

# **Green, Efficient , Easy-maintenance**

——ZTE ZXR10 1000 series intelligent switch





#### Overview

The ZXR10 1000 series intelligent Ethernet switches of ZTE are designed for access layers to enable fast deployment and convenient access. This series includes two types, i.e. unmanaged and WEB-managed ones. So these switches can be widely used in many scenarios, e.g. small and middle-sized enterprises, hotels and cybercafes, etc.

Totally there're 8 models of ZXR10 1000 series unmanaged intelligent Ethernet switches:

1150-5T: 5FE RJ45

1150-8T: 8FE RJ45

1150-16T: 16FE RJ45

1150-24T: 24FE RJ45

1160-5T: 5GE RJ45

1160-8T: 8GE RJ45

1160-16T: 16GE RJ45

1160-24T: 24GE RJ45

There are 4 models of ZXR10 1000 series web-managed

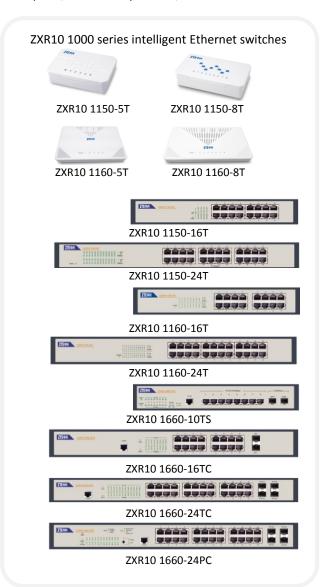
intelligent Ethernet switches:

1660-10TS: 8\*GE RJ45+2\*GE SFP

1660-16TC: 16\*GE RJ45(2\*GE combo)

1660-24TC: 24\*GE RJ45( 4\*GE combo )

1660-24PC:24\*GE POE/POE+(4\*GE combo)



## **Product Highlights**

Diversified forms and excellent performance





- Support unmanaged and web-managed products. Enable the access of different number of ports ranging from FE to GE.
- As desktop-based 5-port/8-port switches, they are known for elegant appearance and quietness, which makes them perfect matches for office and family use.
- The WEB-managed switches give support to GE optical and electrical Combo interfaces, so
  users can make choices as per their specific needs. The optical interfaces of the switch support
  GE SFP optical interfaces and FE SFP optical interfaces, so the networking can be more flexible
  and convenient.
- All the products support wire-speed service forwarding, thus, they are capable of building non-blocking, high-speed and better-performance networks.

#### Plug-and-play, easy deployment, easy management and easy maintenance

- Support Ethernet automatic identification mechanism. They can identify MDI/MDIX automatically.
- The unmanaged products do not need software installation or configuration. They are plugand-play.
- The WEB-managed devices with customer-friendly interfaces support many management ways, e.g. Web, GUI, CLI and RMON.

# Extraordinary security features and rich monitoring modes (supported by the device 1660)

- Decrease harms to CPU by restraining port broadcasting messages, multicast messages and unknown unicast messages.
  - Support IP-MAC-port-VLAN binding to make sure the user's legality.
- Support DHCP snooping and IP source guard to fight against ARP fraud and illegal private DHCP servers.
- Support ARP Guard + DOS Defence service to stop the DOS attacks launched by using ARP messages.
- Support L2/L3/L4 ACL services.

Give comprehensive support to multiservice (supported by the device 1660)





- Enhanced Voice VLAN service can identify voice and media devices and allocate them with independent VLANs. Besides, QOS policies are matched to guarantee the high priority of the data of this VLAN, so that, the voice and media services can be transferred in high quality.
- Support IGMP Snooping, Multicast Filter, IGMP statistics, Fast leave, MVR (Multicast VLAN Register) and SGR (Static Group Register).

#### **Powerful Ethernet power supply capability**

• All 24 Ethernet electrical interfaces of the ZXR10 1660-24PC support POE/POE+ services. The output power consumption of single port is 30W, and the entire device can offer up to 320W POE/POE+ output power consumption. In addition to IP phones and 802.11a/b/g AP, the device can also support video conferencing terminals, HD cameras and 802.11n/ac AP devices. It even can electrify POE+-based illumination system, and enable multiple POE/POE+-based power supply.

#### **Eco-friendly features**

- The devices (non-POE models) are designed with no fan and no noise
- Strictly according with the RoHS standard of Europe, the products are made with minimum environmental pollution.

## **Technical Specifications**

ZXR10 1000 series unmanaged intelligent Ethernet switches

Specifications		1150-5T	1150-8T	1150-16T	1150-24T	1160-5T	1160-8T	1160-16T	1160-24T
The number of fixed ports		5FE RJ45	8FE RJ45	16FE RJ45	24FE RJ45	5GE RJ45	8GE RJ45	16GE RJ45	24GE RJ45
Basic para meter s	Switching capacity	1G bps	1.6G bps	3.2G bps	4.8G bps	10G bps	16G bps	32G bps	48G bps
	Packet forwarding rate	0.74 MPPS	1.19 MPPS	2.38 MPPS	3.57 MPPS	7.44 MPPS	11.9 MPPS	23.8 MPPS	35.7 MPPS
	MAC table capacity	1k	2k	8K	8K	2k	8K	8K	8K
Featu res	Automatic negotiation	Y	Υ	Υ	Υ	Υ	Υ	Υ	Υ
	Automatic MDI/MDIX	Y	Υ	Υ	Υ	Υ	Υ	Υ	Υ





Specifications		1150-5T	1150-8T	1150-16T	1150-24T	1160-5T	1160-8T	1160-16T	1160-24T
Physi cal para meter s	MAC address learning and aging	Υ	Υ	Υ	Υ	Υ	Y	Y	Υ
	Wire-speed forwarding	Y	Y	Υ	Υ	Υ	Υ	Y	Υ
	Size (W*D*H)	98*71*29 mm	133*72*28 mm	294*180*4 4mm	440*180*4 4 mm	128*96*31 mm	172*108*3 2mm	294*180* 44 mm	440*180* 44 mm
	Weight	0.17kg	0.23 kg	1.3 kg	1.8 kg	0.19 kg	0.26 kg	1.55 kg	2.3 kg
	AC power supply	100V~240V , 50Hz~60Hz (power adapter)		100V~240V , 50Hz~60Hz		100V~240V , 50Hz~60Hz(power adapter)		100V~240V , 50Hz~60Hz	
	Maximum power consumption	1.5W	1.5W	1.48W	2.63W	3.3W	5.6W	8.2W	10.3W
	Long-term working environment	0°C-40°C (32°F~104°F), 10%~90% non-condensing							
	Storage environment	-40°C-70°C (-40°F~158°F), 5%~90% non-condensing							

### ZXR10 1000 series WEB-managed intelligent Ethernet switches

Specifications		1660-10TS	1660-16TC	1660-24TC	1660-24PC			
The number of fixed ports		8*GE RJ45+ 2*GE SFP	16*GE RJ45 ( 2*GE combo)	24*GE RJ45 (4*GE combo)	24*GE POE/POE+(4*GE combo)			
Basic	Switching capacity	20Gbps	32Gbps	48Gbps	48Gbps			
para mete	Packet forwarding rate	14.9Mpps	23.8Mpps	35.7Mpps	35.7Mpps			
rs	MAC table size		8K					
Feat ures	MAC features	Support automatic IEEE 802.1d MAC address learning and aging. Support port MAC address binding and filtering. Support the management of dynamic MAC addresses. Support static MAC addresses.						
	Port features	Support automatic negotiation of port rate/duplex mode. Support MDI/MDIX. Support service control. Support port mirroring service. Support port traffic statistics.						
	Link aggregation	Support manual aggregation. Support load balance and link backup. Support IEEE 802.3ad LACP link aggregation protocol. Support aggregation algorithm based upon source and destination MAC addresses. Support aggregation algorithm based upon source and destination IP addresses. Link Aggregation:8 groups, 8 ports/group						





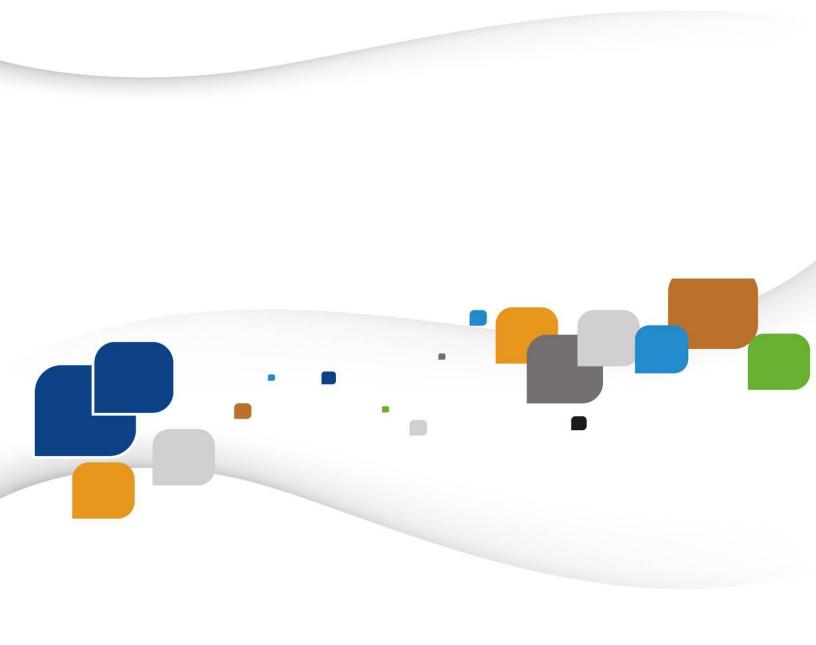
Specifications		1660-10TS	1660-16TC	1660-24TC	1660-24PC			
	VLAN features	Support 4K VLANs. Support port/protocol-based VLAN. Support VLAN based upon MAC addresses. Support Voice VLAN. Support GARP/GVRP.						
	Ring	Support STP, RSTP and MSTP. Support Loop Guard, root Guard, TC-BPDU Guard, BPDU Guard and BPDU filtering. Support IGMP Snooping(V1/V2/V3) Support IGMP statistics Support Fast Leave Support multicast VLAN. Support multicast filtering.						
	Multicast management							
	DHCP features	Support DHCP Snoopin Support DHCP Client Support DHCP Options						
	Access control list	L2 packet filtering based upon source and destination MAC/VID/801.2P and protocol types L3 packet filtering based upon source and destination IP and ToS/DSCP. L4 packet filtering based upon source and destination ports, TCP labels, ICMP types and codes. Support mirroring, polling, speed limit and QoS re-tagging. Support port and VID binding 4 priority queues Support priorities based upon ports, 802.1p and DSCP Support SP, WRR and SP+WRR Support port-based incoming and outgoing traffic speed limits. Support storm control (broadcast, multicast and unicast) Support Voice VLAN						
	qos							
	Security features	Support port security and MAC address filtering. Support IP-MAC-PORT-VLAN binding Support L2/L3/L4 ACL Support 802.1x Support ARP Guard Support RADIUS Support Guest VLAN Support SSLv2/SSLv3/TLSv1						
	Device maintenance	Support SNTP Client Support BOOTP Client Support Virtual Cable Test Support Loopback Test Support Ping Path diagnosis System operating records CPU monitoring						
Equi pme nt man age ment	Device management	Support RMON Support Web-GUI (htt Support CLI (Telnet, Co Support port mirroring Support TFTP/Web ha Support configuration	onsole and SSHv1/v2) g. rdware upgrade					





Specifications		1660-10TS	1660-16TC	1660-24TC	1660-24PC			
		Support Web management Support topology discovery Support DHCP Client						
	Size(W*D*H)	294mm*180 mm *44mm	440 mm *220	) mm *44 mm	440 mm *330 mm *44 mm			
	Weight	1.45kg	2.7kg	3kg	5.36kg			
Physi cal	AC power supply							
para mete rs	Maximum power consumption	10.7W	14.7W 23.3W		401.3W (System power consumption 81.3W , POE power output 320W)			
	Working environment	Working temperature: 0°C~40°C (32°F~104°F) , humidity: 10%~90% non-condensing						
	Storage environment	Storage temperature: -40°C~70°C (-40°F~158°F); humidity: 5%~90% non-condensing						





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