

Milbeaut® Image Processor : SC2000

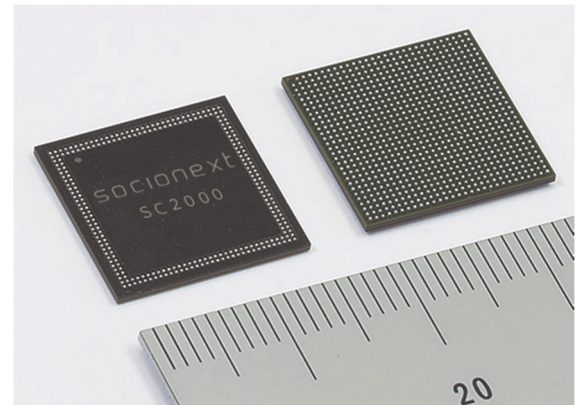


Overview

“SC2000” is the latest SoC of the “Milbeaut® series”. Equipped with a digital signal processor optimized for computer vision, it also features advanced functionalities such as 360-degree, real-time spherical stitching with multi cameras, image stabilization for without mechanical gimbals, and rolling shutter correction.

The image processing performance is up to 1.2 Giga pixel per second, three times faster than the previous processor, while the power consumption is lower than 1.7W in typical operating conditions.

“SC2000” targeting Action Camera, Drone Camera, supporting various functions with high performance and low power consumption of the latest-trend.

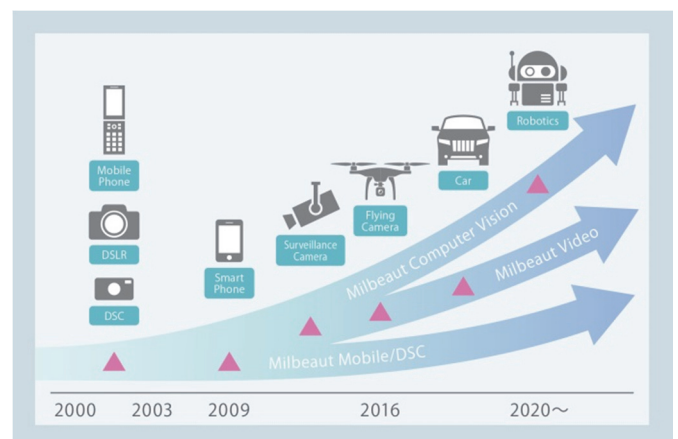


SC2000

Milbeaut® Solution

Since its first release in 2000, the “Milbeaut® series” of image processors has established a track record of DSLR, smartphones, surveillance camera and other various cameras.

In recent years, video shooting by equipment such as drones, action cameras or security cameras is becoming more popular, and the demand for high definition and picture quality is also growing rapidly. High-speed processing of increased image data at low power is now an essential requirement for these applications.

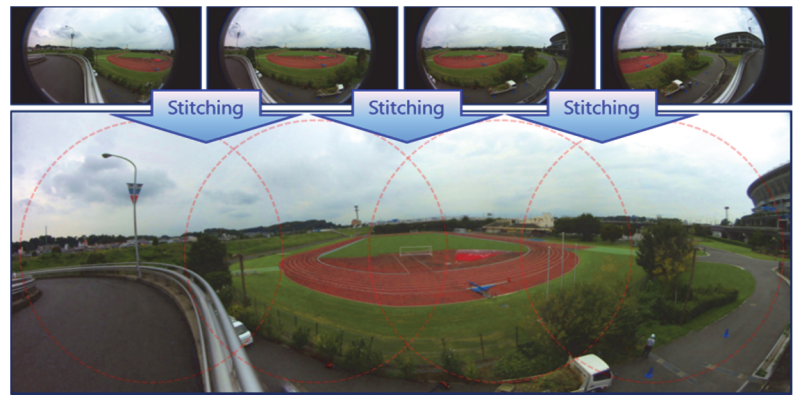


Milbeaut® Series Product Roadmap

Functions

4-Camera Stitching

It's possible to stitch the video captured from at most 4 cameras (Max:4K 30fps). When using a fish-eye lens, it's possible to capture a video by the wider field angle by correcting the distortion in real time.



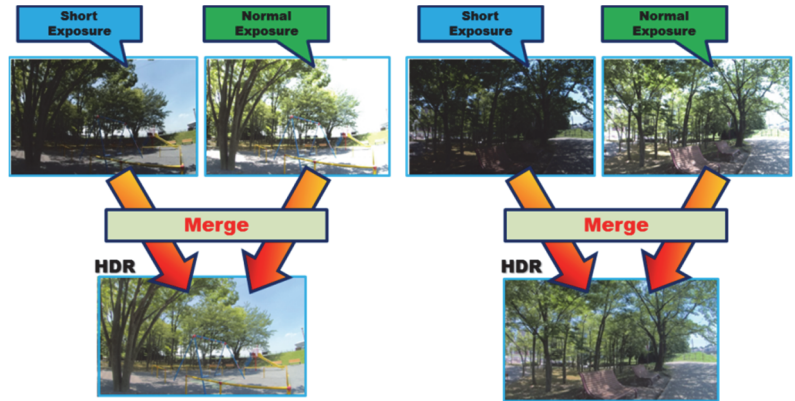
Slow Motion(Full HD 240fps video)

High frame rate video capture is possible. The captured video can be enjoyed as slow motion video using an application that can change the playback frame rate.



HDR (High Dynamic Range)

HDR feature prevents under/over exposures and captures more vivid and detailed image in difficult scenes such as backlight, high contrast, and night scenes. Available for both Still and Video captures up to 30fps in full HD size.



Specifications

Feature	Specification	Feature	Specification
ISP Process	28nm	Video Codec	H.264 4K p30/HEVC 4K p30
Product Structure	PoP	Chroma NR	○(Hardware)
CPU	CortexA7-Quad 650MHz	Bayer NR(ELF)	○(Hardware)
Package size	15mm x 15mm, 0.5mm pitch	Lens Distortion Correction	○(Hardware)
SDRAM type	LPDDR-3	Face Detection	○(Hardware Assist)
Image Processing rate	Max 1.2Gpixel/sec	Smile/Blink Detection	○(Hardware Assist)
Max Pixel Size	No Limitation	High Dynamic Range(HDR)	○(Hardware)
Sensor I/F	MIPI Rx(4lane) 2.5Gbps x 4ch S-LVDS(16lane/4clk) 1.0Gbps SLVS-EC(8lane) 2.3Gbps x 1ch	EIS(Electronic Image Stabilization)	○(Hardware)
Host I/F	PCI-e, USB3.0, 1Gbit Ethernet	Defect Pixel Correction	○(Hardware)
LCD I/F	MIPI-DSI/16bit Parallel	Color Aberration	○(Hardware)
TV I/F	HDMI 2.0	3DNR	○(Hardware)

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