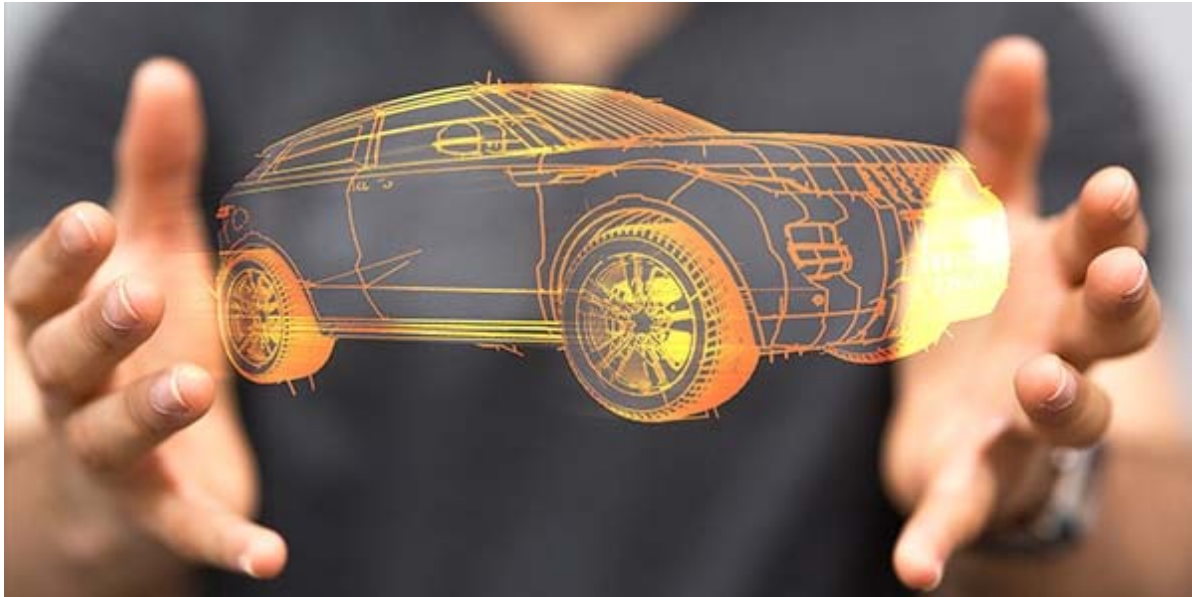




The Tesla Magic
2016 Top Transportation Game Changer

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Tesla Motors is looking to revolutionize the transportation industry within the next two years with its upcoming Tesla Model 3 - a compact electric sedan that promises to combine the latest in car technology, all with a reasonable price tag that is achievable by the general public. Unlike Tesla's prior Model S that cost a minimum of \$70,000 for its base model, the new Model 3 series is looking to thrill drivers with revolutionary features such as self-drive, self-park and accident avoidance with a starting price of about \$35,000. Tesla promises to deliver much greater value to their customers with innovative features that will make driving not only fun again, but also safer than ever before.

The Tesla Model 3 is an electric car that accelerates silently from 0 to 60 mph in less than six seconds. With its advanced battery, the Model 3 offers a driving range of 215-miles before it needs recharging. The use of high performance embedded computer systems or integrated motherboards are needed to control these complex car functions, from battery management to autopilot. A human machine interface (HMI) can be used to manage and control settings such as sunroof control, temperature preferences, GPS map routes, connected Bluetooth devices and more. These systems, boards and HMI computers work in conjunction with a series of sensors, radar systems, cameras, GPS system and high resolution digital maps to deliver one of the most advanced mass market vehicles.



These high quality embedded systems and motherboards are required to offer desirable features such as highly scalable CPU options for various computing performance needs. These features can include anti-vibration, wide operating temperature ranges and reliable high performance CPUs to withstand the challenges of vehicle usage. Car manufacturers are not the only ones taking advantage of these advancements in computer technology, mass transit buses and trains can now offer

these futuristic features as well. Trucks now can also have more efficient fleet management and communication systems. With technology being more advanced with exponential growth, the ‘future’ is arriving at our doorstep much faster than we think. Computer hardware manufacturers are able to capitalize on the trend and provide cost reduction through economy of scale. Vehicle manufacturers can now bring space-age features that were once limited to the consumers in higher income brackets into the mass market.

Technology plays a key role in this game-changing phenomenon and will continue to make a huge impact in all arenas of the world. Today, we are amazed by vehicles that can self-drive and brake on their own to prevent collisions. Tomorrow, these might be among the most basic of features for automobiles in the marketplace. The bar is now raised. It is an exciting time to witness the tremendous impact of technology and to be a part of this increasingly “magical” world we live in. Who knows, flying cars may not be too far off.

Axiomtek’s Advanced Vehicle and Fleet Management Product Lines

Axiomtek’s advanced embedded computer systems, embedded motherboards, and all-in-one touch panel PCs can be integrated by car manufacturers looking to adopt these futuristic features into various transportation applications. These in-vehicle PCs are feature-rich and offer a wide variety of options for scalability and customization.

Embedded Systems Product Lines

Axiomtek’s **tBOX**, **rBOX** and **eBOX** product lines can be integrated into a variety of mass transit applications with features including high performance/low power consumption CPUs, anti-vibration features, safety and rolling stock certifications and more. The rugged tBOX products are designed for a variety of onboard transportation

applications, while the versatile eBOX products can be integrated into applications such as fleet management, ticketing, signaling and more.

Some examples of Axiomtek's embedded computer systems suited for transportation applications are as follows:

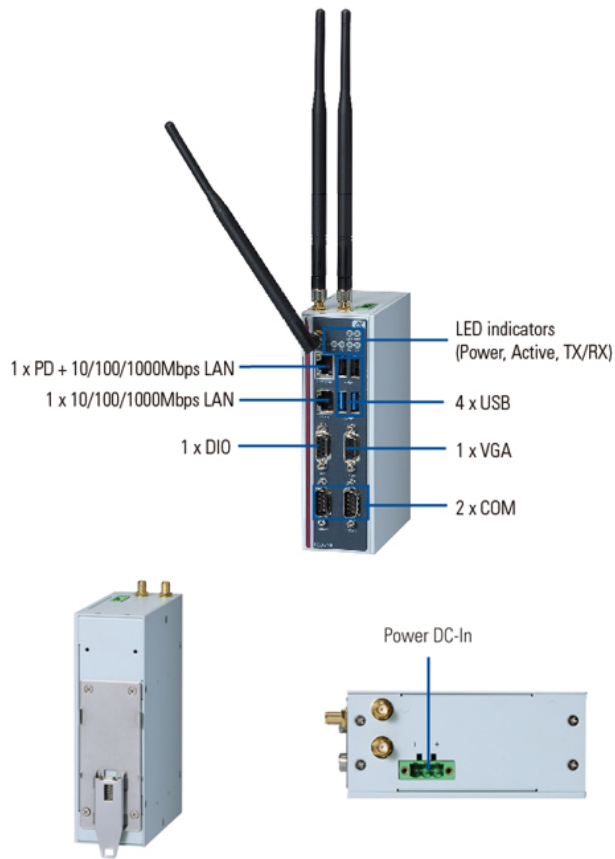
■ tBOX810-838-FL

Additional useful features for such challenging transportation operations could also be delivered without an issue with products from our transportation product line. The tBOX products offer high performance processors, additional transportation safety certifications and anti-vibration features such as M12 connectors, EN50155 or eMark certification/compliance and lockable I/O interface. Axiomtek's comprehensive transportation product line can meet and exceed the requirements put in place for this or any mission critical project.



ICO310

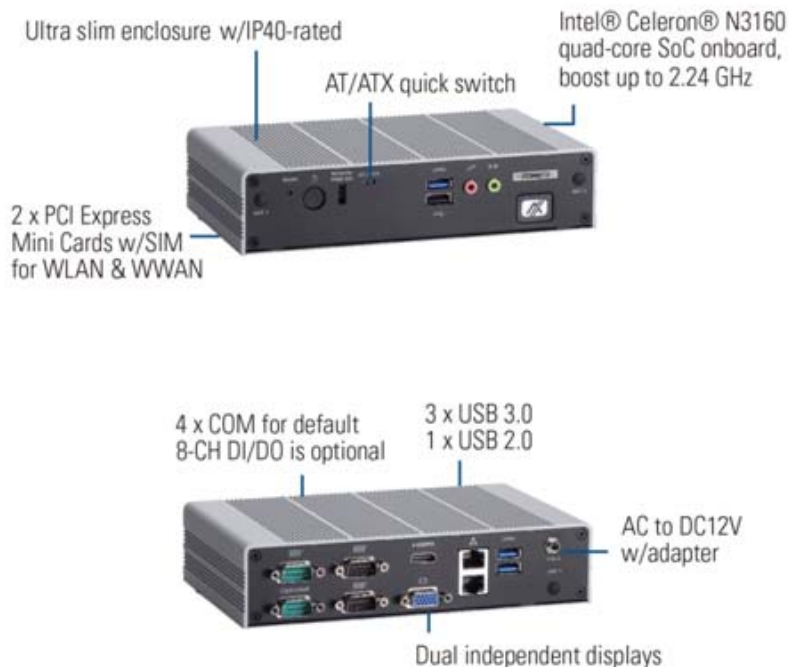
The [ICO310](#), a robust din-rail IIoT (Industrial IoT) embedded platform, supports low power Braswell Intel® Celeron® processor N3060 1.6 GHz dual-core or N3160 1.6 GHz quad-core with up to 8GB DDR3L system memory, delivering high performance and low power consumption at competitive price. The outstanding Braswell Intel® Celeron® SoC-based embedded field controller offers complete expandability and full featured I/O, including two Gigabit LAN ports, two RS-232/422/485 ports, two USB 2.0 ports, two USB 3.0 ports, one VGA port, and one DIO interface. Two PCI Express Mini Card slots, one SIM card slot and three internal antennas are available for 3G/GPRS and Wi-Fi connections. Furthermore, the ICO310 features PoE PD function, which can simplify network installation and minimize the total costs of replacement and maintenance. Its storage interfaces include an SATA HDD, as well as mSATA support on the PCI Express Mini Card slot. Additionally, the wide range 12V-24V DC terminal block power input with overvoltage and reverse protection can lower the risk of data loss under human manipulation. The reliable yet robust [ICO310](#) is a perfect solution for industrial IoT applications such as smart energy, smart factory automation, facility monitoring systems and many more.



■ eBOX625-853-FL

The [eBOX625-853-FL](#) is a low power fanless embedded system with a wide range operating temperature and rich I/O interfaces. The slim-type fanless box PC is powered by the latest Intel® Celeron® processor quad-core N3160 (formally codename: Braswell) with one DDR3L-1333/1600 SO-DIMM socket with up to 8 GB memory. The reliable Intel® Celeron® N3160-based embedded box computer supports Intel® Virtualization Technology (Intel® VT-x) which maximizes flexibility and enhances security and efficiency. The [eBOX625-853-FL](#) is ideal for IIoT (Industrial Internet of Things), retail equipment, MMK (Multi Media Kiosk), industrial gateway, automation, and many more.

The Axiomtek [eBOX625-853-FL](#) has an IP40-rated rugged aluminum extrusion and steel case. It is designed to withstand vibration up to 3G and wide operating temperature range from -20°C to +60°C (-4°F to +140°F). Furthermore, the rugged Intel® Braswell SoC noiseless embedded system comes with remote power switch, allowing users to remotely reboot and control power on/off. The [eBOX625-853-FL](#) is really suitable for any IIoT application.



The experienced sales and engineering team at Axiomtek, in conjunction with technology partners being considered for the project, helped determine what was required to achieve optimum results for the application and immediately offered solutions. The eBOX controller's compatibility with the selected security software was already proven from past collaborated projects. Axiomtek offered a low risk solution that resulted in a shortened deployment time. This, coupled with the reliable eBOX controller, helped the customer meet their time constraint and project challenges with successful results.

To learn more about Axiomtek's [tBOX intelligent transportation systems](#), [rBOX DIN-rail embedded controllers](#), and [fanless embedded systems](#), please contact us at info@axiomtek.com.tw.

About Axiomtek Co., Ltd.

[Axiomtek](#) Co. Ltd. is one of the world's leading designers/manufacturers of PC-based industrial computer products. From our roots as a turnkey systems integrator specializing in data acquisition and control systems, Axiomtek has mirrored the PC evolution in various industries by shifting our focus toward the design and manufacture of PC-based industrial automation solutions.

Axiomtek Co., Ltd. established in 1990, has more than 60 distributor partners globally. Axiomtek offers Industrial PCs (IPC), Single Board Computers and System on Modules (slot CPU card, small form factor embedded boards & SoM), Fanless & Rugged Embedded System (eBOX and rBOX), Intelligent Transportation System (tBOX), Industrial Firewall Platform, Industrial IoT Gateway Solution, EtherCAT Master Controller, Touch Panel Computers (TPC), Medical PCs (MPC), Human Machine Interface (HMI), Digital Signage and Players (DS), Industrial Network and Network Appliances (NA).

As an associate member of the Intel® Internet of Things Solutions Alliance, [Axiomtek](#) continuously develops and delivers cutting edge solutions based on the latest Intel® platforms.