



# VELOCITY XI

A Configuration Tool with Converter, Frame Grabber, and Video Generator Capabilities

The Velocity XI allows users to implement a new ARINC 818 ICD into hardware within minutes using the Velocity XI configuration tool. Once an ICD has been implemented, the Velocity XI card will operate as a single format Velocity Plus card that will both receive and transmit ARINC 818.

### APPLICATIONS:

- Avionics Video
- ATP for Production Displays
- Display Development
- Sensor Arrays
- Cockpit Simulation
- Video Generation
- Ultra-Resolution, High-Speed Video Recording
- Data Only

### LINK RATES: (Gbps)

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

### PIXEL TYPES:

- Monochrome 8-bit
- Monochrome 16-bit
- Color RGB 8:8:8
- Color RGB 5:6:5

### CONFIGURATION OPTIONS:

Users may configure the DVI/HDMI video output port from the following options in a pull-down list:

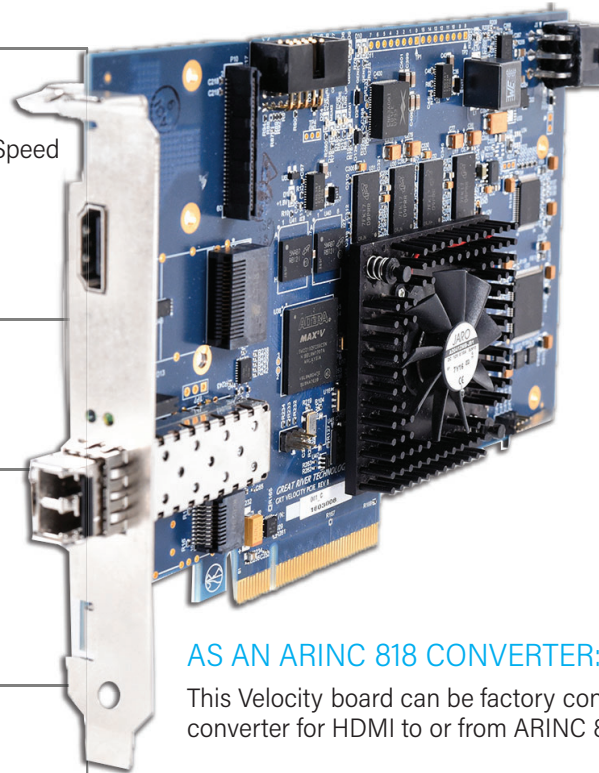
- XGA 1024x768 @ 60Hz
- HD 1280x720 @ 60Hz
- WXGA 1280x800 @ 60Hz
- SXGA 1280x1024 @ 60Hz
- SXGA+ 1400x1050 @ 60Hz
- WXGA 1440x900 @ 60Hz
- UXGA 1600x1200 @ 60Hz
- HD+ 1920x1080 @ 60Hz
- DWide 2560x1024 @ 60Hz
- 4K 3840x2160 (Reduced Blanking) @ 30Hz

### OPERATING SYSTEM:

- Velocity XI Configuration Tool: Windows 10
- Velocity XI is compatible with Windows (7, 10, 11) and Linux Velocity SDKs

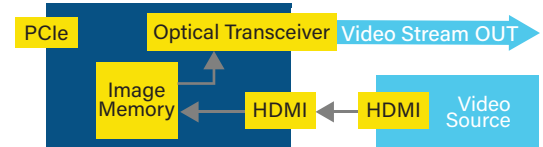
### FEATURES:

- Implement a new ICD in minutes
- Create a library of ICDs
- Velocity Plus card capabilities including use of the Velocity Test Application (see Velocity Plus for more details)



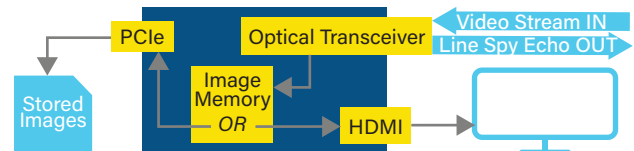
### AS AN ARINC 818 CONVERTER:

This Velocity board can be factory configured as a converter for HDMI to or from ARINC 818.



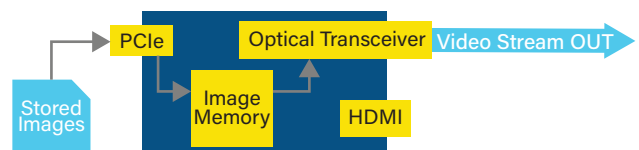
### AS AN ARINC 818 RECEIVER/FRAME GRABBER:

A dedicated HDMI 2.0 video port allows for incoming ARINC 818 video to be viewed in real-time on the Velocity software GUI.



### AS AN ARINC 818 TRANSMITTER/VIDEO GENERATOR:

Load test images and embedded header data into the Velocity card and transmit using the Velocity software.



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## VELOCITY XI CONFIGURATION TOOL SOFTWARE APPLICATION:

1 The configuration tool provides an easy to use and user-friendly entry page for video parameters.

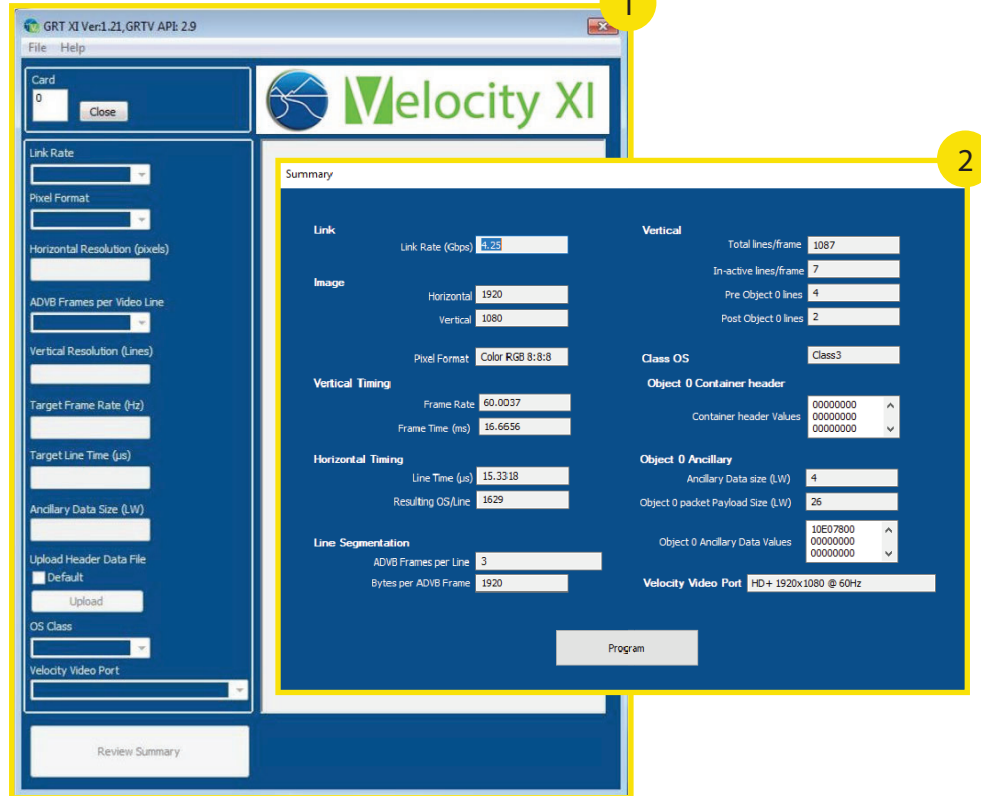
To properly use the **Velocity XI Configuration Tool**, the user must have their predetermined ICD handy for reference.

Enter ICD parameters one at a time. Upon entering, a green check mark or red "X" will appear to make the user aware of the validity of their entry.

Once all ICD parameters are properly entered, the tool will open a review summary for the user to view before programming the card.

2 Once the Review Summary button is clicked in the previous window, the **Summary Window** will appear. Here, users can view entered parameters as well as more detailed information.

After viewing the Summary window, the user is then able to program their card.



## SPECIFICATIONS:

Operating System	Windows 7, 8, 10, & 11, 64-bit	Connectors	HDMI
Power Requirement	20 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 XI Series (VX-E8) ARINC 818 (A8) cards as follows:

VX-E8-A8-**1**-MM-**2**-**3**

**For Example:**  
VX-E8-A8-D8-MM-HT-0000

**Interface** **1**

- D3 = Dual Fiber 1310nm
- D8 = Dual Fiber 850nm
- O3 = Fiber 1310nm single mode
- O8 = Fiber 850nm multi mode
- C1 = Copper Twin Ax (up to 1xFC)
- C7 = Copper Twin Ax (up to 2xFC)
- CX = Copper Coax (up to 6xFC)
- DX = Dual Coax (up to 6xFC)

**Video Port** **2**

- 00 = None
- HR = HDMI Receive
- HT = HDMI Transmit
- HH = Both HDMI RX and TX

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

SDI Option Available

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



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