

## Success Story

Intel® Atom™ Processor  
Z5xx Series

In-Vehicle Infotainment (IVI) Solution



# Build an Infotainment Center on Wheels

## Shenzhen ZBJ Technology uses Intel® Atom™ Processor Z5xx Series to Build an In-Vehicle Infotainment (IVI) Solution

The car is used not only as a means of transportation but also for many other purposes. The diversification of car functionality has presented a new opportunity for in-vehicle electronics development. How to seize this opportunity and provide high-integration, high-intelligence and highly informative in-vehicle infotainment products for customers has become a new challenge for the industry.

To cope with this challenge, Shenzhen ZBJ Technology Co., Ltd. ("ZBJ Technology") has, with the full support of Intel, used its powerful R&D capability and advanced product concept to provide a wide variety of in-vehicle infotainment products for customers. ZBJ Technology boasts enormous technological strength in the areas of in-vehicle electronics and the PC.

Now, ZBJ Technology is collaborating with Intel to build a new in-vehicle infotainment (IVI) solution, based on the Intel® Atom™ processor Z5xx Series, that provides a stable and reliable in-vehicle infotainment product with top performance for customers.

**“By using the Intel® Atom™ processor Z5xx Series, the new IVI solution has breathed new life into the in-vehicle infotainment environment. One thing is certain: this new solution will be recognized and accepted by an increasing number of customers.”**

Luo Feng  
General Manager  
Shenzhen ZBJ Technology Co., Ltd.

<b>Challenge</b>	<ul style="list-style-type: none"> <li>▪ <b>Responding to high performance infotainment requirements.</b> The traditional in-vehicle electronic products are no longer able to meet customer requirements for video and music entertainment, in-vehicle navigation, mobile communications and mobile office, etc. Customers are yearning for the emergence of higher-performance IVI solutions.</li> <li>▪ <b>Responding to complex in-vehicle environment requirements.</b> The complexity of the in-vehicle environment characterized by high-speed mobility, narrow space, noise/vibration and unstable power supply has put the stability and reliability of any new IVI solution to the test.</li> </ul>
<b>Solution</b>	<ul style="list-style-type: none"> <li>▪ <b>Intel® Atom™ processor Z5xx Series provides high performance solutions.</b> The Intel Atom processor has provided strong support for delivering a new IVI solution to meet demand for information processing and video and music entertainment. Together with ZBJ Technology's software and hardware modules and Microsoft* Windows* XP Embedded operating system, the Intel Atom processor Z5xx Series can provide the compute foundation for all-inclusive IVI services for customers.</li> <li>▪ <b>Multiple features deliver stability and reliability.</b> The super low-power design of the Intel Atom processor is combined with industrial temperature support and 7-year lifecycle support to help the new solution operate stably and reliably in the complex in-vehicle environment.</li> </ul>
<b>Impact</b>	<ul style="list-style-type: none"> <li>▪ <b>Boosting customer satisfaction.</b> By deploying the new IVI solution, ZBJ Technology has won higher customer satisfaction. In collaboration with ZBJ Technology, Intel has garnered remarkable success in the China market.</li> <li>▪ <b>Expanding focus customer group.</b> ZBJ Technology predicts that by using the Intel Atom processor Z5xx Series, the new IVI solution will continue to have great customer acceptance in the future.</li> </ul>

## Intel® Atom™ Processor Z5xx Series will provide a high performance IVI solution for ZBJ Technology and its customers

ZBJ Technology has, through close technological cooperation with Intel, used its technical strength to deliver a new IVI solution by using the Intel Atom processor Z5xx Series.

“The traditional in-vehicle electronic products such as CD, DVD and GPS are fraught with deficiencies such as single functionality and poor man-machine interactivity. Such products could hardly meet the growing customer demand for IVI features, Until recently, Intel® Architecture Processors were rarely used in IVI systems due to high power consumption, large dimension and complex utilization environment. The emergence of the Intel Atom processor Z5xx Series will undoubtedly bridge the gap between the rapidly changing infotainment electronic products and the in-vehicle environment,” said Luo Feng, President of ZBJ Technology.

To enable the new IVI solution to bridge the gap between the pace of innovation for infotainment electronic products and in-vehicle infotainment offerings and seek new breakthroughs in the area of information processing, video and music entertainment, ZBJ Technology selected the Intel Atom processor Z5xx Series to bring unrivalled performance to the new solution. The 45nm Intel Atom processor is equipped with 512KB L2 cache and supports Intel® Hyper-Threading Technology, which improve the speed of information processing. Combining this with ZBJ Technology's in-vehicle central control software and Microsoft Windows XP Embedded operating system, the IVI solution provide a series of functional applications such as GPS navigation, mobile office and wireless access for customers. With respect to video and music entertainment, the high performance graphic card, Intel® Graphics Media Accelerator 500 (Intel® GMA 500), embedded in the Intel® System Controller Hub (Intel® SCH) has exceptional 2D/3D performance. With the powerful hardware decoding support, the graphic card can play 1080P HD video without increasing the processor load. This graphic card provides extensive video and music entertainment support for the new solution.

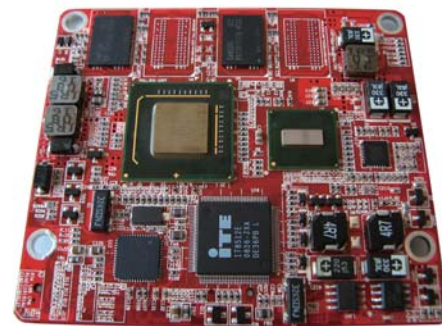
In addition to delivering high performance, the new solution has made complete technological breakthroughs within the in-vehicle environment to ensure that it can operate stably and reliably in such a complex environment. First of all, with regard to the sealed narrow installation and operation space in the in-vehicle environment, the super low-power design of the Intel Atom processor can reduce heat emission to the greatest extent possible while guaranteeing performance, thereby boosting the new solution's operating stability and reliability. Secondly, the Intel Atom processor Z5xx Series provides industrial temperature support to enable the new solution to be validated for the -40° to +85° C temperature range, and operate normally in a variety of environments. In addition, Intel offers 7-year lifecycle support for the Intel Atom processor Z5xx Series.

"When a customer contemplates deploying an IVI solution, the customer often considers two questions: Is its performance robust? Does it operate stably and reliably? Facts have proved that the IVI solution using the Intel® Atom™ processor Z5xx Series can meet both requirements. This is the key reason why this solution has been widely accepted by customers," said Luo Feng.

By developing the IVI solution using Intel Atom processor Z5xx Series, ZBJ Technology has gained a host of predictable enterprise advantages:

- **Unrivalled performance:** Deploying the Intel Atom processor Z5xx Series provides the new IVI solution with unrivalled information processing and video and music entertainment capability. As a result, the new solution provides customers with unmatched new experiences in in-vehicle infotainment.
- **Stability and reliability:** The super low-power Intel Atom processor Z5xx Series with industrial temperature and 7-year product lifecycle support enables the new IVI solution to operate stably in the complex in-vehicle environment, and provide stable, reliable and carefree services for customers.

All these advantages will help jumpstart the new IVI solution into a fast track, and enable it to lead the trend of in-vehicle infotainment development, thereby benefiting ZBJ Technology and its customers for a long period of time.



### Spotlight: Shenzhen ZBJ Technology – The In-Vehicle Infotainment Industry Leader

Shenzhen ZBJ Technology, established in 2007, is a high-tech enterprise dedicated to delivering infotainment products and solutions for application in the in-vehicle area.

After multiple years of technological development and research, ZBJ Technology has accumulated extensive experiences in the development of IVI systems that require high levels of integration, intelligence and information processing.

ZBJ Technology has rolled out a series of IVI products and solutions integrating diverse functions such as in-vehicle video and music entertainment, intelligent navigation, in-vehicle mobile communications, in-vehicle mobile office, car information monitoring, and car fault diagnosis. As a result, it has cemented its leadership position in the midst of fierce market competition.

As a leader in the in-vehicle infotainment market, ZBJ Technology boasts board-level IVI R&D capability. It can provide customers with a complete set of product solutions and technical support, and enable customers to realize their product ideas and launch the products into market within the shortest period of time.

By using its exceptional technological strength and product conception, ZBJ Technology has garnered remarkable success in the in-vehicle infotainment market. Its products and solutions have been widely recognized by customers.

As an IVI solution provider ZBJ Technology is working closely together with Intel to develop leading IVI solutions.

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[www.intel.com/go/embedded](http://www.intel.com/go/embedded)

**To learn more about Intel® Solutions for In-Vehicle Infotainment:**

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