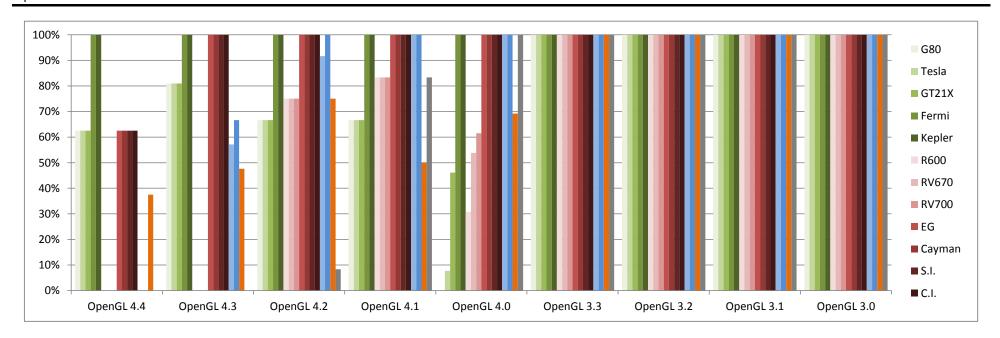
## **OpenGL hardware matrix**

Extensions exposed by OpenGL implementations

February 2014, G-Truc Creation

Vendor		NVIDIA							AMD				In	tel	Mesa	Apple
Drivers version			334.89	9				-	l4.1 be	ta			34	112	git-10.1	10.9
Release date			18/02/2	014				01	1/02/20	014			29/01	L/2014	20/02/2013	22/10/2013
Platforms	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS X
OpenGL 4.4	63%	63%	63%	100%	100%	0%	0%	0%	63%	63%	63%	63%	0%	0%	38%	5 0%
OpenGL 4.3	81%	81%	81%	100%	100%	0%	0%	0%	100%	100%	100%	100%	57%	67%	48%	0%
OpenGL 4.2	67%	67%	67%	100%	100%	75%	75%	75%	100%	100%	100%	100%	92%	100%	75%	8%
OpenGL 4.1	67%	67%	67%	100%	100%	83%	83%	83%	100%	100%	100%	100%	100%	100%	50%	83%
OpenGL 4.0	0%	8%	46%	100%	100%	31%	54%	62%	100%	100%	100%	100%	100%	100%	69%	100%
OpenGL 3.3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OpenGL 3.2	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OpenGL 3.1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OpenGL 3.0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OpenGL 2.1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OpenGL 2.0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%



## Nomenclature:

## Supported

Not supported

Support added from previous report

OpenGL Extensions	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS X
KHR texture compression astc ldr	Χ	Χ	Х	Χ	Χ	Χ	Χ	Х	Χ	Χ	Χ	Χ	Χ	Χ	Х	Х
ARB robustness	V	V	V	V	V	Χ	X	X	Χ	Χ	Χ	Χ	V	V	Х	Χ
ARB sparse texture	Χ	Χ	Χ	V	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X	Χ
ARB shading language include	V	V	V	V	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	V
ARB shader stencil export	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	V	V	V	V	Χ	Χ	X	Χ
ARB shader group vote	Χ	Χ	Χ	V	V	Χ	Χ	Χ	Χ	Χ	V	V	X	Χ	Χ	Χ
ARB shader draw parameters	Χ	Χ	Χ	V	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X	Χ
ARB seamless cubemap per texture	Χ	Χ	Χ	Χ	V	Χ	Χ	Χ	V	V	V	V	X	Χ	Χ	Χ
ARB robustness isolation	V	V	V	V	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X	X
ARB robust buffer access behavior	V	V	V	V	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
ARB debug output	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X
ARB indirect parameters	X	Χ	Χ	V	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X	X
ARB compute variable group size	Χ	Χ	Χ	V	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
ARB compatibility	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X	X
ARB cl event	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
ARB bindless texture	Χ	Χ	Χ	Χ	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X	X
EXT texture sRGB decode	V	V	V	V	V	Χ	Χ	Χ	V	V	V	V	V	V	X	V
EXT texture mirror clamp	V	V	V	V	V	V	V	V	V	V	V	V	X	Χ	X	V
EXT framebuffer multisample blit scaled	V	V	V	V	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X	V
EXT direct state access	V	V	V	V	V	V	V	V	V	V	V	V	X	Χ	X	Χ
EXT depth bounds test	V	V	V	V	V	Χ	Χ	Χ	Χ	Χ	V	V	Χ	Χ	X	V
EXT clip control	X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	V	V	X	Χ
OES_compressed_ETC1_RGB8_texture	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	V	V	X	X
NV vertex buffer unified memory	V	V	V	V	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X	X
NV texture multisample	V	V	V	V	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
NV texture barrier	V	V	V	V	V	V	V	V	V	V	V	V	X	Χ	Χ	V
NV shader buffer store	Χ	Χ	Χ	V	V	X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X

NV shader buffer load	V	V	V	/ V	X	Х	Х	Х	Χ	Х	Χ	Χ	Χ	Χ	X
NV shader atomic float	Χ	Х	X \	/ V	X	Х	Х	Х	Χ	Х	Χ	Χ	Χ	Χ	Х
NV multisample coverage	V	V	V	/ V	X	Χ	Х	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X
NV explicit multisample	V	V	V۷	/ V	V	V	V	V	V	V	V	X	Χ	Χ	Х
NV copy image	V	V	٧ ١	/ V	V	V	V	V	V	V	V	X	Χ	Χ	X
NV bindless texture	Χ	Х	X >	V	X	Х	Х	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Х
NV bindless multi draw indirect	Χ	Χ	X \	/ V	X	Χ	X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X
NV blend equation advanced	Χ	Χ	X \	/ V	X	Χ	X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X
INTEL map texture	Χ	Χ	X >	( X	X	X	X	Х	Χ	X	Χ	X	V	X	X
INTEL fragment shader ordering	Χ	Χ	X >	( X	Х	Χ	X	Χ	Χ	Χ	Χ	V	V	X	X
INTEL conservative rasterization	Χ	Χ	X >	( X	X	X	X	Χ	Χ	Х	Χ	Χ	V	X	X
AMD vertex shader viewport index	Χ	Χ	X >	( X	Х	Χ	X	V	V	V	V	X	Χ	Χ	X
AMD vertex shader layer	Χ	Χ	X >	( X	Χ	Χ	X	V	V	V	V	X	Χ	Χ	X
AMD transform feedback3 lines triangles	Χ	Χ	X >	( X	Χ	Χ	X	Χ	V	V	V	X	Χ	Χ	X
AMD stencil operation extended	Χ	X	X >	( X	Х	Х	Х	Χ	X	V	V	X	Χ	Χ	X
AMD sparse texture	Χ	Χ	X >	<b>X</b>	Χ	Χ	X	Χ	Χ	V	V	X	Χ	Χ	X
AMD shader trinary minmax	Χ	X	X >	X	Х	Х	Х	Χ	Χ	V	V	X	Χ	Χ	X
AMD seamless cubemap per texture	Χ	Χ	X >	( V	X	Χ	V	V	V	V	V	X	Χ	Χ	X
AMD sample positions	Χ	Χ	X >	X	V	V	V	V	V	V	V	X	Χ	Χ	X
AMD query buffer object	Χ	Х	X >	( X	X	Х	Х	V	V	V	V	X	Χ	Χ	X
AMD pinned memory	Χ	Χ	X >	X	V	V	V	V	V	V	V	X	Χ	Χ	X
AMD_occlusion_query_event	Χ	Χ	X >	( X	X	Х	Х	Χ	Х	Χ	V	X	Χ	Χ	Х
AMD blend minmax factor	Χ	Χ	X )	( X	Х	Χ	Х	Χ	V	V	V	X	Χ	Χ	Χ
ATI texture mirror once	V	٧	V۷	/ V	V	V	V	V	V	V	V	X	Χ	Χ	V
Support	36%	36%	36%	54%	62%	L8%	18%	20% 3	2%	36% 46%	48%	6 14°	% 18	%	2% 12%

OpenGL 4.4	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS X
ARB buffer storage	Χ	Χ	Χ	V	V	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X	X
ARB clear texture	Χ	Χ	Χ	V	V	Χ	Χ	Χ	V	V	V	V	Χ	Χ	X	X
ARB enhanced layouts	V	V	V	V	V	Χ	Χ	X	Χ	Χ	Χ	Χ	Χ	Χ	X	X
ARB multi bind	V	V	V	V	V	Χ	Χ	Χ	V	V	V	V	Χ	Χ	X	X
ARB query buffer object	Χ	Χ	Χ	V	V	Χ	Χ	X	V	V	V	V	Χ	Χ	X	X
ARB texture mirror clamp to edge	V	V	V	V	V	X	X	X	V	V	V	V	Χ	Χ	V	X

ARB texture stencil8	V	V	V	V	V		X >	(		Χ	Χ	Χ	Х	Χ	V	X	
ARB vertex type 10f 11f 11f rev	V	V	V	V	V		( )	•	-	V	V	V	Χ	Χ	V	X	
Support	63%	63%	63%	100%	100%	0%	0%	0%	63%	63%	63%	63%	0%	0%		38%	0%
OpenGL 4.3	C00	Toolo	CT24V	Forms:	l/amlau	DC00	01/670	01/700	F.C	Carraga	CI	C 1	IV/D	LICVA	N 4 0 0 0	MacOC	/
GL ARB vertex attrib binding	G80	Tesla	GT21X	v	Kepler		RV670 F			Cayman V	5.I. V	C.I.	IVB V	HSW V	Mesa	MacOS 2	X.
GL ARB vertex attrib binding GL ARB texture view	V	V	V	V	V	,	\		-	V V	V	V	X	X	V	X V	
GL ARB texture view GL ARB texture storage multisample	V	V	V	V	V		^ / ( )			V	V	V	V	V	V	^ V	
GL ARB texture storage multisample GL ARB texture query levels	V	V	V	V	V		\		-	V V	V	V	X	X	V	A V	
GL ARB texture query levels  GL ARB texture buffer range	V	V	V	V	V		^ / ( )		•	V	V	V	V	V	V	^ V	
GL ARB texture burier range GL ARB stencil texturing	V	V	V	V	V		^ / ( )			V V	V	V	V	V	X	X	
GL ARB steller texturing GL ARB shader storage buffer object	V	X	X	V	V		^ / ( )		•	V	V	V	X	V	X	X	
GL ARB shader storage burier object	^ V	X	X	V	V		\		-	V	V	V	X	X	X	X	
GL ARB shader image size GL ARB program interface query	\ \/	V	V	V	V		( )		•	V	V	V	V	V	X	X	
GL ARB program interface query  GL ARB multi draw indirect	V	X	X	V	V		\		-	V	V	V	V	V	V	v	
GL ARB invalidate subdata	\ \/	V	V	V	V		·		•	V	V	V	X	X	V	A V	
GL ARB internalformat query2	V	V	V	V	V		\		•	V	V	V	V	V	X	X	
GL ARB framebuffer no attachments	V	V	V	V	V			<b>(</b>		V	V	V	V	V	X	X	
GL ARB fragment layer viewport	V	V	V	V	V		( )		-	V	V	V	X	X	X	X	
GL ARB explicit uniform location	V	V	V	V	V		·		•	V	V	V	X	X	X	X	
GL ARB ES3 compatibility	V	V	V	V	V		( )		•	V	V	V	V	V	V	X	
GL KHR debug	V	V	V	V	V		( )		•	V	V	V	V	V	V	X	
GL ARB copy image	V	V	V	V	V		·		-	V	V	V	V	V	X	X	
GL ARB compute shader	X	X	X	V	V		( )			V	V	V	X	V	X	X	
GL ARB clear buffer object	V	V	V	V	V		·		•	V	V	V	X	X	V	X	
GL ARB arrays of arrays	V	V	V	V	V		χ ,			V	V	V	V	V	X	X	
Support	81%	81%	6 81%	100%	100%	0%	0%	•	100%	100%	•	100%	57%	67%	Λ	48%	0%
Support	02/	. 01/	0 1/0		20070	0,0	0,0	0,0	20070	20070		20070	3.70	0.70			0,0
OpenGL 4.2	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670 F	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS 2	X
GL ARB transform feedback instanced	Χ	Χ	X	V				/		V	V	V	V	V	V	X	
GL ARB texture compression bptc	X	X	X	V	V	X	X >	(	V	V	V	V	V	V	X	Х	
GL ARB texture storage	V	V	V	V				/		V	V	V	V	V	V	X	
GL ARB shading language packing	V	V	V	V	V	۷ ۱	√ \	/	V	V	V	V	V	V	V	X	
oa	= "									-						•	

GL ARB shading language 420pack	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X	
GL ARB shader image load store	Χ	Χ	X	V	V	X	Χ	Χ	V	V	V	V	X	V	Χ	Х	
GL ARB shader atomic counters	Χ	Χ	X	V	V	X	Χ	Χ	V	V	V	V	V	V	V	X	
GL ARB map buffer alignment	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X	
GL ARB internalformat query	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB conservative depth	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X	
GL ARB compressed texture pixel storage	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Χ	Х	
GL ARB base instance	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X	
Support	67%	67%	67%	100%	100%	75%	75%	75	% 100%	100%	100%	100%	6 92%	6 100%		75%	8%
OpenGL 4.1	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	) EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS	5 X
GL ARB viewport array	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB vertex attrib 64bit	Χ	Χ	Χ	V	V	Χ	Χ	Χ	V	V	V	V	V	V	Χ	V	
GL ARB shader precision	Χ	Χ	Χ	V	V	V	V	V	V	V	V	V	V	V	Χ	V	
GL ARB separate shader objects	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X	V	
GL ARB get program binary	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X	
GL ARB ES2 compatibility	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
Support	67%	67%	67%	100%	100%	83%	83%	839	% 100%	100%	100%	100%	6 100%	6 100%		50%	83%
•																	
OpenGL 4.0	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	) EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS	5 X
GL ARB transform feedback3	Χ	Χ	Х	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB transform feedback2	Χ	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB texture query lod	Χ	Χ	V	V	V	X	Χ	V	V	V	V	V	V	V	V	V	
GL ARB texture gather	Χ	Χ	V	V	V	X	V	V	V	V	V	V	V	V	V	V	
GL ARB texture cube map array	Χ	Χ	V	V	V	X	V	V	V	V	V	V	V	V	V	V	
GL ARB texture buffer object rgb32	Χ	Χ	Χ	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB tessellation shader	Χ	Χ	Χ	V	V	X	Х	Χ	V	V	V	V	V	V	Χ	V	
GL ARB shader subroutine	Χ	Χ	Χ	V	V	X	Χ	Χ	V	V	V	V	V	V	X	V	
GL ARB sample shading	Χ	Χ	V	V	V	X	V	V	V	V	V	V	V	V	V	V	
GL ARB gpu shader5	Χ	Χ	Χ	V	V	Χ	Χ	Χ	V	V	V	V	V	V	Χ	V	

Χ

Χ

Χ

GL ARB gpu shader fp64

GL ARB draw buffers blend

GL ARB draw indirect

Χ

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OpenGL 3.2   G80   Tesla   GT21X   Fermi   Kepler   R600   RV670   RV700   EG   Cayman   S.I.   C.I.   IVB   HSW   Mesa   MacOS X   GL   ARB   vertex   array   bgra   V   V   V   V   V   V   V   V   V	Support	0%	6 8%	46%	100%	100%	31%	54%	62%	100%	100%	100%	100%	100%	100%		69%	100%
GL ARB timer query	OpenGL 3.3	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS	S X
GL ARB texture swizzle GL ARB texture reptilo azui GL ARB texture reptilo azui GL ARB sampler objects V V V V V V V V V V V V V V V V V V V	GL ARB vertex type 2 10 10 10 rev	V	V	V	V	V	V	V	V	V	٧	٧	V	V	V	V	V	
GL ARB stature rgb10 a2ui  GL ARB shader bit encoding  V V V V V V V V V V V V V V V V V V V	GL ARB timer query	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB shader bit encoding  QL ARB sampler objects  V V V V V V V V V V V V V V V V V V V	GL ARB texture swizzle	V	V	V	V	V	V	V	V	٧	V	٧	V	V	V	V	V	
GL ARB sampler objects  V V V V V V V V V V V V V V V V V V V	GL ARB texture rgb10 a2ui	V	V	V	V	V	V	V	V	V	V	٧	V	V	V	V	V	
GL ARB instanced arrays  QL ARB instanced arrays  QL ARB explicit attrib location  QL ARB explicit attributes some  QL ARB explicit attributes some  QL ARB explicit	GL ARB shader bit encoding	V	V	V	V	V	V	V	V	V	V	٧	V	V	V	V	V	
GL ARB explicit attrib location V V V V V V V V V V V V V V V V V V V	GL ARB sampler objects	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB explicit attrib location GL ARB blend func extended V V V V V V V V V V V V V V V V V V V	GL ARB occlusion query2	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
Support   100%	GL ARB instanced arrays	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
Support   100%	GL ARB explicit attrib location	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
OpenGL 3.2   G80   Tesla   GT21X   Fermi   Kepler   R600   RV670   RV700   EG   Cayman   S.I.   C.I.   IVB   HSW   Mesa   MacOS X   GL   ARB   vertex   array   bgra   V   V   V   V   V   V   V   V   V	GL ARB blend func extended	V	V	V	V	V	V	V	V	V	V	٧	V	V	V	V	V	
GL ARB vertex array bgra	Support	100%	6 100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	1	.00%	100%
GL ARB vertex array bgra																		
GL ARB texture multisample	OpenGL 3.2	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS	5 X
GL ARB seamless cube map  V V V V V V V V V V V V V V V V V V V	GL ARB vertex array bgra	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB seamless cube map    V   V   V   V   V   V   V   V   V		V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB provoking vertex  V V V V V V V V V V V V V V V V V V V	GL ARB sync	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB geometry shader4	GL ARB seamless cube map	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB fragment coord conventions         V	GL ARB provoking vertex	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB depth clamp         V	GL ARB geometry shader4	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB draw elements base vertex         V         <	GL ARB fragment coord conventions	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
Support         100%	GL ARB depth clamp	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
OpenGL 3.1         G80         Tesla         GT21X         Fermi         Kepler         R600         RV700         EG         Cayman         S.I.         C.I.         IVB         HSW         Mesa         MacOS X           GL ARB uniform buffer object         V <t< td=""><td>GL ARB draw elements base vertex</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td>V</td><td></td></t<>	GL ARB draw elements base vertex	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB uniform buffer object       V <th< td=""><td>Support</td><td>100%</td><td>6 100%</td><td>100%</td><td>100%</td><td>100%</td><td>100%</td><td>100%</td><td>100%</td><td>100%</td><td>100%</td><td>100%</td><td>100%</td><td>100%</td><td>100%</td><td>1</td><td>.00%</td><td>100%</td></th<>	Support	100%	6 100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	1	.00%	100%
GL ARB uniform buffer object       V <th< td=""><td>OpenCl 2.1</td><td>G90</td><td>Tocla</td><td>GT21V</td><td>Formi</td><td>Konlor</td><td>P600</td><td>PV670</td><td>P\/700</td><td>FG</td><td>Cayman</td><td>S I</td><td>CI</td><td>I\/D</td><td>LIC/M/</td><td>Mosa</td><td>MacOS</td><td>c v</td></th<>	OpenCl 2.1	G90	Tocla	GT21V	Formi	Konlor	P600	PV670	P\/700	FG	Cayman	S I	CI	I\/D	LIC/M/	Mosa	MacOS	c v
GL EXT texture snorm         V																		<i>,</i>
GL ARB texture rectangle         V <td></td> <td>V</td> <td></td>		V																
GL ARB texture buffer object  V V V V V V V V V V V V V V V V V V V		V																
CE 7 THE CONTROL OF T		V				•					•					_	*	
	GL NV primitive restart	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	

GL ARB draw instanced	V	V	٧	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB copy buffer	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
Support	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		100%	100%
OpenGL 3.0	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	Evergr	Cayman	S.I.	C.I.	IVB	HSW	Mesa	Ma	cOS X
GL ARB vertex array object	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL EXT transform feedback	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB texture rg	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL EXT texture shared exponent	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL EXT texture integer	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB texture float	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB texture compression rgtc	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL EXT texture array	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL EXT packed float	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL EXT packed depth stencil	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB map buffer range	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB half float vertex	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB half float pixel	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL EXT gpu shader4	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB framebuffer sRGB	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB framebuffer object	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB depth buffer float	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL NV conditional render	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB color buffer float	V	V	V	V	V	٧	V	V	V	V	V	V	٧	٧	V	V	
Support	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		100%	100%
OpenGL 2.1	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	Ma	cOS X
GL EXT texture sRGB	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB pixel buffer object	V	V	V	V	V	٧	V	V	V	V	V	V	٧	V	V	V	
Support	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		100%	100%
OpenGL 2.0	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	Ma	cOS X
GL ARB vertex shader	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	

GL ARB texture non power of two	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL EXT stencil two side	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB shading language 100	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB shader objects	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB point sprite	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
GL ARB fragment shader	V	V	V	V	V	٧	V	V	V	V	V	V	V	V	V	V	
GL ARB draw buffers	V	V	V	V	V	٧	V	V	V	V	V	V	V	V	V	V	
GL EXT blend equation separate	٧	V	V	V	V	٧	V	V	٧	V	V	٧	V	٧	٧	V	
Support	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		100%	100%