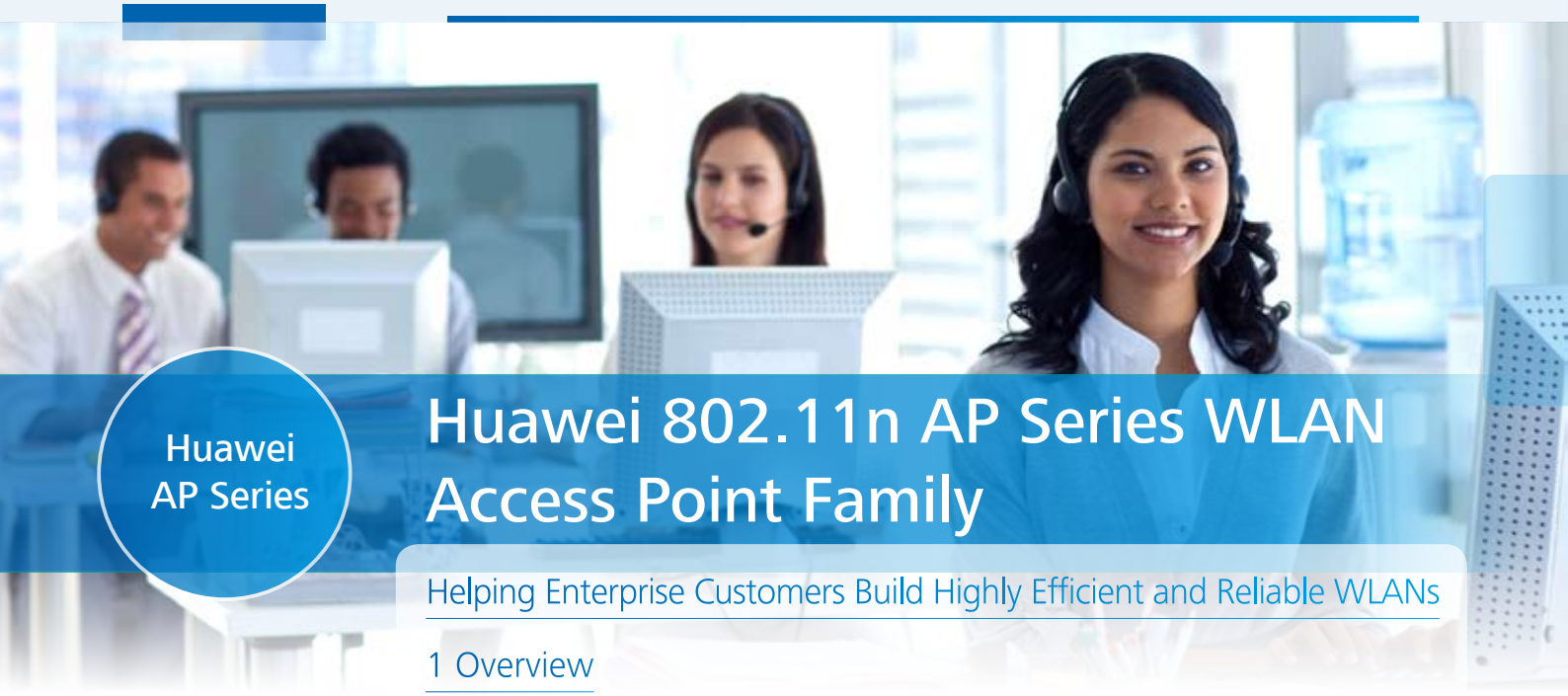
Huawei Enterprise WLAN Product Brochure

HUAWEI TECHNOLOGIES CO., LTD.

HUAWEI



Huawei AP Series

Huawei 802.11n AP Series WLAN Access Point Family

Helping Enterprise Customers Build Highly Efficient and Reliable WLANs

1 Overview

The Huawei 802.11n AP Series WLAN access point (AP) family is the third generation of Huawei-developed WLAN products. It integrates the latest available WLAN commercial chips and inherits its high performance, high reliability, and high security from similar Huawei products. The Huawei 802.11n WLAN AP provides multi-service transmission capabilities to meet the needs of various high-density deployment scenarios and different physical environments such as classrooms, offices, stadiums, hotels, hospitals, and dormitories. The Huawei WLAN AP family enables customers to construct highly efficient and reliable wireless networks.

Based on the evolution of WLAN architecture, APs can be classified into controller-based APs (Fit APs) and independent APs (Fat APs). Using Fat APs is the most efficient way to build small-scale wireless network with simple deployment and easy maintenance. Whereas Fit APs are quickly replacing Fat APs in enterprises of different scales and industries as both WLAN technology and the market develop. The network architecture consisting of an access controller and Fit APs has great scalability. Automatic software upgrade technologies enable Fit APs to implement seamless expansion of wireless networks and to protect customer investments. Huawei 802.11n APs used indoors or outdoors can work with an AC and Network Management System (NMS) to implement real-time monitoring, spectrum analysis, wireless location, beamforming, load balancing, roaming, WIDS/WIPS, integration with the wired network, BYOD solution with security-policy control and flexible access control.

Huawei's new generation of 802.11n access point is tailored for the enterprise customers. Huawei provides premium, enhanced, and standard APs for enterprises of various types and sizes. To further protect customers' investment, the Huawei 802.11n AP series is compatible with both 802.11a and b/g standards and Fat/Fit mode (except AP7110 series and AP6310SN-GN).

Key members of the AP product family include:

Premium Series AP: integrates the latest and widely-used WLAN technology to provide high-performance wireless services for medium to large enterprises and high-density scenarios.

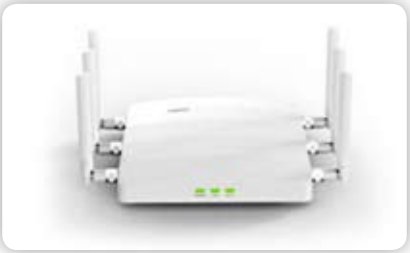
Enhanced Series AP: uses new-generation chip design to provide multi-service transmission and supports applications in medium to large enterprises.

Standard Series AP: provides 802.11n WLAN for small to medium organizations and enterprise branches.

2 Huawei Premium Series AP

802.11 technologies develop fast. Huawei's premium AP series integrates the latest technologies, such as 3x3 MIMO and multi-core components to provide an improved wireless network environment and a better end user experience. Huawei premium APs provide highly reliable and secure wireless services and radio frequencies for high-density or large-scale deployment scenarios, such as exhibition centers, medical organizations, factories, and logistics networks.

2.1 AP7110 SN-GN/AP7110DN-AGN

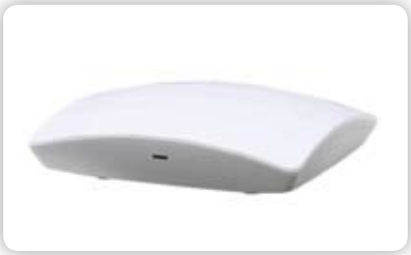


- 802.11n 3x3 MIMO AP supports three spatial streams and provides up to 900 Mbit/s total data rate on the AP7110DN-AGN and up to 450Mbit/s on the AP7110SN-GN.
- Indoor, industrial-grade AP has a high level of physical protection for use in challenging environments.
- AP7110SN-GN complies with 802.3af/at Power over Ethernet, and AP7110DN-AGN complies with 802.3at Power over Ethernet Plus, providing easy installation.
- Uses external antennas. Antenna gains can be configured and deployment locations determined according to networking requirements.
- AP7110SN-GN supports 2.4 GHz frequency band.
- AP7110DN-AGN supports 2.4 GHz and 5 GHz frequency bands.

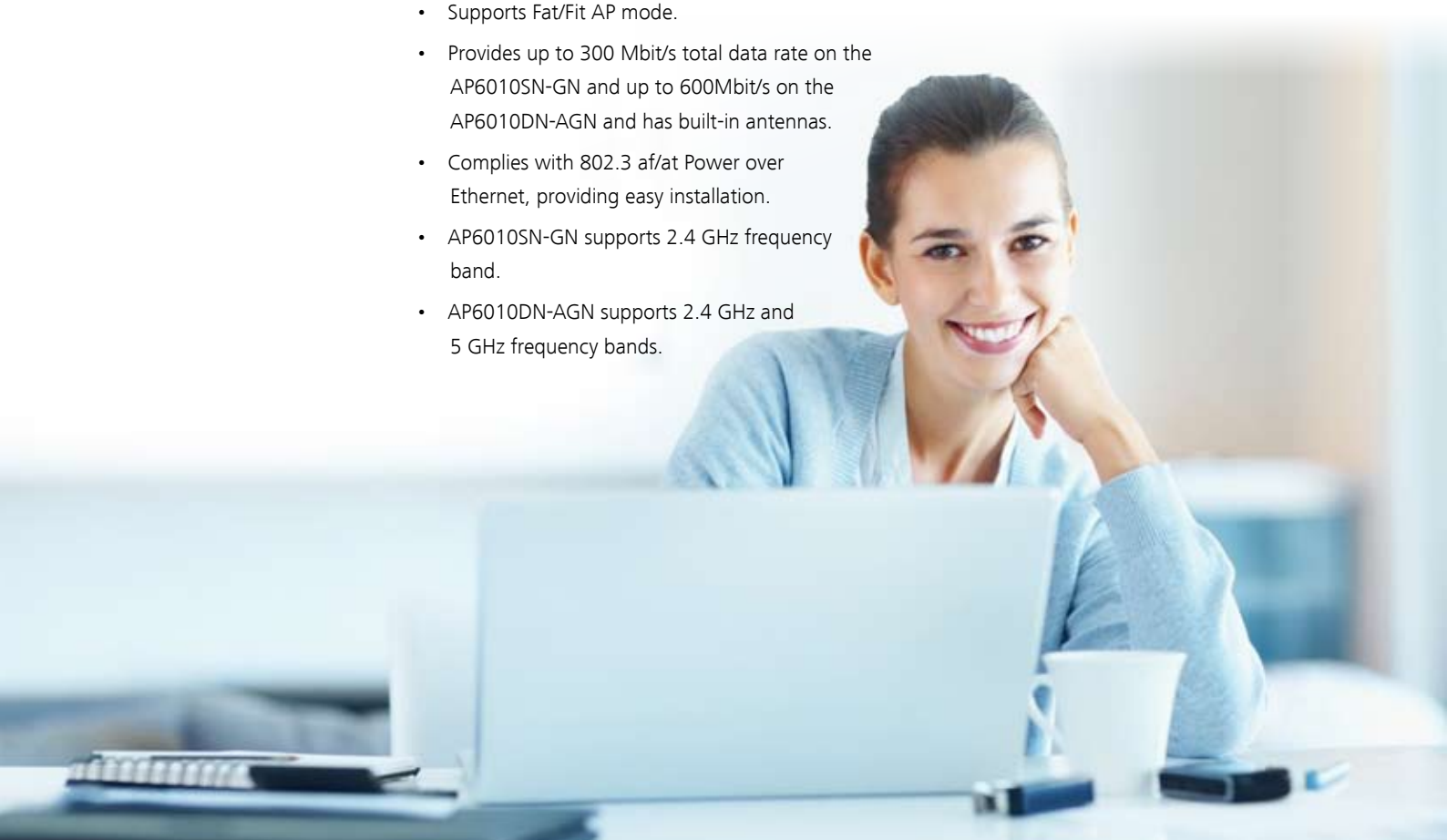
3 Huawei Enhanced Series AP

The Huawei enhanced 802.11n AP series uses a new-generation chip that provides higher performance and improved coverage accuracy, enabling superior support for delay-sensitive multimedia services and shared data services. The enhanced AP is particularly suitable for simple building structures with open or semi-open wireless network environments that have high density of users, and have high capacity demands. Huawei Enhanced APs are available as indoor APs, indoor high power APs, and outdoor APs.

3.1 AP6010SN-GN/AP6010DN-AGN



- Uses an elegant design and is intended for use in medium- and large-scale deployment and high density scenarios, such as educational institutions, enterprise offices, airports, stations, and retail.
- Uses an energy-efficient, new-generation 2x2 MIMO chip.
- Supports Fat/Fit AP mode.
- Provides up to 300 Mbit/s total data rate on the AP6010SN-GN and up to 600Mbit/s on the AP6010DN-AGN and has built-in antennas.
- Complies with 802.3 af/at Power over Ethernet, providing easy installation.
- AP6010SN-GN supports 2.4 GHz frequency band.
- AP6010DN-AGN supports 2.4 GHz and 5 GHz frequency bands.



3.2 AP6510DN-AGN/6610DN-AGN

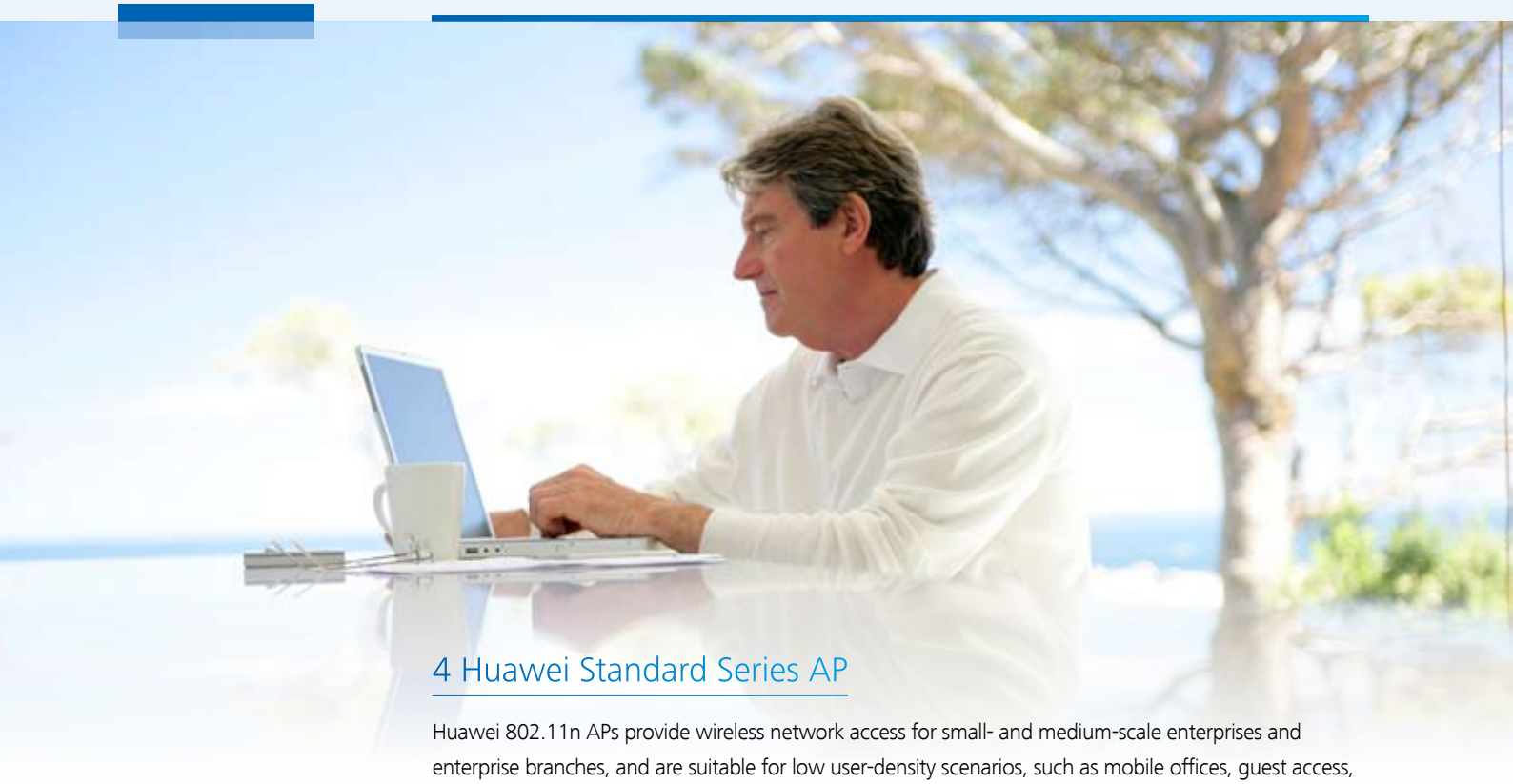
AP6610DN-AGN

AP6510DN-AGN

- Industry-grade AP; with a high level of physical protection, for use in pedestrian areas, factories, and other challenging environments.
- Supports fast start-up in low-temperature environments.
- Reduces maintenance costs with a built-in lightning protector.
- Uses an energy-efficient, new generation 2x2 MIMO chip.
- Supports Fat/Fit AP mode.
- Provides up to 600 Mbit/s total data rate.
- AP6510DN-AGN supports an RJ45 Ethernet interface, complying with 802.3at Power over Ethernet Plus..
- AP6610DN-AGN supports an RJ45 Ethernet interface, an optical interface, and an AC power supply.

3.3 AP6310SN-GN

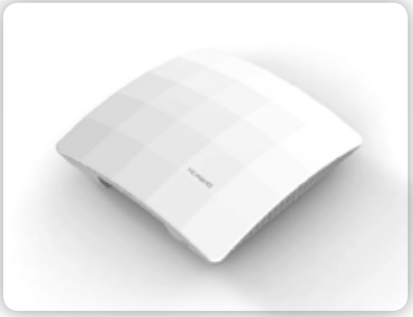
- High-power indoor AP, using a 2G/3G Distributed Antenna System (DAS).
- Provides a maximum transmit power of 500 mW.
- For use where there is high attenuation and where wide indoor coverage is required.
- Complies with 802.3af/at Power over Ethernet, providing easy installation.
- Single-frequency 802.11n AP that provides up to 150 Mbit/s total throughputs.



4 Huawei Standard Series AP

Huawei 802.11n APs provide wireless network access for small- and medium-scale enterprises and enterprise branches, and are suitable for low user-density scenarios, such as mobile offices, guest access, and hotel rooms. Standard APs help organizations to reduce costs and create highly-efficiently, secure, reliable, and mobile office environments.

4.1 AP5010SN-GN/AP5010DN-AGN



- Satisfies enterprise users' requirements for high security, high performance reliable wireless services.
- Uses an energy-efficient, new-generation 2x2 MIMO chip.
- Supports Fat/Fit AP mode.
- Complies with 802.3af/at Power over Ethernet, providing easy installation.
- Easy to deploy, manage, and maintain.
- Provides up to 300 Mbit/s total data rate on the AP5010SN-GN and up to 600Mbit/s on the AP5010DN-AGN and has built-in antennas.
- AP5010SN-GN supports 2.4 GHz frequency band.
- AP5010DN-AGN supports 2.4 GHz and 5 GHz frequency bands.

5 Huawei AP Specifications

Huawei802.11n AP series access points have leading characteristic:

- More bandwidth: 20% higher performance of single-user and multi-user access from the third party testing,
- Larger Coverage: 80% broader than industry average,
- Lower TCO: save 60% investment for your enterprise

Furthermore, Huawei also provides WLAN design and optimization services that are tailored to individual networking environments, with technical accumulation in wireless transmission and data communications. Huawei's highly efficient wireless solutions and end-to-end delivery capability can meet different requirements of your intelligent wireless networks.

Table1 Huawei 802.11n AP features

Item	Indoor AP			Outdoor AP	Indoor Distributed AP
Huawei 802.11n Access Points	AP5010 series	AP6010 series	AP7110 series	AP6510/6610 series	AP6310 series
Target markets/ scenarios	Small-and medium-scale enterprise at Mid-market	Small-, medium-and large scale enterprise	medium- and large-scale enterprises	Medium- and large-scale outdoor scenarios	Indoor DAS scenarios
MIMO	2x2	2x2	3x3	2x2	1x1
Dying gasp		√	√	√	√
Wireless location	√	√	√	√	
Spectrum analysis	√	√	√	√	√
BYOD	√	√	√	√	√
High-density coverage		√	√	√	
WDS/MESH	√	√	√	√	
WIPS/WIDS	√	√	√	√	√
Working mode	Fat/Fit	Fat/Fit	Fit	Fat/Fit	Fit
Wifi Certification	a/b/g/n	a/b/g/n	a/b/g/n	a/b/g/n	a/b/g/n

Table2 Huawei 802.11n AP specifications

Huawei 802.11n Access Points	AP5010 Series	AP6010 Series	AP7110 Series	AP6510/6610 Series	AP6310 Series
SSIDs	16 per radio	16 per radio	16 per radio	16 per radio	16 per radio
Data Uplink (Mbit/s)	10/100/1000	10/100/1000	10/100/1000	AP6510DN-AGN: 10/100/1000 AP6610DN-AGN：10/100/1000, SFP	10/100/1000
Power Supply	12 V DC PoE: 802.3af/at	12 V DC PoE: 802.3af/at	12 V DC PoE: AP7110SN 802.3af/at; AP7110DN 802.3at	AP6510: PoE: 802.3at AP6610: 100 to 240VAC	12 V DC PoE: 802.3af/at
Operating temperature	–10°C to +50°C	–10°Cto +50°C	–10°C to +55°C	–40°C to +60°C	–10°C to +50°C
Antennas	Built-in antennas	Built-in antennas	External antennas	External antennas	External antennas
Wi-Fi standards	a/b/g/n	a/b/g/n	a/b/g/n	a/b/g/n	b/g/n
DRAM	128 MB	128 MB	256 MB	128 MB	128 MB
Flash	32 MB	32 MB	32 MB	32 MB	32 MB

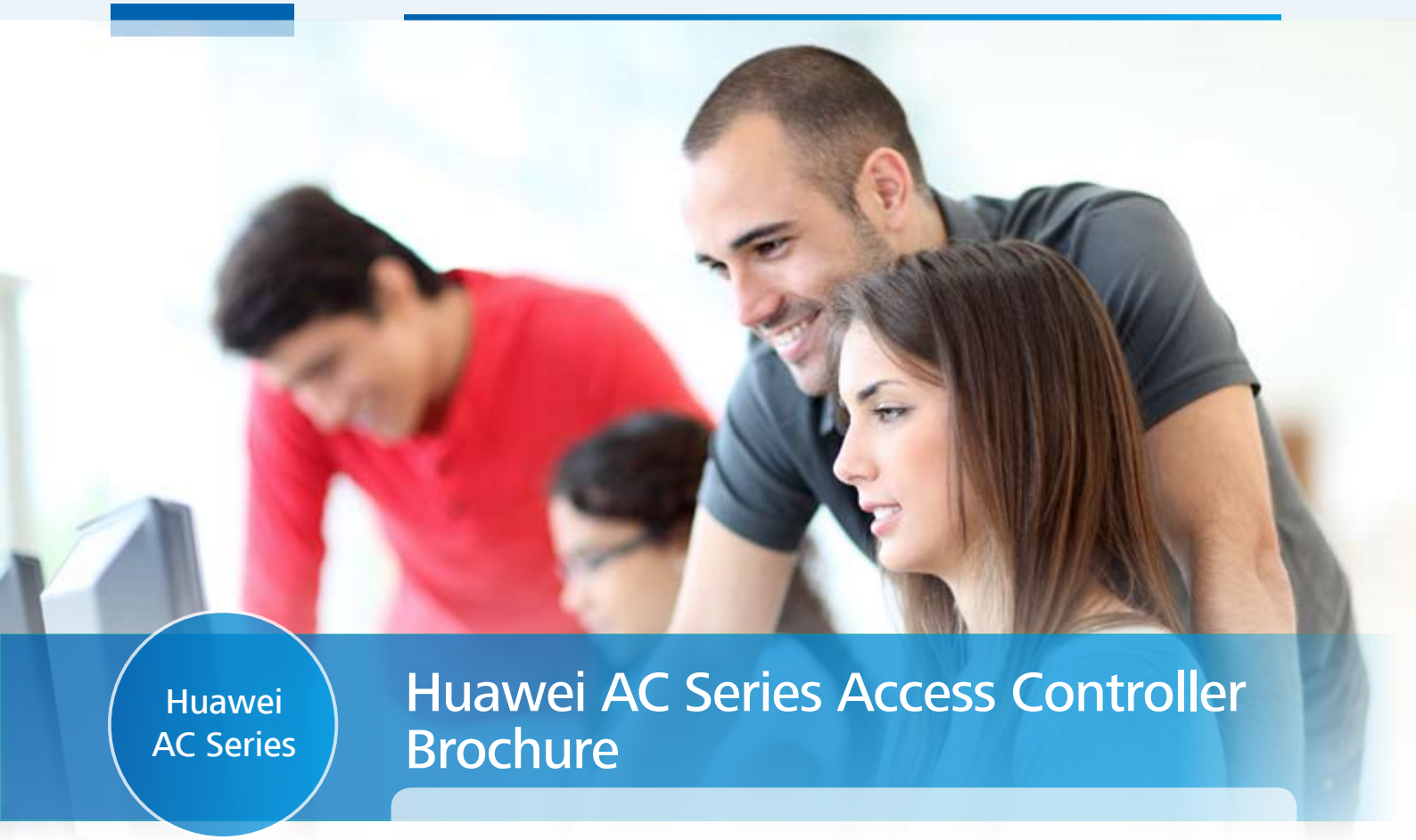
Note：All products are subject to the latest releases.

More Information

For more information, visit www.huawei.com or contact your Huawei local sales office.

Chinese website: www.huawei.com/cn/enterprise

English website: www.huawei.com/enterprise



Huawei AC Series

Huawei AC Series Access Controller Brochure

As a third-generation WLAN product, the Huawei AC series access controller performs all-around management. It simplifies network configuration and monitors the WLAN with a Fit access point (AP) + AC networking.

Huawei access controllers are available in two models:

- AC6605: A stand-alone or rack-mountable access controller for medium to large-scale enterprises
- AC6005: A stand-alone or rack-mountable access controller for small to medium-scale enterprises

The two models provide secure, reliable, and easy-to-manage network services for large-scale campus networks, enterprise branch offices, or small-scale enterprises.

Huawei access controllers deliver the following features:

- Licenses for managing multiple APs
- Flexible networking and forwarding
- Fine-grained user group management policies
- Integrated WLAN management and visualized network topology
- Support for inline and bypass networking
- Supported by Huawei eSight network management application
- Secure and reliable N+1 backup

ACs for Medium to Large-Scale Enterprises

The Huawei AC6605-26-PWR access controller integrates 1000M Ethernet switch functionality for both wired and wireless access control. The AC6605-26-PWR offers user with considerable flexibility in configuring access points (APs). Used together with cost-efficient Huawei APs, The AC6605-26-PWR is also easy to install and maintain, providing a low operation cost.

Huawei AC6605-26-PWR information

AC6605-26-PWR

- The AC6605-26-PWR supports up to 512 APs and 10K STAs.
- The AC6605-26-PWR provides PoE+ power for 24 interfaces, supports (24) 1 GE interfaces, (2) 10 GE interfaces, and 128Gbps switching capacity. The AC6605-26-PWR integrates AC and LSW units to support wired and wireless access and aggregation.
- The AC6605-26-PWR can be deployed as a stand-alone device, or standard rack mounted (442 mm x 420 mm x 43.6 mm in size).

- Abundant Port Types

  The AC6605 provides various ports to meet the requirements of all scenarios.

AC6605 port description

Port Type	Quantity	Description
Uplink port	Two 10GE optical ports	The 10GE ports use Small Form-Factor Pluggable (SFP+) optical transceivers.
Service port	24 GE ports	Among the 24 electrical ports, the last four are used with four optical ports as combo interfaces.
Maintenance port	One RJ45 maintenance serial port	It is an RS-232 port.
	One RJ45 maintenance Ethernet port	It is a 100BASE-TX port.
	One mini USB maintenance serial port	It is mutually exclusive with an RJ45 maintenance serial port.

- Large Capacity, High Performance, Integrated Design

  Integrated design: An AC6605 device integrates the AC and LSW units to provide wireless access and wired access/aggregation services.

  Large switching capacity: An AC6605 device has 24 GE interfaces and 2 10GE interfaces, and provides 128 Gbit/s switching capacity.

  PoE: The AC6605 supports the PoE function and can provide the maximum power on 24 ports. This PoE capability can provide power to APs and other powered devices (PDs) connected to the AC unit.

- Carrier-Class Reliability

  Port backup based on the Link Aggregation Control Protocol (LACP) or Multiple Spanning Tree Protocol (MSTP)

  Redundant AC/DC power supplies

  Hot swappable power supplies

- Easy-to-Install and Easy-to-Maintain

  With dimensions (width x depth x height) of 442 mm × 420 mm × 44.4 mm, the AC6605 can be installed in a standard cabinet.

  Power supplies are hot swappable, facilitating maintenance.

  The built-in web system allows local GUI-based management.

  The AC6605 can be managed by eSight that provides various northbound interfaces.

  The AC6605 supports the intra-board temperature probe, which monitors the operating environment of the AC6605 in real time.

- Energy Conservation

  The AC6605 uses low noise fans that can adjust the speed automatically, reducing noises in the system and power consumption of fans.

  The chip switches to the power saving mode when a service interface is idle (no connected device is detected on the interface).

  It uses highly-integrated and energy-saving chips produced through advanced processing techniques. With the help of the intelligent device management system, the chips not only improve system performance but also greatly reduce power consumption of the entire system.

ACs for Small to Medium-Scale Enterprises Applications

Huawei AC6005 has two models: AC6005-8 and AC6005-8-PWR (providing PoE capability). The AC6005 is an access controller (AC) of a large capacity and high performance. It is highly reliable, easy to install and maintain, and features such advantages as flexible networking and energy conservation.

The AC6005 resides at the aggregation layer to provide the high-speed, secure, and reliable WLAN service

Huawei AC6605-26-PWR information

AC6605

- Supporting up to 128 APs and 2K STAs.
- Providing PoE power for 8 interfaces, and 16Gbps switching capacity.
- Integrating AC and LSW units, supporting wired and wireless access and aggregation.
- The AC6605-26-PWR can be deployed as a stand-alone device, or standard rack

- Abundant Port Types

  The AC6005 provides abundant port types to support various application scenarios.

AC6605 port description

Port Type	Quantity	Description
Service port	8 GE ports	Among the 8 electrical ports, the last two are used with two optical ports as combo interfaces.
Maintenance port	One RJ45 maintenance serial port	It is an RS-232 port.
	One USB port	The USB port is used to connect USB disks for deployment, configuration file transfer, and file upgrade.

- Large Capacity, High Performance, Integrated Design

  Large forwarding capacity: An AC6005 has 8 GE ports, and provides 4 Gbit/s forwarding capacity.

  PoE: The AC6005 supports the PoE function and can provide the maximum power on 8 ports. This PoE capability can provide power to APs and other powered devices (PDs) connected to the AC unit.

- Carrier-Class Reliability

  Port backup based on the Link Aggregation Control Protocol (LACP) or Multiple Spanning Tree Protocol (MSTP)

- Easy-to-Install and Easy-to-Maintain

  With dimensions (width x depth x height) of 320 mm × 233.6 mm × 43.6 mm, the AC6005 can be installed on a desk or in a standard cabinet.

  The built-in web system allows local GUI-based management.

  The AC6005 can be managed by eSight that provides various northbound interfaces.

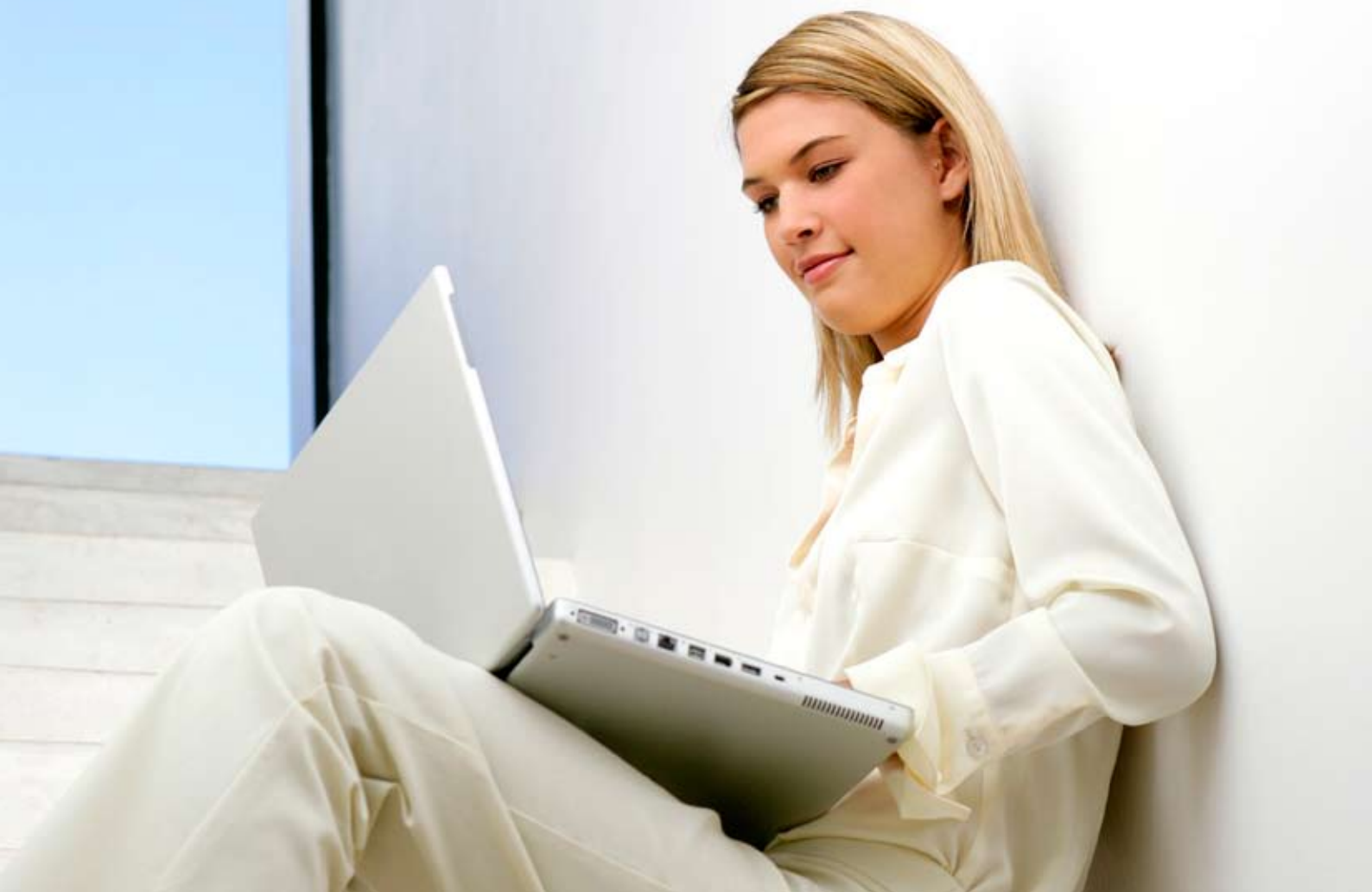
  The AC6005 supports the intra-board temperature probe, which monitors the operating environment of the AC6005 in real time.

- Energy Conservation

  The AC6005 uses low noise fans that can adjust the speed automatically, reducing noises in the system and power consumption of fans.

  The chip switches to the power saving mode when a service interface is idle (no connected device is detected on the interface).

  It uses highly-integrated and energy-saving chips produced through advanced processing techniques. With the help of the intelligent device management system, the chips not only improve system performance but also greatly reduce power consumption of the entire system.



Comparison of Huawei Access Controllers

Item	AC6005	AC6605-26-PWR
Target market	Small to medium-scale enterprises	Medium to large-scale enterprises
Model	Box, applicable to racks	Box, applicable to racks
Service Interface type	8*GE	24 GE interfaces + two 10-GE interfaces
Power consumption	28W	85 W
Number of managed APs	128	512
Virtual AP (VAP)	1K	4K
Number of access STAs	2K	10K
Maximum throughput	4 Gbit/s	8 Gbit/s
(Exchange Capacity) Integrated wired and wireless services	16Gbit/s	128 Gbit/s
Access control list	Software(4K)	Software (4K)
Integrated and distributed forwarding	Yes	Yes
Centralized management distribution control	Yes	Yes
Wireless Distribution System (WDS)	Yes	Yes
Mesh	Yes	Yes
Wireless LAN Authentication and Privacy Infrastructure (WAPI)	Yes	Yes
Active and standby ACs	Yes	Yes
N+1, N+N ACs backup	Yes	Yes
User group policy management	Yes	Yes
Network admission control (NAC)	Yes	Yes
Wi-Fi Multimedia (WMM)	Yes	Yes

Item	AC6005	AC6605-26-PWR
Dynamic allocation of channels	Yes	Yes
Coverage hole detection	Yes	Yes
Spectrum analysis	Yes	Yes
Load balancing	Yes	Yes
Layer 2 and Layer 3 roaming	Yes	Yes
Web management	Yes	Yes
Real Time Location System (RTLS)	Yes	Yes

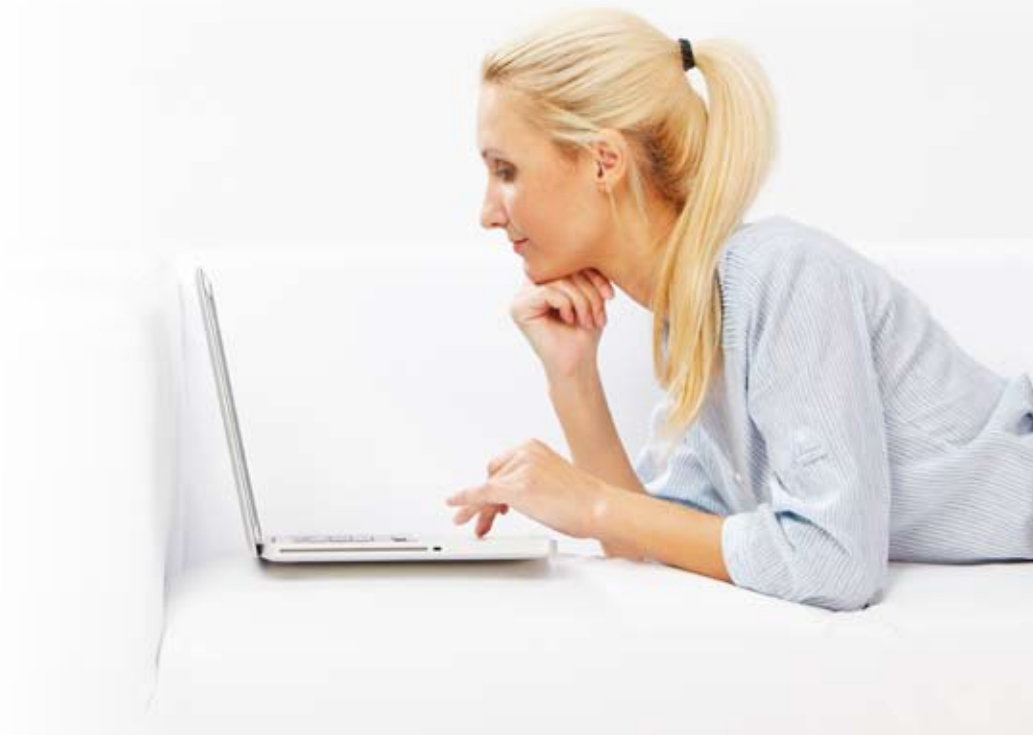
Note:All products are subject to the latest releases.

Professional Service and Support

Huawei Professional Services provides expert network design and service optimization tasks, helping customers design and deploy a high-performance network that is reliable and secure, maximizing return on investment as well as reducing operational expenses.

Company Addendum

For more information, please visit http://enterprise.huawei.com/en/ or contact your local Huawei office.



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