

v-MP2010MOB SD Video Codec Integrated Solution




The videantis v-MP2010MOB is an integrated video codec solution comprising both multi-standard stream processing and video processing units in a standalone subsystem with minimum load on the host CPU.

Multi-standard decoding up to SD resolution is supported for a wide and extensible range of video standards like H.264 BP, MPEG-4 SP/ASP (DivX), WMV9/VC-1 SP/MP, and Google VP8 / WebM Project with upgradeability to further standards on the same device as needed.

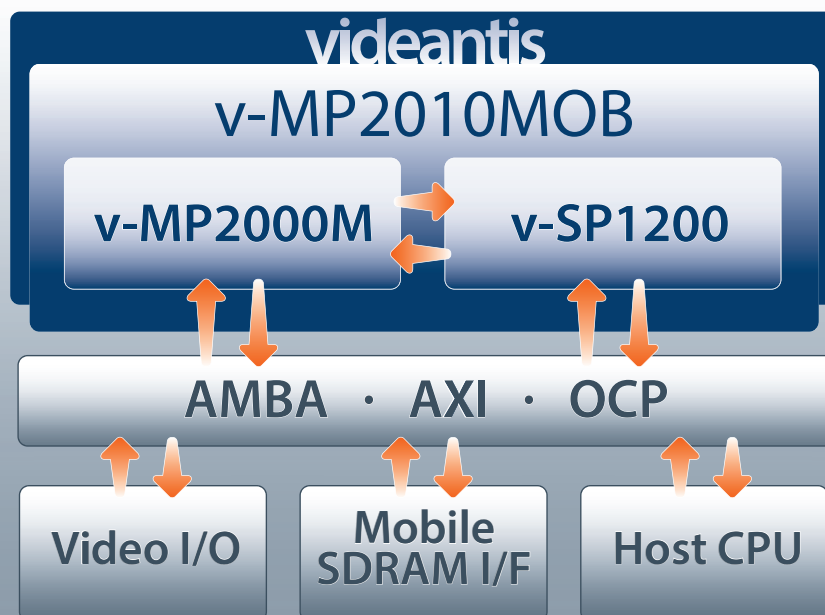
For multi-standard video encoding like H.264 BP, MPEG-4 SP/ASP, and H.263, the v-MP2010MOB supports an enhanced set of compression tools to achieve high video quality at reduced bitrates.

Still image JPEG encoding and decoding is supported at a pixel rate up to 25MPixel/s. Furthermore, a wide range of value-add image and video processing features can be performed in parallel to decoding or encoding.

The v-MP2010MOB is available as a drop-in solution proven in real system environments and optimized to tolerate long memory access latencies of real-world systems. Extensive conformance testing has been performed to assure high product quality and full customer satisfaction. Through its field upgradeability in silicon, the v-MP2010MOB provides a future-proof solution for extended product lifetimes through the addition of further standards and value-add features simply by firmware update.

-  Integrated solution
-  Minimum load on host CPU
-  Ultra low power for extended battery life
-  Very small area footprint
-  De- & encoding on single footprint
-  Field-upgradeable codecs and features

KEY ADVANTAGES





Features and Benefits

Integrated solution

- > v-MP2000M video engine + v-SP1200 multi-standard stream unit
- > Minimum load on host CPU

Multi-standard video codecs

- > H.264/AVC, MVC
- > MPEG-4, DivX, XviD, H.263, Flash (Sorenson)
- > WMV-9/VC-1, RealVideo 8/9/10
- > Google VP8 / WebM Project, On2 VP6
- > MPEG-2, MPEG-1
- > JPEG still image decode & encode up to 25MPixel/s
- > Extensible to further standards on same silicon, e.g., H.265/HEVC

Value-add image/video processing features








- > Image enhancements, rotation, scaling
- > Graphic overlays, blending, picture in picture
- > Deinterlacing, denoising, deblocking
- > Color conversion (RGB/YUV, YUV422/420)
- > Performed in parallel to decoding

Very small silicon area footprint

- > 190kgates core logic + 76kB memories
- > Target technologies: 90nm...22nm
- > 0.7mm² silicon area in 40nm technology incl. sync. bus interfaces & all memories

Low frequency requirements, ultra low power consumption for extended battery life

- > Reduced switching activity for ultra low power consumption through optimized architecture

-  Feature phone, smart phone
-  Mobile Internet device (MID)
-  Personal navigation device (PND)
-  Car infotainment
-  Portable media player (PMP)
-  Mobile TV, DVB-H, DMB
-  Streaming video

APPLICATIONS

Easy system integration

- > SoC bus interface options: 32/64 bit, synchronous/asynchronous
- > AMBA AHB, AXI, OCP, others

Short time to market & future proofness

- > Reliable core, pre-verified in silicon
- > Various FPGA prototyping platforms supported
- > Field-upgradeable features and codecs by firmware download

Ready to use

- > Extensive conformance testing
- > OpenMAX IL 1.1 support for seamless integration into mobile environments

Complete solution

- > Comprehensive applications suite, fully optimized for performance and resource usage
- > Fully documented API in C source code for codecs and features
- > Example integration in application framework
- > One-stop offer including full integration support options

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