AXTRINET™

Ethernet Packet Generators

Designed to meet the needs of testing the infrastructure behind the Internet of Things, the Axtrinet™ APG Ethernet Packet Generators provides compact and affordable 40Gbps and 10Gbps/1Gbps Ethernet Packet Generator / Analysers with a simple to use Graphical User Interface and an open API for third party scripting.

Ideally suited to applications in R&D, Test and Manufacturing environments the Axtrinet™ APG Ethernet Packet Generators allow reliable and affordable development and testing of:

- Ethernet network equipment such as switches, routers, firewalls and network monitoring devices
- Specialist devices such as FPGA accelerator NIC cards and offload appliances
- Ethernet infrastructure installations encompassing cabling and switches

Don't risk shipping untested equipment; use the Axtrinet™ APG Ethernet Packet Generators to verify correct operation of new products in the development environment and at the factory.

Features

- Highly configurable Ethernet packet generation and reception
- Full wire-speed operation on all ports
- Industry standard SFP+/SFP and QSFP+ ports
- Real-time packet counts and error detection
- Packet capture for post-test analysis
- PRBS Bit Error Rate Mode (APGV2 only)
- Simple to use Graphical User Interface for configuration and control
- Clear LED status indication
- USB 2.0 port for easy set up and local management
- 10/100Mbps Ethernet LAN connection for flexible remote management

Applications

- Ideal for use by Development and Test engineers requiring a low cost 40Gbps or 10Gbps/1Gbps Ethernet data source and capture
- Suitable for R&D laboratory environment or deployment at a manufacturing site as part of a production test solution
- Compact and easy-to-use for Sales and Field Application Engineers to demonstrate or debug complex Ethernet equipment at customer sites
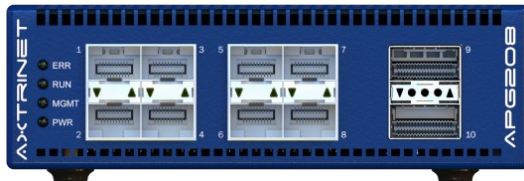
Benefits

- Low cost allows multiple units to be deployed in a development environment – one per desk
- Easy to set up and use, avoids the need for complex vendor specific programming skills
- Ideal for integration into a manufacturing test environment
- Flexible choices of interfaces allows use with different speeds and media types, maximising the investment across multiple projects
- Small size, 1U high (44mm) and 146mm wide, for desk-top or rack shelf mounting (1/3 of 19" rack width)

APG208 Front View

Status LEDs   10GbE/1GbE Ports   40GbE Ports

APGV2 Rear View

Clock In/Out[1]

USB & 10/100Base-T Management Ports   Fan   Sync Port   12Vdc @ 5A

Transceivers
- 40GbE QSFP+ & Direct Attach (APG208 only)
- 10GbE SFP+, 1GbE SFP & Direct Attach
- 10GBase-T SFP+ & 10/100/1000Base-T SFP

Transmit Control

Ports
- Full wire-speed 40Gbps and 10Gbps/1Gbps ports
- 40Gbs ports configurable as 4 x 10Gbps
- 8x user configurable independent streams per port
- Packet transmit rate control up to 100%
- Transmit burst control (single, burst, continuous)

User Configurable Packet Headers
- Up to 10 stacked headers per port
- Configurable fields with auto-increment / decrement and fixed
- Variable length tag field
- Variable length stateless header

User Configurable Payload
- Fixed / incrementing / random payload
- User configurable 64 byte -16K byte packet length
- Optional timestamp, sequence number and packet signature

Real-Time Statistics (per Port)
- Transmit Packets, Bytes, Rate
- Receive Packets, Bytes, Rate
- Receive CRC Errors, Rate
- Fragments, Undersize, Byte Ranges
- User configurable counters

Packet Capture
- Wire-speed packet capture (up to 1GByte) from any port
- 4x User definable filters per port

PRBS Bit Error Rate Mode[1]
- Wire-speed serial bit stream (up to 10.3125Gbps) from any port
- PRBS7, PRBS9, PRBS15, PRBS23, PRBS31

Indicators
- Unit Power / Status; Management Activity
- Port Link Status / Activity
- Test Run Status; Test Error Status

Management Interfaces
- 10/100Base-T Ethernet
- Full Speed USB 2.0

Device Management
- Management Console
- Graphical User Interface Application
- TCL Scripting API

Inter-Unit Synchronisation [1]
- System Clock, Timestamp and Transmit Control Synchronisation

Physical
- 1/3 19" rack width x 1U
- 140 mm (W) x 228 mm (D) x 44 mm (H)
- 5.51" (W) x 8.97" (D) x 1.73" (H)
- 1.20 kg (2.65 lb)

Environmental
- Operating Temperature: 0ºC to 40ºC
- Storage Temperature: -20ºC to 55º C
- Humidity: 5% to 90% non-condensing

Power
- Input Voltage: 12VDC @ 5.0A
- Power: 60W (max)

Regulatory
- UKCA (UK)
- CE (Europe)
- FCC (US)

Support
- Hardware warranty
- Software updates
- Technical support

In the box
- Axtrinet APG Ethernet Packet Generator
- Universal plug-top PSU
- USB cable
- Quick Start Guide

Contact Information:

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Ordering Information:

APG4V2-10	4x 10GbE/1GbE SFP+/SFP cages[2]
APG8V2-10	8x 10GbE/1GbE SFP+/SFP cages[2]
APG208	2x 40GbE QSFP + 8x 10GbE/1GbE SFP+/SFP cages[2]

[1] APGV2 units only
[2] Transceivers not included

All specifications subject to change without notice
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