MP7500X Series Core Router Datasheet

Overview

MP7500X series core router further implements "multicore power" on the basis of the leading "dual-core power". Based on the ATCA structure design and meeting the users' high-performance requirements, it provides the most complete dual-redundancy or multi-redundancy design for the whole system, providing users with the high reliability of core-device carrier-class. With unified MyPower-R software, MP7500X series router provides abundant routing, backup, network security services, IP multicast, QoS, network management, and other functions, supports a variety of network layer and link layer protocols, supports BGP border gateway protocol and MPLS function, and can play the PE node or P node function in the network.

MP7500X Series Core Router

As a multi-purpose universal data processing and routing platform, MP7500X series router can cooperate with a full range of Maipu routers to provide operators, government, finance, energy, transportation, education, military and other industrial users and large/medium-sized enterprise users with a full range of WAN solutions, widely applied at the core backbone layer and core aggregation layer of the above industries.MP7500X series core router is the next generation version of MP7500E series which was widely deployed in many countries.

MP7500X series core router has two models. It has two main control slots, two switching fabric slots, 4/8 service slots, adopts the multi-core processor to realize the distributed forwarding architecture, and supports 40G/10G/1G, and other TDM interfaces.

MP7500X-04 supports dual control engine slots, dual switching fabric slots, four service slots, four AC power slots, one fan slot.

MP7500X-10 supports dual control engine slots, dual switching fabric slots, eight service slots, four AC power slots, two fan slots.

Key Features

- **Flexible uplink link**

MP7500X series core router support four kinds of high-performance multi-core SPU module for customers real requirements; meanwhile, MP7500X uplink supports various mainstream WAN access link technologies, such as 1G/10G/40G Ethernet, E1/CE1, POS/CPOS, etc.

- **More than eight expansion slots**

MP7500X series core router is modular design which has rich expansion slots. The whole device supports 4/8 extended slots totally. The strong expansion ability can provide high-density access and protect customer investment. All the modules of MP7500X support hot-swap.

- **High performance**

MP7500X series core router support high performance and the configured ACL, QoS, have small influence for the forwarding performance. And customer can also upgrade the performance by changing SPU service engines.

- **Advanced Secure service**

MP7500X series core router has high performance VPN aggregation function. Meanwhile, the device data can be transmitted in the secure MPLS/VPLS, IPsec, GRE, L2TP tunnel, preventing the data from being accessed and tampered and providing the higher security for the application over the network.

- **Rich software features**

MP7500X series core router provides rich software features; supports various application technologies, such as IPv4/IPv6, VPN, MPLS, multicast, ACL, MAC address binding, access control, bandwidth limitation, MSTP, and NAT; supports RSVP resource reserving protocol and CAR; provides hierarchical QoS function to ensure the high priority of the key services; support the queue management policies, such as FIFO, PQ, CQ, FQ, WFQ, CBWFQ, and LLQ.

- **Rich Management modes**

MP7500X series core router supports complete management modes, including SNMPv1/v2c/v3, CLI, USB drive deployment, MIB, RMON, SYSLOG, TR069, IPFIX, etc. Combine with Maipu SNMP Management Platform, it can provide the simple and easy-to-use remote network management.

Product Specifications

Product Model	MP7500X-10	MP7500X-04
Hardware specification		
CPU Processor	1.5GHZ Dual Core	
Architecture	Distribution	
USB2.0 Port	1	
Console-port (RJ45)	1	
USB2.0 Port	1	
SD Slot	1	
Memory	8G	4G
Flash	8G	8G
MPU Slots	2	2
SFU Slots	2	2
Service Slots	10 (40 sub slots)	4 (16 sub slots)
Throughput	10*25Mpps (SPU20) 10*50Mpps (SPU40)	4*25Mpps (SPU20) 4*50Mpps (SPU40)
Power Supply Slots	4	4
Fan Slots	2	1
Dimension W*D*H (mm)	444*480*755mm (17U)	444*480*444mm (10U)
Weight (Kg)	≥47Kg	≥32Kg
Input voltage	AC 100-240V Or DC -48V	
Temperature	Work temperature: 0 – 45℃	
	Storage temperature: -40 – 70℃	
Humidity	Work humidity: 5%-85%	
	Storage humidity: 5%-90%	
Cooling	Forced air cooling	
Software features		
Link-layer protocol	DDR, PPP, Frame-Relay, Bridge, HDLC, PPPoE, port isolation, VALN, loopback detection, Error-Disable, MSTP, SPAN, LLDP	
TCP/IP Protocol	DHCP, DHCPv6, DDNS/DNS, NAT/NAT64	
Routing protocol	Static Route/Static Routev6, RIP/RIPng, OSPFv2/OSPFv3, BGP/BGP4+, IS-IS/IS-ISv6, IRMP, PBR	
Security	Support ACL security filtering, PPP encryption, SSH, CPU protection, port security, AAA, IKE, PKI, 802.1X, URFP	
VPN	MPLS, LDP, L2VPN, L3VPN, MPLS QoS, MPLS OAM, 6PE, GRE/GREv6, IPIP, L2TP, L2TPv3, VRF	
QoS	FIFO, PQ, FQ, WFQ, CBWFQ, LLQ, RSVP, CAR, H-QoS, traffic shaping, Rate Limitation	
Multicast	IGMP, MLD, PIM-SM/SSM, PIM-DM/SDM PIMv6-SM/SSM, MSDP, MVPN, NG-MVPN	
Reliability	Backup interface, VRRP/VRRPv3, VBRP, Track, BFD/BFDv6	
Management & Monitoring	Keepalive gateway, NTP, Mirroring, RMON, CWMP, CLI, SSH, WEB, SNMP V1/V2/V3, Telnet, PING, Trace Route, Login, FTP, TFTP, TR069, IPFIX traffic monitoring, IP-SLA	

Order Information

MP7500X-04	
Product Model	**Description**
MP7500X-04	MP7500X-04 supports dual control engine slots, dual switching fabric slots, four service slots, four AC power slots, one fan slot.
Fan Module	
FAN-08A-01B	MP7500X Modular fan
Power Module	
AD800M-HV0F	MP7500X-04 220V AC power module,800W
Control Engine (MPU)	
RM7E-MPU-A	RM7E-MPU-A, MP7500X-04 control engine, one CON/AUX port, one management Ethernet port, one CMM interface, one SD card slot
Switching Fabric (SFU)	
RM7E-SFU-04B	RM7E-SFU-04B Switching Fabric, MP7500X-04 Standard Switching Fabric
Service Mother Board (SPU)	
RM7E-SPU20	RM7E-SPU20 Standard service processing module, support 4 daughter module slots
RM7E-SPU40	RM7E-SPU40 Advanced service processing module, support 4 daughter module slots
RM6B WAN Daughter Module (Need to insert into SPU mother board)	
RM6B-8GET	Eight port 1000M Base-T WAN Module (Note: need to insert into SPU mother board)
RM6B-8GEF	Eight-port 1000M Base-X SFP WAN Module (Note: need to insert into SPU mother board)
RM6B-1XGEF	One-port 10G SFP+ WAN Module (Note: need to insert into SPU mother board)
RM6B-4XGEF	Four-port 10G SFP+ Ethernet WAN Module (Note: need to insert into SPU mother board)
RM6B-2POS-OC48	Two-port OC48 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-1POS-OC48	One-port OC48 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-4POS-OC12	Four-port OC12 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-2POS-OC12	Two-port OC12 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-4POS-OC3	Four-port OC3 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-1POS-OC3	One-port OC3 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-1CPOS-OC3	One-port OC3 channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-2CPOS-OC3	Two-port OC3 channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-8E1	Eight-port non-channelized E1 WAN Module (Note: need to insert into SPU mother board)
RM6B-8CE1	Eight-port channelized E1 WAN Module (Note: need to insert into SPU mother board)
RM7E WAN Module (No need work with SPU Module)	
RM7E-1QXGE	One port 40G QSFP Ethernet WAN Module (Note: No need SPU mother board)
RM7E-2POS-OC192	Two port OC192 non-channelized POS WAN Module (Note: No need SPU mother board)

MP7500X-10	
Product Model	**Description**

MP7500X-10	MP7500X-10 Chassis, two control engine slots, two switching fabric slots, 4 line card slots, one Fan slot, four power slots
Fan Module	
FAN-08A-01B	MP7500X Modular fan
Power Module	
AD1600M-HV0F	1600W AC Power Module
Control Engine (MPU)	
RM7E-MPU-B	MP7500X-10 Control Engine
Switching Fabric (SFU)	
RM7E-SFU-10B	MP7500X-10 Standard Switching Fabric
RM7E-SFU-10E	MP7500X-10 Advanced Switching Fabric
Service Mother Board (SPU)	
RM7E-SPU20	RM7E-SPU20 Standard service processing module, support 4 daughter module slots
RM7E-SPU40	RM7E-SPU40 Advanced service processing module, support 4 daughter module slots
RM6B WAN Daughter Module (Need to insert into SPU mother board)	
RM6B-8GET	Eight port 1000M Base-T WAN Module (Note: need to insert into SPU mother board)
RM6B-8GEF	Eight-port 1000M Base-X SFP WAN Module (Note: need to insert into SPU mother board)
RM6B-1XGEF	One-port 10G SFP+ WAN Module (Note: need to insert into SPU mother board)
RM6B-4XGEF	Four-port 10G SFP+ Ethernet WAN Module (Note: need to insert into SPU mother board)
RM6B-2POS-OC48	Two-port OC48 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-1POS-OC48	One-port OC48 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-4POS-OC12	Four-port OC12 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-2POS-OC12	Two-port OC12 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-4POS-OC3	Four-port OC3 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-1POS-OC3	One-port OC3 non-channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-1CPOS-OC3	One-port OC3 channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-2CPOS-OC3	Two-port OC3 channelized POS WAN Module (Note: need to insert into SPU mother board)
RM6B-8E1	Eight-port non-channelized E1 WAN Module (Note: need to insert into SPU mother board)
RM6B-8CE1	Eight-port channelized E1 WAN Module (Note: need to insert into SPU mother board)
RM7E WAN Module (No need work with SPU Module)	
RM7E-1QXGE	One port 40G QSFP Ethernet WAN Module (Note: No need SPU mother board)
RM7E-2QXGE	Two port 40G QSFP Ethernet WAN Module (Note: No need SPU mother board)
RM7E-2POS-OC192	Two port OC192 non-channelized POS WAN Module (Note: No need SPU mother board)

Maipu values and appreciates comments you may have concerning our products or this document. Please address comments to:

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