

AGNIGATE S6024X Series Switches Datasheet



- **S6024X-2-SP** 24 x 10G SFP+ and 2 x 100G QSFP28 uplink, Dual Power Modules, Dual Hot swap Fan Modules
- **S6024X-2-FP** 24 x 10G SFP+ and 2 x 100G QSFP28 uplink, Fixed Power, Fixed Fan

OVERVIEW

AgniGate S6024X Series routing switches, high-performance Layer 3 Ethernet switch with 10G/100G Ports compact 1U form factor. The AGNIOs delivers robust feature support, Provide complete Layer 3 network features. Built from the ground up with the combination of advanced hardware and software, the switch provides a powerful Layer 3 routing solution for next generation enterprise, Wi-Fi 6 Access, Metro and HCI (Hyper Converged Infrastructure) networks.

Based on Carrier Grade High performance chip

AgniGate S6024X Series routing switches, which are designed based on next generation Ethernet Switching chip. The Carrier Grade high-performance chip which help the S6024X Series to meet the requirement of Metro/Enterprise/Data Center/HCI networks.

System Design for Green and Energy Saving

Intelligent FAN adjustment and real-time power consumption monitoring technology are provided for the cost of maintenance redundancy and help to build a green and energy saving networks.

Customized Profile for Different Deployment Scenarios

The Flexible Table Management (FTM) technology offers multiple table size configuration profiles as optimized choices for different network scenarios. Support up to 112K * MAC address tables. Support up to 56K * IP routing tables.

Intelligent Ethernet OAM: completed network fault management and performance guaranty

With the IEEE802.1ag and ITU-T Y.1731 end-to-end OAM, Ethernet service providers can monitor the services, survey the end-to end performance and ensure the service quality match the agreement.

- The fault management technique includes CCM, LTM and LBM. Performance targets include measure for latency and Jitter.
- S6024X Series routing switches Support remote management, network monitoring, network fault indication, remote loopback and MIB parameter retrieval according to the standard 802.3ah EFM.

Data Center Features

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S6024X Series support leading edge Data Center features: Priority Flow Control (PFC), explicit Congestion Notification (ECN) and Data Center TCP, etc.

Support MLAG (Multi-Chassis Link Aggregation) to aggregate links across different devices. MLAG can build an Active-Active system to improve the reliability of the network links from single board grade to device grade. MLAG use a peer link between to devices to aggregate two devices and make them as one device logically. Ports of two different devices join the aggregate ports together and all port can transmit the data traffic. MLAG need to management the device respectively, but the configurations are easier than stacking, reboot is NOT required after MLAG is configured. Forwarding and configuring are processing on local device, in normal condition the traffic do NOT transmit trough the peer link, the bandwidth of peer link is not the bottleneck of the network and the latency is low.

Support overlay technology (include NVGRE/VXLAN/GENEVE etc.). Overlay can make layer2 packets across the layer3 networks by using NVGRE/VXLAN/GENEVE header to encapsulate the entire ethernet packets. Overlay resolves the problem of MAC table size limitation in traditional layer2 networks, resolves the problem of VLAN id count limitation, and resolves the problem network dynamic adjustment which cannot achieve by VLAN/VPN. Use VXLAN for example, 24 bits VNI identifier can support at most 16777215 logic networks, layer2 networks built by VXLAN can keep the same IP/MAC etc. when move the virtue machine.

MLAG and overlay features are also good candidates for switches in data center network.

S6024X Series supports RPC-API for SDN(Software Defined Network). SDN is a new architecture of network which can substantially simplify the management and maintenance by separating the control plane and data plane of the network.

High Reliability

AgniGate S6024X Series is powered by Hot-swappable power modules which supports AC/DC 1+1 redundancy; Fans support 1+1 redundancy; Support Real-time environment monitoring technology to detect the chipset temperature, status of fan and power, etc.

- Support LACP / ECMP / VRRP / VARP / STP/RSTP/MSTP / Smart Link / BFD / ERPS / G.8031 / G.8032 / Load-Balancing, etc. to protect the network traffic all-around effectively.
- Patented technology “Sysmon” for CPU status monitoring can take action when system is error.

Outstanding QoS Control

AgniGate S6024X Series routing switches provides 13 hardware queues per-port (8 unicast queues, 4 multicast queues, and 1 monitor queue).Support multi-stage scheduling technology such as WDRR (Weighted Deficit Round Robin) / SP (Strict Priority) and TD (Tail Drop) / WRED (Weighted Random Early Detection) to prevent congestion. Support flexible queue scheduling mechanism to do the shaping for queue or port traffic.

- Ingress and egress policer provide intelligent bandwidth monitoring, which support to adjust the granularity according to the port speed. Both srTCM (Single Rate Three Color Marker) and trTCM (Two Rate Three Color Marker) can be supported.

Triple-play Service Support with Bandwidth Guaranty for High Quality Application

AgniGate 6024X Series routing switches offers high bandwidth for Triple-Play services such as IPTV, video monitoring. The built-in QoS capabilities and flexible queuing technologies guarantee high quality of services.

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- Rich multicast protocol set (IGMP Snooping, IGMP v1/v2, PIM-SM) support up to 2K multicast groups and 4K logical replications per group. With FOS software, IPTV service and multicast latency control are fully supported.

Comprehensive AgniGate Network Security Policy

S6024X Series routing switches supports subscriber-class / switch-class / network-class security control.

IPv4 / IPv6 / MAC ACL can filter IPv4 / IPv6 / Non-IP packet respectively. Besides that, extended IPv4/IPv6 ACL which can match Layer2 / layer3 / layer4 information in one rule is available. The ACLs can apply to physical ports / vlan / port group / vlan group. The members of port group or vlan group share a set of ACLs and save the TCAM resource.

ARP Inspection and IP Source Guard features prevent network from malicious ARP attack. Support CPU Traffic Protection, Storm control and CPU load optimization features. Support centralized 802.1x authentication feature to forbidden illegal user accessing network.

Convenient Management features

Support varied management interfaces, include console port / inband network ports / outband network port. Support SNMP v1/v2/v3, Support CLI (Command Line Interface), web management, Telnet and FTP connection. Support OAM(Operations, Administration, and Maintenance) to make management more convenient, and support SSH2.0, SSL, etc. to ensure security of management.

CHARACTERISTICS

| Product Name | S6024X-2-SP | S6024X-2-FP |
|-----------------------|--|--------------------|
| Ethernet Ports | -24 x 10G SFP+ -2 x 100G QSFP28 | |
| Management Ports | 1*Console Port (RJ45) 1* Ethernet Management Port (RJ45) 1* USB Port | |
| Power Supplies | 2*250W OR 350W(1+1 Redundancy) Hot-swappable Power Supplies | Fixed Power Supply |
| Fans | 2*Hot-swappable Fan Module | Fixed Fan |
| Airflow | Front-to-Rear | |
| Switching Capacity | 880Gbps | |
| MAC address | 98304 | |
| Size | 440mm*360mm*44mm | |
| Weight | 6.96kg (Include 2 Power Modules) | |
| Operating Temperature | 0°C to 45°C | |
| Storage Temperature | -40°C to 70°C | |
| Operating Humidity | 10% to 90% (Non-condensing) | |
| Storage Humidity | 0 to 95% (Non-condensing) | |
| Temperature Alarm | 50°C | |

SOFTWARE FEATURE LIST

Tips : ● Support ○ Unsupport

| Software Features | | | | ●Support ○ No Support | | | | |
|-------------------------|---------------------|--------------------|--|-----------------------|----|----|----|---|
| Feature | | | Description | EB | ES | MS | MA | |
| Type | Sub Type | Feature | | | | | | |
| Ethernet basic features | Ethernet | interface | Ethernet interface operating modes(full duplex, half duplex, and auto-negotiation) | ● | ● | ● | ● | |
| | | | Ethernet interface operating rates | ● | ● | ● | ● | |
| | | | Jumbo Frame | ● | ● | ● | ● | |
| | | | port-xconnect | ● | ● | ● | ● | |
| | | | Flow-control | Flow-control tx/rx | ● | ● | ● | ● |
| | | storm-control | Port based storm-control | ● | ● | ● | ● | |
| | | | VLAN based storm-control | ○ | ○ | ● | ● | |
| | | Port-block | Port-block(know/unknown unicast; know/unknown multicast/broadcast) | ● | ● | ● | ● | |
| | | Port-isolate | L2/L3/All Port-isolate | ● | ● | ● | ● | |
| | | | Uni-direction isolate | ● | ● | ● | ● | |
| | | L2 Protocol Tunnel | L2 Protocol Tunnel(support CDP/CFM/DOT1X/LLDP/SLOW-PROTO/STP/VTP) | ● | ● | ● | ● | |
| | | Forward mode | Store-and-forward | ● | ● | ● | ● | |
| | | | Cut-through | ● | ● | ● | ● | |
| | | VLAN | VLAN Access mode | Access/Trunk | ● | ● | ● | ● |
| | | | | Default VLAN | ● | ● | ● | ● |
| | VLAN Classification | | VLAN Classification(port based/mac based/IP based/protocol based) | ● | ● | ● | ● | |
| | QinQ | | Basic QinQ | ● | ● | ● | ● | |
| | | | Selective QinQ | ● | ● | ● | ● | |
| | | | VLAN Mapping(1:1 VLAN Translation) | ● | ● | ● | ● | |
| | VLAN Statistics | | VLAN Statistics | ● | ● | ● | ● | |
| | Private VLAN | | Private VLAN | ● | ● | ● | ● | |
| | Voice VLAN | | Voice VLAN | ● | ● | ● | ● | |
| | Guest VLAN | | Guest VLAN | ● | ● | ● | ● | |
| | MAC | MAC Address Table | Automatic learning and aging of MAC addresses | ● | ● | ● | ● | |
| | | | Hardware Learning | ● | ● | ● | ● | |
| | | | Static and dynamic MAC address entries | ● | ● | ● | ● | |

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| | | | | | | | | |
|-------------------------------------|----------------------|-----------------------------------|--|-------------------------|---|---|---|---|
| | | | Blackhole MAC | • | • | • | • | |
| | | MAC Flapping detect | MAC Flapping detect | • | • | • | • | |
| | | Port Bridge | Port Bridge | • | • | • | • | |
| | LAG | Link aggregation | | Static-LAG & LACP | • | • | • | • |
| | | | | LAG load balance(SLB) | • | • | • | • |
| | | | | LAG load balance(DLB) | • | • | • | • |
| | | | LAG load balance(RR) | • | • | • | • | |
| | | | LAG Self-healing | • | • | • | • | |
| | | Link aggregation weighting | • | • | • | • | | |
| Ethernet Ring protection features | xSTP | STP | Spanning-Tree Protocol | • | • | • | • | |
| | | RSTP | Rapid Spanning-Tree Protocol | • | • | • | • | |
| | | MSTP | Multi-instance Spanning-Tree Protocol | • | • | • | • | |
| | | Spanning-Tree Protocol Protection | BPDU Filter/Guard | • | • | • | • | |
| | | | Root Guard | • | • | • | • | |
| | | | Loop Guard | • | • | • | • | |
| | | Anti TC-BPDU attack | • | • | • | • | | |
| | ERPS | ERPS | | Single ERPS ring | • | • | • | • |
| | | | | tangent ERPS rings | • | • | • | • |
| | | | | intersecting ERPS rings | • | • | • | • |
| | | | | compatible with RRRP | • | • | • | • |
| | G.8031 | G.8031 | G.8031(Ethernet Linear Network Protection) | ○ | ○ | • | • | |
| | G.8032 | G.8032 | G.8032 V1 & V2 | ○ | ○ | • | • | |
| | | | Single Ring | ○ | ○ | • | • | |
| | | Sub Ring | ○ | ○ | • | • | | |
| Loop back Detect | Loop back Detect | Loop back detection | • | • | • | • | | |
| Layer2 Multicast | Layer2 Multicast | IGMP Snooping | IGMPv1/v2/v3 Snooping | • | • | • | • | |
| | | | Fast leave | • | • | • | • | |
| | | | Static IGMP snooping group | • | • | • | • | |
| | | MVR | MVR(Multicast VLAN Registration) | • | • | • | • | |
| IPv4 Forwarding | ARP | ARP | Static and dynamic ARP entries | • | • | • | • | |
| | | | Aging of ARP entries | • | • | • | • | |
| | | | Gratuitous ARP | • | • | • | • | |
| | | ARP proxy | basic ARP-Proxy | • | • | • | • | |
| | | | local ARP-Proxy | • | • | • | • | |
| | IPv4 Unicast Routing | IPv4 Static Routes | IPv4 Static Routes | • | • | • | • | |
| | | | Black hole Routes | • | • | • | • | |
| | | | co-work with IP SLA | • | • | • | • | |
| VRP(Virtual Routing and Forwarding) | | | • | • | • | • | | |
| | | uRPF check | • | • | • | • | | |

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|--------------------|------------------------|-----------------------|---------------------------|---|---|---|---|
| | | RIP | RIPv1/v2 | ● | ● | ● | ● |
| | | OSPFv2 | OSPFv2 | ○ | ● | ● | ● |
| | | IS-IS | IS-IS | ○ | ● | ● | ● |
| | | BGP | IBGP | ○ | ● | ● | ● |
| | | | EBGP | ○ | ● | ● | ● |
| | | Route policy | Route-map | ● | ● | ● | ● |
| | | | IPv4 prefix-list | ● | ● | ● | ● |
| | | PBR | PBR(Policy-based Routing) | ● | ● | ● | ● |
| | | ICMP | ICMP redirect | ● | ● | ● | ● |
| | | | ICMP unreachable | ● | ● | ● | ● |
| | | ECMP | ECMP(SLB) | ● | ● | ● | ● |
| | | | ECMP(DLB) | ● | ● | ● | ● |
| | | | ECMP(RR) | ● | ● | ● | ● |
| | ECMP Self-healing | | ● | ● | ● | ● | |
| | IP unnumbered | IP unnumbered | ● | ● | ● | ● | |
| | IPv4 Multicast Routing | IGMP | IGMPv1/v2/v3 | ● | ● | ● | ● |
| | | | IGMP-Proxy | ● | ● | ● | ● |
| | | | IGMP SSM Mapping | ● | ● | ● | ● |
| | | PIM | PIM-SM | ○ | ● | ● | ● |
| PIM-SSM | | | ○ | ● | ● | ● | |
| PIM-DM | | | ○ | ● | ● | ● | |
| IPv6 Forwarding | IPv6 Basic Protocol | ICMPv6 | ICMPv6 | ○ | ● | ● | ● |
| | | NDP | NDP | ○ | ● | ● | ● |
| | | PMTU | PMTU | ○ | ● | ● | ● |
| | IPv6 Unicast Routing | IPv6 Static Routes | IPv6 Static Routes | ○ | ● | ● | ● |
| | | RIPng | RIPng | ○ | ● | ● | ● |
| | | BGP4+ | BGP4+ | ○ | ● | ● | ● |
| | | OSPFv3 | OSPFv3 | ○ | ● | ● | ● |
| | | IS-IS | IS-IS | ○ | ● | ● | ● |
| | | VRRP v3 | VRRP v3 | ● | ● | ● | ● |
| | IPv6 Multicast Routing | MLD v1/v2 | MLD v1/v2 | ○ | ● | ● | ● |
| | | MLD v1/v2 Snooping | MLD v1/v2 Snooping | ○ | ● | ● | ● |
| | | MVR6 | MVR6 | ○ | ● | ● | ● |
| | | PIM-SM v6 | PIM-SM v6 | ○ | ● | ● | ● |
| | IP Tunnel | IPv6 over IPv4 Tunnel | IPv6 over IPv4 Tunnel | ○ | ● | ● | ● |
| | | 6to4 Tunnel | 6to4 Tunnel | ○ | ● | ● | ● |
| | | ISATAP Tunnel | ISATAP Tunnel | ○ | ● | ● | ● |
| | IPv6 Service | DHCPv6 | DHCPv6 Relay | ○ | ● | ● | ● |
| | | | DHCPv6 Snooping | ○ | ● | ● | ● |
| | | IPv6 Prefix List | IPv6 Prefix-list | ○ | ● | ● | ● |
| Device reliability | BFD | BFD | BFD for Static route | ○ | ● | ● | ● |
| | | | BFD for OSPFv2 | ○ | ● | ● | ● |

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|-----------------|------------|----------------------------|---|---|---|---|---|
| features | | | BFD for VRRP/Track | ○ | ● | ● | ● |
| | | | BFD for PBR | ○ | ● | ● | ● |
| | VRRP | VRRP | VRRP | ● | ● | ● | ● |
| | | | Track for VRRP | ● | ● | ● | ● |
| | Smart Link | Smart Link | multi-instance | ● | ● | ● | ● |
| | | | load balance | ● | ● | ● | ● |
| | | | Multi-Link | ● | ● | ● | ● |
| | | | Monitor-link | ● | ● | ● | ● |
| | MLAG | MLAG | MLAG basic | ● | ● | ● | ● |
| | | | MLAG orphan Port | ● | ● | ● | ● |
| ethernet OAM | EFM | EFM (802.3ah) | Auto detection | ○ | ○ | ● | ● |
| | | | Network fault detection | ○ | ○ | ● | ● |
| | | | Network fault handle | ○ | ○ | ● | ● |
| | | | remote loop back | ○ | ○ | ● | ● |
| | CFM | CFM (802.1ag) | Hardware CCM detect | ○ | ○ | ● | ● |
| | | | MAC Ping | ○ | ○ | ● | ● |
| | | | MAC Trace | ○ | ○ | ● | ● |
| Y.1731 | Y.1731 | Latency and Jitter measure | ○ | ○ | ● | ● | |
| QoS features | QoS | Traffic classification | Traffic classification based on COS/DSCP (simple classification) | ● | ● | ● | ● |
| | | | Traffic classification based on ACL (complex classification) | ● | ● | ● | ● |
| | | | Traffic classification based on inner header of the tunnel packets | ● | ● | ● | ● |
| | | Traffic behaviors | Queue scheduling | ● | ● | ● | ● |
| | | | Remark the priority fields(COS/DSCP) of the packet based on ACL | ● | ● | ● | ● |
| | | | Remark the priority fields(COS/DSCP) of the packet based on Table Map | ● | ● | ● | ● |
| | | | Flow redirection | ● | ● | ● | ● |
| | | | Flow mirror | ● | ● | ● | ● |
| | | Traffic policing | Traffic policing based on direction(in/out) of Port | ● | ● | ● | ● |
| | | | Traffic policing based on direction(in/out) of VLAN | ● | ● | ● | ● |
| | | | Traffic policing based on direction(in/out) of flow | ● | ● | ● | ● |
| | | | Traffic policing based on direction(in/out) of aggregated flow | ● | ● | ● | ● |
| | | Traffic shaping | Queue based traffic shaping | ● | ● | ● | ● |
| | | | Port based traffic shaping | ● | ● | ● | ● |

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|---|---------------|--|--|-----------------|-------------------------------|---|---|---|---|
| | | Congestion management | SP(Strict Priority)scheduling | ● | ● | ● | ● | | |
| | | | WDRR(Weighted Deficit Round Robin)scheduling | ● | ● | ● | ● | | |
| | | | SP + WDRR mixed scheduling | ● | ● | ● | ● | | |
| | | Congestion avoidance | TD(Tail Drop) | ● | ● | ● | ● | | |
| | | | WRED(Weighted Random Early Detection) | ● | ● | ● | ● | | |
| | | Traffic statistics | Packet counts and bytes statistics based on traffic classification | ● | ● | ● | ● | | |
| | | | Packet counts and bytes statistics based on the color after traffic policing | ● | ● | ● | ● | | |
| | | | Forwarded and discarded packet counts and bytes statistics | ● | ● | ● | ● | | |
| | | ECN (Explicit congestion notification) | ECN tags based on Tail Drop | ○ | ○ | ● | ● | | |
| | | | ECN tags based on WRED | ○ | ○ | ● | ● | | |
| | | Data Center | VARP | Virtual gateway | VARP(Virtual-ARP) | ● | ● | ● | ● |
| | | | | | VARP subnet | ● | ● | ● | ● |
| | | | Tunnel | VxLAN | Manual configure VxLAN tunnel | ○ | ○ | ● | ● |
| | | | | | VxLAN distributed gateway | ○ | ○ | ● | ● |
| VxLAN active-active access | ○ | | | | ○ | ● | ● | | |
| Interconnect across Data Centers based on VxLAN | ○ | | | | ○ | ● | ● | | |
| L2 Protocol packet pass through | ○ | | | | ○ | ● | ● | | |
| Edit DSCP in VxLan outer header | ○ | | | | ○ | ● | ● | | |
| BGP EVPN | ○ | | | | ○ | ○ | ● | | |
| Support to enable/disable overlay split horizon per-VNI | ○ | | | | ○ | ● | ● | | |
| GRE Tunnel | GRE Tunnel | | | ○ | ○ | ● | ● | | |
| NVGRE Tunnel | NVGRE Tunnel | | | ○ | ○ | ● | ● | | |
| GENEVE Tunnel | GENEVE Tunnel | | ○ | ○ | ● | ● | | | |
| DCB | DCBX | | LLDP support DCBX TLV | ○ | ○ | ● | ● | | |

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|-------------------------------|-----------------|-----------------------------|---|---|---|---|---|
| | | PFC | PFC | ○ | ○ | ● | ● |
| Metro features | IPRAN | LDP | LDP | ○ | ○ | ○ | ● |
| | | MPLS Forwarding | MPLS Forwarding | ○ | ○ | ○ | ● |
| | | VPWS | VPWS | ○ | ○ | ○ | ● |
| | | VPLS | VPLS | ○ | ○ | ○ | ● |
| | | MPLS OAM | MPLS OAM | ○ | ○ | ○ | ● |
| | | MPLS Stats | MPLS Stats | ○ | ○ | ○ | ● |
| | | L2VPN | L2VPN | ○ | ○ | ○ | ● |
| | | L3VPN | L3VPN | ○ | ○ | ○ | ● |
| | | ACL | MPLS ACL | ○ | ○ | ○ | ● |
| | | QoS | MPLS QoS | ○ | ○ | ○ | ● |
| Security and management | System Security | SSH | SSHv1/v2 | ● | ● | ● | ● |
| | | | RSA Key generation | ● | ● | ● | ● |
| | | RADIUS | RADIUS | ● | ● | ● | ● |
| | | TACAS+ | TACAS+ | ● | ● | ● | ● |
| | | AAA | Authentication | ● | ● | ● | ● |
| | | | Authorization | ● | ● | ● | ● |
| | | | Accounting | ● | ● | ● | ● |
| | | Dot1x | Port based dot1x | ● | ● | ● | ● |
| | | | MAC based dot1x | ● | ● | ● | ● |
| | | | Guest VLAN | ● | ● | ● | ● |
| | | ACL | MAC/IP ACL | ● | ● | ● | ● |
| | | | Basic Mode ACL | ● | ● | ● | ● |
| | | | Port-group ACL | ● | ● | ● | ● |
| | | | VLAN-group ACL | ● | ● | ● | ● |
| | | | IPv6 ACL | ● | ● | ● | ● |
| | | | ACL UDF | ● | ● | ● | ● |
| | | | Global ACL | ● | ● | ● | ● |
| | | | Time Range | ● | ● | ● | ● |
| | | ARP Inspection | ARP Inspection | ● | ● | ● | ● |
| | | IP Source Guard | IP Source Guard | ● | ● | ● | ● |
| | | Port Security | Limitation on MAC address learning on interface | ● | ● | ● | ● |
| | | VLAN Security | Limitation on MAC address learning on VLAN | ● | ● | ● | ● |
| | | Control Plane Policy (COPP) | Black list/wihte list | ● | ● | ● | ● |
| | | | Rate limit | ● | ● | ● | ● |
| | | CPU Traffic Limit | CPU Traffic Limit | ● | ● | ● | ● |
| | | Prevent DDOS attack | Prevent DDOS attack (ICMP Flood/Smurf/Fraggle/LAND/SYN Flood) | ● | ● | ● | ● |
| | | Login filter | Telnet/SSH ACL filtering | ● | ● | ● | ● |
| Telnet/SSH IPv6 ACL filtering | ● | | ● | ● | ● | | |

S5624X SERIES SWITCHES DATASHEET

| | | | | | | | | |
|-------------------------------|--------------------------|--|---|---|---|---|---|---|
| | Network Management | Link-Flapping detection | Link-Flapping detection | ● | ● | ● | ● | |
| | | DHCP | DHCP Server | | ● | ● | ● | ● |
| | | | DHCP Relay | | ● | ● | ● | ● |
| | | | DHCP Snooping | | ● | ● | ● | ● |
| | | | DHCP Client | | ● | ● | ● | ● |
| | | | DHCP Option82 | | ● | ● | ● | ● |
| | | | DHCP Option252 | | ● | ● | ● | ● |
| | | RMON | RMON | ● | ● | ● | ● | |
| | | sFlow | sFlow v4/v5 | ● | ● | ● | ● | |
| | | IP SLA | IP SLA | ● | ● | ● | ● | |
| | | IPFIX | IPFIX | ○ | ○ | ● | ● | |
| | | Latency/Buffer Monitor | Latency Monitor | ○ | ○ | ● | ● | |
| | | | Buffer Monitor | ○ | ○ | ● | ● | |
| | | EFD | Elephant Flow Detection | ● | ● | ● | ● | |
| | | NTP | NTP(Network Time Protocol) | ● | ● | ● | ● | |
| | | Err-disable | Err-disable detection and recovery | ● | ● | ● | ● | |
| | | DNS | Static DNS Client | ● | ● | ● | ● | |
| LLDP | LLDP | ● | ● | ● | ● | | | |
| | Terminal Services | Command Line Interface | Configurations through CLI (Command Line Interface) | ● | ● | ● | ● | |
| | | Help information | Banner configuration | | ● | ● | ● | ● |
| | | | Help information in English | | ● | ● | ● | ● |
| | | Terminal service | Vty Terminal service | | ● | ● | ● | ● |
| | Console Terminal service | | | ● | ● | ● | ● | |
| | Management interface | In-band management interface and configuration | | ● | ● | ● | ● | |
| | | | Out-band management interface and configuration | | ● | ● | ● | ● |
| User privilege management | | privileged user priority and privileged commands | ● | ● | ● | ● | | |
| Configuration and maintenance | SNMP | Network management based on SNMPv1/v2c/v3 | | ● | ● | ● | ● | |
| | | Public and private MIB | | ● | ● | ● | ● | |
| | | Public and private Trap | | ● | ● | ● | ● | |
| | WEB | Configuration and management based on WEB UI | ● | ● | ● | ● | | |
| | RPC-API | Configuration and management based on RPC-API | ● | ● | ● | ● | | |
| | Smart Config | Smart Config(Automatically configuration when system | ● | ● | ● | ● | | |

AGNIGATE S6024X SERIES SWITCHES DATASHEET

| | | | | | | | |
|--|---------------------------|---------------------------------------|---|---|---|---|---|
| | | start) | | | | | |
| | | OVSDB | Configuration and management based on OVSDB | • | • | • | • |
| | | system profile configuration | change the system specifications by choose different STM Profiles | • | • | • | • |
| | | License control | Feature configuration based on License | • | • | • | • |
| | | Restore factory default configuration | Restore factory default configuration | • | • | • | • |
| | File System | File system | File system(support directory and file management) | • | • | • | • |
| | | Upload and download | Upload and download files through FTP or TFTP | • | • | • | • |
| | | | Upload and download files through Xmodem | • | • | • | • |
| | Debugging And Maintenance | Debug | per-module Debug features | • | • | • | • |
| | | | ICMP Debug | • | • | • | • |
| | | BHM | Software process monitor: BHM(Beat Heart Monitor) | • | • | • | • |
| | | | Hardware Watch Dog | • | • | • | • |
| | | Log & alarm | CPU usage display and alarm | • | • | • | • |
| | | | Memory usage display and alarm | • | • | • | • |
| | | | Device temperature, PSU, FAN, status display and alarm | • | • | • | • |
| | | | User operation logs | • | • | • | • |
| | | | Management of logs, alarms, and debugging information | • | • | • | • |
| | | VCT | VCT(Virtual Cable Test) | • | • | • | • |
| | | system diagnostics | Detailed Diagnostic-information collection | • | • | • | • |
| | | Reboot | Manual reboot | • | • | • | • |
| | | | Schedule Reboot | • | • | • | • |
| | | | Reboot Information logging | • | • | • | • |
| | | network diagnostics | Ping | • | • | • | • |
| | | | IPv6 Ping | • | • | • | • |
| | | | Trace route | • | • | • | • |
| | mirror | Port mirror | • | • | • | • | |
| | | Flow mirror | • | • | • | • | |

AGNIGATE S5624X SERIES SWITCHES DATASHEET

| | | | | | | | |
|--|--|----------------|---|---|---|---|---|
| | | | Remote mirror | • | • | • | • |
| | | | Multi-destination mirror(m:n) | • | • | • | • |
| | | | Use CPU as mirror source | • | • | • | • |
| | | | Use CPU as mirror destination and analyze packet | • | • | • | • |
| | | | ERSPAN | • | • | • | • |
| | | CPU statistics | To CPU/From CPU packets statistics | • | • | • | • |
| | | L2 Ping | layer2 network connectivity detection - L2Ping (MAC Ping/Trace) | • | • | • | • |
| | | UDLD | UDLD(Unidirectional Link Detection) | • | • | • | • |
| | | unidirectional | unidirectional forwarding of the fiber | • | • | • | • |
| | | Loop back | port loop back | • | • | • | • |
| | | | hardware loop back(internal/external) | • | • | • | • |
| | | System time | Time configuration | • | • | • | • |
| | | | Timezone | • | • | • | • |

Performers Table

| Class | Feature | Sub Spec | Default | Extende | IPv6 | Layer3 | Ipran | Note | |
|----------------|---------------|--------------------------------|-----------|----------|---------|---------|---------|------|--|
| | | | Profile | d-buffer | Profile | Profile | Profile | | |
| Ethernet Basic | Jumbo frame | Maximum Jumbo frame size | 9600 | 9600 | 9600 | 9600 | 9600 | | |
| | Unicast MAC | MAC address Capacity | 98304 | 12288 | 98304 | 98304 | 98304 | | |
| | | MAC Learning Rate (SW) | > 4000pps | | | | | | |
| | | MAC Learning Rate (HW) | > 10Gbps | | | | | | |
| | | Blackhole MAC address capacity | 128 | | | | | | |
| | Multicast MAC | MAC address Capacity | 2048 | 1024 | 1024 | 1024 | 2048 | | |
| | VLAN | VLAN IDs | 4094 | | | | | | |
| | | VLAN Instances | 4094 | | | | | | |
| | | VLANs to enable | 256 | | | | | | |

AGNIGATE S6024X SERIES SWITCHES DATASHEET

| | | | | | | | |
|--------------|--------------------------------|----------------------------------|--------------------------------------|-------|-------|-------|-------|
| | | statistics | | | | | |
| | VLAN Mapping | Maximum mapping table | 64 | | | | |
| | | Maximum rules Num | 1024 | | | | |
| | EVC | Maximum EVC Num | 4094 | | | | |
| | Link Aggregation (Static&LACP) | Maximum Member Num per group | No limitation | | | | |
| | | Maximum Group Num | 64 | | | | |
| | | Load balance key mode | static/dlb/rr/resilient/self-healing | | | | |
| | | Convergence time | < 50ms | | | | |
| | VLAN Classification | Maximum Rule Num | 4096 | | | | |
| | | Maximum Group Num | 1 | | | | |
| | | Base MAC Capacity | 512 | | | | |
| | | Base IPv4 Capacity | 448 | | | | |
| | | Base IPv6 Capacity | 32 | | | | |
| | | Base Protocol Capacity | 7 | | | | |
| | Ethernet Ring protection | STP | Convergence time | < 30s | | | |
| RSTP | | Convergence time | < 1s | | | | |
| MSTP | | Instance Num | 64 | | | | |
| | | Convergence time | < 1s | | | | |
| ERPS | | Domain Num | 16 | | | | |
| | | Ring Num | 1 Primary ring/domain | | | | |
| | | | 2 Sub ring/domain | | | | |
| | | Protection instance Num per Ring | 64 | | | | |
| | | Switchover time | < 50 ms | | | | |
| G.8031 | | Group numbers | 256 | | | | |
| | | Switchover time | < 50 ms | | | | |
| G.8032 | Rings | 256 | | | | | |
| | Maximum member ports per Ring | 256 | | | | | |
| | Switchover time | < 50 ms | | | | | |
| Ethernet OAM | CFM(802.1ag) | Maximum Session Num | 1024 | | | | |
| | | Maximum domain Num | 8 | | | | |
| | | CCM Interval types | 7 | | | | |
| | | CCM minimum Interval | 3.3ms | | | | |
| | | Maximum Down MEP Num | 1024 | | | | |
| | | Maximum Up MEP Num | 1024 | | | | |
| | | Maximum LMEP Num | 1024 | | | | |
| IPv4 unicast | ARP | ARP Capacity | 12288 | 4096 | 6144 | 16384 | 12288 |
| | IPv4 | FIB | 57344 | 28672 | 12288 | 57344 | 57344 |
| | ECMP | ECMP Group | 240 (share with IPv6) | | | | |

AGNIGATE S6024X SERIES SWITCHES DATASHEET

| | | | | | | | | |
|--------------------|--------------------|---|--|------------------------|----------|----------|----------|--|
| | PBR | Policy Route Map | 64 | | | | | |
| | | Policy Based Routing ACE | 256 | | | | | |
| | OSPF | Maximum Static Neighbors | 256 | | | | | |
| | | Maximum Summar address | 2000 | | | | | |
| IPv4 multicast | IPMC | Multicast Routing Table | 2048 | 512 | 1024 | 2048 | 1024 | |
| | | Multicast routing downstream interfaces | 4096 | 2048 routed interfaces | 2048 | 5120 | 2048 | |
| | | | | | | | | |
| | IGMP Snooping | Maximum Groups Num | 2048 | | | | | |
| | | Maximum Member Num | N/A | | | | | |
| | MVR | Maximum Group Num | 2048 | 2048 (Share with V6) | 1024 | 2048 | 1024 | |
| Maximum Member Num | | 4096 | | | | | | |
| IPv6 unicast | Host Route | NDP Capacity | 2048 | 1024 | 4096 | 0 | 2048 | |
| | IPv6 | FIBv6 | 4096 | 1024 | 6144 | 0 | 1024 | |
| | | ECMP Group | 240 (share with IPv4) | | | | | |
| IPv6 multicast | IPMC | Multicast Routing Table | 256 | 256 | 512 | 0 | 0 | |
| | | Number of interfaces that support Multicast routing table | 512 | 1536 | 1024 | 0 | 0 | |
| | | | | | | | | |
| | MVR V6 | Maximum Entry Num | 256 | 2048 (Share with IPv4) | 512 | 0 | 0 | |
| Maximum Member Num | | 512 | 4096 | 1024 | 0 | 0 | | |
| IP tunnel | IP Tunnel | Tunnel Peer Capacity | 8 | | | | | |
| QoS | Per-port Queue Num | Unicast Queue | 10 | | | | | |
| | | Multicast Queue | | | | | | |
| | | Monitor Queue | | | | | | |
| | Packet Buffer | System Packet Buffer Capacity | 4.5MByte | 9MByte | 4.5MByte | 4.5MByte | 4.5MByte | |
| | Granularity | Policer granularity | 0~2M: 10K 2M~100M: 40K 100M~1G: 80K 1G~2G: 120K | | | | | |

AGNIGATE S6024X SERIES SWITCHES DATASHEET

| | | | | | | | | |
|-------------------------------------|------------------------|------------------------------------|--------------|-----|-----|-----|-----|--|
| | | | 2G~4G: 250K | | | | | |
| | | Queue Shape granularity | 4G~10G: 500K | | | | | |
| | | Port Shape granularity | 10k | | | | | |
| | Flow entry | Ingress Port qos ipv4 flow entries | 1532 | | | | | |
| Ingress Port qos ipv6 flow entries | | | | | | | | |
| Ingress Port qos flow stats entries | | 511 | | | | | | |
| ACL | IPv4 ACL | Ingress Port ACL for IPv4 | 1488 | | | | | Ingress and The Ingress IPv4/IPv6/MAC ACL rule share the Ingress resource and the Egress rules share the Egress resource |
| | | Ingress VLAN ACL for IPv4 | | | | | | |
| | | Egress Port ACL for IPv4 | 464 | | | | | |
| | | Egress VLAN ACL for IPv4 | | | | | | |
| | IPv6 ACL | Ingress Port ACL for IPv6 | 744 | | | | | |
| | | Ingress VLAN ACL for IPv6 | | | | | | |
| | | Egress Port ACL for IPv6 | 232 | | | | | |
| | | Egress VLAN ACL for IPv6 | | | | | | |
| | ACL Flow stats | Ingress ACL flow stats entries | 1022 | | | | | Egress ACL rules use separate resource pool |
| | | Egress ACL flow stats entries | 511 | | | | | |
| | CoPP | CoPP rules | 249 | | | | | |
| | | CoPP flow stats entries | 249 | | | | | |
| UDF | UDF rules | 256 | | | | | | |
| | UDF flow stats entries | 128 | | | | | | |
| Security | IP Source Guard | IPv4 maximum rules Num | 768 | | | | | |
| | | IPv6 maximum rules Num | 64 | | | | | |
| | 802.1x base MAC | Maximum Entries | 512 | 256 | 256 | 256 | 256 | |
| | DHCP Snooping | Maximum bound entry | 4096 | | | | | |

AGNIGATE S6024X SERIES SWITCHES DATASHEET

| IPFIX | IPFIX | IPFIX Member | 4096 | | |
|-------------|--------------|-------------------------------|----------------------|-------|--|
| Reliability | BFD | Maximum Session Num | share 128 | | |
| | S-BFD | Maximum Session Num | | | |
| | VRRP | Maximum Group Num | 63 | | |
| | Smart Link | | Maximum Group Num | 16 | |
| | | | Maximum Instance Num | 64 | |
| | | | Switchover time | <50ms | |
| | Monitor Link | | Maximum group Num | 16 | |
| | | Maximum up-link Num per group | 16 | | |

Order Information for AgniGate Switches

| Items | Description |
|------------------|--|
| S6024X-2-SP | 26 Ports 10G Optical L3 Managed Switch, with 24*10GSFP+, 2*100Gb QSFP28 Ports, 2*350W CRPS, 2*Fan Module, Pre-install AGNIOSEB |
| S6024X-2-FP | 26 Ports 10G Optical L3 Managed Switch, with 24*10GSFP+, 2*100Gb QSFP28 Ports, Fixed Power Supply, Fixed Fan, Pre-install AGNIOSEB |
| AC PSU Module | AC/DC CRPS 350W/12V; 185*73.5*40mm; Input Voltage 100~240Vac, 50/60Hz AC+HVDC Digital Power Supply Unit(S7606X-2Z-EI only) |
| DC PSU Module | DC/DC CRPS 350W/12V; 185*73.5*40mm; Input Voltage -36~72Vdc AC+HVDC Digital Power Supply Unit |
| Software License | AGNIOSEB, basic Layer3 software features, Pre-install |
| Software License | AGNIOSES, Enhance Layer3 software features |
| Software License | AGNIOSMS, Full Layer3 software license key |
| Software License | AGNIOSEMA, Metro features software license key |

ACCESSORIES

| Product Name | Quantity |
|----------------------------|-----------------|
| Console Cable | 1PCS |
| Power Cords | 2PCS |
| Rack Mount Brackets(Front) | 2PCS |
| Rack Mount Brackets(Rear) | 2 PCS |
| Bracket Screws | 10PCS |
| Grounding Cable | 1PCS |