



BitBlazeV1 CDK 800Mbit/s IEEE1394 Image Sensor/Camera Development and Qualification Kit

The BitBlaze CDK is a rapid prototyping platform geared towards IEEE1394b camera design and image sensor integration, qualification and test.

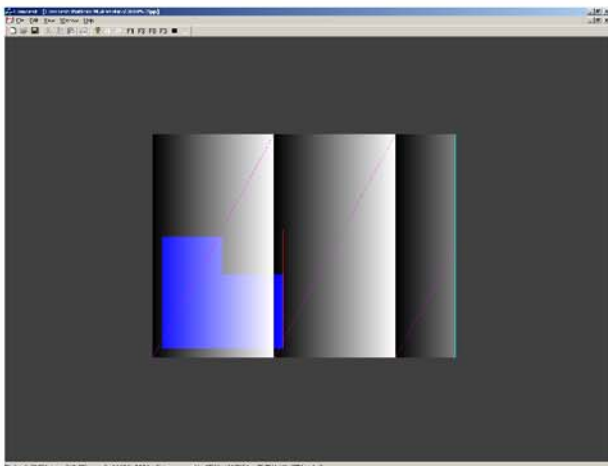
At 800Mbit/s, Alventix Technologies' own IEEE1394b interface supports realtime capture from the fastest imaging sensors available on the market today.

Typical Use Scenarios

- ❑ Quickly interface and evaluate new image sensors
- ❑ Develop real time image processing applications
- ❑ Benchmark, test and compare image sensors with proprietary or 3rd party algorithms and procedures
- ❑ Migrate camera designs to IEEE1394a/b (IIDC)

Software Features Summary

- ✓ **Real time optimized software architecture**
 - ❑ Capture thread with multiple capture buffers
 - ❑ Processing thread with multiple processing buffers
 - ❑ Optimized DirectX for real-time display rate
- ✓ **CamTEST demo application**
 - ❑ .txt script based camera initialization/configuration
 - ❑ Multiple camera support
 - ❑ Source code for starting point project
 - ❑ Basic ROI measurements: histograms, H/V projections, Sdev, noise, etc...
- ✓ **iBlaze1394 device driver for Windows**



Hardware Features Summary

- ✓ **2x800Mbit/s IEEE1394b and 1x400Mbit/s IEEE1394a interfaces**
- ✓ **Configurable data input path**
 - ❑ Full speed with variable clock (0..98Mhz) at 8 bits/pixel (select gain for up to 12bit/pixel)
 - ❑ Half speed with variable clock (0..49Mhz) at 16 bits/pixel
- ✓ **Configurable serial control interface**
 - ❑ I2C compatible
 - ❑ programmable ID and clock
 - ❑ any combination of 8/16bit register address and data
 - ❑ SPI
 - ❑ programmable clock
 - ❑ programmable shift register width (1..54 bits)
- ✓ **On board pattern generator**
 - ❑ Programmable H/V resolution and timing
 - ❑ Programmable pattern type and clock
- ✓ **On board digital gain and offset**
 - ❑ Fractional U6.10 16bit gain (steps of x0.0001)
 - ❑ 12bit offset
- ✓ **On demand HW/SW customizations available**

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