H3C WX2800X Series Access Controllers

Hardware Information and Specifications

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

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Preface

H3C WX2800X Series Access Controllers Hardware Information and Specifications describes product models, technical specifications, ports,and LEDs of the WX2800X series access controllers.

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 WX2800X series access controllers.

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

1 Product overview

Product models

This document is applicable to the WX2800X series access controllers. Table1-1 describes the WX2800X series access controller models.

Table1-1 WX2800X series access controller models

Product series	Product code	Model	Remarks
WX2800X series	EWP-WX2812X-PWR	WX2812X-PWR	PoE model
	EWP-WX2860X	WX2860X	Non-PoE models
	EWP-WX2880X	WX2880X	

Technical specifications

Table1-2 Technical specifications

Item	WX2812X-PWR	WX2860X	WX2880X
Dimensions (H × W × D)	43.6 × 440 × 220 mm (1.72 × 17.32 × 8.66 in)	43.6 × 440 × 250 mm (1.72 × 17.32 × 9.84 in)	43.6 × 440 × 250 mm (1.72 × 17.32 × 9.84 in)
Weight	2.9 kg (6.39 lb)	3.1 kg (6.83 lb)	3.3 kg (7.28 lb)
Console port	1, control port, 9600 bps (default) to 115200 bps		
USB port	1 (USB2.0)		
SFP+ port	2 (10GBASE-R-SFP+)		
100/1000BASE-T autosensing Ethernet port	2 (WAN interfaces)	8	8
100/1000BASE-T-PoE+ autosensing Ethernet port	12 (The 12 LAN interfaces of the device operating as downlink interfaces that can provide PoE+ power. Each can provide a maximum PoE+ power of 30 W.)	N/A	N/A
2.5G/1000BASE-T autosensing Ethernet port	N/A	2	2
Reset button (RESET)	• To restore the device to factory settings, press and hold the button for more than 5 seconds. • To reset the device, press and hold the button for more than 15 milliseconds.	• To restore the device to factory default settings, press and hold the button for more than 5 seconds after the device starts up normally. • To reset the device, press and hold the button for more than 15 milliseconds. **NOTE:** During startup of the device, you can only use the reset button to reset the device.	

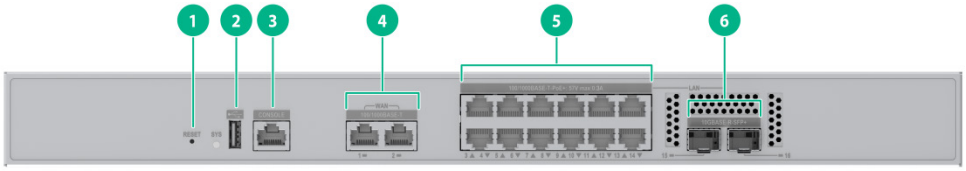
Item	WX2812X-PWR	WX2860X	WX2880X
Memory	2GB DDR4	2GB DDR4	4GB DDR4
Storage media	4GB eMMC memory	8GB eMMC memory	8GB eMMC memory
AC power supply	Rated voltage range: 100 to 240 VAC @ 50 or 60 Hz	Rated voltage range: 100 to 240 VAC @ 50 or 60 Hz	Dual power supplies Rated voltage range: 100 to 240 VAC @ 50 or 60 Hz
System power consumption	11.8W to 173 W (including 150W PoE output)	12.1 W to 29.5 W	14.1 W to 31.3 W
Operating temperature	0°C to 45°C (32°F to 113°F)		
Operating humidity	5% RH to 95% RH, noncondensing		

2 Chassis views

WX2812X-PWR

Front and rear views

Figure2-1 Front view



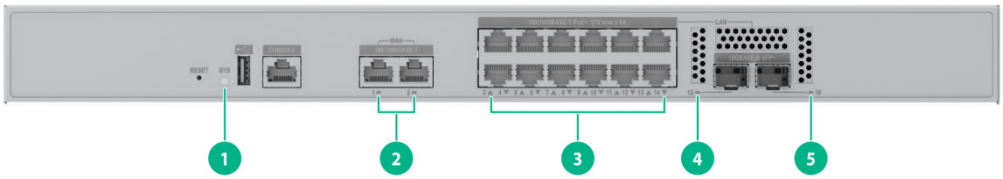
(1) Reset button (RESET)	(2) USB port
(3) Console port	(4) 100/1000BASE-T autosensing Ethernet ports WAN 1 and WAN 2
(5) 100/1000BASE-T-PoE+ autosensing Ethernet ports LAN 3 to LAN 14	
(6) 10GBASE-R-SFP+ ports	

Figure2-2 Rear view

(1) Grounding screw	(2) AC-input power receptacle

LED locations

Figure2-3 Front panel LED locations

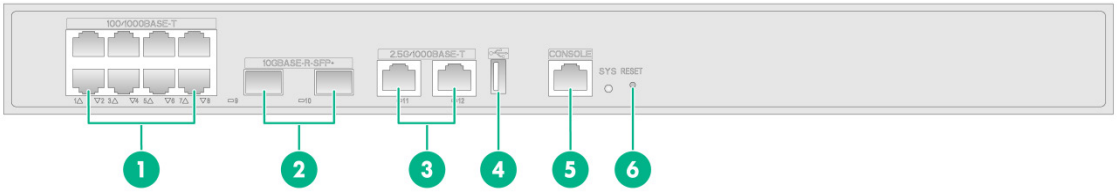


(1) System status LED (SYS)	(2) 100/1000MBASE-T autosensing port LEDs
(3) 100/1000BASE-T-PoE+ autosensing port LEDs	(4) 10GBASE-R-SFP+ port LED
(5) 10GBASE-R-SFP+ port LED	

WX2860X

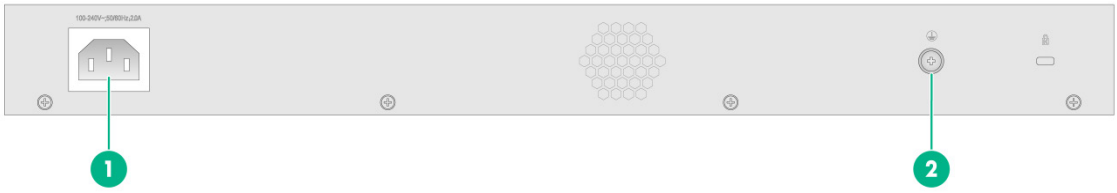
Front and rear views

Figure2-4 Front view



(1) 100/1000BASE-T autosensing Ethernet ports 1 to 8	(2) 10GBASE-R-SFP+ ports 9 and 10
(3) 2.5G/1000BASE-T autosensing Ethernet ports 11 and 12	(4) USB port
(5) Console port	(6) Reset button (RESET)

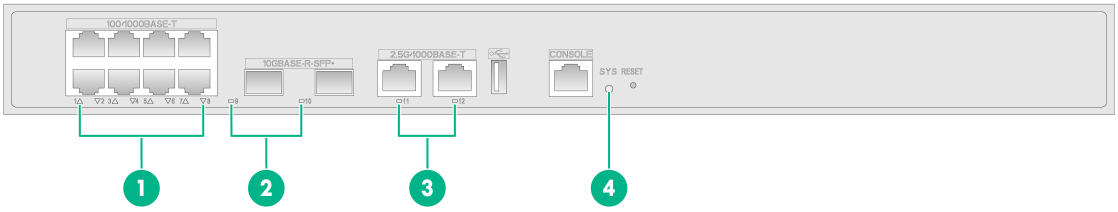
Figure2-5 Rear view



(1) AC-input power receptacle	(2) Grounding screw

LED locations

Figure2-6 Front panel LED locations

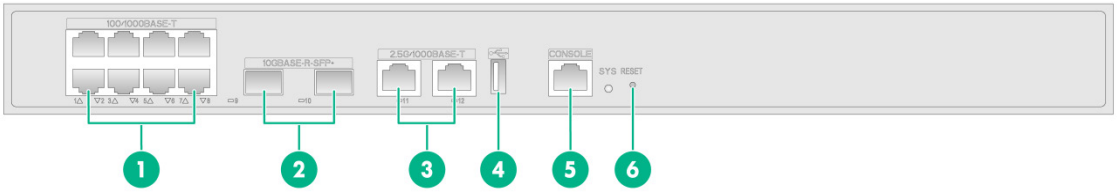


(1) 100/1000M autosensing port LEDs	(2) 10GBASE-R-SFP+ port LEDs
(3) 2.5G/1000M autosensing port LEDs	(4) System status LED (SYS)

WX2880X

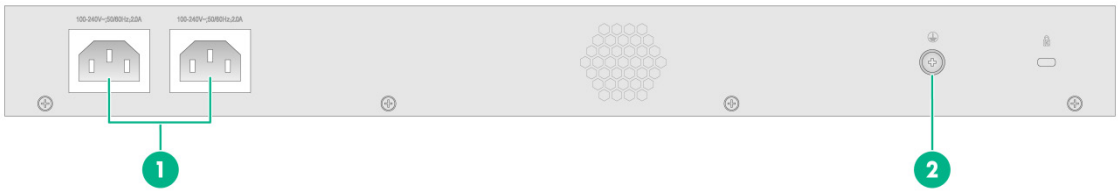
Front and rear views

Figure2-7 Front view



(1) 100/1000BASE-T autosensing Ethernet ports 1 to 8	(2) 10GBASE-R-SFP+ ports 9 and 10
(3) 2.5G/1000BASE-T autosensing Ethernet ports 11 and 12	(4) USB port
(5) Console port	(6) Reset button (RESET)

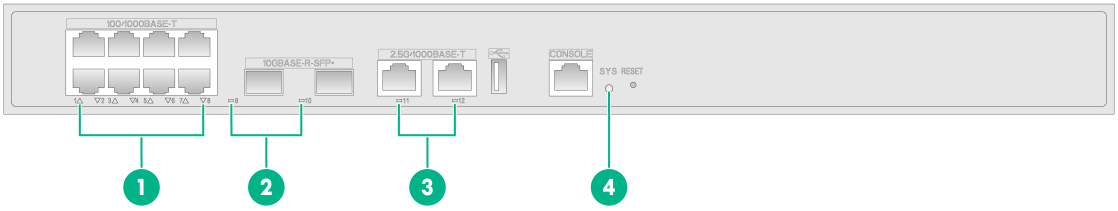
Figure2-8 Rear view



(1) AC-input power receptacles	(2) Grounding screw

LED locations

Figure2-9 Front panel LED locations



(1) 100/1000M autosensing port LEDs	(2) 10GBASE-R-SFP+ port LEDs
(3) 2.5G/1000M autosensing port LEDs	(4) System status LED (SYS)

3 Ports and LEDs

Ports

Console port

Table3-1 Console port specifications

Item	Specification
Connector type	RJ-45
Compliant standard	EIA/TIA-232
Port transmission rate	9600 bps (default) to 115200 bps
Services	• Provides connection to an ASCII terminal • Provides connection to the serial port of a local PC running terminal emulation program
Compatible devices	All device models

USB port

Table3-2 USB port specifications

Item	Specification
Port type	USB 2.0
Compliant standard	OHCI
Port transmission rate	Uploads and downloads data at a rate up to 480 Mbps
Functions and services	Accesses the file system on the flash of the device, for example, to upload or download application and configuration files
Compatible devices	All device models

NOTE:

USB devices from different vendors vary in compatibilities and drivers. H3C does not guarantee correct operation of USB devices from other vendors on the device. If a USB device fails to operate on the device, replace it with one from another vendor.

SFP+ port

Table3-3 SFP+ port specifications

Item	Specification
Connector type	LC
Compatible transceiver	• GE SFP transceiver modules in Table3-4

Item	Specification
modules	• 10GE SFP+ transceiver modules in Table3-5
Compatible devices	All device models

Table3-4 GE SFP transceiver modules

Transceiver module type	Transceiver module model	Central wavelength	Receiver sensitivity	Fiber diameter	Data rate	Max transmission distance
GE multi-mode module	SFP-GE-SX-MM850-A	850 nm	–17 dBm	50 µm	1.25 Gbps	550 m (1804.46 ft)
	SFP-GE-SX-MM850-D	850 nm	–17 dBm	50 µm	1.25 Gbps	550 m (1804.46 ft)
GE single-mode module	SFP-GE-LX-SM1310-A	1310 nm	–20 dBm	9 µm	1.25 Gbps	10 km (6.21 miles)
	SFP-GE-LX-SM1310-D	1310 nm	–20 dBm	9 µm	1.25 Gbps	10 km (6.21 miles)

Table3-5 10GE SFP+ transceiver modules

Transceiver module type	Transceiver module model	Central wavelength	Receiver sensitivity	Fiber diameter	Data rate	Max transmission distance
10GE multi-mode module	SFP-XG-SX-MM850-D	850 nm	–9.9 dBm	50 µm	10.31 Gbps	300 m (984.25 ft)
	SFP-XG-SX-MM850-E	850 nm	–9.9 dBm	50 µm	10.31 Gbps	300 m (984.25 ft)
10GE single-mode module	SFP-XG-LX-SM1310-D	1310 nm	–14.4 dBm	9 µm	10.31 Gbps	10 km (6.21 miles)
	SFP-XG-LX-SM1310-E	1310 nm	–14.4 dBm	9 µm	10.31 Gbps	10 km (6.21 miles)

NOTE:

- As a best practice, use H3C transceiver modules for the device.
- The H3C transceiver modules are subject to change over time. For the most recent list of H3C transceiver modules, contact your H3C Support or marketing staff.
- For more information about H3C transceiver modules, see *H3C Transceiver Modules User Guide*.

100/1000BASE-T autosensing Ethernet port

Table3-6 100/1000BASE-T autosensing Ethernet port specifications

Item	Specification
Connector type	RJ-45
Rate, duplex mode, and auto-MDI/MDI-X	• 100 Mbps, half/full duplex • 1000 Mbps, full duplex • MDI/MDI-X autosensing
Max transmission distance	100 m (328.08 ft)
Transmission medium	Category 5 or above twisted pair cable
Compliant standard	IEEE 802.3i, 802.3u, 802.3ab
Compatible devices	All device models

100/1000BASE-T-PoE+ autosensing Ethernet port

Table3-7 100/1000BASE-T-PoE+ autosensing Ethernet port specifications

Item	Specification
Connector type	RJ-45
Rate, duplex mode, and auto-MDI/MDI-X	• 100 Mbps, half/full duplex • 1000 Mbps, full duplex • MDI/MDI-X autosensing • PoE+ power supply
Max transmission distance	100 m (328.08 ft)
Transmission medium	Category 5 or above twisted pair cable
Compliant standard	IEEE 802.3i, 802.3u, 802.3ab
Compatible devices	WX2812X-PWR

2.5G/1000BASE-T autosensing Ethernet port

Table3-8 2.5G/1000BASE-T autosensing Ethernet port specifications

Item	Specification
Connector type	RJ-45
Rate, duplex mode, and auto-MDI/MDI-X	• 1000 Mbps, full duplex • 2.5 Gbps, full duplex • MDI/MDI-X autosensing
Max transmission distance	1000 Mbps: 100 m (328.08 ft) 2.5 Gbps: 100 m (328.08 ft)
Transmission medium	Category 5 or above twisted pair cable
Compliant standard	IEEE 802.3i, 802.3u, 802.3ab

Item	Specification
Compatible devices	WX2860X, WX2880X

LEDs

System status LED

The system status LED shows the operating status of the device.

Table3-9 System status LED description

LED mark	Status	Description
SYS	Flashing green (4 Hz)	The system is starting up.
	Flashing green (0.5 Hz)	The system is operating correctly.
	Steady red	A critical alarm has occurred, such as a power alarm, fan tray alarm, high temperature alarm, or software missing alarm.
	Off	The device has not started up.

SFP+ port LED

Table3-10 10GBASE-R-SFP+ port LED description for the WX2860X or WX2880X

LED mark	Status	Description
10GBASE-R-SFP+	Steady yellow	A 1000 Mbps link is present on the port.
	Flashing yellow	The port is receiving or sending data at 1000 Mbps.
	Steady green	A 10 Gbps link is present on the port.
	Flashing green	The port is receiving or sending data at 10 Gbps.
	Off	No link is present on the port.

Table3-11 10GBASE-R-SFP+ port LED description for the WX2812X-PWR

LED mark	Status	Description
10GBASE-R-SFP+	Steady green	A 1000 Mbps or 10 Gbps link is present on the port.
	Flashing green	The port is receiving or sending data at 1000 Mbps or 10 Gbps.
	Off	No link is present on the port.

100/1000BASE-T autosensing Ethernet port LED

Table3-12 Description for the 100/1000BASE-T autosensing Ethernet port LEDs on the WX2860X, WX2880X, or WX2812X-PWR

LED mark	Status	Description
100/1000BASE-T	Steady yellow	A 100 Mbps link is present on the port.
	Flashing yellow	The port is receiving or sending data at 100 Mbps.
	Steady green	A 1000 Mbps link is present on the port.
	Flashing green	The port is receiving or sending data at 1000 Mbps.
	Off	No link is present on the port.

Table3-13 Description for the 100/1000BASE-T-PoE+ autosensing Ethernet port LEDs on the WX2812X-PWR

LED mark	Status	Description
100/1000BASE-T-PoE+	Steady green	A 100/1000 Mbps link is present on the port.
	Flashing green	The port is receiving or sending data at 100/1000 Mbps.
	Off	No link is present on the port.

2.5G/1000BASE-T autosensing Ethernet port LED

During device startup, the 2.5G/1000M autosensing Ethernet port LEDs flash yellow and green temporarily. This indicates that the chip is in self test state.

Table3-14 Description for the 2.5G/1000BASE-T autosensing Ethernet port LEDs on the WX2860X or WX2880X

LED mark	Status	Description
2.5G/1000BASE-T	Steady yellow	A 1000 Mbps link is present on the port.
	Flashing yellow	The port is receiving or sending data at 1000 Mbps.
	Steady green	A 2.5 Gbps link is present on the port.
	Flashing green	The port is receiving or sending data at 2.5 Gbps.
	Off	No link is present on the port.

4 Cooling system

To dissipate heat timely and enhance system stability, the device uses a high-performance cooling system. Consider the site ventilation design when you plan the installation site for the device.

Table4-1 Cooling system

Product series	Product model	Airflow direction
WX2800X series	WX2812X-PWR	The device provides airflow from the other three sides to the right side. See Figure4-1.
	WX2860X	The device provides airflow from the left and right sides to the rear side. See Figure4-2.
	WX2880X	

Figure4-1 Airflow from the other three sides to the right side through the device chassis

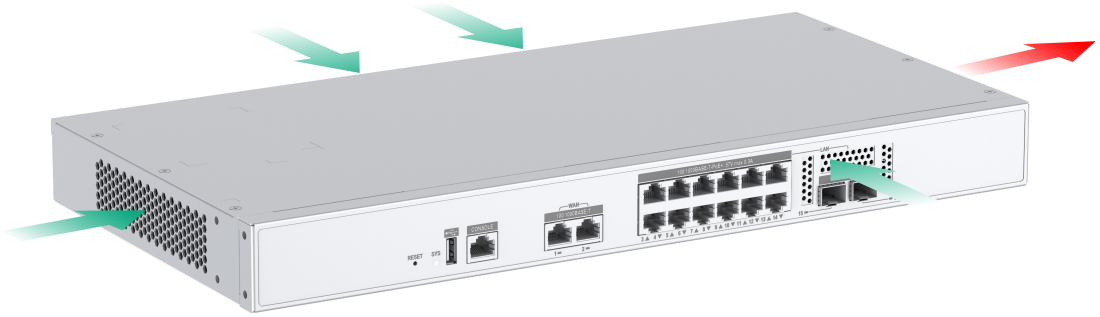


Figure4-2 Airflow from the left and right sides to the rear side through the device chassis