



Ambarella Introduces S6LM SoC with Latest Imaging Technology for Professional and Home Security Cameras

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New 10nm S6LM SoC combines advanced image processing, low power consumption, and cyber-security protection

SANTA CLARA, Calif.--(BUSINESS WIRE)--Apr. 8, 2019-- Ambarella, Inc. (NASDAQ: AMBA), a leading developer of high-resolution video processing and computer vision semiconductors, today introduced the S6LM camera SoC (System-on-Chip) for both professional and home security cameras. The S6LM includes Ambarella's latest high dynamic range (HDR) and low-light processing technology, highly efficient 4K H.264 and H.265 encoding, multi-streaming, on-chip 360-degree dewarping, cyber-security features, and a quad-core Arm® CPU. Fabricated in 10nm process technology, the SoC has very low-power operation, making it well-suited for small form factor and battery-powered designs.

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"The Ambarella S6LM's latest imaging technology will enable outstanding image quality in the next generation of both professional and home monitoring cameras, including video doorbells and battery-powered cameras," said Fermi Wang, President and CEO of Ambarella. "Fully software compatible with our CVflow family of chips, the S6LM completes our product portfolio to address applications that require outstanding image quality, low-power operation, and cyber-security protection, while remaining cost-conscious."

Ambarella's new S6LM SoC is well-suited for professional and home monitoring applications (Graphic: Business Wire)

S6LM's high performance and low power, make it a great fit for next-generation professional cameras including mini-dome,

360-degree panoramic, and multi-sensor IP cameras. It also offers a unique solution for home security applications such as battery-powered cameras, video doorbells, and next-generation passive infrared (PIR) video cameras. An S6LM-based battery-powered camera or PIR video camera can shut down in less than one second when something such as an animal, shadow, or rain causes a false alert, effectively extending the camera's battery life to between 2 to 5 years.

The S6LM supports Ambarella's SmartHEVC™ (H.265) and SmartAVC™ (H.264) algorithms to deliver 4K video with bitrates as low as 512 Kbits/second. It includes a full suite of advanced cyber-security features to protect against hacking, including OTP, secure boot, TrustZone®, and I/O virtualization. The S6LM chip shares a common SDK, ISP, and cyber-security features with Ambarella's existing CV25, CV22, and CV2 SoCs, allowing multiple price-performance options.

S6LM SoC Key Features:

- 4K AVC and HEVC encoding with multi-stream support
- Quad-core 1 GHz Arm Cortex® A53 with NEON DSP extensions and FPU
- Advanced security features including OTP, secure boot, Trust Zone, and IO virtualization
- Real-time hardware-accelerated 360-degree dewarping and lens distortion correction (LDC)
- Multi-channel ISP with up to 400 MPixel/s input pixel rate
- Multi-exposure HDR and wide dynamic range (WDR) processing
- SmartAVC and SmartHEVC intelligent rate control for lowest bitrates in security applications
- Up to triple-sensor video input with high-speed SLVS/MIPI-CSI/LVCMOS interfaces
- Rich set of interfaces includes gigabit ethernet, USB 2.0 host and device, three SD card controllers with SDXC support, and HDMI v2.0
- Support for DDR4/LPDDR4/LPDDR4x
- 10nm process technology
- 11x12mm 0.65-pitch FC-TFBGA

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About Ambarella

Ambarella's products are used in a wide variety of human and computer vision applications, including video security, advanced driver assistance systems (ADAS), electronic mirror, drive recorder, driver/cabin monitoring, autonomous driving, and robotic applications. Ambarella's low-power SoCs offer high-resolution video compression, advanced image processing, and powerful deep neural network processing to enable intelligent cameras to extract valuable data from high-resolution video streams. For more information, please visit, www.ambarella.com

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