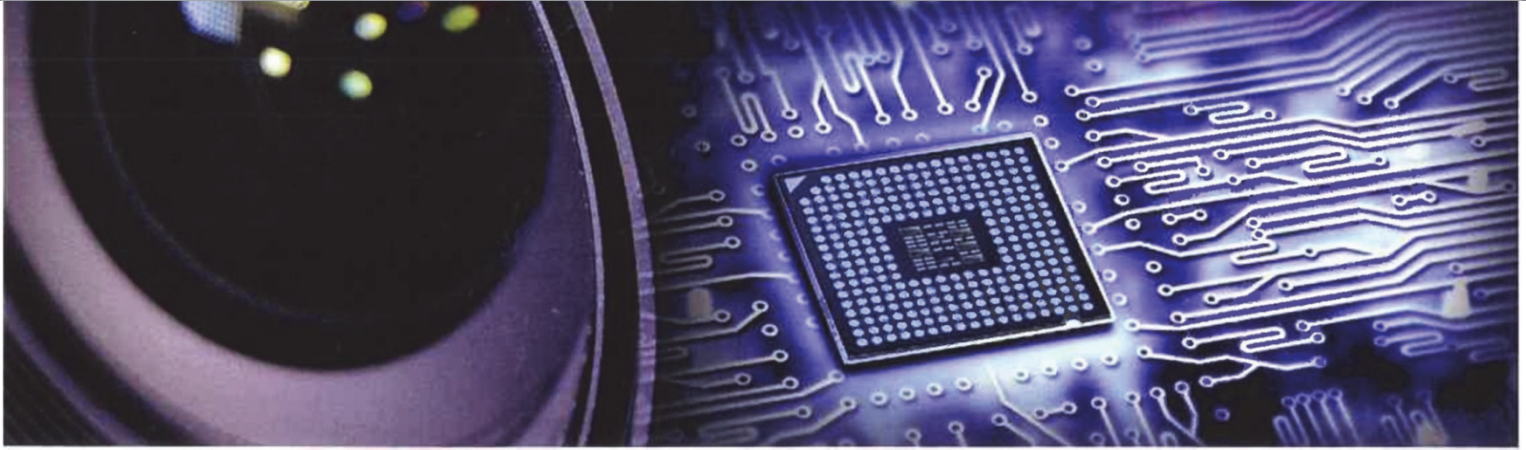


Milbeaut® Image Processor : MBG967



■ 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



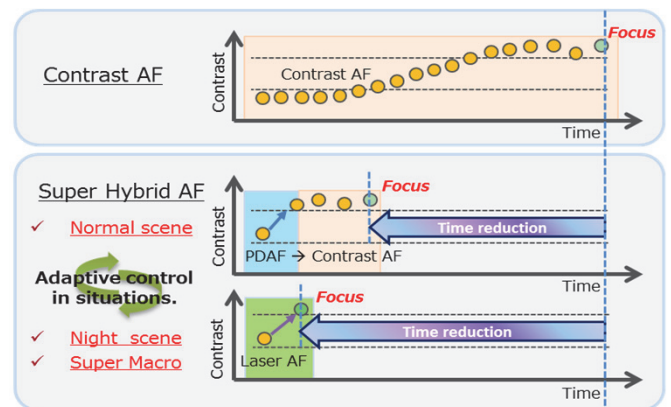
◆ Wide aperture refocus



- 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.

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