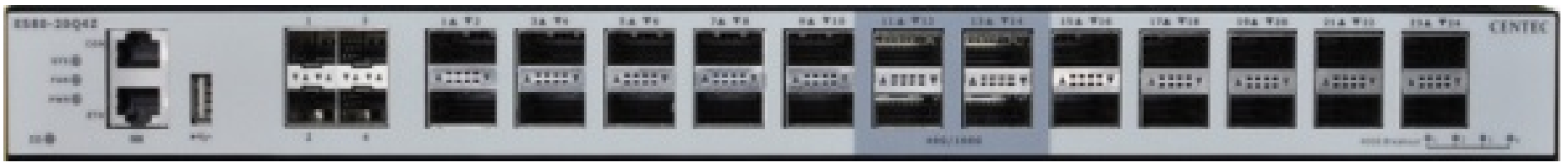
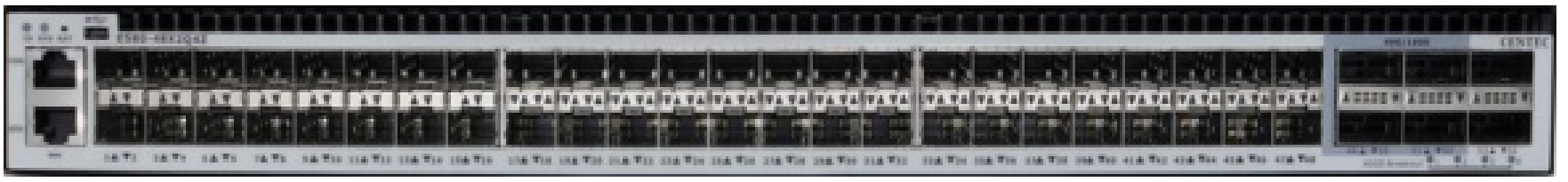
E580-20Q4Z Hardware Summary		
1. Basic		
Product Name		E580-20Q4Z
Product Positioning		Data Center TOR access, Enterprise & Metro network access or aggregation
Switching Method		Store and Forwarding
CPU Model/ Frequency		PowerPC P1010 533MHz
Flash		2GB (NAND)
Memory		1GB
Hardware Configuration	**Main Board Spec**	20x40GE QSFP+ 4x100GE QSFP28
	Uplink Network Sub Card	Not Support
	Console Type	RJ45
	Outband Eth Management Port	1 RJ45 GE Eth port
	Inband Eth Management Port	Support
	USB Ports	Support
2. Performance Spec		
Switching Capacity		2.4Tbps (20x40GE + 4x100GE)
3. Hardware and Software Description		
Hardware Architecure		• Standard 1U 19'' rack mountable • 4x10GE SFP+ Ethernet Port (Combo) • 20x40GE QSFP+ Ethernet Port • 4x100GE QSFP28 Ethernet Port
If Uplink network card support hot plug ?		-
Software upgrade method		Through TFTP/FTP/WEB
Service interruption time when reboot system for software update		less than 120s
4. The Power Supply and Power Requirements		
Type of Power Supply	**AC**	Support
	DC	Support
Power supply range	**AC**	Operating Voltage: 100 ~ 240V; 50/60Hz Maximum Voltage: 90 ~ 264V; 47~63Hz
	DC	Operating Voltage: 36 ~ 75Vdc Input
Double Power Input ?		Support
The power supply module is pluggable ?		Support
Typical/Max Power Draw		120W / 160W
5. Overcurrent and overvoltage protection		
Whether the equipment installation overcurrent, overvoltage protector ?		Yes
Surge protection level		4 KV
6. Others		
Hardware Size (H×W×D) in.		4.36 x 44.0 x 47.0 cm (1.73 x 17.5 x 18.5 in.)
Weight (kg)		8.3kg (include One PSU)
Cooling Mode		Fan cooling (Front-to-Rear airflow)
Noise		< 50 dB
Quality of Fans		4 (3 + 1 Backup)
Whether to support the fan module pluggable?		Support
If the fan support intelligent speed control function ?		Support
Operating Temperature Range		Operating temperature: 0 to 45 ºC



E580-48X2Q4Z Hardware Summary

1. Basic		
Product Name		E580-48X2Q4Z
Product Positioning		Data Center TOR access, Enterprise & Metro network access or aggregation
Switching Method		Store and Forwarding
CPU Model/ Frequency		PowerPC P1010 533MHz
Flash		2GB (NAND)
Memory		1GB
Hardware Configuration	**Main Board Spec**	48x10GE SFP+ + 2x40GE QSFP+ + 4x100GE QSFP28
	Uplink Network Sub Card	Not Support
	Console Type	RJ45
	Outband Eth Management Port	1 RJ45 GE Eth port
	Inband Eth Management Port	Support
	USB Ports	Support
2. Performance Spec		
Switching Capacity		1.92Tbps (48x10GE + 2x40GE + 4x100GE)
3. Hardware and Software Description		
Hardware Architecure		• Standard 1U 19'' rack mountable • 48x10GE SFP+ Ethernet Port • 2x40GE QSFP+ Ethernet Port • 4x100GE QSFP28 Ethernet Port
If Uplink network card support hot plug ?		-
Software upgrade method		Through TFTP/FTP/WEB
Service interruption time when reboot system for software update		less than 120s
4. The Power Supply and Power Requirements		
Type of Power Supply	**AC**	Support
	DC	Support
Power supply range	**AC**	Operating Voltage: 100 ~ 240V; 50/60Hz Maximum Voltage: 90 ~ 264V; 47~63Hz
	DC	Operating Voltage: 36 ~ 75Vdc Input
Double Power Input ?		Support
The power supply module is pluggable ?		Support
Typical/Max Power Draw		160W / 200W
5. Overcurrent and overvoltage protection		
Whether the equipment installation overcurrent, overvoltage protector ?		Yes
Surge protection level		4 KV
6. Others		
Hardware Size (H×W×D) in.		4.36 x 44.0 x 47.0 cm (1.73 x 17.5 x 18.5 in.)
Weight (kg)		8.3kg (include One PSU)
Cooling Mode		Fan cooling (Front-to-Rear airflow)
Noise		< 50 dB
Quality of Fans		4 (3 + 1 Backup)
Whether to support the fan module pluggable?		Support
If the fan support intelligent speed control function ?		Support
Operating Temperature Range		Operating temperature: 0 to 45 ºC



E580-48X6Q Hardware Summary

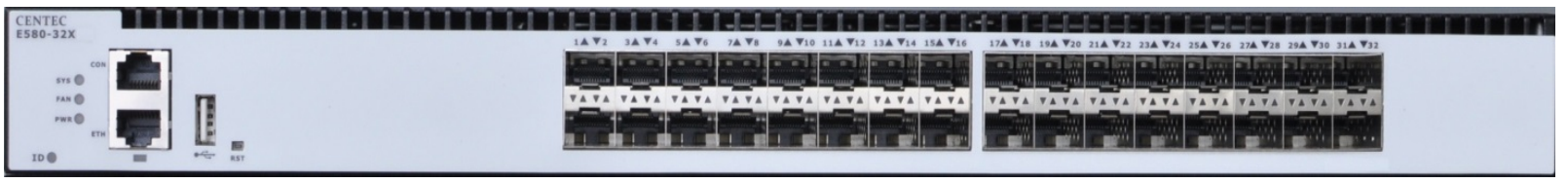
1. Basic		
Product Name		E580-48X6Q
Product Positioning		Data Center TOR access, Enterprise & Metro network access or aggregation
Switching Method		Store and Forwarding
CPU Model/ Frequency		PowerPC P1010 533MHz
Flash		2GB (NAND)
Memory		1GB
Hardware Configuration	**Main Board Spec**	48x10GE SFP+ + 6x40GE QSFP+
	Uplink Network Sub Card	Not Support
	Console Type	RJ45
	Outband Eth Management Port	1 RJ45 GE Eth port
	Inband Eth Management Port	Support
	USB Ports	Support
2. Performance Spec		
Switching Capacity		1.44Tbps (48x10GE + 6x40GE)
3. Hardware and Software Description		
Hardware Architecure		• Standard 1U 19'' rack mountable • 48x10GE SFP+ Ethernet Port • 6x40GE QSFP+ Ethernet Port
If Uplink network card support hot plug ?		-
Software upgrade method		Through TFTP/FTP/WEB
Service interruption time when reboot system for software update		less than 120s
4. The Power Supply and Power Requirements		
Type of Power Supply	**AC**	Support
	DC	Support
Power supply range	**AC**	Operating Voltage: 100 ~ 240V; 50/60Hz Maximum Voltage: 90 ~ 264V; 47~63Hz
	DC	Operating Voltage: 36 ~ 75Vdc Input
Double Power Input ?		Support
The power supply module is pluggable ?		Support
Typical/Max Power Draw		150W / 190W
5. Overcurrent and overvoltage protection		
Whether the equipment installation overcurrent, overvoltage protector ?		Yes
Surge protection level		4 KV
6. Others		
Hardware Size (H×W×D) in.		4.36 x 44.0 x 47.0 cm (1.73 x 17.5 x 18.5 in.)
Weight (kg)		8.3kg (include One PSU)
Cooling Mode		Fan cooling (Front-to-Rear airflow)
Noise		< 50 dB
Quality of Fans		4 (3 + 1 Backup)
Whether to support the fan module pluggable?		Support
If the fan support intelligent speed control function ?		Support
Operating Temperature Range		Operating temperature: 0 to 45 ºC

E580-32X2Q Hardware Summary

1. Basic		
Product Name		E580-32X2Q
Product Positioning		Data Center TOR access, Enterprise & Metro network access or aggregation
Switching Method		Store and Forwarding
CPU Model/ Frequency		PowerPC P1010 533MHz
Flash		2GB (NAND)
Memory		1GB
Hardware Configuration	**Main Board Spec**	32x10GE SFP+ + 2x40GE QSFP+
	Uplink Network Sub Card	Not Support
	Console Type	RJ45
	Outband Eth Management Port	1 RJ45 GE Eth port
	Inband Eth Management Port	Support
	USB Ports	Support
2. Performance Spec		
Switching Capacity		800Gbps (32x10GE + 2x40GE)
3. Hardware and Software Description		
Hardware Architecure		• Standard 1U 19'' rack mountable • 32x10GE SFP+ Ethernet Port • 2x40GE QSFP+ Ethernet Port
If Uplink network card support hot plug ?		-
Software upgrade method		Through TFTP/FTP/WEB
Service interruption time when reboot system for software update		less than 120s
4. The Power Supply and Power Requirements		
Type of Power Supply	**AC**	Support
	DC	Support
Power supply range	**AC**	Operating Voltage: 100 ~ 240V; 50/60Hz Maximum Voltage: 90 ~ 264V; 47~63Hz
	DC	Operating Voltage: 36 ~ 72Vdc Input
Double Power Input ?		Support
The power supply module is pluggable ?		Support
Typical/Max Power Draw		120W / 150W
5. Overcurrent and overvoltage protection		
Whether the equipment installation overcurrent, overvoltage protector ?		Yes
Surge protection level		4 KV
6. Others		
Hardware Size (H×W×D) in.		4.36 x 44.0 x 40.0 cm (1.73 x 17.5 x 15.9 in.)
Weight (kg)		7.5kg (include One PSU)
Cooling Mode		Fan cooling (Front-to-Rear airflow)
Noise		< 50 dB
Quality of Fans		4 (3 + 1 Backup)
Whether to support the fan module pluggable?		Support
If the fan support intelligent speed control function ?		Support
Operating Temperature Range		Operating temperature: 0 to 45 ºC

E580-32X Hardware Summary

1. Basic		
Product Name		E580-32X
Product Positioning		Data Center TOR access, Enterprise & Metro network access or aggregation
Switching Method		Store and Forwarding
CPU Model/ Frequency		PowerPC P1010 533MHz
Flash		2GB (NAND)
Memory		1GB
Hardware Configuration	**Main Board Spec**	32x10GE SFP+
	Uplink Network Sub Card	Not Support
	Console Type	RJ45
	Outband Eth Management Port	1 RJ45 GE Eth port
	Inband Eth Management Port	Support
	USB Ports	Support
2. Performance Spec		
Switching Capacity		640Gbps (32x10GE)
3. Hardware and Software Description		
Hardware Architecure		• Standard 1U 19'' rack mountable • 32x10GE SFP+ Ethernet Port
If Uplink network card support hot plug ?		-
Software upgrade method		Through TFTP/FTP/WEB
Service interruption time when reboot system for software update		less than 120s
4. The Power Supply and Power Requirements		
Type of Power Supply	**AC**	Support
	DC	Support
Power supply range	**AC**	Operating Voltage: 100 ~ 240V; 50/60Hz Maximum Voltage: 90 ~ 264V; 47~63Hz
	DC	Operating Voltage: 36 ~ 72Vdc Input
Double Power Input ?		Support
The power supply module is pluggable ?		Support
Typical/Max Power Draw		120W / 150W
5. Overcurrent and overvoltage protection		
Whether the equipment installation overcurrent, overvoltage protector ?		Yes
Surge protection level		4 KV
6. Others		
Hardware Size (H×W×D) in.		4.36 x 44.0 x 40.0 cm (1.73 x 17.5 x 15.9 in.)
Weight (kg)		7.5kg (include One PSU)
Cooling Mode		Fan cooling (Front-to-Rear airflow)
Noise		< 50 dB
Quality of Fans		4 (3 + 1 Backup)
Whether to support the fan module pluggable?		Support
If the fan support intelligent speed control function ?		Support
Operating Temperature Range		Operating temperature: 0 to 45 ºC



Feature List

Attribute		Description	Support	Notes
Ethernet basic features	Ethernet	Ethernet interface operating modes: full duplex, half duplex, and auto-negotiation	●	
		negotiation	●	
		Flow control on (TX and RX direction)	●	
		Jumbo frames (9600 Bytes)	●	
		Link aggregation (Static/LACP)	●	
		Static/Dynamic Load Balancing among the links of a Link aggregation	●	
		EF-DLB(elephant flow based DLB)	●	
		LAG self-healing	●	
		LAG support RR	●	
		Port Isolation	●	
		L2 Protocol Tunnel	●	
		Port-Block(unicast/broadcast/multicast)	●	
		Storm Control (unicast/broadcast/multicast)	●	
	VLAN	Vlan access modes: access, trunk, and QinQ	●	
		MAC based VLAN Classification	●	
		IP based VLAN Classification	●	
		Protocol based VLAN Classification	●	
		QinQ(Basic QinQ and Selective QinQ)	●	
		VLAN Translation	●	
		Default VLAN	●	
		VLAN mapping	●	
		Voice Vlan	●	
		Guest VLAN	●	
		Private VLAN	●	
	MAC	Automatic learning and aging of MAC addresses (Support HW learning)	●	
		Static, dynamic, and blackhole MAC address entries	●	
		Packet filtering based on source MAC addresses	●	
		Limitation on MAC address learning on interfaces (Port Security)	●	
		Limitation on MAC address learning on Vlans VLAN Security	●	
Ethernet loop protection	MSTP	STP	●	
		RSTP	●	
		MSTP	●	
		BPDU filter	●	
		BPDU guard	●	
		Root guard	●	
		Partitioned STP and BPDU tunnel	●	
	ERPS	ERPS (Ethernet Ring Protection Switching)	●	
		Single ERPS ring, tangent ERPS rings, and intersecting ERPS rings	●	
		Hybrid networking of ERPS rings and other ring networks	●	
Layer 2 multicast	Layer 2 multicast	IGMP snooping v1v2v3	●	
		IGMP proxy	●	
		Fast leave	●	
		MAC based L2MC	●	
		Layer 2 Static Multicast	●	
		MVR(Inter-VLAN multicast replication)	●	
IPv4 Forwarding	ARP	Static and dynamic ARP entries	●	
		Gratuitous ARP	●	
		Aging of ARP entries	●	
		ARP	●	
		ARP Proxy	●	
	Unicast routing	Static Routes	●	
		RIPv1&v2	●	
		OSPF	●	
		BGP(Basic iBGP/eBGP)	●	
		ECMP	●	
		ECMP self-healing	●	
		ECMP-DLB(Dynamic Load Balance ECMP)	●	
		Route Map	●	
		Policy-Based Route (PBR)	●	
		uRPF check	●	
		VRF	●	
	Multicast routing	IGMPv1/v2/v3	●	
		PIM-SM	●	
		PIM-SSM	●	
		PIM-DM	●	
		Static Multicast	●	
IPv6 Forwarding	IPv6 basic	ICMPv6	●	
		NDP	●	
		PMTU	●	
	IPv6 Unicast routing	IPv6 Static Route	●	
		RIPng	●	
		OSPFv3	●	
	IPv6 Multicast routing	MLD v1/v2	●	
		MLD Snooping	●	
		PIM-SMv6	●	
	IPv6/IPv4 Tunnel	Static Tunnel / ISTAP Tunnel / 6to4 Tunnel	●	

Attribute		Description	Support	Notes
	IPv6 Application	DHCPv6 Server/Relay/Snooping	●	
		IPv6 Prefix-list	●	
QoS	**Traffic classification**	Traffic classification based on the combination of the MAC address, IPv4/IPv6 ddress, L2 protocol header, TCP, UTP, outgoing interface, and 802.1p field	●	
	Traffic behaviors	Access control after traffic classification	●	
		Traffic policing based on traffic classification (Policer)	●	
		Re-marking based on traffic classification (COS, DSCP)	●	
		Class-based packet queuing	●	
	Queue scheduling	SP (8 Strict Priority)	●	
		WDRR (Weighted Deficit Round Robin)	●	
		SP + WDRR	●	
	Congestion avoidance	Tail Drop, WRED (Weighted Random Early Detection)	●	
	Shapping	Shapping based on Interfaces and queues	●	
	Cloud Goodput	Explicit congestion notification(ECN)	●	
		High bandwidth, Ultra Low Latency(HULL)(Virtual queuing to mark ECN)	●	
Device reliability	**Smartlink**	SmartLink	●	
		SmartLink multi-instance	●	
		MonitorLink	●	
	VRRP	VRRP	●	
	BFD	BFD (for Static IPv4 Route/VRRP/OSPF/Track)	●	
	M-LAG	Multi-Chassis Link Aggregation	●	
		MLAG with Overlay(VXLAN, NVGRE, GENEVE)	●	
STM	**Switch Table Management**	Switch Table Management (Flexible system profiles)	●	
Security	**System Security**	Hierarchical CLI protection to prevent unauthorized users from accessing Switch	●	
		SSH v2.0	●	
		RADIUS and TACACS+ authentication	●	
		ACL filtering (Standard ACL and extend ACL)	●	
		ACL filtering(Inner header filter)	●	
		DHCP packet filtering (Option 82)	●	
		ARP Inspection	●	
		IP Source Guard	●	
		CPU Traffic Limit	●	
		Prevent DDOS attack (ICMP Flood/Smurf/Fraggle/LAND/SYN Flood)	●	
		AAA	●	
		802.1X	●	
		Telnet/SSH ACL filtering	●	
		RSA Key Generate	●	
		BHM (Beat Heart Monitor)	●	
Configuration and maintenance	**Terminal service**	Configurations through CLI (Command Line Interface)	●	
		Help information	●	
		Login through console and Telnet terminals	●	
	File system	File system	●	
		Directory and file management	●	
		Upload and download files through FTP or TFTP	●	
	IP Application	DHCP Server	●	
		DHCP Relay	●	
		DHCP Snooping	●	
		DHCP Client	●	
		DNS	●	
		NTP	●	
	Device Management	UDLD (Unidirectional Link Detection)	●	
		VCT (Virtual Cable Test)	●	
		LLDP	●	
		802.3az EEE (Energy-Efficient Ethernet)	●	
	Debugging and maintenance	Management of logs, alarms, and debugging information	●	
		User operation logs	●	
		Detailed debugging information for diagnosing network faults	●	
		Network test tools (Such as traceroute and ping)	●	
		Local Mirror(Port Mirror and VLAN Mirror)	●	
		Remote Mirror	●	
		Multi-destination Mirror	●	
		L2 ping	●	
		Port loopback	●	
		Loopback Detection	●	
		SmartConfig	●	
		CPU Mirror	●	
	Network management	Ping and Traceroute (IPv4)	●	
		SNMPv1/v2c/v3 (IPv4)	●	
		Standard MIB	●	
		WEB UI	●	
		RMON	●	
		s-Flow	●	
	Version upgrade	Online upgrade software image	●	
		Online upgrade of the BootROM	●	
		Programmatic access to system state: Phython	●	

Attribute		Description	Support	Notes
Data Center	Extensibility	Open API	●	
		OpenStack Neutron(cloud agent)	●	
		OVSDB(configure VLAN/Tunnel)	●	
	Virtualization Support	VARP	●	
		VXLAN gateway	●	
		VXLAN bridge	●	
		VXLAN routing	●	
		GENEVE	●	
		NvGRE	●	
	DCB	IEEE 802.1Qbb PFC (Priority Flow Control)	●	

Performance & Spec Table

Class	Feature	Sub Spec	Default Profile	Layer 2 Profile	Layer 3 Profile	IPv6 Profile	Note
Ethernet Basic	Jumboframe	Maximum Size	9600				
	Unicast MAC	MAC address Capacity	65536	131072	32768	32768	
		MAC Learning Rate (SW)	3144 fps				
		MAC Learning Rate (HW)	6046093 fps				
		Blackhole MAC address capacity	128				
	Multicast MAC	MAC address Capacity	2048	2048	1024	1024	
	VLAN	VLAN IDs	4094				
		Vlan Instances	4094				
	STP	Convergence time	30s				
	RSTP	Convergence time	775ms				
	MSTP	Instance Num	64				
		Convergence time	774ms				
	Link Aggregation (Static&LACP)	Maximum Member Num	16				
		Maximum Group Num	55				
		Load balance key mode	destport/inner-destport/inner-ip-protocol/inner-ipda/inner-ipsa/inner-macda/inner-macsa/inner-sourceport/ip-protocol/ipda/ipsa/macda/macsa/nvgre-vsid//sourceport/vxlan-vni				
		Convergence time	< 20ms				
	Smart-Link	Maximum Groups Num	16				
		Maximum Protection Instance Num	64				
		Switchover time	< 25ms				
	VLAN Classification	Base MAC Capacity	512	1024	512	512	
		Base IPv4 Capacity	512	512	1024	512	
		Base IPv6 Capacity	N/A	N/A	N/A	256	
IPv4 Unicast	ARP	ARP Capacity	4096	1024	20480	4096	
	IPv4	FIB	8192			2048	
		ECMP Group	240				
	VRRP	Management Groups Num	31				
		Switchover time	< 4*advt_interval (advt_interval=100ms or 1s)				
	PBR	Policy Route Map	32	N/A	32	32	
		Policy Based Routing ACE	64	N/A	64	64	
	IPv4 BFD	Session Capacity	128	N/A	N/A	N/A	
IPv4 Multicast	IPMC	Number of interfaces that support Multicast routing table	255				
		Multicast Routing Table	1023	0	1023	1023	
	IGMP Snooping	Maximum Groups Num	2048				
	MVR	Maximum Entry Num	511				
IPv6 Unicast	Host Route	NDP Capacity	N/A	N/A	N/A	4096	
	IPv6	FIB	N/A	N/A	N/A	1536	
		ECMP Group	N/A	N/A	N/A	240	
IPv6 Multicast	IPMC	Number of interfaces that support Multicast routing table	N/A	N/A	N/A	255	
		Multicast Routing Table	N/A	N/A	N/A	255	
	MLD Snooping	Maximum Groups Num	N/A	N/A	N/A	4096	
	MVR V6	Maximum Entry Num	N/A	N/A	N/A	255	
IP Tunnel	IP Tunnel	Tunnel Peer Capacity	8	N/A	8	32	
QoS	QoS	Per-port Queue Num	8				
		System Packet Buffer Capacity	3M				
		Policer granularity	0-2Mbps : 16Kbps 2Mbps-100Mbps : 32Kbps 100Mbps-1Gbps : 64Kbps 1Gbps-2Gbps : 128Kbps 2Gbps-4Gbps : 256Kbps 4Gbps-10Gbps : 512Kbps 10Gbps-40Gbps : 1024Kbps 40Gbps-100Gbps : 2048Kbps				
		Shape granularity	8Kbps				
		Ingress port qos ipv4 flow entries	2043	2043	2043	1019	
		Ingress port qos ipv6 flow entries	N/A	N/A	N/A	507	
ACL	IPv4 ACL	Ingress port acl for IPv4	2047	2047	2047	1023	
		Ingress vlan acl for IPv4	255	255	255	127	
		Egress port acl for IPv4	255	255	255	127	
	IPv6 ACL	Ingress port acl for IPv6	N/A	N/A	N/A	511	
		Ingress vlan acl for IPv6	N/A	N/A	N/A	63	
		Egress port acl for IPv6	N/A	N/A	N/A	63	
Security and Application	IP Source Guard	IPv4/IPv6 maximum rules Num	1024	1024	512	512	
	802.1x base MAC	Maximum Entries	2048	512	512	512	
	DHCP-Snooping	Maximum bound entry	4096				
Metro Ethernet	Vlan Mapping	Maximum mapping table	64				
		Maximum rules Num	1024	2048	1024	1024	
	ERPS	Domain Num	16				
		Ring Num	3/domain				
		Protection instance Num per Ring	1				
		Switchover time	< 50 ms (optical port)				
Overlay	VXLAN	VXLAN tunnel	8192	8192	8192	3072	
		VNI	2000				
		VTEP Peer	1024				

Performance & Spec Table							
Class	**Feature**	**Sub Spec**	**Default Profile**	**Layer 2 Profile**	**Layer 3 Profile**	**IPv6 Profile**	**Note**
		VXLAN Gateway MAC for DVR	224	256	256	64	
IPFix	**IPFix**	IPfix Member	16384	N/A	16384	16384	