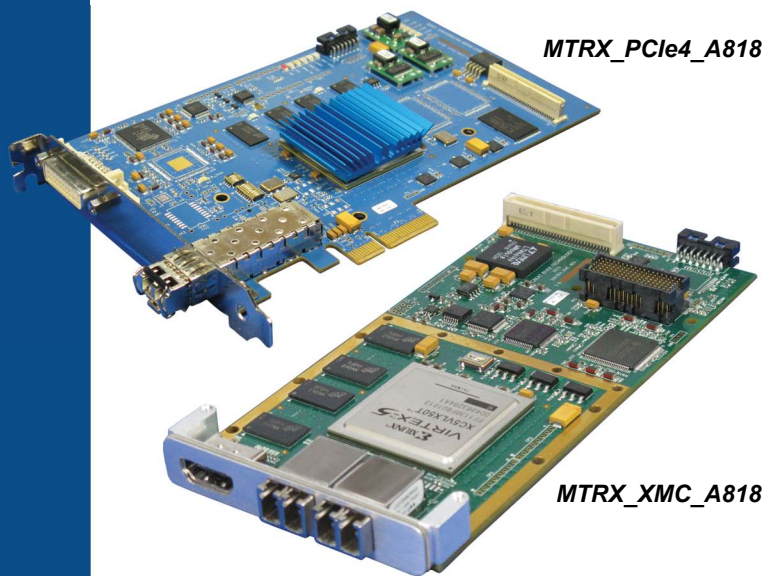




Matrix Series ARINC 818 Cards

GRT's Matrix Series PCIe4 and XMC cards support ARINC 818-compliant interfaces from 1.0625 Gbps to 4.25 Gbps. A single card can function as both an A818 receiver and A818 transmitter. The cards are factory configured to match the link speed, image resolution, and pixel format of your ARINC 818 Interface Control Document (ICD).



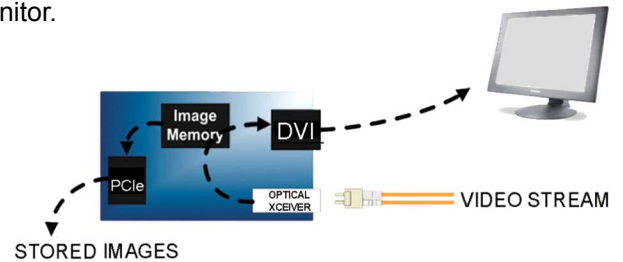
MTRX_PClE4_A818

MTRX_XMC_A818

The cards are delivered with Windows Application Software.

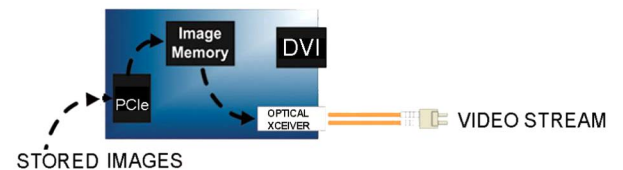
As an A818 receiver

Matrix cards can capture A818 video to the software GUI and permit real-time viewing of embedded A818 data. The cards have a dedicated video port (VGA or DVI) to view the incoming A818 video on a dedicated monitor.



As an A818 transmitter

Load test images and embedded header data into the Matrix card and transmit using the software. Matrix cards can also be ordered with an optional DVI input port such that a DVI video stream can be transferred onto the ARINC 818 interface.



Applications

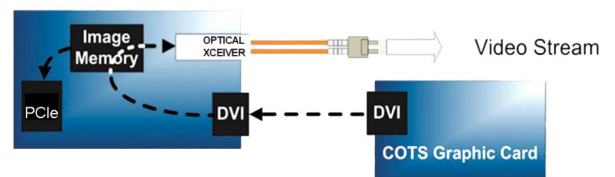
- Display development
- Avionics video
- ATP for production displays
- Cockpit simulations
- Video generation
- High-speed video recording

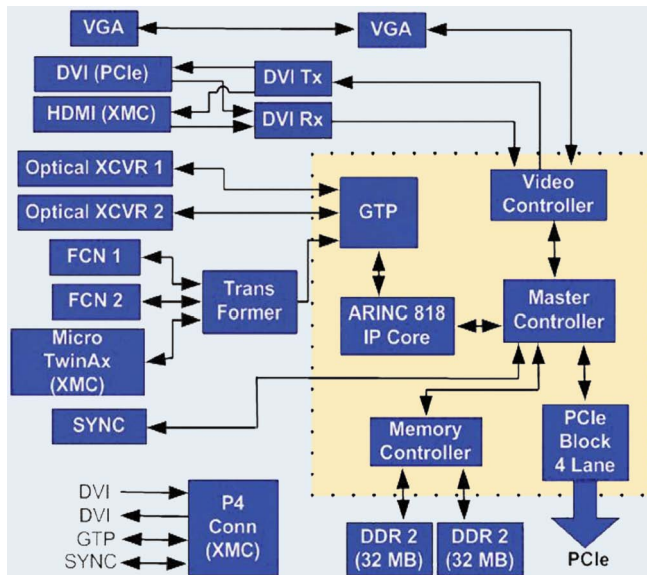


Test software ships with all GRT A818 cards. Configure and test A818 systems and diagnose link health.

DVI to A818 converters

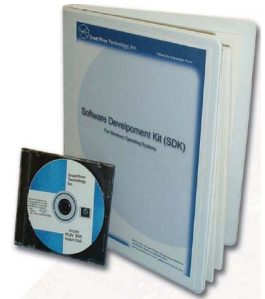
Generate graphics to light up a cockpit display or drive A818 video processors. Matrix DVI cards are ideal full-motion video transmit cards. They convert DVI video streams from COTS graphics cards into A818 video streams for real-time graphics or recordings.





Software Development Kit

A Windows- and Linux-based software development kit (SDK) affords quick deployment 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.



GRAVity software applications can be ported to Matrix cards with minimal effort. Custom software applications are available.

Specifications

ALL MATRIX A818 CARDS

Standards	FC-PH Revision 4.3 ARINC 818 (818-1 ADVB high data rate)
Memory	500 MBytes plus throughput
Power requirement	8W (2.66A @ 3.0V)
Operating System	Win XP, 2000, Vista, and 7; Linux (call for kernels supported); VxWorks support available

MTRX PCIe4 A818 CARDS

Form factor	PCIe short card
Connectors	DVI; optional VGA
Operating temp.	0–50°C (32–122°F)

MTRX XMC A818 CARDS

Form factor	14.9 x 7.4cm (5.8 x 2.9"); stack height: 1.0cm (0.39")
Connectors	HDMI; optional VGA
Operating temp.	0–70°C (32–158°F); industrial version: -40–85°C (-40–185°F)
Conduction	Cooled level 200

How to buy

Choose a combination. Determine your part number as follows:

MTRX_xxxx_A818_xxxx_xxxx_xxxx

For example:

MTRX_PClE4_A818_SMA_1500_DVItx

To order, consult our [Distributors](#) page:

(<http://www.greatrivertech.com/resources.html>).

If none is listed for your region or country, or for information on our custom firmware options, contact us directly.

Conversion

DVlrx—DVI to ARINC 818
DVltx—ARINC 818 to DVI

Link rate

1062—1.062 Gbps
1500—1.500 Gbps
2125—2.125 Gbps
3187—3.1875 Gbps
4250—4.25 Gbps

Interface

FO850—850 nm multimode
FO1310—1310 nm single mode
FCN—copper
MTA—copper, XMC only
SMA—copper, PCIe4 only

Form factor

PCIe4
XMC