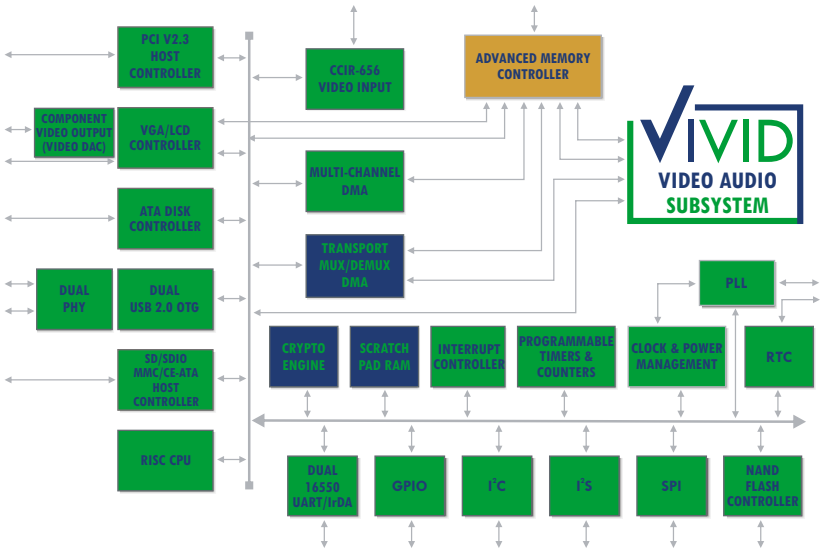
VSP200

PORTABLE MEDIA PROCESSOR

The VSP200 media processing chip is the ideal device for your next generation portable video player device. The low power solution enables the highest quality video on mobile devices at very low silicon cost. It supports multiple media and DRM standards and comes complete with a full application library. The VSP200 runs Linux OS or WinCE and is supported by a complete development environment. It is truly a one-stop solution for portable media players.

The advanced ViViD Media engine, a highly optimized multi-processor core for video, image and audio processing, powers the VSP200. The ViViD engine provides high performance processing at low clock rates through a combination of parallel processing and customized instructions and accelerators. It supports a wide range of video, audio and image standards.

In addition, the VSP200 is fully programmable enabling you to create value-added features and adapt to changes in your product requirements.



VSP200 PORTABLE MEDIA PROCESSOR

KEY ADVANTAGES

- Optimized specifically for the needs of portable media players & devices
- Low Power operation & advanced power management capabilities increase battery life
- Support of multiple DRM standards enables content security from a broad range of sources
- Fully programmable platform to extend product life, enhance differentiation and increase product depth

PRODUCT FEATURES

- High performance - 4 VLIW core processor - ViViD Media Engine
- Low Power with integrated power management features
- Multiple Video Standards – H.264/AVC, AVS, MPEG4, MPEG2, WMV9
- Integrated Audio Engine – AAC, MP3, Dolby Digital (AC-3), WMA
- Digital Image – JPEG Compression & Decompression
- High-quality video post-processing and image processing
- DRM-Enabled with full cryptography features including AES, DES, DVB & unique key id
- Source code complete - Media Software Suite

VIVACE SEMICONDUCTOR

Powering the NEXT Generation of Consumer Electronics

VSP200 PORTABLE MEDIA PROCESSOR

On-Chip Processors
- ~80 mW operation for media playback
- Up to 250 MHz ARM926 CPU
- 150 MHz ViViD Core including video and audio processors
- CPU runs Linux 2.6 OS or Windows CE

High Quality Real-time Video
- Up to 720p format in real-time at 30 fps
- Video post processing including deblocking, deringing, scaling, rotation, etc.
- High performance, video-aware DMA engine
- Integrated LCD controller including user programmable resolution, timing and control and up to 32 bit internal precision
- Supports video/audio encoding

Low Power Consumption For Extended Battery Life
- Integrated power management features
- Very low clock frequency requirements for advanced video functions
- Modes: Active, Sleep, Power-Down

Chip Interfaces
- HDD interface through ATA/CE-ATA
- Integrated memory access package for multiple bitstream sources including streaming, SmartCard, Flash, SD, SDIO, MMC and Memory Stick interfaces
- USB 2.0 Slave, I2C, SPI, UART
- Audio including AC'97, I2S, PCM Audio
- JTAG Debug and Emulation
- SD/CF Memory Card Controller
- Industry Standards Compliance
- Compliance with ISMA 2.0, OMA, MIPI and 3GPPv6 standards

Multiple Media Standards
- All media components are provided in complete source code/firmware H.264 Baseline Profile
- MPEG-4 Advanced Simple Profile, including DivX support
- Windows Media 9 Video and Audio
- MPEG-2 Video MP@ML
- MPEG Audio including MP3
- AAC & AAC+v2 Audio
- Dolby Digital™ and ProLogic™
- JPEG Image Compression/Decompression

DRM
- Full crypto functionality and standard decryption blocks (AES, DES, DVB)
- Unique chip id and random number generation
- Supports multiple DRM standards (SVP, Microsoft DRM, & DReaM)
- Windows DRM 10 available

Complete Software Suite
- Linux OS 2.6
- OSD and Graphics Overlay and Integrated LCD/VGA controller, video capture, component video in/out
- Full media framework API for interaction with media codecs and crypto functions

Fully Programmable Platform
- Complete software development environment
- Development Platform on PCI boards with full software drivers

DEVELOPMENT TOOLS & BOARDS

The Vivace Development System enables quick and easy development, debug, integration and test of hardware and software for a wide range of CE and wireless devices. The system is PC-based, running under the Windows environment and can be used with Vivace's development boards or customer-designed hardware. Combined with the RISC-based family of video and baseband processors, the system enables fast time-to-market and easy software/hardware re-use.

ABOUT VIVACE

Vivace Semiconductor develops high-performance, low-power video processing chips that are optimized for the needs of high-growth consumer market segments. Its chips support a full range of video and audio standards, are based on the company's proprietary ViViD™ Media engine and include a complete software suite for media processing and a fully programmable, open platform for additional software integration.

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