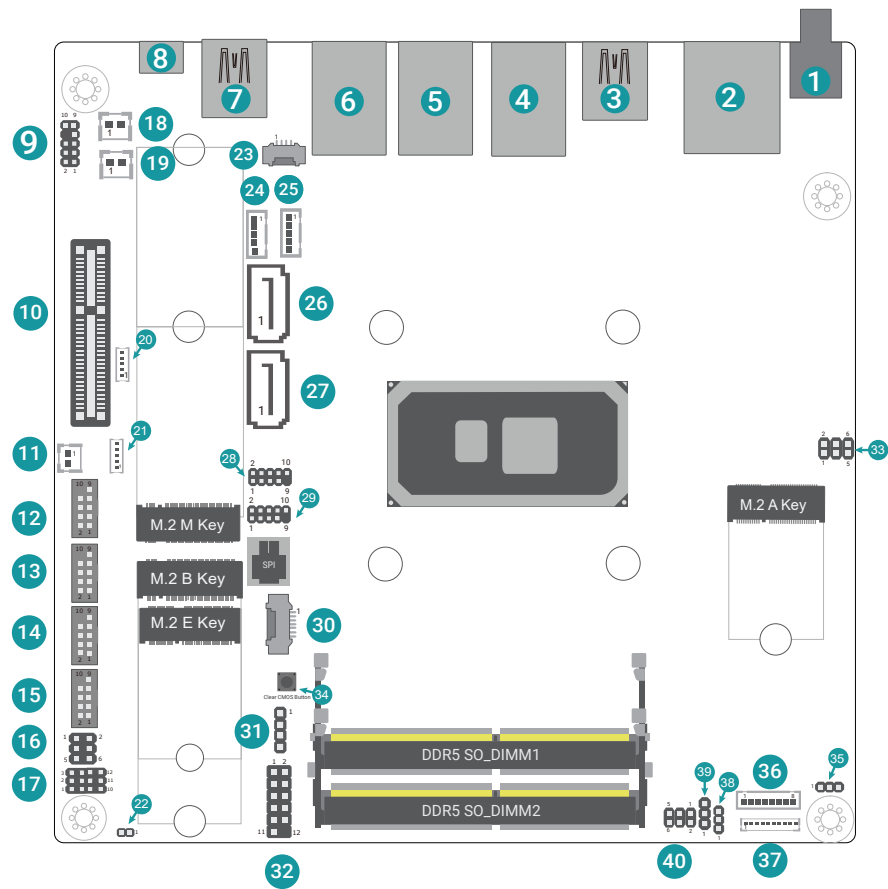
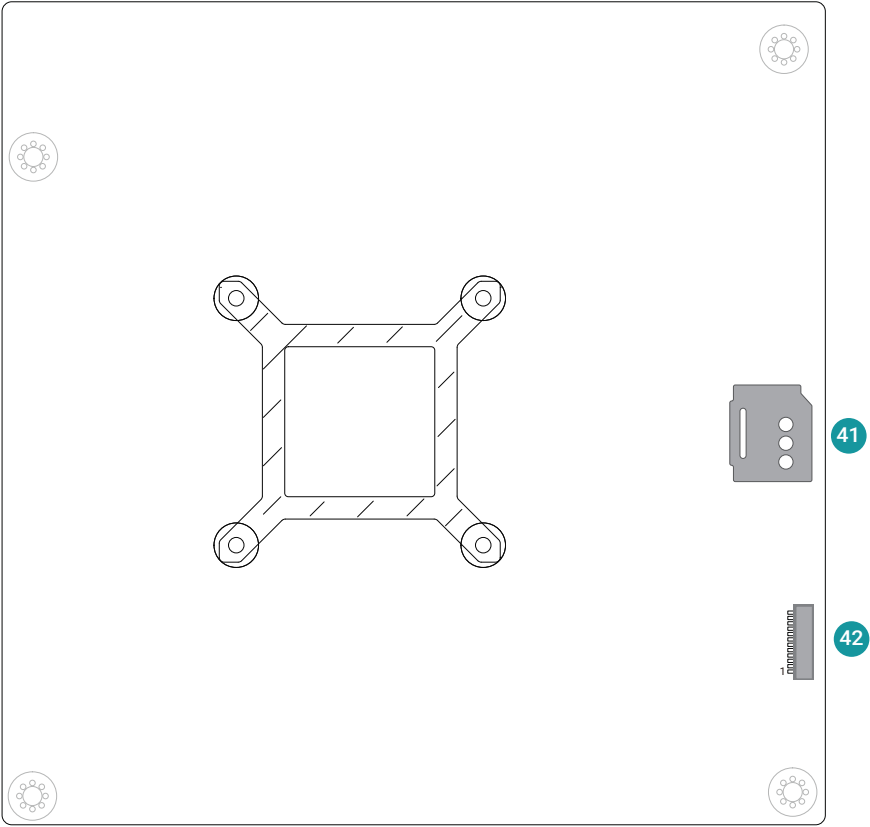


Board Layout

Top View



Bottom View



1	DC-in	23	CPU Fan
2	▲DP++ ▼HDMI	24	SATA Power
3	USB3.2 Gen2	25	SATA Power
4	LAN1	26	SATA0
5	LAN2	27	SATA1
6	LAN3	28	USB2_3/5
7	USB3.2 Gen2	29	USB2_6/7
8	USB Type C	30	OOB SPI Connector
9	Front Audio	31	System Fan
10	PCIe Gen 4x4	32	Front Panel
11	RTC Battery	33	M2 A-Key eDP/LVDS Selection
12	COM1	34	Clear CMOS Button
13	COM2	35	M2 A-Key Panel Power
14	COM3 (with power selection)	36	Panel Backlight Control
15	COM4 (with DIO function jumper)	37	DIO
16	COM3 Power Selection	38	Panel Backlight Selection
17	COM4 DIO & COM4 Selection	39	Panel Inverter Power
18	Speaker L	40	Panel Power
19	Speaker R	41	SIM Card Slot
20	I2C Header	42	ESPI
21	OOB I2C Connector		
22	Case Open		



Jumper Settings

39 Panel Inverter Power	DPJP4
12V	1-2 On
5V (Default)	2-3 On

33 M2 A-Key eDP/LVDS Selection	DPJP6
LVDS	1-3, 2-4 On
eDP (Default)	3-5, 4-6 On

40 Panel Power	DPJP7
12V	1-2 On
5V	3-4 On
3V3 (Default)	5-6 On

16 COM3 Power Selection	JP3
RS232 standard (Default)	1-3, 2-4 On
RS232 with power	3-5, 4-6 On

38 Panel Backlight Power Selection	DPJP8
3V3 (Default)	1-2 On
5V	2-3 On

17 COM4 COM/DIO Selection	JP2
RS232 standard (Default)	1-2,4-5,7-8,10-11 On
DIO function	2-3,5-6,8-9,11-12 On

35 M2 A-Key Panel Power	DPJP5
Panel Power	1-2 On
NC (Default)	2-3 On



PIN Assignment

11 ► RTC Battery (CN7)

Pin	Assignment
1	V_BAT
2	GND

22 ► Case Open (J24)

Pin	Assignment
1	CASEOPEN-
2	GND

31 ► System Fan (CN25)

Pin	Assignment
1	GND
2	+12V
3	SYSFANIN (TACH)
4	SYSFANOUT (PWM)

23 ► CPU Fan (CN24)

Pin	Assignment
1	GND
2	12V
3	CPUFANIN (TACH)
4	CPUFANOUT (PWM)

20 ► I2C Header (CN6)

Pin	Assignment
1	3V3SB
2	GND
3	I2C_CLK_C
4	I2C_DATA_C
5	I2C_ALERT#_C

21 ► OOB I2C (J42)

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

24 ► SATA Power (CN1)

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

25 ► SATA Power (CN13)

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

26 ► SATA0 (J1)

Pin	Assignment
1	GND
2	SATA_0_C_TXP
3	SATA_0_C_TXN
4	GND
5	SATA_0_C_RXN
6	SATA_0_C_RXP
7	GND

27 ► SATA1 (J6)

Pin	Assignment
1	GND
2	SATA1_CN_TXP
3	SATA1_CN_TXN
4	GND
5	SATA1_CN_RXN
6	SATA1_CN_RXP
7	GND

30 ► OOB SPI (J3)

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

37 ► DIO (J15)

Pin	Assignment
1	D_IOA7
2	D_IOA6
3	D_IOA5
4	D_IOA4
5	D_IOA3
6	D_IOA2
7	D_IOA1
8	D_IOA0
9	5VSB
10	GND

28 ► USB2_3/5 (UBJ1)

Pin	Assignment
1	VCC
2	VCC
3	USBP_C_3N
4	USBP_C_5N
5	USBP_C_3P
6	USBP_C_5P
7	GND
8	GND
9	NC
10	NC

29 ► USB2_6/7 (UBJ2)

Pin	Assignment
1	VCC
2	VCC
3	USBP_C_6N
4	USBP_C_7N
5	USBP_C_6P
6	USBP_C_7P
7	GND
8	GND
9	NC
10	NC

12 ► COM1 (TSJ1)

Pin	Assignment	Pin	Assignment
1	MDCD1#	2	MSIN1
3	MSOUT1	4	MDTR1#
5	GND	6	MDSR1#
7	MRTS1#	8	MCTS1#
9	MRI1#	10	NC

13 ► COM2 (TSJ2)

Pin	Assignment	Pin	Assignment
1	MDCD2#	2	MSIN2
3	MSOUT2	4	MDTR2#
5	GND	6	MDSR2#
7	MRTS2#	8	MCTS2#
9	MRI2#	10	NC

14 ► COM3 (J40) (with power selection)

Pin	Assignment	Pin	Assignment
1	X_MDCD3#	2	MSIN3
3	MSOUT3	4	MDTR3#
5	GND	6	MDSR3#
7	MRTS3#	8	MCTS3#
9	X_MRI3#	10	NC

15 ► COM4 (J41) (with DIO function jumper)

Pin	Assignment	Pin	Assignment
1	X_MDCD4#	2	X_MSIN4#
3	X_MSO4#	4	X_MDTR4#
5	GND	6	MDSR4#
7	MRTS4#	8	MCTS4#
9	MRI4#	10	NC

9 ► Front Audio (AUCN1)

Pin	Assignment	Pin	Assignment
1	LINE1-L	2	GND
3	LINE1-R	4	NC
5	HPOUT-R	6	MIC-JD
7	GND	8	NC
9	HPOUT-L	10	HPOUT-JD

18 ► Speaker L (J38)

Pin	Assignment
1	SPKOUT_L-
2	SPKOUT_L+

19 ► Speaker R (J39)

Pin	Assignment
1	SPKOUT_R-
2	SPKOUT_R+

36 ► Panel Backlight Control (DPJ1)

Pin	Assignment
1	GND
2	GND
3	DIMMING
4	VCC_PANEL_PWR
5	LVDS_3V3
6	BLONOFF
7	VCC_INV_PWR
8	VCC_INV_PWR

32 ► Front Panel (J17)

Pin	Assignment	Pin	Assignment
1	NC	2	3V3SB
3	3V3	4	3V3SB
5	HD_LED#	6	SUS_LED#
7	GND	8	GND
9	SYS_RST-	10	SIO_PWSIN#
11	NC	12	---

42 ► ESPI (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

► List of Internal Header / Connector Form Factor and Pitch

QR Item No	Header/Connector	Location	Description
11	RTC Battery	CN7	BOX HEADER, 1*2P/1.25mm,
22	Case Open	J24	PIN PLUG 1*2pin/2.54mm
31	System Fan	CN25	BOX HEADER 1*4, 2.54mm
23	CPU Fan	CN24	BOX HEADER 1*4P, 1.25mm
20	I2C Header	CN6	BOX HEADER, 1*5P/1.0mm
21	OOB I2C	J42	BOX HEADER, 1*5P/1.0mm
24	SATA Power	CN1	PIN PLUG 2*5-1(K8),2.0mm
25	SATA Power	CN13	Wafer 1.25mm wire to board 5PIN
26	SATA0	J1	SATA3 CONNECTOR 7Pin
27	SATA1	J6	SATA3 CONNECTOR 7Pin
30	OOB SPI	J3	BOX HEADER, 1*7P/1.25mm
37	DIO	J15	BOX HEADER 1*10/1.00mm
28	USB2_3/5	UBJ1	PIN PLUG 2*5-1(K9),2.0mm
29	USB2_6/7	UBJ2	PIN PLUG 2*5-1(K9),2.0mm
12	COM1	TSJ1	BOX HEADER, 2*5P-1(K10)/2mm
13	COM2	TSJ2	BOX HEADER, 2*5P-1(K10)/2mm
14	COM3 (with power selection)	J40	BOX HEADER, 2*5P-1(K10)/2mm,
15	COM4 (with DIO function jumper)	J41	BOX HEADER, 2*5P-1(K10)/2mm
9	Front Audio	AUCN1	PIN PLUG 2*5-1(K8),2.0mm
18	Speaker L	J38	BOX HEADER, 1*2P/2.0mm,

QR Item No	Header/Connector	Location	Description
19	Speaker R	J39	BOX HEADER, 1*2P/2.0mm
36	Panel Backlight Control	DPJ1	BOX HEADER, 1*8P/1.25mm
42	ESPI	J9	BOX HEADER 1*12P/1.0mm
32	Front Panel	J17	PIN PLUG 2*6-1(K12),2.54mm



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, or via the QR codes to the right.

