

# **Samsung Develops First Commercial LTE Modem for Mobile Phones**

September 2 2009

---

Samsung Electronics announced today that it has developed the first Long Term Evolution (LTE) modem that complies with the latest standards of the 3rd Generation Partnership Project (3GPP), which were released in March 2009. Utilizing Release 8 of the 3GPP, this LTE modem is a significant upgrade from the previous standard that was released in December 2008.

The modem, branded the Kalmia, supports download speed up to 100Mbps and upload speed of 50Mbps within the 20MHz frequency bandwidth. Users of a mobile device equipped with the LTE chipset can download a high-definition movie file (800MB) in one minute at speeds of 100Mbps, while simultaneously streaming four high-definition movies with no buffering.

Samsung also announced it has successfully developed a 3G baseband modem based on the Release 7 standard with an HSPA (High Speed Packet Access) Evolution platform. This modem, branded the Broom, allows download speeds of up to 28Mbps and upload speeds of 11.5 Mbps. This makes the Release 7 more than twice as fast as the Release 6 HSPA Service, which had a maximum download speed of 14.4Mbps.

Because the LTE and all other HSPA evolution models share the same platform, the new LTE modem is fully compatible with earlier standards. Through this technology, a mobile communications service provider can upgrade to HSPA service or evolve into a LTE network simultaneously in order to convert their existing networks to broadband.

In the future, this flexibility will be crucial as wireless mobile service providers will require compatibility with pre-existing systems, in order to offer LTE in urban areas while still supporting 3G in suburban or rural areas. The modem offers a multi-mode, which is a major requirement for LTE developers who are calling for inter-operability within pre-existing 3G networks.

“Our latest LTE standard chip-set will help realize the world’s first commercial LTE device,” said JongKyun Shin, Executive Vice President and head of Mobile Communications Division, Samsung Electronics. “Currently, Samsung is partnering with LTE developers preparing for a LTE service launch in 2010 and will unveil a variety of LTE devices of different types and with diverse features and options, including memory cards, handheld devices and MID.”

Separately, [Samsung Electronics](#) has also developed the mobile WiMAX (IEEE 802.16e) modem chip, a product that is already resonating in the mobile market. The company has already adopted the modem into commercial WiBro handsets in Korea. With this new modem, Samsung has delivered WiMAX and LTE model solutions, which are the two major wireless mobile communications systems for the next generation. The company has also demonstrated a full lineup of modems from 2G/3G to modems for the next generation of mobile telecommunication systems with its HSDPA Evolution modems.

Samsung is also strengthening its position as a leader in mobile telecommunication system standards. Samsung currently holds the most chairman seats within the IEEE 802.16 Working Group, a WiMAX standardization association, and also chairs the WiMAX Forum, an affiliate organization. Additionally, Samsung is highly influential in securing many leading positions in other organizations such as the Technology Working Group.

At 3GPP, an association that specifies standards for LTE, Samsung ranks in the top group according to its number of contributions and has four seats in the wireless networking standardization working group executive board. Samsung has also served as the chair for two years in the steering committee of LSTI (LTE/SAE Trial Initiative), an organization that works closely with LTE. The company is also actively participating in various programs for NGMN (Next Generation Mobile Networks), a business association of global and leading mobile operators.

Source: Samsung

Citation: Samsung Develops First Commercial LTE Modem for Mobile Phones (2009, September 2) retrieved 27 April 2024 from <https://phys.org/news/2009-09-samsung-commercial-lte-modem-mobile.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.