Driving the Trend for in-vehicle Infotainment Systems

Mobile Intel® 915GM Express chipsets deliver a high performance platform for Hezheng Technology's development of multi-function in-vehicle infotainment systems

Shenzhen Hezheng Technology Development Co., Ltd. was established in 2003 with an emphasis on manufacturing automobile systems for the growing consumer market.

Having established strategic relationships with well-known domestic and international manufacturers, the China-based company has since acquired extensive experience in the development of in-vehicle infotainment systems.

Coupled with the rapid rise in popularity of in-vehicle infotainment systems in recent years, Hezheng Technology is primed to drive the emergence of China's in-vehicle infotainment systems industry today.

The company's market foray is further aided by the deployment of Intel® technologies, which feature features great performance, low power consumption and comprehensive Intel technical support.

Through rigorous product comparisons and strict testing, Hezheng Technology has found an ideal IT platform for its in-vehicle infotainment systems in the Mobile Intel® 915GM Express chipset.

With the successful deployment of Mobile Intel 915GM Express chipset technology, Hezheng Technology is now able to develop robust, easy to use and scalable in-vehicle infotainment systems for the consumer market and beyond.

Paving the way for stable, reliable and multi-functional in-vehicle infotainment systems

The face of automobile technology has evolved rapidly from mechanics to electronics in recent years as the computerization of cars has permanently changed what it means to own a car today.

Components such as brakes, steering, suspension that were once purely mechanical are now either electronic or controlled by computers, with computer processors running more than 86 percent of the systems in an average vehicle[1].

It is only a matter of time before personal computer capabilities that were once the domain of workstations, desktops and laptops show up inside a car, and Hezheng Technology knows it.

Car owners today expect automobiles to become not only a mode of transportation but also an extension of their regular lives, and this includes the deployment of computer capabilities in their vehicles.

As a result, car owners often install their own rudimentary computer systems after they have purchased their vehicles.

However, the deployment of in-vehicle infotainment systems are typically hampered by issues such as high mobility risk, limited deployment space and wiring complexities. In addition, third-party in-vehicle infotainment systems are often limited by low anti-shock performance, bulky form factors and unstable operations.

Sensing that the progress of automobile computerization is driving the demand for in-vehicle infotainment systems up, Hezheng Technology wasted no time in developing its own advanced, multi-functional and reliable in-vehicle infotainment systems solutions based on the Mobile Intel 915GM Express chipset.

Measures of Success

- Mobile Intel 915GM Express chipset and Intel® Pentium® M processor form the core platform for Hezheng Technology's in-vehicle infotainment systems.

- Mobile Intel 915GM Express chipset seamlessly integrates with Hezheng Technology's independently developed multi-function module to deliver key functionalities such as power amplifying, sound receiving, GPRS/CDMA, GPS and other wireless networking capabilities.

- Mobile Intel 915GM Express chipset further features Intel® Graphics Media Accelerator 900 (Intel® GMA 900), which delivers excellent graphic card performance and scalability with support for DirectX* 9 hardware acceleration, outstanding 3D performance as well as dual standalone displays.

- Intel Pentium M processor provides robust computing performance for Hezheng Technology's in-vehicle infotainment system.

- Integrated high-speed USB 2.0 also enables Mobile Intel 915GM Express chipset to support 8 USB 2.0 peripherals simultaneously, giving Hezheng Technology's in-vehicle infotainment systems massive scalability.

- In addition, Hezheng Technology's proprietary intelligent power supply system and electronic hard drive also work seamlessly to ensure the smooth operation of its in-vehicle infotainment systems.

"Mobile Intel® 915GM Express chipset and comprehensive Intel technical support allows us to develop compact, high performance and multi-functional in-vehicle infotainment systems."

Guo Yiqin
General Manager
Shenzhen Hezheng
Technology Development
Co., Ltd.

Mobile Intel® 915GM Express chipset delivers a whole new computing experience to Hezheng and its valued customers

The combination of Mobile Intel 915GM Express chipset and high performance Intel Pentium M processor has since enabled Hezheng Technology to build intelligent in-vehicle infotainment systems for its target market, and the company could not be happier.

As a car's entertainment center, Hezheng's in-vehicle infotainment systems not only come with GPS navigation, GPRS/CDMA and other wireless networking capabilities, it can also read a range of leading video and audio file formats.

In addition, an integrated Intel GMA 900 graphic card supports dual standalone displays so the in-vehicle infotainment systems could be configured with a second monitor to meet various display needs.

According to Hezheng Technology's general manager Guo Yiqin, these computing capabilities could not have been possible without a close collaborative relationship with Intel.

"Mobile Intel® 915GM Express chipset comes in a highly integrated form factor which enables us to design a smaller motherboard. With the size advantage, we can then install the in-vehicle infotainment systems in the car's enclosed central control compartment, effectively maximizing limited car space and achieving low heat emission and power consumption," says Guo.

Hezheng Technology's technical director Yan Dijun also emphasized the key role of Intel technical support in helping Hezheng Technology design an intelligent power supply for the in-vehicle infotainment systems.

"Power supply is the heart of the entire in-vehicle infotainment systems and a stable power output from the car is required for the smooth operation of the computer," says Yan, "With Intel's technical support, we designed a unique under-voltage protection system to regulate power supply for our in-vehicle infotainment systems."

According to Yan, Hezheng Technology also went a step further in using electronic hard drives for the company's in-vehicle infotainment systems. Without any mechanical parts, electronic hard drives ensure the smooth operation of the in-vehicle infotainment systems even during bumpy rides.

These robust capabilities go a long way in allowing Hezheng Technology's customers to truly experience mobile computing even whilst on the road.

The success of its Intel technology deployment has since brought out the full potential of Hezheng Technology's in-vehicle infotainment systems solutions. With powerful, robust multi-functional PC capabilities, Hezheng Technology's in-vehicle infotainment systems are now primed to make the leap from consumer to industrial applications.

"We are only beginning to explore the numerous possibilities of our Intel® technology-enhanced in-vehicle infotainment systems with the development of various software development kits for industrial applications such as traffic police operations, logistics, passenger transportation and environmental protection, among others," says He Weiming, Market Director, Hezheng Technology.

"Thanks to Intel® technology and expertise, Hezheng Technology now has the ability to meet to meet consumer demands for in-vehicle infotainment systems and expand our market to industrial applications," he adds.

Benefits

- Comprehensive product lines based on Intel® architecture cater to diversified customer requirements for robust in-vehicle infotainment systems.

- The combination of Mobile Intel® 915GM Express chipset and Intel® Pentium® M processor ensures the high-end performance and stability of Hezheng Technology's in-vehicle infotainment systems.

- Additionally, Hezheng Technology's Intel architecture-based in-vehicle infotainment systems not only feature high scalability, but also come with massive adaptability with a range of third-party tools.

- Hezheng Technology's rich experience with Intel® products further ensures the company's success in the development of industrial in-vehicle infotainment systems.

Find a business solution that is right for your company. Contact your Intel Representative or visit the Intel Embedded Web site at

www.intel.com/go/embedded

or visit the embedded industry solutions-specific sites at:

http://www.intel.com/design/embedded/solutions
www.intel.com/go/infotainment

(intel®)