





Huawei AR1200 Series Enterprise Routers Datasheet

Huawei AR1200 Series routers are designed to provide secure and data communications for small enterprises or large enterprise branch offices.

Product Overview

Huawei AR1200 series enterprise routers are next-generation enterprise-class routers based on the Huawei proprietary Versatile Routing Platform (VRP). They build on Huawei's record of leadership in data communication and networking to provide industry-leading system performance and scalability to meet current and future business needs.

The AR1220 series has been qualified with Microsoft Lync server, and can be seamlessly integrated into Microsoft unified communications solutions.

 <p>AR1220C</p>	<ul style="list-style-type: none"> • WAN speed with services(IMIX): 400Mbps • Fixed port: 8xGE(can be configured as WAN interfaces), 4xGE + 1xGE SFP • Slot: 2xSIC • Dimensions (H x W x D): 44.5 x 390 x 232.5 mm(1.8 in. x 15.4 in. x 9.2 in)
 <p>AR1220E</p>	<ul style="list-style-type: none"> • WAN speed with services(IMIX): 800Mbps • Fixed port: 8xGE(can be configured as WAN interfaces), 2xGE Combo • Slot: 2xSIC • Dimensions (H x W x D): 44.5 x 390 x 232.5 mm(1.8 in. x 15.4 in. x 9.2 in)

The AR1200 supports optional interface cards, including: Ethernet, E1/T1/PRI/VE, synchronous/asynchronous, ADSL2+, G.SHDSL, and VDSL, ISDN, EPON and GPON, and E&M interface cards. These cards are classified into SIC (Smart Interface Card) cards and WSIC (Double-Width SIC) cards depending on slot type. The primary interface cards are shown and described in the table below.

Note: For more information about interface cards, please refer to Ordering Guide.

Key Features and Benefits

Applications in one box, Reduce TCO

The AR1200 reduces equipment and deployment costs via the integration of routing, switching and security functions in a single device. At the same time, The AR1200 realizes enterprises flexible access with rich interfaces adapting to a variety of terminals.

Secure Service Access Protects Networks and Users

While delivering enterprise-class network services, the AR1200 router provides robust network security. Comprehensive security solutions include user access control, packet detection, and active attack defense.

- The built-in firewall is the first line of defense.

- Port authentication technologies include 802.1x authentication and MAC address authentication
- Device authentication methods include RADIUS, and HWTACACS
- VPN technologies include IPSec VPN, GRE VPN, DSVPN, L2TP VPN

Integration of wireless and wired Functions

1. Wireless Access Modes

Access Mode	Description
WLAN	<ul style="list-style-type: none"> ● Compliance with 802.11n and compatible with 802.11b/g reduces equipment costs. ● Multiple-input and multiple-output (MIMO) increases bandwidth and improves the user experience. ● Authentication technologies such as WEP, WPA/WPA2, WAPI and 802.1x provide robust security. ● Built-in AC function, establish WLAN campus flexibly
3G	<ul style="list-style-type: none"> ● Compliance with 3G standards, including CDMA2000 EV-DO, and WCDMA, means flexible network access. ● Network Quality Analyzer (NQA) monitors the link real-time status to meet Service Level Agreements (SLAs). ● Security VPN over 3G links ensures reliable service transmission.
LTE	<ul style="list-style-type: none"> ● 100M LTE enterprise access solutions, high bandwidth experience ● Support for transition from 3G networks to LTE networks protects customer investment.

2. Wired Access Modes

Access Mode	Description
Fiber	<ul style="list-style-type: none"> ● Gigabit Ethernet optical interfaces allow flexible network access. ● 10Gbps bandwidth meets the transmission requirements of bandwidth-intensive services. ● EPON and GPON interface cards are supported.
Copper cable	<ul style="list-style-type: none"> ● Support for various interfaces, including xDSL interfaces, E1/T1 interfaces, serial ports, and ISDN interfaces, protects customer investment. ● Choice of uplink access rates from 64 kbps to 1 Gbps. ● PoE support on Ethernet interfaces facilitates installation of powered devices by providing power over twisted pair cables.

Better Experience, Business Continuity

Multi-cores architecture, Industry-Leading performance

The AR1200 uses a multi-core CPU and non-blocking switching structure to provide industry-leading system performance, meeting enterprise requirements for network expansion and service deployment.

- The multi-core CPU speeds up concurrent data service processing so customers can deploy a large number of services.
- Achieves maximum traffic throughput with non-blocking switching.
- Delivers high performance and service reliability through independent protocol management, service processing, and data switching.

- Simplifies device configuration and maintenance by integrating routing and switching functions, improving data switching efficiency between interface cards.

Low cost, High reliability

To guarantee the reliability of the equipment layer and network layer, the AR1200 series support hot-swap technology, a series of fault detection and judgment mechanisms, which can shorten the service interruption time.

- Assure service reliability and network stability with hot-swappable interface cards and redundant components, such as fan modules.
- Link backup for enterprise services improves reliability.
- MS level Fault detection mechanisms, shorten the service interruption time.

Intelligent Service Deployment

As the enterprise grows, requirements for new service deployments increase. To meet the demands of a growing enterprise, the AR1200 provides convenient configuration options:

- Use the mini-USB port to configure the devices using a GUI.
- Use a USB drive to configure devices for plug-and-play.
- Use the auto-config feature to automatically distribute configurations to devices.

Cooperation platform, On Demand applications

Open Service Platform, Enterprise-level APP

The AR1200 provides a unified communication solution for enterprise customers. It uses the Open Service Platform (OSP) to interconnect with third-party IT systems. Customers, agents, third-party vendors, and manufacturers can develop and use the AR1200 as required.

- Integrate and customize services quickly.
- Reduces costs and simplifies management as service integration does not require dedicated servers.
- Services are synchronized with cloud-side services, and local services processed locally, which improves service quality and efficiency.

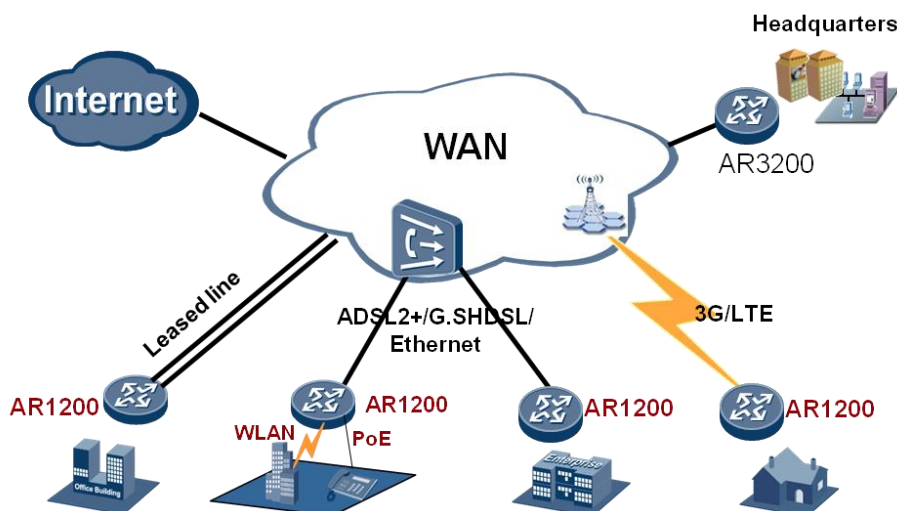
Standard MIB provided by VRP, Simplified Network and Device Management

The AR1200 routers make network and device management simple:

- Manage devices easily with the Huawei eSight network management system.
- Monitor links in real time using the NQA feature.
- View traffic characteristics and statistics to maintain peak network performance using the NetStream feature.

Sample Deployments

WAN Access

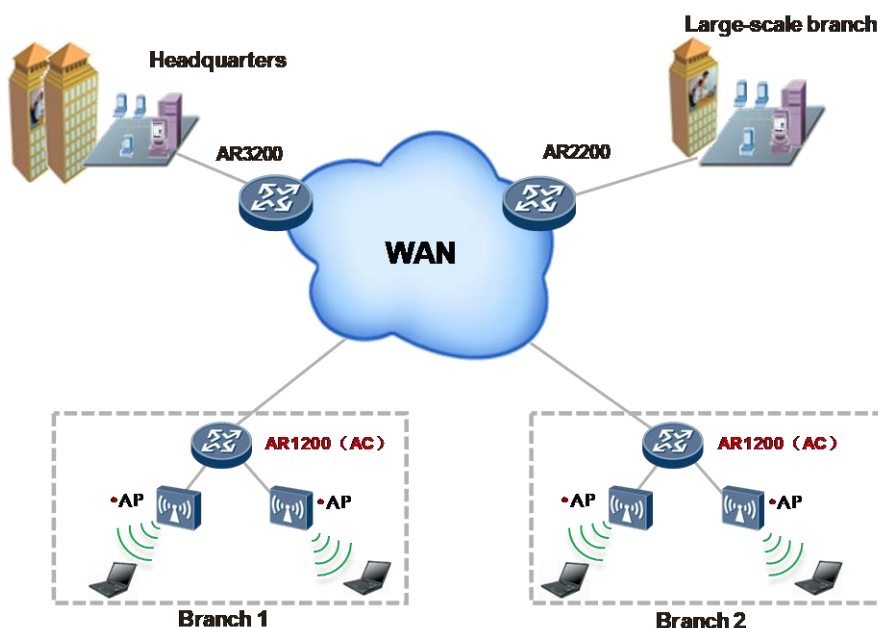


AR1200 routers deployed at the edge of enterprise branches provide flexible access to remote network connections. They meet most access requirements, including leased line, Ethernet, xDSL. This flexibility adds compelling value to customers by reducing

deployment and maintenance costs. Router models with fixed 100 M Ethernet interfaces support PoE and PoE+, and can provide power for powered devices (PDs), such as IP phones. Each PoE+ interface provides more than 30 W of power to support high-power PDs.

Wireless Management in a Branch Office

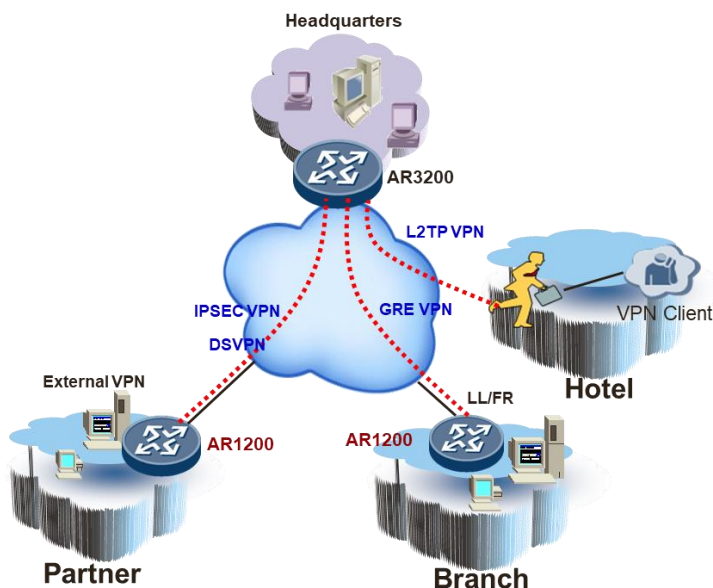
Wireless AC Management Application



The AR1200 routers integrated AC (Access Controller, a wireless controller) functionality, which can manage the wireless AP (Access Point, Access Point) in wireless LAN. AR supported rich certification and flexible user access control, which can provide security access guarantee for Wi-Fi users. The rich wireless capabilities integrated in one device, this can realize centralized management of wired and wireless networks; meet the customers' requirements of building different scale enterprises networks.

VPN in a Branch Office

VPN Application



The AR1200 provides secure access for communication among enterprise branch offices and between headquarters and branch offices and business partners. Tunnels between the headquarters and branch offices ensure secure data access and transmission. The AR1200 implements fast tunnel deployment and authentication so branch offices and partners can easily,

quickly and securely access and share enterprise resources.

Technical Specifications

Item	AR1220C	AR1220E
System parameters		
Processor	Dual-core	Dual-core
Maximum WAN speed with services***	Up to 400Mbps	Up to 800Mbps
Maximum firewall Performance (large packets)	Up to 1Gbps	Up to 1.8Gbps
Maximum device switching capacity	Up to 8Gbps	Up to 8Gbps
Slot switching bandwidth	SIC & WSIC slots 2 Gbps	SIC & WSIC slots 2 Gbps
Number of recommended users*****	100	100
Fixed WAN ports	4 x GE+ 1 x GE SFP	2 x GE Combo
Fixed LAN ports	8 x GE(can be configured as WAN interfaces)	
SIC slots	2	2
WSIC slots (default/max)	0/1	0/1
USB 2.0 ports	2	2
Mini-USB ports	1	1
Console port	1	1
Memory	512 MB	1 GB
Flash	512 MB	512 MB
Dimensions and Weight		
Dimensions (W x D x H)	With no mounting bracket installed: 390.0 mm x 232.5 mm x 44.5 mm (15.35 in. x 9.2 in. x 1.75 in.) With mounting brackets installed: 482.6 mm x 232.5 mm x 44.5 mm (19.0 in. x 9.2 in. x 1.75 in.)	
Weight	2.9 kg (6.39 lb)	
Rack height	1U	
Power Specifications		
Rated input voltage range (AC)	100 V to 240 V	
AC input frequency	50 Hz/60 Hz	
Maximum input voltage range (AC)	90 V to 264 V	
Maximum input current	2 A	
Maximum output power	60 W	
Power Consumption & Heat Dissipation		
Typical power consumption	27W	18W

Item	AR1220C	AR1220E
Maximum power consumption	32W	20W
Fans	Built-in fans, not pluggable	Built-in fans, not pluggable
Airflow (facing the front panel)	Left to right	Left to right
Environment Parameters		
Operating temperature****	0°C to 45°C (32°F to 113°F)	
Storage temperature	-40°C to +70°C (-40°F to +158°F)	
Operating relative humidity	5% to 95%, noncondensing	
Operating altitude	< 5000 m (16404.2 ft.)	
Safety and Regulatory Standards		
EMC standards	<ul style="list-style-type: none"> •CISPR32 Class A •EN 55032 Class A •CISPR24 •EN 55024 •ETSI EN 300 386 •AS/NZS CISPR32 Class A •FCC Part 15 Subpart B Class A •ICES 003 Class A •IEC 61000-3-2 •EN 61000-3-2 •IEC 61000-3-3 •EN 61000-3-3 •GB 9254 •VCCI-CISPR32 Class A 	
Environmental standards	<ul style="list-style-type: none"> •RoHS •REACH •WEEE 	
Safety standards	<ul style="list-style-type: none"> •IEC 60950-1 •EN 60950-1 •UL 60950-1 •CSA C22.2 No 60950-1 •GB 4943.1 	
Software Features and Protocols		
Basic features	DHCP server/client, PPPoE server/client, PPPoA server/client, PPPoEoA server/client, NAT, Sub interface management	
WLAN(AC)	AP management (AC discovery/AP access/AP management), CAPWAP, WLAN user management , WLAN radio management (802.11a/b/g/n), WLAN QoS (WMM), WLAN security (WEP/WPA/WPA2/Key management)	

Item	AR1220C	AR1220E
LAN	IEEE 802.1P, IEEE 802.1Q, IEEE 802.3, VLAN management, MAC address management, MSTP	
IPv4 unicast routing	Routing policy, static route, RIP, OSPF, IS-IS, BGP	
IPv6 unicast routing	Routing policy, static route, RIPng, OSPFv3, IS-ISv6, BGP4+	
Multicast	IGMP V1/V2/V3, PIM SM, PIM DM, MSDP, MDBGP	
MPLS	LDP, MPLS L3 VPN, VLL, PWE3, static LSP, dynamic LSP, MPLS TE, IP FRR, LDP FRR, TE FRR	
VPN	IPSec VPN, GRE VPN, DSVPN, L2TP VPN	
QoS	DiffServ mode, MPLS QoS, priority mapping, traffic policing (CAR), traffic shaping, congestion avoidance (based on IP precedence/DSCP WRED), congestion management (LAN interface: SP/WRR/SP+WRR; WAN interface: PQ/CBWFQ), MQC (traffic classifier, traffic behavior, and traffic policy), Hierarchical QoS, WLAN QoS, FR QoS, Smart Application Control (SAC)	
Security	ACL, firewall, 802.1x authentication, AAA authentication, RADIUS authentication, HWTACACS authentication, broadcast storm suppression, ARP security, ICMP attack defense, URPF, CPCAR, blacklist, IP source tracing	
Management and maintenance	Upgrade management, device management, web-based GUI, GTL, SNMP (v1/v2c/v3), NTP, CWMP, Auto-Config, deployment using USB disk, CLI, SSH (v1/v2)	

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*** Note: Service performance depending on specific feature configuration.

****Note: When the altitude is between 1800 m and 5000 m, the highest operating temperature reduces by 1°C every time the altitude increases by 220 m.

*****Note: Number of recommended users is measured according to the Maximum number of concurrent NAT connections.

How to Configure the Modular AR1200 Router

Before choosing an AR1200, determine the device model, interface cards, and software configurations.

Chassis Options

The device model is determined by the slot quantity, forwarding capacity and service features that you require.

Service cards

The interface cards, including SIC cards and WSIC cards, are inserted into service card slots. Two SIC slots can be combined into one WSIC slot by removing the guide rail.

Software

The basic software and licensed software are available. The basic software provides basic functions, such as routing, switching and security. The licensed software provides additional functions, such as AC.

Ordering Information

Chassis Configuration	Description
AR1220C	AR1220C,8GE LAN,5GE WAN,2 USB,2 SIC

Chassis Configuration	Description
AR1220E	AR1220E,8GE LAN,2GE Combo,2 USB,2 SIC


Company Addendum

For more information, please visit <http://enterprise.huawei.com/en/> or contact your local Huawei office.

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