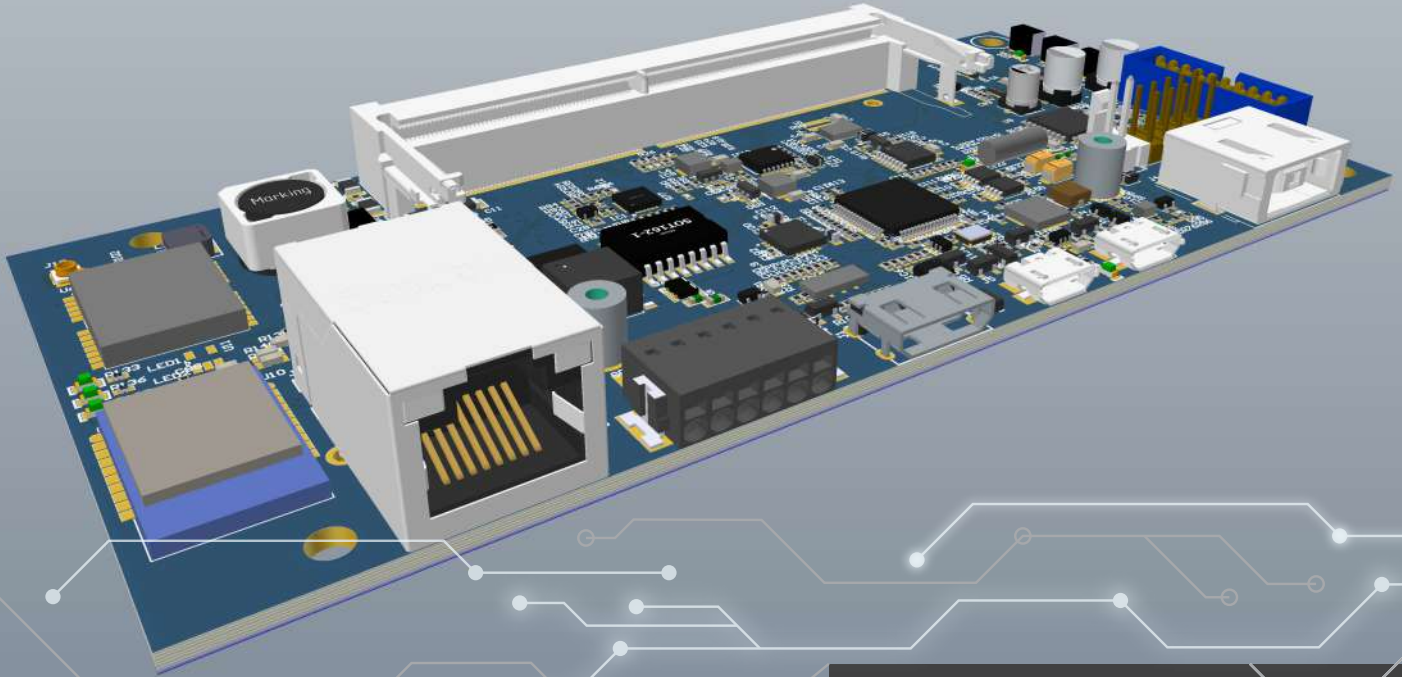


# LITA CARRIER BOARD

for NVIDIA® Jetson™ Nano/Xavier NX

Designed for CAV's and robotics

**BARO**  
ENGINEERING



## KEY FEATURES

- ✓ **Artificial vision**
- ✓ **Localization:** GPS with dead reckoning, IMU
- ✓ **Communication:** 4G/5G, Bluetooth 5.0
- ✓ **CAN-FD interface** (compatible CANBUS) to control actuators
- ✓ **MULTICAM** interfaces up to 4 cameras x 2-lane MIPI CSI-2

LITA CARRIER BOARD is an incredible board designed to be used in the more sophisticated robotics applications with AI providing compatibility with **NVIDIA Jetson NANO** and **XAVIER NX**, a board designed with built-in automotive grade localization peripherals: a GPS with dead reckoning offering a wonderful method to localise the device with poor satellite signal.

A Bosch IMU provides a **gyroscope and accelerometer** and a M2.KEY B slot to be used with 4G/5G Modem to connect the board to the cloud, **complete communication** set the Bluetooth 5.0 module.

For Computer Vision the board provides Interfaces for 4 MIPI-CSI2 cameras offering an incredible opportunity to have **360 degrees** to recognise objects and the CANBUS interface to communicate with the robot actuators.

 **NVIDIA**  
INCEPTION PROGRAM

# TECHNICAL SPECIFICATIONS\*

Compatibility	<ul style="list-style-type: none"><li>• NVIDIA® Jetson Nano™ &amp; NVIDIA® Jetson Xavier™ NX</li></ul>
Power Supply	<ul style="list-style-type: none"><li>• 9 to 36 VDC power input on DC power plug connector</li></ul>
Dimensions	<ul style="list-style-type: none"><li>• Board size: 137 x 65 mm</li></ul>
Communication Interfaces	<ul style="list-style-type: none"><li>• Gigabit Ethernet on an RJ45 connector</li><li>• Bluetooth 5.0</li><li>• M.2 (Key B) connector exposing PCIe x1 and USB 3.0 (usually for 4G module)</li><li>• SIM Card Slot</li><li>• 2 port USB 3.0 header connector</li><li>• CAN-FD transceiver (compatible CANBUS)</li><li>• Micro USB debug connector</li><li>• 10-pin FFC connector exposing PCIe x1 interface (when used with NX)</li></ul>
Display Output	<ul style="list-style-type: none"><li>• Mini HDMI video output interface</li></ul>
Video Input	<ul style="list-style-type: none"><li>• 4 cameras input 15-pin 1mm-pitch FFC connector exposing 2 lanes CSI-2 each one (compatible Raspberry Pi camera)</li></ul>
Storage	<ul style="list-style-type: none"><li>• Micro SD</li></ul>
Robotics Peripherals	<ul style="list-style-type: none"><li>• GPS module with dead reckoning - Automotive Grade</li><li>• IMU MEMS - Accelerometer and Gyroscope sensors - Automotive Grade</li></ul>
Sound Interface	<ul style="list-style-type: none"><li>• 10-pin header connector exposing a mono microphone input and stereo output</li></ul>
Other features	<ul style="list-style-type: none"><li>• RTC battery backup</li><li>• EEPROM for storing board ID/SN</li></ul>

*\*Specifications subject to change without notice.*

# COMPONENTS

