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Ambarella S2L IP Camera SoC Family Enables a New Generation of Intelligent Security Cameras

S2L brings advanced High Dynamic Range (HDR) processing, intelligent video content analytics, and wide angle viewing into mainstream professional and consumer IP cameras

SANTA CLARA, Calif.--(BUSINESS WIRE)-- Ambarella, Inc. (NASDAQ: AMBA), a leading developer of low-power, HD video compression and image processing semiconductors, today introduced S2L, a family of Full HD camera System on Chips (SoCs) designed for consumer, small business and professional IP-camera security applications. The S2L's Smart-AVC™ H.264 low bitrate streaming technology significantly reduces network bandwidth requirements, lowers cloud storage costs and supports the use of multiple cameras in home environments. Its flexible ARM Cortex-A9 CPU provides the performance required for intelligent video analytics such as intrusion detection, or audio analytics such as breaking glass detection. Additionally, the S2L dewarper can correct images captured from wide angle lenses to enable cameras that cover a wide viewing area.

"The S2L family brings advanced professional features to mainstream and consumer IP cameras, including Full HD video, High Dynamic Range (HDR) image processing, advanced analytics and wide angle viewing," said Chris Day, VP of Marketing and Business Development at Ambarella. "Designed in an advanced 28nm process, S2L enables a new generation of intelligent, ultra-low power and small form factor IP cameras with outstanding video quality."

The S2L family includes a series of software-compatible SoCs that range from 720p30 up to 1080p60 H.264 video and up to 5 MP resolution. Multi-exposure fusion HDR and Motion Compensated Temporal Filtering (MCTF) noise reduction deliver outstanding image quality even in challenging lighting conditions. The S2L includes a USB 2.0 host interface for direct connectivity to the latest WiFi chips for low cost, wide range wireless cameras. Power consumption for 1080p30 encoding is under 500mW including DRAM, enabling the development of small form factor or battery operated cameras.

S2L Feature Summary

- 1080p60 H.264 encoding with multi-stream support to enable independent resolutions, frame rate and quality (for example 1080p60 H.264 + 720p30 H.264 + 480p30 H.264 + MJPEG 1fps)
- H.264-compliant Smart-AVC streaming for bitrates as low as 600kbps for 1080p30, and 300kbps for 720p30
- Advanced dynamic range (WDR and HDR) engine with multi-exposure fusion
- ARM Cortex-A9 CPU with NEON DSP extensions, Floating Point Unit (FPU), and 128KB L2 cache provides headroom for customer applications as well as intelligent analytics processing
- Real-time hardware-accelerated de-warping engine
- Image Sensor Pipeline with high speed SLVS/MIPI/LVCMOS interfaces, supporting up to 14 Megapixel (MP) sensor resolution and 480MPixel/s data rate
- Rich set of interfaces includes 10/100Mbps Ethernet, USB 2.0 host and device, three SD card controllers with SDXC support
- Small 11x11mm package available

Pricing and Availability

The S2L SoC family will be demonstrated at the ISC West 2014 International Security Exhibition and Exposition in Las Vegas from April 2-4, 2014. Invitations to ISC West or product and pricing information can be obtained directly from Ambarella.

The URL for this news release is: www.ambarella.com/news/press_releases

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About Ambarella

Ambarella, Inc. (NASDAQ: AMBA), is a leading developer of low-power, high-definition (HD) video compression and image processing solutions. The company's products are used in a variety of HD cameras including security IP-cameras, sports cameras, wearable cameras and automotive video camera recorders. Ambarella compression chips are also used in broadcasting TV programs worldwide. For more information about Ambarella, please visit www.ambarella.com.

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