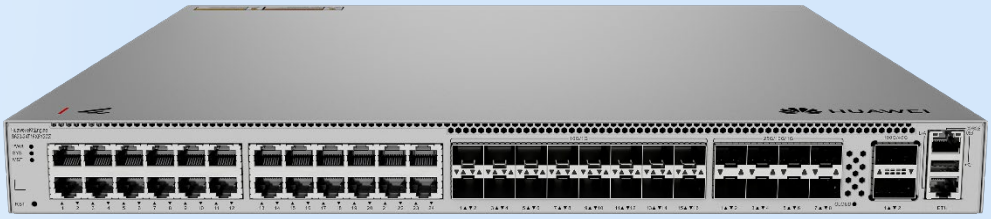
HUAWEI eKit

Huawei eKitEngine S620-24T16X8Y2CZ Switch Datasheet



10GE Hybrid Optical-Electrical Core Switch

Make SME Network Easier and Smarter

HUAWEI

Product Overview

Huawei eKitEngine S620-24T16X8Y2CZ is an enhanced fully-managed 10GE switch designed for the small and medium-sized business (SMB) market. It provides a variety of ports, such as GE electrical, 10GE optical, 40GE optical, and 100GE optical, supporting flexible and high-bandwidth network deployment. This switch features diversified security control, rich management methods, higher performance, and extended service processing capabilities. Therefore, it can be widely used as a core or aggregation switch on large- and medium-sized networks.

Feature Description

Enabling Networks to Be More Agile for Services

- The switch supports user-defined traffic forwarding modes, forwarding behaviors, and search algorithms.
- The switch has a built-in high-speed and flexible processor chip designed specifically for Ethernet. With flexible packet processing and traffic control capabilities, it can closely align with service requirements, address the diverse challenges of today and tomorrow, and help customers build resilient and scalable networks.
- In addition to the capabilities of traditional switches, the switch also provides open interfaces and supports user-defined forwarding processes to meet service customization requirements of enterprises. Enterprises can use the open interfaces to develop new protocols and functions independently or jointly with equipment vendors to build campus networks that meet their own needs.

Delivering Abundant Services More Agilely

- The switch supports unified user management and shields the differences in access device capabilities and access modes. It supports multiple authentication modes, including 802.1X and MAC address authentication, and can manage users based on groups, domains, and time ranges. This feature visualizes user and service management and facilitates the transition from device-centered to user-centered management.
- The switch provides excellent QoS capabilities and supports queue scheduling and congestion control algorithms. It also adopts innovative priority queuing and multi-level scheduling mechanisms to implement fine-grained scheduling of data flows, meeting service quality requirements of different user terminals and services.

Flexible Ethernet Networking

- In addition to supporting traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), the switch is also designed with the industry's latest Ethernet Ring Protection Switching (ERPS) technology. ERPS is defined in ITU-T G.8032. It provides millisecond-level protection switching based on traditional Ethernet MAC and bridging functions.
- The switch supports the Smart Link and Virtual Router Redundancy Protocol (VRRP) functions, which implement backup of uplinks. One switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.

Intelligent Stack (iStack)

- The switch supports the iStack function that combines multiple switches into a logical switch.
- Member devices in an iStack implement redundancy to improve device reliability and use inter-device link aggregation to improve link reliability.
- iStack provides high network scalability. You can increase ports, bandwidth, and processing capacity of a stack by simply adding member switches to the stack.
- iStack simplifies device configuration and management. After a stack is set up, multiple physical switches are virtualized into one logical device. You can log in to any stack member switch to manage all the member switches in the stack.

Smart Upgrade

- Based on Huawei Online Upgrade Repository (HOUP), the switch supports smart upgrade. It obtains the version upgrade path from the HOUP and downloads the new version. The upgrade process is highly automated as it supports one-click upgrade. In addition, this feature supports version pre-loading, which significantly shortens the upgrade time and reduces the service interruption time.
- Smart upgrade greatly simplifies device upgrade operations, making it possible for customers to upgrade versions by themselves. This feature helps customers reduce considerable maintenance costs. In addition, the upgrade policy of the HOUP is used to standardize the upgrade path, which greatly reduces the risk of upgrade failure.

Cloud Management

- The HUAWEI eKit App allows users to configure, monitor, and inspect switches on the cloud, reducing onsite deployment and O&M manpower costs and decreasing network OPEX.
- The switch supports both cloud management and on-premises management modes. These two management modes can be flexibly switched as required to achieve smooth evolution while maximizing return on investment (ROI).

Easy O&M

- The switch supports various management and maintenance modes, such as HUAWEI eKit App, smart network controller (SNC), SNMPv1/v2c/v3, command-line interface (CLI), web system, and SSHv2.0.

Product Specifications

Product Model	eKitEngine S620-24T16X8Y2CZ
Fixed port	24 x 10/100/1000M BASE-T ports, 16 x 10GE SFP+ ports, 8 x 25GE SFP28 ports, 2 x 40GE/100GE QSFP28
Switching capacity	1168Gbps
Packet forwarding rate	867 Mpps
Expansion slot	One slot reserved for expansion card
Chassis dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm
Chassis height (U)	1 U
Chassis weight (excluding packaging materials)	6.31kg
Power supply type	180 W AC power module 240 W DC power module 400 W DC power module 600 W AC power module
Rated input voltage	• AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz • High-voltage DC input: 240 V DC • DC input: –48 V DC to –60 V DC
Input voltage range	• AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-voltage DC input: 190 V DC to 290 V DC • DC input: –38.4 V DC to –72 V DC
Typical power consumption	122W

Product Model	eKitEngine S620-24T16X8Y2CZ
Maximum power consumption	127W
Noise under normal temperature (sound power)	41.2 dBA
Long-term operating temperature	–5°C to +45°C (23°F to 113°F)
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Relative humidity	5% to 95% (non-condensing)
Power port surge protection	• AC power port: ±6 kV in differential mode, ±6 kV in common mode • DC power port: ±2 kV in differential mode, ±4 kV in common mode
Heat dissipation mode	Air cooling, intelligent fan speed adjustment

Service Features

Item	Service Feature
User management	Unified user management
	802.1X and MAC address authentication
	Traffic- and duration-based accounting
	User authorization based on user groups, domains, and time ranges
MAC	Automatic MAC address learning and aging
	Up to 64K MAC address entries
	Static, dynamic, and blackhole MAC address entries
	Source MAC address filtering
	MAC address learning limiting based on ports and VLANs
VLAN	4K VLANs
	Access, trunk, and hybrid ports
	Default VLAN
	QinQ and enhanced selective QinQ
	VLAN stacking
	MAC address–based dynamic VLAN allocation
ARP	ARP snooping
IP routing	IPv4 dynamic routing protocols such as RIP, OSPF, IS-IS, and BGP
	IPv6 dynamic routing protocols such as RIPng, OSPFv3, IS-ISv6, and BGP4+
IPv6 features	ND (Neighbor Discovery)
	Path MTU (PMTU)

Item	Service Feature
	IPv6 ping, IPv6 tracert, and IPv6 Telnet
Multicast	IGMPv1/v2/v3 and IGMPv1/v2/v3 snooping
	PIM DM, PIM SM, and PIM SSM
	Fast leave mechanism for users
	Multicast traffic control
	Multicast querier
	Multicast protocol packet suppression
QoS	Traffic classification based on Layer 2 headers, Layer 3 protocols, Layer 4 protocols, and 802.1p priority
	Actions such as ACL, CAR, re-marking, and scheduling
	Queue scheduling modes such as PQ, DRR, and PQ+DRR
	Congestion avoidance mechanisms such as WRED and tail drop
	Traffic shaping
	Network slicing
Native-IP IFIT	Direct marking of service packets to obtain real-time statistics about dropped packets and packet loss rate
	Two-way latency measurement for packets
	Statistical interval modification
Ring network protection	STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s)
	BPDU protection, root protection, and loop prevention
	G.8032 Ethernet Ring Protection Switching (ERPS)
Reliability	M-LAG
	Stacking
	LACP and inter-device aggregation
	Virtual Router Redundancy Protocol (VRRP) and Bidirectional Forwarding Detection (BFD) for VRRP
	BFD for BGP, IS-IS, OSPF, and static routing
	Ethernet OAM (IEEE 802.1ag)
	Smart Link
System management	Terminal access services such as console port login, Telnet, and SSH
	Network management protocols, such as SNMPv1/v2/v3
	File upload and download through FTP, TFTP, and SFTP
	Boot Read-Only Memory (BootROM) upgrade and remote online upgrade
	Hot patching
	User operation logs

Item	Service Feature
	Open Programmability System (OPS)
	Streaming Telemetry
Security and management	Network Access Control (NAC)
	RADIUS and HWTACACS authentication for user login
	MAC security (MACsec)
	Command line authority control based on user levels, preventing unauthorized users from using commands
	Defense against DoS attacks, TCP SYN flood attacks, UDP flood attacks, broadcast storms, and heavy-traffic attacks
	IPv6 RA Guard
	CPU hardware queues to implement hierarchical scheduling and protection for protocol packets on the control plane
	Remote Network Monitoring (RMON)

More Information

For more information about Huawei WLAN products, visit http://e.huawei.com or contact Huawei's local sales office.

Alternatively, you can contact us through one of the following methods:

1. Global service hotline: http://e.huawei.com/en/service-hotline
2. Enterprise technical support website: https://support.huawei.com/enterprise/
3. Service email address for enterprise users: support_e@huawei.com

Huawei Technologies Co., Ltd.

Address: Huawei Industrial Base, Bantian, Longgang, Shenzhen, People's Republic of China

Post code: 518129

Website: www.huawei.com