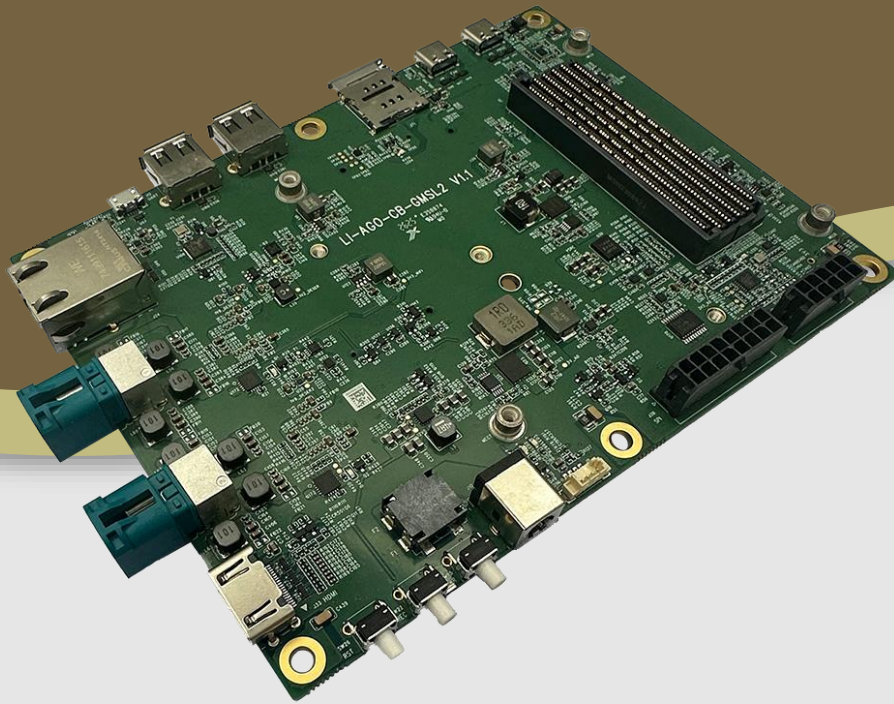




**LEOPARD**  
IMAGING

# LI-AGO-CB-GMSL2



**Address:**

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Fremont, CA 94538  
USA



**Phone:**

+1 (408)263-0988

**Fax:**

+1 (408)217-1960



**Sales:**

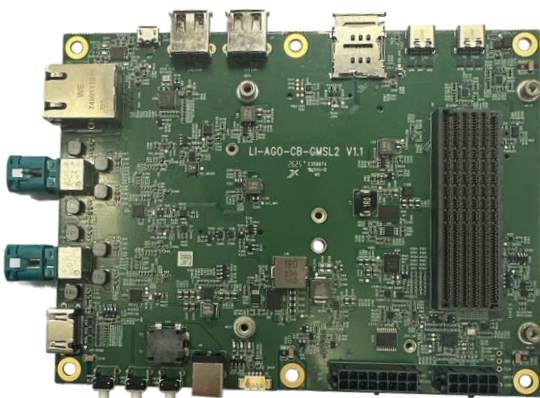
[sales@leopardimaging.com](mailto:sales@leopardimaging.com)

**Support:**

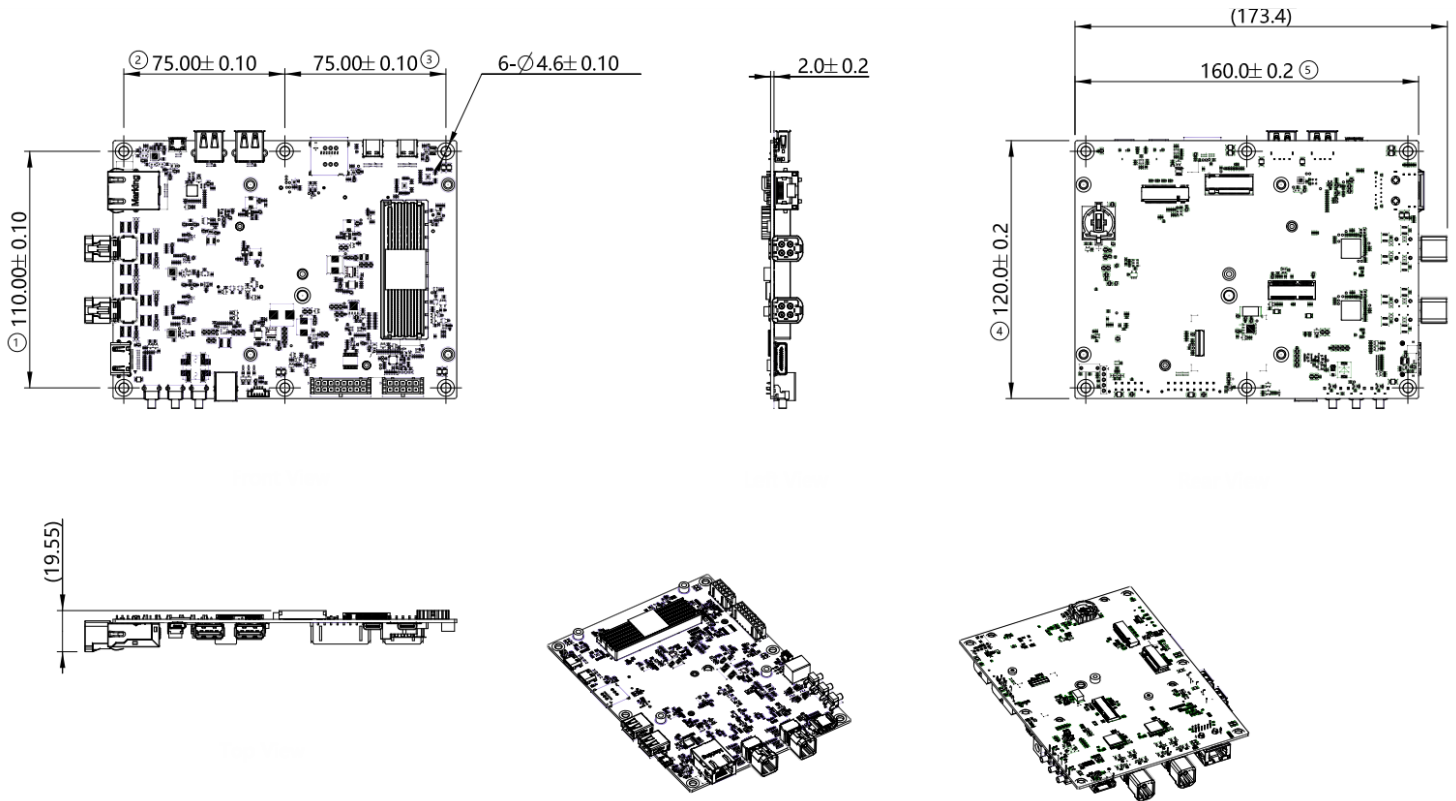
[support@leopardimaging.com](mailto:support@leopardimaging.com)

## TECHNICAL FEATURES

- Carrier board for NVIDIA® Jetson AGX Orin™ SOM
- Supports up to 8x Leopard Imaging FAKRA cameras
- DeSerializer: 2x Maxim MAX96712
- 1 x Power interface
- 1 x HDMI connector
- 2 x USB Type-C interfaces:
  - 1 x USB 3.0 Type-C (data)
  - 1 x USB 2.0 Type-C (flashing port)
- 2 x USB 2.0 Type-A interfaces
- 1 x USB 2.0 Mirco B UART interface
- 1 x RS485 interface
- 1 x SPI-DIFF external connector interface
- 1 x FAN interface
- 1 x RJ45 Gigabit Ethernet interface
- 1 x M.2 Key-M connector for SSD
- 1 x M.2 Key-E connector for WiFi
- 1 x M.2 Key-B connector for LTE, with Nano Sim card socket
- 1 x FPC connector for GNSS Extension board
- Recovery, RST and PWR buttons included
- Power supply range: 12 ~ 19 VDC
  - Note:** 19 VDC by default and auto power on.
- Operating temperature: TBD
- Weight: ~ 144 g (Without SOM)



## DIMENSIONS



### NOTE:

- ⊗ marked are important sizes.
- Tolerances for others unmarked - refer to the Tolerance Table.
- All materials are compliant with RoHS requirements.
- Unit: mm

| TOLERANCE TABLE  |           |                   |           |                 |           |
|------------------|-----------|-------------------|-----------|-----------------|-----------|
| LENGTH TOLERANCE |           | CHAMFER TOLERANCE |           | ANGLE TOLERANCE |           |
| Size X           | Tolerance | Size X            | Tolerance | Size X          | Tolerance |
| 0.5 < X ≤ 3      | ±0.1      | 0.5 < X ≤ 3       | ±0.2      | X ≤ 10          | ±1°       |
| 3 < X ≤ 6        | ±0.1      | 3 < X ≤ 6         | ±0.5      | 10 < X ≤ 50     | ±30'      |
| 6 < X ≤ 30       | ±0.2      | 6 < X ≤ 30        | ±1        | 50 < X ≤ 120    | ±20'      |
| 30 < X ≤ 120     | ±0.3      | X > 30            | ±2        | 120 < X ≤ 400   | ±10'      |
| 120 < X ≤ 400    | ±0.5      |                   |           | X > 400         | ±5'       |
| 400 < X ≤ 1000   | ±0.8      |                   |           |                 |           |
| X > 1000         | ±1.2      |                   |           |                 |           |

## BOM

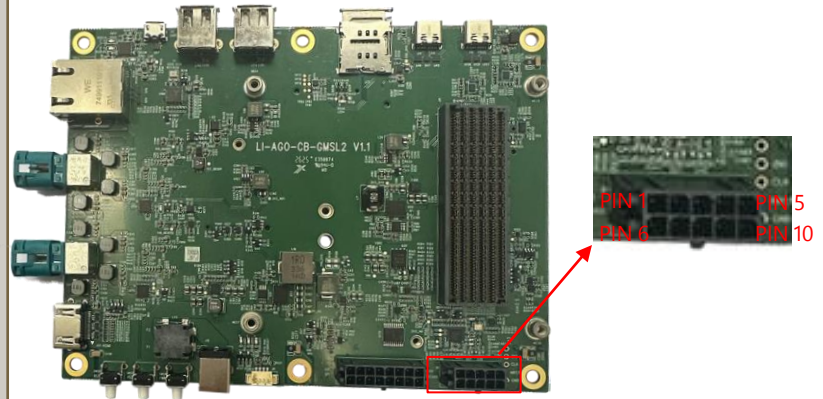
| # | Items                                                                                                                | QTY | Unit  |
|---|----------------------------------------------------------------------------------------------------------------------|-----|-------|
| 1 | LI-AGO-CB-GMSL2                                                                                                      | 1   | Piece |
| 2 | 19 VDC power supply: 1 x 19V power adapter + 1 x cable adapter<br><b>NOTE:</b> The cable adapter is for testing only | 1   | Set   |

### NOTE:

The Mini Quad FAKRA cable is not included. You can purchase via the following address:  
<https://www.leopardimaging.com/product/accessories/cables/li-fcb-4t1-ss-2m-np-t1/>

## ● RS485 Interface (J39)

- Part#: 430451012
- Number of Positions: 10

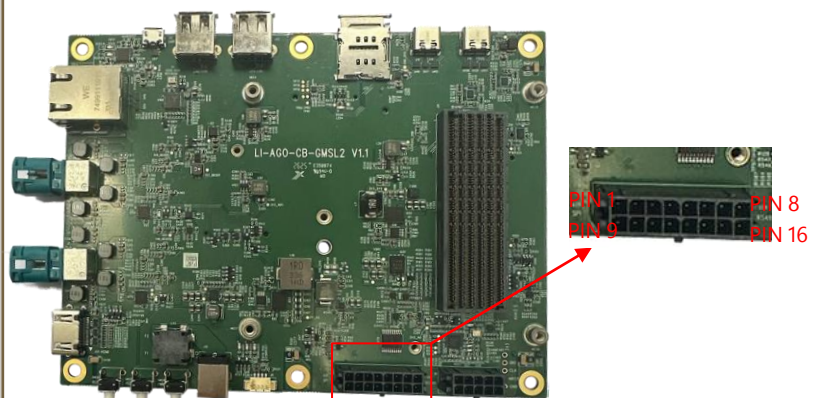


### PINOUT

| Pin No | Pin Name         | Description        | Pin Type | Voltage Level |
|--------|------------------|--------------------|----------|---------------|
| 1      | PWR_IN           | power supply input | Power    | 12 ~ 19V      |
| 2      | PWR_IN           | power supply input | Power    | 12 ~ 19V      |
| 3      | GND              | GND                | -        | -             |
| 4      | GND              | GND                | -        | -             |
| 5      | UART_CTRL_RS485+ | P signal of RS485  | Bidir    | 3.3V          |
| 6      | PWR_IN           | power supply input | Power    | 12 ~ 19V      |
| 7      | PWR_IN           | power supply input | Power    | 12 ~ 19V      |
| 8      | GND              | GND                | -        | -             |
| 9      | GND              | GND                | -        | -             |
| 10     | UART_CTRL_RS485- | N signal of RS485  | Bidir    | 3.3V          |

## ● SPI-DIFF External Connector Interface (J38)

- Part#: 430451612
- Number of Positions: 16



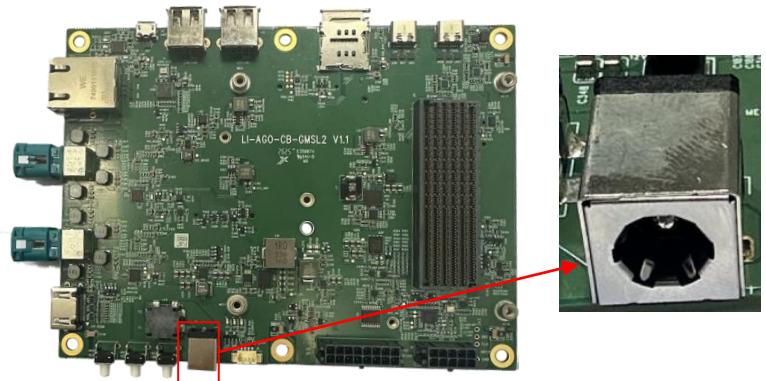
## PINOUT

| Pin No | Pin Name        | Description           | Pin Type | Voltage Level |
|--------|-----------------|-----------------------|----------|---------------|
| 1      | PWR_IN          | power supply input    | Power    | 12 ~ 19V      |
| 2      | PWR_IN          | power supply input    | Power    | 12 ~ 19V      |
| 3      | GND             | GND                   | -        | -             |
| 4      | GND             | GND                   | -        | -             |
| 5      | SPI1_SCK_3V3_P  | P signal of SPI1_SCK  | Bidir    | 3.3V          |
| 6      | SPI1_MOSI_3V3_P | P signal of SPI1_MOSI | Bidir    | 3.3V          |
| 7      | SPI1_MISO_3V3_P | P signal of SPI1_MISO | Bidir    | 3.3V          |
| 8      | SPI1_CS_3V3_P   | P signal of SPI1_CS   | Bidir    | 3.3V          |
| 9      | PWR_IN          | power supply input    | Power    | 12 ~ 19V      |
| 10     | PWR_IN          | power supply input    | Power    | 12 ~ 19V      |
| 11     | GND             | GND                   | -        | -             |
| 12     | GND             | GND                   | -        | -             |
| 13     | SPI1_SCK_3V3_N  | N signal of SPI1_SCK  | Bidir    | 3.3V          |
| 14     | SPI1_MOSI_3V3_N | N signal of SPI1_MOSI | Bidir    | 3.3V          |
| 15     | SPI1_MISO_3V3_N | N signal of SPI1_MISO | Bidir    | 3.3V          |
| 16     | SPI1_CS_3V3_N   | N signal of SPI1_CS   | Bidir    | 3.3V          |

### Power Supply Interface (J10)

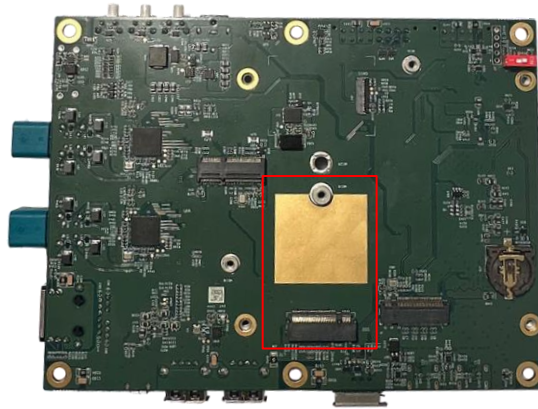
- Part#: AC0002-0406-001-H0
- Number of Positions: 4
- Mating Diameter: 2.5 mm ID x 5.5 mm OD
- Power supply range: 12 ~ 19 VDC

**Note:** 19 VDC by default.



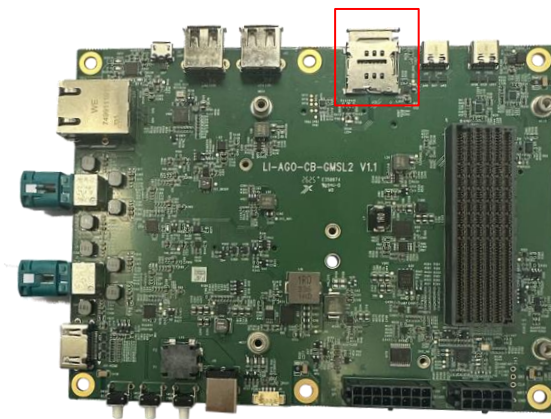
## • LTE Interface (J36)

- Part#: 2199230-3
- Card Type: M.2 (NGFF) Mini Card (M.2 B)
- LTE: 4G (by default) or 5G (Optional)



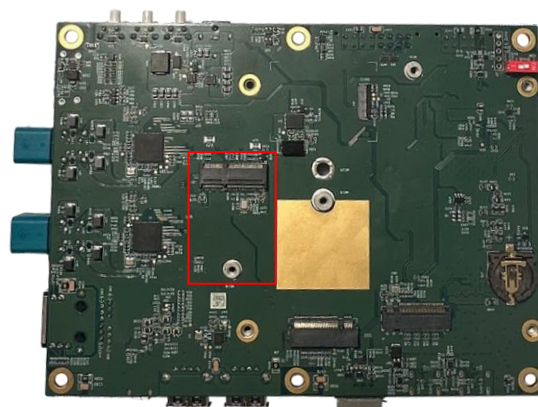
## • Nano SIM Card Interface

- Part#: SF70S006VBAR2000
- Card Type: Nano SIM



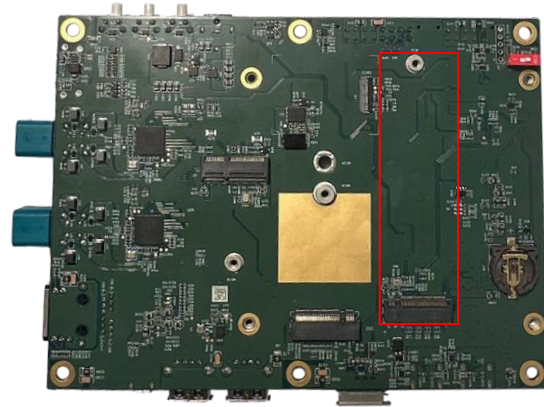
## • WIFI & Bluetooth Interface (J21)

- Part#: 246411067401894E
- Card Type: M.2 (NGFF) Mini Card (M.2 E)
- Number of Positions: 67
- WIFI & Bluetooth: Wi-Fi 2.4GHZ & 5GHz, BT 5.0



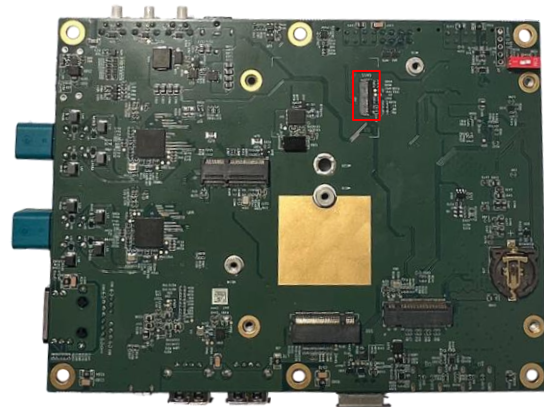
## SSD Interface (J1)

- Part#: SM3ZS067U410AMR1000
- Card Type: M.2 (NGFF) Mini Card (M.2 M)
- Number of Positions: 67
- SSD drive capacity: TBD



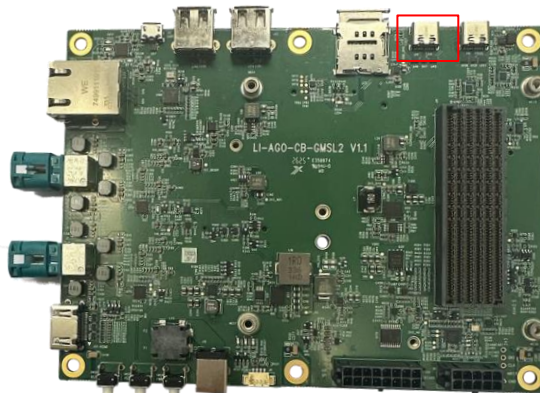
## FPC connector for GNSS Extension board (J64)

- Part#: FH34SRJ-20S-0.5SH(99)



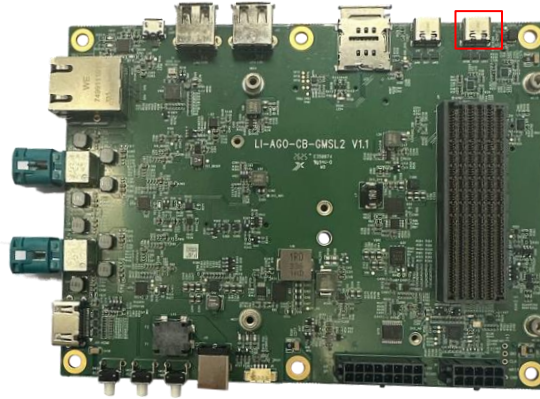
## USB3.0 Type C Interface (J19)

- Part#: 1054500101
- Data port



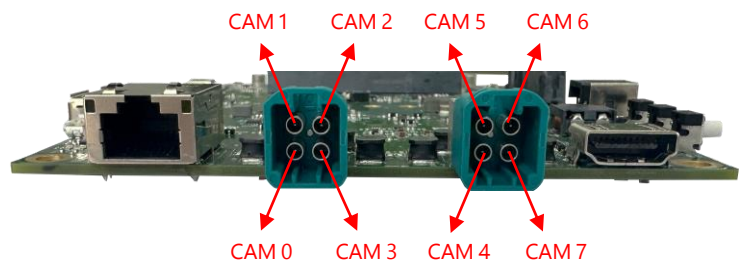
## • USB2.0 Type C Interface (J13)

- Part#: 1054500101
- flashing port



## • MINI Quad FAKRA Connector Interface

- Part#: 0-2304168-9//2304168-9
- Number of Positions: 4



- REVISION HISTORY

| Revision | Description                              | Release Date |
|----------|------------------------------------------|--------------|
| 0.1      | Initial draft.                           | 18 Aug 2025  |
| 0.2      | Corrected the J13 interface description. | 20 Aug 2025  |

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