

# Spirent C50

## Spirent TestCenter on C50 Appliance

The Spirent C50 appliance with fX2 10/1 G Ethernet dual-speed test ports delivers the best total cost of ownership in its class. Spirent TestCenter's Layer 2-7 traffic generation and analysis is combined with powerful network emulation and application traffic to deliver the perfect blend of realism, scalability and performance required to test today's networks.

### Features & Benefits

- Dual-speed 10/1 GbE SFP+/SFP ports for flexible interconnect options including Long Reach, Short Reach, DAC and 100BASE-T
- Low noise for benchtop operation in proximity to users
- Traffic and protocol performance identical to fX2 mainframe test modules and fully interoperable with all Spirent TestCenter hardware
- Full chassis chaining and external timing synch available via direct connect, NTP, PTP, GPS, and CDMA
- Full suite of Spirent TestCenter protocols and test packages are available
- 16-Port 1GbE, 8-port 10/1GbE, and 4-port 10/1GbE configurations available

The Spirent C50 10/1 G Ethernet dual-speed appliance combines Spirent's industry-leading Layer 2-3 traffic generation and analysis with powerful network emulation and application layer protocols for emulating a wide range of device types, users and protocols. The C50 delivers the highest performance per dollar for Layer 2-7 testing in a compact 3U appliance form factor. The C50 can be used in a benchtop lab environment where excessive equipment noise can be an issue for operators or in a traditional test lab environment. The C50's flexibility makes it perfect throughout the test lifecycle for functional, performance and benchmark testing of data center and service provider network infrastructure and evolving SDN and NFV technologies.

### Applications

- **SDN and data center:** Validate forwarding performance and functional capabilities of Software Define Networks (SDN) with ultra-low latency and flexible port density. Supports key technologies like VXLAN, OpenFlow, PCE, Segment Routing and BGP-LS
- **Device benchmarking:** Test using IETF RFC 2544, RFC 2889 and RFC 3918 methodologies with easy test setup using dynamically bound traffic and automated wizards
- **Core and edge routers & switches:** Verify scale, reliability, performance of Layer 2 & 3 services including data, multicast, and video delivered via unicast routing, multicast routing, switching, and MPLS VPN technologies
- **Carrier Ethernet:** Verify scale, reliability, performance of Ethernet services delivered via Ethernet OAM, MPLS-TP, VPLS, PWE3 Psuedowires, bridged Ethernet, packet transport protocols, or combinations of these technologies
- **Subscriber emulation:** Verify setup & teardown of thousands of access subscribers using different services over various tunneling technologies (VLAN, L2GRE, MPLS, VPNs, VPLS, etc..) under normal or exceptional traffic conditions



## Technical specifications

### C50 specifications

Media support	<ul style="list-style-type: none"> <li>• 10GBASE-SR, 10GBASE-LR, 10 GbE DAC</li> <li>• 1000BASE-SX, 1000BASE-LX, 10/100/1000M BASE-T</li> <li>• NBASE-T and IEEE 802.3bz compliant</li> </ul>
Inter-NIC and inter-system time synchronization	<p>Ports in the same chassis are phase-locked to the internal timing source. For separate systems:</p> <ul style="list-style-type: none"> <li>• Timing chain synchronization with +/- 20ns</li> <li>• Synchronized via GPS or CDMA network</li> <li>• Using NTP or PTP packet-based approaches</li> </ul>
User reservation	Per-port reservation available
Tx/Rx streams per port	64k/128k
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	<p>Nearly 50 transmit stats per port reported in real time. Includes Layer 1-4 counters and rates and checksum and CRC errors</p> <p>Over 40 real-time measurements per stream including advanced sequencing, latency, jitter, and data integrity</p>
Line clocking and packet time stamping—transmit line clocking and time-stamping from the built-in hardware timing interface	<ul style="list-style-type: none"> <li>• Stratum-3 oscillator default time source; adjustable by +/- 102 PPM</li> <li>• Frame time stamp resolution is 2.5ns</li> <li>• NTP and PTP support</li> </ul>
Capture	256 MB per port with sophisticated trigger and filtering controls
Histograms	Port-level histograms
Physical	3U H x 16.53" W x 19.75" D, weight: 32 lbs. (14 kg)
Environmental	Operating temperature: 5 C-35 C, 10%-90% RH (non-condensing)
Power	115 V-230 V, 50/60 Hz-750 W
Supported applications	Spirent TestCenter Graphical User Interface & supported APIs

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#### 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:  
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#### Ordering information

Description	Part number
C50 4-port 10/1 G SFP+ Layer 2-3 & 2544 Starter Kit	C50-KIT-04-START
C50 8-port 10/1 G SFP+ Layer 2-3 & 2544 Starter Kit	C50-KIT-06-START
C50 16-PORT FX2 10/100/1000 ETHERNET SFP, Layer 2-3 & 2544 Starter Kit	C50-KIT-15-START
C50 8-PORT FX2 10/100/1000 ETHERNET SFP NIC, 4-PORT FX2 10/1G ETHERNET SFP+ NIC, Layer 2-3 & 2544 Starter Kit	C50-KIT-18-START

*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.*