

Document Information

| Version | Date             | Author | Description   |
|---------|------------------|--------|---|
| 1.0     | April 29, 2025   | Hipnuc | Initial release   |
| 1.1     | January 22, 2026 | Hipnuc | Added new models, updated appearance, and revised pin definitions |

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## 1 Overview

EVAL HI06 is a standard evaluation board designed for HI06 series modules, enabling quick interface connection, functional verification, and performance evaluation. EVAL HI06 is equipped with three Molex connectors, J1, J2, and J3, and can be connected to a host through the bundled USB-to-Molex cable or open-end cable assembly. For stable test results, it is recommended to securely mount EVAL HI06 to the user device or test fixture.

This evaluation board is intended for interface connection, functional verification, and performance evaluation of specified HI06 series module models. Different module variants may differ in interface functions and supported features. Refer to the corresponding data sheet for details.

## 2 Ordering Information

### 2.1 Model Information

**Table 1: Model Information**

| Part Number     | Name                        | Description                     |
|-----------------|-----------------------------|---------------------------------|
| EVAL HI06T2-MI0 | HI06T2-MI0 Evaluation Board | Evaluation board for HI06T2-MI0 |
| EVAL HI06T3-MI0 | HI06T3-MI0 Evaluation Board | Evaluation board for HI06T3-MI0 |
| EVAL HI06N2-MI0 | HI06N2-MI0 Evaluation Board | Evaluation board for HI06N2-MI0 |
| EVAL HI06N3-MI0 | HI06N3-MI0 Evaluation Board | Evaluation board for HI06N3-MI0 |

### 2.2 Contact Information

**Email:** overseas1@hipnuc.com

**Website:** www.hipnuc.com

## 3 Related Documents

1. HI06 Datasheet
2. Command and Programming Manual
3. STEP File
4. GUI Software and Reference Examples

4 Specifications

Unless otherwise specified, absolute maximum ratings indicate only the stress limits that the device can withstand and are not recommended operating conditions. Prolonged operation at or beyond the absolute maximum ratings may result in degraded performance or permanent damage.

4.1 Absolute Maximum Ratings

Table 2: Absolute Maximum Ratings

| Parameter                     | Limit           | Description       |
|-------------------------------|-----------------|-------------------|
| Mechanical Shock              | 2000 g          | Duration < 1 ms   |
| Storage Temperature           | -40 °C to 85 °C |                   |
| ESD (HBM)                     | 15 kV           | JEDEC/ESDA JS-001 |
| Input Voltage (VDD)           | 6.0 V           |                   |
| I/O Pin Voltage to GND        | -0.3 V to 3.3 V |                   |
| CAN H or CAN L Voltage to GND | ±36 V           |                   |

**Note 1:** Unless otherwise specified, digital interfaces such as UART, SPI, I2C, NRST, SYNC\_IN, and SYNC\_OUT use 3.3 V logic levels and are subject to the voltage limits of standard digital I/O pins.

4.2 Recommended Operating Conditions

| Parameter                     | Min | Typ | Max | Unit | Description                  |
|-------------------------------|-----|-----|-----|------|------------------------------|
| Input voltage                 | 3.3 | -   | 5   | V    | Evaluation board power input |
| Digital interface logic level | -   | 3.3 | -   | V    | UART / SPI / I2C / GPIO      |

## 4.3 Mechanical Dimensions and Pin Definitions

All dimensions are in mm unless otherwise specified.

### 4.3.1 EVAL HI06 Dimensions

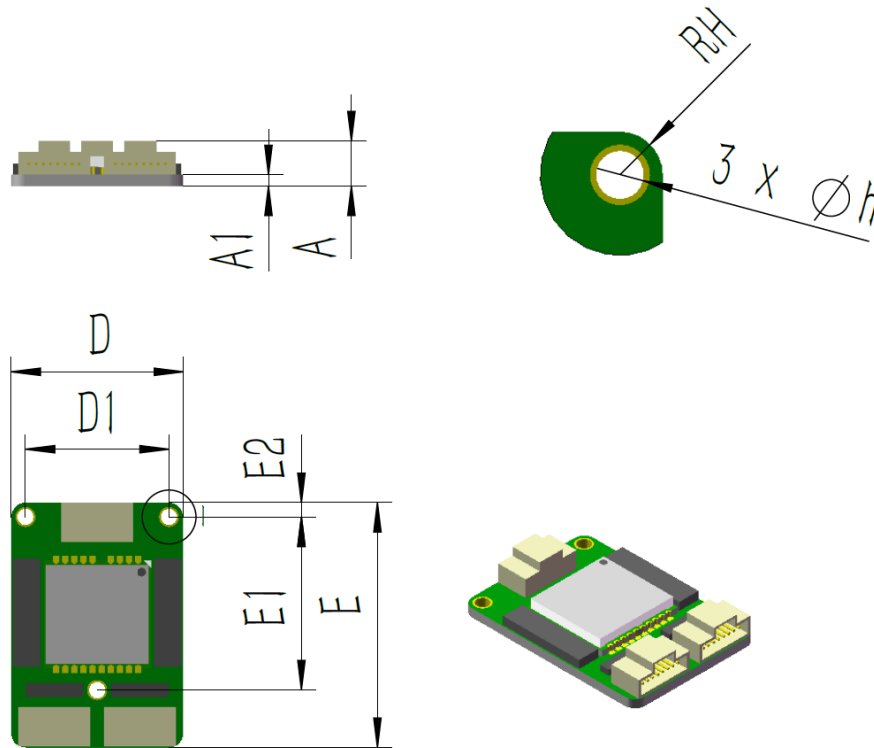


Figure 1: HI06 Evaluation Board Dimensions

Table 3: HI06 Evaluation Board Dimensions

| Symbol | Min (mm) | Typ (mm) | Max (mm) |
|--------|----------|----------|----------|
| D      | 23.7     | 24       | 24.3     |
| D1     | 19.9     | 20       | 20.1     |
| E      | 33.7     | 34       | 34.3     |
| E1     | 23.9     | 24       | 24.1     |
| E2     | 1.8      | 2        | 2.2      |
| A      | 6.1      | 6.3      | 6.5      |
| A1     | 1.5      | 1.6      | 1.7      |
| H      | Φ1.9     | Φ2       | Φ2.1     |

4.3.2 EVAL HI06 Pin Definitions

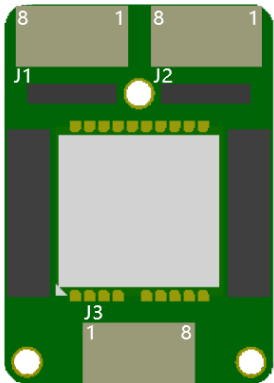


Table 4: J1 Pin Description

| Pin Number | Pin Name        | Description  |
|------------|-----------------|--|
| 1          | UART1_TX        | UART1 transmit   |
| 2          | UART1_RX        | UART1 receive  |
| 3          | GND             | Power ground   |
| 4          | NRST            | Hardware reset input, active low. It is recommended to connect this pin to a host GPIO for external reset control; if unused, it may be left floating. |
| 5          | IO1/SYNC_IN/PPS | Synchronization input. Can accept an external trigger signal, such as a GNSS PPS signal.   |
| 6          | IO2/SYNC_OUT    | Synchronization output. Can be used as a Data Ready signal.  |
| 7          | GND             | Power ground   |
| 8          | VDD             | Power input, 3.3 V to 5.0 V  |

Table 5: J2 Pin Description

| Pin Number | Pin Name         | Description   |
|------------|------------------|---|
| 1          | UART2_TX         | UART2 transmit  |
| 2          | UART2_RX         | UART2 receive   |
| 3          | CAN H            | CAN high  |
| 4          | CAN L            | CAN low   |
| 5          | UART3_RX/I2C_SDA | UART3 receive; can be connected to an external GNSS module / I2C data   |
| 6          | UART3_TX/I2C_SCL | UART3 transmit; can be connected to an external GNSS module / I2C clock |
| 7          | GND              | Power ground  |
| 8          | VDD              | Power input, 3.3 V to 5.0 V   |

**Note 1:** The CAN interface on the evaluation board does not include a built-in termination resistor by default. When performing CAN communication tests, configure an external termination resistor according to the actual network topology.

**Table 6: J3 Pin Description**

| Pin Number | Pin Name | Description                           |
|------------|----------|---------------------------------------|
| 1          | UART4_TX | UART4 transmit                        |
| 2          | UART4_RX | UART4 receive                         |
| 3          | SPI_MOSI | Module SPI data input signal (slave)  |
| 4          | SPI_MISO | Module SPI data output signal (slave) |
| 5          | SPI_SCK  | Module SPI clock signal               |
| 6          | SPI_CS   | Module SPI chip select signal         |
| 7          | GND      | Power ground                          |
| 8          | VDD      | Power input, 3.3 V to 5.0 V           |

**Note 1:** Refer to the HI06 Datasheet for pin definitions and usage.

**Note 2:** UART1 is used as the primary communication port.

**Note 3:** SPI signal definitions are described with the module operating as the slave device.

**Note 4:** The VDD pins on J1, J2, and J3 are connected to the same power net. Use only one power input path at a time, and do not power the evaluation board through multiple interfaces simultaneously.

## 5 Cable Assemblies

### 5.1 Molex A (501330-0800) to Dupont Cable

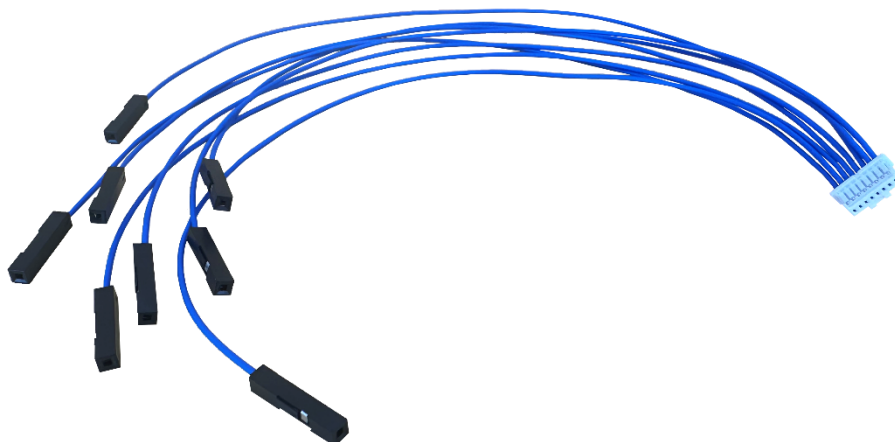


Figure 2: Molex A (501330-0800) to Dupont Cable

**Note 1:** Cable length: 30 cm

### 5.2 USB to Molex A (501330-0800) Cable Assembly



Figure 3: USB to Molex A (501330-0800) Cable Assembly

**Note 2:** This cable is intended for EVAL HI06 products. The cable length is 1 m and it integrates a USB-to-UART converter module (TTL level) for connection to a PC for evaluation and debugging. The default connection interface depends on the corresponding model description; unless otherwise specified, J1 (UART1) is recommended as the primary communication interface.

**Note 3:** Driver download: [CP210x USB to UART Bridge VCP Drivers](#)



## 6 Quick Start

1. Confirm that the evaluation board model matches the target module model.
2. Connect the evaluation board to the PC using the USB-to-Molex A (501330-0800) cable. Unless otherwise specified, J1 (UART1) is recommended as the primary communication interface.
3. When connecting to the PC for the first time, install the CP210x USB to UART VCP driver.
4. Open the HI06 GUI software or a serial debugging tool and select the corresponding COM port. The HI06 GUI software supports automatic detection of available serial ports.
5. Refer to the corresponding data sheet and the Command and Programming Manual to complete functional verification and parameter configuration.