



Ethernet Inline Protocol Analyzer

Feature Highlights

- ◆ First and only 2.5G and 5G Multigigabit Ethernet capable packet capture & protocol analyzer
- ◆ 1GbE and 10GbE copper and optical support
- ◆ 100% true line rate packet capture and protocol analysis
- ◆ Industry's largest capture and record buffers
- ◆ Intuitive browser-based interface served up from the system (no install required)
- ◆ Hundreds of protocol decodes
- ◆ Nanosecond precision timestamps
- ◆ Real-world impairment injection or jamming
- ◆ Supports industry standard and familiar Wireshark
- ◆ Customizable capture and display filters
- ◆ Comprehensive capture triggers
- ◆ Full transparency with non-retimed pass-through mode
- ◆ Complete programmable API
- ◆ 1U high rack-mountable chassis

Overview

Aukua Systems Ethernet Protocol Analyzer is a stand-alone system providing validation and debug analysis capabilities for R&D, Test and Support engineers building Ethernet based IT, storage networking and communications systems.

The Aukua Protocol Analyzer delivers true 100% line rate, low latency, inline packet capture and protocol analysis. Data rates from 1Gbps to 10Gbps Ethernet, including the new 2.5Gbps and 5Gbps Ethernet rates are supported. And with the industry's largest capture buffers as well as nanosecond timestamp accuracy, unmatched visibility into Layer 2 thru Layer 7 bidirectional protocol communications is provided.

Advanced packet capture features enable users to control when and how packets are captured. Quickly capture hard to find issues with user customizable capture filters and the ability to trigger captures on specific incoming events and packet content. And ensure that issues are fully captured by controlling how much of the capture buffer is dedicated to pre-trigger and post-trigger packets. Users can further leverage the large buffers by using the packet filtering and slicing features.

The capture trace viewer provides complete binary, hex and protocol decode views. Searching and display filters enable users to quickly locate packets of interest even within the largest trace files. Understanding the timing of events is possible with a rich set of timestamp viewing options such as absolute and interpacket arrival time.

Other important features include real-time statistics, alarms and a full API allowing complete automation capability, further enhancing productivity and integration with other development and testing tools.

Our hyperfocus on building a truly intuitive user-experience ensures that the Analyzer is useful everytime; even for the occasional user. First time users are productively testing within the first 10 minutes, even without training or assistance! This is in part thanks to a single, simple user interface that is served up from the Analyzer system without any software installations required. No complex initial chassis configuration or setup is required.

First and Only Analyzer to support 10GBASE-T as well as the new 2.5G and 5G Ethernet rates!



User Control

- HTML browser-based GUI (no install required)
- Automation: RESTful Web Services API supporting wide variety of programming languages, including Tcl, Java, Perl, Python and C/C++
- 1GbE RJ45 Management port
- USB 3.0 port

Test Interfaces

- RJ45 electrical: 100M, 1G, 2.5G, 5G, 10G 100BASE-TX, 1000BASE-T, 2.5GBASE-T, 5GBASE-T, 10GBASE-T
- SFP+ optical: 1G, 2.5G, 10G Ethernet (1000BASE-X, 2500BASE-X, 10GBASE-R)

Packet Capture

- 32GB capture buffer (128GB future option)
- 1 nanosecond precision timestamp
- Save to .pcapng trace format

Capture Filters

- Layer 2 - Layer 7 protocol filters
- Custom protocol filters
- Packet metadata filters (e.g., packet length)
- Logic operators: AND, OR
- Comparison operators: =, ≠, <, >, <=, >=
- Value ranges
- Packet slicing feature further leverages capture buffer

Capture Triggers

- Trigger on packet contents, errors and timeout conditions
- Multi-state triggers for uncovering hard-to-find problems
- Control pre and post trigger capture buffer allocation

Clock Reference Input

- Frequency: 10MHz SMA
- Phase: 1PPS SMA

Environmental

- Operating Temperature: 0°C ~ 40°C (32°F ~ 104°F)
- Operating Humidity: 10% - 90% (non-condensing)
- Power: 100-240 VAC, 50-60Hz

Inline Transparency

- Layer 1 pass-through, including Pause and PFC frames as well as errored frames



External Input / Output Triggers

- Enables control with other external test equipment
- Two 50Ω TTL SMA connectors

Protocol Decodes

- Layer 2 - Layer 7 support
- Binary, Hex and protocol decode views
- 100s of protocols including Ethernet MAC, IPv4, IPv6, TCP, UDP, PTP, MPLS, VLAN, iSCSI, FCoE, PFC and many more
- Event timing analysis: absolute, relative, delta timestamps
- Display filters (L2 - L7) and packet searching capabilities

Impairment Jamming

- Link failure
- Packet Loss
- Ethernet FCS errors
- Data corruption
- more ...

System

- Enclosure: 1RU, fits 19" rack system
- Dimensions: 1.7"H (43mm) x 17.2"W (437mm) x 9.8"D (249mm)

Other Features

- Real-time port and capture statistics, alarms, errors
- Support for Wireshark or any .pcap capable trace viewer
- Layer 1 capture (future option)
- Optionally license system with power traffic generation features



Simple yet powerful browser-based user interface means there is no software to install. Users are productive in less than 10 minutes out-of-the-box!

Contact:

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