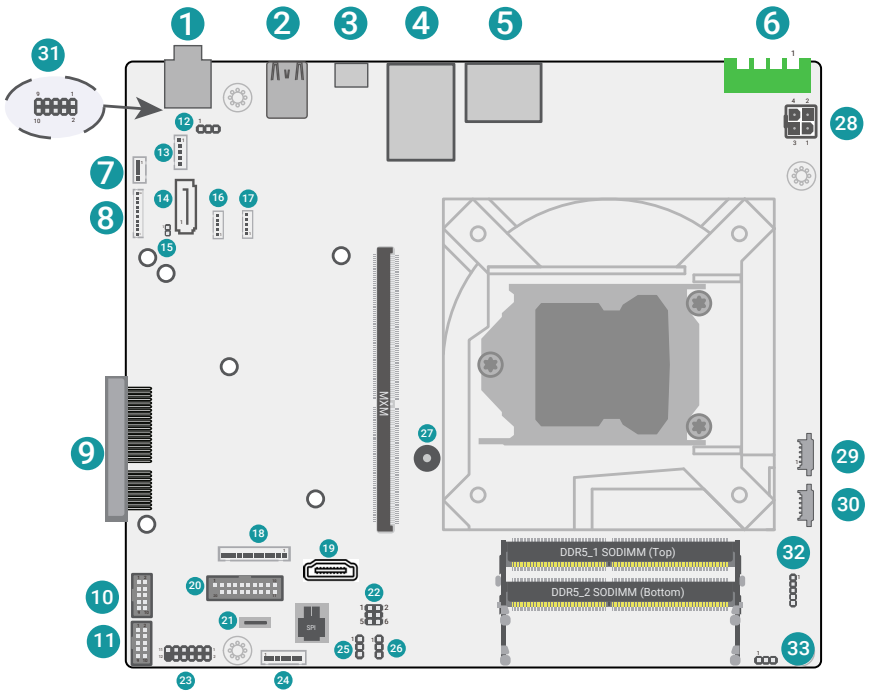
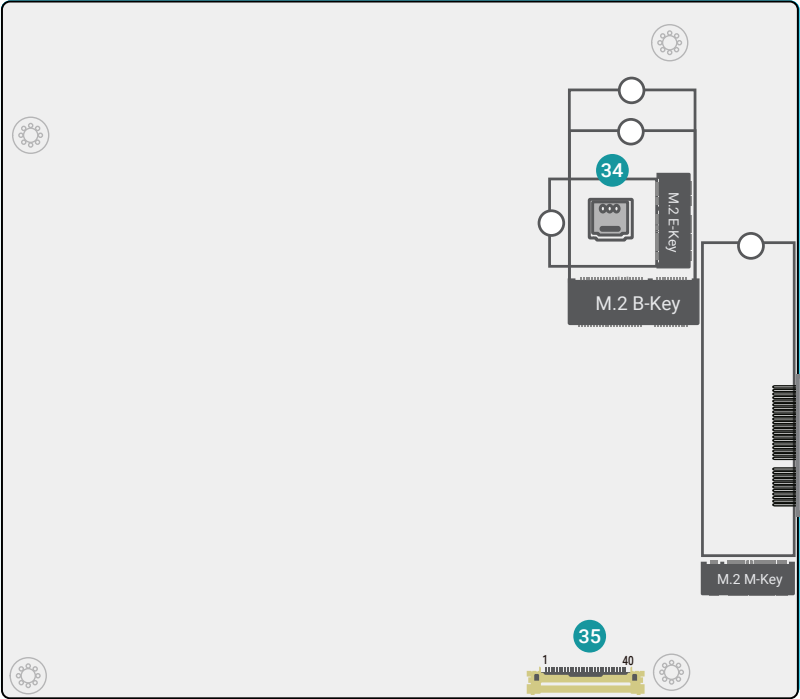


## Board Layout

Top View



Bottom View



<p>1 ▲Line-out ▼Mic-in</p> <hr/> <p>2 USB3.2</p> <hr/> <p>3 <b>Q670E:</b> 1 x USB 3.2 Gen2+ 1 x USB Type C or 2 x USB 3.2 Gen2 <b>H610E:</b> 2 x USB 2.0 or 1 x USB Type C</p> <hr/> <p>4 ▲2.5G LAN - I219LM(1G) ▼2.5G LAN - I226V(2.5G)</p> <hr/> <p>5 ▲DP++ - from CPU ▼DP++ - from MXM</p> <hr/> <p>6 DC-in</p> <hr/> <p>7 System Fan2</p> <hr/> <p>8 DIO</p> <hr/> <p>9 PCIe Gen3</p> <hr/> <p>10 COM1</p> <hr/> <p>11 COM2</p> <hr/> <p>12 AT/ATX Mode Select</p> <hr/> <p>13 SATA Power</p> <hr/> <p>14 SATA0</p> <hr/> <p>15 Case Open</p> <hr/> <p>16 OOB I2C Connector</p> <hr/> <p>17 I2C Header</p> <hr/> <p>18 eSPI</p> <hr/> <p>19 HDMI</p> <hr/> <p>20 USB3.2 Gen1 Header</p> <hr/>	<p>21 USB2.0 Type A (Vertical)</p> <hr/> <p>22 Panel Driver Power</p> <hr/> <p>23 Front Panel</p> <hr/> <p>24 OOB SPI Connector</p> <hr/> <p>25 Panel Backlight Power</p> <hr/> <p>26 Panel Dimming Level</p> <hr/> <p>27 Buzzer</p> <hr/> <p>28 DC-in</p> <hr/> <p>29 CPU Fan</p> <hr/> <p>30 System Fan1</p> <hr/> <p>31 Front Audio</p> <hr/> <p>32 JTAG</p> <hr/> <p>33 Debug</p> <hr/> <p>34 SIM Card Slot</p> <hr/> <p>35 eDP</p> <hr/> <p>36 PCIe Gen3</p> <hr/>
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## Jumper Settings

12 AT/ATX Mode Select	JP2
ATX Mode (Default)	1-2 On
AT Mode	2-3 On

26 Panel Dimming Level	DPJP1
3.3V (Default)	1-2 On
5V	2-3 On

25 Panel Backlight Power	DPJP2
+12V	1-2 On
+5V (Default)	2-3 On

22 Panel Driver Power	DPJP3
+12V	1-2 On
+5V	3-4 On
+3.3V (Default)	5-6 On

## PIN Assignment

### 33 ▶ Debug (JP3)

Pin	Assignment
1	Debug_TX
2	Debug_RX
3	GND

### 30 ▶ System Fan1 (J6)

Pin	Assignment
1	GND
2	12V
3	TACH
4	PWM

### 7 ▶ System Fan2 (J7)

Pin	Assignment
1	GND
2	12V
3	TACH
4	PWM

### 29 ▶ CPU Fan (J5)

Pin	Assignment
1	GND
2	12V
3	TACH
4	PWM

### 6 ▶ DC-in (CN8)

Pin	Assignment
1	Power
2	Power
3	GND
4	GND

### 28 ▶ DC-in (CN9)

Pin	Assignment
1	GND
2	GND
3	Power
4	Power

### 32 ▶ JTAG (J22)

Pin	Assignment
1	3V3SB
2	M_SWDIO
3	M_SWCLK
4	NRST
5	GND

### 13 ▶ SATA Power (CN6)

Pin	Assignment
1	5V_SATA
2	5V_SATA
3	12V_SATA
4	GND
5	GND

### 17 ▶ I2C Header (J1)

Pin	Assignment
1	3V3SB
2	GND
3	I2C2_SCL
4	I2C2_SDA
5	I2C2_INT

### 16 ▶ OOB I2C connector (J39)

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

### 24 ▶ OOB SPI Connector (J3)

Pin	Assignment
1	EXT_SPI_SW
2	EXT_MOSI
3	EXT_MISO
4	EXT_CLK
5	EXT_CS0
6	GND
7	3V3SB

### 14 ▶ SATA0 (J12)

Pin	Assignment
1	GND
2	SATA_TX4P
3	SATA_TX4N
4	GND
5	SATA_RX4N
6	SATA_RX4P
7	GND

## 8 ▶ DIO (J14)

Pin	Assignment
1	DI3
2	DI2
3	DI1
4	DIO
5	DO3
6	DO2
7	DO1
8	DO0
9	5VSB
10	GND

## 18 ▶ eSPI Header (J9)

Pin	Assignment
1	3V3SB
2	ESPI_RST
3	ESPI_ALERT1
4	ESPI_IO_0
5	ESPI_IO_1
6	ESPI_IO_2
7	ESPI_IO_3
8	ESPI_CLK
9	ESPI_CS0
10	DEBUG_UART_RX
11	DEBUG_UART_TX
12	GND

## 23 ▶ Front Panel (J8)

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

HDD-LED: 3, 5  
 PWR-LED: 2, 4  
 RESET: 7, 9  
 ATX-SW: 8, 10

## 10 ▶ COM1 (J10)

Pin	Assignment	Pin	Assignment
1	MDCD-	2	MRD
3	MTD	4	MDTR-
5	GND	6	MDSR-
7	MRTS-	8	MCTS-
9	5V/ 12V/ MRI-	10	----

## 11 ▶ COM2 (J11)

Pin	Assignment	Pin	Assignment
1	MDCD-	2	MRD
3	MTD	4	MDTR-
5	GND	6	MDSR-
7	MRTS-	8	MCTS-
9	5V/ 12V/ MRI-	10	----

## 15 ▶ Case Open (SOJ1)

Pin	Assignment
1	CASEOPEN-
2	GND

## 20 ▶ USB3.2 Gen1 Header (UBJ1)

Pin	Assignment	Pin	Assignment
1	VCC	20	----
2	USB3_2_RXN	19	VCC
3	USB3_2_RXP	18	USB3_3_RXN
4	GND	17	USB3_3_RXP
5	USB3_2_TXN	16	GND
6	USB3_2_TXP	15	USB3_3_TXN
7	GND	14	USB3_3_TXP
8	U2DM1_C_N	13	GND
9	U2DP1_C_P	12	U2DM2_C_N
10	NC	11	U2DP2_C_P

## 31 ▶ Front Audio (AUJ2)

Pin	Assignment	Pin	Assignment
1	MIC1-R	2	FRONT-R
3	MIC1-JD	4	FRONT-JD
5	GND	6	GND
7	GND	8	--
9	MIC1-L	10	FRONT-L

## 35 ▶ eDP (DPCN1)

Pin	Assignment	Pin	Assignment
1	NC	21	eDP Panel PWR
2	Interter Power	22	eDP Panel PWR
3	Interter Power	23	eDP Panel PWR
4	Interter Power	24	GND
5	Interter Power	25	eDP_AUX-
6	NC	26	eDP_AUX+
7	NC	27	GND
8	Panel Inverter Brightness Voltage Control	28	eDP_Lane 0+
9	Panel Backlight On/Off Control	29	eDP_Lane 0-
10	eDP_GND	30	GND
11	eDP_GND	31	eDP_Lane 1+
12	eDP_GND	32	eDP_Lane 1-
13	eDP_GND	33	GND
14	eDP_Hot Plug	34	eDP_Lane 2+
15	GND	35	eDP_Lane 2-
16	GND	36	GND
17	GND	37	eDP_Lane 3+
18	GND	38	eDP_Lane 3-
19	NC	39	GND
20	eDP Panel PWR	40	NC



DFI reserves the right to change the specifications at any time prior to the product's release. This QR may be based on the product's revision. For more documentation and drivers, please visit the download page at [www.dfi.com/downloadcenter](http://www.dfi.com/downloadcenter), or via the QR codes to the right.

