

Product Brief

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Description

Zoran's NRED-1 Noise Reduction Processor is a silicon efficient, high performance Intellectual Property Core for video IC designs requiring noise reduction. NRED-1 is based on Zoran's extensive experience delivering high quality, high volume video ICs to major consumer products manufacturers worldwide. NRED-1 employs impulse, spatial and temporal noise reduction techniques along with robust motion detection to achieve the highest quality video possible in the presence of noise. NRED-1 enables display processors to provide superior video output and is useful for video compression systems where reducing noise is essential for eliminating unwanted artifacts.

The NRED-1 Noise Reduction Processor greatly reduces the risk and time involved when integrating the video noise reduction function into an IC. Expensive, discrete components can be eliminated from system designs. When used in conjunction with Zoran's FrameIt-1 Deinterlacer, a silicon and memory efficient implementation can be achieved for systems requiring progressive output.

VIP-II Demonstration System

Zoran offers the VIP-II FPGA demonstration system for evaluation of the NRED-1 Noise Reduction Processor. The VIP-II allows customers to input composite, s-video or component video to test NRED-1's performance.

Features

- Impulse Noise Reduction
- Adaptive Spatial Noise Reduction
- Motion Adaptive Temporal Noise Reduction
- Robust Motion Detection
- 3:2 and 2:2 pull-down detection
- Silicon efficient, fully synchronous design
- Requires only a single clock input ranging from 20 to 30 MHz
- Combinable with Zoran's Deinterlacers for efficient implementation
- Process technology independent "softcore"

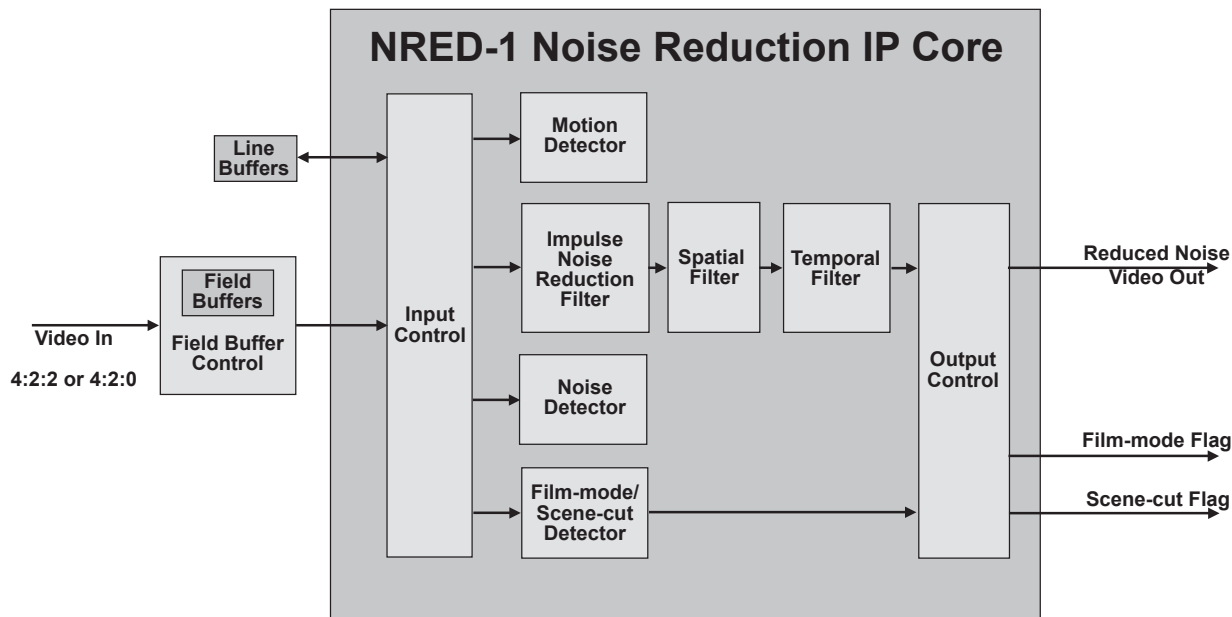
Integrated Circuit Applications

- LCD display controllers
- PDP-TV
- Digital TV
- LCD-TV
- Projector TV Systems
- Video compression systems

Deliverables

- Compilable Verilog source code
- Bit accurate, cycle accurate C++ model
- Synopsis synthesis scripts
- Test input files
- Documentation
- VIP-II demonstration system available

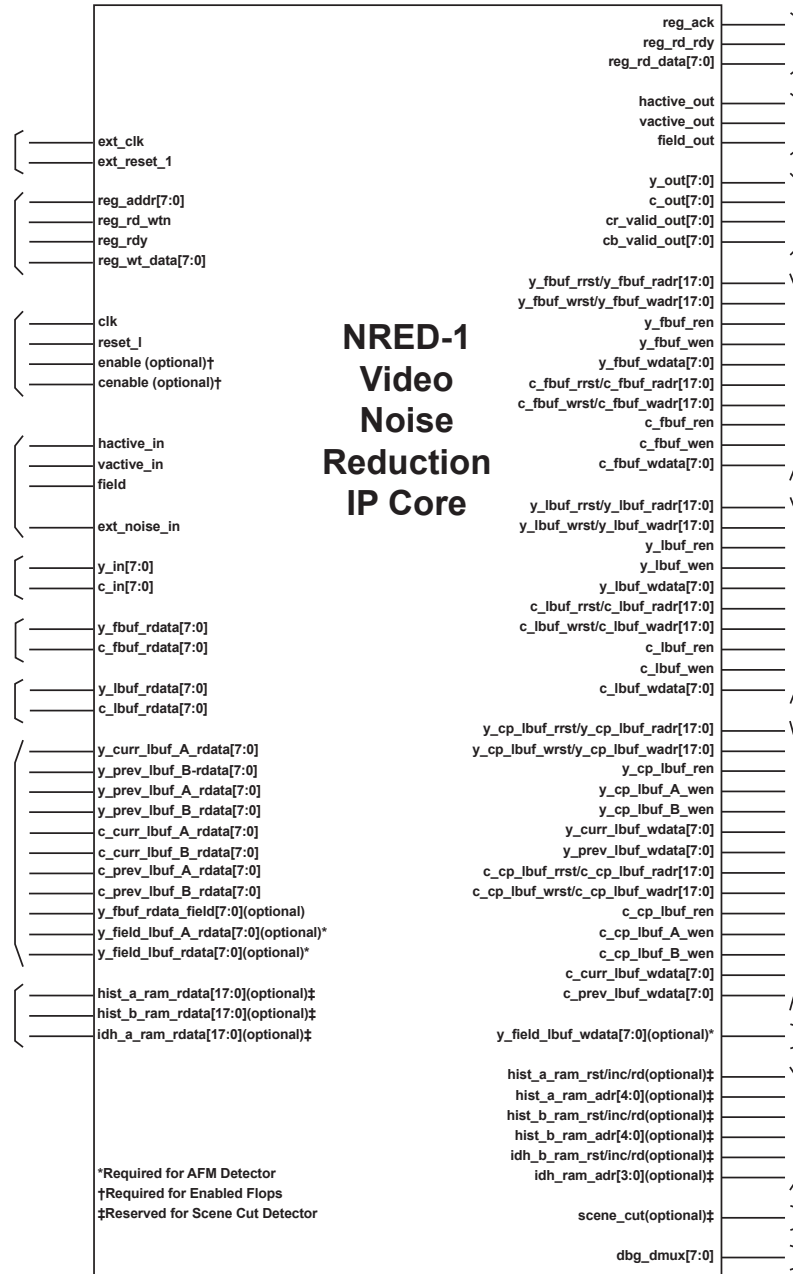
Figure 1. NRED-1 Noise Processor Block Diagram



Noise Reduction Processor

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Figure 2. NRED-1 Noise Reduction Processor Pinout Diagram



For more information, contact Zoran's Sunnyvale office or the office nearest you:

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