



IP Cores and Platforms for SoCs in ASICs & FPGAs

CAST IP products are available in synthesizable source code for ASICs or as netlists for FPGAs. Deliverables include everything needed for successful development: documentation, scripts, test-benches, and more. Functional models and prototype boards are options for many cores.

Extended support packages and IP design integration services are also available.

See the website for product datasheets, sample implementation results, and info on the company and our customers.

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Processors and Controllers

BA22 32-bit Processors

- Deeply Embedded, Embedded, & Application Processors, w peripherals
- Programming system & dev boards

Other 32-bit Processors

- 68000-AHB
- 80251

8051 Compatibles

- 8051 very fast, configurable
- 8051 tiny
- 8051 entry-level
- 80251 MCS251 & MCS51

Peripherals & Platforms

- AHB 32-bit DMA
- Cortex M0 JumpStart eval platform
- Platforms for ARM 7 & 9 Families
- AMBA Infrastructure Cores Library

Application Platforms

- Embedded USB
- Embedded Internet
- HDLC Interconnectivity

Compression

H.264/AVC

- Baseline & Main Profile Encoders
- High Profile Decoder
- Application Platform

JPEG 2000

- Encoder
- Application Platform

JPEG

- Encoder, Decoder, Codec
- Scalado Encoder
- 12/8-bit Extended Encoder
- Block/Raster Converters

Lossless Compression

- LJPEG Encoder, Decoder
- JPEG-LS Encoder

MPEG2

- Video Decoder
- Transport Stream Decoder

DV Compression

- Decoder, Encoder

Image Processing

Image Scalers

- Polynomial
- Frequency Domain
- Anisotropic

Graphics Processors

- 2D Graphics Accelerator

Deinterlacers

- Basic
- Motion Adaptive

Functions & Converters

- Color Space Converter
- DCT: Forward, Inverse, both

Memory Controllers

FLASH Controllers

- NAND Flash
- SD/SDIO/MMC Cards
- Compact Flash/ATA
- Serial FLASH

SDRAM Controllers

- Mobile SDRAM
- DDR1 & DDR2

Interconnects

High-Speed Serial

- USB SuperSpeed (3.0) Devices
- USB Hi-Speed (2.0) Devices, Hub
- USB Full-Speed (1.1) Devices
- USB OTG: single & multiple Devices
- USB Software Stacks & Drivers
- USB embedded Application Platforms
- PCI Express
- PCIe Endpoint Controllers: X1/X4, X8
- PCIe FPGA Application Interface

Serial

- SPI Master/Slave
- I2C Master/Slave, High-Speed
- CAN Controllers: single or dual
- LIN Controller
- SDLC Controller, HDLC Controller, HDLC Application Platform

Parallel

- ECP Slave
- ATA/IDE Interface
- PCI Target: 32-bit, multi; 64-bit
- PCI Master: 32-bit, multi; 64-bit
- PCI Host Bridge: 32/66

TCP/IP Stacks & Ethernet MAC

- 10/100, Gigabit, Lite, PCS; drivers
- UDP Stack
- Ethernet MAC-PCI Interface
- Embedded Internet Platform

Legacy Cores

8- and 16-bit Processors

- Z80 CPU
- 6502 & 65C02 Replacements
- 68000
- 80186XL, 80186EC, 80188EC
- 80251
- 387L math

DSPs

- 16-bit 32025 & 32025TX

Peripherals

- DMA Controllers: 8237, 82380
- UARTs: 16450S, 16550S, & 16750S
- Timer/Counter: 8254

Additional IP

Device Controllers

- Smart Card Reader
- Displays:
 - TV, High-Res, Ultra-High-Res
- IR Remote Controls: RC5, NEC

Audio Interfaces

- I2S: Single, Multi-Channel
- SPDIF

Encryption

- AES programmable Encrypt & Decrypt
- AES optimized 32-, 128-bit data path
- AES GCM
- DES Single, Triple
- MD5 Processor
- SHA-1 & SHA-256 Processors

Standard Parts

- Synthesis
- Simulation

**A Better IP
Experience**

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