AMD 2020 Radeon Pro WX 8200 and W5700 Graphics Board Data

	AMD Radeon Pro WX 8200	AMD Radeon Pro W5700	AMD Radeon Pro WX 5100	NVIDIA Quadro RTX 4000
Price at launch	$999	$799	$499	$899
Average street price	$970	$799	$399	$899
Specifications				
Architecture	Vega	RDNA	Polaris	Turing
Lithography	14nm	7nm	14nm	12nm
Number of transistors	12,500 million	10,300 million	5,700 million	13,600 million
Clock Speeds				
Base clock	1200 MHz	1243 MHz	713 MHz	1005 MHz
Boost clock	1500 MHz	1930 MHz	1086 MHz	1545 MHz
Memory clock	1000 MHz (2000 MHz effective)	1750 MHz (14000 MHz effective)	1250 MHz (5000 MHz effective)	1625 MHz (13000 MHz effective)
Memory				
GPU memory	8 GB (HBM2)	8GB (GDDR6)	8GB (GDDR5)	8GB (GDDR6)
Memory interface	2048-bit	256-bit	256-bit	256-bit
Memory bandwidth	512 GB/s	448 GB/s	160 GB/s	Up to 243 GB/s
ECC support	Yes	No	No	No
Processors				
Shading units	3584	2304	1792	2304
Texture mapping units	224	144	112	144
ROPs	64	64	32	64
Compute units	56	36	28	n/a
NVIDIA tensor cores	n/a	n/a	n/a	288
NVIDIA RT cores	n/a	n/a	n/a	36
Theoretical Performance				
Pixel rate	96 GPixels/s	123.5 GPixels/s	34.75 GPixels/s	98.88 GPixels/s
Texture rate	336 GTexels/s	277.9 GTexels/s	121.6 GTexels/s	222.5 GTexels/s
FP16 (half) performance	21.50 TFLOPS	17.79 TFLOPS	3.892 TFLOPS	14.24 TFLOPS
Single-precision performance (FP32) float	10.75 TFLOPS	8.893 TFLOPS	3.892 TFLOPS	7.1199 TFLOPS
Double-precision performance (FP64)	672 GFLOPS	555.8 GFLOPS	243.3 GFLOPS	222.5 GFLOPS
Board Design				
System interface	PCIe 3.0 x16	PCIe 4.0 x16	PCIe 3.0 x16	PCIe 3.0 x16
Power consumption (total board power)	230-watt	205-watt	75-watts	160-watts
Extra power required	Yes (14-pins)	Yes (14-pins)	No	Yes (8-pins)
Form factor (HxW)	4.4” x 10.5”	4.4” x 10.5”	4.4” x 6.8”	4.4” x 9.5”
Slots used	2	2	1	1
Maximum simultaneous displays	4 x 3840x2160 @ 60Hz 4 x 1920x1080 @ 60Hz 3 x 5120x2880 @ 60Hz 1 x 7680x4320 @ 60Hz	6 x 3840x2160 @ 60Hz 6 x1920x1080 @ 60Hz 3 x 5120x2880 @ 60Hz 3 x 7680x4320 @ 60Hz	4 x 3840x2160 @ 60Hz 4 x 1920x1080 @ 60Hz 2 x 5120x2880 @ 60Hz 1 x 7680x4320 @ 60Hz	4 x 4096x2160 @ 120Hz 4 x 5120x2880 @ 60Hz 2 x 7680x4320 @ 60Hz
VR ready	Yes	Yes	No	Yes
Number of DisplayPort conenctors	4 x Mini-DisplayPort 1.4	5 x Mini-DisplayPort 1.4	4 x DisplayPort	3 x DisplayPort
VirtualLink (USB-C) connector	No	Yes	No	Yes
Stereo 3D support with stereo connector	Yes		Yes	Yes
Graphics APIs	DirectX 12.0 Shader Model 6.4 OpenGL 4.6 Vulkan 1.0	DirectX 12.0 Shader Model 6.5 OpenGL 4.6 Vulkan 1.1	X DirectX 12.0 Shader Model 6.4 OpenGL 4.6 Vulkan 1.1	DirectX 12.0 Shader Model 6.5 OpenGL 4.6 Vulkan 1.0
Compute APIs	OpenCl 2.0	OpenCL 2.0	OpenCL 2.0	Open CL 1.2 CUDA 7.5 DirectCompute