




# AX3000 Wi-Fi 6 Bluetooth 5.2 PCIe Adapter

Arm Your PC with Next-Gen  
Wi-Fi Technology




Archer TX50E

 Unrivaled Dual-Band Speed  
2402 Mbps+574 Mbps†

 75% Ultra-Low Latency Brings  
Smoother Experience\*

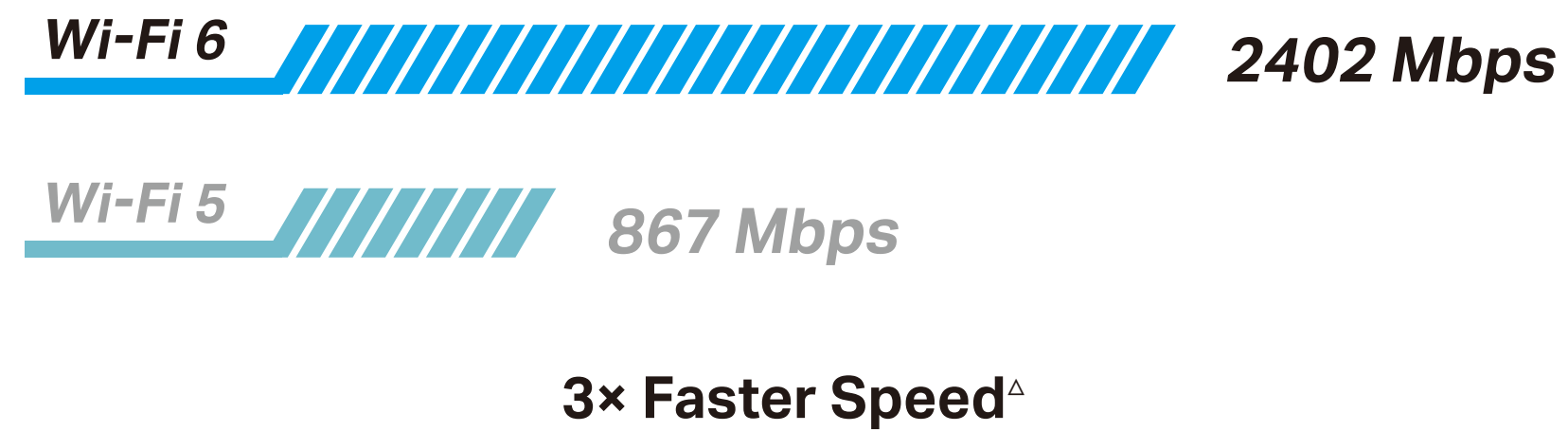
 Intel® Wi-Fi 6 Chipset for  
Reliable Connections

 Wider Signal Coverage with  
Magnetized Antenna Base

# Highlights

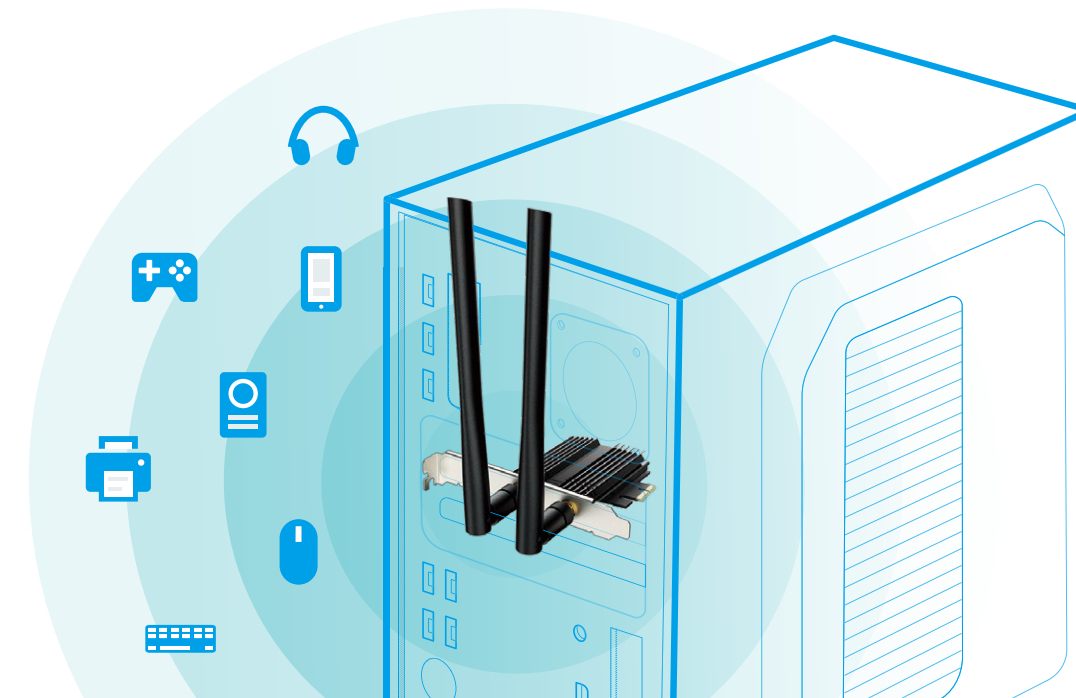
## Next-Gen Wi-Fi Technology

Powerful and consistent signals to perfectly pair with Wi-Fi 6 routers supported 160 MHz bandwidth.<sup>§</sup>



## Bluetooth 5.2 Technology

The latest Bluetooth 5.2 technology achieves faster speed and broader coverage than the previous version, to perfectly coordinate with your game controllers, headphones, keyboards, and other Bluetooth devices.<sup>\*\*\*</sup>



# Highlights



## 75% Lower Latency

More responsive gaming and seamless video conferencing.\*



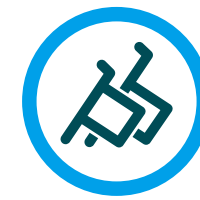
## Superior Wi-Fi Reception

Equipped with 1024-QAM and MU-MIMO technology, TX50E delivers faster and clearer Wi-Fi to take your PC's Wi-Fi reception to the next level.†



## Improved Security—WPA3™

The latest security enhancements provide enhanced protection in personal password safety.\*\*



## Low-Profile Bracket

In addition to the standard bracket, a low-profile bracket is also provided for mini tower computer cases.

# Specifications

## WLAN Features

- **Wireless Standards:** IEEE 802.11ax/ac/n/a 5 GHz, IEEE 802.11ax/n/g/b 2.4 GHz
- **Signal Rate:**
  - 5 GHz
    - 11ax: Up to 2402 Mbps(dynamic)
    - 11ac: Up to 1733 Mbps(dynamic)
    - 11n: Up to 300 Mbps(dynamic)
    - 11a: Up to 54 Mbps(dynamic)
  - 2.4 GHz
    - 11ax: Up to 574 Mbps(dynamic)
    - 11n: Up to 300 Mbps(dynamic)
    - 11g: Up to 54 Mbps(dynamic)
    - 11b: Up to 11 Mbps(dynamic)
- **Reception Sensitivity:**
  - 5 GHz :
    - 11ax HT160: -56.25dBm
    - 11ax HT80: -59dBm
    - 11ax HT40: -62.25dBm
    - 11ax HT20: -65dBm
    - 11ac HT160: -62dBm
    - 11ac HT80: -65.5dBm
    - 11ac HT40: -69.75dBm
    - 11ac HT20: -73.75dBm

- 11n HT40: -74.5dBm
- 11n HT20: -77.5dBm
- 11a 54Mbps: -77.75dBm
- 11a 6Mbps: -94.5dBm
- 2.4GHz :
  - 11ax HT40: -60.75dBm
  - 11ax HT20: -63.75dBm
  - 11n HT40: -73dBm
  - 11n HT20: -76.25dBm
  - 11g 54Mbps: -76.5dBm
  - 11b 11Mbps: -89dBm
- **Transmit Power:**
  - 5 GHz: 28dBm(FCC) / 23dBm(CE) (EIRP),
  - 2.4 GHz : 24dBm(FCC) / 20dBm(CE) (EIRP)
- **Wireless Modes:** Infrastructure mode
- **Interface:** PCI Express x1/x4/x8
- **Wireless Security:** Support 64/128 bit WEP, WPA/WAP2/WPA3, WPA-PSK/WPA2-PSK, 802.1x
- **Modulation Technology:** DBPSK, DQPSK, CCK, OFDM, 16-QAM, 64-QAM, 256-QAM, 1024QAM

# Specifications

## Bluetooth Features

- Standards and Protocols: Bluetooth 5.2, Bluetooth 5.0, Bluetooth 4.2, Bluetooth 4.0
- Interface: USB 2.0

## Hardware

- Chipset: Intel Wi-Fi 6 Chipset
- Antennas: Two High-Gain Dual Band Antennas
- Dimensions: 3.7 × 4.8 × 0.8 in (95.2 × 120.8 × 21.5 mm)

## Others

- Package Contents
  - AX3000 Wi-Fi 6 Bluetooth 5.2 PCIe Adapter
  - Archer TX50E
  - Two 5 dBi High Gain Antennas
  - Low-Profile Bracket
  - Bluetooth Header Cable
  - Quick Installation Guide
  - Resource CD
- Certification
  - FCC, CE, RoHS
- System Requirements
  - Windows 10/11
- Environment
  - 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



For more information, please visit

[https://www.tp-link.com/products/details/?model=Archer+TX50E\\_V1](https://www.tp-link.com/products/details/?model=Archer+TX50E_V1)

or scan the QR code left

Attention: This device may only be used indoors in all EU member states and EFTA countries.

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<sup>†</sup>Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput and wireless coverage, and number of connected devices are not guaranteed and will vary as a result of network conditions, AP limitations, and environmental factors, including building materials, obstacles, volume and density of traffic, and AP location.

<sup>‡</sup>Use of Wi-Fi 6 (802.11ax), and features including OFDMA, MU-MIMO, HT160 and 1024-QAM require APs to also support the corresponding features.

<sup>§</sup>Functionality of Archer TX50E may be restricted on some computing systems and platforms. Please try to update the device's driver for feature compatibility.

<sup>¶</sup>802.11ax 2x2 160 MHz enables 2402 Mbps maximum theoretical data rates, 3x faster than standard 802.11ac 2x2 80 MHz (867 Mbps) and nearly 6x faster than baseline 1x1ac (433 Mbps) Wi-Fi as documented in IEEE 802.11 wireless standard specifications, and require the use of similarly configured 802.11ax wireless network routers.

<sup>\*\*</sup>"Up to 75% lower latency" is based on Intel simulation data of 802.11ax with and without OFDMA using 9 clients. Average latency without OFDMA is 36ms, with OFDMA average latency is reduced to 7.6ms. Latency improvement requires that the AP and all clients support OFDMA.

<sup>\*\*\*</sup>Use of WPA3™ requires APs to also support the corresponding feature.

<sup>\*\*\*</sup>Several new features are introduced in the Bluetooth Core Specification 5.0 and 5.2 Release, including 2x faster speed and 4x broader coverage compared with Bluetooth 4.2.