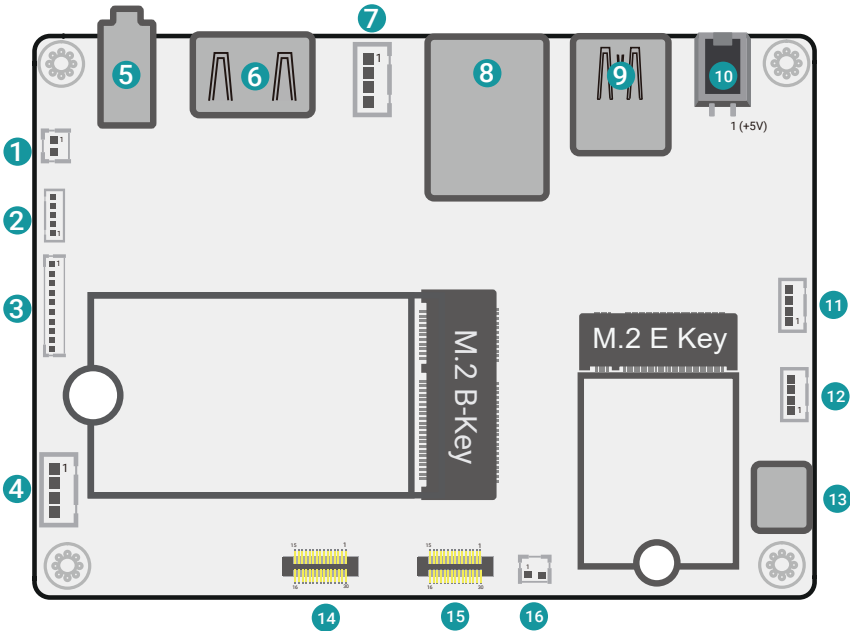
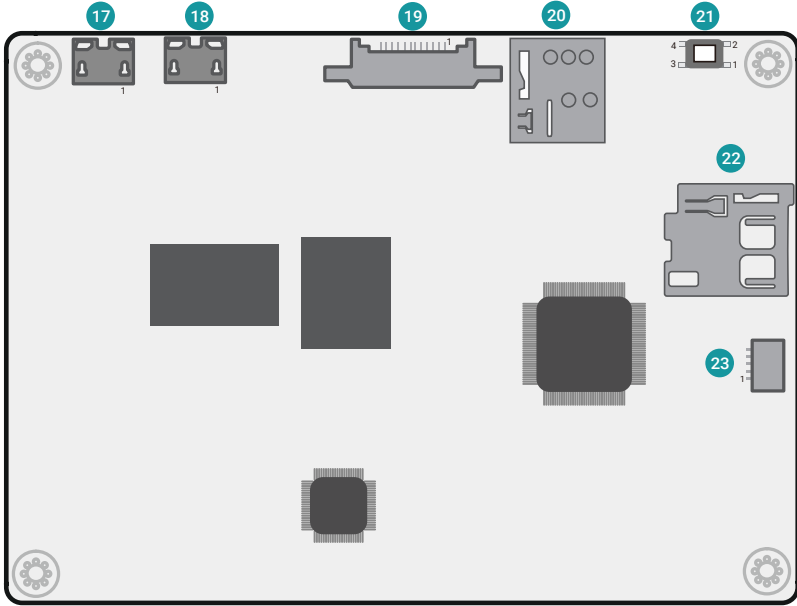


## Board Layout

Top View



## Bottom View



1 Battery

---

2 COM1

---

3 DIO 8-bits

---

4 CAN FD

---

5 Audio

---

6 HDMI

---

7 USB2.0\_4

---

8 LAN

---

9 2 x USB 3.1 Gen1 Type A

---

10 DC-IN

---

11 USB2.0\_2

---

12 USB2.0\_1

---

13 USB Type C (Download only)

---

14 Camera1  
(4-lanes, MIPI-CSI2, reference model: IMX577)

---

15 Camera2  
(4-lanes, MIPI-CSI2, reference model: IMX577)

---

16 Force USB Boot

---

17 USB2.0\_Debug/Console

---

18 USB2.0\_ADB

---

19 SPI/I2C/GPIO

---

20 SIM Slot

---

21 USB Boot (SW1)

---

22 uSD Slot

---

23 Front Panel

---

# PIN Assignment

## 10 ► DC-IN (DCCN1)

| Pin | Assignment |
|-----|------------|
| 1   | +5V        |
| 2   | GND        |

## 16 ► Force USB Boot (SWJ1)

| Pin | Assignment     |
|-----|----------------|
| 1   | Force_USB_Boot |
| 2   | SW1_PU_1P8     |



### Note:

SWJ1, internal wafer, is saved for system integration. Same function as SW1. To enter the download mode (USB Boot), you can just press SW1 or have SWJ1 two pins short-circuited.

## 11 ► USB2.0\_2 (UBJ2)

| Pin | Assignment |
|-----|------------|
| 1   | +5V        |
| 2   | USB-DN     |
| 3   | USB-DP     |
| 4   | GND        |

## 1 ► Battery (BTJ1)

| Pin | Assignment |
|-----|------------|
| 1   | +VBAT      |
| 2   | GND        |

## 12 ► USB2.0\_1 (UBJ1)

| Pin | Assignment |
|-----|------------|
| 1   | +5V        |
| 2   | USB-DN     |
| 3   | USB-DP     |
| 4   | GND        |

## 7 ► USB2.0\_4 (UBJ4)

| Pin | Assignment |
|-----|------------|
| 1   | +5V        |
| 2   | USB-DN     |
| 3   | USB-DP     |
| 4   | GND        |

## 4 ► CAN FD (CBJ1)

| Pin | Assignment |
|-----|------------|
| 1   | +VDD_CAN   |
| 2   | CAN1H      |
| 3   | CAN1L      |
| 4   | GND        |

**18 ▶ USB2.0\_ADB (UBCN4)**

| Pin | Assignment |
|-----|------------|
| 1   | +5V        |
| 2   | USB-DN     |
| 3   | USB-DP     |
| 4   | NC         |
| 5   | GND        |

**17 ▶ USB2.0\_Debug/Console (DUCN1)**

| Pin | Assignment |
|-----|------------|
| 1   | +5V        |
| 2   | USB-DN     |
| 3   | USB-DP     |
| 4   | NC         |
| 5   | GND        |

**23 ▶ Front Panel (FPJ1)**

| Pin | Assignment       |
|-----|------------------|
| 1   | GND              |
| 2   | Volume- _Button# |
| 3   | Volume+ _Button# |
| 4   | PWR _Button#     |
| 5   | LED_3.3V         |

**2 ▶ COM1 (TSJ1)**

| Pin | Assignment |
|-----|------------|
| 1   | COM1_RX    |
| 2   | COM1_TX    |
| 3   | COM1_CTS   |
| 4   | COM1_RTS   |
| 5   | GND        |

**3 ▶ DIO 8-bits (IOJ1)**

| Pin | Assignment |
|-----|------------|
| 1   | DIO0       |
| 2   | DIO1       |
| 3   | DIO2       |
| 4   | DIO3       |
| 5   | DIO4       |
| 6   | DIO5       |
| 7   | DIO6       |
| 8   | DIO7       |
| 9   | +VPWR_3.3V |
| 10  | GND        |

**19 ▶ SPI/I2C/GPIO (IOJ2)**

| Pin | Assignment   |
|-----|--------------|
| 1   | +VCC_3.3V    |
| 2   | SPI_MISO_3V3 |
| 3   | SPI_MOSI_3V3 |
| 4   | SPI_CLK_3V3  |
| 5   | SPI_CS#_3V3  |
| 6   | I2C_SCL_3V3  |
| 7   | I2C_SDA_3V3  |
| 8   | GPIOA_3V3    |
| 9   | GPIOB_3V3    |
| 10  | GPIOC_3V3    |
| 11  | GND          |
| 12  | GND          |

## 14 ► Camera 1 (CMJ1)

\* (4-lanes, MIPI-CSI2, reference model: IMX577)

| Pin | Assignment           | Pin | Assignment    |
|-----|----------------------|-----|---------------|
| 1   | CAM2_Strobe/<br>GPIO | 2   | CAM2_SPI-CLK  |
| 3   | +2.8V                | 4   | CAM2_SPI-MOSI |
| 5   | CAM2_RESET#          | 6   | GND           |
| 7   | CAM2_CSI_D2P         | 8   | CAM2_CSI_D2M  |
| 9   | GND                  | 10  | CAM2_CSI_D0P  |
| 11  | CAM2_CSI_D0M         | 12  | GND           |
| 13  | CAM2_CSI_D3P         | 14  | CAM2_CSI_D3M  |
| 15  | Reserved             | 16  | GND           |
| 17  | CAM2_CSI_D1M         | 18  | CAM2_CSI_D1P  |
| 19  | GND                  | 20  | CAM2_CSI_CKM  |
| 21  | CAM2_CSI_CKP         | 22  | GND           |
| 23  | CAM2_CSI_MCLK        | 24  | GND           |
| 25  | CAM2_I2C-SCL         | 26  | CAM2_I2C-SDA  |
| 27  | CAM2_SPI-CS#         | 28  | +1.8V         |
| 29  | CAM2_SPI-MISO        | 30  | +1.1V         |

## 15 ► Camera 2 (CMJ2)

\* (4-lanes, MIPI-CSI2, reference model: IMX577)

| Pin | Assignment           | Pin | Assignment   |
|-----|----------------------|-----|--------------|
| 1   | CAM0_Strobe/<br>GPIO | 2   | CAM0_RSV#1   |
| 3   | +2.8V                | 4   | CAM0_RSV#2   |
| 5   | CAM0_RESET#          | 6   | GND          |
| 7   | CAM0_CSI_D2P         | 8   | CAM0_CSI_D2M |
| 9   | GND                  | 10  | CAM0_CSI_D0P |
| 11  | CAM0_CSI_D0M         | 12  | GND          |
| 13  | CAM0_CSI_D3P         | 14  | CAM0_CSI_D3M |
| 15  | Reserved             | 16  | GND          |
| 17  | CAM0_CSI_D1M         | 18  | CAM0_CSI_D1P |
| 19  | GND                  | 20  | CAM0_CSI_CKM |
| 21  | CAM0_CSI_CKP         | 22  | GND          |
| 23  | CAM0_CSI_MCLK        | 24  | GND          |
| 25  | CAM0_I2C-SCL         | 26  | CAM0_I2C-SDA |
| 27  | CAM0_RSV#4           | 28  | +1.8V        |
| 29  | CAM0_RSV#3           | 30  | +1.1V        |



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.

