H3C WA6500 Series Access Points

Hardware Information and Specifications

New H3C Technologies Co., Ltd.
http://www.h3c.com

Document version: 6W102-20251203

Preface

H3C WA6500 Series Access Points Hardware Information and Specifications covers the chassis views, models, technical specifications, and LEDs of the WA6500 APs.

This preface includes the following topics about the documentation:

- Audience.
- Conventions.
- Documentation feedback.

Audience

This documentation is intended for:

- Network planners.
- Field technical support and servicing engineers.
- Network administrators working with the WA6500 Series Access Points.

Conventions

The following information describes the conventions used in the documentation.

Command conventions

Convention	Description
Boldface	**Bold** text represents commands and keywords that you enter literally as shown.
Italic	*Italic* text represents arguments that you replace with actual values.
[ ]	Square brackets enclose syntax choices (keywords or arguments) that are optional.
{ x | y | ... }	Braces enclose a set of required syntax choices separated by vertical bars, from which you select one.
[x | y | ...]	Square brackets enclose a set of optional syntax choices separated by vertical bars, from which you select one or none.
{ x | y | ... } *	Asterisk marked braces enclose a set of required syntax choices separated by vertical bars, from which you select a minimum of one.
[x | y | ...] *	Asterisk marked square brackets enclose optional syntax choices separated by vertical bars, from which you select one choice, multiple choices, or none.
&<1-n>	The argument or keyword and argument combination before the ampersand (&) sign can be entered 1 to n times.
#	A line that starts with a pound (#) sign is comments.

GUI conventions

Convention	Description
Boldface	Window names, button names, field names, and menu items are in Boldface. For example, the **New User** window opens; click **OK**.
>	Multi-level menus are separated by angle brackets. For example, **File** > **Create** > **Folder**.

Symbols

Convention	Description
WARNING!	An alert that calls attention to important information that if not understood or followed can result in personal injury.
CAUTION:	An alert that calls attention to important information that if not understood or followed can result in data loss, data corruption, or damage to hardware or software.
IMPORTANT:	An alert that calls attention to essential information.
NOTE:	An alert that contains additional or supplementary information.
TIP:	An alert that provides helpful information.

Network topology icons

Convention	Description
	Represents a generic network device, such as a router, switch, or firewall.
	Represents a routing-capable device, such as a router or Layer 3 switch.
	Represents a generic switch, such as a Layer 2 or Layer 3 switch, or a router that supports Layer 2 forwarding and other Layer 2 features.
	Represents an access controller, a unified wired-WLAN module, or the access controller engine on a unified wired-WLAN switch.
	Represents an access point.
	Represents a wireless terminator unit.
	Represents a wireless terminator.
	Represents a mesh access point.
	Represents omnidirectional signals.
	Represents directional signals.
	Represents a security product, such as a firewall, UTM, multiservice security gateway, or load balancing device.
	Represents a security module, such as a firewall, load balancing, NetStream, SSL VPN, IPS, or ACG module.

Examples provided in this document

Examples in this document might use devices that differ from your device in hardware model, configuration, or software version. It is normal that the port numbers, sample output, screenshots, and other information in the examples differ from what you have on your device.

Documentation feedback

You can e-mail your comments about product documentation to info@h3c.com.

We appreciate your comments.

Contents

Product overview

The WA6500 AP series includes the following models:

Table 1 WA6500 AP series

Product code	Product model	Remarks
EWP-WA6520-FIT	WA6520	Indoor AP
EWP-WA6520H-FIT	WA6520H	
EWP-WA6526-FIT	WA6526	
EWP-WA6526E-FIT	WA6526E	
EWP-WA6528i-FIT	WA6528i	
EWP-WA6528X-E-FIT	WA6528X-E	Outdoor AP

Chassis views and technical specifications

WA6520

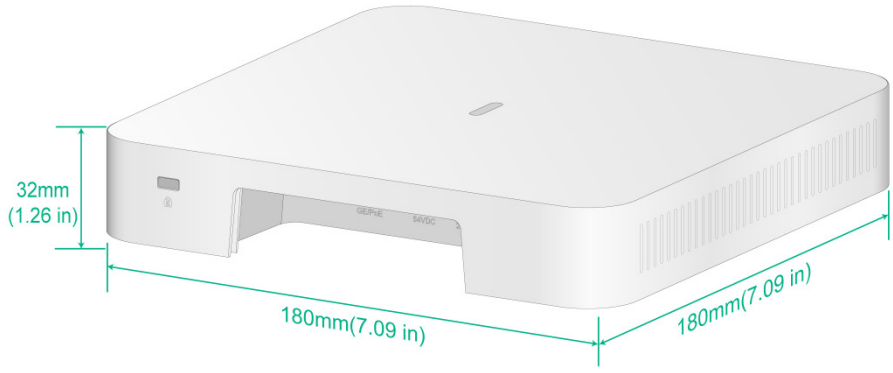
Chassis view

Chassis view

Figure 1 Chassis view

Chassis dimensions

Figure 2 Chassis dimensions



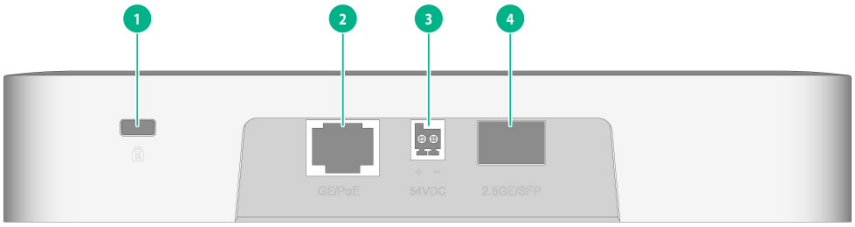
Ports

The AP provides the following ports:

- One console port.
- One GE/PoE port.
- One power port.
- One 2.5GE/SFP port.

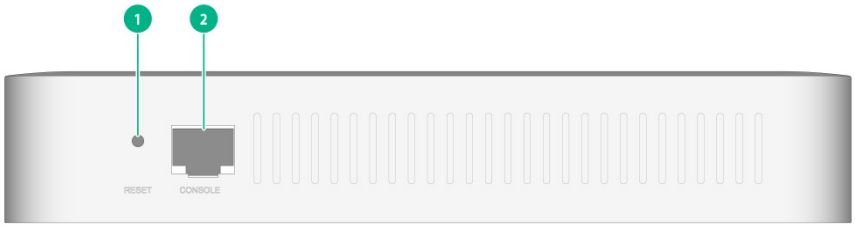
The AP also has a reset button and a security slot. The security slot is 7 × 3 mm (0.28 × 0.12 in) in size.

Figure 3 Ports on the AP



(1) Security slot	(2) GE/PoE port
(3) Power port	(4) 2.5GE/SFP port

Figure 4 Left view



(1) Reset button	(2) Console port

Technical specifications

Table 2 Technical specifications

Item	Specification
Dimensions (H × W × D)	32 × 180 × 180 mm (1.26 × 7.09 × 7.09 in), mounting bracket excluded
Weight	500g
Power consumption	• Standby: 5.4 W • Operating:≤ 12.95 W (USB excluded)
Antenna	Built-in antenna: • 2.4 GHz: 3 dBi gain • 5 GHz: 4 dBi gain
Protocol	• IEEE802.11a/b/g/n/ac/ax • IEEE802.3af
Operating temperature	0°C to +50°C (32°F to 122°F)
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Operating humidity	5% RH to 95% RH, noncondensing
Storage humidity	5% RH to 95% RH, noncondensing
Protection class	IP41
Console port	Used by technical personnel only for device configuration and management.

Item	Specification
GE/PoE	100/1000M Ethernet copper port, used for connecting the AP to an uplink device for Internet or MAN access. It can also receive PoE power from the uplink device. When the AP operates in fit mode, the port is represented by interface number GE1/0/1 in the MAP file and GigabitEthernet 1 for configuration on the AC.
2.5GE/SFP	1000/2.5G Ethernet fiber port.
54V DC	Power port, used for receiving +54 VDC power from a local power source.
Reset button	The function of the reset button varies by duration in which it is pressed. For more information, see "LED description for the reset button."
LEDs	Yellow/green/blue. For more information about the LED status in different AP operating modes, see "WA6500A AP series."

WA6520H

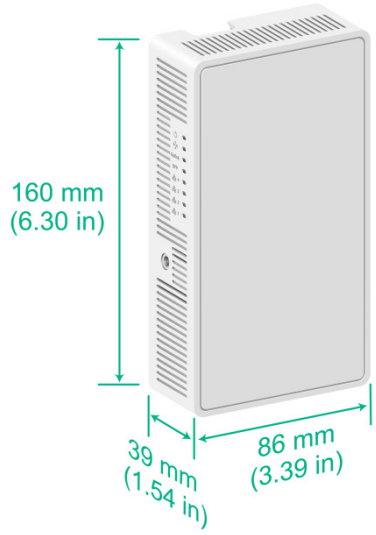
Chassis view

Chassis view

Figure 5 Chassis view

Chassis dimensions

Figure 6 Chassis dimensions



Ports and LEDs

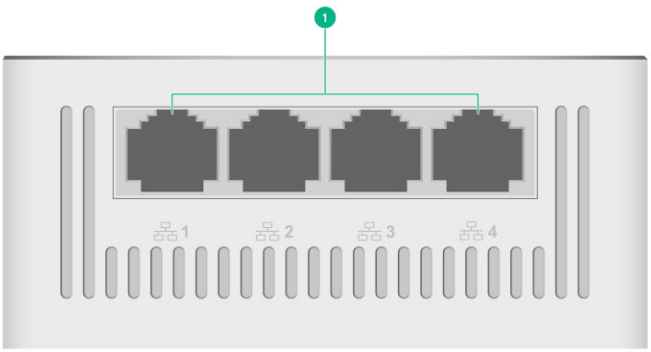
Ports

The AP provides the following ports:

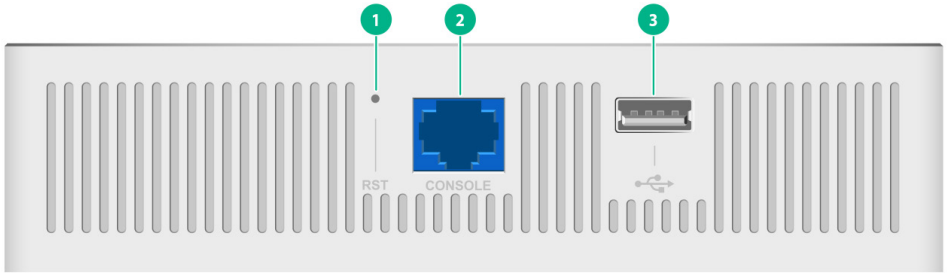
- One console port
- Four 10/100/1000M Ethernet copper ports
- One 54 VDC power port
- One 2.5GE/SFP port
- One Uplink/PoE port
- One USB port

It provides also a reset button (RST).

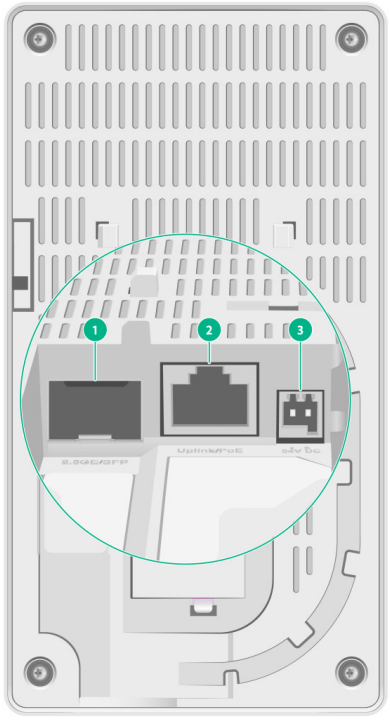
Figure 7 Ports on the AP



(1) 10/100/1000M Ethernet copper ports



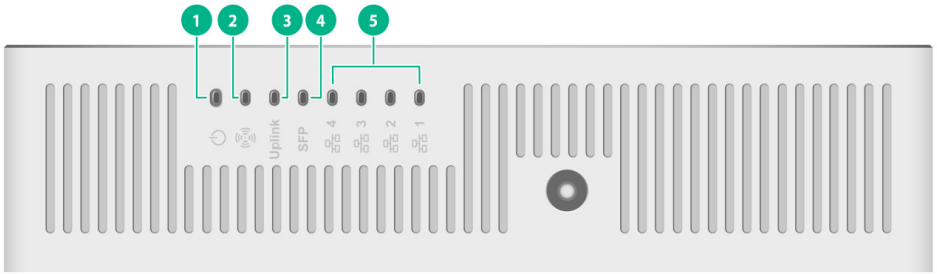
(1) Reset button (RST)	(2) Console port	(3) USB port



(1) 2.5GE/SFP port	(2) Uplink/PoE port	(3) 54 VDC power port

LEDs

Figure 8 LEDs on the AP



(1) Power status LED	(2) Radio status LED
(3) Uplink port status LED	(4) SFP port LED
(5) Ethernet copper port LED	

Technical specifications

Table 3 Technical specifications

Item	Specification
Dimensions (H × W × D)	160 × 86 × 39 mm (6.30 × 3.39 × 1.54 in, excluding the mounting bracket)
Weight	350 g (12.35 oz)

Power consumption	• Standby: 7.8W
	• Operating:
	  ○ ≤ 15 W, with a USB device attached
	  ○ ≤ 12.5 W, without a USB device attached

Antenna	Built-in antenna: • 2.4 GHz: 3 dBi gain • 5 GHz: 5 dBi gain
Standards	• 802.11ax, 802.11ac, 802.11n • 802.3af
Operating temperature	0°C to 40°C (32°F to 104°F)
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Operating humidity	5% RH to 95% RH, noncondensing
Storage humidity	5% RH to 95% RH, noncondensing
Protection class	IP41
Console port	Used by technical personnel only for device configuration and management.
10/100/1000M Ethernet copper port	10/100/1000M Ethernet copper port. When the AP operates in fit mode, the ports are represented by interface numbers GE1/0/2 to GE1/0/5 in the MAP file and GigabitEthernet 2 to GigabitEthernet 5 on the AC.
Uplink/PoE port ()	10/100/1000M Ethernet copper port, used for connecting the AP to an uplink device for Internet or MAN access. It can also receive PoE power from the uplink device. When the AP operates in fit mode, the port is represented by interface number GE1/0/1 in the MAP file and GigabitEthernet 1 on the AC.
2.5GE/SFP port	1000M /2.5G Ethernet fiber port.
Power port (54 V)	Used for receiving +54 VDC power from a local power source.
USB port	Used for charging as well as data reading or writing.
Reset button	Yellow/green/blue. For more information about the LED status in different AP operating modes, see "LED description for the reset button."
LEDs	The function of the reset button varies by duration in which it is pressed. For more information, see "LED descriptions for multi-LED APs"

WA6526

Chassis view

Chassis view

Figure 9 Device appearance

Chassis dimensions

Figure 10 Chassis dimensions

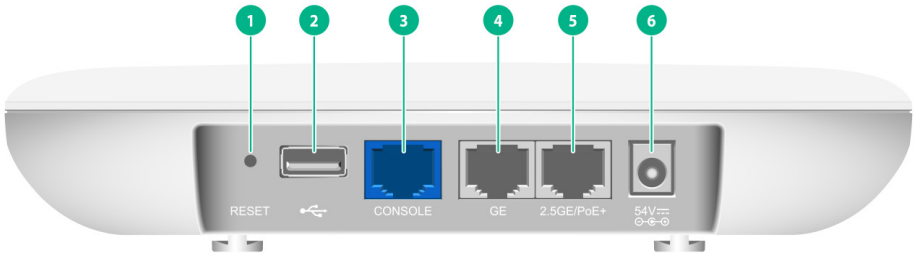
Ports

The AP provides the following ports:

- One console port
- One 10/100/1000M Ethernet copper port
- One 54 VDC power port
- One 2.5GE/PoE+ port
- One USB port

It provides also a reset button (RST).

Figure 11 Ports on the WA6526 AP



(1) Reset button	(2) USB port
(3) Console port	(4) GE
(5) 2.5GE/PoE+	(6) Power port

Technical specifications

Table 4 Technical specifications

Item	Description
Dimensions (H × W × D)	35 × 185 × 185 mm (1.38 × 7.28 × 7.28 in)
Weight	650 g (22.93 oz)
Power consumption	• Standby: 7 W • Operating: ≤ 17.6 W (USB excluded)
Antenna	Built-in antenna: • 2.4 GHz: 4 dBi gain • 5 GHz: 4 dBi gain
Protocol	• IEEE802.11a/b/g/n/ac/ax • IEEE802.3at
Operating temperature	0°C to +45°C (32°F to 113°F)
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Operating humidity	5% RH to 95% RH, noncondensing
Storage humidity	5% RH to 95% RH, noncondensing
Protection class	IP41
Console port	Used by technical personnel only for device configuration and management.
2.5GE/PoE+	100/1000M/2.5G Ethernet copper port, used for connecting the AP to an uplink device for Internet or MAN access. It can also receive PoE power from the uplink device. When the AP operates in fit AP mode, the port is represented by interface number SGE1/0/1 in the MAP file and smartrate-Ethernet 1 for configuration on the AC.
GE	10/100/1000M Ethernet copper port. When the AP operates in fit AP mode, the port is represented by interface number GE1/0/1 in the MAP file and GigabitEthernet 1 for configuration on the AC.
USB port	USB 3.0-compliant USB port.

Item	Description
54V DC	Used for receiving +54 VDC power from a local power source.
Reset button	The function of the reset button varies by duration in which it is pressed. For more information, see "LED description for the reset button."
LEDs	Yellow/green/blue. For more information about the LED status in different AP operating modes, see "WA6500A AP series."

WA6526E

Chassis view

Chassis view

Figure 12 Device appearance

Chassis dimensions

Figure 13 Chassis dimensions

Ports

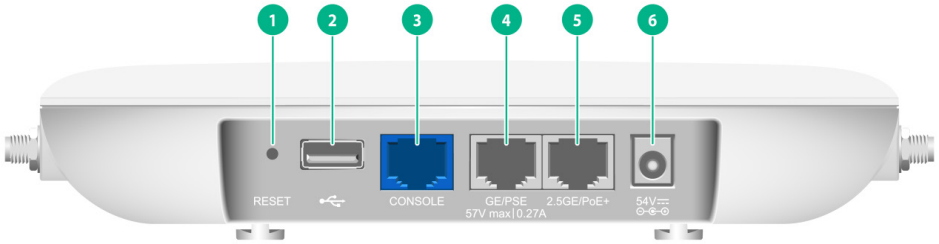
The AP provides the following ports:

- One console port
- One 10/100/1000M Ethernet copper port

- One 54 VDC power port
- One 2.5GE/PoE+ port
- One USB port

It also provides a reset button (RST).

Figure 14 Ports on the AP



(1) Reset button	(2) USB port
(3) Console port	(4) 10/100/1000M Ethernet copper port
(5) 100/1000/2500M Ethernet copper port	(6) Power port

Figure 15 Left view

(1) ANT 1 connector	(2) ANT 2 connector

Figure 16 Right view

(1) ANT 3 connector	(2) ANT 4 connector

Technical specifications

Table 5 Technical specifications

Item	Specification
Dimensions (H × W × D)	35 × 185 × 185 mm (1.38 × 7.28 × 7.28 in)
Weight	650 g (22.93 oz)

Power consumption	• Standby: 7 W
	• Operating:
	  ○ ≤ 17.6 W (not supplying power)
	  ○ ≤ 35.1 W (supplying power)

Antenna	External antenna
Protocol	• IEEE802.11a/b/g/n/ac/ax • IEEE802.3at
Operating temperature	0°C to +50°C (32°F to 122°F)
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Operating humidity	5% RH to 95% RH, noncondensing
Storage humidity	5% RH to 95% RH, noncondensing
Protection class	IP41
Console port	Used by technical personnel only for device configuration and management.
2.5GE/PoE+	100/1000M/2.5G Ethernet copper port, used for connecting the AP to an uplink device for Internet or MAN access. It can also receive PoE power from the uplink device. When the AP operates in fit AP mode, the port is represented by interface number SGE1/0/1 in the MAP file and smartrate-Ethernet 1 for configuration on the AC.
GE/PSE	10/100/1000M Ethernet copper port, used for connecting the AP to a downlink device. The AP can supply power through this port to a device with a maximum power consumption of 15 W. When the AP operates in fit AP mode, the port is represented by interface number GE1/0/1 in the MAP file and GigabitEthernet 1 for configuration on the AC.
USB port	USB 3.0-compliant USB port.
54V DC	Used for receiving +54 VDC power from a local power source.
ANT 1/2/3/4	Used to connect feeder lines of antennas.
Reset button	The function of the reset button varies by duration in which it is pressed. For more information, see "LED description for the reset button."
LEDs	Yellow/green/blue. For more information about the LED status in different AP operating modes, see "WA6500A AP series."

WA6528i

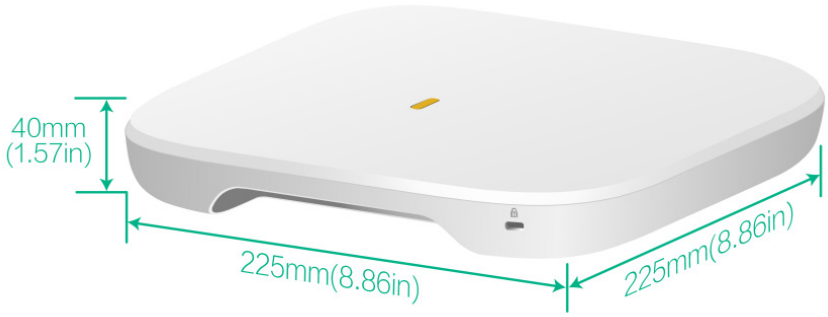
Chassis view

Chassis view

Figure 17 Chassis view

Chassis dimensions

Figure 18 Chassis dimensions



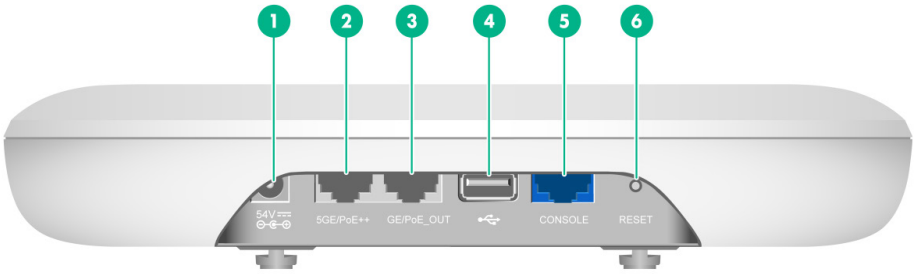
Ports

The AP provides the following ports:

- One console port
- One 10/100/1000M Ethernet copper port
- One 54 VDC power port
- One 2.5GE/SFP port
- One USB port

It provides also a reset button (RST).

Figure 19 Ports on the AP



(1) Power port	(2) 100/1000/2500/5000M Ethernet copper port
(3) 10/100/1000M Ethernet copper port	(4) USB port
(5) Console port	(6) Reset button

Technical specifications

Table 6 Technical specifications

Port	Description
Dimensions (H × W × D)	40 × 225 × 225 mm (1.57 × 8.86 × 8.86 in)
Weight	1050 g (37.04 oz)

Power consumption	• Standby: 10 W
	• Operating:
	  ○ ≤ 25 W (PoE_OUT/USB excluded)
	  ○ ≤ 42.5 W (PoE_OUT/USB included)

Antenna	Built-in smart antenna: • 2.4 GHz: 5 dBi gain • 5 GHz: 4 dBi gain
Protocol	• IEEE802.11a/b/g/n/ac/ax • IEEE802.3at/bt
Operating temperature	-10°C to +55°C (-14°F to 131°F)
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Operating humidity	5% RH to 95% RH, noncondensing
Storage humidity	5% RH to 95% RH, noncondensing
Protection class	IP42
Operating altitude	–60 m to +5000 m (–196.85 ft to +16404.20 ft)
Console port	Used by technical personnel only for device configuration and management.
5GE/PoE++	100/1000M/2.5G/5G Ethernet copper port, used for connecting the AP to an uplink device for Internet or MAN access. It can also receive PoE power from the uplink device. When the AP operates in fit AP mode, the port is represented by interface number SGE1/0/1 in the MAP file and smartrate-Ethernet 1 for configuration on the AC.
GE/PoE_OUT	10/100/1000M Ethernet copper port, used for connecting the AP to a downlink device. The AP can supply power through this port to a device with a maximum power consumption of 15 W.

Port	Description
	When the AP operates in fit AP mode, the port is represented by interface number GE1/0/1 in the MAP file and GigabitEthernet 1 for configuration on the AC.
USB port	USB 3.0-compliant USB port.
54V DC	Used for receiving +54 VDC power from a local power source.
Reset button	The function of the reset button varies by duration in which it is pressed. For more information, see "LED description for the reset button."
LEDs	Yellow/green/blue. For more information about the LED status in different AP operating modes, see "WA6500B AP series."

WA6528X-E

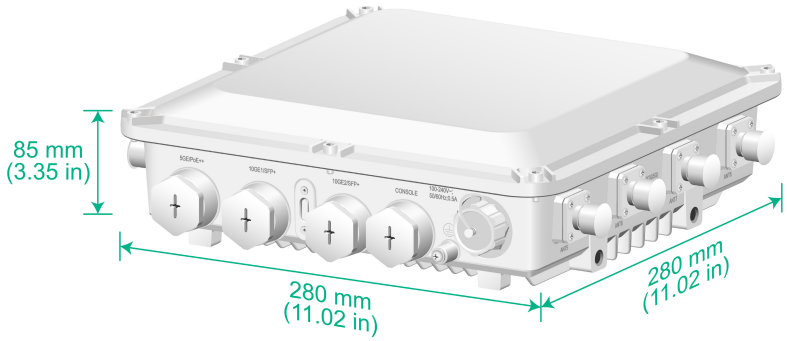
Chassis view

Chassis view

Figure 20 Chassis view

Chassis dimensions

Figure 21 Chassis dimensions



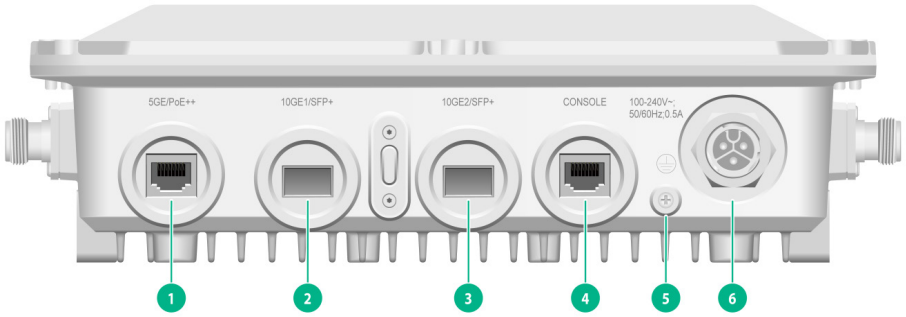
Ports

The AP provides the following ports:

- One console port
- Two 10GE/SFP+ ports
- One 54 VDC power port
- One 5GE/PoE++ port
- One Power receptacle
- Four 2G antenna ports.
- Four 5G antenna ports.

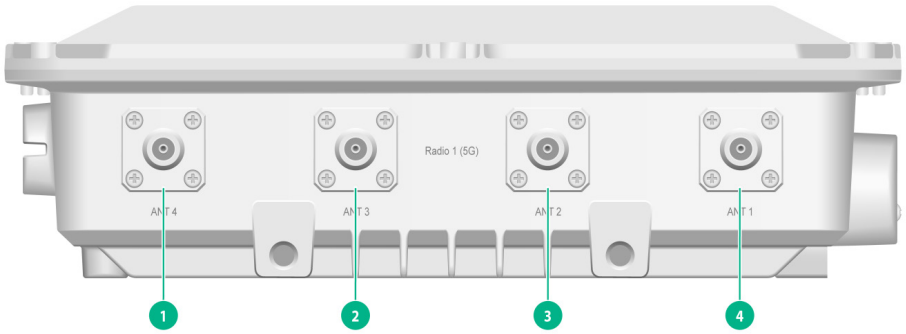
It also provides a reset button (RST).

Figure 22 Ports on the AP



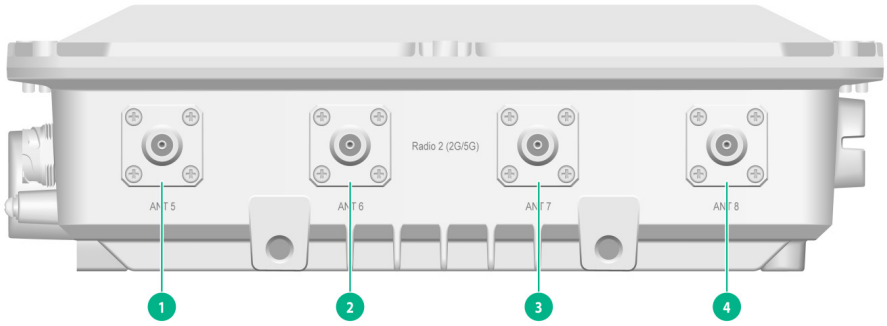
(1) 5GE/PoE++	(2) 10GE1/SFP+	(3) 10GE2/SFP+
(4) Console port	(5) Grounding screw	(6) Power receptacle

Figure 23 Left view



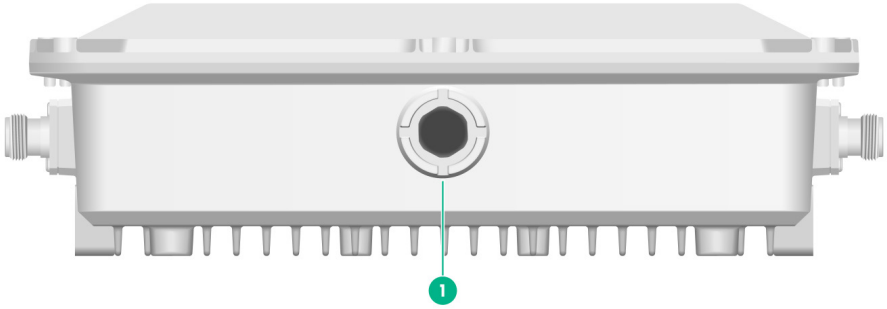
(1) to (4) Antenna ports ANT1/2/3/4 for radio 1 (5G)

Figure 24 Right view



(1) to (4) Antenna ports ANT5/6/7/8 for radio 2 (2G/5G)

Figure 25 Rear view



(1) Seal screw

Technical specifications

Table 7 Technical specifications

Item	Specification
Dimensions (H × W × D)	280 × 280 × 85 mm (11.02 × 11.02 × 3.35 in)
Weight	3.2 kg (7.05 lb)
Power consumption	• Standby: 12.1 W • Operating: ≤ 34 W (supplying power)
Antenna	External antenna
IEEE standards	IEEE802.11a/b/g/n/ac/ax
Operating temperature	–30°C to +65°C (–22°F to +149°F)
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Operating humidity	0% RH to 100% RH, noncondensing
Storage humidity	0% RH to 100% RH, noncondensing
Protection class	IP68
5GE/PoE++	100/1000M/2.5G/5G Ethernet copper port, used for connecting the AP to an

Item	Specification
	uplink device for Internet or MAN access. It can also receive POE++ power from the uplink device. When the AP operates in fit AP mode, the port is represented by interface number SGE1/0/1 in the MAP file and smartrate-Ethernet 1 for configuration on the AC.
10GE1/SFP+	10GE fiber port, used for connecting the AP to an uplink device for Internet or MAN access. It is represented by interface number XGE1/0/1 in the MAP file and Ten-GigabitEthernet 1 for configuration on the AC.
10GE2/P++SFP	10GE fiber port, used for connecting the AP to an uplink device for Internet or MAN access. It is represented by interface number XGE1/0/2 in the MAP file and Ten-GigabitEthernet 2 for configuration on the AC.
CONSOLE	For device configuration and management by the maintenance engineers.
Power receptacle	Receives 100 to 264 VAC power supply.
Radio1 (5G) ANT1/2/3/4/5/6/7/8	Connects RF cables.
Radio2 (2G) ANT1/2/3/4	Connects RF cables.
LEDs	Yellow/green/blue. For more information about the LED status in different AP operating modes, see "WA6500B AP series."

About LEDs

The LED status includes the color and flashing frequency of the LEDs, which indicates the AP operating status.

APs can be classified into single-LED APs and multi-LED APs based on the LED quantity.

Figure 26 Single-LED AP (WA6520 as an example)

Figure 27 Multi-LED AP (WA6520H as an example)

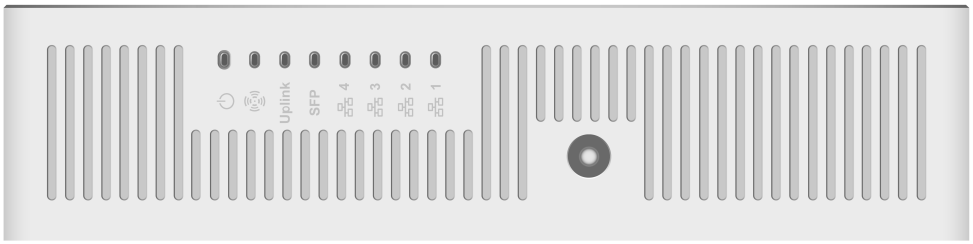


Table 8 Wi-Fi 6 AP models

AP series		Models	Description
Wi-Fi 6	WA6500 AP series	WA6500A: WA6520, WA6526, WA6526E	See "WA6500A AP series"
		WA6500B: WA6528i, WA6528X-E	See "WA6500B AP series"
		WA6500A: WA6520H	See "LED descriptions for multi-LED APs."

LED descriptions for single-LED APs

The description for the status LED on an AP varies by AP operating mode. For information about the operating modes supported by an AP, see the release notes.

WA6500B AP series

LED descriptions before modification

NOTE:

This section is applicable to the following APs:

WA6500B AP series in versions earlier than 2484, which includes the WA6528i and WA6528X-E APs.

Table 9 LED description (fit mode)

LED color	Status	Description
N/A	Off	No power is present or the LED has been turned off from the CLI.
Yellow	Steady on	The AP is initializing, or an initialization exception has occurred.
	Flashing (twice per second)	The Ethernet ports are down and no mesh links are established.
Green	Steady on	The AP has started up and registered with an AC, but is in standby state (does not have any associated clients).
	Flashing (once every two seconds)	The AP has started up, but has not registered to any AC.
	Flashing (twice per second)	The AP is upgrading the image.
Blue	Flashing (once per second)	The radios have associated clients.

Table 10 LED description (cloud mode)

LED color	Status	Description
N/A	Off	No power is present or the LED has been turned off from the CLI.
Yellow	Steady on	The AP is initializing, or an initialization exception has occurred.
	Flashing (twice per second)	The Ethernet ports are down and no mesh links are established.
Green	Steady on	The AP is in standby state, has connected to Cloudnet, but does not have any associated clients.
	Flashing (once per second)	The AP has connected to Cloudnet, and the radios have associated clients.
	Flashing (twice per second)	The AP is upgrading the image.
Blue	Steady on	The AP is in standby state, has not connected to Cloudnet, and does not have any associated clients.
	Flashing (once per second)	The AP has not connected to Cloudnet, but the radios have associated clients.

Table 11 LED description (anchor AC mode)

LED color	Status	Description
N/A	Off	No power is present or the LED has been turned off from the CLI.
Yellow	Steady on	The AP is initializing, or an initialization exception has occurred.
	Flashing (twice per second)	The Ethernet ports are down and no mesh links are established.
Green	Steady on	The AP has started up and is in standby state, but does not have any associated clients.
	Flashing (twice per second)	The AP is upgrading the image.
Blue	Flashing (once per second)	The radios have associated clients.

LED descriptions after modification

NOTE:

This section is applicable to the following APs:

WA6500B AP series in 2484 and later versions, which includes the WA6528i and WA6528X-E APs.

Table 12 LED description

LED color	Status	Description
N/A	Off	No power is present or the LED has been turned off from the CLI.
Yellow	Steady on	The AP is initializing, or an initialization exception has occurred.
	Flashing (twice per second)	The Ethernet ports are down and no mesh links are established.
Green	Steady on	The AP is in standby state and does not have any associated clients.
	Flashing (once every two seconds)	The AP has started up in fit mode, but has not registered to any AC.
	Flashing (once per second)	The radios have associated clients.
Blue	Flashing (twice per second)	The AP is upgrading the image.

WA6500A AP series

LED descriptions before modification

NOTE:

This section is applicable to the WA6500A AP series in versions earlier than 2616.

Table 13 LED description (fit mode)

LED color	Status	Description
N/A	Off	No power is present or the LED has been turned off from the CLI.
Yellow	Steady on	The AP is initializing, or an initialization exception has occurred.
	Flashing (twice per second)	The Ethernet ports are down and no mesh links are established.
Green	Steady on	The AP has started up and registered with an AC, but is in standby state (does not have any associated clients).
	Flashing (once every two seconds)	The AP has started up, but has not registered to any AC.
	Flashing (twice per second)	The AP is upgrading the image.
Blue	Flashing (once per second)	The radios have associated clients.

Table 14 LED description (cloud mode)

LED color	Status	Description
N/A	Off	No power is present or the LED has been turned off from the CLI.
Yellow	Steady on	The AP is initializing, or an initialization exception has occurred.
	Flashing (twice per second)	The Ethernet ports are down and no mesh links are established.
Green	Steady on	The AP is in standby state, has connected to Cloudnet, but does not have any associated clients.
	Flashing (once per second)	The AP has connected to Cloudnet, and the radios have associated clients.
	Flashing (twice per second)	The AP is upgrading the image.
Blue	Steady on	The AP is in standby state, has not connected to Cloudnet, and does not have any associated clients.
	Flashing (once per second)	The AP has not connected to Cloudnet, but the radios have associated clients.

LED descriptions after modification

NOTE:

This section is applicable to the WA6500A AP series in 2616 and later versions.

Table 15 LED description

LED color	Status	Description
N/A	Off	No power is present or the LED has been turned off from the CLI.
Yellow	Steady on	The AP is initializing, or an initialization exception has occurred.
	Flashing (twice per second)	The Ethernet ports are down and no mesh links are established.

LED color	Status	Description
Green	Steady on	The AP is in standby state and does not have any associated clients.
	Flashing (once every two seconds)	The AP has started up in fit mode, but has not registered to any AC.
	Flashing (once per second)	The radios have associated clients.
Blue	Flashing (twice per second)	The AP is upgrading the image.

LED descriptions for multi-LED APs

The descriptions for the status LEDs on an AP vary by AP operating mode. For information about the operating modes supported by an AP, see the release notes.

LED descriptions before modification

NOTE:

This section is applicable to the following APs:

WA6500A AP series in versions earlier than 2616..

Table 16 LED description

LED	Color	Status	Description
Power status LED	N/A	Off	No power is present or the LED has been turned off from the CLI.
	Yellow	Steady on	• The system software is starting. • An initialization exception has occurred.
	Green	Flashing (once every two seconds)	The AP has started up in fit mode, but has not registered to any AC.
		Flashing (once per second)	The AP is operating in cloud mode and has connected to Cloudnet.
		Flashing (twice per second)	The AP is upgrading the image.
		Steady on	The AP is in standby state. (The fit AP has registered with an AC.)
	Alternating between yellow and green	Flashing (once per second)	The AP is operating in cloud mode and has not connected to Cloudnet.
Radio status LED	N/A	Off	The radios are disabled or the LED has been turned off from the CLI.
	Yellow	Flashing (once per second)	A radio has been enabled but does not have associated clients.
	Green	Flashing (once per second)	A radio has associated clients.
LED for a copper	N/A	Off	No link is present on the port.

LED	Color	Status	Description
or fiber Ethernet port (such as a 1000M, 2.5G, 5G, or 10G port)	Yellow	Steady on	Negotiation has succeeded on the port, and the port is operating at a reduced speed.
		Flashing (once per second)	The port is operating correctly at a reduced speed.
	Green	Steady on	Negotiation has succeeded on the port, and the port is operating at the maximum speed.
		Flashing (once per second)	The port is operating correctly at the maximum speed.
PON	Green	Steady on	Normal PON link.
		Flashing (once per second)	The ONU is registering.
	Off		The ONU is not registered.

LED descriptions after modification

NOTE:

This section is applicable to the following APs:

WA6500A AP series in 2616 and later versions.

Table 17 LED description

LED	Color	Status	Description
Power status LED	N/A	Off	No power is present or the LED has been turned off from the CLI.
	Yellow	Steady on	• The system software is starting. • An initialization exception has occurred.
	Green	Flashing (once every two seconds)	The AP has started up in fit mode, but has not registered to any AC.
		Flashing (twice per second)	The AP is upgrading the image.
		Steady on	The AP is in standby state. (The fit AP has registered with an AC.)
Radio status LED	N/A	Off	The radios are disabled or the LED has been turned off from the CLI.
	Yellow	Flashing (once per second)	A radio has been enabled but does not have associated clients.
	Green	Flashing (once per second)	A radio has associated clients.
LED for a copper or fiber Ethernet port (such as a 1000M, 2.5G, 5G, or 10G port)	N/A	Off	No link is present on the port.
	Yellow	Steady on	Negotiation has succeeded on the port, and the port is operating at a reduced speed.
		Flashing (once per second)	The port is operating correctly at a reduced speed.
	Green	Steady on	Negotiation has succeeded on the port, and the port is operating at the maximum speed.
		Flashing (once per	The port is operating correctly at the maximum

LED	Color	Status	Description
		second)	speed.
PON	Green	Steady on	Normal PON link.
		Flashing (once per second)	The ONU is registering.
	Off		The ONU is not registered.

LED description for the reset button

Table 18 LED description for the reset button

Reset button	Press and hold duration (seconds)	LED color	LED status	Description
RESET	0 to 5	Green	Steady on	Reset the AP.
	5 to 20	Green	Flashing (twice per second)	Restore to the factory defaults.
	20 to 30	Yellow	Flashing (once every two seconds)	The AP is operating in fit mode.
			Flashing (twice per second)	The AP is operating in anchor AC mode.
			Flashing (four times per second)	The AP is operating in cloud mode.
	> 30	Yellow	Flashing (twice per second)	The AP is operating in anchor AC mode.
			Flashing (four times per second)	The AP is operating in cloud mode.
		Green	Flashing (four times per second)	The AP is switching from fit mode to cloud mode. Note: After you release the button, if the AP has switched from fit mode to cloud mode, it will restart for the new mode to take effect.

Transceiver modules

Views

You must use an SFP transceiver module and optical fiber with an LC connector to connect the fiber port on the AP.

Figure 28 SFP transceiver module

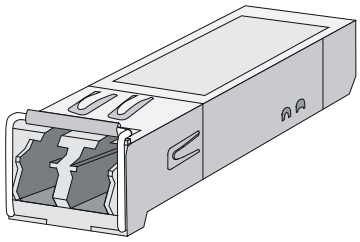
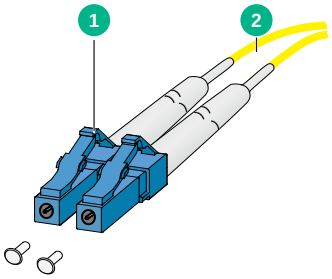


Figure 29 Optical fibers with LC connectors



(1) LC connector	(2) Optical fiber

Specifications

WA6520H

Table 19 SFP-2.5G-LX10-SM1310-DR-I transceiver module specifications

Item	SFP-2.5G-LX10-SM1310-DR-I
Central wavelength	1310 nm
Max transmission distance	10 km (6.21 miles)
Data rate	1228.8 to 2457.6 Mbps
Connector type	LC connector
Fiber mode	SMF
Fiber diameter	9/125 μm
Output power	–7 to +2 dBm

Table 20 EOLS-1326-X transceiver module series available for the SFP ports

EOLS-1326-X transceiver module series	Central wavelength (nm)	Max transmission distance	Data rate	Connector	Fiber mode	Fiber diameter	Output power
1310nm FP and PIN, 10km	1310	10 km (6.21 miles)	100 to 2670 Mbps	LC	SMF	9/125 µm	–11.7 to –3 dBm
1310nm DFB and PIN, 15km		15 km (9.32 miles)					–5 to 0 dBm
1310nm DFB and APD, 40km		40 km (24.86 miles)					–2 to +3 dBm

Table 21 MXPD-483SD transceiver module specifications

Item	MXPD-483SD
Central wavelength	1310 nm
Max transmission distance	15 km (9.32 miles)
Data rate	0.155 to 2.67 Gbps
Connector type	LC connector
Fiber mode	SMF
Fiber diameter	9/125 µm
Output power	–5 to 0 dBm

Table 22 RTXM192-xxx transceiver module series available for the SFP ports

RTXM192-xxx transceiver module series	Central wavelength (nm)	Max transmission distance	Data rate	Connector	Fiber mode	Fiber diameter	Output power
RTXM192-550	850	300 m (984.25 ft)	2.5 Gbps	LC	SMF	9/125 µm	–10 to –3 dBm
RTXM192-400	1310	2 km (1.24 miles)					–10 to –3 dBm
RTXM192-450	1310	15 km (9.32 miles)					–5 to 0 dBm
RTXM192-454	1310	30 km (18.64 miles)					–2 to +3 dBm
RTXM192-452	1310	40 km (24.86 miles)					–2 to +3 dBm
RTXM192-500	1550	80 km (49.71 miles)					–2 to +3 dBm
RTXM192-	N/A	40 km (24.86					0 to 3 dBm

RTXM192-xxx transceiver module series	Central wavelength (nm)	Max transmission distance	Data rate	Connector	Fiber mode	Fiber diameter	Output power
6xx		miles)					
RTXM192-8xx	N/A	80 km (49.71 miles)					0 to 3 dBm

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Table 23 SFP-2.5G-LX10-SM1310-DR-I transceiver module specifications

Item	SFP-2.5G-LX10-SM1310-DR-I
Central wavelength	1310 nm
Max transmission distance	10 km (6.21 miles)
Data rate	1228.8 to 2457.6 Mbps
Connector type	LC connector
Fiber mode	SMF
Fiber diameter	9/125 μm
Output power	–7 to +2 dBm

WA6528X-E

Table 24 Transceiver module specifications

Item	SFP-XG-CPRI-IR-SM1310	SFP-XG-CPRI-LR-SM1310
Central wavelength	1310 nm	1310 nm
Max transmission distance	1.4 km (4593.17 ft)	10 km (6.21 miles)
Data rate	1250 Mbps	1250 Mbps
Connector type	Duplex LC	Duplex LC
Fiber mode	SMF	SMF
Fiber diameter	9 μm	9 μm
Output optical power	–8.2 to +0.5 dBm	–8.2 to +0.5 dBm
Receiver sensitivity	≤ –14.4 dBm	≤ –14.4 dBm
Light saturation	≤ 0.5 dBm	≤ 0.5 dBm

Receive Sensitivity Values

Receive sensitivity is the minimum signal receive power at the antenna port required for correct wireless device operation. A lower receive sensitivity value indicates better receive performance of the wireless device.

WA6520

Table 25 Receive Sensitivity Values

Radio	5GHz Radio	2.4GHz Radio
	Rx sensitivity (dBm) NSS1	Rx sensitivity (dBm) NSS1
802.11/11b		
1 Mbps	-	-100
11 Mbps	-	-92
802.11a/g		
6 Mbps	-96	-97
24 Mbps	-87	-88
54 Mbps	-77	-79
802.11n HT20		
MCS0	-96	-97
MCS4	-86	-87
MCS7	-77	-79
802.11n HT40		
MCS0	-94	-95
MCS4	-84	-85
MCS7	-75	-76
802.11ac VHT20		
MCS0	-97	-
MCS4	-86	-
MCS7	-77	-
MCS8	-74	-
802.11ac VHT40		
MCS0	-94	-
MCS4	-84	-
MCS7	-75	-
MCS8	-72	-
MCS9	-69	-
802.11ac VHT80		

Radio	5GHz Radio	2.4GHz Radio
MCS0	-90	-
MCS4	-79	-
MCS7	-70	-
MCS8	-68	-
MCS9	-65	-
802.11ac VHT160		
MCS0	-87	-
MCS4	-77	-
MCS7	-69	-
MCS8	-66	-
MCS9	-63	-
802.11ax HE20		
MCS0	-97	-97
MCS4	-86	-86
MCS7	-77	-76
MCS8	-75	-74
MCS9	-72	-71
MCS10	-69	-69
MCS11	-66	-66
802.11ax HE40		
MCS0	-93	-94
MCS4	-83	-83
MCS7	-75	-74
MCS8	-72	-71
MCS9	-68	-68
MCS10	-66	-66
MCS11	-64	-63
802.11ax HE80		
MCS0	-89	-
MCS4	-80	-
MCS7	-72	-
MCS8	-69	-
MCS9	-66	-
MCS10	-63	-
MCS11	-60	-
802.11ax HE160		

Radio	5GHz Radio	2.4GHz Radio
MCS0	-87	-
MCS4	-77	-
MCS7	-69	-
MCS8	-67	-
MCS9	-64	-
MCS10	-61	-
MCS11	-57	-

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Table 26 Receive Sensitivity Values

Radio	5GHz Radio	2.4GHz Radio
	Rx sensitivity (dBm) NSS1	Rx sensitivity (dBm) NSS1
802.11/11b		
1 Mbps	-	-96
11 Mbps	-	-87
802.11a/g		
6 Mbps	-91	-92
24 Mbps	-82	-83
54 Mbps	-73	-74
802.11n HT20		
MCS0	-91	-91
MCS4	-81	-81
MCS7	-73	-73
802.11n HT40		
MCS0	-88	-88
MCS4	-78	-78
MCS7	-70	-70
802.11ac VHT20		
MCS0	-91	-
MCS4	-81	-
MCS7	-73	-
MCS8	-68	-
MCS9	-	-
802.11ac VHT40		

Radio	5GHz Radio	2.4GHz Radio
MCS0	-88	-
MCS4	-78	-
MCS7	-70	-
MCS8	-67	-
MCS9	-63	-
802.11ac VHT80		
MCS0	-85	-
MCS4	-75	-
MCS7	-67	-
MCS8	-64	-
MCS9	-61	-
802.11ac VHT160		
MCS0	-82	-
MCS4	-72	-
MCS7	-64	-
MCS8	-61	-
MCS9	-58	-
802.11ax HE20		
MCS0	-91	-91
MCS4	-81	-81
MCS7	-73	-73
MCS8	-70	-70
MCS9	-66	-66
MCS10	-64	-64
MCS11	-61	-61
802.11ax HE40		
MCS0	-88	-88
MCS4	-78	-78
MCS7	-70	-70
MCS8	-67	-67
MCS9	-63	-63
MCS10	-61	-61
MCS11	-58	-58
802.11ax HE80		
MCS0	-85	-
MCS4	-75	-

Radio	5GHz Radio	2.4GHz Radio
MCS7	-67	-
MCS8	-64	-
MCS9	-60	-
MCS10	-58	-
MCS11	-55	-
802.11ax HE160		
MCS0	-82	-
MCS4	-72	-
MCS7	-64	-
MCS8	-61	-
MCS9	-57	-
MCS10	-55	-
MCS11	-52	-

WA6526

Table 27 Receive Sensitivity Values

Radio	5GHz Radio	2.4GHz Radio
	Rx sensitivity (dBm) NSS1	Rx sensitivity (dBm) NSS1
802.11/11b		
1 Mbps	-	-98
11 Mbps	-	-90
802.11a/g		
6 Mbps	-96	-95
24 Mbps	-88	-87
54 Mbps	-79	-77
802.11n HT20		
MCS0	-96	-96
MCS4	-86	-86
MCS7	-77	-76
802.11n HT40		
MCS0	-93	-92
MCS4	-83	-82
MCS7	-75	-73
802.11ac VHT20		

Radio	5GHz Radio	2.4GHz Radio
MCS0	-97	-
MCS4	-86	-
MCS7	-77	-
MCS8	-74	-
MCS9	-	-
802.11ac VHT40		
MCS0	-93	-
MCS4	-85	-
MCS7	-76	-
MCS8	-73	-
MCS9	-70	-
802.11ac VHT80		
MCS0	-90	-
MCS4	-79	-
MCS7	-70	-
MCS8	-68	-
MCS9	-66	-
802.11ac VHT160		
MCS0	-87	-
MCS4	-77	-
MCS7	-69	-
MCS8	-66	-
MCS9	-63	-
802.11ax HE20		
MCS0	-95	-95
MCS4	-85	-85
MCS7	-77	-75
MCS8	-75	-73
MCS9	-72	-70
MCS10	-70	-68
MCS11	-68	-63
802.11ax HE40		
MCS0	-91	-92
MCS4	-82	-81
MCS7	-74	-74
MCS8	-71	-70

Radio	5GHz Radio	2.4GHz Radio
MCS9	-68	-67
MCS10	-66	-65
MCS11	-64	-60
802.11ax HE80		
MCS0	-89	-
MCS4	-80	-
MCS7	-72	-
MCS8	-69	-
MCS9	-66	-
MCS10	-63	-
MCS11	-61	-
802.11ax HE160		
MCS0	-86	-
MCS4	-77	-
MCS7	-69	-
MCS8	-67	-
MCS9	-64	-
MCS10	-61	-
MCS11	-57	-

WA6526E

Table 28 Receive Sensitivity Values

Radio	5GHz Radio	2.4GHz Radio
	Rx sensitivity (dBm) NSS1	Rx sensitivity (dBm) NSS1
802.11/11b		
1 Mbps	-	-98
11 Mbps	-	-90
802.11a/g		
6 Mbps	-96	-95
24 Mbps	-88	-87
54 Mbps	-79	-77
802.11n HT20		
MCS0	-96	-96
MCS4	-86	-86

Radio	5GHz Radio	2.4GHz Radio
MCS7	-77	-76
802.11n HT40		
MCS0	-93	-92
MCS4	-83	-82
MCS7	-75	-73
802.11ac VHT20		
MCS0	-97	-
MCS4	-86	-
MCS7	-77	-
MCS8	-74	-
MCS9	-	-
802.11ac VHT40		
MCS0	-93	-
MCS4	-85	-
MCS7	-76	-
MCS8	-73	-
MCS9	-70	-
802.11ac VHT80		
MCS0	-90	-
MCS4	-79	-
MCS7	-70	-
MCS8	-68	-
MCS9	-66	-
802.11ac VHT160		
MCS0	-87	-
MCS4	-77	-
MCS7	-69	-
MCS8	-66	-
MCS9	-63	-
802.11ax HE20		
MCS0	-95	-95
MCS4	-85	-85
MCS7	-77	-75
MCS8	-75	-73
MCS9	-72	-70
MCS10	-70	-68

Radio	5GHz Radio	2.4GHz Radio
MCS11	-68	-63
802.11ax HE40		
MCS0	-91	-92
MCS4	-82	-81
MCS7	-74	-74
MCS8	-71	-70
MCS9	-68	-67
MCS10	-66	-65
MCS11	-64	-60
802.11ax HE80		
MCS0	-89	-
MCS4	-80	-
MCS7	-72	-
MCS8	-69	-
MCS9	-66	-
MCS10	-63	-
MCS11	-61	-
802.11ax HE160		
MCS0	-86	-
MCS4	-77	-
MCS7	-69	-
MCS8	-67	-
MCS9	-64	-
MCS10	-61	-
MCS11	-57	-

WA6528i

Table 29 Receive Sensitivity Values

Radio	5GHz Radio	2.4GHz Radio
	Rx sensitivity (dBm) NSS1	Rx sensitivity (dBm) NSS1
802.11/11b		
1 Mbps	-	-95
11 Mbps	-	-88
802.11a/g		

Radio	5GHz Radio	2.4GHz Radio
6 Mbps	-96	-93
24 Mbps	-87	-84
54 Mbps	-78	-75
802.11n HT20		
MCS0	-96	-93
MCS4	-84	-80
MCS7	-76	-73
802.11n HT40		
MCS0	-93	-91
MCS4	-80	-78
MCS7	-73	-71
802.11ac VHT20		
MCS0	-96	-
MCS4	-83	-
MCS7	-76	-
MCS8	-72	-
802.11ac VHT40		
MCS0	-93	-
MCS4	-80	-
MCS7	-73	-
MCS8	-69	-
MCS9	-68	-
802.11ac VHT80		
MCS0	-90	-
MCS4	-77	-
MCS7	-70	-
MCS8	-66	-
MCS9	-64	-
802.11ac VHT160		
MCS0	-	-
MCS4	-	-
MCS7	-	-
MCS8	-	-
MCS9	-	-
802.11ax HE20		
MCS0	-96	-92

Radio	5GHz Radio	2.4GHz Radio
MCS4	-85	-82
MCS7	-76	-73
MCS8	-74	-71
MCS9	-70	-67
MCS10	-68	-65
MCS11	-66	-63
802.11ax HE40		
MCS0	-91	-91
MCS4	-80	-80
MCS7	-76	-73
MCS8	-74	-69
MCS9	-70	-67
MCS10	-63	-63
MCS11	-61	-60
802.11ax HE80		
MCS0	-91	-
MCS4	-78	-
MCS7	-72	-
MCS8	-68	-
MCS9	-66	-
MCS10	-62	-
MCS11	-60	-

WA6528X-E

Table 30 Receive Sensitivity Values

Radio	5GHz Radio	2.4GHz Radio
	Rx sensitivity (dBm) NSS1	Rx sensitivity (dBm) NSS1
802.11/11b		
1 Mbps	-	-102
11 Mbps	-	-96
802.11a/g		
6 Mbps	-98	-98
24 Mbps	-90	-90
54 Mbps	-81	-81

Radio	5GHz Radio	2.4GHz Radio
802.11n HT20		
MCS0	-94	-94
MCS4	-84	-84
MCS7	-76	-76
802.11n HT40		
MCS0	-91	-91
MCS4	-81	-81
MCS7	-73	-73
802.11ac VHT20		
MCS0	-94	-
MCS4	-84	-
MCS7	-76	-
MCS8	-71	-
MCS9	-	-
802.11ac VHT40		
MCS0	-91	-
MCS4	-81	-
MCS7	-73	-
MCS8	-70	-
MCS9	-66	-
802.11ac VHT80		
MCS0	-88	-
MCS4	-78	-
MCS7	-70	-
MCS8	-67	-
MCS9	-63	-
802.11ac VHT160		
MCS0	-85	-
MCS4	-75	-
MCS7	-67	-
MCS8	-64	-
MCS9	-60	-
802.11ax HE20		
MCS0	-94	-94
MCS4	-84	-84
MCS7	-76	-76

Radio	5GHz Radio	2.4GHz Radio
MCS8	-73	-73
MCS9	-69	-69
MCS10	-67	-67
MCS11	-64	-64
802.11ax HE40		
MCS0	-91	-91
MCS4	-81	-81
MCS7	-73	-73
MCS8	-70	-70
MCS9	-66	-66
MCS10	-64	-64
MCS11	-61	-61
802.11ax HE80		
MCS0	-88	-
MCS4	-78	-
MCS7	-70	-
MCS8	-67	-
MCS9	-63	-
MCS10	-61	-
MCS11	-58	-
802.11ax HE160		
MCS0	-85	-
MCS4	-75	-
MCS7	-67	-
MCS8	-64	-
MCS9	-60	-
MCS10	-58	-
MCS11	-55	-