AR150 & AR200 Series Enterprise Routers

HUAWEI TECHNOLOGIES CO., LTD.

AR150 & AR200 Series Enterprise Routers Brochure

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As fixed interface routers for the AR G3 series, AR150&AR200 Series routers provide a comprehensive set of functions, such as routing, switching, voice, security and wireless. They are next-generation routers for enterprise branches and small businesses.

Product Overview

AR150&AR200 Series routers use the embedded hardware encryption technique and support the voice Digital Signal Processor (DSP). In addition, they support firewall, call processing, voice mailbox, and application program functionalities. The AR150&AR200 series includes: the AR151, AR157, AR201, AR206, AR207, AR207V, AR207V-P, AR207G-HSPA+7 and AR208E, whose appearances and specifications are shown in the following table.

AR151	
	• Forwarding performance: 300 Kpps • Fixed ports: 4 x FE LAN, 1 x FE WAN • Dimensions (H x W x D): 44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)

AR157	
	• Forwarding performance: 300 Kpps • Fixed ports: 4 x FE LAN, 1 x ADSL2+ Annex A/M • Dimensions (H x W x D): 44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)

AR201	
	• Forwarding performance: 450 Kpps • Fixed ports: 8 x FE LAN, 1 x FE WAN • Dimensions (H x W x D): 44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)

AR206	
	• Forwarding performance: 450 Kpps • Fixed ports: 8 x FE LAN, 1 x ADSL2+ Annex B • Dimensions (H x W x D): 44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)

AR207	
	• Forwarding performance: 450 Kpps • Fixed ports: 8 x FE LAN, 1 x ADSL2+ Annex A/M • Dimensions (H x W x D): 44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)

AR207V	
	• Forwarding performance: 450 Kpps
	• Fixed ports: 8 x FE LAN, 1 x ADSL2+ Annex A/M,
	• Fixed Voice ports: 4 x FXS, 1 x FXO
	• Dimensions (H x W x D): 44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)

AR207V-P	
	• Forwarding performance: 450 Kpps
	• Fixed ports: 8 x FE LAN(PoE), 1 x ADSL2+ Annex A/M
	• Fixed Voice ports: 4 x FXS, 1 x FXO
	• Dimensions (H x W x D): 44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)

AR207G-HSPA+7	
	• Forwarding performance: 450 Kpps
	• Fixed ports: 8 x FE LAN, WCDMA HSPA+7, 1 x ADSL2+ Annex A/M
	• Dimensions (H x W x D): 44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)

AR208E	
	• Forwarding performance: 450 Kpps
	• Fixed ports: 8 x FE LAN, 1 x G.SHDSL 8-wire
	• Dimensions (H x W x D): 44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)

Product Highlights

① Small Size and High Performance

- More applications: Huawei series routers use the dual-core processor that isolates the control plane from the forwarding plane and processes more enterprise applications. Huawei series routers improve user experience for multimedia service when streams overlap.

- Higher performance: The AR150&AR200 can process various enterprise applications, and its service processing capability is four times that in the industry.

- Greater potential: Huawei series routers provide the capability to migrate services to the 3G and LTE networks.

② Low Investment with High Returns

- Easy to construct: The AR150&AR200 supports plug-and-play, intelligent configuration, and deployment using the USB flash drive. It can function immediately after being installed. Users do not need to configure an IP address manually. The PPP and VPN indicators show the status of corresponding services. The AR150&AR200 helps to quickly construct an enterprise IT network.

- Simplified solution: Huawei provides an all-around solution that integrates the routing, switching, voice, security, and wireless services. Customers can customize solutions as required.
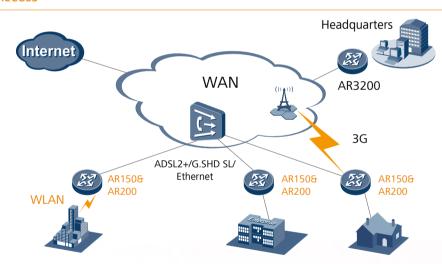
- Easy to expand: Huawei series routers have eight FE ports(except AR150 series), can access more employee for small enterprises. The two uplink WAN ports implement load balancing and link protection, maximizing the return on investments.

❸ Small Product on a Comprehensive Platform

- Maturity and Stableness: The AR150&AR200 uses the Huawei VRP operating system and VSP voice platform. In addition, the AR150&AR200 uses modularized hardware design, which brings good user experience.

- Low-noise office: Huawei series routers have no fan, which brings low noise and good user experience.

- Secure environment: The lightning failure rate of AR150&AR200 is only 3% of industry average. The AR150&AR200 can be applied in the harsh environment.
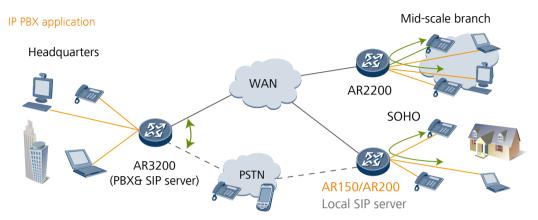
Typical Applications

WAN Access

AR150&AR200 Series routers function as the egress routers on enterprise branch networks and provide flexible access methods to ensure remote network connections. The access modes include Ethernet, xDSL, 3G and WLAN (already planned in the roadmap). AR150&AR200 Series routers reduce deployment and maintenance costs while offering maximum value to customers.
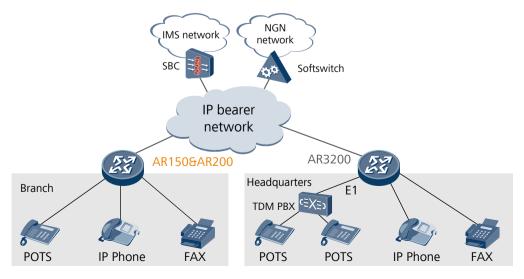
High-Quality Voice Service

Apart from functioning as a voice service gateway for enterprises, AR150&AR200 Series routers can also be used as an IP PBX or an SIP access gateway.

IP PBX application

AR150&AR200 Series routers have built-in PBX, which supports the enterprise main number, interactive voice response (IVR), and bill query functions for enhanced corporate image and improved enterprise communication efficiency. AR150&AR200 Series routers are deployed at enterprise branches to provide the intelligent dialing function. When a fault occurs on the WAN, the backup PSTN network ensures the continuity of call services. AR150&AR200 Series routers also provide a built-in SIP server. When the SIP server at the headquarters is unreachable, the built-in SIP server ensures uninterrupted communication between branches and between branches and the PSTN network. This ensures reliability of voice services.
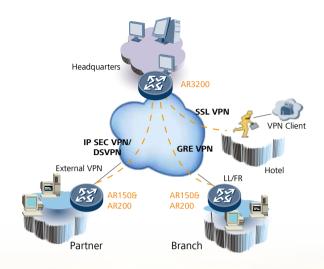
SIP access gateway application

AR150&AR200 Series routers integrate voice, fax, and IP services. When telecom carriers deploy voice services for enterprises, AR150&AR200 Series routers can function as the SIP access gateway for enterprise branches to transform phone signals into voice over IP (VoIP) signals. AR150&AR200 Series routers connect upstream to the IMS/NGN network to allow for anytime voice communication on any media, such as phones, handsets, and PCs.

VPN for Enterprise Branches

VPN application

AR150&AR200 Series routers provide various secure access functions to ensure secure communication between enterprise branches and between branches and the headquarters, and to enable partners to access enterprise resources. Tunnels such as GRE VPN, IPSEC VPN, DSVPN and SSL VPN tunnels are set up between the headquarters and branches to implement secure data access and transmission. AR150&AR200 Series routers also support fast tunnel set-up and authentication for branches. Using remote tunnels, partners can flexibly access enterprise resources. All these ensure the security and sharing of enterprise resources.

Technical Specifications

The following table lists the technical specifications of AR150&AR200 Series routers.

Item	AR201/ AR151	AR206	AR207/ AR157	AR207V	AR207V-P	AR207G- HSPA+7	AR208E
Hardware							
Forwarding performance (64 Byte)	450 Kpps/300 Kpps	450 Kpps	450 Kpps/300 Kpps	450 Kpps	450 Kpps	450Kpps	450 Kpps
WAN speed with services	150 Mbps/100 Mbps	150 Mbps	150 Mbps/100 Mbps	150 Mbps	150 Mbps	150 Mbps	150 Mbps
Fixed WAN ports	1 x FE	1 x ADSL2+ Annex B	1 x ADSL2+ Annex A/M	1 x ADSL2+ Annex A/M	1 ADSL2+ Annex A/M	1 ADSL2+ Annex A/M	1 x G.SHDSL 8-wire
Fixed Ethernet switching ports	8 x FE/4 x FE	8 x FE	8 x FE/4 x FE	8 x FE	8 x FE	8 x FE	8 x FE
Fixed voice ports	-	-	-	4 x FXS, 1 x FXO	4 x FXS, 1 x FXO	-	-
Integrated 3G	-	-	-	-	-	WCDMA HSPA+7	-
USB 2.0 ports	1	1	1	1	1	1	1
Serial auxiliary/ console ports	1	1	1	1	1	1	1
Memory size (default/ maximum)	512 MB	512 MB	512 MB	512 MB	512MB	512MB	512 MB
Flash memory (default/ maximum)	512 MB	512 MB	512 MB	512 MB	512MB	512MB	512 MB
Maximum power	24 W	24 W	24 W	36 W	36 W	36 W	24 W
Power supply (AC)	100V to 240V	100V to 240V	100V to 240V	100V to 240V	100V to 240V	100V to 240V	100V to 240V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60HZ	50/60HZ	50/60 Hz
Dimensions (H x W x D)	44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)	44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)	44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)	44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)	44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)	44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)	44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)

Item	AR201/ AR151	AR206	AR207/ AR157	AR207V	AR207V-P	AR207G-HSPA+7	AR208E
Operating temperature	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0 C to 40° C	0°C to 40°C	0°C to 40°C
Relative humidity	5% to 90% (non-condensing)	5% to 90% (non-condensing)	5% to 90% (non-condensing)	5% to 90% (non-condensing)	5% to 90% (non-condensing)	5% to 90% (non-condensing)	5% to 90% (non-condensing)

Software

Basic feature	DHCP server/client, PPPoE server/client, PPPoA client, PPPoEoA client, NAT, Sub interface management
Voice	RTP, SIP, SIP AG, IP PBX/TDM PBX, FXO/FXS, VoIP, BEST, DISA, SBC, H.323 gatekeeper (Voice models only support voice features)
LAN	IEEE 802.1P, IEEE 802.1Q, IEEE 802.3, VLAN management, MAC address management, MSTP, etc.
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 version1/2/3, PIM SM, PIM DM, MSDP
	IGMP snooping version1/2/3
VPN	IPSec VPN, GRE VPN, DSVPN, SSL VPN, L2TP VPN
QoS	Diffserv mode, 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 classification, traffic behavior, and traffic policy), H-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, PKI
Management and maintenance	Upgrade management, device management, web-based GUI, GTL, SNMP(v1/v2c/v3), RMON, NTP, CWMP, Auto-Config, site deployment using USB disk, NetConf, CLI

How to Configure

AR150&AR200 Series routers are configured in two steps: selecting an appropriate model and configuring software.

- Selecting an appropriate model

Select an appropriate model based on the uplink port type.

- Configuring software

AR150&AR200 Series router software includes basic software and licensed software. The basic software provides basic functions such as routing, switching, voice, and security. The licensed software provides additional functions such as PBX.

Ordering Information

Model	Description
Host Configuration	
AR0M0001BA00	AR201 Basic Configuration(Includes AR201 Chassis,with Basic Software and Document),1FE WAN,8FE LAN,1 USB Interfaces
AR0M0006BA00	AR206 Basic Configuration(Includes AR206 Chassis,with Basic Software and Document),ADSL2+ ANNEX B WAN,8FE LAN,1 USB Interfaces
AR0M0007BA00	AR207 Basic Configuration(Includes AR207 Chassis,with Basic Software and Document),ADSL2+ ANNEX A/M WAN, 8FE LAN,1 USB Interfaces
AR0M007VBA00	AR207V Basic Configuration(Includes AR207V Chassis,with Basic Software and Document),ADSL2+ ANNEX A/M WAN,8FE LAN,4FXS+1FXO,1 USB Interfaces
AR0M07VPBA00	AR207V-P Basic Configuration(Includes AR207V-P Chassis,with Basic Software and Document),ADSL2+ ANNEX A/M WAN,8FE LAN(POE),4FXS+1FXO,1 USB Interfaces
AR0M2074BA00	AR207G-HSPA+7 Basic Configuration(Includes AR207G-HSPA+7 Chassis,WCDMA HSPA+7,with Basic Software and Document),ADSL2+ ANNEX A/M WAN, 8FE LAN,1 USB Interfaces
AR0M008EBA00	AR208E Basic Configuration(Includes AR208E Chassis,with Basic Software and Document),4 copper pair G.SHDSL WAN,8FE LAN,1 USB Interfaces
AR0M1510BA00	AR151 Basic Configuration(Includes AR151 Chassis,with Basic Software and Document),1FE WAN,8FE LAN,1 USB Interfaces
AR0M1570BA00	AR157 Basic Configuration(Includes AR157 Chassis,with Basic Software and Document),ADSL2+ ANNEX A/M WAN, 4FE LAN,1 USB Interfaces
Software	
AR0S000PBX00	PBX Function
AR0S0DSVPN00	DSVPN Function
AR0SSSLVPN01	AR SSLVPN License-Access 10 users
SD Card & USB Disk	
NUSBDSK01	Storage USB DISK,4GB,USB 2.0
Power Module	
AR0MPSAP1000	Adapter,0degC,40degC,90V,264V,+48V/2.08A,
W0ACPSE03	Adapter,0degC,40degC,90V,264V,12V/3A,C8/4pin

For more information, visit http://enterprise.huawei.com/en/ or contact Huawei local sales office.

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