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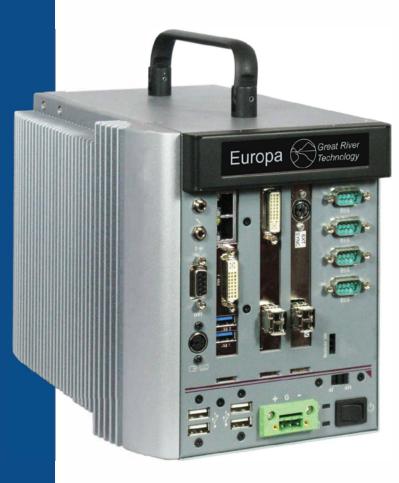www.greatrivertech.com

Advanced Video and Data Systems

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Revision C

Europa

ARINC 818 Systems and Recorders

Europa delivers ruggedness and high portability to ARINC 818 engineering development. Its compact footprint ensures convenient access to system components during field and flight testing of ARINC 818 links. GRT will configure Europa with the proven functions you specify.

Applications

Europa is factory configured to support one or two of the following functions. Pricing is based on options selected.

- Video and protocol analysis (VPA) — PCIe card and VPA software accurately and efficiently verify compliance with your ICD and the ARINC 818 standard.

- XF Tuner (robustness testing) — The card and software establish the desired protocol and timing for your system.

- Video generation — Use the Matrix card and its test software to configure and test ARINC 818 systems and diagnose link health.

- Video capture/record/playback — The Matrix frame grabber, its test software, and StreamPix software can record ARINC 818 video for analysis.

Features

- Intel Core i3-4330TE CPU, 2.4 GHz
- Microsoft Windows 7 Professional SP1 64-bit OS
- 8 GB (2 x 4GB) DDR3 memory (optional 16 GB)
- 320 GB primary hard drive (additional hard drive available as an option on some configurations)
- EU-01 includes 1 TB SSD for recording
- Compact chassis: 142 mm (5.6") x 185 mm (7.3") x 254 mm (10") excluding handle; less than 9 kg (20 pounds); mini-keyboard and mouse.

How to buy

Europa systems are configured to customer specifications. Not all systems have all features. Order in three parts:

1. Base system:

- *EU-01:* Single-channel record/playback system. Record uncompressed ARINC 818 channels, each up to 400 MB/s, using StreamPix 6. An additional function may be specified.

- *EU-02:* Development PC preloaded with customer-specified functions such as VPA, robustness testing, and video generation. Two functions may be specified by the customer.

2. GRT Matrix card(s): Order Matrix PCIe cards matching your ICD. See our datasheet on Matrix Series ARINC 818 Cards.

3. Options: An additional hard drive and the ARINC 818 Xf Tuner card and application are available.

Optional features

Video and Protocol Analyzer (VPA)

With Europa's VPA option, you can quickly identify link and protocol errors, analyze video stream timing in detail, and validate FC and container headers. A custom card captures ARINC 818 data, and the analyzer software decodes and displays the data.

XF Tuner for robustness testing

- Error injection
- Protocol adjustment
- Create protocol libraries

Video recorder

- Play back to GUI
- Single-step through frames
- Step through Object 0 data
- Play video out through Matrix card

Compare GRT systems and recorders

Titan
High-capacity 19-inch rack system.

Callisto
Medium form factor in tower or rugged chassis.

	Europa	Callisto	Titan
Capacity			
Cards*	1–2	1–4	1–16
ARINC 818 channels	1–2	1–4	1–16
ARINC 818 recording channels	1	1–4	1–6
Storage (terabytes)	1–2	1–12	10–24
Venues			
Cockpit simulation labs		✔	✔
Engineering development	✔	✔	✔
Qualification testing	✔	✔	✔
Flight tests	✔		✔
Factory production		✔	✔
Maintenance and repair		✔	✔
Flight simulators / pilot training			✔
Options (availability depends on configuration)			
Video capture to GUI	✔	✔	01
Video conversion (DVI)	✔	✔	01, 02, 03
Video record/playback	✔	✔	01
Video playout		✔	01
Video generation	✔	✔	01, 02, 03
Protocol analysis	✔	✔	02
Robustness testing	✔	✔	02
Remote control	✔	✔	01, 02
Compression		✔	01
Data removal (to ground station)		✔	01

*Total number of Matrix, GPS, RAID, video, and Xf Tuner cards.