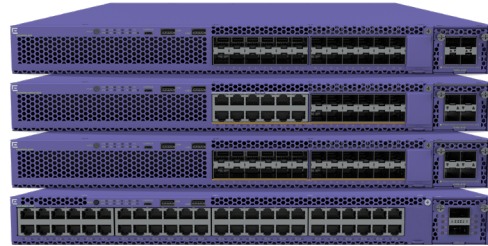


### Highlights

- Fixed-form switch for virtualized branch and network edge applications
- Leverages Extreme Fabric Connect to simplify the network, while helping segment traffic to meet regulatory/security needs
- Native Fabric Extend support enables transparent extension of Fabric Connect services over 3rd-party networks
- Multiple models supporting 1GbE 30W PoE, 1Gb/10GbE SFP/SFP+ fiber and 1/2.5/5/10GbE multi-rate 60W PoE access ports
- Flexible 10Gb/25Gb/40Gb inter-switch or uplinks via optional VIM modules
- Compact 1U form factor
- Non-blocking, wire-speed switching architecture
- Extreme Insight Architecture on selected models to support VM-based third-party applications
- MACsec on 10/100/1000 and 10Gb access ports as well as modular uplink ports for secure link encryption
- Hot-swappable, redundant power supplies and fans
- Supports both Fabric Connect and/or conventional Routed IP networking deployments



## Virtual Services Platform 4900 Series

### Enhance Your Network with an Extreme Fabric Connect Edge/Aggregation Device

The Virtual Services Platform (VSP) 4900 Series is the next generation of Extreme Fabric Connect fixed-form factor switches designed for network edge and aggregation deployments. Providing high-performance, resilient and secure Gigabit/multi-Gigabit Ethernet connectivity, the VSP 4900 enables end-to-end fabric services from network edge to aggregation to core, along with transparent extension of fabric services to the branch. Its advanced capabilities enable full-featured network virtualization to be flexibly deployed across a range of network environments.

The VSP 4900 Series is available in four model variants to address a range of campus, remote site and/or multi-service needs.

- **VSP4900-48P:** 48 x 10/100/1000MbE with 30W PoE+ and MACsec-capable ports
- **VSP4900-24S:** 24 x 1G SFP ports
- **VSP4900-24XE:** 24 x 1/10GbE SFP+ MACsec (256-bit) capable ports
- **VSP4900-12MXU-12XE:** 12 x 100M/1G/2.5G/5G/10GbE ports with 60W PoE, plus 12 x 1/10GbE SFP+ MACsec (256-bit) capable ports

All models above also support modular uplinks – at 10Gb, 25Gb and 40Gb – for flexible linkage to other switches or devices over a range of media.



#### Built to Suit Your Business Needs

**Extreme Elements** are the building blocks that allow you to tailor your network to your specific business environment, goals, and objectives. They enable the creation of an Autonomous Network that delivers the positive experiences and business outcomes most important to your organization.

Combining architecture, automation, and artificial intelligence, Extreme Elements enable you to ensure that your users get what they need – when and where they need it. Providing these superior user experiences is as simple as mixing and matching the right elements.

Learn more at [extremenetworks.com/elements](http://extremenetworks.com/elements).



## Extreme Fabric Connect

The VSP 4900 natively supports the Extreme Fabric Connect technology. Based on an extended implementation of the Shortest Path Bridging (SPB) standards of IEEE 802.1aq and IETF RFC 6329, Fabric Connect offers the ability to create a virtualized network that simplifies network provisioning and reduces the strain on network and IT personnel.

Fabric Connect features supported on the VSP 4900 Series include: L2 Virtual Service Networks (VSNs), Layer 3 Virtual Service Networks, Inter-VSN Routing, IPv4/ IPv6 IP Shortcuts, IP Multicast over Fabric Connect, Fabric Extend and Fabric Attach Server.

## Fabric Extend

The VSP 4900 also natively supports Fabric Extend that enables it to extend Fabric Connect services over an intermediate 3rd-party network -- whether Layer 2 or Layer 3-based. With Fabric Extend, enterprises can, for example, connect two Fabric Connect environments (or islands) over a Service Provider WAN, such as MPLS or Ethernet WAN. Fabric Connect simplified provisioning and virtualization services can then be transparently extended across the 3rd-party network.

## Advanced Layer 3 Services

The VSP 4900 Series also supports advanced Layer 3 services that enable it to satisfy conventional IP routing deployments, in addition to its fabric-based services. Layer 3 services include IPv4 and IPv6 dynamic routing, as well as IP multicast services.

Specific IP routing technologies supported include RIPv1/2, RIPng, OSPFv2/v3, BGP/ BGP+ and VRF. Multicast services include PIM-SM/ SSM, IGMP v1/v2/v3, as well as Fabric Connect to PIM gateway. The VSP 4900 also supports Distributed Virtual Routing (DVR) leaf services.

## Power Over Ethernet

VSP 4900-48P and VSP 4900-12MXU-12XE models offer Power over Ethernet (PoE) to address the needs of powered edge devices. The VSP 4900-48P supports IEEE 802.3at (30W) PoE on its 48 x 1Gb ports; and the VSP 4900-12MXU-12XE supports IEEE 802.3bt (60W) PoE on its 12 multi-rate ports. Both VSP 4900 models also support fast PoE and perpetual PoE capabilities for faster start-up and more continuous operation of connected, PoE-powered end-points.

## Extreme Insight Architecture

Extreme's Insight Architecture leverages an innovative combination of VSP 4900 Series operating software and hardware features to provide extended services without impact to switching or network performance. Available on VSP4900-12MXU-12XE and VSP4900-24XE models, this flexible and open solution enables organizations to run a Guest VM on the VSP 4900 system. Organizations can then use the Guest VM to deploy their choice of Extreme-provided or third-party application/tools for real-time visibility or to meet specific business or operational needs across the network. This can help improve network visibility and performance, while reducing operational costs.

## MACsec Link Encryption

The VSP 4900 supports IEEE 802.1AE MACsec on its access ports, as well as on its modular uplink ports. MACsec is a hop-by-hop security capability which encrypts/ decrypts packets between connected switches or devices. As a link-only encryption, the switches can still apply services to the packet, such as policy or QoS, without compromising the security of packets across the link. With support for both 128-bit and 256-bit Advanced Encryption Standard (AES) support, the VSP 4900 provides the most secure link encryption.

## VIM Options for Flexible Uplinks

The VSP 4900 supports Versatile Interface Modules (VIM) for its uplink ports and has a single VIM slot that can be optionally used for this purpose. VIM options include 2 and 4-port modules that support 10Gb, 25Gb and 40Gb data rates.

## Management

The VSP 4900 can be managed in a variety of ways. Simple on-box management functions are delivered by a web-based GUI and a generic CLI is available for manual configuration.

ExtremeCloud™ IQ along with Extreme Management Center (XMC) also provide a comprehensive unified management capability with a consolidated view of users, devices and applications for both wired and wireless networks. Remote provisioning lets one quickly bring new VSP 4900 switches online and a granular view of devices ports and users enables efficient inventory and network topology management.

# Product Specifications

## Performance and Scale

Switch Model	Max Active 10/100/1000Mb Ports	Max Active 100M/1Gb/2.5Gb/5Gb/10Gb Ports	Max Active 100M/1Gb SFP ports	Max Active 1/10Gb SFP+ ports	Max Active 10/ 25Gb SPF28 ports	Max Active 40Gb QSFP+ ports*	Aggregated Switch Bandwidth	Frame Forwarding Rate
VSP4900-48P	48	0	0	4	2	1	196 Gbps	145.8 Mpps
VSP4900-24S	0	0	24	4	2	1	148 Gbps	110.1 Mpps
VSP4900-24XE	0	0	0	28	4	2	680 Gbps	505.9 Mpps
VSP4900-12MXU-12XE	n/a	12	0	16	4	2	680 Gbps	505.9 Mpps

\* 40Gb ports on the VIM5 module can also be broken out individually into 4 x 10Gb ports.

## External Ports/Slots

Part Number	Max Active 10/100/1000Mb Ports
<b>Switches</b>	
VSP4900-48P	48 x 10/100/1000BASE-T 802.3at (30w) ports <ul style="list-style-type: none"> <li>• Full / Half-Duplex</li> <li>• MACsec capable (128-bit)</li> </ul> 1 x Serial (console port RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 1 x USB Micro-B management port 2 x USB A ports for external USB flash 1 VIM5 slot
VSP4900-24S	24 x 100/1000BASE-X SFP ports (unpopulated) 1 x Serial (console port RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 1 x USB Micro-B management port 2 x USB A ports for external USB flash 1 VIM5 slot
VSP4900-24XE	24 x 1/10GBASE-X SFP+ ports (unpopulated) <ul style="list-style-type: none"> <li>• LRM and MACsec capable (256-bit)</li> </ul> 1 x Serial (console port RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 1 x USB Micro-B management port 2 x USB A ports for external USB flash 1 VIM5 slot
VSP4900-12MXU-12XE	12 x 1/2.5/5/10GBASE-T 802.3bt Type3 (60w) ports 12 x 1/10GBASE-X SFP+ ports (unpopulated) <ul style="list-style-type: none"> <li>• MACsec capable (256-bit)</li> </ul> 1 x Serial (console port RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 1 x USB Micro-B management port 2 x USB A ports for external USB flash 1 VIM5 slot
<b>VIM Modules</b>	
VIM5-4X	4 x 1/10GBASE-X SFP+ (unpopulated ports)
VIM5-4XE	4 x 1/10GBASE-X SFP+ (unpopulated ports) <ul style="list-style-type: none"> <li>• LRM capable</li> <li>• MACsec capable (256-bit)</li> </ul>
VIM5-2Y	2 x 10/25GBASE-X SFP28 (unpopulated ports)
VIM5-4Y	4 x 10/25GBASE-X SFP28 (unpopulated ports)
VIM5-4YE	4 x 10/25GBASE-X SFP28 (unpopulated ports) <ul style="list-style-type: none"> <li>• MACsec capable (256-bit)</li> </ul>
VIM5-2Q	2 x 40GBASE-X QSFP+ (unpopulated ports)

## Weights and Dimensions

Part Number	Weight	Physical Dimensions
<b>Switch</b>		
VSP4900-48P	18.49 lb / 8.39 Kg	17.34 in W / 1.7 in H / 19.23 in D 440mm / 43.6mm / 488mm
VSP4900-24S	18.01 lb / 8.17 kg	
VSP4900-24XE	16.89 lb / 7.66 kg	
VSP4900-12MXU-12XE	16.67 lb / 7.58 kg	
<b>VIM Modules</b>		
VIM5-4X	0.37 lb / 0.17 kg	1.92 in W / 1.61 in H / 5.76 in D 48.8mm / 40.8mm / 146.3mm
VIM5-4XE	0.41 lb / 0.19 kg	
VIM5-2Y	0.38 lb / 0.17 kg	
VIM5-4Y	0.43 lb / 0.19 kg	
VIM5-4YE	0.43 lb / 0.19 kg	
VIM5-2Q	0.37 lb / 0.17 kg	
<b>Power Supplies</b>		
10953 (350W)	2.38 lb / 1.08 kg	3.25 in W / 1.56 in H / 11.3 in D 40mm / 82.5mm / 287mm
10951 (715W)	2.55 lb / 1.16 kg	3.25 in W / 1.56 in H / 1.3 in D 40mm / 82.5mm / 287mm
10941 (1100W)	2.55 lb / 1.16 kg	3.25 in W / 1.56 in H / 11.3 in D 40mm / 82.5mm / 287mm
XN-ACPWR-2000W-F (2000W AC)	2.56 lb / 1.16 kg	3.25 in W / 1.56 in H / 11.5 in D 40mm / 82.5mm / 287mm

## Power Supply Unit Specifications

	350W AC PSU	715W AC PSU	1100W AC PSU	2000W AC PSU
Voltage Input Range (nominal)	100-127 / 200-240VAC	100-127 / 200-240VAC	100-127 / 200-240VAC	100-127 / 200-240VAC
Line Frequency Range	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz
Power Supply Input Socket	IEC/EN 60320 C14	IEC/EN 60320 C16	IEC/EN 60320 C16	IEC/EN 60320 C16
Power Cord Input Plug	IEC/EN 60320 C13	IEC/EN 60320 C15	IEC/EN 60320 C15	IEC/EN 60320 C15
Operating Temperature	0° to 50° C normal operation	0° to 50° C normal operation	0° to 50° C normal operation	0° to 45° C normal operation

## PoE Power Budget

Switch Model	1 x 715W PSU	2 x 715W PSU	1 x 1100W PSU	2 x 1100W PSU	1 x 2000W @ 200-240VAC	1 x 2000W @ 100-120VAC	2 x 2000 @ 200-240VAC	2x 2000W @ 100-120VAC
VSP4900-48P	460W	1045W	845W	1440W	1440W	845W	1440W	1440W
VSP4900-12MXU-12XE	TBD	720W	720W	720W	720W	720W	720W	720W

## Minimum/Maximum Power Consumption and Heat Dissipation

Switch Model	Minimum Power Consumption (Watts)	Minimum Heat Dissipation (BTU/hr)	Maximum Power Consumption (Watts)*	Maximum Heat Dissipation (BTU/hr)**
VSP4900-48P	74	254	1746	1046
VSP4900-24S	52	179	173	590
VSP4900-24XE	80	271	207	707
VSP4900-12MXU-12XE	73	250	970	854

\* Includes maximum PoE load (W) through the switch

\*\* Does not include PoR load heat dissipated through external electronic load

## Performance and Scale

### Memory

#### VSP4900-48P and VSP4900-24S

- 2GB DRAM / 8GB eMMC NVRAM

#### VSP4900-12MXU-12XE and VSP4900-24XE

- 8GB DRAM / 8GB eMMC NVRAM

### Layer 2

- MAC Address: up to 80,000
- Port-based VLANs: 4,059
- MSTP Instances: 12
- LACP Links per Group: 8 Active

### Layer 3 IPv4 Routing Services

- ARP Entries: up to 32,000
- IP Routes: up to 15,488
- RIP Interfaces: 200
- OSPF Interfaces: 500
- BGP Peers: 256
- VRF Instances: up to 256
- Layer 3 IPv6 Routing Services
- Neighbors: up to 8,000
- IP Routes: up to 7,744
- RIPng Interfaces: 48
- OSPFv3 Interfaces: 500
- BGPv6 Peers: 256
- VRF Instances: up to 256

### Multicast

- IGMP Interfaces: 4,059
- PIM Active Interfaces: 128
- MLD Interfaces: 4,059
- IP Multicast Streams: 6,000

### Fabric Connect

- MAC Address: 40,000
- NNI Interfaces/Adjacencies: up to 255
- BEB Nodes per VSN: 500
- BCB/ BEB Nodes per Region: 550
- L2 Virtual Service Networks: 4,059
- L3 Virtual Service Networks: up to 256
- IP Shortcut Routes: IPv4 up to 15,488 and IPv6 7,488
- L2 Multicast Virtual Service Networks: 2,000
- L3 Multicast Virtual Service Networks: 256
- Maximum SGVs: 6,000

### QoS and Filtering

- IPv4 ACE: 1536 (1024 Security + 512 QoS) Ingress and 248 Egress
- IPv6 ACE: 1024 Ingress and 256 Egress
- QoS priority queues- 8

### Operations and Management

- Mirrored Ports: 49
- sFlow: up to 3100 samples per second
- Fabric RSPAN: 1,000 VLAN IDs

### Environmental

#### Environmental Specifications

EN/ETSI 300 019-2-1 v2.1.2 - Class 1.2 Storage

EN/ETSI 300 019-2-2 v2.1.2 - Class 2.3 Transportation

EN/ETSI 300 019-2-3 v2.1.2 - Class 3.1e Operational

EN/ETSI 300 753 (1997-10) - Acoustic Noise

ASTM D3580 Random Vibration Unpackaged 1.5G

### Environmental Compliance

EU RoHS 2011/65/EU

EU WEEE 2012/19/EU

China RoHS SJ/T 11363-2006

Taiwan RoHS CNS 15663(2013.7)

### Operating Conditions

Temp: 0° C to 45° C (32° F to 113° F)

Humidity: 10% to 95% relative humidity, non-condensing

Altitude: 0 to 3,000 meters (9,850 feet)

Shock (half sine) 30m/s<sup>2</sup> (3G), 11ms, 60 shocks

Random vibration: 3 to 500 Hz at 1.5 G rms

### Packaging and Storage Specifications

Temp: -40° C to 70° C (-40° F to 158° F)

Humidity: 10% to 95% relative humidity, non-condensing

Packaged Shock (half sine): 180 m/s<sup>2</sup> (18 G), 6 ms, 600 shocks

Packaged Vibration: 5 to 62 Hz at velocity 5 mm/s, 62 to 500 Hz at 0.2 G

Packaged Random Vibration: 5 to 20 Hz at 1.0 ASD w/-3 dB/oct. from 20 to 200 Hz

Packaged Drop Height: 14 drops minimum on sides and corners at 42 inches (<15 kg box)

### Regulatory and Safety

#### North American ITE

UL 60950-1

UL 62368-1

Complies with FCC 21CFR 1040.10 (U.S. Laser Safety)

CDRH Letter of Approval (US FDA Approval)

CAN/CSA 22.2 No. 60950-1

CAN/CSA No. 22.2 62368-1-14

#### European ITE

EN 60950-1, EN 62368-1

EN 60825-1 Class 1 (Lasers Safety)

2014 / 35/ EU Low Voltage Directive

#### International ITE

CB Report & Certificate per IEC 60950-1 AS/NZS 60950-1 (Australia /New Zealand)

IEC 62368-1

GB 4943.1-2011

CNS 14336-1

### EMI/EMC Standards

#### North American EMC for ITE

FCC CFR 47 part 15 Class A (USA)

ICES-003 Class A (Canada)

#### European EMC Standards

EN 55032 Class A

EN 55024

EN 61000-3-2,2014 (Harmonics)

EN 61000-3-3 2013 (Flicker)

EN 300 386 v1.6.1 (EMC Telecommunications)

2014/30/EU EMC Directive

EN 55011 Class A

### International EMC Certifications

CISPR 32, Class A (International Emissions)

AS/NZS CISPR32

CISPR 24 Class A (International Immunity)

IEC 61000-4-2 / EN 61000-4-2 Electrostatic Discharge, 8kV Contact, 15 kV Air, Criteria A

IEC 61000-4-3 / EN 61000-4-3 Radiated Immunity 10V/m, Criteria A

IEC 61000-4-4 / EN 61000-4-4 Transient Burst, 1 kV, Criteria A

IEC 61000-4-5 / EN 61000-4-5 Surge, 2 kV L-L, 2 kV L-G, Level 3, Criteria A

IEC 61000-4-6 Conducted Immunity, 0.15-80 MHz, 10V/m unmod. RMS, Criteria A

IEC/EN 61000-4-11 Power Dips & Interruptions, >30%, 25 periods, Criteria C

IEC 61000-4-8 / EN 61000-4-8

CISPR 11 Class A

GB/T 9254-2008

### Country Specific

VCCI Class A (Japan Emissions)

ACMA RCM (Australia Emissions)

CCC Mark (China)

KCC Mark, EMC Approval (Korea)

EAC Mark (Custom Union)

NRCS / SABS Mark (South Africa)

BSMI Mark (Taiwan)

### Telecom Standards

CE 2.0 Compliant

### IEEE 802.3 Media Access Standards

IEEE 802.3ab 1000BASE-T

IEEE 802.3ae 10GBASE-X

IEEE 802.3aq 10GBASE-LRM

25Gb Ethernet implemented per Ethernet Consortium specification and IEEE 802.3 standard

IEEE 802.3ba / 802.3bm 40GBASE-X

IEEE 802.3at PoE Plus

IEEE 802.3az Energy Efficient Ethernet

## Ordering Notes

Many VSP 4900 Series systems are ordered and shipped as a bundled offering. The bundle includes the base VSP 4900 system along with a single Power Supply, Fan Modules and the VOSS operating system. (Note: "Unbundled" VSP 4900 systems without a PSU can also be ordered.) With all VSP 4900 systems, the VIM5 modules, additional power supply, power cords, transceiver/optics and optional Premier Software Licenses must be separately ordered.

## Base Software and Licensing

VSP 4900 Series hardware models come with base software that provide most features available on the switch. Certain features, however, require a Premium Software license in order to operate. These include:

- Layer 3 Virtual Services Networks (L3 VSNs)
- 17 or more BGP peers
- 25 or more VRFs
- MACsec support
- Insight Architecture\*

\* Insight Architecture supported on VSP4900-24XE and VSP4900-12MXU-12XE models only.

# Ordering Information

Part Number	Product Name	Product Description
<b>VSP 4900 Systems</b>		
VSP4900-48P	VSP4900-48P	VSP 4900 System with 48 x 10/100/1000Base-T full/half duplex 802.3at PoE (30W) MACsec-capable ports, includes 3 fan modules, 1 unpopulated VIM5 slot, 4 post rack mount kit, VOSS operating system (PSU must be ordered separately)
VSP4900-48P-B1	VSP4900-48P with 1100W PSU Bundle	VSP 4900 System with 48 x 10/100/1000Base-T full/half duplex 802.3at PoE (30W) MACsec-capable ports, includes 3 fan modules, 1 unpopulated VIM5 slot, 1 x 1100W PSU FB (10941), 4 post rack mount kit, VOSS operating system
VSP4900-48P-B1-4X	VSP4900-48P, VIM5-4X Bundle	VSP 4900 System with 48 x 10/100/1000Base-T full/half duplex 802.3at PoE (30W) MACsec-capable ports, includes 3 fan modules, 1 VIM5-4X module, 1 x 1100W PSU FB (10941), 4 post rack mount kit, VOSS operating system
VSP4900-48P-B1-4XE	VSP4900-48P, VIM5-4XE Bundle	VSP 4900 System with 48 x 10/100/1000Base-T full/half duplex 802.3at PoE (30W) MACsec-capable ports, includes 3 fan modules, 1 VIM5-4XE module, 1 x 1100W PSU FB (10941), 4 post rack mount kit, VOSS operating system
VSP4900-48P-B1-2Y	VSP4900-48P, VIM5-2Y Bundle	VSP 4900 System with 48 x 10/100/1000Base-T full/half duplex 802.3at PoE (30W) MACsec-capable ports, includes 3 fan modules, 1 VIM5-2Y module, 1 x 1100W PSU FB (10941), 4 post rack mount kit, VOSS operating system
VSP4900-24S	VSP4900-24S	VSP 4900 System with 24 x 100/1000BASE-X ports, includes 3 fan modules, 4 post rack mount kit, VOSS operating system (PSU must be ordered separately)
VSP4900-24S-B3	VSP4900-24S with 350W PSU Bundle	VSP 4900 System with 24 x 100/1000BASE-X ports, includes 3 fan modules, 1 x 350W PSU (10953), 4 post rack mount kit, VOSS operating system
VSP4900-24XE	VSP4900-24XE	VSP 4900 System with 24 x 1/10GBASE-X SFP+ MACsec and LRM-capable ports, includes 2 fan modules, 1 unpopulated VIM5 slot, 4 post rack mount kit, VOSS operating system (PSU must be ordered separately)
VSP4900-24XE-B3	VSP4900-24XE with 350W PSU Bundle	VSP 4900 System with 24 x 1/10GBASE-X SFP+ MACsec and LRM-capable ports, includes 2 fan modules, 1 unpopulated VIM5 slot, 1 x 350W PSU (10953), 4 post rack mount kit, VOSS operating system
VSP4900-12MXU-12XE	VSP4900-12MXU-12XE	VSP 4900 System with 12 x 1/2.5/5/10G0GBASE-T 802.3bt PoE (60W) ports and 12 x 1/10GBASE-X SFP+ MACsec-capable ports, includes 3 fan modules, 1 unpopulated VIM5 slot, 4 post rack mount kit, VOSS operating system (PSU must be ordered separately)
VSP4900-12MXU-12XE-B1	VSP4900-12MXU-12XE with 1100W PSU Bundle	VSP 4900 System with 12 x 1/2.5/5/10G0GBASE-T 802.3bt PoE (60W) ports and 12 x 1/10GBASE-X SFP+ MACsec-capable ports, includes 3 fan modules, 1 unpopulated VIM5 slot, 1 x 1100W PSU FB (10941), 4 post rack mount kit, VOSS operating system
<b>VIM Modules</b>		
VIM5-4X	VIM5-4X	4 x 1G/10G SFP+ VIM supported on VSP 4900
VIM5-4XE	VIM5-4XE	4 x 1G/10G SFP+ LRM and MACsec capable VIM supported on VSP 4900
VIM5-2Y <sup>1,3</sup>	VIM5-2Y	2 x 10G/25G SFP28 VIM supported on VSP 4900
VIM5-4Y <sup>1,3</sup>	VIM-4Y	4 x 10G/25G SFP28 VIM supported on VSP 4900
VIM5-4YE <sup>1,3</sup>	VIM5-4YE	4 x 10G/25G SFP28 MACsec capable VIM supported on VSP 4900
VIM5-2Q <sup>2</sup>	VIM5-2Q	2 x 10G/40G QSFP VIM supported on VSP 4900
<b>Software Licenses</b>		
VSP-PRMR-L-LIC-P	Premier License for VSP 4900	VSP 4900 Premier Software License: Enables L3 VSNs, > 16 BGP peers, > 24 VRFs and Insight Architecture <sup>4</sup>
VSP-PRMR-LE-LIC-P	Premier License with MACsec for VSP 4900	VSP 4900 Premier Software License with MACsec; Enables LVSNS, > 16 BGP peers, > 24 VRFs and Insight Architecture <sup>4</sup>
<b>Accessories</b>		
10953	350W AC PSU	350W PSU for VSP 4900
10951	715W AC PSU	715W PSU for VSP 4900, also used on X465, X450-G2 and X460-G2
10941	1100 W AC PSU	1100W PSU for VSP 4900, also used on X465, X450-G2 and X460-G2
XN-ACPWR-2000W-F	2000W AC PS FB	2000W PSU for VSP 4900 also used on X465
XN-FAN-002-F	Spare Fan Module	Spare Fan module for VSP 4900

<sup>1</sup>VSP 4900-48P and VSP 4900-24S limited to 2 x 25GbE ports on VIM5-4Y and VIM5-4YE modules

<sup>2</sup> VSP 4900-48P and VSP 4900-24S limited to 1 x 40GbE port on VIM5-2Q module

<sup>3</sup> See Table on last page for 25Gb transceivers supported on VIM-2Y, VIM-4Y and VIM-4YE modules

<sup>4</sup> Insight Architecture supported on VSP4900-24XE and VSP4900-12MXU-12XE models only.

## Ordering Information (cont.)

Part Number	Product Name	Product Description
<b>Accessories (cont.)</b>		
XN-SSD-001-120	120GB SSD module	120GB Solid-State Drive (SSD) module for use with Extreme insight Architecture on the VSP 4900 Series
XN-4P-RKMT-001	Spare Four-Post Rack Mount Kit	Spare Four Post Rack Mount Kit for VSP 4900
XN-2P-RMKIT-001	Optional Two Post Rack Mount Kit	Optional Two Post Rack Mount Kit for VSP 4900
<b>40Gb Optical Transceivers and Direct Attach Cables</b>		
10319 or AA1404005-E6	40Gb SR4 QSFP+ module	40Gb QSFP+ SR4 optical module, MPO connector (8 fiber), 100m MMF OM3, 140m MMF OM4
10320 or AA1404001-E6	40Gb LR4 QSFP+ module	40Gb QSFP+ LR4 optical module, LC, 10km SMF
10334 or AA1404002-E6	40Gb LM4 MMF QSFP+ module	40Gb QSFP+ LM4, 140m OM3 MMF, 1km SMF, QSFP+, LC
10335 or AA1404003-E6	40Gb ER4 QSFP+ module	40Gb QSFP+ ER4, 40km SMF, QSFP+, LC
40GB-ESR4-QSFP or AA1404006-E6	40Gb ESR4 QSFP+ module	40Gb QSFP+ Extended Reach SR4, MMF, 300m OM3, 400m OM4 MMF
10326	40Gb PSM QSFP+ module	40Gb QSFP+ Parallel Single Mode (PSM) LR4, MPO connector (8 fiber), SMF, 10km
10329	40Gb BiDi MMF QSFP+	40Gb QSFP+ Bidirectional MMF, 100m, OM3, LC
10311 or AA1404037-E6	QSFP+ passive copper cable, 0.5M	40 Gigabit Ethernet QSFP+ passive copper cable assembly, 0.5m length
10312 or AA1404029-E6	QSFP+ passive copper cable, 1.0M	40 Gigabit Ethernet QSFP+ passive copper cable assembly, 1m length
AA1404030-06	QSFP+ passive copper cable, 2.0M	40 Gigabit Ethernet QSFP+ passive copper cable assembly, 2m length
10313 or AA1404031-E6	QSFP+ passive copper cable, 3.0M	40 Gigabit Ethernet QSFP+ passive copper cable assembly, 3m length
10323 or AA1404032-E6	QSFP+ passive copper cable, 5.0M	40 Gigabit Ethernet QSFP+ passive copper cable assembly, 5m length
10315 or AA1404028-E6	10m QSFP+ Active Optical Cable	40 Gigabit Ethernet QSFP+ active optical cable assembly, 10m length
10316	20m QSFP+ Active Optical Cable	40 Gigabit Ethernet QSFP+ active optical cable assembly, 20m length
10202 or AA1404033-E6	QSFP+ - 4xSFP+ fan-out cbl, 1m	QSFP+ to 4 x SFP+ fan-out copper cable, 1m
10321 or AA1404035-E6	QSFP+ - 4xSFP+ fan-out cbl, 3m	QSFP+ to 4 x SFP+ fan-out copper cable, 3m
10322 or AA1404036-E6	QSFP+ - 4xSFP+ fan-out cbl, 5m	QSFP+ to 4 x SFP+ fan-out copper cable, 5m
10GB-4-F10-QSFP or 1404041-E6	QSFP+ - 4xSFP+ fan-out cbl, 10m	QSFP+ to 4 x SFP+ fan-out copper cable, 10m
10GB-4-F20-QSFP	QSFP+ - 4xSFP+ fan-out cbl, 20m	QSFP+ to 4 x SFP+ fan-out copper cable, 20m
<b>25Gb Optical Transceivers</b>		
10501	25Gb SFP28 SR MMF	25Gb, 25GBASE-SR, 70m OM3/ 100m OM4 MMF, SFP28, duplex LC
10502	25Gb SFP28 SR-Lite MMF	25Gb, 25GBASE-SR-Lite, 30m/ 50m/ 70m OM3, 40m/ 70m/ 100m OM4 (no FEC/ BASE-R/ RS FEC), SFP28, Duplex LC
10503	25Gb SFP28 ESR MMF	25Gb, Extended SR (ESR), 200m OM3/400m OM4 MMF, SFP28, duplex LC
10504	25Gb SFP28 LR 10km	25Gb, 25GBASE-LR, 10km SMF, SFP28, LC



## Ordering Information (cont.)

Part Number	Product Name	Product Description
<b>25Gb Optical Transceivers (cont.)</b>		
10520	25Gb, DAC SFP28-SFP28 1m	25Gb, SFP28-SFP28 Direct attach passive copper cable, 1m
10521	25Gb, DAC SFP28-SFP28 3m	25Gb, SFP28-SFP28 Direct attach passive copper cable, 3m
10522	25Gb, DAC SFP28-SFP28 5m	25Gb, SFP28-SFP28 Direct attach passive copper cable, 5m
10530	25Gb AOC SFP28-SFP28 10m	25Gb, SFP28-SFP28 Active optical cable, 10m
10531	25Gb AOC SFP28-SFP28 20m	25Gb, SFP28-SFP28 Active optical cable, 20m
10421	SFP28 to QSFP28 breakout, 1m	4x25Gb SFP28 to 1x100Gb QSFP28 Direct attach passive copper breakout, 1m
10423	SFP28 to QSFP28 breakout, 3m	4x25Gb SFP28 to 1x100Gb QSFP28 Direct attach passive copper breakout, 3m
10424	SFP28 to QSFP28 breakout, 5m	4x25Gb SFP28 to 1x100Gb QSFP28 Direct attach passive copper breakout, 5m
<b>10Gb Transceivers and Direct Attach Cables</b>		
10301 or AA1403015-E6	SR SFP+ module	10GBASE-SR SFP+, 850nm, LC, 300m OM3 MMF, 400m OM4 MMF
10302 or AA1403011-E6	LR SFP+ module	10GBASE-LR SFP+, 1310nm, LC, 10km SMF
10303 or AA1403017-E6	LRM SFP+ module	LRM SFP+ Gigabit Ethernet SFP+ module, 1310nm, MMF 220m link, LC connector
10309 or AA1403013-E6	10GBASE-ER SFP+	10GBASE-ER SFP+, 1550nm, LC connector, transmission length of up to 40km on SMF
10310 or AA1403016-E6	10GBASE-ZR SFP+	10Gb, 10GBASE-ZR, SMF, 1550nm, up to 80Km, LC SFP+
AA1403169-E6	10Gb BX-TX	10GBASE-BX TX: 1270nm, up to 10km SMF
AA1403170-E6	10Gb BX-TX	10GBASE-BX TX: 1330nm, up to 10km SMF
10GB-BX10-U	10Gb, SINGLE FIBER SM, -U 10 KM	10Gb, Single Fiber SM, Bidirectional, 1270nm Tx / 1330nm RX, 10Km, Simplex LC SFP+ (must be paired with 10GB-BX10-D)
10GB-BX10-D	10Gb, SINGLE FIBER SM, -D 10 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1270nm RX, 10Km, Simplex LC SFP+ (must be paired with 10GB-BX10-U)
10GB-BX40-U	10Gb, SINGLE FIBER SM, -U 40 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1330nm RX, 40Km, Simplex LC SFP+ (must be paired with 10GB-BX40-D)
10GB-BX40-D	10Gb, SINGLE FIBER SM, -D 40 KM	10Gb, Single Fiber SM, Bidirectional, 1270nm Tx / 1270nm RX, 40Km, Simplex LC SFP+ (must be paired with 10GB-BX40-U)
10GB-F10-SFPP	10Gb, ACTIVE OPTICAL DAC, 10 M	10Gb, Active optical direct attach cable with 2 integrated SFP+ transceivers, 10m
10GB-F20-SFPP	10Gb, ACTIVE OPTICAL DAC, 20 M	10Gb, Active optical direct attach cable with 2 integrated SFP+ transceivers, 20m
10304	10Gb SFP+ DAC, 1m	10Gb SFP+ direct attach cable, 1m
10305 or AA1403019-E6	10Gb SFP+ DAC, 3m	10Gb SFP+ direct attach cable, 3m
10306 or AA1403020-E6	10Gb SFP+ DAC, 5m	10Gb SFP+ direct attach cable, 5m
AA1403022-E6	10Gb SFP+ DAC, 7m	10Gb SFP+ direct attach cable, 7m
10307 or AA1403018-E6	10Gb SFP+ DAC, 10m	10Gb SFP+ direct attach cable, 10m
10338 or AA1403043-E6	10Gb SFP+ 10GBASE-T	10Gb SFP+, 10GBASE-T RJ45, 30m with Cat6a

## Ordering Information (cont.)

Part Number	Product Name	Product Description
<b>1 GB Transceivers</b>		
AA1419043-E6 <sup>5</sup>	1000BASE-T SFP (RJ-45)	1-port 1000BASE-T Small Form Pluggable (SFP), 8-pin modular connector (RJ-45)
AA1419048-E6	SFP 1000BASE-SX DDI (LC)	1-port 1000BASE-SX Small Form Factor Pluggable (SFP) connector type: LC
AA1419049-E6	SFP 1000BASE-LX DDI (LC)	1-port 1000BASE-LX Small Form Factor Pluggable (SFP) connector type: LC
AA1419069-E6	SFP 1000BASE-BX (LC) - 1310nm	1-port 1000BASE-BX Small Form Factor Pluggable (SFP) connector type: LC - 1310nm Wavelength. Must be paired with AA1419070 -E6
AA1419070-E6	SFP 1000BASE-BX (LC) - 1490nm	1-port 1000BASE-BX Small Form Factor Pluggable (SFP) connector type: LC - 1490nm Wavelength. Must be paired with AA1419069 -E6
10051H	1000BASE-SX SFP, Hi	1000BASE-SX SFP, MMF 220 & 550 meters, LC connector, Industrial Temp
10052H	1000BASE-LX SFP, Hi	1000BASE-LX SFP, MMF 220 & 550 meters, SMF 10km, LC connector, Industrial Temp
10053H <sup>5</sup>	1000BASE-ZX SFP, Hi	1000BASE-ZX SFP, SMF 70km, LC connector, Industrial Temp
MGBIC-BX40-U	1000BASE-BX-U BiDi SFP 40Km	1000BASE-BX-U SFP, single fiber, 1310-nm TX/1490-nm RX wavelength, 40Km Industrial Temp
MGBIC-BX40-D	1000BASE-BX-D BiDi SFP 40Km	1000BASE-BX-D SFP, single fiber, 1490-nm TX/1310-nm RX wavelength, 40Km Industrial Temp
MGBIC-BX120-U	1000BASE-BX-U BiDi SFP 120Km	1000BASE-BX-U SFP, single fiber, 1490-nm TX/1590-nm RX wavelength, 120Km Industrial Temp
MGBIC-BX120-D	1000BASE-BX-D BiDi SFP 120Km	1000BASE-BX-U SFP, single fiber, 1590-nm TX/1490-nm RX wavelength, 120Km Industrial Temp
<b>100M Transceivers</b>		
10063	100BASE-FX SFP (1G elec)	100BASE-FX SFP module, MMF 2km, LC-connector for Fast Ethernet SFP Port, 1G electrical data rate

<sup>5</sup>AA1419043-E6 and 10053H are not supported on the VIM5-4X module.

## Supported 25 Gb Transceivers

VIM Part Number	25Gb Supported Transceivers
VIM-2Y	10502*, 10520
VIM-4Y	10502*, 10520
VIM-4YE	All

\* 10502 when used with VIM5-2Y/4Y modules supports 30M length with OM3; 40M length with OM4

## Warranty

VSP4900-48P and VSP4900-24S models are covered under Extreme's Limited Lifetime Warranty Express with express Advanced Hardware Replacement. VSP4900-12XE and VSP4900-12MXU-12XE models come with a 1-year hardware warranty. For warranty details, please visit:

<http://www.extremenetworks.com/support/policies>

## Power Cords

VSP 4900 power cords can be ordered separately but need to be specified at time of ordering.

## Maintenance Services

Extreme's maintenance and support services with 100% in-sourced engineering experts and over 90% first-person resolution ensure efficient operations of your business essential network. 24x7x365 phone support, advanced part replacement, and on-site support augment your staff with experienced resources that help you mitigate critical network issues fast. Visit [Extreme Maintenance Services](#) for more information.



<http://www.extremenetworks.com/contact>

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