# **5** Wall Plate AP

# **About This Chapter**

The next-generation wall plate access point (AP) complies with the Wi-Fi 6 (802.11ax) standard and is ideal for scenarios with densely-located rooms, such as hotel rooms, dormitories, and hospital wards.

# **5.1 Application Scenarios**

A wall plate access point (AP) can work as a Fat, Fit, or cloud AP. It can switch flexibly among three working modes based on the network plan.

## **Typical Fit AP Networking**

**Figure 4-1** shows the Fit AP networking. Fit APs must work with an AC for user access, AP onboarding, authentication, routing, AP management, security, and QoS.

IΡ network Authentication NMS system Switch STA STA STA STA Management channel between NMS and AC Management channel between the AC and the AP and data channel Where data flows are encapsulated with CAPWAP Channel where data flows are not encapsulated with CAPWAP

Figure 5-1 Typical Fit AP networking

## Typical Fat AP networking

**4.1 Application Scenarios** shows the Fat AP networking. Fat APs can independently implement functions such as user access, authentication, data security, service forwarding, and QoS.

STA STA STA STA STA

Figure 5-2 Typical Fat AP networking

Starting from V200R020C10, some AP models running in Fat mode (depending on actual specifications) also support the leader AP networking and can manage a small number of Fit APs, thereby implementing small-scale batch deployment and simple O&M of basic WLAN services.

IP network

S Switch

Fit AP1 Fit AP n

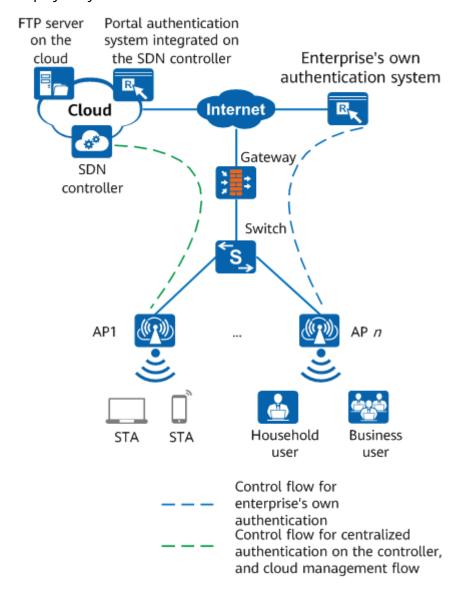
STA STA STA STA

Figure 5-3 Leader AP networking

# **Typical Cloud AP Networking**

In the networking, the device functions as a cloud AP and works with the SDN controller on the cloud for user access, AP onboarding, authentication, routing, AP management, security, and QoS. An enterprise can choose to use the Portal

authentication server integrated in the SDN controller or the authentication server deployed by itself.



# 5.2 AirEngine 5760-22W

## 5.2.1 Product Characteristics

Huawei AirEngine 5760-22W is a wall plate access point (AP) in compliance with the Wi-Fi 6 standard. With mounting brackets, the AP can be easily adapted to junction boxes (86/118/120 mm) and wall-mounting scenarios. The AP uses built-in smart antennas to ensure always-on Wi-Fi signals for users, significantly enhancing users' wireless network experience. The AP provides uplink optical and electrical ports, allowing customers to select different deployment modes and saving customers' investment. These strengths make the AP ideal for scenarios with high-density rooms such as hotel guest rooms, dormitory rooms, and hospital wards.

- The dual-radio mode is supported with 2x2:2 MIMO on 2.4 GHz and 4x4:4 MIMO on 5 GHz
- Uplink: 1 x 2.5GE electrical port + 1 x 10GE SFP+ optical port; downlink: 4 x GE electrical ports + 2 x RJ45 passthrough ports
- Junction box or wall mounting, facilitating deployment
- Built-in smart antennas that automatically adjust the coverage direction and signal strength based on the intelligent switchover algorithm to adapt to the application environment change, and provide accurate and stable coverage as STAs move
- USB port for IoT expansion
- Bluetooth serial interface-based O&M through the built-in Bluetooth module by collaborating with CloudCampus APP; collaboration with a location server to accurately locate Bluetooth terminals and tags
- PoE OUT, supplying power to terminals such as IP phones and external IoT modules
- Working modes: Fit, Fat, and cloud management

#### □ NOTE

The AirEngine 5760-22W cannot be mounted on the ceiling.

## 5.2.2 Hardware Information

#### Overview

Table 5-1 Basic information about the AirEngine 5760-22W

Item	Details
Description	AirEngine5760-22W (11ax indoor,2+4 dual bands,smart antenna,USB,BLE,PSE)
Part Number	02353KBE
Model	AirEngine 5760-22W
First supported version	V200R019C10

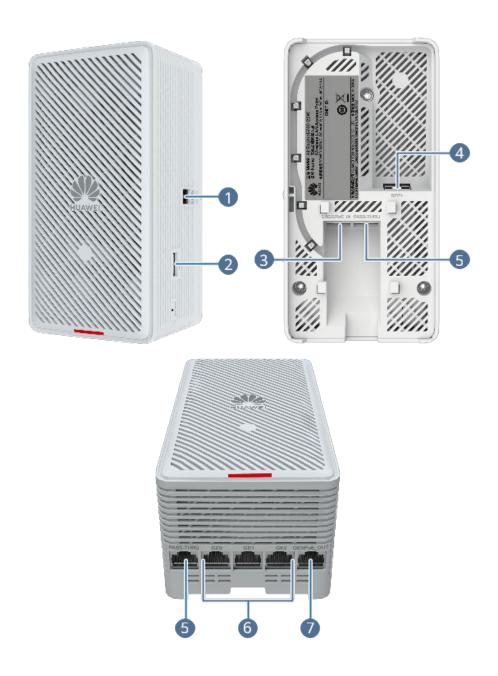
# **Appearance**

**Figure 5-4** Appearance of the AirEngine 5760-22W



## **Ports**

**Figure 5-5** Ports on the AirEngine 5760-22W



1	DC 48V	2	USB
3	2.5GE/PoE_IN	4	SFP+

5	PASS-THRU	6	GE0 to GE2
7	GE3/PoE_OUT	-	-

Table 5-2 Ports on the AirEngine 5760-22W

Port	Connector Type	Description	Available Components
2.5GE/PoE_IN	RJ45	Ethernet uplink electrical port that supports 100M/1000M/ 2.5G autosensing, connects to the wired Ethernet, and supports PoE input.	Network cable
SFP+	SFP+	Ethernet uplink optical port that supports 1G/10G auto-sensing, connects to the wired Ethernet, and works with a matching optical module.	Optical module
GE0 to GE2	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable

Port	Connector Type	Description	Available Components
GE3/PoE_OUT	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing, connects to the wired Ethernet, and supports PoE output. The maximum	Network cable
		PoE power supply capability is 13.6 W. The AP can connect to 802.3af-compliant PDs using CAT5e Ethernet cables at a maximum transmission distance of 40 m.	
DC 48V	DC connector	Connects to a 48 V power adapter.	48 V DC power adapter
PASS-THRU	RJ45	A pair of RJ45 passthrough ports for transparent transmission and interconnection with Ethernet cables or telephone lines.	Network cable or telephone line
USB	USB 2.0 Type A	Connects to an IoT terminal to implement IoT applications.	IoT module

#### **Indicators and Buttons**

Figure 5-6 Indicators and buttons on the AirEngine 5760-22W



The indicator is located inside the panel, which turns on after the AP is powered on.

1	Indicator	2	Default
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**Table 5-3** Indicators on the AirEngine 5760-22W

Silkscreen	Name	Color	Status	Description
-	System indicator	-	Off	The system is not running.

Silkscreen	Name	Color	Status	Description
		Green	Steady on	<ul> <li>The system is just powered on.</li> <li>The system is starting after a reset.</li> <li>The upperlayer system is starting.</li> </ul>
		Green	Steady on after blinking once	After the hardware reset is cleared and the software starts, the indicator blinks once. Then, the indicator is steady on until the bottom-layer system starts.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP. This state is supported in V200R022C00 and later versions.

Silkscreen	Name	Color	Status	Description
		Green	Slow blinking (0.2 Hz)	The AP is running properly, and the Ethernet connection is normal.  For V200R022C00 and later versions, this state also indicates that no STA is associated with the AP.
		Green	Blinking once every 0.25s (4 Hz)	<ul> <li>The bottom-layer system is being started.</li> <li>The software is being upgraded.</li> <li>After the software is loaded and started, the AP requests to go online in Fit or cloud manageme nt mode. The indicator remains in this state till the AP successfull y goes online.</li> </ul>
		Red	Steady on	The system is faulty.

Table 5-4 Buttons on the AirEngine 5760-22W

Silkscreen	Name	Description
Default	Reset button	<ul> <li>For versions earlier than         V200R022C00SPC100,         hold down the button         for more than 3         seconds to restore the         factory settings and         restart the device.</li> <li>For         V200R022C00SPC100         and later versions, if         you press the button,         the device resets; if         you hold down the         button for more than         6 seconds, the device         restores the factory         settings, switches to         the Fit mode, and         restarts.</li> </ul>

# **Technical Specifications**

**Table 5-5** Technical specifications of the AirEngine 5760-22W

Item	Specification
Installation Type	• Wall
	Junction Box
Dimensions without packaging (H x W x D) [mm(in.)]	170 mm x 86 mm x 74 mm (6.69 in. x 3.39 in. x 2.91 in.)
Weight without packaging [kg(lb)]	0.70 kg (1.54 lb)
Storage	NAND Flash 512 MB; NOR Flash 16 MB
Console port	BLE console
Maximum power consumption [W]	25.29 (excluding USB and PoE OUT ports)
Maximum heat dissipation [BTU/hour]	86.3 (without USB and PoE OUT)
Power supply mode	DC adapter
	• PoE

Item	Specification
Rated input voltage [V]	48 V
Input voltage range [V]	DC: 43.2 V to 57.6 V PoE: 802.3bt/at
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum PoE output power [W]	13.6 W (When the maximum transmission distance through a CAT5E Ethernet cable is 40 m, the port can connect to an 802.3af-compliant PD requiring power of less than 12.95 W.)
Maximum number of physical ports on the entire device	2.5GE (RJ45) x 1, 10M/100M/1000M/ 2.5GE auto-sensing GE (RJ45) x 4, 10M/100M/1000M auto-sensing 10GE optical port (SFP+), GE/10GE auto-sensing
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (From 1800 m to 5000 m [5905.51 ft. to 16404.20 ft.], the maximum temperature of the device decreases by 1°C [1.8°F] for every 300 m [984.25 ft.] increase in altitude.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground
USB	USB 2.0
IoT slot	IoT extension by USB
BLE	BLE5.0
Radio number	2
Operating frequency band	2.4GHz     5GHz

Item	Specification
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2, maximum bandwidth of 40 MHz Radio 1 (5 GHz): 4x4, maximum bandwidth 160 MHz
Wi-Fi standard	2.4 GHz: 802.11b/g/n/ax 5 GHz: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in smart antennas
Antenna gain	2.4 GHz: 4 dBi 5 GHz: 5 dBi BLE: 4 dBi
Maximum transmit power	2.4 GHz: 23 dBm 5 GHz: 26 dBm (Note: This is the total MIMO radio power, the same as: 2.4 GHz: 20 dBm/chain 5 GHz: 20 dBm/chain) BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 20 dBm/chain 5G: -10 dBm to 20 dBm/chain
MTBF [year]	37 year
MTTR [hour]	0.5 hour
Frequency stability [ppm]	+/-20
802.3bt power supply description	<ul> <li>Wi-Fi:</li> <li>If no optical port is used, Wi-Fi is not restricted.</li> <li>If optical ports are used, Wi-Fi supports only the 2.4 GHz (2x2, 20 MHz bandwidth) + 5 GHz (2x2, 80 MHz bandwidth) working mode, and the radio transmit power is not affected.</li> <li>Wired network port: The 2.5GE electrical port and SFP+ optical port work as combo ports. When one of them is working, the other is unavailable. The four downlink ports are all available.</li> <li>Other ports: not restricted</li> </ul>

Item	Specification
802.3at power supply description	<ul> <li>Specification</li> <li>Wi-Fi:</li> <li>If the USB and PoE out ports are not used and only the 2.5GE electrical port is used as the uplink port, Wi-Fi supports the 2.4 GHz (2x2, 20 MHz bandwidth) + 5 GHz (4x4, 80 MHz bandwidth) working mode, and the radio transmit power is not affected.</li> <li>If an optical port or the 2.5 W USB port is used, Wi-Fi supports only the 2.4 GHz (2x2, 20 MHz bandwidth) + 5 GHz (2x2, 80 MHz bandwidth) working mode, and the radio transmit power is not affected.</li> <li>Wired network port: The 2.5GE electrical port and SFP+ optical port work as combo ports. When one of them is working, the other is unavailable. The four downlink ports are all available.</li> </ul>
	Other ports: Only the 2.5 W USB port is supported. The 5 W USB port and PoE OUT port are unavailable.
802.3af power supply description	The 802.3af power supply is not supported.
DC power supply description	<ul> <li>Wi-Fi:</li> <li>If no optical port is used, Wi-Fi is not restricted.</li> <li>If optical ports are used, Wi-Fi supports only the 2.4 GHz (2x2, 20 MHz bandwidth) + 5 GHz (2x2, 80 MHz bandwidth) working mode, and the radio transmit power is not affected.</li> <li>Wired network port: not restricted</li> <li>Other ports: not restricted</li> </ul>

# 5.3 AirEngine 5761-12W

# **5.3.1 Product Characteristics**

Huawei AirEngine 5761-12W is a wall plate access point (AP) in compliance with Wi-Fi 6 standard. It can simultaneously provide services on the 2.4 GHz (2x2 MIMO) and 5 GHz (2x2 MIMO) frequency bands. The AP uses built-in smart antennas to ensure always-on Wi-Fi signals for users, significantly enhancing users' wireless network experience. It is ideal for scenarios with high-density rooms, such as hotel guest rooms, dormitory rooms, and hospital wards.

- Uplink: 1 x GE electrical port; downlink: 4 x GE electrical ports + 2 x RJ45 passthrough ports
- Mounting on a junction box or wall, facilitating deployment
- Built-in smart antennas that automatically adjust the coverage direction and signal strength based on the intelligent switchover algorithm to adapt to the application environment change, and provide accurate and stable coverage as STAs move
- USB port for IoT expansion (such as ZigBee and RFID)
- Bluetooth serial interface-based O&M through the built-in Bluetooth module by collaborating with CloudCampus APP; collaboration with a location server to accurately locate Bluetooth terminals and tags
- PoE OUT, supplying power to terminals such as IP phones and external IoT modules
- Working modes: Fit, Fat, and cloud management

## 5.3.2 Hardware Information

#### Overview

**Table 5-6** Basic information about the AirEngine 5761-12W

Item	Details
Description	AirEngine5761-12W(11ax indoor,2+2 dual bands,smart antenna,USB,BLE,PSE)
Part Number	50084450
Model	AirEngine 5761-12W
First supported version	V200R020C10

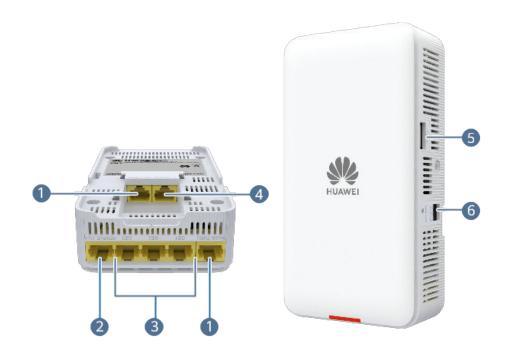
# **Appearance**

**Figure 5-7** Appearance of the AirEngine 5761-12W



## **Ports**

Figure 5-8 Ports on the AirEngine 5761-12W



1	PASS-THRU	2	GE4/PoE_OUT
3	GE1 to GE3	4	GE0/PoE_IN
5	USB	6	DC 48V

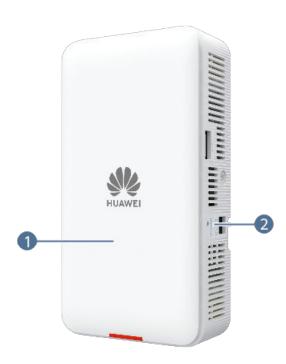
Table 5-7 Ports on the AirEngine 5761-12W

Port	Connector Type	Description	Available Components
GE0/PoE_IN	RJ45	Ethernet uplink electrical port that supports 10/100/1000M auto-sensing, connects to the wired Ethernet, and supports PoE input.	Network cable

Port	Connector Type	Description	Available Components
GE1 to GE3	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable
GE4/PoE_OUT	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing, connects to the wired Ethernet, and supports PoE output	Network cable
DC 48V	DC connector	DC power port, used to connect to a 48 V power adapter.	48 V DC power adapter
USB	USB 2.0 Type A	Connects to an IoT terminal to implement IoT applications.	IoT module

#### **Indicators and Buttons**

Figure 5-9 Indicators and buttons on the AirEngine 5761-12W



The indicator is located inside the panel, which turns on after the AP is powered on.

1	Indicator	2	Default
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Table 5-8 Indicators on the AirEngine 5761-12W

Silkscreen	Name	Color	Status	Description
-	System indicator	-	Off	The system is not running.

Silkscreen	Name	Color	Status	Description
		Green	Steady on	<ul> <li>The system is just powered on.</li> <li>The system is starting after a reset.</li> <li>The upperlayer system is starting.</li> </ul>
		Green	Steady on after blinking once	After the hardware reset is cleared and the software starts, the indicator blinks once. Then, the indicator is steady on until the bottom-layer system starts.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP. This state is supported in V200R022C00 and later versions.

Silkscreen	Name	Color	Status	Description
		Green	Slow blinking (0.2 Hz)	The AP is running properly, and the Ethernet connection is normal.  For V200R022C00 and later versions, this state also indicates that no STA is associated with the AP.
		Green	Blinking once every 0.25s (4 Hz)	<ul> <li>The bottom-layer system is being started.</li> <li>The software is being upgraded.</li> <li>After the software is loaded and started, the AP requests to go online in Fit or cloud manageme nt mode. The indicator remains in this state till the AP successfull y goes online.</li> </ul>
		Red	Steady on	The system is faulty.

**Table 5-9** Buttons on the AirEngine 5761-12W

Silkscreen	Name	Description
Default	Reset button	<ul> <li>For versions earlier than         V200R022C00SPC100,         hold down the button         for more than 3         seconds to restore the         factory settings and         restart the device.</li> <li>For         V200R022C00SPC100         and later versions, if         you press the button,         the device resets; if         you hold down the         button for more than         6 seconds, the device         restores the factory         settings, switches to         the Fit mode, and         restarts.</li> </ul>

# **Technical Specifications**

**Table 5-10** Technical specifications of the AirEngine 5761-12W

Item	Specification
Installation Type	Wall
Dimensions without packaging (H x W x D) [mm(in.)]	160 mm x 86 mm x 38 mm (6.30 in. x 3.39 in. x 1.50 in.)
Weight without packaging [kg(lb)]	0.320 kg (0.705 lb)
Storage	NAND Flash 512 MB
Console port	BLE console
Maximum power consumption [W]	13.1 (excluding USB and PoE OUT)
Maximum heat dissipation [BTU/hour]	42.6 BTU (without USB and PoE OUT)
Power supply mode	<ul><li>DC adapter</li><li>PoE</li></ul>
Rated input voltage [V]	48 V
Input voltage range [V]	DC: 43.2 V to 57.6 V PoE: 802.3at/af

Item	Specification
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum PoE output power [W]	11 W (Max distance: 20 m)
Maximum number of physical ports on the entire device	GE (RJ45) x 5, 10M/100M/1000M auto-sensing
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (From 1800 m to 5000 m [5905.51 ft. to 16404.20 ft.], the maximum temperature of the device decreases by 1°C [1.8°F] for every 300 m [984.25 ft.] increase in altitude.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground
USB	USB 2.0
BLE	BLE5.2
Radio number	2
Operating frequency band	• 2.4GHz • 5GHz
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4 GHz: 802.11b/g/n/ax 5 GHz: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in smart antennas

Item	Specification
Antenna gain	2.4 GHz: 2.5 dBi/chain (peak) 1 dBi (combined gain) 5 GHz: 3 dBi/chain (peak value) 1 dBi (combined gain) BLE: 4 dBi
Maximum transmit power	2.4 GHz: 20 dBm/chain 23 dBm (combined power) 5 GHz: 20 dBm/chain 23 dBm (combined power) BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 20 dBm/chain 5G: -10 dBm to 20 dBm/chain
MTBF [year]	246 year
MTTR [hour]	0.5 hour
Frequency stability [ppm]	+/-20
802.3at power supply description	The PoE out (802.3af) and USB functions are mutually exclusive. PoE OUT function takes precedence. PoE out supports a maximum of 11 W output power.
802.3af power supply description	The USB function and PoE out are not supported. Other functions are not restricted.
DC power supply description	PoE out supports a maximum of 11 W output power. Other functions are not restricted.

# 5.4 AirEngine 5761-11W

# **5.4.1 Product Characteristics**

Huawei AirEngine 5761-11W is a wall plate access point (AP) in compliance with the Wi-Fi 6 standard. It can simultaneously provide services on the 2.4 GHz (2x2

MIMO) and 5 GHz (2x2 MIMO) frequency bands. The AP uses built-in smart antennas to ensure always-on Wi-Fi signals for users, significantly enhancing users' wireless network experience. It is ideal for scenarios with high-density rooms, such as hotel guest rooms, dormitory rooms, and hospital wards.

- Uplink: 1 x GE electrical port; downlink: 4 x GE electrical ports + 2 x RJ45 passthrough ports
- Mounting on a junction box or wall, facilitating deployment
- Built-in smart antennas that automatically adjust the coverage direction and signal strength based on the intelligent switchover algorithm to adapt to the application environment change, and provide accurate and stable coverage as STAs move
- USB port for IoT expansion (such as ZigBee and RFID)
- Bluetooth serial interface-based O&M through the built-in Bluetooth module by collaborating with CloudCampus APP; collaboration with a location server to accurately locate Bluetooth terminals and tags
- Working modes: Fit, Fat, and cloud management

## 5.4.2 Hardware Information

#### Overview

**Table 5-11** Basic information about the AirEngine 5761-11W

Item	Details
Description	AirEngine5761-11W(11ax indoor,2+2 dual bands,smart antenna,USB,BLE)
Part Number	50084452
Model	AirEngine 5761-11W
First supported version	V200R020C10

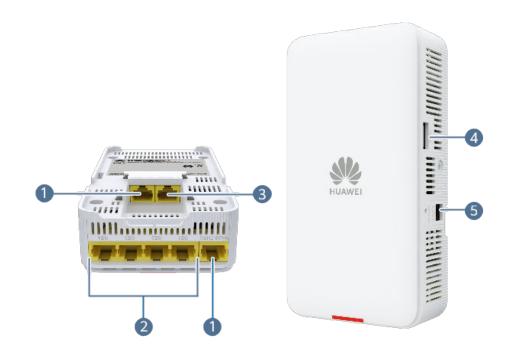
# **Appearance**

Figure 5-10 Appearance of the AirEngine 5761-11W



## **Ports**

Figure 5-11 Ports on the AirEngine 5761-11W



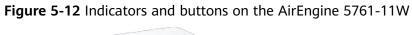
1	PASS-THRU	2	GE1 to GE4
3	GE0/PoE_IN	4	USB
5	DC 12V	-	-

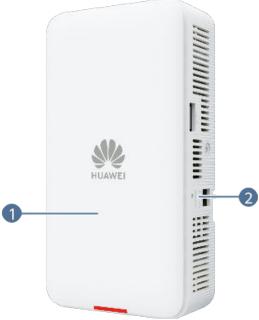
Table 5-12 Ports on the AirEngine 5761-11W

Port	Connector Type	Description	Available Components
GE0/PoE_IN	RJ45	Ethernet uplink electrical port that supports 10/100/1000M auto-sensing, connects to the wired Ethernet, and supports PoE input.	Network cable

Port	Connector Type	Description	Available Components
GE1 to GE4	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable
DC 12V	DC connector	Connects to a 12 V power adapter.	12 V DC power adapter
PASS-THRU	RJ45	A pair of RJ45 passthrough ports for transparent transmission and interconnection with Ethernet cables or telephone lines.	Network cable or telephone line
USB	USB 2.0 Type A	Connects to an IoT terminal to implement IoT applications.	IoT module

## **Indicators and Buttons**





The indicator is located inside the panel, which turns on after the AP is powered on.

1	Indicator	2	Default

Table 5-13 Indicators on the AirEngine 5761-11W

Silkscreen	Name	Color	Status	Description
-	System indicator	-	Off	The system is not running.
		Green	Steady on	• The system is just powered on.
				• The system is starting after a reset.
				• The upper- layer system is starting.
		Green	Steady on after blinking once	After the hardware reset is cleared and the software starts, the indicator blinks once. Then, the indicator is steady on until the bottom-layer system starts.

Silkscreen	Name	Color	Status	Description
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP. This state is supported in V200R022C00 and later versions.
		Green	Slow blinking (0.2 Hz)	The AP is running properly, and the Ethernet connection is normal.
				V200R022C00 and later versions, this state also indicates that no STA is associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Blinking once every 0.25s (4 Hz)	<ul> <li>The bottom-layer system is being started.</li> <li>The software is being upgraded.</li> <li>After the software is loaded and started, the AP requests to go online in Fit or cloud manageme nt mode. The indicator remains in this state till the AP successfull y goes online.</li> </ul>
		Red	Steady on	The system is faulty.

Table 5-14 Buttons on the AirEngine 5761-11W

Silkscreen	Name	Description
Default	Reset button	<ul> <li>For versions earlier than         V200R022C00SPC100,         hold down the button         for more than 3         seconds to restore the         factory settings and         restart the device.</li> <li>For         V200R022C00SPC100         and later versions, if         you press the button,         the device resets; if         you hold down the         button for more than         6 seconds, the device         restores the factory         settings, switches to         the Fit mode, and         restarts.</li> </ul>

# **Technical Specifications**

**Table 5-15** Technical specifications of the AirEngine 5761-11W

Item	Specification
Installation Type	Wall
Dimensions without packaging (H x W x D) [mm(in.)]	160 mm x 86 mm x 38 mm (6.30 in. x 3.39 in. x 1.50 in.)
Weight without packaging [kg(lb)]	0.300 kg (0.661 lb)
Storage	NAND Flash 512 MB
Console port	BLE console
Maximum power consumption [W]	12.7 (excluding USB)
Maximum heat dissipation [BTU/hour]	42.6 BTU (without USB)
Power supply mode	DC adapter
	• PoE
Rated input voltage [V]	12 V
Input voltage range [V]	DC: 12 V ± 10%
	PoE: 802.3at/af

Item	Specification
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 5, 10M/100M/1000M auto-sensing
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (From 1800 m to 5000 m [5905.51 ft. to 16404.20 ft.], the maximum temperature of the device decreases by 1°C [1.8°F] for every 300 m [984.25 ft.] increase in altitude.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground
USB	USB 2.0
BLE	BLE5.2
Radio number	2
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4 GHz: 802.11b/g/n/ax 5 GHz: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in smart antennas
Antenna gain	2.4 GHz: 2.5 dBi/chain (peak) 1 dBi (combined gain) 5 GHz: 3 dBi/chain (peak value) 1 dBi (combined gain) BLE: 4 dBi

Item	Specification
Maximum transmit power	2.4 GHz:
	20 dBm/chain
	23 dBm (combined power)
	5 GHz:
	20 dBm/chain
	23 dBm (combined power)
	BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 20 dBm/chain
	5G: -10 dBm to 20 dBm/chain
MTBF [year]	256 year
MTTR [hour]	0.5 hour
Frequency stability [ppm]	+/-20
802.3at power supply description	No function is limited.
802.3af power supply description	The USB function is not supported. Other functions are not restricted.
DC power supply description	No function is limited.

# 5.5 AirEngine 5761S-11W

## **5.5.1 Product Characteristics**

Huawei AirEngine 5761S-11W is a wall plate access point (AP) in compliance with Wi-Fi 6 standard. It can simultaneously provide services on the 2.4 GHz (2x2 MIMO) and 5 GHz (2x2 MIMO) frequency bands. The AP uses built-in smart antennas to ensure always-on Wi-Fi signals for users, significantly enhancing users' wireless network experience. It is ideal for scenarios with high-density rooms, such as hotel guest rooms, dormitory rooms, and hospital wards.

- Uplink: 1 x GE electrical port; downlink: 4 x GE electrical ports + 2 x RJ45 passthrough ports
- Mounting on a junction box or wall, facilitating deployment
- Built-in smart antennas that automatically adjust the coverage direction and signal strength based on the intelligent switchover algorithm to adapt to the application environment change, and provide accurate and stable coverage as STAs move
- USB port for IoT expansion (such as ZigBee and RFID)
- Bluetooth serial interface-based O&M through the built-in Bluetooth module by collaborating with CloudCampus APP; collaboration with a location server to accurately locate Bluetooth terminals and tags

• Working modes: Fit, Fat, and cloud management

## 5.5.2 Hardware Information

#### **Overview**

**Table 5-16** Basic information about the AirEngine 5761S-11W

Item	Details
Description	AirEngine5761S-11W(11ax indoor,2+2 dual bands,smart antenna,USB,BLE)
Part Number	50084453
Model	AirEngine 5761S-11W
First supported version	V200R020C10

Figure 5-13 Appearance of the AirEngine 5761S-11W

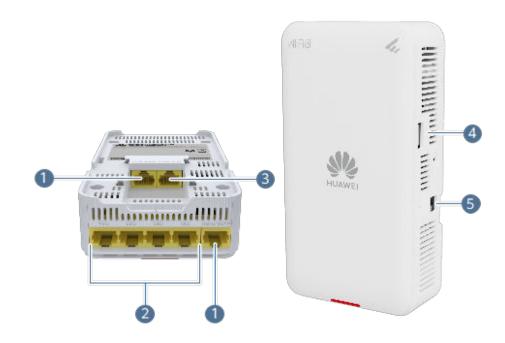


#### **◯** NOTE

Due to the brand change of this model, devices of this model delivered in different periods may have different appearances, which, however, does not involve function differences.

#### **Ports**

Figure 5-14 Ports on the AirEngine 5761S-11W



1	PASS-THRU	2	GE1 to GE4
3	GE0/PoE_IN	4	USB
5	DC 12V	-	-

Table 5-17 Ports on the AirEngine 5761S-11W

Port	Connector Type	Description	Available Components
GE0/PoE_IN	RJ45	Ethernet uplink electrical port that supports 10/100/1000M auto-sensing, connects to the wired Ethernet, and supports PoE input.	Network cable
GE1 to GE4	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable
DC 12V	DC connector	Connects to a 12 V power adapter.	12 V DC power adapter
PASS-THRU	RJ45	A pair of RJ45 passthrough ports for transparent transmission and interconnection with Ethernet cables or telephone lines.	Network cable or telephone line
USB	USB 2.0 Type A	Connects to an IoT terminal to implement IoT applications.	IoT module

#### **Indicators and Buttons**

Figure 5-15 Indicators and buttons on the AirEngine 5761S-11W



The indicator is located inside the panel, which turns on after the AP is powered on.

1	Indicator	2	Default
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Table 5-18 Indicators on the AirEngine 5761S-11W

Silkscreen	Name	Color	Status	Description
-	System indicator	-	Off	The system is not running.

Silkscreen	Name	Color	Status	Description
		Green	Steady on	<ul> <li>The system is just powered on.</li> <li>The system is starting after a reset.</li> <li>The upperlayer system is starting.</li> </ul>
		Green	Steady on after blinking once	After the hardware reset is cleared and the software starts, the indicator blinks once. Then, the indicator is steady on until the bottom-layer system starts.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP. This state is supported in V200R022C00 and later versions.

Silkscreen	Name	Color	Status	Description
		Green	Slow blinking (0.2 Hz)	The AP is running properly, and the Ethernet connection is normal.  For V200R022C00 and later versions, this state also indicates that no STA is associated with the AP.
		Green	Blinking once every 0.25s (4 Hz)	<ul> <li>The bottom-layer system is being started.</li> <li>The software is being upgraded.</li> <li>After the software is loaded and started, the AP requests to go online in Fit or cloud manageme nt mode. The indicator remains in this state till the AP successfull y goes online.</li> </ul>
		Red	Steady on	The system is faulty.

**Table 5-19** Buttons on the AirEngine 5761S-11W

Silkscreen	Name	Description
Default	Reset button	<ul> <li>For versions earlier than         V200R022C00SPC100,         hold down the button         for more than 3         seconds to restore the         factory settings and         restart the device.</li> <li>For         V200R022C00SPC100         and later versions, if         you press the button,         the device resets; if         you hold down the         button for more than         6 seconds, the device         restores the factory         settings, switches to         the Fit mode, and         restarts.</li> </ul>

## **Technical Specifications**

Table 5-20 Technical specifications of the AirEngine 5761S-11W

Item	Specification
Installation Type	Wall
Dimensions without packaging (H x W x D) [mm(in.)]	160 mm x 86 mm x 38 mm (6.30 in. x 3.39 in. x 1.50 in.)
Weight without packaging [kg(lb)]	0.300 kg (0.661 lb)
Storage	NAND Flash 512 MB
Console port	BLE console
Maximum power consumption [W]	12.7 (excluding USB)
Maximum heat dissipation [BTU/hour]	42.6 BTU (without USB)
Power supply mode	DC adapter
	• PoE
Rated input voltage [V]	12 V
Input voltage range [V]	DC: 12 V ± 10%
	PoE: 802.3at/af

Item	Specification
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 5, 10M/100M/1000M auto-sensing
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (From 1800 m to 5000 m [5905.51 ft. to 16404.20 ft.], the maximum temperature of the device decreases by 1°C [1.8°F] for every 300 m [984.25 ft.] increase in altitude.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground
USB	USB 2.0
BLE	BLE5.2
Radio number	2
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4 GHz: 802.11b/g/n/ax 5 GHz: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in smart antennas
Antenna gain	2.4 GHz: 2.5 dBi/chain (peak) 1 dBi (combined gain) 5 GHz: 3 dBi/chain (peak value) 1 dBi (combined gain) BLE: 4 dBi

Item	Specification
Maximum transmit power	2.4 GHz:
	20 dBm/chain
	23 dBm (combined power)
	5 GHz:
	20 dBm/chain
	23 dBm (combined power)
	BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 20 dBm/chain
	5G: -10 dBm to 20 dBm/chain
MTBF [year]	256 year
MTTR [hour]	0.5 hour
Frequency stability [ppm]	+/-20
802.3at power supply description	No function is limited.
802.3af power supply description	The USB function is not supported. Other functions are not restricted.
DC power supply description	No function is limited.

## **5.6 AirEngine 5762-12SW**

### **5.6.1 Product Characteristics**

Huawei AirEngine 5762-12SW is an indoor access point (AP) in compliance with the Wi-Fi 6 (802.11ax) standard. It supports high bandwidth, high concurrency, and compact size, facilitating flexible deployment and saving customer investment. It is applicable to indoor coverage scenarios, such as small- and medium-sized offices, houses, and hotels.

- Working simultaneously on the 2.4 GHz (2x2) + 5 GHz (2x2) frequency bands
- Uplink: 1 x GE electrical port; downlink: 1 x GE electrical port
- Built-in smart antennas
- Bluetooth serial interface-based O&M through built-in Bluetooth by collaborating with CloudCampus APP
- Working modes: Fit, Fat, and cloud management

### 5.6.2 Hardware Information

### Overview

Table 5-21 Basic information about the AirEngine 5762-12SW

Item	Details
Description	AirEngine5762-12SW(11ax indoor,2+2 dual bands,smart antenna,BLE)
Part Number	50084980
Model	AirEngine 5762-12SW
First supported version	V200R021C01

Figure 5-16 Appearance of the AirEngine 5762-12SW



#### **Ports**

Figure 5-17 Ports on the AirEngine 5762-12SW



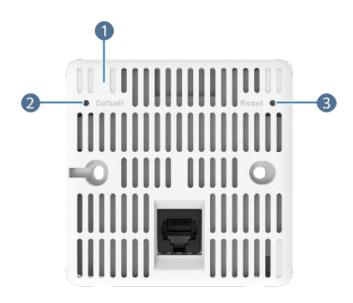
1	GE0/PoE_IN	2	GE1
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Table 5-22 Ports on the AirEngine 5762-12SW

Port	Connector Type	Description	Available Components
GE0/PoE_IN	RJ45	Ethernet uplink electrical port that supports 10/100/1000M auto-sensing, connects to the wired Ethernet, and supports PoE input	Network cable
GE1	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable

#### **Indicators and Buttons**

Figure 5-18 Indicators and buttons on the AirEngine 5762-12SW



The indicator is located inside the panel, which turns on after the AP is powered on.

1	Indicator	2	Default
3	Reset	-	-

Table 5-23 Indicators on the AirEngine 5762-12SW

Silkscreen	Name	Color	Status	Description
-	System indicator	Green	Steady on	Default status after power- on.
				The AP is just powered on and the software is not started yet.

Silkscreen	Name	Color	Status	Description
		Green	Steady on after blinking once	Software startup status.  After the system is reset and starts loading the software, the indicator blinks green once. Then, the indicator remains steady green until the software is started up.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP. This state is supported in V200R022C00 and later versions.
		Green	Slow blinking (0.2 Hz)	The AP is running properly, and the Ethernet connection is normal.  For V200R022C00 and later versions, this state also indicates that no STA is associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Blinking once every 0.25s (4 Hz)	Alarm.  The software is being upgraded.  After the software is loaded and started, the AP requests to go online if it works in Fit AP or cloud-based manageme nt mode. The indicator remains in this state before the AP successfull y goes online.  The AP works in Fit AP or cloud-based manageme nt mode and fails to go online.

Silkscreen	Name	Color	Status	Description
Silkscreen	Name	Red	Status Steady on	Pault. A fault that affects services has occurred, such as a DRAM detection failure or
				system software loading failure. The fault cannot be automatically rectified and must be rectified manually.

Table 5-24 Buttons on the AirEngine 5762-12SW

Silkscreen	Name	Description
Default	Reset button	<ul> <li>For versions earlier than V200R022C00SPC100, hold down the button for more than 3 seconds to restore the factory settings and restart the device.</li> <li>For V200R022C00SPC100 and later versions, if you press the button, the device resets; if you hold down the button for more than 6 seconds, the device restores the factory settings, switches to the Fit mode, and restarts.</li> </ul>
Reset	Restart button	Press this button to restart the device.

## **Technical Specifications**

**Table 5-25** Technical specifications of the AirEngine 5762-12SW

Item	Specification
Installation Type	Junction Box
Dimensions without packaging (H x W x D) [mm(in.)]	86 mm x 86 mm x 46 mm (3.39 in. x 3.39 in. x 1.81 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	75 mm x 115 mm x 100 mm (2.95 in. x 4.53 in. x 3.94 in.)
Weight without packaging [kg(lb)]	0.185 kg (0.408 lb)
Weight with packaging [kg(lb)]	0.255 kg (0.562 lb)
Storage	NAND Flash 256 MB
Console port	BLE console
Maximum power consumption [W]	12 W
Maximum heat dissipation [BTU/hour]	41 BTU/hour
Power supply mode	РоЕ
Input voltage range [V]	PoE: 802.3af
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 2, 10M/100M/1000M auto-sensing
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (If the altitude is in the range of 1800 m to 5000 m, the temperature decreases by 1°C or 1.8°F every time the altitude increases by 300 m.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground
BLE	BLE5.0

Item	Specification
Radio number	2
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4G: 802.11b/g/n/ax 5G: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in smart antennas
Antenna gain	2.4G: 2 dBi/chain (peak value) 1 dBi (combined gain) 5G: 3 dBi/chain (peak value) 1 dBi (combined gain) BLE: 4 dBi
Maximum transmit power	2.4G: 17 dBm/chain 20 dBm (combined power) 5G: 17 dBm/chain 20 dBm (combined power) BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 17 dBm/chain 5G: -10 dBm to 17 dBm/chain
MTBF [year]	242 year
MTTR [hour]	0.5 hour
Frequency stability [ppm]	+/-20
802.3af power supply description	No function is limited.

# **5.7 AirEngine 5762-17W**

## **5.7.1 Product Characteristics**

Huawei AirEngine 5762-17W is a Wi-Fi 6 (802.11ax) wall plate access point (AP) that has built-in smart antennas. It can simultaneously provide services on 2.4 GHz (2x2 MIMO) and 5 GHz (2x2 MIMO) frequency bands. With four downlink GE ports, the AP is free of downlink bandwidth bottlenecks. Such strengths make the AP a good fit for high-density scenarios such as hotels, hospitals, and dormitories.

- Dual-radio mode: 2.4 GHz (2x2 MIMO) + 5 GHz (2x2 MIMO).
- Uplink: 1 x GE; downlink: 4 x GE.
- Various installation modes for easy deployment, including wall-mounting and plate-mounting.
- Built-in smart antennas to provide precise coverage for STAs, reduce interference, and improve signal quality.
- USB port for external IoT expansion (supporting protocols such as ZigBee, and RFID)
- Supports Bluetooth serial interface-based O&M through built-in Bluetooth and CloudCampus APP.
- Supports the Fat, Fit, and Cloud three working modes.

#### 5.7.2 Hardware Information

#### Overview

**Table 5-26** Basic information about the AirEngine 5762-17W

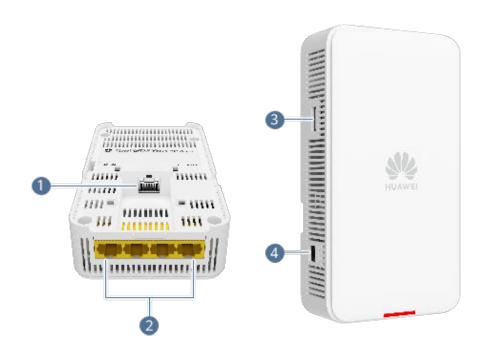
Item	Details
Description	AirEngine5762-17W(11ax indoor,2+2 dual bands,smart antenna,USB,BLE)
Part Number	50086102
Model	AirEngine 5762-17W
First supported version	V200R022C10

**Figure 5-19** Appearance of the AirEngine 5762-17W



#### **Ports**

**Figure 5-20** Ports on the AirEngine 5762-17W



1	GE0/PoE_IN	2	GE1 to GE4
3	USB	4	DC 12V

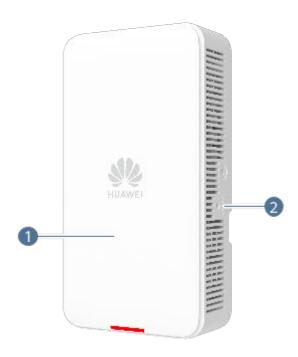
Table 5-27 Ports on the AirEngine 5762-17W

Port	Connector Type	Description	Available Components
GE0/PoE_IN	RJ45	Ethernet uplink electrical port that supports 10/100/1000M auto-sensing, connects to the wired Ethernet, and supports PoE input.	Network cable

Port	Connector Type	Description	Available Components
GE1 to GE4	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable
DC 12V	DC connector	Connects to a 12 V power adapter.	12 V DC power adapter
USB	USB 2.0 Type A	Connects to an IoT terminal to implement IoT applications.	IoT module

## **Indicators and Buttons**

Figure 5-21 Indicators and buttons on the AirEngine 5762-17W



The indicator is located inside the panel, which turns on after the AP is powered on.

1 Indicator 2 Default	1	Indicator	12	Default	
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**Table 5-28** Indicators on the AirEngine 5762-17W

Silkscreen	Name	Color	Status	Description
-	System indicator	-	Off	The system is not running.
		Green	Steady on	<ul> <li>The system is just powered on.</li> <li>The system is starting after a reset.</li> <li>The upper-layer system is starting.</li> </ul>
		Green	Steady on after blinking once	After the hardware reset is cleared and the software starts, the indicator blinks once. Then, the indicator is steady on until the bottom-layer system starts.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Slow blinking (0.2 Hz)	The AP is running properly, the Ethernet connection is normal, and no STA is associated with the AP.
		Green	Blinking once every 0.25s (4 Hz)	<ul> <li>The bottom-layer system is being started.</li> <li>The software is being upgraded.</li> <li>After the software is loaded and started, the AP requests to go online in Fit or cloud manageme nt mode. The indicator remains in this state till the AP successfull y goes online.</li> </ul>
		Red	Steady on	The system is faulty.

Table 5-29 Buttons on the AirEngine 5762-17W

Silkscreen	Name	Description
Default	Reset button	If you press the button, the device resets; if you hold down the button for more than 6 seconds, the device restores the factory settings, switches to the Fit mode, and restarts.

## **Technical Specifications**

**Table 5-30** Technical specifications of the AirEngine 5762-17W

Item	Specification
Installation Type	<ul><li>Wall</li><li>Ceiling</li><li>Junction Box</li></ul>
Dimensions without packaging (H x W x D) [mm(in.)]	160 mm x 86 mm x 38 mm (6.30 in. x 3.39 in. x 1.50 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	75 mm x 205 mm x 115 mm (2.95 in. x 8.07 in. x 4.53 in.)
Weight without packaging [kg(lb)]	0.300 kg (0.661 lb)
Weight with packaging [kg(lb)]	0.520 kg (1.146 lb)
Storage	NAND Flash 256 MB
Console port	BLE console
Maximum power consumption [W]	15 W
Maximum heat dissipation [BTU/hour]	48.6 BTU/hour
Power supply mode	<ul><li>DC adapter</li><li>PoE</li></ul>
Rated input voltage [V]	12 V
Input voltage range [V]	DC: 12 V ± 10% PoE: 802.3at/af

Item	Specification	
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B	
	Common mode (8 wires to ground): 4 kV (1.2/50 us, 42 ohms), criterion B	
	Non-PoE port: Common mode (8 wires to ground): 4 kV (1.2/50 us, 42 ohms), criterion B	
Maximum number of physical ports on the entire device	GE (RJ45) x 5, 10M/100M/1000M auto-sensing	
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (From 1800 m to 5000 m [5905.51 ft. to 16404.20 ft.], the maximum temperature of the device decreases by 1°C [1.8°F] for every 300 m [984.25 ft.] increase in altitude.)	
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)	
Long-term operating relative humidity [RH]	5% RH to 95% RH	
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)	
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3	
Ground	floating ground	
USB	USB 2.0	
BLE	BLE5.1	
Radio number	2	
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>	
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2	
Wi-Fi standard	2.4 GHz: 802.11b/g/n/ax 5 GHz: 802.11a/n/ac/ac Wave 2/ax	
Radio interface	Built-in smart antennas	

Item	Specification
Antenna gain	2.4 GHz: 2 dBi/chain (peak) 1 dBi (combined gain) 5 GHz: 3 dBi/chain (peak) 1 dBi (combined gain)
	BLE: 4 dBi (peak)
Maximum transmit power	2.4 GHz: 17 dBm/chain 20 dBm (combined power) 5 GHz: 20 dBm/chain 23 dBm (combined power) BLE: 10 dBm
Singal radio transmit power [dBm]	2.4 GHz: -10 dBm to +17 dBm/chain 5 GHz: -10 dBm to +20 dBm/chain BLE: 10 dBm
MTBF [year]	184.97 year
MTTR [hour]	0.5 hour
Frequency stability [ppm]	+/-20
802.3at power supply description	No function is limited.
802.3af power supply description	The USB function is not supported. Other functions are not restricted.
DC power supply description	No function is limited.

## **5.8 AirEngine 5762-16W**

## **5.8.1 Product Characteristics**

Huawei AirEngine 5762-16W is an indoor wall plate access point (AP) in compliance with the Wi-Fi 6 (802.11ax) standard. It provides services simultaneously on the 2.4 GHz (2x2 MIMO) and 5 GHz (2x2 MIMO) frequency bands. Built-in butterfly-pattern smart antennas and innovative dual-beam antennas to provide average signal strength in multiple rooms. A single AP can provide signal coverage for two to three rooms at the same time. This solves the problem of deploying a large number of APs in multiple rooms and partitions, effectively reducing the construction cost and power consumption of the entire network. It is applicable to student dormitories, hospital wards, and hotel rooms.

- Working simultaneously on its two radios: 2.4 GHz (2x2) + 5 GHz (2x2)
- 1 x GE electrical port
- Built-in smart antennas that automatically adjust the coverage direction and signal strength based on the intelligent switchover algorithm to adapt to the application environment change, and provide accurate and stable coverage as STAs move
- USB interface, supporting IoT extension such as BLE, ZigBee, or RFID
- Bluetooth serial interface-based O&M through built-in Bluetooth by collaborating with CloudCampus APP
- Working modes: Fit, Fat, and cloud management

#### 5.8.2 Hardware Information

#### Overview

Table 5-31 Basic information about the AirEngine 5762-16W

Item	Details
Description	AirEngine5762-16W(11ax indoor,2+2 dual bands,built-in butterfly-pattern smart antenna,USB,BLE)
Part Number	50085388
Model	AirEngine 5762-16W
First supported version	V200R022C00

Figure 5-22 Appearance of the AirEngine 5762-16W



#### **Ports**

**Figure 5-23** Ports on the AirEngine 5762-16W



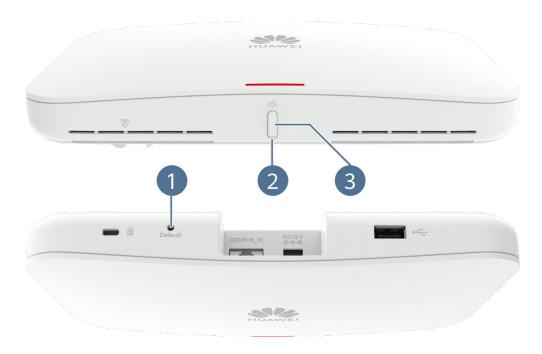
1	Security slot	2	GE0/PoE_IN
3	DC 12V	-	-

**Table 5-32** Ports on the AirEngine 5762-16W

Port	Connector Type	Description	Available Components
GE0/PoE_IN	RJ45	Ethernet uplink electrical port that supports 10/100/1000M auto-sensing, connects to the wired Ethernet, and supports PoE input	Network cable
DC 12V	DC connector	Connects to a 12 V power adapter.	12 V DC power adapter
USB	USB 2.0 Type A	Connects to an IoT terminal to implement IoT applications.	IoT module

### **Indicators and Buttons**

Figure 5-24 Indicators and buttons on the AirEngine 5762-16W



1	Default	2	Indicator
3	Indicator switch	-	-

Table 5-33 Indicators on the AirEngine 5762-16W

Silkscreen	Name	Color	Status	Description
-	System indicator	-	Off	The system is not running.
		Green	Steady on	<ul> <li>The system is just powered on.</li> <li>The system is starting after a reset.</li> </ul>
				• The upper- layer system is starting.

Silkscreen	Name	Color	Status	Description
		Green	Steady on after blinking once	After the hardware reset is cleared and the software starts, the indicator blinks once. Then, the indicator is steady on until the bottom-layer system starts.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP.
		Green	Slow blinking (0.2 Hz)	The AP is running properly, the Ethernet connection is normal, and no STA is associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Blinking once every 0.25s (4 Hz)	<ul> <li>The bottom-layer system is being started.</li> <li>The software is being upgraded.</li> <li>After the software is loaded and started, the AP requests to go online in Fit or cloud manageme nt mode. The indicator remains in this state till the AP successfull y goes online.</li> </ul>
		Red	Steady on	The system is faulty.

Table 5-34 Buttons on the AirEngine 5762-16W

Silkscreen	Name	Description
Default	Reset button	<ul> <li>For versions earlier than         V200R022C00SPC100,         hold down the button         for more than 3         seconds to restore the         factory settings and         restart the device.</li> <li>For         V200R022C00SPC100         and later versions, if         you press the button,         the device resets; if         you hold down the         button for more than         6 seconds, the device         restores the factory         settings, switches to         the Fit mode, and         restarts.</li> </ul>
-	Indicator button	After the AP is powered on, you can use this button to turn on or off the indicator. After the power supply is disconnected, the status of the indicator button is reset.

## **Technical Specifications**

**Table 5-35** Technical specifications of the AirEngine 5762-16W

Item	Specification
Installation Type	Wall
Dimensions without packaging (H x W x D) [mm(in.)]	32 mm x 220 mm x 130 mm (1.26 in. x 8.66 in. x 5.12 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	73 mm x 285 mm x 185 mm (2.87 in. x 11.22 in. x 7.28 in.)
Weight without packaging [kg(lb)]	0.485 kg (1.069 lb)
Weight with packaging [kg(lb)]	0.79 kg (1.74 lb)
Storage	NAND Flash 256 MB

Item	Specification
Console port	BLE console
Maximum power consumption [W]	17.1 (excluding USB)
Maximum heat dissipation [BTU/hour]	58 BTU/hour
Power supply mode	<ul><li>DC adapter</li><li>PoE</li></ul>
Rated input voltage [V]	12 V
Input voltage range [V]	DC: 12 V ± 10% PoE: 802.3at/af
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 1, 10M/100M/1000M auto-sensing
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (If the altitude is in the range of 1800 m to 5000 m, the temperature decreases by 1°C or 1.8°F every time the altitude increases by 300 m.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground
USB	USB 2.0
BLE	BLE5.0
Radio number	2
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2

Item	Specification
Wi-Fi standard	2.4G: 802.11b/g/n/ax
	5G: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in butterfly-pattern smart antennas
Antenna gain	2.4G:
	4 dBi/chain (peak value)
	2 dBi (combined gain)
	5G:
	6 dBi/chain (peak value) 4 dBi (combined gain)
	BLE: 4 dBi
Maximum transmit power	2.4G:
Waximam dansime power	24 dBm/chain
	27 dBm (combined power)
	5G:
	24 dBm/chain
	27 dBm (combined power)
	BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 24 dBm/chain
	5G: -10 dBm to 24 dBm/chain
MTBF [year]	278 year
MTTR [hour]	2 hour
Frequency stability [ppm]	+/-20
802.3bt power supply description	No function is limited.
802.3at power supply description	No function is limited.
802.3af power supply description	Wi-Fi: 2.4 GHz (2 x 2)+5 GHz (2 x 2). The maximum combined power is adjusted to 23 dBm (2.4 GHz) and 23 dBm (5 GHz).
	Wired network port: not affected
	Other ports: The USB port is unavailable.
DC power supply description	No function is limited.

# **5.9 AirEngine 5762-15HW**

#### **5.9.1 Product Characteristics**

Huawei AirEngine 5762-15HW is an indoor Wi-Fi 6 (802.11ax) access point (AP). It supports high bandwidth, high concurrency, and compact size, facilitating flexible deployment and saving customer investment. It is applicable to indoor coverage scenarios, such as small- and medium-sized enterprise offices, hospitals, and cafes.

- Working simultaneously on the 2.4 GHz (2x2) + 5 GHz (2x2) frequency bands
- Uplink: 1 x GE optical port (optical/electrical port, supporting hybrid cables) for the AP with the part number 50084984
- Downlink: 4 x GE electrical ports
- Built-in smart antennas
- Bluetooth serial interface-based O&M through built-in Bluetooth by collaborating with CloudCampus APP
- Working modes: Fit, Fat, and cloud management

## 5.9.2 Hardware Information(50086101-001)

#### Overview

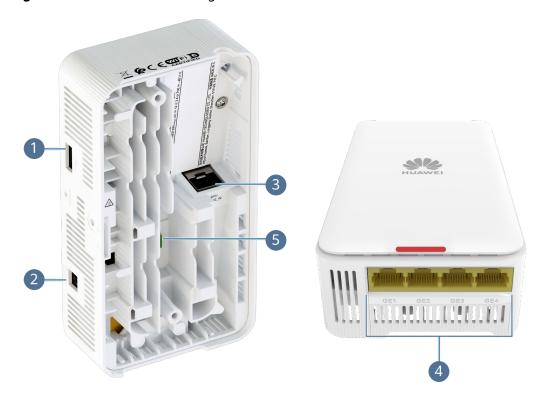
Table 5-36 Basic information about the AirEngine 5762-15HW

Item	Details
Description	AirEngine5762-15HW(11ax indoor,2+2 dual bands,smart antenna,USB,BLE)
Part Number	50086101-001
Model	AirEngine 5762-15HW
First supported version	V200R022C10

Figure 5-25 Appearance of the AirEngine 5762-15HW



Figure 5-26 Ports on the AirEngine 5762-15HW

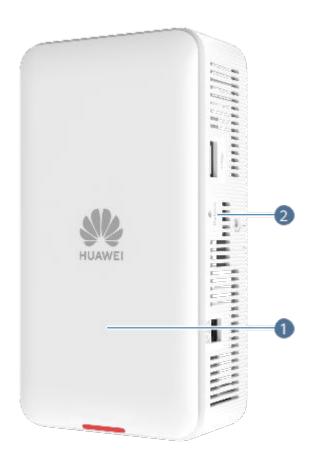


1	USB	2	DC 12V
3	SFP/PoE_IN	4	GE1 to GE4
5	PoE_IN	-	-

Table 5-37 Ports on the AirEngine 5762-15HW

Port	Connector Type	Description	Available Components
SFP/PoE_IN	SFP	Optical port used for uplink Ethernet communication. It supports 2.5 Gbit/s or 1 Gbit/s and PoE input. When the PSE supplies power to the AP through this port, the hybrid cable and hybrid module must be used.	Hybrid module
PoE_IN	Phoenix terminal block	When the PSE supplies power to the AP through this port, a DC power cable can be separated from the hybrid cable to supply power to the AP. In this case, the SFP/ PoE_IN port can use a common optical module.	Phoenix terminal block
GE1 to GE4	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable
DC 12V	DC connector	Connects to a 12 V power adapter.	12 V DC power adapter
USB	USB 2.0 Type A	Connects to an IoT terminal to implement IoT applications.	IoT module

Figure 5-27 Indicators and buttons on the AirEngine 5762-15HW



The indicator is located inside the panel, which turns on after the AP is powered on.

1	Indicator	2	Default
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Table 5-38 Indicators on the AirEngine 5762-15HW

Silkscreen	Name	Color	Status	Description
-	System indicator	Green	Steady on	Default status after power-on. The AP is just powered on and the software is not started yet.
		Green	Steady on after blinking once	Software startup status. After the system is reset and starts loading the software, the indicator blinks green once. Then, the indicator remains steady green until the software is started up.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP.
		Green	Slow blinking (0.2 Hz)	The AP is running properly, the Ethernet connection is normal, and no STA is associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Blinking once every 0.25s (4 Hz)	Alarm.  The software is being upgraded.  After the software is loaded and started, the AP requests to go online if it works in Fit AP or cloud-based manageme nt mode. The indicator remains in this state before the AP successfull y goes online.  The AP works in Fit AP or cloud-based manageme nt mode and fails to go online.

Silkscreen	Name	Color	Status	Description
		Red	Steady on	Fault.  A fault that affects services has occurred, such as a DRAM detection failure or system software loading failure. The fault cannot be automatically rectified and must be rectified manually.

**Table 5-39** Buttons on the AirEngine 5762-15HW

Silkscreen	Name	Description
Default	Reset button	If you press the button, the device resets; if you hold down the button for more than 6 seconds, the device restores the factory settings, switches to the Fit mode, and restarts.

**Table 5-40** Technical specifications of the AirEngine 5762-15HW

Item	Specification
Installation Type	• Wall
	Ceiling
	Junction Box
Dimensions without packaging (H x W x D) [mm(in.)]	160 mm x 86 mm x 45 mm (6.30 in. x 3.39 in. x 1.77 in.)

Item	Specification
Dimensions with packaging (H x W x D) [mm(in.)]	75 mm x 205 mm x 115 mm (2.95 in. x 8.07 in. x 4.53 in.)
Weight without packaging [kg(lb)]	0.455 kg (1.003 lb)
Weight with packaging [kg(lb)]	0.680 kg (1.488 lb)
Storage	NAND Flash 256 MB
Console port	BLE console
Maximum power consumption [W]	15.0 W
Maximum heat dissipation [BTU/hour]	51.2 BTU/hour
Power supply mode	<ul><li>DC adapter</li><li>PoE (hybrid cable)</li></ul>
Rated input voltage [V]	12 V
Input voltage range [V]	12 V ± 10% PoE: 802.3af/at
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 4, 10M/100M/1000M auto-sensing, SFP x 1
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (If the altitude is in the range of 1800 m to 5000 m, the temperature decreases by 1°C or 1.8°F every time the altitude increases by 300 m.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground
USB	USB 2.0
BLE	BLE5.1
Radio number	2

Item	Specification
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4G: 802.11b/g/n/ax 5G: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in smart antennas
Antenna gain	2.4G: 2 dBi/chain (peak value) 1 dBi (combined gain) 5G: 3 dBi/chain (peak value) 1 dBi (combined gain) BLE: 4 dBi
Maximum transmit power	2.4G: 20 dBm/chain 23 dBm (combined power) 5G: 20 dBm/chain 23 dBm (combined power) BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 20 dBm/chain 5G: -10 dBm to 20 dBm/chain
MTBF [year]	156 year
MTTR [hour]	0.5 hour
Frequency stability [ppm]	+/-20
802.3at power supply description	No function is limited.
802.3af power supply description	The USB and downlink ports are limited.
DC power supply description	No function is limited.

# 5.9.3 Hardware Information(50084984)

## Overview

Table 5-41 Basic information about the AirEngine 5762-15HW

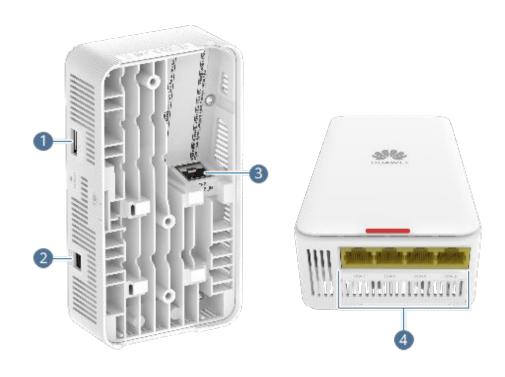
Item	Details
Description	AirEngine5762-15HW(11ax indoor,2+2 dual bands,smart antenna,USB,BLE)
Part Number	50084984
Model	AirEngine 5762-15HW
First supported version	V200R021C01

## **Appearance**

Figure 5-28 Appearance of the AirEngine 5762-15HW



Figure 5-29 Ports on the AirEngine 5762-15HW

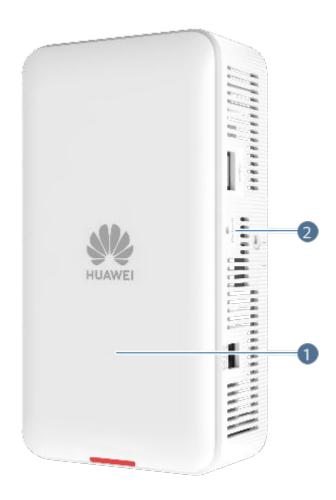


1	USB	2	DC 12V
3	SFP/PoE_IN	4	GE1 to GE4

Table 5-42 Ports on the AirEngine 5762-15HW

Port	Connector Type	Description	Available Components
SFP/PoE_IN	SFP	1 Gbit/s optical port that connects to the uplink Ethernet and supports PoE input. When a PSE supplies power to the AP through this port, the matching hybrid cable and hybrid module must be used.	Optical module
GE1 to GE4	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable
DC 12V	DC connector	Connects to a 12 V power adapter.	12 V DC power adapter
USB	USB 2.0 Type A	Connects to an IoT terminal to implement IoT applications.	IoT module

Figure 5-30 Indicators and buttons on the AirEngine 5762-15HW



The indicator is located inside the panel, which turns on after the AP is powered on.

Ī	1	Indicator	2	Default
			l	

Table 5-43 Indicators on the AirEngine 5762-15HW

Silkscreen	Name	Color	Status	Description
-	System indicator	Green	Steady on	Default status after power-on. The AP is just powered on and the software is not started yet.
		Green	Steady on after blinking once	Software startup status. After the system is reset and starts loading the software, the indicator blinks green once. Then, the indicator remains steady green until the software is started up.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP. This state is supported in V200R022C00 and later versions.

Silkscreen	Name	Color	Status	Description
		Green	Slow blinking (0.2 Hz)	The AP is running properly, and the Ethernet connection is normal.  For V200R022C00 and later versions, this state also indicates that no STA is associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Blinking once every 0.25s (4 Hz)	Alarm.  The software is being upgraded.  After the software is loaded and started, the AP requests to go online if it works in Fit AP or cloud-based manageme nt mode. The indicator remains in this state before the AP successfull y goes online.  The AP works in Fit AP or cloud-based manageme nt mode and fails to go online.

Silkscreen	Name	Color	Status	Description
		Red	Steady on	Fault. A fault that affects services has occurred, such as a DRAM detection failure or system software loading failure. The fault cannot be automatically rectified and must be rectified manually.

**Table 5-44** Buttons on the AirEngine 5762-15HW

Silkscreen	Name	Description
Default	Reset button	<ul> <li>For versions earlier than         V200R022C00SPC100,         hold down the button         for more than 3         seconds to restore the         factory settings and         restart the device.</li> <li>For         V200R022C00SPC100         and later versions, if         you press the button,         the device resets; if         you hold down the         button for more than         6 seconds, the device         restores the factory         settings, switches to         the Fit mode, and         restarts.</li> </ul>

**Table 5-45** Technical specifications of the AirEngine 5762-15HW

Item	Specification
Installation Type	<ul><li>Wall</li><li>Ceiling</li><li>Junction Box</li></ul>
Dimensions without packaging (H x W x D) [mm(in.)]	160 mm x 86 mm x 45 mm (6.30 in. x 3.39 in. x 1.77 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	75 mm x 205 mm x 115 mm (2.95 in. x 8.07 in. x 4.53 in.)
Weight without packaging [kg(lb)]	0.480 kg (1.058 lb)
Weight with packaging [kg(lb)]	0.680 kg (1.488 lb)
Storage	NAND Flash 256 MB
Console port	BLE console
Maximum power consumption [W]	15.0 W
Maximum heat dissipation [BTU/hour]	51.2 BTU/hour
Power supply mode	<ul><li>DC adapter</li><li>PoE (hybrid cable)</li></ul>
Rated input voltage [V]	12 V
Input voltage range [V]	12 V ± 10% PoE: 802.3af/at
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 4, 10M/100M/1000M auto-sensing, SFP x 1
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (If the altitude is in the range of 1800 m to 5000 m, the temperature decreases by 1°C or 1.8°F every time the altitude increases by 300 m.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH

Item	Specification
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground
BLE	BLE5.0
Radio number	2
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4G: 802.11b/g/n/ax 5G: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in smart antennas
Antenna gain	2.4G: 2 dBi/chain (peak value) 1 dBi (combined gain) 5G: 3 dBi/chain (peak value) 1 dBi (combined gain) BLE: 4 dBi
Maximum transmit power	2.4G: 20 dBm/chain 23 dBm (combined power) 5G: 20 dBm/chain 23 dBm (combined power) BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 20 dBm/chain 5G: -10 dBm to 20 dBm/chain
MTBF [year]	156 year
MTTR [hour]	0.5 hour
Frequency stability [ppm]	+/-20
802.3at power supply description	No function is limited.

Item	Specification
802.3af power supply description	The USB and downlink ports are limited.
DC power supply description	No function is limited.

# 5.10 AirEngine 5773-23HW

### 5.10.1 Product Characteristics

Huawei AirEngine 5773-23HW is a next-generation wall plate access point (AP) in compliance with Wi-Fi 7 (802.11be). It can simultaneously provide services on 2.4 GHz (2x2 MIMO) and 5 GHz (2x2 MIMO) frequency bands. The AP is empowered by brand-new Wi-Fi 7 technologies, significantly enhancing users' wireless network experience. Additionally, it supports hybrid cables and simplified architecture solution, facilitating flexible deployment and saving customer investment. These strengths make the AirEngine 5773-23HW ideal for indoor coverage scenarios such as dormitories and hotels.

- Provides services simultaneously on both the 2.4 GHz (2x2) and 5 GHz (2x2) frequency bands.
- Has built-in smart antennas that automatically adjust the coverage direction and signal strength based on the intelligent switchover algorithm. Such capability enables the AP to flexibly adapt to the application environment changes, providing accurate and stable coverage as STAs move.

## 5.10.2 Hardware Information

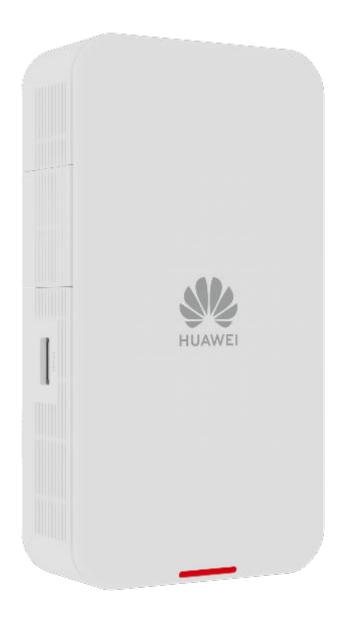
#### Overview

Table 5-46 Basic information about the AirEngine 5773-23HW

Item	Details
Description	AirEngine5773-23HW(11be indoor,2+2 dual bands,smart antenna,USB,BLE,1*2.5G/GE port with a BIDI LC connector)
Part Number	50086768
Model	AirEngine 5773-23HW
First supported version	V600R023C10

## **Appearance**

Figure 5-31 Appearance of the AirEngine 5773-23HW



**Figure 5-32** Ports on the AirEngine 5773-23HW



1	DC 12V	2	PoE_IN
3	2.5G/GE	4	USB
5	GE0 to GE3	-	-

Table 5-47 Ports on the AirEngine 5773-23HW

Port	Connector Type	Description	Available Components
2.5G/GE	LC	Optical port used for uplink Ethernet communication, supporting 2.5 Gbit/s and 1 Gbit/s.	LC optical fiber
GE0 through GE3	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable

Port	Connector Type	Description	Available Components
PoE_IN	Phoenix terminal block	Supplies power to the device over the DC power cable in a hybrid cable when a PSE supplies power to the AP through this port.	Phoenix terminal block
DC 12V	DC connector	Connects to a 12 V power adapter.	12 V DC power adapter
USB	USB Type A	Connects to an IoT terminal to implement IoT applications.	IoT module
		The USB port is unavailable currently and will be supported through software upgrade in the future.	

Figure 5-33 Indicators and buttons on the AirEngine 5773-23HW



1	Indicator	2	Default
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Table 5-48 Indicators on the AirEngine 5773-23HW

Silkscreen	Name	Color	Status	Description
-	System indicator	-	Off	The system is not running.

Silkscreen	Name	Color	Status	Description
		Green	Steady on	<ul> <li>The system is just powered on.</li> <li>The system is starting after a reset.</li> <li>The upperlayer system is starting.</li> </ul>
		Green	Steady on after blinking once	After the hardware reset is cleared and the software starts, the indicator blinks once. Then, the indicator is steady on until the system starts.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP.
		Green	Slow blinking (0.2 Hz)	The AP is running properly, the Ethernet connection is normal, and no STA is associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Blinking once every 0.25s (4 Hz)	<ul> <li>The software is being upgraded.</li> <li>After the software is loaded and started, the AP requests to go online in Fit or cloud manageme nt mode. The indicator remains in this state till the AP successfull y goes online.</li> </ul>
		Red	Steady on	The system is faulty.

Table 5-49 Buttons on the AirEngine 5773-23HW

Silkscreen	Name	Description
Default	Reset button	If you press the button, the device resets; if you hold down the button for more than 6 seconds, the device restores the factory settings, switches to the Fit mode, and restarts.

**Table 5-50** Technical specifications of the AirEngine 5773-23HW

Item	Specification
Installation Type	<ul><li>Wall</li><li>Ceiling</li><li>Junction Box</li></ul>
Dimensions without packaging (H x W x D) [mm(in.)]	160 mm x 86 mm x 38 mm (6.30 in. x 3.39 in. x 1.50 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	73 mm x 203 mm x 114 mm (2.87 in. x 7.99 in. x 4.49 in.)
Weight without packaging [kg(lb)]	0.39 kg (0.86 lb)
Weight with packaging [kg(lb)]	0.53 kg (1.17 lb)
Storage	NAND Flash 256 MB
Console port	BLE console
Maximum power consumption [W]	14.2 W
Maximum heat dissipation [BTU/hour]	46.0 BTU/hour
Power supply mode	<ul><li>DC adapter</li><li>PoE (hybrid cable)</li></ul>
Rated input voltage [V]	12 V
Input voltage range [V]	12 V ± 10% PoE: 802.3af/at
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 4, 10M/100M/1000M auto-sensing 2.5GE (LC) optical port x 1
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (From 1800 m to 5000 m [5905.51 ft. to 16404.20 ft.], the maximum temperature of the device decreases by 1°C [1.8°F] for every 300 m [984.25 ft.] increase in altitude.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)

Item	Specification
Long-term operating relative humidity [RH]	5% RH to 95% RH, non-condensing
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa ~ 106kPa ETSI 300 019-2-3
Ground	floating ground
USB	The USB function is unavailable and will be supported through software upgrade in the future.
BLE	BLE5.2
Radio number	2
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4 GHz: 802.11b/g/n/ax/be 5 GHz:802.11a/n/ac/ac Wave 2/ax/be
Radio interface	Built-in smart antennas
Antenna gain	2.4 GHz: 3 dBi/chain (peak gain) 1 dBi (combined gain) 5 GHz: 3 dBi/chain (peak gain) 1 dBi (combined gain) BLE: 4 dBi (peak value)
Maximum transmit power	2.4 GHz: 20 dBm/chain 23 dBm (combined power) 5 GHz: 20 dBm/chain 23 dBm (combined power) BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 20 dBm/chain 5G: -10 dBm to 20 dBm/chain
MTBF [year]	143.611 year

Item	Specification
MTTR [hour]	2 hour
Frequency stability [ppm]	+/-20
802.3at power supply description	No function is limited.
802.3af power supply description	The USB function is not supported. Other functions are not restricted.
DC power supply description	No function is limited.

# 5.11 AirEngine 5573-23HW

### 5.11.1 Product Characteristics

Huawei AirEngine 5573-23HW is a next-generation wall plate access point (AP) in compliance with Wi-Fi 7 (802.11be). It can simultaneously provide services on 2.4 GHz (2x2 MIMO) and 5 GHz (2x2 MIMO) frequency bands. The AP is empowered by brand-new Wi-Fi 7 technologies, significantly enhancing users' wireless network experience. Additionally, it supports hybrid cables and simplified architecture solution, facilitating flexible deployment and saving customer investment. These strengths make the AirEngine 5773-23HW ideal for indoor coverage scenarios such as dormitories and hotels.

- Provides services simultaneously on both the 2.4 GHz (2x2) and 5 GHz (2x2) frequency bands.
- Has built-in smart antennas that automatically adjust the coverage direction and signal strength based on the intelligent switchover algorithm. Such capability enables the AP to flexibly adapt to the application environment changes, providing accurate and stable coverage as STAs move.

## 5.11.2 Hardware Information

#### Overview

**Table 5-51** Basic information about the AirEngine 5573-23HW

Item	Details
Description	AirEngine5573-23HW(11be indoor,2+2 dual bands,smart antenna,USB,BLE,1*2.5G/GE port with a BIDI LC connector)
Part Number	50087253

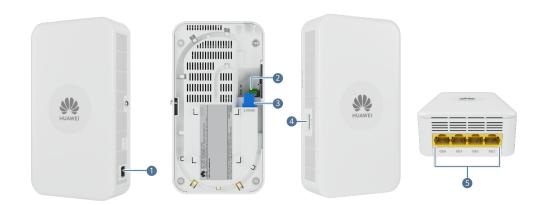
Item	Details
Model	AirEngine 5573-23HW
First supported version	V600R023C10

# **Appearance**

Figure 5-34 Appearance of the AirEngine 5573-23HW



**Figure 5-35** Ports on the AirEngine 5573-23HW



1	DC 12V	2	PoE_IN
3	2.5G/GE	4	USB
5	GE0 to GE3	-	-

Table 5-52 Ports on the AirEngine 5573-23HW

Port	Connector Type	Description	Available Components
2.5G/GE	LC	Optical port used for uplink Ethernet communication, supporting 2.5 Gbit/s and 1 Gbit/s.	LC optical fiber
GE0 through GE3	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable

Port	Connector Type	Description	Available Components
PoE_IN	Phoenix terminal block	Supplies power to the device over the DC power cable in a hybrid cable when a PSE supplies power to the AP through this port.	Phoenix terminal block
DC 12V	DC connector	Connects to a 12 V power adapter.	12 V DC power adapter
USB	USB Type A	Connects to an IoT terminal to implement IoT applications.	IoT module
		The USB port is unavailable currently and will be supported through software upgrade in the future.	





1	Indicator	2	Default
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Table 5-53 Indicators on the AirEngine 5573-23HW

Silkscreen	Name	Color	Status	Description
-	System indicator	-	Off	The system is not running.

Silkscreen	Name	Color	Status	Description
		Green	Steady on	<ul> <li>The system is just powered on.</li> <li>The system is starting after a reset.</li> <li>The upperlayer system is starting.</li> </ul>
		Green	Steady on after blinking once	After the hardware reset is cleared and the software starts, the indicator blinks once. Then, the indicator is steady on until the system starts.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP.
		Green	Slow blinking (0.2 Hz)	The AP is running properly, the Ethernet connection is normal, and no STA is associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Blinking once every 0.25s (4 Hz)	<ul> <li>The software is being upgraded.</li> <li>After the software is loaded and started, the AP requests to go online in Fit or cloud manageme nt mode. The indicator remains in this state till the AP successfull y goes online.</li> </ul>
		Red	Steady on	The system is faulty.

Table 5-54 Buttons on the AirEngine 5573-23HW

Silkscreen	Name	Description
Default	Reset button	If you press the button, the device resets; if you hold down the button for more than 6 seconds, the device restores the factory settings, switches to the Fit mode, and restarts.

**Table 5-55** Technical specifications of the AirEngine 5573-23HW

Item	Specification
Installation Type	<ul><li>Wall</li><li>Ceiling</li><li>Junction Box</li></ul>
Dimensions without packaging (H x W x D) [mm(in.)]	160 mm x 86 mm x 38 mm (6.30 in. x 3.39 in. x 1.50 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	73 mm x 203 mm x 114 mm (2.87 in. x 7.99 in. x 4.49 in.)
Weight without packaging [kg(lb)]	0.39 kg (0.86 lb)
Weight with packaging [kg(lb)]	0.53 kg (1.17 lb)
Storage	NAND Flash 256 MB
Console port	BLE console
Maximum power consumption [W]	14.2 W
Maximum heat dissipation [BTU/hour]	46.0 BTU/hour
Power supply mode	<ul><li>DC adapter</li><li>PoE (hybrid cable)</li></ul>
Rated input voltage [V]	12 V
Input voltage range [V]	12 V ± 10% PoE: 802.3af/at
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 4, 10M/100M/1000M auto-sensing 2.5GE (LC) optical port x 1
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (From 1800 m to 5000 m [5905.51 ft. to 16404.20 ft.], the maximum temperature of the device decreases by 1°C [1.8°F] for every 300 m [984.25 ft.] increase in altitude.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)

Item	Specification
Long-term operating relative humidity [RH]	5% RH to 95% RH, non-condensing
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa ~ 106kPa ETSI 300 019-2-3
Ground	floating ground
USB	The USB function is unavailable and will be supported through software upgrade in the future.
BLE	BLE5.2
Radio number	2
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4 GHz: 802.11b/g/n/ax/be 5 GHz:802.11a/n/ac/ac Wave 2/ax/be
Radio interface	Built-in smart antennas
Antenna gain	2.4 GHz: 3 dBi/chain (peak gain) 1 dBi (combined gain) 5 GHz: 3 dBi/chain (peak gain) 1 dBi (combined gain) BLE: 4 dBi (peak value)
Maximum transmit power	2.4 GHz: 20 dBm/chain 23 dBm (combined power) 5 GHz: 20 dBm/chain 23 dBm (combined power) BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 20 dBm/chain 5G: -10 dBm to 20 dBm/chain
MTBF [year]	143.611 year

Item	Specification
MTTR [hour]	2 hour
Frequency stability [ppm]	+/-20
802.3at power supply description	No function is limited.
802.3af power supply description	The USB function is not supported. Other functions are not restricted.
DC power supply description	No function is limited.

# 5.12 AirEngine 5762-13W

## **5.12.1 Product Characteristics**

Huawei AirEngine 5762-13W is a wall plate access point (AP) in compliance with the Wi-Fi 6 (802.11ax) standard. It supports high bandwidth, high concurrency, and compact size, facilitating flexible deployment and saving customer investment. It is applicable to indoor coverage scenarios, such as small- and medium-sized enterprise offices, hospitals, and cafes.

- Working simultaneously on the 2.4 GHz (2x2) + 5 GHz (2x2) frequency bands
- Uplink: 1 x GE electrical port; downlink: 1 x GE electrical port
- Built-in smart antennas
- Bluetooth serial interface-based O&M through built-in Bluetooth by collaborating with CloudCampus APP
- Working modes: Fit, Fat, and cloud management

#### 5.12.2 Hardware Information

#### Overview

Table 5-56 Basic information about the AirEngine 5762-13W

Item	Details
Description	AirEngine5762-13W(11ax indoor,2+2 dual bands,smart antenna,USB,BLE)
Part Number	50084983
Model	AirEngine 5762-13W
First supported version	V200R021C01

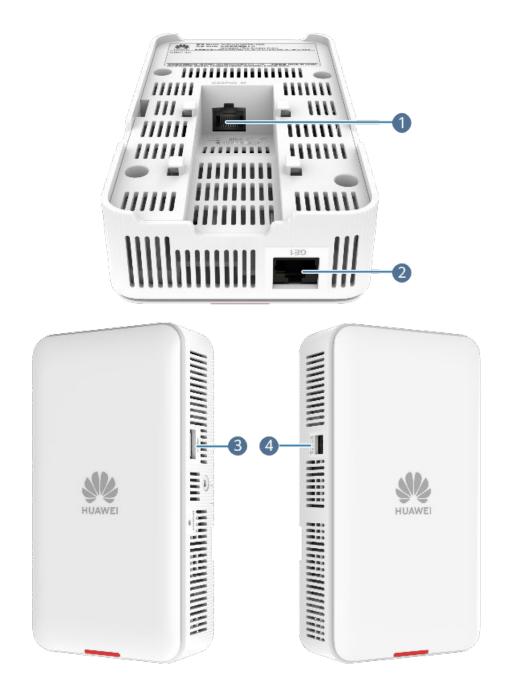
### **Appearance**

Figure 5-37 Appearance of the AirEngine 5762-13W



### **Ports**

**Figure 5-38** Ports on the AirEngine 5762-13W

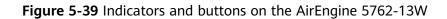


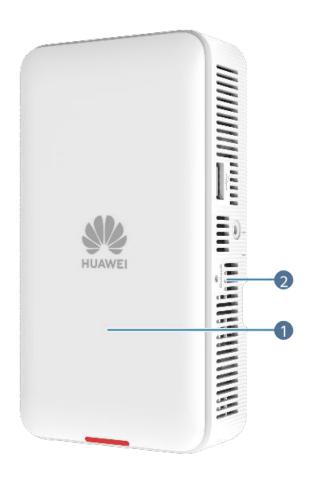
1	GE0/PoE_IN	2	GE1
3	USB	4	DC 12V

Table 5-57 Ports on the AirEngine 5762-13W

Port	Connector Type	Description	Available Components
GE0/PoE_IN	RJ45	Ethernet uplink electrical port that supports 10/100/1000M auto-sensing, connects to the wired Ethernet, and supports PoE input	Network cable
GE1	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable
DC 12V	DC connector	Connects to a 12 V power adapter.	12 V DC power adapter
USB	USB 2.0 Type A	Connects to an IoT terminal to implement IoT applications.	IoT module

#### **Indicators and Buttons**





The indicator is located inside the panel, which turns on after the AP is powered on.

1	Indicator	2	Default
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Table 5-58 Indicators on the AirEngine 5762-13W

Silkscreen	Name	Color	Status	Description
-	System indicator	Green	Steady on	Default status after power- on. The AP is just powered on and the software is not started yet.
		Green	Steady on after blinking once	Software startup status. After the system is reset and starts loading the software, the indicator blinks green once. Then, the indicator remains steady green until the software is started up.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP. This state is supported in V200R022C00 and later versions.

Silkscreen	Name	Color	Status	Description
		Green	Slow blinking (0.2 Hz)	The AP is running properly, and the Ethernet connection is normal.  For V200R022C00 and later versions, this state also indicates that no STA is associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Blinking once every 0.25s (4 Hz)	Alarm.  The software is being upgraded.  After the software is loaded and started, the AP requests to go online if it works in Fit AP or cloud-based manageme nt mode. The indicator remains in this state before the AP successfull y goes online.  The AP works in Fit AP or cloud-based manageme nt mode and fails to go online.

Silkscreen	Name	Color	Status	Description
		Red	Steady on	Fault. A fault that affects services has
				occurred, such as a DRAM detection failure or system software loading failure. The fault cannot
				be automatically rectified and must be rectified manually.

**Table 5-59** Buttons on the AirEngine 5762-13W

Silkscreen	Name	Description
Default	Reset button	<ul> <li>For versions earlier than         V200R022C00SPC100,         hold down the button         for more than 3         seconds to restore the         factory settings and         restart the device.</li> <li>For         V200R022C00SPC100         and later versions, if         you press the button,         the device resets; if         you hold down the         button for more than         6 seconds, the device         restores the factory         settings, switches to         the Fit mode, and         restarts.</li> </ul>

# **Technical Specifications**

**Table 5-60** Technical specifications of the AirEngine 5762-13W

Item	Specification
Installation Type	<ul><li>Desk</li><li>Wall</li><li>Ceiling</li><li>Junction Box</li></ul>
Dimensions without packaging (H x W x D) [mm(in.)]	160 mm x 86 mm x 38 mm (6.30 in. x 3.39 in. x 1.50 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	75 mm x 205 mm x 115 mm (2.95 in. x 8.07 in. x 4.53 in.)
Weight without packaging [kg(lb)]	0.320 kg (0.705 lb)
Weight with packaging [kg(lb)]	0.542 kg (1.195 lb)
Storage	NAND Flash 256 MB
Console port	BLE console
Maximum power consumption [W]	12 W
Maximum heat dissipation [BTU/hour]	41 BTU/hour
Power supply mode	<ul><li>DC adapter</li><li>PoE</li></ul>
Rated input voltage [V]	12 V
Input voltage range [V]	DC: 12 V ± 10% PoE: 802.3at/af
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 2, 10M/100M/1000M auto-sensing
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (If the altitude is in the range of 1800 m to 5000 m, the temperature decreases by 1°C or 1.8°F every time the altitude increases by 300 m.)

Item	Specification
Long-term operating relative humidity [RH]	5% RH to 95% RH
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground
USB	USB 2.0 (supporting 5 W power supply)
BLE	BLE5.0
Radio number	2
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4G: 802.11b/g/n/ax 5G: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in smart antennas
Antenna gain	<ul> <li>2.4G:</li> <li>2 dBi/chain (peak value)</li> <li>1 dBi (combined gain)</li> <li>5G:</li> <li>3 dBi/chain (peak value)</li> <li>1 dBi (combined gain)</li> <li>BLE: 4 dBi</li> </ul>
Maximum transmit power	2.4G: 20 dBm/chain 23 dBm (combined power) 5G: 20 dBm/chain 23 dBm (combined power) BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 20 dBm/chain 5G: -10 dBm to 20 dBm/chain
MTBF [year]	185 year
MTTR [hour]	0.5 hour

Item	Specification
Frequency stability [ppm]	+/-20
802.3at power supply description	No function is limited.
802.3af power supply description	The USB function is unavailable.
DC power supply description	No function is limited.

# 5.13 AirEngine 5562-17W

#### 5.13.1 Product Characteristics

Huawei AirEngine 5562-17W is a Wi-Fi 6 (802.11ax) wall plate access point (AP) that has built-in smart antennas. It can simultaneously provide services on 2.4 GHz (2x2 MIMO) and 5 GHz (2x2 MIMO) frequency bands. With four downlink GE ports, the AP is free of downlink bandwidth bottlenecks. Such strengths make the AP a good fit for high-density scenarios such as hotels, hospitals, and dormitories.

- Dual-radio mode: 2.4 GHz (2x2 MIMO) + 5 GHz (2x2 MIMO).
- Uplink: 1 x GE; downlink: 4 x GE.
- Various installation modes for easy deployment, including wall-mounting and plate-mounting.
- Built-in smart antennas to provide precise coverage for STAs, reduce interference, and improve signal quality.
- USB port for external IoT expansion (supporting protocols such as ZigBee, and RFID)
- Supports Bluetooth serial interface-based O&M through built-in Bluetooth and CloudCampus APP.
- Supports the Fat, Fit, and Cloud three working modes.

### 5.13.2 Hardware Information

#### Overview

**Table 5-61** Basic information about the AirEngine 5562-17W

Item	Details
Description	AirEngine5562-17W(11ax indoor,2+2 dual bands,smart antenna,USB,BLE)
Part Number	50086392
Model	AirEngine 5562-17W

Item	Details
First supported version	V200R022C10

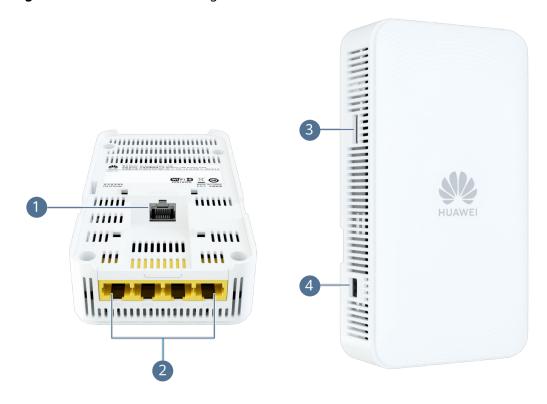
# **Appearance**

Figure 5-40 Appearance of the AirEngine 5562-17W



### **Ports**

**Figure 5-41** Ports on the AirEngine 5562-17W



1	GE0/PoE_IN	2	GE1 to GE4
3	USB	4	DC 12V

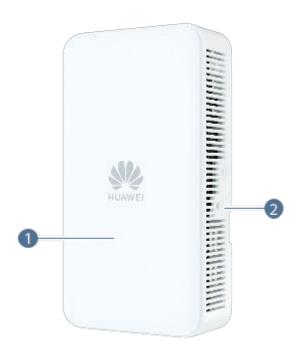
Table 5-62 Ports on the AirEngine 5562-17W

Port	Connector Type	Description	Available Components
GE0/PoE_IN	RJ45	Ethernet uplink electrical port that supports 10/100/1000M auto-sensing, connects to the wired Ethernet, and supports PoE input.	Network cable

Port	Connector Type	Description	Available Components
GE1 to GE4	RJ45	Ethernet downlink electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable
DC 12V	DC connector	Connects to a 12 V power adapter.	12 V DC power adapter
USB	USB 2.0 Type A	Connects to an IoT terminal to implement IoT applications.	IoT module

## **Indicators and Buttons**

Figure 5-42 Indicators and buttons on the AirEngine 5562-17W



The indicator is located inside the panel, which turns on after the AP is powered on.

1	Indicator	2	Default
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**Table 5-63** Indicators on the AirEngine 5562-17W

Silkscreen	Name	Color	Status	Description
-	System indicator	-	Off	The system is not running.
		Green	Steady on	<ul> <li>The system is just powered on.</li> <li>The system is starting after a reset.</li> <li>The upper-layer system is starting.</li> </ul>
		Green	Steady on after blinking once	After the hardware reset is cleared and the software starts, the indicator blinks once. Then, the indicator is steady on until the bottom-layer system starts.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Slow blinking (0.2 Hz)	The AP is running properly, the Ethernet connection is normal, and no STA is associated with the AP.
		Green	Blinking once every 0.25s (4 Hz)	<ul> <li>The bottom-layer system is being started.</li> <li>The software is being upgraded.</li> <li>After the software is loaded and started, the AP requests to go online in Fit or cloud manageme nt mode. The indicator remains in this state till the AP successfull y goes online.</li> </ul>
		Red	Steady on	The system is faulty.

Table 5-64 Buttons on the AirEngine 5562-17W

Silkscreen	Name	Description
Default	Reset button	If you press the button, the device resets; if you hold down the button for more than 6 seconds, the device restores the factory settings, switches to the Fit mode, and restarts.

## **Technical Specifications**

**Table 5-65** Technical specifications of the AirEngine 5562-17W

Item	Specification
Installation Type	<ul><li>Wall</li><li>Ceiling</li><li>Junction Box</li></ul>
Dimensions without packaging (H x W x D) [mm(in.)]	160 mm x 86 mm x 38 mm (6.30 in. x 3.39 in. x 1.50 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	75 mm x 205 mm x 115 mm (2.95 in. x 8.07 in. x 4.53 in.)
Weight without packaging [kg(lb)]	0.300 kg (0.661 lb)
Weight with packaging [kg(lb)]	0.520 kg (1.146 lb)
Storage	NAND Flash 256 MB
Console port	BLE console
Maximum power consumption [W]	15 W
Maximum heat dissipation [BTU/hour]	48.6 BTU/hour
Power supply mode	<ul><li>DC adapter</li><li>PoE</li></ul>
Rated input voltage [V]	12 V
Input voltage range [V]	DC: 12 V ± 10% PoE: 802.3at/af

Item	Specification
Service port surge protection	PoE port:
	Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B
	Common mode (8 wires to ground): 4 kV (1.2/50 us, 42 ohms), criterion B
	Non-PoE port:
	Common mode (8 wires to ground): 4 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 5, 10M/100M/1000M auto-sensing
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (From 1800 m to 5000 m [5905.51 ft. to 16404.20 ft.], the maximum temperature of the device decreases by 1°C [1.8°F] for every 300 m [984.25 ft.] increase in altitude.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground
USB	USB 2.0
BLE	BLE5.1
Radio number	2
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4 GHz: 802.11b/g/n/ax 5 GHz: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in smart antennas

Item	Specification
Antenna gain	2.4G: 2 dBi/chain (peak value) 1 dBi (combined gain) 5G: 3 dBi/chain (peak value) 1 dBi (combined gain) BLE: 4 dBi
Maximum transmit power	2.4 GHz: 17 dBm/chain 20 dBm (combined power) 5 GHz: 20 dBm/chain 23 dBm (combined power) BLE: 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 17 dBm/chain 5G: -10 dBm to 20 dBm/chain
MTBF [year]	184.97 year
MTTR [hour]	0.5 hour
Frequency stability [ppm]	+/-20
802.3at power supply description	No function is limited.
802.3af power supply description	The USB function is not supported. Other functions are not restricted.
DC power supply description	No function is limited.

# 5.14 AP263

## **5.14.1 Product Characteristics**

AP263 is Huawei's Wi-Fi 6 (802.11ax) wall plate AP. This AP features high bandwidth, high concurrency, and compact size, facilitating flexible deployment and saving customer investment. It is applicable to indoor coverage in SME markets, such as SMB office, hospitals, and cafes.

- Working simultaneously on the 2.4 GHz (2x2) + 5 GHz (2x2) frequency bands
- Uplink: 1 x GE electrical port; downlink: 1 x GE electrical port
- Various installation modes for easy deployment, including wall-mounting and plate-mounting

- Built-in smart antennas to provide precise coverage for STAs, reduce interference, and improve signal quality
- USB port for external IoT expansion (supporting protocols such as ZigBee, and RFID)
- Bluetooth serial interface-based O&M through built-in Bluetooth by collaborating with CloudCampus APP
- Working modes: Fit, Fat, and cloud management

## 5.14.2 Hardware Information

#### Overview

Table 5-66 Basic information about the AP263

Item	Details
Description	AP263(11ax indoor,2+2 dual bands,smart antenna,USB,BLE)
Part Number	50084981
Model	AP263
First supported version	V200R021C01

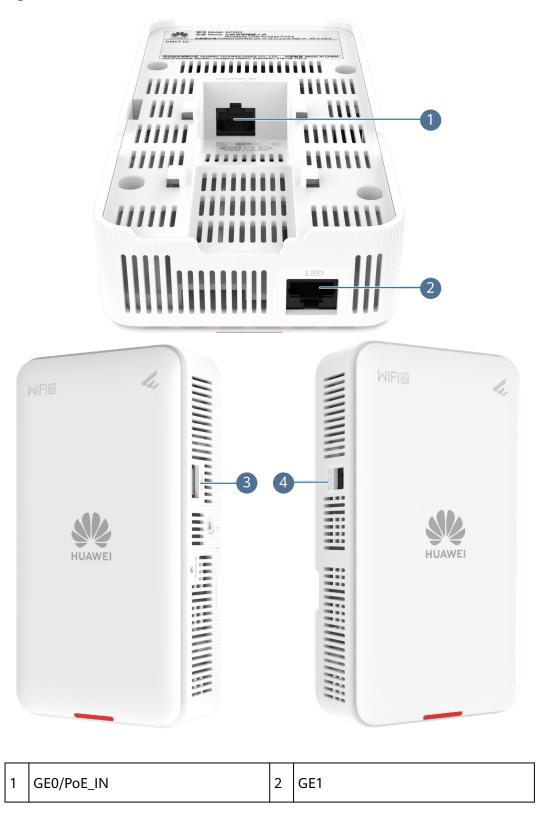
## **Appearance**

**Figure 5-43** Appearance of the AP263



### **Ports**

Figure 5-44 Ports on the AP263



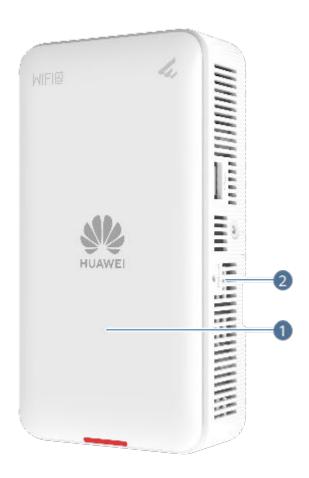
3	USB	4	DC 12V
		l	

**Table 5-67** Ports on the AP263

Port	Connector Type	Description	Available Components
GE0/PoE_IN	RJ45	10/100/1000M auto-sensing Ethernet electrical port that connects to the wired Ethernet and supports PoE input.	Network cable
GE1	RJ45	Ethernet electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable
DC 12V	DC connector	Connects to a 12 V power adapter.	12 V DC power adapter
USB	USB 2.0 Type A	Connects to an IoT terminal to implement IoT applications.	IoT module

### **Indicators and Buttons**

Figure 5-45 Indicators and buttons on the AP263



The indicator is located inside the panel, which turns on after the AP is powered on.

1	Indicator	2	Default
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**Table 5-68** Indicators on the AP263

Silkscreen	Name	Color	Status	Description
-	System indicator	Green	Steady on	Default status after power-on. The AP is just powered on and the software is not started yet.
		Green	Steady on after blinking once	Software startup status. After the system is reset and starts uploading the software, the indicator blinks white once. Until the software is uploaded and started, the indicator remains steady white.
		Green	Slow blinking (0.5 Hz)	The AP is running properly, the Ethernet connection is normal, and STAs are associated with the AP. This state is supported in V200R022C00 and later versions.

Silkscreen	Name	Color	Status	Description
		Green	Slow blinking (0.2 Hz)	The AP is running properly, and the Ethernet connection is normal.  For V200R022C00 and later versions, this state also indicates that no STA is associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Blinking once every 0.25s (4 Hz)	Alarm.  The software is being upgraded.  After the software is loaded and started, the AP requests to go online if it works in Fit AP or cloud-based manageme nt mode. The indicator remains in this state before the AP successfull y goes online.  The AP works in Fit AP or cloud-based manageme nt mode and fails to go online.

Silkscreen	Name	Color	Status	Description
		Red	Steady on	Fault.  A fault that affects services has occurred, such as a DRAM detection failure or system software loading failure. The fault cannot be automatically rectified and must be rectified manually.

Table 5-69 Buttons on the AP263

Silkscreen	Name	Description
Default	Reset button	• For versions earlier than V200R021C11, hold down the button for more than 3 seconds to restore the factory settings and restart the device.
		• For versions from V200R021C11 to V200R023C00, if you press the button, the device resets; if you hold down the button for more than 6 seconds, the device restores the factory settings, switches to the Fit mode, and restarts.
		• For V200R023C10 and later versions, if you press the button, the device resets; if you hold down the button for more than 6 seconds, the device restores the factory settings, switches to the cloud mode, and restarts.

# **Technical Specifications**

**Table 5-70** Technical specifications of the AP263

Item	Specification
Installation Type	• Desk
	• Wall
	Ceiling
	Junction Box
Dimensions without packaging (H x W x D) [mm(in.)]	160 mm x 86 mm x 38 mm (6.30 in. x 3.39 in. x 1.50 in.)

Item	Specification
Dimensions with packaging (H x W x D) [mm(in.)]	75 mm x 205 mm x 115 mm (2.95 in. x 8.07 in. x 4.53 in.)
Weight without packaging [kg(lb)]	0.320 kg (0.705 lb)
Weight with packaging [kg(lb)]	0.542 kg (1.195 lb)
Storage	NAND Flash 256 MB
Console port	BLE console
Maximum power consumption [W]	12 W
Maximum heat dissipation [BTU/hour]	41 BTU/hour
Power supply mode	<ul><li>DC adapter</li><li>PoE</li></ul>
Rated input voltage [V]	12 V
Input voltage range [V]	12±10% PoE: 802.3at/af
Service port surge protection	PoE port: Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B Common mode (8 wires to ground): 6 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 2, 10M/100M/1000M auto-sensing
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (From 1800 m to 5000 m [5905.51 ft. to 16404.20 ft.], the maximum temperature of the device decreases by 1°C [1.8°F] for every 300 m [984.25 ft.] increase in altitude.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH, non-condensing
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground
USB	USB 2.0 (supporting 5 W power supply)
BLE	BLE5.0

Item	Specification
Radio number	2
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4 GHz: 802.11b/g/n/ax 5 GHz: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in smart antennas
Antenna gain	2.4G: 2 dBi/chain (peak value) 1 dBi (combined gain) 5G: 3 dBi/chain (peak value) 1 dBi (combined gain) BLE: 4 dBi
Maximum transmit power	2.4G: 20 dBm/chain 23 dBm (combined power) 5G: 20 dBm/chain 23 dBm (combined power) BLE: < 10 dBm
Singal radio transmit power [dBm]	2.4G: -10 dBm to 20 dBm/chain 5G: -10 dBm to 20 dBm/chain
MTBF [year]	69.7 year
MTTR [hour]	0.5 hour
Frequency stability [ppm]	+/-20
802.3at power supply description	No function is limited.
802.3af power supply description	The USB function is unavailable.
DC power supply description	No function is limited.

# 5.15 AP160

#### 5.15.1 Product Characteristics

Huawei eKitEngine AP160 is a Wi-Fi 6 (802.11ax) wall plate AP. It can simultaneously provide services on the 2.4 GHz (2x2) and 5 GHz (2x2) frequency bands. This AP features high bandwidth, high concurrency, and compact size, facilitating flexible deployment and saving customer investment. It is applicable to indoor coverage scenarios, such as small- and medium-sized offices, houses, and hotels.

- Working simultaneously on the 2.4 GHz (2x2) + 5 GHz (2x2) frequency bands
- Uplink: 1 x GE electrical port; downlink: 1 x GE electrical port
- Standard dimensions of 86 mm x 86 mm, allowing for junction box (86 mm) mounting and facilitating deployment
- Built-in smart antennas to provide precise coverage for STAs, reduce interference, and improve signal quality
- Working modes: Fit, Fat, and cloud management

# 5.15.2 Hardware Information

#### Overview

Table 5-71 Basic information about the AP160

Item	Details
Description	AP160(11ax indoor,2+2 dual bands,smart antenna)
Part Number	50086816
Model	AP160
First supported version	V200R023C00

## **Appearance**

**Figure 5-46** Appearance of the AP160



### **Ports**

Figure 5-47 Ports on the AP160



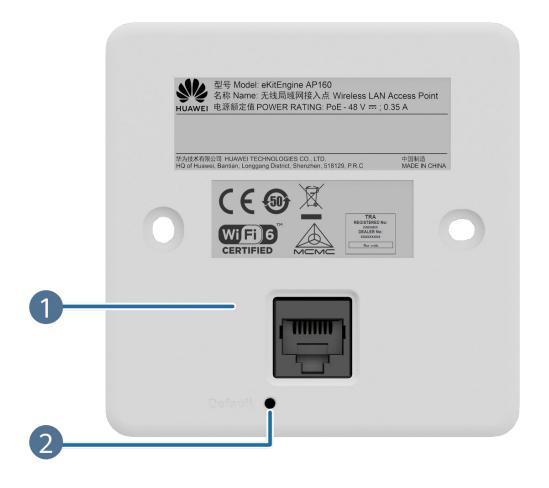
1	GE0/PoE_IN	2	GE1
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Table 5-72 Ports on the AP160

Port	Connector Type	Description	Available Components
GE0/PoE_IN	RJ45	10/100/1000M auto-sensing Ethernet electrical port that connects to the wired Ethernet and supports PoE input.	Network cable
GE1	RJ45	Ethernet electrical port that supports 10/100/1000M auto-sensing and connects to the wired Ethernet.	Network cable

#### **Indicators and Buttons**

Figure 5-48 Indicators and buttons on the AP160



The indicator is located inside the panel, which turns on after the AP is powered on.

1	Indicator	2	Default

Table 5-73 Indicators on the AP160

Silkscreen	Name	Color	Status	Description
-	System indicator	Green	Steady on	The AP is just powered on and the software is not started yet.
		Green	Steady on after blinking once	After the system is reset and starts uploading the software, the indicator blinks green once. Until the software is uploaded and started, the indicator remains steady green.
		Green	Slow blinking (0.5 Hz)	The AP runs in Fat or Fit mode, the Ethernet connection is normal, and STAs are associated with the AP.
		Green	Slow blinking (0.2 Hz)	The AP runs in Fat or Fit mode, the Ethernet connection is normal, and no STA is associated with the AP.

Silkscreen	Name	Color	Status	Description
		Green	Blinking once every 0.25s (4 Hz)	The AP works in Fat or Fit mode.  The software is being upgraded.  In Fit mode, the AP is requesting to go online or fails to go online.
		Blue	Slow blinking (0.5 Hz)	The AP works in cloud mode, has gone online on the cloud management controller, and is running properly.
		Blue	Blinking once every 0.25s (4 Hz)	The AP works in cloud mode and is connecting to the cloud management controller (including reconnection after disconnection ).

Silkscreen	Name	Color	Status	Description
		Red	Steady on	A fault that affects services has occurred, such as a DRAM detection failure or system software loading failure. The fault cannot be automatically rectified and must be rectified manually.

**Table 5-74** Buttons on the AP160

Silkscreen	Name	Description
Default	Reset button	<ul> <li>For versions earlier than V200R023C10, if you press the button, the device resets; if you hold down the button for more than 6 seconds, the device restores the factory settings, switches to the Fit mode, and restarts.</li> <li>For V200R023C10 and later versions, if you press the button, the device resets; if you hold down the button for more than 6 seconds, the device restores the factory settings, switches to the cloud mode, and restarts.</li> </ul>

# **Technical Specifications**

**Table 5-75** Technical specifications of the AP160

Item	Specification
Installation Type	Junction Box
Dimensions without packaging (H x W x D) [mm(in.)]	86 mm x 86 mm x 42.5 mm (3.39 in. x 3.39 in. x 1.67 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	98 mm x 117 mm x 73 mm (3.86 in. x 4.61 in. x 2.87 in.)
Weight without packaging [kg(lb)]	0.14 kg (0.31 lb)
Weight with packaging [kg(lb)]	0.24 kg (0.53 lb)
Storage	NAND Flash 256 MB
Console port	None
Maximum power consumption [W]	9.1 W
Maximum heat dissipation [BTU/hour]	29.5 BTU/hour
Power supply mode	PoE
Input voltage range [V]	PoE: 802.3af
Service port surge protection	PoE port: Common mode (8 wires to ground): 4 kV (1.2/50 us, 42 ohms), criterion B Differential mode (48 V-RTN): 0.5 kV (1.2/50 us, 42 ohms), criterion B
Maximum number of physical ports on the entire device	GE (RJ45) x 2, 10M/100M/1000M auto-sensing
Long-term operating temperature [°C(°F)]	0°C to 40°C (32°F to 104°F) (From 1800 m to 5000 m [5905.51 ft. to 16404.20 ft.], the maximum temperature of the device decreases by 1°C [1.8°F] for every 300 m [984.25 ft.] increase in altitude.)
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% RH to 95% RH, non-condensing
Long-term operating altitude [m(ft.)]	-60 m to +5000 m (-196.85 ft to +16404.20 ft)
Atmospheric pressure [kPa]	53kPa - 106kPa ETSI 300 019-2-3
Ground	floating ground

Item	Specification
BLE	Not supported
Radio number	2
Operating frequency band	<ul><li>2.4GHz</li><li>5GHz</li></ul>
MIMO spatial streams	Radio 0 (2.4 GHz): 2x2 Radio 1 (5 GHz): 2x2
Wi-Fi standard	2.4G: 802.11b/g/n/ax 5G: 802.11a/n/ac/ac Wave 2/ax
Radio interface	Built-in smart antennas
Antenna gain	2.4 GHz: 3 dBi/chain (peak value) 3 dBi (combined gain) 5 GHz: 2 dBi/chain (peak value) 1 dBi (combined gain)
Maximum transmit power	2.4G: 17 dBm/chain 20 dBm (combined power) 5G: 17 dBm/chain 20 dBm (combined power)
Singal radio transmit power [dBm]	2.4 GHz: 0 dBm to 17 dBm/chain 5 GHz: 0 dBm to 17 dBm/chain
MTBF [year]	446 year
MTTR [hour]	2 hour
Frequency stability [ppm]	+/-20
802.3bt power supply description	No function is limited.
802.3at power supply description	No function is limited.
802.3af power supply description	No function is limited.
DC power supply description	Not supported