

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.

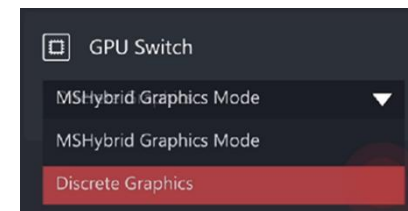
External Display Output	
Max Resolution	Max Refresh Rate
TBT-HDMI ¹ : 4096x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz	TBT-HDMI ¹ : 1920x1080 @240Hz TBT-DP: 1920x1080 @240Hz TBT-Type C(TB/DP): 1920x1080 @240Hz

Max Resolution
TBT-HDMI ¹ : 4096x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz

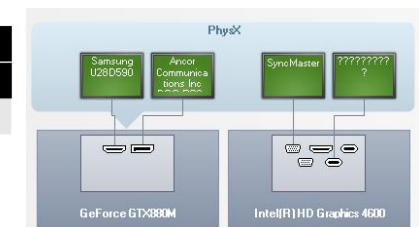


Display Ports	
iGPU	dGPU
TBT 4 ³ x1	-
Type-C w/DP x1	-
-	HDMIx1

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



Display Ports	
iGPU	dGPU
TBT 4 ³ x2	-



MSI Laptops with 14th Gen Intel Processor

Gaming

- [Raider GE Series](#)
- [Vector Series](#)
- [Titan Series](#)
- [Sword Series](#)
- [Crosshair Series](#)
- [Cyborg Series](#)

Content Creation

- [Creator Series](#)
- [CreatorPro Series](#)

Raider GE Series – 1/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*2	Max Resolution	Max Refresh Rate	
Raider GE78 HX 14VIG	RTX 4090	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @360Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Raider GE78 HX 14VHG	RTX 4080	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @360Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	

Note:

*1: Thunderbolt ports wired to the iGPU support external displays in MSHybrid Graphics and Integrated Graphics mode only. (<https://www.msi.com/faq/faq-4175>)

*2: 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.

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

Raider GE Series – 2/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*2	Max Resolution	Max Refresh Rate	
Raider GE78 HX 14VGG	RTX 4070	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Raider GE78 HX 14VFG	RTX 4060	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	

- Note:
- *1: Thunderbolt ports wired to the iGPU support external displays in MSHybrid Graphics and Integrated Graphics mode only. (<https://www.msi.com/faq/faq-4175>)
 - *2: 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.
 - *3: Maximum matrix display numbers are tested under MSHybrid mode.

Raider GE Series – 3/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*2	Max Resolution	Max Refresh Rate	
Raider GE68 HX 14VIG	RTX 4090	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Raider GE68 HX 14VHG	RTX 4080	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	

Note:

*1: Thunderbolt ports wired to the iGPU support external displays in MSHybrid Graphics and Integrated Graphics mode only. (<https://www.msi.com/faq/faq-4175>)

*2: 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.

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

Raider GE Series – 4/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*2	Max Resolution	Max Refresh Rate	
Raider GE68 HX 14VGG	RTX 4070	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Raider GE68 HX 14VFG	RTX 4060	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	

- Note:
- *1: Thunderbolt ports wired to the iGPU support external displays in MSHybrid Graphics and Integrated Graphics mode only. (<https://www.msi.com/faq/faq-4175>)
 - *2: 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.
 - *3: Maximum matrix display numbers are tested under MSHybrid mode.

Raider Series – 5/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Raider 18 HX A14VHG	RTX 4090	V	-	TBT 4 x2	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @380Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	4*2
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Raider 18 HX A14VIG	RTX 4080	V	-	TBT 4 x2	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @380Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	4*2
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	

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.

Vector Series- 1/4

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*2	Max Resolution	Max Refresh Rate	
Vector 17 HX A14VHG	RTX 4080	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Vector 17 HX A14VGG	RTX 4070	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	

Note:

*1: Thunderbolt ports wired to the iGPU support external displays in MSHybrid Graphics and Integrated Graphics mode only. (<https://www.msi.com/faq/faq-4175>)

*2: 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.

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

Vector Series- 2/4

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*2	Max Resolution	Max Refresh Rate	
Vector 17 HX A14VFG	RTX 4060	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	

Note:

*1: Thunderbolt ports wired to the iGPU support external displays in MSHybrid Graphics and Integrated Graphics mode only. (<https://www.msi.com/faq/faq-4175>)

*2: 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.

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

Vector Series- 3/4

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*2	Max Resolution	Max Refresh Rate	
Vector 16 HX A14VIG	RTX 4090	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Vector 16 HX A14VHG	RTX 4080	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	

Note:

*1: Thunderbolt ports wired to the iGPU support external displays in MSHybrid Graphics and Integrated Graphics mode only. (<https://www.msi.com/faq/faq-4175>)

*2: 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.

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

Vector Series- 4/4

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*2	Max Resolution	Max Refresh Rate	
Vector 16 HX A14VGG	RTX 4070	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Vector 16 HX A14VFG	RTX 4060	V	TBT 4*1 x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-TBT: 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	5*3
			-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @144Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560x1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	

Note:

*1: Thunderbolt ports wired to the iGPU support external displays in MSHybrid Graphics and Integrated Graphics mode only. (<https://www.msi.com/faq/faq-4175>)

*2: 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.

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

Titan Series

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)* ²
			iGPU	dGPU* ¹	Max Resolution	Max Refresh Rate	
Titan 18 HX A14VIG	RTX4090	V		TBT x2	TBT Type C(DP)- TBT: 5120x2160 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-DP: 7680x4320 @60Hz TBT-HDMI: 7680x4320 @60Hz TBT-Type C: 3840x2160 @60Hz	TBT Type C(DP)-TBT: 5120x2160 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-DP: 2560*1440 240Hz TBT-HDMI: 1920x1080 @240Hz TBT-Type C: 2560*1440 @75Hz	4* ²
				HDMI x1	HDMI-HDMI: 7680x4320 @60Hz	HDMI-HDMI: 3840x2160 @120Hz	
Titan 18 HX14VHG	RTX4080	V		TBT x2	TBT Type C(DP)- TBT: 5120x2160 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-DP: 7680x4320 @60Hz TBT-HDMI: 7680x4320 @60Hz TBT-Type C: 3840x2160 @60Hz	TBT Type C(DP)-TBT: 5120x2160 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-DP: 2560*1440 240Hz TBT-HDMI: 1920x1080 @240Hz TBT-Type C: 2560*1440 @75Hz	4* ²
				HDMI x1	HDMI-HDMI: 7680x4320 @60Hz	HDMI-HDMI: 3840x2160 @120Hz	

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.

Sword Series – 1/2

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* ¹	Max Resolution	Max Refresh Rate	
Sword 17 HX B14VGKG	RTX 4070	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-TBT: 7680x4320 @60Hz Type C-Type C (DP): 7680x4320 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-TBT: 3440*1440 @175Hz Type C-Type C (DP): 3440*1440 @175Hz	3* ²
			-	HDMI x1	HDMI-HDMI: 7680x4320 @60Hz	HDM-HDMI: 1920x1080 @240Hz	
Sword 17 HX B14VFKG	RTX 4060	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-TBT: 7680x4320 @60Hz Type C-Type C (DP alt mode): 7680x4320 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-TBT: 3440*1440 @175Hz Type C-Type C (DP alt mode): 3440*1440 @175Hz	3* ²
			-	HDMI x1	HDMI-HDMI: 7680x4320 @60Hz	HDM-HDMI: 1920x1080 @240Hz	
Sword 17 HX B14VEKG	RTX 4050	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-TBT: 7680x4320 @60Hz Type C-Type C (DP): 7680x4320 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-TBT: 3440*1440 @175Hz Type C-Type C (DP): 3440*1440 @175Hz	3* ²
			-	HDMI x1	HDMI-HDMI: 7680x4320 @60Hz	HDM-HDMI: 1920x1080 @240Hz	

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.

Sword series – 2/2

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Sword 16 HX B14VGKG	RTX 4070	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3*2
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Sword 16 HX B14VFKG	RTX 4060	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3*2
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Sword 16 HX B14VEKG	RTX 4050	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3*2
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

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.

Crosshair series – 1/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Crosshair 17 HX D14VGKG	RTX 4070	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-TBT: 7680x4320 @60Hz Type C-Type C (DP): 7680x4320 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-TBT: 3440*1440 @175Hz Type C-Type C (DP): 3440*1440 @175Hz	3*2
			-	HDMI x1	HDMI-HDMI: 7680x4320 @60Hz	HDM-HDMI: 1920x1080 @240H	
Crosshair 17 HX D14VFKG	RTX 4060	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-TBT: 7680x4320 @60Hz Type C-Type C (DP): 7680x4320 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-TBT: 3440*1440 @175Hz Type C-Type C (DP): 3440*1440 @175Hz	3*2
			-	HDMI x1	HDMI-HDMI: 7680x4320 @60Hz	HDM-HDMI: 1920x1080 @240Hz	

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.

Crosshair series – 2/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Crosshair 16 HX D14VGKG	RTX 4070	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3*2
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Crosshair 16 HX D14VFKG	RTX 4060	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3*2
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

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.

Crosshair series – 3/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* ²	Max Resolution	Max Refresh Rate	
Crosshair 16 HX E14WEK	RTX 5050	V	Type-C w/DP* ¹ x2	-	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI:1920x1080 @600Hz Type C-DP: 1920x1080 @600Hz Type C-Type C(TB/DP): 1920x1080 @600Hz	4* ³
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @600Hz	
Crosshair 16 HX E14WFK	RTX 5060	V	Type-C w/DP* ¹ x2	-	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI:1920x1080 @600Hz Type C-DP: 1920x1080 @600Hz Type C-Type C(TB/DP): 1920x1080 @600Hz	4* ³
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @600Hz	
Crosshair 16 HX E14WGK	RTX 5070	V	Type-C w/DP* ¹ x2	-	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI:1920x1080 @600Hz Type C-DP: 1920x1080 @600Hz Type C-Type C(TB/DP): 1920x1080 @600Hz	4* ³
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @600Hz	

Note:

*1: Type-C w/DP ports wired to the iGPU support external displays in MSHybrid Graphics and Integrated Graphics mode only.

*2: 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.

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

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 15 A2RVE	RTX 4050	V	-	Type-C w/DP x1	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(DP): 2560x1440 @240Hz	3* ²
			HDMI x1	-	HDMI: 4096x2160 @60Hz	HDMI: 1920x1080 @240Hz	
Cyborg 15 A2RVEK	RTX 4050	V	-	Type-C w/DP x1	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(DP): 2560x1440 @240Hz	3* ²
			HDMI x1	-	HDMI: 4096x2160 @60Hz	HDMI: 1920x1080 @240Hz	
Cyborg 15 A2RUDX	RTX 3050	V	-	Type-C w/DP x1	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(DP): 2560x1440 @240Hz	3* ²
			HDMI x1	-	HDMI: 4096x2160 @60Hz	HDMI: 1920x1080 @240Hz	
Cyborg 15 A2RUDXK	RTX 3050	V	-	Type-C w/DP x1	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(DP): 2560x1440 @240Hz	3* ²
			HDMI x1	-	HDMI: 4096x2160 @60Hz	HDMI: 1920x1080 @240Hz	

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.

Creator Series – 1/2

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)* ²
			iGPU	dGPU* ¹	Max Resolution	Max Refresh Rate	
Creator Z17 HX Studio A14VGT	RTX 4070	V	-	TBT 4 x2 HDMI x1	HDMI-HDMI: 7680x4320 @60Hz TBT-HDMI: 3840x2160 @60Hz TBT-DP : 5120x2160 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @380Hz TBT-Type C(TB/DP): 2560*1440 @240Hz	4* ²
Creator Z17 HX Studio A14VFT	RTX 4060	V	-	TBT 4 x2 HDMI x1	HDMI-HDMI: 7680x4320 @60Hz TBT-HDMI: 3840x2160 @60Hz TBT-DP : 5120x2160 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @380Hz TBT-Type C(TB/DP): 2560*1440 @240Hz	4* ²
Creator Z17 HX Studio A14VET	RTX 4050	V	-	TBT 4 x2 HDMI x1	HDMI-HDMI: 7680x4320 @60Hz TBT-HDMI: 3840x2160 @60Hz TBT-DP : 5120x2160 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @380Hz TBT-Type C(TB/DP): 2560*1440 @240Hz	4* ²

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.

Creator series – 2/2

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Creator M16 HX C14VGG	RTX 4070	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3*2
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Creator M16 HX C14VFG	RTX 4060	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3*2
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Creator M16 HX C14VEG	RTX 4050	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3*2
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

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.

CreatorPro series

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
CreatorPro M16 HX C14VKG	RTX 4070	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3*2
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
CreatorPro M16 HX C14VJG	RTX 4060	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3*2
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
CreatorPro M16 HX C14VIG	RTX 4050	V	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3*2
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

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.

CreatorPro Series

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display) ^{*2}
			iGPU	dGPU ^{*1}	Max Resolution	Max Refresh Rate	
CreatorPro X18 HX A14VMG	Ada5000	V		TBT x2	TBT Type C(DP)- TBT: 5120x2160 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-DP: 7680x4320 @60Hz TBT-HDMI: 7680x4320 @60Hz TBT-Type C: 3840x2160 @60Hz	TBT Type C(DP)-TBT: 5120x2160 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-DP: 2560*1440 240Hz TBT-HDMI: 1920x1080 @240Hz TBT-Type C: 2560*1440 @75Hz	4 ^{*2}
				HDMI x1	HDMI-HDMI: 7680x4320 @60Hz	HDMI-HDMI: 3840x2160 @120Hz	
CreatorPro X18 HX A14VKSG	Ada3500	V		TBT x2	TBT Type C(DP)- TBT: 5120x2160 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-DP: 7680x4320 @60Hz TBT-HDMI: 7680x4320 @60Hz TBT-Type C: 3840x2160 @60Hz	TBT Type C(DP)-TBT: 5120x2160 @60Hz TBT-TBT: 5120x2160 @60Hz TBT-DP: 2560*1440 240Hz TBT-HDMI: 1920x1080 @240Hz TBT-Type C: 2560*1440 @75Hz	4 ^{*2}
				HDMI x1	HDMI-HDMI: 7680x4320 @60Hz	HDMI-HDMI: 3840x2160 @120Hz	

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.