

# H3C MSR810 Router Series

## 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-GL, MSR810-W-LM-GL, MSR810-LMS-EA, MSR810-10-PoE, and MSR810.



H3C MSR810-LM-GL router



H3C MSR810-W-LM-GL router



H3C MSR810-LMS-EA router



H3C MSR810-10-PoE router



H3C MSR810 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

Item	MSR810-LM-GL	MSR810-W-LM-GL	MSR810-LMS-EA	MSR810-10-PoE	MSR810
Forwarding capacity	200 Kpps	200 Kpps	200 Kpps	200 Kpps	200 Kpps
Forwarding Performance In Service (IMIX)	200 Mbps	200 Mbps	150 Mbps	200 Mbps	200 Mbps
CPU	800MHz	800MHz	800MHz	800MHz	800MHz
Memory	1 GB	1 GB	1 GB	1 GB	1 GB
Flash	256 MB	256 MB	256 MB	256 MB	256 MB
External	Micro SD card	Micro SD card	N/A	SD card	Micro SD card

Item	MSR810-LM-GL	MSR810-W-LM-GL	MSR810-LMS-EA	MSR810-10-PoE	MSR810
Flash					
USB ports	1	1	1	1	2
Console ports	1	1	1	1	1
WAN ports	1 × GE copper port 1 × SFP port	1 × GE copper port 1 × SFP port	LTE	1 × GE copper port 1 × Combo port	1 × GE copper port 1 × SFP port
LAN port	4 × GE ports	4 × GE ports	4 × FE ports	8 × GE ports (PoE+ compatible)	4 × GE ports
WLAN	N/A	2.4 G, 802.11b/g/n	/	N/A	N/A
WLAN antenna	N/A	External, stick-like	/	N/A	N/A
Built-in 3G/4G modem	TDD-LTE: Band 38: 2570 to 2620 M Band 39: 1880 to 1920 M Band 40: 2300 to 2400 M Band 41: 2496 to 2690 M FDD-LTE: Band 1: UL: 1920 to 1980 M, DL: 2110 to 2170 M Band 3: UL: 1710 to 1785 M, DL: 1805 to 1880 M Band 5: UL: 824 to 849 M, DL: 869 to 894 M Band 7: UL: 2500 to 2570 M, DL: 2620 to 2690 M Band 8: UL: 880 to 915 M, DL: 925 to	TDD-LTE: Band 38: 2570 to 2620 M Band 39: 1880 to 1920 M Band 40: 2300 to 2400 M Band 41: 2496 to 2690 M FDD-LTE: Band 1: UL: 1920 to 1980 M, DL: 2110 to 2170 M Band 3: UL: 1710 to 1785 M, DL: 1805 to 1880 M Band 5: UL: 824 to 849 M, DL: 869 to 894 M Band 7: UL: 2500 to 2570 M, DL: 2620 to 2690 M Band 8: UL: 880 to 915 M, DL: 925 to	TDD-LTE: Band 38: 2570 to 2620 M Band 40: 2300 to 2400 M FDD-LTE: Band 1: UL: 1920 to 1980 M, DL: 2110 to 2170 M Band 3: UL: 1710 to 1785 M, DL: 1805 to 1880 M Band 5: UL: 824 to 849 M, DL: 869 to 894 M Band 7: UL: 2500 to 2570 M, DL: 2620 to 2690 M Band 8: UL: 880 to 915 M, DL: 925 to 960 M Band 20: UL: 832 ~ 862M, DL: 791 ~ 821MHz	N/A	N/A

Item	MSR810-LM-GL	MSR810-W-LM-GL	MSR810-LMS-EA	MSR810-10-PoE	MSR810
	960 M Band 18: UL: 815 to 830 M, DL: 860 to 875 M Band 19: UL: 830 to 845 M, DL: 875 to 890 M Band 21: UL: 1447.9 to 1462.9 M, DL: 1495.9 to 1510.9 M Band 28: UL: 703 to 749 M, DL: 758 to 803 M TD-SCDMA: Band 39: F: 1880 to 1920 M UMTS: Band 1: UL: 1920 to 1980 M, DL: 2110 to 2170 M Band 5: UL: 824 to 849 M, DL: 869 to 894 M Band 6: UL: 830 to 840 M, DL: 875 to 885 M Band 8: UL: 880 to 915 M, DL: 925 to 960 M Band 9: UL: 1749.9 to 1784.9 M, DL: 1844.9 to 1879.9 M Band 19: UL: 830 to 845 M, DL: 875 to 890 M	960 M Band 18: UL: 815 to 830 M, DL: 860 to 875 M Band 19: UL: 830 to 845 M, DL: 875 to 890 M Band 21: UL: 1447.9 to 1462.9 M, DL: 1495.9 to 1510.9 M Band 28: UL: 703 to 749 M, DL: 758 to 803 M TD-SCDMA: Band 39: F: 1880 to 1920 M UMTS: Band 1: UL: 1920 to 1980 M, DL: 2110 to 2170 M Band 5: UL: 824 to 849 M, DL: 869 to 894 M Band 6: UL: 830 to 840 M, DL: 875 to 885 M Band 8: UL: 880 to 915 M, DL: 925 to 960 M Band 9: UL: 1749.9 to 1784.9 M, DL: 1844.9 to 1879.9 M Band 19: UL: 830 to 845 M, DL: 875 to 890 M	Band 28: UL: 703 to 748 M, DL: 758 to 803 M UMTS: Band 1: UL: 1920 to 1980 M, DL: 2110 to 2170 M Band 5: UL: 824 to 849 M, DL: 869 to 894 M Band 8: UL: 880 to 915 M, DL: 925 to 960 M GSM: Band 3: UL: 890 to 915 M, DL: 935 to 960 M Band 8: UL: 1710 to 1785 M, DL: 805 to 1880 M		
3G/4G antenna	Stick-like/Magnetic	Stick-like/Magnetic	Stick-like/Magnetic	N/A	N/A

Item	MSR810-LM-GL	MSR810-W-LM-GL	MSR810-LMS-EA	MSR810-10-PoE	MSR810
	antenna	antenna	antenna		
SIM card slot	1	1	2 (dual-card one-standby)	N/A	N/A
Max power consumption	24 W	24 W	10W	24 W (system) + 60 W (PoE)	24W
Power voltage	External power adapter: 100 VAC to 240 VAC @ 50 Hz/60 Hz	External power adapter: 100 VAC to 240 VAC @ 50 Hz/60 Hz	External power adapter: 100 VAC to 240 VAC @ 50 Hz/60 Hz	External power adapter: 100 VAC to 240 VAC @ 50 Hz/60 Hz	External power adapter: 100 VAC to 240 VAC @ 50 Hz/60 Hz
Dimensions (H × W × D)	43.6 × 266 × 161 mm (1.72 × 10.47 × 6.34 in)	43.6 × 266 × 161 mm (1.72 × 10.47 × 6.34 in)	35 × 115 × 100 mm (1.38 × 4.53 × 3.94 in)	44.2 × 330 × 230 mm (1.74 × 12.99 × 9.06 in)	43.6 × 266 × 161 mm (1.72 × 10.47 × 6.34 in)
Operating temperature	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	-40°C to +70°C (-40°F to +158°F)	0°C to 40°C (32°F to 104°F)	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	5% RH to 95% RH, non-condensing	5% RH to 95% RH, non-condensing	5% RH to 95% RH, non-condensing
EMC	FCC Part 15 (CFR 47) CLASS A ICES-003 CLASS A VCCI-3 CLASS A VCCI-4 CLASS A CISPR 22 CLASS A EN 55022 CLASS A AS/NZS CISPR22 CLASS A CISPR 24 EN 55024 EN 61000-3-2 EN 61000-3-3 EN 61000-6-1 ETSI EN 300 386 EN 301 489-1 EN 301 489-17	FCC Part 15 (CFR 47) CLASS A ICES-003 CLASS A VCCI-3 CLASS A VCCI-4 CLASS A CISPR 22 CLASS A EN 55022 CLASS A AS/NZS CISPR22 CLASS A CISPR 24 EN 55024 EN 61000-3-2 EN 61000-3-3 EN 61000-6-1 ETSI EN 300 386 EN 301 489-1 EN 301 489-17	EN 55024 EN 301 489-1 EN 301 489-52 EN 301 511 EN 300 386 EN 301 908-1	FCC Part 15 (CFR 47) CLASS A ICES-003 CLASS A VCCI CISPR32 CLASS A CISPR 32 CLASS A EN 55032 CLASS A AS/NZS CISPR32 CLASS A CISPR 24 EN 55024 EN 61000-3-2 EN 61000-3-3 EN 61000-6-1 ETSI EN 300 386 EN 301 489-1 EN 301 489-17	FCC Part 15 (CFR 47) CLASS A ICES-003 CLASS A VCCI-3 CLASS A VCCI-4 CLASS A CISPR 22 CLASS A EN 55022 CLASS A AS/NZS CISPR22 CLASS A CISPR 24 EN 55024 EN 61000-3-2 EN 61000-3-3 EN 61000-6-1 ETSI EN 300 386 EN 301 489-1 EN 301 489-17

Item	MSR810-LM-GL	MSR810-W-LM-GL	MSR810-LMS-EA	MSR810-10-PoE	MSR810
Safety	UL 60950-1	UL 60950-1	UL 60950-1		UL 60950-1
	CAN/CSA C22.2	CAN/CSA C22.2	CAN/CSA C22.2		CAN/CSA C22.2
	No 60950-1	No 60950-1	No 60950-1		No 60950-1
	IEC 60950-1	IEC 60950-1	IEC 60950-1		IEC 60950-1
	EN 60950-1/A11	EN 60950-1/A11	EN 60950-1	FDA 21 CFR	EN 60950-1/A11
	AS/NZS 60950	AS/NZS 60950	AS/NZS 60950-1	Subchapter J	AS/NZS 60950
	EN 60825-1	EN 60825-1	EN 60825-1	GB 4943	EN 60825-1
	EN 60825-2	EN 60825-2	EN 60825-2		EN 60825-2
	FDA 21 CFR Subchapter J	FDA 21 CFR Subchapter J	FDA 21 CFR Subchapter J		FDA 21 CFR Subchapter J
	GB 4943	GB 4943	GB 4943.1		GB 4943

## Software specifications

Item	Specification
Layer 2 switching	Ethernet, Ethernet II, VLAN (port-based VLAN, voice 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 Equal-cost multi-path routing (ECMP) Multicast routing: IGMPv1/v2/v3, PIM-DM, PIM-SM, MBGP, MSDP
IPv6	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 Dynamic routing: RIPng, OSPFv3, IS-ISv6, BGP4+ IPv6 multicast: MLDv1/v2, PIM-DM, PIM-SM
QoS	LR, port-based mirroring, Port Trust Mode, and port priority Committed access rate (CAR)

Item	Specification
	FIFO, WFQ, CBQ Generic Traffic Shaping (GTS) Traffic classification
Security	PPPoE client & server, portal, 802.1X Local authentication, RBAC, RADIUS, TACACS+ ASPF, ACL, filter, connection limit IKE, IPsec L2TP, NAT/NAPT, PKI, RSA, SSH v1.5/2.0, URPF, and mGRE ARP attack prevention
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 Console port login, Telnet (VTY) login, SSH login, and FTP login

## Application scenarios

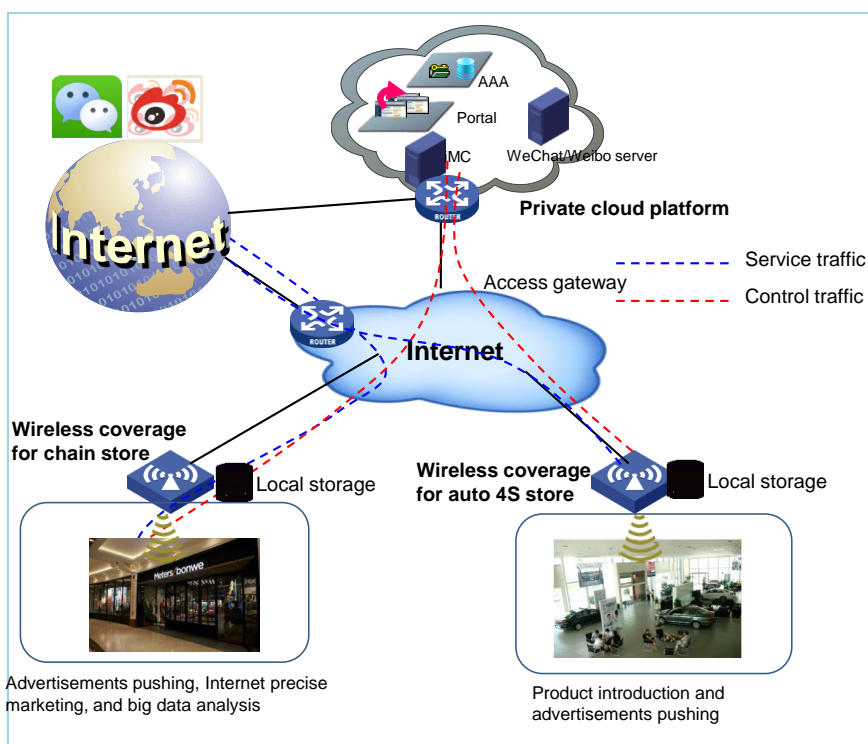
### Chain enterprises wireless marketing solution

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.

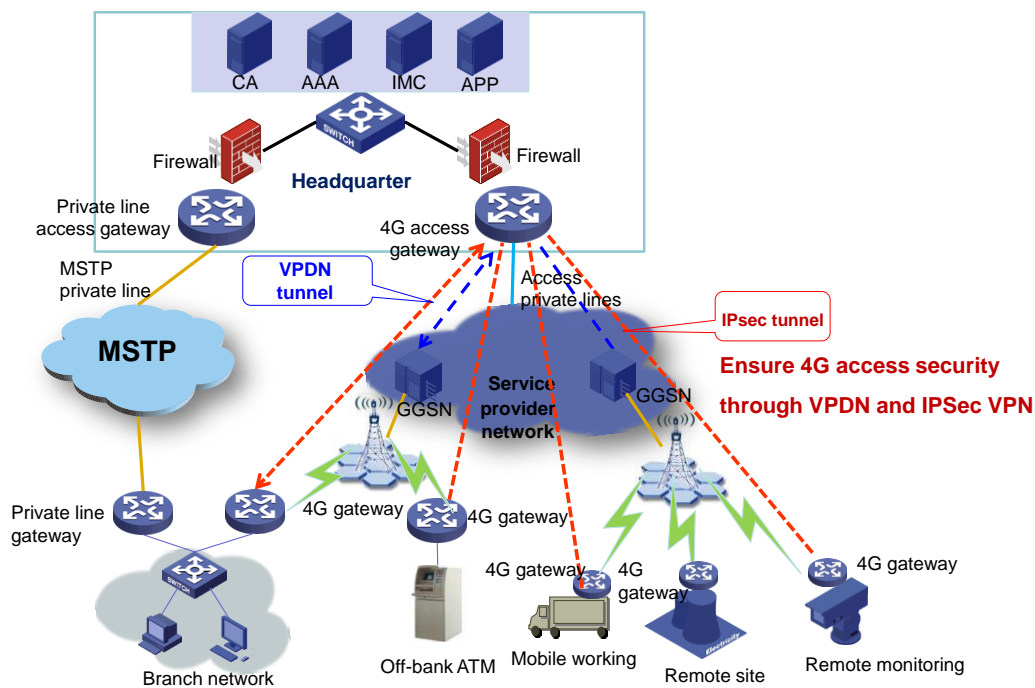


Chain enterprises wireless marketing solution

## 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

Model	Description
H3C MSR810-LM-GL	H3C MSR810 Enterprise-level 6-port Gigabit Ethernet 4G LTE router
H3C MSR810-W-LM-GL	H3C MSR810 Enterprise-level 6-port Gigabit Ethernet 4G LTE wireless router
H3C MSR810-LMS-EA	H3C MSR810 Enterprise 4G LTE Router(Mini), EMEA & APAC Edition
H3C MSR810-10-PoE	H3C MSR810 10-Port Gigabit Router(PoE+, 60W)
H3C MSR810	H3C MSR810 Enterprise-Level 6-Port Gigabit Ethernet Router

**New H3C Technologies Co., Limited**

Beijing base  
8 GuangShun South Street, Chaoyang District, Beijing  
Zip: 100102



Hangzhou base  
466 Changhe Road, Binjiang District, Hangzhou, Zhejiang  
Province 310052 P.R.China  
Zip: 310052  
Tel: +86-571-86760000  
Fax: +86-571-86760001

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