SPIRENT TESTCENTER

THE STANDARD FOR TESTING TOMORROW'S NETWORKS

HYPERMETRICS 40/100G ETHERNET MODULE

The Spirent TestCenter HyperMetrics 40/100G Ethernet module delivers several industry firsts including the highest port density with 1 port of 100G and 2 ports of 40G per module, the lowest cost per port and the highest scale protocol emulation. Leveraging Spirent's **HyperMetrics** multi-core processor, the 40/100G Ethernet test module validates performance, scalability and realism. Further, to support all aspects of 40/100G Ethernet development the Spirent TestCenter HyperMetrics 40/100G Ethernet modules goes beyond Layer 2-7 to include Layer 1 functional testing.

BENEFITS

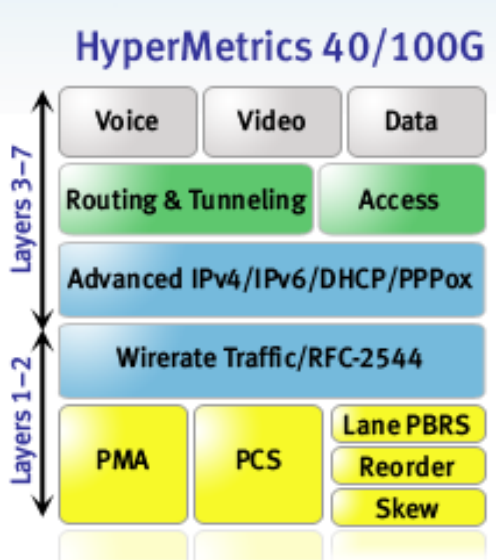
Designed to test the performance and scalability of 40/100G Ethernet systems and services, the new test module is priced significantly lower than the cost of ten 10G Ethernet test ports and offers the most accurate performance with application realism testing across Layers 1-7.

Spirent TestCenter's future-proof architecture with backward compatibility and integrated Spirent NoCode automation framework makes the solution the preferred return on investment (ROI) and total cost of ownership (TCO) choice for high-speed Ethernet testing.

FEATURES

Designed to test the Layer 1-7 performance and scalability of 40/100G Ethernet systems and services, the Spirent TestCenter HyperMetrics 40/100 Gigabit Ethernet test module offers test engineers:

- Layer 1 lane skew and PRBS testing
- Line rate Layer 2, Ethernet and MPLS forwarding performance benchmarking
- Highest-scale routing and MPLS VPN network emulation
- Line-rate Layer 3 IP traffic generation and analysis
- High-performance stateful HTTP, FTP and VoIP traffic generation and analysis
- Streaming of real video, such as MPEG-2 and H.264, with video QoE measurements with Spirent Topology emulation over MPLS and IP Routing



SPIRENT TESTCENTER

HYPERMETRICS 40/100G ETHERNET MODULE

SPECIFICATIONS	
Number of Ports per Module	1 port of 100G, 2 ports of 40G
Interfaces Supported	CFP MSA Optical
Max Ports Per Chassis	6, 100G or 12, 40G ports per chassis
Max Ports Per Rack	30, 100G or 60, 40G ports per rack
Chassis Support	Spirent TestCenter 9U or 2U HS chassis
Layer 1 Features	MDIO register access with CFP optics support; PMA PRBS test pattern generation and detection; PCS skew injection and measurement for each lane; PCS lane swapping and swap detection; PCS lane alignment verification
	Adjustable PPM
	Internal or external clock
Layer 2-7 Features	Layer 2: 802.3, Ethernet II, 802.1Q, 802.1ad, 802.1ah, 802.1Qay, FCoE, PPP
	Layer 3-4: IPv4, IPv6, TDP, LDP and Tunneled: GRE, L2TP, MPLS, PWE3 encapsulation support
	Layer 4-7: HTTP, SIP and FTP (Stateful)
	Routing, multicast and bridging: All major IPv4 and IPv6 unicast and multicast routing protocols, IGMPv1/v2/v3, MLDv1/v2, LACP, STP, RSTP and MSTP, DCBX, FCoE, FIP
	Routing and MPLS: All major IPv4 and IPv6 unicast and multicast routing protocols, RSVP-TE, LDP, VPLS-LDP, VPLS-BGP, BGP/MPLS-VPN, Fast Re-route, mVPN, P2MP-TE, BFD
	Access: ANCP, PPPoE, DHCP, L2TP, IGMPv1/v2/v3, MLDv1/v2
	Carrier Ethernet and bridging: LACP, STP, RSTP and MSTP, 802.1ag CFM, Y.1731, PBB, PBB-TE, Link OAM
User Interface	Windows-based GUI; Tcl API
Traffic Generation	Configurable PDU template frame size
	Multiple-stream line-rate traffic generation and analysis
Time Stamp Resolution	2.5 nanosecond

ORDERING INFORMATION	
Description	**Part Number**
Spirent TestCenter HyperMetrics 40/100G Ethernet Test Module	NG-100G-F2

SPIRENT 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 or contact your Spirent sales representative.

AMERICAS 1-800-SPIRENT • +1-818-676-2683 • sales@spirent.com

EUROPE AND THE MIDDLE EAST +44 (0) 1293 767979 • emeainfo@spirent.com

ASIA AND THE PACIFIC +86-10-8518-2539 • salesasia@spirent.com

© 2010 Spirent Communications, Inc. All of the company names and/or brand names and/or product names referred to in this document, in particular the name "Spirent" and its logo device, are either registered trademarks or trademarks pending registration in accordance with relevant national laws. All rights reserved. Specifications subject to change without notice. Rev. C 01/10