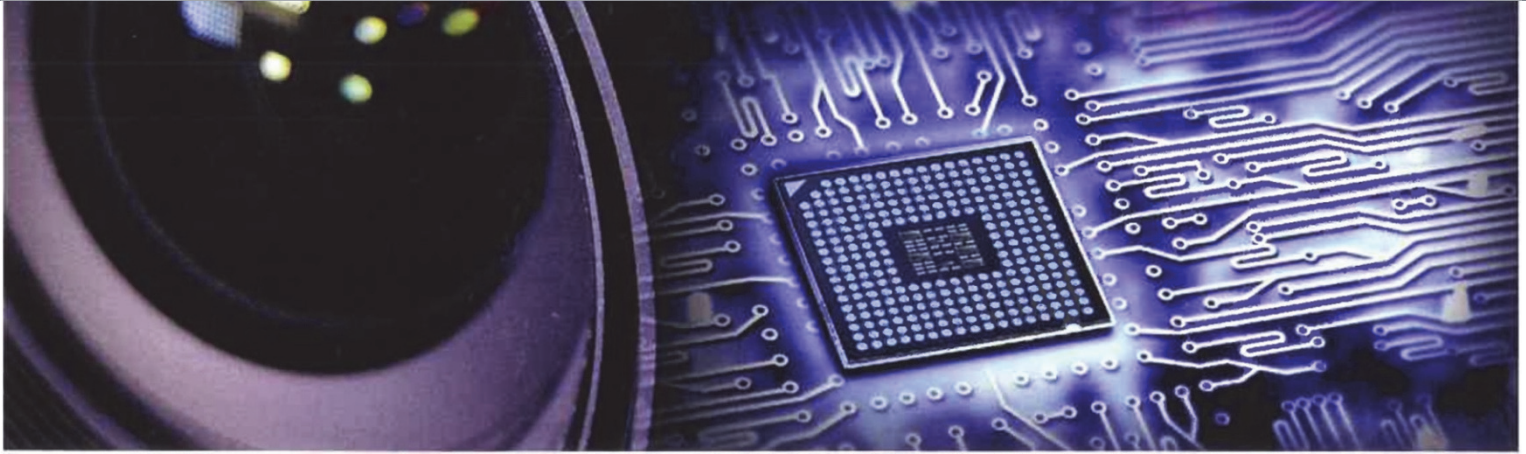


Milbeaut® Image Processor : MB86S27



Description

The MB86S27 is equipped with a powerful codec engine originally developed at Socionext and is designed for delivering high resolution 4K video. It comes with 360 degree distortion correction and other state-of-the-art image processing functionalities suitable for high quality video with devices such as surveillance cameras, drones, action cameras and drive recorders.

The MB86S27 is designed to serve the growing need for high definition, high quality video in a broad range of rapidly expanding applications. These include Surveillance Cameras that are seeing an increasing demand worldwide. Drones that record in off-limit or hazardous areas, action cameras in non-sport applications, and drive recorders effective for traffic accident investigation and their potential feasibility as an integral part of new insurance programs.

In addition to 4K video capability, the device integrates hardware macros specialized for various image processing reducing the CPU load.

Power consumption is as low as 1.3W, when operating with 4K at 30 frames per second [fps] With the MB86S27.

Socionext is developing and providing video-optimized Platforms and firmware, as well as picture quality consulting services, delivering comprehensive solutions to customers.

Applications

- Drive recorders
- Traffic accident investigation
- Surveillance cameras
- Action cameras
- Drones



Product Specifications

CPU

- ARM Cortex A5 MP 400MHz
Socionext RTOS / Linux
- Instruction Cache 32KB; Data Cache 32KB;
L2 Cache 128KB

Sensor

- SubLVDS 12lane+3clk 800Mbps/lane
- Max 8Mpix at 30fps, 5Mpix at 60pfs

Interface

- USB2.0 Host/Device
- HDMI up to FHD at 30fps
- 16bit parallel image output
SMPTE274M/296M, ITU-R.BT656
- SDRAM 16bit x 3ch
DDR3 at 1600Mbps
DDR3L at 1333-1066Mbps
 - Max capacity
 1. 512MB (16bit x 3 1.5GB)
 2. ch1 512MB (8bitx2J + ch2 512MB (16bit)+
ch3 512MB (16bit)
- PCIe Gen2 at 2 Lane x 1ch or
PCIe Gen1 at 1 Lane x 2ch
- RGMII v1.3 1Gbps

Network

- TCP/IP, RTP/UD P/IP Off-Load Assist
 - Protocol stack, off-load engine

Image Processing

- Sensor correction : 594Mp/s
(Bandwidth dependent)
- Bayer→YCC generation:400Mp/s
(Bandwidth dependent)

Image Processing

- H.264 Codec
 - Encoding FHD at 120fps / 4k at 30fps
 - Multi encoding (max 6 streams)
- High Resolution
 - Max 4 fold
- 360 degree distortion correction
- JPEG up to 600Mp/s

Post YCC Processing

- Face detection
- Face recognition (negotiable)
- Image stabilizer for movie (negotiable)
- Movie HDR
- Optimized noise reduction
- Backlighting detection
- Motion detection and object tracking



2014

2015

2016

2017