



Core Values™ Intellectual Property Family Overview

Cost effective Verilog 2001 Intellectual Property cores for media applications. Production-quality source code to start or complete your ASIC or FPGA design. Best Price/Performance on the market.

SMPTE

EG-1 SD Color Bars
RP 178/198 SDI Pathological Patterns
RP 219 16:9, 4:3 Color Bars
274M (1080i/1080p parallel)
296M (720p parallel)
272M/291M (SD Embedded Audio)
299M/291M (HD Embedded Audio)

MEMORY

SDRAM (200MHz SDR)

ITU-R

656-4 (SD NTSC/PAL parallel)

AES/EBU

Audio 1KHz, 400 Hz Sinewave 48 KHz Generator

PROCESSING

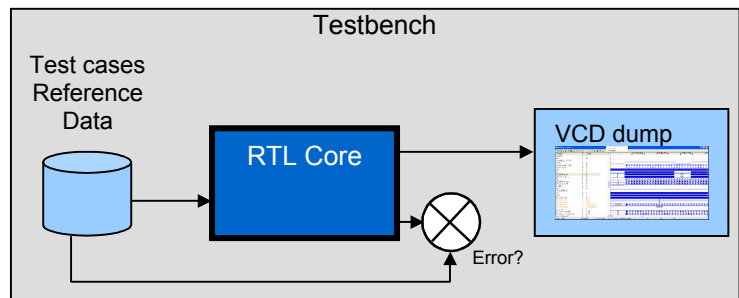
Bayer De-mosaicing (CCD Cameras)
2D Up-scaler
2D Down-scaler
Horizontal down-scaler
Horizontal up-scaler
YCbCr to RGB Color Space Converters
RGB to YCbCr Color Space Converters
YCbCr 4:2:2 to 4:2:0 Converter
YCbCr 4:4:4 to 4:2:2 Converter
YCbCr 4:2:2 to 4:4:4 Converter

BENEFITS

- Detailed Documentation
- Permanent Company License (not per-project)
- ASIC or FPGA Applications
- Customization
- Linted Verilog 2001
- Computer, standard and High Definition Video
- Targeting ASICs, Altera, Lattice and Xilinx FPGAs
- High-Bandwidth Peripheral Connections

DELIVERABLES

- Synthesizable Verilog 2001 RTL
- Verilog 2001 Self-checking Testbench
- User's Manual
- VCD Dump



APPLICATIONS

- Digital Cameras
- LCD, Plasma Monitors and Televisions
- Front/Rear Projectors
- Industrial, Commercial, Home Security
- Portable Media Devices
- Rack-mounted Media Systems
- Cell Phones