Key Announcements:

- Qualcomm Brings Record-breaking Generative AI for Devices at Snapdragon Summit 2023 – link
- Qualcomm Unleashes Snapdragon X Elite: The AI Super-Charged Processor to Revolutionize the PC – link
- Qualcomm Launches Premium Snapdragon 8 Gen 3 to Bring Generative AI to the Next Wave of Flagship Smartphones – link
- Qualcomm S7 and S7 Pro Gen 1 Sound Platforms Unleash Next Level Audio Experiences – link
- Qualcomm Unveils Snapdragon Seamless to Allow Your Devices to Work as One – link
Establishing Qualcomm as a leader in on-device AI at the edge

- Qualcomm Brings Record-breaking Generative AI for Devices at Snapdragon Summit 2023 – [link]

- New Snapdragon™ platforms showcase unmatched on-device AI performance for a wave of generative AI devices and applications, with enhanced focus on responsiveness, reliability and privacy.
- Snapdragon X Elite is built from the ground up for on-device AI with an industry-leading NPU, along with best-in-class CPU performance and efficiency among Windows PC platforms.
- Snapdragon 8 Gen 3 has the most powerful NPU for mobile devices and uses the power of AI to invisibly enhance camera, gaming, sound and connectivity experiences for premium smartphones.
- Partners including Microsoft, Meta, Google, HP, and multiple others showed their support of on-device AI at Snapdragon Summit.

Support for a wide range of models:
- Microsoft
- Meta
- Baidu
- stability.ai
- OpenAI

Het. Compute designed for Gen AI
- CPU
- GPU
- NPU

On-device Personalization
Qualcomm® Sensing Hub

13B+
Parameter support in PCs

Fastest stable diffusion in the world
<1 sec per image

Qualcomm® AI Stack Models - Fully optimized models

First to support multi-modality gen AI models

Up to 10B
Parameter support in phones

Up to 10B
Parameter support in phones

30 Tokens per second

20 Tokens per second

Meta Llama 2 powered AI assistants

Het. Compute designed for Gen AI

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**Key Announcement**

Snapdragon® X Elite – The most powerful computing processor for the next generation AI PC

- Qualcomm Unleashes Snapdragon X Elite: The AI Super-Charged Platform to Revolutionize the PC – [link](#)

- The Snapdragon X Elite platform features the new custom integrated Qualcomm Oryon™ CPU which sets the bar in performance – delivering up to 2 times faster CPU performance versus the competition, matching competitor peak performance at 68% less power.

- Built for AI, Snapdragon X Elite is capable of running generative AI models with over 13 billion parameters on-device and continues to expand Qualcomm’s AI leadership.

- With 45 TOPS of NPU performance, Snapdragon X Elite has 4.5 times faster AI processing power than competitors.

- PCs powered by Snapdragon X Elite are expected from leading OEMs starting mid-2024.

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<th>Performance Reborn</th>
<th>Best-in-class performance vs. x86</th>
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| **2X** Faster CPU  | Qualcomm Oryon™ CPU  
| **2X** Faster GPU  | Dual-Core Boost  
| **4nm** process node| Qualcomm™ Adreno™ GPU  
|                     | 4.6 Teraflops  
|                     | Triple UHD monitor support  

### Generative AI powerhouse

- **Capable to run** 13B+ parameters on-device
- **Generates** 30 tokens/second for 7B LLMs

### Smart user experiences

- Lightning fast 5G | Wi-Fi 7
- Immersive Lossless Audio
- Advanced Camera ISP
- Snapdragon Seamless Chip-to-cloud security

### Leading PC performance per watt

- Matches peak PC performance at 68% of the power vs competition

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Qualcomm, Snapdragon, Kryo, Qualcomm Oryon, Snapdragon Sight, Snapdragon Sound, Snapdragon Smart and Snapdragon Sight are trademarks or registered trademarks of Qualcomm Incorporated. CPU Performance is based on Geekbench v6.2 Multi-Thread on Windows OS run in October 2023. Snapdragon X Elite was tested using a Qualcomm laptop reference design on Windows OS. The i7-13800H and i7-1355U CPU cores were tested using a Samsung Galaxy Book 360 3G/I7-1355U (NP530XFG) laptop, Samsung Galaxy Book Pro 360 3G/I7-1355U (NP530XFG) laptop, Samsung Galaxy Book Pro 360 3G/I7-1355U (NP530XFG) and a pre-commercial build of Snapdragon X Elite on Windows 11. Maximum performance reflected by i7-13800H represents maximum achievable results in given platform under unconstrained PL1/PL2 settings and no thermal limitations. Power and performance comparison reflects results based on measurements and hardware instrumentation of given devices. GPU Performance is based on 3DMark WildLife Extreme run in October 2023. Snapdragon X Elite was tested using a Qualcomm laptop reference design on Windows PC and a pre-commercial build of Stable Diffusion. Qualcomm® Hexagon™ NPU was tested using a Pre-Commercial Build (B005) on Windows 11. Maximum performance reflected by 75 TOPS represents maximum achievable results in given platform under unconstrained PL1/PL2 settings and no thermal limitations. Power and performance comparison reflects results based on measurements and hardware instrumentation of given devices.
Key Announcement

Snapdragon® 8 Gen 3 – A clear leader in on-device intelligence, premium-tier performance, and power efficiency

- Qualcomm Launches Premium Snapdragon 8 Gen 3 to Bring Generative AI to the Next Wave of Flagship Smartphones – [link](#)

Our first mobile platform meticulously designed with generative AI in mind.

"Snapdragon 8 Gen 3 infuses high-performance AI across the entire system to deliver premium-level performance and extraordinary experiences to consumers. This platform unlocks a new era of generative AI enabling users to generate unique content, help with productivity, and other breakthrough use cases. Each year, we set out to design leading features and technologies that will power our latest Snapdragon 8-series mobile platform and the next generation of flagship Android devices. The Snapdragon 8 Gen 3 delivers." – Chris Patrick, SVP & GM, Mobile Handsets, Qualcomm Technologies, Inc.

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Generative AI powerhouse

- Capable to run up to 10B parameters on device
- Generates up to 20 tokens per sec for 7B LLMs

Titan of on-device intelligence

- Qualcomm Hexagon™ NPU
  - 98% faster
  - 40% more efficient
- Fast Stable Diffusion and ContraNet
- <1 Sec fastest in the world
- 77GB/s, 4.8GHz memory bandwidth

AI

- Pytorch ExecuTorch and optimized models
- First to support multi-modal gen AI models
- On-device personalization with Qualcomm sensing hub
- World’s 1st to support speculative decoding

Gaming

- Unreal Engine 5 with Lumen lighting system
- Global illumination Next-gen lighting effects
- 25% performance 25% efficiency
- 240 FPS

Camera

- Photo expansion
- Video object eraser
- Night vision for video capture
- Dolby HDR photo capture

Sound

- 24bit, 96KHz Lossless
- Qualcomm® Expanded Personal Area Network (XPAN)

Battery life and storage varies significantly based on device, settings, usage, and other factors. Performance comparisons are made against the Snapdragon 8 Gen 2 Mobile Platform.
Setting a new benchmark for high-performance sound at ultra-low power

• Qualcomm® S7 and S7 Pro Gen 1 Sound Platforms Unleash Next Level Audio Experiences – [link]

• The Qualcomm S7 and S7 Pro Gen 1 Platforms utilize an unparalleled level of on-device AI to deliver our most advanced, personalized, and responsive audio experiences.

• The platforms deliver six times the compute power, almost 100 times the AI power of previous generation platforms and a new tier of ultra-premium performance at low power.

• The Qualcomm S7 Pro Sound platform is the first to support Qualcomm® Expanded Personal Area Network Technology (XPAN) and micro-power Wi-Fi connectivity to extend audio range across the home, building or campus, with support for up to 192kHz lossless music quality.
Breaking down the barriers between OEMs, devices and operating systems

• Qualcomm Unveils Snapdragon Seamless™ to Allow Your Devices to Work as One – link

• Snapdragon Seamless is a cross-platform technology that enables the seamless linking of multiple devices across multiple OSes, sharing peripherals and data.

• Microsoft, Android, Xiaomi, ASUS, Honor, Lenovo, and OPPO, among others, are collaborating with Qualcomm to create multi-device experiences enabled by Snapdragon Seamless and set to arrive on global device platforms starting as early as this year.

• Snapdragon Seamless, device manufacturers and OS partners can enhance and extend their multi-device experiences for consumers. For example:
  o Mice and keyboards can work seamlessly across PCs, phones and tablets.
  o Files and windows can be dragged and dropped across different types of devices.
  o Earbuds can switch intelligently based on the priority of an audio source.
  o XR can extend the abilities of smartphones.