



Spirent TestCenter™

## HYPERMETRICS™ AP MODULE

### HIGH PERFORMANCE AVALANCHE LAYER 4-7 TEST SOLUTION

The Spirent TestCenter HyperMetrics AP test modules introduce a new paradigm in network infrastructure, security and application testing. The HyperMetrics architecture uses leading-edge multi-core processing, allocating CPU resources on demand, to create enhanced realism with the scalability and performance required to test tomorrow's networks. This architecture provides the highest level of capacity, user emulation, and application test services from network access to application transaction.

#### APPLICATIONS

- *Triple Play Testing* – Test network design, rollout and service from the user's point of view (quality of experience) using realistic voice calling, unicast and multicast streaming videos with Internet traffic in a single test – true user emulation testing.
- *Security Testing and Vulnerability Assessment* – Verify viruses, Denial of Service attacks and other malicious content are stopped while legitimate traffic is forwarded with acceptable performance in the presence of realistic line-rate traffic.
- *Network Device Testing* – Perform vendor trials, acceptance testing, system tests and configuration optimization testing under realistic and maximum traffic and user conditions.
- *Line-Rate Web Application Testing* – Ensure that your e-commerce and business applications are ready for peak traffic times, such as Black Friday. Scale up to and beyond expected loads with real transactional traffic, protocol emulation and user behavior emulation.



The HyperMetrics AP (Application Performance) 8-port 1GbE and 2-port 10GbE test modules combine Spirent TestCenter's network emulation and traffic generation with line rate Avalanche application traffic. These modules deliver the highest performance Layer 4-7, security and vulnerability assessment test solution in the industry.

#### BENEFITS

Traditional test module design fixes CPU resources to specific ports. These 1-dimensional architectures necessitate three hardware designs to achieve the usage goals of high port scalability, virtual network emulation and high-capacity application traffic. HyperMetrics' architecture relegates these design limitations to the past.

- *Test in a realistic network and user environment* – Dropped packets, latency, think times and click-aways reveal how your applications will perform in your production network.
- *Test with your unique mix of traffic* – With its unparalleled support for a wide variety of protocols, supported by multi-core processing, HyperMetrics AP enables you to test your networks and applications with your unique traffic mix. In addition, you can capture traffic from custom applications and replay them using the Avalanche Solution on Spirent TestCenter.
- *Reduce time to test* – Built-in samples get you started with testing. Support for automation helps you repeat tests quickly.
- *One tool for most of your testing needs* – Test a range of devices including but not limited to firewalls, IDS/IPS systems, proxy and caching servers, URL and cache filters, traffic accelerators, mail and Web servers, IPSec and SSL VPN gateways, Windows and Real media servers.

## KEY FEATURES

### Hypermetrics multi-core processing architecture:

- Enhanced realism with scalability and performance
- HyperMetrics scales in three dimensions: ports, network emulation and application traffic
- Complete Test Coverage - Generate stateful multi-play traffic over emulated network topologies
- Dynamic Multi-core Processing – CPU resources can be allocated across the ports to meet the scale, performance and functionality required.
- Future-Proof Design - Delivers the performance needed today, and the investment protection for testing tomorrow's network

**Authentic testing:** Avalanche for Spirent TestCenter emulates actual user transactions and provides control over TCP/ IP stack characteristics such as maximum segment size, delayed ACKs, IP fragmentation and TCP time-out behavior. Avalanche for Spirent TestCenter can emulate browsers, decompress gzips, encode URLs and apply realistic user level attributes.

**High performance testing:** Line rate 1 GbE and 10 GbE performance. Unencrypted traffic at 400,000+ transactions per second on a pair of cards. Encrypted traffic at 3+ Gbps and 40,000 transactions per second.

**Extensive, flexible reporting:** Real-time statistics for critical variables across all protocols. SNMP statistics can be gathered from the components under test and correlated with statistics from Spirent TestCenter.

**Flexible load specifications:** Flexibility to specify load variables such as user sessions, new user sessions per second, transactions, transactions per second, connections or connections per second.

### Multi-protocol support:

- |                    |                       |
|--------------------|-----------------------|
| ■ HTTP 1.0/1.1     | ■ Telnet              |
| ■ HTTPS            | ■ 802.1Q VLAN tagging |
| ■ FTP              | ■ IPSec               |
| ■ Streaming media  | ■ PPPoE               |
| ■ IPv6             | ■ 802.1x/NAC          |
| ■ Voice (SIP)      | ■ RTMP                |
| ■ Mail (SMTP/POP3) | ■ CIFS                |
| ■ DNS              | ■ Capture/Replay      |

## Technical Specifications

|                                      |   |
|--------------------------------------|---|
| <b>Dimensions</b>                    | Overall: 10.75" W x 14" D x 1.41" H<br>Board size: 9.25" W x 13.5" D  |
| <b>Network Interfaces</b>            | <b>HyperMetrics AP CPU-5002A</b> - Dual Media 10/100/1000 Base-T copper interfaces and SFP fiber interfaces<br><br><b>HyperMetrics AP CPU-5003A</b> - Dual 10Gigabit XFP fiber interfaces |
| <b>Power Requirements</b>            | 190W  |
| <b>Weight</b>                        | 4 lbs. 4 oz.  |
| <b>Chassis Operating Environment</b> | 15 – 35° C  |
| <b>Relative Humidity</b>             | 20-80% relative humidity, non-condensing  |

## Ordering Information

|                  | Description   | Comments  |
|------------------|---|---|
| <b>KIT-1025</b>  | 8-PORT 1G DUAL MEDIA COPPER/FIBER APPLICATION PERFORMANCE MODULE W/AVALANCHE CLIENT/SERVER SW | Base system client/server software (HTTP, FTP, TELNET, DNS) plus one dual media 1G Application Performance Module |
| <b>KIT-1027</b>  | 2-PORT 10G XFP FIBER APPLICATION PERFORMANCE MODULE W/AVALANCHE CLIENT SERVER SW              | Base system client/server software (HTTP, FTP, TELNET, DNS) plus one 10G Application Performance Module           |
| <b>ACC-6030A</b> | Transceiver for CPU-5003A - 850nm, 10GBASE-SR/SW  | Tranceiver option for CPU-5003 HyperMetrics AP Module   |
| <b>ACC-6031A</b> | Transceiver for CPU-5003A - 1310nm, 10GBASE-LR/LW   | Tranceiver option for CPU-5003 HyperMetrics AP Module   |
| <b>ACC-6032A</b> | Transceiver for CPU-5003A - 1550nm, 10GBASE-ER/EW   | Tranceiver option for CPU-5003 HyperMetrics AP Module   |

## SPIRENT GLOBAL SERVICES

Spirent Global Services provides a variety of professional services, support services and education services – all focused on helping customers meet their complex testing and service assurance requirements. For more information, visit the Global Services' Web site at [www.spirentcom.com/gs](http://www.spirentcom.com/gs) or contact your Spirent sales representative.



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