

IS2100D(R2) Series DIN Rail Industrial Switch

Product Overview

IS2100D(R2) series switch is Yunke China's new-generation DIN rail industrial switch for the industrial application scenarios with severe operating environment and extremely high demands regarding reliability. IS2100D series adopts industrial-grade, high-reliability components, industrial-grade hardware structure design and software based on DCNOS platform, can provide various flexible solutions for industrial application scenarios.



IS2100D(R2)

Product Features

High-quality design and robust performance

IS2100D(R2) series adopts industrial-grade hardware components and a cooling shell of aluminum alloy to ensure the industrial-grade quality of product.

The series adopts a fan-free thermal design with such multi-cooling structure as built-in cooling fin, thermal grease etc., to ensure an operating temperature range of -40-85°C.

The series is provided with two-circuit direct current power redundancy design and system power failure alarm. It supports resistance to vibration and dust, and follows IP grade protection standards as IP40.

Diverse options of VLAN expansion

The series supports ordinary QinQ, selective QinQ and flexible QinQ technology, which ensures users have the maximum freedom to configure QinQ strategies.

The series supports the exchange function of N: 1 VLAN ID, that is, N: 1 VLAN Translation. N VLAN Tags of access port message can be converted to one designated VLAN Tag, thus providing strong technology guarantee for the convergence of QoS strategies.

The series supports multiple types of VLAN, such as protocol VLAN, MAC VLAN and Voice VLAN, and plays a role in the multi-service integrated network.

Enhanced protection, ensuring safety and controllability

As Ethernet gradually becomes the mainstream access mode in enterprise-level and operator-level networks, clients have increasingly higher demand on the safety, controllability and simplicity of the access layer. IS2100D series is provided with various safety protection mechanisms, offering various anti-DOS attack technologies like SYN Flood, Land and IGMP Flood, and supporting BPDU Guard and Root Guard, prevents accidental topology rings and illegal edge devices from becoming root nodes, thus avoiding unnecessary topological shock.

In terms of anti-attack measures targeted at user level, the series simultaneously supports DHCP snooping and IP Source Guard based on port and VLAN respectively, which can be combined to effectively prevent the illegal address spoofing of MAC, IP and MAC+IP and reduce the risk of DOS attack.

The series supports source MAC address learning restriction function based on port and based on VLAN, and effectively prevents source MAC spoofing from impacting the device MAC table entry, which results in, among others, flooding due to normal users' failure to learn MAC table.

The series supports customized ACL, and can perform more flexible rule matching on the first 128 bytes of message's Ethernet header or IP header according to user demands.

The series supports standard 802.1X authentication access, expanded 802.1X authentication access, effectively avoids IP conflict and PC cloning, and realizes extended enhancement functions like static IP address issuing.

Redundant backup, guaranteeing stability and reliability

The series has two gigabit uplink ports, which realizes dual uplink network and enhances the robustness and high reliability of user network structure.

The series is the first to support the industrial standard ERPS ring network solution, supports various networking mode like single ring, tangent ring, intersecting ring and dual homing ring, ensures the convergence speed to be less than 50ms, and realizes carrier-grade reliability.

The series supports multi-process MSTP. The processes can run different spanning tree protocols. At the meantime, the number of access sub-rings is increased. Additional access rings can be realized by creating a new MSTP, without affecting original service traffic to reduce network impact.

The series supports DCN EMVTE enhanced multi-VLAN sub-network traffic engineering technology, which is DCN's link backup and load balancing solution based on multi-VLAN

sub-network for dual uplink networking environment. Through ULPP (Uplink Protection Protocol) and ULSM (Uplink State Monitor) protocols, fast switch convergence of multiple uplinks is realized to guarantee network performance.

The series has built-in lightning protection settings. The service port has 8KV lightning protection capacity to effectively withstand lightning. This makes the series more adaptable to harsh environment than ordinary switches, and significantly reduces the damage rate of device.

The series provides dual DC power input and system power failure alarm.

PoE+ Supply, smart power supply

PoE model supports enhanced Ethernet power supply function (PoE+), with maximum 30W output power per port, and can directly power auxiliary PD devices (including 802.11n wireless access point, visual IP phone, HD web camera, etc.).

The series provides a perfect PoE solution, which allows users to selectively set PoE power supply port and configure the maximum output power for each port, so as to save energy. The series supports setting for various power supply strategies, such as free setting the power supply priority for ports. Thus when there are a large number of devices to be powered, it can maximally ensure that devices with high priority are powered first. Thus, flexible PoE power supply management is realized.

Technical Specification

Item	IS2100D-2GF8GT(R2)	IS2100D-2GF8TX(R2)	IS2100D-2GF8GT-P(R2)	IS2100D-2GF8TX-P(R2)
Device port	8*10/100/1000M electrical interface+2*SFP port	8*10/100M electrical interface+ 2*SFP port	8*10/100/1000M electrical interface+2*SFP port	8*10/100M electrical interface+ 2*SFP port
Switching capacity	20G	20G	20G	20G
Packet forwarding rate	14.88Mpps	4.2Mpps	14.88Mpps	4.2Mpps
VLAN characteristics	Support Port-based VLAN Support IEEE802.1Q VLAN Support private VLAN Support Protocol VLAN Support Voice VLAN Support MAC VLAN Support ordinary QinQ Support selective QinQ Support flexible QinQ Support VLAN Translation Support N:1 VLAN Translation			
DHCP	Support IPv4/IPv6 DHCP Client and IPv4/IPv6 DHCP Relay Support Option 82 and Option 37/38 Support IPv4/IPv6 DHCP Snooping and IPv4/IPv6 DHCP Server			
Reliability	Dual DC power input, support system power failure alarm Support STP, RSTP, MSTP Support multi-process MSTP* Support LACP load balance Support EMVTE (ULPP+ULSM) and MRPP Support G.8032 standard ring network protocol Support Loopback detection, VCT, DDM Support ULDP (to realize the same functions as Cisco UDLD)			
Safety	Support port speed limit Support broadcast storm control based on message and number of bytes Support port/MAC binding and MAC filter Support MAC number limit based on port and based on VLAN Support anti-ARP spoofing, anti-ARP scanning and ARP binding Support DHCP Snooping and ND Snooping Support DAI Support standard IEEE 802.1x, extended IEEE 802.1x and Web Portal Support TACACS+			

Multicast	<p>Support IGMP v1/v2/v3 snooping and IGMP Fast leave</p> <p>Support MLD v1/v2 snooping</p> <p>Support multicast VLAN and IPv4/IPv6 DCSCM</p>
QoS	<p>Support ACL-based stream, VLAN ID, COS, TOS and DSCP</p> <p>Support aggregated PolicyMap</p> <p>Support PolicyMap binding based on port and based on VLAN</p> <p>Support single speed, single barrel and double color</p> <p>Support field rewriting of DSCP, COS/802.1p priority and TOS</p> <p>Support 8 queues per port</p> <p>Support queue scheduling algorithms of SP, WRR, SWRR and DWRR</p> <p>Support matching IP segment message</p>
ACL	<p>Support IP ACL, matching based on fields such as source/destination IP, IP protocol type, IP priority, TCP/UDP source and destination port number</p> <p>Support MAC ACL, message matching based on fields such as source/destination-based MAC, VLAN ID and COS</p> <p>Support IP+MAC combination ACL</p> <p>Support custom ACL</p> <p>Support effective ACL according to time range</p> <p>Support ACL binding based on port and based on VLAN</p> <p>Support ACL-based redirection</p> <p>Support execution of traffic statistical analysis function according to ACL matching</p>
Management, operation and maintenance	<p>Support CLI</p> <p>Support IPv4/IPv6 HTTP</p> <p>Support IPv4/IPv6 FTP/TFTP</p> <p>Support IPv4/IPv6 SNTP/NTP</p> <p>Support radius authentication of telnet user name and password of IPv4/IPv6</p> <p>Support SSH of IPv4/IPv6</p> <p>Support Security IP security network management function</p> <p>Support syslog of IPv4/IPv6</p> <p>Support SNMPv1/v2c/v3</p> <p>Support MIB port, support Trap</p> <p>Support RMON 1, 2, 3 and 9 groups</p> <p>Support dual IMG and multiple profile</p> <p>Support LLDP</p> <p>Support port mirroring, CPU mirroring and RSPAN</p> <p>Support sFlow flow monitoring</p> <p>Support Reset one-key reset</p> <p>Support OAM</p> <p>Support mirror sampling</p>

Energy conservation and environmental protection	Support 802.3az Energy Efficient Ethernet EEE Fan-free mute design to reduce noise
Dimensions	165*140*60mm
Relative humidity of operating environment	10% ~ 95%, no condensation
Temperature of operating environment	-40°C ~ 85°C
Temperature of storage environment	-40°C ~ 85°C
Rated power input	50 ~ 57 VDC
Standard and Certification	CE/FCC

Order Information

Model	Description
IS2100D-2GF8GT(R2)	IS2100D-2GF8GT DIN rail industrial Ethernet switch, (8*gigabit electrical interface+2*gigabit SFP port)
IS2100D-2GF8GT-P(R2)	IS2100D-2GF8GT-P DIN rail POE industrial Ethernet switch, (8*gigabit electrical interface+2*gigabit SFP port) All electrical interfaces support maximum 30W (802.3at standard) power supply, maximum PoE power supply power 180W
IS2100D-2GF8TX(R2)	IS2100D-2GF8TX DIN rail industrial Ethernet switch, (8*megabit electrical interface+2*gigabit SFP port)
IS2100D-2GF8TX-P(R2)	IS2100D-2GF8TX-P DIN rail POE industrial Ethernet switch, (8*megabit electrical interface+2*gigabit SFP port) All electrical interfaces support maximum 30W (802.3at standard) power supply, maximum PoE power supply power 180W