


Huawei NetEngine AR5510-S Series Enterprise Router Data Sheet

NetEngine AR5510-S series enterprise routers are fixed-form-factor routers developed by Huawei for branches of enterprises to deliver high performance required by enterprise customers.

Product Overview

Huawei's next-generation NetEngine AR5510-S series enterprise routers use high-performance multi-core processors and a non-blocking switching structure, helping to deliver higher forwarding performance than the industry average.

The NetEngine AR5510-S series consists of models such as NetEngine AR5510-S8P2X, NetEngine AR5510-S8T2X, NetEngine AR5510-S8T2X-LTE4EA, NetEngine AR5510-S10T1X2, which can meet networking requirements of enterprises of different scales.

 <p>NetEngine AR5510-S8P2X</p>	<ul style="list-style-type: none"> Fixed WAN ports: 2*10GE SFP+/2.5GE Copper Combo Fixed LAN ports: 4*GE electrical, 4*GE Combo(can be configured as WAN) PoE++ Dimensions (H x W x D): 43.6 mm x 321 mm x 210 mm
 <p>NetEngine AR5510-S8T2X</p>	<ul style="list-style-type: none"> Fixed WAN ports: 2*10GE SFP+/2.5GE Copper Combo Fixed LAN ports: 4*GE electrical, 4*GE Combo(can be configured as WAN) Dimensions (H x W x D): 43.6 mm x 321 mm x 210 mm
 <p>NetEngine AR5510-S8T2X-LTE4EA</p>	<ul style="list-style-type: none"> Fixed WAN ports: 2*10GE SFP+/2.5GE Copper Combo Fixed LAN ports: 4*GE electrical, 4*GE Combo(can be configured as WAN) LTE: FDD LTE, TDD LTE Dimensions (H x W x D): 43.6 mm x 321 mm x 210 mm
 <p>NetEngine AR5510-S10T1X2</p>	<ul style="list-style-type: none"> Fixed WAN ports: 1*10GE SFP+/2.5GE Copper Combo, 2*GE electrical Fixed LAN ports: 4*GE electrical, 4*GE Combo(can be configured as WAN) 2 * SIC Card Dimensions (H x W x D): 43.6 mm x 442 mm x 220 mm

Features and Highlights

Features and Highlights of NetEngine AR5510-S

Service Requirement	Features and Highlights
High performance	<ul style="list-style-type: none"> ARM multi-core processor and non-blocking switching architecture Industry-leading performance, providing low latency required by key services
High reliability	<ul style="list-style-type: none"> Link backup for enterprise services, improving reliability Fault detection and locating within milliseconds, reducing service downtime
Easy O&M	<ul style="list-style-type: none"> Multiple management modes such as management through iMaster NCE-Campus and SNMP, simplifying network deployment and reducing OPEX
SD-WAN Ready	<ul style="list-style-type: none"> Built-in SD-WAN solution, building cost-effective and business-friendly connections over the Internet Application identification and link quality-based intelligent traffic steering, ensuring key application experience Multi-link traffic steering and Dual-gateway sites flexible networking End-to-end IPsec encryption, ensuring secure service transmission

Architecture Highlights of Huawei NetEngine AR5510-S

Highlight	Benefits
Multi-core processor	High-speed WAN connections and powerful routing and computing capabilities, improving L4-L7 service processing efficiency

Product Specifications

Specifications	NetEngine AR5510-S8P2X	NetEngine AR5510-S8T2X	NetEngine AR5510-S8T2X-LTE4EA	NetEngine AR5510-S10T1X2
Processor	1.6GHz (4-core)	1.6GHz (4-core)	1.6GHz (4-core)	1.6GHz (4-core)
SD-WAN service performance	600 Mbps	600 Mbps	600 Mbps	600 Mbps
Forwarding performance with services	1G bps	1G bps	1G bps	1G bps
Fixed WAN ports	2*10GE SFP+/2.5GE Copper Combo	2*10GE SFP+/2.5GE Copper Combo	2*10GE SFP+/2.5GE Copper Combo	1*10GE SFP+/2.5GE Copper Combo, 2*GE electrical
Fixed LAN ports	4*GE electrical, 4*GE Combo	4*GE electrical, 4*GE Combo	4*GE electrical, 4*GE Combo	4*GE electrical, 4*GE Combo
PoE	Y	-	-	-

Specifications	NetEngine AR5510-S8P2X	NetEngine AR5510-S8T2X	NetEngine AR5510-S8T2X-LTE4EA	NetEngine AR5510-S10T1X2
PoE power supply	PoE++ (90W), Maximum output power of 125W	-	-	-
SIC slot	-	-	-	2*SIC
Auxiliary or console port	1* RJ45 Console	1* RJ45 Console	1* RJ45 Console	1* RJ45 Console
USB port	1*USB2.0	1*USB2.0	1*USB2.0	1*USB2.0
Memory	2GB	2GB	2GB	2GB
Flash	1GB	1GB	1GB	1GB
Dimensions without packaging (W*D*H)	321 mm x 210 mm x 43.6 mm	321 mm x 210 mm x 43.6 mm	321 mm x 210 mm x 43.6 mm	321 mm x 210 mm x 43.6 mm
Dimensions with packaging (W*D*H)	465 mm x 380 mm x 90 mm	465 mm x 380 mm x 90 mm	465 mm x 380 mm x 90 mm	465 mm x 380 mm x 90 mm
Weight without packaging	2.402 kg	1.902 kg	1.978 kg	3.11 kg
Rack	IEC	IEC	IEC	IEC
Occupied rack space	1U	1U	1U	1U
Rated input voltage (V)	100V to 240V, 50 Hz/60 Hz	100V to 240V, 50 Hz/60 Hz	100V to 240V, 50 Hz/60 Hz	100V to 240V, 50 Hz/60 Hz
Input voltage range(V)	90V to 264V	90V to 264V	90V to 264V	90V to 264V
Maximum input current (A)	3A	1A	1A	2A
Maximum output power (W)	180W	32W	32W	70W
Typical power consumption(W)	157W	12W	14W	15W
Maximum power consumption(W)	162W	15W	19W	20W
Fan modules	Built-in unpluggable fan modules	Natural heat dissipation, without fans	Natural heat dissipation, without fans	Built-in unpluggable fan modules
Airflow	Left to right	-	-	Left to right

Specifications	NetEngine AR5510-S8P2X	NetEngine AR5510-S8T2X	NetEngine AR5510-S8T2X-LTE4EA	NetEngine AR5510-S10T1X2
Noise	50dB	-	-	-
Operating temperature	0°C ~ 45°C	0°C ~ 45°C	0°C ~ 45°C	0°C ~ 45°C
Operating humidity	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)
Operating altitude	< 5000 m	< 5000 m	< 5000 m	< 5000 m
Storage temperature	-40°C to + 70°C	-40°C to + 70°C	-40°C to + 70°C	-40°C to + 70°C
Operating altitude	< 5000 m	< 5000 m	< 5000 m	< 5000 m

Software Features and Protocols

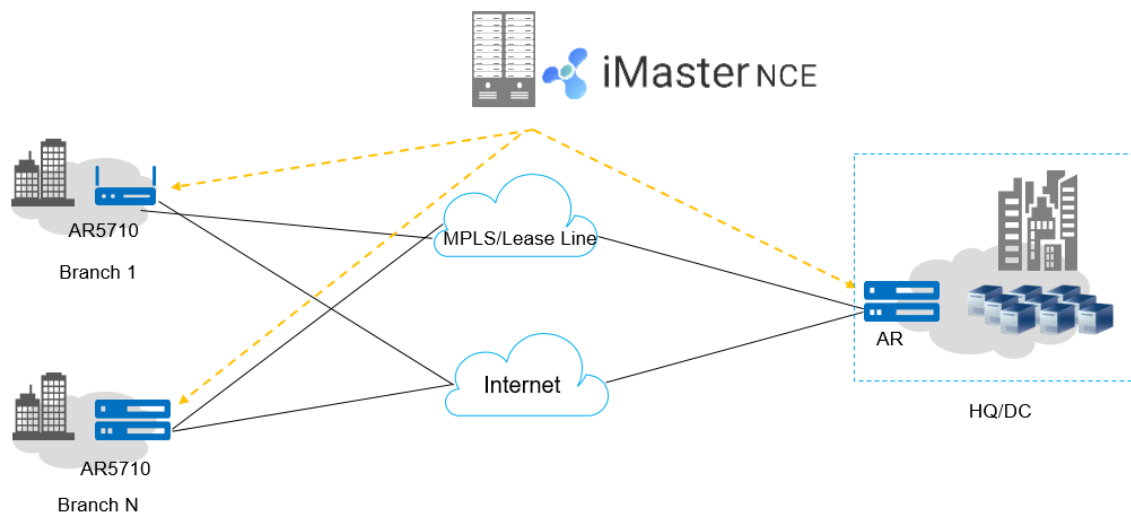
Item	NetEngine AR5510-S Series
Basic function	DHCP server/client/relay, NAT, and sub-interface management
LAN	IEEE 802.1P, IEEE 802.1Q, IEEE 802.3, VLAN management, MAC management, STP/RSTP/MSTP
IPv4 unicast routing	Routing policies, static routes, RIP, OSPF, IS-IS, BGP, IP FRR
IPv6 unicast routing	Static routes, routing policies, RIPng, OSPFv3, IS-ISv6, BGP4+
Basic IPv6 function	IPv6 ND, IPv6 PMTU, IPv6 FIB, IPv6 ACL, ICMPv6, DNSv6, DHCPv6
Multicast	IGMP V1/V2/V3, PIM SM, PIM DM, MSDP
Tunneling	GRE tunnel, NAT STUN, IPsec
VPN	GRE VPN, SD-WAN EVPN
QoS	Priority mapping, traffic policing (CAR), traffic shaping, congestion avoidance, congestion management, MQC (traffic classifier, traffic behavior, and traffic policy), hierarchical QoS, Smart Application Control (SAC)
Security	ACL (v4/v6), firewall, AAA authentication, RADIUS authentication, HWTACACS authentication, PKI, broadcast storm suppression, ARP security, ICMP attack defense, CPCAR, attack source tracing
Management and maintenance	Upgrade management, device management, GTL, SNMP (v1/v2c/v3), RMON, NTP, USB-based/DHCP deployment, Email deployment, NETCONF/YANG, CLI, TCP FPM, NQA

Item	NetEngine AR5510-S Series
EMC standards compliance	<ul style="list-style-type: none"> •CISPR32 Class A •EN 55032 Class A •CISPR24 •EN 55024 •ETSI EN 300 386 •AS/NZS CISPR32 Class A •FCC Part 15 Subpart B Class A •ICES 003 Class A •IEC 61000-3-2 •EN 61000-3-2 •IEC 61000-3-3 •EN 61000-3-3 •GB 9254 •VCCI-CISPR32 Class A
Environmental standards compliance	<ul style="list-style-type: none"> •RoHS •REACH •WEEE
Security standards compliance	<ul style="list-style-type: none"> •IEC 60950-1 •EN 60950-1 •UL 60950-1 •CSA C22.2 No 60950-1 •GB 4943.1

Application Scenarios

In the SD-WAN solution, the AR5510-S 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 AR5510-S. The AR5510-S 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/business-needs/enterprise-network/sd-wan>.

SD-WAN networking



Ordering Information

Host	Ordering Information
NetEngine AR5510-S8P2X	AR5510-S8P2X, 2*10GE SFP+/2.5GE Base-T Combo WAN,4*GE Base-T (POE++) LAN,4*GE Combo LAN,1*USB2.0
NetEngine AR5510-S8T2X	AR5510-S8T2X, 2*10GE SFP+/2.5GE Base-T Combo WAN,4*GE Base-T LAN,4*GE Combo LAN,1*USB2.0
NetEngine AR5510-S8T2X-LTE4EA	AR5510-S8T2X, 2*10GE SFP+/2.5GE Base-T Combo WAN,4*GE Base-T LAN,4*GE Combo LAN, 1*LTE4EA,1*USB2.0
NetEngine AR5510-S10T1X2	AR5510-S10T1X2, 1*10GE SFP+/2.5GE Base-T Combo WAN,2*GE Base-T WAN,4*GE Combo LAN,4*GE Base-T LAN,2*SIC,1*USB2.0


More Information

For more information, visit <https://www.huawei.com/>.

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