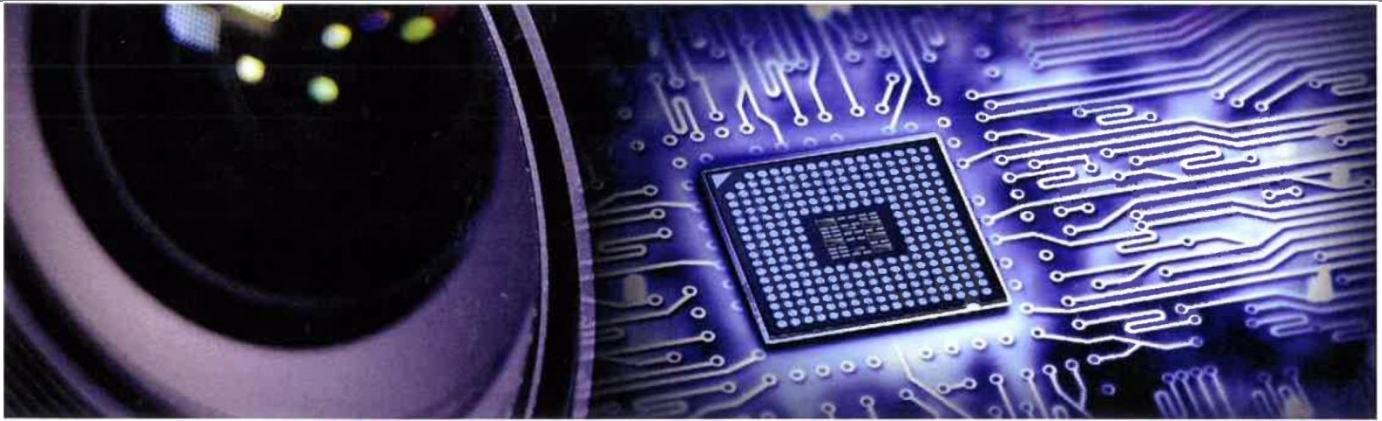


Milbeaut® Image Processor : MBG967



■ Overview

"MBG967" is the latest model of the "Mobile series" lineup targeting smartphones, supporting various functions including low-light still capture and depth-map generation with the latest-trend dual camera.

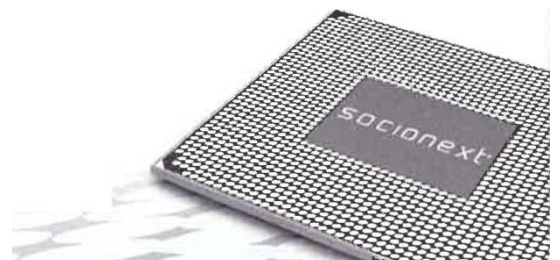
The trend for "dual cameras", equipped with two camera modules, is expected to grow in the mobile camera market within the next few years. Dual camera will allow advanced features such as low-light still capture using color and mono sensors, DSLR-quality background blur, etc., with much compact chassis and less limitations compared to current mobile cameras.

In addition to basic functions required for dual camera, we support the latest high-speed/high-precision Auto-Focus("Super Hybrid AF"), contributing and allowing expressions in mobile environment for higher possibilities.

■ Milbeaut ISP solution

"Milbeaut" is a high quality imaging processor with track record of DSLR, smartphones, surveillance camera and other various cameras since its start-up in 2000.

Socionext will provide various imaging solution based on our experience in image processing technology accumulated with Milbeaut's 15 years of history.

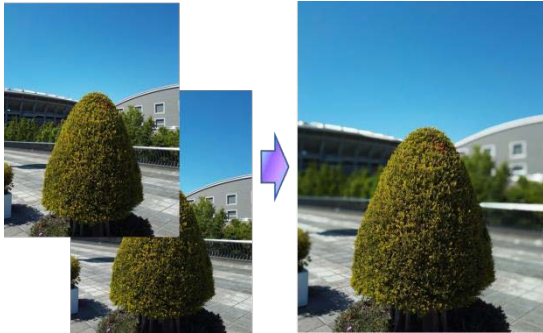


Key feature

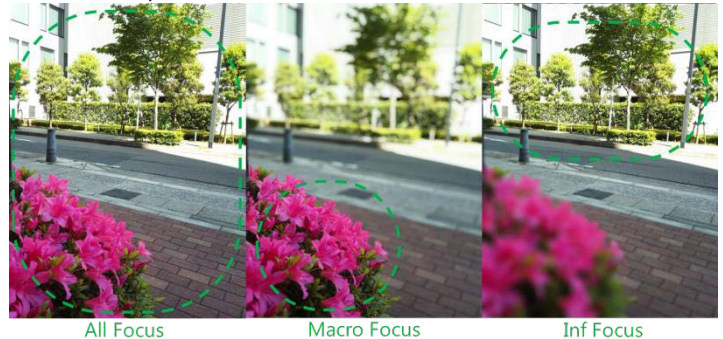
- 4K2K 30fps
- Dual Camera Solution
 - Depth-Map Generation (Dual sensor module is required)

Following solutions can be achieved using Depth-Map.

◆ Background blur



◆ Wide aperture refocus

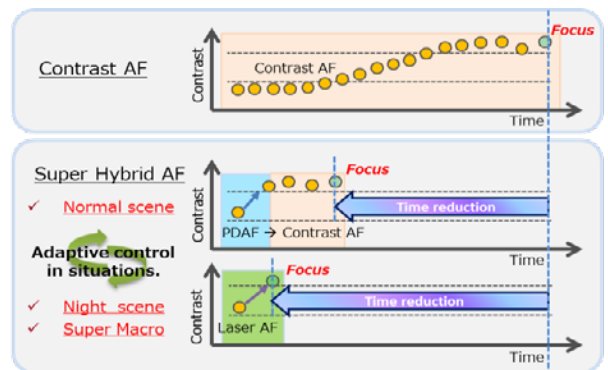


- Low Light Shot (Mono + Color dual sensor module is required)

High sensitivity and low noise capture by using **Color Sensor** + **Mono Sensor**.

● Super Hybrid AF

- Achieve High-speed & accuracy AF in all situations
- Three types of hybrid of an auto-focus function
 - Contrast AF
 - Phase Detection AF (PDAF)
 - Laser AF



Specification

Feature	Specification
ISP Process	55nm CMOS Technology
SDRAM	1G bit LPDDR-2
Flash	16M bit nor Flash
Package size	9.0 x 10.0 x max1.3[mm] BGA 217P
CPU	ARM946 288MHz single core x 2
Host IF	MIPI 4/2/1lane (1.5Gbps/lane) YUV422 YUV420(Legacy) JPEG/NV12
Demosaic Capability	300Mpix/sec
Max Image Size	20Mpix
Sensor IF	MIPI 4/2/1lane (1.5Gbps/lane) MIPI 4/2/1lane (1.5Gbps/lane) MIPI 2/1lane (1.5Gbps/lane)
DDR Memory	Sip LPDDR-2 400MHz
Internal Memory	512K Byte(High Speed SRAM)

Feature	Specification
Adaptive WDR for still	○
Chroma NR(still / video)	○
Shading / Defect Pixel Correct	○
Lens distortion correction	○
ZSL(Zero Shutter Lag)	16M 30fps/21M 24fps
Continuous Shoot (without video)	16M 15fps
Instant Capture	385msec
AF/Continuous AF	10point Vertical horizontal statistics
Video capability (depend on sensor input size)	1080p 60fps 2Kx4K 30fps
Digital Zoom	x4(or over)
Still EIS	High ISO Approach

The Products and product specifications described in this document are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements. All company names, brand names and trademarks herein are property of their respective owners.

Socionext Europe GmbH

Pittlerstrasse 47
63225 Langen, Germany
Tel: +49-6103-3745-0
Fax: +49-6103-3745-122
<http://eu.socionext.com>