

# Huawei NetEngine AR6710-H Series Enterprise Router

## Data Sheet

NetEngine AR6710-H series enterprise routers are chassis-shaped routers designed by Huawei for the headquarters and branches of midsize or large enterprises. 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, 5G, E1, POS, and GPON/xGSPON, which allows them to deliver high performance and diversified services to meet the needs of different enterprises.

### Product Overview

Huawei next-generation NetEngine AR6710-H series enterprise routers deliver superior performance particularly when dealing with diverse and cloud-based services.

Huawei NetEngine AR6710-H series enterprise routers are ideal for the headquarters and branches of midsize or large enterprises and can be deployed at the network egress as needed. This series consists of models such as NetEngine AR6710-H4T4X2Y7, which can meet networking requirements of enterprises of different scales. In addition, they offer a variety of interface cards, such as Ethernet, 5G, E1, and POS, to help extend enterprise services.

- **Rich access capability:** Ethernet, 5G (5G cards and 5G RUs), E1, POS, and GPON/xGSPON
- **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 service cards; 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, fast service fault recovery, and hot swapping supported
- **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 AR6710-H4T4X2Y7

- Fixed WAN ports: 2 x 25GE optical, 4 x 10GE optical, 4 x GE electrical (All WAN ports can be switched to LAN ports)
- 6 x SIC card
- Dimensions (H x W x D): 43.6 mm x 442.0 mm x 420.0 mm

	<ul style="list-style-type: none"> <li>• Dual power modules (AC/DC)</li> </ul>
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## Features and Highlights

### Features and Highlights of NetEngine AR6710-H

Service Requirement	Features and Highlights
High performance	<ul style="list-style-type: none"> <li>• Integrates the ARM multi-core processor, hardware encryption/decryption engine, hardware TM engine, and hardware FEC codec engine, based on the self-developed SOC chip architecture.</li> <li>• Offers industry-leading performance, ensuring a low latency for mission-critical services.</li> <li>• 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.</li> </ul>
High reliability	<ul style="list-style-type: none"> <li>• Provides backup links for enterprise services, enhancing service access reliability.</li> <li>• Detects link faults and completes route convergence in milliseconds, greatly shortening the service interruption time.</li> </ul>
Easy O&M	<ul style="list-style-type: none"> <li>• 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 help simplify network deployment, visualize O&amp;M, and reduce OPEX.</li> </ul>
SD-WAN	<ul style="list-style-type: none"> <li>• Is ideal for the SD-WAN solution to build cost-effective and business-friendly connections over the Internet.</li> <li>• Supports application identification and link quality-based intelligent traffic steering, guaranteeing the experience of key applications.</li> <li>• Supports multi-link routing and end-to-end IPsec encryption plus reliable devices, ensuring secure service transmission.</li> </ul>
Architecture innovation	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 5G RU: 5G RUs are managed by the AR as cellular interfaces, and can be monitored and managed on iMaster NCE.</li> <li>• Built-in WAC capable of unified management of Wi-Fi 5/6/7 devices; seamless roaming between its connected APs.</li> </ul>

# Product Specifications

## Features and Values of Huawei NetEngine AR6710-H Series

Specifications	NetEngine AR6710-H4T4X2Y7
System Parameter	
Forwarding performance (NAT+ACL+QoS, IMIX)	13 Gbps
IPsec performance (IMIX)	10 Gbps
IPsec performance (1420 bytes)	28 Gbps
SD-WAN IPsec performance* (IMIX)	11 Gbps
SD-WAN IPsec performance* (1400 bytes)	30 Gbps
SD-WAN performance** (IMIX)	9 Gbps
SD-WAN performance** (1400 bytes)	25 Gbps
SD-WAN typical performance*** (IMIX)	7 Gbps
SD-WAN typical performance*** (1400 bytes)	23 Gbps
Fixed WAN ports	2 x 25GE SFP28, 4 x 10GE SFP+, 4 x GE electrical (All WAN ports can be switched to LAN ports)
5G RU	Supported
Switch RU	Supported
WAC(Number of managed APs, default/maximum****)	32/512
SIC slot	6 x SIC
WSIC slot (default/maximum*****)	1/4
Console port	1 x RJ45 console port
USB port	1 x USB3.0
Memory	8 GB

\*: Scenario where the SD-WAN IPsec performance specification applies: IPsec. This specification applies to the combined total of traffic in inbound and outbound directions.

\*\* : Scenario where the SD-WAN performance specification applies: IPsec + QoS. This specification applies to the combined total of traffic in inbound and outbound directions.

\*\*\*: 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.

\*\*\*\*: By default, a maximum of 16 APs can be managed for free. If the number of APs exceeds 32, licenses must be purchased. NetEngine AR6710-H series supports a maximum of 512 APs.

\*\*\*\*\*: The maximum number of slots includes the number of combined slots.

Specifications	NetEngine AR6710-H4T4X2Y7
Dimensions and Weight	
Dimensions without packaging (excluding the parts protruding from the body) (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm
Dimensions without packaging (the depth is the distance from ports on the front panel to the handle on the rear panel) (H x W x D)	43.6 mm x 442.0 mm x 467.8 mm
Dimensions with packaging (H x W x D)	190 mm x 590 mm x 780 mm
Installation type	Rack
Occupied rack space	1 U
Power Specifications, Power Consumption, and Heat Dissipation	
Rated input voltage (V)	AC: 100 V to 240 V, 50 Hz/60 Hz DC: -48 V to -60 V
Input voltage range (V)	AC: 90 V to 264 V, 47 Hz to 63 Hz DC: -38.4 V to -72 V
Maximum input current (A)	AC: 5 A
Maximum output power (W)	AC: 300 W DC: 260 W
Typical power consumption (W)	Single SRU: 83 W Dual SRU: 145 W
Maximum power consumption (W)	Single SRU: 92W Dual SRU: 160 W
Power supply redundancy	Dual power supplies, hot-swappable
Fan modules	Dual fan modules, hot-swappable
Airflow	Left-to-right
Noise	54.3 dB(A)
Environment Parameters	
Operating temperature	0°C to 45°C
Operating humidity	5% to 95% (non-condensing)
Operating altitude	< 5000 m

Specifications	NetEngine AR6710-H4T4X2Y7
Storage temperature	-40°C to +70°C

#### Software Features and Protocols

Item	NetEngine AR6710-H Series
Basic function	DHCPv4 Server/Client/Relay, DHCPv6 Server/Client/Relay, PPPoE client, NAT, and sub-interface management, 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 routes, RIP, OSPF, IS-IS, BGP, IP FRR
IPv6 unicast routing	Static routing, routing policies, RIPng, OSPFv3, IS-ISv6, BGP4+
Basic IPv6 function	IPv6 ND, Path PMTU, IPv6 FIB, IPv6 ACL, ICMPv6, DNSv6, DHCPv6, PPPoE client IPv6, IPv4 over IPv6, IPv6 over IPv4
VPN	GRE, Ethernet over GRE, IPsec v4/v6, Segment Routing IPv6 (SRv6), L2TP client, DSVPN, IPv4/IPv6 dual-stack, SD-WAN EVPN
WAN optimization	A-FEC, Multi-path packet duplication, ITP 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, Adaptive QoS, SaaS routing, Intelligent Traffic Policing(ITP)
Security	ACL/ACL6, firewall, AAA authentication, RADIUS, HWTACACS, NAC, PKI, broadcast 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)/domain 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
System management	Upgrade management, device management, 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)
WAC	<ul style="list-style-type: none"> <li>•Management of Wi-Fi 5/6/7 Fit APs</li> <li>•CAPWAP protocol</li> <li>•WLAN user management</li> <li>•WLAN radio management</li> <li>•WLAN QoS</li> </ul>

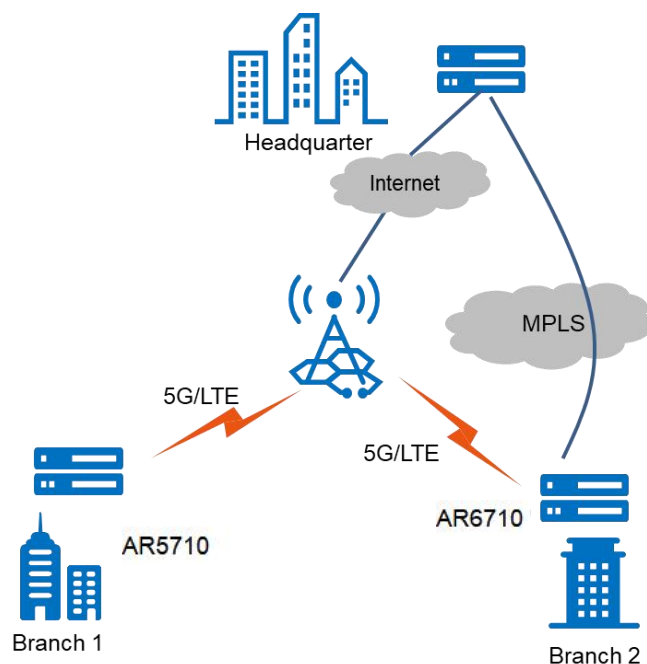
Item	NetEngine AR6710-H Series
	<ul style="list-style-type: none"> <li>•WLAN security</li> <li>•WLAN user roaming</li> </ul> <p>Supports 802.11k and 802.11v smart roaming, 802.11r fast roaming (<math>\leq 50</math> ms) and AI roaming</p>

#### Safety and Regulatory Standards

Item	NetEngine AR6710-H Series
EMC standards compliance	<ul style="list-style-type: none"> <li>•EN 55032</li> <li>•EN 55035</li> <li>•CISPR 32</li> <li>•CISPR 35</li> <li>•IEC/EN 61000-3-2</li> <li>•EN 61000-3-3</li> <li>•ETSI EN 300 386</li> <li>•ETSI EN 301 489-1</li> <li>•ETSI EN 301 489-3</li> <li>•ETSI EN 301 489-17</li> <li>•ETSI EN 301 489-52</li> <li>•FCC CFR Part 15, Subpart B</li> <li>•ANSI C63.4</li> <li>•ICES-003 Issue 7</li> <li>•EN 50121-1</li> <li>•EN 50121-4</li> <li>•GB 9254</li> </ul>
Environmental standards compliance	<ul style="list-style-type: none"> <li>•RoHS</li> <li>•REACH</li> <li>•WEEE</li> </ul>
Security standards compliance	<ul style="list-style-type: none"> <li>•IEC 60950-1</li> <li>•IEC 62368-1</li> <li>•EN 60950-1</li> <li>•UL 60950-1</li> <li>•CSA C22.2 No 60950-1</li> <li>•GB 4943.1</li> </ul>

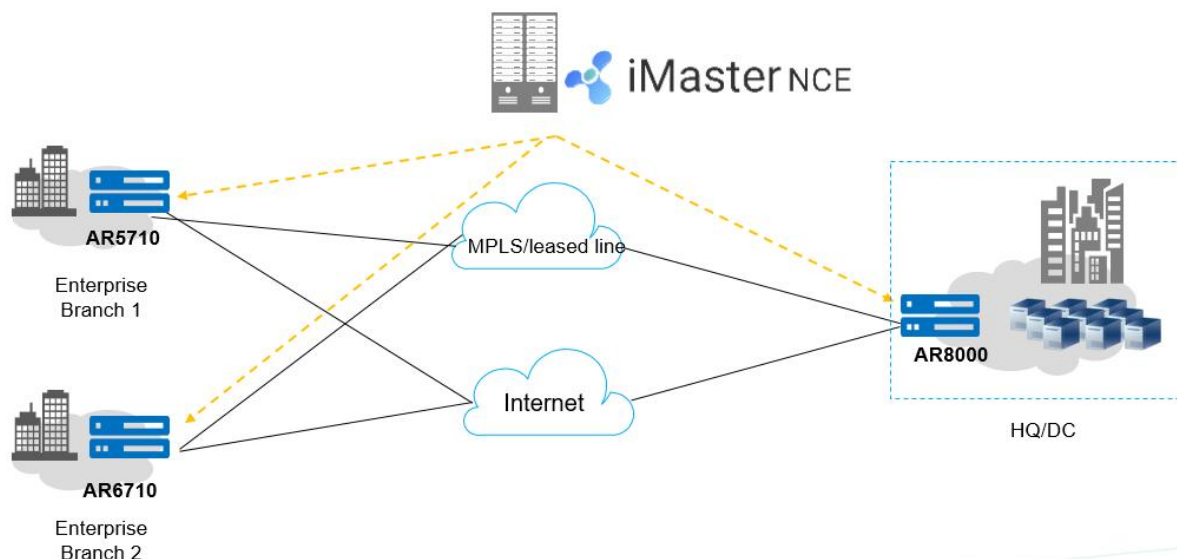
# Application Scenarios

## Networking diagram for branch 5G/LTE wireless access



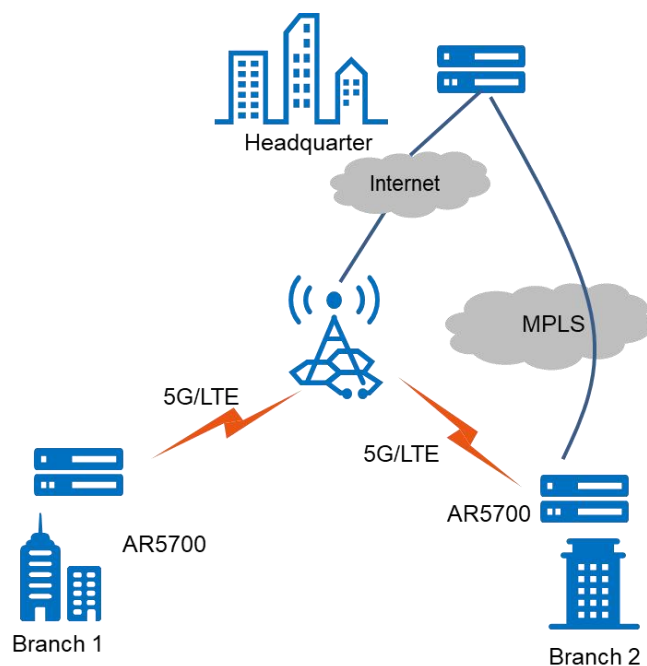
Huawei NetEngine AR6710-H series routers feature 5G/LTE functionality, enabling wireless interconnection between enterprise branches and between the headquarters and branches. A 5G/LTE link can function as the active link or as a backup for wired links, enhancing network stability while reducing network construction cost.

## SD-WAN networking



In the SD-WAN Solution, Huawei NetEngine AR6710-H series routers can serve as gateways for the headquarters and branches of midsize or large enterprises and support multiple physical links such as MPLS private lines and Internet links. Additionally, they can be managed and visualized on iMaster NCE in a unified manner. The AR6710-H series provides extensive SD-WAN features such as intelligent application identification and intelligent traffic steering to deliver better service experience to enterprises. For details about Huawei SD-WAN Solution, visit

#### Networking diagram in the VPN scenario



#### Build different types of VPNs through the Internet

Huawei NetEngine AR6710-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 AR6710-H series supports quick tunnel deployment and authentication for branches. Furthermore, authenticated and authorized partners can remotely access the enterprise resources over these tunnels.

## Ordering Information

The configuration of the NetEngine AR6710-H series includes device model selection, main control board selection, and software configuration.

- Device model

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

- Main control board

Select a single or dual main control boards based on the actual service scenario.

- Software

The NetEngine AR6710-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



AR6710-H4T4X2Y7	AR6710-H4T4X2Y7, 2*25GE(SFP28), 4*10GE(SFP+), 4*GE Copper, 1*USB 3.0, 6*SIC
SRU-700S	AR6710-H4T4X2Y7 Service and Router Unit (SRU-700S), 2*25GE SFP28, 4*10GE SFP+, 4*GE RJ45, 1*USB3.0

Software Sales Model	License	Ordering Information
Threat protection service	LAR0TP1301	Threat Protection Service Subscribe x Year (Applies to AR6700) (corresponding model: LAR0TP130x), including: <ul style="list-style-type: none"> <li>• IPS signature database update</li> <li>• URL remote query for URL filtering</li> <li>• Antivirus signature database update</li> </ul>
	LAR0TP1302	
	LAR0TP1303	
	LAR0TP1304	
	LAR0TP1305	
Independent Sale Model	AR67-H-LIC-Basic-IFIT	AR6700-H Value-added Basic IFIT Package
	AR67-H-LIC-Enhance-IFIT	AR6700-H Value-added Enhanced IFIT Package
	AR67-H-LIC-Enh-WANOP	AR6700-H Value-added Enhanced WAN-Optimize Package, including: <ul style="list-style-type: none"> <li>• Data Compression</li> <li>• Adaptive QoS</li> </ul>
	AR67-H-LIC-NETCONN	AR6700-H Value-added Network Connection Package, including: <ul style="list-style-type: none"> <li>• DSVPN</li> </ul>
N1 Model	N1-AR67-H-B	N1 AR6700-H CloudCampus Basic Software (exclude SD-WAN), Per Device
	N1-AR67-H-F	N1 AR6700-H CloudCampus Foundation (include SD-WAN), Per Device
	N1-AR67-H-A	N1 AR6700-H CloudCampus Advanced (include SD-WAN), Per Device

## Other Information

SIC Port Model	Ordering Information
SIC-4E1-V2	4-port channelized E1 interface card
SIC-4GET-V2	4-port GE LAN/WAN interface card
SIC-4STM1-V2	4-port 155M Packet over SDH/Sonet optical interface card
SIC-NRGL-V2	5G NR/LTE Interface Card
1V35B-V2*	4-Port VDSL2 WAN Interface Card

\* : Only PTM mode is supported.

WSIC Port Model	Ordering Information
WSIC-4GE-C-V2	4-port GE combo LAN/WAN interface card
5G RU	Frequency Band
RU-201	•5G: NR Band 1/3/5/7/8/20/28/38/40/41/75/77/78/79/80/81/82/83/84

	<ul style="list-style-type: none"> <li>•LTE: Band 1/3/5/7/8/18/19/20/26/28/32/34/38/39/40/41/42/43</li> <li>•DL MIMO: <ul style="list-style-type: none"> <li>5G 4x4: NR Band 1/3/7/38/40/41/77/78/79</li> <li>5G 2x2: NR Band 5/8/20/28/75</li> <li>LTE 4x4: Band 1/3/7/38/39/40/41/42/43</li> <li>LTE 2x2: Band 5/8/18/19/20/26/28/32/34</li> </ul> </li> <li>•UL MIMO: <ul style="list-style-type: none"> <li>5G 2x2: NR Band1/38/40/41/77/78/79</li> </ul> </li> </ul>
Switch RU	Model
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](mailto:support_e@huawei.com)

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