



PERFORMANCE REBORN

Your laptop performance is reborn with the Snapdragon X Elite Platform. Built for AI, Snapdragon X Elite is the most powerful, intelligent, and power efficient processor ever created for Windows in its class². With cutting-edge responsiveness, navigate demanding multitasking workloads across productivity, creativity, immersive entertainment, and more.

GAME-CHANGING PERFORMANCE & EFFICIENCY

Snapdragon® X Elite generates game-changing performance and efficiency. With a 4nm System-on-a-Chip architecture, the best-in-class 12-core Qualcomm Oryon™ CPU optimizes demanding workloads and features up to Dual-Core Boost for incredibly fast responsiveness. The premium integrated Qualcomm® Adreno™ GPU delivers stunning graphics for immersive entertainment. Snapdragon X Elite supports this supercharged performance with low-power consumption for up to multi-day battery life on a single charge¹.

BUILT FOR AI

Snapdragon X Elite features the industry-leading Qualcomm® AI Engine with an integrated Qualcomm® Hexagon™ NPU, delivering transformative experiences for creativity, video conferencing, security, and productivity assistants. Snapdragon X Elite is capable of running Generative AI LLM models over 13B parameters on-device with blazing-fast speeds. It also includes the updated Micro NPU inside the ultra-low power Qualcomm® Sensing Hub for enhanced security, login experience, and privacy, including the ability to wake the device when in sleep mode. Sensitive data can stay on your laptop for increased security with intelligence at the edge. The Qualcomm AI Engine supports Windows Studio Effects and many other AI-accelerated applications and experiences, to make possibilities endless.

SMARTER USER EXPERIENCES

Bring mobile experiences directly to your PC. Stream, download, and sync from virtually anywhere with lightning-fast 5G and Wi-Fi 7 with HBS Multi-Link for seamless, jitter-free cloud connectivity. Snapdragon Seamless™ experience allows you to easily switch between your favorite devices for smooth and dynamic experiences. Immerse yourself in lossless audio for high-fidelity music and entertainment with your wireless headphones with the Snapdragon Sound™ Technology Suite. Snapdragon X Elite is also backed by intelligent security features that help protect your PC from chip to cloud, including the Qualcomm® Secure Processing Unit running Microsoft Pluton TPM, total memory encryption, and Microsoft Secured-Core PC support.

Snapdragon® X Elite: SKU Comparison Table

		Qualcomm Oryon™ CPU				Qualcomm® Adreno™ GPU	Qualcomm® Hexagon™ NPU	Memory	
Platform	Part Number	Cores	Total Cache	Max Multithread Frequency	Dual Core Boost	TFLOPs	NPU TOPS	Memory Type	Transfer Rate
Snapdragon X Elite	X1E-84-100	12	42 MB	3.8 GHz	4.2 GHz	4.6	45	LPDDR5x	8448 MT/s
Snapdragon X Elite	X1E-80-100	12	42 MB	3.4 GHz	4.0 GHz	3.8	45	LPDDR5x	8448 MT/s
Snapdragon X Elite	X1E-78-100	12	42 MB	3.4 GHz	None	3.8	45	LPDDR5x	8448 MT/s

1 Battery life varies significantly based on device, setting, usage, and other factors.
2 Source: Geekbench, WL Extreme, NPU TOPS



FEATURES

Best-in-class CPU with high performance and remarkable power efficiency

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

Up to Dual-Core Boost for incredibly fast responsiveness

Industry-leading Qualcomm® AI Engine, with up to 45 TOPS AI performance

Best-in-class processing across CPU, GPU, NPU, and Micro NPU

- Qualcomm Oryon CPU
- Adreno GPU
- Hexagon NPU
- Qualcomm Sensing Hub

On-device AI for transformative intelligent experiences, including support for Generative AI at 30 tokens per second

Premium integrated GPU delivers stunning 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

Enterprise-grade 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
- 12 cores, up to 3.8 GHz
- Total Cache: 42 MB

Max Multithread Frequency

- X1E-84-100: 3.8 GHz
- X1E-80-100: 3.4 GHz
- X1E-78-100: 3.4 GHz

Single and Dual-Core Boost

- X1E-84-100: Up to 4.2 GHz
- X1E-80-100: Up to 4.0 GHz
- X1E-78-100: None

GPU

Qualcomm® Adreno™ GPU

- X1E-84-100: Up to 4.6 TFLOPs
- X1E-80-100: Up to 3.8 TFLOPs
- X1E-78-100: Up to 3.8 TFLOPs

API Support: DX12

NPU

Qualcomm® Hexagon™ NPU

TOPS: Up to 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: Adreno DPU

Max. On-Device Display Resolution: eDP v1.4b, up to UHD120 HDR10

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

VPU

Video Processing Unit (VPU) Name: Adreno VPU

Encode: 4K60 10-bit encode – H.264, HEVC (H.265), AV1

Decode: 4K120 10-bit decode – H.264, HEVC (H.265), VP9, AV1

Concurrency: 4K60 decode – H.264, HEVC (H.265), VP9, AV1 / 2x 4K30 encode – H.264, HEVC (H.265), AV1

Camera

Image Signal Processor Name: Qualcomm Spectra™ ISP

- Dual 18-bit ISPs
- Always-Sensing ISP

Dual Camera: 2x 36 MP

Single Camera: Up to 64 MP

Video Capture: 4K HDR

General Audio

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

Cellular Modem-RF

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, mmWave, sub-6 GHz, Dynamic Spectrum Sharing (DSS), LTE, CBRS, HSPA, WCDMA

M.2. Interface: 5G M.2. card over PCIe Gen 3

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: 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

M.2. Interface: WiFi M.2. card over PCIe Gen 3

USB

USB Specification Version: USB4

Interface Type: 3x USB-C

- 3x USB4, 2x USB3.2 Gen2, 1x eUSB2



*Battery life varies significantly with settings, usage, and other factors.

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