

# Grain Media® GM8136S/GM8135S

## Economic H.264 IP Camera Application

VIDEO SOLUTION

### Overview

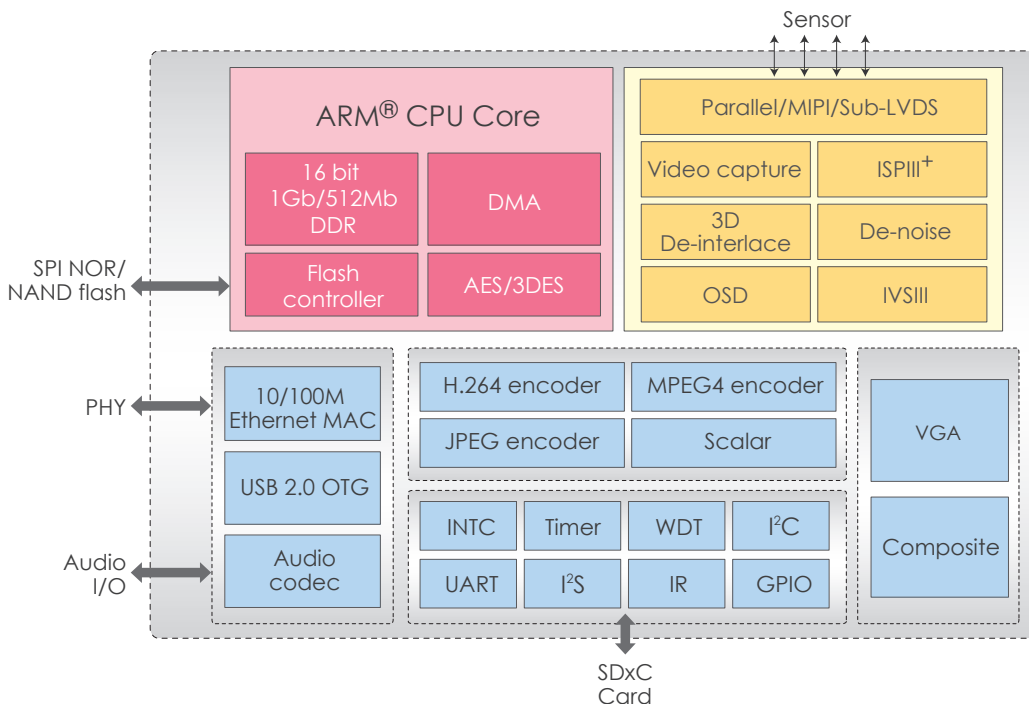
Grain Media's IP Camera SoC GM8136S/GM8135S embedded with an optimum ARM® CPU core and a comprehensive kind of peripheral controllers, targeted on the applications of consumer surveillance IP Camera, car DVR, and home monitoring system.

The video codec engine of GM8136S/GM8135S provides H.264 HP/MP/BL encoder; it delivers high-quality video performance with low-bandwidth requirement. The wide range of system peripheral elements, including video capture, display controller, encryption controller, serial I/F controllers, USB 2.0 OTG, and 10/100M Ethernet controller, enable GM8136S/GM8135S to support most of the surveillance applications of cost-effective products.

Supporting video output with wide range of resolutions, 10/100M Fast Ethernet connection, serial I/F sensor connection, high-quality WDR effect, and low power consumption, GM8136S/GM8135S can be adopted in IP camera, home monitoring and car DVR applications.



GM8136S/GM8135S SoC Block Diagram



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## Feature List

Embedded Processor	· ARM® CPU core - 32-bit RISC, up to 600MHz
Memory Interface	· GM8136S: SiP 1Gb DDR · GM8135S: SiP 512Mb DDR · Support SPI NOR/NAND flash boot
H.264 Codec	· Support the high profile encoding - GM8136S: 720P@60fps - GM8135S: 720P@45fps
Video Input	· MIPI, Parallel, Sub-LVDS - YUV x 2 for 2-channel 720P
Video Capture	· BT.656 input (up to 148.5 MHz) · BT.1120 input (up to 148.5 MHz) · Support 54MHz/108MHz and 72MHz/144MHz byte/frame interleave modes
Image Signal Processing	· Temporal and spatial 3D-Denoise filtering · Support Digital-WDR · Support WDR sensor · Support tone mapping · Low lux sensitivity to ISO6400 · Embedded IVS engine
Display Interface	· Built-in BT.1120 digital output · Support composite/parallel up to FHD output
Peripherals Interface	· 10/100M Ethernet MAC · USB 2.0 OTG · USB 1.1 Device · SDIO x 2 · I <sup>2</sup> S · I <sup>2</sup> C · GPIO
Operating Voltage	· Core: 1.1 V · DDR: 1.5/1.8 V · I/O: 3.3 V
Package	· 128-pin EPADLQFP



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