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Socionext Starts Volume Production of New "Camera Front Engine" from Milbeaut Image Processor Series
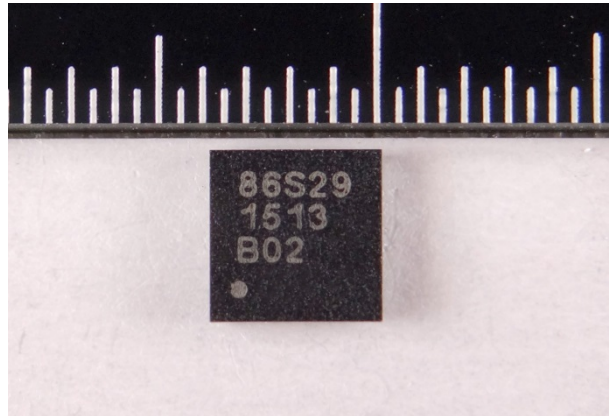
Yokohama, September 29, 2015 --- Socionext Inc., a new leader in advanced SoC design technology, today announced volume production of its new MB86S29 "MH-1", a 'camera front engine' specialized for Bayer data processing that accommodates new functions of the industry's latest image sensors.

The MB86S29 is the newest Milbeaut Image Processor product from Socionext and is targeted mainly for smartphones. By accommodating new functionalities of the latest image sensors, the MB86S29 lets module makers implement these functions without replacing their application processors.

Recently, it is common to find cameras in smartphones or other mobile devices that are configured with application processors (AP) equipped with built-in image signal processor (ISP) functionalities. These APs can directly process output from image sensors, and help reduce the footprint and cost of camera modules.   The MB86S29 supports this trend as a "Camera Front Engine" that replaces conventional ISPs.   Connected in between an image sensor and an AP, it is specialized for Bayer data processing, so users can configure their APs with the same interface directory connected to image sensors, and to make full use of phase detect auto focus (AF) or high dynamic range (HDR).

The MB86S29 has 4 lanes each of 2.1Gbps MIPI Rx / Tx. It can process 16M pixel images at 30 frame per second (fps). It is also applicable for noise reduction, shading correction, and 3A (AE / AF / AWB) detection.   It is available in the smallest package of any member of the Milbeaut series, at 4mm x 4mm.

MB86S29 Camera Front Engine
view larger image

Since its first release in 2000, the Milbeaut series of image processors has established a track record in applications from digital SLR cameras for prosumers to commodities like smartphones, or industrial equipment like security cameras. Socionext will continue to deliver a broad range of imaging solutions, based on its technological expertise and a long history of providing services to its customers.

For Press Inquiry

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Inquiry Form   http://socionext.com/en/contact/

The MB86S29 has been designed to utilize "Hybrid AF", which combines the accuracy of contrast AF and the speed of phase detect AF, enabling maximum 4x faster AF, in comparison with the previous Milbeaut products.
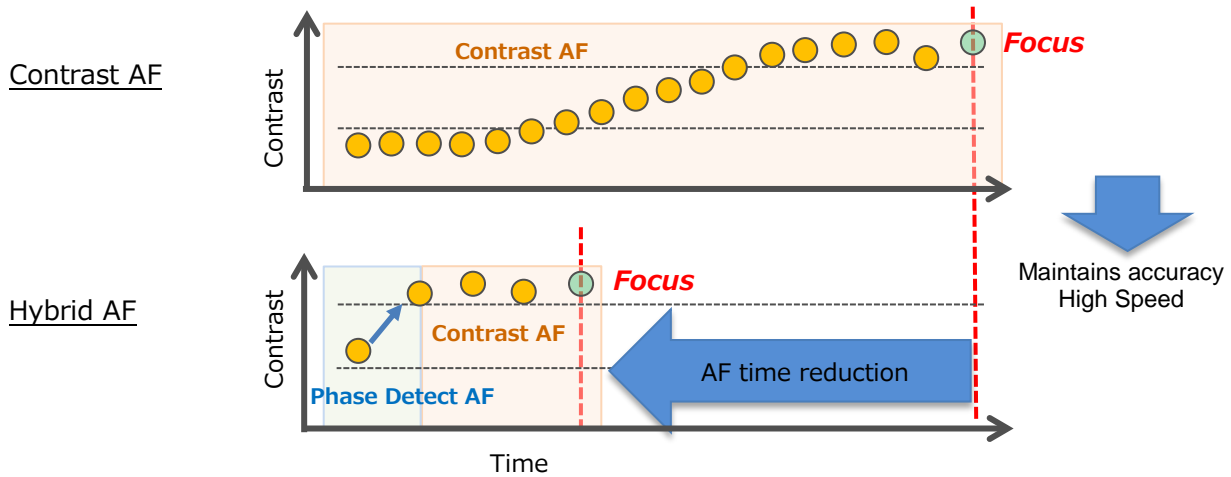
The MB86S29 also supports Sensor HDR. Conventional HDR imaging, which generates a picture from multiple frames taken with different exposures, has disadvantages, such as images blurs caused by the difference between the frames, and time needed to take those multiple frames. The MB86S29 can process data with different exposure settings within one image so it can process the HDR images with higher visibility in 16M pixel, at the speed of 30 fps.
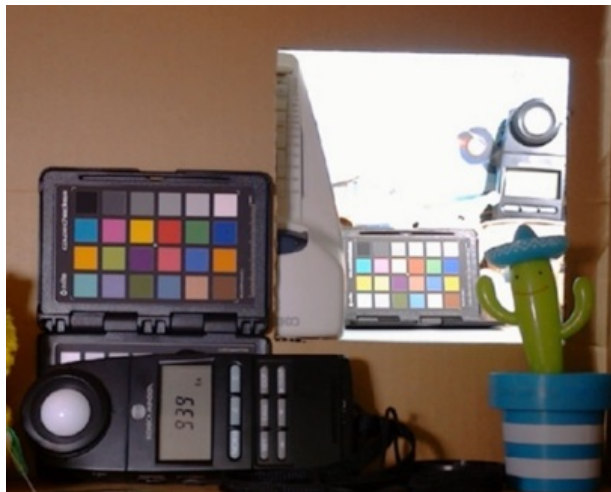
HDR Off   HDR On

□ MB86S29 Specifications

- 16M Pixel at 30fps, Bayer Output
- Compatible with phase detect AF Sensors
- Compatible with Sensor HDR
- Defective Pixel Correction (including pixels for phase detect AF)
- Shading Correction
- Package: 4mm x 4mm
- MIPI-Rx: 4 lanes (2.1Gbps) + 2 lanes (1.5Gbps)
- MIPI-Tx: 4 lans (2.1Gbps)
- Dual ARM processor Core

The new MB86S29 is available for USD $3.00, when purchased in volume quantities of 5 Million pieces or more.

□ Customer Inquiry

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About Socionext Inc.
Socionext is a new, innovative enterprise that designs, develops and delivers System-on-Chip products to customers worldwide. The company is focused on imaging, networking and other dynamic technologies that drive today's leading-edge applications. Socionext combines world-class expertise, experience, and an extensive IP portfolio to provide exceptional solutions and ensure a better quality of experience for customers. Founded in 2015, Socionext Inc. is headquartered in Yokohama, and has offices in Japan, Asia, United States and Europe to lead its product development and sales activities. For more information, visit socionext.com