

AX3000 Wi-Fi 6 Bluetooth 5.2 PCIe Adapter

Model: MA80XE

// Highlights

- Next-Gen Dual Band Speed
- Intel® Wi-Fi 6 Chipset
- Extends Your Wi-Fi into the 5 GHz Band
- Armed with Bluetooth 5.2
- Supported operating system: Windows 10, 11 (64 bit)



// Features

Upgrade Your PC to Wi-Fi 6

The latest Wi-Fi 6 implements 160 MHz bandwidth and 1024 QAM designed to deliver faster, more efficient and reliable data transmissions, satisfying the demand for a high-performance wireless experience.[‡]

802.11ax 2×2, 5 GHz, 160 MHz

2402 Mbps

802.11ac 2×2, 5 GHz, 80 MHz

867 Mbps

2.7×
FASTER

Bluetooth 5.2 Supported

MA80XE makes your PC Bluetooth-capable with ultra-fast Bluetooth 5.2 which achieves more stable connection, farther range and faster transmission speeds than Bluetooth 4. Just connect your Bluetooth devices to your computer and enjoy with ease.^{***}



Stream Without Lag

By combining the Intel® Wi-Fi 6 Chipset, OFDMA, and MU-MIMO, MA80XE reduces latency by up to 75%. Game online, watch 4K videos, and crank up everything to the highest settings without lag.*



Bluetooth 5.2



MU-MIMO



Backwards
Compatibility



Strong Chipset



WPA3 Security

Boost Wireless Range

Two high-performance antennas reach your router from farther away with more precise directional range, sustaining faster and more stable wireless connections.

Overall Security Protection

The latest security standard, WPA3, provides improved comprehensive Wi-Fi protection to defend your devices and private information against brute-force attacks.^{**}

// Specifications

Wireless

Wireless Standards

IEEE 802.11 a/ac/ax 5 GHz
IEEE 802.11 b/g/n/ax 2.4 GHz

Signal Rate

2402 Mbps on 5 GHz
574 Mbps on 2.4 GHz

EIRP

5 GHz: 20dBm(FCC) / 15dBm(CE) (EIRP)
2.4 GHz: 20dBm(FCC) / 16dBm(CE) (EIRP)

Reception Sensitivity

5 GHz:
11ax HE80 MCS0: -90 dBm
11ax HE80 MCS11: -59 dBm
11a 54Mbps: -77 dBm
11ac VHT80 MCS0: -92dBm
11ac VHT80 MCS9: -64dBm
2.4 GHz:
11ax HE40 MCS0: -91 dBm
11ax HE40 MCS11: -60 dBm
11g 54Mbps: -76 dBm
11n HT40 MCS7: -72dBm

Hardware

Antennas

2× Fixed High-Performance
Omni-Directional Antennas

Dimensions

8.9 × 4.8 × 0.85 in
(226.3 × 120.8× 21.5 mm)

Software

Working Mode

Infrastructure mode

Wireless Security

WPA-PSK/WPA2-PSK/WPA3-SAE**

// Specifications

Others

Environment

Operating Temperature: 0°C~40°C (32°F~104°F)

Operating Humidity: 10%~90% Non-Condensing

Storage Humidity: 5%~90% Non-Condensing

Package Contents

AX3000 Wi-Fi 6 Bluetooth 5.2 PCIe Adapter (MA80XE)

Bluetooth Header Cable

Quick Installation Guide

Resource CD

Certification

FCC, CE, RoHS

System Requirements

Supported operating systems include Windows 10, 11(64-bit)^a

^aMaximum 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.

^bUse of Wi-Fi 6 (802.11ax), and features including OFDMA, MU-MIMO, HE160, and 1024-QAM require APs to also support the corresponding features.

^c802.11ax 2x2 160 MHz enables 2402 Mbps maximum theoretical data rates, 2.7x faster than standard 802.11ac 2x2 80 MHz (867 Mbps) and nearly 6x faster than baseline 1x1 ac Wi-Fi (433 Mbps) as documented in IEEE 802.11 wireless standard specifications, and require the use of similarly configured 802.11ax wireless network routers.

^dFunctionality of MA80XE may be restricted on some computing systems and platforms. Please try to update the device's driver for feature compatibility.

^e"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 36 ms, with OFDMA average latency is reduced to 7.6 ms. Latency improvement requires that the AP and all clients support OFDMA.

^fUse of WPA3™ requires APs to also support the corresponding feature.

^gSeveral new features are introduced in the Bluetooth Core Specification Release, including 2x faster speed and 4x broader coverage compared with Bluetooth 4.