Comparison of 3D Chips

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	RIVA TNT	**RIVA TNT 2**	**Permedia 3**	**Rage 128**	**Savage 4**	**G400**	**PowerVR 250**	**Savage3D**
Company	nVidia	nVidia	3Dlabs	ATI	S3	Matrox	Videologic/NEC	S3
Features								
Single pass multitexturing	yes	yes	yes	yes	yes	yes	no	no
True-color 3D rendering	yes	yes	yes	yes	yes	yes	yes	yes
AGP texturing	yes	yes	yes	yes	yes	yes	yes	yes
Bump-mapping[3]	yes (1 pass)	yes (1 pass)	yes (1 pass)	yes	yes	yes	yes	yes (2 passes)
Anisotropic filtering	yes (1 pass)	yes (1 pass)	yes (1 pass)	no	yes	yes	yes (4 passes)	yes (2 passes)
Trilinear filtering	yes	yes	yes	yes	yes	yes	yes	yes
z-Buffer	24 bit (+8)	32 bit	32 bit	32 bit	32 bit	32 bit	32 bit[2]	24 bit
Max. texture size	2048*2048	2048*2048	not limited	2048*2048	2048*2048	2048*2048	1024*1024	2048*2048
Stencil buffer	8 bit	8 bit	8 bit	8 bit	8 bit	8 bit	-	1 bit
Max. resolution	1920*1440	2048*1536	1920*1200	1920*1440	1920*1440	2048*1536	1600*1200	1600*1200
Bus types	PCI AGP x1 AGP x2	PCI AGP x1 AGP x2 AGP x4	PCI AGP x1 AGP x2	AGP x2	AGP x2 AGP x4	PCI AGP x1 AGP x2 AGP x4	PCI AGP x2	AGP x2

Memory config.	max. 16 MB	max. 32 MB	max. 32 MB	16 MB (VR) 32 MB (GL)	max. 32 MB	max. 32 MB	max. 32 MB	max. 8 MB
motion compensation	no	yes	yes	"DVD decoder"	yes	no	yes	yes
Micron	0.35	0.25	0.25	0.25	0.25	0.25	0.25	0.25
RAMDAC	250 MHz	300 MHz	270 MHz	230/250 MHz	300 MHz	up to 300 MHz	230/250 MHz	250 MHz
Supported API	Direct3D OpenGL	Direct3D OpenGL	Direct3D OpenGL	Direct3D OpenGL	Direct3D OpenGL	Direct3D "OpenGL"[5]	Direct3D OpenGL PowerSGL	Direct3D OpenGL Metal
Supported OS	Win 95/98/NT Linux / XFree86 BeOS	Win 95/98/NT Linux / XFree86 BeOS	Win 95/98/NT	Win 95/98/NT MacOS	Win 95/98/NT	Win 95/98/NT	Win 95/98/NT	Win 95/98/NT
Special features	twin texel pipeline (2 pixels per clock) 8 bit destination alpha channel	twin texel pipeline (2 pixels per clock) 8 bit destination alpha channel	virtual textures	dual rendering (2 pixels per clock)	S3TC texture compression		environment maps texture compression	S3TC texture compression
Release date	available	Q2 1999	1999	available	Q2 1999	Q2 1999	1999	available

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