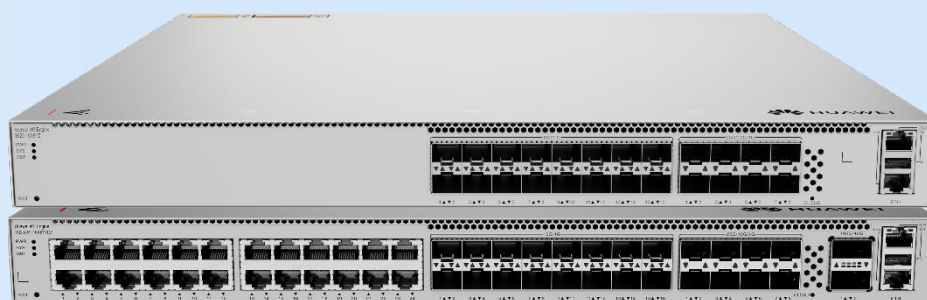


# HUAWEI eKitEngine S620 Series Switches Datasheet



## 10GE Core Switch

Make SME Network Easier and Smarter



# Product Overview

Huawei eKitEngine S620 Series Switches are 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                                                                       | eKitEngine S620-16X8YZ                                                                           |
|------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 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 | 16 x GE/2.5GE/10GE SFP+, 8 x GE/2.5GE/10GE/25GE SFP28                                            |
| Switching capacity                             | 1168Gbps                                                                                          | 1160 Gbps                                                                                        |
| Packet forwarding rate                         | 867 Mpps                                                                                          | 450 Mpps                                                                                         |
| Expansion slot                                 | One slot reserved for expansion card                                                              | One slot reserved for expansion card                                                             |
| Chassis dimensions (H x W x D)                 | 43.6 mm x 442.0 mm x 420.0 mm                                                                     | 43.6 mm x 442.0 mm x 420.0 mm                                                                    |
| Chassis height (U)                             | 1 U                                                                                               | 1 U                                                                                              |
| Chassis weight (excluding packaging materials) | 6.31kg                                                                                            | 6.0kg                                                                                            |
| Power supply type                              | 180 W AC power module<br>240 W DC power module<br>400 W DC power module<br>600 W AC power module  | 180 W AC power module<br>240 W DC power module<br>400 W DC power module<br>600 W AC power module |
| Rated input                                    | ● AC input: 100 V AC to 130 V AC, 200 V AC to                                                     | ● AC input: 100 V AC to 130 V AC, 200 V AC to                                                    |

| Product Model                                | eKitEngine S620-24T16X8Y2CZ                                                                                                                                                                          | eKitEngine S620-16X8YZ                                                                                                                                                                               |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| voltage                                      | 240 V AC, 50/60 Hz <ul style="list-style-type: none"> <li>• High-voltage DC input: 240 V DC</li> <li>• DC input: -48 V DC to -60 V DC</li> </ul>                                                     | 240 V AC, 50/60 Hz <ul style="list-style-type: none"> <li>• High-voltage DC input: 240 V DC</li> <li>• DC input: -48 V DC to -60 V DC</li> </ul>                                                     |
| Input voltage range                          | <ul style="list-style-type: none"> <li>• AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz</li> <li>• High-voltage DC input: 190 V DC to 290 V DC</li> <li>• DC input: -38.4 V DC to -72 V DC</li> </ul> | <ul style="list-style-type: none"> <li>• AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz</li> <li>• High-voltage DC input: 190 V DC to 290 V DC</li> <li>• DC input: -38.4 V DC to -72 V DC</li> </ul> |
| Typical power consumption                    | 122W                                                                                                                                                                                                 | - 79 W (with two 180 W AC PSUs)<br>- 73 W (with two 240 W DC power modules)                                                                                                                          |
| Maximum power consumption                    | 127W                                                                                                                                                                                                 | - 85 W (with two 180 W AC power modules)<br>- 78 W (with two 240 W DC power modules)                                                                                                                 |
| Noise under normal temperature (sound power) | 41.2 dBA                                                                                                                                                                                             | 54.2 dBA                                                                                                                                                                                             |
| Long-term operating temperature              | -5°C to +45°C (23°F to 113°F)                                                                                                                                                                        | -5°C to +45°C (23°F to 113°F)                                                                                                                                                                        |
| Storage temperature                          | -40°C to +70°C (-40°F to +158°F)                                                                                                                                                                     | -40°C to +70°C (-40°F to +158°F)                                                                                                                                                                     |
| Relative humidity                            | 5% to 95% (non-condensing)                                                                                                                                                                           | 5% to 95% (non-condensing)                                                                                                                                                                           |
| Power port surge protection                  | <ul style="list-style-type: none"> <li>• AC power port: ±6 kV in differential mode, ±6 kV in common mode</li> <li>• DC power port: ±2 kV in differential mode, ±4 kV in common mode</li> </ul>       | <ul style="list-style-type: none"> <li>• AC power port: ±6 kV in differential mode, ±6 kV in common mode</li> <li>• DC power port: ±2 kV in differential mode, ±4 kV in common mode</li> </ul>       |
| Heat dissipation mode                        | Air cooling, intelligent fan speed adjustment                                                                                                                                                        | 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                |

| Item                    | Service Feature                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
|                         | 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)                                                                                             |
|                         | IPv6 ping, IPv6 tracer, IPv6 Telnet, and DHCP Server V6                                                     |
| 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                                                                                                       |

| Item                    | Service Feature                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------|
|                         | 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                                                                                                |
|                         | 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

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