

NEXCOM Edge AI Solutions with NVIDIA® Jetson™ and BBU

NEXCOM is deeply committed to delivering rugged edge computing platforms that expedite the deployment of Al inference in harsh environments. Built with NVIDIA Jetson™ modules, NEXCOM offers a wide-ranging product portfolio that caters to various application needs, providing Al performance ranging from 20 TOPS to 275 TOPS.

Whether it's enabling intelligent transportation, improving public safety, maximizing production efficiency, predicting abnormal asset conditions, or optimizing patent recognition, NEXCOM's diverse selection of NVIDIA Jetson™ modules with integrated industrial interfaces plays a pivotal role in deploying Al workloads across multiple industries in the field.

Helping ensure uninterrupted operation of Edge AI systems, the BBU (Backup Battery Unit), a specialized UPS, is designed for in-vehicle and railway Edge AI systems and provides backup power in case of power loss. This reduces downtime and maintenance costs.

NEXCOM's dedication to providing top-tier edge Al solutions and the BBU ensures that businesses can harness the full performance of Al models with efficiency, reliability, and value-conversion at the forefront.



Extensive Product Line Up

NEXCOM offers a diverse range of options, including devices accelerated by NVIDIA® Jetson AGX Orin™, NVIDIA® Jetson Orin™ NX, NVIDIA® Jetson Xavier™ NX and NVIDIA® Jetson Orin Nano™, providing flexibility and scalability to meet various AI performance in model training or inference tasks.



Enabling Cloud and Container Technologies

The NAL can run containers for Al inference engine, IoT connectivity, datasets storage, ETL, and other applications as microservices in edge deployment. By installing the IoT/Cloud agent, the developers can deploy containers from Cloud service using OTA (Over the Air) technologies.



Unleashing the Potential of Software-Defined Controller

In every Edge AI platforms with NVIDIA Jetson™ modules, NEXCOM offers NEXCOM Accelerator Linux (NAL), an optimized Ubuntu 20.04 LTS derived from the NVIDIA JetPack™ SDK. Programmers can access the pre-approved 5G, Wi-Fi, GNSS, IMU/Vision Sensor and even CAN bus, MCU, I/O interfaces, power management module and more peripherals through in-house design utility and APIs. The physical signals from peripherals and sensors can be used as data sources for AI inference engine, requiring limited knowhow of hardware installation and configuration.



Validated Peripherals for High Expansion Capabilities

NEXCOM's Edge AI platform accommodates a wide range of validated peripherals ports such as USB, Isolated CAN Bus, RS-232 and DI/O. It also features LTE, 5G, Wi-Fi, Ignition control, PoE+ for IP Camera or MIPI interface Camera, storage and GNSS, making the platform versatile for a multitude of applications.



Designed for Harsh Environment

With a wide temperature range (OT -25/-30°C~70°C) and an IP67 rating (on selected models), NEXCOM's Edge AI platforms excel in critical missions and throughout their life cycle.



Certified for In-Vehicle/Rail Applications

To ensure product reliability and safety, NEXCOM's AI platforms are certified for in-vehicle/rail applications with CE/FCC, UKCA, E13, EN50155, EN45545-2, MIL-STD-810H certifications.

Focused Vertical Applications

As we journey towards the future, NEXCOM is dedicated to bringing intelligence to transportation and AloT autonomous machines applications. We support our business partners in further promoting edge Al computing for various sectors, including smart bus & rail transit, Al-aided public works, smart Al patrol, port management, warehouse management, fleet management, earth moving vehicles, and more.





Earthmoving Vehicle

Smart Public Transit

Al-aided Public Work







Smart Al Patrol Port Management Warehouse Management

NEW PRODUCT HIGHLIGHTS

In-vehicle/Rail Performance
Edge Al Computing



ATC 3750-IP7-6C/WI6CR NVIDIA® Jetson AGX Orin™

- IP67 rating Edge Al computer for in-vehicle & railway applications
- 6-port GbE PoE+ (X-coded)
- Expansible for GNSS, LTE/5G NR & Wi-Fi 5/6E
- NEXCOM Acceleration Linux (NAL) integrated w/ JetPack 6.1
- 9~36V DC-IN with ignition control
- CE/FCC, UKCA, E Mark, EN50155 certified









In-vehicle/Rail Performance Edge Al Computing



ATC 3750-IP7-8M/WI8MR NVIDIA® Jetson AGX Orin™

- IP67 rating Edge Al computer for in-vehicle & railway applications
- 8 x MIPI GMSL2 SerDes ports
- Expansible for GNSS, LTE/5G NR & Wi-Fi 5/6E
- NEXCOM Acceleration Linux (NAL) integrated w/ JetPack 6.1
- 24V~110V DC-IN for railway with ignition control
- CE/FCC, UKCA, E Mark, EN50155 certified









In-vehicle/Rail Performance Edge Al Computing



ATC 3750-6C/A6CR NVIDIA® Jetson AGX Orin™

- Edge Al computer for in-vehicle & railway applications
- 6-port GbE PoE+ (X-coded)
- Expansible for GNSS, LTE/5G NR & Wi-Fi 5/6
- 9~36V DC-IN with ignition control
- NEXCOM Acceleration Linux (NAL) integrated w/ JetPack 6.1
- CE/FCC, UKCA, E Mark, EN50155 certified







In-vehicle/Rail Accelerated Edge Al Computing



ATC 3540-IP7-4C/AI4CR

NVIDIA® Jetson Orin™ NX

- IP67 rating Edge Al computer for in-vehicle & railway applications
- 4-port 1GbE PoE+ (X-coded)
- NEXCOM Acceleration Linux (NAL) OS w/ JetPack 6.1
- Expansible for GNSS, LTE/5G NR & Wi-Fi 5/6E
- 9~36V DC-IN with ignition control
- CE/FCC, UKCA, E Mark, EN50155 certified













ATC 3520-IP7-4C/AI4CR

NVIDIA® Jetson Orin Nano™

- IP67 rating Edge AI computer for in-vehicle & railway applications
- 4-port 1GbE PoE+ (X-coded)
- NEXCOM Acceleration Linux (NAL) OS w/ JetPack 6.1
- Expansible for GNSS, LTE/5G NR & Wi-Fi 5/6E
- 9~36V DC-IN with ignition control
- CE/FCC, UKCA, E Mark, EN50155 certified









In-vehicle/Rail Backup Battery Unit



VTK-SCAP-M (Master) VTK-SCAP-S (Slave)

- SuperCap BBU for in-vehicle & railway applications
- High power density EDLC (Electric Double Layer Capacitor) technology
- Life (charging/discharging) with max. 200w output
- Operating Temperature: -35~80°C
- Max. expansion 1 x master + 3 x slave
- CE/FCC, UKCA, E Mark, EN50155 certified









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