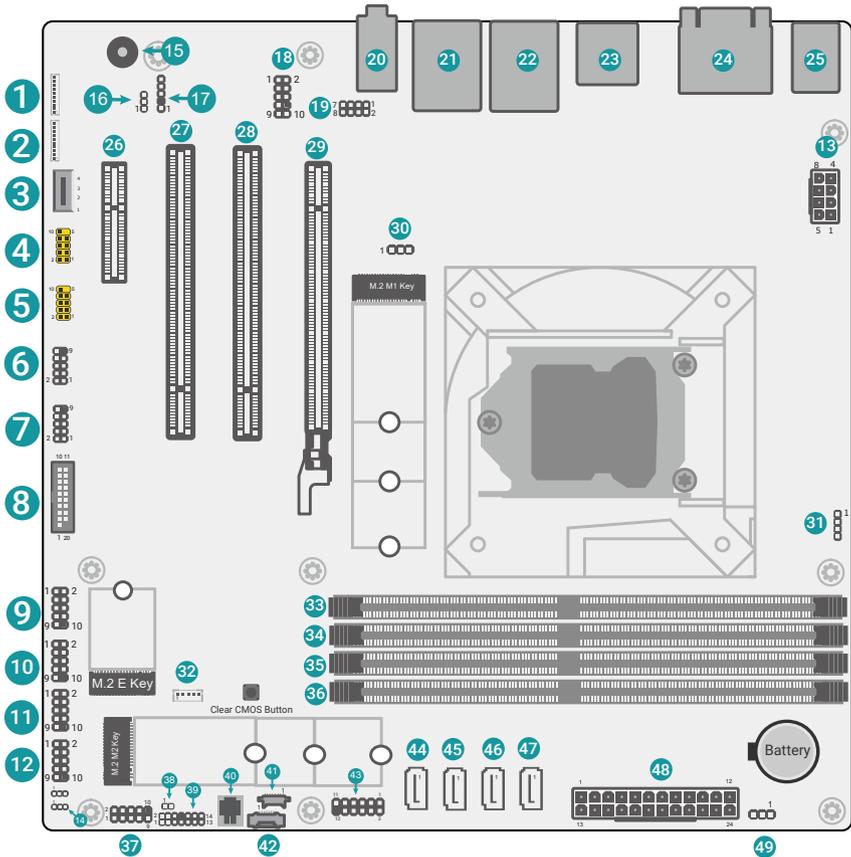


## Board Layout

### Top View



- 1 DIO (4 IN 4 OUT)

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- 2 DIO (4 OUT)

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- 3 USB2\_9

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- 4 USB2\_10/11

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- 5 USB2\_12/13

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- 6 USB2\_14

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- 7 USB2\_5/6

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- 8 USB3\_5/6  
USB2\_5/6

---

- 9 COM2

---

- 10 COM3

---

- 11 COM4

---

- 12 COM5

---

- 13 +12V Power

---

- 14 M2CN3 Power Select

---

- 15 Buzzer

---

- 16 System Fan1

---

- 17 S/PDIF

---

- 18 Front Audio

---

- 19 Front LAN LED

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- 20 ▲Line-Out  
▼Mic-In

- 21 ▲LAN2  
▼USB2\_3/4  
USB3\_3/4

---

- 22 ▲LAN1  
▼USB2\_1/2  
USB3\_1/2

---

- 23 ▲DP++  
▼HDMI

---

- 24 VGA

---

- 25 ▲PS2 (mini-DIN-6)  
▼USB2\_7/8

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- 26 PCIe x4

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- 27 PCI2

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- 28 PCI1

---

- 29 PCIe x16

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- 30 M2CN5 Power Select

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- 31 CPU Fan

---

- 32 OOB I2C Connector

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- 33 DIMM1

---

- 34 DIMM2

---

- 35 DIMM3

---

- 36 DIMM4

---

- 37 COM6

---

- 38 Case Open

---

- 39 ESPI Header

---

- 40 SPI

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41 SMBus & I2C Connector

---

42 EXT-OOB Connector

---

43 Front Panel

---

44 SATA3

---

45 SATA2

---

46 SATA1

---

47 SATA0

---

48 ATX Power

---

49 System Fan2

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## Jumper Settings

<b>30 M2CN5 Power Select</b>	<b>JP31</b>
3V3 (default)	1-2 ON
3V3DU	2-3 ON

<b>14 M2CN3 Power Select</b>	<b>JP32</b>
3V3 (default)	1-2 ON
3V3DU	2-3 ON

# PIN Assignment

## 16 ▶ System Fan1 (J7)

Pin	Assignment
1	GND
2	PWM
3	TACH

## 49 ▶ System Fan2 (J22)

Pin	Assignment
1	GND
2	PWM
3	TACH

## 3 ▶ USB2\_9 (UBCN3)

Pin	Assignment
1	5VDU
2	USB2_9N
3	USB2_9P
4	GND

## 38 ▶ Case Open (SOJ1)

Pin	Assignment
1	Case Open#
2	GND

## 31 ▶ CPU Fan (J8)

Pin	Assignment
1	GND
2	12V
3	RPM
4	CTRL

## 17 ▶ S/PDIF (AUJ1)

Pin	Assignment
1	5V
2	---
3	SPDIF OUT
4	SPDIF IN
5	GND

## 19 ▶ Front LAN LED (ETJ2)

Pin	Assignment
1	LED_SPEED_2500#
2	LED_SPEED_1000#
3	GBE_LED_LINK_ACT#
4	3V3DU
5	LED_SPEED_2500#2
6	LED_SPEED_1000#2
7	GBE_LED_LINK_ACT#2
8	3V3DU

## 9 ▶ COM2 (TSJ2)

Pin	Assignment
1	MDCD-/RS422_RX+/RS485_Data+
2	MSIN-/RS422_RX-/RS485_Data-
3	MSO-/RS422_TX+
4	MDTR-/RS422_TX-
5	GND
6	MDSR-
7	MRTS-
8	MCTS-
9	MRI- (With 5V/12V by BIOS options)

## 41 ▶ SMBus & I2C Connector (J37)

Pin	Assignment	Pin	Assignment
1	3V3DU	2	GND
3	SMB_CLK_RESUME	4	SMB_DATA_RESUME
5	SMBALERT_PCH-	6	I2C2_SCL
7	I2C2_SDA	8	I2C2_INT

## 13 ▶ +12 Power (CN8000)

Pin	Assignment
1	GND_1
2	GND_2
3	GND_3
4	GND_4
5	12V_1
6	12V_2
7	12V_3
8	12V_4

## 42 ▶ EXT-OOB Connector (J38)

Pin	Assignment	Pin	Assignment
1	GPI_SPI_SW	2	SPI_SI-R
3	SPI_SO-R	4	SPI_CLK-R
5	SPI_CS0-	6	GND
7	3V3DU		

## 10 ► COM3 (TSJ3)

Pin	Assignment	Pin	Assignment
1	MDCD-	2	MSIN-
3	MSO-	4	MDTR-
5	GND	6	MDSR-
7	MRTS-	8	MCTS-
9	MRI-	10	----

## 11 ► COM4 (TSJ4)

Pin	Assignment	Pin	Assignment
1	MDCD-	2	MSIN-
3	MSO-	4	MDTR-
5	GND	6	MDSR-
7	MRTS-	8	MCTS-
9	MRI-	10	----

## 12 ► COM5 (TSJ5)

Pin	Assignment	Pin	Assignment
1	MDCD-	2	MSIN-
3	MSO-	4	MDTR-
5	GND	6	MDSR-
7	MRTS-	8	MCTS-
9	MRI-	10	----

## 37 ► COM6 (TSJ6)

Pin	Assignment	Pin	Assignment
1	MDCD-	2	MSIN-
3	MSO-	4	MDTR-
5	GND	6	MDSR-
7	MRTS-	8	MCTS-
9	MRI-	10	----

## 18 ► Front Audio (AUJ2)

Pin	Assignment	Pin	Assignment
1	MIC2_L	2	GND
3	MIC2_R	4	NC
5	LINE2_R	6	MIC_JD
7	GND	8	---
9	LINE_L	10	LINE_JD

## 43 ► Front Panel (J18)

Pin	Assignment	Pin	Assignment
1	NC	2	V_SUS_LED
3	3V3	4	V_SUS_LED
5	HDD_LED	6	SUS_LED
7	GND	8	GND
9	SYS_RST-	10	PWR_BTN-
11	NC	12	---

**1 ▶ DIO(4 IN 4 OUT) (J34)**

Pin	Assignment
1	DI_3
2	DI_2
3	DI_1
4	DI_0
5	DO_3
6	DO_2
7	DO_1
8	DO_0
9	5V
10	GND

**2 ▶ DIO(4 OUT) (J36)**

Pin	Assignment
1	NC
2	NC
3	NC
4	NC
5	DO_7
6	DO_6
7	DO_5
8	DO_4
9	5V
10	GND

**47 ▶ SATA0 (J31)**

Pin	Assignment
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

**46 ▶ SATA1 (J32)**

Pin	Assignment
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

**45 ▶ SATA2 (J17)**

Pin	Assignment
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

**44 ▶ SATA3 (J23)**

Pin	Assignment
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

#### 48 ▶ ATX Power (CN11)

Pin	Assignment	Pin	Assignment
1	3.3V_1	2	3.3V_2
3	GND1	4	5V_1
5	GND2	6	5V_2
7	GND3	8	POK
9	5VSB	10	12V_1
11	12V_2	12	3.3V_3
13	3.3V_4	14	-12V
15	GND4	16	PSON#
17	GND5	18	GND6
19	GND7	20	NC
21	5V_3	22	5V_4
23	5V_5	24	GND8

#### 4 ▶ USB2\_10/11 (UBJ2)

Pin	Assignment	Pin	Assignment
1	5VDU	2	5VDU
3	USB2_10N	4	USB2_11N
5	USB2_10P	6	USB2_11P
7	GND	8	GND
9	---	10	NC

#### 5 ▶ USB2\_12/13 (UBJ3)

Pin	Assignment	Pin	Assignment
1	5VDU	2	5VDU
3	USB2_12N	4	USB2_13N
5	USB2_12P	6	USB2_13P
7	GND	8	GND
9	---	10	NC

#### 39 ▶ ESPI Header (J35)

Pin	Assignment	Pin	Assignment
1	3V3SB	2	ESPI_CLK
3	ESPI_RESET#	4	GND
5	ESPI_ALT#	6	GND
7	ESPI_D0	8	---
9	ESPI_D1	10	ESPI_CS
11	ESPI_D2	12	3V3SB
13	ESPI_D3	14	3V3SB

#### 32 ▶ OOB I2C Connector (J39)

Pin	Assignment	Pin	Assignment
1	NC	2	GND
3	SIO_SCL	4	SIO_SDA
5	NC		

## 7 ▶ USB2\_5/6 (UBJ4)

Pin	Assignment	Pin	Assignment
1	5VDU	2	5VDU
3	USB2_5N	4	USB2_6N
5	USB2_5P	6	USB2_6P
7	GND	8	GND
9	---	10	NC

## 6 ▶ USB2\_14 (UBJ5)

Pin	Assignment	Pin	Assignment
1	5VDU	2	5VDU
3	USB2_14N	4	NC
5	USB2_14P	6	NC
7	GND	8	GND
9	---	10	NC

## 8 ▶ USB3\_5/6 ▶ USB2\_5/6 (UBJ1)

Pin	Assignment	Pin	Assignment
1	5VDU	2	USB3_RX5N
3	USB3_RX5P	4	GND
5	USB3_TX5N	6	USB3_TX5P
7	GND	8	USB2_5N
9	USB2_5P	10	Reserve 5V/GND
11	USB2_6P	12	USB2_6N
13	GND	14	USB3_TX6P
15	USB3_TX6N	16	GND
17	USB3_RX6P	18	USB3_RX6N
19	5VDU	20	---



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