ELEVATE YOUR EXPERIENCES

Snapdragon® X Plus 8-core

Get into your rhythm with the processor that transforms the way you interact with your PC. With leading performance and efficiency and a groundbreaking NPU, Snapdragon X Plus brings next generation experiences and Copilot+ to more users. Thin and light laptops powered by Snapdragon X Plus delivers extended battery life that lasts for days.

RESPONSIVE PERFORMANCE AND EFFICIENCY

It's time to uplevel yourself with a Copilot+ PC powered by Snapdragon. With an integrated 8-core Qualcomm Oryon™ CPU, experience leading performance and incredible efficiency, so you can find your flow and accomplish more. Get long battery life that goes for multiple days on a single charge. The integrated Qualcomm® Adreno™ GPU delivers responsive graphics and entertainment on up to three UHD monitors.

BUILT FOR AI

Unlock groundbreaking new artificial intelligence (AI) experiences on your laptop powered by the Snapdragon X Plus 8-core processor. The platform is equipped with the industry-leading Qualcomm® Hexagon™ NPU, which runs 45 TOPS and powers the latest Copilot+ PCs. With leading performance per watt, open a world of intelligence in the heart of your laptop. On-device AI keeps you in your flow with productivity tools for smooth multitasking and enhanced creativity. Advanced AI camera and audio capabilities help you look and sound your best when video conferencing.

SMARTER USER EXPERIENCES

Snapdragon X Plus 8-core powers laptops that keep up with your dynamic lifestyle with smart technologies like advanced camera, 4K streaming and chip-to-cloud security. From login, your laptop is responsive with instant-on access at the click of a button. Stay connected from virtually anywhere with 5G and Wi-Fi 7 with HBS Multi-Link for lightning-fast and jitter-free connectivity. Quickly switch between your favorite devices with the Snapdragon Seamless™ experience. Your security is strengthened with the Qualcomm® Secure Processing Unit supporting Microsoft Pluton TPM, total memory encryption and Microsoft Secured-core PC support.

Snapdragon® X Plus: SKU Comparison Table

Platform	Part Number	Qualcomm® Oryon™ CPU				Qualcomm® Adreno™ GPU	Qualcomm® Hexagon™ NPU	Memory	
		Cores	Total Cache	Max Multi-Core Frequency	Boost Frequency	TFLOPS	NPU TOPS	Memory Type	Transfer Rate
Snapdragon X Plus	X1P-66-100	10	42 MB	3.4 GHz	4.0 GHz (Single-Core)	3.8	45	LPDDR5x	8448 MT/S
Snapdragon X Plus	X1P-64-100	10	42 MB	3.4 GHz	None	3.8	45	LPDDR5x	8448 MT/S
Snapdragon X Plus	X1P-46-100	8	30 MB	3.4 GHz	4.0 GHz (Single-Core)	2.1	45	LPDDR5x	8448 MT/S
Snapdragon X Plus	X1P-42-100	8	30 MB	3.2 GHz	3.4 GHz (Single-Core)	1.7	45	LPDDR5x	8448 MT/S

FEATURES

8-core CPU delivers responsive performance and power efficiency

Snapdragon X Series power Copilot+ for the fastest, most intelligent Windows devices ever built

Delivers exceptional energy savings and up to multiple days of battery life*

Industry-leading NPU, with up to 45 TOPS AI performance

Integrated GPU delivers responsive graphics performance

Lightning-fast downloading, streaming, and syncing of files with 5G and Wi-Fi 7 connectivity, including HBS Multi-Link for minimized latency and jitter-free Entertainment

Robust security for enhanced protection from chip to cloud

Support for AV1 encode and decode for up to 4K HDR video streaming

Immersive, lossless audio for high-fidelity music and entertainment with your wireless headphones with Snapdragon Sound™ Technology Suite

Support for up to three external UHD monitors running at 60 Hz, delivering snappier and smoother display experiences

LPDDR5x memory with 135 GB/s bandwidth for faster AI experiences and efficient multitasking

Advanced MIPI camera support for high quality imaging and intelligent features, such as auto-framing, background blur, and facial authentication at lower power consumption

SPECIFICATIONS

CPU

Qualcomm® Oryon™ CPU
- 64-bit architecture
- 8 cores, up to 4.0 GHz
- Total Cache: 30 MB

Max Multi-Core Frequency
- X1P-46-100 3.4 GHz
- X1P-42-100 3.2 GHz

Single-Core Boost Frequency
- X1P-46-100 4.0 GHz
- X1P-42-100 3.4 GHz

GPU

Qualcomm® Adreno™ GPU
- X1P-46-100 Up to 2.1 TFLOPS
- X1P-42-100 Up to 1.7 TFLOPS

NPU

Qualcomm® Hexagon™ NPU

TOPS: 45 TOPS

Micro NPU: Dual Micro NPU on the Qualcomm® Sensing Hub

Memory

Memory Type: LPDDR5x

Transfer Rate: 8448 MT/s

Capacity: Up to 64 GB

Bandwidth: 135 GB/s

Bit Width: 16-bit

Number of Channels: 8

Storage

SD: SD v3.0

SSD/NVMe Interface: NVMe SSD over PCIe Gen 4

UFS: UFS 4.0

Process

Process Node: 4nm

Display

Display Processing Unit (DPU) Name: Qualcomm® Adreno™ DPU

Max. On-Device Display Resolution: eDP v1.4b, up to UHD120Hz HDR10

Max. External Display Resolution: DP v1.4 - 3 displays, up to UHD60 Hz HDR10, 2 displays up to 5K60 or UHD120

VPU

Video Processing Unit (VPU) Name: Qualcomm Adreno VPU

Encode:
- 4K UHD 30 fps 8-bit recording – H.264, HEVC (H.265), AV1

Decode:
- 4K 30 fps 10-bit playback – HEVC (H.265), VP9, AV1
- 4K 60 fps 8-bit playback – H.264, HEVC (H.265)

Concurrency:
- 4K 30 fps 8-bit decode + 1080p 30 fps encode
- 1080p 60 fps 10-bit decode + 1080p 30 fps encode

Camera

Image Signal Processor Name: Qualcomm Spectra™ ISP

Single Camera: Up to 36 MP

Video Capture: 4K HDR video capture

General Audio

Audio Technology: Qualcomm Aqstic™ audio technology, Qualcomm® aptX™ Audio

Cellular Modem-RF

Modem Name: Snapdragon® X65 5G Modem-RF System

Peak Download Speed: 10 Gbps

Peak Upload Speed: 3.5 Gbps

Cellular Modem-RF Specs: 1,000 MHz bandwidth (mmWave), 300 MHz bandwidth (sub-6 GHz)

Performance Enhancement Technologies: Qualcomm® Smart Transmit™ technology, Qualcomm® Wideband Envelope Tracking, Qualcomm® AI-Enhanced Signal Boost adaptive antenna tuning, Qualcomm® 5G PowerSave

Cellular Technology: 5G NR, Dynamic Spectrum Sharing (DSS), mmWave, sub-6 GHz, HSPA, WCDMA, LTE support for CBRS, CDMA 1x, EV-DO, GSM/EDGE

Wi-Fi/Bluetooth®

Wi-Fi/Bluetooth System: Qualcomm® FastConnect™ 7800 Mobile Connectivity System

Generations: Wi-Fi 7, Wi-Fi 6E, Wi-Fi 6

Standards: 802.11be, 802.11ax, 802.11ac, 802.11n, 802.11g, 802.11b, 802.11a

Spectral Bands: 6 GHz, 5 GHz, 2.4 GHz

Spatial Streams: Up to 4

Peak QAM: Up to 4K QAM

Features: Passpoint, 8x8 Sounding, TDLS, Wi-Fi QoS Management, Wi-Fi Optimized Connectivity, Wi-Fi Location, OFDMA (UL/DL), Miracast, Target Wake Time, Voice-Enterprise, MU-MIMO (UL/DL), Multi-Link Operation (MLO), High Band Simultaneous (HBS)

Bluetooth
- Specification Version: Bluetooth 5.4
- Bluetooth Connection Technology: Bluetooth LE

USB

USB Specification Version: USB 4.0

Interface Type: 3 x USB4 (40Gbps), 2 x USB3.2 Gen2x1, 1x eUSB2

Snapdragon