Spirent TestCenter

C2 Appliance

Solution Overview

Test a network or device with a solution that reproduces anything less than a realistic environment and you risk slower product development and deployment, and lower network service quality. Spirent C2 Appliance helps minimize your risk by mirroring actual network scenarios and traffic patterns so networks, services and individual network elements can be quickly validated.

This compact and portable 2U form factor network testing system enables companies of all sizes to test smarter and optimize their test investment by leveraging the industry-leading test capabilities Spirent offers. The C2 can accommodate up to two interface cards (NICs) and up to 8 Ethernet ports with fully synchronized hardware timing crossing NICs and ports. This provides a single clocking source for all test ports in one appliance for synchronized TX and RX clocking across NICs as well as additional port count for time-sensitive tests. It supports Spirent TestCenter™ with various L2-7 and Enhanced L4-7 protocols and physical interfaces such as High-Speed Ethernet, Wi-Fi, and Automotive.
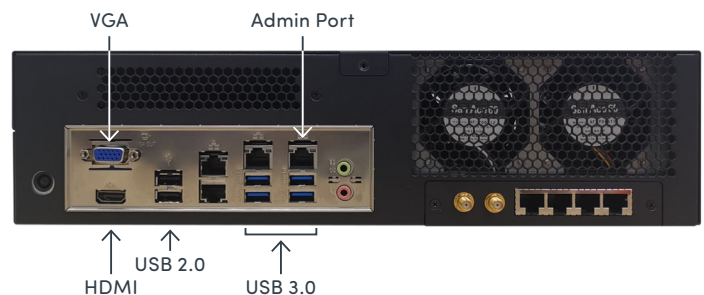
Spirent sets the standard for testing the network environment with unparalleled realism and test packages. C2 appliance is the ideal tool throughout the test lifecycle for performing functional, performance and benchmark testing of data center, high-speed routers, access points, service provider network infrastructure, and evolving SDN and NFV technologies to cover the different configurations required for in-lab and live/operational networking testing.

Applications

- Network element engineering development, design and test groups requiring physical access to a test port on the workbench
- Network equipment manufacturers doing burn-in and production line tests requiring low port count and compactness
- Technical and field marketing groups needing a portable test solution
- Field service engineers for testing live networking
- Network engineers and technicians performing pre-deployment testing and troubleshooting and service rollout testing
- University computer science departments and technical training organizations requiring a hands-on test tool
- Enterprise IT conducting new device and networking testing

The Spirent C2 Appliance offers the power of Spirent's award-winning Layer 2-7 router, switch, Wi-Fi, and application and security test solutions in a portable form factor with up to 8 Ethernet ports.

With support of various Ethernet for line-rates 10GE, 5GE, 2.5GE, 1GE and 100M test ports, it can also support the complete suite of Spirent test solutions for other interfaces such as Wi-Fi and automotive.

The C2 offers the power of a professional test tool used by the world's top network equipment manufacturers, service providers and enterprise users.

Technical Specifications

Media support:	• NBASE-T and IEEE 802.3bz compliant • Spirent Wi-Fi 6 NIC • Support up to 8 Ethernet ports
Inter-NIC and inter-system time synchronization	Ports in the same chassis are phase-locked to the internal timing source. For separate systems: • Timing chain synchronization with +/- 20ns • Synchronized via GPS or CDMA network • Using NTP or PTP packet-based approaches
User reservation	Per-port reservation available
VFDs	6 VFDs available for each of 256 stream templates
Frame length range and controls	100% line rate for frames of 58–16383 bytes controlled by fixed, increment, decrement, random, and IMIX modes
Statistics	Nearly 50 transmit stats per port reported in real time. Includes Layer 1-4 counters and rates and checksum and CRC errors Over 40 real-time measurements per stream including advanced sequencing, latency, jitter, and data integrity
Line clocking and packet time Stamping, transmit line clocking and timestamping from the built-in hardware timing interface	Stratum-3 oscillator default time source; adjustable +/- 102 PPM Frame timestamp resolution is 2.5ns NTP and PTP support
Capture	256 MB per port with sophisticated trigger and filtering controls
Histograms	Port-level histograms
Interface Component	Power switch Admin port: Used for the administration of the C2 system VGA – External monitor HDMI – External monitor USB 2.0 – Support USB devices including keyboard, mouse, USB drive USB 3.0 - Support USB devices including keyboard, mouse, USB drive Test ports: the number of ports and the available functionality depends on a specific appliance configuration	External Time Reference (ETR) Connectors: • 10 MHz with 50 Ohm cable (SMA) • 1 PPS with 50 Ohm cable (SMA) • SERIAL DCE (RJ45) • IEEE 1588- Connect to 1588 LAN with Ethernet LAN cable (RJ45) Multiple Chassis Connections • SYNC OUT (RJ45) • SYNC IN (RJ45)
Physical Specifications	3.5" (H) x 13.9" (W) x 11.2" (D) Weight: 13 pounds (without external power adapter)
Environmental Specifications (non-condensing)	Operating: 0 C - 35 C, 10% - 70% Storage: -20 C - 70 C, 0% to 100%
Altitude	-100 to 1500 feet
AC Power Adapter Specifications	Input voltage range: 100V–240V 50–60Hz; Output voltage range: 19.5V 16.9A 330W
Total DC Power	330W
Safety Compliance and Certifications	• FCC Part 15 Class A • CE Mark Class A EN 55032:2012; EN 55024:2010; EN 61000-3-3:2013; EN 61000-3-2:2014 • UL 60950-1:2007 R10.14 • CAN/CSA-C22.2 NO.60950-1-07+A1:2011+A2:2014

Product Information

Description	Part Number
C2 Enterprise Benchmarking Kit with 1YR Support	AP-C2-EP-KIT-BM-1
C2 Enterprise Benchmarking Kit with 3YR Support	AP-C2-EP-KIT-BM-3
C2 Enterprise Benchmarking and Routing Kit with 1YR Support	AP-C2-EP-KIT-BM-ROUTING-1
C2 Enterprise Benchmarking and Routing Kit with 3YR Support	AP-C2-EP-KIT-BM-ROUTING-3
C2 4-Port 10G/5G/2.5G/1G/100M Copper, One 802.11AX Wi-Fi NIC, 2.4GHZ/5GHZ, and HW Timing	AP-C2-KIT-11AX-1

A full complement of Spirent protocol and test packages are available with perpetual and subscription licensing options. Please contact your Spirent sales representative to select the right option for your test needs.

About Spirent Communications

Spirent Communications (LSE: SPT) is a global leader with deep expertise and decades of experience in testing, assurance, analytics and security, serving developers, service providers, and enterprise networks. We help bring clarity to increasingly complex technological and business challenges. Spirent's customers have made a promise to their customers to deliver superior performance. Spirent assures that those promises are fulfilled. For more information visit: **www.spirent.com**

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