

HiSilicon Collaborates with Verimatrix on Advanced Security and Forensic Watermarking to Support Ultra High Definition Video Services

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Operators and Set-top Box Manufacturers Can Offer 4K/UHD Content that Meets New Security Requirements

IBC 2015 Amsterdam and Shenzhen, Sept 2, 2015 - HiSilicon, as a worldwide leading company providing silicon solutions in digital home, communications and wireless terminals, today announced that it has integrated Verimatrix Advanced Security on the HiSilicon Hi3798/Hi3796 family of chipsets. As a key component of end-to-end UHD solutions, HiSilicon is collaborating with Verimatrix to offer advanced security and forensic watermarking on ultra HD (UHD) and Android set-top boxes for pay-TV operators to secure revenue for their UHD services and meet stringent content owner requirements. Based on the powerful CPU and GPU capabilities of Hi3798/Hi3796 family of chipsets and the Verimatrix revenue security solutions, HiSilicon can provide a secure Android platform with a compelling TV experience for feature-rich 4K entertainment and gaming services with ultra low power.

"Ultra high definition is a new opportunity and also a new challenge for the entire pay-TV industry. HiSilicon continues to invest and innovate in digital home silicon solutions. We are very glad to collaborate with Verimatrix to provide the best secure and the best experience for both operator and end user," said Qiu Gang, President of HiSilicon. "With more than 24 years experience in semiconductor and 10 years in digital home market, we focus on the sustaining the growth of pay-TV operators by offering not only cost-efficient solution, but also more value-added services and protection of their existing investments."

The Hi3798/Hi3796 family of chipsets include Hi3798MV100, Hi3796MV100 and Hi3798CV200. The series of chipsets provide from entry level 4K to high end 4K solution. To build an advanced security system based on Android, the series of chipsets have already integrated ARM® TrustZone®, security-video-path, trusted execution environment (TEE), and forensic watermarking technologies. The security system can fulfill the requirement of protecting not only for static system but also the running system. The protecting chain can cover from power on, boot, android kernel loading, middleware launching, app running to UI operating.

"By embedding VideoMark forensic watermarking technology into the Hi3798CV200 chipset, HiSilicon and Verimatrix have created an integrated multi-layer security architecture that will enhance the revenue security of premium content and ensure compliance with UHD premium service delivery requirements," said Petr Peterka, CTO at Verimatrix. "Through HiSilicon and Verimatrix's collaboration, the Hi3798CV200 chipset is well positioned to be integrated with our VCAS Ultra solution, because of the support for integrated TrustZone, security-video-path, TEE, and forensic watermarking technologies."

Key features of Hi3798CV200 include:

- Industry leading Quad-core ARM Cortex A53 64-bit CPU providing up to 15K DMIPs for operator to deploy Android TV/AOSP services and HTML5 based feature rich media applications for outstanding TV experience
- An Industry First: the integration of Dolby Vision High Dynamic Range (HDR) technology in a Set-Top box SoC, for immersed best-in-class video quality experience
- The HiVXETM2.0 video engine supporting 2160P60 HEVC & VP9 decoding, 1080p PIP and transcoding capabilities for flexible video sharing and playback
- A Multi core ARM® MaliTM-T720 GPU with OpenGL ES3.1/2.0/1.1/1.0 OpenVG1.1, EGL and ImprexTM2.0 PQ engine, optimized for Android gaming ecosystem making it possible for the operator to provide extreme gaming services to end users
- A Next Generation security engine supporting secure video path with TrustZone, and hardware based video watermarking technologies to ensure compliance with recent MovieLabs UHD premium service delivery requirements
- Ultra Low Power for both stand-by and normal playback. Sharing a common platform with mobile chipsets, HiSilicon Set-Top box chipsets integrate advanced low power technologies allowing the design of energy efficient products, to help minimize the environmental impact
- A strong portfolio of reliable SDKs, including Android TV, Linux® middleware, and RDK, enables operators to quickly deploy services and applications across all screens. Operating on Android Set-top boxes for multiple generations since 2010, HiSilicon SDKs are stable and easy to use.

About HiSilicon

HiSilicon Technologies Co., Ltd. is a leading chipset solution provider for telecom networks, wireless terminals and digital media. It was formerly known as the ASIC design center of Huawei since 1991 and was spun off in 2004. HiSilicon has the advantage of providing end-to-end chipsets and solutions, from telecom networks to consumer electronics. Set-Top box chipsets have been deployed at more than 100 global operators in over 50 countries, the accumulated volume exceeding 50 million units for IPTV and 60 million units for DVB. For more than 20 years, meeting customers' demands is a driving force for HiSilicon. HiSilicon always aims to provide high quality chip solutions with excellent services and support, and notably a very quick response to customers' requests. HiSilicon Technologies will continuously help customers in their value creation. For more information, please visit <http://www.hisilicon.com>. Any questions, please contact with us, Tel: +86 755 28357270.

About Verimatrix

[Verimatrix](#) specializes in securing and enhancing revenue for multi-network, multi-screen digital TV services around the globe. The award-winning and independently audited Verimatrix Video Content Authority System (VCAS™) and [ViewRight®](#) solutions enable cable, satellite, terrestrial, IPTV and OTT operators to cost-effectively extend their networks and enable new business models. As the established leader in cardless security solutions, the company has leveraged its innovative [3-Dimensional Security approach](#) to provide harmonized rights for premium content delivery to a range of devices over new hybrid network combinations.

Maintaining close relationships with major studios, broadcasters, standards organizations and its [unmatched partner ecosystem](#) enables Verimatrix to provide a unique perspective on video business issues beyond content security as operators introduce new services to take advantage of the proliferation of connected devices. Verimatrix is an ISO 9001:2008 certified company. For more information, please visit www.verimatrix.com, our Pay TV Views blog and follow us at @verimatrixinc, Facebook and LinkedIn to join the conversation.