



# SUNDRAY



# RS3320 Series V-Sec Switch Datasheet

1G/2.5G SFP uplink




Suitable for the access, distribution Switch in the campus network

## Product Overview

The RS3320 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, 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.

RS3320 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>RS3320-12M-LI</p>	<ul style="list-style-type: none"> <li>● 8 * 10/100/1000Base-T ports, 4 * 1G/2.5G SFP ports</li> <li>● AC power supply</li> <li>● Switch capacity: 672Gbps/6.72Tbps</li> </ul> <p>Packet forwarding rate: 102Mpps/126Mpps</p>
 <p>RS3320-12M-PWR-LI</p>	<ul style="list-style-type: none"> <li>● 8 * 10/100/1000Base-T ports, 4 * 1G/2.5G SFP ports</li> <li>● AC power supply</li> <li>● POE Budget 120W, IEEE 802.3af/at</li> <li>● Switch capacity: 672Gbps/6.72Tbps</li> </ul> <p>Packet forwarding rate: 27Mpps/102Mpps</p>
 <p>RS3320-28M-SI-24T-V2</p>	<ul style="list-style-type: none"> <li>● 24 * 10/100/1000Base-T ports, 4 * 1G/2.5G SFP ports</li> <li>● AC power supply</li> <li>● Switch capacity: 672Gbps/6.72Tbps</li> <li>● Packet forwarding rate: 126Mpps/179Mpps</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

- RS3320 series V-Sec Switches support VRRP (Virtual Routing Redundancy Protocol to achieve backup of upstream routing.
- RS3320 series V-Sec Switches support M-LAG to achieve the link aggregation cross the devices

## Products Specifications

Items	RS3320-12M-LI	RS3320-12M-PWR-LI	RS3320-28M-SI-24T-V2
Service interface	8 * 10/100/1000Base-T Ports 4 * 1G/2.5G SFP ports	8 * 10/100/1000Base-T POE Ports 4 * 1G/2.5G SFP ports	24 * 10/100/1000Base-T Ports 4 * 1G/2.5G SFP ports
Console port	1	1	1
Dimensions (W*D*H)	280x180x44 (mm)	280x180x44	440x208x44 (mm)

Wight	1.3kg	1.6kg	2 kg
Power consumption	≤13.2W	≤150W	≤18W
Working Layer	L2 & L3		
Work temperature	Work temperature : 0°C ~ 45°C		
Operating/storage humidity	Storage temperature: -20°C ~ 70°C		
	Work humidity: 5% ~ 90% (RH non-condensing)		
	Storage humidity: 5% ~ 95% RH (non-condensing)		
LED	Port indicator, system indicator and power indicator		
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		
	16K	16K	16K
MAC	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		
	Support default VLAN, Guest VLAN		
	Support Access, Trunk, Hybrid Switch port mode		
STP	Support 802.1D(STP),802.1W(RSTP),802.1S(MSTP)		
	Support BPDU Guard, root protection and loopback protection		
ACL	Support Standard IP ACL (IP Address Based Hardware ACL)		
	Support extended IP ACL (hardware ACL based on IP address, TCP/UDP port		

	<p>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	<p>Support manual and static LACP</p>
DHCP	<p>Support DHCP Server</p>
IPv4 routing	<p>Support static IPv4 routing</p> <p>Support RIPv1/2 OSPF</p> <p>Support Policy-based Routing</p>
IPv6 routing	<p>Support IPv6 static routing</p>
Virtualization technology	<p>Support M-LAG technology, cross-device link aggregation, paired devices have independent control plane</p>
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	<p>Support DHCP Relay, DHCP Server, DHCP Snooping</p>

Features	<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>
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
RS3320-12M-LI	The SUNDRAY V-Sec Switch, Support 8*10/100/1000Base-T ports, 4* 1G/2.5G SFP. Switching capacity 672Gbps/6.72Tbps, Packet forwarding rate 102Mpps/126Mpps. The Switch can be used in fit or fat mode(standalone mode) flexibly. In fit mode, it can be managed by NAC controller to provide a unified wired and wireless network. All the features can be configured by NAC Controller such as VLAN, STP, Static Routing/RIP/OSPF, M-	Essential

	LAG, East-West traffic security, Smart Network Topology, Visualized DHCP server, Terminal Identification, 802.1X/Portal authentication, IPv6, etc., to make the network simpler, more secure, and valuable.	
RS3320-12M-PWR-LI	The SUNDRAY V-Sec Switch, Support 4*1G SFP ports, 8*1G POE port. Output Power 135W. Switching capacity 672Gbps/6.72Tbps, Packet forwarding rate 102Mpps/126Mpps. The Switch can be used in fit or fat mode(standalone mode) flexibly. In fit mode, it can be managed by NAC controller to provide a unified wired and wireless network. All the features can be configured by NAC controller such as VLAN, STP, Static Routing/RIP/OSPF, M-LAG, East-West traffic security, Smart Network Topology, Visualized DHCP server, Terminal Identification, 802.1X/Portal authentication, IPv6, POE supply schedule, etc., to make the network simpler, more secure, and valuable.	Essential
RS3320-28M-SI-24T-V2	The SUNDRAY V-Sec Switch, 24 10/100/1000Base-T ports, 4 1G/2.5G SFP ports. Switching capacity 672Gbps/6.72Tbps, Packet forwarding rate 126Mpps/179Mpps. The Switch can be used in fit or fat mode(standalone mode) flexibly. In fit mode, it can be managed by NAC controller to provide a unified wired and wireless network. All the features can be configured by NAC Controller such as VLAN, STP, Static Routing/RIP/OSPF, M-LAG, East-West traffic security, Smart Network Topology, Visualized DHCP server, Terminal Identification, 802.1X/Portal authentication, IPv6, etc., to make the network simpler, more secure, and valuable.	Essential
SFP-GE-COPPER	Gigabit SFP to copper transceiver.	Optional
SFP-GE-MM850	Gigabit SFP multiple mode optical module, 550m, LC connector.	Optional
SFP-GE-SM1310-10KM	Gigabit SFP single mode optical module, 10km,	Optional
SFP-2G5-BX-SM1310-10KM	Gigabit SFP single-mode optical fiber module, single fiber bidirectional, TX1310/RX1550, maximum transmission distance 10KM, paired with SFP-2G5-BX-SM1550-10KM	Optional
SFP-2G5-BX-SM1550-10KM	Gigabit SFP single-mode optical fiber module, single fiber bidirectional, TX1550/RX1310, maximum transmission distance 10KM, paired with SFP-2G5-BX-SM1310-10KM	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



**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:**

Global: +60 127117511 (7129)

Thailand: +66 2508 8627

Indonesia: +62 81310996626

Singapore: +65 3158 1669

Hong Kong: +852 5803 7758

Italy: +39 02 9475 2641

UAE: +971 800 0320784

Macau: +853 68258565

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)

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