HUAWEI eKit

Huawei eKitEngine S310S Series Switches Datasheet

Layer 3 Capabilities | Differentiated Ports | Rich Services

Make SME Network Easier and Smarter

HUAWEI

Product Overview

Huawei eKitEngine S310S series switches are Layer 3 managed GE/10GE switches designed for the SME/SMB market. These switches feature flexible Ethernet networking, diversified security control, and rich management methods, higher performance, and extended service processing capabilities. Therefore, they can be widely used in scenarios such as budget hotels, factories, primary and secondary education institutions, and building security.

Product Features and Highlights

Flexible Ethernet Networking

- These switches provide various uplink and downlink ports, including GE/2.5GE multi-rate electrical access ports and GE/2.5GE/10GE multi-rate optical uplink ports, greatly improving networking flexibility.
- In addition to traditional Spanning Tree Protocol (STP) and Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP)*, the switches also support the industry's latest Ethernet Ring Protection Switching (ERPS) standard. ERPS is defined in ITU-T G.8032. It provides millisecond-level protection switching using traditional Ethernet MAC and bridging functions.

(*This feature will be supported after a software upgrade.)

Diversified Security Control

- The switches can defend against DoS and user-targeted attacks.
- The switches can generate and maintain DHCP snooping binding entries and discard invalid packets that do not match the binding entries. The DHCP snooping trusted port feature ensures that users connect only to the authorized DHCP server.

PoE Power Supply

PoE-capable models provide the following capabilities:

- Perpetual PoE: When a switch reboots (for example, during software upgrade), the power supply to connected PDs is not interrupted.

Smart Upgrade

- Leveraging Huawei Online Upgrade Platform (HOUP), the switches support smart upgrade. They obtain the version upgrade path from the HOUP and download the new system software, achieving automatic one-click upgrade.
- Smart upgrade greatly simplifies device upgrade operations, enabling customers to upgrade versions by themselves. This feature helps customers reduce maintenance costs considerably. In addition, the upgrade policy of the HOUP standardizes the upgrade path, which greatly reduces the risk of upgrade failure.

Easy O&M

- The HUAWEI eKit App or SNC allows users to configure, monitor, and inspect switches on the cloud, reducing required on-site deployment and O&M workforce and network OPEX.
- The switches support cloud-based management and local management, simplifying management and O&M.

Product Specifications

Item	eKitEngine S310S-8T2X	eKitEngine S310S-8P4JX
Product appearance		
Switching capacity	56 Gbps	66 Gbps
Packet forwarding rate	42 Mpps	49 Mpps
Fixed port	8 x 10/100/1000BASE-T ports, 2 x 10GE SFP+ ports	8 x 10/100/1000BASE-T ports (PoE+), 2 x 2.5GE SFP ports, 2 x 10GE SFP+ ports
Chassis dimensions (H x W x D)	43.6 mm x 250 mm x 180 mm	43.6 mm x 320 mm x 210 mm
Chassis height	1 U	1 U
Weight without packaging	1.34 kg	2.53 kg
Installation mode	Desktop-mounted, wall-mounted, or rack-mounted (delivered with mounting brackets)	Desktop-mounted, wall-mounted, or rack-mounted (delivered with mounting brackets)
Power supply mode	Built-in AC power supply	Built-in AC power supply
Rated input voltage	AC input: 100 V AC to 240 V AC; 50/60 Hz	AC input: 100 V AC to 240 V AC; 50/60 Hz
Input voltage range	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz	AC input: 90 V AC to 300 V AC; 47 Hz to 63 Hz
Maximum power consumption	10.94 W	Without PoE: 23.23 W Full PoE load: 161.56 W (PoE: 128 W)
Noise	Noise-free (no fans)	Noise-free (no fans)
Long-term operating temperature	–5°C to +40°C (0 m to 1800 m)	–5°C to +40°C (0 m to 1800 m)
Storage temperature	–40°C to +70°C	–40°C to +70°C
Relative humidity	5% RH to 95% RH, non-condensing	5% RH to 95% RH, non-condensing
Heat dissipation mode	Fanless, natural heat dissipation	Fanless, natural heat dissipation

Item	eKitEngine S310S-8P4UN2X	eKitEngine S310S-4P8UN2X	eKitEngine S310S-10PN4JX
Product appearance			
Switching capacity	76 Gbps	88 Gbps	76 Gbps
Packet forwarding rate	56 Mpps	65 Mpps	56 Mpps
Fixed port	8 x 10/100/1000BASE-T ports (PoE+), 4 x 10/100/1000/2.5GBASE-T ports (PoE++), 2 x 10GE SFP+ ports	4 x 10/100/1000BASE-T ports (PoE+), 8 x 10/100/1000/2.5GBASE-T ports (4 x PoE+, 4 x PoE++), 2 x 10GE SFP+ ports	8 x 10/100/1000BASE-T ports (6 x PoE+), 2 x 10/100/1000/2.5GBASE-T ports (PoE+), 2 x 10GE SFP+, 2 x 2.5GE SFP ports
Chassis dimensions (H x W x D)	43.6 mm x 250 mm x 180 mm	43.6 mm x 250 mm x 180 mm	43.6 mm x 320 mm x 210 mm
Chassis height	1 U	1 U	1 U
Weight without packaging	2.51 kg	2.49 kg	2.55 kg
Installation mode	Desktop-mounted, wall-mounted, or rack-mounted (delivered with mounting brackets)	Desktop-mounted, wall-mounted, or rack-mounted (delivered with mounting brackets)	Desktop-mounted, wall-mounted, or rack-mounted (delivered with mounting brackets)
Power supply mode	Power adapter	Power adapter	Built-in AC power supply
Rated input voltage	Power adapter input: 170 V AC to 240 V AC; 50/60 Hz Power adapter output: 54 V DC	Power adapter input: 170 V AC to 240 V AC; 50/60 Hz Power adapter output: 54 V DC	AC input: 100 V AC to 240 V AC; 50/60 Hz
Input voltage range	Power adapter input: 170 V AC to 264 V AC; 47 Hz to 63 Hz	Power adapter input: 170 V AC to 264 V AC; 47 Hz to 63 Hz	AC input: 90 V AC to 300 V AC; 47 Hz to 63 Hz
Maximum power consumption	Without PoE: 20.8 W Full PoE load: 160.2 W (PoE: 125 W)	Without PoE: 25.9 W Full PoE load: 171.1 W (PoE: 120 W)	Without PoE: 24.03 W Full PoE load: 162.36 W (PoE: 128 W)
Noise	Noise-free (no fans)	Noise-free (no fans)	Noise-free (no fans)
Long-term operating temperature	–5°C to +45°C (0 m to 1800 m)	–5°C to +45°C (0 m to 1800 m)	–5°C to +40°C (0 m to 1800 m)
Storage	–40°C to +70°C	–40°C to +70°C	–40°C to +70°C

Item	eKitEngine S310S-8P4UN2X	eKitEngine S310S-4P8UN2X	eKitEngine S310S-10PN4JX
temperature			
Relative humidity	5% RH to 95% RH, non-condensing	5% RH to 95% RH, non-condensing	5% RH to 95% RH, non-condensing
Heat dissipation mode	Fanless, natural heat dissipation	Fanless, natural heat dissipation	Fanless, natural heat dissipation

Item	eKitEngine S310S-24T4J	eKitEngine S310S-24T4JX
Product appearance		
Switching capacity	68 Gbps	98 Gbps
Packet forwarding rate	51 Mpps	73 Mpps
Fixed port	24 x 10/100/1000BASE-T ports, 4 x 2.5GE SFP ports	24 x 10/100/1000BASE-T ports, 2 x 10GE SFP+ ports, 2 x 2.5GE SFP ports
Chassis dimensions (H x W x D)	43.6 mm x 442 mm x 160 mm	43.6 mm x 442 mm x 160 mm
Chassis height	1 U	1 U
Weight without packaging	1.97 kg	1.97 kg
Installation mode	Desktop-mounted, wall-mounted, or rack-mounted (delivered with mounting brackets)	Desktop-mounted, wall-mounted, or rack-mounted (delivered with mounting brackets)
Power supply mode	Built-in AC power supply	Built-in AC power supply
Rated input voltage	AC input: 100 V AC to 240 V AC; 50/60 Hz	AC input: 100 V AC to 240 V AC; 50/60 Hz
Input voltage range	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz	AC input: 90 V AC to 264 V AC; 45 Hz to 65 Hz
Maximum power consumption	21.9 W	21.9 W
Noise	Noise-free (no fans)	Noise-free (no fans)
Long-term operating temperature	–5°C to +40°C (0 m to 1800 m)	–5°C to +40°C (0 m to 1800 m)
Storage	–40°C to +70°C	–40°C to +70°C

Item	eKitEngine S310S-24T4J	eKitEngine S310S-24T4JX
temperature		
Relative humidity	5% RH to 95% RH, non-condensing	5% RH to 95% RH, non-condensing
Heat dissipation mode	Fanless, natural heat dissipation	Fanless, natural heat dissipation

Item	eKitEngine S310S-24P4J	eKitEngine S310S-24P4JX	eKitEngine S310S-26PN4JX
Product appearance			
Switching capacity	68 Gbps	98 Gbps	98 Gbps
Packet forwarding rate	51 Mpps	73 Mpps	73 Mpps
Fixed port	24 x 10/100/1000BASE-T ports (PoE+), 4 x 2.5GE SFP ports	24 x 10/100/1000BASE-T ports (PoE+), 2 x 10GE SFP+ ports, 2 x 2.5GE SFP ports	24 x 10/100/1000BASE-T ports (22 x PoE+), 2 x 10/100/1000/2.5GBASE-T combo ports (PoE+), 2 x 10GE SFP+ ports
Chassis dimensions (H x W x D)	43.6 mm x 442 mm x 220 mm	43.6 mm x 442 mm x 220 mm	43.6 mm x 442 mm x 220 mm
Chassis height	1 U	1 U	1 U
Weight without packaging	2.8 kg	2.8 kg	2.81 kg
Installation mode	Desktop-mounted, wall-mounted, or rack-mounted (delivered with mounting brackets)	Desktop-mounted, wall-mounted, or rack-mounted (delivered with mounting brackets)	Desktop-mounted, wall-mounted, or rack-mounted (delivered with mounting brackets)
Power supply mode	Built-in AC power supply	Built-in AC power supply	Built-in AC power supply
Rated input voltage	AC input: 100 V AC to 240 V AC; 50/60 Hz High-voltage DC input: 240 V DC	AC input: 100 V AC to 240 V AC; 50/60 Hz High-voltage DC input: 240 V DC	AC input: 100 V AC to 240 V AC; 50/60 Hz High-voltage DC input: 240 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	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	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

Item	eKitEngine S310S-24P4J	eKitEngine S310S-24P4JX	eKitEngine S310S-26PN4JX
Maximum power consumption	Without PoE: 38.58 W Full PoE load: 482.55 W (PoE: 400 W)	Without PoE: 38.58 W Full PoE load: 482.55 W (PoE: 400 W)	Without PoE: 39.40 W Full PoE load: 484.27 W (PoE: 400 W)
Noise	Sound power at normal temperature: 41.9 dB(A) Sound pressure at normal temperature: 40.1 dB(A)	Sound power at normal temperature: 41.9 dB(A) Sound pressure at normal temperature: 40.1 dB(A)	Sound power at normal temperature: 41.9 dB(A) Sound pressure at normal temperature: 40.1 dB(A)
Long-term operating temperature	–5°C to +45°C (0 m to 1800 m)	–5°C to +45°C (0 m to 1800 m)	–5°C to +45°C (0 m to 1800 m)
Storage temperature	–40°C to +70°C	–40°C to +70°C	–40°C to +70°C
Relative humidity	5% RH to 95% RH, non-condensing	5% RH to 95% RH, non-condensing	5% RH to 95% RH, non-condensing
Heat dissipation mode	Air cooling, intelligent fan speed adjustment	Air cooling, intelligent fan speed adjustment	Air cooling, intelligent fan speed adjustment

Service Feature

Feature	Description
MAC address table	Compliance with IEEE 802.1D Automatic MAC address learning and aging Up to 16K MAC address entries Static, dynamic, and blackhole MAC address entries
VLAN features	4K VLANs Voice VLAN
Reliability	STP (IEEE 802.1D), RSTP (IEEE 802.1w) ERPS (G.8032) Loopback detection Link aggregation Storm control
Multicast	IGMPv1/v2/v3 snooping
IP routing	Address Resolution Protocol (ARP) DHCP client, DHCP server, DHCP relay DNS client Static routing and policy-based routing (PBR) Up to 256 FIBv4 entries

Feature	Description
	Network Time Protocol (NTP)
QoS/ACL	IPv4 access control list (ACL) Ingress and egress traffic rate limiting on a port Packet priority re-marking Packet traffic statistics Packet filtering Eight queues on each port
Security features	DHCP snooping IP Source Guard (IPSG) Defense against DoS, ARP, and ICMP attacks Secure boot Port isolation Port security ARP security Blackhole MAC address entries AAA authentication CPU protection
Management and maintenance	Cloud-based, SNC-based, and App-based management Network-wide management through the EasyWeb Web-based management (HTTPS) SSH v2.0 Link Layer Discovery Protocol (LLDP) System logs and multi-level alarms Port mirroring Ping and tracert diagnosis Virtual cable test (VCT) Deployment through the registration query center

More Information

For more information about Huawei eKitEngine switches, visit https://ekit.huawei.com/ or contact Huawei's local sales office. Alternatively, you can contact us through one of the following methods:

- Global service hotline: http://e.huawei.com/en/service-hotline
- Enterprise technical support website: http://support.huawei.com/enterprise
- Sending an email to the customer service mailbox: support_e@huawei.com

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