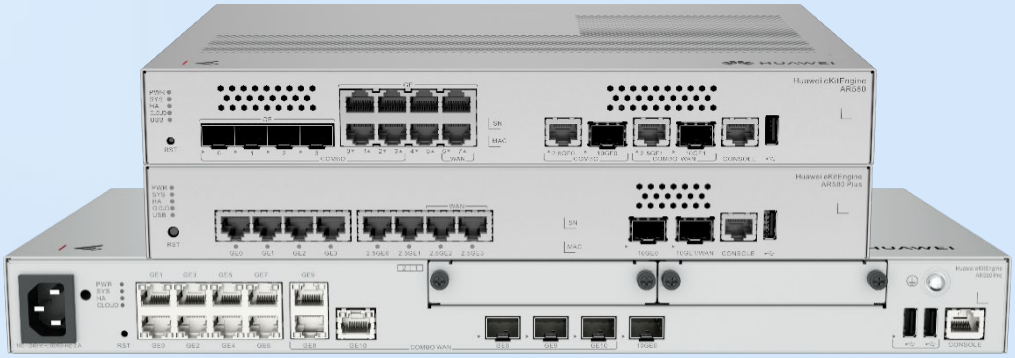
HUAWEI eKit

HUAWEI eKitEngine AR580 Series Security Converged Gateway Datasheet



Network-Security Convergence | Better Forwarding Framework | High Capacity

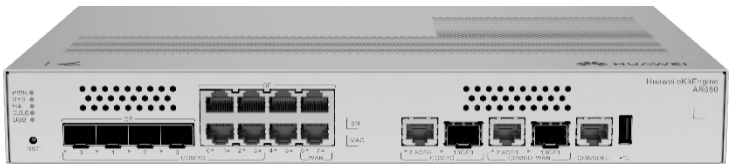
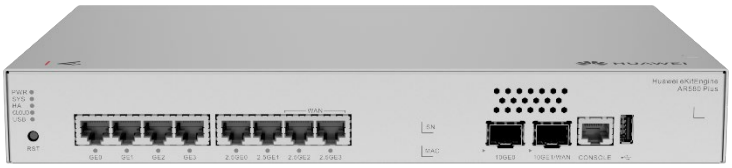
Make SME Network Easier and Smarter

HUAWEI

Product Overview

The HUAWEI eKitEngine AR580 series next-generation security converged gateways provide high-performance for diversified cloud services.

Huawei eKitEngine AR580 series gateways can be deployed at the egress of the headquarters or branches of small- and medium-sized enterprises (SMEs). The series includes AR580, AR580 Plus, and AR580 Pro, which integrate various service features such as routing, switching, WAC, and security. In addition, the series provides various high-speed Ethernet interfaces for enterprise services.

 eKitEngine AR580	• Default WAN ports*: 1 × 10GE optical/2.5GE electrical combo + 2 × GE electrical • Default LAN ports*: 1 × 10GE optical/2.5GE electrical combo + 4 × GE combo + 2 × GE electrical • Memory: 4 GB • Dimensions (H × W × D): 43.6 mm × 320 mm × 210 mm • One built-in power module (AC) • Natural heat dissipation
 eKitEngine AR580 Plus	• Default WAN ports*: 2 × 2.5GE electrical + 1 × 10GE optical • Default LAN ports*: 4 × GE electrical + 2 × 2.5GE electrical + 1 × 10GE optical • Memory: 4 GB • Dimensions (H × W × D): 43.6 mm × 320 mm × 210 mm • One built-in power module (AC) • Air cooling
 eKitEngine AR580 Pro	• Default WAN ports*: 3 × GE combo • Default LAN ports*: 8 × GE electrical + 1 × 10GE optical • Memory: 4 GB • SIC slots: 2 • Dimensions (H × W × D): 44.4 mm × 442.0 mm × 220.4 mm • One built-in power module (AC) • Air cooling

Note: All ports support WAN/LAN switching.

Product Highlights

- Larger antivirus signature, URL, and application signature databases, providing stronger security capabilities
- Optimal forwarding framework, allowing the CPU to process gateway or firewall services as needed
- Integration of multiple services, including the firewall, WAC, switch, and AR capabilities, simplifying deployment

Main Product Features

Network-Security Convergence

The all-in-one AR580 series integrates WAC, firewall, routing, and switching capabilities into one device, simplifying networking for medium- and large-sized organizations.

- The local application database can identify more than 6000 applications, with an accuracy of over 95%.
- The IPS signature database contains more than 1200 signatures, covering 85% of vulnerability exploits.
- The URL filtering capability is enhanced. The local and remote databases combined cover more than 500 million domain names and addresses, covering over 95% of malicious URLs. The URL categorization database can be updated in minutes.
- The signature database can be updated in hours, and the device can detect hundreds of millions of viruses and accurately detect 99.9% non-malware samples.

Better Forwarding Framework

The device provides 10GE optical/2.5GE electrical combo WAN ports and 10GE optical/2.5GE electrical combo LAN ports for high-speed transmission between devices. WAN/LAN ports can be flexibly switched as required. It supports multi-WAN load balancing in Equal-Cost Multi-Path (ECMP) or Unequal-Cost Multipath (UCMP) mode, ensuring smooth forwarding of 48-channel 4K video data without packet loss or lagging.

High Availability

- Link backup for enterprise services, enhancing service availability
- Link fault detection and route convergence in milliseconds, minimizing service interruption

Online Behavior Management

The AR580 series supports professional online behavior management, with a local database capable of identifying more than 6,000 common applications, and provides three control options: block, prioritize, and limit bandwidth. Policies can be defined by effective time and date, and applied to specific IP addresses to guarantee the experience of critical services. This enables efficient network management and control, contributing to higher efficiency.

VPN

The AR580 series supports multiple VPN functions, such as GRE, IPsec, GRE over IPsec, MCE, L2TP, and Ethernet over GRE (EoGRE), which ensure secure and smooth E2E communication between branches.

Easy O&M

Multiple management modes are supported, such as the HUAWEI eKit app, SME Network Center, EasyWeb, and Neosight, allowing you to manage networking devices anytime, anywhere. In cloud management mode, various authentication functions, such as Portal authentication, can be implemented without a WAC or authentication server, greatly simplifying networking and reducing CAPEX. In addition, you can implement online WLAN planning as well as cloud-based deployment, inspection, and O&M on the HUAWEI eKit SME Network Center.

The AR580 series also supports WAN sub-interface configuration on the Web management page, allowing different services to be accessed at the same time. Local terminal management is also supported. Information such as terminal category, vendor, model, location, online status, rate, and packet statistics can be displayed, making project management easier.

Product Specifications

Item		AR580	AR580 Plus
Physical specifications	Dimensions (H × W × D)	43.6 mm × 320 mm × 210 mm	43.6 mm × 320 mm × 210 mm
	Weight (including packaging materials)	2.83 kg	2.53 kg
	Weight (excluding packaging materials)	1.90 kg	1.94 kg
	Installation method	Rack/Workbench/Wall mounting (with mounting brackets)	Rack/Workbench/Wall mounting (with mounting brackets)
	Port	LAN: 1 × 10GE optical/2.5GE electrical combo + 4 × GE Combo + 2 × GE electrical WAN: 1 × 10GE optical/2.5GE electrical combo + 2 × GE electrical Console: 1 × RJ45 console USB 2.0 (host): 1 × USB 2.0 *Note:* *The ports can be switched between LAN and WAN. If the 2.5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category.*	LAN: 4 × GE electrical + 2 × 2.5GE electrical + 1 × 10GE optical WAN: 2 × 2.5GE electrical + 1 × 10GE optical Console: 1 × RJ45 console USB 2.0 (host): 1 × USB 2.0 *Note:* *The ports can be switched between LAN and WAN. If the 2.5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category.*
	LED indicator	Indicating the power-on, startup, running, alarm, and faulty states	Indicating the power-on, startup, running, alarm, and faulty states
	Typical power consumption	12 W	32 W
	Maximum power consumption	15 W	38 W
Network performance	Number of wired and wireless users	≤ 500 *Note:* *The actual number of users varies according to the environment.*	≤ 700 *Note:* *The actual number of users varies according to the environment.*
	Maximum number of managed APs	64	64
	Maximum number of IPsec tunnels	500	1000
	Recommended bandwidth	2 Gbps	3 Gbps
	Maximum packet forwarding rate	5 Mpps	5 Mpps
	Switching capacity per device	20 Gbps	20 Gbps
Power specifications	Power supply mode	Built-in AC power module	Built-in AC power module
	Rated input voltage	100 V to 240 V, 50/60 Hz	100 V to 240 V, 50/60 Hz

Item		AR580	AR580 Plus
	Input voltage range	90 V to 264 V, 47 Hz to 63 Hz	90 V to 264 V, 47 Hz to 63 Hz
Environmental specifications	Operating temperature	0°C to 45°C *Note:* For altitudes ranging from 1,800 m to 5,000 m, the highest operating temperature decreases by 1°C for every increase of 220 m in altitude.	0°C to 45°C *Note:* For altitudes ranging from 1,800 m to 5,000 m, the highest operating temperature decreases by 1°C for every increase of 220 m in altitude.
	Overtemperature alarm	Supported	Supported
	Cooling mode	Natural heat dissipation	Air cooling
	Storage temperature	–40°C to +70°C	–40°C to +70°C
	Operating humidity	5% RH to 95% RH, non-condensing	5% RH to 95% RH, non-condensing

Item		AR580 Pro
Physical specifications	Dimensions (H × W × D)	44.4 mm × 442.0 mm × 220.4 mm
	Weight (including packaging materials)	4.60 kg
	Weight (excluding packaging materials)	3.20 kg
	Installation method	Rack/Workbench/Wall mounting (with mounting brackets)
	Port	LAN: 8 × GE electrical + 1 × 10GE optical WAN: 3 × GE combo Console: 1 × RJ45 console USB 2.0 (host): 2 × USB 2.0 SIC slots: 2 SIC slots, which can be combined. *Note:* *The ports can be switched between LAN and WAN. If the 2.5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. Supported subcards: WSIC-4GE-C-V2 and SIC-4GET-V2*
	LED indicator	Indicating the power-on, startup, running, alarm, and faulty states
	Typical power consumption	27 W
	Maximum power consumption	33 W
Network performance	Number of wired and wireless users	≤ 1200 *Note:* *The actual number of users varies*

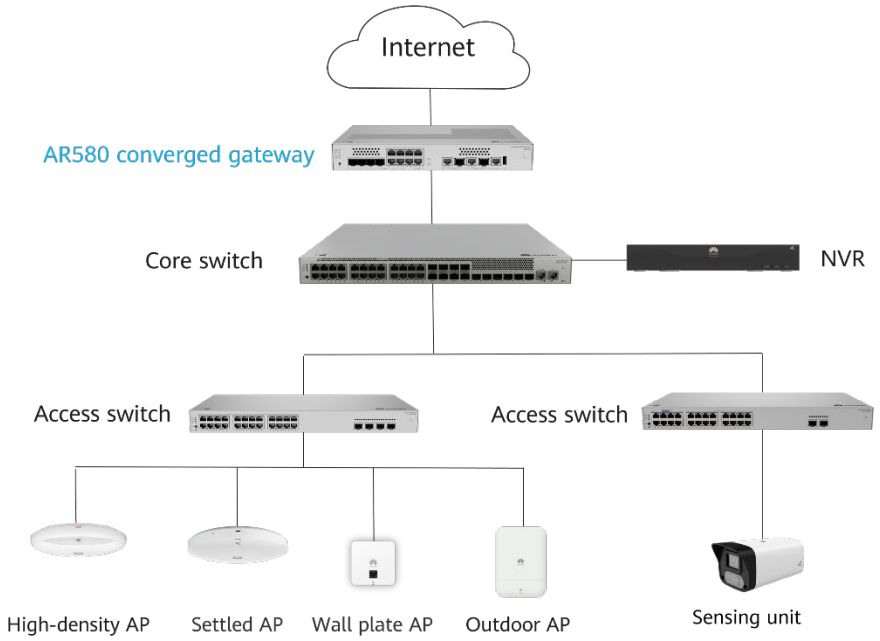
Item		AR580 Pro
		according to the environment.
	Maximum number of managed APs	128
	Maximum number of IPsec tunnels	1000
	Recommended bandwidth	3 Gbps
	Maximum packet forwarding rate	20 Mpps–120 Mpps
	Switching capacity per device	96 Gbps–160 Gbps
Power specifications	Power supply mode	Built-in AC power module
	Rated input voltage	100 V to 240 V, 50/60 Hz
	Input voltage range	90 V to 264 V, 47 Hz to 63 Hz
Environmental specifications	Operating temperature	0°C to 45°C *Note:* For altitudes ranging from 1,800 m to 5,000 m, the highest operating temperature decreases by 1°C for every increase of 220 m in altitude.
	Overtemperature alarm	Supported
	Cooling mode	Air cooling
	Storage temperature	–40°C to +70°C
	Operating humidity	5% RH to 95% RH, non-condensing

Service Feature

Item	Description
Basic functions	DHCPv4 Server/Client/Relay DHCPv6 Server/Client/Relay PPPoE client NAT Interface management DNS, DNS Relay
LAN	IEEE 802.1p, IEEE 802.1Q, VLAN management, VLAN aggregation, voice VLAN, MAC address management, STP/RSTP, and MSTP
IPv4 unicast routing	Static routing, routing policy, RIPng, and BGP
IPv6 unicast routing	ND, Path MTU (PMTU), IPv6 FIB, IPv6 ACL, ICMPv6, DNSv6, DHCPv6, PPPoE client IPv6, IPv4 over IPv6, IPv6 over IPv4, OSPFv3, IS-IS for IPv6, and BGP4+
Basic IPv6 functions	ND, Path MTU (PMTU), IPv6 FIB, IPv6 ACL, ICMPv6, DNSv6, DHCPv6, PPPoE client IPv6, IPv4 over IPv6, and IPv6 over IPv4
VPN	GRE, Ethernet over GRE, IPsec v4/v6, L2TP client, and IPv4/IPv6 dual stack
WAN optimization	A-FEC and data compression
Multicast	IGMP v1/v2/v3, PIM SM, PIM DM, MSDP, and MBGP
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, SPR, SaaS traffic steering, and intelligent traffic policing
Security	ACL/ACL6, firewall, AAA, RADIUS, HWTACACS, PKI, storm suppression, ARP security, ICMP security, attack defense, URPF, CPCAR, attack source tracing, SM3/SM4 cryptographic algorithm, 802.1X authentication, Portal authentication, port security, integrated NGFW functions, security policies based on IP addresses (groups), regions, domain groups, users (groups), applications, and time ranges, ASPF, application identification and control, IPS, URL filtering, antivirus, and update of IPS, antivirus, and URL filtering signature databases
System management	Upgrade and maintenance, device management, GTL, SNMP (v1/v2c/v3), RMON, NTP, deployment through the registration query center, NETCONF/YANG/Telemetry, NQA, NetStream/NetStream v6, and web system
Reliability	BFD, BFD for IPv6, VRRP, VRRP6, HRP
WAC	Wi-Fi 6/7 fit AP management CAPWAP WLAN STA management WLAN radio management WLAN QoS WLAN security WLAN user roaming 802.11k and 802.11v smart roaming 802.11r fast roaming (≤ 50 ms)

Typical Application

The AR580 series is mainly used in small and midsize enterprises and large and midsize stores with fewer than 1,200 terminals. It integrates the capabilities of firewalls, ACs, switches, and routers, and provides a large antivirus signature database, URL database, and application signature database to ensure secure and stable running of network services.



Ordering Information

Hardware Ordering Information

Basic Configuration of eKitEngine AR580 Series	
50010882(Non-EU); 50010882-001(EU)	AR580: AR580-8ST2NX, 1 × 10GE (SFP+)/2.5GE combo WAN, 2 × GE WAN, 1 × 10GE (SFP+)/2.5GE Combo LAN, 4 × GE Combo LAN, 2 × GE LAN, 1 × USB 2.0, built-in AC power module, no fan
50010884(Non-EU); 50010884-001(EU)	AR580Plus: AR580-4T4N2X, 1 × 10GE (SFP+) WAN, 2 × 2.5GE WAN, 4 × GE LAN, 2 × 2.5GE LAN, 1 × 10GE (SFP+) LAN, 1 × USB 2.0, built-in AC power module
02357FKH	AR580Pro: AR580-11ST1X, 3 × GE combo WAN, 8 × GE LAN, 1 × 10GE (SFP+) LAN, 2 × USB 2.0, 2 × SIC, built-in AC power module

Software Ordering Information

License	
8803019593	1-year threat protection service, applicable to AR580 and AR680 series
8803019592	3-year threat protection service, applicable to AR580 and AR680 series

More Information

For more information about Huawei switches, visit https://ekit.huawei.com/ or contact Huawei's local sales office.

Alternatively, you can contact us through one of the following methods:

- Global service hotline: http://e.huawei.com/en/service-hotline
- Enterprise technical support website: http://support.huawei.com/enterprise
- Service mailbox for enterprise users: support_e@huawei.com

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