



# VELOCITY DUAL CHANNEL

A New Generation of Multi-Channel Capture From Two Sources Simultaneously

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

### APPLICATIONS:

- High-Speed Video Recording
- Dual-Channel LAD Systems
- Reduction of Boards Installed on Systems

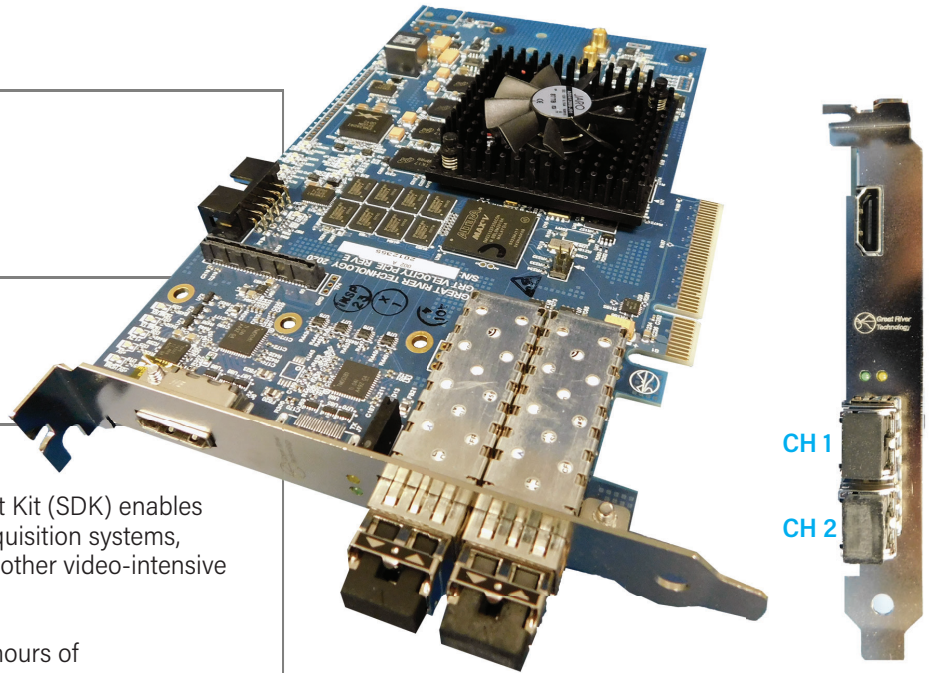
### LINK RATES: (Gbps)

- 1.0625   ■ 2.125   ■ 3.1875   ■ 4.25
- 5.0   ■ 6.375   ■ 8.5   ■ 10.0

### SOFTWARE DEVELOPMENT KIT:

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.

SDK includes a user guide, sample code, and four hours of technical support.

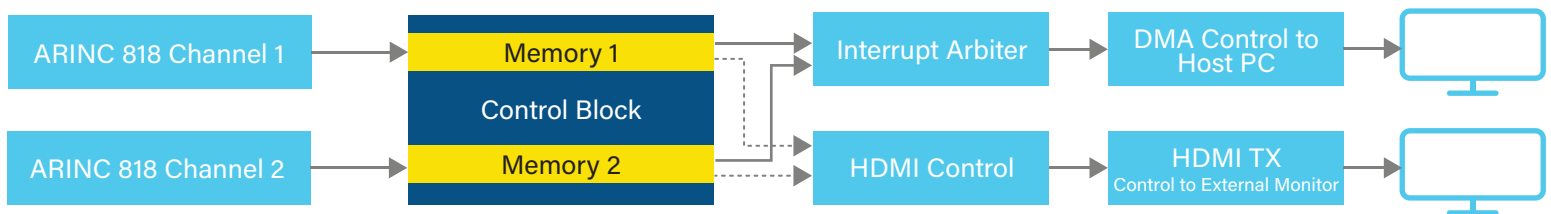


### BLOCK DIAGRAM (AS AN ARINC 818 RECEIVER):

The Velocity Card can capture two ARINC 818 video streams. While the ARINC 818 video streams can be completely asynchronous of each other, they must be the same ICD.

Both ARINC 818 streams can be captured simultaneously to a host computer memory via PCIe DMA transfers.

If desired, the user can select one of the streams to be routed to HDMI TX. The ARINC 818 TX can be set to either transmit a test pattern or echo out the individual ARINC 818 receiver channels.



GREAT RIVER TECHNOLOGY est distribué par TECHWAY S.A.S. - [www.techway.com](http://www.techway.com) - [info@techway.com](mailto:info@techway.com) - +33 1 64 53 37 90

## VELOCITY DUAL SOFTWARE APPLICATION:

GRT ships the **Velocity Dual Test Software Application** with all Velocity Dual Channel ARINC 818 receiver cards. Configure and test ARINC 818 systems. Diagnose the health of your links. See below for features.

The Application includes a detailed user manual.

1 Quickly select any preloaded ICD on the card from the **Modes** list.

2 Discover validity of link synchronization, presence of SOFi, EOft, and idle ordered sets, as well as receive alerts for any 8B/10B or CRC errors with **Status Indicator** lights.

3 **Image 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.

4 View your image and magnify a **Region of Interest**. Problem areas in the image are easy to identify, isolate, and troubleshoot by placing your cursor over a location to read pixel values.



## SPECIFICATIONS:

Operating System	Windows 7, 8, 10, & 11, 64-bit	Connectors	HDMI
Power Requirement	18 W @ 12 V	Form Factor	PCIe half length
Operating Temperature	0-50°C (32-122°F)	PCIe Gen 3 x8	4 GB plus throughput
Weight	~ 9.1oz	Memory	256 MB (2 banks of 128 MB)
Physical Dimensions	6.875" x 4.2" PCIe standard height short	Standards	ARINC 818

## HOW TO BUY:

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

VR-E8-A8-**1**-**2**-HT-**3**

**For Example:**

VR-E8-A8-D8-4X-HT-0000

### Interface **1**

D3 = Dual Fiber 1310nm  
D8 = Dual Fiber 850nm  
DX = Dual Coax (up to 6xFC)

### Link Rate (Gbps) **2**

1X = 1.0625      8X = 8.5  
2X = 2.125      10X = 10.0  
3X = 3.1875      ZZ = Custom  
4X = 4.250      MM = Multiple  
6X = 6.375      Rates

### Custom Characters Assigned by GRT **3**

**Note:**  
Not all combinations are valid. If in doubt, call.



GREAT RIVER TECHNOLOGY est distribué par TECHWAY S.A.S. - www.techway.com - info@techway.com - +33 1 64 53 37 90