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ZTE ZXR10 5100E Series Switch Data Sheet

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Product Overview

The ZXR10 5100E Series switch is 1RU height all Gigabit L2 switch with four 10GE uplink ports, in order to meet the requirements of service access bearer network integrate data, voice, video and mobile services on a unified platform. It is also an ideal Gigabit access switch for SMB, enterprise, and campus networks.

Powered by European standard hardware architecture, state-of-art software platform and the first-in-industry "Easy-maintenance" designs philosophy, the ZXR10 5100E Series switch is a milestone switch presented by ZTE Corporation. The switch has various layer 2 features for user management, user security and easy management and could provide flexible QoS features with traffic policing, marking and shaping. The switch also supports basic IPv6 features in accordance with the growth of IPv6 deployment.

The ZXR10 5100E Series switch offers following switch products:
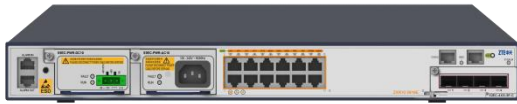
5116E

5128E

5116E: 12 Ethernet 10/100/1000M RJ45 electrical ports and 1 expansion slot, 2 AC/DC power supply modules.

5128E: 24 Ethernet 10/100/1000M RJ45 electrical ports and 1 expansion slot, 2 AC/DC power supply modules.

5128E-FI

5128E-FI: 24 GE SFP optical ports and 1 expansion slot, 2 AC/DC power supply modules.

The expansion card slot can be equipped with the following expansion cards:

- 4 * 10GE SFP+ optical ports card
- 4 * GE SFP optical ports card

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Product Features

- **Powerful Service Bearing Capability**

  – By supporting rich L2 switching functions and low latency forwarding, the ZXR10 5100E Series switch can bear multi services including WLAN, Internet, Voice, Video and other data services.

  – The ZXR10 5100E Series switch fully supports L2 multicast, including IGMP snooping, Filtering, Proxy and Fast leave, MVR (Multicast VLAN Registration) to facilitate the deployments of these services. With IPTV control implemented, operators can apply different CAC (channel access control) rules for users with channel packages.

  – The ZXR10 5100E Series switch supports IPv6 features, including Telnet v6, Ping v6, ICMPv6, ND, MLD Snooping, IPv6 ACL and DHCP v6 Snooping to facilitate the deployment of these services.

- **Smart VLAN Support**

  – The ZXR10 5100E Series switch not only supports 1:1 VLAN mapping, but also supports N: 1 VLAN mapping. VLAN aggregation thus can thus be implemented at the access layer to increase the efficiency of VLAN utilization.

  – The ZXR10 5100E Series switch also supports QinQ and flexible selective QinQ. Network administrator can distinguish user and service effectively and apply different strategies thereafter.

  – The ZXR10 5100E Series switch supports Voice VLAN, thus enabling the voice traffic to enjoy high priority.

- **Enhanced Reliability, Multi-Dimensional Security**

  – The ZXR10 5100E Series switch supports ZESR+ Ethernet ring protection, which can recover the system from any link or node fault within 50ms.

  – Support Ethernet OAM, including IEEE 802.3ah, 802.1ag, help monitoring network real-time operating status and fulfill fast fault detection, fault location.

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– Support Smart Group and LACP (Link Aggregation Control Protocol), which can help guarantee the reliability of the link connection.

– Dual-core CPU greatly enhances the processing capability for data, voice, video and complex data communication protocols. Virtual multi-core technology and dual-core processing architecture improves control plane performance and control system reliability.

– Support various authentication methods such as 802.1x, Radius, TACACS+. Support CPU overload protection, anti-DDOS, deliver customer a security network.

● Easy-Maintenance

– The innovative M-Button delivers instant trouble-shooting by reading indicators on front panel without login via terminal. It helps customer solve some common problems immediately.

– GVRP VLAN Registration Protocol can help network administrators reduce network configuration workloads and easily deploy large amounts of VLAN in complicated networking environment.

– Thanks to the ZXR10 5100E Series switch's 220mm depth, it costs users little space to install the switch. All the hardware components, including the power supply, all the access interfaces and uplink interface are front accessible, making it convenient to administrate the switch in space-constrained environment.

– The ZXR10 5100E Series switch supports Zero Configuration which can automatically download software images and start-up configurations. Zero configurations truly enable plug and play and reduces the requirement for experienced engineers.

● Green for More

– Support IEEE 802.3az EEE (Energy Efficient Ethernet). Via chip-grade power management, interfaces can automatically sleep when no traffic.

– The fan speed can be automatically adjusted by 5 levels in accordance with the temperature inside the switch. It not only saves the power consumption, but also reduces

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the noise and extends the life cycle of fans.

– Complying with ROHS, WEEE and ISO14001 certification, No plumbum (Pb) in not only product materials but also the whole processing technic. Meanwhile, use re-cycles degradable packing materials, practice green for more.

System Specification

Function and Parameters	5116E	5128E	5128E-FI
Dimensions (H*W*D)	43.6mm*442mm*220mm		
Fixed	12 GE RJ45	24 GE RJ45	24 GE SFP
Expansion Card Slot	1		
Expansion Card Type	4*GE SFP card 4*10GE SFP+ card		
Weight	<3.8kg	<4.8kg	<4.8kg
Management Port	1 GE MNG, 1RJ45 Console, 1 Mini USB Console		
DC Power Supply	-40V ~ -72V	-40V ~ -72V	-40V ~ -72V
AC Power Supply	Rated voltages: 100V~240V,50Hz~60Hz Maximum voltages: 90V~286V,45Hz~66Hz		
Maximum Power Consumption	<45W	<63W	<64W
Typical Power Consumption	38W	43W	35W
Power Redundancy Pattern	Two independent and swappable power supply module, support AC 1+1, DC 1+1,		
Heat Dissipation Pattern	Fan cooling, support multilevel speed regulation		
Heat Dissipation	190 BTU/h	213 BTU/h	180 BTU/h
Working Temperature	Long term working temperature: -10 ^{o}C ~ +50 ^{o}C Short term working temperature: -10 ^{o}C ~ +55 ^{o}C		
Humidity	5%~95%		
Working Altitude	<3000 meters		

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Function and Parameters	5116E	5128E	5128E-FI
MTBF/MTTR	>200000 hours/ < 30 minutes		
Switching Capacity	104Gbps	128Gbps	128Gbps
Packet Forwarding Rate	78Mpps	96Mpps	96Mpps

Service Specification

Function	The ZXR10 5100E Series switch
L2 Features	Support IEEE 802.1p (COS), IEEE 802.1q (VLAN) Support IEEE 802.1d (STP)/ 802.1w (RSTP)/ 802.1s (MSTP) Support IEEE 802.3ad (LACP) Support IEEE 802.3z (1000Base-X)/ 802.3ab (1000BaseT) Support IEEE 802.3ae (10Gbase) Support QinQ, Selective QinQ Support Port mirroring, Traffic mirroring Support PVLAN Support GVRP Support LLDP
IPv6	Support IPv6 MLD v2-snooping Support DHCPv6 Snooping Support IPv6 ACL Support the client connecting to the 5100E device through telnet、FTP、TFTP、SNMP and SSHv2 with the IPv6 address.
Multicast	Support IGMPv1/v2/v3 snooping Support MLD snooping Support CAC (channel access control) Support MVR (Multicast VLAN Registration)
QoS	Support traffic classification based on Layer 2 headers, Layer 3 protocols, Layer 4 protocols, and 802.1p priority, IP DSCP Support 8 hardware-based queues per port Support queue scheduling algorithms, such as SP, WRR, DWRR, SP+WRR

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| Function	The ZXR10 5100E Series switch
	Support congestion avoidance mechanisms, such as WRED and tail drop
	Support policing/shaping based on port
Security	Support standard ACL,MAC ACL, L2 ACL, extended ACL, mixed ACL, VLAN ACL
	Support time-range ACL configuration, bidirectional ACL
	Support 802.1x authentication and 802.1x server
	Support MAC authentication
	Support AAA/ RADIUS and TACACS+ authentication for login users
	Support SSH v1.0/v2.0 server
	Support CPU anti-attack
	Support STP Root Guard, BPDU guard
	Support URPF
	Support Dynamic ARP Inspection
Reliability	Support 1+1 redundancy power supply
	Support Hot plugging
	Support LACP
	Support ZESR/ZESR+(ZTE Ethernet Switch Ring)
	Support Ethernet OAM (802.1ag and 802.3ah)
Equipment Management	Support CLI, Telnet, SSH, Local and remote (Radius/Tacacs+) user authentication
	Support SNMP v1/v2/v3
	Support Mirroring, RSPAN, ERSPAN
	Support RMON
	Support NTP
	Support Syslog, Sflow
Enhanced Features	Support M-BUTTON
	Support Zero-touch deployment

Application Scenario

• Access in Campus Network

The ZXR10 5100E series switch supports various L2 features and it can be applied in multiple scenarios including campus access and GE to desktop scenario. Below is an example of campus application as an access switch.

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NMS　　　Data Center　　　WAN　　　Internet

5100E

5100E

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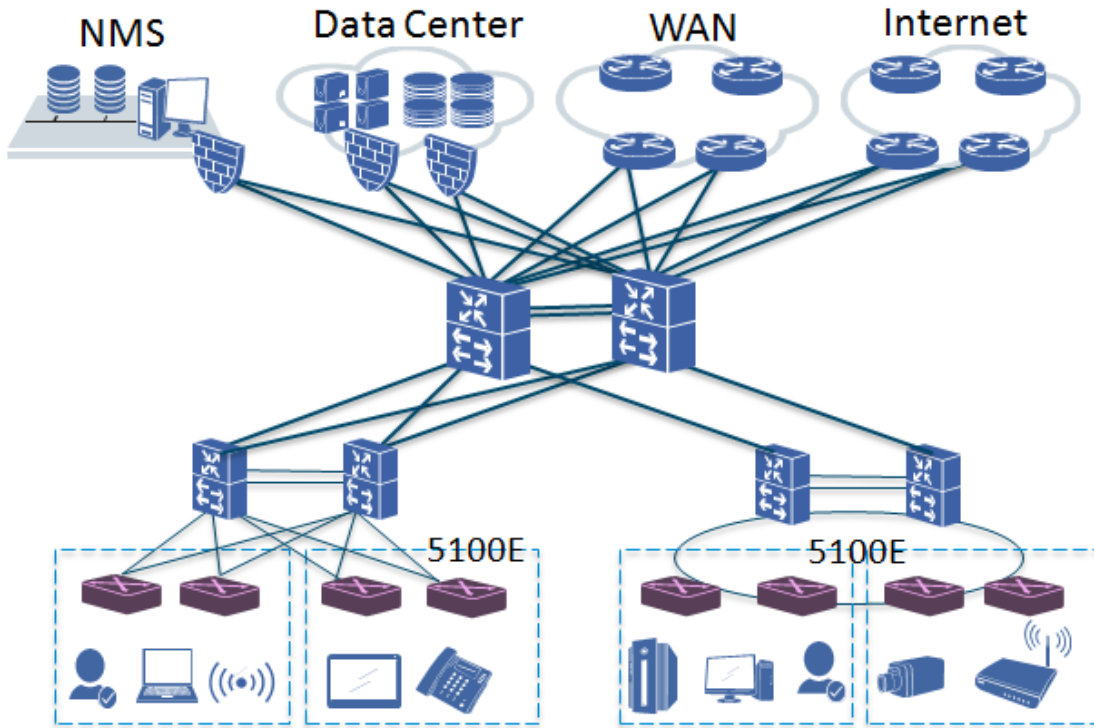
Order Information

Mainframe

5116E	5116E Switch Base (1*Expansion Card, 2*Power Supply Module)
5128E	5128E Switch Base (1*Expansion Card, 2*Power Supply Module)
5128E-FI	5128E-FI Switch Base (1*Expansion Card, 2*Power Supply Module)

Expansion card

51EC-4XG-SFP+	4*10GE SFP+ optical ports expansion card
51EC-4GE-SFP	4*GE SFP optical ports expansion card

Power Module

51EC-PWR-AC10	5116E, 5128E, 5128E-FI AC Power Module
51EC-PWR-DC10	5116E, 5128E, 5128E-FI DC Power Module

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