



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.
- 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**

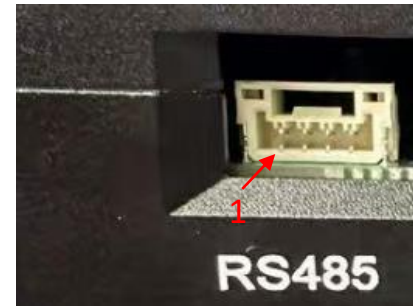
INTERFACES

- 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

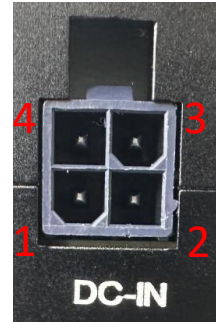


● PINOUT DETAILS OF CAN

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	STATUS: Constant shining in default. Blinking = Something wrong. PWR: Constant shining after power on.	

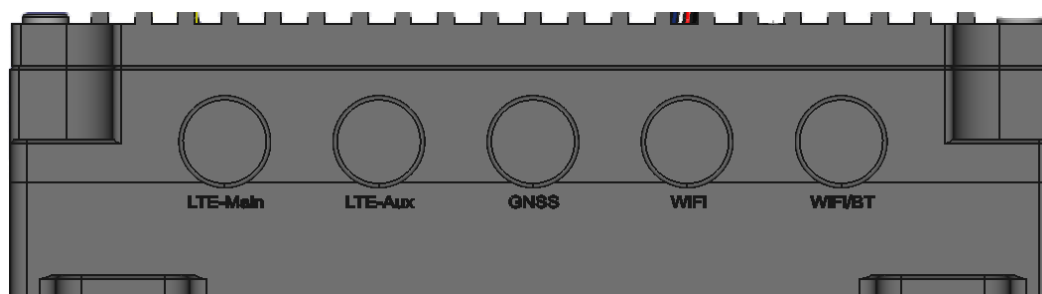
MINI Quad FAKRA Connector Interface

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

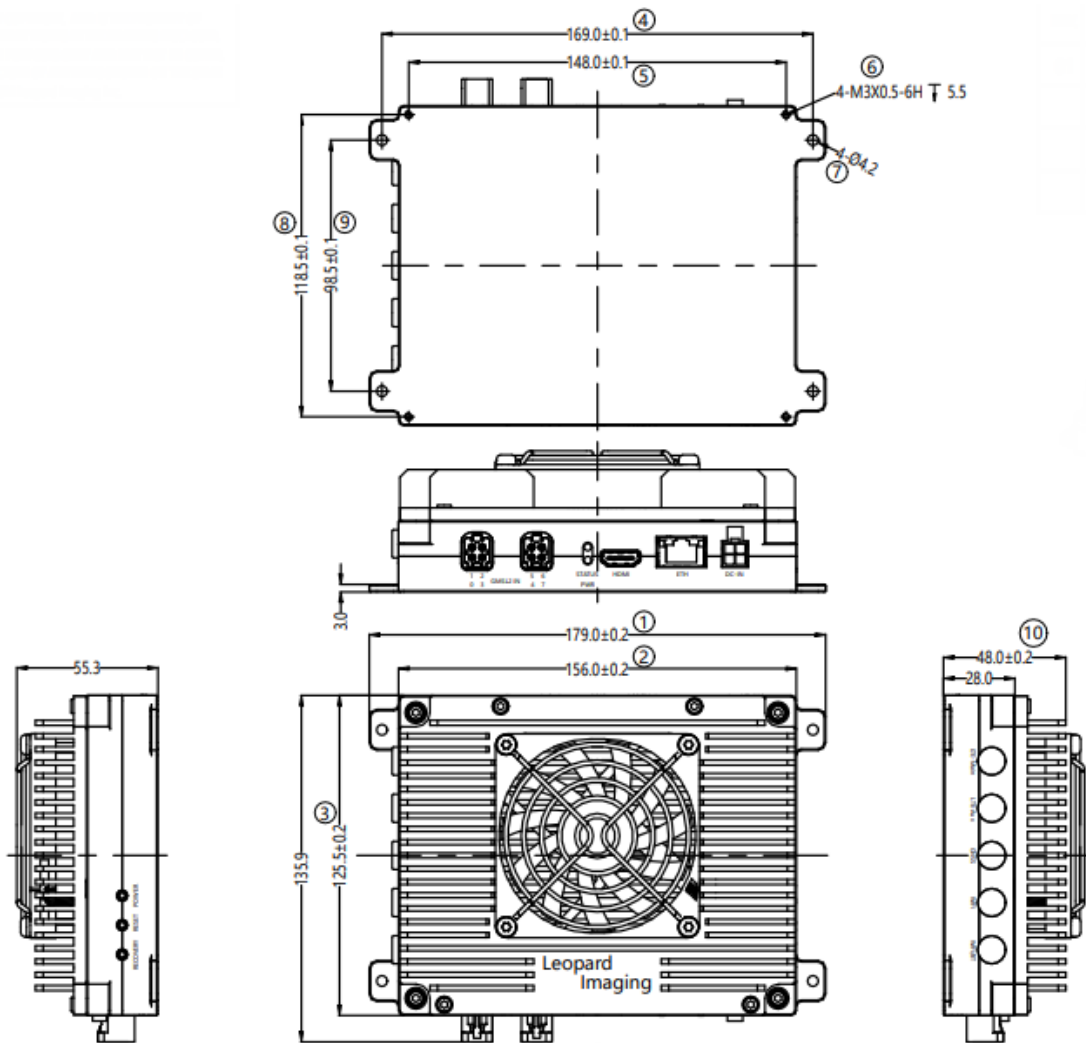


INTERFACES OF ANTENNA (Not used in default)

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

● 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 BDC etc. If you need, please contact sales.

● REVISION HISTORY

Revision	Description	Release Date
1.0	First Release.	04 Sep 2025

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