



# H3C MSR810

# Series Router

**Branch Router**

Release Date: Jan 2024



## Product overview

The MSR810 series can be deployed as an egress router for small- to medium-sized enterprise networks to operate with VPN, NAT, and IPSec service gateways. Together with other H3C products, the MSR810 can provide comprehensive network solutions for government, power, financial, tax, public security, railway, and education customers.

The MSR810 series has the following models: MSR810-LM-EA, MSR810-EI.



H3C MSR810-LM-EA



H3C MSR810-EI router

## Features and benefits

### Advanced technologies

- Uses H3C's leading Comware network operating system to provide intelligent service scheduling management mechanism and supports loose coupling of different service modules as well as the dynamic loading of processes and patches.

### Powerful security features

- Service security
  - Packet filtering, including stateful filtering, MAC address filtering, IP and port number filtering, and time range filtering.
  - Real-time traffic analysis.
- Network security
  - Rich and comprehensive VPN technologies, including IPSec, L2TP, GRE, MPLS VPN and mix usage of different VPN technologies.
  - Routing security protection, including OSPF/RIP/IS-IS/BGP dynamic routing protocol,

OSPFv3/RIPng/IS-ISv6/BGP IPsec encryption and rich routing policy control functions.

- End device access security
  - Unified endpoint access binding authentication, including EAD secure check authentication, 802.1X authentication, endpoint MAC address authentication, web-based portal authentication, endpoint access static binding, and MAC address auto-learning and binding.
  - ARP attack prevention, including fixed source MAC address, ARP attack protection, ARP source suppression, ARP detection, source MAC consistency check and protection, ARP rate limit, and ARP active acknowledgement mechanism.
- Equipment management security
  - Role-based access control that allocates resources based on roles, and provides users and roles mapping.
  - Control plane traffic restriction, traffic control and filtering based on protocol type, queue, known protocol and specific protocol.
  - Remote security management, such as SNMPv3, SSH, and HTTPS remote management.
  - Management behavior control and audit, including AAA server central authentication, command line authority and real-time report of operation records.

## Granular control

- Uses granular identification and control to rate limit and filter application layer services and ensure bandwidth and provides detailed network statistics for network optimization.
- Performs load balancing based on bandwidth, user, user group, service, or application by using asymmetric link, traffic load balancing, and multi-topology dynamic routing technologies.
- Supports flexible bandwidth sharing based on service, user, user group, link, and user bandwidth.

## Intelligent network management

- Comprehensive network management methods—Supports command line and SNMP.
- Zero-configuration setup—Enables zero configuration setup, USB-based and URL-based automatic configuration.
- Comware embedded EAA function—Monitors the internal events and status of the system's software and hardware components. If a fault occurs, it collects diagnostic information and attempts to make automatic repairs as well as sending the diagnostic information to a specific email address.

## High availability

- Independent hardware processing module for monitoring and programmable components that supports online upgrade and auto loading to strengthen product reliability.
- Millisecond link fault detection technology Bidirectional Forwarding Detection (BFD) and Track between

BFD and static routing, RIP/OSPF/BGP/ISIS dynamic routing, VRRP, or interface backup.

- Network quality analyzer (NQA) and Track between NQA and static routing, VRRP, or interface backup.
- Multi-device redundancy and load balancing (VRRP/VRRPE).

## Technical specifications

### Hardware specifications

Item	MSR810-LM-EA	MSR810-EI
IP Forwarding Performance (IMIX)	400 Mbps	400 Mbps
Forwarding Performance with ACL+NAT+QOS (IMIX)	200 Mbps	200 Mbps
IPSec Forwarding Performance (1400byte)	70Mbps	70Mbps
CPU	800MHz	800MHz
Memory	1 GB	1 GB
Flash(default/maximum)	256 MB	256 MB
External Flash	N/A	N/A
USB ports	1	1
Console ports	1	1
WAN ports	1 × GE copper port 1 × SFP port	1 × GE copper port 1 × SFP port
LAN port	4 × GE ports (can be configured as WAN interfaces)	4 × GE ports (can be configured as WAN interfaces)
WLAN	N/A	N/A
WLAN antenna	N/A	N/A
Built-in 3G/4G modem	TDD-LTE: <ul style="list-style-type: none"> <li>• Band 38: 2570 to 2620 M</li> <li>• Band 40: 2300 to 2400 M</li> <li>• Band 41: 2496 to 2690 M</li> </ul>	N/A
	FDD-LTE:	

Item	MSR810-LM-EA	MSR810-EI
	<ul style="list-style-type: none"> <li>Band 1: UL: 1920 to 1980 M, DL: 2110 to 2170 M</li> <li>Band 3: UL: 1710 to 1785 M, DL: 1805 to 1880 M</li> <li>Band 5: UL: 824 to 849 M, DL: 869 to 894 M</li> <li>Band 7: UL: 2500 to 2570 M, DL: 2620 to 2690 M</li> <li>Band 8: UL: 880 to 915 M, DL: 925 to 960 M</li> <li>Band 20: UL:832 ~ 862M, DL:791 ~ 821MHz</li> <li>Band 28: UL: 703 to 748 M, DL: 758 to 803 M</li> </ul> <p>WCDMA/HSPA+:</p> <ul style="list-style-type: none"> <li>Band 1: UL: 1920 to 1980 M, DL: 2110 to 2170 M</li> <li>Band 5: UL: 824 to 849 M, DL: 869 to 894 M</li> <li>Band 8: UL: 880 to 915 M, DL: 925 to 960 M</li> </ul> <p>GSM:</p> <ul style="list-style-type: none"> <li>Band 3: UL: 1710 to 1785 M, DL: 1805 to 1880 M</li> <li>Band 5: UL: 824 to 849 M, DL: 869 to 894 M</li> <li>Band 8: UL: 880 to 915 M, DL: 925 to 960 M</li> </ul>	
3G/4G antenna	Stick-like/Magnetic antenna	N/A
SIM card slot	2 (dual-card one-standby)	N/A
Max power consumption	12W	24W
Power voltage(adapter)	External power adapter: 100 VAC to 240 VAC @ 50 Hz/60 Hz	External power adapter: 100 VAC to 240 VAC @ 50 Hz/60 Hz
Power voltage(device)	DC 12V 2A	DC 12V 2A
Dimensions (H × W × D)	44 x 210 x 140 mm	44 × 210 × 130 mm
Operating temperature	0~ 45 °C	0°C to 40°C (32°F to 104°F)
Operating humidity	5% RH to 95% RH, non-condensing	5% RH to 95% RH, non-condensing
EMC	FCC Part 15 Subpart B CLASS B ICES-003 CLASS B VCCI CLASS B	FCC Part 15 (CFR 47) CLASS A ICES-003 CLASS A VCCI-3 CLASS A

Item	MSR810-LM-EA	MSR810-EI
Safety	CISPR 32 CLASS B	VCCI-4 CLASS A
	EN 55032 CLASS B	CISPR 22 CLASS A
	AS/NZS CISPR32 CLASS B	EN 55022 CLASS A
	CISPR 35	AS/NZS CISPR22 CLASS A
	EN 55035	CISPR 24
	EN 61000-3-2	EN 55024
	EN 61000-3-3	EN 61000-3-2
	ETSI EN 300 386	EN 61000-3-3
	ETSI EN 301 489-1	EN 61000-6-1
	ETSI EN 301 489-52	ETSI EN 300 386
	GB/T 9254.1	EN 301 489-1
		EN 301 489-17
	IEC 60950-1	UL 60950-1
	AS/NZS 60950-1	CAN/CSA C22.2 No 60950-1
	FDA 21 CFR Subchapter J	IEC 60950-1
	GB 4943.1	EN 60950-1/A11
	UL 62368-1	AS/NZS 60950
	CAN/CSA C22.2 No 62368-1	EN 60825-1
	IEC 62368-1	EN 60825-2
	EN 62368-1	FDA 21 CFR Subchapter J
AS/NZS 62368-1	GB 4943	

## Software specifications

Item	Specification
Layer 2 switching	Ethernet, Ethernet II, VLAN (port-based VLAN, guest VLAN), 802.3x, 802.1p, 802.1Q, 802.1X, STP (802.1D), RSTP (802.1w), MSTP (802.1s), PPP, PPPoE client, PPPoE server, and DDR
IP services	Unicast/multicast, TCP, UDP, IP option, IP unnumbered, policy-based routing, NetStream, and sFlow
IP application	Ping, Tracert, ICMP, DHCP server, DHCP relay, DHCP client, DNS client, DNS proxy, DDNS, NTP, and SNTP
IPv4 routing	Static routing
	Dynamic routing: RIPv1/v2, OSPFv2, BGP, IS-IS
	Route iteration
	Policy routing

Item	Specification
IPv6	Equal-cost multi-path routing (ECMP)
	Multicast routing: IGMPv1/v2/v3, PIM-DM, PIM-SM, MBGP, MSDP
	IPv6 ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, NAT-PT, 6PE, and DS-LITE
	IPv6 tunneling: Manual tunneling, automatic tunneling, GRE tunnel, 6to4, ISATAP
	Static routing
QoS	Dynamic routing: RIPng, OSPFv3, IS-ISv6, BGP4+
	IPv6 multicast: MLDv1/v2, PIM-DM, PIM-SM
	LR, port-based mirroring, Port Trust Mode, and port priority
	Committed access rate (CAR)
	FIFO, WFQ, CBQ
Security	Generic Traffic Shaping (GTS)
	Traffic classification
	PPPoE client & server, portal, 802.1X
	Local authentication, RBAC, RADIUS, TACACS+
	Basic Firewall Function, ASPF, ACL, filter, connection limit
	IKE, IPsec
	L2TP, NAT/NAPT, PKI, RSA, SSH v1.5/2.0, URPF, mGRE, GRE
	ARP attack prevention
	SSL VPN, ADVPN, GDVPN
	AES, DES, 3DES, MD5, SHA1
MPLS	LDP, Static LSP
	L3VPN: Inter-AS MPS VPN (Option 1/2/3), MPLS nested VPN, hierarchy of PE (HoPE), dual-homed CE, MCE, and multirole host
	L2VPN: Martini, Kompella, CCC PWs and static PWs
	MPLS TE, RSVP TE
High availability	VRRP, VRRPv3
	Bandwidth-based load balancing and backup
	IP address-based load balancing and backup
	NQA collaboration with routing, VRRP or interface backup
Management and maintenance	SNMP v1/v2c/v3, MIB, SYSLOG, RMON
	BiMS remote management, booting from USB drive
	CLI, file system, and dual image
	DHCP, FTP, HTTP, ICMP, UDP public, UDP private, TCP public, TCP private, and SNMP

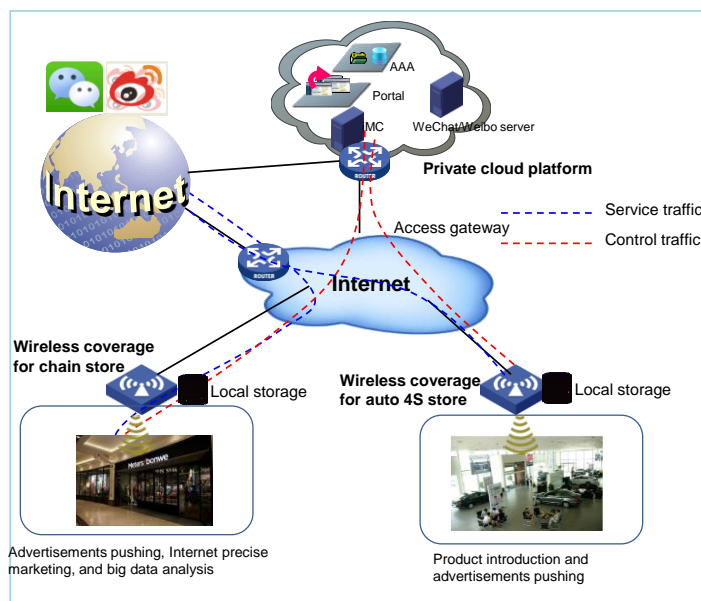
Item	Specification
	Console port login, Telnet (VTY) login, SSH login, and FTP login

## Application scenarios

### Chain enterprises wireless marketing solution

For commercial chain enterprises, MSR810 routers are ideal wireless coverage products for their branches and outlets. One MSR810 router itself is capable of providing network security, wireless connection, routing, and switching services for an outlet, simplifying network deployment and management. The IMC and service platforms deployed at the center perform centralized management for the branches and outlets, improving the network deployment and management efficiency.

- One MSR810 itself deployed at the outlet can provide network security, wireless connection, routing, and switching services.
- The MSR810 can store PHP dynamic webpages, pictures, flashes, videos, etc. and push the advertising and multimedia contents to the clients as long as they come online, which avoids occupying the network bandwidth.
- The router supports online activity management and audit and performs granular traffic control.



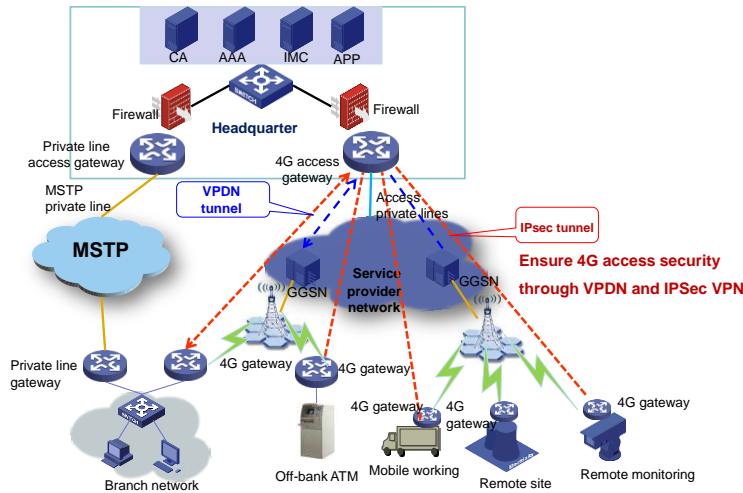
Chain enterprises wireless marketing solution

### 4G backup link and monitoring video backhaul solution

The built-in 3G/4G interfaces on the MSR810 support TDD/FDD 4G LTE networks of all service providers, and provide a transmission rate up to 100 Mbps and are backward compatible with 3G. The router can provide a backup link for key services and to backhaul monitoring videos. It can also be used in hard-to-wire and mobile office scenarios.



- Supports TDD/FDD 4G LTE networks deployed by all service providers, with a transmission rate up to 100 Mbps, backward compatible with 3G.
- Supports zero configuration startup, maintenance, and management and IMC centralized management to greatly improve the network deployment and management efficiency.
- Supports IPsec, GPS positioning, and IMSI binding to ensure traffic transmission and mobile access security



4G backup link and monitoring video backhaul networking solution

## Ordering information

Product ID	Description
RT-MSR810-LM-EA	H3C MSR810-LM-EA Enterprise 6-Port Gigabit Ethernet 4G LTE Router (2GE WAN(1GE+1SFP), 4GE LAN/WAN, TDD/FDD LTE), EMEA & APAC Edition
RT-MSR810-EI	H3C MSR810-EI Enterprise 6-Port Gigabit Ethernet Router (2GE WAN(1GE+1SFP), 4GE LAN/WAN)



The Leader in Digital Solutions

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