Frontier Silicon launches single-chip T-DMB receiver for smaller mobile TV

Henri Arnold - April 25, 2007

Frontier Silicon extends its portfolio of mobile TV solutions with the launch of a single-chip receiver for T-DMB and DAB-IP broadcasts. The new IC (integrated circuit), called Paradiso 1T (FS1032), has been created using enhanced system-in-package (SiP) techniques, incorporating Frontier Silicon’s unique digiSHIELD technology, to integrate the advanced Paradiso multistandard baseband IC with a high-performance RF tuner and ancillary passive components. The new SiP offers handset makers industry-leading performance, exceeding CENELEC (EN50248) requirements, including power consumption of less than 140 mW with a significantly reduced footprint and component count. Paradiso 1T is sampling now and will be available for mass production in Q3.

Frontier Silicon has unparalleled expertise in DAB, possessing a share of over 70 percent in the DAB digital radio market. Paradiso 1T builds on this strength, supporting all modes of DAB, T-DMB and DAB-IP - mobile TV broadcasting standards that are in commercial use now, with Korea boasting the most dramatic uptake of 2.83 million T-DMB subscribers in 2006 and a forecast of 18.5 million by 2010.

Commonly, when two dies are stacked closely together, the coupling of clock noise and digital interference from a baseband die to the RF tuner is magnified. Frontier Silicon's digiSHIELD technology has neutralised this, applying innovative noise suppression techniques to minimize such coupling, maximising RF sensitivity and adjacent channel rejection performance.
The extensive package integration of the Paradiso 1T enables handset makers to minimise their external component count, resulting in low external bill-of-material costs. It also offers high-level API software (Brando) that is provided pre-integrated with leading middleware vendors; this helps accelerate the time-to-market for new handsets. An additional benefit is the fact that the solution is scalable; its software being compatible with the other members of the Paradiso 1 family including the Paradiso 1H (FS1031) DVB-H SiP, which was demonstrated at 3GSM World Congress in February 2007.

"The Paradiso IC family offers manufacturers a ready-made solution for multiple markets, enabling the easy development of a range of mobile TV handsets for different broadcast standards, while using the same core Paradiso building block," said Jerry O'Brien, Frontier Silicon's mobile digital TV technical marketing manager. "Importantly, our software-defined architecture allows customers to rapidly reconfigure the device through firmware updates, effectively future-proofing their solutions in the increasingly fragmenting mobile TV market."

**About Frontier Silicon Limited**

Frontier Silicon is the leading supplier of digital and RF integrated circuits and modules for mobile digital TV and digital audio products. Established in 2001 as a privately funded fabless semiconductor company, it has over 200 employees and is headquartered in Watford, England, with design centres in Cambridge and Dublin, and branch offices and technical support representatives in Hong Kong, China, Korea and Japan. Products include audio processors for digital radio and network streaming, and receiver solutions for mobile TV, supporting multiple broadcast standards including DVB-H, DVB-T, T-DMB and DAB-IP.

Customers include Samsung, Sharp, Sony, Bang & Olufsen, Bush, Denon, Goodmans, Grundig, Hitachi, JVC, Onkyo, Philips, PURE Digital, Roberts Radio, Sanyo, TEAC and Yamaha.

For more information, visit [www.frontier-silicon.com](http://www.frontier-silicon.com).

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