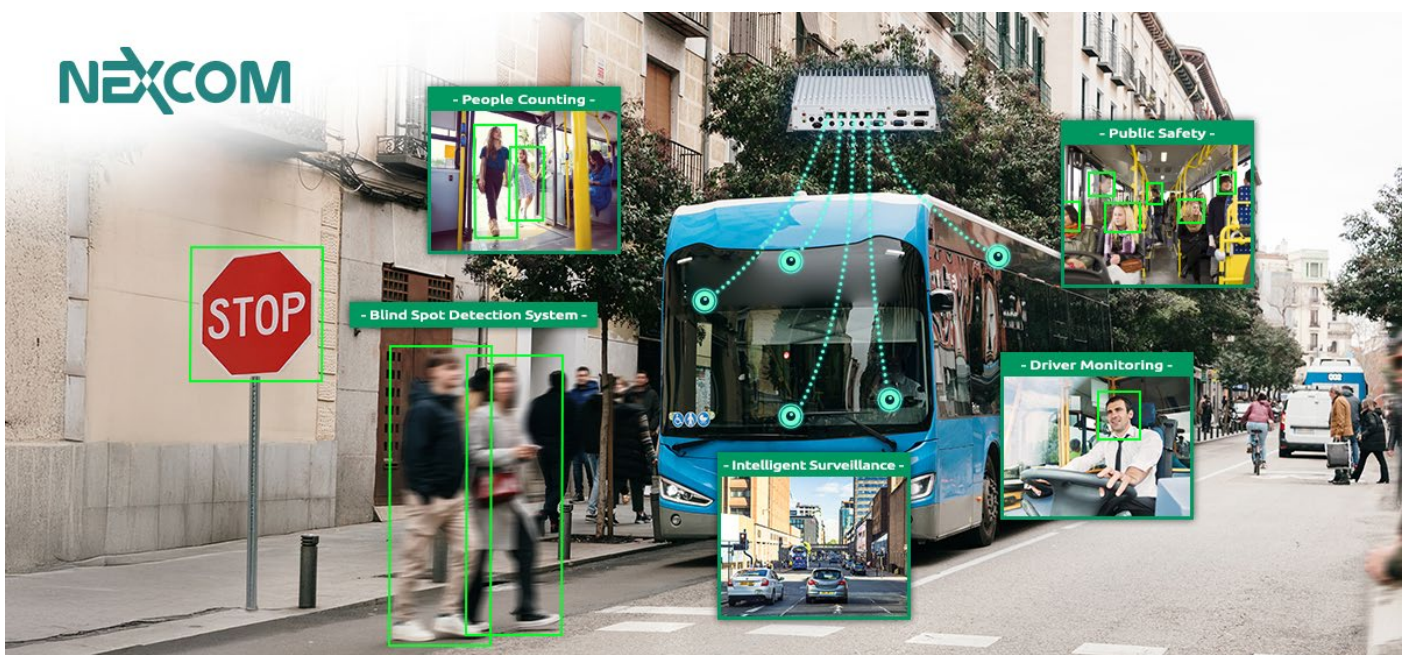🏠 **Directory**

**Digital Solutions**

# NEXCOM

## Drive Intelligence Further: AI-Optimised Monitoring at the Edge



In the era of intelligent mobility, the safety and efficiency of your bus fleet depend on more than just good planning – they demand the right technology.

Without this intelligent core, fleet success is compromised by preventable issues. For instance, the risk of object and pedestrian collisions remains high without an AI co-pilot actively monitoring the road. Vehicle downtime disrupts schedules and budgets, a problem that can be preempted with real-time health diagnostics. Finally, operators are left drowning in raw data instead of using it for smart decisions. And with the rise of AI and the increasing complexity of fleet requirements, the need for an integrated, scalable and intelligent edge AI computing system has never been greater. That's where NEXCOM steps in.

Enter the VTC 7280: a compact yet powerful AI-enabled in-vehicle computer designed to transform ordinary buses into smart, highly integrated and connected public transit solutions. Engineered for harsh environments and fast-evolving needs, it's built to deliver real-time insights, automation and control at the edge.

## Edge AI Meets Fleet-Wide Monitoring

The VTC 7280 is NEXCOM's most advanced in-vehicle edge AI system to date. At its heart are Intel Core™ Ultra processors with their sophisticated hybrid architecture and integrated NPUs – built for AI acceleration, plug-and-play efficiency and ready-to-deploy intelligence. With up to 26 TOPS of built-in AI performance, this platform offers

substantially improved power efficiency while handling a wide range of in-vehicle AI tasks, from real-time inference to predictive insights.

When combined with the VTC 7280's five 2.5GbE PoE ports (supporting IEEE 802.3af/at/bt), bus fleets can deploy high-resolution, AI-optimised mobile surveillance systems in and around the vehicle to furnish vehicles with comprehensive cognitive systems. Whether your focus is on data telematics & communications, passenger infotainment solutions or public safety, achieving the diverse bus applications through the synergy of AI-accelerated CPU and PoE-powered vision creates a unified edge AI system tailored to each vehicle's needs.

## Built to Withstand the Extremes

In fleet environments, durability isn't optional – it's essential. The fanless VTC 7280 features rugged design that meets MIL-STD-810H standards and operates across a wide temperature range from -40ºC to 60ºC, with internal auto-heater for subzero starts.

Certified for global deployment, the system complies with E-mark, CE/FCC and UKCA standards, ensuring reliable performance across a range of demanding applications and regions.

## Scalable, Secure and Ready to Roll

Vehicle systems are evolving, and the VTC 7280 is built to scale alongside them. With support for multiple WWAN/WLAN modules, optional Automotive Ethernet (100/1000Base-T1), and up to three SSDs (two 2.5" and one PCIe 4.0 NVMe), the platform offers flexibility for storage, networking and connectivity.

Additional expansion slots (M.2 Key B 3042/3052, M.2 Key E 2230, and full-size Mini PCIe) support Wi-Fi and 5G/LTE modules and extra storage. This enables richer applications such as passenger Wi-Fi, onboard entertainment servers and passenger information systems.

## A Bus Fleet Focused on Safety and Service

From the city streets to remote worksites, today's bus fleets face new challenges every day. With the VTC 7280, you don't just respond to issues – you can anticipate, adapt and lead. This is more than mere computing: it's your fleet's command centre, built into a compact, rugged and intelligent system.

NEXCOM's commitment to smarter and safer mobility starts here.
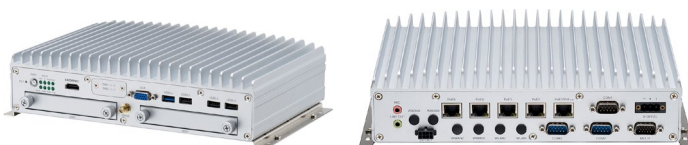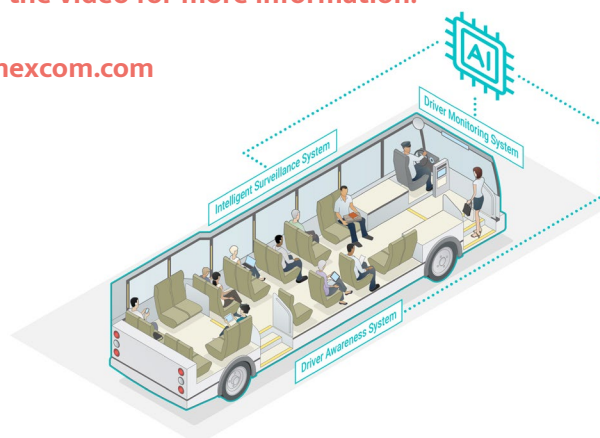


**VTC 7280**

- Powered by Intel® Core™ Ultra processor, up to 26 TOPS AI computing power
- Fanless, compact and rugged design
- 5 x 2.5GbE RJ45 PoE port, up to PoE++ (IEEE 802.3bt) supported
- Support 100/1000Base-T1 Automotive Ethernet, optional
- Expand up to 2 x WWAN, 2 x WLAN for mobile routers
- 2 x 2.5" SSD, 1 x NVMe SSD (PCIe 4.0 x4) for data integrity
- DC 9V~36V input with ignition control & OCP/OVP
- Wide-range operating temperature of -40ºC~60ºC
- Meet MIL-STD-810H military standard for anti-vibration/shock
- CE/FCC, UKCA, E-mark certified

## MCS – Always Moving Forward

NEXCOM's Mobile Computing Solutions are forging the future with innovative mobile computer systems, bringing forth a more convenient, safer and smarter mobile society.

**Watch the video for more information!**

**www.nexcom.com**

# NEXCOM

## Mobile Computing Solutions
### Always Moving Forward

| 5G | Wi-Fi | | | WWAN | CAN FD | PoE | | E13 |
|---|---|---|---|---|---|---|---|---|
| 5G NR | Wi-Fi (Multi) | Wide Voltage | Wide Temp. | WWAN (Multi) | CAN FD (Dual) | PoE | Fanless | E-Mark |

## NEXCOM's Solutions

- PC-based in-vehicle NVRs for real-time surveillance

- Built-in GNSS with dead reckoning function for accurate positioning
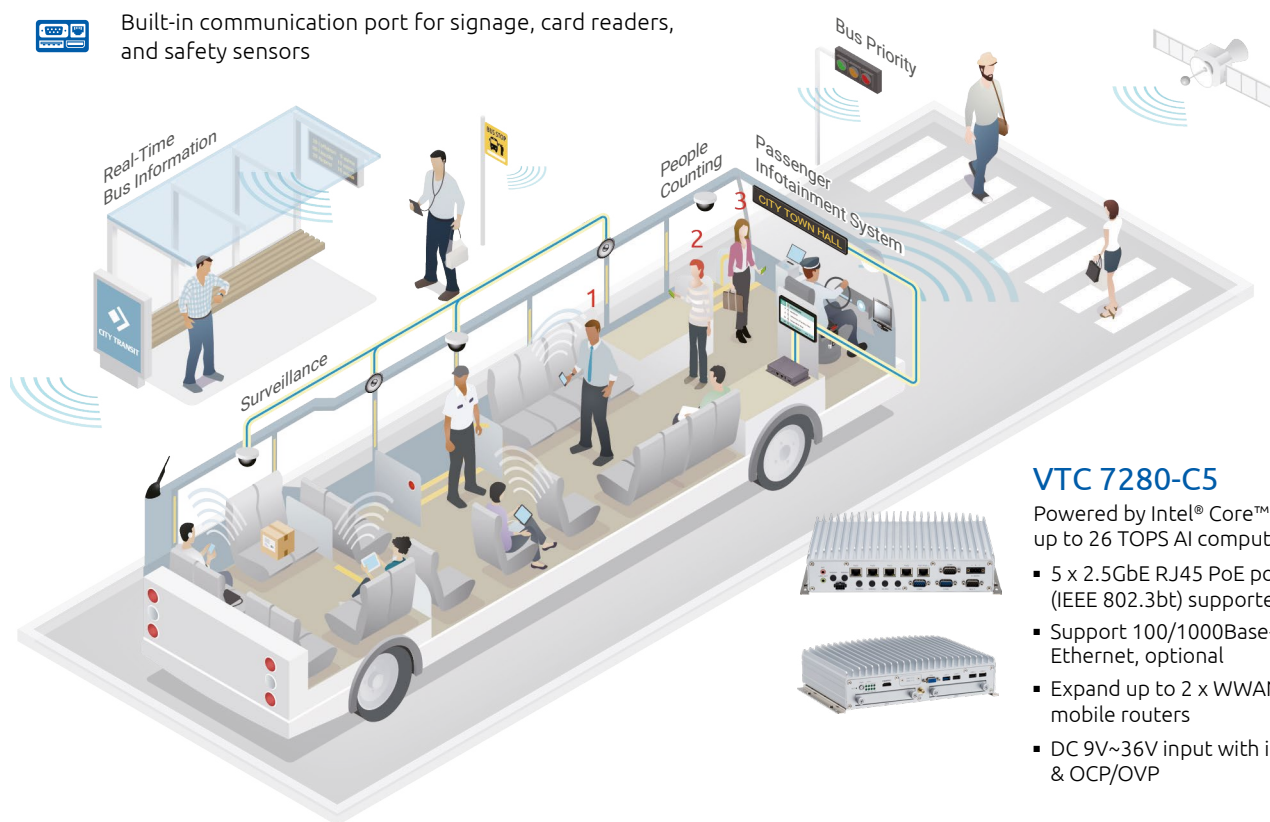
- Built-in communication port for signage, card readers, and safety sensors

- Support multiple Wi-Fi and cellular modules for uninterrupted internet connection

- In-vehicle HDMI extender over IP for PIS and infotainment



### VTC 7280-C5

Powered by Intel® Core™ Ultra processor, up to 26 TOPS AI computing power

- 5 x 2.5GbE RJ45 PoE port, up to PoE++ (IEEE 802.3bt) supported
- Support 100/1000Base-T1 Automotive Ethernet, optional
- Expand up to 2 x WWAN, 2 x WLAN for mobile routers
- DC 9V~36V input with ignition control & OCP/OVP

## NEXCOM International

9F, No.920, Chung-Cheng Rd., Zhonghe Dist.,
New Taipei City, Taiwan 23586, R.O.C.
www.nexcom.com

For more info., please contact:
mcsinfo@nexcom.com.tw

intel CORE ULTRA 7