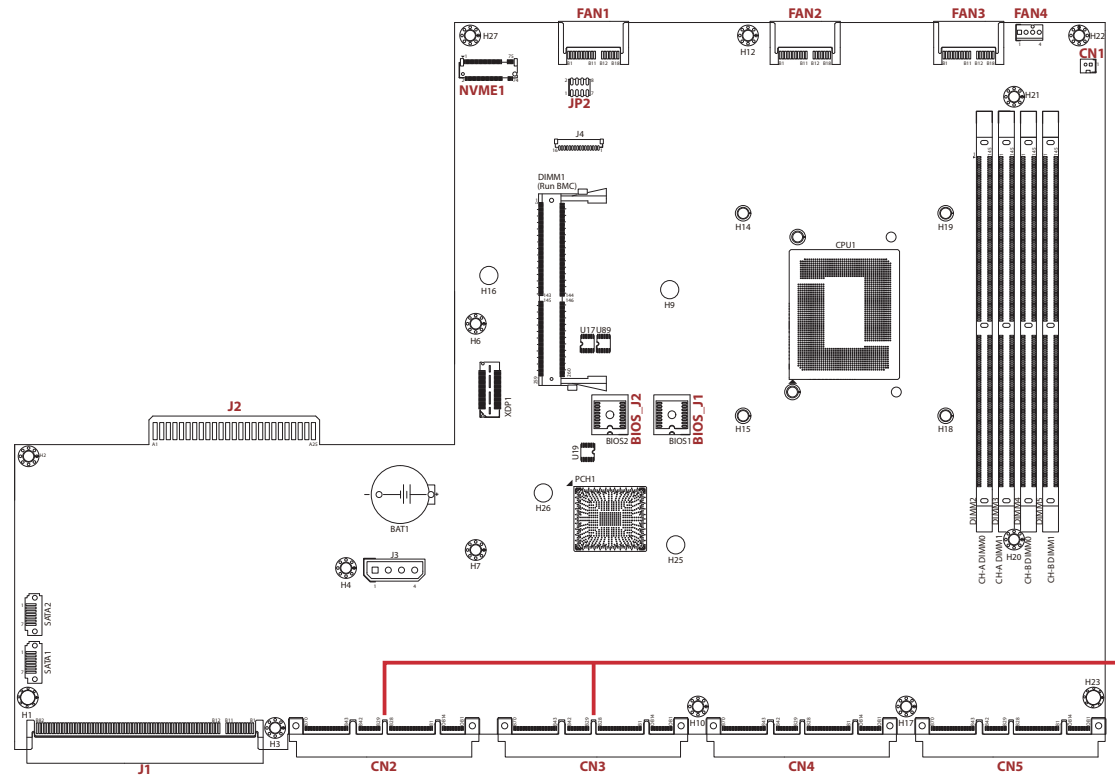
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● **CN2, CN3: OCP 4C+ GenZ PCIe Gen5:Slot1 ,Slot 2 (From CPU PEG) - CN3 Raw A & B Pinout**

Pin	Description	CN2	Pin	Description	CN2
OCPA1	PERST2#	NC	OCPB1	NIC_PWR_GOOD	NIC_PWRGD_SLOT2
OCPA2	PERST3#	NC	OCPB2	MAIN_PWR_EN	MAIN_PWR_EN_SLOT
OCPA3	WAKE#	NC	OCPB3	LD#	LD_N_SLOT2
OCPA4	RBT_ARB_IN	ARB_IN connect to ARB_OUT	OCPB4	DATA_IN	DIN_SLOT2
OCPA5	RBT_ARB_OUT		OCPB5	DATA_OUT	DOUT_SLOT2
OCPA6	SLOT_ID1	SLOT2_ID1_N	OCPB6	CLK	CLK_SLOT2
OCPA7	RBT_TX_EN	SLOT2_RTIB_TX_EN	OCPB7	SLOT_ID0	SLOT2_ID0_N
OCPA8	RBT_TXD1	SLOT2_RTIB_TXD1	OCPB8	RBT_RXD1	SLOT2_RTIB_RXD1
OCPA9	RBT_TXD0	SLOT2_RTIB_TXD0	OCPB9	RBT_RXD0	SLOT2_RTIB_RXD0
OCPA10	GND	GND	OCPB10	GND	GND
OCPA11	REFCLKn3	NC	OCPB11	REFCLKn2	NC
OCPA12	REFCLKp3	NC	OCPB12	REFCLKp2	NC
OCPA13	GND	GND	OCPB13	GND	GND
OCPA14	RBT_CLK_IN	SLOT2_RTIB_CLK_IN	OCPB14	RBT_CRS_DV	SLOT2_RTIB_CRS_DV
Mechanical Key					
A1	GND	GND	B1	+12V_EDGE	12V
A2	GND	GND	B2	+12V_EDGE	12V
A3	GND	GND	B3	+12V_EDGE	12V
A4	GND	GND	B4	+12V_EDGE	12V
A5	GND	GND	B5	+12V_EDGE	12V
A6	GND	GND	B6	+12V_EDGE	12V
A7	SMCLK	SMB_CLK_SLOT2	B7	BIF0#	SLOT2_BIF0
A8	SMDAT	SMB_DAT_SLOT2	B8	BIF1#	SLOT2_BIF1
A9	SMRST#	SMB_RST#_SLOT2	B9	BIF2#	SLOT2_BIF2
A10	PRSNAT#	GND	B10	PERST0#	SLOT2_PERST0_N
A11	PERST1#	SLOT2_PERST1_N	B11	+3.3V_EDGE	3.3V AUX
A12	PRSNB2#	PEG0_SLOT2_PRSNB2_N	B12	AUX_PWR_EN	AUX_PWR_EN_MAIN
A13	GND	GND	B13	GND	GND
A14	REFCLKn1	REFCLK1_SLOT2_DN	B14	REFCLKn0	REFCLK0_SLOT2_DN
A15	REFCLKp1	REFCLK1_SLOT2_DP	B15	REFCLKp0	REFCLK0_SLOT2_DP
A16	GND	GND	B16	GND	GND
A17	PERn0	PEG0_RXN8	B17	PETn0	PEG0_TXN8
A18	PERp0	PEG0_RXP8	B18	PETp0	PEG0_TXP8
A19	GND	GND	B19	GND	GND
A20	PERn1	PEG0_RXN9	B20	PETn1	PEG0_TXN9
A21	PERp1	PEG0_RXP9	B21	PETp1	PEG0_TXP9
A22	GND	GND	B22	GND	GND
A23	PERn2	PEG0_RXN10	B23	PETn2	PEG0_TXN10
A24	PERp2	PEG0_RXP10	B24	PETp2	PEG0_TXP10
A25	GND	GND	B25	GND	GND
A26	PERn3	PEG0_RXN11	B26	PETn3	PEG0_TXN11
A27	PERp3	PEG0_RXP11	B27	PETp3	PEG0_TXP11
A28	GND	GND	B28	GND	GND

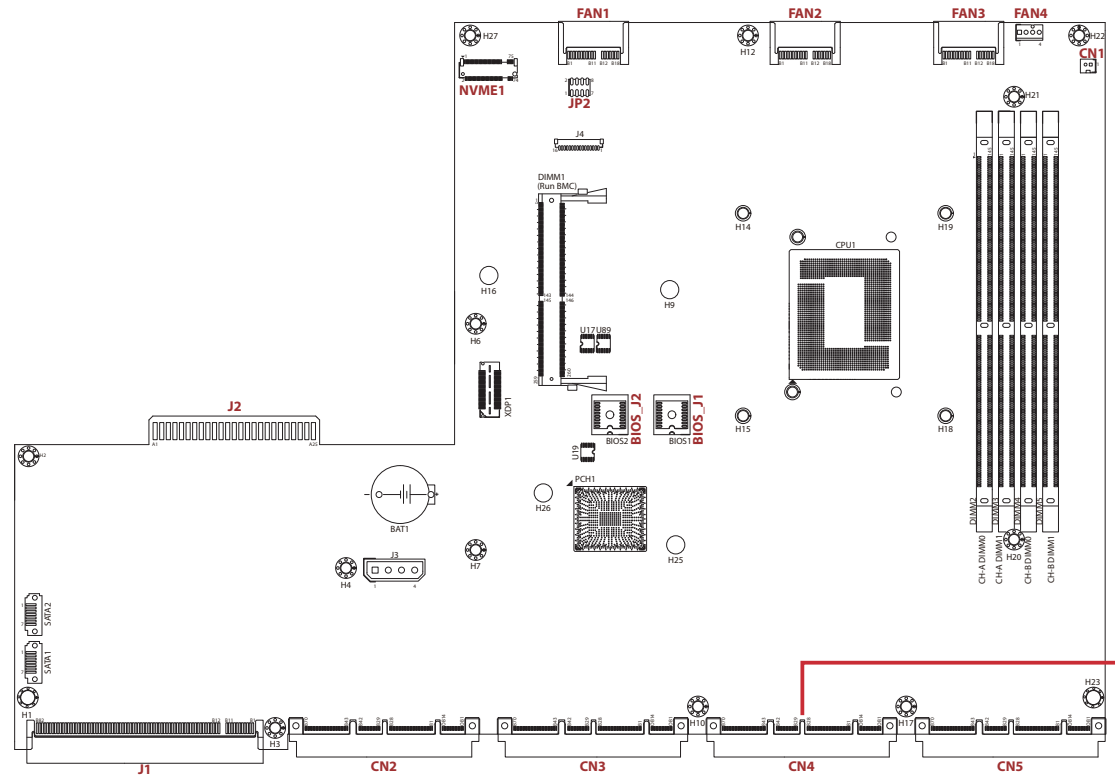
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● **CN2, CN3: OCP 4C+ GenZ PCIe Gen5:Slot1 ,Slot 2 (From CPU PEG) - CN3 Raw A & B Pinout**

Pin	Description	CN2	Pin	Description	CN2
Mechanical Key					
A29	GND	GND	B29	GND	GND
A30	PERn4	PEG0_RXN12	B30	PETn4	PEG0_TXN12
A31	PERp4	PEG0_RXP12	B31	PETp4	PEG0_TXP12
A32	GND	GND	B32	GND	GND
A33	PERn5	PEG0_RXN13	B33	PETn5	PEG0_TXN13
A34	PERp5	PEG0_RXP13	B34	PETp5	PEG0_TXP13
A35	GND	GND	B35	GND	GND
A36	PERn6	PEG0_RXN14	B36	PETn6	PEG0_TXN14
A37	PERp6	PEG0_RXP14	B37	PETp6	PEG0_TXP14
A38	GND	GND	B38	GND	GND
A39	PERn7	PEG0_RXN15	B39	PETn7	PEG0_TXN15
A40	PERp7	PEG0_RXP15	B40	PETp7	PEG0_TXP15
A41	GND	GND	B41	GND	GND
A42	PRSNB1#	SLOT2_PRSNB1_N	B42	PRSNB0#	SLOT2_PRSNB0_N
Mechanical Key					
A43	GND	GND	B43	GND	GND
A44	PERn8	NC	B44	PETn8	NC
A45	PERp8	NC	B45	PETp8	NC
A46	GND	GND	B46	GND	GND
A47	PERn9	NC	B47	PETn9	NC
A48	PERp9	NC	B48	PETp9	NC
A49	GND	GND	B49	GND	GND
A50	PERn10	NC	B50	PETn10	NC
A51	PERp10	NC	B51	PETp10	NC
A52	GND	GND	B52	GND	GND
A53	PERn11	NC	B53	PETn11	NC
A54	PERp11	NC	B54	PETp11	NC
A55	GND	GND	B55	GND	GND
A56	PERn12	NC	B56	PETn12	NC
A57	PERp12	NC	B57	PETp12	NC
A58	GND	GND	B58	GND	GND
A59	PERn13	NC	B59	PETn13	NC
A60	PERp13	NC	B60	PETp13	NC
A61	GND	GND	B61	GND	GND
A62	PERn14	NC	B62	PETn14	NC
A63	PERp14	NC	B63	PETp14	NC
A64	GND	GND	B64	GND	GND
A65	PERn15	NC	B65	PETn15	NC
A66	PERp15	NC	B66	PETp15	NC
A67	GND	GND	B67	GND	GND
A68	USB_DATn	NC	B68	RFU1, N/C	NC
A69	USB_DATp	NC	B69	RFU2, N/C	NC
A70	PWRBRK0#	NC	B70	PRSNB3#	SLOT2_PRSNB3_N

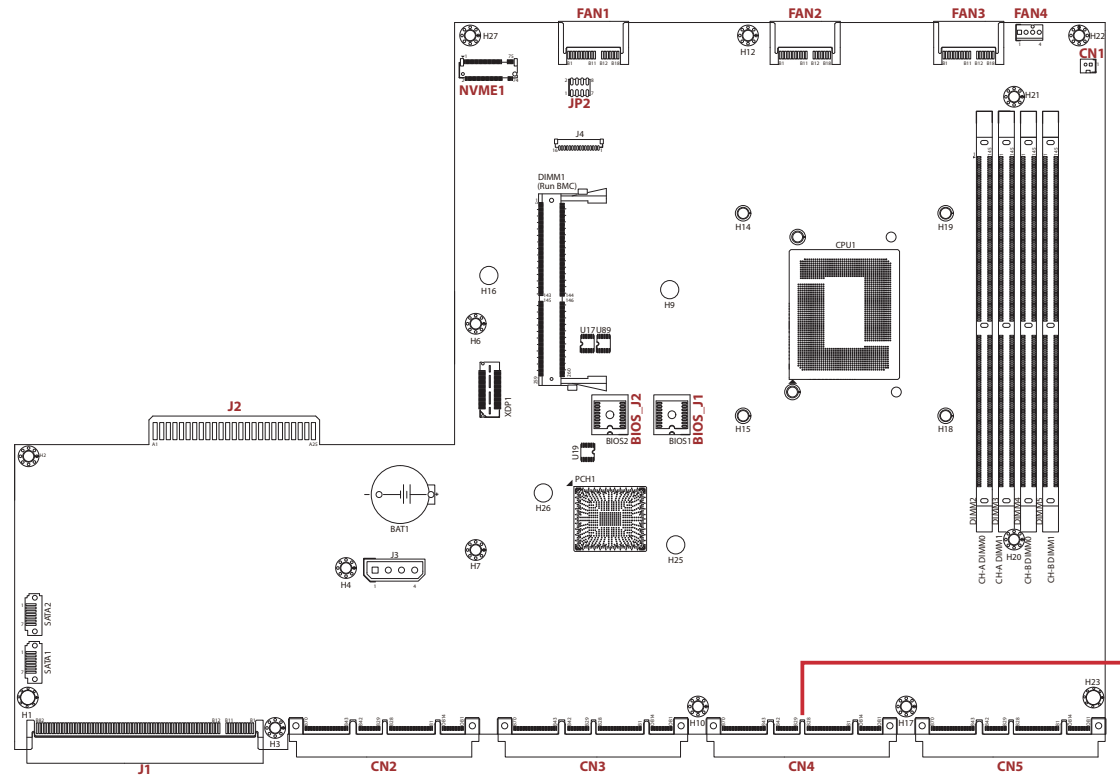
NSA 5200 Quick Reference Guide



● CN4: OCP 4C+ GenZ PCIe Gen4 Slot3 (From PCH HSIO)

Pin	Description	CN2	Pin	Description	CN2
OCPA1	PERST2#	NC	OCPB1	NIC_PWR_GOOD	NIC_PWRGD_SLOT3
OCPA2	PERST3#	NC	OCPB2	MAIN_PWR_EN	MAIN_PWR_EN_SLOT3
OCPA3	WAKE#	NC	OCPB3	LD#	LD_N_SLOT3
OCPA4	RBT_ARB_IN	ARB_IN connect to ARB_OUT	OCPB4	DATA_IN	DIN_SLOT3
OCPA5	RBT_ARB_OUT		OCPB5	DATA_OUT	DOUT_SLOT3
OCPA6	SLOT_ID1	SLOT3_ID1_N	OCPB6	CLK	CLK_SLOT3
OCPA7	RBT_TX_EN	SLOT3_RTB_TX_EN	OCPB7	SLOT_ID0	SLOT3_ID0_N
OCPA8	RBT_TXD1	SLOT3_RTB_TXD1	OCPB8	RBT_RXD1	SLOT3_RTB_RXD1
OCPA9	RBT_TXD0	SLOT3_RTB_TXD0	OCPB9	RBT_RXD0	SLOT3_RTB_RXD0
OCPA10	GND	GND	OCPB10	GND	GND
OCPA11	REFCLKn3	NC	OCPB11	REFCLKn2	NC
OCPA12	REFCLKp3	NC	OCPB12	REFCLKp2	NC
OCPA13	GND	GND	OCPB13	GND	GND
OCPA14	RBT_CLK_IN	SLOT3_RTB_CLK_IN	OCPB14	RBT_CRS_DV	SLOT3_RTB_CRS_DV
Mechanical Key					
A1	GND	GND	B1	+12V_EDGE	12V
A2	GND	GND	B2	+12V_EDGE	12V
A3	GND	GND	B3	+12V_EDGE	12V
A4	GND	GND	B4	+12V_EDGE	12V
A5	GND	GND	B5	+12V_EDGE	12V
A6	GND	GND	B6	+12V_EDGE	12V
A7	SMCLK	SMB_CLK_SLOT3	B7	BIF0#	SLOT3_BIF0
A8	SMDAT	SMB_DAT_SLOT3	B8	BIF1#	SLOT3_BIF1
A9	SMRST#	SMB_RST#_SLOT3	B9	BIF2#	SLOT3_BIF2
A10	PRSENTA#	GND	B10	PERST0#	SLOT3_PERST0_N
A11	PERST1#	SLOT3_PERST1_N	B11	+3.3V_EDGE	3.3V AUX
A12	PRSENTB2#	SLOT3_PRSENTB2_N	B12	AUX_PWR_EN	AUX_PWR_EN_MAIN
A13	GND	GND	B13	GND	GND
A14	REFCLKn1	REFCLK1_SLOT3_DN	B14	REFCLKn0	REFCLK0_SLOT3_DN
A15	REFCLKp1	REFCLK1_SLOT3_DP	B15	REFCLKp0	REFCLK0_SLOT3_DP
A16	GND	GND	B16	GND	GND
A17	PERn0	SLOT3_RXN0	B17	PETn0	PCIE_SLOT3_TXN0
A18	PERp0	SLOT3_RXP0	B18	PETp0	PCIE_SLOT3_TXP0
A19	GND	GND	B19	GND	GND
A20	PERn1	SLOT3_RXN1	B20	PETn1	PCIE_SLOT3_TXN1
A21	PERp1	SLOT3_RXP1	B21	PETp1	PCIE_SLOT3_TXP1
A22	GND	GND	B22	GND	GND
A23	PERn2	SLOT3_RXN2	B23	PETn2	PCIE_SLOT3_TXN2
A24	PERp2	SLOT3_RXP2	B24	PETp2	PCIE_SLOT3_TXP2
A25	GND	GND	B25	GND	GND
A26	PERn3	SLOT3_RXN3	B26	PETn3	PCIE_SLOT3_TXN3
A27	PERp3	SLOT3_RXP3	B27	PETp3	PCIE_SLOT3_TXP3
A28	GND	GND	B28	GND	GND

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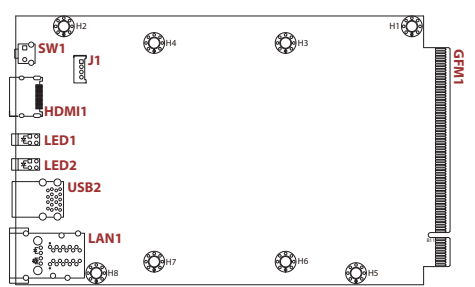
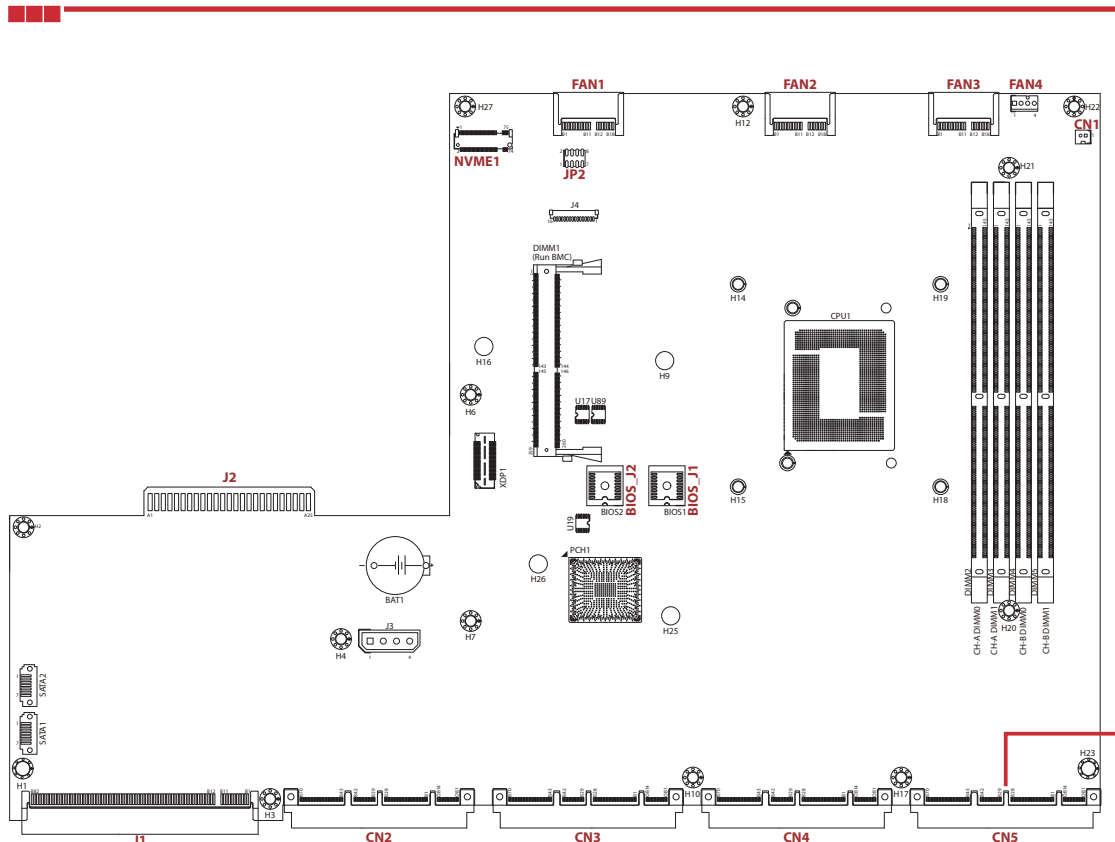


● CN4: OCP 4C+ GenZ PCIe Gen4 Slot3 (From PCH HSIO)

Pin	Description	CN2	Pin	Description	CN2
Mechanical Key					
A29	GND	GND	B29	GND	GND
A30	PERn4	SLOT3_RXN4	B30	PETn4	PCIE_SLOT3_TXN4
A31	PERp4	SLOT3_RXP4	B31	PETp4	PCIE_SLOT3_TXP4
A32	GND	GND	B32	GND	GND
A33	PERn5	SLOT3_RXN5	B33	PETn5	PCIE_SLOT3_TXN5
A34	PERp5	SLOT3_RXP5	B34	PETp5	PCIE_SLOT3_TXP5
A35	GND	GND	B35	GND	GND
A36	PERn6	SLOT3_RXN6	B36	PETn6	PCIE_SLOT3_TXN6
A37	PERp6	SLOT3_RXP6	B37	PETp6	PCIE_SLOT3_TXP6
A38	GND	GND	B38	GND	GND
A39	PERn7	SLOT3_RXN7	B39	PETn7	PCIE_SLOT3_TXN7
A40	PERp7	SLOT3_RXP7	B40	PETp7	PCIE_SLOT3_TXP7
A41	GND	GND	B41	GND	GND
A42	PRSNB1#	SLOT3_PRSNB1_N	B42	PRSNB0#	SLOT3_PRSNB0_N
Mechanical Key					
A43	GND	GND	B43	GND	GND
A44	PERn8	NC	B44	PETn8	NC
A45	PERp8	NC	B45	PETp8	NC
A46	GND	GND	B46	GND	GND
A47	PERn9	NC	B47	PETn9	NC
A48	PERp9	NC	B48	PETp9	NC
A49	GND	GND	B49	GND	GND
A50	PERn10	NC	B50	PETn10	NC
A51	PERp10	NC	B51	PETp10	NC
A52	GND	GND	B52	GND	GND
A53	PERn11	NC	B53	PETn11	NC
A54	PERp11	NC	B54	PETp11	NC
A55	GND	GND	B55	GND	GND
A56	PERn12	NC	B56	PETn12	NC
A57	PERp12	NC	B57	PETp12	NC
A58	GND	GND	B58	GND	GND
A59	PERn13	NC	B59	PETn13	NC
A60	PERp13	NC	B60	PETp13	NC
A61	GND	GND	B61	GND	GND
A62	PERn14	NC	B62	PETn14	NC
A63	PERp14	NC	B63	PETp14	NC
A64	GND	GND	B64	GND	GND
A65	PERn15	NC	B65	PETn15	NC
A66	PERp15	NC	B66	PETp15	NC
A67	GND	GND	B67	GND	GND
A68	USB_DATn	NC	B68	RFU1, N/C	NC
A69	USB_DATp	NC	B69	RFU2, N/C	NC
A70	PWRBRK0#	NC	B70	PRSNB3#	SLOT3_PRSNB3_N



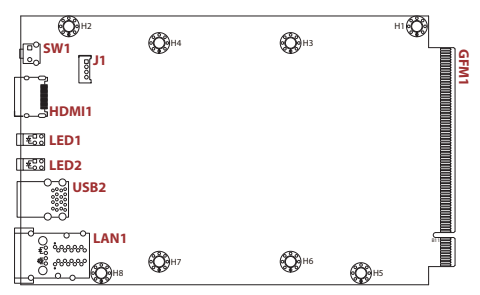
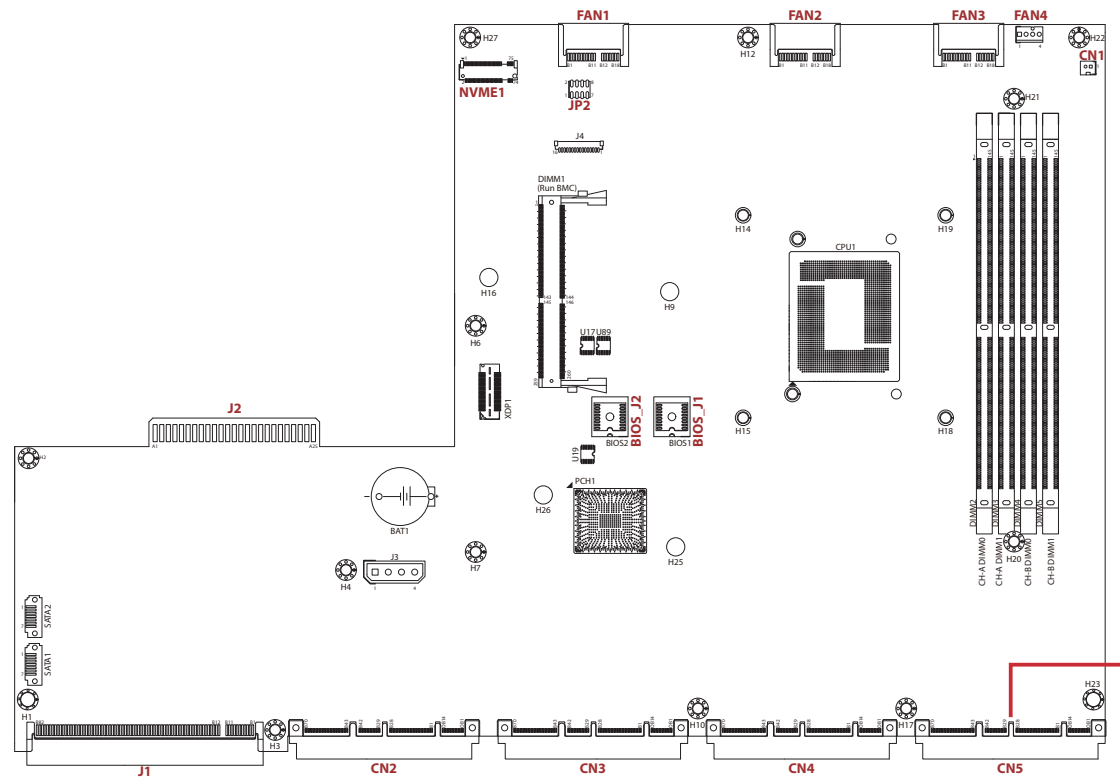
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● CN5: OCP 4C+ GenZ PCIe Gen3 Slot4 (From PCH HSIO)

Pin	Description	CN2	Pin	Description	CN2
OCPA1	PERST2#	NC	OCPB1	NIC_PWR_GOOD	NIC_PWRGD_SLOT4
OCPA2	PERST3#	NC	OCPB2	MAIN_PWR_EN	MAIN_PWR_EN_SLOT4
OCPA3	WAKE#	NC	OCPB3	LD#	LD_N_SLOT4
OCPA4	RBT_ARB_IN	SLOT4_ARB_IN connected to SLOT4_ARB_OUT	OCPB4	DATA_IN	DIN_SLOT4
OCPA5	RBT_ARB_OUT	SLOT4_ARB_OUT	OCPB5	DATA_OUT	DOUT_SLOT4
OCPA6	SLOT_ID1	SLOT4_ID1_N	OCPB6	CLK	CLK_SLOT4
OCPA7	RBT_TX_EN	SLOT4_RTB_TX_EN	OCPB7	SLOT_ID0	SLOT4_ID0_N
OCPA8	RBT_TXD1	SLOT4_RTB_TXD1	OCPB8	RBT_RXD1	SLOT4_RTB_RXD1
OCPA9	RBT_TXD0	SLOT4_RTB_TXD0	OCPB9	RBT_RXD0	SLOT4_RTB_RXD0
OCPA10	GND	GND	OCPB10	GND	GND
OCPA11	REFCLKn3	NC	OCPB11	REFCLKn2	NC
OCPA12	REFCLKp3	NC	OCPB12	REFCLKp2	NC
OCPA13	GND	GND	OCPB13	GND	GND
OCPA14	RBT_CLK_IN	SLOT4_RTB_CLK_IN	OCPB14	RBT_CRS_DV	SLOT4_RTB_CRS_DV
Mechanical Key					
A1	GND	GND	B1	+12V_EDGE	12V
A2	GND	GND	B2	+12V_EDGE	12V
A3	GND	GND	B3	+12V_EDGE	12V
A4	GND	GND	B4	+12V_EDGE	12V
A5	GND	GND	B5	+12V_EDGE	12V
A6	GND	GND	B6	+12V_EDGE	12V
A7	SMCLK	SMB_CLK_SLOT4	B7	BIF0#	SLOT4_BIF0
A8	SMDAT	SMB_DAT_SLOT4	B8	BIF1#	SLOT4_BIF1
A9	SMRST#	SMB_RST#_SLOT4	B9	BIF2#	SLOT4_BIF2
A10	PRSTA#	GND	B10	PERST0#	SLOT4_PERST0_N
A11	PERST1#	SLOT4_PERST1_N	B11	+3.3V_EDGE	3.3V AUX
A12	PRSTB2#	SLOT4_PRSTB2_N	B12	AUX_PWR_EN	AUX_PWR_EN_MAIN
A13	GND	GND	B13	GND	GND
A14	REFCLKn1	REFCLK1_SLOT4_DN	B14	REFCLKn0	REFCLK0_SLOT4_DN
A15	REFCLKp1	REFCLK1_SLOT4_DP	B15	REFCLKp0	REFCLK0_SLOT4_DP
A16	GND	GND	B16	GND	GND
A17	PERn0	SLOT4_RXN0	B17	PETn0	PCIE_SLOT4_TXN0
A18	PERp0	SLOT4_RXP0	B18	PETp0	PCIE_SLOT4_TXP0
A19	GND	GND	B19	GND	GND
A20	PERn1	SLOT4_RXN1	B20	PETn1	PCIE_SLOT4_TXN1
A21	PERp1	SLOT4_RXP1	B21	PETp1	PCIE_SLOT4_TXP1
A22	GND	GND	B22	GND	GND
A23	PERn2	SLOT4_RXN2	B23	PETn2	PCIE_SLOT4_TXN2
A24	PERp2	SLOT4_RXP2	B24	PETp2	PCIE_SLOT4_TXP2
A25	GND	GND	B25	GND	GND
A26	PERn3	SLOT4_RXN3	B26	PETn3	PCIE_SLOT4_TXN3
A27	PERp3	SLOT4_RXP3	B27	PETp3	PCIE_SLOT4_TXP3
A28	GND	GND	B28	GND	GND

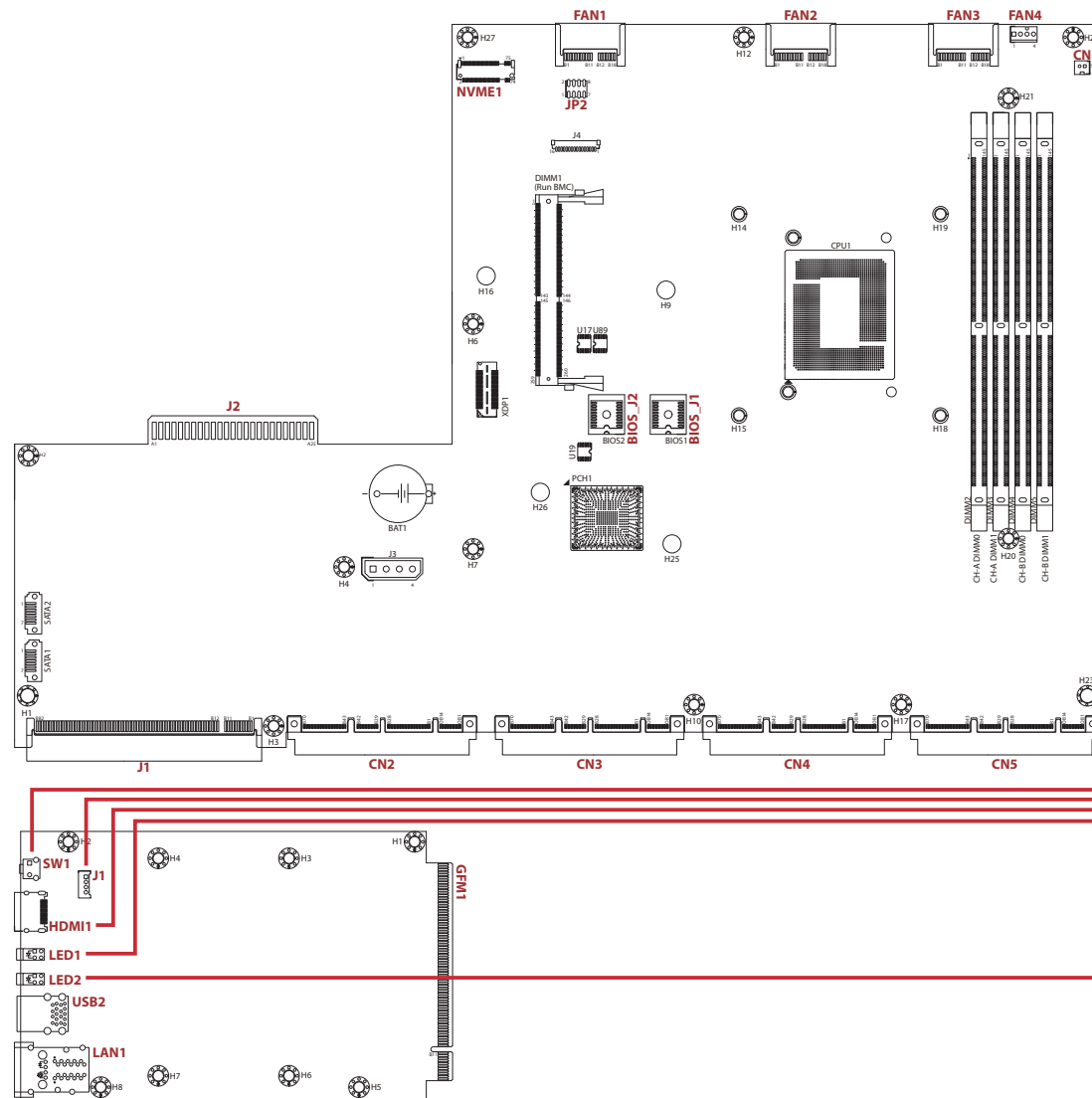
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● CN5: OCP 4C+ GenZ PCIe Gen3 Slot4 (From PCH HSIO)

Pin	Description	CN2	Pin	Description	CN2
Mechanical Key					
A29	GND	GND	B29	GND	GND
A30	PERn4	SLOT4_RXN4	B30	PETn4	PCIE_SLOT4_TXN4
A31	PERp4	SLOT4_RXP4	B31	PETp4	PCIE_SLOT4_TXP4
A32	GND	GND	B32	GND	GND
A33	PERn5	SLOT4_RXN5	B33	PETn5	PCIE_SLOT4_TXN5
A34	PERp5	SLOT4_RXP5	B34	PETp5	PCIE_SLOT4_TXP5
A35	GND	GND	B35	GND	GND
A36	PERn6	SLOT4_RXN6	B36	PETn6	PCIE_SLOT4_TXN6
A37	PERp6	SLOT4_RXP6	B37	PETp6	PCIE_SLOT4_TXP6
A38	GND	GND	B38	GND	GND
A39	PERn7	SLOT4_RXN7	B39	PETn7	PCIE_SLOT4_TXN7
A40	PERp7	SLOT4_RXP7	B40	PETp7	PCIE_SLOT4_TXP7
A41	GND	GND	B41	GND	GND
A42	PRSNB1#	SLOT4_PRSNB1_N	B42	PRSNB0#	SLOT4_PRSNB0_N
Mechanical Key					
A43	GND	GND	B43	GND	GND
A44	PERn8	NC	B44	PETn8	NC
A45	PERp8	NC	B45	PETp8	NC
A46	GND	GND	B46	GND	GND
A47	PERn9	NC	B47	PETn9	NC
A48	PERp9	NC	B48	PETp9	NC
A49	GND	GND	B49	GND	GND
A50	PERn10	NC	B50	PETn10	NC
A51	PERp10	NC	B51	PETp10	NC
A52	GND	GND	B52	GND	GND
A53	PERn11	NC	B53	PETn11	NC
A54	PERp11	NC	B54	PETp11	NC
A55	GND	GND	B55	GND	GND
A56	PERn12	NC	B56	PETn12	NC
A57	PERp12	NC	B57	PETp12	NC
A58	GND	GND	B58	GND	GND
A59	PERn13	NC	B59	PETn13	NC
A60	PERp13	NC	B60	PETp13	NC
A61	GND	GND	B61	GND	GND
A62	PERn14	NC	B62	PETn14	NC
A63	PERp14	NC	B63	PETp14	NC
A64	GND	GND	B64	GND	GND
A65	PERn15	NC	B65	PETn15	NC
A66	PERp15	NC	B66	PETp15	NC
A67	GND	GND	B67	GND	GND
A68	USB_DATn	NC	B68	RFU1, N/C	NC
A69	USB_DATp	NC	B69	RFU2, N/C	NC
A70	PWRBRK0#	NC	B70	PRSNB3#	SLOT4_PRSNB3_N

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SW1: Reset Button

	Pin	Signal	Pin	Signal
	1	GND	2	FP_RST_BTN_R_N
	3	CGND	4	CGND

J1: LCM Connector

	Pin	Signal
	1	GND
	2	SP_LCM_RXD
	3	SP_LCM_TXD
4	+P5V	

HDMI1: HDMI Connector

	Pin	Signal	Pin	Signal
	1	HDMI_DATA2_P_C	11	GND
	2	GND	12	HDMI_CLK_N_C
	3	HDMI_DATA2_N_C	13	NC
	4	HDMI_DATA1_P_C	14	NC
	5	GND	15	HDMI_CLK
	6	HDMI_DATA1_N_C	16	HDMI_DAT
	7	HDMI_DATA0_P_C	17	GND
	8	GND	18	HDMI_PWR_C
	9	HDMI_DATA0_N_C	19	HDMI_HPD_C
10	HDMI_CLK_P_C			

LED1: LED Connector

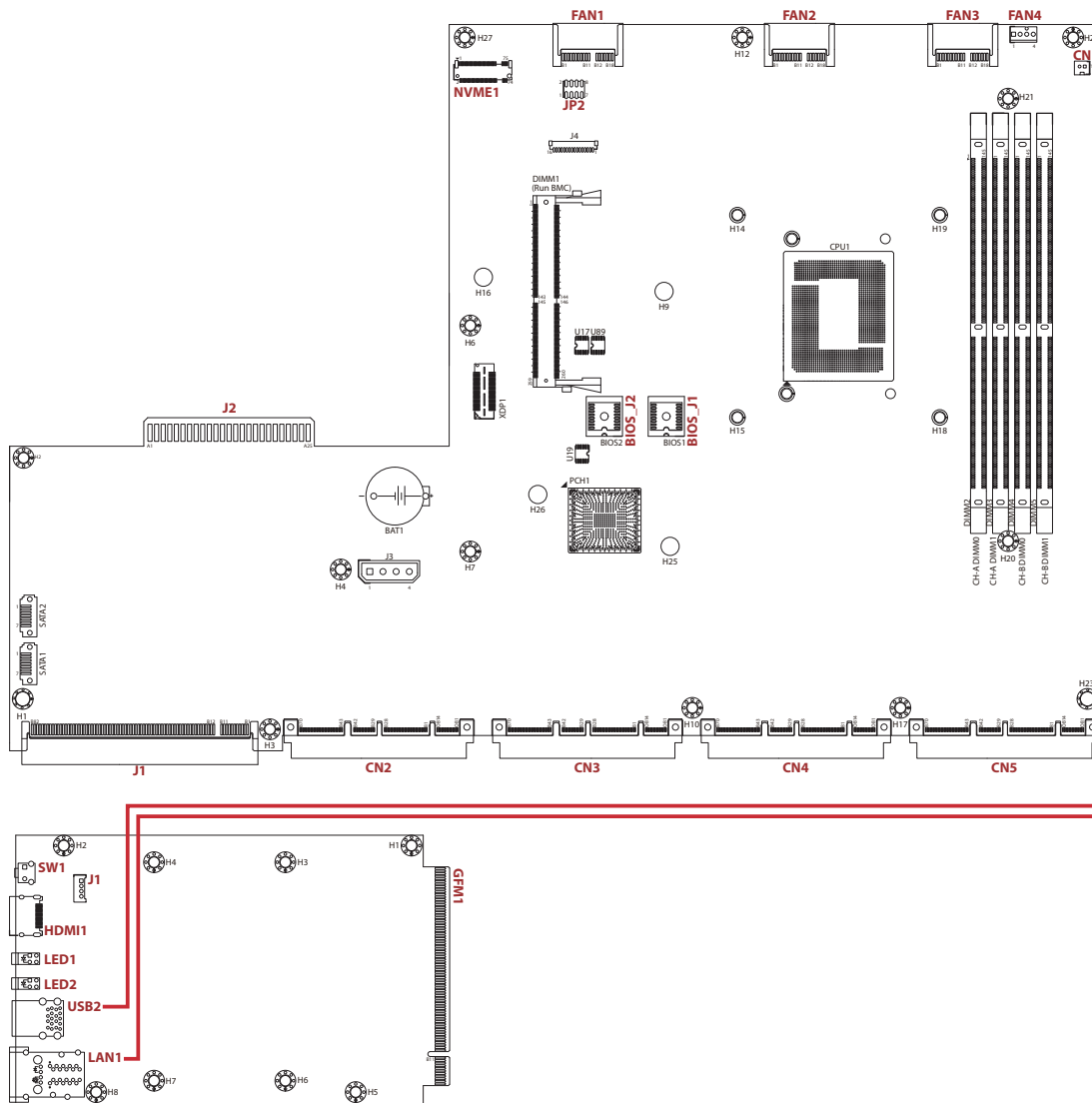
	Pin	Signal	Pin	Signal
	A2	+5V	C2	FP_POWER_LED_R
	A1	+5V	C1	FP_SYSTEM_LED_R

LED2: LED Connector

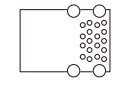
	Pin	Signal	Pin	Signal
	A2	+5V	C2	EC_SATA_LED_R_N
	A1	+5V	C1	EC_GPIO_LED_R



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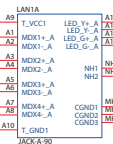


USB2: USB 2.0 Connector



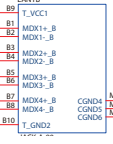
Pin	Signal	Pin	Signal
1	+P5V_USB_OCP	10	+P5V_USB_OCP
2	USB2N1_C	11	USB2N2_C
3	USB2P1_C	12	USB2P2_C
4	GND	13	GND
5	USB3RN0_C	14	USB3RN1_C
6	USB3RP0_C	15	USB3RP1_C
7	GND	16	GND
8	USB3TN0_C	17	USB3TN1_C
9	USB3TP0_C	18	USB3TP1_C

LAN1: LAN Connector - LAN1A



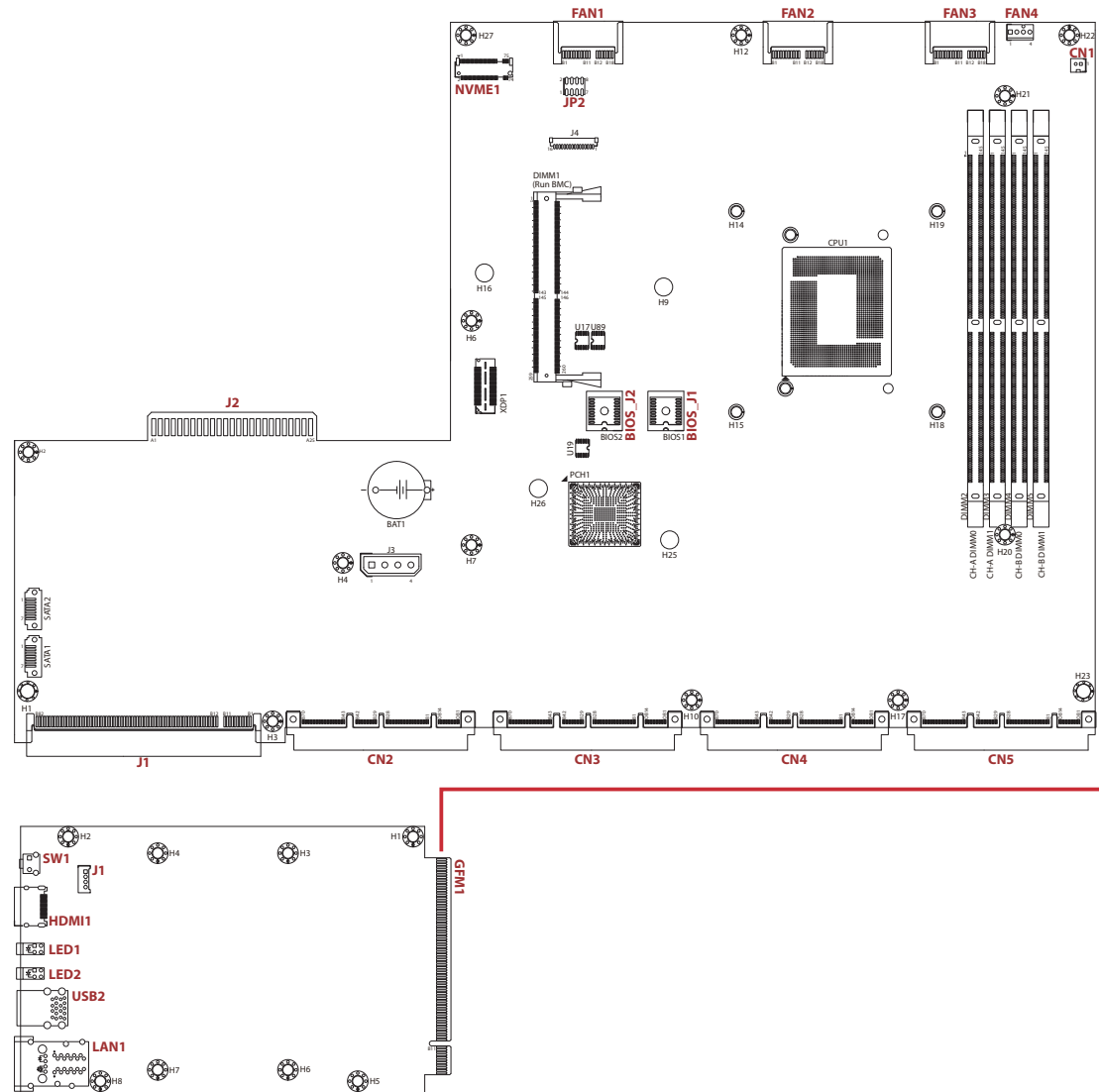
Pin	Signal	Pin	Signal
A9	GND	A14	LANA_LED_LINK1G#_R
A1	MDI_0_P_A_R	A13	LANA_LED_LINK100#_R
A2	MDI_0_N_A_R	A11	P3V3_LANA_R
A3	MDI_1_P_A_R	A12	LANA_LED_ACT#_R
A4	MDI_1_N_A_R	NH1	NC
A5	MDI_2_P_A_R	NH2	NC
A6	MDI_2_N_A_R	MH1	CGND
A7	MDI_3_P_A_R	MH2	CGND
A8	MDI_3_N_A_R	MH3	CGND
A10	GND		

- LAN1B



Pin	Signal	Pin	Signal
B9	GND	MH4	CGND
B1	COM1_RTS_N	MH5	CGND
B2	COM1_DTR_N	MH6	CGND
B3	COM1_TXD		
B4	GND		
B5	COM1_DCD_N		
B6	COM1_RXD		
B7	COM1_DSR_N		
B8	COM1_CTS_N		
B10	GND		

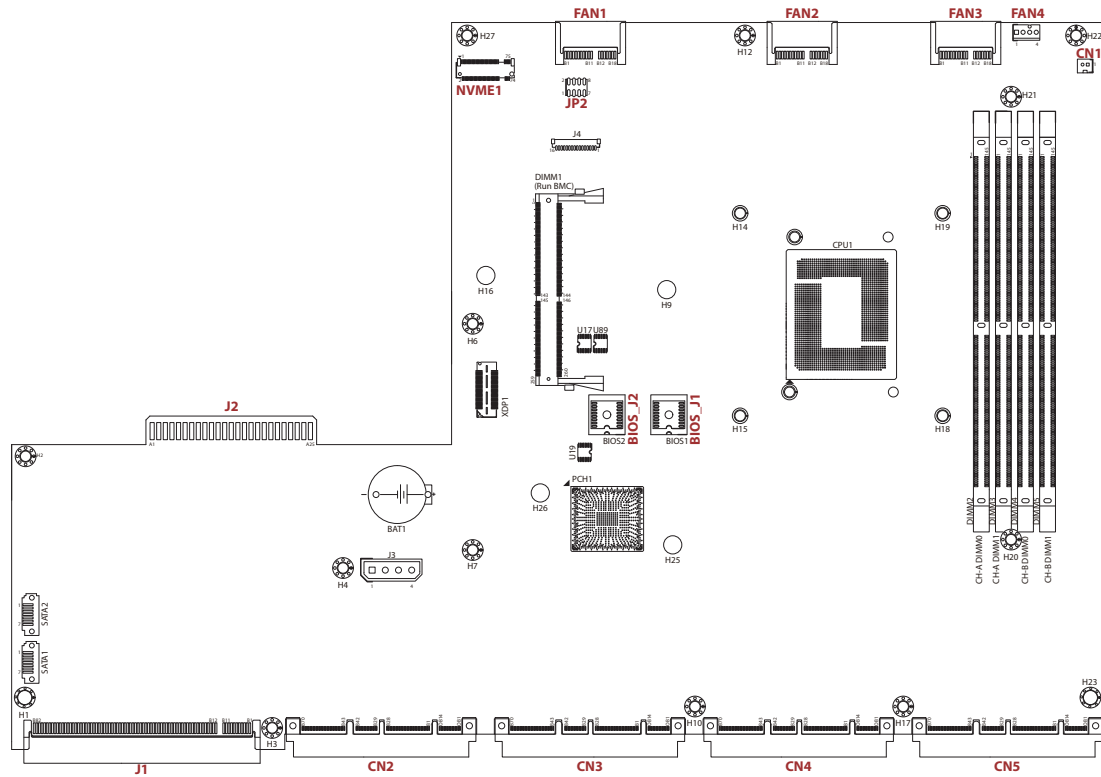
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GFM1: Golden finger

Pin	Signal	Pin	Signal
A1	GND	B1	GND
A2	GND	B2	NC
A3	GND	B3	NC
A4	NC	B4	GND
A5	NC	B5	GND
A6	GND	B6	NC
A7	GND	B7	NC
A8	NC	B8	NC
A9	NC	B9	GND
A10	NC	B10	NC
A11	NC	B11	NC
A12	USB_OC0_N	B12	GND
A13	GND	B13	USB32_GEN11_TXP1
A14	GND	B14	USB32_GEN11_TXN1
A15	USB32_GEN11_RXP1	B15	GND
A16	USB32_GEN11_RXN1	B16	GND
A17	GND	B17	USB32_GEN11_TXP0
A18	GND	B18	USB32_GEN11_TXN0
A19	USB32_GEN11_RXP0	B19	GND
A20	USB32_GEN11_RXN0	B20	GND
A21	GND	B21	USB2_DP2
A22	GND	B22	USB2_DN2
A23	EC_UART1_DTR#	B23	GND
A24	EC_UART1_CTS#	B24	GND
A25	GND	B25	USB2_DP1
A26	GND	B26	USB2_DN1
A27	PCIE_I210_RXN0	B27	GND
A28	PCIE_I210_RXP0	B28	GND
A29	GND	B29	PCIE_I210_TXN0
A30	GND	B30	PCIE_I210_TXP0
A31	CLK_SRC15_I210_N	B31	GND
A32	CLK_SRC15_I210_P	B32	GND
A33	GND	B33	I210_RST_1_N
A34	WAKE_N	B34	NC
A35	GND	B35	NCSI_TXD0_A
A36	NCSI_RXD0_A	B36	GND
A37	GND	B37	NCSI_TXD1_A
A38	NCSI_RXD1_A	B38	GND
A39	GND	B39	NCSI_TX_EN_A
A40	NCSI_CRD_V_A	B40	GND

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GFM1: Golden finger



Pin	Signal	Pin	Signal
A41	GND	B41	NCSI_I210_CLK_A
A42	DPB_CTRL_DAT	B42	GND
A43	DPB_CTRL_CLK	B43	GND
A44	GND	B44	DDI1_TX0_DN
A45	GND	B45	DDI1_TX0_DP
A46	DDPB_HPD0_HDMI	B46	GND
A47	EC_UART1_RTS#	B47	GND
A48	GND	B48	DDI1_TX1_DN
A49	GND	B49	DDI1_TX1_DP
A50	SYS_UART1_TXD	B50	GND
A51	SYS_UART1_RXD	B51	GND
A52	GND	B52	DDI1_TX2_DN
A53	GND	B53	DDI1_TX2_DP
A54	LCM_UART2_TXD	B54	GND
A55	LCM_UART2_RXD	B55	GND
A56	GND	B56	DDI1_TX3_DN
A57	GND	B57	DDI1_TX3_DP
A58	FP_RST_BTN_N	B58	GND
A59	EC_UART1_DCD#	B59	GND
A60	GND	B60	NC
A61	GND	B61	NC
A62	NC	B62	GND
A63	NC	B63	GND
A64	GND	B64	NC
A65	GND	B65	NC
A66	NC	B66	NC
A67	NC	B67	EC_GPIO_LED
A68	EC_UART1_DSR#	B68	EC_SATA_LED_N
A69	NC	B69	FP_POWER_LED
A70	+P3V3_BMC	B70	FP_SYSTEM_LED
A71	NC	B71	+P12V
A72	+P5V	B72	+P5V
A73	+P5V	B73	+P5V
A74	NC	B74	NC
A75	+P3V3	B75	+P3V3
A76	+P3V3	B76	+P3V3
A77	NC	B77	NC
A78	+P3V3_AUX	B78	+P3V3_AUX
A79	+P3V3_AUX	B79	+P3V3_AUX
A80	NC	B80	NC
A81	+P3V3_EC	B81	+P3V3_EC
A82	+P3V3_EC	B82	+P3V3_EC