

## Powerful all-in-one Ethernet Test, Troubleshooting and Monitoring System

The Aukua MGA8410 is a flexible Ethernet testing, troubleshooting and monitoring system capable of multiple key applications from the same hardware-based system.

**Inline Packet Capture and Protocol Analyzer** provides 100% line rate, low latency, inline capture, protocol analysis, and custom traffic visibility.

**Network Impairment Emulator** precisely recreates the delay, congestion and impairments found in all real-world data and storage networks.

**Traffic Generator and Analyzer** creates line rate L2-L3 traffic or can accurately replay capture trace files with multiple streams of virtually any protocol mix.

The MGA8410 is used by R&D, Test and Support engineers building, deploying and supporting Ethernet based IT, storage networking, mobile, defense, automotive, industrial or space-based communications systems.



- HTML5 GUI and RESTful API
- Real-time statistics, alarms and graphical analysis
- No software installation or complex chassis configuration or setup required

### Inline Packet Capture and Protocol Analyzer

- Network Visibility and Troubleshooting
- Layer 2+ Packet Capture
- Layer 1 PCS Capture & Analysis
- Analyze Traffic Throughput and Protocol performance
- Event Timing Analysis
- Latency Monitoring

### Traffic Generator and Analyzer

- Throughput Performance Testing
- Bit Error Rate Testing
- Precise Real-time Latency Measurement and Analysis
- PCAP Player
- Functional and Negative Testing
- Energy Efficient Ethernet Testing

### Network Impairment Emulator

- Delay and Network Impairment Congestion Emulation
- Real-world Application Performance Testing
- Reproduce Production Network Customer Issues in the Lab
- Predict Application Performance
- Functional and Negative Testing

10MHz and 1PPS Clk Ref,  
Input/Output Trigger ports



Unique 3-in-1 operation with  
comprehensive interface support  
from 10MbE to 10GbE

### Aukua MGA8410 - 4 Port 1U chassis

10BASE-T, 100BASE-TX, 1000BASE-T, 2.5GBASE-T, 5GBASE-T, 10GBASE-T,  
100BASE-FX, 1000BASE-X, 2500BASE-X, 2500BASE-R, 5000BASE-X, 5000BASE-R, 10GBASE-R,  
USXGMII, SGMII, Automotive Ethernet: 100/1000BASE-T1, 2.5G/5G/10GBASE-T1, 1000BASE-RH

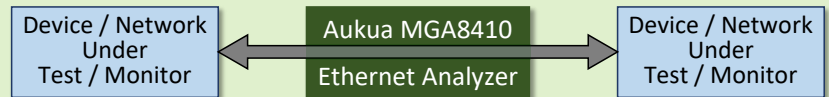
Line-rate capture or stream  
capture to USB 3.0 device  
or remote SSH client

4 Port SFP+  
(optical, DAC, copper)

## Feature Highlights

### Inline Capture and Protocol Analyzer

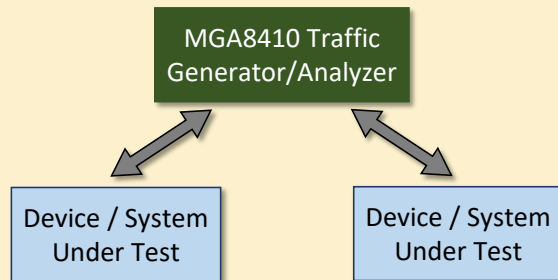
- Line rate Packet Capture - 28GB buffer (or stream to USB device or SSH client)
- Advanced L1-L7 filters and triggers
- Layer 1 Ethernet PCS capture & analysis
- Custom Filter Analyzer (real-time stats and graphical analysis)
- Latency Monitoring and Event Timing Analysis (1ns precision; bi-directional)



Connects transparently inline (bi-directionally) with system under test / monitor. Optionally connect off a SPAN port or TAP. (errored and malformed traffic can also be captured)

### Traffic Generator and Analyzer

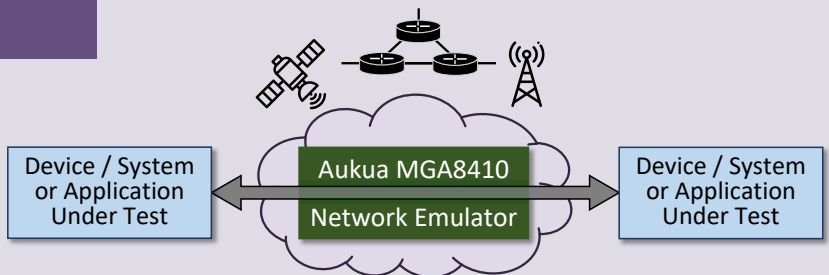
- L2-L3 line rate traffic generator
- Latency measurement (one-way and roundtrip)
- Bit Error Rate testing (L1-L4)
- Sequence Error testing
- PCAP Player
- Auto negotiation visibility
- Generate runs, short IPGs, control transmit clock and much more...



Traffic generation and analysis as end point device. (1ns precision latency measurement)

### Network Impairment Emulator

- Dynamic real-time delay and impairment control
- Delay: fixed and variable latency (PDV)
- Bandwidth throttle control
- Link flap, bit errors, FCS errors
- Packet loss, corruption, modification, accumulate and burst, reorder, and more...



Connects inline (bi-directional) with the system under test and recreates real-world network delay and impairments.