



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



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)"

Continue Boot System Information (F1) System Diagnostics (F2) 3rd Party Option ROM Management (F3) BigS Setup (F10) System Restore (F11) Network (VRE) Boot (F12) Select Language Update System and Supported Device Firmware	Startup Monu		(hp
System Information (F1) System Diagnostics (F2) 3rd Party Option ROM Management (F3) Boot Menu (F9) BIOS Setup (F10) System Restore (F11) Network (PXE) Boot (F12) Select Language	Startup Menu		
System Information (F1) System Diagnostics (F2) 3rd Party Option ROM Management (F3) Boot Menu (F9) BIOS Setup (F10) System Restore (F11) Network (PXE) Boot (F12) Select Language			
System Diagnostics (F2) 3rd Party Option ROM Management (F3) Boot Menu (F9) BigS Setup (F10) System Restore (F11) Network (PXE) Boot (F12) Select Language		Continue Boot	
3rd Party Option ROM Management (F3) Boot Menu (F9) BigS Setup (F10) System Restore (F11) Network (PXE) Boot (F12) Select Language		System Information (F1)	
Boot Menu (F9) BIOS Setup (F10) System Restore (F11) Network (PXE) Boot (F12) Select Language		System Diagnostics (F2)	
BigS Setup (F10) System Restore (F11) Network (PXE) Boot (F12) Select Language		3rd Party Option ROM Management (F3)	
Network (PXE) Boot (F12) Select Language		Boot Menu (F9)	
Network (PXE) Boot (F12) Select Language		BIOS Setup (F10)	
Select Language		System Restore (F11)	
		Network (PXE) Boot (F12)	
Update System and Supported Device Firmware		Select Language	
		Update System and Supported Device Firmware	



d) Next, select the "Advanced" Tab

Main Security	Advanced	UEFI Drivers	HP Computer Setup
System Information			
 System Diagnostics BIOS Event Log 			
Update System BIOS			
Change Date And Time			
System IDs			
Replicated Setup			
Save Custom Defaults			
Apply Custom Defaults and Exit			
Apply Factory Defaults and Exit			
Ignore Changes and Exit			
Save Changes and Exit			

e) Next, select "Built-In Device Options"

	Security	Advanced	UEFI Drivers	HP Computer Setup
 Display La Schedule 				
- scheduled	a Power-on			
- Boot Optio	ons			
+ HP Sure R	ecover			
System 0	ptions			
➡ Built-In De	evice Options			
Port Option	ons			
Network S	Settings			
Power Ma	nagement Options			
MAC Addr	ess Pass Through			
10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-				
-	C Hardware Diagnostics			
Remote HP P				



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

Main	Security	Advanced	UEFI Drivers	
				HP Computer Setu
Built-In Device	Options			î
Wake On LAN		Boot to Hard D	rive	
✓NFC		Auto		
Fingerprint	Device	512 MB		
Integrated	Camera	4 GB		
Fan Always	on while on AC Power	8 GB		
-	n Control Options	16 GB		
Boost Conv	erter	24 GB		
Backlit keyboa	rd timeout	32 GB		
Automatic H	keyboard Backlit	48 GB 64 GB		
Video memory	size		0	
Wireless Ne	twork Device (WLAN)		y	
Bluetooth				
HP LAN-Wirele	ss Protection			
	A Contaching			~

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



RoCM questions

4. When will RoCM be supported?

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

Footnotes:

- 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.