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Advanced Video and Data Systems

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Revision B - 082421

Velocity Dual Channel ARINC 818 Receiver Cards

A new generation of high bandwidth multi-channel capture from 2 sources simultaneously.



Full Featured _____

Velocity adds the power of the PCle Gen 3 x8 interface coupled with two high-speed DDR3 memory banks and 2 input channels.

As an ARINC 818 Receiver

The Velocity card can capture two ARINC 818 video streams. The ARINC 818 video streams can be completely asynchronous of each other but must be the same ICD.

Each ARINC 818 stream can be captured to a host computer memory via PCIe DMA transfers. If desired, the user can select one of the ARINC 818 streams to be routed to DVI TX.

The ARINC 818 TX can be set to either transmit a test pattern or echo out the individual ARINC 818 receiver channels.

ARINC 818 CHANNEL 1 ARINC 818

CHANNEL 2

MEMORY 1
CONTROL
BLOCK
MEMORY 2

ARBITER

DMA CONTROL TO HOST PC



DVI EN CONTROL





Applications _____

- · High speed video recording
- · Reduction of boards installed in systems

Link Rates (Gbps) _____

 1.0625
 5.0

 2.125
 6.375

 3.1875
 8.5

 4.25
 10.0





Powerful Test Application_

GRT ships Velocity Dual test software with all Velocity Dual Channel ARINC 818 receiver cards. Configure and test ARINC 818 systems. Diagnose the health of your links. Features include:

- Status indicators afford quick checks of link synchronization, presence of SOFi, EOFt, and idle ordered sets. They will detect any 8b/10b and CRC errors.
- Use the View Region window to magnify a region of interest in your image. A problem in the image is easy to isolate and troubleshoot. Curser over the image to determine the location and read values for any pixel in the region.
- Compare a received image with a reference image from a file or card memory. See the count for mismatched images. Even view a "difference" image on the screen.
- Quickly select any preloaded ICD on the card.

The application includes a detailed user manual.

Software Development Kits

An optional Windows-based Software Development Kit (SDK) enables faster development of real-time image and data acquisition systems, camera and sensor emulators, video generators, or other video-intensive applications. The SDK includes a user guide, sample code, and four hours of technical support.

Card Specifications -

Standards FC-PH Revision 4.3

ARINC 818-2 ADVB high data rate

PCle Gen 3 x8 4 GB/s throughput

Memory 256 MB (2 banks of 128 MB)

Power requirement 18 W @ 12 V

Operating System Windows 7, 8, 10, 64-bit

Form factor PCIe half length
Operating temp. 0–50°C (32–122°F)

Physical Size Approximate weight 9.1oz

Size 6.875" x 4.2" PCle standard

height short



Velocity Dual Channel Test Application GUI

How to Buy_

Determine your part number for Velocity Dual Channel (VR-E8) ARINC 818 (A8) cards as follows:

