Great River Technology

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Advanced Video and Data Systems

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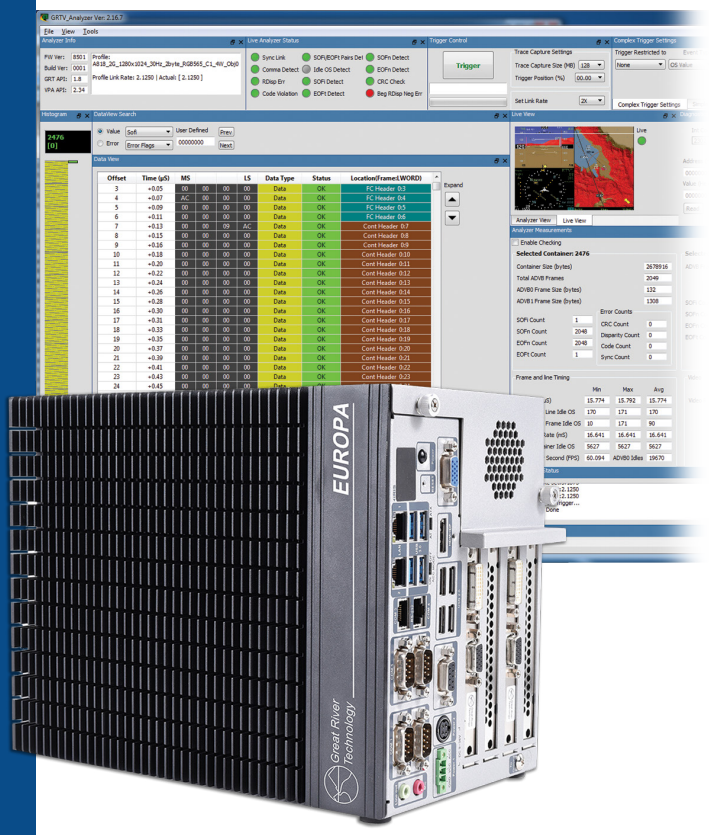
Revision C 12092021

ARINC 818 VPA III

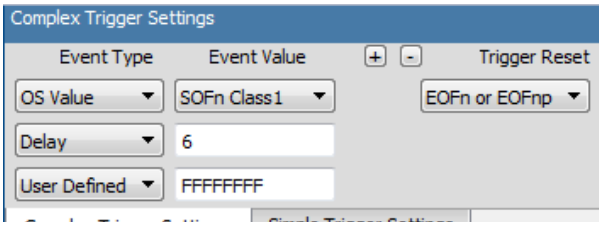
Video and Protocol Analyzer, Generation III

The VPA III expands throughput, capture depth, and link speed while delivering new capabilities to GRT's ARINC 818 analyzer. Ensure interoperability and ARINC 818 compliance in the faster architectures you're bringing on line. Analyze any ARINC 818 video format employing GRT's latest Velocity card and the proven features of the VPA's Matrix- and GRAVity-based VPA predecessors.



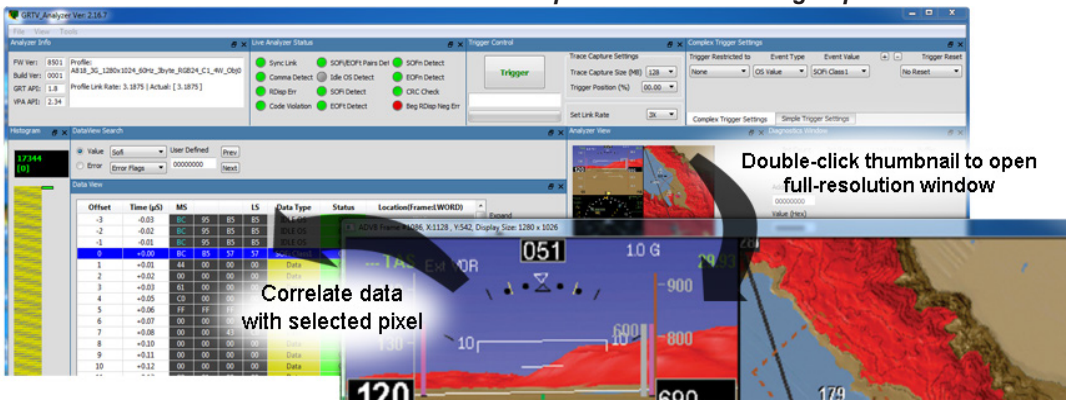
What's new?

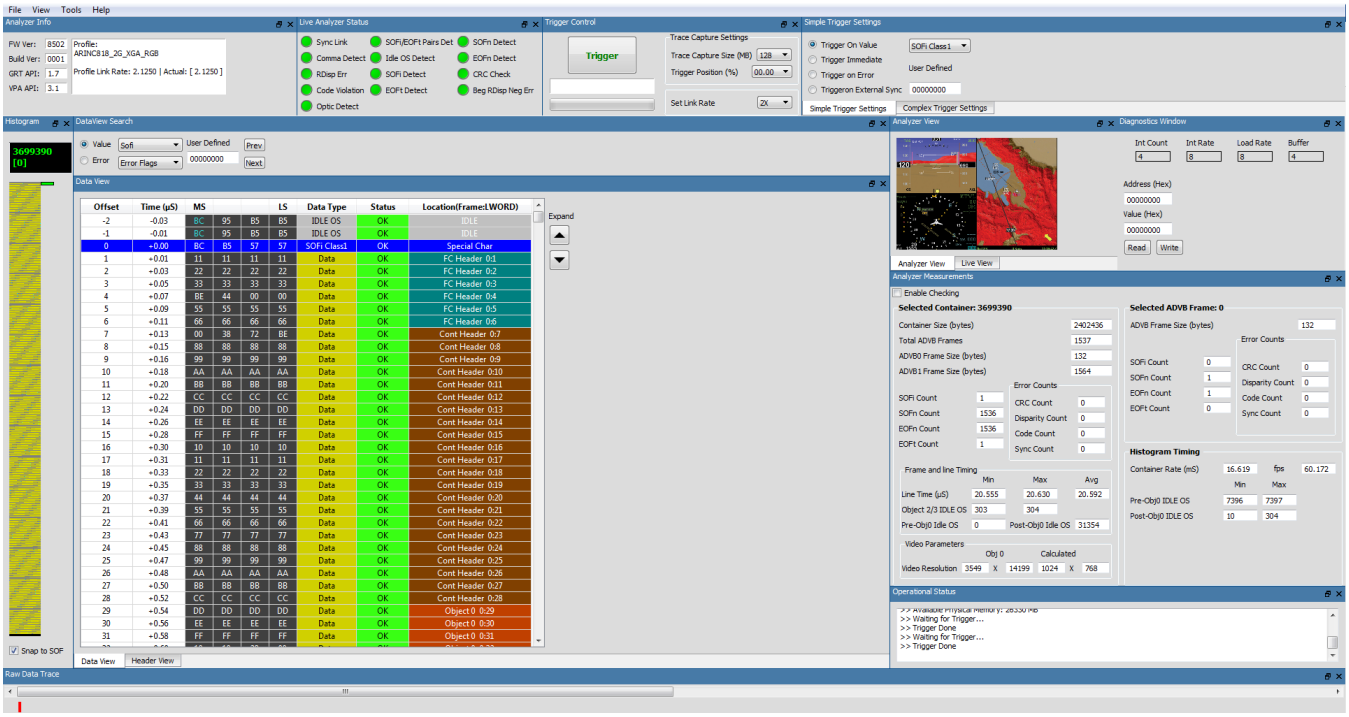
- User configurable for multiple link rates: 1.062, 2.125, 3.1875, 4.250, 5.0, 6.375, 8.5 or 10.0 Gb/s



- Complex, multilayer triggering (up to three levels) within payload or Object 0
- Pre- and post-trigger capture settings
- Raw trace data captures up to 4 gigabytes, with save and load capability
- Dockable user-friendly interface
- Real-time monitoring of link status, such as *Sync Link*; *SoF Detect*
- Live view of video

Pinpoint anomalies using Expand View.





Specifications

A VPA III's physical specifications depend upon the Europa, Titan, or Callisto system in which it is installed. See specifications for your system.

Features in detail

In addition to new software features covered on the front side of this sheet, the VPA III retains all the features of GRT's original ARINC 818 VPA and VPA II:

Raw Data: View data in four-byte hex lines: Offset, Time, Hex Data, Data Type, Status, and ADVB Frames Location. Each line of data is time stamped relative to the trigger, with the zero point easily reset.

Data Search: Easily search captured data by selecting a predefined ordered set, such as SOFi, or entering a user-defined string.

Data Histogram: View all data captured while highlighting idle characters between video frames.

Link Status: Assess the link health before data capture. Reports "SOFi and EOFt detect," "8b/10b codes detect," and other parameters.

Container Details and ADVB Frame Details: Once data is captured, select a container and an individual ADVB frame for analysis. A container displays in the green area in the histogram between two gray lines (idle ordered sets). The selected container lists container size, number of ADVB frames, size of the first ADVB frame, and size of the second ADVB frame (which typically contains the first pixel data). A count of framing characters in the container appears, as well as a count of the error flags. The size in bytes of the ADVB frame is shown, as well as the count of framing characters, and a count of error flags.

Video Resolution and Timing: View crucial video data: resolution (calculated and extracted from the header); minimum, maximum, and average line timing; and idle counts between lines.

ADVB and Container Header Decoding: Decode ADVB frame headers, container headers, and ancillary data. Easily modify standard profiles.

Automatic Error Checking: Use the protocol profile for automatic checks of line timing, video frame timing, video resolution, number of bytes per ADVB frame, and a host of other parameters.

How to buy

Purchase the VPA III in a Europa system. Your part number depends on the interface you select:

VA-A8-__-F6-TR-00-____ Customer designator

Interface options

CX = High-speed coax

O3 = Fiber 1310nm

O8 = Fiber 850nm

VPA III functionality can also be added to GRT's Titan and Callisto systems.

To order, consult our Distributors page: (https://www.greatrivertech.com/sales).
If no distributor is listed for your region or country or if you need additional information about our custom firmware, contact our Albuquerque headquarters.