



Leading 5G Innovations

ZXR10 M6000-S Series Datasheet

-- Intelligent Full Service Router in the Cloud Era

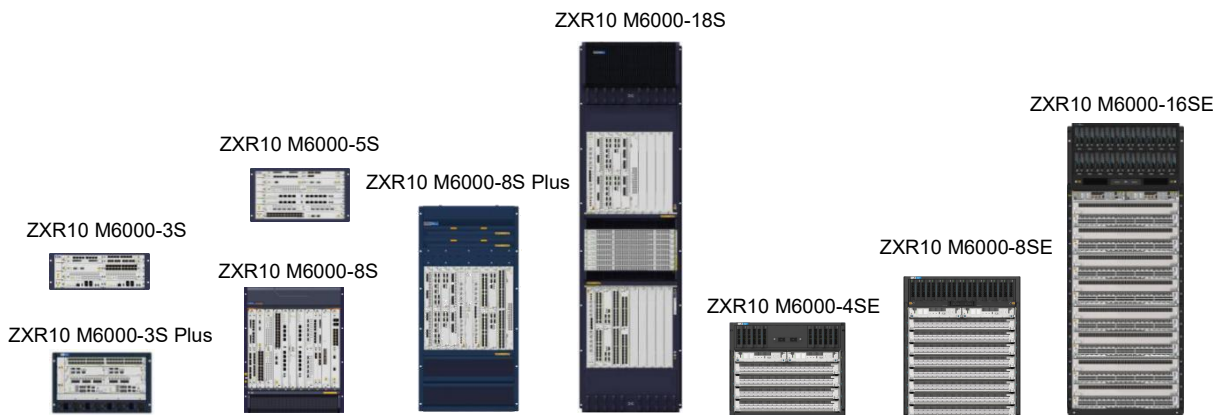


ZXR10 M6000-S Series Intelligent Full Service Router in the Cloud Era

The ZXR10 M6000-S series routers are intelligent full service router launched by ZTE for the cloud-based 5G era. Focusing on the network requirements of 5G, big video/VR/AR, intelligent IoT and cloud computing, they use a new generation of large-capacity and high-performance in-house core chips for different network scenarios.

The ZXR10 M6000-S series can smoothly upgrade to cope with explosive growth of network traffic, and offer a range of software features such as SR/SRv6/EVPN, network slicing and high-precision clock to fulfill ultra-broadband, minimalistic, and intelligent network deployment requirements in the cloud-based 5G era.

ZXR10 M6000-S series routers include ZXR10 M6000-3S, ZXR10 M6000-3S Plus, ZXR10 M6000-4SE, ZXR10 M6000-5S, ZXR10 M6000-8S, ZXR10 M6000-8S Plus, ZXR10 M6000-8SE, ZXR10 M6000-16SE, and ZXR10 M6000-18S, which are suitable for different network architectures.





Features and Benefits

❖ **In-House Chips for Ultra-Broadband IP Networks**

- In-house high-performance chips and the industry's first integrated FlexE&MACsec function brings high integration of the equipment.
- The system uses high-density ports, and offers 400GE, 100GE, 50GE, 40G, 25GE, 10GE and GE interfaces to meet the flexible networking requirements of ultra-broadband network users in multiple scenarios.
- Single-port 800GE-ready allow continuous upgrade of network bandwidth and long-term evolution of operator networks.

❖ **Build a Smart and Simple IP Network in the 5G Era**

- Segment Routing, SRv6 and EVPN simplify network deployment and can be customized to adapt to future network protocols and rapid innovation and deployment of new services.
- H-QoS guarantees SLA and delivers the best 5G connection service.

❖ **Innovative Chip Design for a Green and Energy-Saving Pioneer**

- Energy-saving chip design: With the innovative chip design, ZTE's highly-integrated in-house chip adopts the 5nm technology and integrates NP, SA, TM and FlexE. Compared with the traditional multi-chip line card in the industry, it has low power consumption, light weight, high reliability, and 50% reduction in Gbit power consumption.
- The device significantly improves heat dissipation performance with advanced ultra-thin carbon fiber, efficient thermal silicone grease, ultra-low thermal resistance phase-change materials, and 3D high-density VC heat dissipation technology. There is no middle backplane orthogonal structure, and front and rear straight air ducts are available,



so the device has higher heat dissipation efficiency and satisfies the requirements of low carbon and environment protection.

- It supports AI energy-saving technology, smart fan speed adjustment and on-demand heat dissipation. Its energy consumption ratio is less than 0.2 W/Gbit. The energy-saving function greatly cuts the OPEX of the customer.

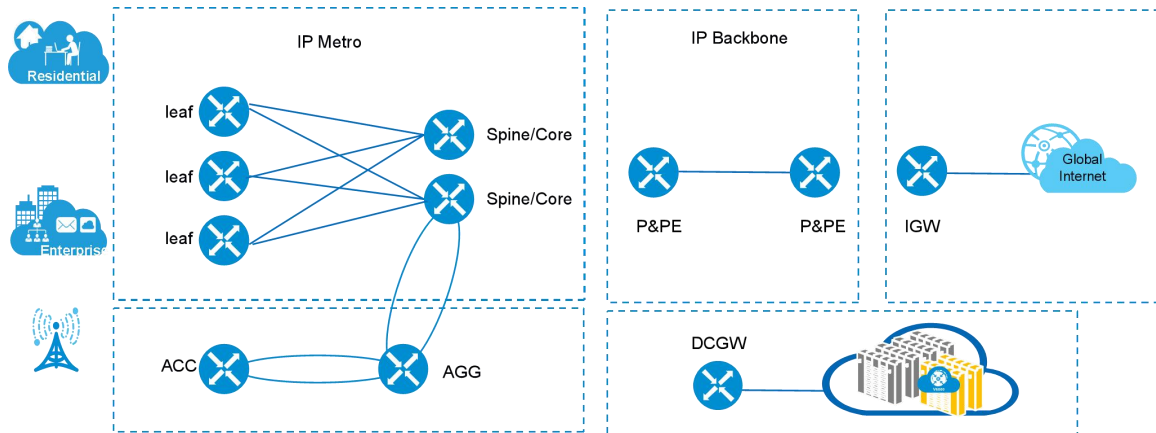
❖ **Multi-Dimensional Protection, Intelligent and Efficient O&M**

- Key components are redundant, the forwarding, control, and management planes are separated, and modular software and hardware components are used to build a carrier-class high-reliability system.
- Based on the ZTE new-generation operating system, the product supports advanced software features such as process restart and NSR.
- The product supports NETCONF/YANG and Telemetry functions, and automates network management and service deployment to improve network flexibility and O&M efficiency.



Application Scenario

ZXR10 M6000-S series routers are mainly used in such scenarios as operators' core networks, new network core convergence, large data center egress, data center interconnection and large-scale industry IP backbone network. They provide such key technologies as low delay forwarding, high precision clock and network slicing to meet such key requirements as ultra-large bandwidth, ultra-low delay and flexible networking. They are the best choice for operators and enterprise customers to build ultra-broadband, intelligent, and open networks in the 5G cloud era.





Technical Specifications

Table 1-1. Physical Specifications

Item		ZXR10 M6000-18S	ZXR10 M6000-8S Plus	ZXR10 M6000-3S Plus	ZXR10 M6000-8S	ZXR10 M6000-5S	ZXR10 M6000-3S
dimension (H×W×D)m m	DC	1819.6×442×634	971.5×442×634	264 x442 x 630	619.5×442×634	308.3×442×630	175×442×628
	AC				797.3×442×634	352.8×442×630	219.4×442×628
MPU redundancy		2, 1: 1					
SFU redundancy		7+1	3+1	NA	3+1	1+1	NA
Line card		18	8	3	8	5	3
Power supply redundancy	DC	11+1	5+1	1+1	2+2	1+1	1+1
	AC	8+8 11+1	4+4 5+1	2+2 1+1	AC external: 3+3 2+2	1+1	1+1
Fan		12	2	2	5	3	2
Weight (kg)		<357kg	<194kg	<61kg	<127kg	<81kg	<53kg
Interface		400GE, 100GE, 50GE, 40GE, 25GE, 10GE, GE/FE, STM-N POS, E1/CE1				100GE, 40GE, 10GE, GE/FE, STM-N POS, E1/CE1	

Table 1-2. Physical Specifications

Attribute	ZXR10 M6000-16SE	ZXR10 M6000-8SE	ZXR10 M6000-4SE
dimension (H×W×D)mm	1410.7 x 445 x 1025	735x 445 x 875	468 x 445 x 875
MPU	2, 1:1	2, 1:1	2, 1:1
SFU	6, 5+1	6, 5+1	6, 5+1
Line card	16	8	4
Power supply (DC/AC/HVDC)	20, N+1	10, N+1	6, N+1
Fan	3	3	3
Weight in full configuration	<600kg	<254kg	<170kg
Interface	400GE, 100GE, 50GE, 40G, 25GE, 10GE, GE		

Table 2. Service Features

Service Features		ZXR10 M6000-S Series
L2 service	Ethernet	Static MAC, Dynamic MAC, Smart Group, VLAN, and QinQ
Unicast	IPv4 unicast	ARP/ARP Proxy, Static Route, policy route (PBR), OSPFv2, IS-ISv4, BGP-4, ECMP, BGP FlowSpec IPv4, and BGP-LS
	IPv6 unicast	Static Routing for IPv6, DNS Client v4/v6, Policy Based Routing for IPv6 (PBRv6), OSPFv3, IS-ISv6, BGP-4+, ECMPv6, and BGP FlowSpec IPv6
Multicast	IPv4 multicast	Static Multicast, IGMP Snooping/Proxy, IGMP v1/v2/v3, PIM-DM/SM/SSM, MSDP, MBGP, Multicast VPN, Policy Based Route (PBR) for Multicast,
	IPv6 multicast	Static Multicast, MLDv1/v2, PIM-DM/SM/SSM, SSM-Mapping, MBGP



MPLS & Traffic Engineering	MPLS VPN	VPLS, H-VPLS, VPWS, MS-PW, MPLS L2VPN/L3VPN, VRF Policy Routing, and 6PE/6vPE
	EVPN	MPLS EVPN
	MPLS-TE	OSPF TE, IS-IS TE, RSVP-TE, TE FRR
Segment Routing	SR-MPLS	SR-MPLS BE, and SR-MPLS Policy
	SRv6	SRv6 BE and SRv6 Policy
High reliability (HA)		BFD, IEEE 802.1ag CFM, ITU-T Y.1731, and TWAMP
		NSF for IGP/BGP/LDP/RSVP/PIM, IP FRR, LDP FRR, TE FRR for IP/VPN/VLL/VPLS, VPN FRR, PW Redundancy, and VRRP
Security features		ACL, MAC address filtering, TCP Control, port mirroring/flow mirroring, SSHv2, broadcast storm suppression, and MD5 protocol encryption
O&M management		ZENIC ONE, CLI, NTP, Console/Telnet/SSH SNMP v1/v2c/v3, FTP/SFTP, Netconf, Telemetry, and Syslog



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