



# SUNDRAY



# RS6300 Series

## V-Sec Switch Datasheet




Suitable for the access, distribution, core Switch in a campus network

### Product Overview

The RS6300 V-Sec Series are the next-generation intelligent switch independently developed by SUNDRAY. The V-Sec Switch adopts a SDN architecture design, the Switch can be managed by the SUNDRAY NAC Controller with zero configuration, just like the AP in the thin mode. 100% the functions of the switches can be configured via the NAC controller, including VLANs, Authentication, STP, Routing, DHCP Server, M-LAG, Stacking, IGMP, VRRP, etc. The NAC can monitor and visualize the status, including the switch load, port forwarding rates, east-west traffic, etc. also has more security features than traditional switches, and can interact with wireless networks and security devices to achieve a more secure network management and control.

RS6300 series switches are in the leading position among similar products, can meet the networking requirements of large-scale networks, and possess rich intelligence and security features. They are particularly suitable as access devices for large campus networks, enterprise networks, and IP metropolitan area networks.

## Models and Photos

Model	Main Specifications
 <p>RS6300-24X-LI-12X</p>	<ul style="list-style-type: none"> <li>● 12 * SFP+ ports, 12 * 10/100/1000Base-T ports</li> <li>● Dual power module by default</li> <li>● Switch capacity: 1.28Tbps/12.8Tbps</li> <li>● Packet forwarding rate: 480Mpps</li> </ul>
 <p>RS6300-26Q-EI-24X</p>	<ul style="list-style-type: none"> <li>● 24 * SFP+ ports, 2 * QSFP+ ports</li> <li>● Dual power supply, offered with one AC power module by default.</li> <li>● Switch capacity: 2.56Tbps/23.04Tbps</li> <li>● Packet forwarding rate: 720Mpps</li> </ul>
 <p>RS6300-50Q-EI-24X</p>	<ul style="list-style-type: none"> <li>● 24 * SFP+ ports, 24 * 10/100/1000Base-T ports, 2*QSFP+ ports;</li> <li>● Dual power supply, offered with one AC power module by default.</li> <li>● Switch capacity: 2.56Tbps/23.04Tbps</li> <li>● Packet forwarding rate: 1080Mpps</li> </ul>

## V-Sec Features

### Intuitive Network Management

- The V-Sec Switch managed via the network controller to provide an interactive and friendly Web GUI. 1:1 display Switch port and panel status. It can vividly show the working status of Switch ports, system resource usage, traffic trends, etc. and supports configuration via clicking on the port, for example, setting VLAN and

so on.

- The V-Sec Switch can realize the visual management of the connected terminals, and can control the terminal access via authentication and terminal type in multiple dimensions. It can timely displays the behavior changes of the terminal after access, and can also make network asset statistics.
- The V-Sec Switch supports the visual management of IP addresses with Smart Graphical DHCP address pool, when assigning IP it automatically detects the usage of the IP address such as the remaining lease time and the reservation of the IP address. Effectively improve IP address management efficiency to avoid address conflicts and other IP address obtaining issues.

## **Easier Network Maintenance**

- The V-Sec Switch adopts the "zero touch provisioning" design. After the switch is connected to the cable, it will automatically be discovered by controller, just one click, it will be approved. At the same time, the controller can replace the detective switch via one clicking.
- The V-Sec Switch can automatically show its topology in controller. and can directly configure the Switch via clicking the topology.
- Greatly improve the efficiency of troubleshooting, for example, when the connection between the switch and the control platform is lost due to a misconfiguration, IT staff can directly modify the configuration of the Switch in the topology without having to go onsite.

## **Secure Authentication and Access Control Methods**

- The V-Sec Switch supports a variety of authentication methods, including face recognition, 802.1x, CA certificate authentication, Portal, mobile phone self-Registration, SMS, APP, QR code approval, Facebook and other authentication methods, also support two-factor security authentication.
- The V-Sec Switch supports rich access control policies, such as protocol-based (for example: OSPF, UDP, ARP) ACL and ACL based on custom protocol, switch ports, aggregation port, source and destination IP address, MAC address, and time.

## **Comprehensive QoS Policies**

- The V-Sec Switch supports re-marking the traffic matching ACL to realize traffic supervision. and setting the packet forwarding rate according outbound and the inbound direction per port.
- The V-Sec Switch supports multiple scheduling modes (for example: polling mode, strict priority mode, etc.) to achieve traffic based on packets or ports priority, it can realize COS, DSCP priority mapping based on Switch group.

## Completed Terminal Security Policies

- The V-Sec Switch supports IP-MAC automatic binding. When IP-MAC does not match, the terminal will be added to the blacklist. Based on management needs, privileged IPs can be reserved, but privileged IPs must be approved by the administrator before they can be used, and the IP whitelist can be exempted from approval. To facilitate configuration management, the ports of the switch can also be divided into port groups.
- The V-Sec Switch supports access controller based on user-defined terminal types and MAC blacklist and whitelists, and also support terminal MAC-Switch Port changes detection. After the terminal type that connected to the switch port is changed, the IT staff can be notified through SMS, and the switch can also add the terminal to the blacklist.

## Innovative Intranet Defense

- The V-Sec Switch support East-West Traffic Security, With the rapid growth of the terminal's numbers and types, the traditional network architecture that deploys security equipment only at the gateway cannot prevent the attacks initiated within the intranet. Through East-West Traffic Security polices, the traffic within the intranet is managed, abnormal terminal behaviors can be detected, the V-Sec switch can block risky terminal to prevent the spread of the virus within intranet.
- The V-Sec Switch support interaction with security awareness platforms (such as Sangfor Cyber Command, NGAF), After the device is connected, the switch will mirror the traffic to the security awareness platform for big data security analysis. If the platform detects that there is an attacked terminal in the intranet, it will send a blocking instruction to the switch to prevent risky traffic from spreading in the internal network

## Various Network Reliability Protection Mechanisms

- RS6300 series V-Sec Switches support VRRP (Virtual Routing Redundancy Protocol to achieve backup of upstream routing.
- RS6300 series V-Sec Switches support M-LAG to achieve the link aggregation cross the devices

## Products Specifications

Items	RS6300-24X-LI-12X	RS6300-26Q-EI-24X	RS6300-50Q-EI-24X
Default service ports	12 * SFP+ ports, 12 * 10/100/1000Base-T ports	24 * SFP+ ports, 2 * QSFP+ ports	24 * SFP+ ports 24 * 10/100/1000Base-T ports

			2 * QSFP+ ports
Management port	1*Console port 1*MANAGE port		
USB port	No	1 * USB port	1 * USB port
Dimensions(W*D*H)	440x350x44 (mm)	440x377x44 (mm)	440x377x44 (mm)
Wight	≤4.7kg	≤5.24 kg	≤5.4kg
Power consumption	≤60W	≤85W	≤107W
Working Layer	L2 & L3		
Work temperature Operating/storage humidity	Work temperature : 0°C ~ 45°C Storage temperature: -20°C ~ 70°C Work humidity: 5% ~ 90% (RH non-condensing) Storage humidity: 5% ~ 95% RH (non-condensing)		
Light indicators.	System and power indicator Working status of each ports		
Work mode	Support fat (standalone) and thin mode (controller-based mode)		
Switch discovery	Layer 2 broadcast automatically discovers wireless AC Configure Static IP Address Layer 3 to discover wireless ACs DHCP Option 43 Discovers Wireless AC DNS Domain Name Discovery Wireless AC SDP Discovery		
One Click Replacement	Support to replace the defective Switch via clicking the replace button in the controller		
MAC	32K MAC address	32K MAC address	32K MAC address
	Support MAC address learning and aging automatically Support static, dynamic, blackhole MAC entries Support source MAC address filtering Limit on the number of MAC address learning on the Support interface		
VLAN	Support 4K VLAN Voice VLAN support		

	<p>Support default VLAN, Guest VLAN</p> <p>Support Access, Trunk, Hybrid Switch port mode</p>
STP	<p>Support 802.1D(STP),802.1W(RSTP),802.1S(MSTP)</p> <p>Support BPDU Guard, root protection and loopback protection</p>
ACL	<p>Support Standard IP ACL (IP Address Based Hardware ACL)</p> <p>Support extended IP ACL (hardware ACL based on IP address, TCP/UDP port number)</p> <p>Support MAC extended ACL (hardware ACL based on source MAC address, destination MAC address, and optional Ethernet type)</p> <p>Support based on time ACL</p> <p>Support expert ACL (a hardware ACL that can be flexibly combined based on the VLAN number, Ethernet type, MAC address, IP address, TCP/UDP port number, protocol type, and time)</p>
802.1x	<p>Support 802.1X authentication</p> <p>Supports port-based authentication and MAC-based authentication</p> <p>Support Guest VLAN</p> <p>Support TRUNK port authentication</p> <p>Supports dynamic delivery of VLANs based on 802.1x</p>
QOS	<p>Support port traffic identification</p> <p>Supports port traffic rate limit</p> <p>Support 802.1p / DSCP / TOS traffic classification</p> <p>8 priority queues per port</p> <p>Support SP, WRR, SP + WRR, RED / WRED queue scheduling</p>
Multicast	<p>Supports IGMP v1/v2/v3 Snooping and fast leave</p> <p>Support multicast forwarding and multicast multi-VLAN replication in a VLAN</p>
Port Aggregation	Support manual and static LACP
DHCP	Support DHCP Server
IPv4 routing	<p>Support static IPv4 routing</p> <p>Support RIPv1/2 OSPF</p> <p>Support Policy-based Routing</p>
IPv6 routing	Support IPv6 static routing
Virtualization technology	<p>Support vUnit (stacking technology, virtualize multiple devices into one)</p> <p>Support M-LAG technology, cross-device link aggregation, paired devices have</p>

	independent control plane
Reliability	<p>Support VRRP, BFD for VRRP</p> <p>Support BFD for RIP/OSPF/static routing/policy routing</p> <p>Support Smartlink (backup link)</p> <p>Support Monitor-link (uplink monitoring)</p>
Security Features	<p>Support DHCP Relay, DHCP Server, DHCP Snooping</p> <p>Support portal authentication</p> <p>Support 802.1X authentication</p> <p>Support blacklist and whitelist</p> <p>Support ARP spoofing</p> <p>Administrator hierarchical management</p> <p>Support SSH V2.0</p> <p>Support port protection and isolation</p> <p>Support to prevent ARP attacks</p> <p>Support CPU protection function</p> <p>Support edge terminal security management and control</p> <p>Support HTTPS access</p>
NMS	<p>Support NAC unified management</p> <p>Support across WAN, NAT remote management</p> <p>SNMPv1/v2C/v3, CLI (Telnet/Console), SSH, Web</p> <p>Support send log file data in Syslog format to Syslog server</p>
Visuality	Visualize traffic and terminal status, portray for security and devices
Switch Profiling	Support monitors the Switch's status such as traffic, user, port status, also user can change the configuration of VLAN, port, DHCP, POE power supply via Controller's Web UI.
Terminal security	<p>Built-in vDetect terminal management micro probe</p> <p>Support terminal fingerprint information collection, terminal policy execution, etc.</p>
Energy saving	supports the IEEE 802.3az standard. when the EEE is enabled, the power consumption of the port at this stage is drastically reduced, thereby saving energy.
Safety & EMC	Meets the security requirements of FCC, CE: EN55022, EN61000-3-2, EN61000-3-3, EN55024, EN60950-1. RoHS

## Order Information

Item	Description	Remark
RS6300-24X-LI-12X	The SUNDRAY V-Sec Switch, 12 Gigabit electrical ports, 12 10G SFP+ optical ports, switching capacity 1.28Tbps/12.8Tbps, Forwarding rate 480Mpps, redundant pluggable power supply by default.	Essential
RS6300-26Q-EI-24X	The SUNDRAY V-Sec Switch, 24*10G SFP+ optical ports and 2*40GE QSFP+, Switching capacity 2.56Tbps/23.04Tbps, Forwarding rate 720 Mpps, Optional dual power supply, single power supply by default.	Essential
RS6300-50Q-EI-24X	The SUNDRAY V-Sec Switch, 24*10G SFP+ optical ports, 24 Gigabit Ethernet Ports and 2*40GE QSFP+, Switching capacity 2.56Tbps/23.04Tbps, Forwarding rate 1080 Mpps. Optional dual power supply, single power supply by default	Essential
ACC-PWR-AC150-M3	AC power, Input voltage: 100-240 V AC, 50/60Hz, power rate: 150W, suitable for RS6300-50Q-EI-24X and RS6300-26Q-EI-24X.	Optional
SFP-GE-COPPER	Gigabit SFP to copper transceiver.	Optional
SFP-GE-MM850	Gigabit SFP multiple mode optical module, 550m, LC connector.	Optional
SFP-GE-MM850-I	Gigabit SFP multiple mode optical module, 550m, industrial-grade, LC connector.	Optional
SFP-GE-SM1310-10KM	Gigabit SFP single mode optical module, 10km,	Optional
SFP-GE-SM1310-20KM-I	Gigabit SFP single mode optical module, 20km, industrial-grade, LC connector.	Optional
SFP-GE-SM1310-40KM	Gigabit SFP single mode optical module, 40km, LC connector.	Optional
SFP-GE-SM1550-80KM	Gigabit SFP single mode optical module, 80km, LC connector.	Optional
SFP-10G-MM850	10 gigabit SFP+ multiple mode optical module, 300m, LC connector.	Optional
SFP-10G-SM1310-10KM	10 gigabit SFP+ single mode optical module, 10KM, LC connector.	Optional
SFP-10G-SM1550-40KM	10 gigabit SFP+ single mode optical module, 40KM, LC connector.	Optional
QSFP-40G-MM850-SR4	QSFP 40G SR4 Fiber module, multiple mode, distance 100m(OM-3)/150m(OM-4), Connector type: LC.	Optional
QSFP-40G-SM1310-LR4-	QSFP 40G LR4 fiber module, single mode, 1310nm, distance	Optional

10KM	10km, connector type: LC.	
SFP-10G-AOC-3M	SFP+ 10G AOC cable, consists of a 3-meter optical fiber and a 10G optical module at each end. It is usually used to interconnect devices in the same cabinet, such as the server to the TOR access switch at the top of the cabinet, or used for switch stacking.	optional
QSFP-40G-AOC-3M	QSFP+ 40G AOC cable, consists of a 3-meter optical fiber and a 40G optical module at each end. It is usually used to interconnect devices in the same cabinet, such as the server to the TOR access switch at the top of the cabinet, or used for switch stacking.	optional



**SANGFOR**



**SUNDRAY**

Sundray Technologies Co., Ltd.

Add: Building A1, Nanshan i Park, No.1001 Xueyuan Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China Post | Post Code: 518055

**Service hot line:**

Philippine Service Center Tel/Viber: +63 9171102171

Indonesia Service Center Tel/ WhatsApp: +62 8111988110

Shen Zhen, China HQ service Center (Hotline in Chinese):

0086 75586953231 0086 75586957873;

Web: [www.sundray.com](http://www.sundray.com); [www.sangfor.com](http://www.sangfor.com)

E-mail: [sales@sundray.com](mailto:sales@sundray.com); [tech.support@sundray.com](mailto:tech.support@sundray.com)

Document Version: 20201127-V1.0

Copyright © 2020 Shenzhen Sundray Technologies Company Ltd. All rights reserved.

Disclaimer: Sundray Technologies retains the rights of final explanation and modification of this document and this statement