How to scale graphics memory Frequently Asked Questions

HP ZBook Ultra G1a

Created April 29, 2025 (BIOS version: 01.02.01 Rev.A)

NOTE: This document will be regularly updated. Please verify you are using the latest version of these instructions

ZBook Ultra G1a - FAQ

1. What is the default VRAM setting?

By default, ZBook Ultra is set to 512MB[1,2] dedicated VRAM, and the GPU has access to up to 50% of the remaining system memory.

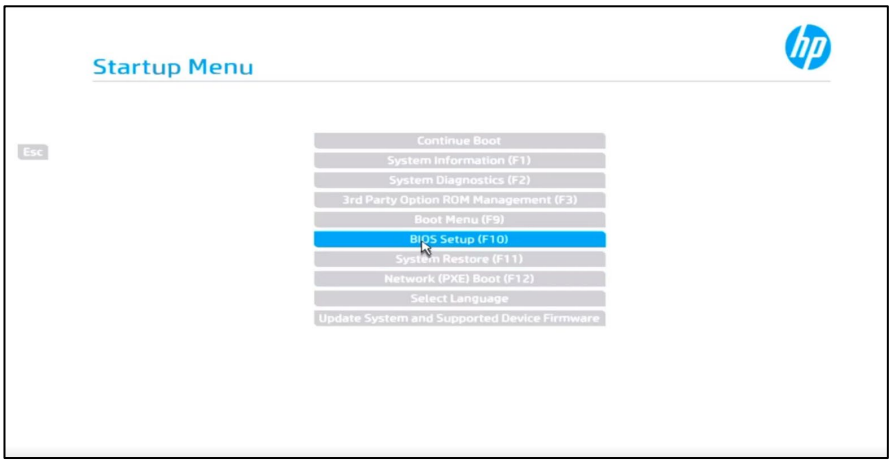
2. How do I adjust my VRAM allocation?

(BIOS Version: 01.02.01) Use the following instructions to adjust VRAM Settings in the BIOS (Include a header page with "This document will be regularly updated. Please verify you're using the latest version of these instructions")

a) Restart your system

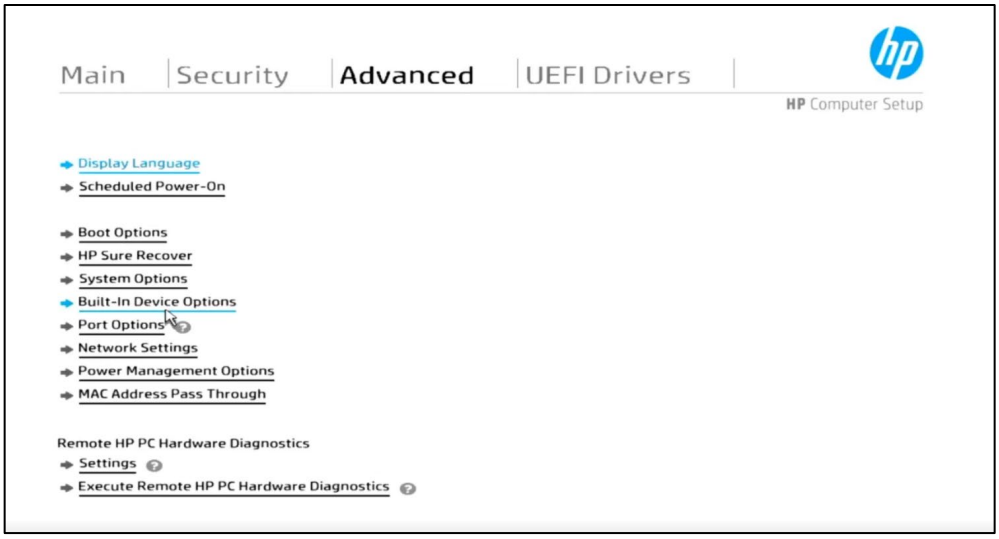
b) When you reach the boot screen (below), repeatedly press the escape (ESC) key to enter the BIOS menu

c) When you reach this screen, select "BIOS Setup (F10)"

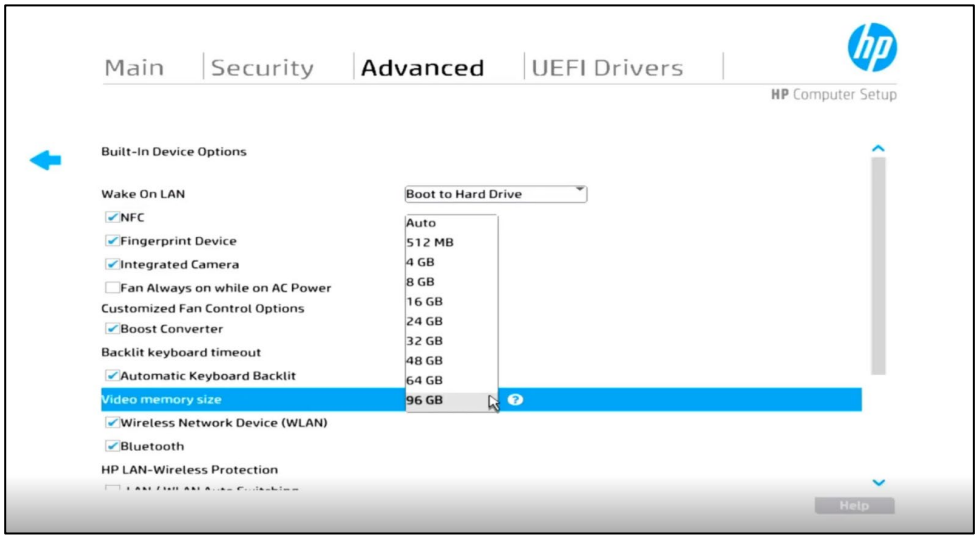


d) Next, select the “Advanced” Tab

e) Next, select “Built-In Device Options”



f) Next, go to the drop-down menu for “Video memory size” and select the VRAM allocation appropriate for your application



g) Save your changes and exit the BIOS

TDP questions

3. What are some of the power benefits of the integrated GPU architecture?

The ZBook Ultra TDP is similar to that of other products with a traditional discrete GPU architecture, and get’s similar to slightly better top performance compared to products with that traditional architecture. You should not expect your ZBook Ultra to perform in the same way as systems with discrete GPUs running at much higher power levels than ZBook Ultra. The primary benefits are…

- Greater overall efficiency due to the seamless switching between GPU and CPU
- Access to up to 96GB[1,2] of VRAM enables use cases like local LLM models that would be impossible even on much higher power discrete GPUs that are limited to 24GB[1,2] maximum VRAM

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RoCM questions

4. When will RoCM be supported?

AMD is estimating this architecture will have RoCM support by end of CY2025.

Footnotes:

1. The AMD Ryzen AI MAX unified memory architecture supports system configurations of up to 128GB system memory and allows memory to be flexibly assigned between the CPU and GPU. When 128GB memory is configured, up to 96GB unified memory can be used for Radeon graphics, leaving up to 32GB reserved for system memory. Based on 128GB memory configuration where up to 96GB unified memory can be used for graphics. Compared to NVIDIA RTX 600 48GB graphics card.
2. Up to 128GB memory is an optional, configurable feature.