Industry's First Standard cdma2000(R) 1xEV-DV Solution for 3G Mobile Devices

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New 1xEV-DV Solution to Deliver Advanced Multimedia Services, High-Speed Internet to 3G Devices

TAIPEI, (June 2, 2004) - Accelerating the deployment of high-speed Internet and robust multimedia services to 3G mobile devices, STMicroelectronics (ST) and Texas Instruments Incorporated (TI) today announced they are sampling the industry's first standard cdma2000® 1xEV-DV solution. Considered a superior technology migration path for cdma2000(R) operators, the 1xEV-DV standard provides users with broadband capabilities via their cell phones, PDAs, and other mobile devices, enabling extremely high-speed Internet connectivity at ten times the speeds provided by current cdma2000 1X and GPRS solutions, while simultaneously supporting the voice capability of cdma2000(R) 1X.

To ensure availability of devices and equipment ready for commercial deployment of 1xEV-DV technology, TI and ST are collaborating with Nokia for interoperability testing with South Korea-based LGE's infrastructure unit. This testing is in support of wireless operator LG Telecom's (LGT) planned commercial deployment of EV-DV services in South Korea. "LGT believes 1xEV-DV is the right direction for cdma2000® advancement and is committed to the deployment and evolution of the standard. This solution from TI and ST is a key enabler for the deployment of advanced multimedia applications on LGT's 1xEV-DV network," said Dr. Youn-Kwan Kim, LGT vice president, Network Technology Standards.

Benefits of 1x EV-DV for 3G Mobile Devices

The 1xEV-DV standard provides very efficient, high-speed packet data capabilities with typical sector throughput ranging from 420 kilobits-per-second to 1.7 megabits-per-second (Mbps) and peak data rates up to 3.1 Mbps. By providing increased data throughput and network managed quality of service, 1xEV-DV will support traditional remote Internet access and allow manufacturers to provide highly advanced multimedia services, including streaming video, video conferencing and interactive online games. This solution, the first in a planned portfolio of 1xEV-DV products from TI and ST, will support the 1xEV-DV Release C standard to meet immediate market requirements. Release C is the first stage of the 1xEV-DV standard to be commercialized and provides communication enhancements from the base station to the handset.

"Nokia is enthusiastic about the commercial deployment of 1xEV-DV technology and services. This commercial solution demonstrates the maturity level of 1xEV-DV, providing operators with a natural evolution path for their cdma2000® network," said Adam Gould, vice president of technology management and strategy for Nokia's CDMA business. For wireless operators, 1xEV-DV provides the flexibility to dynamically manage voice and data traffic for the most efficient use of their wireless spectrum, enabling new multimedia services that will create additional revenue-generating opportunities.

"The flexibility and the efficiency of the 1xEV-DV system were pivotal elements for LGE's decision to develop the first 1xEV-DV system for the market for commercial deployment. Initial interoperability tests indicate success in demonstrating simultaneous voice and high speed packet data in a very efficient manner," said B.K. Yi, LGE senior executive vice president, standards, 4th generation research and development.

Complete 1xEV-DV Solution Speeds Time-to-Market

This complete system solution includes the digital baseband and radio frequency (RF) receiver and transmitter ICs supplied by TI and the integrated analog baseband and power management device supplied by ST. It also includes TI's protocol stack, comprehensive set of embedded wireless services, tools and technical support.

This solution interfaces with ST's Nomadik™ or TI's OMAP™ application processors to support high-performance multimedia applications and advanced mobile operating systems such as Symbian OS™, Microsoft's® Windows Mobile™, and Linux®. In addition, modular technologies available from TI and ST - including wireless LAN, Bluetooth®, camera modules and Flash memories - will all enhance the ability of manufacturers to easily differentiate their products.

At the core of the system are the solution's digital and analog baseband ICs. TI's dual-processor TBB5160 digital baseband communications engine provides high-speed packet data service (up to 3.1 Mbps), quality-of-service functions to support real-time services and simultaneous voice-and-data services. In addition, 1xEV-DV is backward compatible with the IS-2000 1X and IS-95 standards, therefore the TBB5160 processor implements all the functions, such as voice encoding and decoding, system control and high-performance digital signal processing, for compliance with both standards.

The STw4200 analog baseband and power management device from ST integrates all functions required for power management, battery and charger control and monitoring, as well as the voice and radio sigma delta A/D and D/A converters. It also integrates the voice analog front end and all required housekeeping functions such as real time clock, auxiliary converters and all user interfaces and drivers.

The TRF4320 transmitter and TRF5320 receiver from TI perform dual-band RF modulation/demodulation using direct conversion between the baseband and radio antenna. Direct conversion eliminates intermediate frequency stages, reducing power consumption and component count, and provides the most cost-effective RF implementation available. Support for the cdma2000® 1xEV-DV system solution includes an enhanced CDMA protocol stack along with development and testing tools, and a broad set of data and messaging services supported via TI's integrated TCS Application Suite.

Availability and Packaging
Samples of the 1xEV-DV solution are available now, supporting the 1xEV-DV Release C standard to meet immediate market requirements. The TBB5160 is packaged in a 289-pin PBGA, the STw4200 in a 244-pin TFBGA, the TRF4320 in a 40-pin VQFN, and the TRF5320 in an 84-pin TFBGA. For additional information about TI and ST's cdma2000® products, visit either company's Web site at www.st.com/cdma or www.ti.com/cdmasolutions.

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