# Velocity 3900 Series Switches

## Accelerate testing and improve efficiency with automation switches for managing lab connectivity and topology

Today's test lab teams face a myriad of challenges ranging from keeping OpEx costs like energy and labor in check to improving lab tool utilization and actively shortening test cycles. Spirent delivers a portfolio of flexible test lab automation and management products including a comprehensive series of Velocity Automation Switches to virtualize, automate and securely manage your physical layer fabric.

Spirent Velocity 3900 Series switches for test lab automation serve as the focal point for managing lab connectivity and topology. The 3900 optimizes test lab operations by combining Layer 1 matrix switching into a scalable architecture. It offers flexible pay-as-you-grow configurations, with 1, 3, and 12 slot chassis options and a variety of interoperable optical-electrical-optical blades.

Whether managing dedicated high-performance test labs or consolidated globally-accessible lab resources, the 3900 Series supports a wide range of port speeds and media types for managing network topologies within today's complex test labs.

### Velocity Automation Switch Benefits and Capabilities

Spirent has helped thousands of organizations increase utilization of lab equipment, automate lab management, and drive CapEx and OpEx savings by:

- Increasing test lab and resource sharing and efficiency
- Reducing time required to set-up and test
- Providing insight into lab and equipment use
- Improving lab performance by reducing manual errors

### Key Switch Features

- Software-adjustable any-rate blades
- Hybrid electrical and all-optical switching fabrics
- 1, 3, and 12 slot chassis options
- Scalable from 16 to 1,152 ports per system
- Distributed and redundant architecture
- Controlled by Velocity or third-party software

## Highlights

- Patented, non-blocking architecture
- Scalable to 1,152 OEO ports per chassis
- Low latency for time sensitive applications
- Redundant, modular systems designed for high availability
- Multiple blade options available to meet individual test lab needs
- Integrates seamlessly within the Velocity Automation Portfolio for complete lab automation
- Controlled by Velocity Core or third-party automation systems

⏱ **Reduce Test Cycle Time**
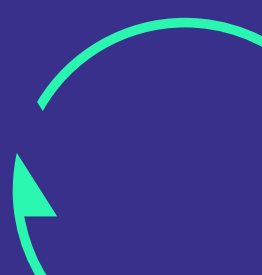Take testbed set up from days to minutes

$ **Drive OpEx Savings**
Achieve increased efficiencies and save on energy

**Global Access**
Teams obtain secure remote access to test beds from anywhere

## Velocity 3900 Switch Ethernet Configuration Options

|  | 3901 Switch | 3903 Switch | 3912 Switch |
|---|---|---|---|
| **Max 1 GbE Port Capacity** | 72 | 216 | 864 |
| **Max 10 GbE Port Capacity** | 96 | 288 | 1,152 |
| **Max 40 GbE Port Capacity** | 24 | 72 | 288 |
| **Chassis Slots** | 1 | 3 | 12 |
| **Rack Units** | 1 | 3 | 16 |

## Velocity 3900 Switch Series Chassis Options

The 3900 Switch family offers three different chassis options to fit multiple test lab scenarios. The switches provide users with secure, remote access to test lab equipment in order to set up, perform, and tear down test scenarios from any location 24/7, eliminating the need to physically access the lab. The switches are controlled by Spirent Velocity Core for ease of management and maximum flexibility.

## Velocity 3901 Switch Chassis

The 3901 switch is a single blade system option that delivers up to 96 ports of 10G or 24 ports of 40G in a 1-slot chassis. The 3901 provides blade support for both the S-Blade 64 and S-Blade Pro.

## Velocity 3903 Switch Chassis

For customers requiring more ports, the 3903 offers up to 288 ports of 10G or 72 ports of 40G in a 3-slot standalone 19" rack mount chassis option. The 3903 supports both the S-Blade 64 and S-Blade Pro and provides fully redundant power and control.

## Velocity 3912 Switch Chassis

If even higher port density is required, the 3912 offers the flexibility of 1 to 12 blades and supports up to 1,152 ports of 10G or 288 ports of 40G in a 16U 12-slot chassis. The 3912 supports any combination of Spirent blades and delivers fully redundant power and control. The 3912 uses pluggable Switch Fabric Modules (SFMs) to expand backplane capacity and supply 4 dedicated QSFP+ back ports for connecting switches using cross switch links (xSLs).

## Velocity 3900 Series Blade Options

All 3900 Series switch chassis support Spirent's blade family, offering the following port configurations:

|  | SFP Ports | QSFP Ports | Protocols |
|---|---|---|---|
| Velocity 3900 S-Blade Pro | 0 | 24 | Ethernet, CPRI, SAS, OC, FC, OTN, SONET |
| Velocity 3900 S-Blade 64 | 32 | 8 | Ethernet, CPRI, SAS, OC, FC, OTN, SONET |

## Velocity 3900 S-Blade Pro

Offering multiple configuration options, the Spirent Velocity S-Blade Pro delivers high-density connectivity with 24 QSFP+ ports per blade and offers advanced features including network impairments and utilization metrics.

## Velocity 3900 S-Blade 64

Offering multiple configuration options, the Spirent Velocity 3900 S-Blade 64 delivers up to 64 high density ports of connectivity (1/10/40G) per blade, either natively or via breakout cables or couplers. The blade comes standard with 32 SFP+ ports and 8 QSFP+ ports and provides ultra low-latency Layer 1 connectivity (<5ns).

## Additional Velocity Automation Switches

Test labs are challenged with the ever-changing landscape of ethernet speeds, test tools, and interface types. Velocity provides a variety of automation switches to support your test lab requirements and environments.

## Velocity HS Series Switches

The Velocity HS series can maximize efficiency in diverse environments by supporting Ethernet speeds up to 400G and enabling the use of lower speed test tools for higher speed testing through rate conversion and aggregation. Isolated port mapping allows you to easily configure test scenarios that would otherwise require additional spending for new tool ports. The HS Series delivers flexible, multi-speed support in three different chassis options with QSFP-28 or QSFP-DD interfaces.

# About Spirent

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

## Velocity Automation Portfolio



**Velocity Core**

Connectivity    Insights    Management

Velocity iTest    Velocity Switches    Managed Solutions

The Velocity Automation Portfolio supports the complete automation of customer lab and testing environments for large enterprise, NEM, and service provider organizations. It is the only fully integrated solution to provide automation and management of lab resources, facilitate automated test suite creation, oversee lab connectivity and topology, and provide professional services for automation initiative success.

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