

Video Output Information



1. In the External Display Output column, you can find the supported resolution and the refresh rate when connecting to the display port.

2. Video Output column shows the number of the output connector and its supported version.

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

3. See the list of used abbreviations in the right table.

4. In order to achieve the 3D BD playback, the notebook unit must meet the below requirements.

- A Blu-ray Optical Drive which is capable of 2X or faster read speeds.
- A video player software which supports the 3D BD playback.
(For example the PowerDVD Ultra version or any other 3D software player.)

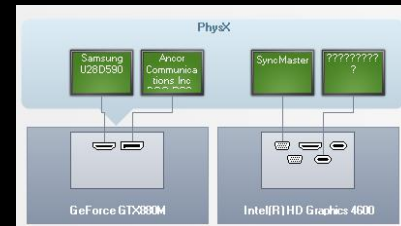
5. To know which graphics is the display port connecting with:

- Models with Optimus structure: Check the connected graphics in the “Set PhysX Configuration” page in NVIDIA Control Panel.
- Other non-Optimus structure models (hardware switchable graphics) like GT72/GT80, the connected graphics depends on the GPU mode (iGPU: Intel GPU/dGPU: NVIDIA GPU).

External Display Output	
4Kx2K	120Hz
HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz
TB-HDMI: 4096x2160 @30Hz TB-DP:2560x1440 @144Hz	TB-DP:2560x1440 @144Hz

Video Output			
VGA	mDP	HDMI	TB*
0	1 (v1.2)	1	0

Acronym	Description
VGA	Video Graphics Array Connector
DP/mDP	DisplayPort/Mini DisplayPort
DVI	Digital Visual Interface
HDMI	High-Definition Multimedia Interface
BD	Blu-ray Disc
TB	Thunderbolt



MSI Gaming Notebooks with - NVIDIA GeForce 10 Series Graphics And Intel HM175/CM238 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB*	4Kx2K	120Hz			
GT83VR 7RF SLI GT83VR 7RE SLI	GTX 1080 SLI/CM238 GTX 1070 SLI/CM238	1 (v1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz TB-HDMI: 4096x2160 @24Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GT75VR 7RF GT75VR 7RE	GTX 1080/CM238 or HM175 GTX 1070/CM238 or HM175 GTX 1070 SLI/CM238 or HM175	1 (v1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840 x 2160 @ 60Hz TB-HDMI: 4096x2160 @24Hz TB-DP: 3840 x 2160 @ 60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GT73VR 7RF GT73VR 7RE GT73VR 7RE SLI	GTX 1080/CM238 or HM175 GTX 1070/CM238 or HM175 GTX 1070 SLI/CM238 or HM175	1 (v1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840 x 2160 @ 60Hz TB-HDMI: 4096x2160 @24Hz TB-DP: 3840 x 2160 @ 60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GT73EVR 7RF GT73EVR 7RE GT73EVR 7RD	GTX 1080/HM175 GTX 1070/HM175 GTX 1060/HM175	1 (v1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840 x 2160 @ 60Hz TB-HDMI: 4096x2160 @24Hz TB-DP: 3840 x 2160 @ 60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GT72VR 7RE GT72VR 7RD	GTX 1070/HM175 GTX 1060/HM175	1 (v1.2)	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60pHz	mDP: 2560x1440 @144Hz	YES	X	3
GT62VR 7RE GT62VR 7RD	GTX 1070/HM175 GTX 1060/HM175	1 (v1.2)	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Gaming Notebooks with - NVIDIA GeForce 10 Series Graphics And Intel HM175 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB*	4Kx2K	120Hz			
GS73VR 7RG GS63VR 7RG	GTX 1070/HM175 GTX 1070/HM175	1 (v1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @120Hz	YES	X	4
GS73VR 7RF GS63VR 7RF	GTX 1060/HM175 GTX 1060/HM175	1 (v1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @120Hz	YES	X	4
GS73 7RE GS63 7RE	GTX 1050 Ti/HM175 GTX 1050 Ti/HM175	1 (v1.2)	1	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz TB-DP: 2560x1440 @120Hz	YES	X	4
GS63 7RD	GTX 1050 / HM175	1 (v1.2)	1	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz TB-DP: 2560x1440 @120Hz	YES	X	4

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Gaming Notebooks with - NVIDIA GeForce 10 Series Graphics And Intel HM175 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB*	4Kx2K	120Hz			
GE73VR 7RF GE63VR 7RF GE73VR 7RE GE63VR 7RE	GTX 1070/HM175 GTX 1060/HM175	1 (v1.2)	1	0	HDMI*: 4096x2160 @60Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz HDMI: 1020X768 @120Hz	YES	X	3
GE73 7RD GE63 7RD GE73 7RC GE63 7RC	GTX 1050 Ti/HM175 GTX 1050/HM175	1 (v1.2)	1	0	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz HDMI: 1024x768 @120Hz	YES	X	3
GE72MVR 7RG GE62MVR 7RG	GTX 1070/HM175	1 (v1.2)	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz HDMI: 1024x768 @120Hz	YES	X	3
GE72VR 7RF GE62VR 7RF	GTX 1060/HM175	1	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3
GE72 7RE GE62 7RE GE72 7RD GE62 7RD	GTX 1050 Ti/HM175 GTX 1050/HM175	1	1	0	HDMI: 4096 x 2160 @ 24Hz mDP: 3840x2160 @60Hz	HDMI: 1024x768 @120Hz mDP: 2560x1440 @120Hz	YES	X	3

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

*HDMI: A native HDMI 2.0 with 4K resolution display supported monitor is necessary in order to achieve the 4K @60Hz display output.

MSI Gaming Notebooks with - NVIDIA GeForce 10 Series Graphics And Intel HM175 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB*	4Kx2K	120Hz			
GP72VR 7RF GP72VR 7RFX GP62VR 7RF	GTX 1060/HM175	1	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3
GP72 7RE GP72 7REX GP72 7RD GP72 7RDX	GTX 1050 Ti/HM175 GTX 1050 Ti/HM175 GTX 1050/HM175 GTX 1050/HM175	1	1	0	HDMI: 4096x2160 @24Hz mDP: 3840x2160 @60Hz	HDMI: 1024x768 @120Hz mDP: 2560x1440 @120Hz	YES	X	3
GP72MVR 7RFX GP62MVR 7RF GP62MVR 7RFX	GTX 1060/HM175	1	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	X	X	3
GP72M 7REX GP72M 7RDX GP62M 7REX GP62M 7RD GP62M 7RDX	GTX 1050 Ti/HM175 GTX 1050/HM175 GTX 1050 Ti/HM175 GTX 1050/HM175 GTX 1050/HM175	1	1	0	HDMI: 4096x2160 @24Hz mDP: 3840x2160 @60Hz	HDMI: 1024x768 @120Hz mDP: 2560x1440 @120Hz	X	X	3
GP62 7RE GP62 7RD GP62 7REX GP62 7RDX	GTX 1050 Ti/HM175 GTX 1050/HM175 GTX 1050 Ti/HM175 GTX 1050/HM175	1	1	0	HDMI: 4096x2160 @24Hz mDP: 3840x2160 @60Hz	HDMI: 1024x768 @120Hz mDP: 2560x1440 @120Hz	YES	X	3

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Gaming Notebooks with - NVIDIA GeForce 10 Series Graphics And Intel HM175 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB*	4Kx2K	120Hz			
GL72M 7RDX GL62M 7RE GL62M 7REX GL62M 7RD GL62M 7RDX	GTX 1050/HM175 GTX 1050 Ti/HM175 GTX 1050 Ti/HM175 GTX 1050/HM175 GTX 1050/HM175	1	1	0	HDMI: 4096x2160 @24Hz mDP: 3840x2160 @60Hz	HDMI: 1024x768 @120Hz mDP: 2560x1440 @120Hz	X	X	3
GL72 7RD GL72 7RDX GL62 7RD GL62 7RDX	GTX 1050/HM175	1	1	0	HDMI: 4096x2160 @24Hz mDP: 3840x2160 @60Hz	HDMI: 1024x768 @120Hz mDP: 2560x1440 @120Hz	YES	X	3
GL72VR 7RFX GL62VR 7RFX	GTX 1060/HM175	1	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3
GF72 7RD GF72 7RE GF62 7RD GF62 7RE	GTX 1050/HM175 GTX 1050 Ti/HM175GTX 1050/HM175 GTX 1050 Ti/HM175	1	1	0	HDMI: 4096x2160 @24Hz mDP: 3840x2160 @60Hz	HDMI: 1024x768 @120Hz mDP: 2560x1440 @120Hz	X	X	3
GV72 7RE GV72 7RD GV62 7RE GV62 7RD	GTX 1050 Ti/HM175 GTX 1050/HM175 GTX 1050 Ti/HM175 GTX 1050/HM175	1	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz	HDMI: 1024x768 @120Hz mDP: 2560x1440 @120Hz	X	X	3

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Gaming Notebooks with - NVIDIA GeForce MX150 Series Graphics And Intel HM175 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB*	4Kx2K	120Hz			
GL62M 7RC	MX150/HM175	1 (v1.2)	1	0	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz HDMI: 1024x768 @120Hz	YES	X	3
GV62 7RC	MX150/HM175	1 (v1.2)	1	0	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz HDMI: 1024x768 @120Hz	YES	X	3

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Gaming Notebooks with - NVIDIA GeForce 10 Series Graphics And Intel HM170 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB*	4Kx2K	120Hz			
GE72VR 6RF GP72VR 6RF GE62VR 6RF	GTX 1060/HM170	1	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3
GP62MVR 6RF	GTX 1060/HM170	1	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	X	X	3

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Gaming Notebooks with - NVIDIA GeForce 10 Series Graphics And Intel HM170/CM236 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB*	4Kx2K	120Hz			
GT83VR 6RF SLI GT83VR 6RE SLI	GTX 1080 SLI/CM236 GTX 1070 SLI/CM236	1 (v1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz TB-HDMI: 4096x2160 @60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GT73VR 6RF GT73VR 6RE	GTX 1080/CM236 GTX 1070/CM236 GTX 1070 SLI/CM236	1 (v1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60pHz TB-HDMI: 4096x2160 @60Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GT72VR 6RE GT72VR 6RD	GTX 1070/HM170 GTX 1060/HM170	1 (v1.2)	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60pHz	mDP: 2560x1440 @144Hz	YES	X	3
GT62VR 6RE GT62VR 6RD	GTX 1070/HM170 GTX 1060/HM170	1 (v1.2)	1	0	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60pHz	mDP: 2560x1440 @144Hz	YES	X	3
GS73VR 6RF GS63VR 6RF	GTX 1060/HM170	1 (v1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz TB-HDMI: 4096x2160 @24Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	X	4
GS43VR 7RE GS43VR 6RE	GTX 1060/HM170	1 (v1.2)	1	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @120Hz	YES	X	3
GE72VR 6RF GE62VR 6RF	GTX 1060/HM170	1 (v1.2)	1	0	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Gaming Notebooks with - NVIDIA GeForce 900M Series Graphics And Intel HM175 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB*	4Kx2K	120Hz			
GP72 7QF GP62 7QF	GTX 960M/HM175	1 (v1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz TB-HDMI: 4096x2160 @30Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GL72 7QF GL62 7QF	GTX 960M/HM175	1 (v1.2)	1	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60pHz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Gaming Notebooks with - NVIDIA GeForce 900M Series Graphics And Intel HM170/CM236 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB*	4Kx2K	120Hz			
GT80S 6QF SLI GT80S 6QE SLI GT80S 6QD SLI	GTX 980 SLI/CM236 GTX 980M SLI/CM236 GTX 970M SLI/CM236	1 (v1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz TB-HDMI: 4096x2160 @24Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GT72S 6QF GT72S 6QE GT72S 6QD	GTX 980/CM236 GTX 980M/CM236 GTX 970M/CM236	1 (v1.2)	1	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60pHz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GT72 6QE GT72 6QD	GTX 980M/HM170 GTX 970M/HM170	1 (v1.2)	1	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60pHz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GS70 6QE GS70 6QD GS70 6QC	GTX 970M/HM170 GTX 965M/HM170 GTX 960M/HM170	2 (v1.2)	1	0	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
GS72 6QE GS72 6QD GS72 6QC	GTX 970M/HM170 GTX 965M/HM170 GTX 960M/HM170	2 (v1.2)	1	0	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
GS60 6QE GS60 6QD GS60 6QC	GTX 970M/HM170 GTX 965M/HM170 GTX 960M/HM170	1 (v1.2)	1	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @120Hz	YES	X	3
GS40 6QE GS40 6QD	GTX 970M/HM170	1 (v1.2)	1	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	X	3

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Gaming Notebooks with - NVIDIA GeForce 900M Series Graphics And Intel HM170 Chipset



Notebook	Graphics/Chipset	Video Output		External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	4Kx2K	120Hz			
GE72 6QE GE72 6QC GE72 6QD GE72 6QL	GTX 965M/HM170 GTX 960M/HM170 GTX 960M/HM170 GTX 950M/HM170	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
GE62 6QE GE62 6QD GE62 6QC GE62 6QL	GTX 965M/HM170 GTX 960M/HM170 GTX 960M/HM170 GTX 950M/HM170	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1080 @120Hz	YES	X	3
GE72 6QF GE62 6QF	GTX 97M/HM170	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1080 @120Hz	YES	X	3
GP72 6QF GP62 6QF	GTX 960M/HM170	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
GP72 6QE GP62 6QE	GTX 950M/HM170							
GL72 6QF GL62 6QF	GTX 960M/HM170	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
GL72 6QE GL62 6QE	GTX 950M/HM170							
GL72 6QD GL62 6QD GL72 6QC GL62 6QC	GTX 950M/HM170 940MX/HM170	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3

MSI Gaming Notebooks with - NVIDIA GeForce 900M Series Graphics And Intel HM87/HM86 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		VGA	mDP	HDMI	4Kx2K	120Hz			
GT80 2QE SLI GT80 2QD SLI GT80 2QC SLI	GTX 980M SLI/HM87 GTX 970M SLI/HM87 GTX 965M SLI/HM87	0	2 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GT72 2QE/Dragon Edition GT72 2QD/Dragon Edition	GTX 980M/HM87 GTX 970M/HM87	0	2 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60pHz	mDP: 2560x1440 @144Hz	YES	YES (dGPU mode)	4
GT70 2QD	GTX 970M/HM87	1	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	4
GT60 2QE GT60 2QD	GTX 980M/HM87 GTX 970M/HM87	0	2 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60pHz	mDP: 2560x1440 @144Hz	YES	YES	4
GS70 2QE GS70 2QD GS70 2QC	GTX 970M/HM87 GTX 965M/HM87 GTX 960M/HM87	0	2 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
GS60 2QE GS60 2QD GS60 2QC	GTX 970M/HM87 GTX 965M/HM87 GTX 960M/HM87	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3
GE72 2QF GE62 2QF GE72 2QE GE62 2QE	GTX 970M/HM87 GTX 965M/HM87	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3

MSI Gaming Notebooks with - NVIDIA GeForce 900M Series Graphics And Intel HM87/HM86 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		VGA	mDP	HDMI	4Kx2K	120Hz			
GE72 2QD GE62 2QD GE72 2QC GE62 2QC GE72 2QL GE62 2QL	GTX 960M/HM87 GTX 960M/HM87 GTX 950M/HM87	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
GE70 2QE GE60 2QE GE70 2QD GE60 2QD	GTX 960M/HM86 GTX 950M/HM86	1	0	1	HDMI: 3840x2160 @30pHz	X	YES	X	3
GP72 2QE GP62 2QE GP72 2QD GP62 2QD	GTX 950M/HM86 940M/HM86	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
GP70 2QF GP60 2QF GP70 2QE GP60 2QE	GTX 950M/HM86 940M/HM86	1	0	1	HDMI: 3840x2160 @30pHz	X	YES	X	3

MSI Gaming Notebooks with - Gaming Dock



Notebook/VGA	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
	VGA	mDP	HDMI	4Kx2K	120Hz			
GS30 2M (UMA)	0	0	1	HDMI: 3840 x 2160 @30Hz	X	X	X	X
GS32 6QE / GTX 950M GS32 7QE / GTX 950M	0	0	1	HDMI: 3840 x 2160 @30Hz	X	X	X	X
GS40 6QD / GTX 960M	0	0	1	HDMI: 3840 x 2160 @30Hz	X	X	X	X
GS30 2M Gaming Dock	*Depends on the specification of the VGA card.							
GS32 6QE Gaming Dock GS32 7QE Gaming Dock								
GS40 6QD Gaming Dock								

*Find the Graphics Card specification [HERE](#) at MSI website.

MSI Vortex



Vortex	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display
		mDP	HDMI	TB*	4Kx2K	120Hz			
Vortex G25 8RE	GTX 1070/Z370	0	2	1	HDMI: 4096x2160 @60Hz TB-DP: 3840x2160 @60Hz	HDMI: 1024x768 @120Hz TB-DP: 2560 x1440@144Hz	YES	YES (dGPU mode)	3
Vortex G25 8RD	GTX 1060/Z370	0	2	0	HDMI: 4096x2160 @60Hz	HDMI: 1024x768 @120Hz	YES	YES (dGPU mode)	2
VORTEX G65VR 7RE SLI VORTEX G65VR 7RF VORTEX G65VR 7RE VORTEX G65VR 7RD	GTX 1070 SLI/Z170 GTX 1080/Z170 GTX 1070/Z170 GTX 1060/Z170	2 (v1.2)	2	2	HDMI: 3840x2160 @60Hz mDP: 3840x2160 @60Hz TB-DP: 2560 x1440@60Hz	mDP:2560X1440 @144Hz	YES	YES (dGPU mode)	6
VORTEX G65VR 6RE SLI VORTEX G65VR 6RF VORTEX G65VR 6RE VORTEX G65VR 6RD	GTX 1070 SLI/Z170 GTX 1080/Z170 GTX 1070/Z170 GTX 1060/Z170	2 (v1.2)	2	2	HDMI: 3840x2160 @60Hz mDP: 3840x2160 @60Hz TB-DP: 2560 x1440@60Hz	mDP:2560X1440 @144Hz	YES	YES (dGPU mode)	6
Vortex G65 6QF Vortex G65 6QD	GTX 980 SLI/Z170 GTX 960 SLI/Z170	2 (v1.2)	2	2	HDMI: 3840x2160 @60Hz mDP: 3840x2160 @60Hz TB-DP: 2560 x1440@60Hz	mDP:2560X1440 @144Hz	YES	YES (dGPU mode)	6

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI VR ONE



Vortex	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display
		mDP	HDMI	TB*	4Kx2K	120Hz			
VR ONE 7RE VR ONE 7RD	GTX 1070/CM238 GTX 1060/CM238	1(1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz TB-DP: 3840x2160 @60Hz	mDP:2560X1440 @144Hz	YES	YES (dGPU mode)	3
	GTX 1070/HM175 GTX 1060/HM175								
VR ONE 6RE VR ONE 6RD	GTX 1070/CM236 GTX 1060/CM236	1(1.2)	1	1	HDMI: 4096x2160 @60Hz mDP: 3840x2160 @60Hz TB-DP: 3840x2160 @60Hz	mDP:2560X1440 @144Hz	YES	YES (dGPU mode)	3
	GTX 1070/HM170 GTX 1060/HM170								

MSI Workstation Notebooks with - Intel HM170/HM175/CM236/CM238 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB	4Kx2K	120Hz			
WE62 7RI	Quadro M1200/HM175	1 (v1.2)	1	0	HDMI: 4096*2160 @24Hz mDP: 3840*2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3
WE62 7RIX	Quadro M1200/HM175	1 (v1.2)	1	0	HDMI: 4096*2160 @24Hz mDP: 3840*2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3
WE62 7RJ	Quadro M2200/HM175	1 (v1.2)	1	0	HDMI: 4096*2160 @24Hz mDP: 3840*2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3
WE62 7RJX	Quadro M2200/HM175	1 (v1.2)	1	0	HDMI: 4096*2160 @24Hz mDP: 3840*2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3
WE72 7RJ	Quadro M2200/HM175	1 (v1.2)	1	0	HDMI: 4096*2160 @24Hz mDP: 3840*2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3
WE72 7RJX	Quadro M2200/HM175	1 (v1.2)	1	0	HDMI: 4096*2160 @24Hz mDP: 3840*2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Workstation Notebooks with - Intel HM170/HM175/CM236/CM238 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB	4Kx2K	120Hz			
WS60 7RJ	Quadro M2200/CM238	1 (v1.2)	1	1	HDMI: 4096*2160 @24Hz mDP: 3840*2160 @60Hz Type-C - DP: 3840*2160 @60Hz Type-C - HDMI: 4096*2160 @24Hz	mDP: 2560x1440 @144Hz TB-DP: 2560x1440 @144Hz	YES	X	4
WS63 7RK	Quadro P3000/HM175	1 (v1.2)	1	1	HDMI: 4096*2160 @24Hz mDP: 3840*2160 @60Hz Type-C - DP: 3840*2160 @60Hz Type-C - HDMI: 4096*2160 @24Hz	mDP: 2560*1440 @144Hz Type-C - DP: 2560*1440 @120Hz	YES	YES	4
WS63 7RL	Quadro P4000/HM175	1 (v1.2)	1	1	HDMI: 4096*2160 @24Hz mDP: 3840*2160 @60Hz Type-C - DP: 3840*2160 @60Hz Type-C - HDMI: 4096*2160 @24Hz	mDP: 2560*1440 @144Hz Type-C - DP: 2560*1440 @120Hz	YES	YES	4
WS72 6QH	Quadro M600M/HM170	2	1	0	HDMI: 3840*2160 @30Hz mDP: 3840*2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	4
WS72 6QI	Quadro M1000M/HM170	2	1	0	HDMI: 3840*2160 @30Hz mDP: 3840*2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	4
WS72 6QJ	Quadro M2000M/CM236	2	1	0	HDMI: 3840*2160 @30Hz mDP: 3840*2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	4
WT73VR 7RM	Quadro P5000/CM238	1	1	1	HDMI: 4096 x 2160 @24Hz mDP: 3840*2160 @60Hz Type-C - DP: 3840*2160 @60Hz Type-C - HDMI: 4096*2160 @24Hz	mDP: 2560*1440 @144Hz (dGPU mode) Type-C - DP: 2560*1440 @144Hz (dGPU mode)	YES	YES (dGPU mode)	4

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Workstation Notebooks with - Intel HM170/CM236 Chipset



Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		mDP	HDMI	TB	4Kx2K	120Hz			
WS60 6QI	Quadro M1000M/HM170	1 (v1.2)	1	1	HDMI: 4096x2160 @30Hz mDP: 3840x2160 @60Hz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz TB-DP: 2560x1440 @120Hz	YES	X	3
WS60 6QJ	Quadro M2000M/CM236								
WS60 6QH	Quadro M600M/CM236								
WS72 6QH	Quadro M600M/HM170	2 (v1.2)	1	0	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	4
WS72 6QI	Quadro M1000M/HM170								
WS72 6QJ	Quadro M2000M/CM236								
WT72 2OK	Quadro K3100M/HM87	2 (v1.2)	1	0	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1080 @120Hz	YES	X	4
WT72 2OL	Quadro K4100M/HM87								
WT72 2OM	Quadro K2200M/HM87								
WT72 6QI	Quadro M1000M/CM236	1 (v1.2)	1	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz (dGPU mode) TB-DP: 2560x1440 @144Hz (dGPU mode)	YES	X	4
WT72 6QJ	Quadro M2000M/CM236								
WT72 6QK	Quadro M3000M/CM236								
WT72 6QL	Quadro M4000M/CM236								
WT72 6QM	Quadro M5000M/CM236								
WT72 6QN	Quadro M5500M/CM236	1 (v1.2)	1	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz TB-HDMI: 3840x2160 @30Hz TB-DP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz (dGPU mode) TB-DP: 2560x1440 @144Hz (dGPU mode)	YES	X	4

*TB: Thunderbolt 3 features high-definition video transmission and compatible with Display Port 1.2.

MSI Prestige Notebooks

Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		VGA	mDP	HDMI	4Kx2K	120Hz			
PE72 7RD PE62 7RD	GTX 1050/HM175	0	1 (v1.2)	1	HDMI: 4096x2160 @24Hz mDP: 3840x2160 @60Hz	HDMI: 1024x768 @120Hz mDP: 2560x1440 @120Hz	YES	X	3
PE70 7RD PE60 7RD	GTX 1050/HM175	0	1 (v1.2)	1	HDMI: 4096x2160 @24Hz mDP: 3840x2160 @60Hz	HDMI: 1024x768 @120Hz mDP: 2560x1440 @120Hz	YES	X	3
PE70 6QE PE60 6QE PE70 6QD PE60 6QD	GTX 960M/HM170 GTX 960M/HM170 GTX 950M/HM170 GTX 950M/HM170	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
PE70 2QE PE60 2QE PE70 2QD PE60 2QD	GTX 960M/HM87 GTX 960M/HM87 GTX 950M/HM87 GTX 950M/HM87	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
PX60 6QE PX60 6QD	GTX 960M/HM170 GTX 950M/HM170	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz	YES	X	3
PX60 2QD	GTX 950M/HM87	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
PL62 7RD PL60 7RD	GTX 1050/PCH-LP	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz HDMI: 1024x768 @120Hz	YES	X	3
PL62 7RC	MX150/HM175	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @144Hz HDMI: 1024x768 @120Hz	YES	X	3

MSI Classic Notebooks

Notebook	Graphics/Chipset	Video Output			External Display Output		3D BD Playback	NVIDIA Surround View	Matrix Display (Incl. NB display)
		VGA	mDP	HDMI	4Kx2K	120Hz			
CX72 7QL CX62 7QL CX72 6QL CX62 6QL	940MX	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
CR72 7ML CR62 7ML CR72 6ML CR62 6ML	UMA	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
CX72 6QD CX62 6QD	940MX/HM170	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
CR72 6M CR62 6M	UMA/HM170	0	1 (v1.2)	1	HDMI: 3840x2160 @30Hz mDP: 3840x2160 @60Hz	mDP: 2560x1440 @120Hz	YES	X	3
CX70 2QF CX61 2QF CX62 2QD	940M/HM86	1	0	1	HDMI: 3840x2160 @30pHz	X	YES	X	3
CX61 2QC	920M/HM86								