


# Video Output Information

- In the External Display Output column, the supported resolutions and the refresh rates for each display port are listed.
- The port listed in front represents the port on the laptop, and the other one represents the port connected on the external monitor.
- 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.
- See the list of used acronyms in the right table.
- The MUX switch is an option that allows users to run the system in MSHybrid mode, Discrete Graphics mode, and Integrated Graphics mode and can be configured in the General Settings in MSI Centers (MSI Center/ MSI Center Pro) on laptops that support it.
- For laptops that is charge through the Thunderbolt port, the port is included along with ones that support display output.
- To know which graphics card the display port is wired to:  
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

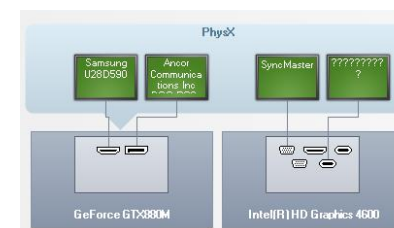
Max Resolution
TBT-HDMI <sup>1</sup> : 4096x2160 @60Hz
TBT-DP: 5120x2160 @60Hz
TBT-Type C(TB/DP): 5120x2160 @60Hz



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 13<sup>th</sup> Gen Intel Processor

### Gaming

- [Titan GT Series](#)
- [Stealth GS Series](#)
- [Raider GE Series](#)
- [Vector GP Series](#)
- [Pulse GL Series](#)
- [Sword Series](#)
- [Katana GF Series](#)
- [Cyborg Series](#)

### Business & Productivity

- [Summit Series](#)
- [Prestige Series](#)
- [Modern Series](#)

### Content Creation

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

## Titan GT Series - 1/1

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
Titan GT77HX 13VI	RTX 4090	V	-	HDMI x1	HDMI: 7680x4320 @60Hz	HDM: 1920x1080 @240Hz	4* <sup>2</sup>
			-	mDP x1	mDP-DP: 7680x4320 @30Hz	mDP-DP: 1920x1080 @360Hz	
			-	TBT 4x2	TBT-HDMI: 4096x2160 @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	
Titan GT77HX 13VH	RTX 4080	V	-	HDMI x1	HDMI: 7680x4320 @60Hz	HDM: 1920x1080 @240Hz	4* <sup>2</sup>
			-	mDP x1	mDP-DP: 7680x4320 @30Hz	mDP-DP: 1920x1080 @360Hz	
			-	TBT 4x2	TBT-HDMI: 4096x2160 @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	

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.

## Stealth Series – 1/8

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Stealth 17Studio A13VI	RTX 4090	V	TBT 4 x1	-	TBT-HDMI: 4096x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 2560x1440 @240Hz	4* <sup>3</sup>
			-	Type-C w/DP x2	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 5120x2160 @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	
Stealth 17Studio A13VH	RTX 4080	V	TBT 4 x1	-	TBT-HDMI: 4096x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 2560x1440 @240Hz	4* <sup>3</sup>
			-	Type-C w/DP x2	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 5120x2160 @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.

## Stealth Series – 2/8

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Stealth 17Studio A13VG	RTX 4070	V	TBT 4 x1	-	TBT-HDMI: 4096x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 2560x1440 @240Hz	4* <sup>3</sup>
			-	Type-C w/DP x2	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 5120x2160 @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	
Stealth 17Studio A13VF	RTX 4060	V	TBT 4 x1	-	TBT-HDMI: 4096x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 2560x1440 @240Hz	4* <sup>3</sup>
			-	Type-C w/DP x2	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 5120x2160 @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.

## Stealth Series – 3/8

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU*1	dGPU*2	Max Resolution	Max Refresh Rate	
Stealth 17Studio A13VE	RTX 4050	V	TBT 4 x1	-	TBT-HDMI: 4096x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 2560x1440 @240Hz	4*3
			-	Type-C w/DP x2	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 5120x2160 @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/fag/fag-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.

## Stealth Series – 4/8

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
Stealth 15 A13VF	RTX 4060	V	-	Type-C w/DP x1	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	3* <sup>2</sup>
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Stealth 15 A13VE	RTX 4050	V	-	Type-C w/DP x1	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	3* <sup>2</sup>
			-	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.

## Stealth Series – 5/8

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Stealth 16Studio A13VG	RTX 4070	V	TBT 4 x1	-	TBT-HDMI: 5120x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 2560x1440 @240Hz	4* <sup>3</sup>
			-	Type-C w/DP x1	Type C-HDMI: 3840x2160 @144Hz 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	
Stealth 16Studio A13VF	RTX 4060	V	TBT 4 x1	-	TBT-HDMI: 5120x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 2560x1440 @240Hz	4* <sup>3</sup>
			-	Type-C w/DP x1	Type C-HDMI: 3840x2160 @144Hz 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.



## Stealth Series – 6/8

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Stealth 16Studio A13VE	RTX 4050	V	TBT 4 x1	-	TBT-HDMI: 5120x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 2560x1440 @240Hz	4* <sup>3</sup>
			-	Type-C w/DP x1	Type C-HDMI: 3840x2160 @144Hz 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.

## Stealth Series – 7/8

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Stealth 14Studio A13VG	RTX 4070	V	TBT 4 x1	-	TBT-HDMI: 4096x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 2560x1440 @240Hz	4* <sup>3</sup>
			-	Type-C w/DP x1	Type C-HDMI: 3840x2160 @144Hz Type C-DP: 5120x2160 @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	
Stealth 14Studio A13VF	RTX 4060	V	TBT 4 x1	-	TBT-HDMI: 4096x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 2560x1440 @240Hz	4* <sup>3</sup>
			-	Type-C w/DP x1	Type C-HDMI: 3840x2160 @144Hz Type C-DP: 5120x2160 @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.

## Stealth Series – 8/8

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Stealth 14Studio A13VE	RTX 4050	V	TBT 4 x1	-	TBT-HDMI: 4096x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB): 5120x2160 @60Hz TBT-Type C(DP): 2560x1440 @240Hz	4* <sup>3</sup>
			-	Type-C w/DP x1	Type C-HDMI: 3840x2160 @144Hz Type C-DP: 5120x2160 @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 – 1/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Raider GE78HX 13VI	RTX 4090	V	TBT 4 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* <sup>3</sup>
			-	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 GE78HX 13VH	RTX 4080	V	TBT 4 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* <sup>3</sup>
			-	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 – 2/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Raider GE68HX 13VG	RTX 4070	V	TBT 4 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* <sup>3</sup>
			-	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 GE68HX 13VF	RTX 4060	V	TBT 4 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* <sup>3</sup>
			-	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 – 3/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Raider GE68HX 13VE	RTX 4050	V	TBT 4 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* <sup>3</sup>
			-	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/fag/fag-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 GP Series- 1/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Vector GP78HX 13VI	RTX 4090	V	TBT 4 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* <sup>3</sup>
			-	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 GP78HX 13VH	RTX 4080	V	TBT 4 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* <sup>3</sup>
			-	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 GP Series- 2/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Vector GP78HX 13VG	RTX 4070	V	TBT 4 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* <sup>3</sup>
			-	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 GP78HX 13VF	RTX 4060	V	TBT 4 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* <sup>3</sup>
			-	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 GP Series- 3/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
Vector GP77 13VG	RTX 4070	V	-	mDPx1	mDP-DP: 7680x4320 @60Hz	mDP-DP: 1920x1080 @360Hz	4* <sup>2</sup>
			-	Type-C w/DP x1	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	
Vector GP77 13VF	RTX 4060	V	-	mDPx1	mDP-DP: 7680x4320 @60Hz	mDP-DP: 1920x1080 @360Hz	4* <sup>2</sup>
			-	Type-C w/DP x1	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	
Vector GP77 13VE	RTX 4050	V	-	mDPx1	mDP-DP: 7680x4320 @60Hz	mDP-DP: 1920x1080 @360Hz	4* <sup>2</sup>
			-	Type-C w/DP x1	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: 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.

## Vector GP Series- 4/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU*1	dGPU*2	Max Resolution	Max Refresh Rate	
Vector GP68HX 13VI	RTX 4090	V	TBT 4 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 GP68HX 13VH	RTX 4080	V	TBT 4 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: Display output 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.

## Vector GP Series- 5/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Vector GP68HX 13VG	RTX 4070	V	TBT 4 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* <sup>3</sup>
			-	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 GP68HX 13VF	RTX 4060	V	TBT 4 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* <sup>3</sup>
			-	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: Display output 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.

## Pulse GL Series - 1/1

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Pulse 17 B13VGK	RTX4070	V	-	Type-C w/DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Pulse 17 B13VFK	RTX4060	V	-	Type-C w/DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Pulse 15 B13VGK	RTX4070	V	-	Type-C w/DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Pulse 15 B13VFK	RTX4060	V	-	Type-C w/DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

Note:

\*1: Display output 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.

## Sword GF Series - 1/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Sword 17 A13VG	RTX4070	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Sword 17 A13VF	RTX4060	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Sword 17 A13VE	RTX4050	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Sword 17 A13UDX	RTX3050	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

Note:

\*1: Display output 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.

## Sword GF Series - 2/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU*1	dGPU*2	Max Resolution	Max Refresh Rate	
Sword 17 A13UCX	RTX2050	V	-	Type-C /DP x1	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	3*3
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Sword 15 A13VG	RTX4070	V	-	Type-C /DP x1	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	3*3
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Sword 15 A13VF	RTX4060	V	-	Type-C /DP x1	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	3*3
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Sword 15 A13VE	RTX4050	V	-	Type-C /DP x1	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	3*3
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

Note:

\*1: Display output 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.

## Sword GF Series - 3/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Sword 15 A13UDX	RTX3050	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Sword 15 A13UCX	RTX2050	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

Note:

\*1: Display output 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.

## Katana GF Series - 1/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Katana 17 B13VGK	RTX4070	V	-	Type-C w/DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Katana 17 B13VFK	RTX4060	V	-	Type-C w/DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Katana 17 B13VEK	RTX4050	V	-	Type-C w/DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Katana 17 B13UDXK	RTX3050	V	-	Type-C w/DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

Note:

\*1: Display output 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.



## Katana GF Series - 2/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Katana 17 B13UCXK	RTX2050	V	-	Type-C w/DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Katana 15 B13VGK	RTX4070	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Katana 15 B13VFK	RTX4060	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Katana 15 B13VEK	RTX4050	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

Note:

\*1: Display output 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.

## Katana GF Series - 3/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
Katana 15 B13UDXK	RTX3050	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Katana 15 B13UCXK	RTX2050	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

Note:

\*1: Display output 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 – 1/1

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
Cyborg 15 A13VF	RTX4060	-	-	Type-C w/DP x1	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 5120x2160 @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	3* <sup>2</sup>
			HDMI x1	-	HDMI: 4096x2160 @60Hz	HDMI: 1920x1080 @240Hz	
Cyborg 15 A13VE	RTX4050	-	-	Type-C w/DP x1	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 5120x2160 @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	3* <sup>2</sup>
			HDMI x1	-	HDMI: 4096x2160 @60Hz	HDMI: 1920x1080 @240Hz	
Cyborg 15 A13UDX	RTX3050	-	-	Type-C w/DP x1	Type C-HDMI: 4096x2160 @60Hz Type C-DP: 5120x2160 @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	3* <sup>2</sup>
			HDMI x1	-	HDMI: 4096x2160 @60Hz	HDMI: 1920x1080 @240Hz	

Note:

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

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

## Summit Series - 1/2

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
Summit E16 Flip A13VFT	RTX 4060	-	HDMI x1	-	HDMI: 4096x2160@60Hz	HDMI: 2560x1080 @180Hz	3* <sup>2</sup>
			Type-C w/DP x1	-	Type C-HDMI: 3840x2160 @120Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560*1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
Summit E16 Flip A13VET	RTX 4050	-	HDMI x1	-	HDMI: 4096x2160@60Hz	HDMI: 2560x1080 @180Hz	3* <sup>2</sup>
			Type-C w/DP x1	-	Type C-HDMI: 3840x2160 @120Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560*1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
Summit E16FlipEvo A13MT	UMA	-	HDMI x1	-	HDMI: 4096x2160@60Hz	HDMI: 2560x1080 @180Hz	4* <sup>2</sup>
			TB4 x2	-	TBT-HDMI: 4096x2160@60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(DP): 3840x2160 @144Hz TBT-TBT: 5120*2160@60Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 2560*1440 @240Hz TBT-Type C(DP): :2560x1440 @240Hz TBT-TBT: 5120*2160@60Hz	

Note:

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

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

## Summit Series – 2/2

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
Summit E14FlipEvo A13MT	UMA	-	HDMI x1	-	HDMI: 4096x2160 @60Hz	HDMI: 1920x1080 @165Hz	4* <sup>2</sup>
			TBT x2	-	TBT-HDMI: 4096x2160 @60Hz TBT-DP: 7680x4320 @30Hz TBT-Type C(DP): 3840x2160 @144Hz TBT-Type C(TBT): 5120x2160 @60Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(DP): 1920x1080 @165Hz TBT-Type C(TBT): 5120x2160 @60Hz	
Summit E13FlipEvo A13MT	UMA	-	HDMI x1	-	HDMI: 4096x2160 @60Hz	HDMI: 1920x1080 @240Hz	3* <sup>2</sup>
			TB 4 x1	-	TBT-HDMI: 4096x2160@60Hz TBT-DP: 5120*2160@60Hz TBT-Type C(DP): 3840x2160 @144Hz TBT-TBT: 5120*2160@60Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(DP): 2560x1440 @240Hz TBT-TBT: 5120*2160@60Hz	

Note:

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

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

## Prestige Series - 1/2

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
Prestige 16Studio A13VF	RTX 4060	-	HDMI x1	-	HDMI: 4096x2160@60Hz	HDMI: 2560x1080 @180Hz	3* <sup>2</sup>
			Type-C w/DP x1	-	Type C-HDMI: 3840x2160 @120Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560*1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
Prestige 16Studio A13VE	RTX 4050	-	HDMI x1	-	HDMI: 4096x2160@60Hz	HDMI: 2560x1080 @180Hz	3* <sup>2</sup>
			Type-C w/DP x1	-	Type C-HDMI: 3840x2160 @120Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 2560*1440 @240Hz Type C-Type C(DP): 2560x1440 @240Hz	
Prestige 16Evo A13M	UMA	-	HDMI x1	-	HDMI: 4096x2160@60Hz	HDMI: 2560x1080 @180Hz	4* <sup>2</sup>
			TB4 x2	-	TBT-HDMI: 4096x2160@60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(DP): 3840x2160 @144Hz TBT-TBT: 5120*2160@60Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 2560*1440 @240Hz TBT-Type C(DP):2560x1440 @240Hz TBT-TBT: 5120*2160@60Hz	

Note:

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

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

## Prestige Series – 2/2

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
Prestige 14Evo B13M	UMA	-	HDMI	-	HDMI: 4096x2160 @60Hz	HDMI: 1920x1080 @165Hz	4* <sup>2</sup>
			TBT x2	-	TBT-HDMI: 4096x2160 @60Hz TBT-DP: 7680x4320 @30Hz TBT-Type C(DP): 3840x2160 @144Hz TBT-Type C(TBT): 5120x2160 @60Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(DP): 1920x1080 @165Hz TBT-Type C(TBT): 5120x2160 @60Hz	
Prestige 13Evo A13M	UMA	-	HDMI x1	-	HDMI: 4096x2160@60Hz	HDMI: 1920x1080 @240Hz	3* <sup>2</sup>
			TBT x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(DP): 3840x2160 @144Hz TBT-TBT: 5120*2160@60Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(DP): 2560x1440 @240Hz TBT-TBT: 5120*2160@60Hz	

Note:

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

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

## Modern Series - 1/1

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
Modern 15 B13M	UMA	-	HDMI x1	-	HDMI: 4096x2160@60Hz	HDMI: 1920x1080 @240Hz	3* <sup>2</sup>
			Type-C w/DP x1	-	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 5120x2160 @60Hz Type C: 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @360Hz Type-C:2560x1440 @240Hz	
Modern 14 C13M	UMA	-	HDMI x1	-	HDMI: 4096x2160@60Hz	HDMI: 1920x1080 @240Hz	3* <sup>2</sup>
			Type-C w/DP x1	-	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type-C: 5120x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @360Hz Type-C:2560x1440 @240Hz	

Note:

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

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



## Creator 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	
Creator Z17HXStudio A13VGT	RTX 4070	-	-	TBT 4x2	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	4*2
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Creator Z17HXStudio A13VFT	RTX 4060	-	-	TBT 4x2	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	4*2
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Creator Z17HXStudio A13VET	RTX 4050	-	-	TBT 4x2	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 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.

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

## Creator Series – 2/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
Creator Z16HXStudio B13VGTO	RTX 4070	-	TBT 4x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	3* <sup>2</sup>
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Creator Z16HXStudio B13VFTO	RTX 4060	-	TBT 4x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	3* <sup>2</sup>
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
Creator Z16HXStudio B13VETO	RTX 4050	-	TBT 4x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	3* <sup>2</sup>
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	

Note:

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

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

## Creator Series - 3/3

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU <sup>*1</sup>	dGPU <sup>*2</sup>	Max Resolution	Max Refresh Rate	
Creator M16 B13VE	RTX4050	V	-	Type-C /DP x1	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	3 <sup>*3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Creator M16 B13UDX	RTX3050	V	-	Type-C /DP x1	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	3 <sup>*3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

Note:

\*1: Display output 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 only support external displays in MSHybrid Graphics and Discrete Graphics mode.

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

## CreatorPro Series – 1/4

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
CreatorPro X17HX A13VM	RTX 5000	V	-	HDMI x1	HDMI: 7680x4320 @60Hz	HDM: 1920x1080 @240Hz	4* <sup>2</sup>
			-	mDP x1	mDP-DP: 7680x4320 @30Hz	mDP-DP: 1920x1080 @360Hz	
			-	TBT 4x2	TBT-HDMI: 4096x2160 @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	
CreatorPro X17HX A13VKS	RTX 3500	V	-	HDMI x1	HDMI: 7680x4320 @60Hz	HDM: 1920x1080 @240Hz	4* <sup>2</sup>
			-	mDP x1	mDP-DP: 7680x4320 @30Hz	mDP-DP: 1920x1080 @360Hz	
			-	TBT 4x2	TBT-HDMI: 4096x2160 @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	

Note:

\*1: Display output 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.

## CreatorPro Series – 2/4

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
CreatorPro Z17HXStudio A13VKT	RTX 3000	-	-	TBT 4x2	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	4*2
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
CreatorPro Z17HXStudio A13VJT	RTX 2000	-	-	TBT 4x2	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 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.

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

## CreatorPro Series – 3/4

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU* <sup>1</sup>	Max Resolution	Max Refresh Rate	
CreatorPro Z16HXStudio B13VKTO	RTX 3000	-	TBT 4x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	3* <sup>2</sup>
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	
CreatorPro Z16HXStudio B13VJTO	RTX 2000	-	TBT 4x1	-	TBT-HDMI: 7680x4320 @60Hz TBT-DP: 7680x4320 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP): 3840x2160 @144Hz	TBT-HDMI: 1920x1080 @240Hz TBT-DP: 1920x1080 @360Hz TBT-Type C(TB/DP): 5120x2160 @60Hz TBT-Type C(DP):2560x1440 @240Hz	3* <sup>2</sup>
			-	HDMI x1	HDMI : 7680x4320 @60Hz	HDMI : 1920x1080 @240Hz	

Note:

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

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

## CreatorPro Series – 4/4

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU* <sup>1</sup>	dGPU* <sup>2</sup>	Max Resolution	Max Refresh Rate	
CreatorPro M16 B13VI	RTX A1000	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
CreatorPro M16 B13VJ	RTX A2000	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
CreatorPro M16 B13VK	RTX A3000	V	-	Type-C /DP x1	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	3* <sup>3</sup>
			-	HDMI x1	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	

Note:

\*1: Display output 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.