

# HOHUNET POWERLINK PLATFORM

## 性能规格表

高性能交换硬件平台

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### 平台简介

PowerLink平台是专为边缘计算和人工智能时代对极低延迟/抖动、全面端到端隧道网络和日益增长的需求而打造的以太网交换平台。PowerLink平台提供卓越灵活的I/O连接能力，支持从10G到400G的全范围端口速率。

### 关键特性

- 以太网功能表：MAC table, Vxlan, IPFIX, ACL, EVC等等
- 丰富的2层/3层协议
- 丰富的OAM
- 安全特性集
- 时钟协议

### 性能规格表

表 1：PowerLink平台性能规格表

类	描述	值
Ethernet Basic		
Jumbo Frame	Maximum jumbo frame size	9600
Unicast MAC	MAC address capacity	Default profile:245760
		IPv6 profile: 131072
		Layer3 profile: 131072
		MPLS profile: 262144
		MAC learning rate (SW)
	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

表 1: PowerLink平台性能规格表 (续)

类	描述	值
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

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类	描述	值
Ethernet OAM		
	Maximum session number	1024
	Maximum domain number	8
	CCM interval types	7
CFM (802.1ag)	CCM minimum interval	3.3ms
	Maximum down MEP number	1024
	Maximum up MEP number	1024
	Maximum LMEP number	1024
IPv4 Unicast		
		Default profile: 30720
ARP	ARP capacity	IPv6 profile: 30720
		Layer3 profile: 30720
		MPLS profile: 16384
		Default profile: 131072
IPv4	FIB	IPv6 profile: 65536
		Layer3 profile: 327680
		MPLS profile: 65536
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		
		Default profile: 2048
		IPv6 profile: 1024
IPMC	Multicast routing table	Layer3 profile: 2048
		MPLS profile: 1024
	Multicast routing downstream interfaces	Default profile: 4096

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类	描述	值
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
	Maximum member number	MPLS profile: 1024
		Default profile: 4096
		IPv6 profile: 2048
		Layer3 profile: 5120
		MPLS profile: 2048
IPv6 Unicast		
Host Route	NDP capacity	Default profile: 8192
		IPv6 profile: 16384
		Layer3 profile: 4096
		MPLS profile: 4096
IPv6	FIBv6	Default profile: 8192
		IPv6 profile: 32768
		Layer3 profile: 8192
	ECMP group	MPLS profile: 4096
		240 (share with IPv4)
IPv6 Multicast		
IPMC	Multicast routing table	Default profile: 256
		IPv6 profile: 512
		Layer3 Profile: 0
		MPLS profile: 0

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类	描述	值
IPv6 Multicast		
IPMC	Number of interfaces that support multicast routing table	Default profile: 512
		IPv6 profile: 1024
		Layer3 Profile: 0
		MPLS profile: 0
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	40MByte
Granularity	Policer granularity	0~2M: 10K
		2M~100M: 40K
		100M~1G: 80K
		1G~2G: 120K
		2G~4G: 250K
		Queue shape granularity
	Port shape granularity	10k
Flow Entry	Ingress port QoS ipv4 flow entries	6126

表 1: PowerLink平台性能规格表 (续)

类	描述	值
QoS		
Flow Entry	Ingress port QoS ipv6 flow entries	6126
	Ingress port QoS flow statistics entries	2048
ACL		
MAC ACL	Ingress port ACL for MAC	Default profile: 5949
		IPv6 profile: 5949
		Layer3 profile: 5952
		MPLS profile: 5952
	Ingress VLAN ACL for MAC	Default profile: 5949
		IPv6 profile: 5949
		Layer3 profile: 5952
		MPLS profile: 5952
	Egress port ACL for MAC	Default profile: 1901
		IPv6 profile: 1904
		Layer3 profile: 1952
		MPLS profile: 1952
Egress VLAN ACL for MAC	Default profile: 1901	
	IPv6 profile: 1904	
	Layer3 profile: 1952	
	MPLS profile: 1952	
IPv4 ACL	Ingress Port ACL for IPv4	Default profile: 5949
		IPv6 profile: 5949
		Layer3 profile: 5952
		MPLS profile: 5952
	Ingress VLAN ACL for IPv4	Default profile: 5949
		IPv6 profile: 5949
		Layer3 profile: 5952
		MPLS profile: 5952

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类	描述	值
ACL		
IPv4 ACL	Egress Port ACL for IPv4	Default profile: 1901
		IPv6 profile: 1904
		Layer3 profile: 1952
		MPLS profile: 1952
IPv4 ACL	Egress VLAN ACL for IPv4	Default profile: 1901
		IPv6 profile: 1904
		Layer3 profile: 1952
		MPLS profile: 1952
IPv6 ACL	Ingress Port ACL for IPv6	Default profile: 5949
		IPv6 profile: 5949
		Layer3 profile: 5952
		MPLS profile: 5952
IPv6 ACL	Ingress VLAN ACL for IPv6	Default profile: 5949
		IPv6 profile: 5949
		Layer3 profile: 5952
		MPLS profile: 5952
IPv6 ACL	Egress Port ACL for IPv6	Default profile: 1901
		IPv6 profile: 1904
		Layer3 profile: 1952
		MPLS profile: 1952
IPv6 ACL	Egress VLAN ACL for IPv6	Default profile: 1901
		IPv6 profile: 1904
		Layer3 profile: 1952
		MPLS profile: 1952
ACL Flow Statistics	Ingress ACL flow statistics entries	Default profile: 4000
		IPv6 profile: 4096
		Layer3 profile: 5952
		MPLS profile: 4096

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类	描述	值
ACL		
ACL Flow Statistics	Egress ACL flow statistics entries	Default profile: 1901
		IPv6 profile: 1904
		Layer3 profile: 1952
		MPLS profile: 1952
CoPP	CoPP rules	4072
	CoPP flow statistics entries	2036
UDF	UDF rules	2048
	UDF flow stats entries	2048
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	
VRRP	Maximum group number	63
	Maximum group number	16
Smart Link	Maximum instance number	64
	Switchover time	<50ms
Monitor Link	Maximum group number	16
	Maximum up-link number per group	24
Data Center		
VARP	Virtual IP number per port	15
VXLAN	VXLAN tunnel	Default profile: 16384

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类	描述	值
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
		IPv6 profile: 2048
	VTEP peer	Layer3 profile: 2048
		MPLS profile: 128

## PowerLink平台支持型号

表 2: PowerLink平台支持型号

系列	型号	描述
S8200	S8232-2X-EI	32*200G QSFP56, 2*10G SFP+, 三层以太网交换机 2*CRPS热插拔电源, 4*热插拔风扇模组
S7800	S7832Z-EI-Plus	32*100G QSFP28, 三层以太网交换机 2*CRPS热插拔电源, 4*热插拔风扇模组
S7600	S7648-8B-EI	48*50G QSFP28, 8*200G QSFP56, 三层以太网交换机 2*CRPS热插拔电源, 4*热插拔风扇模组
S7500	S7548N-8Z-EI-Plus	48*25G SFP28, 8*100G QSFP28, 三层以太网交换机 2*CRPS热插拔电源, 4*热插拔风扇模组

## 关于HOHUNET:

HOHUNET成立于2015年，是一家专业从事开发交换机产品的技术型公司，全系列交换机均基于国产交换芯片。随着芯片技术的不断发展，HOHUNET推出了一系列基于该芯片平台的差异化产品。目前，公司产品线覆盖1G到800G，可用于企业网、运营商网、数据中心、AI计算等场景。目前公司主要合作模式为OEM/ODM，致力于为客户提供灵活的端到端定制产品和技术咨询服务。成为客户最值得信赖的商业伙伴一直是公司的使命和原则。

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