

Research & Development

Axtrinet™ APG Ethernet Packet Generators offer affordable 40Gbps & 10Gbps full wire-speed Ethernet load generation, capture and analysis capabilities for R&D, manufacturing, sales and support teams developing and selling products with high speed Ethernet interfaces.

An intuitive Graphical Control Interface or TCL-scripted interface can be used to configure and control the packet generation, capture and analysis capabilities of the unit via a Linux or Windows PC, managing it locally over USB or remotely over Ethernet LAN.



This application note describes how the Axtrinet™ APG Ethernet Packet Generators can be used by R&D Teams to support development, testing and approval of Ethernet-enabled products.

Benefits

Axtrinet™ APG Ethernet Packet Generators have been developed by a team with decades of experience in the networking industry to deliver the functions and capability required by Development and Test engineers developing products with 10Gbps or 40Gbps Ethernet interfaces:

- Wire rate performance at 40Gbps and 10Gbps
- 8 independent streams per port and bit-level control of the Layer 2-4 frame data to create specific traffic patterns
- Packet and rate counters (packets, bytes, bits and errors)
- 1Gbit capture buffer for packet analysis
- Easy offload to third party analysis tools such as Wireshark™ using industry standard PCAP files
- Easy to use graphical Control Interface
- Open TCL based API for scripting and test automation
- Simple to manage using USB or Ethernet
- Compact size – 1U, 1/3 rack width
- Affordable pricing for “one per desk” deployment



R&D Lab

The traditionally high cost of 10Gbps and 40Gbps Ethernet test solutions meant that availability was restricted for non-essential use. Resourceful R&D engineers found alternative solutions, desperate for high speed data sources. Performance, flexibility and port density were usually compromised.

Axtrinet™ APG Ethernet Packet Generators are designed to solve this problem, offering the 'lowest cost per gigabit' wire rate 10Gbps and 40Gbps test solutions in a compact, portable and quiet enclosure.

An APG unit can be mounted horizontally or vertically to minimise footprint in a busy laboratory environments.

Up to 16x 10Gbps ports are available from the APG208, with the each 40Gbps port operating in 4x10Gbps mode*.

The intuitive graphical Control Interface provides quick port and stream configuration capabilities; with large control buttons; and clear port transmit and receive packet, byte and bit counter and statistic displays.

** Available Q1'17*

Soak & 4-Corner Testing

The TCL API scripting interface for the Axtrinet™ APG Ethernet Packet Generators can be used to configure the unit, ports and streams; control the traffic generation; and read the port counters during long-term testing.

The port counters and statistics can be logged and processed at regular intervals to verify correct behaviour over the duration of the test.



Environmental & EMC Testing

The Axtrinet™ APG Ethernet Packet Generator can be used as a traffic source for the product under test located outside the test chamber. The graphical Control Interface or TCL API Interface can be used for configuration and control.

The port counters and statistics can be logged and processed during the testing to verify correct behaviour.