

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.

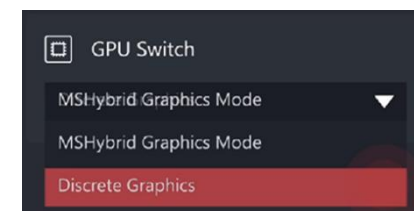
4. See the list of used acronyms in the right table.
5. The MUX switch is an option that allows users to run the system in MSHybrid mode or Discrete Graphics mode, and can be configured in the General Settings in MSI Centers (MSI Center/ MSI Center Pro) on laptops that support it.
6. To know which graphics 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

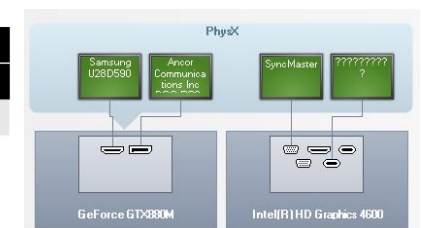
Max Resolution
TBT-HDMI ¹ : 4096x2160 @60Hz TBT-DP: 5120x2160 @60Hz TBT-Type C(TB/DP): 5120x2160 @60Hz
NB
Monitor

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 AMD Ryzen 7000 Processor

Gaming

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Business & Productivity

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Thin 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	
Thin A15 B7VF	RTX 4060	X	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @60Hz Type C-Type C(TB/DP): 3840x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Thin A15 B7VE	RTX 4050	X	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @60Hz Type C-Type C(TB/DP): 3840x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Thin GF63 B7VE	RTX 4050	X	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @60Hz Type C-Type C(TB/DP): 3840x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Thin A15 B7UC	RTX 3050	X	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @60Hz Type C-Type C(TB/DP): 3840x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Thin A15 B7UCX	RTX 2050	X	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @60Hz Type C-Type C(TB/DP): 3840x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3
			-	HDMI	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.

Thin 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	
Thin GF63 B7UCX	RTX 2050	X	-	Type-C w/DP x1	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 3840x2160 @60Hz Type C-Type C(TB/DP): 3840x2160 @60Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	3
			-	HDMI	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.

Raider series 1/1

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Raider A18 HX A7VIG	RTX 4090	Y	-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	4*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Raider A18 HX A7VHG	RTX 4080	Y	-	Type-C w/DP x2	Type C-HDMI: 7680x4320 @60Hz Type C-DP: 7680x4320 @60Hz Type C-Type C(TB/DP): 3840x2160 @144Hz	Type C-HDMI: 1920x1080 @240Hz Type C-DP: 1920x1080 @380Hz Type C-Type C(TB/DP): 2560x1440 @240Hz	4*2
			-	HDMI	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.

Modern series 1/1

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU	Max Resolution	Max Refresh Rate	
Modern 14 C7MG	UMA	X	HDMI	-	HDMI: 3840x2160 @60Hz	HDMI: 1920x1080 @165Hz	2 ^{*1}
Modern 14 C7M	UMA	X	HDMI	-	HDMI: 3840x2160 @60Hz	HDMI: 1920x1080 @165Hz	2 ^{*1}
Modern 15 B7M	UMA	X	HDMI	-	HDMI: 3840x2160 @60Hz	HDMI: 1920x1080 @165Hz	2 ^{*1}

Note:

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

Alpha series 1/1

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU	Max Resolution	Max Refresh Rate	
Alpha 17 C7VG	RTX 4070	Y	-	Type-C w/DP x2	Type C DP - HDMI: 7680x4320 @60Hz Type C DP - DP: 7680x4320 @60Hz mDP: 7680x4320 @60Hz	Type C DP - HDMI: 1920x1080 @240Hz Type C DP-DP: 1920x1080 @360Hz mDP: 1920x1080 @360Hz	4*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @240Hz	
Alpha 17 C7VF	RTX 4060	Y	-	Type-C w/DP x2	Type C DP - HDMI: 7680x4320 @60Hz Type C DP - DP: 7680x4320 @60Hz mDP: 7680x4320 @60Hz	Type C DP - HDMI: 1920x1080 @240Hz Type C DP-DP: 1920x1080 @360Hz mDP: 1920x1080 @360Hz	4*2
			-	HDMI	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.

Bravo series 1/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Bravo 15 C7UCX	RTX 2050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 15 C7UCXK	RTX 2050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 15 C7UCXP	RTX 2050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 15 C7UDX	RTX 3050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 15 C7UDXK	RTX 3050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	

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.

Bravo series 2/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Bravo 15 C7VE	RTX 4050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 15 C7VEK	RTX 4050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 15 C7VF	RTX 4060	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 15 C7VFK	RTX 4060	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 15 C7VFKP	RTX 4060	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	

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.

Bravo series 3/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Bravo 17 C7UDX	RTX 3050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 17 C7VE	RTX 4050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 17 C7VEK	RTX 4050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 17 C7VF	RTX 4060	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 17 C7VFK	RTX 4060	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	

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.

Bravo series 4/5

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Bravo 17 C7VFKP	RTX 4060	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 17 D7UDXK	RTX 3050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 17 D7VE	RTX 4050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 17 D7VEK	RTX 4050	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 17 D7VF	RTX 4060	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	

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.

Bravo 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	
Bravo 17 D7VFK	RTX 4060	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 17 D7VFKP	RTX 4060	Y	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 7680x4320 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 15 B7E	RX 6550M	X	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 5120x2160 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 15 B7ED	RX 6550M	X	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 5120x2160 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	
Bravo 15 B7EDP	RX 6550M	X	-	Type-C w/DP x1	Type C DP-HDMI: 7680x4320 @60Hz Type C DP-DP: 5120x2160 @60Hz Type C DP-Type C: 3440x1440 @144Hz	Type C DP-HDMI: 1920x1080 @360Hz Type C DP-DP: 1920x1080 @360Hz Type C DP-Type C: 2560x1440 @240Hz	3*2
			-	HDMI	HDMI: 7680x4320 @60Hz	HDMI: 1920x1080 @360Hz	

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 1/1

Notebook	GPU	MUX Switch	Display Ports		External Display Output		Matrix Display (incl. NB display)
			iGPU	dGPU*1	Max Resolution	Max Refresh Rate	
Crosshair A18 HX A7WFKG	RTX 5070	Y	Type C(DP) x1	-	Type C(DP)- Type C(DP): 5120*1440 @144Hz Type C(DP)-DP: 7680x4320 @60Hz Type C(DP)-HDMI: 7680x4320 @60Hz	TBT Type C(DP)- Type C(DP): 3840*2160 @240Hz Type C(DP)-DP: 1920x1080 @380Hz Type C(DP)-HDMI: 3840*2160 240Hz	3*2
			-	HDMI	HDMI-HDMI: 7680x4320 @60Hz	HDMI-HDMI: 2560x1440 @360Hz	
Crosshair A18 HX A7WGKG	RTX 5060	Y	Type C(DP) x1	-	Type C(DP)- Type C(DP): 5120*1440 @144Hz Type C(DP)-DP: 7680x4320 @60Hz Type C(DP)-HDMI: 7680x4320 @60Hz	TBT Type C(DP)- Type C(DP): 3840*2160 @240Hz Type C(DP)-DP: 1920x1080 @380Hz Type C(DP)-HDMI: 3840*2160 240Hz	3*2
			-	HDMI	HDMI-HDMI: 7680x4320 @60Hz	HDMI-HDMI: 2560x1440 @360Hz	
Crosshair A16 HX D7WFKG	RTX 5070	Y	Type C(DP) x1	-	Type C(DP)- Type C(DP): 5120*1440 @144Hz Type C(DP)-DP: 7680x4320 @60Hz Type C(DP)-HDMI: 7680x4320 @60Hz	TBT Type C(DP)- Type C(DP): 3840*2160 @240Hz Type C(DP)-DP: 1920x1080 @380Hz Type C(DP)-HDMI: 3840*2160 240Hz	3*2
			-	HDMI	HDMI-HDMI: 7680x4320 @60Hz	HDMI-HDMI: 2560x1440 @360Hz	
Crosshair A16 HX D7WGKG	RTX 5060	Y	Type C(DP) x1	-	Type C(DP)- Type C(DP): 5120*1440 @144Hz Type C(DP)-DP: 7680x4320 @60Hz Type C(DP)-HDMI: 7680x4320 @60Hz	TBT Type C(DP)- Type C(DP): 3840*2160 @240Hz Type C(DP)-DP: 1920x1080 @380Hz Type C(DP)-HDMI: 3840*2160 240Hz	3*2
			-	HDMI	HDMI-HDMI: 7680x4320 @60Hz	HDMI-HDMI: 2560x1440 @360Hz	

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.