

ALFA Network APA-M25-6E

ALFA APA-M25-6E Tri-Band Directional Panel Antenna User Manual

Model: APA-M25-6E

1. INTRODUCTION AND OVERVIEW

The ALFA APA-M25-6E is a high-gain, tri-band directional indoor panel antenna designed to enhance Wi-Fi signal reception and transmission. It operates across the 2.4 GHz, 5 GHz, and 6E Wi-Fi bands, making it fully compatible with Wi-Fi 6E devices and backward compatible with older Wi-Fi 5 and Wi-Fi 6 standards. This antenna connects to compatible routers or receivers via an RP-SMA antenna port.

Its directional design allows users to focus the signal in a specific direction, improving signal strength and range over distance or through limited obstructions. The antenna is suitable for use with Wi-Fi 6E PCI cards, routers, or clients that feature an RP-SMA Male connector.

The antenna radiates from the opposite of RP-SMA connector
The RP-SMA connector only can rotate 180degrees

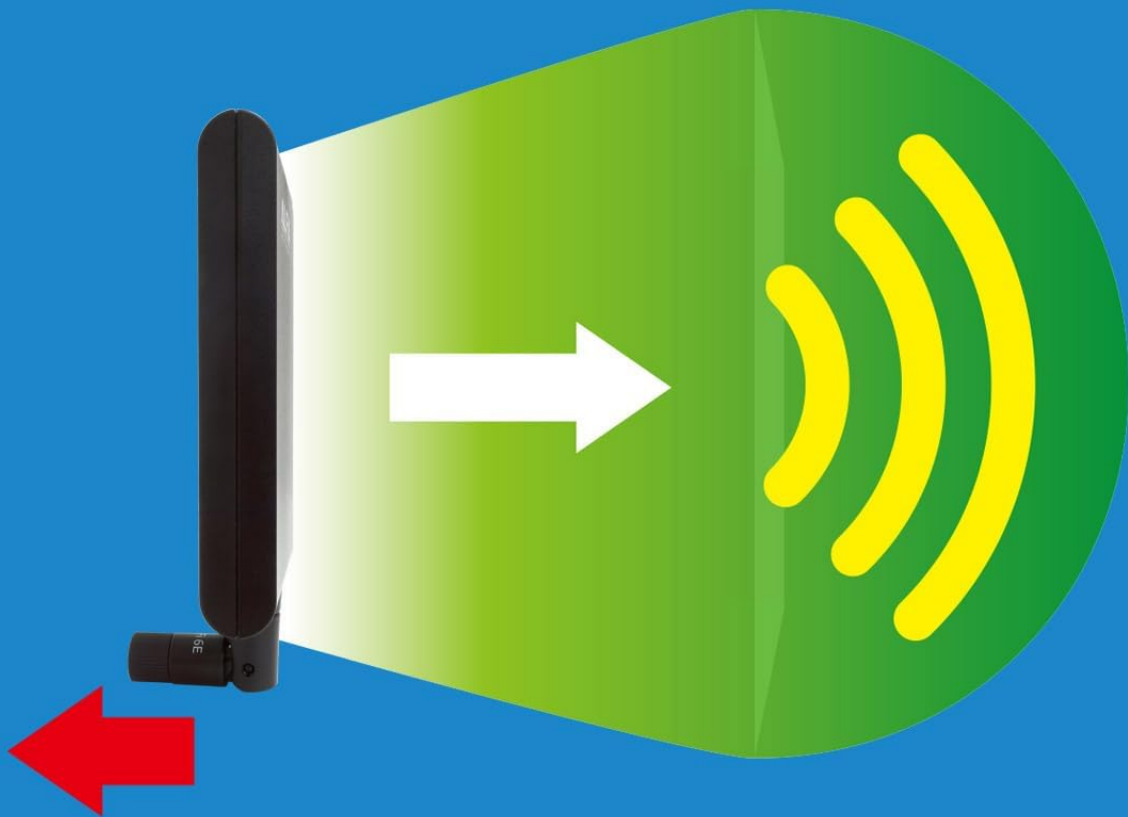


Figure 1: ALFA APA-M25-6E Tri-Band Directional Panel Antenna.

2. SETUP AND INSTALLATION

Follow these steps to properly install your ALFA APA-M25-6E antenna:

1. **Check Device Compatibility:** Ensure your router, Wi-Fi card, or receiver has an RP-SMA antenna port and that its existing antenna can be unscrewed. The APA-M25-6E requires an RP-SMA Male connector.



Figure 2: Verify your device has an unscrewable RP-SMA port for compatibility.

2. **Connect the Antenna:** Carefully screw the APA-M25-6E antenna onto the RP-SMA port of your compatible device. Ensure a snug fit, but do not overtighten.
3. **Positioning:** The antenna is directional, meaning it sends and receives signals most effectively in a specific direction. Position the antenna by aiming its flat panel surface towards the area where you desire improved signal strength or reception.
4. **Adjust Angle:** Utilize the antenna's tilt and swivel design to fine-tune its angle for optimal signal reception. The RP-SMA connector allows for 180-degree rotation, and the antenna itself can tilt up to 90 degrees.

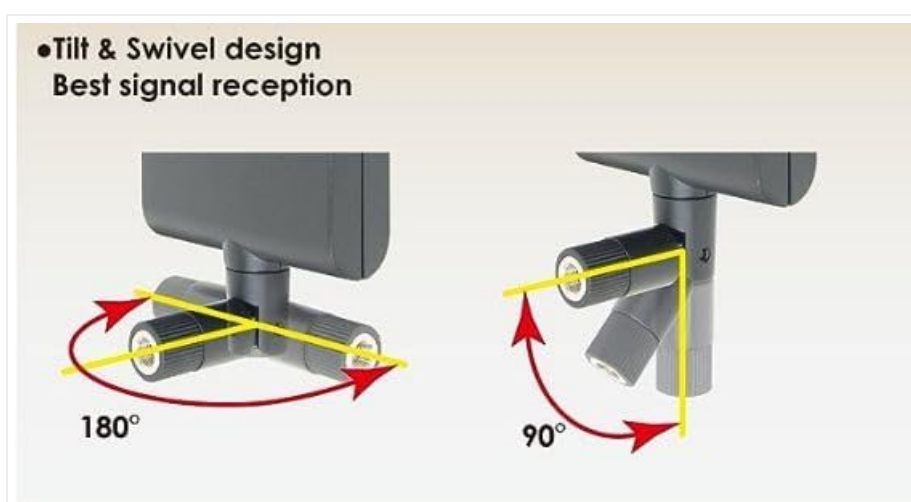


Figure 3: The antenna features a tilt and swivel design for precise aiming.

3. OPERATION

Once installed, the APA-M25-6E antenna operates by focusing its signal in a specific direction. To maximize performance:

- **Directional Aiming:** The antenna radiates signal primarily from the side opposite to its RP-SMA connector. Aim this

side towards your target Wi-Fi source or client device for the best connection.



Figure 4: The antenna radiates signal directionally from the panel face.

- **Beam Characteristics:** The antenna has a vertical beam width of 90 degrees and a horizontal beam width of 45 degrees. This means it provides a wider coverage vertically and a narrower, more focused coverage horizontally. Adjust the antenna's orientation (e.g., rotate it) to align the 45-degree horizontal beam with your desired coverage area.

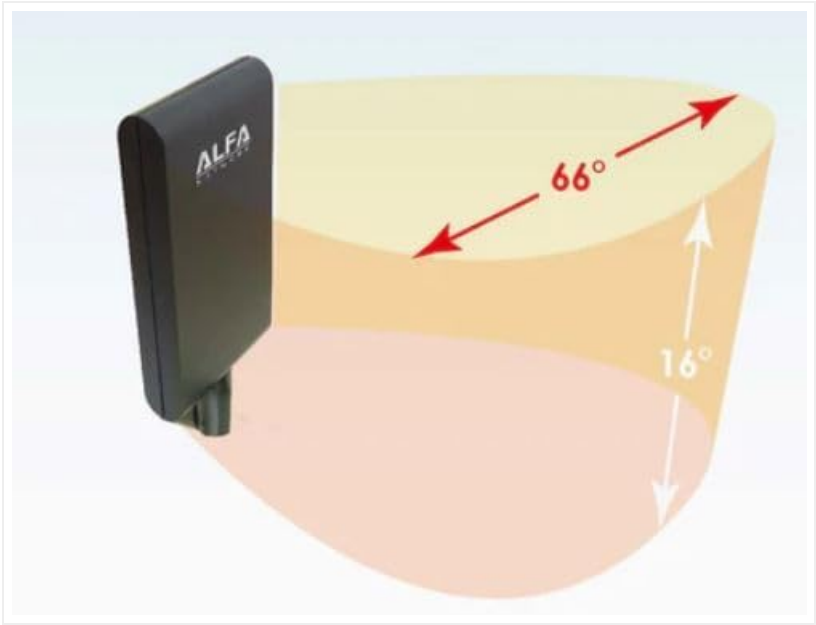


Figure 5: Illustration of the antenna's directional beam pattern.

- **Tri-Band Functionality:** The antenna supports 2.4 GHz, 5 GHz, and 6E bands. Ensure your connected device is configured to use the appropriate band for your network. For 6E reception, a Wi-Fi 6E compliant router or receiver is required.

4. MAINTENANCE

The ALFA APA-M25-6E antenna requires minimal maintenance to ensure optimal performance:

- **Cleaning:** Periodically wipe the antenna's surface with a soft, dry cloth to remove dust or debris. Avoid using harsh chemicals or abrasive materials.
- **Physical Inspection:** Regularly check the antenna and its connector for any signs of damage, such as cracks or loose connections.
- **Environmental Protection:** This is an indoor antenna. Avoid exposing it to extreme temperatures, direct sunlight for prolonged periods, or moisture, as these can affect its performance and lifespan.

5. TROUBLESHOOTING

If you experience issues with your ALFA APA-M25-6E antenna, consider the following troubleshooting steps:

- **No Signal or Weak Signal:**
 - Ensure the antenna is securely connected to the RP-SMA port of your device.
 - Verify that your device's Wi-Fi functionality is enabled and correctly configured.
 - Re-aim the antenna. Small adjustments can significantly impact signal strength due to its directional nature. Try different angles and orientations.
 - Check for physical obstructions between the antenna and the Wi-Fi source.
- **Incompatible Device:**
 - Confirm that your router or receiver has an RP-SMA antenna port and that its factory antenna is removable.
 - Ensure your device supports the Wi-Fi bands (2.4 GHz, 5 GHz, 6E) you are trying to use. For 6E, a compatible Wi-Fi 6E device is essential.
- **Performance Not as Expected:**
 - While the antenna provides high gain, actual performance can vary based on environmental factors, interference, and the capabilities of your connected Wi-Fi device and network.
 - Ensure the antenna is not placed near large metal objects or other sources of electromagnetic interference.

6. SPECIFICATIONS

Detailed technical specifications for the ALFA APA-M25-6E antenna:



Figure 6: Technical specifications of the APA-M25-6E antenna.

ALFA APA-M25-6E Technical Data

Feature	Value
Antenna Type	WiFi Directional Panel
Brand	ALFA Network
Frequency Bands	2.4 - 2.5 GHz, 5.150 - 5.875 GHz, 5.975 - 7.125 GHz (Tri-Band)
Gain (2.4 GHz)	8 dBi
Gain (5 GHz)	10 dBi
Gain (6E GHz)	9 dBi
Vertical Beam Width	90 degrees
Horizontal Beam Width	45 degrees
VSWR	< 2.5
Polarization	Linear/Vertical
Connector Type	RP-SMA plug (male)
Impedance	50 Ohms
Product Dimensions (L x W x H)	6.59" x 2.6" x 0.71" (167.3 x 66 x 18 mm)
Weight	72 g
Color	Red

7. WARRANTY AND SUPPORT

Warranty: The ALFA APA-M25-6E antenna comes with a 1-year warranty from the date of purchase. This warranty covers manufacturing defects and ensures the product meets its specified performance under normal use. Please retain your proof of purchase for warranty claims.

Support: For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact ALFA Network customer support. You can typically find contact information on the official ALFA Network website or through your product retailer.

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Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question