GAME-CHANGING PERFORMANCE AND 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 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 charge.

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™ 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.
FEATURES

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

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

Dual-Core Boost for incredibly fast responsiveness

Industry-leading AI Engine, with up to 75 TOPs, for best-in-class processing across CPU, GPU, NPU, and Micro NPU

- Snapdragon X Elite Qualcomm Oryon CPU
- Snapdragon X Elite Qualcomm Adreno GPU
- Snapdragon X Elite Qualcomm Hexagon NPU
- Snapdragon X Elite Qualcomm Sensing Hub

On-device AI for transformative intelligent experiences, including 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 136 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
  - Single and Dual-Core Boost, up to 4.3 GHz

GPU
- Qualcomm® Adreno® GPU
  - Up to 4.6 TFLOPs

API Support: DX12

NPU
- Qualcomm® Hexagon™ NPU
  - TOPs: 45 TOPs

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

Memory
- Memory Type: LPDDR5x
- Transfer rate: 8533 MT/s
- Capacity: Up to 64 GB
- Bandwidth: 136 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 Resolution: 4K120 4:2:0, up to 4K60 HDR10
- Max. External Display Resolution: DP v1.4 - 3 displays, up to UHD60 HDR10, 2 displays 5K60

VPU
- Video Processing Unit (VPU) Name: Qualcomm® Adreno® VPU
- Encode: 4K60 10-bit encode – H.264, HEVC (H.265), AV1
- Decode: 4K120 10-bit decode – H.264, HEVC (H.265), VPR, AV1
- Concurrency: 4K60 encode – H.264, HEVC (H.265), VPR, 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/Bt: Qualcomm® FastConnect™ 7800 System
- Generations: Wi-Fi 7, Wi-Fi 6E, Wi-Fi 6
- Standards: 802.11be, 802.11ax, 802.11ac, 802.11n, 802.11g, 802.11b
- 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, 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

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