

Fujitsu Releases New Milbeaut® Image Processor

Enables high performance through seventh-generation algorithm and ultra-low power consumption technology based on novel-structure DDC transistors

Yokohama, Japan, September 4, 2013 – Fujitsu Semiconductor Limited today announced the development of MB86S22AA, the latest product in the seventh-generation M-7M series of Milbeaut® image processors. Sample quantities of the new product will be made available starting September 2013. Substantially building on the company’s previous image processing algorithms, which boast a strong industry track record, the new chip enables roughly twice the processing performance of existing products. It also incorporates ultra-low energy consumption technology developed in collaboration with SuVolta, Inc. that will further expand the range of possibilities for digital cameras.

Since its release in 2000, the Milbeaut line of image processors has established a wide-ranging track record in a host of applications, from digital SLR cameras to smartphone cameras. The seventh-generation M-7M series includes features such as:

- A new image processing algorithm with greatly improved optical correction capabilities
- Faster processing thanks to a newly developed Integrated Image Processor circuit
- Improved high dynamic range (HDR) photograph quality using a JPEG-HDR™ format developed by Dolby Laboratories.

In combination, these advances enable roughly double the performance of existing products when processing still images. In terms of video processing, as well, proprietary algorithms make it possible for H.264/AVC compression and decompression on full-HD 30p and 60i video. This makes the new chip an ideal solution for high-resolution, high-performance image processing in digital SLRs and high-end compact digital cameras.

In recent years, there has been a growing need for image processing that can rapidly process overwhelmingly large volumes of image data. This has resulted in a number of significant challenges, including the impact of increased power consumption on battery life and the need for improved heat dissipation.

MB86S22AA employs ultra-low energy consumption technology called CS250S, which combines Deeply Depleted Channel™ (DDC) transistors, developed in collaboration with and used under license from SuVolta, with Fujitsu Semiconductor’s own 55-nm process technology. The new chip is the first product in the world to use DDC transistors. In addition, through the optimization of newly developed power control circuits and design methods, Fujitsu Semiconductor succeeded at achieving roughly 30% less power consumption compared to existing products, despite the new product having a considerably larger scale circuit with enhanced processing performance.

Going forward, Fujitsu Semiconductor will begin global sales of the new product while leveraging the know-how accumulated through its development to develop and manufacture high-performance and energy-efficient products.

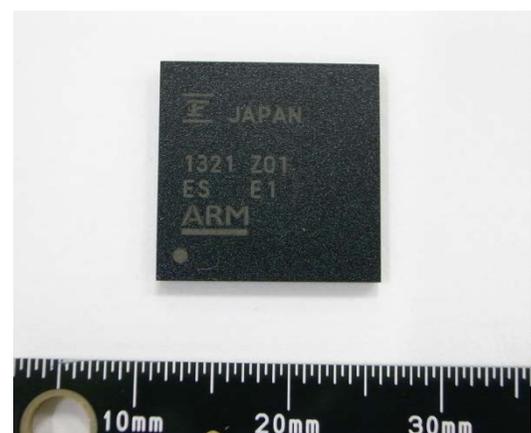


Photo 1. MB86S22AA

Key Features of MB86S22AA

1. Seventh-generation Milbeaut image processing

The chip delivers greatly improved optical correction capabilities through an updated image processing flow, a new noise filter designed to achieve balance between resolution and noise suppression, a newly developed circuit for correcting focus drop-off at the edges, and improved distortion correction and purple fringing countermeasures.

MB86S22AA includes a newly developed Integrated Image Processor (IIP) circuit. In addition to modifying parameters, each processing unit's configuration can be dynamically switched to optimize bandwidth and processing speed, thereby enabling roughly twice the processing performance of products from the previous M-6M series.

2. Power-saving technology from SuVolta

The new chip employs CS250S technology that combines Deeply Depleted Channel™ (DDC) transistors, developed in collaboration with and used under license from SuVolta, together with 55-nm process technology from Fujitsu Semiconductor. By reducing the variability in transistor threshold voltages, power supply voltage can be reduced without any loss of processing speed. MB86S22AA is the first product in the world to use DDC transistors.

3. JPEG-HDR™

The new chip supports JPEG-HDR, a JPEG-compatible HDR format from Dolby Laboratories. This, in turn, enables it to handle multi-bit HDR information.

4. Full-HD H.264/AVC video compression/decompression

The new chip comes equipped with a widely-used H.264/AVC video compression algorithm from Fujitsu Laboratories. As a result, MB86S22AA can compress and decompress full-HD 30p and 60i video.

Other Specifications of MB86S22AA

- CPU: ARM Cortex-A5MP
- Maximum image processing speed equivalent to 12fps at 24M pixels
- Hardware assist capable of feature extraction
- Improved lens correction, lens distortion correction, lens resolution correction
- Accelerated multi-frame operation
- High speed and intelligent bus arbitration

For More Information

Milbeaut Image Processor <http://www.fujitsu.com/global/services/microelectronics/product/assp/milbeaut/>

SuVolta, Inc. <http://www.suvolta.com>

Dolby Laboratories, Inc. <http://www.dolby.com>

Dolby and the double-D symbol are registered trademarks of Dolby Laboratories.

Other company and product names mentioned herein are trademarks or registered trademarks of their respective companies. Information provided in this press release is accurate at time of publication and subject to change without advance notice.

About Fujitsu Semiconductor

Fujitsu Semiconductor Limited designs and manufactures semiconductors, providing highly reliable, optimal solutions and support to meet the varying needs of its customers. Products and services include ASICs/COT, ASSPs, and Ferroelectric RAM (FRAM), with wide-ranging expertise focusing on imaging, wireless, automotive and security applications. We also drive power efficiency and environmental initiatives. Headquartered in Yokohama, we established as a subsidiary of Fujitsu Limited on March 21, 2008. Through its global sales and development network, with sites in Japan and throughout Asia, Europe, and the Americas, we offer semiconductor solutions to the global marketplace.

For more information, please see: <http://jp.fujitsu.com/fsl/en/>

Press Contacts

Fujitsu Semiconductor Limited

Public Relations

Inquiry: <https://www-s.fujitsu.com/jp/group/fsl/en/release/inquiry.html>