



MP3800 Series Router Datasheet

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MP3800 Series Integrated Services Router

MP3800 series integrated services router is a new service aggregation router developed by Maipu. It is used for large-medium branch offices, the headquarters of large enterprise and the edge aggregation of the carriers' WAN. It can be used as large Internet access platform. It includes only MP3840, which has four MIMs and four SICs.

MP3800 series router integrates the full-service aggregation theory of Maipu, and provides routing, switching, security, video, VoIP and bandwidth optimizing services, realizing the smooth upgrade and extending of future network. It can provide strong aggregation capacity to meet the requirements of large-scale aggregation networks. It adopts modular design and integrates Gigabit electric Ethernet interface on the control board to release functional module slots and save user investment.

The MP3800 series router, combined with other Maipu series routers, can provide complete WAN solutions for large-medium enterprises, Service Providers, finance, energy sources, traffic, education, and military.



MP3800

Key Features

- **2M aggregation capacity to improve the bandwidth**

The router provides 2M aggregation capacity to realize the line rate forwarding of several 155m high-speed board cards (ATM/CPOS/POS). Up to several hundred 2M sites can be aggregated.
- **Open structure with high backplane bandwidth supports service integration**

The router provides high backplane bandwidth. MIM provides Gigabit backplane to make the backplane bandwidth of the router reach 16Gbps. The full open structure supports routing, switching, security, video and VoIP services.
- **Various network crisis processing mechanisms to ensure the stable running of the router as the large-scale edge aggregation device**

The router provides dual-power redundancy hot backup and supports momentary power-off protect. All power supplies comply with CE authentication standards and support 100-240V. The wide voltage range satisfies the normal use under more voltage environments. The router supports hot-swap of service cards and VRRP (VBRP). The router can cooperate with the routers of other manufacturers to realize dual-system hot backup. In this way, the services are not interrupted and the stable running of the router as large-scale edge aggregation device is ensured.
- **Rich software functions**

The router realizes the set of BGP edge gateway protocol and MPLS protocol, and supports L2TP and IPSec. The router can adopt these technologies to deploy different VPN networks from L2 to L3. The router is inbuilt with firewall and provides the advanced security features such as ACL packet filtering, NAT, authentication audit, route verification, callback, and refusing service protect. It provides integrated services and distinguished services, and supports RSVP, ACR, FIFO, PQ, CQ, FQ, CBWFQ, and LLQ to ensure the distinguishing of key services. In China, the router is the first to realize SNA, DLSw and LLC2, and supports the three centralized network management modes of SHELL and SNMP (SNMPv3). The router supports IP-SLA features and can be compatible with main third-party network management system.

- **Compatible with the routers of the main router supplier**

The router provides fashion configuration interfaces and styles, which are easy to use. The router complies with RFC standards and main standards in the industry, and can be inter-connected and communicate with the network devices of the main router supplier in the industry.

Technical Specifications

Item	Description						
Product configuration							
Product Model	Console Port	RM2 MIM slot	RM3B MIM slot	RM3B Ethernet private slot	10/100/1000M Ethernet interface	AIM Jack	IPSec Jack
MP3840	1	4	2	2	4GE	1	1
Performance							
Processor	High-speed MIPS processor						
Flash	64Mbytes, Expandable to 2GBbytes						
MTBF (mean time between failures)	100000 hours						
Bus bandwidth	16Gbps						
Maximal route table capability	63000 entries (256MB memory) 320000 entries (1GB memory)						
Maximal access list capability	10000 entries						
1518-byte delay	6 μ s						
Standards & Protocols							
Link protocol	PPP, PPPoE, SLIP, SDLC, FR,ATM, LLC2, ISDN, X.25, HDLC, LAPB, Ethernet_II, Ethernet_SNAP, 802.1Q,MSTP,ISDN						
Network protocol	TCP/IP, ICMP, UDP, FTP, TFTP, SNMP, TELNET, RLOGIN, DHCP, DHCPv6,HTTP, DNS, DDNS,ARP, DLSw, DDR,NAT,NTP,IPFIX,IPv6						
Routing protocol	Static routing protocol, RIPv1, RIPv2, OSPF,OSPFv3, BGP, ISIS,NDSP, IRMP, SNSP, IGMP, DVMRP,MSDP, PIM-SM/DM/SDM/SSM, Policy route, VBRP, VRRP,MVPN						
Network security	PPP encryption, L2TP,L2TPv3, GRE, policy routing,802.1X, AAA, ACL, IPSec, IKE, PKI, CA, LDP, MPLS VPN, MPLS L2/L3VPN,MPLS TE,VPLS,SSH						
IP phone	H.323 protocol, H.225, H.245, RTP/RTCP, RTP condensation, T.38/T.30, G.711A/ μ , G.729, G.729A/B, G.723.1 (5.3/6.3K),SIP						
QoS	FIFO, PQ, CQ, FQ, WFQ, CBWFQ, LLQ, RSVP, CAR, SPD, WRED, Traffic Shaping						
Physical index							
Dimension (H x W x D)	444mm×380mm×130mm						
Weight	23KG (Maximum)						
Power supply requirement							

Input voltage (AC)	100~240V, 50-60Hz
Input voltage (DC)	-40~-57V, 4A
Power consumption	200W
Environment	
Operating temperature	0-40°C
Operating humidity	10-90%, Non-condensing

Order Information

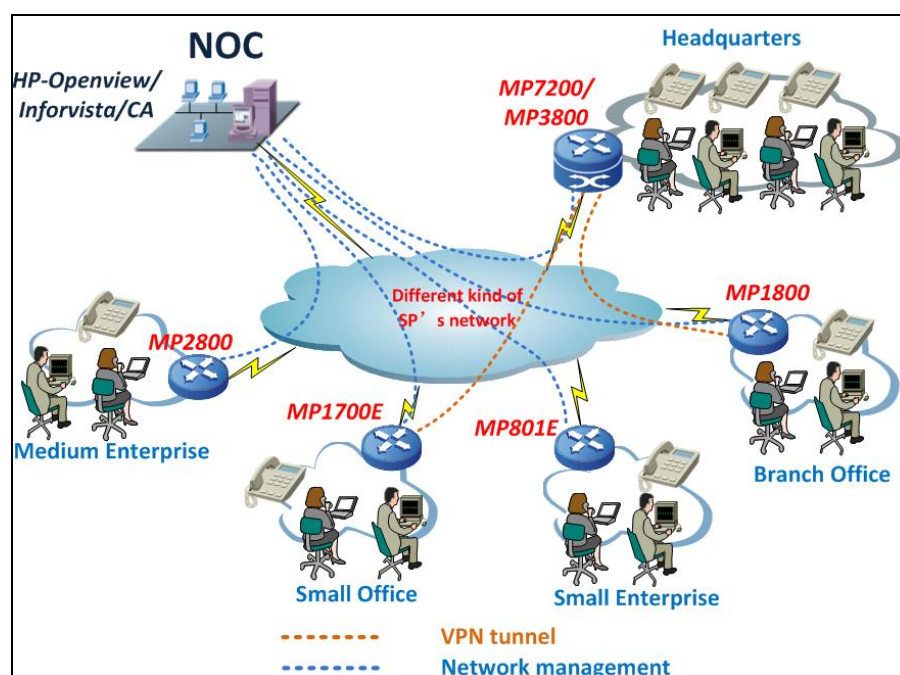
Product model	Description
Chassis (mandatory)	
MP3840	MP3840 (fixed 4-port 10/100/1000M Ethernet port,4 RM2 MIM slots,2 RM3B MIM slots,2 RM3B Ethernet private slots,2 power supply slots , 1 Fan slot,one console port, 64Mbytes flash, one memory slot, one USB port, one CF card slot,1 AIM encryption slot)
Power Supply Module (mandatory)	
AD150-1D002N	AC power supply module, each MP3840 chassis can support dual modules.(150W)
DD150-5D002N	DC power supply module, each MP3840 chassis can support dual modules. (150W)
Fan Module (mandatory)	
FAN-3A-01	FAN card
CF Card	
CF-2GB	2G CF card
USB card	
USB2-1GB	1G USB Storage
Memory (mandatory)	
DDR400-256S	256Mbytes memory
DDR400-512S	512Mbytes memory
DDR333-1024S	1024Mbytes memory
RM2 High-speed MIM module	
RM2-1SAE	One-port high-speed sync/async serial module
RM2-1M336	One-port 33.6Kbps frequency band MODEM module
RM2-1CE1	One-port channelized E1 module
RM2-1E1	One-port non-channelized E1 module
RM2-1U	One-port ISDN U module
RM2-1STA	One-port ISDN S/T module
RM2-8AX	Eight-port async serial module
RM2-1VOP	One-port FXS module
RM2-2VOP	Two-port FXS module
RM2-1VOS	One -port FXO module
RM2-2VOS	Two-port FXO module
RM3B High-speed MIM module	
RM3B-4SAH	Four-port synchronous/asynchronous serial-port module (support hot-swappable)
RM3B-4E1H	Four-port non-channelized E1 module (support hot-swappable,

	75Ω BNC interface)
RM3B-4E1BH	Four-port non-channelized E1 module (support hot-swappable, 120ΩRJ45 interface)
RM3B-8E1H	Eight-port non-channelized E1 module (support hot-swappable, 75Ω BNC interface)
RM3B-8E1BH	Eight-port non-channelized E1 module (support hot-swappable, 120ΩRJ45 interface)
RM3B-4CE1H	Four-port channelized E1/ ISDN PRI module (support hot-swappable, 75Ω BNC interface)
RM3B-4CE1BH	Four-port channelized E1/ ISDN PRI module (support hot-swappable, 120ΩRJ45 interface)
RM3B-8CE1H	Eight-port channelized E1/ ISDN PRI module (support hot-swappable, 75Ω BNC interface)
RM3B-8CE1BH	Eight-port channelized E1/ ISDN PRI module (support hot-swappable, 120ΩRJ45 interface)
RM3B-4UH	Four-port ISDN U module
RM3B-1ATM-OC3AH	One-port 155M ATM module (155M SFP optical module is required, support hot-swappable)
RM3B-1POS-OC3H	One-port 155M POS module (155M SFP optical module is required, support hot-swappable)
RM3B-1CPOS-OC3H	One-port 155M CPOS module (155M SFP optical module is required, support hot-swappable)
RM3B-4M336H	Four-port frequency band modem module (support hot-swappable)
RM3B-24FETH	24-port 10/100M Ethernet module (support hot-swappable)
RM3B-4GET4GEFH	4-port Gigabit electric port + 4-port Gigabit optical interface (SFP module is required)
Encryption card	
AIM2-SEC150	150Mbit/s IPSec Hardware encryption card(must be used with IPSec chip)
IPSec jack	
IPSec	IPSec chip
SFP Optical module	
SFP-S2-L03P3	155M single mode optical module (transmission distance: 20km, LC interface, PECL interface level, wavelength: 1310nm), adopts to RM3B-1ATM-OC3AH, RM3B-1POS-OC3H, RM3B-1CPOS-OC3H
SFP-M2-L03P8	155M multi mode optical module (transmission distance - 2km, LC interface, PECL interface level, wavelength - 850nm), adopts to RM3B-1ATM-OC3AH, RM3B-1POS-OC3H, RM3B-1CPOS-OC3H
SFP-S2-L24P3	1.25G single mode optical module (transmission distance: 20km, LC interface, PECL interface level, wavelength: 1310nm), adopts to RM3B-4GET4GEFH
SFP-M1-L24P8	1.25G multi mode optical module (transmission distance - 550m, LC interface, PECL interface level, wavelength - 850nm), adopts to RM3B-4GET4GEFH

Typical Applications

Networking for Data Encryption of Branches

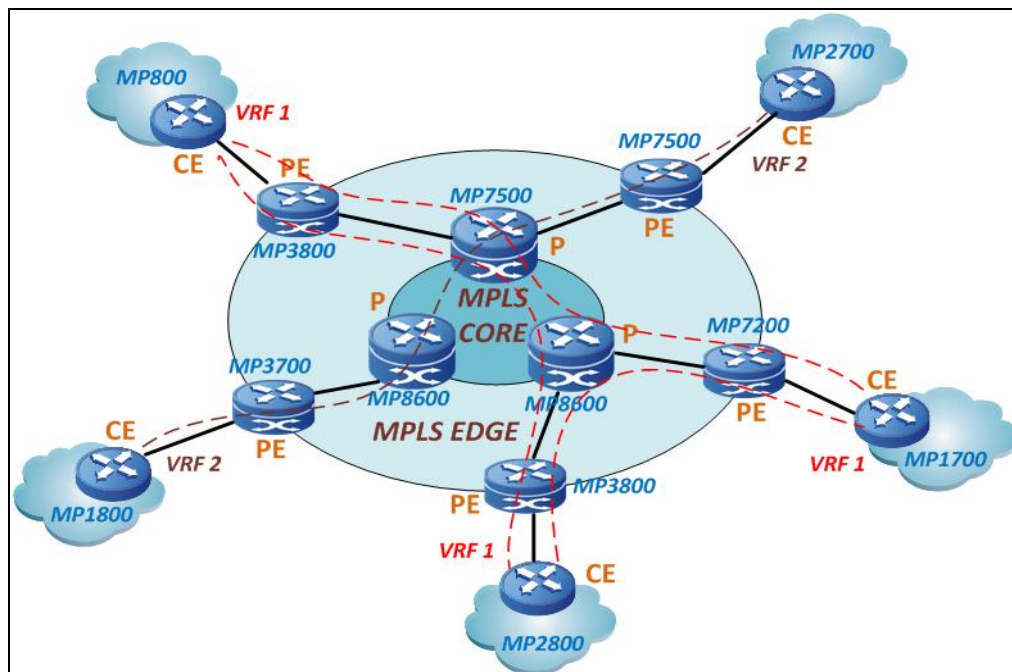
With the business expanding of the group company, the branches and small offices need to exchange information with the headquarters. The medium/low-end routers of Maipu serve as the access devices of the medium/small branches and can set up the security tunnel with the core router in the headquarters via the public network, ensuring the security and reliability of the company information and saving the costs of leased lines.



The headquarters adopts the medium/high-end routers of Maipu. With the high performance and high security of the router, and the VLAN isolation and 802.1X authentication technologies, the security access authentication for the intranet users can be realized.

The branches adopt the medium/low-end routers of Maipu as the access platform of VPN and IPSec.

MPLS VPN Solution



MAIPU routers support MPLS VPN and can be used as CE and PE equipment. MAIPU CE routers include MP800, MP1700, MP1800, MP2700, MP2800, MP3700, MP3800 and MP7200. MAIPU PE routers include MP2800, MP3700, MP3800, MP7200 and MP7500.

In MPLS VPN network, PE runs MPLS and PE router connects to VPN network via VRF. The CE equipments related to the same VPN tunnel can access each other.

MAIPU routers offer various WAN interfaces including E1, CE1, V.35, ISDN, PSTN and Ethernet. The operator can provide primary and secondary lines for enterprise customers simultaneously to enhance MPLS business quality.

Besides, by using MAIPU MPLS access solution, the operator can provide VoIP services without increasing any cost.