# Twoja Infrastruktura IT netf.pl

NETF, specjalizujemysię w sprzedaży zaawansowanej infrastruktury IT. Znajdą tu Państwo szeroki asortyment produktów od czołowych światowych producentów sprzętu i oprogramowania IT, w tym H3C, Huawei, Cisco, Juniper, Fortinet, a także Dell, IBM, CommVault i ESET. Dzięki współpracy z tymi renomowanymi partnerami, NETF zapewnia swoim klientom dostęp do najnowocześniejszych rozwiązań technologicznych.

Bezpieczeństwo, Efektywność, Optymalizacja

Grupa **NETF**, Netfront, Infopower, Agropower Sukces poprzez profesjonalizm i doskonałość



# H3C S12500R Data Center Switch Router

Release Date: March, 2023

New H3C Technologies Co., Limited



#### Overview

H3C S12500R is a switch router product launched by H3C for WAN, 5G bearer network and data center DCI interconnection scenarios. Forwarding performance and very rich wide-area traffic scheduling features.

S12500R is currently the industry's leading switching router product. A single machine can provide 3072 line-speed 10G ports/25G ports or 768 line-speed 40G/100G/400G ports, providing ultra-high-density 10G, 25G and high-density 40G, 100G, 400G capabilities; Faced with the burst WAN traffic, the "distributed ingress cache" technology is innovatively adopted, which can realize data cache for 200ms and meet the requirements of burst traffic in IPRAN, DCI and other network scenarios; at the same time, it supports independent control engine, detection engine, maintenance engine provides powerful control capability and 50ms high reliability guarantee for the system.

S12500R series include S12500R-48Y8C, S12500R-48C6D, S12504R, S12508R, S12516R, S12500R-2L, S12508CR, S12516CR eight models, which can adapt to the port density and performance requirements of different network scales, and provide a strong equipment guarantee for wide-area interconnection construction. At the same time, combined with H3C series routers, switches, security, iMC and SDN solutions, it provides a full range of solutions for wide-area convergence and interconnection scenarios.



H3C S12500R Series Switch Router

#### Features

# Advanced CLOS+ multi-grade multi-plane switching architecture

- CLOS+ multi-grade multi-plane architecture, midplane free design, providing continuous bandwidth upgrade capability.
- Supports high density 25G/40GE/ 100GE/ 400GE interfaces and can meet the existing and future application requirements of data centers.
- With independent forwarding module, the control and data planes are separated. This can maximize the reliability of the equipment and guarantees the continuous upgrade of the bandwidth of subsequent products.
- Dynamic and variable cell fragmentation is strictly switching with non-blocking, which improves the overall forwarding performance.

## **Comware V9 Containerized Operating System**

The S12500R adopts the new-generation operating system Comware V9 independently developed by H3C. Compared with the previous-generation operating system, on the basis of integrating rich network features, the S12500R has a further open architecture and modular software architecture, it supports containerized deployment and can carry third-party software applications.

• Rich network features: Comware has rich basic device functions, network functions and management functions, while



Comware V9 provides comprehensive customization and tailoring capabilities: Linux infrastructure (Linux function modules, Docker capabilities), network functions, management functions (SNMP, NetConf, CLI...) can be tailored.

- Openness and Programmability: The native Linux kernel is used to facilitate kernel upgrades, and at the same time, it has better openness (it is more convenient to for users to use third-party software to integrate open source Linux software into COMWARE), provide the ability to run third-party software seamlessly, and provide the interface which is open to programmability and supports user-defined network services.
- Containerization: It supports containerization and integrates Docker. Comware can be deployed in Docker containers and run containerized Comware or third-party programs.

#### **Smart Connection Based on SRv6**

- SRv6 is a future-oriented new-generation protocol. It naturally supports IPv6 and satisfies access to massive address spaces.
   SRv6 can identify applications and tenants, realize intelligent routing based on index such as delay and bandwidth, and ensure SLA. At the same time, SRv6 implements a unified protocol, which simplifies configuration.
- SRv6 uses segments with a length of 128 bits to define network functions, and then by arranging the segments, a series of
  forwarding and processing behaviors of network devices can be implemented to complete service orchestration. Compared
  with MPLS SR protocol, it has stronger scalability and better compatibility with SDN controller, which is more conducive to
  deploying applications in DCI, MAN and other scenarios.
- The notable feature of SRv6 is that the forwarding plane adopts IPV6. Based on the reachability of IPV6, it is easier to realize
  the interconnection of different networks. SRV6 is used for forwarding within a domain, and only ordinary IPV6 forwarding
  is required between domains. It does not need to be like MPLS which need to convert MPLS to IP and do a lot of
  complicated configuration.

## **Application requirements for flexible connectivity**

- The S12500R series switches support VXLAN (Virtual eXtensible LAN) technology, which is a Layer2 VPN technology based on IP networks and in the form of "MAC in UDP" encapsulation. VXLAN can provide Layer2 interconnection for decentralized physical sites based on existing service provider or enterprise IP networks, and can provide business isolation for different tenants.
- S12500R series switches support EVPN (Ethernet Virtual Private Network, Ethernet Virtual Private Network), EVPN is a Layer2 VPN technology, the control plane uses MP-BGP to advertise EVPN routing information, and the data plane supports the use of VXLAN encapsulation to forward messages.
- S12500R series switches support large-capacity ARP/ND, MAC, ACL table entries, which can adapt to the flattening requirements of large data center networks.
- S12500R series switches support 400G 120km ZR+ transceiver, which is suitable for DCI connection scenarios, and can partially replace the transmission equipment through the ZR+ module, which is more convenient to manage.

#### **High Precision Time Solution 1588v2**

• IEEE 1588v2 is a master-slave synchronization system. During the synchronization process of the system, the master clock periodically publishes the PTP time synchronization protocol and time information. The slave clock port receives the timestamp information sent by the master clock port and the system calculates the line time delay and master-slave time difference accordingly, and use this time difference to adjust the local time, so that the slave device time keeps the same frequency and phase as the master device time. IEEE1588v2 can realize frequency synchronization and time synchronization at the same time. The accuracy of time transfer mainly depends on the accuracy of the frequency of the two condition counters and the symmetry of the link. Compared with traditional timing technology, IEEE1588v2 has obvious advantages(It adopts two-way channel and the precision is ns-level. The cost is low and it can adapt to different access environments and so on. ) IEEE1588v2 has become an inevitable trend of development under the background of increasing precision requirement in different industries.

#### Innovative multi-engine control design

• It adopts innovative hardware design and provides powerful control capability and high reliability guarantee for the system



through independent control engine, detection engine and maintenance engine.

- The independent control engine provides a powerful main control CPU system, which can easily handle various protocol
  packets and control packets and supports fine control of protocol packets, providing the system with a complete ability to
  resist protocol packet attacks;
- An independent detection engine provides a highly reliable and high-performance FFDR (Fast Fault Detection and Restoration-Fast Fault Detection and Restoration) system for fast fault detection such as BFD. It is linked with the control plane protocol to support fast protection switching and fast convergence, which can realize fast fault detection and ensure uninterrupted services;
- Independent maintenance engine, intelligent EMS (Embedded Maintenance Subsystem) CPU system, the CPU system supports intelligent power management, and can support sequential power-on and power-off of boards (reduces the power shock caused by power-on of boards at the same time), improve equipment life, reduce electromagnetic radiation, reduce system power consumption), equipment online status check.
- The independent monitoring engine, completely separated from the service control plane, monitors the working status of the device hardware in real time, including power load and power adjustment, automatic fan speed adjustment and dynamic energy allocation of the whole machine.

#### **Data Center Level Reliability Guarantee**

- The S12500R series products provide a dedicated FFDR system for fast fault detection such as BFD, and cooperate with the control plane protocol to support fast protection switching and fast convergence.
- Support BFD for VRRP/BGP/IS-IS/RIP/OSPF static routes, etc.
- Support NSR/GR for OSFP/BGP/IS-IS etc.
- The hardware of the control engine and the switching fabric board is independent of each other, which realizes the physical separation of the control plane and the forwarding plane. The control engine is 1+1 redundant; the switching fabric board is N+M redundant; the fan system is redundantly designed; the power module is N+M redundant ; Maximize the fault isolation capability and reliability of the system.

#### **Distributed caching mechanism and refined QoS**

- In the face of the burst traffic of the next generation data center, the "distributed ingress cache" technology is innovatively adopted. Each port can precisely perform accurate bandwidth allocation and traffic shaping for all service flows flowing to the port, and the precise scheduling of the forwarding plane ensures that the distributed cache in the direction of ingress is supported, and the cache space distributed on each line card is effectively shared and utilized with a better caching effect.
- The network application model has been transformed from C/S to B/S model. The change of application mode has led to the increase of network burst traffic and the large cache mechanism has become an urgent requirement of network equipment. The S12500R supports 1600ms burst traffic per 10 Gigabit port, combined with the distributed ingress caching mechanism, it meets the needs of high burst traffic in large data centers.
- A single chip supports 8GB cache, and the line card supports a maximum of 32GB (4\*8GB, each chip is independent and cannot be shared).
- The whole machine supports a maximum of 64K hardware queues, supports refined QoS and traffic management. It can be configured to assign different priorities and queues to different users and different service flows according to requirements, ensuring different bandwidth, service delay and jitter performance.

### **Comprehensive maintenance and inspection mechanism**

- The online status detection mechanism works through a dedicated maintenance engine. It can detect the switching network board, backplane communication channel, business communication channel, key chips, memory and other parts of the device. Once the relevant module fails, it will be reported to the system through EMS.
- The board isolation function can isolate the designated board from the forwarding plane and no longer participate in the forwarding. The isolated board is still in the control plane and can be managed. The board can perform real-time diagnosis, CPLD upgrade and other business processing, without affecting the business of the whole system.



Supports Ethernet OAM and provides a variety of device-level and network-level fault detection methods.

### **Open Application Architecture**

• The S12500R series products are designed based on the OAA (Open Application Architecture) concept and innovatively launch an open service platform.

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- Through the intelligent EMS engine system, the S12500R series products support the intelligent management of power supply, and can support the sequential power-on of single boards (reduce the power shock caused by the simultaneous power-on of single boards, improve equipment life, and reduce electromagnetic radiation), and can control power-off of the singleboard, isolate faulty/idle boards, and reduce system power consumption.
- The fans of the S12500R series are high-efficiency PWM speed-adjustable fans, which support stepless speed regulation. The system can automatically collect the board temperature, calculate the fan speed adjustment curve according to the actual situation of the device, and deliver the speed adjustment command to the fan. The system supports fan status monitoring (speed monitoring, fault alarm, etc.), which can automatically adjust the speed according to the ambient temperature and board configuration, reduce equipment power consumption and operating noise, effectively reduce ambient noise and prolong fan life.
- S12500R series products support automatic detection of internal ports. When a slot is not configured with an interface board, or when a port is not connected to a cable, the system can automatically close the corresponding internal port, saving the power consumption of the whole machine.
- The minimum power consumption of 10G port is less than 3.4W, the minimum power consumption of 40G port is less than 10.4W, the minimum power consumption of 100G port is less than 13.8W, and the minimum power consumption of 400G port is less than 20.3W
- S12500R series products adopt front-to-rear straight-through ventilation and strict front-to-rear air duct design, high
  ventilation and heat dissipation efficiency, energy saving and environmental protection, and can meet the requirements of
  efficient heat dissipation and energy consumption of data center equipment rooms.



### **Product Specifications**

#### Hardware Specification

ltem	S12500R- 48Y8C	S12500R- 48C6D	S12504R	S12508R	S12516R	S12500R- 2L	S12508CR	S12516CR
Switching capacity	4T	14.4T	387T/1161T	645T/1935T	1290T/3870T	172T/516T	967T/2903T	1935T/5806T
Throughput	900Mpps	2700Mpps	115,200Mpp s	230,400Mpp s	460,800Mpp s	57,600Mpp s	460,800Mpp s	921,600Mpp s
MAC address table				NORMAL: 500	)K; ROUTING:	155k		
IPv4 FIB	1.3M	3.9M			3.9	М		
IPv6 FIB	1.3M	3.9M			3.9	М		
Flash					4GB			
SDRAM					32G			
CPU				2.2G	Hz@4Core			
400G Port	/	6	\$12504B <sup>.</sup> Sun	ports up to 4 l	PLI: \$12508R: \$1	upports up to 8	I PU! \$12516R.	Supports up
100G Port	8	48	to 16 LPU; S12500R-2L: Supports up to 2 LPU; S12508CR: Supports up to 8 LPU; S12516CR: Supports up to 16 LPU			o 8 LPU;		
25G Port	48	/						
MPU slots	/	/	2	2	2	2	2	2
LPU slots	/	/	4	8	16	2	8	16
Switching fabric module slots	/	/	6	6	6	/	9	9
Weight (full configuration)	≤9.2kg	≤14.7kg	≤100kg	≤190kg	≤350 kg	≤70 kg	≤400kg	≤620kg
Dimensions (H x W x D) mm	44 x 440 x 460 (1U)	65.5 x 440 x 660 (1.5U)	264 x 440 x 845 (6U)	531 x 440 x 845 (12U)	931x440x84 5 (21U)	133 x 440 x 895 (3U)	842 x442 x920 (19U)	1331 x442 x920 (30U)
			Redundant M	PUs, power mo	dules, and fan t	rays for S12500	R-2L	
Redundancy		Redu	ndant power mo	odules, and fan	trays for S1250	0R-48Y8C/S125	00R-48C6D	
		Redundant MPUs, switching fabric modules, power modules, and fan trays for other						
Temperature			Operati Storage	ng temperature temperature: -	e: 0°C to 40°C (3 40°C to 70°C (-4	32°F to 104°F) 40°F to 158°F)		
Humidity			Operat Storag	ing Humidity: 5 ge Humidity: 59	% to 95% (non 6 to 95% (non-6	-condensing) condensing)		



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WEEE,RoHS

Safety

CE, UL/cUL, FCC-PART15, VCCI,etc.

#### **Software Specifications**

ltem	Feature description		
Device	M-LAG(DRNI)		
Virtualization	S-MLAG		
Network	BGP-EVPN		
Virtualization	VxLAN		
	L2 VxLAN gateway		
	L3 VxLAN gateway		
	Distributed VxLAN gateway		
	Centralized VxLAN gateway		
	EVPN VxLAN		
	manual configured VxLAN		
VXLAIN	IPv4 VxLAN tunnel		
	IPv6 VxLAN tunnel		
	QinQ VxLAN access		
	VxLAN DCI, vxlan mapping and route regeneration to interconnect DCs by L2 and L3		
	VxLAN multicast		
	EVPN-VxLAN multicast		
	MPLS SR		
	TI-LFA FRR		
	BGP-EPE		
	MPLS TE policy		
	SRv6		
SR/SRv6	EVPN VPLS over SRv6		
	EVPN VPWS over SRv6		
	MPLS L3VPN over SRv6		
	EVPN L3VPN over SRv6		
	SRv6 BE		
	SRv6 TE		
	Support L3 MPLS VPN		
	Support L2 VPN: VLL (Martini, Kompella)		
	Support MCE		
	Support MPLS OAM		
IVIPLS/VPLS	Support VPLS, VLL		
	Support hierarchical VPLS and QinQ+VPLS access		
	Support P/PE function		
	Support LDP protocol		
	H3C SeerEngine-DC		
אוסכ	H3C SeerEngine-WAN		



	PFC and ECN
Lossless network	DCBX
	RDMA and ROCE
	PFC deadlock watchdog
	ECN overlay
	ROCE stream analysis
	Openflow1.3
Due anno 16 ilite	Netconf
Programmability	Ansible
	Python//TCL/Restful API to realize DevOps automated operation and maintenance
Troffic analysis	Sflow
Traffic analysis	Netstream
	Port-based VLANs
VLAN	VLAN mapping
	Dynamic learning and aging of mac address entries
MAC address	Dynamic,static and blackhole entries
	Mac address limiting on ports
	RIP(Routing Information Protocol) v1/2
	OSPF (Open Shortest Path First) v1/v2
	ISIS(Intermediate System to Intermediate system)
IPv4 routing	BGP (Border Gateway Protocol)
	Routing policy
	VRRP
	PBR
	RIPng
	OSPFv3
	IPv6 IS IS
IPv6 routing	BGP4+
	Routing policy
	VRRP
	PBR
	IGMP snooping
	MLD snooping
	IPv4 and IPv6 multicast VLAN
	IGMP V3
Multicast	PIM-SM and PIM-SSM
	PIM-DM
	MSDP
	IPv4 and IPv6 PIM snooping
	IGMP and MLD
	PIM and IPv6 PIM
	LACP
Reliability	LLDP
	STP/RSTP/MSTP protocol, PVST compatible



	STP Root Guard and BPDU Guard				
	RRPP and ERPS				
	Ethernet OAM				
	Smartlink				
	DLDP				
	BFD for OSPF/OSPFv3, BGP/BGP4, IS-IS/IS-ISv6, PIM/IPM for IPv6 and Static route				
	VRRP and VRRPE				
	Weighted Random Early Detection (WRED) and tail drop				
	Flexible queue scheduling algorithms based on port and queue, including strict priority (SP), Weighted Round Robin (WRR), Weighted Fair Queuing (WFQ), SP + WRR, and SP + WFQ.				
	Traffic shaping				
QOS	Packet filtering at L2 (Layer 2) through L4 (Layer 4); flow classification based on source MAC address, destination MAC address, source IP (IPv4/IPv6) address, destination IP (IPv4/IPv6) address, port, protocol, and VLAN to apply qos policy,including mirroring,redirection,priority remark etc.				
	Committed access rate (CAR)				
	Account by packet and byte				
	СОРР				
	gRPC				
	ERSPAN				
	Mirror on drop				
Telemetry	Telemetry Stream				
	Packet trace				
	Packet capture				
	Console telnet and SSH terminals				
	SNMPv1/v2/v3				
	ZTP				
	System log				
	File upload and download via FTP/TFTP				
	BootRom update and remote update				
Configuration and	NQA				
maintenance	ping,tracert				
	NTP				
	PTP(1588v2)				
	G8275.1				
	SyncE				
	GIR Graceful Insertion and Removal				
	Macsec				
	Hierarchical management and password protection of users				
Constituend	Authentication methods.including AAA.RADIUS and HWTACACS				
	Support DDos. ARP attack and ICMP attack function				
management	SSH 2.0				
	НТТРЅ				
	SSL				
	 PKI				



Boot ROM access control (password recovery)

RMON

#### **Performance and scalability**

ltem	Description	S12500R	12500R-48Y8C/12500R-48C8D
	M-LAG device number	2	2
Virtualization	ES-multihoming device number	8	8
	ED group	8	8
	max number of ingress ACLs	51200	51200
	Maximum number of Ingress QACL CARs	8K	8K
ACL	max number of ingress Counter	43008(shared between inbound and outbound )	43008(shared between inbound and outbound )
	max number of egress Car	8К	8К
	max number of egress Counter	8К	8К
	Jumbo frame length(byte)	960	9960
	Mirroring group	6	6
	max number of MACs per switch	Up to 500K	Up to 500K
	max number of ARP entries IPv4	88K	88K
	max ND table size for IPv6	88K	88K
	max number of unicast routes	3.9M	12500R-48Y8C: 1.3M
	IPv4	5.5101	12500R-48C8D: 3.9M
	max number of unicast routes	3.9M	12500R-48Y8C: 1.3M
	IPv6		12500R-48C8D: 3.9M
	IPv4 I2 multicast group	4K	4K
	IPv4 I3 multicast group	4K	4K
	IDv4 12 multicast routing	96K	12500R-48Y8C: 112K
Forwarding	1PV412 multicast routing	96K	125000-48080.900
table	IPv6 I2 multicast routing	JOK	12500R-4808D: 96K
		96K	12500R-48Y8C: 112K
	IPv4 I3 multicast routing		12500R-48C8D: 96K
		96K	12500R-48Y8C: 112K
	IPv6 I3 multicast routing		12500R-48C8D: 96K
	IPv6 l2 multicast group	4К	4К
	IPv6 l3 multicast group	4К	4К
	LAGG group	1024	1024
	LAGG member per group	256	256
	ECMP group	22527	22527
	ECMP member per group	256	256
	VRF	8К	8К
	Loopback interface number	1023	1023
	L3 sub interface number	8К	8K
Interface	SVI interface number	4094	4094
	SVI second ip	8191	8191
	VxLAN AC number	16K	16K



	VxLAN VSI number	16K	16K
	VxLAN tunnel number	15K	15K
	VSI interface number	16K	16K
	VSI interface second ip	8192	8192
	Total VRRP virtual mac-address		
	numbers	16	16
	IPv4 tunnel number	2К	2К
	IPv6 tunnel number	2К	2К
	VLAN number	4094	4094
	BFD session	2000 50ms*3	2000 50ms*3
		3.9M	12500R-48Y8C: 1.3M
	RIP routing table		12500R-48C8D: 3.9M
		3.9M	12500R-48Y8C: 1.3M
	RIPng routing table		12500R-48C8D: 3.9M
	OCDE routing table	3.9M	12500R-48Y8C: 1.3M
		2.24	12500K-48C8D: 3.9M
		3.2K	3.2K
	OSPF peer	2.014	
	OSPEv3 routing table	3.9M	12500R-4878C: 1.3M
		34	2K
	BGP Poor number	2000	2000
		2000	12500P-48V8C-13M
	BGP routing table	5.910	12500R-48C8D: 3.9M
Performance	BGP4+ Peer	2000	2000
renomance		3.9M	12500R-48Y8C: 1.3M
	BGP4+ routing table		12500R-48C8D: 3.9M
	ISIS process number	1000	1000
		3.9M	12500R-48Y8C: 1.3M
	ISIS routing table		12500R-48C8D: 3.9M
	ISISv6 process number	1000	1000
		3.9M	12500R-48Y8C: 1.3M
	ISISv6 routing table		12500R-48C8D: 3.9M
	RIB	8M	8M
	MSTP instance	64	64
	PVST instance	128	128
	PVST logical port number	1000	1000
	VRRP VRID	16	16
	VRRP group	4096	4096
	NQA group	5К	5К
	static mac-address	20480	20480
	static ARP	8192	8192
Static table	static ND	1024	1024
	static IPv4 routing table	2048000	2048000
	static IPv6 routing table	524k	524k

# Ordering information

Product ID	Product Description
LS-12500R-2L	H3C S12500R-2L Ethernet Switch Router Chassis
LS-12504R	H3C S12504R Ethernet Switch Router Chassis
LS-12508R	H3C S12508R Ethernet Switch Router Chassis
LS-12516R	H3C S12516R Ethernet Switch Router Chassis
LS-12508CR	H3C S12508CR Ethernet Switch Router Chassis
LS-12516CR	H3C S12516CR Ethernet Switch Router Chassis
LS-12500R-48Y8C	H3C S12500R-48Y8C Ethernet Switch Router with 48 SFP28 Ports and 8 QSFP28 Ports
LS-12500R-48C6D	H3C S12500R-48C6D Ethernet Switch Router with 48 QSFP28 Ports and 6 QSFP-DD Ports
LSXM1CMUR1	H3C S12500CR Switch Environment Management Module
LSXM1SUPKR1	H3C S12500CR Supervisor Engine Unit
LSXM1SUP04TR1	H3C S12504R Supervisor Engine Unit
LSXM1SUPER1	H3C S12500R Supervisor Engine Unit
LSXM1SFK04FR1	H3C S12504R Fabric Module,Type K(Class F)
LSXM1SFK08ER1	H3C S12508R Fabric Module,Type K(Class E)
LSXM1SFK08FR1	H3C S12508R Fabric Module,Type K(Class F)
LSXM1SFK08GR1	H3C S12508R Fabric Module,Type K(Class G)
LSXM1SFK16GR1	H3C S12516R Fabric Module,Type K(Class G)
LSXM1SFK16ER1LSXM1SFK08ER1	H3C S12516R Fabric Module, Type K(Class E)H3C S12508R Fabric Module, Type K(Class E)
LSXM1SFK08ER1	H3C S12508R Fabric Module,Type K(Class E)
LSXM1SFK08FR1	H3C S12508R Fabric Module,Type K(Class F)
LSXM1SFK08GR1	H3C S12508R Fabric Module,Type K(Class G)
LSXM1SFK16ER1	H3C S12516R Fabric Module,Type K(Class E)
LSXM1SFK16GR1	H3C S12516R Fabric Module,Type K(Class G)
LSXM1SFK08FR1	H3C S12508R Fabric Module,Type K(Class F)
LSXM1SFK08GR1	H3C S12508R Fabric Module,Type K(Class G)
LSXM1CDQ24KBR1	H3C S12500R 24-Port 400GBASE Ethernet Optical Interface Module(QSFP-DD)(KB)
LSXM1CGQ48KBR1	H3C S12500R 48-Port 100GBASE Ethernet Optical Interface Module(QSFP28)(KB)
LSXM1CDQ36KBR1	H3C S12500CR 36-Port 400GBASE Ethernet Optical Interface Module(QSFP-DD)(KB)
LSXM1CGQFX16KBR1	H3C S12500R 16-Port 100GBASE FlexE Ethernet Optical Interface Module(QSFP28)
LSXM1CGMS48KBR1	H3C S12500R 48-Port 100GBASE MACsec Ethernet Optical Interface Module (QSFP28)
LSXM1CCQ48KBR1	H3C S12500R 48-Port 200GBASE Ethernet Optical Interface Module (QSFP56)(KB)
LSXM1CGQ48KB1	H3C S12500X-AF 48-Port 100GBASE Ethernet Optical Interface Module(QSFP28)(KB)
LSXM1MOD24KBR1	H3C S12500R 24KBR Flexible Line Processing Platform Module
LSXM1SUP02LR1	H3C S12500R-2L Supervisor Engine Unit
LSXM1SUP02TR1	H3C S12500R-2L Supervisor Engine Unit
	H3C S12500R 36-Port 200GBASE Ethernet Optical Interface (QSFP56)/72-Port 100GBASE
	Ethernet Optical Interface Module (QSFP28)(KC)
PSR3000-54AHD	3000W AC & 240V-380V HVDC Power Supply
PSR3000-54A	3000W AC Power Supply Module

НЗС



PSR2400-54A	AC Power Module,2400W
PSR2400-54D	DC Power Module,2400W
CR-PEM-AC3000	AC 3000W Power Tray
PSR650B-12AHD-F	650W HVDC Power Supply
PSR650B-12A2-F	650W AC Power Supply (Power Panel Side Intake Airflow)
LSVM3PSRA	H3C 1800W AC Power Supply (Power Panel Side Exhaust Airflow)
PSR1600C-12A-B	1600W AC Power Supply Module (Power Panel Side Exhaust Airflow)
CR-PEM-DC2000	DC 2000W Power Tray
CR-PEM-HVDC3000	HVDC 3000W Power Tray
PSR650B-12A2-F	650W AC Power Supply (Power Panel Side Intake Airflow)
FAN-40B-1-C	Fan Module (Fan Panel Side Exhaust Airflow, Electronic Label Supported)
FAN-40F-1-D	H3C Fan Module(Fan Panel Side Intake Airflow)
LSXM104XFAN	H3C S12504X-AF Ethernet Switch Fan Module
LSXM104XFANH	H3C S12504X-AF Ethernet Switch High Power Fan Module
LSXM108XFAN	H3C S12508X-AF Ethernet Switch Fan Module
LSXM108XFANH	H3C S12508X-AF Ethernet Switch High Speed Fan Module
CAB-CON-1.8m	Single Cable, Console Serial Port Cable, 1.8m, D9F, 28UL20276(4P) (P296U), MPH-8P8C
CAB-Console-1.8m-W31R	Console Cable,1.8m,RJ45P,UL2725(3C28AWG),USB AP
LSVM1BSR10	H3C S9810 Bottom Support Rails,630mm~900mm
LSXM1BFP08A	08 Fabric Blank Filler Panel
LSTM2KSGD0	Slide Rail Accessories,500mm-800mm
LSXM1BSR	1U Bottom-Support Rails,630mm~900mm
LSXM1BFP16A	16 Fabric Blank Filler Panel
QSFP-100G-D-AOC-10M	100G QSFP28 to 100G QSFP28 10m Active Optical Cable
QSFP-100G-D-CAB-1M	100G QSFP28 to 100G QSFP28 1m Passive Cable
QSFP-100G-D-AOC-20M	100G QSFP28 to 100G QSFP28 20m Active Optical Cable
QSFP-100G-D-CAB-3M	100G QSFP28 to 100G QSFP28 3m Passive Cable
QSFP-100G-D-CAB-5M	100G QSFP28 to 100G QSFP28 5m Passive Cable
QSFP-100G-D-AOC-7M	100G QSFP28 to 100G QSFP28 7m Active Optical Cable
QSFP-100G-BIDI-MM850	100G QSFP28 Optical Transceiver Module (850nm,100m OM4,BIDI,LC)
QSFP-100G-SR4-MM850-H	100G QSFP28 Transceiver (850nm,100m OM4,SR4,MPO)
QSFP-100G-SR4-MM850	100G QSFP28 Optical Transceiver Module (850nm,100m OM4,SR4,MPO)
QSFP-100G-SWDM4-MM850	100G QSFP28 Optical Transceiver Module (850nm,100m OM4,SWDM4,LC)
QSFP-100G-eSR4-MM850	
	100G QSFP28 Optical Transceiver Module (850nm,300m OM4,eSR4,MPO)
QSFP-100G-PSM4-SM1310	100G QSFP28 Optical Transceiver Module (850nm,300m OM4,eSR4,MPO)100G QSFP28 Optical Transceiver Module (1310nm,500m,PSM4,MPO/APC)
QSFP-100G-PSM4-SM1310 QSFP-100G-LR4L-WDM1300	100G QSFP28 Optical Transceiver Module (850nm,300m OM4,eSR4,MPO)         100G QSFP28 Optical Transceiver Module (1310nm,500m,PSM4,MPO/APC)         100G QSFP28 Optical Transceiver Module (1310nm,2km,LR4L,CWDM4,LC)
QSFP-100G-PSM4-SM1310 QSFP-100G-LR4L-WDM1300 QSFP-100G-LR4-WDM1300	100G QSFP28 Optical Transceiver Module (850nm,300m OM4,eSR4,MPO)100G QSFP28 Optical Transceiver Module (1310nm,500m,PSM4,MPO/APC)100G QSFP28 Optical Transceiver Module (1310nm,2km,LR4L,CWDM4,LC)100G QSFP28 Optical Transceiver Module(1310nm,10km,LR4,WDM,LC)
QSFP-100G-PSM4-SM1310 QSFP-100G-LR4L-WDM1300 QSFP-100G-LR4-WDM1300 QSFP-100G-ER4L-WDM1300	100G QSFP28 Optical Transceiver Module (850nm,300m OM4,eSR4,MPO)100G QSFP28 Optical Transceiver Module (1310nm,500m,PSM4,MPO/APC)100G QSFP28 Optical Transceiver Module (1310nm,2km,LR4L,CWDM4,LC)100G QSFP28 Optical Transceiver Module(1310nm,10km,LR4,WDM,LC)100G QSFP28 Optical Transceiver Module (1310nm,40km,ER4L,WDM,LC)
QSFP-100G-PSM4-SM1310           QSFP-100G-LR4L-WDM1300           QSFP-100G-LR4-WDM1300           QSFP-100G-ER4L-WDM1300           QSFP-100G-ZR4-WDM1300	100G QSFP28 Optical Transceiver Module (850nm,300m OM4,eSR4,MPO)100G QSFP28 Optical Transceiver Module (1310nm,500m,PSM4,MPO/APC)100G QSFP28 Optical Transceiver Module (1310nm,2km,LR4L,CWDM4,LC)100G QSFP28 Optical Transceiver Module(1310nm,10km,LR4,WDM,LC)100G QSFP28 Optical Transceiver Module (1310nm,40km,ER4L,WDM,LC)100G QSFP28 Optical Transceiver Module (1300nm,80km,ZR4,WDM,LC)
QSFP-100G-PSM4-SM1310           QSFP-100G-LR4L-WDM1300           QSFP-100G-LR4-WDM1300           QSFP-100G-ER4L-WDM1300           QSFP-100G-ZR4-WDM1300           LSWM1QSTK0	100G QSFP28 Optical Transceiver Module (850nm,300m OM4,eSR4,MPO)100G QSFP28 Optical Transceiver Module (1310nm,500m,PSM4,MPO/APC)100G QSFP28 Optical Transceiver Module (1310nm,2km,LR4L,CWDM4,LC)100G QSFP28 Optical Transceiver Module(1310nm,10km,LR4,WDM,LC)100G QSFP28 Optical Transceiver Module (1310nm,40km,ER4L,WDM,LC)100G QSFP28 Optical Transceiver Module (1300nm,80km,ZR4,WDM,LC)100G QSFP28 Optical Transceiver Module (1300nm,80km,ZR4,WDM,LC)
QSFP-100G-PSM4-SM1310           QSFP-100G-LR4L-WDM1300           QSFP-100G-LR4-WDM1300           QSFP-100G-ER4L-WDM1300           QSFP-100G-ZR4-WDM1300           LSWM1QSTK0           LSWM1QSTK1	100G QSFP28 Optical Transceiver Module (850nm,300m OM4,eSR4,MPO)100G QSFP28 Optical Transceiver Module (1310nm,500m,PSM4,MPO/APC)100G QSFP28 Optical Transceiver Module (1310nm,2km,LR4L,CWDM4,LC)100G QSFP28 Optical Transceiver Module(1310nm,10km,LR4,WDM,LC)100G QSFP28 Optical Transceiver Module (1310nm,40km,ER4L,WDM,LC)100G QSFP28 Optical Transceiver Module (1310nm,40km,ER4L,WDM,LC)100G QSFP28 Optical Transceiver Module (1300nm,80km,ZR4,WDM,LC)100G QSFP28 Optical Transceiver Module (1300nm,80km,ZR4,WDM,LC)40G QSFP+ Cable 1m40G QSFP+ Cable 3m
QSFP-100G-PSM4-SM1310           QSFP-100G-LR4L-WDM1300           QSFP-100G-LR4-WDM1300           QSFP-100G-ER4L-WDM1300           QSFP-100G-ZR4-WDM1300           LSWM1QSTK0           LSWM1QSTK1           LSWM1QSTK2	100G QSFP28 Optical Transceiver Module (850nm,300m OM4,eSR4,MPO)100G QSFP28 Optical Transceiver Module (1310nm,500m,PSM4,MPO/APC)100G QSFP28 Optical Transceiver Module (1310nm,2km,LR4L,CWDM4,LC)100G QSFP28 Optical Transceiver Module(1310nm,10km,LR4,WDM,LC)100G QSFP28 Optical Transceiver Module (1310nm,40km,ER4L,WDM,LC)100G QSFP28 Optical Transceiver Module (1300nm,80km,ZR4,WDM,LC)100G QSFP28 Optical Transceiver Module (1300nm,80km,ZR4,WDM,LC)40G QSFP+ Cable 1m40G QSFP+ Cable 3m40G QSFP+ Cable 5m



QSFP-40G-D-AOC-20M	40G QSFP+ to 40G QSFP+ 20m Active Optical Cable
QSFP-40G-D-AOC-7M	40G QSFP+ to 40G QSFP+ 7m Active Optical Cable
QSFP-40G-BIDI-SR-MM850	QSFP+ 40GBASE BIDI Optical Transceiver Module (850nm,100m,SR)
QSFP-40G-BIDI-WDM850	QSFP+ 40GBASE BIDI Optical Transceiver Module (850nm,300m)
QSFP-40G-LR4-PSM1310-A	QSFP+ 40GBASE Optical Transceiver Module (1310nm,10km,MPO/APC,LR4,Parallel Single Mode)
QSFP-40G-SR4-MM850	QSFP+ 40GBASE Optical Transceiver Module (850nm,100m,SR4,Support 40G to 4*10G)
QSFP-40G-CSR4-MM850	QSFP+ 40GBASE Optical Transceiver Module (850nm,300m,CSR4,Support 40G to 4*10G)
QSFP-40G-LR4L-WDM1300	QSFP+ 40GBASE Optical Transceiver Module (1310nm,2km,LR4L,LC)
QSFP-40G-LR4-WDM1300	QSFP+ 40GBASE Optical Transceiver Module (1310nm,10km,LR4,LC)
QSFP-40G-LX4-WDM1300	QSFP+ 40G Optical Transceiver Module(1310nm,150m,OM3,LX4)
QSFP-40G-ER4-WDM1300	QSFP+ 40GBASE Optical Transceiver Module (1310nm,40km,ER4,LC)
QSFP-40G-LR4-PSM1310	QSFP+ 40GBASE Optical Transceiver Module (1310nm,10km,MPO/APC,LR4,Parallel Single Mode)
QSFP56-200G-FR4-WDM1300	200G QSFP56 Single-Mode Optical Transceiver Module (1300nm,2km,FR4,SMF/LC)
QSFP56-200G-SR4-MM850	200G QSFP56 Multimode Optical Transceiver Module (850nm,100m,OM4,70m OM3,SR4,MPO12/UPC)
QSFPDD-400G-LR4-WDM1300- DC	400G QSFP-DD Single-Mode Optical Transceiver Module(for Data Center Only)(1300nm,10km,LR4,LC)
QSFPDD-400G-LR8-WDM1300	400G QSFP-DD Single-Mode Optical Transceiver Module (1300nm,10km,LR8,LC)
QSFPDD-400G-ZR-A	400G QSFP-DD Single-Mode Coherent Optical Transceiver Module (120km,Tunable,ZR,LC)
QSFPDD-400G-FR4-WDM1300	400G QSFPDD Single-Mode Optical Transceiver Module(1300nm,2km,FR4,LC)
QSFPDD-400G-SR8-MM850	400G QSFPDD Multimode Optical Transceiver Module(850nm,100m OM4,70m OM3,SR8,MPO16/APC,1-to-2 Breakout Supported)
QSFPDD-400G-SR4-MM850	400G QSFPDD Multimode Optical Transceiver Module(850nm,50m OM4,30m OM3,SR4,MPO12/APC,1-to-2/1-to-4 Breakout Supported)



The Leader in Digital Solutions

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