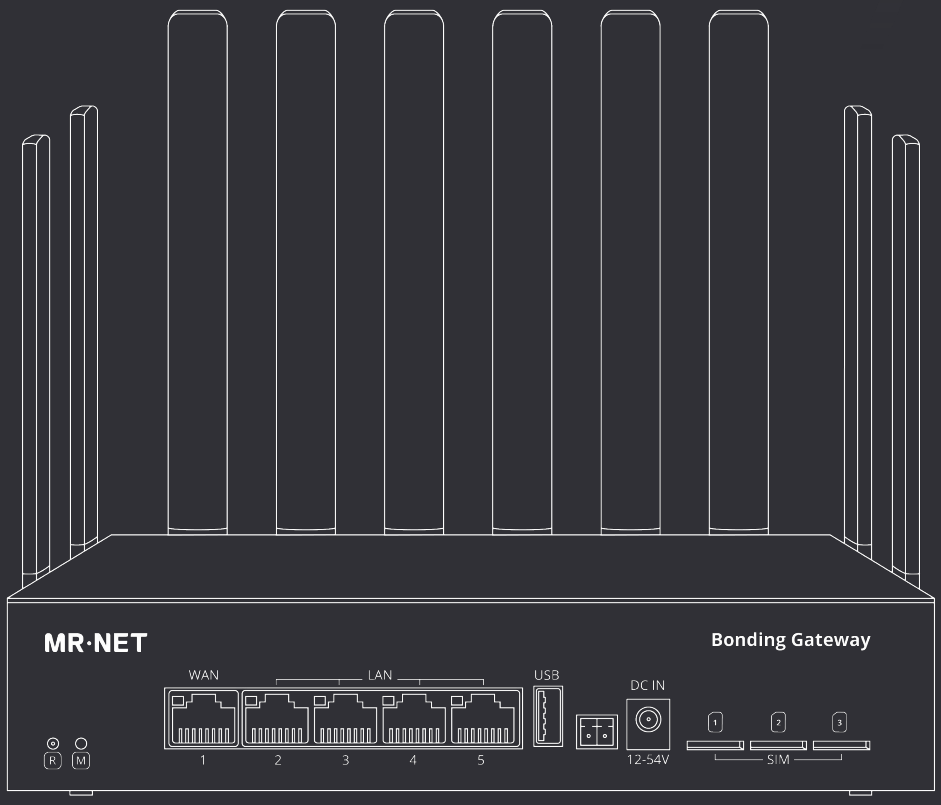
Cellular
Bonding Gateway

Simple | Unbreakable | Wireless

- Manual guide
- User guide
- How it works
- Technical specifications



MR·NET

MODEL: 006 PLUS

Manual

Content:

MR·NET

For more information, please visit https://mrnet.us/

Version 1.1

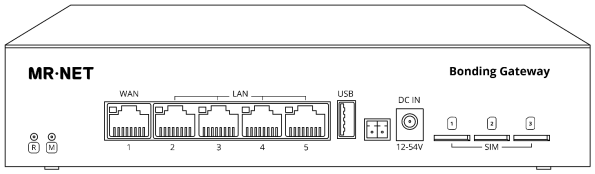
Manual

Simple | Unbreakable | Wireless

Cellular Bonding Gateway designed to provide a simultaneous aggregated (bonded) network connection to an endpoint via several independent wired / wireless feeds

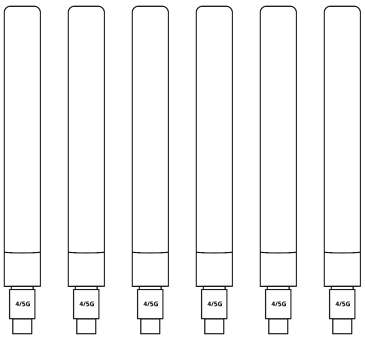
1. Package contents

1



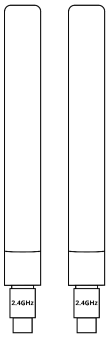
MR·NET Bonding Gateway (1 pcs)

2



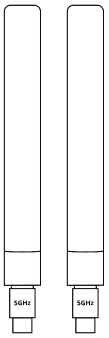
4G LTE antennas (6 pcs)

3



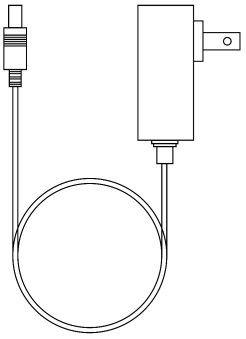
2.4GHz Wi-Fi antennas (2 pcs)

4



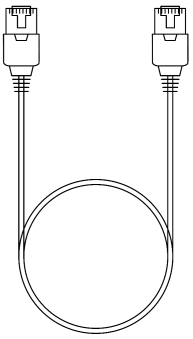
5GHz Wi-Fi antennas (2 pcs)

5



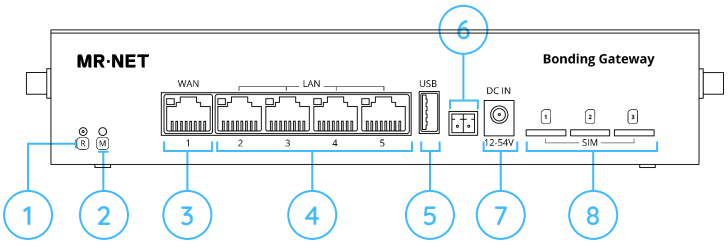
DC Power adaptor (1 pcs)

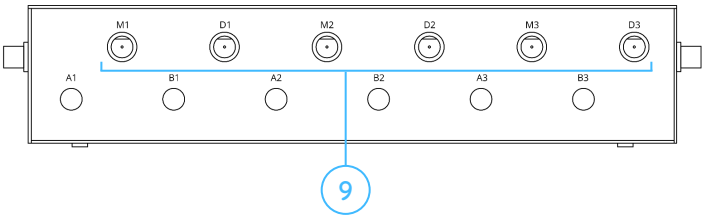
6

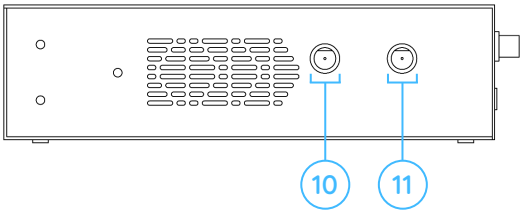


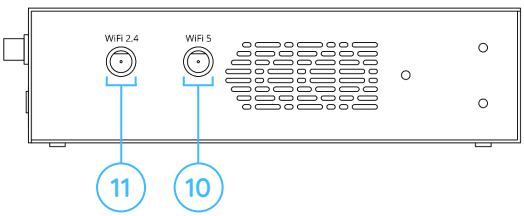
RJ45 Patch cable (1 pcs)

2. Main elements









Label Key:

1. Reset button
2. LED Mode indicator
3. 1x 10/100/1000 Mbps WAN ports
4. 4x 10/100/1000 Mbps LAN ports
5. 1x USB port
6. 1x Phoenix connector
7. 1x DC Power port (12V-54V)
8. 3x Nano SIM slots
9. 6x 4G/LTE/5G SMAs (Main & Div)
10. 2x Wi-Fi 2.4 GHz SMAs
11. 2x Wi-Fi 5 GHz SMAs

3. Installation steps

VI

Setup Guide: Follow these steps to set up your device quickly and easily

1. Unpack the Box

Open the box and remove the Bonding Gateway (Device) and all other items from the package contents (antennas, DC adapter, RJ45 cable).

2. Attach the 4G/5G Antennas

Gently screw all six 4G/5G antennas into the SMA ports on the back of the Bonding Gateway. Ensure they are threaded straight and secure.

3. Attach the Wi-Fi Antennas

Screw the four Wi-Fi antennas into the designated ports, two on the left side and two on the right side of the Bonding Gateway.

4. Adjust the Antennas

Position each antenna at a 90-degree angle for optimal signal reception.

5. Connect the Power Supply to the Device

Insert the power supply adapter into the DC connector on the Bonding Gateway. Do not plug it into an electrical outlet yet.

6. Place the Device in the Best Signal Area

Position the Bonding Gateway where cellular signal is strongest, such as near a window or elevated spot. Avoid metal barriers or obstructions.

7. Power On the Device

Plug the DC power adapter into a 110V electrical outlet. The device will automatically turn on, and a green light will appear, indicating the unit is powered.

8. Wait for Connection

Allow 2-3 minutes for setup. The mode light will turn solid blue when your internet connection is established.

9. Connect Your Equipment

Link your equipment to the Bonding Gateway via LAN ports or Wi-Fi.

It's done!
You are ready to roll

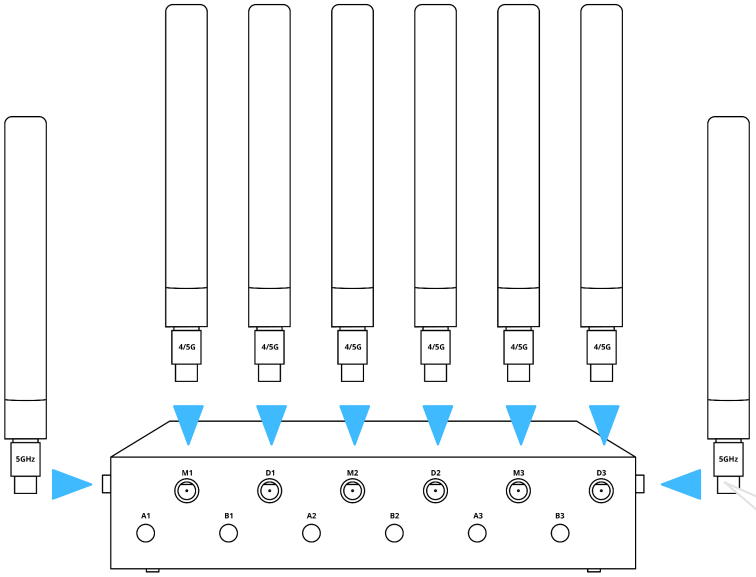
If you encounter any issues, feel free to reach out via our website's online chat, or email.

Contacts:

- online chat
- support@mrnet.us
- https://mrnet.us/

4. Operation and configuration

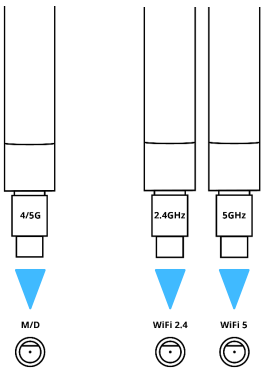
1 - Assemble the Bonging Gateway



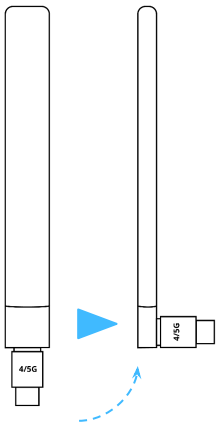
Attach antennas one-by-one and ensure they are threaded straight and secure

Correct Antennas:

Make sure to match antenna type to correct ports



M/D --> 4G/5G
WiFi 2.4 --> 2.4 GHz
WiFi 5 --> 5.8 GHz



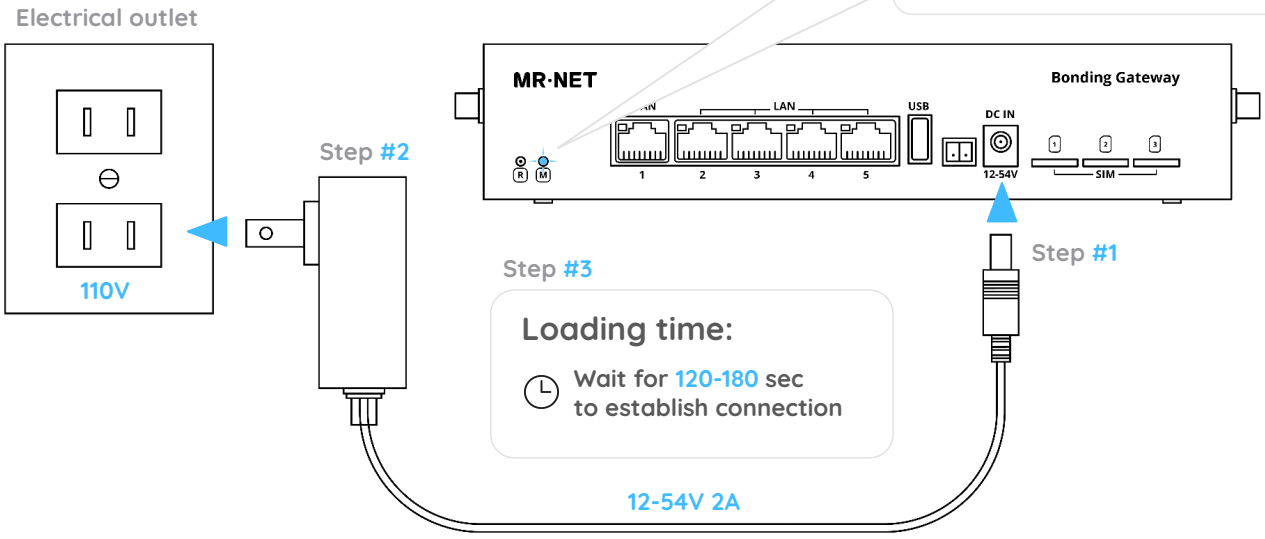
Adjust antennas at 90-degree

2 - Power up equipment and wait for a blue light

Plug into power outlet and wait up to 2-3 minutes for a blue light

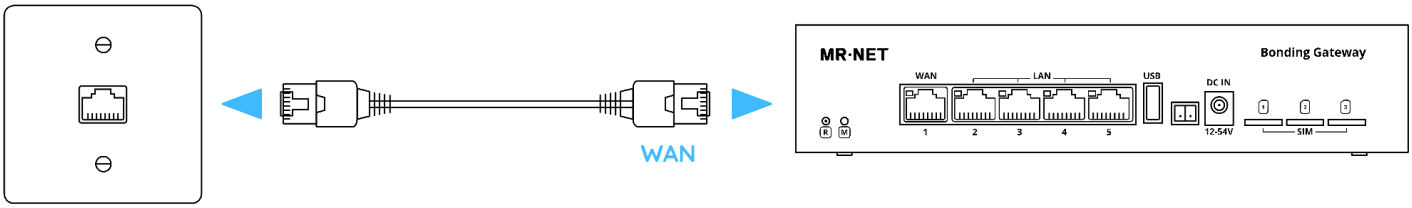
Mode Indicators:

- Power On
  Wait for Bonding Connection
- Strong Bonding
  Good to go!
- Connection Unstable
  Wait for 60 seconds or reboot

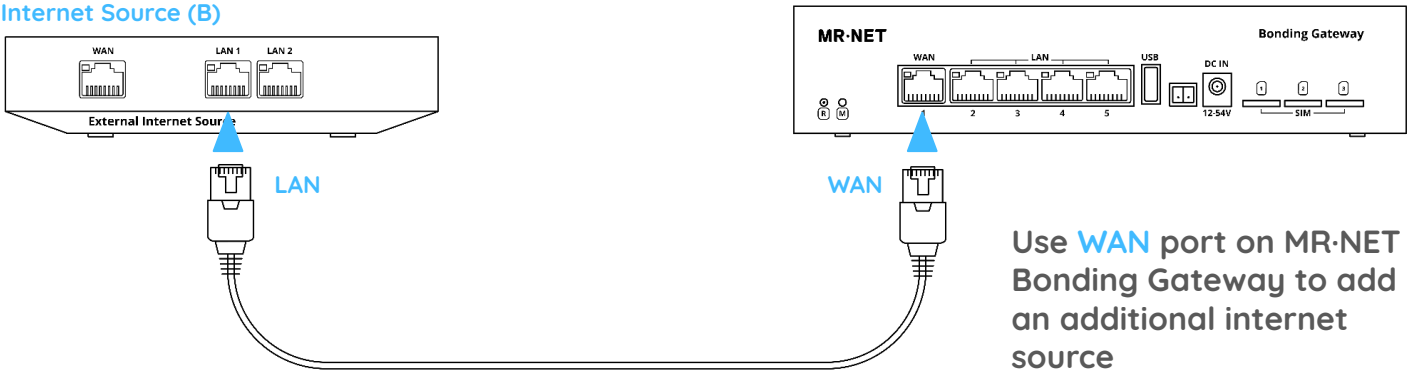


3 - Additional internet source via WAN

Internet Source (A)

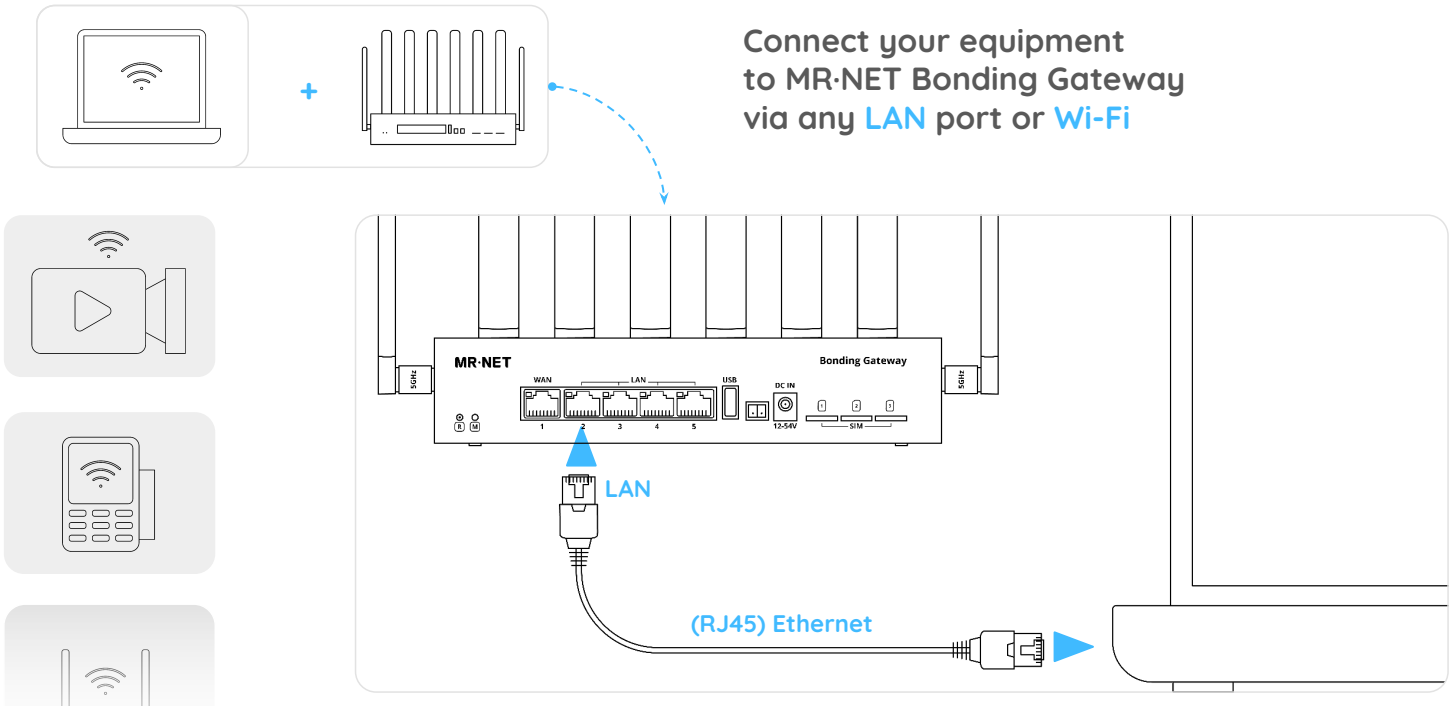


Internet Source (B)



Use WAN port on MR·NET Bonding Gateway to add an additional internet source

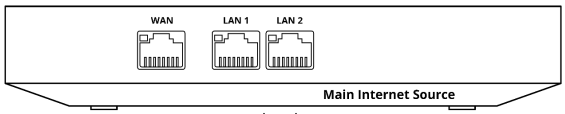
4 - Connect your equipment via LAN or Wi-Fi



Prefer wired LAN for for more stable connection

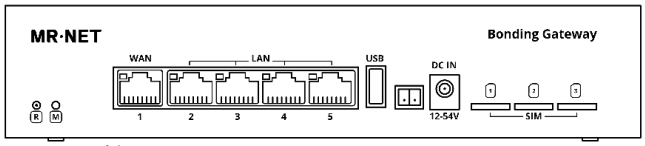
5 - Failover mode

Main Internet Source

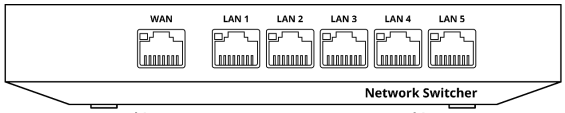


To enable failover mode please use your web management portal at https://client.mrnet.us/

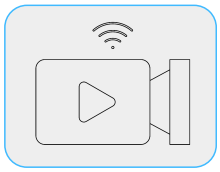
Bonding Gateway (in failover mode)



Network Switch



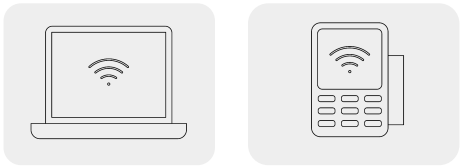
Mission critical equipment



Failover mode

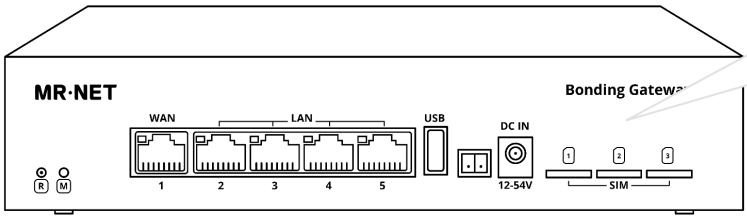
- Default connection
- Failover mode
- Signal outage

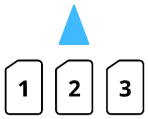
Second tier network



6 - SIM card switching

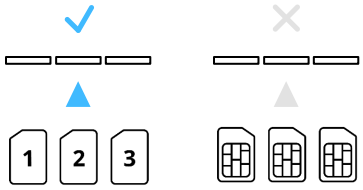
Pre-installed SIMs





Each MR·NET Bonding Gateway comes with a pre-installed high-cap SIM cards

SIM cards installation:



If you prefer to use your own SIM cards, contact us to update your network settings; otherwise, they will not work correctly

Please note:

⚠ Do not use supplied SIM cards in third-party equipment

5. Daily Use

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Important Tips: Follow these guidelines to ensure safe and optimal performance

1. Use Certified Power Adapters Only

Avoid non-certified power supply adapters, as they could damage the device. Use only adapters rated 12-54V. Contact us if you are unsure which power supply is suitable for your equipment.

2. Compliance with Equipment

The device must be used only in strict compliance with client equipment operating, energy, and safety requirements.

3. Don't Mix 4G/5G and Wi-Fi Antennas

Do not confuse 4G/5G antennas with 2.4 GHz & 5 GHz Wi-Fi antennas. Each antenna has engravings indicating its type.

4. Avoid Metal Obstructions and High-Power Appliances

Do not place the equipment near metal constructions, as they can block cellular signals. Make sure to place the unit at least several feet away from high-power appliances.

5. Prefer Wired LAN Connection for Best Performance

Use wired LAN connections for your equipment whenever possible. Wi-Fi is an option but inherently less reliable, especially in crowded areas.

6. Distinguish WAN and LAN Ports

Don't confuse WAN and LAN ports. The WAN port is for adding optional extra internet sources from other providers to the bonded connection. LAN ports are for connection your equipment which needs internet access.

7. Avoid Misplacing SIM Cards

Do not use pre-installed SIM cards in third-party equipment. If you want to use your own SIM cards, contact our support team to update device settings for them to work correctly.

8. Protect from the Elements

The device's enclosure is made of a durable metal. IP50 Class of the protection. Protected from limited dust ingress.
No liquid protection.

How it works

6. Bonding Technology

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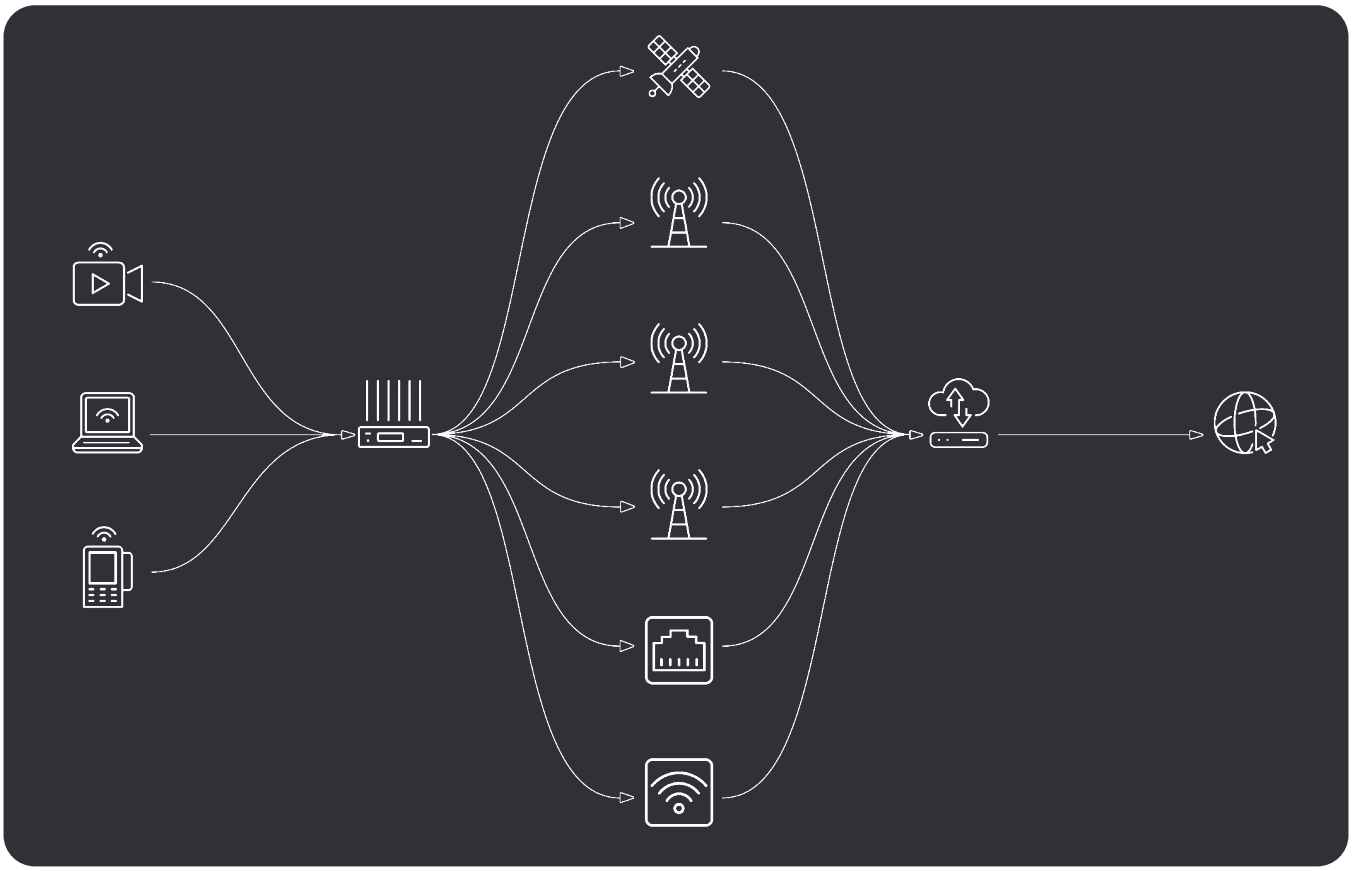
MR·NET Bonding Gateway is designed to provide simultaneous aggregated (bonded) network connection to an endpoint via several independent wired / wireless Internet access channels

How it works:



Plug & Play
Installation in under 120 seconds

Up to 6
Independent internet sources

Secure
Cloud infrastructure management

Wi-Fi 6
2.4/5 GHz for optimum performance

3 SIMs
Pre-installed SIMs (third-party SIMs optional)

Highest priority data
No throttles, no caps, always on

7. Technical specifications

VI

MRNET 006 PLUS MODEL

Specification:

LTE support:
- 4G LTE-A CAT6 modems (Quectel EM060K-GL)

Supported carriers:
- Verizon, T-mobile, AT&T & other

SIM Slots:
- 3 with pre-installed SIMs

Ports:
- 4x 10/100/1000Mbps RJ45 LAN Ethernet ports
- 1x 10/100/1000Mbps RJ45 WAN Ethernet ports
- 1x Phoenix port
- 1x USB-A port

Wi-Fi:
- Wi-Fi 6 (802.11ax)
- Operating Frequency 2.4GHz / 5GHz

Buttons:
- Reset button

Operating conditions:
- Voltage: 12V-54V
- Power consumption: ~24 W
- Operating temperatures: 32-104° F
- Air humidity: up to 90%

Device Dimensions:
- Net Weight: 2.9 lbs (Gateway only)
- Dimensions: 8.3" x 6.3" x 1.9" (W x D x H)

Package Dimensions:
- Gross Weight: 4.6 lbs
- Package Dimensions: 13.6" x 11.8" x 3.3" (W x D x H)

Operating bands:

LTE-FDD:
- B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/29/30/32/66/71;

LTE-TDD:
- B34/38/39/40/41/42/43/46 (LAA)/48 (CBRS);

Up to 2 ×CA:
- B2+B2/5/12/13/29;B4+B4/5/12/13/29;B5+B5/7/25/30/66; B7+B7/12/26; B12+B12/25/30/66; B13+B66; B25+B25/26; B30+B29; B66+B29/66; B41+B41;

WCDMA:
- B1/2/3/4/5/6/8/19

Features:

Routing / Switching Protocols
- IPv4/IPv6, Session persistent failover, NAT, Port Forwarding

IP Applications
- DDNS, DNS Proxy, DHCP / DHCPv6

Security
- Firewall, e2e encryption for each individual gateway

Warranty:

General terms
- 1 Year Standard Warranty