

# EMBEDDED BOARDS

Flyable ARINC 818 Converter Board; 1, 2, or 3 Channels

These rugged boards are available for 1, 2, or 3 channels of conversion on a single unit. The 2 Channel Embedded Converter is same board used in Great River Technology's Video Converter Module (VCM).

## APPLICATIONS:

- Extend Life of Legacy DVI Equipment

Rugged Conversion between:

- Sensors
- Video Processors
- Displays

## LINK RATES: (Gbps)

- 1.0625
- 2.125
- 3.1875
- 4.25

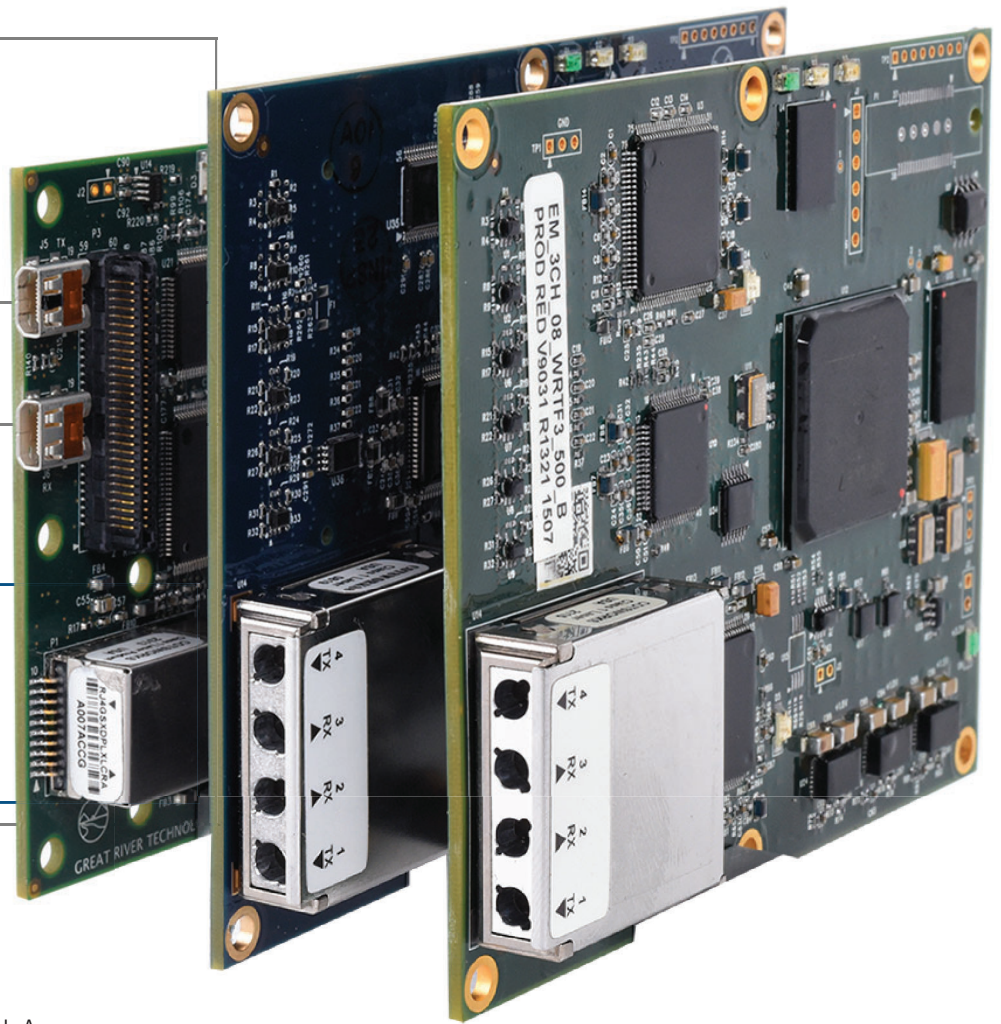
## FORMAT CONVERSIONS:

- DVI to ARINC 818
- ARINC 818 to DVI

For other format conversions such as:

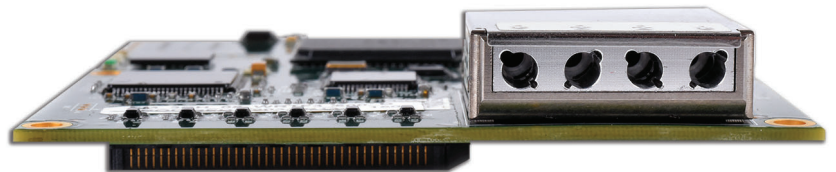
- RS-170
- LVDS
- Ethernet

Contact us for more details!



## FEATURES:

- Aerospace applications up to DO-254 DAL A
- ARINC 801 or LC, 850nm multimode fiber input
- Firmware matched to your project ICD
- Form factor can be customized to your mounting (requires 50 to 75cm<sup>2</sup>)
- External watchdog timer monitoring circuit
- Reconfiguration time of less than 250ms
- SEU detection and recovery logic
- Status discrete signals to identify normal operation and video stream faults
- Stale image detection and annunciation logic



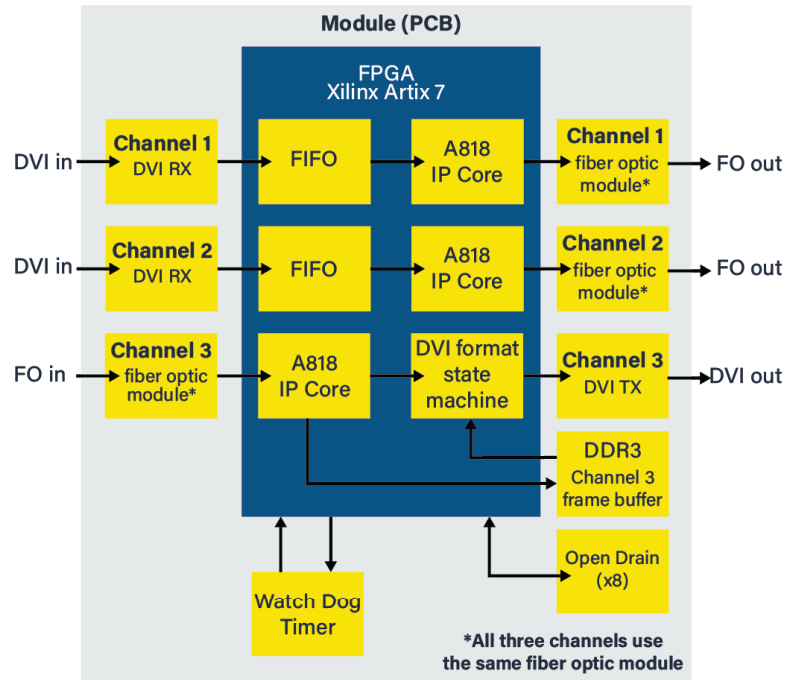
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## BLOCK DIAGRAM (3 CHANNEL BOARD):

To the right is a block diagram of the 3 Channel Embedded Converter.

The module utilizes an FPGA to perform two types of video format conversions. The FPGA configuration is stored via NOR flash during power down, which is transferred to the FPGA configuration PROM during power up.

The module FPGA contains supervisory logic to monitor and report both stream and fault status to the host system.



## SPECIFICATIONS:

	1 Channel	2 Channel	3 Channel
Conversion	1 CH, ARINC 818 to DVI	1 CH, ARINC 818 to DVI 1 CH, DVI to ARINC 818	1 CH, ARINC 818 to DVI 2 CH, DVI to ARINC 818
Connector	SAMTEC 130	SAMTEC 130	SAMTEC 140
Fiber Connector	ARINC 801 or LC	LC	ARINC 801
Power Requirement	< 5W	7W	< 8W
Operating Temperature	-40 to +70°C	-40 to +70°C	-40 to +70°C
Weight	1.6 oz ; 46 grams	1.9 oz ; 54 grams	2.0 oz ; 60 grams
Physical Dimensions	69 x 71 mm (2.7" x 2.8")	75 x 90 mm (3.0" x 3.5")	76 x 97 mm (3.0" x 3.8")
Standards	ARINC 818	ARINC 818	ARINC 818

## HOW TO BUY:

Determine your part number for the Embedded (EB) ARINC 818 (A8) Cards as follows:



**For Example:**

EB-01-A8-RL-3X-DT-0000



<b>Form Factor</b> <b>1</b> 01 = 1 channel 02 = 2 channel 03 = 3 channel	<b>Interface</b> <b>2</b> RL = RCP LC = LC	<b>Link Rate (Gbps)</b> <b>3</b> 1X = 1.0625 2X = 2.125 3X = 3.1875 4X = 4.250 F2 = 2 rates F3 = 3 rates ZZ = Custom	<b>Video Port</b> <b>4</b> DR = DVI RX DT = DVI TX DD = DVI RX and TX D3 = 2 DVI in; 1 DVI out	<b>Custom Characters Assigned by GRT</b> <b>5</b>
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