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RAYCORE

Q3-S353 V1.4E

Specification of L2+ managed Ethernet fiber switch with 4 ports 10/100/1000M RJ45 ports and 24 ports 100/1000M SFP fiber slot ports and 4 ports 1/10G SFP+ fiber slot ports

Part Number: AVSV-1TKA-000xA-02

The AVSV-1TKA-000xA-02 is a 10G uplink managed Ethernet fiber switch independently developed by Raycore. It has 4 ports 10/100/1000Base-T RJ45 ports and 24 ports 100/1000Base-X SFP fiber slot ports and 4 ports 1/10G SFP+ fiber slot ports. Each port can support wire-speed forwarding.

The AVSV-1TKA-000xA-02 has the layer two plus full network management function, supports IPV4/IPV6 management, supports static route full line rate forwarding, supports complete security protection mechanism, complete ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS to improve link backup and network reliability. When one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services such as port traffic control, VLAN division, and SNMP through the Web network management mode. It satisfies high-density network application environment and is suitable for medium, large-scale scenes such as hotel, campus, park, shopping mall, scenic spot, hospital, bank to form an economical, efficient and reliable communication network.

Features

- Gigabit multi fiber port access, 10G uplink
  - ➢ All series supports "Gigabit Ethernet port and Gigabit SFP fiber port and10G uplink SFP+ fiber port "combination, which enables users to flexibly build networking to meet the needs of various scenarios.
  - ➢ Support non-blocking wire speed forwarding.
  - ➢ Support full duplex based on IEEE802.3x and half duplex based on backpressure.

- Strong business processing capability
  - ➢ Support IEEE 802.1Q VLAN, users can flexibly divide VLAN according to needs, and support QinQ configuration.
  - ➢ Support QoS, support port based, 802.1P based and DSCP based three priority modes and Equ, SP, WRR, SP+WRR four queue scheduling algorithms.
  - ➢ ACL supports the filtering of data packets by configuring matching rules, processing operations and time permissions, and provides a flexible access control strategy.
  - ➢ Support IGMP V1/V2 multicast protocol and support IGMP Snooping to meet the multi terminal HD video surveillance and video conference access requirements.
  - ➢ Support STP/RSTP/MSTP production tree protocol, eliminates two layers of loops, and realizes link backup.
  - ➢ Support G.8032 industrial fast Ring network ERPS Protocol network convergence time ≤ 20ms
  - ➢ Support static convergence and dynamic convergence, effectively increases link bandwidth, achieves load balancing, link backup, and improves link reliability.
- Complete safety protection mechanism
  - ➢ Support 802.1X authentication, provide authentication function for LAN computer, and control the authorized status of controlled port according to the result of authentication.
  - ➢ Support port isolation
  - ➢ Support port broadcast storm suppression
  - ➢ Support port +MAC binding, IP+MAC+ port binding function

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- The equipment is stable and reliable
  - The host has low power consumption, no fan mute design, aluminum alloy metal shell, excellent heat dissipation, and ensure stable operation of products.
  - The equipment meets the requirements of CE, FCC and RoHS safety regulations, and is safe and reliable.
  - The user can easily understand the working status of the device through the power indicator (PWR), system status indicator (SYS), and port status indicator (Link,L/A) operation indicator.
- Easy operation and maintenance management
  - Support various management and maintenance methods such as Web management, CLI command line (Console, Telnet), SNMP (V1/ V2C).
  - Support encryption methods such as HTTPS, SSLV3, and SSHV1/V2 for more secure management.
  - Support RMON, system log, port traffic statistics, easy network optimization and transformation.
  - Support LLDP, which is convenient for the network management system to query and judge the communication status of the link.
  - Support CPU monitoring, memory monitoring, ping detection, cable length detection.

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Specifications

Model	AVSV-1TKA-000xA-02
Interface	4*10/100/1000Base-T RJ45 ports (Data) 24*100/1000Base-X fiber slot ports (Data) 4*1/10G uplink SFP+ fiber slot ports (Data) 1*Console RS232 port (115200, N,8,1)
Managed Type	L2+
Network Protocol	IEEE802.3 10BASE-T; IEEE802.3i 10Base-T; IEEE802.3u 100Base-TX; IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3ae 10GBase-SR/LR IEEE802.3x
Ethernet Port Feature	Port 1-4 can support 10/100/1000Base-T auto detect, full/half duplex MDI/MDI-X adaptive
Fiber Port Feature	Gigabit SFP /10G SFP+ fiber interface (Fiber module is not included, need to order separately, module options include single/multi mode, single/dual fiber, LC)
Forwarding Mode	Store and Forward (Full Wire Speed)
Switching Capacity	598Gbps (non-blocking)
Forwarding Rate@64byte	101.18Mpps
MAC	32K
Buffer Memory	32M
Twisted Pair Transmission	10BASE-T:Cat3,4,5 UTP(≤100 meter) ; 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T:Cat5e or later UTP(≤100 meter)
Optical Fiber Cable	Multi-mode:850nm 0~300M(10G) ,850nm 0~500M (1.25G); Single-mode:1310nm 0~40KM,1550nm 0~120KM.
Total PWR / Input Voltage	60W (AC100-240V)
Power Consumption	Standby<20W; Full Load<45W
Power Supply	Built-in power supply, AC 100~240V 50-60Hz 1A

LED Indicator	Power indicator: PWR(yellow)
	System indicator: SYS(yellow)
	UTP Link/Act indicator: 10/100M(yellow) @P1 ~ P4
	1000M(green) @P1 ~ P4
	Fiber Link/Act indicator: L/A(green) @P5 ~ P28(1000M)
	L/A(green) @P29 ~ P32(10G)
Reset Button	yes, support one key to restore factory settings
Operation TEMP/Humidity	-20~+55°C;5%~90% RH Non condensing
Storage TEMP /Humidity	-40~+80°C;5%~95% RH Non condensing
Dimension (LxWxH)	440x225x44mm
Net / Gross Weight	<2.7kg / <3.4kg
Inner Box Dimension (LxWxH)	489x315x101mm
Installation	Desktop,19 inch 1U cabinet installation
Lightning protection / Protection Level	Lightning protection :4KV 8/20us; Protection Level: IP30
Certification	CE mark, commercial; CE/LVD EN60950; FCC Part 15 Class B; RoHS;

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| Managed Series Feature	
Interface	IEEE802.3x flow control (full duplex) Broadcast storm suppression for port rate support speed limit for incoming and offline message traffic, with a minimum particle size of 64Kbps. Temperature protection setting Energy saving configuration of port EEE Ethernet
Layer3 Function	Support L2+ managed function, Support IPV4/IPV6 management Support layer3 soft routing forwarding, Support different network segments, communication between different VLAN Static routing/default routing,128 maximum entries ARP protocol, 1024 maximum entries
VLAN	Support port based VLAN (4K), IEEE802.1q Support protocol based VLAN Support for MAC address-based VLAN Support Voice VLAN Support Access, Trunk, Hybrid three types of port configuration Support QinQ configuration
Port Aggregation	Support LACP Support static polymerization Support the largest 16 aggregation groups, each aggregation group supports 8 ports.
Spanning Tree	STP (IEEE802.1d) RSTP (IEEE802.1w) MSTP (IEEE802.1s)
Industrial Ring Network Protocol	Support G.8032 (ERPS), support 255 loops at most, and supports 254 devices per ring. The self healing time of the ring network is less than 20ms
Multicast	Support IGMP Snooping V1/V2 and support 1024 multicast groups at most. Support the user's quick departure mechanism Support MLD Snooping V1/V2 Support multicast VLAN

Image	Bi-directional traffic mirroring supporting the basic port
QoS	Diff-Serv QoS Each port supports 8 output queues Support 802.1p/DSCP priority mapping Support queue scheduling mechanism (SP, WRR, SP+WRR) priority tag Mark/Remark stream based packet filtering Support for stream based redirection Support flow based speed limit
ACL	Support L2 to L4 packet filtering function, can match the first 80 bytes of the message, provide based on the source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, VLAN and other definition ACL. Support ACL based on port and VLAN
Safety Characteristics	Support user grading management and password protection Support IEEE802.1X authentication / centralized MAC address authentication Support AAA&RADIUS authentication Support the number of MAC address learning restrictions Support MAC address black hole Support SSH 2.0 to provide secure passwords for user login. Support SSL to ensure data transmission security Support port isolation Support the speed limit function of ARP message Support IP source address protection Support ARP intrusion detection function Support against DoS attacks Support port broadcast message suppression Support host data backup mechanism Binding capabilities of IP+MAC+VLAN+ ports
DHCP	Support DHCP Client Support DHCP Snooping Support DHCP Serve Support DHCP Relay

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Management and Maintenance	Support Console/AUX Modem/Telnet/SSH2.0 CLI command line configuration
	Support WEB network management (HTTPS)
	Support FTP, TFTP, Xmodem, SFTP file download management
	Support SNMP V1/V2C
	Support one bond reduction
	Support NTP clock
	Support system work log
	Support Ping detection
	Support cable state detection
	Support CPU instant utilization status view
	Support link layer discovery protocol LLDP
System Requirements	Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later; Cat5e or later Ethernet cable; TCP/ IP, network adapter and network operating system (Microsoft Windows, Linux or Mac OS X) installed on every computer in the network.

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Dimensions

225mm

44mm

440mm

A B C D

AC/IN 100-240V

E
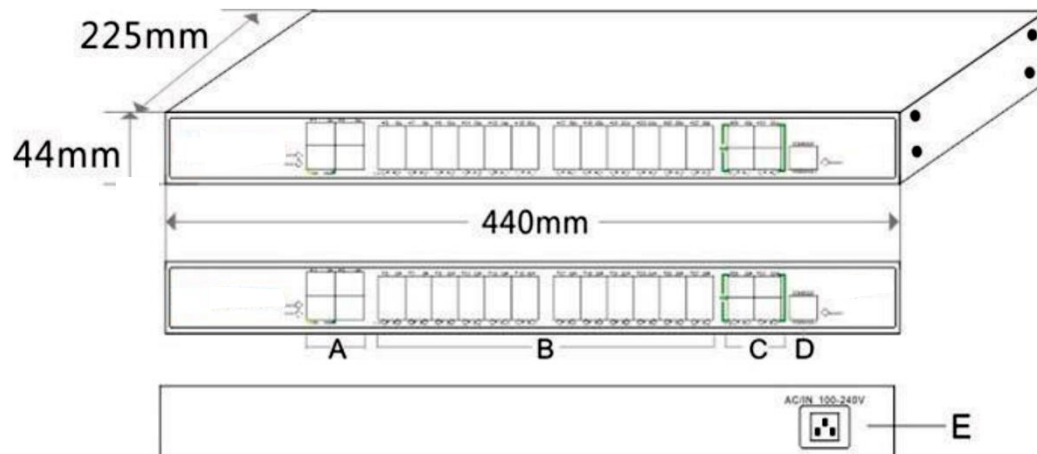
A. 4 * 10/100/1000M RJ45 Port

B. 24*100/1000M SFP Ports

C.4*1/10G SFP+Ports   D. Console port

E.Power Input Port AC100-240V,50/60Hz

Application
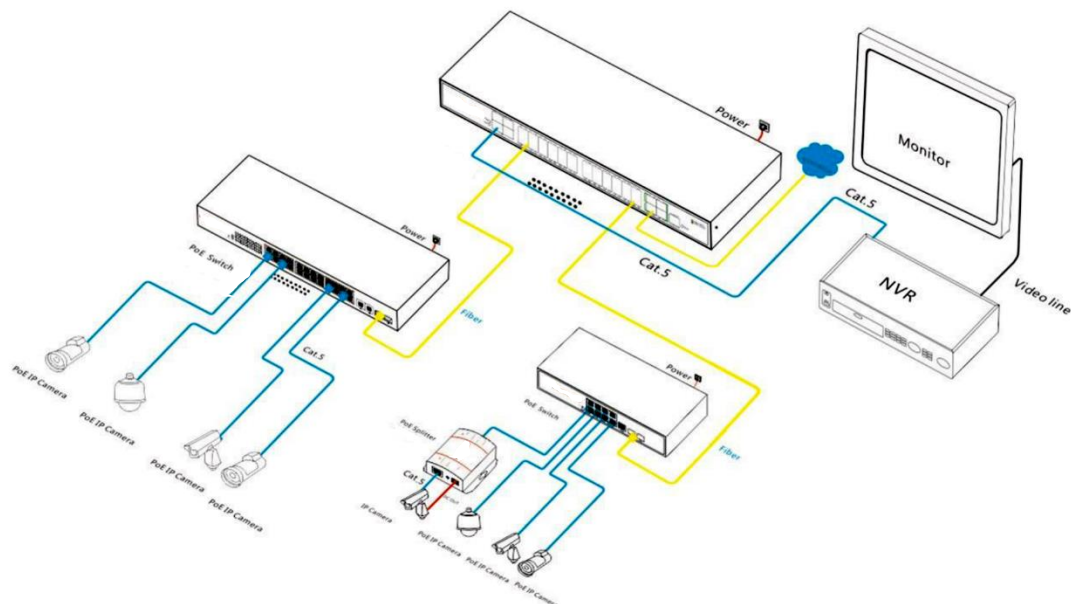
Packing list

	CONTENT	QTY	UNIT
PACKING LIST	32-Port 10G uplink managed Ethernet fiber switch (AVSV-1TKA-000xA-02)	1	SET
	Power Cable	1	PC
	RJ45-DB9 Line	1	PC
	Mounting Kits (Hanging Ear)	1	SET

Note: Ethernet fiber switch does not match the optical module by default. If you need to purchase it, please refer to the accessory product information.

Ordering information

Part Number	Description
AVSV-1TKA-0001A-02	L2+ managed Ethernet fiber switch with 4* 10/100/1000M RJ45 ports and 24*100/1000M SFP fiber slot ports and 4*1/10G SFP+ fiber slot ports with EU power cord
AVSV-1TKA-0003A-02	L2+ managed Ethernet fiber switch with 4* 10/100/1000M RJ45 ports and 24*100/1000M SFP fiber slot ports and 4*1/10G SFP+ fiber slot ports with US power cord
AVSV-1TKA-0000A-02	L2+ managed Ethernet fiber switch with 4* 10/100/1000M RJ45 ports and 24*100/1000M SFP fiber slot ports and 4*1/10G SFP+ fiber slot ports without power cord