

The Avaya Virtual Services Platform 9000 Series is an agile, balanced, next-generation Ethernet Switching solution that delivers performance, capacity, and – most crucially – reliability for mission-critical networks.

9012QQ-2 40 Gigabit QSFP+ Ethernet Interface Module

Next-generation high-speed connectivity for Virtual Services Platform 9000 Series deployments that require large scale high-performance

The Avaya Virtual Services Platform 9000 Series is an agile, streamlined, next-generation Ethernet Switching solution that delivers performance, capacity, and – most crucially – reliability for mission-critical networks. The VSP 9000's future-ready design and ultra-reliability leverages device and network virtualization to empower services integration, simplifying how Data Centers and Core networks are architected.

Features & Benefits

The 9012QQ-2 12-port 40 Gigabit Ethernet Interface Module is an optional component of the Virtual Services Platform 9000 Series product. This Module provides 12 ports of 40 Gigabit Ethernet, as per the IEEE 802.3ba standard, and features sockets that comply with the QSFP+ multi-source agreement specification.

This Module, when deployed in either of the VSP 9000 Series chassis options, provides high-density, very high-capacity connectivity solutions, particularly suited to high-performance network deployments.

The 9012QQ-2, together with all VSP 9000 Series Interface Modules, seamlessly supports the complete range of conventional IP Routing and next-generation Fabric-based capabilities,

without the need for any additional hardware.

Compatibility

The 9012QQ-2 Module is introduced with the VSP Operating System Software (VOSS) 4.0.1 release, and therefore this release will be the minimum level of software that is required to support and operate the Module.

The 9012QQ-2 Module is compatible with both the existing VSP 9000 Series Chassis options, the 9010 10-Slot and 9012 12-Slot Chassis. Additionally, the 9012QQ-2 is compatible with all existing Control Processor, Switch Fabric, Ethernet Interface Modules, and Power Supplies. The only proviso is that when operating the 9012QQ-2 with the 9012 Chassis the new High-Speed Front Cooling Modules are required.

Overview

- High-speed 40 Gigabit Ethernet Interface Module with QSFP+ interface sockets
- 12 ports for high-capacity network connectivity
- Delivers a system density of up to 120 ports
- Compatible with all existing Chassis, Control Processor, Switch Fabric, Interface Module, and Power Supply components
- Compatible with all existing software and networking features, such as conventional IPv4 and IPv6 Routing, and SPB-based Fabric Connect network virtualization.



9012QQ-2 Module



9010 & 9012 Chassis

The 9012QQ-2 Module can be installed into any of the Interface Module slots of the 9010 or 9012 Chassis variants; appreciating that Slots 1 and 2 are reserved for 9080CP Control Processor Modules.

Like the 9048XS-2 48-port 10 Gigabit Ethernet Module, the other newly introduced Generation-2 Module, the 9012QQ-2 is a distinct evolution of the first generation VSP 9000 Series Ethernet Interface Modules, with this Module featuring the latest generation of Avaya's unique Route Switch Processor network processing unit, delivering important advances in terms throughput, capacity, and scaling.

Module Specifications

Performance & General:

- 240Gbps Full Duplex/480Gbps Aggregate per Module/Slot – assuming five Switch Fabric Modules, or six for N+1 resiliency
- 357Mpps of packet forwarding capacity per Module/Slot
- Layer 2/3 switching with hardware-enabled ACL
- Layer 2-4 Filtering
- Both UNI & NNI Fabric interface support
- Up to 1,000k IP Routes, 128k MAC Address, and 64k ARP supported
- Jumbo Frames up to 9600 Bytes

Electrical:

- Consumption of 600 Watts with short-reach QSFP+ Transceivers
- Thermal rating of 2,048BTU/hr

Physical:

- Height of 1.625 inches (4.13cm)
- Width of 15.5 inches (39.37cm)
- Depth of 24.0 inches (60.96cm)
- Weight of 14.5 pounds (6.58kg)
- Physical interface being the QSFP+ MSA
- MTBF rating of 150,000 hours (17.11 years)¹

Environmental:

- Operating temperature of 0 to 40°C (32 to 104°F)
- Storage temperature of -25 to 70°C (-13 to 158°F)
- Operating humidity of 0 to 95%
- Storage humidity of up to 92.5%
- Operating altitude of 0 to 3,000m (0 to 10,000ft)
- Free fall or drop ISO 4180-s, NISTA 1A
- Vibration IEC 68-2-6/34
- Shock or bump IEC 68-2-27/29

Supported Transceivers

The 9012QQ-2 Module supports the following Transceivers based on the QSFP+ specification:

- 40GBASE-SR4/4x10GBASE-SR QSFP+ Transceiver, up to 150m over MMF (MPO Connector).

¹ Planning assumption.

- 40GBASE-LR4 QSFP+ Transceiver, up to 400m over SMF (LC Connector).
- 40GBASE-QSFP+ Direct Attach Cable (DAC), fitted with fixed QSFP+ connectors, 1m.
- 40GBASE-QSFP+ Direct Attach Cable (DAC), fitted with fixed QSFP+ connectors, 3m.
- 40GBASE-QSFP+ Direct Attach Cable (DAC), fitted with fixed QSFP+ connectors, 5m.

Warranty & Support

The 9012QQ-2 Module is covered by the standard 12 months warranty for Enterprise modular hardware, with the first 3 months managed via Stocking Distributors. Further support arrangements are available directly from Avaya or through an Avaya Authorized Business Partner.

The Virtual Service Platform 9000 Series and all hardware elements are subject to the Avaya life cycle management process that ensures full support during the General Availability (GA) cycle, and then provides a 6-year window for support once elements have transitioned to the End of Sales (EoS) retirement phase.

Product Availability

The 9012QQ-2 Module is currently pre-GA, with general availability forecast for 2015.²

More Information

For further information about the Avaya Virtual Services Platform 9000 Series please visit www.avaya.com/ products, and for the complete Avaya Networking portfolio, www.avaya.com/networking.

²Disclaimer: The information contained herein is provided for informational purposes only and is merely intended to outline Avaya's presently anticipated general technology direction. Information regarding potential future Avaya products is not a commitment or an obligation to deliver any product, product feature, or software functionality and Avaya reserves the right to make changes to the content and timing of any product, product feature, or software release.

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About Avaya

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