

Ethernet Traffic Generator and Analyzer

Feature Highlights

- ◆ 1G, 2.5G, 5G, 10G, 25G Ethernet traffic generator and analyzer
- ◆ Line rate L2-L3+ traffic generation
- ◆ Bit Error Rate Testing (BERT): Layer 1, Layer 2, Layer 3
- ◆ Throughput performance testing
- ◆ Latency measurement with 1 nanosecond precision
- ◆ PCAP Player features
- ◆ Energy Efficient Ethernet (EEE) support (IEEE 802.3az)
- ◆ Troubleshooting with Layer 1 (PCS) viewer & Layer 2+ capture
- ◆ Intuitive browser-based HTML5 GUI with full RESTful API
- ◆ User-customizable Dashboard for statistics and graphical analysis
- ◆ +/- 200ppm Tx offset control
- ◆ Fine bandwidth control (rate, burst and IPG settings)
- ◆ VLAN (802.1Q), Q-in-Q (802.1ad), MPLS support
- ◆ IEEE 802.3br MAC preemption for TSN applications
- ◆ Optional Inline Protocol Analyzer and Network Impairment Emulator modes

Overview

Aukua Systems' Ethernet Traffic Generator and Analyzer is an easy-to-use purpose-built Ethernet test system for R&D, Test and Support engineers developing Ethernet-based IT, storage networking and communications systems.

The Aukua Ethernet Traffic Generator is used for Bit Error Rate Testing (BERT), throughput performance validation, functional testing, latency measurement characterization, and negative testing (impairment jamming) applications. Data rates from 1GbE to 25GbE (IEEE 802.3by), including 2.5GbE and 5GbE Ethernet (IEEE 802.3bz) Ethernet are supported. The hardware-based architecture uniquely ensures accurate and repeatable results you can count on for stressing, validating, troubleshooting and debugging your systems and devices under test.

The Aukua XGA4250 architecture delivers true line-rate performance regardless of configuration, along with unmatched nanosecond timestamp precision and latency measurement accuracy. The optional Inline Protocol Analyzer mode adds even more flexibility and value by providing full visibility into Layer 1 through Layer 7 bidirectional protocol communications and event-timing analysis — all while operating transparently inline between devices under test.

Other important features include real-time statistics, alarms and graphical analysis, external reference clock inputs, the ability to upload and 'replay' packets from a capture file (pcap or pcapng), and a full RESTful API allowing complete automation capability, further enhancing productivity and integration with other development and testing tools.

Our hyperfocus on creating a truly intuitive user experience ensures that the Traffic Generator is immediately useful — 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 Generator system without any software installations required. No complex initial chassis configuration or setup required.

The only test solution to support both inline as well as end-point testing modes for Ethernet rates up to 25G!



**Contact Aukua Systems to request the full
Product Brief!**

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Product description, features and specifications are subject to change without notice.
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