Set-Top Box Reference Design Obtains 'Adobe AIR for TV' Certification

STMicroelectronics, a global semiconductor leader serving customers across the spectrum of electronics applications and a leader in chips for set-top boxes (STBs) and integrated TVs, has made a significant step forward in its advanced high-definition TV System-on-Chip (SoC) platforms. ST’s move puts it squarely at the forefront of technology development for the next generation of connected TVs that are enabled to run Adobe AIR-based games and other applications.

ST today announced the successful porting, and certification, of Adobe AIR 2.5 for TV on its third-generation SoC platform for advanced and interactive high-definition STBs. The Adobe AIR software is a key component of the Adobe Flash Platform and enables OEMs, ODMs, application and service developers to create and build rich internet applications, games and deploy interactive high-definition video for embedded devices and systems, in particular set-top boxes and TVs.

ST’s latest STi7108-based STB reference design has been successfully verified by Adobe. In addition to Adobe AIR , ST has also successfully ported Adobe Flash technology for the Digital Home to its STi7105 decoder based platform for entry-level and mid-range HDTV set-top boxes.

The new STi7108 Adobe-certified reference design from ST will enable its customers to build upon the platform with minimal development costs, using Adobe software tools to develop ActionScript 3-based applications for TVs, including advanced user interfaces, gaming and high-definition audio/video streaming applications. The Adobe Flash Platform leverages the hardware available on the STi7108 to deliver high-definition audio/video up to 1080p HD allowing service providers to deliver HD

streaming services using industry standard codecs such as Dolby AAC audio and H.264 video.

“The support for Adobe’s Flash and AIR for TV software technologies for ST’s hardware-accelerated and highly robust platforms for next-generation Internet-connected set-top-boxes and integrated TVs propels ST to the vanguard of the ongoing home-entertainment revolution,” said Laurent Remont, General Manager, Connected Home Division, Home Entertainment and Displays Group, STMicroelectronics. “ST’s STi7108 set-top box and Freeman TV platforms are equipped to deliver the performance and low-power requirements for world-class smart consumer products that meet consumers’ growing expectations for rich Internet applications with advanced user interfaces and fast access to a wealth of multimedia content.”

“ST’s implementation enables a scalable solution that will trigger consumers to enjoy rich, premium content on their TV’s that goes beyond television programming,” said Jennifer Carr, senior director, Business Development at Adobe. “With support for Flash Access as the leading content-protection solution, content owners and distributors have another way to safely distribute their premium content to their customers.”

Adobe AIR for the STi7108 set-top-box reference design is available now for evaluation and development at world-leading consumer manufacturers.

STi7108 – Technical Information
ST’s STi7108 has dual CPU host processors linked to a 256K L2 cache providing up to 3000 DMIPS performance. A 3D graphics engine enables a new class of user interfaces, supporting innovations such as 3D Electronic Program Guide (EPG), and enables advanced Internet content and high-performance gaming on the STB. It is the first set-top box IC in the market to combine 3D graphics, Ethernet, USB, PCIe and e-SATA interfaces to connect Internet devices, DVR storage or external Flash or hard-disk (HDD) drives.

The STi7108 utilizes the ARM® Mali-400 graphics processor to deliver a powerful 3D experience up to high-definition resolution. The STi7108 is able to decode video in industry-standard formats, including H.264, MVC, MPEG2, VC-1 or WMV9 Internet video, and MPEG4 part 2, up to high-definition resolutions 1080p 50/60 simultaneously with 1080i/720p picture-in-picture or mosaic formats. The device has flexible memory-interface options offering dual 32/16-bit LMI DDR2/ DDR3 at 1066MHz.

The device provides inputs for up to six transport streams, and provides full-resolution HD 3DTV over HDMI 1.4 with HDCP copy protection. The device includes DRM support that can be combined to conventional CA technologies. Support for content sharing, according to the Digital Living Network Alliance (DLNA) specification, will also allow use in next-generation HD media players and OTT (Over-The-Top) set-top boxes.

Together with other integrated processors, including an audio processing subsystem

and 2D-graphics handling, the STi7108 allows a significant leap in performance over products currently in mass production, thereby providing increased scope for STB designers to create multimedia value-added features and services to differentiate their products in the marketplace.

Further information on ST can be found at www.st.com [1].

Links:
[1] http://www.st.com