

CubeOwner: Video cards in Cubes at a glance.

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Video Card	VRAM (video memory)	GPU/ Memory speeds	Pixel Shader/ Vertex Shader	Quartz Extreme?	Pipes x TMU	T&L	Connection Ports	Fit in Cubes	VRM move needed	20"/23" Cinema Display Support	Dual Display	PC Card flashing findings
Mac Rage128 Pro (Cube stock) AGP	16MB SDR	118 / 140 MHz?	None	No	2x2	No	1xADC, 1xVGA	Yes, use stock face plate, fan.	No	No	No	Unknown if flashing Rage 128 Pro PC video cards would work.
Mac Rage128 Pro OEM AGP	16MB SDR	118 / 140 MHz?	None	No	2x2	No	1xVGA, 1xDVI-I	Yes, cannot use stock face plate, can use stock fan?	No	No	No	Unknown if flashing Rage 128 Pro PC video cards would work.
Mac Radeon AGP (Radeon 7200, Cube BTO option) ¹	32MB DDR	166 / 166 MHz	None	Yes	2x3	Yes	1xADC, 1xVGA	Yes, use stock face plate, fan.	No	No	No	Unknown if flashing the Radeon 7200 AGP DDR PC video cards would work.
Mac Radeon AGP Retail (Radeon 7200)	32MB DDR	166 / 166 MHz	None	Yes	2x3	Yes	1xVGA, 1xDVI-I, TV-out	Yes, use stock face plate, fan.	No	No	No	Flashing Radeon 7200 AGP DDR PC video cards with the same design, memory type may work.
PC Radeon 7000 AGP (There's no Mac AGP card)	32MB / 64MB DDR	183 / 183 MHz	None	Yes	1x3	No	1xVGA, most have DVI-D/DVI-I, TV-out	Yes, some can use stock plate, fan.	Vary	Most likely Yes	Yes	PC Radeon 7000 cards of different designs have been found to work. Reduced Mac ROM files that work: v119 and v208.
Mac Radeon 7500 AGP	32MB DDR	270 / 200 MHz	None	Yes	2x3	Yes	1xADC, 1xVGA	Yes, cannot use stock face plate, fan?	No	Yes	Yes	Flashing PC cards is not likely to work.
Mac Radeon 8500 AGP	64MB DDR	275 / 250 MHz	1.4 / 1.1	Yes	4x2	Yes	1xDVI-I, 1xVGA, TV-out	Yes, can use stock plate, not stock fan?	Yes	Yes	Yes	PC 64MB cards using the reference design are likely to work. 8500LE cards work too. Reduced Mac ROM files that work: v123, v126, v220 and v227.
Mac Radeon 9000 Pro AGP	64MB / 128MB DDR	275 / 250, 250 / 250 MHz	1.4 / 1.1	Yes	4x1	Yes	1xADC, 1xDVI-I	Yes, cannot use stock plate, stock fan?	Yes	Yes	Yes	Unknown if flashing PC cards would work. Reduced Mac ROM files that "work": v112, v127 and v135.
PC Radeon 9200 AGP (There's no Mac AGP card)	128MB DDR	250 / 200 MHz	1.4 / 1.1	Yes	4x1	Yes	1xDVI-I, 1xVGA, TV-out	Yes, cannot use stock plate, fan?	Most likely No	Yes	Yes	Connect3D 128MB card works best . Avoid Gigabyte and 9200SE cards. No acceleration in OS 9. Reduced Mac ROM files that work: v120, v121 and v124.
Mac Radeon 9600 AGP	128MB DDR	365 / 295 MHz	2.0 / 2.0	Yes	4x1	Yes	1xADC, 1xDVI-I	AGP slot not compatible.	Card not usable in the Cube.	Yes	Yes	Don't know if flashing would work.
Mac Radeon 9700 AGP	128MB DDR	325 / 300	2.0 / 2.0	Yes	8x1	Yes	1xADC, 1xDVI-I	Card too long? Needs external power supply.	Yes	Yes	Yes	PC cards are likely to work with full Mac ROM files, not work well with the reduced ROM files. May work with 9800 Pro retail ROM files. Reduced Mac ROM file available: v124.
												PC cards that are 256-bit, have 8-pipes and use the reference

Mac Radeon 9800 Pro Retail AGP	128MB DDR	378 / 337.5 MHz	2.0 / 2.0	Yes	8x1	Yes	1xDVI-I, 1xVGA, TV-out	Card too long, needs external power supply.	Yes	Yes	Yes	design are likely to work. Sapphire card with black PCB that is 256-bit, have 8-pipes, is short enough to fit in the Cube and may work. Reduced Mac ROM files that work: v114, v120 and v130.
Mac Radeon 9800 Pro OEM AGP	128MB DDR	378 / 337.5 MHz?	2.0 / 2.0	Yes	8x1	Yes	1xADC, 1xDVI-I	AGP slot not compatible.	Card not usable in the Cube.	Yes	Yes	Flashing PC video cards using the retail 9800 Pro ROM files is more likely to work. See the 9800 Pro details above.
Mac Radeon 9800 Pro SE AGP	256MB DDR	390 / 350, 378 / 338 MHz	2.0 / 2.0	Yes	8x1	Yes	1xDVI-I, 1xVGA, TV-out	AGP slot not compatible.	Card not usable in the Cube.	Yes	Yes	PC Radeon 9800 Pro 256MB cards (most use AGP 4X/8X) using the reference design are likely to work. Reduced Mac ROM files that work: v103, v116 and v126.
Mac Radeon 9800 XT AGP	256MB DDR	400 / 360 MHz	2.0 / 2.0	Yes	8x1	Yes	1xADC, 1xDVI-I?	AGP slot not compatible.	Card not usable in the Cube.	Yes	Yes	Some PC Radeon 9800 Pro 256MB cards (most use AGP 4X/8X) using the reference design are likely to work. Reduced Mac ROM file that work: v118.
Mac GeForce2 MX (BTO option)	32MB DDR / SDR?	183 / 200 MHz	None	Yes	2x2	Yes	1xADC, 1xVGA	Yes, can use stock face plate, cannot use stock fan?	No	Yes	No	Most PC GF2 MX400, 32MB and 64MB, cards are likely to work.
Mac GeForce2 MX TwinView	64MB DDR / SDR?	183 / 200 MHz	None	Yes	2x2	Yes	1xADC, 1xVGA	Yes, can use stock face plate, cannot use stock fan?	No	Yes	Yes	PC GF2 MX400 TwinView cards are likely to work.
Mac GeForce3	64MB DDR	200 / 230 MHz	1.1 / 1.1	Yes	4x2	Yes	1xADC, 1xVGA	Yes, can use stock face plate, fan.	No	Yes	No	Likely to work. Ti cards need changing resistors.
Mac GeForce4 MX² (MX440)	32MB / 64MB DDR	250 / 200 MHz	None	Yes	2x2	Yes	1xADC, 1xDVI-I / 1xADC, 1xVGA	Yes	Yes	Yes	Yes	Found not to work so far.
Mac GeForce4 Ti² (Ti4600)	128MB DDR	300 / 325 MHz	1.3 / 1.1	Yes	4x2	Yes	1xADC, 1xDVI-I	No	Yes	Yes	Yes	Found not to work so far.
Mac GeForce FX 5200 Ultra	128MB DDR	350 / 350 MHz	2.0 / 2.0	Yes	2x2	Yes	1xADC, 1xDVI-I	AGP slot not compatible.	Card not usable in the Cube.	Yes	Yes	Cards built by Creative and eVGA (2X AGP compatible) have been found to work.
Mac Matrox DH-Max³	32MB SDR?	150 / 200 MHz?	None	No	1x3	No	2xVGA	Yes	No	No	Yes	Not likely to work.
PC Voodoo3 AGP 2000, 3000³	16MB SDR	143 / 143, 166 / 166 MHz	None	No	1x2	No	1xVGA / 1xVGA, TV-out	Yes	No	No	No	Likely to work - manufacturer supplied tools and instructions.

1. Some models did ship fanless (heatsink only). Later models had a fan.
2. The 4mx (32MB) could fit with a lot of work . But you are going to have to:
 1. move the dc-dc board
 2. widen the opening for the dvi/adc

3. get some additional cooling. The GeForce4 Ti should not even be considered. It simply wont fit.

3. Does not work in Mac OS X.

A DVI-I port can be convert into a VGA port with a DVI-to-VGA adaptor. A DVI-D port could not be convert to a VGA port.

Cards with Pixel shader 1.x / Vertex shader 1.x can only use the "ATI_text_fragment_shader" extension for shading in OpenGL.

Cards with Pixel shader 2.0 / Vertex shader 2.0 can use the "ATI_text_fragment_shader" extension and the "ARB_fragment_program" extension in OpenGL for shading and would support Core Image in the upcoming Mac OS X 10.4. Visit [this page](#) and [this page](#) for the OpenGL demos.

T&L stands for Transformation & Lighting. It is part of the Charisma engine on Radeon cards (absent on the Radeon 7000) and is responsible for mathematical calculations. TMU stands for Texture Mapping Unit, also refers to as texturing unit.

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