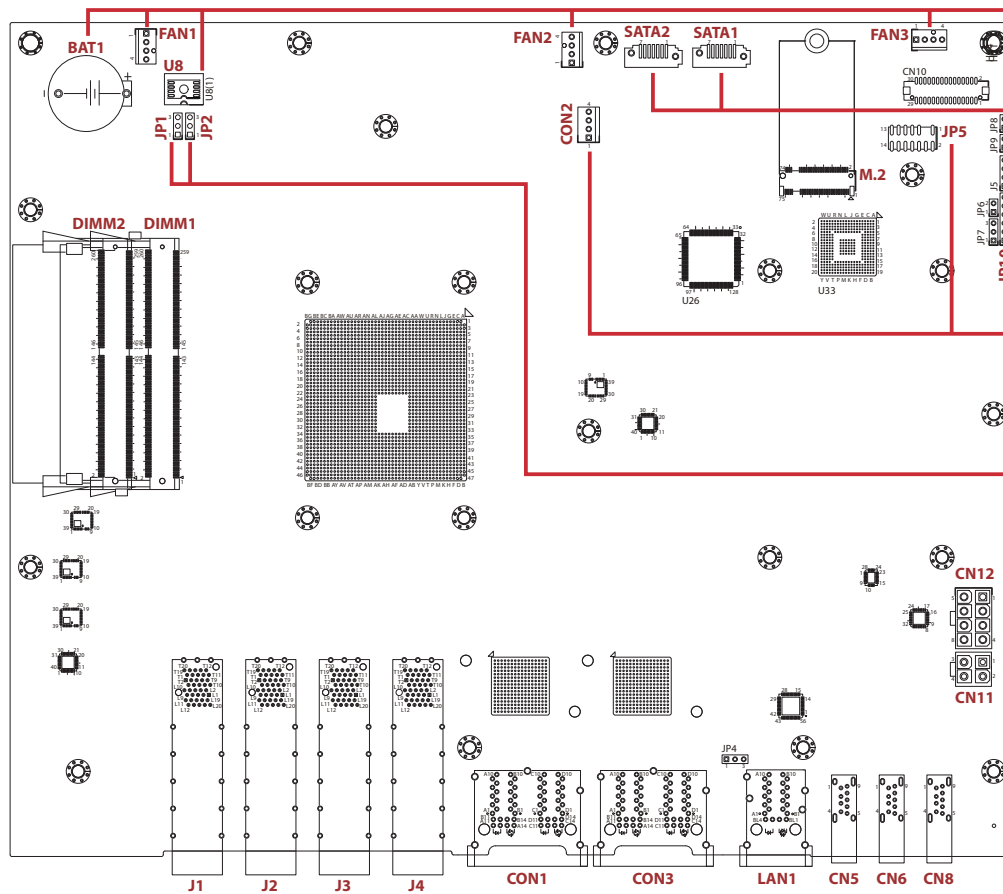


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NSB 1170 Top Side Layout Placement



BAT1: Battery Holder

Pin	Description
1	VBAT
2	GND

FAN1, FAN2, FAN3: Fan Connector

Pin	Description
1	GND
2	P12V_FAN
3	FAN[1:3]_IN_CON
4	FAN[1:3]_PWM_OUT

SATA1, SATA2: 2.5" SSD SATA Connector

Pin.	Signal
1	GND
2	SATA[1:2]_TX_DP_C
3	SATA[1:2]_TX_DN_C
4	GND
5	SATA[1:2]_RX_DN_C
6	SATA[1:2]_RX_DP_C
7	GND

U8: BIOS SPI Flash

Pin	Description
1	CS
2	SO/SIO1
3	WP#/SIO2
4	GND
5	SI/SIO0
6	SCLK
7	RESET#/SIO3
8	VCC

CON2: SATA Power Connector

Pin	Description
1-2	P12V_AUX
2-3	GND
4	P5V

JP10: CPLD JTAG Header

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

JP5: LPC TPM Module Pin Header

Pin.	Signal	Pin.	Signal
1	GND	2	LPC_CLK_TPM
3	NA	4	TPM_LPC_FRAME_N
5	TPM_LAD2	6	RST_TPM_LRESET_R_N
7	TPM_LAD1	8	TPM_LAD3
9	GND	10	TPM_LAD0
11	LPC_SERIRQ	12	P3V3_SOC
13	GND	14	GND

JP1: Clear RTC/CMOS Jumper

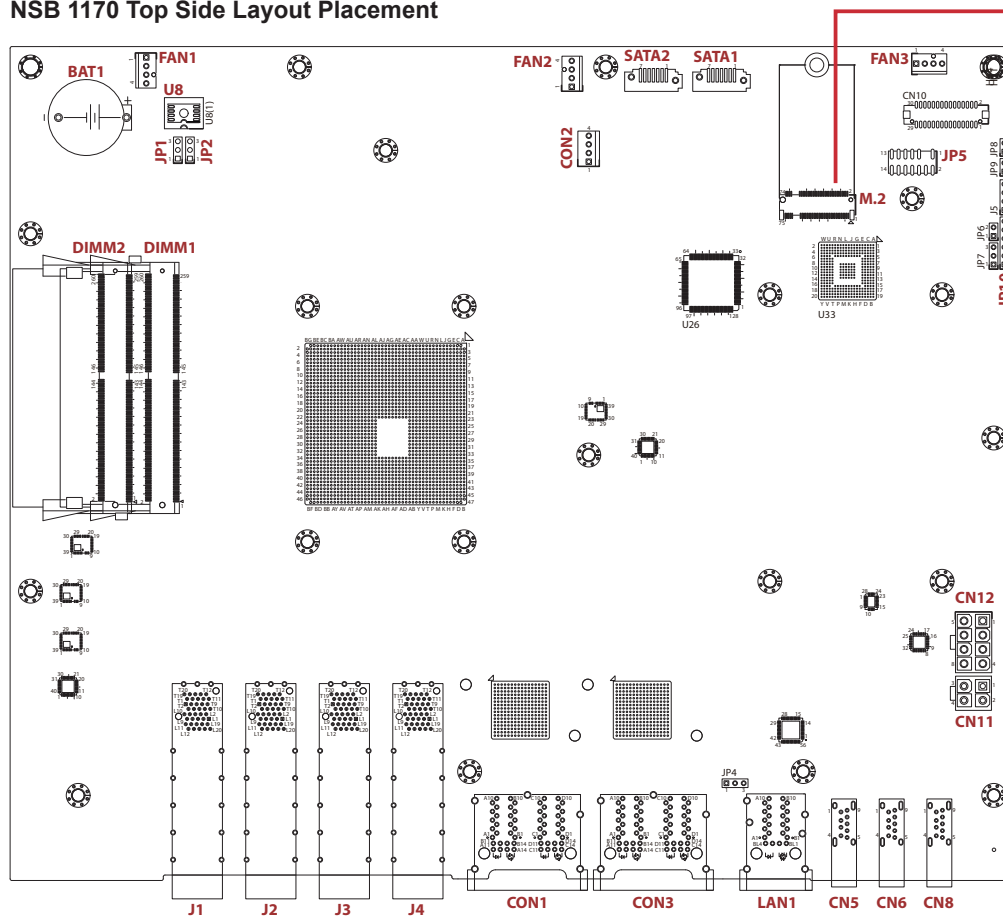
Pin	Description
1-2	Normal (default)
2-3	Clear CMOS

JP2: Clear RTC/CMOS Jumper

Pin	Description
1-2	Normal (default)
2-3	Clear RTC

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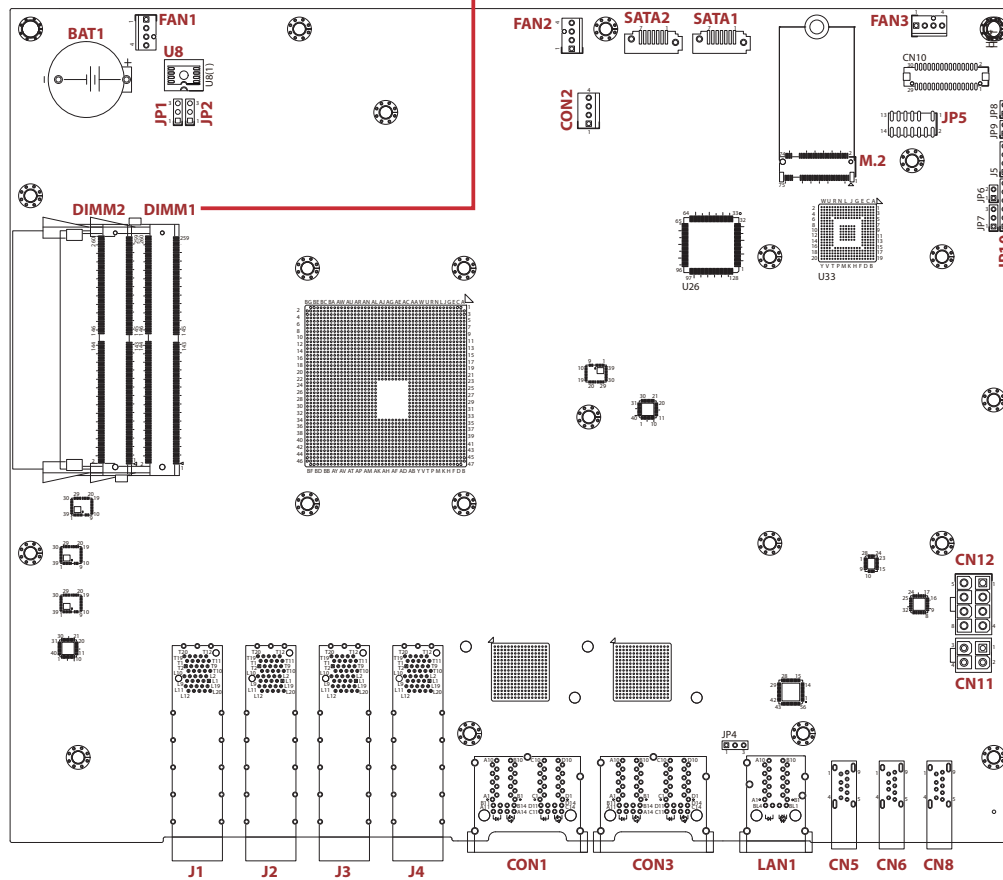
M.2: M.2 M-Key SATA SSD Connector

Pin.	Signal	Pin.	Signal
1	GND	2	3.3 V
3	GND	4	3.3 V
5	PERn3	6	N/A
7	PERp3	8	N/A
9	GND	10	DAS/DSS
11	PETn3	12	3.3 V
13	PETp3	14	3.3 V
15	GND	16	3.3V
17	PERn2	18	3.3 V
19	PERp2	20	N/A
21	CONFIG_0	22	N/A
23	PETn2	24	N/A
25	PETp2	26	N/A
27	GND	28	N/A
29	PERn1	30	N/A
31	PERp1	32	N/A
33	GND	34	N/A
35	PETn1	36	N/A
37	PETp1	38	DEVSLP
39	GND	40	N/A
41	SATA-B+/PERn0	42	N/A
43	SATA-B-/PERp0	44	N/A
45	GND	46	N/A
47	SATA-A-/PETn0	48	N/A
49	SATA-A+/PETp0	50	PERST#
51	GND	52	CLKREQ#
53	REFCLKN	54	PEWAKE#
55	REFCLKP	56	MFG1
57	GND	58	MFG2
59	removed	60	removed
61	removed	62	removed
63	removed	64	removed
65	removed	66	removed
67	N/A	68	SUSCLK
69	CONFIG_1	70	3.3 V
71	GND	72	3.3 V
73	GND	74	3.3 V
75	CONFIG_2		



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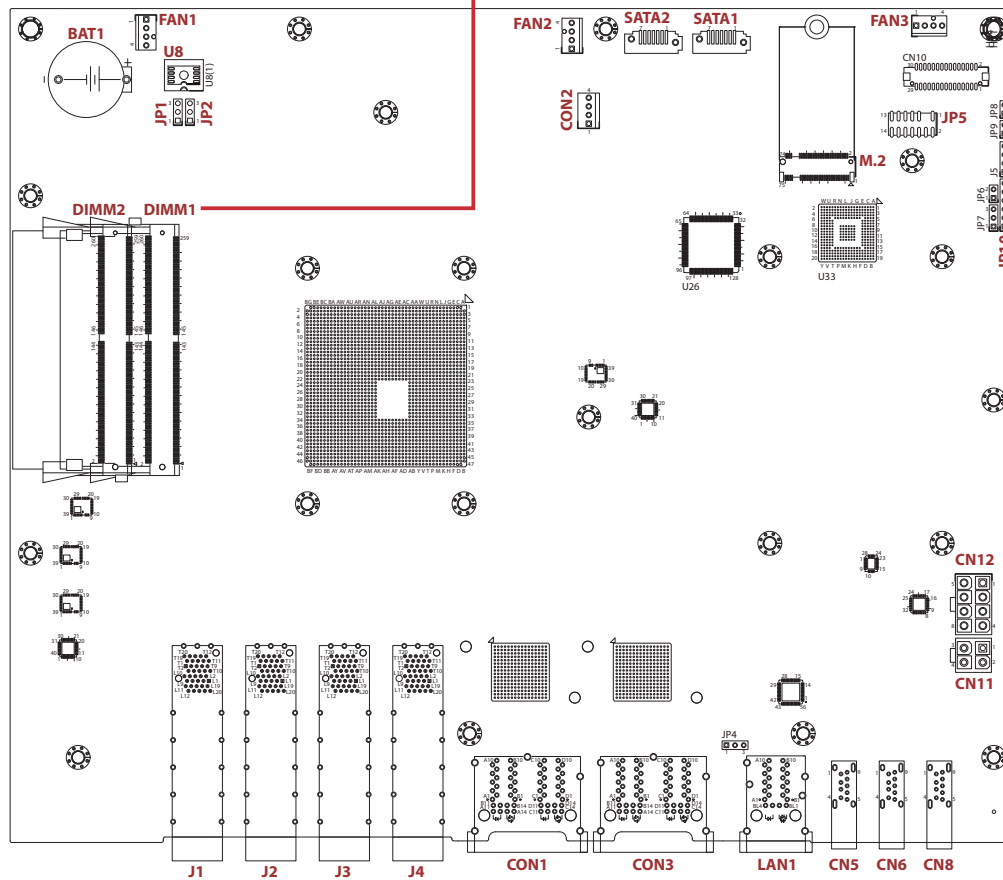
DIMM1, DIMM2: DDR4 SO-DIMM Socket

260-Pin DDR4 SODIMM Front

Pin.	Symbol	Pin.	Symbol	Pin.	Symbol	Pin.	Symbol
1	VSS	67	DQ29	133	A1	199	DM5_n/DBI5_n
3	DQ5	69	VSS	135	VDD	201	VSS
5	VSS	71	DQ25	137	CK0_t	203	DQ46
7	DQ1	73	VSS	139	CK0_c	205	VSS
9	VSS	75	DM3_n/DBI3_n	141	VDD	207	DQ42
11	DQS0_c	77	VSS	143	PARITY	209	VSS
13	DQS0_t	79	DQ30	145	BA1	211	DQ52
15	VSS	81	VSS	147	VDD	213	VSS
17	DQ7	83	DQ26	149	CS0_n	215	DQ49
19	VSS	85	VSS	151	WE_n/A14	217	VSS
21	DQ3	87	CB5/NC	153	VDD	219	DQS6_c
23	VSS	89	VSS	155	ODT0	221	DQS6_t
25	DQ13	91	CB1/NC	157	CS1_n/NC	223	VSS
27	VSS	93	VSS	159	VDD	225	DQ55
29	DQ9	95	DQS8_c/NC	161	ODT1/NC	227	VSS
31	VSS	97	DQS8_t/NC	163	VDD	229	DQ51
33	DM1_n/DBI_n	99	VSS	165	C1, CS3_n, NC	231	VSS
35	VSS	101	CB2/NC	167	VSS	233	DQ61
37	DQ15	103	VSS	169	DQ37	235	VSS
39	VSS	105	CB3/NC	171	VSS	237	DQ56
41	DQ10	107	VSS	173	DQ33	239	VSS
43	VSS	109	CKE0	175	VSS	241	DM7_n/DBI7_n
45	DQ21	111	VDD	177	DQS4_c	243	VSS
47	VSS	113	BG1	179	DQS4_t	245	DQ62
49	DQ17	115	BG0	181	VSS	247	VSS
51	VSS	117	VDD	183	DQ38	249	DQ58
53	DQS2_c	119	A12	185	VSS	251	VSS
55	DQS2_t	121	A9	187	DQ34	253	SCL
57	VSS	123	VDD	189	VSS	255	VDDSPD
59	DQ23	125	A8	191	DQ44	257	VPP
61	VSS	127	A6	193	VSS	259	VPP
63	DQ19	129	VDD	195	DQ40	-	-
65	VSS	131	A3	197	VSS	-	-

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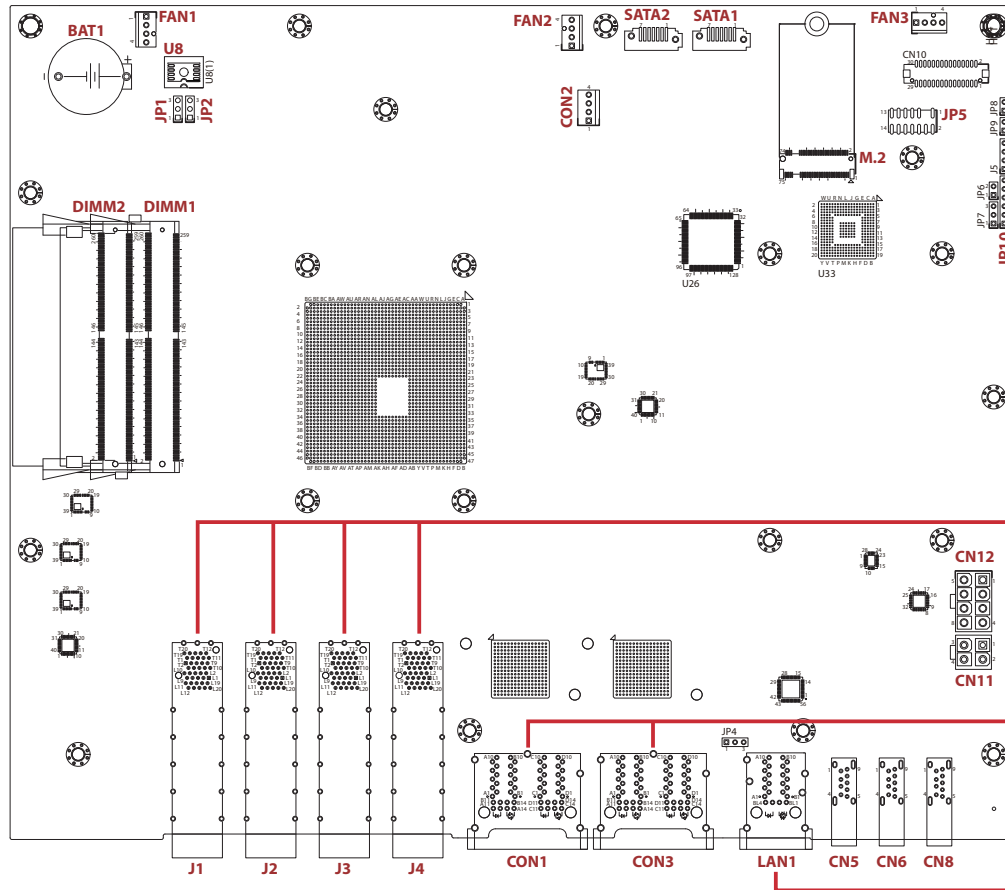
DIMM1, DIMM2: DDR4 SO-DIMM Socket

260-Pin DDR4 SODIMM Back

Pin.	Symbol	Pin.	Symbol	Pin.	Symbol	Pin.	Symbol
2	VSS	68	VSS	134	EVENT_n, NF	200	DQS5_t
4	DQ4	70	DQ24	136	VDD	202	VSS
6	VSS	72	VSS	138	CK1_t/NF	204	DQ47
8	DQ0	74	DQS3_c	140	CK1_c/NF	206	VSS
10	VSS	76	DQS3_t	142	VDD	208	DQ43
12	DM0_n/DBI0_n	78	VSS	144	A0	210	VSS
14	VSS	80	DQ31	146	A10/AP	212	DQ53
16	DQ6	82	VSS	148	VDD	214	VSS
18	VSS	84	DQ27	150	BA0	216	DQ48
20	DQ2	86	VSS	152	RAS_n/A16	218	VSS
22	VSS	88	CB4/NC	154	VDD	220	DM6_n/DBI6_n
24	DQ12	90	VSS	156	CAS_n/A15	222	VSS
26	VSS	92	CB0/NC	158	A13	224	DQ54
28	DQ8	94	VSS	160	VDD	226	VSS
30	VSS	96	DM8_n/DBI8_n/NC	162	CO/CS2_n/NC	228	DQ50
32	DQS1_c	98	VSS	164	VREFCA	230	VSS
34	DQS1_t	100	CB6/NC	166	SA2	232	DQ60
36	VSS	102	VSS	168	VSS	234	VSS
38	DQ14	104	CB7/NC	170	DQ36	236	DQ57
40	VSS	106	VSS	172	VSS	238	VSS
42	DQ11	108	RESET_n	174	DQ32	240	DQS7_c
44	VSS	110	CKE1/NC	176	VSS	242	DQS7_t
46	DQ20	112	VDD	178	DM4_n/DBI4_n	244	VSS
48	VSS	114	ACT_n	180	VSS	246	DQ63
50	DQ16	116	ALERT_n	182	DQ39	248	VSS
52	VSS	118	VDD	184	VSS	250	DQ59
54	DM2_n/DBI2_n	120	A11	186	DQ35	252	VSS
56	VSS	122	A7	188	VSS	254	SDA
58	DQ22	124	VDD	190	DQ45	256	SA0
60	VSS	126	A5	192	VSS	258	VTT
62	DQ18	128	A4	194	DQ41	260	SA1
64	VSS	130	VDD	196	VSS	-	-
66	DQ28	132	A2	198	DQS5_c	-	-

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J1, J2, J3, J4: SFP+ 10G Fiber Port

Pin	Description	Pin	Description
T1/L1	GND	T11/L11	GND
T2/L2	SFP_TX_FAULT_P[0:3]	T12/L12	SFP_P[0:3]_RX_DN
T3/L3	SFP_TX_DISABLE_P[0:3]	T13/L13	SFP_P[0:3]_RX_DP
T4/L4	SFP_SDA[0:3]	T14/L14	GND
T5/L5	SFP_SCL[0:3]	T15/L15	P3V3_P[0:3]R
T6/L6	SFP_MOD_ABS_P[0:3]	T16/L16	P3V3_P[0:3]T
T7/L7	SFP_P[0:3]_RS	T17/L17	GND
T8/L8	SFP_RX_LOS_P[0:3]	T18/L18	SFP_P[0:3]_TX_DP
T9/L9	SFP_P[0:3]_RS	T19/L19	SFP_P[0:3]_TX_DN
T10/L10	GND	T20/L20	GND

CON1: 1GbE RJ45 Connector

Pin	Description
[D:A]1	LANB[1:4]_MDI_N0
[D:A]2	LANB[1:4]_MDI_P0
[D:A]3	LANB[1:4]_MDI_N1
[D:A]4	LANB[1:4]_MDI_P1
[D:A]5	LANB[1:4]_MDI_N2
[D:A]6	LANB[1:4]_MDI_P2
[D:A]7	LANB[1:4]_MDI_N3
[D:A]8	LANB[1:4]_MDI_P3
[D:A]9	T_VCC [D:A]
[D:A]10	T_GND
[D:A]11	L[1:4]_LINK_P
[D:A]12	L[1:4]_B_ACT_N
[D:A]13	L[1:4]_B_L1000_N
[D:A]14	L[1:4]_B_L100_N

CON3: 1GbE RJ45 Connector

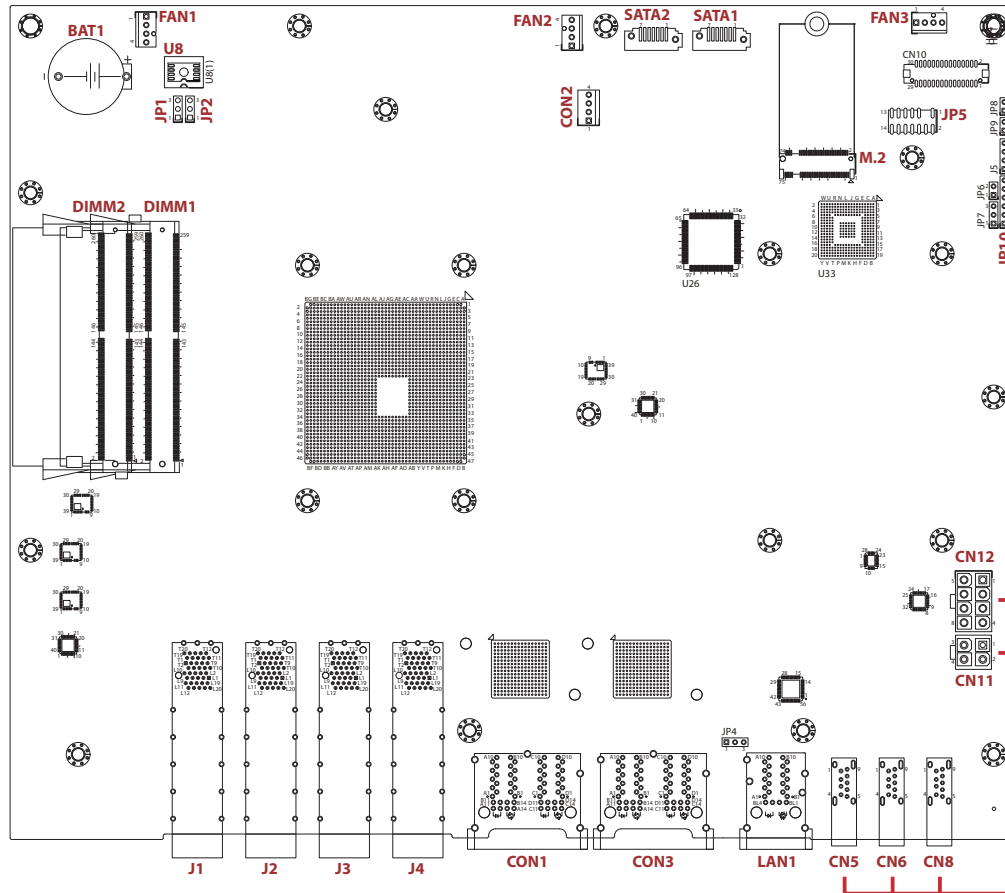
Pin	Description
[D:A]1	LANA[1:4]_MDI_N0
[D:A]2	LANA[1:4]_MDI_P0
[D:A]3	LANA[1:4]_MDI_N1
[D:A]4	LANA[1:4]_MDI_P1
[D:A]5	LANA[1:4]_MDI_N2
[D:A]6	LANA[1:4]_MDI_P2
[D:A]7	LANA[1:4]_MDI_N3
[D:A]8	LANA[1:4]_MDI_P3
[D:A]9	T_VCC [D:A]
[D:A]10	T_GND
[D:A]11	P[0:3]_LINK_P
[D:A]12	L[1:4]_A_ACT_N
[D:A]13	L[1:4]_A_L1000_N
[D:A]14	L[1:4]_A_L100_N

LAN1: MGMT Port + Console Port (RJ45 type)

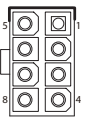
Upper Port: RJ45 2.5 GbE Port		Down Port: Console Port	
Pin	Description	Pin	Description
B1	LAN_MDIP0	A1	SP_RTS1_R
B2	LAN_MDIN0	A2	SP_DTR1_R
B3	LAN_MDIP1	A3	SP_TXD1_R
B4	LAN_MDIN1	A4	GND
B5	LAN_MDIP2	A5	SP_DCD1_R
B6	LAN_MDIN2	A6	SP_RXD1_R
B7	LAN_MDIP3	A7	SP_DSR1_R
B8	LAN_MDIN3	A8	SP_CTS1_CON
B9	I226_T_VCC	A9	A_VCC (GND)
B10	GND	A10	GND
BL1	LED1_L2500_N		
BL2	LED0_L1000_N		
BL3	LED2_ACT_N		
BL4	VCC3_LED		

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


CN12: PSU Connector



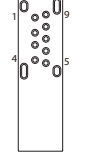
Pin	Description
1	GND
2	GND
3	GND
4	GND
5	P12V_PSU
6	P12V_PSU
7	P12V_PSU
8	P12V_PSU

CN11: PSU Connector



Pin	Description
1	GND
2	GND
3	P12V_PSU
4	P12V_PSU

CN5, CN6, CN8: USB1/2/3 USB 3.0 Type-A Connector

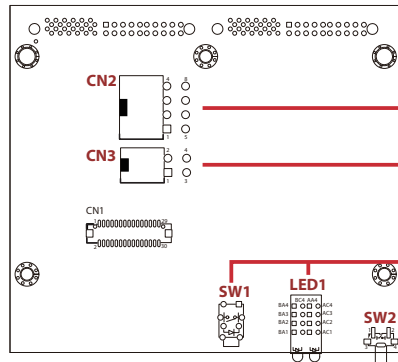


Pin	Description
1	P5V_USB[0:2]
2	USB2N[0:2]_C
3	USB2P[0:2]_C
4	GND
5	USB3RN[0:2]_C
6	USB3RP[0:2]_C
7	GND
8	USB3TN[0:2]_C
9	USB3TP[0:2]_C



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CN2: Power of Main Board Connector

Pin	Description
1	GND
2	GND
3	GND
4	GND
5	P12V_PSU
6	P12V_PSU
7	P12V_PSU
8	P12V_PSU

CN3: Power of Main Board Connector

Pin	Description
1	GND
2	GND
3	P12V_PSU
4	P12V_PSU

SW1: System Power Button

Pin	Description
1	GND
2	FM_PWRBTN_N_R
3	FM_PWRBTN_N_R
4	GND

LED1: Indicator Lights of Device Status

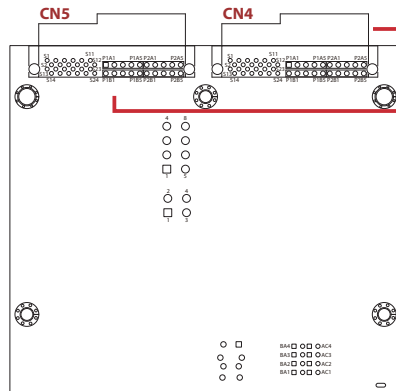
Pin	Description
1	System Status
2	MGMT Port Status
3	SYS/SSD Status
4	PWR1/PWR2 Status

SW2: System Reset Button

Pin	Description
1	GND
2	ACPI_BTN_IN#
3	GND
4	GND

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NSB 1170-PB Bottom Side Layout Placement



CN4: Power Connector (Close to PSU Golden Finger Side)

Pin	Description	Pin	Description
S1	PSU_S13	S15	+12VIBUS
S2	PSU1_DET	S16	PMB_ALERT#1
S3	PSU1_A0	S17	PMB_SDA1
S4	NC	S18	PMB_SCL1
S5	PSU_Vsso	S19	GND
S6	NC	S20	PSU_PSON#
S7	NC	S21	PSU1_PWOK
S8	NC	S22	PSU1_A1
S9	NC	S23	PSU_S11
S10	NC	S24	PSU_S12
S11	NC	P1A[1:5]	GND
S12	NC	P1B[1:5]	GND
S13	P12V_PSU	P2A[1:5]	P12V_PSU
S14	NC	P2B[1:5]	P12V_PSU

CN5: Power Connector (Close to PSU Golden Finger Side)

Pin	Description	Pin	Description
S1	PSU_S13	S15	+12VIBUS
S2	PSU2_DET	S16	PMB_ALERT#2
S3	PSU2_A0	S17	PMB_SDA2
S4	NC	S18	PMB_SCL2
S5	PSU_Vsso	S19	GND
S6	NC	S20	PSU_PSON#
S7	NC	S21	PSU2_PWOK
S8	NC	S22	PSU2_A1
S9	NC	S23	PSU_S11
S10	NC	S24	PSU_S12
S11	NC	P1A[1:5]	GND
S12	NC	P1B[1:5]	GND
S13	P12V_PSU	P2A[1:5]	P12V_PSU
S14	NC	P2B[1:5]	P12V_PSU