MP2900X Series 5G MPLS Access Router Datasheet

Overview

MP2900X series modular access router developed by Maipu is one new-generation enterprise-class access router, applicable to enterprise and government customers, for their medium & large sized branches. It integrates various WAN network technologies, such as Ethernet, SDH, 5G/4G/3G to provide the flexible access modes for enterprise users.
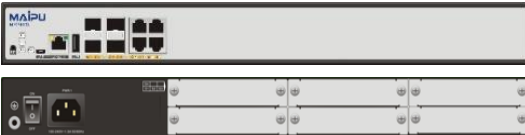
MP2900X series router integrates routing, switching and security functions, supports rich encryption algorithms, and fully protects data security. The LAN L2/L3 switching function has greatly enhanced the flexibility of the fixed interface.
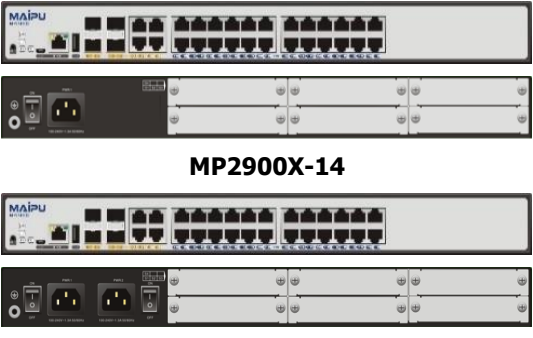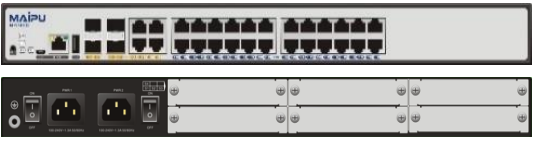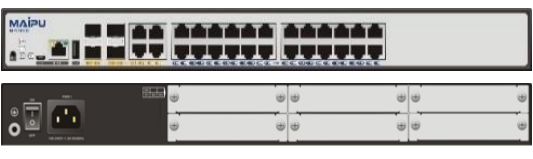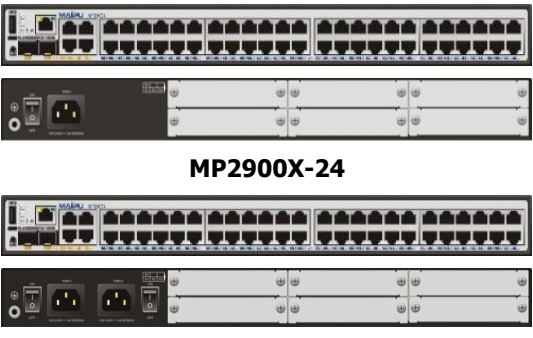
MP2900X series router is the next generation version of MP2900 series which was widely deployed in many countries. It includes several models which are MP2900X-04, MP2900X-14 and MP2900X-24.

MP2900X-04 supports one RJ45 console port, one USB interface, four WAN ports, four expansion slots, AC power supply.

MP2900X-14 supports one RJ45 console port, one USB interface, four WAN ports, 24 gigabit LAN ports, four expansion slots, AC power supply.

MP2900X-24 supports one RJ45 console port, one USB interface, four WAN port, 48 gigabit LAN ports, four expansion slots, AC power supply.

MP2900X-04

MP2900X-04D

- Fixed WAN: 4*GE combo (RJ45/SFP).
- Extension Slots: 4*RM2B extension slots.
- Power: (MP2900X-04) 1*AC power, 100V-220V 50-60Hz.
  (MP2900X-04D) 2*AC power (RPS), 100V-220V 50-60Hz.
- 1*RJ45/Micro-USB Console port.
- Dimension (L*D*H): 442mm*380mm*44.2mm(1U).

MP2900X-14 **MP2900X-14D**	• Fixed WAN: 4*GE combo (RJ45/SFP). • Fixed LAN: 24*GE copper RJ45 ports. • Extension Slots: 4*RM2B extension slots. • Power: (MP2900X-14) 1*AC power, 100V-220V 50-60Hz. (MP2900X-14D) 2*AC power (RPS), 100V-220V 50-60Hz. • 1*RJ45/Micro-USB Console port. • Dimension (L*D*H): 442mm*380mm*44.2mm(1U).
MP2900X-14P	• Fixed WAN: 4*GE combo (RJ45/SFP). • Fixed LAN: 24*GE copper RJ45 ports. • Extension Slots: 4*RM2B extension slots. • Power: 1*AC power, 100V-220V 50-60Hz. • POE Support: 802.3at/af, first 8 LAN ports support POE. • POE Budget: 123W • 1*RJ45/Micro-USB Console port. • Dimension (L*D*H): 442mm*380mm*44.2mm(1U).
MP2900X-24 **MP2900X-24D**	• Fixed WAN: 2*GE combo (RJ45/SFP), 2*GE copper RJ45 ports. • Fixed LAN: 24*GE copper RJ45 ports. • Extension Slots: 4*RM2B extension slots. • Power: (MP2900X-24) 1*AC power, 100V-220V 50-60Hz. (MP2900X-24D) 2*AC power (RPS), 100V-220V 50-60Hz. • 1*RJ45/Micro-USB Console port. • Dimension (L*D*H): 442mm*380mm*44.2mm(1U).

Highlights

Highlights	Benefits
Flexible uplink	MP2900X integrates fixed WAN and LAN interface, WAN uplink supports various mainstream WAN access link technologies, such as ethernet, 5G/4G, E1/CE1, POS and V.35 serial line.
Extensible modular slots	MP2900X series aggregation router is modular design which has enough expansion slots. The whole device supports 4 extended slots totally.
High performance	- Multi-core high performance processor. 10/100/1000M high-speed ethernet WAN/LAN port. - Built-in hardware acceleration engine, high encryption performance. - Maipu Express Forwarding (MEF) technologies, speeding up forwarding and processing of data packets.
5G Ready	The MP1900X/2900X/MP3900X series routers are built for future 5G networks, with higher throughputs with 5G NR. WAN networks are looking at wireless WAN as primary transports for different use cases for improved throughputs and latency.
Integrated Hardware	MP2900X series router supports up to 24/48 fixed 1000M switch access ports and POE features (MP2900X-14P only), providing the IP terminal access capability and meeting the requirement of the user for integrating the routing and switch to construct the access network.
Rich software features	- Support multiple WAN protocol: DDR, PPPoE, EDP, DHCP, Static, 5G/4G - Support typical TCP/IP services: DHCP, DNS, NAT, GRE, L2TP… - Support advanced protocol, such as BGP, MPLS, VPLS. - IPv6 Ready, fully support IPv6 features.
High reliability and business continuity	- Optional redundant power supplies (RPS), support dual AC power. - Redundant WAN connection for failover protection and load balancing. - Dynamic failover protocols such as VRRP/VBRP, backup interface, track IP.
Easy O&M	Multiple management methods: standard SNMP monitoring and management, Web-based GUI, SD-WAN based management, traditional command line interface. In-built Embedded Event Platform (EEP), allow the customer to monitor critical event, and automatic execute pre-defined actions.
Service convergence	- Provide network security with integrated application inspection firewall. - High-performance VPNs: IPSec, DVPN, L2TP over IPSec.
Security	Built-in firewall features, stateful IPS, URL Filtering, DPI, Complete VPN access.
ZTP	Zero-Touch (USB, DHCP, EDP…), easy for installation and configuration.

Product Specifications

Hardware Specification

Hardware specification	MP2900X-04/04D	MP2900X-14/14D/14P	MP2900X-24/24D
CPU	1.2GHz Dual Core	1.2GHz Dual Core	1.2GHz Dual Core
Memory	1GB	1GB	1GB
Flash	8GB	8GB	8GB
Fixed WAN interfaces	4* GE combo (RJ45/SFP)	4* GE combo (RJ45/SFP)	2* GE combo (RJ45/SFP), 2*GE copper RJ45
Fixed LAN interfaces	N/A	24*GET RJ45	48*GET RJ45
Extension slots	4*RM2B	4*RM2B	4*RM2B
USB	1	1	1
Console port/AUX	1	1	1
Dimension (L*D*H)	442mm×380mm×44.2mm(1U)	442mm×380mm×44.2mm(1U)	442mm×380mm×44.2mm(1U)
Power supply	MP2900X-04: 1*AC power, 100V-220V, 50-60Hz. MP2900X-04D: 2*AC power (RPS), 100V-220V, 50-60Hz.	MP2900X-14/14P: 1*AC power, 100V-220V, 50-60Hz. MP2900X-24D: 2*AC power (RPS) 100V-220V 50-60Hz	MP2900X-24: 1*AC power, 100V-220V, 50-60Hz. MP2900X-24D: 2*AC power (RPS), 100V-220V, 50-60Hz.
Power consumption	≤41W	≤54W (PoE not include)	≤65W
Working Temperature	0°C~45°C	0°C~45°C	0°C~45°C
Humidity	Work humidity: 5%-85%/RH	Work humidity: 5%-85%/RH	Work humidity: 5%-85%/RH
Weight	≤4.3KG/4.7KG	≤4.7KG/5.1KG	≤4.9KG/5.3KG

Software Specification

Software features	
WAN Protocol	DDR, NDIS, PPPoE, Bridge Group, EDP, HDLC, FR
LAN Protocol	STP/RSTP/MSTP, MAC management, 802.1q VLAN, LACP, Loopback Detection, SPAN, LLDP, Port-isolate, Error-disable, ULFD, Port Security, QinQ, Voice VLAN
TCP/IP Protocol	DHCP, DNS, DDNS, NAT, NAT64, NAT66, NAT ALG, IPIP, GRE, L2TP/L2TPv3
IPv4 Routing protocol	Static, RIP, OSPFv2, IS-IS, BGP, Policy Routing, SR
IPv6 Routing Protocol	IPv6 Static, RIPng, OSPFv3, IS-ISv6, BGP4+, IPv6 Policy Routing, SRv6
IPv6 function	IPv4/IPv6 Dual-Stack, IPv6 ND, IPv6 PMTU, IPv6 ACL, ICMPv6, DNSv6, DHCPv6, GREv6
IPv6 Transition Tunneling	IPv6 over IPv4, 6to4, ISATAP
Multicast	IGMP v1/v2/v3, PIM-DM/PIM-SM, SSM, MVPN, NG MVPN, MSDP, MLD, IPv6 PIM, MBGP
VPN	IPSec, PKI, MPLS, VPLS, VPWS, L3VPN, OAM, 6PE, VRF, DVPN, VxLAN
MPLS	LDP, MPLS L3VPN, MPLS L2VPN, MPLST TE, IP FRR, LDP FRR, TE FRR

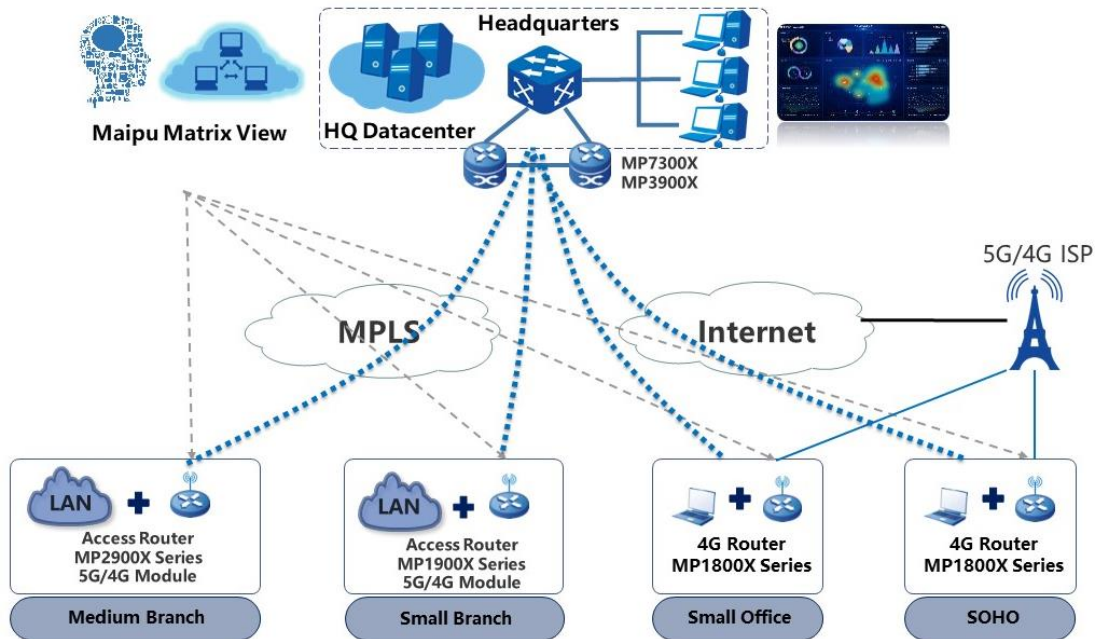| Security	ACL, SSH, CPU protection, Firewall, IPS, URL Filter, AAA, IKE, PKI, 802.1X, URFP
QoS	FIFO, PQ, FQ, WFQ, CBWFQ, LLQ, RSVP, CAR, H‑QoS, traffic shaping, Rate Limitation
Reliability	Backup interface, VRRP/VRRPv3, VBRP, IPSLA, Track, BFD/BFDv6
SDN Ready	ZTP, IPFIX, Telemetry, Netconf
Management & Monitoring	Keepalive, NTP, EEP, RMON, CWMP, CLI, SSH, HTTP/HTTPS, SNMP V1/V2/V3, Telnet, PING, Trace Route, Login, FTP, TFTP, SFTP, TR069, IP-SLA

Extension Modules

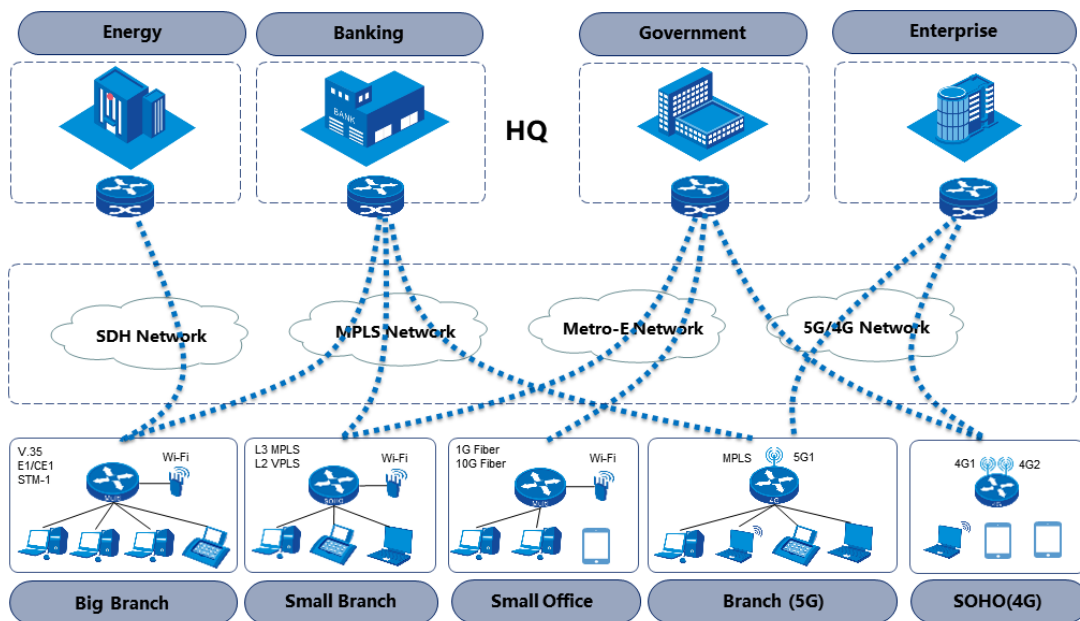| Modules	Description
RM2B-1SA	Single-port high-speed V.35 serial module
RM2B-2SA	Two-port high-speed V.35 serial module
RM2B-1E1	Single-port non-channelized E1 module
RM2B-1CE1	Single-port channelized E1 module
RM2B-4E1	Four-port non-channelized E1 module
RM2B-4CE1	Four-port channelized E1 module
RM2B-1GE	Single-port Gigabit Ethernet Combo interface module
RM2B-4GET	Four-port Gigabit Ethernet electric interface module
RM2B-4GEF	Four-port Gigabit Ethernet electric interface module
RM2B-4G-LTE	Single 4G module, 1 sim slot, support LTE-FDD (band:1/3/5/7/8), LTE-TDD (band 38/39/40/41), WCDMA, EDGE/GPRS
RM2B-5G-M	Single 5G module, 2 sim slot, Full standard 5G card, support 5G NSA and SA networking
RM2B-1POS-OC3	Single-port 155M POS interface module

Application Scenario

Enterprise WAN Solution

Maipu can provide total solution of enterprise WAN network, MP1800X/1900X/2900X series access router is working at enterprise branch offices and supporting multiple physical links, such as MPLS links, Internet links, and 5G/4G mobile network links. MP3900X/MP7300X/MP7500X series aggregation router is working at enterprise HQ. Maipu Matrix View is SNMP centralized managed platform.
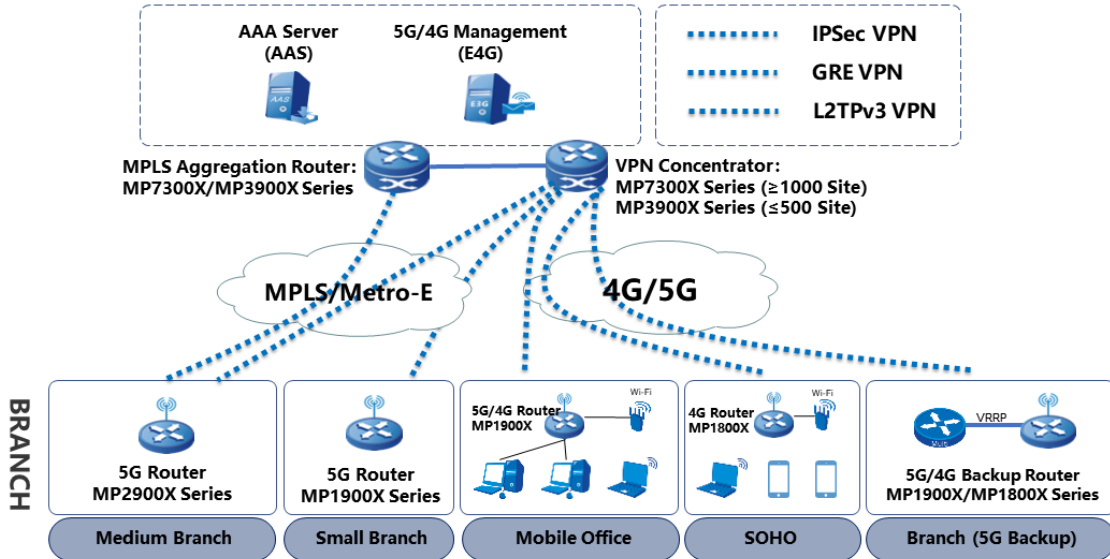

Telecom Managed Service

In this scenario, Maipu MP1800X/1900X/2900X series routers are used as enterprise branches egresses and provide flexible WAN access, to support SDH, MPLS, Metro-E, and 5G/4G links, helping the customer reduce the OPEX, CAPEX and improve customer's network experience.

Enterprise VPN Solution

Maipu MP1800X/1900X/2900X series provide various VPN access functions for communication between branches and headquarters over multiple physical links. Secure tunnels such as GRE, L2TP, IPSec, and DVPN tunnels can be set up between the HQ and branches for secure data access and transmission.

Order Information

Host model	Description
MP2900X-04-AC	One RJ45 console port, one micro-USB console port, one USB interface, four 10M/100M/1000M WAN ports (four Combo port), four RM2B slots, fixed one AC power.
MP2900X-04D-AC	One RJ45 console port, one micro-USB console port, one USB interface, four 10M/100M/1000M WAN ports (four Combo port), four RM2B slots, fixed dual AC power (RPS).
MP2900X-14-AC	One RJ45 console port, one micro-USB console port, one USB interface, four 10M/100M/1000M WAN ports (four Combo port), 24 GE LAN ports, four RM2B slots, fixed one AC power.
MP2900X-14D-AC	One RJ45 console port, one micro-USB console port, one USB interface, four 10M/100M/1000M WAN ports (four Combo port), 24 GE LAN ports, four RM2B slots, fixed dual AC power (RPS).
MP2900X-14P-AC	One RJ45 console port, one micro-USB console port, one USB interface, four 10M/100M/1000M WAN ports (four Combo port), 24 GE LAN ports (First 8 ports are PoE ports), four RM2B slots, fixed one AC power.
MP2900X-24-AC	One RJ45 console port, one micro-USB console port, one USB interface, four 10M/100M/1000M WAN ports (two Combo port), 48 GE LAN ports, four RM2B slots, fixed one AC power.
MP2900X-24D-AC	One RJ45 console port, one micro-USB console port, one USB interface, four 10M/100M/1000M WAN ports (two Combo port), 48 GE LAN ports, four RM2B slots, fixed dual AC power (RPS).
Modules	**Description**
RM2B-1SA	Single-port high-speed V.35 serial module
RM2B-2SA	Two-port high-speed V.35 serial module
RM2B-1E1	Single-port non-channelized E1 module
RM2B-1CE1	Single-port channelized E1 module

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RM2B-4E1	Four-port non-channelized E1 module
RM2B-4CE1	Four-port channelized E1 module
RM2B-1GE	Single-port Gigabit Ethernet Combo interface module
RM2B-4GET	Four-port Gigabit Ethernet electric interface module
RM2B-4GEF	Four-port Gigabit Ethernet electric interface module
RM2B-4G-LTE	Single 4G module, 1 sim slot, support LTE-FDD (band:1/3/5/7/8), LTE-TDD (band 38/39/40/41), WCDMA, EDGE/GPRS
RM2B-5G-M	Single 5G module, 2 sim slot, Full standard 5G card, support 5G NSA and SA networking
RM2B-1POS-OC3	Single-port 155M POS interface module