Huawei NetEngine AR5710-H Series Enterprise Router Data Sheet

NetEngine AR5710-H series enterprise routers are fixed routers designed by Huawei for the headquarters and branches of small and medium-sized enterprise. These routers offer a wide range of service features such as SD-WAN, routing, switching, and security, and come equipped with various interface types such as Ethernet, LTE/5G, and GPON/xGSPON, which allows them to deliver high performance and diversified services to meet the needs of different enterprises.

Product Overview

Huawei's next-generation NetEngine AR5710-H series enterprise routers deliver superior performance particularly when dealing with diverse and cloud-based services.

Huawei NetEngine AR5710-H series enterprise routers are ideal for the headquarters and branches of small and medium-sized enterprise and can be deployed at the network egress as needed. This series consists of NetEngine AR5710-H8T2TS1, NetEngine AR5710-H8T2TS1-T, NetEngine AR5710-H4T4N2X, NetEngine AR5710-H4T4N2X-LTE4EA, NetEngine AR5710-H2T4N2X-NRGL, and NetEngine AR5710-H2T4PN2X-NRGL, which can meet networking requirements of enterprises of different scales. In addition, they offer a variety of interface cards, such as LTE/5G, to help extend enterprise services.

- **Rich access capability:** Ethernet, LTE/5G (MIC LTE, built-in LTE, built-in 5G and 5G RUs), GPON/xGSPON, and 90 W PoE++

- **High-quality SD-WAN:** fast ZTP, all-scenario networking architecture, application quality-based intelligent traffic steering, and WAN optimization, helping deliver ultimate service experience

- **Superior performance:** high-speed access of 5G RUs and built-in 5G All-in-one gateway; built-in WAC capable of unified management of Wi-Fi 5/6/7 devices; seamless roaming between its connected APs

- **AI:** bandwidth planning, network orchestration, policy recommendation, in-band flow measurement, and automatic fault locating

- **Security protection:** integrates NGFW capabilities, offering multi-dimensional security policies, ASPF, application recognition and control, IPS, URL filtering, Antivirus, signature database and antivirus database update, and interconnection with third-party SSE security clouds

- **Reliability:** carrier-class hardware reliability, network-level high reliability, and fast service fault recovery

- **Easy O&M and management:** single-site ZTP within 10 minutes, batch site replication, SD-Branch LAN/WAN converged management, 5G RU and switch RU plug-and-play, digital map, visualized application quality and bandwidth, rights- and domain-based management, diversified alarm and log management methods, and report generation

NetEngine AR5710-H8T2TS1	• Fixed WAN ports*: 2 x GE Combo • Fixed LAN ports*: 8 x GE electrical • Memory: 4 GB • 1 x MIC LTE with 2 x SIM card (active/standby) • Dimensions (H x W x D)**: 44.0 mm x 300.0 mm x 220.3 mm
	• Fixed WAN ports*: 2 x GE Combo • Fixed LAN ports*: 8 x GE electrical • Memory: 4 GB

NetEngine AR5710-H8T2TS1-T	• 1 x MIC LTE with 2 x SIM card (active/standby) • Dimensions (H x W x D)**: 44.0 mm x 300.0 mm x 220.3 mm
 NetEngine AR5710-H4T4N2X***	• Fixed WAN ports*: 2 x 10GE SFP+ • Fixed LAN ports*: 4 x 2.5GE electrical, 4 x GE electrical • Memory: 4 GB • Dimensions (H x W x D)**: 43.6 mm x 321 mm x 210 mm
 NetEngine AR5710-H4T4N2X-LTE4EA***	• Fixed WAN ports*: 2 x 10GE SFP+, 1 x LTE4EA • Fixed LAN ports*: 4 x 2.5GE electrical, 4 x GE electrical • Memory: 4 GB • 2 x SIM cards (active/standby) • Dimensions (H x W x D)**: 43.6 mm x 321 mm x 210 mm
 NetEngine AR5710-H2T4N2X-NRGL***	• Fixed WAN ports*: 2 x 10GE SFP+, 5G SA/NSA • Fixed LAN ports*: 4 x 2.5GE electrical, 2 x GE electrical • Memory: 4 GB • 2 x SIM cards (active/standby) • Dimensions (H x W x D)**: 43.6 mm x 321 mm x 210 mm
 NetEngine AR5710-H2T4PN2X-NRGL***	• Fixed WAN ports*: 2 x 10GE SFP+, 5G SA/NSA • Fixed LAN ports*: 4 x 2.5GE electrical (4 x PoE++), 2 x GE electrical • Memory: 4 GB • 2 x SIM cards (active/standby) • Dimensions (H x W x D)**: 43.6 mm x 321 mm x 210 mm

*: Supported by all models: All fixed ports are LAN/WAN interchangeable.

**: Dimensions without packaging (H x W x D), Basic dimensions (excluding the parts protruding from the body).

***:In the SD-WAN scenario, a MultiGE interface on the device of this model goes online at the rate of 2.5 Gbps. The interface cannot be deployed in ZTP mode at the rate of 10 Gbps, and cannot be switched to a 10GE interface online.

Features and Highlights

Features and Highlights of NetEngine AR5710-H

Service Requirement	Feature and Highlight
High performance	• Integrates the ARM multi-core processor and hardware encryption/decryption engine based on the self-developed SOC chip architecture. • Offers industry-leading performance, ensuring a low latency for mission-critical services. • Comes equipped with a high-performance multi-core processor that supports high-speed WAN connections and powerful route computing, improving L4–L7 service processing efficiency.
High reliability	• Provides backup links for enterprise services, enhancing service access reliability. • Detects link faults and completes route convergence in milliseconds, greatly shortening the service interruption time.
Easy O&M	• Supports on-premises and cloud-based management by iMaster NCE-Campus using various protocols, such as NETCONF and SNMP, and high-performance data collection through telemetry. These helps simplify network deployment, visualize O&M, and reduce OPEX.
SD-WAN	• Is ideal for the SD-WAN solution to build cost-effective and business-friendly connections over the Internet. • Supports application identification and link quality-based intelligent traffic steering, guaranteeing the experience of key applications. • Supports multi-link routing; end-to-end IPsec encryption plus reliable devices, ensuring secure service transmission.
Architecture innovation	• PoE extension: The PoE output is not limited when the local power supply is used, but the maximum power is limited when the AR5710-H supplies power through PoE. • On-demand LAN port extension: The network structure is simplified from three layers to two layers. Switch RUs can be managed as logical ports of ARs on iMaster NCE or through the CLI. • 5G RU: 5G RUs are managed by ARs as cellular interfaces, and can be monitored and managed on iMaster NCE. • Built-in WAC capable of unified management of Wi-Fi 5/6/7 devices; seamless roaming between its connected APs.

Product Specifications

Specifications	NetEngine AR5710-H8T2TS1/ NetEngine AR5710-H8T2TS1-T	NetEngine AR5710-H4T4N2X	NetEngine AR5710-H4T4N2X-LTE4EA	NetEngine AR5710-H2T4N2X-NRGL	NetEngine AR5710-H2T4PN2X-NRGL
Forwarding performance* (NAT+ACL+QoS, IMIX)	4 Gbps	4 Gbps	4 Gbps	4 Gbps	4 Gbps
IPSec performance (IMIX)	1.6 Gbps	1.6 Gbps	1.6 Gbps	1.6 Gbps	1.6 Gbps

Specifications	NetEngine AR5710-H8T2TS1/ NetEngine AR5710-H8T2TS1-T	NetEngine AR5710-H4T4N2X	NetEngine AR5710-H4T4N2X-LTE4EA	NetEngine AR5710-H2T4N2X-NRGL	NetEngine AR5710-H2T4PN2X-NRGL
SD-WAN IPsec performance** (IMIX)	2 Gbps	2 Gbps	2 Gbps	2 Gbps	2 Gbps
SD-WAN IPsec performance** (1400 bytes)	5.2 Gbps	5.2 Gbps	5.2 Gbps	5.2 Gbps	5.2 Gbps
SD-WAN performance*** (IMIX)	1.5 Gbps	1.5 Gbps	1.5 Gbps	1.5 Gbps	1.5 Gbps
SD-WAN performance*** (1400 bytes)	3.8 Gbps	3.8 Gbps	3.8 Gbps	3.8 Gbps	3.8 Gbps
SD-WAN typical performance**** (IMIX)	900 Mbps	900 Mbps	900 Mbps	900 Mbps	900 Mbps
SD-WAN typical performance**** (1400 bytes)	3 Gbps	3 Gbps	3 Gbps	3 Gbps	3 Gbps
Fixed WAN ports*****	2 x GE Combo	2 x 10GE SFP+	2 x 10GE SFP+	2 x 10GE SFP+	2 x 10GE SFP+
Built-in LTE/5G	-	-	LTE4EA	5G SA/NSA	5G SA/NSA
5G RU	Supported				
Fixed LAN ports*****	8 x GE electrical	4 x 2.5GE electrical, 4 x GE electrical	4 x 2.5GE electrical, 4 x GE electrical	4 x 2.5GE electrical, 2 x GE electrical	4 x 2.5GE electrical (4 x PoE++), 2 x GE electrical
Switch RU	Supported				
PoE	-	-	-	-	Maximum total power: 130 W; up to 4 ports powered PoE, PoE+, and PoE++ auto-negotiation: •PoE: 15.4 W per port (up to 4 ports) •PoE+: 30 W per port (up to 4 ports) •PoE++: 60 W per port (up to 2 ports) or 90 W (up to 1 port)
WAC(Number of managed APs, default/maximum******)	32/64				
MIC slot	1 x MIC	-	-	-	-

Specifications	NetEngine AR5710-H8T2TS1/ NetEngine AR5710-H8T2TS1-T	NetEngine AR5710-H4T4N2X	NetEngine AR5710-H4T4N2X-LTE4EA	NetEngine AR5710-H2T4N2X-NRGL	NetEngine AR5710-H2T4PN2X-NRGL
Console port	1 x RJ45 Console				
USB port	1 x USB2.0				
Memory	4 GB				
TPM	Supported only by the NetEngine AR5710-H8T2TS1-T	-	-	-	-
Dimensions and Weight					
Dimensions without packaging (H x W x D)	44.0 mm x 300.0 mm x 220.3 mm	43.6 mm x 321 mm x 210 mm	43.6 mm x 321 mm x 210 mm	43.6 mm x 321 mm x 210 mm	43.6 mm x 321 mm x 210 mm
Dimensions with packaging (H x W x D)	110.0 mm x 435.0 mm x 360 mm	90 mm x 465 mm x 360 mm	90 mm x 465 mm x 360 mm	90 mm x 465 mm x 360 mm	90 mm x 465 mm x 360 mm
Weight without packaging	1.8 kg	1.937 kg	2.145 kg	2.327 kg	2.602 kg
Installation type	Rack, Work bench, Against the wall				
Occupied rack space	1 U				
Power Specifications, Power Consumption, and Heat Dissipation					
Rated input voltage (V)	100 V to 240 V, 50 Hz/60 Hz				
Input voltage range (V)	90 V to 264 V, 47 Hz/63 Hz				
Maximum input current (A)	1 A	0.8 A	2 A	2 A	3 A
Maximum output power (W@DC)	36 W	32 W	70 W	70 W	70 W
Typical power consumption (W)	25 W(DC) 38.6 W(AC)	32 W(AC)	36 W(AC)	35 W(AC)	36 W(AC)
Maximum power consumption (W)	29 W(DC) 45.2 W(AC)	38 W(AC)	43 W(AC)	42 W(AC)	190 W(AC)
Fan modules	Built-in unpluggable fan modules	Built-in unpluggable fan modules	Built-in unpluggable fan modules	Built-in unpluggable fan modules	Built-in unpluggable fan modules
Airflow	Left to right	Left to right	Left to right	Left to right	Left to right
Environment Parameters					
Noise	41.9 dB(A)	50 dB(A)	50 dB(A)	50 dB(A)	50 dB(A)
Operating temperature	0°C to 45°C				
Operating humidity	5% to 95% (non-condensing)				
Operating altitude	< 5000 m				

Specifications	NetEngine AR5710-H8T2TS1/ NetEngine AR5710-H8T2TS1-T	NetEngine AR5710-H4T4N2X	NetEngine AR5710-H4T4N2X-LTE4EA	NetEngine AR5710-H2T4N2X-NRGL	NetEngine AR5710-H2T4PN2X-NRGL
Storage temperature	−40°C to + 70°C				

*: Manual switching to the hardware forwarding mode is required.

**: Scenario where the SD-WAN IPsec performance specification applies: IPsec. This specification applies to the combined total of traffic in inbound and outbound directions. Manual switching to the routing mode is required.

***: Scenario where the SD-WAN performance specification applies: IPsec + QoS. This specification applies to the combined total of traffic in inbound and outbound directions.. Manual switching to the routing mode is required.

****: Scenario where the typical SD-WAN performance specification applies: IPsec + QoS + SA + AppFlow. This specification applies to the combined total of traffic in inbound and outbound directions.. Manual switching to the routing mode is required.

*****: All fixed ports are LAN/WAN interchangeable.

******: By default, a maximum of 32 APs can be managed for free. If the number of APs exceeds 32, licenses must be purchased. NetEngine AR5710-H series supports a maximum of 64 APs.

Software Features and Protocols

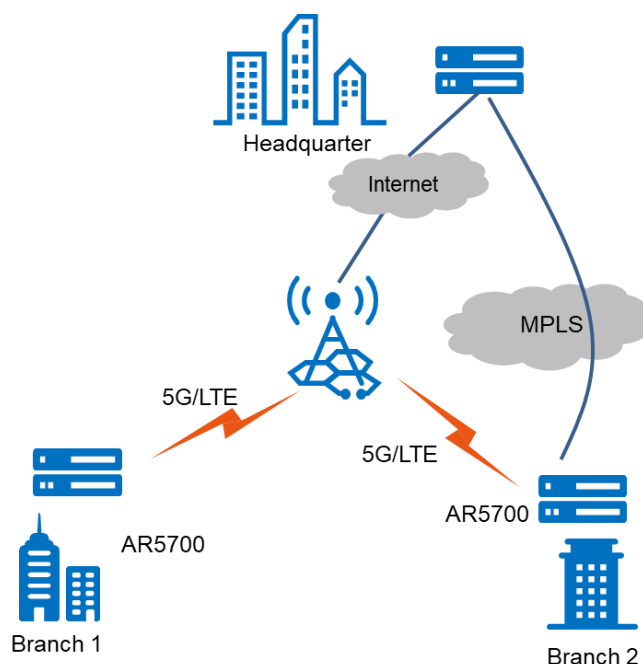| Item	NetEngine AR5710-H Series
Basic function	DHCPv4 server/client/relay, DHCPv6 Server/Client/Relay, PPPoE client, NAT, interface management, and DNS
LAN	IEEE 802.1p, IEEE 802.1Q, VLAN management, VLAN aggregation, Voice VLAN, MAC management, STP/RSTP/MSTP
IPv4 unicast routing	Routing policies, static routing, RIP, OSPF, IS-IS, BGP, IP FRR
IPv6 unicast routing	Static routing, routing policies, RIPng, OSPFv3, IS-ISv6, BGP4+
Basic IPv6 function	IPv6 ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, ICMPv6, DNSv6, DHCPv6, PPPoE client IPv6, IPv4 over IPv6, IPv6 over IPv4
VPN	GRE, GRE over IPsec, Ethernet over GRE, IPsec v4/v6, Segment Routing IPv6 (SRv6), L2TP client, DSVPN, IPv4/IPv6 dual-stack, SD-WAN EVPN
WAN optimization	A-FEC and data compression
Multicast	IGMP V1/V2/V3, PIM SM, PIM DM, MSDP, MBGP, IP multicast over SD-WAN
MPLS	MPLS LDP, MPLS L3VPN, dynamic LSP, IP FRR, LDP FRR, MPLS 6VPE, MPLS 6PE
QoS	Priority mapping, traffic policing (CAR), traffic shaping, congestion avoidance, congestion management, MQC (traffic classifier, traffic behavior, and traffic policy), level-3 traffic scheduling and shaping (HQoS), application identification, intelligent policy-based routing (SPR), SaaS routing, Intelligent Traffic Policing(ITP)
Security	ACL/ACL6, firewall, AAA authentication, RADIUS, HWTACACS, PKI, storm suppression, ARP security, ICMP security, attack defense, URPF, CPCAR, attack source tracing, 802.1X authentication, Portal authentication, port security, integrates NGFW capabilities, offering security policy control based on IP address (groups)/regions/domain groups/users (groups)/applications/time ranges, ASPF, application recognition and control, IPS, URL filtering, Antivirus, signature database and antivirus database update, and interconnection with third-party SSE security clouds
Management and maintenance	Upgrade management, device management, Telnet, SSH(v1/v2), WEB manager(HTTPS), File Transfer Protocols (SCP, SFTP, FTP, TFTP), OPS, GTL, SNMP (v1/v2c/v3), RMON, NTP, USB-, DHCP option-, and email-based deployment, deployment through the registration query center, NETCONF/YANG/telemetry, TCP FPM, NQA, IFIT, NetStream/NetStream v6, switch RU plug-and-play, web-based management, LLDP for an RU, Event Versus Action(EVA)
Reliability	BFD, BFD for IPv6, VRRP, VRRP6, HRP

Item	NetEngine AR5710-H Series
WAC	•Management of Wi-Fi 5/6/7 Fit APs •CAPWAP protocol •WLAN user management •WLAN radio management •WLAN QoS •WLAN security •WLAN user roaming Supports 802.11k and 802.11v smart roaming, 802.11r fast roaming (≤ 50 ms) and AI roaming

Safety and Regulatory Standards

Item	NetEngine AR5710-H Series
EMC standards compliance	• EN 55032 • EN 55035 • CISPR 32 • CISPR 35 • IEC/EN 61000-3-2 • EN 61000-3-3 • ETSI EN 300 386 • ETSI EN 301 489-1 • ETSI EN 301 489-3 • ETSI EN 301 489-17 • ETSI EN 301 489-52 • FCC CFR Part 15, Subpart B • ANSI C63.4 • ICES-003 Issue 7 • EN 50121-1 • EN 50121-4 • GB 9254
Environmental standards compliance	• RoHS • REACH • WEEE
Security standards compliance	• IEC 60950-1 • IEC 62368-1 • EN 60950-1 • UL 60950-1 • CSA C22.2 No 60950-1 • GB 4943.1

Application Scenarios

Networking diagram for branch 5G/LTE wireless access

Huawei NetEngine AR5710-H series routers feature 5G/LTE functionality, enabling wireless interconnection between enterprise branches and between the headquarters and branches. 5G/LTE interfaces can function as the active link or as a backup for wired links, enhancing network stability while reducing network construction cost.

SD-WAN networking
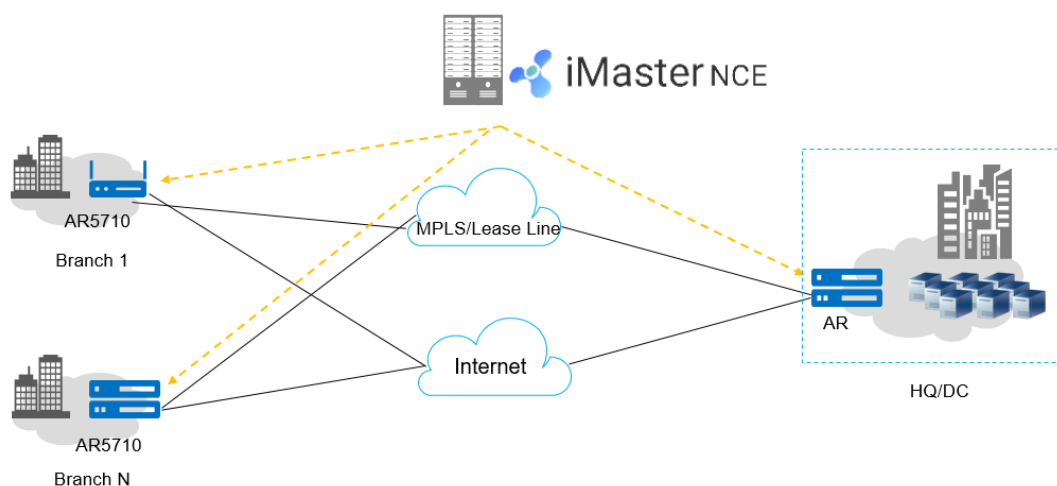
In the SD-WAN solution, the AR5710-H functions as the gateway of the enterprise headquarters or branch and supports extensive physical links, such as MPLS and Internet links. iMaster NCE-Campus provides visualized management for the AR5710-H. The AR5710-H integrates a wide range of SD-WAN features such as intelligent application identification and intelligent traffic steering, delivering better service experience to enterprises. For details about Huawei SD-WAN Solution, visit https://e.huawei.com/en/solutions/enterprise-network/campus-network/branch-campus-network.

VPN networking
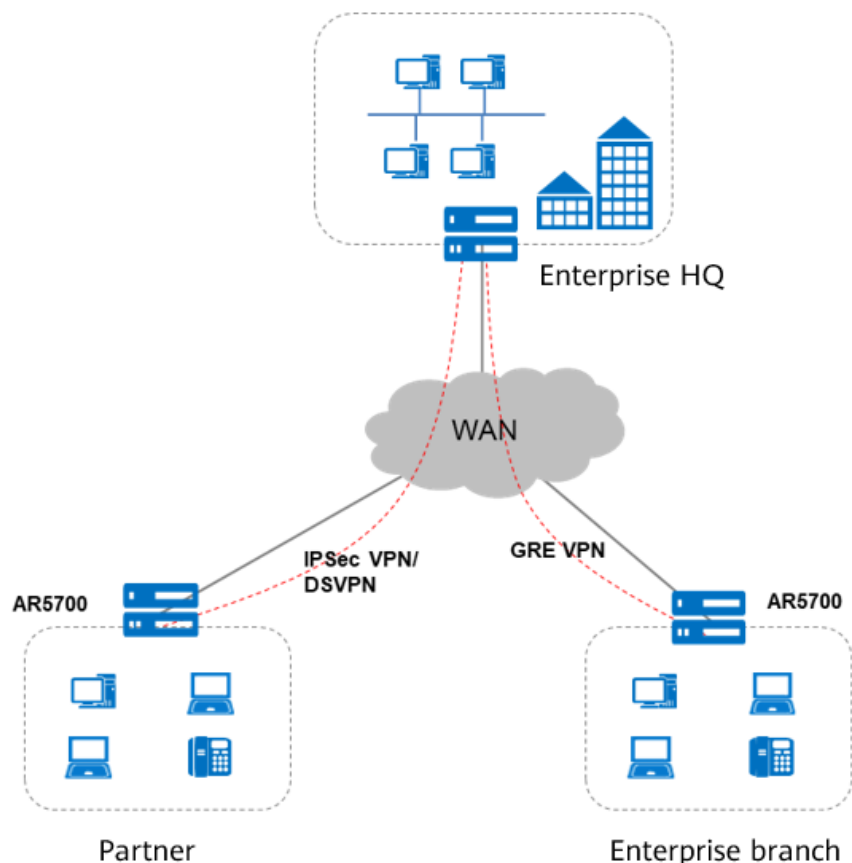
Building different types of VPNs by leveraging Internet resources

The Huawei NetEngine AR5710-H series routers offer a range of secure access features that enable communication between enterprise branches and headquarters, as well as allowing partners to access enterprise resources. Secure tunnels such as GRE VPN, IPsec VPN, DSVPN, and L2TP VPN tunnels can be set up between the headquarters and branches for secure data access and transmission. The AR5710-H supports quick tunnel deployment and authentication for branches. Furthermore, partners authenticated and authorized by the AR5710-H can remotely access the enterprise resources over these tunnels.

Ordering Information

The configuration of the NetEngine AR5710-H series includes device model selection and software configuration.

- Device model

Select the device model according to the uplink interface type and service requirements.

- Software

The NetEngine AR5710-H series software consists of the basic software and licensed software. The basic software provides basic features such as routing, switching, and security, while the licensed software provides additional functions, such as security protection.

Host	Ordering Information
AR5710-H8T2TS1	AR5710-H8T2TS1, 2*GE combo WAN,8*GE LAN, 1*USB, 1*MIC slot
AR5710-H8T2TS1-T	AR5710-H8T2TS1-T, 2*GE combo WAN, 8*GE LAN, 1*USB, 1*MIC slot
AR5710-H4T4N2X	AR5710-H4T4N2X, 2*10GE SFP+ WAN, 4*GE Copper LAN, 4*2.5GE Copper LAN, 1*USB2.0

Host	Ordering Information
AR5710-H4T4N2X-LTE4EA	AR5710-H4T4N2X-LTE4EA, 2*10GE SFP+ WAN, 4*GE Copper LAN, 4*2.5GE Copper LAN, 1*LTE4EA, 1*USB2.0
AR5710-H2T4N2X-NRGL	AR5710-H2T4N2X-NRGL, 2*10GE SFP+ WAN, 2*GE Copper LAN, 4*2.5GE Copper LAN, 1*NRGL, 1*USB2.0
AR5710-H2T4PN2X-NRGL	AR5710-H2T4PN2X-NRGL, 2*10GE SFP+ WAN, 2*GE Copper LAN, 4*2.5GE Copper LAN(4*POE++), 1*NRGL, 1*USB2.0

Software sales model	License	Ordering Information
Threat protection service	LAR0TP1401 LAR0TP1402 LAR0TP1403 LAR0TP1404 LAR0TP1405	Threat Protection Service Subscribe x Year (Applies to AR5700) (corresponding model: LAR0TP140x), including: ● IPS signature database update ● URL remote query for URL filtering ● Antivirus signature database update
Independent Sale Model	AR57-LIC-Basic-IFIT	AR5700 Value-added Basic IFIT Package
	AR57-LIC-Enhance-IFIT	AR5700 Value-added Enhanced IFIT Package
	AR57-LIC-Enh-WANOP	AR5700 Value-added Enhanced WAN-Optimize Package, including: ● Data Compression
	AR57-LIC-NETCONN	AR5700 Value-added Network Connetion Package, including: ● DSVPN
N1 model	N1-AR57-B	N1 AR5700 CloudCampus Basic Software (exclude SD-WAN), Per Device
	N1-AR57-F	N1 AR5700 CloudCampus Foundation (include SD-WAN), Per Device
	N1-AR57-A	N1 AR5700 CloudCampus Advanced (include SD-WAN), Per Device

Other Information

MIC Interface Module*	Ordering Information
MIC-LTE4EA-V2	TDD/FDD/WCDMA/HSPA+ interface card Interface standards and supported frequency bands: ● LTE FDD: bands 1/3/5/7/8/20/28 ● LTE TDD: bands 38, 40, and 41 ● WCDMA: bands 1, 5, and 8 ● GSM: 900 MHz and 1800 MHz Supported rate: ● LTE FDD: 50 Mbps uplink rate and 150 Mbps downlink rate ● LTE TDD: 30 Mbps uplink rate and 130 Mbps downlink rate ● HSPA+: 5.76 Mbps uplink rate and 21 Mbps downlink rate ● WCDMA: 384 Kbps uplink rate and 384 Kbps downlink rate

	• EDGE: 236.8 Kbps uplink rate and 236.8 Kbps downlink rate
	• GPRS: 85.6 Kbps uplink rate and 85.6 Kbps downlink rate
	• GSM: 9.6 Kbps uplink rate and 14.4 Kbps downlink rate

*: Supported only by the NetEngine AR5710-H8T2TS1/H8T2TS1-T models.

LTE/5G Model Name	Supported Standards and Frequency Bands
NetEngine AR5710-H4T4N2X-LTE4EA	• LTE FDD: B1/B2/B3/B4/B5/B7/B8/ B18/B19/B20/B26/B28/B66 • LTE TDD: B38/B40/B41 • WCDMA: B1/B5/B8 • GSM: B3/B5/B8

Support 5G Model	Supported Standards and Frequency Bands
NetEngine AR5710-H2T4N2X-NRGL NetEngine AR5710-H2T4PN2X-NRGL	•5G NR SA: Band 1/3/5/7/8/20/28/38/40/41/75/77/78/79/80/81/82/83/84 •5G NR NSA: Band 1/3/5/7/8/20/28/38/40/41/77/78/79 •LTE FDD: Band 1/2/3/5/7/8/18/19/20/26/28 •LTE TDD: Band 34/38/39/40/41/42/43 Supported Rates: •5G SA: Uplink 500 Mbps, Downlink 5.0 Gbps •5G NSA: Uplink 125 Mbps, Downlink 3.6 Gbps

Support 5G RU Model	Supported Standards and Frequency Bands

RU-201	• 5G: NR Band 1/3/5/7/8/20/28/38/40/41/75/77/78/79/80/81/82/83/84
	• LTE: Band 1/3/5/7/8/18/19/20/26/28/32/34/38/39/40/41/42/43
	• DL MIMO:
	  5G 4x4: NR Band 1/3/7/38/40/41/77/78/79
	  5G 2x2: NR Band 5/8/20/28/75
	  LTE 4x4: Band 1/3/7/38/39/40/41/42/43
	  LTE 2x2: Band 5/8/18/19/20/26/28/32/34
	• UL MIMO:
	  5G 2x2: NR Band1/38/40/41/77/78/79
	• Supported Rates:
	  5G SA: Theoretical uplink peak of 500 Mbps, theoretical downlink peak of 5.4 Gbps
	  5G NSA:Theoretical uplink peak of 125 Mbps, theoretical downlink peak of 3.6 Gbps

Support Switch RU	Models
Switch RU	CloudEngine S5731-L series, CloudEngine S5731S-L series, CloudEngine S5731I-L series, CloudEngine S5751-L series

More Information

For more information, visit https://e.huawei.com/en/ or contact us in the following ways:

- Global service hotline: http://e.huawei.com/en/service-hotline
- Logging in to the Huawei Enterprise technical support website: http://support.huawei.com/enterprise/
- Sending an email to the customer service mailbox: support_e@huawei.com