



LEOPARD
IMAGING

LI-ONX-BOX-GM2C-8CAM



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INTRODUCTION

The LI-ONX-BOX-GM2C-8CAM includes NVIDIA Jetson 16GB / 8GB ORIN NX SOM and De-Serializer carrier board with Maxim GMSL2 MAX96724. This product supports up to 8 GMSL2 cameras which are equipped with Maxim GMSL2 MAX96717 serializer.

KEY FEATURES

- NVIDIA Jetson 16GB / 8GB Orin NX SOM: Included
 - GPU
NVIDIA Ampere architecture with 1024 NVIDIA CUDA® cores and 32 tensor cores
 - CPU
ONX 16GB: 8-core Arm Cortex-A78AE v8.2 64-bit CPU 4x 256KB L2 + 2MB L3
ONX 8GB: 6-core Arm Cortex-A78AE v8.2 64-bit CPU 4x 256KB L2 + 2MB L3
 - Accelerator
1 x PVA v2.0 Vision Accelerator
ONX 16GB: 2x NVDLA DL Accelerator
ONX 8GB: 1x NVDLA DL Accelerator
 - Memory
ONX 16GB: 16 GB 128-bit LPDDR5 DRAM
ONX 8GB: 8 GB 128-bit LPDDR5 DRAM
 - Storage
1 x M.2 PCIe interface with 128GB SSD drive
1 x SIM card interface
 - Multi-Stream HD Video and JPEG
Video Encode: 1x 8K30 | 2x 4K60 | 4x 4K30 | 9x 1080p60 | 18x 1080p30 (H.265)
Video Decode: 1x 4K60 | 3x 4K30 | 6x 1080p60 | 12x 1080p30 (H.265)
- Ethernet: 10/100/1000M BASE-T Ethernet
- Options
 - WIFI & Bluetooth: Wi-Fi 2.4GHZ & 5GHz, BT 5.0
 - LTE: 4G or 5G
 - GNSS
- Camera: two Mini Quad FAKRA connectors supporting up to 8 cameras
Mini Quad mating connector: 2298721-9
- DeSerializer: Maxim MAX96724
- Power supply range: 9 ~ 48 VDC
Note: 12 VDC in default and auto power on.
- Operating Temperature Range: -25°C ~ +60°C
- Weight: ~ 1041 g
- Allows customization
- Part# (No options in default):

ONX 8GB: LI-ONX-BOX-GM2C-8CAM-8GB

ONX 16GB: LI-ONX-BOX-GM2C-8CAM-16GB

INTERFACES

- 2 x Mini Quad FAKRA connectors for camera connection
- 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)
- 1 x RS485 interface
- 1 x Power socket
- 1 x CAN interface
- 1 x RJ45 Gigabit Ethernet interface
- 5 x ANT interfaces (optional)
- STATUS and PWR LED indicators included
- Recovery, RST and PWR buttons included

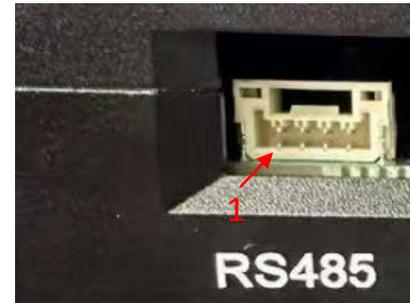
NOTE:

- The ANT interface is not used in default.



● INTERFACE OF RS485

- Part#: SM04B-GHS-TB
- Number of Positions: 4



● PINOUT DETAILS OF RS485

Pin No	Pin Name	Description	Pin Type	Voltage Level
1	A+	Differential output +	signal	-7V ~ 12V
2	B-	Differential output -	signal	-7V ~ 12V
3	Y+	Differential input +	signal	-7V ~ 12V
4	Z-	Differential input -	signal	-7V ~ 12V

● INTERFACE OF CAN

- Part#: SM04B-GHS-TB
- Number of Positions: 4

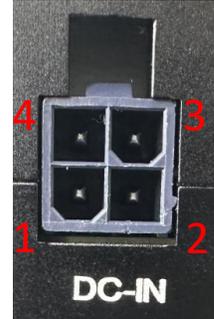


● PINOUT DETAILS OF CAN

Pin No	Pin Name	Description	Pin Type	Voltage Level
1	VCC_5V	Power supply	Power	5V
2	CAN_H	Differential Input/output +	signal	0V ~ 5V
3	CAN_L	Differential Input/output -	signal	0V ~ 5V
4	GND	GND	-	-

12V DC-IN

- Part#: 1724480004
- Number of Positions: 4



PINOUT DETAILS OF DC-IN

Pin No	Pin Name	Description	Pin Type	Voltage Level
1	VCC_12V	Power supply	Power	12V
2	VCC_12V	Power supply	Power	12V
3	GND	GND	-	-
4	GND	GND	-	-

INTERFACES OF INDICATOR

Interface	LED Indicator	
Logo	STATUS / PWR	
Description	<p>STATUS: Constant shining in default. Blinking = Something wrong.</p> <p>PWR: Constant shining after power on.</p>	

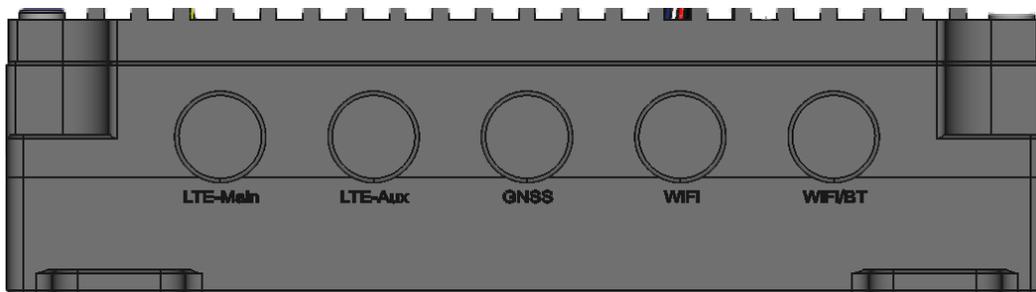
MINI Quad FAKRA Connector Interface

- Part#: 0-2304168-9//2304168-9
- Number of Positions: 4
- QUAD FAKRA cable plug Part#: 2298721-9
- Current Rating for each port: 600 mA

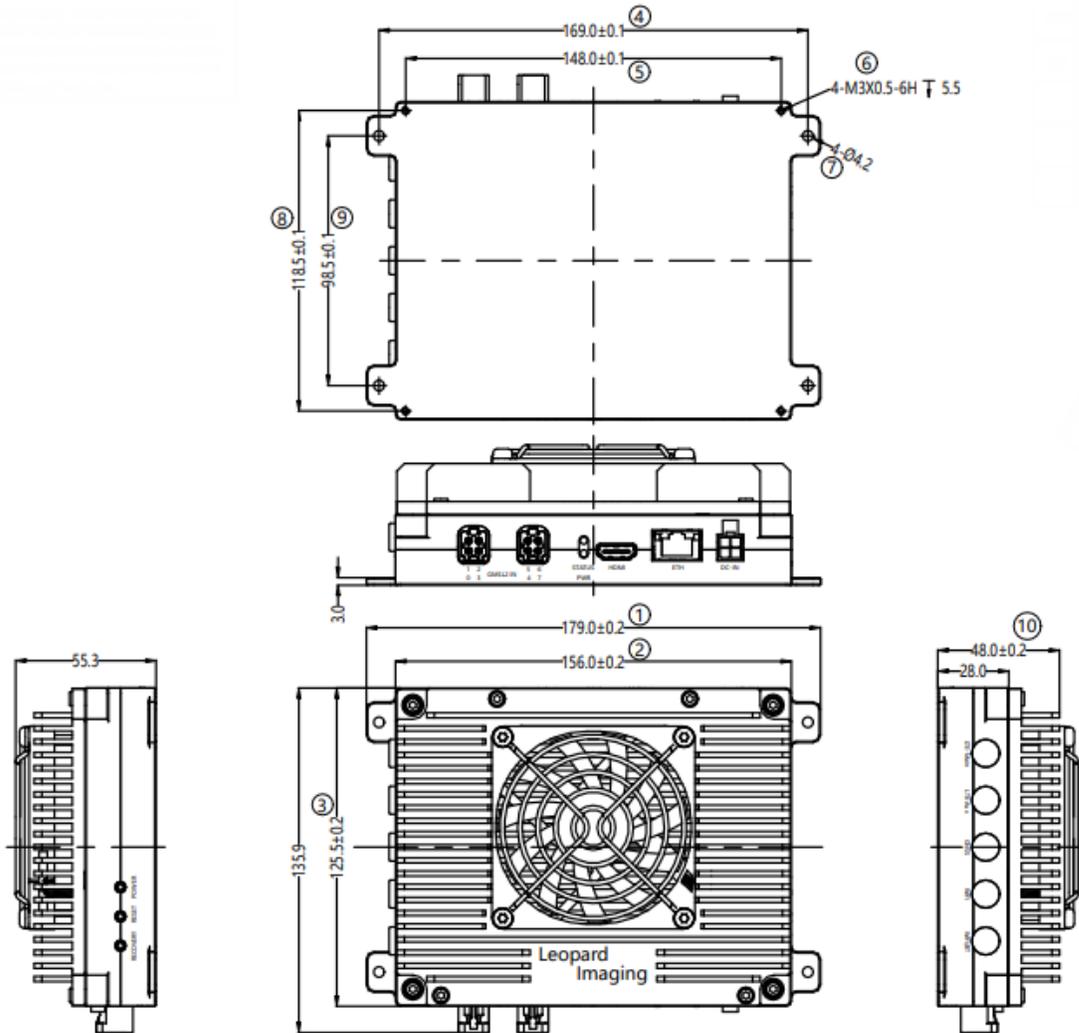


INTERFACES OF ANTENNA (Not used in default)

Interface	Antenna
Logo	LTE-Main, LTE-Aux, GNSS, WIFI, WIFI/BT
Connector type	SMA (Female)



DIMENSIONS



NOTE:

- ⊗marked are important sizes.
- Tolerances for others unmarked refer to the Tolerance table.
- 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 By Default

#	Items	QTY	Unit
1	LI-ONX-BOX-GM2C-8CAM-8GB or LI-ONX-BOX-GM2C-8CAM-16GB	1	Piece
2	12 VDC power supply: 1 x 12V power adapter + 1 x cable adapter	1	Set

NOTE: The 12 VDC power supply is for testing only.

● Ordering Information for Options

Part#: **LI-ONX-BOX-GM2C-8CAM-X-Y**

ORIN NX SOM memory _____

- 8GB
- 16GB

Options _____

- A: LTE-Main, 4G
- B: LTE-Aux, 5G
- C: GNSS,GPS
- D: WIFI/BT, BT 5.0

NOTE:

The options which are not supported by default can be combined freely, such as AC, BC or BCD etc. If you need, please contact sales.

REVISION HISTORY

Revision	Description	Release Date
1.0	First Release.	04 Sep 2025
1.1	Added the note for BOM.	15 Sep 2025
1.2	Updated the NOTE for ordering information of options.	24 DEC 2025
1.3	Added the BOX operating temperature range.	24 Feb 2026

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