

JETCORE CARRIER BOARD

Product Description

The JETCORE Carrier Board is engineered to harness the power of NVIDIA Jetson modules, providing high-performance edge computing solutions for a diverse range of applications, including robotics, industrial automation, and surveillance. It boasts extensive connectivity options, advanced environmental monitoring features, and robust security measures, making it an ideal choice for integration into various systems.

Key Features

Feature	Description
NVIDIA Jetson Compatibility	Supports NVIDIA Jetson modules, including Jetson Xavier NX, Jetson Orin NX, and Jetson Nano.
USB Ports	7 x USB 2.0 (FPC Type)
Networking	1 x Gigabit Ethernet (12 PIN JST GH connector)
Video Output	1 x Micro HDMI port (Resolution: 1920 x 1080 FHD)
Storage Expansion	1 x M.2 Key M interface for NVMe SSD
Environmental Monitoring	Integrated Temperature & IMU for motion sensing
Security Features	Built-in Crypto Auth IC for enhanced data protection
Power Supply	Supports 12-18V DC input

Technical Specifications

Specification	Value
Module Compatibility	NVIDIA Jetson Xavier NX, Jetson Orin NX, Jetson Nano
Dimensions	88 mm x 71 mm
Operating Temperature	-40°C to +85°C
Weight	40 g

Peripheral Interfaces

Interface Type	Details
Graphics Interface	Micro HDMI 2.0 (Resolution: 1920 x 1080 FHD)
USB Ports	7 x USB 2.0 (FPC Type), 1 x USB 2.0 (Micro USB for Debugging)
Networking	1 x Gigabit Ethernet (12 PIN JST GH connector)
Additional Interfaces	12-lane CSI-MIPI (via Daughterboard Connector); 2 x SPI, 1 x CAN, 1 x I2C, 1 x UART (all JST GH connectors); GPIO and PWM support

Key Advantages

Advantage	Description
Performance	Optimized for NVIDIA's Xavier NX platform, offering cutting-edge AI and edge processing capabilities.
Connectivity	Multiple interface options ensure seamless integration into existing systems.
Security	Robust security features designed for mission-critical applications.
Durability	Operates efficiently in extreme temperatures.

Software & Compatibility

Feature	Details
Software Support	Compatible with QGC Mission Planner, Ardupilot, PX4.
JetPack Versions	Supports JetPack 4.x and 5.x (LTS).