HOHUNET

HOHUNET POWERLINK PLATFORM PERFORMANCE

High Performance Switching Hardware Platform

Version: V1.0
Release Date: 2026/02/12

Platform Overview

PowerLink platform is a purpose-built Ethernet switching platform to address the growing demand for extreme low latency/jitter, comprehensive end-to-end tunnel network and high speed in the era of edge computing and AI. PowerLink platform provides superb flexible I/O connectivity capability, support full-range port speeds from 10G to 400G.

Key Features of the PowerLink Platform

- Ethernet capabilities: MAC table, Vxlan, IPFIX, ACL, EVC etc.
- Full set of Layer 2 and Layer 3 protocol.
- Rich OAM.
- Security feature set.
- Precision timing protocol.

Performance of the PowerLink Platform

Table 1: Performance of PowerLink Platform

Type	Specification	Value
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)	> 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 PowerLink 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/Dlb/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 PowerLink 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: 30720
		IPv6 profile: 30720
		Layer3 profile: 30720
		MPLS profile: 16384
IPv4	FIB	Default profile: 131072
		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		
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 PowerLink 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: 8192
		IPv6 profile: 16384
		Layer3 profile: 4096
		MPLS profile: 4096
IPv6	FIBv6	Default profile: 8192
		IPv6 profile: 32768
		Layer3 profile: 8192
		MPLS profile: 4096
	ECMP group	240 (share with IPv4)
IPv6 Multicast		
IPMC	Multicast routing table	Default profile: 256
		IPv6 profile: 512
		Layer3 Profile: 0
		MPLS profile: 0

Table 1: Performance of PowerLink 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: 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	4G~10G: 500K
	Port shape granularity	10k
Flow Entry	Ingress port QoS ipv4 flow entries	6126

Table 1: Performance of PowerLink Platform (Continued)

Type	Specification	Value
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

Table 1: Performance of PowerLink Platform (Continued)

Type	Specification	Value
ACL		
IPv4 ACL	Egress Port ACL for IPv4	Default profile: 1901
		IPv6 profile: 1904
		Layer3 profile: 1952
		MPLS profile: 1952
	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
	Ingress VLAN ACL for IPv6	Default profile: 5949
		IPv6 profile: 5949
		Layer3 profile: 5952
		MPLS profile: 5952
	Egress Port ACL for IPv6	Default profile: 1901
		IPv6 profile: 1904
		Layer3 profile: 1952
		MPLS profile: 1952
	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

Table 1: Performance of PowerLink Platform (Continued)

Type	Specification	Value
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
Smart Link	Maximum group number	16
	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

Table 1: Performance of PowerLink 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
	VTEP peer	Default profile: 2048
		IPv6 profile: 2048
		Layer3 profile: 2048
		MPLS profile: 128

Product List Based on PowerLink Platform

Table 2: Product List Based on PowerLink Platform

Series	Model	Specification
S8200	S8232-2X-EI	32*200G QSFP56, 2*10G SFP+, L3 managed Ethernet switch 2*Hot-swappable CRPS Modules 4*Hot-swappable Fan Modules
S7800	S7832Z-EI-Plus	32*100G QSFP28, L3 Managed Ethernet Switch 2*Hot-swappable CRPS Modules 4*Hot-swappable Fan Modules
S7600	S7648-8B-EI	48*50G QSFP28, 8*200G QSFP56 L3 managed Ethernet switch 2*Hot-swappable CRPS Modules 4*Hot-swappable Fan Modules
S7500	S7548N-8Z-EI-Plus	48*25G SFP28, 8*100G QSFP28 L3 managed Ethernet switch 2*Hot-swappable CRPS Modules 4*Hot-swappable Fan 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.

Contact us

Headquarter Address:
Lining Center Building, Nanshan Hi-Tech Park, Nanshan, Shenzhen, Guangdong, China

Corporate and Sales Email: business@hohunet.com

Telephone: 0086-755-26418565

Website: www.hohunet.com