

HOHUNET SERDESX PLATFORM

PERFORMANCE

High Performance Switching Hardware Platform

Version: V3.1

Release Date: 2025/11/24

Platform Overview

SerdesX platform a high-performance, high-density hardware switching platform that provides high-bandwidth network support for AI applications. SerdexX platform supports multiple port forms such as 100G/200G/400G/800G and can adapt to various network deployment requirements.

Key Features of the SerdesX Platform

- Rich network virtualization and intelligent lossless network features, support priority-based flow control (PFC), explicit congestion notification (ECN), MLAG (Multi-Chassis Link Aggregation) etc.
- Full set of Layer 2 and Layer 3 protocol.
- Intelligent Ethernet OAM Security feature set.

Performance of the SerdesX Platform

Table 1: Performance of SerdesX Platform

Type	Specification	Value
Ethernet Basic		
Jumbo Frame	Maximum jumbo frame size	9600
Unicast MAC	MAC address capacity	Default profile:122880
		IPv6 profile: 65536
		Layer3 profile: 65536
		MPLS profile: 131072
	MAC learning rate (SW)	> 4000pps
	MAC learning rate (HW)	> 10Gbps
	Blackhole MAC address capacity	128
Multicast MAC	MAC address capacity	Default profile: 2048
		IPv6 profile: 1024
		Layer3 profile: 1024
		MPLS profile: 2048

Table 1: Performance of SerdesX Platform (Continued)

Type	Specification	Value
Ethernet Basic		
VLAN	VLAN IDs	4094
	VLAN instances	4094
	VLANs to enable statistics	256
VLAN Mapping	Maximum mapping table	64
	Maximum rules number	3072
EVC	Maximum EVC number	4094
Link Aggregation (Static & LACP)	Maximum member number per group	No limitation
	Maximum Group Num	64
	Load balance key mode	Static/DIb/RR/Resilient/Self-healing
	Convergence time	< 50ms
VLAN Classification	Maximum rule number	4096
	Maximum group number	1
	Base MAC capacity	512
	Base IPv4 capacity	448
	Base IPv6 capacity	32
	Base protocol capacity	7
Ethernet Ring Protection		
STP	Convergence time	< 30s
RSTP	Convergence time	< 1s
MSTP	Instance number	64
	Convergence time	< 1s
ERPS	Domain number	16
	Ring number	1 Primary ring/domain
		2 Sub ring/domain
	Protection instance number per Ring	64
	Switchover time	< 50 ms

Table 1: Performance of SerdesX Platform (Continued)

Type	Specification	Value
Ethernet OAM		
CFM (802.1ag)	Maximum session number	1024
	Maximum domain number	8
	CCM interval types	7
	CCM minimum interval	3.3ms
	Maximum down MEP number	1024
	Maximum up MEP number	1024
	Maximum LMEP number	1024
IPv4 Unicast		
ARP	ARP capacity	Default profile: 16384
		IPv6 profile: 16384
		Layer3 profile: 20480
		MPLS profile: 16384
IPv4	FIB	Default profile: 61440
		IPv6 profile: 32768
		Layer3 profile: 61440
		MPLS profile: 61440
ECMP	ECMP group	240 (Share with IPv6)
PBR	Policy route map	64
	Policy based routing ACE	1024
OSPF	Maximum static neighbors	256
	Maximum summary address	2048
IPv4 Multicast		
IPMC	Multicast routing table	Default profile: 2048
		IPv6 profile: 1024
		Layer3 profile: 2048
		MPLS profile: 1024
	Multicast routing downstream interfaces	Default profile: 4096

Table 1: Performance of SerdesX Platform (Continued)

Type	Specification	Value
IPv4 Multicast		
IPMC	Multicast routing downstream interfaces	IPv6 profile: 2048
		Layer3 profile: 5120
		MPLS profile: 2048
IGMP Snooping	Maximum groups number	2048
	Maximum member number	N/A
MVR	Maximum group number	Default profile: 2048
		IPv6 profile: 1024
		Layer3 Profile: 2048
		MPLS profile: 1024
	Maximum member number	Default profile: 4096
		IPv6 profile: 2048
		Layer3 profile: 5120
		MPLS profile: 2048
IPv6 Unicast		
Host Route	NDP capacity	Default profile: 2048
		IPv6 profile: 8192
		Layer3 Profile: 2048
		MPLS profile: 2048
IPv6	FIBv6	Default profile: 4096
		IPv6 profile: 16384
		Layer3 Profile: 4096
		MPLS profile: 2048
	ECMP group	240 (share with IPv4)
IPv6 Multicast		
IPMC	Multicast routing table	Default profile: 256
		IPv6 profile: 512
		Layer3 Profile: 0
		MPLS profile: 1024

Table 1: Performance of SerdesX Platform (Continued)

Type	Specification	Value
IPv6 Multicast		
IPMC	Number of interfaces that support Multicast routing table	Default profile: 512
		IPv6 profile: 1024
		Layer3 Profile: 0
		MPLS profile: 2048
MVR V6	Maximum entry number	Default profile: 256
		IPv6 Profile: 512
		Layer3 Profile: 0
		MPLS profile: 0
	Maximum member number	Default profile: 512
		IPv6 profile: 1024
		Layer3 Profile: 0
		MPLS profile: 0
IP tunnel		
IP Tunnel	Tunnel peer capacity	8
QoS		
Per-port Queue Number	Unicast queue	10
	Multicast queue	10
	Monitor queue	10
Packet Buffer	System packet buffer capacity	128MByte
Granularity	Policer granularity	0~2M: 10K
		2M~100M: 40K
		100M~1G: 80K
		1G~2G: 120K
		2G~4G: 250K
	Queue shape granularity	4G~10G: 500K
	Port shape granularity	10k
Flow Entry	Ingress port QoS ipv4 flow entries	1532

Table 1: Performance of SerdesX Platform (Continued)

Type	Specification	Value
QoS		
Flow Entry	Ingress port QoS ipv6 flow entries	1532
	Ingress port qos flow statistics entries	511
ACL		
MAC ACL	Ingress Port ACL for MAC	Default Profile: 2877
		IPv6 Profile: 2877
		Layer3 Profile: 2880
		MPLS profile: 2880
	Ingress VLAN ACL for MAC	Default Profile: 2877
		IPv6 Profile: 2877
		Layer3 Profile: 2880
		MPLS profile: 2880
	Egress Port ACL for MAC	Default Profile: 1389
		IPv6 Profile: 1389
		Layer3 Profile: 1440
		MPLS profile: 1440
	Egress VLAN ACL for MAC	Default Profile: 1389
		IPv6 Profile: 1389
		Layer3 Profile: 1440
		MPLS profile: 1440
IPv4 ACL	Ingress port ACL for IPv4	Default Profile: 2877
		IPv6 Profile: 2877
		Layer3 Profile: 2880
		MPLS profile: 2880
	Ingress VLAN ACL for IPv4	Default Profile: 2877
		IPv6 Profile: 2877
		Layer3 Profile: 2880
		MPLS profile: 2880

Table 1: Performance of SerdesX Platform (Continued)

Type	Specification	Value
ACL		Default Profile: 1389
		IPv6 Profile: 1389
		Layer3 Profile: 1440
		MPLS profile: 1440
IPv4 ACL	Egress port ACL for IPv4	Default Profile: 1389
		IPv6 Profile: 1389
		Layer3 Profile: 1440
		MPLS profile: 1440
IPv6 ACL	Egress VLAN ACL for IPv4	Default Profile: 1389
		IPv6 Profile: 1389
		Layer3 Profile: 1440
		MPLS profile: 1440
IPv4 ACL	Ingress port ACL for IPv6	Default Profile: 2877
		IPv6 Profile: 2877
		Layer3 Profile: 2880
		MPLS profile: 2880
IPv6 ACL	Ingress VLAN ACL for IPv6	Default Profile: 2877
		IPv6 Profile: 2877
		Layer3 Profile: 2880
		MPLS profile: 2880
IPv4 ACL	Egress port ACL for IPv6	Default Profile: 1389
		IPv6 Profile: 1389
		Layer3 Profile: 1440
		MPLS profile: 1440
IPv6 ACL	Egress VLAN ACL for IPv6	Default Profile: 1389
		IPv6 Profile: 1389
		Layer3 Profile: 1440
		MPLS profile: 1440
ACL Flow Statistics	Ingress ACL flow statistics entries	Default Profile: 2877
		IPv6 Profile: 2877
		Layer3 Profile: 2880
		MPLS profile: 2880

Table 1: Performance of SerdesX Platform (Continued)

Type	Specification	Value
ACL		
ACL Flow Statistics	Egress ACL flow statistics entries	Default Profile: 1389
		IPv6 Profile: 1389
		Layer3 Profile: 1440
		MPLS profile: 1440
CoPP	CoPP rules	1500
	CoPP flow statistics entries	1500
UDF	UDF rules	512
	UDF flow stats entries	1024
Security		
IP Source Guard	IPv4 maximum rules number	2048
	IPv6 maximum rules number	64
802.1x Base MAC	Maximum entries	512
DHCP Snooping	Maximum bound entry	4096
IPFIX		
IPFIX	IPFIX member	4096
Reliability		
BFD	Maximum session number	Share 256
S-BFD	Maximum session number	Share 256
VRRP	Maximum group number	63
Smart Link	Maximum group number	16
	Maximum instance number	64
	Switchover time	<50ms
	Maximum group number	16
Monitor Link	Maximum up-link number per group	24
Data Center		
VARP	Virtual IP number per port	15
VXLAN	VXLAN tunnel	Default Profile: 16384

Table 1: Performance of SerdesX Platform (Continued)

Type	Specification	Value
Data Center		
VXLAN	VXLAN tunnel	IPv6 Profile: 16384
		Layer3 Profile: 16384
		MPLS profile: 4096
	VNI	Default Profile: 4092
		IPv6 Profile: 4092
		Layer3 Profile: 4092
		MPLS profile: 2000
		Default Profile: 2048
	VTEP peer	IPv6 Profile: 2048
		Layer3 Profile: 2048
		MPLS profile: 128

Product List Based on SerdesX Platform

Table 2: Product List Based on SerdesX Platform

Series	Model	Specification
S9500	S9532-EI	32*800G OSFP, 2U 4*Hot-swappable Fan Modules 2*Hot-swappable CRPS Modules
	S8564-EI	64*400G QSFP112, 2U 4*Hot-swappable Fan Modules 2*Hot-swappable CRPS Modules
S8500	S8532-EI	32*400G QSFP112 6*Hot-swappable Fan Modules 2*Hot-swappable CRPS Modules
	S8264-EI	64*200G QSFP56, 2U 6*Hot-swappable Fan Modules 2*Hot-swappable CRPS Modules
S8200	S8232-2N-EI	32*200G QSFP56, 2*25G SFP28 6*Hot-swappable Fan Modules 2*Hot-swappable CRPS Modules
	S7864Z-EI	64*100G QSFP28, 2U 6*Hot-swappable Fan Modules 2*Hot-swappable CRPS Modules

About HOHUNET:

HOHUNET was established in 2015 as a technology-oriented company specializing in the independent development of switch products based on domestic chips. With the continuous evolution of chip technology, HOHUNET has launched a range of differentiated products based on this chip platform. Currently, the company's product line covers a range from 1G to 800G and can be used in scenarios such as enterprise networks, carrier networks, data centers, and AI computing power. Currently, the main cooperation model for the company is OEM/ODM, dedicated to providing customers with flexible and end-to-end customized products and technical consulting services. Becoming the most trusted business partner for customers has always been the company's mission and principle.

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