Great River Technology
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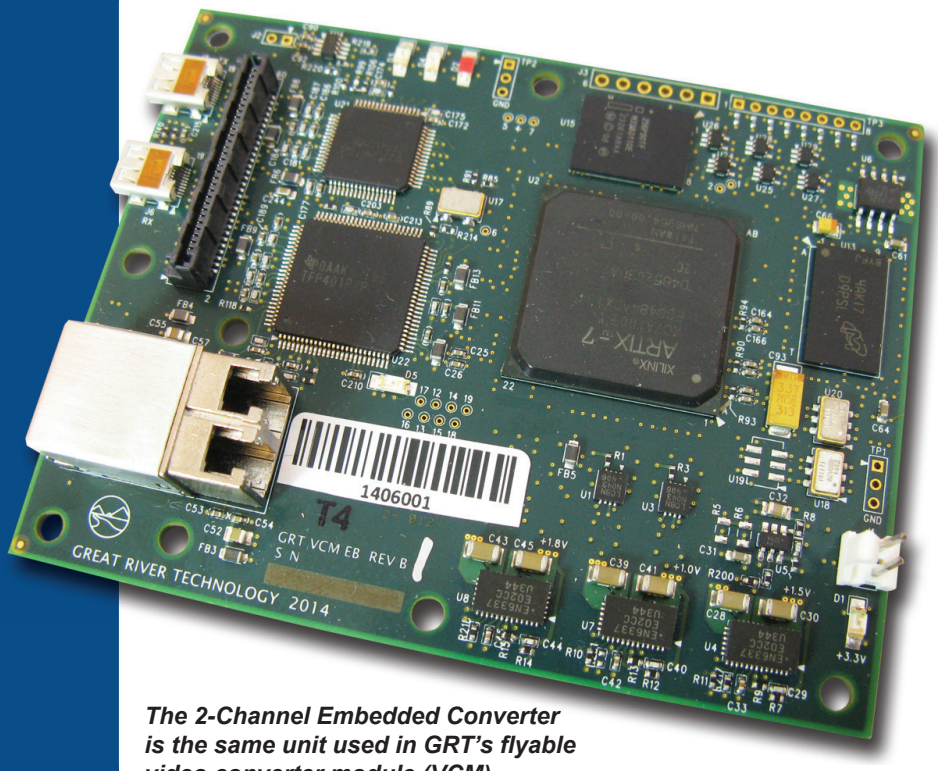
Revision A

Embedded ARINC 818 Converters

1-, 2-, and 3-channel boards



The 2-Channel Embedded Converter is the same unit used in GRT's flyable video converter module (VCM).

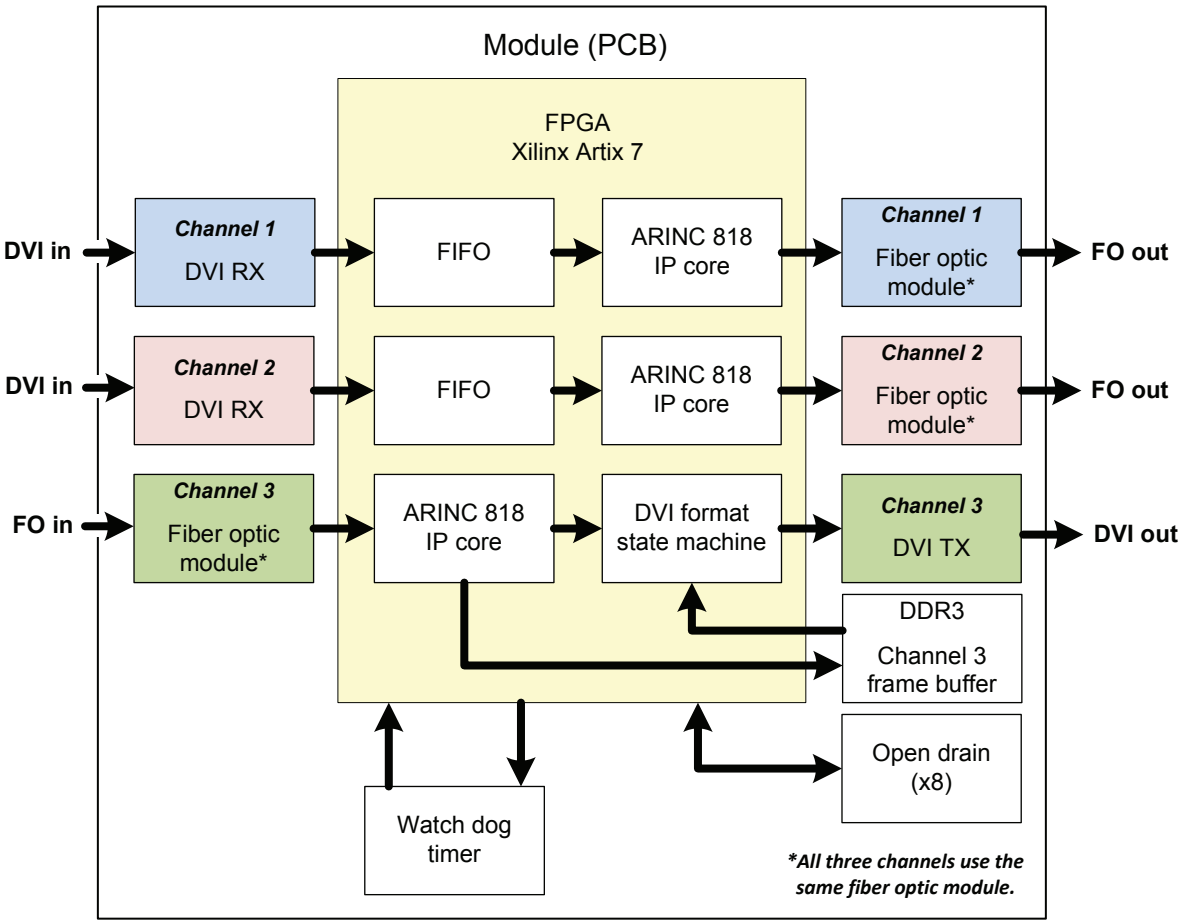
GRT's proven ARINC 818 conversion technology is now available in embedded boards designed for aerospace applications. EB Converters integrate DVI into ARINC 818 systems, extending the life of legacy DVI equipment.

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 75 cm^2)
- External watch dog timer monitoring circuit
- Reconfiguration time of less than 250 ms
- SEU detection and recovery logic
- Status discrete signals to identify normal operation and video stream faults
- Stale image detection and annunciation logic

Specifications

	1-Channel	*2-Channel*	*3-Channel*
Conversion	ARINC 818 to DVI	1 channel, DVI to ARINC 818 1 channel, ARINC 818 to DVI	2 channels, DVI to ARINC 818 1 channel, ARINC 818 to DVI
Power	< 5W	7W	< 8W
Dimensions	69 x 71mm (2.7 x 2.8")	75 x 90 mm (3.0 x 3.5")	76 x 97mm (3.0 x 3.8")
Connector	SAMTEC 130	SAMTEC 130	SAMTEC 140
Fiber connector	ARINC 801 or LC	LC	ARINC 801



Block diagram for 3-Channel Embedded Converter: The module utilizes an FPGA to perfrom two types of video format conversitons. The FPGA configuration is stored via NOR flash during power down, which is transferred to the FPGA configuration PROM at power up. The module FPGA contains supervisory logic to monitor and report stream and fault status to the host system.

How to buy

Determine your part number* for embedded (EB) ARINC 818 (A8) cards as follows:

Not all combinations are valid. If in doubt, call.

Form factor
01 = 1 channel
02 = 2 channel
03 = 3 channel

Interface
RL = RCP
LC = LC

Custom characters assigned by GRT

EB-__-A8-__-__-__-____

Link rate
1X = 1.0625 Gb/s
2X = 2.125 Gb/s
3X = 3.1875 Gb/s
4X = 4.250 Gb/s
F2 = 2 rates
F3 = 3 rates
ZZ = custom to 5.0 Gb/s

Video port
DR = DVI RX
DT = DVI TX
DD = DVI RX and TX
D3 = 2 DVI in; 1 DVI out

For example:

EB-01-A8-RL-3X-DT-0000 or
EB01A8RL3XDT0000

***Great River Technology revised its part numbering system effective April 2013. Legacy part numbers are still honored. For details, see Part Numbers:**