Details of World's Most-Powerful Broadband Set-Top Box SoC

STMicroelectronics is expanding its market-leading set-top-box portfolio by unveiling details of its forthcoming high-performance broadband set-top box system-on-chip IC for extraordinary home entertainment.

The chip, part of ST's latest-generation home entertainment platform, will deliver market-leading energy efficiency, extreme high performance as well as best-in-class security features, along with support for a wide variety of open-source environments. With greater processing power than any other set-top box IC, the new chip supports value-added services such as state-of-the-art gaming, Over The Top (OTT) video playback via 3rd-parties over the Internet, the new app stores that are increasingly providing content and applications, and secure High-Definition streaming to all connected screens such as tablets, smartphones, PCs and TVs throughout the home.

"Consumers want to see the dream of a truly connected home become a reality. The connected home means seamlessly streaming content across our TV set, our tablet or our laptop with the highest performance and speed, while being able to access operators' app stores as well as open-market stores, said Philippe Lambinet, Sr. Executive Vice President and General Manager Home Entertainment and Display Group. "Our latest generation of high-end set-top-box chips will act as the multimedia center of our home, connecting all of our devices and allowing the greatest user experience, such as 3D program guides and full motion 3DTV, Over-the-Top video and gaming from 3rd-parties over the Internet or from the operator and full, fast access to a world of applications."

Codenamed Orly, the new IC features an advanced, energy-efficient multi-core ARM® Cortex™-A9 MPCore™ processor, which has unique capabilities enabling optimized playback of content and applications through software environments

such as Android™, Qt and the HTML5 open internet standard. Orly will also support powerful Adobe Flash®-based gaming, media and data-driven applications that take advantage of an optimized version of Adobe® AIR® and Flash Player. Dedicated high-performance processing engines will deliver outstanding graphics rendering, multimedia experience and security robustness.

“The television screen is the next frontier for application development opening up amazing new opportunities for content publishers worldwide,” said Jennifer Carr, Senior Director, Business Development at Adobe. “By working closely with STMicroelectronics to optimize Flash Player and Adobe AIR for Orly, more than three million Flash developers will be able to bring next-generation applications like 3D games or premium video content to televisions.”

“ARM is delighted to see ST, a key leader in the digital home and set-top box silicon market, announce the Orly product,” commented Lance Howarth, Executive Vice President, Marketing, ARM. “We believe the system-on-chip solution ST has created using the ARM Cortex-A9 processor and Mali-400MP GPU sets the standard for future set top box design. The combination of these two complementary, power efficient technologies enables a rich media experience, supporting Pay TV and ‘Over the Top’ delivery, which is key to the future growth in this segment.”

Anticipating many opportunities for Orly in home server and networking products distributing content to a multitude of connected appliances, ST recognizes that strong security is critical. To meet that need, ST has leveraged its partnerships with leading security vendors to provide support for the most advanced conditional-access security and digital rights management (DRM).

Within the Orly project, ST has also assembled important supporting ecosystems, which ST’s Lambinet says are becoming more complex as markets for content and services continue to evolve. Orly will provide the flexibility to choose from a wide variety of middleware stacks, which connect components and their applications via computer software, in order to deliver the best possible user experience, filter data for privacy protection, provide interaction with other services, as well as offer assistance in handling secure transactions. Orly is able to support Rich Internet Applications (RIAs) on platforms such as Android, taking advantage of Adobe runtimes. Since web applications contain many characteristics of desktop application software, users can navigate the web or play online games directly from their set-top box. Support for Adobe AIR will also allow users to download standalone Flash based applications via TV App Stores. Analysts at IHS iSuppli anticipate the addressable market for apps delivered to connected TVs could grow to include many hundreds of millions of consumers over the next decade.

For more information about ST’s set-top box solutions, please visit www.st.com/homevideo [1].

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