

Industry-Leading and Intelligent

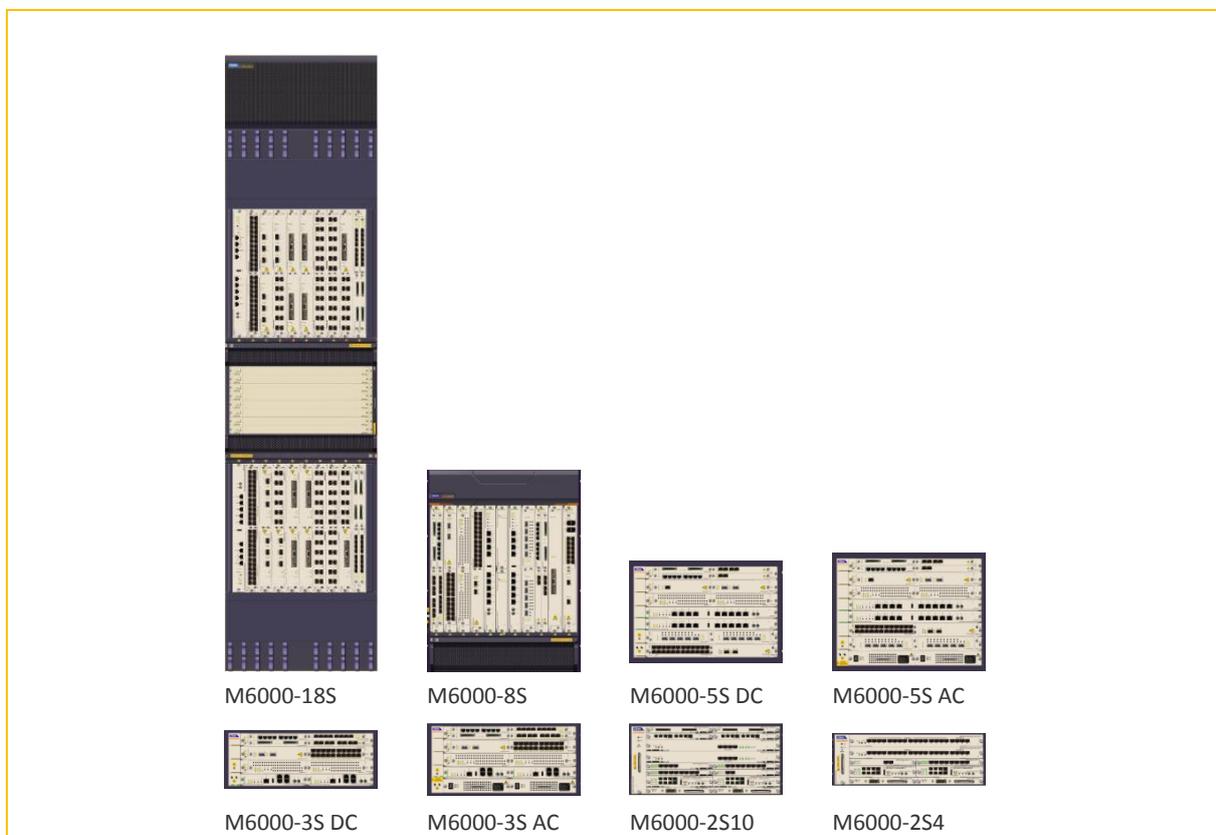
ZXR10 M6000-S Intelligent Full-Service Router

Introduction

The ZXR10 M6000-S is the first to upgrade the T-bits hardware architecture. While maintaining its leading place in basic bandwidth, it becomes more intelligent in terms of integrated access, depth interception, policy control and flexible service customization to welcome the era of Integration of Three Networks, Mobile Internet, IPv6, Internet of Things and Cloud Computing. As a large-capacity and high-performance broadband multi-service gateway, the ZXR10 M6000-S is the optimal choice for backbone networks, MANs, Internet Data Centers (IDCs) and campus networks.

The ZXR10 M6000-S series products have several models: ZXR10 M6000-18S, ZXR10 M6000-8S, ZXR10 M6000-5S, ZXR10 M6000-3S, ZXR10 M6000-2S10 and ZXR10 M6000-2S4, meeting different network scales and services of customers.

External view



Highlights

Making forward to welcome the era of ultra-broadband networks

- The ZXR10 M6000-S adopts the industry-leading distributed parallel processor and the CLOS switching architecture. Based on the hardware system of the most popular high-end router, it adopts an all-new design for the switching architecture, thus realizing smooth extension of the Tbits system capacity (100GE line speed per interface and high-density 10G interface). It leads the trend of more broadband networks and protects customer investment on network construction.
- The ZXR10 M6000-S adopts the philosophy of "Green and Environmental Protection". It adopts various green and energy-saving technologies such as intelligent multi-speed adjustment of fans, intelligent startup of line cards, automatic power adjustment of interfaces and intelligent power supply of power units. All of these technologies greatly reduce the power consumption of devices, save the OAM cost of customers and thus help build green broadband bearer networks of the next generation.
- The ZXR10 M6000-S provides redundancy backup for key parts and software modules. It realizes the separation of switching plane from control plane and supports the Graceful Restart (GR) over multiple protocols, ensuring Non-Stop Forwarding (NSF) during restart of the control plane and achieving Non-Stop Routing (NSR). It also supports ISSU non-stop online system upgrade as well as the advanced Fast Reroute (FRR) technology that provides protection in case of a nodal or line fault and ensures stable network operation. With BFD for Everything, it enables the Bidirectional Forwarding Detection (BFD) to integrate with various routing protocols such as VRRP, VRRP Track, LDP, RSVP and TE, realizing fast fault recovery and thus providing reliable protection. In addition, it supports BRAS or CGN high-availability hot standby, ensuring non-stop service operation.

Fully-integrated, flexibly-extensible and innovative service platform

- The ZXR10 M6000-S supports multiple interfaces such as E1, ATM, 155M-40G POS and FE-100GE. It adopts the flexible structure with a main card and multiple sub-cards. The main card supports a hybrid insertion of different interface sub-cards, thus reducing the cost of spare parts. The flexible sub-card configuration enables the system to provide abundant WAN and LAN interfaces within a limited area. This realizes a more flexible networking scheme, provides customers with a low-cost and customized network solution and meets the network demand on diversification.
- The ZXR10 M6000-S adopts modular, fully-distributed and highly-reliable software and hardware systems. The system kernel is separated from service modules and these service modules are independent from each other, ensuring highly-reliable operation of the system kernel, and intelligent and dynamic loading and unloading of service modules. It is flexibly compatible to new services, helping operators grasp market opportunities.
- The ZXR10 M6000-S helps customers build unified IPv6 service platforms. It provides multiple solutions such as IPv4/IPv6 dual stacks, NAT444, DS-LITE, 6RD, NAT64+DNS64, IVI and Smart6, which enable customers to choose the best IPv6 transitional scheme for smooth network evolution.

Practicable, maintainable and supervisory intelligent service features

- The ZXR10 M6000-S uniquely supports IPTV broadcast control, Fast Channel Change (FCC) + a built-in video card, IPoE of Session level and multicast hot standby, helping realize video service bearing that is more secure, efficient, accurate and reliable, and improve profit margins of customers.
- The ZXR10 M6000-S has a built-in service identification module that can accurately distinguish user levels and service types, and provides five-level H-QoS to meet diversified service demands. These help customers to realize fine service operation.

Specifications

Specification		M6000-18S	M6000-8S	M6000-5S	M6000-3S	M6000-2S10	M6000-2S4
Dimensions (W × H × D mm)	DC	442* 1819.6* 634	442*619.5* 749.4	442*308.3* 740	442*175*73 8	442*219.4*2 20	442*131.5*2 20
	AC		442*797.3* 749.4	442*352.8* 740	442*219.4* 738	N/A	N/A
Total number of slots		28	12	7	5	12	6
Number of service slots		18	8	5	3	10	4
Main control redundancy		1:1	1:1	1:1	1:1	1:1	1:1
Switching redundancy		6+2	3+1	1+1	Full-meshed	1+1	1+1
Main functions and features		<p>L2: MAC management, VLAN, QinQ, SuperVLAN, SmartGroup, ATM and PPP</p> <p>L3: IPv4 unicast, IPv4 multicast, IPv6 unicast and IPv6 multicast</p> <p>MPLS and TE: MPLS L2/L3 VPN, 6vPE, MPLS-TE and DS-TE</p> <p>QoS: classification, labeling, traffic supervision, congestion control, queue dispatch, shaping, QPPB and H-QoS</p> <p>BRAS: IPoEv4/v6, PPPoEv4/v6, IP Host, L2TP, AAA and multi-machine hot standby</p> <p>Reliability: Graceful Restart (GR), FRR, link bundling, TE HotStandby, static TE tunnel protection group, BFD and NSR</p> <p>Tunnel: MPLS and GRE</p> <p>Clock synchronization: SyncE, IEEE 1588 V2, GPS and BITS</p> <p>Security: attack prevention and CPU security protection</p> <p>CGN: NAT444, DS-LITE, NAT64, 6RD, IVI, SMART6, NAT LOG, NAT ALG, CGN hot standby</p> <p>OAM software: CLI, GUI (NetNumen U31), MPLS VPN NMS, QoS NSM and TE NMS</p> <p>OAM: Ethernet OAM, MPLS OAM and SLA Tool (SQA)</p>					
Weight (full configuration)		< 250 kg	< 95 kg	< 55 kg	< 35 kg	< 21kg	< 14kg
Power (maximum redundancy configuration)		DC: 2650 W (11+1) AC: 2675 W (8+8)	DC: 2650 W (2+2)	DC: 2650 W (1+1) AC: 2675 W (1+1)	DC: 2650 W (1+1) AC: 2675 W (1+1)	DC: 1300 W (1+1)	DC: 1300 W (1+1)
Power (DC/AC)		DC: -72 through -38V (rated voltage: -48 V) AC: 100–127 V/200–240 V (rated input voltage)					