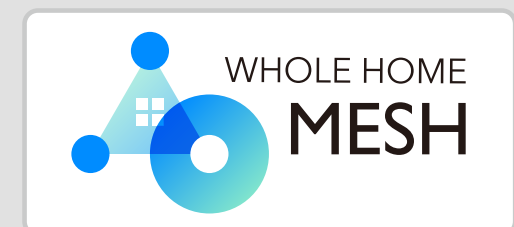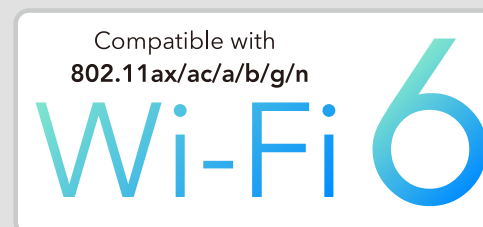# cudy

Model: **M3000**

AX3000

2.5G Whole-Whole Mesh Wi-Fi 6 System

- **1.3 GHz Dual-Core Cortex-A53 Processor**
- **Super-Fast AX3000 Wi-Fi 6 Technology**
- **Multi-Gig 2.5 Gbps Ethernet Port**
- **Highest 160 MHz Bandwidth in Wi-Fi 6**
- **Reduce Latency with DL/UL OFDMA, DL/UL MU-MIMO**
- **TR069/TR098/TR181/TR111**

Datasheet

Compatible with
802.11ax/ac/a/b/g/n
Wi-Fi **6**

WHOLE HOME
MESH

cudy

Wi-Fi6
Next Generation WiFi 6

1.3GHz
Dual Core Processor

MediaTek Filogic 820

160 MHz Bandwidth
Highest Bandwidth in Wi-Fi 6
Unleashes Multi-Gig Wi-Fi

AX3000
Extremely-Fast WiFi

2.5Gbps
WAN Port

MU-MIMO

Dual Band

Wi-Fi 6 - Super-Fast Wi-Fi for More Devices

4X
more capacity

Mobile Phone, Pad, laptop, game, IP camera, TV, Smart bulb, Smart speaker, Mobile Phone, Robotic Vacuum

150%
increase in data throughput

AX3000   2976Mbps
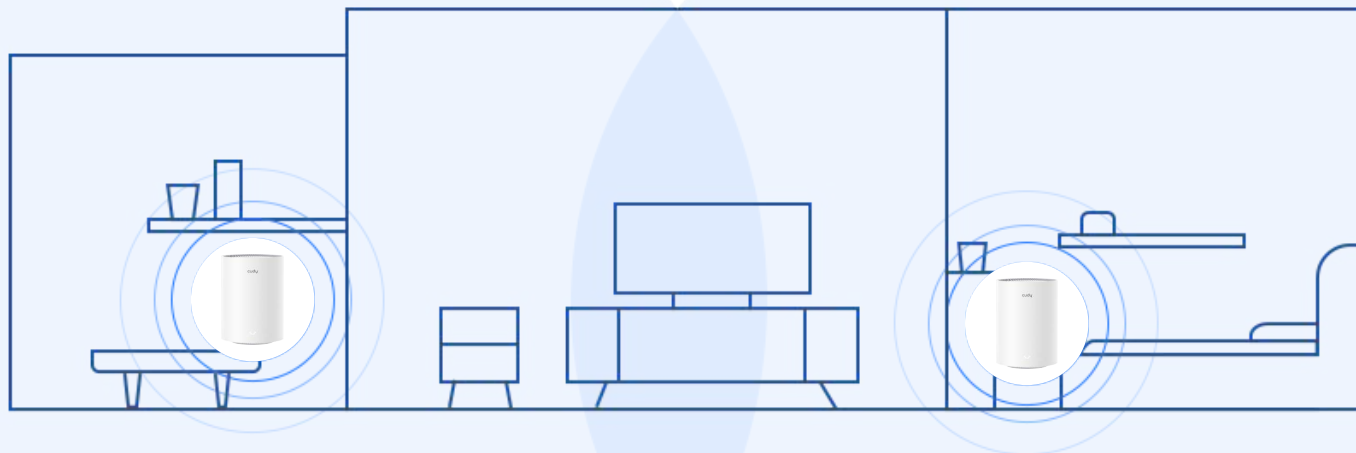
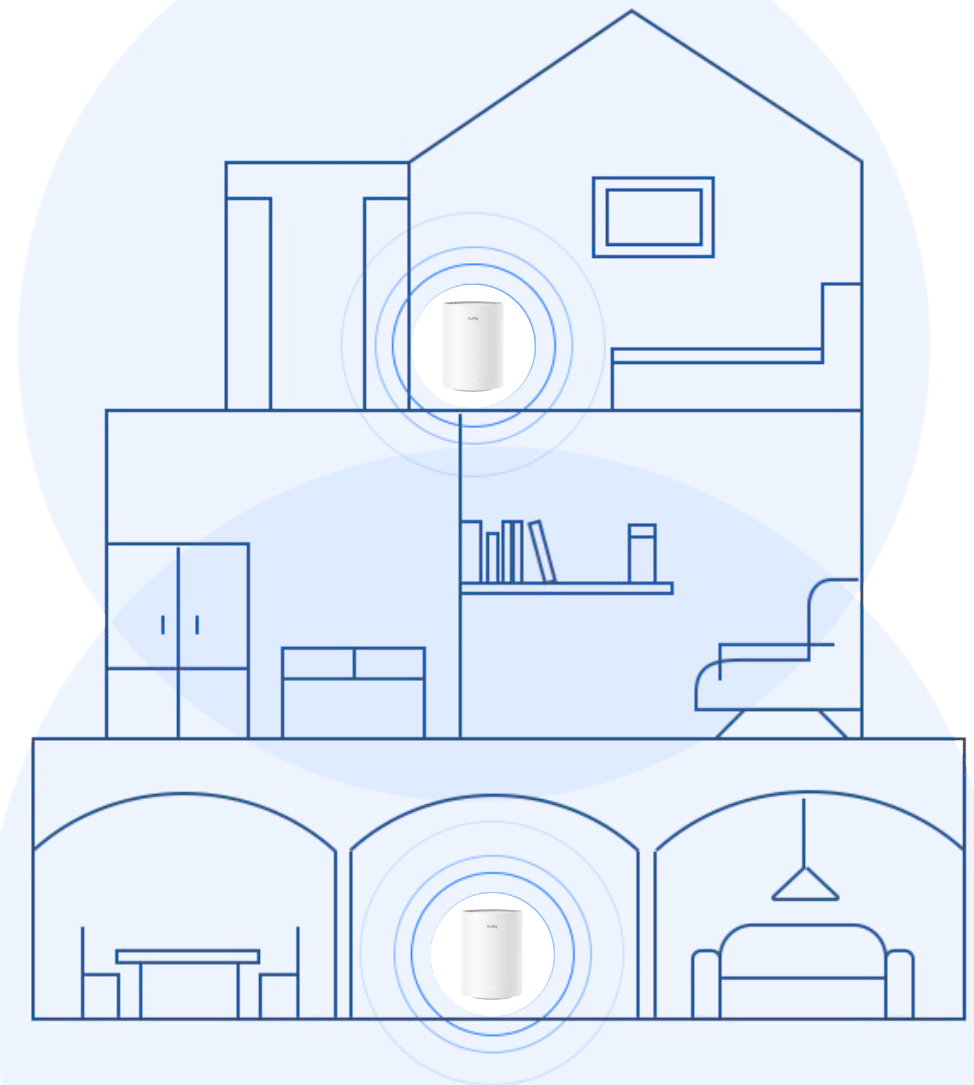AC1200   1167Mbps

100%
backwards compatibility

8K

Whole Home Mesh，Dead Zone Killer

With Cudy Mesh Wi-Fi 6 System, you'll enjoy advanced whole home WiFi designed to deliver smooth video streaming and fast online gaming to more devices at the same time. Experience the next generation of WiFi 6, perfect for medium to large homes. Want more coverage? Simply add another one.
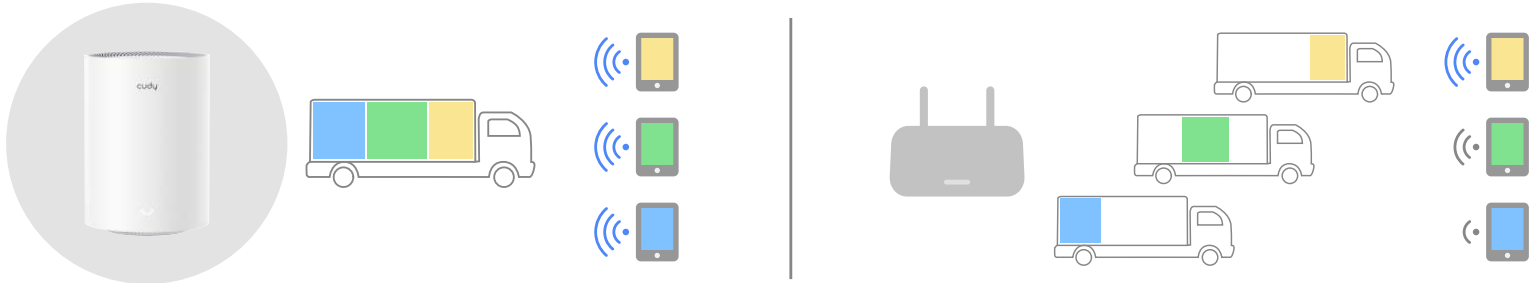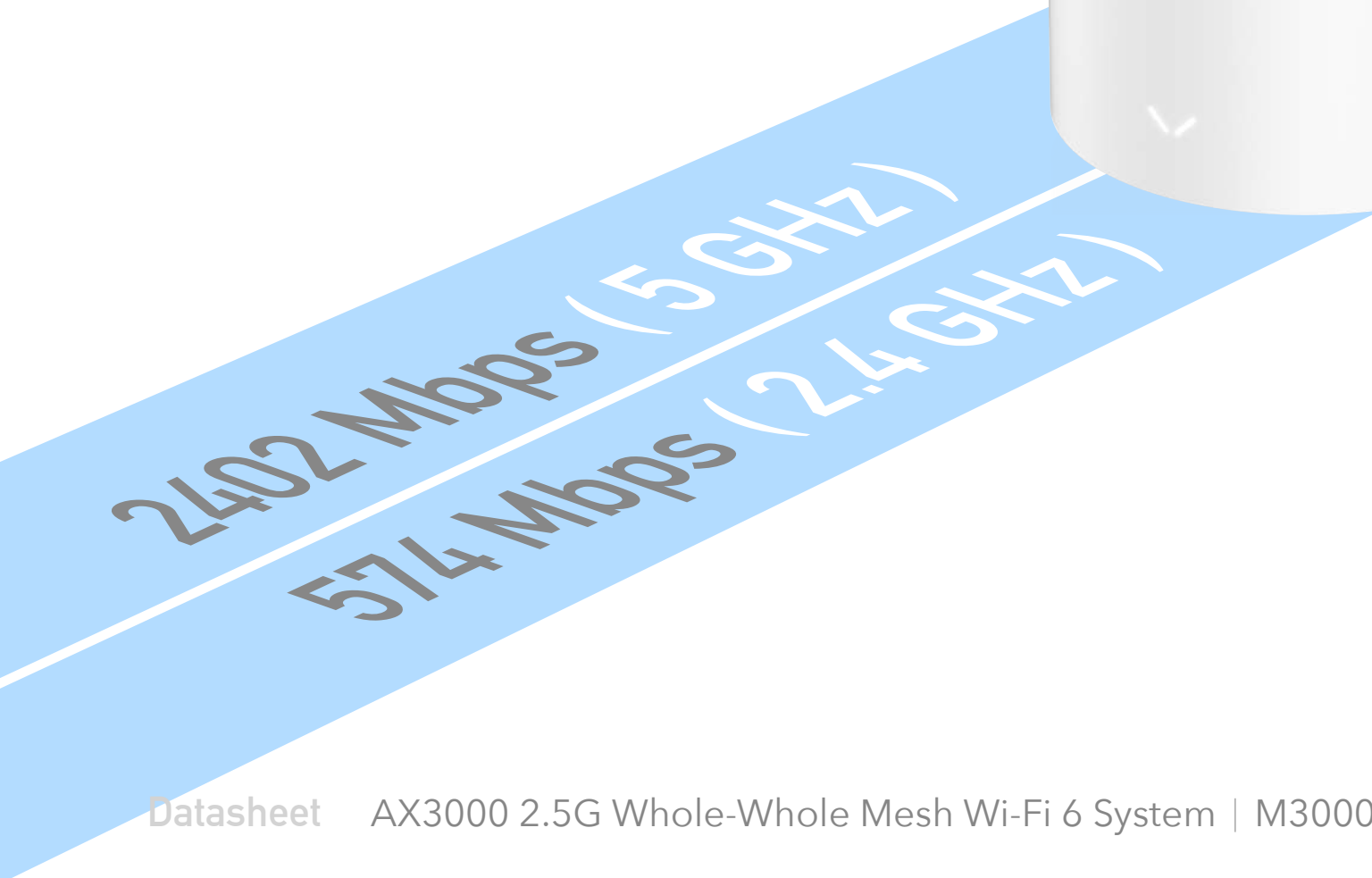
Apartment

Multi-Story Home

cudy

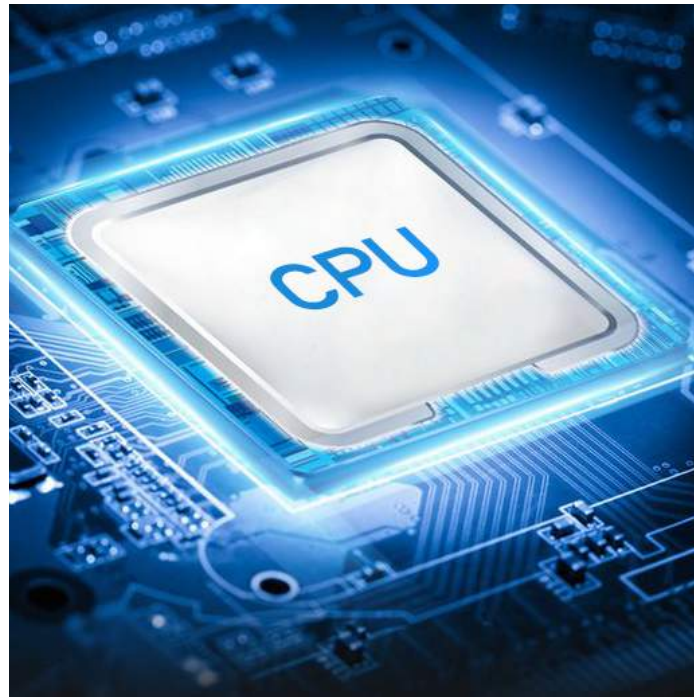Up to 3 Gbps Wi-Fi 6 Speed: Enjoy smooth streaming, downloading, and gaming with extremely fast Wi-Fi 6 Speed.

2.5 Gbps WAN Port

Featured with 10/100/1000Mbps ports, greatly expands your network capacity, enabling instant large files transferring.
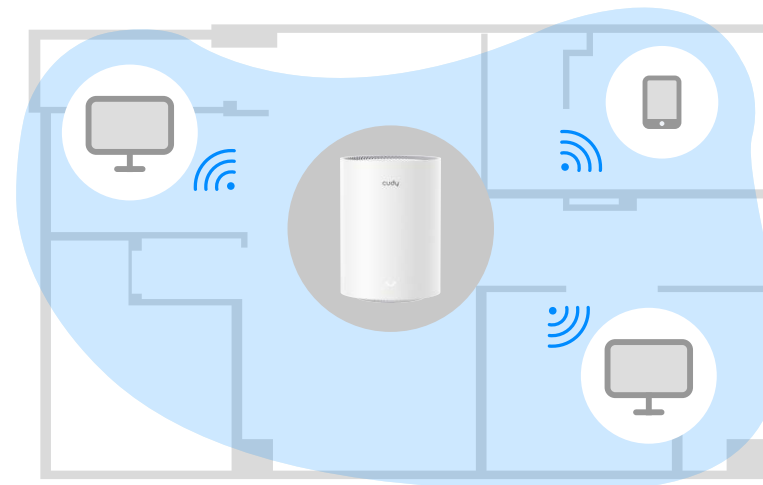
2402 Mbps (5 GHz)

574 Mbps (2.4 GHz)

More Devices: Wi-Fi 6 uses OFDMA to improve capacity and efficiency of your network, so more devices can connect without slowing down your Wi-Fi.

Features

Powerful Dual-Core Processor

Powerful Dual-Core CPU ensures smooth 4K UHD streaming to Smart TVs, mobile devices and gaming consoles without buffering.

Extensive Coverage: Beamforming, and five antennas combine to deliver focused reception to devices far away.

No Wasted Stream

Received Stream

Received Stream

Received Stream

MU-MIMO

Smart TV

Tablet

Phone

Phone

MU-MIMO   Transfer at the asme time

Software

VPN

With built-in VPN, this router can easily establish a connection to VPN Server to transport all your online data and traffic, securing it with its encryption at the same time.

DDNS

By assigning a custom domain name to your home router's IP address, DDNS function will update automatically as your home IP continues to change. Compatible with 15 more DDNS providers.

WPA3

The latest and cutting-edge Wi-Fi security protocol— WPA3 provides more secure and individualized encryption in personal password safety, protecting your network from wireless hacking.

Guest Network

Guest Network separate guest access from your family network. Maintain high security across your network to help ensure your privacy is safe while online.

Specifications

- Up to 3Gbps Wi-Fi 6 Speed: Enjoy smooth streaming, downloading, and gaming with extremely fast Wi-Fi 6 Speed.
- Powerful Dual-Core Processor: Powerful 1.3 GHz ARM Cortex-A53 CPU ensures smooth 4K UHD streaming to Smart TVs, mobile devices and gaming consoles without buffering.
- Improved Capacity: Wi-Fi 6 uses OFDMA to improve capacity and efficiency of your network, so more devices can connect without slowing down your Wi-Fi.
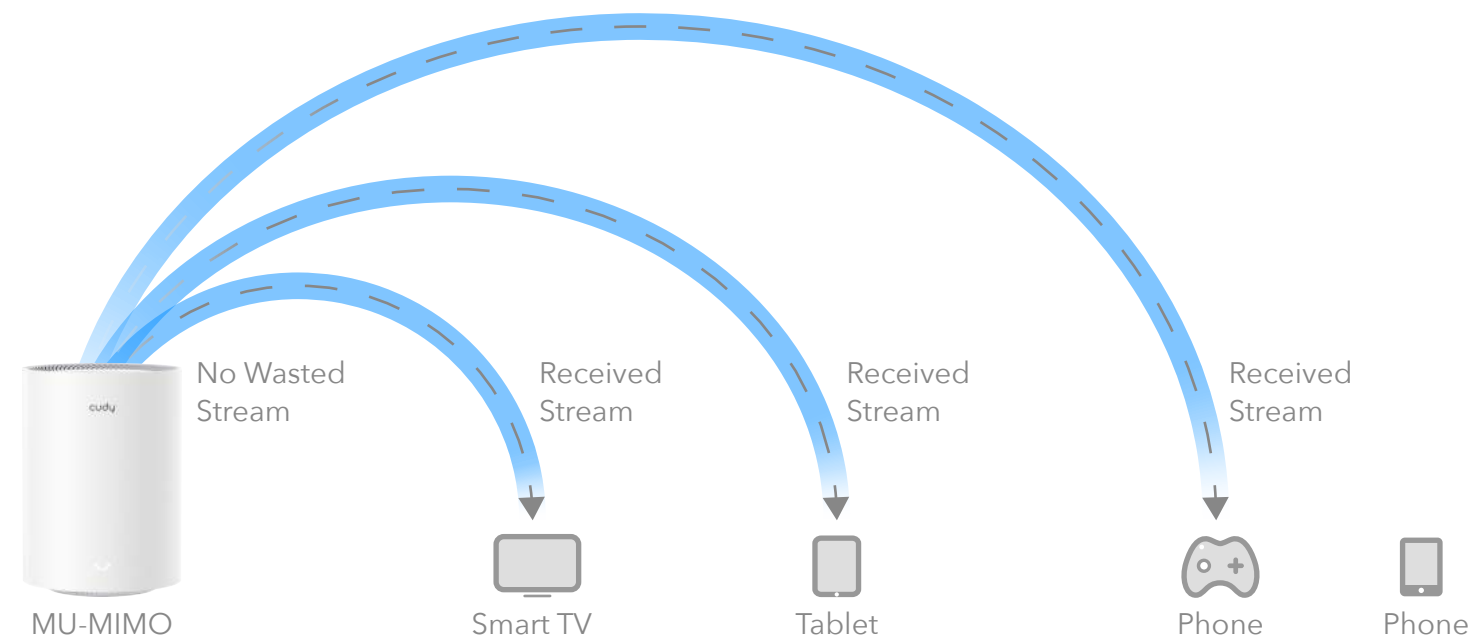- Extensive Coverage: Beamforming and five antennas combine to deliver focused reception to devices far away.
- Pre-installed VPN. With built-in VPN, this router can easily establish a connection to VPN Server to transport all your online data and traffic, securing it with its encryption at the same time.
- Dynamic DNS: DDNS function solves the issue of changing residential IP addresses. By assigning a custom domain name to your home router's IP address, DDNS function will update automatically as your home IP continues to change. Compatible with 15 more DDNS providers.
- Works with Existing Wi-Fi Devices: Backward compatible earlier generation WiFi standards.

Hardware Features

Processor	1.3 GHz Dual-Core Cortex-A53 Processor
Antennas	5× Internal Omni-Directional Antennas
Interfaces	1× 2.5Gbps WAN Port
	1× 10/100/1000 Mbps LAN Port
Buttons	Pair Button, Reset Button
External Power Supply	12 V / 1A

Wireless Features

Wireless Standards	IEEE 802.11ax/ac/n/a 5 GHz
	IEEE 802.11ax/n/b/g 2.4 GHz
Wireless Bandwidth	20/40/80/160MHz
Signal Rate	2402 Mbps (5 GHz), 574 Mbps (2.4 GHz)
	Compatible with 802.11a/b/g/n/ac/ax Wi-Fi standards
Transmit Power	CE: <20 dBm (2.4 GHz), <23 dBm (5.15 GHz~5.25 GHz)
	FCC: <30 dBm (2.4 GHz & 5.15 GHz~5.825 GHz)
Wireless Functions	Enable/Disable Wireless Radio, WMM
Wireless Security	WPA-PSK, WPA2-PSK, WPA3,
	WPA-PSK/WPA2-PSK, WPA2-PSK/WPA3
Other Functions	DL/UL OFDMA, DL/UL MU-MIMO, Beamforming, Mesh

Software Features

WAN Type	Dynamic IP/Static IP/PPPoE
DHCP	Server, DHCP Client List, Address Reservation
Dynamic DNS	Compatible with 15 more DDNS providers.
Guest Network	2.4 GHz guest network × 1
	5 GHz guest network × 1
NAT	Port Forwarding, Port Triggering, UPnP, DMZ
VPN Server & Client	Zerotier/Wireguard/OpenVPN/IPSec/L2TP/PPTP
Working Modes	Mesh/Wi-Fi Router/AP/RE/WISP
CWMP Protocols	TR069 / TR098 / TR111 / TR181
ACS Server Compatibility	GenieACS, OpenACS
Management	Parental Control
	Guest Network
TTL	Extend/Spoof/Custom
DNS	Cloudflare/Google/Quad9/Custom
Internet Protocols	IPv4 / IPv6
IPv6	Relay
	Dynamic(SLAAC/DHCPv6)
	Static (Fixed IP)
	Passthrough
	MAP-E (Dual-stack)
	DS-Lite (Dual-stack)

Others

Package Content	AX3000 Wi-Fi 6 Mesh Router Unit(s)
	Power Adapter(s)
	RJ45 Ethernet Cable(s)
	Quick Installation Guide
Environmental Requirements	Operating Temperature: 0 °C ~ 40 °C (32 °F ~104 °F)
	Storage Temperature: -40 °C ~ 70 °C (-40 °F ~ 158 °F)
	Operating Humidity: 10% ~ 90% non-condensing
	Storage Humidity: 5% ~ 90% non-condensing
System Requirements	Windows, macOS, Android, iOS, or other OS with networking capability
	Firefox, Chrome, Safari, Edge, or other up-to-date web browsers
	Cable/DSL/ONT modem or other internet source devices
	Internet subscription with ISP or carriers

Versions

Pack	M3000 3-Pack, Suitable for ~600 m² coverage demand
	M3000 2-Pack, Suitable for ~400 m² coverage demand
	M3000 1-Pack
	Actual coverage varies depending on the environmetal factors
	especially the made of the walls, the layout of the house. Please
	contact local resellers or distributors for avaialble versions.

AX3000
2.5G Wi-Fi 6
Ceiling Access Point

Model: **AP3000_P**

HILIGHT FEATURES

- AX3000 Wi-Fi 6: Simultaneous 574 Mbps on 2.4 GHz and 2402 Mbps on 5 GHz totals 2976 Mbps Wi-Fi speeds.

- 2.5Gbps Ethernet Port: A 2.5 Gbps Ethernet port boosts total internet throughput.

- 160 MHz Channel: Double the data at peak transmission times on a single stream with HE160.

- Flexible Power Supply: Support 802.3af/at, 48-57 V Passive PoE or 12 V DC.

- Advanced Wireless Technology: Optimize network performance with MU-MIMO, OFDMA, Band Steering, and Beamforming technologies.

- Cudy Mesh: Connect with Cudy Mesh / AP Controller to enable fast roaming.

- Hardware Watchdog: Automatically reboots AP when software freezes.

HARDWARE

Chipset:

- CPU: 1.3 GHz Dual-Core Cortex-A53 CPU

- Chipsets: MT7981BA+MT7976CN+RTL8221B

- Flash/DDR: 256 MB ROM / 512 MB RAM

Reliability:

Hardware Watchdog

Interfaces:

- 1× 2.5Gbps Ethernet (RJ-45) Port (PoE IN)

- 1× Reset Button

- 1× DC Jack

Power Supply:

- 802.3af/at PoE

- 48-57 V Passive PoE

- 12 V DC

Dimensions :

- 232×232×57.1 mm

Antenna Type:

- 5 Internal Omni-directional Antennas

Mounting:

- Ceiling /Wall Mounting (Kit included)

WIRELESS FEATURES

Wireless Standards:
• IEEE 802.11ax/ac/n/g/b/a

Frequency:
• 2.4 GHz and 5 GHz

Signal Rate:
• 5 GHz:Up to 2402 Mbps
• 2.4 GHz: Up to 574 Mbps

Bandwidth:
20/40/80/160 MHz

Capacity:
512 Devices

Wireless Functions
• 1024-QAM
• MU-MIMO
• OFDMA
• Multiple SSID
• Enable/Disable Wireless Radio
• Transmit Power Control
• QoS (WMM)
• Seamless Roaming
• Band Steering
• Airtime Fairness
• Beamforming
• Rate Limit
• Reboot Schedule
• Wireless Schedule
• Mesh

Wireless Encryption
• WPA-PSK
• WPA2-PSK
• WPA3-SAE
• WPA-PSK/WPA2-PSK
• WPA2-PSK/WPA3-SAE

OPERATION MODES

• Wireless Access Point
• Wireless Router
• Wireless Extender
• WISP
• Mesh

ENVIROMENTS:

• Operating Temperature: 0–40 °C (32–104 °F)
• Storage Temperature: -40–70 °C (-40–158 °F)
• Operating Humidity: 10–90% RH non-condensing
• Storage Humidity: 5–90% RH non-condensing

PACKAGE CONTENT

• AX3000 Wi-Fi 6 2.5G Access Point
• 12V DC Adapter
• Mounting Kits
• Installation Guide

SYSTEM REQUIREMENTS

Windows, macOS, Android, iOS, or other OS with networking capability

Firefox, Chrome, Safari, Edge, or other up-to-date web browsers

Cable/DSL/ONT modem or other internet source devices

Internet subscription with ISP or carriers

A Cudy AP Contorller or Mesh device for Mesh, multi-SSID, other advanced feature
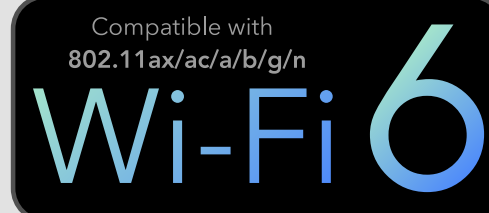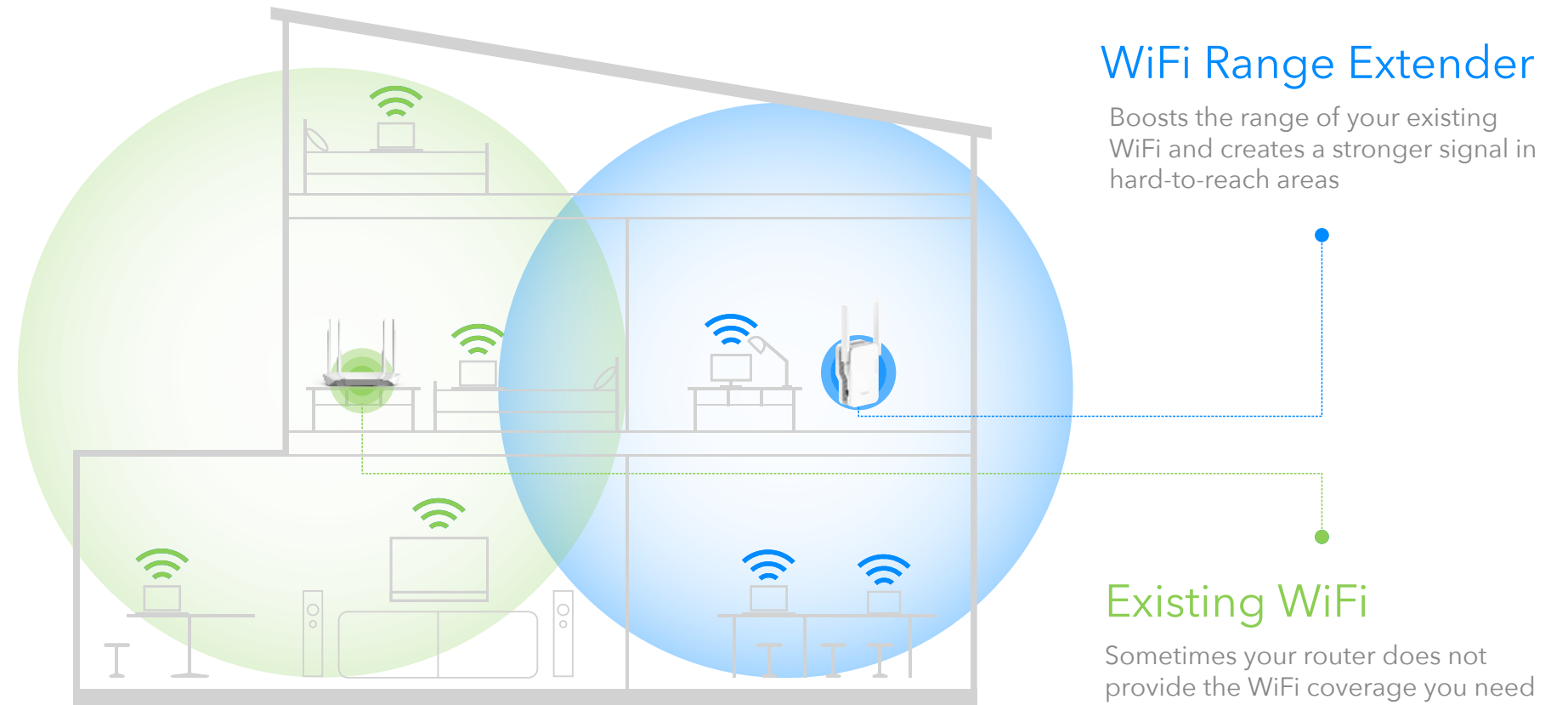
cudy

Model: **RE**3000

AX3000

Dual Band Wi-Fi 6 Range Extender

- 1.3GHz Dual Core Cortex-A53 Processor
- Extremely Fast AX3000 Wi-Fi 6 Technology
- OFDMA, Beamforming and MU-MIMO Supported
- 3-In-1 Wi-Fi Extender/Access Point/ Add-on Mesh

cudy

Compatible with
802.11ax/ac/a/b/g/n
Wi-Fi 6

WHOLE HOME
MESH

Features

- Extremely Fast AX3000 Wi-Fi 6 Technology
- 1.3GHz Dual Core Cortex-A53 Processor
- OFDMA, Beamforming and MU-MIMO Supported
- Work with any standard router or gateway
- Easily expand wireless coverage at a push of the WPS button
- Gigabit Ethernet ports to connect wired devices
- External antennas for faster and more reliable Wi-Fi
- 3-in-1 WiFi Extender / Access Point / Add-On mesh
- Easy Setup Assistant with multi-language support

WiFi Range Extender
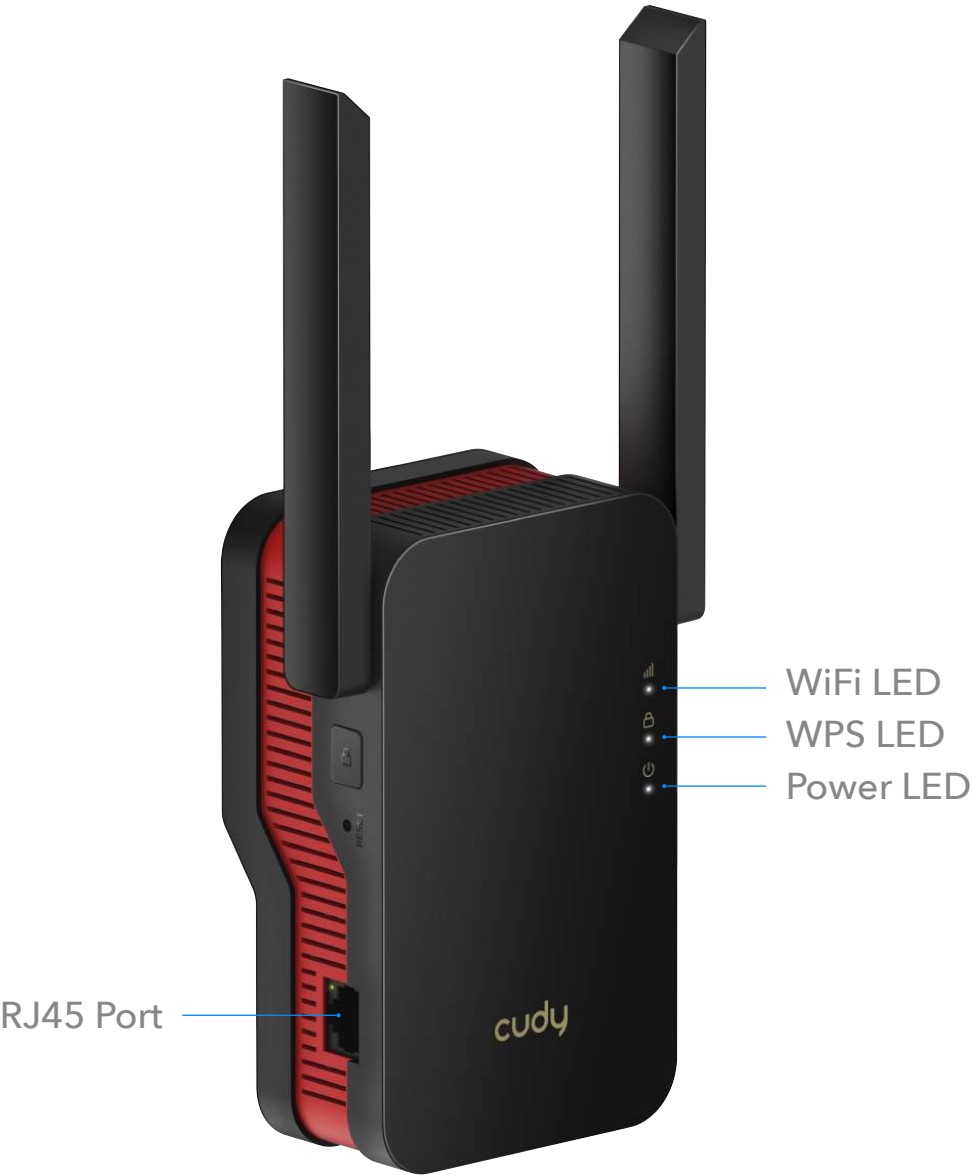
Boosts the range of your existing WiFi and creates a stronger signal in hard-to-reach areas

Existing WiFi

Sometimes your router does not provide the WiFi coverage you need

Wi-Fi Extender Mode

Internet

Router   Modem

Access Point Mode

Internet

Router   Modem

Say Goodbye to Dead Spots and Buffering

WiFi LED
WPS LED
Power LED

RJ45 Port

4K 5GHz 2402Mbps

2.4GHz 574Mbps

Enjoy Cudy Whole Home Mesh Wi-Fi System

Main Mesh Unit + **Add-on Mesh Units** =

WHOLE HOME MESH

Works With All Cudy Whole Home Mesh Products

Specifications

Product Name	AX3000 Dual Band Wi-Fi 6 Range Extender
Product Model	RE3000
Processor	MT7981BA+MT7976CN
Standards and Protocols	IEEE 802.11ax /IEEE 802.11ac /IEEE 802.11n/
	IEEE 802.11g /IEEE 802.11a/IEEE 802.11b
Frequency	2.4GHz & 5GHz (11ax)
Bandwidth	20/40/80/160MHz
Signal Rate	5GHz: Up to 2402Mbps
	2.4GHz: Up to 574Mpbs
Wireless Security	WPA-PSK / WPA2-PSK / WPA3
Ports	1 10/100/1000Mbps self-adaptive LAN
Power	Direct plug-in power supply (100V-240V)
Buttons	Reset Button / WPS Button
Antenna	2*External Antennas + 1*Internal Antenna
LED Lights	WiFi / WPS / Power
Environment	Operating Temperature: 0°C~40°C
	Storage Temperature: -40°C~70°C
	Operating Humidity: 10%~90% non-condensing
	Storage Humidity: 5%~90% non-condensing

LED and Button

LED	Colour	Status	Indication
⏻	/	OFF	No power
	White	Flash	The system is booting or upgrading
		ON	System startup is complete
🔒	/	OFF	Not connected to host Wi-Fi
	White	Flash	WPS in progress
		ON	Connected to host Wi-Fi
📶	OFF	Flash	No host Wi-Fi configuration
	Red Flash	ON	Not connected to host Wi-Fi
	Solid Red	ON	Connected to host Wi-Fi, signal is weak
	Solid Pink	ON	Connected to host Wi-Fi, signal is fair
	Solid White	ON	Connected to host Wi-Fi, signal is good
Reset	Long press for 2 seconds		Press and hold Reset button for 2 seconds until all the LED lights turn on and off.
WPS	Press to take effect		Press the WPS button until WPS LED start flashing.