

Socionext Starts Offering 360-degree Spherical Camera Design Solutions Powered by Milbeaut Image Signal Processors

Delivers Optimal Image Quality, Exceptional Performance at Low Power,
for Both Prosumers and Consumers

Yokohama, July 19, 2017 --- Socionext Inc., a leading provider of SoC-based imaging solutions, today announced the availability of its 360-degree spherical camera design solutions powered by the Milbeaut® series of image signal processors.

The Socionext lineup includes two types of cameras to meet the growing and expanding needs for 360-degree camera applications. The prosumer model is based on the company's SC2000 high-performance processor, which is capable of real-time image stitching of 4K images. The consumer model, a collaborative product with Cypress Semiconductor Corporation and ImmerVision, is designed to work with the MBG967 IoT series processor. Each of the solutions comes with reference board design information and a software development kit. Equipment manufacturers can easily develop high-performance spherical cameras tailored for each of their unique applications.

SC2000 for Prosumers

The SC2000 is designed for high performance cameras, which require high-speed processing of vast amount of image data. Incorporating Socionext's proprietary image processing algorithm, it consumes less than 2W of power in typical operating conditions. Users can connect up to four cameras to the SC2000 and the chip can perform real-time stitching of video images, for 4K/30fps output. A 360-degree spherical camera built with the SC2000 is an optimum solution for applications such as high-end action cameras and drones. It also delivers the perfect spherical images for video conference systems, as well as for theaters and sporting events.

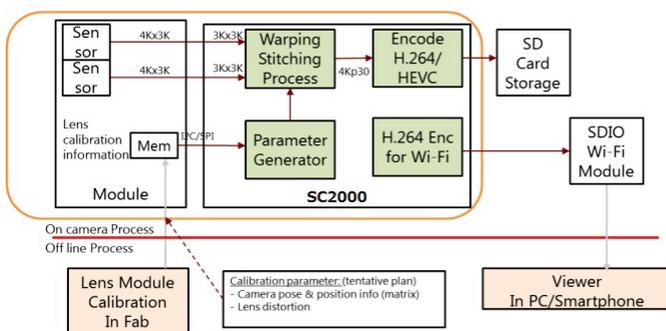


Fig. 1: Configuration Example of Spherical Camera with SC2000

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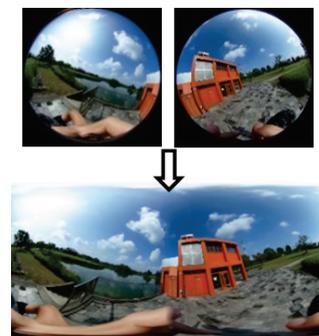


Fig. 2: Generation of Spherical Image by Stitching

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MBG967 for Consumers

The need to shoot 360-degree images in real time is expected to grow rapidly, with applications such as live streaming of virtual reality video. To meet the requirements, Socionext has collaborated with Cypress Semiconductor Corporation and ImmerVision and developed an attachment camera that connects to smartphones and other mobile devices.

"EZ-USB® CX3" bridge chip conforms to USB3.0 and USB 2.0 and supports USB video class (UVC), providing connection that enables the high-definition, high-speed image capturing. ImmerVision's patented panomorph optics technology and software realize the functionality that allows shooting of high quality 360-degree images even with compact cameras. With these advanced technologies from the partners, Socionext has started delivery of the 360-degree camera solution with the Milbeaut IoT series processor, the MBG967, which can handle inputs from two cameras simultaneously. The first offering of the solutions is a reference design with two 16M-pixel cameras mounted on 8cm x 8cm board. Socionext will expand the lineup to meet various resolution and frame rate requirements.

For more information about CX-3 bridge chip, visit: <http://www.cypress.com/cx3>

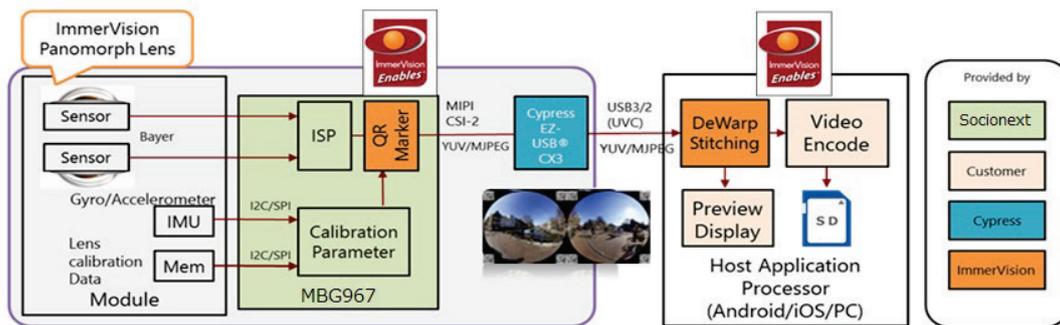


Fig. 3: USB Camera Configuration with MBG967

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Fig. 4: Reference Design Board

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About Cypress

Cypress is a leader in advanced embedded system solutions for the world's most innovative automotive, industrial, home automation and appliances, consumer electronics and medical products. Cypress' programmable systems-on-chip, general-purpose microcontrollers, analog ICs, wireless and USB-based connectivity solutions and reliable, high-performance memories help engineers design differentiated products and get them to market first. Cypress is committed to providing customers with support and engineering resources that enable innovators and out-of-the-box thinkers to disrupt markets and create new product categories. To learn more, go to www.cypress.com.

About ImmerVision Inc.

Leading innovation in 360-degree panoramic imaging, ImmerVision licenses its patented panomorph optical and software technology to global lens producers, product manufacturers and software developers. Panomorph lenses are the only ones that can be adapted to any camera, any sensor, and any consumer, commercial and government market. ImmerVision Enables is the recognized standard for 360-degree solutions and applications. www.immervisionenables.com

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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, computing 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.

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