DSP Supports a Wide Range of Wireless Air Interface Standards Enabled by Software Upgrades

ZTE Corporation has selected Freescale Semiconductor's six-core MSC8156 digital signal processor (DSP) to power a flexible baseband platform for its software definable radio (SDR) base stations. Using the highly programmable Freescale DSP, ZTE can develop wireless base stations capable of supporting a range of wireless standards including 3G-LTE,TD-SCDMA, WiMAX and WCDMA.

ZTE is a worldwide pioneer in deploying SDR base stations, which can be upgraded from 3G to 4G standards with a simple software update. SDR-based solutions dramatically simplify wireless network evolution and provide a solid foundation for multi-mode wireless networks. Highly programmable DSPs that support SDR help wireless carriers lower capital investments and enable seamless network evolution.

"This design win continues the successful track record that ZTE and Freescale have established in collaborating to create world-class wireless infrastructure solutions," said Dr. Lisa Su, Senior Vice President and General Manager of Freescale's Networking & Multimedia Group."

In addition to exceptional programmability, Freescale's flagship MSC8156 DSP also offers ZTE outstanding computational performance. The DSP core technology that powers the MSC8156 product recently garnered top benchmark results from independent signal-processing technology analysis firm Berkeley Design Technology, Inc. (BDTI). Freescale's SC3850 core earned the highest fixed-point BDTImark2000™ score of any DSP architecture tested by BDTI to date.

"Freescale's multi-standard technology helps us deliver true SDR base station solutions that lower total cost of ownership and ease network upgrades for the industry's top wireless carriers," said Mr. Zhao Xian Ming, Senior Vice President of ZTE Corporation. "Leveraging Freescale technology means our customers can be assured that ZTE equipment is powered by some of the most advanced silicon in the world."

The MSC8156 is based on 45-nm advanced process technology. It includes multi standard acceleration technology that adds flexibility and reduces costs for OEMs. An onboard Multi-Accelerator Platform Engine technology for baseband, called MAPLE-B, works in concert with the six high performance and fully programmable DSP cores to support 3G-LTE,TD-SCDMA, WiMAX and WCDMA standards.

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