

# Video Output Information

1. In the External Display Output column, the supported resolutions and the refresh rates for each display port are listed.
2. The port listed in front represents the port on the laptop, and the other one represents the port connected on the external monitor.

3. The Display Ports column shows the type and number of output connectors.

\*The miniDP and Type-C w/DP ports on the laptops listed in this document support DP v1.4 unless stated otherwise.

4. See the list of used acronyms in the right table.
5. The MUX switch is an option that allows users to run the system in MSHybrid mode or Discrete Graphics mode, and can be configured in the General Settings in MSI Centers (MSI Center/ MSI Center Pro) on laptops that support it.
6. To know which graphics card the display port is wired to, check where the display port is shown in the table, or check the connected graphics in the “Set PhysX Configuration” page in NVIDIA Control Panel.

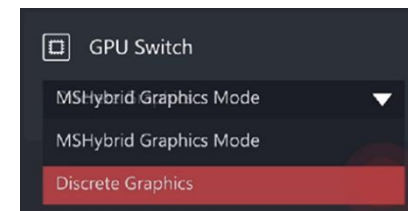
External Display Output	
Max Resolution	Max Refresh Rate
TBT-HDMI <sup>1</sup> : 4096x2160 @60Hz	TBT-HDMI <sup>1</sup> : 1920x1080 @240Hz
TBT-DP: 5120x2160 @60Hz	TBT-DP: 1920x1080 @240Hz
TBT-Type C(TB/DP): 5120x2160 @60Hz	TBT-Type C(TB/DP): 1920x1080 @240Hz

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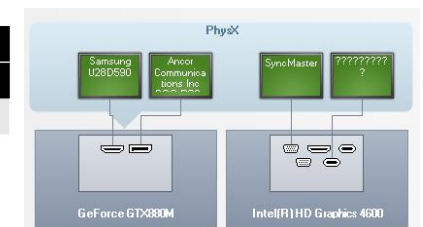


Display Ports	
iGPU	dGPU
TBT 4 <sup>3</sup> x1	-
Type-C w/DP x1	-
-	HDMIx1

Acronym	Description
DP/mDP	Display Port/ mini Display Port
HDMI	High-Definition Multimedia Interface
TBT	Thunderbolt
iGPU/dGPU	Intergrated GPU/ Dedicated GPU



Display Ports	
iGPU	dGPU
TBT 4 <sup>3</sup> x2	-



# MSI Laptops with AMD Ryzen 100 series Processor

Gaming

- [Cyborg Series](#)

## Cyborg series

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Cyborg A15 C1WE	RTX 5050	X	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP:7680x4320 @60Hz Type C-Type C(TB/DP): 5120*1440 @240Hz	Type C-HDMI: 2560x1440@500Hz Type C-DP: 1920x1080 @600Hz Type C-Type C(TB/DP): 1920x1080 @600Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @600Hz	
Cyborg A15 C1WF	RTX 5060	X	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP:7680x4320 @60Hz Type C-Type C(TB/DP): 5120*1440 @240Hz	Type C-HDMI: 2560x1440@500Hz Type C-DP: 1920x1080 @600Hz Type C-Type C(TB/DP): 1920x1080 @600Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @600Hz	
Cyborg A15 Max C1WE	RTX 5050	X	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP:7680x4320 @60Hz Type C-Type C(TB/DP): 5120*1440 @240Hz	Type C-HDMI: 2560x1440@500Hz Type C-DP: 1920x1080 @600Hz Type C-Type C(TB/DP): 1920x1080 @600Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @600Hz	
Cyborg A15 Max C1WF	RTX 5060	X	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP:7680x4320 @60Hz Type C-Type C(TB/DP): 5120*1440 @240Hz	Type C-HDMI: 2560x1440@500Hz Type C-DP: 1920x1080 @600Hz Type C-Type C(TB/DP): 1920x1080 @600Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @600Hz	
Cyborg A15 Max C1WG	RTX 5070	X	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP:7680x4320 @60Hz Type C-Type C(TB/DP): 5120*1440 @240Hz	Type C-HDMI: 2560x1440@500Hz Type C-DP: 1920x1080 @600Hz Type C-Type C(TB/DP): 1920x1080 @600Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @600Hz	

Note:

\*1: VR devices will require display ports wired to the dGPU to function correctly.

Display output ports wired to the dGPU support external displays in MSHybrid Graphics and Discrete Graphics mode only.

\*2: Maximum matrix display numbers are tested under MSHybrid mode.