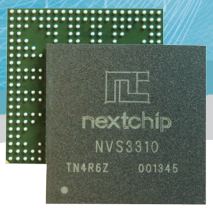
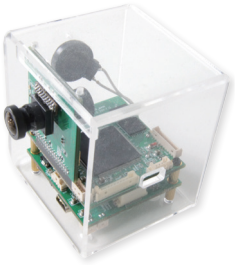
High-performance H.264 Full HD Car-Blackbox SoC

NVS3310





NVS3310 is the system LSI for digital multimedia application based on Cortex-A5, ARM's proprietary 32-bit RISC CPU core, It can decode and encode various type of audio/video standards with software and dedicated hardware accelerators H.264, MJPEG, MPEG4, etc,. The on-chip USB2.0 Host & OTG controller enables the data transmission between a personal computer and storage device sush as NAND flash, SD, and MMC etc, which can be controlled by the NVS3310. NVS3310 above all it is optimized for Car Black Box. 2ch video input, H.264 Encoding / Decoding, JPEG Encoding & Decoding, LCD, HDMI, Composite video output. NVS3310 will be one of the best cost effective and performance effective development platform for various applications.

Features

- H.264, MPEG4, MJPEG/JPEG Encoder & Decoder
- Up to H.264 Enc 1920×1080p@25fps +1280×720p@15fps
- 4-Video input controllers
- LCD, HDMI, CVBS Video Out
- USB2.0 OTG 1EA & HOST 1EA
- MMC/SD card controller(SDIO)
- NAND Flash Booting
- DDR3 2Gbit 1EA

Specifications

CPU	• 32bits ARM Cortex-A5 RISC CPU (32KB/32KB I/D cache, 256KB L2 cache, MMU)
I/F	• Memory I/F - 16-bit DDR3 2Gbit SDRAM interface - NAND Flash interface(NAND Booting) - MMC/SD Card Controller(SDIO) • USB 2.0 OTG & Host Controller 2EA, RTC Controller • Video Interface - 4 Video input controller (Max 4ch video input) CCIR656/601 Camera I/F - 2 Display Controllers(4 Layer Overlay channels) LCD & CVBS Video out(NTSC/PAL)× - TFT LCD, HDMI1.4, CVBS Output • 10/100/1000 Ethernet MAC Controller(MII/GMII)
Etc	• -20 ~ +85'C ambient temperature • 45nm 406-Balls FCBGA (15mm×15mm, 0.65p)

Application Diagram

2-ch FHD(1080p@25fps + 720p@15fps) Car Blackbox Application