

802.11AX Wi-Fi 6E Tri-band Wireless PCI Express Adapter



Upgrade Desktops to Fast, Low-Latency Wi-Fi 6E

PLANET **WTL-2400AXE** is a tri-band 802.11ax **Wi-Fi 6E** PCI Express x1 wireless adapter powered by the Intel® **AX210** chipset. It brings next-generation connectivity to desktop PCs with **2x2 MIMO** and **OFDMA** for high efficiency and lower latency. The adapter supports speeds **up to 574 Mbps on 2.4 GHz** and **up to 2400 Mbps on 5/6 GHz** for cleaner spectrum and reduced interference in dense environments.

With **Bluetooth® 5.2** (via onboard USB interface), users can connect keyboards, mice, headsets and other peripherals without a separate dongle, simplifying the workspace.

Designed for easy deployment in business and home offices, WTL-2400AXE includes two external **5 dBi antennas** to enhance signal coverage. It operates seamlessly on **Windows® 10/11** and **Linux Kernel 5.10+**, making it an ideal upgrade for high-bandwidth applications such as 4K/8K streaming, cloud collaboration, AR/VR trials and online gaming.

Hassle-free Installation for Tri-Band Wi-Fi

WTL-2400AXE uses a standard **PCI Express x1** interface for Wi-Fi data and an internal **USB** connection for Bluetooth functionality. Once installed, your desktop gains simultaneous access to **2.4, 5 and 6 GHz** bands under the Wi-Fi 6E standard, maximizing spectrum choices and minimizing contention with legacy devices.

- Intel® AX210 Wi-Fi 6E 2x2 chipset for performance and reliability
- Tri-band 2.4/5/6 GHz 802.11ax with OFDMA and MU-MIMO for higher efficiency
- Throughput: up to 574 Mbps (2.4 GHz); up to 2400 Mbps (5 and 6 GHz)
- PCI Express x1 interface for Wi-Fi data; USB interface for Bluetooth function
- Bluetooth® 5.2 for seamless connection to headsets, keyboards, mice, etc.
- Two 5 dBi external antennas to enhance signal coverage and stability
- Security-ready with modern Wi-Fi encryption (802.11ax standard compliant)
- Operating temperature 0–55 °C for daily office and SOHO environments
- Windows® 10, Windows® 11 and Linux® driver support for quick integration



Wi-Fi 6E Technology Highlights

The WTL-2400AXE brings the latest **Wi-Fi 6E (802.11ax)** to desktops with **2x2 MIMO, OFDMA, MU-MIMO, BSS Coloring, 160 MHz channel width** and **WPA3-SAE** security. It delivers up to **574 Mbps (2.4 GHz)** and **2400 Mbps (5 and 6 GHz)** performance and additionally opens the **6 GHz** band to reduce interference and latency in high-density environments.

Multiple OS Support

The WTL-2400AXE works seamlessly with **Windows® 11 64-bit** (2.4, 5 and 6 GHz) and **Windows® 10 64-bit** (2.4, 5 and 6 GHz).

It is also compatible with **Linux** distributions using the **iwlwifi** driver (kernel **5.10+**); 6 GHz availability depends on regulatory domain and distro enablement. Bluetooth® 5.2 is supported via the onboard USB interface.

Low-Profile design

The adapter supports both **full-height** and **low-profile** PCI Express slots, making it easy to deploy in compact desktops and IPCs.

Package includes: full-height bracket and **low-profile bracket** for flexible installation.

Applications

Wi-Fi 6E Desktop Adapters

PLANET **WTL-2400AXE**, built on the **Intel® AX210 2x2 Wi-Fi 6E platform**, brings **tri-band 2.4, 5 and 6 GHz** connectivity to business desktops and IPCs. With 160 MHz channels, OFDMA/MU-MIMO, BSS Coloring, and **WPA3-SAE**, it is ideal for organizations standardizing on Wi-Fi 6/6E in offices, classrooms, and meeting rooms—using the **clean 6 GHz band** to reduce co-channel interference and deliver consistent efficiency and lower latency on existing infrastructure.

As a dependable 6E desktop client, WTL-2400AXE delivers up to **2400 Mbps (5 and 6 GHz)** and **574 Mbps (2.4 GHz)**, while **Bluetooth® 5.2** connects headsets, scanners, keyboards, and mice. The PCI Express® x1 interface and full-height/low-profile brackets ensure easy integration into mainstream PCs and embedded systems for video conferencing, cloud collaboration, BYOD screen casting, and large-file sync/backup—also making it a **practical 6E test client** for AP validation in labs and pilots. (6 GHz availability depends on region, AP, and OS—Windows® 11 recommended.)



Product Specifications

Product	WTL-2400AXE
Hardware Specifications	
Controller	Intel® AX210
Interface	PCIe 2.0 x1 (Wi-Fi via PCIe, Bluetooth via USB) **On certain small-form-factor business desktops with a single chipset-attached (PCH) PCIe slot , PCIe 2.x fallback compatibility may be limited, which can prevent proper detection. We recommend using PCIe 3.0 or newer adapters on such platforms, or a motherboard with a CPU-attached x16 slot.
Antenna	2 × external 5 dBi
Dimensions (W x D x H)	65 × 44.5 × 1.6 mm
Weight	84g
Power Supply	PCI Express bus-powered (3.3V) USB 5V (internal header) for Bluetooth function No external power connector required
Power Consumption	Max. 0.33 watts / 1.13 BTU/h (Power on without any connection; Wi-Fi only, 3.3 V@100 mA) Max. 0.66 watts / 2.25 BTU/h (Full loading; Wi-Fi only, 3.3 V@200 mA)
Wireless	
Standard	IEEE 802.11ax/ac/n/b/g/a
Bands	2.4 GHz: 2400–2483.5 MHz 5 GHz: 5150–5850 MHz 6 GHz: 5925–7125 MHz
Data Rate	2.4 GHz up to 574 Mbps 5 GHz up to 2400 Mbps 6 GHz up to 2400 Mbps

MIMO	2×2 spatial streams
Bluetooth	
Version	Bluetooth 5.2 (via USB interface)
Advanced Functions	
Operating System Support	Windows® 10 (64-bit) Windows® 11 (64-bit) Linux® (64-bit, kernel 5.10+ with iwlwifi & Intel firmware)
Standards Conformance	
Standards Compliance	IEEE 802.11a/b/g (2.4/5 GHz) IEEE 802.11n (HT) IEEE 802.11ac (VHT; up to 80/160 MHz) IEEE 802.11ax (HE; 2.4/5/6 GHz, Wi-Fi 6E) Bluetooth® 5.2 (via internal USB interface) PCI Express x1 (for Wi-Fi interface) USB (for Bluetooth function)
Regulatory Compliance	FCC Part 15 Class B, CE
Environment	
Operating Temperature	0 ~ 55 degrees C
Storage Temperature	-10 ~ 70 degrees C
Operating Humidity	5 ~ 90%, relative humidity, non-condensing
Storage Humidity	5 ~ 90%, relative humidity, non-condensing
Standard Accessories	
Package Contents	1 × WTL-2400AXE Wi-Fi 6E PCIe x1 adapter (full height-bracket pre-installed) 1 × Low-profile bracket 2 × External antennas 1 × Bluetooth® USB header cable (9-pin) 1 × QR code sheet

Ordering Information

WTL-2400AXE	802.11AX Wi-Fi 6E Tri-band Wireless PCI Express Adapter
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Related Products

WTL-5800BE	802.11be Wi-Fi 7 Tri-band Wireless PCI Express Adapter
WDAP-C5100BE	Dual Band 802.11be 5100 Mbps Ceiling-mount AP (PoE+)
WDAP-3000AX	Dual Band 802.11ax 3000 Mbps Outdoor AP (PoE+)
WDAP-W3000AX	Dual Band 802.11ax 3000 Mbps In-wall AP (PoE+)
WDAP-C3000AX	Dual Band 802.11ax 3000 Mbps Ceiling-mount AP (PoE+)
ICA-3880	H.265+ 8MP Full Color Smart IR Bullet IP Camera
ICA-HM620	2 Mega-pixel PoE Plus Speed Dome Internet Camera
WDAP-3000AX	Dual Band 802.11ax 3000Mbps Outdoor Wireless AP
WDAP-W3000AX	Dual Band 802.11ax 3000Mbps In-wall Wireless Access Point
WDAP-C5100BE	Dual Band 802.11be 5100Mbps Ceiling-mount Wireless Access Point w/802.3at PoE+ 1 10/100/1000/2500T Port and 1 10/100/1000T LAN Port
WDAP-C3000AX	Dual Band 802.11ax 3000Mbps Ceiling-mount Wireless Access Point w/802.3at PoE+ and 2 10/100/1000T LAN Ports

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